



EVALUACIÓN ESTRUCTURAL

ESTACIÓN CERRO KENNEDY

TORRE CADRADA DE SECCIÓN VARIABLE

ALTURA 150m

RTVC TELEFONICA - TELECOM

**ESTUDIO GEOTECNICO
TORRE CERRO KENNEDY**

**LOCALIZACION
CERRO KENNEDY
SANTA MARTA - MAGDALENA**

**SANTA MARTA – (MAGDALENA)
MARZO DE 2010**

Santa Marta, Marzo 18 de 2010

Señor
INSTATTEL COLOMBIA
Santa Marta

Ref.: Estudio Geotécnico TORRE CERRO KENNEDY.

Adjunto a la presente le enviamos el informe correspondiente al estudio de suelos en referencia.

Reiteramos a usted nuestra disposición para colaborar en cualquier información con respecto a este estudio.

Atentamente.

ING. JHON JAIRO SANCHEZ P.
M.P. No 54202 – 48114 NTS

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1 GENERALIDADES

El presente informe contiene los resultados y conclusiones obtenidos en la investigación geotécnica realizada en un lote de terreno, en donde está construida una torre de telecomunicaciones en estructura metálica.

1.1 OBJETIVOS Y ALCANCE DEL ESTUDIO

El trabajo se realizó en el mes de Marzo de 2010, por solicitud de INSTATEL COLOMBIA, y sus alcances principales se resumen a continuación

Determinar las características físicas y geomecánicas de los estratos del sub-suelo, para analizar su comportamiento mecánico bajo el efecto de las cargas aplicadas por las estructuras a construir.

1.2 LOCALIZACION

El proyecto está ubicado en el Cerro Kennedy de la ciudad de Santa Marta..

1.3 DESCRIPCION DEL PROYECTO.

El proyecto se trata de una torre de telecomunicaciones en estructura metálica, con cuatro apoyos.

2 INVESTIGACIÓN EJECUTADA

2.1 INVESTIGACIÓN DE CAMPO

Teniendo en cuenta la descripción del proyecto y el área del lote, con el objeto de determinar las propiedades físicas y mecánicas del sub-suelo, se programó y ejecutaron Tres (3) perforaciones de Seis (6) metros de profundidad.

Para el trabajo se utilizó un equipo de percusión adicionado con una pesa de 140 libras con caída libre de 30 pulgadas (76 cms).

La densidad "In Situ" de los suelos se determinó mediante ensayos normales de penetración, con intervalos no mayores de 0.50 metros. El ensayo consiste en contar el número de golpes necesario para hacer penetrar un elemento normalizado (Penetrometro) una distancia de un pie (30 cms), en el suelo de Santa Marta.

2.2 ENSAYOS DE LABORATORIO

En las perforaciones ejecutadas, se tomaron muestras de naturaleza alterada, las cuales se consideran representativas del perfil natural del terreno.

Las muestras seleccionadas fueron sometidas en el laboratorio a los ensayos principales de acuerdo con las necesidades y naturaleza de los suelos encontrados.

A continuación se relacionan los ensayos ejecutados junto con los valores promedios obtenidos:

Muestra: 1

Descripción: Arena limosa o limo arcillosa color café con partículas de grava.

Contenido de humedad	23.8%
Limite líquido LL	27%
Limite plástico LP	22%
Índice de plasticidad IP	5%
Pasa tamiz 200	44.2%
Clasificación USC	SC
Peso unitario húmedo	2.05 Ton/M ³
Gravedad específica	2.55
Angulo de fricción	26°

Muestra: 2

Descripción: Arena media a gruesa color café con partículas de grava.

Contenido de humedad	15.1%
Limite líquido LL	0%
Limite plástico LP	0%
Índice de plasticidad IP	0%
Pasa tamiz 200	9.5 – 19-3%
Clasificación USC	SM, SP-SM
Peso unitario húmedo	2.04 Ton/M ³
Gravedad específica	2.54
Angulo de fricción	28 - 30°

(Ver resultados en cuadros y gráficos anexos).

3 GEOTECNIA DEL PERFIL ESTRATIGRAFICO Y DISCUSIÓN DE LOS RESULTADOS

3.1 ESTRATIGRAFIA

Del resumen anterior y del análisis de los registros de perforación, se deduce que el sub-suelo del lugar posee la siguiente estratigrafía.

Desde la superficie hasta la profundidad de 1.00 metros en la perforación No. 1, se encuentra una capa de arena limo arcillosa color café con partículas de grava de baja plasticidad y clasificada como SC según el sistema unificado de suelos. Su compacidad relativa es de suelta..

Debajo de la capa anterior hasta la profundidad de 2.00 metros en las perforaciones No. 2 y 3, se encuentra una capa de arena limosa color café con partículas de grava no plástica y clasificada como SM según el sistema unificado de suelos. Su compacidad relativa es de suelta.

Por último hasta la profundidad de 6.00 metros, se encuentra una capa de arena media a gruesa color café con partículas de grava no plástica y clasificada como SM, SP-SM según el sistema unificado de suelos. Su compacidad relativa es de suelta a media.

3.2 NIVEL FREATICO

Al realizar las perforaciones, no se encontró el nivel freático.

3.3 SISMICIDAD DEL ENTORNO

Para efectos de aplicación de la norma para diseños y construcciones sismo resistentes NRS – 98 Ley 400 de 1997 Decreto 33 - 98, se tendrá en cuenta que la ciudad Santa Marta está ubicada en una zona de riesgo sísmico Intermedio, con valores de Aceleración pico efectiva $A_a = 0.15$, Coeficiente sísmico asociado, $S = 1.2$ y Tipo de perfil de suelos S2.

4 CONCLUSIONES Y RECOMENDACIONES

Los estratos encontrados hasta la profundidad de 6.00 mts, están identificados por arenas limo arcillosas y limosas con partículas de grava no plásticas y arenas medias a gruesas con partículas de grava color café.

Los estratos encontrados presentan altos contenidos de humedad.

La cimentación existente no se detecto hasta las profundidades exploradas

4.1 CAPACIDAD ADMISIBLE DEL SUELO

Profundidad	Q_{adm}
Mts	Ton/M ²
1.0	11.5
2.0	13.7
3.0	16.2
4.0	19.6
5.0	22.4
6.0	25.1

5 LIMITACIONES

Las recomendaciones aquí consignadas están basadas en la información suministrada acerca del proyecto y en las perforaciones por nosotros realizadas, por lo que cualquier variación presentada se nos comunicara oportunamente para tomar las medidas del caso.

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6. A N E X O S

COLUMNA ESTRATIGRAFICA

CLIENTE: RTVC TELEFONICA - TELECOM

PROYECTO: TORRE CERRO KENNEDY

LOCALIZACION: Cerro Kennedy

FECHA: Marzo 16 de 2010

SONDEO No. 1	N.F.: No Se Encontro	TIPO DE PERFORACION: Percusión
	COTA: Terreno Natural	MARTILLO: 140 lbs REVESTIMIENTO: Si

PROFUNDIDAD (mts)	ESTRATIGRAFIA	DESCRIPCION DE LA MUESTRA	HUMED (%)	PESO UNIT (gr/cm ³)	GRAV ESP	No. DE GOLPE / PIE
1,00		Arena limoarcillosa color café oscuro con part. De grava SC		2,05	2,55	8
			20,9			7
		Arena limosa color café con rastros de grava SM		2,22	2,54	7
2,00			27,6			6
						7
3,00			17,9			7
						6
4,00			15,4			4
		Arena gruesa con particulas grava color café SP - SM		2,04	2,54	5
5,00			16,2			13
						10
6,00		(Fin de Perforacion)	20,7			
7,00						
8,00						
9,00						
10,0						

COLUMNA ESTRATIGRAFICA

CLIENTE: INSTATTEL COLOMBIA

PROYECTO: TORRE CERRO KENNEDY

LOCALIZACION: Cerro Kennedy

FECHA: Marzo 16 de 2010

SONDEO No. 2		N.F:	No Se Encontro		TIPO DE PERFORACION:	Percusión		
		COTA:	Terreno Natural		MARTILLO:	140 lbs	REVESTIMIENTO:	Si
PROFUNDIDAD (mts)	ESTRATIGRAFIA	DESCRIPCION DE LA MUESTRA			HUMED (%)	PESO UNIT (gr/cm³)	GRAV ESP	No. DE GOLPE / PIE
		Arene fina color café SM				1,94	2,51	6
1,00					6,5			10
								13
2,00					5,1			12
								14
3,00								16
		Arena media color café con particulas de grava SM				1,82	2,50	20
4,00								26
								28
5,00								30
								28
6,00		Fin de Perforacion						
7,00								
8,00								
9,00								
10,0								

COLUMNA ESTRATIGRAFICA

CLIENTE: RCTV TELEFONICA TELECOM

PROYECTO: TORRE CERRO KENNEDY

LOCALIZACION: Cerro Kennedy

FECHA: Marzo 16 de 2010

SONDEO No. 3		N.F:	No Se Encontro		TIPO DE PERFORACION:		Percusión	
		COTA:	Terreno Natural		MARTILLO:	140 lbs	REVESTIMIENTO:	Si
PROFUNDIDAD (mts)	ESTRATIGRAFIA	DESCRIPCION DE LA MUESTRA			HUMED (%)	PESO UNIT (gr/cm³)	GRAV ESP	No. DE GOLPE / PIE
1,00		Arena fina color café			6,5	1,94	2,51	9
								6
								6
2,00					5,1			4
								4
3,00								5
		Arena media color café con particulas de grava SM				1,82	2,50	10
4,00								14
								16
5,00								16
								17
6,00		Fin de Perforacion						
7,00								
8,00								
9,00								
10,0								

CLIENTE:	RTVC TELEFONICA - TELECOM	SONDEO No.	1
OBRA:	TORRE CERRO KENNEDY	PROFUNDIDAD:	0,00 - 1,00 Mts
DESCRIPCION:	Arena limoarcillosa color café oscuro con part. De grava SC	MUESTRA No.	1
LOCALIZACION:	Cerro Kennedy	FECHA:	Marzo 16 de 2010

CLASIFICACION Y LIMITES

LIMITE LIQUIDO

No. de golpes	35	22	18
Log No. Golpes	1,544	1,342	1,255
Vidrio No.			
P1	26,30	24,30	20,40
P2	22,40	20,20	17,10
P3	6,60	5,70	6,30
% Humedad	24,68	28,28	30,56

LIMITE PLASTICO

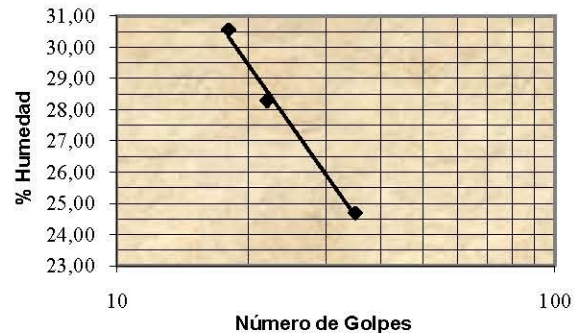
Vidrios No.			
P1	12,40	14,60	
P2	11,20	13,10	
P3	5,90	6,10	
% Humedad	22,64	21,43	

Límite Líquido = 27
 Límite Plástico = 22
 Índice Plasticidad = 5

Índice de Grupo = 1
 A.A.S.H.T.O.:
 U.S.C. = SC

Humedad Natural = 23,8 %
 Módulo de Finura =
 Tamaño Máximo =
 Tamaño Máx. Nominal =

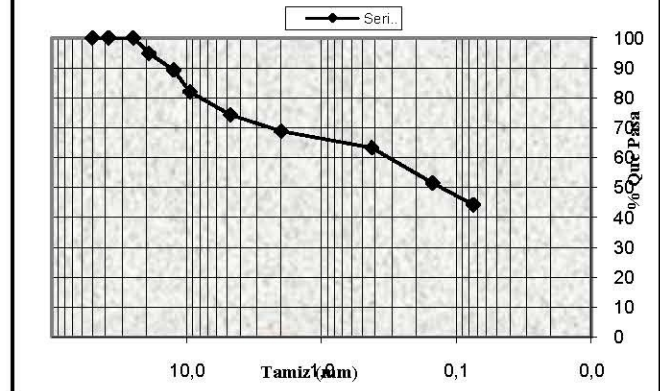
REPRESENTACION GRAFICA



GRADACION

P1= 388,6		P2= 216,9		NORMA			
Tamiz		Reten	% Reten	% Ret Acum	% Pasa	INF.	SUP.
Pulg.	mm						
3"	75,0						
2 1/2"	63,0						
2"	50,0	0,0	0,0	0,0	100,0		
1 1/2"	38,1	0,0	0,0	0,0	100,0		
1"	25,0	0,0	0,0	0,0	100,0		
3/4"	19,0	20,0	5,1	5,1	94,9		
1/2"	12,5	22,0	5,7	10,8	89,2		
3/8"	9,5	28,0	7,2	18,0	82,0		
No. 4	4,75	30,0	7,7	25,7	74,3		
No.10	2,00	21,0	5,4	31,1	68,9		
No.40	0,43	22,0	5,7	36,8	63,2		
No. 100	0,15	45,6	11,7	48,5	51,5		
No.200	0,075	28,3	7,3	55,8	44,2		
FONDO		171,7	44,2	100,0	0,0		

CURVA GRANULOMETRICA



OBSERVACIONES: Peso Unit Humedo = 2,05 gr/cm³ Gravedad Especifica = 2,55
 Peso Unit Seco = 1,66 gr/cm³

ING. JEFE DE LABORATORIO

CLIENTE:	RTVC TELEFONICA - TELECOM	SONDEO No.	1
OBRA:	TORRE CERRO KENNEDY	PROFUNDIDAD:	2,00 - 6,00 Mts
DESCRIPCION:	Arena gruesa con particulas grava color café SP - SM	MUESTRA No.	3
LOCALIZACION:	Cerro Kennedy	FECHA:	Octubre 06 de 2008

CLASIFICACION Y LIMITES

LIMITE LIQUIDO

No. de golpes			
Log No. Golpes			
Vidrio No.			
P1			
P2			
P3			
% Humedad			

LIMITE PLASTICO

Vidrios No.			
P1			
P2			
P3			
% Humedad			

Límite Líquido	NL
Límite Plástico	NP
Índice Plasticidad	NP
Índice de Grupo	0
A.A.S.H.T.O.:	
U.S.C.	SP - SM

Humedad Natural	15,1 %
Módulo de Finura	%
Tamaño Máximo	
Tamaño Máx. Nominal	

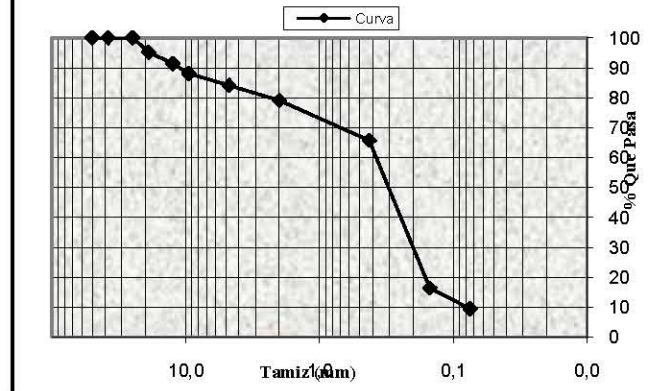
REPRESENTACION GRAFICA



GRADACION

P1= 312,0		P2= 282,5				NORMA	
Tamiz		Reten	% Reten	% Ret Acum	% Pasa	INF.	SUP.
Pulg.	mm						
3"	75,0						
2 1/2"	63,0						
2"	50,0	0,0	0,0	0,0	100,0		
1 1/2"	38,1	0,0	0,0	0,0	100,0		
1"	25,0	0,0	0,0	0,0	100,0		
3/4"	19,0	15,0	4,8	4,8	95,2		
1/2"	12,5	12,0	3,8	8,7	91,3		
3/8"	9,5	10,3	3,3	12,0	88,0		
No. 4	4,75	12,3	3,9	15,9	84,1		
No.10	2,00	15,6	5,0	20,9	79,1		
No.40	0,43	41,7	13,4	34,3	65,7		
No. 100	0,15	153,9	49,3	83,6	16,4		
No.200	0,075	21,7	7,0	90,5	9,5		
FONDO		29,5	9,5	100,0	0,0		

CURVA GRANULOMETRICA



OBSERVACIONES:	Peso Unit Humedo = 2,04 gr/cm ³	Gravedad Especifica = 2,54
	Peso Unit Seco = 1,77 gr/cm ³	

ING. JEFE DE LABORATORIO

CLIENTE:	RTVC TELEFONICA - TELECOM	SONDEO No.	2
OBRA:	TORRE CERRO KENNEDY	PROFUNDIDAD:	0,00 - 1,00 Mts
DESCRIPCION:	Arene fina color café SM	MUESTRA No.	2
LOCALIZACION:	Cerro Kennedy	FECHA:	Marzo 16 de 2010

CLASIFICACION Y LIMITES

LIMITE LIQUIDO

No. de golpes			
Log No. Golpes			
Vidrio No.			
P1			
P2			
P3			
% Humedad			

LIMITE PLASTICO

Vidrios No.			
P1			
P2			
P3			
% Humedad			

Límite Líquido	NL
Límite Plástico	NP
Índice Plasticidad	NP
Índice de Grupo	0
A.A.S.H.T.O.:	
U.S.C.	SM

Humedad Natural	16,2 %
Módulo de Finura	%
Tamaño Máximo	
Tamaño Máx. Nominal	

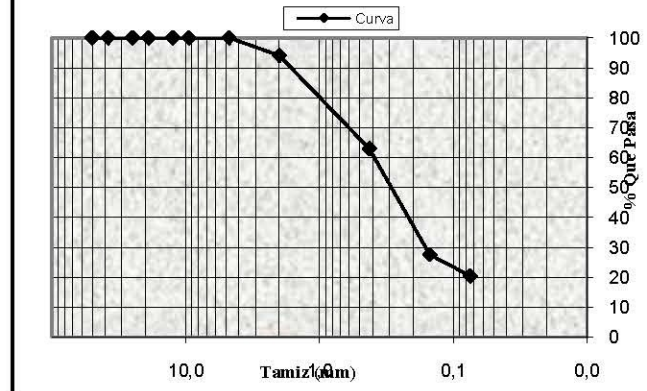
REPRESENTACION GRAFICA



GRADACION

P1= 257,7		P2= 205		NORMA			
Tamiz		Reten	% Reten	% Ret Acum	% Pasa	INF.	SUP.
Pulg.	mm						
3"	75,0						
2 1/2"	63,0						
2"	50,0	0,0	0,0	0,0	100,0		
1 1/2"	38,1	0,0	0,0	0,0	100,0		
1"	25,0	0,0	0,0	0,0	100,0		
3/4"	19,0	0,0	0,0	0,0	100,0		
1/2"	12,5	0,0	0,0	0,0	100,0		
3/8"	9,5	0,0	0,0	0,0	100,0		
No. 4	4,75	0,0	0,0	0,0	100,0		
No.10	2,00	15,3	5,9	5,9	94,1		
No.40	0,43	80,2	31,1	37,1	62,9		
No. 100	0,15	91,2	35,4	72,5	27,5		
No.200	0,075	18,3	7,1	79,6	20,4		
FONDO		52,7	20,4	100,0	0,0		

CURVA GRANULOMETRICA



OBSERVACIONES:	Peso Unit Humedo = 1,94 gr/cm ³	Gravedad Especifica = 2,51
	Peso Unit Seco = 1,67 gr/cm ³	

ING. JEFE DE LABORATORIO

CLIENTE:	RTVC TELEFONICA - TELECOM	SONDEO No.	2
OBRA:	TORRE CERRO KENNEDY	PROFUNDIDAD:	2,00 - 3,00 Mts
DESCRIPCION:	Arene media color café con patículas de grava SM	MUESTRA No.	2
LOCALIZACION:	Cerro Kennedy	FECHA:	Marzo 16 de 2010

CLASIFICACION Y LIMITES

LIMITE LIQUIDO

No. de golpes			
Log No. Golpes			
Vidrio No.			
P1			
P2			
P3			
% Humedad			

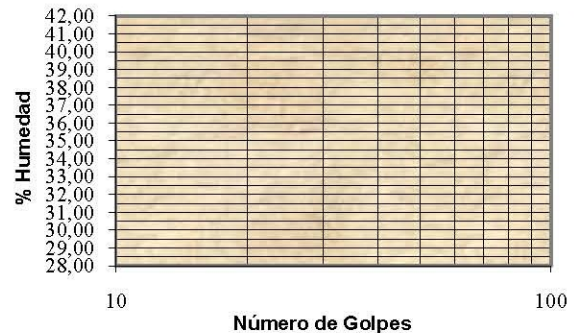
LIMITE PLASTICO

Vidrios No.			
P1			
P2			
P3			
% Humedad			

Límite Líquido	NL
Límite Plástico	NP
Índice Plasticidad	NP
Índice de Grupo	0
A.A.S.H.T.O.:	
U.S.C.	SM

Humedad Natural	23,2 %
Módulo de Finura	%
Tamaño Máximo	
Tamaño Máx. Nominal	

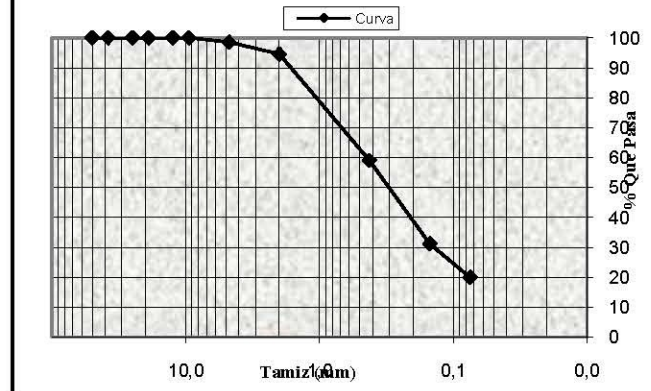
REPRESENTACION GRAFICA



GRADACION

P1= 225,9		P2= 180,9				NORMA	
Tamiz		Reten	% Reten	% Ret Acum	% Pasa	INF.	SUP.
Pulg.	mm						
3"	75,0						
2 1/2"	63,0						
2"	50,0	0,0	0,0	0,0	100,0		
1 1/2"	38,1	0,0	0,0	0,0	100,0		
1"	25,0	0,0	0,0	0,0	100,0		
3/4"	19,0	0,0	0,0	0,0	100,0		
1/2"	12,5	0,0	0,0	0,0	100,0		
3/8"	9,5	0,0	0,0	0,0	100,0		
No. 4	4,75	3,3	1,5	1,5	98,5		
No.10	2,00	8,9	3,9	5,4	94,6		
No.40	0,43	80,2	35,5	40,9	59,1		
No. 100	0,15	63,2	28,0	68,9	31,1		
No.200	0,075	25,3	11,2	80,1	19,9		
FONDO		45,0	19,9	100,0	0,0		

CURVA GRANULOMETRICA



OBSERVACIONES:	Peso Unit Humedo = 2,06 gr/cm ³	Gravedad Especifica = 2,56
	Peso Unit Seco = 1,67 gr/cm ³	

ING. JEFE DE LABORATORIO

CLIENTE:	INSTATTEL COLOMBIA	SONDEO No.	1
OBRA:	TORRE CERRO KENNEDY	PROFUNDIDAD:	3,00 - 6,00 Mts
DESCRIPCION:	Arena media color café con partículas de grava SM	MUESTRA No.	3
LOCALIZACION:	Cerro Kennedy	FECHA:	Marzo 16 de 2010

CLASIFICACION Y LIMITES

LIMITE LIQUIDO

No. de golpes			
Log No. Golpes			
Vidrio No.			
P1			
P2			
P3			
% Humedad			

LIMITE PLASTICO

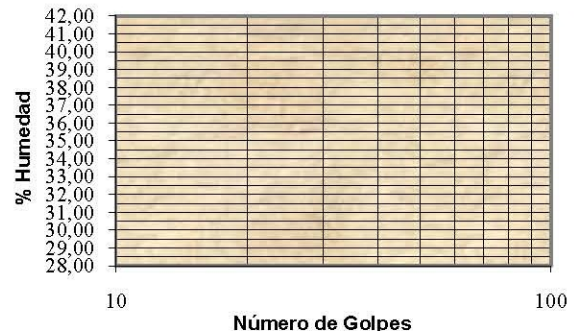
Vidrios No.			
P1			
P2			
P3			
% Humedad			

Límite Líquido = NL
 Límite Plástico = NP
 Índice Plasticidad = NP

Índice de Grupo = 0
 A.A.S.H.T.O.:
 U.S.C. = SM

Humedad Natural = 10,3 %
 Módulo de Finura = %
 Tamaño Máximo =
 Tamaño Máx. Nominal =

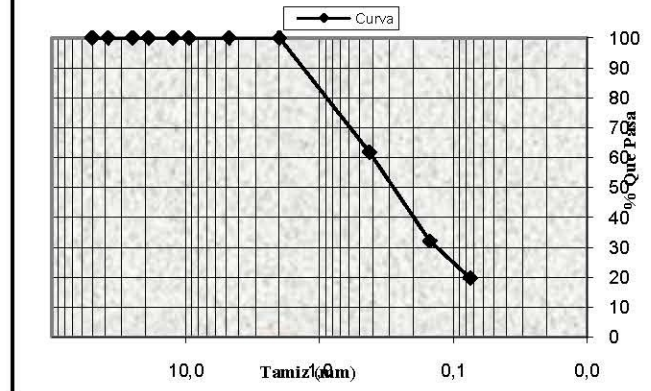
REPRESENTACION GRAFICA



GRADACION

P1= 236,5		P2= 189,8				NORMA	
Tamiz		Reten	% Reten	% Ret Acum	% Pasa	INF.	SUP.
Pulg.	mm						
3"	75,0						
2 1/2"	63,0						
2"	50,0	0,0	0,0	0,0	100,0		
1 1/2"	38,1	0,0	0,0	0,0	100,0		
1"	25,0	0,0	0,0	0,0	100,0		
3/4"	19,0	0,0	0,0	0,0	100,0		
1/2"	12,5	0,0	0,0	0,0	100,0		
3/8"	9,5	0,0	0,0	0,0	100,0		
No. 4	4,75	0,0	0,0	0,0	100,0		
No.10	2,00	0,0	0,0	0,0	100,0		
No.40	0,43	90,2	38,1	38,1	61,9		
No. 100	0,15	70,3	29,7	67,9	32,1		
No.200	0,075	29,3	12,4	80,2	19,8		
FONDO		46,7	19,8	100,0	0,0		

CURVA GRANULOMETRICA



OBSERVACIONES: Peso Unit Humedo = 1,82 gr/cm³ Gravedad Especifica = 2,50
 Peso Unit Seco = 1,65 gr/cm³

ING. JEFE DE LABORATORIO

FOR-DIS-15 Versión: 02	INSTATEL COLOMBIA CI LTDA.	
	FORMATO DE VERIFICACIÓN DE CIMENTACIÓN	

INFORMACIÓN GENERAL DEL SITIO

Nombre del sitio:	ESTACIÓN CERRO KENNEDY RTVC		
Departamento:	MAGDALENA		
Municipio:	SANTA MARTA		
Contacto en el sitio:		Teléfono:	

INFORMACIÓN DE PERSONAL QUE REALIZÓ EL TRABAJO

Responsable de la cuadrilla:	Arq. Jenny Useche		
Teléfono:	316 4709917	Correo electrónico	jennyuseche@instatelcolombia.com.co

VERIFICACIÓN DE LA CIMENTACIÓN

1 TIPO DE CIMENTACIÓN ENCONTRADA

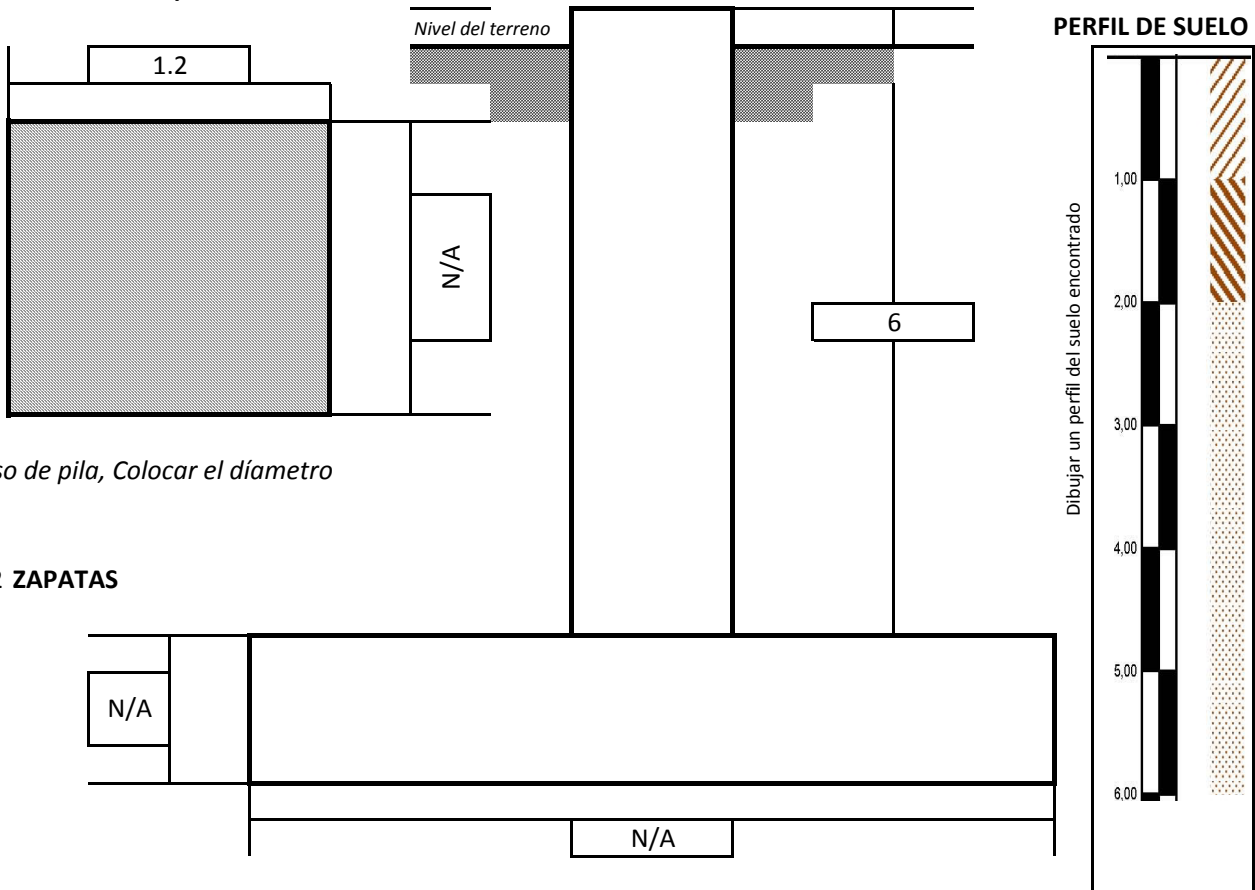
Pilas	☒	Pilotes	☐	Zapatatas	☐	Placa	☐

2		21.02	
		PLANTA DE CIMENTACIÓN Tomar la distancia centro a centro de los montantes (separación entre patas)	
	21.02	OBSERVACIONES:	

3	PEDESTALES, PILAS Y ZAPATAS

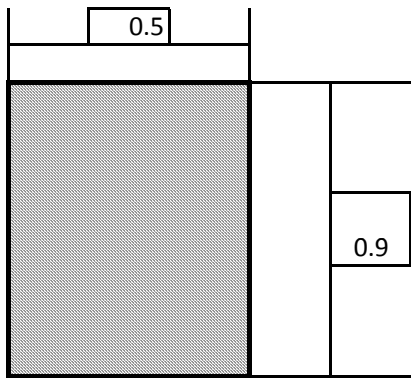
Nota: colocar la medida y hacer la descripción

3.1 PEDESTALES Y/O PILAS



OBSERVACIONES:

4	VIGAS DE AMARE



Descripción general de la cimentación:

La cimentación está conformada por pilas de aproximadamente 1.20m de diámetro unidas por vigas de amarre de 0.50mx0.90m. En medio de la base de las patas de la torre hay construidas unas casetas.

Nota: en la descripción mencionar si hay anegamientos, maleza, deterioro del concreto, acero de refuerzo expuesto, tipo de suelo encontrado, etc

LEVANTAMIENTO ESTRUCTURAL TORRE CERRO KENNEDY

Con el fin de hacer la identificación de los elementos que componen la torre auto soportada de sección tronco piramidal de la estación Cerro Kennedy de RTVC, ubicada en el en la sierra nevada de Santa Marta, en jurisdicción del municipio de Santa Marta, se llevó a cabo un levantamiento estructural para hacer una inspección visual y determinar su estado actual, realizando un chequeo detallado desde el punto de vista del estado de los elementos estructurales y redundantes, y la necesidad de mantenimiento, teniendo en cuenta los siguientes parámetros:

- *Identificación de elementos flexionados*
- *Identificación de elementos flojos*
- *Identificación de elementos faltantes*
- *Identificación de tornillos y tuercas faltantes y/o flojos (prueba de torque)*
- *Identificación de accesorios (antenas, escalerillas, pasarelas y plataformas)*
- *Estado de la pintura y/o galvanizado*
- *Estado de oxidación de elementos*
- *Identificación de acumulación de agua en miembros.*
- *Ubicación de luces de obstrucción y pararrayos.*
- *Identificación de cableado existente.*
- *Identificación de elementos de protección de caída.*
- *Elaboración del perfil de la torre.*
- *Verificación de verticalidad y torsión horizontal.*

A continuación se presenta un resumen de cada uno de los ítems contemplados en el levantamiento.

ITEM	DESCRIPCIÓN	
Identificación de elementos flexionados, elementos flojos y faltantes	En el levantamiento realizado se encontraron algunos elementos flexionados, elementos redundantes flojos y diagonales con empates de soldadura para completar longitud, se hizo la revisión de los elementos desde la sección inferior hasta la parte superior y no se evidenció la falta de elementos.	
		
	Foto 1. Vista Interna de la torre	Foto 2. Soldaduras en Diagonales de Estructura
		
	Foto 3. Soldaduras en Diagonales de Estructura	Foto 4. Elemento horizontal con un ligero pandeo.

ITEM	DESCRIPCIÓN
Identificación de tornillos y tuercas faltantes y/o flojos	Se revisó la totalidad de los tornillo en los nudos y uniones para verificar el diámetro y calidad de los tornillos existentes; se encontró tornillería floja y nudos con tornillos faltantes. En general los tornillos presentan falta de torque y demasiada corrosión en sus hilos, hay gran cantidad de tornillos con longitud insuficiente, de manera que no alcanzan a quedar los suficientes hilos por fuera de la tuerca. En su gran mayoría, la tornillería se encuentra instalada sin wasa; en cuanto a las arandelas, algunos tornillos están con arandela cuadrada, otros con arandela redonda y en otros sin ninguna de las dos; otros estan solamente con tuerca. La calidad de los tornillos es SAE Grado 2
	Foto 5. Detalle de tornillos, demasiado cortos y faltantes en el nudo de una cruceta. Falta de torque.
	Foto 6. Detalle de tornillos sin el torque requerido.
	Foto 7. Detalle de tornillos con diferencia de diámetro en la unión de dos montantes.
	Foto 8. Detalle de unión atornillada. Se evidencia la falta de arandela y wasa, además, hay presencia de corrosión.

FOR-DIS-28
Version: 01

INSTATEL COLOMBIA CI LTDA

DESCRIPCIÓN DEL PROYECTO



Foto 9. Detalle de unión, tornillería corta, sin apriete y presencia de corrosión.



Foto 10. Detalle de tornillos con falta de torque

ITEM	DESCRIPCIÓN	
Identificación de accesorios (antenas, escalerillas, pasarelas y plataformas)	En el levantamiento se identificaron las antenas existentes en la torre con sus dimensiones y posicionamiento, y esta información se muestra en el <i>Anexo diagrama de Antenas</i>, y en la evaluación estructural del estado actual se muestra un cuadro de antenas. También se identificaron las escalerillas tanto de acceso como la porta cables, las cuales una está apantallando a la otra, es decir que son paralelas. La escalerilla de acceso no cuenta con guarda cuerpo ni línea de vida y sus peldaños son en varilla lisa. Se encontraron 12 plataformas de descanso las cuales en su mayoría tienen su piso en lamina y con mucha presencia de oxido.	
		
	Foto 11. Detalle antenas existentes.	Foto 12. Detalle de escalerillas de acceso y porta cables.
		
	Foto 13. Vista de antenas, cortina para rayos y escalerilla de acceso sin línea de vida.	Foto 14. Detalle plataforma de Descanso, piso en lámina lisa, con alta presencia de oxidación.

ITEM	DESCRIPCIÓN	
		
	<i>Foto 15. Detalle patas de arranque torre</i>	<i>Foto 16. Vista de las dos puentes guía horizontales porta cables</i>
		
	<i>Foto 17. Transición entre el puente de guía y la escalerilla vertical.</i>	<i>Foto 18. Detalle puente guía con su capacidad.</i>

DESCRIPCIÓN DEL PROYECTO

ITEM	DESCRIPCIÓN	
Estado de la pintura y/o galvanizado y estado de oxidación de elementos	La pintura en la estructura cumple con el reglamento de la Aeronáutica Civil (Aerocivil) en su capítulo decimo cuarto Parágrafo 14.3.6.2.4. Referente a la cantidad de flanzas como debe estar pintada la estructura la cual solo debe tener siete flanzas de dos colores (blanco y naranja) empezando y terminando con naranja. En cuanto al estado de la pintura, hay un avanzado estado de deterioro, evidenciado por el desprendimiento de la película protectora, dejando expuesto el galvanizado. Se presenta mucha presencia de oxido en la tornillería, incluso el escurrimiento o lloroso de oxido, por las perforaciones. El galvanizado en un 98% está en buen estado, presentándose algunos focos de corrosión en varios elementos no estructurales tales como plataformas de descanso, las cuales presentan un alto índice corrosión en los elementos de soporte de las antenas las cuales se habrían pintado con una clase de anticorrosivo, que ya se está desprendiendo y exponiendo los elementos del soporte a la intemperie.	
		
	<i>Foto 17. Detalle de desprendimiento de pintura en elementos de la torre</i>	<i>Foto 18. Detalle de oxidación y afectación a la pintura</i>

ITEM	DESCRIPCIÓN	
		
	<i>Foto 19. Detalle del desprendimiento de la pintura</i>	<i>Foto 20. Detalle del desprendimiento de la pintura en los soportes de las antenas.</i>
		
	<i>Foto 21. Corrosión en los elementos de un soporte para antenas</i>	<i>Foto 22. Deterioro progresivo de la capa de pintura</i>
		
	<i>Foto 23. Oxidación y deterioro de la pintura en los pernos.</i>	<i>Foto 24. Corrosión en los elementos de un soporte para antenas</i>

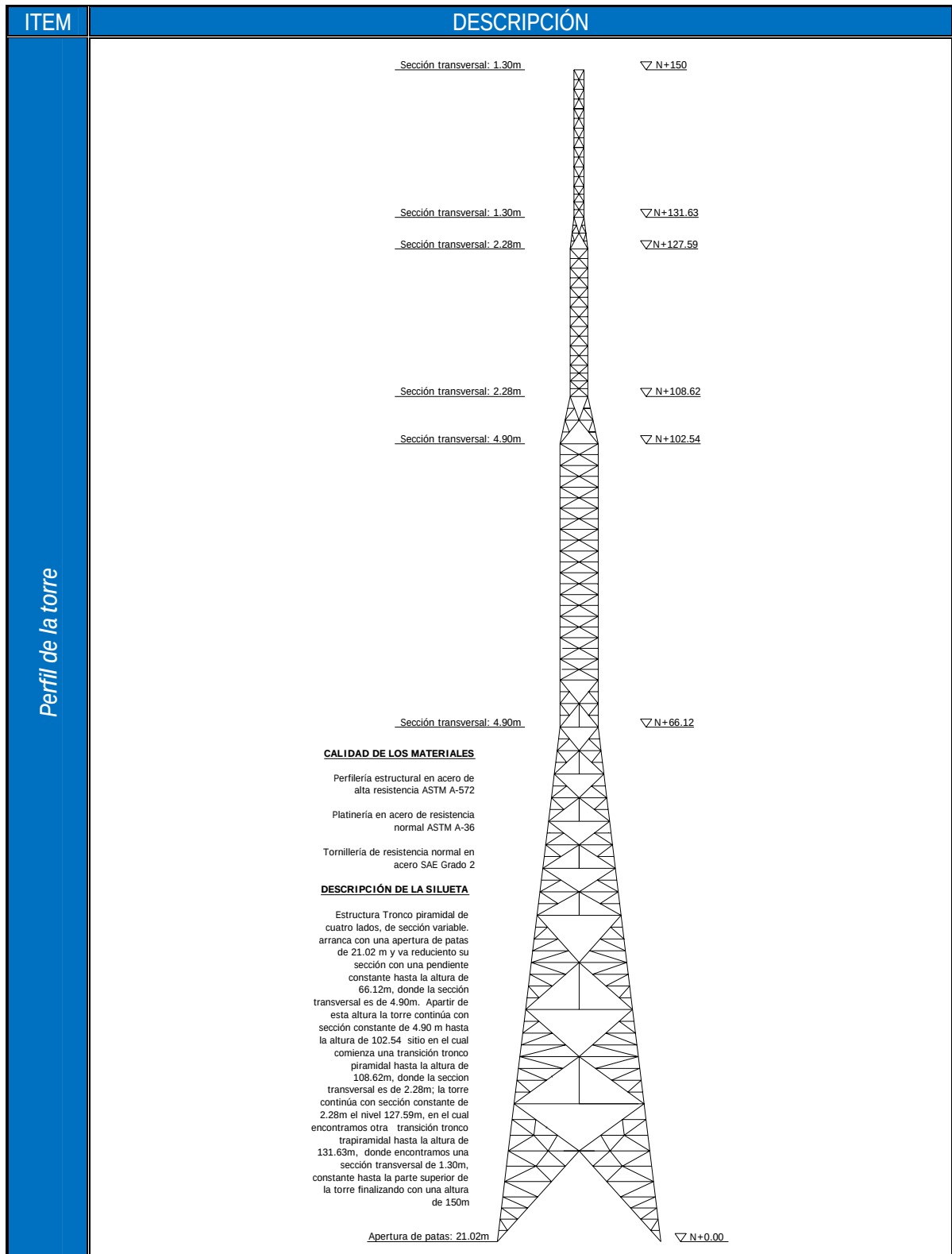
FOR-DIS-28 Version: 01	INSTATEL COLOMBIA CI LTDA DESCRIPCIÓN DEL PROYECTO	

ITEM	DESCRIPCIÓN	
Identificación de cableado existente, luces y pararrayos	El cableado existente en la torre básicamente está compuesto por los cables que van desde el cuarto de equipos subiendo por la escalerilla porta cables hasta las antenas ubicadas en los diferentes niveles, cuyo diámetro es en algunos casos de hasta 2". Otros cables identificados son los cables de alimentación de las luces de obstrucción y las bajantes de las cortinas de los pararrayos el cual está pegado a la torre sin los aisladores. Se encontraron algunas soldaduras del sistema de tierras en mal estado.	
		
	<i>Foto 25. Detalle de cableado de las antenas que van a cuarto de equipos.</i>	<i>Foto 26. Cable de antenas que no se encuentran en operación, ya que ha sido cortado. Pararrayos tipo cortina.</i>
		
	<i>Foto 27. Detalle de pararrayos en cúpula de la torre</i>	<i>Foto 28. Detalle de luz obstrucción en cúpula de la torre</i>

FOR-DIS-28 Version: 01	INSTATEL COLOMBIA CI LTDA DESCRIPCIÓN DEL PROYECTO	

ITEM	DESCRIPCIÓN	
Identificación de elementos de protección de caída	La estructura no cuenta con medidas activas de protección tal como lo señala la resolución numero 003673 de 2008 en su capítulo IV artículo 12 parágrafo del ministerio de protección social, referente de líneas de vida verticales fijas, con la cual debería de contar una estructura de este tipo, reglamentado en la guía de trabajo seguro en torres de telecomunicaciones expedido por el ministerio de protección social. A su vez las plataformas de trabajo no cuentan con guarda cuerpos, ni pasamanos, y su piso está conformado tan solo por lámina lisa. Se debe colocar línea de vida vertical fija.	
	 <i>Foto 29. Vista de la escalera, no hay línea de vida</i>	 <i>Foto 30. Plataforma de descanso en lámina lisa, sin guarda cuerpos</i>

La torre en el estado actual requiere mantenimiento en cuanto a pintura y manejo de oxidación de elementos para lo cual se deben cambiar elementos no estructurales, y estructurales, así como el ajuste y cambio en la totalidad de tornillos por tornillos de calidad A-325 Tipo 1 galvanizados en caliente, debido al nivel de oxidación de los existentes. El aterrizaje de cables provenientes de los pararrayos con están adheridos a la estructura sin aisladores. En caso de colocar mas cables, se recomienda colocar una escalerilla porta cables adicional, ya que la actual se encuentra ocupada en un 10% y el puente guía se encuentra excediendo su total capacidad.



FOR-DIS-30	INSTATEL COLOMBIA CI LTDA.	
Versión: 02	VERTICALIDAD DE TORRES	

EST-014-EVALUACION TORRE CERRO KENNEDY

Edición: 1.0
Fecha: 27/03/2010

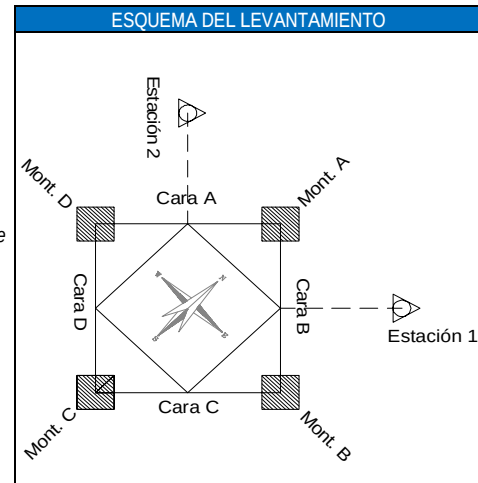
VERIFICACIÓN DE VERTICALIDAD

DESCRIPCIÓN DEL SITIO

Propietario: RTVC
Departamento: Magdalena
Municipio: Santa Marta
Dirección: Base Militar Cerro Kennedy
Equipo utilizado: Estación total Topcon GTS 226

Descripción general:

La torre está ubicada en La Base Militar Cerro Kennedy; el acceso al sitio se hace por carretable hasta la estación. La torre está conformada por cuatro cuerpos de diferente sección transversal, de los cuales el primero es de sección tronco piramidal desde el nivel +0.00m hasta el nivel +66.12m; apartir de éste nivel y hasta +102.54m, la sección es cuadrada de 4.90m de lado. Desde el nivel +108.62m hasta el nivel +127.59 la sección también es cuadrada de 2.28m de ancho. Desde el nivel +131.63 hasta el nivel +150, la sección es cuadrada de 1.30m de lado.



TOMA DE DATOS

Altura de la torre: 141 m

Desplazamiento admisible: 0.0025H
H = Altura de la torre m

VERIFICACIÓN DE VERTICALIDAD CARA C									
Altura m	Angulo Horizontal			Desviación			Desplazamiento m	Desp. Admis. m	Verificación
	grad.	min.	seg.	grad.	min.	seg.			
13.40	0	0	0	0	0	0	0.000	0.034	Ok
31.40	0	0	9	0	0	9	0.004	0.079	Ok
50.50	0	2	0	0	2	0	0.050	0.126	Ok
72.35	0	3	51	0	3	51	0.096	0.181	Ok
93.55	0	5	42	0	5	42	0.142	0.234	Ok
113.50	0	7	33	0	7	33	0.188	0.284	Ok
141.00	0	5	42	0	5	42	0.142	0.353	Ok

Distancia de la estación a la torre: 85.420 m

VERIFICACIÓN DE VERTICALIDAD CARA B									
Altura m	Angulo Horizontal			Desviación			Desplazamiento m	Desp. Admis. m	Verificación
	grad.	min.	seg.	grad.	min.	seg.			
13.40	0	0	0	0	0	0	0.000	0.034	Ok
31.40	0	1	16	0	1	16	0.022	0.079	Ok
50.50	0	3	7	0	3	7	0.054	0.126	Ok
72.35	0	4	58	0	4	58	0.086	0.181	Ok
93.55	0	6	49	0	6	49	0.119	0.234	Ok
113.50	0	8	40	0	8	40	0.151	0.284	Ok
141.00	0	9	14	0	9	14	0.161	0.353	Ok

Distancia de la estación a la torre: 59.850 m

Elaboró:

Revisó:

Ing. PATROCINIO PARRA GALINDO
MP. 15202 146419 BYC



EVALUACIÓN ESTRUCTURAL

ESTACIÓN CERRO KENNEDY

TORRE CADRADA DE SECCIÓN VARIABLE

ALTURA 150m

Diseño:

ING. LEOPOLDO BARRERA GARZÓN

MAT. 25202 – 124789 CND

EVALUACIÓN ESTRUCTURAL TORRE METÁLICA AUTOSOPORTADA ALTURA 150 m

INTRODUCCIÓN

En el éste documento se describe la memoria de la evaluación estructural de la torre auto soportada cuadrada de sección variable con una altura de 150 m ubicada en la estación Cerro Kennedy RTVC, ubicada en la Sierra Nevada de Santa Marta, en jurisdicción del municipio de Santa Marta. Para el análisis matemático se utilizó velocidad de viento de diseño de 120 Km/h. y velocidad de operación de 60 Km/h

En una primera parte se incluye la descripción de la estructura estudiada, luego los criterios básicos para el análisis y el diseño, evaluación de cargas, y por último el listado de datos de entrada y de salida del programa Tower de la casa Power Line System Inc..

La evaluación estructural fue realiza de acuerdo con los datos de campo levantados en la estación base Cerro Kennedy RTVC, localizada en la Sierra Nevada de Santa Marta; cualquier cambio genera un estudio diferente. La torre en estudio tiene instaladas antenas para la transmisión de señal de televisión.

DESCRIPCIÓN DE LA ESTRUCTURA EXISTENTE

Estructura Tronco piramidal de cuatro lados, de sección variable. arranca con una apertura de patas de 21.02 m y va reduciendo su sección con una pendiente constante hasta la altura de 66.12m, donde la sección transversal es de 4.90m. A partir de esta altura la torre continúa con sección constante de 4.90 m hasta la altura de 102.54 sitio en el cual comienza una transición tronco piramidal hasta la altura de 108.62m, donde la sección transversal es de 2.28m; la torre continúa con sección constante de 2.28m el nivel 127.59m, en el cual encontramos otra transición tronco piramidal hasta la altura de 131.63m, donde encontramos una sección transversal de 1.30m, constante hasta la parte superior de la torre finalizando con una altura de 150m (Ver figura 1)

Para el mantenimiento, la estructura cuenta con una escalera de acceso y una escalera porta cable vertical.

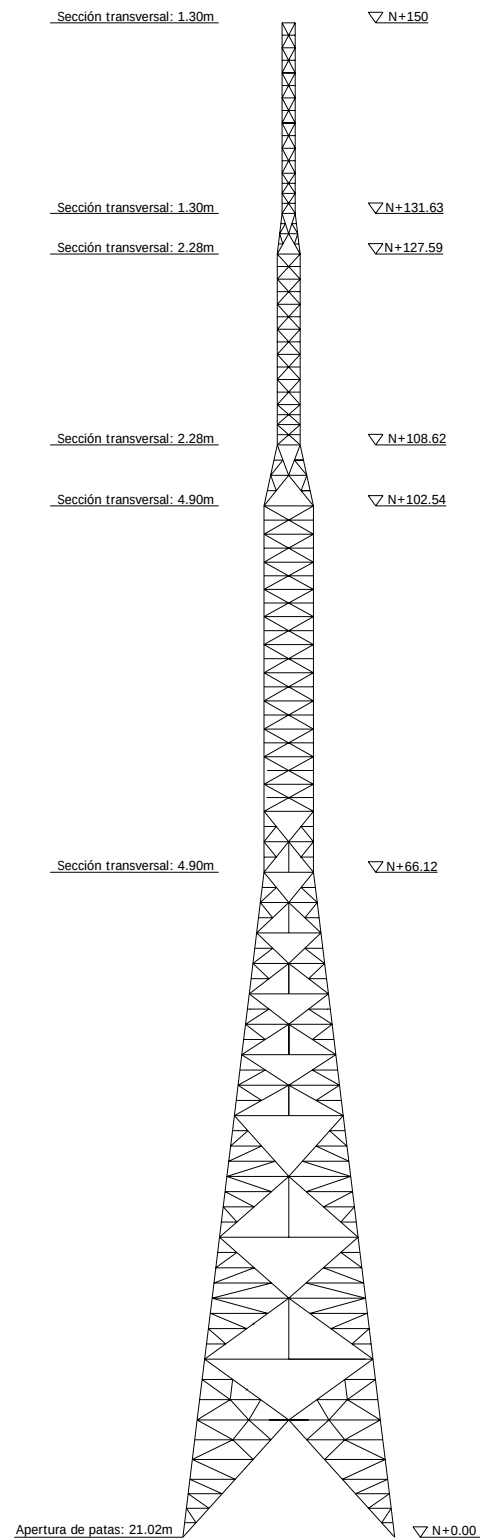


Figura 1. Esquema de la silueta de la torre existente

CONDICIONES DE CARGA

CARGAS ACTUALES DE LA TORRE

En la actualidad, la torre cuenta con las siguientes cargas:

TIPO DE CARGA	NIVEL	MONTANTE			
		A	B	C	D
Antena Tipo Panel VHF III 4 DIPOLOS	150	1	1		1
	146,7	1	1		1
	143,4	1	1		1
	140,1	1			1
	136,8	1			1
	133,5	1			1
	130				1
Antena Tipo Panel UHF	127		2		2
	125,6		2		2
	124,2		2		2
	122,8				2
	120				2
Antena Tipo Panel VHF III 2 Dipolos	120	1	1	1	
	116,5	1	1	1	
	113	1	1	1	
	109	1	1	1	
	105	1	1		
Antena Tipo Panel VHF I	96,95		1		1
	94,25		1		
Antena Onmidireccional	71				1
	78		1		
	70			1	
	30			1	
Antena Grilla Ø 3,0 m	48			1	
Antena Grilla Ø 1,8m	41				1
Antena MW H. P. Ø 3,7 m	47		1		
Antena MW H. P. Ø 1,80 m	41	1			
Antena MW H. P. Ø 3,7 m	40		1		
Antena MW H. P. Ø 1,20 m	35	1			
Antena MW H. P. Ø 1,20 m	23			1	
Antena MW H. P. Ø 1,80 m	17			1	
Antena MW H. P. Ø 2,44 m	17		1		
Antena MW H. P. Ø 1,80 m	15	2			
Antena MW H. P. Ø 2,44 m	14		1		
Antena MW H. P. Ø 1,20 m	11	1			

De acuerdo con los requerimientos del contratista, se proponen dos hipótesis de carga que se describen a continuación

HIPOTESIS 1

Desmontar 16 antenas de UHF (telecaribe) entre 123 m y 130 m de altura. Montaje de 20 antenas banda UHF, en configuración 6-8-6 (6 antenas por una cara mas 8 antenas por una cara mas 6 antenas por una cara). En la sección de torre de 3.2 m. entre la altura de 120 m. a 130 m.

TIPO DE CARGA	NIVEL	MONTANTE			
		A	B	C	D
Antena Tipo Panel VHF III 4 DIPOLOS	150	1	1		1
	146,7	1	1		1
	143,4	1	1		1
	140,1	1			1
	136,8	1			1
	133,5	1			1
	130				1
Antena Tipo Panel UHF	127		2	2	2
	125,6		2	2	2
	124,2		2	2	2
	122,8				2
Antena Tipo Panel VHF III 2 Dipolos	120	1	1	1	
	116,5	1	1	1	
	113	1	1	1	
	109	1	1	1	
	105	1	1		
Antena Tipo Panel VHF I	96,95		1		1
	94,25		1		
Antena Onmidireccional	71				1
	78		1		
	70			1	
	30			1	
Antena Grilla Ø 3,0 m	48			1	
Antena Grilla Ø 1,8m	41				1
Antena MW H. P. Ø 3,7 m	47		1		
Antena MW H. P. Ø 1,80 m	41	1			
Antena MW H. P. Ø 3,7 m	40		1		
Antena MW H. P. Ø 1,20 m	35	1			
Antena MW H. P. Ø 1,20 m	23			1	

TIPO DE CARGA	NIVEL	MONTANTE			
		A	B	C	D
Antena MW H. P. Ø 1,80 m	17			1	
Antena MW H. P. Ø 2,44 m	17		1		
Antena MW H. P. Ø 1,80 m	15	2			
Antena MW H. P. Ø 2,44 m	14		1		
Antena MW H. P. Ø 1,20 m	11	1			

HIPOTESIS 2

Desmontar 16 antenas de UHF (telecaribe) entre 123 m y 130 m de altura. Ver manual antenas adjunto. Montaje de 20 antenas banda UHF, en configuración 6-8-6 (6 antenas por una cara mas 8 antenas por una cara mas 6 antenas por una cara). En la sección de 1.2 m. entre las alturas comprendidas entre 130 m a 139 m.

TIPO DE CARGA	NIVEL	MONTANTE			
		A	B	C	D
Antena Tipo Panel VHF III 4 DIPOLOS	150	1	1		1
	146,7	1	1		1
	143,4	1	1		1
	140,1	1			1
	136,8	1			1
	133,5	1			1
	130				1
Antena Tipo Panel UHF	137		2	2	2
	135		2	2	2
	132		2	2	2
	130			2	
Antena Tipo Panel VHF III 2 Dipolos	120	1	1	1	
	116,5	1	1	1	
	113	1	1	1	
	109	1	1	1	
	105	1	1		
Antena Tipo Panel VHF I	96,95		1		1
	94,25		1		
Antena Onmidireccional	71				1
	78		1		
	70			1	
	30			1	
Antena Grilla Ø 3,0 m	48			1	
Antena Grilla Ø 1,8m	41				1
Antena MW H. P. Ø 3,7 m	47		1		

TIPO DE CARGA	NIVEL	MONTANTE			
		A	B	C	D
Antena MW H. P. Ø 1,80 m	41	1			
Antena MW H. P. Ø 3,7 m	40		1		
Antena MW H. P. Ø 1,20 m	35	1			
Antena MW H. P. Ø 1,20 m	23			1	
Antena MW H. P. Ø 1,80 m	17			1	
Antena MW H. P. Ø 2,44 m	17		1		
Antena MW H. P. Ø 1,80 m	15	2			
Antena MW H. P. Ø 2,44 m	14		1		
Antena MW H. P. Ø 1,20 m	11	1			

ESPECIFICACIONES TECNICAS

MATERIALES

Para la evaluación de la torre se tuvieron en cuenta los siguientes materiales:

Perfiles Acero ASTM A-36 A-572 GR50
 Platinas Acero ASTM A-36 A-572 GR50
 Tornillos ASTM A 394 T-0

NORMAS

AISC 2010
 ASCE, report 52
 EIA/TIA Standard, EIA/TIA-222-G
 ANSI/ASCE 10-90 (1991)
 ACI 318 – 08
 NSR-98 (1998)

CARGAS SOBRE LA TORRE

CARGAS DE VIENTO

Las cargas de viento sobre la estructura fueron evaluadas y aplicadas como fuerzas horizontales concentradas en los nudos superiores e inferiores de cada una de las secciones en que se halla dividida la estructura, las cuales fueron determinadas por el diseñador. El cálculo de las cargas de viento lo realiza el software Tower V.8.00 siguiendo la metodología establecida por la Norma TIA/EIA-222-F (*Structural Standard for Steel Antenna Towers and Antenna Supporting Structures*¹),

¹ Telecommunications Industry Association, TIA/EIA-222-F (revision de la EIA/TIA- 222-E), Arlington

para lo cual, el diseñador alimenta el programa con los datos de velocidad de viento de diseño, velocidad de viento de operación, tipo de estructura, categoría de la topografía y categoría de exposición.

CARGAS DE VIENTO SOBRE ANTENAS

Para el cálculo de las cargas de viento sobre antenas y accesorios, es necesario alimentar el programa con la información del tipo y dimensiones de la antena o accesorio y la altura a la que van a estar ubicados para que éste realice los cálculos y aplique las cargas de acuerdo al procedimiento de la norma². Para el caso de estudio, se utilizó una velocidad de viento de diseño de 120km/h y una velocidad de operación de 60 km/h.

Los coeficientes de forma varían con el ángulo de incidencia del viento sobre la antena y se evalúan con base en los valores máximos indicados en los manuales *Parabolic Antennas Andrew y Allen Telecom Group*³. Para propósitos de estas memorias, se supuso que la antena está siempre orientada de tal forma que produce la mayor carga y mayor torsión sobre la estructura.

A partir de ensayos en túnel de viento realizados a sus antenas, la firma Andrew propone descomponer las acciones del viento en dos fuerzas y un momento como se muestra en la figura 4.

4

La fuerza F_a que actúa según el eje de la antena

La fuerza F_s que actúa perpendicular a ese eje

Un momento que se supone aplicado en un plano horizontal y actuando en un vértice.

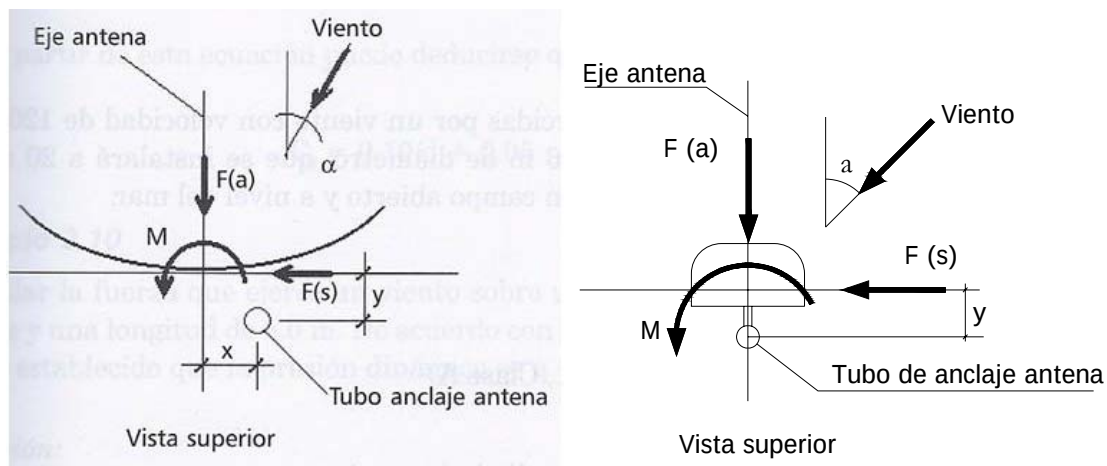


Figura 2. Acción del viento sobre antenas parabólicas y tipo panel Banda UHF

² Power Line System Inc, Tower v.10.2, Madison USA, 2010

³ Andrew Antenna Company, Wind Forces and Loads Produced by Parabolic Antennas, Bulletin 1015D, London, 1988.

⁴ Valencia Clement Gabriel, Acciones del Viento Sobre las Estructuras, Bogotá, 2002

En todos los casos, el área expuesta es el área proyectada sobre un plano normal al eje de la antena, independientemente del ángulo de incidencia del viento

La presión del viento se calculará de acuerdo con los artículos 2.3.2 y 2.3.3 del EIA Standard, es decir:

$$\text{Presión } q_z = 0.00256 \cdot k_z \cdot V^2 \text{ [lb/ft}^2\text{]; [V en MPH]}$$

$$q_z = 0.00483 \cdot k_z \cdot V^2 \text{ [kg/m}^2\text{]; [V en KPH]}$$

$$q_z = 69.552 \cdot k_z \text{ [kg/cm}^2\text{]}$$

Donde:

k_z = Coeficiente de exposición

$$K_z = [z/10]^{(2/7)} \quad z \text{ en m}$$

$$k_z < 2.58 < 2.58$$

Las fuerzas del viento sobre la torre se calcularán según artículo 2.3.2 con la siguiente ecuación:

$$\text{Fuerza del viento} \quad F = q_z \cdot G_h \cdot C_f \cdot A_e \quad (\text{Kg})$$

Donde:

C_f = Coeficiente de forma, según EIA Standard

$$C_f = 4.0 \cdot e^2 - 5.9 \cdot e + 4.0 \quad \text{art. 2.3.5}$$

$$\text{Relación de solidez} \quad e = A_n/A_t$$

A_t = Área perimetral total (m^2)

A_n = Área neta expuesta (m^2)

G_h = Factor de respuesta de ráfaga

$$G_h = 0.65 + 0.60/(h/10)^{1/7} \quad \text{art. 2.3.4}$$

$$1.0 < G_h < 1.25$$

h = Altura total de la estructura (m)

Para la incidencia oblicua del viento, según ANSI⁵, el área neta oblicua será:

⁵ American National Standard Institute

$$A_{nob} = C_{ob} * A_n$$

Donde:

$C_{ob} = 0.75$ para incidencia a 60 grados

$C_{ob} = 1.00$ para incidencia normal

CARGAS DE VIENTO SEGUN NORMA NSR-98: Velocidad del viento (B.6.5)

Velocidad del viento básico $V = 120 \text{ Km/h}$

Velocidad de diseño (B.6.4-2) $V_s = V * S_1 * S_2 * S_3$

Donde:

$S_1 =$ Coeficiente de topografía $S_1 = 1.00$

$S_2 =$ Coeficiente de rugosidad del terreno (3) $S_2 = 0.99$

$S_3 =$ Coeficiente de grado de seguridad $S_3 = 1.05$

Presión Dinámica $q = 0.000048 * v_s^2 * S_4$ $[\text{KN/m}^2]$

Donde:

$S_4 =$ Coeficiente de densidad del aire $S_4 = 0.94$

Presión ejercida sobre cualquier punto de la estructura

$$P = C_f * q$$

Donde:

$C_f =$ Coeficiente de fuerza (Tabla B.6.8-7 NSR-98)

Coeficiente de solidos de 0.25

$C_f = 2.50$

$A_e =$ Área Frontal efectiva

$q =$ Presión dinámica = 0.4875 KN/m^2

La fuerza total del viento sobre la estructura se calculara como:

$$F = C_f * q * A_e$$

Debido a que las fuerzas de viento calculadas con la metodología establecida por la Norma TIA/EIA-222-F son superiores a las calculadas mediante las ecuaciones de la Norma NSR-98, para el caso de estudio se va a seguir la metodología de la norma TIA/EIA-222-F

El área neta expuesta a la acción del viento incluye la correspondiente a los elementos estructurales, elementos redundantes, platinas, cartelas y a la escalerilla de acceso o la escalerilla para guía de onda. Se asume que una escalera, apantalla la otra.

PESO PROPIO DE LA ESTRUCTURA

El peso propio de la estructura corresponde al peso de los elementos estructurales, los cuales son calculados directamente por el software de análisis con base en el peso unitario teórico de cada uno de los perfiles utilizados, multiplicados por su longitud. Para tener en cuenta el peso aportado por elementos no estructurales tales como tornillos, platinas, elementos redundantes eclisas y cubrejuntas de unión, galvanizado, escaleras, etc., el peso de la estructura se afecta por un factor de multiplicación del peso de 1.20.

CARGAS VERTICALES

Las cargas verticales aplicadas al modelo matemático corresponden a la carga muerta, que está constituida por los elementos mencionados en el párrafo anterior, mas el peso aportado por las antenas, las plataformas de trabajo, las plataformas de descanso y los accesorios que sean instalados en la torre. Otra carga vertical que se tiene en cuenta es la carga viva, correspondiente a 3 operarios que estén trabajando simultáneamente en la estructura, con un peso por operario de 100 kg, que incluye herramienta y elementos de protección.

ANALISIS ESTRUCTURAL

El análisis y evaluación de la estructura se hará para las condiciones actuales de servicio y para las condiciones finales o proyectadas; para este último caso, se plantean análisis y calculo con modificaciones en la estructura en caso b de ser necesario.

El análisis hiperestático de la estructura se realizará por medio del software especializado para el diseño de torres de telecomunicaciones Tower V 8.00, que realiza de manera no lineal el análisis de primer orden y segundo orden para tener en cuenta los efectos geométricos ocasionados por los desplazamientos de la estructura. El software utiliza para sus cálculos el método de los elementos finitos basado en la solución de ecuaciones diferenciales asociadas a la geometría de la estructura, para determinar los desplazamientos en los nudos, y las fuerzas internas para cada uno de los elementos de acuerdo con las combinaciones de carga establecidas en cada hipótesis de diseño requerida.

Para cada una de las hipótesis analizadas, se presentan los listados de datos de entrada (Input) y datos de salida (Output) en el siguiente orden.

DATOS DE ENTRADA

- Listado de datos generales

- Listado de la geometría de la estructura (identificación de nudos, grupos de barras, apoyos, materiales, secciones, tornillos).
- Listado de cargas sobre los nudos de acuerdo con los sistemas de cargas.

RESULTADOS PARA LAS HIPOTESIS CONSIDERADAS

- Listado de fuerzas axiales sobre cada elemento de la estructura.
- Listado de reacciones en los apoyos.
- Listado de acciones y cargas admisibles críticas en los miembros típicos.
- Listado de desplazamientos de los nudos que conforman la estructura.

UNIDADES

Las unidades consideradas en los datos de entrada y salida son:

- Distancias en m, mm.
- Cargas en Kg
- Desplazamientos en m.
- Esfuerzos en Kgf
- Acciones y reacciones en Kg

DISEÑO DE LA ESTRUCTURA METALICA

El diseño de la estructura metálica se realizará de acuerdo con lo estipulado por las normas ANSI/EIA/TIA aplicables a las cargas de trabajo.

Si:

F_u = resistencia máxima a la tensión

F_y = esfuerzo de fluencia del material

Perfiles ASTM A-572 GR50 F_y = 3523 Kg/cm²

Perfiles ASTM A-36 F_y = 2535 Kg/cm²

Tornillo A 325 T-1 F_u = 5415 Kg/cm²

Los esfuerzos admisibles se calcularán de la siguiente manera:

Tensión: F_t = 0.50 F_u (sobre área neta)
 F_t = 0.60 F_y (sobre área bruta)

Perfiles ASTM A-36 F_t = 2277 Kg/cm²

Perfiles ASTM A-572 GR50 F_t = 3168 Kg/cm²

Flexión:	$F_b = 0.60 F_y \cdot 1.333$
Perfiles ASTM A-36	$F_b = 2025 \text{ Kg/cm}^2$
Perfiles ASTM A-572 GR50	$F_b = 2879 \text{ Kg/cm}^2$
Compresión:	F_a , según EIA/TIA/AISC con los factores SF_1 y SF_2 SF_1 Factor de seguridad entre 1.66 y 1.92 SF_2 Factor de seguridad igual a 23/12

La longitud efectiva y la relación de esbeltez, se calculan, de acuerdo con lo especificado en ASCE, report 52.

Cortante:	Tornillo A 325 T-1 $F_v = 7385 \text{ Kg/cm}^2$
Aplastamiento:	$F_p = 1.20 F_u$
Perfiles ASTM A-36	$F_p = 3795 \text{ Kg/cm}^2$
Perfiles ASTM A-572 GR50	$F_p = 5280 \text{ Kg/cm}^2$
Tornillo A 325 T-1	$F_p = 8862 \text{ Kg/cm}^2$

HIPOTESIS DE CARGA PARA CADA CASO

Se consideraron seis hipótesis de cargas:

LC1- Viento en dirección normal de una cara de la torre, dirección X, ángulo de incidencia 0° , con cargas de diseño.

LC2- Viento en dirección diagonal, sobre un vértice de la torre, ángulo de incidencia de 45° , con cargas de diseño.

LC3- Viento en dirección normal de una cara de la torre, dirección X, ángulo de incidencia 0° , con cargas de trabajo.

LC4- Viento en dirección diagonal, sobre un vértice de la torre, ángulo de incidencia de 45° , con cargas de trabajo.

LC5- Viento en dirección normal de una cara de la torre, dirección X, ángulo de incidencia 0° , con cargas de trabajo para deflexiones máximas.

LC6- Viento en dirección diagonal, sobre un vértice de la torre, ángulo de incidencia de 45° , con cargas de trabajo para deflexiones máximas.

Las cargas de diseño se obtienen al multiplicar las cargas de trabajo por un factor único de sobrecarga $FS = 1.30$.

El análisis y diseño fue llevado a cabo según lo especificado en el manual N° 52 de ASCE Guide for design of steel transmission towers y a la norma EIA/TIA-222-F Structural Standards for Steel Antenna Towers and Antenna Supporting Structures con ayuda del programa TOWER, versión 8.00. También se incluye un control de deflexiones en la parte superior de la torre (nivel 150 m) de tal manera que cumpla con el requisito de que, para cargas de trabajo, la deflexión en este punto, a una velocidad básica del viento de 60 km/h, sea menor o igual a 0.5 grados.

Además se presentan las cargas a nivel de fundación para las tres hipótesis de cargas consideradas, tanto para el caso de trabajo como para el caso de cargas de diseño, las cuales se deben utilizar para el diseño de la cimentación de la torre.

Para el caso de cargas de diseño, se verifica que en los elementos estructurales no se sobrepasen sus capacidades admisibles de compresión y tracción establecidas por la norma.

En los anexos se presentan los datos de entrada utilizados para la modelación de la torre, propiedades, dimensiones, etc., las fuerzas actuantes sobre los miembros y la resistencia que presentan cada uno, la deflexión producida por las cargas a la estructura la cual debe ser menor que la relación $H/200$, donde H es la altura de la torre.

CONCLUSIONES

Realizando el respectivo análisis y verificación estructural de la torre en condiciones actuales podemos concluir que:

La estructura metálica actual *no cumple* con las condiciones de esfuerzos y deformaciones previstos en la norma EIA / TIA 222 F y NSR-98.

Se determina que el 75 % de los montantes, 88% de los diagonales y el 15% de los Horizontales fallan en las condiciones actuales de trabajo.

Se Concluye que la torre no es apta para realizar incrementos de carga por adaptaciones de futuras antenas.



EVALUACIÓN ESTRUCTURAL

ESTADO ACTUAL

ESTACIÓN CERRO KENNEDY

TORRE CADRADA DE SECCIÓN VARIABLE

ALTURA 150m

Diseñó:

ING. LEOPOLDO BARRERA GARZÓN

MAT. 25202 – 124789 CND

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

DATOS DE ENTRADA Y SALIDA DEL ANALISIS ESTRUCTURAL – CONDICIONES ACTUALES – PROGRAMA TOWER.

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* TOWER - Analysis and Design - Copyright Power Line Systems, Inc. 1986-2006 *
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Opciones de verif. de elem: TIA/EIA 222-F
Verificar rupturas en conexión: Not Checked
Crossing diagonal check: Fixed

Geometría de Uniones:

Etiqueta de Unión	Cód.de Sim.	Coord. X (m)	Coord. Y (m)	Coord. Z (m)	Res. Des. X	Res. Des. Y	Res. Des. Z	Res. Rot. X	Res. Rot. Y	Res. Rot. Z

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

1P	XY-Symmetry	0.65	0.65	150.9	Free	Free	Free	Free	Free
10P	XY-Symmetry	0.65	0.65	131.6	Free	Free	Free	Free	Free
11P	XY-Symmetry	1.14	1.14	127.6	Free	Free	Free	Free	Free
19P	XY-Symmetry	1.14	1.14	108.6	Free	Free	Free	Free	Free
20P	XY-Symmetry	2.452	2.452	102.2	Free	Free	Free	Free	Free
32P	XY-Symmetry	2.452	2.452	66.13	Free	Free	Free	Free	Free
ANP	XY-Symmetry	10.51	10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed
1X	X-GenXY	0.65	-0.65	150.9	Free	Free	Free	Free	Free
1XY	XY-GenXY	-0.65	-0.65	150.9	Free	Free	Free	Free	Free
1Y	Y-GenXY	-0.65	0.65	150.9	Free	Free	Free	Free	Free
10X	X-GenXY	0.65	-0.65	131.6	Free	Free	Free	Free	Free
10XY	XY-GenXY	-0.65	-0.65	131.6	Free	Free	Free	Free	Free
10Y	Y-GenXY	-0.65	0.65	131.6	Free	Free	Free	Free	Free
11X	X-GenXY	1.14	-1.14	127.6	Free	Free	Free	Free	Free
11XY	XY-GenXY	-1.14	-1.14	127.6	Free	Free	Free	Free	Free
11Y	Y-GenXY	-1.14	1.14	127.6	Free	Free	Free	Free	Free
19X	X-GenXY	1.14	-1.14	108.6	Free	Free	Free	Free	Free
19XY	XY-GenXY	-1.14	-1.14	108.6	Free	Free	Free	Free	Free
19Y	Y-GenXY	-1.14	1.14	108.6	Free	Free	Free	Free	Free
20X	X-GenXY	2.452	-2.452	102.2	Free	Free	Free	Free	Free
20XY	XY-GenXY	-2.452	-2.452	102.2	Free	Free	Free	Free	Free
20Y	Y-GenXY	-2.452	2.452	102.2	Free	Free	Free	Free	Free
32X	X-GenXY	2.452	-2.452	66.13	Free	Free	Free	Free	Free
32XY	XY-GenXY	-2.452	-2.452	66.13	Free	Free	Free	Free	Free
32Y	Y-GenXY	-2.452	2.452	66.13	Free	Free	Free	Free	Free
ANX	X-GenXY	10.51	-10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed
ANXY	XY-GenXY	-10.51	-10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed
ANY	Y-GenXY	-10.51	10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed

Uniones Secundarias:

Etqta de Unión	Cód de Origen Sime. Unión	Fin Unión	Fracc.	Elev. (m)	Res. Des. X	Res. Des. y	Res. Des. Z	Res. Rot. X	Res. Rot. Y	Res. Rot. Z
2S	XY-Symmetry	1P 10P	0	147.7	Free	Free	Free	Free	Free	Free
3S	XY-Symmetry	1P 10P	0	145.2	Free	Free	Free	Free	Free	Free
4S	XY-Symmetry	1P 10P	0	142.7	Free	Free	Free	Free	Free	Free
5S	XY-Symmetry	1P 10P	0	140.2	Free	Free	Free	Free	Free	Free
6S	XY-Symmetry	1P 10P	0	137.7	Free	Free	Free	Free	Free	Free
7S	XY-Symmetry	1P 10P	0	135.2	Free	Free	Free	Free	Free	Free
8S	XY-Symmetry	1P 10P	0	133.2	Free	Free	Free	Free	Free	Free
12S	XY-Symmetry	11P 19P	0	124.7	Free	Free	Free	Free	Free	Free
13S	XY-Symmetry	11P 19P	0	122.2	Free	Free	Free	Free	Free	Free
14S	XY-Symmetry	11P 19P	0	119.7	Free	Free	Free	Free	Free	Free
15S	XY-Symmetry	11P 19P	0	117.2	Free	Free	Free	Free	Free	Free
16S	XY-Symmetry	11P 19P	0	114.7	Free	Free	Free	Free	Free	Free
17S	XY-Symmetry	11P 19P	0	112.2	Free	Free	Free	Free	Free	Free
18S	XY-Symmetry	11P 19P	0	110.2	Free	Free	Free	Free	Free	Free
21S	XY-Symmetry	20P 32P	0	99.4	Free	Free	Free	Free	Free	Free
22S	XY-Symmetry	20P 32P	0	96.6	Free	Free	Free	Free	Free	Free
23S	XY-Symmetry	20P 32P	0	93.9	Free	Free	Free	Free	Free	Free
24S	XY-Symmetry	20P 32P	0	91.2	Free	Free	Free	Free	Free	Free
25S	XY-Symmetry	20P 32P	0	88.4	Free	Free	Free	Free	Free	Free
26S	XY-Symmetry	20P 32P	0	85.6	Free	Free	Free	Free	Free	Free
27S	XY-Symmetry	20P 32P	0	82.8	Free	Free	Free	Free	Free	Free

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28S	XY-Symmetry	20P	32P	0	80	Free	Free	Free	Free	Free	Free
29S	XY-Symmetry	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
30S	XY-Symmetry	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
31S	XY-Symmetry	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
33S	XY-Symmetry	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
34S	XY-Symmetry	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
35S	XY-Symmetry	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
36S	XY-Symmetry	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
37S	XY-Symmetry	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
371S	None	37X	37S	0.5	0	Free	Free	Free	Free	Free	Free
372S	None	37S	37Y	0.5	0	Free	Free	Free	Free	Free	Free
373S	None	37Y	37XY	0.5	0	Free	Free	Free	Free	Free	Free
374S	None	37XY	37X	0.5	0	Free	Free	Free	Free	Free	Free
38S	XY-Symmetry	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
39S	XY-Symmetry	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
391S	None	39X	39S	0.5	0	Free	Free	Free	Free	Free	Free
392S	None	39S	39Y	0.5	0	Free	Free	Free	Free	Free	Free
393S	None	39Y	39XY	0.5	0	Free	Free	Free	Free	Free	Free
394S	None	39XY	39X	0.5	0	Free	Free	Free	Free	Free	Free
40S	XY-Symmetry	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
41S	XY-Symmetry	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
411S	None	41X	41S	0.5	0	Free	Free	Free	Free	Free	Free
412S	None	41S	41Y	0.5	0	Free	Free	Free	Free	Free	Free
413S	None	41Y	41XY	0.5	0	Free	Free	Free	Free	Free	Free
414S	None	41XY	41X	0.5	0	Free	Free	Free	Free	Free	Free
42S	XY-Symmetry	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
2X	X-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
2XY	XY-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
2Y	Y-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
3X	X-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
3XY	XY-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
3Y	Y-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
4X	X-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
4XY	XY-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
4Y	Y-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
5X	X-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
5XY	XY-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
5Y	Y-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
6X	X-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
6XY	XY-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
6Y	Y-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
7X	X-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
7XY	XY-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
7Y	Y-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
8X	X-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
8XY	XY-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
8Y	Y-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
12X	X-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
12XY	XY-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
12Y	Y-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
13X	X-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
13XY	XY-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
13Y	Y-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
14X	X-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
14XY	XY-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
14Y	Y-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page 5 of 145
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

15X	X-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
15XY	XY-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
15Y	Y-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
16X	X-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
16XY	XY-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
16Y	Y-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
17X	X-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
17XY	XY-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
17Y	Y-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
18X	X-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
18XY	XY-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
18Y	Y-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
21X	X-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
21XY	XY-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
21Y	Y-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
22X	X-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
22XY	XY-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
22Y	Y-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
23X	X-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
23XY	XY-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
23Y	Y-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
24X	X-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
24XY	XY-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
24Y	Y-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
25X	X-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
25XY	XY-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
25Y	Y-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
26X	X-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
26XY	XY-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
26Y	Y-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
27X	X-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
27XY	XY-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
27Y	Y-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
28X	X-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
28XY	XY-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
28Y	Y-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
29X	X-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
29XY	XY-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
29Y	Y-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
30X	X-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
30XY	XY-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
30Y	Y-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
31X	X-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
31XY	XY-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
31Y	Y-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
33X	X-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
33XY	XY-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
33Y	Y-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
34X	X-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
34XY	XY-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
34Y	Y-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
35X	X-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
35XY	XY-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
35Y	Y-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
36X	X-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
36XY	XY-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36Y	Y-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
37X	X-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
37XY	XY-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
37Y	Y-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
38X	X-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
38XY	XY-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
38Y	Y-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
39X	X-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
39XY	XY-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
39Y	Y-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
40X	X-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
40XY	XY-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
40Y	Y-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
41X	X-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
41XY	XY-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
41Y	Y-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
42X	X-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
42XY	XY-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
42Y	Y-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free

Propiedades del acero:

Etiqueta del Acero	Mód. de Fluen. Elast. (MPa)	Esfzo de Ruptura Fu (MPa)	Esfzo de Ruptura Fu (MPa)	Todos los Elem Esfzo Hyp. 1 (MPa)	Todos los Elem Esfzo Hyp. 2 (MPa)	Elemto Rupt. Hyp. 1 (MPa)	Elemto Rupt. Hyp. 2 (MPa)	Elemto flex Hyp. 1 (MPa)	Elemto flex bearing Hyp. 2 (MPa)
A572-50	1.999e+005	344.7	448.2	0	0	0	0	0	0

Tornillos:

Etqta Tornillo	Diám. (cm)	Barreno (cm)	Cap al Corte (kN)	Dist. al Paño (cm)	Esp. entre Torn. (cm)	Cap. Corte Hyp. 1 (kN)	Cap. Corte Hyp. 2 (kN)
1/2 A394 TYPE0 X	1.27	1.429	30.92	0	0	0	0
5/8 A394 TYPE0 X	1.587	1.746	62.72	0	0	0	0
3/4 A394 TYPE0 X	1.905	2.064	90.08	0	0	0	0
7/8 A394 TYPE0 N	2.223	2.381	103	0	0	0	0

Number Bolts Used By Type:

Bolt Type	Number Bolts
5/8 A394 TYPE0 X	910
3/4 A394 TYPE0 X	428
7/8 A394 TYPE0 N	604
1/2 A394 TYPE0 X	136

Angle Properties:

Angle Type	Angle Size	Long Leg	Short Leg	Thick. Leg	Unit Weight	Gross Area	w/t Ratio	Radius of Gyration	Radius of Gyration	Radius of Gyration	Number of	Wind Width	Short Edge	Long Edge	Optimize Cost	Section Modulus

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

																Rx	Ry	Rz	Angles	Dist.	Dist.	Factor	
																(cm)	(cm)	(cm)		(cm)	(cm)		(cm^3)
																(cm)	(cm)	(cm)		(cm)	(cm)		(cm^3)
SAE	6X6X0.375	15	15	0.9525	2.2e+002	28.1	14	4.775	4.775	3.023	1	15	0	0	1.00	0							
SAE	5X5X0.375	13	13	0.9525	1.8e+002	23.3	11	3.962	3.962	2.515	1	13	0	0	1.00	0							
SAE	4X4X0.25	10	10	0.635		96	12.5	14	3.175	3.175	2.019	1	10	0	0	1.00	0						
SAE	3.5X3.5X0.25	8.9	8.9	0.635		85	10.9	12	2.769	2.769	1.763	1	8.9	0	0	1.00	0						
SAE	2.5X2.5X0.3125	6.3	6.3	0.7937		73	9.42	6	1.933	1.933	1.242	1	6.3	0	0	1.00	0						
SAE	2.5X2.5X0.25	6.3	6.3	0.635		60	7.68	7.8	1.953	1.953	1.247	1	6.3	0	0	1.00	0						
SAE	2.5X2.5X0.1875	6.3	6.3	0.4763		45	5.82	11	1.976	1.976	1.257	1	6.3	0	0	1.00	0						
SAE	2X2X0.1875	5.1	5.1	0.4763		36	4.58	8	1.567	1.567	1.001	1	5.1	0	0	1.00	0						
SAE	1.5X1.5X0.1875	3.8	3.8	0.4763		26	3.42	5	1.161	1.161	0.7442	1	3.8	0	0	1.00	0						
DAE	6X6X0.5	15	15	1.27	5.7e+002	74.2	10	4.724	6.706	4.724	2	15	0	0	1.00	0							
DAE	5X5X0.5	13	13	1.27	4.7e+002	61.3	8	3.912	5.69	3.912	2	13	0	0	1.00	0							
DAE	4X4X0.375	10	10	0.9525	2.9e+002	36.9	8.7	3.124	4.597	3.124	2	10	0	0	1.00	0							
DAE	4X4X0.3125	10	10	0.7937	2.4e+002	31	11	3.15	4.572	3.15	2	10	0	0	1.00	0							
DAE	4X4X0.25	10	10	0.635	1.9e+002	25	14	3.175	4.547	3.175	2	10	0	0	1.00	0							
DAE	3.5X3.5X0.25	8.9	8.9	0.635	1.7e+002	21.8	12	2.769	4.039	2.769	2	8.9	0	0	1.00	0							
DAE	2.5X2.5X0.25	6.3	6.3	0.635	1.2e+002	15.4	7.8	1.953	3.023	1.953	2	6.3	0	0	1.00	0							

Grupo de Angulos:

Etqta	Desc.	Tipo	Tam.	Mat.	Elemto	Gpo Tipo	Opt. Grupo	Permitir adicionar > perfil para opt. (cm)
0.000000	M1	DAE	2.5X2.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M2	DAE	2.5X2.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M3	DAE	3.5X3.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M4	DAE	4X4X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M5	DAE	4X4X0.375	A572-50	Beam	Leg	None	30.480000
0.000000	M6	DAE	4X4X0.375	A572-50	Beam	Leg	None	30.480000
0.000000	M7	DAE	4X4X0.3125	A572-50	Beam	Leg	None	30.480000
0.000000	M8	DAE	4X4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M9	DAE	4X4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M10	DAE	4X4X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M11	DAE	4X4X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M12	DAE	4X4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M13	DAE	5X5X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M14	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M15	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M16	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M17	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M18	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M19	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M20	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M21	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M22	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M23	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M24	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M25	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M26	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M27	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M28	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

0.000000	D1	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D2	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D3	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D4	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D5	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D6	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D7	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D8	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D9	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D10	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D11	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D12	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D13	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D14	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D15	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D16	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D17	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D18	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D19	SAE 2.5X2.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D20	SAE 2.5X2.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D21	SAE 2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D22	SAE 2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D23	SAE 2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D24	SAE 2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D25	SAE 2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D26	SAE 2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D27	SAE 2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D28	SAE 2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D29	SAE 2X2X0.1875	A572-50	Truss	None	0.000000
0.000000	D30	SAE 2X2X0.1875	A572-50	Truss	None	0.000000
0.000000	D31	SAE 2.5X2.5X0.3125	A572-50	Truss	None	0.000000
0.000000	D32	SAE 2.5X2.5X0.3125	A572-50	Truss	None	0.000000
0.000000	D33	SAE 2.5X2.5X0.3125	A572-50	Truss	None	0.000000
0.000000	D34	SAE 2.5X2.5X0.3125	A572-50	Truss	None	0.000000
0.000000	D35	SAE 2.5X2.5X0.3125	A572-50	Truss	None	0.000000
0.000000	D36	SAE 3.5X3.5X0.25	A572-50	Truss	None	0.000000
0.000000	D37	SAE 3.5X3.5X0.25	A572-50	Truss	None	0.000000
0.000000	D38	SAE 4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D39	SAE 4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D40	SAE 5X5X0.375	A572-50	Truss	None	0.000000
0.000000	H1	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H2	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H3	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H4	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H5	SAE 1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H6	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H7	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H8	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H9	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H10	SAE 2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H11	SAE 2.5X2.5X0.25	A572-50	Truss	None	30.480000
0.000000	H12	SAE 2.5X2.5X0.25	A572-50	Truss	None	30.480000
0.000000	H13	SAE 3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H14	SAE 3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H15	SAE 3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H16	SAE 3.5X3.5X0.25	A572-50	Truss	None	30.480000

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

0.000000	H17	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H18	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H19	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H20	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H21	SAE	5X5X0.375	A572-50	Truss	None	30.480000
0.000000	H22	SAE	5X5X0.375	A572-50	Truss	None	30.480000
0.000000	H23	SAE	5X5X0.375	A572-50	Truss	None	30.480000
0.000000	H24	SAE	6X6X0.375	A572-50	Truss	None	30.480000
0.000000	H25	SAE	6X6X0.375	A572-50	Truss	None	30.480000
0.000000	H26	SAE	6X6X0.375	A572-50	Truss	None	30.480000
0.000000	H27	SAE	6X6X0.375	A572-50	Truss	None	30.480000

Aggregate Angle Information:

Angle Type	Angle Size	Material Type	Total Length (m)	Total Surface Area (m^2)	Total Weight (N)
DAE	2.5X2.5X0.25	A572-50	42.84	10.88	5127.14
DAE	3.5X3.5X0.25	A572-50	20.00	7.11	3385.78
DAE	4X4X0.25	A572-50	14.28	5.80	2750.88
DAE	4X4X0.375	A572-50	87.09	35.39	24910.36
DAE	4X4X0.3125	A572-50	75.92	30.85	18170.69
DAE	5X5X0.5	A572-50	22.40	11.38	10591.66
DAE	6X6X0.5	A572-50	346.30	211.10	198111.11
SAE	1.5X1.5X0.1875	A572-50	201.82	30.76	5301.49
SAE	2X2X0.1875	A572-50	456.98	92.86	16272.69
SAE	2.5X2.5X0.1875	A572-50	450.59	114.45	20187.82
SAE	2.5X2.5X0.3125	A572-50	386.77	98.24	28222.65
SAE	3.5X3.5X0.25	A572-50	224.97	80.00	19042.90
SAE	4X4X0.25	A572-50	261.46	106.26	25183.48
SAE	5X5X0.375	A572-50	256.93	130.52	46119.77
SAE	2.5X2.5X0.25	A572-50	39.23	9.96	2347.45
SAE	6X6X0.375	A572-50	384.35	234.30	83576.81

Sections:

The adjustment factors below only apply to dead load and wind areas that are calculated for members in the model.
They do not apply to equipment or to manually input dead load and drag areas.

Section Label	Joint Defining Section Bottom	Dead Load Adjust. Factor	Transverse Drag x Area For Face	Longitudinal Drag x Area For Face	Transverse Area Factor (CD From Code)	Longitudinal Area Factor (CD From Code)	Af Factor For EIA Only	Flat Face For EIA Only	Ar Factor For EIA Only	Round Face For EIA Only	Transverse Drag x Area Factor For All	Longitudinal Drag x Area Factor For All	SAPS Drag x Area Factor	Angle Drag x Area Factor	SAPS Round Drag x Area Factor	Force Solid Face

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1	3S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
2	5S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
3	7S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
4	10P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
5	11P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
6	13S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
7	15S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
8	17S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
9	19P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
10	20P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
11	22S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
12	24S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
13	26S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
14	28S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
15	30S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
16	31S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
17	32P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
18	33S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
19	34S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
20	35S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
21	36S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
22	37S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
23	38S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
24	39S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
25	40S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
26	41S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
27	42S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
28	ANP	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None

Conectividad:

Etiqueta Coef. de Elemento Restr.	Etiqueta de Grupo	Etiqueta de la Sección	Código de Simetria	Unión de Origen	Unión Final	Cód. de Exc.	Cód. de Rest.	Relac. RLX	Relac. RLY	Relac. RLZ	Torn. Tipo	# Torn.	# Barr.	# Planos de Corte	Lado a Conec.	Dist. Corta al Paño (cm)	Dist. Larga al Paño (cm)	Dist. Final (cm)	Esp. / Torn. (cm)
0	1P	M1	XY-Symmetry	1P	2S	1	5	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0
0	1X	M1	X-GenXY	1X	2X	1	5	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0
0	1XY	M1	XY-GenXY	1XY	2XY	1	5	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0
0	1Y	M1	Y-GenXY	1Y	2Y	1	5	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0
0	2P	M1	XY-Symmetry	2S	3S	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0
0	2X	M1	X-GenXY	2X	3X	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0
0	2XY	M1	XY-GenXY	2XY	3XY	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0

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0	2Y	M1	Y-GenXY	2Y	3Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	3P	M2	XY-Symmetry	3S	4S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	3X	M2	X-GenXY	3X	4X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	3XY	M2	XY-GenXY	3XY	4XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	3Y	M2	Y-GenXY	3Y	4Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4P	M2	XY-Symmetry	4S	5S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4X	M2	X-GenXY	4X	5X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4XY	M2	XY-GenXY	4XY	5XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4Y	M2	Y-GenXY	4Y	5Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5P	M3	XY-Symmetry	5S	6S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5X	M3	X-GenXY	5X	6X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5XY	M3	XY-GenXY	5XY	6XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5Y	M3	Y-GenXY	5Y	6Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	6P	M3	XY-Symmetry	6S	7S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	6X	M3	X-GenXY	6X	7X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	6XY	M3	XY-GenXY	6XY	7XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	6Y	M3	Y-GenXY	6Y	7Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7P	M4	XY-Symmetry	7S	8S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7X	M4	X-GenXY	7X	8X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7XY	M4	XY-GenXY	7XY	8XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7Y	M4	Y-GenXY	7Y	8Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	8P	M4	XY-Symmetry	8S	10P	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	8X	M4	X-GenXY	8X	10X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	8XY	M4	XY-GenXY	8XY	10XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	8Y	M4	Y-GenXY	8Y	10Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	9P	M5	XY-Symmetry	10P	11P	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	9X	M5	X-GenXY	10X	11X	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	9XY	M5	XY-GenXY	10XY	11XY	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0

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0	9Y	M5	Y-GenXY	10Y	11Y	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	10P	M6	XY-Symmetry	11P	12S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	10X	M6	X-GenXY	11X	12X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	10XY	M6	XY-GenXY	11XY	12XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	10Y	M6	Y-GenXY	11Y	12Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	11P	M6	XY-Symmetry	12S	13S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	11X	M6	X-GenXY	12X	13X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	11XY	M6	XY-GenXY	12XY	13XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	11Y	M6	Y-GenXY	12Y	13Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	12P	M7	XY-Symmetry	13S	14S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	12X	M7	X-GenXY	13X	14X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	12XY	M7	XY-GenXY	13XY	14XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	12Y	M7	Y-GenXY	13Y	14Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	13P	M7	XY-Symmetry	14S	15S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	13X	M7	X-GenXY	14X	15X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	13XY	M7	XY-GenXY	14XY	15XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	13Y	M7	Y-GenXY	14Y	15Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	14P	M8	XY-Symmetry	15S	16S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	14X	M8	X-GenXY	15X	16X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	14XY	M8	XY-GenXY	15XY	16XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	14Y	M8	Y-GenXY	15Y	16Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15P	M8	XY-Symmetry	16S	17S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15X	M8	X-GenXY	16X	17X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15XY	M8	XY-GenXY	16XY	17XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15Y	M8	Y-GenXY	16Y	17Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	16P	M9	XY-Symmetry	17S	18S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	16X	M9	X-GenXY	17X	18X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	16XY	M9	XY-GenXY	17XY	18XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0

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0	16Y	M9	Y-GenXY	17Y	18Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	17P	M9	XY-Symmetry	18S	19P	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	17X	M9	X-GenXY	18X	19X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	17XY	M9	XY-GenXY	18XY	19XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	17Y	M9	Y-GenXY	18Y	19Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18P	M10	XY-Symmetry	19P	20P	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18X	M10	X-GenXY	19X	20X	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18XY	M10	XY-GenXY	19XY	20XY	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18Y	M10	Y-GenXY	19Y	20Y	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19P	M11	XY-Symmetry	20P	21S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19X	M11	X-GenXY	20X	21X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19XY	M11	XY-GenXY	20XY	21XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19Y	M11	Y-GenXY	20Y	21Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20P	M11	XY-Symmetry	21S	22S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20X	M11	X-GenXY	21X	22X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20XY	M11	XY-GenXY	21XY	22XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20Y	M11	Y-GenXY	21Y	22Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21P	M12	XY-Symmetry	22S	23S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21X	M12	X-GenXY	22X	23X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21XY	M12	XY-GenXY	22XY	23XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21Y	M12	Y-GenXY	22Y	23Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22P	M12	XY-Symmetry	23S	24S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22X	M12	X-GenXY	23X	24X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22XY	M12	XY-GenXY	23XY	24XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22Y	M12	Y-GenXY	23Y	24Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	23P	M13	XY-Symmetry	24S	25S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	23X	M13	X-GenXY	24X	25X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	23XY	M13	XY-GenXY	24XY	25XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0

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0	23Y	M13	Y-GenXY	24Y	25Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	24P	M13	XY-Symmetry	25S	26S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	24X	M13	X-GenXY	25X	26X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	24XY	M13	XY-GenXY	25XY	26XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	24Y	M13	Y-GenXY	25Y	26Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	25P	M14	XY-Symmetry	26S	27S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	25X	M14	X-GenXY	26X	27X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	25XY	M14	XY-GenXY	26XY	27XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	25Y	M14	Y-GenXY	26Y	27Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	26P	M14	XY-Symmetry	27S	28S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	26X	M14	X-GenXY	27X	28X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	26XY	M14	XY-GenXY	27XY	28XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	26Y	M14	Y-GenXY	27Y	28Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	27P	M15	XY-Symmetry	28S	29S	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	27X	M15	X-GenXY	28X	29X	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	27XY	M15	XY-GenXY	28XY	29XY	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	27Y	M15	Y-GenXY	28Y	29Y	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	28P	M15	XY-Symmetry	29S	30S	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	28X	M15	X-GenXY	29X	30X	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	28XY	M15	XY-GenXY	29XY	30XY	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	28Y	M15	Y-GenXY	29Y	30Y	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	29P	M16	XY-Symmetry	30S	31S	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	29X	M16	X-GenXY	30X	31X	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	29XY	M16	XY-GenXY	30XY	31XY	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	29Y	M16	Y-GenXY	30Y	31Y	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	30P	M17	XY-Symmetry	31S	32P	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	30X	M17	X-GenXY	31X	32X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	30XY	M17	XY-GenXY	31XY	32XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0

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0	30Y	M17	Y-GenXY	31Y	32Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	31P	M18	XY-Symmetry	32P	33S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	31X	M18	X-GenXY	32X	33X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	31XY	M18	XY-GenXY	32XY	33XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	31Y	M18	Y-GenXY	32Y	33Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	32P	M19	XY-Symmetry	33S	34S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	32X	M19	X-GenXY	33X	34X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	32XY	M19	XY-GenXY	33XY	34XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	32Y	M19	Y-GenXY	33Y	34Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	33P	M20	XY-Symmetry	34S	35S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	33X	M20	X-GenXY	34X	35X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	33XY	M20	XY-GenXY	34XY	35XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	33Y	M20	Y-GenXY	34Y	35Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	34P	M21	XY-Symmetry	35S	36S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	34X	M21	X-GenXY	35X	36X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	34XY	M21	XY-GenXY	35XY	36XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	34Y	M21	Y-GenXY	35Y	36Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	35P	M22	XY-Symmetry	36S	37S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	35X	M22	X-GenXY	36X	37X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	35XY	M22	XY-GenXY	36XY	37XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	35Y	M22	Y-GenXY	36Y	37Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	36P	M23	XY-Symmetry	37S	38S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	36X	M23	X-GenXY	37X	38X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	36XY	M23	XY-GenXY	37XY	38XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	36Y	M23	Y-GenXY	37Y	38Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	37P	M24	XY-Symmetry	38S	39S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	37X	M24	X-GenXY	38X	39X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	37XY	M24	XY-GenXY	38XY	39XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0

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0	37Y	M24	Y-GenXY	38Y	39Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	38P	M25	XY-Symmetry	39S	40S	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	38X	M25	X-GenXY	39X	40X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	38XY	M25	XY-GenXY	39XY	40XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	38Y	M25	Y-GenXY	39Y	40Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	39P	M26	XY-Symmetry	40S	41S	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	39X	M26	X-GenXY	40X	41X	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	39XY	M26	XY-GenXY	40XY	41XY	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	39Y	M26	Y-GenXY	40Y	41Y	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	40P	M27	XY-Symmetry	41S	42S	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	40X	M27	X-GenXY	41X	42X	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	40XY	M27	XY-GenXY	41XY	42XY	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	40Y	M27	Y-GenXY	41Y	42Y	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	41P	M28	XY-Symmetry	42S	ANP	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	11	2	2	Both	0	0	0	0
0	41X	M28	X-GenXY	42X	ANX	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	11	2	2	Both	0	0	0	0
0	41XY	M28	XY-GenXY	42XY	ANXY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	11	2	2	Both	0	0	0	0
0	41Y	M28	Y-GenXY	42Y	ANY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	11	2	2	Both	0	0	0	0
0	42P	D1	XY-Symmetry	1P	2X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	42X	D1	X-GenXY	1X	2S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	42XY	D1	XY-GenXY	1XY	2Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	42Y	D1	Y-GenXY	1Y	2XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	43P	D1	XY-Symmetry	1P	2Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	43X	D1	X-GenXY	1X	2XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	43XY	D1	XY-GenXY	1XY	2X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	43Y	D1	Y-GenXY	1Y	2S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	44P	D2	XY-Symmetry	2S	3X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	44X	D2	X-GenXY	2X	3S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	44XY	D2	XY-GenXY	2XY	3Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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0	44Y	D2	Y-GenXY	2Y	3XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	45P	D2	XY-Symmetry	2S	3Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	45X	D2	X-GenXY	2X	3XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	45XY	D2	XY-GenXY	2XY	3X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	45Y	D2	Y-GenXY	2Y	3S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	46P	D3	XY-Symmetry	3S	4X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	46X	D3	X-GenXY	3X	4S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	46XY	D3	XY-GenXY	3XY	4Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	46Y	D3	Y-GenXY	3Y	4XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47P	D3	XY-Symmetry	3S	4Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47X	D3	X-GenXY	3X	4XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47XY	D3	XY-GenXY	3XY	4X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47Y	D3	Y-GenXY	3Y	4S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48P	D4	XY-Symmetry	4S	5X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48X	D4	X-GenXY	4X	5S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48XY	D4	XY-GenXY	4XY	5Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48Y	D4	Y-GenXY	4Y	5XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49P	D4	XY-Symmetry	4S	5Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49X	D4	X-GenXY	4X	5XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49XY	D4	XY-GenXY	4XY	5X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49Y	D4	Y-GenXY	4Y	5S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50P	D5	XY-Symmetry	5S	6X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50X	D5	X-GenXY	5X	6S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50XY	D5	XY-GenXY	5XY	6Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50Y	D5	Y-GenXY	5Y	6XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51P	D5	XY-Symmetry	5S	6Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51X	D5	X-GenXY	5X	6XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51XY	D5	XY-GenXY	5XY	6X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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0	51Y	D5	Y-GenXY	5Y	6S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52P	D6	XY-Symmetry	6S	7X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52X	D6	X-GenXY	6X	7S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52XY	D6	XY-GenXY	6XY	7Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52Y	D6	Y-GenXY	6Y	7XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	53P	D6	XY-Symmetry	6S	7Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	53X	D6	X-GenXY	6X	7XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	53XY	D6	XY-GenXY	6XY	7X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	53Y	D6	Y-GenXY	6Y	7S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	54P	D7	XY-Symmetry	7S	8X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	54X	D7	X-GenXY	7X	8S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	54XY	D7	XY-GenXY	7XY	8Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	54Y	D7	Y-GenXY	7Y	8XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	55P	D7	XY-Symmetry	7S	8Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	55X	D7	X-GenXY	7X	8XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	55XY	D7	XY-GenXY	7XY	8X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	55Y	D7	Y-GenXY	7Y	8S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	56P	D8	XY-Symmetry	8S	10X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	56X	D8	X-GenXY	8X	10P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	56XY	D8	XY-GenXY	8XY	10Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	56Y	D8	Y-GenXY	8Y	10XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	57P	D8	XY-Symmetry	8S	10Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	57X	D8	X-GenXY	8X	10XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	57XY	D8	XY-GenXY	8XY	10X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	57Y	D8	Y-GenXY	8Y	10P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	58P	D9	XY-Symmetry	10P	11X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	58X	D9	X-GenXY	10X	11P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	58XY	D9	XY-GenXY	10XY	11Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

0	58Y	D9	Y-GenXY	10Y	11XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	59P	D9	XY-Symmetry	10P	11Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	59X	D9	X-GenXY	10X	11XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	59XY	D9	XY-GenXY	10XY	11X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	59Y	D9	Y-GenXY	10Y	11P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	60P	D10	XY-Symmetry	11P	12X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	60X	D10	X-GenXY	11X	12S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	60XY	D10	XY-GenXY	11XY	12Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	60Y	D10	Y-GenXY	11Y	12XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	61P	D10	XY-Symmetry	11P	12Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	61X	D10	X-GenXY	11X	12XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	61XY	D10	XY-GenXY	11XY	12X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	61Y	D10	Y-GenXY	11Y	12S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	62P	D11	XY-Symmetry	12S	13X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	62X	D11	X-GenXY	12X	13S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	62XY	D11	XY-GenXY	12XY	13Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	62Y	D11	Y-GenXY	12Y	13XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	63P	D11	XY-Symmetry	12S	13Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	63X	D11	X-GenXY	12X	13XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	63XY	D11	XY-GenXY	12XY	13X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	63Y	D11	Y-GenXY	12Y	13S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	64P	D12	XY-Symmetry	13S	14X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	64X	D12	X-GenXY	13X	14S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	64XY	D12	XY-GenXY	13XY	14Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	64Y	D12	Y-GenXY	13Y	14XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	65P	D12	XY-Symmetry	13S	14Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	65X	D12	X-GenXY	13X	14XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	65XY	D12	XY-GenXY	13XY	14X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	65Y	D12	Y-GenXY	13Y	14S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	66P	D13	XY-Symmetry	14S	15X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	66X	D13	X-GenXY	14X	15S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	66XY	D13	XY-GenXY	14XY	15Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	66Y	D13	Y-GenXY	14Y	15XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	67P	D13	XY-Symmetry	14S	15Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	67X	D13	X-GenXY	14X	15XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	67XY	D13	XY-GenXY	14XY	15X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	67Y	D13	Y-GenXY	14Y	15S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	68P	D14	XY-Symmetry	15S	16X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	68X	D14	X-GenXY	15X	16S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	68XY	D14	XY-GenXY	15XY	16Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	68Y	D14	Y-GenXY	15Y	16XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	69P	D14	XY-Symmetry	15S	16Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	69X	D14	X-GenXY	15X	16XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	69XY	D14	XY-GenXY	15XY	16X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	69Y	D14	Y-GenXY	15Y	16S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	70P	D15	XY-Symmetry	16S	17X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	70X	D15	X-GenXY	16X	17S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	70XY	D15	XY-GenXY	16XY	17Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	70Y	D15	Y-GenXY	16Y	17XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	71P	D15	XY-Symmetry	16S	17Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	71X	D15	X-GenXY	16X	17XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	71XY	D15	XY-GenXY	16XY	17X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	71Y	D15	Y-GenXY	16Y	17S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	72P	D16	XY-Symmetry	17S	18X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	72X	D16	X-GenXY	17X	18S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	72XY	D16	XY-GenXY	17XY	18Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	72Y	D16	Y-GenXY	17Y	18XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	73P	D16	XY-Symmetry	17S	18Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	73X	D16	X-GenXY	17X	18XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	73XY	D16	XY-GenXY	17XY	18X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	73Y	D16	Y-GenXY	17Y	18S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	74P	D17	XY-Symmetry	18S	19X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	74X	D17	X-GenXY	18X	19P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	74XY	D17	XY-GenXY	18XY	19Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	74Y	D17	Y-GenXY	18Y	19XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	75P	D17	XY-Symmetry	18S	19Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	75X	D17	X-GenXY	18X	19XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	75XY	D17	XY-GenXY	18XY	19X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	75Y	D17	Y-GenXY	18Y	19P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	76P	D18	XY-Symmetry	19P	20X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	76X	D18	X-GenXY	19X	20P	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	76XY	D18	XY-GenXY	19XY	20Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	76Y	D18	Y-GenXY	19Y	20XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	77P	D18	XY-Symmetry	19P	20Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	77X	D18	X-GenXY	19X	20XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	77XY	D18	XY-GenXY	19XY	20X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	77Y	D18	Y-GenXY	19Y	20P	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78P	D19	XY-Symmetry	20P	21X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78X	D19	X-GenXY	20X	21S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78XY	D19	XY-GenXY	20XY	21Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78Y	D19	Y-GenXY	20Y	21XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79P	D19	XY-Symmetry	20P	21Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79X	D19	X-GenXY	20X	21XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79XY	D19	XY-GenXY	20XY	21X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

0	79Y	D19	Y-GenXY	20Y	21S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80P	D20	XY-Symmetry	21S	22X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80X	D20	X-GenXY	21X	22S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80XY	D20	XY-GenXY	21XY	22Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80Y	D20	Y-GenXY	21Y	22XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81P	D20	XY-Symmetry	21S	22Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81X	D20	X-GenXY	21X	22XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81XY	D20	XY-GenXY	21XY	22X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81Y	D20	Y-GenXY	21Y	22S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82P	D21	XY-Symmetry	22S	23X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82X	D21	X-GenXY	22X	23S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82XY	D21	XY-GenXY	22XY	23Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82Y	D21	Y-GenXY	22Y	23XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83P	D21	XY-Symmetry	22S	23Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83X	D21	X-GenXY	22X	23XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83XY	D21	XY-GenXY	22XY	23X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83Y	D21	Y-GenXY	22Y	23S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84P	D22	XY-Symmetry	23S	24X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84X	D22	X-GenXY	23X	24S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84XY	D22	XY-GenXY	23XY	24Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84Y	D22	Y-GenXY	23Y	24XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85P	D22	XY-Symmetry	23S	24Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85X	D22	X-GenXY	23X	24XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85XY	D22	XY-GenXY	23XY	24X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85Y	D22	Y-GenXY	23Y	24S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86P	D23	XY-Symmetry	24S	25X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86X	D23	X-GenXY	24X	25S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86XY	D23	XY-GenXY	24XY	25Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	86Y	D23	Y-GenXY	24Y	25XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87P	D23	XY-Symmetry	24S	25Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87X	D23	X-GenXY	24X	25XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87XY	D23	XY-GenXY	24XY	25X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87Y	D23	Y-GenXY	24Y	25S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88P	D24	XY-Symmetry	25S	26X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88X	D24	X-GenXY	25X	26S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88XY	D24	XY-GenXY	25XY	26Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88Y	D24	Y-GenXY	25Y	26XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89P	D24	XY-Symmetry	25S	26Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89X	D24	X-GenXY	25X	26XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89XY	D24	XY-GenXY	25XY	26X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89Y	D24	Y-GenXY	25Y	26S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90P	D25	XY-Symmetry	26S	27X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90X	D25	X-GenXY	26X	27S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90XY	D25	XY-GenXY	26XY	27Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90Y	D25	Y-GenXY	26Y	27XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91P	D25	XY-Symmetry	26S	27Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91X	D25	X-GenXY	26X	27XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91XY	D25	XY-GenXY	26XY	27X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91Y	D25	Y-GenXY	26Y	27S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92P	D26	XY-Symmetry	27S	28X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92X	D26	X-GenXY	27X	28S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92XY	D26	XY-GenXY	27XY	28Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92Y	D26	Y-GenXY	27Y	28XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93P	D26	XY-Symmetry	27S	28Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93X	D26	X-GenXY	27X	28XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93XY	D26	XY-GenXY	27XY	28X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	93Y	D26	Y-GenXY	27Y	28S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94P	D27	XY-Symmetry	28S	29X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94X	D27	X-GenXY	28X	29S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94XY	D27	XY-GenXY	28XY	29Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94Y	D27	Y-GenXY	28Y	29XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95P	D27	XY-Symmetry	28S	29Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95X	D27	X-GenXY	28X	29XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95XY	D27	XY-GenXY	28XY	29X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95Y	D27	Y-GenXY	28Y	29S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96P	D28	XY-Symmetry	29S	30X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96X	D28	X-GenXY	29X	30S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96XY	D28	XY-GenXY	29XY	30Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96Y	D28	Y-GenXY	29Y	30XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97P	D28	XY-Symmetry	29S	30Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97X	D28	X-GenXY	29X	30XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97XY	D28	XY-GenXY	29XY	30X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97Y	D28	Y-GenXY	29Y	30S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98P	D29	XY-Symmetry	30S	31X	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98X	D29	X-GenXY	30X	31S	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98XY	D29	XY-GenXY	30XY	31Y	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98Y	D29	Y-GenXY	30Y	31XY	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99P	D29	XY-Symmetry	30S	31Y	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99X	D29	X-GenXY	30X	31XY	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99XY	D29	XY-GenXY	30XY	31X	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99Y	D29	Y-GenXY	30Y	31S	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	100P	D30	XY-Symmetry	31S	32X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	100X	D30	X-GenXY	31X	32P	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	100XY	D30	XY-GenXY	31XY	32Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	100Y	D30	Y-GenXY	31Y	32XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	101P	D30	XY-Symmetry	31S	32Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	101X	D30	X-GenXY	31X	32XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	101XY	D30	XY-GenXY	31XY	32X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	101Y	D30	Y-GenXY	31Y	32P	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	102P	D31	XY-Symmetry	32P	33X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	102X	D31	X-GenXY	32X	33S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	102XY	D31	XY-GenXY	32XY	33Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	102Y	D31	Y-GenXY	32Y	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	103P	D31	XY-Symmetry	32P	33Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	103X	D31	X-GenXY	32X	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	103XY	D31	XY-GenXY	32XY	33X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	103Y	D31	Y-GenXY	32Y	33S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104P	D32	XY-Symmetry	33S	34X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104X	D32	X-GenXY	33X	34S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104XY	D32	XY-GenXY	33XY	34Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104Y	D32	Y-GenXY	33Y	34XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105P	D32	XY-Symmetry	33S	34Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105X	D32	X-GenXY	33X	34XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105XY	D32	XY-GenXY	33XY	34X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105Y	D32	Y-GenXY	33Y	34S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106P	D33	XY-Symmetry	34S	35X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106X	D33	X-GenXY	34X	35S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106XY	D33	XY-GenXY	34XY	35Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106Y	D33	Y-GenXY	34Y	35XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107P	D33	XY-Symmetry	34S	35Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107X	D33	X-GenXY	34X	35XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107XY	D33	XY-GenXY	34XY	35X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	107Y	D33	Y-GenXY	34Y	35S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108P	D34	XY-Symmetry	35S	36X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108X	D34	X-GenXY	35X	36S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108XY	D34	XY-GenXY	35XY	36Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108Y	D34	Y-GenXY	35Y	36XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109P	D34	XY-Symmetry	35S	36Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109X	D34	X-GenXY	35X	36XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109XY	D34	XY-GenXY	35XY	36X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109Y	D34	Y-GenXY	35Y	36S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	110P	D35	None	36S	372S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	111P	D35	None	372S	36Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	112P	D35	None	36Y	373S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	113P	D35	None	373S	36XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	114P	D35	None	36XY	374S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	115P	D35	None	374S	36X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	116P	D35	None	36X	371S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	117P	D35	None	371S	36S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	118P	D36	None	38S	372S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	119P	D36	None	372S	38Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	120P	D36	None	38Y	373S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	121P	D36	None	373S	38XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	122P	D36	None	38XY	374S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	123P	D36	None	374S	38X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	124P	D36	None	38X	371S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	125P	D36	None	371S	38S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	126P	D37	None	38S	392S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	127P	D37	None	392S	38Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	128P	D37	None	38Y	393S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	129P	D37	None	393S	38XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	130P	D37	None	38XY	394S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	131P	D37	None	394S	38X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	132P	D37	None	38X	391S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	133P	D37	None	391S	38S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	134P	D38	None	40S	392S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	135P	D38	None	392S	40Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	136P	D38	None	40Y	393S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	137P	D38	None	393S	40XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	138P	D38	None	40XY	394S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	139P	D38	None	394S	40X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	140P	D38	None	40X	391S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	141P	D38	None	391S	40S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	142P	D39	None	40S	412S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	143P	D39	None	412S	40Y	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	144P	D39	None	40Y	413S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	145P	D39	None	413S	40XY	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	146P	D39	None	40XY	414S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	147P	D39	None	414S	40X	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	148P	D39	None	40X	411S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	149P	D39	None	411S	40S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	158P	D40	None	ANP	411S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	159P	D40	None	ANY	412S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	160P	D40	None	ANY	413S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	161P	D40	None	ANXY	413S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	162P	D40	None	ANXY	414S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	163P	D40	None	ANX	414S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	164P	D40	None	ANX	411S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0



0	165P	D40	None	ANP	412S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	166P	H1	Y-Symmetry	1P	1X	1	6	1	1	1 5/8 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	166Y	H1	Y-Gen	1Y	1XY	1	6	1	1	1 5/8 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	167P	H1	X-Symmetry	1P	1Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	167X	H1	X-Gen	1X	1XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1661P	H2	Y-Symmetry	3S	3X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1661Y	H2	Y-Gen	3Y	3XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1671P	H2	X-Symmetry	3S	3Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1671X	H2	X-Gen	3X	3XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1662P	H3	Y-Symmetry	5S	5X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1662Y	H3	Y-Gen	5Y	5XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1672P	H3	X-Symmetry	5S	5Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1672X	H3	X-Gen	5X	5XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1663P	H4	Y-Symmetry	7S	7X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1663Y	H4	Y-Gen	7Y	7XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1674P	H4	X-Symmetry	7S	7Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1674X	H4	X-Gen	7X	7XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	168P	H5	Y-Symmetry	10P	10X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	168Y	H5	Y-Gen	10Y	10XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	169P	H5	X-Symmetry	10P	10Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	169X	H5	X-Gen	10X	10XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	170P	H6	Y-Symmetry	11P	11X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	170Y	H6	Y-Gen	11Y	11XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	171P	H6	X-Symmetry	11P	11Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	171X	H6	X-Gen	11X	11XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1701P	H7	Y-Symmetry	13S	13X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1701Y	H7	Y-Gen	13Y	13XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1712P	H7	X-Symmetry	13S	13Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
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0	1712X	H7	X-Gen	13X	13XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1703P	H8	Y-Symmetry	15S	15X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1703Y	H8	Y-Gen	15Y	15XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1714P	H8	X-Symmetry	15S	15Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1714X	H8	X-Gen	15X	15XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1704P	H9	Y-Symmetry	17S	17X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1704Y	H9	Y-Gen	17Y	17XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1705P	H9	X-Symmetry	17S	17Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1705X	H9	X-Gen	17X	17XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	172P	H10	Y-Symmetry	19P	19X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	172Y	H10	Y-Gen	19Y	19XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1721P	H10	X-Symmetry	19P	19Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1721X	H10	X-Gen	19X	19XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1722P	H11	Y-Symmetry	20P	20X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1722Y	H11	Y-Gen	20Y	20XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1723P	H11	X-Symmetry	20P	20Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1723X	H11	X-Gen	20X	20XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17231P	H12	Y-Symmetry	22S	22X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17231Y	H12	Y-Gen	22Y	22XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17241P	H12	X-Symmetry	22S	22Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17241X	H12	X-Gen	22X	22XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17251P	H13	Y-Symmetry	24S	24X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17251Y	H13	Y-Gen	24Y	24XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1726P	H13	X-Symmetry	24S	24Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1726X	H13	X-Gen	24X	24XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17252P	H14	Y-Symmetry	26S	26X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17252Y	H14	Y-Gen	26Y	26XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17261P	H14	X-Symmetry	26S	26Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	17261X	H14	X-Gen	26X	26XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17253P	H15	Y-Symmetry	28S	28X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17253Y	H15	Y-Gen	28Y	28XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17262P	H15	X-Symmetry	28S	28Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17262X	H15	X-Gen	28X	28XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17254P	H16	Y-Symmetry	30S	30X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17254Y	H16	Y-Gen	30Y	30XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17263P	H16	X-Symmetry	30S	30Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17263X	H16	X-Gen	30X	30XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17255P	H17	Y-Symmetry	31S	31X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17255Y	H17	Y-Gen	31Y	31XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17264P	H17	X-Symmetry	31S	31Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17264X	H17	X-Gen	31X	31XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1724P	H18	Y-Symmetry	32P	32X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1724Y	H18	Y-Gen	32Y	32XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1725P	H18	X-Symmetry	32P	32Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1725X	H18	X-Gen	32X	32XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1728P	H19	Y-Symmetry	33S	33X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1728Y	H19	Y-Gen	33Y	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1727P	H19	X-Symmetry	33S	33Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1727X	H19	X-Gen	33X	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1729P	H20	Y-Symmetry	34S	34X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1729Y	H20	Y-Gen	34Y	34XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1720P	H20	X-Symmetry	34S	34Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1720X	H20	X-Gen	34X	34XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17291P	H21	Y-Symmetry	35S	35X	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17291Y	H21	Y-Gen	35Y	35XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17201P	H21	X-Symmetry	35S	35Y	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	17201X	H21	X-Gen	35X	35XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17292P	H22	Y-Symmetry	36S	36X	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17292Y	H22	Y-Gen	36Y	36XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17202P	H22	X-Symmetry	36S	36Y	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17202X	H22	X-Gen	36X	36XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	173P	H23	None	37S	372S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	174P	H23	None	372S	37Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	175P	H23	None	37Y	373S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	176P	H23	None	373S	37XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	177P	H23	None	37XY	374S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	178P	H23	None	374S	37X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	179P	H23	None	37X	371S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	180P	H23	None	371S	37S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17293P	H24	Y-Symmetry	38S	38X	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17293Y	H24	Y-Gen	38Y	38XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17203P	H24	X-Symmetry	38S	38Y	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17203X	H24	X-Gen	38X	38XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	181P	H25	None	39S	392S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	182P	H25	None	392S	39Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	183P	H25	None	39Y	393S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	184P	H25	None	393S	39XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	185P	H25	None	39XY	394S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	186P	H25	None	394S	39X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	187P	H25	None	39X	391S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	188P	H25	None	391S	39S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17294P	H26	Y-Symmetry	40S	40X	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17294Y	H26	Y-Gen	40Y	40XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17204P	H26	X-Symmetry	40S	40Y	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	17204X	H26	X-Gen	40X	40XY	1	6	0.25	0.25	0.25	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	189P	H27	None	41S	412S	1	6	0.5	0.25	0.25	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	190P	H27	None	412S	41Y	1	6	0.5	0.25	0.25	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	191P	H27	None	41Y	413S	1	6	0.5	0.25	0.25	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	192P	H27	None	413S	41XY	1	6	0.5	0.25	0.25	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	193P	H27	None	41XY	414S	1	6	0.5	0.25	0.25	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	194P	H27	None	414S	41X	1	6	0.5	0.25	0.25	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	195P	H27	None	41X	411S	1	6	0.5	0.25	0.25	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	196P	H27	None	411S	41S	1	6	0.5	0.25	0.25	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	205P	H26	None	411S	412S	1	6	0.5	0.5	0.5	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	206P	H27	None	412S	413S	1	6	0.5	0.5	0.5	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	207P	H27	None	413S	414S	1	6	0.5	0.5	0.5	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	208P	H27	None	414S	411S	1	6	0.5	0.5	0.5	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	209P	H27	None	391S	392S	1	6	0.5	0.5	0.5	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	210P	H27	None	392S	393S	1	6	0.5	0.5	0.5	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	211P	H27	None	393S	394S	1	6	0.5	0.5	0.5	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	212P	H27	None	394S	391S	1	6	0.5	0.5	0.5	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	213P	H27	None	371S	372S	1	6	0.5	0.5	0.5	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	214P	H27	None	372S	373S	1	6	0.5	0.5	0.5	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	215P	H27	None	373S	374S	1	6	0.5	0.5	0.5	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0
0	216P	H27	None	374S	371S	1	6	0.5	0.5	0.5	5/8 A394 TYPE0	X	2	1	1	Long only	0	0	0	0

Member Capacities and Overrides:

Member Label	Group Label	Design Comp. Capacity	Comp. Control Criterion	Design Tension Capacity	Tension Control Criterion	L/r	Length	L/r Comp. Capacity	Connection Shear Capacity	Connection Bearing Capacity	Net Section Tension Capacity	Rupture Tension Capacity	RTE End Dist. Tension Capacity	RTE Edge Dist. Tension Capacity	Override Comp. Capacity	Override Comp. Control Criterion	Override Tension Capacity	Override Tension Control Criterion	Override Face Member ship	Warnings or Errors
		(kN)		(kN)			(m)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)		(kN)			
1P	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000		Automatic	
1X	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000		Automatic	
1XY	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000		Automatic	
1Y	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000		Automatic	
2P	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000		Automatic	

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2X	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
2XY	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
2Y	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
3P	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
3X	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
3XY	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
3Y	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
4P	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
4X	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
4XY	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
4Y	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
5P	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
5X	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
5XY	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
5Y	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
6P	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
6X	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
6XY	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
6Y	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
7P	M4	408.498	L/r	511.224	Net Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
7X	M4	408.498	L/r	511.224	Net Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
7XY	M4	408.498	L/r	511.224	Net Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
7Y	M4	408.498	L/r	511.224	Net Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
8P	M4	325.275	Bearing	325.275	Bearing	25	1.57	419.569	376.319	325.275	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
8X	M4	325.275	Bearing	325.275	Bearing	25	1.57	419.569	376.319	325.275	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
8XY	M4	325.275	Bearing	325.275	Bearing	25	1.57	419.569	376.319	325.275	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
8Y	M4	325.275	Bearing	325.275	Bearing	25	1.57	419.569	376.319	325.275	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
9P	M5	376.319	Shear	376.319	Shear	33	4.10	681.890	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
9X	M5	376.319	Shear	376.319	Shear	33	4.10	681.890	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
9XY	M5	376.319	Shear	376.319	Shear	33	4.10	681.890	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
9Y	M5	376.319	Shear	376.319	Shear	33	4.10	681.890	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
10P	M6	376.319	Shear	376.319	Shear	46	2.89	634.163	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
10X	M6	376.319	Shear	376.319	Shear	46	2.89	634.163	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
10XY	M6	376.319	Shear	376.319	Shear	46	2.89	634.163	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
10Y	M6	376.319	Shear	376.319	Shear	46	2.89	634.163	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
11P	M6	627.199	Shear	627.199	Shear	40	2.50	657.230	627.199	813.188	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
11X	M6	627.199	Shear	627.199	Shear	40	2.50	657.230	627.199	813.188	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
11XY	M6	627.199	Shear	627.199	Shear	40	2.50	657.230	627.199	813.188	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
11Y	M6	627.199	Shear	627.199	Shear	40	2.50	657.230	627.199	813.188	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
12P	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
12X	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
12XY	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
12Y	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
13P	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
13X	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
13XY	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
13Y	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
14P	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
14X	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
14XY	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
14Y	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
15P	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
15X	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
15XY	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
15Y	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
16P	M9	575.075	L/r	620.508	Net Sect	32	2.00	575.075	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

16X	M9	575.075	L/r	620.508	Net	Sect	32	2.00	575.075	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
16XY	M9	575.075	L/r	620.508	Net	Sect	32	2.00	575.075	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
16Y	M9	575.075	L/r	620.508	Net	Sect	32	2.00	575.075	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
17P	M9	592.276	L/r	620.508	Net	Sect	25	1.58	592.276	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
17X	M9	592.276	L/r	620.508	Net	Sect	25	1.58	592.276	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
17XY	M9	592.276	L/r	620.508	Net	Sect	25	1.58	592.276	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
17Y	M9	592.276	L/r	620.508	Net	Sect	25	1.58	592.276	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
18P	M10	605.559	L/r	738.828	Net	Sect	53	6.68	605.559	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
18X	M10	605.559	L/r	738.828	Net	Sect	53	6.68	605.559	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
18XY	M10	605.559	L/r	738.828	Net	Sect	53	6.68	605.559	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
18Y	M10	605.559	L/r	738.828	Net	Sect	53	6.68	605.559	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
19P	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
19X	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
19XY	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
19Y	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
20P	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
20X	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
20XY	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
20Y	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
21P	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
21X	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
21XY	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
21Y	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
22P	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
22X	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
22XY	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
22Y	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
23P	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
23X	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
23XY	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
23Y	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
24P	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
24X	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
24XY	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
24Y	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
25P	M14	1391.298	L/r	1534.633	Net	Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
25X	M14	1391.298	L/r	1534.633	Net	Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
25XY	M14	1391.298	L/r	1534.633	Net	Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
25Y	M14	1391.298	L/r	1534.633	Net	Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
26P	M14	1391.298	L/r	1534.633	Net	Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
26X	M14	1391.298	L/r	1534.633	Net	Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
26XY	M14	1391.298	L/r	1534.633	Net	Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
26Y	M14	1391.298	L/r	1534.633	Net	Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
27P	M15	1394.615	L/r	1526.987	Net	Sect	29	2.75	1394.615	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
27X	M15	1394.615	L/r	1526.987	Net	Sect	29	2.75	1394.615	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
27XY	M15	1394.615	L/r	1526.987	Net	Sect	29	2.75	1394.615	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
27Y	M15	1394.615	L/r	1526.987	Net	Sect	29	2.75	1394.615	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
28P	M15	1394.615	L/r	1526.987	Net	Sect	29	2.75	1394.615	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
28X	M15	1394.615	L/r	1526.987	Net	Sect	29	2.75	1394.615	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
28XY	M15	1394.615	L/r	1526.987	Net	Sect	29	2.75	1394.615	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
28Y	M15	1394.615	L/r	1526.987	Net	Sect	29	2.75	1394.615	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
29P	M16	1397.906	L/r	1526.987	Net	Sect	29	2.70	1397.906	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
29X	M16	1397.906	L/r	1526.987	Net	Sect	29	2.70	1397.906	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
29XY	M16	1397.906	L/r	1526.987	Net	Sect	29	2.70	1397.906	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
29Y	M16	1397.906	L/r	1526.987	Net	Sect	29	2.70	1397.906	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
30P	M17	1388.794	L/r	1526.987	Net	Sect	30	5.67	1388.794	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic





INSTATEL COLOMBIA CI
LTDA
Carrera 124 No. 17-98
Fontibón - Bogotá - Phone: (57) 5470790

Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL
Project	TORRE CUADRADA AUTOSOPORTADA DE 150m
Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA

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Designed by	Leopoldo Barrera

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Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL
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72X	D16	24.273	L/r	30.915	Shear	152	3.03	24.273	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
72XY	D16	24.273	L/r	30.915	Shear	152	3.03	24.273	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
72Y	D16	24.273	L/r	30.915	Shear	152	3.03	24.273	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
73P	D16	24.273	L/r	30.915	Shear	152	3.03	24.273	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
73X	D16	24.273	L/r	30.915	Shear	152	3.03	24.273	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
73XY	D16	24.273	L/r	30.915	Shear	152	3.03	24.273	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
73Y	D16	24.273	L/r	30.915	Shear	152	3.03	24.273	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
74P	D17	27.301	L/r	30.915	Shear	139	2.77	27.301	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
74X	D17	27.301	L/r	30.915	Shear	139	2.77	27.301	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
74XY	D17	27.301	L/r	30.915	Shear	139	2.77	27.301	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
74Y	D17	27.301	L/r	30.915	Shear	139	2.77	27.301	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
75P	D17	27.301	L/r	30.915	Shear	139	2.77	27.301	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
75X	D17	27.301	L/r	30.915	Shear	139	2.77	27.301	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
75XY	D17	27.301	L/r	30.915	Shear	139	2.77	27.301	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
75Y	D17	27.301	L/r	30.915	Shear	139	2.77	27.301	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
76P	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
76X	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
76XY	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
76Y	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
77P	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
77X	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
77XY	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
77Y	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
78P	D19	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000		

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100X	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
100XY	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
100Y	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
101P	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
101X	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
101XY	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
101Y	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
102P	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
102X	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
102XY	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
102Y	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
103P	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
103X	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
103XY	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
103Y	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
104P	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
104X	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
104XY	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
104Y	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
105P	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
105X	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
105XY	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
105Y	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
106P	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
106X	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
106XY	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
106Y	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
107P	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
107X	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
107XY	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
107Y	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
108P	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
108X	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
108XY	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
108Y	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
109P	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
109X	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
109XY	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
109Y	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
110P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
111P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
112P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
113P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
114P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
115P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
116P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
117P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
118P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
119P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
120P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
121P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
122P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
123P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
124P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
125P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
126P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	41 of 145
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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

127P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
128P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
129P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
130P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
131P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
132P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
133P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
134P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
135P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
136P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
137P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
138P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
139P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
140P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
141P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
142P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
143P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
144P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
145P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
146P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
147P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
148P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
149P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
158P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
159P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
160P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
161P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
162P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
163P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
164P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
165P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
166P	H1	14.917	L/r	40.659	Bearing	175	1.30	14.917	62.720	40.659	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
166Y	H1	14.917	L/r	40.659	Bearing	175	1.30	14.917	62.720	40.659	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
167P	H1	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
167X	H1	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1661P	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1661Y	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1671P	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1671X	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1662P	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1662Y	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1672P	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1672X	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1663P	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1663Y	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1674P	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1674X	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
168P	H5	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
168Y	H5	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
169P	H5	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
169X	H5	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
170P	H6	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
170Y	H6	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
171P	H6	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
171X	H6	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1701P	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	42 of 145
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

1701Y	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1712P	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1712X	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1703P	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1703Y	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1714P	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1714X	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1704P	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1704Y	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1705P	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1705X	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
172P	H10	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
172Y	H10	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1721P	H10	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1721X	H10	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1722P	H11	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
1722Y	H11	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
1723P	H11	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
1723X	H11	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17231P	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17231Y	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17241P	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17241X	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17251P	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17251Y	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
1726P	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
1726X	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17252P	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17252Y	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17261P	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17261X	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17253P	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17253Y	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17262P	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17262X	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17254P	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17254Y	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17263P	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17263X	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17255P	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17255Y	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17264P	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17264X	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1724P	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1724Y	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1725P	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1725X	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1728P	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1728Y	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1727P	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1727X	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1729P	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1729Y	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1720P	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1720X	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17291P	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

17291Y	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17201P	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17201X	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17292P	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17292Y	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17202P	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17202X	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
173P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
174P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
175P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
176P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
177P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
178P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
179P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
180P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17293P	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17293Y	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17203P	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17203X	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
181P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
182P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
183P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
184P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
185P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
186P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
187P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
188P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17294P	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17294Y	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17204P	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17204X	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
189P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
190P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
191P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
192P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
193P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
194P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
195P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
196P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
205P	H26	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
206P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
207P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
208P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
209P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
210P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
211P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
212P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
213P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
214P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
215P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
216P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic

Section Joint Information:

Section Joint Joint
Label Label Elevation

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page 44 of 145
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	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

(m)		

1	1P	150.911
1	2S	147.700
1	1X	150.911
1	2X	147.700
1	1XY	150.911
1	2XY	147.700
1	1Y	150.911
1	2Y	147.700
1	3S	145.200
1	3X	145.200
1	3XY	145.200
1	3Y	145.200
2	3S	145.200
2	4S	142.700
2	3X	145.200
2	4X	142.700
2	3XY	145.200
2	4XY	142.700
2	3Y	145.200
2	4Y	142.700
2	5S	140.200
2	5X	140.200
2	5XY	140.200
2	5Y	140.200
3	5S	140.200
3	6S	137.700
3	5X	140.200
3	6X	137.700
3	5XY	140.200
3	6XY	137.700
3	5Y	140.200
3	6Y	137.700
3	7S	135.200
3	7X	135.200
3	7XY	135.200
3	7Y	135.200
4	7S	135.200
4	8S	133.200
4	7X	135.200
4	8X	133.200
4	7XY	135.200
4	8XY	133.200
4	7Y	135.200
4	8Y	133.200
4	10P	131.630
4	10X	131.630
4	10XY	131.630
4	10Y	131.630
5	10P	131.630
5	11P	127.590
5	10X	131.630
5	11X	127.590
5	10XY	131.630
5	11XY	127.590

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

5 10Y 131.630
5 11Y 127.590
6 11P 127.590
6 12S 124.700
6 11X 127.590
6 12X 124.700
6 11XY 127.590
6 12XY 124.700
6 11Y 127.590
6 12Y 124.700
6 13S 122.200
6 13X 122.200
6 13XY 122.200
6 13Y 122.200
7 13S 122.200
7 14S 119.700
7 13X 122.200
7 14X 119.700
7 13XY 122.200
7 14XY 119.700
7 13Y 122.200
7 14Y 119.700
7 15S 117.200
7 15X 117.200
7 15XY 117.200
7 15Y 117.200
8 15S 117.200
8 16S 114.700
8 15X 117.200
8 16X 114.700
8 15XY 117.200
8 16XY 114.700
8 15Y 117.200
8 16Y 114.700
8 17S 112.200
8 17X 112.200
8 17XY 112.200
8 17Y 112.200
9 17S 112.200
9 18S 110.200
9 17X 112.200
9 18X 110.200
9 17XY 112.200
9 18XY 110.200
9 17Y 112.200
9 18Y 110.200
9 19P 108.620
9 19X 108.620
9 19XY 108.620
9 19Y 108.620
10 19P 108.620
10 20P 102.200
10 19X 108.620
10 20X 102.200
10 19XY 108.620
10 20XY 102.200

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10	19Y	108.620
10	20Y	102.200
11	20P	102.200
11	21S	99.400
11	20X	102.200
11	21X	99.400
11	20XY	102.200
11	21XY	99.400
11	20Y	102.200
11	21Y	99.400
11	22S	96.600
11	22X	96.600
11	22XY	96.600
11	22Y	96.600
12	22S	96.600
12	23S	93.900
12	22X	96.600
12	23X	93.900
12	22XY	96.600
12	23XY	93.900
12	22Y	96.600
12	23Y	93.900
12	24S	91.200
12	24X	91.200
12	24XY	91.200
12	24Y	91.200
13	24S	91.200
13	25S	88.400
13	24X	91.200
13	25X	88.400
13	24XY	91.200
13	25XY	88.400
13	24Y	91.200
13	25Y	88.400
13	26S	85.600
13	26X	85.600
13	26XY	85.600
13	26Y	85.600
14	26S	85.600
14	27S	82.800
14	26X	85.600
14	27X	82.800
14	26XY	85.600
14	27XY	82.800
14	26Y	85.600
14	27Y	82.800
14	28S	80.000
14	28X	80.000
14	28XY	80.000
14	28Y	80.000
15	28S	80.000
15	29S	77.250
15	28X	80.000
15	29X	77.250
15	28XY	80.000
15	29XY	77.250

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15 28Y 80.000
15 29Y 77.250
15 30S 74.500
15 30X 74.500
15 30XY 74.500
15 30Y 74.500
16 30S 74.500
16 31S 71.800
16 30X 74.500
16 31X 71.800
16 30XY 74.500
16 31XY 71.800
16 30Y 74.500
16 31Y 71.800
17 31S 71.800
17 32P 66.125
17 31X 71.800
17 32X 66.125
17 31XY 71.800
17 32XY 66.125
17 31Y 71.800
17 32Y 66.125
18 32P 66.125
18 33S 59.800
18 32X 66.125
18 33X 59.800
18 32XY 66.125
18 33XY 59.800
18 32Y 66.125
18 33Y 59.800
19 33S 59.800
19 34S 53.800
19 33X 59.800
19 34X 53.800
19 33XY 59.800
19 34XY 53.800
19 33Y 59.800
19 34Y 53.800
20 34S 53.800
20 35S 47.800
20 34X 53.800
20 35X 47.800
20 34XY 53.800
20 35XY 47.800
20 34Y 53.800
20 35Y 47.800
21 35S 47.800
21 36S 41.800
21 35X 47.800
21 36X 41.800
21 35XY 47.800
21 36XY 41.800
21 35Y 47.800
21 36Y 41.800
22 36S 41.800
22 37S 35.800

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	48 of 145
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

22 36X 41.800
22 37X 35.800
22 36XY 41.800
22 37XY 35.800
22 36Y 41.800
22 37Y 35.800
22 372S 35.800
22 373S 35.800
22 374S 35.800
22 371S 35.800
23 37S 35.800
23 38S 29.800
23 37X 35.800
23 38X 29.800
23 37XY 35.800
23 38XY 29.800
23 37Y 35.800
23 38Y 29.800
23 372S 35.800
23 373S 35.800
23 374S 35.800
23 371S 35.800
24 38S 29.800
24 39S 23.800
24 38X 29.800
24 39X 23.800
24 38XY 29.800
24 39XY 23.800
24 38Y 29.800
24 39Y 23.800
24 392S 23.800
24 393S 23.800
24 394S 23.800
24 391S 23.800
25 39S 23.800
25 40S 17.800
25 39X 23.800
25 40X 17.800
25 39XY 23.800
25 40XY 17.800
25 39Y 23.800
25 40Y 17.800
25 392S 23.800
25 393S 23.800
25 394S 23.800
25 391S 23.800
26 40S 17.800
26 41S 11.800
26 40X 17.800
26 41X 11.800
26 40XY 17.800
26 41XY 11.800
26 40Y 17.800
26 41Y 11.800
26 412S 11.800
26 413S 11.800

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page 49 of 145
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

26 414S 11.800
26 411S 11.800
27 41S 11.800
27 42S 5.800
27 41X 11.800
27 42X 5.800
27 41XY 11.800
27 42XY 5.800
27 41Y 11.800
27 42Y 5.800
28 42S 5.800
28 ANP 0.000
28 42X 5.800
28 ANX 0.000
28 42XY 5.800
28 ANXY 0.000
28 42Y 5.800
28 ANY 0.000
28 411S 11.800
28 412S 11.800
28 413S 11.800
28 414S 11.800

EIA Sections Information:

Section Label	Top Z (m)	Bottom Z (m)	Joint Count	Member Count	Top Width (m)	Bottom Width (m)	Gross Area (m^2)	Face Adjust Factor	Face Adjust Factor	Dead Load
1	150.911	145.200	12	32	1.30	1.30	7.42	1.0000	1.0000	1.000
2	145.200	140.200	12	28	1.30	1.30	6.50	1.0000	1.0000	1.000
3	140.200	135.200	12	28	1.30	1.30	6.50	1.0000	1.0000	1.000
4	135.200	131.630	12	28	1.30	1.30	4.64	1.0000	1.0000	1.000
5	131.630	127.590	8	16	1.30	2.28	7.23	1.0000	1.0000	1.000
6	127.590	122.200	12	28	2.28	2.28	12.29	1.0000	1.0000	1.000
7	122.200	117.200	12	28	2.28	2.28	11.40	1.0000	1.0000	1.000
8	117.200	112.200	12	28	2.28	2.28	11.40	1.0000	1.0000	1.000
9	112.200	108.620	12	28	2.28	2.28	8.16	1.0000	1.0000	1.000
10	108.620	102.200	8	16	2.28	4.90	23.06	1.0000	1.0000	1.000
11	102.200	96.600	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
12	96.600	91.200	12	28	4.90	4.90	26.48	1.0000	1.0000	1.000
13	91.200	85.600	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
14	85.600	80.000	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
15	80.000	74.500	12	28	4.90	4.90	26.97	1.0000	1.0000	1.000
16	74.500	71.800	8	16	4.90	4.90	13.24	1.0000	1.0000	1.000
17	71.800	66.125	8	16	4.90	4.90	27.83	1.0000	1.0000	1.000
18	66.125	59.800	8	16	4.90	6.45	35.89	1.0000	1.0000	1.000
19	59.800	53.800	8	16	6.45	7.91	43.06	1.0000	1.0000	1.000
20	53.800	47.800	8	16	7.91	9.37	51.83	1.0000	1.0000	1.000
21	47.800	41.800	8	16	9.37	10.83	60.61	1.0000	1.0000	1.000
22	41.800	35.800	12	24	10.83	12.29	69.38	1.0000	1.0000	1.000
23	35.800	29.800	12	16	12.29	13.76	78.16	1.0000	1.0000	1.000
24	29.800	23.800	12	24	13.76	15.22	86.93	1.0000	1.0000	1.000
25	23.800	17.800	12	16	15.22	16.68	95.70	1.0000	1.0000	1.000
26	17.800	11.800	12	24	16.68	18.14	104.48	1.0000	1.0000	1.000
27	11.800	5.800	8	4	18.14	19.61	113.25	1.0000	1.0000	1.000

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	Project	Date
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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

285.8000.000121219.6121.02117.821.00001.00001.000

Linear Appurtenances:

Description	From	To	Quantity	Shape	Width or Diameter (cm)	Perimeter (cm)	Unit Weight (N/m)	In Face Zone	Include in Wind Load
ESCALERA DE ACCESO	0	150	2	Flat	5.1	10.2	300	No	Yes
CABLES GUIA DE ONDA	0	150	8	Round	4.13	12.97	19.7	No	Yes

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	Project	Date
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	Client	Designed by
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*** Datos de las cargas

Structure Height Summary (used for calculating wind/ice adjust with height):

Structure height above ground 150.91 (m)
Elevation of structure bottom for wind height adjustment: 0.00 (m)

Structure height for structure gust response factor: 150.91 (m)
Structure gust response factor, Gh: 1.0575
Guy installation temperature: 22.00 (deg C)
Tower Type: Rectangular Latticed

EIA Rev. F Load Cases:

Load Case Description	Dead Load Factor	Wind Load Factor	Ice Load Factor	Strength Factor	Allowable Stress Increase Factor	Basic Wind Speed (m/s)	Wind Dir. (Deg)	Ice Thick. (cm)	Ice Density (N/m^3)	Ice Temperature (deg C)	Point Loads	Joint Displ.
LC1 WIND 0° C.D.	1.9500	1.3000	1.0000	1.0000	1.3300	33.330	0	0.0000	0.0000	14.000	61 loads	
LC2 WIND 45° C.D.	1.9500	1.3000	1.0000	1.0000	1.3300	33.330	45	0.0000	0.0000	14.000	61 loads	
LC3 WIND 0° C.T.	1.5000	1.0000	1.0000	1.0000	1.0000	33.330	0	0.0000	0.0000	14.000	61 loads	
LC4 WIND 45° C.T.	1.5000	1.0000	1.0000	1.0000	1.0000	33.330	45	0.0000	0.0000	14.000	61 loads	
LC5 WIND 0° DEFLEX	1.5000	1.0000	1.0000	1.0000	1.0000	16.670	0	0.0000	0.0000	14.000	61 loads	
LC6 WIND 45° DEFLEX	1.5000	1.0000	1.0000	1.0000	1.0000	16.670	45	0.0000	0.0000	14.000	61 loads	

Concentrated Loads for Load Case "LC1 WIND 0° C.D.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	1162	0	1794	0	0	0	
1P	1162	0	1794	0	0	0	
1XY	1162	0	1794	0	0	0	
2X	1162	0	1794	0	0	0	
2S	1162	0	1794	0	0	0	
2XY	1162	0	1794	0	0	0	
4X	1162	0	1794	0	0	0	
4S	1162	0	1794	0	0	0	
4XY	1162	0	1794	0	0	0	
5X	1162	0	1794	0	0	0	
5XY	1162	0	1794	0	0	0	
6X	1162	0	1794	0	0	0	
6XY	1162	0	1794	0	0	0	
8X	1162	0	1794	0	0	0	
8XY	1162	0	1794	0	0	0	
10XY	1162	0	1794	0	0	0	
11P	5249	0	4368	0	0	0	
11XY	5249	0	4368	0	0	0	
11P	5249	0	4368	0	0	0	
11XY	5249	0	4368	0	0	0	
12S	5249	0	4368	0	0	0	
12XY	5249	0	4368	0	0	0	
13XY	5249	0	4368	0	0	0	
14XY	5249	0	4368	0	0	0	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page	52 of 145
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

14X	580	0	1014	0	0	0
14S	580	0	1014	0	0	0
14Y	580	0	1014	0	0	0
15X	580	0	1014	0	0	0
15S	580	0	1014	0	0	0
15Y	580	0	1014	0	0	0
17X	580	0	1014	0	0	0
17S	580	0	1014	0	0	0
17Y	580	0	1014	0	0	0
18X	580	0	1014	0	0	0
18S	580	0	1014	0	0	0
18Y	580	0	1014	0	0	0
20X	580	0	1014	0	0	0
20P	580	0	1014	0	0	0
22S	4679	0	2340	0	0	0
22XY	2340	0	1170	0	0	0
23S	4679	0	2340	0	0	0
31XY	267	0	325	0	0	0
29S	267	0	325	0	0	0
31Y	267	0	325	0	0	0
38Y	267	0	325	0	0	0
35Y	4594	0	1430	0	0	0
36XY	1682	1	761	0	0	0
35S	13256	0	6643	0	0	0
36X	3314	0	3029	0	0	0
36S	13256	0	6643	0	0	0
37X	1473	0	2392	0	0	0
39Y	1473	0	2392	0	0	0
40Y	3314	0	3029	0	0	0
40S	5892	0	3861	0	0	0
40X	6627	0	6058	0	0	0
41S	5892	0	3861	0	0	0
41X	1473	0	2392	0	0	0
1X	0	0	1300	0	0	0
1P	0	0	1300	0	0	0
1Y	0	0	1300	0	0	0
1XY	0	0	1300	0	0	0

EIA Section Load Case Information for "LC1 WIND 0° C.D.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	Elev. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20		148.06	2018.54	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	8121	0.49	2.00	1.59	1.20	1.90	5818	13939	15529
2	145.20	140.20		142.70	1997.41	0.00	1.11	0.00	0.00	6.5	0.17	1.00	1.00	0.58	3.11	1.1	6912	0.51	2.00	1.65	1.20	1.98	5997	12909	14630
3	140.20	135.20		137.70	1977.15	0.00	1.37	0.00	0.00	6.5	0.21	1.00	1.00	0.59	2.94	1.4	7940	0.51	2.00	1.65	1.20	1.98	5936	13876	16565
4	135.20	131.63		133.41	1959.38	0.00	1.11	0.00	0.00	4.6	0.24	1.00	1.00	0.60	2.82	1.1	6136	0.36	2.00	1.18	1.20	1.42	4200	10336	12717
5	131.63	127.59		129.61	1943.24	0.00	1.40	0.00	0.00	7.2	0.19	1.00	1.00	0.59	3.01	1.4	8184	0.41	2.00	1.33	1.20	1.60	4714	12899	18217
6	127.59	122.20		124.90	1922.78	0.00	1.93	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.17	1.9	11766	0.55	2.00	1.78	1.20	2.14	6223	17989	24546
7	122.20	117.20		119.70	1899.58	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	10922	0.51	2.00	1.65	1.20	1.98	5703	16625	21113
8	117.20	112.20		114.70	1876.56	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	10790	0.51	2.00	1.65	1.20	1.98	5634	16424	21113
9	112.20	108.62		110.41	1856.24	0.00	1.43	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.09	1.4	8214	0.37	2.00	1.18	1.20	1.42	3990	12204	15831
10	108.62	102.20		105.41	1831.82	0.00	2.43	0.00	0.00	23.1	0.11	1.00	1.00	0.58	3.42	2.4	15228	0.65	2.00	2.12	1.20	2.55	7062	22290	30834
11	102.20	96.60		99.40	1801.35	0.00	2.88	0.00	0.00	27.5	0.11	1.00	1.00	0.58	3.42	2.9	17789	0.57	2.00	1.85	1.20	2.22	6057	23846	30950
12	96.60	91.20		93.90	1772.29	0.00	2.96	0.00	0.00	26.5	0.11	1.00	1.00	0.58	3.39	3.0	17762	0.55	2.00	1.78	1.20	2.14	5747	23509	29122

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

13	91.20	85.60	88.40	1741.99	0.00	3.29	0.00	0.00	27.5	0.12	1.00	1.00	0.58	3.35	3.3	19216	0.57	2.00	1.85	1.20	2.22	5858	25074	40058
14	85.60	80.00	82.80	1709.72	0.00	3.58	0.00	0.00	27.5	0.13	1.00	1.00	0.58	3.30	3.6	20179	0.57	2.00	1.85	1.20	2.22	5749	25928	44393
15	80.00	74.50	77.25	1676.16	0.00	3.54	0.00	0.00	27.0	0.13	1.00	1.00	0.58	3.29	3.5	19551	0.56	2.00	1.82	1.20	2.18	5536	25086	43765
16	74.50	71.80	73.15	1650.25	0.00	1.89	0.00	0.00	13.2	0.14	1.00	1.00	0.58	3.24	1.9	10103	0.28	2.00	0.89	1.20	1.07	2676	12779	22831
17	71.80	66.13	68.96	1622.69	0.00	2.99	0.00	0.00	27.8	0.11	1.00	1.00	0.58	3.41	3.0	16556	0.58	2.00	1.88	1.20	2.25	5530	22086	41558
18	66.13	59.80	62.96	1581.03	0.00	3.69	0.00	0.00	35.9	0.10	1.00	1.00	0.58	3.44	3.7	20066	0.65	2.00	2.09	1.20	2.51	6005	26071	52539
19	59.80	53.80	56.80	1535.18	0.00	3.85	0.00	0.00	43.1	0.09	1.00	1.00	0.57	3.50	3.9	20717	0.61	2.00	1.98	1.20	2.38	5531	26248	52654
20	53.80	47.80	50.80	1486.98	0.00	4.38	0.00	0.00	51.8	0.08	1.00	1.00	0.57	3.53	4.4	23013	0.61	2.00	1.98	1.20	2.38	5357	28370	61154
21	47.80	41.80	44.80	1434.53	0.00	4.73	0.00	0.00	60.6	0.08	1.00	1.00	0.57	3.56	4.7	24166	0.61	2.00	1.98	1.20	2.38	5168	29335	64599
22	41.80	35.80	38.80	1376.79	0.00	4.45	0.00	0.00	69.4	0.06	1.00	1.00	0.57	3.64	4.4	22280	0.61	2.00	1.98	1.20	2.38	4960	27240	77231
23	35.80	29.80	32.80	1312.27	0.00	5.58	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.60	5.6	26357	0.61	2.00	1.98	1.20	2.38	4728	31085	71457
24	29.80	23.80	26.80	1238.67	0.00	5.80	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.62	5.8	26050	0.61	2.00	1.98	1.20	2.38	4463	30513	92190
25	23.80	17.80	20.80	1152.14	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	27060	0.61	2.00	1.98	1.20	2.38	4151	31211	79804
26	17.80	11.80	14.80	1045.39	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	25530	0.61	2.00	1.98	1.20	2.38	3766	29296	104045
27	11.80	5.80	8.80	936.17	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	6783	0.61	2.00	1.98	1.20	2.38	3373	10156	36032
28	5.80	0.00	2.90	936.17	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	20273	0.59	2.00	1.92	1.20	2.30	3260	23533	79263

Concentrated Loads for Load Case "LC2 WIND 45° C.D.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	822	822	1794	0	0	0	
1P	822	822	1794	0	0	0	
1XY	822	822	1794	0	0	0	
2X	822	822	1794	0	0	0	
2S	822	822	1794	0	0	0	
2XY	822	822	1794	0	0	0	
4X	822	822	1794	0	0	0	
4S	822	822	1794	0	0	0	
4XY	822	822	1794	0	0	0	
5X	822	822	1794	0	0	0	
5XY	822	822	1794	0	0	0	
6X	822	822	1794	0	0	0	
6XY	822	822	1794	0	0	0	
8X	822	822	1794	0	0	0	
8XY	822	822	1794	0	0	0	
10XY	822	822	1794	0	0	0	
11P	3713	3713	4368	0	0	0	
11XY	3713	3713	4368	0	0	0	
11P	3713	3713	4368	0	0	0	
11XY	3713	3713	4368	0	0	0	
12S	3713	3713	4368	0	0	0	
12XY	3713	3713	4368	0	0	0	
13XY	3713	3713	4368	0	0	0	
14XY	3713	3713	4368	0	0	0	
14X	410	410	1014	0	0	0	
14S	410	410	1014	0	0	0	
14Y	410	410	1014	0	0	0	
15X	410	410	1014	0	0	0	
15S	410	410	1014	0	0	0	
15Y	410	410	1014	0	0	0	
17X	410	410	1014	0	0	0	
17S	410	410	1014	0	0	0	
17Y	410	410	1014	0	0	0	

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

18X	410	410	1014	0	0	0
18S	410	410	1014	0	0	0
18Y	410	410	1014	0	0	0
20X	410	410	1014	0	0	0
20P	410	410	1014	0	0	0
22S	3309	3309	2340	0	0	0
22XY	1655	1655	1170	0	0	0
23S	3309	3309	2340	0	0	0
31XY	189	189	325	0	0	0
29S	189	189	325	0	0	0
31Y	189	189	325	0	0	0
38Y	189	189	325	0	0	0
35Y	3249	3249	1430	0	0	0
36XY	1190	1190	761	0	0	0
35S	9373	9373	6643	0	0	0
36X	2343	2343	3029	0	0	0
36S	9373	9373	6643	0	0	0
37X	1041	1041	2392	0	0	0
39Y	1041	1041	2392	0	0	0
40Y	2343	2343	3029	0	0	0
40S	4167	4167	3861	0	0	0
40X	4685	4685	6058	0	0	0
41S	4167	4167	3861	0	0	0
41X	1041	1041	2392	0	0	0
1X	0	0	1300	0	0	0
1P	0	0	1300	0	0	0
1Y	0	0	1300	0	0	0
1XY	0	0	1300	0	0	0

EIA Section Load Case Information for "LC2 WIND 45° C.D.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	2018.54	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	9190	0.49	2.00	1.59	1.20	1.90	5818	15009	15529
2	145.20	140.20	142.70	1997.41	0.00	1.11	0.00	0.00	6.5	0.17	1.13	1.13	0.58	3.11	1.3	7800	0.51	2.00	1.65	1.20	1.98	5997	13797	14630
3	140.20	135.20	137.70	1977.15	0.00	1.37	0.00	0.00	6.5	0.21	1.16	1.16	0.59	2.94	1.6	9193	0.51	2.00	1.65	1.20	1.98	5936	15129	16565
4	135.20	131.63	133.41	1959.38	0.00	1.11	0.00	0.00	4.6	0.24	1.18	1.18	0.60	2.82	1.3	7238	0.36	2.00	1.18	1.20	1.42	4200	11439	12717
5	131.63	127.59	129.61	1943.24	0.00	1.40	0.00	0.00	7.2	0.19	1.15	1.15	0.59	3.01	1.6	9373	0.41	2.00	1.33	1.20	1.60	4714	14087	18217
6	127.59	122.20	124.90	1922.78	0.00	1.93	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.17	2.2	13151	0.55	2.00	1.78	1.20	2.14	6223	19374	24546
7	122.20	117.20	119.70	1899.58	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	12229	0.51	2.00	1.65	1.20	1.98	5703	17933	21113
8	117.20	112.20	114.70	1876.56	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	12081	0.51	2.00	1.65	1.20	1.98	5634	17715	21113
9	112.20	108.62	110.41	1856.24	0.00	1.43	0.00	0.00	8.2	0.18	1.13	1.13	0.59	3.09	1.6	9295	0.37	2.00	1.18	1.20	1.42	3990	13286	15831
10	108.62	102.20	105.41	1831.82	0.00	2.43	0.00	0.00	23.1	0.11	1.08	1.08	0.58	3.42	2.6	16431	0.65	2.00	2.12	1.20	2.55	7062	23493	30834
11	102.20	96.60	99.40	1801.35	0.00	2.88	0.00	0.00	27.5	0.11	1.08	1.08	0.58	3.42	3.1	19190	0.57	2.00	1.85	1.20	2.22	6057	25247	30950
12	96.60	91.20	93.90	1772.29	0.00	2.96	0.00	0.00	26.5	0.11	1.08	1.08	0.58	3.39	3.2	19249	0.55	2.00	1.78	1.20	2.14	5747	24996	29122
13	91.20	85.60	88.40	1741.99	0.00	3.29	0.00	0.00	27.5	0.12	1.09	1.09	0.58	3.35	3.6	20944	0.57	2.00	1.85	1.20	2.22	5858	26802	40058
14	85.60	80.00	82.80	1709.72	0.00	3.58	0.00	0.00	27.5	0.13	1.10	1.10	0.58	3.30	3.9	22150	0.57	2.00	1.85	1.20	2.22	5749	27899	44393
15	80.00	74.50	77.25	1676.16	0.00	3.54	0.00	0.00	27.0	0.13	1.10	1.10	0.58	3.29	3.9	21475	0.56	2.00	1.82	1.20	2.18	5536	27011	43765
16	74.50	71.80	73.15	1650.25	0.00	1.89	0.00	0.00	13.2	0.14	1.11	1.11	0.58	3.24	2.1	11185	0.28	2.00	0.89	1.20	1.07	2676	13860	22831
17	71.80	66.13	68.96	1622.69	0.00	2.99	0.00	0.00	27.8	0.11	1.08	1.08	0.58	3.41	3.2	17890	0.58	2.00	1.88	1.20	2.25	5530	23420	41558
18	66.13	59.80	62.96	1581.03	0.00	3.69	0.00	0.00	35.9	0.10	1.08	1.08	0.58	3.44	4.0	21615	0.65	2.00	2.09	1.20	2.51	6005	27620	52539
19	59.80	53.80	56.80	1535.18	0.00	3.85	0.00	0.00	43.1	0.09	1.07	1.07	0.57	3.50	4.1	22106	0.61	2.00	1.98	1.20	2.38	5531	27637	52654
20	53.80	47.80	50.80	1486.98	0.00	4.38	0.00	0.00	51.8	0.08	1.06	1.06	0.57	3.53	4.7	24473	0.61	2.00	1.98	1.20	2.38	5357	29830	61154
21	47.80	41.80	44.80	1434.53	0.00	4.73	0.00	0.00	60.6	0.08	1.06	1.06	0.57	3.56	5.0	25580	0.61	2.00	1.98	1.20	2.38	5168	30748	64599

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	55 of 145
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

22	41.80	35.80	38.80	1376.79	0.00	4.45	0.00	0.00	69.4	0.06	1.05	1.05	0.57	3.64	4.7	23351	0.61	2.00	1.98	1.20	2.38	4960	28312	77231
23	35.80	29.80	32.80	1312.27	0.00	5.58	0.00	0.00	78.2	0.07	1.05	1.05	0.57	3.60	5.9	27768	0.61	2.00	1.98	1.20	2.38	4728	32496	71457
24	29.80	23.80	26.80	1238.67	0.00	5.80	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.62	6.1	27355	0.61	2.00	1.98	1.20	2.38	4463	31817	92190
25	23.80	17.80	20.80	1152.14	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	28436	0.61	2.00	1.98	1.20	2.38	4151	32587	79804
26	17.80	11.80	14.80	1045.39	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	26760	0.61	2.00	1.98	1.20	2.38	3766	30527	104045
27	11.80	5.80	8.80	936.17	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	6866	0.61	2.00	1.98	1.20	2.38	3373	10239	36032
28	5.80	0.00	2.90	936.17	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	21024	0.59	2.00	1.92	1.20	2.30	3260	24285	79263

Concentrated Loads for Load Case "LC3 WIND 0° C.T.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	894	0	1380	0	0	0	
1P	894	0	1380	0	0	0	
1XY	894	0	1380	0	0	0	
2X	894	0	1380	0	0	0	
2S	894	0	1380	0	0	0	
2XY	894	0	1380	0	0	0	
4X	894	0	1380	0	0	0	
4S	894	0	1380	0	0	0	
4XY	894	0	1380	0	0	0	
5X	894	0	1380	0	0	0	
5XY	894	0	1380	0	0	0	
6X	894	0	1380	0	0	0	
6XY	894	0	1380	0	0	0	
8X	894	0	1380	0	0	0	
8XY	894	0	1380	0	0	0	
10XY	894	0	1380	0	0	0	
11P	4038	0	3360	0	0	0	
11XY	4038	0	3360	0	0	0	
11P	4038	0	3360	0	0	0	
11XY	4038	0	3360	0	0	0	
12S	4038	0	3360	0	0	0	
12XY	4038	0	3360	0	0	0	
13XY	4038	0	3360	0	0	0	
14XY	4038	0	3360	0	0	0	
14X	446	0	780	0	0	0	
14S	446	0	780	0	0	0	
14Y	446	0	780	0	0	0	
15X	446	0	780	0	0	0	
15S	446	0	780	0	0	0	
15Y	446	0	780	0	0	0	
17X	446	0	780	0	0	0	
17S	446	0	780	0	0	0	
17Y	446	0	780	0	0	0	
18X	446	0	780	0	0	0	
18S	446	0	780	0	0	0	
18Y	446	0	780	0	0	0	
20X	446	0	780	0	0	0	
20P	446	0	780	0	0	0	
22S	3599	0	1800	0	0	0	
22XY	1800	0	900	0	0	0	
23S	3599	0	1800	0	0	0	
31XY	205	0	250	0	0	0	

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	56 of 145
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

29S	205	0	250	0	0	0
31Y	205	0	250	0	0	0
38Y	205	0	250	0	0	0
35Y	3534	0	1100	0	0	0
36XY	1294	1	585	0	0	0
35S	10197	0	5110	0	0	0
36X	2549	0	2330	0	0	0
36S	10197	0	5110	0	0	0
37X	1133	0	1840	0	0	0
39Y	1133	0	1840	0	0	0
40Y	2549	0	2330	0	0	0
40S	4532	0	2970	0	0	0
40X	5098	0	4660	0	0	0
41S	4532	0	2970	0	0	0
41X	1133	0	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0

EIA Section Load Case Information for "LC3 WIND 0° C.T.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	1552.72	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	6247	0.49	2.00	1.59	1.20	1.90	4475	10723	11945
2	145.20	140.20	142.70	1536.47	0.00	1.11	0.00	0.00	6.5	0.17	1.00	1.00	0.58	3.11	1.1	5317	0.51	2.00	1.65	1.20	1.98	4613	9930	11253
3	140.20	135.20	137.70	1520.89	0.00	1.37	0.00	0.00	6.5	0.21	1.00	1.00	0.59	2.94	1.4	6107	0.51	2.00	1.65	1.20	1.98	4566	10674	12742
4	135.20	131.63	133.41	1507.21	0.00	1.11	0.00	0.00	4.6	0.24	1.00	1.00	0.60	2.82	1.1	4720	0.36	2.00	1.18	1.20	1.42	3231	7951	9783
5	131.63	127.59	129.61	1494.80	0.00	1.40	0.00	0.00	7.2	0.19	1.00	1.00	0.59	3.01	1.4	6296	0.41	2.00	1.33	1.20	1.60	3626	9922	14013
6	127.59	122.20	124.90	1479.06	0.00	1.93	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.17	1.9	9051	0.55	2.00	1.78	1.20	2.14	4787	13838	18882
7	122.20	117.20	119.70	1461.22	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	8402	0.51	2.00	1.65	1.20	1.98	4387	12789	16241
8	117.20	112.20	114.70	1443.51	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	8300	0.51	2.00	1.65	1.20	1.98	4334	12634	16241
9	112.20	108.62	110.41	1427.87	0.00	1.43	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.09	1.4	6318	0.37	2.00	1.18	1.20	1.42	3070	9388	12178
10	108.62	102.20	105.41	1409.09	0.00	2.43	0.00	0.00	23.1	0.11	1.00	1.00	0.58	3.42	2.4	11714	0.65	2.00	2.12	1.20	2.55	5432	17146	23719
11	102.20	96.60	99.40	1385.65	0.00	2.88	0.00	0.00	27.5	0.11	1.00	1.00	0.58	3.42	2.9	13684	0.57	2.00	1.85	1.20	2.22	4660	18343	23808
12	96.60	91.20	93.90	1363.30	0.00	2.96	0.00	0.00	26.5	0.11	1.00	1.00	0.58	3.39	3.0	13663	0.55	2.00	1.78	1.20	2.14	4421	18084	22401
13	91.20	85.60	88.40	1339.99	0.00	3.29	0.00	0.00	27.5	0.12	1.00	1.00	0.58	3.35	3.3	14781	0.57	2.00	1.85	1.20	2.22	4506	19287	30814
14	85.60	80.00	82.80	1315.17	0.00	3.58	0.00	0.00	27.5	0.13	1.00	1.00	0.58	3.30	3.6	15522	0.57	2.00	1.85	1.20	2.22	4423	19945	34149
15	80.00	74.50	77.25	1289.36	0.00	3.54	0.00	0.00	27.0	0.13	1.00	1.00	0.58	3.29	3.5	15039	0.56	2.00	1.82	1.20	2.18	4258	19297	33665
16	74.50	71.80	73.15	1269.42	0.00	1.89	0.00	0.00	13.2	0.14	1.00	1.00	0.58	3.24	1.9	7772	0.28	2.00	0.89	1.20	1.07	2058	9830	17562
17	71.80	66.13	68.96	1248.22	0.00	2.99	0.00	0.00	27.8	0.11	1.00	1.00	0.58	3.41	3.0	12735	0.58	2.00	1.88	1.20	2.25	4254	16989	31967
18	66.13	59.80	62.96	1216.18	0.00	3.69	0.00	0.00	35.9	0.10	1.00	1.00	0.58	3.44	3.7	15435	0.65	2.00	2.09	1.20	2.51	4619	20054	40415
19	59.80	53.80	56.80	1180.91	0.00	3.85	0.00	0.00	43.1	0.09	1.00	1.00	0.57	3.50	3.9	15936	0.61	2.00	1.98	1.20	2.38	4255	20191	40503
20	53.80	47.80	50.80	1143.83	0.00	4.38	0.00	0.00	51.8	0.08	1.00	1.00	0.57	3.53	4.4	17702	0.61	2.00	1.98	1.20	2.38	4121	21823	47041
21	47.80	41.80	44.80	1103.49	0.00	4.73	0.00	0.00	60.6	0.08	1.00	1.00	0.57	3.56	4.7	18590	0.61	2.00	1.98	1.20	2.38	3976	22565	49691
22	41.80	35.80	38.80	1059.07	0.00	4.45	0.00	0.00	69.4	0.06	1.00	1.00	0.57	3.64	4.4	17138	0.61	2.00	1.98	1.20	2.38	3816	20954	59408
23	35.80	29.80	32.80	1009.44	0.00	5.58	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.60	5.6	20274	0.61	2.00	1.98	1.20	2.38	3637	23911	54967
24	29.80	23.80	26.80	952.82	0.00	5.80	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.62	5.8	20039	0.61	2.00	1.98	1.20	2.38	3433	23472	70915
25	23.80	17.80	20.80	886.26	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	20815	0.61	2.00	1.98	1.20	2.38	3193	24008	61387
26	17.80	11.80	14.80	804.14	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	19638	0.61	2.00	1.98	1.20	2.38	2897	22536	80034
27	11.80	5.80	8.80	720.13	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	5218	0.61	2.00	1.98	1.20	2.38	2595	7812	27717
28	5.80	0.00	2.90	720.13	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	15594	0.59	2.00	1.92	1.20	2.30	2508	18102	60972

Concentrated Loads for Load Case "LC4 WIND 45° C.T.":

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page 57 of 145
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	632	632	1380	0	0	0	
1P	632	632	1380	0	0	0	
1XY	632	632	1380	0	0	0	
2X	632	632	1380	0	0	0	
2S	632	632	1380	0	0	0	
2XY	632	632	1380	0	0	0	
4X	632	632	1380	0	0	0	
4S	632	632	1380	0	0	0	
4XY	632	632	1380	0	0	0	
5X	632	632	1380	0	0	0	
5XY	632	632	1380	0	0	0	
6X	632	632	1380	0	0	0	
6XY	632	632	1380	0	0	0	
8X	632	632	1380	0	0	0	
8XY	632	632	1380	0	0	0	
10XY	632	632	1380	0	0	0	
11P	2856	2856	3360	0	0	0	
11XY	2856	2856	3360	0	0	0	
11P	2856	2856	3360	0	0	0	
11XY	2856	2856	3360	0	0	0	
12S	2856	2856	3360	0	0	0	
12XY	2856	2856	3360	0	0	0	
13XY	2856	2856	3360	0	0	0	
14XY	2856	2856	3360	0	0	0	
14X	315	315	780	0	0	0	
14S	315	315	780	0	0	0	
14Y	315	315	780	0	0	0	
15X	315	315	780	0	0	0	
15S	315	315	780	0	0	0	
15Y	315	315	780	0	0	0	
17X	315	315	780	0	0	0	
17S	315	315	780	0	0	0	
17Y	315	315	780	0	0	0	
18X	315	315	780	0	0	0	
18S	315	315	780	0	0	0	
18Y	315	315	780	0	0	0	
20X	315	315	780	0	0	0	
20P	315	315	780	0	0	0	
22S	2545	2545	1800	0	0	0	
22XY	1273	1273	900	0	0	0	
23S	2545	2545	1800	0	0	0	
31XY	145	145	250	0	0	0	
29S	145	145	250	0	0	0	
31Y	145	145	250	0	0	0	
38Y	145	145	250	0	0	0	
35Y	2499	2499	1100	0	0	0	
36XY	915	915	585	0	0	0	
35S	7210	7210	5110	0	0	0	
36X	1802	1802	2330	0	0	0	
36S	7210	7210	5110	0	0	0	
37X	801	801	1840	0	0	0	

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	Client	Designed by
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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

39Y	801	801	1840	0	0	0
40Y	1802	1802	2330	0	0	0
40S	3205	3205	2970	0	0	0
40X	3604	3604	4660	0	0	0
41S	3205	3205	2970	0	0	0
41X	801	801	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0

EIA Section Load Case Information for "LC4 WIND 45° C.T.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	1552.72	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	7070	0.49	2.00	1.59	1.20	1.90	4475	11545	11945
2	145.20	140.20	142.70	1536.47	0.00	1.11	0.00	0.00	6.5	0.17	1.13	1.13	0.58	3.11	1.3	6000	0.51	2.00	1.65	1.20	1.98	4613	10613	11253
3	140.20	135.20	137.70	1520.89	0.00	1.37	0.00	0.00	6.5	0.21	1.16	1.16	0.59	2.94	1.6	7071	0.51	2.00	1.65	1.20	1.98	4566	11638	12742
4	135.20	131.63	133.41	1507.21	0.00	1.11	0.00	0.00	4.6	0.24	1.18	1.18	0.60	2.82	1.3	5568	0.36	2.00	1.18	1.20	1.42	3231	8799	9783
5	131.63	127.59	129.61	1494.80	0.00	1.40	0.00	0.00	7.2	0.19	1.15	1.15	0.59	3.01	1.6	7210	0.41	2.00	1.33	1.20	1.60	3626	10836	14013
6	127.59	122.20	124.90	1479.06	0.00	1.93	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.17	2.2	10116	0.55	2.00	1.78	1.20	2.14	4787	14903	18882
7	122.20	117.20	119.70	1461.22	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	9407	0.51	2.00	1.65	1.20	1.98	4387	13794	16241
8	117.20	112.20	114.70	1443.51	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	9293	0.51	2.00	1.65	1.20	1.98	4334	13627	16241
9	112.20	108.62	110.41	1427.87	0.00	1.43	0.00	0.00	8.2	0.18	1.13	1.13	0.59	3.09	1.6	7150	0.37	2.00	1.18	1.20	1.42	3070	10220	12178
10	108.62	102.20	105.41	1409.09	0.00	2.43	0.00	0.00	23.1	0.11	1.08	1.08	0.58	3.42	2.6	12639	0.65	2.00	2.12	1.20	2.55	5432	18071	23719
11	102.20	96.60	99.40	1385.65	0.00	2.88	0.00	0.00	27.5	0.11	1.08	1.08	0.58	3.42	3.1	14762	0.57	2.00	1.85	1.20	2.22	4660	19421	23808
12	96.60	91.20	93.90	1363.30	0.00	2.96	0.00	0.00	26.5	0.11	1.08	1.08	0.58	3.39	3.2	14807	0.55	2.00	1.78	1.20	2.14	4421	19227	22401
13	91.20	85.60	88.40	1339.99	0.00	3.29	0.00	0.00	27.5	0.12	1.09	1.09	0.58	3.35	3.6	16111	0.57	2.00	1.85	1.20	2.22	4506	20617	30814
14	85.60	80.00	82.80	1315.17	0.00	3.58	0.00	0.00	27.5	0.13	1.10	1.10	0.58	3.30	3.9	17039	0.57	2.00	1.85	1.20	2.22	4423	21461	34149
15	80.00	74.50	77.25	1289.36	0.00	3.54	0.00	0.00	27.0	0.13	1.10	1.10	0.58	3.29	3.9	16519	0.56	2.00	1.82	1.20	2.18	4258	20778	33665
16	74.50	71.80	73.15	1269.42	0.00	1.89	0.00	0.00	13.2	0.14	1.11	1.11	0.58	3.24	2.1	8604	0.28	2.00	0.89	1.20	1.07	2058	10662	17562
17	71.80	66.13	68.96	1248.22	0.00	2.99	0.00	0.00	27.8	0.11	1.08	1.08	0.58	3.41	3.2	13762	0.58	2.00	1.88	1.20	2.25	4254	18015	31967
18	66.13	59.80	62.96	1216.18	0.00	3.69	0.00	0.00	35.9	0.10	1.08	1.08	0.58	3.44	4.0	16627	0.65	2.00	2.09	1.20	2.51	4619	21246	40415
19	59.80	53.80	56.80	1180.91	0.00	3.85	0.00	0.00	43.1	0.09	1.07	1.07	0.57	3.50	4.1	17005	0.61	2.00	1.98	1.20	2.38	4255	21259	40503
20	53.80	47.80	50.80	1143.83	0.00	4.38	0.00	0.00	51.8	0.08	1.06	1.06	0.57	3.53	4.7	18825	0.61	2.00	1.98	1.20	2.38	4121	22947	47041
21	47.80	41.80	44.80	1103.49	0.00	4.73	0.00	0.00	60.6	0.08	1.06	1.06	0.57	3.56	5.0	19677	0.61	2.00	1.98	1.20	2.38	3976	23653	49691
22	41.80	35.80	38.80	1059.07	0.00	4.45	0.00	0.00	69.4	0.06	1.05	1.05	0.57	3.64	4.7	17962	0.61	2.00	1.98	1.20	2.38	3816	21778	59408
23	35.80	29.80	32.80	1009.44	0.00	5.58	0.00	0.00	78.2	0.07	1.05	1.05	0.57	3.60	5.9	21360	0.61	2.00	1.98	1.20	2.38	3637	24997	54967
24	29.80	23.80	26.80	952.82	0.00	5.80	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.62	6.1	21042	0.61	2.00	1.98	1.20	2.38	3433	24475	70915
25	23.80	17.80	20.80	886.26	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	21874	0.61	2.00	1.98	1.20	2.38	3193	25067	61387
26	17.80	11.80	14.80	804.14	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	20585	0.61	2.00	1.98	1.20	2.38	2897	23482	80034
27	11.80	5.80	8.80	720.13	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	5282	0.61	2.00	1.98	1.20	2.38	2595	7876	27717
28	5.80	0.00	2.90	720.13	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	16172	0.59	2.00	1.92	1.20	2.30	2508	18681	60972

Concentrated Loads for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	224	0	1380	0	0	0	
1P	224	0	1380	0	0	0	
1XY	224	0	1380	0	0	0	
2X	224	0	1380	0	0	0	

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

2S	224	0	1380	0	0	0
2XY	224	0	1380	0	0	0
4X	224	0	1380	0	0	0
4S	224	0	1380	0	0	0
4XY	224	0	1380	0	0	0
5X	224	0	1380	0	0	0
5XY	224	0	1380	0	0	0
6X	224	0	1380	0	0	0
6XY	224	0	1380	0	0	0
8X	224	0	1380	0	0	0
8XY	224	0	1380	0	0	0
10XY	224	0	1380	0	0	0
11P	1010	0	3360	0	0	0
11XY	1010	0	3360	0	0	0
11P	1010	0	3360	0	0	0
11XY	1010	0	3360	0	0	0
12S	1010	0	3360	0	0	0
12XY	1010	0	3360	0	0	0
13XY	1010	0	3360	0	0	0
14XY	1010	0	3360	0	0	0
14X	112	0	780	0	0	0
14S	112	0	780	0	0	0
14Y	112	0	780	0	0	0
15X	112	0	780	0	0	0
15S	112	0	780	0	0	0
15Y	112	0	780	0	0	0
17X	112	0	780	0	0	0
17S	112	0	780	0	0	0
17Y	112	0	780	0	0	0
18X	112	0	780	0	0	0
18S	112	0	780	0	0	0
18Y	112	0	780	0	0	0
20X	112	0	780	0	0	0
20P	112	0	780	0	0	0
22S	900	0	1800	0	0	0
22XY	450	0	900	0	0	0
23S	900	0	1800	0	0	0
31XY	51	0	250	0	0	0
29S	51	0	250	0	0	0
31Y	51	0	250	0	0	0
38Y	51	0	250	0	0	0
35Y	884	0	1100	0	0	0
36XY	324	0	585	0	0	0
35S	2551	0	5110	0	0	0
36X	637	0	2330	0	0	0
36S	2551	0	5110	0	0	0
37X	284	0	1840	0	0	0
39Y	284	0	1840	0	0	0
40Y	637	0	2330	0	0	0
40S	1134	0	2970	0	0	0
40X	1274	0	4660	0	0	0
41S	1134	0	2970	0	0	0
41X	284	0	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page 60 of 145
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

1XY 0 0 1000 0 0 0

EIA Section Load Case Information for "LC5 WIND 0° DEFLEX":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	Elev. (Pa)	qzGh (cm)	Ice Thick. (m^2)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e (m^2)	Face DF (m^2)	Face DR (m^2)	Face RR (m^2)	Face CF (m^2)	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF (m^2)	NotF AAR (m^2)	NotF CAR (m^2)	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	388.41	0.00	1.30	0.00	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	1563	0.49	2.00	1.59	1.20	1.90	1120	2682	11945
2	145.20	140.20	142.70	384.35	0.00	1.11	0.00	0.00	0.00	6.5	0.17	1.00	1.00	0.58	3.11	1.1	1330	0.51	2.00	1.65	1.20	1.98	1154	2484	11253
3	140.20	135.20	137.70	380.45	0.00	1.37	0.00	0.00	0.00	6.5	0.21	1.00	1.00	0.59	2.94	1.4	1528	0.51	2.00	1.65	1.20	1.98	1142	2670	12742
4	135.20	131.63	133.41	377.03	0.00	1.11	0.00	0.00	0.00	4.6	0.24	1.00	1.00	0.60	2.82	1.1	1181	0.36	2.00	1.18	1.20	1.42	808	1989	9783
5	131.63	127.59	129.61	373.93	0.00	1.40	0.00	0.00	0.00	7.2	0.19	1.00	1.00	0.59	3.01	1.4	1575	0.41	2.00	1.33	1.20	1.60	907	2482	14013
6	127.59	122.20	124.90	369.99	0.00	1.93	0.00	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.17	1.9	2264	0.55	2.00	1.78	1.20	2.14	1197	3462	18882
7	122.20	117.20	119.70	365.52	0.00	1.82	0.00	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	2102	0.51	2.00	1.65	1.20	1.98	1097	3199	16241
8	117.20	112.20	114.70	361.09	0.00	1.82	0.00	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	2076	0.51	2.00	1.65	1.20	1.98	1084	3160	16241
9	112.20	108.62	110.41	357.18	0.00	1.43	0.00	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.09	1.4	1581	0.37	2.00	1.18	1.20	1.42	768	2348	12178
10	108.62	102.20	105.41	352.48	0.00	2.43	0.00	0.00	0.00	23.1	0.11	1.00	1.00	0.58	3.42	2.4	2930	0.65	2.00	2.12	1.20	2.55	1359	4289	23719
11	102.20	96.60	99.40	346.62	0.00	2.88	0.00	0.00	0.00	27.5	0.11	1.00	1.00	0.58	3.42	2.9	3423	0.57	2.00	1.85	1.20	2.22	1166	4589	23808
12	96.60	91.20	93.90	341.03	0.00	2.96	0.00	0.00	0.00	26.5	0.11	1.00	1.00	0.58	3.39	3.0	3418	0.55	2.00	1.78	1.20	2.14	1106	4524	22401
13	91.20	85.60	88.40	335.20	0.00	3.29	0.00	0.00	0.00	27.5	0.12	1.00	1.00	0.58	3.35	3.3	3698	0.57	2.00	1.85	1.20	2.22	1127	4825	30814
14	85.60	80.00	82.80	328.99	0.00	3.58	0.00	0.00	0.00	27.5	0.13	1.00	1.00	0.58	3.30	3.6	3883	0.57	2.00	1.85	1.20	2.22	1106	4989	34149
15	80.00	74.50	77.25	322.53	0.00	3.54	0.00	0.00	0.00	27.0	0.13	1.00	1.00	0.58	3.29	3.5	3762	0.56	2.00	1.82	1.20	2.18	1065	4827	33665
16	74.50	71.80	73.15	317.55	0.00	1.89	0.00	0.00	0.00	13.2	0.14	1.00	1.00	0.58	3.24	1.9	1944	0.28	2.00	0.89	1.20	1.07	515	2459	17562
17	71.80	66.13	68.96	312.24	0.00	2.99	0.00	0.00	0.00	27.8	0.11	1.00	1.00	0.58	3.41	3.0	3186	0.58	2.00	1.88	1.20	2.25	1064	4250	31967
18	66.13	59.80	62.96	304.23	0.00	3.69	0.00	0.00	0.00	35.9	0.10	1.00	1.00	0.58	3.44	3.7	3861	0.65	2.00	2.09	1.20	2.51	1155	5017	40415
19	59.80	53.80	56.80	295.40	0.00	3.85	0.00	0.00	0.00	43.1	0.09	1.00	1.00	0.57	3.50	3.9	3986	0.61	2.00	1.98	1.20	2.38	1064	5051	40503
20	53.80	47.80	50.80	286.13	0.00	4.38	0.00	0.00	0.00	51.8	0.08	1.00	1.00	0.57	3.53	4.4	4428	0.61	2.00	1.98	1.20	2.38	1031	5459	47041
21	47.80	41.80	44.80	276.04	0.00	4.73	0.00	0.00	0.00	60.6	0.08	1.00	1.00	0.57	3.56	4.7	4650	0.61	2.00	1.98	1.20	2.38	995	5645	49691
22	41.80	35.80	38.80	264.93	0.00	4.45	0.00	0.00	0.00	69.4	0.06	1.00	1.00	0.57	3.64	4.4	4287	0.61	2.00	1.98	1.20	2.38	954	5242	59408
23	35.80	29.80	32.80	252.51	0.00	5.58	0.00	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.60	5.6	5072	0.61	2.00	1.98	1.20	2.38	910	5981	54967
24	29.80	23.80	26.80	238.35	0.00	5.80	0.00	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.62	5.8	5013	0.61	2.00	1.98	1.20	2.38	859	5871	70915
25	23.80	17.80	20.80	221.70	0.00	6.49	0.00	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	5207	0.61	2.00	1.98	1.20	2.38	799	6006	61387
26	17.80	11.80	14.80	201.16	0.00	6.71	0.00	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	4913	0.61	2.00	1.98	1.20	2.38	725	5637	80034
27	11.80	5.80	8.80	180.14	0.00	1.86	0.00	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	1305	0.61	2.00	1.98	1.20	2.38	649	1954	27717
28	5.80	0.00	2.90	180.14	0.00	5.82	0.00	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	3901	0.59	2.00	1.92	1.20	2.30	627	4528	60972

Concentrated Loads for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	158	158	1380	0	0	0	
1P	158	158	1380	0	0	0	
1XY	158	158	1380	0	0	0	
2X	158	158	1380	0	0	0	
2S	158	158	1380	0	0	0	
2XY	158	158	1380	0	0	0	
4X	158	158	1380	0	0	0	
4S	158	158	1380	0	0	0	
4XY	158	158	1380	0	0	0	
5X	158	158	1380	0	0	0	
5XY	158	158	1380	0	0	0	
6X	158	158	1380	0	0	0	
6XY	158	158	1380	0	0	0	

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

8X	158	158	1380	0	0	0
8XY	158	158	1380	0	0	0
10XY	158	158	1380	0	0	0
11P	714	714	3360	0	0	0
11XY	714	714	3360	0	0	0
11P	714	714	3360	0	0	0
11XY	714	714	3360	0	0	0
12S	714	714	3360	0	0	0
12XY	714	714	3360	0	0	0
13XY	714	714	3360	0	0	0
14XY	714	714	3360	0	0	0
14X	79	79	780	0	0	0
14S	79	79	780	0	0	0
14Y	79	79	780	0	0	0
15X	79	79	780	0	0	0
15S	79	79	780	0	0	0
15Y	79	79	780	0	0	0
17X	79	79	780	0	0	0
17S	79	79	780	0	0	0
17Y	79	79	780	0	0	0
18X	79	79	780	0	0	0
18S	79	79	780	0	0	0
18Y	79	79	780	0	0	0
20X	79	79	780	0	0	0
20P	79	79	780	0	0	0
22S	636	636	1800	0	0	0
22XY	318	318	900	0	0	0
23S	636	636	1800	0	0	0
31XY	36	36	250	0	0	0
29S	36	36	250	0	0	0
31Y	36	36	250	0	0	0
38Y	36	36	250	0	0	0
35Y	625	625	1100	0	0	0
36XY	229	229	585	0	0	0
35S	1804	1804	5110	0	0	0
36X	451	451	2330	0	0	0
36S	1804	1804	5110	0	0	0
37X	200	200	1840	0	0	0
39Y	200	200	1840	0	0	0
40Y	451	451	2330	0	0	0
40S	802	802	2970	0	0	0
40X	902	902	4660	0	0	0
41S	802	802	2970	0	0	0
41X	200	200	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0

EIA Section Load Case Information for "LC6 WIND 45° DEFLEX":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	388.41	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	1768	0.49	2.00	1.59	1.20	1.90	1120	2888	11945

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

2	145.20	140.20	142.70	384.35	0.00	1.11	0.00	0.00	6.5	0.17	1.13	1.13	0.58	3.11	1.3	1501	0.51	2.00	1.65	1.20	1.98	1154	2655	11253
3	140.20	135.20	137.70	380.45	0.00	1.37	0.00	0.00	6.5	0.21	1.16	1.16	0.59	2.94	1.6	1769	0.51	2.00	1.65	1.20	1.98	1142	2911	12742
4	135.20	131.63	133.41	377.03	0.00	1.11	0.00	0.00	4.6	0.24	1.18	1.18	0.60	2.82	1.3	1393	0.36	2.00	1.18	1.20	1.42	808	2201	9783
5	131.63	127.59	129.61	373.93	0.00	1.40	0.00	0.00	7.2	0.19	1.15	1.15	0.59	3.01	1.6	1804	0.41	2.00	1.33	1.20	1.60	907	2711	14013
6	127.59	122.20	124.90	369.99	0.00	1.93	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.17	2.2	2531	0.55	2.00	1.78	1.20	2.14	1197	3728	18882
7	122.20	117.20	119.70	365.52	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	2353	0.51	2.00	1.65	1.20	1.98	1097	3451	16241
8	117.20	112.20	114.70	361.09	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	2325	0.51	2.00	1.65	1.20	1.98	1084	3409	16241
9	112.20	108.62	110.41	357.18	0.00	1.43	0.00	0.00	8.2	0.18	1.13	1.13	0.59	3.09	1.6	1789	0.37	2.00	1.18	1.20	1.42	768	2556	12178
10	108.62	102.20	105.41	352.48	0.00	2.43	0.00	0.00	23.1	0.11	1.08	1.08	0.58	3.42	2.6	3162	0.65	2.00	2.12	1.20	2.55	1359	4521	23719
11	102.20	96.60	99.40	346.62	0.00	2.88	0.00	0.00	27.5	0.11	1.08	1.08	0.58	3.42	3.1	3693	0.57	2.00	1.85	1.20	2.22	1166	4858	23808
12	96.60	91.20	93.90	341.03	0.00	2.96	0.00	0.00	26.5	0.11	1.08	1.08	0.58	3.39	3.2	3704	0.55	2.00	1.78	1.20	2.14	1106	4810	22401
13	91.20	85.60	88.40	335.20	0.00	3.29	0.00	0.00	27.5	0.12	1.09	1.09	0.58	3.35	3.6	4030	0.57	2.00	1.85	1.20	2.22	1127	5157	30814
14	85.60	80.00	82.80	328.99	0.00	3.58	0.00	0.00	27.5	0.13	1.10	1.10	0.58	3.30	3.9	4262	0.57	2.00	1.85	1.20	2.22	1106	5368	34149
15	80.00	74.50	77.25	322.53	0.00	3.54	0.00	0.00	27.0	0.13	1.10	1.10	0.58	3.29	3.9	4132	0.56	2.00	1.82	1.20	2.18	1065	5198	33665
16	74.50	71.80	73.15	317.55	0.00	1.89	0.00	0.00	13.2	0.14	1.11	1.11	0.58	3.24	2.1	2152	0.28	2.00	0.89	1.20	1.07	515	2667	17562
17	71.80	66.13	68.96	312.24	0.00	2.99	0.00	0.00	27.8	0.11	1.08	1.08	0.58	3.41	3.2	3442	0.58	2.00	1.88	1.20	2.25	1064	4506	31967
18	66.13	59.80	62.96	304.23	0.00	3.69	0.00	0.00	35.9	0.10	1.08	1.08	0.58	3.44	4.0	4159	0.65	2.00	2.09	1.20	2.51	1155	5315	40415
19	59.80	53.80	56.80	295.40	0.00	3.85	0.00	0.00	43.1	0.09	1.07	1.07	0.57	3.50	4.1	4254	0.61	2.00	1.98	1.20	2.38	1064	5318	40503
20	53.80	47.80	50.80	286.13	0.00	4.38	0.00	0.00	51.8	0.08	1.06	1.06	0.57	3.53	4.7	4709	0.61	2.00	1.98	1.20	2.38	1031	5740	47041
21	47.80	41.80	44.80	276.04	0.00	4.73	0.00	0.00	60.6	0.08	1.06	1.06	0.57	3.56	5.0	4922	0.61	2.00	1.98	1.20	2.38	995	5917	49691
22	41.80	35.80	38.80	264.93	0.00	4.45	0.00	0.00	69.4	0.06	1.05	1.05	0.57	3.64	4.7	4493	0.61	2.00	1.98	1.20	2.38	954	5448	59408
23	35.80	29.80	32.80	252.51	0.00	5.58	0.00	0.00	78.2	0.07	1.05	1.05	0.57	3.60	5.9	5343	0.61	2.00	1.98	1.20	2.38	910	6253	54967
24	29.80	23.80	26.80	238.35	0.00	5.80	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.62	6.1	5264	0.61	2.00	1.98	1.20	2.38	859	6122	70915
25	23.80	17.80	20.80	221.70	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	5472	0.61	2.00	1.98	1.20	2.38	799	6271	61387
26	17.80	11.80	14.80	201.16	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	5149	0.61	2.00	1.98	1.20	2.38	725	5874	80034
27	11.80	5.80	8.80	180.14	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	1321	0.61	2.00	1.98	1.20	2.38	649	1970	27717
28	5.80	0.00	2.90	180.14	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	4046	0.59	2.00	1.92	1.20	2.30	627	4673	60972

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	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

*** Análisis de resultados

El uso máximo del elemento es: 1119.19% for Angle "77P" in load case "LC4 WIND 45° C.T." N6

Angle Forces For All Load Cases:
Positive for tension - negative for compression

Group Label	Angle Label	Max. Tens. For All LC (kN)	Max. Comp. For All LC (kN)	LC 1 (kN)	LC 2 (kN)	LC 3 (kN)	LC 4 (kN)	LC 5 (kN)	LC 6 (kN)
M1	1P	0.000	-14.937	-11.756	-14.937	-9.514	-11.959	-6.428	-7.038
M1	1X	0.000	-12.688	-12.688	-6.458	-10.231	-5.438	-6.616	-5.416
M1	1XY	2.135	-4.186	-0.125	2.135	-0.566	1.171	-4.186	-3.753
M1	1Y	0.000	-4.557	-0.271	-4.557	-0.679	-3.976	-3.174	-4.000
M1	2P	0.000	-32.131	-21.575	-32.131	-16.297	-24.411	-7.383	-9.410
M1	2X	0.000	-25.965	-25.965	-6.139	-19.674	-4.422	-8.219	-4.400
M1	2XY	19.901	-0.581	13.739	19.901	10.870	15.605	-0.581	0.599
M1	2Y	11.526	-2.517	11.526	-2.517	9.167	-1.636	1.044	-1.660
M2	3P	0.000	-69.051	-45.614	-69.051	-35.165	-53.183	-14.918	-19.420
M2	3X	0.000	-54.687	-54.687	-10.706	-42.145	-8.311	-16.694	-8.224
M2	3XY	48.027	0.000	33.629	48.027	25.796	36.860	0.345	3.104
M2	3Y	27.186	-6.739	27.186	-6.739	20.838	-5.259	1.190	-5.341
M2	4P	0.000	-107.489	-69.423	-107.489	-53.462	-82.730	-20.841	-28.154
M2	4X	0.000	-83.935	-83.935	-12.886	-64.627	-9.970	-23.598	-9.916
M2	4XY	81.809	0.000	58.290	81.809	44.785	62.861	3.754	8.263
M2	4Y	47.909	-7.465	47.909	-7.465	36.798	-5.800	4.806	-5.854
M3	5P	0.000	-169.208	-108.159	-169.208	-83.330	-130.270	-30.233	-41.962
M3	5X	0.000	-133.978	-133.978	-18.618	-103.195	-14.450	-36.276	-14.062
M3	5XY	137.486	0.000	98.092	137.486	75.333	105.612	8.414	15.968
M3	5Y	81.343	-10.810	81.343	-10.810	62.446	-8.444	9.325	-8.415
M3	6P	0.000	-229.443	-143.684	-229.443	-110.632	-176.574	-37.623	-54.103
M3	6X	0.000	-184.632	-184.632	-23.619	-142.135	-18.270	-47.490	-16.484
M3	6XY	199.084	0.000	143.544	199.084	110.325	153.014	15.677	26.328
M3	6Y	114.867	-14.489	114.867	-14.489	88.260	-11.246	15.252	-9.648
M4	7P	0.000	-303.244	-189.174	-303.244	-146.019	-233.731	-48.997	-70.918
M4	7X	0.000	-242.568	-242.568	-29.500	-187.098	-23.187	-61.474	-20.444
M4	7XY	268.119	0.000	193.247	268.119	148.166	205.716	22.570	36.929
M4	7Y	152.308	-20.743	152.308	-20.743	116.669	-16.450	19.650	-13.659
M4	8P	0.000	-358.429	-220.642	-358.429	-169.524	-275.477	-53.886	-80.369
M4	8X	0.000	-296.201	-296.201	-37.604	-227.656	-28.717	-70.796	-20.997
M4	8XY	340.270	0.000	246.610	340.270	189.919	261.909	33.028	50.990
M4	8Y	186.945	-26.352	186.945	-26.352	144.014	-20.062	28.366	-12.688
M5	9P	0.000	-347.026	-222.647	-347.026	-173.713	-269.354	-63.267	-87.171
M5	9X	0.000	-280.093	-280.093	-45.605	-217.909	-37.518	-76.614	-31.460
M5	9XY	300.795	0.000	209.207	300.795	158.500	228.902	16.884	34.455
M5	9Y	163.696	-38.029	163.696	-38.029	123.484	-31.690	13.308	-25.520
M6	10P	0.000	-414.374	-280.938	-414.374	-216.353	-318.953	-75.354	-100.990
M6	10X	0.000	-292.324	-292.324	-34.918	-225.114	-27.098	-76.906	-27.348
M6	10XY	335.722	0.000	219.738	335.722	168.801	257.972	18.667	40.937
M6	10Y	211.724	-28.303	211.724	-28.303	162.633	-22.010	23.681	-22.525
M6	11P	0.000	-515.768	-351.574	-515.768	-270.363	-396.615	-90.744	-122.289
M6	11X	0.000	-357.060	-357.060	-34.804	-274.586	-26.682	-89.745	-27.705

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

M6	11XY	428.015	0.000	278.902	428.015	214.642	329.288	28.283	56.918
M6	11Y	278.473	-28.636	278.473	-28.636	214.309	-21.938	36.121	-22.997
M7	12P	0.000	-632.016	-432.820	-632.016	-333.046	-486.214	-108.624	-146.894
M7	12X	0.000	-437.319	-437.319	-39.204	-336.509	-30.251	-108.823	-32.184
M7	12XY	532.349	0.000	345.151	532.349	265.421	409.355	36.234	72.188
M7	12Y	352.845	-32.070	352.845	-32.070	271.337	-24.763	46.803	-27.290
M7	13P	0.000	-745.241	-510.717	-745.241	-392.948	-573.281	-124.361	-169.419
M7	13X	0.000	-519.046	-519.046	-46.002	-399.357	-35.459	-126.529	-35.467
M7	13XY	645.816	0.000	418.455	645.816	321.833	496.652	47.758	91.431
M7	13Y	425.682	-39.301	425.682	-39.301	327.389	-30.304	58.849	-30.655
M8	14P	0.000	-881.635	-605.350	-881.635	-465.765	-678.210	-144.715	-197.798
M8	14X	0.000	-620.844	-620.844	-57.907	-477.686	-44.637	-149.578	-41.215
M8	14XY	783.698	0.000	509.193	783.698	391.614	602.687	63.621	116.355
M8	14Y	510.769	-50.455	510.769	-50.455	392.823	-38.905	71.767	-36.261
M8	15P	0.000	-1008.418	-691.867	-1008.418	-532.278	-775.686	-161.457	-222.277
M8	15X	0.000	-712.779	-712.779	-64.561	-548.368	-49.716	-168.656	-43.877
M8	15XY	919.300	0.000	598.729	919.300	460.530	707.027	80.772	142.359
M8	15Y	594.580	-57.601	594.580	-57.601	457.335	-44.363	86.514	-39.020
M9	16P	0.000	-1153.284	-791.990	-1153.284	-609.588	-887.401	-184.042	-253.461
M9	16X	0.000	-818.201	-818.201	-75.891	-629.754	-58.723	-193.414	-50.525
M9	16XY	1062.618	0.000	692.287	1062.618	532.210	816.973	96.024	167.175
M9	16Y	682.262	-69.200	682.262	-69.200	524.493	-53.576	98.947	-45.696
M9	17P	0.000	-1239.264	-850.411	-1239.264	-653.978	-952.983	-193.333	-268.047
M9	17X	0.000	-878.512	-878.512	-77.578	-675.600	-59.473	-204.109	-49.936
M9	17XY	1158.406	0.000	756.848	1158.406	582.422	891.200	111.034	188.188
M9	17Y	743.672	-70.042	743.672	-70.042	572.282	-53.676	111.635	-44.991
M10	18P	0.000	-1027.209	-711.245	-1027.209	-549.391	-792.349	-174.983	-235.695
M10	18X	0.000	-729.876	-729.876	-80.191	-563.726	-63.951	-183.074	-58.018
M10	18XY	918.016	0.000	591.799	918.016	452.987	703.833	72.333	135.014
M10	18Y	583.450	-76.467	583.450	-76.467	446.561	-61.086	72.171	-54.851
M11	19P	0.000	-915.990	-639.114	-915.990	-491.614	-704.518	-163.263	-216.468
M11	19X	0.000	-647.652	-647.652	-79.933	-498.182	-61.462	-168.440	-59.164
M11	19XY	781.130	0.000	498.612	781.130	383.588	600.834	53.926	108.217
M11	19Y	497.336	-76.008	497.336	-76.008	382.606	-58.443	54.205	-56.154
M11	20P	0.000	-990.766	-689.333	-990.766	-530.320	-762.108	-172.496	-230.420
M11	20X	0.000	-696.087	-696.087	-78.662	-535.516	-60.561	-177.860	-59.017
M11	20XY	855.560	0.000	548.303	855.560	421.736	658.009	63.990	123.037
M11	20Y	548.144	-75.119	548.144	-75.119	421.614	-57.836	63.840	-56.128
M12	21P	0.000	-1116.385	-777.072	-1116.385	-597.783	-858.700	-194.256	-259.462
M12	21X	0.000	-779.244	-779.244	-85.299	-599.453	-65.637	-197.934	-64.364
M12	21XY	961.821	0.000	616.956	961.821	474.577	739.770	72.984	139.261
M12	21Y	618.942	-81.118	618.942	-81.118	476.105	-62.420	73.419	-61.330
M12	22P	0.000	-1226.598	-852.756	-1226.598	-656.005	-943.475	-211.082	-282.925
M12	22X	0.000	-849.301	-849.301	-84.947	-653.346	-65.369	-212.862	-65.742
M12	22XY	1061.281	0.000	682.675	1061.281	525.128	816.270	84.705	157.469
M12	22Y	688.623	-80.990	688.623	-80.990	529.704	-62.326	85.382	-62.755
M13	23P	0.000	-1352.714	-939.878	-1352.714	-723.052	-1040.509	-231.105	-310.443
M13	23X	0.000	-931.957	-931.957	-87.551	-716.958	-67.403	-232.555	-70.029
M13	23XY	1169.851	0.000	753.360	1169.851	579.472	899.750	95.064	175.112
M13	23Y	764.785	-83.237	764.785	-83.237	588.262	-64.084	96.256	-66.973
M13	24P	0.000	-1481.134	-1027.403	-1481.134	-790.364	-1139.270	-249.516	-336.715
M13	24X	0.000	-1014.336	-1014.336	-87.463	-780.311	-67.320	-250.520	-72.124
M13	24XY	1285.243	0.000	829.297	1285.243	637.901	988.523	108.112	195.746
M13	24Y	845.733	-83.390	845.733	-83.390	650.545	-64.188	109.724	-69.114
M14	25P	0.000	-1620.537	-1123.698	-1620.537	-864.473	-1246.530	-271.952	-367.438
M14	25X	0.000	-1105.584	-1105.584	-91.491	-850.538	-70.455	-272.529	-77.347

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

M14	25XY	1403.865	0.000	906.193	1403.865	697.017	1079.728	119.008	214.665
M14	25Y	927.724	-87.201	927.724	-87.201	713.581	-67.155	121.056	-74.297
M14	26P	0.000	-1760.544	-1219.035	-1760.544	-937.802	-1354.212	-292.109	-396.182
M14	26X	0.000	-1195.850	-1195.850	-91.804	-919.966	-70.689	-292.253	-79.760
M14	26XY	1530.157	0.000	989.217	1530.157	760.891	1176.879	133.178	237.155
M14	26Y	1015.822	-87.654	1015.822	-87.654	781.358	-67.496	135.660	-76.737
M15	27P	0.000	-1910.240	-1322.021	-1910.240	-1017.030	-1469.362	-315.931	-428.984
M15	27X	0.000	-1293.772	-1293.772	-95.922	-995.298	-73.865	-315.640	-85.095
M15	27XY	1658.599	0.000	1072.352	1658.599	824.834	1275.667	145.176	257.866
M15	27Y	1103.949	-91.959	1103.949	-91.959	849.141	-70.816	148.079	-82.108
M15	28P	0.000	-2060.038	-1424.069	-2060.038	-1095.506	-1584.560	-337.530	-459.763
M15	28X	0.000	-1390.422	-1390.422	-96.485	-1069.622	-74.275	-336.549	-87.513
M15	28XY	1794.433	0.000	1161.845	1794.433	893.698	1380.171	160.627	282.227
M15	28Y	1198.518	-92.067	1198.518	-92.067	921.910	-70.877	163.971	-84.437
M16	29P	0.000	-2210.906	-1527.176	-2210.906	-1175.047	-1700.833	-361.219	-492.635
M16	29X	0.000	-1488.476	-1488.476	-99.396	-1145.276	-76.743	-359.795	-92.450
M16	29XY	1925.389	0.000	1246.447	1925.389	958.550	1480.673	173.061	303.576
M16	29Y	1288.232	-96.064	1288.232	-96.064	990.694	-74.181	176.854	-89.591
M17	30P	0.000	-2402.714	-1658.043	-2402.714	-1276.777	-1849.431	-390.926	-534.061
M17	30X	0.000	-1611.476	-1611.476	-101.089	-1240.955	-79.110	-388.775	-98.087
M17	30XY	2093.648	0.000	1355.751	2093.648	1041.566	1609.034	189.380	331.233
M17	30Y	1405.324	-98.296	1405.324	-98.296	1079.702	-76.962	193.844	-95.566
M18	31P	0.000	-2406.579	-1663.274	-2406.579	-1281.815	-1853.425	-399.736	-542.615
M18	31X	0.000	-1618.798	-1618.798	-113.278	-1247.601	-89.500	-397.424	-107.674
M18	31XY	2076.431	0.000	1340.431	2076.431	1028.765	1594.778	178.588	320.082
M18	31Y	1387.521	-110.705	1387.521	-110.705	1064.989	-87.521	182.915	-105.451
M19	32P	0.000	-2264.206	-1571.008	-2264.206	-1209.743	-1742.830	-390.877	-524.133
M19	32X	0.000	-1539.659	-1539.659	-136.426	-1185.627	-106.209	-389.206	-119.143
M19	32XY	1917.154	0.000	1229.830	1917.154	944.779	1473.361	148.360	280.498
M19	32Y	1263.360	-133.919	1263.360	-133.919	970.572	-104.281	151.672	-117.259
M20	33P	0.000	-2153.673	-1500.042	-2153.673	-1154.825	-1657.491	-385.493	-511.149
M20	33X	0.000	-1476.637	-1476.637	-155.028	-1136.821	-120.190	-384.167	-129.814
M20	33XY	1787.268	0.000	1138.956	1787.268	875.199	1373.783	122.538	247.180
M20	33Y	1163.779	-153.027	1163.779	-153.027	894.295	-118.651	125.180	-128.258
M21	34P	0.000	-2109.724	-1477.797	-2109.724	-1137.441	-1623.422	-393.944	-515.433
M21	34X	0.000	-1448.688	-1448.688	-171.623	-1115.049	-132.683	-387.191	-141.412
M21	34XY	1706.334	0.000	1079.442	1706.334	829.690	1311.803	101.883	222.410
M21	34Y	1101.441	-171.233	1101.441	-171.233	846.611	-132.383	103.830	-141.110
M22	35P	0.000	-2036.114	-1436.526	-2036.114	-1107.355	-1568.474	-400.615	-515.896
M22	35X	0.000	-1395.812	-1395.812	-184.381	-1076.036	-144.158	-389.966	-156.821
M22	35XY	1579.220	0.000	988.358	1579.220	757.961	1212.370	71.915	185.520
M22	35Y	1021.209	-181.541	1021.209	-181.541	783.230	-141.973	76.846	-154.632
M23	36P	0.000	-2048.505	-1448.976	-2048.505	-1116.933	-1578.007	-410.263	-525.533
M23	36X	0.000	-1410.705	-1410.705	-199.390	-1087.494	-155.705	-401.485	-168.361
M23	36XY	1566.490	0.000	975.681	1566.490	748.207	1202.576	62.222	175.816
M23	36Y	1008.518	-194.123	1008.518	-194.123	773.466	-151.653	67.151	-164.306
M24	37P	0.000	-2088.125	-1484.076	-2088.125	-1142.941	-1607.499	-431.657	-547.804
M24	37X	0.000	-1458.892	-1458.892	-234.037	-1123.568	-181.364	-425.194	-189.468
M24	37XY	1566.149	0.000	967.872	1566.149	743.190	1203.309	45.043	160.080
M24	37Y	989.047	-229.996	989.047	-229.996	759.479	-178.256	48.253	-186.357
M25	38P	0.000	-2102.434	-1498.465	-2102.434	-1154.012	-1618.508	-442.823	-558.955
M25	38X	0.000	-1473.286	-1473.286	-248.595	-1134.643	-192.566	-436.362	-200.667
M25	38XY	1551.358	0.000	953.158	1551.358	731.869	1191.928	33.813	148.836
M25	38Y	971.901	-246.982	971.901	-246.982	746.286	-191.325	35.155	-199.423
M26	39P	0.000	-2100.530	-1506.125	-2100.530	-1163.195	-1620.342	-462.422	-576.721
M26	39X	0.000	-1489.530	-1489.530	-280.620	-1150.429	-220.492	-458.850	-226.196

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M26	39XY	1507.711	0.000	917.285	1507.711	700.982	1155.069	9.740	123.274
M26	39Y	928.119	-276.735	928.119	-276.735	709.315	-217.503	8.671	-223.204
M27	40P	0.000	-2117.532	-1523.274	-2117.532	-1176.387	-1633.420	-475.799	-590.069
M27	40X	0.000	-1505.189	-1505.189	-296.601	-1162.475	-232.785	-471.081	-238.488
M27	40XY	1493.692	-0.747	903.413	1493.692	690.311	1144.285	-0.747	112.759
M27	40Y	914.245	-290.288	914.245	-290.288	698.643	-227.929	-1.816	-233.629
M28	41P	0.000	-2129.041	-1534.610	-2129.041	-1185.107	-1642.273	-484.295	-598.599
M28	41X	0.000	-1516.525	-1516.525	-307.549	-1171.195	-241.206	-479.577	-246.909
M28	41XY	1483.305	-9.094	892.853	1483.305	682.188	1136.295	-9.094	104.446
M28	41Y	903.685	-301.236	903.685	-301.236	690.520	-236.350	-10.163	-242.051
D1	42P	6.044	0.000	1.658	6.044	1.522	4.895	1.185	2.028
D1	42X	1.657	-3.035	1.657	-3.035	1.521	-2.087	1.185	0.282
D1	42XY	0.943	-3.230	0.460	-3.230	0.600	-2.237	0.943	0.234
D1	42Y	3.658	0.000	0.459	3.658	0.600	3.060	0.944	1.560
D1	43P	6.291	0.000	6.291	5.336	5.100	4.365	2.108	1.923
D1	43X	7.297	0.000	7.297	5.267	5.875	4.312	2.311	1.919
D1	43XY	0.174	-5.059	-5.059	-3.808	-3.631	-2.667	-0.068	0.174
D1	43Y	0.603	-2.965	-2.965	-1.540	-2.020	-0.924	0.328	0.603
D2	44P	6.165	-1.366	-1.366	6.165	-1.229	4.563	-0.904	0.544
D2	44X	0.000	-8.603	-1.368	-8.603	-1.231	-6.795	-0.905	-2.296
D2	44XY	0.000	-6.518	-0.210	-6.518	-0.340	-5.192	-0.670	-1.884
D2	44Y	4.692	-0.670	-0.212	4.692	-0.341	3.430	-0.670	0.273
D2	45P	7.586	0.000	7.586	4.954	5.675	3.650	0.884	0.376
D2	45X	9.300	0.000	9.300	7.100	6.994	5.300	1.200	0.775
D2	45XY	0.000	-10.793	-10.793	-7.661	-8.464	-6.052	-2.669	-2.064
D2	45Y	0.000	-7.491	-7.491	-6.249	-5.923	-4.967	-2.018	-1.778
D3	46P	12.740	0.000	2.156	12.740	1.686	9.826	0.604	2.639
D3	46X	2.153	-9.368	2.153	-9.368	1.683	-7.177	0.603	-1.613
D3	46XY	0.000	-10.854	-1.652	-10.854	-1.243	-8.321	-0.163	-1.933
D3	46Y	7.680	-1.655	-1.655	7.680	-1.246	5.935	-0.164	1.633
D3	47P	13.247	0.000	13.247	11.188	10.248	8.662	2.788	2.390
D3	47X	15.228	0.000	15.228	10.186	11.772	7.892	3.196	2.224
D3	47XY	0.000	-14.511	-14.511	-11.888	-11.105	-9.085	-2.530	-2.022
D3	47Y	0.000	-11.454	-11.454	-7.318	-8.753	-5.571	-1.967	-1.170
D4	48P	12.741	-2.413	-2.413	12.741	-1.837	9.818	-0.535	2.380
D4	48X	0.000	-16.425	-2.413	-16.425	-1.838	-12.613	-0.536	-3.231
D4	48XY	2.170	-10.784	2.170	-10.784	1.688	-8.276	0.388	-2.104
D4	48Y	13.062	0.000	2.173	13.062	1.690	10.065	0.389	2.484
D4	49P	16.550	0.000	16.550	10.502	12.778	8.124	3.235	2.069
D4	49X	19.628	0.000	19.628	16.338	15.146	12.612	3.779	3.142
D4	49XY	0.000	-19.789	-19.789	-12.823	-15.177	-9.815	-3.810	-2.466
D4	49Y	0.000	-15.308	-15.308	-13.284	-11.730	-10.171	-2.897	-2.506
D5	50P	20.248	0.000	2.008	20.248	1.594	15.623	0.571	4.080
D5	50X	1.940	-18.087	1.940	-18.087	1.542	-13.861	0.562	-3.291
D5	50XY	0.000	-17.919	-1.455	-17.919	-1.070	-13.732	-0.090	-3.257
D5	50Y	14.949	-1.516	-1.516	14.949	-1.116	11.548	-0.094	3.074
D5	51P	21.002	0.000	21.002	16.677	16.250	12.923	4.327	3.493
D5	51X	27.311	0.000	27.311	19.514	21.105	15.103	5.574	4.068
D5	51XY	0.000	-26.558	-26.558	-20.387	-20.335	-15.585	-4.804	-3.611
D5	51Y	0.000	-20.377	-20.377	-14.392	-15.580	-10.975	-3.631	-2.477
D6	52P	19.094	-3.146	-3.146	19.094	-2.385	14.721	-0.579	3.699
D6	52X	0.000	-24.475	-2.967	-24.475	-2.247	-18.788	-0.567	-4.704
D6	52XY	2.903	-17.542	2.903	-17.542	2.269	-13.457	0.591	-3.342
D6	52Y	21.175	0.000	3.088	21.175	2.412	16.323	0.607	4.086
D6	53P	23.195	0.000	23.195	14.764	17.922	11.436	4.643	3.019
D6	53X	31.932	0.000	31.932	26.396	24.644	20.380	6.223	5.151

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D6	53XY	0.000	-31.916	-31.916	-21.001	-24.473	-16.072	-6.050	-3.944
D6	53Y	0.000	-22.883	-22.883	-19.826	-17.524	-15.171	-4.247	-3.657
D7	54P	21.125	-0.829	-0.829	21.125	-0.355	16.530	0.603	4.826
D7	54X	0.503	-23.226	-1.983	-23.226	-1.243	-17.580	0.503	-3.582
D7	54XY	3.917	-16.016	3.917	-16.016	3.296	-12.036	1.550	-2.285
D7	54Y	21.003	0.000	2.752	21.003	2.399	16.438	1.443	4.955
D7	55P	24.820	0.000	24.820	17.108	19.402	13.468	5.629	4.144
D7	55X	31.070	0.000	31.070	25.311	24.210	19.776	6.921	5.808
D7	55XY	0.000	-29.049	-29.049	-18.893	-22.038	-14.221	-4.782	-2.823
D7	55Y	0.000	-22.702	-22.702	-19.394	-17.155	-14.608	-3.389	-2.751
D8	56P	14.031	-4.849	-4.849	14.031	-3.885	10.637	-1.151	2.482
D8	56X	1.071	-17.972	1.071	-17.972	0.669	-13.979	-0.670	-4.335
D8	56XY	0.000	-21.628	-2.494	-21.628	-2.074	-16.789	-0.732	-4.411
D8	56Y	21.264	-0.182	3.526	21.264	2.558	16.199	-0.182	3.229
D8	57P	17.457	0.000	17.457	9.847	13.317	7.464	3.300	1.836
D8	57X	32.331	0.000	32.331	27.218	24.761	20.822	5.373	4.382
D8	57XY	0.000	-33.677	-33.677	-25.336	-26.018	-19.596	-6.592	-4.980
D8	57Y	0.000	-18.589	-18.589	-14.169	-14.410	-11.010	-4.376	-3.525
D9	58P	2.058	-21.595	-6.306	-21.595	-3.524	-15.283	2.058	-0.885
D9	58X	2.484	-31.691	-31.691	-4.637	-23.054	-2.239	-2.729	2.484
D9	58XY	43.704	0.000	36.687	43.704	29.550	34.939	9.219	10.559
D9	58Y	15.437	-3.347	15.437	-3.347	13.200	-1.245	7.621	4.010
D9	59P	0.200	-26.898	-13.184	-26.898	-8.822	-19.367	0.200	-2.436
D9	59X	3.556	-26.976	-26.976	-0.875	-19.432	0.649	-1.472	3.556
D9	59XY	40.158	0.000	32.721	40.158	26.492	32.206	8.881	10.304
D9	59Y	21.401	0.000	21.401	1.607	17.783	2.557	8.474	4.664
D10	60P	37.303	0.000	4.243	37.303	3.401	28.829	1.205	7.563
D10	60X	1.798	-29.211	1.798	-29.211	1.520	-22.331	1.005	-4.960
D10	60XY	0.285	-34.855	-0.481	-34.855	-0.233	-26.672	0.285	-6.328
D10	60Y	29.608	-2.897	-2.897	29.608	-2.092	22.910	0.107	6.361
D10	61P	45.137	0.000	45.137	34.161	34.889	26.443	9.161	7.046
D10	61X	44.190	0.000	44.190	32.808	34.161	25.402	9.201	7.005
D10	61XY	0.000	-46.974	-46.974	-36.910	-35.968	-28.222	-8.555	-6.613
D10	61Y	0.000	-39.176	-39.176	-26.970	-29.969	-20.578	-6.852	-4.500
D11	62P	35.639	-0.725	-0.609	35.639	-0.540	27.341	-0.725	6.247
D11	62X	0.000	-37.865	-5.290	-37.865	-4.140	-29.196	-1.113	-7.378
D11	62XY	4.329	-32.711	4.329	-32.711	3.259	-25.232	0.228	-6.899
D11	62Y	32.852	-0.357	-0.357	32.852	-0.346	25.198	-0.165	6.224
D11	63P	47.814	0.000	47.814	33.214	36.732	25.498	8.663	5.850
D11	63X	44.733	0.000	44.733	35.360	34.362	27.148	8.550	6.742
D11	63XY	0.000	-49.206	-49.206	-34.559	-37.902	-26.631	-10.029	-7.206
D11	63Y	0.000	-45.301	-45.301	-35.908	-34.898	-27.669	-8.764	-6.952
D12	64P	40.808	0.000	3.836	40.808	2.997	31.434	0.662	7.773
D12	64X	0.333	-38.156	-0.133	-38.156	-0.057	-29.302	0.333	-6.981
D12	64XY	0.526	-41.453	0.526	-41.453	0.450	-31.839	0.053	-8.023
D12	64Y	36.825	-3.438	-3.438	36.825	-2.599	28.371	-0.273	7.473
D12	65P	50.383	0.000	50.383	37.602	38.840	29.005	9.700	7.236
D12	65X	53.791	0.000	53.791	40.041	41.462	30.881	10.773	8.122
D12	65XY	0.000	-56.873	-56.873	-42.605	-43.668	-32.688	-10.937	-8.187
D12	65Y	0.000	-50.227	-50.227	-36.824	-38.555	-28.242	-9.256	-6.673
D13	66P	38.723	-2.117	-2.117	38.723	-1.597	29.815	-0.646	7.210
D13	66X	0.000	-44.878	-6.268	-44.878	-4.790	-34.487	-0.991	-8.417
D13	66XY	6.049	-41.821	6.049	-41.821	4.685	-32.137	0.891	-8.319
D13	66Y	45.516	0.000	1.899	45.516	1.493	35.041	0.547	8.938
D13	67P	53.432	0.000	53.432	35.784	41.171	27.592	10.134	6.734
D13	67X	60.088	0.000	60.088	48.527	46.291	37.393	11.791	9.561

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D13	67XY	0.000	-63.200	-63.200	-43.174	-48.550	-33.140	-12.368	-8.509
D13	67Y	0.000	-53.322	-53.322	-43.334	-40.950	-33.263	-9.984	-8.057
D14	68P	46.953	0.000	3.977	46.953	3.108	36.162	0.673	8.940
D14	68X	0.333	-44.019	-0.112	-44.019	-0.038	-33.809	0.333	-8.113
D14	68XY	0.391	-48.246	0.391	-48.246	0.350	-37.061	-0.019	-9.376
D14	68Y	46.043	-3.698	-3.698	46.043	-2.796	35.464	-0.359	9.211
D14	69P	58.377	0.000	58.377	43.299	44.984	33.382	11.182	8.276
D14	69X	66.436	0.000	66.436	49.547	51.184	38.187	13.130	9.874
D14	69XY	0.000	-65.973	-65.973	-49.085	-50.672	-37.677	-12.776	-9.521
D14	69Y	0.000	-58.116	-58.116	-43.120	-44.628	-33.088	-10.819	-7.928
D15	70P	42.700	-3.596	-3.596	42.700	-2.747	32.862	-0.991	7.915
D15	70X	0.000	-51.230	-7.761	-51.230	-5.951	-39.385	-1.337	-9.699
D15	70XY	7.441	-44.638	7.441	-44.638	5.744	-34.316	1.127	-8.893
D15	70Y	52.413	0.000	3.279	52.413	2.541	40.334	0.783	10.235
D15	71P	60.080	0.000	60.080	39.371	46.270	30.336	11.332	7.343
D15	71X	67.809	0.000	67.809	55.721	52.216	42.912	13.222	10.890
D15	71XY	0.000	-68.265	-68.265	-45.679	-52.460	-35.081	-13.400	-9.048
D15	71Y	0.000	-60.324	-60.324	-50.070	-46.350	-38.459	-11.411	-9.433
D16	72P	51.707	0.000	9.661	51.707	7.688	40.027	2.795	10.883
D16	72X	6.237	-39.098	6.237	-39.098	5.054	-29.816	2.513	-6.209
D16	72XY	0.311	-50.033	-3.235	-50.033	-2.232	-38.228	0.311	-8.692
D16	72Y	43.715	-6.670	-6.670	43.715	-4.875	33.881	0.021	9.715
D16	73P	59.678	0.000	59.678	48.264	46.173	37.388	12.396	10.195
D16	73X	66.907	0.000	66.907	46.736	51.734	36.213	14.133	10.246
D16	73XY	0.000	-63.659	-63.659	-50.810	-48.704	-38.816	-11.340	-8.862
D16	73Y	0.000	-56.846	-56.846	-38.233	-43.463	-29.141	-9.687	-6.101
D17	74P	30.246	-12.016	-12.016	30.246	-9.436	23.070	-3.714	4.418
D17	74X	0.000	-52.529	-16.759	-52.529	-13.084	-40.594	-4.119	-10.998
D17	74XY	13.419	-32.800	13.419	-32.800	10.130	-25.422	1.164	-7.730
D17	74Y	48.676	0.000	8.732	48.676	6.524	37.248	0.801	8.485
D17	75P	51.894	0.000	51.894	27.082	39.752	20.662	8.567	3.788
D17	75X	56.033	0.000	56.033	52.432	42.936	40.161	9.851	9.153
D17	75XY	0.000	-59.342	-59.342	-32.968	-45.817	-25.526	-12.912	-7.833
D17	75Y	0.000	-55.296	-55.296	-53.343	-42.703	-41.196	-11.516	-11.134
D18	76P	0.000	-183.428	-63.493	-183.428	-47.575	-139.817	-10.303	-33.367
D18	76X	79.594	-75.785	-75.785	79.594	-57.032	62.487	-14.131	15.768
D18	76XY	192.117	0.000	73.108	192.117	57.507	149.035	14.606	37.490
D18	76Y	65.414	-89.054	65.414	-89.054	51.587	-67.229	14.316	-15.405
D18	77P	0.000	-186.219	-184.578	-186.219	-140.726	-141.967	-33.995	-34.289
D18	77X	0.000	-183.516	-183.516	-87.925	-139.909	-66.366	-34.303	-15.892
D18	77XY	190.129	0.000	182.592	190.129	141.725	147.503	36.121	37.549
D18	77Y	184.826	0.000	184.826	83.331	143.444	65.356	36.692	17.144
D19	78P	62.408	0.000	19.319	62.408	14.830	47.970	4.431	12.719
D19	78X	16.359	-35.189	16.359	-35.189	12.552	-27.098	4.178	-5.741
D19	78XY	0.000	-57.402	-13.220	-57.402	-10.202	-44.184	-1.826	-10.325
D19	78Y	36.473	-16.164	-16.164	36.473	-12.466	28.023	-2.068	8.062
D19	79P	65.082	0.000	65.082	61.330	50.044	47.152	13.232	12.505
D19	79X	66.271	0.000	66.271	37.404	50.958	28.750	13.865	8.307
D19	79XY	0.000	-62.668	-62.668	-57.942	-48.228	-44.587	-11.298	-10.383
D19	79Y	0.000	-62.144	-62.144	-34.284	-47.824	-26.391	-10.913	-5.548
D20	80P	38.478	-15.230	-15.230	38.478	-11.668	29.643	-3.854	6.480
D20	80X	0.000	-63.549	-17.638	-63.549	-13.520	-48.832	-4.054	-12.885
D20	80XY	14.719	-40.127	14.719	-40.127	11.371	-30.817	1.904	-8.650
D20	80Y	59.343	0.000	12.307	59.343	9.515	45.692	1.701	10.749
D20	81P	65.524	0.000	65.524	37.654	50.456	29.014	11.737	6.370
D20	81X	66.771	0.000	66.771	60.252	51.415	46.396	12.184	10.924

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D20	81XY	0.000	-70.030	-70.030	-41.309	-53.818	-31.722	-14.404	-8.873
D20	81Y	0.000	-68.117	-68.117	-62.408	-52.347	-47.950	-13.727	-12.623
D21	82P	58.621	0.000	3.673	58.621	2.839	45.102	0.706	11.276
D21	82X	1.146	-52.759	1.146	-52.759	0.894	-40.567	0.494	-9.877
D21	82XY	0.000	-54.860	-0.738	-54.860	-0.555	-42.184	-0.154	-10.567
D21	82Y	51.794	-3.265	-3.265	51.794	-2.499	39.852	-0.365	10.229
D21	83P	74.852	0.000	74.852	57.115	57.607	43.959	14.416	10.998
D21	83X	73.238	0.000	73.238	53.230	56.366	40.971	14.374	10.519
D21	83XY	0.000	-73.115	-73.115	-55.314	-56.215	-42.518	-14.071	-10.641
D21	83Y	0.000	-71.412	-71.412	-52.278	-54.905	-40.183	-13.458	-9.771
D22	84P	57.457	-2.191	-2.191	57.457	-1.668	44.210	-0.659	10.816
D22	84X	0.000	-61.125	-4.680	-61.125	-3.584	-46.998	-0.867	-11.725
D22	84XY	4.292	-52.786	4.292	-52.786	3.318	-40.585	0.601	-10.381
D22	84Y	57.398	0.000	1.802	57.398	1.403	44.166	0.393	11.089
D22	85P	78.965	0.000	78.965	56.137	60.772	43.208	14.980	10.581
D22	85X	75.462	0.000	75.462	58.670	58.078	45.157	14.583	11.347
D22	85XY	0.000	-75.611	-75.611	-53.442	-58.134	-41.077	-14.764	-10.494
D22	85Y	0.000	-77.195	-77.195	-60.439	-59.352	-46.458	-14.804	-11.574
D23	86P	63.135	0.000	1.144	63.135	0.918	48.598	0.169	12.095
D23	86X	0.000	-63.400	-1.378	-63.400	-1.023	-48.728	-0.043	-11.974
D23	86XY	1.548	-58.781	1.548	-58.781	1.228	-45.176	0.247	-11.360
D23	86Y	59.238	-0.974	-0.974	59.238	-0.712	45.602	0.036	11.621
D23	87P	83.296	0.000	83.296	61.343	64.141	47.250	16.027	11.797
D23	87X	80.774	0.000	80.774	60.930	62.202	46.933	15.814	11.990
D23	87XY	0.000	-80.576	-80.576	-58.911	-61.916	-45.246	-15.515	-11.341
D23	87Y	0.000	-83.272	-83.272	-63.073	-63.989	-48.447	-15.756	-11.863
D24	88P	63.687	-0.749	-0.749	63.687	-0.550	49.012	-0.276	12.121
D24	88X	0.000	-66.605	-3.267	-66.605	-2.488	-51.205	-0.487	-12.672
D24	88XY	3.199	-59.454	3.199	-59.454	2.487	-45.706	0.486	-11.569
D24	88Y	62.338	0.000	0.681	62.338	0.549	47.975	0.275	12.138
D24	89P	85.887	0.000	85.887	62.104	66.116	47.817	16.429	11.847
D24	89X	83.244	0.000	83.244	63.920	64.082	49.214	16.194	12.470
D24	89XY	0.000	-83.281	-83.281	-59.834	-64.015	-45.975	-16.130	-11.614
D24	89Y	0.000	-85.827	-85.827	-66.200	-65.974	-50.871	-16.344	-12.562
D25	90P	68.065	0.000	0.332	68.065	0.310	52.407	0.034	13.065
D25	90X	0.000	-69.403	-2.185	-69.403	-1.627	-53.329	-0.176	-13.108
D25	90XY	2.373	-63.630	2.373	-63.630	1.880	-48.889	0.429	-12.270
D25	90Y	65.338	-0.144	-0.144	65.338	-0.057	50.311	0.219	12.817
D25	91P	90.587	0.000	90.587	66.085	69.774	50.922	17.467	12.747
D25	91X	87.992	0.000	87.992	67.188	67.778	51.770	17.239	13.231
D25	91XY	0.000	-87.727	-87.727	-63.543	-67.392	-48.785	-16.853	-12.195
D25	91Y	0.000	-90.323	-90.323	-69.196	-69.389	-53.133	-17.076	-13.005
D26	92P	69.035	-1.124	-1.124	69.035	-0.818	53.146	-0.299	13.199
D26	92X	0.000	-72.591	-3.645	-72.591	-2.758	-55.789	-0.510	-13.774
D26	92XY	3.676	-64.754	3.676	-64.754	2.874	-49.762	0.627	-12.540
D26	92Y	68.365	0.000	1.156	68.365	0.935	52.632	0.416	13.347
D26	93P	93.432	0.000	93.432	67.272	71.953	51.825	17.959	12.920
D26	93X	90.838	0.000	90.838	70.284	69.957	54.142	17.732	13.772
D26	93XY	0.000	-90.731	-90.731	-64.888	-69.713	-49.830	-17.487	-12.510
D26	93Y	0.000	-93.334	-93.334	-72.457	-71.715	-55.651	-17.711	-13.688
D27	94P	72.941	-0.284	-0.284	72.941	-0.159	56.163	-0.089	13.999
D27	94X	0.000	-75.091	-2.788	-75.091	-2.085	-57.699	-0.298	-14.208
D27	94XY	2.939	-68.511	2.939	-68.511	2.321	-52.639	0.533	-13.214
D27	94Y	71.063	0.000	0.436	71.063	0.394	54.721	0.324	13.913
D27	95P	97.510	0.000	97.510	71.054	75.093	54.738	18.769	13.673
D27	95X	94.854	0.000	94.854	72.695	73.050	56.000	18.528	14.259

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D27	95XY	0.000	-94.674	-94.674	-68.557	-72.742	-52.648	-18.221	-13.190
D27	95Y	0.000	-97.189	-97.189	-74.729	-74.676	-57.395	-18.428	-14.101
D28	96P	74.963	-0.665	-0.665	74.963	-0.481	57.689	-0.238	14.311
D28	96X	0.000	-77.743	-3.190	-77.743	-2.424	-59.768	-0.450	-14.793
D28	96XY	3.181	-70.557	3.181	-70.557	2.477	-54.241	0.504	-13.684
D28	96Y	73.418	0.000	0.656	73.418	0.535	56.503	0.292	14.291
D28	97P	101.206	0.000	101.206	73.363	77.918	56.496	19.424	14.061
D28	97X	98.378	0.000	98.378	75.820	75.743	58.386	19.155	14.809
D28	97XY	0.000	-98.317	-98.317	-70.856	-75.563	-54.435	-18.976	-13.687
D28	97Y	0.000	-101.012	-101.012	-78.111	-77.635	-60.014	-19.217	-14.805
D29	98P	71.149	-9.818	-9.818	71.149	-7.263	55.015	-1.593	13.985
D29	98X	0.000	-87.513	-12.290	-87.513	-9.165	-67.024	-1.796	-16.267
D29	98XY	12.809	-66.343	12.809	-66.343	10.143	-50.742	2.773	-12.457
D29	98Y	83.737	0.000	10.338	83.737	8.241	64.698	2.571	16.692
D29	99P	104.446	0.000	104.446	70.126	80.626	54.221	20.396	13.787
D29	99X	101.734	0.000	101.734	84.234	78.539	65.073	20.140	16.768
D29	99XY	0.000	-101.269	-101.269	-67.314	-77.618	-51.496	-19.202	-12.664
D29	99Y	0.000	-103.967	-103.967	-86.081	-79.693	-65.930	-19.441	-15.993
D30	100P	66.744	-55.364	-55.364	66.744	-41.705	52.222	-10.391	13.106
D30	100X	0.000	-152.245	-58.743	-152.245	-44.304	-116.219	-10.681	-28.666
D30	100XY	57.293	-62.662	57.293	-62.662	44.957	-47.316	11.334	-11.750
D30	100Y	145.262	0.000	53.914	145.262	42.356	112.617	11.042	28.614
D30	101P	143.580	0.000	143.580	65.465	111.331	51.239	27.934	12.897
D30	101X	146.289	0.000	139.858	146.289	108.469	113.408	27.545	28.775
D30	101XY	0.000	-141.382	-141.382	-63.712	-107.871	-48.122	-26.938	-11.988
D30	101Y	0.000	-150.968	-144.992	-150.968	-110.648	-115.236	-27.241	-28.382
D31	102P	0.000	-183.053	-111.209	-183.053	-83.982	-139.232	-20.784	-34.596
D31	102X	19.982	-105.722	-105.722	19.982	-79.762	16.931	-20.599	3.591
D31	102XY	173.230	0.000	100.807	173.230	79.110	134.808	19.948	33.873
D31	102Y	106.794	-19.474	106.794	-19.474	83.715	-13.414	20.517	-3.784
D31	103P	0.000	-183.874	-137.871	-183.874	-104.494	-139.864	-26.022	-34.857
D31	103X	0.000	-132.531	-132.531	-18.491	-100.386	-12.659	-25.772	-3.819
D31	103XY	172.037	0.000	127.776	172.037	99.856	133.890	25.242	33.745
D31	103Y	133.313	0.000	133.313	21.011	104.116	17.722	25.637	4.017
D32	104P	0.000	-96.051	-43.921	-96.051	-32.815	-72.907	-7.639	-17.664
D32	104X	32.733	-40.209	-40.209	32.733	-29.960	26.145	-7.524	6.511
D32	104XY	90.931	0.000	38.496	90.931	30.583	70.911	8.146	18.231
D32	104Y	42.550	-30.853	42.550	-30.853	33.701	-22.761	8.524	-5.601
D32	105P	0.000	-96.965	-87.264	-96.965	-66.159	-73.610	-16.075	-17.931
D32	105X	0.000	-83.527	-83.527	-30.455	-63.283	-22.454	-15.877	-5.658
D32	105XY	90.508	0.000	81.949	90.508	64.010	70.586	16.602	18.241
D32	105Y	85.661	0.000	85.661	33.764	66.866	26.938	16.837	6.842
D33	106P	0.000	-70.365	-37.052	-70.365	-27.693	-53.312	-6.818	-13.223
D33	106X	17.347	-34.152	-34.152	17.347	-25.463	14.149	-6.719	3.190
D33	106XY	65.728	0.000	31.555	65.728	25.082	51.364	6.340	12.912
D33	106Y	34.711	-16.548	34.711	-16.548	27.509	-11.919	6.637	-3.227
D33	107P	0.000	-71.158	-59.641	-71.158	-45.071	-53.922	-11.243	-13.451
D33	107X	0.000	-57.127	-57.127	-16.339	-43.137	-11.759	-11.137	-3.284
D33	107XY	65.153	0.000	54.659	65.153	42.855	50.922	10.865	12.878
D33	107Y	57.821	0.000	57.821	17.849	45.288	14.535	11.082	3.383
D34	108P	0.000	-45.374	-29.263	-45.374	-21.870	-34.258	-6.077	-9.173
D34	108X	4.970	-26.055	-26.055	4.970	-19.403	4.460	-5.329	0.640
D34	108XY	43.789	0.000	23.082	43.789	18.395	34.320	4.331	8.312
D34	108Y	25.436	-8.151	25.436	-8.151	20.206	-5.629	4.422	-2.041
D34	109P	0.000	-44.133	-31.169	-44.133	-23.338	-33.304	-6.460	-8.948
D34	109X	0.000	-39.141	-39.141	-9.550	-29.470	-6.705	-8.027	-2.329

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D34	109XY	45.088	0.000	36.086	45.088	28.399	35.319	6.849	8.576
D34	109Y	30.062	0.000	30.062	3.645	23.766	3.441	5.492	0.404
D35	110P	0.000	-60.581	-16.258	-60.581	-10.958	-45.044	-1.895	-10.416
D35	111P	17.374	-32.199	17.374	-32.199	14.916	-23.220	5.372	-4.172
D35	112P	64.473	0.000	64.473	26.080	51.145	21.612	14.052	6.663
D35	113P	68.315	0.000	61.821	68.315	49.105	54.095	13.853	15.098
D35	114P	68.405	0.000	29.581	68.405	24.306	54.165	7.739	15.203
D35	115P	25.907	-28.887	-28.887	25.907	-20.672	21.478	-4.147	6.401
D35	116P	0.000	-60.712	-60.712	-32.814	-45.152	-23.693	-9.888	-4.520
D35	117P	0.000	-64.713	-64.713	-60.373	-48.229	-44.885	-11.130	-10.288
D36	118P	0.000	-53.086	-3.460	-53.086	-0.912	-39.087	-3.999	-13.552
D36	119P	0.000	-70.503	-14.191	-70.503	-9.168	-52.478	-6.624	-17.453
D36	120P	56.184	0.000	56.184	45.806	44.968	36.979	7.599	5.597
D36	121P	67.397	0.000	67.397	41.785	53.593	33.891	9.339	4.408
D36	122P	42.125	-15.830	-15.830	42.125	-10.429	34.153	-7.012	4.143
D36	123P	45.372	-3.482	-2.296	45.372	-0.016	36.646	-3.482	5.684
D36	124P	0.000	-86.226	-86.226	-69.477	-64.579	-51.689	-20.314	-17.085
D36	125P	0.000	-74.194	-74.194	-54.571	-55.324	-40.229	-17.946	-14.168
D37	126P	2.640	-34.968	2.127	-34.968	2.640	-25.889	1.834	-5.299
D37	127P	1.897	-28.643	0.227	-28.643	1.181	-21.029	1.897	-3.662
D37	128P	49.953	0.000	49.953	36.601	39.431	29.160	11.153	8.583
D37	129P	40.880	0.000	40.880	32.040	32.452	25.648	9.775	8.071
D37	130P	31.865	0.000	1.815	31.865	2.403	25.513	2.420	8.198
D37	131P	36.865	0.000	1.175	36.865	1.908	29.364	1.544	8.415
D37	132P	0.000	-38.237	-38.237	-29.665	-28.408	-21.815	-5.727	-4.077
D37	133P	0.000	-48.021	-48.021	-34.235	-35.934	-25.326	-7.653	-4.996
D38	134P	0.000	-56.047	-26.792	-56.047	-19.477	-41.983	-10.238	-15.870
D38	135P	4.848	-40.116	4.833	-40.116	4.848	-29.724	-4.493	-13.137
D38	136P	34.757	-2.393	34.757	13.353	27.867	11.399	1.729	-2.393
D38	137P	42.816	0.000	42.816	39.256	34.066	31.328	2.886	2.199
D38	138P	39.058	-4.893	2.953	39.058	3.401	31.175	-4.893	2.057
D38	139P	13.652	-24.196	-24.196	13.652	-17.480	11.628	-9.575	-2.297
D38	140P	0.000	-65.353	-65.353	-40.277	-49.141	-29.847	-17.958	-13.128
D38	141P	0.000	-56.285	-56.285	-56.211	-42.166	-42.109	-16.022	-16.007
D39	142P	17.488	-74.956	17.488	-74.956	17.368	-53.737	4.090	-13.693
D39	143P	0.000	-101.594	-27.527	-101.594	-17.256	-74.230	-4.216	-18.470
D39	144P	110.177	0.000	110.177	93.778	88.669	76.052	22.187	19.027
D39	145P	103.812	0.000	103.812	63.760	83.773	52.958	21.535	13.823
D39	146P	62.757	-23.169	-23.169	62.757	-13.905	52.186	-2.887	13.641
D39	147P	94.579	0.000	14.431	94.579	15.017	76.668	3.406	18.830
D39	148P	0.000	-113.471	-113.471	-103.613	-83.369	-75.784	-21.111	-19.211
D39	149P	0.000	-120.812	-120.812	-73.912	-89.016	-52.933	-22.511	-13.480
D40	158P	0.000	-112.909	-97.569	-112.909	-71.986	-83.785	-23.950	-26.899
D40	159P	33.525	-49.171	33.525	-49.171	28.855	-34.752	0.707	-15.201
D40	160P	69.803	-0.672	69.803	20.887	56.764	19.130	8.746	-0.672
D40	161P	81.964	0.000	77.262	81.964	62.501	66.116	9.699	10.601
D40	162P	83.555	-0.646	26.026	83.555	23.087	67.340	-0.646	10.427
D40	163P	19.138	-53.411	-53.411	19.138	-38.017	17.784	-14.749	-0.794
D40	164P	0.000	-106.475	-106.475	-46.678	-78.836	-32.833	-26.018	-14.506
D40	165P	0.000	-109.653	-61.929	-109.653	-44.568	-81.279	-16.606	-25.792
H1	166P	0.000	-0.623	-0.623	-0.567	-0.574	-0.531	-0.452	-0.441
H1	166Y	0.000	-0.507	-0.188	-0.507	-0.240	-0.485	-0.365	-0.426
H1	167P	0.000	-0.414	-0.059	-0.307	-0.149	-0.340	-0.366	-0.414
H1	167X	0.000	-0.442	-0.439	-0.305	-0.442	-0.339	-0.441	-0.416
H2	1661P	0.124	-0.316	-0.316	-0.194	-0.191	-0.097	0.101	0.124
H2	1661Y	1.016	0.000	0.706	1.016	0.595	0.834	0.305	0.365

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

H2	1671P	0.000	-0.542	-0.539	-0.542	-0.408	-0.410	-0.063	-0.064
H2	1671X	0.237	0.000	0.060	0.237	0.054	0.190	0.053	0.088
H3	1662P	0.464	-0.103	0.464	0.108	0.297	0.023	-0.035	-0.103
H3	1662Y	0.000	-0.730	-0.730	-0.593	-0.622	-0.517	-0.292	-0.266
H3	1672P	0.462	-0.591	-0.591	0.462	-0.582	0.229	-0.435	-0.232
H3	1672X	0.000	-1.278	-0.287	-1.278	-0.348	-1.110	-0.348	-0.539
H4	1663P	3.173	-0.086	3.173	2.504	2.219	1.703	0.044	-0.086
H4	1663Y	0.000	-4.419	-4.419	-3.161	-3.621	-2.654	-1.447	-1.205
H4	1674P	3.006	-0.998	-0.901	3.006	-0.998	2.007	-0.998	-0.246
H4	1674X	0.000	-4.650	-0.735	-4.650	-0.870	-3.881	-0.863	-1.616
H5	168P	0.000	-21.637	-21.637	-17.164	-17.253	-13.810	-7.409	-6.546
H5	168Y	12.636	-1.582	12.636	8.215	9.113	5.710	-0.729	-1.582
H5	169P	0.000	-16.383	-4.398	-16.383	-4.033	-13.251	-3.965	-6.270
H5	169X	6.839	-5.288	-5.288	6.839	-4.718	4.610	-4.487	-2.154
H6	170P	32.140	0.000	32.140	27.135	24.240	20.386	6.681	5.713
H6	170Y	0.000	-28.909	-28.909	-23.954	-22.723	-18.908	-5.164	-4.206
H6	171P	27.032	0.000	4.975	27.032	3.316	20.281	1.118	5.361
H6	171X	0.251	-23.949	-1.917	-23.949	-1.986	-18.930	0.251	-3.987
H7	1701P	1.766	0.000	1.766	0.636	1.325	0.455	0.379	0.161
H7	1701Y	0.000	-1.560	-1.560	-1.323	-1.234	-1.051	-0.279	-0.233
H7	1712P	2.250	-0.990	-0.990	2.250	-0.884	1.608	-0.343	0.281
H7	1712X	0.000	-3.253	-0.390	-3.253	-0.423	-2.625	-0.198	-0.749
H8	1703P	3.532	0.000	3.532	2.582	2.613	1.882	0.531	0.348
H8	1703Y	0.000	-3.631	-3.631	-1.886	-2.897	-1.554	-0.819	-0.483
H8	1714P	5.331	-0.344	-0.193	5.331	-0.344	3.906	-0.333	0.730
H8	1714X	1.042	-4.786	1.042	-4.786	0.607	-3.876	-0.008	-1.129
H9	1704P	1.747	-0.574	1.747	1.066	1.096	0.572	-0.443	-0.574
H9	1704Y	0.000	-3.568	-3.568	-2.757	-2.993	-2.369	-1.454	-1.297
H9	1705P	5.191	-0.951	-0.823	5.191	-0.949	3.676	-0.951	0.206
H9	1705X	0.000	-6.619	-0.555	-6.619	-0.743	-5.407	-0.836	-2.002
H10	172P	0.000	-124.474	-124.474	-95.631	-96.440	-74.244	-31.198	-25.636
H10	172Y	101.565	0.000	101.565	72.641	77.443	55.184	12.201	6.623
H10	1721P	0.000	-92.609	-10.818	-92.609	-9.036	-71.946	-9.032	-24.766
H10	1721X	69.894	-11.932	-11.932	69.894	-9.893	53.043	-9.823	5.918
H11	1722P	125.519	0.000	125.519	96.566	96.193	73.912	30.515	24.933
H11	1722Y	0.000	-102.083	-102.083	-73.125	-78.891	-56.607	-13.214	-7.631
H11	1723P	96.310	0.000	11.624	96.310	8.565	73.702	8.361	24.652
H11	1723X	12.216	-72.624	12.216	-72.624	9.021	-56.234	8.921	-7.400
H12	17231P	12.298	0.000	12.298	10.075	9.386	7.676	2.886	2.458
H12	17231Y	0.000	-10.215	-10.215	-8.006	-7.932	-6.232	-1.433	-1.006
H12	17241P	10.704	0.000	1.906	10.704	1.355	8.122	0.794	2.486
H12	17241X	0.502	-8.692	0.126	-8.692	-0.014	-6.797	0.502	-1.195
H13	17251P	4.477	0.000	4.477	2.764	3.360	2.042	0.834	0.504
H13	17251Y	0.000	-4.307	-4.307	-3.252	-3.397	-2.585	-0.870	-0.667
H13	1726P	4.639	-0.732	-0.732	4.639	-0.716	3.416	-0.265	0.768
H13	1726X	0.000	-5.143	-0.022	-5.143	-0.169	-4.108	-0.128	-1.113
H14	17252P	4.931	0.000	4.931	3.614	3.651	2.638	0.735	0.481
H14	17252Y	0.000	-5.190	-5.190	-3.904	-4.135	-3.145	-1.220	-0.972
H14	17261P	6.219	-0.450	-0.261	6.219	-0.450	4.534	-0.441	0.805
H14	17261X	0.000	-6.706	-0.231	-6.706	-0.427	-5.407	-0.427	-1.673
H15	17253P	6.579	0.000	6.579	4.829	4.879	3.532	0.989	0.651
H15	17253Y	0.000	-6.922	-6.922	-5.203	-5.507	-4.185	-1.617	-1.286
H15	17262P	7.795	-0.550	-0.328	7.795	-0.550	5.698	-0.531	1.032
H15	17262X	0.000	-8.391	-0.279	-8.391	-0.512	-6.752	-0.512	-2.073
H16	17254P	13.833	0.000	13.833	10.226	10.312	7.537	2.209	1.514
H16	17254Y	0.000	-14.289	-14.289	-10.714	-11.320	-8.570	-3.217	-2.528

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H16	17263P	12.079	-0.614	-0.294	12.079	-0.614	8.903	-0.598	1.782
H16	17263X	0.000	-12.607	-0.239	-12.607	-0.572	-10.085	-0.577	-2.956
H17	17255P	45.412	0.000	45.412	33.933	34.119	25.286	8.065	5.853
H17	17255Y	0.000	-44.995	-44.995	-33.514	-35.426	-26.592	-9.372	-7.159
H17	17264P	33.091	-0.750	0.062	33.091	-0.750	24.655	-0.685	5.670
H17	17264X	0.105	-32.858	0.105	-32.858	-0.717	-26.071	-0.651	-6.993
H18	1724P	0.000	-98.848	-98.848	-77.513	-77.800	-61.383	-29.343	-25.232
H18	1724Y	69.282	-1.036	69.282	47.943	51.533	35.113	3.076	-1.036
H18	1725P	0.000	-77.317	-14.734	-77.317	-13.097	-61.234	-13.098	-25.138
H18	1725X	47.773	-14.809	-14.809	47.773	-13.155	34.981	-13.157	-1.117
H19	1728P	95.447	0.000	95.447	71.377	71.705	53.185	16.892	12.254
H19	1728Y	0.000	-94.721	-94.721	-70.596	-74.580	-56.017	-19.766	-15.118
H19	1727P	71.251	-1.464	0.354	71.251	-1.444	53.088	-1.464	12.176
H19	1727X	0.401	-70.507	0.401	-70.507	-1.408	-55.948	-1.408	-15.049
H20	1729P	59.032	0.000	59.032	43.755	44.026	32.271	9.942	6.999
H20	1729Y	0.000	-59.222	-59.222	-44.369	-46.940	-35.511	-12.857	-9.995
H20	1720P	43.841	-1.661	-0.360	43.841	-1.661	32.338	-1.512	6.992
H20	1720X	0.000	-44.208	-0.083	-44.208	-1.447	-35.387	-1.451	-9.940
H21	17291P	49.868	0.000	49.868	40.858	37.162	30.229	8.541	6.804
H21	17291Y	0.000	-49.219	-49.219	-35.258	-39.060	-28.318	-10.448	-7.759
H21	17201P	39.303	-0.518	3.116	39.303	1.198	29.033	-0.518	6.445
H21	17201X	0.413	-36.601	0.413	-36.601	-0.880	-29.351	-0.836	-7.957
H22	17292P	67.066	0.000	67.066	52.457	49.912	38.671	10.672	7.857
H22	17292Y	0.000	-68.862	-68.862	-52.268	-54.649	-41.881	-15.426	-12.229
H22	17202P	53.684	-1.327	4.459	53.684	1.752	39.615	-1.327	8.144
H22	17202X	0.000	-51.218	-0.232	-51.218	-1.857	-41.074	-2.269	-12.078
H23	173P	4.197	-0.328	4.197	2.835	3.221	2.173	-0.066	-0.328
H23	174P	0.000	-7.179	-7.179	-5.601	-5.530	-4.316	-2.256	-1.952
H23	175P	2.509	-1.683	-1.683	2.509	-1.302	1.923	-1.197	-0.390
H23	176P	0.000	-5.745	-1.623	-5.745	-1.256	-4.427	-1.187	-1.981
H23	177P	0.000	-7.122	-7.122	-5.746	-5.486	-4.427	-2.247	-1.982
H23	178P	5.297	-0.412	5.297	3.266	4.067	2.505	-0.020	-0.412
H23	179P	0.000	-6.939	-1.673	-6.939	-1.294	-5.346	-1.363	-2.377
H23	180P	2.833	-1.328	-1.328	2.833	-1.029	2.172	-1.130	-0.330
H24	17293P	87.759	0.000	87.759	66.325	65.508	49.017	17.080	12.951
H24	17293Y	0.000	-80.644	-80.644	-59.315	-64.034	-47.623	-15.617	-11.509
H24	17203P	65.934	0.000	3.121	65.934	0.402	48.716	0.702	12.787
H24	17203X	3.175	-59.398	3.175	-59.398	0.443	-47.687	0.604	-11.435
H25	181P	4.296	-0.461	4.296	3.028	3.292	2.316	-0.216	-0.461
H25	182P	0.000	-9.631	-9.631	-7.309	-7.421	-5.635	-3.067	-2.619
H25	183P	3.115	-2.516	-2.516	3.115	-1.948	2.383	-1.696	-0.613
H25	184P	0.000	-6.568	-2.194	-6.568	-1.700	-5.065	-1.468	-2.310
H25	185P	0.000	-7.855	-7.855	-6.571	-6.055	-5.068	-2.557	-2.310
H25	186P	4.290	-0.586	4.290	2.380	3.287	1.818	-0.218	-0.586
H25	187P	0.000	-5.990	-1.390	-5.990	-1.082	-4.620	-1.313	-2.197
H25	188P	3.032	-1.351	-1.351	3.032	-1.052	2.319	-1.303	-0.459
H26	17294P	145.475	0.000	145.475	111.043	107.629	81.137	29.991	23.359
H26	17294Y	0.000	-124.255	-124.255	-89.113	-99.857	-72.820	-22.243	-15.475
H26	17204P	111.844	0.000	11.798	111.844	4.800	81.754	4.198	23.446
H26	17204X	13.027	-88.080	13.027	-88.080	5.745	-72.025	4.243	-15.209
H27	189P	9.223	-0.486	9.223	5.982	7.094	4.601	0.138	-0.486
H27	190P	0.000	-8.552	-8.552	-6.737	-6.578	-5.183	-3.015	-2.666
H27	191P	1.984	-2.578	-2.578	1.984	-1.983	1.526	-1.863	-0.985
H27	192P	0.000	-7.017	-2.561	-7.017	-1.970	-5.398	-1.861	-2.719
H27	193P	0.000	-8.557	-8.557	-7.017	-6.582	-5.398	-3.016	-2.720
H27	194P	5.006	-1.008	5.006	2.737	3.850	2.106	-0.570	-1.008

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

H27	195P	0.000	-8.069	-2.478	-8.069	-1.906	-6.207	-2.014	-3.089
H27	196P	5.978	-2.628	-2.628	5.978	-2.022	4.598	-2.144	-0.488
H26	205P	2.765	-0.488	1.935	2.765	1.489	2.127	-0.488	-0.329
H27	206P	0.000	-4.568	-4.568	-0.830	-3.514	-0.639	-1.537	-0.817
H27	207P	0.000	-6.370	-4.291	-6.370	-3.300	-4.900	-1.687	-2.087
H27	208P	1.658	-0.830	1.658	-0.830	1.275	-0.639	-0.339	-0.817
H27	209P	3.937	-0.342	2.379	3.937	1.830	3.029	-0.342	-0.043
H27	210P	0.000	-4.849	-4.849	-1.040	-3.730	-0.800	-1.558	-0.825
H27	211P	0.000	-6.797	-4.895	-6.797	-3.765	-5.228	-1.742	-2.108
H27	212P	2.425	-1.040	2.425	-1.040	1.865	-0.800	-0.158	-0.825
H27	213P	0.000	-2.890	-2.377	-2.890	-1.829	-2.224	-0.997	-1.096
H27	214P	5.822	-0.646	0.242	5.822	0.186	4.479	-0.646	0.428
H27	215P	0.000	-13.025	-9.251	-13.025	-7.116	-10.020	-2.319	-3.046
H27	216P	7.116	0.000	7.116	5.822	5.474	4.479	0.677	0.428

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*** Análisis de resultados por caso de carga No. 1 "LC1 WIND 0° C.D."

Equilibrium Joint Positions and Rotations for Load Case "LC1 WIND 0° C.D.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	3.136	-0.007969	-0.05261	-0.0652	3.2200	-0.7281	3.786	0.642	150.9
10P	2.082	-0.03301	-0.04848	0.0301	2.8341	-0.7283	2.732	0.617	131.6
11P	1.908	-0.01809	-0.06648	0.2692	2.5536	-0.7352	3.048	1.122	127.5
19P	1.133	0.01091	-0.05042	-0.0489	1.8649	-0.8490	2.273	1.151	108.6
20P	0.9837	0.00887	-0.07464	0.0614	1.4628	-0.8099	3.436	2.461	102.1
32P	0.2464	0.0007125	-0.03936	0.0131	0.8015	-0.7194	2.698	2.453	66.09
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	3.145	-0.007835	-0.05122	-0.0570	3.0707	0.4738	3.795	-0.6578	150.9
1XY	3.145	-0.005426	0.01784	0.1187	3.0424	0.4725	2.495	-0.6554	150.9
1Y	3.136	-0.005551	0.01996	0.0681	3.1956	-0.7141	2.486	0.6444	150.9
10X	2.147	-0.03248	-0.04603	0.0262	2.7786	0.4740	2.797	-0.6825	131.6
10XY	2.148	0.02874	0.01405	-0.0156	2.7819	0.4726	1.498	-0.6213	131.6
10Y	2.082	0.02886	0.01694	-0.0071	2.8406	-0.7143	1.432	0.6789	131.6
11X	1.947	-0.01868	-0.07045	0.1145	2.8480	0.5015	3.087	-1.159	127.5
11XY	1.947	0.0158	0.03876	-0.0948	2.8370	0.4994	0.8071	-1.124	127.6
11Y	1.909	0.01487	0.03539	-0.2616	2.5485	-0.7213	0.7685	1.155	127.6
19X	1.109	0.01423	-0.05396	0.1565	2.0055	0.8163	2.249	-1.126	108.6
19XY	1.11	-0.01298	0.02523	-0.1394	1.9872	0.8122	-0.03002	-1.153	108.6
19Y	1.134	-0.01067	0.02191	0.0407	1.8499	-0.8328	-0.006466	1.129	108.6
20X	0.9689	0.00532	-0.074	-0.1348	1.4129	0.8046	3.421	-2.447	102.1
20XY	0.9689	-0.004608	0.04677	0.1395	1.4036	0.7999	-1.483	-2.457	102.2
20Y	0.9838	-0.008328	0.04749	-0.0665	1.4518	-0.7948	-1.468	2.444	102.2
32X	0.2413	0.003109	-0.03916	-0.0249	0.7920	0.7103	2.693	-2.449	66.09
32XY	0.242	-0.001863	0.01834	0.0245	0.7902	0.7068	-2.21	-2.454	66.14
32Y	0.2472	-0.0009647	0.01848	-0.0141	0.7995	-0.7119	-2.205	2.451	66.14
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	2.956	-0.01159	-0.05249	-0.0636	3.2000	-0.7281	3.606	0.6384	147.6
3S	2.816	-0.01412	-0.05231	-0.0475	3.1989	-0.7282	3.466	0.6359	145.1
4S	2.677	-0.01641	-0.05194	-0.0774	3.1827	-0.7282	3.327	0.6336	142.6
5S	2.539	-0.01994	-0.05137	-0.0434	3.1505	-0.7283	3.189	0.6301	140.1
6S	2.402	-0.02215	-0.05075	-0.0933	3.1118	-0.7283	3.052	0.6278	137.6
7S	2.268	-0.0268	-0.04993	-0.0552	3.0352	-0.7283	2.918	0.6232	135.2
8S	2.163	-0.0292	-0.04917	-0.1578	2.9984	-0.7283	2.813	0.6208	133.2
12S	1.778	-0.0127	-0.06538	0.0396	2.5823	-0.7504	2.918	1.127	124.6
13S	1.667	-0.009393	-0.06419	0.1245	2.5135	-0.7635	2.807	1.131	122.1
14S	1.558	-0.003507	-0.06244	0.0832	2.4432	-0.7793	2.698	1.136	119.6
15S	1.454	-0.001087	-0.06038	0.1137	2.3505	-0.7950	2.594	1.139	117.1
16S	1.353	0.005463	-0.05794	0.0784	2.2460	-0.8107	2.493	1.145	114.6
17S	1.258	0.006956	-0.05514	0.1259	2.1067	-0.8264	2.398	1.147	112.1
18S	1.187	0.01251	-0.05259	0.0428	2.0038	-0.8390	2.327	1.153	110.1
21S	0.9114	0.006642	-0.07222	-0.0646	1.4631	-0.7963	3.363	2.459	99.33
22S	0.8419	0.00614	-0.0696	0.0299	1.3939	-0.7827	3.294	2.458	96.53
23S	0.7773	0.00715	-0.06621	-0.0252	1.3414	-0.7671	3.229	2.459	93.83
24S	0.7158	0.005078	-0.06249	0.0033	1.2634	-0.7515	3.168	2.457	91.14
25S	0.655	0.005579	-0.06035	-0.0146	1.2232	-0.7462	3.107	2.458	88.34

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.5964	0.00417	-0.058	-0.0006	1.1756	-0.7409	3.048	2.456	85.54
27S	0.5398	0.004628	-0.05588	-0.0109	1.1362	-0.7378	2.992	2.457	82.74
28S	0.4854	0.003348	-0.05358	-0.0061	1.0914	-0.7347	2.937	2.455	79.95
29S	0.4342	0.003955	-0.05113	-0.0042	1.0409	-0.7317	2.886	2.456	77.2
30S	0.3853	0.002711	-0.04849	-0.0170	1.0022	-0.7286	2.837	2.455	74.45
31S	0.3384	0.002682	-0.04571	-0.0067	0.9933	-0.7256	2.79	2.455	71.75
33S	0.191	0.002103	-0.03865	0.1166	0.4806	-0.6675	3.414	3.225	59.76
34S	0.1485	0.001172	-0.0374	0.0604	0.4433	-0.6047	4.102	3.955	53.76
35S	0.114	0.0001909	-0.03547	0.0723	0.3493	-0.5404	4.799	4.685	47.76
36S	0.0852	2.379e-005	-0.03285	0.0540	0.3246	-0.4713	5.501	5.416	41.77
37S	0.05837	-0.001165	-0.03028	0.0588	0.2497	-0.4056	6.206	6.146	35.77
371S	0.05768	-0.0005724	-0.03086	0.0000	0.0000	0.0000	6.205	-0.0005724	35.77
372S	0.05889	-0.0005669	-0.007191	0.0000	0.0000	0.0000	0.05889	6.147	35.79
373S	0.05885	0.0006154	0.01648	0.0000	0.0000	0.0000	-6.089	0.0006154	35.82
374S	0.05749	0.0006099	-0.007149	0.0000	0.0000	0.0000	0.05749	-6.147	35.79
38S	0.04088	-4.307e-005	-0.02624	0.0458	0.2021	-0.3387	6.919	6.879	29.77
39S	0.02308	-0.001166	-0.02236	0.0467	0.1588	-0.2696	7.633	7.609	23.78
391S	0.02268	-0.0004354	-0.02362	0.0000	0.0000	0.0000	7.632	-0.0004354	23.78
392S	0.02373	-0.0007391	-0.005495	0.0000	0.0000	0.0000	0.02373	7.609	23.79
393S	0.02414	0.0004129	0.01272	0.0000	0.0000	0.0000	-7.586	0.0004129	23.81
394S	0.02288	0.0007166	-0.005448	0.0000	0.0000	0.0000	0.02288	-7.609	23.79
40S	0.01266	0.001066	-0.01712	0.0384	0.1260	-0.2003	8.354	8.342	17.78
41S	0.001755	-0.001121	-0.01244	-0.0091	0.0530	-0.1407	9.074	9.071	11.79
411S	0.00148	-0.0002291	-0.006491	0.0000	0.0000	0.0000	9.074	-0.0002291	11.79
412S	0.002455	-0.0008898	-0.002756	0.0000	0.0000	0.0000	0.002455	9.071	11.8
413S	0.003219	0.0001919	0.0009797	0.0000	0.0000	0.0000	-9.069	0.0001919	11.8
414S	0.002043	0.0008526	-0.002728	0.0000	0.0000	0.0000	0.002043	-9.071	11.8
42S	0.002815	-0.002687	-0.006163	0.0346	0.0023	-0.0673	9.806	9.801	5.794
2X	2.974	-0.01108	-0.05109	-0.0596	3.0485	0.4739	3.624	-0.6611	147.6
2XY	2.975	0.0004859	0.01784	0.0790	3.0605	0.4725	2.325	-0.6495	147.7
2Y	2.957	-0.0009826	0.01996	0.1083	3.2101	-0.7141	2.307	0.649	147.7
3X	2.841	-0.01399	-0.05088	-0.0789	3.0460	0.4739	3.491	-0.664	145.1
3XY	2.841	0.003904	0.01773	0.1082	3.0486	0.4725	2.191	-0.6461	145.2
3Y	2.817	0.003796	0.01987	0.0807	3.2008	-0.7141	2.167	0.6538	145.2
4X	2.708	-0.01735	-0.05044	-0.0559	3.0259	0.4739	3.358	-0.6673	142.6
4XY	2.709	0.009158	0.01745	0.0846	3.0266	0.4725	2.059	-0.6408	142.7
4Y	2.677	0.006875	0.01965	0.1093	3.1847	-0.7142	2.027	0.6569	142.7
5X	2.577	-0.01983	-0.04975	-0.0992	2.9868	0.4739	3.227	-0.6698	140.2
5XY	2.577	0.01238	0.01698	0.1364	2.9809	0.4725	1.927	-0.6376	140.2
5Y	2.539	0.01225	0.01926	0.0631	3.1408	-0.7142	1.889	0.6622	140.2
6X	2.447	-0.02415	-0.04898	-0.0692	2.9432	0.4739	3.097	-0.6741	137.7
6XY	2.448	0.01841	0.01642	0.0942	2.9439	0.4725	1.798	-0.6316	137.7
6Y	2.403	0.01516	0.01879	0.1214	3.1137	-0.7142	1.753	0.6652	137.7
7X	2.321	-0.02674	-0.04792	-0.0996	2.8602	0.4740	2.971	-0.6767	135.2
7XY	2.321	0.0216	0.01559	0.1209	2.8629	0.4726	1.671	-0.6284	135.2
7Y	2.268	0.0214	0.01813	0.0802	3.0370	-0.7143	1.618	0.6714	135.2
8X	2.222	-0.03092	-0.04696	-0.1120	2.7555	0.4740	2.872	-0.6809	133.2
8XY	2.223	0.02672	0.01482	0.1362	2.7527	0.4726	1.573	-0.6233	133.2
8Y	2.163	0.02441	0.01752	0.1772	2.9963	-0.7143	1.513	0.6744	133.2
12X	1.807	-0.01424	-0.0693	0.1058	2.7385	0.5436	2.947	-1.154	124.6
12XY	1.807	0.01244	0.0379	-0.0921	2.7427	0.5413	0.6672	-1.128	124.7
12Y	1.778	0.009895	0.03457	-0.0233	2.5818	-0.7362	0.638	1.15	124.7
13X	1.688	-0.009223	-0.06809	0.0791	2.7027	0.5800	2.828	-1.149	122.1
13XY	1.688	0.007766	0.03695	-0.0686	2.7064	0.5774	0.548	-1.132	122.2
13Y	1.667	0.007514	0.03362	-0.1068	2.5131	-0.7491	0.527	1.148	122.2
14X	1.571	-0.006792	-0.06633	0.1035	2.6336	0.6235	2.711	-1.147	119.6

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	1.572	0.006047	0.03556	-0.0888	2.6319	0.6206	0.4317	-1.134	119.7
14Y	1.559	0.002109	0.0322	-0.0717	2.4433	-0.7645	0.4188	1.142	119.7
15X	1.458	-0.0009617	-0.06423	0.0749	2.5410	0.6670	2.598	-1.141	117.1
15XY	1.458	0.0006405	0.03387	-0.0658	2.5466	0.6639	0.3185	-1.139	117.2
15Y	1.454	0.0003367	0.03048	-0.0999	2.3519	-0.7799	0.3141	1.14	117.2
16X	1.35	0.0006367	-0.06172	0.1077	2.4378	0.7105	2.49	-1.139	114.6
16XY	1.35	-0.0004556	0.03181	-0.0951	2.4338	0.7071	0.2098	-1.14	114.7
16Y	1.354	-0.005789	0.02842	-0.0714	2.2437	-0.7953	0.2138	1.134	114.7
17X	1.246	0.007126	-0.05885	0.0501	2.2907	0.7540	2.386	-1.133	112.1
17XY	1.246	-0.006574	0.0294	-0.0497	2.2984	0.7503	0.1064	-1.147	112.2
17Y	1.259	-0.006876	0.02602	-0.1105	2.1134	-0.8107	0.1186	1.133	112.2
18X	1.168	0.007837	-0.0562	0.1525	2.1974	0.7888	2.308	-1.132	110.1
18XY	1.168	-0.00721	0.02716	-0.1372	2.1900	0.7849	0.02819	-1.147	110.2
18Y	1.187	-0.01199	0.02381	-0.0439	1.9973	-0.8231	0.04684	1.128	110.2
21X	0.8973	0.006628	-0.07154	0.0604	1.4578	0.7905	3.349	-2.445	99.33
21XY	0.8979	-0.005325	0.04487	-0.0540	1.4527	0.7859	-1.554	-2.457	99.44
21Y	0.9121	-0.006622	0.0456	0.0599	1.4589	-0.7824	-1.54	2.445	99.45
22X	0.8284	0.006206	-0.0689	-0.0532	1.3773	0.7764	3.28	-2.446	96.53
22XY	0.8289	-0.005099	0.04279	0.0471	1.3833	0.7720	-1.623	-2.457	96.64
22Y	0.8423	-0.005885	0.04352	-0.0234	1.4023	-0.7699	-1.61	2.446	96.64
23X	0.7646	0.004279	-0.0655	0.0067	1.3228	0.7601	3.217	-2.448	93.83
23XY	0.765	-0.003227	0.0401	-0.0051	1.3218	0.7559	-1.687	-2.455	93.94
23Y	0.7776	-0.006825	0.04082	0.0237	1.3388	-0.7556	-1.674	2.445	93.94
24X	0.7041	0.005437	-0.0618	-0.0226	1.2437	0.7438	3.156	-2.447	91.14
24XY	0.7046	-0.004292	0.03713	0.0248	1.2414	0.7398	-1.747	-2.456	91.24
24Y	0.7163	-0.004848	0.03782	-0.0057	1.2605	-0.7413	-1.736	2.447	91.24
25X	0.6442	0.004009	-0.05967	-0.0041	1.2048	0.7383	3.096	-2.448	88.34
25XY	0.6447	-0.002808	0.0354	0.0032	1.2055	0.7344	-1.807	-2.455	88.44
25Y	0.6555	-0.005417	0.03607	0.0151	1.2243	-0.7365	-1.796	2.447	88.44
26X	0.5865	0.004518	-0.05735	-0.0174	1.1577	0.7328	3.038	-2.447	85.54
26XY	0.587	-0.003385	0.03351	0.0180	1.1570	0.7289	-1.865	-2.455	85.63
26Y	0.5969	-0.003961	0.03414	-0.0005	1.1747	-0.7316	-1.855	2.448	85.63
27X	0.5308	0.003198	-0.05526	-0.0063	1.1192	0.7295	2.983	-2.449	82.74
27XY	0.5313	-0.00201	0.0318	0.0059	1.1193	0.7258	-1.921	-2.454	82.83
27Y	0.5403	-0.004503	0.03239	0.0107	1.1363	-0.7288	-1.912	2.447	82.83
28X	0.4772	0.003659	-0.053	-0.0101	1.0756	0.7263	2.929	-2.448	79.95
28XY	0.4777	-0.002558	0.02993	0.0093	1.0760	0.7226	-1.974	-2.455	80.03
28Y	0.4859	-0.003173	0.03047	0.0062	1.0920	-0.7259	-1.966	2.449	80.03
29X	0.4266	0.002302	-0.05061	-0.0107	1.0263	0.7232	2.879	-2.45	77.2
29XY	0.4271	-0.001178	0.02794	0.0107	1.0260	0.7194	-2.025	-2.453	77.28
29Y	0.4347	-0.003845	0.02842	0.0032	1.0406	-0.7231	-2.017	2.448	77.28
30X	0.3785	0.002859	-0.04803	0.0030	0.9884	0.7200	2.83	-2.449	74.45
30XY	0.379	-0.001803	0.02579	-0.0048	0.9895	0.7163	-2.073	-2.454	74.53
30Y	0.3858	-0.002583	0.0262	0.0178	1.0032	-0.7204	-2.066	2.449	74.53
31X	0.3321	0.002251	-0.04532	-0.0058	0.9808	0.7169	2.784	-2.45	71.75
31XY	0.3326	-0.001232	0.02352	0.0068	0.9794	0.7132	-2.119	-2.453	71.82
31Y	0.3388	-0.002572	0.02386	0.0044	0.9920	-0.7176	-2.113	2.449	71.82
33X	0.1866	0.0002485	-0.03836	-0.1277	0.4736	0.6591	3.409	-3.223	59.76
33XY	0.1872	0.0007318	0.01881	0.1240	0.4756	0.6559	-3.036	-3.222	59.82
33Y	0.1915	-0.002311	0.019	-0.1145	0.4820	-0.6608	-3.031	3.22	59.82
34X	0.1446	4.675e-005	-0.03704	-0.0693	0.4395	0.5969	4.099	-3.954	53.76
34XY	0.1454	0.0009705	0.01876	0.0682	0.4387	0.5940	-3.809	-3.953	53.82
34Y	0.1492	-0.001641	0.01898	-0.0612	0.4423	-0.5985	-3.805	3.952	53.82
35X	0.1105	6.452e-005	-0.03506	-0.0793	0.3440	0.5339	4.796	-4.685	47.76
35XY	0.1113	0.0009626	0.01817	0.0776	0.3442	0.5313	-4.574	-4.684	47.82
35Y	0.1148	-0.0009048	0.01842	-0.0720	0.3502	-0.5348	-4.57	4.684	47.82

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

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36X 0.08256 -0.0005223 -0.03235 -0.0609 0.3118 0.4665 5.499 -5.417 41.77
36XY 0.08358 0.001646 0.01697 0.0601 0.3116 0.4642 -5.333 -5.415 41.82
36Y 0.08611 -0.0009702 0.01732 -0.0540 0.3236 -0.4667 -5.33 5.415 41.82
37X 0.05698 2.503e-005 -0.02972 -0.0600 0.2419 0.4017 6.204 -6.147 35.77
37XY 0.05816 0.001212 0.01601 0.0580 0.2429 0.3997 -6.089 -6.146 35.82
37Y 0.05956 1.778e-005 0.01642 -0.0572 0.2498 -0.4017 -6.088 6.147 35.82
38X 0.03976 -0.000902 -0.02583 -0.0432 0.2006 0.3353 6.918 -6.879 29.77
38XY 0.04097 0.002114 0.01393 0.0412 0.2016 0.3337 -6.838 -6.876 29.81
38Y 0.04209 -0.001146 0.01421 -0.0443 0.2031 -0.3353 -6.836 6.877 29.81
39X 0.02223 0.0002957 -0.02204 -0.0450 0.1560 0.2670 7.632 -7.609 23.78
39XY 0.0237 0.001155 0.01212 0.0468 0.1542 0.2656 -7.586 -7.609 23.81
39Y 0.02458 -0.0003334 0.01232 -0.0487 0.1565 -0.2669 -7.585 7.609 23.81
40X 0.01201 -0.001687 -0.01691 -0.0360 0.1245 0.1984 8.353 -8.343 17.78
40XY 0.01318 0.002904 0.009217 0.0157 0.1447 0.1974 -8.328 -8.338 17.81
40Y 0.01387 -0.002343 0.009335 -0.0181 0.1467 -0.1982 -8.327 8.339 17.81
41X 0.001275 0.0006601 -0.0123 0.0113 0.0507 0.1397 9.073 -9.071 11.79
41XY 0.00303 0.001082 0.006856 0.0605 -0.0218 0.1391 -9.069 -9.071 11.81
41Y 0.003442 -0.0006989 0.006941 -0.0625 -0.0188 -0.1394 -9.069 9.071 11.81
42X 0.002637 0.002514 -0.00609 -0.0317 -0.0005 0.0672 9.806 -9.801 5.794
42XY 0.01242 0.007253 0.001197 -0.0074 0.0388 0.0669 -9.791 -9.796 5.801
42Y 0.01255 -0.007116 0.001241 0.0050 0.0409 -0.0668 -9.791 9.796 5.801

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Joint Support Reactions for Load Case "LC1 WIND 0° C.D.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Comp. Force (kN)	Z Comp. Usage %	Uplift Force (kN)	Uplift Usage %	Result. Force (kN)	Result. Usage %	X X-M. Usage (kN-m)	Y Y-M. Usage (kN-m)	Z Z-M. Usage (kN-m)	Max. Usage %	
ANP	-237.02	0.0	-253.69	0.0	1637.53	0.0	0.0	0.0	1673.93	0.0	-2.89	0.0	-2.8	0.0	0.0
ANX	-230.00	0.0	256.65	0.0	1620.00	0.0	0.0	0.0	1656.25	0.0	2.80	0.0	-2.7	0.0	0.0
ANXY	-135.89	0.0	-161.50	0.0	-949.70	0.0	0.0	0.0	972.87	0.0	0.28	0.0	-7.8	0.0	0.0
ANY	-141.49	0.0	158.53	0.0	-960.40	0.0	0.0	0.0	983.63	0.0	-2.21	0.0	-7.8	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC1 WIND 0° C.D.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	2.3236	0.0000	-4.3881	-2.3205	-0.0000	4.3880	3.1359	-0.0080	-0.0526
10P	2.4737	0.0000	-3.3369	-2.4716	-0.0000	3.3368	2.0821	-0.0330	-0.0485
11P	13.6094	0.0000	-13.0586	-13.6075	-0.0000	13.0585	1.9084	-0.0181	-0.0665
19P	3.8032	0.0000	-5.1735	-3.8021	0.0000	5.1735	1.1331	0.0109	-0.0504
20P	5.3534	0.0000	-7.4474	-5.3524	0.0000	7.4473	0.9837	0.0089	-0.0746
32P	6.0195	0.0000	-11.7621	-6.0193	0.0000	11.7620	0.2464	0.0007	-0.0394
ANP	1.9611	0.0000	-6.6053	235.0546	253.6876	-1630.9240	0.0000	0.0000	0.0000
1X	2.3236	0.0000	-4.3881	-2.3205	-0.0000	4.3880	3.1453	-0.0078	-0.0512
1XY	2.3236	0.0000	-4.3881	-2.3205	-0.0000	4.3881	3.1454	-0.0054	0.0178
1Y	1.1616	0.0000	-2.5941	-1.1585	-0.0000	2.5941	3.1360	-0.0056	0.0200
10X	2.4737	0.0000	-3.3369	-2.4715	-0.0000	3.3368	2.1474	-0.0325	-0.0460
10XY	3.6357	0.0000	-5.1309	-3.6335	0.0000	5.1309	2.1476	0.0287	0.0140
10Y	2.4737	0.0000	-3.3369	-2.4716	0.0000	3.3369	2.0823	0.0289	0.0169
11X	3.1114	0.0000	-4.3226	-3.1095	-0.0000	4.3225	1.9468	-0.0187	-0.0704
11XY	13.6094	0.0000	-13.0586	-13.6075	0.0000	13.0586	1.9471	0.0158	0.0388
11Y	3.1114	0.0000	-4.3226	-3.1095	0.0000	4.3226	1.9085	0.0149	0.0354

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19X	3.8032	0.0000	-5.1735	-3.8021	0.0000	5.1735	1.1095	0.0142	-0.0540
19XY	3.8032	0.0000	-5.1735	-3.8021	-0.0000	5.1736	1.1100	-0.0130	0.0252
19Y	3.8032	0.0000	-5.1735	-3.8021	-0.0000	5.1736	1.1335	-0.0107	0.0219
20X	5.3534	0.0000	-7.4474	-5.3524	0.0000	7.4473	0.9689	0.0053	-0.0740
20XY	4.7734	0.0000	-6.4334	-4.7724	-0.0000	6.4335	0.9689	-0.0046	0.0468
20Y	4.7734	0.0000	-6.4334	-4.7724	-0.0000	6.4335	0.9838	-0.0083	0.0475
32X	6.0195	0.0000	-11.7621	-6.0193	0.0000	11.7620	0.2413	0.0031	-0.0392
32XY	6.0195	0.0000	-11.7621	-6.0193	-0.0000	11.7621	0.2420	-0.0019	0.0183
32Y	6.0195	0.0000	-11.7621	-6.0193	-0.0000	11.7621	0.2472	-0.0010	0.0185
ANX	1.9611	0.0000	-6.6053	228.0368	-256.6547	-1613.3903	0.0000	0.0000	0.0000
ANXY	1.9611	0.0000	-6.6053	133.9292	161.4996	956.3045	0.0000	0.0000	0.0000
ANY	1.9611	0.0000	-6.6053	139.5273	-158.5313	967.0096	0.0000	0.0000	0.0000
2S	2.3236	0.0000	-3.0881	-2.3207	-0.0000	3.0880	2.9558	-0.0116	-0.0525
3S	2.2374	0.0000	-2.5132	-2.2345	-0.0000	2.5132	2.8165	-0.0141	-0.0523
4S	2.2377	0.0000	-3.0131	-2.2351	-0.0000	3.0131	2.6769	-0.0164	-0.0519
5S	2.2320	0.0000	-2.5995	-2.2295	-0.0000	2.5995	2.5389	-0.0199	-0.0514
6S	1.1563	0.0000	-1.3804	-1.1539	-0.0000	1.3803	2.4020	-0.0222	-0.0508
7S	2.0176	0.0000	-2.4402	-2.0154	-0.0000	2.4401	2.2679	-0.0268	-0.0499
8S	0.8613	0.0000	-1.0598	-0.8592	-0.0000	1.0597	2.1627	-0.0292	-0.0492
12S	6.7481	0.0000	-6.4135	-6.7463	-0.0000	6.4134	1.7777	-0.0127	-0.0654
13S	2.8845	0.0000	-3.8050	-2.8829	-0.0000	3.8049	1.6667	-0.0094	-0.0642
14S	1.9654	0.0000	-2.7734	-1.9639	-0.0000	2.7734	1.5584	-0.0035	-0.0624
15S	3.3341	0.0000	-4.5329	-3.3326	-0.0000	4.5328	1.4538	-0.0011	-0.0604
16S	1.3687	0.0000	-1.7594	-1.3673	0.0000	1.7594	1.3535	0.0055	-0.0579
17S	2.9657	0.0000	-4.0927	-2.9644	0.0000	4.0926	1.2584	0.0070	-0.0551
18S	1.5970	0.0000	-2.3333	-1.5958	0.0000	2.3332	1.1868	0.0125	-0.0526
21S	1.9872	0.0000	-2.5791	-1.9863	0.0000	2.5791	0.9114	0.0066	-0.0722
22S	8.6253	0.0000	-7.3460	-8.6244	0.0000	7.3459	0.8419	0.0061	-0.0696
23S	6.6381	0.0000	-4.7668	-6.6373	0.0000	4.7667	0.7773	0.0071	-0.0662
24S	4.0486	0.0000	-5.7650	-4.0478	0.0000	5.7649	0.7158	0.0051	-0.0625
25S	2.0895	0.0000	-3.3382	-2.0888	0.0000	3.3381	0.6550	0.0056	-0.0603
26S	4.2501	0.0000	-7.0376	-4.2495	0.0000	7.0376	0.5964	0.0042	-0.0580
27S	2.1607	0.0000	-3.6994	-2.1601	0.0000	3.6994	0.5398	0.0046	-0.0559
28S	4.2512	0.0000	-7.3465	-4.2507	0.0000	7.3464	0.4854	0.0033	-0.0536
29S	2.3575	0.0000	-3.9721	-2.3571	0.0000	3.9720	0.4342	0.0040	-0.0511
30S	3.6879	0.0000	-6.5009	-3.6875	0.0000	6.5009	0.3853	0.0027	-0.0485
31S	4.3581	0.0000	-8.0486	-4.3577	0.0000	8.0485	0.3384	0.0027	-0.0457
33S	6.5398	0.0000	-13.1491	-6.5396	0.0000	13.1491	0.1910	0.0021	-0.0387
34S	6.8273	0.0000	-14.2259	-6.8271	0.0000	14.2259	0.1485	0.0012	-0.0374
35S	20.4692	0.0000	-22.3621	-20.4690	0.0000	22.3620	0.1140	0.0002	-0.0355
36S	19.1929	0.0000	-21.1538	-19.1928	0.0000	21.1537	0.0852	0.0000	-0.0328
37S	4.8604	0.0000	-12.3906	-4.8604	-0.0000	12.3906	0.0584	-0.0012	-0.0303
371S	4.8604	0.0000	-12.3906	-4.8604	-0.0000	12.3906	0.0577	-0.0006	-0.0309
372S	4.8604	0.0000	-12.3906	-4.8603	-0.0000	12.3906	0.0589	-0.0006	-0.0072
373S	4.8604	0.0000	-12.3906	-4.8603	0.0000	12.3906	0.0588	0.0006	0.0165
374S	4.8604	0.0000	-12.3906	-4.8604	0.0000	12.3906	0.0575	0.0006	-0.0071
38S	5.1331	0.0000	-13.6372	-5.1331	-0.0000	13.6372	0.0409	-0.0000	-0.0262
39S	5.1437	0.0000	-14.3328	-5.1436	-0.0000	14.3328	0.0231	-0.0012	-0.0224
391S	5.1437	0.0000	-14.3328	-5.1436	-0.0000	14.3328	0.0227	-0.0004	-0.0236
392S	5.1437	0.0000	-14.3328	-5.1436	-0.0000	14.3328	0.0237	-0.0007	-0.0055
393S	5.1437	0.0000	-14.3328	-5.1436	0.0000	14.3328	0.0241	0.0004	0.0127
394S	5.1437	0.0000	-14.3328	-5.1436	0.0000	14.3328	0.0229	0.0007	-0.0054
40S	10.9343	0.0000	-19.1817	-10.9342	0.0000	19.1817	0.0127	0.0011	-0.0171
41S	9.6029	0.0000	-17.0354	-9.6028	-0.0000	17.0354	0.0018	-0.0011	-0.0124
411S	4.4024	0.0000	-15.2757	-4.4024	-0.0000	15.2757	0.0015	-0.0002	-0.0065
412S	4.4024	0.0000	-15.2757	-4.4024	-0.0000	15.2757	0.0025	-0.0009	-0.0028

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413S	4.4024	0.0000	-15.2757	-4.4024	0.0000	15.2757	0.0032	0.0002	0.0010
414S	4.4024	0.0000	-15.2757	-4.4024	0.0000	15.2757	0.0020	0.0009	-0.0027
42S	3.2306	0.0000	-11.1093	-3.2306	-0.0000	11.1093	0.0028	-0.0027	-0.0062
2X	2.3236	0.0000	-3.0881	-2.3206	-0.0000	3.0880	2.9736	-0.0111	-0.0511
2XY	2.3236	0.0000	-3.0881	-2.3206	0.0000	3.0881	2.9746	0.0005	0.0178
2Y	1.1616	0.0000	-1.2941	-1.1587	-0.0000	1.2941	2.9567	-0.0010	0.0200
3X	2.2374	0.0000	-2.5132	-2.2345	-0.0000	2.5132	2.8409	-0.0140	-0.0509
3XY	2.2374	0.0000	-2.5132	-2.2345	0.0000	2.5132	2.8410	0.0039	0.0177
3Y	2.2374	0.0000	-2.5132	-2.2345	0.0000	2.5132	2.8166	0.0038	0.0199
4X	2.2377	0.0000	-3.0131	-2.2350	-0.0000	3.0131	2.7081	-0.0173	-0.0504
4XY	2.2377	0.0000	-3.0131	-2.2350	0.0000	3.0131	2.7087	0.0092	0.0175
4Y	1.0757	0.0000	-1.2191	-1.0731	0.0000	1.2191	2.6775	0.0069	0.0196
5X	3.3940	0.0000	-4.3935	-3.3915	-0.0000	4.3935	2.5771	-0.0198	-0.0498
5XY	3.3940	0.0000	-4.3935	-3.3915	0.0000	4.3935	2.5772	0.0124	0.0170
5Y	2.2320	0.0000	-2.5995	-2.2295	0.0000	2.5995	2.5391	0.0122	0.0193
6X	2.3183	0.0000	-3.1744	-2.3159	-0.0000	3.1743	2.4474	-0.0241	-0.0490
6XY	2.3183	0.0000	-3.1744	-2.3159	0.0000	3.1744	2.4480	0.0184	0.0164
6Y	1.1563	0.0000	-1.3804	-1.1539	0.0000	1.3804	2.4027	0.0152	0.0188
7X	2.0176	0.0000	-2.4402	-2.0153	-0.0000	2.4401	2.3208	-0.0267	-0.0479
7XY	2.0176	0.0000	-2.4402	-2.0153	0.0000	2.4402	2.3210	0.0216	0.0156
7Y	2.0176	0.0000	-2.4402	-2.0154	0.0000	2.4402	2.2681	0.0214	0.0181
8X	2.0233	0.0000	-2.8538	-2.0211	-0.0000	2.8537	2.2225	-0.0309	-0.0470
8XY	2.0233	0.0000	-2.8538	-2.0211	0.0000	2.8538	2.2227	0.0267	0.0148
8Y	0.8613	0.0000	-1.0598	-0.8592	0.0000	1.0598	2.1630	0.0244	0.0175
12X	1.4991	0.0000	-2.0455	-1.4973	-0.0000	2.0454	1.8065	-0.0142	-0.0693
12XY	6.7481	0.0000	-6.4135	-6.7463	0.0000	6.4136	1.8072	0.0124	0.0379
12Y	1.4991	0.0000	-2.0455	-1.4973	0.0000	2.0455	1.7780	0.0099	0.0346
13X	2.8845	0.0000	-3.8050	-2.8829	-0.0000	3.8049	1.6878	-0.0092	-0.0681
13XY	8.1335	0.0000	-8.1730	-8.1319	0.0000	8.1730	1.6880	0.0078	0.0370
13Y	2.8845	0.0000	-3.8050	-2.8829	0.0000	3.8050	1.6670	0.0075	0.0336
14X	1.9654	0.0000	-2.7734	-1.9639	-0.0000	2.7734	1.5712	-0.0068	-0.0663
14XY	6.6344	0.0000	-6.1274	-6.6329	0.0000	6.1275	1.5717	0.0060	0.0356
14Y	1.9654	0.0000	-2.7734	-1.9639	0.0000	2.7735	1.5588	0.0021	0.0322
15X	3.3341	0.0000	-4.5329	-3.3326	-0.0000	4.5328	1.4583	-0.0010	-0.0642
15XY	2.7541	0.0000	-3.5189	-2.7526	0.0000	3.5189	1.4585	0.0006	0.0339
15Y	3.3341	0.0000	-4.5329	-3.3326	0.0000	4.5329	1.4541	0.0003	0.0305
16X	1.3687	0.0000	-1.7594	-1.3673	0.0000	1.7594	1.3496	0.0006	-0.0617
16XY	1.3687	0.0000	-1.7594	-1.3673	-0.0000	1.7595	1.3498	-0.0005	0.0318
16Y	1.3687	0.0000	-1.7594	-1.3673	-0.0000	1.7595	1.3538	-0.0058	0.0284
17X	2.9657	0.0000	-4.0927	-2.9644	0.0000	4.0926	1.2462	0.0071	-0.0588
17XY	2.3857	0.0000	-3.0787	-2.3844	-0.0000	3.0787	1.2464	-0.0066	0.0294
17Y	2.9657	0.0000	-4.0927	-2.9644	-0.0000	4.0927	1.2586	-0.0069	0.0260
18X	1.5970	0.0000	-2.3333	-1.5958	0.0000	2.3332	1.1682	0.0078	-0.0562
18XY	1.0170	0.0000	-1.3193	-1.0158	-0.0000	1.3193	1.1682	-0.0072	0.0272
18Y	1.5970	0.0000	-2.3333	-1.5958	-0.0000	2.3333	1.1868	-0.0120	0.0238
21X	1.9872	0.0000	-2.5791	-1.9863	0.0000	2.5791	0.8973	0.0066	-0.0715
21XY	1.9872	0.0000	-2.5791	-1.9863	-0.0000	2.5792	0.8979	-0.0053	0.0449
21Y	1.9872	0.0000	-2.5791	-1.9863	-0.0000	2.5792	0.9121	-0.0066	0.0456
22X	3.9463	0.0000	-5.0060	-3.9455	0.0000	5.0059	0.8284	0.0062	-0.0689
22XY	6.2863	0.0000	-6.1760	-6.2855	-0.0000	6.1760	0.8289	-0.0051	0.0428
22Y	3.9463	0.0000	-5.0060	-3.9454	-0.0000	5.0060	0.8423	-0.0059	0.0435
23X	1.9591	0.0000	-2.4268	-1.9583	0.0000	2.4267	0.7646	0.0043	-0.0655
23XY	1.9591	0.0000	-2.4268	-1.9583	-0.0000	2.4269	0.7650	-0.0032	0.0401
23Y	1.9591	0.0000	-2.4268	-1.9583	-0.0000	2.4269	0.7776	-0.0068	0.0408
24X	4.0486	0.0000	-5.7650	-4.0478	0.0000	5.7649	0.7041	0.0054	-0.0618
24XY	4.0486	0.0000	-5.7650	-4.0478	-0.0000	5.7650	0.7046	-0.0043	0.0371

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	4.0486	0.0000	-5.7650	-4.0478	-0.0000	5.7650	0.7163	-0.0048	0.0378
25X	2.0895	0.0000	-3.3382	-2.0888	0.0000	3.3381	0.6442	0.0040	-0.0597
25XY	2.0895	0.0000	-3.3382	-2.0888	-0.0000	3.3382	0.6447	-0.0028	0.0354
25Y	2.0895	0.0000	-3.3382	-2.0888	-0.0000	3.3382	0.6555	-0.0054	0.0361
26X	4.2501	0.0000	-7.0376	-4.2495	0.0000	7.0376	0.5865	0.0045	-0.0573
26XY	4.2501	0.0000	-7.0376	-4.2495	-0.0000	7.0376	0.5870	-0.0034	0.0335
26Y	4.2501	0.0000	-7.0376	-4.2495	-0.0000	7.0376	0.5969	-0.0040	0.0341
27X	2.1607	0.0000	-3.6994	-2.1601	0.0000	3.6994	0.5308	0.0032	-0.0553
27XY	2.1607	0.0000	-3.6994	-2.1601	-0.0000	3.6995	0.5313	-0.0020	0.0318
27Y	2.1607	0.0000	-3.6994	-2.1601	-0.0000	3.6995	0.5403	-0.0045	0.0324
28X	4.2512	0.0000	-7.3465	-4.2507	0.0000	7.3464	0.4772	0.0037	-0.0530
28XY	4.2512	0.0000	-7.3465	-4.2507	-0.0000	7.3465	0.4777	-0.0026	0.0299
28Y	4.2512	0.0000	-7.3465	-4.2507	-0.0000	7.3465	0.4859	-0.0032	0.0305
29X	2.0905	0.0000	-3.6471	-2.0901	0.0000	3.6470	0.4266	0.0023	-0.0506
29XY	2.0905	0.0000	-3.6471	-2.0901	-0.0000	3.6471	0.4271	-0.0012	0.0279
29Y	2.0905	0.0000	-3.6471	-2.0901	-0.0000	3.6471	0.4347	-0.0038	0.0284
30X	3.6879	0.0000	-6.5009	-3.6875	0.0000	6.5009	0.3785	0.0029	-0.0480
30XY	3.6879	0.0000	-6.5009	-3.6875	-0.0000	6.5009	0.3790	-0.0018	0.0258
30Y	3.6879	0.0000	-6.5009	-3.6875	-0.0000	6.5009	0.3858	-0.0026	0.0262
31X	4.3581	0.0000	-8.0486	-4.3577	0.0000	8.0485	0.3321	0.0023	-0.0453
31XY	4.6251	0.0000	-8.3736	-4.6247	-0.0000	8.3736	0.3326	-0.0012	0.0235
31Y	4.6251	0.0000	-8.3736	-4.6247	-0.0000	8.3736	0.3388	-0.0026	0.0239
33X	6.5398	0.0000	-13.1491	-6.5396	0.0000	13.1491	0.1866	0.0002	-0.0384
33XY	6.5398	0.0000	-13.1491	-6.5396	0.0000	13.1491	0.1872	0.0007	0.0188
33Y	6.5398	0.0000	-13.1491	-6.5396	-0.0000	13.1491	0.1915	-0.0023	0.0190
34X	6.8273	0.0000	-14.2259	-6.8271	0.0000	14.2259	0.1446	0.0000	-0.0370
34XY	6.8273	0.0000	-14.2259	-6.8271	0.0000	14.2260	0.1454	0.0010	0.0188
34Y	6.8273	0.0000	-14.2259	-6.8271	-0.0000	14.2260	0.1492	-0.0016	0.0190
35X	7.2132	0.0000	-15.7191	-7.2131	0.0000	15.7190	0.1105	0.0001	-0.0351
35XY	7.2132	0.0000	-15.7191	-7.2130	0.0000	15.7191	0.1113	0.0010	0.0182
35Y	11.8072	0.0000	-17.1491	-11.8070	-0.0000	17.1491	0.1148	-0.0009	0.0184
36X	9.2509	0.0000	-17.5398	-9.2508	-0.0000	17.5397	0.0826	-0.0005	-0.0324
36XY	7.6189	0.0010	-15.2718	-7.6188	-0.0010	15.2718	0.0836	0.0016	0.0170
36Y	5.9369	0.0000	-14.5108	-5.9368	-0.0000	14.5108	0.0861	-0.0010	0.0173
37X	6.3334	0.0000	-14.7826	-6.3334	0.0000	14.7826	0.0570	0.0000	-0.0297
37XY	4.8604	0.0000	-12.3906	-4.8604	0.0000	12.3906	0.0582	0.0012	0.0160
37Y	4.8604	0.0000	-12.3906	-4.8603	0.0000	12.3906	0.0596	0.0000	0.0164
38X	5.1331	0.0000	-13.6372	-5.1331	-0.0000	13.6372	0.0398	-0.0009	-0.0258
38XY	5.1331	0.0000	-13.6372	-5.1331	0.0000	13.6373	0.0410	0.0021	0.0139
38Y	5.4001	0.0000	-13.9622	-5.4001	-0.0000	13.9623	0.0421	-0.0011	0.0142
39X	5.1437	0.0000	-14.3328	-5.1436	0.0000	14.3328	0.0222	0.0003	-0.0220
39XY	5.1437	0.0000	-14.3328	-5.1436	0.0000	14.3328	0.0237	0.0012	0.0121
39Y	6.6167	0.0000	-16.7248	-6.6166	-0.0000	16.7248	0.0246	-0.0003	0.0123
40X	11.6693	0.0000	-21.3787	-11.6692	-0.0000	21.3787	0.0120	-0.0017	-0.0169
40XY	5.0423	0.0000	-15.3207	-5.0422	0.0000	15.3207	0.0132	0.0029	0.0092
40Y	8.3563	0.0000	-18.3497	-8.3562	-0.0000	18.3497	0.0139	-0.0023	0.0093
41X	5.1839	0.0000	-15.5664	-5.1838	0.0000	15.5664	0.0013	0.0007	-0.0123
41XY	3.7109	0.0000	-13.1744	-3.7108	0.0000	13.1744	0.0030	0.0011	0.0069
41Y	3.7109	0.0000	-13.1744	-3.7108	-0.0000	13.1744	0.0034	-0.0007	0.0069
42X	3.2306	0.0000	-11.1093	-3.2306	0.0000	11.1093	0.0026	0.0025	-0.0061
42XY	3.2306	0.0000	-11.1093	-3.2306	0.0000	11.1093	0.0124	0.0073	0.0012
42Y	3.2306	0.0000	-11.1093	-3.2306	-0.0000	11.1093	0.0126	-0.0071	0.0012

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page 82 of 145
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.01	-0.00	0.06	-2.03	61.05	-0.63
1X	-0.01	-0.00	0.05	3.37	67.82	1.05
1XY	-0.01	0.00	0.05	50.64	-54.95	15.77
1Y	0.01	0.00	0.06	-51.09	-44.10	-15.91
2P	0.03	2.03	-61.00	-24.36	-56.73	-8.93
2X	-0.02	-3.37	-67.76	28.07	-57.96	9.88
2XY	-0.02	-50.64	55.00	-98.39	101.46	-59.61
2Y	0.02	51.09	44.15	96.21	80.74	58.92
3P	0.04	24.36	56.78	73.21	120.14	39.03
3X	-0.02	-28.07	58.01	-65.69	136.68	-37.50
3XY	-0.02	98.39	-101.41	136.90	-15.33	94.12
3Y	0.04	-96.21	-80.69	-142.99	-17.63	-95.68
4P	0.05	-73.21	-120.08	-128.81	6.28	-80.81
4X	-0.03	65.69	-136.63	136.49	16.36	80.87
4XY	-0.03	-136.90	15.38	-221.58	194.37	-143.39
4Y	0.05	142.99	17.69	218.55	189.60	144.62
5P	0.06	128.81	-6.23	361.84	377.27	196.26
5X	-0.04	-136.50	-16.30	-276.16	416.70	-165.06
5XY	-0.04	221.58	-194.31	418.17	173.32	255.90
5Y	0.06	-218.55	-189.54	-490.87	79.12	-283.77
6P	0.08	-361.84	-377.22	-539.57	383.58	-360.56
6X	-0.05	276.16	-416.65	417.76	407.70	277.57
6XY	-0.05	-418.17	-173.27	-542.44	630.90	-384.24
6Y	0.07	490.87	-79.07	683.14	682.97	469.60
7P	0.09	539.57	-383.53	1443.28	282.09	991.42
7X	-0.06	-417.76	-407.65	-308.52	1483.68	-363.14
7XY	-0.06	542.44	-630.85	407.23	1359.42	474.83
7Y	0.09	-683.14	-682.92	-1536.57	52.26	-1109.85
8P	0.10	-1443.28	-282.04	-3551.62	3496.40	-3181.47
8X	-0.07	308.52	-1483.63	-1240.95	-2016.28	-593.91
8XY	-0.07	-407.22	-1359.38	1295.52	-2031.55	565.79
8Y	0.10	1536.57	-52.20	3603.42	3529.74	3273.88
9P	6.72	-4983.67	-38.50	-2729.98	-437.10	-1881.84
9X	-92.76	2303.25	540.37	1618.90	777.76	956.85
9XY	-88.07	-2352.63	512.99	-1770.11	796.38	-1005.79
9Y	8.92	5043.87	-51.36	2673.27	-414.88	1882.69
10P	80.53	-2234.20	1626.61	-236.84	1085.83	-855.03
10X	-222.92	-613.77	-1675.64	-538.13	386.86	-398.58
10XY	-221.44	707.16	-1796.10	683.64	-19.36	481.25
10Y	78.95	2178.35	1602.26	105.25	974.17	790.17
11P	80.54	236.84	-1085.79	-616.80	412.20	-151.99
11X	-222.93	538.13	-386.81	806.61	392.84	537.90
11XY	-221.45	-683.65	19.40	-919.75	808.60	-641.36
11Y	78.96	-105.25	-974.13	734.84	522.69	251.84
12P	80.56	616.81	-412.16	970.79	858.67	635.04
12X	-222.94	-806.61	-392.80	-1015.05	857.11	-728.66
12XY	-221.46	919.74	-808.56	1093.58	538.99	805.33
12Y	78.97	-734.84	-522.64	-1036.09	738.38	-708.37
13P	80.57	-970.79	-858.63	-1232.25	815.94	-881.22
13X	-222.95	1015.05	-857.06	1259.58	815.49	909.85
13XY	-221.47	-1093.58	-538.94	-1291.11	1001.51	-953.88
13Y	78.99	1036.09	-738.34	1278.22	912.72	925.73
14P	80.58	1232.26	-815.90	1535.37	1073.78	1107.05

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X	-222.97	-1259.58	-815.44	-1540.49	1049.94	-1120.03	93.80
14XY	-221.48	1291.11	-1001.46	1542.16	1037.41	1133.31	14.38
14Y	79.00	-1278.23	-912.68	-1522.89	1043.26	-1120.45	52.23
15P	80.60	-1535.37	-1073.75	-1943.20	1442.40	-1391.43	147.46
15X	-222.98	1540.49	-1049.90	2034.17	1608.63	1429.86	223.49
15XY	-221.49	-1542.16	-1037.37	-1931.70	1409.47	-1389.54	148.84
15Y	79.01	1522.89	-1043.22	1858.10	1312.07	1352.40	107.54
16P	80.61	1943.21	-1442.36	2834.00	882.70	2388.60	-279.83
16X	-222.99	-2034.17	-1608.59	-3131.42	498.95	-2582.79	-554.82
16XY	-221.51	1931.70	-1409.43	2870.21	1040.37	2400.96	-184.53
16Y	79.03	-1858.11	-1312.03	-2572.29	1309.99	-2215.20	-1.02
17P	80.63	-2834.00	-882.66	-1588.95	3089.65	-2799.33	1396.83
17X	-223.00	3131.42	-498.91	3076.64	4989.37	3929.15	2842.07
17XY	-221.52	-2870.22	-1040.33	-2840.15	4759.59	-3614.16	2353.96
17Y	79.04	2572.29	-1309.96	1424.73	2903.86	2529.75	1008.80
18P	-217.15	-3308.24	1041.80	-1945.22	-484.09	-786.12	83.46
18X	161.26	-5703.51	-1361.23	-3352.23	279.63	-1355.09	-161.85
18XY	164.01	5373.80	-1365.37	3079.63	292.54	1264.96	-160.54
18Y	-214.44	3060.75	1026.71	1716.46	-497.14	714.86	79.25
19P	-74.19	-1746.96	1004.02	-615.08	999.57	-843.58	715.57
19X	77.27	2591.99	2148.80	839.10	1276.10	1225.39	1223.18
19XY	76.32	-2408.55	1946.73	-671.00	993.49	-1099.84	1050.08
19Y	-67.97	1593.53	833.94	458.40	695.07	732.83	546.08
20P	-74.18	615.08	-999.54	-233.50	345.82	136.28	-233.47
20X	77.26	-839.10	-1276.07	181.05	287.34	-235.02	-353.12
20XY	76.31	671.00	-993.47	-237.10	354.09	154.96	-228.35
20Y	-67.95	-458.40	-695.05	289.64	405.89	-60.27	-103.27
21P	-74.16	233.50	-345.80	670.62	531.77	334.86	68.88
21X	77.24	-181.06	-287.32	-656.12	624.77	-310.06	124.98
21XY	76.29	237.10	-354.07	651.43	674.97	329.09	118.85
21Y	-67.94	-289.64	-405.86	-664.20	656.90	-353.28	92.98
22P	-74.15	-670.62	-531.75	-896.87	773.31	-580.55	89.47
22X	77.23	656.12	-624.74	888.51	699.19	572.08	27.57
22XY	76.28	-651.43	-674.95	-888.58	670.56	-570.38	-1.63
22Y	-67.93	664.20	-656.88	897.97	652.83	578.58	-1.50
23P	-74.14	896.87	-773.29	1315.09	1213.94	790.31	157.38
23X	77.22	-888.51	-699.17	-1320.92	1223.52	-789.08	187.27
23XY	76.27	888.58	-670.54	1392.26	1106.17	814.59	155.58
23Y	-67.91	-897.97	-652.81	-1384.98	1137.65	-815.34	173.16
24P	-74.12	-1315.99	-1213.92	-1643.08	1143.38	-1056.81	-25.19
24X	77.20	1320.92	-1223.50	1631.49	1109.68	1054.43	-40.65
24XY	76.25	-1392.26	-1106.15	-1737.60	1295.12	-1117.81	67.49
24Y	-67.90	1384.98	-1137.62	1751.55	1316.06	1120.19	63.73
25P	-74.11	1643.08	-1143.36	2068.78	2127.43	1325.66	351.45
25X	77.19	-1631.49	-1109.66	-2088.73	2085.51	-1328.65	348.52
25XY	76.24	1737.60	-1295.10	2237.80	1835.95	1419.78	193.16
25Y	-67.89	-1751.55	-1316.04	-2214.55	1878.36	-1416.46	200.83
26P	-74.10	-2068.78	-2127.41	-2266.10	1598.83	-1548.17	-188.78
26X	77.18	2088.73	-2085.49	2245.19	1543.77	1547.83	-193.47
26XY	76.23	-2237.80	-1835.93	-2376.58	1766.35	-1647.99	-24.85
26Y	-67.87	2214.55	-1878.34	2400.55	1809.38	1648.25	-24.63
27P	-74.08	2266.10	-1598.81	2184.52	2677.97	1618.41	392.42
27X	77.17	-2245.19	-1543.75	-2220.53	2630.00	-1623.90	395.00
27XY	76.21	2376.58	-1766.33	2316.84	2470.33	1706.70	256.00
27Y	-67.86	-2400.55	-1809.36	-2277.89	2542.40	-1701.25	266.56
28P	-74.07	-2184.52	-2677.95	-1647.17	602.82	-1393.34	-754.59

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X	77.15	2220.53	-2629.99	1646.37	578.45	1406.15	-746.01
28XY	76.20	-2316.84	-2470.31	-1664.48	613.90	-1447.75	-675.06
28Y	-67.85	2277.89	-2542.38	1667.82	623.44	1434.80	-697.80
29P	-74.06	1647.17	-602.80	1206.43	161.19	1056.89	-163.56
29X	77.14	-1646.37	-578.44	-1270.37	82.00	-1080.27	-183.86
29XY	76.19	1664.48	-613.89	1164.39	259.10	1047.73	-131.40
29Y	-67.84	-1667.82	-623.42	-1096.75	335.85	-1023.92	-106.51
30P	-74.05	-1206.43	-161.18	-1609.62	7710.71	-496.22	1330.31
30X	77.13	1270.37	-81.99	1658.91	7663.12	516.17	1335.88
30XY	76.18	-1164.39	-259.08	-1524.16	7504.82	-473.75	1276.78
30Y	-67.82	1096.75	-335.83	1474.83	7564.75	453.14	1273.82
31P	-805.64	-6590.46	4238.87	-1186.40	-935.97	-1211.68	514.61
31X	797.04	-6591.66	-4170.84	-1227.44	963.88	-1218.26	-499.66
31XY	793.27	6384.44	-4154.59	1112.57	969.29	1168.08	-496.29
31Y	-798.16	6391.94	4232.14	1071.31	-941.51	1162.82	512.70
32P	-805.62	1186.41	935.96	931.78	-1147.41	347.90	-34.73
32X	797.03	1227.44	-963.87	899.76	1095.90	349.38	21.69
32XY	793.26	-1112.58	-969.29	-859.37	1098.20	-323.88	21.17
32Y	-798.15	-1071.31	941.50	-889.03	-1131.08	-321.98	-31.14
33P	-805.61	-931.77	1147.41	490.01	-623.63	-72.56	86.03
33X	797.02	-899.75	-1095.90	517.71	775.04	-62.75	-52.70
33XY	793.25	859.37	-1098.19	-534.45	762.84	53.37	-55.08
33Y	-798.14	889.03	1131.08	-492.43	-624.05	65.14	83.28
34P	-805.60	-490.01	623.62	-403.89	-72.09	-146.82	90.59
34X	797.00	-517.70	-775.03	-334.57	135.31	-139.98	-105.07
34XY	793.24	534.45	-762.84	330.58	134.87	142.08	-103.14
34Y	-798.13	492.43	624.04	378.04	-121.41	142.97	82.55
35P	-805.59	403.89	72.09	1474.85	-1371.46	308.58	-213.42
35X	797.00	334.58	-135.30	1262.07	1330.73	262.24	196.34
35XY	793.23	-330.58	-134.87	-1223.65	1334.74	-255.28	197.07
35Y	-798.12	-378.04	121.41	-1412.91	-1337.97	-294.16	-199.81
36P	-805.59	-1474.85	1371.46	-1011.29	191.42	-408.34	256.70
36X	796.99	-1262.07	-1330.73	-932.83	-212.61	-360.50	-253.49
36XY	793.22	1223.65	-1334.74	893.22	-214.14	347.69	-254.40
36Y	-798.11	1412.90	1337.96	959.68	182.01	389.69	249.65
37P	-805.58	1011.29	-191.42	1603.51	-872.12	429.47	-174.68
37X	796.98	932.83	212.61	1555.62	910.04	408.72	184.39
37XY	793.22	-893.22	214.14	-1602.99	885.13	-409.99	180.55
37Y	-798.10	-959.69	-182.01	-1643.33	-864.14	-427.53	-171.83
38P	-805.57	-1603.51	872.11	-1274.08	228.20	-472.63	180.72
38X	796.98	-1555.62	-910.03	-1254.48	-277.80	-461.55	-195.10
38XY	793.21	1602.99	-885.13	1892.10	-244.53	574.05	-185.54
38Y	-798.10	1643.33	864.14	1922.19	233.95	585.62	180.36
39P	-805.57	1274.08	-228.20	1615.81	-3053.86	474.65	-539.06
39X	796.97	1254.48	277.80	1611.44	3123.52	470.71	558.65
39XY	793.21	-1892.10	244.53	-4728.32	3106.72	-1087.37	550.43
39Y	-798.10	-1922.19	-233.95	-4740.59	-3080.91	-1094.33	-544.45
40P	-805.57	-1615.81	3053.86	-347.79	3345.65	-322.51	1051.09
40X	796.97	-1611.44	-3123.52	-348.43	-3376.30	-321.90	-1067.57
40XY	793.21	4728.32	-3106.72	6452.33	-3379.62	1836.37	-1065.35
40Y	-798.09	4740.59	3080.91	6449.23	3345.85	1837.88	1055.57
41P	-805.57	347.79	-3345.65	-100.85	-3912.80	41.96	-1233.28
41X	796.97	348.43	3376.30	-97.89	3785.20	42.57	1216.80
41XY	793.21	-6452.33	3379.63	-7093.29	3794.89	-2301.52	1219.02
41Y	-798.09	-6449.23	-3345.85	-7087.52	-3886.26	-2300.02	-1228.80

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 2 "LC2 WIND 45° C.D."

Equilibrium Joint Positions and Rotations for Load Case "LC2 WIND 45° C.D.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	2.356	2.348	-0.07085	-2.4782	2.5005	-0.3385	3.006	2.998	150.8
10P	1.539	1.536	-0.06437	-2.0540	2.1668	-0.3386	2.189	2.186	131.6
11P	1.416	1.414	-0.09218	-1.7158	1.8060	-0.3264	2.556	2.554	127.5
19P	0.8489	0.8482	-0.06873	-1.3857	1.4676	-0.2168	1.989	1.988	108.6
20P	0.7377	0.7374	-0.1044	-0.9975	1.0800	-0.1959	3.19	3.189	102.1
32P	0.1839	0.1837	-0.05355	-0.5394	0.6001	-0.1666	2.636	2.636	66.07
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	2.33	2.348	-0.01499	-2.4646	2.2017	0.5614	2.98	1.698	150.9
1XY	2.33	2.316	0.03427	-2.1278	2.1589	-0.0106	1.68	1.666	150.9
1Y	2.356	2.316	-0.01441	-2.1775	2.4884	-0.8899	1.706	2.966	150.9
10X	1.617	1.537	-0.0142	-2.0601	2.0195	0.5615	2.267	0.8866	131.6
10XY	1.617	1.611	0.02896	-2.0766	2.0647	-0.0106	0.9665	0.9608	131.7
10Y	1.54	1.611	-0.01391	-2.0673	2.1316	-0.8901	0.8896	2.261	131.6
11X	1.46	1.413	-0.01793	-1.8320	2.2255	0.5992	2.6	0.2734	127.6
11XY	1.461	1.456	0.06488	-2.1492	2.1407	0.0069	0.3213	0.3159	127.7
11Y	1.416	1.455	-0.01755	-2.2776	1.8742	-0.8981	0.2756	2.595	127.6
19X	0.825	0.8508	-0.01639	-1.2296	1.4233	1.0265	1.965	-0.2892	108.6
19XY	0.8234	0.8213	0.0441	-1.5025	1.6088	0.1928	-0.3166	-0.3187	108.7
19Y	0.8515	0.8229	-0.01621	-1.3721	1.2489	-1.0296	-0.2885	1.963	108.6
20X	0.7199	0.7347	-0.01339	-1.1423	1.0686	1.0094	3.172	-1.717	102.2
20XY	0.7227	0.7206	0.07662	-0.9182	1.0138	0.2118	-1.729	-1.731	102.3
20Y	0.7351	0.7178	-0.01319	-1.0724	1.1146	-0.9736	-1.717	3.17	102.2
32X	0.18	0.1857	-0.01038	-0.5677	0.5910	0.9014	2.632	-2.266	66.11
32XY	0.1795	0.179	0.03252	-0.5258	0.5882	0.1723	-2.273	-2.273	66.16
32Y	0.1859	0.1795	-0.0103	-0.5546	0.5991	-0.8849	-2.266	2.631	66.11
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	2.216	2.21	-0.07069	-2.4702	2.4917	-0.3385	2.866	2.86	147.6
3S	2.108	2.102	-0.07043	-2.4543	2.4748	-0.3385	2.758	2.752	145.1
4S	2	1.995	-0.06987	-2.4615	2.4778	-0.3386	2.65	2.645	142.6
5S	1.893	1.888	-0.06899	-2.4047	2.4218	-0.3386	2.543	2.538	140.1
6S	1.787	1.784	-0.06802	-2.4123	2.4172	-0.3386	2.437	2.434	137.6
7S	1.683	1.679	-0.06671	-2.3105	2.3311	-0.3386	2.333	2.329	135.1
8S	1.602	1.599	-0.0655	-2.3595	2.3333	-0.3386	2.252	2.249	133.1
12S	1.321	1.319	-0.09056	-1.9311	1.9148	-0.3118	2.461	2.459	124.6
13S	1.239	1.237	-0.08881	-1.8090	1.8224	-0.2991	2.379	2.377	122.1
14S	1.161	1.16	-0.08626	-1.7875	1.7896	-0.2839	2.301	2.3	119.6
15S	1.084	1.082	-0.08325	-1.6947	1.7011	-0.2688	2.224	2.222	117.1
16S	1.012	1.011	-0.07969	-1.6437	1.6440	-0.2536	2.152	2.151	114.6
17S	0.9412	0.9403	-0.07562	-1.4999	1.5118	-0.2385	2.081	2.08	112.1
18S	0.8907	0.89	-0.0719	-1.5057	1.4832	-0.2263	2.031	2.03	110.1
21S	0.6824	0.6822	-0.101	-1.1433	1.1221	-0.1915	3.134	3.134	99.3
22S	0.6304	0.6302	-0.0972	-1.0103	1.0186	-0.1871	3.082	3.082	96.5
23S	0.5831	0.583	-0.09233	-1.0146	1.0127	-0.1820	3.035	3.035	93.81
24S	0.536	0.5359	-0.08698	-0.9347	0.9373	-0.1770	2.988	2.988	91.11
25S	0.4912	0.4911	-0.08389	-0.9192	0.9184	-0.1753	2.943	2.943	88.32

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.4467	0.4465	-0.0805	-0.8732	0.8755	-0.1735	2.899	2.899	85.52
27S	0.4049	0.4048	-0.07745	-0.8522	0.8518	-0.1725	2.857	2.857	82.72
28S	0.3636	0.3635	-0.07412	-0.8156	0.8158	-0.1715	2.816	2.815	79.93
29S	0.3258	0.3258	-0.07058	-0.7771	0.7772	-0.1706	2.778	2.778	77.18
30S	0.2887	0.2886	-0.06676	-0.7559	0.7572	-0.1696	2.741	2.741	74.43
31S	0.2537	0.2536	-0.06274	-0.7528	0.7420	-0.1686	2.706	2.706	71.74
33S	0.1437	0.1435	-0.05279	-0.2590	0.2918	-0.1533	3.366	3.366	59.75
34S	0.1114	0.1113	-0.05122	-0.2662	0.3012	-0.1373	4.065	4.065	53.75
35S	0.08503	0.08497	-0.04867	-0.1909	0.2213	-0.1220	4.77	4.77	47.75
36S	0.06351	0.0636	-0.04511	-0.1869	0.2142	-0.1066	5.48	5.48	41.75
37S	0.04271	0.04287	-0.04169	-0.1310	0.1534	-0.0914	6.19	6.19	35.76
371S	0.04274	0.04341	-0.02487	0.0000	0.0000	0.0000	6.19	0.04341	35.78
372S	0.04325	0.0427	-0.02481	0.0000	0.0000	0.0000	0.04325	6.19	35.78
373S	0.04391	0.04307	0.0105	0.0000	0.0000	0.0000	-6.103	0.04307	35.81
374S	0.04329	0.04388	0.01045	0.0000	0.0000	0.0000	0.04329	-6.104	35.81
38S	0.03054	0.03069	-0.03613	-0.1075	0.1259	-0.0762	6.909	6.909	29.76
39S	0.01653	0.01667	-0.03085	-0.0754	0.0904	-0.0608	7.626	7.626	23.77
391S	0.01661	0.01735	-0.01903	0.0000	0.0000	0.0000	7.626	0.01735	23.78
392S	0.0172	0.01662	-0.019	0.0000	0.0000	0.0000	0.0172	7.626	23.78
393S	0.01807	0.0172	0.008116	0.0000	0.0000	0.0000	-7.592	0.0172	23.81
394S	0.01734	0.01807	0.008066	0.0000	0.0000	0.0000	0.01734	-7.592	23.81
40S	0.01039	0.01057	-0.02358	-0.0638	0.0750	-0.0455	8.351	8.351	17.78
41S	0.0008029	0.0009508	-0.01718	-0.0272	0.0339	-0.0302	9.073	9.073	11.78
411S	0.0008099	0.001703	-0.005554	0.0000	0.0000	0.0000	9.073	0.001703	11.79
412S	0.001556	0.0008401	-0.005533	0.0000	0.0000	0.0000	0.001556	9.073	11.79
413S	0.00255	0.001571	4.836e-005	0.0000	0.0000	0.0000	-9.07	0.001571	11.8
414S	0.001657	0.002582	4.085e-005	0.0000	0.0000	0.0000	0.001657	-9.069	11.8
42S	0.002218	0.002273	-0.008024	0.0166	-0.0138	-0.0149	9.805	9.805	5.792
2X	2.208	2.21	-0.01492	-2.4704	2.1674	0.5614	2.858	1.56	147.7
2XY	2.209	2.196	0.03425	-2.1648	2.1907	-0.0106	1.559	1.546	147.7
2Y	2.217	2.195	-0.01436	-2.1375	2.4915	-0.8899	1.567	2.845	147.7
3X	2.113	2.102	-0.01487	-2.4780	2.1840	0.5614	2.763	1.452	145.2
3XY	2.113	2.102	0.03409	-2.1382	2.1662	-0.0106	1.463	1.452	145.2
3Y	2.108	2.101	-0.01434	-2.1583	2.4972	-0.8899	1.458	2.751	145.2
4X	2.018	1.995	-0.01478	-2.4465	2.1539	0.5614	2.668	1.345	142.7
4XY	2.019	2.009	0.03369	-2.1450	2.1696	-0.0106	1.369	1.359	142.7
4Y	2	2.007	-0.01428	-2.1259	2.4646	-0.8900	1.35	2.657	142.7
5X	1.925	1.888	-0.01468	-2.4416	2.1586	0.5615	2.575	1.238	140.2
5XY	1.925	1.915	0.03303	-2.0799	2.1113	-0.0106	1.275	1.265	140.2
5Y	1.893	1.915	-0.01422	-2.1383	2.4536	-0.8900	1.243	2.565	140.2
6X	1.831	1.782	-0.01457	-2.3956	2.0996	0.5615	2.481	1.132	137.7
6XY	1.833	1.825	0.03224	-2.0902	2.1156	-0.0106	1.183	1.175	137.7
6Y	1.786	1.823	-0.01416	-2.0689	2.4037	-0.8901	1.136	2.473	137.7
7X	1.741	1.679	-0.01443	-2.3437	2.0667	0.5615	2.391	1.029	135.2
7XY	1.741	1.734	0.0311	-2.0233	2.0454	-0.0106	1.091	1.084	135.2
7Y	1.683	1.734	-0.01408	-2.0534	2.3569	-0.8901	1.033	2.384	135.2
8X	1.67	1.598	-0.01432	-2.3247	1.9600	0.5615	2.32	0.9478	133.2
8XY	1.671	1.665	0.03003	-1.9458	1.9756	-0.0106	1.021	1.015	133.2
8Y	1.601	1.663	-0.014	-1.9159	2.3129	-0.8901	0.951	2.313	133.2
12X	1.354	1.318	-0.01779	-1.8802	2.0527	0.6563	2.494	0.1777	124.7
12XY	1.356	1.351	0.06357	-2.0770	2.0932	0.0318	0.2156	0.2109	124.8
12Y	1.32	1.349	-0.01743	-2.0232	1.8780	-0.9157	0.1796	2.489	124.7
13X	1.264	1.238	-0.01767	-1.8411	2.0661	0.7058	2.404	0.09751	122.2
13XY	1.264	1.26	0.06212	-2.0334	2.0445	0.0533	0.1245	0.1201	122.3
13Y	1.239	1.26	-0.01734	-2.0610	1.8482	-0.9309	0.0991	2.4	122.2
14X	1.174	1.157	-0.01752	-1.7731	1.9958	0.7648	2.314	0.01737	119.7

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	1.177	1.174	0.05997	-1.9955	2.0053	0.0790	0.03732	0.03358	119.8
14Y	1.159	1.17	-0.01721	-1.9833	1.7781	-0.9490	0.01884	2.31	119.7
15X	1.09	1.083	-0.01733	-1.7237	1.9453	0.8238	2.23	-0.0575	117.2
15XY	1.09	1.087	0.05736	-1.9144	1.9256	0.1047	-0.04994	-0.05338	117.3
15Y	1.084	1.086	-0.01705	-1.9366	1.7270	-0.9672	-0.05634	2.226	117.2
16X	1.005	1.008	-0.0171	-1.6213	1.8488	0.8829	2.145	-0.1323	114.7
16XY	1.009	1.006	0.0542	-1.8556	1.8614	0.1304	-0.1309	-0.1338	114.8
16Y	1.009	1.002	-0.01685	-1.8398	1.6256	-0.9854	-0.1311	2.142	114.7
17X	0.9282	0.9404	-0.01683	-1.5583	1.7656	0.9419	2.068	-0.1996	112.2
17XY	0.9286	0.9259	0.05048	-1.7129	1.7315	0.1561	-0.2114	-0.2141	112.3
17Y	0.9413	0.9256	-0.01661	-1.7556	1.5600	-1.0035	-0.1987	2.066	112.2
18X	0.8671	0.8866	-0.01659	-1.4220	1.6516	0.9892	2.007	-0.2534	110.2
18XY	0.8705	0.8682	0.04705	-1.7226	1.6988	0.1766	-0.2695	-0.2718	110.2
18Y	0.8875	0.8647	-0.01639	-1.6554	1.4222	-1.0181	-0.2525	2.005	110.2
21X	0.6676	0.6823	-0.01309	-1.0486	1.0585	0.9932	3.12	-1.77	99.39
21XY	0.6687	0.6668	0.07365	-1.1359	1.1137	0.2059	-1.783	-1.785	99.47
21Y	0.6826	0.6656	-0.0129	-1.0529	1.0580	-0.9603	-1.769	3.118	99.39
22X	0.6165	0.6303	-0.01279	-1.0757	1.0480	0.9770	3.068	-1.822	96.59
22XY	0.6172	0.6154	0.0704	-0.9953	1.0068	0.2000	-1.835	-1.837	96.67
22Y	0.6305	0.6147	-0.01261	-1.0462	1.0735	-0.9470	-1.821	3.067	96.59
23X	0.568	0.5809	-0.01242	-0.9896	0.9757	0.9584	3.02	-1.871	93.89
23XY	0.5706	0.569	0.06621	-0.9931	0.9932	0.1932	-1.881	-1.883	93.97
23Y	0.5811	0.5662	-0.01226	-0.9717	0.9918	-0.9317	-1.871	3.018	93.89
24X	0.524	0.5362	-0.01205	-0.9530	0.9342	0.9397	2.976	-1.916	91.19
24XY	0.5246	0.523	0.06158	-0.9102	0.9152	0.1863	-1.927	-1.929	91.26
24Y	0.5364	0.5225	-0.01191	-0.9336	0.9514	-0.9163	-1.916	2.975	91.19
25X	0.4788	0.49	-0.01185	-0.9119	0.8936	0.9334	2.931	-1.962	88.39
25XY	0.4807	0.4794	0.05891	-0.8988	0.9001	0.1840	-1.971	-1.973	88.46
25Y	0.4902	0.4773	-0.01172	-0.8897	0.9134	-0.9112	-1.962	2.929	88.39
26X	0.4365	0.4469	-0.01165	-0.8854	0.8662	0.9271	2.888	-2.005	85.59
26XY	0.4371	0.4358	0.05597	-0.8516	0.8563	0.1817	-2.015	-2.016	85.66
26Y	0.447	0.4352	-0.01152	-0.8657	0.8838	-0.9060	-2.005	2.887	85.59
27X	0.3944	0.4039	-0.01148	-0.8488	0.8319	0.9234	2.846	-2.048	82.79
27XY	0.3962	0.3952	0.05332	-0.8325	0.8343	0.1804	-2.056	-2.057	82.85
27Y	0.4041	0.3932	-0.01136	-0.8289	0.8495	-0.9029	-2.048	2.845	82.79
28X	0.3551	0.3638	-0.0113	-0.8188	0.8020	0.9197	2.807	-2.088	79.99
28XY	0.3557	0.3547	0.05044	-0.7973	0.7998	0.1790	-2.096	-2.097	80.05
28Y	0.3639	0.3541	-0.01119	-0.7995	0.8189	-0.8999	-2.088	2.806	79.99
29X	0.3168	0.3247	-0.01112	-0.7819	0.7665	0.9161	2.769	-2.127	77.24
29XY	0.3188	0.3179	0.04736	-0.7594	0.7618	0.1777	-2.133	-2.134	77.3
29Y	0.3249	0.3158	-0.01102	-0.7651	0.7812	-0.8969	-2.127	2.768	77.24
30X	0.2815	0.2888	-0.01095	-0.7412	0.7291	0.9125	2.734	-2.163	74.49
30XY	0.2823	0.2815	0.04403	-0.7406	0.7443	0.1764	-2.17	-2.171	74.54
30Y	0.2889	0.2808	-0.01085	-0.7234	0.7442	-0.8939	-2.163	2.733	74.49
31X	0.2468	0.2534	-0.01076	-0.7518	0.7329	0.9089	2.699	-2.199	71.79
31XY	0.2479	0.2472	0.04053	-0.7359	0.7284	0.1751	-2.204	-2.205	71.84
31Y	0.2535	0.2461	-0.01068	-0.7381	0.7439	-0.8910	-2.198	2.698	71.79
33X	0.1379	0.1423	-0.00971	-0.4420	0.4209	0.8377	3.361	-3.08	59.79
33XY	0.1404	0.14	0.03292	-0.2496	0.2842	0.1585	-3.082	-3.083	59.83
33Y	0.1424	0.1376	-0.009624	-0.4269	0.4320	-0.8227	-3.08	3.36	59.79
34X	0.107	0.1106	-0.009051	-0.3634	0.3590	0.7602	4.061	-3.843	53.79
34XY	0.1092	0.1089	0.03253	-0.2577	0.2944	0.1419	-3.845	-3.845	53.83
34Y	0.1107	0.1068	-0.008962	-0.3540	0.3640	-0.7468	-3.843	4.061	53.79
35X	0.08201	0.08503	-0.008333	-0.3049	0.2969	0.6803	4.767	-4.6	47.79
35XY	0.08362	0.08342	0.03131	-0.1846	0.2151	0.1263	-4.601	-4.602	47.83
35Y	0.08511	0.08183	-0.008238	-0.2960	0.3039	-0.6681	-4.6	4.767	47.79

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36X	0.06111	0.06339	-0.007529	-0.2721	0.2612	0.5941	5.477	-5.353	41.79
36XY	0.06331	0.06308	0.02915	-0.1749	0.2017	0.1105	-5.353	-5.353	41.83
36Y	0.06328	0.06085	-0.007421	-0.2602	0.2726	-0.5833	-5.353	5.477	41.79
37X	0.04275	0.04407	-0.006643	-0.2198	0.2129	0.5117	6.19	-6.103	35.79
37XY	0.04394	0.04372	0.0273	-0.1259	0.1493	0.0946	-6.103	-6.104	35.83
37Y	0.0439	0.04253	-0.006537	-0.2113	0.2185	-0.5028	-6.104	6.19	35.79
38X	0.02906	0.03035	-0.00581	-0.1746	0.1739	0.4274	6.908	-6.848	29.79
38XY	0.0318	0.03162	0.02373	-0.1091	0.1286	0.0787	-6.847	-6.847	29.82
38Y	0.03022	0.02888	-0.005723	-0.1725	0.1733	-0.4200	-6.848	6.907	29.79
39X	0.01666	0.01814	-0.004858	-0.1431	0.1450	0.3401	7.626	-7.592	23.8
39XY	0.01814	0.018	0.02053	-0.0729	0.0884	0.0629	-7.592	-7.592	23.82
39Y	0.01801	0.01653	-0.004784	-0.1443	0.1428	-0.3341	-7.592	7.626	23.8
40X	0.007493	0.008833	-0.003805	-0.1251	0.1056	0.2525	8.348	-8.332	17.8
40XY	0.01167	0.01154	0.01564	-0.0846	0.0963	0.0470	-8.329	-8.329	17.82
40Y	0.008636	0.007334	-0.003733	-0.1050	0.1249	-0.2480	-8.332	8.348	17.8
41X	0.0008518	0.002683	-0.002697	0.0070	0.0641	0.1791	9.073	-9.069	11.8
41XY	0.002619	0.002533	0.01156	0.0461	-0.0380	0.0311	-9.069	-9.07	11.81
41Y	0.002513	0.0007538	-0.002636	-0.0630	-0.0082	-0.1763	-9.07	9.073	11.8
42X	-0.001065	0.008728	-0.002431	-0.0428	0.0034	0.0858	9.802	-9.794	5.798
42XY	0.01202	0.012	0.003044	-0.0218	0.0260	0.0153	-9.791	-9.791	5.803
42Y	0.008666	-0.001093	-0.002402	-0.0028	0.0416	-0.0845	-9.795	9.802	5.798

Joint Support Reactions for Load Case "LC2 WIND 45° C.D.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Usage Moment (kN-m)	X X-M. Usage Moment (kN-m)	Y Y-M. Usage Moment (kN-m)	Z Z-M. Usage Moment (kN-m)	Max. Usage %	
ANP	-340.36	0.0	-342.22	0.0	2270.14	0.0	0.0	2320.88	0.0	1.01	0.0	-1.0	0.0	0.0
ANX	-30.38	0.0	62.65	0.0	330.36	0.0	0.0	337.62	0.0	6.53	0.0	-1.4	0.0	0.0
ANXY	-244.30	0.0	-243.39	0.0	-1577.77	0.0	0.0	1615.01	0.0	6.07	0.0	-6.1	0.0	0.0
ANY	63.39	0.0	-28.69	0.0	324.69	0.0	0.0	332.06	0.0	1.42	0.0	-6.5	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC2 WIND 45° C.D.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.7064	1.7064	-4.3881	-1.7040	-1.7040	4.3880	2.3563	2.3483	-0.0708
10P	1.9192	1.9192	-3.3369	-1.9177	-1.9177	3.3368	1.5392	1.5362	-0.0644
11P	9.8128	9.8128	-13.0586	-9.8114	-9.8114	13.0585	1.4161	1.4139	-0.0922
19P	2.8593	2.8593	-5.1735	-2.8585	-2.8585	5.1735	0.8489	0.8482	-0.0687
20P	3.9742	3.9742	-7.4474	-3.9734	-3.9734	7.4473	0.7377	0.7374	-0.1044
32P	4.5113	4.5113	-11.7621	-4.5111	-4.5111	11.7620	0.1839	0.1837	-0.0535
ANP	1.4310	1.4310	-6.6053	338.9266	340.7924	-2263.5305	0.0000	0.0000	0.0000
1X	1.7064	1.7064	-4.3881	-1.7041	-1.7040	4.3881	2.3303	2.3484	-0.0150
1XY	1.7064	1.7064	-4.3881	-1.7041	-1.7041	4.3881	2.3304	2.3160	0.0343
1Y	0.8844	0.8844	-2.5941	-0.8820	-0.8821	2.5941	2.3564	2.3159	-0.0144
10X	1.9192	1.9192	-3.3369	-1.9176	-1.9177	3.3369	1.6165	1.5366	-0.0142
10XY	2.7412	2.7412	-5.1309	-2.7396	-2.7396	5.1309	1.6165	1.6108	0.0290
10Y	1.9192	1.9192	-3.3369	-1.9176	-1.9176	3.3369	1.5396	1.6108	-0.0139
11X	2.3868	2.3868	-4.3226	-2.3853	-2.3854	4.3226	1.4605	1.4134	-0.0179
11XY	9.8128	9.8128	-13.0586	-9.8113	-9.8113	13.0587	1.4613	1.4559	0.0649
11Y	2.3868	2.3868	-4.3226	-2.3854	-2.3853	4.3226	1.4156	1.4550	-0.0175

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	2.8593	2.8593	-5.1735	-2.8585	-2.8585	5.1735	0.8250	0.8508	-0.0164
19XY	2.8593	2.8593	-5.1735	-2.8585	-2.8585	5.1736	0.8234	0.8213	0.0441
19Y	2.8593	2.8593	-5.1735	-2.8585	-2.8585	5.1735	0.8515	0.8229	-0.0162
20X	3.9742	3.9742	-7.4474	-3.9735	-3.9734	7.4474	0.7199	0.7347	-0.0134
20XY	3.5642	3.5642	-6.4334	-3.5635	-3.5635	6.4335	0.7227	0.7206	0.0766
20Y	3.5642	3.5642	-6.4334	-3.5634	-3.5635	6.4334	0.7351	0.7178	-0.0132
32X	4.5113	4.5113	-11.7621	-4.5111	-4.5111	11.7621	0.1800	0.1857	-0.0104
32XY	4.5113	4.5113	-11.7621	-4.5111	-4.5111	11.7621	0.1795	0.1790	0.0325
32Y	4.5113	4.5113	-11.7621	-4.5111	-4.5111	11.7621	0.1859	0.1795	-0.0103
ANX	1.4310	1.4310	-6.6053	28.9483	-64.0831	-323.7539	0.0000	0.0000	0.0000
ANXY	1.4310	1.4310	-6.6053	242.8666	241.9554	1584.3703	0.0000	0.0000	0.0000
ANY	1.4310	1.4310	-6.6053	-64.8213	27.2559	-318.0860	0.0000	0.0000	0.0000
2S	1.7064	1.7064	-3.0881	-1.7042	-1.7042	3.0880	2.2163	2.2096	-0.0707
3S	1.6974	1.6974	-2.5132	-1.6953	-1.6953	2.5131	2.1079	2.1021	-0.0704
4S	1.6350	1.6350	-3.0131	-1.6330	-1.6330	3.0131	2.0000	1.9950	-0.0699
5S	1.7045	1.7045	-2.5995	-1.7026	-1.7026	2.5995	1.8926	1.8882	-0.0690
6S	0.8915	0.8915	-1.3804	-0.8897	-0.8897	1.3803	1.7873	1.7836	-0.0680
7S	1.5655	1.5655	-2.4402	-1.5638	-1.5638	2.4401	1.6828	1.6793	-0.0667
8S	0.6740	0.6740	-1.0598	-0.6724	-0.6724	1.0597	1.6021	1.5989	-0.0655
12S	4.8546	4.8546	-6.4135	-4.8533	-4.8533	6.4134	1.3207	1.3189	-0.0906
13S	2.1983	2.1983	-3.8050	-2.1971	-2.1971	3.8049	1.2389	1.2373	-0.0888
14S	1.4667	1.4667	-2.7734	-1.4655	-1.4655	2.7734	1.1610	1.1597	-0.0863
15S	2.5106	2.5106	-4.5329	-2.5095	-2.5095	4.5328	1.0836	1.0824	-0.0833
16S	1.0439	1.0439	-1.7594	-1.0429	-1.0429	1.7594	1.0121	1.0112	-0.0797
17S	2.2368	2.2368	-4.0927	-2.2358	-2.2358	4.0926	0.9412	0.9403	-0.0756
18S	1.1929	1.1929	-2.3333	-1.1920	-1.1920	2.3332	0.8907	0.8900	-0.0719
21S	1.4877	1.4877	-2.5791	-1.4870	-1.4870	2.5790	0.6824	0.6822	-0.1010
22S	6.2696	6.2696	-7.3460	-6.2690	-6.2690	7.3459	0.6304	0.6302	-0.0972
23S	4.7819	4.7819	-4.7668	-4.7813	-4.7813	4.7667	0.5831	0.5830	-0.0923
24S	3.0522	3.0522	-5.7650	-3.0516	-3.0516	5.7649	0.5360	0.5359	-0.0870
25S	1.5793	1.5793	-3.3382	-1.5788	-1.5788	3.3381	0.4912	0.4911	-0.0839
26S	3.2233	3.2233	-7.0376	-3.2228	-3.2228	7.0375	0.4467	0.4465	-0.0805
27S	1.6440	1.6440	-3.6994	-1.6436	-1.6436	3.6993	0.4049	0.4048	-0.0774
28S	3.2356	3.2356	-7.3465	-3.2353	-3.2353	7.3464	0.3636	0.3635	-0.0741
29S	1.7806	1.7806	-3.9721	-1.7803	-1.7803	3.9720	0.3258	0.3258	-0.0706
30S	2.8167	2.8167	-6.5009	-2.8165	-2.8165	6.5009	0.2887	0.2886	-0.0668
31S	3.2951	3.2951	-8.0486	-3.2949	-3.2949	8.0485	0.2537	0.2536	-0.0627
33S	4.8841	4.8841	-13.1491	-4.8840	-4.8840	13.1490	0.1437	0.1435	-0.0528
34S	5.0795	5.0795	-14.2259	-5.0794	-5.0794	14.2259	0.1114	0.1113	-0.0512
35S	14.7275	14.7275	-22.3621	-14.7274	-14.7274	22.3620	0.0850	0.0850	-0.0487
36S	13.7591	13.7591	-21.1538	-13.7590	-13.7590	21.1537	0.0635	0.0636	-0.0451
37S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0427	0.0429	-0.0417
371S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0427	0.0434	-0.0249
372S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0433	0.0427	-0.0248
373S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0439	0.0431	0.0105
374S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0433	0.0439	0.0105
38S	3.7897	3.7897	-13.6372	-3.7897	-3.7897	13.6372	0.0305	0.0307	-0.0361
39S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0165	0.0167	-0.0308
391S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0166	0.0173	-0.0190
392S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0172	0.0166	-0.0190
393S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0181	0.0172	0.0081
394S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0173	0.0181	0.0081
40S	7.8860	7.8860	-19.1817	-7.8860	-7.8860	19.1817	0.0104	0.0106	-0.0236
41S	6.8708	6.8708	-17.0354	-6.8708	-6.8708	17.0354	0.0008	0.0010	-0.0172
411S	3.2298	3.2298	-15.2757	-3.2298	-3.2298	15.2757	0.0008	0.0017	-0.0056
412S	3.2298	3.2298	-15.2757	-3.2298	-3.2298	15.2757	0.0016	0.0008	-0.0055

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	3.2298	3.2298	-15.2757	-3.2298	-3.2298	15.2757	0.0025	0.0016	0.0000
414S	3.2298	3.2298	-15.2757	-3.2298	-3.2298	15.2757	0.0017	0.0026	0.0000
42S	2.3360	2.3360	-11.1093	-2.3360	-2.3360	11.1093	0.0022	0.0023	-0.0080
2X	1.7064	1.7064	-3.0881	-1.7042	-1.7042	3.0881	2.2075	2.2102	-0.0149
2XY	1.7064	1.7064	-3.0881	-1.7042	-1.7042	3.0881	2.2088	2.1961	0.0342
2Y	0.8844	0.8844	-1.2941	-0.8822	-0.8822	1.2941	2.2169	2.1946	-0.0144
3X	1.6974	1.6974	-2.5132	-1.6953	-1.6953	2.5132	2.1131	2.1022	-0.0149
3XY	1.6974	1.6974	-2.5132	-1.6953	-1.6953	2.5132	2.1132	2.1016	0.0341
3Y	1.6974	1.6974	-2.5132	-1.6953	-1.6953	2.5132	2.1081	2.1015	-0.0143
4X	1.6350	1.6350	-3.0131	-1.6330	-1.6330	3.0131	2.0176	1.9945	-0.0148
4XY	1.6350	1.6350	-3.0131	-1.6330	-1.6330	3.0132	2.0194	2.0090	0.0337
4Y	0.8130	0.8130	-1.2191	-0.8110	-0.8110	1.2191	1.9995	2.0070	-0.0143
5X	2.5265	2.5265	-4.3935	-2.5246	-2.5246	4.3935	1.9247	1.8883	-0.0147
5XY	2.5265	2.5265	-4.3935	-2.5246	-2.5246	4.3936	1.9248	1.9154	0.0330
5Y	1.7045	1.7045	-2.5995	-1.7026	-1.7026	2.5995	1.8927	1.9153	-0.0142
6X	1.7135	1.7135	-3.1744	-1.7116	-1.7117	3.1744	1.8309	1.7823	-0.0146
6XY	1.7135	1.7135	-3.1744	-1.7116	-1.7117	3.1744	1.8333	1.8252	0.0322
6Y	0.8915	0.8915	-1.3804	-0.8897	-0.8897	1.3804	1.7862	1.8225	-0.0142
7X	1.5655	1.5655	-2.4402	-1.5638	-1.5638	2.4402	1.7411	1.6794	-0.0144
7XY	1.5655	1.5655	-2.4402	-1.5638	-1.5638	2.4402	1.7413	1.7342	0.0311
7Y	1.5655	1.5655	-2.4402	-1.5638	-1.5638	2.4402	1.6829	1.7340	-0.0141
8X	1.4960	1.4960	-2.8538	-1.4944	-1.4944	2.8538	1.6698	1.5978	-0.0143
8XY	1.4960	1.4960	-2.8538	-1.4944	-1.4944	2.8538	1.6714	1.6652	0.0300
8Y	0.6740	0.6740	-1.0598	-0.6724	-0.6724	1.0598	1.6010	1.6633	-0.0140
12X	1.1416	1.1416	-2.0455	-1.1403	-1.1403	2.0455	1.3536	1.3177	-0.0178
12XY	4.8546	4.8546	-6.4135	-4.8533	-4.8533	6.4136	1.3556	1.3509	0.0636
12Y	1.1416	1.1416	-2.0455	-1.1403	-1.1403	2.0455	1.3196	1.3487	-0.0174
13X	2.1983	2.1983	-3.8050	-2.1971	-2.1971	3.8049	1.2642	1.2375	-0.0177
13XY	5.9113	5.9113	-8.1730	-5.9101	-5.9101	8.1730	1.2645	1.2601	0.0621
13Y	2.1983	2.1983	-3.8050	-2.1971	-2.1971	3.8049	1.2391	1.2599	-0.0173
14X	1.4667	1.4667	-2.7734	-1.4655	-1.4655	2.7734	1.1744	1.1574	-0.0175
14XY	4.7697	4.7697	-6.1274	-4.7685	-4.7685	6.1275	1.1773	1.1736	0.0600
14Y	1.4667	1.4667	-2.7734	-1.4655	-1.4655	2.7734	1.1588	1.1704	-0.0172
15X	2.5106	2.5106	-4.5329	-2.5095	-2.5095	4.5329	1.0897	1.0825	-0.0173
15XY	2.1006	2.1006	-3.5189	-2.0995	-2.0995	3.5189	1.0901	1.0866	0.0574
15Y	2.5106	2.5106	-4.5329	-2.5095	-2.5095	4.5329	1.0837	1.0864	-0.0170
16X	1.0439	1.0439	-1.7594	-1.0429	-1.0429	1.7594	1.0053	1.0077	-0.0171
16XY	1.0439	1.0439	-1.7594	-1.0429	-1.0429	1.7595	1.0091	1.0062	0.0542
16Y	1.0439	1.0439	-1.7594	-1.0429	-1.0429	1.7594	1.0089	1.0021	-0.0168
17X	2.2368	2.2368	-4.0927	-2.2358	-2.2358	4.0927	0.9282	0.9404	-0.0168
17XY	1.8268	1.8268	-3.0787	-1.8258	-1.8258	3.0787	0.9286	0.9259	0.0505
17Y	2.2368	2.2368	-4.0927	-2.2358	-2.2358	4.0927	0.9413	0.9256	-0.0166
18X	1.1929	1.1929	-2.3333	-1.1920	-1.1920	2.3332	0.8671	0.8866	-0.0166
18XY	0.7829	0.7829	-1.3193	-0.7820	-0.7820	1.3193	0.8705	0.8682	0.0471
18Y	1.1929	1.1929	-2.3333	-1.1920	-1.1920	2.3332	0.8875	0.8647	-0.0164
21X	1.4877	1.4877	-2.5791	-1.4870	-1.4870	2.5791	0.6676	0.6823	-0.0131
21XY	1.4877	1.4877	-2.5791	-1.4870	-1.4870	2.5792	0.6687	0.6668	0.0737
21Y	1.4877	1.4877	-2.5791	-1.4870	-1.4870	2.5791	0.6826	0.6656	-0.0129
22X	2.9606	2.9606	-5.0060	-2.9600	-2.9600	5.0059	0.6165	0.6303	-0.0128
22XY	4.6156	4.6156	-6.1760	-4.6150	-4.6150	6.1760	0.6172	0.6154	0.0704
22Y	2.9606	2.9606	-5.0060	-2.9600	-2.9600	5.0059	0.6305	0.6147	-0.0126
23X	1.4729	1.4729	-2.4268	-1.4723	-1.4723	2.4268	0.5680	0.5809	-0.0124
23XY	1.4729	1.4729	-2.4268	-1.4723	-1.4723	2.4269	0.5706	0.5690	0.0662
23Y	1.4729	1.4729	-2.4268	-1.4723	-1.4723	2.4268	0.5811	0.5662	-0.0123
24X	3.0522	3.0522	-5.7650	-3.0517	-3.0516	5.7650	0.5240	0.5362	-0.0120
24XY	3.0522	3.0522	-5.7650	-3.0517	-3.0517	5.7651	0.5246	0.5230	0.0616

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	3.0522	3.0522	-5.7650	-3.0516	-3.0517	5.7650	0.5364	0.5225	-0.0119
25X	1.5793	1.5793	-3.3382	-1.5788	-1.5788	3.3382	0.4788	0.4900	-0.0118
25XY	1.5793	1.5793	-3.3382	-1.5788	-1.5788	3.3383	0.4807	0.4794	0.0589
25Y	1.5793	1.5793	-3.3382	-1.5788	-1.5788	3.3382	0.4902	0.4773	-0.0117
26X	3.2233	3.2233	-7.0376	-3.2228	-3.2228	7.0376	0.4365	0.4469	-0.0116
26XY	3.2233	3.2233	-7.0376	-3.2228	-3.2228	7.0377	0.4371	0.4358	0.0560
26Y	3.2233	3.2233	-7.0376	-3.2228	-3.2228	7.0376	0.4470	0.4352	-0.0115
27X	1.6440	1.6440	-3.6994	-1.6436	-1.6436	3.6994	0.3944	0.4039	-0.0115
27XY	1.6440	1.6440	-3.6994	-1.6436	-1.6436	3.6995	0.3962	0.3952	0.0533
27Y	1.6440	1.6440	-3.6994	-1.6436	-1.6436	3.6994	0.4041	0.3932	-0.0114
28X	3.2356	3.2356	-7.3465	-3.2353	-3.2353	7.3465	0.3551	0.3638	-0.0113
28XY	3.2356	3.2356	-7.3465	-3.2353	-3.2353	7.3465	0.3557	0.3547	0.0504
28Y	3.2356	3.2356	-7.3465	-3.2353	-3.2353	7.3465	0.3639	0.3541	-0.0112
29X	1.5916	1.5916	-3.6471	-1.5913	-1.5913	3.6470	0.3168	0.3247	-0.0111
29XY	1.5916	1.5916	-3.6471	-1.5913	-1.5913	3.6471	0.3188	0.3179	0.0474
29Y	1.5916	1.5916	-3.6471	-1.5913	-1.5913	3.6470	0.3249	0.3158	-0.0110
30X	2.8167	2.8167	-6.5009	-2.8165	-2.8165	6.5009	0.2815	0.2888	-0.0109
30XY	2.8167	2.8167	-6.5009	-2.8165	-2.8165	6.5010	0.2823	0.2815	0.0440
30Y	2.8167	2.8167	-6.5009	-2.8165	-2.8165	6.5009	0.2889	0.2808	-0.0109
31X	3.2951	3.2951	-8.0486	-3.2949	-3.2949	8.0486	0.2468	0.2534	-0.0108
31XY	3.4841	3.4841	-8.3736	-3.4839	-3.4839	8.3736	0.2479	0.2472	0.0405
31Y	3.4841	3.4841	-8.3736	-3.4839	-3.4839	8.3736	0.2535	0.2461	-0.0107
33X	4.8841	4.8841	-13.1491	-4.8840	-4.8840	13.1491	0.1379	0.1423	-0.0097
33XY	4.8841	4.8841	-13.1491	-4.8840	-4.8840	13.1491	0.1404	0.1400	0.0329
33Y	4.8841	4.8841	-13.1491	-4.8840	-4.8840	13.1491	0.1424	0.1376	-0.0096
34X	5.0795	5.0795	-14.2259	-5.0794	-5.0794	14.2259	0.1070	0.1106	-0.0091
34XY	5.0795	5.0795	-14.2259	-5.0794	-5.0794	14.2260	0.1092	0.1089	0.0325
34Y	5.0795	5.0795	-14.2259	-5.0794	-5.0794	14.2259	0.1107	0.1068	-0.0090
35X	5.3545	5.3545	-15.7191	-5.3544	-5.3544	15.7191	0.0820	0.0850	-0.0083
35XY	5.3545	5.3545	-15.7191	-5.3544	-5.3544	15.7191	0.0836	0.0834	0.0313
35Y	8.6035	8.6035	-17.1491	-8.6034	-8.6034	17.1491	0.0851	0.0818	-0.0082
36X	6.7291	6.7291	-17.5398	-6.7290	-6.7290	17.5397	0.0611	0.0634	-0.0075
36XY	5.5761	5.5761	-15.2718	-5.5760	-5.5760	15.2718	0.0633	0.0631	0.0292
36Y	4.3861	4.3861	-14.5108	-4.3860	-4.3860	14.5107	0.0633	0.0608	-0.0074
37X	4.6241	4.6241	-14.7826	-4.6241	-4.6241	14.7826	0.0428	0.0441	-0.0066
37XY	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0439	0.0437	0.0273
37Y	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0439	0.0425	-0.0065
38X	3.7897	3.7897	-13.6372	-3.7897	-3.7897	13.6372	0.0291	0.0304	-0.0058
38XY	3.7897	3.7897	-13.6372	-3.7897	-3.7897	13.6373	0.0318	0.0316	0.0237
38Y	3.9787	3.9787	-13.9622	-3.9787	-3.9787	13.9622	0.0302	0.0289	-0.0057
39X	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0167	0.0181	-0.0049
39XY	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0181	0.0180	0.0205
39Y	4.8361	4.8361	-16.7248	-4.8361	-4.8361	16.7248	0.0180	0.0165	-0.0048
40X	8.4040	8.4040	-21.3787	-8.4040	-8.4040	21.3787	0.0075	0.0088	-0.0038
40XY	3.7190	3.7190	-15.3207	-3.7190	-3.7190	15.3207	0.0117	0.0115	0.0156
40Y	6.0620	6.0620	-18.3497	-6.0620	-6.0620	18.3497	0.0086	0.0073	-0.0037
41X	3.7448	3.7448	-15.5664	-3.7448	-3.7448	15.5664	0.0009	0.0027	-0.0027
41XY	2.7038	2.7038	-13.1744	-2.7038	-2.7038	13.1744	0.0026	0.0025	0.0116
41Y	2.7038	2.7038	-13.1744	-2.7038	-2.7038	13.1744	0.0025	0.0008	-0.0026
42X	2.3360	2.3360	-11.1093	-2.3360	-2.3360	11.1093	-0.0011	0.0087	-0.0024
42XY	2.3360	2.3360	-11.1093	-2.3360	-2.3360	11.1093	0.0120	0.0120	0.0030
42Y	2.3360	2.3360	-11.1093	-2.3360	-2.3360	11.1093	0.0087	-0.0011	-0.0024

Moments for Angles Modeled as Beams:

Angle	Torsion	Origin	Origin	End	End	X	Y

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.01	-0.04	0.04	-10.32	26.90	-3.23
1X	-0.01	-0.04	0.04	7.38	104.73	2.29
1XY	0.00	-0.04	0.04	46.97	-97.04	14.62
1Y	0.02	-0.04	0.04	-50.92	-9.35	-15.87
2P	0.01	10.28	-26.86	-15.74	39.15	-2.19
2X	-0.02	-7.43	-104.69	4.96	-169.89	-0.99
2XY	0.00	-47.01	97.08	-90.46	193.19	-54.99
2Y	0.03	50.88	9.39	84.85	-12.86	54.29
3P	0.02	15.70	-39.10	27.60	-50.60	17.32
3X	-0.03	-5.00	169.93	-56.57	287.70	-24.63
3XY	0.00	90.42	-193.15	101.57	-206.70	76.80
3Y	0.05	-84.89	12.90	-137.76	140.25	-89.06
4P	0.02	-27.64	50.64	-120.55	269.75	-59.28
4X	-0.04	56.52	-287.66	48.50	-305.77	42.01
4XY	0.00	-101.61	206.74	-208.13	435.14	-123.89
4Y	0.06	137.73	-140.21	158.03	-96.86	118.30
5P	0.03	120.51	-269.71	155.65	-223.49	110.46
5X	-0.05	-48.54	305.81	-263.32	890.84	-124.75
5XY	0.00	208.09	-435.10	256.10	-477.21	185.68
5Y	0.08	-158.06	96.90	-481.98	591.90	-256.02
6P	0.04	-155.69	223.54	-630.58	1077.95	-314.51
6X	-0.06	263.28	-890.80	21.34	-563.61	113.85
6XY	0.00	-256.14	477.24	-568.18	1174.00	-329.73
6Y	0.09	481.94	-591.86	409.46	-126.88	356.56
7P	0.04	630.54	-1077.91	1061.87	-1117.77	846.21
7X	-0.07	-21.38	563.64	-188.96	2489.33	-105.17
7XY	0.00	568.15	-1173.96	-114.16	85.67	226.99
7Y	0.11	-409.50	126.92	-1620.13	921.12	-1014.81
8P	0.05	-1061.91	1117.82	-4488.72	4948.88	-3535.44
8X	-0.08	188.92	-2489.30	-2779.68	-3856.38	-1650.17
8XY	0.00	114.13	-85.64	1580.75	-2133.91	1079.54
8Y	0.12	1620.10	-921.08	3318.46	3249.98	3145.58
9P	-54.96	-6673.34	320.70	-3641.90	139.12	-2516.53
9X	-128.81	4692.40	750.42	2810.15	1038.59	1830.34
9XY	-66.12	-2626.72	385.51	-1982.09	393.16	-1124.37
9Y	8.33	4644.59	-47.76	2616.11	-501.58	1771.33
10P	-77.68	-2484.85	2665.63	-611.43	615.92	-1071.38
10X	-302.54	-1278.69	-2695.46	-859.75	559.57	-739.94
10XY	-131.64	1135.42	-1667.61	507.32	-772.53	568.42
10Y	93.03	2198.40	1501.33	-14.99	1429.42	755.51
11P	-77.67	611.40	-615.89	-616.69	1397.63	-2.12
11X	-302.55	859.72	-559.53	466.53	-852.70	530.50
11XY	-131.64	-507.36	772.57	-945.83	1832.17	-581.27
11Y	93.04	14.95	-1429.39	395.54	-780.06	164.20
12P	-77.67	616.66	-1397.60	432.10	-806.41	419.50
12X	-302.57	-466.56	852.73	-1049.72	2124.56	-606.51
12XY	-131.64	945.79	-1832.14	621.01	-1123.93	626.72
12Y	93.06	-395.57	780.10	-1062.18	2045.98	-583.10
13P	-77.66	-432.13	806.44	-1227.58	2406.81	-663.88
13X	-302.58	1049.69	-2124.52	626.18	-1211.98	670.35
13XY	-131.64	-621.04	1123.96	-1316.27	2564.69	-774.93
13Y	93.07	1062.15	-2045.95	661.20	-1121.60	689.34
14P	-77.66	1227.55	-2406.78	789.87	-1375.21	806.97

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X -302.59 -626.21 1212.02 -1504.60 2954.70 -852.32 1666.69
14XY -131.64 1316.24 -2564.66 811.54 -1403.80 851.11 -1587.38
14Y 93.09 -661.24 1121.63 -1491.15 2954.40 -860.95 1630.41
15P -77.65 -789.89 1375.24 -2023.03 3764.72 -1125.17 2055.99
15X -302.61 1504.57 -2954.66 963.93 -1450.73 987.40 -1762.16
15XY -131.65 -811.57 1403.83 -2035.39 3750.51 -1138.79 2061.74
15Y 93.11 1491.12 -2954.38 768.79 -1769.30 903.96 -1889.47
16P -77.65 2023.01 -3764.70 2085.25 -3119.89 2054.13 -3442.29
16X -302.63 -963.96 1450.76 -2425.09 4027.69 -1694.52 2739.22
16XY -131.65 2035.36 -3750.48 2139.68 -3010.42 2087.52 -3380.45
16Y 93.13 -768.82 1769.33 -1842.24 4882.15 -1305.53 3325.74
17P -77.65 -2085.28 3119.91 -3714.19 3566.79 -3670.55 4232.09
17X -302.64 2425.06 -4027.66 -185.81 2499.30 1417.25 -967.32
17XY -131.65 -2139.71 3010.45 -5126.07 5582.11 -4598.60 5438.33
17Y 93.14 1842.21 -4882.13 -2003.25 73.23 -101.92 -3043.61
18P -45.65 -5148.40 -121.69 -3084.71 -71.39 -1232.00 -28.89
18X 236.39 -1635.88 -1908.01 -924.60 499.16 -383.15 -210.82
18XY -36.95 7571.79 -346.34 4434.42 -244.38 1796.60 -88.39
18Y -318.16 -1364.73 1436.40 -924.95 -838.66 -342.63 89.44
19P -24.03 -2238.70 2123.78 -929.56 1305.93 -1131.52 1224.90
19X 88.49 1039.26 268.32 197.80 463.84 441.81 261.48
19XY 32.35 -2962.36 3308.88 -1007.29 1366.99 -1417.73 1669.96
19Y -72.78 -21.89 -1286.19 -197.53 -185.57 -78.36 -525.63
20P -24.03 929.54 -1305.91 -265.06 705.12 237.32 -214.57
20X 88.47 -197.82 -463.82 46.14 -258.11 -54.17 -257.83
20XY 32.35 1007.27 -1366.97 -255.62 711.53 268.44 -234.09
20Y -72.77 197.51 185.58 138.12 -116.07 119.87 24.83
21P -24.02 265.04 -705.10 299.22 -605.79 208.98 -485.52
21X 88.45 -46.16 258.12 -730.25 1466.68 -287.56 638.82
21XY 32.35 255.61 -711.51 238.57 -485.21 183.03 -443.23
21Y -72.75 -138.14 116.08 -730.34 1482.49 -321.66 592.06
22P -24.02 -299.24 605.81 -933.43 1866.56 -456.54 915.69
22X 88.44 730.23 -1466.66 439.60 -771.19 433.27 -828.83
22XY 32.34 -238.59 485.23 -897.00 1790.49 -420.59 842.86
22Y -72.73 730.32 -1482.47 428.09 -805.41 429.04 -847.36
23P -24.02 933.42 -1866.54 570.96 -929.79 537.28 -998.69
23X 88.42 -439.62 771.21 -1399.44 2780.49 -656.80 1268.47
23XY 32.34 896.98 -1790.48 631.02 -1043.61 545.71 -1012.17
23Y -72.72 -428.10 805.43 -1454.07 2681.72 -672.20 1245.41
24P -24.01 -570.98 929.81 -1646.45 3050.94 -791.94 1421.70
24X 88.40 1399.42 -2780.48 778.96 -1427.50 777.99 -1502.85
24XY 32.34 -631.03 1043.62 -1735.07 3209.43 -845.04 1518.95
24Y -72.70 1454.06 -2681.71 891.82 -1219.34 837.81 -1393.23
25P -24.01 1646.44 -3050.92 780.40 -1078.65 866.73 -1474.85
25X 88.39 -778.97 1427.51 -2287.98 4282.68 -1095.34 2039.35
25XY 32.33 1735.05 -3209.42 945.68 -1371.89 957.40 -1636.18
25Y -72.69 -891.83 1219.36 -2410.49 4073.38 -1179.40 1890.26
26P -24.01 -780.41 1078.66 -2290.89 4070.48 -1096.89 1838.98
26X 88.37 2287.96 -4282.66 1048.84 -1796.34 1191.71 -2171.07
26XY 32.33 -945.70 1371.90 -2395.39 4239.54 -1193.25 2004.09
26Y -72.67 2410.47 -4073.36 1199.86 -1525.67 1289.40 -1999.65
27P -24.00 2290.88 -4070.47 673.20 -802.31 1077.85 -1771.92
27X 88.35 -1048.85 1796.36 -2601.04 4803.03 -1327.23 2399.78
27XY 32.33 2395.38 -4239.53 801.22 -1022.51 1162.40 -1913.47
27Y -72.65 -1199.87 1525.68 -2648.74 4718.99 -1399.50 2270.79
28P -24.00 -673.21 802.32 -1567.24 2496.27 -814.71 1199.49

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X	88.34	2601.03	-4803.01	893.05	-1641.46	1270.57	-2343.45
28XY	32.32	-801.24	1022.52	-1593.86	2501.68	-870.94	1281.53
28Y	-72.64	2648.73	-4718.98	895.87	-1587.20	1288.94	-2293.15
29P	-24.00	1567.23	-2496.25	1435.25	-1186.41	1112.03	-1363.95
29X	88.32	-893.06	1641.48	-441.96	1310.64	-494.45	1093.38
29XY	32.32	1593.84	-2501.67	1395.00	-1130.99	1106.98	-1345.43
29Y	-72.62	-895.88	1587.21	-263.53	1608.01	-429.41	1183.41
30P	-24.00	-1435.27	1186.42	-5781.19	7009.94	-1271.62	1444.29
30X	88.31	441.95	-1310.63	-3307.54	4512.17	-504.95	564.15
30XY	32.32	-1395.01	1131.00	-5674.21	6883.56	-1245.68	1412.26
30Y	-72.61	263.52	-1607.99	-3473.59	4334.24	-565.65	480.40
31P	-171.20	-9044.68	852.16	-1548.66	226.69	-1650.50	168.09
31X	1026.07	-851.80	-5434.04	-286.76	1651.50	-177.39	-589.34
31XY	177.08	8879.67	-837.23	1491.85	-220.08	1615.95	-164.73
31Y	-1009.18	608.57	5428.43	107.41	-1641.51	111.55	590.02
32P	-171.20	1548.66	-226.69	1325.24	-61.73	472.03	-47.37
32X	1026.06	286.76	-1651.49	63.87	1588.23	57.59	-10.39
32XY	177.07	-1491.86	220.08	-1246.11	57.22	-449.70	45.54
32Y	-1009.16	-107.41	1641.50	-42.20	-1620.58	-24.57	3.44
33P	-171.20	-1325.23	61.73	758.16	37.79	-93.14	16.35
33X	1026.04	-63.87	-1588.23	-15.46	1109.71	-13.03	-78.59
33XY	177.07	1246.11	-57.22	-799.76	5.57	73.31	-8.48
33Y	-1009.15	42.20	1620.57	14.38	-1015.40	9.29	99.40
34P	-171.20	-758.16	-37.79	-609.23	-19.94	-224.59	-9.48
34X	1026.03	15.46	-1109.71	54.67	154.72	11.52	-156.85
34XY	177.07	799.75	-5.57	489.62	-9.17	211.77	-2.42
34Y	-1009.13	-14.38	1015.39	45.56	-224.73	5.12	129.86
35P	-171.20	609.24	19.94	2176.76	-11.33	457.59	1.41
35X	1026.02	-54.67	-154.72	-109.15	1990.95	-26.91	301.59
35XY	177.07	-489.62	9.17	-1850.45	-2.98	-384.35	1.02
35Y	-1009.12	-45.56	224.72	-115.00	-1996.62	-26.37	-291.03
36P	-171.19	-2176.76	11.33	-1491.87	3.37	-602.55	2.41
36X	1026.01	109.15	-1990.94	25.70	-295.58	22.15	-375.55
36XY	177.06	1850.45	2.98	1346.50	0.90	525.08	0.64
36Y	-1009.11	115.00	1996.62	29.08	295.40	23.66	376.45
37P	-171.19	1491.87	-3.37	2398.73	6.71	639.01	0.55
37X	1026.00	-25.70	295.58	-60.87	1339.24	-14.22	268.51
37XY	177.06	-1346.50	-0.90	-2371.04	5.04	-610.59	0.68
37Y	-1009.10	-29.08	-295.41	-60.72	-1300.73	-14.75	-262.16
38P	-171.19	-2398.72	-6.71	-2036.88	-9.07	-728.53	-2.59
38X	1026.00	60.87	-1339.24	348.34	-379.52	67.21	-282.30
38XY	177.06	2371.04	-5.04	2633.61	-5.96	821.99	-1.81
38Y	-1009.10	60.72	1300.72	348.86	336.97	67.27	268.98
39P	-171.19	2036.88	9.07	3081.34	-11.63	840.64	-0.42
39X	1025.99	-348.34	379.52	-1564.47	4528.18	-314.17	806.07
39XY	177.06	-2633.61	5.96	-6191.32	-2.37	-1449.45	0.59
39Y	-1009.09	-348.87	-336.97	-1571.81	-4537.40	-315.46	-800.59
40P	-171.19	-3081.33	11.63	-1854.02	4.66	-810.61	2.67
40X	1025.99	1564.47	-4528.18	3048.65	-4843.23	757.69	-1539.21
40XY	177.06	6191.32	2.37	7960.98	3.75	2324.45	1.00
40Y	-1009.09	1571.81	4537.40	3049.02	4854.46	758.95	1542.57
41P	-171.19	1854.02	-4.66	1431.98	20.39	558.32	2.67
41X	1025.99	-3048.65	4843.23	-3596.23	5541.32	-1129.03	1764.43
41XY	177.06	-7960.98	-3.75	-8623.80	9.66	-2817.91	1.00
41Y	-1009.09	-3049.02	-4854.46	-3588.41	-5510.33	-1127.76	-1761.07

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 3 "LC3 WIND 0° C.T."

Equilibrium Joint Positions and Rotations for Load Case "LC3 WIND 0° C.T.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	2.412	-0.006145	-0.04063	-0.0545	2.4812	-0.5601	3.062	0.6439	150.9
10P	1.602	-0.02542	-0.03745	0.0247	2.1785	-0.5603	2.252	0.6246	131.6
11P	1.468	-0.01395	-0.05129	0.2055	1.9661	-0.5656	2.608	1.126	127.5
19P	0.8716	0.008363	-0.03893	-0.0369	1.4338	-0.6531	2.012	1.148	108.6
20P	0.7567	0.006765	-0.05755	0.0464	1.1261	-0.6230	3.209	2.459	102.1
32P	0.1895	0.0004779	-0.03041	0.0100	0.6166	-0.5533	2.641	2.452	66.09
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	2.42	-0.006013	-0.03957	-0.0395	2.3664	0.3645	3.07	-0.656	150.9
1XY	2.42	-0.004158	0.01356	0.0956	2.3362	0.3634	1.77	-0.6542	150.9
1Y	2.412	-0.004284	0.01519	0.0481	2.4541	-0.5493	1.762	0.6457	150.9
10X	1.652	-0.02497	-0.03556	0.0186	2.1358	0.3646	2.302	-0.675	131.6
10XY	1.652	0.02213	0.01065	-0.0135	2.1417	0.3635	1.002	-0.6279	131.6
10Y	1.602	0.02219	0.01287	-0.0039	2.1868	-0.5495	0.9518	0.6722	131.6
11X	1.498	-0.01434	-0.05434	0.0897	2.1926	0.3858	2.638	-1.154	127.5
11XY	1.498	0.01218	0.02967	-0.0713	2.1807	0.3842	0.3578	-1.128	127.6
11Y	1.468	0.01141	0.02708	-0.2029	1.9587	-0.5548	0.3281	1.151	127.6
19X	0.8534	0.01098	-0.04165	0.1197	1.5420	0.6280	1.993	-1.129	108.6
19XY	0.8539	-0.009954	0.01926	-0.1080	1.5293	0.6248	-0.2861	-1.15	108.6
19Y	0.872	-0.008239	0.01671	0.0320	1.4238	-0.6406	-0.268	1.132	108.6
20X	0.7452	0.004151	-0.05705	-0.1029	1.0877	0.6190	3.197	-2.448	102.1
20XY	0.7454	-0.003486	0.03584	0.1081	1.0789	0.6153	-1.707	-2.455	102.2
20Y	0.7569	-0.006466	0.03639	-0.0520	1.1160	-0.6114	-1.695	2.446	102.2
32X	0.1855	0.002461	-0.03025	-0.0191	0.6093	0.5464	2.638	-2.45	66.09
32XY	0.1862	-0.001363	0.01398	0.0189	0.6078	0.5437	-2.266	-2.453	66.14
32Y	0.1902	-0.0008123	0.01409	-0.0110	0.6149	-0.5476	-2.262	2.451	66.14
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	2.274	-0.009058	-0.04054	-0.0470	2.4597	-0.5601	2.924	0.6409	147.7
3S	2.167	-0.01087	-0.0404	-0.0367	2.4609	-0.5602	2.817	0.6391	145.2
4S	2.059	-0.01274	-0.04012	-0.0590	2.4480	-0.5602	2.709	0.6373	142.7
5S	1.953	-0.01535	-0.03968	-0.0352	2.4250	-0.5602	2.603	0.6346	140.2
6S	1.848	-0.01715	-0.0392	-0.0713	2.3935	-0.5602	2.498	0.6328	137.7
7S	1.745	-0.02064	-0.03857	-0.0426	2.3348	-0.5603	2.395	0.6294	135.2
8S	1.664	-0.02252	-0.03799	-0.1215	2.3066	-0.5603	2.314	0.6275	133.2
12S	1.367	-0.009856	-0.05044	0.0312	1.9857	-0.5773	2.507	1.13	124.6
13S	1.282	-0.007251	-0.04952	0.0959	1.9334	-0.5874	2.422	1.133	122.2
14S	1.199	-0.002779	-0.04818	0.0640	1.8795	-0.5995	2.339	1.137	119.7
15S	1.118	-0.0008623	-0.04659	0.0876	1.8081	-0.6116	2.258	1.139	117.2
16S	1.041	0.004123	-0.04471	0.0601	1.7278	-0.6237	2.181	1.144	114.7
17S	0.9679	0.005324	-0.04256	0.0973	1.6202	-0.6358	2.108	1.145	112.2
18S	0.9129	0.00958	-0.04059	0.0327	1.5417	-0.6454	2.053	1.15	110.2
21S	0.701	0.005026	-0.05569	-0.0494	1.1252	-0.6126	3.153	2.457	99.34
22S	0.6475	0.00467	-0.05367	0.0229	1.0723	-0.6021	3.1	2.457	96.55
23S	0.5979	0.005417	-0.05107	-0.0192	1.0317	-0.5901	3.05	2.457	93.85
24S	0.5506	0.003853	-0.04821	0.0020	0.9724	-0.5781	3.003	2.456	91.15
25S	0.5038	0.004207	-0.04655	-0.0110	0.9408	-0.5740	2.956	2.456	88.35

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.4587	0.003154	-0.04475	-0.0007	0.9045	-0.5699	2.911	2.455	85.56
27S	0.4152	0.003477	-0.04312	-0.0083	0.8740	-0.5675	2.867	2.455	82.76
28S	0.3734	0.002521	-0.04135	-0.0047	0.8396	-0.5651	2.825	2.455	79.96
29S	0.3339	0.002962	-0.03946	-0.0034	0.8008	-0.5628	2.786	2.455	77.21
30S	0.2964	0.002029	-0.03743	-0.0127	0.7706	-0.5605	2.748	2.454	74.46
31S	0.2602	0.002002	-0.03529	-0.0054	0.7643	-0.5582	2.712	2.454	71.76
33S	0.1468	0.001526	-0.02985	0.0895	0.3699	-0.5135	3.37	3.224	59.77
34S	0.1141	0.0007943	-0.02889	0.0464	0.3411	-0.4651	4.068	3.955	53.77
35S	0.08758	3.363e-005	-0.0274	0.0554	0.2689	-0.4157	4.773	4.685	47.77
36S	0.0654	-0.0001182	-0.02539	0.0415	0.2497	-0.3625	5.482	5.416	41.77
37S	0.04476	-0.001029	-0.0234	0.0450	0.1923	-0.3120	6.192	6.146	35.78
371S	0.04423	-0.0004403	-0.02384	0.0000	0.0000	0.0000	6.192	-0.0004403	35.78
372S	0.0453	-0.0005689	-0.005629	0.0000	0.0000	0.0000	0.0453	6.147	35.79
373S	0.0454	0.0004734	0.01258	0.0000	0.0000	0.0000	-6.102	0.0004734	35.81
374S	0.04422	0.0006019	-0.005596	0.0000	0.0000	0.0000	0.04422	-6.147	35.79
38S	0.03127	-0.0002061	-0.02029	0.0352	0.1555	-0.2605	6.91	6.878	29.78
39S	0.01759	-0.001061	-0.01731	0.0355	0.1226	-0.2074	7.627	7.609	23.78
391S	0.01728	-0.0003349	-0.01824	0.0000	0.0000	0.0000	7.627	-0.0003349	23.78
392S	0.01826	-0.0007329	-0.004297	0.0000	0.0000	0.0000	0.01826	7.609	23.8
393S	0.01873	0.0003176	0.009711	0.0000	0.0000	0.0000	-7.591	0.0003176	23.81
394S	0.0176	0.0007156	-0.004261	0.0000	0.0000	0.0000	0.0176	-7.609	23.8
40S	0.009494	0.0005768	-0.01329	0.0292	0.0973	-0.1541	8.35	8.341	17.79
41S	0.001154	-0.001058	-0.009659	-0.0059	0.0397	-0.1082	9.073	9.071	11.79
411S	0.0009424	-0.0001762	-0.005337	0.0000	0.0000	0.0000	9.073	-0.0001762	11.79
412S	0.001888	-0.0008804	-0.002464	0.0000	0.0000	0.0000	0.001888	9.071	11.8
413S	0.002672	0.0001476	0.0004095	0.0000	0.0000	0.0000	-9.069	0.0001476	11.8
414S	0.001572	0.0008518	-0.002443	0.0000	0.0000	0.0000	0.001572	-9.071	11.8
42S	0.002097	-0.002135	-0.004776	0.0278	0.0006	-0.0518	9.805	9.801	5.795
2X	2.287	-0.008384	-0.03946	-0.0478	2.3432	0.3645	2.937	-0.6584	147.7
2XY	2.288	0.0005138	0.01356	0.0588	2.3562	0.3634	1.638	-0.6495	147.7
2Y	2.275	-0.0008939	0.0152	0.0853	2.4713	-0.5493	1.625	0.6491	147.7
3X	2.185	-0.01075	-0.0393	-0.0605	2.3433	0.3645	2.835	-0.6607	145.2
3XY	2.185	0.003018	0.01348	0.0834	2.3450	0.3635	1.535	-0.647	145.2
3Y	2.167	0.002908	0.01512	0.0619	2.4621	-0.5494	1.517	0.6529	145.2
4X	2.083	-0.01323	-0.03896	-0.0434	2.3273	0.3646	2.733	-0.6632	142.7
4XY	2.084	0.007161	0.01327	0.0646	2.3286	0.3635	1.434	-0.6428	142.7
4Y	2.06	0.005175	0.01495	0.0846	2.4502	-0.5494	1.41	0.6552	142.7
5X	1.982	-0.01524	-0.03843	-0.0745	2.2991	0.3646	2.632	-0.6652	140.2
5XY	1.983	0.009541	0.0129	0.1067	2.2916	0.3635	1.333	-0.6405	140.2
5Y	1.953	0.009407	0.01465	0.0467	2.4146	-0.5494	1.303	0.6594	140.2
6X	1.883	-0.01846	-0.03784	-0.0537	2.2638	0.3646	2.533	-0.6685	137.7
6XY	1.883	0.01428	0.01247	0.0721	2.2649	0.3635	1.233	-0.6357	137.7
6Y	1.848	0.01155	0.0143	0.0939	2.3956	-0.5494	1.198	0.6616	137.7
7X	1.785	-0.02056	-0.03703	-0.0765	2.2002	0.3646	2.435	-0.6706	135.2
7XY	1.785	0.01664	0.01184	0.0931	2.2023	0.3635	1.135	-0.6334	135.2
7Y	1.745	0.01645	0.01379	0.0617	2.3363	-0.5495	1.095	0.6664	135.2
8X	1.71	-0.02373	-0.03628	-0.0861	2.1198	0.3646	2.36	-0.6737	133.2
8XY	1.71	0.02062	0.01124	0.1049	2.1174	0.3635	1.06	-0.6294	133.2
8Y	1.664	0.01873	0.01332	0.1362	2.3048	-0.5495	1.014	0.6687	133.2
12X	1.39	-0.01086	-0.05346	0.0807	2.1059	0.4182	2.53	-1.151	124.6
12XY	1.39	0.009655	0.02901	-0.0715	2.1105	0.4164	0.2503	-1.13	124.7
12Y	1.368	0.007525	0.02644	-0.0172	1.9868	-0.5663	0.2278	1.148	124.7
13X	1.298	-0.007071	-0.05253	0.0608	2.0790	0.4462	2.438	-1.147	122.1
13XY	1.299	0.006	0.02828	-0.0529	2.0821	0.4442	0.1585	-1.134	122.2
13Y	1.282	0.005755	0.02572	-0.0821	1.9333	-0.5762	0.1423	1.146	122.2
14X	1.209	-0.005144	-0.05117	0.0796	2.0260	0.4797	2.349	-1.145	119.6

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	1.209	0.004733	0.02721	-0.0683	2.0245	0.4774	0.06907	-1.135	119.7
14Y	1.199	0.001543	0.02462	-0.0552	1.8794	-0.5881	0.05914	-1.142	119.7
15X	1.122	-0.0007139	-0.04955	0.0576	1.9546	0.5131	2.262	-1.141	117.2
15XY	1.122	0.0005188	0.02591	-0.0507	1.9591	0.5107	-0.01803	-1.139	117.2
15Y	1.119	0.0002333	0.0233	-0.0768	1.8093	-0.5999	-0.02144	1.14	117.2
16X	1.038	0.0005693	-0.04763	0.0830	1.8754	0.5466	2.178	-1.139	114.7
16XY	1.038	-0.000271	0.02433	-0.0730	1.8721	0.5439	-0.1016	-1.14	114.7
16Y	1.041	-0.004532	0.02171	-0.0551	1.7258	-0.6118	-0.09856	1.135	114.7
17X	0.9586	0.00551	-0.04541	0.0381	1.7617	0.5801	2.099	-1.134	112.2
17XY	0.9588	-0.00503	0.02247	-0.0386	1.7685	0.5772	-0.1812	-1.145	112.2
17Y	0.9682	-0.005317	0.01987	-0.0846	1.6261	-0.6237	-0.1718	1.135	112.2
18X	0.8986	0.006076	-0.04338	0.1175	1.6906	0.6068	2.039	-1.134	110.2
18XY	0.8987	-0.005499	0.02075	-0.1053	1.6844	0.6038	-0.2413	-1.145	110.2
18Y	0.913	-0.009274	0.01817	-0.0340	1.5362	-0.6332	-0.227	1.131	110.2
21X	0.6901	0.005182	-0.05516	0.0462	1.1211	0.6081	3.142	-2.447	99.34
21XY	0.6908	-0.004013	0.03439	-0.0419	1.1177	0.6046	-1.761	-2.456	99.43
21Y	0.7017	-0.005178	0.03494	0.0464	1.1226	-0.6018	-1.75	2.447	99.43
22X	0.6372	0.004829	-0.05313	-0.0408	1.0596	0.5972	3.089	-2.447	96.55
22XY	0.6377	-0.003869	0.03279	0.0363	1.0641	0.5939	-1.814	-2.456	96.63
22Y	0.648	-0.004581	0.03334	-0.0181	1.0787	-0.5923	-1.804	2.447	96.63
23X	0.5881	0.003375	-0.05052	0.0050	1.0175	0.5847	3.04	-2.449	93.85
23XY	0.5885	-0.002399	0.03072	-0.0041	1.0170	0.5815	-1.863	-2.454	93.93
23Y	0.5982	-0.005333	0.03127	0.0184	1.0300	-0.5813	-1.854	2.447	93.93
24X	0.5416	0.004236	-0.04767	-0.0168	0.9572	0.5722	2.994	-2.448	91.15
24XY	0.542	-0.003248	0.02843	0.0196	0.9545	0.5691	-1.91	-2.455	91.23
24Y	0.5511	-0.003783	0.02896	-0.0049	0.9692	-0.5703	-1.901	2.448	91.23
25X	0.4955	0.003169	-0.04603	-0.0034	0.9267	0.5679	2.947	-2.449	88.35
25XY	0.496	-0.002075	0.0271	0.0023	0.9275	0.5649	-1.956	-2.454	88.43
25Y	0.5043	-0.004252	0.02761	0.0118	0.9420	-0.5665	-1.948	2.448	88.43
26X	0.4511	0.003531	-0.04425	-0.0131	0.8907	0.5637	2.903	-2.448	85.56
26XY	0.4516	-0.00255	0.02564	0.0141	0.8898	0.5608	-2	-2.455	85.63
26Y	0.4592	-0.003102	0.02613	-0.0007	0.9034	-0.5628	-1.993	2.449	85.63
27X	0.4082	0.002543	-0.04264	-0.0049	0.8609	0.5612	2.86	-2.449	82.76
27XY	0.4088	-0.001463	0.02433	0.0045	0.8610	0.5583	-2.043	-2.453	82.82
27Y	0.4157	-0.003547	0.02478	0.0083	0.8741	-0.5606	-2.036	2.448	82.82
28X	0.367	0.00287	-0.04091	-0.0078	0.8274	0.5587	2.819	-2.449	79.96
28XY	0.3675	-0.001913	0.02289	0.0071	0.8277	0.5559	-2.085	-2.454	80.02
28Y	0.3738	-0.002496	0.02331	0.0048	0.8400	-0.5584	-2.078	2.45	80.02
29X	0.3281	0.001852	-0.03906	-0.0081	0.7896	0.5563	2.78	-2.45	77.21
29XY	0.3287	-0.0008255	0.02136	0.0084	0.7891	0.5535	-2.123	-2.453	77.27
29Y	0.3344	-0.003039	0.02173	0.0024	0.8003	-0.5563	-2.118	2.449	77.27
30X	0.2911	0.002256	-0.03708	0.0019	0.7600	0.5538	2.743	-2.45	74.46
30XY	0.2916	-0.00133	0.01971	-0.0041	0.7615	0.5510	-2.16	-2.453	74.52
30Y	0.2968	-0.002044	0.02002	0.0141	0.7720	-0.5542	-2.155	2.45	74.52
31X	0.2554	0.001792	-0.03499	-0.0042	0.7547	0.5514	2.707	-2.45	71.77
31XY	0.2559	-0.0008866	0.01796	0.0055	0.7532	0.5487	-2.196	-2.453	71.82
31Y	0.2607	-0.00204	0.01822	0.0031	0.7629	-0.5521	-2.191	2.45	71.82
33X	0.1435	0.0002829	-0.02963	-0.0080	0.3645	0.5070	3.366	-3.222	59.77
33XY	0.1441	0.0006547	0.01435	0.0056	0.3657	0.5046	-3.079	-3.222	59.81
33Y	0.1474	-0.001869	0.0145	-0.0083	0.3706	-0.5083	-3.075	3.221	59.81
34X	0.1112	0.0001433	-0.02861	-0.0533	0.3382	0.4592	4.065	-3.954	53.77
34XY	0.1119	0.0008538	0.01431	0.0525	0.3374	0.4570	-3.842	-3.953	53.81
34Y	0.1149	-0.00137	0.01448	-0.0472	0.3402	-0.4604	-3.839	3.953	53.81
35X	0.08486	0.0001629	-0.02709	-0.0608	0.2648	0.4107	4.77	-4.685	47.77
35XY	0.08575	0.0008538	0.01386	0.0598	0.2646	0.4087	-4.599	-4.684	47.81
35Y	0.08843	-0.0008092	0.01405	-0.0556	0.2692	-0.4114	-4.597	4.684	47.81

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

36X	0.06337	-0.0002652	-0.02501	-0.0468	0.2399	0.3589	5.48	-5.417	41.77
36XY	0.06443	0.001402	0.01293	0.0463	0.2397	0.3571	-5.352	-5.415	41.81
36Y	0.06637	-0.0008828	0.0132	-0.0416	0.2489	-0.3590	-5.35	5.415	41.81
37X	0.0437	0.0001522	-0.02297	-0.0459	0.1863	0.3090	6.191	-6.147	35.78
37XY	0.04487	0.001065	0.0122	0.0448	0.1867	0.3075	-6.103	-6.146	35.81
37Y	0.04595	-0.0001192	0.01252	-0.0442	0.1919	-0.3090	-6.101	6.147	35.81
38X	0.03041	-0.0005208	-0.01998	-0.0332	0.1543	0.2579	6.909	-6.879	29.78
38XY	0.03169	0.001799	0.0106	0.0318	0.1550	0.2567	-6.847	-6.877	29.81
38Y	0.03255	-0.001054	0.01082	-0.0342	0.1562	-0.2580	-6.846	6.878	29.81
39X	0.01694	0.000392	-0.01706	-0.0342	0.1203	0.2054	7.627	-7.609	23.78
39XY	0.0184	0.001053	0.009218	0.0364	0.1183	0.2043	-7.591	-7.609	23.81
39Y	0.01907	-0.000421	0.009377	-0.0378	0.1200	-0.2053	-7.591	7.609	23.81
40X	0.008994	-0.001054	-0.01312	-0.0273	0.0962	0.1526	8.35	-8.342	17.79
40XY	0.01039	0.002478	0.006973	0.0124	0.1109	0.1519	-8.331	-8.338	17.81
40Y	0.01091	-0.002046	0.007064	-0.0143	0.1125	-0.1525	-8.33	8.339	17.81
41X	0.0007846	0.0007037	-0.009547	0.0076	0.0379	0.1075	9.073	-9.071	11.79
41XY	0.002527	0.001028	0.005188	0.0454	-0.0157	0.1070	-9.07	-9.071	11.81
41Y	0.002844	-0.0007336	0.005254	-0.0470	-0.0134	-0.1072	-9.069	9.071	11.81
42X	0.001961	0.002002	-0.00472	-0.0255	-0.0015	0.0517	9.805	-9.801	5.795
42XY	0.009625	0.005647	0.0008853	-0.0069	0.0310	0.0514	-9.794	-9.798	5.801
42Y	0.009723	-0.005542	0.0009198	0.0051	0.0327	-0.0514	-9.793	9.798	5.801

Joint Support Reactions for Load Case "LC3 WIND 0° C.T.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Comp. Force (kN)	Z Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X Moment (kN-m)	X-M. Usage %	Y Moment (kN-m)	Y-M. Usage %	Z Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-180.56	0.0	-193.39	0.0	1259.64	0.0	0.0	1287.13	0.0	-2.24	0.0	-2.1	0.0	0.10	0.0	0.0
ANX	-175.17	0.0	195.67	0.0	1246.16	0.0	0.0	1273.53	0.0	2.17	0.0	-2.0	0.0	-0.11	0.0	0.0
ANXY	-106.29	0.0	-125.99	0.0	-730.54	0.0	0.0	748.91	0.0	1.77	0.0	-6.0	0.0	-0.11	0.0	0.0
ANY	-110.59	0.0	123.70	0.0	-738.78	0.0	0.0	757.18	0.0	-1.72	0.0	-6.0	0.0	0.10	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC3 WIND 0° C.T.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.7876	0.0000	-3.3754	-1.7851	-0.0000	3.3754	2.4123	-0.0061	-0.0406
10P	1.9028	0.0000	-2.5668	-1.9012	-0.0000	2.5668	1.6016	-0.0254	-0.0375
11P	10.4694	0.0000	-10.0451	-10.4679	-0.0000	10.0450	1.4680	-0.0139	-0.0513
19P	2.9256	0.0000	-3.9796	-2.9247	0.0000	3.9796	0.8716	0.0084	-0.0389
20P	4.1179	0.0000	-5.7288	-4.1171	0.0000	5.7287	0.7567	0.0068	-0.0576
32P	4.6304	0.0000	-9.0478	-4.6302	0.0000	9.0477	0.1895	0.0005	-0.0304
ANP	1.5085	0.0000	-5.0810	179.0549	193.3894	-1254.5635	0.0000	0.0000	0.0000
1X	1.7876	0.0000	-3.3754	-1.7851	-0.0000	3.3754	2.4195	-0.0060	-0.0396
1XY	1.7876	0.0000	-3.3754	-1.7851	-0.0000	3.3755	2.4196	-0.0042	0.0136
1Y	0.8936	0.0000	-1.9954	-0.8911	-0.0000	1.9955	2.4124	-0.0043	0.0152
10X	1.9028	0.0000	-2.5668	-1.9012	-0.0000	2.5668	1.6518	-0.0250	-0.0356
10XY	2.7968	0.0000	-3.9468	-2.7952	0.0000	3.9468	1.6521	0.0221	0.0106
10Y	1.9028	0.0000	-2.5668	-1.9012	0.0000	2.5668	1.6018	0.0222	0.0129
11X	2.3934	0.0000	-3.3251	-2.3919	-0.0000	3.3250	1.4976	-0.0143	-0.0543
11XY	10.4694	0.0000	-10.0451	-10.4679	0.0000	10.0451	1.4978	0.0122	0.0297
11Y	2.3934	0.0000	-3.3251	-2.3919	0.0000	3.3251	1.4681	0.0114	0.0271

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	2.9256	0.0000	-3.9796	-2.9247	0.0000	3.9796	0.8534	0.0110	-0.0417
19XY	2.9256	0.0000	-3.9796	-2.9247	-0.0000	3.9797	0.8539	-0.0100	0.0193
19Y	2.9256	0.0000	-3.9796	-2.9247	-0.0000	3.9797	0.8720	-0.0082	0.0167
20X	4.1179	0.0000	-5.7288	-4.1171	0.0000	5.7287	0.7452	0.0042	-0.0571
20XY	3.6719	0.0000	-4.9488	-3.6711	-0.0000	4.9488	0.7454	-0.0035	0.0358
20Y	3.6719	0.0000	-4.9488	-3.6711	-0.0000	4.9488	0.7569	-0.0065	0.0364
32X	4.6304	0.0000	-9.0478	-4.6302	0.0000	9.0477	0.1855	0.0025	-0.0302
32XY	4.6304	0.0000	-9.0478	-4.6302	-0.0000	9.0478	0.1862	-0.0014	0.0140
32Y	4.6304	0.0000	-9.0478	-4.6302	-0.0000	9.0478	0.1902	-0.0008	0.0141
ANX	1.5085	0.0000	-5.0810	173.6569	-195.6714	-1241.0757	0.0000	0.0000	0.0000
ANXY	1.5085	0.0000	-5.0810	104.7789	125.9877	735.6259	0.0000	0.0000	0.0000
ANY	1.5085	0.0000	-5.0810	109.0847	-123.7045	743.8598	0.0000	0.0000	0.0000
2S	1.7876	0.0000	-2.3754	-1.7853	-0.0000	2.3754	2.2736	-0.0091	-0.0405
3S	1.7210	0.0000	-1.9332	-1.7189	-0.0000	1.9332	2.1665	-0.0109	-0.0404
4S	1.7215	0.0000	-2.3178	-1.7194	-0.0000	2.3178	2.0591	-0.0127	-0.0401
5S	1.7170	0.0000	-1.9996	-1.7150	-0.0000	1.9996	1.9531	-0.0154	-0.0397
6S	0.8895	0.0000	-1.0618	-0.8876	-0.0000	1.0618	1.8477	-0.0172	-0.0392
7S	1.5520	0.0000	-1.8771	-1.5503	-0.0000	1.8770	1.7446	-0.0206	-0.0386
8S	0.6626	0.0000	-0.8152	-0.6609	-0.0000	0.8152	1.6636	-0.0225	-0.0380
12S	5.1912	0.0000	-4.9335	-5.1898	-0.0000	4.9334	1.3674	-0.0099	-0.0504
13S	2.2189	0.0000	-2.9269	-2.2176	-0.0000	2.9268	1.2821	-0.0073	-0.0495
14S	1.5117	0.0000	-2.1334	-1.5105	-0.0000	2.1334	1.1987	-0.0028	-0.0482
15S	2.5645	0.0000	-3.4868	-2.5634	-0.0000	3.4868	1.1183	-0.0009	-0.0466
16S	1.0528	0.0000	-1.3534	-1.0518	0.0000	1.3534	1.0411	0.0041	-0.0447
17S	2.2811	0.0000	-3.1482	-2.2802	0.0000	3.1482	0.9679	0.0053	-0.0426
18S	1.2283	0.0000	-1.7948	-1.2274	0.0000	1.7948	0.9129	0.0096	-0.0406
21S	1.5286	0.0000	-1.9840	-1.5279	0.0000	1.9839	0.7010	0.0050	-0.0557
22S	6.6346	0.0000	-5.6507	-6.6340	0.0000	5.6507	0.6475	0.0047	-0.0537
23S	5.1060	0.0000	-3.6668	-5.1054	0.0000	3.6667	0.5979	0.0054	-0.0511
24S	3.1143	0.0000	-4.4346	-3.1137	0.0000	4.4346	0.5506	0.0039	-0.0482
25S	1.6073	0.0000	-2.5678	-1.6068	0.0000	2.5678	0.5038	0.0042	-0.0466
26S	3.2693	0.0000	-5.4135	-3.2689	0.0000	5.4135	0.4587	0.0032	-0.0447
27S	1.6621	0.0000	-2.8457	-1.6616	0.0000	2.8457	0.4152	0.0035	-0.0431
28S	3.2702	0.0000	-5.6511	-3.2698	0.0000	5.6511	0.3734	0.0025	-0.0413
29S	1.8131	0.0000	-3.0554	-1.8128	0.0000	3.0554	0.3339	0.0030	-0.0395
30S	2.8368	0.0000	-5.0007	-2.8365	0.0000	5.0007	0.2964	0.0020	-0.0374
31S	3.3523	0.0000	-6.1912	-3.3521	0.0000	6.1912	0.2602	0.0020	-0.0353
33S	5.0306	0.0000	-10.1147	-5.0305	0.0000	10.1147	0.1468	0.0015	-0.0299
34S	5.2518	0.0000	-10.9430	-5.2516	0.0000	10.9430	0.1141	0.0008	-0.0289
35S	15.7456	0.0000	-17.2016	-15.7455	0.0000	17.2016	0.0876	0.0000	-0.0274
36S	14.7638	0.0000	-16.2721	-14.7638	-0.0000	16.2721	0.0654	-0.0001	-0.0254
37S	3.7388	0.0000	-9.5312	-3.7387	-0.0000	9.5312	0.0448	-0.0010	-0.0234
371S	3.7388	0.0000	-9.5312	-3.7387	-0.0000	9.5312	0.0442	-0.0004	-0.0238
372S	3.7388	0.0000	-9.5312	-3.7387	-0.0000	9.5312	0.0453	-0.0006	-0.0056
373S	3.7388	0.0000	-9.5312	-3.7387	0.0000	9.5313	0.0454	0.0005	0.0126
374S	3.7388	0.0000	-9.5312	-3.7387	0.0000	9.5312	0.0442	0.0006	-0.0056
38S	3.9486	0.0000	-10.4902	-3.9485	-0.0000	10.4902	0.0313	-0.0002	-0.0203
39S	3.9567	0.0000	-11.0252	-3.9566	-0.0000	11.0252	0.0176	-0.0011	-0.0173
391S	3.9567	0.0000	-11.0252	-3.9566	-0.0000	11.0252	0.0173	-0.0003	-0.0182
392S	3.9567	0.0000	-11.0252	-3.9566	-0.0000	11.0252	0.0183	-0.0007	-0.0043
393S	3.9567	0.0000	-11.0252	-3.9566	0.0000	11.0253	0.0187	0.0003	0.0097
394S	3.9567	0.0000	-11.0252	-3.9566	0.0000	11.0252	0.0176	0.0007	-0.0043
40S	8.4107	0.0000	-14.7552	-8.4106	0.0000	14.7551	0.0095	0.0006	-0.0133
41S	7.3865	0.0000	-13.1041	-7.3865	-0.0000	13.1041	0.0012	-0.0011	-0.0097
411S	3.3865	0.0000	-11.7505	-3.3865	-0.0000	11.7505	0.0009	-0.0002	-0.0053
412S	3.3865	0.0000	-11.7505	-3.3865	-0.0000	11.7505	0.0019	-0.0009	-0.0025

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	3.3865	0.0000	-11.7505	-3.3865	0.0000	11.7505	0.0027	0.0001	0.0004
414S	3.3865	0.0000	-11.7505	-3.3865	0.0000	11.7505	0.0016	0.0009	-0.0024
42S	2.4851	0.0000	-8.5456	-2.4851	-0.0000	8.5456	0.0021	-0.0021	-0.0048
2X	1.7876	0.0000	-2.3754	-1.7853	-0.0000	2.3754	2.2873	-0.0084	-0.0395
2XY	1.7876	0.0000	-2.3754	-1.7853	0.0000	2.3755	2.2883	0.0005	0.0136
2Y	0.8936	0.0000	-0.9954	-0.8913	-0.0000	0.9955	2.2746	-0.0009	0.0152
3X	1.7210	0.0000	-1.9332	-1.7189	-0.0000	1.9332	2.1853	-0.0107	-0.0393
3XY	1.7210	0.0000	-1.9332	-1.7189	0.0000	1.9333	2.1855	0.0030	0.0135
3Y	1.7210	0.0000	-1.9332	-1.7189	0.0000	1.9333	2.1667	0.0029	0.0151
4X	1.7215	0.0000	-2.3178	-1.7194	-0.0000	2.3178	2.0831	-0.0132	-0.0390
4XY	1.7215	0.0000	-2.3178	-1.7194	0.0000	2.3178	2.0838	0.0072	0.0133
4Y	0.8275	0.0000	-0.9378	-0.8254	0.0000	0.9378	2.0597	0.0052	0.0150
5X	2.6110	0.0000	-3.3796	-2.6090	-0.0000	3.3796	1.9824	-0.0152	-0.0384
5XY	2.6110	0.0000	-3.3796	-2.6090	0.0000	3.3796	1.9826	0.0095	0.0129
5Y	1.7170	0.0000	-1.9996	-1.7150	0.0000	1.9996	1.9532	0.0094	0.0147
6X	1.7835	0.0000	-2.4418	-1.7816	-0.0000	2.4418	1.8826	-0.0185	-0.0378
6XY	1.7835	0.0000	-2.4418	-1.7816	0.0000	2.4419	1.8832	0.0143	0.0125
6Y	0.8895	0.0000	-1.0618	-0.8876	0.0000	1.0619	1.8484	0.0116	0.0143
7X	1.5520	0.0000	-1.8771	-1.5502	-0.0000	1.8770	1.7853	-0.0206	-0.0370
7XY	1.5520	0.0000	-1.8771	-1.5502	0.0000	1.8771	1.7854	0.0166	0.0118
7Y	1.5520	0.0000	-1.8771	-1.5503	0.0000	1.8771	1.7447	0.0164	0.0138
8X	1.5566	0.0000	-2.1952	-1.5549	-0.0000	2.1952	1.7096	-0.0237	-0.0363
8XY	1.5566	0.0000	-2.1952	-1.5549	0.0000	2.1952	1.7099	0.0206	0.0112
8Y	0.6626	0.0000	-0.8152	-0.6609	0.0000	0.8152	1.6639	0.0187	0.0133
12X	1.1532	0.0000	-1.5735	-1.1518	-0.0000	1.5734	1.3896	-0.0109	-0.0535
12XY	5.1912	0.0000	-4.9335	-5.1898	0.0000	4.9335	1.3903	0.0097	0.0290
12Y	1.1532	0.0000	-1.5735	-1.1518	0.0000	1.5735	1.3678	0.0075	0.0264
13X	2.2189	0.0000	-2.9269	-2.2176	-0.0000	2.9268	1.2983	-0.0071	-0.0525
13XY	6.2569	0.0000	-6.2869	-6.2556	0.0000	6.2869	1.2985	0.0060	0.0283
13Y	2.2189	0.0000	-2.9269	-2.2176	0.0000	2.9269	1.2823	0.0058	0.0257
14X	1.5117	0.0000	-2.1334	-1.5105	-0.0000	2.1334	1.2085	-0.0051	-0.0512
14XY	5.1037	0.0000	-4.7134	-5.1025	0.0000	4.7134	1.2091	0.0047	0.0272
14Y	1.5117	0.0000	-2.1334	-1.5105	0.0000	2.1334	1.1991	0.0015	0.0246
15X	2.5645	0.0000	-3.4868	-2.5634	-0.0000	3.4868	1.1218	-0.0007	-0.0496
15XY	2.1185	0.0000	-2.7068	-2.1174	0.0000	2.7069	1.1220	0.0005	0.0259
15Y	2.5645	0.0000	-3.4868	-2.5634	0.0000	3.4869	1.1186	0.0002	0.0233
16X	1.0528	0.0000	-1.3534	-1.0518	0.0000	1.3534	1.0381	0.0006	-0.0476
16XY	1.0528	0.0000	-1.3534	-1.0518	-0.0000	1.3534	1.0384	-0.0003	0.0243
16Y	1.0528	0.0000	-1.3534	-1.0518	-0.0000	1.3534	1.0414	-0.0045	0.0217
17X	2.2811	0.0000	-3.1482	-2.2802	0.0000	3.1482	0.9586	0.0055	-0.0454
17XY	1.8351	0.0000	-2.3682	-1.8342	-0.0000	2.3683	0.9588	-0.0050	0.0225
17Y	2.2811	0.0000	-3.1482	-2.2802	-0.0000	3.1482	0.9682	-0.0053	0.0199
18X	1.2283	0.0000	-1.7948	-1.2274	0.0000	1.7948	0.8986	0.0061	-0.0434
18XY	0.7823	0.0000	-1.0148	-0.7814	-0.0000	1.0148	0.8987	-0.0055	0.0207
18Y	1.2283	0.0000	-1.7948	-1.2274	-0.0000	1.7948	0.9130	-0.0093	0.0182
21X	1.5286	0.0000	-1.9840	-1.5279	0.0000	1.9839	0.6901	0.0052	-0.0552
21XY	1.5286	0.0000	-1.9840	-1.5279	-0.0000	1.9840	0.6908	-0.0040	0.0344
21Y	1.5286	0.0000	-1.9840	-1.5279	-0.0000	1.9840	0.7017	-0.0052	0.0349
22X	3.0356	0.0000	-3.8507	-3.0350	0.0000	3.8507	0.6372	0.0048	-0.0531
22XY	4.8356	0.0000	-4.7507	-4.8350	-0.0000	4.7508	0.6377	-0.0039	0.0328
22Y	3.0356	0.0000	-3.8507	-3.0350	-0.0000	3.8508	0.6480	-0.0046	0.0333
23X	1.5070	0.0000	-1.8668	-1.5064	0.0000	1.8667	0.5881	0.0034	-0.0505
23XY	1.5070	0.0000	-1.8668	-1.5064	-0.0000	1.8668	0.5885	-0.0024	0.0307
23Y	1.5070	0.0000	-1.8668	-1.5064	-0.0000	1.8668	0.5982	-0.0053	0.0313
24X	3.1143	0.0000	-4.4346	-3.1137	0.0000	4.4346	0.5416	0.0042	-0.0477
24XY	3.1143	0.0000	-4.4346	-3.1137	-0.0000	4.4346	0.5420	-0.0032	0.0284

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	3.1143	0.0000	-4.4346	-3.1137	-0.0000	4.4346	0.5511	-0.0038	0.0290
25X	1.6073	0.0000	-2.5678	-1.6068	0.0000	2.5678	0.4955	0.0032	-0.0460
25XY	1.6073	0.0000	-2.5678	-1.6068	-0.0000	2.5679	0.4960	-0.0021	0.0271
25Y	1.6073	0.0000	-2.5678	-1.6068	-0.0000	2.5679	0.5043	-0.0043	0.0276
26X	3.2693	0.0000	-5.4135	-3.2689	0.0000	5.4135	0.4511	0.0035	-0.0442
26XY	3.2693	0.0000	-5.4135	-3.2689	-0.0000	5.4136	0.4516	-0.0025	0.0256
26Y	3.2693	0.0000	-5.4135	-3.2689	-0.0000	5.4136	0.4592	-0.0031	0.0261
27X	1.6621	0.0000	-2.8457	-1.6616	0.0000	2.8457	0.4082	0.0025	-0.0426
27XY	1.6621	0.0000	-2.8457	-1.6616	-0.0000	2.8457	0.4088	-0.0015	0.0243
27Y	1.6621	0.0000	-2.8457	-1.6616	-0.0000	2.8457	0.4157	-0.0035	0.0248
28X	3.2702	0.0000	-5.6511	-3.2698	0.0000	5.6511	0.3670	0.0029	-0.0409
28XY	3.2702	0.0000	-5.6511	-3.2698	-0.0000	5.6512	0.3675	-0.0019	0.0229
28Y	3.2702	0.0000	-5.6511	-3.2698	-0.0000	5.6512	0.3738	-0.0025	0.0233
29X	1.6081	0.0000	-2.8054	-1.6078	0.0000	2.8054	0.3281	0.0019	-0.0391
29XY	1.6081	0.0000	-2.8054	-1.6078	-0.0000	2.8054	0.3287	-0.0008	0.0214
29Y	1.6081	0.0000	-2.8054	-1.6078	-0.0000	2.8054	0.3344	-0.0030	0.0217
30X	2.8368	0.0000	-5.0007	-2.8365	0.0000	5.0007	0.2911	0.0023	-0.0371
30XY	2.8368	0.0000	-5.0007	-2.8365	-0.0000	5.0007	0.2916	-0.0013	0.0197
30Y	2.8368	0.0000	-5.0007	-2.8365	-0.0000	5.0007	0.2968	-0.0020	0.0200
31X	3.3523	0.0000	-6.1912	-3.3521	0.0000	6.1912	0.2554	0.0018	-0.0350
31XY	3.3573	0.0000	-6.4412	-3.5571	-0.0000	6.4412	0.2559	-0.0009	0.0180
31Y	3.3573	0.0000	-6.4412	-3.5571	-0.0000	6.4412	0.2607	-0.0020	0.0182
33X	5.0306	0.0000	-10.1147	-5.0305	0.0000	10.1147	0.1435	0.0003	-0.0296
33XY	5.0306	0.0000	-10.1147	-5.0305	0.0000	10.1147	0.1441	0.0007	0.0144
33Y	5.0306	0.0000	-10.1147	-5.0305	-0.0000	10.1147	0.1474	-0.0019	0.0145
34X	5.2518	0.0000	-10.9430	-5.2516	0.0000	10.9430	0.1112	0.0001	-0.0286
34XY	5.2518	0.0000	-10.9430	-5.2516	0.0000	10.9430	0.1119	0.0009	0.0143
34Y	5.2518	0.0000	-10.9430	-5.2516	-0.0000	10.9430	0.1149	-0.0014	0.0145
35X	5.5486	0.0000	-12.0916	-5.5485	0.0000	12.0916	0.0849	0.0002	-0.0271
35XY	5.5486	0.0000	-12.0916	-5.5485	0.0000	12.0916	0.0858	0.0009	0.0139
35Y	9.0826	0.0000	-13.1916	-9.0825	-0.0000	13.1916	0.0884	-0.0008	0.0140
36X	7.1158	0.0000	-13.4921	-7.1158	-0.0000	13.4921	0.0634	-0.0003	-0.0250
36XY	5.8608	0.0010	-11.7471	-5.8608	-0.0010	11.7471	0.0644	0.0014	0.0129
36Y	4.5668	0.0000	-11.1621	-4.5668	-0.0000	11.1621	0.0664	-0.0009	0.0132
37X	4.8718	0.0000	-11.3712	-4.8717	0.0000	11.3712	0.0437	0.0002	-0.0230
37XY	3.7388	0.0000	-9.5312	-3.7387	0.0000	9.5313	0.0449	0.0011	0.0122
37Y	3.7388	0.0000	-9.5312	-3.7387	-0.0000	9.5313	0.0459	-0.0001	0.0125
38X	3.9486	0.0000	-10.4902	-3.9485	-0.0000	10.4902	0.0304	-0.0005	-0.0200
38XY	3.9486	0.0000	-10.4902	-3.9485	0.0000	10.4902	0.0317	0.0018	0.0106
38Y	4.1536	0.0000	-10.7402	-4.1535	-0.0000	10.7402	0.0326	-0.0011	0.0108
39X	3.9567	0.0000	-11.0252	-3.9566	0.0000	11.0252	0.0169	0.0004	-0.0171
39XY	3.9567	0.0000	-11.0252	-3.9566	0.0000	11.0253	0.0184	0.0011	0.0092
39Y	5.0897	0.0000	-12.8652	-5.0896	-0.0000	12.8653	0.0191	-0.0004	0.0094
40X	8.9767	0.0000	-16.4452	-8.9766	-0.0000	16.4451	0.0090	-0.0011	-0.0131
40XY	3.8787	0.0000	-11.7852	-3.8786	0.0000	11.7852	0.0104	0.0025	0.0070
40Y	6.4277	0.0000	-14.1152	-6.4276	-0.0000	14.1152	0.0109	-0.0020	0.0071
41X	3.9875	0.0000	-11.9741	-3.9875	0.0000	11.9741	0.0008	0.0007	-0.0095
41XY	2.8545	0.0000	-10.1341	-2.8545	0.0000	10.1341	0.0025	0.0010	0.0052
41Y	2.8545	0.0000	-10.1341	-2.8545	-0.0000	10.1341	0.0028	-0.0007	0.0053
42X	2.4851	0.0000	-8.5456	-2.4851	0.0000	8.5456	0.0020	0.0020	-0.0047
42XY	2.4851	0.0000	-8.5456	-2.4851	0.0000	8.5456	0.0096	0.0056	0.0009
42Y	2.4851	0.0000	-8.5456	-2.4851	-0.0000	8.5456	0.0097	-0.0055	0.0009

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.01	-0.00	0.04	-9.54	65.61	-2.97
1X	-0.01	-0.00	0.04	10.57	70.81	3.29
1XY	-0.01	0.00	0.04	46.93	-60.91	14.62
1Y	0.01	0.00	0.04	-47.28	-52.56	-14.72
2P	0.02	9.54	-65.56	-7.23	-70.25	0.92
2X	-0.01	-10.57	-70.77	10.09	-71.20	-0.19
2XY	-0.01	-46.93	60.95	-87.19	104.67	-53.65
2Y	0.02	47.28	52.61	85.52	88.73	53.12
3P	0.03	7.23	70.29	43.72	121.05	20.38
3X	-0.02	-10.09	71.24	-37.93	133.77	-19.21
3XY	-0.02	87.19	-104.63	117.92	-40.42	82.04
3Y	0.03	-85.51	-88.68	-122.60	-42.20	-83.25
4P	0.04	-43.72	-121.01	-82.78	-31.10	-50.60
4X	-0.03	37.93	-133.73	88.69	-23.35	50.65
4XY	-0.03	-117.92	40.46	-186.76	185.46	-121.87
4Y	0.04	122.60	42.24	184.44	181.79	122.82
5P	0.05	82.78	31.14	251.64	344.17	133.77
5X	-0.03	-88.69	23.39	-185.73	374.51	-109.77
5XY	-0.03	186.77	-185.42	348.40	79.38	214.07
5Y	0.05	-184.44	-181.74	-404.33	6.91	-235.51
6P	0.06	-251.64	-344.13	-385.97	238.22	-255.04
6X	-0.04	185.72	-374.47	292.26	256.78	191.19
6XY	-0.04	-348.40	-79.34	-446.40	542.20	-317.92
6Y	0.06	404.33	-6.87	554.63	582.25	383.59
7P	0.07	385.97	-238.18	1080.98	270.80	733.47
7X	-0.04	-292.26	-256.74	-207.98	1195.23	-250.12
7XY	-0.04	446.40	-542.16	342.56	991.95	394.48
7Y	0.07	-554.63	-582.21	-1211.39	-13.68	-883.01
8P	0.08	-1080.98	-270.76	-2721.02	2677.23	-2421.65
8X	-0.05	207.98	-1195.19	-966.02	-1563.79	-482.83
8XY	-0.05	-342.56	-991.92	985.47	-1550.35	409.50
8Y	0.08	1211.40	13.72	2783.38	2728.06	2544.44
9P	5.33	-3817.11	-30.53	-2111.80	-335.25	-1446.43
9X	-71.52	1788.87	416.62	1233.88	597.33	737.44
9XY	-67.59	-1793.12	393.69	-1373.40	613.61	-772.51
9Y	6.70	3897.15	-38.56	2044.99	-320.11	1449.66
10P	61.94	-1726.28	1260.29	-209.96	889.84	-669.98
10X	-171.48	-464.74	-1280.20	-386.24	352.11	-294.45
10XY	-170.35	551.58	-1390.66	553.67	-69.43	382.44
10Y	60.73	1668.31	1223.76	53.24	694.90	595.69
11P	61.95	209.96	-889.80	-440.64	250.34	-92.27
11X	-171.49	386.24	-352.07	586.67	235.46	389.16
11XY	-170.36	-553.68	69.47	-741.38	688.79	-518.02
11Y	60.74	-53.24	-694.86	599.12	468.82	218.35
12P	61.96	440.64	-250.31	714.37	723.62	462.01
12X	-171.49	-586.66	-235.42	-748.42	722.43	-534.03
12XY	-170.37	741.38	-688.75	873.68	351.55	646.02
12Y	60.75	-599.12	-468.79	-829.45	504.94	-571.43
13P	61.97	-714.37	-723.59	-916.62	566.93	-652.40
13X	-171.50	748.42	-722.39	937.64	566.58	674.42
13XY	-170.38	-873.68	-351.51	-1024.52	831.19	-759.28
13Y	60.76	829.45	-504.91	1014.60	762.87	737.62
14P	61.98	916.62	-566.90	1151.73	882.98	827.34

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	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

14X	-171.51	-937.64	-566.54	-1155.67	864.65	-837.32	119.24
14XY	-170.39	1024.52	-831.15	1215.70	741.08	896.09	-36.03
14Y	60.77	-1014.60	-762.84	-1200.88	745.58	-886.19	-6.91
15P	61.99	-1151.73	-882.95	-1470.44	1062.91	-1048.87	71.99
15X	-171.52	1155.67	-864.61	1540.42	1190.79	1078.44	130.47
15XY	-170.40	-1215.70	-741.05	-1510.37	1130.93	-1090.43	155.95
15Y	60.78	1200.88	-745.55	1453.75	1056.00	1061.85	124.18
16P	62.00	1470.44	-1062.88	2162.80	710.67	1816.62	-176.11
16X	-171.53	-1540.42	-1190.76	-2391.60	415.46	-1966.01	-387.65
16XY	-170.41	1510.37	-1130.90	2225.22	768.67	1867.80	-181.12
16Y	60.80	-1453.75	-1055.97	-1996.03	976.09	-1724.89	-39.94
17P	62.01	-2162.80	-710.64	-1217.88	2372.34	-2139.67	1051.70
17X	-171.54	2391.60	-415.43	2362.35	3833.79	3008.83	2163.51
17XY	-170.42	-2225.22	-768.64	-2189.24	3665.79	-2793.97	1833.64
17Y	60.81	1996.03	-976.06	1100.37	2238.18	1959.75	798.81
18P	-167.06	-2538.65	801.43	-1498.34	-372.37	-604.09	64.21
18X	124.07	-4381.31	-1047.17	-2580.74	215.06	-1041.79	-124.52
18XY	126.15	4140.12	-1050.33	2367.08	225.05	973.73	-123.49
18Y	-164.95	2360.70	789.79	1318.41	-382.45	550.54	60.95
19P	-57.10	-1345.23	773.75	-484.63	791.92	-653.52	559.17
19X	59.47	1995.31	1654.42	656.97	1004.66	947.24	949.67
19XY	58.70	-1851.43	1496.15	-504.70	741.25	-841.47	799.07
19Y	-52.27	1224.44	640.09	341.15	511.68	559.14	411.35
20P	-57.09	484.63	-791.90	-164.86	236.77	114.20	-198.26
20X	59.46	-656.97	-1004.64	124.52	191.78	-190.16	-290.31
20XY	58.69	504.70	-741.23	-197.14	301.64	109.84	-157.00
20Y	-52.26	-341.15	-511.66	237.56	341.49	-37.00	-60.77
21P	-57.08	164.87	-236.75	499.30	441.18	245.99	75.71
21X	59.45	-124.52	-191.76	-488.14	512.71	-226.91	118.87
21XY	58.68	197.14	-301.62	517.69	487.12	264.75	68.70
21Y	-52.25	-237.56	-341.48	-527.51	473.22	-283.36	48.79
22P	-57.07	-499.30	-441.16	-667.68	552.60	-432.21	41.27
22X	59.44	488.14	-512.69	661.24	495.59	425.70	-6.33
22XY	58.67	-517.69	-487.10	-705.78	558.10	-453.14	26.29
22Y	-52.24	527.51	-473.20	713.01	544.46	459.45	26.39
23P	-57.05	667.68	-552.59	972.55	1007.09	585.80	162.32
23X	59.43	-661.24	-495.57	-976.34	1014.46	-584.85	185.32
23XY	58.66	705.79	-558.08	1110.77	777.66	648.77	78.42
23Y	-52.23	-713.01	-544.44	-1105.17	801.87	-649.35	91.94
24P	-57.04	-972.55	-1007.08	-1213.23	789.35	-780.64	-77.76
24X	59.42	976.34	-1014.44	1204.32	763.43	778.81	-89.65
24XY	58.65	-1110.77	-777.64	-1387.35	1086.47	-892.19	110.29
24Y	-52.22	1105.17	-801.85	1398.08	1102.58	894.02	107.40
25P	-57.03	1213.23	-789.33	1527.33	1745.47	978.77	341.48
25X	59.41	-1204.32	-763.41	-1542.68	1713.21	-981.07	339.21
25XY	58.64	1387.35	-1086.45	1785.49	1303.36	1133.16	77.47
25Y	-52.21	-1398.08	-1102.56	-1767.61	1335.98	-1130.60	83.36
26P	-57.03	-1527.33	-1745.45	-1678.48	1120.59	-1144.93	-223.16
26X	59.40	1542.68	-1713.20	1662.39	1078.25	1144.67	-226.77
26XY	58.63	-1785.49	-1303.34	-1892.89	1468.06	-1313.71	58.83
26Y	-52.20	1767.61	-1335.96	1911.33	1501.17	1313.91	59.00
27P	-57.02	1678.48	-1120.58	1622.90	2157.77	1200.50	377.16
27X	59.39	-1662.39	-1078.24	-1650.61	2120.83	-1204.73	379.12
27XY	58.62	1892.89	-1468.04	1839.75	1802.58	1357.32	121.65
27Y	-52.19	-1911.33	-1501.16	-1809.78	1858.02	-1353.13	129.77
28P	-57.01	-1622.91	-2157.75	-1232.17	404.70	-1038.21	-637.47

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	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

28X	59.38	1650.61	-2120.81	1231.55	385.96	1048.06	-630.86
28XY	58.61	-1839.75	-1802.57	-1315.31	531.28	-1147.29	-462.29
28Y	-52.18	1809.78	-1858.00	1317.88	538.64	1137.33	-479.77
29P	-57.00	1232.17	-404.68	921.49	133.67	797.65	-100.37
29X	59.37	-1231.55	-385.95	-970.67	72.75	-815.64	-116.00
29XY	58.60	1315.31	-531.26	902.26	189.71	821.32	-126.50
29Y	-52.17	-1317.88	-538.62	-850.24	248.76	-803.01	-107.36
30P	-56.99	-921.49	-133.66	-1235.17	5927.96	-380.03	1021.02
30X	59.36	970.67	-72.74	1273.08	5891.35	395.37	1025.31
30XY	58.59	-902.26	-189.70	-1175.48	5776.42	-366.12	984.44
30Y	-52.16	850.24	-248.74	1137.56	5822.52	350.27	982.16
31P	-619.70	-5065.09	3260.41	-911.45	-720.06	-931.18	395.80
31X	613.09	-5066.00	-3208.08	-943.01	741.53	-936.24	-384.30
31XY	610.25	4915.73	-3196.14	857.02	745.56	899.43	-381.82
31Y	-614.01	4921.51	3255.78	825.28	-724.19	895.38	394.44
32P	-619.69	911.45	720.06	720.00	-882.62	267.96	-26.70
32X	613.08	943.01	-741.53	695.37	842.99	269.10	16.66
32XY	610.24	-857.02	-745.55	-657.82	844.80	-248.81	16.30
32Y	-614.00	-825.28	724.18	-680.64	-870.09	-247.34	-23.97
33P	-619.68	-720.00	882.61	370.01	-479.72	-57.48	66.17
33X	613.08	-695.37	-842.99	391.31	596.20	-49.94	-40.53
33XY	610.23	657.82	-844.79	-418.05	586.81	39.38	-42.37
33Y	-613.99	680.64	870.09	-385.73	-480.04	48.44	64.06
34P	-619.68	-370.00	479.72	-299.55	-55.46	-109.97	69.68
34X	613.07	-391.30	-596.19	-246.23	104.08	-104.71	-80.83
34XY	610.23	418.05	-586.80	265.43	103.75	112.26	-79.34
34Y	-613.98	385.73	480.03	301.93	-93.40	112.94	63.50
35P	-619.67	299.55	55.45	1118.17	-1054.98	232.85	-164.17
35X	613.06	246.23	-104.08	954.49	1023.66	197.21	151.04
35XY	610.22	-265.43	-103.75	-957.63	1026.73	-200.88	151.60
35Y	-613.97	-301.94	93.39	-1103.21	-1029.22	-230.79	-153.70
36P	-619.66	-1118.16	1054.98	-757.26	147.25	-308.03	197.46
36X	613.06	-954.49	-1023.65	-696.92	-163.55	-271.24	-194.99
36XY	610.21	957.63	-1026.73	707.76	-164.73	273.53	-195.69
36Y	-613.97	1103.21	1029.21	758.88	140.01	305.84	192.04
37P	-619.66	757.27	-147.25	1204.15	-670.87	322.15	-134.37
37X	613.05	696.92	163.55	1167.31	700.04	306.19	141.84
37XY	610.21	-707.76	164.73	-1262.41	680.88	-323.59	138.89
37Y	-613.96	-758.88	-140.01	-1293.44	-664.73	-337.08	-132.17
38P	-619.66	-1204.15	670.86	-950.61	175.54	-353.91	139.02
38X	613.05	-1167.31	-700.04	-935.53	-213.70	-345.38	-150.08
38XY	610.20	1262.41	-680.88	1484.93	-188.10	451.24	-142.73
38Y	-613.96	1293.44	664.73	1508.08	179.96	460.14	138.74
39P	-619.65	950.61	-175.54	1252.99	-2349.14	361.93	-414.67
39X	613.04	935.53	213.70	1249.62	2402.72	358.90	429.73
39XY	610.20	-1484.93	188.10	-3627.13	2389.79	-839.63	423.41
39Y	-613.96	-1508.08	-179.96	-3636.57	-2369.94	-844.98	-418.81
40P	-619.65	-1252.99	2349.14	-275.28	2573.58	-251.01	808.53
40X	613.04	-1249.62	-2402.72	-275.77	-2597.15	-250.54	-821.21
40XY	610.20	3627.13	-2389.79	4955.58	-2599.71	1409.67	-819.50
40Y	-613.95	3636.57	2369.94	4953.20	2573.74	1410.83	811.98
41P	-619.65	275.28	-2573.58	-102.53	-3009.83	29.35	-948.67
41X	613.04	275.77	2597.15	-100.26	2911.68	29.82	936.00
41XY	610.20	-4955.58	2599.71	-5481.31	2919.14	-1773.32	937.70
41Y	-613.95	-4953.20	-2573.74	-5476.88	-2989.42	-1772.17	-945.23

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 4 "LC4 WIND 45° C.T."

Equilibrium Joint Positions and Rotations for Load Case "LC4 WIND 45° C.T.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	1.812	1.806	-0.05466	-1.9104	1.9275	-0.2603	2.462	2.456	150.9
10P	1.184	1.182	-0.04967	-1.5783	1.6649	-0.2604	1.834	1.832	131.6
11P	1.089	1.087	-0.07105	-1.3214	1.3909	-0.2511	2.229	2.227	127.5
19P	0.6529	0.6524	-0.05301	-1.0651	1.1281	-0.1667	1.793	1.792	108.6
20P	0.5674	0.5671	-0.08046	-0.7681	0.8315	-0.1507	3.019	3.019	102.1
32P	0.1414	0.1413	-0.04131	-0.4150	0.4616	-0.1281	2.593	2.593	66.08
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	1.792	1.806	-0.01169	-1.8913	1.6977	0.4318	2.442	1.156	150.9
1XY	1.792	1.781	0.02619	-1.6324	1.6563	-0.0081	1.142	1.131	150.9
1Y	1.812	1.781	-0.01125	-1.6791	1.9097	-0.6844	1.162	2.431	150.9
10X	1.243	1.182	-0.01108	-1.5861	1.5516	0.4319	1.893	0.5319	131.6
10XY	1.243	1.239	0.02212	-1.5988	1.5897	-0.0081	0.5934	0.589	131.7
10Y	1.184	1.239	-0.01086	-1.5885	1.6412	-0.6846	0.5343	1.889	131.6
11X	1.123	1.087	-0.01394	-1.4076	1.7134	0.4609	2.263	-0.0528	127.6
11XY	1.124	1.12	0.04976	-1.6514	1.6448	0.0053	-0.01598	-0.02017	127.6
11Y	1.089	1.119	-0.01364	-1.7534	1.4399	-0.6907	-0.05113	2.259	127.6
19X	0.6345	0.6544	-0.01275	-0.9465	1.0940	0.7895	1.775	-0.4856	108.6
19XY	0.6334	0.6317	0.03377	-1.1564	1.2382	0.1483	-0.5066	-0.5083	108.7
19Y	0.6549	0.6329	-0.01261	-1.0546	0.9613	-0.7919	-0.4851	1.773	108.6
20X	0.5537	0.5652	-0.01044	-0.8778	0.8228	0.7764	3.006	-1.887	102.2
20XY	0.5559	0.5543	0.0588	-0.7054	0.7790	0.1629	-1.896	-1.898	102.3
20Y	0.5655	0.552	-0.01028	-0.8257	0.8564	-0.7489	-1.887	3.004	102.2
32X	0.1384	0.1429	-0.00811	-0.4366	0.4547	0.6933	2.59	-2.309	66.12
32XY	0.1381	0.1378	0.02489	-0.4044	0.4524	0.1326	-2.314	-2.314	66.15
32Y	0.1431	0.138	-0.008052	-0.4267	0.4608	-0.6806	-2.309	2.59	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	1.705	1.699	-0.05453	-1.8979	1.9146	-0.2604	2.355	2.349	147.6
3S	1.621	1.617	-0.05434	-1.8879	1.9036	-0.2604	2.271	2.267	145.1
4S	1.538	1.534	-0.0539	-1.8928	1.9054	-0.2604	2.188	2.184	142.6
5S	1.456	1.452	-0.05323	-1.8514	1.8642	-0.2604	2.106	2.102	140.1
6S	1.375	1.372	-0.05248	-1.8549	1.8588	-0.2604	2.025	2.022	137.6
7S	1.294	1.292	-0.05147	-1.7772	1.7929	-0.2604	1.944	1.942	135.1
8S	1.232	1.23	-0.05054	-1.8148	1.7948	-0.2604	1.882	1.88	133.1
12S	1.016	1.014	-0.0698	-1.4847	1.4721	-0.2398	2.156	2.154	124.6
13S	0.9529	0.9517	-0.06846	-1.3913	1.4016	-0.2300	2.093	2.092	122.1
14S	0.893	0.892	-0.0665	-1.3750	1.3766	-0.2184	2.033	2.032	119.6
15S	0.8334	0.8325	-0.06418	-1.3035	1.3084	-0.2067	1.973	1.972	117.1
16S	0.7784	0.7777	-0.06144	-1.2645	1.2647	-0.1951	1.918	1.918	114.6
17S	0.7239	0.7232	-0.05831	-1.1533	1.1624	-0.1834	1.864	1.863	112.1
18S	0.6851	0.6846	-0.05545	-1.1584	1.1411	-0.1741	1.825	1.825	110.1
21S	0.5248	0.5246	-0.07779	-0.8791	0.8628	-0.1473	2.977	2.977	99.32
22S	0.4848	0.4846	-0.07489	-0.7771	0.7835	-0.1439	2.937	2.937	96.53
23S	0.4485	0.4483	-0.07115	-0.7802	0.7788	-0.1400	2.9	2.9	93.83
24S	0.4122	0.4121	-0.06704	-0.7195	0.7215	-0.1361	2.864	2.864	91.13
25S	0.3777	0.3776	-0.06466	-0.7068	0.7063	-0.1348	2.83	2.83	88.34

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.3435	0.3434	-0.06205	-0.6719	0.6736	-0.1335	2.796	2.795	85.54
27S	0.3113	0.3113	-0.0597	-0.6555	0.6551	-0.1327	2.763	2.763	82.74
28S	0.2796	0.2795	-0.05715	-0.6273	0.6275	-0.1319	2.732	2.732	79.94
29S	0.2506	0.2505	-0.05442	-0.5979	0.5979	-0.1312	2.703	2.703	77.2
30S	0.222	0.2219	-0.05148	-0.5810	0.5821	-0.1304	2.674	2.674	74.45
31S	0.1951	0.195	-0.04839	-0.5793	0.5710	-0.1297	2.647	2.647	71.75
33S	0.1104	0.1103	-0.04072	-0.1995	0.2246	-0.1179	3.333	3.333	59.76
34S	0.08558	0.08549	-0.03952	-0.2048	0.2317	-0.1056	4.04	4.039	53.76
35S	0.06529	0.06525	-0.03756	-0.1470	0.1704	-0.0939	4.75	4.75	47.76
36S	0.04872	0.04878	-0.03482	-0.1438	0.1648	-0.0820	5.465	5.465	41.77
37S	0.03272	0.03284	-0.03218	-0.1010	0.1182	-0.0703	6.18	6.18	35.77
371S	0.03274	0.03339	-0.01923	0.0000	0.0000	0.0000	6.18	0.03339	35.78
372S	0.03327	0.03272	-0.01918	0.0000	0.0000	0.0000	0.03327	6.18	35.78
373S	0.03391	0.03313	0.007978	0.0000	0.0000	0.0000	-6.113	0.03313	35.81
374S	0.0333	0.03388	0.007944	0.0000	0.0000	0.0000	0.0333	-6.114	35.81
38S	0.02332	0.02343	-0.0279	0.0827	0.0969	-0.0586	6.902	6.902	29.77
39S	0.01255	0.01266	-0.02383	-0.0584	0.0699	-0.0467	7.622	7.622	23.78
391S	0.01261	0.01334	-0.01471	0.0000	0.0000	0.0000	7.622	0.01334	23.79
392S	0.01323	0.01262	-0.01468	0.0000	0.0000	0.0000	0.01323	7.622	23.79
393S	0.01407	0.01323	0.006172	0.0000	0.0000	0.0000	-7.596	0.01323	23.81
394S	0.01334	0.01407	0.006134	0.0000	0.0000	0.0000	0.01334	-7.596	23.81
40S	0.00775	0.007883	-0.01826	-0.0495	0.0581	-0.0350	8.349	8.349	17.78
41S	0.0004218	0.0005355	-0.0133	-0.0198	0.0250	-0.0232	9.072	9.073	11.79
411S	0.0004272	0.00131	-0.004617	0.0000	0.0000	0.0000	9.072	0.00131	11.8
412S	0.001197	0.0004504	-0.0046	0.0000	0.0000	0.0000	0.001197	9.073	11.8
413S	0.002157	0.001208	-0.0003071	0.0000	0.0000	0.0000	-9.07	0.001208	11.8
414S	0.001275	0.002182	-0.0003129	0.0000	0.0000	0.0000	0.001275	-9.07	11.8
42S	0.001638	0.001681	-0.006207	0.0139	-0.0118	-0.0115	9.805	9.805	5.794
2X	1.698	1.7	-0.01164	-1.9021	1.6652	0.4318	2.348	1.05	147.7
2XY	1.699	1.689	0.02618	-1.6670	1.6869	-0.0081	1.049	1.039	147.7
2Y	1.705	1.688	-0.01121	-1.6421	1.9182	-0.6844	1.055	2.338	147.7
3X	1.625	1.617	-0.0116	-1.9058	1.6800	0.4318	2.275	0.967	145.2
3XY	1.625	1.616	0.02605	-1.6444	1.6660	-0.0081	0.9754	0.9665	145.2
3Y	1.621	1.616	-0.01119	-1.6603	1.9205	-0.6845	0.9715	2.266	145.2
4X	1.552	1.534	-0.01153	-1.8822	1.6563	0.4318	2.202	0.8842	142.7
4XY	1.553	1.545	0.02575	-1.6503	1.6692	-0.0081	0.9034	0.8954	142.7
4Y	1.538	1.544	-0.01115	-1.6347	1.8960	-0.6845	0.8881	2.194	142.7
5X	1.48	1.452	-0.01145	-1.8761	1.6618	0.4319	2.13	0.8025	140.2
5XY	1.481	1.473	0.02524	-1.5980	1.6225	-0.0081	0.8305	0.8233	140.2
5Y	1.456	1.473	-0.0111	-1.6465	1.8857	-0.6845	0.8058	2.123	140.2
6X	1.408	1.371	-0.01137	-1.8430	1.6146	0.4319	2.058	0.721	137.7
6XY	1.41	1.404	0.02464	-1.6081	1.6276	-0.0081	0.7602	0.754	137.7
6Y	1.374	1.402	-0.01105	-1.5909	1.8491	-0.6846	0.724	2.052	137.7
7X	1.339	1.292	-0.01126	-1.8026	1.5896	0.4319	1.989	0.6417	135.2
7XY	1.339	1.334	0.02376	-1.5562	1.5733	-0.0081	0.6893	0.6839	135.2
7Y	1.294	1.334	-0.01099	-1.5795	1.8128	-0.6846	0.6444	1.984	135.2
8X	1.284	1.229	-0.01117	-1.7880	1.5077	0.4319	1.934	0.579	133.2
8XY	1.286	1.281	0.02294	-1.4966	1.5195	-0.0081	0.6357	0.6309	133.2
8Y	1.232	1.279	-0.01092	-1.4737	1.7788	-0.6846	0.5815	1.929	133.2
12X	1.041	1.014	-0.01383	-1.4469	1.5781	0.5048	2.181	-0.1263	124.7
12XY	1.043	1.039	0.04875	-1.5982	1.6107	0.0245	-0.09721	-0.1009	124.7
12Y	1.015	1.037	-0.01356	-1.5554	1.4452	-0.7043	-0.1249	2.177	124.7
13X	0.9723	0.9519	-0.01374	-1.4162	1.5890	0.5429	2.112	-0.1881	122.2
13XY	0.9726	0.9693	0.04763	-1.5641	1.5727	0.0410	-0.1674	-0.1707	122.2
13Y	0.9531	0.969	-0.01348	-1.5851	1.4217	-0.7160	-0.1869	2.109	122.2
14X	0.9032	0.8903	-0.01362	-1.3638	1.5351	0.5883	2.043	-0.2497	119.7

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	0.9056	0.9028	0.04598	-1.5348	1.5423	0.0608	-0.2344	-0.2372	119.7
14Y	0.8914	0.9002	-0.01338	-1.5255	1.3676	-0.7299	-0.2486	2.04	119.7
15X	0.8382	0.8327	-0.01348	-1.3259	1.4961	0.6337	1.978	-0.3073	117.2
15XY	0.8385	0.8358	0.04397	-1.4725	1.4812	0.0805	-0.3015	-0.3042	117.2
15Y	0.8335	0.8356	-0.01326	-1.4894	1.3284	-0.7439	-0.3065	1.976	117.2
16X	0.7731	0.7752	-0.0133	-1.2469	1.4222	0.6791	1.913	-0.3648	114.7
16XY	0.7762	0.774	0.04154	-1.4271	1.4315	0.1003	-0.3638	-0.366	114.7
16Y	0.7761	0.7707	-0.0131	-1.4152	1.2502	-0.7579	-0.3639	1.911	114.7
17X	0.7139	0.7234	-0.01309	-1.1990	1.3576	0.7245	1.854	-0.4166	112.2
17XY	0.7143	0.7122	0.03868	-1.3179	1.3322	0.1200	-0.4257	-0.4278	112.2
17Y	0.724	0.7119	-0.01292	-1.3499	1.2003	-0.7719	-0.416	1.852	112.2
18X	0.6669	0.682	-0.0129	-1.0935	1.2705	0.7608	1.807	-0.458	110.2
18XY	0.6696	0.6679	0.03605	-1.3247	1.3064	0.1358	-0.4704	-0.4721	110.2
18Y	0.6827	0.665	-0.01275	-1.2735	1.0937	-0.7831	-0.4573	1.805	110.2
21X	0.5134	0.5249	-0.0102	-0.8068	0.8139	0.7639	2.965	-1.927	99.39
21XY	0.5145	0.5129	0.05652	-0.8740	0.8569	0.1584	-1.938	-1.939	99.46
21Y	0.5251	0.5119	-0.01006	-0.8095	0.8140	-0.7386	-1.927	2.964	99.39
22X	0.4741	0.4849	-0.009973	-0.8273	0.8061	0.7515	2.926	-1.967	96.59
22XY	0.4748	0.4734	0.05402	-0.7655	0.7743	0.1538	-1.977	-1.979	96.65
22Y	0.485	0.4727	-0.009836	-0.8048	0.8256	-0.7284	-1.967	2.925	96.59
23X	0.4368	0.4469	-0.009686	-0.7613	0.7504	0.7371	2.889	-2.005	93.89
23XY	0.439	0.4378	0.05079	-0.7640	0.7641	0.1486	-2.013	-2.014	93.95
23Y	0.447	0.4355	-0.009564	-0.7472	0.7630	-0.7166	-2.005	2.887	93.89
24X	0.403	0.4125	-0.009401	-0.7325	0.7190	0.7228	2.855	-2.039	91.19
24XY	0.4036	0.4024	0.04723	-0.6995	0.7035	0.1433	-2.048	-2.05	91.25
24Y	0.4126	0.4018	-0.009292	-0.7187	0.7313	-0.7048	-2.039	2.854	91.19
25X	0.3682	0.377	-0.009247	-0.7016	0.6872	0.7179	2.82	-2.075	88.39
25XY	0.3698	0.3688	0.04518	-0.6915	0.6925	0.1416	-2.082	-2.083	88.45
25Y	0.3772	0.367	-0.009145	-0.6842	0.7027	-0.7009	-2.075	2.819	88.39
26X	0.3357	0.3438	-0.009094	-0.6807	0.6665	0.7131	2.788	-2.108	85.59
26XY	0.3362	0.3352	0.04292	-0.6548	0.6585	0.1398	-2.116	-2.117	85.64
26Y	0.3439	0.3347	-0.008999	-0.6661	0.6796	-0.6969	-2.108	2.787	85.59
27X	0.3033	0.3108	-0.008961	-0.6529	0.6398	0.7102	2.755	-2.141	82.79
27XY	0.3048	0.304	0.04088	-0.6404	0.6417	0.1388	-2.147	-2.148	82.84
27Y	0.3109	0.3023	-0.008872	-0.6375	0.6535	-0.6945	-2.141	2.754	82.79
28X	0.2731	0.2799	-0.008827	-0.6298	0.6168	0.7074	2.725	-2.172	79.99
28XY	0.2737	0.2729	0.03866	-0.6133	0.6152	0.1377	-2.178	-2.179	80.04
28Y	0.2799	0.2723	-0.008745	-0.6150	0.6299	-0.6922	-2.172	2.724	79.99
29X	0.2436	0.2498	-0.00869	-0.6013	0.5896	0.7046	2.696	-2.202	77.24
29XY	0.2453	0.2446	0.0363	-0.5840	0.5858	0.1367	-2.207	-2.207	77.29
29Y	0.25	0.2428	-0.008613	-0.5886	0.6007	-0.6899	-2.202	2.695	77.24
30X	0.2165	0.2222	-0.008553	-0.5705	0.5605	0.7018	2.669	-2.23	74.49
30XY	0.2172	0.2166	0.03374	-0.5700	0.5729	0.1357	-2.235	-2.235	74.53
30Y	0.2223	0.2159	-0.008482	-0.5560	0.5728	-0.6876	-2.23	2.668	74.49
31X	0.1898	0.195	-0.008413	-0.5780	0.5640	0.6991	2.642	-2.257	71.79
31XY	0.1908	0.1902	0.03104	-0.5658	0.5601	0.1347	-2.261	-2.262	71.83
31Y	0.1951	0.1892	-0.008347	-0.5680	0.5720	-0.6854	-2.257	2.641	71.79
33X	0.106	0.1096	-0.007591	-0.3397	0.3240	0.6443	3.329	-3.113	59.79
33XY	0.1081	0.1078	0.0252	-0.1918	0.2184	0.1219	-3.115	-3.115	59.83
33Y	0.1097	0.1057	-0.007525	-0.3286	0.3321	-0.6328	-3.113	3.329	59.79
34X	0.08222	0.08522	-0.007083	-0.2795	0.2762	0.5847	4.036	-3.869	53.79
34XY	0.08408	0.08387	0.0249	-0.1982	0.2264	0.1092	-3.87	-3.87	53.82
34Y	0.08529	0.08201	-0.007014	-0.2724	0.2799	-0.5744	-3.869	4.036	53.79
35X	0.06297	0.06552	-0.006528	-0.2343	0.2285	0.5233	4.748	-4.62	47.79
35XY	0.06444	0.06428	0.02396	-0.1418	0.1653	0.0972	-4.621	-4.621	47.82
35Y	0.06558	0.06283	-0.006455	-0.2279	0.2336	-0.5139	-4.62	4.748	47.79

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.04687	0.0489	-0.005912	-0.2093	0.2009	0.4569	5.463	-5.367	41.79
36XY	0.04884	0.04866	0.0223	-0.1345	0.1551	0.0850	-5.367	-5.368	41.82
36Y	0.04881	0.04667	-0.00583	-0.2002	0.2096	-0.4487	-5.367	5.463	41.79
37X	0.03275	0.03403	-0.00522	-0.1688	0.1640	0.3936	6.18	-6.113	35.79
37XY	0.03393	0.03376	0.02089	-0.0966	0.1146	0.0727	-6.113	-6.114	35.82
37Y	0.0339	0.03258	-0.005139	-0.1627	0.1678	-0.3867	-6.114	6.18	35.79
38X	0.02218	0.02352	-0.00458	-0.1342	0.1338	0.3287	6.901	-6.855	29.8
38XY	0.02463	0.0245	0.01814	-0.0838	0.0989	0.0605	-6.854	-6.854	29.82
38Y	0.02342	0.02204	-0.004513	-0.1327	0.1332	-0.3231	-6.855	6.901	29.8
39X	0.01265	0.01412	-0.00384	-0.1097	0.1119	0.2616	7.622	-7.596	23.8
39XY	0.01412	0.01401	0.01569	-0.0557	0.0676	0.0484	-7.596	-7.596	23.82
39Y	0.01402	0.01255	-0.003783	-0.1114	0.1094	-0.2570	-7.596	7.622	23.8
40X	0.00552	0.007038	-0.003044	-0.0958	0.0816	0.1942	8.346	-8.334	17.8
40XY	0.009218	0.009119	0.01192	-0.0647	0.0737	0.0362	-8.332	-8.332	17.81
40Y	0.006887	0.005398	-0.002988	-0.0812	0.0957	-0.1908	-8.334	8.346	17.8
41X	0.0004594	0.00226	-0.00216	0.0043	0.0482	0.1377	9.073	-9.07	11.8
41XY	0.002211	0.002145	0.008809	0.0344	-0.0281	0.0239	-9.07	-9.07	11.81
41Y	0.002129	0.0003839	-0.002113	-0.0474	-0.0052	-0.1356	-9.07	9.072	11.8
42X	-0.000887	0.006781	-0.001906	-0.0341	0.0014	0.0660	9.802	-9.796	5.798
42XY	0.009317	0.009296	0.002306	-0.0179	0.0212	0.0117	-9.794	-9.794	5.802
42Y	0.006734	-0.0009088	-0.001883	-0.0010	0.0332	-0.0650	-9.796	9.802	5.798

Joint Support Reactions for Load Case "LC4 WIND 45° C.T.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Force (kN)	Result. Usage %	Result. Moment (kN-m)	X X-M. Usage %	X X-M. Moment (kN-m)	Y Y-M. Usage %	Y Y-M. Moment (kN-m)	Z Z-M. Usage %	Z Z-M. Moment (kN-m)	Max. Usage %
ANP	-260.05	0.0	-261.48	0.0	1746.18	0.0	0.0	1784.69	0.0	0.76	0.0	-0.8	0.0	0.13	0.0	0.0
ANX	-21.62	0.0	46.43	0.0	254.12	0.0	0.0	259.23	0.0	5.04	0.0	-1.1	0.0	-0.05	0.0	0.0
ANXY	-189.67	0.0	-188.97	0.0	-1213.59	0.0	0.0	1242.77	0.0	4.69	0.0	-4.7	0.0	-0.13	0.0	0.0
ANY	47.00	0.0	-20.31	0.0	249.76	0.0	0.0	254.96	0.0	1.08	0.0	-5.0	0.0	0.05	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC4 WIND 45° C.T.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.3123	1.3123	-3.3754	-1.3105	-1.3105	3.3754	1.8123	1.8062	-0.0547
10P	1.4763	1.4763	-2.5668	-1.4751	-1.4751	2.5668	1.1839	1.1816	-0.0497
11P	7.5480	7.5480	-10.0451	-7.5469	-7.5469	10.0450	1.0892	1.0875	-0.0711
19P	2.1995	2.1995	-3.9796	-2.1988	-2.1988	3.9796	0.6529	0.6524	-0.0530
20P	3.0567	3.0567	-5.7288	-3.0561	-3.0561	5.7287	0.5674	0.5671	-0.0805
32P	3.4702	3.4702	-9.0478	-3.4701	-3.4701	9.0477	0.1414	0.1413	-0.0413
ANP	1.1008	1.1008	-5.0810	258.9461	260.3816	-1741.0970	0.0000	0.0000	0.0000
1X	1.3123	1.3123	-3.3754	-1.3105	-1.3105	3.3754	1.7924	1.8063	-0.0117
1XY	1.3123	1.3123	-3.3754	-1.3105	-1.3105	3.3755	1.7925	1.7814	0.0262
1Y	0.6803	0.6803	-1.9954	-0.6785	-0.6785	1.9954	1.8125	1.7813	-0.0112
10X	1.4763	1.4763	-2.5668	-1.4751	-1.4751	2.5668	1.2434	1.1819	-0.0111
10XY	2.1083	2.1083	-3.9468	-2.1071	-2.1071	3.9468	1.2434	1.2390	0.0221
10Y	1.4763	1.4763	-2.5668	-1.4751	-1.4751	2.5668	1.1843	1.2390	-0.0109
11X	1.8360	1.8360	-3.3251	-1.8349	-1.8349	3.3251	1.1233	1.0872	-0.0139
11XY	7.5480	7.5480	-10.0451	-7.5469	-7.5469	10.0451	1.1240	1.1198	0.0498
11Y	1.8360	1.8360	-3.3251	-1.8349	-1.8349	3.3251	1.0889	1.1191	-0.0136

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	2.1995	2.1995	-3.9796	-2.1989	-2.1988	3.9796	0.6345	0.6544	-0.0128
19XY	2.1995	2.1995	-3.9796	-2.1989	-2.1989	3.9797	0.6334	0.6317	0.0338
19Y	2.1995	2.1995	-3.9796	-2.1988	-2.1989	3.9796	0.6549	0.6329	-0.0126
20X	3.0567	3.0567	-5.7288	-3.0561	-3.0561	5.7288	0.5537	0.5652	-0.0104
20XY	2.7417	2.7417	-4.9488	-2.7411	-2.7411	4.9488	0.5559	0.5543	0.0588
20Y	2.7417	2.7417	-4.9488	-2.7411	-2.7411	4.9488	0.5655	0.5520	-0.0103
32X	3.4702	3.4702	-9.0478	-3.4701	-3.4701	9.0477	0.1384	0.1429	-0.0081
32XY	3.4702	3.4702	-9.0478	-3.4701	-3.4701	9.0478	0.1381	0.1378	0.0249
32Y	3.4702	3.4702	-9.0478	-3.4701	-3.4701	9.0477	0.1431	0.1380	-0.0081
ANX	1.1008	1.1008	-5.0810	20.5147	-47.5357	-249.0419	0.0000	0.0000	0.0000
ANXY	1.1008	1.1008	-5.0810	188.5666	187.8654	1218.6673	0.0000	0.0000	0.0000
ANY	1.1008	1.1008	-5.0810	-48.1038	19.2125	-244.6820	0.0000	0.0000	0.0000
2S	1.3123	1.3123	-2.3754	-1.3106	-1.3106	2.3754	1.7046	1.6994	-0.0545
3S	1.3057	1.3057	-1.9332	-1.3041	-1.3041	1.9332	1.6213	1.6168	-0.0543
4S	1.2574	1.2574	-2.3178	-1.2558	-1.2559	2.3177	1.5383	1.5344	-0.0539
5S	1.3111	1.3111	-1.9996	-1.3097	-1.3097	1.9996	1.4557	1.4523	-0.0532
6S	0.6858	0.6858	-1.0618	-0.6844	-0.6844	1.0618	1.3747	1.3718	-0.0525
7S	1.2042	1.2042	-1.8771	-1.2029	-1.2029	1.8770	1.2943	1.2917	-0.0515
8S	0.5185	0.5185	-0.8152	-0.5173	-0.5173	0.8152	1.2322	1.2298	-0.0505
12S	3.7342	3.7342	-4.9335	-3.7332	-3.7332	4.9334	1.0158	1.0144	-0.0698
13S	1.6910	1.6910	-2.9269	-1.6901	-1.6901	2.9268	0.9529	0.9517	-0.0685
14S	1.1278	1.1278	-2.1334	-1.1269	-1.1269	2.1333	0.8930	0.8920	-0.0665
15S	1.9308	1.9308	-3.4868	-1.9300	-1.9300	3.4868	0.8334	0.8325	-0.0642
16S	0.8030	0.8030	-1.3534	-0.8022	-0.8022	1.3534	0.7784	0.7777	-0.0614
17S	1.7202	1.7202	-3.1482	-1.7195	-1.7195	3.1482	0.7239	0.7232	-0.0583
18S	0.9172	0.9172	-1.7948	-0.9165	-0.9165	1.7948	0.6851	0.6846	-0.0554
21S	1.1444	1.1444	-1.9840	-1.1439	-1.1439	1.9839	0.5248	0.5246	-0.0778
22S	4.8224	4.8224	-5.6507	-4.8219	-4.8219	5.6507	0.4848	0.4846	-0.0749
23S	3.6780	3.6780	-3.6668	-3.6775	-3.6775	3.6667	0.4485	0.4483	-0.0711
24S	2.3478	2.3478	-4.4346	-2.3474	-2.3474	4.4345	0.4122	0.4121	-0.0670
25S	1.2148	1.2148	-2.5678	-1.2145	-1.2145	2.5678	0.3777	0.3776	-0.0647
26S	2.4794	2.4794	-5.4135	-2.4791	-2.4791	5.4135	0.3435	0.3434	-0.0621
27S	1.2646	1.2646	-2.8457	-1.2643	-1.2643	2.8456	0.3113	0.3113	-0.0597
28S	2.4889	2.4889	-5.6511	-2.4887	-2.4887	5.6511	0.2796	0.2795	-0.0571
29S	1.3693	1.3693	-3.0554	-1.3691	-1.3691	3.0554	0.2506	0.2505	-0.0544
30S	2.1667	2.1667	-5.0007	-2.1665	-2.1665	5.0007	0.2220	0.2219	-0.0515
31S	2.5347	2.5347	-6.1912	-2.5345	-2.5345	6.1912	0.1951	0.1950	-0.0484
33S	3.7570	3.7570	-10.1147	-3.7569	-3.7569	10.1147	0.1104	0.1103	-0.0407
34S	3.9073	3.9073	-10.9430	-3.9072	-3.9072	10.9430	0.0856	0.0855	-0.0395
35S	11.3288	11.3288	-17.2016	-11.3287	-11.3287	17.2015	0.0653	0.0652	-0.0376
36S	10.5839	10.5839	-16.2721	-10.5839	-10.5839	16.2721	0.0487	0.0488	-0.0348
37S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5312	0.0327	0.0328	-0.0322
371S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5312	0.0327	0.0334	-0.0192
372S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5312	0.0333	0.0327	-0.0192
373S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5313	0.0339	0.0331	0.0080
374S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5313	0.0333	0.0339	0.0079
38S	2.9152	2.9152	-10.4902	-2.9151	-2.9151	10.4902	0.0233	0.0234	-0.0279
39S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0252	0.0125	0.0127	-0.0238
391S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0252	0.0126	0.0133	-0.0147
392S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0252	0.0132	0.0126	-0.0147
393S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0253	0.0141	0.0132	0.0062
394S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0253	0.0133	0.0141	0.0061
40S	6.0658	6.0658	-14.7552	-6.0658	-6.0658	14.7551	0.0078	0.0079	-0.0183
41S	5.2849	5.2849	-13.1041	-5.2849	-5.2849	13.1041	0.0004	0.0005	-0.0133
411S	2.4845	2.4845	-11.7505	-2.4845	-2.4845	11.7505	0.0004	0.0013	-0.0046
412S	2.4845	2.4845	-11.7505	-2.4845	-2.4845	11.7505	0.0012	0.0005	-0.0046

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	2.4845	2.4845	-11.7505	-2.4845	-2.4845	11.7505	0.0022	0.0012	-0.0003
414S	2.4845	2.4845	-11.7505	-2.4845	-2.4845	11.7505	0.0013	0.0022	-0.0003
42S	1.7969	1.7969	-8.5456	-1.7969	-1.7969	8.5456	0.0016	0.0017	-0.0062
2X	1.3123	1.3123	-2.3754	-1.3106	-1.3106	2.3754	1.6978	1.7001	-0.0116
2XY	1.3123	1.3123	-2.3754	-1.3106	-1.3106	2.3755	1.6991	1.6893	0.0262
2Y	0.6803	0.6803	-0.9954	-0.6786	-0.6786	0.9954	1.7053	1.6879	-0.0112
3X	1.3057	1.3057	-1.9332	-1.3041	-1.3041	1.9332	1.6253	1.6170	-0.0116
3XY	1.3057	1.3057	-1.9332	-1.3041	-1.3041	1.9333	1.6254	1.6165	0.0261
3Y	1.3057	1.3057	-1.9332	-1.3041	-1.3041	1.9332	1.6215	1.6164	-0.0112
4X	1.2574	1.2574	-2.3178	-1.2558	-1.2558	2.3178	1.5518	1.5342	-0.0115
4XY	1.2574	1.2574	-2.3178	-1.2558	-1.2558	2.3178	1.5534	1.5454	0.0258
4Y	0.6254	0.6254	-0.9378	-0.6238	-0.6238	0.9378	1.5381	1.5436	-0.0111
5X	1.9431	1.9431	-3.3796	-1.9417	-1.9417	3.3796	1.4804	1.4525	-0.0115
5XY	1.9431	1.9431	-3.3796	-1.9417	-1.9417	3.3797	1.4805	1.4733	0.0252
5Y	1.3111	1.3111	-1.9996	-1.3097	-1.3097	1.9996	1.4558	1.4732	-0.0111
6X	1.3178	1.3178	-2.4418	-1.3163	-1.3164	2.4418	1.4081	1.3710	-0.0114
6XY	1.3178	1.3178	-2.4418	-1.3163	-1.3163	2.4419	1.4102	1.4040	0.0246
6Y	0.6858	0.6858	-1.0618	-0.6844	-0.6844	1.0618	1.3740	1.4017	-0.0111
7X	1.2042	1.2042	-1.8771	-1.2029	-1.2029	1.8770	1.3391	1.2917	-0.0113
7XY	1.2042	1.2042	-1.8771	-1.2029	-1.2029	1.8771	1.3393	1.3339	0.0238
7Y	1.2042	1.2042	-1.8771	-1.2029	-1.2029	1.8770	1.2944	1.3337	-0.0110
8X	1.1505	1.1505	-2.1952	-1.1492	-1.1493	2.1952	1.2843	1.2290	-0.0112
8XY	1.1505	1.1505	-2.1952	-1.1492	-1.1492	2.1952	1.2857	1.2809	0.0229
8Y	0.5185	0.5185	-0.8152	-0.5173	-0.5172	0.8152	1.2315	1.2793	-0.0109
12X	0.8782	0.8782	-1.5735	-0.8771	-0.8772	1.5735	1.0410	1.0137	-0.0138
12XY	3.7342	3.7342	-4.9335	-3.7331	-3.7331	4.9335	1.0428	1.0391	0.0487
12Y	0.8782	0.8782	-1.5735	-0.8772	-0.8771	1.5735	1.0151	1.0373	-0.0136
13X	1.6910	1.6910	-2.9269	-1.6901	-1.6901	2.9269	0.9723	0.9519	-0.0137
13XY	4.5470	4.5470	-6.2869	-4.5460	-4.5461	6.2869	0.9726	0.9693	0.0476
13Y	1.6910	1.6910	-2.9269	-1.6901	-1.6901	2.9269	0.9531	0.9690	-0.0135
14X	1.1278	1.1278	-2.1334	-1.1269	-1.1269	2.1334	0.9032	0.8903	-0.0136
14XY	3.6688	3.6688	-4.7134	-3.6679	-3.6679	4.7135	0.9056	0.9028	0.0460
14Y	1.1278	1.1278	-2.1334	-1.1269	-1.1269	2.1334	0.8914	0.9002	-0.0134
15X	1.9308	1.9308	-3.4868	-1.9300	-1.9300	3.4868	0.8382	0.8327	-0.0135
15XY	1.6158	1.6158	-2.7068	-1.6150	-1.6150	2.7069	0.8385	0.8358	0.0440
15Y	1.9308	1.9308	-3.4868	-1.9300	-1.9300	3.4868	0.8335	0.8356	-0.0133
16X	0.8030	0.8030	-1.3534	-0.8022	-0.8022	1.3534	0.7731	0.7752	-0.0133
16XY	0.8030	0.8030	-1.3534	-0.8022	-0.8022	1.3535	0.7762	0.7740	0.0415
16Y	0.8030	0.8030	-1.3534	-0.8022	-0.8022	1.3534	0.7761	0.7707	-0.0131
17X	1.7202	1.7202	-3.1482	-1.7195	-1.7195	3.1482	0.7139	0.7234	-0.0131
17XY	1.4052	1.4052	-2.3682	-1.4045	-1.4045	2.3683	0.7143	0.7122	0.0387
17Y	1.7202	1.7202	-3.1482	-1.7195	-1.7195	3.1482	0.7240	0.7119	-0.0129
18X	0.9172	0.9172	-1.7948	-0.9165	-0.9165	1.7948	0.6669	0.6820	-0.0129
18XY	0.6022	0.6022	-1.0148	-0.6015	-0.6015	1.0149	0.6696	0.6679	0.0360
18Y	0.9172	0.9172	-1.7948	-0.9165	-0.9165	1.7948	0.6827	0.6650	-0.0128
21X	1.1444	1.1444	-1.9840	-1.1439	-1.1439	1.9840	0.5134	0.5249	-0.0102
21XY	1.1444	1.1444	-1.9840	-1.1439	-1.1439	1.9840	0.5145	0.5129	0.0565
21Y	1.1444	1.1444	-1.9840	-1.1439	-1.1439	1.9840	0.5251	0.5119	-0.0101
22X	2.2774	2.2774	-3.8507	-2.2769	-2.2769	3.8507	0.4741	0.4849	-0.0100
22XY	3.5504	3.5504	-4.7507	-3.5499	-3.5499	4.7508	0.4748	0.4734	0.0540
22Y	2.2774	2.2774	-3.8507	-2.2769	-2.2769	3.8507	0.4850	0.4727	-0.0098
23X	1.1330	1.1330	-1.8668	-1.1326	-1.1325	1.8668	0.4368	0.4469	-0.0097
23XY	1.1330	1.1330	-1.8668	-1.1326	-1.1326	1.8668	0.4390	0.4378	0.0508
23Y	1.1330	1.1330	-1.8668	-1.1325	-1.1326	1.8668	0.4470	0.4355	-0.0096
24X	2.3478	2.3478	-4.4346	-2.3474	-2.3474	4.4346	0.4030	0.4125	-0.0094
24XY	2.3478	2.3478	-4.4346	-2.3474	-2.3474	4.4347	0.4036	0.4024	0.0472

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	2.3478	2.3478	-4.4346	-2.3474	-2.3474	4.4346	0.4126	0.4018	-0.0093
25X	1.2148	1.2148	-2.5678	-1.2145	-1.2145	2.5678	0.3682	0.3770	-0.0092
25XY	1.2148	1.2148	-2.5678	-1.2145	-1.2145	2.5679	0.3698	0.3688	0.0452
25Y	1.2148	1.2148	-2.5678	-1.2145	-1.2145	2.5678	0.3772	0.3670	-0.0091
26X	2.4794	2.4794	-5.4135	-2.4791	-2.4791	5.4135	0.3357	0.3438	-0.0091
26XY	2.4794	2.4794	-5.4135	-2.4791	-2.4791	5.4136	0.3362	0.3352	0.0429
26Y	2.4794	2.4794	-5.4135	-2.4791	-2.4791	5.4135	0.3439	0.3347	-0.0090
27X	1.2646	1.2646	-2.8457	-1.2643	-1.2643	2.8457	0.3033	0.3108	-0.0090
27XY	1.2646	1.2646	-2.8457	-1.2643	-1.2643	2.8457	0.3048	0.3040	0.0409
27Y	1.2646	1.2646	-2.8457	-1.2643	-1.2643	2.8457	0.3109	0.3023	-0.0089
28X	2.4889	2.4889	-5.6511	-2.4887	-2.4887	5.6511	0.2731	0.2799	-0.0088
28XY	2.4889	2.4889	-5.6511	-2.4887	-2.4887	5.6512	0.2737	0.2729	0.0387
28Y	2.4889	2.4889	-5.6511	-2.4887	-2.4887	5.6511	0.2799	0.2723	-0.0087
29X	1.2243	1.2243	-2.8054	-1.2241	-1.2241	2.8054	0.2436	0.2498	-0.0087
29XY	1.2243	1.2243	-2.8054	-1.2241	-1.2241	2.8055	0.2453	0.2446	0.0363
29Y	1.2243	1.2243	-2.8054	-1.2241	-1.2241	2.8054	0.2500	0.2428	-0.0086
30X	2.1667	2.1667	-5.0007	-2.1665	-2.1665	5.0007	0.2165	0.2222	-0.0086
30XY	2.1667	2.1667	-5.0007	-2.1665	-2.1665	5.0007	0.2172	0.2166	0.0337
30Y	2.1667	2.1667	-5.0007	-2.1665	-2.1665	5.0007	0.2223	0.2159	-0.0085
31X	2.5347	2.5347	-6.1912	-2.5345	-2.5345	6.1912	0.1898	0.1950	-0.0084
31XY	2.6797	2.6797	-6.4412	-2.6795	-2.6795	6.4412	0.1908	0.1902	0.0310
31Y	2.6797	2.6797	-6.4412	-2.6795	-2.6795	6.4412	0.1951	0.1892	-0.0083
33X	3.7570	3.7570	-10.1147	-3.7569	-3.7569	10.1147	0.1060	0.1096	-0.0076
33XY	3.7570	3.7570	-10.1147	-3.7569	-3.7569	10.1147	0.1081	0.1078	0.0252
33Y	3.7570	3.7570	-10.1147	-3.7569	-3.7569	10.1147	0.1097	0.1057	-0.0075
34X	3.9073	3.9073	-10.9430	-3.9072	-3.9072	10.9430	0.0822	0.0852	-0.0071
34XY	3.9073	3.9073	-10.9430	-3.9072	-3.9072	10.9431	0.0841	0.0839	0.0249
34Y	3.9073	3.9073	-10.9430	-3.9072	-3.9072	10.9430	0.0853	0.0820	-0.0070
35X	4.1188	4.1188	-12.0916	-4.1188	-4.1188	12.0916	0.0630	0.0655	-0.0065
35XY	4.1188	4.1188	-12.0916	-4.1188	-4.1188	12.0916	0.0644	0.0643	0.0240
35Y	6.6178	6.6178	-13.1916	-6.6177	-6.6178	13.1916	0.0656	0.0628	-0.0065
36X	5.1759	5.1759	-13.4921	-5.1759	-5.1759	13.4921	0.0469	0.0489	-0.0059
36XY	4.2889	4.2889	-11.7471	-4.2889	-4.2889	11.7471	0.0488	0.0487	0.0223
36Y	3.3739	3.3739	-11.1621	-3.3739	-3.3739	11.1621	0.0488	0.0467	-0.0058
37X	3.5572	3.5572	-11.3712	-3.5572	-3.5572	11.3712	0.0328	0.0340	-0.0052
37XY	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5313	0.0339	0.0338	0.0209
37Y	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5312	0.0339	0.0326	-0.0051
38X	2.9152	2.9152	-10.4902	-2.9151	-2.9151	10.4902	0.0222	0.0235	-0.0046
38XY	2.9152	2.9152	-10.4902	-2.9151	-2.9151	10.4902	0.0246	0.0245	0.0181
38Y	3.0602	3.0602	-10.7402	-3.0601	-3.0601	10.7402	0.0234	0.0220	-0.0045
39X	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0252	0.0126	0.0141	-0.0038
39XY	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0253	0.0141	0.0140	0.0157
39Y	3.7203	3.7203	-12.8652	-3.7203	-3.7203	12.8652	0.0140	0.0125	-0.0038
40X	6.4648	6.4648	-16.4452	-6.4648	-6.4648	16.4452	0.0055	0.0070	-0.0030
40XY	2.8608	2.8608	-11.7852	-2.8608	-2.8608	11.7852	0.0092	0.0091	0.0119
40Y	4.6628	4.6628	-14.1152	-4.6628	-4.6628	14.1152	0.0069	0.0054	-0.0030
41X	2.8809	2.8809	-11.9741	-2.8809	-2.8809	11.9741	0.0005	0.0023	-0.0022
41XY	2.0799	2.0799	-10.1341	-2.0799	-2.0799	10.1342	0.0022	0.0021	0.0088
41Y	2.0799	2.0799	-10.1341	-2.0799	-2.0799	10.1341	0.0021	0.0004	-0.0021
42X	1.7969	1.7969	-8.5456	-1.7969	-1.7969	8.5456	-0.0009	0.0068	-0.0019
42XY	1.7969	1.7969	-8.5456	-1.7969	-1.7969	8.5456	0.0093	0.0093	0.0023
42Y	1.7969	1.7969	-8.5456	-1.7969	-1.7969	8.5456	0.0067	-0.0009	-0.0019

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

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	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.00	-0.03	0.03	-15.92	39.35	-4.97
1X	-0.01	-0.03	0.03	13.66	99.20	4.24
1XY	0.00	-0.03	0.03	44.11	-93.28	13.73
1Y	0.01	-0.03	0.03	-47.15	-25.84	-14.69
2P	0.01	15.89	-39.31	-0.59	3.47	6.12
2X	-0.02	-13.69	-99.17	-7.69	-157.30	-8.56
2XY	0.00	-44.13	93.31	-81.08	175.20	-50.09
2Y	0.02	47.12	25.87	76.77	16.74	49.55
3P	0.01	0.56	-3.44	8.62	-10.26	3.67
3X	-0.02	7.66	157.33	-30.90	249.92	-9.30
3XY	0.00	81.05	-175.18	90.72	-187.61	68.71
3Y	0.04	-76.80	-16.70	-118.56	79.22	-78.14
4P	0.02	-8.65	10.30	-76.40	171.51	-34.02
4X	-0.03	30.87	-249.89	20.99	-271.13	20.74
4XY	0.00	-90.75	187.64	-176.39	370.62	-106.86
4Y	0.05	118.53	-79.19	137.86	-38.54	102.56
5P	0.02	76.37	-171.48	92.98	-117.91	67.74
5X	-0.04	-21.02	271.16	-175.81	739.13	-78.73
5XY	0.00	176.36	-370.59	223.70	-421.00	160.02
5Y	0.06	-137.89	38.58	-397.41	401.27	-214.12
6P	0.03	-93.01	117.95	-455.85	772.18	-219.55
6X	-0.05	175.78	-739.10	-12.68	-490.35	65.24
6XY	0.00	-223.73	421.03	-466.13	959.82	-275.94
6Y	0.07	397.39	-401.24	344.03	-40.72	296.57
7P	0.03	455.82	-772.15	787.27	-805.72	621.55
7X	-0.05	12.65	490.38	-116.12	1968.35	-51.74
7XY	0.00	466.11	-959.79	-58.37	11.92	203.87
7Y	0.08	-344.06	40.75	-1275.30	654.73	-809.68
8P	0.04	-787.30	805.75	-3440.61	3793.09	-2692.94
8X	-0.06	116.09	-1968.32	-2148.62	-2978.06	-1294.61
8XY	0.00	58.34	-11.90	1204.02	-1628.06	804.05
8Y	0.10	1275.28	-654.70	2563.08	2511.59	2444.81
9P	-42.10	-5114.96	245.66	-2812.22	107.93	-1933.93
9X	-99.22	3625.11	578.08	2149.30	797.80	1408.74
9XY	-50.69	-2002.62	295.52	-1535.63	303.33	-863.20
9Y	6.27	3588.33	-35.90	2000.05	-386.82	1363.35
10P	-59.73	-1918.38	2058.75	-497.94	528.16	-836.10
10X	-232.68	-975.66	-2063.90	-633.43	485.03	-556.78
10XY	-101.24	880.49	-1291.16	417.88	-648.64	449.26
10Y	71.58	1683.06	1145.43	-39.37	1044.79	568.75
11P	-59.73	497.92	-528.14	-440.50	1008.25	22.97
11X	-232.69	633.40	-485.00	324.97	-722.65	383.35
11XY	-101.24	-417.91	648.67	-761.31	1475.94	-471.69
11Y	71.60	39.35	-1044.76	338.10	-533.21	150.98
12P	-59.72	440.47	-1008.22	299.92	-557.17	296.16
12X	-232.70	-324.99	722.68	-774.96	1697.20	-439.98
12XY	-101.24	761.28	-1475.91	510.08	-927.55	508.54
12Y	71.61	-338.13	533.23	-849.42	1510.58	-475.02
13P	-59.72	-299.95	557.19	-912.89	1790.45	-485.13
13X	-232.71	774.93	-1697.18	450.31	-992.96	490.10
13XY	-101.24	-510.10	927.58	-1043.73	2033.40	-621.53
13Y	71.62	849.39	-1510.56	539.88	-801.92	555.71
14P	-59.72	912.86	-1790.43	578.16	-1000.80	596.41

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X -232.72 -450.33 992.99 -1127.89 2329.58 -631.29 1329.03
14XY -101.24 1043.70 -2033.37 653.57 -1136.69 678.91 -1268.03
14Y 71.64 -539.91 801.94 -1176.30 2215.42 -686.48 1206.95
15P -59.71 -578.18 1000.82 -1531.66 2849.01 -843.94 1539.93
15X -232.73 1127.87 -2329.55 717.02 -1162.51 737.95 -1396.82
15XY -101.24 -653.60 1136.72 -1589.91 2931.38 -897.40 1627.24
15Y 71.65 1176.28 -2215.40 615.71 -1314.19 716.80 -1411.84
16P -59.71 1531.64 -2848.99 1586.68 -2368.12 1559.16 -2608.56
16X -232.74 -717.04 1162.53 -1847.95 3129.62 -1282.50 2146.08
16XY -101.25 1589.88 -2931.36 1662.95 -2347.03 1626.42 -2639.19
16Y 71.66 -615.73 1314.21 -1434.30 3723.45 -1025.02 2518.83
17P -59.71 -1586.70 2368.14 -2852.64 2739.37 -2809.71 3232.60
17X -232.76 1847.93 -3129.60 -147.57 1917.65 1076.18 -767.06
17XY -101.25 -1662.98 2347.05 -3946.89 4297.56 -3550.55 4205.45
17Y 71.68 1434.28 -3723.43 -1536.15 61.02 -64.48 -2317.99
18P -35.12 -3954.12 -93.52 -2374.86 -54.85 -947.06 -22.20
18X 181.83 -1251.64 -1467.52 -712.91 383.95 -293.97 -162.14
18XY -28.42 5829.68 -266.32 3408.53 -187.90 1382.40 -67.97
18Y -244.69 -1043.07 1104.84 -713.18 -645.05 -262.80 68.80
19P -18.51 -1723.44 1635.14 -726.50 1027.53 -874.98 950.95
19X 68.07 800.60 207.60 163.59 379.73 344.35 209.76
19XY 24.86 -2276.98 2543.42 -763.24 1028.36 -1085.79 1275.64
19Y -55.96 -18.08 -990.51 -163.38 -165.70 -64.81 -412.93
20P -18.50 726.48 -1027.51 -189.10 513.07 191.92 -183.73
20X 68.06 -163.60 -379.72 20.74 -227.78 -51.02 -216.96
20XY 24.86 763.22 -1028.35 -211.38 576.55 197.09 -161.36
20Y -55.94 163.37 165.71 120.99 -60.03 101.56 37.74
21P -18.50 189.09 -513.06 213.57 -433.85 149.13 -350.70
21X 68.04 -20.76 227.79 -545.11 1160.21 -209.58 514.07
21XY 24.85 211.37 -576.53 200.08 -405.31 152.39 -363.65
21Y -55.93 -121.00 60.04 -578.32 1108.17 -259.01 432.67
22P -18.50 -213.58 433.86 -695.71 1393.41 -336.78 676.77
22X 68.03 545.09 -1160.20 315.88 -635.44 318.88 -665.05
22XY 24.85 -200.09 405.32 -712.18 1419.44 -337.88 675.84
22Y -55.92 578.30 -1108.15 351.51 -577.24 344.38 -624.22
23P -18.50 695.70 -1393.40 399.39 -641.90 391.10 -726.89
23X 68.02 -315.90 635.45 -1036.61 2211.92 -483.04 1016.92
23XY 24.85 712.16 -1419.43 525.13 -875.97 441.89 -819.78
23Y -55.91 -351.52 577.25 -1158.20 1989.40 -539.19 916.66
24P -18.49 -399.40 641.91 -1215.67 2256.45 -576.81 1035.13
24X 68.00 1036.60 -2211.91 548.45 -1188.19 566.09 -1214.32
24XY 24.85 -525.14 875.98 -1385.25 2558.77 -682.28 1226.70
24Y -55.90 1158.18 -1989.39 736.66 -847.69 676.73 -1013.24
25P -18.49 1215.66 -2256.43 536.18 -720.71 625.66 -1063.27
25X 67.99 -548.46 1188.20 -1695.75 3403.04 -801.50 1639.73
25XY 24.84 1385.24 -2558.76 791.46 -1164.15 777.39 -1329.61
25Y -55.88 -736.67 847.70 -1918.14 3024.12 -948.15 1382.79
26P -18.49 -536.19 720.72 -1697.33 3021.53 -797.69 1336.52
26X 67.98 1695.73 -3403.03 742.02 -1490.99 870.63 -1747.86
26XY 24.84 -791.47 1164.16 -1907.17 3370.20 -963.80 1619.41
26Y -55.87 1918.13 -3024.11 987.61 -1064.21 1037.76 -1460.11
27P -18.49 1697.32 -3021.52 460.26 -519.36 784.57 -1287.59
27X 67.97 -742.03 1491.00 -1943.09 3792.05 -976.41 1921.11
27XY 24.84 1907.15 -3370.19 673.80 -884.17 938.53 -1547.04
27Y -55.86 -987.62 1064.22 -2094.87 3531.95 -1120.90 1671.34
28P -18.48 -460.27 519.37 -1170.53 1860.95 -593.01 865.57

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X 67.95 1943.08 -3792.04 652.00 -1321.61 943.66 -1859.51
28XY 24.84 -673.81 884.18 -1260.84 1983.21 -703.51 1042.69
28Y -55.85 2094.86 -3531.94 724.00 -1161.83 1025.04 -1706.83
29P -18.48 1170.52 -1860.94 1097.41 -902.94 839.97 -1023.66
29X 67.94 -652.01 1321.62 -333.37 1017.71 -364.95 866.42
29XY 24.83 1260.83 -1983.20 1079.55 -879.56 866.81 -1060.28
29Y -55.83 -724.01 1161.84 -209.25 1227.18 -345.65 884.82
30P -18.48 -1097.42 902.95 -4443.67 5388.38 -976.40 1108.60
30X 67.93 333.36 -1017.70 -2547.09 3467.30 -390.08 431.65
30XY 24.83 -1079.56 879.57 -4367.50 5298.12 -959.83 1088.58
30Y -55.82 209.24 -1227.17 -2668.81 3337.17 -433.40 371.81
31P -131.66 -6952.30 655.17 -1189.99 174.29 -1268.62 129.23
31X 789.20 -650.69 -4179.49 -219.39 1270.34 -135.56 -453.26
31XY 136.23 6834.62 -644.27 1148.68 -169.36 1243.85 -126.77
31Y -776.25 472.60 4175.68 83.79 -1262.53 86.69 453.89
32P -131.66 1190.00 -174.29 1022.57 -47.46 363.41 -36.42
32X 789.18 219.39 -1270.33 52.37 1221.61 44.64 -8.00
32XY 136.22 -1148.69 169.36 -955.24 44.03 -345.56 35.05
32Y -776.24 -83.79 1262.52 -29.21 -1246.52 -18.56 2.63
33P -131.66 -1022.57 47.46 576.22 29.06 -73.31 12.57
33X 789.17 -52.37 -1221.60 -18.82 853.56 -11.69 -60.45
33XY 136.22 955.23 -44.03 -622.09 4.28 54.72 -6.53
33Y -776.23 29.21 1246.52 4.13 -781.01 5.48 76.46
34P -131.65 -576.22 -29.06 -457.48 -15.33 -169.78 -7.29
34X 789.16 18.82 -853.55 53.19 119.02 11.83 -120.64
34XY 136.22 622.08 -4.28 387.73 -7.05 165.86 -1.86
34Y -776.22 -4.13 781.00 46.18 -172.86 6.91 99.89
35P -131.65 457.49 15.33 1657.98 -8.72 347.46 1.09
35X 789.15 -53.19 -119.01 -100.31 1531.37 -25.21 231.97
35XY 136.22 -387.74 7.05 -1439.66 -2.30 -300.14 0.78
35Y -776.21 -46.18 172.85 -104.82 -1535.74 -24.80 -223.85
36P -131.65 -1657.98 8.72 -1126.86 2.59 -457.40 1.86
36X 789.15 100.31 -1531.37 40.42 -227.34 23.12 -288.86
36XY 136.22 1439.65 2.30 1056.34 0.69 409.96 0.49
36Y -776.21 104.82 1535.74 43.02 227.19 24.28 289.55
37P -131.65 1126.86 -2.59 1815.73 5.16 483.31 0.42
37X 789.14 -40.42 227.34 -76.15 1030.11 -19.15 206.53
37XY 136.22 -1056.35 -0.69 -1853.09 3.88 -477.86 0.52
37Y -776.20 -43.02 -227.20 -76.03 -1000.47 -19.55 -201.64
38P -131.65 -1815.73 -5.16 -1537.28 -6.98 -550.72 -1.99
38X 789.13 76.15 -1030.11 297.42 -291.94 61.36 -217.14
38XY 136.22 1853.09 -3.88 2055.24 -4.59 641.93 -1.39
38Y -776.19 76.03 1000.47 297.82 259.21 61.40 206.90
39P -131.65 1537.28 6.98 2380.23 -8.95 643.43 -0.32
39X 789.13 -297.42 291.94 -1193.39 3483.13 -244.86 620.04
39XY 136.21 -2055.24 4.59 -4752.42 -1.82 -1118.13 0.45
39Y -776.19 -297.82 -259.21 -1199.04 -3490.23 -245.85 -615.83
40P -131.65 -2380.23 8.95 -1433.93 3.58 -626.46 2.06
40X 789.13 1193.39 -3483.13 2337.37 -3725.57 579.91 -1184.00
40XY 136.21 4752.42 1.82 6116.10 2.88 1785.11 0.77
40Y -776.19 1199.04 3490.23 2337.66 3734.21 580.89 1186.58
41P -131.65 1433.93 -3.58 1076.63 15.69 426.57 2.06
41X 789.13 -2337.37 3725.57 -2791.28 4262.62 -871.41 1357.27
41XY 136.21 -6116.10 -2.88 -6658.70 7.43 -2170.55 0.77
41Y -776.19 -2337.66 -3734.21 -2785.27 -4238.77 -870.43 -1354.68

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 5 "LC5 WIND 0° DEFLEX"

Equilibrium Joint Positions and Rotations for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	0.6053	-0.006027	-0.01962	-0.0055	0.6269	-0.1288	1.255	0.644	150.9
10P	0.4052	-0.004363	-0.01845	0.0121	0.5395	-0.1288	1.055	0.6456	131.6
11P	0.3702	-0.002725	-0.02213	0.0317	0.5132	-0.1315	1.51	1.137	127.6
19P	0.2174	0.0005899	-0.01827	-0.0165	0.3703	-0.1666	1.357	1.141	108.6
20P	0.1893	0.0009161	-0.0223	0.0143	0.2826	-0.1605	2.641	2.453	102.2
32P	0.04742	-4.786e-005	-0.01373	0.0027	0.1550	-0.1406	2.499	2.452	66.11
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	0.6074	-0.005897	-0.0198	0.0213	0.6160	0.1075	1.257	-0.6559	150.9
1XY	0.6076	-0.00507	-0.006221	0.0373	0.5858	0.1083	-0.04242	-0.6551	150.9
1Y	0.6054	-0.005199	-0.00578	0.0013	0.5964	-0.1169	-0.04459	0.6448	150.9
10X	0.4111	-0.004101	-0.01839	0.0049	0.5357	0.1076	1.061	-0.6541	131.6
10XY	0.4113	0.001043	-0.006537	0.0018	0.5419	0.1083	-0.2387	-0.649	131.6
10Y	0.4054	0.0009076	-0.006113	0.0104	0.5478	-0.1170	-0.2446	0.6509	131.6
11X	0.374	-0.002678	-0.02263	0.0085	0.5352	0.1116	1.514	-1.143	127.6
11XY	0.3743	0.0003952	-0.002056	0.0110	0.5255	0.1118	-0.7657	-1.14	127.6
11Y	0.3704	5.323e-005	-0.002047	-0.0281	0.5034	-0.1197	-0.7696	1.14	127.6
19X	0.2159	0.00158	-0.01864	0.0288	0.3845	0.1589	1.356	-1.138	108.6
19XY	0.2164	-0.0005942	-0.003741	-0.0170	0.3723	0.1565	-0.9236	-1.141	108.6
19Y	0.2179	-0.0005039	-0.003932	0.0117	0.3601	-0.1544	-0.9221	1.139	108.6
20X	0.1882	0.0004003	-0.02234	-0.0189	0.2806	0.1551	2.64	-2.452	102.2
20XY	0.1884	0.0002381	0.001137	0.0244	0.2716	0.1520	-2.264	-2.452	102.2
20Y	0.1895	-0.000643	0.001159	-0.0198	0.2729	-0.1494	-2.263	2.451	102.2
32X	0.04652	0.0009862	-0.01372	-0.0042	0.1544	0.1377	2.499	-2.451	66.11
32XY	0.04723	0.0001096	-0.002545	0.0041	0.1528	0.1351	-2.405	-2.452	66.12
32Y	0.04814	-0.0002891	-0.002578	-0.0037	0.1533	-0.1350	-2.404	2.452	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	0.5706	-0.00599	-0.01955	0.0130	0.6041	-0.1288	1.221	0.644	147.7
3S	0.5444	-0.005244	-0.01949	0.0110	0.6084	-0.1288	1.194	0.6448	145.2
4S	0.5176	-0.00508	-0.01937	0.0057	0.6041	-0.1288	1.168	0.6449	142.7
5S	0.4917	-0.004651	-0.0192	0.0070	0.6015	-0.1288	1.142	0.6453	140.2
6S	0.4655	-0.004458	-0.01903	0.0026	0.5885	-0.1288	1.115	0.6455	137.7
7S	0.4403	-0.004288	-0.01881	0.0075	0.5739	-0.1288	1.09	0.6457	135.2
8S	0.4204	-0.004177	-0.01862	0.0086	0.5649	-0.1288	1.07	0.6458	133.2
12S	0.3443	-0.002172	-0.02184	0.0048	0.5057	-0.1362	1.484	1.138	124.7
13S	0.3226	-0.001667	-0.02153	0.0181	0.4940	-0.1403	1.463	1.138	122.2
14S	0.3012	-0.0008979	-0.02109	0.0095	0.4810	-0.1451	1.441	1.139	119.7
15S	0.2807	-0.0006177	-0.02059	0.0163	0.4619	-0.1500	1.421	1.139	117.2
16S	0.2609	0.0002969	-0.02001	0.0076	0.4431	-0.1548	1.401	1.14	114.7
17S	0.2422	0.0003541	-0.01935	0.0203	0.4129	-0.1597	1.382	1.14	112.2
18S	0.2281	0.001211	-0.01876	-0.0024	0.3984	-0.1636	1.368	1.141	110.2
21S	0.1752	0.0004038	-0.02168	-0.0125	0.2823	-0.1575	2.627	2.452	99.38
22S	0.162	0.0004893	-0.02103	0.0095	0.2600	-0.1545	2.614	2.452	96.58
23S	0.1495	0.0007535	-0.02018	-0.0035	0.2580	-0.1511	2.602	2.453	93.88
24S	0.1377	0.0004297	-0.01926	0.0009	0.2438	-0.1476	2.59	2.452	91.18
25S	0.126	0.0005489	-0.01873	-0.0010	0.2346	-0.1465	2.578	2.453	88.38

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.1148	0.0003903	-0.01816	0.0007	0.2262	-0.1453	2.567	2.452	85.58
27S	0.1039	0.0004927	-0.01765	-0.0008	0.2182	-0.1446	2.556	2.452	82.78
28S	0.09347	0.000351	-0.0171	0.0001	0.2096	-0.1439	2.545	2.452	79.98
29S	0.08359	0.0004811	-0.01651	-0.0001	0.2003	-0.1433	2.536	2.452	77.23
30S	0.07423	0.0003236	-0.01588	-0.0016	0.1920	-0.1426	2.526	2.452	74.48
31S	0.0652	0.0003578	-0.01523	-0.0012	0.1916	-0.1419	2.517	2.452	71.78
33S	0.03672	0.0002381	-0.01325	0.0229	0.0928	-0.1304	3.259	3.223	59.79
34S	0.02843	-2.334e-005	-0.01266	0.0114	0.0863	-0.1181	3.982	3.954	53.79
35S	0.02169	-0.0002905	-0.01191	0.0138	0.0680	-0.1055	4.707	4.685	47.79
36S	0.01602	-0.0004112	-0.01097	0.0105	0.0630	-0.0920	5.432	5.416	41.79
37S	0.01079	-0.0006867	-0.009977	0.0116	0.0482	-0.0792	6.158	6.147	35.79
371S	0.01066	-9.636e-005	-0.01023	0.0000	0.0000	0.0000	6.158	-9.636e-005	35.79
372S	0.01136	-0.0005659	-0.005649	0.0000	0.0000	0.0000	0.01136	6.147	35.79
373S	0.01183	0.0001339	-0.001019	0.0000	0.0000	0.0000	-6.136	0.0001339	35.8
374S	0.0111	0.0006034	-0.005597	0.0000	0.0000	0.0000	0.0111	-6.147	35.79
38S	0.007364	-0.0005211	-0.008665	0.0092	0.0388	-0.0662	6.886	6.878	29.79
39S	0.003847	-0.0008182	-0.007332	0.0081	0.0318	-0.0526	7.614	7.609	23.79
391S	0.003773	-8.827e-005	-0.0078	0.0000	0.0000	0.0000	7.614	-8.827e-005	23.79
392S	0.004562	-0.0007327	-0.004289	0.0000	0.0000	0.0000	0.004562	7.609	23.8
393S	0.005223	7.261e-005	-0.000726	0.0000	0.0000	0.0000	-7.605	7.261e-005	23.8
394S	0.004396	0.0007171	-0.004245	0.0000	0.0000	0.0000	0.004396	-7.609	23.8
40S	0.001818	-0.0003999	-0.005684	0.0129	0.0190	-0.0391	8.343	8.34	17.79
41S	-0.0004016	-0.0009369	-0.004094	-0.0214	0.0299	-0.0275	9.072	9.071	11.8
411S	-0.000442	-5.319e-005	-0.003196	0.0000	0.0000	0.0000	9.072	-5.319e-005	11.8
412S	0.0004453	-0.00088	-0.002469	0.0000	0.0000	0.0000	0.0004453	9.071	11.8
413S	0.001289	2.452e-005	-0.001732	0.0000	0.0000	0.0000	-9.071	2.452e-005	11.8
414S	0.0003627	0.0008513	-0.002453	0.0000	0.0000	0.0000	0.0003627	-9.071	11.8
42S	-0.002363	-0.003414	-0.002654	0.0193	-0.0123	-0.0132	9.801	9.8	5.797
2X	0.5733	-0.00505	-0.01973	0.0027	0.5940	0.1075	1.223	-0.655	147.7
2XY	0.5744	-0.003483	-0.006177	0.0103	0.6070	0.1083	-0.07565	-0.6535	147.7
2Y	0.5716	-0.004637	-0.005747	0.0276	0.6173	-0.1169	-0.0784	0.6454	147.7
3X	0.5476	-0.005125	-0.01966	0.0040	0.5982	0.1075	1.198	-0.6551	145.2
3XY	0.5477	-0.003188	-0.006172	0.0208	0.6000	0.1083	-0.1023	-0.6532	145.2
3Y	0.5445	-0.003304	-0.005755	0.0160	0.6096	-0.1169	-0.1055	0.6467	145.2
4X	0.5213	-0.004659	-0.01953	0.0081	0.5944	0.1075	1.171	-0.6547	142.7
4XY	0.522	-0.001911	-0.006175	0.0147	0.5957	0.1083	-0.128	-0.6519	142.7
4Y	0.5183	-0.002991	-0.005765	0.0214	0.6061	-0.1169	-0.1317	0.647	142.7
5X	0.4957	-0.004528	-0.01933	0.0046	0.5906	0.1075	1.146	-0.6545	140.2
5XY	0.4959	-0.001608	-0.006205	0.0290	0.5831	0.1083	-0.1541	-0.6516	140.2
5Y	0.4918	-0.001735	-0.005804	0.0061	0.5919	-0.1169	-0.1582	0.6483	140.2
6X	0.47	-0.004272	-0.01913	0.0056	0.5787	0.1076	1.12	-0.6543	137.7
6XY	0.4707	-0.0002904	-0.006254	0.0142	0.5799	0.1083	-0.1793	-0.6503	137.7
6Y	0.4662	-0.001519	-0.005858	0.0213	0.5904	-0.1169	-0.1838	0.6485	137.7
7X	0.4453	-0.004167	-0.01885	-0.0020	0.5617	0.1076	1.095	-0.6542	135.2
7XY	0.4455	-6.668e-005	-0.006344	0.0200	0.5637	0.1083	-0.2045	-0.6501	135.2
7Y	0.4405	-0.0002159	-0.005945	0.0131	0.5754	-0.1170	-0.2095	0.6498	135.2
8X	0.4259	-0.004229	-0.01861	0.0018	0.5459	0.1076	1.076	-0.6542	133.2
8XY	0.4262	0.0008531	-0.006434	0.0183	0.5436	0.1083	-0.2238	-0.6491	133.2
8Y	0.4207	0.0001151	-0.006024	0.0247	0.5630	-0.1170	-0.2293	0.6501	133.2
12X	0.3474	-0.002005	-0.02232	0.0154	0.5167	0.1179	1.487	-1.142	124.7
12XY	0.348	0.0007065	-0.002129	-0.0056	0.5196	0.1178	-0.792	-1.139	124.7
12Y	0.3448	-0.000249	-0.00214	0.0098	0.5083	-0.1243	-0.7952	1.14	124.7
13X	0.3252	-0.001463	-0.02202	0.0071	0.5082	0.1234	1.465	-1.141	122.2
13XY	0.3254	0.0003233	-0.002225	0.0011	0.5114	0.1230	-0.8146	-1.14	122.2
13Y	0.3229	0.0001029	-0.002262	-0.0038	0.4960	-0.1283	-0.8171	1.14	122.2
14X	0.3031	-0.001179	-0.02158	0.0143	0.4977	0.1299	1.443	-1.141	119.7

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

14XY	0.3035	0.0007073	-0.002371	-0.0028	0.4964	0.1291	-0.8365	-1.139	119.7
14Y	0.3017	-0.000392	-0.002451	-0.0005	0.4802	-0.1331	-0.8383	1.14	119.7
15X	0.2819	-0.0004176	-0.02107	0.0074	0.4792	0.1365	1.422	-1.14	117.2
15XY	0.2821	0.0001717	-0.002564	-0.0004	0.4816	0.1353	-0.8579	-1.14	117.2
15Y	0.281	-6.209e-005	-0.002689	-0.0055	0.4635	-0.1379	-0.859	1.14	117.2
16X	0.2613	-0.0003213	-0.02047	0.0151	0.4613	0.1430	1.401	-1.14	114.7
16XY	0.2616	0.0005724	-0.002821	-0.0051	0.4588	0.1415	-0.8784	-1.139	114.7
16Y	0.2613	-0.0007539	-0.002979	-0.0024	0.4410	-0.1427	-0.8787	1.139	114.7
17X	0.2418	0.0005785	-0.01978	0.0005	0.4302	0.1496	1.382	-1.139	112.2
17XY	0.242	-0.0001421	-0.003147	-0.0009	0.4365	0.1477	-0.898	-1.14	112.2
17Y	0.2425	-0.0003917	-0.003328	-0.0074	0.4189	-0.1475	-0.8975	1.14	112.2
18X	0.2271	0.0004383	-0.01916	0.0238	0.4162	0.1548	1.367	-1.14	110.2
18XY	0.2272	9.837e-005	-0.003457	-0.0115	0.4102	0.1526	-0.9128	-1.14	110.2
18Y	0.2283	-0.0009451	-0.003648	0.0013	0.3929	-0.1514	-0.9117	1.139	110.2
21X	0.1741	0.0009371	-0.0217	0.0142	0.2839	0.1525	2.626	-2.451	99.38
21XY	0.1747	0.0002106	0.0009323	-0.0098	0.2809	0.1494	-2.277	-2.452	99.4
21Y	0.1759	-0.0005774	0.0009534	0.0095	0.2798	-0.1472	-2.276	2.451	99.4
22X	0.1608	0.0008561	-0.02103	-0.0100	0.2663	0.1499	2.613	-2.451	96.58
22XY	0.1612	8.687e-005	0.0006895	0.0056	0.2708	0.1469	-2.291	-2.452	96.6
22Y	0.1624	-0.0004179	0.0007111	-0.0046	0.2708	-0.1451	-2.29	2.452	96.6
23X	0.1484	0.0005756	-0.02017	0.0031	0.2575	0.1469	2.6	-2.451	93.88
23XY	0.1488	0.0003874	0.0003712	-0.0022	0.2567	0.1440	-2.303	-2.452	93.9
23Y	0.15	-0.0006841	0.000391	0.0028	0.2569	-0.1426	-2.302	2.451	93.9
24X	0.1366	0.00087	-0.01924	-0.0017	0.2430	0.1439	2.589	-2.451	91.18
24XY	0.1371	0.0001067	1.886e-006	0.0045	0.2404	0.1411	-2.315	-2.452	91.2
24Y	0.1382	-0.0003719	1.867e-005	-0.0038	0.2410	-0.1401	-2.314	2.452	91.2
25X	0.1249	0.0007141	-0.01871	0.0002	0.2340	0.1428	2.577	-2.451	88.38
25XY	0.1255	0.0003684	-0.0002153	-0.0013	0.2348	0.1401	-2.327	-2.452	88.4
25Y	0.1266	-0.0006041	-0.0002013	0.0018	0.2355	-0.1393	-2.325	2.451	88.4
26X	0.1137	0.0008328	-0.01813	-0.0015	0.2255	0.1418	2.566	-2.451	85.58
26XY	0.1142	0.0001382	-0.0004623	0.0026	0.2246	0.1391	-2.338	-2.452	85.6
26Y	0.1153	-0.0003482	-0.000452	-0.0021	0.2253	-0.1384	-2.337	2.452	85.6
27X	0.1028	0.0006887	-0.01762	-0.0001	0.2176	0.1412	2.555	-2.451	82.78
27XY	0.1034	0.0003824	-0.000687	-0.0003	0.2177	0.1385	-2.349	-2.452	82.8
27Y	0.1044	-0.000571	-0.0006804	0.0007	0.2183	-0.1380	-2.348	2.451	82.8
28X	0.09246	0.0007877	-0.01707	-0.0010	0.2090	0.1406	2.544	-2.451	79.98
28XY	0.09293	0.0001616	-0.0009383	0.0003	0.2093	0.1379	-2.359	-2.452	80
28Y	0.09395	-0.0003337	-0.0009365	0.0000	0.2100	-0.1375	-2.358	2.452	80
29X	0.0826	0.0006159	-0.01648	-0.0008	0.1997	0.1400	2.535	-2.451	77.23
29XY	0.08314	0.0004036	-0.001207	0.0011	0.1992	0.1374	-2.369	-2.452	77.25
29Y	0.08413	-0.0005651	-0.001211	-0.0009	0.1998	-0.1370	-2.368	2.451	77.25
30X	0.07327	0.0007329	-0.01586	0.0007	0.1914	0.1395	2.525	-2.451	74.48
30XY	0.07374	0.0001871	-0.001505	-0.0029	0.1930	0.1368	-2.378	-2.452	74.5
30Y	0.07471	-0.0003443	-0.001515	0.0030	0.1935	-0.1365	-2.377	2.452	74.5
31X	0.06426	0.0006587	-0.0152	0.0005	0.1912	0.1389	2.516	-2.451	71.78
31XY	0.06473	0.0002425	-0.00182	0.0009	0.1897	0.1363	-2.387	-2.452	71.8
31Y	0.06567	-0.0004001	-0.001837	-0.0011	0.1901	-0.1360	-2.386	2.452	71.8
33X	0.03592	0.0004063	-0.01319	-0.0254	0.0914	0.1278	3.259	-3.222	59.79
33XY	0.03656	0.0005309	-0.00208	0.0230	0.0926	0.1254	-3.186	-3.222	59.8
33Y	0.03736	-0.0005815	-0.002104	-0.0217	0.0936	-0.1254	-3.185	3.222	59.8
34X	0.02771	0.0004027	-0.01257	-0.0136	0.0855	0.1157	3.982	-3.954	53.79
34XY	0.0285	0.0005963	-0.001723	0.0128	0.0848	0.1136	-3.925	-3.953	53.8
34Y	0.02922	-0.0005502	-0.001739	-0.0121	0.0854	-0.1136	-3.925	3.953	53.8
35X	0.02103	0.0004147	-0.01179	-0.0156	0.0668	0.1034	4.706	-4.685	47.79
35XY	0.02192	0.0006057	-0.001433	0.0147	0.0667	0.1016	-4.663	-4.684	47.8
35Y	0.02257	-0.0004815	-0.001442	-0.0139	0.0678	-0.1015	-4.663	4.685	47.8

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.01553	0.0003545	-0.01084	-0.0118	0.0606	0.0904	5.432	-5.416	41.79
36XY	0.0166	0.0007871	-0.001231	0.0113	0.0604	0.0887	-5.4	-5.415	41.8
36Y	0.01707	-0.0005856	-0.001217	-0.0105	0.0625	-0.0886	-5.399	5.416	41.8
37X	0.01052	0.000497	-0.009842	-0.0119	0.0467	0.0779	6.158	-6.147	35.79
37XY	0.0117	0.0007249	-0.000926	0.0108	0.0472	0.0764	-6.136	-6.147	35.8
37Y	0.01197	-0.0004573	-0.0008997	-0.0109	0.0483	-0.0763	-6.135	6.147	35.8
38X	0.007148	0.0003488	-0.008563	-0.0088	0.0385	0.0650	6.886	-6.878	29.79
38XY	0.00842	0.000933	-0.0008106	0.0074	0.0393	0.0638	-6.87	-6.878	29.8
38Y	0.008634	-0.0007366	-0.0008069	-0.0082	0.0395	-0.0637	-6.87	6.878	29.8
39X	0.003681	0.0006418	-0.00725	-0.0077	0.0313	0.0518	7.613	-7.609	23.79
39XY	0.005143	0.0008047	-0.0005831	0.0099	0.0288	0.0508	-7.605	-7.609	23.8
39Y	0.005316	-0.0006626	-0.0005945	-0.0104	0.0292	-0.0507	-7.604	7.609	23.8
40X	0.001682	0.000272	-0.005632	-0.0124	0.0187	0.0385	8.343	-8.341	17.79
40XY	0.003118	0.001153	-0.0005196	-0.0025	0.0334	0.0377	-8.338	-8.34	17.8
40Y	0.003255	-0.001068	-0.0005392	0.0020	0.0337	-0.0376	-8.338	8.34	17.8
41X	-0.0004956	0.0008284	-0.004054	0.0218	0.0293	0.0271	9.072	-9.071	11.8
41XY	0.001261	0.0009037	-0.0003035	0.0313	-0.0239	0.0266	-9.071	-9.071	11.8
41Y	0.001343	-0.0008547	-0.0003163	-0.0315	-0.0233	-0.0265	-9.071	9.071	11.8
42X	-0.002396	0.00337	-0.002633	-0.0186	-0.0128	0.0131	9.801	-9.8	5.797
42XY	0.005266	0.004279	-0.0012	-0.0138	0.0197	0.0128	-9.798	-9.799	5.799
42Y	0.005292	-0.004263	-0.001205	0.0136	0.0202	-0.0127	-9.798	9.799	5.799

Joint Support Reactions for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Z Usage %	Comp. Uplift Result. %	Result. Force (kN)	Usage %	X-M. Moment (kN-m)	Usage %	Y-M. Moment (kN-m)	Usage %	Z-M. Moment (kN-m)	Usage %	Max. Usage %
ANP	-71.42	0.0	-74.91	0.0	512.61	0.0	0.0	522.96	0.0	-2.04	0.0	1.0	0.0	0.03	0.0	0.0
ANX	-69.81	0.0	75.55	0.0	508.12	0.0	0.0	518.43	0.0	2.02	0.0	1.0	0.0	-0.03	0.0	0.0
ANXY	-0.67	0.0	-5.87	0.0	7.50	0.0	0.0	9.55	0.0	1.92	0.0	-3.0	0.0	-0.03	0.0	0.0
ANY	-1.35	0.0	5.23	0.0	8.25	0.0	0.0	9.87	0.0	-1.91	0.0	-3.0	0.0	0.02	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	0.4475	0.0000	-3.3754	-0.4469	-0.0000	3.3754	0.6053	-0.0060	-0.0196
10P	0.4760	0.0000	-2.5668	-0.4756	-0.0000	2.5668	0.4052	-0.0044	-0.0184
11P	2.6187	0.0000	-10.0451	-2.6183	-0.0000	10.0451	0.3702	-0.0027	-0.0221
19P	0.7318	0.0000	-3.9796	-0.7316	0.0000	3.9796	0.2174	0.0006	-0.0183
20P	1.0305	0.0000	-5.7288	-1.0303	0.0000	5.7288	0.1893	0.0009	-0.0223
32P	1.1583	0.0000	-9.0478	-1.1583	-0.0000	9.0477	0.0474	-0.0000	-0.0137
ANP	0.3774	0.0000	-5.0810	71.0452	74.9090	-507.5296	0.0000	0.0000	0.0000
1X	0.4475	0.0000	-3.3754	-0.4469	-0.0000	3.3754	0.6074	-0.0059	-0.0198
1XY	0.4475	0.0000	-3.3754	-0.4469	-0.0000	3.3754	0.6076	-0.0051	-0.0062
1Y	0.2235	0.0000	-1.9954	-0.2229	-0.0000	1.9954	0.6054	-0.0052	-0.0058
10X	0.4760	0.0000	-2.5668	-0.4756	-0.0000	2.5668	0.4111	-0.0041	-0.0184
10XY	0.7000	0.0000	-3.9468	-0.6996	0.0000	3.9468	0.4113	0.0010	-0.0065
10Y	0.4760	0.0000	-2.5668	-0.4756	0.0000	2.5668	0.4054	0.0009	-0.0061
11X	0.5987	0.0000	-3.3251	-0.5983	-0.0000	3.3251	0.3740	-0.0027	-0.0226
11XY	2.6187	0.0000	-10.0451	-2.6183	0.0000	10.0451	0.3743	0.0004	-0.0021
11Y	0.5987	0.0000	-3.3251	-0.5983	0.0000	3.3251	0.3704	0.0001	-0.0020

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	0.7318	0.0000	-3.9796	-0.7316	0.0000	3.9796	0.2159	0.0016	-0.0186
19XY	0.7318	0.0000	-3.9796	-0.7316	-0.0000	3.9796	0.2164	-0.0006	-0.0037
19Y	0.7318	0.0000	-3.9796	-0.7316	-0.0000	3.9796	0.2179	-0.0005	-0.0039
20X	1.0305	0.0000	-5.7288	-1.0303	0.0000	5.7288	0.1882	0.0004	-0.0223
20XY	0.9185	0.0000	-4.9488	-0.9183	0.0000	4.9488	0.1884	0.0002	0.0011
20Y	0.9185	0.0000	-4.9488	-0.9183	-0.0000	4.9488	0.1895	-0.0006	0.0012
32X	1.1583	0.0000	-9.0478	-1.1583	0.0000	9.0477	0.0465	0.0010	-0.0137
32XY	1.1583	0.0000	-9.0478	-1.1583	0.0000	9.0478	0.0472	0.0001	-0.0025
32Y	1.1583	0.0000	-9.0478	-1.1583	-0.0000	9.0478	0.0481	-0.0003	-0.0026
ANX	0.3774	0.0000	-5.0810	69.4336	-75.5471	-503.0367	0.0000	0.0000	0.0000
ANXY	0.3774	0.0000	-5.0810	0.2889	5.8725	-2.4152	0.0000	0.0000	0.0000
ANY	0.3774	0.0000	-5.0810	0.9707	-5.2343	-3.1720	0.0000	0.0000	0.0000
2S	0.4475	0.0000	-2.3754	-0.4470	-0.0000	2.3754	0.5706	-0.0060	-0.0196
3S	0.4305	0.0000	-1.9332	-0.4300	-0.0000	1.9332	0.5444	-0.0052	-0.0195
4S	0.4310	0.0000	-2.3178	-0.4305	-0.0000	2.3178	0.5176	-0.0051	-0.0194
5S	0.4295	0.0000	-1.9996	-0.4290	-0.0000	1.9996	0.4917	-0.0047	-0.0192
6S	0.2225	0.0000	-1.0618	-0.2220	-0.0000	1.0618	0.4655	-0.0045	-0.0190
7S	0.3882	0.0000	-1.8771	-0.3878	-0.0000	1.8770	0.4403	-0.0043	-0.0188
8S	0.1657	0.0000	-0.8152	-0.1653	-0.0000	0.8152	0.4204	-0.0042	-0.0186
12S	1.2985	0.0000	-4.9335	-1.2981	-0.0000	4.9334	0.3443	-0.0022	-0.0218
13S	0.5551	0.0000	-2.9269	-0.5547	-0.0000	2.9269	0.3226	-0.0017	-0.0215
14S	0.3786	0.0000	-2.1334	-0.3783	-0.0000	2.1334	0.3012	-0.0009	-0.0211
15S	0.6420	0.0000	-3.4868	-0.6417	-0.0000	3.4868	0.2807	-0.0006	-0.0206
16S	0.2634	0.0000	-1.3534	-0.2631	0.0000	1.3534	0.2609	0.0003	-0.0200
17S	0.5711	0.0000	-3.1482	-0.5708	0.0000	3.1482	0.2422	0.0004	-0.0194
18S	0.3077	0.0000	-1.7948	-0.3075	0.0000	1.7948	0.2281	0.0012	-0.0188
21S	0.3824	0.0000	-1.9840	-0.3822	0.0000	1.9839	0.1752	0.0004	-0.0217
22S	1.6594	0.0000	-5.6507	-1.6592	0.0000	5.6507	0.1620	0.0005	-0.0210
23S	1.2770	0.0000	-3.6668	-1.2768	0.0000	3.6668	0.1495	0.0008	-0.0202
24S	0.7790	0.0000	-4.4346	-0.7789	0.0000	4.4346	0.1377	0.0004	-0.0193
25S	0.4021	0.0000	-2.5678	-0.4019	0.0000	2.5678	0.1260	0.0005	-0.0187
26S	0.8178	0.0000	-5.4135	-0.8177	0.0000	5.4135	0.1148	0.0004	-0.0182
27S	0.4158	0.0000	-2.8457	-0.4157	0.0000	2.8457	0.1039	0.0005	-0.0176
28S	0.8180	0.0000	-5.6511	-0.8179	0.0000	5.6511	0.0935	0.0004	-0.0171
29S	0.4533	0.0000	-3.0554	-0.4532	0.0000	3.0554	0.0836	0.0005	-0.0165
30S	0.7096	0.0000	-5.0007	-0.7096	0.0000	5.0007	0.0742	0.0003	-0.0159
31S	0.8386	0.0000	-6.1912	-0.8385	0.0000	6.1912	0.0652	0.0004	-0.0152
33S	1.2584	0.0000	-10.1147	-1.2584	0.0000	10.1147	0.0367	0.0002	-0.0132
34S	1.3137	0.0000	-10.9430	-1.3137	-0.0000	10.9430	0.0284	-0.0000	-0.0127
35S	3.9390	0.0000	-17.2016	-3.9390	-0.0000	17.2016	0.0217	-0.0003	-0.0119
36S	3.6934	0.0000	-16.2721	-3.6934	-0.0000	16.2721	0.0160	-0.0004	-0.0110
37S	0.9353	0.0000	-9.5312	-0.9352	-0.0000	9.5312	0.0108	-0.0007	-0.0100
371S	0.9353	0.0000	-9.5312	-0.9352	-0.0000	9.5312	0.0107	-0.0001	-0.0102
372S	0.9353	0.0000	-9.5312	-0.9352	-0.0000	9.5312	0.0114	-0.0006	-0.0056
373S	0.9353	0.0000	-9.5312	-0.9352	0.0000	9.5312	0.0118	0.0001	-0.0010
374S	0.9353	0.0000	-9.5312	-0.9352	0.0000	9.5312	0.0111	0.0006	-0.0056
38S	0.9877	0.0000	-10.4902	-0.9877	-0.0000	10.4902	0.0074	-0.0005	-0.0087
39S	0.9898	0.0000	-11.0252	-0.9898	-0.0000	11.0252	0.0038	-0.0008	-0.0073
391S	0.9898	0.0000	-11.0252	-0.9898	-0.0000	11.0252	0.0038	-0.0001	-0.0078
392S	0.9898	0.0000	-11.0252	-0.9898	-0.0000	11.0252	0.0046	-0.0007	-0.0043
393S	0.9898	0.0000	-11.0252	-0.9898	0.0000	11.0252	0.0052	0.0001	-0.0007
394S	0.9898	0.0000	-11.0252	-0.9898	0.0000	11.0252	0.0044	0.0007	-0.0042
40S	2.1042	0.0000	-14.7552	-2.1042	-0.0000	14.7551	0.0018	-0.0004	-0.0057
41S	1.8481	0.0000	-13.1041	-1.8481	-0.0000	13.1041	-0.0004	-0.0009	-0.0041
411S	0.8471	0.0000	-11.7505	-0.8471	-0.0000	11.7505	-0.0004	-0.0001	-0.0032
412S	0.8471	0.0000	-11.7505	-0.8471	-0.0000	11.7505	0.0004	-0.0009	-0.0025

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	0.8471	0.0000	-11.7505	-0.8471	0.0000	11.7505	0.0013	0.0000	-0.0017
414S	0.8471	0.0000	-11.7505	-0.8471	0.0000	11.7505	0.0004	0.0009	-0.0025
42S	0.6216	0.0000	-8.5456	-0.6216	-0.0000	8.5456	-0.0024	-0.0034	-0.0027
2X	0.4475	0.0000	-2.3754	-0.4469	-0.0000	2.3754	0.5733	-0.0050	-0.0197
2XY	0.4475	0.0000	-2.3754	-0.4469	-0.0000	2.3754	0.5744	-0.0035	-0.0062
2Y	0.2235	0.0000	-0.9954	-0.2230	-0.0000	0.9954	0.5716	-0.0046	-0.0057
3X	0.4305	0.0000	-1.9332	-0.4300	-0.0000	1.9332	0.5476	-0.0051	-0.0197
3XY	0.4305	0.0000	-1.9332	-0.4300	-0.0000	1.9332	0.5477	-0.0032	-0.0062
3Y	0.4305	0.0000	-1.9332	-0.4300	-0.0000	1.9332	0.5445	-0.0033	-0.0058
4X	0.4310	0.0000	-2.3178	-0.4305	-0.0000	2.3178	0.5213	-0.0047	-0.0195
4XY	0.4310	0.0000	-2.3178	-0.4305	-0.0000	2.3178	0.5220	-0.0019	-0.0062
4Y	0.2070	0.0000	-0.9378	-0.2065	-0.0000	0.9378	0.5183	-0.0030	-0.0058
5X	0.6535	0.0000	-3.3796	-0.6530	-0.0000	3.3796	0.4957	-0.0045	-0.0193
5XY	0.6535	0.0000	-3.3796	-0.6530	-0.0000	3.3796	0.4959	-0.0016	-0.0062
5Y	0.4295	0.0000	-1.9996	-0.4290	-0.0000	1.9996	0.4918	-0.0017	-0.0058
6X	0.4465	0.0000	-2.4418	-0.4460	-0.0000	2.4418	0.4700	-0.0043	-0.0191
6XY	0.4465	0.0000	-2.4418	-0.4460	-0.0000	2.4418	0.4707	-0.0003	-0.0063
6Y	0.2225	0.0000	-1.0618	-0.2220	-0.0000	1.0618	0.4662	-0.0015	-0.0059
7X	0.3882	0.0000	-1.8771	-0.3878	-0.0000	1.8770	0.4453	-0.0042	-0.0189
7XY	0.3882	0.0000	-1.8771	-0.3878	-0.0000	1.8771	0.4455	-0.0001	-0.0063
7Y	0.3882	0.0000	-1.8771	-0.3878	-0.0000	1.8771	0.4405	-0.0002	-0.0059
8X	0.3897	0.0000	-2.1952	-0.3893	-0.0000	2.1952	0.4259	-0.0042	-0.0186
8XY	0.3897	0.0000	-2.1952	-0.3893	0.0000	2.1952	0.4262	0.0009	-0.0064
8Y	0.1657	0.0000	-0.8152	-0.1653	0.0000	0.8152	0.4207	0.0001	-0.0060
12X	0.2885	0.0000	-1.5735	-0.2881	-0.0000	1.5734	0.3474	-0.0020	-0.0223
12XY	1.2985	0.0000	-4.9335	-1.2981	0.0000	4.9335	0.3480	0.0007	-0.0021
12Y	0.2885	0.0000	-1.5735	-0.2881	-0.0000	1.5735	0.3448	-0.0002	-0.0021
13X	0.5551	0.0000	-2.9269	-0.5547	-0.0000	2.9269	0.3252	-0.0015	-0.0220
13XY	1.5651	0.0000	-6.2869	-1.5647	0.0000	6.2869	0.3254	0.0003	-0.0022
13Y	0.5551	0.0000	-2.9269	-0.5547	0.0000	2.9269	0.3229	0.0001	-0.0023
14X	0.3786	0.0000	-2.1334	-0.3783	-0.0000	2.1334	0.3031	-0.0012	-0.0216
14XY	1.2766	0.0000	-4.7134	-1.2763	0.0000	4.7134	0.3035	0.0007	-0.0024
14Y	0.3786	0.0000	-2.1334	-0.3783	-0.0000	2.1334	0.3017	-0.0004	-0.0025
15X	0.6420	0.0000	-3.4868	-0.6417	-0.0000	3.4868	0.2819	-0.0004	-0.0211
15XY	0.5300	0.0000	-2.7068	-0.5297	0.0000	2.7068	0.2821	0.0002	-0.0026
15Y	0.6420	0.0000	-3.4868	-0.6417	-0.0000	3.4868	0.2810	-0.0001	-0.0027
16X	0.2634	0.0000	-1.3534	-0.2631	-0.0000	1.3534	0.2613	-0.0003	-0.0205
16XY	0.2634	0.0000	-1.3534	-0.2631	0.0000	1.3534	0.2616	0.0006	-0.0028
16Y	0.2634	0.0000	-1.3534	-0.2631	-0.0000	1.3534	0.2613	-0.0008	-0.0030
17X	0.5711	0.0000	-3.1482	-0.5708	0.0000	3.1482	0.2418	0.0006	-0.0198
17XY	0.4591	0.0000	-2.3682	-0.4588	-0.0000	2.3682	0.2420	-0.0001	-0.0031
17Y	0.5711	0.0000	-3.1482	-0.5708	-0.0000	3.1482	0.2425	-0.0004	-0.0033
18X	0.3077	0.0000	-1.7948	-0.3075	0.0000	1.7948	0.2271	0.0004	-0.0192
18XY	0.1957	0.0000	-1.0148	-0.1955	0.0000	1.0148	0.2272	0.0001	-0.0035
18Y	0.3077	0.0000	-1.7948	-0.3075	-0.0000	1.7948	0.2283	-0.0009	-0.0036
21X	0.3824	0.0000	-1.9840	-0.3822	0.0000	1.9839	0.1741	0.0009	-0.0217
21XY	0.3824	0.0000	-1.9840	-0.3822	0.0000	1.9840	0.1747	0.0002	0.0009
21Y	0.3824	0.0000	-1.9840	-0.3822	-0.0000	1.9840	0.1759	-0.0006	0.0010
22X	0.7594	0.0000	-3.8507	-0.7592	0.0000	3.8507	0.1608	0.0009	-0.0210
22XY	1.2094	0.0000	-4.7507	-1.2092	0.0000	4.7507	0.1612	0.0001	0.0007
22Y	0.7594	0.0000	-3.8507	-0.7592	-0.0000	3.8507	0.1624	-0.0004	0.0007
23X	0.3770	0.0000	-1.8668	-0.3768	0.0000	1.8668	0.1484	0.0006	-0.0202
23XY	0.3770	0.0000	-1.8668	-0.3768	0.0000	1.8668	0.1488	0.0004	0.0004
23Y	0.3770	0.0000	-1.8668	-0.3768	-0.0000	1.8668	0.1500	-0.0007	0.0004
24X	0.7790	0.0000	-4.4346	-0.7789	0.0000	4.4346	0.1366	0.0009	-0.0192
24XY	0.7790	0.0000	-4.4346	-0.7789	0.0000	4.4346	0.1371	0.0001	0.0000

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	0.7790	0.0000	-4.4346	-0.7789	-0.0000	4.4346	0.1382	-0.0004	0.0000
25X	0.4021	0.0000	-2.5678	-0.4019	0.0000	2.5678	0.1249	0.0007	-0.0187
25XY	0.4021	0.0000	-2.5678	-0.4019	0.0000	2.5678	0.1255	0.0004	-0.0002
25Y	0.4021	0.0000	-2.5678	-0.4019	-0.0000	2.5678	0.1266	-0.0006	-0.0002
26X	0.8178	0.0000	-5.4135	-0.8177	0.0000	5.4135	0.1137	0.0008	-0.0181
26XY	0.8178	0.0000	-5.4135	-0.8177	0.0000	5.4135	0.1142	0.0001	-0.0005
26Y	0.8178	0.0000	-5.4135	-0.8177	-0.0000	5.4135	0.1153	-0.0003	-0.0005
27X	0.4158	0.0000	-2.8457	-0.4157	0.0000	2.8457	0.1028	0.0007	-0.0176
27XY	0.4158	0.0000	-2.8457	-0.4157	0.0000	2.8457	0.1034	0.0004	-0.0007
27Y	0.4158	0.0000	-2.8457	-0.4157	-0.0000	2.8457	0.1044	-0.0006	-0.0007
28X	0.8180	0.0000	-5.6511	-0.8179	0.0000	5.6511	0.0925	0.0008	-0.0171
28XY	0.8180	0.0000	-5.6511	-0.8179	0.0000	5.6511	0.0929	0.0002	-0.0009
28Y	0.8180	0.0000	-5.6511	-0.8179	-0.0000	5.6511	0.0939	-0.0003	-0.0009
29X	0.4023	0.0000	-2.8054	-0.4022	0.0000	2.8054	0.0826	0.0006	-0.0165
29XY	0.4023	0.0000	-2.8054	-0.4022	0.0000	2.8054	0.0831	0.0004	-0.0012
29Y	0.4023	0.0000	-2.8054	-0.4022	-0.0000	2.8054	0.0841	-0.0006	-0.0012
30X	0.7096	0.0000	-5.0007	-0.7096	0.0000	5.0007	0.0733	0.0007	-0.0159
30XY	0.7096	0.0000	-5.0007	-0.7096	0.0000	5.0007	0.0737	0.0002	-0.0015
30Y	0.7096	0.0000	-5.0007	-0.7096	-0.0000	5.0007	0.0747	-0.0003	-0.0015
31X	0.8386	0.0000	-6.1912	-0.8385	0.0000	6.1912	0.0643	0.0007	-0.0152
31XY	0.8386	0.0000	-6.4412	-0.8895	0.0000	6.4412	0.0647	0.0002	-0.0018
31Y	0.8896	0.0000	-6.4412	-0.8895	-0.0000	6.4412	0.0657	-0.0004	-0.0018
33X	1.2584	0.0000	-10.1147	-1.2584	0.0000	10.1147	0.0359	0.0004	-0.0132
33XY	1.2584	0.0000	-10.1147	-1.2584	0.0000	10.1147	0.0366	0.0005	-0.0021
33Y	1.2584	0.0000	-10.1147	-1.2584	-0.0000	10.1147	0.0374	-0.0006	-0.0021
34X	1.3137	0.0000	-10.9430	-1.3137	0.0000	10.9430	0.0277	0.0004	-0.0126
34XY	1.3137	0.0000	-10.9430	-1.3137	0.0000	10.9430	0.0285	0.0006	-0.0017
34Y	1.3137	0.0000	-10.9430	-1.3137	-0.0000	10.9430	0.0292	-0.0006	-0.0017
35X	1.3880	0.0000	-12.0916	-1.3880	0.0000	12.0916	0.0210	0.0004	-0.0118
35XY	1.3880	0.0000	-12.0916	-1.3880	0.0000	12.0916	0.0219	0.0006	-0.0014
35Y	2.2720	0.0000	-13.1916	-2.2720	-0.0000	13.1916	0.0226	-0.0005	-0.0014
36X	1.7794	0.0000	-13.4921	-1.7794	0.0000	13.4921	0.0155	0.0004	-0.0108
36XY	1.4664	0.0000	-11.7471	-1.4664	0.0000	11.7471	0.0166	0.0008	-0.0012
36Y	1.1424	0.0000	-11.1621	-1.1424	-0.0000	11.1621	0.0171	-0.0006	-0.0012
37X	1.2193	0.0000	-11.3712	-1.2192	0.0000	11.3712	0.0105	0.0005	-0.0098
37XY	0.9353	0.0000	-9.5312	-0.9352	0.0000	9.5312	0.0117	0.0007	-0.0009
37Y	0.9353	0.0000	-9.5312	-0.9352	-0.0000	9.5312	0.0120	-0.0005	-0.0009
38X	0.9877	0.0000	-10.4902	-0.9877	0.0000	10.4902	0.0071	0.0003	-0.0006
38XY	0.9877	0.0000	-10.4902	-0.9877	0.0000	10.4902	0.0084	0.0009	-0.0008
38Y	1.0387	0.0000	-10.7402	-1.0387	-0.0000	10.7402	0.0086	-0.0007	-0.0008
39X	0.9898	0.0000	-11.0252	-0.9898	0.0000	11.0252	0.0037	0.0006	-0.0073
39XY	0.9898	0.0000	-11.0252	-0.9898	0.0000	11.0252	0.0051	0.0008	-0.0006
39Y	1.2738	0.0000	-12.8652	-1.2738	-0.0000	12.8652	0.0053	-0.0007	-0.0006
40X	2.2442	0.0000	-16.4452	-2.2442	0.0000	16.4451	0.0017	0.0003	-0.0056
40XY	0.9702	0.0000	-11.7852	-0.9702	0.0000	11.7852	0.0031	0.0012	-0.0005
40Y	1.6072	0.0000	-14.1152	-1.6072	-0.0000	14.1152	0.0033	-0.0011	-0.0005
41X	0.9981	0.0000	-11.9741	-0.9981	0.0000	11.9741	-0.0005	0.0008	-0.0041
41XY	0.7141	0.0000	-10.1341	-0.7141	0.0000	10.1341	0.0013	0.0009	-0.0003
41Y	0.7141	0.0000	-10.1341	-0.7141	-0.0000	10.1341	0.0013	-0.0009	-0.0003
42X	0.6216	0.0000	-8.5456	-0.6216	0.0000	8.5456	-0.0024	0.0034	-0.0026
42XY	0.6216	0.0000	-8.5456	-0.6216	0.0000	8.5456	0.0053	0.0043	-0.0012
42Y	0.6216	0.0000	-8.5456	-0.6216	-0.0000	8.5456	0.0053	-0.0043	-0.0012

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

 INSTATel COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page 126 of 145
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	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.00	-0.00	0.01	-23.50	69.53	-7.32
1X	-0.00	0.00	0.01	23.74	67.09	7.39
1XY	-0.00	0.00	0.01	34.43	-64.63	10.72
1Y	0.00	0.00	0.01	-33.47	-63.78	-10.42
2P	0.00	23.50	-69.52	26.72	-86.43	20.09
2X	-0.00	-23.74	-67.08	-25.93	-83.71	-19.87
2XY	-0.00	-34.43	64.64	-51.53	92.16	-34.38
2Y	0.00	33.47	63.79	52.30	93.93	34.31
3P	0.01	-26.72	86.44	-18.07	103.30	-17.92
3X	-0.01	25.93	83.72	19.27	98.70	18.08
3XY	-0.01	51.53	-92.15	61.41	-75.51	45.17
3Y	0.01	-52.30	-93.92	-61.12	-80.08	-45.37
4P	0.01	18.07	-103.29	15.93	-93.04	13.60
4X	-0.01	-19.27	-98.69	-13.52	-83.83	-13.11
4XY	-0.01	-61.41	75.52	-84.81	125.04	-58.49
4Y	0.01	61.12	80.09	86.24	135.64	58.94
5P	0.01	-15.93	93.05	4.55	221.48	-4.56
5X	-0.01	13.52	83.84	8.89	202.22	8.96
5XY	-0.01	84.81	-125.03	153.86	-93.37	95.47
5Y	0.01	-86.24	-135.63	-157.33	-120.79	-97.43
6P	0.01	-4.55	-221.47	-27.13	-76.23	-12.67
6X	-0.01	-8.89	-202.21	26.58	-33.62	7.07
6XY	-0.01	-153.86	93.38	-180.86	253.58	-133.89
6Y	0.01	157.33	120.80	195.68	270.05	141.21
7P	0.02	27.13	76.24	168.30	239.83	97.72
7X	-0.01	-26.58	33.63	-60.60	318.28	-43.59
7XY	-0.01	180.86	-253.57	195.98	109.87	188.42
7Y	0.01	-195.68	-270.04	-297.99	-47.34	-246.83
8P	0.02	-168.30	-239.82	-400.13	343.45	-362.06
8X	-0.02	60.60	-318.27	26.31	-82.30	55.36
8XY	-0.02	-195.98	-109.86	-10.64	-70.06	-131.60
8Y	0.02	297.99	47.35	458.96	398.36	482.13
9P	6.80	-525.79	-39.50	-326.09	-107.60	-208.04
9X	-13.00	39.60	75.70	25.77	122.51	15.95
9XY	-9.66	-42.02	56.25	-153.11	130.81	-47.61
9Y	7.26	606.21	-42.23	247.28	-103.28	208.22
10P	24.89	-305.39	157.04	-71.46	299.61	-130.40
10X	-33.53	65.61	-102.04	6.00	247.32	24.78
10XY	-31.64	18.26	-198.27	162.55	-86.94	62.56
10Y	24.62	245.97	103.75	-83.48	12.47	56.22
11P	24.89	71.46	-299.60	-62.17	-44.84	3.72
11X	-33.53	-6.00	-247.31	77.07	-63.24	28.43
11XY	-31.64	-162.55	86.95	-230.06	263.68	-157.05
11Y	24.62	83.48	-12.47	220.67	255.24	121.66
12P	24.90	62.17	44.85	135.82	278.34	79.20
12X	-33.53	-77.07	63.24	-138.99	254.11	-86.42
12XY	-31.65	230.06	-263.67	263.55	8.80	197.45
12Y	24.63	-220.67	-255.23	-249.02	30.17	-187.88
13P	24.90	-135.82	-278.33	-194.13	66.75	-131.98
13X	-33.53	138.99	-254.10	198.62	79.42	135.04
13XY	-31.65	-263.55	-8.80	-284.42	258.52	-219.19
13Y	24.63	249.02	-30.16	291.56	272.09	216.23
14P	24.90	194.13	-66.75	268.54	273.35	185.07

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X	-33.54	-198.62	-79.41	-265.14	244.58	-185.50	66.07
14XY	-31.65	284.42	-258.51	324.91	153.21	243.73	-42.12
14Y	24.63	-291.56	-272.08	-317.59	133.45	-243.66	-55.45
15P	24.90	-268.54	-273.35	-377.18	272.38	-258.29	-0.39
15X	-33.54	265.14	-244.57	390.85	317.29	262.40	29.09
15XY	-31.65	-324.91	-153.21	-360.83	250.32	-274.29	38.84
15Y	24.63	317.59	-133.44	360.53	266.21	271.25	53.11
16P	24.91	377.18	-272.37	620.40	55.34	498.79	-108.52
16X	-33.54	-390.85	-317.28	-640.91	-1.55	-515.88	-159.41
16XY	-31.66	360.83	-250.31	474.68	342.81	417.76	46.25
16Y	24.63	-360.53	-266.20	-453.88	320.14	-407.20	26.97
17P	24.91	-620.40	-55.33	-429.77	750.26	-664.66	439.83
17X	-33.55	640.91	1.56	573.23	908.95	768.44	576.27
17XY	-31.66	-474.68	-342.80	-400.85	742.68	-554.14	253.09
17Y	24.64	453.88	-320.13	312.59	617.72	485.11	188.34
18P	-38.99	-834.40	224.62	-519.39	-75.91	-202.58	22.25
18X	33.68	-1048.05	-237.37	-644.72	65.03	-253.30	-25.79
18XY	36.69	808.60	-240.99	430.85	77.12	185.47	-24.52
18Y	-36.23	657.83	214.11	342.07	-83.06	149.62	19.61
19P	-16.37	-426.49	308.05	-185.86	314.34	-218.69	222.28
19X	14.30	506.67	405.10	209.41	340.34	255.74	266.23
19XY	13.84	-364.25	245.07	-57.51	63.77	-150.63	110.30
19Y	-11.74	305.41	178.35	42.23	43.65	124.16	79.29
20P	-16.37	185.86	-314.33	-11.09	3.33	62.42	-111.07
20X	14.30	-209.41	-340.33	7.74	1.52	-72.03	-121.00
20XY	13.83	57.51	-63.77	-80.35	132.04	-8.16	24.38
20Y	-11.74	-42.23	-43.65	84.14	132.18	14.97	31.62
21P	-16.37	11.09	-3.33	114.33	130.94	46.46	47.26
21X	14.29	-7.74	-1.52	-111.89	146.08	-44.31	53.54
21XY	13.83	80.35	-132.04	141.93	103.86	82.32	-10.44
21Y	-11.74	-84.14	-132.18	-142.72	99.54	-84.02	-12.09
22P	-16.37	-114.34	-130.93	-149.84	106.44	-97.84	-9.07
22X	14.29	111.89	-146.07	149.95	97.12	96.98	-18.13
22XY	13.83	-141.93	-103.85	-194.72	170.28	-124.69	24.60
22Y	-11.74	142.72	-99.54	195.52	166.98	125.27	24.98
23P	-16.36	149.84	-106.43	195.11	345.21	123.20	85.28
23X	14.29	-149.95	-97.11	-194.13	346.90	-122.89	89.21
23XY	13.82	194.72	-170.27	328.61	106.01	186.90	-22.95
23Y	-11.73	-195.52	-166.97	-327.82	106.24	-186.91	-21.69
24P	-16.36	-195.11	-345.21	-234.30	71.28	-153.36	-97.83
24X	14.29	194.13	-346.89	234.82	72.21	153.20	-98.10
24XY	13.82	-328.61	-106.01	-417.84	396.78	-266.59	103.85
24Y	-11.73	327.82	-106.24	419.17	399.75	266.78	104.82
25P	-16.36	234.30	-71.27	294.94	591.90	189.01	185.94
25X	14.28	-234.82	-72.20	-294.64	586.85	-189.09	183.80
25XY	13.82	417.84	-396.78	537.43	176.70	341.17	-78.60
25Y	-11.73	-419.17	-399.74	-535.22	175.09	-340.85	-80.23
26P	-16.36	-294.94	-591.90	-332.26	128.79	-224.00	-165.40
26X	14.28	294.64	-586.85	332.50	128.29	223.98	-163.77
26XY	13.82	-537.43	-176.69	-563.00	517.93	-393.01	121.87
26Y	-11.73	535.22	-175.08	565.13	522.65	392.98	124.13
27P	-16.35	332.26	-128.78	339.37	658.40	244.23	192.59
27X	14.28	-332.50	-128.28	-341.00	655.15	-244.91	191.59
27XY	13.82	563.00	-517.92	530.21	337.79	397.53	-65.50
27Y	-11.72	-565.13	-522.65	-526.26	339.74	-396.87	-66.51
28P	-16.35	-339.37	-658.40	-275.53	45.03	-223.60	-223.04

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X	14.28	341.00	-655.15	278.81	47.26	225.39	-221.05
28XY	13.81	-530.21	-337.79	-362.61	189.69	-324.66	-53.85
28Y	-11.72	526.26	-339.73	361.31	189.09	322.75	-54.78
29P	-16.35	275.53	-45.02	257.56	-10.76	197.44	-20.66
29X	14.27	-278.81	-47.25	-268.64	-24.45	-202.76	-26.56
29XY	13.81	362.61	-189.69	200.38	95.21	208.51	-34.99
29Y	-11.72	-361.31	-189.08	-186.45	104.01	-202.88	-31.51
30P	-16.35	-257.56	10.76	-336.45	1511.69	-104.67	268.27
30X	14.27	268.64	24.45	364.03	1533.60	111.48	274.55
30XY	13.81	-200.38	-95.20	-266.84	1417.35	-82.33	232.98
30Y	-11.72	186.45	-104.01	239.24	1406.48	75.01	229.51
31P	-157.24	-1306.83	816.17	-258.01	-181.13	-243.81	98.94
31X	154.52	-1341.82	-812.58	-270.34	183.10	-251.19	-98.08
31XY	151.77	1190.90	-799.37	184.02	187.71	214.22	-95.30
31Y	-151.72	1163.70	811.38	173.51	-182.27	208.34	98.02
32P	-157.24	258.01	181.13	190.26	-221.35	73.63	-6.61
32X	154.51	270.35	-183.10	190.76	211.10	75.73	4.60
32XY	151.77	-184.02	-187.71	-152.65	211.83	-55.30	3.96
32Y	-151.72	-173.51	182.27	-155.06	-216.97	-53.97	-5.70
33P	-157.23	-190.26	221.35	87.56	-119.53	-16.87	16.72
33X	154.51	-190.76	-211.10	87.33	152.65	-16.99	-9.60
33XY	151.76	152.65	-211.83	-115.42	146.34	6.11	-10.76
33Y	-151.71	155.06	216.97	-105.62	-123.83	8.12	15.30
34P	-157.23	-87.56	119.53	-65.04	-14.70	-25.06	17.22
34X	154.51	-87.33	-152.64	-54.95	28.68	-23.37	-20.36
34XY	151.76	115.42	-146.34	75.00	26.78	31.28	-19.64
34Y	-151.71	105.62	123.83	81.09	-25.93	30.66	16.08
35P	-157.23	65.05	14.70	280.54	-266.95	56.76	-41.43
35X	154.51	54.95	-28.67	243.14	259.74	48.96	37.95
35XY	151.76	-75.00	-26.78	-244.60	259.88	-52.49	38.29
35Y	-151.71	-81.09	25.93	-276.15	-261.16	-58.67	-38.64
36P	-157.23	-280.54	266.95	-188.21	37.71	-76.99	50.04
36X	154.51	-243.14	-259.74	-173.34	-42.39	-68.40	-49.62
36XY	151.76	244.60	-259.88	183.49	-42.08	70.31	-49.60
36Y	-151.71	276.15	261.16	193.12	36.51	77.08	48.89
37P	-157.23	188.21	-37.71	267.74	-167.40	74.89	-33.69
37X	154.51	173.34	42.40	254.91	177.27	70.34	36.08
37XY	151.76	-183.49	42.09	-356.28	169.91	-88.65	34.82
37Y	-151.71	-193.12	-36.51	-360.72	-168.43	-90.97	-33.66
38P	-157.23	-267.74	167.40	-32.02	43.02	-49.23	34.56
38X	154.50	-254.91	-177.27	-23.51	-52.97	-45.73	-37.81
38XY	151.76	356.28	-169.91	582.70	-46.16	154.22	-35.49
38Y	-151.71	360.72	168.43	588.13	44.53	155.84	34.98
39P	-157.23	32.02	-43.02	-573.00	-590.34	-88.85	-104.03
39X	154.50	23.51	52.97	-577.58	606.74	-91.00	108.35
39XY	151.76	-582.70	46.16	-1803.60	600.51	-391.94	106.21
39Y	-151.71	-588.13	-44.53	-1804.15	-598.54	-392.92	-105.62
40P	-157.23	573.00	590.34	1685.16	644.04	370.89	202.74
40X	154.50	577.58	-606.74	1684.67	-650.31	371.56	-206.46
40XY	151.76	1803.60	-600.51	2993.94	-650.58	787.97	-205.49
40Y	-151.71	1804.15	598.54	2992.91	644.45	787.90	204.16
41P	-157.23	-1685.16	-644.04	-2124.20	-749.79	-647.24	-236.82
41X	154.50	-1684.67	650.31	-2120.74	721.62	-646.57	233.10
41XY	151.76	-2993.94	650.58	-3459.65	727.10	-1096.52	234.08
41Y	-151.71	-2992.91	-644.45	-3461.14	-741.06	-1096.60	-235.41

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page 130 of 145
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 6 "LC6 WIND 45° DEFLEX"

Equilibrium Joint Positions and Rotations for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	0.455	0.4473	-0.02312	-0.4697	0.4881	-0.0537	1.105	1.097	150.9
10P	0.3006	0.2975	-0.0215	-0.3888	0.4108	-0.0537	0.9506	0.9475	131.6
11P	0.2754	0.2728	-0.02707	-0.3503	0.3692	-0.0527	1.415	1.413	127.6
19P	0.1627	0.1617	-0.02179	-0.2737	0.2937	-0.0449	1.303	1.302	108.6
20P	0.1419	0.1411	-0.02803	-0.1894	0.2089	-0.0423	2.594	2.593	102.2
32P	0.03539	0.03517	-0.01646	-0.1036	0.1162	-0.0341	2.487	2.487	66.11
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	0.4504	0.4474	-0.01282	-0.4418	0.4485	0.1243	1.1	-0.2026	150.9
1XY	0.4505	0.4415	-0.003063	-0.3949	0.4155	0.0153	-0.1995	-0.2085	150.9
1Y	0.4551	0.4414	-0.0124	-0.4308	0.4599	-0.1506	-0.1949	1.091	150.9
10X	0.3088	0.2978	-0.01226	-0.3965	0.3894	0.1244	0.9588	-0.3522	131.6
10XY	0.309	0.3054	-0.003671	-0.3947	0.4036	0.0154	-0.341	-0.3446	131.6
10Y	0.3008	0.3052	-0.01205	-0.3860	0.4111	-0.1506	-0.3492	0.9552	131.6
11X	0.2803	0.2728	-0.01252	-0.3660	0.4151	0.1304	1.42	-0.8672	127.6
11XY	0.2806	0.2774	0.002963	-0.3842	0.3912	0.0171	-0.8594	-0.8626	127.6
11Y	0.2754	0.2771	-0.01224	-0.4158	0.3735	-0.1535	-0.8646	1.417	127.6
19X	0.1611	0.1625	-0.01141	-0.2379	0.2723	0.1993	1.301	-0.9775	108.6
19XY	0.1612	0.1599	-0.0001152	-0.2792	0.2993	0.0373	-0.9788	-0.9801	108.6
19Y	0.1635	0.1599	-0.01127	-0.2601	0.2444	-0.1922	-0.9765	1.3	108.6
20X	0.1402	0.1407	-0.01068	-0.2127	0.2142	0.1944	2.592	-2.311	102.2
20XY	0.1409	0.1398	0.006875	-0.1791	0.1965	0.0387	-2.311	-2.312	102.2
20Y	0.1415	0.1391	-0.01052	-0.2133	0.2079	-0.1837	-2.31	2.591	102.2
32X	0.0347	0.03612	-0.008179	-0.1086	0.1157	0.1744	2.487	-2.416	66.12
32XY	0.03519	0.03491	0.0001824	-0.1018	0.1139	0.0322	-2.417	-2.417	66.13
32Y	0.03634	0.03443	-0.008118	-0.1077	0.1147	-0.1683	-2.416	2.486	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	0.428	0.4213	-0.02305	-0.4500	0.4674	-0.0537	1.078	1.071	147.7
3S	0.4079	0.4019	-0.02297	-0.4520	0.4687	-0.0537	1.058	1.052	145.2
4S	0.3872	0.3819	-0.02281	-0.4529	0.4681	-0.0537	1.037	1.032	142.7
5S	0.3671	0.3625	-0.02259	-0.4472	0.4609	-0.0537	1.017	1.012	140.2
6S	0.347	0.3429	-0.02235	-0.4434	0.4545	-0.0537	0.997	0.9929	137.7
7S	0.3276	0.324	-0.02203	-0.4264	0.4381	-0.0537	0.9776	0.974	135.2
8S	0.3123	0.3091	-0.02175	-0.4320	0.4366	-0.0537	0.9623	0.9591	133.2
12S	0.2563	0.254	-0.02668	-0.3744	0.3770	-0.0517	1.396	1.394	124.7
13S	0.2402	0.2382	-0.02626	-0.3540	0.3608	-0.0508	1.38	1.378	122.2
14S	0.2247	0.2229	-0.02567	-0.3505	0.3551	-0.0497	1.365	1.363	119.7
15S	0.2094	0.2078	-0.02499	-0.3317	0.3368	-0.0486	1.349	1.348	117.2
16S	0.1951	0.1938	-0.02419	-0.3237	0.3271	-0.0475	1.335	1.334	114.7
17S	0.1811	0.1799	-0.02329	-0.2926	0.2983	-0.0465	1.321	1.32	112.2
18S	0.1711	0.17	-0.02247	-0.3004	0.2981	-0.0456	1.311	1.31	110.2
21S	0.1311	0.1304	-0.0272	-0.2200	0.2166	-0.0411	2.583	2.582	99.37
22S	0.1212	0.1205	-0.02633	-0.1906	0.1937	-0.0399	2.573	2.573	96.57
23S	0.1115	0.1115	-0.0252	-0.1939	0.1946	-0.0385	2.564	2.564	93.87
24S	0.1031	0.1025	-0.02397	-0.1795	0.1809	-0.0371	2.555	2.555	91.18
25S	0.09444	0.09395	-0.02326	-0.1750	0.1759	-0.0366	2.546	2.546	88.38

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.08594	0.08549	-0.02249	-0.1672	0.1684	-0.0361	2.538	2.537	85.58
27S	0.07788	0.07749	-0.02179	-0.1626	0.1634	-0.0358	2.53	2.529	82.78
28S	0.07	0.06963	-0.02105	-0.1556	0.1565	-0.0355	2.522	2.522	79.98
29S	0.06272	0.0624	-0.02025	-0.1488	0.1495	-0.0353	2.515	2.514	77.23
30S	0.05562	0.05532	-0.0194	-0.1437	0.1448	-0.0350	2.508	2.507	74.48
31S	0.0489	0.04863	-0.0185	-0.1447	0.1432	-0.0347	2.501	2.501	71.78
33S	0.02762	0.02745	-0.01596	-0.0494	0.0565	-0.0314	3.25	3.25	59.78
34S	0.02129	0.02116	-0.01532	-0.0515	0.0589	-0.0281	3.975	3.975	53.78
35S	0.01611	0.01602	-0.01445	-0.0369	0.0434	-0.0250	4.701	4.701	47.79
36S	0.01185	0.01182	-0.01333	-0.0359	0.0418	-0.0218	5.428	5.428	41.79
37S	0.007774	0.007785	-0.01217	-0.0249	0.0296	-0.0187	6.155	6.155	35.79
371S	0.007785	0.008365	-0.00908	0.0000	0.0000	0.0000	6.155	0.008365	35.79
372S	0.008354	0.00776	-0.009038	0.0000	0.0000	0.0000	0.008354	6.155	35.79
373S	0.008953	0.008302	-0.002171	0.0000	0.0000	0.0000	-6.138	0.008302	35.8
374S	0.008363	0.008929	-0.00221	0.0000	0.0000	0.0000	0.008363	-6.138	35.8
38S	0.005374	0.005392	-0.01057	-0.0203	0.0242	-0.0156	6.884	6.884	29.79
39S	0.002586	0.002615	-0.008963	-0.0154	0.0186	-0.0125	7.612	7.612	23.79
391S	0.002605	0.003333	-0.006916	0.0000	0.0000	0.0000	7.612	0.003333	23.79
392S	0.003305	0.002606	-0.006886	0.0000	0.0000	0.0000	0.003305	7.612	23.79
393S	0.004056	0.003302	-0.001612	0.0000	0.0000	0.0000	-7.606	0.003302	23.8
394S	0.003329	0.004056	-0.001645	0.0000	0.0000	0.0000	0.003329	-7.606	23.8
40S	0.001381	0.001428	-0.006927	-0.0068	0.0092	-0.0093	8.342	8.342	17.79
41S	-0.0005846	-0.0005382	-0.005004	-0.0248	0.0262	-0.0062	9.071	9.072	11.79
411S	-0.0005707	0.0003188	-0.003015	0.0000	0.0000	0.0000	9.071	0.0003188	11.8
412S	0.0002724	-0.000547	-0.003003	0.0000	0.0000	0.0000	0.0002724	9.072	11.8
413S	0.00116	0.0002899	-0.001911	0.0000	0.0000	0.0000	-9.071	0.0002899	11.8
414S	0.0002886	0.001184	-0.001921	0.0000	0.0000	0.0000	0.0002886	-9.071	11.8
42S	-0.002478	-0.002459	-0.003011	0.0158	-0.0154	-0.0031	9.801	9.801	5.797
2X	0.4257	0.4223	-0.01277	-0.4611	0.4241	0.1243	1.076	-0.2277	147.7
2XY	0.4268	0.4189	-0.003024	-0.4214	0.4393	0.0153	-0.2232	-0.2311	147.7
2Y	0.429	0.4178	-0.01235	-0.4045	0.4787	-0.1506	-0.221	1.068	147.7
3X	0.4073	0.402	-0.01273	-0.4575	0.4321	0.1244	1.057	-0.248	145.2
3XY	0.4075	0.4004	-0.003029	-0.4114	0.4299	0.0153	-0.2425	-0.2496	145.2
3Y	0.408	0.4003	-0.01234	-0.4147	0.4739	-0.1506	-0.242	1.05	145.2
4X	0.3882	0.3824	-0.01266	-0.4518	0.4263	0.1244	1.038	-0.2676	142.7
4XY	0.3891	0.3828	-0.003054	-0.4142	0.4305	0.0153	-0.2609	-0.2672	142.7
4Y	0.3877	0.3818	-0.0123	-0.4086	0.4672	-0.1506	-0.2623	1.032	142.7
5X	0.37	0.3626	-0.01258	-0.4460	0.4310	0.1244	1.02	-0.2874	140.2
5XY	0.3701	0.3645	-0.003121	-0.3974	0.4155	0.0153	-0.2799	-0.2855	140.2
5Y	0.3672	0.3644	-0.01225	-0.4175	0.4593	-0.1506	-0.2828	1.014	140.2
6X	0.3512	0.3433	-0.0125	-0.4419	0.4161	0.1244	1.001	-0.3067	137.7
6XY	0.3522	0.3473	-0.003213	-0.4060	0.4202	0.0153	-0.2978	-0.3027	137.7
6Y	0.3474	0.3462	-0.0122	-0.4001	0.4534	-0.1506	-0.3026	0.9962	137.7
7X	0.3336	0.3241	-0.01241	-0.4337	0.4088	0.1244	0.9836	-0.3259	135.2
7XY	0.3337	0.3294	-0.003364	-0.3925	0.4062	0.0154	-0.3163	-0.3206	135.2
7Y	0.3277	0.3292	-0.01215	-0.3974	0.4442	-0.1506	-0.3223	0.9792	135.2
8X	0.3193	0.3091	-0.01233	-0.4238	0.3927	0.1244	0.9693	-0.3409	133.2
8XY	0.3199	0.3161	-0.003511	-0.3823	0.3939	0.0154	-0.3301	-0.3339	133.2
8Y	0.3124	0.3154	-0.01209	-0.3780	0.4312	-0.1506	-0.3376	0.9654	133.2
12X	0.2602	0.2543	-0.01241	-0.3667	0.3844	0.1396	1.4	-0.8857	124.7
12XY	0.261	0.2582	0.002803	-0.3874	0.3943	0.0198	-0.879	-0.8818	124.7
12Y	0.2565	0.2573	-0.01215	-0.3749	0.3726	-0.1587	-0.8835	1.397	124.7
13X	0.2436	0.2384	-0.01231	-0.3623	0.3855	0.1475	1.384	-0.9016	122.2
13XY	0.2438	0.2413	0.00261	-0.3768	0.3838	0.0221	-0.8962	-0.8987	122.2
13Y	0.2404	0.241	-0.01207	-0.3797	0.3678	-0.1632	-0.8996	1.381	122.2
14X	0.2266	0.2228	-0.01218	-0.3467	0.3747	0.1571	1.367	-0.9172	119.7

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	0.2275	0.2253	0.002319	-0.3695	0.3755	0.0249	-0.9125	-0.9147	119.7
14Y	0.2246	0.2244	-0.01196	-0.3682	0.3520	-0.1685	-0.9154	1.364	119.7
15X	0.2109	0.208	-0.01204	-0.3387	0.3643	0.1666	1.351	-0.932	117.2
15XY	0.2111	0.2091	0.00195	-0.3560	0.3618	0.0277	-0.9289	-0.9309	117.2
15Y	0.2096	0.2089	-0.01184	-0.3588	0.3430	-0.1739	-0.9304	1.349	117.2
16X	0.1949	0.1934	-0.01188	-0.3175	0.3477	0.1761	1.335	-0.9466	114.7
16XY	0.196	0.1942	0.00148	-0.3437	0.3484	0.0305	-0.944	-0.9458	114.7
16Y	0.1948	0.1932	-0.01169	-0.3426	0.3219	-0.1792	-0.9452	1.333	114.7
17X	0.1805	0.1801	-0.0117	-0.3090	0.3289	0.1856	1.321	-0.9599	112.2
17XY	0.1808	0.1793	0.000905	-0.3208	0.3272	0.0333	-0.9592	-0.9607	112.2
17Y	0.1813	0.179	-0.01153	-0.3239	0.3123	-0.1845	-0.9587	1.319	112.2
18X	0.1691	0.1695	-0.01153	-0.2791	0.3110	0.1933	1.309	-0.9705	110.2
18XY	0.1699	0.1685	0.000365	-0.3165	0.3155	0.0355	-0.9701	-0.9715	110.2
18Y	0.1706	0.1677	-0.01138	-0.3087	0.2821	-0.1888	-0.9694	1.308	110.2
21X	0.1298	0.1309	-0.01046	-0.1992	0.2070	0.1914	2.582	-2.321	99.39
21XY	0.1306	0.1295	0.006464	-0.2179	0.2156	0.0378	-2.321	-2.322	99.41
21Y	0.1317	0.1288	-0.01031	-0.2046	0.2026	-0.1814	-2.32	2.581	99.39
22X	0.1199	0.1209	-0.01023	-0.2067	0.2028	0.1884	2.572	-2.331	96.59
22XY	0.1204	0.1195	0.005997	-0.1950	0.1983	0.0368	-2.332	-2.333	96.61
22Y	0.1216	0.119	-0.01009	-0.2013	0.2074	-0.1791	-2.33	2.571	96.59
23X	0.1105	0.1115	-0.009951	-0.1885	0.1906	0.1849	2.562	-2.34	93.89
23XY	0.1114	0.1105	0.00539	-0.1923	0.1934	0.0357	-2.341	-2.342	93.91
23Y	0.1121	0.1096	-0.009825	-0.1887	0.1901	-0.1764	-2.34	2.562	93.89
24X	0.1019	0.103	-0.009664	-0.1807	0.1833	0.1815	2.554	-2.349	91.19
24XY	0.1024	0.1016	0.004703	-0.1754	0.1775	0.0345	-2.35	-2.35	91.2
24Y	0.1035	0.1011	-0.009551	-0.1824	0.1814	-0.1737	-2.348	2.553	91.19
25X	0.09302	0.09422	-0.009504	-0.1744	0.1740	0.1803	2.545	-2.358	88.39
25XY	0.09386	0.09314	0.004303	-0.1748	0.1759	0.0341	-2.358	-2.359	88.4
25Y	0.09473	0.09227	-0.009398	-0.1723	0.1756	-0.1728	-2.357	2.544	88.39
26X	0.08481	0.08594	-0.009339	-0.1685	0.1694	0.1791	2.537	-2.366	85.59
26XY	0.08531	0.08463	0.003856	-0.1648	0.1667	0.0338	-2.367	-2.367	85.6
26Y	0.08638	0.08415	-0.009241	-0.1685	0.1692	-0.1719	-2.366	2.536	85.59
27X	0.07657	0.07778	-0.009193	-0.1622	0.1622	0.1785	2.529	-2.374	82.79
27XY	0.07738	0.0768	0.003451	-0.1616	0.1628	0.0335	-2.375	-2.375	82.8
27Y	0.0782	0.07594	-0.0091	-0.1608	0.1631	-0.1714	-2.374	2.528	82.79
28X	0.06894	0.07008	-0.009043	-0.1566	0.1563	0.1778	2.521	-2.382	79.99
28XY	0.06944	0.06889	0.003003	-0.1549	0.1561	0.0333	-2.383	-2.383	80
28Y	0.07044	0.0684	-0.008955	-0.1550	0.1573	-0.1709	-2.382	2.52	79.99
29X	0.06144	0.06264	-0.008885	-0.1491	0.1497	0.1771	2.513	-2.389	77.24
29XY	0.06226	0.0618	0.002525	-0.1471	0.1483	0.0331	-2.39	-2.39	77.25
29Y	0.06298	0.06093	-0.008803	-0.1487	0.1498	-0.1703	-2.389	2.513	77.24
30X	0.05459	0.05575	-0.008723	-0.1425	0.1415	0.1764	2.507	-2.396	74.49
30XY	0.05512	0.05469	0.002002	-0.1445	0.1458	0.0329	-2.397	-2.397	74.5
30Y	0.05604	0.05417	-0.008647	-0.1396	0.1436	-0.1698	-2.396	2.506	74.49
31X	0.04783	0.04898	-0.008554	-0.1431	0.1434	0.1758	2.5	-2.403	71.79
31XY	0.04842	0.04805	0.00145	-0.1420	0.1414	0.0327	-2.404	-2.404	71.8
31Y	0.04925	0.04745	-0.008484	-0.1439	0.1423	-0.1693	-2.403	2.499	71.79
33X	0.02655	0.02774	-0.007679	-0.0858	0.0813	0.1621	3.249	-3.195	59.79
33XY	0.02754	0.02733	0.0006326	-0.0489	0.0557	0.0296	-3.195	-3.195	59.8
33Y	0.02791	0.02634	-0.007613	-0.0818	0.0840	-0.1565	-3.195	3.249	59.79
34X	0.02047	0.02168	-0.007186	-0.0701	0.0700	0.1470	3.974	-3.932	53.79
34XY	0.02152	0.02136	0.000925	-0.0499	0.0570	0.0265	-3.932	-3.933	53.8
34Y	0.02181	0.02031	-0.007117	-0.0684	0.0703	-0.1420	-3.932	3.974	53.79
35X	0.01555	0.01676	-0.006645	-0.0590	0.0578	0.1316	4.701	-4.668	47.79
35XY	0.01659	0.01647	0.001093	-0.0358	0.0418	0.0236	-4.669	-4.669	47.8
35Y	0.01686	0.01544	-0.006572	-0.0570	0.0589	-0.1271	-4.668	4.701	47.79

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.0114	0.01265	-0.006061	-0.0525	0.0509	0.1149	5.428	-5.404	41.79
36XY	0.0127	0.01261	0.001111	-0.0339	0.0392	0.0206	-5.404	-5.404	41.8
36Y	0.01267	0.01131	-0.005978	-0.0501	0.0526	-0.1110	-5.404	5.428	41.79
37X	0.007782	0.008972	-0.0054	-0.0426	0.0411	0.0990	6.155	-6.138	35.79
37XY	0.008964	0.008903	0.001245	-0.0246	0.0291	0.0177	-6.138	-6.139	35.8
37Y	0.008955	0.007721	-0.005318	-0.0405	0.0423	-0.0957	-6.138	6.155	35.79
38X	0.005087	0.006362	-0.00471	-0.0341	0.0333	0.0827	6.884	-6.872	29.8
38XY	0.006654	0.00661	0.001074	-0.0215	0.0252	0.0147	-6.872	-6.872	29.8
38Y	0.006348	0.005041	-0.004643	-0.0328	0.0337	-0.0799	-6.872	6.884	29.8
39X	0.002609	0.004075	-0.003944	-0.0266	0.0292	0.0658	7.612	-7.606	23.8
39XY	0.004072	0.004045	0.001034	-0.0131	0.0162	0.0118	-7.606	-7.606	23.8
39Y	0.004052	0.002581	-0.003887	-0.0288	0.0265	-0.0636	-7.606	7.612	23.8
40X	0.0008131	0.002296	-0.00311	-0.0296	0.0151	0.0489	8.342	-8.339	17.8
40XY	0.002826	0.002814	0.0007162	-0.0218	0.0240	0.0088	-8.338	-8.338	17.8
40Y	0.002247	0.0007935	-0.003054	-0.0147	0.0295	-0.0472	-8.339	8.342	17.8
41X	-0.0005768	0.001218	-0.002206	0.0209	0.0319	0.0347	9.071	-9.071	11.8
41XY	0.001182	0.001183	0.0006019	0.0285	-0.0270	0.0058	-9.071	-9.071	11.8
41Y	0.001165	-0.0005751	-0.002159	-0.0316	-0.0212	-0.0336	-9.071	9.071	11.8
42X	-0.003108	0.004565	-0.001929	-0.0207	-0.0121	0.0166	9.8	-9.799	5.798
42XY	0.005189	0.005192	-0.0008446	-0.0166	0.0173	0.0029	-9.798	-9.798	5.799
42Y	0.004544	-0.003104	-0.001906	0.0121	0.0203	-0.0161	-9.799	9.8	5.798

Joint Support Reactions for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Z Usage %	Comp. Usage %	Uplift Result. (kN)	Result. Usage %	X X-M. Moment (kN-m)	X X-M. Usage %	Y Y-M. Moment (kN-m)	Y Y-M. Usage %	Z Z-M. Moment (kN-m)	Z Z-M. Usage %	Max. Usage %
ANP	-91.30	0.0	-91.93	0.0	634.26	0.0	0.0	647.36	0.0	-1.29	0.0	1.3	0.0	0.04	0.0	0.0
ANX	-31.40	0.0	38.21	0.0	259.93	0.0	0.0	264.59	0.0	2.74	0.0	1.2	0.0	-0.02	0.0	0.0
ANXY	-21.52	0.0	-21.62	0.0	-113.28	0.0	0.0	117.32	0.0	2.65	0.0	-2.7	0.0	-0.03	0.0	0.0
ANY	38.08	0.0	-30.80	0.0	255.57	0.0	0.0	260.22	0.0	-1.21	0.0	-2.7	0.0	0.01	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	0.3282	0.3282	-3.3754	-0.3277	-0.3277	3.3754	0.4550	0.4473	-0.0231
10P	0.3693	0.3693	-2.5668	-0.3690	-0.3690	2.5668	0.3006	0.2975	-0.0215
11P	1.8873	1.8873	-10.0451	-1.8870	-1.8870	10.0450	0.2754	0.2728	-0.0271
19P	0.5502	0.5502	-3.9796	-0.5500	-0.5500	3.9796	0.1627	0.1617	-0.0218
20P	0.7648	0.7648	-5.7288	-0.7647	-0.7647	5.7288	0.1419	0.1411	-0.0280
32P	0.8681	0.8681	-9.0478	-0.8680	-0.8680	9.0477	0.0354	0.0352	-0.0165
ANP	0.2754	0.2754	-5.0810	91.0246	91.6594	-629.1809	0.0000	0.0000	0.0000
1X	0.3282	0.3282	-3.3754	-0.3277	-0.3277	3.3754	0.4504	0.4474	-0.0128
1XY	0.3282	0.3282	-3.3754	-0.3277	-0.3277	3.3754	0.4505	0.4415	-0.0031
1Y	0.1702	0.1702	-1.9954	-0.1697	-0.1697	1.9954	0.4551	0.4414	-0.0124
10X	0.3693	0.3693	-2.5668	-0.3690	-0.3690	2.5668	0.3088	0.2978	-0.0123
10XY	0.5273	0.5273	-3.9468	-0.5270	-0.5270	3.9468	0.3090	0.3054	-0.0037
10Y	0.3693	0.3693	-2.5668	-0.3690	-0.3690	2.5668	0.3008	0.3052	-0.0121
11X	0.4593	0.4593	-3.3251	-0.4590	-0.4590	3.3251	0.2803	0.2728	-0.0125
11XY	1.8873	1.8873	-10.0451	-1.8870	-1.8870	10.0451	0.2806	0.2774	-0.0030
11Y	0.4593	0.4593	-3.3251	-0.4590	-0.4590	3.3251	0.2754	0.2771	-0.0122

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19X	0.5502	0.5502	-3.9796	-0.5500	-0.5500	3.9796	0.1611	0.1625	-0.0114
19XY	0.5502	0.5502	-3.9796	-0.5500	-0.5500	3.9796	0.1612	0.1599	-0.0001
19Y	0.5502	0.5502	-3.9796	-0.5500	-0.5500	3.9796	0.1635	0.1599	-0.0113
20X	0.7648	0.7648	-5.7288	-0.7647	-0.7647	5.7288	0.1402	0.1407	-0.0107
20XY	0.6858	0.6858	-4.9488	-0.6857	-0.6857	4.9488	0.1409	0.1398	0.0069
20Y	0.6858	0.6858	-4.9488	-0.6857	-0.6857	4.9488	0.1415	0.1391	-0.0105
32X	0.8681	0.8681	-9.0478	-0.8680	-0.8680	9.0477	0.0347	0.0361	-0.0082
32XY	0.8681	0.8681	-9.0478	-0.8680	-0.8680	9.0478	0.0352	0.0349	0.0002
32Y	0.8681	0.8681	-9.0478	-0.8680	-0.8680	9.0477	0.0363	0.0344	-0.0081
ANX	0.2754	0.2754	-5.0810	31.1238	-38.4847	-254.8490	0.0000	0.0000	0.0000
ANXY	0.2754	0.2754	-5.0810	21.2433	21.3432	118.3632	0.0000	0.0000	0.0000
ANY	0.2754	0.2754	-5.0810	-38.3515	30.5224	-250.4868	0.0000	0.0000	0.0000
2S	0.3282	0.3282	-2.3754	-0.3277	-0.3278	2.3754	0.4280	0.4213	-0.0230
3S	0.3266	0.3266	-1.9332	-0.3262	-0.3262	1.9332	0.4079	0.4019	-0.0230
4S	0.3144	0.3144	-2.3178	-0.3141	-0.3141	2.3178	0.3872	0.3819	-0.0228
5S	0.3280	0.3280	-1.9996	-0.3276	-0.3276	1.9996	0.3671	0.3625	-0.0226
6S	0.1715	0.1715	-1.0618	-0.1712	-0.1712	1.0618	0.3470	0.3429	-0.0223
7S	0.3012	0.3012	-1.8771	-0.3009	-0.3009	1.8770	0.3276	0.3240	-0.0220
8S	0.1297	0.1297	-0.8152	-0.1294	-0.1294	0.8152	0.3123	0.3091	-0.0218
12S	0.9337	0.9337	-4.9335	-0.9334	-0.9334	4.9334	0.2563	0.2540	-0.0267
13S	0.4230	0.4230	-2.9269	-0.4228	-0.4228	2.9269	0.2402	0.2382	-0.0263
14S	0.2823	0.2823	-2.1334	-0.2821	-0.2821	2.1334	0.2247	0.2229	-0.0257
15S	0.4832	0.4832	-3.4868	-0.4830	-0.4830	3.4868	0.2094	0.2078	-0.0250
16S	0.2009	0.2009	-1.3534	-0.2007	-0.2007	1.3534	0.1951	0.1938	-0.0242
17S	0.4305	0.4305	-3.1482	-0.4303	-0.4303	3.1482	0.1811	0.1799	-0.0233
18S	0.2296	0.2296	-1.7948	-0.2295	-0.2295	1.7948	0.1711	0.1700	-0.0225
21S	0.2863	0.2863	-1.9840	-0.2861	-0.2861	1.9839	0.1311	0.1304	-0.0272
22S	1.2057	1.2057	-5.6507	-1.2056	-1.2056	5.6507	0.1212	0.1205	-0.0263
23S	0.9194	0.9194	-3.6668	-0.9193	-0.9193	3.6668	0.1121	0.1115	-0.0252
24S	0.5873	0.5873	-4.4346	-0.5872	-0.5872	4.4346	0.1031	0.1025	-0.0240
25S	0.3039	0.3039	-2.5678	-0.3038	-0.3038	2.5678	0.0944	0.0940	-0.0233
26S	0.6202	0.6202	-5.4135	-0.6201	-0.6201	5.4135	0.0859	0.0855	-0.0225
27S	0.3163	0.3163	-2.8457	-0.3163	-0.3163	2.8457	0.0779	0.0775	-0.0218
28S	0.6226	0.6226	-5.6511	-0.6225	-0.6225	5.6511	0.0700	0.0696	-0.0210
29S	0.3423	0.3423	-3.0554	-0.3422	-0.3422	3.0554	0.0627	0.0624	-0.0203
30S	0.5420	0.5420	-5.0007	-0.5420	-0.5420	5.0007	0.0556	0.0553	-0.0194
31S	0.6341	0.6341	-6.1912	-0.6340	-0.6340	6.1912	0.0489	0.0486	-0.0185
33S	0.9398	0.9398	-10.1147	-0.9398	-0.9398	10.1147	0.0276	0.0275	-0.0160
34S	0.9774	0.9774	-10.9430	-0.9774	-0.9774	10.9430	0.0213	0.0212	-0.0153
35S	2.8343	2.8343	-17.2016	-2.8343	-2.8343	17.2016	0.0161	0.0160	-0.0144
36S	2.6480	2.6480	-16.2721	-2.6480	-2.6480	16.2721	0.0118	0.0118	-0.0133
37S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0078	0.0078	-0.0122
371S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0078	0.0084	-0.0091
372S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0084	0.0078	-0.0090
373S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0090	0.0083	-0.0022
374S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0084	0.0089	-0.0022
38S	0.7292	0.7292	-10.4902	-0.7292	-0.7292	10.4902	0.0054	0.0054	-0.0106
39S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0026	0.0026	-0.0090
391S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0026	0.0033	-0.0069
392S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0033	0.0026	-0.0069
393S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0041	0.0033	-0.0016
394S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0033	0.0041	-0.0016
40S	1.5176	1.5176	-14.7552	-1.5176	-1.5176	14.7551	0.0014	0.0014	-0.0069
41S	1.3223	1.3223	-13.1041	-1.3223	-1.3223	13.1041	-0.0006	-0.0005	-0.0050
411S	0.6215	0.6215	-11.7505	-0.6215	-0.6215	11.7505	-0.0006	0.0003	-0.0030
412S	0.6215	0.6215	-11.7505	-0.6215	-0.6215	11.7505	0.0003	-0.0005	-0.0030

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413S	0.6215	0.6215	-11.7505	-0.6215	-0.6215	11.7505	0.0012	0.0003	-0.0019
414S	0.6215	0.6215	-11.7505	-0.6215	-0.6215	11.7505	0.0003	0.0012	-0.0019
42S	0.4495	0.4495	-8.5456	-0.4495	-0.4495	8.5456	-0.0025	-0.0025	-0.0030
2X	0.3282	0.3282	-2.3754	-0.3278	-0.3278	2.3754	0.4257	0.4223	-0.0128
2XY	0.3282	0.3282	-2.3754	-0.3277	-0.3278	2.3754	0.4268	0.4189	-0.0030
2Y	0.1702	0.1702	-0.9954	-0.1697	-0.1698	0.9954	0.4290	0.4178	-0.0124
3X	0.3266	0.3266	-1.9332	-0.3262	-0.3262	1.9332	0.4073	0.4020	-0.0127
3XY	0.3266	0.3266	-1.9332	-0.3262	-0.3262	1.9332	0.4075	0.4004	-0.0030
3Y	0.3266	0.3266	-1.9332	-0.3262	-0.3262	1.9332	0.4080	0.4003	-0.0123
4X	0.3144	0.3144	-2.3178	-0.3141	-0.3141	2.3178	0.3882	0.3824	-0.0127
4XY	0.3144	0.3144	-2.3178	-0.3141	-0.3141	2.3178	0.3891	0.3828	-0.0031
4Y	0.1564	0.1564	-0.9378	-0.1561	-0.1561	0.9378	0.3877	0.3818	-0.0123
5X	0.4860	0.4860	-3.3796	-0.4856	-0.4856	3.3796	0.3700	0.3626	-0.0126
5XY	0.4860	0.4860	-3.3796	-0.4856	-0.4856	3.3796	0.3701	0.3645	-0.0031
5Y	0.3280	0.3280	-1.9996	-0.3276	-0.3276	1.9996	0.3672	0.3644	-0.0122
6X	0.3295	0.3295	-2.4418	-0.3292	-0.3292	2.4418	0.3512	0.3433	-0.0125
6XY	0.3295	0.3295	-2.4418	-0.3292	-0.3292	2.4418	0.3522	0.3473	-0.0032
6Y	0.1715	0.1715	-1.0618	-0.1712	-0.1712	1.0618	0.3474	0.3462	-0.0122
7X	0.3012	0.3012	-1.8771	-0.3009	-0.3009	1.8770	0.3336	0.3241	-0.0124
7XY	0.3012	0.3012	-1.8771	-0.3009	-0.3009	1.8771	0.3337	0.3294	-0.0034
7Y	0.3012	0.3012	-1.8771	-0.3009	-0.3009	1.8770	0.3277	0.3292	-0.0121
8X	0.2877	0.2877	-2.1952	-0.2874	-0.2874	2.1952	0.3193	0.3091	-0.0123
8XY	0.2877	0.2877	-2.1952	-0.2874	-0.2874	2.1952	0.3199	0.3161	-0.0035
8Y	0.1297	0.1297	-0.8152	-0.1294	-0.1294	0.8152	0.3124	0.3154	-0.0121
12X	0.2197	0.2197	-1.5735	-0.2194	-0.2194	1.5735	0.2602	0.2543	-0.0124
12XY	0.9337	0.9337	-4.9335	-0.9334	-0.9334	4.9335	0.2610	0.2582	-0.0028
12Y	0.2197	0.2197	-1.5735	-0.2194	-0.2194	1.5735	0.2565	0.2573	-0.0121
13X	0.4230	0.4230	-2.9269	-0.4228	-0.4228	2.9269	0.2436	0.2384	-0.0123
13XY	1.1370	1.1370	-6.2869	-1.1368	-1.1368	6.2869	0.2438	0.2413	-0.0026
13Y	0.4230	0.4230	-2.9269	-0.4228	-0.4228	2.9269	0.2404	0.2410	-0.0121
14X	0.2823	0.2823	-2.1334	-0.2821	-0.2821	2.1334	0.2266	0.2228	-0.0122
14XY	0.9173	0.9173	-4.7134	-0.9171	-0.9171	4.7134	0.2275	0.2253	-0.0023
14Y	0.2823	0.2823	-2.1334	-0.2821	-0.2821	2.1334	0.2246	0.2244	-0.0120
15X	0.4832	0.4832	-3.4868	-0.4830	-0.4830	3.4868	0.2109	0.2080	-0.0120
15XY	0.4042	0.4042	-2.7068	-0.4040	-0.4040	2.7068	0.2111	0.2091	-0.0019
15Y	0.4832	0.4832	-3.4868	-0.4830	-0.4830	3.4868	0.2096	0.2089	-0.0118
16X	0.2009	0.2009	-1.3534	-0.2007	-0.2007	1.3534	0.1949	0.1934	-0.0119
16XY	0.2009	0.2009	-1.3534	-0.2007	-0.2007	1.3534	0.1960	0.1942	-0.0015
16Y	0.2009	0.2009	-1.3534	-0.2007	-0.2007	1.3534	0.1948	0.1932	-0.0117
17X	0.4305	0.4305	-3.1482	-0.4303	-0.4303	3.1482	0.1805	0.1801	-0.0117
17XY	0.3515	0.3515	-2.3682	-0.3513	-0.3513	2.3682	0.1808	0.1793	-0.0009
17Y	0.4305	0.4305	-3.1482	-0.4303	-0.4303	3.1482	0.1813	0.1790	-0.0115
18X	0.2296	0.2296	-1.7948	-0.2295	-0.2295	1.7948	0.1691	0.1695	-0.0115
18XY	0.1506	0.1506	-1.0148	-0.1505	-0.1505	1.0148	0.1699	0.1685	-0.0004
18Y	0.2296	0.2296	-1.7948	-0.2295	-0.2295	1.7948	0.1706	0.1677	-0.0114
21X	0.2863	0.2863	-1.9840	-0.2861	-0.2861	1.9840	0.1298	0.1309	-0.0105
21XY	0.2863	0.2863	-1.9840	-0.2861	-0.2861	1.9840	0.1306	0.1295	-0.0065
21Y	0.2863	0.2863	-1.9840	-0.2861	-0.2861	1.9840	0.1317	0.1288	-0.0103
22X	0.5697	0.5697	-3.8507	-0.5696	-0.5696	3.8507	0.1199	0.1209	-0.0102
22XY	0.8877	0.8877	-4.7507	-0.8876	-0.8876	4.7507	0.1204	0.1195	-0.0060
22Y	0.5697	0.5697	-3.8507	-0.5696	-0.5696	3.8507	0.1216	0.1190	-0.0101
23X	0.2834	0.2834	-1.8668	-0.2833	-0.2833	1.8668	0.1105	0.1115	-0.0100
23XY	0.2834	0.2834	-1.8668	-0.2833	-0.2833	1.8668	0.1114	0.1105	-0.0054
23Y	0.2834	0.2834	-1.8668	-0.2833	-0.2833	1.8668	0.1121	0.1096	-0.0098
24X	0.5873	0.5873	-4.4346	-0.5872	-0.5872	4.4346	0.1019	0.1030	-0.0097
24XY	0.5873	0.5873	-4.4346	-0.5872	-0.5872	4.4346	0.1024	0.1016	-0.0047

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	0.5873	0.5873	-4.4346	-0.5872	-0.5872	4.4346	0.1035	0.1011	-0.0096
25X	0.3039	0.3039	-2.5678	-0.3038	-0.3038	2.5678	0.0930	0.0942	-0.0095
25XY	0.3039	0.3039	-2.5678	-0.3038	-0.3038	2.5678	0.0939	0.0931	0.0043
25Y	0.3039	0.3039	-2.5678	-0.3038	-0.3038	2.5678	0.0947	0.0923	-0.0094
26X	0.6202	0.6202	-5.4135	-0.6201	-0.6201	5.4135	0.0848	0.0859	-0.0093
26XY	0.6202	0.6202	-5.4135	-0.6201	-0.6201	5.4136	0.0853	0.0846	0.0039
26Y	0.6202	0.6202	-5.4135	-0.6201	-0.6202	5.4135	0.0864	0.0841	-0.0092
27X	0.3163	0.3163	-2.8457	-0.3163	-0.3163	2.8457	0.0766	0.0778	-0.0092
27XY	0.3163	0.3163	-2.8457	-0.3163	-0.3163	2.8457	0.0774	0.0768	0.0035
27Y	0.3163	0.3163	-2.8457	-0.3163	-0.3163	2.8457	0.0782	0.0759	-0.0091
28X	0.6226	0.6226	-5.6511	-0.6225	-0.6225	5.6511	0.0689	0.0701	-0.0090
28XY	0.6226	0.6226	-5.6511	-0.6225	-0.6225	5.6511	0.0694	0.0689	0.0030
28Y	0.6226	0.6226	-5.6511	-0.6225	-0.6225	5.6511	0.0704	0.0684	-0.0090
29X	0.3063	0.3063	-2.8054	-0.3062	-0.3062	2.8054	0.0614	0.0626	-0.0089
29XY	0.3063	0.3063	-2.8054	-0.3062	-0.3062	2.8054	0.0623	0.0618	0.0025
29Y	0.3063	0.3063	-2.8054	-0.3062	-0.3062	2.8054	0.0630	0.0609	-0.0088
30X	0.5420	0.5420	-5.0007	-0.5420	-0.5420	5.0007	0.0546	0.0557	-0.0087
30XY	0.5420	0.5420	-5.0007	-0.5420	-0.5420	5.0007	0.0551	0.0547	0.0020
30Y	0.5420	0.5420	-5.0007	-0.5420	-0.5420	5.0007	0.0560	0.0542	-0.0086
31X	0.6341	0.6341	-6.1912	-0.6340	-0.6340	6.1912	0.0478	0.0490	-0.0086
31XY	0.6701	0.6701	-6.4412	-0.6700	-0.6700	6.4412	0.0484	0.0480	0.0014
31Y	0.6701	0.6701	-6.4412	-0.6700	-0.6700	6.4412	0.0492	0.0474	-0.0085
33X	0.9398	0.9398	-10.1147	-0.9398	-0.9398	10.1147	0.0265	0.0277	-0.0077
33XY	0.9398	0.9398	-10.1147	-0.9398	-0.9398	10.1147	0.0275	0.0273	0.0006
33Y	0.9398	0.9398	-10.1147	-0.9398	-0.9398	10.1147	0.0279	0.0263	-0.0076
34X	0.9774	0.9774	-10.9430	-0.9774	-0.9774	10.9430	0.0205	0.0217	-0.0072
34XY	0.9774	0.9774	-10.9430	-0.9774	-0.9774	10.9430	0.0215	0.0214	0.0009
34Y	0.9774	0.9774	-10.9430	-0.9774	-0.9774	10.9430	0.0218	0.0203	-0.0071
35X	1.0303	1.0303	-12.0916	-1.0303	-1.0303	12.0916	0.0155	0.0168	-0.0066
35XY	1.0303	1.0303	-12.0916	-1.0303	-1.0303	12.0916	0.0166	0.0165	0.0011
35Y	1.6553	1.6553	-13.1916	-1.6553	-1.6553	13.1916	0.0169	0.0154	-0.0066
36X	1.2950	1.2950	-13.4921	-1.2950	-1.2950	13.4921	0.0114	0.0127	-0.0061
36XY	1.0730	1.0730	-11.7471	-1.0730	-1.0730	11.7471	0.0127	0.0126	0.0011
36Y	0.8440	0.8440	-11.1621	-0.8440	-0.8440	11.1621	0.0127	0.0113	-0.0060
37X	0.8895	0.8895	-11.3712	-0.8895	-0.8895	11.3712	0.0078	0.0090	-0.0054
37XY	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0090	0.0089	0.0012
37Y	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0090	0.0077	-0.0053
38X	0.7292	0.7292	-10.4902	-0.7292	-0.7292	10.4902	0.0051	0.0064	-0.0047
38XY	0.7292	0.7292	-10.4902	-0.7292	-0.7292	10.4902	0.0067	0.0066	0.0011
38Y	0.7652	0.7652	-10.7402	-0.7652	-0.7652	10.7402	0.0063	0.0050	-0.0046
39X	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0026	0.0041	-0.0039
39XY	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0041	0.0040	0.0010
39Y	0.9303	0.9303	-12.8652	-0.9303	-0.9303	12.8652	0.0041	0.0026	-0.0039
40X	1.6176	1.6176	-16.4452	-1.6176	-1.6176	16.4452	0.0008	0.0023	-0.0031
40XY	0.7156	0.7156	-11.7852	-0.7156	-0.7156	11.7852	0.0028	0.0028	0.0007
40Y	1.1666	1.1666	-14.1152	-1.1666	-1.1666	14.1152	0.0022	0.0008	-0.0031
41X	0.7203	0.7203	-11.9741	-0.7203	-0.7203	11.9741	-0.0006	0.0012	-0.0022
41XY	0.5203	0.5203	-10.1341	-0.5203	-0.5203	10.1341	0.0012	0.0012	0.0006
41Y	0.5203	0.5203	-10.1341	-0.5203	-0.5203	10.1341	0.0012	-0.0006	-0.0022
42X	0.4495	0.4495	-8.5456	-0.4495	-0.4495	8.5456	-0.0031	0.0046	-0.0019
42XY	0.4495	0.4495	-8.5456	-0.4495	-0.4495	8.5456	0.0052	0.0052	-0.0008
42Y	0.4495	0.4495	-8.5456	-0.4495	-0.4495	8.5456	0.0045	-0.0031	-0.0019

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	137 of 145
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.00	-0.01	0.01	-25.10	62.97	-7.82
1X	-0.00	-0.01	0.01	24.52	74.19	7.63
1XY	-0.00	-0.01	0.01	33.72	-72.72	10.50
1Y	0.00	-0.01	0.01	-33.43	-57.10	-10.41
2P	0.00	25.09	-62.96	28.39	-68.00	21.39
2X	-0.00	-24.53	-74.19	-30.39	-105.25	-21.96
2XY	-0.00	-33.72	72.73	-49.99	109.79	-33.48
2Y	0.01	33.43	57.11	50.11	75.93	33.41
3P	0.00	-28.39	68.01	-26.87	70.46	-22.11
3X	-0.01	30.38	105.26	21.04	127.74	20.57
3XY	-0.00	49.98	-109.78	54.59	-112.33	41.83
3Y	0.01	-50.12	-75.92	-60.09	-49.72	-44.08
4P	0.00	26.86	-70.45	17.55	-42.39	17.77
4X	-0.01	-21.05	-127.73	-30.47	-145.82	-20.61
4XY	-0.00	-54.60	112.34	-82.19	171.33	-54.71
4Y	0.01	60.08	49.73	74.57	80.53	53.86
5P	0.00	-17.56	42.39	-35.20	105.89	-21.11
5X	-0.01	30.47	145.82	11.41	293.37	16.75
5XY	-0.00	82.18	-171.33	122.63	-218.56	81.92
5Y	0.01	-74.57	-80.52	-155.53	-22.19	-92.04
6P	0.01	35.19	-105.89	-44.51	57.24	-3.73
6X	-0.01	-11.42	-293.36	-49.74	-220.56	-24.46
6XY	-0.00	-122.64	218.57	-185.74	357.94	-123.35
6Y	0.02	155.53	22.19	142.92	114.16	119.38
7P	0.01	44.51	-57.23	94.54	-29.28	69.52
7X	-0.02	49.73	220.57	-37.71	511.33	6.01
7XY	-0.00	185.74	-357.94	95.78	-135.55	140.76
7Y	0.02	-142.92	-114.15	-313.66	119.97	-228.29
8P	0.01	-94.54	29.29	-579.16	621.45	-429.11
8X	-0.02	37.71	-511.32	-268.77	-435.19	-147.17
8XY	-0.00	-95.79	135.56	43.32	-88.67	-33.42
8Y	0.02	313.66	-119.96	402.91	343.14	456.41
9P	-5.05	-848.95	29.48	-501.34	3.22	-329.42
9X	-19.92	497.78	115.99	254.03	172.53	183.41
9XY	-5.42	-93.34	31.60	-193.00	53.08	-69.86
9Y	7.17	527.53	-41.66	235.22	-120.00	186.08
10P	-5.52	-352.87	356.15	-143.38	208.94	-171.71
10X	-48.80	-61.77	-297.48	-55.67	280.63	-40.64
10XY	-14.32	100.13	-172.81	128.44	-231.74	79.09
10Y	27.36	249.09	83.56	-106.75	99.76	49.25
11P	-5.52	143.37	-208.93	-62.08	144.68	32.52
11X	-48.80	55.67	-280.62	11.50	-302.96	26.87
11XY	-14.32	-128.44	231.74	-234.93	460.45	-145.35
11Y	27.36	106.74	-99.75	155.34	4.60	104.83
12P	-5.52	62.08	-144.68	32.07	-42.07	37.66
12X	-48.80	-11.51	302.96	-145.51	497.82	-62.81
12XY	-14.32	234.93	-460.44	172.50	-311.17	162.97
12Y	27.36	-155.35	-4.60	-253.91	281.60	-163.70
13P	-5.52	-32.08	42.08	-193.08	372.68	-90.06
13X	-48.81	145.51	-497.82	76.61	-310.73	88.85
13XY	-14.32	-172.50	311.18	-289.09	559.09	-184.64
13Y	27.36	253.90	-281.60	172.71	-119.35	170.65
14P	-5.51	193.07	-372.68	124.94	-197.89	127.21

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page 138 of 145
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

14X	-48.81	-76.61	310.73	-258.05	610.86	-133.87	368.64
14XY	-14.32	289.09	-559.09	184.17	-316.53	189.30	-350.25
14Y	27.37	-172.72	119.36	-311.30	500.97	-193.61	248.13
15P	-5.51	-124.95	197.90	-392.32	718.98	-206.91	366.75
15X	-48.81	258.05	-610.86	184.72	-271.44	177.11	-352.92
15XY	-14.32	-184.18	316.53	-380.52	700.46	-225.88	406.80
15Y	27.37	311.30	-500.96	150.77	-326.70	184.82	-331.06
16P	-5.51	392.32	-718.98	476.10	-714.83	434.21	-716.90
16X	-48.82	-184.73	271.45	-504.63	677.27	-344.68	474.36
16XY	-14.32	380.52	-700.46	333.75	-436.47	357.13	-568.47
16Y	27.37	-150.77	326.70	-313.18	1007.14	-231.98	666.92
17P	-5.51	-476.11	714.84	-838.68	842.03	-832.15	985.36
17X	-48.82	504.62	-677.26	-54.96	429.02	284.60	-157.12
17XY	-14.32	-333.75	436.48	-840.01	900.00	-742.89	845.87
17Y	27.38	313.17	-1007.13	-346.76	73.16	-21.26	-591.12
18P	-5.95	-1188.43	0.74	-738.63	3.58	-288.36	0.65
18X	48.11	-264.50	-342.31	-177.09	107.29	-66.08	-35.17
18XY	-1.98	1230.36	-44.73	690.86	-26.14	287.49	-10.61
18Y	-56.14	-193.47	292.85	-166.03	-148.67	-53.80	21.58
19P	-6.71	-521.03	523.55	-246.33	373.23	-274.06	320.28
19X	16.43	207.55	42.90	85.92	183.90	104.81	81.00
19XY	5.36	-470.36	506.66	-122.08	135.44	-211.59	229.32
19Y	-12.65	-5.40	-229.41	-83.98	-125.80	-31.92	-126.86
20P	-6.71	246.33	-373.22	-17.13	72.40	81.85	-107.44
20X	16.43	-85.93	-183.90	-18.23	-103.44	-37.20	-102.62
20XY	5.36	122.08	-135.44	-83.91	200.79	13.63	23.34
20Y	-12.65	83.97	125.80	54.96	31.71	49.62	56.25
21P	-6.71	17.13	-72.39	42.81	-87.96	22.20	-59.39
21X	16.42	18.23	103.44	-126.09	307.98	-39.95	152.38
21XY	5.35	83.90	-200.78	62.44	-119.41	54.20	-118.59
21Y	-12.64	-54.97	-31.71	-155.37	258.31	-77.90	83.93
22P	-6.71	-42.82	87.97	-156.78	316.67	-73.93	149.87
22X	16.42	126.09	-307.98	63.51	-185.83	70.22	-182.89
22XY	5.35	-62.45	119.41	-196.26	385.66	-95.82	187.06
22Y	-12.64	155.37	-258.30	105.04	-113.64	96.45	-137.76
23P	-6.71	156.78	-316.67	51.66	-67.32	74.44	-137.14
23X	16.42	-63.51	185.83	-209.11	646.33	-97.36	297.20
23XY	5.35	196.25	-385.66	182.03	-307.67	135.10	-247.62
23Y	-12.64	-105.04	113.64	-340.99	403.18	-159.30	184.58
24P	-6.71	-51.66	67.32	-234.78	438.12	-102.30	180.52
24X	16.41	209.11	-646.32	70.65	-416.03	99.91	-379.41
24XY	5.35	-182.03	307.68	-417.20	764.94	-214.01	383.08
24Y	-12.63	340.98	-403.17	253.61	-88.16	212.36	-175.48
25P	-6.70	234.78	-438.12	46.89	-25.09	100.59	-165.43
25X	16.41	-70.66	416.03	-332.77	1009.38	-144.08	509.07
25XY	5.35	417.19	-764.94	288.65	-440.61	252.09	-430.55
25Y	-12.63	-253.61	88.16	-572.72	597.18	-295.12	244.77
26P	-6.70	-46.89	25.09	-336.81	604.11	-137.03	224.72
26X	16.41	332.76	-1009.38	102.14	-514.46	155.32	-544.23
26XY	5.35	-288.65	440.61	-566.42	993.57	-305.38	512.21
26Y	-12.63	572.72	-597.18	333.93	-119.15	323.81	-255.83
27P	-6.70	336.80	-604.11	48.41	-11.38	140.08	-223.82
27X	16.40	-102.14	514.46	-414.00	1073.01	-187.69	577.26
27XY	5.35	566.42	-993.57	238.42	-334.38	292.67	-482.89
27Y	-12.62	-333.94	119.15	-597.43	758.25	-338.68	319.06
28P	-6.70	-48.41	11.39	-259.99	409.18	-112.15	152.93

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	139 of 145
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X	16.40	414.00	-1073.01	133.74	-379.92	199.18	-528.34
28XY	5.35	-238.42	334.38	-348.87	552.77	-213.56	322.60
28Y	-12.62	597.43	-758.25	212.66	-236.33	294.58	-361.67
29P	-6.70	259.99	-409.18	301.49	-270.11	207.96	-251.59
29X	16.40	-133.74	379.92	-109.15	211.85	-89.96	219.18
29XY	5.35	348.87	-552.77	244.64	-172.30	219.82	-268.55
29Y	-12.62	-212.66	236.33	-26.06	348.66	-88.41	216.67
30P	-6.70	-301.49	270.11	-1138.85	1376.29	-253.80	290.11
30X	16.39	109.15	-211.85	-591.59	926.94	-85.01	126.01
30XY	5.35	-244.64	172.30	-1065.16	1297.35	-230.80	258.97
30Y	-12.62	26.05	-348.66	-712.97	784.40	-121.04	76.78
31P	-35.12	-1778.47	164.32	-327.62	42.64	-328.14	32.24
31X	198.51	-237.13	-1055.37	-89.29	315.29	-50.86	-115.31
31XY	33.15	1670.54	-160.89	256.92	-41.20	300.31	-31.49
31Y	-192.25	50.51	1041.27	-12.02	-316.86	6.00	112.87
32P	-35.12	327.62	-42.64	265.89	-12.39	97.48	-9.04
32X	198.51	89.29	-315.29	29.88	305.74	19.57	-1.57
32XY	33.15	-256.92	41.20	-227.00	11.48	-79.48	8.65
32Y	-192.25	12.02	316.85	7.93	-311.06	3.28	0.95
33P	-35.12	-265.89	12.39	139.11	7.77	-20.82	3.31
33X	198.51	-29.88	-305.74	-15.28	216.97	-7.42	-14.58
33XY	33.15	227.00	-11.48	-166.43	0.58	9.95	-1.79
33Y	-192.24	-7.93	311.06	-8.07	-199.06	-2.63	18.40
34P	-35.12	-139.11	-7.77	-104.54	-4.66	-40.02	-2.04
34X	198.50	15.28	-216.97	19.95	32.38	5.79	-30.32
34XY	33.15	166.43	-0.58	105.58	-0.95	44.68	-0.25
34Y	-192.24	8.07	199.06	17.10	-45.79	4.13	25.17
35P	-35.12	104.54	4.66	415.51	-5.18	85.42	-0.09
35X	198.50	-19.95	-32.38	-20.76	386.69	-6.69	58.19
35XY	33.15	-105.58	0.95	-365.10	2.43	-77.31	0.55
35Y	-192.24	-17.10	45.79	-26.36	-387.78	-7.14	-56.17
36P	-35.12	-415.50	5.18	-280.61	1.51	-114.33	1.10
36X	198.50	20.76	-386.69	11.13	-58.34	5.24	-73.09
36XY	33.15	365.10	-2.43	270.63	-0.70	104.42	-0.51
36Y	-192.24	26.36	387.78	14.02	58.30	6.63	73.27
37P	-35.12	280.61	-1.51	420.65	1.73	115.18	0.04
37X	198.50	-11.13	58.34	-56.18	259.79	-11.06	52.25
37XY	33.15	-270.64	0.70	-503.96	0.53	-127.22	0.20
37Y	-192.23	-14.02	-58.30	-56.14	-252.39	-11.52	-51.03
38P	-35.12	-420.65	-1.73	-178.73	-2.63	-98.44	-0.72
38X	198.50	56.18	-259.79	284.93	-72.57	56.03	-54.59
38XY	33.15	503.96	-0.53	725.31	-0.26	201.90	-0.13
38Y	-192.23	56.14	252.38	285.36	64.38	56.09	52.03
39P	-35.12	178.73	2.63	-291.08	-4.91	-18.45	-0.37
39X	198.50	-284.93	72.57	-1188.72	876.96	-242.04	155.96
39XY	33.15	-725.31	0.26	-2085.03	2.22	-461.59	0.41
39Y	-192.23	-285.36	-64.38	-1194.37	-878.73	-243.04	-154.90
40P	-35.11	291.08	4.91	1395.32	1.16	276.98	1.00
40X	198.50	1188.72	-876.96	2338.35	-932.58	579.31	-297.21
40XY	33.15	2085.03	-2.22	3284.25	0.46	881.88	-0.29
40Y	-192.23	1194.37	878.73	2338.63	934.74	580.28	297.85
41P	-35.11	-1395.32	-1.16	-1829.18	7.03	-547.87	1.00
41X	198.49	-2338.35	932.58	-2793.88	1059.60	-872.01	338.49
41XY	33.15	-3284.25	-0.46	-3754.22	-1.24	-1195.90	-0.29
41Y	-192.23	-2338.63	-934.74	-2787.86	-1053.63	-871.04	-337.84

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	Project	Date
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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	141 of 145
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Resumen completo para todos los casos de carga - uso= esfuerzo máximo/Esfuerzo permisible
Printed capacities do not include EIA allowable stress increase for wind load cases.
Printed capacities do not include the strength factor entered for each loadcase.

Rs:

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength	Max Usage	Max Use In Comp.	Comp. Control Member	Comp. Force	Comp. Control Load Case	L/R Capacity	Comp. Shear Capacity	Comp. Bearing Capacity	RLX	RLY	RLZ	L/R Length Comp. Member	Curve No.	No. Of Bolts Comp.	
				(MPa)	%	%		(kN)		(kN)	(kN)	(kN)				(m)			
M1	M1	DAE	2.5X2.5X0.25	344.7	10.47	10.47	2P	-24.411LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M2	M2	DAE	2.5X2.5X0.25	344.7	35.48	35.48	4P	-82.730LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M3	M3	DAE	3.5X3.5X0.25	344.7	47.27	47.27	6P	-176.574LC4	WIND 4	373.558	878.079	758.976	0.500	0.500	0.500	45.15	2.500	1	7
M4	M4	DAE	4X4X0.25	344.7	84.69	84.69	8P	-275.477LC4	WIND 4	419.569	376.319	325.275	0.500	0.500	0.500	24.72	1.570	1	3
M5	M5	DAE	4X4X0.375	344.7	71.58	71.58	9P	-269.354LC4	WIND 4	681.890	376.319	487.913	0.250	0.250	0.250	32.80	4.099	1	3
M6	M6	DAE	4X4X0.375	344.7	84.76	84.76	10P	-318.953LC4	WIND 4	634.163	376.319	487.913	0.500	0.500	0.500	46.25	2.890	1	3
M7	M7	DAE	4X4X0.3125	344.7	103.76	103.76	13P	-573.281LC4	WIND 4	552.486	627.199	677.657	0.500	0.500	0.500	39.69	2.500	1	5 NG
M8	M8	DAE	4X4X0.3125	344.7	140.40	140.40	15P	-775.686LC4	WIND 4	552.486	2161.836	1951.652	0.500	0.500	0.500	39.69	2.500	1	12 NG
M9	M9	DAE	4X4X0.3125	344.7	160.90	160.90	17P	-952.983LC4	WIND 4	592.276	1261.071	1138.464	0.500	0.500	0.500	25.08	1.580	1	7 NG
M10	M10	DAE	4X4X0.375	344.7	130.85	130.85	18P	-792.349LC4	WIND 4	605.559	1261.071	1366.156	0.250	0.250	0.250	53.48	6.683	1	7 NG
M11	M11	DAE	4X4X0.375	344.7	119.15	119.15	20P	-762.108LC4	WIND 4	639.624	1261.071	1366.156	0.500	0.500	0.500	44.81	2.800	1	7 NG
M12	M12	DAE	4X4X0.3125	344.7	173.80	173.80	22P	-943.475LC4	WIND 4	542.838	1261.071	1138.464	0.500	0.500	0.500	42.86	2.700	1	7 NG
M13	M13	DAE	5X5X0.5	344.7	102.09	102.09	24P	-1139.270LC4	WIND 4	1115.960	1441.224	2081.762	0.500	0.500	0.500	35.79	2.800	1	8 NG
M14	M14	DAE	6X6X0.5	344.7	97.33	97.33	26P	-1354.212LC4	WIND 4	1391.298	1621.377	2341.982	0.500	0.500	0.500	29.63	2.800	1	9
M15	M15	DAE	6X6X0.5	344.7	113.62	113.62	28P	-1584.560LC4	WIND 4	1394.615	2059.520	3035.903	0.500	0.500	0.500	29.10	2.750	1	10 NG
M16	M16	DAE	6X6X0.5	344.7	121.67	121.67	29P	-1700.833LC4	WIND 4	1397.906	2059.520	3035.903	0.500	0.500	0.500	28.58	2.700	1	10 NG
M17	M17	DAE	6X6X0.5	344.7	133.17	133.17	30P	-1849.431LC4	WIND 4	1388.794	2059.520	3035.903	0.250	0.250	0.250	30.03	5.675	1	10 NG
M18	M18	DAE	6X6X0.5	344.7	135.96	135.96	31P	-1853.425LC4	WIND 4	1363.232	2059.520	3035.903	0.250	0.250	0.250	33.96	6.418	1	10 NG
M19	M19	DAE	6X6X0.5	344.7	126.78	126.78	32P	-1742.830LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M20	M20	DAE	6X6X0.5	344.7	120.57	120.57	33P	-1657.491LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M21	M21	DAE	6X6X0.5	344.7	118.09	118.09	34P	-1623.422LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M22	M22	DAE	6X6X0.5	344.7	114.09	114.09	35P	-1568.474LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M23	M23	DAE	6X6X0.5	344.7	114.79	114.79	36P	-1578.007LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M24	M24	DAE	6X6X0.5	344.7	116.93	116.93	37P	-1607.499LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M25	M25	DAE	6X6X0.5	344.7	117.73	117.73	38P	-1618.508LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M26	M26	DAE	6X6X0.5	344.7	124.72	124.72	39P	-1620.342LC4	WIND 4	1299.208	2059.520	3035.903	0.334	0.334	0.334	43.04	6.088	1	10 NG
M27	M27	DAE	6X6X0.5	344.7	125.72	125.72	40P	-1633.420LC4	WIND 4	1299.208	2059.520	3035.903	0.334	0.334	0.334	43.04	6.088	1	10 NG
M28	M28	DAE	6X6X0.5	344.7	118.86	118.86	41P	-1642.273LC4	WIND 4	1381.692	2265.472	3339.493	0.250	0.250	0.250	31.14	5.885	1	11 NG
D1	D1	SAE	1.5X1.5X0.1875	344.7	38.73	38.73	43XY	-5.059LC1	WIND 0	9.821	30.915	32.528	0.750	0.500	0.500	232.74	3.464	6	1
D2	D2	SAE	1.5X1.5X0.1875	344.7	63.58	63.58	45XY	-8.464LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D3	D3	SAE	1.5X1.5X0.1875	344.7	83.43	83.43	47XY	-11.105LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D4	D4	SAE	1.5X1.5X0.1875	344.7	114.02	114.02	49XY	-15.177LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1 NG
D5	D5	SAE	1.5X1.5X0.1875	344.7	152.77	152.77	51XY	-20.335LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1 NG
D6	D6	SAE	1.5X1.5X0.1875	344.7	183.85	183.85	53XY	-24.473LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1 NG
D7	D7	SAE	1.5X1.5X0.1875	344.7	131.18	131.18	55XY	-22.038LC3	WIND 0	16.800	30.915	32.528	0.750	0.500	0.500	160.26	2.385	6	1 NG
D8	D8	SAE	1.5X1.5X0.1875	344.7	125.71	125.71	57XY	-26.018LC3	WIND 0	20.697	30.915	32.528	0.750	0.500	0.500	136.95	2.038	6	1 NG
D9	D9	SAE	2X2X0.1875	344.7	168.84	168.84	58X	-31.691LC1	WIND 0	14.113	30.915	32.528	0.750	0.500	0.500	222.12	4.446	6	1 NG
D10	D10	SAE	2X2X0.1875	344.7	193.55	193.55	61XY	-35.968LC3	WIND 0	18.583	30.915	32.528	0.750	0.500	0.500	183.92	3.681	6	1 NG
D11	D11	SAE	2X2X0.1875	344.7	181.22	181.22	63XY	-37.902LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG
D12	D12	SAE	2X2X0.1875	344.7	208.79	208.79	65XY	-43.668LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG
D13	D13	SAE	2X2X0.1875	344.7	232.13	232.13	67XY	-48.550LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG
D14	D14	SAE	2X2X0.1875	344.7	242.28	242.28	69XY	-50.672LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page	142 of 145
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

D15	D15	SAE	2X2X0.1875	344.7	250.82	250.82	71XY	-52.460LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1	NG
D16	D16	SAE	2X2X0.1875	344.7	200.65	200.65	73XY	-48.704LC3	WIND 0	24.273	30.915	32.528	0.750	0.500	0.500	151.53	3.033	6	1	NG
D17	D17	SAE	2X2X0.1875	344.7	167.82	167.82	75XY	-45.817LC3	WIND 0	27.301	30.915	32.528	0.750	0.500	0.500	138.59	2.774	6	1	NG
D18	D18	SAE	2X2X0.1875	344.7	1119.19	1119.19	77P	-141.967LC4	WIND 4	12.685	125.440	81.319	0.500	0.250	0.250	238.41	7.473	6	2	NG
D19	D19	SAE	2.5X2.5X0.1875	344.7	273.44	273.44	79XY	-48.228LC3	WIND 0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D20	D20	SAE	2.5X2.5X0.1875	344.7	305.13	305.13	81XY	-53.818LC3	WIND 0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D21	D21	SAE	2.5X2.5X0.1875	344.7	314.60	314.60	83XY	-56.215LC3	WIND 0	17.869	125.440	81.319	0.750	0.500	0.500	222.63	5.598	6	2	NG
D22	D22	SAE	2.5X2.5X0.1875	344.7	332.16	332.16	85Y	-59.352LC3	WIND 0	17.869	125.440	81.319	0.750	0.500	0.500	222.63	5.598	6	2	NG
D23	D23	SAE	2.5X2.5X0.1875	344.7	362.80	362.80	87Y	-63.989LC3	WIND 0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D24	D24	SAE	2.5X2.5X0.1875	344.7	374.05	374.05	89Y	-65.974LC3	WIND 0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D25	D25	SAE	2.5X2.5X0.1875	344.7	393.41	393.41	91Y	-69.389LC3	WIND 0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D26	D26	SAE	2.5X2.5X0.1875	344.7	406.60	406.60	93Y	-71.715LC3	WIND 0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D27	D27	SAE	2.5X2.5X0.1875	344.7	420.63	420.63	95Y	-74.676LC3	WIND 0	17.754	125.440	81.319	0.750	0.500	0.500	223.59	5.622	6	2	NG
D28	D28	SAE	2.5X2.5X0.1875	344.7	437.29	437.29	97Y	-77.635LC3	WIND 0	17.754	125.440	81.319	0.750	0.500	0.500	223.59	5.622	6	2	NG
D29	D29	SAE	2X2X0.1875	344.7	804.61	804.61	99Y	-79.693LC3	WIND 0	9.905	125.440	81.319	0.600	0.500	0.500	279.69	5.598	6	2	NG
D30	D30	SAE	2X2X0.1875	344.7	921.38	921.38	100X	-116.219LC4	WIND 4	12.614	125.440	81.319	0.500	0.250	0.250	239.29	7.500	6	2	NG
D31	D31	SAE	2.5X2.5X0.3125	344.7	477.37	477.37	103P	-139.864LC4	WIND 4	29.299	125.440	135.531	0.500	0.250	0.250	220.71	8.532	6	2	NG
D32	D32	SAE	2.5X2.5X0.3125	344.7	290.00	290.00	105P	-73.610LC4	WIND 4	25.383	125.440	135.531	0.500	0.250	0.250	242.71	9.383	6	2	NG
D33	D33	SAE	2.5X2.5X0.3125	344.7	254.46	254.46	107P	-53.922LC4	WIND 4	21.190	125.440	135.531	0.500	0.250	0.250	272.73	10.544	6	2	NG
D34	D34	SAE	2.5X2.5X0.3125	344.7	192.54	192.54	108P	-34.258LC4	WIND 4	17.792	125.440	135.531	0.500	0.250	0.250	304.50	11.772	6	2	NG
D35	D35	SAE	2.5X2.5X0.3125	344.7	154.20	154.20	117P	-64.713LC1	WIND 0	31.554	125.440	135.531	0.500	0.250	0.250	209.94	8.116	6	2	NG
D36	D36	SAE	3.5X3.5X0.25	344.7	126.33	126.33	124P	-86.226LC1	WIND 0	51.318	125.440	108.425	0.500	0.250	0.250	165.37	9.157	6	2	NG
D37	D37	SAE	3.5X3.5X0.25	344.7	70.36	70.36	133P	-48.021LC1	WIND 0	51.318	125.440	108.425	0.500	0.250	0.250	165.37	9.157	6	2	
D38	D38	SAE	4X4X0.25	344.7	81.24	81.24	140P	-49.141LC3	WIND 0	60.486	125.440	108.425	0.500	0.250	0.250	162.22	10.301	6	2	
D39	D39	SAE	4X4X0.25	344.7	207.78	207.78	149P	-120.812LC1	WIND 0	43.718	125.440	108.425	0.600	0.400	0.400	204.05	10.301	6	2	NG
D40	D40	SAE	5X5X0.35	344.7	143.64	143.64	158P	-112.909LC2	WIND 4	59.103	188.160	243.956	0.600	0.400	0.400	252.40	15.867	6	3	NG
H1	H1	SAE	1.5X1.5X0.1875	344.7	3.85	3.85	166P	-0.574LC3	WIND 0	14.917	62.720	40.659	1.000	1.000	1.000	174.68	1.300	6	1	
H2	H2	SAE	1.5X1.5X0.1875	344.7	2.75	2.75	1671P	-0.410LC4	WIND 4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2	
H3	H3	SAE	1.5X1.5X0.1875	344.7	7.44	7.44	1672X	-1.110LC4	WIND 4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2	
H4	H4	SAE	1.5X1.5X0.1875	344.7	26.02	26.02	1674X	-3.881LC4	WIND 4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2	
H5	H5	SAE	1.5X1.5X0.1875	344.7	115.66	115.66	168P	-17.253LC3	WIND 0	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2	NG
H6	H6	SAE	2X2X0.1875	344.7	167.25	167.25	170Y	-22.723LC3	WIND 0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	NG
H7	H7	SAE	2X2X0.1875	344.7	19.32	19.32	1712X	-2.625LC4	WIND 4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	
H8	H8	SAE	2X2X0.1875	344.7	28.53	28.53	1714X	-3.876LC4	WIND 4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	
H9	H9	SAE	2X2X0.1875	344.7	39.80	39.80	1705X	-5.407LC4	WIND 4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	
H10	H10	SAE	2X2X0.1875	344.7	709.82	709.82	172P	-96.440LC3	WIND 0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	NG
H11	H11	SAE	2.5X2.5X0.25	344.7	278.72	278.72	1722Y	-78.891LC3	WIND 0	28.304	125.440	108.425	0.500	0.500	0.500	196.61	4.904	6	2	NG
H12	H12	SAE	2.5X2.5X0.25	344.7	28.02	28.02	17231Y	-7.932LC3	WIND 0	28.304	125.440	108.425	0.500	0.500	0.500	196.61	4.904	6	2	
H13	H13	SAE	3.5X3.5X0.25	344.7	6.35	6.35	1726X	-4.108LC4	WIND 4	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2	
H14	H14	SAE	3.5X3.5X0.25	344.7	8.36	8.36	17261X	-5.407LC4	WIND 4	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2	
H15	H15	SAE	3.5X3.5X0.25	344.7	10.44	10.44	17262X	-6.752LC4	WIND 4	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2	
H16	H16	SAE	3.5X3.5X0.25	344.7	17.50	17.50	17254Y	-11.320LC3	WIND 0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2	
H17	H17	SAE	4X4X0.25	344.7	40.17	40.17	17255Y	-35.426LC3	WIND 0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2	
H18	H18	SAE	4X4X0.25	344.7	88.21	88.21	1724P	-77.800LC3	WIND 0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2	
H19	H19	SAE	4X4X0.25	344.7	68.78	68.78	1728Y	-74.580LC3	WIND 0	119.442	125.440	108.425	0.500	0.250	0.250	101.50	6.446	1	2	
H20	H20	SAE	4X4X0.25	344.7	54.92	54.92	1729Y	-46.940LC3	WIND 0	85.473	125.440	108.425	0.500	0.250	0.250	124.53	7.908	6	2	
H21	H21	SAE	5X5X0.375	344.7	31.14	31.14	17291Y	-39.060LC3	WIND 0	260.955	125.440	162.638	0.250	0.250	0.250	93.16	9.370	1	2	
H22	H22	SAE	5X5X0.375	344.7	43.57	43.57	17292Y	-54.649LC3	WIND 0	206.750	125.440	162.638	0.250	0.250	0.250	107.70	10.832	1	2	
H23	H23	SAE	5X5X0.375	344.7	4.41	4.41	174P	-5.530LC3	WIND 0	313.027	125.440	162.638	0.500	0.250	0.250	77.57	6.147	1	2	
H24	H24	SAE	6X6X0.375	344.7	52.60	51.05	17293Y	-64.034LC3	WIND 0	223.518	125.440	162.638	0.250	0.250	0.250	113.79	13.757	1	2	
H25	H25	SAE	6X6X0.375	344.7	5.92	5.92	182P	-7.421LC3	WIND 0	336.759	125.440	162.638	0.500	0.250	0.250	79.68	7.610	1	2	
H26	H26	SAE	6X6X0.375	344.7	87.20	79.61	17294Y	-99.857LC3	WIND 0	168.624	125.440	162.638	0.250	0.250	0.250	137.98	16.682	6	2	
H27	H27	SAE	6X6X0.375	344.7	7.99	7.99	215P	-10.020LC4	WIND 4	159.752	125.440	162.638	0.500	0.500	0.500	143.81	8.694	6	2	

Group Summary (Tension Portion):

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page	143 of 145
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (MPa)	Max Usage %	Max Use In Tens. %	Tension Control Member	Tension Force (kN)	Tension Control Load Case	Section Capacity (kN)	Tens. Shear Capacity (kN)	Tens. Conn. Bearing Capacity (kN)	Tens. Conn. Rupture Capacity (kN)	Length Member (m)	No. Of Bolts Tens.	No. Of Holes	Hole Diameter (cm)
M1	M1	DAE	2.5X2.5X0.25	344.7	10.47	5.30	2XY	15.605LC4	WIND 4	294.374	752.639	650.551	0.000	2.500	6	2.000	1.746
M2	M2	DAE	2.5X2.5X0.25	344.7	35.48	21.35	4XY	62.861LC4	WIND 4	294.374	752.639	650.551	0.000	2.500	6	2.000	1.746
M3	M3	DAE	3.5X3.5X0.25	344.7	47.27	34.86	6XY	153.014LC4	WIND 4	438.941	878.079	758.976	0.000	2.500	7	2.000	1.746
M4	M4	DAE	4X4X0.25	344.7	84.69	80.52	8XY	261.909LC4	WIND 4	511.224	376.319	325.275	0.000	1.570	3	2.000	1.746
M5	M5	DAE	4X4X0.375	344.7	71.58	60.83	9XY	228.902LC4	WIND 4	752.381	376.319	487.913	0.000	4.099	3	2.000	1.746
M6	M6	DAE	4X4X0.375	344.7	84.76	68.55	10XY	257.972LC4	WIND 4	752.381	376.319	487.913	0.000	2.890	3	2.000	1.746
M7	M7	DAE	4X4X0.3125	344.7	103.76	79.19	13XY	496.652LC4	WIND 4	631.803	627.199	677.657	0.000	2.500	5	2.000	1.746 NG
M8	M8	DAE	4X4X0.3125	344.7	140.40	113.94	15XY	707.027LC4	WIND 4	620.508	2161.836	1951.652	0.000	2.500	12	2.000	2.064 NG
M9	M9	DAE	4X4X0.3125	344.7	160.90	143.62	17XY	891.200LC4	WIND 4	620.508	1261.071	1138.464	0.000	1.580	7	2.000	2.064 NG
M10	M10	DAE	4X4X0.375	344.7	130.85	95.26	18XY	793.833LC4	WIND 4	738.828	1261.071	1366.156	0.000	6.683	7	2.000	2.064 NG
M11	M11	DAE	4X4X0.375	344.7	119.15	89.06	20XY	658.009LC4	WIND 4	738.828	1261.071	1366.156	0.000	2.800	7	2.000	2.064 NG
M12	M12	DAE	4X4X0.3125	344.7	173.80	131.55	22XY	816.270LC4	WIND 4	620.508	1261.071	1138.464	0.000	2.700	7	2.000	2.064 NG
M13	M13	DAE	5X5X0.5	344.7	102.09	78.71	24XY	988.523LC4	WIND 4	1255.924	1441.224	2081.762	0.000	2.800	8	2.000	2.064 NG
M14	M14	DAE	6X6X0.5	344.7	97.33	76.69	26XY	1176.879LC4	WIND 4	1534.633	1621.377	2341.982	0.000	2.800	9	2.000	2.064
M15	M15	DAE	6X6X0.5	344.7	113.62	90.39	28XY	1380.171LC4	WIND 4	1526.987	2059.520	3035.903	0.000	2.750	10	2.000	2.381 NG
M16	M16	DAE	6X6X0.5	344.7	121.67	96.97	29XY	1480.673LC4	WIND 4	1526.987	2059.520	3035.903	0.000	2.700	10	2.000	2.381 NG
M17	M17	DAE	6X6X0.5	344.7	133.17	105.37	30XY	1609.034LC4	WIND 4	1526.987	2059.520	3035.903	0.000	5.675	10	2.000	2.381 NG
M18	M18	DAE	6X6X0.5	344.7	135.96	104.44	31XY	1594.778LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.418	10	2.000	2.381 NG
M19	M19	DAE	6X6X0.5	344.7	126.78	96.49	32XY	1473.361LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M20	M20	DAE	6X6X0.5	344.7	120.57	89.97	33XY	1373.783LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M21	M21	DAE	6X6X0.5	344.7	118.09	85.91	34XY	1311.803LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M22	M22	DAE	6X6X0.5	344.7	114.09	79.40	35XY	1212.370LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M23	M23	DAE	6X6X0.5	344.7	114.79	78.75	36XY	1202.576LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M24	M24	DAE	6X6X0.5	344.7	116.93	78.80	37XY	1203.309LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M25	M25	DAE	6X6X0.5	344.7	117.73	78.06	38XY	1191.928LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M26	M26	DAE	6X6X0.5	344.7	124.72	75.64	39XY	1155.069LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M27	M27	DAE	6X6X0.5	344.7	125.72	74.94	40XY	1144.285LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M28	M28	DAE	6X6X0.5	344.7	118.86	74.41	41XY	1136.295LC4	WIND 4	1526.987	2265.472	3339.493	0.000	5.885	11	2.000	2.381 NG
D1	D1	SAE	1.5X1.5X0.1875	344.7	38.73	19.00	43X	5.875LC3	WIND 0	46.030	30.915	32.528	0.000	3.464	1	1.000	1.429
D2	D2	SAE	1.5X1.5X0.1875	344.7	63.58	22.62	45X	6.994LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429
D3	D3	SAE	1.5X1.5X0.1875	344.7	83.43	38.08	47X	11.772LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429
D4	D4	SAE	1.5X1.5X0.1875	344.7	114.02	48.99	49X	15.146LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429 NG
D5	D5	SAE	1.5X1.5X0.1875	344.7	152.77	68.27	51X	21.105LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429 NG
D6	D6	SAE	1.5X1.5X0.1875	344.7	183.85	79.72	53X	24.644LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429 NG
D7	D7	SAE	1.5X1.5X0.1875	344.7	131.18	78.31	55X	24.210LC3	WIND 0	46.030	30.915	32.528	0.000	2.385	1	1.000	1.429 NG
D8	D8	SAE	1.5X1.5X0.1875	344.7	125.71	80.09	57X	24.761LC3	WIND 0	46.030	30.915	32.528	0.000	2.038	1	1.000	1.429 NG
D9	D9	SAE	2X2X0.1875	344.7	168.84	113.02	58XY	34.939LC4	WIND 4	65.546	30.915	32.528	0.000	4.446	1	1.000	1.429 NG
D10	D10	SAE	2X2X0.1875	344.7	193.55	112.85	61P	34.889LC3	WIND 0	65.546	30.915	32.528	0.000	3.681	1	1.000	1.429 NG
D11	D11	SAE	2X2X0.1875	344.7	181.22	118.82	63P	36.732LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D12	D12	SAE	2X2X0.1875	344.7	208.79	134.12	65X	41.462LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D13	D13	SAE	2X2X0.1875	344.7	232.13	149.74	67X	46.291LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D14	D14	SAE	2X2X0.1875	344.7	242.28	165.56	69X	51.184LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D15	D15	SAE	2X2X0.1875	344.7	250.82	168.90	71X	52.216LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D16	D16	SAE	2X2X0.1875	344.7	200.65	167.34	73X	51.734LC3	WIND 0	65.546	30.915	32.528	0.000	3.033	1	1.000	1.429 NG
D17	D17	SAE	2X2X0.1875	344.7	167.82	138.88	75X	42.936LC3	WIND 0	65.546	30.915	32.528	0.000	2.774	1	1.000	1.429 NG
D18	D18	SAE	2X2X0.1875	344.7	1119.19	236.54	76XY	149.035LC4	WIND 4	63.005	125.440	81.319	0.000	7.473	2	1.000	1.746 NG
D19	D19	SAE	2.5X2.5X0.1875	344.7	273.44	62.66	79X	50.958LC3	WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746 NG
D20	D20	SAE	2.5X2.5X0.1875	344.7	305.13	63.23	81X	51.415LC3	WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746 NG
D21	D21	SAE	2.5X2.5X0.1875	344.7	314.60	70.84	83P	57.607LC3	WIND 0	83.823	125.440	81.319	0.000	5.598	2	1.000	1.746 NG
D22	D22	SAE	2.5X2.5X0.1875	344.7	332.16	74.73	85P	60.772LC3	WIND 0	83.823	125.440	81.319	0.000	5.598	2	1.000	1.746 NG

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page 144 of 145
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

D23	D23	SAE 2.5X2.5X0.1875	344.7	362.80	78.88	87P	64.141LC3 WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746	NG
D24	D24	SAE 2.5X2.5X0.1875	344.7	374.05	81.30	89P	66.116LC3 WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746	NG
D25	D25	SAE 2.5X2.5X0.1875	344.7	393.41	85.80	91P	69.774LC3 WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746	NG
D26	D26	SAE 2.5X2.5X0.1875	344.7	406.60	88.48	93P	71.953LC3 WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746	NG
D27	D27	SAE 2.5X2.5X0.1875	344.7	420.63	92.34	95P	75.093LC3 WIND 0	83.823	125.440	81.319	0.000	5.622	2	1.000	1.746	NG
D28	D28	SAE 2.5X2.5X0.1875	344.7	437.29	95.82	97P	77.918LC3 WIND 0	83.823	125.440	81.319	0.000	5.622	2	1.000	1.746	NG
D29	D29	SAE 2X2X0.1875	344.7	804.61	127.97	99P	80.626LC3 WIND 0	63.005	125.440	81.319	0.000	5.598	2	1.000	1.746	NG
D30	D30	SAE 2X2X0.1875	344.7	921.38	180.00	101X	113.408LC4 WIND 4	63.005	125.440	81.319	0.000	7.500	2	1.000	1.746	NG
D31	D31	SAE 2.5X2.5X0.3125	344.7	477.37	107.47	102XY	134.808LC4 WIND 4	135.006	125.440	135.531	0.000	8.532	2	1.000	1.746	NG
D32	D32	SAE 2.5X2.5X0.3125	344.7	290.00	56.53	104XY	70.911LC4 WIND 4	135.006	125.440	135.531	0.000	9.383	2	1.000	1.746	NG
D33	D33	SAE 2.5X2.5X0.3125	344.7	254.46	40.95	106XY	51.364LC4 WIND 4	135.006	125.440	135.531	0.000	10.544	2	1.000	1.746	NG
D34	D34	SAE 2.5X2.5X0.3125	344.7	192.54	28.16	109XY	35.319LC4 WIND 4	135.006	125.440	135.531	0.000	11.772	2	1.000	1.746	NG
D35	D35	SAE 2.5X2.5X0.3125	344.7	154.20	43.18	114P	54.165LC4 WIND 4	135.006	125.440	135.531	0.000	8.116	2	1.000	1.746	NG
D36	D36	SAE 3.5X3.5X0.25	344.7	126.33	49.43	121P	53.593LC3 WIND 0	164.603	125.440	108.425	0.000	9.157	2	1.000	1.746	NG
D37	D37	SAE 3.5X3.5X0.25	344.7	70.36	36.37	128P	39.431LC3 WIND 0	164.603	125.440	108.425	0.000	9.157	2	1.000	1.746	
D38	D38	SAE 4X4X0.25	344.7	81.24	31.42	137P	34.066LC3 WIND 0	191.709	125.440	108.425	0.000	10.301	2	1.000	1.746	
D39	D39	SAE 4X4X0.25	344.7	207.78	81.78	144P	88.669LC3 WIND 0	191.709	125.440	108.425	0.000	10.301	2	1.000	1.746	NG
D40	D40	SAE 5X5X0.375	344.7	143.64	35.79	162P	67.340LC4 WIND 4	363.462	188.160	243.956	0.000	15.867	3	1.000	1.746	NG
H1	H1	SAE 1.5X1.5X0.1875	344.7	3.85	0.00	167X	0.000	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	
H2	H2	SAE 1.5X1.5X0.1875	344.7	2.75	1.92	1661Y	0.834LC4 WIND 4	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	
H3	H3	SAE 1.5X1.5X0.1875	344.7	7.44	0.80	1662P	0.464LC1 WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	
H4	H4	SAE 1.5X1.5X0.1875	344.7	26.02	5.49	1663P	3.173LC1 WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	
H5	H5	SAE 1.5X1.5X0.1875	344.7	115.66	21.85	168Y	12.636LC1 WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	NG
H6	H6	SAE 2X2X0.1875	344.7	167.25	38.47	170P	24.240LC3 WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	NG
H7	H7	SAE 2X2X0.1875	344.7	19.32	2.69	1712P	2.250LC2 WIND 4	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	
H8	H8	SAE 2X2X0.1875	344.7	28.53	6.36	1714P	5.331LC2 WIND 4	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	
H9	H9	SAE 2X2X0.1875	344.7	39.80	6.19	1705P	5.191LC2 WIND 4	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	
H10	H10	SAE 2X2X0.1875	344.7	709.82	122.91	172Y	77.443LC3 WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	NG
H11	H11	SAE 2.5X2.5X0.25	344.7	278.72	88.72	1722P	96.193LC3 WIND 0	110.390	125.440	108.425	0.000	4.904	2	1.000	1.746	NG
H12	H12	SAE 2.5X2.5X0.25	344.7	28.02	8.66	17231P	9.386LC3 WIND 0	110.390	125.440	108.425	0.000	4.904	2	1.000	1.746	
H13	H13	SAE 3.5X3.5X0.25	344.7	6.35	3.22	1726P	4.639LC2 WIND 4	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746	
H14	H14	SAE 3.5X3.5X0.25	344.7	8.36	4.31	17261P	6.219LC2 WIND 4	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746	
H15	H15	SAE 3.5X3.5X0.25	344.7	10.44	5.41	17262P	7.795LC2 WIND 4	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746	
H16	H16	SAE 3.5X3.5X0.25	344.7	17.50	9.59	17254P	13.833LC1 WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746	
H17	H17	SAE 4X4X0.25	344.7	40.17	31.49	17255P	45.412LC1 WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746	
H18	H18	SAE 4X4X0.25	344.7	88.21	48.04	1724Y	69.282LC1 WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746	
H19	H19	SAE 4X4X0.25	344.7	68.78	66.19	1728P	95.447LC1 WIND 0	191.709	125.440	108.425	0.000	6.446	2	1.000	1.746	
H20	H20	SAE 4X4X0.25	344.7	54.92	40.94	1729P	59.032LC1 WIND 0	191.709	125.440	108.425	0.000	7.908	2	1.000	1.746	
H21	H21	SAE 5X5X0.375	344.7	31.14	29.89	17291P	49.868LC1 WIND 0	363.462	125.440	162.638	0.000	9.370	2	1.000	1.746	
H22	H22	SAE 5X5X0.375	344.7	43.57	40.20	17292P	67.066LC1 WIND 0	363.462	125.440	162.638	0.000	10.832	2	1.000	1.746	
H23	H23	SAE 5X5X0.375	344.7	4.41	3.24	178P	4.067LC3 WIND 0	363.462	125.440	162.638	0.000	6.147	2	1.000	1.746	
H24	H24	SAE 6X6X0.375	344.7	52.60	52.60	17293P	87.759LC1 WIND 0	444.781	125.440	162.638	0.000	13.757	2	1.000	1.746	
H25	H25	SAE 6X6X0.375	344.7	5.92	2.62	181P	3.292LC3 WIND 0	444.781	125.440	162.638	0.000	7.610	2	1.000	1.746	
H26	H26	SAE 6X6X0.375	344.7	87.20	87.20	17294P	145.475LC1 WIND 0	444.781	125.440	162.638	0.000	16.682	2	1.000	1.746	
H27	H27	SAE 6X6X0.375	344.7	7.99	5.66	189P	7.094LC3 WIND 0	444.781	125.440	162.638	0.000	9.072	2	1.000	1.746	

*** Resumen de esfuerzos máximos por cada caso de carga

Summary of Maximum Usages by Load Case:

Load Case	Maximum	Element	Element
Usage %	Label	Type	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO ACTUAL	Page 145 of 145
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

LC1 WIND 0° C.D.	1094.07	77P	Angle	NG
LC2 WIND 45° C.D.	1103.80	77P	Angle	NG
LC3 WIND 0° C.T.	1109.41	77P	Angle	NG
LC4 WIND 45° C.T.	1119.19	77P	Angle	NG
LC5 WIND 0° DEFLEX	270.43	77X	Angle	NG
LC6 WIND 45° DEFLEX	270.31	77P	Angle	NG

*** Peso de la estructura (N):
Weight of Angles*Section DLF: 509302.7
Total: 509302.7

*** End of Report

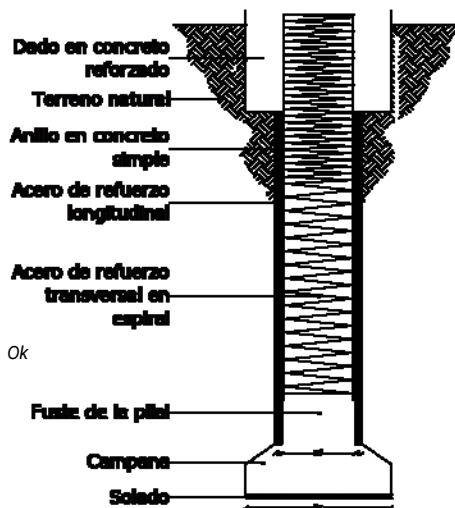
EST-014-EVALUACION TORRE CERRO KENNEDY

Edición: 1.0
Fecha: 31/03/2010

CHEQUEO DE LA CIMENTACION PARA LAS CARGAS EXISTENTES

DATOS DE ENTRADA

Carga ultima en la columna: 2270.00 KN
 Carga ultima por arrancamiento: 1577.00 KN
 Momento último en la columna (X): 6.80 KN-m
 Momento último en la columna (Y): 7.2 KN-m
 Tipo de suelo: Granular
 Peso específico del suelo: 22.20 KN/m³
 Altura del pedestal: 0.50 m
 Ancho del pedestal: 0.80 m
 Capacidad portante por punta: 0.25 Mpa.
 Capacidad portante por fuste: 0.08 Mpa.
 Longitud aproximada de la pila: 6.00 m
 Diámetro de la pila existente: 1.50 m
 Area del Fuste: 28.27 m²
 Area del punta (sin tener en cuenta la campana): 1.77 m²
 Capacidad de la pila por punta (sin campana): 441.79 KN
 Capacidad de la pila por fuste: 2120.58 KN
 Capacidad de carga de la pila: 2562.36 KN
 Porcentaje de carga asumido por punta: 17.24%
 Porcentaje de carga asumido por fuste: 82.76%
 Carga ultima asumida por punta: 391.38 KN
 Carga ultima asumida por fuste: 1878.62 KN
 Concreto f'c: 21.10 MPa
 f'cu Compresión axial: 8.44 MPa
 Vcu Cortante dos direcciones: 2.07 MPa
 Vcu Cortante una dirección: 4.13 MPa
 Factor de seguridad: 1.50
 Capacidad portante Util por punta: 0.38 Mpa.
 Capacidad portante Util por fuste: 0.11 Mpa.



DIÁMETRO REQUERIDO DEL FUSTE

$$D_f = 146 \times \sqrt{\frac{R_u}{f'_c}} \quad D_f: 0.479 \quad m \quad Ok$$

DIÁMETRO REQUERIDO DE LA CAMPANA

$$D_c = \sqrt{\frac{4R_u}{\pi \phi_{ult}}} \geq D_f \quad D_c: 1.153 \quad m \quad Ok$$

De acuerdo con lo anterior, para la pila existente, y asumiendo que no tiene campana, sino que su sección es constante hasta el fondo, (caso en que la transmisión de esfuerzos sería crítico), sus dimensiones son adecuadas para transmitir las cargas al suelo de fundación.

CHEQUEO POR COMPRESIÓN

Diámetro efectivo del fuste: 1.40 m
 Area del fuste: 1.53938 m²

$$f_{yu(c)} = \frac{R_u}{A} \quad f_{yu(c)}: 1.28 \text{ Mpa} \quad Ok$$

CHEQUEO POR ARRANCAMIENTO

Arrancamiento: 1577.00 KN
 Volumen de Concreto:
 Pila: 10.60 m³
 Dado: 0.32 m³

Volumne cono de arrancamiento

r1: 0.60 m
 r2: 7.00 m
 h: 6.00 m
 Vol.: 325.6 m³

Peso resistente: 7490.57 KN Ok



EVALUACIÓN ESTRUCTURAL

HIPOTESIS 1

ESTACIÓN CERRO KENNEDY

TORRE CADRADA DE SECCIÓN VARIABLE

ALTURA 150m

Diseñó:

ING. LEOPOLDO BARRERA GARZÓN

MAT. 25202 – 124789 CND

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page 1 of 144
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

*
* **TOWER - Analysis and Design - Copyright Power Line Systems, Inc. 1986-2006** *
*

Análisis lineal exitosamente realizado
The model has 0 warnings.



Opciones de verif. de elem: TIA/EIA 222-F

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	2 of 144
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Verificar rupturas en conexión: Not Checked
Crossing diagonal check: Fixed

Geometría de Uniones:

Etiqueta de Unión	Cód.de Sim.	Coord. X (m)	Coord. Y (m)	Coord. Z (m)	Res. Des. X	Res. Des. Y	Res. Des. Z	Res. Rot. X	Res. Rot. Y	Res. Rot. Z
1P	XY-Symmetry	0.65	0.65	150.9	Free	Free	Free	Free	Free	
10P	XY-Symmetry	0.65	0.65	131.6	Free	Free	Free	Free	Free	
11P	XY-Symmetry	1.14	1.14	127.6	Free	Free	Free	Free	Free	
19P	XY-Symmetry	1.14	1.14	108.6	Free	Free	Free	Free	Free	
20P	XY-Symmetry	2.452	2.452	102.2	Free	Free	Free	Free	Free	
32P	XY-Symmetry	2.452	2.452	66.13	Free	Free	Free	Free	Free	
ANP	XY-Symmetry	10.51	10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed	
1X	X-GenXY	0.65	-0.65	150.9	Free	Free	Free	Free	Free	
1XY	XY-GenXY	-0.65	-0.65	150.9	Free	Free	Free	Free	Free	
1Y	Y-GenXY	-0.65	0.65	150.9	Free	Free	Free	Free	Free	
10X	X-GenXY	0.65	-0.65	131.6	Free	Free	Free	Free	Free	
10XY	XY-GenXY	-0.65	-0.65	131.6	Free	Free	Free	Free	Free	
10Y	Y-GenXY	-0.65	0.65	131.6	Free	Free	Free	Free	Free	
11X	X-GenXY	1.14	-1.14	127.6	Free	Free	Free	Free	Free	
11XY	XY-GenXY	-1.14	-1.14	127.6	Free	Free	Free	Free	Free	
11Y	Y-GenXY	-1.14	1.14	127.6	Free	Free	Free	Free	Free	
19X	X-GenXY	1.14	-1.14	108.6	Free	Free	Free	Free	Free	
19XY	XY-GenXY	-1.14	-1.14	108.6	Free	Free	Free	Free	Free	
19Y	Y-GenXY	-1.14	1.14	108.6	Free	Free	Free	Free	Free	
20X	X-GenXY	2.452	-2.452	102.2	Free	Free	Free	Free	Free	
20XY	XY-GenXY	-2.452	-2.452	102.2	Free	Free	Free	Free	Free	
20Y	Y-GenXY	-2.452	2.452	102.2	Free	Free	Free	Free	Free	
32X	X-GenXY	2.452	-2.452	66.13	Free	Free	Free	Free	Free	
32XY	XY-GenXY	-2.452	-2.452	66.13	Free	Free	Free	Free	Free	
32Y	Y-GenXY	-2.452	2.452	66.13	Free	Free	Free	Free	Free	
ANX	X-GenXY	10.51	-10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed	
ANXY	XY-GenXY	-10.51	-10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed	
ANY	Y-GenXY	-10.51	10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed	

Uniones Secundariaws:

Etqta de Unión	Cód de Sime.	Origen Unión	Fin Unión	Fracc.	Elev. (m)	Res. Des. X	Res. Des. y	Res. Des. Z	Res. Rot. X	Res. Rot. Y	Res. Rot. Z
2S	XY-Symmetry	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
3S	XY-Symmetry	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
4S	XY-Symmetry	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
5S	XY-Symmetry	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
6S	XY-Symmetry	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
7S	XY-Symmetry	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
8S	XY-Symmetry	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
12S	XY-Symmetry	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
13S	XY-Symmetry	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
14S	XY-Symmetry	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
15S	XY-Symmetry	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
16S	XY-Symmetry	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free

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	Project	Date
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17S	XY-Symmetry	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
18S	XY-Symmetry	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
21S	XY-Symmetry	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
22S	XY-Symmetry	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
23S	XY-Symmetry	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
24S	XY-Symmetry	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
25S	XY-Symmetry	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
26S	XY-Symmetry	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
27S	XY-Symmetry	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
28S	XY-Symmetry	20P	32P	0	80	Free	Free	Free	Free	Free	Free
29S	XY-Symmetry	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
30S	XY-Symmetry	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
31S	XY-Symmetry	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
33S	XY-Symmetry	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
34S	XY-Symmetry	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
35S	XY-Symmetry	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
36S	XY-Symmetry	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
37S	XY-Symmetry	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
371S	None	37X	37S	0.5	0	Free	Free	Free	Free	Free	Free
372S	None	37S	37Y	0.5	0	Free	Free	Free	Free	Free	Free
373S	None	37Y	37XY	0.5	0	Free	Free	Free	Free	Free	Free
374S	None	37XY	37X	0.5	0	Free	Free	Free	Free	Free	Free
38S	XY-Symmetry	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
39S	XY-Symmetry	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
391S	None	39X	39S	0.5	0	Free	Free	Free	Free	Free	Free
392S	None	39S	39Y	0.5	0	Free	Free	Free	Free	Free	Free
393S	None	39Y	39XY	0.5	0	Free	Free	Free	Free	Free	Free
394S	None	39XY	39X	0.5	0	Free	Free	Free	Free	Free	Free
40S	XY-Symmetry	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
41S	XY-Symmetry	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
411S	None	41X	41S	0.5	0	Free	Free	Free	Free	Free	Free
412S	None	41S	41Y	0.5	0	Free	Free	Free	Free	Free	Free
413S	None	41Y	41XY	0.5	0	Free	Free	Free	Free	Free	Free
414S	None	41XY	41X	0.5	0	Free	Free	Free	Free	Free	Free
42S	XY-Symmetry	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
2X	X-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
2XY	XY-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
2Y	Y-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
3X	X-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
3XY	XY-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
3Y	Y-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
4X	X-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
4XY	XY-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
4Y	Y-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
5X	X-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
5XY	XY-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
5Y	Y-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
6X	X-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
6XY	XY-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
6Y	Y-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
7X	X-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
7XY	XY-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
7Y	Y-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
8X	X-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
8XY	XY-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
8Y	Y-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

12X	X-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
12XY	XY-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
12Y	Y-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
13X	X-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
13XY	XY-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
13Y	Y-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
14X	X-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
14XY	XY-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
14Y	Y-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
15X	X-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
15XY	XY-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
15Y	Y-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
16X	X-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
16XY	XY-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
16Y	Y-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
17X	X-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
17XY	XY-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
17Y	Y-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
18X	X-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
18XY	XY-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
18Y	Y-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
21X	X-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
21XY	XY-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
21Y	Y-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
22X	X-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
22XY	XY-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
22Y	Y-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
23X	X-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
23XY	XY-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
23Y	Y-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
24X	X-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
24XY	XY-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
24Y	Y-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
25X	X-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
25XY	XY-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
25Y	Y-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
26X	X-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
26XY	XY-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
26Y	Y-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
27X	X-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
27XY	XY-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
27Y	Y-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
28X	X-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
28XY	XY-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
28Y	Y-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
29X	X-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
29XY	XY-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
29Y	Y-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
30X	X-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
30XY	XY-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
30Y	Y-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
31X	X-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
31XY	XY-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
31Y	Y-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
33X	X-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
33XY	XY-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

33Y	Y-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
34X	X-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
34XY	XY-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
34Y	Y-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
35X	X-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
35XY	XY-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
35Y	Y-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
36X	X-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
36XY	XY-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
36Y	Y-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
37X	X-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
37XY	XY-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
37Y	Y-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
38X	X-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
38XY	XY-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
38Y	Y-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
39X	X-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
39XY	XY-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
39Y	Y-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
40X	X-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
40XY	XY-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
40Y	Y-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
41X	X-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
41XY	XY-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
41Y	Y-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
42X	X-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
42XY	XY-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
42Y	Y-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free

Propiedades del acero:

Etiqueta del Acero	Mód. de Elast. (MPa)	Esfzo de Fluen. Fy (MPa)	Esfzo Ruptura Fu (MPa)	Todos los Elem Esfzo Hyp. 1 (MPa)	Todos los Elem Esfzo Hyp. 2 (MPa)	Elemto Rupt. Hyp. 1 (MPa)	Elemto Rupt. Hyp. 2 (MPa)	Elemto flex Hyp. 1 (MPa)	Elemto flex bearing Hyp. 2 (MPa)
A572-50	1.999e+005	344.7	448.2	0	0	0	0	0	0

Tornillos:

Etqta Tornillo	Diám. (cm)	Barreno (cm)	Cap al Corte (kN)	Dist. al Paño (cm)	Esp. entre Torn. (cm)	Cap. Corte Hyp. 1 (kN)	Cap. Corte Hyp. 2 (kN)
1/2 A394 TYPE0 X	1.27	1.429	30.92	0	0	0	0
5/8 A394 TYPE0 X	1.587	1.746	62.72	0	0	0	0
3/4 A394 TYPE0 X	1.905	2.064	90.08	0	0	0	0
7/8 A394 TYPE0 N	2.223	2.381	103	0	0	0	0

Number Bolts Used By Type:

Bolt Number
Type Bolts

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

5/8 A394 TYPE0 X 910
3/4 A394 TYPE0 X 428
7/8 A394 TYPE0 N 604
1/2 A394 TYPE0 X 136

Angle Properties:

Angle Type	Angle Size	Long Leg	Short Leg	Thick. Leg	Unit Weight	Gross Area	w/t Ratio	Radius of Gyration Rx	Radius of Gyration Ry	Radius of Gyration Rz	Number of Angles	Wind Width	Short Edge Dist.	Long Edge Dist.	Optimize Cost Factor	Section Modulus
		(cm)	(cm)	(cm)	(N/m)	(cm^2)		(cm)	(cm)	(cm)		(cm)	(cm)	(cm)		(cm^3)
SAE	6X6X0.375	15	15	0.9525	2.2e+002	28.1	14	4.775	4.775	3.023	1	15	0	0	1.00	0
SAE	5X5X0.375	13	13	0.9525	1.8e+002	23.3	11	3.962	3.962	2.515	1	13	0	0	1.00	0
SAE	4X4X0.25	10	10	0.635	96	12.5	14	3.175	3.175	2.019	1	10	0	0	1.00	0
SAE	3.5X3.5X0.25	8.9	8.9	0.635	85	10.9	12	2.769	2.769	1.763	1	8.9	0	0	1.00	0
SAE	2.5X2.5X0.3125	6.3	6.3	0.7937	73	9.42	6	1.933	1.933	1.242	1	6.3	0	0	1.00	0
SAE	2.5X2.5X0.25	6.3	6.3	0.635	60	7.68	7.8	1.953	1.953	1.247	1	6.3	0	0	1.00	0
SAE	2.5X2.5X0.1875	6.3	6.3	0.4763	45	5.82	11	1.976	1.976	1.257	1	6.3	0	0	1.00	0
SAE	2X2X0.1875	5.1	5.1	0.4763	36	4.58	8	1.567	1.567	1.001	1	5.1	0	0	1.00	0
SAE	1.5X1.5X0.1875	3.8	3.8	0.4763	26	3.42	5	1.161	1.161	0.7442	1	3.8	0	0	1.00	0
DAE	6X6X0.5	15	15	1.27	5.7e+002	74.2	10	4.724	6.706	4.724	2	15	0	0	1.00	0
DAE	5X5X0.5	13	13	1.27	4.7e+002	61.3	8	3.912	5.69	3.912	2	13	0	0	1.00	0
DAE	4X4X0.375	10	10	0.9525	2.9e+002	36.9	8.7	3.124	4.597	3.124	2	10	0	0	1.00	0
DAE	4X4X0.3125	10	10	0.7937	2.4e+002	31	11	3.15	4.572	3.15	2	10	0	0	1.00	0
DAE	4X4X0.25	10	10	0.635	1.9e+002	25	14	3.175	4.547	3.175	2	10	0	0	1.00	0
DAE	3.5X3.5X0.25	8.9	8.9	0.635	1.7e+002	21.8	12	2.769	4.039	2.769	2	8.9	0	0	1.00	0
DAE	2.5X2.5X0.25	6.3	6.3	0.635	1.2e+002	15.4	7.8	1.953	3.023	1.953	2	6.3	0	0	1.00	0

Grupo de Angulos:

Etqta	Desc.	Tipo	Tam.	Mat.	Elemto	Gpo Tipo	Opt. Grupo	Permitir adicionar > perfil para opt. (cm)
0.000000	M1	DAE	2.5X2.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M2	DAE	2.5X2.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M3	DAE	3.5X3.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M4	DAE	4X4X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M5	DAE	4X4X0.375	A572-50	Beam	Leg	None	30.480000
0.000000	M6	DAE	4X4X0.375	A572-50	Beam	Leg	None	30.480000
0.000000	M7	DAE	4X4X0.3125	A572-50	Beam	Leg	None	30.480000
0.000000	M8	DAE	4X4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M9	DAE	4X4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M10	DAE	4X4X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M11	DAE	4X4X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M12	DAE	4X4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M13	DAE	5X5X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M14	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M15	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M16	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M17	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M18	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

0.000000	M19	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M20	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M21	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M22	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M23	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M24	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M25	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M26	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M27	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M28	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	D1	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D2	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D3	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D4	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D5	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D6	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D7	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D8	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D9	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D10	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D11	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D12	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D13	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D14	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D15	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D16	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D17	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D18	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D19	SAE	2.5X2.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D20	SAE	2.5X2.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D21	SAE	2.5X2.5X0.1875	A572-50	Truss		None	0.000000
0.000000	D22	SAE	2.5X2.5X0.1875	A572-50	Truss		None	0.000000
0.000000	D23	SAE	2.5X2.5X0.1875	A572-50	Truss		None	0.000000
0.000000	D24	SAE	2.5X2.5X0.1875	A572-50	Truss		None	0.000000
0.000000	D25	SAE	2.5X2.5X0.1875	A572-50	Truss		None	0.000000
0.000000	D26	SAE	2.5X2.5X0.1875	A572-50	Truss		None	0.000000
0.000000	D27	SAE	2.5X2.5X0.1875	A572-50	Truss		None	0.000000
0.000000	D28	SAE	2.5X2.5X0.1875	A572-50	Truss		None	0.000000
0.000000	D29	SAE	2X2X0.1875	A572-50	Truss		None	0.000000
0.000000	D30	SAE	2X2X0.1875	A572-50	Truss		None	0.000000
0.000000	D31	SAE	2.5X2.5X0.3125	A572-50	Truss		None	0.000000
0.000000	D32	SAE	2.5X2.5X0.3125	A572-50	Truss		None	0.000000
0.000000	D33	SAE	2.5X2.5X0.3125	A572-50	Truss		None	0.000000
0.000000	D34	SAE	2.5X2.5X0.3125	A572-50	Truss		None	0.000000
0.000000	D35	SAE	2.5X2.5X0.3125	A572-50	Truss		None	0.000000
0.000000	D36	SAE	3.5X3.5X0.25	A572-50	Truss		None	0.000000
0.000000	D37	SAE	3.5X3.5X0.25	A572-50	Truss		None	0.000000
0.000000	D38	SAE	4X4X0.25	A572-50	Truss		None	0.000000
0.000000	D39	SAE	4X4X0.25	A572-50	Truss		None	0.000000
0.000000	D40	SAE	5X5X0.375	A572-50	Truss		None	0.000000
0.000000	H1	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	H2	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	H3	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	H4	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	H5	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	H6	SAE	2X2X0.1875	A572-50	Truss		None	30.480000

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

0.000000	H7	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H8	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H9	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H10	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H11	SAE	2.5X2.5X0.25	A572-50	Truss	None	30.480000
0.000000	H12	SAE	2.5X2.5X0.25	A572-50	Truss	None	30.480000
0.000000	H13	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H14	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H15	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H16	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H17	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H18	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H19	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H20	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H21	SAE	5X5X0.375	A572-50	Truss	None	30.480000
0.000000	H22	SAE	5X5X0.375	A572-50	Truss	None	30.480000
0.000000	H23	SAE	5X5X0.375	A572-50	Truss	None	30.480000
0.000000	H24	SAE	6X6X0.375	A572-50	Truss	None	30.480000
0.000000	H25	SAE	6X6X0.375	A572-50	Truss	None	30.480000
0.000000	H26	SAE	6X6X0.375	A572-50	Truss	None	30.480000
0.000000	H27	SAE	6X6X0.375	A572-50	Truss	None	30.480000

Aggregate Angle Information:

Angle Type	Angle Size	Material Type	Total Length (m)	Total Surface Area (m^2)	Total Weight (N)
DAE	2.5X2.5X0.25	A572-50	42.84	10.88	5127.14
DAE	3.5X3.5X0.25	A572-50	20.00	7.11	3385.78
DAE	4X4X0.25	A572-50	14.28	5.80	2750.88
DAE	4X4X0.375	A572-50	87.09	35.39	24910.36
DAE	4X4X0.3125	A572-50	75.92	30.85	18170.69
DAE	5X5X0.5	A572-50	22.40	11.38	10591.66
DAE	6X6X0.5	A572-50	346.30	211.10	198111.11
SAE	1.5X1.5X0.1875	A572-50	201.82	30.76	5301.49
SAE	2X2X0.1875	A572-50	456.98	92.86	16272.69
SAE	2.5X2.5X0.1875	A572-50	450.59	114.45	20187.82
SAE	2.5X2.5X0.3125	A572-50	386.77	98.24	28222.65
SAE	3.5X3.5X0.25	A572-50	224.97	80.00	19042.90
SAE	4X4X0.25	A572-50	261.46	106.26	25183.48
SAE	5X5X0.375	A572-50	256.93	130.52	46119.77
SAE	2.5X2.5X0.25	A572-50	39.23	9.96	2347.45
SAE	6X6X0.375	A572-50	384.35	234.30	83576.81

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Sections:

The adjustment factors below only apply to dead load and wind areas that are calculated for members in the model.
They do not apply to equipment or to manually input dead load and drag areas.

Section Label	Joint Defining Section Bottom	Dead Load Adjust. Factor	Transverse Drag x Area For Face	Longitudinal Drag x Area Factor For Face	Transverse Area Factor (CD From Code)	Longitudinal Area Factor (CD From Code)	Af Factor For EIA Only	Flat Face For EIA Only	Ar Round Face For EIA Only	Transverse Drag x Area Factor For All	Longitudinal Drag x Area Factor For All	SAPS Drag x Area Factor	Angle Drag x Area Factor	SAPS Round Drag x Area Factor	Force Solid Face
1	3S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
2	5S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
3	7S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
4	10P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
5	11P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
6	13S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
7	15S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
8	17S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
9	19P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
10	20P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
11	22S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
12	24S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
13	26S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
14	28S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
15	30S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
16	31S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
17	32P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
18	33S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
19	34S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
20	35S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
21	36S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
22	37S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
23	38S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
24	39S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
25	40S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
26	41S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
27	42S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None
28	ANP	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	None

Conectividad:

Etiqueta Coef.	Etiqueta de	Etiqueta del	Etiqueta de la	Código de	Unión de	Unión Final	Cód. de	Cód. de	Relac. RLX	Relac. RLY	Relac. RLZ	Torn. Tipo	# Torn.	# Barr.	# Planos de Corte	Lado a Conec.	Dist. Corta	Dist. Larga	Dist. Final	Esp. / Torn.
de Elemento Restr.	Grupo	Sección	Simetría	Origen	Exc.	Rest.											Paño (cm)	Paño (cm)	(cm)	(cm)

0	1P	M1	XY-Symmetry	1P	2S	1	5	0.5	0.5	0.5	5/8 A394 TYPE0	X	6	2	2	Both	0	0	0	0
0	1X	M1	X-GenXY	1X	2X	1	5	0.5	0.5	0.5	5/8 A394 TYPE0	X	6	2	2	Both	0	0	0	0

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	1XY	M1	XY-GenXY	1XY	2XY	1	5	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	1Y	M1	Y-GenXY	1Y	2Y	1	5	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	2P	M1	XY-Symmetry	2S	3S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	2X	M1	X-GenXY	2X	3X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	2XY	M1	XY-GenXY	2XY	3XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	2Y	M1	Y-GenXY	2Y	3Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	3P	M2	XY-Symmetry	3S	4S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	3X	M2	X-GenXY	3X	4X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	3XY	M2	XY-GenXY	3XY	4XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	3Y	M2	Y-GenXY	3Y	4Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4P	M2	XY-Symmetry	4S	5S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4X	M2	X-GenXY	4X	5X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4XY	M2	XY-GenXY	4XY	5XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4Y	M2	Y-GenXY	4Y	5Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5P	M3	XY-Symmetry	5S	6S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5X	M3	X-GenXY	5X	6X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5XY	M3	XY-GenXY	5XY	6XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5Y	M3	Y-GenXY	5Y	6Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	6P	M3	XY-Symmetry	6S	7S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	6X	M3	X-GenXY	6X	7X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	6XY	M3	XY-GenXY	6XY	7XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	6Y	M3	Y-GenXY	6Y	7Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7P	M4	XY-Symmetry	7S	8S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7X	M4	X-GenXY	7X	8X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7XY	M4	XY-GenXY	7XY	8XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7Y	M4	Y-GenXY	7Y	8Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	8P	M4	XY-Symmetry	8S	10P	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	8X	M4	X-GenXY	8X	10X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0

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0	8XY	M4	XY-GenXY	8XY	10XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	8Y	M4	Y-GenXY	8Y	10Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	9P	M5	XY-Symmetry	10P	11P	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	9X	M5	X-GenXY	10X	11X	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	9XY	M5	XY-GenXY	10XY	11XY	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	9Y	M5	Y-GenXY	10Y	11Y	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	10P	M6	XY-Symmetry	11P	12S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	10X	M6	X-GenXY	11X	12X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	10XY	M6	XY-GenXY	11XY	12XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	10Y	M6	Y-GenXY	11Y	12Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	11P	M6	XY-Symmetry	12S	13S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	11X	M6	X-GenXY	12X	13X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	11XY	M6	XY-GenXY	12XY	13XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	11Y	M6	Y-GenXY	12Y	13Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	12P	M7	XY-Symmetry	13S	14S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	12X	M7	X-GenXY	13X	14X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	12XY	M7	XY-GenXY	13XY	14XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	12Y	M7	Y-GenXY	13Y	14Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	13P	M7	XY-Symmetry	14S	15S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	13X	M7	X-GenXY	14X	15X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	13XY	M7	XY-GenXY	14XY	15XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	13Y	M7	Y-GenXY	14Y	15Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	14P	M8	XY-Symmetry	15S	16S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	14X	M8	X-GenXY	15X	16X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	14XY	M8	XY-GenXY	15XY	16XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	14Y	M8	Y-GenXY	15Y	16Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15P	M8	XY-Symmetry	16S	17S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15X	M8	X-GenXY	16X	17X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	15XY	M8	XY-GenXY	16XY	17XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15Y	M8	Y-GenXY	16Y	17Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	16P	M9	XY-Symmetry	17S	18S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	16X	M9	X-GenXY	17X	18X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	16XY	M9	XY-GenXY	17XY	18XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	16Y	M9	Y-GenXY	17Y	18Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	17P	M9	XY-Symmetry	18S	19P	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	17X	M9	X-GenXY	18X	19X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	17XY	M9	XY-GenXY	18XY	19XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	17Y	M9	Y-GenXY	18Y	19Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18P	M10	XY-Symmetry	19P	20P	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18X	M10	X-GenXY	19X	20X	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18XY	M10	XY-GenXY	19XY	20XY	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18Y	M10	Y-GenXY	19Y	20Y	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19P	M11	XY-Symmetry	20P	21S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19X	M11	X-GenXY	20X	21X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19XY	M11	XY-GenXY	20XY	21XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19Y	M11	Y-GenXY	20Y	21Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20P	M11	XY-Symmetry	21S	22S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20X	M11	X-GenXY	21X	22X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20XY	M11	XY-GenXY	21XY	22XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20Y	M11	Y-GenXY	21Y	22Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21P	M12	XY-Symmetry	22S	23S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21X	M12	X-GenXY	22X	23X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21XY	M12	XY-GenXY	22XY	23XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21Y	M12	Y-GenXY	22Y	23Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22P	M12	XY-Symmetry	23S	24S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22X	M12	X-GenXY	23X	24X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0

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0	29XY	M16	XY-GenXY	30XY	31XY	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	29Y	M16	Y-GenXY	30Y	31Y	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	30P	M17	XY-Symmetry	31S	32P	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	30X	M17	X-GenXY	31X	32X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	30XY	M17	XY-GenXY	31XY	32XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	30Y	M17	Y-GenXY	31Y	32Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	31P	M18	XY-Symmetry	32P	33S	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	31X	M18	X-GenXY	32X	33X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	31XY	M18	XY-GenXY	32XY	33XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	31Y	M18	Y-GenXY	32Y	33Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	32P	M19	XY-Symmetry	33S	34S	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	32X	M19	X-GenXY	33X	34X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	32XY	M19	XY-GenXY	33XY	34XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	32Y	M19	Y-GenXY	33Y	34Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	33P	M20	XY-Symmetry	34S	35S	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	33X	M20	X-GenXY	34X	35X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	33XY	M20	XY-GenXY	34XY	35XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	33Y	M20	Y-GenXY	34Y	35Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	34P	M21	XY-Symmetry	35S	36S	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	34X	M21	X-GenXY	35X	36X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	34XY	M21	XY-GenXY	35XY	36XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	34Y	M21	Y-GenXY	35Y	36Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	35P	M22	XY-Symmetry	36S	37S	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	35X	M22	X-GenXY	36X	37X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	35XY	M22	XY-GenXY	36XY	37XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	35Y	M22	Y-GenXY	36Y	37Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	36P	M23	XY-Symmetry	37S	38S	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	36X	M23	X-GenXY	37X	38X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0

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0	36XY	M23	XY-GenXY	37XY	38XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	36Y	M23	Y-GenXY	37Y	38Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	37P	M24	XY-Symmetry	38S	39S	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	37X	M24	X-GenXY	38X	39X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	37XY	M24	XY-GenXY	38XY	39XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	37Y	M24	Y-GenXY	38Y	39Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	38P	M25	XY-Symmetry	39S	40S	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	38X	M25	X-GenXY	39X	40X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	38XY	M25	XY-GenXY	39XY	40XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	38Y	M25	Y-GenXY	39Y	40Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	39P	M26	XY-Symmetry	40S	41S	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	39X	M26	X-GenXY	40X	41X	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	39XY	M26	XY-GenXY	40XY	41XY	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	39Y	M26	Y-GenXY	40Y	41Y	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	40P	M27	XY-Symmetry	41S	42S	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	40X	M27	X-GenXY	41X	42X	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	40XY	M27	XY-GenXY	41XY	42XY	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	40Y	M27	Y-GenXY	41Y	42Y	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	41P	M28	XY-Symmetry	42S	ANP	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	11	2	2	Both	0	0	0	0
0	41X	M28	X-GenXY	42X	ANX	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	11	2	2	Both	0	0	0	0
0	41XY	M28	XY-GenXY	42XY	ANXY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	11	2	2	Both	0	0	0	0
0	41Y	M28	Y-GenXY	42Y	ANY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	11	2	2	Both	0	0	0	0
0	42P	D1	XY-Symmetry	1P	2X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	42X	D1	X-GenXY	1X	2S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	42XY	D1	XY-GenXY	1XY	2Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	42Y	D1	Y-GenXY	1Y	2XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	43P	D1	XY-Symmetry	1P	2Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	43X	D1	X-GenXY	1X	2XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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0	43XY	D1	XY-GenXY	1XY	2X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	43Y	D1	Y-GenXY	1Y	2S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	44P	D2	XY-Symmetry	2S	3X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	44X	D2	X-GenXY	2X	3S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	44XY	D2	XY-GenXY	2XY	3Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	44Y	D2	Y-GenXY	2Y	3XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	45P	D2	XY-Symmetry	2S	3Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	45X	D2	X-GenXY	2X	3XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	45XY	D2	XY-GenXY	2XY	3X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	45Y	D2	Y-GenXY	2Y	3S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	46P	D3	XY-Symmetry	3S	4X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	46X	D3	X-GenXY	3X	4S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	46XY	D3	XY-GenXY	3XY	4Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	46Y	D3	Y-GenXY	3Y	4XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47P	D3	XY-Symmetry	3S	4Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47X	D3	X-GenXY	3X	4XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47XY	D3	XY-GenXY	3XY	4X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47Y	D3	Y-GenXY	3Y	4S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48P	D4	XY-Symmetry	4S	5X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48X	D4	X-GenXY	4X	5S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48XY	D4	XY-GenXY	4XY	5Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48Y	D4	Y-GenXY	4Y	5XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49P	D4	XY-Symmetry	4S	5Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49X	D4	X-GenXY	4X	5XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49XY	D4	XY-GenXY	4XY	5X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49Y	D4	Y-GenXY	4Y	5S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50P	D5	XY-Symmetry	5S	6X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50X	D5	X-GenXY	5X	6S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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0	50XY	D5	XY-GenXY	5XY	6Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50Y	D5	Y-GenXY	5Y	6XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51P	D5	XY-Symmetry	5S	6Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51X	D5	X-GenXY	5X	6XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51XY	D5	XY-GenXY	5XY	6X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51Y	D5	Y-GenXY	5Y	6S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52P	D6	XY-Symmetry	6S	7X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52X	D6	X-GenXY	6X	7S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52XY	D6	XY-GenXY	6XY	7Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52Y	D6	Y-GenXY	6Y	7XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	53P	D6	XY-Symmetry	6S	7Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	53X	D6	X-GenXY	6X	7XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	53XY	D6	XY-GenXY	6XY	7X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	53Y	D6	Y-GenXY	6Y	7S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	54P	D7	XY-Symmetry	7S	8X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	54X	D7	X-GenXY	7X	8S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	54XY	D7	XY-GenXY	7XY	8Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	54Y	D7	Y-GenXY	7Y	8XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	55P	D7	XY-Symmetry	7S	8Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	55X	D7	X-GenXY	7X	8XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	55XY	D7	XY-GenXY	7XY	8X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	55Y	D7	Y-GenXY	7Y	8S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	56P	D8	XY-Symmetry	8S	10X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	56X	D8	X-GenXY	8X	10P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	56XY	D8	XY-GenXY	8XY	10Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	56Y	D8	Y-GenXY	8Y	10XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	57P	D8	XY-Symmetry	8S	10Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	57X	D8	X-GenXY	8X	10XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	57XY	D8	XY-GenXY	8XY	10X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	57Y	D8	Y-GenXY	8Y	10P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	58P	D9	XY-Symmetry	10P	11X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	58X	D9	X-GenXY	10X	11P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	58XY	D9	XY-GenXY	10XY	11Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	58Y	D9	Y-GenXY	10Y	11XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	59P	D9	XY-Symmetry	10P	11Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	59X	D9	X-GenXY	10X	11XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	59XY	D9	XY-GenXY	10XY	11X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	59Y	D9	Y-GenXY	10Y	11P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	60P	D10	XY-Symmetry	11P	12X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	60X	D10	X-GenXY	11X	12S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	60XY	D10	XY-GenXY	11XY	12Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	60Y	D10	Y-GenXY	11Y	12XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	61P	D10	XY-Symmetry	11P	12Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	61X	D10	X-GenXY	11X	12XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	61XY	D10	XY-GenXY	11XY	12X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	61Y	D10	Y-GenXY	11Y	12S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	62P	D11	XY-Symmetry	12S	13X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	62X	D11	X-GenXY	12X	13S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	62XY	D11	XY-GenXY	12XY	13Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	62Y	D11	Y-GenXY	12Y	13XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	63P	D11	XY-Symmetry	12S	13Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	63X	D11	X-GenXY	12X	13XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	63XY	D11	XY-GenXY	12XY	13X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	63Y	D11	Y-GenXY	12Y	13S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	64P	D12	XY-Symmetry	13S	14X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	64X	D12	X-GenXY	13X	14S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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0	64XY	D12	XY-GenXY	13XY	14Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	64Y	D12	Y-GenXY	13Y	14XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	65P	D12	XY-Symmetry	13S	14Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	65X	D12	X-GenXY	13X	14XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	65XY	D12	XY-GenXY	13XY	14X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	65Y	D12	Y-GenXY	13Y	14S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	66P	D13	XY-Symmetry	14S	15X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	66X	D13	X-GenXY	14X	15S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	66XY	D13	XY-GenXY	14XY	15Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	66Y	D13	Y-GenXY	14Y	15XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	67P	D13	XY-Symmetry	14S	15Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	67X	D13	X-GenXY	14X	15XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	67XY	D13	XY-GenXY	14XY	15X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	67Y	D13	Y-GenXY	14Y	15S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	68P	D14	XY-Symmetry	15S	16X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	68X	D14	X-GenXY	15X	16S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	68XY	D14	XY-GenXY	15XY	16Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	68Y	D14	Y-GenXY	15Y	16XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	69P	D14	XY-Symmetry	15S	16Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	69X	D14	X-GenXY	15X	16XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	69XY	D14	XY-GenXY	15XY	16X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	69Y	D14	Y-GenXY	15Y	16S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	70P	D15	XY-Symmetry	16S	17X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	70X	D15	X-GenXY	16X	17S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	70XY	D15	XY-GenXY	16XY	17Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	70Y	D15	Y-GenXY	16Y	17XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	71P	D15	XY-Symmetry	16S	17Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	71X	D15	X-GenXY	16X	17XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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0	71XY	D15	XY-GenXY	16XY	17X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	71Y	D15	Y-GenXY	16Y	17S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	72P	D16	XY-Symmetry	17S	18X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	72X	D16	X-GenXY	17X	18S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	72XY	D16	XY-GenXY	17XY	18Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	72Y	D16	Y-GenXY	17Y	18XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	73P	D16	XY-Symmetry	17S	18Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	73X	D16	X-GenXY	17X	18XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	73XY	D16	XY-GenXY	17XY	18X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	73Y	D16	Y-GenXY	17Y	18S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	74P	D17	XY-Symmetry	18S	19X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	74X	D17	X-GenXY	18X	19P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	74XY	D17	XY-GenXY	18XY	19Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	74Y	D17	Y-GenXY	18Y	19XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	75P	D17	XY-Symmetry	18S	19Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	75X	D17	X-GenXY	18X	19XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	75XY	D17	XY-GenXY	18XY	19X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	75Y	D17	Y-GenXY	18Y	19P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	76P	D18	XY-Symmetry	19P	20X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	76X	D18	X-GenXY	19X	20P	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	76XY	D18	XY-GenXY	19XY	20Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	76Y	D18	Y-GenXY	19Y	20XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	77P	D18	XY-Symmetry	19P	20Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	77X	D18	X-GenXY	19X	20XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	77XY	D18	XY-GenXY	19XY	20X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	77Y	D18	Y-GenXY	19Y	20P	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78P	D19	XY-Symmetry	20P	21X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78X	D19	X-GenXY	20X	21S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	78XY	D19	XY-GenXY	20XY	21Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78Y	D19	Y-GenXY	20Y	21XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79P	D19	XY-Symmetry	20P	21Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79X	D19	X-GenXY	20X	21XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79XY	D19	XY-GenXY	20XY	21X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79Y	D19	Y-GenXY	20Y	21S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80P	D20	XY-Symmetry	21S	22X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80X	D20	X-GenXY	21X	22S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80XY	D20	XY-GenXY	21XY	22Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80Y	D20	Y-GenXY	21Y	22XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81P	D20	XY-Symmetry	21S	22Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81X	D20	X-GenXY	21X	22XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81XY	D20	XY-GenXY	21XY	22X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81Y	D20	Y-GenXY	21Y	22S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82P	D21	XY-Symmetry	22S	23X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82X	D21	X-GenXY	22X	23S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82XY	D21	XY-GenXY	22XY	23Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82Y	D21	Y-GenXY	22Y	23XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83P	D21	XY-Symmetry	22S	23Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83X	D21	X-GenXY	22X	23XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83XY	D21	XY-GenXY	22XY	23X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83Y	D21	Y-GenXY	22Y	23S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84P	D22	XY-Symmetry	23S	24X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84X	D22	X-GenXY	23X	24S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84XY	D22	XY-GenXY	23XY	24Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84Y	D22	Y-GenXY	23Y	24XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85P	D22	XY-Symmetry	23S	24Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85X	D22	X-GenXY	23X	24XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	85XY	D22	XY-GenXY	23XY	24X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85Y	D22	Y-GenXY	23Y	24S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86P	D23	XY-Symmetry	24S	25X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86X	D23	X-GenXY	24X	25S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86XY	D23	XY-GenXY	24XY	25Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86Y	D23	Y-GenXY	24Y	25XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87P	D23	XY-Symmetry	24S	25Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87X	D23	X-GenXY	24X	25XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87XY	D23	XY-GenXY	24XY	25X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87Y	D23	Y-GenXY	24Y	25S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88P	D24	XY-Symmetry	25S	26X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88X	D24	X-GenXY	25X	26S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88XY	D24	XY-GenXY	25XY	26Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88Y	D24	Y-GenXY	25Y	26XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89P	D24	XY-Symmetry	25S	26Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89X	D24	X-GenXY	25X	26XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89XY	D24	XY-GenXY	25XY	26X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89Y	D24	Y-GenXY	25Y	26S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90P	D25	XY-Symmetry	26S	27X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90X	D25	X-GenXY	26X	27S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90XY	D25	XY-GenXY	26XY	27Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90Y	D25	Y-GenXY	26Y	27XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91P	D25	XY-Symmetry	26S	27Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91X	D25	X-GenXY	26X	27XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91XY	D25	XY-GenXY	26XY	27X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91Y	D25	Y-GenXY	26Y	27S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92P	D26	XY-Symmetry	27S	28X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92X	D26	X-GenXY	27X	28S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	92XY	D26	XY-GenXY	27XY	28Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92Y	D26	Y-GenXY	27Y	28XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93P	D26	XY-Symmetry	27S	28Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93X	D26	X-GenXY	27X	28XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93XY	D26	XY-GenXY	27XY	28X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93Y	D26	Y-GenXY	27Y	28S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94P	D27	XY-Symmetry	28S	29X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94X	D27	X-GenXY	28X	29S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94XY	D27	XY-GenXY	28XY	29Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94Y	D27	Y-GenXY	28Y	29XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95P	D27	XY-Symmetry	28S	29Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95X	D27	X-GenXY	28X	29XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95XY	D27	XY-GenXY	28XY	29X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95Y	D27	Y-GenXY	28Y	29S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96P	D28	XY-Symmetry	29S	30X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96X	D28	X-GenXY	29X	30S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96XY	D28	XY-GenXY	29XY	30Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96Y	D28	Y-GenXY	29Y	30XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97P	D28	XY-Symmetry	29S	30Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97X	D28	X-GenXY	29X	30XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97XY	D28	XY-GenXY	29XY	30X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97Y	D28	Y-GenXY	29Y	30S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98P	D29	XY-Symmetry	30S	31X	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98X	D29	X-GenXY	30X	31S	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98XY	D29	XY-GenXY	30XY	31Y	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98Y	D29	Y-GenXY	30Y	31XY	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99P	D29	XY-Symmetry	30S	31Y	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99X	D29	X-GenXY	30X	31XY	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	99XY	D29	XY-GenXY	30XY	31X	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99Y	D29	Y-GenXY	30Y	31S	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	100P	D30	XY-Symmetry	31S	32X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	100X	D30	X-GenXY	31X	32P	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	100XY	D30	XY-GenXY	31XY	32Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	100Y	D30	Y-GenXY	31Y	32XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	101P	D30	XY-Symmetry	31S	32Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	101X	D30	X-GenXY	31X	32XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	101XY	D30	XY-GenXY	31XY	32X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	101Y	D30	Y-GenXY	31Y	32P	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	102P	D31	XY-Symmetry	32P	33X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	102X	D31	X-GenXY	32X	33S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	102XY	D31	XY-GenXY	32XY	33Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	102Y	D31	Y-GenXY	32Y	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	103P	D31	XY-Symmetry	32P	33Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	103X	D31	X-GenXY	32X	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	103XY	D31	XY-GenXY	32XY	33X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	103Y	D31	Y-GenXY	32Y	33S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104P	D32	XY-Symmetry	33S	34X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104X	D32	X-GenXY	33X	34S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104XY	D32	XY-GenXY	33XY	34Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104Y	D32	Y-GenXY	33Y	34XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105P	D32	XY-Symmetry	33S	34Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105X	D32	X-GenXY	33X	34XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105XY	D32	XY-GenXY	33XY	34X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105Y	D32	Y-GenXY	33Y	34S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106P	D33	XY-Symmetry	34S	35X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106X	D33	X-GenXY	34X	35S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	106XY	D33	XY-GenXY	34XY	35Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106Y	D33	Y-GenXY	34Y	35XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107P	D33	XY-Symmetry	34S	35Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107X	D33	X-GenXY	34X	35XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107XY	D33	XY-GenXY	34XY	35X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107Y	D33	Y-GenXY	34Y	35S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108P	D34	XY-Symmetry	35S	36X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108X	D34	X-GenXY	35X	36S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108XY	D34	XY-GenXY	35XY	36Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108Y	D34	Y-GenXY	35Y	36XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109P	D34	XY-Symmetry	35S	36Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109X	D34	X-GenXY	35X	36XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109XY	D34	XY-GenXY	35XY	36X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109Y	D34	Y-GenXY	35Y	36S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	110P	D35	None	36S	372S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	111P	D35	None	372S	36Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	112P	D35	None	36Y	373S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	113P	D35	None	373S	36XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	114P	D35	None	36XY	374S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	115P	D35	None	374S	36X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	116P	D35	None	36X	371S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	117P	D35	None	371S	36S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	118P	D36	None	38S	372S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	119P	D36	None	372S	38Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	120P	D36	None	38Y	373S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	121P	D36	None	373S	38XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	122P	D36	None	38XY	374S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	123P	D36	None	374S	38X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	124P	D36	None	38X	371S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	125P	D36	None	371S	38S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	126P	D37	None	38S	392S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	127P	D37	None	392S	38Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	128P	D37	None	38Y	393S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	129P	D37	None	393S	38XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	130P	D37	None	38XY	394S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	131P	D37	None	394S	38X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	132P	D37	None	38X	391S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	133P	D37	None	391S	38S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	134P	D38	None	40S	392S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	135P	D38	None	392S	40Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	136P	D38	None	40Y	393S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	137P	D38	None	393S	40XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	138P	D38	None	40XY	394S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	139P	D38	None	394S	40X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	140P	D38	None	40X	391S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	141P	D38	None	391S	40S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	142P	D39	None	40S	412S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	143P	D39	None	412S	40Y	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	144P	D39	None	40Y	413S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	145P	D39	None	413S	40XY	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	146P	D39	None	40XY	414S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	147P	D39	None	414S	40X	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	148P	D39	None	40X	411S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	149P	D39	None	411S	40S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	158P	D40	None	ANP	411S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	159P	D40	None	ANY	412S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0

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0	160P	D40	None	ANY	413S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	161P	D40	None	ANXY	413S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	162P	D40	None	ANXY	414S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	163P	D40	None	ANX	414S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	164P	D40	None	ANX	411S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	165P	D40	None	ANP	412S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	166P	H1	Y-Symmetry	1P	1X	1	6	1	1	1 5/8 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	166Y	H1	Y-Gen	1Y	1XY	1	6	1	1	1 5/8 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	167P	H1	X-Symmetry	1P	1Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	167X	H1	X-Gen	1X	1XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1661P	H2	Y-Symmetry	3S	3X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1661Y	H2	Y-Gen	3Y	3XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1671P	H2	X-Symmetry	3S	3Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1671X	H2	X-Gen	3X	3XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1662P	H3	Y-Symmetry	5S	5X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1662Y	H3	Y-Gen	5Y	5XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1672P	H3	X-Symmetry	5S	5Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1672X	H3	X-Gen	5X	5XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1663P	H4	Y-Symmetry	7S	7X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1663Y	H4	Y-Gen	7Y	7XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1674P	H4	X-Symmetry	7S	7Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1674X	H4	X-Gen	7X	7XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	168P	H5	Y-Symmetry	10P	10X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	168Y	H5	Y-Gen	10Y	10XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	169P	H5	X-Symmetry	10P	10Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	169X	H5	X-Gen	10X	10XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	170P	H6	Y-Symmetry	11P	11X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	170Y	H6	Y-Gen	11Y	11XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	171P	H6	X-Symmetry	11P	11Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	171X	H6	X-Gen	11X	11XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1701P	H7	Y-Symmetry	13S	13X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1701Y	H7	Y-Gen	13Y	13XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1712P	H7	X-Symmetry	13S	13Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1712X	H7	X-Gen	13X	13XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1703P	H8	Y-Symmetry	15S	15X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1703Y	H8	Y-Gen	15Y	15XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1714P	H8	X-Symmetry	15S	15Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1714X	H8	X-Gen	15X	15XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1704P	H9	Y-Symmetry	17S	17X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1704Y	H9	Y-Gen	17Y	17XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1705P	H9	X-Symmetry	17S	17Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1705X	H9	X-Gen	17X	17XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	172P	H10	Y-Symmetry	19P	19X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	172Y	H10	Y-Gen	19Y	19XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1721P	H10	X-Symmetry	19P	19Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1721X	H10	X-Gen	19X	19XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1722P	H11	Y-Symmetry	20P	20X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1722Y	H11	Y-Gen	20Y	20XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1723P	H11	X-Symmetry	20P	20Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1723X	H11	X-Gen	20X	20XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17231P	H12	Y-Symmetry	22S	22X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17231Y	H12	Y-Gen	22Y	22XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17241P	H12	X-Symmetry	22S	22Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17241X	H12	X-Gen	22X	22XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17251P	H13	Y-Symmetry	24S	24X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17251Y	H13	Y-Gen	24Y	24XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	1726P	H13	X-Symmetry	24S	24Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1726X	H13	X-Gen	24X	24XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17252P	H14	Y-Symmetry	26S	26X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17252Y	H14	Y-Gen	26Y	26XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17261P	H14	X-Symmetry	26S	26Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17261X	H14	X-Gen	26X	26XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17253P	H15	Y-Symmetry	28S	28X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17253Y	H15	Y-Gen	28Y	28XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17262P	H15	X-Symmetry	28S	28Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17262X	H15	X-Gen	28X	28XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17254P	H16	Y-Symmetry	30S	30X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17254Y	H16	Y-Gen	30Y	30XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17263P	H16	X-Symmetry	30S	30Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17263X	H16	X-Gen	30X	30XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17255P	H17	Y-Symmetry	31S	31X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17255Y	H17	Y-Gen	31Y	31XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17264P	H17	X-Symmetry	31S	31Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17264X	H17	X-Gen	31X	31XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1724P	H18	Y-Symmetry	32P	32X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1724Y	H18	Y-Gen	32Y	32XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1725P	H18	X-Symmetry	32P	32Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1725X	H18	X-Gen	32X	32XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1728P	H19	Y-Symmetry	33S	33X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1728Y	H19	Y-Gen	33Y	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1727P	H19	X-Symmetry	33S	33Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1727X	H19	X-Gen	33X	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1729P	H20	Y-Symmetry	34S	34X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1729Y	H20	Y-Gen	34Y	34XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	1720P	H20	X-Symmetry	34S	34Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1720X	H20	X-Gen	34X	34XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17291P	H21	Y-Symmetry	35S	35X	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17291Y	H21	Y-Gen	35Y	35XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17201P	H21	X-Symmetry	35S	35Y	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17201X	H21	X-Gen	35X	35XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17292P	H22	Y-Symmetry	36S	36X	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17292Y	H22	Y-Gen	36Y	36XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17202P	H22	X-Symmetry	36S	36Y	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17202X	H22	X-Gen	36X	36XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	173P	H23	None	37S	372S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	174P	H23	None	372S	37Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	175P	H23	None	37Y	373S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	176P	H23	None	373S	37XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	177P	H23	None	37XY	374S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	178P	H23	None	374S	37X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	179P	H23	None	37X	371S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	180P	H23	None	371S	37S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17293P	H24	Y-Symmetry	38S	38X	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17293Y	H24	Y-Gen	38Y	38XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17203P	H24	X-Symmetry	38S	38Y	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17203X	H24	X-Gen	38X	38XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	181P	H25	None	39S	392S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	182P	H25	None	392S	39Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	183P	H25	None	39Y	393S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	184P	H25	None	393S	39XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	185P	H25	None	39XY	394S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	186P	H25	None	394S	39X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	187P	H25	None	39X	391S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	188P	H25	None	391S	39S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17294P	H26	Y-Symmetry	40S	40X	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17294Y	H26	Y-Gen	40Y	40XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17204P	H26	X-Symmetry	40S	40Y	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17204X	H26	X-Gen	40X	40XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	189P	H27	None	41S	412S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	190P	H27	None	412S	41Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	191P	H27	None	41Y	413S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	192P	H27	None	413S	41XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	193P	H27	None	41XY	414S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	194P	H27	None	414S	41X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	195P	H27	None	41X	411S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	196P	H27	None	411S	41S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	205P	H26	None	411S	412S	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	206P	H27	None	412S	413S	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	207P	H27	None	413S	414S	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	208P	H27	None	414S	411S	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	209P	H27	None	391S	392S	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	210P	H27	None	392S	393S	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	211P	H27	None	393S	394S	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	212P	H27	None	394S	391S	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	213P	H27	None	371S	372S	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	214P	H27	None	372S	373S	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	215P	H27	None	373S	374S	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	216P	H27	None	374S	371S	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

Member Capacities and Overrides:

Member Group	Design	Comp.	Design	Tension	L/r Length	L/r Connection	Connection	Net	Rupture	RTE End	RTE Edge	Override	Override	Override	Override	Override	Warnings

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Label	Label	Comp. Capacity	Control Criterion	Tension Capacity	Control Criterion		Comp. Capacity	Shear Capacity	Bearing Capacity	Section Tension Capacity	Tension Capacity	Dist. Tension Capacity	Dist. Tension Capacity	Comp. Capacity	Comp. Control Criterion	Tension Capacity	Tension Control Criterion	Face or Member ship	Errors
		(kN)		(kN)			(m)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)		(kN)			
1P	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
1X	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
1XY	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
1Y	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
2P	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
2X	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
2XY	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
2Y	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
3P	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
3X	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
3XY	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
3Y	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
4P	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
4X	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
4XY	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
4Y	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000		0.000		Automatic	
5P	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000		0.000		Automatic	
5X	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000		0.000		Automatic	
5XY	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000		0.000		Automatic	
5Y	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000		0.000		Automatic	
6P	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000		0.000		Automatic	
6X	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000		0.000		Automatic	
6XY	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000		0.000		Automatic	
6Y	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000		0.000		Automatic	
7P	M4	408.498	L/r	511.224	Net Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	0.000		0.000		Automatic	
7X	M4	408.498	L/r	511.224	Net Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	0.000		0.000		Automatic	
7XY	M4	408.498	L/r	511.224	Net Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	0.000		0.000		Automatic	
7Y	M4	408.498	L/r	511.224	Net Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	0.000		0.000		Automatic	
8P	M4	325.275	Bearing	325.275	Bearing	25	1.57	419.569	376.319	325.275	511.224	0.000	0.000	0.000		0.000		Automatic	
8X	M4	325.275	Bearing	325.275	Bearing	25	1.57	419.569	376.319	325.275	511.224	0.000	0.000	0.000		0.000		Automatic	
8XY	M4	325.275	Bearing	325.275	Bearing	25	1.57	419.569	376.319	325.275	511.224	0.000	0.000	0.000		0.000		Automatic	
8Y	M4	325.275	Bearing	325.275	Bearing	25	1.57	419.569	376.319	325.275	511.224	0.000	0.000	0.000		0.000		Automatic	
9P	M5	376.319	Shear	376.319	Shear	33	4.10	681.890	376.319	487.913	752.381	0.000	0.000	0.000		0.000		Automatic	
9X	M5	376.319	Shear	376.319	Shear	33	4.10	681.890	376.319	487.913	752.381	0.000	0.000	0.000		0.000		Automatic	
9XY	M5	376.319	Shear	376.319	Shear	33	4.10	681.890	376.319	487.913	752.381	0.000	0.000	0.000		0.000		Automatic	
9Y	M5	376.319	Shear	376.319	Shear	33	4.10	681.890	376.319	487.913	752.381	0.000	0.000	0.000		0.000		Automatic	
10P	M6	376.319	Shear	376.319	Shear	46	2.89	634.163	376.319	487.913	752.381	0.000	0.000	0.000		0.000		Automatic	
10X	M6	376.319	Shear	376.319	Shear	46	2.89	634.163	376.319	487.913	752.381	0.000	0.000	0.000		0.000		Automatic	
10XY	M6	376.319	Shear	376.319	Shear	46	2.89	634.163	376.319	487.913	752.381	0.000	0.000	0.000		0.000		Automatic	
10Y	M6	376.319	Shear	376.319	Shear	46	2.89	634.163	376.319	487.913	752.381	0.000	0.000	0.000		0.000		Automatic	
11P	M6	627.199	Shear	627.199	Shear	40	2.50	657.230	627.199	813.188	752.381	0.000	0.000	0.000		0.000		Automatic	
11X	M6	627.199	Shear	627.199	Shear	40	2.50	657.230	627.199	813.188	752.381	0.000	0.000	0.000		0.000		Automatic	
11XY	M6	627.199	Shear	627.199	Shear	40	2.50	657.230	627.199	813.188	752.381	0.000	0.000	0.000		0.000		Automatic	
11Y	M6	627.199	Shear	627.199	Shear	40	2.50	657.230	627.199	813.188	752.381	0.000	0.000	0.000		0.000		Automatic	
12P	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000		0.000		Automatic	
12X	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000		0.000		Automatic	
12XY	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000		0.000		Automatic	
12Y	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000		0.000		Automatic	
13P	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000		0.000		Automatic	
13X	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000		0.000		Automatic	
13XY	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000		0.000		Automatic	

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13Y	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
14P	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
14X	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
14XY	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
14Y	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
15P	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
15X	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
15XY	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
15Y	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
16P	M9	575.075	L/r	620.508	Net Sect	32	2.00	575.075	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
16X	M9	575.075	L/r	620.508	Net Sect	32	2.00	575.075	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
16XY	M9	575.075	L/r	620.508	Net Sect	32	2.00	575.075	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
16Y	M9	575.075	L/r	620.508	Net Sect	32	2.00	575.075	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
17P	M9	592.276	L/r	620.508	Net Sect	25	1.58	592.276	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
17X	M9	592.276	L/r	620.508	Net Sect	25	1.58	592.276	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
17XY	M9	592.276	L/r	620.508	Net Sect	25	1.58	592.276	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
17Y	M9	592.276	L/r	620.508	Net Sect	25	1.58	592.276	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
18P	M10	605.559	L/r	738.828	Net Sect	53	6.68	605.559	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
18X	M10	605.559	L/r	738.828	Net Sect	53	6.68	605.559	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
18XY	M10	605.559	L/r	738.828	Net Sect	53	6.68	605.559	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
18Y	M10	605.559	L/r	738.828	Net Sect	53	6.68	605.559	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
19P	M11	639.624	L/r	738.828	Net Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
19X	M11	639.624	L/r	738.828	Net Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
19XY	M11	639.624	L/r	738.828	Net Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
19Y	M11	639.624	L/r	738.828	Net Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
20P	M11	639.624	L/r	738.828	Net Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
20X	M11	639.624	L/r	738.828	Net Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
20XY	M11	639.624	L/r	738.828	Net Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
20Y	M11	639.624	L/r	738.828	Net Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
21P	M12	542.838	L/r	620.508	Net Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
21X	M12	542.838	L/r	620.508	Net Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
21XY	M12	542.838	L/r	620.508	Net Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
21Y	M12	542.838	L/r	620.508	Net Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
22P	M12	542.838	L/r	620.508	Net Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
22X	M12	542.838	L/r	620.508	Net Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
22XY	M12	542.838	L/r	620.508	Net Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
22Y	M12	542.838	L/r	620.508	Net Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
23P	M13	1115.960	L/r	1255.924	Net Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
23X	M13	1115.960	L/r	1255.924	Net Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
23XY	M13	1115.960	L/r	1255.924	Net Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
23Y	M13	1115.960	L/r	1255.924	Net Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
24P	M13	1115.960	L/r	1255.924	Net Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
24X	M13	1115.960	L/r	1255.924	Net Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
24XY	M13	1115.960	L/r	1255.924	Net Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
24Y	M13	1115.960	L/r	1255.924	Net Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
25P	M14	1391.298	L/r	1534.633	Net Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
25X	M14	1391.298	L/r	1534.633	Net Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
25XY	M14	1391.298	L/r	1534.633	Net Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
25Y	M14	1391.298	L/r	1534.633	Net Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
26P	M14	1391.298	L/r	1534.633	Net Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
26X	M14	1391.298	L/r	1534.633	Net Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
26XY	M14	1391.298	L/r	1534.633	Net Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
26Y	M14	1391.298	L/r	1534.633	Net Sect	30	2.80	1391.298	1621.377	2341.982	1534.633	0.000	0.000	0.000	0.000	0.000	Automatic
27P	M15	1394.615	L/r	1526.987	Net Sect	29	2.75	1394.615	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
27X	M15	1394.615	L/r	1526.987	Net Sect	29	2.75	1394.615	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic
27XY	M15	1394.615	L/r	1526.987	Net Sect	29	2.75	1394.615	2059.520	3035.903	1526.987	0.000	0.000	0.000	0.000	0.000	Automatic

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41Y	M28	1381.692	L/r	1526.987	Net Sect	31	5.89	1381.692	2265.472	3339.493	1526.987	0.000	0.000	0.000	0.000		Automatic
42P	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
42X	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
42XY	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
42Y	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
43P	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
43X	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
43XY	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
43Y	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
44P	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
44X	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
44XY	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
44Y	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
45P	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
45X	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
45XY	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
45Y	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
46P	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
46X	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
46XY	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
46Y	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
47P	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
47X	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
47XY	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic
47Y	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000		Automatic



INSTATEL COLOMBIA CI
LTDA
Carrera 124 No. 17-98
Fontibón - Bogotá - Phone: (57) 5470790

Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1
Project	TORRE CUADRADA AUTOSOPORTADA DE 150m
Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA

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Date	17:07:07 03/17/10
Designed by	Leopoldo Barrera

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97Y	D28	17.754	L/r	81.319	Bearing	224	5.62	17.754	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
98P	D29	9.905	L/r	63.005	Net Sect	280	5.60	9.905	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
98X	D29	9.905	L/r	63.005	Net Sect	280	5.60	9.905	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
98XY	D29	9.905	L/r	63.005	Net Sect	280	5.60	9.905	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
98Y	D29	9.905	L/r	63.005	Net Sect	280	5.60	9.905	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
99P	D29	9.905	L/r	63.005	Net Sect	280	5.60	9.905	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
99X	D29	9.905	L/r	63.005	Net Sect	280	5.60	9.905	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
99XY	D29	9.905	L/r	63.005	Net Sect	280	5.60	9.905	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
99Y	D29	9.905	L/r	63.005	Net Sect	280	5.60	9.905	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
100P	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
100X	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
100XY	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
100Y	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
101P	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
101X	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
101XY	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
101Y	D30	12.614	L/r	63.005	Net Sect	239	7.50	12.614	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
102P	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
102X	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
102XY	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
102Y	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
103P	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
103X	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
103XY	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
103Y	D31	29.299	L/r	125.440	Shear	221	8.53	29.299	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
104P	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
104X	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
104XY	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
104Y	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
105P	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
105X	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
105XY	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
105Y	D32	25.383	L/r	125.440	Shear	243	9.38	25.383	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
106P	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
106X	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
106XY	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
106Y	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
107P	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
107X	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
107XY	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
107Y	D33	21.190	L/r	125.440	Shear	273	10.54	21.190	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
108P	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
108X	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
108XY	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
108Y	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
109P	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
109X	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
109XY	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
109Y	D34	17.792	L/r	125.440	Shear	305	11.77	17.792	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
110P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
111P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
112P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
113P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
114P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
115P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
116P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	40 of 144
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

117P	D35	31.554	L/r	125.440	Shear	210	8.12	31.554	125.440	135.531	135.006	0.000	0.000	0.000	0.000	0.000	Automatic
118P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
119P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
120P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
121P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
122P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
123P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
124P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
125P	D36	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
126P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
127P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
128P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
129P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
130P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
131P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
132P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
133P	D37	51.318	L/r	108.425	Bearing	165	9.16	51.318	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
134P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
135P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
136P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
137P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
138P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
139P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
140P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
141P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
142P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
143P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
144P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
145P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
146P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
147P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
148P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
149P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
158P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
159P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
160P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
161P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
162P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
163P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
164P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
165P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
166P	H1	14.917	L/r	40.659	Bearing	175	1.30	14.917	62.720	40.659	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
166Y	H1	14.917	L/r	40.659	Bearing	175	1.30	14.917	62.720	40.659	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
167P	H1	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
167X	H1	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1661P	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1661Y	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1671P	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1671X	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1662P	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1662Y	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1672P	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1672X	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1663P	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1663Y	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1674P	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic

[illegible]

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	Project	Date
	Client	Designed by
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	42 of 144
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

1725X	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1728P	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1728Y	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1727P	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1727X	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1729P	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1729Y	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1720P	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1720X	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17291P	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17291Y	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17201P	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17201X	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17292P	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17292Y	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17202P	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17202X	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
173P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
174P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
175P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
176P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
177P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
178P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
179P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
180P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17293P	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17293Y	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17203P	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17203X	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
181P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
182P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
183P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
184P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
185P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
186P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
187P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
188P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17294P	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17294Y	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17204P	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17204X	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
189P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
190P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
191P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
192P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
193P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
194P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
195P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
196P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
205P	H26	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
206P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
207P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
208P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
209P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
210P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
211P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	43 of 144
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

212P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
213P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
214P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
215P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
216P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic

Section Joint Information:

Section	Joint	Joint
Label	Label	Elevation
		(m)

1	1P	150.911
1	2S	147.700
1	1X	150.911
1	2X	147.700
1	1XY	150.911
1	2XY	147.700
1	1Y	150.911
1	2Y	147.700
1	3S	145.200
1	3X	145.200
1	3XY	145.200
1	3Y	145.200
2	3S	145.200
2	4S	142.700
2	3X	145.200
2	4X	142.700
2	3XY	145.200
2	4XY	142.700
2	3Y	145.200
2	4Y	142.700
2	5S	140.200
2	5X	140.200
2	5XY	140.200
2	5Y	140.200
3	5S	140.200
3	6S	137.700
3	5X	140.200
3	6X	137.700
3	5XY	140.200
3	6XY	137.700
3	5Y	140.200
3	6Y	137.700
3	7S	135.200
3	7X	135.200
3	7XY	135.200
3	7Y	135.200
4	7S	135.200
4	8S	133.200
4	7X	135.200
4	8X	133.200
4	7XY	135.200
4	8XY	133.200
4	7Y	135.200
4	8Y	133.200

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

4 10P 131.630
4 10X 131.630
4 10XY 131.630
4 10Y 131.630
5 10P 131.630
5 11P 127.590
5 10X 131.630
5 11X 127.590
5 10XY 131.630
5 11XY 127.590
5 10Y 131.630
5 11Y 127.590
6 11P 127.590
6 12S 124.700
6 11X 127.590
6 12X 124.700
6 11XY 127.590
6 12XY 124.700
6 11Y 127.590
6 12Y 124.700
6 13S 122.200
6 13X 122.200
6 13XY 122.200
6 13Y 122.200
7 13S 122.200
7 14S 119.700
7 13X 122.200
7 14X 119.700
7 13XY 122.200
7 14XY 119.700
7 13Y 122.200
7 14Y 119.700
7 15S 117.200
7 15X 117.200
7 15XY 117.200
7 15Y 117.200
8 15S 117.200
8 16S 114.700
8 15X 117.200
8 16X 114.700
8 15XY 117.200
8 16XY 114.700
8 15Y 117.200
8 16Y 114.700
8 17S 112.200
8 17X 112.200
8 17XY 112.200
8 17Y 112.200
9 17S 112.200
9 18S 110.200
9 17X 112.200
9 18X 110.200
9 17XY 112.200
9 18XY 110.200
9 17Y 112.200
9 18Y 110.200

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	45 of 144
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

9 19P 108.620
9 19X 108.620
9 19XY 108.620
9 19Y 108.620
10 19P 108.620
10 20P 102.200
10 19X 108.620
10 20X 102.200
10 19XY 108.620
10 20XY 102.200
10 19Y 108.620
10 20Y 102.200
11 20P 102.200
11 21S 99.400
11 20X 102.200
11 21X 99.400
11 20XY 102.200
11 21XY 99.400
11 20Y 102.200
11 21Y 99.400
11 22S 96.600
11 22X 96.600
11 22XY 96.600
11 22Y 96.600
12 22S 96.600
12 23S 93.900
12 22X 96.600
12 23X 93.900
12 22XY 96.600
12 23XY 93.900
12 22Y 96.600
12 23Y 93.900
12 24S 91.200
12 24X 91.200
12 24XY 91.200
12 24Y 91.200
13 24S 91.200
13 25S 88.400
13 24X 91.200
13 25X 88.400
13 24XY 91.200
13 25XY 88.400
13 24Y 91.200
13 25Y 88.400
13 26S 85.600
13 26X 85.600
13 26XY 85.600
13 26Y 85.600
14 26S 85.600
14 27S 82.800
14 26X 85.600
14 27X 82.800
14 26XY 85.600
14 27XY 82.800
14 26Y 85.600
14 27Y 82.800

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14	28S	80.000
14	28X	80.000
14	28XY	80.000
14	28Y	80.000
15	28S	80.000
15	29S	77.250
15	28X	80.000
15	29X	77.250
15	28XY	80.000
15	29XY	77.250
15	28Y	80.000
15	29Y	77.250
15	30S	74.500
15	30X	74.500
15	30XY	74.500
15	30Y	74.500
16	30S	74.500
16	31S	71.800
16	30X	74.500
16	31X	71.800
16	30XY	74.500
16	31XY	71.800
16	30Y	74.500
16	31Y	71.800
17	31S	71.800
17	32P	66.125
17	31X	71.800
17	32X	66.125
17	31XY	71.800
17	32XY	66.125
17	31Y	71.800
17	32Y	66.125
18	32P	66.125
18	33S	59.800
18	32X	66.125
18	33X	59.800
18	32XY	66.125
18	33XY	59.800
18	32Y	66.125
18	33Y	59.800
19	33S	59.800
19	34S	53.800
19	33X	59.800
19	34X	53.800
19	33XY	59.800
19	34XY	53.800
19	33Y	59.800
19	34Y	53.800
20	34S	53.800
20	35S	47.800
20	34X	53.800
20	35X	47.800
20	34XY	53.800
20	35XY	47.800
20	34Y	53.800
20	35Y	47.800

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

21	35S	47.800
21	36S	41.800
21	35X	47.800
21	36X	41.800
21	35XY	47.800
21	36XY	41.800
21	35Y	47.800
21	36Y	41.800
22	36S	41.800
22	37S	35.800
22	36X	41.800
22	37X	35.800
22	36XY	41.800
22	37XY	35.800
22	36Y	41.800
22	37Y	35.800
22	372S	35.800
22	373S	35.800
22	374S	35.800
22	371S	35.800
23	37S	35.800
23	38S	29.800
23	37X	35.800
23	38X	29.800
23	37XY	35.800
23	38XY	29.800
23	37Y	35.800
23	38Y	29.800
23	372S	35.800
23	373S	35.800
23	374S	35.800
23	371S	35.800
24	38S	29.800
24	39S	23.800
24	38X	29.800
24	39X	23.800
24	38XY	29.800
24	39XY	23.800
24	38Y	29.800
24	39Y	23.800
24	392S	23.800
24	393S	23.800
24	394S	23.800
24	391S	23.800
25	39S	23.800
25	40S	17.800
25	39X	23.800
25	40X	17.800
25	39XY	23.800
25	40XY	17.800
25	39Y	23.800
25	40Y	17.800
25	392S	23.800
25	393S	23.800
25	394S	23.800
25	391S	23.800

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	48 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

26 40S 17.800
26 41S 11.800
26 40X 17.800
26 41X 11.800
26 40XY 17.800
26 41XY 11.800
26 40Y 17.800
26 41Y 11.800
26 412S 11.800
26 413S 11.800
26 414S 11.800
26 411S 11.800
27 41S 11.800
27 42S 5.800
27 41X 11.800
27 42X 5.800
27 41XY 11.800
27 42XY 5.800
27 41Y 11.800
27 42Y 5.800
28 42S 5.800
28 ANP 0.000
28 42X 5.800
28 ANX 0.000
28 42XY 5.800
28 ANXY 0.000
28 42Y 5.800
28 ANY 0.000
28 411S 11.800
28 412S 11.800
28 413S 11.800
28 414S 11.800

EIA Sections Information:

Section Label	Top Z (m)	Bottom Z (m)	Joint Z Count	Member Count	Top Width (m)	Bottom Width (m)	Gross Area (m^2)	Face Adjust Factor	Face Ar Adjust Factor	Dead Load Factor
1	150.911	145.200	12	32	1.30	1.30	7.42	1.0000	1.0000	1.000
2	145.200	140.200	12	28	1.30	1.30	6.50	1.0000	1.0000	1.000
3	140.200	135.200	12	28	1.30	1.30	6.50	1.0000	1.0000	1.000
4	135.200	131.630	12	28	1.30	1.30	4.64	1.0000	1.0000	1.000
5	131.630	127.590	8	16	1.30	2.28	7.23	1.0000	1.0000	1.000
6	127.590	122.200	12	28	2.28	2.28	12.29	1.0000	1.0000	1.000
7	122.200	117.200	12	28	2.28	2.28	11.40	1.0000	1.0000	1.000
8	117.200	112.200	12	28	2.28	2.28	11.40	1.0000	1.0000	1.000
9	112.200	108.620	12	28	2.28	2.28	8.16	1.0000	1.0000	1.000
10	108.620	102.200	8	16	2.28	4.90	23.06	1.0000	1.0000	1.000
11	102.200	96.600	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
12	96.600	91.200	12	28	4.90	4.90	26.48	1.0000	1.0000	1.000
13	91.200	85.600	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
14	85.600	80.000	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
15	80.000	74.500	12	28	4.90	4.90	26.97	1.0000	1.0000	1.000
16	74.500	71.800	8	16	4.90	4.90	13.24	1.0000	1.0000	1.000
17	71.800	66.125	8	16	4.90	4.90	27.83	1.0000	1.0000	1.000

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	49 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

18	66.125	59.800	8	16	4.90	6.45	35.89	1.0000	1.0000	1.000
19	59.800	53.800	8	16	6.45	7.91	43.06	1.0000	1.0000	1.000
20	53.800	47.800	8	16	7.91	9.37	51.83	1.0000	1.0000	1.000
21	47.800	41.800	8	16	9.37	10.83	60.61	1.0000	1.0000	1.000
22	41.800	35.800	12	24	10.83	12.29	69.38	1.0000	1.0000	1.000
23	35.800	29.800	12	16	12.29	13.76	78.16	1.0000	1.0000	1.000
24	29.800	23.800	12	24	13.76	15.22	86.93	1.0000	1.0000	1.000
25	23.800	17.800	12	16	15.22	16.68	95.70	1.0000	1.0000	1.000
26	17.800	11.800	12	24	16.68	18.14	104.48	1.0000	1.0000	1.000
27	11.800	5.800	8	4	18.14	19.61	113.25	1.0000	1.0000	1.000
28	5.800	0.000	12	12	19.61	21.02	117.82	1.0000	1.0000	1.000

Linear Appurtenances:

Description	From (m)	To (m)	Quantity	Shape	Width or Diameter (cm)	Perimeter (cm)	Unit Weight (N/m)	In Face Zone	Include in Wind Load
ESCALERA DE ACCESO	0	150	2	Flat	5.1	10.2	300	No	Yes
CABLES GUIA DE ONDA	0	150	8	Round	4.13	12.97	19.7	No	Yes

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	50 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

*** Datos de las cargas

Structure Height Summary (used for calculating wind/ice adjust with height):

Structure height above ground 150.91 (m)
Elevation of structure bottom for wind height adjustment: 0.00 (m)

Structure height for structure gust response factor: 150.91 (m)
Structure gust response factor, Gh: 1.0575
Guy installation temperature: 22.00 (deg C)
Tower Type: Rectangular Latticed

EIA Rev. F Load Cases:

Load Case Description	Dead Load Factor	Wind Load Factor	Ice Load Factor	Strength Factor	Allowable Stress Increase Factor	Basic Wind Speed (m/s)	Wind Dir. (Deg)	Ice Thick. (cm)	Ice Density (N/m ³)	Ice Temperature (deg C)	Point Loads	Joint Displ.
LC1 WIND 0° C.D.	1.9500	1.3000	1.0000	1.0000	1.3300	33.330	0	0.0000	0.0000	14.000	63 loads	
LC2 WIND 45° C.D.	1.9500	1.3000	1.0000	1.0000	1.3300	33.330	45	0.0000	0.0000	14.000	63 loads	
LC3 WIND 0° C.T.	1.5000	1.0000	1.0000	1.0000	1.0000	33.330	0	0.0000	0.0000	14.000	63 loads	
LC4 WIND 45° C.T.	1.5000	1.0000	1.0000	1.0000	1.0000	33.330	45	0.0000	0.0000	14.000	63 loads	
LC5 WIND 0° DEFLEX	1.5000	1.0000	1.0000	1.0000	1.0000	16.670	0	0.0000	0.0000	14.000	63 loads	
LC6 WIND 45° DEFLEX	1.5000	1.0000	1.0000	1.0000	1.0000	16.670	45	0.0000	0.0000	14.000	63 loads	

Concentrated Loads for Load Case "LC1 WIND 0° C.D.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	1162	0	1794	0	0	0	
1P	1162	0	1794	0	0	0	
1XY	1162	0	1794	0	0	0	
2X	1162	0	1794	0	0	0	
2S	1162	0	1794	0	0	0	
2XY	1162	0	1794	0	0	0	
4X	1162	0	1794	0	0	0	
4S	1162	0	1794	0	0	0	
4XY	1162	0	1794	0	0	0	
5X	1162	0	1794	0	0	0	
5XY	1162	0	1794	0	0	0	
6X	1162	0	1794	0	0	0	
6XY	1162	0	1794	0	0	0	
8X	1162	0	1794	0	0	0	
8XY	1162	0	1794	0	0	0	
10XY	1162	0	1794	0	0	0	
14X	580	0	1014	0	0	0	
14S	580	0	1014	0	0	0	
14Y	580	0	1014	0	0	0	
15X	580	0	1014	0	0	0	
15S	580	0	1014	0	0	0	
15Y	580	0	1014	0	0	0	
17X	580	0	1014	0	0	0	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	51 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

17S	580	0	1014	0	0	0
17Y	580	0	1014	0	0	0
18X	580	0	1014	0	0	0
18S	580	0	1014	0	0	0
18Y	580	0	1014	0	0	0
20X	580	0	1014	0	0	0
20P	580	0	1014	0	0	0
22S	4679	0	2340	0	0	0
22XY	2340	0	1170	0	0	0
23S	4679	0	2340	0	0	0
31XY	267	0	325	0	0	0
29S	267	0	325	0	0	0
31Y	267	0	325	0	0	0
38Y	267	0	325	0	0	0
35Y	4594	0	1430	0	0	0
36XY	1682	1	761	0	0	0
35S	13256	0	6643	0	0	0
36X	3314	0	3029	0	0	0
36S	13256	0	6643	0	0	0
37X	1473	0	2392	0	0	0
39Y	1473	0	2392	0	0	0
40Y	3314	0	3029	0	0	0
40S	5892	0	3861	0	0	0
40X	6627	0	6058	0	0	0
41S	5892	0	3861	0	0	0
41X	1473	0	2392	0	0	0
1X	0	0	1300	0	0	0
1P	0	0	1300	0	0	0
1Y	0	0	1300	0	0	0
1XY	0	0	1300	0	0	0
10X	5249	0	4368	0	0	0 FUTURAS
10P	5249	0	4368	0	0	0 FUTURAS
11X	5249	0	4368	0	0	0 FUTURAS
11P	5249	0	4368	0	0	0 FUTURAS
12X	5249	0	4368	0	0	0 FUTURAS
12S	5249	0	4368	0	0	0 FUTURAS
13X	5249	0	4368	0	0	0 FUTURAS
13S	5249	0	4368	0	0	0 FUTURAS
14X	5249	0	4368	0	0	0 FUTURAS
14S	5249	0	4368	0	0	0 FUTURAS

EIA Section Load Case Information for "LC1 WIND 0° C.D.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e (m)	Face DF (m)	Face DR (m)	Face RR (m)	Face CF (m)	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF (m^2)	NotF AAR (m^2)	NotF CAR (m^2)	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	2018.54	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	8121	0.49	2.00	1.59	1.20	1.90	5818	13939	15529
2	145.20	140.20	142.70	1997.41	0.00	1.11	0.00	0.00	6.5	0.17	1.00	1.00	0.58	3.11	1.1	6912	0.51	2.00	1.65	1.20	1.98	5997	12909	14630
3	140.20	135.20	137.70	1977.15	0.00	1.37	0.00	0.00	6.5	0.21	1.00	1.00	0.59	2.94	1.4	7940	0.51	2.00	1.65	1.20	1.98	5936	13876	16565
4	135.20	131.63	133.41	1959.38	0.00	1.11	0.00	0.00	4.6	0.24	1.00	1.00	0.60	2.82	1.1	6136	0.36	2.00	1.18	1.20	1.42	4200	10336	12717
5	131.63	127.59	129.61	1943.24	0.00	1.40	0.00	0.00	7.2	0.19	1.00	1.00	0.59	3.01	1.4	8184	0.41	2.00	1.33	1.20	1.60	4714	12899	18217
6	127.59	122.20	124.90	1922.78	0.00	1.93	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.17	1.9	11766	0.55	2.00	1.78	1.20	2.14	6223	17989	24546
7	122.20	117.20	119.70	1899.58	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	10922	0.51	2.00	1.65	1.20	1.98	5703	16625	21113
8	117.20	112.20	114.70	1876.56	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	10790	0.51	2.00	1.65	1.20	1.98	5634	16424	21113
9	112.20	108.62	110.41	1856.24	0.00	1.43	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.09	1.4	8214	0.37	2.00	1.18	1.20	1.42	3990	12204	15831

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	52 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

10	108.62	102.20	105.41	1831.82	0.00	2.43	0.00	0.00	23.1	0.11	1.00	1.00	0.58	3.42	2.4	15228	0.65	2.00	2.12	1.20	2.55	7062	22290	30834
11	102.20	96.60	99.40	1801.35	0.00	2.88	0.00	0.00	27.5	0.11	1.00	1.00	0.58	3.42	2.9	17789	0.57	2.00	1.85	1.20	2.22	6057	23846	30950
12	96.60	91.20	93.90	1772.29	0.00	2.96	0.00	0.00	26.5	0.11	1.00	1.00	0.58	3.39	3.0	17762	0.55	2.00	1.78	1.20	2.14	5747	23509	29122
13	91.20	85.60	88.40	1741.99	0.00	3.29	0.00	0.00	27.5	0.12	1.00	1.00	0.58	3.35	3.3	19216	0.57	2.00	1.85	1.20	2.22	5858	25074	40058
14	85.60	80.00	82.80	1709.72	0.00	3.58	0.00	0.00	27.5	0.13	1.00	1.00	0.58	3.30	3.6	20179	0.57	2.00	1.85	1.20	2.22	5749	25928	44393
15	80.00	74.50	77.25	1676.16	0.00	3.54	0.00	0.00	27.0	0.13	1.00	1.00	0.58	3.29	3.5	19551	0.56	2.00	1.82	1.20	2.18	5536	25086	43765
16	74.50	71.80	73.15	1650.25	0.00	1.89	0.00	0.00	13.2	0.14	1.00	1.00	0.58	3.24	1.9	10103	0.28	2.00	0.89	1.20	1.07	2676	12779	22831
17	71.80	66.13	68.96	1622.69	0.00	2.99	0.00	0.00	27.8	0.11	1.00	1.00	0.58	3.41	3.0	16556	0.58	2.00	1.88	1.20	2.25	5530	22080	41558
18	66.13	59.80	62.96	1581.03	0.00	3.69	0.00	0.00	35.9	0.10	1.00	1.00	0.58	3.44	3.7	20066	0.65	2.00	2.09	1.20	2.51	6005	26071	52539
19	59.80	53.80	56.80	1535.18	0.00	3.85	0.00	0.00	43.1	0.09	1.00	1.00	0.57	3.50	3.9	20717	0.61	2.00	1.98	1.20	2.38	5531	26248	52654
20	53.80	47.80	50.80	1486.98	0.00	4.38	0.00	0.00	51.8	0.08	1.00	1.00	0.57	3.53	4.4	23013	0.61	2.00	1.98	1.20	2.38	5357	28370	61154
21	47.80	41.80	44.80	1434.53	0.00	4.73	0.00	0.00	60.6	0.08	1.00	1.00	0.57	3.56	4.7	24166	0.61	2.00	1.98	1.20	2.38	5168	29335	64599
22	41.80	35.80	38.80	1376.79	0.00	4.45	0.00	0.00	69.4	0.06	1.00	1.00	0.57	3.64	4.4	22280	0.61	2.00	1.98	1.20	2.38	4960	27240	77231
23	35.80	29.80	32.80	1312.27	0.00	5.58	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.60	5.6	26357	0.61	2.00	1.98	1.20	2.38	4728	31085	71457
24	29.80	23.80	26.80	1238.67	0.00	5.80	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.62	5.8	26050	0.61	2.00	1.98	1.20	2.38	4463	30513	92190
25	23.80	17.80	20.80	1152.14	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	27060	0.61	2.00	1.98	1.20	2.38	4151	31211	79804
26	17.80	11.80	14.80	1045.39	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	25530	0.61	2.00	1.98	1.20	2.38	3766	29296	104045
27	11.80	5.80	8.80	936.17	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	6783	0.61	2.00	1.98	1.20	2.38	3373	10156	36032
28	5.80	0.00	2.90	936.17	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	20273	0.59	2.00	1.92	1.20	2.30	3260	23533	79263

Concentrated Loads for Load Case "LC2 WIND 45° C.D.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	822	822	1794	0	0	0	
1P	822	822	1794	0	0	0	
1XY	822	822	1794	0	0	0	
2X	822	822	1794	0	0	0	
2S	822	822	1794	0	0	0	
2XY	822	822	1794	0	0	0	
4X	822	822	1794	0	0	0	
4S	822	822	1794	0	0	0	
4XY	822	822	1794	0	0	0	
5X	822	822	1794	0	0	0	
5XY	822	822	1794	0	0	0	
6X	822	822	1794	0	0	0	
6XY	822	822	1794	0	0	0	
8X	822	822	1794	0	0	0	
8XY	822	822	1794	0	0	0	
10XY	822	822	1794	0	0	0	
14X	410	410	1014	0	0	0	
14S	410	410	1014	0	0	0	
14Y	410	410	1014	0	0	0	
15X	410	410	1014	0	0	0	
15S	410	410	1014	0	0	0	
15Y	410	410	1014	0	0	0	
17X	410	410	1014	0	0	0	
17S	410	410	1014	0	0	0	
17Y	410	410	1014	0	0	0	
18X	410	410	1014	0	0	0	
18S	410	410	1014	0	0	0	
18Y	410	410	1014	0	0	0	
20X	410	410	1014	0	0	0	
20P	410	410	1014	0	0	0	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	53 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

22S	3309	3309	2340	0	0	0
22XY	1655	1655	1170	0	0	0
23S	3309	3309	2340	0	0	0
31XY	189	189	325	0	0	0
29S	189	189	325	0	0	0
31Y	189	189	325	0	0	0
38Y	189	189	325	0	0	0
35Y	3249	3249	1430	0	0	0
36XY	1190	1190	761	0	0	0
35S	9373	9373	6643	0	0	0
36X	2343	2343	3029	0	0	0
36S	9373	9373	6643	0	0	0
37X	1041	1041	2392	0	0	0
39Y	1041	1041	2392	0	0	0
40Y	2343	2343	3029	0	0	0
40S	4167	4167	3861	0	0	0
40X	4685	4685	6058	0	0	0
41S	4167	4167	3861	0	0	0
41X	1041	1041	2392	0	0	0
1X	0	0	1300	0	0	0
1P	0	0	1300	0	0	0
1Y	0	0	1300	0	0	0
1XY	0	0	1300	0	0	0
10X	3713	3713	4368	0	0	0 FUTURAS
10P	3713	3713	4368	0	0	0 FUTURAS
11X	3713	3713	4368	0	0	0 FUTURAS
11P	3713	3713	4368	0	0	0 FUTURAS
12X	3713	3713	4368	0	0	0 FUTURAS
12S	3713	3713	4368	0	0	0 FUTURAS
13X	3713	3713	4368	0	0	0 FUTURAS
13S	3713	3713	4368	0	0	0 FUTURAS
14X	3713	3713	4368	0	0	0 FUTURAS
14S	3713	3713	4368	0	0	0 FUTURAS

EIA Section Load Case Information for "LC2 WIND 45° C.D.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	Elev. Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	2018.54	0.00	1.30	0.00	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	9190	0.49	2.00	1.59	1.20	1.90	5818	15009	15529
2	145.20	140.20	142.70	1997.41	0.00	1.11	0.00	0.00	0.00	6.5	0.17	1.13	1.13	0.58	3.11	1.3	7800	0.51	2.00	1.65	1.20	1.98	5997	13797	14630
3	140.20	135.20	137.70	1977.15	0.00	1.37	0.00	0.00	0.00	6.5	0.21	1.16	1.16	0.59	2.94	1.6	9193	0.51	2.00	1.65	1.20	1.98	5936	15129	16565
4	135.20	131.63	133.41	1959.38	0.00	1.11	0.00	0.00	0.00	4.6	0.24	1.18	1.18	0.60	2.82	1.3	7238	0.36	2.00	1.18	1.20	1.42	4200	11439	12717
5	131.63	127.59	129.61	1943.24	0.00	1.40	0.00	0.00	0.00	7.2	0.19	1.15	1.15	0.59	3.01	1.6	9373	0.41	2.00	1.33	1.20	1.60	4714	14087	18217
6	127.59	122.20	124.90	1922.78	0.00	1.93	0.00	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.17	2.2	13151	0.55	2.00	1.78	1.20	2.14	6223	19374	24546
7	122.20	117.20	119.70	1899.58	0.00	1.82	0.00	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	12229	0.51	2.00	1.65	1.20	1.98	5703	17933	21113
8	117.20	112.20	114.70	1876.56	0.00	1.82	0.00	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	12081	0.51	2.00	1.65	1.20	1.98	5634	17715	21113
9	112.20	108.62	110.41	1856.24	0.00	1.43	0.00	0.00	0.00	8.2	0.18	1.13	1.13	0.59	3.09	1.6	9295	0.37	2.00	1.18	1.20	1.42	3990	13286	15831
10	108.62	102.20	105.41	1831.82	0.00	2.43	0.00	0.00	0.00	23.1	0.11	1.08	1.08	0.58	3.42	2.6	16431	0.65	2.00	2.12	1.20	2.55	7062	23493	30834
11	102.20	96.60	99.40	1801.35	0.00	2.88	0.00	0.00	0.00	27.5	0.11	1.08	1.08	0.58	3.42	3.1	19190	0.57	2.00	1.85	1.20	2.22	6057	25247	30950
12	96.60	91.20	93.90	1772.29	0.00	2.96	0.00	0.00	0.00	26.5	0.11	1.08	1.08	0.58	3.39	3.2	19249	0.55	2.00	1.78	1.20	2.14	5747	24996	29122
13	91.20	85.60	88.40	1741.99	0.00	3.29	0.00	0.00	0.00	27.5	0.12	1.09	1.09	0.58	3.35	3.6	20944	0.57	2.00	1.85	1.20	2.22	5858	26802	40058
14	85.60	80.00	82.80	1709.72	0.00	3.58	0.00	0.00	0.00	27.5	0.13	1.10	1.10	0.58	3.30	3.9	22150	0.57	2.00	1.85	1.20	2.22	5749	27899	44393
15	80.00	74.50	77.25	1676.16	0.00	3.54	0.00	0.00	0.00	27.0	0.13	1.10	1.10	0.58	3.29	3.9	21475	0.56	2.00	1.82	1.20	2.18	5536	27011	43765
16	74.50	71.80	73.15	1650.25	0.00	1.89	0.00	0.00	0.00	13.2	0.14	1.11	1.11	0.58	3.24	2.1	11185	0.28	2.00	0.89	1.20	1.07	2676	13860	22831

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
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17	71.80	66.13	68.96	1622.69	0.00	2.99	0.00	0.00	27.8	0.11	1.08	1.08	0.58	3.41	3.2	17890	0.58	2.00	1.88	1.20	2.25	5530	23420	41558
18	66.13	59.80	62.96	1581.03	0.00	3.69	0.00	0.00	35.9	0.10	1.08	1.08	0.58	3.44	4.0	21615	0.65	2.00	2.09	1.20	2.51	6005	27620	52539
19	59.80	53.80	56.80	1535.18	0.00	3.85	0.00	0.00	43.1	0.09	1.07	1.07	0.57	3.50	4.1	22106	0.61	2.00	1.98	1.20	2.38	5531	27637	52654
20	53.80	47.80	50.80	1486.98	0.00	4.38	0.00	0.00	51.8	0.08	1.06	1.06	0.57	3.53	4.7	24473	0.61	2.00	1.98	1.20	2.38	5357	29830	61154
21	47.80	41.80	44.80	1434.53	0.00	4.73	0.00	0.00	60.6	0.08	1.06	1.06	0.57	3.56	5.0	25580	0.61	2.00	1.98	1.20	2.38	5168	30748	64599
22	41.80	35.80	38.80	1376.79	0.00	4.45	0.00	0.00	69.4	0.06	1.05	1.05	0.57	3.64	4.7	23351	0.61	2.00	1.98	1.20	2.38	4960	28312	77231
23	35.80	29.80	32.80	1312.27	0.00	5.58	0.00	0.00	78.2	0.07	1.05	1.05	0.57	3.60	5.9	27768	0.61	2.00	1.98	1.20	2.38	4728	32496	71457
24	29.80	23.80	26.80	1238.67	0.00	5.80	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.62	6.1	27355	0.61	2.00	1.98	1.20	2.38	4463	31817	92190
25	23.80	17.80	20.80	1152.14	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	28436	0.61	2.00	1.98	1.20	2.38	4151	32587	79804
26	17.80	11.80	14.80	1045.39	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	26760	0.61	2.00	1.98	1.20	2.38	3766	30527	104045
27	11.80	5.80	8.80	936.17	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	6866	0.61	2.00	1.98	1.20	2.38	3373	10239	36032
28	5.80	0.00	2.90	936.17	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	21024	0.59	2.00	1.92	1.20	2.30	3260	24285	79263

Concentrated Loads for Load Case "LC3 WIND 0° C.T.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	894	0	1380	0	0	0	
1P	894	0	1380	0	0	0	
1XY	894	0	1380	0	0	0	
2X	894	0	1380	0	0	0	
2S	894	0	1380	0	0	0	
2XY	894	0	1380	0	0	0	
4X	894	0	1380	0	0	0	
4S	894	0	1380	0	0	0	
4XY	894	0	1380	0	0	0	
5X	894	0	1380	0	0	0	
5XY	894	0	1380	0	0	0	
6X	894	0	1380	0	0	0	
6XY	894	0	1380	0	0	0	
8X	894	0	1380	0	0	0	
8XY	894	0	1380	0	0	0	
10XY	894	0	1380	0	0	0	
14X	446	0	780	0	0	0	
14S	446	0	780	0	0	0	
14Y	446	0	780	0	0	0	
15X	446	0	780	0	0	0	
15S	446	0	780	0	0	0	
15Y	446	0	780	0	0	0	
17X	446	0	780	0	0	0	
17S	446	0	780	0	0	0	
17Y	446	0	780	0	0	0	
18X	446	0	780	0	0	0	
18S	446	0	780	0	0	0	
18Y	446	0	780	0	0	0	
20X	446	0	780	0	0	0	
20P	446	0	780	0	0	0	
22S	3599	0	1800	0	0	0	
22XY	1800	0	900	0	0	0	
23S	3599	0	1800	0	0	0	
31XY	205	0	250	0	0	0	
29S	205	0	250	0	0	0	
31Y	205	0	250	0	0	0	
38Y	205	0	250	0	0	0	

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

35Y	3534	0	1100	0	0	0
36XY	1294	1	585	0	0	0
35S	10197	0	5110	0	0	0
36X	2549	0	2330	0	0	0
36S	10197	0	5110	0	0	0
37X	1133	0	1840	0	0	0
39Y	1133	0	1840	0	0	0
40Y	2549	0	2330	0	0	0
40S	4532	0	2970	0	0	0
40X	5098	0	4660	0	0	0
41S	4532	0	2970	0	0	0
41X	1133	0	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
10X	4038	0	3360	0	0	0 FUTURAS
10P	4038	0	3360	0	0	0 FUTURAS
11X	4038	0	3360	0	0	0 FUTURAS
11P	4038	0	3360	0	0	0 FUTURAS
12X	4038	0	3360	0	0	0 FUTURAS
12S	4038	0	3360	0	0	0 FUTURAS
13X	4038	0	3360	0	0	0 FUTURAS
13S	4038	0	3360	0	0	0 FUTURAS
14X	4038	0	3360	0	0	0 FUTURAS
14S	4038	0	3360	0	0	0 FUTURAS

EIA Section Load Case Information for "LC3 WIND 0° C.T.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	1552.72	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	6247	0.49	2.00	1.59	1.20	1.90	4475	10723	11945
2	145.20	140.20	142.70	1536.47	0.00	1.11	0.00	0.00	6.5	0.17	1.00	1.00	0.58	3.11	1.1	5317	0.51	2.00	1.65	1.20	1.98	4613	9930	11253
3	140.20	135.20	137.70	1520.89	0.00	1.37	0.00	0.00	6.5	0.21	1.00	1.00	0.59	2.94	1.4	6107	0.51	2.00	1.65	1.20	1.98	4566	10674	12742
4	135.20	131.63	133.41	1507.21	0.00	1.11	0.00	0.00	4.6	0.24	1.00	1.00	0.60	2.82	1.1	4720	0.36	2.00	1.18	1.20	1.42	3231	7951	9783
5	131.63	127.59	129.61	1494.80	0.00	1.40	0.00	0.00	7.2	0.19	1.00	1.00	0.59	3.01	1.4	6296	0.41	2.00	1.33	1.20	1.60	3626	9922	14013
6	127.59	122.20	124.90	1479.06	0.00	1.93	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.17	1.9	9051	0.55	2.00	1.78	1.20	2.14	4787	13838	18882
7	122.20	117.20	119.70	1461.22	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	8402	0.51	2.00	1.65	1.20	1.98	4387	12789	16241
8	117.20	112.20	114.70	1443.51	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	8300	0.51	2.00	1.65	1.20	1.98	4334	12634	16241
9	112.20	108.62	110.41	1427.87	0.00	1.43	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.09	1.4	6318	0.37	2.00	1.18	1.20	1.42	3070	9388	12178
10	108.62	102.20	105.41	1409.09	0.00	2.43	0.00	0.00	23.1	0.11	1.00	1.00	0.58	3.42	2.4	11714	0.65	2.00	2.12	1.20	2.55	5432	17146	23719
11	102.20	96.60	99.40	1385.65	0.00	2.88	0.00	0.00	27.5	0.11	1.00	1.00	0.58	3.42	2.9	13684	0.57	2.00	1.85	1.20	2.22	4660	18343	23808
12	96.60	91.20	93.90	1363.30	0.00	2.96	0.00	0.00	26.5	0.11	1.00	1.00	0.58	3.39	3.0	13663	0.55	2.00	1.78	1.20	2.14	4421	18084	22401
13	91.20	85.60	88.40	1339.99	0.00	3.29	0.00	0.00	27.5	0.12	1.00	1.00	0.58	3.35	3.3	14781	0.57	2.00	1.85	1.20	2.22	4506	19287	30814
14	85.60	80.00	82.80	1315.17	0.00	3.58	0.00	0.00	27.5	0.13	1.00	1.00	0.58	3.30	3.6	15522	0.57	2.00	1.85	1.20	2.22	4423	19945	34149
15	80.00	74.50	77.25	1289.36	0.00	3.54	0.00	0.00	27.0	0.13	1.00	1.00	0.58	3.29	3.5	15039	0.56	2.00	1.82	1.20	2.18	4258	19297	33665
16	74.50	71.80	73.15	1269.42	0.00	1.89	0.00	0.00	13.2	0.14	1.00	1.00	0.58	3.24	1.9	7772	0.28	2.00	0.89	1.20	1.07	2058	9830	17562
17	71.80	66.13	68.96	1248.22	0.00	2.99	0.00	0.00	27.8	0.11	1.00	1.00	0.58	3.41	3.0	12735	0.58	2.00	1.88	1.20	2.25	4254	16989	31967
18	66.13	59.80	62.96	1216.18	0.00	3.69	0.00	0.00	35.9	0.10	1.00	1.00	0.58	3.44	3.7	15435	0.65	2.00	2.09	1.20	2.51	4619	20054	40415
19	59.80	53.80	56.80	1180.91	0.00	3.85	0.00	0.00	43.1	0.09	1.00	1.00	0.57	3.50	3.9	15936	0.61	2.00	1.98	1.20	2.38	4255	20191	40503
20	53.80	47.80	50.80	1143.83	0.00	4.38	0.00	0.00	51.8	0.08	1.00	1.00	0.57	3.53	4.4	17702	0.61	2.00	1.98	1.20	2.38	4121	21823	47041
21	47.80	41.80	44.80	1103.49	0.00	4.73	0.00	0.00	60.6	0.08	1.00	1.00	0.57	3.56	4.7	18590	0.61	2.00	1.98	1.20	2.38	3976	22565	49691
22	41.80	35.80	38.80	1059.07	0.00	4.45	0.00	0.00	69.4	0.06	1.00	1.00	0.57	3.64	4.4	17138	0.61	2.00	1.98	1.20	2.38	3816	20954	59408
23	35.80	29.80	32.80	1009.44	0.00	5.58	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.60	5.6	20274	0.61	2.00	1.98	1.20	2.38	3637	23911	54967

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	56 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

24	29.80	23.80	26.80	952.82	0.00	5.80	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.62	5.8	20039	0.61	2.00	1.98	1.20	2.38	3433	23472	70915
25	23.80	17.80	20.80	886.26	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	20815	0.61	2.00	1.98	1.20	2.38	3193	24008	61387
26	17.80	11.80	14.80	804.14	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	19638	0.61	2.00	1.98	1.20	2.38	2897	22536	80034
27	11.80	5.80	8.80	720.13	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	5218	0.61	2.00	1.98	1.20	2.38	2595	7812	27717
28	5.80	0.00	2.90	720.13	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	15594	0.59	2.00	1.92	1.20	2.30	2508	18102	60972

Concentrated Loads for Load Case "LC4 WIND 45° C.T.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	632	632	1380	0	0	0	
1P	632	632	1380	0	0	0	
1XY	632	632	1380	0	0	0	
2X	632	632	1380	0	0	0	
2S	632	632	1380	0	0	0	
2XY	632	632	1380	0	0	0	
4X	632	632	1380	0	0	0	
4S	632	632	1380	0	0	0	
4XY	632	632	1380	0	0	0	
5X	632	632	1380	0	0	0	
5XY	632	632	1380	0	0	0	
6X	632	632	1380	0	0	0	
6XY	632	632	1380	0	0	0	
8X	632	632	1380	0	0	0	
8XY	632	632	1380	0	0	0	
10XY	632	632	1380	0	0	0	
14X	315	315	780	0	0	0	
14S	315	315	780	0	0	0	
14Y	315	315	780	0	0	0	
15X	315	315	780	0	0	0	
15S	315	315	780	0	0	0	
15Y	315	315	780	0	0	0	
17X	315	315	780	0	0	0	
17S	315	315	780	0	0	0	
17Y	315	315	780	0	0	0	
18X	315	315	780	0	0	0	
18S	315	315	780	0	0	0	
18Y	315	315	780	0	0	0	
20X	315	315	780	0	0	0	
20P	315	315	780	0	0	0	
22S	2545	2545	1800	0	0	0	
22XY	1273	1273	900	0	0	0	
23S	2545	2545	1800	0	0	0	
31XY	145	145	250	0	0	0	
29S	145	145	250	0	0	0	
31Y	145	145	250	0	0	0	
38Y	145	145	250	0	0	0	
35Y	2499	2499	1100	0	0	0	
36XY	915	915	585	0	0	0	
35S	7210	7210	5110	0	0	0	
36X	1802	1802	2330	0	0	0	
36S	7210	7210	5110	0	0	0	
37X	801	801	1840	0	0	0	
39Y	801	801	1840	0	0	0	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	Project	Date
	Client	Designed by
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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

40Y	1802	1802	2330	0	0	0
40S	3205	3205	2970	0	0	0
40X	3604	3604	4660	0	0	0
41S	3205	3205	2970	0	0	0
41X	801	801	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
10X	2856	2856	3360	0	0	0 FUTURAS
10P	2856	2856	3360	0	0	0 FUTURAS
11X	2856	2856	3360	0	0	0 FUTURAS
11P	2856	2856	3360	0	0	0 FUTURAS
12X	2856	2856	3360	0	0	0 FUTURAS
12S	2856	2856	3360	0	0	0 FUTURAS
13X	2856	2856	3360	0	0	0 FUTURAS
13S	2856	2856	3360	0	0	0 FUTURAS
14X	2856	2856	3360	0	0	0 FUTURAS
14S	2856	2856	3360	0	0	0 FUTURAS

EIA Section Load Case Information for "LC4 WIND 45° C.T.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	1552.72	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	7070	0.49	2.00	1.59	1.20	1.90	4475	11545	11945
2	145.20	140.20	142.70	1536.47	0.00	1.11	0.00	0.00	6.5	0.17	1.13	1.13	0.58	3.11	1.3	6000	0.51	2.00	1.65	1.20	1.98	4613	10613	11253
3	140.20	135.20	137.70	1520.89	0.00	1.37	0.00	0.00	6.5	0.21	1.16	1.16	0.59	2.94	1.6	7071	0.51	2.00	1.65	1.20	1.98	4566	11638	12742
4	135.20	131.63	133.41	1507.21	0.00	1.11	0.00	0.00	4.6	0.24	1.18	1.18	0.60	2.82	1.3	5568	0.36	2.00	1.18	1.20	1.42	3231	8799	9783
5	131.63	127.59	129.61	1494.80	0.00	1.40	0.00	0.00	7.2	0.19	1.15	1.15	0.59	3.01	1.6	7210	0.41	2.00	1.33	1.20	1.60	3626	10836	14013
6	127.59	122.20	124.90	1479.06	0.00	1.93	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.17	2.2	10116	0.55	2.00	1.78	1.20	2.14	4787	14903	18882
7	122.20	117.20	119.70	1461.22	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	9407	0.51	2.00	1.65	1.20	1.98	4387	13794	16241
8	117.20	112.20	114.70	1443.51	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	9293	0.51	2.00	1.65	1.20	1.98	4334	13627	16241
9	112.20	108.62	110.41	1427.87	0.00	1.43	0.00	0.00	8.2	0.18	1.13	1.13	0.59	3.09	1.6	7150	0.37	2.00	1.18	1.20	1.42	3070	10220	12178
10	108.62	102.20	105.41	1409.09	0.00	2.43	0.00	0.00	23.1	0.11	1.08	1.08	0.58	3.42	2.6	12639	0.65	2.00	2.12	1.20	2.55	5432	18071	23719
11	102.20	96.60	99.40	1385.65	0.00	2.88	0.00	0.00	27.5	0.11	1.08	1.08	0.58	3.42	3.1	14762	0.57	2.00	1.85	1.20	2.22	4660	19421	23808
12	96.60	91.20	93.90	1363.30	0.00	2.96	0.00	0.00	26.5	0.11	1.08	1.08	0.58	3.39	3.2	14807	0.55	2.00	1.78	1.20	2.14	4421	19227	22401
13	91.20	85.60	88.40	1339.99	0.00	3.29	0.00	0.00	27.5	0.12	1.09	1.09	0.58	3.35	3.6	16111	0.57	2.00	1.85	1.20	2.22	4506	20617	30814
14	85.60	80.00	82.80	1315.17	0.00	3.58	0.00	0.00	27.5	0.13	1.10	1.10	0.58	3.30	3.9	17039	0.57	2.00	1.85	1.20	2.22	4423	21461	34149
15	80.00	74.50	77.25	1289.36	0.00	3.54	0.00	0.00	27.0	0.13	1.10	1.10	0.58	3.29	3.9	16519	0.56	2.00	1.82	1.20	2.18	4258	20778	33665
16	74.50	71.80	73.15	1269.42	0.00	1.89	0.00	0.00	13.2	0.14	1.11	1.11	0.58	3.24	2.1	8604	0.28	2.00	0.89	1.20	1.07	2058	10662	17562
17	71.80	66.13	68.96	1248.22	0.00	2.99	0.00	0.00	27.8	0.11	1.08	1.08	0.58	3.41	3.2	13762	0.58	2.00	1.88	1.20	2.25	4254	18015	31967
18	66.13	59.80	62.96	1216.18	0.00	3.69	0.00	0.00	35.9	0.10	1.08	1.08	0.58	3.44	4.0	16627	0.65	2.00	2.09	1.20	2.51	4619	21246	40415
19	59.80	53.80	56.80	1180.91	0.00	3.85	0.00	0.00	43.1	0.09	1.07	1.07	0.57	3.50	4.1	17005	0.61	2.00	1.98	1.20	2.38	4255	21259	40503
20	53.80	47.80	50.80	1143.83	0.00	4.38	0.00	0.00	51.8	0.08	1.06	1.06	0.57	3.53	4.7	18825	0.61	2.00	1.98	1.20	2.38	4121	22947	47041
21	47.80	41.80	44.80	1103.49	0.00	4.73	0.00	0.00	60.6	0.08	1.06	1.06	0.57	3.56	5.0	19677	0.61	2.00	1.98	1.20	2.38	3976	23653	49691
22	41.80	35.80	38.80	1059.07	0.00	4.45	0.00	0.00	69.4	0.06	1.05	1.05	0.57	3.64	4.7	17962	0.61	2.00	1.98	1.20	2.38	3816	21778	59408
23	35.80	29.80	32.80	1009.44	0.00	5.58	0.00	0.00	78.2	0.07	1.05	1.05	0.57	3.60	5.9	21360	0.61	2.00	1.98	1.20	2.38	3637	24997	54967
24	29.80	23.80	26.80	952.82	0.00	5.80	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.62	6.1	21042	0.61	2.00	1.98	1.20	2.38	3433	24475	70915
25	23.80	17.80	20.80	886.26	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	21874	0.61	2.00	1.98	1.20	2.38	3193	25067	61387
26	17.80	11.80	14.80	804.14	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	20585	0.61	2.00	1.98	1.20	2.38	2897	23482	80034
27	11.80	5.80	8.80	720.13	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	5282	0.61	2.00	1.98	1.20	2.38	2595	7876	27717
28	5.80	0.00	2.90	720.13	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	16172	0.59	2.00	1.92	1.20	2.30	2508	18681	60972

Concentrated Loads for Load Case "LC5 WIND 0° DEFLEX":

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	58 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	224	0	1380	0	0	0	
1P	224	0	1380	0	0	0	
1XY	224	0	1380	0	0	0	
2X	224	0	1380	0	0	0	
2S	224	0	1380	0	0	0	
2XY	224	0	1380	0	0	0	
4X	224	0	1380	0	0	0	
4S	224	0	1380	0	0	0	
4XY	224	0	1380	0	0	0	
5X	224	0	1380	0	0	0	
5XY	224	0	1380	0	0	0	
6X	224	0	1380	0	0	0	
6XY	224	0	1380	0	0	0	
8X	224	0	1380	0	0	0	
8XY	224	0	1380	0	0	0	
10XY	224	0	1380	0	0	0	
14X	112	0	780	0	0	0	
14S	112	0	780	0	0	0	
14Y	112	0	780	0	0	0	
15X	112	0	780	0	0	0	
15S	112	0	780	0	0	0	
15Y	112	0	780	0	0	0	
17X	112	0	780	0	0	0	
17S	112	0	780	0	0	0	
17Y	112	0	780	0	0	0	
18X	112	0	780	0	0	0	
18S	112	0	780	0	0	0	
18Y	112	0	780	0	0	0	
20X	112	0	780	0	0	0	
20P	112	0	780	0	0	0	
22S	900	0	1800	0	0	0	
22XY	450	0	900	0	0	0	
23S	900	0	1800	0	0	0	
31XY	51	0	250	0	0	0	
29S	51	0	250	0	0	0	
31Y	51	0	250	0	0	0	
38Y	51	0	250	0	0	0	
35Y	884	0	1100	0	0	0	
36XY	324	0	585	0	0	0	
35S	2551	0	5110	0	0	0	
36X	637	0	2330	0	0	0	
36S	2551	0	5110	0	0	0	
37X	284	0	1840	0	0	0	
39Y	284	0	1840	0	0	0	
40Y	637	0	2330	0	0	0	
40S	1134	0	2970	0	0	0	
40X	1274	0	4660	0	0	0	
41S	1134	0	2970	0	0	0	
41X	284	0	1840	0	0	0	
1X	0	0	1000	0	0	0	
1P	0	0	1000	0	0	0	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page 59 of 144
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

1Y	0	0	1000	0	0	0	
1XY	0	0	1000	0	0	0	
10X	1010	0	3360	0	0	0	FUTURAS
10P	1010	0	3360	0	0	0	FUTURAS
11X	1010	0	3360	0	0	0	FUTURAS
11P	1010	0	3360	0	0	0	FUTURAS
12X	1010	0	3360	0	0	0	FUTURAS
12S	1010	0	3360	0	0	0	FUTURAS
13X	1010	0	3360	0	0	0	FUTURAS
13S	1010	0	3360	0	0	0	FUTURAS
14X	1010	0	3360	0	0	0	FUTURAS
14S	1010	0	3360	0	0	0	FUTURAS

EIA Section Load Case Information for "LC5 WIND 0° DEFLEX":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	388.41	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	1563	0.49	2.00	1.59	1.20	1.90	1120	2682	11945
2	145.20	140.20	142.70	384.35	0.00	1.11	0.00	0.00	6.5	0.17	1.00	1.00	0.58	3.11	1.1	1330	0.51	2.00	1.65	1.20	1.98	1154	2484	11253
3	140.20	135.20	137.70	380.45	0.00	1.37	0.00	0.00	6.5	0.21	1.00	1.00	0.59	2.94	1.4	1528	0.51	2.00	1.65	1.20	1.98	1142	2670	12742
4	135.20	131.63	133.41	377.03	0.00	1.11	0.00	0.00	4.6	0.24	1.00	1.00	0.60	2.82	1.1	1181	0.36	2.00	1.18	1.20	1.42	808	1989	9783
5	131.63	127.59	129.61	373.93	0.00	1.40	0.00	0.00	7.2	0.19	1.00	1.00	0.59	3.01	1.4	1575	0.41	2.00	1.33	1.20	1.60	907	2482	14013
6	127.59	122.20	124.90	369.99	0.00	1.93	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.17	1.9	2264	0.55	2.00	1.78	1.20	2.14	1197	3462	18882
7	122.20	117.20	119.70	365.52	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	2102	0.51	2.00	1.65	1.20	1.98	1097	3199	16241
8	117.20	112.20	114.70	361.09	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	2076	0.51	2.00	1.65	1.20	1.98	1084	3160	16241
9	112.20	108.62	110.41	357.18	0.00	1.43	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.09	1.4	1581	0.37	2.00	1.18	1.20	1.42	768	2348	12178
10	108.62	102.20	105.41	352.48	0.00	2.43	0.00	0.00	23.1	0.11	1.00	1.00	0.58	3.42	2.4	2930	0.65	2.00	2.12	1.20	2.55	1359	4289	23719
11	102.20	96.60	99.40	346.62	0.00	2.88	0.00	0.00	27.5	0.11	1.00	1.00	0.58	3.42	2.9	3423	0.57	2.00	1.85	1.20	2.22	1166	4589	23808
12	96.60	91.20	93.90	341.03	0.00	2.96	0.00	0.00	26.5	0.11	1.00	1.00	0.58	3.39	3.0	3418	0.55	2.00	1.78	1.20	2.14	1106	4524	22401
13	91.20	85.60	88.40	335.20	0.00	3.29	0.00	0.00	27.5	0.12	1.00	1.00	0.58	3.35	3.3	3698	0.57	2.00	1.85	1.20	2.22	1127	4825	30814
14	85.60	80.00	82.80	328.99	0.00	3.58	0.00	0.00	27.5	0.13	1.00	1.00	0.58	3.30	3.6	3883	0.57	2.00	1.85	1.20	2.22	1106	4989	34149
15	80.00	74.50	77.25	322.53	0.00	3.54	0.00	0.00	27.0	0.13	1.00	1.00	0.58	3.29	3.5	3762	0.56	2.00	1.82	1.20	2.18	1065	4827	33665
16	74.50	71.80	73.15	317.55	0.00	1.89	0.00	0.00	13.2	0.14	1.00	1.00	0.58	3.24	1.9	1944	0.28	2.00	0.89	1.20	1.07	515	2459	17562
17	71.80	66.13	68.96	312.24	0.00	2.99	0.00	0.00	27.8	0.11	1.00	1.00	0.58	3.41	3.0	3186	0.58	2.00	1.88	1.20	2.25	1064	4250	31967
18	66.13	59.80	62.96	304.23	0.00	3.69	0.00	0.00	35.9	0.10	1.00	1.00	0.58	3.44	3.7	3861	0.65	2.00	2.09	1.20	2.51	1155	5017	40415
19	59.80	53.80	56.80	295.40	0.00	3.85	0.00	0.00	43.1	0.09	1.00	1.00	0.57	3.50	3.9	3986	0.61	2.00	1.98	1.20	2.38	1064	5051	40503
20	53.80	47.80	50.80	286.13	0.00	4.38	0.00	0.00	51.8	0.08	1.00	1.00	0.57	3.53	4.4	4428	0.61	2.00	1.98	1.20	2.38	1031	5459	47041
21	47.80	41.80	44.80	276.04	0.00	4.73	0.00	0.00	60.6	0.08	1.00	1.00	0.57	3.56	4.7	4650	0.61	2.00	1.98	1.20	2.38	995	5645	49691
22	41.80	35.80	38.80	264.93	0.00	4.45	0.00	0.00	69.4	0.06	1.00	1.00	0.57	3.64	4.4	4287	0.61	2.00	1.98	1.20	2.38	954	5242	59408
23	35.80	29.80	32.80	252.51	0.00	5.58	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.60	5.6	5072	0.61	2.00	1.98	1.20	2.38	910	5981	54967
24	29.80	23.80	26.80	238.35	0.00	5.80	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.62	5.8	5013	0.61	2.00	1.98	1.20	2.38	859	5871	70915
25	23.80	17.80	20.80	221.70	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	5207	0.61	2.00	1.98	1.20	2.38	799	6006	61387
26	17.80	11.80	14.80	201.16	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	4913	0.61	2.00	1.98	1.20	2.38	725	5637	80034
27	11.80	5.80	8.80	180.14	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	1305	0.61	2.00	1.98	1.20	2.38	649	1954	27717
28	5.80	0.00	2.90	180.14	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	3901	0.59	2.00	1.92	1.20	2.30	627	4528	60972

Concentrated Loads for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	158	158	1380	0	0	0	
1P	158	158	1380	0	0	0	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	60 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

1XY	158	158	1380	0	0	0
2X	158	158	1380	0	0	0
2S	158	158	1380	0	0	0
2XY	158	158	1380	0	0	0
4X	158	158	1380	0	0	0
4S	158	158	1380	0	0	0
4XY	158	158	1380	0	0	0
5X	158	158	1380	0	0	0
5XY	158	158	1380	0	0	0
6X	158	158	1380	0	0	0
6XY	158	158	1380	0	0	0
8X	158	158	1380	0	0	0
8XY	158	158	1380	0	0	0
10XY	158	158	1380	0	0	0
14X	79	79	780	0	0	0
14S	79	79	780	0	0	0
14Y	79	79	780	0	0	0
15X	79	79	780	0	0	0
15S	79	79	780	0	0	0
15Y	79	79	780	0	0	0
17X	79	79	780	0	0	0
17S	79	79	780	0	0	0
17Y	79	79	780	0	0	0
18X	79	79	780	0	0	0
18S	79	79	780	0	0	0
18Y	79	79	780	0	0	0
20X	79	79	780	0	0	0
20P	79	79	780	0	0	0
22S	636	636	1800	0	0	0
22XY	318	318	900	0	0	0
23S	636	636	1800	0	0	0
31XY	36	36	250	0	0	0
29S	36	36	250	0	0	0
31Y	36	36	250	0	0	0
38Y	36	36	250	0	0	0
35Y	625	625	1100	0	0	0
36XY	229	229	585	0	0	0
35S	1804	1804	5110	0	0	0
36X	451	451	2330	0	0	0
36S	1804	1804	5110	0	0	0
37X	200	200	1840	0	0	0
39Y	200	200	1840	0	0	0
40Y	451	451	2330	0	0	0
40S	802	802	2970	0	0	0
40X	902	902	4660	0	0	0
41S	802	802	2970	0	0	0
41X	200	200	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
10X	714	714	3360	0	0	0
10P	714	714	3360	0	0	0
11X	714	714	3360	0	0	0
11P	714	714	3360	0	0	0
12X	714	714	3360	0	0	0

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	61 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

12S	714	714	3360	0	0	0
13X	714	714	3360	0	0	0
13S	714	714	3360	0	0	0
14X	714	714	3360	0	0	0
14S	714	714	3360	0	0	0

EIA Section Load Case Information for "LC6 WIND 45° DEFLEX":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	388.41	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	1768	0.49	2.00	1.59	1.20	1.90	1120	2888	11945
2	145.20	140.20	142.70	384.35	0.00	1.11	0.00	0.00	6.5	0.17	1.13	1.13	0.58	3.11	1.3	1501	0.51	2.00	1.65	1.20	1.98	1154	2655	11253
3	140.20	135.20	137.70	380.45	0.00	1.37	0.00	0.00	6.5	0.21	1.16	1.16	0.59	2.94	1.6	1769	0.51	2.00	1.65	1.20	1.98	1142	2911	12742
4	135.20	131.63	133.41	377.03	0.00	1.11	0.00	0.00	4.6	0.24	1.18	1.18	0.60	2.82	1.3	1393	0.36	2.00	1.18	1.20	1.42	808	2201	9783
5	131.63	127.59	129.61	373.93	0.00	1.40	0.00	0.00	7.2	0.19	1.15	1.15	0.59	3.01	1.6	1804	0.41	2.00	1.33	1.20	1.60	907	2711	14013
6	127.59	122.20	124.90	369.99	0.00	1.93	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.17	2.2	2531	0.55	2.00	1.78	1.20	2.14	1197	3728	18882
7	122.20	117.20	119.70	365.52	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	2353	0.51	2.00	1.65	1.20	1.98	1097	3451	16241
8	117.20	112.20	114.70	361.09	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	2325	0.51	2.00	1.65	1.20	1.98	1084	3409	16241
9	112.20	108.62	110.41	357.18	0.00	1.43	0.00	0.00	8.2	0.18	1.13	1.13	0.59	3.09	1.6	1789	0.37	2.00	1.18	1.20	1.42	768	2556	12178
10	108.62	102.20	105.41	352.48	0.00	2.43	0.00	0.00	23.1	0.11	1.08	1.08	0.58	3.42	2.6	3162	0.65	2.00	2.12	1.20	2.55	1359	4521	23719
11	102.20	96.60	99.40	346.62	0.00	2.88	0.00	0.00	27.5	0.11	1.08	1.08	0.58	3.42	3.1	3693	0.57	2.00	1.85	1.20	2.22	1166	4858	23808
12	96.60	91.20	93.90	341.03	0.00	2.96	0.00	0.00	26.5	0.11	1.08	1.08	0.58	3.39	3.2	3704	0.55	2.00	1.78	1.20	2.14	1106	4810	22401
13	91.20	85.60	88.40	335.20	0.00	3.29	0.00	0.00	27.5	0.12	1.09	1.09	0.58	3.35	3.6	4030	0.57	2.00	1.85	1.20	2.22	1127	5157	30814
14	85.60	80.00	82.80	328.99	0.00	3.58	0.00	0.00	27.5	0.13	1.10	1.10	0.58	3.30	3.9	4262	0.57	2.00	1.85	1.20	2.22	1106	5368	34149
15	80.00	74.50	77.25	322.53	0.00	3.54	0.00	0.00	27.0	0.13	1.10	1.10	0.58	3.29	3.9	4132	0.56	2.00	1.82	1.20	2.18	1065	5198	33665
16	74.50	71.80	73.15	317.55	0.00	1.89	0.00	0.00	13.2	0.14	1.11	1.11	0.58	3.24	2.1	2152	0.28	2.00	0.89	1.20	1.07	515	2667	17562
17	71.80	66.13	68.96	312.24	0.00	2.99	0.00	0.00	27.8	0.11	1.08	1.08	0.58	3.41	3.2	3442	0.58	2.00	1.88	1.20	2.25	1064	4506	31967
18	66.13	59.80	62.96	304.23	0.00	3.69	0.00	0.00	35.9	0.10	1.08	1.08	0.58	3.44	4.0	4159	0.65	2.00	2.09	1.20	2.51	1155	5315	40415
19	59.80	53.80	56.80	295.40	0.00	3.85	0.00	0.00	43.1	0.09	1.07	1.07	0.57	3.50	4.1	4254	0.61	2.00	1.98	1.20	2.38	1064	5318	40503
20	53.80	47.80	50.80	286.13	0.00	4.38	0.00	0.00	51.8	0.08	1.06	1.06	0.57	3.53	4.7	4709	0.61	2.00	1.98	1.20	2.38	1031	5740	47041
21	47.80	41.80	44.80	276.04	0.00	4.73	0.00	0.00	60.6	0.08	1.06	1.06	0.57	3.56	5.0	4922	0.61	2.00	1.98	1.20	2.38	995	5917	49691
22	41.80	35.80	38.80	264.93	0.00	4.45	0.00	0.00	69.4	0.06	1.05	1.05	0.57	3.64	4.7	4493	0.61	2.00	1.98	1.20	2.38	954	5448	59408
23	35.80	29.80	32.80	252.51	0.00	5.58	0.00	0.00	78.2	0.07	1.05	1.05	0.57	3.60	5.9	5343	0.61	2.00	1.98	1.20	2.38	910	6253	54967
24	29.80	23.80	26.80	238.35	0.00	5.80	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.62	6.1	5264	0.61	2.00	1.98	1.20	2.38	859	6122	70915
25	23.80	17.80	20.80	221.70	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	5472	0.61	2.00	1.98	1.20	2.38	799	6271	61387
26	17.80	11.80	14.80	201.16	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	5149	0.61	2.00	1.98	1.20	2.38	725	5874	80034
27	11.80	5.80	8.80	180.14	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	1321	0.61	2.00	1.98	1.20	2.38	649	1970	27717
28	5.80	0.00	2.90	180.14	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	4046	0.59	2.00	1.92	1.20	2.30	627	4673	60972

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	Project	Date
	Client	Designed by
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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados

El uso máximo del elemento es: 1336.69% for Angle "77P" in load case "LC4 WIND 45° C.T." NG

Angle Forces For All Load Cases:
Positive for tension - negative for compression

Group	Angle	Max. Tens.	Max. Comp.	LC 1	LC 2	LC 3	LC 4	LC 5	LC 6
Label	Label	For All LC (kN)	For All LC (kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)
M1	1P	0.000	-14.936	-11.756	-14.936	-9.514	-11.958	-6.428	-7.038
M1	1X	0.000	-12.688	-12.688	-6.458	-10.231	-5.438	-6.616	-5.416
M1	1XY	2.135	-4.186	-0.126	2.135	-0.567	1.170	-4.186	-3.753
M1	1Y	0.000	-4.557	-0.272	-4.557	-0.679	-3.976	-3.175	-4.000
M1	2P	0.000	-32.131	-21.574	-32.131	-16.296	-24.411	-7.383	-9.410
M1	2X	0.000	-25.964	-25.964	-6.137	-19.673	-4.420	-8.219	-4.400
M1	2XY	19.898	-0.582	13.738	19.898	10.869	15.603	-0.582	0.598
M1	2Y	11.525	-2.515	11.525	-2.515	9.166	-1.635	1.043	-1.660
M2	3P	0.000	-69.046	-45.612	-69.046	-35.163	-53.180	-14.918	-19.419
M2	3X	0.000	-54.684	-54.684	-10.707	-42.143	-8.312	-16.693	-8.224
M2	3XY	48.024	0.000	33.626	48.024	25.793	36.859	0.344	3.103
M2	3Y	27.184	-6.741	27.184	-6.741	20.836	-5.261	1.190	-5.341
M2	4P	0.000	-107.496	-69.419	-107.496	-53.459	-82.735	-20.840	-28.155
M2	4X	0.000	-83.931	-83.931	-12.873	-64.624	-9.960	-23.597	-9.914
M2	4XY	81.792	0.000	58.285	81.792	44.781	62.847	3.753	8.260
M2	4Y	47.906	-7.454	47.906	-7.454	36.795	-5.791	4.804	-5.853
M3	5P	0.000	-169.117	-108.153	-169.117	-83.326	-130.201	-30.235	-41.949
M3	5X	0.000	-133.976	-133.976	-18.702	-103.193	-14.514	-36.270	-14.072
M3	5XY	137.558	0.000	98.084	137.558	75.327	105.667	8.407	15.976
M3	5Y	81.330	-10.897	81.330	-10.897	62.436	-8.510	9.327	-8.427
M3	6P	0.000	-229.750	-143.693	-229.750	-110.639	-176.810	-37.605	-54.142
M3	6X	0.000	-184.623	-184.623	-23.312	-142.129	-18.033	-47.504	-16.441
M3	6XY	198.761	0.000	143.522	198.761	110.308	152.765	15.690	26.282
M3	6Y	114.862	-14.184	114.862	-14.184	88.257	-11.012	15.233	-9.607
M4	7P	0.000	-301.166	-188.986	-301.166	-145.875	-232.133	-49.083	-70.641
M4	7X	0.000	-242.495	-242.495	-31.396	-187.042	-24.645	-61.360	-20.709
M4	7XY	270.099	0.000	193.365	270.099	148.258	207.239	22.473	37.190
M4	7Y	152.336	-22.635	152.336	-22.635	116.690	-17.905	19.761	-13.918
M4	8P	0.000	-368.106	-221.086	-368.106	-169.866	-282.920	-53.409	-81.666
M4	8X	0.000	-296.132	-296.132	-28.180	-227.602	-21.468	-71.299	-19.701
M4	8XY	330.747	0.000	246.281	330.747	189.666	254.584	33.505	49.700
M4	8Y	187.096	-16.943	187.096	-16.943	144.130	-12.824	27.857	-11.417
M5	9P	0.000	-363.433	-230.630	-363.433	-179.854	-281.975	-66.585	-92.108
M5	9X	0.000	-288.389	-288.389	-42.403	-224.291	-35.055	-80.400	-33.034
M5	9XY	299.407	0.000	212.773	299.407	161.242	227.835	17.608	34.226
M5	9Y	167.884	-31.656	167.884	-31.656	126.706	-26.788	13.743	-24.665
M6	10P	0.000	-417.792	-288.485	-417.792	-222.159	-321.583	-77.416	-102.258
M6	10X	0.000	-313.104	-313.104	-51.038	-241.099	-39.498	-84.332	-33.876
M6	10XY	360.479	0.000	234.161	360.479	179.896	277.015	24.816	49.071
M6	10Y	219.816	-37.560	219.816	-37.560	168.858	-29.130	25.795	-23.748
M6	11P	0.000	-524.233	-359.305	-524.233	-276.310	-403.126	-93.222	-124.908
M6	11X	0.000	-381.869	-381.869	-50.802	-293.670	-38.988	-99.901	-36.165
M6	11XY	453.205	0.000	298.252	453.205	229.527	348.665	37.430	67.187
M6	11Y	285.846	-33.527	285.846	-33.527	219.981	-25.699	38.577	-22.899

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M7	12P	0.000	-654.935	-449.094	-654.935	-345.565	-503.843	-116.068	-155.615
M7	12X	0.000	-467.178	-467.178	-54.935	-359.478	-42.351	-121.871	-42.512
M7	12XY	558.128	0.000	369.249	558.128	283.959	429.185	48.144	84.421
M7	12Y	361.590	-32.143	361.590	-32.143	278.064	-24.819	50.207	-25.583
M7	13P	0.000	-792.821	-538.799	-792.821	-414.550	-609.879	-137.029	-185.835
M7	13X	0.000	-552.771	-552.771	-50.348	-425.301	-38.803	-142.096	-45.383
M7	13XY	666.828	0.000	447.227	666.828	343.966	512.815	62.402	104.581
M7	13Y	442.792	-25.357	442.792	-23.889	340.552	-18.449	64.476	-25.357
M8	14P	0.000	-955.905	-643.697	-955.905	-495.263	-735.338	-160.082	-220.070
M8	14X	0.000	-652.526	-652.526	-41.551	-502.058	-32.057	-164.182	-46.578
M8	14XY	797.158	0.000	541.282	797.158	416.298	613.041	78.303	127.452
M8	14Y	540.606	-26.309	540.606	-14.154	415.776	-10.983	80.478	-26.309
M8	15P	0.000	-1109.397	-741.181	-1109.397	-570.214	-853.359	-179.553	-250.304
M8	15X	0.000	-744.690	-744.690	-29.386	-572.916	-22.661	-182.656	-44.976
M8	15XY	921.142	0.000	630.496	921.142	484.967	708.445	94.749	150.579
M8	15Y	635.145	-24.830	635.145	-2.545	488.540	-2.014	97.922	-24.830
M9	16P	0.000	-1279.679	-851.868	-1279.679	-655.650	-984.623	-204.780	-286.984
M9	16X	0.000	-850.851	-850.851	-23.362	-654.871	-18.319	-207.064	-47.793
M9	16XY	1055.190	0.000	724.942	1055.190	557.330	811.260	109.668	173.108
M9	16Y	733.388	-27.581	733.388	3.347	563.824	2.227	112.948	-27.581
M9	17P	0.000	-1382.714	-917.592	-1382.714	-705.659	-1063.324	-215.926	-305.300
M9	17X	0.000	-910.519	-910.519	-12.593	-700.222	-9.488	-216.967	-44.141
M9	17XY	1143.482	0.000	788.877	1143.482	607.061	879.721	123.905	192.027
M9	17Y	802.239	-23.989	802.239	14.750	617.336	11.545	127.599	-23.989
M10	18P	0.000	-1132.891	-764.209	-1132.891	-590.135	-873.639	-192.605	-263.450
M10	18X	0.000	-756.434	-756.434	-36.812	-584.156	-30.584	-192.682	-54.174
M10	18XY	915.451	0.000	617.523	915.451	472.775	701.861	81.299	138.539
M10	18Y	629.536	-40.396	629.536	-19.312	482.014	-17.123	84.503	-40.396
M11	19P	0.000	-978.558	-679.578	-978.558	-522.742	-752.645	-176.969	-234.420
M11	19X	0.000	-675.647	-675.647	-70.461	-519.718	-54.177	-177.115	-60.631
M11	19XY	806.370	0.000	524.187	806.370	403.263	620.249	60.739	114.963
M11	19Y	531.257	-57.114	531.257	-57.114	408.700	-43.910	62.878	-50.374
M11	20P	0.000	-1051.283	-731.789	-1051.283	-562.981	-808.658	-186.753	-248.147
M11	20X	0.000	-726.062	-726.062	-73.889	-558.575	-56.889	-186.427	-60.900
M11	20XY	888.880	0.000	576.020	888.880	443.059	683.638	70.821	130.943
M11	20Y	584.339	-61.213	584.339	-61.213	449.458	-47.139	73.280	-50.978
M12	21P	0.000	-1177.360	-823.024	-1177.360	-633.133	-905.602	-209.572	-277.662
M12	21X	0.000	-812.671	-812.671	-85.065	-625.168	-65.457	-206.940	-66.894
M12	21XY	1004.287	0.000	648.041	1004.287	498.490	772.435	80.188	148.650
M12	21Y	658.490	-71.589	658.490	-71.589	506.529	-55.091	83.809	-56.718
M12	22P	0.000	-1287.036	-901.468	-1287.036	-693.477	-989.963	-227.216	-301.309
M12	22X	0.000	-885.464	-885.464	-89.124	-681.166	-68.582	-222.080	-68.805
M12	22XY	1112.103	0.000	716.510	1112.103	551.157	855.362	92.132	168.158
M12	22Y	730.955	-75.906	730.955	-75.906	562.269	-58.415	96.608	-58.696
M13	23P	0.000	-1412.902	-991.607	-1412.902	-762.846	-1086.805	-248.130	-329.089
M13	23X	0.000	-971.113	-971.113	-96.232	-747.080	-74.081	-242.047	-73.657
M13	23XY	1229.399	0.000	790.182	1229.399	607.799	945.554	102.760	187.174
M13	23Y	810.126	-82.636	810.126	-82.636	623.142	-63.622	108.367	-63.470
M13	24P	0.000	-1540.931	-1082.101	-1540.931	-832.442	-1185.266	-267.422	-355.597
M13	24X	0.000	-1056.435	-1056.435	-100.718	-812.698	-77.516	-260.267	-76.319
M13	24XY	1353.558	0.000	869.063	1353.558	668.492	1041.070	116.063	209.182
M13	24Y	894.044	-87.374	894.044	-87.374	687.710	-67.252	122.718	-66.182
M14	25P	0.000	-1680.001	-1181.407	-1680.001	-908.868	-1292.270	-290.747	-386.565
M14	25X	0.000	-1150.672	-1150.672	-109.321	-885.224	-84.170	-282.537	-82.109
M14	25XY	1480.998	0.000	948.948	1480.998	729.908	1139.058	127.222	229.485
M14	25Y	979.049	-95.756	979.049	-95.756	753.065	-73.736	134.941	-71.932

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M14	26P	0.000	-1819.634	-1279.726	-1819.634	-984.490	-1399.664	-311.789	-415.549
M14	26X	0.000	-1243.894	-1243.894	-114.208	-956.925	-87.922	-302.519	-85.090
M14	26XY	1616.068	0.000	1034.927	1616.068	796.055	1242.961	141.649	253.351
M14	26Y	1070.129	-100.788	1070.129	-100.788	823.135	-77.599	150.429	-74.942
M15	27P	0.000	-1969.011	-1385.700	-1969.011	-1066.017	-1514.568	-336.494	-448.598
M15	27X	0.000	-1344.777	-1344.777	-122.853	-1034.536	-94.579	-326.166	-90.986
M15	27XY	1753.256	0.000	1121.025	1753.256	862.278	1348.476	153.908	275.434
M15	27Y	1161.244	-109.630	1161.244	-109.630	893.217	-84.408	163.731	-80.877
M15	28P	0.000	-2118.468	-1490.714	-2118.468	-1146.775	-1629.504	-358.972	-479.620
M15	28X	0.000	-1444.366	-1444.366	-127.936	-1111.120	-98.468	-347.336	-93.968
M15	28XY	1897.764	0.000	1213.454	1897.764	933.400	1459.652	169.618	301.158
M15	28Y	1258.776	-114.239	1258.776	-114.239	968.266	-87.931	180.500	-83.765
M16	29P	0.000	-2268.737	-1596.545	-2268.737	-1228.411	-1745.316	-383.469	-512.660
M16	29X	0.000	-1545.116	-1545.116	-135.260	-1188.849	-104.330	-370.778	-99.430
M16	29XY	2037.083	0.000	1300.775	2037.083	1000.344	1566.587	182.265	323.804
M16	29Y	1351.248	-122.729	1351.248	-122.729	1039.171	-94.691	194.217	-89.480
M17	30P	0.000	-2457.738	-1730.180	-2457.738	-1332.271	-1891.755	-414.024	-553.861
M17	30X	0.000	-1670.912	-1670.912	-143.560	-1286.678	-111.779	-399.716	-105.758
M17	30XY	2216.357	0.000	1413.023	2216.357	1085.625	1703.420	198.656	353.086
M17	30Y	1471.353	-131.781	1471.353	-131.781	1130.497	-102.718	212.243	-96.310
M18	31P	0.000	-2457.902	-1730.909	-2457.902	-1333.844	-1892.903	-420.990	-560.726
M18	31X	0.000	-1676.386	-1676.386	-154.508	-1291.903	-121.214	-408.100	-115.197
M18	31XY	2194.355	0.000	1395.727	2194.355	1071.303	1685.484	187.501	341.031
M18	31Y	1449.426	-144.097	1449.426	-144.097	1112.612	-113.206	199.762	-106.936
M19	32P	0.000	-2315.498	-1629.771	-2315.498	-1254.948	-1782.283	-408.548	-540.361
M19	32X	0.000	-1592.782	-1592.782	-167.801	-1226.494	-130.342	-400.006	-125.755
M19	32XY	2016.288	0.000	1280.083	2016.288	983.438	1549.614	156.951	298.483
M19	32Y	1316.462	-158.917	1316.462	-158.917	1011.423	-123.509	164.989	-118.966
M20	33P	0.000	-2203.332	-1552.035	-2203.332	-1194.822	-1695.689	-400.585	-525.787
M20	33X	0.000	-1525.799	-1525.799	-180.071	-1174.640	-139.453	-394.745	-135.748
M20	33XY	1873.111	0.000	1184.974	1873.111	910.601	1439.813	130.697	262.992
M20	33Y	1210.310	-172.774	1210.310	-172.774	930.090	-133.840	136.070	-130.118
M21	34P	0.000	-2158.306	-1525.079	-2158.306	-1173.814	-1660.791	-407.235	-528.970
M21	34X	0.000	-1495.113	-1495.113	-192.217	-1150.764	-148.524	-397.626	-146.875
M21	34XY	1782.881	0.000	1122.521	1782.881	862.830	1370.683	109.743	236.701
M21	34Y	1143.388	-187.287	1143.388	-187.287	878.881	-144.732	113.018	-143.080
M22	35P	0.000	-2081.541	-1477.300	-2081.541	-1138.722	-1603.416	-411.572	-527.743
M22	35X	0.000	-1437.859	-1437.859	-200.030	-1108.383	-156.195	-399.854	-161.628
M22	35XY	1644.112	0.000	1027.083	1644.112	787.752	1262.284	79.247	197.879
M22	35Y	1057.081	-193.582	1057.081	-193.582	810.826	-151.235	84.032	-156.663
M23	36P	0.000	-2093.928	-1489.746	-2093.928	-1148.297	-1612.946	-421.220	-537.380
M23	36X	0.000	-1452.748	-1452.748	-215.037	-1119.837	-167.741	-411.372	-173.168
M23	36XY	1631.375	0.000	1014.402	1631.375	777.995	1252.485	69.553	188.175
M23	36Y	1044.387	-206.162	1044.387	-206.162	801.060	-160.913	74.336	-166.337
M24	37P	0.000	-2134.145	-1522.168	-2134.145	-1172.244	-1642.897	-441.664	-559.331
M24	37X	0.000	-1497.723	-1497.723	-244.721	-1153.440	-189.583	-434.504	-193.361
M24	37XY	1622.129	0.000	1003.123	1622.129	770.309	1246.369	51.600	170.619
M24	37Y	1022.266	-237.725	1022.266	-237.725	785.033	-184.201	54.511	-187.976
M25	38P	0.000	-2148.448	-1536.552	-2148.448	-1183.312	-1653.902	-452.829	-570.481
M25	38X	0.000	-1512.112	-1512.112	-259.278	-1164.512	-200.783	-445.671	-204.560
M25	38XY	1607.331	0.000	988.405	1607.331	758.984	1234.982	40.369	159.373
M25	38Y	1005.116	-254.710	1005.116	-254.710	771.838	-197.269	41.413	-201.043
M26	39P	0.000	-2143.762	-1540.846	-2143.762	-1189.905	-1653.596	-471.418	-587.350
M26	39X	0.000	-1524.728	-1524.728	-288.876	-1177.506	-226.842	-467.308	-229.469
M26	39XY	1557.051	0.000	949.014	1557.051	725.390	1193.021	15.528	132.446
M26	39Y	958.316	-282.580	958.316	-282.580	732.545	-222.000	14.187	-224.623

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M27	40P	0.000	-2160.760	-1557.993	-2160.760	-1203.095	-1666.672	-484.794	-600.697
M27	40X	0.000	-1540.384	-1540.384	-304.856	-1189.550	-239.135	-479.537	-241.760
M27	40XY	1543.028	0.000	935.138	1543.028	714.717	1182.234	5.041	121.930
M27	40Y	944.440	-296.134	944.440	-296.134	721.871	-232.425	3.699	-235.048
M28	41P	0.000	-2172.269	-1569.329	-2172.269	-1211.815	-1675.525	-493.290	-609.227
M28	41X	0.000	-1551.720	-1551.720	-315.804	-1198.270	-247.556	-488.034	-250.182
M28	41XY	1532.641	-3.306	924.578	1532.641	706.594	1174.244	-3.306	113.616
M28	41Y	933.880	-307.082	933.880	-307.082	713.748	-240.847	-4.648	-243.470
D1	42P	6.044	0.000	1.658	6.044	1.522	4.895	1.185	2.028
D1	42X	1.657	-3.035	1.657	-3.035	1.521	-2.087	1.185	0.282
D1	42XY	0.943	-3.230	0.460	-3.230	0.600	-2.237	0.943	0.234
D1	42Y	3.658	0.000	0.459	3.658	0.600	3.060	0.944	1.560
D1	43P	6.291	0.000	6.291	5.336	5.100	4.365	2.108	1.923
D1	43X	7.297	0.000	7.297	5.267	5.874	4.312	2.311	1.919
D1	43XY	0.174	-5.058	-5.058	-3.808	-3.631	-2.667	-0.068	0.174
D1	43Y	0.603	-2.965	-2.965	-1.540	-2.020	-0.924	0.328	0.603
D2	44P	6.165	-1.366	-1.366	6.165	-1.229	4.563	-0.904	0.544
D2	44X	0.000	-8.604	-1.368	-8.604	-1.231	-6.795	-0.905	-2.296
D2	44XY	0.000	-6.517	-0.210	-6.517	-0.340	-5.191	-0.670	-1.883
D2	44Y	4.690	-0.670	-0.212	4.690	-0.341	3.429	-0.670	0.273
D2	45P	7.585	0.000	7.585	4.955	5.675	3.650	0.884	0.376
D2	45X	9.299	0.000	9.299	7.099	6.994	5.299	1.200	0.774
D2	45XY	0.000	-10.793	-10.793	-7.660	-8.463	-6.052	-2.669	-2.064
D2	45Y	0.000	-7.490	-7.490	-6.250	-5.922	-4.967	-2.018	-1.778
D3	46P	12.737	0.000	2.156	12.737	1.686	9.824	0.604	2.639
D3	46X	2.153	-9.365	2.153	-9.365	1.683	-7.175	0.603	-1.613
D3	46XY	0.000	-10.856	-1.652	-10.856	-1.243	-8.323	-0.163	-1.933
D3	46Y	7.682	-1.655	-1.655	7.682	-1.246	5.936	-0.164	1.633
D3	47P	13.247	0.000	13.247	11.185	10.248	8.660	2.787	2.389
D3	47X	15.227	0.000	15.227	10.188	11.772	7.894	3.196	2.224
D3	47XY	0.000	-14.510	-14.510	-11.889	-11.104	-9.087	-2.529	-2.022
D3	47Y	0.000	-11.452	-11.452	-7.315	-8.752	-5.569	-1.967	-1.169
D4	48P	12.751	-2.412	-2.412	12.751	-1.837	9.825	-0.535	2.382
D4	48X	0.000	-16.434	-2.413	-16.434	-1.838	-12.621	-0.535	-3.232
D4	48XY	2.170	-10.774	2.170	-10.774	1.688	-8.268	0.388	-2.103
D4	48Y	13.051	0.000	2.172	13.051	1.690	10.057	0.390	2.482
D4	49P	16.550	0.000	16.550	10.512	12.777	8.131	3.234	2.070
D4	49X	19.627	0.000	19.627	16.327	15.145	12.604	3.779	3.141
D4	49XY	0.000	-19.788	-19.788	-12.812	-15.176	-9.807	-3.811	-2.465
D4	49Y	0.000	-15.308	-15.308	-13.293	-11.729	-10.178	-2.896	-2.507
D5	50P	20.183	0.000	2.006	20.183	1.593	15.573	0.575	4.071
D5	50X	1.942	-18.021	1.942	-18.021	1.544	-13.810	0.558	-3.282
D5	50XY	0.000	-17.981	-1.456	-17.981	-1.070	-13.780	-0.086	-3.265
D5	50Y	15.013	-1.513	-1.513	15.013	-1.114	11.597	-0.097	3.083
D5	51P	21.001	0.000	21.001	16.615	16.250	12.874	4.330	3.484
D5	51X	27.313	0.000	27.313	19.577	21.106	15.152	5.570	4.077
D5	51XY	0.000	-26.554	-26.554	-20.448	-20.333	-15.631	-4.799	-3.619
D5	51Y	0.000	-20.371	-20.371	-14.324	-15.575	-10.923	-3.633	-2.468
D6	52P	19.378	-3.139	-3.139	19.378	-2.379	14.940	-0.595	3.737
D6	52X	0.000	-24.760	-2.977	-24.760	-2.254	-19.008	-0.554	-4.743
D6	52XY	2.911	-17.262	2.911	-17.262	2.275	-13.241	0.576	-3.305
D6	52Y	20.893	0.000	3.078	20.893	2.404	16.106	0.621	4.048
D6	53P	23.212	0.000	23.212	15.061	17.935	11.664	4.630	3.059
D6	53X	31.936	0.000	31.936	26.114	24.647	20.163	6.239	5.113
D6	53XY	0.000	-31.904	-31.904	-20.709	-24.464	-15.848	-6.064	-3.904
D6	53Y	0.000	-22.883	-22.883	-20.110	-17.524	-15.389	-4.231	-3.695

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D7	54P	19.529	-0.856	-0.856	19.529	-0.376	15.303	0.698	4.620
D7	54X	0.435	-21.599	-1.911	-21.599	-1.187	-16.329	0.435	-3.351
D7	54XY	3.897	-17.569	3.897	-17.569	3.281	-13.231	1.640	-2.490
D7	54Y	22.612	0.000	2.831	22.612	2.461	17.675	1.370	5.175
D7	55P	24.602	0.000	24.602	15.258	19.234	12.045	5.689	3.890
D7	55X	30.942	0.000	30.942	26.922	24.112	21.015	6.805	6.026
D7	55XY	0.000	-29.203	-29.203	-20.684	-22.156	-15.600	-4.709	-3.065
D7	55Y	0.000	-22.794	-22.794	-17.772	-17.225	-13.361	-3.499	-2.531
D8	56P	22.556	-4.617	-4.617	22.556	-3.707	17.195	-1.610	3.618
D8	56X	0.782	-26.541	0.782	-26.541	0.446	-20.569	-0.261	-5.517
D8	56XY	0.000	-13.239	-2.233	-13.239	-1.873	-10.337	-1.163	-3.280
D8	56Y	12.856	0.000	3.257	12.856	2.350	9.732	0.256	2.102
D8	57P	20.119	0.000	18.024	20.119	13.754	15.365	2.833	3.235
D8	57X	32.430	0.000	32.430	17.402	24.837	13.272	5.948	3.051
D8	57XY	0.000	-33.410	-33.410	-15.285	-25.812	-11.865	-7.112	-3.619
D8	57Y	0.000	-24.139	-18.740	-24.139	-14.526	-18.679	-3.847	-4.885
D9	58P	2.268	-26.202	-7.376	-26.202	-4.347	-18.827	2.268	-1.355
D9	58X	2.230	-32.111	-32.111	-1.643	-23.377	0.065	-3.640	2.230
D9	58XY	36.671	0.000	36.671	33.207	29.538	26.864	9.828	9.153
D9	58Y	16.079	0.000	16.079	7.938	13.695	7.435	7.108	5.543
D9	59P	1.251	-36.464	-9.155	-36.464	-5.722	-26.725	1.251	-4.000
D9	59X	14.756	-21.853	-21.853	14.756	-15.491	12.672	-1.578	5.470
D9	59XY	28.346	0.000	28.346	25.450	23.127	20.894	8.911	8.348
D9	59Y	17.113	0.000	17.113	10.373	14.484	9.299	7.155	5.856
D10	60P	40.355	0.000	4.322	40.355	3.462	31.176	1.342	8.272
D10	60X	1.857	-35.375	1.857	-35.375	1.566	-27.072	0.977	-6.185
D10	60XY	0.352	-28.794	-0.514	-28.794	-0.258	-22.011	0.352	-5.089
D10	60Y	26.566	-2.947	26.566	-2.130	20.571	0.011	5.689	
D10	61P	44.798	0.000	44.798	34.965	34.629	27.062	9.139	7.243
D10	61X	48.303	0.000	48.303	34.693	37.326	26.852	9.982	7.358
D10	61XY	0.000	-43.016	-43.016	-33.058	-32.924	-25.259	-7.749	-5.828
D10	61Y	0.000	-39.560	-39.560	-28.276	-30.265	-21.582	-6.935	-4.761
D11	62P	37.780	-0.861	-0.861	37.780	-0.733	28.988	-0.549	6.884
D11	62X	0.000	-42.646	-5.284	-42.646	-4.136	-32.873	-1.427	-8.612
D11	62XY	4.282	-27.901	4.282	-27.901	3.223	-21.532	0.505	-5.688
D11	62Y	30.726	-0.380	-0.150	30.726	-0.187	23.563	-0.380	5.560
D11	63P	47.968	0.000	47.968	29.966	36.851	23.000	8.933	5.465
D11	63X	48.558	0.000	48.558	41.400	37.305	31.794	9.013	7.630
D11	63XY	0.000	-45.599	-45.599	-35.273	-35.127	-27.180	-9.088	-7.096
D11	63Y	0.000	-44.931	-44.931	-32.396	-34.613	-24.967	-8.964	-6.549
D12	64P	51.069	0.000	3.955	51.069	3.088	39.327	0.963	10.024
D12	64X	0.244	-47.877	0.167	-47.877	0.174	-36.780	0.244	-8.997
D12	64XY	0.260	-32.933	0.260	-32.933	0.246	-25.286	0.186	-6.201
D12	64Y	30.867	-3.526	-3.526	30.867	-2.667	23.788	-0.531	6.086
D12	65P	56.291	0.000	56.291	39.722	43.385	30.636	11.057	7.865
D12	65X	57.770	0.000	57.770	44.917	44.523	34.631	11.345	8.866
D12	65XY	0.000	-53.091	-53.091	-42.095	-40.758	-32.296	-10.015	-7.894
D12	65Y	0.000	-51.886	-51.886	-35.824	-39.831	-27.473	-9.733	-6.638
D13	66P	53.562	-2.581	-2.581	53.562	-1.954	41.230	-0.610	10.189
D13	66X	0.000	-60.453	-6.529	-60.453	-4.991	-46.467	-1.369	-11.740
D13	66XY	6.246	-30.621	6.246	-30.621	4.836	-23.521	1.212	-5.882
D13	66Y	37.276	0.000	2.296	37.276	1.798	28.704	0.452	7.182
D13	67P	62.604	0.000	62.604	39.687	48.227	30.594	12.056	7.642
D13	67X	63.573	0.000	63.573	53.555	48.972	41.260	12.254	10.320
D13	67XY	0.000	-59.920	-59.920	-43.093	-46.026	-33.078	-11.528	-8.284
D13	67Y	0.000	-59.400	-59.400	-45.413	-45.626	-34.862	-11.408	-8.712

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D14	68P	62.365	0.000	4.001	62.365	3.127	48.018	0.883	12.109
D14	68X	0.139	-59.262	0.113	-59.262	0.135	-45.533	0.139	-11.282
D14	68XY	0.181	-38.598	0.172	-38.598	0.181	-29.640	0.173	-7.287
D14	68Y	36.057	-3.716	-3.716	36.057	-2.810	27.783	-0.571	7.082
D14	69P	65.905	0.000	65.905	46.355	50.776	35.732	12.821	9.054
D14	69X	66.262	0.000	66.262	51.690	51.051	39.836	12.895	10.085
D14	69XY	0.000	-66.361	-66.361	-51.726	-50.971	-39.708	-12.650	-9.828
D14	69Y	0.000	-65.952	-65.952	-46.299	-50.656	-35.534	-12.539	-8.752
D15	70P	57.656	-4.046	-4.046	57.656	-3.093	44.366	-0.881	10.988
D15	70X	0.000	-66.724	-8.020	-66.724	-6.150	-51.302	-1.647	-12.938
D15	70XY	7.668	-34.606	7.668	-34.606	5.918	-26.599	1.421	-6.714
D15	70Y	42.975	0.000	3.694	42.975	2.861	33.075	0.656	8.214
D15	71P	67.763	0.000	67.763	42.141	52.180	32.467	13.002	8.067
D15	71X	68.014	0.000	68.014	58.518	52.374	45.064	13.051	11.218
D15	71XY	0.000	-68.248	-68.248	-47.831	-52.447	-36.736	-13.187	-9.252
D15	71Y	0.000	-67.949	-67.949	-53.312	-52.216	-40.952	-13.102	-10.280
D16	72P	65.972	0.000	9.955	65.972	7.914	50.999	3.068	13.843
D16	72X	6.746	-52.755	6.746	-52.755	5.446	-40.320	2.471	-8.975
D16	72XY	0.366	-41.337	-3.723	-41.337	-2.608	-31.539	0.366	-6.871
D16	72Y	34.443	-6.936	-6.936	34.443	-5.080	26.749	-0.235	7.727
D16	73P	66.569	0.000	66.569	51.549	51.474	39.915	13.887	10.992
D16	73X	67.034	0.000	67.034	48.422	51.832	37.510	14.006	10.419
D16	73XY	0.000	-63.822	-63.822	-52.890	-48.830	-40.415	-11.222	-9.113
D16	73Y	0.000	-63.734	-63.734	-41.142	-48.762	-31.379	-11.165	-6.813
D17	74P	40.920	-12.757	-12.757	40.920	-10.005	31.281	-3.664	6.662
D17	74X	0.000	-64.377	-17.528	-64.377	-13.676	-49.708	-4.668	-13.678
D17	74XY	14.158	-25.298	14.158	-25.298	10.699	-19.652	1.689	-5.905
D17	74Y	42.254	0.000	9.405	42.254	7.042	32.308	0.699	7.019
D17	75P	58.072	0.000	58.072	27.169	44.504	20.729	10.016	4.065
D17	75X	56.521	0.000	55.823	56.521	42.775	43.306	9.464	9.592
D17	75XY	0.000	-59.144	-59.144	-36.091	-45.664	-27.928	-12.524	-8.084
D17	75Y	0.000	-61.619	-61.619	-54.547	-47.568	-42.122	-13.071	-11.705
D18	76P	0.000	-204.800	-73.912	-204.800	-55.590	-156.256	-13.344	-38.514
D18	76X	94.327	-73.826	-73.826	94.327	-55.525	73.819	-14.010	18.345
D18	76XY	189.125	0.000	72.107	189.125	56.737	146.734	15.223	37.725
D18	76Y	74.100	-80.196	74.100	-80.196	58.268	-60.416	16.024	-13.665
D18	77P	0.000	-222.088	-197.823	-222.088	-150.914	-169.556	-38.951	-43.594
D18	77X	0.000	-193.361	-193.361	-70.695	-147.482	-53.112	-38.333	-14.714
D18	77XY	192.385	0.000	192.385	177.226	149.259	137.579	40.110	37.172
D18	77Y	197.356	0.000	197.356	114.103	153.083	89.026	41.097	25.057
D19	78P	64.874	0.000	19.615	64.874	15.057	49.866	4.811	13.516
D19	78X	17.996	-36.155	17.996	-36.155	13.811	-27.840	4.433	-5.986
D19	78XY	0.000	-60.530	-14.739	-60.530	-11.370	-46.590	-1.990	-10.798
D19	78Y	38.328	-16.352	-16.352	38.328	-12.611	29.449	-2.364	8.158
D19	79P	68.862	0.000	68.862	58.777	52.951	45.188	14.211	12.265
D19	79X	68.501	0.000	68.501	44.231	52.673	34.001	14.089	9.414
D19	79XY	0.000	-65.753	-64.844	-65.753	-49.901	-50.595	-11.480	-11.649
D19	79Y	0.000	-65.747	-65.747	-30.517	-50.596	-23.493	-11.756	-4.973
D20	80P	39.969	-16.833	-16.833	39.969	-12.901	30.790	-4.133	6.796
D20	80X	0.000	-66.437	-17.837	-66.437	-13.674	-51.053	-4.360	-13.708
D20	80XY	14.805	-41.641	14.805	-41.641	11.437	-31.982	2.123	-8.739
D20	80Y	62.029	0.000	13.799	62.029	10.663	47.759	1.896	11.174
D20	81P	69.181	0.000	69.181	34.831	53.269	26.843	12.540	5.926
D20	81X	69.083	0.000	69.083	67.268	53.194	51.792	12.471	12.116
D20	81XY	0.000	-72.394	-72.394	-47.407	-55.637	-36.412	-14.733	-9.920
D20	81Y	0.000	-71.935	-71.935	-60.717	-55.283	-46.649	-14.655	-12.491

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D21	82P	60.752	0.000	3.094	60.752	2.393	46.740	0.761	11.852
D21	82X	1.942	-54.727	1.942	-54.727	1.506	-42.081	0.498	-10.405
D21	82XY	0.000	-57.116	-1.526	-57.116	-1.161	-43.919	-0.151	-10.846
D21	82Y	53.903	-2.679	-2.679	53.903	-2.048	41.473	-0.414	10.472
D21	83P	78.549	0.000	78.549	54.702	60.451	42.103	15.288	10.694
D21	83X	75.523	0.000	75.523	59.874	58.124	46.081	14.654	11.637
D21	83XY	0.000	-75.399	-75.399	-62.047	-57.972	-47.697	-14.350	-11.775
D21	83Y	0.000	-75.103	-75.103	-49.770	-57.744	-38.253	-14.325	-9.445
D22	84P	59.414	-3.046	-3.046	59.414	-2.326	45.715	-0.682	11.334
D22	84X	0.000	-63.329	-4.156	-63.329	-3.180	-48.694	-0.935	-12.318
D22	84XY	3.753	-54.830	3.753	-54.830	2.904	-42.157	0.659	-10.613
D22	84Y	59.663	0.000	2.643	59.663	2.050	45.908	0.406	11.376
D22	85P	82.647	0.000	82.647	53.607	63.604	41.262	15.836	10.243
D22	85X	77.748	0.000	77.748	65.417	59.836	50.346	14.865	12.487
D22	85XY	0.000	-77.905	-77.905	-59.970	-59.899	-46.098	-15.053	-11.596
D22	85Y	0.000	-80.899	-80.899	-58.157	-62.202	-44.703	-15.678	-11.297
D23	86P	65.203	0.000	0.424	65.203	0.364	50.189	0.182	12.644
D23	86X	0.000	-65.508	-0.707	-65.508	-0.507	-50.349	-0.076	-12.542
D23	86XY	0.872	-60.946	0.872	-60.946	0.708	-46.842	0.276	-11.617
D23	86Y	61.432	-0.259	-0.259	61.432	-0.163	47.290	0.019	11.888
D23	87P	87.009	0.000	87.009	58.847	66.997	45.331	16.894	11.470
D23	87X	83.075	0.000	83.075	67.677	63.972	52.122	16.097	13.128
D23	87XY	0.000	-82.883	-82.883	-65.578	-63.690	-50.374	-15.802	-12.467
D23	87Y	0.000	-86.999	-86.999	-60.676	-66.856	-46.603	-16.634	-11.563
D24	88P	65.714	-1.534	-1.534	65.714	-1.155	50.570	-0.276	12.662
D24	88X	0.000	-68.764	-2.662	-68.764	-2.022	-52.866	-0.533	-13.249
D24	88XY	2.588	-61.571	2.588	-61.571	2.017	-47.334	0.528	-11.816
D24	88Y	64.577	0.000	1.461	64.577	1.149	49.697	0.271	12.414
D24	89P	89.605	0.000	89.605	59.578	68.975	45.874	17.297	11.514
D24	89X	85.549	0.000	85.549	70.703	65.856	54.431	16.478	13.616
D24	89XY	0.000	-85.591	-85.591	-66.458	-65.792	-51.070	-16.419	-12.732
D24	89Y	0.000	-89.558	-89.558	-63.851	-68.844	-49.065	-17.223	-12.271
D25	90P	70.106	-0.427	-0.427	70.106	-0.274	53.977	0.037	13.607
D25	90X	0.000	-71.542	-1.553	-71.542	-1.141	-54.974	-0.219	-13.684
D25	90XY	1.734	-65.763	1.734	-65.763	1.388	-50.530	0.466	-12.520
D25	90Y	67.554	0.000	0.608	67.554	0.522	52.016	0.210	13.090
D25	91P	94.295	0.000	94.295	63.562	72.626	48.981	18.332	12.413
D25	91X	90.291	0.000	90.291	73.955	69.546	56.975	17.522	14.373
D25	91XY	0.000	-90.032	-90.032	-70.171	-69.165	-53.884	-17.141	-13.314
D25	91Y	0.000	-94.049	-94.049	-66.836	-72.255	-51.318	-17.954	-12.712
D26	92P	71.050	-1.926	-1.926	71.050	-1.435	54.696	-0.303	13.736
D26	92X	0.000	-74.764	-3.056	-74.764	-2.305	-57.460	-0.561	-14.356
D26	92XY	3.081	-66.861	3.081	-66.861	2.416	-51.383	0.672	-12.785
D26	92Y	70.618	0.000	1.951	70.618	1.547	54.364	0.415	13.626
D26	93P	97.154	0.000	97.154	64.725	74.816	49.866	18.827	12.582
D26	93X	93.147	0.000	93.147	77.094	71.734	59.380	18.017	14.922
D26	93XY	0.000	-93.046	-93.046	-71.501	-71.494	-54.916	-17.777	-13.626
D26	93Y	0.000	-97.073	-97.073	-70.130	-74.591	-53.862	-18.592	-13.403
D27	94P	74.955	-1.064	-1.064	74.955	-0.759	57.713	-0.091	14.534
D27	94X	0.000	-77.240	-2.185	-77.240	-1.621	-59.352	-0.347	-14.786
D27	94XY	2.328	-70.620	2.328	-70.620	1.850	-54.261	0.576	-13.460
D27	94Y	73.290	0.000	1.207	73.290	0.988	56.433	0.320	14.189
D27	95P	101.204	0.000	101.204	68.543	77.935	52.006	19.631	13.342
D27	95X	97.145	0.000	97.145	79.436	74.813	61.186	18.811	15.398
D27	95XY	0.000	-96.972	-96.972	-75.141	-74.510	-57.713	-18.508	-14.302
D27	95Y	0.000	-100.900	-100.900	-72.399	-77.532	-55.603	-19.303	-13.814

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D28	96P	76.995	-1.441	-1.441	76.995	-1.078	59.252	-0.236	14.854
D28	96X	0.000	-79.893	-2.574	-79.893	-1.950	-61.422	-0.493	-15.368
D28	96XY	2.560	-72.676	2.560	-72.676	2.000	-55.872	0.543	-13.932
D28	96Y	75.647	0.000	1.428	75.647	1.128	58.217	0.286	14.565
D28	97P	104.939	0.000	104.939	70.813	80.789	54.535	20.296	13.724
D28	97X	100.693	0.000	100.693	82.644	77.524	63.636	19.441	15.962
D28	97XY	0.000	-100.637	-100.637	-77.504	-77.347	-59.548	-19.266	-14.809
D28	97Y	0.000	-104.758	-104.758	-75.757	-80.517	-58.204	-20.100	-14.514
D29	98P	72.842	-11.025	-11.025	72.842	-8.192	56.317	-1.707	14.429
D29	98X	0.000	-89.984	-12.127	-89.984	-9.040	-68.924	-1.960	-16.937
D29	98XY	12.609	-68.172	12.609	-68.172	9.988	-52.148	2.908	-12.635
D29	98Y	86.269	0.000	11.508	86.269	9.141	66.646	2.657	17.040
D29	99P	108.126	0.000	108.126	67.397	83.456	52.122	21.245	13.404
D29	99X	104.022	0.000	104.022	91.173	80.299	70.411	20.418	17.940
D29	99XY	0.000	-103.576	-103.576	-73.644	-79.393	-56.365	-19.495	-13.730
D29	99Y	0.000	-107.700	-107.700	-84.034	-82.565	-64.355	-20.331	-15.771
D30	100P	67.679	-58.743	-58.743	67.679	-44.304	52.941	-10.998	13.329
D30	100X	0.000	-156.812	-60.268	-156.812	-45.477	-119.732	-11.342	-29.911
D30	100XY	58.666	-63.835	58.666	-63.835	46.012	-48.218	11.876	-11.697
D30	100Y	149.761	0.000	57.138	149.761	44.837	116.077	11.531	29.346
D30	101P	148.342	0.000	148.342	60.552	114.995	47.460	28.990	12.092
D30	101X	156.634	0.000	142.837	156.634	110.761	121.365	27.890	30.536
D30	101XY	0.000	-144.441	-144.441	-71.060	-110.225	-53.774	-27.345	-13.219
D30	101Y	0.000	-149.981	-149.981	-149.358	-114.486	-113.998	-28.471	-28.342
D31	102P	0.000	-184.726	-117.482	-184.726	-88.808	-140.519	-22.923	-35.849
D31	102X	15.078	-108.347	-108.347	15.078	-81.781	13.159	-20.731	3.021
D31	102XY	187.559	0.000	103.479	187.559	81.165	145.829	20.115	36.282
D31	102Y	112.460	-27.785	112.460	-27.785	88.074	-19.807	22.189	-4.801
D31	103P	0.000	-191.209	-145.634	-191.209	-110.465	-145.506	-28.713	-37.465
D31	103X	0.000	-140.090	-140.090	-22.608	-106.200	-15.825	-27.240	-4.625
D31	103XY	181.607	0.000	135.178	181.607	105.551	141.251	26.589	35.508
D31	103Y	140.672	0.000	140.672	22.333	109.778	18.739	28.018	5.236
D32	104P	0.000	-96.172	-46.808	-96.172	-35.036	-73.001	-8.745	-18.237
D32	104X	30.433	-40.598	-40.598	30.433	-30.260	24.376	-7.252	6.415
D32	104XY	99.784	0.000	38.980	99.784	30.955	77.721	7.947	19.641
D32	104Y	45.085	-37.543	45.085	-37.543	35.652	-27.906	9.358	-6.541
D32	105P	0.000	-101.059	-92.579	-101.059	-70.247	-76.759	-17.889	-19.510
D32	105X	0.000	-88.724	-88.724	-34.198	-67.281	-25.333	-16.877	-6.378
D32	105XY	96.230	0.000	87.057	96.230	67.939	74.987	17.534	19.290
D32	105Y	90.807	0.000	90.807	35.621	70.825	28.366	18.521	7.893
D33	106P	0.000	-70.490	-39.327	-70.490	-29.444	-53.408	-7.682	-13.673
D33	106X	15.534	-34.501	-34.501	15.534	-25.731	12.755	-6.521	3.106
D33	106XY	72.580	0.000	31.963	72.580	25.396	56.635	6.188	13.999
D33	106Y	36.702	-21.688	36.702	-21.688	29.041	-15.872	7.282	-3.953
D33	107P	0.000	-74.353	-63.739	-74.353	-48.223	-56.380	-12.646	-14.680
D33	107X	0.000	-61.141	-61.141	-19.196	-46.224	-13.956	-11.914	-3.838
D33	107XY	69.586	0.000	58.589	69.586	45.879	54.332	11.579	13.687
D33	107Y	61.777	0.000	61.777	19.243	48.331	15.607	12.375	4.183
D34	108P	0.000	-45.393	-31.009	-45.393	-23.214	-34.273	-6.753	-9.517
D34	108X	3.571	-26.228	-26.228	3.571	-19.536	3.384	-5.139	0.594
D34	108XY	49.292	0.000	23.308	49.292	18.569	38.553	4.181	9.177
D34	108Y	26.954	-12.414	26.954	-12.414	21.373	-8.907	4.923	-2.652
D34	109P	0.000	-46.663	-34.503	-46.663	-25.902	-35.250	-7.600	-9.933
D34	109X	0.000	-42.407	-42.407	-11.944	-31.982	-8.546	-8.659	-2.793
D34	109XY	48.628	0.000	39.284	48.628	30.859	38.042	7.429	9.222
D34	109Y	33.287	0.000	33.287	4.852	26.247	4.369	6.549	1.071

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D35	110P	0.000	-64.049	-19.854	-64.049	-13.723	-47.712	-3.151	-11.647
D35	111P	20.715	-31.720	20.715	-31.720	17.486	-22.851	6.433	-3.662
D35	112P	67.090	0.000	67.090	22.300	53.158	18.705	14.771	6.151
D35	113P	74.845	0.000	63.085	74.845	50.078	59.118	13.890	16.148
D35	114P	72.829	0.000	32.918	72.829	26.874	57.568	8.316	15.988
D35	115P	24.046	-32.396	-32.396	24.046	-23.372	20.047	-4.856	6.009
D35	116P	0.000	-62.042	-62.042	-35.118	-46.175	-25.465	-9.975	-4.794
D35	117P	0.000	-67.692	-67.692	-61.246	-50.521	-45.556	-12.127	-10.880
D36	118P	0.948	-53.432	-1.043	-53.432	0.948	-39.353	-3.325	-13.409
D36	119P	0.000	-73.529	-16.895	-73.529	-11.248	-54.806	-7.519	-18.410
D36	120P	58.255	0.000	58.255	52.296	46.562	41.971	7.959	6.806
D36	121P	69.704	0.000	69.704	38.399	55.368	31.287	9.832	3.806
D36	122P	40.421	-19.413	-19.413	40.421	-13.186	32.842	-7.885	3.631
D36	123P	49.968	-2.758	1.092	49.968	2.591	40.181	-2.758	6.640
D36	124P	0.000	-88.905	-88.905	-70.224	-66.640	-52.264	-21.093	-17.492
D36	125P	0.000	-76.376	-76.376	-57.409	-57.003	-42.412	-18.390	-14.738
D37	126P	1.124	-37.053	-0.066	-37.053	0.953	-27.494	1.124	-5.988
D37	127P	2.731	-28.522	2.241	-28.522	2.731	-20.936	2.470	-3.453
D37	128P	51.298	0.000	51.298	33.459	40.466	26.743	11.441	8.007
D37	129P	42.039	0.000	42.039	36.948	33.343	29.423	9.957	8.973
D37	130P	35.272	0.000	4.607	35.272	4.550	28.134	3.025	8.921
D37	131P	35.114	-1.747	-1.747	35.114	-0.340	28.016	0.839	7.935
D37	132P	0.000	-39.443	-39.443	-31.531	-29.337	-23.250	-5.946	-4.423
D37	133P	0.000	-49.627	-49.627	-34.443	-37.170	-25.486	-8.142	-5.216
D38	134P	0.000	-55.625	-24.956	-55.625	-18.065	-41.658	-9.753	-15.657
D38	135P	3.280	-42.749	2.796	-42.749	3.280	-31.749	-5.132	-13.891
D38	136P	36.060	-1.602	36.060	17.524	28.869	14.607	1.968	-1.602
D38	137P	44.330	0.000	44.330	37.070	35.231	29.647	3.174	1.776
D38	138P	38.150	-5.575	0.283	38.150	1.348	30.477	-5.575	1.714
D38	139P	16.422	-21.673	-21.673	16.422	-15.540	13.759	-9.007	-1.681
D38	140P	0.000	-67.139	-67.139	-41.184	-50.515	-30.545	-18.455	-13.457
D38	141P	0.000	-57.664	-57.664	-57.638	-43.227	-43.207	-16.320	-16.314
D39	142P	15.937	-78.513	15.628	-78.513	15.937	-56.473	3.452	-14.658
D39	143P	0.000	-102.551	-26.083	-102.551	-16.146	-74.966	-3.899	-18.614
D39	144P	113.111	0.000	113.111	93.087	90.926	75.520	22.726	18.869
D39	145P	106.569	0.000	106.569	68.447	85.894	56.563	22.034	14.692
D39	146P	66.209	-21.123	-21.123	66.209	-12.331	54.841	-2.480	14.319
D39	147P	94.903	0.000	12.064	94.903	13.196	76.918	2.752	18.694
D39	148P	0.000	-116.514	-116.514	-106.183	-85.710	-77.760	-21.829	-19.837
D39	149P	0.000	-124.197	-124.197	-76.075	-91.620	-54.597	-23.397	-14.130
D40	158P	0.000	-114.283	-99.808	-114.283	-73.709	-84.841	-24.488	-27.271
D40	159P	31.301	-53.252	31.301	-53.252	27.144	-37.891	0.015	-16.249
D40	160P	71.855	0.000	71.855	24.972	58.342	22.273	9.139	0.112
D40	161P	81.009	0.000	79.669	81.009	64.352	65.381	10.118	10.373
D40	162P	83.887	-1.396	23.302	83.887	20.992	67.596	-1.396	10.264
D40	163P	21.764	-50.939	-50.939	21.764	-36.114	19.804	-14.191	-0.207
D40	164P	0.000	-109.270	-109.270	-49.012	-80.986	-34.628	-26.736	-15.135
D40	165P	0.000	-109.107	-60.031	-109.107	-43.108	-80.860	-16.166	-25.612
H1	166P	0.000	-0.623	-0.623	-0.567	-0.574	-0.531	-0.452	-0.441
H1	166Y	0.000	-0.507	-0.188	-0.507	-0.240	-0.485	-0.365	-0.426
H1	167P	0.000	-0.414	-0.059	-0.307	-0.149	-0.340	-0.366	-0.414
H1	167X	0.000	-0.442	-0.439	-0.305	-0.442	-0.339	-0.441	-0.416
H2	1661P	0.125	-0.316	-0.316	-0.194	-0.191	-0.097	0.101	0.125
H2	1661Y	1.016	0.000	0.706	1.016	0.595	0.834	0.305	0.364
H2	1671P	0.000	-0.542	-0.539	-0.542	-0.408	-0.410	-0.063	-0.064
H2	1671X	0.237	0.000	0.060	0.237	0.054	0.190	0.053	0.088

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

H3	1662P	0.464	-0.103	0.464	0.108	0.297	0.023	-0.034	-0.103
H3	1662Y	0.000	-0.731	-0.731	-0.594	-0.622	-0.517	-0.292	-0.266
H3	1672P	0.460	-0.594	-0.594	0.460	0.227	-0.435	-0.233	
H3	1672X	0.000	-1.280	-0.289	-1.280	-0.350	-1.111	-0.348	-0.539
H4	1663P	3.163	-0.090	3.163	2.497	2.211	1.698	0.039	-0.090
H4	1663Y	0.000	-4.436	-4.436	-3.176	-3.635	-2.665	-1.453	-1.210
H4	1674P	3.048	-0.988	-0.844	3.048	-0.954	2.039	-0.988	-0.240
H4	1674X	0.000	-4.616	-0.682	-4.616	-0.829	-3.855	-0.855	-1.612
H5	168P	0.000	-21.782	-21.782	-17.273	-17.364	-13.894	-7.615	-6.745
H5	168Y	12.480	-1.622	12.480	8.018	8.993	5.559	-0.761	-1.622
H5	169P	0.000	-14.719	-2.141	-14.719	-2.297	-11.971	-3.619	-6.038
H5	169X	8.107	-4.190	-3.274	8.107	-3.168	5.585	-4.190	-2.001
H6	170P	33.856	0.000	33.856	25.817	25.560	19.373	7.282	5.731
H6	170Y	0.000	-29.977	-29.977	-21.952	-23.545	-17.368	-5.295	-3.746
H6	171P	26.528	0.000	2.896	26.528	1.717	19.893	0.891	5.437
H6	171X	3.701	-20.767	3.701	-20.767	2.336	-16.483	1.505	-3.202
H7	1701P	1.784	0.000	1.784	1.370	1.339	1.020	0.385	0.305
H7	1701Y	0.000	-1.554	-1.554	-1.220	-1.229	-0.972	-0.283	-0.218
H7	1712P	3.101	-0.131	0.133	3.101	-0.021	2.262	-0.131	0.440
H7	1712X	0.104	-2.944	0.104	-2.944	-0.043	-2.387	-0.095	-0.682
H8	1703P	3.819	0.000	3.819	2.870	2.834	2.104	0.694	0.511
H8	1703Y	0.000	-3.856	-3.856	-2.811	-3.070	-2.266	-0.929	-0.727
H8	1714P	4.961	-1.000	-1.000	4.961	-0.964	3.621	-0.432	0.715
H8	1714X	0.000	-6.265	-0.803	-6.265	-0.813	-5.014	-0.363	-1.414
H9	1704P	1.913	-0.513	1.913	1.201	1.224	0.676	-0.375	-0.513
H9	1704Y	0.000	-3.708	-3.708	-2.896	-3.101	-2.475	-1.504	-1.348
H9	1705P	5.469	-0.918	-0.782	5.469	-0.918	3.890	-0.913	0.290
H9	1705X	0.000	-6.864	-0.575	-6.864	-0.758	-5.596	-0.839	-2.049
H10	172P	0.000	-131.450	-131.450	-101.143	-101.807	-78.483	-33.677	-27.833
H10	172Y	107.952	0.000	107.952	77.565	82.356	58.972	14.231	8.372
H10	1721P	0.000	-96.609	-11.382	-96.609	-9.470	-75.024	-9.471	-25.866
H10	1721X	73.350	-11.905	-11.905	73.350	-9.873	55.702	-9.811	6.590
H11	1722P	132.482	0.000	132.482	101.996	101.549	78.089	32.849	26.971
H11	1722Y	0.000	-108.133	-108.133	-77.645	-83.546	-60.083	-14.849	-8.971
H11	1723P	100.687	0.000	12.300	100.687	9.086	77.069	8.883	25.886
H11	1723X	12.436	-76.102	12.436	-76.102	9.190	-58.910	9.094	-7.939
H12	17231P	12.996	0.000	12.996	10.618	9.923	8.093	3.116	2.657
H12	17231Y	0.000	-10.820	-10.820	-8.456	-8.397	-6.578	-1.592	-1.136
H12	17241P	11.176	0.000	1.974	11.176	1.407	8.485	0.847	2.617
H12	17241X	0.521	-9.073	0.149	-9.073	0.003	-7.090	0.521	-1.253
H13	17251P	4.717	0.000	4.717	2.946	3.545	2.182	0.904	0.563
H13	17251Y	0.000	-4.524	-4.524	-3.411	-3.564	-2.707	-0.922	-0.708
H13	1726P	4.885	-0.706	-0.706	4.885	-0.695	3.605	-0.245	0.831
H13	1726X	0.000	-5.353	-0.012	-5.353	-0.162	-4.270	-0.120	-1.148
H14	17252P	5.190	0.000	5.190	3.809	3.850	2.787	0.808	0.542
H14	17252Y	0.000	-5.427	-5.427	-4.076	-4.317	-3.278	-1.275	-1.015
H14	17261P	6.513	-0.429	-0.233	6.513	-0.429	4.760	-0.420	0.878
H14	17261X	0.000	-6.961	-0.221	-6.961	-0.420	-5.604	-0.419	-1.716
H15	17253P	6.908	0.000	6.908	5.074	5.131	3.721	1.078	0.725
H15	17253Y	0.000	-7.225	-7.225	-5.424	-5.740	-4.354	-1.687	-1.340
H15	17262P	8.147	-0.526	-0.297	8.147	-0.526	5.969	-0.508	1.117
H15	17262X	0.000	-8.702	-0.268	-8.702	-0.503	-6.991	-0.503	-2.126
H16	17254P	14.475	0.000	14.475	10.704	10.806	7.905	2.380	1.653
H16	17254Y	0.000	-14.887	-14.887	-11.148	-11.780	-8.903	-3.354	-2.633
H16	17263P	12.589	-0.584	-0.255	12.589	-0.584	9.295	-0.568	1.903
H16	17263X	0.000	-13.064	-0.225	-13.064	-0.561	-10.436	-0.566	-3.036

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

H17	17255P	47.402	0.000	47.402	35.408	35.650	26.421	8.581	6.270
H17	17255Y	0.000	-46.856	-46.856	-34.860	-36.857	-27.627	-9.788	-7.477
H17	17264P	34.401	-0.680	0.153	34.401	-0.680	25.663	-0.614	5.975
H17	17264X	0.138	-34.043	0.138	-34.043	-0.691	-26.982	-0.626	-7.202
H18	1724P	0.000	-102.455	-102.455	-80.181	-80.575	-63.435	-30.267	-25.974
H18	1724Y	72.669	-0.462	72.669	50.391	54.138	36.996	3.831	-0.462
H18	1725P	0.000	-79.744	-14.894	-79.744	-13.220	-63.101	-13.222	-25.698
H18	1725X	49.982	-14.866	-14.866	49.982	-13.199	36.680	-13.201	-0.726
H19	1728P	99.353	0.000	99.353	74.263	74.710	55.405	17.887	13.052
H19	1728Y	0.000	-98.358	-98.358	-73.214	-77.378	-58.031	-20.555	-15.710
H19	1727P	73.901	-1.321	0.540	73.901	-1.301	55.126	-1.321	12.793
H19	1727X	0.483	-72.888	0.483	-72.888	-1.345	-57.780	-1.344	-15.460
H20	1729P	61.334	0.000	61.334	45.455	45.797	33.579	10.527	7.468
H20	1729Y	0.000	-61.336	-61.336	-45.880	-48.566	-36.674	-13.297	-10.319
H20	1720P	45.417	-1.567	-0.239	45.417	-1.567	33.550	-1.419	7.365
H20	1720X	0.000	-45.595	-0.015	-45.595	-1.395	-36.454	-1.399	-10.168
H21	17291P	51.736	0.000	51.736	42.238	38.599	31.290	9.014	7.184
H21	17291Y	0.000	-50.921	-50.921	-36.471	-40.369	-29.251	-10.794	-8.010
H21	17201P	40.588	-0.438	3.219	40.588	1.278	30.021	-0.438	6.752
H21	17201X	0.476	-37.720	0.476	-37.720	-0.832	-30.212	-0.788	-8.136
H22	17292P	69.459	0.000	69.459	54.223	51.753	40.029	11.275	8.340
H22	17292Y	0.000	-71.023	-71.023	-53.802	-56.312	-43.061	-15.851	-12.533
H22	17202P	55.341	-1.219	4.598	55.341	1.859	40.889	-1.219	8.543
H22	17202X	0.000	-52.643	-0.140	-52.643	-1.786	-42.170	-2.198	-12.299
H23	173P	4.223	-0.324	4.223	2.851	3.241	2.185	-0.060	-0.324
H23	174P	0.000	-7.204	-7.204	-5.611	-5.549	-4.324	-2.261	-1.955
H23	175P	2.536	-1.683	-1.683	2.536	-1.302	1.943	-1.196	-0.385
H23	176P	0.000	-5.776	-1.629	-5.776	-1.261	-4.450	-1.189	-1.987
H23	177P	0.000	-7.153	-7.153	-5.776	-5.510	-4.450	-2.254	-1.989
H23	178P	5.329	-0.405	5.329	3.292	4.091	2.525	-0.013	-0.405
H23	179P	0.000	-6.947	-1.666	-6.947	-1.289	-5.352	-1.362	-2.377
H23	180P	2.847	-1.326	-1.326	2.847	-1.028	2.182	-1.130	-0.327
H24	17293P	90.553	0.000	90.553	68.385	67.657	50.602	17.782	13.512
H24	17293Y	0.000	-83.149	-83.149	-61.086	-65.961	-48.986	-16.098	-11.848
H24	17203P	67.877	0.000	3.291	67.877	0.532	50.211	0.832	13.258
H24	17203X	3.294	-61.053	3.294	-61.053	0.535	-48.960	0.695	-11.685
H25	181P	4.323	-0.454	4.323	3.053	3.313	2.336	-0.210	-0.454
H25	182P	0.000	-9.656	-9.656	-7.319	-7.441	-5.643	-3.072	-2.622
H25	183P	3.132	-2.525	-2.525	3.132	-1.955	2.397	-1.698	-0.609
H25	184P	0.000	-6.599	-2.204	-6.599	-1.708	-5.089	-1.470	-2.316
H25	185P	0.000	-7.884	-7.884	-6.600	-6.077	-5.090	-2.563	-2.316
H25	186P	4.320	-0.581	4.320	2.396	3.310	1.830	-0.211	-0.581
H25	187P	0.000	-5.995	-1.379	-5.995	-1.074	-4.624	-1.310	-2.198
H25	188P	3.054	-1.340	-1.340	3.054	-1.043	2.336	-1.300	-0.454
H26	17294P	149.463	0.000	149.463	113.981	110.697	83.397	30.988	24.154
H26	17294Y	0.000	-127.792	-127.792	-91.599	-102.578	-74.732	-22.893	-15.922
H26	17204P	114.641	0.000	12.055	114.641	4.997	83.905	4.396	24.132
H26	17204X	13.222	-90.424	13.222	-90.424	5.895	-73.828	4.393	-15.547
H27	189P	9.242	-0.481	9.242	5.999	7.109	4.614	0.143	-0.481
H27	190P	0.000	-8.570	-8.570	-6.748	-6.592	-5.191	-3.019	-2.669
H27	191P	1.997	-2.582	-2.582	1.997	-1.086	1.536	-1.864	-0.982
H27	192P	0.000	-7.035	-2.564	-7.035	-1.973	-5.412	-1.862	-2.722
H27	193P	0.000	-8.576	-8.576	-7.033	-6.597	-5.410	-3.020	-2.723
H27	194P	5.026	-1.005	5.026	2.749	3.866	2.114	-0.566	-1.005
H27	195P	0.000	-8.076	-2.474	-8.076	-1.903	-6.213	-2.013	-3.090
H27	196P	5.991	-2.623	-2.623	5.991	-2.018	4.608	-2.142	-0.484

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

H26	205P	2.069	-0.477	1.870	2.069	1.439	1.591	-0.477	-0.439
H27	206P	0.000	-4.503	-4.503	-0.134	-3.464	-0.103	-1.548	-0.707
H27	207P	0.000	-7.067	-4.356	-7.067	-3.351	-5.436	-1.675	-2.197
H27	208P	1.723	-0.707	1.723	-0.134	1.326	-0.103	-0.350	-0.707
H27	209P	3.335	-0.313	2.358	3.335	1.814	2.565	-0.313	-0.125
H27	210P	0.000	-4.828	-4.828	-0.438	-3.714	-0.337	-1.587	-0.742
H27	211P	0.000	-7.399	-4.916	-7.399	-3.781	-5.692	-1.713	-2.191
H27	212P	2.446	-0.742	2.446	-0.438	1.881	-0.337	-0.187	-0.742
H27	213P	0.000	-2.470	-1.861	-2.470	-1.431	-1.901	-0.744	-0.862
H27	214P	5.402	-0.898	-0.275	5.402	-0.211	4.156	-0.898	0.195
H27	215P	0.000	-12.605	-8.734	-12.605	-6.719	-9.696	-2.067	-2.812
H27	216P	6.599	0.000	6.599	5.402	5.076	4.156	0.424	0.195

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 1 "LC1 WIND 0° C.D."

Equilibrium Joint Positions and Rotations for Load Case "LC1 WIND 0° C.D.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	3.268	-0.009366	-0.0542	-0.0501	3.3322	-0.7378	3.918	0.6406	150.9
10P	2.177	-0.02933	-0.05007	0.0335	2.9538	-0.7380	2.827	0.6207	131.6
11P	1.993	-0.01541	-0.06933	0.2629	2.6858	-0.7481	3.133	1.125	127.5
19P	1.179	0.01368	-0.05231	-0.0556	1.9560	-0.8940	2.319	1.154	108.6
20P	1.022	0.01044	-0.07773	0.0570	1.5319	-0.8550	3.474	2.462	102.1
32P	0.2532	0.0004248	-0.04061	0.0140	0.8318	-0.7538	2.705	2.452	66.08
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	3.285	-0.009233	-0.05315	-0.0419	3.2202	0.4360	3.935	-0.6592	150.9
1XY	3.285	0.002469	0.0193	0.0965	3.1919	0.4501	2.635	-0.6475	150.9
1Y	3.269	0.002344	0.02092	0.0460	3.3078	-0.7379	2.619	0.6523	150.9
10X	2.236	-0.02879	-0.04796	0.0292	2.9251	0.4361	2.886	-0.6788	131.6
10XY	2.237	0.02918	0.01551	-0.0245	2.9306	0.4502	1.587	-0.6208	131.6
10Y	2.177	0.0293	0.01789	-0.0182	2.9625	-0.7381	1.527	0.6793	131.6
11X	2.026	-0.01604	-0.07341	0.1055	2.9820	0.4690	3.166	-1.156	127.5
11XY	2.026	0.01677	0.04136	-0.0934	2.9798	0.4816	0.886	-1.123	127.6
11Y	1.994	0.01581	0.03756	-0.2636	2.6817	-0.7476	0.8535	1.156	127.6
19X	1.148	0.01716	-0.05606	0.1645	2.0969	0.8416	2.288	-1.123	108.6
19XY	1.149	-0.01485	0.02705	-0.1507	2.0787	0.8387	0.008646	-1.155	108.6
19Y	1.179	-0.01238	0.02332	0.0422	1.9396	-0.8837	0.03912	1.128	108.6
20X	1.003	0.006666	-0.07653	-0.1480	1.4653	0.8348	3.455	-2.445	102.1
20XY	1.003	-0.005037	0.04905	0.1514	1.4561	0.8296	-1.449	-2.457	102.2
20Y	1.022	-0.008951	0.05014	-0.0640	1.5211	-0.8441	-1.43	2.443	102.3
32X	0.2481	0.002892	-0.04028	-0.0258	0.8184	0.7345	2.7	-2.449	66.08
32XY	0.2489	-0.00154	0.01929	0.0249	0.8166	0.7305	-2.203	-2.454	66.14
32Y	0.2539	-0.0005754	0.01951	-0.0157	0.8298	-0.7478	-2.198	2.451	66.14
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	3.082	-0.01214	-0.05407	-0.0485	3.3122	-0.7378	3.732	0.6379	147.6
3S	2.938	-0.01401	-0.0539	-0.0324	3.3111	-0.7379	3.588	0.636	145.1
4S	2.793	-0.01564	-0.05353	-0.0622	3.2949	-0.7379	3.443	0.6344	142.6
5S	2.65	-0.01851	-0.05296	-0.0283	3.2627	-0.7379	3.3	0.6315	140.1
6S	2.509	-0.02006	-0.05234	-0.0779	3.2237	-0.7380	3.159	0.6299	137.6
7S	2.37	-0.02405	-0.05152	-0.0410	3.1485	-0.7380	3.02	0.6259	135.1
8S	2.26	-0.02592	-0.05076	-0.1396	3.1079	-0.7380	2.91	0.6241	133.1
12S	1.856	-0.009876	-0.0682	0.0428	2.7047	-0.7676	2.996	1.13	124.6
13S	1.74	-0.006578	-0.06698	0.1254	2.6366	-0.7845	2.88	1.133	122.1
14S	1.626	-0.0005967	-0.06517	0.0819	2.5719	-0.8046	2.766	1.139	119.6
15S	1.516	0.001654	-0.06299	0.1132	2.4782	-0.8248	2.656	1.142	117.1
16S	1.41	0.008301	-0.06039	0.0768	2.3640	-0.8450	2.55	1.148	114.6
17S	1.31	0.009634	-0.0574	0.1284	2.2158	-0.8651	2.45	1.15	112.1
18S	1.235	0.0154	-0.05465	0.0444	2.1035	-0.8812	2.375	1.155	110.1
21S	0.9465	0.007848	-0.07515	-0.0722	1.5319	-0.8399	3.398	2.46	99.32
22S	0.8737	0.007101	-0.07237	0.0272	1.4581	-0.8247	3.326	2.459	96.53
23S	0.8062	0.007987	-0.06879	-0.0299	1.4018	-0.8072	3.258	2.46	93.83
24S	0.742	0.005656	-0.06485	0.0007	1.3187	-0.7897	3.194	2.458	91.14
25S	0.6785	0.006053	-0.06259	-0.0179	1.2763	-0.7838	3.131	2.458	88.34

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.6174	0.004453	-0.06012	-0.0029	1.2257	-0.7779	3.069	2.456	85.54
27S	0.5584	0.004832	-0.05789	-0.0134	1.1841	-0.7744	3.01	2.457	82.74
28S	0.5017	0.003397	-0.05547	-0.0082	1.1367	-0.7709	2.954	2.455	79.94
29S	0.4484	0.003956	-0.0529	-0.0059	1.0835	-0.7675	2.9	2.456	77.2
30S	0.3975	0.002587	-0.05014	-0.0190	1.0426	-0.7641	2.85	2.455	74.45
31S	0.3487	0.002512	-0.04723	-0.0077	1.0325	-0.7608	2.801	2.455	71.75
33S	0.1959	0.001917	-0.03982	0.1226	0.4970	-0.6994	3.419	3.225	59.76
34S	0.152	0.001004	-0.03849	0.0639	0.4583	-0.6335	4.106	3.955	53.76
35S	0.1165	4.922e-005	-0.03647	0.0763	0.3604	-0.5662	4.802	4.685	47.76
36S	0.08695	-5.877e-005	-0.03373	0.0573	0.3342	-0.4939	5.503	5.416	41.77
37S	0.05945	-0.001225	-0.03107	0.0618	0.2567	-0.4251	6.207	6.146	35.77
371S	0.05871	-0.000632	-0.03168	0.0000	0.0000	0.0000	6.206	-0.000632	35.77
372S	0.05997	-0.0005653	-0.007251	0.0000	0.0000	0.0000	0.05997	6.147	35.79
373S	0.05988	0.0006781	0.01719	0.0000	0.0000	0.0000	-6.088	0.0006781	35.82
374S	0.05847	0.0006115	-0.007193	0.0000	0.0000	0.0000	0.05847	-6.147	35.79
38S	0.04157	-5.404e-005	-0.0269	0.0480	0.2078	-0.3550	6.92	6.879	29.77
39S	0.02335	-0.001199	-0.02292	0.0487	0.1631	-0.2826	7.633	7.609	23.78
391S	0.02292	-0.000469	-0.02421	0.0000	0.0000	0.0000	7.633	-0.000469	23.78
392S	0.02401	-0.0007412	-0.005535	0.0000	0.0000	0.0000	0.02401	7.609	23.79
393S	0.02438	0.0004422	0.01323	0.0000	0.0000	0.0000	-7.585	0.0004422	23.81
394S	0.02309	0.0007145	-0.005478	0.0000	0.0000	0.0000	0.02309	-7.609	23.79
40S	0.01275	0.001102	-0.01754	0.0400	0.1288	-0.2101	8.354	8.342	17.78
41S	0.001649	-0.001135	-0.01274	-0.0086	0.0547	-0.1473	9.074	9.071	11.79
411S	0.00136	-0.0002434	-0.006621	0.0000	0.0000	0.0000	9.073	-0.0002434	11.79
412S	0.002349	-0.0008924	-0.002764	0.0000	0.0000	0.0000	0.002349	9.071	11.8
413S	0.003099	0.000201	0.001096	0.0000	0.0000	0.0000	-9.069	0.000201	11.8
414S	0.001909	0.00085	-0.002734	0.0000	0.0000	0.0000	0.001909	-9.071	11.8
42S	0.002741	-0.002702	-0.006313	0.0355	0.0015	-0.0706	9.806	9.801	5.794
2X	3.105	-0.01163	-0.05302	-0.0445	3.1980	0.4360	3.755	-0.6616	147.6
2XY	3.106	0.007137	0.0193	0.0568	3.2099	0.4501	2.456	-0.6429	147.7
2Y	3.083	0.005668	0.02092	0.0861	3.3223	-0.7379	2.433	0.6557	147.7
3X	2.965	-0.01388	-0.05281	-0.0637	3.1955	0.4360	3.615	-0.6639	145.1
3XY	2.965	0.009587	0.01919	0.0860	3.1981	0.4501	2.315	-0.6404	145.2
3Y	2.938	0.009479	0.02083	0.0585	3.3129	-0.7380	2.288	0.6595	145.2
4X	2.826	-0.01658	-0.05237	-0.0407	3.1754	0.4361	3.476	-0.6666	142.6
4XY	2.827	0.01387	0.01892	0.0624	3.1761	0.4502	2.177	-0.6361	142.7
4Y	2.794	0.01159	0.02061	0.0871	3.2968	-0.7380	2.144	0.6616	142.7
5X	2.688	-0.0184	-0.05168	-0.0841	3.1364	0.4361	3.338	-0.6684	140.1
5XY	2.689	0.01613	0.01844	0.1143	3.1304	0.4502	2.039	-0.6339	140.2
5Y	2.651	0.01599	0.02021	0.0410	3.2530	-0.7381	2.001	0.666	140.2
6X	2.552	-0.02206	-0.05091	-0.0538	3.0926	0.4361	3.202	-0.6721	137.6
6XY	2.553	0.02119	0.01788	0.0718	3.0936	0.4502	1.903	-0.6288	137.7
6Y	2.509	0.01794	0.01975	0.0990	3.2259	-0.7381	1.859	0.6679	137.7
7X	2.419	-0.02399	-0.04986	-0.0855	3.0100	0.4361	3.069	-0.674	135.2
7XY	2.419	0.02341	0.01706	0.0998	3.0118	0.4502	1.769	-0.6266	135.2
7Y	2.37	0.02321	0.01909	0.0591	3.1492	-0.7381	1.72	0.6732	135.2
8X	2.316	-0.02764	-0.04889	-0.0935	2.9050	0.4361	2.966	-0.6776	133.2
8XY	2.316	0.02775	0.01628	0.1105	2.9032	0.4502	1.666	-0.6222	133.2
8Y	2.261	0.02545	0.01848	0.1519	3.1070	-0.7381	1.611	0.6754	133.2
12X	1.879	-0.01152	-0.07218	0.1113	2.8781	0.5188	3.019	-1.152	124.6
12XY	1.879	0.01291	0.04044	-0.1059	2.8765	0.5294	0.739	-1.127	124.7
12Y	1.857	0.01028	0.0367	-0.0351	2.7041	-0.7658	0.7166	1.15	124.7
13X	1.754	-0.006409	-0.07089	0.0775	2.8350	0.5619	2.894	-1.146	122.1
13XY	1.754	0.007765	0.03943	-0.0763	2.8392	0.5707	0.6142	-1.132	122.2
13Y	1.74	0.007513	0.03573	-0.1162	2.6401	-0.7815	0.6002	1.148	122.2
14X	1.632	-0.004108	-0.069	0.1031	2.7602	0.6134	2.772	-1.144	119.6

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	1.632	0.005759	0.03794	-0.0973	2.7595	0.6200	0.4919	-1.134	119.7
14Y	1.626	0.001656	0.03427	-0.0792	2.5710	-0.8003	0.4864	1.142	119.7
15X	1.513	0.001772	-0.06677	0.0722	2.6660	0.6649	2.653	-1.138	117.1
15XY	1.514	-3.816e-005	0.03613	-0.0710	2.6633	0.6693	0.3736	-1.14	117.2
15Y	1.516	-0.0003476	0.03249	-0.1078	2.4761	-0.8191	0.3762	1.14	117.2
16X	1.4	0.003158	-0.06414	0.1077	2.5508	0.7163	2.54	-1.137	114.6
16XY	1.4	-0.001276	0.03395	-0.1024	2.5499	0.7187	0.2598	-1.141	114.7
16Y	1.411	-0.006891	0.0303	-0.0771	2.3630	-0.8380	0.2706	1.133	114.7
17X	1.291	0.009799	-0.06113	0.0487	2.3986	0.7678	2.431	-1.13	112.1
17XY	1.292	-0.007828	0.0314	-0.0546	2.4054	0.7680	0.1515	-1.148	112.2
17Y	1.31	-0.008134	0.02774	-0.1193	2.2222	-0.8568	0.1704	1.132	112.2
18X	1.21	0.01043	-0.05838	0.1595	2.3017	0.8090	2.35	-1.13	110.1
18XY	1.21	-0.008609	0.02906	-0.1501	2.2944	0.8075	0.06962	-1.149	110.2
18Y	1.235	-0.01366	0.02537	-0.0515	2.0968	-0.8718	0.09504	1.126	110.2
21X	0.9282	0.0078	-0.07396	0.0592	1.5160	0.8198	3.38	-2.444	99.33
21XY	0.9288	-0.005673	0.04707	-0.0549	1.5108	0.8148	-1.523	-2.458	99.45
21Y	0.9471	-0.007001	0.04812	0.0650	1.5273	-0.8296	-1.505	2.445	99.45
22X	0.8566	0.007145	-0.07121	-0.0601	1.4308	0.8047	3.309	-2.445	96.53
22XY	0.8571	-0.005312	0.04488	0.0520	1.4369	0.7999	-1.595	-2.457	96.64
22Y	0.8741	-0.006117	0.04591	-0.0224	1.4669	-0.8152	-1.578	2.446	96.65
23X	0.7904	0.004936	-0.06766	0.0036	1.3737	0.7874	3.242	-2.447	93.83
23XY	0.7907	-0.00325	0.04205	-0.0036	1.3727	0.7828	-1.661	-2.455	93.94
23Y	0.8064	-0.00701	0.04303	0.0267	1.3991	-0.7986	-1.646	2.445	93.94
24X	0.7276	0.006009	-0.0638	-0.0266	1.2907	0.7701	3.18	-2.446	91.14
24XY	0.728	-0.004296	0.03893	0.0273	1.2884	0.7657	-1.724	-2.456	91.24
24Y	0.7425	-0.004857	0.03985	-0.0045	1.3159	-0.7820	-1.71	2.447	91.24
25X	0.6654	0.004373	-0.06158	-0.0069	1.2500	0.7642	3.117	-2.448	88.34
25XY	0.6659	-0.002679	0.03712	0.0046	1.2507	0.7599	-1.786	-2.455	88.44
25Y	0.679	-0.005389	0.038	0.0170	1.2774	-0.7763	-1.773	2.447	88.44
26X	0.6055	0.004795	-0.05917	-0.0205	1.2005	0.7584	3.058	-2.447	85.54
26XY	0.606	-0.00323	0.03514	0.0198	1.1998	0.7541	-1.846	-2.455	85.64
26Y	0.6178	-0.003811	0.03595	0.0005	1.2248	-0.7707	-1.834	2.448	85.64
27X	0.5477	0.003305	-0.057	-0.0086	1.1603	0.7549	3	-2.449	82.74
27XY	0.5483	-0.001749	0.03335	0.0070	1.1603	0.7507	-1.904	-2.454	82.83
27Y	0.5589	-0.004332	0.03411	0.0120	1.1841	-0.7674	-1.893	2.448	82.83
28X	0.4922	0.003701	-0.05465	-0.0123	1.1145	0.7515	2.944	-2.448	79.95
28XY	0.4927	-0.002284	0.03139	0.0103	1.1149	0.7473	-1.959	-2.454	80.03
28Y	0.5022	-0.002905	0.03209	0.0071	1.1373	-0.7641	-1.95	2.449	80.03
29X	0.4398	0.002201	-0.05216	-0.0127	1.0630	0.7481	2.892	-2.45	77.2
29XY	0.4403	-0.0008154	0.02932	0.0117	1.0627	0.7440	-2.012	-2.453	77.28
29Y	0.4488	-0.003577	0.02993	0.0039	1.0832	-0.7609	-2.003	2.448	77.28
30X	0.39	0.00272	-0.04948	0.0020	1.0232	0.7448	2.842	-2.449	74.45
30XY	0.3904	-0.001445	0.02707	-0.0048	1.0243	0.7406	-2.062	-2.453	74.53
30Y	0.398	-0.002239	0.0276	0.0188	1.0435	-0.7577	-2.054	2.45	74.53
31X	0.342	0.002042	-0.04667	-0.0069	1.0142	0.7415	2.794	-2.45	71.75
31XY	0.3425	-0.0008468	0.0247	0.0070	1.0129	0.7374	-2.11	-2.453	71.82
31Y	0.3491	-0.002224	0.02514	0.0046	1.0313	-0.7545	-2.103	2.45	71.83
33X	0.1916	-3.9e-005	-0.03944	-0.1317	0.4896	0.6816	3.414	-3.223	59.76
33XY	0.1922	0.001082	0.01975	0.1275	0.4916	0.6779	-3.031	-3.222	59.82
33Y	0.1964	-0.002054	0.01998	-0.1208	0.4987	-0.6940	-3.026	3.221	59.82
34X	0.1483	-0.0001942	-0.03808	-0.0711	0.4538	0.6173	4.102	-3.954	53.76
34XY	0.149	0.00125	0.01967	0.0698	0.4530	0.6141	-3.805	-3.953	53.82
34Y	0.1528	-0.001428	0.01989	-0.0651	0.4575	-0.6286	-3.801	3.952	53.82
35X	0.113	-0.0001147	-0.03603	-0.0815	0.3547	0.5522	4.798	-4.685	47.76
35XY	0.1139	0.001164	0.01902	0.0795	0.3549	0.5492	-4.571	-4.684	47.82
35Y	0.1173	-0.0007374	0.01925	-0.0762	0.3614	-0.5617	-4.568	4.684	47.82

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.08426	-0.0006606	-0.03324	-0.0623	0.3213	0.4826	5.501	-5.417	41.77
36XY	0.08528	0.001794	0.01775	0.0614	0.3210	0.4800	-5.331	-5.414	41.82
36Y	0.08786	-0.0008725	0.01807	-0.0575	0.3333	-0.4902	-5.328	5.415	41.82
37X	0.05797	-3.456e-005	-0.03053	-0.0617	0.2484	0.4156	6.205	-6.147	35.77
37XY	0.05914	0.001275	0.01673	0.0595	0.2494	0.4133	-6.088	-6.146	35.82
37Y	0.06064	8.051e-005	0.0171	-0.0603	0.2570	-0.4220	-6.087	6.147	35.82
38X	0.04038	-0.0009813	-0.02651	-0.0446	0.2054	0.3469	6.919	-6.88	29.77
38XY	0.04158	0.00219	0.01453	0.0426	0.2064	0.3451	-6.837	-6.876	29.81
38Y	0.04278	-0.001131	0.01478	-0.0466	0.2089	-0.3523	-6.836	6.877	29.81
39X	0.02244	0.000262	-0.02261	-0.0463	0.1597	0.2763	7.632	-7.609	23.78
39XY	0.02391	0.001184	0.01263	0.0480	0.1580	0.2747	-7.586	-7.609	23.81
39Y	0.02485	-0.0003042	0.0128	-0.0508	0.1609	-0.2804	-7.585	7.609	23.81
40X	0.01206	-0.001769	-0.01733	-0.0370	0.1267	0.2055	8.353	-8.343	17.78
40XY	0.01323	0.002975	0.009594	0.0167	0.1469	0.2043	-8.328	-8.338	17.81
40Y	0.01396	-0.002376	0.009694	-0.0196	0.1496	-0.2084	-8.327	8.339	17.81
41X	0.001141	0.0006457	-0.0126	0.0112	0.0520	0.1445	9.073	-9.071	11.79
41XY	0.002897	0.001091	0.007131	0.0606	-0.0205	0.1438	-9.069	-9.071	11.81
41Y	0.003336	-0.0006898	0.007202	-0.0630	-0.0172	-0.1462	-9.069	9.071	11.81
42X	0.002554	0.002519	-0.006243	-0.0323	-0.0016	0.0697	9.806	-9.801	5.794
42XY	0.01234	0.007247	0.001335	-0.0068	0.0377	0.0693	-9.791	-9.796	5.801
42Y	0.01248	-0.007104	0.001373	0.0043	0.0402	-0.0703	-9.791	9.796	5.801

Joint Support Reactions for Load Case "LC1 WIND 0° C.D.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Comp. Force (kN)	Z Comp. Usage %	Uplift Force (kN)	Uplift Usage %	Result. Force (kN)	Result. Usage %	X X-M. Moment (kN-m)	X X-M. Usage %	Y Y-M. Moment (kN-m)	Y Y-M. Usage %	Z Z-M. Moment (kN-m)	Z Z-M. Usage %	Max. Usage %
ANP	-240.12	0.0	-259.17	0.0	1672.00	0.0	0.0	0.0	1708.92	0.0	-2.90	0.0	-2.7	0.0	0.17	0.0	0.0
ANX	-232.83	0.0	262.51	0.0	1654.92	0.0	0.0	0.0	1691.71	0.0	2.80	0.0	-2.6	0.0	-0.17	0.0	0.0
ANXY	-138.11	0.0	-166.66	0.0	-980.73	0.0	0.0	0.0	1004.33	0.0	2.28	0.0	-7.7	0.0	-0.17	0.0	0.0
ANY	-143.82	0.0	163.31	0.0	-990.03	0.0	0.0	0.0	1013.67	0.0	-2.20	0.0	-7.8	0.0	0.17	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC1 WIND 0° C.D.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	2.3236	0.0000	-4.3881	-2.3204	-0.0000	4.3880	3.2684	-0.0094	-0.0542
10P	7.7227	0.0000	-7.7049	-7.7205	-0.0000	7.7048	2.1768	-0.0293	-0.0501
11P	8.3604	0.0000	-8.6906	-8.3584	-0.0000	8.6905	1.9934	-0.0154	-0.0693
19P	3.8032	0.0000	-5.1735	-3.8020	0.0000	5.1735	1.1786	0.0137	-0.0523
20P	5.3534	0.0000	-7.4474	-5.3524	0.0000	7.4473	1.0222	0.0104	-0.0777
32P	6.0195	0.0000	-11.7621	-6.0193	0.0000	11.7620	0.2532	0.0004	-0.0406
ANP	1.9611	0.0000	-6.6053	238.1626	259.1682	-1665.3929	0.0000	0.0000	0.0000
1X	2.3236	0.0000	-4.3881	-2.3203	-0.0000	4.3880	3.2846	-0.0092	-0.0532
1XY	2.3236	0.0000	-4.3881	-2.3203	0.0000	4.3881	3.2847	0.0025	0.0193
1Y	1.1616	0.0000	-2.5941	-1.1584	0.0000	2.5941	3.2685	0.0023	0.0209
10X	7.7227	0.0000	-7.7049	-7.7204	-0.0000	7.7048	2.2364	-0.0288	-0.0480
10XY	3.6357	0.0000	-5.1309	-3.6334	0.0000	5.1309	2.2366	0.0292	0.0155
10Y	2.4737	0.0000	-3.3369	-2.4715	0.0000	3.3369	2.1770	0.0293	0.0179
11X	8.3604	0.0000	-8.6906	-8.3584	-0.0000	8.6905	2.0259	-0.0160	-0.0734
11XY	3.1114	0.0000	-4.3226	-3.1094	0.0000	4.3226	2.0260	0.0168	0.0414
11Y	3.1114	0.0000	-4.3226	-3.1094	0.0000	4.3226	1.9935	0.0158	0.0376

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	3.8032	0.0000	-5.1735	-3.8021	0.0000	5.1735	1.1481	0.0172	-0.0561
19XY	3.8032	0.0000	-5.1735	-3.8021	-0.0000	5.1736	1.1486	-0.0149	0.0270
19Y	3.8032	0.0000	-5.1735	-3.8020	-0.0000	5.1736	1.1791	-0.0124	0.0233
20X	5.3534	0.0000	-7.4474	-5.3524	0.0000	7.4473	1.0026	0.0067	-0.0765
20XY	4.7734	0.0000	-6.4334	-4.7724	-0.0000	6.4335	1.0027	-0.0050	0.0491
20Y	4.7734	0.0000	-6.4334	-4.7724	-0.0000	6.4335	1.0223	-0.0090	0.0501
32X	6.0195	0.0000	-11.7621	-6.0193	0.0000	11.7620	0.2481	0.0029	-0.0403
32XY	6.0195	0.0000	-11.7621	-6.0193	-0.0000	11.7621	0.2489	-0.0015	0.0193
32Y	6.0195	0.0000	-11.7621	-6.0193	-0.0000	11.7621	0.2539	-0.0006	0.0195
ANX	1.9611	0.0000	-6.6053	230.8712	-262.5092	-1648.3146	0.0000	0.0000	0.0000
ANXY	1.9611	0.0000	-6.6053	136.1456	166.6569	987.3338	0.0000	0.0000	0.0000
ANY	1.9611	0.0000	-6.6053	141.8591	-163.3149	996.6376	0.0000	0.0000	0.0000
2S	2.3236	0.0000	-3.0881	-2.3205	-0.0000	3.0880	3.0820	-0.0121	-0.0541
3S	2.2374	0.0000	-2.5132	-2.2344	-0.0000	2.5132	2.9377	-0.0140	-0.0539
4S	2.2377	0.0000	-3.0131	-2.2349	-0.0000	3.0131	2.7933	-0.0156	-0.0535
5S	2.2320	0.0000	-2.5995	-2.2294	-0.0000	2.5995	2.6504	-0.0185	-0.0530
6S	1.1563	0.0000	-1.3804	-1.1538	-0.0000	1.3803	2.5087	-0.0201	-0.0523
7S	2.0176	0.0000	-2.4402	-2.0153	-0.0000	2.4401	2.3696	-0.0241	-0.0515
8S	0.8613	0.0000	-1.0598	-0.8591	-0.0000	1.0597	2.2604	-0.0259	-0.0508
12S	6.7481	0.0000	-6.4135	-6.7462	-0.0000	6.4134	1.8564	-0.0099	-0.0682
13S	8.1335	0.0000	-8.1730	-8.1318	-0.0000	8.1729	1.7400	-0.0066	-0.0670
14S	7.2144	0.0000	-7.1414	-7.2128	-0.0000	7.1414	1.6263	-0.0006	-0.0652
15S	3.3341	0.0000	-4.5329	-3.3326	0.0000	4.5328	1.5160	0.0017	-0.0630
16S	1.3687	0.0000	-1.7594	-1.3672	0.0000	1.7594	1.4103	0.0083	-0.0604
17S	2.9657	0.0000	-4.0927	-2.9644	0.0000	4.0926	1.3102	0.0096	-0.0574
18S	1.5970	0.0000	-2.3333	-1.5958	0.0000	2.3332	1.2350	0.0154	-0.0547
21S	1.9872	0.0000	-2.5791	-1.9863	0.0000	2.5791	0.9465	0.0078	-0.0752
22S	8.6253	0.0000	-7.3460	-8.6244	0.0000	7.3459	0.8737	0.0071	-0.0724
23S	6.6381	0.0000	-4.7668	-6.6373	0.0000	4.7667	0.8062	0.0080	-0.0688
24S	4.0486	0.0000	-5.7650	-4.0478	0.0000	5.7649	0.7420	0.0057	-0.0649
25S	2.0895	0.0000	-3.3382	-2.0888	0.0000	3.3381	0.6785	0.0061	-0.0626
26S	4.2501	0.0000	-7.0376	-4.2495	0.0000	7.0376	0.6174	0.0045	-0.0601
27S	2.1607	0.0000	-3.6994	-2.1601	0.0000	3.6994	0.5584	0.0048	-0.0579
28S	4.2512	0.0000	-7.3465	-4.2507	0.0000	7.3464	0.5017	0.0034	-0.0555
29S	2.3575	0.0000	-3.9721	-2.3571	0.0000	3.9720	0.4484	0.0040	-0.0529
30S	3.6879	0.0000	-6.5009	-3.6875	0.0000	6.5009	0.3975	0.0026	-0.0501
31S	4.3581	0.0000	-8.0486	-4.3577	0.0000	8.0485	0.3487	0.0025	-0.0472
33S	6.5398	0.0000	-13.1491	-6.5396	0.0000	13.1491	0.1959	0.0019	-0.0398
34S	6.8273	0.0000	-14.2259	-6.8271	0.0000	14.2259	0.1520	0.0010	-0.0385
35S	20.4692	0.0000	-22.3621	-20.4690	0.0000	22.3620	0.1165	0.0000	-0.0365
36S	19.1929	0.0000	-21.1538	-19.1928	-0.0000	21.1537	0.0869	-0.0001	-0.0337
37S	4.8604	0.0000	-12.3906	-4.8603	-0.0000	12.3906	0.0594	-0.0012	-0.0311
371S	4.8604	0.0000	-12.3906	-4.8603	-0.0000	12.3906	0.0587	-0.0006	-0.0317
372S	4.8604	0.0000	-12.3906	-4.8603	-0.0000	12.3906	0.0600	-0.0006	-0.0073
373S	4.8604	0.0000	-12.3906	-4.8603	0.0000	12.3906	0.0599	0.0007	0.0172
374S	4.8604	0.0000	-12.3906	-4.8604	0.0000	12.3906	0.0585	0.0006	-0.0072
38S	5.1331	0.0000	-13.6372	-5.1331	-0.0000	13.6372	0.0416	-0.0001	-0.0269
39S	5.1437	0.0000	-14.3328	-5.1436	-0.0000	14.3328	0.0234	-0.0012	-0.0229
391S	5.1437	0.0000	-14.3328	-5.1436	-0.0000	14.3328	0.0229	-0.0005	-0.0242
392S	5.1437	0.0000	-14.3328	-5.1436	-0.0000	14.3328	0.0240	-0.0007	-0.0055
393S	5.1437	0.0000	-14.3328	-5.1436	0.0000	14.3328	0.0244	0.0004	0.0132
394S	5.1437	0.0000	-14.3328	-5.1436	0.0000	14.3328	0.0231	0.0007	-0.0055
40S	10.9343	0.0000	-19.1817	-10.9342	0.0000	19.1817	0.0128	0.0011	-0.0175
41S	9.6029	0.0000	-17.0354	-9.6028	-0.0000	17.0354	0.0016	-0.0011	-0.0127
411S	4.4024	0.0000	-15.2757	-4.4024	-0.0000	15.2757	0.0014	-0.0002	-0.0066
412S	4.4024	0.0000	-15.2757	-4.4024	-0.0000	15.2757	0.0023	-0.0009	-0.0028

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	4.4024	0.0000	-15.2757	-4.4024	0.0000	15.2757	0.0031	0.0002	0.0011
414S	4.4024	0.0000	-15.2757	-4.4024	0.0000	15.2757	0.0019	0.0009	-0.0027
42S	3.2306	0.0000	-11.1093	-3.2306	-0.0000	11.1093	0.0027	-0.0027	-0.0063
2X	2.3236	0.0000	-3.0881	-2.3205	-0.0000	3.0880	3.1046	-0.0116	-0.0530
2XY	2.3236	0.0000	-3.0881	-2.3205	0.0000	3.0881	3.1055	0.0071	0.0193
2Y	1.1616	0.0000	-1.2941	-1.1585	0.0000	1.2941	3.0829	0.0057	0.0209
3X	2.2374	0.0000	-2.5132	-2.2344	-0.0000	2.5132	2.9653	-0.0139	-0.0528
3XY	2.2374	0.0000	-2.5132	-2.2344	0.0000	2.5132	2.9654	0.0096	0.0192
3Y	2.2374	0.0000	-2.5132	-2.2344	0.0000	2.5132	2.9379	0.0095	0.0208
4X	2.2377	0.0000	-3.0131	-2.2349	-0.0000	3.0131	2.8260	-0.0166	-0.0524
4XY	2.2377	0.0000	-3.0131	-2.2349	0.0000	3.0131	2.8266	0.0139	0.0189
4Y	1.0757	0.0000	-1.2191	-1.0729	0.0000	1.2191	2.7939	0.0116	0.0206
5X	3.3940	0.0000	-4.3935	-3.3913	-0.0000	4.3935	2.6885	-0.0184	-0.0517
5XY	3.3940	0.0000	-4.3935	-3.3913	0.0000	4.3935	2.6886	0.0161	0.0184
5Y	2.2320	0.0000	-2.5995	-2.2294	0.0000	2.5995	2.6506	0.0160	0.0202
6X	2.3183	0.0000	-3.1744	-2.3158	-0.0000	3.1743	2.5523	-0.0221	-0.0509
6XY	2.3183	0.0000	-3.1744	-2.3158	0.0000	3.1744	2.5528	0.0212	0.0179
6Y	1.1563	0.0000	-1.3804	-1.1538	0.0000	1.3804	2.5093	0.0179	0.0197
7X	2.0176	0.0000	-2.4402	-2.0152	-0.0000	2.4401	2.4192	-0.0240	-0.0499
7XY	2.0176	0.0000	-2.4402	-2.0152	0.0000	2.4402	2.4193	0.0234	0.0171
7Y	2.0176	0.0000	-2.4402	-2.0153	0.0000	2.4402	2.3698	0.0232	0.0191
8X	2.0233	0.0000	-2.8538	-2.0210	-0.0000	2.8537	2.3156	-0.0276	-0.0489
8XY	2.0233	0.0000	-2.8538	-2.0210	0.0000	2.8538	2.3158	0.0278	0.0163
8Y	0.8613	0.0000	-1.0598	-0.8591	0.0000	1.0598	2.2608	0.0254	0.0185
12X	6.7481	0.0000	-6.4135	-6.7462	-0.0000	6.4134	1.8787	-0.0115	-0.0722
12XY	1.4991	0.0000	-2.0455	-1.4972	0.0000	2.0456	1.8790	0.0129	0.0404
12Y	1.4991	0.0000	-2.0455	-1.4972	0.0000	2.0455	1.8566	0.0103	0.0367
13X	8.1335	0.0000	-8.1730	-8.1318	-0.0000	8.1729	1.7540	-0.0064	-0.0709
13XY	2.8845	0.0000	-3.8050	-2.8828	0.0000	3.8050	1.7542	0.0078	0.0394
13Y	2.8845	0.0000	-3.8050	-2.8828	0.0000	3.8050	1.7402	0.0075	0.0357
14X	7.2144	0.0000	-7.1414	-7.2128	-0.0000	7.1414	1.6319	-0.0041	-0.0690
14XY	1.3854	0.0000	-1.7594	-1.3838	0.0000	1.7595	1.6319	0.0058	0.0379
14Y	1.9654	0.0000	-2.7734	-1.9638	0.0000	2.7735	1.6264	0.0017	0.0343
15X	3.3341	0.0000	-4.5329	-3.3326	0.0000	4.5328	1.5134	0.0018	-0.0668
15XY	2.7541	0.0000	-3.5189	-2.7526	-0.0000	3.5189	1.5136	-0.0000	0.0361
15Y	3.3341	0.0000	-4.5329	-3.3326	-0.0000	4.5329	1.5162	-0.0003	0.0325
16X	1.3687	0.0000	-1.7594	-1.3673	0.0000	1.7594	1.3996	0.0032	-0.0641
16XY	1.3687	0.0000	-1.7594	-1.3673	-0.0000	1.7595	1.3998	-0.0013	0.0339
16Y	1.3687	0.0000	-1.7594	-1.3672	-0.0000	1.7595	1.4106	-0.0069	0.0303
17X	2.9657	0.0000	-4.0927	-2.9644	0.0000	4.0926	1.2913	0.0098	-0.0611
17XY	2.3857	0.0000	-3.0787	-2.3844	-0.0000	3.0787	1.2915	-0.0078	0.0314
17Y	2.9657	0.0000	-4.0927	-2.9644	-0.0000	4.0927	1.3104	-0.0081	0.0277
18X	1.5970	0.0000	-2.3333	-1.5958	0.0000	2.3332	1.2096	0.0104	-0.0584
18XY	1.0170	0.0000	-1.3193	-1.0158	-0.0000	1.3193	1.2096	-0.0086	0.0291
18Y	1.5970	0.0000	-2.3333	-1.5958	-0.0000	2.3333	1.2350	-0.0137	0.0254
21X	1.9872	0.0000	-2.5791	-1.9863	0.0000	2.5791	0.9282	0.0078	-0.0740
21XY	1.9872	0.0000	-2.5791	-1.9863	-0.0000	2.5792	0.9288	-0.0057	0.0471
21Y	1.9872	0.0000	-2.5791	-1.9863	-0.0000	2.5792	0.9471	-0.0070	0.0481
22X	3.9463	0.0000	-5.0060	-3.9454	0.0000	5.0059	0.8566	0.0071	-0.0712
22XY	6.2863	0.0000	-6.1760	-6.2854	-0.0000	6.1760	0.8571	-0.0053	0.0449
22Y	3.9463	0.0000	-5.0060	-3.9454	-0.0000	5.0060	0.8741	-0.0061	0.0459
23X	1.9591	0.0000	-2.4268	-1.9583	0.0000	2.4267	0.7904	0.0049	-0.0677
23XY	1.9591	0.0000	-2.4268	-1.9583	-0.0000	2.4269	0.7907	-0.0033	0.0421
23Y	1.9591	0.0000	-2.4268	-1.9583	-0.0000	2.4269	0.8064	-0.0070	0.0430
24X	4.0486	0.0000	-5.7650	-4.0478	0.0000	5.7649	0.7276	0.0060	-0.0638
24XY	4.0486	0.0000	-5.7650	-4.0478	-0.0000	5.7650	0.7280	-0.0043	0.0389

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	4.0486	0.0000	-5.7650	-4.0478	-0.0000	5.7650	0.7425	-0.0049	0.0398
25X	2.0895	0.0000	-3.3382	-2.0888	0.0000	3.3381	0.6654	0.0044	-0.0616
25XY	2.0895	0.0000	-3.3382	-2.0888	-0.0000	3.3382	0.6659	-0.0027	0.0371
25Y	2.0895	0.0000	-3.3382	-2.0888	-0.0000	3.3382	0.6790	-0.0054	0.0380
26X	4.2501	0.0000	-7.0376	-4.2495	0.0000	7.0376	0.6055	0.0048	-0.0592
26XY	4.2501	0.0000	-7.0376	-4.2495	-0.0000	7.0376	0.6060	-0.0032	0.0351
26Y	4.2501	0.0000	-7.0376	-4.2495	-0.0000	7.0376	0.6178	-0.0038	0.0360
27X	2.1607	0.0000	-3.6994	-2.1601	0.0000	3.6994	0.5477	0.0033	-0.0570
27XY	2.1607	0.0000	-3.6994	-2.1601	-0.0000	3.6995	0.5483	-0.0017	0.0333
27Y	2.1607	0.0000	-3.6994	-2.1601	-0.0000	3.6995	0.5589	-0.0043	0.0341
28X	4.2512	0.0000	-7.3465	-4.2507	0.0000	7.3464	0.4922	0.0037	-0.0547
28XY	4.2512	0.0000	-7.3465	-4.2507	-0.0000	7.3465	0.4927	-0.0023	0.0314
28Y	4.2512	0.0000	-7.3465	-4.2507	-0.0000	7.3465	0.5022	-0.0029	0.0321
29X	2.0905	0.0000	-3.6471	-2.0901	0.0000	3.6470	0.4398	0.0022	-0.0522
29XY	2.0905	0.0000	-3.6471	-2.0901	-0.0000	3.6471	0.4403	-0.0008	0.0293
29Y	2.0905	0.0000	-3.6471	-2.0901	-0.0000	3.6471	0.4488	-0.0036	0.0299
30X	3.6879	0.0000	-6.5009	-3.6875	0.0000	6.5009	0.3900	0.0027	-0.0495
30XY	3.6879	0.0000	-6.5009	-3.6875	-0.0000	6.5009	0.3904	-0.0014	0.0271
30Y	3.6879	0.0000	-6.5009	-3.6875	-0.0000	6.5009	0.3980	-0.0022	0.0276
31X	4.3581	0.0000	-8.0486	-4.3577	0.0000	8.0485	0.3420	0.0020	-0.0467
31XY	4.6251	0.0000	-8.3736	-4.6247	-0.0000	8.3736	0.3425	-0.0008	0.0247
31Y	4.6251	0.0000	-8.3736	-4.6247	-0.0000	8.3736	0.3491	-0.0022	0.0251
33X	6.5398	0.0000	-13.1491	-6.5396	-0.0000	13.1491	0.1916	-0.0000	-0.0394
33XY	6.5398	0.0000	-13.1491	-6.5396	0.0000	13.1491	0.1922	0.0011	0.0198
33Y	6.5398	0.0000	-13.1491	-6.5396	-0.0000	13.1491	0.1964	-0.0021	0.0200
34X	6.8273	0.0000	-14.2259	-6.8271	-0.0000	14.2259	0.1483	-0.0002	-0.0381
34XY	6.8273	0.0000	-14.2259	-6.8271	0.0000	14.2260	0.1490	0.0012	0.0197
34Y	6.8273	0.0000	-14.2259	-6.8271	-0.0000	14.2260	0.1528	-0.0014	0.0199
35X	7.2132	0.0000	-15.7191	-7.2130	-0.0000	15.7190	0.1130	-0.0001	-0.0360
35XY	7.2132	0.0000	-15.7191	-7.2130	0.0000	15.7191	0.1139	0.0012	0.0190
35Y	11.8072	0.0000	-17.1491	-11.8070	-0.0000	17.1491	0.1173	-0.0007	0.0193
36X	9.2509	0.0000	-17.5398	-9.2508	-0.0000	17.5397	0.0843	-0.0007	-0.0332
36XY	7.6189	0.0010	-15.2718	-7.6188	-0.0010	15.2718	0.0853	0.0018	0.0178
36Y	5.9369	0.0000	-14.5108	-5.9368	-0.0000	14.5108	0.0879	-0.0009	0.0181
37X	6.3334	0.0000	-14.7826	-6.3334	-0.0000	14.7826	0.0580	-0.0000	-0.0305
37XY	4.8604	0.0000	-12.3906	-4.8603	0.0000	12.3906	0.0591	0.0013	0.0167
37Y	4.8604	0.0000	-12.3906	-4.8603	0.0000	12.3906	0.0606	0.0001	0.0171
38X	5.1331	0.0000	-13.6372	-5.1331	-0.0000	13.6372	0.0404	-0.0010	-0.0265
38XY	5.1331	0.0000	-13.6372	-5.1331	0.0000	13.6373	0.0416	0.0022	0.0145
38Y	5.4001	0.0000	-13.9622	-5.4001	-0.0000	13.9623	0.0428	-0.0011	0.0148
39X	5.1437	0.0000	-14.3328	-5.1436	0.0000	14.3328	0.0224	0.0003	-0.0226
39XY	5.1437	0.0000	-14.3328	-5.1436	0.0000	14.3328	0.0239	0.0012	0.0126
39Y	6.6167	0.0000	-16.7248	-6.6166	-0.0000	16.7248	0.0248	-0.0003	0.0128
40X	11.6693	0.0000	-21.3787	-11.6692	-0.0000	21.3787	0.0121	-0.0018	-0.0173
40XY	5.0423	0.0000	-15.3207	-5.0422	0.0000	15.3207	0.0132	0.0030	0.0096
40Y	8.3563	0.0000	-18.3497	-8.3562	-0.0000	18.3497	0.0140	-0.0024	0.0097
41X	5.1839	0.0000	-15.5664	-5.1839	0.0000	15.5664	0.0011	0.0006	-0.0126
41XY	3.7109	0.0000	-13.1744	-3.7108	0.0000	13.1744	0.0029	0.0011	0.0071
41Y	3.7109	0.0000	-13.1744	-3.7108	-0.0000	13.1744	0.0033	-0.0007	0.0072
42X	3.2306	0.0000	-11.1093	-3.2306	0.0000	11.1093	0.0026	0.0025	-0.0062
42XY	3.2306	0.0000	-11.1093	-3.2306	0.0000	11.1093	0.0123	0.0072	0.0013
42Y	3.2306	0.0000	-11.1093	-3.2306	-0.0000	11.1093	0.0125	-0.0071	0.0014

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.01	-0.00	0.06	-2.03	61.06	-0.63
1X	-0.01	-0.00	0.06	3.37	67.82	1.05
1XY	-0.01	0.00	0.06	50.64	-54.95	15.77
1Y	0.01	0.00	0.06	-51.08	-44.09	-15.91
2P	0.03	2.03	-61.01	-24.34	-56.77	-8.92
2X	-0.02	-3.37	-67.76	28.09	-57.97	9.89
2XY	-0.02	-50.64	55.01	-98.40	101.48	-59.62
2Y	0.03	51.09	44.15	96.18	80.74	58.91
3P	0.04	24.34	56.82	73.14	120.30	38.99
3X	-0.02	-28.09	58.03	-65.76	136.72	-37.54
3XY	-0.02	98.40	-101.42	136.97	-15.42	94.15
3Y	0.04	-96.18	-80.68	-142.91	-17.62	-95.64
4P	0.05	-73.14	-120.24	-128.55	5.63	-80.68
4X	-0.03	65.76	-136.67	136.79	16.15	81.02
4XY	-0.03	-136.97	15.47	-221.84	194.72	-143.52
4Y	0.05	142.91	17.68	218.26	189.57	144.47
5P	0.06	128.55	-5.58	359.98	381.87	195.41
5X	-0.04	-136.79	-16.10	-278.30	418.19	-166.04
5XY	-0.04	221.84	-194.66	420.19	170.71	256.81
5Y	0.06	-218.25	-189.51	-488.83	79.10	-282.83
6P	0.08	-359.98	-381.82	-532.08	364.79	-356.82
6X	-0.05	278.30	-418.14	426.29	401.87	281.84
6XY	-0.05	-420.19	-170.65	-550.76	641.19	-388.38
6Y	0.08	488.83	-79.04	675.14	682.40	465.59
7P	0.09	532.07	-364.73	1399.93	368.81	966.00
7X	-0.05	-426.29	-401.82	-355.95	1495.56	-391.12
7XY	-0.05	550.76	-641.14	456.02	1320.67	503.39
7Y	0.09	-675.14	-682.34	-1492.87	80.67	-1084.00
8P	0.10	-1399.93	-368.76	-3341.62	3176.39	-3020.10
8X	-0.06	355.94	-1495.51	-1020.45	-1957.85	-423.25
8XY	-0.06	-456.02	-1320.62	1059.09	-1951.14	384.12
8Y	0.10	1492.87	-80.62	3401.13	3243.19	3117.20
9P	19.87	-4608.89	-115.17	-2451.69	-494.84	-1722.51
9X	-112.13	2106.01	653.32	1528.25	906.67	886.62
9XY	-106.71	-2128.59	621.72	-1616.38	873.21	-913.63
9Y	19.00	4698.21	-110.09	2416.18	-459.11	1735.64
10P	103.26	-2076.10	1391.16	-160.92	1035.09	-774.05
10X	-263.80	-462.15	-1699.06	-512.87	257.11	-337.38
10XY	-252.81	547.14	-1738.71	655.92	207.90	416.29
10Y	96.36	2026.19	1390.85	38.59	967.55	714.45
11P	103.27	160.92	-1035.04	-669.85	448.06	-203.57
11X	-263.81	512.87	-257.06	852.93	681.55	546.32
11XY	-252.82	-655.93	-207.85	-953.93	605.26	-643.94
11Y	96.37	-38.59	-967.50	776.94	425.99	295.34
12P	103.28	669.85	-448.01	1042.74	721.53	685.04
12X	-263.82	-852.92	-681.50	-1072.72	670.29	-770.26
12XY	-252.83	953.93	-605.21	1134.28	834.77	835.28
12Y	96.38	-776.95	-425.94	-1094.68	823.09	-748.65
13P	103.30	-1042.74	-721.48	-1311.46	971.31	-941.68
13X	-263.83	1072.73	-670.24	1337.86	1032.65	964.23
13XY	-252.84	-1134.28	-834.72	-1359.41	903.14	-997.48
13Y	96.40	1094.68	-823.05	1340.47	891.69	974.06
14P	103.31	1311.46	-971.26	1623.79	1093.62	1174.10

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14X	-263.85	-1337.86	-1032.61	-1642.03	1049.68	-1191.96	6.83
14XY	-252.85	1359.41	-903.09	1628.83	1147.26	1195.30	97.67
14Y	96.41	-1340.47	-891.65	-1603.76	1153.46	-1177.69	104.72
15P	103.33	-1623.78	-1093.58	-2066.51	1582.99	-1476.12	195.76
15X	-263.86	1642.03	-1049.64	2148.46	1700.22	1516.20	260.24
15XY	-252.86	-1628.83	-1147.22	-2039.24	1463.91	-1467.23	126.68
15Y	96.43	1603.76	-1153.42	1965.20	1390.74	1427.58	94.93
16P	103.34	2066.51	-1582.95	2967.14	953.98	2516.83	-314.48
16X	-263.87	-2148.45	-1700.18	-3336.73	489.99	-2742.59	-605.10
16XY	-252.88	2039.24	-1463.87	3062.76	1042.05	2551.00	-210.91
16Y	96.44	-1965.20	-1390.71	-2691.48	1442.50	-2328.34	25.90
17P	103.36	-2967.14	-953.95	-1609.55	3265.23	-2896.64	1462.84
17X	-263.89	3336.73	-489.95	3268.33	5366.12	4180.42	3086.19
17XY	-252.89	-3062.76	-1042.01	-3054.62	5127.45	-3871.76	2585.73
17Y	96.46	2691.48	-1442.46	1420.48	3052.31	2602.51	1018.89
18P	-225.74	-3446.97	1153.39	-2019.10	-482.16	-817.94	100.44
18X	158.32	-6105.45	-1498.29	-3594.27	251.76	-1451.46	-186.53
18XY	163.99	5785.57	-1478.29	3325.77	274.74	1363.41	-180.10
18Y	-227.69	3162.71	1135.27	1766.98	-503.64	737.67	94.52
19P	-82.98	-1799.57	1055.89	-639.72	1055.77	-871.18	754.17
19X	82.18	2743.63	2339.45	883.31	1354.28	1295.34	1319.19
19XY	81.24	-2570.50	2132.88	-717.54	1069.47	-1174.30	1143.69
19Y	-78.89	1636.27	862.64	478.08	740.82	755.12	572.67
20P	-82.96	639.72	-1055.75	-251.99	378.43	138.48	-241.90
20X	82.17	-883.31	-1354.25	188.32	301.86	-248.21	-375.85
20XY	81.23	717.54	-1069.44	-242.72	366.66	169.58	-250.99
20Y	-78.87	-478.08	-740.80	306.26	434.72	-61.37	-109.31
21P	-82.95	251.99	-378.41	705.28	563.58	354.54	68.58
21X	82.15	-188.32	-301.84	-694.05	653.51	-326.80	130.25
21XY	81.21	242.72	-366.64	684.57	707.85	343.44	126.37
21Y	-78.86	-306.26	-434.69	-696.04	699.51	-371.22	98.08
22P	-82.94	-705.28	-563.56	-948.53	826.50	-612.52	97.39
22X	82.14	694.05	-653.48	933.87	736.59	602.94	30.78
22XY	81.20	-684.57	-707.82	-929.95	702.84	-597.97	-1.85
22Y	-78.84	696.04	-699.49	943.89	692.22	607.38	-2.69
23P	-82.92	948.53	-826.47	1383.26	1272.53	832.78	159.30
23X	82.12	-933.87	-736.57	-1396.11	1273.70	-832.14	191.83
23XY	81.19	929.95	-702.82	1459.53	1162.91	853.39	164.32
23Y	-78.83	-943.89	-692.20	-1446.95	1214.13	-853.87	186.40
24P	-82.91	-1383.26	-1272.50	-1734.49	1232.41	-1113.48	-14.32
24X	82.11	1396.11	-1273.67	1713.79	1176.57	1110.68	-34.68
24XY	81.17	-1459.53	-1162.89	-1813.68	1354.72	-1169.00	68.51
24Y	-78.82	1446.95	-1214.10	1833.86	1385.17	1171.72	61.09
25P	-82.89	1734.49	-1232.39	2170.12	2223.89	1394.50	354.11
25X	82.10	-1713.79	-1176.55	-2201.89	2168.39	-1398.46	354.23
25XY	81.16	1813.68	-1354.70	2340.16	1926.85	1483.51	204.34
25Y	-78.80	-1833.86	-1385.15	-2308.97	1996.74	-1479.58	218.43
26P	-82.88	-2170.12	-2223.87	-2385.11	1713.10	-1626.87	-182.42
26X	82.08	2201.89	-2168.37	2351.69	1633.32	1626.28	-191.09
26XY	81.15	-2340.16	-1926.83	-2476.05	1847.95	-1720.08	-28.17
26Y	-78.79	2308.97	-1996.72	2508.88	1901.91	1720.66	-33.86
27P	-82.87	2385.11	-1713.08	2287.42	2794.39	1699.10	393.20
27X	82.07	-2351.69	-1633.30	-2331.32	2728.29	-1702.91	398.18
27XY	81.13	2476.05	-1847.93	2417.86	2575.83	1779.61	264.69
27Y	-78.78	-2508.88	-1901.89	-2374.63	2678.62	-1775.82	282.45
28P	-82.85	-2287.42	-2794.37	-1737.61	671.29	-1463.65	-772.03

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X	82.06	2331.32	-2728.28	1710.07	645.14	1469.60	-757.50
28XY	81.12	-2417.86	-2575.81	-1724.96	675.80	-1506.48	-690.91
28Y	-78.76	2374.63	-2678.60	1751.00	678.29	1500.23	-727.38
29P	-82.84	1737.61	-671.27	1255.47	196.71	1108.55	-175.76
29X	82.05	-1710.07	-645.12	-1327.55	130.54	-1125.04	-190.58
29XY	81.11	1724.96	-675.78	1218.33	309.86	1090.11	-135.52
29Y	-78.75	-1751.00	-678.27	-1144.66	379.57	-1072.47	-110.63
30P	-82.83	-1255.47	-196.69	-1697.27	8039.62	-520.31	1382.01
30X	82.03	1327.55	-130.52	1712.79	7902.19	535.74	1369.46
30XY	81.10	-1218.33	-309.85	-1581.23	7742.61	-493.31	1309.74
30Y	-78.74	1144.66	-379.56	1557.57	7884.30	476.16	1322.42
31P	-843.26	-6885.01	4405.50	-1239.62	-976.47	-1265.87	534.26
31X	824.11	-6798.81	-4299.05	-1263.81	1012.28	-1256.20	-512.10
31XY	819.82	6592.94	-4279.68	1147.74	1016.35	1206.04	-508.45
31Y	-837.35	6676.40	4395.30	1121.27	-985.14	1214.92	531.32
32P	-843.25	1239.62	976.46	971.36	-1189.92	363.14	-35.06
32X	824.10	1263.82	-1012.27	931.00	1136.91	360.49	20.47
32XY	819.81	-1147.74	-1016.34	-891.28	1138.27	-334.90	20.03
32Y	-837.34	-1121.28	985.13	-927.54	-1174.07	-336.51	-31.03
33P	-843.24	-971.35	1189.91	509.62	-653.95	-75.84	88.03
33X	824.09	-931.00	-1136.91	539.06	807.12	-64.37	-54.17
33XY	819.80	891.27	-1138.26	-555.48	794.18	55.15	-56.51
33Y	-837.33	927.53	1174.06	-510.82	-655.24	68.44	85.21
34P	-843.23	-509.61	653.95	-412.84	-78.58	-151.51	94.50
34X	824.08	-539.06	-807.12	-347.94	141.55	-145.68	-109.32
34XY	819.79	555.47	-794.18	342.66	140.98	147.51	-107.28
34Y	-837.32	510.82	655.24	385.29	-128.00	147.18	86.60
35P	-843.22	412.84	78.58	1514.12	-1420.88	316.50	-220.47
35X	824.07	347.94	-141.55	1318.00	1381.67	273.62	203.68
35XY	819.78	-342.66	-140.98	-1278.25	1384.64	-266.23	204.27
35Y	-837.31	-385.29	128.00	-1448.98	-1388.42	-301.27	-207.02
36P	-843.21	-1514.12	1420.88	-1043.07	203.40	-420.01	266.78
36X	824.06	-1317.99	-1381.66	-969.64	-228.15	-375.73	-264.40
36XY	819.77	1278.25	-1384.64	927.93	-229.24	362.36	-265.07
36Y	-837.30	1448.97	1388.42	987.93	194.43	400.25	259.98
37P	-843.20	1043.07	-203.40	1652.08	-902.83	442.67	-181.69
37X	824.05	969.64	228.15	1606.43	942.92	423.11	192.34
37XY	819.76	-927.93	229.24	-1651.04	917.35	-423.58	188.32
37Y	-837.29	-987.93	-194.44	-1687.34	-895.52	-439.40	-179.02
38P	-843.20	-1652.08	902.82	-1308.80	225.40	-486.31	185.31
38X	824.05	-1606.42	-942.92	-1289.84	-277.28	-475.70	-200.41
38XY	819.76	1651.04	-917.35	1924.09	-243.89	587.20	-190.73
38Y	-837.29	1687.34	895.52	1952.27	231.27	597.79	185.07
39P	-843.19	1308.80	-225.40	1650.69	-3087.14	486.08	-544.07
39X	824.04	1289.84	277.28	1646.49	3158.62	482.28	564.33
39XY	819.76	-1924.09	243.90	-4761.97	3141.19	-1098.16	555.99
39Y	-837.28	-1952.27	-231.28	-4772.88	-3114.80	-1104.58	-549.58
40P	-843.19	-1650.68	3087.13	-344.24	3342.34	-327.66	1056.01
40X	824.04	-1646.49	-3158.62	-344.84	-3375.37	-327.07	-1073.18
40XY	819.75	4761.97	-3141.19	6449.03	-3378.59	1841.36	-1070.84
40Y	-837.28	4772.88	3114.80	6445.94	3342.65	1842.64	1060.61
41P	-843.19	344.24	-3342.34	-127.59	-3887.15	36.81	-1228.36
41X	824.04	344.84	3375.37	-124.72	3753.09	37.40	1211.19
41XY	819.75	-6449.03	3378.59	-7067.24	3763.61	-2296.54	1213.52
41Y	-837.28	-6445.94	-3342.65	-7062.77	-3859.79	-2295.25	-1223.76

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 2 "LC2 WIND 45° C.D."

Equilibrium Joint Positions and Rotations for Load Case "LC2 WIND 45° C.D.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	2.411	2.389	-0.06865	-2.1598	2.2071	0.2566	3.061	3.039	150.8
10P	1.692	1.684	-0.06214	-2.1265	2.1143	0.2566	2.342	2.334	131.6
11P	1.524	1.521	-0.1002	-2.2828	2.2797	0.2252	2.664	2.661	127.5
19P	0.8584	0.8588	-0.07495	-1.5810	1.6766	-0.1053	1.998	1.999	108.5
20P	0.7511	0.7531	-0.1078	-0.9788	1.0686	-0.1520	3.203	3.205	102.1
32P	0.1868	0.1873	-0.05491	-0.5514	0.6074	-0.1480	2.639	2.639	66.07
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	2.48	2.389	-0.02001	-2.1462	2.6958	1.1405	3.13	1.739	150.9
1XY	2.48	2.442	0.04046	-2.5969	2.6530	0.5957	1.83	1.792	151
1Y	2.411	2.442	-0.01886	-2.6465	2.1950	-0.2887	1.761	3.092	150.9
10X	1.6	1.684	-0.01924	-2.1330	2.2757	1.1408	2.25	1.034	131.6
10XY	1.6	1.58	0.03517	-2.1606	2.3223	0.5958	0.9505	0.9296	131.7
10Y	1.693	1.58	-0.01839	-2.1529	2.0809	-0.2888	1.043	2.23	131.6
11X	1.474	1.521	-0.01447	-2.3989	1.9557	1.1410	2.614	0.3807	127.6
11XY	1.475	1.453	0.06401	-1.7437	1.8766	0.5716	0.335	0.3133	127.7
11Y	1.524	1.453	-0.01314	-1.8727	2.3492	-0.3436	0.3839	2.593	127.6
19X	0.8768	0.8616	-0.01328	-1.4132	1.3514	1.1946	2.017	-0.2784	108.6
19XY	0.8752	0.867	0.04286	-1.4269	1.5461	0.3379	-0.2648	-0.273	108.7
19Y	0.8611	0.8687	-0.01263	-1.2867	1.4474	-0.9461	-0.2789	2.009	108.6
20X	0.7591	0.7503	-0.01423	-1.1305	1.1691	1.1129	3.211	-1.702	102.2
20XY	0.762	0.7533	0.08057	-1.0069	1.1131	0.2888	-1.69	-1.699	102.3
20Y	0.7483	0.7504	-0.01358	-1.1686	1.1044	-0.9588	-1.704	3.202	102.2
32X	0.1869	0.1893	-0.01079	-0.5811	0.6250	0.9641	2.639	-2.263	66.11
32XY	0.1863	0.1848	0.03421	-0.5474	0.6222	0.2104	-2.266	-2.267	66.16
32Y	0.1888	0.1853	-0.01059	-0.5777	0.6064	-0.8916	-2.263	2.637	66.11
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	2.288	2.268	-0.06849	-2.1516	2.1983	0.2566	2.938	2.918	147.6
3S	2.192	2.175	-0.06823	-2.1360	2.1816	0.2566	2.842	2.825	145.1
4S	2.097	2.081	-0.06767	-2.1422	2.1840	0.2566	2.747	2.731	142.6
5S	2.002	1.988	-0.06679	-2.0895	2.1299	0.2566	2.652	2.638	140.1
6S	1.91	1.898	-0.06582	-2.0849	2.1195	0.2566	2.56	2.548	137.6
7S	1.818	1.807	-0.0645	-2.0255	2.0548	0.2566	2.468	2.457	135.1
8S	1.748	1.738	-0.0633	-1.9352	1.9815	0.2566	2.398	2.388	133.1
12S	1.413	1.411	-0.09857	-2.1568	2.1859	0.1810	2.553	2.551	124.6
13S	1.318	1.317	-0.09679	-2.1235	2.1413	0.1427	2.458	2.457	122.1
14S	1.227	1.226	-0.09415	-2.0896	2.1002	0.0971	2.367	2.366	119.6
15S	1.135	1.135	-0.09095	-1.9991	2.0097	0.0514	2.275	2.275	117.1
16S	1.051	1.051	-0.08709	-1.9401	1.9406	0.0058	2.191	2.191	114.6
17S	0.9673	0.9676	-0.08261	-1.7738	1.7880	-0.0399	2.107	2.108	112.1
18S	0.9074	0.9079	-0.07847	-1.7889	1.7596	-0.0764	2.047	2.048	110.1
21S	0.6943	0.6963	-0.1041	-1.1873	1.1630	-0.1514	3.146	3.148	99.3
22S	0.6409	0.643	-0.1001	-1.0313	1.0398	-0.1508	3.093	3.095	96.5
23S	0.5926	0.5947	-0.09499	-1.0392	1.0356	-0.1501	3.045	3.047	93.81
24S	0.5445	0.5465	-0.08937	-0.9541	0.9551	-0.1494	2.997	2.998	91.11
25S	0.4988	0.5008	-0.08615	-0.9382	0.9353	-0.1492	2.951	2.953	88.31
26S	0.4535	0.4553	-0.08262	-0.8904	0.8905	-0.1490	2.906	2.907	85.52

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

27S	0.411	0.4128	-0.07945	-0.8689	0.8660	-0.1488	2.863	2.865	82.72
28S	0.3691	0.3706	-0.07602	-0.8314	0.8289	-0.1487	2.821	2.823	79.92
29S	0.3307	0.3323	-0.07237	-0.7921	0.7894	-0.1486	2.783	2.784	77.18
30S	0.293	0.2943	-0.06844	-0.7710	0.7686	-0.1484	2.745	2.746	74.43
31S	0.2575	0.2586	-0.06431	-0.7681	0.7519	-0.1483	2.71	2.711	71.74
33S	0.146	0.1464	-0.05407	-0.2655	0.2936	-0.1366	3.369	3.369	59.75
34S	0.1131	0.1136	-0.05243	-0.2736	0.3045	-0.1222	4.067	4.068	53.75
35S	0.08631	0.08674	-0.0498	-0.1967	0.2233	-0.1087	4.771	4.772	47.75
36S	0.06442	0.06493	-0.04613	-0.1924	0.2162	-0.0950	5.481	5.481	41.75
37S	0.04326	0.04377	-0.04262	-0.1353	0.1545	-0.0815	6.191	6.191	35.76
371S	0.04347	0.04431	-0.02547	0.0000	0.0000	0.0000	6.191	0.04431	35.77
372S	0.0438	0.04343	-0.02538	0.0000	0.0000	0.0000	0.0438	6.191	35.77
373S	0.04464	0.04362	0.011	0.0000	0.0000	0.0000	-6.103	0.04362	35.81
374S	0.0442	0.04461	0.01092	0.0000	0.0000	0.0000	0.0442	-6.103	35.81
38S	0.03088	0.0313	-0.03693	-0.1113	0.1271	-0.0679	6.909	6.91	29.76
39S	0.0166	0.01696	-0.03153	-0.0780	0.0909	-0.0542	7.626	7.627	23.77
391S	0.01678	0.01763	-0.01946	0.0000	0.0000	0.0000	7.627	0.01763	23.78
392S	0.01727	0.01679	-0.01941	0.0000	0.0000	0.0000	0.01727	7.627	23.78
393S	0.01824	0.01726	0.008481	0.0000	0.0000	0.0000	-7.591	0.01726	23.81
394S	0.0176	0.01825	0.008409	0.0000	0.0000	0.0000	0.0176	-7.591	23.81
40S	0.01042	0.01074	-0.02409	-0.0656	0.0750	-0.0405	8.351	8.352	17.78
41S	0.0006842	0.0009263	-0.01755	-0.0287	0.0340	-0.0270	9.073	9.073	11.78
411S	0.0007209	0.001679	-0.00565	0.0000	0.0000	0.0000	9.073	0.001679	11.79
412S	0.001437	0.0007629	-0.005624	0.0000	0.0000	0.0000	0.001437	9.073	11.79
413S	0.002461	0.001441	0.0001309	0.0000	0.0000	0.0000	-9.07	0.001441	11.8
414S	0.001598	0.002505	0.000118	0.0000	0.0000	0.0000	0.001598	-9.07	11.8
42S	0.002146	0.002233	-0.008212	0.0171	-0.0153	-0.0134	9.805	9.805	5.792
2X	2.33	2.269	-0.01994	-2.1519	2.6615	1.1405	2.98	1.619	147.7
2XY	2.331	2.296	0.04044	-2.6339	2.6849	0.5957	1.681	1.646	147.7
2Y	2.288	2.295	-0.01881	-2.6066	2.1981	-0.2887	1.638	2.945	147.7
3X	2.214	2.175	-0.01989	-2.1598	2.6781	1.1406	2.864	1.525	145.2
3XY	2.214	2.181	0.04028	-2.6070	2.6602	0.5957	1.564	1.531	145.2
3Y	2.192	2.181	-0.01879	-2.6271	2.2039	-0.2887	1.542	2.831	145.2
4X	2.097	2.081	-0.0198	-2.1272	2.6484	1.1406	2.747	1.431	142.7
4XY	2.098	2.068	0.03988	-2.6149	2.6642	0.5957	1.448	1.418	142.7
4Y	2.096	2.066	-0.01874	-2.5958	2.1709	-0.2887	1.446	2.716	142.7
5X	1.982	1.989	-0.0197	-2.1264	2.6514	1.1407	2.632	1.339	140.2
5XY	1.982	1.954	0.03922	-2.5458	2.6041	0.5958	1.332	1.304	140.2
5Y	2.002	1.954	-0.01868	-2.6042	2.1616	-0.2888	1.352	2.604	140.2
6X	1.867	1.896	-0.01959	-2.0682	2.5978	1.1407	2.517	1.246	137.7
6XY	1.869	1.843	0.03843	-2.5679	2.6139	0.5958	1.219	1.193	137.7
6Y	1.909	1.841	-0.01861	-2.5467	2.1063	-0.2888	1.259	2.491	137.7
7X	1.755	1.807	-0.01946	-2.0588	2.5448	1.1408	2.405	1.157	135.2
7XY	1.756	1.732	0.03729	-2.4594	2.5229	0.5958	1.106	1.082	135.2
7Y	1.818	1.732	-0.01853	-2.4895	2.0798	-0.2888	1.168	2.382	135.2
8X	1.667	1.737	-0.01933	-1.9002	2.5108	1.1408	2.317	1.087	133.2
8XY	1.668	1.646	0.03621	-2.5191	2.5271	0.5958	1.018	0.9965	133.2
8Y	1.747	1.645	-0.01844	-2.4889	1.9619	-0.2888	1.097	2.295	133.2
12X	1.373	1.41	-0.01427	-2.1058	1.9826	1.1481	2.513	0.2701	124.7
12XY	1.375	1.355	0.0626	-2.0030	2.0198	0.5403	0.2349	0.2154	124.8
12Y	1.412	1.353	-0.01299	-1.9498	2.1482	-0.4242	0.2721	2.493	124.7
13X	1.288	1.317	-0.0141	-2.1603	1.9430	1.1543	2.428	0.177	122.2
13XY	1.289	1.271	0.06107	-1.8693	1.9212	0.5133	0.1487	0.1309	122.3
13Y	1.318	1.271	-0.01288	-1.8980	2.1708	-0.4939	0.1781	2.411	122.2
14X	1.204	1.224	-0.01388	-2.0733	1.8804	1.1617	2.344	0.08359	119.7
14XY	1.206	1.191	0.05881	-1.8488	1.8911	0.4810	0.06647	0.05081	119.8

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14Y	1.224	1.188	-0.01275	-1.8355	2.0875	-0.5771	0.08412	2.328	119.7
15X	1.124	1.135	-0.01368	-2.0302	1.8288	1.1691	2.264	-0.004554	117.2
15XY	1.125	1.111	0.05612	-1.7569	1.8018	0.4487	-0.01548	-0.02941	117.3
15Y	1.136	1.11	-0.01265	-1.7841	2.0344	-0.6604	-0.004493	2.25	117.2
16X	1.045	1.047	-0.01351	-1.9164	1.7275	1.1766	2.185	-0.09255	114.7
16XY	1.049	1.037	0.0529	-1.7046	1.7431	0.4164	-0.09121	-0.1031	114.8
16Y	1.047	1.033	-0.0126	-1.6864	1.9223	-0.7436	-0.09256	2.173	114.7
17X	0.973	0.9677	-0.01339	-1.8352	1.6533	1.1840	2.113	-0.1723	112.2
17XY	0.9734	0.963	0.04918	-1.5696	1.6165	0.3841	-0.1666	-0.177	112.2
17Y	0.9674	0.9627	-0.01259	-1.6156	1.8381	-0.8269	-0.1726	2.103	112.2
18X	0.9159	0.9042	-0.01331	-1.7008	1.5290	1.1899	2.056	-0.2358	110.2
18XY	0.9194	0.9104	0.04577	-1.5726	1.5786	0.3583	-0.2206	-0.2296	110.2
18Y	0.904	0.9066	-0.0126	-1.5013	1.6961	-0.8935	-0.236	2.047	110.2
21X	0.7038	0.6965	-0.01397	-1.0876	1.1111	1.0906	3.156	-1.756	99.39
21XY	0.7049	0.6969	0.07751	-1.1809	1.1685	0.2770	-1.747	-1.755	99.48
21Y	0.6945	0.6957	-0.01337	-1.0933	1.0961	-0.9487	-1.758	3.148	99.39
22X	0.6496	0.6431	-0.01369	-1.1001	1.1131	1.0683	3.102	-1.809	96.59
22XY	0.6503	0.6429	0.07413	-1.0488	1.0700	0.2653	-1.802	-1.809	96.67
22Y	0.641	0.6422	-0.01313	-1.1026	1.0969	-0.9386	-1.811	3.094	96.59
23X	0.5982	0.5924	-0.01331	-1.0129	1.0344	1.0426	3.05	-1.86	93.89
23XY	0.6009	0.5942	0.06976	-1.0435	1.0526	0.2518	-1.851	-1.858	93.97
23Y	0.5905	0.5913	-0.01282	-1.0209	1.0138	-0.9270	-1.862	3.043	93.89
24X	0.5515	0.5469	-0.01293	-0.9734	0.9912	1.0169	3.004	-1.905	91.19
24XY	0.5521	0.5458	0.06491	-0.9578	0.9716	0.2382	-1.9	-1.906	91.26
24Y	0.5449	0.5453	-0.01249	-0.9822	0.9698	-0.9154	-1.907	2.997	91.19
25X	0.5035	0.4997	-0.01271	-0.9306	0.9484	1.0082	2.956	-1.952	88.39
25XY	0.5055	0.4999	0.0621	-0.9456	0.9552	0.2336	-1.946	-1.952	88.46
25Y	0.4978	0.4977	-0.0123	-0.9361	0.9301	-0.9115	-1.954	2.95	88.39
26X	0.4586	0.4557	-0.01248	-0.9031	0.9190	0.9995	2.911	-1.996	85.59
26XY	0.4592	0.454	0.059	-0.8959	0.9088	0.2291	-1.993	-1.998	85.66
26Y	0.4538	0.4535	-0.0121	-0.9105	0.8992	-0.9076	-1.998	2.905	85.59
27X	0.414	0.4118	-0.01227	-0.8654	0.8825	0.9944	2.866	-2.04	82.79
27XY	0.4159	0.4113	0.05621	-0.8753	0.8849	0.2264	-2.036	-2.041	82.86
27Y	0.4102	0.4092	-0.01192	-0.8716	0.8636	-0.9053	-2.042	2.861	82.79
28X	0.3723	0.371	-0.01205	-0.8346	0.8503	0.9893	2.824	-2.081	79.99
28XY	0.373	0.3687	0.05316	-0.8379	0.8480	0.2237	-2.079	-2.083	80.05
28Y	0.3693	0.3681	-0.01173	-0.8401	0.8320	-0.9030	-2.083	2.82	79.99
29X	0.3317	0.3311	-0.01183	-0.7971	0.8120	0.9843	2.784	-2.121	77.24
29XY	0.3338	0.3301	0.04991	-0.7974	0.8072	0.2211	-2.118	-2.122	77.3
29Y	0.3297	0.3279	-0.01153	-0.8033	0.7936	-0.9007	-2.122	2.78	77.24
30X	0.2944	0.2945	-0.01159	-0.7556	0.7725	0.9793	2.746	-2.157	74.49
30XY	0.2951	0.2919	0.04639	-0.7765	0.7882	0.2184	-2.157	-2.16	74.55
30Y	0.2932	0.2912	-0.01132	-0.7586	0.7549	-0.8984	-2.159	2.743	74.49
31X	0.2576	0.2584	-0.01134	-0.7671	0.7758	0.9744	2.71	-2.194	71.79
31XY	0.2587	0.256	0.04268	-0.7701	0.7712	0.2158	-2.193	-2.196	71.84
31Y	0.2573	0.2549	-0.01109	-0.7723	0.7540	-0.8962	-2.195	2.707	71.79
33X	0.1427	0.1451	-0.01011	-0.4557	0.4427	0.8953	3.366	-3.078	59.79
33XY	0.1452	0.144	0.03455	-0.2567	0.3013	0.1931	-3.078	-3.079	59.83
33Y	0.1447	0.1415	-0.00991	-0.4414	0.4388	-0.8295	-3.078	3.364	59.79
34X	0.1104	0.1129	-0.009424	-0.3748	0.3770	0.8124	4.064	-3.841	53.79
34XY	0.1126	0.1116	0.03408	-0.2647	0.3103	0.1730	-3.841	-3.842	53.83
34Y	0.1125	0.1094	-0.009233	-0.3651	0.3695	-0.7533	-3.841	4.063	53.79
35X	0.08435	0.08676	-0.008667	-0.3152	0.3108	0.7269	4.769	-4.598	47.79
35XY	0.08598	0.08518	0.03274	-0.1879	0.2263	0.1540	-4.599	-4.6	47.83
35Y	0.08637	0.08357	-0.008483	-0.3039	0.3087	-0.6741	-4.599	4.769	47.79
36X	0.06267	0.06468	-0.007817	-0.2811	0.2730	0.6348	5.479	-5.352	41.79

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36XY	0.06491	0.06419	0.03044	-0.1777	0.2115	0.1346	-5.351	-5.352	41.83
36Y	0.06415	0.06193	-0.007632	-0.2666	0.2766	-0.5886	-5.352	5.478	41.79
37X	0.04367	0.04497	-0.006897	-0.2276	0.2216	0.5468	6.191	-6.102	35.79
37XY	0.04486	0.04427	0.02846	-0.1265	0.1559	0.1153	-6.103	-6.103	35.83
37Y	0.04445	0.04308	-0.006723	-0.2153	0.2218	-0.5075	-6.103	6.19	35.79
38X	0.02964	0.03091	-0.005998	-0.1812	0.1804	0.4566	6.908	-6.848	29.79
38XY	0.03242	0.03198	0.02468	-0.1089	0.1335	0.0959	-6.846	-6.847	29.82
38Y	0.03051	0.0292	-0.005858	-0.1751	0.1761	-0.4240	-6.848	6.908	29.79
39X	0.01692	0.01843	-0.005007	-0.1483	0.1504	0.3635	7.627	-7.591	23.79
39XY	0.0184	0.01806	0.02133	-0.0727	0.0922	0.0766	-7.591	-7.592	23.82
39Y	0.01808	0.01659	-0.004889	-0.1466	0.1449	-0.3373	-7.592	7.626	23.8
40X	0.007566	0.008919	-0.003909	-0.1288	0.1092	0.2701	8.348	-8.332	17.8
40XY	0.01181	0.01156	0.01623	-0.0839	0.0987	0.0573	-8.329	-8.329	17.82
40Y	0.008577	0.007277	-0.003805	-0.1062	0.1262	-0.2505	-8.332	8.348	17.8
41X	0.000793	0.002658	-0.002768	0.0050	0.0661	0.1908	9.073	-9.069	11.8
41XY	0.00256	0.002404	0.01199	0.0464	-0.0361	0.0379	-9.069	-9.07	11.81
41Y	0.002395	0.0006244	-0.002685	-0.0633	-0.0080	-0.1781	-9.07	9.073	11.8
42X	-0.001108	0.008702	-0.002467	-0.0433	0.0035	0.0917	9.802	-9.795	5.798
42XY	0.01197	0.01192	0.003259	-0.0199	0.0253	0.0186	-9.791	-9.791	5.803
42Y	0.008609	-0.001157	-0.002426	-0.0019	0.0409	-0.0856	-9.795	9.802	5.798

Joint Support Reactions for Load Case "LC2 WIND 45° C.D.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X X-M. Moment (kN-m)	X X-M. Usage %	Y Y-M. Moment (kN-m)	Y Y-M. Usage %	Z Z-M. Moment (kN-m)	Z Z-M. Usage %	Max. Usage %
ANP	-345.31	0.0	-348.27	0.0	2313.35	0.0	0.0	2364.77	0.0	0.99	0.0	-1.0	0.0	0.16	0.0	0.0
ANX	-29.84	0.0	64.96	0.0	338.28	0.0	0.0	345.75	0.0	6.52	0.0	-1.4	0.0	-0.14	0.0	0.0
ANXY	-250.35	0.0	-248.70	0.0	-1625.92	0.0	0.0	1663.78	0.0	6.03	0.0	-6.1	0.0	-0.21	0.0	0.0
ANY	66.43	0.0	-27.05	0.0	330.45	0.0	0.0	338.14	0.0	1.39	0.0	-6.5	0.0	0.08	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC2 WIND 45° C.D.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.7064	1.7064	-4.3881	-1.7040	-1.7040	4.3880	2.4111	2.3890	-0.0686
10P	5.6322	5.6322	-7.7049	-5.6305	-5.6305	7.7048	1.6924	1.6838	-0.0621
11P	6.0998	6.0998	-8.6906	-6.0983	-6.0983	8.6905	1.5244	1.5211	-0.1002
19P	2.8593	2.8593	-5.1735	-2.8585	-2.8585	5.1735	0.8584	0.8588	-0.0749
20P	3.9742	3.9742	-7.4474	-3.9734	-3.9734	7.4473	0.7511	0.7531	-0.1078
32P	4.5113	4.5113	-11.7621	-4.5111	-4.5111	11.7620	0.1868	0.1873	-0.0549
ANP	1.4310	1.4310	-6.6053	343.8758	346.8404	-2306.7482	0.0000	0.0000	0.0000
1X	1.7064	1.7064	-4.3881	-1.7039	-1.7040	4.3881	2.4802	2.3892	-0.0200
1XY	1.7064	1.7064	-4.3881	-1.7039	-1.7039	4.3881	2.4803	2.4424	0.0405
1Y	0.8844	0.8844	-2.5941	-0.8820	-0.8819	2.5941	2.4112	2.4423	-0.0189
10X	5.6322	5.6322	-7.7049	-5.6306	-5.6305	7.7049	1.6005	1.6842	-0.0192
10XY	2.7412	2.7412	-5.1309	-2.7396	-2.7396	5.1309	1.6005	1.5796	0.0352
10Y	1.9192	1.9192	-3.3369	-1.9175	-1.9176	3.3369	1.6928	1.5796	-0.0184
11X	6.0998	6.0998	-8.6906	-6.0983	-6.0983	8.6906	1.4743	1.5207	-0.0145
11XY	2.3868	2.3868	-4.3226	-2.3853	-2.3853	4.3227	1.4750	1.4533	0.0640
11Y	2.3868	2.3868	-4.3226	-2.3853	-2.3853	4.3226	1.5239	1.4526	-0.0131
19X	2.8593	2.8593	-5.1735	-2.8585	-2.8585	5.1735	0.8768	0.8616	-0.0133

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19XY	2.8593	2.8593	-5.1735	-2.8585	-2.8585	5.1736	0.8752	0.8670	0.0429
19Y	2.8593	2.8593	-5.1735	-2.8585	-2.8585	5.1735	0.8611	0.8687	-0.0126
20X	3.9742	3.9742	-7.4474	-3.9734	-3.9734	7.4474	0.7591	0.7503	-0.0142
20XY	3.5642	3.5642	-6.4334	-3.5634	-3.5634	6.4335	0.7620	0.7533	0.0806
20Y	3.5642	3.5642	-6.4334	-3.5634	-3.5634	6.4334	0.7483	0.7504	-0.0136
32X	4.5113	4.5113	-11.7621	-4.5111	-4.5111	11.7621	0.1869	0.1893	-0.0108
32XY	4.5113	4.5113	-11.7621	-4.5111	-4.5111	11.7621	0.1863	0.1848	0.0342
32Y	4.5113	4.5113	-11.7621	-4.5111	-4.5111	11.7621	0.1888	0.1853	-0.0106
ANX	1.4310	1.4310	-6.6053	28.4065	-66.3862	-331.6720	0.0000	0.0000	0.0000
ANXY	1.4310	1.4310	-6.6053	248.9200	247.2722	1632.5275	0.0000	0.0000	0.0000
ANY	1.4310	1.4310	-6.6053	-67.8614	25.6156	-323.8433	0.0000	0.0000	0.0000
2S	1.7064	1.7064	-3.0881	-1.7041	-1.7041	3.0880	2.2875	2.2681	-0.0685
3S	1.6974	1.6974	-2.5132	-1.6952	-1.6952	2.5131	2.1920	2.1746	-0.0682
4S	1.6350	1.6350	-3.0131	-1.6329	-1.6329	3.0131	2.0969	2.0814	-0.0677
5S	1.7045	1.7045	-2.5995	-1.7025	-1.7025	2.5995	2.0022	1.9885	-0.0668
6S	0.8915	0.8915	-1.3804	-0.8896	-0.8896	1.3803	1.9098	1.8977	-0.0658
7S	1.5655	1.5655	-2.4402	-1.5637	-1.5637	2.4401	1.8180	1.8073	-0.0645
8S	0.6740	0.6740	-1.0598	-0.6723	-0.6723	1.0597	1.7477	1.7382	-0.0633
12S	4.8546	4.8546	-6.4135	-4.8532	-4.8532	6.4134	1.4132	1.4112	-0.0986
13S	5.9113	5.9113	-8.1730	-5.9100	-5.9100	8.1729	1.3180	1.3168	-0.0968
14S	5.1797	5.1797	-7.1414	-5.1785	-5.1785	7.1413	1.2266	1.2261	-0.0941
15S	2.5106	2.5106	-4.5329	-2.5094	-2.5094	4.5328	1.1354	1.1353	-0.0909
16S	1.0439	1.0439	-1.7594	-1.0428	-1.0428	1.7594	1.0509	1.0512	-0.0871
17S	2.2368	2.2368	-4.0927	-2.2358	-2.2358	4.0926	0.9673	0.9676	-0.0826
18S	1.1929	1.1929	-2.3333	-1.1920	-1.1920	2.3332	0.9074	0.9079	-0.0785
21S	1.4877	1.4877	-2.5791	-1.4870	-1.4870	2.5790	0.6943	0.6963	-0.1041
22S	6.2696	6.2696	-7.3460	-6.2690	-6.2690	7.3459	0.6409	0.6430	-0.1001
23S	4.7819	4.7819	-4.7668	-4.7813	-4.7813	4.7667	0.5926	0.5947	-0.0950
24S	3.0522	3.0522	-5.7650	-3.0516	-3.0516	5.7649	0.5445	0.5465	-0.0894
25S	1.5793	1.5793	-3.3382	-1.5788	-1.5788	3.3381	0.4988	0.5008	-0.0861
26S	3.2233	3.2233	-7.0376	-3.2228	-3.2228	7.0375	0.4535	0.4553	-0.0826
27S	1.6440	1.6440	-3.6994	-1.6436	-1.6436	3.6993	0.4110	0.4128	-0.0795
28S	3.2356	3.2356	-7.3465	-3.2353	-3.2353	7.3464	0.3691	0.3706	-0.0760
29S	1.7806	1.7806	-3.9721	-1.7803	-1.7803	3.9720	0.3307	0.3323	-0.0724
30S	2.8167	2.8167	-6.5009	-2.8165	-2.8164	6.5009	0.2930	0.2943	-0.0684
31S	3.2951	3.2951	-8.0486	-3.2949	-3.2949	8.0485	0.2575	0.2586	-0.0643
33S	4.8841	4.8841	-13.1491	-4.8840	-4.8840	13.1490	0.1460	0.1464	-0.0541
34S	5.0795	5.0795	-14.2259	-5.0794	-5.0794	14.2259	0.1131	0.1136	-0.0524
35S	14.7275	14.7275	-22.3621	-14.7274	-14.7274	22.3620	0.0863	0.0867	-0.0498
36S	13.7591	13.7591	-21.1538	-13.7590	-13.7590	21.1537	0.0644	0.0649	-0.0461
37S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0433	0.0438	-0.0426
371S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0435	0.0443	-0.0255
372S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0438	0.0434	-0.0254
373S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0446	0.0436	0.0110
374S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0442	0.0446	0.0109
38S	3.7897	3.7897	-13.6372	-3.7897	-3.7897	13.6372	0.0309	0.0313	-0.0369
39S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0166	0.0170	-0.0315
391S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0168	0.0176	-0.0195
392S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0173	0.0168	-0.0194
393S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0182	0.0173	0.0085
394S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0176	0.0182	0.0084
40S	7.8860	7.8860	-19.1817	-7.8860	-7.8860	19.1817	0.0104	0.0107	-0.0241
41S	6.8708	6.8708	-17.0354	-6.8708	-6.8708	17.0354	0.0007	0.0009	-0.0175
411S	3.2298	3.2298	-15.2757	-3.2298	-3.2298	15.2757	0.0007	0.0017	-0.0057
412S	3.2298	3.2298	-15.2757	-3.2298	-3.2298	15.2757	0.0014	0.0008	-0.0056
413S	3.2298	3.2298	-15.2757	-3.2298	-3.2298	15.2757	0.0025	0.0014	0.0001

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

414S	3.2298	3.2298	-15.2757	-3.2298	-3.2298	15.2757	0.0016	0.0025	0.0001
42S	2.3360	2.3360	-11.1093	-2.3360	-2.3360	11.1093	0.0021	0.0022	-0.0082
2X	1.7064	1.7064	-3.0881	-1.7041	-1.7041	3.0881	2.3297	2.2688	-0.0199
2XY	1.7064	1.7064	-3.0881	-1.7041	-1.7041	3.0881	2.3310	2.2962	0.0404
2Y	0.8844	0.8844	-1.2941	-0.8821	-0.8821	1.2941	2.2881	2.2947	-0.0188
3X	1.6974	1.6974	-2.5132	-1.6952	-1.6952	2.5132	2.2137	2.1747	-0.0199
3XY	1.6974	1.6974	-2.5132	-1.6952	-1.6952	2.5133	2.2139	2.1812	0.0403
3Y	1.6974	1.6974	-2.5132	-1.6952	-1.6952	2.5132	2.1921	2.1811	-0.0188
4X	1.6350	1.6350	-3.0131	-1.6329	-1.6329	3.0131	2.0967	2.0809	-0.0198
4XY	1.6350	1.6350	-3.0131	-1.6329	-1.6329	3.0132	2.0984	2.0682	0.0399
4Y	0.8130	0.8130	-1.2191	-0.8109	-0.8109	1.2191	2.0964	2.0662	-0.0187
5X	2.5265	2.5265	-4.3935	-2.5245	-2.5245	4.3935	1.9821	1.9886	-0.0197
5XY	2.5265	2.5265	-4.3935	-2.5245	-2.5245	4.3936	1.9823	1.9541	0.0392
5Y	1.7045	1.7045	-2.5995	-1.7025	-1.7025	2.5995	2.0023	1.9540	-0.0187
6X	1.7135	1.7135	-3.1744	-1.7116	-1.7116	3.1744	1.8668	1.8965	-0.0196
6XY	1.7135	1.7135	-3.1744	-1.7116	-1.7116	3.1744	1.8692	1.8434	0.0384
6Y	0.8915	0.8915	-1.3804	-0.8896	-0.8896	1.3804	1.9086	1.8407	-0.0186
7X	1.5655	1.5655	-2.4402	-1.5638	-1.5637	2.4402	1.7554	1.8074	-0.0195
7XY	1.5655	1.5655	-2.4402	-1.5638	-1.5638	2.4402	1.7556	1.7319	0.0373
7Y	1.5655	1.5655	-2.4402	-1.5637	-1.5638	2.4402	1.8181	1.7318	-0.0185
8X	1.4960	1.4960	-2.8538	-1.4944	-1.4943	2.8538	1.6668	1.7370	-0.0193
8XY	1.4960	1.4960	-2.8538	-1.4944	-1.4944	2.8538	1.6685	1.6465	0.0362
8Y	0.6740	0.6740	-1.0598	-0.6723	-0.6724	1.0598	1.7466	1.6447	-0.0184
12X	4.8546	4.8546	-6.4135	-4.8533	-4.8532	6.4135	1.3731	1.4101	-0.0143
12XY	1.1416	1.1416	-2.0455	-1.1403	-1.1403	2.0456	1.3749	1.3554	0.0626
12Y	1.1416	1.1416	-2.0455	-1.1402	-1.1403	2.0455	1.4121	1.3533	-0.0130
13X	5.9113	5.9113	-8.1730	-5.9100	-5.9100	8.1729	1.2884	1.3170	-0.0141
13XY	2.1983	2.1983	-3.8050	-2.1970	-2.1971	3.8050	1.2887	1.2709	0.0611
13Y	2.1983	2.1983	-3.8050	-2.1970	-2.1971	3.8049	1.3181	1.2706	-0.0129
14X	5.1797	5.1797	-7.1414	-5.1785	-5.1785	7.1414	1.2037	1.2236	-0.0139
14XY	1.0567	1.0567	-1.7594	-1.0555	-1.0555	1.7595	1.2065	1.1908	0.0588
14Y	1.4667	1.4667	-2.7734	-1.4655	-1.4655	2.7734	1.2241	1.1877	-0.0127
15X	2.5106	2.5106	-4.5329	-2.5095	-2.5094	4.5329	1.1242	1.1354	-0.0137
15XY	2.1006	2.1006	-3.5189	-2.0994	-2.0995	3.5189	1.1245	1.1106	0.0561
15Y	2.5106	2.5106	-4.5329	-2.5094	-2.5095	4.5329	1.1355	1.1103	-0.0127
16X	1.0439	1.0439	-1.7594	-1.0428	-1.0428	1.7594	1.0449	1.0474	-0.0135
16XY	1.0439	1.0439	-1.7594	-1.0428	-1.0428	1.7595	1.0488	1.0369	0.0529
16Y	1.0439	1.0439	-1.7594	-1.0428	-1.0429	1.7594	1.0474	1.0327	-0.0126
17X	2.2368	2.2368	-4.0927	-2.2358	-2.2358	4.0927	0.9730	0.9677	-0.0134
17XY	1.8268	1.8268	-3.0787	-1.8258	-1.8258	3.0787	0.9734	0.9630	0.0492
17Y	2.2368	2.2368	-4.0927	-2.2358	-2.2358	4.0927	0.9674	0.9627	-0.0126
18X	1.1929	1.1929	-2.3333	-1.1920	-1.1920	2.3332	0.9159	0.9042	-0.0133
18XY	0.7829	0.7829	-1.3193	-0.7820	-0.7820	1.3193	0.9194	0.9104	0.0458
18Y	1.1929	1.1929	-2.3333	-1.1920	-1.1920	2.3332	0.9040	0.9066	-0.0126
21X	1.4877	1.4877	-2.5791	-1.4870	-1.4870	2.5791	0.7038	0.6965	-0.0140
21XY	1.4877	1.4877	-2.5791	-1.4870	-1.4870	2.5792	0.7049	0.6969	0.0775
21Y	1.4877	1.4877	-2.5791	-1.4870	-1.4870	2.5791	0.6945	0.6957	-0.0134
22X	2.9606	2.9606	-5.0060	-2.9600	-2.9600	5.0059	0.6496	0.6431	-0.0137
22XY	4.6156	4.6156	-6.1760	-4.6149	-4.6150	6.1760	0.6503	0.6429	0.0741
22Y	2.9606	2.9606	-5.0060	-2.9600	-2.9600	5.0059	0.6410	0.6422	-0.0131
23X	1.4729	1.4729	-2.4268	-1.4723	-1.4723	2.4268	0.5982	0.5924	-0.0133
23XY	1.4729	1.4729	-2.4268	-1.4723	-1.4723	2.4269	0.6009	0.5942	0.0698
23Y	1.4729	1.4729	-2.4268	-1.4723	-1.4723	2.4268	0.5905	0.5913	-0.0128
24X	3.0522	3.0522	-5.7650	-3.0516	-3.0516	5.7650	0.5515	0.5469	-0.0129
24XY	3.0522	3.0522	-5.7650	-3.0516	-3.0516	5.7651	0.5521	0.5458	0.0649
24Y	3.0522	3.0522	-5.7650	-3.0516	-3.0516	5.7650	0.5449	0.5453	-0.0125

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

25X	1.5793	1.5793	-3.3382	-1.5788	-1.5788	3.3382	0.5035	0.4997	-0.0127
25XY	1.5793	1.5793	-3.3382	-1.5788	-1.5788	3.3383	0.5055	0.4999	0.0621
25Y	1.5793	1.5793	-3.3382	-1.5788	-1.5788	3.3382	0.4978	0.4977	-0.0123
26X	3.2233	3.2233	-7.0376	-3.2228	-3.2228	7.0376	0.4586	0.4557	-0.0125
26XY	3.2233	3.2233	-7.0376	-3.2228	-3.2228	7.0377	0.4592	0.4540	0.0590
26Y	3.2233	3.2233	-7.0376	-3.2228	-3.2228	7.0376	0.4538	0.4535	-0.0121
27X	1.6440	1.6440	-3.6994	-1.6436	-1.6436	3.6994	0.4140	0.4118	-0.0123
27XY	1.6440	1.6440	-3.6994	-1.6436	-1.6436	3.6995	0.4159	0.4113	0.0562
27Y	1.6440	1.6440	-3.6994	-1.6436	-1.6436	3.6994	0.4102	0.4092	-0.0119
28X	3.2356	3.2356	-7.3465	-3.2353	-3.2353	7.3465	0.3723	0.3710	-0.0121
28XY	3.2356	3.2356	-7.3465	-3.2353	-3.2353	7.3465	0.3730	0.3687	0.0532
28Y	3.2356	3.2356	-7.3465	-3.2353	-3.2353	7.3465	0.3693	0.3681	-0.0117
29X	1.5916	1.5916	-3.6471	-1.5913	-1.5913	3.6470	0.3317	0.3311	-0.0118
29XY	1.5916	1.5916	-3.6471	-1.5913	-1.5913	3.6471	0.3338	0.3301	0.0499
29Y	1.5916	1.5916	-3.6471	-1.5913	-1.5913	3.6470	0.3297	0.3279	-0.0115
30X	2.8167	2.8167	-6.5009	-2.8164	-2.8164	6.5009	0.2944	0.2945	-0.0116
30XY	2.8167	2.8167	-6.5009	-2.8164	-2.8165	6.5010	0.2951	0.2919	0.0464
30Y	2.8167	2.8167	-6.5009	-2.8165	-2.8165	6.5009	0.2932	0.2912	-0.0113
31X	3.2951	3.2951	-8.0486	-3.2949	-3.2949	8.0486	0.2576	0.2584	-0.0113
31XY	3.4841	3.4841	-8.3736	-3.4839	-3.4839	8.3736	0.2587	0.2560	0.0427
31Y	3.4841	3.4841	-8.3736	-3.4839	-3.4839	8.3736	0.2573	0.2549	-0.0111
33X	4.8841	4.8841	-13.1491	-4.8840	-4.8840	13.1491	0.1427	0.1451	-0.0101
33XY	4.8841	4.8841	-13.1491	-4.8840	-4.8840	13.1491	0.1452	0.1440	0.0346
33Y	4.8841	4.8841	-13.1491	-4.8840	-4.8840	13.1491	0.1447	0.1415	-0.0099
34X	5.0795	5.0795	-14.2259	-5.0794	-5.0794	14.2259	0.1104	0.1129	-0.0094
34XY	5.0795	5.0795	-14.2259	-5.0794	-5.0794	14.2260	0.1126	0.1116	0.0341
34Y	5.0795	5.0795	-14.2259	-5.0794	-5.0794	14.2259	0.1125	0.1094	-0.0092
35X	5.3545	5.3545	-15.7191	-5.3544	-5.3544	15.7191	0.0843	0.0868	-0.0087
35XY	5.3545	5.3545	-15.7191	-5.3544	-5.3544	15.7191	0.0860	0.0852	0.0327
35Y	8.6035	8.6035	-17.1491	-8.6034	-8.6034	17.1491	0.0864	0.0836	-0.0085
36X	6.7291	6.7291	-17.5398	-6.7290	-6.7290	17.5397	0.0627	0.0647	-0.0078
36XY	5.5761	5.5761	-15.2718	-5.5760	-5.5760	15.2718	0.0649	0.0642	0.0304
36Y	4.3861	4.3861	-14.5108	-4.3860	-4.3860	14.5107	0.0641	0.0619	-0.0076
37X	4.6241	4.6241	-14.7826	-4.6241	-4.6241	14.7826	0.0437	0.0450	-0.0069
37XY	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0449	0.0443	0.0285
37Y	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0444	0.0431	-0.0067
38X	3.7897	3.7897	-13.6372	-3.7897	-3.7897	13.6372	0.0296	0.0309	-0.0060
38XY	3.7897	3.7897	-13.6372	-3.7897	-3.7897	13.6373	0.0324	0.0320	0.0247
38Y	3.9787	3.9787	-13.9622	-3.9787	-3.9787	13.9622	0.0305	0.0292	-0.0059
39X	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0169	0.0184	-0.0050
39XY	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0184	0.0181	0.0213
39Y	4.8361	4.8361	-16.7248	-4.8361	-4.8361	16.7248	0.0181	0.0166	-0.0049
40X	8.4040	8.4040	-21.3787	-8.4040	-8.4040	21.3787	0.0076	0.0089	-0.0039
40XY	3.7190	3.7190	-15.3207	-3.7190	-3.7190	15.3207	0.0118	0.0116	0.0162
40Y	6.0620	6.0620	-18.3497	-6.0620	-6.0620	18.3497	0.0086	0.0073	-0.0038
41X	3.7448	3.7448	-15.5664	-3.7448	-3.7448	15.5664	0.0008	0.0027	-0.0028
41XY	2.7038	2.7038	-13.1744	-2.7038	-2.7038	13.1744	0.0026	0.0024	0.0120
41Y	2.7038	2.7038	-13.1744	-2.7038	-2.7038	13.1744	0.0024	0.0006	-0.0027
42X	2.3360	2.3360	-11.1093	-2.3360	-2.3360	11.1093	-0.0011	0.0087	-0.0025
42XY	2.3360	2.3360	-11.1093	-2.3360	-2.3360	11.1093	0.0120	0.0119	0.0033
42Y	2.3360	2.3360	-11.1093	-2.3360	-2.3360	11.1093	0.0086	-0.0012	-0.0024

Moments for Angles Modeled as Beams:

Angle	Torsion	Origin	Origin	End	End	X	Y
Label		X Moment	Y Moment	X Moment	Y Moment	Shear	Shear

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

	(N-m)	(N-m)	(N-m)	(N-m)	(N-m)	(N)	(N)
1P	-0.00	-0.04	0.04	-10.46	27.04	-3.27	8.43
1X	-0.02	-0.04	0.05	7.25	104.60	2.25	32.59
1XY	-0.01	-0.05	0.05	47.10	-97.17	14.65	-30.25
1Y	0.01	-0.05	0.04	-50.79	-9.22	-15.83	-2.86
2P	-0.01	10.42	-27.00	-15.11	38.51	-1.88	4.60
2X	-0.04	-7.29	-104.56	5.59	-169.28	-0.68	-109.54
2XY	-0.02	-47.14	97.21	-91.07	193.80	-55.29	116.41
2Y	0.01	50.75	9.26	84.22	-13.47	53.99	-1.68
3P	-0.01	15.07	-38.47	25.19	-48.11	16.11	-34.63
3X	-0.06	-5.63	169.33	-58.97	285.35	-25.84	181.87
3XY	-0.03	91.03	-193.76	103.93	-209.12	77.98	-161.15
3Y	0.02	-84.27	13.50	-135.39	142.61	-87.86	62.45
4P	-0.02	-25.23	48.14	-111.42	260.10	-54.66	123.30
4X	-0.08	58.94	-285.31	57.65	-296.71	46.64	-232.81
4XY	-0.04	-103.97	209.16	-217.08	444.53	-128.42	261.48
4Y	0.02	135.34	-142.58	149.03	-106.03	113.75	-99.44
5P	-0.02	111.39	-260.06	90.13	-157.02	80.61	-166.83
5X	-0.10	-57.69	296.75	-329.06	828.55	-154.70	450.12
5XY	-0.05	217.04	-444.49	320.52	-542.06	215.02	-394.62
5Y	0.03	-149.07	106.07	-417.44	654.95	-226.60	304.41
6P	-0.03	-90.16	157.06	-367.59	799.93	-183.10	382.80
6X	-0.12	329.02	-828.50	285.15	-302.46	245.67	-452.38
6XY	-0.06	-320.56	542.11	-826.86	1445.33	-458.97	794.98
6Y	0.03	417.39	-654.91	150.65	-391.55	227.22	-418.58
7P	-0.03	367.56	-799.90	-427.81	522.85	-30.13	-138.52
7X	-0.14	-285.18	302.50	-1682.05	916.10	-983.62	609.30
7XY	-0.07	826.81	-1445.29	1352.24	-1519.76	1089.53	-1482.52
7Y	0.04	-150.69	391.59	-156.23	2519.49	-153.46	1455.54
8P	-0.04	427.77	-522.81	2574.27	-3577.45	1912.13	-2611.63
8X	-0.16	1682.02	-916.05	4293.05	4491.97	3805.78	2277.66
8XY	-0.08	-1352.29	1519.80	-5374.17	6229.63	-4284.37	4935.94
8Y	0.04	156.18	-2519.46	-3612.69	-5255.41	-2201.60	-4952.14
9P	119.88	4349.97	-699.15	2955.25	-685.26	1782.20	-337.74
9X	23.59	-6211.95	-138.61	-3670.56	361.71	-2410.96	54.43
9XY	102.17	8205.07	-596.20	4463.88	-383.38	3090.74	-238.98
9Y	196.43	-6270.69	-1144.90	-3891.51	-1378.32	-2479.19	-615.57
10P	234.00	1626.39	-2552.88	530.93	-786.95	746.48	-1155.65
10X	-37.92	2850.34	2340.61	300.02	1835.37	1090.09	1444.97
10XY	165.50	-2901.50	3411.45	-645.76	713.99	-1227.43	1427.49
10Y	426.62	-1814.63	-3688.78	-1143.63	97.84	-1023.62	-1242.54
11P	234.00	-530.96	786.98	-866.52	1758.71	-558.99	1018.28
11X	-37.94	-300.05	-1835.34	248.18	-974.60	-20.75	-1123.97
11XY	165.49	645.73	-713.96	-698.79	1432.16	-21.22	287.28
11Y	426.63	1143.59	-97.80	622.13	-590.75	706.29	-275.42
12P	233.99	866.48	-1758.68	575.75	-1014.91	576.90	-1109.43
12X	-37.96	-248.21	974.63	-994.45	2106.03	-497.07	1232.26
12XY	165.48	698.75	-1432.13	522.58	-888.40	488.53	-928.21
12Y	426.64	-622.16	590.79	-1157.48	2096.79	-711.86	1075.03
13P	233.99	-575.79	1014.94	-1351.16	2650.25	-770.78	1466.08
13X	-37.98	994.42	-2106.00	625.42	-1172.17	647.93	-1311.27
13XY	165.48	-522.61	888.43	-1309.99	2501.95	-733.04	1356.15
13Y	426.65	1157.45	-2096.75	715.94	-1137.92	749.36	-1293.87
14P	233.99	1351.12	-2650.21	845.02	-1401.73	878.46	-1620.77
14X	-38.00	-625.45	1172.21	-1602.00	3001.71	-890.98	1669.56

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

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14XY 165.47 1309.96 -2501.92 861.10 -1440.03 868.42 -1576.78
14Y 426.66 -715.98 1137.95 -1553.17 3165.40 -907.66 1721.34
15P 233.99 -845.06 1401.76 -2271.28 4158.56 -1246.54 2224.13
15X -38.02 1601.97 -3001.68 905.96 -1659.72 1003.17 -1864.56
15XY 165.46 -861.13 1440.06 -2018.66 3727.39 -1151.91 2066.98
15Y 426.67 1553.14 -3165.36 945.47 -1644.37 999.44 -1923.89
16P 233.99 2271.25 -4158.52 2432.66 -3515.69 2351.96 -3837.11
16X -38.04 -905.99 1659.75 -2346.74 4467.13 -1626.37 3063.44
16XY 165.45 2018.63 -3727.36 2050.33 -2870.40 2034.48 -3298.88
16Y 426.68 -945.50 1644.41 -2170.71 4852.48 -1558.10 3248.44
17P 233.99 -2432.69 3515.72 -5254.37 5889.26 -4865.23 5952.52
17X -38.06 2346.71 -4467.11 -1556.21 610.64 500.32 -2440.80
17XY 165.45 -2050.35 2870.43 -4028.15 3798.70 -3847.15 4220.96
17Y 426.70 2170.68 -4852.45 -742.17 2259.74 904.12 -1640.95
18P 100.15 -7879.69 496.25 -4660.37 358.33 -1876.48 127.88
18X 388.82 668.62 -1482.49 401.50 906.02 160.13 -86.26
18XY 113.89 5534.38 201.80 3265.43 162.73 1316.80 54.55
18Y -179.41 1073.08 2157.66 474.95 -422.22 231.65 259.69
19P -3.28 -3032.32 3558.48 -1160.02 1721.53 -1497.26 1885.72
19X 121.96 407.88 -975.68 22.35 152.58 153.65 -293.97
19XY 64.23 -2441.93 2176.13 -879.39 1099.42 -1186.19 1169.84
19Y -55.11 657.86 13.82 -18.11 174.69 228.48 67.32
20P -3.27 1160.00 -1721.51 -240.33 674.50 328.45 -373.93
20X 121.94 -22.37 -152.56 89.69 -191.59 24.04 -122.91
20XY 64.22 879.37 -1099.40 -307.19 815.41 204.35 -101.42
20Y -55.09 18.09 -174.67 102.06 -189.95 42.91 -130.22
21P -3.27 240.31 -674.48 302.65 -604.03 201.09 -473.52
21X 121.92 -89.71 191.61 -781.85 1508.58 -322.80 629.70
21XY 64.22 307.17 -815.39 265.11 -524.78 211.95 -496.36
21Y -55.07 -102.07 189.97 -751.25 1580.68 -316.05 655.80
22P -3.27 -302.66 604.05 -978.30 1950.94 -474.43 946.29
22X 121.90 781.83 -1508.56 468.36 -785.61 463.03 -849.69
22XY 64.21 -265.12 524.80 -945.01 1880.92 -448.20 891.01
22Y -55.06 751.24 -1580.66 443.97 -844.79 442.67 -898.31
23P -3.26 978.28 -1950.93 607.81 -974.24 566.46 -1044.70
23X 121.88 -468.37 785.63 -1470.28 2902.81 -692.38 1317.30
23XY 64.21 945.00 -1880.90 658.66 -1069.44 572.73 -1053.70
23Y -55.04 -443.99 844.81 -1520.90 2809.88 -701.75 1305.25
24P -3.26 -607.82 974.26 -1727.25 3191.77 -833.96 1487.87
24X 121.86 1470.26 -2902.80 829.07 -1449.12 821.19 -1554.26
24XY 64.20 -658.68 1069.46 -1821.48 3363.62 -885.77 1583.24
24Y -55.03 1520.88 -2809.87 921.00 -1281.54 872.10 -1461.22
25P -3.26 1727.24 -3191.75 841.69 -1152.83 917.48 -1551.63
25X 121.85 -829.09 1449.14 -2387.73 4485.64 -1148.86 2119.57
25XY 64.20 1821.46 -3363.61 973.32 -1378.98 998.14 -1693.78
25Y -55.01 -921.02 1281.56 -2526.17 4239.20 -1231.14 1971.70
26P -3.26 -841.71 1152.84 -2389.43 4239.15 -1153.98 1925.71
26X 121.83 2387.71 -4485.63 1119.13 -1810.47 1252.44 -2248.61
26XY 64.19 -973.33 1379.00 -2517.69 4447.75 -1246.79 2080.98
26Y -54.99 2526.15 -4239.18 1228.68 -1609.05 1341.01 -2088.65
27P -3.25 2389.41 -4239.13 736.08 -898.13 1136.54 -1868.10
27X 121.81 -1119.15 1810.49 -2697.80 5052.85 -1387.98 2495.76
27XY 64.19 2517.68 -4447.73 816.56 -986.36 1212.45 -1976.03
27Y -54.98 -1228.69 1609.07 -2777.11 4863.84 -1456.66 2353.79
28P -3.25 -736.10 898.14 -1621.75 2663.71 -857.40 1295.22
28X 121.80 2697.79 -5052.84 953.68 -1704.61 1327.81 -2457.26

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28XY	64.19	-816.57	986.38	-1697.09	2591.03	-914.06	1300.88
28Y	-54.96	2777.09	-4863.83	897.22	-1590.57	1336.11	-2347.05
29P	-3.25	1621.74	-2663.70	1498.63	-1225.52	1155.69	-1440.45
29X	121.78	-953.70	1704.63	-458.59	1413.94	-523.07	1155.03
29XY	64.18	1697.08	-2591.02	1424.95	-1120.98	1156.31	-1374.81
29Y	-54.95	-897.23	1590.58	-308.84	1672.16	-446.69	1208.42
30P	-3.25	-1498.64	1225.53	-5913.21	7155.47	-1306.05	1476.83
30X	121.76	458.57	-1413.93	-3331.22	4774.91	-506.19	592.24
30XY	64.18	-1424.96	1120.99	-5961.76	7234.12	-1301.63	1472.27
30Y	-54.93	308.82	-1672.15	-3655.58	4382.68	-589.74	477.63
31P	-152.38	-9240.94	865.10	-1605.43	232.44	-1689.93	171.00
31X	1093.44	-1020.84	-5627.94	-295.62	1724.17	-205.11	-608.23
31XY	216.04	9330.88	-875.72	1544.18	-218.02	1694.40	-170.41
31Y	-1019.43	514.14	5592.00	116.31	-1707.67	98.23	605.20
32P	-152.38	1605.44	-232.44	1349.90	-65.02	485.40	-48.86
32X	1093.42	295.62	-1724.16	90.77	1645.09	63.46	-12.99
32XY	216.04	-1544.19	218.02	-1316.75	60.82	-469.90	45.80
32Y	-1019.41	-116.31	1707.66	-22.73	-1676.78	-22.84	5.07
33P	-152.37	-1349.90	65.02	773.46	35.77	-94.68	16.55
33X	1093.40	-90.77	-1645.08	-0.83	1153.18	-15.04	-80.79
33XY	216.03	1316.74	-60.82	-841.66	6.29	78.03	-8.96
33Y	-1019.40	22.73	1676.77	27.90	-1060.25	8.32	101.26
34P	-152.37	-773.45	-35.77	-621.48	-19.97	-229.11	-9.15
34X	1093.39	0.83	-1153.18	50.35	163.88	8.41	-162.49
34XY	216.03	841.65	-6.29	506.81	-8.43	221.48	-2.42
34Y	-1019.38	-27.90	1060.24	41.95	-233.15	2.31	135.85
35P	-152.37	621.48	19.97	2216.45	-14.37	466.12	0.92
35X	1093.38	-50.35	-163.87	-79.31	2060.57	-21.30	311.52
35XY	216.03	-506.81	8.43	-1941.07	-1.37	-402.05	1.16
35Y	-1019.37	-41.95	233.15	-89.38	-2067.69	-21.57	-301.31
36P	-152.37	-2216.45	14.37	-1526.37	9.38	-614.74	3.90
36X	1093.37	79.31	-2060.57	9.69	-309.75	14.62	-389.32
36XY	216.03	1941.07	1.37	1404.12	4.90	549.43	1.03
36Y	-1019.36	89.38	2067.68	16.34	319.60	17.36	392.10
37P	-152.37	1526.38	-9.38	2459.74	2.75	654.70	-1.09
37X	1093.36	-9.69	309.76	-49.05	1381.36	-9.65	277.76
37XY	216.03	-1404.12	-4.90	-2444.27	4.13	-632.08	-0.13
37Y	-1019.36	-16.34	-319.60	-53.00	-1347.71	-11.39	-273.85
38P	-152.37	-2459.74	-2.75	-2080.78	-5.32	-745.76	-1.33
38X	1093.35	49.05	-1381.36	340.48	-373.61	63.98	-288.25
38XY	216.02	2444.27	-4.13	2682.35	-2.74	842.02	-1.13
38Y	-1019.35	53.00	1347.70	343.89	338.04	65.19	276.88
39P	-152.37	2080.78	5.32	3126.77	-14.98	855.32	-1.59
39X	1093.35	-340.48	373.61	-1558.89	4574.19	-311.96	812.65
39XY	216.02	-2682.35	2.74	-6241.22	-2.89	-1465.66	-0.02
39Y	-1019.34	-343.89	-338.04	-1568.93	-4587.29	-314.17	-808.96
40P	-152.37	-3126.77	14.98	-1848.97	8.59	-817.24	3.87
40X	1093.34	1558.89	-4574.19	3048.71	-4836.48	756.78	-1545.66
40XY	216.02	6241.23	2.89	7956.31	7.17	2331.88	1.65
40Y	-1019.34	1568.93	4587.29	3049.15	4855.06	758.50	1550.86
41P	-152.37	1848.97	-8.59	1397.99	31.37	551.69	3.87
41X	1093.34	-3048.71	4836.48	-3601.52	5510.10	-1129.94	1757.98
41XY	216.02	-7956.31	-7.17	-8584.75	16.89	-2810.48	1.65
41Y	-1019.34	-3049.15	-4855.06	-3590.95	-5460.91	-1128.21	-1752.78

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 3 "LC3 WIND 0° C.T."

Equilibrium Joint Positions and Rotations for Load Case "LC3 WIND 0° C.T.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	2.514	-0.007221	-0.04186	-0.0428	2.5675	-0.5676	3.164	0.6428	150.9
10P	1.674	-0.02258	-0.03867	0.0273	2.2706	-0.5677	2.324	0.6274	131.6
11P	1.533	-0.01189	-0.05348	0.2006	2.0678	-0.5755	2.673	1.128	127.5
19P	0.9066	0.01049	-0.04038	-0.0421	1.5039	-0.6877	2.047	1.15	108.6
20P	0.7863	0.007972	-0.05993	0.0430	1.1792	-0.6577	3.238	2.46	102.1
32P	0.1947	0.0002566	-0.03137	0.0107	0.6399	-0.5798	2.647	2.452	66.09
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	2.527	-0.007088	-0.04105	-0.0279	2.4814	0.3354	3.177	-0.6571	150.9
1XY	2.527	0.001916	0.01468	0.0786	2.4512	0.3463	1.877	-0.6481	150.9
1Y	2.514	0.001789	0.01593	0.0310	2.5403	-0.5677	1.864	0.6518	150.9
10X	1.72	-0.02213	-0.03705	0.0209	2.2485	0.3355	2.37	-0.6721	131.6
10XY	1.721	0.02247	0.01177	-0.0204	2.2560	0.3464	1.071	-0.6275	131.6
10Y	1.675	0.02252	0.01361	-0.0124	2.2806	-0.5678	1.025	0.6725	131.6
11X	1.558	-0.01231	-0.05662	0.0828	2.2956	0.3608	2.698	-1.152	127.5
11XY	1.559	0.01293	0.03167	-0.0702	2.2905	0.3705	0.4185	-1.127	127.6
11Y	1.534	0.01213	0.02875	-0.2044	2.0612	-0.5751	0.3936	1.152	127.6
19X	0.8832	0.01324	-0.04327	0.1259	1.6123	0.6474	2.023	-1.127	108.6
19XY	0.8836	-0.01139	0.02066	-0.1166	1.5997	0.6452	-0.2564	-1.151	108.6
19Y	0.9071	-0.009556	0.0178	0.0331	1.4927	-0.6798	-0.2329	1.13	108.6
20X	0.7712	0.005187	-0.059	-0.1130	1.1280	0.6422	3.223	-2.447	102.1
20XY	0.7713	-0.003817	0.0376	0.1173	1.1193	0.6382	-1.681	-2.456	102.2
20Y	0.7864	-0.006945	0.03844	-0.0501	1.1692	-0.6493	-1.666	2.445	102.2
32X	0.1908	0.002295	-0.03111	-0.0198	0.6296	0.5650	2.643	-2.45	66.09
32XY	0.1915	-0.001115	0.01471	0.0192	0.6281	0.5620	-2.26	-2.453	66.14
32Y	0.1954	-0.0005128	0.01488	-0.0121	0.6383	-0.5753	-2.257	2.451	66.14
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	2.371	-0.009481	-0.04176	-0.0353	2.5460	-0.5676	3.021	0.6405	147.7
3S	2.26	-0.01079	-0.04162	-0.0251	2.5472	-0.5676	2.91	0.6392	145.2
4S	2.149	-0.01214	-0.04134	-0.0474	2.5342	-0.5676	2.799	0.6379	142.7
5S	2.039	-0.01425	-0.0409	-0.0236	2.5114	-0.5677	2.689	0.6357	140.2
6S	1.93	-0.01555	-0.04042	-0.0595	2.4795	-0.5677	2.58	0.6345	137.7
7S	1.823	-0.01852	-0.03979	-0.0316	2.4220	-0.5677	2.473	0.6315	135.2
8S	1.739	-0.02	-0.03921	-0.1074	2.3909	-0.5677	2.389	0.63	133.2
12S	1.428	-0.007685	-0.05261	0.0336	2.0799	-0.5905	2.568	1.132	124.6
13S	1.338	-0.005085	-0.05167	0.0965	2.0281	-0.6035	2.478	1.135	122.1
14S	1.251	-0.0005397	-0.05028	0.0629	1.9785	-0.6190	2.391	1.139	119.6
15S	1.166	0.001246	-0.0486	0.0872	1.9063	-0.6345	2.306	1.141	117.2
16S	1.085	0.006306	-0.0466	0.0589	1.8186	-0.6500	2.225	1.146	114.7
17S	1.008	0.007383	-0.0443	0.0992	1.7041	-0.6655	2.148	1.147	112.2
18S	0.95	0.0118	-0.04218	0.0339	1.6184	-0.6779	2.09	1.152	110.2
21S	0.728	0.005954	-0.05794	-0.0552	1.1781	-0.6461	3.18	2.458	99.34
22S	0.672	0.005409	-0.05581	0.0208	1.1217	-0.6344	3.124	2.457	96.54
23S	0.6201	0.006061	-0.05305	-0.0229	1.0782	-0.6209	3.072	2.458	93.85
24S	0.5707	0.004297	-0.05002	-0.0000	1.0149	-0.6075	3.023	2.456	91.15
25S	0.5219	0.004572	-0.04828	-0.0136	0.9816	-0.6029	2.974	2.457	88.35
26S	0.4749	0.003371	-0.04638	-0.0025	0.9430	-0.5984	2.927	2.455	85.55

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

27S	0.4295	0.003635	-0.04466	-0.0103	0.9108	-0.5957	2.881	2.456	82.76
28S	0.3859	0.002558	-0.0428	-0.0063	0.8744	-0.5930	2.838	2.455	79.96
29S	0.3448	0.002963	-0.04083	-0.0047	0.8336	-0.5904	2.797	2.455	77.21
30S	0.3057	0.001933	-0.0387	-0.0142	0.8017	-0.5878	2.758	2.454	74.46
31S	0.2682	0.001872	-0.03647	-0.0062	0.7945	-0.5852	2.72	2.454	71.76
33S	0.1506	0.001383	-0.03075	0.0941	0.3825	-0.5380	3.373	3.224	59.77
34S	0.1168	0.0006649	-0.02973	0.0491	0.3526	-0.4873	4.071	3.955	53.77
35S	0.08952	-7.535e-005	-0.02817	0.0585	0.2774	-0.4355	4.775	4.685	47.77
36S	0.06675	-0.0001817	-0.02607	0.0441	0.2571	-0.3799	5.483	5.416	41.77
37S	0.0456	-0.001075	-0.02401	0.0473	0.1977	-0.3270	6.193	6.146	35.78
371S	0.04503	-0.0004861	-0.02447	0.0000	0.0000	0.0000	6.192	-0.0004861	35.78
372S	0.04613	-0.0005676	-0.005675	0.0000	0.0000	0.0000	0.04613	6.147	35.79
373S	0.0462	0.0005216	0.01313	0.0000	0.0000	0.0000	-6.101	0.0005216	35.81
374S	0.04498	0.0006032	-0.00563	0.0000	0.0000	0.0000	0.04498	-6.147	35.79
38S	0.03181	-0.0002146	-0.0208	0.0369	0.1599	-0.2731	6.91	6.878	29.78
39S	0.0178	-0.001087	-0.01774	0.0371	0.1259	-0.2174	7.628	7.609	23.78
391S	0.01746	-0.0003607	-0.01869	0.0000	0.0000	0.0000	7.627	-0.0003607	23.78
392S	0.01847	-0.0007345	-0.004328	0.0000	0.0000	0.0000	0.01847	7.609	23.8
393S	0.01892	0.0003402	0.01011	0.0000	0.0000	0.0000	-7.591	0.0003402	23.81
394S	0.01776	0.000714	-0.004284	0.0000	0.0000	0.0000	0.01776	-7.609	23.8
40S	0.009567	0.0006045	-0.01361	0.0304	0.0995	-0.1616	8.35	8.341	17.79
41S	0.001072	-0.001069	-0.009889	-0.0055	0.0410	-0.1133	9.073	9.071	11.79
411S	0.0008502	-0.0001872	-0.005437	0.0000	0.0000	0.0000	9.073	-0.0001872	11.79
412S	0.001807	-0.0008824	-0.00247	0.0000	0.0000	0.0000	0.001807	9.071	11.8
413S	0.00258	0.0001546	0.0004993	0.0000	0.0000	0.0000	-9.069	0.0001546	11.8
414S	0.001469	0.0008498	-0.002447	0.0000	0.0000	0.0000	0.001469	-9.071	11.8
42S	0.002041	-0.002146	-0.004891	0.0285	-0.0000	-0.0543	9.805	9.801	5.795
2X	2.388	-0.008807	-0.04095	-0.0362	2.4582	0.3354	3.038	-0.6588	147.7
2XY	2.389	0.00563	0.01469	0.0417	2.4712	0.3463	1.739	-0.6444	147.7
2Y	2.372	0.004223	0.01593	0.0682	2.5576	-0.5677	1.722	0.6542	147.7
3X	2.281	-0.01066	-0.04079	-0.0488	2.4583	0.3354	2.931	-0.6607	145.2
3XY	2.281	0.007389	0.0146	0.0663	2.4600	0.3463	1.631	-0.6426	145.2
3Y	2.26	0.007279	0.01586	0.0448	2.5484	-0.5677	1.61	0.6573	145.2
4X	2.174	-0.01264	-0.04044	-0.0318	2.4423	0.3355	2.824	-0.6626	142.7
4XY	2.174	0.01079	0.01439	0.0475	2.4436	0.3463	1.524	-0.6392	142.7
4Y	2.149	0.008801	0.01569	0.0675	2.5365	-0.5677	1.499	0.6588	142.7
5X	2.068	-0.01414	-0.03992	-0.0629	2.4142	0.3355	2.718	-0.6641	140.2
5XY	2.068	0.01242	0.01403	0.0897	2.4066	0.3463	1.418	-0.6376	140.2
5Y	2.039	0.01229	0.01539	0.0297	2.5009	-0.5678	1.389	0.6623	140.2
6X	1.963	-0.01686	-0.03933	-0.0418	2.3787	0.3355	2.613	-0.6669	137.7
6XY	1.964	0.01641	0.01359	0.0548	2.3801	0.3463	1.314	-0.6336	137.7
6Y	1.93	0.01369	0.01503	0.0766	2.4819	-0.5678	1.28	0.6637	137.7
7X	1.861	-0.01844	-0.03851	-0.0657	2.3155	0.3355	2.511	-0.6684	135.2
7XY	1.861	0.01803	0.01296	0.0768	2.3169	0.3463	1.211	-0.632	135.2
7Y	1.823	0.01784	0.01453	0.0454	2.4226	-0.5678	1.173	0.6678	135.2
8X	1.781	-0.02121	-0.03776	-0.0719	2.2348	0.3355	2.431	-0.6712	133.2
8XY	1.782	0.02141	0.01237	0.0851	2.2331	0.3464	1.132	-0.6286	133.2
8Y	1.739	0.01952	0.01406	0.1168	2.3899	-0.5678	1.089	0.6695	133.2
12X	1.445	-0.008776	-0.05567	0.0849	2.2133	0.3991	2.585	-1.149	124.6
12XY	1.446	0.01002	0.03096	-0.0822	2.2135	0.4072	0.3055	-1.13	124.7
12Y	1.428	0.007819	0.02809	-0.0263	2.0809	-0.5891	0.2883	1.148	124.7
13X	1.349	-0.004905	-0.05468	0.0595	2.1807	0.4323	2.489	-1.145	122.1
13XY	1.349	0.005999	0.03018	-0.0588	2.1842	0.4390	0.2094	-1.134	122.2
13Y	1.339	0.005755	0.02734	-0.0893	2.0311	-0.6012	0.1987	1.146	122.2
14X	1.255	-0.00308	-0.05323	0.0794	2.1234	0.4719	2.395	-1.143	119.6
14XY	1.255	0.004511	0.02904	-0.0748	2.1227	0.4769	0.1154	-1.135	119.7

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14Y	1.251	0.001194	0.02622	-0.0609	1.9777	-0.6157	0.1112	1.141	119.7
15X	1.164	0.001389	-0.05151	0.0555	2.0508	0.5115	2.304	-1.139	117.1
15XY	1.164	-3.325e-006	0.02765	-0.0547	2.0488	0.5149	0.02436	-1.14	117.2
15Y	1.166	-0.0002932	0.02484	-0.0829	1.9048	-0.6301	0.02639	1.14	117.2
16X	1.077	0.002509	-0.04948	0.0830	1.9623	0.5511	2.217	-1.137	114.7
16XY	1.077	-0.0009023	0.02597	-0.0787	1.9613	0.5528	-0.06316	-1.141	114.7
16Y	1.085	-0.00538	0.02317	-0.0595	1.8176	-0.6446	-0.05486	1.135	114.7
17X	0.9933	0.007566	-0.04717	0.0370	1.8447	0.5907	2.133	-1.132	112.2
17XY	0.9935	-0.005994	0.02401	-0.0424	1.8508	0.5908	-0.1465	-1.146	112.2
17Y	1.008	-0.006285	0.02119	-0.0913	1.7099	-0.6591	-0.1319	1.134	112.2
18X	0.9304	0.008073	-0.04505	0.1229	1.7708	0.6224	2.07	-1.132	110.2
18XY	0.9305	-0.006576	0.02221	-0.1152	1.7648	0.6212	-0.2095	-1.147	110.2
18Y	0.9501	-0.01056	0.01937	-0.0399	1.6127	-0.6707	-0.1899	1.129	110.2
21X	0.7139	0.006084	-0.05703	0.0453	1.1659	0.6306	3.166	-2.446	99.34
21XY	0.7146	-0.004281	0.03607	-0.0425	1.1625	0.6268	-1.737	-2.456	99.44
21Y	0.7286	-0.00547	0.03689	0.0503	1.1752	-0.6382	-1.723	2.447	99.44
22X	0.6589	0.005551	-0.05491	-0.0462	1.1007	0.6190	3.111	-2.446	96.55
22XY	0.6594	-0.004032	0.03439	0.0401	1.1053	0.6153	-1.793	-2.456	96.63
22Y	0.6724	-0.004759	0.03518	-0.0173	1.1283	-0.6271	-1.78	2.447	96.64
23X	0.6079	0.00388	-0.05218	0.0026	1.0566	0.6057	3.06	-2.448	93.85
23XY	0.6083	-0.002417	0.03222	-0.0029	1.0561	0.6022	-1.844	-2.454	93.93
23Y	0.6204	-0.005475	0.03297	0.0207	1.0764	-0.6143	-1.832	2.447	93.93
24X	0.5596	0.004676	-0.04921	-0.0199	0.9933	0.5924	3.012	-2.447	91.15
24XY	0.5601	-0.003251	0.02981	0.0215	0.9906	0.5890	-1.892	-2.455	91.23
24Y	0.5712	-0.00379	0.03052	-0.0040	1.0118	-0.6015	-1.881	2.448	91.23
25X	0.5118	0.003449	-0.04751	-0.0055	0.9614	0.5879	2.964	-2.449	88.35
25XY	0.5123	-0.001977	0.02842	0.0034	0.9622	0.5846	-1.94	-2.454	88.43
25Y	0.5224	-0.00423	0.0291	0.0133	0.9828	-0.5972	-1.93	2.448	88.43
26X	0.4657	0.003744	-0.04565	-0.0155	0.9237	0.5834	2.918	-2.448	85.55
26XY	0.4662	-0.00243	0.0269	0.0155	0.9227	0.5801	-1.986	-2.454	85.63
26Y	0.4753	-0.002987	0.02752	0.0001	0.9420	-0.5929	-1.977	2.449	85.63
27X	0.4213	0.002625	-0.04398	-0.0067	0.8925	0.5807	2.873	-2.449	82.76
27XY	0.4218	-0.001262	0.02552	0.0054	0.8926	0.5775	-2.03	-2.453	82.83
27Y	0.43	-0.003415	0.0261	0.0093	0.9109	-0.5904	-2.022	2.449	82.83
28X	0.3786	0.002902	-0.04217	-0.0095	0.8573	0.5781	2.831	-2.449	79.96
28XY	0.379	-0.001702	0.02402	0.0079	0.8577	0.5749	-2.073	-2.454	80.02
28Y	0.3864	-0.00229	0.02455	0.0055	0.8749	-0.5878	-2.066	2.45	80.02
29X	0.3383	0.001774	-0.04025	-0.0097	0.8178	0.5755	2.79	-2.45	77.21
29XY	0.3388	-0.0005464	0.02242	0.0091	0.8174	0.5723	-2.113	-2.453	77.27
29Y	0.3453	-0.002833	0.02289	0.0029	0.8331	-0.5853	-2.107	2.449	77.27
30X	0.2999	0.002149	-0.03819	0.0012	0.7867	0.5729	2.752	-2.45	74.46
30XY	0.3004	-0.001055	0.02069	-0.0041	0.7883	0.5698	-2.152	-2.453	74.52
30Y	0.3062	-0.001779	0.0211	0.0149	0.8031	-0.5829	-2.146	2.45	74.52
31X	0.263	0.001632	-0.03603	-0.0051	0.7804	0.5704	2.715	-2.45	71.76
31XY	0.2635	-0.0005905	0.01887	0.0057	0.7789	0.5672	-2.188	-2.453	71.82
31Y	0.2686	-0.001772	0.01921	0.0033	0.7931	-0.5804	-2.183	2.45	71.82
33X	0.1473	6.173e-005	-0.03046	-0.1011	0.3768	0.5243	3.37	-3.223	59.77
33XY	0.1479	0.0009245	0.01507	0.0983	0.3780	0.5215	-3.075	-3.222	59.82
33Y	0.1512	-0.001672	0.01524	-0.0931	0.3834	-0.5339	-3.072	3.221	59.82
34X	0.1139	-4.208e-005	-0.02941	-0.0546	0.3491	0.4749	4.068	-3.954	53.77
34XY	0.1147	0.001069	0.01501	0.0537	0.3484	0.4724	-3.839	-3.953	53.82
34Y	0.1176	-0.001206	0.01518	-0.0501	0.3519	-0.4836	-3.836	3.953	53.82
35X	0.08081	2.504e-005	-0.02783	-0.0625	0.2730	0.4247	4.772	-4.685	47.77
35XY	0.0877	0.001009	0.01452	0.0613	0.2728	0.4225	-4.597	-4.684	47.81
35Y	0.09037	-0.0006805	0.01469	-0.0588	0.2778	-0.4321	-4.595	4.684	47.81
36X	0.06468	-0.0003716	-0.02569	-0.0479	0.2471	0.3712	5.481	-5.417	41.77

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36XY	0.06574	0.001516	0.01354	0.0473	0.2469	0.3692	-5.351	-5.415	41.81
36Y	0.06772	-0.0008076	0.01378	-0.0442	0.2564	-0.3771	-5.349	5.415	41.81
37X	0.04446	0.0001063	-0.02359	-0.0472	0.1913	0.3197	6.192	-6.147	35.78
37XY	0.04563	0.001114	0.01276	0.0460	0.1916	0.3180	-6.102	-6.146	35.81
37Y	0.04678	-7.096e-005	0.01304	-0.0466	0.1974	-0.3246	-6.101	6.147	35.81
38X	0.03089	-0.0005818	-0.0205	-0.0343	0.1581	0.2668	6.909	-6.879	29.78
38XY	0.03216	0.001858	0.01107	0.0328	0.1587	0.2655	-6.846	-6.877	29.81
38Y	0.03308	-0.001043	0.01126	-0.0359	0.1606	-0.2710	-6.845	6.878	29.81
39X	0.0171	0.0003661	-0.01749	-0.0353	0.1232	0.2125	7.627	-7.609	23.78
39XY	0.01856	0.001076	0.009611	0.0373	0.1211	0.2113	-7.591	-7.609	23.81
39Y	0.01928	-0.0003986	0.009747	-0.0394	0.1234	-0.2157	-7.59	7.609	23.81
40X	0.009033	-0.001117	-0.01345	-0.0281	0.0979	0.1580	8.35	-8.342	17.79
40XY	0.01042	0.002532	0.007264	0.0132	0.1126	0.1572	-8.33	-8.338	17.81
40Y	0.01098	-0.002071	0.00734	-0.0155	0.1147	-0.1603	-8.33	8.339	17.81
41X	0.000682	0.0006927	-0.009779	0.0075	0.0389	0.1111	9.073	-9.071	11.79
41XY	0.002424	0.001036	0.0054	0.0455	-0.0147	0.1106	-9.07	-9.071	11.81
41Y	0.002762	-0.0007266	0.005455	-0.0474	-0.0121	-0.1125	-9.069	9.071	11.81
42X	0.001897	0.002006	-0.004837	-0.0260	-0.0024	0.0536	9.805	-9.801	5.795
42XY	0.009562	0.005642	0.0009918	-0.0064	0.0302	0.0533	-9.794	-9.798	5.801
42Y	0.009667	-0.005533	0.001021	0.0045	0.0321	-0.0540	-9.794	9.798	5.801

Joint Support Reactions for Load Case "LC3 WIND 0° C.T.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Comp. Force (kN)	Uplift Usage %	Result. Force (kN)	Result. Usage %	X-M. Moment (kN-m)	X-M. Usage %	Y-M. Moment (kN-m)	Y-M. Usage %	Z-M. Moment (kN-m)	Z-M. Usage %	Max. Usage %	
ANP	-182.95	0.0	-197.61	0.0	1286.16	0.0	0.0	1314.05	0.0	-2.25	0.0	-2.1	0.0	0.13	0.0	0.0
ANX	-177.35	0.0	200.18	0.0	1273.02	0.0	0.0	1300.81	0.0	2.17	0.0	-2.0	0.0	-0.13	0.0	0.0
ANXY	-107.99	0.0	-129.96	0.0	-754.42	0.0	0.0	773.11	0.0	1.77	0.0	-6.0	0.0	-0.13	0.0	0.0
ANY	-112.39	0.0	127.38	0.0	-761.57	0.0	0.0	780.29	0.0	-1.71	0.0	-6.0	0.0	0.13	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC3 WIND 0° C.T.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.7876	0.0000	-3.3754	-1.7850	-0.0000	3.3754	2.5142	-0.0072	-0.0419
10P	5.9408	0.0000	-5.9268	-5.9391	-0.0000	5.9268	1.6745	-0.0226	-0.0387
11P	6.4314	0.0000	-6.6851	-6.4299	-0.0000	6.6850	1.5334	-0.0119	-0.0535
19P	2.9256	0.0000	-3.9796	-2.9247	0.0000	3.9796	0.9066	0.0105	-0.0404
20P	4.1179	0.0000	-5.7288	-4.1171	0.0000	5.7287	0.7863	0.0080	-0.0599
32P	4.6304	0.0000	-9.0478	-4.6302	0.0000	9.0477	0.1947	0.0003	-0.0314
ANP	1.5085	0.0000	-5.0810	181.4459	197.6055	-1281.0798	0.0000	0.0000	0.0000
1X	1.7876	0.0000	-3.3754	-1.7850	-0.0000	3.3754	2.5267	-0.0071	-0.0411
1XY	1.7876	0.0000	-3.3754	-1.7850	0.0000	3.3755	2.5268	0.0019	0.0147
1Y	0.8936	0.0000	-1.9954	-0.8910	0.0000	1.9955	2.5143	0.0018	0.0159
10X	5.9408	0.0000	-5.9268	-5.9391	-0.0000	5.9268	1.7203	-0.0221	-0.0370
10XY	2.7968	0.0000	-3.9468	-2.7951	0.0000	3.9468	1.7205	0.0225	0.0118
10Y	1.9028	0.0000	-2.5668	-1.9011	0.0000	2.5668	1.6747	0.0225	0.0136
11X	6.4314	0.0000	-6.6851	-6.4299	-0.0000	6.6850	1.5584	-0.0123	-0.0566
11XY	2.3934	0.0000	-3.3251	-2.3919	0.0000	3.3251	1.5585	0.0129	0.0317
11Y	2.3934	0.0000	-3.3251	-2.3919	0.0000	3.3251	1.5336	0.0121	0.0287
19X	2.9256	0.0000	-3.9796	-2.9247	0.0000	3.9796	0.8832	0.0132	-0.0433

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19XY	2.9256	0.0000	-3.9796	-2.9247	-0.0000	3.9797	0.8836	-0.0114	0.0207
19Y	2.9256	0.0000	-3.9796	-2.9247	-0.0000	3.9797	0.9071	-0.0096	0.0178
20X	4.1179	0.0000	-5.7288	-4.1171	0.0000	5.7287	0.7712	0.0052	-0.0590
20XY	3.6719	0.0000	-4.9488	-3.6711	-0.0000	4.9488	0.7713	-0.0038	0.0376
20Y	3.6719	0.0000	-4.9488	-3.6711	-0.0000	4.9488	0.7864	-0.0069	0.0384
32X	4.6304	0.0000	-9.0478	-4.6302	0.0000	9.0477	0.1908	0.0023	-0.0311
32XY	4.6304	0.0000	-9.0478	-4.6302	-0.0000	9.0478	0.1915	-0.0011	0.0147
32Y	4.6304	0.0000	-9.0478	-4.6302	-0.0000	9.0478	0.1954	-0.0005	0.0149
ANX	1.5085	0.0000	-5.0810	175.8373	-200.1752	-1267.9424	0.0000	0.0000	0.0000
ANXY	1.5085	0.0000	-5.0810	106.4841	129.9552	759.4964	0.0000	0.0000	0.0000
ANY	1.5085	0.0000	-5.0810	110.8786	-127.3845	766.6523	0.0000	0.0000	0.0000
2S	1.7876	0.0000	-2.3754	-1.7852	-0.0000	2.3754	2.3707	-0.0095	-0.0418
3S	1.7210	0.0000	-1.9332	-1.7188	-0.0000	1.9332	2.2598	-0.0108	-0.0416
4S	1.7215	0.0000	-2.3178	-1.7193	-0.0000	2.3178	2.1486	-0.0121	-0.0413
5S	1.7170	0.0000	-1.9996	-1.7149	-0.0000	1.9996	2.0388	-0.0143	-0.0409
6S	0.8895	0.0000	-1.0618	-0.8875	-0.0000	1.0618	1.9297	-0.0155	-0.0404
7S	1.5520	0.0000	-1.8771	-1.5502	-0.0000	1.8770	1.8228	-0.0185	-0.0398
8S	0.6626	0.0000	-0.8152	-0.6608	-0.0000	0.8152	1.7388	-0.0200	-0.0392
12S	5.1912	0.0000	-4.9335	-5.1897	-0.0000	4.9334	1.4279	-0.0077	-0.0526
13S	6.2569	0.0000	-6.2869	-6.2555	-0.0000	6.2868	1.3385	-0.0051	-0.0517
14S	5.5497	0.0000	-5.4934	-5.5485	-0.0000	5.4934	1.2509	-0.0005	-0.0503
15S	2.5645	0.0000	-3.4868	-2.5634	0.0000	3.4868	1.1662	0.0012	-0.0486
16S	1.0528	0.0000	-1.3534	-1.0517	0.0000	1.3534	1.0848	0.0063	-0.0466
17S	2.2811	0.0000	-3.1482	-2.2801	0.0000	3.1482	1.0078	0.0074	-0.0443
18S	1.2283	0.0000	-1.7948	-1.2274	0.0000	1.7948	0.9500	0.0118	-0.0422
21S	1.5286	0.0000	-1.9840	-1.5279	0.0000	1.9839	0.7280	0.0060	-0.0579
22S	6.6346	0.0000	-5.6507	-6.6339	0.0000	5.6507	0.6720	0.0054	-0.0558
23S	5.1060	0.0000	-3.6668	-5.1054	0.0000	3.6667	0.6201	0.0061	-0.0530
24S	3.1143	0.0000	-4.4346	-3.1137	0.0000	4.4346	0.5707	0.0043	-0.0500
25S	1.6073	0.0000	-2.5678	-1.6068	0.0000	2.5678	0.5219	0.0046	-0.0483
26S	3.2693	0.0000	-5.4135	-3.2689	0.0000	5.4135	0.4749	0.0034	-0.0464
27S	1.6621	0.0000	-2.8457	-1.6616	0.0000	2.8457	0.4295	0.0036	-0.0447
28S	3.2702	0.0000	-5.6511	-3.2698	0.0000	5.6511	0.3859	0.0026	-0.0428
29S	1.8131	0.0000	-3.0554	-1.8128	0.0000	3.0554	0.3448	0.0030	-0.0408
30S	2.8368	0.0000	-5.0007	-2.8365	0.0000	5.0007	0.3057	0.0019	-0.0387
31S	3.3523	0.0000	-6.1912	-3.3521	0.0000	6.1912	0.2682	0.0019	-0.0365
33S	5.0306	0.0000	-10.1147	-5.0305	0.0000	10.1147	0.1506	0.0014	-0.0308
34S	5.2518	0.0000	-10.9430	-5.2516	0.0000	10.9430	0.1168	0.0007	-0.0297
35S	15.7456	0.0000	-17.2016	-15.7455	-0.0000	17.2016	0.0895	-0.0001	-0.0282
36S	14.7638	0.0000	-16.2721	-14.7638	-0.0000	16.2721	0.0667	-0.0002	-0.0261
37S	3.7388	0.0000	-9.5312	-3.7387	-0.0000	9.5312	0.0456	-0.0011	-0.0240
371S	3.7388	0.0000	-9.5312	-3.7387	-0.0000	9.5312	0.0450	-0.0005	-0.0245
372S	3.7388	0.0000	-9.5312	-3.7387	-0.0000	9.5312	0.0461	-0.0006	-0.0057
373S	3.7388	0.0000	-9.5312	-3.7387	0.0000	9.5313	0.0462	0.0005	0.0131
374S	3.7388	0.0000	-9.5312	-3.7387	0.0000	9.5312	0.0450	0.0006	-0.0056
38S	3.9486	0.0000	-10.4902	-3.9485	-0.0000	10.4902	0.0318	-0.0002	-0.0208
39S	3.9567	0.0000	-11.0252	-3.9566	-0.0000	11.0252	0.0178	-0.0011	-0.0177
391S	3.9567	0.0000	-11.0252	-3.9566	-0.0000	11.0252	0.0175	-0.0004	-0.0187
392S	3.9567	0.0000	-11.0252	-3.9566	-0.0000	11.0252	0.0185	-0.0007	-0.0043
393S	3.9567	0.0000	-11.0252	-3.9566	0.0000	11.0253	0.0189	0.0003	0.0101
394S	3.9567	0.0000	-11.0252	-3.9566	0.0000	11.0252	0.0178	0.0007	-0.0043
40S	8.4107	0.0000	-14.7552	-8.4106	0.0000	14.7551	0.0096	0.0006	-0.0136
41S	7.3865	0.0000	-13.1041	-7.3865	-0.0000	13.1041	0.0011	-0.0011	-0.0099
411S	3.3865	0.0000	-11.7505	-3.3865	-0.0000	11.7505	0.0009	-0.0002	-0.0054
412S	3.3865	0.0000	-11.7505	-3.3865	-0.0000	11.7505	0.0018	-0.0009	-0.0025
413S	3.3865	0.0000	-11.7505	-3.3865	0.0000	11.7505	0.0026	0.0002	0.0005

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

414S	3.3865	0.0000	-11.7505	-3.3865	0.0000	11.7505	0.0015	0.0008	-0.0024
42S	2.4851	0.0000	-8.5456	-2.4851	-0.0000	8.5456	0.0020	-0.0021	-0.0049
2X	1.7876	0.0000	-2.3754	-1.7852	-0.0000	2.3754	2.3881	-0.0088	-0.0409
2XY	1.7876	0.0000	-2.3754	-1.7852	0.0000	2.3755	2.3891	0.0056	0.0147
2Y	0.8936	0.0000	-0.9954	-0.8912	0.0000	0.9955	2.3716	0.0042	0.0159
3X	1.7210	0.0000	-1.9332	-1.7188	-0.0000	1.9332	2.2811	-0.0107	-0.0408
3XY	1.7210	0.0000	-1.9332	-1.7188	0.0000	1.9333	2.2812	0.0074	0.0146
3Y	1.7210	0.0000	-1.9332	-1.7188	0.0000	1.9333	2.2600	0.0073	0.0159
4X	1.7215	0.0000	-2.3178	-1.7193	-0.0000	2.3178	2.1738	-0.0126	-0.0404
4XY	1.7215	0.0000	-2.3178	-1.7193	0.0000	2.3178	2.1745	0.0108	0.0144
4Y	0.8275	0.0000	-0.9378	-0.8253	0.0000	0.9378	2.1493	0.0088	0.0157
5X	2.6110	0.0000	-3.3796	-2.6089	-0.0000	3.3796	2.0681	-0.0141	-0.0399
5XY	2.6110	0.0000	-3.3796	-2.6089	0.0000	3.3796	2.0682	0.0124	0.0140
5Y	1.7170	0.0000	-1.9996	-1.7149	0.0000	1.9996	2.0390	0.0123	0.0154
6X	1.7835	0.0000	-2.4418	-1.7815	-0.0000	2.4418	1.9632	-0.0169	-0.0393
6XY	1.7835	0.0000	-2.4418	-1.7815	0.0000	2.4419	1.9639	0.0164	0.0136
6Y	0.8895	0.0000	-1.0618	-0.8875	0.0000	1.0619	1.9304	0.0137	0.0150
7X	1.5520	0.0000	-1.8771	-1.5502	-0.0000	1.8770	1.8609	-0.0184	-0.0385
7XY	1.5520	0.0000	-1.8771	-1.5502	0.0000	1.8771	1.8611	0.0180	0.0130
7Y	1.5520	0.0000	-1.8771	-1.5502	0.0000	1.8771	1.8230	0.0178	0.0145
8X	1.5566	0.0000	-2.1952	-1.5548	-0.0000	2.1952	1.7812	-0.0212	-0.0378
8XY	1.5566	0.0000	-2.1952	-1.5548	0.0000	2.1952	1.7815	0.0214	0.0124
8Y	0.6626	0.0000	-0.8152	-0.6608	0.0000	0.8152	1.7392	0.0195	0.0141
12X	5.1912	0.0000	-4.9335	-5.1897	-0.0000	4.9334	1.4451	-0.0088	-0.0557
12XY	1.1532	0.0000	-1.5735	-1.1517	0.0000	1.5735	1.4455	0.0100	0.0310
12Y	1.1532	0.0000	-1.5735	-1.1517	0.0000	1.5735	1.4283	0.0078	0.0281
13X	6.2569	0.0000	-6.2869	-6.2555	-0.0000	6.2868	1.3492	-0.0049	-0.0547
13XY	2.2189	0.0000	-2.9269	-2.2175	0.0000	2.9269	1.3494	0.0060	0.0302
13Y	2.2189	0.0000	-2.9269	-2.2175	0.0000	2.9269	1.3387	0.0058	0.0273
14X	5.5497	0.0000	-5.4934	-5.5485	-0.0000	5.4934	1.2553	-0.0031	-0.0532
14XY	1.0657	0.0000	-1.3534	-1.0645	0.0000	1.3534	1.2554	0.0045	0.0290
14Y	1.5117	0.0000	-2.1334	-1.5105	0.0000	2.1334	1.2512	0.0012	0.0262
15X	2.5645	0.0000	-3.4868	-2.5634	0.0000	3.4868	1.1641	0.0014	-0.0515
15XY	2.1185	0.0000	-2.7068	-2.1174	-0.0000	2.7069	1.1644	-0.0000	0.0276
15Y	2.5645	0.0000	-3.4868	-2.5634	-0.0000	3.4869	1.1664	-0.0003	0.0248
16X	1.0528	0.0000	-1.3534	-1.0517	0.0000	1.3534	1.0765	0.0025	-0.0495
16XY	1.0528	0.0000	-1.3534	-1.0517	-0.0000	1.3534	1.0768	-0.0009	0.0260
16Y	1.0528	0.0000	-1.3534	-1.0517	-0.0000	1.3534	1.0851	-0.0054	0.0232
17X	2.2811	0.0000	-3.1482	-2.2801	0.0000	3.1482	0.9933	0.0076	-0.0472
17XY	1.8351	0.0000	-2.3682	-1.8341	-0.0000	2.3683	0.9935	-0.0060	0.0240
17Y	2.2811	0.0000	-3.1482	-2.2801	-0.0000	3.1483	1.0081	-0.0063	0.0212
18X	1.2283	0.0000	-1.7948	-1.2274	0.0000	1.7948	0.9304	0.0081	-0.0451
18XY	0.7823	0.0000	-1.0148	-0.7814	-0.0000	1.0148	0.9305	-0.0066	0.0222
18Y	1.2283	0.0000	-1.7948	-1.2274	-0.0000	1.7948	0.9501	-0.0106	0.0194
21X	1.5286	0.0000	-1.9840	-1.5279	0.0000	1.9839	0.7139	0.0061	-0.0570
21XY	1.5286	0.0000	-1.9840	-1.5279	-0.0000	1.9840	0.7146	-0.0043	0.0361
21Y	1.5286	0.0000	-1.9840	-1.5279	-0.0000	1.9840	0.7286	-0.0055	0.0369
22X	3.0356	0.0000	-3.8507	-3.0349	0.0000	3.8507	0.6589	0.0056	-0.0549
22XY	4.8356	0.0000	-4.7507	-4.8349	-0.0000	4.7508	0.6594	-0.0040	0.0344
22Y	3.0356	0.0000	-3.8507	-3.0349	-0.0000	3.8508	0.6724	-0.0048	0.0352
23X	1.5070	0.0000	-1.8668	-1.5064	0.0000	1.8667	0.6079	0.0039	-0.0522
23XY	1.5070	0.0000	-1.8668	-1.5064	-0.0000	1.8668	0.6083	-0.0024	0.0322
23Y	1.5070	0.0000	-1.8668	-1.5064	-0.0000	1.8668	0.6204	-0.0055	0.0330
24X	3.1143	0.0000	-4.4346	-3.1137	0.0000	4.4346	0.5596	0.0047	-0.0492
24XY	3.1143	0.0000	-4.4346	-3.1137	-0.0000	4.4346	0.5601	-0.0033	0.0298
24Y	3.1143	0.0000	-4.4346	-3.1137	-0.0000	4.4346	0.5712	-0.0038	0.0305

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

25X	1.6073	0.0000	-2.5678	-1.6068	0.0000	2.5678	0.5118	0.0034	-0.0475
25XY	1.6073	0.0000	-2.5678	-1.6068	-0.0000	2.5679	0.5123	-0.0020	0.0284
25Y	1.6073	0.0000	-2.5678	-1.6068	-0.0000	2.5679	0.5224	-0.0042	0.0291
26X	3.2693	0.0000	-5.4135	-3.2689	0.0000	5.4135	0.4657	0.0037	-0.0456
26XY	3.2693	0.0000	-5.4135	-3.2689	-0.0000	5.4136	0.4662	-0.0024	0.0269
26Y	3.2693	0.0000	-5.4135	-3.2689	-0.0000	5.4136	0.4753	-0.0030	0.0275
27X	1.6621	0.0000	-2.8457	-1.6616	0.0000	2.8457	0.4213	0.0026	-0.0440
27XY	1.6621	0.0000	-2.8457	-1.6616	-0.0000	2.8457	0.4218	-0.0013	0.0255
27Y	1.6621	0.0000	-2.8457	-1.6616	-0.0000	2.8457	0.4300	-0.0034	0.0261
28X	3.2702	0.0000	-5.6511	-3.2698	0.0000	5.6511	0.3786	0.0029	-0.0422
28XY	3.2702	0.0000	-5.6511	-3.2698	-0.0000	5.6512	0.3790	-0.0017	0.0240
28Y	3.2702	0.0000	-5.6511	-3.2698	-0.0000	5.6512	0.3864	-0.0023	0.0245
29X	1.6081	0.0000	-2.8054	-1.6078	0.0000	2.8054	0.3383	0.0018	-0.0403
29XY	1.6081	0.0000	-2.8054	-1.6078	-0.0000	2.8055	0.3388	-0.0005	0.0224
29Y	1.6081	0.0000	-2.8054	-1.6078	-0.0000	2.8055	0.3453	-0.0028	0.0229
30X	2.8368	0.0000	-5.0007	-2.8365	0.0000	5.0007	0.2999	0.0021	-0.0382
30XY	2.8368	0.0000	-5.0007	-2.8365	-0.0000	5.0007	0.3004	-0.0011	0.0207
30Y	2.8368	0.0000	-5.0007	-2.8365	-0.0000	5.0007	0.3062	-0.0018	0.0211
31X	3.3523	0.0000	-6.1912	-3.3521	0.0000	6.1912	0.2630	0.0016	-0.0360
31XY	3.3573	0.0000	-6.4412	-3.5571	-0.0000	6.4412	0.2635	-0.0006	0.0189
31Y	3.5573	0.0000	-6.4412	-3.5571	-0.0000	6.4412	0.2686	-0.0018	0.0192
33X	5.0306	0.0000	-10.1147	-5.0305	0.0000	10.1147	0.1473	0.0001	-0.0305
33XY	5.0306	0.0000	-10.1147	-5.0305	0.0000	10.1147	0.1479	0.0009	0.0151
33Y	5.0306	0.0000	-10.1147	-5.0305	-0.0000	10.1147	0.1512	-0.0017	0.0152
34X	5.2518	0.0000	-10.9430	-5.2516	-0.0000	10.9430	0.1139	-0.0000	-0.0294
34XY	5.2518	0.0000	-10.9430	-5.2516	0.0000	10.9430	0.1147	0.0011	0.0150
34Y	5.2518	0.0000	-10.9430	-5.2516	-0.0000	10.9430	0.1176	-0.0012	0.0152
35X	5.5486	0.0000	-12.0916	-5.5485	0.0000	12.0916	0.0868	0.0000	-0.0278
35XY	5.5486	0.0000	-12.0916	-5.5485	0.0000	12.0916	0.0877	0.0010	0.0145
35Y	9.0826	0.0000	-13.1916	-9.0825	-0.0000	13.1916	0.0904	-0.0007	0.0147
36X	7.1158	0.0000	-13.4921	-7.1158	-0.0000	13.4921	0.0647	-0.0004	-0.0257
36XY	5.8608	0.0010	-11.7471	-5.8608	-0.0010	11.7471	0.0657	0.0015	0.0135
36Y	4.5668	0.0000	-11.1621	-4.5668	-0.0000	11.1621	0.0677	-0.0008	0.0138
37X	4.8718	0.0000	-11.3712	-4.8717	0.0000	11.3712	0.0445	0.0001	-0.0236
37XY	3.7388	0.0000	-9.5312	-3.7387	0.0000	9.5313	0.0456	0.0011	0.0128
37Y	3.7388	0.0000	-9.5312	-3.7387	-0.0000	9.5313	0.0468	-0.0001	0.0130
38X	3.9486	0.0000	-10.4902	-3.9485	-0.0000	10.4902	0.0309	-0.0006	-0.0205
38XY	3.9486	0.0000	-10.4902	-3.9485	0.0000	10.4902	0.0322	0.0019	0.0111
38Y	4.1536	0.0000	-10.7402	-4.1535	-0.0000	10.7402	0.0331	-0.0010	0.0113
39X	3.9567	0.0000	-11.0252	-3.9566	0.0000	11.0252	0.0171	0.0004	-0.0175
39XY	3.9567	0.0000	-11.0252	-3.9566	0.0000	11.0253	0.0186	0.0011	0.0096
39Y	5.0897	0.0000	-12.8652	-5.0896	-0.0000	12.8653	0.0193	-0.0004	0.0097
40X	8.9767	0.0000	-16.4452	-8.9766	-0.0000	16.4451	0.0090	-0.0011	-0.0134
40XY	3.8787	0.0000	-11.7852	-3.8786	0.0000	11.7852	0.0104	0.0025	0.0073
40Y	6.4277	0.0000	-14.1152	-6.4276	-0.0000	14.1152	0.0110	-0.0021	0.0073
41X	3.9875	0.0000	-11.9741	-3.9875	0.0000	11.9741	0.0007	0.0007	-0.0098
41XY	2.8545	0.0000	-10.1341	-2.8545	0.0000	10.1341	0.0024	0.0010	0.0054
41Y	2.8545	0.0000	-10.1341	-2.8545	-0.0000	10.1341	0.0028	-0.0007	0.0055
42X	2.4851	0.0000	-8.5456	-2.4851	0.0000	8.5456	0.0019	0.0020	-0.0048
42XY	2.4851	0.0000	-8.5456	-2.4851	0.0000	8.5456	0.0096	0.0056	0.0010
42Y	2.4851	0.0000	-8.5456	-2.4851	-0.0000	8.5456	0.0097	-0.0055	0.0010

Moments for Angles Modeled as Beams:

Angle Torsion	Origin	Origin	End	End	X	Y
Label	X Moment	Y Moment	X Moment	Y Moment	Shear	Shear

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

	(N-m)	(N-m)	(N-m)	(N-m)	(N-m)	(N)	(N)
1P	0.01	-0.00	0.04	-9.54	65.61	-2.97	20.45
1X	-0.01	-0.00	0.04	10.57	70.81	3.29	22.07
1XY	-0.01	0.00	0.04	46.94	-60.91	14.62	-18.96
1Y	0.01	0.00	0.04	-47.28	-52.56	-14.72	-16.36
2P	0.02	9.54	-65.57	-7.22	-70.28	0.93	-54.34
2X	-0.01	-10.57	-70.77	10.10	-71.21	-0.19	-56.79
2XY	-0.01	-46.94	60.96	-87.20	104.68	-53.66	66.26
2Y	0.02	47.28	52.61	85.50	88.72	53.11	56.53
3P	0.03	7.22	70.32	43.66	121.17	20.35	76.60
3X	-0.02	-10.10	71.25	-37.99	133.81	-19.24	82.02
3XY	-0.02	87.20	-104.64	117.97	-40.49	82.07	-58.05
3Y	0.03	-85.50	-88.68	-122.54	-42.19	-83.21	-52.35
4P	0.04	-43.67	-121.13	-82.58	-31.60	-50.50	-61.09
4X	-0.02	37.99	-133.77	88.92	-23.51	50.76	-62.91
4XY	-0.02	-117.97	40.53	-186.97	185.73	-121.97	90.50
4Y	0.04	122.54	42.23	184.21	181.76	122.70	89.60
5P	0.05	82.58	31.64	250.21	347.71	133.12	151.74
5X	-0.03	-88.92	23.55	-187.37	375.66	-110.52	159.68
5XY	-0.03	186.97	-185.69	349.95	77.37	214.77	-43.33
5Y	0.05	-184.21	-181.72	-402.76	6.90	-234.79	-69.93
6P	0.06	-250.21	-347.67	-380.20	223.76	-252.16	-49.56
6X	-0.04	187.37	-375.62	298.82	252.30	194.48	-49.33
6XY	-0.04	-349.95	-77.33	-452.79	550.12	-321.10	189.12
6Y	0.06	402.76	-6.85	548.48	581.81	380.50	229.98
7P	0.07	380.20	-223.72	1047.62	337.53	713.91	56.90
7X	-0.04	-298.82	-252.26	-244.47	1204.36	-271.65	476.05
7XY	-0.04	452.79	-550.08	380.10	962.13	416.45	206.03
7Y	0.07	-548.48	-581.76	-1177.76	8.19	-863.12	-286.79
8P	0.08	-1047.62	-337.49	-2559.43	2431.00	-2297.48	1333.45
8X	-0.05	244.47	-1204.32	-796.35	-1518.78	-351.51	-1734.46
8XY	-0.05	-380.10	-962.09	803.55	-1488.44	269.71	-1560.85
8Y	0.08	1177.77	-8.15	2627.72	2507.58	2423.88	1591.99
9P	15.45	-3528.74	-89.52	-1897.68	-379.68	-1323.84	-114.47
9X	-86.42	1637.07	503.51	1164.11	696.49	683.38	292.75
9XY	-81.93	-1620.71	477.34	-1255.10	672.71	-701.59	280.57
9Y	14.45	3631.18	-83.74	1847.17	-354.14	1336.51	-106.83
10P	79.42	-1604.62	1079.14	-151.55	850.79	-607.67	667.80
10X	-202.93	-348.08	-1298.18	-366.80	252.30	-247.36	-361.90
10XY	-194.48	428.45	-1346.48	532.34	105.40	332.46	-429.44
10Y	74.13	1551.23	1061.10	1.95	689.80	537.43	605.85
11P	79.43	151.55	-850.76	-481.45	277.93	-131.96	-229.13
11X	-202.93	366.80	-252.26	622.29	457.55	395.64	82.12
11XY	-194.49	-532.34	-105.36	-767.67	532.36	-520.01	170.80
11Y	74.14	-1.95	-689.76	631.51	394.43	251.83	-118.13
12P	79.44	481.45	-277.89	769.72	618.12	500.47	136.09
12X	-202.94	-622.29	-457.52	-792.78	578.71	-566.03	48.48
12XY	-194.50	767.67	-532.32	904.99	579.08	669.06	18.71
12Y	74.15	-631.51	-394.40	-874.52	570.11	-602.42	70.28
13P	79.45	-769.72	-618.09	-977.55	686.45	-698.91	27.34
13X	-202.95	792.79	-578.67	997.86	733.64	716.26	61.99
13XY	-194.51	-904.99	-579.05	-1077.06	755.51	-792.82	70.58
13Y	74.16	874.52	-570.07	1062.48	746.70	774.80	70.65
14P	79.46	977.55	-686.41	1219.75	898.24	878.92	84.73
14X	-202.96	-997.86	-733.60	-1233.78	864.44	-892.65	52.34

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY -194.52 1077.06 -755.47 1282.37 825.59 943.77 28.05
14Y 74.17 -1062.48 -746.67 -1263.09 830.35 -930.23 33.47
15P 79.47 -1219.74 -898.21 -1565.30 1171.06 -1114.02 109.14
15X -202.97 1233.78 -864.41 1628.34 1261.25 1144.85 158.74
15XY -194.53 -1282.37 -825.55 -1593.10 1172.81 -1150.19 138.90
15Y 74.18 1263.09 -830.32 1536.14 1116.52 1119.69 114.48
16P 79.49 1565.30 -1171.03 2265.23 765.51 1915.26 -202.76
16X -202.98 -1628.34 -1261.22 -2549.54 408.57 -2088.94 -426.32
16XY -194.54 1593.10 -1172.78 2373.34 769.96 1983.22 -201.41
16Y 74.19 -1536.14 -1116.49 -2087.73 1078.02 -1811.93 -19.24
17P 79.50 -2265.23 -765.48 -1233.74 2507.43 -2214.54 1102.50
17X -202.99 2549.54 -408.54 2509.80 4123.60 3202.11 2351.30
17XY -194.55 -2373.34 -769.93 -2354.22 3948.77 -2992.12 2011.92
17Y 74.20 2087.73 -1077.99 1097.12 2352.39 2015.72 806.58
18P -173.67 -2645.38 887.28 -1555.18 -370.88 -628.57 77.27
18X 121.81 -4690.50 -1152.61 -2766.92 193.63 -1115.92 -143.50
18XY 126.14 4456.86 -1137.19 2556.42 211.36 1049.46 -138.54
18Y -175.14 2439.15 873.31 1357.28 -387.45 568.09 72.70
19P -63.86 -1385.72 813.67 -503.59 835.17 -674.75 588.87
19X 63.25 2111.96 1801.08 690.98 1064.80 1001.05 1023.53
19XY 62.48 -1976.01 1639.34 -540.50 799.70 -898.75 871.09
19Y -60.67 1257.32 662.18 356.29 546.88 576.29 431.81
20P -63.85 503.59 -835.15 -179.09 261.86 115.89 -204.75
20X 63.23 -690.98 -1064.78 130.11 202.95 -200.31 -307.79
20XY 62.47 540.50 -799.68 -201.47 311.31 121.08 -174.42
20Y -60.66 -356.29 -546.86 250.34 363.67 -37.84 -65.42
21P -63.83 179.09 -261.84 525.97 465.65 261.13 75.49
21X 63.22 -130.11 -202.93 -517.33 534.82 -239.79 122.92
21XY 62.46 201.47 -311.30 543.19 512.41 275.80 74.49
21Y -60.65 -250.34 -363.65 -552.01 506.00 -297.17 52.72
22P -63.82 -525.97 -465.63 -707.41 593.52 -456.81 47.37
22X 63.21 517.33 -534.80 696.14 524.36 449.43 -3.86
22XY 62.45 -543.19 -512.39 -737.61 582.93 -474.37 26.12
22Y -60.64 552.01 -505.98 748.34 574.76 481.61 25.48
23P -63.81 707.41 -593.50 1024.30 1052.16 618.47 163.81
23X 63.20 -696.14 -524.35 -1034.18 1053.06 -617.97 188.82
23XY 62.44 737.61 -582.91 1162.52 821.31 678.62 85.14
23Y -60.63 -748.34 -574.74 -1152.84 860.70 -678.99 102.13
24P -63.80 -1024.30 -1052.14 -1283.55 857.84 -824.23 -69.39
24X 63.19 1034.18 -1053.04 1267.63 814.89 822.08 -85.05
24XY 62.43 -1162.52 -821.29 -1445.88 1132.32 -931.57 111.08
24Y -60.61 1152.84 -860.69 1461.40 1155.74 933.66 105.38
25P -63.79 1283.55 -857.83 1605.30 1819.68 1031.73 343.52
25X 63.18 -1267.63 -814.87 -1629.74 1776.97 -1034.77 343.61
25XY 62.42 1445.88 -1132.30 1864.23 1373.28 1182.18 86.06
25Y -60.60 -1461.40 -1155.72 -1840.24 1427.05 -1179.16 96.90
26P -63.78 -1605.30 -1819.66 -1770.03 1208.50 -1205.48 -218.27
26X 63.17 1629.74 -1776.96 1744.32 1147.15 1205.02 -224.93
26XY 62.41 -1864.23 -1373.27 -1969.41 1530.83 -1369.16 56.27
26Y -60.59 1840.24 -1427.03 1994.66 1572.35 1369.61 51.90
27P -63.77 1770.03 -1208.49 1702.07 2247.33 1262.58 377.76
27X 63.16 -1744.32 -1147.13 -1735.84 2196.44 -1265.51 381.57
27XY 62.40 1969.41 -1530.82 1917.47 1883.74 1413.41 128.34
27Y -60.58 -1994.66 -1572.33 -1884.21 1962.80 -1410.50 141.99
28P -63.76 -1702.07 -2247.31 -1301.74 457.37 -1092.29 -650.89
28X 63.15 1735.84 -2196.43 1280.55 437.26 1096.87 -639.70

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28XY 62.39 -1917.47 -1883.73 -1361.84 578.89 -1192.47 -474.49
28Y -60.57 1884.21 -1962.79 1381.87 580.83 1187.66 -502.53
29P -63.75 1301.74 -457.35 959.21 161.00 837.39 -109.76
29X 63.14 -1280.55 -437.24 -1014.65 110.09 -850.08 -121.17
29XY 62.38 1361.84 -578.88 943.76 228.77 853.92 -129.67
29Y -60.56 -1381.87 -580.82 -887.09 282.39 -840.35 -110.53
30P -63.74 -959.21 -160.98 -1302.60 6180.98 -398.56 1060.79
30X 63.13 1014.65 -110.07 1314.52 6075.26 410.43 1051.13
30XY 62.37 -943.76 -228.75 -1219.39 5959.35 -381.17 1009.80
30Y -60.55 887.09 -282.38 1201.20 6068.35 367.98 1019.55
31P -648.65 -5291.68 3388.59 -952.38 -751.22 -972.86 410.92
31X 633.92 -5225.36 -3306.72 -970.99 778.77 -965.43 -393.87
31XY 630.68 5076.13 -3292.37 884.07 781.75 928.63 -391.17
31Y -644.16 5140.34 3381.31 863.72 -757.75 935.47 408.77
32P -648.64 952.39 751.22 750.45 -915.31 279.68 -26.95
32X 633.91 970.99 -778.77 719.41 874.54 277.64 15.73
32XY 630.67 -884.07 -781.75 -682.37 875.62 -257.28 15.42
32Y -644.15 -863.72 757.74 -710.26 -903.16 -258.52 -23.88
33P -648.63 -750.45 915.31 385.09 -503.06 -60.01 67.71
33X 633.90 -719.40 -874.54 407.74 620.88 -51.19 -41.66
33XY 630.66 682.36 -875.62 -434.23 610.91 40.75 -43.48
33Y -644.14 710.26 903.16 -399.88 -504.04 50.98 65.55
34P -648.62 -385.08 503.05 -306.44 -60.45 -113.58 72.70
34X 633.89 -407.73 -620.87 -256.51 108.89 -109.10 -84.09
34XY 630.65 434.23 -610.91 274.72 108.45 116.44 -82.53
34Y -644.13 399.87 504.03 307.51 -98.47 116.18 66.61
35P -648.61 306.44 60.45 1148.38 -1093.00 238.95 -169.59
35X 633.89 256.51 -108.88 997.51 1062.84 205.97 156.68
35XY 630.64 -274.72 -108.45 -999.63 1065.13 -209.31 157.13
35Y -644.12 -307.52 98.46 -1130.96 -1068.03 -236.26 -159.25
36P -648.61 -1148.38 1093.00 -781.71 156.47 -317.01 205.22
36X 633.88 -997.51 -1062.83 -725.23 -175.50 -282.95 -203.39
36XY 630.64 999.63 -1065.12 734.46 -176.34 284.82 -203.90
36Y -644.12 1130.95 1068.03 780.61 149.57 313.97 199.98
37P -648.60 781.72 -156.47 1241.52 -694.49 332.31 -139.77
37X 633.87 725.24 175.51 1206.40 725.34 317.26 147.96
37XY 630.63 -734.46 176.34 -1299.38 705.66 -334.05 144.87
37Y -644.11 -780.61 -149.57 -1327.30 -688.87 -346.21 -137.71
38P -648.60 -1241.51 694.49 -977.31 173.39 -364.43 142.54
38X 633.87 -1206.40 -725.33 -962.73 -213.30 -356.27 -154.17
38XY 630.63 1299.37 -705.66 1509.54 -187.61 461.35 -146.72
38Y -644.11 1327.30 688.87 1531.22 177.90 469.50 142.36
39P -648.59 977.31 -173.39 1279.82 -2374.73 370.72 -418.52
39X 633.87 962.73 213.30 1276.59 2429.72 367.80 434.10
39XY 630.62 -1509.54 187.61 -3653.02 2416.31 -847.93 427.68
39Y -644.10 -1531.22 -177.90 -3661.41 -2396.01 -852.87 -422.75
40P -648.59 -1279.82 2374.73 -272.55 2571.03 -254.97 812.32
40X 633.87 -1276.59 -2429.72 -273.01 -2596.44 -254.51 -825.52
40XY 630.62 3653.02 -2416.31 4953.05 -2598.92 1413.51 -823.73
40Y -644.10 3661.41 2396.01 4950.67 2571.27 1414.49 815.85
41P -648.59 272.55 -2571.03 -123.10 -2990.10 25.39 -944.89
41X 633.86 273.01 2596.44 -120.89 2886.98 25.85 931.68
41XY 630.62 -4953.05 2598.92 -5461.28 2895.07 -1769.49 933.48
41Y -644.10 -4950.67 -2571.27 -5457.84 -2969.05 -1768.50 -941.35

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 4 "LC4 WIND 45° C.T."

Equilibrium Joint Positions and Rotations for Load Case "LC4 WIND 45° C.T.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	1.854	1.838	-0.05296	-1.6655	1.7018	0.1974	2.504	2.488	150.9
10P	1.302	1.295	-0.04796	-1.6341	1.6246	0.1974	1.952	1.945	131.6
11P	1.172	1.17	-0.07722	-1.7575	1.7552	0.1732	2.312	2.31	127.5
19P	0.6603	0.6606	-0.05779	-1.2153	1.2889	-0.0810	1.8	1.801	108.6
20P	0.5776	0.5792	-0.08307	-0.7536	0.8227	-0.1169	3.03	3.031	102.1
32P	0.1436	0.144	-0.04236	-0.4242	0.4672	-0.1138	2.596	2.596	66.08
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	1.908	1.838	-0.01556	-1.6464	2.0778	0.8773	2.558	1.188	150.9
1XY	1.908	1.879	0.03096	-1.9931	2.0364	0.4582	1.258	1.229	150.9
1Y	1.855	1.878	-0.01467	-2.0399	1.6841	-0.2220	1.205	2.528	150.9
10X	1.231	1.295	-0.01496	-1.6422	1.7488	0.8775	1.881	0.6455	131.6
10XY	1.231	1.215	0.0269	-1.6634	1.7879	0.4583	0.581	0.565	131.7
10Y	1.302	1.215	-0.0143	-1.6544	1.6022	-0.2221	0.6521	1.865	131.6
11X	1.134	1.17	-0.01128	-1.8436	1.5060	0.8776	2.274	0.02969	127.6
11XY	1.135	1.118	0.04909	-1.3395	1.4416	0.4397	-0.005417	-0.02211	127.6
11Y	1.172	1.117	-0.01025	-1.4419	1.8053	-0.2642	0.03219	2.257	127.6
19X	0.6744	0.6627	-0.01036	-1.0877	1.0387	0.9188	1.814	-0.4773	108.6
19XY	0.6732	0.6669	0.03282	-1.0982	1.1899	0.2599	-0.4668	-0.4731	108.7
19Y	0.6623	0.6681	-0.009863	-0.9889	1.1140	-0.7277	-0.4777	1.808	108.6
20X	0.5839	0.5772	-0.01108	-0.8687	0.9001	0.8560	3.036	-1.875	102.2
20XY	0.5862	0.5795	0.06184	-0.7737	0.8554	0.2221	-1.866	-1.872	102.3
20Y	0.5756	0.5771	-0.01058	-0.8997	0.8486	-0.7375	-1.876	3.029	102.2
32X	0.1437	0.1457	-0.00843	-0.4469	0.4808	0.7415	2.596	-2.306	66.12
32XY	0.1434	0.1422	0.02618	-0.4209	0.4785	0.1619	-2.309	-2.31	66.15
32Y	0.1453	0.1425	-0.008273	-0.4444	0.4663	-0.6858	-2.307	2.594	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	1.759	1.744	-0.05284	-1.6529	1.6889	0.1974	2.409	2.394	147.6
3S	1.686	1.673	-0.05264	-1.6431	1.6781	0.1974	2.336	2.323	145.1
4S	1.613	1.601	-0.05221	-1.6472	1.6794	0.1974	2.263	2.251	142.6
5S	1.54	1.529	-0.05153	-1.6089	1.6397	0.1974	2.19	2.179	140.1
6S	1.469	1.46	-0.05079	-1.6032	1.6299	0.1974	2.119	2.11	137.6
7S	1.398	1.39	-0.04977	-1.5580	1.5804	0.1974	2.048	2.04	135.2
8S	1.344	1.337	-0.04885	-1.4885	1.5242	0.1974	1.994	1.987	133.2
12S	1.087	1.085	-0.07596	-1.6583	1.6807	0.1392	2.227	2.225	124.6
13S	1.014	1.013	-0.0746	-1.6332	1.6469	0.1098	2.154	2.153	122.1
14S	0.9434	0.943	-0.07256	-1.6073	1.6155	0.0747	2.083	2.083	119.6
15S	0.8733	0.8732	-0.0701	-1.5376	1.5457	0.0396	2.013	2.013	117.1
16S	0.8082	0.8085	-0.06713	-1.4925	1.4928	0.0044	1.948	1.948	114.6
17S	0.744	0.7442	-0.06369	-1.3640	1.3749	-0.0307	1.884	1.884	112.1
18S	0.6979	0.6983	-0.0605	-1.3762	1.3537	-0.0588	1.838	1.838	110.1
21S	0.534	0.5355	-0.08021	-0.9129	0.8943	-0.1165	2.986	2.988	99.32
22S	0.4929	0.4945	-0.07714	-0.7933	0.7998	-0.1160	2.945	2.946	96.52
23S	0.4558	0.4574	-0.07319	-0.7991	0.7964	-0.1155	2.908	2.909	93.83
24S	0.4188	0.4203	-0.06888	-0.7344	0.7351	-0.1149	2.871	2.872	91.13
25S	0.3836	0.3851	-0.06639	-0.7215	0.7193	-0.1147	2.836	2.837	88.33

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26S	0.3488	0.3501	-0.06369	-0.6851	0.6851	-0.1146	2.801	2.802	85.54
27S	0.3161	0.3174	-0.06125	-0.6683	0.6661	-0.1145	2.768	2.769	82.74
28S	0.2838	0.285	-0.05861	-0.6395	0.6375	-0.1143	2.736	2.737	79.94
29S	0.2543	0.2555	-0.0558	-0.6094	0.6073	-0.1142	2.706	2.707	77.19
30S	0.2253	0.2263	-0.05278	-0.5926	0.5908	-0.1141	2.677	2.678	74.45
31S	0.198	0.1989	-0.0496	-0.5911	0.5786	-0.1140	2.65	2.651	71.75
33S	0.1122	0.1125	-0.04171	-0.2044	0.2261	-0.1050	3.335	3.335	59.76
34S	0.08692	0.08726	-0.04045	-0.2105	0.2343	-0.0940	4.041	4.041	53.76
35S	0.06627	0.0666	-0.03842	-0.1515	0.1719	-0.0836	4.751	4.752	47.76
36S	0.04942	0.04981	-0.03561	-0.1480	0.1663	-0.0730	5.466	5.466	41.76
37S	0.03314	0.03353	-0.0329	-0.1043	0.1191	-0.0627	6.181	6.181	35.77
371S	0.0333	0.03408	-0.01969	0.0000	0.0000	0.0000	6.181	0.03408	35.78
372S	0.03369	0.03327	-0.01962	0.0000	0.0000	0.0000	0.03369	6.181	35.78
373S	0.03447	0.03355	0.008364	0.0000	0.0000	0.0000	-6.113	0.03355	35.81
374S	0.034	0.03444	0.008304	0.0000	0.0000	0.0000	0.034	-6.113	35.81
38S	0.02358	0.0239	-0.02852	-0.0857	0.0978	-0.0522	6.902	6.902	29.77
39S	0.01261	0.01288	-0.02436	-0.0604	0.0703	-0.0417	7.622	7.623	23.78
391S	0.01274	0.01356	-0.01504	0.0000	0.0000	0.0000	7.622	0.01356	23.78
392S	0.01329	0.01275	-0.015	0.0000	0.0000	0.0000	0.01329	7.622	23.78
393S	0.01419	0.01328	0.006453	0.0000	0.0000	0.0000	-7.596	0.01328	23.81
394S	0.01354	0.0142	0.006397	0.0000	0.0000	0.0000	0.01354	-7.596	23.81
40S	0.007769	0.008017	-0.01865	-0.0508	0.0581	-0.0312	8.349	8.349	17.78
41S	0.0003305	0.0005167	-0.01358	-0.0210	0.0251	-0.0207	9.072	9.073	11.79
411S	0.0003587	0.001291	-0.00469	0.0000	0.0000	0.0000	9.072	0.001291	11.8
412S	0.001105	0.000391	-0.00467	0.0000	0.0000	0.0000	0.001105	9.072	11.8
413S	0.002089	0.001109	-0.0002436	0.0000	0.0000	0.0000	-9.07	0.001109	11.8
414S	0.001229	0.002123	-0.0002535	0.0000	0.0000	0.0000	0.001229	-9.07	11.8
42S	0.001583	0.00165	-0.006351	0.0144	-0.0130	-0.0103	9.805	9.805	5.794
2X	1.792	1.745	-0.0155	-1.6571	2.0453	0.8773	2.442	1.095	147.7
2XY	1.793	1.766	0.03094	-2.0279	2.0671	0.4582	1.143	1.116	147.7
2Y	1.76	1.765	-0.01463	-2.0030	1.6925	-0.2220	1.11	2.415	147.7
3X	1.703	1.673	-0.01546	-1.6610	2.0600	0.8773	2.353	1.023	145.2
3XY	1.703	1.678	0.03082	-2.0051	2.0461	0.4582	1.053	1.028	145.2
3Y	1.686	1.678	-0.01462	-2.0209	1.6950	-0.2220	1.036	2.328	145.2
4X	1.613	1.601	-0.0154	-1.6366	2.0367	0.8774	2.263	0.9507	142.7
4XY	1.614	1.591	0.03052	-2.0118	2.0496	0.4583	0.9642	0.9409	142.7
4Y	1.613	1.589	-0.01457	-1.9962	1.6701	-0.2220	0.9626	2.239	142.7
5X	1.525	1.53	-0.01531	-1.6337	2.0408	0.8774	2.175	0.8796	140.2
5XY	1.525	1.503	0.03	-1.9563	2.0015	0.4583	0.8747	0.8531	140.2
5Y	1.54	1.503	-0.01453	-2.0049	1.6611	-0.2220	0.8901	2.153	140.2
6X	1.436	1.459	-0.01523	-1.5912	1.9978	0.8774	2.086	0.8088	137.7
6XY	1.438	1.418	0.0294	-1.9756	2.0109	0.4583	0.7878	0.768	137.7
6Y	1.468	1.416	-0.01448	-1.9584	1.6204	-0.2220	0.8182	2.066	137.7
7X	1.35	1.39	-0.01513	-1.5835	1.9574	0.8775	2	0.7402	135.2
7XY	1.35	1.332	0.02852	-1.8917	1.9406	0.4583	0.7004	0.6822	135.2
7Y	1.398	1.332	-0.01442	-1.9150	1.5997	-0.2221	0.7484	1.982	135.2
8X	1.282	1.336	-0.01503	-1.4615	1.9314	0.8775	1.932	0.6861	133.2
8XY	1.283	1.266	0.02769	-1.9376	1.9436	0.4583	0.6334	0.6165	133.2
8Y	1.343	1.265	-0.01434	-1.9145	1.5089	-0.2221	0.6935	1.915	133.2
12X	1.056	1.085	-0.01113	-1.6204	1.5242	0.8831	2.196	-0.05529	124.7
12XY	1.058	1.043	0.048	-1.5413	1.5542	0.4156	-0.08237	-0.09738	124.7
12Y	1.086	1.041	-0.01014	-1.4990	1.6530	-0.3262	-0.05376	2.181	124.7
13X	0.991	1.013	-0.01099	-1.6618	1.4943	0.8879	2.131	-0.127	122.2
13XY	0.9913	0.9776	0.04682	-1.4379	1.4778	0.3948	-0.1487	-0.1624	122.2
13Y	1.014	0.9773	-0.01005	-1.4597	1.6699	-0.3798	-0.1261	2.117	122.2
14X	0.9258	0.9412	-0.01082	-1.5947	1.4464	0.8936	2.066	-0.1988	119.7

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14XY	0.9281	0.916	0.04509	-1.4219	1.4545	0.3700	-0.2119	-0.224	119.7
14Y	0.9416	0.9134	-0.009953	-1.4119	1.6056	-0.4439	-0.1984	2.053	119.7
15X	0.8646	0.8734	-0.01067	-1.5617	1.4065	0.8993	2.005	-0.2666	117.2
15XY	0.865	0.8543	0.04302	-1.3514	1.3859	0.3451	-0.275	-0.2857	117.2
15Y	0.8734	0.854	-0.009878	-1.3721	1.5649	-0.5079	-0.2666	1.994	117.2
16X	0.8036	0.8057	-0.01054	-1.4739	1.3289	0.9050	1.944	-0.3343	114.7
16XY	0.8068	0.7977	0.04054	-1.3109	1.3405	0.3203	-0.3332	-0.3423	114.7
16Y	0.8057	0.7942	-0.009834	-1.2973	1.4784	-0.5719	-0.3343	1.934	114.7
17X	0.7484	0.7444	-0.01044	-1.4121	1.2712	0.9107	1.888	-0.3956	112.2
17XY	0.7487	0.7408	0.03768	-1.2077	1.2437	0.2955	-0.3913	-0.3992	112.2
17Y	0.7441	0.7405	-0.009826	-1.2422	1.4142	-0.6360	-0.3959	1.88	112.2
18X	0.7044	0.6956	-0.01039	-1.3080	1.1763	0.9152	1.844	-0.4444	110.2
18XY	0.7072	0.7003	0.03506	-1.2093	1.2139	0.2756	-0.4328	-0.4397	110.2
18Y	0.6954	0.6973	-0.009833	-1.1550	1.3044	-0.6872	-0.4446	1.837	110.2
21X	0.5412	0.5358	-0.01088	-0.8368	0.8543	0.8388	2.993	-1.916	99.39
21XY	0.5423	0.5361	0.05948	-0.9086	0.8991	0.2131	-1.91	-1.916	99.46
21Y	0.5342	0.5351	-0.01042	-0.8406	0.8434	-0.7297	-1.918	2.987	99.39
22X	0.4996	0.4947	-0.01066	-0.8461	0.8562	0.8217	2.952	-1.957	96.59
22XY	0.5003	0.4946	0.05689	-0.8066	0.8230	0.2041	-1.952	-1.957	96.66
22Y	0.4931	0.4939	-0.01024	-0.8482	0.8437	-0.7220	-1.959	2.946	96.59
23X	0.46	0.4558	-0.01038	-0.7792	0.7955	0.8019	2.912	-1.996	93.89
23XY	0.4623	0.4571	0.05352	-0.8028	0.8098	0.1937	-1.99	-1.995	93.95
23Y	0.4542	0.4547	-0.009997	-0.7851	0.7799	-0.7130	-1.998	2.907	93.89
24X	0.4242	0.4207	-0.01008	-0.7482	0.7629	0.7821	2.876	-2.031	91.19
24XY	0.4247	0.4199	0.04979	-0.7362	0.7469	0.1833	-2.027	-2.032	91.25
24Y	0.4192	0.4194	-0.009742	-0.7560	0.7455	-0.7041	-2.033	2.871	91.19
25X	0.3872	0.3844	-0.009907	-0.7160	0.7293	0.7755	2.839	-2.068	88.39
25XY	0.3889	0.3846	0.04763	-0.7275	0.7349	0.1797	-2.063	-2.067	88.45
25Y	0.383	0.3828	-0.009597	-0.7199	0.7156	-0.7011	-2.069	2.835	88.39
26X	0.3527	0.3505	-0.00973	-0.6944	0.7071	0.7688	2.805	-2.101	85.59
26XY	0.3533	0.3493	0.04525	-0.6888	0.6988	0.1762	-2.099	-2.103	85.65
26Y	0.3491	0.3487	-0.009443	-0.7006	0.6914	-0.6981	-2.103	2.801	85.59
27X	0.3184	0.3168	-0.009571	-0.6657	0.6787	0.7648	2.77	-2.135	82.79
27XY	0.32	0.3164	0.0431	-0.6733	0.6807	0.1741	-2.132	-2.136	82.84
27Y	0.3156	0.3147	-0.009304	-0.6703	0.6643	-0.6963	-2.136	2.767	82.79
28X	0.2863	0.2854	-0.009405	-0.6420	0.6540	0.7609	2.738	-2.167	79.99
28XY	0.2869	0.2837	0.04076	-0.6445	0.6523	0.1721	-2.165	-2.168	80.04
28Y	0.2841	0.2831	-0.009157	-0.6462	0.6400	-0.6945	-2.168	2.735	79.99
29X	0.2551	0.2547	-0.00923	-0.6130	0.6247	0.7571	2.707	-2.197	77.24
29XY	0.2568	0.254	0.03826	-0.6132	0.6207	0.1701	-2.195	-2.198	77.29
29Y	0.2537	0.2522	-0.009001	-0.6180	0.6103	-0.6928	-2.198	2.704	77.24
30X	0.2264	0.2266	-0.009047	-0.5816	0.5938	0.7532	2.678	-2.225	74.49
30XY	0.2271	0.2246	0.03555	-0.5976	0.6066	0.1680	-2.225	-2.227	74.54
30Y	0.2256	0.2239	-0.008838	-0.5831	0.5810	-0.6911	-2.226	2.676	74.49
31X	0.1981	0.1988	-0.008857	-0.5898	0.5970	0.7495	2.65	-2.253	71.79
31XY	0.1991	0.197	0.0327	-0.5921	0.5929	0.1660	-2.253	-2.255	71.83
31Y	0.198	0.196	-0.008666	-0.5943	0.5797	-0.6894	-2.254	2.648	71.79
33X	0.1097	0.1117	-0.007899	-0.3503	0.3407	0.6886	3.332	-3.111	59.79
33XY	0.1118	0.1109	0.02645	-0.1972	0.2315	0.1485	-3.111	-3.112	59.83
33Y	0.1114	0.1088	-0.007745	-0.3397	0.3373	-0.6381	-3.111	3.332	59.79
34X	0.08481	0.08693	-0.00737	-0.2882	0.2900	0.6248	4.039	-3.867	53.79
34XY	0.08671	0.08595	0.02609	-0.2035	0.2386	0.1331	-3.867	-3.868	53.83
34Y	0.0866	0.08405	-0.007223	-0.2809	0.2842	-0.5794	-3.867	4.038	53.79
35X	0.06476	0.06685	-0.006785	-0.2423	0.2392	0.5591	4.75	-4.618	47.79
35XY	0.06625	0.06563	0.02506	-0.1443	0.1739	0.1185	-4.619	-4.619	47.83
35Y	0.06655	0.06417	-0.006643	-0.2339	0.2373	-0.5185	-4.619	4.749	47.79

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.04807	0.04989	-0.006134	-0.2162	0.2100	0.4883	5.464	-5.366	41.79
36XY	0.05006	0.04951	0.02329	-0.1367	0.1627	0.1036	-5.366	-5.367	41.82
36Y	0.04948	0.0475	-0.005992	-0.2051	0.2128	-0.4527	-5.367	5.464	41.79
37X	0.03346	0.03473	-0.005416	-0.1748	0.1707	0.4205	6.181	-6.113	35.79
37XY	0.03464	0.03419	0.02178	-0.0971	0.1197	0.0887	-6.113	-6.113	35.82
37Y	0.03432	0.033	-0.005282	-0.1658	0.1704	-0.3904	-6.113	6.18	35.79
38X	0.02263	0.02395	-0.004724	-0.1393	0.1388	0.3512	6.901	-6.855	29.8
38XY	0.02511	0.02477	0.01887	-0.0837	0.1026	0.0738	-6.853	-6.854	29.82
38Y	0.02364	0.02228	-0.004616	-0.1347	0.1354	-0.3262	-6.855	6.901	29.8
39X	0.01285	0.01434	-0.003955	-0.1136	0.1160	0.2796	7.623	-7.595	23.8
39XY	0.01432	0.01406	0.0163	-0.0555	0.0705	0.0589	-7.595	-7.596	23.82
39Y	0.01408	0.0126	-0.003864	-0.1131	0.1111	-0.2595	-7.596	7.622	23.8
40X	0.005576	0.007105	-0.003124	-0.0987	0.0844	0.2077	8.346	-8.334	17.8
40XY	0.009327	0.009132	0.01237	-0.0642	0.0755	0.0441	-8.332	-8.332	17.81
40Y	0.006841	0.005354	-0.003043	-0.0821	0.0967	-0.1927	-8.334	8.346	17.8
41X	0.0004142	0.002241	-0.002215	0.0028	0.0498	0.1468	9.072	-9.07	11.8
41XY	0.002166	0.002045	0.009138	0.0346	-0.0267	0.0292	-9.07	-9.07	11.81
41Y	0.002038	0.0002844	-0.002151	-0.0476	-0.0050	-0.1370	-9.07	9.072	11.8
42X	-0.00092	0.006762	-0.001933	-0.0345	0.0015	0.0706	9.802	-9.796	5.798
42XY	0.009275	0.009237	0.002471	-0.0165	0.0207	0.0143	-9.794	-9.794	5.802
42Y	0.00669	-0.0009581	-0.001902	-0.0003	0.0327	-0.0659	-9.797	9.802	5.798

Joint Support Reactions for Load Case "LC4 WIND 45° C.T.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X X-M. Moment (kN-m)	X-M. Usage %	Y Y-M. Moment (kN-m)	Y-M. Usage %	Z Z-M. Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-263.85	0.0	-266.13	0.0	1779.42	0.0	0.0	1818.46	0.0	0.75	0.0	-0.7	0.0	0.12	0.0	0.0
ANX	-21.20	0.0	48.21	0.0	260.21	0.0	0.0	265.49	0.0	5.03	0.0	-1.1	0.0	-0.11	0.0	0.0
ANXY	-194.32	0.0	-193.06	0.0	-1250.63	0.0	0.0	1280.27	0.0	4.66	0.0	-4.7	0.0	-0.16	0.0	0.0
ANY	49.34	0.0	-19.05	0.0	254.19	0.0	0.0	259.64	0.0	1.05	0.0	-5.0	0.0	0.06	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC4 WIND 45° C.T.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.3123	1.3123	-3.3754	-1.3104	-1.3105	3.3754	1.8545	1.8375	-0.0530
10P	4.3323	4.3323	-5.9268	-4.3310	-4.3310	5.9268	1.3017	1.2951	-0.0480
11P	4.6920	4.6920	-6.6851	-4.6908	-4.6908	6.6850	1.1725	1.1700	-0.0772
19P	2.1995	2.1995	-3.9796	-2.1988	-2.1988	3.9796	0.6603	0.6606	-0.0578
20P	3.0567	3.0567	-5.7288	-3.0561	-3.0561	5.7287	0.5776	0.5792	-0.0831
32P	3.4702	3.4702	-9.0478	-3.4701	-3.4701	9.0477	0.1436	0.1440	-0.0424
ANP	1.1008	1.1008	-5.0810	262.7530	265.0337	-1774.3398	0.0000	0.0000	0.0000
1X	1.3123	1.3123	-3.3754	-1.3104	-1.3105	3.3754	1.9076	1.8377	-0.0156
1XY	1.3123	1.3123	-3.3754	-1.3104	-1.3104	3.3755	1.9078	1.8786	0.0310
1Y	0.6803	0.6803	-1.9954	-0.6784	-0.6784	1.9954	1.8546	1.8785	-0.0147
10X	4.3323	4.3323	-5.9268	-4.3311	-4.3310	5.9268	1.2310	1.2955	-0.0150
10XY	2.1083	2.1083	-3.9468	-2.1071	-2.1071	3.9469	1.2310	1.2150	0.0269
10Y	1.4763	1.4763	-2.5668	-1.4750	-1.4751	2.5668	1.3021	1.2150	-0.0143
11X	4.6920	4.6920	-6.6851	-4.6909	-4.6908	6.6851	1.1340	1.1697	-0.0113
11XY	1.8360	1.8360	-3.3251	-1.8349	-1.8349	3.3251	1.1346	1.1179	0.0491
11Y	1.8360	1.8360	-3.3251	-1.8348	-1.8349	3.3251	1.1722	1.1172	-0.0103

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	2.1995	2.1995	-3.9796	-2.1988	-2.1988	3.9796	0.6744	0.6627	-0.0104
19XY	2.1995	2.1995	-3.9796	-2.1988	-2.1988	3.9797	0.6732	0.6669	0.0328
19Y	2.1995	2.1995	-3.9796	-2.1988	-2.1988	3.9796	0.6623	0.6681	-0.0099
20X	3.0567	3.0567	-5.7288	-3.0561	-3.0561	5.7288	0.5839	0.5772	-0.0111
20XY	2.7417	2.7417	-4.9488	-2.7411	-2.7411	4.9488	0.5862	0.5795	0.0618
20Y	2.7417	2.7417	-4.9488	-2.7411	-2.7411	4.9488	0.5756	0.5771	-0.0106
32X	3.4702	3.4702	-9.0478	-3.4701	-3.4701	9.0477	0.1437	0.1457	-0.0084
32XY	3.4702	3.4702	-9.0478	-3.4701	-3.4701	9.0478	0.1434	0.1422	0.0262
32Y	3.4702	3.4702	-9.0478	-3.4701	-3.4701	9.0477	0.1453	0.1425	-0.0083
ANX	1.1008	1.1008	-5.0810	20.0979	-49.3072	-255.1325	0.0000	0.0000	0.0000
ANXY	1.1008	1.1008	-5.0810	193.2228	191.9550	1255.7093	0.0000	0.0000	0.0000
ANY	1.1008	1.1008	-5.0810	-50.4423	17.9508	-249.1105	0.0000	0.0000	0.0000
2S	1.3123	1.3123	-2.3754	-1.3105	-1.3106	2.3754	1.7594	1.7444	-0.0528
3S	1.3057	1.3057	-1.9332	-1.3040	-1.3040	1.9332	1.6860	1.6726	-0.0526
4S	1.2574	1.2574	-2.3178	-1.2558	-1.2558	2.3177	1.6127	1.6009	-0.0522
5S	1.3111	1.3111	-1.9996	-1.3096	-1.3096	1.9996	1.5400	1.5295	-0.0515
6S	0.6858	0.6858	-1.0618	-0.6843	-0.6843	1.0618	1.4689	1.4596	-0.0508
7S	1.2042	1.2042	-1.8771	-1.2028	-1.2028	1.8770	1.3984	1.3901	-0.0498
8S	0.5185	0.5185	-0.8152	-0.5171	-0.5171	0.8152	1.3442	1.3369	-0.0488
12S	3.7342	3.7342	-4.9335	-3.7331	-3.7331	4.9334	1.0869	1.0854	-0.0760
13S	4.5470	4.5470	-6.2869	-4.5460	-4.5460	6.2868	1.0137	1.0128	-0.0746
14S	3.9838	3.9838	-5.4934	-3.9829	-3.9829	5.4933	0.9434	0.9430	-0.0726
15S	1.9308	1.9308	-3.4868	-1.9300	-1.9300	3.4868	0.8733	0.8732	-0.0701
16S	0.8030	0.8030	-1.3534	-0.8022	-0.8022	1.3533	0.8082	0.8085	-0.0671
17S	1.7202	1.7202	-3.1482	-1.7195	-1.7195	3.1482	0.7440	0.7442	-0.0637
18S	0.9172	0.9172	-1.7948	-0.9165	-0.9165	1.7948	0.6979	0.6983	-0.0605
21S	1.1444	1.1444	-1.9840	-1.1439	-1.1439	1.9839	0.5340	0.5355	-0.0802
22S	4.8224	4.8224	-5.6507	-4.8219	-4.8219	5.6507	0.4929	0.4945	-0.0771
23S	3.6780	3.6780	-3.6668	-3.6775	-3.6775	3.6667	0.4558	0.4574	-0.0732
24S	2.3478	2.3478	-4.4346	-2.3474	-2.3474	4.4345	0.4188	0.4203	-0.0689
25S	1.2148	1.2148	-2.5678	-1.2145	-1.2145	2.5678	0.3836	0.3851	-0.0664
26S	2.4794	2.4794	-5.4135	-2.4791	-2.4791	5.4135	0.3488	0.3501	-0.0637
27S	1.2646	1.2646	-2.8457	-1.2643	-1.2643	2.8456	0.3161	0.3174	-0.0612
28S	2.4889	2.4889	-5.6511	-2.4887	-2.4887	5.6511	0.2838	0.2850	-0.0586
29S	1.3693	1.3693	-3.0554	-1.3691	-1.3691	3.0554	0.2543	0.2555	-0.0558
30S	2.1667	2.1667	-5.0007	-2.1665	-2.1665	5.0007	0.2253	0.2263	-0.0528
31S	2.5347	2.5347	-6.1912	-2.5345	-2.5345	6.1912	0.1980	0.1989	-0.0496
33S	3.7570	3.7570	-10.1147	-3.7569	-3.7569	10.1147	0.1122	0.1125	-0.0417
34S	3.9073	3.9073	-10.9430	-3.9072	-3.9072	10.9430	0.0869	0.0873	-0.0405
35S	11.3288	11.3288	-17.2016	-11.3287	-11.3287	17.2015	0.0663	0.0666	-0.0384
36S	10.5839	10.5839	-16.2721	-10.5839	-10.5839	16.2721	0.0494	0.0498	-0.0356
37S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5312	0.0331	0.0335	-0.0329
371S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5312	0.0333	0.0341	-0.0197
372S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5312	0.0337	0.0333	-0.0196
373S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5313	0.0345	0.0336	0.0084
374S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5313	0.0340	0.0344	0.0083
38S	2.9152	2.9152	-10.4902	-2.9151	-2.9151	10.4902	0.0236	0.0239	-0.0285
39S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0252	0.0126	0.0129	-0.0244
391S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0252	0.0127	0.0136	-0.0150
392S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0252	0.0133	0.0128	-0.0150
393S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0253	0.0142	0.0133	0.0065
394S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0253	0.0135	0.0142	0.0064
40S	6.0658	6.0658	-14.7552	-6.0658	-6.0658	14.7551	0.0078	0.0080	-0.0186
41S	5.2849	5.2849	-13.1041	-5.2849	-5.2849	13.1041	0.0003	0.0005	-0.0136
411S	2.4845	2.4845	-11.7505	-2.4845	-2.4845	11.7505	0.0004	0.0013	-0.0047
412S	2.4845	2.4845	-11.7505	-2.4845	-2.4845	11.7505	0.0011	0.0004	-0.0047

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	2.4845	2.4845	-11.7505	-2.4845	-2.4845	11.7505	0.0021	0.0011	-0.0002
414S	2.4845	2.4845	-11.7505	-2.4845	-2.4845	11.7505	0.0012	0.0021	-0.0003
42S	1.7969	1.7969	-8.5456	-1.7969	-1.7969	8.5456	0.0016	0.0017	-0.0064
2X	1.3123	1.3123	-2.3754	-1.3105	-1.3106	2.3754	1.7918	1.7452	-0.0155
2XY	1.3123	1.3123	-2.3754	-1.3105	-1.3105	2.3755	1.7931	1.7663	0.0309
2Y	0.6803	0.6803	-0.9954	-0.6785	-0.6785	0.9954	1.7601	1.7649	-0.0146
3X	1.3057	1.3057	-1.9332	-1.3040	-1.3040	1.9332	1.7027	1.6727	-0.0155
3XY	1.3057	1.3057	-1.9332	-1.3040	-1.3040	1.9333	1.7028	1.6777	0.0308
3Y	1.3057	1.3057	-1.9332	-1.3040	-1.3040	1.9332	1.6861	1.6776	-0.0146
4X	1.2574	1.2574	-2.3178	-1.2558	-1.2558	2.3178	1.6126	1.6007	-0.0154
4XY	1.2574	1.2574	-2.3178	-1.2558	-1.2558	2.3178	1.6142	1.5909	0.0305
4Y	0.6254	0.6254	-0.9378	-0.6238	-0.6238	0.9378	1.6126	1.5891	-0.0146
5X	1.9431	1.9431	-3.3796	-1.9416	-1.9416	3.3796	1.5246	1.5296	-0.0153
5XY	1.9431	1.9431	-3.3796	-1.9416	-1.9416	3.3797	1.5247	1.5031	0.0300
5Y	1.3111	1.3111	-1.9996	-1.3096	-1.3096	1.9996	1.5401	1.5029	-0.0145
6X	1.3178	1.3178	-2.4418	-1.3163	-1.3163	2.4418	1.4358	1.4588	-0.0152
6XY	1.3178	1.3178	-2.4418	-1.3163	-1.3163	2.4419	1.4378	1.4180	0.0294
6Y	0.6858	0.6858	-1.0618	-0.6843	-0.6843	1.0618	1.4682	1.4157	-0.0145
7X	1.2042	1.2042	-1.8771	-1.2029	-1.2028	1.8770	1.3502	1.3902	-0.0151
7XY	1.2042	1.2042	-1.8771	-1.2029	-1.2029	1.8771	1.3504	1.3322	0.0285
7Y	1.2042	1.2042	-1.8771	-1.2028	-1.2029	1.8770	1.3984	1.3320	-0.0144
8X	1.1505	1.1505	-2.1952	-1.1492	-1.1491	2.1952	1.2820	1.3361	-0.0150
8XY	1.1505	1.1505	-2.1952	-1.1492	-1.1492	2.1952	1.2834	1.2665	0.0277
8Y	0.5185	0.5185	-0.8152	-0.5171	-0.5172	0.8152	1.3435	1.2650	-0.0143
12X	3.7342	3.7342	-4.9335	-3.7331	-3.7331	4.9335	1.0561	1.0847	-0.0111
12XY	0.8782	0.8782	-1.5735	-0.8771	-0.8771	1.5735	1.0576	1.0426	0.0480
12Y	0.8782	0.8782	-1.5735	-0.8771	-0.8771	1.5735	1.0862	1.0408	-0.0101
13X	4.5470	4.5470	-6.2869	-4.5460	-4.5460	6.2869	0.9910	1.0130	-0.0110
13XY	1.6910	1.6910	-2.9269	-1.6900	-1.6900	2.9269	0.9913	0.9776	0.0468
13Y	1.6910	1.6910	-2.9269	-1.6900	-1.6900	2.9269	1.0139	0.9773	-0.0101
14X	3.9838	3.9838	-5.4934	-3.9829	-3.9829	5.4934	0.9258	0.9412	-0.0108
14XY	0.8128	0.8128	-1.3534	-0.8119	-0.8119	1.3535	0.9281	0.9160	0.0451
14Y	1.1278	1.1278	-2.1334	-1.1269	-1.1269	2.1334	0.9416	0.9134	-0.0100
15X	1.9308	1.9308	-3.4868	-1.9300	-1.9300	3.4868	0.8646	0.8734	-0.0107
15XY	1.6158	1.6158	-2.7068	-1.6150	-1.6150	2.7069	0.8650	0.8543	0.0430
15Y	1.9308	1.9308	-3.4868	-1.9300	-1.9300	3.4868	0.8734	0.8540	-0.0099
16X	0.8030	0.8030	-1.3534	-0.8022	-0.8022	1.3534	0.8036	0.8057	-0.0105
16XY	0.8030	0.8030	-1.3534	-0.8022	-0.8022	1.3535	0.8068	0.7977	0.0405
16Y	0.8030	0.8030	-1.3534	-0.8022	-0.8022	1.3534	0.8057	0.7942	-0.0098
17X	1.7202	1.7202	-3.1482	-1.7195	-1.7195	3.1482	0.7484	0.7444	-0.0104
17XY	1.4052	1.4052	-2.3682	-1.4045	-1.4045	2.3683	0.7487	0.7408	0.0377
17Y	1.7202	1.7202	-3.1482	-1.7195	-1.7195	3.1482	0.7441	0.7405	-0.0098
18X	0.9172	0.9172	-1.7948	-0.9165	-0.9165	1.7948	0.7044	0.6956	-0.0104
18XY	0.6022	0.6022	-1.0148	-0.6015	-0.6015	1.0149	0.7072	0.7003	0.0351
18Y	0.9172	0.9172	-1.7948	-0.9165	-0.9165	1.7948	0.6954	0.6973	-0.0098
21X	1.1444	1.1444	-1.9840	-1.1439	-1.1439	1.9839	0.5412	0.5358	-0.0109
21XY	1.1444	1.1444	-1.9840	-1.1439	-1.1439	1.9840	0.5423	0.5361	0.0595
21Y	1.1444	1.1444	-1.9840	-1.1439	-1.1439	1.9840	0.5342	0.5351	-0.0104
22X	2.2774	2.2774	-3.8507	-2.2769	-2.2769	3.8507	0.4996	0.4947	-0.0107
22XY	3.5504	3.5504	-4.7507	-3.5499	-3.5499	4.7508	0.5003	0.4946	0.0569
22Y	2.2774	2.2774	-3.8507	-2.2769	-2.2769	3.8507	0.4931	0.4939	-0.0102
23X	1.1330	1.1330	-1.8668	-1.1325	-1.1325	1.8668	0.4600	0.4558	-0.0104
23XY	1.1330	1.1330	-1.8668	-1.1325	-1.1325	1.8668	0.4623	0.4571	0.0535
23Y	1.1330	1.1330	-1.8668	-1.1325	-1.1325	1.8668	0.4542	0.4547	-0.0100
24X	2.3478	2.3478	-4.4346	-2.3474	-2.3474	4.4346	0.4242	0.4207	-0.0101
24XY	2.3478	2.3478	-4.4346	-2.3474	-2.3474	4.4347	0.4247	0.4199	0.0498

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	2.3478	2.3478	-4.4346	-2.3474	-2.3474	4.4346	0.4192	0.4194	-0.0097
25X	1.2148	1.2148	-2.5678	-1.2145	-1.2145	2.5678	0.3872	0.3844	-0.0099
25XY	1.2148	1.2148	-2.5678	-1.2145	-1.2145	2.5679	0.3889	0.3846	0.0476
25Y	1.2148	1.2148	-2.5678	-1.2145	-1.2145	2.5678	0.3830	0.3828	-0.0096
26X	2.4794	2.4794	-5.4135	-2.4791	-2.4791	5.4135	0.3527	0.3505	-0.0097
26XY	2.4794	2.4794	-5.4135	-2.4791	-2.4791	5.4136	0.3533	0.3493	0.0453
26Y	2.4794	2.4794	-5.4135	-2.4791	-2.4791	5.4135	0.3491	0.3487	-0.0094
27X	1.2646	1.2646	-2.8457	-1.2643	-1.2643	2.8457	0.3184	0.3168	-0.0096
27XY	1.2646	1.2646	-2.8457	-1.2643	-1.2643	2.8458	0.3200	0.3164	0.0431
27Y	1.2646	1.2646	-2.8457	-1.2643	-1.2643	2.8457	0.3156	0.3147	-0.0093
28X	2.4889	2.4889	-5.6511	-2.4887	-2.4887	5.6511	0.2863	0.2854	-0.0094
28XY	2.4889	2.4889	-5.6511	-2.4887	-2.4887	5.6512	0.2869	0.2837	0.0408
28Y	2.4889	2.4889	-5.6511	-2.4887	-2.4887	5.6511	0.2841	0.2831	-0.0092
29X	1.2243	1.2243	-2.8054	-1.2241	-1.2241	2.8054	0.2551	0.2547	-0.0092
29XY	1.2243	1.2243	-2.8054	-1.2241	-1.2241	2.8055	0.2568	0.2540	0.0383
29Y	1.2243	1.2243	-2.8054	-1.2241	-1.2241	2.8054	0.2537	0.2522	-0.0090
30X	2.1667	2.1667	-5.0007	-2.1665	-2.1665	5.0007	0.2264	0.2266	-0.0090
30XY	2.1667	2.1667	-5.0007	-2.1665	-2.1665	5.0007	0.2271	0.2246	0.0355
30Y	2.1667	2.1667	-5.0007	-2.1665	-2.1665	5.0007	0.2256	0.2239	-0.0088
31X	2.5347	2.5347	-6.1912	-2.5345	-2.5345	6.1912	0.1981	0.1988	-0.0089
31XY	2.6797	2.6797	-6.4412	-2.6795	-2.6795	6.4412	0.1991	0.1970	0.0327
31Y	2.6797	2.6797	-6.4412	-2.6795	-2.6795	6.4412	0.1980	0.1960	-0.0087
33X	3.7570	3.7570	-10.1147	-3.7569	-3.7569	10.1147	0.1097	0.1117	-0.0079
33XY	3.7570	3.7570	-10.1147	-3.7569	-3.7569	10.1147	0.1118	0.1109	0.0265
33Y	3.7570	3.7570	-10.1147	-3.7569	-3.7569	10.1147	0.1114	0.1088	-0.0077
34X	3.9073	3.9073	-10.9430	-3.9072	-3.9072	10.9430	0.0848	0.0869	-0.0074
34XY	3.9073	3.9073	-10.9430	-3.9072	-3.9072	10.9431	0.0867	0.0859	0.0261
34Y	3.9073	3.9073	-10.9430	-3.9072	-3.9072	10.9430	0.0866	0.0840	-0.0072
35X	4.1188	4.1188	-12.0916	-4.1188	-4.1187	12.0916	0.0648	0.0669	-0.0068
35XY	4.1188	4.1188	-12.0916	-4.1187	-4.1187	12.0916	0.0662	0.0656	0.0251
35Y	6.6178	6.6178	-13.1916	-6.6177	-6.6178	13.1916	0.0665	0.0642	-0.0066
36X	5.1759	5.1759	-13.4921	-5.1759	-5.1759	13.4921	0.0481	0.0499	-0.0061
36XY	4.2889	4.2889	-11.7471	-4.2889	-4.2889	11.7471	0.0501	0.0495	0.0233
36Y	3.3739	3.3739	-11.1621	-3.3739	-3.3739	11.1621	0.0495	0.0475	-0.0060
37X	3.5572	3.5572	-11.3712	-3.5572	-3.5572	11.3712	0.0335	0.0347	-0.0054
37XY	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5313	0.0346	0.0342	0.0218
37Y	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5312	0.0343	0.0330	-0.0053
38X	2.9152	2.9152	-10.4902	-2.9151	-2.9151	10.4902	0.0226	0.0240	-0.0047
38XY	2.9152	2.9152	-10.4902	-2.9151	-2.9151	10.4902	0.0251	0.0248	0.0189
38Y	3.0602	3.0602	-10.7402	-3.0601	-3.0601	10.7402	0.0236	0.0223	-0.0046
39X	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0252	0.0129	0.0143	-0.0040
39XY	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0253	0.0143	0.0141	0.0163
39Y	3.7203	3.7203	-12.8652	-3.7203	-3.7203	12.8652	0.0141	0.0126	-0.0039
40X	6.4648	6.4648	-16.4452	-6.4648	-6.4648	16.4452	0.0056	0.0071	-0.0031
40XY	2.8608	2.8608	-11.7852	-2.8608	-2.8608	11.7852	0.0093	0.0091	0.0124
40Y	4.6628	4.6628	-14.1152	-4.6628	-4.6628	14.1152	0.0068	0.0054	-0.0030
41X	2.8809	2.8809	-11.9741	-2.8809	-2.8809	11.9741	0.0004	0.0022	-0.0022
41XY	2.0799	2.0799	-10.1341	-2.0799	-2.0799	10.1342	0.0022	0.0020	0.0091
41Y	2.0799	2.0799	-10.1341	-2.0799	-2.0799	10.1341	0.0020	0.0003	-0.0022
42X	1.7969	1.7969	-8.5456	-1.7969	-1.7969	8.5456	-0.0009	0.0068	-0.0019
42XY	1.7969	1.7969	-8.5456	-1.7969	-1.7969	8.5456	0.0093	0.0092	0.0025
42Y	1.7969	1.7969	-8.5456	-1.7969	-1.7969	8.5456	0.0067	-0.0010	-0.0019

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	-0.00	-0.03	0.03	-16.02	39.45	-5.00
1X	-0.02	-0.03	0.04	13.56	99.10	4.21
1XY	-0.01	-0.03	0.04	44.20	-93.38	13.76
1Y	0.00	-0.04	0.03	-47.05	-25.75	-14.66
2P	-0.01	16.00	-39.42	-0.11	2.98	6.35
2X	-0.03	-13.59	-99.07	-7.21	-156.83	-8.32
2XY	-0.02	-44.24	93.42	-81.55	175.68	-50.32
2Y	0.01	47.01	25.78	76.29	16.27	49.32
3P	-0.01	0.08	-2.95	6.77	-8.35	2.74
3X	-0.05	7.18	156.87	-32.75	248.11	-10.23
3XY	-0.02	81.52	-175.64	92.54	-189.47	69.62
3Y	0.01	-76.32	-16.24	-116.73	81.04	-77.22
4P	-0.01	-6.80	8.38	-69.38	164.08	-30.47
4X	-0.06	32.72	-248.08	28.03	-264.15	24.30
4XY	-0.03	-92.57	189.51	-183.28	377.85	-110.34
4Y	0.02	116.70	-81.01	130.94	-45.60	99.05
5P	-0.02	69.35	-164.06	42.58	-66.79	44.77
5X	-0.08	-28.06	264.19	-226.37	691.22	-101.77
5XY	-0.04	183.24	-377.81	273.25	-470.89	182.60
5Y	0.02	-130.97	45.63	-347.77	449.76	-191.50
6P	-0.02	-42.61	66.81	-253.56	558.33	-118.47
6X	-0.09	226.34	-691.18	190.24	-289.48	166.63
6XY	-0.05	-273.29	470.92	-665.10	1168.53	-375.35
6Y	0.02	347.74	-449.74	144.96	-244.30	197.08
7P	-0.02	253.54	-558.30	-358.57	456.22	-52.52
7X	-0.11	-190.26	289.52	-1264.59	758.24	-727.43
7XY	-0.06	665.07	-1168.50	1069.57	-1222.95	867.32
7Y	0.03	-144.99	244.33	-149.29	1884.18	-147.14
8P	-0.03	358.55	-456.20	1992.14	-2765.23	1497.25
8X	-0.12	1264.57	-758.20	3291.61	3443.37	2902.03
8XY	-0.06	-1069.60	1222.98	-4145.60	4805.06	-3321.79
8Y	0.03	149.26	-1884.15	-2768.26	-4030.62	-1668.15
9P	92.39	3364.01	-538.79	2262.21	-526.18	1372.58
9X	18.00	-4762.35	-105.75	-2835.57	277.16	-1853.60
9XY	78.76	6329.03	-459.60	3422.52	-293.98	2379.01
9Y	150.95	-4807.54	-879.81	-3005.52	-1061.20	-1906.09
10P	180.01	1243.93	-1955.26	380.74	-550.91	562.17
10X	-29.13	2200.33	1809.77	258.65	1466.36	850.86
10XY	127.32	-2224.65	2615.58	-469.06	494.77	-932.08
10Y	328.18	-1403.71	-2846.73	-907.51	20.56	-799.73
11P	180.00	-380.77	550.93	-632.67	1285.99	-405.38
11X	-29.15	-258.68	-1466.33	157.01	-816.41	-40.67
11XY	127.31	469.03	-494.75	-571.29	1168.26	-40.90
11Y	328.19	907.48	-20.53	512.40	-387.59	567.95
12P	180.00	632.64	-1285.96	410.42	-717.54	417.22
12X	-29.16	-157.04	816.44	-732.45	1682.95	-355.80
12XY	127.30	571.26	-1168.24	434.37	-746.39	402.25
12Y	328.19	-512.42	387.62	-922.72	1549.67	-574.06
13P	180.00	-410.45	717.56	-1007.94	1977.70	-567.36
13X	-29.18	732.42	-1682.92	449.73	-962.34	472.86
13XY	127.30	-434.39	746.41	-1038.90	1985.14	-589.32
13Y	328.20	922.70	-1549.64	581.99	-814.47	601.87
14P	180.00	1007.92	-1977.68	620.59	-1021.19	651.40

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X -29.19 -449.75 962.36 -1202.81 2365.74 -661.03 1331.24
14XY 127.29 1038.87 -1985.11 691.69 -1164.56 692.23 -1259.87
14Y 328.21 -582.01 814.50 -1224.00 2377.72 -722.41 1276.89
15P 180.00 -620.62 1021.22 -1722.61 3151.94 -937.29 1669.26
15X -29.21 1202.79 -2365.72 672.43 -1323.26 750.09 -1475.59
15XY 127.29 -691.72 1164.58 -1577.04 2913.60 -907.50 1631.27
15Y 328.22 1223.98 -2377.69 751.61 -1218.09 790.24 -1438.31
16P 180.00 1722.59 -3151.92 1853.90 -2672.57 1788.24 -2912.24
16X -29.22 -672.46 1323.28 -1787.69 3467.64 -1230.07 2395.46
16XY 127.28 1577.01 -2913.58 1594.23 -2239.33 1585.62 -2576.45
16Y 328.23 -751.63 1218.12 -1686.95 3700.63 -1219.29 2459.38
17P 180.00 -1853.92 2672.59 -4037.32 4525.78 -3728.64 4555.93
17X -29.24 1787.67 -3467.62 -1201.65 464.92 370.90 -1900.44
17XY 127.28 -1594.25 2239.35 -3102.39 2925.79 -2972.56 3269.08
17Y 328.24 1686.93 -3700.61 -566.15 1742.85 709.36 -1239.09
18P 77.03 -6055.00 381.79 -3586.83 275.69 -1442.79 98.38
18X 299.08 520.95 -1140.21 307.10 696.90 123.91 -66.34
18XY 87.60 4262.54 155.30 2509.37 125.24 1013.34 41.98
18Y -137.96 832.05 1659.63 363.60 -324.73 178.92 199.75
19P -2.54 -2333.88 2738.69 -903.76 1347.20 -1156.30 1459.25
19X 93.81 314.96 -749.26 28.64 140.32 122.71 -217.48
19XY 49.37 -1876.68 1672.13 -664.87 822.55 -907.69 890.96
19Y -42.36 504.77 9.44 -25.37 111.40 171.21 43.16
20P -2.54 903.75 -1347.19 -170.08 489.52 262.02 -306.31
20X 93.80 -28.65 -140.30 54.24 -176.61 9.14 -113.18
20XY 49.37 664.85 -822.53 -251.04 656.46 147.79 -59.31
20Y -42.35 25.36 -111.39 93.24 -116.86 42.36 -81.52
21P -2.54 170.07 -489.51 216.21 -432.49 143.06 -341.48
21X 93.78 -54.26 176.62 -584.80 1192.44 -236.69 507.06
21XY 49.37 251.03 -656.44 220.49 -435.75 174.64 -404.51
21Y -42.34 -93.26 116.88 -594.41 1183.69 -254.69 481.69
22P -2.54 -216.22 432.50 -730.22 1458.32 -350.53 700.30
22X 93.77 584.78 -1192.43 338.00 -646.52 341.77 -681.09
22XY 49.36 -220.50 435.76 -749.11 1488.99 -359.12 712.87
22Y -42.32 594.40 -1183.68 363.73 -607.52 354.86 -663.41
23P -2.53 730.21 -1458.30 427.73 -676.09 413.55 -762.28
23X 93.76 -338.02 646.54 -1091.11 2306.01 -510.40 1054.48
23XY 49.36 749.10 -1488.98 546.39 -895.84 462.68 -851.72
23Y -42.31 -363.74 607.54 -1209.60 2087.98 -561.91 962.69
24P -2.53 -427.74 676.10 -1277.82 2364.77 -609.13 1086.02
24X 93.74 1091.09 -2306.00 586.99 -1204.82 599.32 -1253.86
24XY 49.36 -546.41 895.85 -1451.72 2677.38 -713.62 1276.15
24Y -42.30 1209.59 -2087.97 759.11 -895.53 703.11 -1065.54
25P -2.53 1277.81 -2364.76 583.33 -777.77 664.69 -1122.33
25X 93.73 -587.01 1204.83 -1772.47 3559.16 -842.67 1701.43
25XY 49.35 1451.71 -2677.36 812.71 -1169.61 808.72 -1373.92
25Y -42.29 -759.13 895.54 -2007.12 3151.67 -987.94 1445.43
26P -2.53 -583.34 777.78 -1773.12 3151.26 -841.59 1403.23
26X 93.72 1772.46 -3559.15 796.09 -1501.86 917.34 -1807.50
26XY 49.35 -812.72 1169.62 -2001.24 3530.35 -1004.99 1678.56
26Y -42.27 2007.11 -3151.66 1009.78 -1128.35 1077.46 -1528.57
27P -2.53 1773.11 -3151.25 508.62 -593.07 829.72 -1361.57
27X 93.70 -796.10 1501.87 -2017.52 3984.22 -1023.13 1994.94
27XY 49.35 2001.22 -3530.34 685.59 -856.37 977.02 -1595.17
27Y -42.26 -1009.79 1128.36 -2193.60 3643.37 -1164.87 1735.18
28P -2.52 -508.63 593.08 -1212.46 1989.75 -625.85 939.21

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X 93.69 2017.51 -3984.21 698.64 -1370.18 987.69 -1947.05
28XY 49.35 -685.60 856.38 -1340.25 2051.94 -736.67 1057.57
28Y -42.25 2193.59 -3643.36 725.04 -1164.42 1061.32 -1748.28
29P -2.52 1212.45 -1989.74 1146.15 -933.02 873.56 -1082.50
29X 93.68 -698.65 1370.19 -346.15 1097.17 -386.96 913.84
29XY 49.34 1340.24 -2051.93 1102.58 -871.86 904.75 -1082.89
29Y -42.24 -725.05 1164.43 -244.10 1276.52 -358.94 904.06
30P -2.52 -1146.16 933.03 -4545.22 5500.32 -1002.89 1133.63
30X 93.66 346.14 -1097.16 -2565.30 3669.39 -391.04 453.26
30XY 49.34 -1102.59 871.87 -4588.68 5567.76 -1002.87 1134.74
30Y -42.23 244.09 -1276.51 -2808.79 3374.43 -451.93 369.68
31P -117.18 -7103.26 665.12 -1233.67 178.71 -1298.94 131.47
31X 841.01 -780.71 -4328.63 -226.21 1326.24 -156.88 -467.79
31XY 166.20 7181.68 -673.88 1188.93 -167.77 1304.19 -131.13
31Y -784.14 399.97 4301.50 90.64 -1313.41 76.44 465.56
32P -117.18 1233.67 -178.71 1041.54 -49.99 373.69 -37.56
32X 841.00 226.21 -1326.23 73.06 1265.34 49.15 -10.00
32XY 166.19 -1188.94 167.77 -1009.57 46.80 -361.09 35.24
32Y -784.13 -90.64 1313.41 -14.23 -1289.75 -17.22 3.89
33P -117.18 -1041.54 49.99 587.99 27.51 -74.49 12.73
33X 840.99 -73.06 -1265.34 -7.57 886.99 -13.24 -62.14
33XY 166.19 1009.56 -46.80 -654.31 4.83 58.35 -6.89
33Y -784.12 14.23 1289.75 14.53 -815.50 4.72 77.89
34P -117.17 -587.98 -27.51 -466.90 -15.36 -173.26 -7.04
34X 840.97 7.57 -886.99 49.87 126.06 9.43 -124.98
34XY 166.19 654.31 -4.83 400.95 -6.48 173.32 -1.86
34Y -784.11 -14.53 815.50 43.41 -179.34 4.74 104.49
35P -117.17 466.90 15.36 1688.51 -11.06 354.02 0.71
35X 840.97 -49.87 -126.06 -77.36 1584.93 -20.90 239.61
35XY 166.19 -400.96 6.48 -1509.36 -1.06 -313.76 0.89
35Y -784.10 -43.41 179.33 -85.11 -1590.41 -21.11 -231.76
36P -117.17 -1688.51 11.06 -1153.40 7.22 -466.77 3.00
36X 840.96 77.36 -1584.92 28.11 -238.24 17.32 -299.45
36XY 166.19 1509.36 1.06 1100.66 3.77 428.68 0.79
36Y -784.09 85.11 1590.40 33.23 245.80 19.44 301.59
37P -117.17 1153.40 -7.22 1862.66 2.12 495.37 -0.84
37X 840.95 -28.11 238.24 -67.06 1062.51 -15.63 213.64
37XY 166.19 -1100.67 -3.77 -1909.42 3.18 -494.39 -0.10
37Y -784.09 -33.23 -245.80 -70.10 -1036.61 -16.97 -210.63
38P -117.17 -1862.66 -2.12 -1571.05 -4.10 -563.97 -1.02
38X 840.95 67.06 -1062.51 291.37 -287.40 58.87 -221.72
38XY 166.18 1909.42 -3.18 2092.73 -2.11 657.34 -0.87
38Y -784.08 70.10 1036.61 294.00 260.03 59.80 212.97
39P -117.17 1571.06 4.10 2415.17 -11.53 654.72 -1.22
39X 840.94 -291.37 287.40 -1189.10 3518.53 -243.16 625.11
39XY 166.18 -2092.74 2.11 -4790.81 -2.22 -1130.59 -0.02
39Y -784.08 -294.00 -260.03 -1196.82 -3528.60 -244.86 -622.27
40P -117.17 -2415.17 11.53 -1430.05 6.61 -631.56 2.98
40X 840.94 1189.10 -3518.53 2337.41 -3720.38 579.21 -1188.96
40XY 166.18 4790.81 2.22 6112.50 5.51 1790.82 1.27
40Y -784.07 1196.82 3528.60 2337.76 3734.67 580.54 1192.96
41P -117.17 1430.05 -6.61 1050.49 24.13 421.47 2.98
41X 840.94 -2337.41 3720.38 -2795.35 4238.61 -872.10 1352.30
41XY 166.18 -6112.50 -5.51 -6628.66 12.99 -2164.84 1.27
41Y -784.07 -2337.76 -3734.67 -2787.22 -4200.76 -870.78 -1348.30

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 5 "LC5 WIND 0° DEFLEX"

Equilibrium Joint Positions and Rotations for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	0.6453	-0.002606	-0.02051	-0.0247	0.6850	-0.1603	1.295	0.6474	150.9
10P	0.4257	-0.007381	-0.01934	0.0131	0.5855	-0.1604	1.076	0.6426	131.6
11P	0.3899	-0.003838	-0.02287	0.0600	0.5301	-0.1616	1.53	1.136	127.6
19P	0.2302	0.003723	-0.01864	-0.0115	0.3853	-0.1834	1.37	1.144	108.6
20P	0.1995	0.002813	-0.02329	0.0065	0.3049	-0.1738	2.652	2.455	102.2
32P	0.04894	-3.095e-005	-0.01412	0.0020	0.1628	-0.1495	2.501	2.452	66.11
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	0.6458	-0.002476	-0.02026	0.0022	0.6426	0.0803	1.296	-0.6525	150.9
1XY	0.6459	-0.002861	-0.006075	0.0497	0.6124	0.0831	-0.004097	-0.6529	150.9
1Y	0.6454	-0.00299	-0.005355	0.0136	0.6545	-0.1517	-0.004589	0.647	150.9
10X	0.4405	-0.007114	-0.01884	0.0053	0.5752	0.0803	1.09	-0.6571	131.6
10XY	0.4407	0.007388	-0.006393	-0.0053	0.5818	0.0831	-0.2093	-0.6426	131.6
10Y	0.4259	0.007252	-0.005686	0.0024	0.5942	-0.1517	-0.2241	0.6573	131.6
11X	0.3981	-0.003806	-0.02394	0.0351	0.6028	0.0878	1.538	-1.144	127.6
11XY	0.3982	0.004363	-0.0009774	-0.0226	0.5946	0.0898	-0.7418	-1.136	127.6
11Y	0.3901	0.004018	-0.001822	-0.0635	0.5204	-0.1529	-0.7499	1.144	127.6
19X	0.2228	0.004775	-0.01958	0.0389	0.4203	0.1700	1.363	-1.135	108.6
19XY	0.2232	-0.002968	-0.003017	-0.0298	0.4081	0.1660	-0.9168	-1.143	108.6
19Y	0.2306	-0.002828	-0.003928	0.0028	0.3740	-0.1737	-0.9094	1.137	108.6
20X	0.1949	0.002222	-0.02295	0.0300	0.2879	0.1692	2.647	-2.45	102.2
20XY	0.195	-0.0008785	0.001553	0.0343	0.2787	0.1643	-2.257	-2.453	102.2
20Y	0.1997	-0.001812	0.001811	-0.0133	0.2952	-0.1647	-2.252	2.45	102.2
32X	0.04795	0.001021	-0.01399	-0.0056	0.1596	0.1454	2.5	-2.451	66.11
32XY	0.04867	0.0001561	-0.002397	0.0050	0.1580	0.1420	-2.403	-2.452	66.12
32Y	0.04965	-0.0002278	-0.002362	-0.0034	0.1612	-0.1448	-2.402	2.452	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	0.6073	-0.003644	-0.02045	-0.0062	0.6622	-0.1603	1.257	0.6464	147.7
3S	0.5786	-0.003734	-0.02038	-0.0082	0.6665	-0.1604	1.229	0.6463	145.2
4S	0.5493	-0.004406	-0.02026	-0.0135	0.6622	-0.1604	1.199	0.6456	142.7
5S	0.5208	-0.004814	-0.02009	-0.0120	0.6595	-0.1604	1.171	0.6452	140.2
6S	0.4921	-0.005458	-0.01992	-0.0170	0.6469	-0.1604	1.142	0.6445	137.7
7S	0.4644	-0.006123	-0.0197	-0.0099	0.6313	-0.1604	1.114	0.6439	135.2
8S	0.4424	-0.006686	-0.01951	-0.0333	0.6258	-0.1604	1.092	0.6433	133.2
12S	0.3628	-0.002562	-0.02257	0.0146	0.5314	-0.1646	1.503	1.137	124.7
13S	0.3401	-0.001496	-0.02225	0.0326	0.5168	-0.1671	1.48	1.139	122.2
14S	0.3177	-0.0001192	-0.02178	0.0215	0.5052	-0.1701	1.458	1.14	119.7
15S	0.2961	0.000649	-0.02123	0.0288	0.4847	-0.1731	1.436	1.141	117.2
16S	0.2754	0.002159	-0.02058	0.0197	0.4630	-0.1761	1.415	1.142	114.7
17S	0.2559	0.002695	-0.01986	0.0331	0.4300	-0.1791	1.396	1.143	112.2
18S	0.2413	0.004058	-0.0192	0.0116	0.4117	-0.1815	1.381	1.144	110.2
21S	0.1845	0.00205	-0.02262	-0.0166	0.3011	-0.1702	2.636	2.454	99.38
22S	0.1703	0.00193	-0.02191	0.0057	0.2841	-0.1665	2.622	2.454	96.58
23S	0.1571	0.002034	-0.02099	-0.0075	0.2748	-0.1623	2.609	2.454	93.88
24S	0.1445	0.001516	-0.02	-0.0022	0.2591	-0.1581	2.596	2.454	91.18
25S	0.132	0.00149	-0.01944	-0.0043	0.2493	-0.1567	2.584	2.453	88.38
26S	0.1201	0.001166	-0.01882	-0.0022	0.2400	-0.1553	2.572	2.453	85.58

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

27S	0.1086	0.001141	-0.01828	-0.0036	0.2313	-0.1544	2.561	2.453	82.78
28S	0.09752	0.0008568	-0.01769	-0.0025	0.2219	-0.1536	2.55	2.453	79.98
29S	0.08707	0.0008818	-0.01706	-0.0024	0.2118	-0.1528	2.539	2.453	77.23
30S	0.07718	0.0006055	-0.0164	-0.0038	0.2028	-0.1520	2.529	2.453	74.48
31S	0.06765	0.0005483	-0.0157	-0.0031	0.2019	-0.1512	2.52	2.453	71.78
33S	0.03778	0.0002301	-0.0136	0.0242	0.0967	-0.1386	3.261	3.223	59.79
34S	0.02917	-5.143e-005	-0.01298	0.0121	0.0899	-0.1255	3.983	3.954	53.79
35S	0.0222	-0.0003226	-0.01219	0.0148	0.0705	-0.1122	4.707	4.685	47.79
36S	0.01637	-0.0004304	-0.01122	0.0113	0.0652	-0.0979	5.433	5.416	41.79
37S	0.011	-0.0006989	-0.01019	0.0124	0.0497	-0.0842	6.158	6.147	35.79
371S	0.01087	-0.0001086	-0.01045	0.0000	0.0000	0.0000	6.158	-0.0001086	35.79
372S	0.01158	-0.0005646	-0.005694	0.0000	0.0000	0.0000	0.01158	6.147	35.79
373S	0.01203	0.0001485	-0.0008875	0.0000	0.0000	0.0000	-6.135	0.0001485	35.8
374S	0.01129	0.0006046	-0.005631	0.0000	0.0000	0.0000	0.01129	-6.147	35.79
38S	0.007498	-0.0005217	-0.008843	0.0097	0.0401	-0.0703	6.886	6.878	29.79
39S	0.003892	-0.0008262	-0.00748	0.0086	0.0327	-0.0560	7.614	7.609	23.79
391S	0.003812	-9.639e-005	-0.00795	0.0000	0.0000	0.0000	7.614	-9.639e-005	23.79
392S	0.004607	-0.0007344	-0.004319	0.0000	0.0000	0.0000	0.004607	7.609	23.8
393S	0.005263	7.747e-005	-0.0006301	0.0000	0.0000	0.0000	-7.604	7.747e-005	23.8
394S	0.00443	0.0007154	-0.004268	0.0000	0.0000	0.0000	0.00443	-7.609	23.8
40S	0.001831	-0.0003911	-0.005793	0.0133	0.0196	-0.0416	8.343	8.34	17.79
41S	-0.0004307	-0.0009415	-0.004172	-0.0212	0.0303	-0.0292	9.072	9.071	11.8
411S	-0.0004734	-5.783e-005	-0.003228	0.0000	0.0000	0.0000	9.072	-5.783e-005	11.8
412S	0.0004162	-0.000882	-0.002475	0.0000	0.0000	0.0000	0.0004162	9.071	11.8
413S	0.001257	2.517e-005	-0.001709	0.0000	0.0000	0.0000	-9.071	2.517e-005	11.8
414S	0.0003291	0.0008493	-0.002458	0.0000	0.0000	0.0000	0.0003291	-9.071	11.8
42S	-0.002381	-0.003418	-0.002693	0.0196	-0.0125	-0.0140	9.801	9.8	5.797
2X	0.6102	-0.002703	-0.02019	-0.0165	0.6206	0.0803	1.26	-0.6527	147.7
2XY	0.6112	-0.0005822	-0.006031	0.0226	0.6336	0.0831	-0.03881	-0.6506	147.7
2Y	0.6083	-0.001737	-0.005321	0.0399	0.6754	-0.1517	-0.04166	0.6483	147.7
3X	0.5833	-0.003615	-0.02012	-0.0151	0.6248	0.0803	1.233	-0.6536	145.2
3XY	0.5834	0.0002508	-0.006026	0.0331	0.6266	0.0831	-0.0666	-0.6497	145.2
3Y	0.5787	0.0001349	-0.00533	0.0284	0.6677	-0.1517	-0.07126	0.6501	145.2
4X	0.5558	-0.003985	-0.01999	-0.0111	0.6210	0.0803	1.206	-0.654	142.7
4XY	0.5565	0.002066	-0.006029	0.0271	0.6223	0.0831	-0.09353	-0.6479	142.7
4Y	0.55	0.0009854	-0.00534	0.0338	0.6642	-0.1517	-0.09999	0.651	142.7
5X	0.5291	-0.004691	-0.01979	-0.0144	0.6173	0.0803	1.179	-0.6547	140.2
5XY	0.5292	0.002907	-0.00606	0.0412	0.6098	0.0831	-0.1208	-0.6471	140.2
5Y	0.5209	0.00278	-0.005379	0.0182	0.6499	-0.1517	-0.1291	0.6528	140.2
6X	0.5022	-0.005272	-0.01958	-0.0140	0.6051	0.0803	1.152	-0.6553	137.7
6XY	0.5028	0.004763	-0.006108	0.0270	0.6063	0.0831	-0.1472	-0.6452	137.7
6Y	0.4928	0.003535	-0.005432	0.0341	0.6487	-0.1517	-0.1572	0.6535	137.7
7X	0.4763	-0.006002	-0.01931	-0.0196	0.5893	0.0803	1.126	-0.656	135.2
7XY	0.4765	0.005524	-0.006198	0.0307	0.5912	0.0831	-0.1735	-0.6445	135.2
7Y	0.4645	0.005375	-0.00552	0.0237	0.6326	-0.1517	-0.1855	0.6554	135.2
8X	0.456	-0.006739	-0.01907	-0.0226	0.5693	0.0803	1.106	-0.6567	133.2
8XY	0.4563	0.006878	-0.006288	0.0359	0.5672	0.0831	-0.1937	-0.6431	133.2
8Y	0.4427	0.006141	-0.005599	0.0425	0.6241	-0.1517	-0.2073	0.6561	133.2
12X	0.3685	-0.002435	-0.02361	0.0264	0.5737	0.0988	1.508	-1.142	124.7
12XY	0.369	0.003625	-0.001075	-0.0236	0.5754	0.0999	-0.771	-1.136	124.7
12Y	0.3634	0.00263	-0.001923	-0.0073	0.5338	-0.1557	-0.7766	1.143	124.7
13X	0.3437	-0.001292	-0.02327	0.0204	0.5655	0.1083	1.484	-1.141	122.2
13XY	0.3439	0.00233	-0.001201	-0.0196	0.5689	0.1088	-0.7961	-1.138	122.2
13Y	0.3403	0.002109	-0.002054	-0.0253	0.5198	-0.1581	-0.7997	1.142	122.2
14X	0.3192	-0.0005026	-0.02278	0.0268	0.5517	0.1196	1.459	-1.141	119.7
14XY	0.3196	0.001886	-0.001396	-0.0221	0.5506	0.1193	-0.8204	-1.138	119.7

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14Y	0.318	0.0007124	-0.002257	-0.0195	0.5040	-0.1610	-0.822	1.141	119.7
15X	0.2956	0.0008451	-0.0222	0.0193	0.5313	0.1310	1.436	-1.139	117.2
15XY	0.2959	0.0004898	-0.001648	-0.0185	0.5321	0.1298	-0.8441	-1.14	117.2
15Y	0.2964	0.0002532	-0.002517	-0.0243	0.4856	-0.1639	-0.8436	1.14	117.2
16X	0.2729	0.001411	-0.02154	0.0278	0.5094	0.1424	1.413	-1.139	114.7
16XY	0.2732	0.0001479	-0.001964	-0.0233	0.5075	0.1404	-0.8668	-1.14	114.7
16Y	0.2758	-0.00128	-0.002842	-0.0202	0.4610	-0.1667	-0.8642	1.139	114.7
17X	0.2514	0.002918	-0.0208	0.0121	0.4754	0.1537	1.391	-1.137	112.2
17XY	0.2516	-0.00139	-0.002346	-0.0175	0.4815	0.1509	-0.8884	-1.141	112.2
17Y	0.2561	-0.001641	-0.003237	-0.0251	0.4360	-0.1696	-0.8839	1.138	112.2
18X	0.2351	0.00318	-0.02013	0.0398	0.4609	0.1628	1.375	-1.137	110.2
18XY	0.2352	-0.001724	-0.002701	-0.0319	0.4549	0.1593	-0.9048	-1.142	110.2
18Y	0.2414	-0.002853	-0.003602	-0.0175	0.4060	-0.1719	-0.8986	1.137	110.2
21X	0.1802	0.002574	-0.02227	0.0123	0.2967	0.1656	2.632	-2.449	99.38
21XY	0.1808	-0.0007919	0.001322	-0.0094	0.2937	0.1609	-2.271	-2.453	99.4
21Y	0.1851	-0.001587	0.001573	0.0117	0.2983	-0.1617	-2.267	2.45	99.4
22X	0.1663	0.00229	-0.02157	0.0151	0.2768	0.1621	2.618	-2.45	96.58
22XY	0.1668	-0.0007878	0.001053	0.0091	0.2814	0.1576	-2.285	-2.453	96.6
22Y	0.1707	-0.001298	0.001294	-0.0021	0.2891	-0.1587	-2.281	2.451	96.6
23X	0.1534	0.001802	-0.02066	-0.0003	0.2676	0.1579	2.605	-2.45	93.88
23XY	0.1539	-0.0003516	0.0007037	-0.0001	0.2668	0.1537	-2.298	-2.452	93.9
23Y	0.1575	-0.001463	0.000929	0.0054	0.2737	-0.1553	-2.295	2.451	93.9
24X	0.1412	0.001955	-0.01969	-0.0052	0.2521	0.1538	2.593	-2.45	91.18
24XY	0.1417	-0.0005417	0.000302	0.0069	0.2495	0.1499	-2.31	-2.453	91.2
24Y	0.145	-0.001021	0.0005077	-0.0017	0.2564	-0.1519	-2.307	2.451	91.2
25X	0.1291	0.001624	-0.01914	-0.0029	0.2427	0.1524	2.581	-2.45	88.38
25XY	0.1296	-0.0001624	6.72e-005	0.0008	0.2435	0.1486	-2.322	-2.452	88.4
25Y	0.1326	-0.001159	0.0002601	0.0040	0.2501	-0.1507	-2.319	2.451	88.4
26X	0.1175	0.001607	-0.01855	-0.0046	0.2337	0.1511	2.569	-2.45	85.58
26XY	0.1179	-0.0003038	-0.000198	0.0046	0.2328	0.1473	-2.334	-2.452	85.6
26Y	0.1206	-0.0007915	-2.025e-005	-0.0002	0.2390	-0.1495	-2.331	2.451	85.6
27X	0.1062	0.00131	-0.01801	-0.0028	0.2254	0.1502	2.558	-2.451	82.78
27XY	0.1068	4.405e-005	-0.0004381	0.0015	0.2255	0.1465	-2.345	-2.452	82.8
27Y	0.1091	-0.0009303	-0.0002749	0.0026	0.2314	-0.1488	-2.343	2.451	82.8
28X	0.09545	0.001292	-0.01744	-0.0035	0.2164	0.1494	2.547	-2.451	79.98
28XY	0.09592	-9.902e-005	-0.0007055	0.0020	0.2168	0.1458	-2.356	-2.452	80
28Y	0.09799	-0.000596	-0.0005589	0.0017	0.2223	-0.1482	-2.354	2.451	80
29X	0.08525	0.0009892	-0.01684	-0.0032	0.2067	0.1486	2.537	-2.451	77.23
29XY	0.08579	0.0002318	-0.0009908	0.0027	0.2062	0.1450	-2.366	-2.452	77.25
29Y	0.0876	-0.0007585	-0.0008624	0.0006	0.2113	-0.1475	-2.364	2.451	77.25
30X	0.07559	0.001011	-0.01619	-0.0013	0.1981	0.1478	2.528	-2.451	74.48
30XY	0.07606	7.737e-005	-0.001305	-0.0016	0.1996	0.1443	-2.376	-2.452	74.5
30Y	0.07765	-0.0004571	-0.001197	0.0045	0.2043	-0.1468	-2.374	2.452	74.5
31X	0.06628	0.0008392	-0.01552	-0.0015	0.1975	0.1470	2.518	-2.451	71.78
31XY	0.06675	0.0001979	-0.001637	0.0021	0.1960	0.1435	-2.385	-2.452	71.8
31Y	0.06812	-0.0004529	-0.00155	0.0002	0.2005	-0.1462	-2.384	2.452	71.8
33X	0.03698	0.0003727	-0.01346	-0.0268	0.0952	0.1348	3.26	-3.222	59.79
33XY	0.03762	0.0006131	-0.001929	0.0240	0.0963	0.1317	-3.185	-3.222	59.8
33Y	0.03842	-0.0005196	-0.001906	-0.0233	0.0977	-0.1343	-3.184	3.222	59.8
34X	0.02848	0.0003561	-0.01282	-0.0143	0.0888	0.1221	3.982	-3.954	53.79
34XY	0.02927	0.0006725	-0.001572	0.0134	0.0880	0.1193	-3.925	-3.953	53.8
34Y	0.02996	-0.0004879	-0.001558	-0.0131	0.0890	-0.1217	-3.924	3.953	53.8
35X	0.02157	0.000373	-0.01203	-0.0163	0.0694	0.1092	4.707	-4.685	47.79
35XY	0.02246	0.0006646	-0.001286	0.0152	0.0692	0.1067	-4.663	-4.684	47.8
35Y	0.02308	-0.0004296	-0.00128	-0.0151	0.0704	-0.1087	-4.662	4.685	47.8
36X	0.01589	0.0003213	-0.01106	-0.0123	0.0629	0.0955	5.432	-5.416	41.79

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

36XY	0.01695	0.0008279	-0.001092	0.0117	0.0626	0.0933	-5.399	-5.415	41.8
36Y	0.01741	-0.0005548	-0.001075	-0.0115	0.0647	-0.0949	-5.399	5.416	41.8
37X	0.01072	0.0004848	-0.01004	-0.0124	0.0483	0.0822	6.158	-6.147	35.79
37XY	0.0119	0.0007396	-0.0007951	0.0112	0.0487	0.0803	-6.136	-6.147	35.8
37Y	0.01218	-0.0004427	-0.0007735	-0.0117	0.0500	-0.0817	-6.135	6.147	35.8
38X	0.007268	0.000331	-0.008728	-0.0093	0.0396	0.0686	6.886	-6.878	29.79
38XY	0.008538	0.0009483	-0.0007007	0.0078	0.0404	0.0671	-6.87	-6.878	29.8
38Y	0.008765	-0.0007331	-0.0007022	-0.0088	0.0408	-0.0682	-6.87	6.878	29.8
39X	0.003715	0.0006336	-0.007389	-0.0082	0.0321	0.0547	7.613	-7.609	23.79
39XY	0.005177	0.0008096	-0.0004891	0.0102	0.0297	0.0534	-7.605	-7.609	23.8
39Y	0.005361	-0.0006578	-0.0005052	-0.0109	0.0302	-0.0543	-7.604	7.609	23.8
40X	0.001687	0.0002512	-0.005733	-0.0127	0.0192	0.0407	8.343	-8.341	17.79
40XY	0.003118	0.001165	-0.0004496	-0.0022	0.0339	0.0397	-8.338	-8.34	17.8
40Y	0.003262	-0.001075	-0.0004728	0.0016	0.0344	-0.0404	-8.338	8.34	17.8
41X	-0.0005292	0.0008238	-0.004127	0.0217	0.0296	0.0286	9.072	-9.071	11.8
41XY	0.001227	0.0009043	-0.000252	0.0313	-0.0236	0.0279	-9.071	-9.071	11.8
41Y	0.001314	-0.000854	-0.0002675	-0.0317	-0.0229	-0.0283	-9.071	9.071	11.8
42X	-0.002415	0.00337	-0.00267	-0.0187	-0.0131	0.0138	9.801	-9.8	5.797
42XY	0.005247	0.004278	-0.001174	-0.0137	0.0195	0.0135	-9.798	-9.799	5.799
42Y	0.005274	-0.004261	-0.001181	0.0134	0.0200	-0.0137	-9.798	9.799	5.799

Joint Support Reactions for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Comp. Force (kN)	Uplift Usage %	Result. Force (kN)	Result. Usage %	X Moment (kN-m)	X-M. Usage %	Y Moment (kN-m)	Y-M. Usage %	Z Moment (kN-m)	Z-M. Usage %	Max. Usage %	
ANP	-72.26	0.0	-76.31	0.0	521.55	0.0	0.0	532.03	0.0	-2.05	0.0	1.0	0.0	0.04	0.0	0.0
ANX	-70.52	0.0	76.99	0.0	516.57	0.0	0.0	527.02	0.0	2.02	0.0	1.0	0.0	-0.04	0.0	0.0
ANXY	-0.90	0.0	-6.78	0.0	2.04	0.0	0.0	7.13	0.0	1.92	0.0	-3.0	0.0	-0.03	0.0	0.0
ANY	-1.59	0.0	6.09	0.0	3.04	0.0	0.0	6.99	0.0	-1.91	0.0	-3.0	0.0	0.04	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	0.4475	0.0000	-3.3754	-0.4469	-0.0000	3.3754	0.6453	-0.0026	-0.0205
10P	1.4860	0.0000	-5.9268	-1.4856	-0.0000	5.9268	0.4257	-0.0074	-0.0193
11P	1.6087	0.0000	-6.6851	-1.6083	-0.0000	6.6851	0.3899	-0.0038	-0.0229
19P	0.7318	0.0000	-3.9796	-0.7316	0.0000	3.9796	0.2302	0.0037	-0.0186
20P	1.0305	0.0000	-5.7288	-1.0303	0.0000	5.7288	0.1995	0.0028	-0.0233
32P	1.1583	0.0000	-9.0478	-1.1583	-0.0000	9.0477	0.0489	-0.0000	-0.0141
ANP	0.3774	0.0000	-5.0810	71.8810	76.3057	-516.4672	0.0000	0.0000	0.0000
1X	0.4475	0.0000	-3.3754	-0.4469	-0.0000	3.3754	0.6458	-0.0025	-0.0203
1XY	0.4475	0.0000	-3.3754	-0.4469	-0.0000	3.3754	0.6459	-0.0029	-0.0061
1Y	0.2235	0.0000	-1.9954	-0.2229	-0.0000	1.9954	0.6454	-0.0030	-0.0054
10X	1.4860	0.0000	-5.9268	-1.4856	-0.0000	5.9268	0.4405	-0.0071	-0.0188
10XY	0.7000	0.0000	-3.9468	-0.6995	0.0000	3.9468	0.4407	0.0074	-0.0064
10Y	0.4760	0.0000	-2.5668	-0.4756	0.0000	2.5668	0.4259	0.0073	-0.0057
11X	1.6087	0.0000	-6.6851	-1.6083	-0.0000	6.6850	0.3981	-0.0038	-0.0239
11XY	0.5987	0.0000	-3.3251	-0.5983	0.0000	3.3251	0.3982	0.0044	-0.0010
11Y	0.5987	0.0000	-3.3251	-0.5983	0.0000	3.3251	0.3901	0.0040	-0.0018
19X	0.7318	0.0000	-3.9796	-0.7316	0.0000	3.9796	0.2228	0.0048	-0.0196

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19XY	0.7318	0.0000	-3.9796	-0.7316	-0.0000	3.9796	0.2232	-0.0030	-0.0030
19Y	0.7318	0.0000	-3.9796	-0.7316	-0.0000	3.9796	0.2306	-0.0028	-0.0039
20X	1.0305	0.0000	-5.7288	-1.0303	0.0000	5.7288	0.1949	0.0022	-0.0229
20XY	0.9185	0.0000	-4.9488	-0.9183	-0.0000	4.9488	0.1950	-0.0009	0.0016
20Y	0.9185	0.0000	-4.9488	-0.9183	-0.0000	4.9488	0.1997	-0.0018	0.0018
32X	1.1583	0.0000	-9.0478	-1.1583	0.0000	9.0477	0.0480	0.0010	-0.0140
32XY	1.1583	0.0000	-9.0478	-1.1583	0.0000	9.0478	0.0487	0.0002	-0.0024
32Y	1.1583	0.0000	-9.0478	-1.1583	-0.0000	9.0478	0.0497	-0.0002	-0.0024
ANX	0.3774	0.0000	-5.0810	70.1431	-76.9879	-511.4903	0.0000	0.0000	0.0000
ANXY	0.3774	0.0000	-5.0810	0.5231	6.7770	3.0421	0.0000	0.0000	0.0000
ANY	0.3774	0.0000	-5.0810	1.2093	-6.0948	2.0419	0.0000	0.0000	0.0000
2S	0.4475	0.0000	-2.3754	-0.4469	-0.0000	2.3754	0.6073	-0.0036	-0.0204
3S	0.4305	0.0000	-1.9332	-0.4299	-0.0000	1.9332	0.5786	-0.0037	-0.0204
4S	0.4310	0.0000	-2.3178	-0.4304	-0.0000	2.3178	0.5493	-0.0044	-0.0203
5S	0.4295	0.0000	-1.9996	-0.4290	-0.0000	1.9996	0.5208	-0.0048	-0.0201
6S	0.2225	0.0000	-1.0618	-0.2220	-0.0000	1.0618	0.4921	-0.0055	-0.0199
7S	0.3882	0.0000	-1.8771	-0.3878	-0.0000	1.8770	0.4644	-0.0061	-0.0197
8S	0.1657	0.0000	-0.8152	-0.1653	-0.0000	0.8152	0.4424	-0.0067	-0.0195
12S	1.2985	0.0000	-4.9335	-1.2981	-0.0000	4.9334	0.3628	-0.0026	-0.0226
13S	1.5651	0.0000	-6.2869	-1.5647	-0.0000	6.2869	0.3401	-0.0015	-0.0223
14S	1.3886	0.0000	-5.4934	-1.3883	-0.0000	5.4934	0.3177	-0.0001	-0.0218
15S	0.6420	0.0000	-3.4868	-0.6417	0.0000	3.4868	0.2961	0.0006	-0.0212
16S	0.2634	0.0000	-1.3534	-0.2631	0.0000	1.3534	0.2754	0.0022	-0.0206
17S	0.5711	0.0000	-3.1482	-0.5708	0.0000	3.1482	0.2559	0.0027	-0.0199
18S	0.3077	0.0000	-1.7948	-0.3075	0.0000	1.7948	0.2413	0.0041	-0.0192
21S	0.3824	0.0000	-1.9840	-0.3822	0.0000	1.9839	0.1845	0.0020	-0.0226
22S	1.6594	0.0000	-5.6507	-1.6592	0.0000	5.6507	0.1703	0.0019	-0.0219
23S	1.2770	0.0000	-3.6668	-1.2768	0.0000	3.6668	0.1571	0.0020	-0.0210
24S	0.7790	0.0000	-4.4346	-0.7789	0.0000	4.4346	0.1445	0.0015	-0.0200
25S	0.4021	0.0000	-2.5678	-0.4019	0.0000	2.5678	0.1320	0.0015	-0.0194
26S	0.8178	0.0000	-5.4135	-0.8177	0.0000	5.4135	0.1201	0.0012	-0.0188
27S	0.4158	0.0000	-2.8457	-0.4157	0.0000	2.8457	0.1086	0.0011	-0.0183
28S	0.8180	0.0000	-5.6511	-0.8179	0.0000	5.6511	0.0975	0.0009	-0.0177
29S	0.4533	0.0000	-3.0554	-0.4532	0.0000	3.0554	0.0871	0.0009	-0.0171
30S	0.7096	0.0000	-5.0007	-0.7096	0.0000	5.0007	0.0772	0.0006	-0.0164
31S	0.8386	0.0000	-6.1912	-0.8385	0.0000	6.1912	0.0676	0.0005	-0.0157
33S	1.2584	0.0000	-10.1147	-1.2584	0.0000	10.1147	0.0378	0.0002	-0.0136
34S	1.3137	0.0000	-10.9430	-1.3137	-0.0000	10.9430	0.0292	-0.0001	-0.0130
35S	3.9390	0.0000	-17.2016	-3.9390	-0.0000	17.2016	0.0222	-0.0003	-0.0122
36S	3.6934	0.0000	-16.2721	-3.6934	-0.0000	16.2721	0.0164	-0.0004	-0.0112
37S	0.9353	0.0000	-9.5312	-0.9352	-0.0000	9.5312	0.0110	-0.0007	-0.0102
371S	0.9353	0.0000	-9.5312	-0.9352	-0.0000	9.5312	0.0109	-0.0001	-0.0104
372S	0.9353	0.0000	-9.5312	-0.9352	-0.0000	9.5312	0.0116	-0.0006	-0.0057
373S	0.9353	0.0000	-9.5312	-0.9352	0.0000	9.5312	0.0120	0.0001	-0.0009
374S	0.9353	0.0000	-9.5312	-0.9352	0.0000	9.5312	0.0113	0.0006	-0.0056
38S	0.9877	0.0000	-10.4902	-0.9877	-0.0000	10.4902	0.0075	-0.0005	-0.0088
39S	0.9898	0.0000	-11.0252	-0.9898	-0.0000	11.0252	0.0039	-0.0008	-0.0075
391S	0.9898	0.0000	-11.0252	-0.9898	-0.0000	11.0252	0.0038	-0.0001	-0.0080
392S	0.9898	0.0000	-11.0252	-0.9898	-0.0000	11.0252	0.0046	-0.0007	-0.0043
393S	0.9898	0.0000	-11.0252	-0.9898	0.0000	11.0252	0.0053	0.0001	-0.0006
394S	0.9898	0.0000	-11.0252	-0.9898	0.0000	11.0252	0.0044	0.0007	-0.0043
40S	2.1042	0.0000	-14.7552	-2.1042	-0.0000	14.7551	0.0018	-0.0004	-0.0058
41S	1.8481	0.0000	-13.1041	-1.8481	-0.0000	13.1041	-0.0004	-0.0009	-0.0042
411S	0.8471	0.0000	-11.7505	-0.8471	-0.0000	11.7505	-0.0005	-0.0001	-0.0032
412S	0.8471	0.0000	-11.7505	-0.8471	-0.0000	11.7505	0.0004	-0.0009	-0.0025
413S	0.8471	0.0000	-11.7505	-0.8471	0.0000	11.7505	0.0013	0.0000	-0.0017

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

414S	0.8471	0.0000	-11.7505	-0.8471	0.0000	11.7505	0.0003	0.0008	-0.0025
42S	0.6216	0.0000	-8.5456	-0.6216	-0.0000	8.5456	-0.0024	-0.0034	-0.0027
2X	0.4475	0.0000	-2.3754	-0.4469	-0.0000	2.3754	0.6102	-0.0027	-0.0202
2XY	0.4475	0.0000	-2.3754	-0.4469	-0.0000	2.3754	0.6112	-0.0006	-0.0060
2Y	0.2235	0.0000	-0.9954	-0.2229	-0.0000	0.9954	0.6083	-0.0017	-0.0053
3X	0.4305	0.0000	-1.9332	-0.4299	-0.0000	1.9332	0.5833	-0.0036	-0.0201
3XY	0.4305	0.0000	-1.9332	-0.4299	0.0000	1.9332	0.5834	0.0003	-0.0060
3Y	0.4305	0.0000	-1.9332	-0.4299	0.0000	1.9332	0.5787	0.0001	-0.0053
4X	0.4310	0.0000	-2.3178	-0.4304	-0.0000	2.3178	0.5558	-0.0040	-0.0200
4XY	0.4310	0.0000	-2.3178	-0.4304	0.0000	2.3178	0.5565	0.0021	-0.0060
4Y	0.2070	0.0000	-0.9378	-0.2064	0.0000	0.9378	0.5500	0.0010	-0.0053
5X	0.6535	0.0000	-3.3796	-0.6530	-0.0000	3.3796	0.5291	-0.0047	-0.0198
5XY	0.6535	0.0000	-3.3796	-0.6530	0.0000	3.3796	0.5292	0.0029	-0.0061
5Y	0.4295	0.0000	-1.9996	-0.4290	0.0000	1.9996	0.5209	0.0028	-0.0054
6X	0.4465	0.0000	-2.4418	-0.4460	-0.0000	2.4418	0.5022	-0.0053	-0.0196
6XY	0.4465	0.0000	-2.4418	-0.4460	0.0000	2.4418	0.5028	0.0048	-0.0061
6Y	0.2225	0.0000	-1.0618	-0.2220	0.0000	1.0618	0.4928	0.0035	-0.0054
7X	0.3882	0.0000	-1.8771	-0.3878	-0.0000	1.8770	0.4763	-0.0060	-0.0193
7XY	0.3882	0.0000	-1.8771	-0.3878	0.0000	1.8771	0.4765	0.0055	-0.0062
7Y	0.3882	0.0000	-1.8771	-0.3878	0.0000	1.8771	0.4645	0.0054	-0.0055
8X	0.3897	0.0000	-2.1952	-0.3893	-0.0000	2.1952	0.4560	-0.0067	-0.0191
8XY	0.3897	0.0000	-2.1952	-0.3893	0.0000	2.1952	0.4563	0.0069	-0.0063
8Y	0.1657	0.0000	-0.8152	-0.1653	0.0000	0.8152	0.4427	0.0061	-0.0056
12X	1.2985	0.0000	-4.9335	-1.2981	-0.0000	4.9334	0.3685	-0.0024	-0.0236
12XY	0.2885	0.0000	-1.5735	-0.2881	0.0000	1.5735	0.3690	0.0036	-0.0011
12Y	0.2885	0.0000	-1.5735	-0.2881	0.0000	1.5735	0.3634	0.0026	-0.0019
13X	1.5651	0.0000	-6.2869	-1.5647	-0.0000	6.2869	0.3437	-0.0013	-0.0233
13XY	0.5551	0.0000	-2.9269	-0.5547	0.0000	2.9269	0.3439	0.0023	-0.0012
13Y	0.5551	0.0000	-2.9269	-0.5547	0.0000	2.9269	0.3403	0.0021	-0.0021
14X	1.3886	0.0000	-5.4934	-1.3883	-0.0000	5.4934	0.3192	-0.0005	-0.0228
14XY	0.2666	0.0000	-1.3534	-0.2663	0.0000	1.3534	0.3196	0.0019	-0.0014
14Y	0.3786	0.0000	-2.1334	-0.3783	0.0000	2.1334	0.3180	0.0007	-0.0023
15X	0.6420	0.0000	-3.4868	-0.6417	0.0000	3.4868	0.2956	0.0008	-0.0222
15XY	0.5300	0.0000	-2.7068	-0.5297	0.0000	2.7068	0.2959	0.0005	-0.0016
15Y	0.6420	0.0000	-3.4868	-0.6417	0.0000	3.4868	0.2964	0.0003	-0.0025
16X	0.2634	0.0000	-1.3534	-0.2631	0.0000	1.3534	0.2729	0.0014	-0.0215
16XY	0.2634	0.0000	-1.3534	-0.2631	0.0000	1.3534	0.2732	0.0001	-0.0020
16Y	0.2634	0.0000	-1.3534	-0.2631	-0.0000	1.3534	0.2758	-0.0013	-0.0028
17X	0.5711	0.0000	-3.1482	-0.5708	0.0000	3.1482	0.2514	0.0029	-0.0208
17XY	0.4591	0.0000	-2.3682	-0.4588	-0.0000	2.3682	0.2516	-0.0014	-0.0023
17Y	0.5711	0.0000	-3.1482	-0.5708	-0.0000	3.1482	0.2561	-0.0016	-0.0032
18X	0.3077	0.0000	-1.7948	-0.3075	0.0000	1.7948	0.2351	0.0032	-0.0201
18XY	0.1957	0.0000	-1.0148	-0.1955	-0.0000	1.0148	0.2352	-0.0017	-0.0027
18Y	0.3077	0.0000	-1.7948	-0.3075	-0.0000	1.7948	0.2414	-0.0029	-0.0036
21X	0.3824	0.0000	-1.9840	-0.3822	0.0000	1.9839	0.1802	0.0026	-0.0223
21XY	0.3824	0.0000	-1.9840	-0.3822	-0.0000	1.9840	0.1808	-0.0008	0.0013
21Y	0.3824	0.0000	-1.9840	-0.3822	-0.0000	1.9840	0.1851	-0.0016	0.0016
22X	0.7594	0.0000	-3.8507	-0.7592	0.0000	3.8507	0.1663	0.0023	-0.0216
22XY	1.2094	0.0000	-4.7507	-1.2092	-0.0000	4.7507	0.1668	-0.0008	0.0011
22Y	0.7594	0.0000	-3.8507	-0.7592	-0.0000	3.8507	0.1707	-0.0013	0.0013
23X	0.3770	0.0000	-1.8668	-0.3768	0.0000	1.8668	0.1534	0.0018	-0.0207
23XY	0.3770	0.0000	-1.8668	-0.3768	-0.0000	1.8668	0.1539	-0.0004	0.0007
23Y	0.3770	0.0000	-1.8668	-0.3768	-0.0000	1.8668	0.1575	-0.0015	0.0009
24X	0.7790	0.0000	-4.4346	-0.7789	0.0000	4.4346	0.1412	0.0020	-0.0197
24XY	0.7790	0.0000	-4.4346	-0.7789	-0.0000	4.4346	0.1417	-0.0005	0.0003
24Y	0.7790	0.0000	-4.4346	-0.7789	-0.0000	4.4346	0.1450	-0.0010	0.0005

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

25X	0.4021	0.0000	-2.5678	-0.4019	0.0000	2.5678	0.1291	0.0016	-0.0191
25XY	0.4021	0.0000	-2.5678	-0.4019	-0.0000	2.5678	0.1296	-0.0002	0.0001
25Y	0.4021	0.0000	-2.5678	-0.4019	-0.0000	2.5678	0.1326	-0.0012	0.0003
26X	0.8178	0.0000	-5.4135	-0.8177	0.0000	5.4135	0.1175	0.0016	-0.0185
26XY	0.8178	0.0000	-5.4135	-0.8177	-0.0000	5.4135	0.1179	-0.0003	-0.0002
26Y	0.8178	0.0000	-5.4135	-0.8177	-0.0000	5.4135	0.1206	-0.0008	-0.0000
27X	0.4158	0.0000	-2.8457	-0.4157	0.0000	2.8457	0.1062	0.0013	-0.0180
27XY	0.4158	0.0000	-2.8457	-0.4157	0.0000	2.8457	0.1068	0.0000	-0.0004
27Y	0.4158	0.0000	-2.8457	-0.4157	-0.0000	2.8457	0.1091	-0.0009	-0.0003
28X	0.8180	0.0000	-5.6511	-0.8179	0.0000	5.6511	0.0955	0.0013	-0.0174
28XY	0.8180	0.0000	-5.6511	-0.8179	-0.0000	5.6511	0.0959	-0.0001	-0.0007
28Y	0.8180	0.0000	-5.6511	-0.8179	-0.0000	5.6511	0.0980	-0.0006	-0.0006
29X	0.4023	0.0000	-2.8054	-0.4022	0.0000	2.8054	0.0852	0.0010	-0.0168
29XY	0.4023	0.0000	-2.8054	-0.4022	0.0000	2.8054	0.0858	0.0002	-0.0010
29Y	0.4023	0.0000	-2.8054	-0.4022	-0.0000	2.8054	0.0876	-0.0008	-0.0009
30X	0.7096	0.0000	-5.0007	-0.7096	0.0000	5.0007	0.0756	0.0010	-0.0162
30XY	0.7096	0.0000	-5.0007	-0.7096	0.0000	5.0007	0.0761	0.0001	-0.0013
30Y	0.7096	0.0000	-5.0007	-0.7096	-0.0000	5.0007	0.0776	-0.0005	-0.0012
31X	0.8386	0.0000	-6.1912	-0.8385	0.0000	6.1912	0.0663	0.0008	-0.0155
31XY	0.8386	0.0000	-6.4412	-0.8895	0.0000	6.4412	0.0667	0.0002	-0.0016
31Y	0.8896	0.0000	-6.4412	-0.8895	-0.0000	6.4412	0.0681	-0.0005	-0.0016
33X	1.2584	0.0000	-10.1147	-1.2584	0.0000	10.1147	0.0370	0.0004	-0.0135
33XY	1.2584	0.0000	-10.1147	-1.2584	0.0000	10.1147	0.0376	0.0006	-0.0019
33Y	1.2584	0.0000	-10.1147	-1.2584	-0.0000	10.1147	0.0384	-0.0005	-0.0019
34X	1.3137	0.0000	-10.9430	-1.3137	0.0000	10.9430	0.0285	0.0004	-0.0128
34XY	1.3137	0.0000	-10.9430	-1.3137	0.0000	10.9430	0.0293	0.0007	-0.0016
34Y	1.3137	0.0000	-10.9430	-1.3137	-0.0000	10.9430	0.0300	-0.0005	-0.0016
35X	1.3880	0.0000	-12.0916	-1.3880	0.0000	12.0916	0.0216	0.0004	-0.0120
35XY	1.3880	0.0000	-12.0916	-1.3880	0.0000	12.0916	0.0225	0.0007	-0.0013
35Y	2.2720	0.0000	-13.1916	-2.2720	-0.0000	13.1916	0.0231	-0.0004	-0.0013
36X	1.7794	0.0000	-13.4921	-1.7794	0.0000	13.4921	0.0159	0.0003	-0.0111
36XY	1.4664	0.0000	-11.7471	-1.4664	0.0000	11.7471	0.0170	0.0008	-0.0011
36Y	1.1424	0.0000	-11.1621	-1.1424	-0.0000	11.1621	0.0174	-0.0006	-0.0011
37X	1.2193	0.0000	-11.3712	-1.2192	0.0000	11.3712	0.0107	0.0005	-0.0100
37XY	0.9353	0.0000	-9.5312	-0.9352	0.0000	9.5312	0.0119	0.0007	-0.0008
37Y	0.9353	0.0000	-9.5312	-0.9352	-0.0000	9.5312	0.0122	-0.0004	-0.0008
38X	0.9877	0.0000	-10.4902	-0.9877	0.0000	10.4902	0.0073	0.0003	-0.0087
38XY	0.9877	0.0000	-10.4902	-0.9877	0.0000	10.4902	0.0085	0.0009	-0.0007
38Y	1.0387	0.0000	-10.7402	-1.0387	-0.0000	10.7402	0.0088	-0.0007	-0.0007
39X	0.9898	0.0000	-11.0252	-0.9898	0.0000	11.0252	0.0037	0.0006	-0.0074
39XY	0.9898	0.0000	-11.0252	-0.9898	0.0000	11.0252	0.0052	0.0008	-0.0005
39Y	1.2738	0.0000	-12.8652	-1.2738	-0.0000	12.8652	0.0054	-0.0007	-0.0005
40X	2.2442	0.0000	-16.4452	-2.2442	0.0000	16.4451	0.0017	0.0003	-0.0057
40XY	0.9702	0.0000	-11.7852	-0.9702	0.0000	11.7852	0.0031	0.0012	-0.0004
40Y	1.6072	0.0000	-14.1152	-1.6072	-0.0000	14.1152	0.0033	-0.0011	-0.0005
41X	0.9981	0.0000	-11.9741	-0.9981	0.0000	11.9741	-0.0005	0.0008	-0.0041
41XY	0.7141	0.0000	-10.1341	-0.7141	0.0000	10.1341	0.0012	0.0009	-0.0003
41Y	0.7141	0.0000	-10.1341	-0.7141	-0.0000	10.1341	0.0013	-0.0009	-0.0003
42X	0.6216	0.0000	-8.5456	-0.6216	0.0000	8.5456	-0.0024	0.0034	-0.0027
42XY	0.6216	0.0000	-8.5456	-0.6216	0.0000	8.5456	0.0052	0.0043	-0.0012
42Y	0.6216	0.0000	-8.5456	-0.6216	-0.0000	8.5456	0.0053	-0.0043	-0.0012

Moments for Angles Modeled as Beams:

Angle Torsion	Origin	Origin	End	End	X	Y
Label	X Moment	Y Moment	X Moment	Y Moment	Shear	Shear

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

	(N-m)	(N-m)	(N-m)	(N-m)	(N-m)	(N)	(N)
1P	0.00	-0.00	0.01	-23.49	69.52	-7.32	21.66
1X	-0.00	0.00	0.01	23.75	67.10	7.40	20.90
1XY	-0.00	0.00	0.01	34.42	-64.62	10.72	-20.12
1Y	0.00	0.00	0.01	-33.48	-63.78	-10.43	-19.86
2P	0.01	23.49	-69.51	26.68	-86.40	20.07	-62.36
2X	-0.00	-23.75	-67.09	-25.96	-83.74	-19.88	-60.33
2XY	-0.00	-34.42	64.63	-51.49	92.13	-34.37	62.70
2Y	0.01	33.48	63.80	52.33	93.97	34.33	63.11
3P	0.01	-26.68	86.41	-17.95	103.19	-17.85	75.84
3X	-0.00	25.96	83.75	19.38	98.84	18.14	73.04
3XY	-0.00	51.49	-92.12	61.28	-75.39	45.11	-67.00
3Y	0.01	-52.33	-93.96	-61.24	-80.21	-45.43	-69.67
4P	0.01	17.95	-103.18	15.45	-92.62	13.36	-78.32
4X	-0.01	-19.38	-98.83	-13.96	-84.38	-13.34	-73.28
4XY	-0.01	-61.28	75.40	-84.35	124.57	-58.25	79.99
4Y	0.01	61.24	80.22	86.70	136.15	59.18	86.55
5P	0.01	-15.45	92.64	8.05	218.65	-2.96	124.51
5X	-0.01	13.96	84.39	12.06	206.02	10.41	116.16
5XY	-0.01	84.35	-124.56	150.54	-90.18	93.96	-85.90
5Y	0.01	-86.70	-136.14	-160.69	-124.34	-98.96	-104.19
6P	0.02	-8.05	-218.64	-41.17	-64.28	-19.68	-113.16
6X	-0.01	-12.06	-206.01	13.86	-49.50	0.72	-102.21
6XY	-0.01	-150.54	90.19	-167.62	240.08	-127.27	132.11
6Y	0.02	160.69	124.35	209.23	284.76	147.97	163.64
7P	0.02	41.17	64.29	246.89	164.47	144.03	114.38
7X	-0.01	-13.86	49.51	12.32	409.68	-0.77	229.60
7XY	-0.01	167.63	-240.07	121.53	193.80	144.58	-23.13
7Y	0.02	-209.23	-284.75	-375.19	-131.18	-292.21	-207.96
8P	0.02	-246.89	-164.46	-766.97	760.51	-645.77	379.64
8X	-0.01	-12.32	-409.67	-324.83	-545.15	-214.75	-608.17
8XY	-0.01	-121.53	-193.79	340.99	-529.69	139.79	-460.81
8Y	0.02	375.19	131.19	825.97	817.95	765.07	604.55
9P	0.00	-1080.08	-4.51	-635.86	-86.39	-418.63	-22.18
9X	-26.35	615.18	153.55	366.77	190.84	239.56	84.02
9XY	-22.57	-615.67	131.51	-485.32	187.55	-268.60	77.84
9Y	0.98	1162.42	-5.59	556.56	-81.42	419.36	-21.23
10P	15.40	-509.73	389.52	-114.66	364.87	-216.05	261.04
10X	-58.24	-129.49	-389.19	-53.91	158.42	-63.46	-79.85
10XY	-53.95	215.16	-471.17	223.75	-110.38	151.87	-201.23
10Y	14.74	450.17	336.93	-39.46	84.70	142.11	145.89
11P	15.40	114.66	-364.86	-66.80	-46.51	19.15	-164.55
11X	-58.24	53.91	-158.41	113.79	19.72	67.08	-55.48
11XY	-53.96	-223.75	110.39	-263.27	253.57	-194.81	145.59
11Y	14.74	39.46	-84.69	220.97	219.57	104.17	53.95
12P	15.40	66.80	46.52	162.34	255.60	91.66	120.85
12X	-58.24	-113.79	-19.71	-168.66	229.64	-112.98	83.97
12XY	-53.96	263.27	-253.56	284.31	76.68	219.03	-70.75
12Y	14.74	-220.97	-219.56	-270.81	65.96	-196.71	-61.44
13P	15.40	-162.34	-255.59	-225.27	114.62	-155.04	-56.39
13X	-58.24	168.66	-229.63	233.40	139.24	160.82	-36.16
13XY	-53.96	-284.31	-76.67	-314.63	257.78	-239.58	72.44
13Y	14.75	270.81	-65.95	312.15	266.58	233.18	80.25
14P	15.41	225.27	-114.61	303.60	278.14	211.55	65.41
14X	-58.24	-233.40	-139.23	-306.40	257.16	-215.92	47.17

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	-53.96	314.63	-257.77	355.42	186.91	268.02	-28.34
14Y	14.75	-312.15	-266.57	-347.35	178.28	-263.80	-35.32
15P	15.41	-303.60	-278.13	-418.05	317.98	-288.66	15.94
15X	-58.25	306.40	-257.15	440.74	357.09	298.86	39.97
15XY	-53.96	-355.42	-186.90	-405.47	283.12	-304.36	38.49
15Y	14.75	347.35	-178.27	388.84	274.42	294.47	38.46
16P	15.41	418.05	-317.97	647.85	94.81	532.95	-111.58
16X	-58.25	-440.74	-357.08	-737.54	-29.81	-589.14	-193.45
16XY	-53.97	405.47	-283.11	560.48	316.11	482.97	16.50
16Y	14.75	-388.84	-274.41	-469.82	403.26	-429.33	64.42
17P	15.42	-647.85	-94.81	-334.02	659.63	-621.44	357.48
17X	-58.25	737.54	29.82	749.60	1189.50	941.23	771.73
17XY	-53.97	-560.48	-316.10	-589.79	1022.66	-728.02	447.19
17Y	14.76	469.82	-403.25	194.00	510.85	420.14	68.10
18P	-49.11	-702.61	225.46	-440.72	-98.06	-171.09	19.07
18X	30.40	-1371.15	-315.00	-835.44	34.93	-330.19	-41.91
18XY	33.13	1140.17	-309.03	625.57	48.91	264.22	-38.92
18Y	-48.03	498.40	219.34	246.03	-107.28	111.40	16.77
19P	-19.95	-387.89	235.39	-180.28	310.07	-202.92	194.81
19X	19.50	620.44	561.05	240.89	388.49	307.62	339.12
19XY	18.24	-482.08	402.62	-89.79	111.42	-204.24	183.58
19Y	-16.35	256.28	91.67	32.10	32.23	102.99	44.25
20P	-19.95	180.28	-310.06	-20.20	19.64	57.17	-103.72
20X	19.50	-240.89	-388.48	4.73	-0.60	-84.34	-138.96
20XY	18.24	89.79	-111.41	-76.30	128.21	4.82	6.00
20Y	-16.35	-32.10	-32.23	91.97	145.42	21.38	40.42
21P	-19.95	20.20	-19.63	124.95	136.52	53.76	43.29
21X	19.50	-4.73	0.60	-122.48	153.76	-47.11	57.17
21XY	18.24	76.30	-128.20	148.87	114.76	83.40	-4.98
21Y	-16.34	-91.97	-145.41	-151.20	113.46	-90.06	-11.84
22P	-19.94	-124.95	-136.52	-166.26	126.12	-107.86	-3.85
22X	19.49	122.48	-153.76	162.05	106.48	105.38	-17.51
22XY	18.24	-148.87	-114.76	-203.76	175.70	-130.60	22.57
22Y	-16.34	151.20	-113.45	207.53	176.05	132.86	23.18
23P	-19.94	166.26	-126.11	213.27	358.48	135.55	82.99
23X	19.49	-162.05	-106.47	-217.03	356.40	-135.38	89.26
23XY	18.23	203.76	-175.69	345.40	120.56	196.13	-19.69
23Y	-16.34	-207.53	-176.04	-341.90	133.27	-196.23	-15.27
24P	-19.94	-213.27	-358.48	-262.01	102.69	-169.74	-91.35
24X	19.49	217.03	-356.40	256.37	88.35	169.07	-95.73
24XY	18.23	-345.40	-120.56	-434.62	407.32	-278.58	102.42
24Y	-16.34	341.90	-133.27	439.87	415.84	279.21	100.92
25P	-19.93	262.01	-102.69	320.43	615.59	208.01	183.18
25X	19.49	-256.37	-88.34	-328.77	601.45	-208.98	183.25
25XY	18.23	434.62	-407.32	563.26	197.46	356.38	-74.95
25Y	-16.33	-439.87	-415.83	-555.38	215.64	-355.45	-71.50
26P	-19.93	-320.43	-615.59	-367.55	168.38	-245.71	-159.72
26X	19.48	328.77	-601.44	358.96	148.31	245.62	-161.83
26XY	18.23	-563.26	-197.46	-584.06	531.83	-409.75	119.42
26Y	-16.33	555.38	-215.64	592.20	545.51	409.85	117.81
27P	-19.93	367.55	-168.38	363.72	687.77	265.91	188.87
27X	19.48	-358.96	-148.31	-374.49	671.29	-266.71	190.18
27XY	18.22	584.06	-531.83	556.16	359.47	414.62	-62.68
27Y	-16.33	-592.20	-545.51	-545.86	384.32	-413.84	-58.61
28P	-19.93	-363.72	-687.76	-302.03	72.49	-242.09	-223.74
28X	19.48	374.49	-671.29	294.06	62.91	243.11	-221.23

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28XY	18.22	-556.16	-359.46	-375.28	201.78	-338.71	-57.34
28Y	-16.33	545.86	-384.31	382.14	206.16	337.46	-64.78
29P	-19.92	302.03	-72.49	271.15	2.99	212.29	-25.74
29X	19.48	-294.06	-62.91	-285.17	-12.57	-214.53	-27.96
29XY	18.22	375.28	-201.77	213.98	108.23	218.25	-34.65
29Y	-16.32	-382.14	-206.16	-198.83	123.64	-215.17	-30.56
30P	-19.92	-271.15	-2.99	-375.43	1601.54	-113.94	281.68
30X	19.47	285.17	12.58	368.79	1565.46	115.24	278.07
30XY	18.22	-213.98	-108.22	-272.79	1449.88	-85.77	236.42
30Y	-16.32	198.83	-123.64	273.46	1490.40	83.22	240.84
31P	-166.87	-1397.93	851.01	-273.34	-191.07	-260.39	102.82
31X	162.90	-1367.72	-830.57	-276.70	198.35	-256.21	-98.50
31XY	159.30	1218.11	-817.15	189.52	201.33	219.32	-95.95
31Y	-162.22	1247.23	845.23	186.39	-194.17	223.37	101.44
32P	-166.87	273.34	191.07	202.39	-230.68	78.14	-6.51
32X	162.89	276.70	-198.35	195.14	219.91	77.50	3.54
32XY	159.30	-189.52	-201.33	-157.56	220.06	-57.01	3.08
32Y	-162.22	-186.39	194.17	-166.38	-226.78	-57.94	-5.36
33P	-166.87	-202.39	230.68	92.94	-126.38	-17.98	17.13
33X	162.89	-195.14	-219.90	91.71	160.46	-16.99	-9.76
33XY	159.30	157.56	-220.06	-119.54	153.54	6.24	-10.93
33Y	-162.22	166.38	226.78	-110.06	-131.31	9.25	15.68
34P	-166.87	-92.94	126.38	-67.00	-16.11	-26.27	18.11
34X	162.89	-91.71	-160.46	-58.82	30.07	-24.72	-21.42
34XY	159.30	119.54	-153.54	77.88	28.08	32.43	-20.61
34Y	-162.22	110.06	131.31	81.73	-27.43	31.50	17.06
35P	-166.86	67.00	16.11	289.23	-277.82	58.51	-42.98
35X	162.89	58.82	-30.07	257.08	271.51	51.89	39.66
35XY	159.30	-77.88	-28.08	-257.52	270.85	-55.09	39.87
35Y	-162.21	-81.73	27.43	-282.37	-272.82	-59.80	-40.30
36P	-166.86	-289.23	277.82	-196.36	40.60	-79.76	52.30
36X	162.89	-257.08	-271.51	-182.32	-46.23	-72.17	-52.19
36XY	159.29	257.52	-270.85	190.86	-45.57	73.64	-51.97
36Y	-162.21	282.37	272.82	198.55	39.74	78.99	51.34
37P	-166.86	196.36	-40.60	279.83	-174.19	78.21	-35.28
37X	162.88	182.32	46.23	266.95	184.86	73.79	37.95
37XY	159.29	-190.86	45.58	-366.19	176.99	-91.49	36.56
37Y	-162.21	-198.55	-39.74	-369.30	-175.73	-93.27	-35.39
38P	-166.86	-279.83	174.19	-41.13	42.63	-52.72	35.61
38X	162.88	-266.95	-184.86	-32.23	-53.09	-49.14	-39.08
38XY	159.29	366.19	-176.99	588.83	-46.19	156.86	-36.66
38Y	-162.21	369.30	175.73	593.67	44.24	158.16	36.13
39P	-166.86	41.13	-42.63	-564.51	-597.56	-85.96	-105.15
39X	162.88	32.23	53.09	-569.56	614.66	-88.25	109.67
39XY	159.29	-588.83	46.19	-1810.53	607.96	-394.08	107.44
39Y	-162.21	-593.67	-44.24	-1810.65	-606.24	-394.90	-106.84
40P	-166.86	564.52	597.56	1685.88	643.55	369.62	203.85
40X	162.88	569.56	-614.66	1685.43	-650.34	370.37	-207.77
40XY	159.29	1810.53	-607.96	2993.41	-650.53	789.03	-206.70
40Y	-162.21	1810.65	606.24	2992.38	644.04	788.88	205.35
41P	-166.86	-1685.88	-643.55	-2130.98	-743.77	-648.52	-235.72
41X	162.88	-1685.43	650.34	-2127.00	713.88	-647.77	231.79
41XY	159.29	-2993.41	650.53	-3453.99	720.00	-1095.47	232.86
41Y	-162.21	-2992.38	-644.04	-3455.89	-734.41	-1095.62	-234.21

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 6 "LC6 WIND 45° DEFLEX"

Equilibrium Joint Positions and Rotations for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	0.4801	0.4588	-0.02329	-0.4305	0.4682	0.0310	1.13	1.109	150.9
10P	0.3323	0.3222	-0.02166	-0.4025	0.4238	0.0310	0.9823	0.9722	131.6
11P	0.2995	0.2918	-0.0288	-0.4298	0.4517	0.0257	1.44	1.432	127.6
19P	0.1685	0.1663	-0.023	-0.3049	0.3314	-0.0316	1.309	1.306	108.6
20P	0.1473	0.1457	-0.02907	-0.1927	0.2156	-0.0385	2.599	2.598	102.2
32P	0.03615	0.03591	-0.01686	-0.1068	0.1196	-0.0329	2.488	2.488	66.11
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	0.4907	0.4589	-0.01388	-0.4027	0.5413	0.2158	1.141	-0.1911	150.9
1XY	0.4908	0.4665	-0.002009	-0.4685	0.5084	0.1110	-0.1592	-0.1835	150.9
1Y	0.4802	0.4664	-0.01301	-0.5043	0.4401	-0.0651	-0.1698	1.116	150.9
10X	0.3179	0.3224	-0.01332	-0.4107	0.4500	0.2158	0.9679	-0.3276	131.6
10XY	0.3181	0.3057	-0.002613	-0.4162	0.4644	0.1110	-0.3319	-0.3443	131.6
10Y	0.3325	0.3055	-0.01267	-0.4083	0.4243	-0.0652	-0.3175	0.9555	131.6
11X	0.2918	0.2918	-0.01259	-0.4468	0.4050	0.2170	1.432	-0.8482	127.6
11XY	0.2921	0.2807	0.003375	-0.3400	0.3820	0.1070	-0.8479	-0.8593	127.6
11Y	0.2996	0.2804	-0.01158	-0.3730	0.4562	-0.0751	-0.8404	1.42	127.6
19X	0.1705	0.1672	-0.01135	-0.2646	0.2767	0.2378	1.31	-0.9728	108.6
19XY	0.1705	0.1667	2.038e-005	-0.2753	0.3055	0.0695	-0.9695	-0.9733	108.6
19Y	0.1694	0.1667	-0.01085	-0.2528	0.2792	-0.1857	-0.9706	1.307	108.6
20X	0.148	0.1453	-0.01096	-0.2190	0.2308	0.2226	2.6	-2.307	102.2
20XY	0.1487	0.145	0.00761	-0.1886	0.2126	0.0601	-2.303	-2.307	102.2
20Y	0.1469	0.1443	-0.01045	-0.2258	0.2149	-0.1867	-2.305	2.596	102.2
32X	0.03615	0.03688	-0.008316	-0.1124	0.1224	0.1895	2.488	-2.415	66.12
32XY	0.03663	0.036	0.0004698	-0.1051	0.1206	0.0419	-2.415	-2.416	66.13
32Y	0.03712	0.03553	-0.008156	-0.1116	0.1181	-0.1724	-2.415	2.488	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	0.4542	0.435	-0.02321	-0.4108	0.4476	0.0310	1.104	1.085	147.7
3S	0.4349	0.4173	-0.02314	-0.4129	0.4489	0.0310	1.085	1.067	145.2
4S	0.4151	0.399	-0.02298	-0.4136	0.4482	0.0310	1.065	1.049	142.7
5S	0.3959	0.3813	-0.02275	-0.4085	0.4413	0.0310	1.046	1.031	140.2
6S	0.3767	0.3635	-0.02251	-0.4031	0.4341	0.0310	1.027	1.013	137.7
7S	0.3581	0.3462	-0.0222	-0.3917	0.4206	0.0310	1.008	0.9962	135.2
8S	0.3435	0.3327	-0.02192	-0.3787	0.4087	0.0310	0.9935	0.9827	133.2
12S	0.2774	0.2708	-0.0284	-0.4086	0.4313	0.0180	1.417	1.411	124.7
13S	0.2588	0.2531	-0.02798	-0.4000	0.4212	0.0114	1.399	1.393	122.2
14S	0.2407	0.2359	-0.02735	-0.3962	0.4142	0.0035	1.381	1.376	119.7
15S	0.2228	0.2187	-0.0266	-0.3775	0.3943	-0.0044	1.363	1.359	117.2
16S	0.2061	0.2028	-0.02571	-0.3683	0.3813	-0.0123	1.346	1.343	114.7
17S	0.1898	0.187	-0.0247	-0.3329	0.3475	-0.0203	1.33	1.327	112.2
18S	0.1782	0.1758	-0.02378	-0.3411	0.3454	-0.0266	1.318	1.316	110.2
21S	0.1359	0.1345	-0.02818	-0.2311	0.2300	-0.0377	2.588	2.587	99.37
22S	0.1254	0.1243	-0.02724	-0.1979	0.2035	-0.0368	2.577	2.576	96.57
23S	0.1159	0.1149	-0.02603	-0.2016	0.2042	-0.0358	2.568	2.567	93.87
24S	0.1064	0.1056	-0.02472	-0.1859	0.1890	-0.0349	2.558	2.558	91.18
25S	0.09741	0.09667	-0.02396	-0.1813	0.1836	-0.0345	2.549	2.549	88.38

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26S	0.08855	0.0879	-0.02315	-0.1729	0.1754	-0.0342	2.541	2.54	85.58
27S	0.08016	0.07963	-0.02242	-0.1682	0.1700	-0.0340	2.532	2.532	82.78
28S	0.07197	0.07151	-0.02164	-0.1608	0.1626	-0.0338	2.524	2.524	79.98
29S	0.06441	0.06405	-0.02081	-0.1536	0.1551	-0.0336	2.516	2.516	77.23
30S	0.05704	0.05673	-0.01992	-0.1485	0.1500	-0.0334	2.509	2.509	74.48
31S	0.05009	0.04982	-0.01898	-0.1494	0.1479	-0.0333	2.502	2.502	71.78
33S	0.02818	0.02803	-0.01634	-0.0504	0.0576	-0.0303	3.251	3.251	59.78
34S	0.02169	0.02161	-0.01566	-0.0528	0.0602	-0.0271	3.976	3.976	53.78
35S	0.01638	0.01636	-0.01476	-0.0378	0.0441	-0.0241	4.701	4.701	47.79
36S	0.01203	0.01207	-0.0136	-0.0367	0.0424	-0.0211	5.428	5.428	41.79
37S	0.007884	0.007958	-0.01241	-0.0255	0.0300	-0.0181	6.155	6.155	35.79
371S	0.007931	0.008538	-0.009251	0.0000	0.0000	0.0000	6.155	0.008538	35.79
372S	0.008463	0.0079	-0.009182	0.0000	0.0000	0.0000	0.008463	6.155	35.79
373S	0.009099	0.008411	-0.00208	0.0000	0.0000	0.0000	-6.138	0.008411	35.8
374S	0.008546	0.009069	-0.002146	0.0000	0.0000	0.0000	0.008546	-6.138	35.8
38S	0.00544	0.005511	-0.01077	-0.0209	0.0246	-0.0151	6.884	6.884	29.79
39S	0.002593	0.002668	-0.009135	-0.0158	0.0188	-0.0120	7.612	7.612	23.79
391S	0.002631	0.003387	-0.007036	0.0000	0.0000	0.0000	7.612	0.003387	23.79
392S	0.003311	0.002639	-0.006989	0.0000	0.0000	0.0000	0.003311	7.612	23.79
393S	0.004081	0.003314	-0.001546	0.0000	0.0000	0.0000	-7.606	0.003314	23.8
394S	0.003373	0.004089	-0.001596	0.0000	0.0000	0.0000	0.003373	-7.606	23.8
40S	0.001381	0.001463	-0.007054	-0.0071	0.0093	-0.0090	8.342	8.342	17.79
41S	-0.0006161	-0.0005448	-0.005096	-0.0251	0.0263	-0.0060	9.071	9.072	11.79
411S	-0.0005961	0.0003121	-0.003041	0.0000	0.0000	0.0000	9.071	0.0003121	11.8
412S	0.0002408	-0.0005634	-0.003025	0.0000	0.0000	0.0000	0.0002408	9.071	11.8
413S	0.001135	0.0002639	-0.001895	0.0000	0.0000	0.0000	-9.071	0.0002639	11.8
414S	0.0002693	0.001168	-0.001909	0.0000	0.0000	0.0000	0.0002693	-9.071	11.8
42S	-0.002496	-0.002468	-0.003058	0.0160	-0.0157	-0.0030	9.801	9.801	5.797
2X	0.4608	0.436	-0.01382	-0.4219	0.5170	0.2158	1.111	-0.214	147.7
2XY	0.4619	0.4398	-0.001969	-0.4950	0.5322	0.1110	-0.1881	-0.2102	147.7
2Y	0.4552	0.4386	-0.01297	-0.4781	0.4588	-0.0651	-0.1948	1.089	147.7
3X	0.4384	0.4174	-0.01378	-0.4184	0.5249	0.2158	1.088	-0.2326	145.2
3XY	0.4385	0.418	-0.001974	-0.4850	0.5227	0.1110	-0.2115	-0.232	145.2
3Y	0.435	0.4179	-0.01296	-0.4883	0.4540	-0.0651	-0.215	1.068	145.2
4X	0.4152	0.3995	-0.01372	-0.4125	0.5193	0.2158	1.065	-0.2505	142.7
4XY	0.4161	0.3973	-0.001999	-0.4879	0.5235	0.1110	-0.2339	-0.2527	142.7
4Y	0.4156	0.3962	-0.01291	-0.4823	0.4473	-0.0652	-0.2344	1.046	142.7
5X	0.393	0.3814	-0.01364	-0.4073	0.5236	0.2158	1.043	-0.2686	140.2
5XY	0.3931	0.3757	-0.002067	-0.4705	0.5082	0.1110	-0.2569	-0.2743	140.2
5Y	0.396	0.3756	-0.01286	-0.4906	0.4396	-0.0652	-0.254	1.026	140.2
6X	0.3701	0.3638	-0.01356	-0.4015	0.5095	0.2158	1.02	-0.2862	137.7
6XY	0.3711	0.3553	-0.002158	-0.4808	0.5137	0.1110	-0.2789	-0.2947	137.7
6Y	0.377	0.3542	-0.01282	-0.4749	0.4330	-0.0652	-0.273	1.004	137.7
7X	0.3484	0.3463	-0.01346	-0.3992	0.4995	0.2158	0.9984	-0.3037	135.2
7XY	0.3486	0.3342	-0.002309	-0.4617	0.4968	0.1110	-0.3014	-0.3158	135.2
7Y	0.3582	0.3341	-0.01276	-0.4666	0.4265	-0.0652	-0.2918	0.9841	135.2
8X	0.331	0.3328	-0.01338	-0.3701	0.4932	0.2158	0.981	-0.3172	133.2
8XY	0.3315	0.3183	-0.002458	-0.4700	0.4945	0.1110	-0.3185	-0.3317	133.2
8Y	0.3436	0.3176	-0.01271	-0.4655	0.4035	-0.0652	-0.3064	0.9676	133.2
12X	0.2711	0.2711	-0.01246	-0.4002	0.4011	0.2198	1.411	-0.8689	124.7
12XY	0.2719	0.2619	0.003183	-0.3885	0.4103	0.1020	-0.8681	-0.8781	124.7
12Y	0.2777	0.261	-0.01149	-0.3756	0.4266	-0.0899	-0.8623	1.401	124.7
13X	0.254	0.2533	-0.01234	-0.4101	0.3936	0.2222	1.394	-0.8867	122.2
13XY	0.2542	0.2453	0.002955	-0.3645	0.3920	0.0977	-0.8858	-0.8947	122.2
13Y	0.259	0.2451	-0.01141	-0.3681	0.4293	-0.1027	-0.881	1.385	122.2
14X	0.2367	0.2357	-0.01217	-0.3919	0.3822	0.2250	1.377	-0.9043	119.7

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	0.2376	0.2299	0.002614	-0.3590	0.3832	0.0925	-0.9024	-0.9101	119.7
14Y	0.2405	0.2289	-0.01131	-0.3574	0.4108	-0.1180	-0.8995	1.369	119.7
15X	0.2206	0.2189	-0.01198	-0.3852	0.3700	0.2279	1.361	-0.9211	117.2
15XY	0.2209	0.2142	0.002192	-0.3429	0.3661	0.0873	-0.9191	-0.9258	117.2
15Y	0.223	0.2139	-0.01121	-0.3468	0.4004	-0.1332	-0.917	1.354	117.2
16X	0.2045	0.2023	-0.01179	-0.3616	0.3507	0.2308	1.345	-0.9377	114.7
16XY	0.2056	0.1999	0.001677	-0.3315	0.3520	0.0821	-0.9344	-0.9401	114.7
16Y	0.2058	0.1987	-0.0111	-0.3298	0.3760	-0.1485	-0.9342	1.339	114.7
17X	0.19	0.1872	-0.01161	-0.3503	0.3318	0.2337	1.33	-0.9528	112.2
17XY	0.1903	0.1854	0.00107	-0.3089	0.3295	0.0769	-0.9497	-0.9546	112.2
17Y	0.19	0.1851	-0.011	-0.3129	0.3619	-0.1638	-0.95	1.325	112.2
18X	0.1785	0.1751	-0.01146	-0.3181	0.3120	0.2360	1.319	-0.9649	110.2
18XY	0.1793	0.1751	0.0005104	-0.3056	0.3170	0.0728	-0.9607	-0.9649	110.2
18Y	0.1776	0.1742	-0.01091	-0.2964	0.3287	-0.1760	-0.9624	1.314	110.2
21X	0.1369	0.1351	-0.01073	-0.2084	0.2187	0.2176	2.589	-2.317	99.39
21XY	0.1377	0.1344	0.007174	-0.2260	0.2277	0.0574	-2.314	-2.318	99.41
21Y	0.1364	0.1336	-0.01026	-0.2111	0.2152	-0.1846	-2.316	2.586	99.39
22X	0.1264	0.1246	-0.01049	-0.2151	0.2155	0.2127	2.578	-2.327	96.59
22XY	0.1269	0.1239	0.006677	-0.2027	0.2106	0.0547	-2.325	-2.328	96.61
22Y	0.1258	0.1234	-0.01007	-0.2099	0.2179	-0.1824	-2.326	2.575	96.59
23X	0.1164	0.1148	-0.0102	-0.1958	0.2022	0.2069	2.568	-2.337	93.89
23XY	0.1173	0.1146	0.006029	-0.2001	0.2051	0.0515	-2.335	-2.337	93.91
23Y	0.1159	0.1136	-0.009822	-0.1962	0.1994	-0.1799	-2.336	2.566	93.89
24X	0.1073	0.106	-0.009903	-0.1874	0.1944	0.2012	2.559	-2.346	91.19
24XY	0.1078	0.1053	0.005296	-0.1827	0.1884	0.0484	-2.344	-2.347	91.21
24Y	0.1069	0.1048	-0.009566	-0.1898	0.1897	-0.1775	-2.345	2.557	91.19
25X	0.09788	0.09691	-0.009735	-0.1806	0.1846	0.1993	2.55	-2.355	88.39
25XY	0.09873	0.09652	0.004868	-0.1820	0.1865	0.0473	-2.353	-2.355	88.4
25Y	0.09768	0.09564	-0.009421	-0.1794	0.1832	-0.1766	-2.354	2.548	88.39
26X	0.08917	0.08835	-0.00956	-0.1744	0.1795	0.1974	2.541	-2.364	85.59
26XY	0.08967	0.08767	0.00439	-0.1715	0.1767	0.0462	-2.362	-2.364	85.6
26Y	0.08899	0.08718	-0.009269	-0.1754	0.1763	-0.1758	-2.363	2.539	85.59
27X	0.08044	0.0799	-0.009405	-0.1676	0.1719	0.1962	2.532	-2.372	82.79
27XY	0.08126	0.07951	0.003957	-0.1683	0.1725	0.0456	-2.371	-2.372	82.8
27Y	0.08046	0.07864	-0.009134	-0.1674	0.1697	-0.1753	-2.372	2.531	82.79
28X	0.07235	0.07195	-0.009245	-0.1618	0.1655	0.1951	2.524	-2.38	79.99
28XY	0.07286	0.07128	0.003479	-0.1612	0.1653	0.0450	-2.379	-2.381	80
28Y	0.0724	0.07079	-0.008992	-0.1613	0.1635	-0.1748	-2.38	2.523	79.99
29X	0.06442	0.06426	-0.009076	-0.1541	0.1584	0.1940	2.516	-2.388	77.24
29XY	0.06525	0.0639	0.002968	-0.1530	0.1570	0.0444	-2.387	-2.388	77.25
29Y	0.06466	0.06302	-0.008842	-0.1547	0.1555	-0.1743	-2.387	2.515	77.24
30X	0.05717	0.05715	-0.008902	-0.1470	0.1498	0.1929	2.509	-2.395	74.49
30XY	0.0577	0.05651	0.00241	-0.1501	0.1541	0.0437	-2.394	-2.395	74.5
30Y	0.05745	0.05599	-0.008687	-0.1450	0.1487	-0.1738	-2.395	2.508	74.49
31X	0.05001	0.05016	-0.008721	-0.1477	0.1515	0.1918	2.502	-2.402	71.79
31XY	0.05061	0.04962	0.00182	-0.1474	0.1494	0.0431	-2.401	-2.402	71.8
31Y	0.05043	0.04901	-0.008524	-0.1492	0.1471	-0.1734	-2.402	2.501	71.79
33X	0.02757	0.0283	-0.007811	-0.0891	0.0861	0.1759	3.25	-3.194	59.79
33XY	0.02857	0.02811	0.0009158	-0.0499	0.0596	0.0384	-3.194	-3.195	59.8
33Y	0.02845	0.0271	-0.007657	-0.0849	0.0861	-0.1604	-3.194	3.25	59.79
34X	0.02119	0.02211	-0.00731	-0.0728	0.0740	0.1596	3.975	-3.932	53.79
34XY	0.02225	0.0219	0.001199	-0.0510	0.0605	0.0344	-3.932	-3.932	53.8
34Y	0.02219	0.02084	-0.007163	-0.0708	0.0720	-0.1456	-3.932	3.975	53.79
35X	0.01605	0.01709	-0.00676	-0.0613	0.0609	0.1428	4.701	-4.668	47.79
35XY	0.01709	0.01683	0.001351	-0.0363	0.0444	0.0306	-4.668	-4.668	47.8
35Y	0.01712	0.01579	-0.006618	-0.0589	0.0602	-0.1303	-4.668	4.701	47.79

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.01173	0.01289	-0.006163	-0.0544	0.0536	0.1247	5.428	-5.403	41.79
36XY	0.01303	0.01283	0.001347	-0.0343	0.0415	0.0268	-5.403	-5.403	41.8
36Y	0.01285	0.01153	-0.006021	-0.0517	0.0537	-0.1138	-5.403	5.428	41.79
37X	0.007965	0.009144	-0.005492	-0.0443	0.0431	0.1074	6.155	-6.138	35.79
37XY	0.009148	0.009012	0.001462	-0.0246	0.0307	0.0230	-6.138	-6.138	35.8
37Y	0.009064	0.00783	-0.005358	-0.0415	0.0432	-0.0982	-6.138	6.155	35.79
38X	0.005201	0.006468	-0.004781	-0.0356	0.0348	0.0897	6.884	-6.872	29.8
38XY	0.006774	0.006679	0.001252	-0.0213	0.0263	0.0191	-6.872	-6.872	29.8
38Y	0.006403	0.005102	-0.004673	-0.0335	0.0345	-0.0820	-6.872	6.884	29.8
39X	0.002653	0.004129	-0.004001	-0.0278	0.0304	0.0714	7.612	-7.606	23.8
39XY	0.004116	0.004057	0.001184	-0.0130	0.0170	0.0153	-7.606	-7.606	23.8
39Y	0.004059	0.002593	-0.00391	-0.0293	0.0271	-0.0652	-7.606	7.612	23.8
40X	0.0008222	0.002308	-0.003151	-0.0304	0.0158	0.0531	8.342	-8.339	17.8
40XY	0.002845	0.002816	0.000827	-0.0215	0.0246	0.0114	-8.338	-8.338	17.8
40Y	0.002227	0.0007822	-0.003071	-0.0150	0.0299	-0.0485	-8.339	8.342	17.8
41X	-0.000596	0.001211	-0.002234	0.0205	0.0324	0.0375	9.071	-9.071	11.8
41XY	0.001162	0.001157	0.0006826	0.0286	-0.0266	0.0076	-9.071	-9.071	11.8
41Y	0.001133	-0.0006011	-0.00217	-0.0318	-0.0212	-0.0345	-9.071	9.071	11.8
42X	-0.00312	0.00456	-0.001943	-0.0209	-0.0121	0.0181	9.8	-9.799	5.798
42XY	0.005176	0.005177	-0.0008041	-0.0162	0.0171	0.0037	-9.798	-9.798	5.799
42Y	0.004529	-0.003117	-0.001912	0.0122	0.0201	-0.0166	-9.799	9.8	5.798

Joint Support Reactions for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Z Usage %	Comp. Usage %	Uplift Result. (kN)	Result. Usage %	X X-M. Moment (kN-m)	X X-M. Usage %	Y Y-M. Moment (kN-m)	Y Y-M. Usage %	Z Z-M. Moment (kN-m)	Z Z-M. Usage %	Max. Usage %
ANP	-92.49	0.0	-93.44	0.0	644.88	0.0	0.0	658.14	0.0	-1.30	0.0	1.3	0.0	0.04	0.0	0.0
ANX	-31.46	0.0	38.97	0.0	263.19	0.0	0.0	267.91	0.0	2.74	0.0	1.2	0.0	-0.03	0.0	0.0
ANXY	-22.49	0.0	-22.55	0.0	-122.03	0.0	0.0	126.12	0.0	2.64	0.0	-2.7	0.0	-0.04	0.0	0.0
ANY	38.87	0.0	-30.54	0.0	257.16	0.0	0.0	261.87	0.0	-1.22	0.0	-2.7	0.0	0.02	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	0.3282	0.3282	-3.3754	-0.3277	-0.3277	3.3754	0.4801	0.4588	-0.0233
10P	1.0833	1.0833	-5.9268	-1.0830	-1.0830	5.9268	0.3323	0.3222	-0.0217
11P	1.1733	1.1733	-6.6851	-1.1730	-1.1730	6.6850	0.2995	0.2918	-0.0288
19P	0.5502	0.5502	-3.9796	-0.5500	-0.5500	3.9796	0.1685	0.1663	-0.0230
20P	0.7648	0.7648	-5.7288	-0.7647	-0.7647	5.7288	0.1473	0.1457	-0.0291
32P	0.8681	0.8681	-9.0478	-0.8680	-0.8680	9.0477	0.0362	0.0359	-0.0169
ANP	0.2754	0.2754	-5.0810	92.2140	93.1646	-639.7972	0.0000	0.0000	0.0000
1X	0.3282	0.3282	-3.3754	-0.3277	-0.3277	3.3754	0.4907	0.4589	-0.0139
1XY	0.3282	0.3282	-3.3754	-0.3277	-0.3277	3.3754	0.4908	0.4665	-0.0020
1Y	0.1702	0.1702	-1.9954	-0.1697	-0.1697	1.9954	0.4802	0.4664	-0.0130
10X	1.0833	1.0833	-5.9268	-1.0830	-1.0830	5.9268	0.3179	0.3224	-0.0133
10XY	0.5273	0.5273	-3.9468	-0.5270	-0.5270	3.9468	0.3181	0.3057	-0.0026
10Y	0.3693	0.3693	-2.5668	-0.3690	-0.3690	2.5668	0.3325	0.3055	-0.0127
11X	1.1733	1.1733	-6.6851	-1.1730	-1.1730	6.6851	0.2918	0.2918	-0.0126
11XY	0.4593	0.4593	-3.3251	-0.4590	-0.4590	3.3251	0.2921	0.2807	0.0034
11Y	0.4593	0.4593	-3.3251	-0.4590	-0.4590	3.3251	0.2996	0.2804	-0.0116

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	0.5502	0.5502	-3.9796	-0.5500	-0.5500	3.9796	0.1705	0.1672	-0.0113
19XY	0.5502	0.5502	-3.9796	-0.5500	-0.5500	3.9796	0.1705	0.1667	0.0000
19Y	0.5502	0.5502	-3.9796	-0.5500	-0.5500	3.9796	0.1694	0.1667	-0.0108
20X	0.7648	0.7648	-5.7288	-0.7647	-0.7647	5.7288	0.1480	0.1453	-0.0110
20XY	0.6858	0.6858	-4.9488	-0.6857	-0.6857	4.9488	0.1487	0.1450	0.0076
20Y	0.6858	0.6858	-4.9488	-0.6857	-0.6857	4.9488	0.1469	0.1443	-0.0105
32X	0.8681	0.8681	-9.0478	-0.8680	-0.8680	9.0477	0.0362	0.0369	-0.0083
32XY	0.8681	0.8681	-9.0478	-0.8680	-0.8680	9.0478	0.0366	0.0360	0.0005
32Y	0.8681	0.8681	-9.0478	-0.8680	-0.8680	9.0477	0.0371	0.0355	-0.0082
ANX	0.2754	0.2754	-5.0810	31.1837	-39.2420	-258.1055	0.0000	0.0000	0.0000
ANXY	0.2754	0.2754	-5.0810	22.2150	22.2778	127.1103	0.0000	0.0000	0.0000
ANY	0.2754	0.2754	-5.0810	-39.1463	30.2670	-252.0811	0.0000	0.0000	0.0000
2S	0.3282	0.3282	-2.3754	-0.3277	-0.3277	2.3754	0.4542	0.4350	-0.0232
3S	0.3266	0.3266	-1.9332	-0.3262	-0.3262	1.9332	0.4349	0.4173	-0.0231
4S	0.3144	0.3144	-2.3178	-0.3140	-0.3140	2.3178	0.4151	0.3990	-0.0230
5S	0.3280	0.3280	-1.9996	-0.3276	-0.3276	1.9996	0.3959	0.3813	-0.0228
6S	0.1715	0.1715	-1.0618	-0.1712	-0.1712	1.0618	0.3767	0.3635	-0.0225
7S	0.3012	0.3012	-1.8771	-0.3009	-0.3009	1.8770	0.3581	0.3462	-0.0222
8S	0.1297	0.1297	-0.8152	-0.1294	-0.1294	0.8152	0.3435	0.3327	-0.0219
12S	0.9337	0.9337	-4.9335	-0.9334	-0.9334	4.9334	0.2774	0.2708	-0.0284
13S	1.1370	1.1370	-6.2869	-1.1368	-1.1368	6.2869	0.2588	0.2531	-0.0280
14S	0.9963	0.9963	-5.4934	-0.9961	-0.9961	5.4934	0.2407	0.2359	-0.0274
15S	0.4832	0.4832	-3.4868	-0.4830	-0.4830	3.4868	0.2228	0.2187	-0.0266
16S	0.2009	0.2009	-1.3534	-0.2007	-0.2007	1.3534	0.2061	0.2028	-0.0257
17S	0.4305	0.4305	-3.1482	-0.4303	-0.4303	3.1482	0.1898	0.1870	-0.0247
18S	0.2296	0.2296	-1.7948	-0.2295	-0.2295	1.7948	0.1782	0.1758	-0.0238
21S	0.2863	0.2863	-1.9840	-0.2861	-0.2861	1.9839	0.1359	0.1345	-0.0282
22S	1.2057	1.2057	-5.6507	-1.2056	-1.2056	5.6507	0.1254	0.1243	-0.0272
23S	0.9194	0.9194	-3.6668	-0.9193	-0.9193	3.6668	0.1159	0.1149	-0.0260
24S	0.5873	0.5873	-4.4346	-0.5872	-0.5872	4.4346	0.1064	0.1056	-0.0247
25S	0.3039	0.3039	-2.5678	-0.3038	-0.3038	2.5678	0.0974	0.0967	-0.0240
26S	0.6202	0.6202	-5.4135	-0.6201	-0.6201	5.4135	0.0886	0.0879	-0.0232
27S	0.3163	0.3163	-2.8457	-0.3163	-0.3163	2.8457	0.0802	0.0796	-0.0224
28S	0.6226	0.6226	-5.6511	-0.6225	-0.6225	5.6511	0.0720	0.0715	-0.0216
29S	0.3423	0.3423	-3.0554	-0.3422	-0.3422	3.0554	0.0644	0.0640	-0.0208
30S	0.5420	0.5420	-5.0007	-0.5419	-0.5419	5.0007	0.0570	0.0567	-0.0199
31S	0.6341	0.6341	-6.1912	-0.6340	-0.6340	6.1912	0.0501	0.0498	-0.0190
33S	0.9398	0.9398	-10.1147	-0.9398	-0.9398	10.1147	0.0282	0.0280	-0.0163
34S	0.9774	0.9774	-10.9430	-0.9774	-0.9774	10.9430	0.0217	0.0216	-0.0157
35S	2.8343	2.8343	-17.2016	-2.8343	-2.8343	17.2016	0.0164	0.0164	-0.0148
36S	2.6480	2.6480	-16.2721	-2.6480	-2.6480	16.2721	0.0120	0.0121	-0.0136
37S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0079	0.0080	-0.0124
371S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0079	0.0085	-0.0093
372S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0085	0.0079	-0.0092
373S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0091	0.0084	-0.0021
374S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0085	0.0091	-0.0021
38S	0.7292	0.7292	-10.4902	-0.7292	-0.7292	10.4902	0.0054	0.0055	-0.0108
39S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0026	0.0027	-0.0091
391S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0026	0.0034	-0.0070
392S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0033	0.0026	-0.0070
393S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0041	0.0033	-0.0015
394S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0034	0.0041	-0.0016
40S	1.5176	1.5176	-14.7552	-1.5176	-1.5176	14.7551	0.0014	0.0015	-0.0071
41S	1.3223	1.3223	-13.1041	-1.3223	-1.3223	13.1041	-0.0006	-0.0005	-0.0051
411S	0.6215	0.6215	-11.7505	-0.6215	-0.6215	11.7505	-0.0006	0.0003	-0.0030
412S	0.6215	0.6215	-11.7505	-0.6215	-0.6215	11.7505	0.0002	-0.0006	-0.0030

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413S	0.6215	0.6215	-11.7505	-0.6215	-0.6215	11.7505	0.0011	0.0003	-0.0019
414S	0.6215	0.6215	-11.7505	-0.6215	-0.6215	11.7505	0.0003	0.0012	-0.0019
42S	0.4495	0.4495	-8.5456	-0.4495	-0.4495	8.5456	-0.0025	-0.0025	-0.0031
2X	0.3282	0.3282	-2.3754	-0.3277	-0.3277	2.3754	0.4608	0.4360	-0.0138
2XY	0.3282	0.3282	-2.3754	-0.3277	-0.3277	2.3754	0.4619	0.4398	-0.0020
2Y	0.1702	0.1702	-0.9954	-0.1697	-0.1697	0.9954	0.4552	0.4386	-0.0130
3X	0.3266	0.3266	-1.9332	-0.3262	-0.3262	1.9332	0.4384	0.4174	-0.0138
3XY	0.3266	0.3266	-1.9332	-0.3262	-0.3262	1.9332	0.4385	0.4180	-0.0020
3Y	0.3266	0.3266	-1.9332	-0.3262	-0.3262	1.9332	0.4350	0.4179	-0.0130
4X	0.3144	0.3144	-2.3178	-0.3140	-0.3140	2.3178	0.4152	0.3995	-0.0137
4XY	0.3144	0.3144	-2.3178	-0.3140	-0.3140	2.3178	0.4161	0.3973	-0.0020
4Y	0.1564	0.1564	-0.9378	-0.1560	-0.1560	0.9378	0.4156	0.3962	-0.0129
5X	0.4860	0.4860	-3.3796	-0.4856	-0.4856	3.3796	0.3930	0.3814	-0.0136
5XY	0.4860	0.4860	-3.3796	-0.4856	-0.4856	3.3796	0.3931	0.3757	-0.0021
5Y	0.3280	0.3280	-1.9996	-0.3276	-0.3276	1.9996	0.3960	0.3756	-0.0129
6X	0.3295	0.3295	-2.4418	-0.3292	-0.3292	2.4418	0.3701	0.3638	-0.0136
6XY	0.3295	0.3295	-2.4418	-0.3292	-0.3292	2.4418	0.3711	0.3553	-0.0022
6Y	0.1715	0.1715	-1.0618	-0.1712	-0.1712	1.0618	0.3770	0.3542	-0.0128
7X	0.3012	0.3012	-1.8771	-0.3009	-0.3009	1.8770	0.3484	0.3463	-0.0135
7XY	0.3012	0.3012	-1.8771	-0.3009	-0.3009	1.8771	0.3486	0.3342	-0.0023
7Y	0.3012	0.3012	-1.8771	-0.3009	-0.3009	1.8770	0.3582	0.3341	-0.0128
8X	0.2877	0.2877	-2.1952	-0.2874	-0.2874	2.1952	0.3310	0.3328	-0.0134
8XY	0.2877	0.2877	-2.1952	-0.2874	-0.2874	2.1952	0.3315	0.3183	-0.0025
8Y	0.1297	0.1297	-0.8152	-0.1294	-0.1294	0.8152	0.3436	0.3176	-0.0127
12X	0.9337	0.9337	-4.9335	-0.9334	-0.9334	4.9335	0.2711	0.2711	-0.0125
12XY	0.2197	0.2197	-1.5735	-0.2194	-0.2194	1.5735	0.2719	0.2619	0.0032
12Y	0.2197	0.2197	-1.5735	-0.2194	-0.2194	1.5735	0.2777	0.2610	-0.0115
13X	1.1370	1.1370	-6.2869	-1.1368	-1.1368	6.2869	0.2540	0.2533	-0.0123
13XY	0.4230	0.4230	-2.9269	-0.4228	-0.4228	2.9269	0.2542	0.2453	0.0030
13Y	0.4230	0.4230	-2.9269	-0.4228	-0.4228	2.9269	0.2590	0.2451	-0.0114
14X	0.9963	0.9963	-5.4934	-0.9961	-0.9961	5.4934	0.2367	0.2357	-0.0122
14XY	0.2033	0.2033	-1.3534	-0.2031	-0.2031	1.3534	0.2376	0.2299	0.0026
14Y	0.2823	0.2823	-2.1334	-0.2821	-0.2821	2.1334	0.2405	0.2289	-0.0113
15X	0.4832	0.4832	-3.4868	-0.4830	-0.4830	3.4868	0.2206	0.2189	-0.0120
15XY	0.4042	0.4042	-2.7068	-0.4040	-0.4040	2.7068	0.2209	0.2142	0.0022
15Y	0.4832	0.4832	-3.4868	-0.4830	-0.4830	3.4868	0.2230	0.2139	-0.0112
16X	0.2009	0.2009	-1.3534	-0.2007	-0.2007	1.3534	0.2045	0.2023	-0.0118
16XY	0.2009	0.2009	-1.3534	-0.2007	-0.2007	1.3534	0.2056	0.1999	0.0017
16Y	0.2009	0.2009	-1.3534	-0.2007	-0.2007	1.3534	0.2058	0.1987	-0.0111
17X	0.4305	0.4305	-3.1482	-0.4303	-0.4303	3.1482	0.1900	0.1872	-0.0116
17XY	0.3515	0.3515	-2.3682	-0.3513	-0.3513	2.3682	0.1903	0.1854	0.0011
17Y	0.4305	0.4305	-3.1482	-0.4303	-0.4303	3.1482	0.1900	0.1851	-0.0110
18X	0.2296	0.2296	-1.7948	-0.2295	-0.2295	1.7948	0.1785	0.1751	-0.0115
18XY	0.1506	0.1506	-1.0148	-0.1505	-0.1505	1.0148	0.1793	0.1751	0.0005
18Y	0.2296	0.2296	-1.7948	-0.2295	-0.2295	1.7948	0.1776	0.1742	-0.0109
21X	0.2863	0.2863	-1.9840	-0.2861	-0.2861	1.9839	0.1369	0.1351	-0.0107
21XY	0.2863	0.2863	-1.9840	-0.2861	-0.2861	1.9840	0.1377	0.1344	0.0072
21Y	0.2863	0.2863	-1.9840	-0.2861	-0.2861	1.9840	0.1364	0.1336	-0.0103
22X	0.5697	0.5697	-3.8507	-0.5696	-0.5696	3.8507	0.1264	0.1246	-0.0105
22XY	0.8877	0.8877	-4.7507	-0.8876	-0.8876	4.7507	0.1269	0.1239	0.0067
22Y	0.5697	0.5697	-3.8507	-0.5696	-0.5696	3.8507	0.1258	0.1234	-0.0101
23X	0.2834	0.2834	-1.8668	-0.2833	-0.2833	1.8668	0.1164	0.1148	-0.0102
23XY	0.2834	0.2834	-1.8668	-0.2833	-0.2833	1.8668	0.1173	0.1146	0.0060
23Y	0.2834	0.2834	-1.8668	-0.2833	-0.2833	1.8668	0.1159	0.1136	-0.0098
24X	0.5873	0.5873	-4.4346	-0.5872	-0.5872	4.4346	0.1073	0.1060	-0.0099
24XY	0.5873	0.5873	-4.4346	-0.5872	-0.5872	4.4346	0.1078	0.1053	0.0053

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24Y	0.5873	0.5873	-4.4346	-0.5872	-0.5872	4.4346	0.1069	0.1048	-0.0096
25X	0.3039	0.3039	-2.5678	-0.3038	-0.3038	2.5678	0.0979	0.0969	-0.0097
25XY	0.3039	0.3039	-2.5678	-0.3038	-0.3038	2.5678	0.0987	0.0965	-0.0049
25Y	0.3039	0.3039	-2.5678	-0.3038	-0.3038	2.5678	0.0977	0.0956	-0.0094
26X	0.6202	0.6202	-5.4135	-0.6201	-0.6201	5.4135	0.0892	0.0883	-0.0096
26XY	0.6202	0.6202	-5.4135	-0.6201	-0.6201	5.4136	0.0897	0.0877	-0.0044
26Y	0.6202	0.6202	-5.4135	-0.6201	-0.6201	5.4135	0.0890	0.0872	-0.0093
27X	0.3163	0.3163	-2.8457	-0.3163	-0.3163	2.8457	0.0804	0.0799	-0.0094
27XY	0.3163	0.3163	-2.8457	-0.3163	-0.3163	2.8457	0.0813	0.0795	-0.0040
27Y	0.3163	0.3163	-2.8457	-0.3163	-0.3163	2.8457	0.0805	0.0786	-0.0091
28X	0.6226	0.6226	-5.6511	-0.6225	-0.6225	5.6511	0.0723	0.0720	-0.0092
28XY	0.6226	0.6226	-5.6511	-0.6225	-0.6225	5.6511	0.0729	0.0713	-0.0035
28Y	0.6226	0.6226	-5.6511	-0.6225	-0.6225	5.6511	0.0724	0.0708	-0.0090
29X	0.3063	0.3063	-2.8054	-0.3062	-0.3062	2.8054	0.0644	0.0643	-0.0091
29XY	0.3063	0.3063	-2.8054	-0.3062	-0.3062	2.8054	0.0653	0.0639	-0.0030
29Y	0.3063	0.3063	-2.8054	-0.3062	-0.3062	2.8054	0.0647	0.0630	-0.0088
30X	0.5420	0.5420	-5.0007	-0.5419	-0.5419	5.0007	0.0572	0.0572	-0.0089
30XY	0.5420	0.5420	-5.0007	-0.5419	-0.5420	5.0007	0.0577	0.0565	-0.0024
30Y	0.5420	0.5420	-5.0007	-0.5419	-0.5420	5.0007	0.0575	0.0560	-0.0087
31X	0.6341	0.6341	-6.1912	-0.6340	-0.6340	6.1912	0.0500	0.0502	-0.0087
31XY	0.6701	0.6701	-6.4412	-0.6700	-0.6700	6.4412	0.0506	0.0496	-0.0018
31Y	0.6701	0.6701	-6.4412	-0.6700	-0.6700	6.4412	0.0504	0.0490	-0.0085
33X	0.9398	0.9398	-10.1147	-0.9398	-0.9398	10.1147	0.0276	0.0283	-0.0078
33XY	0.9398	0.9398	-10.1147	-0.9398	-0.9398	10.1147	0.0286	0.0281	-0.0009
33Y	0.9398	0.9398	-10.1147	-0.9398	-0.9398	10.1147	0.0284	0.0271	-0.0077
34X	0.9774	0.9774	-10.9430	-0.9774	-0.9774	10.9430	0.0212	0.0221	-0.0073
34XY	0.9774	0.9774	-10.9430	-0.9774	-0.9774	10.9430	0.0223	0.0219	-0.0012
34Y	0.9774	0.9774	-10.9430	-0.9774	-0.9774	10.9430	0.0222	0.0208	-0.0072
35X	1.0303	1.0303	-12.0916	-1.0303	-1.0303	12.0916	0.0160	0.0171	-0.0068
35XY	1.0303	1.0303	-12.0916	-1.0303	-1.0303	12.0916	0.0171	0.0168	-0.0014
35Y	1.6553	1.6553	-13.1916	-1.6553	-1.6553	13.1916	0.0171	0.0158	-0.0066
36X	1.2950	1.2950	-13.4921	-1.2950	-1.2950	13.4921	0.0117	0.0129	-0.0062
36XY	1.0730	1.0730	-11.7471	-1.0730	-1.0730	11.7471	0.0130	0.0128	-0.0013
36Y	0.8440	0.8440	-11.1621	-0.8440	-0.8440	11.1621	0.0128	0.0115	-0.0060
37X	0.8895	0.8895	-11.3712	-0.8895	-0.8895	11.3712	0.0080	0.0091	-0.0055
37XY	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0091	0.0090	-0.0015
37Y	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0091	0.0078	-0.0054
38X	0.7292	0.7292	-10.4902	-0.7292	-0.7292	10.4902	0.0052	0.0065	-0.0048
38XY	0.7292	0.7292	-10.4902	-0.7292	-0.7292	10.4902	0.0068	0.0067	-0.0013
38Y	0.7652	0.7652	-10.7402	-0.7652	-0.7652	10.7402	0.0064	0.0051	-0.0047
39X	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0027	0.0041	-0.0040
39XY	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0041	0.0041	-0.0012
39Y	0.9303	0.9303	-12.8652	-0.9303	-0.9303	12.8652	0.0041	0.0026	-0.0039
40X	1.6176	1.6176	-16.4452	-1.6176	-1.6176	16.4452	0.0008	0.0023	-0.0032
40XY	0.7156	0.7156	-11.7852	-0.7156	-0.7156	11.7852	0.0028	0.0028	-0.0008
40Y	1.1666	1.1666	-14.1152	-1.1666	-1.1666	14.1152	0.0022	0.0008	-0.0031
41X	0.7203	0.7203	-11.9741	-0.7203	-0.7203	11.9741	-0.0006	0.0012	-0.0022
41XY	0.5203	0.5203	-10.1341	-0.5203	-0.5203	10.1341	0.0012	0.0012	-0.0007
41Y	0.5203	0.5203	-10.1341	-0.5203	-0.5203	10.1341	0.0011	-0.0006	-0.0022
42X	0.4495	0.4495	-8.5456	-0.4495	-0.4495	8.5456	-0.0031	0.0046	-0.0019
42XY	0.4495	0.4495	-8.5456	-0.4495	-0.4495	8.5456	0.0052	0.0052	-0.0008
42Y	0.4495	0.4495	-8.5456	-0.4495	-0.4495	8.5456	0.0045	-0.0031	-0.0019

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	-0.00	-0.01	0.01	-25.12	62.99	-7.82
1X	-0.00	-0.01	0.01	24.50	74.18	7.63
1XY	-0.00	-0.01	0.01	33.73	-72.74	10.50
1Y	0.00	-0.01	0.01	-33.42	-57.08	-10.41
2P	-0.00	25.11	-62.98	28.47	-68.09	21.43
2X	-0.01	-24.51	-74.17	-30.30	-105.17	-21.92
2XY	-0.00	-33.74	72.75	-50.07	109.87	-33.52
2Y	0.00	33.41	57.09	50.02	75.85	33.37
3P	-0.00	-28.48	68.10	-27.19	70.80	-22.27
3X	-0.01	30.29	105.17	20.71	127.42	20.40
3XY	-0.01	50.06	-109.87	54.91	-112.66	41.99
3Y	0.00	-50.03	-75.84	-59.77	-49.40	-43.92
4P	-0.00	27.18	-70.79	18.77	-43.70	18.38
4X	-0.02	-20.72	-127.41	-29.21	-144.59	-19.97
4XY	-0.01	-54.92	112.67	-83.40	172.60	-55.32
4Y	0.00	59.76	49.41	73.36	79.28	53.25
5P	-0.00	-18.78	43.71	-43.94	114.95	-25.09
5X	-0.02	29.21	144.60	2.35	284.90	12.62
5XY	-0.01	83.39	-172.59	131.32	-227.34	85.88
5Y	0.01	-73.37	-79.27	-146.88	-13.60	-88.10
6P	-0.00	43.93	-114.95	-9.43	19.35	13.80
6X	-0.02	-2.35	-284.90	-13.37	-185.11	-6.29
6XY	-0.01	-131.32	227.35	-220.65	394.64	-140.79
6Y	0.01	146.87	13.61	108.24	78.09	102.05
7P	-0.00	9.42	-19.34	-104.98	194.14	-47.78
7X	-0.03	13.37	185.12	-242.76	297.94	-114.70
7XY	-0.01	220.64	-394.63	293.91	-352.87	257.28
7Y	0.01	-108.25	-78.08	-117.79	338.00	-113.02
8P	-0.00	104.97	-194.14	371.70	-539.41	303.61
8X	-0.03	242.76	-297.93	697.65	695.98	598.98
8XY	-0.02	-293.92	352.88	-896.88	1044.42	-758.47
8Y	0.01	117.78	-337.99	-523.91	-817.61	-258.68
9P	20.04	644.27	-116.88	404.77	-122.98	255.93
9X	-0.23	-985.44	1.16	-633.68	85.90	-395.00
9XY	17.62	1372.70	-102.83	684.68	-54.28	501.92
9Y	35.12	-948.60	-204.69	-657.36	-258.21	-391.79
10P	40.54	202.90	-369.52	18.47	14.22	76.60
10X	-14.76	507.91	388.24	102.57	462.01	211.24
10XY	26.54	-448.42	519.87	-26.76	-13.06	-164.42
10Y	78.27	-289.07	-640.57	-266.92	-82.79	-192.38
11P	40.54	-18.47	-14.21	-104.55	205.54	-49.21
11X	-14.76	-102.57	-462.01	-2.67	-298.99	-42.10
11XY	26.54	26.75	13.07	-214.06	412.55	-74.92
11Y	78.27	266.91	82.80	191.11	23.94	183.21
12P	40.54	104.54	-205.54	72.37	-78.51	70.77
12X	-14.76	2.67	299.00	-153.46	505.74	-60.32
12XY	26.54	214.05	-412.54	166.50	-254.91	152.22
12Y	78.27	-191.11	-23.93	-282.75	310.87	-189.55
13P	40.54	-72.38	78.52	-232.74	437.47	-122.05
13X	-14.77	153.46	-505.74	96.18	-285.03	99.86
13XY	26.54	-166.51	254.92	-304.95	565.22	-188.59
13Y	78.27	282.75	-310.87	191.86	-123.95	189.84
14P	40.54	232.74	-437.46	153.60	-202.02	154.53

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X	-14.77	-96.19	285.04	-298.51	632.54	-157.88	367.03
14XY	26.53	304.95	-565.21	207.54	-310.93	205.00	-350.46
14Y	78.28	-191.86	123.96	-337.42	565.16	-211.71	275.65
15P	40.54	-153.60	202.03	-457.21	813.27	-244.33	406.12
15X	-14.78	298.50	-632.53	201.48	-289.45	199.99	-368.79
15XY	26.53	-207.55	310.94	-401.26	718.36	-243.52	411.72
15Y	78.28	337.42	-565.16	192.45	-309.60	211.95	-349.90
16P	40.54	457.20	-813.26	544.75	-765.18	500.97	-789.22
16X	-14.78	-201.49	289.46	-546.70	735.22	-374.09	512.34
16XY	26.53	401.25	-718.35	365.32	-436.58	383.29	-577.46
16Y	78.28	-192.45	309.61	-369.35	1059.07	-280.90	684.34
17P	40.54	-544.75	765.18	-1035.12	1164.19	-999.92	1221.12
17X	-14.78	546.70	-735.22	-178.97	273.93	232.74	-291.95
17XY	26.53	-365.33	436.58	-776.58	766.29	-722.73	761.31
17Y	78.28	369.34	-1059.06	-222.07	358.16	93.21	-443.60
18P	13.61	-1555.14	98.93	-948.71	63.69	-374.67	24.33
18X	74.71	-67.15	-311.76	-66.26	160.78	-19.96	-22.59
18XY	23.47	1090.97	14.36	613.45	27.35	255.05	6.24
18Y	-38.70	96.24	415.88	-2.61	-91.56	14.01	48.53
19P	-4.61	-624.91	716.78	-280.33	438.06	-323.30	412.44
19X	27.12	170.74	-77.03	75.15	157.16	87.82	28.62
19XY	14.95	-456.97	410.59	-120.82	117.02	-206.35	188.43
19Y	-11.76	67.95	-71.64	-63.40	-76.75	1.62	-53.00
20P	-4.60	280.32	-438.05	-17.93	76.54	93.71	-129.11
20X	27.12	-75.16	-157.16	-14.26	-95.56	-31.93	-90.26
20XY	14.95	120.81	-117.02	-88.69	214.51	11.47	34.82
20Y	-11.75	63.39	76.75	52.66	25.19	41.45	36.41
21P	-4.60	17.93	-76.54	47.42	-88.16	24.20	-61.00
21X	27.12	14.25	95.56	-139.30	318.20	-46.31	153.24
21XY	14.95	88.69	-214.51	68.11	-122.44	58.07	-124.79
21Y	-11.75	-52.66	-25.19	-161.75	282.91	-79.41	95.45
22P	-4.60	-47.43	88.16	-171.88	342.35	-81.23	159.45
22X	27.11	139.30	-318.19	72.40	-186.44	78.41	-186.90
22XY	14.94	-68.12	122.44	-206.57	402.26	-101.73	194.33
22Y	-11.75	161.75	-282.90	111.27	-119.72	101.12	-149.12
23P	-4.60	171.88	-342.34	63.96	-73.87	84.23	-148.65
23X	27.11	-72.40	186.44	-231.16	669.70	-108.42	305.76
23XY	14.94	206.56	-402.26	191.20	-309.01	142.06	-254.03
23Y	-11.74	-111.27	119.72	-356.00	440.14	-166.88	199.95
24P	-4.60	-63.96	73.87	-260.44	479.48	-115.86	197.63
24X	27.11	231.15	-669.69	86.01	-416.91	113.27	-388.07
24XY	14.94	-191.20	309.02	-435.95	793.66	-223.98	393.81
24Y	-11.74	355.99	-440.14	264.09	-97.33	221.46	-191.95
25P	-4.60	260.44	-479.48	64.66	-34.22	116.11	-183.47
25X	27.10	-86.02	416.92	-364.31	1047.06	-160.83	522.85
25XY	14.94	435.95	-793.66	300.09	-438.70	262.87	-440.13
25Y	-11.74	-264.10	97.33	-596.96	646.85	-307.52	265.78
26P	-4.60	-64.67	34.23	-368.14	654.15	-154.57	245.85
26X	27.10	364.31	-1047.06	121.63	-514.38	173.55	-557.66
26XY	14.94	-300.10	438.70	-591.85	1031.81	-318.55	525.18
26Y	-11.73	596.96	-646.85	345.70	-130.13	336.66	-277.49
27P	-4.60	368.14	-654.15	65.05	-22.85	157.52	-246.18
27X	27.10	-121.63	514.39	-444.78	1118.28	-205.97	593.70
27XY	14.94	591.85	-1031.81	247.88	-326.05	305.36	-493.77
27Y	-11.73	-345.70	130.13	-623.10	804.48	-352.29	339.86
28P	-4.60	-65.05	22.85	-279.57	455.67	-125.32	174.01

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X	27.09	444.78	-1118.28	148.40	-389.24	215.70	-548.19
28XY	14.94	-247.89	326.06	-369.76	570.13	-224.60	325.89
28Y	-11.73	623.10	-804.48	217.75	-230.46	305.76	-376.34
29P	-4.60	279.57	-455.67	317.83	-270.71	221.26	-269.03
29X	27.09	-148.40	389.24	-117.88	234.25	-98.62	230.92
29XY	14.94	369.76	-570.13	253.62	-167.12	230.88	-273.06
29Y	-11.72	-217.75	230.46	-37.93	372.22	-94.70	223.22
30P	-4.60	-317.83	270.71	-1186.35	1430.84	-265.05	299.83
30X	27.09	117.88	-234.25	-601.74	963.31	-85.26	128.47
30XY	14.94	-253.62	167.12	-1115.42	1351.54	-241.24	267.61
30Y	-11.72	37.92	-372.22	-729.66	816.15	-121.89	78.23
31P	-33.89	-1850.64	169.59	-343.62	41.59	-341.88	32.90
31X	214.64	-255.67	-1085.98	-90.35	335.20	-53.91	-116.98
31XY	43.08	1744.40	-162.00	265.71	-36.23	313.19	-30.89
31Y	-197.18	61.16	1075.18	-7.04	-333.08	8.43	115.62
32P	-33.89	343.62	-41.59	275.14	-14.17	101.63	-9.16
32X	214.63	90.35	-335.20	33.42	317.59	20.33	-2.89
32XY	43.07	-265.71	36.23	-239.35	12.70	-82.95	8.04
32Y	-197.18	7.04	333.08	7.77	-323.41	2.43	1.59
33P	-33.89	-275.14	14.17	143.66	6.37	-21.60	3.37
33X	214.63	-33.42	-317.59	-12.20	226.98	-7.49	-14.88
33XY	43.07	239.34	-12.70	-174.56	1.90	10.64	-1.77
33Y	-197.18	-7.77	323.41	-6.38	-209.17	-2.32	18.76
34P	-33.89	-143.66	-6.37	-107.12	-4.83	-41.19	-1.84
34X	214.63	12.20	-226.98	17.83	34.33	4.93	-31.64
34XY	43.07	174.56	-1.90	109.44	-0.68	46.65	-0.42
34Y	-197.18	6.38	209.17	15.66	-47.65	3.62	26.53
35P	-33.89	107.13	4.83	424.27	-7.12	87.28	-0.38
35X	214.62	-17.83	-34.33	-11.84	402.04	-4.87	60.40
35XY	43.07	-109.44	0.68	-384.94	4.11	-81.20	0.79
35Y	-197.17	-15.66	47.65	-20.72	-403.40	-5.97	-58.43
36P	-33.89	-424.27	7.12	-289.28	3.25	-117.20	1.70
36X	214.62	11.84	-402.04	6.15	-61.91	2.96	-76.20
36XY	43.07	384.94	-4.11	282.40	-0.51	109.61	-0.76
36Y	-197.17	20.72	403.40	11.57	63.79	5.30	76.73
37P	-33.89	289.28	-3.25	435.13	0.09	118.98	-0.52
37X	214.62	-6.15	61.91	-51.65	269.16	-9.49	54.38
37XY	43.07	-282.40	0.51	-518.71	1.23	-131.58	0.29
37Y	-197.17	-11.57	-63.79	-54.77	-262.69	-10.90	-53.62
38P	-33.89	-435.13	-0.09	-189.60	-1.76	-102.61	-0.30
38X	214.62	51.65	-269.16	281.51	-71.65	54.72	-55.98
38XY	43.07	518.71	-1.23	734.65	0.21	205.86	-0.17
38Y	-197.17	54.77	262.69	284.15	64.80	55.67	53.79
39P	-33.89	189.60	1.76	-280.57	-6.37	-14.94	-0.76
39X	214.62	-281.51	71.65	-1186.38	886.98	-241.09	157.45
39XY	43.07	-734.65	-0.21	-2095.09	2.94	-464.77	0.45
39Y	-197.17	-284.15	-64.80	-1194.10	-889.50	-242.80	-156.74
40P	-33.89	280.57	6.37	1396.33	2.06	275.42	1.39
40X	214.62	1186.38	-886.98	2338.43	-931.49	578.93	-298.68
40XY	43.07	2095.09	-2.94	3283.45	0.97	883.40	-0.32
40Y	-197.17	1194.11	889.50	2338.77	935.07	580.26	299.68
41P	-33.89	-1396.33	-2.06	-1837.36	10.22	-549.43	1.39
41X	214.62	-2338.43	931.49	-2795.99	1052.04	-872.38	337.02
41XY	43.07	-3283.45	-0.97	-3746.06	-0.93	-1194.38	-0.32
41Y	-197.17	-2338.77	-935.07	-2787.85	-1042.57	-871.06	-336.02

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	140 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

*** Resumen completo para todos los casos de carga - uso= esfuerzo máximo/Esfuerzo permisible
Printed capacities do not include EIA allowable stress increase for wind load cases.
Printed capacities do not include the strength factor entered for each loadcase.

Rs:

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (MPa)	Max Usage %	Max Use In Comp. %	Comp. Control Member	Comp. Force (kN)	Comp. Control Load Case	L/R Capacity (kN)	Comp. Conn. Shear Capacity (kN)	Comp. Conn. Bearing Capacity (kN)	RLX	RLY	RLZ	L/R	Length Comp. Member (m)	Curve No.	No. Of Bolts
M1	M1	DAE	2.5X2.5X0.25	344.7	10.47	10.47	2P	-24.411LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M2	M2	DAE	2.5X2.5X0.25	344.7	35.48	35.48	4P	-82.735LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M3	M3	DAE	3.5X3.5X0.25	344.7	47.33	47.33	6P	-176.810LC4	WIND 4	373.558	878.079	758.976	0.500	0.500	0.500	45.15	2.500	1	7
M4	M4	DAE	4X4X0.25	344.7	86.98	86.98	8P	-282.920LC4	WIND 4	419.569	376.319	325.275	0.500	0.500	0.500	24.72	1.570	1	3
M5	M5	DAE	4X4X0.375	344.7	74.93	74.93	9P	-281.975LC4	WIND 4	681.890	376.319	487.913	0.250	0.250	0.250	32.80	4.099	1	3
M6	M6	DAE	4X4X0.375	344.7	85.45	85.45	10P	-321.583LC4	WIND 4	634.163	376.319	487.913	0.500	0.500	0.500	46.25	2.890	1	3
M7	M7	DAE	4X4X0.3125	344.7	110.39	110.39	13P	-609.879LC4	WIND 4	552.486	627.199	677.657	0.500	0.500	0.500	39.69	2.500	1	5 NG
M8	M8	DAE	4X4X0.3125	344.7	154.46	154.46	15P	-853.359LC4	WIND 4	552.486	2161.836	1951.652	0.500	0.500	0.500	39.69	2.500	1	12 NG
M9	M9	DAE	4X4X0.3125	344.7	179.53	179.53	17P	-1063.324LC4	WIND 4	592.276	1261.071	1138.464	0.500	0.500	0.500	25.08	1.580	1	7 NG
M10	M10	DAE	4X4X0.375	344.7	144.27	144.27	18P	-873.639LC4	WIND 4	605.559	1261.071	1366.156	0.250	0.250	0.250	53.48	6.683	1	7 NG
M11	M11	DAE	4X4X0.375	344.7	126.43	126.43	20P	-808.658LC4	WIND 4	639.624	1261.071	1366.156	0.500	0.500	0.500	44.81	2.800	1	7 NG
M12	M12	DAE	4X4X0.3125	344.7	182.37	182.37	22P	-989.963LC4	WIND 4	542.838	1261.071	1138.464	0.500	0.500	0.500	42.86	2.700	1	7 NG
M13	M13	DAE	5X5X0.5	344.7	106.21	106.21	24P	-1185.266LC4	WIND 4	1115.960	1441.224	2081.762	0.500	0.500	0.500	35.79	2.800	1	8 NG
M14	M14	DAE	6X6X0.5	344.7	100.60	100.60	26P	-1399.664LC4	WIND 4	1391.298	1621.377	2341.982	0.500	0.500	0.500	29.63	2.800	1	9 NG
M15	M15	DAE	6X6X0.5	344.7	116.84	116.84	28P	-1629.504LC4	WIND 4	1394.615	2059.520	3035.903	0.500	0.500	0.500	29.10	2.750	1	10 NG
M16	M16	DAE	6X6X0.5	344.7	124.85	124.85	29P	-1745.316LC4	WIND 4	1397.906	2059.520	3035.903	0.500	0.500	0.500	28.58	2.700	1	10 NG
M17	M17	DAE	6X6X0.5	344.7	136.22	136.22	30P	-1891.755LC4	WIND 4	1388.794	2059.520	3035.903	0.250	0.250	0.250	30.03	5.675	1	10 NG
M18	M18	DAE	6X6X0.5	344.7	138.85	138.85	31P	-1892.903LC4	WIND 4	1363.232	2059.520	3035.903	0.250	0.250	0.250	33.96	6.418	1	10 NG
M19	M19	DAE	6X6X0.5	344.7	129.65	129.65	32P	-1782.283LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M20	M20	DAE	6X6X0.5	344.7	123.35	123.35	33P	-1695.689LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M21	M21	DAE	6X6X0.5	344.7	120.81	120.81	34P	-1660.791LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M22	M22	DAE	6X6X0.5	344.7	116.63	116.63	35P	-1603.416LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M23	M23	DAE	6X6X0.5	344.7	117.33	117.33	36P	-1612.946LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M24	M24	DAE	6X6X0.5	344.7	119.51	119.51	37P	-1642.897LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M25	M25	DAE	6X6X0.5	344.7	120.31	120.31	38P	-1653.902LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M26	M26	DAE	6X6X0.5	344.7	127.28	127.28	39P	-1653.596LC4	WIND 4	1299.208	2059.520	3035.903	0.334	0.334	0.334	43.04	6.088	1	10 NG
M27	M27	DAE	6X6X0.5	344.7	128.28	128.28	40P	-1666.672LC4	WIND 4	1299.208	2059.520	3035.903	0.334	0.334	0.334	43.04	6.088	1	10 NG
M28	M28	DAE	6X6X0.5	344.7	121.27	121.27	41P	-1675.525LC4	WIND 4	1381.692	2265.472	3339.493	0.250	0.250	0.250	31.14	5.885	1	11 NG
D1	D1	SAE	1.5X1.5X0.1875	344.7	38.73	38.73	43XY	-5.058LC1	WIND 0	9.821	30.915	32.528	0.750	0.500	0.500	232.74	3.464	6	1
D2	D2	SAE	1.5X1.5X0.1875	344.7	63.58	63.58	45XY	-8.463LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D3	D3	SAE	1.5X1.5X0.1875	344.7	83.42	83.42	47XY	-11.104LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D4	D4	SAE	1.5X1.5X0.1875	344.7	114.01	114.01	49XY	-15.176LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1 NG
D5	D5	SAE	1.5X1.5X0.1875	344.7	152.74	152.74	51XY	-20.333LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1 NG
D6	D6	SAE	1.5X1.5X0.1875	344.7	183.78	183.78	53XY	-24.464LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1 NG
D7	D7	SAE	1.5X1.5X0.1875	344.7	131.88	131.88	55XY	-22.156LC3	WIND 0	16.800	30.915	32.528	0.750	0.500	0.500	160.26	2.385	6	1 NG
D8	D8	SAE	1.5X1.5X0.1875	344.7	124.71	124.71	57XY	-25.812LC3	WIND 0	20.697	30.915	32.528	0.750	0.500	0.500	136.95	2.038	6	1 NG
D9	D9	SAE	2X2X0.1875	344.7	194.27	194.27	59P	-36.464LC2	WIND 4	14.113	30.915	32.528	0.750	0.500	0.500	222.12	4.446	6	1 NG
D10	D10	SAE	2X2X0.1875	344.7	177.17	177.17	61XY	-32.924LC3	WIND 0	18.583	30.915	32.528	0.750	0.500	0.500	183.92	3.681	6	1 NG
D11	D11	SAE	2X2X0.1875	344.7	167.95	167.95	63XY	-35.127LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG
D12	D12	SAE	2X2X0.1875	344.7	194.88	194.88	65XY	-40.758LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG
D13	D13	SAE	2X2X0.1875	344.7	222.17	222.17	66X	-46.467LC4	WIND 4	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG
D14	D14	SAE	2X2X0.1875	344.7	243.71	243.71	69XY	-50.971LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG
D15	D15	SAE	2X2X0.1875	344.7	250.76	250.76	71XY	-52.447LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG
D16	D16	SAE	2X2X0.1875	344.7	201.17	201.17	73XY	-48.830LC3	WIND 0	24.273	30.915	32.528	0.750	0.500	0.500	151.53	3.033	6	1 NG

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	141 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

D17	D17	SAE	2X2X0.1875	344.7	182.07	182.07	74X	-49.708LC4	WIND	4	27.301	30.915	32.528	0.750	0.500	0.500	138.59	2.774	6	1	NG
D18	D18	SAE	2X2X0.1875	344.7	1336.69	1336.69	77P	-169.556LC4	WIND	4	12.685	125.440	81.319	0.500	0.250	0.250	238.41	7.473	6	2	NG
D19	D19	SAE	2.5X2.5X0.1875	344.7	286.86	286.86	79Y	-50.596LC3	WIND	0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D20	D20	SAE	2.5X2.5X0.1875	344.7	315.44	315.44	81XY	-55.637LC3	WIND	0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D21	D21	SAE	2.5X2.5X0.1875	344.7	324.43	324.43	83XY	-57.972LC3	WIND	0	17.869	125.440	81.319	0.750	0.500	0.500	222.63	5.598	6	2	NG
D22	D22	SAE	2.5X2.5X0.1875	344.7	348.10	348.10	85Y	-62.202LC3	WIND	0	17.869	125.440	81.319	0.750	0.500	0.500	222.63	5.598	6	2	NG
D23	D23	SAE	2.5X2.5X0.1875	344.7	379.05	379.05	87Y	-66.856LC3	WIND	0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D24	D24	SAE	2.5X2.5X0.1875	344.7	390.32	390.32	89Y	-68.844LC3	WIND	0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D25	D25	SAE	2.5X2.5X0.1875	344.7	409.67	409.67	91Y	-72.255LC3	WIND	0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D26	D26	SAE	2.5X2.5X0.1875	344.7	422.91	422.91	93Y	-74.591LC3	WIND	0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D27	D27	SAE	2.5X2.5X0.1875	344.7	436.71	436.71	95Y	-77.532LC3	WIND	0	17.754	125.440	81.319	0.750	0.500	0.500	223.59	5.622	6	2	NG
D28	D28	SAE	2.5X2.5X0.1875	344.7	453.53	453.53	97Y	-80.517LC3	WIND	0	17.754	125.440	81.319	0.750	0.500	0.500	223.59	5.622	6	2	NG
D29	D29	SAE	2X2X0.1875	344.7	833.60	833.60	99Y	-82.565LC3	WIND	0	9.905	125.440	81.319	0.600	0.500	0.500	279.69	5.598	6	2	NG
D30	D30	SAE	2X2X0.1875	344.7	949.23	949.23	100X	-119.732LC4	WIND	4	12.614	125.440	81.319	0.500	0.250	0.250	239.29	7.500	6	2	NG
D31	D31	SAE	2.5X2.5X0.3125	344.7	496.63	496.63	103P	-145.506LC4	WIND	4	29.299	125.440	135.531	0.500	0.250	0.250	220.71	8.532	6	2	NG
D32	D32	SAE	2.5X2.5X0.3125	344.7	302.41	302.41	105P	-76.759LC4	WIND	4	25.383	125.440	135.531	0.500	0.250	0.250	242.71	9.383	6	2	NG
D33	D33	SAE	2.5X2.5X0.3125	344.7	266.06	266.06	107P	-56.380LC4	WIND	4	21.190	125.440	135.531	0.500	0.250	0.250	272.73	10.544	6	2	NG
D34	D34	SAE	2.5X2.5X0.3125	344.7	198.12	198.12	109P	-35.250LC4	WIND	4	17.792	125.440	135.531	0.500	0.250	0.250	304.50	11.772	6	2	NG
D35	D35	SAE	2.5X2.5X0.3125	344.7	161.30	161.30	117P	-67.692LC1	WIND	4	31.554	125.440	135.531	0.500	0.250	0.250	209.94	8.116	6	2	NG
D36	D36	SAE	3.5X3.5X0.25	344.7	130.26	130.26	124P	-88.905LC1	WIND	0	51.318	125.440	108.425	0.500	0.250	0.250	165.37	9.157	6	2	NG
D37	D37	SAE	3.5X3.5X0.25	344.7	72.71	72.71	133P	-49.627LC1	WIND	0	51.318	125.440	108.425	0.500	0.250	0.250	165.37	9.157	6	2	
D38	D38	SAE	4X4X0.25	344.7	83.51	83.51	140P	-50.515LC3	WIND	0	60.486	125.440	108.425	0.500	0.250	0.250	162.22	10.301	6	2	
D39	D39	SAE	4X4X0.25	344.7	213.60	213.60	149P	-124.197LC1	WIND	0	43.718	125.440	108.425	0.600	0.400	0.400	204.05	10.301	6	2	NG
D40	D40	SAE	5X5X0.375	344.7	145.38	145.38	158P	-114.283LC2	WIND	4	59.103	188.160	243.956	0.600	0.400	0.400	252.40	15.867	6	3	NG
H1	H1	SAE	1.5X1.5X0.1875	344.7	3.85	3.85	166P	-0.574LC3	WIND	0	14.917	62.720	40.659	1.000	1.000	1.000	174.68	1.300	6	1	
H2	H2	SAE	1.5X1.5X0.1875	344.7	2.75	2.75	1671P	-0.410LC4	WIND	4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2	
H3	H3	SAE	1.5X1.5X0.1875	344.7	7.45	7.45	1672X	-1.111LC4	WIND	4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2	
H4	H4	SAE	1.5X1.5X0.1875	344.7	25.84	25.84	1674X	-3.855LC4	WIND	4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2	
H5	H5	SAE	1.5X1.5X0.1875	344.7	116.41	116.41	168P	-17.364LC3	WIND	0	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2	NG
H6	H6	SAE	2X2X0.1875	344.7	173.29	173.29	170Y	-23.545LC3	WIND	0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	NG
H7	H7	SAE	2X2X0.1875	344.7	17.57	17.57	1712X	-2.387LC4	WIND	4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	
H8	H8	SAE	2X2X0.1875	344.7	36.90	36.90	1714X	-5.014LC4	WIND	4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	
H9	H9	SAE	2X2X0.1875	344.7	41.19	41.19	1705X	-5.596LC4	WIND	4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	
H10	H10	SAE	2X2X0.1875	344.7	749.32	749.32	172P	-101.807LC3	WIND	0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	NG
H11	H11	SAE	2.5X2.5X0.25	344.7	295.17	295.17	1722Y	-83.546LC3	WIND	0	28.304	125.440	108.425	0.500	0.500	0.500	196.61	4.904	6	2	NG
H12	H12	SAE	2.5X2.5X0.25	344.7	29.67	29.67	17231Y	-8.397LC3	WIND	0	28.304	125.440	108.425	0.500	0.500	0.500	196.61	4.904	6	2	
H13	H13	SAE	3.5X3.5X0.25	344.7	6.60	6.60	1726X	-4.270LC4	WIND	4	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2	
H14	H14	SAE	3.5X3.5X0.25	344.7	8.66	8.66	17261X	-5.604LC4	WIND	4	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2	
H15	H15	SAE	3.5X3.5X0.25	344.7	10.81	10.81	17262X	-6.991LC4	WIND	4	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2	
H16	H16	SAE	3.5X3.5X0.25	344.7	18.21	18.21	17254Y	-11.780LC3	WIND	0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2	
H17	H17	SAE	4X4X0.25	344.7	41.79	41.79	17255Y	-36.857LC3	WIND	0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2	
H18	H18	SAE	4X4X0.25	344.7	91.36	91.36	1724P	-80.575LC3	WIND	0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2	
H19	H19	SAE	4X4X0.25	344.7	71.37	71.37	1728Y	-77.378LC3	WIND	0	119.442	125.440	108.425	0.500	0.250	0.250	101.50	6.446	1	2	
H20	H20	SAE	4X4X0.25	344.7	56.82	56.82	1729Y	-48.566LC3	WIND	0	85.473	125.440	108.425	0.500	0.250	0.250	124.53	7.908	6	2	
H21	H21	SAE	5X5X0.375	344.7	32.18	32.18	17291Y	-40.369LC3	WIND	0	260.955	125.440	162.638	0.250	0.250	0.250	93.16	9.370	1	2	
H22	H22	SAE	5X5X0.375	344.7	44.89	44.89	17292Y	-56.312LC3	WIND	0	296.750	125.440	162.638	0.250	0.250	0.250	107.70	10.832	1	2	
H23	H23	SAE	5X5X0.375	344.7	4.42	4.42	174P	-5.549LC3	WIND	0	313.027	125.440	162.638	0.500	0.250	0.250	77.57	6.147	1	2	
H24	H24	SAE	6X6X0.375	344.7	54.28	52.58	17293Y	-65.961LC3	WIND	0	223.518	125.440	162.638	0.250	0.250	0.250	113.79	13.757	1	2	
H25	H25	SAE	6X6X0.375	344.7	5.93	5.93	182P	-7.441LC3	WIND	0	336.759	125.440	162.638	0.500	0.250	0.250	79.68	7.610	1	2	
H26	H26	SAE	6X6X0.375	344.7	89.59	81.78	17294Y	-102.578LC3	WIND	0	168.624	125.440	162.638	0.250	0.250	0.250	137.98	16.682	6	2	
H27	H27	SAE	6X6X0.375	344.7	7.73	7.73	215P	-9.696LC4	WIND	4	159.752	125.440	162.638	0.500	0.500	0.500	143.81	8.694	6	2	

Group Summary (Tension Portion):

Group	Group Angle	Angle	Steel	Max	Max Tension	Tension	Tension	Net Tens.	Conn.	Tens.	Conn.	Tens.	Conn.	Length	No.	Of	Of	Hole

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	142 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

Label	Desc.	Type	Size	Strength	Usage	Use In	Control	Force	Control	Section	Shear	Bearing	Rupture	Tens.	Bolts	Holes	Diameter
				(MPa)	%	Tens.	Member	(kN)	Load Case	Capacity (kN)	Capacity (kN)	Capacity (kN)	Capacity (kN)	Member (m)	Tens.		(cm)
M1	M1	DAE	2.5X2.5X0.25	344.7	10.47	5.30	2XY	15.603LC4	WIND 4	294.374	752.639	650.551	0.000	2.500	6	2.000	1.746
M2	M2	DAE	2.5X2.5X0.25	344.7	35.48	21.35	4XY	62.847LC4	WIND 4	294.374	752.639	650.551	0.000	2.500	6	2.000	1.746
M3	M3	DAE	3.5X3.5X0.25	344.7	47.33	34.80	6XY	152.765LC4	WIND 4	438.941	878.079	758.976	0.000	2.500	7	2.000	1.746
M4	M4	DAE	4X4X0.25	344.7	86.98	78.27	8XY	254.584LC4	WIND 4	511.224	376.319	325.275	0.000	1.570	3	2.000	1.746
M5	M5	DAE	4X4X0.375	344.7	74.93	60.54	9XY	227.835LC4	WIND 4	752.381	376.319	487.913	0.000	4.099	3	2.000	1.746
M6	M6	DAE	4X4X0.375	344.7	85.45	73.61	10XY	277.015LC4	WIND 4	752.381	376.319	487.913	0.000	2.890	3	2.000	1.746
M7	M7	DAE	4X4X0.3125	344.7	110.39	81.76	13XY	512.815LC4	WIND 4	631.803	627.199	677.657	0.000	2.500	5	2.000	1.746 NG
M8	M8	DAE	4X4X0.3125	344.7	154.46	114.17	15XY	708.445LC4	WIND 4	620.508	2161.836	1951.652	0.000	2.500	12	2.000	2.064 NG
M9	M9	DAE	4X4X0.3125	344.7	179.53	141.77	17XY	879.721LC4	WIND 4	620.508	1261.071	1138.464	0.000	1.580	7	2.000	2.064 NG
M10	M10	DAE	4X4X0.375	344.7	144.27	95.00	18XY	701.861LC4	WIND 4	738.828	1261.071	1366.156	0.000	6.683	7	2.000	2.064 NG
M11	M11	DAE	4X4X0.375	344.7	126.43	92.53	20XY	683.638LC4	WIND 4	738.828	1261.071	1366.156	0.000	2.800	7	2.000	2.064 NG
M12	M12	DAE	4X4X0.3125	344.7	182.37	137.85	22XY	855.362LC4	WIND 4	620.508	1261.071	1138.464	0.000	2.700	7	2.000	2.064 NG
M13	M13	DAE	5X5X0.5	344.7	106.21	82.89	24XY	1041.070LC4	WIND 4	1255.924	1441.224	2081.762	0.000	2.800	8	2.000	2.064 NG
M14	M14	DAE	6X6X0.5	344.7	100.60	80.99	26XY	1242.961LC4	WIND 4	1534.633	1621.377	2341.982	0.000	2.800	9	2.000	2.064 NG
M15	M15	DAE	6X6X0.5	344.7	116.84	95.59	28XY	1459.652LC4	WIND 4	1526.987	2059.520	3035.903	0.000	2.750	10	2.000	2.381 NG
M16	M16	DAE	6X6X0.5	344.7	124.85	102.59	29XY	1566.587LC4	WIND 4	1526.987	2059.520	3035.903	0.000	2.700	10	2.000	2.381 NG
M17	M17	DAE	6X6X0.5	344.7	136.22	111.55	30XY	1703.420LC4	WIND 4	1526.987	2059.520	3035.903	0.000	5.675	10	2.000	2.381 NG
M18	M18	DAE	6X6X0.5	344.7	138.85	110.38	31XY	1685.484LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.418	10	2.000	2.381 NG
M19	M19	DAE	6X6X0.5	344.7	129.65	101.48	32XY	1549.614LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M20	M20	DAE	6X6X0.5	344.7	123.35	94.29	33XY	1439.813LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M21	M21	DAE	6X6X0.5	344.7	120.81	89.76	34XY	1370.683LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M22	M22	DAE	6X6X0.5	344.7	116.63	82.67	35XY	1262.284LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M23	M23	DAE	6X6X0.5	344.7	117.33	82.02	36XY	1252.485LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M24	M24	DAE	6X6X0.5	344.7	119.51	81.62	37XY	1246.369LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M25	M25	DAE	6X6X0.5	344.7	120.31	80.88	38XY	1234.982LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M26	M26	DAE	6X6X0.5	344.7	127.28	78.13	39XY	1193.021LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M27	M27	DAE	6X6X0.5	344.7	128.28	77.42	40XY	1182.234LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M28	M28	DAE	6X6X0.5	344.7	121.27	76.90	41XY	1174.244LC4	WIND 4	1526.987	2265.472	3339.493	0.000	5.885	11	2.000	2.381 NG
D1	D1	SAE	1.5X1.5X0.1875	344.7	38.73	19.00	43X	5.874LC3	WIND 0	46.030	30.915	32.528	0.000	3.464	1	1.000	1.429
D2	D2	SAE	1.5X1.5X0.1875	344.7	63.58	22.62	45X	6.994LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429
D3	D3	SAE	1.5X1.5X0.1875	344.7	83.42	38.08	47X	11.772LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429
D4	D4	SAE	1.5X1.5X0.1875	344.7	114.01	48.99	49X	15.145LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429 NG
D5	D5	SAE	1.5X1.5X0.1875	344.7	152.74	68.27	51X	21.106LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429 NG
D6	D6	SAE	1.5X1.5X0.1875	344.7	183.78	79.73	53X	24.647LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429 NG
D7	D7	SAE	1.5X1.5X0.1875	344.7	131.88	77.99	55X	24.112LC3	WIND 0	46.030	30.915	32.528	0.000	2.385	1	1.000	1.429 NG
D8	D8	SAE	1.5X1.5X0.1875	344.7	124.71	80.34	57X	24.837LC3	WIND 0	46.030	30.915	32.528	0.000	2.038	1	1.000	1.429 NG
D9	D9	SAE	2X2X0.1875	344.7	194.27	95.54	58XY	29.538LC3	WIND 0	65.546	30.915	32.528	0.000	4.446	1	1.000	1.429 NG
D10	D10	SAE	2X2X0.1875	344.7	177.17	120.74	61X	37.326LC3	WIND 0	65.546	30.915	32.528	0.000	3.681	1	1.000	1.429 NG
D11	D11	SAE	2X2X0.1875	344.7	167.95	120.67	63X	37.305LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D12	D12	SAE	2X2X0.1875	344.7	194.88	144.02	65X	44.523LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D13	D13	SAE	2X2X0.1875	344.7	222.17	158.41	67X	48.972LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D14	D14	SAE	2X2X0.1875	344.7	243.71	185.13	69X	51.051LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D15	D15	SAE	2X2X0.1875	344.7	250.76	169.41	71X	52.374LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D16	D16	SAE	2X2X0.1875	344.7	201.17	167.66	73X	51.832LC3	WIND 0	65.546	30.915	32.528	0.000	3.033	1	1.000	1.429 NG
D17	D17	SAE	2X2X0.1875	344.7	182.07	143.96	75P	44.504LC3	WIND 0	65.546	30.915	32.528	0.000	2.774	1	1.000	1.429 NG
D18	D18	SAE	2X2X0.1875	344.7	1336.69	242.97	77Y	153.083LC3	WIND 0	63.005	125.440	81.319	0.000	7.473	2	1.000	1.746 NG
D19	D19	SAE	2.5X2.5X0.1875	344.7	286.86	65.12	79P	52.951LC3	WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746 NG
D20	D20	SAE	2.5X2.5X0.1875	344.7	315.44	65.51	81P	53.269LC3	WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746 NG
D21	D21	SAE	2.5X2.5X0.1875	344.7	324.43	74.34	83P	60.451LC3	WIND 0	83.823	125.440	81.319	0.000	5.598	2	1.000	1.746 NG
D22	D22	SAE	2.5X2.5X0.1875	344.7	348.10	78.22	85P	63.604LC3	WIND 0	83.823	125.440	81.319	0.000	5.598	2	1.000	1.746 NG
D23	D23	SAE	2.5X2.5X0.1875	344.7	379.05	82.39	87P	66.997LC3	WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746 NG
D24	D24	SAE	2.5X2.5X0.1875	344.7	390.32	84.82	89P	68.975LC3	WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746 NG

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	143 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

D25	D25	SAE 2.5X2.5X0.1875	344.7	409.67	89.31	91P	72.626LC3 WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746	NG
D26	D26	SAE 2.5X2.5X0.1875	344.7	422.91	92.00	93P	74.816LC3 WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746	NG
D27	D27	SAE 2.5X2.5X0.1875	344.7	436.71	95.84	95P	77.935LC3 WIND 0	83.823	125.440	81.319	0.000	5.622	2	1.000	1.746	NG
D28	D28	SAE 2.5X2.5X0.1875	344.7	453.53	99.35	97P	80.789LC3 WIND 0	83.823	125.440	81.319	0.000	5.622	2	1.000	1.746	NG
D29	D29	SAE 2X2X0.1875	344.7	833.60	132.46	99P	83.456LC3 WIND 0	63.005	125.440	81.319	0.000	5.598	2	1.000	1.746	NG
D30	D30	SAE 2X2X0.1875	344.7	949.23	192.63	101X	121.365LC4 WIND 4	63.005	125.440	81.319	0.000	7.500	2	1.000	1.746	NG
D31	D31	SAE 2.5X2.5X0.3125	344.7	496.63	116.25	102XY	145.829LC4 WIND 4	135.006	125.440	135.531	0.000	8.532	2	1.000	1.746	NG
D32	D32	SAE 2.5X2.5X0.3125	344.7	302.41	61.96	104XY	77.721LC4 WIND 4	135.006	125.440	135.531	0.000	9.383	2	1.000	1.746	NG
D33	D33	SAE 2.5X2.5X0.3125	344.7	266.06	45.15	106XY	56.635LC4 WIND 4	135.006	125.440	135.531	0.000	10.544	2	1.000	1.746	NG
D34	D34	SAE 2.5X2.5X0.3125	344.7	198.12	30.73	108XY	38.553LC4 WIND 4	135.006	125.440	135.531	0.000	11.772	2	1.000	1.746	NG
D35	D35	SAE 2.5X2.5X0.3125	344.7	161.30	47.13	113P	59.118LC4 WIND 4	135.006	125.440	135.531	0.000	8.116	2	1.000	1.746	NG
D36	D36	SAE 3.5X3.5X0.25	344.7	130.26	51.07	121P	55.368LC3 WIND 0	164.603	125.440	108.425	0.000	9.157	2	1.000	1.746	NG
D37	D37	SAE 3.5X3.5X0.25	344.7	72.71	37.32	128P	40.466LC3 WIND 0	164.603	125.440	108.425	0.000	9.157	2	1.000	1.746	
D38	D38	SAE 4X4X0.25	344.7	83.51	32.49	137P	35.231LC3 WIND 0	191.709	125.440	108.425	0.000	10.301	2	1.000	1.746	
D39	D39	SAE 4X4X0.25	344.7	213.60	83.86	144P	90.926LC3 WIND 0	191.709	125.440	108.425	0.000	10.301	2	1.000	1.746	NG
D40	D40	SAE 5X5X0.375	344.7	145.38	35.92	162P	67.596LC4 WIND 4	363.462	188.160	243.956	0.000	15.867	3	1.000	1.746	NG
H1	H1	SAE 1.5X1.5X0.1875	344.7	3.85	0.00	167X	0.000	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	
H2	H2	SAE 1.5X1.5X0.1875	344.7	2.75	1.92	1661Y	0.834LC4 WIND 4	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	
H3	H3	SAE 1.5X1.5X0.1875	344.7	7.45	0.80	1662P	0.464LC1 WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	
H4	H4	SAE 1.5X1.5X0.1875	344.7	25.84	5.47	1663P	3.163LC1 WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	
H5	H5	SAE 1.5X1.5X0.1875	344.7	116.41	21.58	168Y	12.480LC1 WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	NG
H6	H6	SAE 2X2X0.1875	344.7	173.29	40.57	170P	25.560LC3 WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	NG
H7	H7	SAE 2X2X0.1875	344.7	17.57	3.70	1712P	3.101LC2 WIND 4	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	
H8	H8	SAE 2X2X0.1875	344.7	36.90	5.92	1714P	4.961LC2 WIND 4	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	
H9	H9	SAE 2X2X0.1875	344.7	41.19	6.53	1705P	5.469LC2 WIND 4	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	
H10	H10	SAE 2X2X0.1875	344.7	749.32	130.71	172Y	82.356LC3 WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	NG
H11	H11	SAE 2.5X2.5X0.25	344.7	295.17	93.66	1722P	101.549LC3 WIND 0	110.390	125.440	108.425	0.000	4.904	2	1.000	1.746	NG
H12	H12	SAE 2.5X2.5X0.25	344.7	29.67	9.15	17231P	9.923LC3 WIND 0	110.390	125.440	108.425	0.000	4.904	2	1.000	1.746	
H13	H13	SAE 3.5X3.5X0.25	344.7	6.60	3.39	1726P	4.885LC2 WIND 4	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746	
H14	H14	SAE 3.5X3.5X0.25	344.7	8.66	4.52	17261P	6.513LC2 WIND 4	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746	
H15	H15	SAE 3.5X3.5X0.25	344.7	10.81	5.65	17262P	8.147LC2 WIND 4	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746	
H16	H16	SAE 3.5X3.5X0.25	344.7	18.21	10.04	17254P	14.475LC1 WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746	
H17	H17	SAE 4X4X0.25	344.7	41.79	32.88	17255P	35.650LC3 WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746	
H18	H18	SAE 4X4X0.25	344.7	91.36	50.39	1724Y	72.669LC1 WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746	
H19	H19	SAE 4X4X0.25	344.7	71.37	68.90	1728P	74.710LC3 WIND 0	191.709	125.440	108.425	0.000	6.446	2	1.000	1.746	
H20	H20	SAE 4X4X0.25	344.7	56.82	42.53	1729P	61.334LC1 WIND 0	191.709	125.440	108.425	0.000	7.908	2	1.000	1.746	
H21	H21	SAE 5X5X0.375	344.7	32.18	31.01	17291P	51.736LC1 WIND 0	363.462	125.440	162.638	0.000	9.370	2	1.000	1.746	
H22	H22	SAE 5X5X0.375	344.7	44.89	41.63	17292P	69.459LC1 WIND 0	363.462	125.440	162.638	0.000	10.832	2	1.000	1.746	
H23	H23	SAE 5X5X0.375	344.7	4.42	3.26	178P	4.091LC3 WIND 0	363.462	125.440	162.638	0.000	6.147	2	1.000	1.746	
H24	H24	SAE 6X6X0.375	344.7	54.28	54.28	17293P	90.553LC1 WIND 0	444.781	125.440	162.638	0.000	13.757	2	1.000	1.746	
H25	H25	SAE 6X6X0.375	344.7	5.93	2.64	181P	3.313LC3 WIND 0	444.781	125.440	162.638	0.000	7.610	2	1.000	1.746	
H26	H26	SAE 6X6X0.375	344.7	89.59	89.59	17294P	149.463LC1 WIND 0	444.781	125.440	162.638	0.000	16.682	2	1.000	1.746	
H27	H27	SAE 6X6X0.375	344.7	7.73	5.67	189P	7.109LC3 WIND 0	444.781	125.440	162.638	0.000	9.072	2	1.000	1.746	

*** Resumen de esfuerzos máximos por cada caso de carga

Summary of Maximum Usages by Load Case:

Load Case	Maximum Usage %	Element Label	Element Type
LC1 WIND 0° C.D.	1172.58	77P	Angle NG
LC2 WIND 45° C.D.	1316.41	77P	Angle NG

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1	Page	144 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

LC3 WIND 0° C.T. 1189.73 77P Angle NG
LC4 WIND 45° C.T. 1336.69 77P Angle NG
LC5 WIND 0° DEFLEX 307.07 77P Angle NG
LC6 WIND 45° DEFLEX 343.67 77P Angle NG

*** Peso de la estructura (N):
Weight of Angles*Section DLF: 509302.7
Total: 509302.7

*** End of Report



EVALUACIÓN ESTRUCTURAL

HIPOTESIS 1 REFORZADA

ESTACIÓN CERRO KENNEDY

TORRE CADRADA DE SECCIÓN VARIABLE

ALTURA 150m

Diseñó:

ING. LEOPOLDO BARRERA GARZÓN

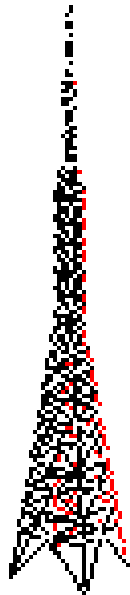
MAT. 25202 – 124789 CND

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page 1 of 136
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

*
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Análisis lineal exitosamente realizado
The model has 0 warnings.

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page 2 of 136
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera



Opciones de verif. de elem: TIA/EIA 222-F
Verificar rupturas en conexión: Not Checked
Crossing diagonal check: Fixed

Geometría de Uniones:

Etiqueta de Unión	Cód.de Sim.	Coord. X (m)	Coord. Y (m)	Coord. Z (m)	Res. Des. X	Res. Des. Y	Res. Des. Z	Res. Rot. X	Res. Rot. Y	Res. Rot. Z
1P	XY-Symmetry	0.65	0.65	150.9	Free	Free	Free	Free	Free	Free
10P	XY-Symmetry	0.65	0.65	131.6	Free	Free	Free	Free	Free	Free
11P	XY-Symmetry	1.14	1.14	127.6	Free	Free	Free	Free	Free	Free
19P	XY-Symmetry	1.14	1.14	108.6	Free	Free	Free	Free	Free	Free
20P	XY-Symmetry	2.452	2.452	102.2	Free	Free	Free	Free	Free	Free
32P	XY-Symmetry	2.452	2.452	66.13	Free	Free	Free	Free	Free	Free
ANP	XY-Symmetry	10.51	10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	3 of 136
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

1X	X-GenXY	0.65	-0.65	150.9	Free	Free	Free	Free	Free
1XY	XY-GenXY	-0.65	-0.65	150.9	Free	Free	Free	Free	Free
1Y	Y-GenXY	-0.65	0.65	150.9	Free	Free	Free	Free	Free
10X	X-GenXY	0.65	-0.65	131.6	Free	Free	Free	Free	Free
10XY	XY-GenXY	-0.65	-0.65	131.6	Free	Free	Free	Free	Free
10Y	Y-GenXY	-0.65	0.65	131.6	Free	Free	Free	Free	Free
11X	X-GenXY	1.14	-1.14	127.6	Free	Free	Free	Free	Free
11XY	XY-GenXY	-1.14	-1.14	127.6	Free	Free	Free	Free	Free
11Y	Y-GenXY	-1.14	1.14	127.6	Free	Free	Free	Free	Free
19X	X-GenXY	1.14	-1.14	108.6	Free	Free	Free	Free	Free
19XY	XY-GenXY	-1.14	-1.14	108.6	Free	Free	Free	Free	Free
19Y	Y-GenXY	-1.14	1.14	108.6	Free	Free	Free	Free	Free
20X	X-GenXY	2.452	-2.452	102.2	Free	Free	Free	Free	Free
20XY	XY-GenXY	-2.452	-2.452	102.2	Free	Free	Free	Free	Free
20Y	Y-GenXY	-2.452	2.452	102.2	Free	Free	Free	Free	Free
32X	X-GenXY	2.452	-2.452	66.13	Free	Free	Free	Free	Free
32XY	XY-GenXY	-2.452	-2.452	66.13	Free	Free	Free	Free	Free
32Y	Y-GenXY	-2.452	2.452	66.13	Free	Free	Free	Free	Free
ANX	X-GenXY	10.51	-10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed
ANXY	XY-GenXY	-10.51	-10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed
ANY	Y-GenXY	-10.51	10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed

Uniones Secundariaws:

Etqta de Unión	Cód Sime.	Origen Unión	Fin Unión	Fracc.	Elev. (m)	Res. Des. X	Res. Des. y	Res. Des. Z	Res. Rot. X	Res. Rot. Y	Res. Rot. Z

2S	XY-Symmetry	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
3S	XY-Symmetry	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
4S	XY-Symmetry	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
5S	XY-Symmetry	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
6S	XY-Symmetry	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
7S	XY-Symmetry	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
8S	XY-Symmetry	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
12S	XY-Symmetry	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
13S	XY-Symmetry	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
14S	XY-Symmetry	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
15S	XY-Symmetry	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
16S	XY-Symmetry	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
17S	XY-Symmetry	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
18S	XY-Symmetry	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
21S	XY-Symmetry	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
22S	XY-Symmetry	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
23S	XY-Symmetry	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
24S	XY-Symmetry	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
25S	XY-Symmetry	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
26S	XY-Symmetry	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
27S	XY-Symmetry	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
28S	XY-Symmetry	20P	32P	0	80	Free	Free	Free	Free	Free	Free
29S	XY-Symmetry	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
30S	XY-Symmetry	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
31S	XY-Symmetry	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
33S	XY-Symmetry	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
34S	XY-Symmetry	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
35S	XY-Symmetry	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
36S	XY-Symmetry	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
37S	XY-Symmetry	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	4 of 136
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

371S	None	37X	37S	0.5	0	Free	Free	Free	Free	Free	Free
372S	None	37S	37Y	0.5	0	Free	Free	Free	Free	Free	Free
373S	None	37Y	37XY	0.5	0	Free	Free	Free	Free	Free	Free
374S	None	37XY	37X	0.5	0	Free	Free	Free	Free	Free	Free
38S	XY-Symmetry	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
39S	XY-Symmetry	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
391S	None	39X	39S	0.5	0	Free	Free	Free	Free	Free	Free
392S	None	39S	39Y	0.5	0	Free	Free	Free	Free	Free	Free
393S	None	39Y	39XY	0.5	0	Free	Free	Free	Free	Free	Free
394S	None	39XY	39X	0.5	0	Free	Free	Free	Free	Free	Free
40S	XY-Symmetry	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
41S	XY-Symmetry	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
411S	None	41X	41S	0.5	0	Free	Free	Free	Free	Free	Free
412S	None	41S	41Y	0.5	0	Free	Free	Free	Free	Free	Free
413S	None	41Y	41XY	0.5	0	Free	Free	Free	Free	Free	Free
414S	None	41XY	41X	0.5	0	Free	Free	Free	Free	Free	Free
42S	XY-Symmetry	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
2X	X-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
2XY	XY-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
2Y	Y-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
3X	X-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
3XY	XY-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
3Y	Y-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
4X	X-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
4XY	XY-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
4Y	Y-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
5X	X-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
5XY	XY-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
5Y	Y-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
6X	X-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
6XY	XY-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
6Y	Y-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
7X	X-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
7XY	XY-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
7Y	Y-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
8X	X-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
8XY	XY-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
8Y	Y-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
12X	X-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
12XY	XY-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
12Y	Y-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
13X	X-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
13XY	XY-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
13Y	Y-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
14X	X-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
14XY	XY-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
14Y	Y-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
15X	X-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
15XY	XY-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
15Y	Y-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
16X	X-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
16XY	XY-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
16Y	Y-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
17X	X-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
17XY	XY-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
17Y	Y-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
18X	X-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
18XY	XY-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page	5 of 136
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

18Y	Y-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
21X	X-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
21XY	XY-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
21Y	Y-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
22X	X-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
22XY	XY-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
22Y	Y-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
23X	X-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
23XY	XY-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
23Y	Y-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
24X	X-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
24XY	XY-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
24Y	Y-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
25X	X-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
25XY	XY-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
25Y	Y-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
26X	X-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
26XY	XY-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
26Y	Y-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
27X	X-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
27XY	XY-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
27Y	Y-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
28X	X-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
28XY	XY-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
28Y	Y-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
29X	X-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
29XY	XY-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
29Y	Y-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
30X	X-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
30XY	XY-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
30Y	Y-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
31X	X-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
31XY	XY-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
31Y	Y-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
33X	X-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
33XY	XY-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
33Y	Y-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
34X	X-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
34XY	XY-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
34Y	Y-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
35X	X-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
35XY	XY-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
35Y	Y-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
36X	X-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
36XY	XY-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
36Y	Y-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
37X	X-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
37XY	XY-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
37Y	Y-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
38X	X-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
38XY	XY-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
38Y	Y-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
39X	X-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
39XY	XY-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
39Y	Y-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
40X	X-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
40XY	XY-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
40Y	Y-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page	6 of 136
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

41X	X-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
41XY	XY-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
41Y	Y-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
42X	X-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
42XY	XY-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
42Y	Y-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free

Propiedades del acero:

Etiqueta del Acero	Mód. de Elast. (MPa)	Esfzo de Fluen. Fy (MPa)	Esfzo Ruptura Fu (MPa)	Todos los Elem Esfzo Hyp. 1 (MPa)	Todos los Elem Esfzo Hyp. 2 (MPa)	Elemto Rupt. Hyp. 1 (MPa)	Elemto Rupt. Hyp. 2 (MPa)	Elemto flex Hyp. 1 (MPa)	Elemto flex bearing Hyp. 2 (MPa)
A572-50	1.999e+005	344.7	448.2	0	0	0	0	0	0

Tornillos:

Etqta Tornillo	Diám. (cm)	Barreno (cm)	Cap al Corte (kN)	Dist. al Paño (cm)	Esp. entre Torn. (cm)	Cap. Corte Hyp. 1 (kN)	Cap. Corte Hyp. 2 (kN)
1/2 A394 TYPE0 X	1.27	1.429	30.92	0	0	0	0
5/8 A394 TYPE0 X	1.587	1.746	62.72	0	0	0	0
3/4 A394 TYPE0 X	1.905	2.064	90.08	0	0	0	0
7/8 A394 TYPE0 N	2.223	2.381	103	0	0	0	0

Number Bolts Used By Type:

Bolt Type	Number Bolts
5/8 A394 TYPE0 X	1034
3/4 A394 TYPE0 X	452
7/8 A394 TYPE0 N	604
1/2 A394 TYPE0 X	232

Angle Properties:

Angle Type	Angle Size	Long Leg (cm)	Short Leg (cm)	Thick. (cm)	Unit Weight (N/m)	Gross Area (cm^2)	w/t Ratio	Radius of Gyration Rx (cm)	Radius of Gyration Ry (cm)	Radius of Gyration Rz (cm)	Number of Angles	Wind Width (cm)	Short Edge Dist. (cm)	Long Edge Dist. (cm)	Optimize Cost Factor	Section Modulus (cm^3)
SAE	6X6X0.375	15	15	0.9525	2.2e+002	28.1	14	4.775	4.775	3.023	1	15	0	0	1.00	0
SAE	5X5X0.5	13	13	1.27	2.4e+002	30.6	8	3.912	3.912	2.497	1	13	0	0	1.00	0
SAE	5X5X0.375	13	13	0.9525	1.8e+002	23.3	11	3.962	3.962	2.515	1	13	0	0	1.00	0
SAE	4X4X0.5	10	10	1.27	1.9e+002	24.2	6.3	3.099	3.099	1.986	1	10	0	0	1.00	0
SAE	4X4X0.375	10	10	0.9525	1.4e+002	18.5	8.7	3.124	3.124	2.002	1	10	0	0	1.00	0
SAE	4X4X0.3125	10	10	0.7937	1.2e+002	15.5	11	3.15	3.15	2.009	1	10	0	0	1.00	0
SAE	4X4X0.25	10	10	0.635	96	12.5	14	3.175	3.175	2.019	1	10	0	0	1.00	0
SAE	3.5X3.5X0.25	8.9	8.9	0.635	85	10.9	12	2.769	2.769	1.763	1	8.9	0	0	1.00	0
SAE	3X3X0.25	7.6	7.6	0.635	72	9.29	9.8	2.362	2.362	1.504	1	7.6	0	0	1.00	0
SAE	2.5X2.5X0.25	6.3	6.3	0.635	60	7.68	7.8	1.953	1.953	1.247	1	6.3	0	0	1.00	0
SAE	2.5X2.5X0.1875	6.3	6.3	0.4763	45	5.82	11	1.976	1.976	1.257	1	6.3	0	0	1.00	0

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

SAE	2X2X0.1875	5.1	5.1	0.4763	36	4.58	8	1.567	1.567	1.001	1	5.1	0	0	1.00	0
SAE	2X2X0.125	5.1	5.1	0.3175	24	3.1	11	1.59	1.59	1.011	1	5.1	0	0	1.00	0
SAE	1.5X1.5X0.1875	3.8	3.8	0.4763	26	3.42	5	1.161	1.161	0.7442	1	3.8	0	0	1.00	0
PAE	2L6X0.5+L4X0.25	15	15	2.54	6.7e+002	88.1	10	5.46	5.46	3.591	1	15	0	0	1.00	0
PAE	2L6X0.5+L4X0.3125	15	15	2.54	6.9e+002	91.1	10	5.55	5.55	3.65	1	15	0	0	1.00	0
PAE	2L6X0.5+L4X0.375	15	15	2.54	7.2e+002	94.2	10	5.63	5.63	3.703	1	15	0	0	1.00	0
PAE	2L6X0.5+L5X0.375	15	15	2.54	7.5e+002	99	10	6	6	3.95	1	15	0	0	1.00	0
PAE	2L6X0.5+L5X0.5	15	15	2.54	8.1e+002	107	10	6.16	6.16	4.05	1	15	0	0	1.00	0
PAE	2L5X0.375+L4X0.25	13	13	1.905	4.6e+002	59.9	11	4.88	4.88	3.21	1	13	0	0	1.00	0
PAE	2L4X0.375+L4X0.25	10	10	1.905	3.8e+002	50.2	8.2	4.33	4.33	2.847	1	10	0	0	1.00	0
PAE	2L4X0.3125+L4X0.25	10	10	1.587	3.4e+002	44.1	11	4.35	4.35	2.861	1	10	0	0	1.00	0
PAE	2L4X0.3125+L4X0.5	10	10	1.587	4.3e+002	56.3	11	4.57	4.57	3.01	1	10	0	0	1.00	0
DAE	4X4X0.375	10	10	0.9525	2.9e+002	36.9	8.7	3.124	4.597	3.124	2	10	0	0	1.00	0
DAE	4X4X0.3125	10	10	0.7937	2.4e+002	31	11	3.15	4.572	3.15	2	10	0	0	1.00	0
DAE	4X4X0.25	10	10	0.635	1.9e+002	25	14	3.175	4.547	3.175	2	10	0	0	1.00	0
DAE	3.5X3.5X0.25	8.9	8.9	0.635	1.7e+002	21.8	12	2.769	4.039	2.769	2	8.9	0	0	1.00	0
DAE	2.5X2.5X0.25	6.3	6.3	0.635	1.2e+002	15.4	7.8	1.953	3.023	1.953	2	6.3	0	0	1.00	0
DAE	2.5X2.5X0.1875	6.3	6.3	0.4763	90	11.6	11	1.976	2.997	1.976	2	6.3	0	0	1.00	0
DAE	2X2X0.1875	5.1	5.1	0.4763	71	9.23	7	1.567	2.482	1.567	2	5.1	0	0	1.00	0

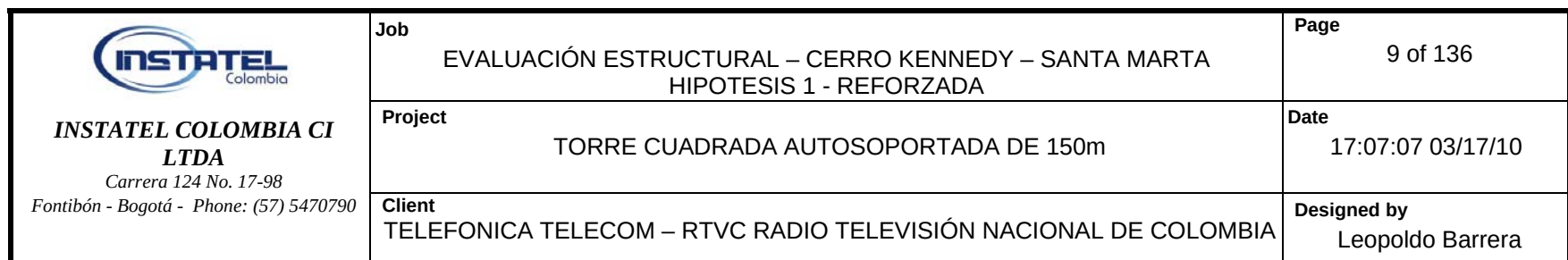
Grupo de Angulos:

Etqta	Desc.	Tipo	Tam.	Mat.	Elemento	Gpo Tipo	Opt. Grupo	Permitir adicionar > perfil para opt. (cm)

0.000000	M1	DAE	2.5X2.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M2	DAE	2.5X2.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M3	DAE	3.5X3.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M4	DAE	4X4X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M5	DAE	4X4X0.375	A572-50	Beam	Leg	None	30.480000
0.000000	M6	DAE	4X4X0.375	A572-50	Beam	Leg	None	30.480000
0.000000	M7	DAE	4X4X0.3125	A572-50	Beam	Leg	None	30.480000
0.000000	M8	PAE	2L4X0.3125+L4X0.25	A572-50	Beam	Leg	None	0.000000
0.000000	M9	PAE	2L4X0.3125+L4X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M10	PAE	2L4X0.375+L4X0.25	A572-50	Beam	Leg	None	0.000000
0.000000	M11	PAE	2L4X0.375+L4X0.25	A572-50	Beam	Leg	None	0.000000
0.000000	M12	PAE	2L5X0.375+L4X0.25	A572-50	Beam	Leg	None	0.000000
0.000000	M13	PAE	2L6X0.5+L4X0.25	A572-50	Beam	Leg	None	0.000000
0.000000	M14	PAE	2L6X0.5+L4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M15	PAE	2L6X0.5+L4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M16	PAE	2L6X0.5+L4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M17	PAE	2L6X0.5+L4X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M18	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M19	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M20	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M21	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M22	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M23	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M24	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M25	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M26	PAE	2L6X0.5+L5X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M27	PAE	2L6X0.5+L5X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M28	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	D1	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D2	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

0.000000	D3	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D4	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D5	SAE	2X2X0.125	A572-50	Truss	None	30.480000
0.000000	D6	SAE	2.5X2.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D7	SAE	2X2X0.125	A572-50	Truss	None	30.480000
0.000000	D8	SAE	2X2X0.125	A572-50	Truss	None	30.480000
0.000000	D9	SAE	2.5X2.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D10	SAE	2.5X2.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D11	DAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D12	DAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D13	DAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D14	DAE	2.5X2.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D15	DAE	2.5X2.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D16	DAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D17	DAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D18	SAE	4X4X0.375	A572-50	Truss	None	30.480000
0.000000	D19	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	D20	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	D21	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D22	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D23	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D24	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D25	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D26	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D27	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D28	SAE	4X4X0.3125	A572-50	Truss	None	0.000000
0.000000	D29	SAE	4X4X0.3125	A572-50	Truss	None	0.000000
0.000000	D30	SAE	5X5X0.5	A572-50	Truss	None	0.000000
0.000000	D31	SAE	5X5X0.5	A572-50	Truss	None	0.000000
0.000000	D32	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D33	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D34	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D35	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D36	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D37	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D38	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D39	SAE	4X4X0.5	A572-50	Truss	None	0.000000
0.000000	D40	SAE	5X5X0.5	A572-50	Truss	None	0.000000
0.000000	H1	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H2	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H3	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H4	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H5	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H6	SAE	3X3X0.25	A572-50	Truss	None	30.480000
0.000000	H7	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H8	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H9	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H10	SAE	3X3X0.25	A572-50	Truss	None	30.480000
0.000000	H11	SAE	4X4X0.375	A572-50	Truss	None	30.480000
0.000000	H12	SAE	2.5X2.5X0.25	A572-50	Truss	None	30.480000
0.000000	H13	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H14	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H15	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H16	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H17	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H18	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H19	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H20	SAE	4X4X0.25	A572-50	Truss	None	30.480000



Aggregate Angle Information:

Sections:

[illegible]

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page 10 of 136
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

4	10P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
5	11P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
6	13S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
7	15S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
8	17S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
9	19P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
10	20P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
11	22S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
12	24S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
13	26S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
14	28S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
15	30S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
16	31S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
17	32P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
18	33S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
19	34S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
20	35S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
21	36S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
22	37S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
23	38S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
24	39S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
25	40S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
26	41S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
27	42S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
28	ANP	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None

Conectividad:

Etiqueta	Etiqueta	Código	Unión	Unión	Cód.	Cód.	Relac.	Relac.	Relac.	Torn.	#	#	#	Lado a	Dist.	Dist.	Dist.	Esp.		
de	del	de	de	Final	de	de	RLX	RLY	RLZ	Tipo	Torn.	Barr.	Planos	Conec.	Corta	Larga	Final	/		
de	Grupo	Sección	Simetría	Origen	Exc.	Rest.							de		al	al	(cm)	Torn.		
Elemento													Corte		Paño	Paño	(cm)	(cm)		
Restr.															(cm)	(cm)				
0	1P	M1	XY-Symmetry	1P	2S	1	5	0.5	0.5	0.5 5/8 A394	TYPE0	X	6	2	2	Both	0	0	0	0
0	1X	M1	X-GenXY	1X	2X	1	5	0.5	0.5	0.5 5/8 A394	TYPE0	X	6	2	2	Both	0	0	0	0
0	1XY	M1	XY-GenXY	1XY	2XY	1	5	0.5	0.5	0.5 5/8 A394	TYPE0	X	6	2	2	Both	0	0	0	0
0	1Y	M1	Y-GenXY	1Y	2Y	1	5	0.5	0.5	0.5 5/8 A394	TYPE0	X	6	2	2	Both	0	0	0	0
0	2P	M1	XY-Symmetry	2S	3S	1	4	0.5	0.5	0.5 5/8 A394	TYPE0	X	6	2	2	Both	0	0	0	0
0	2X	M1	X-GenXY	2X	3X	1	4	0.5	0.5	0.5 5/8 A394	TYPE0	X	6	2	2	Both	0	0	0	0
0	2XY	M1	XY-GenXY	2XY	3XY	1	4	0.5	0.5	0.5 5/8 A394	TYPE0	X	6	2	2	Both	0	0	0	0
0	2Y	M1	Y-GenXY	2Y	3Y	1	4	0.5	0.5	0.5 5/8 A394	TYPE0	X	6	2	2	Both	0	0	0	0
0	3P	M2	XY-Symmetry	3S	4S	1	4	0.5	0.5	0.5 5/8 A394	TYPE0	X	6	2	2	Both	0	0	0	0
0	3X	M2	X-GenXY	3X	4X	1	4	0.5	0.5	0.5 5/8 A394	TYPE0	X	6	2	2	Both	0	0	0	0

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	3XY	M2	XY-GenXY	3XY	4XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	3Y	M2	Y-GenXY	3Y	4Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4P	M2	XY-Symmetry	4S	5S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4X	M2	X-GenXY	4X	5X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4XY	M2	XY-GenXY	4XY	5XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4Y	M2	Y-GenXY	4Y	5Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5P	M3	XY-Symmetry	5S	6S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5X	M3	X-GenXY	5X	6X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5XY	M3	XY-GenXY	5XY	6XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5Y	M3	Y-GenXY	5Y	6Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	6P	M3	XY-Symmetry	6S	7S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	6X	M3	X-GenXY	6X	7X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	6XY	M3	XY-GenXY	6XY	7XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	6Y	M3	Y-GenXY	6Y	7Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7P	M4	XY-Symmetry	7S	8S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7X	M4	X-GenXY	7X	8X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7XY	M4	XY-GenXY	7XY	8XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7Y	M4	Y-GenXY	7Y	8Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	8P	M4	XY-Symmetry	8S	10P	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	8X	M4	X-GenXY	8X	10X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	8XY	M4	XY-GenXY	8XY	10XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	8Y	M4	Y-GenXY	8Y	10Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	9P	M5	XY-Symmetry	10P	11P	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	9X	M5	X-GenXY	10X	11X	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	9XY	M5	XY-GenXY	10XY	11XY	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	9Y	M5	Y-GenXY	10Y	11Y	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	10P	M6	XY-Symmetry	11P	12S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	10X	M6	X-GenXY	11X	12X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	10XY	M6	XY-GenXY	11XY	12XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	10Y	M6	Y-GenXY	11Y	12Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	11P	M6	XY-Symmetry	12S	13S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	11X	M6	X-GenXY	12X	13X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	11XY	M6	XY-GenXY	12XY	13XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	11Y	M6	Y-GenXY	12Y	13Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	12P	M7	XY-Symmetry	13S	14S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	12X	M7	X-GenXY	13X	14X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	12XY	M7	XY-GenXY	13XY	14XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	12Y	M7	Y-GenXY	13Y	14Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	13P	M7	XY-Symmetry	14S	15S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	13X	M7	X-GenXY	14X	15X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	13XY	M7	XY-GenXY	14XY	15XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	13Y	M7	Y-GenXY	14Y	15Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	14P	M8	XY-Symmetry	15S	16S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	14X	M8	X-GenXY	15X	16X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	14XY	M8	XY-GenXY	15XY	16XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	14Y	M8	Y-GenXY	15Y	16Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15P	M8	XY-Symmetry	16S	17S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15X	M8	X-GenXY	16X	17X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15XY	M8	XY-GenXY	16XY	17XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15Y	M8	Y-GenXY	16Y	17Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	16P	M9	XY-Symmetry	17S	18S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	10	2	2	Both	0	0	0	0
0	16X	M9	X-GenXY	17X	18X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	10	2	2	Both	0	0	0	0
0	16XY	M9	XY-GenXY	17XY	18XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	10	2	2	Both	0	0	0	0
0	16Y	M9	Y-GenXY	17Y	18Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	10	2	2	Both	0	0	0	0
0	17P	M9	XY-Symmetry	18S	19P	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	10	2	2	Both	0	0	0	0
0	17X	M9	X-GenXY	18X	19X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	10	2	2	Both	0	0	0	0
0	17XY	M9	XY-GenXY	18XY	19XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	10	2	2	Both	0	0	0	0
0	17Y	M9	Y-GenXY	18Y	19Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	10	2	2	Both	0	0	0	0

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	18P	M10	XY-Symmetry	19P	20P	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18X	M10	X-GenXY	19X	20X	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18XY	M10	XY-GenXY	19XY	20XY	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18Y	M10	Y-GenXY	19Y	20Y	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19P	M11	XY-Symmetry	20P	21S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19X	M11	X-GenXY	20X	21X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19XY	M11	XY-GenXY	20XY	21XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19Y	M11	Y-GenXY	20Y	21Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20P	M11	XY-Symmetry	21S	22S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20X	M11	X-GenXY	21X	22X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20XY	M11	XY-GenXY	21XY	22XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20Y	M11	Y-GenXY	21Y	22Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21P	M12	XY-Symmetry	22S	23S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21X	M12	X-GenXY	22X	23X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21XY	M12	XY-GenXY	22XY	23XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21Y	M12	Y-GenXY	22Y	23Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22P	M12	XY-Symmetry	23S	24S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22X	M12	X-GenXY	23X	24X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22XY	M12	XY-GenXY	23XY	24XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22Y	M12	Y-GenXY	23Y	24Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	23P	M13	XY-Symmetry	24S	25S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	23X	M13	X-GenXY	24X	25X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	23XY	M13	XY-GenXY	24XY	25XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	23Y	M13	Y-GenXY	24Y	25Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	24P	M13	XY-Symmetry	25S	26S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	24X	M13	X-GenXY	25X	26X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	24XY	M13	XY-GenXY	25XY	26XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	24Y	M13	Y-GenXY	25Y	26Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	25P	M14	XY-Symmetry	26S	27S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0

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	Project	Date
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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

0	25X	M14	X-GenXY	26X	27X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	25XY	M14	XY-GenXY	26XY	27XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	25Y	M14	Y-GenXY	26Y	27Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	26P	M14	XY-Symmetry	27S	28S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	26X	M14	X-GenXY	27X	28X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	26XY	M14	XY-GenXY	27XY	28XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	26Y	M14	Y-GenXY	27Y	28Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	27P	M15	XY-Symmetry	28S	29S	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	27X	M15	X-GenXY	28X	29X	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	27XY	M15	XY-GenXY	28XY	29XY	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	27Y	M15	Y-GenXY	28Y	29Y	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	28P	M15	XY-Symmetry	29S	30S	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	28X	M15	X-GenXY	29X	30X	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	28XY	M15	XY-GenXY	29XY	30XY	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	28Y	M15	Y-GenXY	29Y	30Y	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	29P	M16	XY-Symmetry	30S	31S	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	29X	M16	X-GenXY	30X	31X	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	29XY	M16	XY-GenXY	30XY	31XY	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	29Y	M16	Y-GenXY	30Y	31Y	1	4	0.5	0.5	0.5 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	30P	M17	XY-Symmetry	31S	32P	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	30X	M17	X-GenXY	31X	32X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	30XY	M17	XY-GenXY	31XY	32XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	30Y	M17	Y-GenXY	31Y	32Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	31P	M18	XY-Symmetry	32P	33S	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	31X	M18	X-GenXY	32X	33X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	31XY	M18	XY-GenXY	32XY	33XY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	31Y	M18	Y-GenXY	32Y	33Y	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	32P	M19	XY-Symmetry	33S	34S	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	32X	M19	X-GenXY	33X	34X	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	32XY	M19	XY-GenXY	33XY	34XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	32Y	M19	Y-GenXY	33Y	34Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	33P	M20	XY-Symmetry	34S	35S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	33X	M20	X-GenXY	34X	35X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	33XY	M20	XY-GenXY	34XY	35XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	33Y	M20	Y-GenXY	34Y	35Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	34P	M21	XY-Symmetry	35S	36S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	34X	M21	X-GenXY	35X	36X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	34XY	M21	XY-GenXY	35XY	36XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	34Y	M21	Y-GenXY	35Y	36Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	35P	M22	XY-Symmetry	36S	37S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	35X	M22	X-GenXY	36X	37X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	35XY	M22	XY-GenXY	36XY	37XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	35Y	M22	Y-GenXY	36Y	37Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	36P	M23	XY-Symmetry	37S	38S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	36X	M23	X-GenXY	37X	38X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	36XY	M23	XY-GenXY	37XY	38XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	36Y	M23	Y-GenXY	37Y	38Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	37P	M24	XY-Symmetry	38S	39S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	37X	M24	X-GenXY	38X	39X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	37XY	M24	XY-GenXY	38XY	39XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	37Y	M24	Y-GenXY	38Y	39Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	38P	M25	XY-Symmetry	39S	40S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	38X	M25	X-GenXY	39X	40X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	38XY	M25	XY-GenXY	39XY	40XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	38Y	M25	Y-GenXY	39Y	40Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	39P	M26	XY-Symmetry	40S	41S	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	39X	M26	X-GenXY	40X	41X	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	39XY	M26	XY-GenXY	40XY	41XY	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0

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0	39Y	M26	Y-GenXY	40Y	41Y	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	40P	M27	XY-Symmetry	41S	42S	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	40X	M27	X-GenXY	41X	42X	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	40XY	M27	XY-GenXY	41XY	42XY	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	40Y	M27	Y-GenXY	41Y	42Y	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0
0	41P	M28	XY-Symmetry	42S	ANP	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	11	2	2	Both	0	0	0	0
0	41X	M28	X-GenXY	42X	ANX	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	11	2	2	Both	0	0	0	0
0	41XY	M28	XY-GenXY	42XY	ANXY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	11	2	2	Both	0	0	0	0
0	41Y	M28	Y-GenXY	42Y	ANY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	11	2	2	Both	0	0	0	0
0	42P	D1	XY-Symmetry	1P	2X	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	42X	D1	X-GenXY	1X	2S	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	42XY	D1	XY-GenXY	1XY	2Y	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	42Y	D1	Y-GenXY	1Y	2XY	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	43P	D1	XY-Symmetry	1P	2Y	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	43X	D1	X-GenXY	1X	2XY	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	43XY	D1	XY-GenXY	1XY	2X	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	43Y	D1	Y-GenXY	1Y	2S	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	44P	D2	XY-Symmetry	2S	3X	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	44X	D2	X-GenXY	2X	3S	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	44XY	D2	XY-GenXY	2XY	3Y	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	44Y	D2	Y-GenXY	2Y	3XY	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	45P	D2	XY-Symmetry	2S	3Y	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	45X	D2	X-GenXY	2X	3XY	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	45XY	D2	XY-GenXY	2XY	3X	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	45Y	D2	Y-GenXY	2Y	3S	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	46P	D3	XY-Symmetry	3S	4X	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	46X	D3	X-GenXY	3X	4S	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	46XY	D3	XY-GenXY	3XY	4Y	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	46Y	D3	Y-GenXY	3Y	4XY	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0

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0	47P	D3	XY-Symmetry	3S	4Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47X	D3	X-GenXY	3X	4XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47XY	D3	XY-GenXY	3XY	4X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47Y	D3	Y-GenXY	3Y	4S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48P	D4	XY-Symmetry	4S	5X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48X	D4	X-GenXY	4X	5S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48XY	D4	XY-GenXY	4XY	5Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48Y	D4	Y-GenXY	4Y	5XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49P	D4	XY-Symmetry	4S	5Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49X	D4	X-GenXY	4X	5XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49XY	D4	XY-GenXY	4XY	5X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49Y	D4	Y-GenXY	4Y	5S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50P	D5	XY-Symmetry	5S	6X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50X	D5	X-GenXY	5X	6S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50XY	D5	XY-GenXY	5XY	6Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50Y	D5	Y-GenXY	5Y	6XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51P	D5	XY-Symmetry	5S	6Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51X	D5	X-GenXY	5X	6XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51XY	D5	XY-GenXY	5XY	6X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51Y	D5	Y-GenXY	5Y	6S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52P	D6	XY-Symmetry	6S	7X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	52X	D6	X-GenXY	6X	7S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	52XY	D6	XY-GenXY	6XY	7Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	52Y	D6	Y-GenXY	6Y	7XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	53P	D6	XY-Symmetry	6S	7Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	53X	D6	X-GenXY	6X	7XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	53XY	D6	XY-GenXY	6XY	7X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	53Y	D6	Y-GenXY	6Y	7S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	54P	D7	XY-Symmetry	7S	8X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	54X	D7	X-GenXY	7X	8S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	54XY	D7	XY-GenXY	7XY	8Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	54Y	D7	Y-GenXY	7Y	8XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	55P	D7	XY-Symmetry	7S	8Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	55X	D7	X-GenXY	7X	8XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	55XY	D7	XY-GenXY	7XY	8X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	55Y	D7	Y-GenXY	7Y	8S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	56P	D8	XY-Symmetry	8S	10X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	56X	D8	X-GenXY	8X	10P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	56XY	D8	XY-GenXY	8XY	10Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	56Y	D8	Y-GenXY	8Y	10XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	57P	D8	XY-Symmetry	8S	10Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	57X	D8	X-GenXY	8X	10XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	57XY	D8	XY-GenXY	8XY	10X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	57Y	D8	Y-GenXY	8Y	10P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	58P	D9	XY-Symmetry	10P	11X	1	6	0.55	0.25	0.25 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	58X	D9	X-GenXY	10X	11P	1	6	0.55	0.25	0.25 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	58XY	D9	XY-GenXY	10XY	11Y	1	6	0.55	0.25	0.25 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	58Y	D9	Y-GenXY	10Y	11XY	1	6	0.55	0.25	0.25 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	59P	D9	XY-Symmetry	10P	11Y	1	6	0.55	0.25	0.25 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	59X	D9	X-GenXY	10X	11XY	1	6	0.55	0.25	0.25 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	59XY	D9	XY-GenXY	10XY	11X	1	6	0.55	0.25	0.25 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	59Y	D9	Y-GenXY	10Y	11P	1	6	0.55	0.25	0.25 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	60P	D10	XY-Symmetry	11P	12X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	60X	D10	X-GenXY	11X	12S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	60XY	D10	XY-GenXY	11XY	12Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	60Y	D10	Y-GenXY	11Y	12XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	61P	D10	XY-Symmetry	11P	12Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	61X	D10	X-GenXY	11X	12XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	61XY	D10	XY-GenXY	11XY	12X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	61Y	D10	Y-GenXY	11Y	12S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	62P	D11	XY-Symmetry	12S	13X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	62X	D11	X-GenXY	12X	13S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	62XY	D11	XY-GenXY	12XY	13Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	62Y	D11	Y-GenXY	12Y	13XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	63P	D11	XY-Symmetry	12S	13Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	63X	D11	X-GenXY	12X	13XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	63XY	D11	XY-GenXY	12XY	13X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	63Y	D11	Y-GenXY	12Y	13S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	64P	D12	XY-Symmetry	13S	14X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	64X	D12	X-GenXY	13X	14S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	64XY	D12	XY-GenXY	13XY	14Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	64Y	D12	Y-GenXY	13Y	14XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	65P	D12	XY-Symmetry	13S	14Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	65X	D12	X-GenXY	13X	14XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	65XY	D12	XY-GenXY	13XY	14X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	65Y	D12	Y-GenXY	13Y	14S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	66P	D13	XY-Symmetry	14S	15X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	66X	D13	X-GenXY	14X	15S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	66XY	D13	XY-GenXY	14XY	15Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	66Y	D13	Y-GenXY	14Y	15XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	67P	D13	XY-Symmetry	14S	15Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	67X	D13	X-GenXY	14X	15XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	67XY	D13	XY-GenXY	14XY	15X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	67Y	D13	Y-GenXY	14Y	15S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	68P	D14	XY-Symmetry	15S	16X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	68X	D14	X-GenXY	15X	16S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	68XY	D14	XY-GenXY	15XY	16Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	68Y	D14	Y-GenXY	15Y	16XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	69P	D14	XY-Symmetry	15S	16Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	69X	D14	X-GenXY	15X	16XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	69XY	D14	XY-GenXY	15XY	16X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	69Y	D14	Y-GenXY	15Y	16S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	70P	D15	XY-Symmetry	16S	17X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	70X	D15	X-GenXY	16X	17S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	70XY	D15	XY-GenXY	16XY	17Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	70Y	D15	Y-GenXY	16Y	17XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	71P	D15	XY-Symmetry	16S	17Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	71X	D15	X-GenXY	16X	17XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	71XY	D15	XY-GenXY	16XY	17X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	71Y	D15	Y-GenXY	16Y	17S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	72P	D16	XY-Symmetry	17S	18X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	72X	D16	X-GenXY	17X	18S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	72XY	D16	XY-GenXY	17XY	18Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	72Y	D16	Y-GenXY	17Y	18XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	73P	D16	XY-Symmetry	17S	18Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	73X	D16	X-GenXY	17X	18XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	73XY	D16	XY-GenXY	17XY	18X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	73Y	D16	Y-GenXY	17Y	18S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	74P	D17	XY-Symmetry	18S	19X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	74X	D17	X-GenXY	18X	19P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	74XY	D17	XY-GenXY	18XY	19Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	74Y	D17	Y-GenXY	18Y	19XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	75P	D17	XY-Symmetry	18S	19Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	75X	D17	X-GenXY	18X	19XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	75XY	D17	XY-GenXY	18XY	19X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	75Y	D17	Y-GenXY	18Y	19P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	76P	D18	XY-Symmetry	19P	20X	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	76X	D18	X-GenXY	19X	20P	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	76XY	D18	XY-GenXY	19XY	20Y	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	76Y	D18	Y-GenXY	19Y	20XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	77P	D18	XY-Symmetry	19P	20Y	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	77X	D18	X-GenXY	19X	20XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	77XY	D18	XY-GenXY	19XY	20X	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	77Y	D18	Y-GenXY	19Y	20P	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	78P	D19	XY-Symmetry	20P	21X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78X	D19	X-GenXY	20X	21S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78XY	D19	XY-GenXY	20XY	21Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78Y	D19	Y-GenXY	20Y	21XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79P	D19	XY-Symmetry	20P	21Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79X	D19	X-GenXY	20X	21XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79XY	D19	XY-GenXY	20XY	21X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79Y	D19	Y-GenXY	20Y	21S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80P	D20	XY-Symmetry	21S	22X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80X	D20	X-GenXY	21X	22S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80XY	D20	XY-GenXY	21XY	22Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80Y	D20	Y-GenXY	21Y	22XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81P	D20	XY-Symmetry	21S	22Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81X	D20	X-GenXY	21X	22XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81XY	D20	XY-GenXY	21XY	22X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81Y	D20	Y-GenXY	21Y	22S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82P	D21	XY-Symmetry	22S	23X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82X	D21	X-GenXY	22X	23S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82XY	D21	XY-GenXY	22XY	23Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82Y	D21	Y-GenXY	22Y	23XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83P	D21	XY-Symmetry	22S	23Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	83X	D21	X-GenXY	22X	23XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83XY	D21	XY-GenXY	22XY	23X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83Y	D21	Y-GenXY	22Y	23S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84P	D22	XY-Symmetry	23S	24X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84X	D22	X-GenXY	23X	24S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84XY	D22	XY-GenXY	23XY	24Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84Y	D22	Y-GenXY	23Y	24XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85P	D22	XY-Symmetry	23S	24Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85X	D22	X-GenXY	23X	24XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85XY	D22	XY-GenXY	23XY	24X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85Y	D22	Y-GenXY	23Y	24S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86P	D23	XY-Symmetry	24S	25X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86X	D23	X-GenXY	24X	25S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86XY	D23	XY-GenXY	24XY	25Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86Y	D23	Y-GenXY	24Y	25XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87P	D23	XY-Symmetry	24S	25Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87X	D23	X-GenXY	24X	25XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87XY	D23	XY-GenXY	24XY	25X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87Y	D23	Y-GenXY	24Y	25S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88P	D24	XY-Symmetry	25S	26X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88X	D24	X-GenXY	25X	26S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88XY	D24	XY-GenXY	25XY	26Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88Y	D24	Y-GenXY	25Y	26XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89P	D24	XY-Symmetry	25S	26Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89X	D24	X-GenXY	25X	26XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89XY	D24	XY-GenXY	25XY	26X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89Y	D24	Y-GenXY	25Y	26S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90P	D25	XY-Symmetry	26S	27X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90X	D25	X-GenXY	26X	27S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	90XY	D25	XY-GenXY	26XY	27Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90Y	D25	Y-GenXY	26Y	27XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91P	D25	XY-Symmetry	26S	27Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91X	D25	X-GenXY	26X	27XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91XY	D25	XY-GenXY	26XY	27X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91Y	D25	Y-GenXY	26Y	27S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92P	D26	XY-Symmetry	27S	28X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92X	D26	X-GenXY	27X	28S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92XY	D26	XY-GenXY	27XY	28Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92Y	D26	Y-GenXY	27Y	28XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93P	D26	XY-Symmetry	27S	28Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93X	D26	X-GenXY	27X	28XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93XY	D26	XY-GenXY	27XY	28X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93Y	D26	Y-GenXY	27Y	28S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94P	D27	XY-Symmetry	28S	29X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94X	D27	X-GenXY	28X	29S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94XY	D27	XY-GenXY	28XY	29Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94Y	D27	Y-GenXY	28Y	29XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95P	D27	XY-Symmetry	28S	29Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95X	D27	X-GenXY	28X	29XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95XY	D27	XY-GenXY	28XY	29X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95Y	D27	Y-GenXY	28Y	29S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96P	D28	XY-Symmetry	29S	30X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96X	D28	X-GenXY	29X	30S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96XY	D28	XY-GenXY	29XY	30Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96Y	D28	Y-GenXY	29Y	30XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97P	D28	XY-Symmetry	29S	30Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97X	D28	X-GenXY	29X	30XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97XY	D28	XY-GenXY	29XY	30X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	97Y	D28	Y-GenXY	29Y	30S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98P	D29	XY-Symmetry	30S	31X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98X	D29	X-GenXY	30X	31S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98XY	D29	XY-GenXY	30XY	31Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98Y	D29	Y-GenXY	30Y	31XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99P	D29	XY-Symmetry	30S	31Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99X	D29	X-GenXY	30X	31XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99XY	D29	XY-GenXY	30XY	31X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99Y	D29	Y-GenXY	30Y	31S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	100P	D30	XY-Symmetry	31S	32X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	100X	D30	X-GenXY	31X	32P	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	100XY	D30	XY-GenXY	31XY	32Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	100Y	D30	Y-GenXY	31Y	32XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	101P	D30	XY-Symmetry	31S	32Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	101X	D30	X-GenXY	31X	32XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	101XY	D30	XY-GenXY	31XY	32X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	101Y	D30	Y-GenXY	31Y	32P	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	102P	D31	XY-Symmetry	32P	33X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	102X	D31	X-GenXY	32X	33S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	102XY	D31	XY-GenXY	32XY	33Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	102Y	D31	Y-GenXY	32Y	33XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	103P	D31	XY-Symmetry	32P	33Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	103X	D31	X-GenXY	32X	33XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	103XY	D31	XY-GenXY	32XY	33X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	103Y	D31	Y-GenXY	32Y	33S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	4	1	1	Long only	0	0	0	0
0	104P	D32	XY-Symmetry	33S	34X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104X	D32	X-GenXY	33X	34S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104XY	D32	XY-GenXY	33XY	34Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104Y	D32	Y-GenXY	33Y	34XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	105P	D32	XY-Symmetry	33S	34Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105X	D32	X-GenXY	33X	34XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105XY	D32	XY-GenXY	33XY	34X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105Y	D32	Y-GenXY	33Y	34S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106P	D33	XY-Symmetry	34S	35X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106X	D33	X-GenXY	34X	35S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106XY	D33	XY-GenXY	34XY	35Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106Y	D33	Y-GenXY	34Y	35XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107P	D33	XY-Symmetry	34S	35Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107X	D33	X-GenXY	34X	35XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107XY	D33	XY-GenXY	34XY	35X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107Y	D33	Y-GenXY	34Y	35S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108P	D34	XY-Symmetry	35S	36X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108X	D34	X-GenXY	35X	36S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108XY	D34	XY-GenXY	35XY	36Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108Y	D34	Y-GenXY	35Y	36XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109P	D34	XY-Symmetry	35S	36Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109X	D34	X-GenXY	35X	36XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109XY	D34	XY-GenXY	35XY	36X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109Y	D34	Y-GenXY	35Y	36S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	110P	D35	None	36S	372S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	111P	D35	None	372S	36Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	112P	D35	None	36Y	373S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	113P	D35	None	373S	36XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	114P	D35	None	36XY	374S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	115P	D35	None	374S	36X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	116P	D35	None	36X	371S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	117P	D35	None	371S	36S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	118P	D36	None	38S	372S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	119P	D36	None	372S	38Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	120P	D36	None	38Y	373S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	121P	D36	None	373S	38XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	122P	D36	None	38XY	374S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	123P	D36	None	374S	38X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	124P	D36	None	38X	371S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	125P	D36	None	371S	38S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	126P	D37	None	38S	392S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	127P	D37	None	392S	38Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	128P	D37	None	38Y	393S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	129P	D37	None	393S	38XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	130P	D37	None	38XY	394S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	131P	D37	None	394S	38X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	132P	D37	None	38X	391S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	133P	D37	None	391S	38S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	134P	D38	None	40S	392S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	135P	D38	None	392S	40Y	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	136P	D38	None	40Y	393S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	137P	D38	None	393S	40XY	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	138P	D38	None	40XY	394S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	139P	D38	None	394S	40X	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	140P	D38	None	40X	391S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	141P	D38	None	391S	40S	1	6	0.55	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	142P	D39	None	40S	412S	1	6	0.55	0.333	0.333 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	143P	D39	None	412S	40Y	1	6	0.55	0.333	0.333 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	144P	D39	None	40Y	413S	1	6	0.55	0.333	0.333 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	145P	D39	None	413S	40XY	1	6	0.55	0.333	0.333 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	146P	D39	None	40XY	414S	1	6	0.55	0.333	0.333 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	147P	D39	None	414S	40X	1	6	0.55	0.333	0.333 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	148P	D39	None	40X	411S	1	6	0.55	0.333	0.333	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	149P	D39	None	411S	40S	1	6	0.55	0.333	0.333	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	158P	D40	None	ANP	411S	1	6	0.55	0.143	0.143	5/8	A394	TYPE0	X	3	1	1	Long only	0	0	0	0
0	159P	D40	None	ANY	412S	1	6	0.55	0.143	0.143	5/8	A394	TYPE0	X	3	1	1	Long only	0	0	0	0
0	160P	D40	None	ANY	413S	1	6	0.55	0.143	0.143	5/8	A394	TYPE0	X	3	1	1	Long only	0	0	0	0
0	161P	D40	None	ANXY	413S	1	6	0.55	0.143	0.143	5/8	A394	TYPE0	X	3	1	1	Long only	0	0	0	0
0	162P	D40	None	ANXY	414S	1	6	0.55	0.143	0.143	5/8	A394	TYPE0	X	3	1	1	Long only	0	0	0	0
0	163P	D40	None	ANX	414S	1	6	0.55	0.143	0.143	5/8	A394	TYPE0	X	3	1	1	Long only	0	0	0	0
0	164P	D40	None	ANX	411S	1	6	0.55	0.143	0.143	5/8	A394	TYPE0	X	3	1	1	Long only	0	0	0	0
0	165P	D40	None	ANP	412S	1	6	0.55	0.143	0.143	5/8	A394	TYPE0	X	3	1	1	Long only	0	0	0	0
0	166P	H1	Y-Symmetry	1P	1X	1	6	1	1	1	5/8	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	166Y	H1	Y-Gen	1Y	1XY	1	6	1	1	1	5/8	A394	TYPE0	X	1	1	1	Long only	0	0	0	0
0	167P	H1	X-Symmetry	1P	1Y	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	167X	H1	X-Gen	1X	1XY	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1661P	H2	Y-Symmetry	3S	3X	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1661Y	H2	Y-Gen	3Y	3XY	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1671P	H2	X-Symmetry	3S	3Y	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1671X	H2	X-Gen	3X	3XY	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1662P	H3	Y-Symmetry	5S	5X	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1662Y	H3	Y-Gen	5Y	5XY	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1672P	H3	X-Symmetry	5S	5Y	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1672X	H3	X-Gen	5X	5XY	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1663P	H4	Y-Symmetry	7S	7X	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1663Y	H4	Y-Gen	7Y	7XY	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1674P	H4	X-Symmetry	7S	7Y	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1674X	H4	X-Gen	7X	7XY	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	168P	H5	Y-Symmetry	10P	10X	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	168Y	H5	Y-Gen	10Y	10XY	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	169P	H5	X-Symmetry	10P	10Y	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0

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0	169X	H5	X-Gen	10X	10XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	170P	H6	Y-Symmetry	11P	11X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	170Y	H6	Y-Gen	11Y	11XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	171P	H6	X-Symmetry	11P	11Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	171X	H6	X-Gen	11X	11XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1701P	H7	Y-Symmetry	13S	13X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1701Y	H7	Y-Gen	13Y	13XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1712P	H7	X-Symmetry	13S	13Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1712X	H7	X-Gen	13X	13XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1703P	H8	Y-Symmetry	15S	15X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1703Y	H8	Y-Gen	15Y	15XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1714P	H8	X-Symmetry	15S	15Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1714X	H8	X-Gen	15X	15XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1704P	H9	Y-Symmetry	17S	17X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1704Y	H9	Y-Gen	17Y	17XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1705P	H9	X-Symmetry	17S	17Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1705X	H9	X-Gen	17X	17XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	172P	H10	Y-Symmetry	19P	19X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	172Y	H10	Y-Gen	19Y	19XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1721P	H10	X-Symmetry	19P	19Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1721X	H10	X-Gen	19X	19XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1722P	H11	Y-Symmetry	20P	20X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	1722Y	H11	Y-Gen	20Y	20XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	1723P	H11	X-Symmetry	20P	20Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	1723X	H11	X-Gen	20X	20XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	17231P	H12	Y-Symmetry	22S	22X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17231Y	H12	Y-Gen	22Y	22XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17241P	H12	X-Symmetry	22S	22Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17241X	H12	X-Gen	22X	22XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
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0	17251P	H13	Y-Symmetry	24S	24X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17251Y	H13	Y-Gen	24Y	24XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1726P	H13	X-Symmetry	24S	24Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1726X	H13	X-Gen	24X	24XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17252P	H14	Y-Symmetry	26S	26X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17252Y	H14	Y-Gen	26Y	26XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17261P	H14	X-Symmetry	26S	26Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17261X	H14	X-Gen	26X	26XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17253P	H15	Y-Symmetry	28S	28X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17253Y	H15	Y-Gen	28Y	28XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17262P	H15	X-Symmetry	28S	28Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17262X	H15	X-Gen	28X	28XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17254P	H16	Y-Symmetry	30S	30X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17254Y	H16	Y-Gen	30Y	30XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17263P	H16	X-Symmetry	30S	30Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17263X	H16	X-Gen	30X	30XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17255P	H17	Y-Symmetry	31S	31X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17255Y	H17	Y-Gen	31Y	31XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17264P	H17	X-Symmetry	31S	31Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17264X	H17	X-Gen	31X	31XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1724P	H18	Y-Symmetry	32P	32X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1724Y	H18	Y-Gen	32Y	32XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1725P	H18	X-Symmetry	32P	32Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1725X	H18	X-Gen	32X	32XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1728P	H19	Y-Symmetry	33S	33X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1728Y	H19	Y-Gen	33Y	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1727P	H19	X-Symmetry	33S	33Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1727X	H19	X-Gen	33X	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1729P	H20	Y-Symmetry	34S	34X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	1729Y	H20	Y-Gen	34Y	34XY	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1720P	H20	X-Symmetry	34S	34Y	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	1720X	H20	X-Gen	34X	34XY	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17291P	H21	Y-Symmetry	35S	35X	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17291Y	H21	Y-Gen	35Y	35XY	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17201P	H21	X-Symmetry	35S	35Y	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17201X	H21	X-Gen	35X	35XY	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17292P	H22	Y-Symmetry	36S	36X	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17292Y	H22	Y-Gen	36Y	36XY	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17202P	H22	X-Symmetry	36S	36Y	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17202X	H22	X-Gen	36X	36XY	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	173P	H23	None	37S	372S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	174P	H23	None	372S	37Y	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	175P	H23	None	37Y	373S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	176P	H23	None	373S	37XY	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	177P	H23	None	37XY	374S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	178P	H23	None	374S	37X	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	179P	H23	None	37X	371S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	180P	H23	None	371S	37S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17293P	H24	Y-Symmetry	38S	38X	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17293Y	H24	Y-Gen	38Y	38XY	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17203P	H24	X-Symmetry	38S	38Y	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17203X	H24	X-Gen	38X	38XY	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	181P	H25	None	39S	392S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	182P	H25	None	392S	39Y	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	183P	H25	None	39Y	393S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	184P	H25	None	393S	39XY	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	185P	H25	None	39XY	394S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	186P	H25	None	394S	39X	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0

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0	187P	H25	None	39X	391S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	188P	H25	None	391S	39S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17294P	H26	Y-Symmetry	40S	40X	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17294Y	H26	Y-Gen	40Y	40XY	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17204P	H26	X-Symmetry	40S	40Y	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17204X	H26	X-Gen	40X	40XY	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	189P	H27	None	41S	412S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	190P	H27	None	412S	41Y	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	191P	H27	None	41Y	413S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	192P	H27	None	413S	41XY	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	193P	H27	None	41XY	414S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	194P	H27	None	414S	41X	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	195P	H27	None	41X	411S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	196P	H27	None	411S	41S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	205P	H26	None	411S	412S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	206P	H27	None	412S	413S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	207P	H27	None	413S	414S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	208P	H27	None	414S	411S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	209P	H27	None	391S	392S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	210P	H27	None	392S	393S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	211P	H27	None	393S	394S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	212P	H27	None	394S	391S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	213P	H27	None	371S	372S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	214P	H27	None	372S	373S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	215P	H27	None	373S	374S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	216P	H27	None	374S	371S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0

Member Capacities and Overrides:

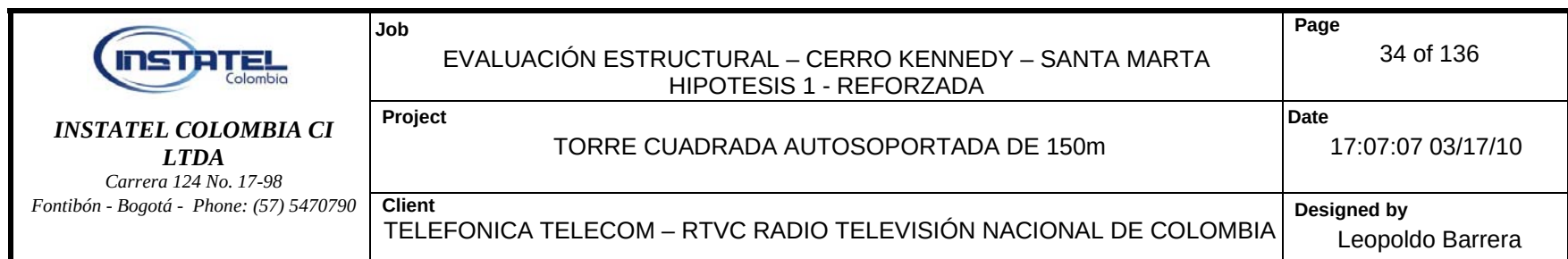
Member Group Label	Design Label	Comp. Control Capacity	Design Tension Capacity	Tension Control Criterion	L/r Length	L/r Comp. Capacity	Connection Shear Capacity	Connection Bearing Capacity	Net Section Tension	Rupture Tension Capacity	RTE End Dist. Tension	RTE Edge Dist. Tension	Override Comp. Capacity	Override Comp. Control	Override Tension Capacity	Override Tension Control	Override Face Member	Warnings or Errors

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		(kN)	(kN)	(m)	(kN)	(kN)	(kN)	Capacity (kN)	(kN)	Capacity (kN)	Capacity (kN)	Criterion (kN)	Criterion (kN)	ship	
1P	M1	196.594	L/r	294.374	Net	Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	Automatic
1X	M1	196.594	L/r	294.374	Net	Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	Automatic
1XY	M1	196.594	L/r	294.374	Net	Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	Automatic
1Y	M1	196.594	L/r	294.374	Net	Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	Automatic
2P	M1	233.161	L/r	294.374	Net	Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	Automatic
2X	M1	233.161	L/r	294.374	Net	Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	Automatic
2XY	M1	233.161	L/r	294.374	Net	Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	Automatic
2Y	M1	233.161	L/r	294.374	Net	Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	Automatic
3P	M2	233.161	L/r	294.374	Net	Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	Automatic
3X	M2	233.161	L/r	294.374	Net	Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	Automatic
3XY	M2	233.161	L/r	294.374	Net	Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	Automatic
3Y	M2	233.161	L/r	294.374	Net	Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	Automatic
4P	M2	233.161	L/r	294.374	Net	Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	Automatic
4X	M2	233.161	L/r	294.374	Net	Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	Automatic
4XY	M2	233.161	L/r	294.374	Net	Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	Automatic
4Y	M2	233.161	L/r	294.374	Net	Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	Automatic
5P	M3	373.558	L/r	438.941	Net	Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	Automatic
5X	M3	373.558	L/r	438.941	Net	Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	Automatic
5XY	M3	373.558	L/r	438.941	Net	Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	Automatic
5Y	M3	373.558	L/r	438.941	Net	Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	Automatic
6P	M3	373.558	L/r	438.941	Net	Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	Automatic
6X	M3	373.558	L/r	438.941	Net	Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	Automatic
6XY	M3	373.558	L/r	438.941	Net	Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	Automatic
6Y	M3	373.558	L/r	438.941	Net	Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	Automatic
7P	M4	408.498	L/r	511.224	Net	Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	Automatic
7X	M4	408.498	L/r	511.224	Net	Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	Automatic
7XY	M4	408.498	L/r	511.224	Net	Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	Automatic
7Y	M4	408.498	L/r	511.224	Net	Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	Automatic
8P	M4	419.569	L/r	511.224	Net	Sect	25	1.57	419.569	878.079	758.976	511.224	0.000	0.000	Automatic
8X	M4	419.569	L/r	511.224	Net	Sect	25	1.57	419.569	878.079	758.976	511.224	0.000	0.000	Automatic
8XY	M4	419.569	L/r	511.224	Net	Sect	25	1.57	419.569	878.079	758.976	511.224	0.000	0.000	Automatic
8Y	M4	419.569	L/r	511.224	Net	Sect	25	1.57	419.569	878.079	758.976	511.224	0.000	0.000	Automatic
9P	M5	681.890	L/r	752.381	Net	Sect	33	4.10	681.890	878.079	1138.464	752.381	0.000	0.000	Automatic
9X	M5	681.890	L/r	752.381	Net	Sect	33	4.10	681.890	878.079	1138.464	752.381	0.000	0.000	Automatic
9XY	M5	681.890	L/r	752.381	Net	Sect	33	4.10	681.890	878.079	1138.464	752.381	0.000	0.000	Automatic
9Y	M5	681.890	L/r	752.381	Net	Sect	33	4.10	681.890	878.079	1138.464	752.381	0.000	0.000	Automatic
10P	M6	634.163	L/r	752.381	Net	Sect	46	2.89	634.163	878.079	1138.464	752.381	0.000	0.000	Automatic
10X	M6	634.163	L/r	752.381	Net	Sect	46	2.89	634.163	878.079	1138.464	752.381	0.000	0.000	Automatic
10XY	M6	634.163	L/r	752.381	Net	Sect	46	2.89	634.163	878.079	1138.464	752.381	0.000	0.000	Automatic
10Y	M6	634.163	L/r	752.381	Net	Sect	46	2.89	634.163	878.079	1138.464	752.381	0.000	0.000	Automatic
11P	M6	657.230	L/r	752.381	Net	Sect	40	2.50	657.230	878.079	1138.464	752.381	0.000	0.000	Automatic
11X	M6	657.230	L/r	752.381	Net	Sect	40	2.50	657.230	878.079	1138.464	752.381	0.000	0.000	Automatic
11XY	M6	657.230	L/r	752.381	Net	Sect	40	2.50	657.230	878.079	1138.464	752.381	0.000	0.000	Automatic
11Y	M6	657.230	L/r	752.381	Net	Sect	40	2.50	657.230	878.079	1138.464	752.381	0.000	0.000	Automatic
12P	M7	552.486	L/r	631.803	Net	Sect	40	2.50	552.486	878.079	948.720	631.803	0.000	0.000	Automatic
12X	M7	552.486	L/r	631.803	Net	Sect	40	2.50	552.486	878.079	948.720	631.803	0.000	0.000	Automatic
12XY	M7	552.486	L/r	631.803	Net	Sect	40	2.50	552.486	878.079	948.720	631.803	0.000	0.000	Automatic
12Y	M7	552.486	L/r	631.803	Net	Sect	40	2.50	552.486	878.079	948.720	631.803	0.000	0.000	Automatic
13P	M7	552.486	L/r	631.803	Net	Sect	40	2.50	552.486	878.079	948.720	631.803	0.000	0.000	Automatic
13X	M7	552.486	L/r	631.803	Net	Sect	40	2.50	552.486	878.079	948.720	631.803	0.000	0.000	Automatic
13XY	M7	552.486	L/r	631.803	Net	Sect	40	2.50	552.486	878.079	948.720	631.803	0.000	0.000	Automatic
13Y	M7	552.486	L/r	631.803	Net	Sect	40	2.50	552.486	878.079	948.720	631.803	0.000	0.000	Automatic
14P	M8	769.721	L/r	841.811	Net	Sect	44	2.50	769.721	2161.836	1951.652	841.811	0.000	0.000	Automatic
14X	M8	769.721	L/r	841.811	Net	Sect	44	2.50	769.721	2161.836	1951.652	841.811	0.000	0.000	Automatic
14XY	M8	769.721	L/r	841.811	Net	Sect	44	2.50	769.721	2161.836	1951.652	841.811	0.000	0.000	Automatic

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	Project	Date
	Client	Designed by
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA TORRE CUADRADA AUTOSOPORTADA DE 150m	33 of 136 17:07:07 03/17/10 Leopoldo Barrera

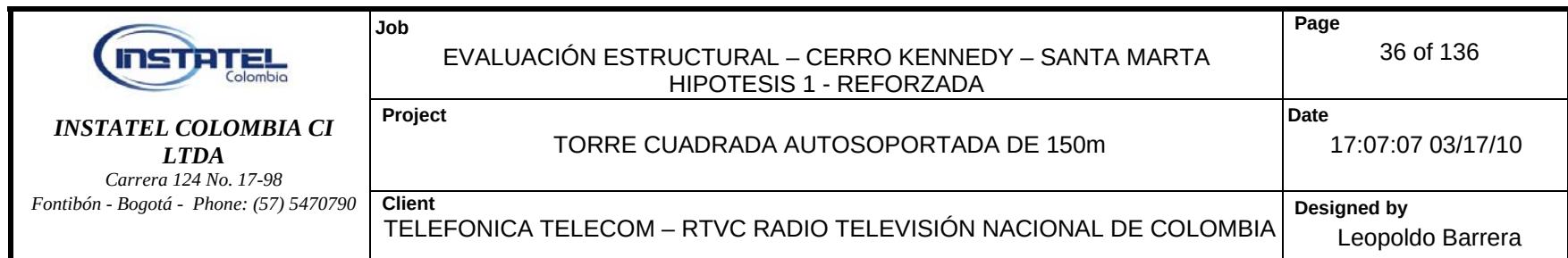
14Y	M8	769.721	L/r	841.811	Net	Sect	44	2.50	769.721	2161.836	1951.652	841.811	0.000	0.000	0.000	0.000	0.000	Automatic
15P	M8	769.721	L/r	841.811	Net	Sect	44	2.50	769.721	2161.836	1951.652	841.811	0.000	0.000	0.000	0.000	0.000	Automatic
15X	M8	769.721	L/r	841.811	Net	Sect	44	2.50	769.721	2161.836	1951.652	841.811	0.000	0.000	0.000	0.000	0.000	Automatic
15XY	M8	769.721	L/r	841.811	Net	Sect	44	2.50	769.721	2161.836	1951.652	841.811	0.000	0.000	0.000	0.000	0.000	Automatic
15Y	M8	769.721	L/r	841.811	Net	Sect	44	2.50	769.721	2161.836	1951.652	841.811	0.000	0.000	0.000	0.000	0.000	Automatic
16P	M9	1037.636	L/r	1114.067	Net	Sect	33	2.00	1037.636	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
16X	M9	1037.636	L/r	1114.067	Net	Sect	33	2.00	1037.636	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
16XY	M9	1037.636	L/r	1114.067	Net	Sect	33	2.00	1037.636	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
16Y	M9	1037.636	L/r	1114.067	Net	Sect	33	2.00	1037.636	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
17P	M9	1070.965	L/r	1114.067	Net	Sect	26	1.58	1070.965	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
17X	M9	1070.965	L/r	1114.067	Net	Sect	26	1.58	1070.965	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
17XY	M9	1070.965	L/r	1114.067	Net	Sect	26	1.58	1070.965	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
17Y	M9	1070.965	L/r	1114.067	Net	Sect	26	1.58	1070.965	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
18P	M10	794.504	L/r	949.358	Net	Sect	59	6.68	794.504	1261.071	1366.156	949.358	0.000	0.000	0.000	0.000	0.000	Automatic
18X	M10	794.504	L/r	949.358	Net	Sect	59	6.68	794.504	1261.071	1366.156	949.358	0.000	0.000	0.000	0.000	0.000	Automatic
18XY	M10	794.504	L/r	949.358	Net	Sect	59	6.68	794.504	1261.071	1366.156	949.358	0.000	0.000	0.000	0.000	0.000	Automatic
18Y	M10	794.504	L/r	949.358	Net	Sect	59	6.68	794.504	1261.071	1366.156	949.358	0.000	0.000	0.000	0.000	0.000	Automatic
19P	M11	847.755	L/r	949.358	Net	Sect	49	2.80	847.755	1261.071	1366.156	949.358	0.000	0.000	0.000	0.000	0.000	Automatic
19X	M11	847.755	L/r	949.358	Net	Sect	49	2.80	847.755	1261.071	1366.156	949.358	0.000	0.000	0.000	0.000	0.000	Automatic
19XY	M11	847.755	L/r	949.358	Net	Sect	49	2.80	847.755	1261.071	1366.156	949.358	0.000	0.000	0.000	0.000	0.000	Automatic
19Y	M11	847.755	L/r	949.358	Net	Sect	49	2.80	847.755	1261.071	1366.156	949.358	0.000	0.000	0.000	0.000	0.000	Automatic
20P	M11	847.755	L/r	949.358	Net	Sect	49	2.80	847.755	1261.071	1366.156	949.358	0.000	0.000	0.000	0.000	0.000	Automatic
20X	M11	847.755	L/r	949.358	Net	Sect	49	2.80	847.755	1261.071	1366.156	949.358	0.000	0.000	0.000	0.000	0.000	Automatic
20XY	M11	847.755	L/r	949.358	Net	Sect	49	2.80	847.755	1261.071	1366.156	949.358	0.000	0.000	0.000	0.000	0.000	Automatic
20Y	M11	847.755	L/r	949.358	Net	Sect	49	2.80	847.755	1261.071	1366.156	949.358	0.000	0.000	0.000	0.000	0.000	Automatic
21P	M12	1054.946	L/r	1166.266	Net	Sect	42	2.70	1054.946	1261.071	1366.156	1166.266	0.000	0.000	0.000	0.000	0.000	Automatic
21X	M12	1054.946	L/r	1166.266	Net	Sect	42	2.70	1054.946	1261.071	1366.156	1166.266	0.000	0.000	0.000	0.000	0.000	Automatic
21XY	M12	1054.946	L/r	1166.266	Net	Sect	42	2.70	1054.946	1261.071	1366.156	1166.266	0.000	0.000	0.000	0.000	0.000	Automatic
21Y	M12	1054.946	L/r	1166.266	Net	Sect	42	2.70	1054.946	1261.071	1366.156	1166.266	0.000	0.000	0.000	0.000	0.000	Automatic
22P	M12	1054.946	L/r	1166.266	Net	Sect	42	2.70	1054.946	1261.071	1366.156	1166.266	0.000	0.000	0.000	0.000	0.000	Automatic
22X	M12	1054.946	L/r	1166.266	Net	Sect	42	2.70	1054.946	1261.071	1366.156	1166.266	0.000	0.000	0.000	0.000	0.000	Automatic
22XY	M12	1054.946	L/r	1166.266	Net	Sect	42	2.70	1054.946	1261.071	1366.156	1166.266	0.000	0.000	0.000	0.000	0.000	Automatic
22Y	M12	1054.946	L/r	1166.266	Net	Sect	42	2.70	1054.946	1261.071	1366.156	1166.266	0.000	0.000	0.000	0.000	0.000	Automatic
23P	M13	1441.224	Shear	1441.224	Shear		39	2.80	1576.992	1441.224	2081.762	1738.319	0.000	0.000	0.000	0.000	0.000	Automatic
23X	M13	1441.224	Shear	1441.224	Shear		39	2.80	1576.992	1441.224	2081.762	1738.319	0.000	0.000	0.000	0.000	0.000	Automatic
23XY	M13	1441.224	Shear	1441.224	Shear		39	2.80	1576.992	1441.224	2081.762	1738.319	0.000	0.000	0.000	0.000	0.000	Automatic
23Y	M13	1441.224	Shear	1441.224	Shear		39	2.80	1576.992	1441.224	2081.762	1738.319	0.000	0.000	0.000	0.000	0.000	Automatic
24P	M13	1441.224	Shear	1441.224	Shear		39	2.80	1576.992	1441.224	2081.762	1738.319	0.000	0.000	0.000	0.000	0.000	Automatic
24X	M13	1441.224	Shear	1441.224	Shear		39	2.80	1576.992	1441.224	2081.762	1738.319	0.000	0.000	0.000	0.000	0.000	Automatic
24XY	M13	1441.224	Shear	1441.224	Shear		39	2.80	1576.992	1441.224	2081.762	1738.319	0.000	0.000	0.000	0.000	0.000	Automatic
24Y	M13	1441.224	Shear	1441.224	Shear		39	2.80	1576.992	1441.224	2081.762	1738.319	0.000	0.000	0.000	0.000	0.000	Automatic
25P	M14	1621.377	Shear	1621.377	Shear		38	2.80	1637.637	1621.377	2341.982	1807.335	0.000	0.000	0.000	0.000	0.000	Automatic
25X	M14	1621.377	Shear	1621.377	Shear		38	2.80	1637.637	1621.377	2341.982	1807.335	0.000	0.000	0.000	0.000	0.000	Automatic
25XY	M14	1621.377	Shear	1621.377	Shear		38	2.80	1637.637	1621.377	2341.982	1807.335	0.000	0.000	0.000	0.000	0.000	Automatic
25Y	M14	1621.377	Shear	1621.377	Shear		38	2.80	1637.637	1621.377	2341.982	1807.335	0.000	0.000	0.000	0.000	0.000	Automatic
26P	M14	1621.377	Shear	1621.377	Shear		38	2.80	1637.637	1621.377	2341.982	1807.335	0.000	0.000	0.000	0.000	0.000	Automatic
26X	M14	1621.377	Shear	1621.377	Shear		38	2.80	1637.637	1621.377	2341.982	1807.335	0.000	0.000	0.000	0.000	0.000	Automatic
26XY	M14	1621.377	Shear	1621.377	Shear		38	2.80	1637.637	1621.377	2341.982	1807.335	0.000	0.000	0.000	0.000	0.000	Automatic
26Y	M14	1621.377	Shear	1621.377	Shear		38	2.80	1637.637	1621.377	2341.982	1807.335	0.000	0.000	0.000	0.000	0.000	Automatic
27P	M15	1643.537	L/r	1771.193	Net	Sect	38	2.75	1643.537	2059.520	3035.903	1771.193	0.000	0.000	0.000	0.000	0.000	Automatic
27X	M15	1643.537	L/r	1771.193	Net	Sect	38	2.75	1643.537	2059.520	3035.903	1771.193	0.000	0.000	0.000	0.000	0.000	Automatic
27XY	M15	1643.537	L/r	1771.193	Net	Sect	38	2.75	1643.537	2059.520	3035.903	1771.193	0.000	0.000	0.000	0.000	0.000	Automatic
27Y	M15	1643.537	L/r	1771.193	Net	Sect	38	2.75	1643.537	2059.520	3035.903	1771.193	0.000	0.000	0.000	0.000	0.000	Automatic
28P	M15	1643.537	L/r	1771.193	Net	Sect	38	2.75	1643.537	2059.520	3035.903	1771.193	0.000	0.000	0.000	0.000	0.000	Automatic
28X	M15	1643.537	L/r	1771.193	Net	Sect	38	2.75	1643.537	2059.520	3035.903	1771.193	0.000	0.000	0.000	0.000	0.000	Automatic
28XY	M15	1643.537	L/r	1771.193	Net	Sect	38	2.75	1643.537	2059.520	3035.903	1771.193	0.000	0.000	0.000	0.000	0.000	Automatic
28Y	M15	1643.537	L/r	1771.193	Net	Sect	38	2.75	1643.537	2059.520	3035.903	1771.193	0.000	0.000	0.000	0.000	0.000	Automatic
29P	M16	1649.388	L/r	1771.193	Net	Sect	37	2.70	1649.388	2059.520	3035.903	1771.193	0.000	0.000	0.000	0.000	0.000	Automatic



29X	M16	1649.388	L/r	1771.193	Net	Sect	37	2.70	1649.388	2059.520	3035.903	1771.193	0.000	0.000	0.000	0.000	0.000	Automatic
29XY	M16	1649.388	L/r	1771.193	Net	Sect	37	2.70	1649.388	2059.520	3035.903	1771.193	0.000	0.000	0.000	0.000	0.000	Automatic
29Y	M16	1649.388	L/r	1771.193	Net	Sect	37	2.70	1649.388	2059.520	3035.903	1771.193	0.000	0.000	0.000	0.000	0.000	Automatic
30P	M17	1692.784	L/r	1839.537	Net	Sect	38	5.67	1692.784	2059.520	3035.903	1839.537	0.000	0.000	0.000	0.000	0.000	Automatic
30X	M17	1692.784	L/r	1839.537	Net	Sect	38	5.67	1692.784	2059.520	3035.903	1839.537	0.000	0.000	0.000	0.000	0.000	Automatic
30XY	M17	1692.784	L/r	1839.537	Net	Sect	38	5.67	1692.784	2059.520	3035.903	1839.537	0.000	0.000	0.000	0.000	0.000	Automatic
30Y	M17	1692.784	L/r	1839.537	Net	Sect	38	5.67	1692.784	2059.520	3035.903	1839.537	0.000	0.000	0.000	0.000	0.000	Automatic
31P	M18	1757.803	L/r	1947.992	Net	Sect	41	6.42	1757.803	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
31X	M18	1757.803	L/r	1947.992	Net	Sect	41	6.42	1757.803	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
31XY	M18	1757.803	L/r	1947.992	Net	Sect	41	6.42	1757.803	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
31Y	M18	1757.803	L/r	1947.992	Net	Sect	41	6.42	1757.803	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
32P	M19	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
32X	M19	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
32XY	M19	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
32Y	M19	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
33P	M20	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
33X	M20	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
33XY	M20	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
33Y	M20	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
34P	M21	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
34X	M21	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
34XY	M21	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
34Y	M21	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
35P	M22	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
35X	M22	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
35XY	M22	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
35Y	M22	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
36P	M23	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
36X	M23	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
36XY	M23	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
36Y	M23	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
37P	M24	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
37X	M24	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
37XY	M24	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
37Y	M24	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
38P	M25	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
38X	M25	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
38XY	M25	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
38Y	M25	1777.701	L/r	1947.992	Net	Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
39P	M26	1788.309	L/r	2059.520	Shear		50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
39X	M26	1788.309	L/r	2059.520	Shear		50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
39XY	M26	1788.309	L/r	2059.520	Shear		50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
39Y	M26	1788.309	L/r	2059.520	Shear		50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
40P	M27	1788.309	L/r	2059.520	Shear		50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
40X	M27	1788.309	L/r	2059.520	Shear		50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
40XY	M27	1788.309	L/r	2059.520	Shear		50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
40Y	M27	1788.309	L/r	2059.520	Shear		50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
41P	M28	1789.706	L/r	1947.992	Net	Sect	37	5.89	1789.706	2265.472	3339.493	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
41X	M28	1789.706	L/r	1947.992	Net	Sect	37	5.89	1789.706	2265.472	3339.493	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
41XY	M28	1789.706	L/r	1947.992	Net	Sect	37	5.89	1789.706	2265.472	3339.493	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
41Y	M28	1789.706	L/r	1947.992	Net	Sect	37	5.89	1789.706	2265.472	3339.493	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
42P	D1	9.821	L/r	30.915	Shear		233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
42X	D1	9.821	L/r	30.915	Shear		233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
42XY	D1	9.821	L/r	30.915	Shear		233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
42Y	D1	9.821	L/r	30.915	Shear		233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
43P	D1	9.821	L/r	30.915	Shear		233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
43X	D1	9.821	L/r	30.915	Shear		233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
43XY	D1	9.821	L/r	30.915	Shear		233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic

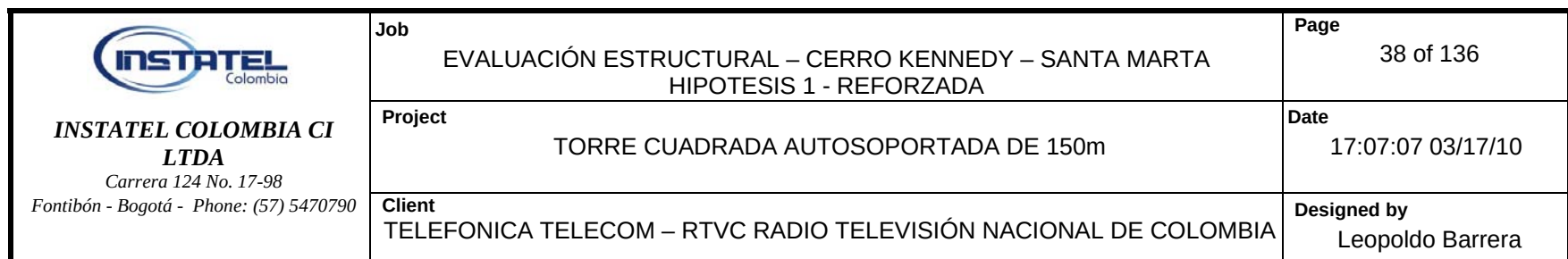
 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page	35 of 136
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

43Y	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
44P	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
44X	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
44XY	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
44Y	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
45P	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
45X	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
45XY	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
45Y	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
46P	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
46X	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
46XY	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
46Y	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
47P	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
47X	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
47XY	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
47Y	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
48P	D4	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
48X	D4	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
48XY	D4	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
48Y	D4	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
49P	D4	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
49X	D4	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
49XY	D4	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
49Y	D4	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
50P	D5	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
50X	D5	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
50XY	D5	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
50Y	D5	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
51P	D5	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
51X	D5	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
51XY	D5	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
51Y	D5	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
52P	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
52X	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
52XY	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
52Y	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
53P	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
53X	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
53XY	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
53Y	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
54P	D7	22.907	L/r	43.370	Bearing	118	2.39	22.907	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
54X	D7	22.907	L/r	43.370	Bearing	118	2.39	22.907	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
54XY	D7	22.907	L/r	43.370	Bearing	118	2.39	22.907	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
54Y	D7	22.907	L/r	43.370	Bearing	118	2.39	22.907	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
55P	D7	22.907	L/r	43.370	Bearing	118	2.39	22.907	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
55X	D7	22.907	L/r	43.370	Bearing	118	2.39	22.907	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
55XY	D7	22.907	L/r	43.370	Bearing	118	2.39	22.907	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
55Y	D7	22.907	L/r	43.370	Bearing	118	2.39	22.907	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
56P	D8	30.995	L/r	43.370	Bearing	101	2.04	30.995	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
56X	D8	30.995	L/r	43.370	Bearing	101	2.04	30.995	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
56XY	D8	30.995	L/r	43.370	Bearing	101	2.04	30.995	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
56Y	D8	30.995	L/r	43.370	Bearing	101	2.04	30.995	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
57P	D8	30.995	L/r	43.370	Bearing	101	2.04	30.995	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
57X	D8	30.995	L/r	43.370	Bearing	101	2.04	30.995	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
57XY	D8	30.995	L/r	43.370	Bearing	101	2.04	30.995	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
57Y	D8	30.995	L/r	43.370	Bearing	101	2.04	30.995	61.830	43.370	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
58P	D9	40.059	L/r	61.830	Shear	124	4.45	40.059	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic

[illegible]



72Y	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
73P	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
73X	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
73XY	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
73Y	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
74P	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
74X	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
74XY	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
74Y	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
75P	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
75X	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
75XY	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
75Y	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
76P	D18	206.237	L/r	250.880	Shear	93	7.47	206.237	250.880	325.275	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
76X	D18	206.237	L/r	250.880	Shear	93	7.47	206.237	250.880	325.275	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
76XY	D18	206.237	L/r	250.880	Shear	93	7.47	206.237	250.880	325.275	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
76Y	D18	206.237	L/r	250.880	Shear	93	7.47	206.237	250.880	325.275	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
77P	D18	206.237	L/r	250.880	Shear	93	7.47	206.237	250.880	325.275	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
77X	D18	206.237	L/r	250.880	Shear	93	7.47	206.237	250.880	325.275	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
77XY	D18	206.237	L/r	250.880	Shear	93	7.47	206.237	250.880	325.275	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
77Y	D18	206.237	L/r	250.880	Shear	93	7.47	206.237	250.880	325.275	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
78P	D19	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
78X	D19	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
78XY	D19	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
78Y	D19	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
79P	D19	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
79X	D19	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
79XY	D19	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
79Y	D19	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
80P	D20	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
80X	D20	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
80XY	D20	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
80Y	D20	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
81P	D20	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
81X	D20	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
81XY	D20	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
81Y	D20	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
82P	D21	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
82X	D21	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
82XY	D21	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
82Y	D21	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
83P	D21	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
83X	D21	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
83XY	D21	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
83Y	D21	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
84P	D22	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
84X	D22	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
84XY	D22	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
84Y	D22	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
85P	D22	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
85X	D22	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
85XY	D22	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
85Y	D22	74.581	L/r	108.425	Bearing	139	5.60	74.581	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
86P	D23	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
86X	D23	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
86XY	D23	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
86Y	D23	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
87P	D23	73.743	L/r	108.425	Bearing	140	5.65	73.743	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic

[illegible]



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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA TORRE CUADRADA AUTOSOPORTADA DE 150m	40 of 136 17:07:07 03/17/10 Leopoldo Barrera

135P	D38	52.994	L/r	108.425	Bearing	178	10.30	52.994	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
136P	D38	52.994	L/r	108.425	Bearing	178	10.30	52.994	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
137P	D38	52.994	L/r	108.425	Bearing	178	10.30	52.994	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
138P	D38	52.994	L/r	108.425	Bearing	178	10.30	52.994	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
139P	D38	52.994	L/r	108.425	Bearing	178	10.30	52.994	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
140P	D38	52.994	L/r	108.425	Bearing	178	10.30	52.994	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
141P	D38	52.994	L/r	108.425	Bearing	178	10.30	52.994	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
142P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
143P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
144P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
145P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
146P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
147P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
148P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
149P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
158P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
159P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
160P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
161P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
162P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
163P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
164P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
165P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
166P	H1	14.917	L/r	40.659	Bearing	175	1.30	14.917	62.720	40.659	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
166Y	H1	14.917	L/r	40.659	Bearing	175	1.30	14.917	62.720	40.659	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
167P	H1	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
167X	H1	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1661P	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1661Y	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1671P	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1671X	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1662P	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1662Y	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1672P	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1672X	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1663P	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1663Y	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1674P	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1674X	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
168P	H5	29.665	L/r	63.005	Net Sect	130	1.30	29.665	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
168Y	H5	29.665	L/r	63.005	Net Sect	130	1.30	29.665	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
169P	H5	29.665	L/r	63.005	Net Sect	130	1.30	29.665	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
169X	H5	29.665	L/r	63.005	Net Sect	130	1.30	29.665	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
170P	H6	49.188	L/r	108.425	Bearing	152	2.28	49.188	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
170Y	H6	49.188	L/r	108.425	Bearing	152	2.28	49.188	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
171P	H6	49.188	L/r	108.425	Bearing	152	2.28	49.188	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
171X	H6	49.188	L/r	108.425	Bearing	152	2.28	49.188	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
1701P	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1701Y	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1712P	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1712X	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1703P	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1703Y	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1714P	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1714X	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1704P	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1704Y	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1705P	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic

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	Project	Date
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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA TORRE CUADRADA AUTOSOPORTADA DE 150m	41 of 136 17:07:07 03/17/10 Leopoldo Barrera

1705X	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
172P	H10	108.425	Bearing	108.425	Bearing	76	2.28	127.059	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
172Y	H10	108.425	Bearing	108.425	Bearing	76	2.28	127.059	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
1721P	H10	108.425	Bearing	108.425	Bearing	76	2.28	127.059	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
1721X	H10	108.425	Bearing	108.425	Bearing	76	2.28	127.059	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
1722P	H11	128.604	L/r	188.160	Shear	123	4.90	128.604	188.160	243.956	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
1722Y	H11	128.604	L/r	188.160	Shear	123	4.90	128.604	188.160	243.956	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
1723P	H11	128.604	L/r	188.160	Shear	123	4.90	128.604	188.160	243.956	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
1723X	H11	128.604	L/r	188.160	Shear	123	4.90	128.604	188.160	243.956	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
17231P	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17231Y	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17241P	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17241X	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17251P	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17251Y	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
1726P	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
1726X	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17252P	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17252Y	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17261P	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17261X	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17253P	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17253Y	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17262P	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17262X	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17254P	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17254Y	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17263P	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17263X	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17255P	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17255Y	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17264P	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17264X	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1724P	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1724Y	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1725P	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1725X	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1728P	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1728Y	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1727P	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1727X	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1729P	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1729Y	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1720P	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1720X	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17291P	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17291Y	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17201P	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17201X	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17292P	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17292Y	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17202P	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17202X	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
173P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
174P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
175P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
176P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
177P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

178P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
179P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
180P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17293P	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17293Y	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17203P	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17203X	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
181P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
182P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
183P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
184P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
185P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
186P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
187P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
188P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17294P	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17294Y	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17204P	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17204X	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
189P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
190P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
191P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
192P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
193P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
194P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
195P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
196P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
205P	H26	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
206P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
207P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
208P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
209P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
210P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
211P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
212P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
213P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
214P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
215P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
216P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic

Section Joint Information:

Section Label	Joint Label	Joint Elevation (m)
1	1P	150.911
1	2S	147.700
1	1X	150.911
1	2X	147.700
1	1XY	150.911
1	2XY	147.700
1	1Y	150.911
1	2Y	147.700
1	3S	145.200
1	3X	145.200
1	3XY	145.200
1	3Y	145.200

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

2 3S 145.200
2 4S 142.700
2 3X 145.200
2 4X 142.700
2 3XY 145.200
2 4XY 142.700
2 3Y 145.200
2 4Y 142.700
2 5S 140.200
2 5X 140.200
2 5XY 140.200
2 5Y 140.200
3 5S 140.200
3 6S 137.700
3 5X 140.200
3 6X 137.700
3 5XY 140.200
3 6XY 137.700
3 5Y 140.200
3 6Y 137.700
3 7S 135.200
3 7X 135.200
3 7XY 135.200
3 7Y 135.200
4 7S 135.200
4 8S 133.200
4 7X 135.200
4 8X 133.200
4 7XY 135.200
4 8XY 133.200
4 7Y 135.200
4 8Y 133.200
4 10P 131.630
4 10X 131.630
4 10XY 131.630
4 10Y 131.630
5 10P 131.630
5 11P 127.590
5 10X 131.630
5 11X 127.590
5 10XY 131.630
5 11XY 127.590
5 10Y 131.630
5 11Y 127.590
6 11P 127.590
6 12S 124.700
6 11X 127.590
6 12X 124.700
6 11XY 127.590
6 12XY 124.700
6 11Y 127.590
6 12Y 124.700
6 13S 122.200
6 13X 122.200
6 13XY 122.200
6 13Y 122.200
7 13S 122.200
7 14S 119.700

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7 13X 122.200
7 14X 119.700
7 13XY 122.200
7 14XY 119.700
7 13Y 122.200
7 14Y 119.700
7 15S 117.200
7 15X 117.200
7 15XY 117.200
7 15Y 117.200
8 15S 117.200
8 16S 114.700
8 15X 117.200
8 16X 114.700
8 15XY 117.200
8 16XY 114.700
8 15Y 117.200
8 16Y 114.700
8 17S 112.200
8 17X 112.200
8 17XY 112.200
8 17Y 112.200
9 17S 112.200
9 18S 110.200
9 17X 112.200
9 18X 110.200
9 17XY 112.200
9 18XY 110.200
9 17Y 112.200
9 18Y 110.200
9 19P 108.620
9 19X 108.620
9 19XY 108.620
9 19Y 108.620
10 19P 108.620
10 20P 102.200
10 19X 108.620
10 20X 102.200
10 19XY 108.620
10 20XY 102.200
10 19Y 108.620
10 20Y 102.200
11 20P 102.200
11 21S 99.400
11 20X 102.200
11 21X 99.400
11 20XY 102.200
11 21XY 99.400
11 20Y 102.200
11 21Y 99.400
11 22S 96.600
11 22X 96.600
11 22XY 96.600
11 22Y 96.600
12 22S 96.600
12 23S 93.900
12 22X 96.600
12 23X 93.900

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

12	22XY	96.600
12	23XY	93.900
12	22Y	96.600
12	23Y	93.900
12	24S	91.200
12	24X	91.200
12	24XY	91.200
12	24Y	91.200
13	24S	91.200
13	25S	88.400
13	24X	91.200
13	25X	88.400
13	24XY	91.200
13	25XY	88.400
13	24Y	91.200
13	25Y	88.400
13	26S	85.600
13	26X	85.600
13	26XY	85.600
13	26Y	85.600
14	26S	85.600
14	27S	82.800
14	26X	85.600
14	27X	82.800
14	26XY	85.600
14	27XY	82.800
14	26Y	85.600
14	27Y	82.800
14	28S	80.000
14	28X	80.000
14	28XY	80.000
14	28Y	80.000
15	28S	80.000
15	29S	77.250
15	28X	80.000
15	29X	77.250
15	28XY	80.000
15	29XY	77.250
15	28Y	80.000
15	29Y	77.250
15	30S	74.500
15	30X	74.500
15	30XY	74.500
15	30Y	74.500
16	30S	74.500
16	31S	71.800
16	30X	74.500
16	31X	71.800
16	30XY	74.500
16	31XY	71.800
16	30Y	74.500
16	31Y	71.800
17	31S	71.800
17	32P	66.125
17	31X	71.800
17	32X	66.125
17	31XY	71.800
17	32XY	66.125

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

17	31Y	71.800
17	32Y	66.125
18	32P	66.125
18	33S	59.800
18	32X	66.125
18	33X	59.800
18	32XY	66.125
18	33XY	59.800
18	32Y	66.125
18	33Y	59.800
19	33S	59.800
19	34S	53.800
19	33X	59.800
19	34X	53.800
19	33XY	59.800
19	34XY	53.800
19	33Y	59.800
19	34Y	53.800
20	34S	53.800
20	35S	47.800
20	34X	53.800
20	35X	47.800
20	34XY	53.800
20	35XY	47.800
20	34Y	53.800
20	35Y	47.800
21	35S	47.800
21	36S	41.800
21	35X	47.800
21	36X	41.800
21	35XY	47.800
21	36XY	41.800
21	35Y	47.800
21	36Y	41.800
22	36S	41.800
22	37S	35.800
22	36X	41.800
22	37X	35.800
22	36XY	41.800
22	37XY	35.800
22	36Y	41.800
22	37Y	35.800
22	372S	35.800
22	373S	35.800
22	374S	35.800
22	371S	35.800
23	37S	35.800
23	38S	29.800
23	37X	35.800
23	38X	29.800
23	37XY	35.800
23	38XY	29.800
23	37Y	35.800
23	38Y	29.800
23	372S	35.800
23	373S	35.800
23	374S	35.800
23	371S	35.800

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24	38S	29.800
24	39S	23.800
24	38X	29.800
24	39X	23.800
24	38XY	29.800
24	39XY	23.800
24	38Y	29.800
24	39Y	23.800
24	392S	23.800
24	393S	23.800
24	394S	23.800
24	391S	23.800
25	39S	23.800
25	40S	17.800
25	39X	23.800
25	40X	17.800
25	39XY	23.800
25	40XY	17.800
25	39Y	23.800
25	40Y	17.800
25	392S	23.800
25	393S	23.800
25	394S	23.800
25	391S	23.800
26	40S	17.800
26	41S	11.800
26	40X	17.800
26	41X	11.800
26	40XY	17.800
26	41XY	11.800
26	40Y	17.800
26	41Y	11.800
26	412S	11.800
26	413S	11.800
26	414S	11.800
26	411S	11.800
27	41S	11.800
27	42S	5.800
27	41X	11.800
27	42X	5.800
27	41XY	11.800
27	42XY	5.800
27	41Y	11.800
27	42Y	5.800
28	42S	5.800
28	ANP	0.000
28	42X	5.800
28	ANX	0.000
28	42XY	5.800
28	ANXY	0.000
28	42Y	5.800
28	ANY	0.000
28	411S	11.800
28	412S	11.800
28	413S	11.800
28	414S	11.800

EIA Sections Information:

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page	48 of 136
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

Section Label	Top Z (m)	Bottom Z (m)	Joint Count	Member Count	Top Width (m)	Bottom Width (m)	Gross Area (m^2)	Face Adjust Factor	Face Ar Adjust Factor	Dead Load Factor
1	150.911	145.200	12	32	1.30	1.30	7.42	1.0000	1.0000	1.000
2	145.200	140.200	12	28	1.30	1.30	6.50	1.0000	1.0000	1.000
3	140.200	135.200	12	28	1.30	1.30	6.50	1.0000	1.0000	1.000
4	135.200	131.630	12	28	1.30	1.30	4.64	1.0000	1.0000	1.000
5	131.630	127.590	8	16	1.30	2.28	7.23	1.0000	1.0000	1.000
6	127.590	122.200	12	28	2.28	2.28	12.29	1.0000	1.0000	1.000
7	122.200	117.200	12	28	2.28	2.28	11.40	1.0000	1.0000	1.000
8	117.200	112.200	12	28	2.28	2.28	11.40	1.0000	1.0000	1.000
9	112.200	108.620	12	28	2.28	2.28	8.16	1.0000	1.0000	1.000
10	108.620	102.200	8	16	2.28	4.90	23.06	1.0000	1.0000	1.000
11	102.200	96.600	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
12	96.600	91.200	12	28	4.90	4.90	26.48	1.0000	1.0000	1.000
13	91.200	85.600	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
14	85.600	80.000	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
15	80.000	74.500	12	28	4.90	4.90	26.97	1.0000	1.0000	1.000
16	74.500	71.800	8	16	4.90	4.90	13.24	1.0000	1.0000	1.000
17	71.800	66.125	8	16	4.90	4.90	27.83	1.0000	1.0000	1.000
18	66.125	59.800	8	16	4.90	6.45	35.89	1.0000	1.0000	1.000
19	59.800	53.800	8	16	6.45	7.91	43.06	1.0000	1.0000	1.000
20	53.800	47.800	8	16	7.91	9.37	51.83	1.0000	1.0000	1.000
21	47.800	41.800	8	16	9.37	10.83	60.61	1.0000	1.0000	1.000
22	41.800	35.800	12	24	10.83	12.29	69.38	1.0000	1.0000	1.000
23	35.800	29.800	12	16	12.29	13.76	78.16	1.0000	1.0000	1.000
24	29.800	23.800	12	24	13.76	15.22	86.93	1.0000	1.0000	1.000
25	23.800	17.800	12	16	15.22	16.68	95.70	1.0000	1.0000	1.000
26	17.800	11.800	12	24	16.68	18.14	104.48	1.0000	1.0000	1.000
27	11.800	5.800	8	4	18.14	19.61	113.25	1.0000	1.0000	1.000
28	5.800	0.000	12	12	19.61	21.02	117.82	1.0000	1.0000	1.000

Linear Appurtenances:

Description	From (m)	To (m)	Quantity	Shape	Width or Diameter (cm)	Perimeter (cm)	Unit Weight (N/m)	In Face Zone	Include in Wind Load
ESCALERA DE ACCESO	0	150	2	Flat	5.1	10.2	300	No	No
CABLES GUIA DE ONDA	0	150	5	Round	4.13	12.97	19.7	No	Yes

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page 49 of 136
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

*** Datos de las cargas

Structure Height Summary (used for calculating wind/ice adjust with height):

Structure height above ground 150.91 (m)
Elevation of structure bottom for wind height adjustment: 0.00 (m)

Structure height for structure gust response factor: 150.91 (m)
Structure gust response factor, Gh: 1.0575
Guy installation temperature: 22.00 (deg C)
Tower Type: Rectangular Latticed

EIA Rev. F Load Cases:

Load Case Description	Dead Load Factor	Wind Load Factor	Ice Load Factor	Strength Factor	Allowable Stress Increase Factor	Basic Wind Speed (m/s)	Wind Dir. (Deg)	Ice Thick. (cm)	Ice Density (N/m ³)	Ice Temperature (deg C)	Point Loads	Joint Displ.
LC1 WIND 0° C.D.	1.9500	1.3000	1.0000	1.0000	1.3300	33.330	0	0.0000	0.0000	14.000	63 loads	
LC2 WIND 45° C.D.	1.9500	1.3000	1.0000	1.0000	1.3300	33.330	45	0.0000	0.0000	14.000	63 loads	
LC3 WIND 0° C.T.	1.5000	1.0000	1.0000	1.0000	1.0000	33.330	0	0.0000	0.0000	14.000	63 loads	
LC4 WIND 45° C.T.	1.5000	1.0000	1.0000	1.0000	1.0000	33.330	45	0.0000	0.0000	14.000	63 loads	
LC5 WIND 0° DEFLEX	1.5000	1.0000	1.0000	1.0000	1.0000	16.670	0	0.0000	0.0000	14.000	63 loads	
LC6 WIND 45° DEFLEX	1.5000	1.0000	1.0000	1.0000	1.0000	16.670	45	0.0000	0.0000	14.000	63 loads	

Concentrated Loads for Load Case "LC1 WIND 0° C.D.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	1162	0	1794	0	0	0	
1P	1162	0	1794	0	0	0	
1XY	1162	0	1794	0	0	0	
2X	1162	0	1794	0	0	0	
2S	1162	0	1794	0	0	0	
2XY	1162	0	1794	0	0	0	
4X	1162	0	1794	0	0	0	
4S	1162	0	1794	0	0	0	
4XY	1162	0	1794	0	0	0	
5X	1162	0	1794	0	0	0	
5XY	1162	0	1794	0	0	0	
6X	1162	0	1794	0	0	0	
6XY	1162	0	1794	0	0	0	
8X	1162	0	1794	0	0	0	
8XY	1162	0	1794	0	0	0	
10XY	1162	0	1794	0	0	0	
14X	580	0	1014	0	0	0	
14S	580	0	1014	0	0	0	
14Y	580	0	1014	0	0	0	
15X	580	0	1014	0	0	0	
15S	580	0	1014	0	0	0	
15Y	580	0	1014	0	0	0	
17X	580	0	1014	0	0	0	
17S	580	0	1014	0	0	0	
17Y	580	0	1014	0	0	0	
18X	580	0	1014	0	0	0	

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

18S	580	0	1014	0	0	0
18Y	580	0	1014	0	0	0
20X	580	0	1014	0	0	0
20P	580	0	1014	0	0	0
22S	4679	0	2340	0	0	0
22XY	2340	0	1170	0	0	0
23S	4679	0	2340	0	0	0
31XY	267	0	325	0	0	0
29S	267	0	325	0	0	0
31Y	267	0	325	0	0	0
38Y	267	0	325	0	0	0
35Y	4594	0	1430	0	0	0
36XY	1682	1	761	0	0	0
35S	13256	0	6643	0	0	0
36X	3314	0	3029	0	0	0
36S	13256	0	6643	0	0	0
37X	1473	0	2392	0	0	0
39Y	1473	0	2392	0	0	0
40Y	3314	0	3029	0	0	0
40S	5892	0	3861	0	0	0
40X	6627	0	6058	0	0	0
41S	5892	0	3861	0	0	0
41X	1473	0	2392	0	0	0
1X	0	0	1300	0	0	0
1P	0	0	1300	0	0	0
1Y	0	0	1300	0	0	0
1XY	0	0	1300	0	0	0
10X	5249	0	4368	0	0	0 FUTURAS
10P	5249	0	4368	0	0	0 FUTURAS
11X	5249	0	4368	0	0	0 FUTURAS
11P	5249	0	4368	0	0	0 FUTURAS
12X	5249	0	4368	0	0	0 FUTURAS
12S	5249	0	4368	0	0	0 FUTURAS
13X	5249	0	4368	0	0	0 FUTURAS
13S	5249	0	4368	0	0	0 FUTURAS
14X	5249	0	4368	0	0	0 FUTURAS
14S	5249	0	4368	0	0	0 FUTURAS

EIA Section Load Case Information for "LC1 WIND 0° C.D.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	2018.54	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	8121	0.00	2.00	0.99	1.20	1.19	2401	10522	14976
2	145.20	140.20	142.70	1997.41	0.00	1.11	0.00	0.00	6.5	0.17	1.00	1.00	0.58	3.11	1.1	6912	0.00	2.00	1.03	1.20	1.24	2475	9387	14053
3	140.20	135.20	137.70	1977.15	0.00	1.58	0.00	0.00	6.5	0.24	1.00	1.00	0.60	2.80	1.6	8764	0.00	2.00	1.03	1.20	1.24	2450	11213	16707
4	135.20	131.63	133.41	1959.38	0.00	1.24	0.00	0.00	4.6	0.27	1.00	1.00	0.61	2.71	1.2	6585	0.00	2.00	0.74	1.20	0.88	1733	8319	12250
5	131.63	127.59	129.61	1943.24	0.00	1.57	0.00	0.00	7.2	0.22	1.00	1.00	0.59	2.91	1.6	8876	0.00	2.00	0.83	1.20	1.00	1945	10821	19027
6	127.59	122.20	124.90	1922.78	0.00	2.02	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.14	2.0	12200	0.00	2.00	1.11	1.20	1.34	2568	14768	26333
7	122.20	117.20	119.70	1899.58	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	10922	0.00	2.00	1.03	1.20	1.24	2354	13276	24296
8	117.20	112.20	114.70	1876.56	0.00	1.99	0.00	0.00	11.4	0.17	1.00	1.00	0.59	3.09	2.0	11552	0.00	2.00	1.03	1.20	1.24	2325	13877	29994
9	112.20	108.62	110.41	1856.24	0.00	1.49	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.06	1.5	8458	0.00	2.00	0.74	1.20	0.89	1647	10105	24499
10	108.62	102.20	105.41	1831.82	0.00	3.37	0.00	0.00	23.1	0.15	1.00	1.00	0.58	3.22	3.4	19919	0.00	2.00	1.33	1.20	1.59	2914	22833	50818
11	102.20	96.60	99.40	1801.35	0.00	3.74	0.00	0.00	27.5	0.14	1.00	1.00	0.58	3.27	3.7	22055	0.00	2.00	1.16	1.20	1.39	2500	24555	43588
12	96.60	91.20	93.90	1772.29	0.00	4.08	0.00	0.00	26.5	0.15	1.00	1.00	0.58	3.19	4.1	23049	0.00	2.00	1.12	1.20	1.34	2372	25421	46595
13	91.20	85.60	88.40	1741.99	0.00	4.44	0.00	0.00	27.5	0.16	1.00	1.00	0.58	3.15	4.4	24359	0.00	2.00	1.16	1.20	1.39	2417	26777	57031
14	85.60	80.00	82.80	1709.72	0.00	4.44	0.00	0.00	27.5	0.16	1.00	1.00	0.58	3.15	4.4	23908	0.00	2.00	1.16	1.20	1.39	2373	26281	58051

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	Project	Date
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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

15	80.00	74.50	77.25	1676.16	0.00	4.40	0.00	0.00	27.0	0.16	1.00	1.00	0.58	3.14	4.4	23176	0.00	2.00	1.14	1.20	1.36	2284	25461	59350
16	74.50	71.80	73.15	1650.25	0.00	2.46	0.00	0.00	13.2	0.19	1.00	1.00	0.59	3.04	2.5	12344	0.00	2.00	0.56	1.20	0.67	1104	13449	32381
17	71.80	66.13	68.96	1622.69	0.00	4.13	0.00	0.00	27.8	0.15	1.00	1.00	0.58	3.21	4.1	21542	0.00	2.00	1.17	1.20	1.41	2282	23824	70730
18	66.13	59.80	62.96	1581.03	0.00	4.78	0.00	0.00	35.9	0.13	1.00	1.00	0.58	3.29	4.8	24821	0.00	2.00	1.31	1.20	1.57	2478	27299	82553
19	59.80	53.80	56.80	1535.18	0.00	4.57	0.00	0.00	43.1	0.11	1.00	1.00	0.58	3.42	4.6	23968	0.00	2.00	1.24	1.20	1.49	2283	26250	63905
20	53.80	47.80	50.80	1486.98	0.00	5.19	0.00	0.00	51.8	0.10	1.00	1.00	0.58	3.45	5.2	26612	0.00	2.00	1.24	1.20	1.49	2211	28823	72827
21	47.80	41.80	44.80	1434.53	0.00	5.62	0.00	0.00	60.6	0.09	1.00	1.00	0.57	3.49	5.6	28130	0.00	2.00	1.24	1.20	1.49	2133	30263	76720
22	41.80	35.80	38.80	1376.79	0.00	5.07	0.00	0.00	69.4	0.07	1.00	1.00	0.57	3.59	5.1	25045	0.00	2.00	1.24	1.20	1.49	2047	27092	88020
23	35.80	29.80	32.80	1312.27	0.00	5.81	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.58	5.8	27334	0.00	2.00	1.24	1.20	1.49	1951	29285	80957
24	29.80	23.80	26.80	1238.67	0.00	6.04	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.61	6.0	26987	0.00	2.00	1.24	1.20	1.49	1842	28829	101691
25	23.80	17.80	20.80	1152.14	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	27060	0.00	2.00	1.24	1.20	1.49	1713	28773	87637
26	17.80	11.80	14.80	1045.39	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	25530	0.00	2.00	1.24	1.20	1.49	1554	27084	129120
27	11.80	5.80	8.80	936.17	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	6783	0.00	2.00	1.24	1.20	1.49	1392	8175	46568
28	5.80	0.00	2.90	936.17	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	20273	0.00	2.00	1.20	1.20	1.44	1345	21618	100924

Concentrated Loads for Load Case "LC2 WIND 45° C.D.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	822	822	1794	0	0	0	
1P	822	822	1794	0	0	0	
1XY	822	822	1794	0	0	0	
2X	822	822	1794	0	0	0	
2S	822	822	1794	0	0	0	
2XY	822	822	1794	0	0	0	
4X	822	822	1794	0	0	0	
4S	822	822	1794	0	0	0	
4XY	822	822	1794	0	0	0	
5X	822	822	1794	0	0	0	
5XY	822	822	1794	0	0	0	
6X	822	822	1794	0	0	0	
6XY	822	822	1794	0	0	0	
8X	822	822	1794	0	0	0	
8XY	822	822	1794	0	0	0	
10XY	822	822	1794	0	0	0	
14X	410	410	1014	0	0	0	
14S	410	410	1014	0	0	0	
14Y	410	410	1014	0	0	0	
15X	410	410	1014	0	0	0	
15S	410	410	1014	0	0	0	
15Y	410	410	1014	0	0	0	
17X	410	410	1014	0	0	0	
17S	410	410	1014	0	0	0	
17Y	410	410	1014	0	0	0	
18X	410	410	1014	0	0	0	
18S	410	410	1014	0	0	0	
18Y	410	410	1014	0	0	0	
20X	410	410	1014	0	0	0	
20P	410	410	1014	0	0	0	
22S	3309	3309	2340	0	0	0	
22XY	1655	1655	1170	0	0	0	
23S	3309	3309	2340	0	0	0	
31XY	189	189	325	0	0	0	
29S	189	189	325	0	0	0	
31Y	189	189	325	0	0	0	
38Y	189	189	325	0	0	0	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page	52 of 136
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

35Y	3249	3249	1430	0	0	0
36XY	1190	1190	761	0	0	0
35S	9373	9373	6643	0	0	0
36X	2343	2343	3029	0	0	0
36S	9373	9373	6643	0	0	0
37X	1041	1041	2392	0	0	0
39Y	1041	1041	2392	0	0	0
40Y	2343	2343	3029	0	0	0
40S	4167	4167	3861	0	0	0
40X	4685	4685	6058	0	0	0
41S	4167	4167	3861	0	0	0
41X	1041	1041	2392	0	0	0
1X	0	0	1300	0	0	0
1P	0	0	1300	0	0	0
1Y	0	0	1300	0	0	0
1XY	0	0	1300	0	0	0
10X	3713	3713	4368	0	0	0 FUTURAS
10P	3713	3713	4368	0	0	0 FUTURAS
11X	3713	3713	4368	0	0	0 FUTURAS
11P	3713	3713	4368	0	0	0 FUTURAS
12X	3713	3713	4368	0	0	0 FUTURAS
12S	3713	3713	4368	0	0	0 FUTURAS
13X	3713	3713	4368	0	0	0 FUTURAS
13S	3713	3713	4368	0	0	0 FUTURAS
14X	3713	3713	4368	0	0	0 FUTURAS
14S	3713	3713	4368	0	0	0 FUTURAS

EIA Section Load Case Information for "LC2 WIND 45° C.D.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	2018.54	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	9190	0.00	2.00	0.99	1.20	1.19	2401	11591	14976
2	145.20	140.20	142.70	1997.41	0.00	1.11	0.00	0.00	6.5	0.17	1.13	1.13	0.58	3.11	1.3	7800	0.00	2.00	1.03	1.20	1.24	2475	10275	14053
3	140.20	135.20	137.70	1977.15	0.00	1.58	0.00	0.00	6.5	0.24	1.18	1.18	0.60	2.80	1.9	10364	0.00	2.00	1.03	1.20	1.24	2450	12814	16707
4	135.20	131.63	133.41	1959.38	0.00	1.24	0.00	0.00	4.6	0.27	1.20	1.20	0.61	2.71	1.5	7902	0.00	2.00	0.74	1.20	0.88	1733	9636	12250
5	131.63	127.59	129.61	1943.24	0.00	1.57	0.00	0.00	7.2	0.22	1.16	1.16	0.59	2.91	1.8	10322	0.00	2.00	0.83	1.20	1.00	1945	12268	19027
6	127.59	122.20	124.90	1922.78	0.00	2.02	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.14	2.3	13706	0.00	2.00	1.11	1.20	1.34	2568	16274	26333
7	122.20	117.20	119.70	1899.58	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	12229	0.00	2.00	1.03	1.20	1.24	2354	14583	24296
8	117.20	112.20	114.70	1876.56	0.00	1.99	0.00	0.00	11.4	0.17	1.13	1.13	0.59	3.09	2.3	13065	0.00	2.00	1.03	1.20	1.24	2325	15390	29994
9	112.20	108.62	110.41	1856.24	0.00	1.49	0.00	0.00	8.2	0.18	1.14	1.14	0.59	3.06	1.7	9617	0.00	2.00	0.74	1.20	0.89	1647	11263	24499
10	108.62	102.20	105.41	1831.82	0.00	3.37	0.00	0.00	23.1	0.15	1.11	1.11	0.58	3.22	3.7	22105	0.00	2.00	1.33	1.20	1.59	2914	25019	50818
11	102.20	96.60	99.40	1801.35	0.00	3.74	0.00	0.00	27.5	0.14	1.10	1.10	0.58	3.27	4.1	24310	0.00	2.00	1.16	1.20	1.39	2500	26810	43588
12	96.60	91.20	93.90	1772.29	0.00	4.08	0.00	0.00	26.5	0.15	1.12	1.12	0.58	3.19	4.6	25714	0.00	2.00	1.12	1.20	1.34	2372	28086	46595
13	91.20	85.60	88.40	1741.99	0.00	4.44	0.00	0.00	27.5	0.16	1.12	1.12	0.58	3.15	5.0	27312	0.00	2.00	1.16	1.20	1.39	2417	29729	57031
14	85.60	80.00	82.80	1709.72	0.00	4.44	0.00	0.00	27.5	0.16	1.12	1.12	0.58	3.15	5.0	26806	0.00	2.00	1.16	1.20	1.39	2373	29178	58051
15	80.00	74.50	77.25	1676.16	0.00	4.40	0.00	0.00	27.0	0.16	1.12	1.12	0.58	3.14	4.9	26010	0.00	2.00	1.14	1.20	1.36	2284	28295	59350
16	74.50	71.80	73.15	1650.25	0.00	2.46	0.00	0.00	13.2	0.19	1.14	1.14	0.59	3.04	2.8	14064	0.00	2.00	0.56	1.20	0.67	1104	15168	32381
17	71.80	66.13	68.96	1622.69	0.00	4.13	0.00	0.00	27.8	0.15	1.11	1.11	0.58	3.21	4.6	23941	0.00	2.00	1.17	1.20	1.41	2282	26223	70730
18	66.13	59.80	62.96	1581.03	0.00	4.78	0.00	0.00	35.9	0.13	1.10	1.10	0.58	3.29	5.3	27299	0.00	2.00	1.31	1.20	1.57	2478	29777	82553
19	59.80	53.80	56.80	1535.18	0.00	4.57	0.00	0.00	43.1	0.11	1.08	1.08	0.58	3.42	4.9	25874	0.00	2.00	1.24	1.20	1.49	2283	28156	63905
20	53.80	47.80	50.80	1486.98	0.00	5.19	0.00	0.00	51.8	0.10	1.08	1.08	0.58	3.45	5.6	28610	0.00	2.00	1.24	1.20	1.49	2211	30821	72827
21	47.80	41.80	44.80	1434.53	0.00	5.62	0.00	0.00	60.6	0.09	1.07	1.07	0.57	3.49	6.0	30087	0.00	2.00	1.24	1.20	1.49	2133	32220	76720
22	41.80	35.80	38.80	1376.79	0.00	5.07	0.00	0.00	69.4	0.07	1.05	1.05	0.57	3.59	5.3	26417	0.00	2.00	1.24	1.20	1.49	2047	28464	88020
23	35.80	29.80	32.80	1312.27	0.00	5.81	0.00	0.00	78.2	0.07	1.06	1.06	0.57	3.58	6.1	28859	0.00	2.00	1.24	1.20	1.49	1951	30810	80957
24	29.80	23.80	26.80	1238.67	0.00	6.04	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.61	6.4	28393	0.00	2.00	1.24	1.20	1.49	1842	30234	101691
25	23.80	17.80	20.80	1152.14	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	28436	0.00	2.00	1.24	1.20	1.49	1713	30149	87637

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page	53 of 136
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

26	17.80	11.80	14.80	1045.39	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	26760	0.00	2.00	1.24	1.20	1.49	1554	28315	129120
27	11.80	5.80	8.80	936.17	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	6866	0.00	2.00	1.24	1.20	1.49	1392	8258	46568
28	5.80	0.00	2.90	936.17	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	21024	0.00	2.00	1.20	1.20	1.44	1345	22370	100924

Concentrated Loads for Load Case "LC3 WIND 0° C.T.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	894	0	1380	0	0	0	
1P	894	0	1380	0	0	0	
1XY	894	0	1380	0	0	0	
2X	894	0	1380	0	0	0	
2S	894	0	1380	0	0	0	
2XY	894	0	1380	0	0	0	
4X	894	0	1380	0	0	0	
4S	894	0	1380	0	0	0	
4XY	894	0	1380	0	0	0	
5X	894	0	1380	0	0	0	
5XY	894	0	1380	0	0	0	
6X	894	0	1380	0	0	0	
6XY	894	0	1380	0	0	0	
8X	894	0	1380	0	0	0	
8XY	894	0	1380	0	0	0	
10XY	894	0	1380	0	0	0	
14X	446	0	780	0	0	0	
14S	446	0	780	0	0	0	
14Y	446	0	780	0	0	0	
15X	446	0	780	0	0	0	
15S	446	0	780	0	0	0	
15Y	446	0	780	0	0	0	
17X	446	0	780	0	0	0	
17S	446	0	780	0	0	0	
17Y	446	0	780	0	0	0	
18X	446	0	780	0	0	0	
18S	446	0	780	0	0	0	
18Y	446	0	780	0	0	0	
20X	446	0	780	0	0	0	
20P	446	0	780	0	0	0	
22S	3599	0	1800	0	0	0	
22XY	1800	0	900	0	0	0	
23S	3599	0	1800	0	0	0	
31XY	205	0	250	0	0	0	
29S	205	0	250	0	0	0	
31Y	205	0	250	0	0	0	
38Y	205	0	250	0	0	0	
35Y	3534	0	1100	0	0	0	
36XY	1294	1	585	0	0	0	
35S	10197	0	5110	0	0	0	
36X	2549	0	2330	0	0	0	
36S	10197	0	5110	0	0	0	
37X	1133	0	1840	0	0	0	
39Y	1133	0	1840	0	0	0	
40Y	2549	0	2330	0	0	0	
40S	4532	0	2970	0	0	0	
40X	5098	0	4660	0	0	0	
41S	4532	0	2970	0	0	0	

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	Project	Date
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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	54 of 136
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

41X	1133	0	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
10X	4038	0	3360	0	0	0 FUTURAS
10P	4038	0	3360	0	0	0 FUTURAS
11X	4038	0	3360	0	0	0 FUTURAS
11P	4038	0	3360	0	0	0 FUTURAS
12X	4038	0	3360	0	0	0 FUTURAS
12S	4038	0	3360	0	0	0 FUTURAS
13X	4038	0	3360	0	0	0 FUTURAS
13S	4038	0	3360	0	0	0 FUTURAS
14X	4038	0	3360	0	0	0 FUTURAS
14S	4038	0	3360	0	0	0 FUTURAS

EIA Section Load Case Information for "LC3 WIND 0° C.T.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGn (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	1552.72	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	6247	0.00	2.00	0.99	1.20	1.19	1847	8094	11520
2	145.20	140.20	142.70	1536.47	0.00	1.11	0.00	0.00	6.5	0.17	1.00	1.00	0.58	3.11	1.1	5317	0.00	2.00	1.03	1.20	1.24	1904	7220	10810
3	140.20	135.20	137.70	1520.89	0.00	1.58	0.00	0.00	6.5	0.24	1.00	1.00	0.60	2.80	1.6	6741	0.00	2.00	1.03	1.20	1.24	1884	8626	12852
4	135.20	131.63	133.41	1507.21	0.00	1.24	0.00	0.00	4.6	0.27	1.00	1.00	0.61	2.71	1.2	5066	0.00	2.00	0.74	1.20	0.88	1333	6399	9423
5	131.63	127.59	129.61	1494.80	0.00	1.57	0.00	0.00	7.2	0.22	1.00	1.00	0.59	2.91	1.6	6828	0.00	2.00	0.83	1.20	1.00	1496	8324	14636
6	127.59	122.20	124.90	1479.06	0.00	2.02	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.14	2.0	9384	0.00	2.00	1.11	1.20	1.34	1975	11360	20256
7	122.20	117.20	119.70	1461.22	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	8402	0.00	2.00	1.03	1.20	1.24	1810	10212	18689
8	117.20	112.20	114.70	1443.51	0.00	1.99	0.00	0.00	11.4	0.17	1.00	1.00	0.59	3.09	2.0	8886	0.00	2.00	1.03	1.20	1.24	1789	10675	23072
9	112.20	108.62	110.41	1427.87	0.00	1.49	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.06	1.5	6506	0.00	2.00	0.74	1.20	0.89	1267	7773	18845
10	108.62	102.20	105.41	1409.09	0.00	3.37	0.00	0.00	23.1	0.15	1.00	1.00	0.58	3.22	3.4	15322	0.00	2.00	1.33	1.20	1.59	2242	17564	39091
11	102.20	96.60	99.40	1385.65	0.00	3.74	0.00	0.00	27.5	0.14	1.00	1.00	0.58	3.27	3.7	16965	0.00	2.00	1.16	1.20	1.39	1923	18888	33529
12	96.60	91.20	93.90	1363.30	0.00	4.08	0.00	0.00	26.5	0.15	1.00	1.00	0.58	3.19	4.1	17730	0.00	2.00	1.12	1.20	1.34	1824	19554	35842
13	91.20	85.60	88.40	1339.99	0.00	4.44	0.00	0.00	27.5	0.16	1.00	1.00	0.58	3.15	4.4	18738	0.00	2.00	1.16	1.20	1.39	1859	20598	43870
14	85.60	80.00	82.80	1315.17	0.00	4.44	0.00	0.00	27.5	0.16	1.00	1.00	0.58	3.15	4.4	18391	0.00	2.00	1.16	1.20	1.39	1825	20216	44655
15	80.00	74.50	77.25	1289.36	0.00	4.40	0.00	0.00	27.0	0.16	1.00	1.00	0.58	3.14	4.4	17828	0.00	2.00	1.14	1.20	1.36	1757	19585	45654
16	74.50	71.80	73.15	1269.42	0.00	2.46	0.00	0.00	13.2	0.19	1.00	1.00	0.59	3.04	2.5	9496	0.00	2.00	0.56	1.20	0.67	849	10345	24909
17	71.80	66.13	68.96	1248.22	0.00	4.13	0.00	0.00	27.8	0.15	1.00	1.00	0.58	3.21	4.1	16571	0.00	2.00	1.17	1.20	1.41	1755	18326	54408
18	66.13	59.80	62.96	1216.18	0.00	4.78	0.00	0.00	35.9	0.13	1.00	1.00	0.58	3.29	4.8	19093	0.00	2.00	1.31	1.20	1.57	1906	20999	63502
19	59.80	53.80	56.80	1180.91	0.00	4.57	0.00	0.00	43.1	0.11	1.00	1.00	0.58	3.42	4.6	18437	0.00	2.00	1.24	1.20	1.49	1756	20192	49157
20	53.80	47.80	50.80	1143.83	0.00	5.19	0.00	0.00	51.8	0.10	1.00	1.00	0.58	3.45	5.2	20471	0.00	2.00	1.24	1.20	1.49	1701	22172	56021
21	47.80	41.80	44.80	1103.49	0.00	5.62	0.00	0.00	60.6	0.09	1.00	1.00	0.57	3.49	5.6	21638	0.00	2.00	1.24	1.20	1.49	1641	23279	59015
22	41.80	35.80	38.80	1059.07	0.00	5.07	0.00	0.00	69.4	0.07	1.00	1.00	0.57	3.59	5.1	19265	0.00	2.00	1.24	1.20	1.49	1575	20840	67708
23	35.80	29.80	32.80	1009.44	0.00	5.81	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.58	5.8	21026	0.00	2.00	1.24	1.20	1.49	1501	22527	62275
24	29.80	23.80	26.80	952.82	0.00	6.04	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.61	6.0	20759	0.00	2.00	1.24	1.20	1.49	1417	22176	78224
25	23.80	17.80	20.80	886.26	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	20815	0.00	2.00	1.24	1.20	1.49	1318	22133	97413
26	17.80	11.80	14.80	804.14	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	19638	0.00	2.00	1.24	1.20	1.49	1196	20834	99323
27	11.80	5.80	8.80	720.13	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	5218	0.00	2.00	1.24	1.20	1.49	1071	6288	35822
28	5.80	0.00	2.90	720.13	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	15594	0.00	2.00	1.20	1.20	1.44	1035	16629	77623

Concentrated Loads for Load Case "LC4 WIND 45° C.T.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	632	632	1380	0	0	0	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	55 of 136
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

1P	632	632	1380	0	0	0
1XY	632	632	1380	0	0	0
2X	632	632	1380	0	0	0
2S	632	632	1380	0	0	0
2XY	632	632	1380	0	0	0
4X	632	632	1380	0	0	0
4S	632	632	1380	0	0	0
4XY	632	632	1380	0	0	0
5X	632	632	1380	0	0	0
5XY	632	632	1380	0	0	0
6X	632	632	1380	0	0	0
6XY	632	632	1380	0	0	0
8X	632	632	1380	0	0	0
8XY	632	632	1380	0	0	0
10XY	632	632	1380	0	0	0
14X	315	315	780	0	0	0
14S	315	315	780	0	0	0
14Y	315	315	780	0	0	0
15X	315	315	780	0	0	0
15S	315	315	780	0	0	0
15Y	315	315	780	0	0	0
17X	315	315	780	0	0	0
17S	315	315	780	0	0	0
17Y	315	315	780	0	0	0
18X	315	315	780	0	0	0
18S	315	315	780	0	0	0
18Y	315	315	780	0	0	0
20X	315	315	780	0	0	0
20P	315	315	780	0	0	0
22S	2545	2545	1800	0	0	0
22XY	1273	1273	900	0	0	0
23S	2545	2545	1800	0	0	0
31XY	145	145	250	0	0	0
29S	145	145	250	0	0	0
31Y	145	145	250	0	0	0
38Y	145	145	250	0	0	0
35Y	2499	2499	1100	0	0	0
36XY	915	915	585	0	0	0
35S	7210	7210	5110	0	0	0
36X	1802	1802	2330	0	0	0
36S	7210	7210	5110	0	0	0
37X	801	801	1840	0	0	0
39Y	801	801	1840	0	0	0
40Y	1802	1802	2330	0	0	0
40S	3205	3205	2970	0	0	0
40X	3604	3604	4660	0	0	0
41S	3205	3205	2970	0	0	0
41X	801	801	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
10X	2856	2856	3360	0	0	0 FUTURAS
10P	2856	2856	3360	0	0	0 FUTURAS
11X	2856	2856	3360	0	0	0 FUTURAS
11P	2856	2856	3360	0	0	0 FUTURAS
12X	2856	2856	3360	0	0	0 FUTURAS
12S	2856	2856	3360	0	0	0 FUTURAS

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	Project	Date
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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	56 of 136
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

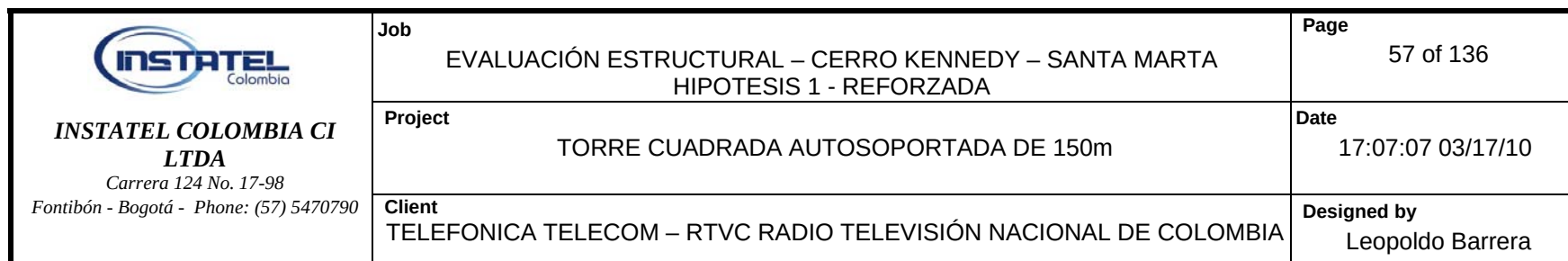
13X 2856 2856 3360 0 0 0 FUTURAS
13S 2856 2856 3360 0 0 0 FUTURAS
14X 2856 2856 3360 0 0 0 FUTURAS
14S 2856 2856 3360 0 0 0 FUTURAS

EIA Section Load Case Information for "LC4 WIND 45° C.T.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Above Gnd. (m)	Elev. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20		148.06	1552.72	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	7070	0.00	2.00	0.99	1.20	1.19	1847	8916	11520
2	145.20	140.20		142.70	1536.47	0.00	1.11	0.00	0.00	6.5	0.17	1.13	1.13	0.58	3.11	1.3	6000	0.00	2.00	1.03	1.20	1.24	1904	7904	10810
3	140.20	135.20		137.70	1520.89	0.00	1.58	0.00	0.00	6.5	0.24	1.18	1.18	0.60	2.80	1.9	7972	0.00	2.00	1.03	1.20	1.24	1884	9857	12852
4	135.20	131.63		133.41	1507.21	0.00	1.24	0.00	0.00	4.6	0.27	1.20	1.20	0.61	2.71	1.5	6079	0.00	2.00	0.74	1.20	0.88	1333	7412	9423
5	131.63	127.59		129.61	1494.80	0.00	1.57	0.00	0.00	7.2	0.22	1.16	1.16	0.59	2.91	1.8	7940	0.00	2.00	0.83	1.20	1.00	1496	9437	14636
6	127.59	122.20		124.90	1479.06	0.00	2.02	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.14	2.3	10543	0.00	2.00	1.11	1.20	1.34	1975	12518	20256
7	122.20	117.20		119.70	1461.22	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	9407	0.00	2.00	1.03	1.20	1.24	1810	11218	18689
8	117.20	112.20		114.70	1443.51	0.00	1.99	0.00	0.00	11.4	0.17	1.13	1.13	0.59	3.09	2.3	10050	0.00	2.00	1.03	1.20	1.24	1789	11839	23072
9	112.20	108.62		110.41	1427.87	0.00	1.49	0.00	0.00	8.2	0.18	1.14	1.14	0.59	3.06	1.7	7398	0.00	2.00	0.74	1.20	0.89	1267	8664	18845
10	108.62	102.20		105.41	1409.09	0.00	3.37	0.00	0.00	23.1	0.15	1.11	1.11	0.58	3.22	3.7	17004	0.00	2.00	1.33	1.20	1.59	2242	19246	39091
11	102.20	96.60		99.40	1385.65	0.00	3.74	0.00	0.00	27.5	0.14	1.10	1.10	0.58	3.27	4.1	18700	0.00	2.00	1.16	1.20	1.39	1923	20623	33529
12	96.60	91.20		93.90	1363.30	0.00	4.08	0.00	0.00	26.5	0.15	1.12	1.12	0.58	3.19	4.6	19780	0.00	2.00	1.12	1.20	1.34	1824	21604	35842
13	91.20	85.60		88.40	1339.99	0.00	4.44	0.00	0.00	27.5	0.16	1.12	1.12	0.58	3.15	5.0	21009	0.00	2.00	1.16	1.20	1.39	1859	22869	43870
14	85.60	80.00		82.80	1315.17	0.00	4.44	0.00	0.00	27.5	0.16	1.12	1.12	0.58	3.15	5.0	20620	0.00	2.00	1.16	1.20	1.39	1825	22445	44655
15	80.00	74.50		77.25	1289.36	0.00	4.40	0.00	0.00	27.0	0.16	1.12	1.12	0.58	3.14	4.9	20008	0.00	2.00	1.14	1.20	1.36	1757	21765	45654
16	74.50	71.80		73.15	1269.42	0.00	2.46	0.00	0.00	13.2	0.19	1.14	1.14	0.59	3.04	2.8	10818	0.00	2.00	0.56	1.20	0.67	849	11667	24909
17	71.80	66.13		68.96	1248.22	0.00	4.13	0.00	0.00	27.8	0.15	1.11	1.11	0.58	3.21	4.6	18416	0.00	2.00	1.17	1.20	1.41	1755	20172	54408
18	66.13	59.80		62.96	1216.18	0.00	4.78	0.00	0.00	35.9	0.13	1.10	1.10	0.58	3.29	5.3	20999	0.00	2.00	1.31	1.20	1.57	1906	22905	63502
19	59.80	53.80		56.80	1180.91	0.00	4.57	0.00	0.00	43.1	0.11	1.08	1.08	0.58	3.42	4.9	19903	0.00	2.00	1.24	1.20	1.49	1756	21659	49157
20	53.80	47.80		50.80	1143.83	0.00	5.19	0.00	0.00	51.8	0.10	1.08	1.08	0.58	3.45	5.6	22008	0.00	2.00	1.24	1.20	1.49	1701	23709	56021
21	47.80	41.80		44.80	1103.49	0.00	5.62	0.00	0.00	60.6	0.09	1.07	1.07	0.57	3.49	6.0	23144	0.00	2.00	1.24	1.20	1.49	1641	24785	59015
22	41.80	35.80		38.80	1059.07	0.00	5.07	0.00	0.00	69.4	0.07	1.05	1.05	0.57	3.59	5.3	20320	0.00	2.00	1.24	1.20	1.49	1575	21895	67708
23	35.80	29.80		32.80	1009.44	0.00	5.81	0.00	0.00	78.2	0.07	1.06	1.06	0.57	3.58	6.1	22199	0.00	2.00	1.24	1.20	1.49	1501	23700	62275
24	29.80	23.80		26.80	952.82	0.00	6.04	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.61	6.4	21840	0.00	2.00	1.24	1.20	1.49	1417	23257	78224
25	23.80	17.80		20.80	886.26	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	21874	0.00	2.00	1.24	1.20	1.49	1318	23192	67413
26	17.80	11.80		14.80	804.14	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	20585	0.00	2.00	1.24	1.20	1.49	1196	21780	99323
27	11.80	5.80		8.80	720.13	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	5282	0.00	2.00	1.24	1.20	1.49	1071	6353	35822
28	5.80	0.00		2.90	720.13	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	16172	0.00	2.00	1.20	1.20	1.44	1035	17207	77634

Concentrated Loads for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	224	0	1380	0	0	0	
1P	224	0	1380	0	0	0	
1XY	224	0	1380	0	0	0	
2X	224	0	1380	0	0	0	
2S	224	0	1380	0	0	0	
2XY	224	0	1380	0	0	0	
4X	224	0	1380	0	0	0	
4S	224	0	1380	0	0	0	
4XY	224	0	1380	0	0	0	
5X	224	0	1380	0	0	0	
5XY	224	0	1380	0	0	0	
6X	224	0	1380	0	0	0	



6XY	224	0	1380	0	0	0
8X	224	0	1380	0	0	0
8XY	224	0	1380	0	0	0
10XY	224	0	1380	0	0	0
14X	112	0	780	0	0	0
14S	112	0	780	0	0	0
14Y	112	0	780	0	0	0
15X	112	0	780	0	0	0
15S	112	0	780	0	0	0
15Y	112	0	780	0	0	0
17X	112	0	780	0	0	0
17S	112	0	780	0	0	0
17Y	112	0	780	0	0	0
18X	112	0	780	0	0	0
18S	112	0	780	0	0	0
18Y	112	0	780	0	0	0
20X	112	0	780	0	0	0
20P	112	0	780	0	0	0
22S	900	0	1800	0	0	0
22XY	450	0	900	0	0	0
23S	900	0	1800	0	0	0
31XY	51	0	250	0	0	0
29S	51	0	250	0	0	0
31Y	51	0	250	0	0	0
38Y	51	0	250	0	0	0
35Y	884	0	1100	0	0	0
36XY	324	0	585	0	0	0
35S	2551	0	5110	0	0	0
36X	637	0	2330	0	0	0
36S	2551	0	5110	0	0	0
37X	284	0	1840	0	0	0
39Y	284	0	1840	0	0	0
40Y	637	0	2330	0	0	0
40S	1134	0	2970	0	0	0
40X	1274	0	4660	0	0	0
41S	1134	0	2970	0	0	0
41X	284	0	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
10X	1010	0	3360	0	0	0 FUTURAS
10P	1010	0	3360	0	0	0 FUTURAS
11X	1010	0	3360	0	0	0 FUTURAS
11P	1010	0	3360	0	0	0 FUTURAS
12X	1010	0	3360	0	0	0 FUTURAS
12S	1010	0	3360	0	0	0 FUTURAS
13X	1010	0	3360	0	0	0 FUTURAS
13S	1010	0	3360	0	0	0 FUTURAS
14X	1010	0	3360	0	0	0 FUTURAS
14S	1010	0	3360	0	0	0 FUTURAS

EIA Section Load Case Information for "LC5 WIND 0° DEFLEX":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Above (m)	Elev. Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR^*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR^*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	58 of 136
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

1	150.91	145.20	148.06	388.41	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	1563	0.00	2.00	0.99	1.20	1.19	462	2025	11520
2	145.20	140.20	142.70	384.35	0.00	1.11	0.00	0.00	6.5	0.17	1.00	1.00	0.58	3.11	1.1	1330	0.00	2.00	1.03	1.20	1.24	476	1806	10810
3	140.20	135.20	137.70	380.45	0.00	1.58	0.00	0.00	6.5	0.24	1.00	1.00	0.60	2.80	1.6	1686	0.00	2.00	1.03	1.20	1.24	471	2158	12852
4	135.20	131.63	133.41	377.03	0.00	1.24	0.00	0.00	4.6	0.27	1.00	1.00	0.61	2.71	1.2	1267	0.00	2.00	0.74	1.20	0.88	334	1601	9423
5	131.63	127.59	129.61	373.93	0.00	1.57	0.00	0.00	7.2	0.22	1.00	1.00	0.59	2.91	1.6	1708	0.00	2.00	0.83	1.20	1.00	374	2082	14636
6	127.59	122.20	124.90	369.99	0.00	2.02	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.14	2.0	2348	0.00	2.00	1.11	1.20	1.34	494	2842	20256
7	122.20	117.20	119.70	365.52	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	2102	0.00	2.00	1.03	1.20	1.24	453	2555	18689
8	117.20	112.20	114.70	361.09	0.00	1.99	0.00	0.00	11.4	0.17	1.00	1.00	0.59	3.09	2.0	2223	0.00	2.00	1.03	1.20	1.24	447	2670	23072
9	112.20	108.62	110.41	357.18	0.00	1.49	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.06	1.5	1627	0.00	2.00	0.74	1.20	0.89	317	1944	18845
10	108.62	102.20	105.41	352.48	0.00	3.37	0.00	0.00	23.1	0.15	1.00	1.00	0.58	3.22	3.4	3833	0.00	2.00	1.33	1.20	1.59	561	4394	39091
11	102.20	96.60	99.40	346.62	0.00	3.74	0.00	0.00	27.5	0.14	1.00	1.00	0.58	3.27	3.7	4244	0.00	2.00	1.16	1.20	1.39	481	4725	33529
12	96.60	91.20	93.90	341.03	0.00	4.08	0.00	0.00	26.5	0.15	1.00	1.00	0.58	3.19	4.1	4435	0.00	2.00	1.12	1.20	1.34	456	4891	35842
13	91.20	85.60	88.40	335.20	0.00	4.44	0.00	0.00	27.5	0.16	1.00	1.00	0.58	3.15	4.4	4687	0.00	2.00	1.16	1.20	1.39	465	5152	43870
14	85.60	80.00	82.80	328.99	0.00	4.44	0.00	0.00	27.5	0.16	1.00	1.00	0.58	3.15	4.4	4600	0.00	2.00	1.16	1.20	1.39	457	5057	44655
15	80.00	74.50	77.25	322.53	0.00	4.40	0.00	0.00	27.0	0.16	1.00	1.00	0.58	3.14	4.4	4460	0.00	2.00	1.14	1.20	1.36	440	4899	45654
16	74.50	71.80	73.15	317.55	0.00	2.46	0.00	0.00	13.2	0.19	1.00	1.00	0.59	3.04	2.5	2375	0.00	2.00	0.56	1.20	0.67	212	2588	24909
17	71.80	66.13	68.96	312.24	0.00	4.13	0.00	0.00	27.8	0.15	1.00	1.00	0.58	3.21	4.1	4145	0.00	2.00	1.17	1.20	1.41	439	4584	54408
18	66.13	59.80	62.96	304.23	0.00	4.78	0.00	0.00	35.9	0.13	1.00	1.00	0.58	3.29	4.8	4776	0.00	2.00	1.31	1.20	1.57	477	5253	63502
19	59.80	53.80	56.80	295.40	0.00	4.57	0.00	0.00	43.1	0.11	1.00	1.00	0.58	3.42	4.6	4612	0.00	2.00	1.24	1.20	1.49	439	5051	49157
20	53.80	47.80	50.80	286.13	0.00	5.19	0.00	0.00	51.8	0.10	1.00	1.00	0.58	3.45	5.2	5121	0.00	2.00	1.24	1.20	1.49	425	5546	56021
21	47.80	41.80	44.80	276.04	0.00	5.62	0.00	0.00	60.6	0.09	1.00	1.00	0.57	3.49	5.6	5413	0.00	2.00	1.24	1.20	1.49	410	5823	59015
22	41.80	35.80	38.80	264.93	0.00	5.07	0.00	0.00	69.4	0.07	1.00	1.00	0.57	3.59	5.1	4819	0.00	2.00	1.24	1.20	1.49	394	5213	67708
23	35.80	29.80	32.80	252.51	0.00	5.81	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.58	5.8	5260	0.00	2.00	1.24	1.20	1.49	375	5635	62275
24	29.80	23.80	26.80	238.35	0.00	6.04	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.61	6.0	5193	0.00	2.00	1.24	1.20	1.49	354	5547	78224
25	23.80	17.80	20.80	221.70	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	5207	0.00	2.00	1.24	1.20	1.49	330	5537	67413
26	17.80	11.80	14.80	201.16	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	4913	0.00	2.00	1.24	1.20	1.49	299	5212	99323
27	11.80	5.80	8.80	180.14	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	1305	0.00	2.00	1.24	1.20	1.49	268	1573	35822
28	5.80	0.00	2.90	180.14	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	3901	0.00	2.00	1.20	1.20	1.44	259	4160	77634

Concentrated Loads for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	158	158	1380	0	0	0	
1P	158	158	1380	0	0	0	
1XY	158	158	1380	0	0	0	
2X	158	158	1380	0	0	0	
2S	158	158	1380	0	0	0	
2XY	158	158	1380	0	0	0	
4X	158	158	1380	0	0	0	
4S	158	158	1380	0	0	0	
4XY	158	158	1380	0	0	0	
5X	158	158	1380	0	0	0	
5XY	158	158	1380	0	0	0	
6X	158	158	1380	0	0	0	
6XY	158	158	1380	0	0	0	
8X	158	158	1380	0	0	0	
8XY	158	158	1380	0	0	0	
10XY	158	158	1380	0	0	0	
14X	79	79	780	0	0	0	
14S	79	79	780	0	0	0	
14Y	79	79	780	0	0	0	
15X	79	79	780	0	0	0	
15S	79	79	780	0	0	0	
15Y	79	79	780	0	0	0	
17X	79	79	780	0	0	0	

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

17S	79	79	780	0	0	0
17Y	79	79	780	0	0	0
18X	79	79	780	0	0	0
18S	79	79	780	0	0	0
18Y	79	79	780	0	0	0
20X	79	79	780	0	0	0
20P	79	79	780	0	0	0
22S	636	636	1800	0	0	0
22XY	318	318	900	0	0	0
23S	636	636	1800	0	0	0
31XY	36	36	250	0	0	0
29S	36	36	250	0	0	0
31Y	36	36	250	0	0	0
38Y	36	36	250	0	0	0
35Y	625	625	1100	0	0	0
36XY	229	229	585	0	0	0
35S	1804	1804	5110	0	0	0
36X	451	451	2330	0	0	0
36S	1804	1804	5110	0	0	0
37X	200	200	1840	0	0	0
39Y	200	200	1840	0	0	0
40Y	451	451	2330	0	0	0
40S	802	802	2970	0	0	0
40X	902	902	4660	0	0	0
41S	802	802	2970	0	0	0
41X	200	200	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
10X	714	714	3360	0	0	0
10P	714	714	3360	0	0	0
11X	714	714	3360	0	0	0
11P	714	714	3360	0	0	0
12X	714	714	3360	0	0	0
12S	714	714	3360	0	0	0
13X	714	714	3360	0	0	0
13S	714	714	3360	0	0	0
14X	714	714	3360	0	0	0
14S	714	714	3360	0	0	0

EIA Section Load Case Information for "LC6 WIND 45° DEFLEX":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	388.41	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	1768	0.00	2.00	0.99	1.20	1.19	462	2230	11520
2	145.20	140.20	142.70	384.35	0.00	1.11	0.00	0.00	6.5	0.17	1.13	1.13	0.58	3.11	1.3	1501	0.00	2.00	1.03	1.20	1.24	476	1977	10810
3	140.20	135.20	137.70	380.45	0.00	1.58	0.00	0.00	6.5	0.24	1.18	1.18	0.60	2.80	1.9	1994	0.00	2.00	1.03	1.20	1.24	471	2466	12852
4	135.20	131.63	133.41	377.03	0.00	1.24	0.00	0.00	4.6	0.27	1.20	1.20	0.61	2.71	1.5	1521	0.00	2.00	0.74	1.20	0.88	334	1854	9423
5	131.63	127.59	129.61	373.93	0.00	1.57	0.00	0.00	7.2	0.22	1.16	1.16	0.59	2.91	1.8	1986	0.00	2.00	0.83	1.20	1.00	374	2361	14636
6	127.59	122.20	124.90	369.99	0.00	2.02	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.14	2.3	2637	0.00	2.00	1.11	1.20	1.34	494	3131	20256
7	122.20	117.20	119.70	365.52	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	2353	0.00	2.00	1.03	1.20	1.24	453	2806	18689
8	117.20	112.20	114.70	361.09	0.00	1.99	0.00	0.00	11.4	0.17	1.13	1.13	0.59	3.09	2.3	2514	0.00	2.00	1.03	1.20	1.24	447	2961	23072
9	112.20	108.62	110.41	357.18	0.00	1.49	0.00	0.00	8.2	0.18	1.14	1.14	0.59	3.06	1.7	1850	0.00	2.00	0.74	1.20	0.89	317	2167	18845
10	108.62	102.20	105.41	352.48	0.00	3.37	0.00	0.00	23.1	0.15	1.11	1.11	0.58	3.22	3.7	4254	0.00	2.00	1.33	1.20	1.59	561	4814	39091
11	102.20	96.60	99.40	346.62	0.00	3.74	0.00	0.00	27.5	0.14	1.10	1.10	0.58	3.27	4.1	4678	0.00	2.00	1.16	1.20	1.39	481	5159	33529

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

12	96.60	91.20	93.90	341.03	0.00	4.08	0.00	0.00	26.5	0.15	1.12	1.12	0.58	3.19	4.6	4948	0.00	2.00	1.12	1.20	1.34	456	5404	35842
13	91.20	85.60	88.40	335.20	0.00	4.44	0.00	0.00	27.5	0.16	1.12	1.12	0.58	3.15	5.0	5255	0.00	2.00	1.16	1.20	1.39	465	5721	43870
14	85.60	80.00	82.80	328.99	0.00	4.44	0.00	0.00	27.5	0.16	1.12	1.12	0.58	3.15	5.0	5158	0.00	2.00	1.16	1.20	1.39	457	5615	44655
15	80.00	74.50	77.25	322.53	0.00	4.40	0.00	0.00	27.0	0.16	1.12	1.12	0.58	3.14	4.9	5005	0.00	2.00	1.14	1.20	1.36	440	5445	45654
16	74.50	71.80	73.15	317.55	0.00	2.46	0.00	0.00	13.2	0.19	1.14	1.14	0.59	3.04	2.8	2706	0.00	2.00	0.56	1.20	0.67	212	2919	24909
17	71.80	66.13	68.96	312.24	0.00	4.13	0.00	0.00	27.8	0.15	1.11	1.11	0.58	3.21	4.6	4607	0.00	2.00	1.17	1.20	1.41	439	5046	54408
18	66.13	59.80	62.96	304.23	0.00	4.78	0.00	0.00	35.9	0.13	1.10	1.10	0.58	3.29	5.3	5253	0.00	2.00	1.31	1.20	1.57	477	5730	63502
19	59.80	53.80	56.80	295.40	0.00	4.57	0.00	0.00	43.1	0.11	1.08	1.08	0.58	3.42	4.9	4979	0.00	2.00	1.24	1.20	1.49	439	5418	49157
20	53.80	47.80	50.80	286.13	0.00	5.19	0.00	0.00	51.8	0.10	1.08	1.08	0.58	3.45	5.6	5505	0.00	2.00	1.24	1.20	1.49	425	5931	56021
21	47.80	41.80	44.80	276.04	0.00	5.62	0.00	0.00	60.6	0.09	1.07	1.07	0.57	3.49	6.0	5790	0.00	2.00	1.24	1.20	1.49	410	6200	59015
22	41.80	35.80	38.80	264.93	0.00	5.07	0.00	0.00	69.4	0.07	1.05	1.05	0.57	3.59	5.3	5083	0.00	2.00	1.24	1.20	1.49	394	5477	67708
23	35.80	29.80	32.80	252.51	0.00	5.81	0.00	0.00	78.2	0.07	1.06	1.06	0.57	3.58	6.1	5553	0.00	2.00	1.24	1.20	1.49	375	5929	62275
24	29.80	23.80	26.80	238.35	0.00	6.04	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.61	6.4	5463	0.00	2.00	1.24	1.20	1.49	354	5818	78224
25	23.80	17.80	20.80	221.70	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	5472	0.00	2.00	1.24	1.20	1.49	330	5801	67413
26	17.80	11.80	14.80	201.16	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	5149	0.00	2.00	1.24	1.20	1.49	299	5448	99323
27	11.80	5.80	8.80	180.14	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	1321	0.00	2.00	1.24	1.20	1.49	268	1589	35822
28	5.80	0.00	2.90	180.14	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	4046	0.00	2.00	1.20	1.20	1.44	259	4304	77634

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

*** Análisis de resultados

El uso máximo del elemento es: 99.63% for Angle "29P" in load case "LC4 WIND 45° C.T."

Angle Forces For All Load Cases:
Positive for tension - negative for compression

Group Label	Angle Label	Max. Tens. For All LC (kN)	Max. Comp. For All LC (kN)	LC 1 (kN)	LC 2 (kN)	LC 3 (kN)	LC 4 (kN)	LC 5 (kN)	LC 6 (kN)
M1	1P	0.000	-13.796	-10.932	-13.796	-8.880	-11.081	-6.242	-6.791
M1	1X	0.000	-11.864	-11.864	-6.405	-9.597	-5.397	-6.430	-5.379
M1	1XY	1.089	-4.300	-0.855	1.089	-1.128	0.366	-4.300	-3.927
M1	1Y	0.000	-4.515	-1.001	-4.515	-1.240	-3.943	-3.288	-3.964
M1	2P	0.000	-28.627	-19.067	-28.627	-14.367	-21.716	-6.849	-8.684
M1	2X	0.000	-23.457	-23.457	-6.042	-17.745	-4.347	-7.684	-4.330
M1	2XY	16.576	-0.977	11.411	16.576	9.080	13.047	-0.977	0.011
M1	2Y	9.197	-2.431	9.197	-2.431	7.376	-1.569	0.647	-1.592
M2	3P	0.000	-60.291	-39.349	-60.291	-30.345	-46.445	-13.603	-17.624
M2	3X	0.000	-48.419	-48.419	-10.495	-37.323	-8.148	-15.377	-8.073
M2	3XY	39.646	-0.678	27.741	39.646	21.267	30.414	-0.678	1.601
M2	3Y	21.302	-6.573	21.302	-6.573	16.312	-5.131	0.168	-5.199
M2	4P	0.000	-92.617	-58.832	-92.617	-45.315	-71.291	-18.673	-25.162
M2	4X	0.000	-73.353	-73.353	-12.653	-56.487	-9.791	-21.432	-9.741
M2	4XY	67.378	0.000	48.160	67.378	36.992	51.759	1.935	5.616
M2	4Y	37.770	-7.227	37.770	-7.227	28.998	-5.618	2.984	-5.680
M3	5P	0.000	-144.830	-90.628	-144.830	-69.820	-111.493	-26.658	-37.070
M3	5X	0.000	-116.426	-116.426	-18.293	-89.668	-14.175	-32.701	-13.802
M3	5XY	113.657	0.000	81.118	113.657	62.301	87.307	5.337	11.572
M3	5Y	64.435	-10.815	64.435	-10.815	49.465	-8.422	6.283	-8.204
M3	6P	0.000	-194.243	-118.502	-194.243	-91.288	-149.524	-32.670	-47.222
M3	6X	0.000	-159.385	-159.385	-23.131	-122.742	-17.921	-42.543	-16.302
M3	6XY	163.948	0.000	118.738	163.948	91.216	125.958	11.022	19.685
M3	6Y	90.074	-13.855	90.074	-13.855	69.162	-10.786	10.553	-9.455
M4	7P	0.000	-255.448	-155.782	-255.448	-120.296	-196.927	-42.373	-61.523
M4	7X	0.000	-209.572	-209.572	-30.802	-161.679	-24.150	-54.715	-20.285
M4	7XY	224.823	0.000	161.361	224.823	123.676	172.449	16.641	28.804
M4	7Y	120.016	-21.839	120.016	-21.839	91.866	-17.256	13.848	-13.459
M4	8P	0.000	-311.551	-181.465	-311.551	-139.418	-239.445	-45.775	-70.774
M4	8X	0.000	-255.493	-255.493	-29.054	-196.371	-22.170	-63.413	-19.803
M4	8XY	276.816	0.000	205.938	276.816	158.604	213.070	25.748	39.328
M4	8Y	147.830	-18.088	147.830	-18.088	113.896	-13.734	20.386	-11.552
M5	9P	0.000	-306.033	-190.192	-306.033	-149.310	-238.383	-60.039	-82.300
M5	9X	0.000	-247.385	-247.385	-43.742	-193.311	-36.647	-73.630	-34.413
M5	9XY	240.646	0.000	169.747	240.646	127.584	182.073	8.118	21.709
M5	9Y	125.120	-33.347	125.120	-33.347	93.248	-28.651	4.240	-26.264
M6	10P	0.000	-363.309	-245.695	-363.309	-189.349	-279.779	-69.329	-91.920
M6	10X	0.000	-272.412	-272.412	-48.562	-209.904	-37.699	-76.769	-33.666
M6	10XY	301.117	0.000	193.698	301.117	148.665	231.246	16.915	37.534
M6	10Y	177.188	-35.079	177.188	-35.079	135.962	-27.327	17.314	-23.548
M6	11P	0.000	-460.662	-308.536	-460.662	-237.170	-354.139	-83.226	-112.448
M6	11X	0.000	-334.163	-334.163	-47.454	-256.887	-36.326	-90.709	-35.508
M6	11XY	382.406	0.000	250.060	382.406	192.543	294.290	28.358	53.765
M6	11Y	234.636	-30.244	234.636	-30.244	180.675	-23.087	28.737	-22.254

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M7	12P	0.000	-582.822	-389.981	-582.822	-300.133	-448.411	-105.105	-142.150
M7	12X	0.000	-412.395	-412.395	-50.619	-317.377	-39.071	-112.022	-42.374
M7	12XY	474.291	0.000	312.706	474.291	240.425	364.654	36.908	67.932
M7	12Y	300.673	-28.233	300.673	-28.233	231.165	-21.850	37.833	-25.482
M7	13P	0.000	-704.309	-466.274	-704.309	-358.739	-541.772	-123.161	-168.891
M7	13X	0.000	-485.815	-485.815	-44.568	-373.774	-34.333	-129.673	-44.731
M7	13XY	564.451	0.000	379.082	564.451	291.569	434.086	49.147	84.739
M7	13Y	369.132	-24.750	369.132	-18.119	283.912	-13.988	49.798	-24.750
M8	14P	0.000	-858.302	-562.407	-858.302	-432.853	-660.380	-145.688	-202.537
M8	14X	0.000	-577.995	-577.995	-35.309	-444.848	-27.376	-151.534	-47.071
M8	14XY	679.460	0.000	462.204	679.460	355.349	522.381	61.831	103.548
M8	14Y	454.764	-27.117	454.764	-9.488	349.623	-7.513	62.254	-27.117
M8	15P	0.000	-995.883	-647.167	-995.883	-497.846	-765.992	-162.449	-229.448
M8	15X	0.000	-658.610	-658.610	-22.516	-506.652	-17.326	-167.606	-45.167
M8	15XY	784.739	0.000	539.726	784.739	415.194	603.568	76.287	123.337
M8	15Y	536.450	-25.053	536.450	4.195	412.670	3.221	77.410	-25.053
M9	16P	0.000	-1148.587	-743.931	-1148.587	-573.004	-884.168	-186.957	-264.706
M9	16X	0.000	-752.210	-752.210	-17.451	-579.376	-14.154	-191.635	-50.208
M9	16XY	893.018	0.000	616.245	893.018	473.334	686.129	85.737	138.888
M9	16Y	615.386	-30.252	615.386	8.375	472.669	5.712	86.603	-30.252
M9	17P	0.000	-1252.406	-808.929	-1252.406	-621.802	-962.817	-196.804	-282.013
M9	17X	0.000	-810.602	-810.602	-5.224	-623.093	-3.548	-200.124	-45.107
M9	17XY	983.591	0.000	680.861	983.591	524.242	756.997	101.374	159.514
M9	17Y	685.496	-25.151	685.496	20.800	527.804	16.471	102.810	-25.151
M10	18P	0.000	-915.849	-608.176	-915.849	-474.674	-711.261	-173.866	-232.983
M10	18X	0.000	-605.338	-605.338	-42.432	-472.493	-39.474	-175.081	-66.735
M10	18XY	660.027	0.000	441.009	660.027	332.426	500.823	35.002	77.070
M10	18Y	447.489	-54.663	447.489	-26.736	337.408	-27.401	36.629	-54.663
M11	19P	0.000	-891.077	-614.990	-891.077	-473.026	-685.320	-171.039	-224.085
M11	19X	0.000	-613.508	-613.508	-80.677	-471.887	-62.002	-171.793	-69.232
M11	19XY	693.583	0.000	439.092	693.583	337.837	533.522	37.869	86.764
M11	19Y	443.871	-67.345	443.871	-67.345	341.513	-51.748	39.429	-58.977
M11	20P	0.000	-957.269	-663.746	-957.269	-510.692	-736.392	-180.987	-237.384
M11	20X	0.000	-659.610	-659.610	-86.866	-507.510	-66.924	-181.052	-70.808
M11	20XY	769.767	0.000	484.278	769.767	372.436	591.960	45.839	100.693
M11	20Y	490.831	-73.886	490.831	-73.886	377.477	-56.940	47.872	-60.831
M12	21P	0.000	-1076.463	-750.624	-1076.463	-577.461	-828.010	-204.446	-267.053
M12	21X	0.000	-741.544	-741.544	-101.465	-570.476	-78.094	-202.116	-78.912
M12	21XY	875.349	0.000	546.448	875.349	420.320	673.230	51.837	115.037
M12	21Y	555.399	-88.311	555.399	-88.311	427.207	-67.975	55.116	-68.791
M12	22P	0.000	-1177.380	-823.418	-1177.380	-633.471	-905.645	-221.719	-289.731
M12	22X	0.000	-808.496	-808.496	-107.956	-621.992	-83.101	-216.810	-81.969
M12	22XY	974.436	0.000	606.525	974.436	466.521	749.432	61.440	132.140
M12	22Y	620.090	-94.851	620.090	-94.851	476.957	-73.020	65.727	-71.889
M13	23P	0.000	-1299.232	-911.241	-1299.232	-701.060	-999.402	-243.976	-318.528
M13	23X	0.000	-891.372	-891.372	-119.123	-685.775	-91.723	-237.999	-89.357
M13	23XY	1083.932	0.000	671.385	1083.932	516.382	833.621	68.591	147.872
M13	23Y	690.732	-105.999	690.732	-105.999	531.266	-81.628	74.097	-79.261
M13	24P	0.000	-1420.323	-996.995	-1420.323	-767.006	-1092.521	-263.115	-344.459
M13	24X	0.000	-971.536	-971.536	-126.265	-747.421	-97.198	-255.949	-93.253
M13	24XY	1200.882	0.000	742.490	1200.882	571.099	923.596	79.636	167.732
M13	24Y	767.234	-113.145	767.234	-113.145	590.134	-87.105	86.296	-83.161
M14	25P	0.000	-1555.888	-1093.938	-1555.888	-841.602	-1196.816	-287.494	-376.262
M14	25X	0.000	-1063.037	-1063.037	-138.539	-817.829	-106.663	-279.167	-101.223
M14	25XY	1322.040	0.000	814.448	1322.040	626.428	1016.765	87.764	185.321
M14	25Y	844.716	-125.419	844.716	-125.419	649.714	-96.571	95.601	-91.131
M14	26P	0.000	-1688.983	-1187.396	-1688.983	-913.487	-1299.183	-308.232	-404.619
M14	26X	0.000	-1151.006	-1151.006	-145.762	-885.492	-112.213	-298.734	-105.251

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M14	26XY	1450.838	0.000	893.047	1450.838	686.896	1115.840	100.139	207.348
M14	26Y	928.804	-132.643	928.804	-132.643	714.404	-102.121	109.146	-95.159
M15	27P	0.000	-1835.995	-1291.649	-1835.995	-993.687	-1412.266	-334.109	-438.716
M15	27X	0.000	-1249.794	-1249.794	-158.265	-961.489	-121.836	-323.446	-113.356
M15	27XY	1582.888	0.000	971.902	1582.888	747.551	1217.406	109.506	226.943
M15	27Y	1013.053	-145.144	1013.053	-145.144	779.208	-111.743	119.664	-103.262
M15	28P	0.000	-1977.042	-1390.112	-1977.042	-1069.407	-1520.734	-355.927	-468.720
M15	28X	0.000	-1342.455	-1342.455	-165.300	-1032.745	-127.227	-343.849	-117.280
M15	28XY	1719.280	0.000	1055.364	1719.280	811.775	1322.338	122.882	250.497
M15	28Y	1101.984	-152.184	1101.984	-152.184	847.639	-117.137	134.205	-107.191
M16	29P	0.000	-2136.156	-1502.055	-2136.156	-1155.699	-1643.303	-383.566	-505.428
M16	29X	0.000	-1448.988	-1448.988	-177.784	-1114.877	-137.012	-370.336	-125.667
M16	29XY	1862.929	0.000	1141.633	1862.929	877.954	1432.649	133.396	272.046
M16	29Y	1193.750	-164.660	1193.750	-164.660	918.047	-126.917	145.888	-115.571
M17	30P	0.000	-2176.583	-1535.818	-2176.583	-1186.263	-1678.993	-397.697	-520.843
M17	30X	0.000	-1474.269	-1474.269	-186.664	-1138.914	-148.438	-382.689	-134.867
M17	30XY	1898.984	0.000	1155.097	1898.984	883.717	1455.793	127.466	270.465
M17	30Y	1215.766	-174.984	1215.766	-174.984	930.388	-139.452	141.797	-125.883
M18	31P	0.000	-2269.229	-1598.767	-2269.229	-1234.365	-1749.943	-419.821	-548.684
M18	31X	0.000	-1541.825	-1541.825	-204.467	-1190.562	-161.813	-406.200	-148.805
M18	31XY	1952.486	0.000	1184.668	1952.486	906.781	1497.266	122.423	270.028
M18	31Y	1240.797	-193.942	1240.797	-193.942	949.959	-153.717	135.432	-140.710
M19	32P	0.000	-2245.408	-1577.755	-2245.408	-1214.986	-1728.417	-427.026	-555.361
M19	32X	0.000	-1538.979	-1538.979	-224.882	-1185.157	-174.300	-417.940	-165.024
M19	32XY	1864.069	0.000	1128.097	1864.069	866.476	1432.472	99.261	240.747
M19	32Y	1166.284	-216.014	1166.284	-216.014	895.852	-167.479	107.842	-158.202
M20	33P	0.000	-2145.456	-1508.304	-2145.456	-1161.380	-1651.365	-422.135	-544.615
M20	33X	0.000	-1480.521	-1480.521	-237.348	-1140.008	-183.709	-415.845	-176.582
M20	33XY	1723.705	0.000	1036.755	1723.705	796.389	1324.688	72.215	204.281
M20	33Y	1063.587	-230.007	1063.587	-230.007	817.030	-178.063	78.033	-170.935
M21	34P	0.000	-2118.891	-1493.900	-2118.891	-1149.941	-1630.583	-432.795	-552.946
M21	34X	0.000	-1462.511	-1462.511	-250.893	-1125.796	-193.770	-422.794	-189.606
M21	34XY	1642.671	0.000	981.058	1642.671	753.901	1262.717	50.962	178.161
M21	34Y	1003.083	-245.951	1003.083	-245.951	770.843	-189.969	54.584	-185.805
M22	35P	0.000	-2069.499	-1465.440	-2069.499	-1130.070	-1594.624	-443.320	-559.456
M22	35X	0.000	-1424.929	-1424.929	-260.591	-1098.908	-203.252	-431.299	-207.214
M22	35XY	1520.771	0.000	898.013	1520.771	687.995	1166.934	20.416	140.150
M22	35Y	928.971	-254.106	928.971	-254.106	711.808	-198.264	25.465	-202.225
M23	36P	0.000	-2083.489	-1479.529	-2083.489	-1140.912	-1605.391	-454.274	-570.392
M23	36X	0.000	-1441.470	-1441.470	-277.316	-1111.636	-216.121	-444.125	-220.075
M23	36XY	1506.221	0.000	883.557	1506.221	676.870	1155.738	9.389	129.105
M23	36Y	914.494	-268.405	914.494	-268.405	700.668	-209.267	14.436	-213.220
M24	37P	0.000	-2146.393	-1527.734	-2146.393	-1176.331	-1652.123	-479.471	-598.424
M24	37X	0.000	-1501.354	-1501.354	-309.778	-1156.038	-239.432	-471.910	-242.586
M24	37XY	1508.594	-8.992	878.858	1508.594	674.915	1159.228	-8.992	112.091
M24	37Y	899.887	-302.729	899.887	-302.729	691.091	-234.009	-5.717	-237.164
M25	38P	0.000	-2162.021	-1543.491	-2162.021	-1188.461	-1664.153	-491.748	-610.676
M25	38X	0.000	-1517.122	-1517.122	-325.796	-1168.177	-251.762	-484.189	-254.914
M25	38XY	1492.207	-21.368	862.600	1492.207	662.400	1146.614	-21.368	99.691
M25	38Y	881.192	-321.176	881.192	-321.176	676.701	-248.208	-19.960	-251.360
M26	39P	0.000	-2150.721	-1545.565	-2150.721	-1195.884	-1661.299	-515.222	-631.586
M26	39X	0.000	-1527.391	-1527.391	-359.581	-1181.904	-283.580	-510.697	-285.951
M26	39XY	1423.840	-54.030	810.734	1423.840	616.672	1088.202	-54.030	63.863
M26	39Y	822.313	-353.332	822.313	-353.332	625.578	-278.773	-54.890	-281.144
M27	40P	0.000	-2171.164	-1566.177	-2171.164	-1211.742	-1677.026	-531.284	-647.615
M27	40X	0.000	-1546.516	-1546.516	-379.060	-1196.617	-298.565	-525.614	-300.936
M27	40XY	1406.264	-67.217	793.329	1406.264	603.282	1074.680	-67.217	50.643
M27	40Y	804.905	-370.385	804.905	-370.385	612.185	-291.893	-68.078	-294.263

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M28	41P	0.000	-2185.680	-1580.541	-2185.680	-1222.790	-1688.192	-542.138	-658.498
M28	41X	0.000	-1560.879	-1560.879	-393.084	-1207.666	-309.354	-536.467	-311.724
M28	41XY	1392.731	-77.940	779.643	1392.731	592.754	1064.270	-77.940	39.950
M28	41Y	791.219	-384.410	791.219	-384.410	601.658	-302.681	-78.800	-305.051
D1	42P	5.451	0.000	1.574	5.451	1.458	4.438	1.168	1.914
D1	42X	1.573	-2.560	1.573	-2.560	1.457	-1.722	1.168	0.373
D1	42XY	0.959	-2.638	0.542	-2.638	0.664	-1.782	0.959	0.347
D1	42Y	3.182	0.000	0.542	3.182	0.663	2.694	0.960	1.467
D1	43P	5.535	0.000	5.535	4.749	4.519	3.913	1.962	1.810
D1	43X	6.542	0.000	6.542	4.786	5.293	3.942	2.166	1.826
D1	43XY	0.286	-4.304	-4.304	-3.221	-3.050	-2.216	0.077	0.286
D1	43Y	0.695	-2.211	-2.211	-1.060	-1.440	-0.554	0.473	0.695
D2	44P	5.355	-1.284	-1.284	5.355	-1.166	3.939	-0.888	0.389
D2	44X	0.000	-7.677	-1.286	-7.677	-1.168	-6.082	-0.888	-2.117
D2	44XY	0.000	-5.705	-0.290	-5.705	-0.401	-4.566	-0.685	-1.727
D2	44Y	3.766	-0.685	-0.292	3.766	-0.403	2.718	-0.685	0.095
D2	45P	6.358	0.000	6.358	4.151	4.730	3.032	0.649	0.223
D2	45X	8.073	0.000	8.073	6.169	6.050	4.583	0.965	0.596
D2	45XY	0.000	-9.564	-9.564	-6.855	-7.518	-5.432	-2.432	-1.908
D2	45Y	0.000	-6.260	-6.260	-5.316	-4.976	-4.249	-1.780	-1.598
D3	46P	10.750	0.000	1.827	10.750	1.433	8.295	0.539	2.255
D3	46X	1.824	-7.839	1.824	-7.839	1.430	-6.002	0.538	-1.321
D3	46XY	0.000	-8.870	-1.328	-8.870	-0.994	-6.795	-0.102	-1.553
D3	46Y	6.155	-1.331	-1.331	6.155	-0.996	4.762	-0.103	1.338
D3	47P	10.762	0.000	10.762	9.220	8.336	7.149	2.308	2.010
D3	47X	12.737	0.000	12.737	8.631	9.856	6.695	2.716	1.923
D3	47XY	0.000	-12.024	-12.024	-9.925	-9.192	-7.576	-2.052	-1.646
D3	47Y	0.000	-8.972	-8.972	-5.767	-6.844	-4.378	-1.491	-0.873
D4	48P	10.842	-2.025	-2.025	10.842	-1.539	8.357	-0.459	2.017
D4	48X	0.000	-13.984	-2.027	-13.984	-1.541	-10.736	-0.459	-2.758
D4	48XY	1.792	-8.862	1.792	-8.862	1.397	-6.797	0.317	-1.733
D4	48Y	10.602	0.000	1.793	10.602	1.398	8.173	0.319	2.013
D4	49P	13.495	0.000	13.495	8.645	10.428	6.696	2.650	1.715
D4	49X	16.592	0.000	16.592	13.899	12.811	10.736	3.199	2.677
D4	49XY	0.000	-16.743	-16.743	-10.951	-12.833	-8.375	-3.221	-2.103
D4	49Y	0.000	-12.241	-12.241	-10.835	-9.370	-8.286	-2.302	-2.030
D5	50P	17.385	0.000	2.149	17.385	1.695	13.412	0.593	3.523
D5	50X	2.092	-14.749	2.092	-14.749	1.651	-11.302	0.579	-2.661
D5	50XY	0.000	-14.976	-1.612	-14.976	-1.199	-11.477	-0.127	-2.698
D5	50Y	11.949	-1.662	-1.662	11.949	-1.236	9.232	-0.136	2.482
D5	51P	16.532	0.000	16.532	13.757	12.792	10.656	3.423	2.887
D5	51X	22.778	0.000	22.778	16.086	17.597	12.446	4.666	3.374
D5	51XY	0.000	-22.061	-22.061	-17.596	-16.897	-13.458	-3.967	-3.103
D5	51Y	0.000	-15.996	-15.996	-11.011	-12.230	-8.395	-2.838	-1.877
D6	52P	16.220	-3.054	-3.054	16.220	-2.305	12.519	-0.565	3.143
D6	52X	0.000	-21.781	-2.924	-21.781	-2.205	-16.707	-0.532	-4.159
D6	52XY	2.874	-14.353	2.874	-14.353	2.255	-10.995	0.584	-2.730
D6	52Y	17.749	0.000	3.008	17.749	2.358	13.696	0.620	3.456
D6	53P	18.998	0.000	18.998	12.145	14.716	9.443	3.875	2.555
D6	53X	27.841	0.000	27.841	23.431	21.519	18.122	5.489	4.634
D6	53XY	0.000	-27.752	-27.752	-17.887	-21.248	-13.655	-5.225	-3.321
D6	53Y	0.000	-18.556	-18.556	-17.111	-14.173	-13.060	-3.344	-3.064
D7	54P	16.558	-0.711	-0.711	16.558	-0.286	12.995	0.631	3.953
D7	54X	0.415	-18.351	-1.581	-18.351	-0.955	-13.853	0.415	-2.810
D7	54XY	3.320	-14.453	3.320	-14.453	2.815	-10.855	1.434	-1.986
D7	54Y	18.748	0.000	2.443	18.748	2.140	14.681	1.212	4.348
D7	55P	19.567	0.000	19.567	12.408	15.338	9.830	4.626	3.247
D7	55X	25.962	0.000	25.962	22.859	20.258	17.867	5.761	5.158

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D7	55XY	0.000	-24.391	-24.391	-17.454	-18.477	-13.138	-3.884	-2.544
D7	55Y	0.000	-17.887	-17.887	-14.440	-13.474	-10.820	-2.637	-1.972
D8	56P	19.390	-3.139	-3.139	19.390	-2.552	14.778	-1.198	3.137
D8	56X	1.311	-21.833	1.311	-21.833	0.872	-16.929	-0.089	-4.542
D8	56XY	0.000	-11.887	-2.495	-11.887	-2.056	-9.278	-1.093	-2.899
D8	56Y	10.476	0.000	2.030	10.476	1.425	7.920	0.073	1.697
D8	57P	16.429	0.000	13.966	16.429	10.652	12.546	2.176	2.649
D8	57X	27.330	0.000	27.330	14.933	20.933	11.392	5.029	2.638
D8	57XY	0.000	-28.115	-28.115	-13.981	-21.720	-10.842	-5.952	-3.227
D8	57Y	0.000	-18.897	-14.553	-18.897	-11.286	-14.628	-2.984	-3.819
D9	58P	2.710	-22.279	-8.535	-22.279	-4.934	-15.504	2.710	0.066
D9	58X	2.019	-32.067	-32.067	-6.599	-23.038	-3.443	-2.890	2.019
D9	58XY	38.119	0.000	38.119	33.493	30.956	27.388	10.838	9.938
D9	58Y	18.744	0.000	18.744	11.686	16.050	10.622	8.436	7.079
D9	59P	2.920	-31.978	-4.383	-31.978	-1.746	-22.969	2.920	-2.386
D9	59X	18.465	-15.954	-15.954	18.465	-10.648	15.830	0.294	6.921
D9	59XY	25.502	0.000	23.711	25.502	19.867	21.238	8.663	9.002
D9	59Y	13.947	0.000	13.947	5.039	12.355	5.502	7.375	5.659
D10	60P	35.818	0.000	3.273	35.818	2.722	27.754	1.273	7.532
D10	60X	0.963	-32.204	0.963	-32.204	0.945	-24.566	0.948	-5.431
D10	60XY	0.708	-23.638	0.655	-23.638	0.708	-17.977	0.703	-3.971
D10	60Y	23.303	-1.628	-1.628	23.303	-1.049	18.128	0.398	5.195
D10	61P	38.247	0.000	38.247	29.863	29.657	23.205	8.019	6.402
D10	61X	41.791	0.000	41.791	31.074	32.383	24.135	8.847	6.779
D10	61XY	0.000	-37.034	-37.034	-28.212	-28.254	-21.464	-6.480	-4.777
D10	61Y	0.000	-33.458	-33.458	-24.963	-25.503	-18.966	-5.612	-3.974
D11	62P	34.807	-0.668	-0.666	34.807	-0.643	26.641	-0.668	6.154
D11	62X	0.000	-39.115	-4.588	-39.115	-3.660	-30.217	-1.416	-8.057
D11	62XY	3.301	-23.987	3.301	-23.987	2.409	-18.581	0.176	-5.075
D11	62Y	25.701	-0.628	-0.628	25.701	-0.614	19.638	-0.578	4.488
D11	63P	42.307	0.000	42.307	27.327	32.439	20.912	7.690	4.804
D11	63X	43.409	0.000	43.409	36.815	33.287	28.210	7.919	6.645
D11	63XY	0.000	-39.878	-39.878	-31.223	-30.784	-24.122	-8.124	-6.454
D11	63Y	0.000	-38.758	-38.758	-28.601	-29.922	-22.106	-7.900	-5.942
D12	64P	48.536	0.000	5.565	48.536	4.357	37.409	1.436	9.701
D12	64X	2.185	-42.467	2.185	-42.467	1.757	-32.588	0.823	-7.765
D12	64XY	0.000	-29.050	-1.362	-29.050	-0.972	-22.268	-0.025	-5.352
D12	64Y	24.877	-4.741	-4.741	24.877	-3.571	19.211	-0.637	5.062
D12	65P	49.697	0.000	49.697	37.459	38.336	28.919	9.919	7.560
D12	65X	51.529	0.000	51.529	38.713	39.745	29.882	10.290	7.818
D12	65XY	0.000	-46.353	-46.353	-38.503	-35.553	-29.509	-8.598	-7.082
D12	65Y	0.000	-44.736	-44.736	-29.969	-34.308	-22.946	-8.201	-5.356
D13	66P	47.869	-4.456	-4.456	47.869	-3.414	36.832	-1.140	8.925
D13	66X	0.000	-57.457	-7.979	-57.457	-6.124	-44.180	-1.789	-11.304
D13	66XY	7.343	-24.271	7.343	-24.271	5.662	-18.655	1.323	-4.760
D13	66Y	32.946	0.000	3.820	32.946	2.952	25.354	0.674	6.277
D13	67P	55.136	0.000	55.136	34.093	42.469	26.279	10.490	6.436
D13	67X	56.535	0.000	56.535	49.277	43.546	37.957	10.805	9.402
D13	67XY	0.000	-53.129	-53.129	-36.904	-40.815	-28.330	-10.343	-7.216
D13	67Y	0.000	-52.252	-52.252	-42.337	-40.140	-32.509	-10.137	-8.224
D14	68P	57.782	0.000	4.126	57.782	3.320	44.590	1.179	11.500
D14	68X	0.662	-53.989	0.662	-53.989	0.656	-41.380	0.545	-9.967
D14	68XY	0.492	-32.321	0.328	-32.321	0.399	-24.714	0.492	-5.790
D14	68Y	30.492	-3.132	-3.132	30.492	-2.263	23.599	-0.140	6.330
D14	69P	58.256	0.000	58.256	43.345	44.958	33.483	11.617	8.743
D14	69X	59.015	0.000	59.015	44.927	45.542	34.700	11.794	9.077
D14	69XY	0.000	-58.596	-58.596	-47.234	-44.931	-36.186	-10.890	-8.698
D14	69Y	0.000	-57.782	-57.782	-39.846	-44.305	-30.503	-10.672	-7.216

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D15	70P	51.901	-5.332	-5.332	51.901	-4.110	39.911	-1.300	9.709
D15	70X	0.000	-62.830	-8.917	-62.830	-6.868	-48.335	-1.964	-12.333
D15	70XY	8.119	-28.289	8.119	-28.289	6.237	-21.768	1.353	-5.653
D15	70Y	37.649	0.000	4.534	37.649	3.479	28.949	0.688	7.059
D15	71P	59.546	0.000	59.546	37.087	45.821	28.540	11.255	6.929
D15	71X	60.170	0.000	60.170	52.682	46.302	40.535	11.404	9.956
D15	71XY	0.000	-60.539	-60.539	-42.163	-46.556	-32.415	-11.866	-8.324
D15	71Y	0.000	-59.887	-59.887	-48.526	-46.053	-37.309	-11.693	-9.501
D16	72P	55.569	0.000	2.334	55.569	2.349	43.294	2.239	12.479
D16	72X	1.802	-52.920	-0.237	-52.920	0.371	-40.150	1.802	-8.331
D16	72XY	4.715	-28.379	4.715	-28.379	4.180	-21.275	2.745	-3.623
D16	72Y	34.985	0.000	2.143	34.985	2.202	27.462	2.308	8.627
D16	73P	58.887	0.000	58.887	42.804	45.848	33.472	13.144	10.045
D16	73X	59.945	0.000	59.945	47.727	46.662	37.258	13.403	11.046
D16	73XY	0.000	-55.139	-55.139	-41.495	-41.868	-31.367	-8.823	-6.192
D16	73Y	0.000	-54.453	-54.453	-39.890	-41.339	-30.133	-8.602	-5.795
D17	74P	40.769	-6.239	-6.239	40.769	-5.219	30.937	-2.958	6.085
D17	74X	0.000	-55.928	-12.275	-55.928	-9.862	-43.436	-4.272	-12.667
D17	74XY	7.560	-27.346	7.560	-27.346	5.396	-21.454	-0.195	-6.912
D17	74Y	33.281	-1.505	1.528	33.281	0.756	25.179	-1.505	4.605
D17	75P	51.673	0.000	51.673	28.687	39.334	21.648	8.247	3.819
D17	75X	48.292	0.000	48.292	45.391	36.734	34.498	7.428	6.864
D17	75XY	0.000	-52.705	-52.705	-39.493	-40.959	-30.792	-11.828	-9.281
D17	75Y	0.000	-56.347	-56.347	-43.761	-43.760	-34.073	-12.679	-10.252
D18	76P	0.000	-246.237	-148.475	-246.237	-110.396	-185.573	-24.297	-43.083
D18	76X	21.597	-149.611	-149.611	21.597	-111.272	20.430	-25.293	7.659
D18	76XY	230.999	0.000	153.005	230.999	121.521	181.492	35.545	50.528
D18	76Y	153.782	0.000	153.782	2.323	122.117	5.607	36.020	6.867
D18	77P	0.000	-262.696	-168.199	-262.696	-125.572	-198.233	-29.094	-47.247
D18	77X	12.047	-165.390	-165.390	10.698	-123.412	12.047	-29.075	4.820
D18	77XY	217.994	0.000	169.177	217.994	133.962	171.488	39.635	49.003
D18	77Y	173.165	0.000	173.165	42.746	137.029	36.697	40.515	15.402
D19	78P	58.389	0.000	18.013	58.389	13.798	44.850	4.465	12.230
D19	78X	15.726	-32.367	15.726	-32.367	12.038	-24.953	3.913	-5.340
D19	78XY	0.000	-55.893	-12.591	-55.893	-9.745	-43.050	-1.618	-9.948
D19	78Y	36.137	-14.877	-14.877	36.137	-11.504	27.737	-2.168	7.649
D19	79P	62.426	0.000	62.426	52.574	47.962	40.378	12.903	11.002
D19	79X	61.628	0.000	61.628	42.002	47.348	32.248	12.656	8.874
D19	79XY	0.000	-61.323	-58.004	-61.323	-44.678	-47.226	-10.241	-10.874
D19	79Y	0.000	-59.666	-59.666	-26.903	-45.957	-20.751	-10.704	-4.396
D20	80P	36.117	-15.371	-15.371	36.117	-11.721	27.882	-3.718	6.188
D20	80X	0.000	-60.582	-16.443	-60.582	-12.546	-46.494	-3.968	-12.458
D20	80XY	13.682	-38.591	13.682	-38.591	10.628	-29.581	2.050	-8.008
D20	80Y	57.511	0.000	12.609	57.511	9.802	44.338	1.800	10.437
D20	81P	62.435	0.000	62.435	30.784	48.131	23.780	11.355	5.261
D20	81X	62.804	0.000	62.804	62.804	47.876	48.409	11.230	11.359
D20	81XY	0.000	-65.389	-65.389	-44.244	-50.197	-33.928	-13.271	-9.197
D20	81Y	0.000	-64.810	-64.810	-54.963	-49.752	-42.173	-13.179	-11.279
D21	82P	56.701	0.000	3.729	56.701	2.911	43.654	1.041	11.231
D21	82X	2.330	-49.568	2.330	-49.568	1.834	-38.083	0.710	-9.274
D21	82XY	0.000	-53.889	-1.519	-53.889	-1.126	-41.408	0.000	-10.075
D21	82Y	50.407	-2.919	-2.919	50.407	-2.203	38.814	-0.331	9.929
D21	83P	72.437	0.000	72.437	51.213	55.764	39.433	14.252	10.163
D21	83X	68.943	0.000	68.943	55.902	53.076	43.041	13.511	10.997
D21	83XY	0.000	-68.581	-68.581	-59.341	-52.713	-45.601	-12.894	-11.111
D21	83Y	0.000	-68.284	-68.284	-44.109	-52.485	-33.884	-12.892	-8.235
D22	84P	54.046	-4.103	-4.103	54.046	-3.099	41.626	-0.881	10.305
D22	84X	0.000	-60.040	-5.400	-60.040	-4.098	-46.124	-1.187	-11.698

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D22	84XY	4.875	-50.847	4.875	-50.847	3.807	-39.054	0.896	-9.826
D22	84Y	57.384	0.000	3.578	57.384	2.808	44.195	0.589	10.941
D22	85P	76.176	0.000	76.176	48.616	58.654	37.450	14.589	9.281
D22	85X	71.316	0.000	71.316	62.808	54.916	48.366	13.607	11.964
D22	85XY	0.000	-71.465	-71.465	-56.340	-54.918	-43.279	-13.819	-10.903
D22	85Y	0.000	-74.841	-74.841	-54.551	-57.514	-41.902	-14.531	-10.622
D23	86P	61.186	0.000	0.485	61.186	0.460	47.149	0.334	12.011
D23	86X	0.018	-61.563	-0.851	-61.563	-0.568	-47.265	0.018	-11.661
D23	86XY	1.304	-57.908	1.304	-57.908	1.090	-44.455	0.503	-10.889
D23	86Y	58.935	-0.032	-0.032	58.935	0.062	45.419	0.188	11.533
D23	87P	81.169	0.000	81.169	55.686	62.525	42.919	15.868	10.959
D23	87X	77.073	0.000	77.073	64.435	59.375	49.649	15.021	12.584
D23	87XY	0.000	-76.681	-76.681	-63.430	-58.900	-48.702	-14.513	-11.957
D23	87Y	0.000	-81.015	-81.015	-56.038	-62.233	-43.016	-15.403	-10.592
D24	88P	61.264	-2.371	-2.371	61.264	-1.757	47.188	-0.382	11.860
D24	88X	0.000	-65.742	-3.700	-65.742	-2.780	-50.500	-0.696	-12.631
D24	88XY	3.656	-58.277	3.656	-58.277	2.879	-44.759	0.797	-11.119
D24	88Y	62.823	0.000	2.326	62.823	1.856	48.389	0.483	12.122
D24	89P	83.870	0.000	83.870	55.768	64.583	42.962	16.224	10.811
D24	89X	79.595	0.000	79.595	68.318	61.295	52.615	15.346	13.170
D24	89XY	0.000	-79.604	-79.604	-63.802	-61.168	-49.008	-15.237	-12.191
D24	89Y	0.000	-83.727	-83.727	-60.217	-64.339	-46.250	-16.089	-11.560
D25	90P	66.800	-0.161	-0.161	66.800	-0.034	51.471	0.178	13.060
D25	90X	0.000	-67.976	-1.492	-67.976	-1.058	-52.195	-0.136	-12.926
D25	90XY	1.833	-63.515	1.833	-63.515	1.501	-48.765	0.579	-11.994
D25	90Y	65.357	0.000	0.503	65.357	0.477	50.361	0.265	12.742
D25	91P	88.908	0.000	88.908	61.305	68.482	47.244	17.328	12.011
D25	91X	84.714	0.000	84.714	70.851	65.256	54.587	16.464	13.791
D25	91XY	0.000	-84.378	-84.378	-69.038	-64.817	-53.013	-16.022	-13.065
D25	91Y	0.000	-88.587	-88.587	-62.452	-68.054	-47.946	-16.889	-11.855
D26	92P	66.872	-2.843	-2.843	66.872	-2.103	51.519	-0.435	12.977
D26	92X	0.000	-72.200	-4.176	-72.200	-3.129	-55.450	-0.750	-13.836
D26	92XY	4.205	-63.890	4.205	-63.890	3.319	-49.059	0.940	-12.162
D26	92Y	69.270	0.000	2.873	69.270	2.293	53.365	0.625	13.399
D26	93P	91.496	0.000	91.496	61.371	70.466	47.289	17.729	11.928
D26	93X	87.297	0.000	87.297	74.771	67.236	57.596	16.865	14.449
D26	93XY	0.000	-87.264	-87.264	-69.419	-67.043	-53.312	-16.673	-13.234
D26	93Y	0.000	-91.477	-91.477	-66.669	-70.284	-51.196	-17.542	-12.763
D27	94P	72.623	0.000	0.392	72.623	0.391	55.949	0.305	14.202
D27	94X	0.000	-72.824	-0.926	-72.824	-0.623	-55.925	-0.006	-13.838
D27	94XY	1.336	-69.240	1.336	-69.240	1.117	-53.169	0.500	-13.079
D27	94Y	70.351	0.000	0.019	70.351	0.103	54.202	0.189	13.721
D27	95P	95.787	0.000	95.787	67.167	73.772	51.752	18.671	13.159
D27	95X	91.553	0.000	91.553	75.802	70.516	58.395	17.799	14.762
D27	95XY	0.000	-91.151	-91.151	-74.720	-70.028	-57.384	-17.307	-14.140
D27	95Y	0.000	-95.254	-95.254	-67.347	-73.184	-51.713	-18.152	-12.777
D28	96P	71.460	-4.430	-4.430	71.460	-3.341	55.032	-0.857	13.744
D28	96X	0.000	-79.181	-5.771	-79.181	-4.372	-60.836	-1.172	-15.295
D28	96XY	5.462	-68.644	5.462	-68.644	4.269	-52.733	1.069	-13.189
D28	96Y	75.855	0.000	4.121	75.855	3.237	58.414	0.753	14.554
D28	97P	98.783	0.000	98.783	65.967	76.054	50.807	19.016	12.697
D28	97X	94.347	0.000	94.347	81.355	72.643	62.644	18.108	15.602
D28	97XY	0.000	-94.642	-94.642	-74.171	-72.735	-56.984	-18.207	-14.262
D28	97Y	0.000	-98.932	-98.932	-73.646	-76.035	-56.580	-19.091	-14.220
D29	98P	80.853	0.000	4.142	80.853	3.443	62.447	1.680	16.438
D29	98X	2.871	-75.015	2.871	-75.015	2.465	-57.443	1.377	-13.607
D29	98XY	0.740	-75.806	-0.787	-75.806	-0.348	-58.053	0.740	-13.694
D29	98Y	74.114	-2.056	-2.056	74.114	-1.325	57.265	0.438	15.093

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D29	99P	103.131	0.000	103.131	75.421	79.589	58.269	20.734	15.397
D29	99X	98.896	0.000	98.896	79.502	76.331	61.409	19.863	16.126
D29	99XY	0.000	-96.870	-96.870	-81.252	-74.260	-62.241	-17.757	-14.747
D29	99Y	0.000	-101.140	-101.140	-69.609	-77.544	-53.285	-18.635	-12.562
D30	100P	0.000	-175.237	-175.237	-24.647	-131.601	-15.758	-33.282	-4.296
D30	100X	0.000	-244.928	-177.089	-244.928	-133.027	-185.193	-33.714	-46.750
D30	100XY	168.966	0.000	168.966	20.400	133.176	18.887	33.859	5.261
D30	100Y	232.917	0.000	167.112	232.917	131.749	182.353	33.426	46.072
D30	101P	140.186	-31.147	140.186	-31.147	111.034	-20.757	27.854	-5.116
D30	101X	239.376	0.000	134.358	239.376	106.552	187.320	26.689	46.884
D30	101XY	12.737	-142.497	-142.497	12.405	-106.415	12.737	-26.514	3.294
D30	101Y	0.000	-236.983	-148.435	-236.983	-110.983	-179.082	-27.766	-44.792
D31	102P	0.000	-215.222	-171.530	-215.222	-128.943	-162.533	-34.089	-42.479
D31	102X	0.000	-162.119	-162.119	-41.321	-121.703	-28.780	-31.813	-8.562
D31	102XY	213.963	0.000	150.112	213.963	118.479	167.578	28.591	40.861
D31	102Y	159.369	0.000	159.369	18.469	125.600	17.213	30.749	3.629
D31	103P	0.000	-221.839	-132.886	-221.839	-99.218	-167.622	-26.901	-43.998
D31	103X	23.005	-126.998	-126.998	23.005	-94.687	20.701	-25.316	3.555
D31	103XY	208.201	0.000	114.977	208.201	91.453	163.147	22.075	39.997
D31	103Y	120.802	-33.495	120.802	-33.495	95.935	-22.761	23.592	-6.108
D32	104P	0.000	-73.731	-29.765	-73.731	-21.888	-55.701	-5.298	-13.753
D32	104X	32.740	-23.441	-23.441	32.740	-17.023	26.188	-3.765	7.044
D32	104XY	79.738	0.000	22.197	79.738	18.083	62.339	4.823	15.891
D32	104Y	28.416	-41.572	28.416	-41.572	22.867	-30.967	6.276	-7.190
D32	105P	0.000	-79.285	-79.285	-78.558	-59.982	-59.413	-15.191	-15.041
D32	105X	0.000	-75.303	-75.303	-38.078	-56.919	-28.279	-14.139	-6.969
D32	105XY	76.155	0.000	74.005	76.155	57.937	59.584	15.156	15.561
D32	105Y	77.851	0.000	77.851	37.799	60.897	30.079	16.184	8.468
D33	106P	0.000	-59.943	-34.767	-59.943	-25.765	-45.125	-6.780	-11.619
D33	106X	10.938	-29.830	-29.830	10.938	-21.967	9.390	-5.581	2.263
D33	106XY	63.271	0.000	26.805	63.271	21.599	49.644	5.215	12.228
D33	106Y	31.654	-19.089	31.654	-19.089	25.329	-13.702	6.346	-3.418
D33	107P	0.000	-63.881	-54.374	-63.881	-40.849	-48.154	-10.825	-12.646
D33	107X	0.000	-51.696	-51.696	-16.647	-38.788	-11.824	-10.057	-3.307
D33	107XY	60.265	0.000	48.654	60.265	38.407	47.332	9.691	11.918
D33	107Y	52.011	0.000	52.011	14.627	40.990	12.227	10.532	3.332
D34	108P	0.000	-35.562	-26.351	-35.562	-19.524	-26.604	-5.954	-7.723
D34	108X	0.984	-21.482	-21.482	0.313	-15.778	0.984	-4.310	-0.118
D34	108XY	40.314	0.000	17.869	40.314	14.492	31.754	3.035	7.351
D34	108Y	21.608	-10.915	21.608	-10.915	17.368	-7.648	3.809	-2.449
D34	109P	0.000	-36.837	-26.358	-36.837	-19.530	-27.585	-6.133	-8.143
D34	109X	0.000	-34.428	-34.428	-10.447	-25.738	-7.288	-7.206	-2.587
D34	109XY	39.645	0.000	30.671	39.645	24.341	31.239	5.676	7.397
D34	109Y	25.020	0.000	25.020	1.572	19.994	1.952	4.870	0.353
D35	110P	0.000	-49.750	-10.658	-49.750	-6.335	-36.398	-0.741	-8.256
D35	111P	12.794	-31.204	12.794	-31.204	11.708	-22.140	5.564	-2.908
D35	112P	57.422	0.000	57.422	21.589	46.037	18.472	13.542	6.646
D35	113P	63.033	0.000	53.292	63.033	42.859	50.348	12.625	14.494
D35	114P	61.051	0.000	24.803	61.051	20.946	48.823	7.384	14.352
D35	115P	23.371	-23.156	-23.156	23.371	-15.948	19.843	-2.437	6.521
D35	116P	0.000	-51.112	-51.112	-34.609	-37.452	-24.759	-7.207	-4.031
D35	117P	0.000	-56.896	-56.896	-46.936	-41.901	-34.233	-9.397	-7.474
D36	118P	0.000	-52.417	-9.241	-52.417	-5.003	-38.217	-4.901	-13.213
D36	119P	0.000	-60.410	-9.840	-60.410	-5.466	-44.359	-6.189	-15.913
D36	120P	46.186	0.000	46.186	39.056	37.633	32.142	5.582	4.204
D36	121P	57.236	0.000	57.236	34.929	46.132	28.973	7.409	3.116
D36	122P	36.990	-12.827	-12.827	36.990	-7.764	30.558	-6.628	2.961
D36	123P	36.768	-6.805	-6.805	36.768	-3.129	30.383	-4.321	4.057

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D36	124P	0.000	-77.736	-77.736	-57.105	-57.693	-41.817	-18.959	-14.984
D36	125P	0.000	-65.613	-65.613	-56.389	-48.368	-41.272	-16.305	-14.528
D37	126P	6.817	-20.304	6.817	-20.304	6.103	-14.755	3.039	-2.174
D37	127P	2.259	-20.694	-2.066	-20.694	-0.728	-15.059	2.259	-1.330
D37	128P	36.986	0.000	36.986	27.244	29.311	21.819	9.261	7.386
D37	129P	28.002	0.000	28.002	23.623	22.401	19.029	7.807	6.961
D37	130P	21.972	0.000	0.549	21.972	1.284	17.759	2.816	6.933
D37	131P	28.928	0.000	4.812	28.928	4.561	23.114	2.695	7.339
D37	132P	0.000	-23.668	-22.841	-23.668	-16.710	-17.347	-2.115	-2.274
D37	133P	0.000	-32.753	-32.753	-17.649	-24.334	-12.712	-4.283	-1.374
D38	134P	0.000	-46.695	-29.203	-46.695	-21.495	-34.952	-10.611	-13.980
D38	135P	7.461	-26.511	7.461	-26.511	6.706	-19.422	-4.265	-10.798
D38	136P	18.948	-4.603	18.948	2.338	15.544	2.763	-1.404	-4.603
D38	137P	27.796	-0.232	27.796	21.792	22.351	-0.232	-0.093	-0.093
D38	138P	28.902	-4.768	4.797	28.902	4.657	23.201	-4.768	-0.127
D38	139P	1.942	-25.852	-25.852	1.271	-18.917	1.942	-9.869	-4.655
D38	140P	0.000	-49.474	-49.474	-24.908	-37.089	-18.188	-15.065	-10.334
D38	141P	0.000	-48.656	-40.150	-48.656	-29.917	-36.461	-12.968	-14.604
D39	142P	21.991	-77.541	20.912	-77.541	21.991	-53.735	7.594	-11.344
D39	143P	0.000	-106.864	-27.214	-106.864	-15.027	-76.295	-0.992	-16.320
D39	144P	117.667	0.000	117.667	101.006	96.420	83.600	26.769	23.559
D39	145P	111.198	0.000	111.198	72.216	91.444	61.451	26.099	18.591
D39	146P	70.028	-21.963	-21.963	70.028	-10.988	59.768	0.508	18.203
D39	147P	102.881	0.000	17.432	102.881	19.315	85.043	6.925	23.369
D39	148P	0.000	-117.196	-117.196	-110.651	-84.246	-79.208	-18.864	-17.601
D39	149P	0.000	-124.807	-124.807	-75.239	-90.100	-51.964	-20.413	-10.868
D40	158P	0.000	-120.475	-102.947	-120.475	-74.565	-88.047	-24.182	-27.553
D40	159P	32.840	-55.026	32.840	-55.026	29.886	-37.697	1.256	-15.646
D40	160P	72.848	0.000	72.848	25.143	60.664	23.962	10.310	1.124
D40	161P	84.755	0.000	80.633	84.755	66.652	69.821	11.270	12.061
D40	162P	87.676	-0.128	24.971	87.676	23.833	72.068	-0.128	11.940
D40	163P	21.978	-54.297	-54.297	21.978	-37.140	21.526	-13.879	0.792
D40	164P	0.000	-112.380	-112.380	-50.901	-81.821	-34.524	-26.411	-14.575
D40	165P	0.000	-115.187	-63.554	-115.187	-44.260	-83.978	-15.914	-25.852
H1	166P	0.000	-0.593	-0.593	-0.546	-0.551	-0.515	-0.446	-0.437
H1	166Y	0.000	-0.528	-0.218	-0.528	-0.263	-0.501	-0.370	-0.430
H1	167P	0.000	-0.410	-0.059	-0.289	-0.149	-0.326	-0.366	-0.410
H1	167X	0.000	-0.441	-0.439	-0.323	-0.441	-0.352	-0.441	-0.419
H2	1661P	0.138	-0.217	-0.217	-0.125	-0.115	-0.044	0.120	0.138
H2	1661Y	0.946	0.000	0.608	0.946	0.520	0.780	0.286	0.351
H2	1671P	0.000	-0.540	-0.540	-0.501	-0.408	-0.378	-0.064	-0.056
H2	1671X	0.195	0.000	0.060	0.195	0.053	0.157	0.053	0.079
H3	1662P	0.169	-0.179	0.169	-0.159	0.073	-0.179	-0.089	-0.152
H3	1662Y	0.000	-0.438	-0.438	-0.422	-0.394	-0.381	-0.233	-0.229
H3	1672P	0.151	-0.578	-0.578	0.151	-0.563	-0.003	-0.415	-0.275
H3	1672X	0.000	-0.938	-0.284	-0.938	-0.337	-0.840	-0.336	-0.462
H4	1663P	2.741	-0.095	2.741	2.276	1.895	1.536	-0.004	-0.095
H4	1663Y	0.000	-3.901	-3.901	-2.744	-3.215	-2.325	-1.311	-1.088
H4	1674P	2.615	-0.973	-0.841	2.615	-0.950	1.708	-0.973	-0.308
H4	1674X	0.000	-4.157	-0.658	-4.157	-0.809	-3.500	-0.825	-1.498
H5	168P	0.000	-17.610	-17.610	-14.399	-14.322	-11.851	-7.233	-6.613
H5	168Y	7.407	-2.788	7.407	4.239	4.922	2.484	-2.176	-2.788
H5	169P	0.000	-11.898	-2.564	-11.898	-2.790	-9.969	-4.149	-5.945
H5	169X	4.461	-4.673	-3.642	4.461	-3.619	2.613	-4.673	-3.114
H6	170P	30.787	0.000	30.787	23.796	23.068	17.687	6.393	5.043
H6	170Y	0.000	-27.555	-27.555	-20.572	-21.813	-16.438	-5.151	-3.803
H6	171P	24.523	0.000	2.758	24.523	1.478	18.218	0.528	4.714
H6	171X	3.646	-19.080	3.646	-19.080	2.161	-15.318	1.208	-3.164

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H7	1701P	0.265	0.000	0.265	0.231	0.187	0.160	0.069	0.062
H7	1701Y	0.000	-0.147	-0.101	-0.147	-0.095	-0.130	0.000	-0.009
H7	1712P	1.389	-0.325	-0.287	1.389	-0.325	0.964	-0.216	0.106
H7	1712X	0.000	-1.853	-0.316	-1.853	-0.347	-1.529	-0.184	-0.480
H8	1703P	4.819	0.000	4.819	3.639	3.524	2.616	0.747	0.519
H8	1703Y	0.000	-5.200	-5.200	-3.931	-4.184	-3.207	-1.397	-1.152
H8	1714P	3.991	-1.165	-1.165	3.991	-1.141	2.825	-0.625	0.366
H8	1714X	0.000	-5.665	-0.998	-5.665	-1.012	-4.601	-0.567	-1.464
H9	1704P	8.925	0.000	8.925	6.427	6.361	4.438	0.512	0.030
H9	1704Y	0.000	-11.646	-11.646	-9.061	-9.464	-7.475	-3.626	-3.127
H9	1705P	6.480	-1.667	-1.490	6.480	-1.667	4.463	-1.626	-0.093
H9	1705X	0.000	-9.261	-1.297	-9.261	-1.519	-7.644	-1.552	-3.084
H10	172P	0.000	-64.839	-64.839	-52.645	-52.063	-42.679	-23.506	-21.154
H10	172Y	35.897	-5.492	35.897	23.635	25.429	15.992	-3.127	-5.492
H10	1721P	0.000	-51.664	-14.375	-51.664	-13.246	-41.928	-13.237	-20.410
H10	1721X	22.623	-14.699	-14.699	22.623	-13.496	15.210	-13.434	-6.255
H11	1722P	144.727	0.000	144.727	112.826	110.205	85.654	35.151	28.999
H11	1722Y	0.000	-118.632	-118.632	-86.727	-92.386	-67.832	-17.337	-11.183
H11	1723P	111.273	0.000	13.255	111.273	9.069	84.459	8.828	27.684
H11	1723X	13.357	-84.812	13.357	-84.812	9.148	-66.359	9.088	-9.796
H12	17231P	11.626	0.000	11.626	9.487	8.754	7.107	2.516	2.103
H12	17231Y	0.000	-10.226	-10.226	-8.099	-8.056	-6.419	-1.820	-1.410
H12	17241P	9.375	0.000	1.428	9.375	0.909	7.022	0.477	2.005
H12	17241X	0.222	-7.965	-0.016	-7.965	-0.202	-6.316	0.222	-1.307
H13	17251P	6.555	0.000	6.555	4.496	4.807	3.223	1.001	0.605
H13	17251Y	0.000	-6.772	-6.772	-5.234	-5.445	-4.261	-1.639	-1.343
H13	1726P	4.440	-0.792	-0.723	4.440	-0.792	3.180	-0.434	0.559
H13	1726X	0.000	-5.175	-0.225	-5.175	-0.409	-4.216	-0.345	-1.297
H14	17252P	6.662	0.000	6.662	4.934	4.841	3.511	0.847	0.514
H14	17252Y	0.000	-7.290	-7.290	-5.602	-5.891	-4.592	-1.898	-1.573
H14	17261P	4.884	-0.563	-0.362	4.884	-0.563	3.472	-0.534	0.475
H14	17261X	0.000	-5.551	-0.323	-5.551	-0.532	-4.554	-0.528	-1.534
H15	17253P	7.539	0.000	7.539	5.610	5.500	4.015	1.002	0.630
H15	17253Y	0.000	-8.157	-8.157	-6.255	-6.574	-5.111	-2.076	-1.710
H15	17262P	5.561	-0.566	-0.346	5.561	-0.566	3.978	-0.544	0.592
H15	17262X	0.000	-6.204	-0.308	-6.204	-0.536	-5.072	-0.537	-1.672
H16	17254P	5.898	0.000	5.898	4.264	4.156	2.898	0.369	0.054
H16	17254Y	0.000	-7.323	-7.323	-5.719	-6.015	-4.780	-2.229	-1.919
H16	17263P	4.231	-0.947	-0.735	4.231	-0.947	2.873	-0.933	0.022
H16	17263X	0.000	-5.660	-0.696	-5.660	-0.917	-4.735	-0.928	-1.883
H17	17255P	109.262	0.000	109.262	83.379	81.772	61.854	19.979	14.990
H17	17255Y	0.000	-106.007	-106.007	-80.114	-83.824	-63.899	-22.029	-17.038
H17	17264P	82.842	-1.067	1.574	82.842	-1.067	61.442	-1.024	14.610
H17	17264X	1.526	-79.696	1.526	-79.696	-1.104	-63.577	-1.055	-16.680
H18	1724P	27.044	-9.811	27.044	16.880	16.438	8.617	-7.852	-9.811
H18	1724Y	0.000	-57.547	-57.547	-47.398	-48.633	-40.824	-24.342	-22.386
H18	1725P	16.719	-16.091	-15.239	16.719	-16.088	8.494	-16.091	-9.943
H18	1725X	0.000	-47.205	-15.242	-47.205	-16.090	-40.675	-16.099	-22.248
H19	1728P	115.335	0.000	115.335	88.186	86.142	65.251	20.861	15.628
H19	1728Y	0.000	-111.884	-111.884	-84.662	-88.645	-67.698	-23.364	-18.117
H19	1727P	87.750	-1.233	1.780	87.750	-1.209	64.916	-1.233	15.306
H19	1727X	1.708	-84.276	1.708	-84.276	-1.265	-67.401	-1.263	-17.804
H20	1729P	45.177	0.000	45.177	34.003	33.192	24.594	7.081	4.927
H20	1729Y	0.000	-45.658	-45.658	-34.972	-36.682	-28.459	-10.572	-8.512
H20	1720P	34.024	-1.948	-0.505	34.024	-1.948	24.611	-1.785	4.858
H20	1720X	0.000	-34.696	-0.253	-34.696	-1.754	-28.247	-1.760	-8.386
H21	17291P	43.637	0.000	43.637	36.656	32.139	26.766	7.297	5.951
H21	17291Y	0.000	-42.564	-42.564	-30.935	-34.171	-25.223	-9.341	-7.100

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

H21	17201P	35.058	-0.622	3.057	35.058	0.923	25.537	-0.622	5.535
H21	17201X	0.579	-32.158	0.579	-32.158	-0.983	-26.164	-0.929	-7.227
H22	17292P	56.938	0.000	56.938	45.503	41.805	33.006	8.277	6.073
H22	17292Y	0.000	-59.403	-59.403	-46.180	-47.689	-37.514	-14.176	-11.628
H22	17202P	46.634	-1.938	3.865	46.634	0.979	33.876	-1.938	6.290
H22	17202X	0.000	-45.046	-0.608	-45.046	-2.462	-36.642	-2.860	-11.409
H23	173P	4.041	-0.414	4.041	3.023	3.090	2.307	-0.218	-0.414
H23	174P	0.000	-7.405	-7.405	-5.577	-5.715	-4.309	-2.424	-2.073
H23	175P	2.066	-2.287	-2.287	2.066	-1.778	1.570	-1.437	-0.599
H23	176P	0.000	-6.294	-2.188	-6.294	-1.702	-4.860	-1.423	-2.213
H23	177P	0.000	-7.331	-7.331	-6.291	-5.658	-4.858	-2.415	-2.214
H23	178P	5.113	-0.618	5.113	2.823	3.914	2.153	-0.176	-0.618
H23	179P	0.000	-6.903	-1.501	-6.903	-1.173	-5.329	-1.452	-2.492
H23	180P	3.013	-1.210	-1.105	3.013	-0.869	2.299	-1.210	-0.418
H24	17293P	68.604	0.000	68.604	52.822	50.671	38.528	12.933	9.892
H24	17293Y	0.000	-62.885	-62.885	-47.215	-50.475	-38.418	-12.745	-9.726
H24	17203P	52.351	-0.264	2.388	52.351	-0.264	38.166	0.058	9.671
H24	17203X	2.482	-47.232	2.482	-47.232	-0.192	-38.431	-0.033	-9.598
H25	181P	3.986	-0.529	3.986	3.229	3.029	2.446	-0.384	-0.529
H25	182P	0.000	-9.619	-9.619	-6.968	-7.436	-5.398	-3.178	-2.667
H25	183P	2.458	-3.231	-3.231	2.458	-2.522	1.854	-1.945	-0.851
H25	184P	0.000	-7.057	-2.870	-7.057	-2.245	-5.465	-1.713	-2.518
H25	185P	0.000	-7.846	-7.846	-7.052	-6.072	-5.461	-2.671	-2.518
H25	186P	3.980	-0.822	3.980	1.718	3.024	1.284	-0.387	-0.822
H25	187P	0.000	-5.634	-1.016	-5.634	-0.818	-4.371	-1.351	-2.240
H25	188P	3.221	-1.331	-0.931	3.221	-0.753	2.440	-1.331	-0.532
H26	17294P	136.157	0.000	136.157	105.501	98.852	75.265	25.549	19.644
H26	17294Y	0.000	-118.888	-118.888	-87.587	-97.339	-73.255	-24.068	-18.038
H26	17204P	106.068	0.000	9.760	106.068	1.623	75.701	1.069	19.598
H26	17204X	10.790	-86.484	10.790	-86.484	2.415	-72.407	1.043	-17.671
H27	189P	8.106	-0.954	8.106	5.334	6.228	4.095	-0.421	-0.954
H27	190P	0.000	-8.618	-8.618	-6.694	-6.636	-5.156	-3.377	-3.007
H27	191P	0.754	-3.559	-3.559	0.754	-2.744	0.573	-2.400	-1.570
H27	192P	0.000	-7.550	-3.516	-7.550	-2.712	-5.814	-2.395	-3.171
H27	193P	0.000	-8.629	-8.629	-7.542	-6.644	-5.808	-3.380	-3.171
H27	194P	3.898	-1.590	3.898	1.503	2.992	1.150	-1.128	-1.590
H27	195P	0.000	-8.013	-2.703	-8.013	-2.086	-6.171	-2.403	-3.425
H27	196P	5.319	-2.828	-2.828	5.319	-2.182	4.084	-2.527	-0.959
H26	205P	1.246	-0.791	1.246	1.231	0.958	0.947	-0.788	-0.791
H27	206P	0.000	-4.549	-4.549	-0.311	-3.500	-0.240	-1.753	-0.938
H27	207P	0.000	-7.216	-4.494	-7.216	-3.457	-5.551	-1.893	-2.416
H27	208P	1.190	-0.938	1.190	-0.311	0.915	-0.240	-0.649	-0.938
H27	209P	2.780	-0.456	1.901	2.780	1.462	2.138	-0.456	-0.287
H27	210P	0.000	-4.620	-4.620	-0.467	-3.554	-0.359	-1.635	-0.836
H27	211P	0.000	-7.284	-4.888	-7.284	-3.760	-5.603	-1.762	-2.223
H27	212P	2.169	-0.836	2.169	-0.467	1.668	-0.359	-0.329	-0.836
H27	213P	0.000	-2.788	-1.881	-2.788	-1.447	-2.145	-0.842	-1.017
H27	214P	5.301	-1.025	-0.546	5.301	-0.420	4.078	-1.025	0.101
H27	215P	0.000	-12.667	-8.525	-12.667	-6.557	-9.744	-2.120	-2.918
H27	216P	6.098	0.000	6.098	5.301	4.691	4.078	0.254	0.101

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 1 "LC1 WIND 0° C.D."

Equilibrium Joint Positions and Rotations for Load Case "LC1 WIND 0° C.D.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	2.052	-0.009183	-0.03903	-0.0369	2.1296	-0.3848	2.702	0.6408	150.9
10P	1.361	-0.02412	-0.03557	0.0082	1.8072	-0.3849	2.011	0.6259	131.6
11P	1.253	-0.01295	-0.0463	0.1936	1.5894	-0.3679	2.393	1.127	127.5
19P	0.785	0.0107	-0.03494	0.0077	1.1331	-0.2517	1.925	1.151	108.6
20P	0.6724	0.007072	-0.05447	-0.0075	1.0030	-0.2144	3.124	2.459	102.1
32P	0.1806	0.001471	-0.02992	0.0023	0.4717	-0.1322	2.633	2.453	66.1
ANP	0	0	0	0	0.0000	0.0000	10.51	10.51	0
1X	2.068	-0.00905	-0.03832	-0.0256	2.0495	0.1430	2.718	-0.6591	150.9
1XY	2.068	0.003189	0.007606	0.0780	2.0211	0.1553	1.418	-0.6468	150.9
1Y	2.052	0.003063	0.008835	0.0302	2.1051	-0.3868	1.402	0.6531	150.9
10X	1.41	-0.02374	-0.03379	0.0419	1.7866	0.1430	2.06	-0.6737	131.6
10XY	1.41	0.02422	0.004468	-0.0396	1.7925	0.1553	0.7605	-0.6258	131.6
10Y	1.361	0.0242	0.00646	0.0054	1.8162	-0.3869	0.7115	0.6742	131.6
11X	1.28	-0.01312	-0.04954	0.1040	1.8292	0.1454	2.42	-1.153	127.5
11XY	1.28	0.01388	0.02062	-0.0936	1.8262	0.1566	0.1397	-1.126	127.6
11Y	1.253	0.01332	0.01759	-0.1958	1.5845	-0.3697	0.1131	1.153	127.6
19X	0.7629	0.01171	-0.03774	0.0888	1.2286	0.1790	1.903	-1.128	108.6
19XY	0.7633	-0.01004	0.01133	-0.0832	1.2223	0.1822	-0.3767	-1.15	108.6
19Y	0.7854	-0.009809	0.008528	-0.0138	1.1274	-0.2510	-0.3546	1.13	108.6
20X	0.6586	0.005607	-0.05361	-0.0592	0.9319	0.1644	3.111	-2.446	102.1
20XY	0.6589	-0.004171	0.02842	0.0617	0.9291	0.1664	-1.793	-2.456	102.2
20Y	0.6727	-0.006207	0.02918	0.0028	0.9989	-0.2135	-1.779	2.446	102.2
32X	0.1764	0.0014	-0.0297	-0.0109	0.4633	0.1082	2.628	-2.451	66.1
32XY	0.1772	-0.0002052	0.01014	0.0103	0.4630	0.1091	-2.275	-2.452	66.14
32Y	0.1813	-0.001792	0.01026	-0.0037	0.4713	-0.1318	-2.271	2.45	66.14
ANX	0	0	0	0	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0	0.0000	0.0000	-10.51	10.51	0
2S	1.933	-0.01117	-0.03891	-0.0325	2.1098	-0.3848	2.583	0.6388	147.7
3S	1.841	-0.01235	-0.03876	-0.0200	2.1095	-0.3848	2.491	0.6376	145.2
4S	1.749	-0.01347	-0.03844	-0.0459	2.0931	-0.3848	2.399	0.6365	142.7
5S	1.659	-0.01557	-0.03796	-0.0179	2.0761	-0.3848	2.309	0.6344	140.2
6S	1.569	-0.01664	-0.03744	-0.0598	2.0267	-0.3849	2.219	0.6334	137.7
7S	1.482	-0.01984	-0.03676	-0.0361	1.9697	-0.3849	2.132	0.6302	135.2
8S	1.413	-0.02137	-0.03614	-0.1071	1.9506	-0.3849	2.063	0.6286	133.2
12S	1.171	-0.008286	-0.04533	0.0390	1.6066	-0.3475	2.311	1.132	124.7
13S	1.103	-0.005799	-0.04429	0.0983	1.5360	-0.3299	2.243	1.134	122.2
14S	1.037	-0.0009241	-0.04271	0.0623	1.4803	-0.3089	2.177	1.139	119.7
15S	0.974	0.0006758	-0.04083	0.0977	1.3946	-0.2879	2.114	1.141	117.2
16S	0.9148	0.005227	-0.03924	0.0628	1.3170	-0.2759	2.055	1.145	114.7
17S	0.8592	0.006893	-0.0374	0.0790	1.2359	-0.2639	1.999	1.147	112.2
18S	0.8169	0.01013	-0.03608	0.0591	1.1824	-0.2571	1.957	1.15	110.2
21S	0.6238	0.005897	-0.05275	-0.0263	0.9785	-0.2014	3.076	2.458	99.35
22S	0.5771	0.005281	-0.0509	0.0030	0.9381	-0.1883	3.029	2.457	96.55
23S	0.5334	0.005299	-0.04921	-0.0162	0.9115	-0.1799	2.985	2.457	93.85
24S	0.4913	0.004235	-0.04736	-0.0046	0.8746	-0.1716	2.943	2.456	91.15
25S	0.4492	0.004294	-0.04591	-0.0111	0.8466	-0.1669	2.901	2.456	88.35
26S	0.4086	0.003342	-0.04432	-0.0056	0.8158	-0.1622	2.861	2.455	85.56
27S	0.3695	0.003555	-0.04264	-0.0095	0.7829	-0.1578	2.821	2.456	82.76

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28S	0.3321	0.002558	-0.04082	-0.0043	0.7482	-0.1534	2.784	2.455	79.96
29S	0.2971	0.00297	-0.03887	-0.0079	0.7040	-0.1491	2.749	2.455	77.21
30S	0.2646	0.001896	-0.03677	-0.0054	0.6550	-0.1448	2.717	2.454	74.46
31S	0.2347	0.002646	-0.03454	0.0111	0.6102	-0.1406	2.687	2.455	71.77
33S	0.1375	0.001923	-0.02986	0.0232	0.3414	-0.1270	3.36	3.225	59.77
34S	0.1067	0.0006564	-0.02883	0.0055	0.2712	-0.1201	4.061	3.955	53.77
35S	0.08189	-3.647e-005	-0.02724	0.0183	0.2200	-0.1071	4.767	4.685	47.77
36S	0.06107	-0.0001455	-0.02513	0.0083	0.2036	-0.0927	5.477	5.416	41.77
37S	0.04166	-0.001111	-0.02304	0.0170	0.1546	-0.0800	6.189	6.146	35.78
371S	0.04104	-0.0005213	-0.02371	0.0000	0.0000	0.0000	6.188	-0.0005213	35.78
372S	0.04218	-0.0005801	-0.006635	0.0000	0.0000	0.0000	0.04218	6.147	35.79
373S	0.04222	0.000541	0.01043	0.0000	0.0000	0.0000	-6.105	0.000541	35.81
374S	0.04094	0.0005999	-0.0066	0.0000	0.0000	0.0000	0.04094	-6.147	35.79
38S	0.02902	-0.0002205	-0.01986	0.0111	0.1234	-0.0669	6.908	6.878	29.78
39S	0.0162	-0.001089	-0.01676	0.0197	0.0981	-0.0513	7.626	7.609	23.78
391S	0.01586	-0.0003639	-0.01816	0.0000	0.0000	0.0000	7.626	-0.0003639	23.78
392S	0.01685	-0.0007426	-0.005048	0.0000	0.0000	0.0000	0.01685	7.609	23.79
393S	0.01732	0.000338	0.008135	0.0000	0.0000	0.0000	-7.592	0.000338	23.81
394S	0.01614	0.0007167	-0.005007	0.0000	0.0000	0.0000	0.01614	-7.609	23.79
40S	0.008584	0.001033	-0.01261	0.0161	0.0746	-0.0370	8.349	8.342	17.79
41S	0.001166	-0.001079	-0.009294	-0.0289	0.0342	-0.0319	9.073	9.071	11.79
411S	0.0009346	-0.0001844	-0.005632	0.0000	0.0000	0.0000	9.073	-0.0001844	11.79
412S	0.001884	-0.0008928	-0.002641	0.0000	0.0000	0.0000	0.001884	9.071	11.8
413S	0.002684	0.0001522	0.000348	0.0000	0.0000	0.0000	-9.069	0.0001522	11.8
414S	0.001549	0.0008606	-0.002613	0.0000	0.0000	0.0000	0.001549	-9.071	11.8
42S	0.001101	-0.003411	-0.005049	0.0250	-0.0059	-0.0147	9.804	9.8	5.795
2X	1.954	-0.01059	-0.0382	-0.0310	2.0274	0.1430	2.604	-0.6606	147.7
2XY	1.955	0.006866	0.007615	0.0408	2.0394	0.1553	1.305	-0.6431	147.7
2Y	1.934	0.005458	0.008845	0.0678	2.1200	-0.3868	1.284	0.6555	147.7
3X	1.866	-0.01223	-0.038	-0.0467	2.0259	0.1430	2.516	-0.6622	145.2
3XY	1.866	0.0086	0.007522	0.0666	2.0284	0.1553	1.216	-0.6414	145.2
3Y	1.841	0.00849	0.00877	0.0436	2.1112	-0.3868	1.191	0.6585	145.2
4X	1.777	-0.01415	-0.03761	-0.0275	2.0048	0.1430	2.427	-0.6642	142.7
4XY	1.778	0.01202	0.007296	0.0467	2.0056	0.1553	1.128	-0.638	142.7
4Y	1.75	0.009976	0.008597	0.0684	2.0952	-0.3868	1.1	0.66	142.7
5X	1.691	-0.01546	-0.03701	-0.0655	1.9843	0.1430	2.341	-0.6655	140.2
5XY	1.691	0.01364	0.006904	0.0933	1.9783	0.1553	1.041	-0.6364	140.2
5Y	1.659	0.01351	0.008289	0.0281	2.0661	-0.3868	1.009	0.6635	140.2
6X	1.605	-0.01832	-0.03635	-0.0415	1.9233	0.1430	2.255	-0.6683	137.7
6XY	1.605	0.01781	0.006439	0.0569	1.9243	0.1553	0.9554	-0.6322	137.7
6Y	1.569	0.01487	0.00792	0.0786	2.0289	-0.3869	0.9193	0.6649	137.7
7X	1.523	-0.01977	-0.03543	-0.0650	1.8585	0.1430	2.173	-0.6698	135.2
7XY	1.523	0.01944	0.005758	0.0774	1.8600	0.1553	0.873	-0.6306	135.2
7Y	1.482	0.01924	0.007404	0.0512	1.9704	-0.3869	0.832	0.6692	135.2
8X	1.459	-0.02271	-0.03459	-0.0845	1.7883	0.1430	2.109	-0.6727	133.2
8XY	1.459	0.023	0.005114	0.0984	1.7868	0.1553	0.809	-0.627	133.2
8Y	1.414	0.02105	0.006924	0.1175	1.9497	-0.3869	0.7637	0.6711	133.2
12X	1.19	-0.009797	-0.04848	0.0823	1.7429	0.1512	2.33	-1.15	124.7
12XY	1.19	0.01108	0.01986	-0.0792	1.7425	0.1611	0.05	-1.129	124.7
12Y	1.171	0.008627	0.01689	-0.0328	1.6070	-0.3489	0.03139	1.149	124.7
13X	1.115	-0.005592	-0.04734	0.0628	1.6923	0.1563	2.255	-1.146	122.2
13XY	1.115	0.006787	0.01902	-0.0627	1.6954	0.1650	-0.02503	-1.133	122.2
13Y	1.103	0.006571	0.0161	-0.0917	1.5389	-0.3310	-0.037	1.147	122.2
14X	1.042	-0.003954	-0.04568	0.0822	1.6266	0.1624	2.182	-1.144	119.7
14XY	1.042	0.005355	0.01775	-0.0794	1.6263	0.1696	-0.09756	-1.135	119.7
14Y	1.037	0.00175	0.01488	-0.0602	1.4799	-0.3095	-0.103	1.142	119.7
15X	0.9731	0.0007692	-0.04372	0.0454	1.5391	0.1685	2.113	-1.139	117.2
15XY	0.9734	0.000648	0.01622	-0.0416	1.5359	0.1742	-0.1666	-1.139	117.2

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

15Y	0.9743	0.0003052	0.01339	-0.0986	1.3919	-0.2880	-0.1657	1.14	117.2
16X	0.9077	0.002427	-0.04208	0.0794	1.4602	0.1720	2.048	-1.138	114.7
16XY	0.908	-0.0008226	0.01491	-0.0776	1.4599	0.1769	-0.232	-1.141	114.7
16Y	0.9152	-0.00433	0.01211	-0.0627	1.3166	-0.2757	-0.2248	1.136	114.7
17X	0.8458	0.006884	-0.04021	0.0572	1.3737	0.1755	1.986	-1.133	112.2
17XY	0.846	-0.005359	0.01338	-0.0609	1.3776	0.1795	-0.294	-1.145	112.2
17Y	0.8594	-0.005863	0.01058	-0.0747	1.2397	-0.2634	-0.2806	1.134	112.2
18X	0.7986	0.008512	-0.03888	0.0902	1.3347	0.1774	1.939	-1.131	110.2
18XY	0.7988	-0.007026	0.01229	-0.0862	1.3305	0.1810	-0.3412	-1.147	110.2
18Y	0.8171	-0.009048	0.009491	-0.0632	1.1785	-0.2565	-0.3229	1.131	110.2
21X	0.6109	0.005747	-0.0519	0.0174	0.9733	0.1554	3.063	-2.446	99.35
21XY	0.6114	-0.004074	0.02719	-0.0169	0.9709	0.1573	-1.841	-2.456	99.43
21Y	0.6244	-0.005374	0.02795	0.0235	0.9770	-0.2005	-1.828	2.447	99.43
22X	0.565	0.005369	-0.05006	-0.0257	0.9173	0.1465	3.017	-2.447	96.55
22XY	0.5655	-0.003891	0.02584	0.0236	0.9185	0.1482	-1.887	-2.456	96.63
22Y	0.5775	-0.004677	0.02658	-0.0033	0.9405	-0.1875	-1.875	2.447	96.63
23X	0.5223	0.004401	-0.04839	-0.0031	0.8921	0.1408	2.974	-2.448	93.85
23XY	0.5228	-0.002921	0.02461	0.0022	0.8920	0.1424	-1.929	-2.455	93.92
23Y	0.5338	-0.004812	0.02533	0.0147	0.9104	-0.1792	-1.918	2.447	93.93
24X	0.4811	0.004546	-0.04657	-0.0146	0.8548	0.1351	2.933	-2.447	91.15
24XY	0.4816	-0.003158	0.02324	0.0146	0.8534	0.1366	-1.97	-2.455	91.22
24Y	0.4918	-0.003769	0.02393	0.0022	0.8730	-0.1709	-1.96	2.448	91.22
25X	0.44	0.003572	-0.04515	-0.0072	0.8281	0.1319	2.892	-2.448	88.35
25XY	0.4405	-0.002159	0.02217	0.0058	0.8283	0.1333	-2.012	-2.454	88.42
25Y	0.4497	-0.003968	0.02283	0.0101	0.8471	-0.1663	-2.002	2.448	88.42
26X	0.4003	0.003651	-0.04361	-0.0118	0.7980	0.1287	2.852	-2.448	85.56
26XY	0.4007	-0.002372	0.02099	0.0104	0.7982	0.1300	-2.051	-2.454	85.62
26Y	0.4091	-0.002995	0.02161	0.0047	0.8159	-0.1616	-2.043	2.449	85.62
27X	0.362	0.002614	-0.04197	-0.0067	0.7663	0.1257	2.814	-2.449	82.76
27XY	0.3625	-0.001333	0.01974	0.0058	0.7661	0.1269	-2.09	-2.453	82.82
27Y	0.37	-0.003322	0.02031	0.0082	0.7828	-0.1572	-2.082	2.449	82.82
28X	0.3254	0.002847	-0.04021	-0.0107	0.7327	0.1227	2.777	-2.449	79.96
28XY	0.3259	-0.00168	0.01837	0.0089	0.7334	0.1239	-2.126	-2.454	80.02
28Y	0.3326	-0.002322	0.01888	0.0039	0.7489	-0.1529	-2.119	2.45	80.02
29X	0.2911	0.00175	-0.03832	-0.0055	0.6903	0.1198	2.743	-2.45	77.21
29XY	0.2916	-0.0006083	0.0169	0.0051	0.6896	0.1209	-2.16	-2.453	77.27
29Y	0.2976	-0.002817	0.01736	0.0061	0.7033	-0.1486	-2.154	2.449	77.27
30X	0.2592	0.002222	-0.03629	-0.0064	0.6429	0.1168	2.711	-2.45	74.46
30XY	0.2597	-0.001153	0.01531	0.0038	0.6444	0.1179	-2.192	-2.453	74.52
30Y	0.2651	-0.001777	0.01569	0.0058	0.6564	-0.1443	-2.187	2.45	74.52
31X	0.2299	0.0009644	-0.03415	-0.0203	0.6011	0.1139	2.682	-2.451	71.77
31XY	0.2303	5.378e-006	0.01362	0.0203	0.5999	0.1149	-2.222	-2.452	71.81
31Y	0.2352	-0.002531	0.01392	-0.0134	0.6091	-0.1401	-2.217	2.449	71.81
33X	0.1341	-0.0004443	0.02957	-0.0313	0.3326	0.1054	3.357	-3.223	59.77
33XY	0.1346	0.001327	0.01124	0.0282	0.3350	0.1062	-3.088	-3.221	59.81
33Y	0.138	-0.002158	0.01142	0.0219	0.3435	-0.1266	-3.085	3.221	59.81
34X	0.1038	-3.091e-005	-0.02851	-0.0100	0.2672	0.1006	4.058	-3.954	53.77
34XY	0.1045	0.0009996	0.01143	0.0097	0.2667	0.1013	-3.849	-3.953	53.81
34Y	0.1075	-0.001183	0.01161	-0.0071	0.2707	-0.1197	-3.846	3.953	53.81
35X	0.0791	-3.746e-005	-0.02689	-0.0218	0.2147	0.0902	4.764	-4.685	47.77
35XY	0.07996	0.001023	0.01118	0.0206	0.2154	0.0908	-4.605	-4.684	47.81
35Y	0.0827	-0.0007101	0.01137	-0.0184	0.2215	-0.1067	-4.602	4.684	47.81
36X	0.05891	-0.000456	-0.02474	-0.0117	0.1931	0.0786	5.475	-5.417	41.78
36XY	0.05994	0.001559	0.0105	0.0116	0.1931	0.0791	-5.356	-5.415	41.81
36Y	0.06199	-0.0008371	0.01075	-0.0089	0.2031	-0.0925	-5.354	5.415	41.81
37X	0.04043	7.392e-005	-0.02261	-0.0162	0.1474	0.0682	6.188	-6.147	35.78
37XY	0.04161	0.001145	0.009978	0.0146	0.1488	0.0687	-6.106	-6.146	35.81
37Y	0.04285	-6.457e-005	0.01028	-0.0158	0.1553	-0.0799	-6.105	6.147	35.81

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38X	0.02805	-0.0006109	-0.01954	-0.0079	0.1208	0.0571	6.907	-6.879	29.78
38XY	0.02928	0.001827	0.008641	0.0069	0.1214	0.0575	-6.849	-6.877	29.81
38Y	0.03025	-0.0009986	0.00885	-0.0105	0.1241	-0.0668	-6.848	6.878	29.81
39X	0.01549	0.0003621	-0.0165	-0.0166	0.0946	0.0438	7.625	-7.609	23.78
39XY	0.01696	0.001089	0.00749	0.0168	0.0950	0.0440	-7.593	-7.609	23.81
39Y	0.0177	-0.000418	0.007642	-0.0199	0.0981	-0.0512	-7.592	7.609	23.81
40X	0.008096	-0.001444	-0.01245	-0.0136	0.0729	0.0315	8.349	-8.342	17.79
40XY	0.009337	0.002728	0.005528	0.0026	0.0840	0.0316	-8.332	-8.338	17.81
40Y	0.009856	-0.002359	0.005612	-0.0051	0.0863	-0.0368	-8.331	8.339	17.81
41X	0.0007632	0.0007083	-0.009181	0.0302	0.0324	0.0282	9.073	-9.071	11.79
41XY	0.002538	0.001058	0.004212	0.0076	-0.0058	0.0283	-9.07	-9.071	11.8
41Y	0.002872	-0.0007544	0.004276	-0.0088	-0.0034	-0.0318	-9.069	9.071	11.8
42X	0.0009362	0.003248	-0.00499	-0.0222	-0.0086	0.0132	9.804	-9.8	5.795
42XY	0.00678	0.00258	0.001211	-0.0023	0.0161	0.0133	-9.796	-9.801	5.801
42Y	0.006896	-0.00245	0.001248	0.0000	0.0182	-0.0148	-9.796	9.801	5.801

Joint Support Reactions for Load Case "LC1 WIND 0° C.D.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Z Usage %	Comp. Uplift Usage %	Result. Force (kN)	Result. Usage %	X Moment (kN-m)	X-M. Usage %	Y Moment (kN-m)	Y-M. Usage %	Z Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-243.42	0.0	-262.58	0.0	1689.91	0.0	0.0	1727.42	0.0	-3.95	0.0	-1.0	0.0	-0.32	0.0	0.0
ANX	-235.77	0.0	265.65	0.0	1670.66	0.0	0.0	1708.00	0.0	3.85	0.0	-0.9	0.0	0.33	0.0	0.0
ANXY	-121.69	0.0	-150.18	0.0	-838.04	0.0	0.0	860.04	0.0	2.75	0.0	-7.5	0.0	0.33	0.0	0.0
ANY	-127.59	0.0	147.11	0.0	-849.51	0.0	0.0	871.55	0.0	-2.67	0.0	-7.5	0.0	-0.32	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC1 WIND 0° C.D.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	2.0389	0.0000	-4.3420	-2.0368	-0.0000	4.3419	2.0521	-0.0092	-0.0390
10P	7.2949	0.0000	-7.7672	-7.2935	-0.0000	7.7672	1.3613	-0.0241	-0.0356
11P	7.8323	0.0000	-8.9408	-7.8311	-0.0000	8.9407	1.2529	-0.0130	-0.0463
19P	3.6962	0.0000	-8.3939	-3.6954	0.0000	8.3938	0.7850	0.0107	-0.0349
20P	5.4804	0.0000	-10.9986	-5.4797	0.0000	10.9986	0.6724	0.0071	-0.0545
32P	6.3903	0.0000	-19.1604	-6.3901	0.0000	19.1603	0.1806	0.0015	-0.0299
ANP	1.8015	0.0000	-8.4103	241.6198	262.5840	-1681.4983	0.0000	0.0000	0.0000
1X	2.0389	0.0000	-4.3420	-2.0368	-0.0000	4.3419	2.0682	-0.0091	-0.0383
1XY	2.0389	0.0000	-4.3420	-2.0368	0.0000	4.3420	2.0683	0.0032	0.0076
1Y	0.8769	0.0000	-2.5480	-0.8748	0.0000	2.5480	2.0522	0.0031	0.0088
10X	7.2949	0.0000	-7.7672	-7.2935	-0.0000	7.7672	1.4103	-0.0237	-0.0338
10XY	3.2079	0.0000	-5.1932	-3.2065	0.0000	5.1932	1.4105	0.0242	0.0045
10Y	2.0459	0.0000	-3.3992	-2.0445	0.0000	3.3992	1.3615	0.0242	0.0065
11X	7.8323	0.0000	-8.9408	-7.8310	-0.0000	8.9407	1.2796	-0.0131	-0.0495
11XY	2.5833	0.0000	-4.5728	-2.5820	0.0000	4.5728	1.2797	0.0139	0.0206
11Y	2.5833	0.0000	-4.5728	-2.5821	0.0000	4.5728	1.2531	0.0133	0.0176
19X	3.6962	0.0000	-8.3939	-3.6954	0.0000	8.3938	0.7629	0.0117	-0.0377
19XY	3.6962	0.0000	-8.3939	-3.6954	-0.0000	8.3939	0.7633	-0.0100	0.0113
19Y	3.6962	0.0000	-8.3939	-3.6954	-0.0000	8.3939	0.7854	-0.0098	0.0085
20X	5.4804	0.0000	-10.9986	-5.4797	0.0000	10.9986	0.6586	0.0056	-0.0536
20XY	4.9004	0.0000	-9.9846	-4.8997	-0.0000	9.9847	0.6589	-0.0042	0.0284
20Y	4.9004	0.0000	-9.9846	-4.8997	-0.0000	9.9847	0.6727	-0.0062	0.0292
32X	6.3903	0.0000	-19.1604	-6.3901	0.0000	19.1603	0.1764	0.0014	-0.0297
32XY	6.3903	0.0000	-19.1604	-6.3901	-0.0000	19.1604	0.1772	-0.0002	0.0101

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

32Y	6.3903	0.0000	-19.1604	-6.3901	-0.0000	19.1604	0.1813	-0.0018	0.0103
ANX	1.8015	0.0000	-8.4103	233.9684	-265.6485	-1662.2528	0.0000	0.0000	0.0000
ANXY	1.8015	0.0000	-8.4103	119.8867	150.1794	846.4507	0.0000	0.0000	0.0000
ANY	1.8015	0.0000	-8.4103	125.7905	-147.1139	857.9219	0.0000	0.0000	0.0000
2S	2.0389	0.0000	-3.0420	-2.0369	-0.0000	3.0419	1.9331	-0.0112	-0.0389
3S	1.6591	0.0000	-2.4191	-1.6572	-0.0000	2.4191	1.8413	-0.0124	-0.0388
4S	1.9442	0.0000	-2.9651	-1.9425	-0.0000	2.9651	1.7493	-0.0135	-0.0384
5S	1.7166	0.0000	-2.5634	-1.7150	-0.0000	2.5633	1.6586	-0.0156	-0.0380
6S	0.9344	0.0000	-1.3922	-0.9329	-0.0000	1.3922	1.5687	-0.0166	-0.0374
7S	1.6277	0.0000	-2.4131	-1.6262	-0.0000	2.4130	1.4819	-0.0198	-0.0368
8S	0.6932	0.0000	-1.0208	-0.6918	-0.0000	1.0208	1.4134	-0.0214	-0.0361
12S	6.4797	0.0000	-6.5624	-6.4785	-0.0000	6.5623	1.1710	-0.0083	-0.0453
13S	7.5860	0.0000	-8.5871	-7.5849	-0.0000	8.5870	1.1028	-0.0058	-0.0443
14S	6.9353	0.0000	-7.4067	-6.9343	-0.0000	7.4066	1.0368	-0.0009	-0.0427
15S	2.8427	0.0000	-5.5382	-2.8417	0.0000	5.5381	0.9740	0.0007	-0.0408
16S	1.1564	0.0000	-2.4995	-1.1555	0.0000	2.4994	0.9148	0.0052	-0.0392
17S	2.5785	0.0000	-5.5551	-2.5776	0.0000	5.5550	0.8592	0.0069	-0.0374
18S	1.4221	0.0000	-3.0556	-1.4212	0.0000	3.0555	0.8169	0.0101	-0.0361
21S	2.0462	0.0000	-3.6324	-2.0456	0.0000	3.6323	0.6238	0.0059	-0.0528
22S	8.8436	0.0000	-9.8553	-8.8430	0.0000	9.8552	0.5771	0.0053	-0.0509
23S	6.7974	0.0000	-6.2229	-6.7968	0.0000	6.2229	0.5334	0.0053	-0.0492
24S	4.3498	0.0000	-8.6355	-4.3493	0.0000	8.6354	0.4913	0.0042	-0.0474
25S	2.2314	0.0000	-4.7526	-2.2310	0.0000	4.7525	0.4492	0.0043	-0.0459
26S	4.4215	0.0000	-9.5902	-4.4211	0.0000	9.5902	0.4086	0.0033	-0.0443
27S	2.1901	0.0000	-4.8376	-2.1897	0.0000	4.8376	0.3695	0.0036	-0.0426
28S	4.3118	0.0000	-9.7834	-4.3115	0.0000	9.7834	0.3321	0.0026	-0.0408
29S	2.3887	0.0000	-5.2708	-2.3884	0.0000	5.2708	0.2971	0.0030	-0.0389
30S	3.8028	0.0000	-8.9934	-3.8025	0.0000	8.9934	0.2646	0.0019	-0.0368
31S	4.6590	0.0000	-12.8889	-4.6588	0.0000	12.8889	0.2347	0.0026	-0.0345
33S	6.6936	0.0000	-18.3072	-6.6935	0.0000	18.3071	0.1375	0.0019	-0.0299
34S	6.8842	0.0000	-17.0915	-6.8841	0.0000	17.0914	0.1067	0.0007	-0.0288
35S	20.6418	0.0000	-25.3364	-20.6417	-0.0000	25.3363	0.0819	-0.0000	-0.0272
36S	19.2965	0.0000	-23.5680	-19.2965	-0.0000	23.5679	0.0611	-0.0001	-0.0251
37S	4.6981	0.0000	-14.0815	-4.6981	-0.0000	14.0814	0.0417	-0.0011	-0.0230
371S	4.6981	0.0000	-14.0815	-4.6981	-0.0000	14.0814	0.0410	-0.0005	-0.0237
372S	4.6981	0.0000	-14.0815	-4.6981	-0.0000	14.0814	0.0422	-0.0006	-0.0066
373S	4.6981	0.0000	-14.0815	-4.6981	0.0000	14.0815	0.0422	0.0005	0.0104
374S	4.6981	0.0000	-14.0815	-4.6981	0.0000	14.0814	0.0409	0.0006	-0.0066
38S	4.8429	0.0000	-15.2207	-4.8428	-0.0000	15.2207	0.0290	-0.0002	-0.0199
39S	4.8001	0.0000	-15.7773	-4.8001	-0.0000	15.7773	0.0162	-0.0011	-0.0168
391S	4.8001	0.0000	-15.7773	-4.8001	-0.0000	15.7773	0.0159	-0.0004	-0.0182
392S	4.8001	0.0000	-15.7773	-4.8001	-0.0000	15.7773	0.0169	-0.0007	-0.0050
393S	4.8001	0.0000	-15.7773	-4.8001	0.0000	15.7773	0.0173	0.0003	0.0081
394S	4.8001	0.0000	-15.7773	-4.8001	0.0000	15.7773	0.0161	0.0007	-0.0050
40S	10.5467	0.0000	-21.9241	-10.5467	0.0000	21.9241	0.0086	0.0010	-0.0126
41S	9.1709	0.0000	-20.4420	-9.1709	-0.0000	20.4420	0.0012	-0.0011	-0.0093
411S	4.0585	0.0000	-19.1703	-4.0585	-0.0000	19.1703	0.0009	-0.0002	-0.0056
412S	4.0585	0.0000	-19.1703	-4.0585	-0.0000	19.1703	0.0019	-0.0009	-0.0026
413S	4.0585	0.0000	-19.1703	-4.0585	0.0000	19.1703	0.0027	0.0002	0.0003
414S	4.0585	0.0000	-19.1703	-4.0585	0.0000	19.1703	0.0015	0.0009	-0.0026
42S	2.8234	0.0000	-14.2313	-2.8234	-0.0000	14.2313	0.0011	-0.0034	-0.0050
2X	2.0389	0.0000	-3.0420	-2.0369	-0.0000	3.0419	1.9538	-0.0106	-0.0382
2XY	2.0389	0.0000	-3.0420	-2.0369	0.0000	3.0420	1.9547	0.0069	0.0076
2Y	0.8769	0.0000	-1.2480	-0.8749	0.0000	1.2480	1.9340	0.0055	0.0088
3X	1.6591	0.0000	-2.4191	-1.6572	-0.0000	2.4191	1.8656	-0.0122	-0.0380
3XY	1.6591	0.0000	-2.4191	-1.6572	0.0000	2.4191	1.8657	0.0086	0.0075
3Y	1.6591	0.0000	-2.4191	-1.6572	0.0000	2.4191	1.8414	0.0085	0.0088
4X	1.9442	0.0000	-2.9651	-1.9424	-0.0000	2.9651	1.7773	-0.0142	-0.0376

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

4XY	1.9442	0.0000	-2.9651	-1.9424	0.0000	2.9651	1.7779	0.0120	0.0073
4Y	0.7822	0.0000	-1.1711	-0.7805	0.0000	1.1711	1.7498	0.0100	0.0086
5X	2.8786	0.0000	-4.3574	-2.8770	-0.0000	4.3573	1.6906	-0.0155	-0.0370
5XY	2.8786	0.0000	-4.3574	-2.8770	0.0000	4.3574	1.6907	0.0136	0.0069
5Y	1.7166	0.0000	-2.5634	-1.7150	0.0000	2.5634	1.6588	0.0135	0.0083
6X	2.0964	0.0000	-3.1862	-2.0948	-0.0000	3.1862	1.6048	-0.0183	-0.0363
6XY	2.0964	0.0000	-3.1862	-2.0948	0.0000	3.1863	1.6054	0.0178	0.0064
6Y	0.9344	0.0000	-1.3922	-0.9329	0.0000	1.3923	1.5693	0.0149	0.0079
7X	1.6277	0.0000	-2.4131	-1.6261	-0.0000	2.4130	1.5228	-0.0198	-0.0354
7XY	1.6277	0.0000	-2.4131	-1.6261	0.0000	2.4131	1.5230	0.0194	0.0058
7Y	1.6277	0.0000	-2.4131	-1.6262	0.0000	2.4131	1.4820	0.0192	0.0074
8X	1.8552	0.0000	-2.8148	-1.8538	-0.0000	2.8148	1.4587	-0.0227	-0.0346
8XY	1.8552	0.0000	-2.8148	-1.8538	0.0000	2.8148	1.4590	0.0230	0.0051
8Y	0.6932	0.0000	-1.0208	-0.6918	0.0000	1.0208	1.4137	0.0211	0.0069
12X	6.4797	0.0000	-6.5624	-6.4785	-0.0000	6.5623	1.1897	-0.0098	-0.0485
12XY	1.2307	0.0000	-2.1944	-1.2295	0.0000	2.1944	1.1900	0.0111	0.0199
12Y	1.2307	0.0000	-2.1944	-1.2295	0.0000	2.1944	1.1714	0.0086	0.0169
13X	7.5860	0.0000	-8.5871	-7.5848	-0.0000	8.5870	1.1147	-0.0056	-0.0473
13XY	2.3370	0.0000	-4.2191	-2.3358	0.0000	4.2191	1.1150	0.0068	0.0190
13Y	2.3370	0.0000	-4.2191	-2.3359	0.0000	4.2191	1.1030	0.0066	0.0161
14X	6.9353	0.0000	-7.4067	-6.9343	-0.0000	7.4066	1.0423	-0.0040	-0.0457
14XY	1.1063	0.0000	-2.0247	-1.1053	0.0000	2.0247	1.0424	0.0054	0.0178
14Y	1.6863	0.0000	-3.0387	-1.6853	0.0000	3.0387	1.0370	0.0017	0.0149
15X	2.8427	0.0000	-5.5382	-2.8417	0.0000	5.5381	0.9731	0.0008	-0.0437
15XY	2.2627	0.0000	-4.5242	-2.2617	0.0000	4.5242	0.9734	0.0006	0.0162
15Y	2.8427	0.0000	-5.5382	-2.8417	0.0000	5.5382	0.9743	0.0003	0.0134
16X	1.1564	0.0000	-2.4995	-1.1555	0.0000	2.4994	0.9077	0.0024	-0.0421
16XY	1.1564	0.0000	-2.4995	-1.1555	-0.0000	2.4995	0.9080	-0.0008	0.0149
16Y	1.1564	0.0000	-2.4995	-1.1555	-0.0000	2.4995	0.9152	-0.0043	0.0121
17X	2.5785	0.0000	-5.5551	-2.5776	0.0000	5.5550	0.8458	0.0069	-0.0402
17XY	1.9985	0.0000	-4.5411	-1.9976	-0.0000	4.5411	0.8460	-0.0054	0.0134
17Y	2.5785	0.0000	-5.5551	-2.5776	-0.0000	5.5551	0.8594	-0.0059	0.0106
18X	1.4221	0.0000	-3.0556	-1.4213	0.0000	3.0555	0.7986	0.0085	-0.0389
18XY	0.8421	0.0000	-2.0416	-0.8413	-0.0000	2.0416	0.7988	-0.0070	0.0123
18Y	1.4221	0.0000	-3.0556	-1.4212	-0.0000	3.0556	0.8171	-0.0090	0.0095
21X	2.0462	0.0000	-3.6324	-2.0456	0.0000	3.6323	0.6109	0.0057	-0.0519
21XY	2.0462	0.0000	-3.6324	-2.0456	-0.0000	3.6324	0.6114	-0.0041	0.0272
21Y	2.0462	0.0000	-3.6324	-2.0456	-0.0000	3.6324	0.6244	-0.0054	0.0279
22X	4.1646	0.0000	-7.5153	-4.1640	0.0000	7.5152	0.5650	0.0054	-0.0501
22XY	6.5046	0.0000	-8.6853	-6.5040	-0.0000	8.6853	0.5655	-0.0039	0.0258
22Y	4.1646	0.0000	-7.5153	-4.1640	-0.0000	7.5153	0.5775	-0.0047	0.0266
23X	2.1184	0.0000	-3.8829	-2.1179	0.0000	3.8829	0.5223	0.0044	-0.0484
23XY	2.1184	0.0000	-3.8829	-2.1179	-0.0000	3.8829	0.5228	-0.0029	0.0246
23Y	2.1184	0.0000	-3.8829	-2.1178	-0.0000	3.8829	0.5338	-0.0048	0.0253
24X	4.3498	0.0000	-8.6355	-4.3493	0.0000	8.6354	0.4811	0.0045	-0.0466
24XY	4.3498	0.0000	-8.6355	-4.3493	-0.0000	8.6355	0.4816	-0.0032	0.0232
24Y	4.3498	0.0000	-8.6355	-4.3493	-0.0000	8.6355	0.4918	-0.0038	0.0239
25X	2.2314	0.0000	-4.7526	-2.2310	0.0000	4.7525	0.4400	0.0036	-0.0452
25XY	2.2314	0.0000	-4.7526	-2.2310	-0.0000	4.7526	0.4405	-0.0022	0.0222
25Y	2.2314	0.0000	-4.7526	-2.2310	-0.0000	4.7526	0.4497	-0.0040	0.0228
26X	4.4215	0.0000	-9.5902	-4.4211	0.0000	9.5902	0.4003	0.0037	-0.0436
26XY	4.4215	0.0000	-9.5902	-4.4211	-0.0000	9.5902	0.4007	-0.0024	0.0210
26Y	4.4215	0.0000	-9.5902	-4.4211	-0.0000	9.5902	0.4091	-0.0030	0.0216
27X	2.1901	0.0000	-4.8376	-2.1897	0.0000	4.8376	0.3620	0.0026	-0.0420
27XY	2.1901	0.0000	-4.8376	-2.1897	-0.0000	4.8376	0.3625	-0.0013	0.0197
27Y	2.1901	0.0000	-4.8376	-2.1897	-0.0000	4.8376	0.3700	-0.0033	0.0203
28X	4.3118	0.0000	-9.7834	-4.3115	0.0000	9.7834	0.3254	0.0028	-0.0402
28XY	4.3118	0.0000	-9.7834	-4.3115	-0.0000	9.7834	0.3259	-0.0017	0.0184

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28Y	4.3118	0.0000	-9.7834	-4.3115	-0.0000	9.7834	0.3326	-0.0023	0.0189
29X	2.1217	0.0000	-4.9458	-2.1214	0.0000	4.9458	0.2911	0.0018	-0.0383
29XY	2.1217	0.0000	-4.9458	-2.1214	-0.0000	4.9458	0.2916	-0.0006	0.0169
29Y	2.1217	0.0000	-4.9458	-2.1214	-0.0000	4.9458	0.2976	-0.0028	0.0174
30X	3.8028	0.0000	-8.9934	-3.8025	0.0000	8.9934	0.2592	0.0022	-0.0363
30XY	3.8028	0.0000	-8.9934	-3.8025	-0.0000	8.9935	0.2597	-0.0012	0.0153
30Y	3.8028	0.0000	-8.9934	-3.8025	-0.0000	8.9935	0.2651	-0.0018	0.0157
31X	4.6590	0.0000	-12.8889	-4.6588	0.0000	12.8889	0.2299	0.0010	-0.0341
31XY	4.9260	0.0000	-13.2139	-4.9258	0.0000	13.2140	0.2303	0.0000	0.0136
31Y	4.9260	0.0000	-13.2139	-4.9258	-0.0000	13.2140	0.2352	-0.0025	0.0139
33X	6.6936	0.0000	-18.3072	-6.6935	-0.0000	18.3071	0.1341	-0.0004	-0.0296
33XY	6.6936	0.0000	-18.3072	-6.6935	0.0000	18.3072	0.1346	0.0013	0.0112
33Y	6.6936	0.0000	-18.3072	-6.6935	-0.0000	18.3072	0.1380	-0.0022	0.0114
34X	6.8842	0.0000	-17.0915	-6.8841	-0.0000	17.0914	0.1038	-0.0000	-0.0285
34XY	6.8842	0.0000	-17.0915	-6.8841	0.0000	17.0915	0.1045	0.0010	0.0114
34Y	6.8842	0.0000	-17.0915	-6.8841	-0.0000	17.0915	0.1075	-0.0012	0.0116
35X	7.3858	0.0000	-18.6934	-7.3857	-0.0000	18.6933	0.0791	-0.0000	-0.0269
35XY	7.3858	0.0000	-18.6934	-7.3857	0.0000	18.6934	0.0800	0.0010	0.0112
35Y	11.9798	0.0000	-20.1234	-11.9797	-0.0000	20.1234	0.0827	-0.0007	0.0114
36X	9.3545	0.0000	-19.9540	-9.3545	-0.0000	19.9539	0.0589	-0.0005	-0.0247
36XY	7.7225	0.0010	-17.6860	-7.7225	-0.0010	17.6860	0.0599	0.0016	0.0105
36Y	6.0405	0.0000	-16.9250	-6.0405	-0.0000	16.9250	0.0620	-0.0008	0.0108
37X	6.1711	0.0000	-16.4735	-6.1711	0.0000	16.4734	0.0404	0.0001	-0.0226
37XY	4.6981	0.0000	-14.0815	-4.6981	0.0000	14.0815	0.0416	0.0011	0.0100
37Y	4.6981	0.0000	-14.0815	-4.6981	-0.0000	14.0815	0.0429	-0.0001	0.0103
38X	4.8429	0.0000	-15.2207	-4.8428	-0.0000	15.2207	0.0281	-0.0006	-0.0195
38XY	4.8429	0.0000	-15.2207	-4.8428	0.0000	15.2207	0.0293	0.0018	0.0086
38Y	5.1099	0.0000	-15.5457	-5.1098	-0.0000	15.5457	0.0302	-0.0010	0.0089
39X	4.8001	0.0000	-15.7773	-4.8001	0.0000	15.7773	0.0155	0.0004	-0.0165
39XY	4.8001	0.0000	-15.7773	-4.8001	0.0000	15.7773	0.0170	0.0011	0.0075
39Y	6.2731	0.0000	-18.1693	-6.2731	-0.0000	18.1693	0.0177	-0.0004	0.0076
40X	11.2817	0.0000	-24.1211	-11.2817	-0.0000	24.1211	0.0081	-0.0014	-0.0125
40XY	4.6547	0.0000	-18.0631	-4.6547	0.0000	18.0631	0.0093	0.0027	0.0055
40Y	7.9687	0.0000	-21.0921	-7.9687	-0.0000	21.0921	0.0099	-0.0024	0.0056
41X	4.7519	0.0000	-18.9730	-4.7519	0.0000	18.9730	0.0008	0.0007	-0.0092
41XY	3.2789	0.0000	-16.5810	-3.2789	0.0000	16.5811	0.0025	0.0011	0.0042
41Y	3.2789	0.0000	-16.5810	-3.2789	-0.0000	16.5811	0.0029	-0.0008	0.0043
42X	2.8234	0.0000	-14.2313	-2.8234	0.0000	14.2313	0.0009	0.0032	-0.0050
42XY	2.8234	0.0000	-14.2313	-2.8234	0.0000	14.2313	0.0068	0.0026	0.0012
42Y	2.8234	0.0000	-14.2313	-2.8234	-0.0000	14.2313	0.0069	-0.0024	0.0012

Moments for Angles Modeled as Beams:

Angle Label	Torsion (N-m)	Origin X Moment (N-m)	Origin Y Moment (N-m)	End X Moment (N-m)	End Y Moment (N-m)	X Shear (N)	Y Shear (N)
1P	0.01	-0.00	0.04	-5.56	60.30	-1.73	18.79
1X	-0.00	-0.00	0.04	6.88	67.30	2.14	20.97
1XY	-0.00	0.00	0.04	47.35	-55.99	14.75	-17.43
1Y	0.01	0.00	0.04	-47.78	-45.40	-14.88	-14.13
2P	0.01	5.56	-60.26	-14.91	-58.92	-3.74	-47.67
2X	-0.00	-6.88	-67.27	18.73	-61.31	4.74	-51.43
2XY	-0.01	-47.35	56.02	-89.53	99.28	-54.75	62.12
2Y	0.01	47.78	45.43	87.24	79.81	54.01	50.10
3P	0.02	14.91	58.96	57.26	122.82	28.87	72.71
3X	-0.01	-18.73	61.34	-50.15	143.88	-27.55	82.09
3XY	-0.01	89.53	-99.25	122.06	-9.92	84.64	-43.67

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

3Y	0.02	-87.24	-79.77	-127.74	-17.10	-85.99	-38.75
4P	0.03	-57.26	-122.78	-103.06	-56.16	-64.13	-71.58
4X	-0.01	50.15	-143.84	112.33	-63.68	64.99	-83.01
4XY	-0.01	-122.06	9.96	-198.28	116.97	-128.14	50.77
4Y	0.03	127.74	17.13	193.67	131.04	128.56	59.27
5P	0.03	103.06	56.19	298.54	546.93	160.64	241.25
5X	-0.01	-112.33	63.71	-224.14	669.65	-134.59	293.34
5XY	-0.01	198.28	-116.94	368.14	418.55	226.57	120.64
5Y	0.03	-193.67	-131.01	-429.37	238.09	-249.22	42.83
6P	0.04	-298.54	-546.89	-409.19	19.46	-283.09	-210.97
6X	-0.01	224.14	-669.61	333.86	-25.99	223.20	-278.24
6XY	-0.02	-368.14	-418.51	-463.85	220.35	-332.80	-79.26
6Y	0.04	429.37	-238.05	557.18	343.31	394.62	42.10
7P	0.05	409.18	-19.42	1034.70	325.54	721.94	153.06
7X	-0.02	-333.86	26.02	-162.03	1294.00	-247.95	660.01
7XY	-0.02	463.85	-220.32	278.81	1101.57	371.33	440.63
7Y	0.05	-557.18	-343.28	-1141.38	30.37	-849.28	-156.45
8P	0.05	-1034.70	-325.51	-2327.85	2972.68	-2141.76	1686.10
8X	-0.02	162.03	-1293.96	-1256.31	-1255.29	-697.00	-1623.73
8XY	-0.02	-278.80	-1101.54	1269.56	-1233.18	631.05	-1487.08
8Y	0.05	1141.38	-30.34	2399.29	3041.53	2255.21	1917.96
9P	-77.02	-3748.02	449.39	-1999.42	188.18	-1402.16	155.54
9X	0.10	1776.00	-0.69	1321.80	184.93	755.74	44.95
9XY	4.32	-1769.73	-25.33	-1389.56	165.65	-770.75	34.23
9Y	-76.71	3847.22	447.58	1969.83	204.07	1419.14	158.98
10P	-107.72	-1291.86	1535.77	52.81	1212.91	-428.74	951.10
10X	-31.17	-805.75	-1063.52	-616.98	561.88	-492.29	-173.58
10XY	-23.75	866.60	-1098.50	741.27	478.33	556.36	-214.59
10Y	-110.10	1259.82	1525.96	-158.05	1102.41	381.24	909.47
11P	-107.71	-52.81	-1212.89	-649.16	322.97	-280.79	-355.96
11X	-31.17	616.98	-561.85	812.79	541.53	571.91	-8.13
11XY	-23.75	-741.27	-478.30	-907.08	546.02	-659.34	27.09
11Y	-110.09	158.05	-1102.38	750.02	379.76	363.22	-289.05
12P	-107.71	649.16	-322.95	958.05	684.63	642.88	144.67
12X	-31.18	-812.79	-541.50	-979.28	645.87	-716.83	41.75
12XY	-23.76	907.08	-545.99	1050.61	703.81	783.08	63.13
12Y	-110.09	-750.02	-379.73	-1020.34	687.03	-708.14	122.92
13P	-107.70	-958.05	-684.61	-1261.40	863.08	-887.78	71.39
13X	-31.18	979.28	-645.84	1295.11	934.08	909.76	115.29
13XY	-23.76	-1050.62	-703.78	-1374.68	928.96	-970.12	90.07
13Y	-110.08	1020.34	-687.01	1350.34	902.71	948.27	86.28
14P	-107.70	1261.40	-863.05	2075.68	945.76	1334.84	33.08
14X	-31.18	-1295.11	-934.05	-2086.53	905.05	-1352.65	-11.60
14XY	-23.76	1374.68	-928.94	2212.54	842.46	1434.89	-34.59
14Y	-110.08	-1350.34	-902.69	-2187.16	851.59	-1415.00	-20.44
15P	-107.69	-2075.68	-945.74	-2453.12	944.68	-1811.52	-0.43
15X	-31.19	2086.53	-905.02	2602.58	1112.38	1875.64	82.94
15XY	-23.76	-2212.54	-842.44	-2601.83	1076.95	-1925.75	93.81
15Y	-110.07	2187.15	-851.57	2465.94	941.93	1861.24	36.15
16P	-107.69	2453.12	-944.65	3267.17	1250.12	2860.14	152.73
16X	-31.19	-2602.58	-1112.35	-3955.79	487.34	-3279.18	-312.51
16XY	-23.77	2601.83	-1076.93	3638.98	854.02	3120.41	-111.45
16Y	-110.07	-2465.94	-941.91	-2938.55	1569.19	-2702.25	313.64
17P	-107.68	-3267.16	-1250.10	-597.57	1309.28	-2446.04	37.46
17X	-31.19	3955.79	-487.31	4030.94	5017.32	5054.89	2867.09
17XY	-23.77	-3638.99	-854.00	-3793.65	4763.36	-4704.20	2474.28
17Y	-110.06	2938.55	-1569.17	376.41	1079.72	2098.08	-309.78
18P	-243.17	-1348.33	453.55	-549.19	-415.71	-283.94	5.66

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page 80 of 136
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

18X	163.68	-6398.07	-678.70	-3305.32	275.68	-1452.01	-60.31
18XY	167.54	6050.70	-665.32	3003.75	282.71	1354.90	-57.25
18Y	-243.81	1029.62	447.19	251.77	-420.44	191.75	4.00
19P	-118.18	-718.47	58.22	-277.50	632.33	-355.70	246.62
19X	80.70	2556.62	2117.82	758.52	1146.42	1183.98	1165.80
19XY	82.45	-2348.91	1899.05	-503.07	916.23	-1018.57	1005.45
19Y	-117.48	511.50	-155.43	25.28	360.29	191.71	73.17
20P	-118.18	277.50	-632.31	-410.36	316.54	-47.45	-112.77
20X	80.70	-758.52	-1146.40	255.02	167.34	-179.82	-349.67
20XY	82.45	503.07	-916.21	-448.81	314.63	19.38	-214.85
20Y	-117.48	-25.28	-360.28	604.99	496.27	207.04	48.57
21P	-118.17	410.36	-316.53	1118.54	664.76	566.26	128.98
21X	80.69	-255.02	-167.32	-1091.32	763.68	-498.64	220.87
21XY	82.45	448.81	-314.61	1240.06	661.84	625.51	128.60
21Y	-117.48	-604.99	-496.25	-1268.26	614.72	-693.80	43.88
22P	-118.17	-1118.54	-664.75	-1546.79	696.96	-987.16	11.93
22X	80.69	1091.32	-763.67	1515.98	609.86	965.67	-56.97
22XY	82.44	-1240.06	-661.82	-1698.61	761.61	-1088.40	36.96
22Y	-117.47	1268.26	-614.70	1728.24	764.84	1109.82	55.61
23P	-118.17	1546.79	-696.94	1974.96	1135.82	1257.77	156.74
23X	80.69	-1515.98	-609.84	-1999.98	1139.75	-1255.70	189.25
23XY	82.44	1698.61	-761.59	2271.56	880.92	1417.92	42.62
23Y	-117.47	-1728.24	-764.83	-2247.15	927.02	-1419.78	57.92
24P	-118.16	-1974.96	-1135.80	-2337.55	879.70	-1540.18	-91.47
24X	80.69	1999.98	-1139.74	2302.33	831.80	1536.54	-109.98
24XY	82.44	-2271.56	-880.90	-2568.73	1093.25	-1728.67	75.84
24Y	-117.47	2247.15	-927.00	2603.05	1116.29	1732.22	67.60
25P	-118.16	2337.55	-879.68	2613.12	1418.81	1768.09	192.55
25X	80.68	-2302.33	-831.78	-2656.24	1382.53	-1770.92	196.69
25XY	82.44	2568.73	-1093.24	2888.28	1150.60	1948.93	20.48
25Y	-117.46	-2603.05	-1116.27	-2845.92	1201.33	-1946.06	30.38
26P	-118.16	-2613.12	-1418.80	-2977.34	1015.58	-1996.59	-144.01
26X	80.68	2656.24	-1382.52	2931.73	965.97	1995.70	-148.77
26XY	82.44	-2888.28	-1150.58	-3103.27	1138.64	-2139.84	-4.26
26Y	-117.46	2845.92	-1201.32	3148.06	1171.37	2140.71	-10.70
27P	-118.16	2977.34	-1015.57	3230.95	2133.09	2257.56	406.37
27X	80.68	-2931.73	-965.96	-3300.73	2058.79	-2266.35	397.39
27XY	82.43	3103.27	-1138.63	3376.53	1979.20	2356.29	305.66
27Y	-117.46	-3148.06	-1171.36	-3307.73	2073.84	-2347.56	328.17
28P	-118.15	-3230.95	-2133.08	-3407.45	1355.36	-2413.96	-282.81
28X	80.68	3300.73	-2058.78	3368.37	1320.16	2425.13	-268.59
28XY	82.43	-3376.53	-1979.18	-3289.22	1245.36	-2423.91	-266.85
28Y	-117.46	3307.73	-2073.82	3326.51	1266.08	2412.45	-293.72
29P	-118.15	3407.45	-1355.34	2205.41	1899.19	2078.84	201.42
29X	80.67	-3368.37	-1320.15	-2365.94	1713.02	-2123.82	145.51
29XY	82.43	3289.22	-1245.35	2095.38	1981.15	1994.30	272.52
29Y	-117.45	-3326.51	-1266.07	-1934.03	2171.25	-1948.35	335.25
30P	-118.15	-2205.41	-1899.18	-1881.51	3184.78	-720.16	226.54
30X	80.67	2365.94	-1713.01	2023.02	3346.97	773.38	287.92
30XY	82.43	-2095.38	-1981.14	-1728.68	3047.14	-673.84	187.84
30Y	-117.45	1934.03	-2171.24	1580.27	2885.58	619.26	125.88
31P	-272.94	-3582.40	888.09	561.36	-2031.49	-470.70	-178.15
31X	238.49	-3797.15	-908.87	341.56	2051.76	-538.40	178.07
31XY	239.56	3377.01	-904.74	-622.41	2051.40	429.18	178.66
31Y	-272.50	3157.83	889.63	-846.48	-2037.51	360.12	-178.85
32P	-272.93	-561.36	2031.49	956.86	-425.00	64.96	263.86
32X	238.49	-341.55	-2051.76	935.33	382.76	97.52	-274.13
32XY	239.56	622.40	-2051.39	-817.77	385.10	-32.09	-273.68

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

32Y	-272.49	846.48	2037.51	-830.13	-410.44	2.69	267.24
33P	-272.93	-956.86	425.00	889.97	-579.94	-10.99	-25.45
33X	238.49	-935.33	-382.76	922.12	703.37	-2.17	52.66
33XY	239.55	817.77	-385.10	-976.28	691.79	-26.03	50.37
33Y	-272.49	830.12	410.44	-917.04	-577.67	-14.28	-27.47
34P	-272.93	-889.97	579.94	-703.60	-70.14	-261.74	83.73
34X	238.48	-922.11	-703.37	-588.90	119.51	-248.18	-95.90
34XY	239.55	976.27	-691.79	591.37	119.42	257.48	-94.01
34Y	-272.49	917.04	577.67	659.45	-120.64	258.93	75.07
35P	-272.93	703.61	70.14	2370.90	-989.90	504.97	-151.07
35X	238.48	588.91	-119.50	2039.40	981.94	431.69	141.65
35XY	239.55	-591.37	-119.42	-1958.40	985.23	-418.79	142.21
35Y	-272.49	-659.45	120.64	-2238.32	-957.55	-475.95	-137.46
36P	-272.93	-2370.90	989.90	-1637.89	21.66	-658.42	166.14
36X	238.48	-2039.40	-981.94	-1509.77	-62.05	-582.93	-171.47
36XY	239.55	1958.40	-985.23	1387.76	-63.48	549.59	-172.25
36Y	-272.49	2238.32	957.55	1489.07	13.59	612.21	159.50
37P	-272.92	1637.89	-21.67	2615.61	-385.51	698.62	-66.88
37X	238.48	1509.77	62.05	2518.21	466.23	661.58	86.77
37XY	239.55	-1387.76	63.48	-2435.85	440.41	-628.01	82.76
37Y	-272.48	-1489.07	-13.59	-2512.69	-379.71	-657.27	-64.60
38P	-272.92	-2615.61	385.51	-2040.81	-289.26	-764.80	15.81
38X	238.48	-2518.20	-466.23	-1978.91	152.65	-738.63	-51.50
38XY	239.55	2435.85	-440.41	2526.09	189.50	814.98	-41.21
38Y	-272.48	2512.69	379.71	2600.89	-277.90	839.88	16.72
39P	-272.92	2040.81	289.26	1888.59	-2431.68	645.39	-351.88
39X	238.48	1978.91	-152.65	1870.83	2543.27	632.30	392.65
39XY	239.55	-2526.09	-189.49	-5634.15	2525.36	-1340.28	383.65
39Y	-272.48	-2600.89	277.90	-5667.79	-2465.00	-1358.09	-359.22
40P	-272.92	-1888.59	2431.68	1196.24	3014.17	-113.71	894.46
40X	238.48	-1870.83	-2543.27	1191.58	-3028.49	-111.56	-915.14
40XY	239.55	5634.15	-2525.36	6676.82	-3032.51	2022.02	-912.85
40Y	-272.48	5667.79	2465.00	6667.62	3012.78	2026.03	899.70
41P	-272.92	-1196.24	-3014.17	-2118.60	-3471.51	-563.22	-1101.98
41X	238.48	-1191.58	3028.49	-2110.60	3335.46	-561.07	1081.29
41XY	239.55	-6676.82	3032.51	-7226.77	3344.88	-2362.35	1083.58
41Y	-272.48	-6667.62	-3012.78	-7212.34	-3442.03	-2358.33	-1096.73

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 2 "LC2 WIND 45° C.D."

Equilibrium Joint Positions and Rotations for Load Case "LC2 WIND 45° C.D.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	1.541	1.525	-0.04836	-1.3689	1.4042	0.2060	2.191	2.175	150.9
10P	1.09	1.083	-0.0428	-1.3396	1.3122	0.2060	1.74	1.733	131.6
11P	0.9829	0.9786	-0.06677	-1.4581	1.4359	0.1901	2.123	2.119	127.5
19P	0.5799	0.5783	-0.04953	-0.9753	0.9728	0.0628	1.72	1.718	108.6
20P	0.5013	0.5011	-0.07503	-0.6846	0.6820	0.0429	2.953	2.953	102.1
32P	0.1364	0.1366	-0.04001	-0.3471	0.3465	0.0175	2.588	2.589	66.08
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	1.59	1.525	-0.01767	-1.3532	1.7768	0.6110	2.24	0.8747	150.9
1XY	1.59	1.564	0.022	-1.6918	1.7358	0.3165	0.94	0.9144	150.9
1Y	1.541	1.564	-0.01679	-1.7394	1.3900	-0.0921	0.891	2.214	150.9
10X	1.016	1.084	-0.01691	-1.3172	1.4169	0.6111	1.666	0.4336	131.6
10XY	1.017	1.004	0.01762	-1.3524	1.4659	0.3166	0.3665	0.3539	131.6
10Y	1.09	1.004	-0.01633	-1.3153	1.2774	-0.0922	0.4404	1.654	131.6
11X	0.9419	0.9785	-0.01296	-1.5246	1.1633	0.5835	2.082	-0.1615	127.6
11XY	0.9424	0.9302	0.03418	-1.0131	1.1003	0.2901	-0.1976	-0.2098	127.6
11Y	0.9828	0.9298	-0.01207	-1.0925	1.4885	-0.1068	-0.1572	2.07	127.6
19X	0.5973	0.5792	-0.01202	-0.9125	0.8217	0.3898	1.737	-0.5608	108.6
19XY	0.5972	0.5927	0.02039	-0.8524	0.8718	0.0916	-0.5428	-0.5473	108.6
19Y	0.5807	0.5928	-0.01167	-0.8014	0.9107	-0.2359	-0.5593	1.733	108.6
20X	0.5112	0.5	-0.01315	-0.7226	0.7889	0.3301	2.963	-1.952	102.2
20XY	0.5128	0.508	0.05039	-0.7302	0.7462	0.0609	-1.939	-1.944	102.3
20Y	0.5003	0.5064	-0.01269	-0.7752	0.7176	-0.2265	-1.952	2.958	102.2
32X	0.1352	0.1367	-0.01007	-0.3571	0.3658	0.1997	2.587	-2.315	66.11
32XY	0.1366	0.1356	0.02078	-0.3508	0.3555	0.0246	-2.315	-2.316	66.15
32Y	0.1366	0.1342	-0.009919	-0.3615	0.3561	-0.1579	-2.315	2.586	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	1.462	1.448	-0.04822	-1.3589	1.3937	0.2060	2.112	2.098	147.7
3S	1.402	1.389	-0.04798	-1.3465	1.3798	0.2060	2.052	2.039	145.2
4S	1.342	1.33	-0.04749	-1.3493	1.3798	0.2060	1.992	1.98	142.7
5S	1.282	1.272	-0.04674	-1.3136	1.3396	0.2060	1.932	1.922	140.2
6S	1.224	1.215	-0.04591	-1.2928	1.3182	0.2060	1.874	1.865	137.7
7S	1.167	1.159	-0.04479	-1.2503	1.2683	0.2060	1.817	1.809	135.2
8S	1.124	1.117	-0.04377	-1.1822	1.2158	0.2060	1.774	1.767	133.2
12S	0.9134	0.9099	-0.06535	-1.3389	1.3624	0.1678	2.053	2.05	124.6
13S	0.8543	0.8514	-0.06379	-1.3015	1.3151	0.1486	1.994	1.991	122.1
14S	0.7988	0.7964	-0.06143	-1.2710	1.2741	0.1256	1.939	1.936	119.6
15S	0.7436	0.7415	-0.05859	-1.1686	1.1973	0.1025	1.884	1.881	117.1
16S	0.6936	0.6918	-0.05616	-1.1411	1.1414	0.0894	1.834	1.832	114.6
17S	0.6444	0.6427	-0.05333	-1.0563	1.0601	0.0762	1.784	1.783	112.1
18S	0.6084	0.6068	-0.05129	-1.0412	1.0431	0.0687	1.748	1.747	110.1
21S	0.4648	0.4647	-0.07255	-0.7494	0.7525	0.0388	2.917	2.917	99.33
22S	0.4301	0.43	-0.06988	-0.6806	0.6820	0.0348	2.882	2.882	96.53
23S	0.3981	0.3981	-0.06745	-0.6787	0.6799	0.0322	2.85	2.85	93.83
24S	0.3665	0.3666	-0.0648	-0.6419	0.6427	0.0296	2.819	2.819	91.14
25S	0.3358	0.3359	-0.06274	-0.6271	0.6277	0.0282	2.788	2.788	88.34
26S	0.3054	0.3055	-0.06048	-0.6007	0.6011	0.0267	2.757	2.757	85.54
27S	0.2769	0.277	-0.05809	-0.5801	0.5803	0.0254	2.729	2.729	82.74

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	Project	Date
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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28S	0.2488	0.2489	-0.05549	-0.5516	0.5515	0.0240	2.701	2.701	79.94
29S	0.2235	0.2236	-0.05272	-0.5224	0.5224	0.0227	2.675	2.676	77.2
30S	0.1988	0.1989	-0.04974	-0.4859	0.4858	0.0214	2.651	2.651	74.45
31S	0.1773	0.1775	-0.04657	-0.4411	0.4415	0.0201	2.629	2.629	71.75
33S	0.1048	0.1052	-0.04023	-0.2380	0.2347	0.0154	3.328	3.328	59.76
34S	0.08099	0.08134	-0.03904	-0.2011	0.1976	0.0138	4.035	4.035	53.76
35S	0.06183	0.0622	-0.03701	-0.1530	0.1504	0.0123	4.747	4.747	47.76
36S	0.04611	0.04653	-0.03422	-0.1481	0.1459	0.0107	5.462	5.463	41.77
37S	0.03079	0.03121	-0.0315	-0.1059	0.1032	0.0090	6.178	6.179	35.77
371S	0.03094	0.03174	-0.01964	0.0000	0.0000	0.0000	6.178	0.03174	35.78
372S	0.03132	0.03092	-0.01957	0.0000	0.0000	0.0000	0.03132	6.178	35.78
373S	0.03211	0.03116	0.006375	0.0000	0.0000	0.0000	-6.115	0.03116	35.81
374S	0.03162	0.0321	0.006318	0.0000	0.0000	0.0000	0.03162	-6.115	35.81
38S	0.02192	0.02224	-0.02717	-0.0868	0.0842	0.0074	6.9	6.901	29.77
39S	0.01164	0.01191	-0.02299	-0.0604	0.0584	0.0058	7.621	7.622	23.78
391S	0.01176	0.01258	-0.01503	0.0000	0.0000	0.0000	7.621	0.01258	23.78
392S	0.01231	0.01177	-0.015	0.0000	0.0000	0.0000	0.01231	7.622	23.79
393S	0.01323	0.0123	0.005007	0.0000	0.0000	0.0000	-7.597	0.0123	23.81
394S	0.01254	0.01323	0.004952	0.0000	0.0000	0.0000	0.01254	-7.596	23.8
40S	0.007472	0.007683	-0.01727	-0.0474	0.0461	0.0043	8.348	8.349	17.78
41S	0.0004129	0.0005966	-0.01276	-0.0397	0.0384	0.0028	9.072	9.073	11.79
411S	0.0004229	0.00136	-0.004929	0.0000	0.0000	0.0000	9.072	0.00136	11.8
412S	0.001176	0.0004545	-0.004905	0.0000	0.0000	0.0000	0.001176	9.073	11.8
413S	0.002174	0.001165	-0.0003486	0.0000	0.0000	0.0000	-9.07	0.001165	11.8
414S	0.001284	0.002207	-0.0003569	0.0000	0.0000	0.0000	0.001284	-9.07	11.8
42S	-0.0004223	-0.0003472	-0.006686	0.0166	-0.0181	0.0014	9.803	9.803	5.793
2X	1.491	1.449	-0.0176	-1.3610	1.7443	0.6110	2.141	0.7987	147.7
2XY	1.492	1.469	0.02198	-1.7271	1.7662	0.3165	0.8421	0.8189	147.7
2Y	1.463	1.468	-0.01674	-1.7015	1.3951	-0.0921	0.813	2.118	147.7
3X	1.415	1.389	-0.01755	-1.3670	1.7593	0.6110	2.065	0.7392	145.2
3XY	1.415	1.394	0.02185	-1.7033	1.7444	0.3165	0.765	0.7435	145.2
3Y	1.402	1.393	-0.01672	-1.7202	1.3990	-0.0922	0.752	2.043	145.2
4X	1.338	1.33	-0.01747	-1.3362	1.7311	0.6110	1.988	0.68	142.7
4XY	1.34	1.32	0.02153	-1.7078	1.7452	0.3165	0.6896	0.6699	142.7
4Y	1.341	1.318	-0.01667	-1.6909	1.3684	-0.0922	0.6914	1.968	142.7
5X	1.263	1.272	-0.01736	-1.3453	1.7452	0.6111	1.913	0.622	140.2
5XY	1.263	1.245	0.02098	-1.6557	1.7019	0.3166	0.6134	0.5953	140.2
5Y	1.282	1.245	-0.01661	-1.7083	1.3669	-0.0922	0.6322	1.895	140.2
6X	1.188	1.214	-0.01726	-1.2803	1.6810	0.6111	1.838	0.564	137.7
6XY	1.19	1.174	0.02033	-1.6611	1.6943	0.3166	0.5397	0.5235	137.7
6Y	1.223	1.171	-0.01655	-1.6437	1.3080	-0.0922	0.5732	1.821	137.7
7X	1.116	1.159	-0.01712	-1.2719	1.6393	0.6111	1.766	0.5094	135.2
7XY	1.116	1.102	0.01939	-1.5786	1.6250	0.3166	0.4664	0.4516	135.2
7Y	1.168	1.101	-0.01647	-1.5987	1.2854	-0.0922	0.5175	1.751	135.2
8X	1.059	1.116	-0.017	-1.1648	1.6256	0.6111	1.709	0.4658	133.2
8XY	1.06	1.047	0.01849	-1.6258	1.6338	0.3166	0.4102	0.3968	133.2
8Y	1.123	1.045	-0.01638	-1.6118	1.2048	-0.0922	0.4733	1.695	133.2
12X	0.8809	0.9088	-0.01277	-1.3064	1.1813	0.5496	2.021	-0.2312	124.7
12XY	0.8827	0.872	0.033	-1.1993	1.2096	0.2554	-0.2573	-0.268	124.7
12Y	0.9124	0.87	-0.01193	-1.1637	1.3351	-0.1294	-0.2276	2.01	124.7
13X	0.8313	0.8516	-0.0126	-1.3293	1.1358	0.5203	1.971	-0.2884	122.2
13XY	0.8316	0.822	0.03171	-1.0874	1.1195	0.2253	-0.3084	-0.318	122.2
13Y	0.8545	0.8217	-0.01183	-1.1086	1.3375	-0.1489	-0.2855	1.962	122.2
14X	0.7817	0.7942	-0.0124	-1.2558	1.0848	0.4852	1.922	-0.3458	119.7
14XY	0.7843	0.7759	0.02979	-1.0716	1.0906	0.1894	-0.3557	-0.3641	119.7
14Y	0.7967	0.7731	-0.01171	-1.0570	1.2674	-0.1723	-0.3433	1.913	119.7
15X	0.7367	0.7416	-0.01222	-1.2077	1.0297	0.4502	1.877	-0.3984	117.2
15XY	0.7371	0.7296	0.02751	-0.9724	1.0161	0.1535	-0.4029	-0.4104	117.2

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

15Y	0.7438	0.7293	-0.01164	-1.0163	1.2061	-0.1956	-0.3962	1.869	117.2
16X	0.6921	0.6898	-0.01212	-1.1283	0.9670	0.4302	1.832	-0.4502	114.7
16XY	0.6948	0.6883	0.02559	-0.9565	0.9709	0.1330	-0.4452	-0.4517	114.7
16Y	0.6917	0.6856	-0.01161	-0.9455	1.1364	-0.2090	-0.4483	1.826	114.7
17X	0.6521	0.6428	-0.01206	-1.0736	0.9198	0.4101	1.792	-0.4972	112.2
17XY	0.6526	0.6469	0.02336	-0.8919	0.9117	0.1125	-0.4874	-0.4931	112.2
17Y	0.6445	0.6464	-0.01163	-0.9012	1.0760	-0.2223	-0.4955	1.786	112.2
18X	0.6202	0.6057	-0.01203	-1.0166	0.8686	0.3988	1.76	-0.5343	110.2
18XY	0.6218	0.6168	0.02177	-0.8677	0.8842	0.1008	-0.5182	-0.5232	110.2
18Y	0.6073	0.6152	-0.01164	-0.8514	1.0194	-0.2299	-0.5327	1.755	110.2
21X	0.4744	0.4647	-0.01292	-0.7159	0.7308	0.3093	2.926	-1.987	99.39
21XY	0.4755	0.4712	0.04845	-0.7539	0.7596	0.0551	-1.976	-1.981	99.45
21Y	0.4649	0.4701	-0.0125	-0.7241	0.7199	-0.2156	-1.987	2.922	99.39
22X	0.4389	0.4302	-0.01268	-0.7036	0.7277	0.2886	2.891	-2.022	96.59
22XY	0.4396	0.4356	0.04631	-0.7002	0.7081	0.0493	-2.012	-2.016	96.65
22Y	0.4302	0.4349	-0.0123	-0.7201	0.7046	-0.2047	-2.022	2.887	96.59
23X	0.4051	0.3975	-0.01245	-0.6681	0.6907	0.2754	2.857	-2.054	93.89
23XY	0.4066	0.403	0.04433	-0.6933	0.7002	0.0457	-2.045	-2.049	93.94
23Y	0.3975	0.4015	-0.0121	-0.6836	0.6694	-0.1977	-2.054	2.853	93.89
24X	0.3735	0.3669	-0.01221	-0.6488	0.6721	0.2621	2.825	-2.085	91.19
24XY	0.3741	0.3708	0.04214	-0.6555	0.6623	0.0420	-2.078	-2.081	91.24
24Y	0.3669	0.3702	-0.01188	-0.6653	0.6496	-0.1908	-2.085	2.822	91.19
25X	0.3409	0.3355	-0.01202	-0.6243	0.6454	0.2547	2.793	-2.117	88.39
25XY	0.3424	0.3394	0.04041	-0.6423	0.6488	0.0399	-2.11	-2.113	88.44
25Y	0.3354	0.3379	-0.01172	-0.6389	0.6250	-0.1869	-2.117	2.79	88.39
26X	0.3103	0.3058	-0.01182	-0.6054	0.6260	0.2473	2.762	-2.146	85.59
26XY	0.3109	0.3082	0.0385	-0.6154	0.6217	0.0378	-2.141	-2.144	85.64
26Y	0.3057	0.3076	-0.01154	-0.6197	0.6057	-0.1829	-2.146	2.76	85.59
27X	0.2799	0.2765	-0.01161	-0.5779	0.5982	0.2403	2.732	-2.176	82.79
27XY	0.2815	0.2791	0.03647	-0.5939	0.5999	0.0359	-2.171	-2.173	82.84
27Y	0.2763	0.2775	-0.01134	-0.5922	0.5781	-0.1793	-2.176	2.729	82.79
28X	0.2517	0.2492	-0.01138	-0.5567	0.5751	0.2333	2.704	-2.203	79.99
28XY	0.2523	0.2503	0.03424	-0.5655	0.5714	0.0340	-2.2	-2.202	80.03
28Y	0.2491	0.2497	-0.01114	-0.5692	0.5565	-0.1756	-2.203	2.702	79.99
29X	0.2244	0.2228	-0.01114	-0.5204	0.5389	0.2265	2.676	-2.229	77.24
29XY	0.2261	0.2243	0.03185	-0.5343	0.5395	0.0321	-2.226	-2.228	77.28
29Y	0.2227	0.2225	-0.01092	-0.5336	0.5204	-0.1720	-2.229	2.675	77.24
30X	0.2	0.1992	-0.01089	-0.4870	0.5018	0.2197	2.652	-2.253	74.49
30XY	0.2006	0.199	0.02926	-0.4988	0.5036	0.0301	-2.251	-2.253	74.53
30Y	0.1991	0.1984	-0.01069	-0.4969	0.4869	-0.1684	-2.253	2.65	74.49
31X	0.1764	0.1763	-0.01063	-0.4647	0.4810	0.2130	2.628	-2.276	71.79
31XY	0.1784	0.177	0.0265	-0.4513	0.4553	0.0283	-2.274	-2.275	71.83
31Y	0.1762	0.175	-0.01045	-0.4771	0.4650	-0.1649	-2.276	2.627	71.79
33X	0.1018	0.1035	-0.009427	-0.2798	0.2789	0.1916	3.325	-3.119	59.79
33XY	0.1045	0.1036	0.02216	-0.2352	0.2424	0.0218	-3.118	-3.119	59.82
33Y	0.1032	0.1008	-0.009278	-0.2728	0.2756	-0.1546	-3.12	3.324	59.79
34X	0.07897	0.08101	-0.008759	-0.2131	0.2137	0.1810	4.033	-3.873	53.79
34XY	0.0808	0.08006	0.02211	-0.1952	0.2014	0.0196	-3.873	-3.874	53.82
34Y	0.08065	0.07821	-0.008615	-0.2078	0.2087	-0.1479	-3.873	4.032	53.79
35X	0.06027	0.06233	-0.008021	-0.1841	0.1814	0.1617	4.745	-4.623	47.79
35XY	0.0618	0.06118	0.02135	-0.1474	0.1526	0.0174	-4.623	-4.624	47.82
35Y	0.06201	0.05969	-0.007883	-0.1770	0.1810	-0.1323	-4.623	4.745	47.79
36X	0.04466	0.04648	-0.007209	-0.1626	0.1566	0.1407	5.461	-5.37	41.79
36XY	0.04672	0.04618	0.01989	-0.1373	0.1417	0.0152	-5.37	-5.37	41.82
36Y	0.04604	0.04409	-0.007071	-0.1531	0.1603	-0.1149	-5.37	5.46	41.79
37X	0.03108	0.03241	-0.006336	-0.1312	0.1262	0.1215	6.178	-6.115	35.79
37XY	0.03228	0.03182	0.01865	-0.0998	0.1040	0.0129	-6.115	-6.116	35.82
37Y	0.03197	0.03062	-0.006205	-0.1223	0.1277	-0.0999	-6.115	6.178	35.79

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

38X	0.02094	0.02224	-0.005467	-0.1017	0.1011	0.1015	6.9	-6.856	29.79
38XY	0.02338	0.02305	0.0161	-0.0847	0.0883	0.0106	-6.855	-6.856	29.82
38Y	0.02192	0.0206	-0.005363	-0.0978	0.0984	-0.0837	-6.857	6.899	29.79
39X	0.01185	0.01336	-0.004526	-0.0878	0.0880	0.0781	7.622	-7.596	23.8
39XY	0.01335	0.0131	0.01383	-0.0579	0.0608	0.0083	-7.596	-7.597	23.81
39Y	0.01312	0.01162	-0.004441	-0.0857	0.0857	-0.0640	-7.597	7.621	23.8
40X	0.004715	0.006115	-0.003496	-0.0729	0.0624	0.0563	8.346	-8.335	17.8
40XY	0.008841	0.008676	0.01026	-0.0574	0.0595	0.0061	-8.332	-8.332	17.81
40Y	0.005887	0.004517	-0.003423	-0.0608	0.0716	-0.0460	-8.335	8.345	17.8
41X	0.0004593	0.002338	-0.002513	0.0140	0.0232	0.0482	9.073	-9.07	11.8
41XY	0.002255	0.002136	0.007739	0.0001	0.0014	0.0041	-9.07	-9.07	11.81
41Y	0.002133	0.0003283	-0.002452	-0.0216	-0.0156	-0.0413	-9.07	9.072	11.8
42X	0.0002104	0.000681	-0.001901	-0.0248	-0.0004	0.0228	9.803	-9.797	5.798
42XY	0.005443	0.005399	0.002879	-0.0062	0.0074	0.0021	-9.798	-9.798	5.803
42Y	0.005998	0.000166	-0.00187	0.0015	0.0231	-0.0194	-9.797	9.803	5.798

Joint Support Reactions for Load Case "LC2 WIND 45° C.D.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X-M. Moment (kN-m)	X-M. Usage %	Y-M. Moment (kN-m)	Y-M. Usage %	Z-M. Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-350.89	0.0	-353.92	0.0	2337.62	0.0	0.0	2390.16	0.0	-0.70	0.0	0.8	0.0	-0.02	0.0	0.0
ANX	-38.67	0.0	75.48	0.0	417.54	0.0	0.0	426.07	0.0	6.79	0.0	-0.2	0.0	0.43	0.0	0.0
ANXY	-236.24	0.0	-234.57	0.0	-1491.85	0.0	0.0	1528.55	0.0	5.85	0.0	-5.9	0.0	-0.03	0.0	0.0
ANY	76.89	0.0	-35.91	0.0	409.71	0.0	0.0	418.40	0.0	0.14	0.0	-6.7	0.0	-0.48	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC2 WIND 45° C.D.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.5050	1.5050	-4.3420	-1.5035	-1.5035	4.3419	1.5409	1.5246	-0.0484
10P	5.3651	5.3651	-7.7672	-5.3640	-5.3640	7.7672	1.0901	1.0832	-0.0428
11P	5.7563	5.7563	-8.9408	-5.7553	-5.7553	8.9407	0.9829	0.9786	-0.0668
19P	2.8751	2.8751	-8.3939	-2.8746	-2.8746	8.3938	0.5799	0.5783	-0.0495
20P	4.2012	4.2012	-10.9986	-4.2007	-4.2007	10.9985	0.5013	0.5011	-0.0750
32P	4.9498	4.9498	-19.1604	-4.9496	-4.9496	19.1603	0.1364	0.1366	-0.0400
ANP	1.3181	1.3181	-8.4103	349.5693	352.5991	-2329.2142	0.0000	0.0000	0.0000
1X	1.5050	1.5050	-4.3420	-1.5034	-1.5035	4.3420	1.5898	1.5247	-0.0177
1XY	1.5050	1.5050	-4.3420	-1.5034	-1.5035	4.3420	1.5900	1.5644	0.0220
1Y	0.6830	0.6830	-2.5480	-0.6815	-0.6815	2.5480	1.5410	1.5643	-0.0168
10X	5.3651	5.3651	-7.7672	-5.3641	-5.3640	7.7672	1.0164	1.0836	-0.0169
10XY	2.4741	2.4741	-5.1932	-2.4731	-2.4731	5.1932	1.0165	1.0039	0.0176
10Y	1.6521	1.6521	-3.3992	-1.6510	-1.6511	3.3992	1.0904	1.0038	-0.0163
11X	5.7563	5.7563	-8.9408	-5.7553	-5.7553	8.9408	0.9419	0.9785	-0.0130
11XY	2.0433	2.0433	-4.5728	-2.0423	-2.0423	4.5728	0.9424	0.9302	0.0342
11Y	2.0433	2.0433	-4.5728	-2.0423	-2.0423	4.5728	0.9828	0.9298	-0.0121
19X	2.8751	2.8751	-8.3939	-2.8745	-2.8746	8.3938	0.5973	0.5792	-0.0120
19XY	2.8751	2.8751	-8.3939	-2.8745	-2.8745	8.3939	0.5972	0.5927	0.0204
19Y	2.8751	2.8751	-8.3939	-2.8746	-2.8745	8.3938	0.5807	0.5928	-0.0117
20X	4.2012	4.2012	-10.9986	-4.2007	-4.2007	10.9986	0.5112	0.5000	-0.0131
20XY	3.7912	3.7912	-9.9846	-3.7907	-3.7907	9.9847	0.5128	0.5080	0.0504
20Y	3.7912	3.7912	-9.9846	-3.7907	-3.7907	9.9846	0.5003	0.5064	-0.0127
32X	4.9498	4.9498	-19.1604	-4.9496	-4.9496	19.1604	0.1352	0.1367	-0.0101
32XY	4.9498	4.9498	-19.1604	-4.9496	-4.9496	19.1604	0.1366	0.1356	0.0208

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

32Y	4.9498	4.9498	-19.1604	-4.9496	-4.9496	19.1604	0.1366	0.1342	-0.0099
ANX	1.3181	1.3181	-8.4103	37.3567	-76.7946	-409.1322	0.0000	0.0000	0.0000
ANXY	1.3181	1.3181	-8.4103	234.9244	233.2514	1500.2645	0.0000	0.0000	0.0000
ANY	1.3181	1.3181	-8.4103	-78.2053	34.5900	-401.2967	0.0000	0.0000	0.0000
2S	1.5050	1.5050	-3.0420	-1.5036	-1.5036	3.0419	1.4624	1.4480	-0.0482
3S	1.2885	1.2885	-2.4191	-1.2871	-1.2871	2.4190	1.4019	1.3890	-0.0480
4S	1.4275	1.4275	-2.9651	-1.4261	-1.4261	2.9651	1.3418	1.3303	-0.0475
5S	1.3605	1.3605	-2.5634	-1.3592	-1.3592	2.5633	1.2821	1.2718	-0.0467
6S	0.7550	0.7550	-1.3922	-0.7538	-0.7538	1.3922	1.2242	1.2150	-0.0459
7S	1.3228	1.3228	-2.4131	-1.3217	-1.3217	2.4130	1.1674	1.1593	-0.0448
8S	0.5678	0.5678	-1.0208	-0.5667	-0.5667	1.0208	1.1241	1.1167	-0.0438
12S	4.6719	4.6719	-6.5624	-4.6710	-4.6710	6.5623	0.9134	0.9099	-0.0653
13S	5.5312	5.5312	-8.5871	-5.5304	-5.5304	8.5870	0.8543	0.8514	-0.0638
14S	4.9823	4.9823	-7.4067	-4.9815	-4.9815	7.4066	0.7988	0.7964	-0.0614
15S	2.1762	2.1762	-5.5382	-2.1754	-2.1754	5.5381	0.7436	0.7415	-0.0586
16S	0.9069	0.9069	-2.4995	-0.9062	-0.9062	2.4994	0.6936	0.6918	-0.0562
17S	1.9806	1.9806	-5.5551	-1.9799	-1.9799	5.5550	0.6444	0.6427	-0.0533
18S	1.0737	1.0737	-3.0556	-1.0731	-1.0731	3.0555	0.6084	0.6068	-0.0513
21S	1.5798	1.5798	-3.6324	-1.5793	-1.5793	3.6323	0.4648	0.4647	-0.0726
22S	6.5438	6.5438	-9.8553	-6.5433	-6.5433	9.8552	0.4301	0.4300	-0.0699
23S	4.9640	4.9640	-6.2229	-4.9636	-4.9636	6.2228	0.3981	0.3981	-0.0675
24S	3.4068	3.4068	-8.6355	-3.4064	-3.4064	8.6354	0.3665	0.3666	-0.0648
25S	1.7518	1.7518	-4.7526	-1.7515	-1.7515	4.7525	0.3358	0.3359	-0.0627
26S	3.4712	3.4712	-9.5902	-3.4709	-3.4708	9.5901	0.3054	0.3055	-0.0605
27S	1.7194	1.7194	-4.8376	-1.7191	-1.7191	4.8376	0.2769	0.2770	-0.0581
28S	3.3866	3.3866	-9.7834	-3.3864	-3.3864	9.7834	0.2488	0.2489	-0.0555
29S	1.8563	1.8563	-5.2708	-1.8561	-1.8561	5.2708	0.2235	0.2236	-0.0527
30S	3.0079	3.0079	-8.9934	-3.0077	-3.0077	8.9934	0.1988	0.1989	-0.0497
31S	3.6585	3.6585	-12.8889	-3.6583	-3.6583	12.8889	0.1773	0.1775	-0.0466
33S	5.1206	5.1206	-18.3072	-5.1205	-5.1205	18.3071	0.1048	0.1052	-0.0402
34S	5.2129	5.2129	-17.0915	-5.2128	-5.2128	17.0914	0.0810	0.0813	-0.0390
35S	14.9451	14.9451	-25.3364	-14.9451	-14.9451	25.3363	0.0618	0.0622	-0.0370
36S	13.8981	13.8981	-23.5680	-13.8981	-13.8981	23.5679	0.0461	0.0465	-0.0342
37S	3.4928	3.4928	-14.0815	-3.4927	-3.4927	14.0814	0.0308	0.0312	-0.0315
371S	3.4928	3.4928	-14.0815	-3.4927	-3.4927	14.0814	0.0309	0.0317	-0.0196
372S	3.4928	3.4928	-14.0815	-3.4927	-3.4927	14.0814	0.0313	0.0309	-0.0196
373S	3.4928	3.4928	-14.0815	-3.4927	-3.4927	14.0815	0.0321	0.0312	0.0064
374S	3.4928	3.4928	-14.0815	-3.4927	-3.4927	14.0815	0.0316	0.0321	0.0063
38S	3.5971	3.5971	-15.2207	-3.5971	-3.5971	15.2207	0.0219	0.0222	-0.0272
39S	3.5581	3.5581	-15.7773	-3.5581	-3.5581	15.7773	0.0116	0.0119	-0.0230
391S	3.5581	3.5581	-15.7773	-3.5581	-3.5581	15.7773	0.0118	0.0126	-0.0150
392S	3.5581	3.5581	-15.7773	-3.5581	-3.5581	15.7773	0.0123	0.0118	-0.0150
393S	3.5581	3.5581	-15.7773	-3.5581	-3.5581	15.7773	0.0132	0.0123	0.0050
394S	3.5581	3.5581	-15.7773	-3.5581	-3.5581	15.7773	0.0125	0.0132	0.0050
40S	7.6120	7.6120	-21.9241	-7.6120	-7.6120	21.9241	0.0075	0.0077	-0.0173
41S	6.5654	6.5654	-20.4420	-6.5654	-6.5654	20.4420	0.0004	0.0006	-0.0128
411S	2.9866	2.9866	-19.1703	-2.9866	-2.9866	19.1703	0.0004	0.0014	-0.0049
412S	2.9866	2.9866	-19.1703	-2.9866	-2.9866	19.1703	0.0012	0.0005	-0.0049
413S	2.9866	2.9866	-19.1703	-2.9866	-2.9866	19.1703	0.0022	0.0012	-0.0003
414S	2.9866	2.9866	-19.1703	-2.9866	-2.9866	19.1703	0.0013	0.0022	-0.0004
42S	2.0481	2.0481	-14.2313	-2.0481	-2.0481	14.2313	-0.0004	-0.0003	-0.0067
2X	1.5050	1.5050	-3.0420	-1.5035	-1.5035	3.0420	1.4909	1.4487	-0.0176
2XY	1.5050	1.5050	-3.0420	-1.5035	-1.5035	3.0420	1.4921	1.4689	0.0220
2Y	0.6830	0.6830	-1.2480	-0.6816	-0.6816	1.2480	1.4630	1.4675	-0.0167
3X	1.2885	1.2885	-2.4191	-1.2871	-1.2871	2.4191	1.4149	1.3892	-0.0176
3XY	1.2885	1.2885	-2.4191	-1.2871	-1.2871	2.4191	1.4150	1.3935	0.0218
3Y	1.2885	1.2885	-2.4191	-1.2871	-1.2871	2.4191	1.4020	1.3934	-0.0167
4X	1.4275	1.4275	-2.9651	-1.4261	-1.4261	2.9651	1.3380	1.3300	-0.0175

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

4XY	1.4275	1.4275	-2.9651	-1.4261	-1.4261	2.9651	1.3396	1.3199	0.0215
4Y	0.6055	0.6055	-1.1711	-0.6041	-0.6041	1.1711	1.3414	1.3181	-0.0167
5X	2.1825	2.1825	-4.3574	-2.1812	-2.1812	4.3573	1.2632	1.2720	-0.0174
5XY	2.1825	2.1825	-4.3574	-2.1812	-2.1813	4.3574	1.2634	1.2453	0.0210
5Y	1.3605	1.3605	-2.5634	-1.3592	-1.3593	2.5633	1.2822	1.2452	-0.0166
6X	1.5770	1.5770	-3.1862	-1.5759	-1.5758	3.1862	1.1875	1.2140	-0.0173
6XY	1.5770	1.5770	-3.1862	-1.5759	-1.5759	3.1863	1.1897	1.1735	0.0203
6Y	0.7550	0.7550	-1.3922	-0.7538	-0.7539	1.3922	1.2232	1.1711	-0.0165
7X	1.3228	1.3228	-2.4131	-1.3217	-1.3217	2.4130	1.1162	1.1594	-0.0171
7XY	1.3228	1.3228	-2.4131	-1.3217	-1.3217	2.4131	1.1164	1.1016	0.0194
7Y	1.3228	1.3228	-2.4131	-1.3217	-1.3217	2.4130	1.1675	1.1015	-0.0165
8X	1.3898	1.3898	-2.8148	-1.3887	-1.3887	2.8148	1.0588	1.1158	-0.0170
8XY	1.3898	1.3898	-2.8148	-1.3887	-1.3887	2.8148	1.0602	1.0468	0.0185
8Y	0.5678	0.5678	-1.0208	-0.5667	-0.5667	1.0208	1.1233	1.0452	-0.0164
12X	4.6719	4.6719	-6.5624	-4.6711	-4.6710	6.5624	0.8809	0.9088	-0.0128
12XY	0.9589	0.9589	-2.1944	-0.9581	-0.9581	2.1944	0.8827	0.8720	0.0330
12Y	0.9589	0.9589	-2.1944	-0.9580	-0.9581	2.1944	0.9124	0.8700	-0.0119
13X	5.5312	5.5312	-8.5871	-5.5304	-5.5304	8.5870	0.8313	0.8516	-0.0126
13XY	1.8182	1.8182	-4.2191	-1.8174	-1.8174	4.2191	0.8316	0.8220	0.0317
13Y	1.8182	1.8182	-4.2191	-1.8174	-1.8174	4.2190	0.8545	0.8217	-0.0118
14X	4.9823	4.9823	-7.4067	-4.9815	-4.9815	7.4067	0.7817	0.7942	-0.0124
14XY	0.8593	0.8593	-2.0247	-0.8585	-0.8585	2.0247	0.7843	0.7759	0.0298
14Y	1.2693	1.2693	-3.0387	-1.2685	-1.2685	3.0387	0.7967	0.7731	-0.0117
15X	2.1762	2.1762	-5.5382	-2.1755	-2.1754	5.5382	0.7367	0.7416	-0.0122
15XY	1.7662	1.7662	-4.5242	-1.7655	-1.7655	4.5242	0.7371	0.7296	0.0275
15Y	2.1762	2.1762	-5.5382	-2.1754	-2.1755	5.5382	0.7438	0.7293	-0.0116
16X	0.9069	0.9069	-2.4995	-0.9062	-0.9062	2.4995	0.6921	0.6898	-0.0121
16XY	0.9069	0.9069	-2.4995	-0.9062	-0.9062	2.4995	0.6948	0.6883	0.0256
16Y	0.9069	0.9069	-2.4995	-0.9062	-0.9062	2.4995	0.6917	0.6856	-0.0116
17X	1.9806	1.9806	-5.5551	-1.9799	-1.9799	5.5551	0.6521	0.6428	-0.0121
17XY	1.5706	1.5706	-4.5411	-1.5699	-1.5699	4.5411	0.6526	0.6469	0.0234
17Y	1.9806	1.9806	-5.5551	-1.9799	-1.9799	5.5551	0.6445	0.6464	-0.0116
18X	1.0737	1.0737	-3.0556	-1.0731	-1.0731	3.0556	0.6202	0.6057	-0.0120
18XY	0.6637	0.6637	-2.0416	-0.6631	-0.6631	2.0416	0.6218	0.6168	0.0218
18Y	1.0737	1.0737	-3.0556	-1.0731	-1.0731	3.0556	0.6073	0.6152	-0.0116
21X	1.5798	1.5798	-3.6324	-1.5793	-1.5793	3.6323	0.4744	0.4647	-0.0129
21XY	1.5798	1.5798	-3.6324	-1.5793	-1.5793	3.6324	0.4755	0.4712	0.0485
21Y	1.5798	1.5798	-3.6324	-1.5793	-1.5793	3.6323	0.4649	0.4701	-0.0125
22X	3.2348	3.2348	-7.5153	-3.2343	-3.2343	7.5152	0.4389	0.4302	-0.0127
22XY	4.8898	4.8898	-8.6853	-4.8893	-4.8893	8.6853	0.4396	0.4356	0.0463
22Y	3.2348	3.2348	-7.5153	-3.2343	-3.2343	7.5152	0.4302	0.4349	-0.0123
23X	1.6550	1.6550	-3.8829	-1.6546	-1.6546	3.8829	0.4051	0.3975	-0.0125
23XY	1.6550	1.6550	-3.8829	-1.6546	-1.6546	3.8829	0.4066	0.4030	0.0443
23Y	1.6550	1.6550	-3.8829	-1.6546	-1.6546	3.8829	0.3975	0.4015	-0.0121
24X	3.4068	3.4068	-8.6355	-3.4064	-3.4064	8.6355	0.3735	0.3669	-0.0122
24XY	3.4068	3.4068	-8.6355	-3.4064	-3.4064	8.6355	0.3741	0.3708	0.0421
24Y	3.4068	3.4068	-8.6355	-3.4064	-3.4064	8.6355	0.3669	0.3702	-0.0119
25X	1.7518	1.7518	-4.7526	-1.7515	-1.7515	4.7526	0.3409	0.3355	-0.0120
25XY	1.7518	1.7518	-4.7526	-1.7515	-1.7515	4.7526	0.3424	0.3394	0.0404
25Y	1.7518	1.7518	-4.7526	-1.7515	-1.7515	4.7526	0.3354	0.3379	-0.0117
26X	3.4712	3.4712	-9.5902	-3.4708	-3.4708	9.5902	0.3103	0.3058	-0.0118
26XY	3.4712	3.4712	-9.5902	-3.4708	-3.4708	9.5902	0.3109	0.3082	0.0385
26Y	3.4712	3.4712	-9.5902	-3.4708	-3.4708	9.5902	0.3057	0.3076	-0.0115
27X	1.7194	1.7194	-4.8376	-1.7191	-1.7191	4.8376	0.2799	0.2765	-0.0116
27XY	1.7194	1.7194	-4.8376	-1.7191	-1.7191	4.8377	0.2815	0.2791	0.0365
27Y	1.7194	1.7194	-4.8376	-1.7191	-1.7191	4.8376	0.2763	0.2775	-0.0113
28X	3.3866	3.3866	-9.7834	-3.3864	-3.3864	9.7834	0.2517	0.2492	-0.0114
28XY	3.3866	3.3866	-9.7834	-3.3864	-3.3864	9.7835	0.2523	0.2503	0.0342

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28Y	3.3866	3.3866	-9.7834	-3.3864	-3.3864	9.7834	0.2491	0.2497	-0.0111
29X	1.6673	1.6673	-4.9458	-1.6671	-1.6671	4.9458	0.2244	0.2228	-0.0111
29XY	1.6673	1.6673	-4.9458	-1.6671	-1.6671	4.9458	0.2261	0.2243	0.0319
29Y	1.6673	1.6673	-4.9458	-1.6671	-1.6671	4.9458	0.2227	0.2225	-0.0109
30X	3.0079	3.0079	-8.9934	-3.0077	-3.0077	8.9934	0.2000	0.1992	-0.0109
30XY	3.0079	3.0079	-8.9934	-3.0077	-3.0077	8.9935	0.2006	0.1990	0.0293
30Y	3.0079	3.0079	-8.9934	-3.0077	-3.0077	8.9934	0.1991	0.1984	-0.0107
31X	3.6585	3.6585	-12.8889	-3.6583	-3.6583	12.8889	0.1764	0.1763	-0.0106
31XY	3.8475	3.8475	-13.2139	-3.8473	-3.8473	13.2140	0.1784	0.1770	0.0265
31Y	3.8475	3.8475	-13.2139	-3.8473	-3.8473	13.2139	0.1762	0.1750	-0.0104
33X	5.1206	5.1206	-18.3072	-5.1205	-5.1205	18.3071	0.1018	0.1035	-0.0094
33XY	5.1206	5.1206	-18.3072	-5.1205	-5.1205	18.3072	0.1045	0.1036	0.0222
33Y	5.1206	5.1206	-18.3072	-5.1205	-5.1205	18.3071	0.1032	0.1008	-0.0093
34X	5.2129	5.2129	-17.0915	-5.2128	-5.2128	17.0915	0.0790	0.0810	-0.0088
34XY	5.2129	5.2129	-17.0915	-5.2128	-5.2128	17.0915	0.0808	0.0801	0.0221
34Y	5.2129	5.2129	-17.0915	-5.2128	-5.2128	17.0915	0.0807	0.0782	-0.0086
35X	5.5721	5.5721	-18.6934	-5.5721	-5.5721	18.6934	0.0603	0.0623	-0.0080
35XY	5.5721	5.5721	-18.6934	-5.5721	-5.5721	18.6934	0.0618	0.0612	0.0213
35Y	8.8211	8.8211	-20.1234	-8.8211	-8.8211	20.1234	0.0620	0.0597	-0.0079
36X	6.8681	6.8681	-19.9540	-6.8681	-6.8681	19.9540	0.0447	0.0465	-0.0072
36XY	5.7151	5.7151	-17.6860	-5.7151	-5.7151	17.6860	0.0467	0.0462	0.0199
36Y	4.5251	4.5251	-16.9250	-4.5251	-4.5251	16.9250	0.0460	0.0441	-0.0071
37X	4.5338	4.5338	-16.4735	-4.5337	-4.5337	16.4734	0.0311	0.0324	-0.0063
37XY	3.4928	3.4928	-14.0815	-3.4927	-3.4927	14.0815	0.0323	0.0318	0.0187
37Y	3.4928	3.4928	-14.0815	-3.4927	-3.4927	14.0814	0.0320	0.0306	-0.0062
38X	3.5971	3.5971	-15.2207	-3.5971	-3.5971	15.2207	0.0209	0.0222	-0.0055
38XY	3.5971	3.5971	-15.2207	-3.5971	-3.5971	15.2207	0.0234	0.0230	0.0161
38Y	3.7861	3.7861	-15.5457	-3.7861	-3.7861	15.5457	0.0219	0.0206	-0.0054
39X	3.5581	3.5581	-15.7773	-3.5581	-3.5581	15.7773	0.0119	0.0134	-0.0045
39XY	3.5581	3.5581	-15.7773	-3.5581	-3.5581	15.7773	0.0133	0.0131	0.0138
39Y	4.5991	4.5991	-18.1693	-4.5991	-4.5991	18.1693	0.0131	0.0116	-0.0044
40X	8.1300	8.1300	-24.1211	-8.1300	-8.1300	24.1211	0.0047	0.0061	-0.0035
40XY	3.4450	3.4450	-18.0631	-3.4450	-3.4450	18.0631	0.0088	0.0087	0.0103
40Y	5.7880	5.7880	-21.0921	-5.7880	-5.7880	21.0921	0.0059	0.0045	-0.0034
41X	3.4394	3.4394	-18.9730	-3.4394	-3.4394	18.9730	0.0005	0.0023	-0.0025
41XY	2.3984	2.3984	-16.5810	-2.3984	-2.3984	16.5811	0.0023	0.0021	0.0077
41Y	2.3984	2.3984	-16.5810	-2.3984	-2.3984	16.5810	0.0021	0.0003	-0.0025
42X	2.0481	2.0481	-14.2313	-2.0481	-2.0481	14.2313	0.0002	0.0061	-0.0019
42XY	2.0481	2.0481	-14.2313	-2.0481	-2.0481	14.2313	0.0054	0.0054	0.0029
42Y	2.0481	2.0481	-14.2313	-2.0481	-2.0481	14.2313	0.0060	0.0002	-0.0019

Moments for Angles Modeled as Beams:

Angle Label	Torsion (N-m)	Origin X Moment (N-m)	Origin Y Moment (N-m)	End X Moment (N-m)	End Y Moment (N-m)	X Shear (N)	Y Shear (N)
1P	-0.00	-0.02	0.02	-12.75	32.03	-3.98	9.98
1X	-0.01	-0.02	0.03	9.97	98.95	3.10	30.83
1XY	-0.01	-0.03	0.03	45.01	-92.48	14.01	-28.79
1Y	0.00	-0.03	0.02	-48.26	-15.63	-15.04	-4.86
2P	-0.01	12.73	-32.00	-7.57	22.20	2.06	-3.92
2X	-0.02	-9.99	-98.92	-0.13	-157.63	-4.05	-102.62
2XY	-0.01	-45.04	92.51	-83.96	177.63	-51.60	108.06
2Y	0.00	48.23	15.66	78.81	0.46	50.82	6.45
3P	-0.01	7.54	-22.18	12.02	-21.99	7.83	-17.67
3X	-0.03	0.10	157.66	-50.25	268.24	-20.06	170.36
3XY	-0.02	83.93	-177.60	91.32	-180.68	70.10	-143.31

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

3Y	0.00	-78.84	-0.44	-126.72	119.42	-82.23	47.59
4P	-0.01	-12.04	22.01	-70.35	179.51	-32.96	80.61
4X	-0.04	50.23	-268.21	65.05	-323.33	46.11	-236.62
4XY	-0.02	-91.35	180.71	-176.60	350.49	-107.18	212.48
4Y	0.01	126.69	-119.40	155.06	-113.51	112.70	-93.16
5P	-0.02	70.33	-179.48	-26.78	32.63	17.42	-58.74
5X	-0.05	-65.08	323.36	-368.36	960.44	-173.37	513.52
5XY	-0.03	176.57	-350.46	201.65	-274.96	151.29	-250.17
5Y	0.01	-155.09	113.54	-456.41	698.66	-244.60	324.88
6P	-0.02	26.76	-32.60	-171.69	463.34	-57.97	172.30
6X	-0.06	368.34	-960.41	329.23	-546.38	279.03	-602.71
6XY	-0.03	-201.68	274.99	-586.56	962.84	-315.29	495.13
6Y	0.01	456.38	-698.64	246.42	-473.79	281.12	-468.97
7P	-0.03	171.66	-463.32	-428.32	484.90	-128.33	10.79
7X	-0.07	-329.25	546.40	-1272.89	793.32	-801.07	669.86
7XY	-0.04	586.53	-962.81	1002.27	-1121.22	794.40	-1042.02
7Y	0.01	-246.45	473.82	-131.42	1928.93	-188.93	1201.37
8P	-0.03	428.30	-484.88	2194.58	-2703.78	1670.63	-2030.99
8X	-0.09	1272.87	-793.29	2982.99	4007.66	2710.74	2047.37
8XY	-0.04	-1002.30	1121.25	-4069.78	4982.94	-3230.63	3888.02
8Y	0.01	131.39	-1928.90	-3194.50	-3600.53	-1951.02	-3521.93
9P	60.84	3463.70	-354.88	2413.41	-343.04	1433.79	-170.27
9X	122.39	-4943.13	-714.11	-2943.60	-348.57	-1924.06	-259.25
9XY	109.11	6401.21	-636.41	3344.46	-452.31	2377.57	-265.61
9Y	48.56	-4804.81	-283.00	-2922.79	-424.45	-1885.24	-172.59
10P	117.95	1474.71	-1938.32	438.00	-554.17	661.84	-862.45
10X	179.55	1853.12	2309.76	-45.04	1971.72	625.63	1481.48
10XY	184.00	-2062.72	2667.10	-443.47	607.98	-867.20	1133.25
10Y	119.62	-1776.74	-2356.71	-1157.46	534.42	-1015.29	-630.55
11P	117.95	-438.02	554.19	-814.81	1585.35	-501.13	855.81
11X	179.54	45.02	-1971.70	274.40	-982.14	127.77	-1181.54
11XY	184.00	443.45	-607.96	-680.97	1354.09	-95.01	298.45
11Y	119.62	1157.43	-534.40	603.77	-588.01	704.48	-448.96
12P	117.95	814.79	-1585.32	553.54	-844.60	547.33	-971.97
12X	179.53	-274.42	982.16	-904.13	1903.58	-471.42	1154.30
12XY	183.99	680.95	-1354.07	545.31	-831.06	490.50	-874.05
12Y	119.62	-603.79	588.03	-1046.00	1855.24	-659.92	977.31
13P	117.95	-553.56	844.62	-1431.94	2231.42	-794.20	1230.42
13X	179.52	904.11	-1903.56	490.93	-907.19	558.01	-1124.30
13XY	183.99	-545.33	831.08	-1396.17	2176.97	-776.60	1203.22
13Y	119.62	1045.98	-1855.22	696.73	-747.92	697.09	-1041.26
14P	117.94	1431.92	-2231.40	791.19	-928.58	889.24	-1263.99
14X	179.51	-490.95	907.21	-2340.54	2368.03	-1132.60	1310.10
14XY	183.99	1396.15	-2176.96	1024.77	-1122.00	968.37	-1319.58
14Y	119.63	-696.75	747.95	-2348.11	2374.36	-1217.94	1248.92
15P	117.94	-791.21	928.60	-2768.53	2824.91	-1423.89	1501.40
15X	179.50	2340.52	-2368.02	1066.37	-1268.26	1362.76	-1454.51
15XY	183.99	-1024.79	1122.02	-2529.83	2500.57	-1421.85	1449.03
15Y	119.63	2348.10	-2374.34	1316.84	-966.47	1465.97	-1336.33
16P	117.94	2768.51	-2824.89	2150.68	-2129.29	2459.59	-2477.09
16X	179.50	-1066.39	1268.28	-3403.59	3368.27	-2234.99	2318.27
16XY	183.98	2529.82	-2500.55	1538.78	-1373.00	2034.30	-1936.78
16Y	119.64	-1316.85	966.49	-3358.85	3286.56	-2337.85	2126.52
17P	117.94	-2150.69	2129.31	-5570.23	5778.30	-4886.66	5004.81
17X	179.49	3403.58	-3368.25	-2003.22	-933.78	886.30	-2722.81
17XY	183.98	-1538.79	1373.02	-2335.69	2016.46	-2452.20	2145.24
17Y	119.64	3358.83	-3286.54	763.87	2353.17	2609.30	-590.74
18P	72.45	-8024.60	174.09	-3979.36	119.12	-1796.26	43.88

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

18X	382.38	2076.77	-676.62	984.49	648.23	458.08	-4.25
18XY	114.07	3077.41	267.93	1353.94	206.68	663.10	71.02
18Y	-197.08	2204.08	1112.82	1043.38	-327.15	485.95	117.57
19P	36.53	-2718.70	2908.98	-1197.33	1253.63	-1398.58	1486.65
19X	187.36	-180.73	-1211.54	-339.49	153.89	-185.79	-377.73
19XY	52.21	-1120.19	794.60	-562.31	480.96	-600.89	455.56
19Y	-98.49	998.69	476.87	-201.23	423.13	284.81	321.43
20P	36.53	1197.32	-1253.62	-416.40	400.85	278.90	-304.56
20X	187.35	339.47	-153.88	52.06	-82.70	139.83	-84.49
20XY	52.20	562.30	-480.95	-700.14	727.34	-49.23	88.00
20Y	-98.49	201.21	-423.12	108.40	-64.72	110.58	-174.23
21P	36.53	416.39	-400.84	345.58	-323.46	282.21	-268.26
21X	187.35	-52.07	82.72	-1362.88	1446.34	-524.06	566.32
21XY	52.20	700.12	-727.33	445.27	-435.30	424.22	-430.60
21Y	-98.48	-108.41	64.73	-1454.76	1364.37	-578.95	529.30
22P	36.53	-345.59	323.47	-1704.10	1694.22	-759.14	747.29
22X	187.34	1362.87	-1446.33	652.58	-757.20	746.46	-816.12
22XY	52.20	-445.29	435.31	-1836.29	1832.64	-845.03	839.98
22Y	-98.48	1454.75	-1364.36	780.37	-634.49	827.82	-740.31
23P	36.53	1704.09	-1694.21	734.66	-709.23	870.98	-858.37
23X	187.34	-652.60	757.22	-2254.49	2499.46	-1038.24	1163.10
23XY	52.20	1836.28	-1832.63	970.21	-946.15	1002.32	-992.42
23Y	-98.48	-780.38	634.50	-2508.24	2246.60	-1174.51	1028.96
24P	36.53	-734.67	709.24	-2458.56	2449.42	-1140.44	1128.09
24X	187.34	2254.48	-2499.45	1012.54	-1225.59	1166.79	-1330.37
24XY	52.20	-970.23	946.16	-2728.14	2718.34	-1320.85	1308.75
24Y	-98.47	2508.23	-2246.58	1250.66	-986.51	1342.46	-1154.68
25P	36.53	2458.55	-2449.41	1016.17	-992.26	1240.97	-1229.17
25X	187.33	-1012.55	1225.60	-2931.16	3171.61	-1408.47	1570.43
25XY	52.20	2728.13	-2718.33	1222.14	-1193.66	1410.81	-1397.14
25Y	-98.47	-1250.67	986.52	-3178.68	2919.03	-1581.91	1394.84
26P	36.52	-1016.18	992.27	-3008.46	3008.35	-1437.37	1428.80
26X	187.33	2931.15	-3171.60	1441.45	-1556.96	1561.64	-1688.77
26XY	52.20	-1222.15	1193.67	-3208.24	3188.77	-1582.28	1565.16
26Y	-98.47	3178.67	-2919.02	1572.80	-1404.90	1696.95	-1544.26
27P	36.52	3008.46	-3008.34	923.41	-934.50	1429.77	-1433.76
27X	187.32	-1441.46	1556.97	-4026.25	4137.99	-1988.26	2070.90
27XY	52.20	3208.23	-3188.76	980.61	-917.02	1523.21	-1493.01
27Y	-98.46	-1572.81	1404.91	-4108.54	3977.71	-2065.95	1957.32
28P	36.52	-923.42	934.51	-3521.42	3537.94	-1616.31	1626.35
28X	187.32	4026.24	-4137.98	1650.36	-1497.59	2064.22	-2049.30
28XY	52.20	-980.62	917.02	-3508.85	3473.47	-1632.53	1596.54
28Y	-98.46	4108.53	-3977.70	1493.32	-1596.11	2037.04	-2026.84
29P	36.52	3521.41	-3537.94	270.59	-323.10	1404.45	-1430.01
29X	187.32	-1650.37	1497.59	-3269.85	3005.05	-1822.30	1667.65
29XY	52.20	3508.84	-3473.46	64.22	35.73	1323.36	-1273.24
29Y	-98.46	-1493.33	1596.12	-2929.34	3187.09	-1638.03	1771.56
30P	36.52	-270.60	323.11	-3722.79	3812.63	-703.68	728.77
30X	187.31	3269.84	-3005.04	-681.11	1224.75	456.16	-313.71
30XY	52.20	-64.23	-35.72	-3754.06	3626.63	-672.83	632.76
30Y	-98.46	2929.33	-3187.08	-1315.55	812.25	284.37	-418.47
31P	25.20	-5328.34	68.80	726.61	-19.53	-716.98	7.68
31X	413.46	-384.41	-1296.25	-122.81	3087.72	-79.03	279.12
31XY	36.14	5218.93	97.67	-1052.72	10.56	649.12	16.86
31Y	-352.55	-355.88	1466.00	-130.74	-3085.59	-75.82	-252.34
32P	25.20	-726.61	19.53	1412.77	4.02	112.70	3.87
32X	413.45	122.81	-3087.71	81.88	595.36	33.62	-409.36
32XY	36.13	1052.72	-10.56	-1287.75	1.84	-38.60	-1.43

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

32Y	-352.54	130.74	3085.59	75.13	-621.52	33.81	404.71
33P	25.20	-1412.76	-4.02	1339.46	10.61	-12.04	1.08
33X	413.45	-81.88	-595.35	16.01	1016.11	-10.82	69.11
33XY	36.13	1287.74	-1.84	-1502.23	14.45	-35.23	2.07
33Y	-352.54	-75.13	621.52	15.93	-936.49	-9.72	-51.73
34P	25.20	-1339.45	-10.61	-1066.49	-7.35	-395.17	-2.95
34X	413.45	-16.01	-1016.11	77.33	156.47	10.07	-141.19
34XY	36.13	1502.22	-14.45	892.99	-6.14	393.40	-3.38
34Y	-352.54	-15.93	936.48	77.00	-213.18	10.03	118.80
35P	25.20	1066.49	7.35	3521.29	-20.68	753.52	-2.19
35X	413.44	-77.33	-156.47	-108.20	1470.26	-30.47	215.78
35XY	36.13	-892.99	6.14	-3064.61	-5.76	-650.02	0.06
35Y	-352.54	-77.00	213.17	-131.53	-1487.87	-34.25	-209.36
36P	25.20	-3521.28	20.68	-2423.01	12.06	-976.32	5.38
36X	413.44	108.20	-1470.26	-17.45	-51.78	14.91	-249.99
36XY	36.13	3064.61	5.76	2174.66	6.86	860.53	2.07
36Y	-352.53	131.53	1487.87	-3.64	66.56	21.00	255.31
37P	25.20	2423.01	-12.06	3931.52	-4.50	1043.70	-2.72
37X	413.44	17.45	51.78	-3.93	655.16	2.22	116.11
37XY	36.13	-2174.66	-6.86	-3743.39	-2.00	-972.01	-1.45
37Y	-352.53	3.64	-66.56	-13.27	-634.54	-1.58	-115.15
38P	25.20	-3931.52	4.50	-3200.15	12.39	-1171.34	2.78
38X	413.44	3.93	-655.16	311.65	346.61	51.83	-50.68
38XY	36.13	3743.39	2.00	3689.13	10.30	1220.76	2.02
38Y	-352.53	13.27	634.54	324.80	-352.21	55.53	46.37
39P	25.20	3200.15	-12.39	3706.91	-22.91	1134.45	-5.80
39X	413.44	-311.65	-346.61	-1879.13	3668.31	-359.83	545.58
39XY	36.13	-3689.14	-10.30	-7479.43	-10.02	-1834.39	-3.34
39Y	-352.53	-324.80	352.21	-1901.37	-3697.35	-365.64	-549.42
40P	25.20	-3706.90	22.91	-9.06	4.30	-610.33	4.47
40X	413.44	1879.13	-3668.31	3928.64	-4363.01	953.90	-1319.11
40XY	36.13	7479.43	10.02	7883.06	3.98	2523.22	2.30
40Y	-352.53	1901.37	3697.35	3927.87	4374.09	957.43	1325.70
41P	25.20	9.06	-4.30	-1026.71	30.60	-172.91	4.47
41X	413.44	-3928.64	4363.01	-4682.07	4920.35	-1463.04	1577.33
41XY	36.13	-7883.06	-3.98	-8290.74	17.50	-2748.08	2.30
41Y	-352.53	-3927.87	-4374.09	-4662.08	-4870.48	-1459.51	-1570.74

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 3 "LC3 WIND 0° C.T."

Equilibrium Joint Positions and Rotations for Load Case "LC3 WIND 0° C.T.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	1.579	-0.00708	-0.03023	-0.0327	1.6424	-0.2961	2.229	0.6429	150.9
10P	1.047	-0.01857	-0.02757	0.0079	1.3885	-0.2962	1.697	0.6314	131.6
11P	0.9637	-0.009992	-0.0358	0.1473	1.2245	-0.2831	2.104	1.13	127.6
19P	0.6038	0.008191	-0.02707	0.0063	0.8713	-0.1936	1.744	1.148	108.6
20P	0.5172	0.00538	-0.04205	-0.0065	0.7722	-0.1650	2.969	2.457	102.2
32P	0.1388	0.001036	-0.02315	0.0018	0.3629	-0.1017	2.591	2.453	66.1
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	1.591	-0.006948	-0.02969	-0.0154	1.5808	0.1101	2.241	-0.6569	150.9
1XY	1.591	0.002469	0.00564	0.0643	1.5505	0.1194	0.9411	-0.6475	150.9
1Y	1.579	0.002342	0.006585	0.0190	1.6151	-0.2975	0.9287	0.6523	150.9
10X	1.085	-0.01825	-0.0262	0.0306	1.3727	0.1101	1.735	-0.6682	131.6
10XY	1.085	0.01865	0.003231	-0.0320	1.3806	0.1194	0.435	-0.6314	131.6
10Y	1.047	0.0186	0.004764	0.0058	1.3988	-0.2975	0.3973	0.6686	131.6
11X	0.9843	-0.01006	-0.0383	0.0817	1.4089	0.1119	2.124	-1.15	127.6
11XY	0.9845	0.0107	0.01567	-0.0703	1.4030	0.1204	-0.1555	-1.129	127.6
11Y	0.9639	0.01022	0.01334	-0.1523	1.2171	-0.2843	-0.1761	1.15	127.6
19X	0.5868	0.009043	-0.02922	0.0679	0.9448	0.1377	1.727	-1.131	108.6
19XY	0.5872	-0.007682	0.008529	-0.0643	0.9406	0.1402	-0.5528	-1.148	108.6
19Y	0.6042	-0.007584	0.006372	-0.0103	0.8676	-0.1930	-0.5358	1.132	108.6
20X	0.5065	0.004374	-0.04139	-0.0448	0.7175	0.1265	2.959	-2.448	102.2
20XY	0.5069	-0.003148	0.02171	0.0481	0.7140	0.1280	-1.945	-2.455	102.2
20Y	0.5175	-0.004835	0.0223	0.0015	0.7678	-0.1642	-1.934	2.447	102.2
32X	0.1356	0.001173	-0.02298	-0.0084	0.3564	0.0833	2.588	-2.451	66.1
32XY	0.1364	-6.205e-005	0.007665	0.0080	0.3561	0.0839	-2.316	-2.452	66.13
32Y	0.1396	-0.001474	0.007759	-0.0029	0.3625	-0.1014	-2.312	2.451	66.13
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	1.487	-0.008731	-0.03014	-0.0230	1.6211	-0.2961	2.137	0.6413	147.7
3S	1.416	-0.009518	-0.03002	-0.0156	1.6229	-0.2961	2.066	0.6405	145.2
4S	1.346	-0.01048	-0.02978	-0.0348	1.6098	-0.2961	1.996	0.6395	142.7
5S	1.276	-0.012	-0.02941	-0.0156	1.5986	-0.2961	1.926	0.638	140.2
6S	1.207	-0.01291	-0.02901	-0.0455	1.5587	-0.2961	1.857	0.6371	137.7
7S	1.14	-0.01528	-0.02848	-0.0278	1.5151	-0.2962	1.79	0.6347	135.2
8S	1.087	-0.0165	-0.028	-0.0824	1.5006	-0.2962	1.737	0.6335	133.2
12S	0.9007	-0.006462	-0.03506	0.0307	1.2352	-0.2674	2.041	1.134	124.7
13S	0.8483	-0.004486	-0.03426	0.0757	1.1815	-0.2539	1.988	1.136	122.2
14S	0.7975	-0.0007919	-0.03305	0.0481	1.1387	-0.2377	1.937	1.139	119.7
15S	0.7492	0.0004929	-0.0316	0.0743	1.0730	-0.2215	1.889	1.14	117.2
16S	0.7037	0.003944	-0.03037	0.0483	1.0132	-0.2123	1.844	1.144	114.7
17S	0.6609	0.005271	-0.02896	0.0611	0.9504	-0.2030	1.801	1.145	112.2
18S	0.6284	0.007747	-0.02794	0.0452	0.9098	-0.1978	1.768	1.148	110.2
21S	0.4798	0.004455	-0.04073	-0.0199	0.7524	-0.1549	2.932	2.456	99.36
22S	0.4438	0.004007	-0.03931	0.0020	0.7219	-0.1448	2.896	2.456	96.56
23S	0.4102	0.003995	-0.03801	-0.0123	0.7010	-0.1384	2.862	2.456	93.86
24S	0.3779	0.003202	-0.03658	-0.0038	0.6731	-0.1320	2.83	2.455	91.16
25S	0.3455	0.003221	-0.03546	-0.0085	0.6512	-0.1284	2.797	2.455	88.36
26S	0.3143	0.002515	-0.03424	-0.0043	0.6276	-0.1248	2.766	2.455	85.57
27S	0.2841	0.002653	-0.03295	-0.0073	0.6023	-0.1214	2.736	2.455	82.77

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28S	0.2554	0.001911	-0.03155	-0.0033	0.5755	-0.1180	2.707	2.454	79.97
29S	0.2285	0.002204	-0.03005	-0.0061	0.5416	-0.1147	2.68	2.454	77.22
30S	0.2035	0.001401	-0.02843	-0.0039	0.5036	-0.1114	2.655	2.453	74.47
31S	0.1805	0.001961	-0.02672	0.0080	0.4699	-0.1082	2.633	2.454	71.77
33S	0.1056	0.001376	-0.02309	0.0178	0.2627	-0.0977	3.328	3.224	59.78
34S	0.082	0.0003949	-0.0223	0.0042	0.2086	-0.0924	4.036	3.954	53.78
35S	0.06288	-0.0001436	-0.02107	0.0138	0.1695	-0.0824	4.748	4.685	47.78
36S	0.04684	-0.000252	-0.01945	0.0064	0.1567	-0.0713	5.463	5.416	41.78
37S	0.03191	-0.0009878	-0.01783	0.0129	0.1192	-0.0616	6.179	6.146	35.78
371S	0.03144	-0.000401	-0.01833	0.0000	0.0000	0.0000	6.179	-0.000401	35.78
372S	0.03244	-0.000579	-0.005195	0.0000	0.0000	0.0000	0.03244	6.147	35.79
373S	0.03261	0.0004162	0.007931	0.0000	0.0000	0.0000	-6.115	0.0004162	35.81
374S	0.03149	0.0005942	-0.005168	0.0000	0.0000	0.0000	0.03149	-6.147	35.79
38S	0.02215	-0.0003438	-0.01538	0.0085	0.0949	-0.0515	6.901	6.878	29.78
39S	0.01229	-0.001002	-0.013	0.0146	0.0761	-0.0395	7.622	7.609	23.79
391S	0.01204	-0.0002799	-0.01402	0.0000	0.0000	0.0000	7.622	-0.0002799	23.79
392S	0.01296	-0.0007356	-0.003939	0.0000	0.0000	0.0000	0.01296	7.609	23.8
393S	0.01349	0.000026	0.006202	0.0000	0.0000	0.0000	-7.596	0.00026	23.81
394S	0.01242	0.0007157	-0.003907	0.0000	0.0000	0.0000	0.01242	-7.609	23.8
40S	0.006335	0.0005271	-0.009827	0.0120	0.0577	-0.0285	8.347	8.341	17.79
41S	0.0007007	-0.001026	-0.007238	-0.0210	0.0250	-0.0245	9.073	9.071	11.79
411S	0.0005229	-0.0001418	-0.004656	0.0000	0.0000	0.0000	9.073	-0.0001418	11.8
412S	0.001449	-0.0008828	-0.002355	0.0000	0.0000	0.0000	0.001449	9.071	11.8
413S	0.002261	0.0001171	-5.595e-005	0.0000	0.0000	0.0000	-9.07	0.0001171	11.8
414S	0.001192	0.000858	-0.002333	0.0000	0.0000	0.0000	0.001192	-9.071	11.8
42S	0.0007837	-0.002687	-0.00392	0.0204	-0.0057	-0.0113	9.804	9.801	5.796
2X	1.503	-0.000006	-0.02959	-0.0258	1.5577	0.1101	2.153	-0.658	147.7
2XY	1.504	0.005422	0.005651	0.0294	1.5708	0.1194	0.8538	-0.6446	147.7
2Y	1.488	0.004061	0.006598	0.0541	1.6327	-0.2975	0.8378	0.6541	147.7
3X	1.435	-0.009394	-0.02944	-0.0357	1.5586	0.1101	2.085	-0.6594	145.2
3XY	1.435	0.00663	0.005577	0.0514	1.5602	0.1194	0.7852	-0.6434	145.2
3Y	1.417	0.006519	0.006537	0.0334	1.6239	-0.2975	0.7665	0.6565	145.2
4X	1.367	-0.01077	-0.02914	-0.0216	1.5418	0.1101	2.017	-0.6608	142.7
4XY	1.368	0.009359	0.005404	0.0355	1.5432	0.1194	0.7178	-0.6406	142.7
4Y	1.346	0.007561	0.006405	0.0531	1.6121	-0.2975	0.6962	0.6576	142.7
5X	1.3	-0.01188	-0.02868	-0.0486	1.5280	0.1101	1.95	-0.6619	140.2
5XY	1.301	0.01051	0.005103	0.0736	1.5203	0.1194	0.6506	-0.6395	140.2
5Y	1.276	0.01038	0.006169	0.0198	1.5879	-0.2975	0.626	0.6604	140.2
6X	1.234	-0.01398	-0.02817	-0.0324	1.4792	0.1101	1.884	-0.664	137.7
6XY	1.235	0.01381	0.004746	0.0433	1.4806	0.1194	0.585	-0.6362	137.7
6Y	1.207	0.01132	0.005885	0.0609	1.5611	-0.2975	0.5573	0.6613	137.7
7X	1.171	-0.01519	-0.02746	-0.0500	1.4296	0.1101	1.821	-0.6652	135.2
7XY	1.172	0.01497	0.004223	0.0596	1.4309	0.1194	0.5216	-0.635	135.2
7Y	1.14	0.01479	0.005488	0.0393	1.5158	-0.2975	0.4901	0.6648	135.2
8X	1.122	-0.01741	-0.02682	-0.0650	1.3758	0.1101	1.772	-0.6674	133.2
8XY	1.122	0.01775	0.003729	0.0758	1.3744	0.1194	0.4724	-0.6322	133.2
8Y	1.088	0.01614	0.005121	0.0904	1.4997	-0.2975	0.4375	0.6661	133.2
12X	0.9151	-0.007449	-0.03748	0.0626	1.3401	0.1164	2.055	-1.147	124.7
12XY	0.9155	0.008611	0.01509	-0.0616	1.3411	0.1238	-0.2245	-1.131	124.7
12Y	0.9012	0.006549	0.01281	-0.0245	1.2369	-0.2684	-0.2388	1.147	124.7
13X	0.8575	-0.004277	-0.03661	0.0483	1.3017	0.1203	1.997	-1.144	122.2
13XY	0.8577	0.005246	0.01444	-0.0483	1.3043	0.1268	-0.2823	-1.135	122.2
13Y	0.8485	0.00503	0.01219	-0.0705	1.1839	-0.2545	-0.2915	1.145	122.2
14X	0.8017	-0.002961	-0.03533	0.0631	1.2513	0.1250	1.942	-1.143	119.7
14XY	0.802	0.004201	0.01347	-0.0612	1.2510	0.1304	-0.338	-1.136	119.7
14Y	0.7978	0.001265	0.01126	-0.0461	1.1384	-0.2380	-0.3422	1.141	119.7
15X	0.7485	0.0006186	-0.03382	0.0358	1.1841	0.1297	1.889	-1.139	117.2
15XY	0.7488	0.0005255	0.01229	-0.0312	1.1814	0.1340	-0.3912	-1.139	117.2

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

15Y	0.7495	0.0002079	0.01011	-0.0767	1.0706	-0.2215	-0.3905	1.14	117.2
16X	0.6982	0.001945	-0.03256	0.0610	1.1234	0.1323	1.838	-1.138	114.7
16XY	0.6986	-0.0005551	0.01128	-0.0597	1.1230	0.1360	-0.4414	-1.141	114.7
16Y	0.7041	-0.003408	0.009123	-0.0482	1.0127	-0.2121	-0.4359	1.137	114.7
17X	0.6506	0.005327	-0.03112	0.0437	1.0564	0.1350	1.791	-1.135	112.2
17XY	0.6508	-0.004092	0.01011	-0.0471	1.0601	0.1381	-0.4892	-1.144	112.2
17Y	0.6611	-0.004541	0.007953	-0.0571	0.9540	-0.2026	-0.4789	1.135	112.2
18X	0.6143	0.006591	-0.03009	0.0697	1.0269	0.1365	1.754	-1.133	110.2
18XY	0.6145	-0.005362	0.009265	-0.0660	1.0232	0.1392	-0.5255	-1.145	110.2
18Y	0.6286	-0.007004	0.007113	-0.0488	0.9063	-0.1973	-0.5114	1.133	110.2
21X	0.4698	0.004503	-0.04008	0.0131	0.7484	0.1196	2.922	-2.447	99.36
21XY	0.4704	-0.003052	0.02077	-0.0133	0.7472	0.1210	-1.982	-2.455	99.42
21Y	0.4804	-0.004216	0.02135	0.0184	0.7518	-0.1542	-1.972	2.448	99.42
22X	0.4346	0.004186	-0.03866	-0.0195	0.7059	0.1127	2.887	-2.448	96.56
22XY	0.4351	-0.002938	0.01973	0.0184	0.7063	0.1140	-2.017	-2.455	96.62
22Y	0.4443	-0.003654	0.02029	-0.0028	0.7232	-0.1442	-2.008	2.448	96.62
23X	0.4017	0.003466	-0.03738	-0.0025	0.6861	0.1083	2.854	-2.449	93.86
23XY	0.4022	-0.002166	0.01878	0.0015	0.6863	0.1095	-2.05	-2.454	93.92
23Y	0.4107	-0.003783	0.01933	0.0114	0.7004	-0.1379	-2.041	2.448	93.92
24X	0.3701	0.003553	-0.03597	-0.0109	0.6578	0.1040	2.822	-2.448	91.16
24XY	0.3705	-0.002374	0.01773	0.0115	0.6562	0.1050	-2.081	-2.454	91.22
24Y	0.3784	-0.002955	0.01826	0.0014	0.6712	-0.1315	-2.074	2.449	91.22
25X	0.3383	0.002831	-0.03488	-0.0056	0.6369	0.1015	2.79	-2.449	88.37
25XY	0.3389	-0.001578	0.01691	0.0044	0.6373	0.1025	-2.113	-2.454	88.42
25Y	0.346	-0.003135	0.01741	0.0079	0.6517	-0.1279	-2.106	2.449	88.42
26X	0.3078	0.002865	-0.03369	-0.0090	0.6139	0.0990	2.76	-2.449	85.57
26XY	0.3083	-0.001768	0.016	0.0080	0.6140	0.1000	-2.144	-2.454	85.62
26Y	0.3147	-0.00236	0.01647	0.0036	0.6276	-0.1243	-2.137	2.45	85.62
27X	0.2784	0.002093	-0.03244	-0.0052	0.5895	0.0967	2.73	-2.45	82.77
27XY	0.2789	-0.0009436	0.01504	0.0045	0.5893	0.0976	-2.173	-2.453	82.82
27Y	0.2847	-0.002638	0.01548	0.0063	0.6021	-0.1210	-2.167	2.449	82.82
28X	0.2502	0.002246	-0.03108	-0.0082	0.5636	0.0944	2.702	-2.45	79.97
28XY	0.2507	-0.001236	0.01398	0.0068	0.5642	0.0953	-2.201	-2.453	80.01
28Y	0.2559	-0.001843	0.01438	0.0030	0.5761	-0.1176	-2.196	2.45	80.01
29X	0.2239	0.001427	-0.02963	-0.0041	0.5311	0.0921	2.676	-2.451	77.22
29XY	0.2244	-0.0003874	0.01285	0.0040	0.5304	0.0930	-2.228	-2.452	77.26
29Y	0.229	-0.002248	0.0132	0.0046	0.5409	-0.1143	-2.223	2.45	77.26
30X	0.1993	0.001767	-0.02807	-0.0052	0.4943	0.0899	2.651	-2.45	74.47
30XY	0.1998	-0.0008297	0.01163	0.0027	0.4959	0.0907	-2.252	-2.453	74.51
30Y	0.204	-0.001424	0.01192	0.0047	0.5052	-0.1110	-2.248	2.451	74.51
31X	0.1767	0.0008172	-0.02642	-0.0150	0.4629	0.0877	2.629	-2.451	71.77
31XY	0.1772	7.943e-005	0.01033	0.0162	0.4609	0.0884	-2.275	-2.452	71.81
31Y	0.181	-0.002022	0.01056	-0.0108	0.4680	-0.1078	-2.271	2.45	71.81
33X	0.103	-0.000239	-0.02286	-0.0240	0.2560	0.0811	3.326	-3.223	59.78
33XY	0.1037	0.001124	0.008523	0.0217	0.2576	0.0817	-3.119	-3.222	59.81
33Y	0.1063	-0.001762	0.008661	-0.0170	0.2642	-0.0974	-3.116	3.221	59.81
34X	0.0797	8.629e-005	-0.02205	-0.0077	0.2056	0.0774	4.034	-3.954	53.78
34XY	0.0805	0.000879	0.008674	0.0075	0.2051	0.0779	-3.873	-3.953	53.81
34Y	0.0828	-0.00102	0.008815	-0.0055	0.2082	-0.0921	-3.871	3.953	53.81
35X	0.06073	8.678e-005	-0.02081	-0.0166	0.1654	0.0694	4.746	-4.685	47.78
35XY	0.06163	0.0009028	0.008486	0.0160	0.1655	0.0698	-4.623	-4.684	47.81
35Y	0.06373	-0.0006618	0.008633	-0.0144	0.1702	-0.0821	-4.621	4.684	47.81
36X	0.04518	-0.0002106	-0.01915	-0.0090	0.1486	0.0605	5.461	-5.416	41.78
36XY	0.04625	0.001339	0.007954	0.0089	0.1485	0.0609	-5.37	-5.415	41.81
36Y	0.04783	-0.0007841	0.008152	-0.0069	0.1562	-0.0712	-5.368	5.415	41.81
37X	0.03097	0.0001899	-0.0175	-0.0123	0.1136	0.0525	6.178	-6.147	35.78
37XY	0.03214	0.001014	0.007566	0.0114	0.1142	0.0528	-6.115	-6.146	35.81
37Y	0.0331	-0.0001827	0.007799	-0.0123	0.1192	-0.0615	-6.114	6.147	35.81

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

38X	0.02141	-0.0002956	-0.01514	-0.0060	0.0929	0.0439	6.9	-6.879	29.78
38XY	0.0227	0.00158	0.006536	0.0053	0.0933	0.0442	-6.856	-6.877	29.81
38Y	0.02344	-0.0009424	0.006697	-0.0081	0.0955	-0.0514	-6.855	6.878	29.81
39X	0.01175	0.0004434	-0.0128	-0.0122	0.0733	0.0337	7.621	-7.609	23.79
39XY	0.01321	0.001003	0.005656	0.0135	0.0725	0.0339	-7.597	-7.609	23.81
39Y	0.01378	-0.0004864	0.005774	-0.0159	0.0749	-0.0394	-7.596	7.609	23.81
40X	0.00596	-0.0008435	-0.009704	-0.0101	0.0564	0.0242	8.347	-8.342	17.79
40XY	0.00745	0.002366	0.004126	0.0024	0.0643	0.0243	-8.333	-8.339	17.8
40Y	0.007849	-0.002082	0.00419	-0.0043	0.0661	-0.0283	-8.333	8.339	17.8
41X	0.000391	0.000741	-0.007152	0.0219	0.0237	0.0217	9.072	-9.071	11.79
41XY	0.002148	0.00101	0.003151	0.0046	-0.0032	0.0218	-9.07	-9.071	11.8
41Y	0.002406	-0.0007764	0.0032	-0.0055	-0.0013	-0.0245	-9.07	9.071	11.8
42X	0.0006569	0.002561	-0.003875	-0.0182	-0.0077	0.0102	9.804	-9.801	5.796
42XY	0.005279	0.002047	0.0008951	-0.0029	0.0135	0.0102	-9.798	-9.801	5.801
42Y	0.005368	-0.001948	0.0009232	0.0012	0.0151	-0.0114	-9.798	9.801	5.801

Joint Support Reactions for Load Case "LC3 WIND 0° C.T.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X-M. Moment (kN-m)	X-M. Usage %	Y-M. Moment (kN-m)	Y-M. Usage %	Z-M. Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-184.60	0.0	-199.34	0.0	1299.94	0.0	0.0	1328.03	0.0	-3.07	0.0	-0.7	0.0	-0.25	0.0	0.0
ANX	-178.71	0.0	201.70	0.0	1285.13	0.0	0.0	1313.08	0.0	2.99	0.0	-0.6	0.0	0.25	0.0	0.0
ANXY	-96.26	0.0	-118.17	0.0	-644.66	0.0	0.0	662.43	0.0	2.15	0.0	-5.8	0.0	0.26	0.0	0.0
ANY	-100.80	0.0	115.81	0.0	-653.48	0.0	0.0	671.27	0.0	-2.09	0.0	-5.8	0.0	-0.24	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC3 WIND 0° C.T.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.5685	0.0000	-3.3400	-1.5669	-0.0000	3.3400	1.5786	-0.0071	-0.0302
10P	5.6118	0.0000	-5.9748	-5.6107	-0.0000	5.9747	1.0472	-0.0186	-0.0276
11P	6.0252	0.0000	-6.8775	-6.0242	-0.0000	6.8775	0.9637	-0.0100	-0.0358
19P	2.8432	0.0000	-6.4568	-2.8426	0.0000	6.4568	0.6038	0.0082	-0.0271
20P	4.2155	0.0000	-8.4605	-4.2150	0.0000	8.4604	0.5172	0.0054	-0.0421
32P	4.9156	0.0000	-14.7387	-4.9155	0.0000	14.7387	0.1388	0.0010	-0.0231
ANP	1.3858	0.0000	-6.4695	183.2132	199.3410	-1293.4686	0.0000	0.0000	0.0000
1X	1.5685	0.0000	-3.3400	-1.5669	-0.0000	3.3400	1.5910	-0.0069	-0.0297
1XY	1.5685	0.0000	-3.3400	-1.5669	0.0000	3.3400	1.5911	0.0025	0.0056
1Y	0.6745	0.0000	-1.9600	-0.6729	0.0000	1.9600	1.5787	0.0023	0.0066
10X	5.6118	0.0000	-5.9748	-5.6107	-0.0000	5.9747	1.0848	-0.0182	-0.0262
10XY	2.4678	0.0000	-3.9948	-2.4667	0.0000	3.9948	1.0850	0.0186	0.0032
10Y	1.5738	0.0000	-2.6148	-1.5727	0.0000	2.6148	1.0473	0.0186	0.0048
11X	6.0252	0.0000	-6.8775	-6.0242	-0.0000	6.8775	0.9843	-0.0101	-0.0383
11XY	1.9872	0.0000	-3.5175	-1.9862	0.0000	3.5175	0.9845	0.0107	0.0157
11Y	1.9872	0.0000	-3.5175	-1.9862	0.0000	3.5175	0.9639	0.0102	0.0133
19X	2.8432	0.0000	-6.4568	-2.8427	0.0000	6.4568	0.5868	0.0090	-0.0292
19XY	2.8432	0.0000	-6.4568	-2.8427	-0.0000	6.4568	0.5872	-0.0077	0.0085
19Y	2.8432	0.0000	-6.4568	-2.8426	-0.0000	6.4568	0.6042	-0.0076	0.0064
20X	4.2155	0.0000	-8.4605	-4.2150	0.0000	8.4604	0.5065	0.0044	-0.0414
20XY	3.7695	0.0000	-7.6805	-3.7690	-0.0000	7.6805	0.5069	-0.0031	0.0217
20Y	3.7695	0.0000	-7.6805	-3.7690	-0.0000	7.6805	0.5175	-0.0048	0.0223
32X	4.9156	0.0000	-14.7387	-4.9155	0.0000	14.7387	0.1356	0.0012	-0.0230
32XY	4.9156	0.0000	-14.7387	-4.9155	-0.0000	14.7388	0.1364	-0.0001	0.0077

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

32Y	4.9156	0.0000	-14.7387	-4.9155	-0.0000	14.7388	0.1396	-0.0015	0.0078
ANX	1.3858	0.0000	-6.4695	177.3278	-201.6980	-1278.6642	0.0000	0.0000	0.0000
ANXY	1.3858	0.0000	-6.4695	94.8693	118.1722	651.1248	0.0000	0.0000	0.0000
ANY	1.3858	0.0000	-6.4695	99.4102	-115.8143	659.9479	0.0000	0.0000	0.0000
2S	1.5685	0.0000	-2.3400	-1.5670	-0.0000	2.3400	1.4869	-0.0087	-0.0301
3S	1.2762	0.0000	-1.8608	-1.2748	-0.0000	1.8608	1.4164	-0.0095	-0.0300
4S	1.4957	0.0000	-2.2809	-1.4944	-0.0000	2.2808	1.3455	-0.0105	-0.0298
5S	1.3205	0.0000	-1.9718	-1.3192	-0.0000	1.9718	1.2759	-0.0120	-0.0294
6S	0.7188	0.0000	-1.0710	-0.7176	-0.0000	1.0709	1.2066	-0.0129	-0.0290
7S	1.2520	0.0000	-1.8562	-1.2509	-0.0000	1.8562	1.1399	-0.0153	-0.0285
8S	0.5332	0.0000	-0.7852	-0.5322	-0.0000	0.7852	1.0872	-0.0165	-0.0280
12S	4.9847	0.0000	-5.0480	-4.9838	-0.0000	5.0479	0.9007	-0.0065	-0.0351
13S	5.8357	0.0000	-6.6054	-5.8348	-0.0000	6.6054	0.8483	-0.0045	-0.0343
14S	5.3350	0.0000	-5.6974	-5.3342	-0.0000	5.6974	0.7975	-0.0008	-0.0330
15S	2.1866	0.0000	-4.2601	-2.1858	0.0000	4.2601	0.7492	0.0005	-0.0316
16S	0.8896	0.0000	-1.9227	-0.8888	0.0000	1.9227	0.7037	0.0039	-0.0304
17S	1.9833	0.0000	-4.2731	-1.9826	0.0000	4.2731	0.6609	0.0053	-0.0290
18S	1.0937	0.0000	-2.3504	-1.0931	0.0000	2.3504	0.6284	0.0077	-0.0279
21S	1.5740	0.0000	-2.7941	-1.5735	0.0000	2.7941	0.4798	0.0045	-0.0407
22S	6.8025	0.0000	-7.5810	-6.8021	0.0000	7.5809	0.4438	0.0040	-0.0393
23S	5.2285	0.0000	-4.7869	-5.2281	0.0000	4.7868	0.4102	0.0040	-0.0380
24S	3.3460	0.0000	-6.6427	-3.3456	0.0000	6.6426	0.3779	0.0032	-0.0366
25S	1.7165	0.0000	-3.6558	-1.7161	0.0000	3.6558	0.3455	0.0032	-0.0355
26S	3.4011	0.0000	-7.3771	-3.4008	0.0000	7.3770	0.3143	0.0025	-0.0342
27S	1.6847	0.0000	-3.7212	-1.6844	0.0000	3.7212	0.2841	0.0027	-0.0330
28S	3.3168	0.0000	-7.5257	-3.3165	0.0000	7.5257	0.2554	0.0019	-0.0315
29S	1.8371	0.0000	-4.0545	-1.8369	0.0000	4.0544	0.2285	0.0022	-0.0300
30S	2.9252	0.0000	-6.9180	-2.9250	0.0000	6.9180	0.2035	0.0014	-0.0284
31S	3.5839	0.0000	-9.9146	-3.5837	0.0000	9.9145	0.1805	0.0020	-0.0267
33S	5.1489	0.0000	-14.0824	-5.1488	0.0000	14.0824	0.1056	0.0014	-0.0231
34S	5.2955	0.0000	-13.1473	-5.2954	0.0000	13.1473	0.0820	0.0004	-0.0223
35S	15.8784	0.0000	-19.4895	-15.8783	-0.0000	19.4895	0.0629	-0.0001	-0.0211
36S	14.8436	0.0000	-18.1292	-14.8435	-0.0000	18.1292	0.0468	-0.0003	-0.0195
37S	3.6139	0.0000	-10.8319	-3.6139	-0.0000	10.8319	0.0319	-0.0010	-0.0178
371S	3.6139	0.0000	-10.8319	-3.6139	-0.0000	10.8319	0.0314	-0.0004	-0.0183
372S	3.6139	0.0000	-10.8319	-3.6139	-0.0000	10.8319	0.0324	-0.0006	-0.0052
373S	3.6139	0.0000	-10.8319	-3.6139	0.0000	10.8319	0.0326	0.0004	0.0079
374S	3.6139	0.0000	-10.8319	-3.6139	0.0000	10.8319	0.0315	0.0006	-0.0052
38S	3.7253	0.0000	-11.7082	-3.7253	-0.0000	11.7082	0.0221	-0.0003	-0.0154
39S	3.6924	0.0000	-12.1364	-3.6924	-0.0000	12.1364	0.0123	-0.0010	-0.0130
391S	3.6924	0.0000	-12.1364	-3.6924	-0.0000	12.1364	0.0120	-0.0003	-0.0140
392S	3.6924	0.0000	-12.1364	-3.6924	-0.0000	12.1364	0.0130	-0.0007	-0.0039
393S	3.6924	0.0000	-12.1364	-3.6924	0.0000	12.1364	0.0135	0.0003	0.0062
394S	3.6924	0.0000	-12.1364	-3.6924	0.0000	12.1364	0.0124	0.0007	-0.0039
40S	8.1126	0.0000	-16.8647	-8.1126	0.0000	16.8647	0.0063	0.0005	-0.0098
41S	7.0542	0.0000	-15.7247	-7.0542	-0.0000	15.7246	0.0007	-0.0010	-0.0072
411S	3.1219	0.0000	-14.7464	-3.1219	-0.0000	14.7464	0.0005	-0.0001	-0.0047
412S	3.1219	0.0000	-14.7464	-3.1219	-0.0000	14.7464	0.0014	-0.0009	-0.0024
413S	3.1219	0.0000	-14.7464	-3.1219	0.0000	14.7464	0.0023	0.0001	-0.0001
414S	3.1219	0.0000	-14.7464	-3.1219	0.0000	14.7464	0.0012	0.0009	-0.0023
42S	2.1718	0.0000	-10.9472	-2.1718	-0.0000	10.9472	0.0008	-0.0027	-0.0039
2X	1.5685	0.0000	-2.3400	-1.5670	-0.0000	2.3400	1.5028	-0.0080	-0.0296
2XY	1.5685	0.0000	-2.3400	-1.5670	0.0000	2.3400	1.5038	0.0054	0.0057
2Y	0.6745	0.0000	-0.9600	-0.6730	0.0000	0.9600	1.4878	0.0041	0.0066
3X	1.2762	0.0000	-1.8608	-1.2748	-0.0000	1.8608	1.4351	-0.0094	-0.0294
3XY	1.2762	0.0000	-1.8608	-1.2748	0.0000	1.8608	1.4352	0.0066	0.0056
3Y	1.2762	0.0000	-1.8608	-1.2748	0.0000	1.8608	1.4165	0.0065	0.0065
4X	1.4957	0.0000	-2.2809	-1.4943	-0.0000	2.2808	1.3670	-0.0108	-0.0291

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4XY	1.4957	0.0000	-2.2809	-1.4943	0.0000	2.2809	1.3678	0.0094	0.0054
4Y	0.6017	0.0000	-0.9009	-0.6004	0.0000	0.9009	1.3462	0.0076	0.0064
5X	2.2145	0.0000	-3.3518	-2.2132	-0.0000	3.3518	1.3005	-0.0119	-0.0287
5XY	2.2145	0.0000	-3.3518	-2.2132	0.0000	3.3518	1.3006	0.0105	0.0051
5Y	1.3205	0.0000	-1.9718	-1.3192	0.0000	1.9718	1.2760	0.0104	0.0062
6X	1.6128	0.0000	-2.4510	-1.6116	-0.0000	2.4509	1.2344	-0.0140	-0.0282
6XY	1.6128	0.0000	-2.4510	-1.6116	0.0000	2.4510	1.2350	0.0138	0.0047
6Y	0.7188	0.0000	-1.0710	-0.7176	0.0000	1.0710	1.2073	0.0113	0.0059
7X	1.2520	0.0000	-1.8562	-1.2509	-0.0000	1.8562	1.1714	-0.0152	-0.0275
7XY	1.2520	0.0000	-1.8562	-1.2509	0.0000	1.8562	1.1716	0.0150	0.0042
7Y	1.2520	0.0000	-1.8562	-1.2509	0.0000	1.8562	1.1401	0.0148	0.0055
8X	1.4272	0.0000	-2.1652	-1.4261	-0.0000	2.1652	1.1221	-0.0174	-0.0268
8XY	1.4272	0.0000	-2.1652	-1.4261	0.0000	2.1652	1.1224	0.0178	0.0037
8Y	0.5332	0.0000	-0.7852	-0.5322	0.0000	0.7852	1.0875	0.0161	0.0051
12X	4.9847	0.0000	-5.0480	-4.9838	-0.0000	5.0479	0.9151	-0.0074	-0.0375
12XY	0.9467	0.0000	-1.6880	-0.9458	0.0000	1.6880	0.9155	0.0086	0.0151
12Y	0.9467	0.0000	-1.6880	-0.9458	0.0000	1.6880	0.9012	0.0065	0.0128
13X	5.8357	0.0000	-6.6054	-5.8348	-0.0000	6.6054	0.8575	-0.0043	-0.0366
13XY	1.7977	0.0000	-3.2454	-1.7968	0.0000	3.2454	0.8577	0.0052	0.0144
13Y	1.7977	0.0000	-3.2454	-1.7968	0.0000	3.2454	0.8485	0.0050	0.0122
14X	5.3350	0.0000	-5.6974	-5.3342	-0.0000	5.6974	0.8017	-0.0030	-0.0353
14XY	0.8510	0.0000	-1.5574	-0.8502	0.0000	1.5575	0.8020	0.0042	0.0135
14Y	1.2970	0.0000	-2.3374	-1.2962	0.0000	2.3375	0.7978	0.0013	0.0113
15X	2.1866	0.0000	-4.2601	-2.1858	0.0000	4.2601	0.7485	0.0006	-0.0338
15XY	1.7406	0.0000	-3.4801	-1.7398	0.0000	3.4801	0.7488	0.0005	0.0123
15Y	2.1866	0.0000	-4.2601	-2.1858	0.0000	4.2601	0.7495	0.0002	0.0101
16X	0.8896	0.0000	-1.9227	-0.8889	0.0000	1.9227	0.6982	0.0019	-0.0326
16XY	0.8896	0.0000	-1.9227	-0.8889	-0.0000	1.9227	0.6986	-0.0006	0.0113
16Y	0.8896	0.0000	-1.9227	-0.8888	-0.0000	1.9227	0.7041	-0.0034	0.0091
17X	1.9833	0.0000	-4.2731	-1.9826	0.0000	4.2731	0.6506	0.0053	-0.0311
17XY	1.5373	0.0000	-3.4931	-1.5366	-0.0000	3.4931	0.6508	-0.0041	0.0101
17Y	1.9833	0.0000	-4.2731	-1.9826	-0.0000	4.2731	0.6611	-0.0045	0.0080
18X	1.0937	0.0000	-2.3504	-1.0931	0.0000	2.3504	0.6143	0.0066	-0.0301
18XY	0.6477	0.0000	-1.5704	-0.6471	-0.0000	1.5705	0.6145	-0.0054	0.0093
18Y	1.0937	0.0000	-2.3504	-1.0931	-0.0000	2.3505	0.6286	-0.0070	0.0071
21X	1.5740	0.0000	-2.7941	-1.5735	0.0000	2.7941	0.4698	0.0045	-0.0401
21XY	1.5740	0.0000	-2.7941	-1.5735	-0.0000	2.7941	0.4704	-0.0031	0.0208
21Y	1.5740	0.0000	-2.7941	-1.5735	-0.0000	2.7941	0.4804	-0.0042	0.0213
22X	3.2035	0.0000	-5.7810	-3.2031	0.0000	5.7809	0.4346	0.0042	-0.0387
22XY	5.0035	0.0000	-6.6810	-5.0031	-0.0000	6.6810	0.4351	-0.0029	0.0197
22Y	3.2035	0.0000	-5.7810	-3.2031	-0.0000	5.7810	0.4443	-0.0037	0.0203
23X	1.6295	0.0000	-2.9869	-1.6291	0.0000	2.9868	0.4017	0.0035	-0.0374
23XY	1.6295	0.0000	-2.9869	-1.6291	-0.0000	2.9869	0.4022	-0.0022	0.0188
23Y	1.6295	0.0000	-2.9869	-1.6291	-0.0000	2.9869	0.4107	-0.0038	0.0193
24X	3.3460	0.0000	-6.6427	-3.3456	0.0000	6.6426	0.3701	0.0036	-0.0360
24XY	3.3460	0.0000	-6.6427	-3.3456	-0.0000	6.6427	0.3705	-0.0024	0.0177
24Y	3.3460	0.0000	-6.6427	-3.3456	-0.0000	6.6427	0.3784	-0.0030	0.0183
25X	1.7165	0.0000	-3.6558	-1.7161	0.0000	3.6558	0.3383	0.0028	-0.0349
25XY	1.7165	0.0000	-3.6558	-1.7161	-0.0000	3.6559	0.3389	-0.0016	0.0169
25Y	1.7165	0.0000	-3.6558	-1.7161	-0.0000	3.6559	0.3460	-0.0031	0.0174
26X	3.4011	0.0000	-7.3771	-3.4008	0.0000	7.3770	0.3078	0.0029	-0.0337
26XY	3.4011	0.0000	-7.3771	-3.4008	-0.0000	7.3771	0.3083	-0.0018	0.0160
26Y	3.4011	0.0000	-7.3771	-3.4008	-0.0000	7.3771	0.3147	-0.0024	0.0165
27X	1.6847	0.0000	-3.7212	-1.6844	0.0000	3.7212	0.2784	0.0021	-0.0324
27XY	1.6847	0.0000	-3.7212	-1.6844	-0.0000	3.7213	0.2789	-0.0009	0.0150
27Y	1.6847	0.0000	-3.7212	-1.6844	-0.0000	3.7213	0.2847	-0.0026	0.0155
28X	3.3168	0.0000	-7.5257	-3.3165	0.0000	7.5257	0.2502	0.0022	-0.0311
28XY	3.3168	0.0000	-7.5257	-3.3165	-0.0000	7.5257	0.2507	-0.0012	0.0140

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28Y	3.3168	0.0000	-7.5257	-3.3165	-0.0000	7.5257	0.2559	-0.0018	0.0144
29X	1.6321	0.0000	-3.8045	-1.6319	0.0000	3.8044	0.2239	0.0014	-0.0296
29XY	1.6321	0.0000	-3.8045	-1.6319	-0.0000	3.8045	0.2244	-0.0004	0.0129
29Y	1.6321	0.0000	-3.8045	-1.6319	-0.0000	3.8045	0.2290	-0.0022	0.0132
30X	2.9252	0.0000	-6.9180	-2.9250	0.0000	6.9180	0.1993	0.0018	-0.0281
30XY	2.9252	0.0000	-6.9180	-2.9250	-0.0000	6.9180	0.1998	-0.0008	0.0116
30Y	2.9252	0.0000	-6.9180	-2.9250	-0.0000	6.9180	0.2040	-0.0014	0.0119
31X	3.5839	0.0000	-9.9146	-3.5837	0.0000	9.9145	0.1767	0.0008	-0.0264
31XY	3.7889	0.0000	-10.1646	-3.7887	0.0000	10.1646	0.1772	0.0001	0.0103
31Y	3.7889	0.0000	-10.1646	-3.7887	-0.0000	10.1646	0.1810	-0.0020	0.0106
33X	5.1489	0.0000	-14.0824	-5.1488	-0.0000	14.0824	0.1030	-0.0002	-0.0229
33XY	5.1489	0.0000	-14.0824	-5.1488	0.0000	14.0824	0.1037	0.0011	0.0085
33Y	5.1489	0.0000	-14.0824	-5.1488	-0.0000	14.0824	0.1063	-0.0018	0.0087
34X	5.2955	0.0000	-13.1473	-5.2954	0.0000	13.1473	0.0797	0.0001	-0.0220
34XY	5.2955	0.0000	-13.1473	-5.2954	0.0000	13.1473	0.0805	0.0009	0.0087
34Y	5.2955	0.0000	-13.1473	-5.2954	-0.0000	13.1473	0.0828	-0.0010	0.0088
35X	5.6814	0.0000	-14.3795	-5.6813	0.0000	14.3795	0.0607	0.0001	-0.0208
35XY	5.6814	0.0000	-14.3795	-5.6813	0.0000	14.3795	0.0616	0.0009	0.0085
35Y	9.2154	0.0000	-15.4795	-9.2153	-0.0000	15.4795	0.0637	-0.0007	0.0086
36X	7.1956	0.0000	-15.3492	-7.1955	-0.0000	15.3492	0.0452	-0.0002	-0.0192
36XY	5.9406	0.0010	-13.6042	-5.9405	-0.0010	13.6042	0.0463	0.0013	0.0080
36Y	4.6466	0.0000	-13.0192	-4.6465	-0.0000	13.0192	0.0478	-0.0008	0.0082
37X	4.7469	0.0000	-12.6719	-4.7469	0.0000	12.6719	0.0310	0.0002	-0.0175
37XY	3.6139	0.0000	-10.8319	-3.6139	0.0000	10.8319	0.0321	0.0010	0.0076
37Y	3.6139	0.0000	-10.8319	-3.6139	-0.0000	10.8319	0.0331	-0.0002	0.0078
38X	3.7253	0.0000	-11.7082	-3.7253	-0.0000	11.7082	0.0214	-0.0003	-0.0151
38XY	3.7253	0.0000	-11.7082	-3.7253	0.0000	11.7082	0.0227	0.0016	0.0065
38Y	3.9303	0.0000	-11.9582	-3.9303	-0.0000	11.9582	0.0234	-0.0009	0.0067
39X	3.6924	0.0000	-12.1364	-3.6924	0.0000	12.1364	0.0117	0.0004	-0.0128
39XY	3.6924	0.0000	-12.1364	-3.6924	0.0000	12.1364	0.0132	0.0010	0.0057
39Y	4.8254	0.0000	-13.9764	-4.8254	-0.0000	13.9764	0.0138	-0.0005	0.0058
40X	8.6786	0.0000	-18.5547	-8.6786	-0.0000	18.5547	0.0060	-0.0008	-0.0097
40XY	3.5806	0.0000	-13.8947	-3.5806	0.0000	13.8947	0.0075	0.0024	0.0041
40Y	6.1296	0.0000	-16.2247	-6.1296	-0.0000	16.2247	0.0078	-0.0021	0.0042
41X	3.6552	0.0000	-14.5947	-3.6552	0.0000	14.5946	0.0004	0.0007	-0.0072
41XY	2.5222	0.0000	-12.7547	-2.5222	0.0000	12.7547	0.0021	0.0010	0.0032
41Y	2.5222	0.0000	-12.7547	-2.5222	-0.0000	12.7547	0.0024	-0.0008	0.0032
42X	2.1718	0.0000	-10.9472	-2.1718	0.0000	10.9472	0.0007	0.0026	-0.0039
42XY	2.1718	0.0000	-10.9472	-2.1718	0.0000	10.9472	0.0053	0.0020	0.0009
42Y	2.1718	0.0000	-10.9472	-2.1718	-0.0000	10.9472	0.0054	-0.0019	0.0009

Moments for Angles Modeled as Beams:

Angle Label	Torsion (N-m)	Origin X Moment (N-m)	Origin Y Moment (N-m)	End X Moment (N-m)	End Y Moment (N-m)	X Shear (N)	Y Shear (N)
1P	0.01	-0.00	0.03	-12.26	65.03	-3.82	20.26
1X	-0.00	-0.00	0.03	13.27	70.42	4.13	21.94
1XY	-0.00	0.00	0.03	44.40	-61.72	13.83	-19.21
1Y	0.01	0.00	0.03	-44.73	-53.57	-13.93	-16.67
2P	0.01	12.26	-65.00	0.04	-71.96	4.92	-54.79
2X	-0.00	-13.27	-70.39	2.90	-73.80	-4.15	-57.68
2XY	-0.00	-44.40	61.74	-80.38	103.02	-49.91	65.90
2Y	0.01	44.73	53.60	78.62	88.03	49.34	56.65
3P	0.02	-0.04	71.99	31.43	123.20	12.56	78.07
3X	-0.01	-2.90	73.82	-25.96	139.40	-11.54	85.29
3XY	-0.01	80.38	-102.99	106.52	-36.35	74.76	-55.74

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

3Y	0.02	-78.62	-88.00	-110.88	-41.87	-75.80	-51.95
4P	0.02	-31.43	-123.17	-62.92	-79.42	-37.74	-81.04
4X	-0.01	25.96	-139.37	70.04	-85.21	38.40	-89.83
4XY	-0.01	-106.52	36.38	-168.90	126.21	-110.17	65.04
4Y	0.02	110.89	41.90	165.36	137.03	110.50	71.57
5P	0.03	62.92	79.45	202.78	475.40	106.28	221.94
5X	-0.01	-70.05	85.24	-145.55	569.82	-86.24	262.02
5XY	-0.01	168.90	-126.18	310.08	267.32	191.59	56.45
5Y	0.03	-165.36	-137.01	-357.18	128.48	-209.02	-3.41
6P	0.03	-202.78	-475.37	-285.53	-42.39	-195.33	-207.11
6X	-0.01	145.55	-569.79	227.59	-77.35	149.25	-258.86
6XY	-0.01	-310.07	-267.29	-386.08	226.88	-278.46	-16.16
6Y	0.03	357.18	-128.46	457.88	321.47	326.02	77.21
7P	0.04	285.53	42.42	766.65	304.28	526.09	173.35
7X	-0.01	-227.59	77.38	-95.29	1049.34	-161.44	563.36
7XY	-0.01	386.08	-226.86	243.80	793.55	314.94	283.35
7Y	0.04	-457.88	-321.45	-907.39	-30.53	-682.63	-175.99
8P	0.04	-766.65	-304.26	-1780.02	2274.83	-1622.08	1255.14
8X	-0.02	95.29	-1049.31	-977.29	-977.76	-561.78	-1291.13
8XY	-0.02	-243.80	-793.53	965.90	-936.66	459.93	-1102.03
8Y	0.04	907.39	30.56	1856.56	2351.88	1760.48	1517.47
9P	-59.10	-2867.19	344.84	-1551.10	146.01	-1077.90	119.75
9X	-0.08	1382.44	0.34	1003.93	141.02	582.18	34.49
9XY	3.47	-1345.33	-20.36	-1081.95	128.68	-592.16	26.43
9Y	-59.16	2975.80	345.19	1502.44	155.74	1092.52	122.21
10P	-82.93	-1002.09	1191.51	11.95	989.75	-342.61	754.76
10X	-23.92	-611.61	-808.13	-445.97	488.92	-365.94	-110.45
10XY	-18.33	674.95	-855.13	598.91	311.27	440.78	-188.18
10Y	-84.64	960.91	1163.88	-150.24	791.38	280.51	676.56
11P	-82.93	-11.95	-989.73	-464.19	179.26	-190.46	-324.19
11X	-23.92	445.97	-488.90	590.08	347.39	414.42	-56.60
11XY	-18.34	-598.91	-311.25	-732.98	489.24	-532.76	71.19
11Y	-84.63	150.24	-791.36	612.15	361.33	304.95	-172.01
12P	-82.92	464.19	-179.24	700.99	593.32	466.07	165.63
12X	-23.92	-590.08	-347.37	-717.32	563.51	-522.96	86.46
12XY	-18.34	732.98	-489.21	844.22	474.77	630.88	-5.78
12Y	-84.63	-612.15	-361.31	-820.93	461.86	-573.23	40.22
13P	-82.92	-700.99	-593.30	-926.07	595.00	-650.82	0.68
13X	-23.92	717.32	-563.49	952.00	649.62	667.73	34.45
13XY	-18.34	-844.22	-474.75	-1101.79	783.57	-778.40	123.53
13Y	-84.62	820.93	-461.84	1083.06	763.37	761.60	120.61
14P	-82.91	926.07	-594.98	1532.31	797.42	983.35	80.98
14X	-23.92	-952.00	-649.60	-1540.65	766.11	-997.06	46.60
14XY	-18.34	1101.79	-783.55	1766.48	578.20	1147.31	-82.14
14Y	-84.62	-1083.06	-763.35	-1746.96	585.22	-1132.01	-71.25
15P	-82.91	-1532.31	-797.40	-1828.93	667.50	-1344.50	-51.96
15X	-23.93	1540.65	-766.09	1943.91	796.51	1393.82	12.17
15XY	-18.35	-1766.48	-578.18	-2059.68	887.68	-1530.47	123.80
15Y	-84.61	1746.96	-585.20	1955.14	783.81	1480.84	79.44
16P	-82.91	1828.93	-667.48	2478.47	996.39	2153.70	164.46
16X	-23.93	-1943.91	-796.49	-3008.21	409.61	-2476.06	-193.44
16XY	-18.35	2059.68	-887.67	2834.20	622.25	2446.94	-132.71
16Y	-84.61	-1955.14	-783.79	-2295.38	1172.42	-2125.26	194.31
17P	-82.90	-2478.47	-996.38	-455.88	1003.26	-1857.19	4.35
17X	-23.93	3008.21	-409.59	3097.10	3855.79	3864.12	2181.14
17XY	-18.35	-2834.20	-622.24	-2922.13	3668.21	-3643.25	1927.83
17Y	-84.61	2295.38	-1172.40	293.32	834.45	1638.42	-213.89
18P	-187.10	-1031.76	348.81	-431.16	-319.88	-218.91	4.33

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

18X	125.95	-4916.42	-522.02	-2551.40	212.15	-1117.48	-46.37
18XY	128.84	4660.06	-511.90	2301.99	217.40	1041.80	-44.07
18Y	-187.51	797.45	344.09	184.95	-323.35	147.00	3.10
19P	-90.93	-558.91	50.86	-242.47	515.39	-286.21	202.23
19X	62.10	1972.95	1635.28	612.50	910.87	923.38	909.34
19XY	63.41	-1800.72	1454.79	-358.01	675.86	-770.98	760.95
19Y	-90.36	387.25	-125.68	-9.55	248.19	134.89	43.76
20P	-90.93	242.47	-515.37	-272.96	200.81	-10.89	-112.34
20X	62.09	-612.50	-910.85	153.46	86.02	-163.94	-294.58
20XY	63.41	358.01	-675.84	-387.95	284.73	-10.70	-139.68
20Y	-90.36	9.55	-248.18	508.09	424.46	184.87	62.96
21P	-90.92	272.96	-200.80	802.00	569.82	398.14	136.67
21X	62.09	-153.46	-86.01	-781.06	645.91	-346.12	207.37
21XY	63.41	387.95	-284.72	1012.36	450.68	518.63	61.47
21Y	-90.35	-508.09	-424.45	-1034.06	414.44	-571.17	-3.71
22P	-90.92	-802.00	-569.80	-1115.53	461.80	-710.20	-40.00
22X	62.09	781.06	-645.90	1091.84	394.80	693.67	-93.00
22XY	63.41	-1012.36	-450.67	-1381.01	660.21	-886.43	77.61
22Y	-90.35	1034.06	-414.42	1403.80	662.70	902.91	91.96
23P	-90.92	1115.53	-461.78	1421.64	971.34	906.13	181.98
23X	62.09	-1091.84	-394.79	-1440.89	974.37	-904.55	206.99
23XY	63.41	1381.01	-660.20	1845.01	580.04	1152.15	-28.63
23Y	-90.35	-1403.80	-662.69	-1826.24	615.50	-1153.58	-16.85
24P	-90.92	-1421.64	-971.33	-1693.74	572.28	-1112.63	-142.52
24X	62.09	1440.89	-974.35	1666.64	535.44	1109.83	-156.76
24XY	63.40	-1845.01	-580.03	-2080.43	945.42	-1401.94	130.50
24Y	-90.35	1826.24	-615.49	2106.83	963.14	1404.67	124.16
25P	-90.91	1693.74	-572.27	1903.43	1198.15	1284.70	223.53
25X	62.08	-1666.64	-535.43	-1936.60	1170.23	-1286.87	226.72
25XY	63.40	2080.43	-945.41	2328.53	778.38	1574.63	-59.65
25Y	-90.35	-2106.83	-963.13	-2295.94	817.41	-1572.42	-52.04
26P	-90.91	-1903.43	-1198.14	-2185.55	676.46	-1460.35	-186.31
26X	62.08	1936.60	-1170.22	2150.46	638.30	1459.66	-189.97
26XY	63.40	-2328.53	-778.37	-2491.97	980.68	-1721.60	72.25
26Y	-90.34	2295.94	-817.40	2526.42	1005.87	1722.27	67.31
27P	-90.91	2185.55	-676.45	2388.04	1738.26	1663.12	386.11
27X	62.08	-2150.46	-638.29	-2441.73	1681.08	-1669.88	379.20
27XY	63.40	2491.97	-980.67	2694.76	1425.13	1886.08	161.62
27Y	-90.34	-2526.42	-1005.86	-2641.83	1497.92	-1879.37	178.93
28P	-90.91	-2388.04	-1738.25	-2545.54	966.96	-1794.03	-280.47
28X	62.08	2441.73	-1681.07	2515.48	939.90	1802.62	-269.52
28XY	63.40	-2694.76	-1425.12	-2605.86	1033.63	-1927.50	-142.36
28Y	-90.34	2641.83	-1497.91	2634.55	1049.58	1918.69	-163.03
29P	-90.91	2545.54	-966.96	1677.46	1480.01	1564.07	190.02
29X	62.08	-2515.48	-939.89	-1800.94	1336.80	-1598.67	147.01
29XY	63.40	2605.86	-1033.62	1630.92	1504.93	1569.18	174.56
29Y	-90.34	-2634.55	-1049.58	-1506.80	1651.16	-1533.84	222.81
30P	-90.90	-1677.46	-1480.00	-1447.30	2449.77	-550.62	170.88
30X	62.08	1800.94	-1336.80	1556.14	2574.53	591.56	218.10
30XY	63.39	-1630.92	-1504.92	-1329.84	2344.10	-521.72	147.87
30Y	-90.34	1506.80	-1651.15	1215.69	2219.83	479.73	100.21
31P	-209.97	-2755.64	683.11	429.93	-1562.74	-362.36	-137.05
31X	183.47	-2920.82	-699.10	260.85	1578.33	-414.44	136.99
31XY	184.27	2597.86	-696.00	-480.69	1578.02	329.87	137.42
31Y	-209.61	2429.27	684.38	-653.06	-1567.35	276.74	-137.57
32P	-209.96	-429.93	1562.74	741.21	-326.92	51.13	202.98
32X	183.47	-260.84	-1578.32	724.65	294.43	76.18	-210.87
32XY	184.27	480.69	-1578.02	-623.91	296.24	-23.52	-210.53

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

32Y	-209.61	653.06	1567.34	-633.41	-315.73	3.23	205.57
33P	-209.96	-741.21	326.92	668.55	-446.12	-11.93	-19.58
33X	183.47	-724.65	-294.43	693.28	541.06	-5.15	40.51
33XY	184.27	623.90	-296.24	-767.05	532.16	-23.51	38.75
33Y	-209.60	633.41	315.72	-721.48	-444.37	-14.46	-21.13
34P	-209.96	-668.55	446.12	-513.90	-53.95	-194.21	64.41
34X	183.47	-693.28	-541.06	-425.67	91.93	-183.78	-73.77
34XY	184.27	767.05	-532.15	482.25	91.86	205.19	-72.32
34Y	-209.60	721.48	444.37	534.61	-92.80	206.31	57.74
35P	-209.96	513.90	53.95	1784.14	-761.48	377.44	-116.21
35X	183.46	425.67	-91.93	1529.14	755.36	321.07	108.97
35XY	184.27	-482.25	-91.86	-1546.15	757.89	-333.16	109.39
35Y	-209.60	-534.61	92.80	-1761.46	-736.59	-377.12	-105.74
36P	-209.96	-1784.14	761.47	-1208.54	16.67	-491.53	127.81
36X	183.46	-1529.14	-755.36	-1110.00	-47.73	-433.47	-131.90
36XY	184.27	1546.15	-757.89	1118.92	-48.83	437.73	-132.50
36Y	-209.60	1761.46	736.59	1196.84	10.46	485.89	122.70
37P	-209.96	1208.54	-16.67	1928.65	-296.56	515.27	-51.45
37X	183.46	1110.00	47.74	1853.73	358.65	486.78	66.75
37XY	184.26	-1118.92	48.84	-1957.15	338.78	-505.23	63.66
37Y	-209.60	-1196.84	-10.46	-2016.25	-292.10	-527.74	-49.69
38P	-209.96	-1928.65	296.56	-1472.63	-222.50	-558.64	12.16
38X	183.46	-1853.73	-358.65	-1425.03	117.42	-538.52	-39.62
38XY	184.26	1957.15	-338.78	2040.42	145.76	656.58	-31.70
38Y	-209.60	2016.25	292.10	2097.95	-213.77	675.74	12.87
39P	-209.96	1472.63	222.50	1462.36	-1870.54	482.06	-270.68
39X	183.46	1425.03	-117.42	1448.70	1956.37	472.00	302.04
39XY	184.26	-2040.42	-145.76	-4324.41	1942.59	-1045.39	295.12
39Y	-209.60	-2097.95	213.77	-4350.28	-1896.16	-1059.09	-276.33
40P	-209.95	-1462.36	1870.54	900.36	2318.59	-92.31	688.05
40X	183.46	-1448.70	-1956.37	896.77	-2329.61	-90.65	-703.95
40XY	184.26	4324.41	-1942.59	5116.18	-2332.70	1550.57	-702.20
40Y	-209.60	4350.28	1896.16	5109.11	2317.53	1553.66	692.08
41P	-209.95	-900.36	-2318.59	-1677.96	-2670.37	-438.08	-847.67
41X	183.46	-896.77	2329.61	-1671.81	2565.73	-436.43	831.76
41XY	184.26	-5116.18	2332.70	-5607.29	2572.97	-1822.02	833.52
41Y	-209.60	-5109.11	-2317.53	-5596.19	-2647.70	-1818.93	-843.64

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 4 "LC4 WIND 45° C.T."

Equilibrium Joint Positions and Rotations for Load Case "LC4 WIND 45° C.T.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	1.185	1.173	-0.03741	-1.0572	1.0842	0.1584	1.835	1.823	150.9
10P	0.8385	0.8332	-0.03312	-1.0288	1.0076	0.1584	1.488	1.483	131.6
11P	0.756	0.7527	-0.05155	-1.1232	1.1062	0.1462	1.896	1.893	127.5
19P	0.446	0.4448	-0.03829	-0.7499	0.7479	0.0483	1.586	1.585	108.6
20P	0.3855	0.3854	-0.05786	-0.5272	0.5252	0.0330	2.838	2.837	102.1
32P	0.1049	0.105	-0.03091	-0.2670	0.2665	0.0134	2.557	2.557	66.09
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	1.223	1.173	-0.0138	-1.0364	1.3709	0.4700	1.873	0.5227	150.9
1XY	1.223	1.203	0.0167	-1.2969	1.3309	0.2434	0.573	0.5533	150.9
1Y	1.185	1.203	-0.01313	-1.3422	1.0649	-0.0707	0.5353	1.853	150.9
10X	0.7818	0.8335	-0.01321	-1.0147	1.0882	0.4702	1.432	0.1835	131.6
10XY	0.7819	0.7721	0.01334	-1.0418	1.1292	0.2435	0.1319	0.1221	131.6
10Y	0.8387	0.7721	-0.01276	-1.0101	0.9842	-0.0708	0.1887	1.422	131.6
11X	0.7245	0.7527	-0.01016	-1.1711	0.8965	0.4489	1.864	-0.3873	127.6
11XY	0.7249	0.7155	0.0261	-0.7776	0.8445	0.2231	-0.4151	-0.4245	127.6
11Y	0.756	0.7151	-0.009474	-0.8419	1.1432	-0.0820	-0.384	1.855	127.6
19X	0.4594	0.4455	-0.009433	-0.7022	0.6317	0.2998	1.599	-0.6945	108.6
19XY	0.4594	0.4559	0.0155	-0.6560	0.6709	0.0704	-0.6806	-0.6841	108.6
19Y	0.4467	0.4559	-0.009165	-0.6161	0.7009	-0.1814	-0.6933	1.596	108.6
20X	0.3931	0.3847	-0.01026	-0.5551	0.6075	0.2539	2.845	-2.067	102.2
20XY	0.3945	0.3908	0.0386	-0.5610	0.5733	0.0468	-2.058	-2.061	102.2
20Y	0.3849	0.3895	-0.009913	-0.5969	0.5513	-0.1742	-2.067	2.841	102.2
32X	0.1039	0.1053	-0.007879	-0.2746	0.2814	0.1536	2.556	-2.347	66.12
32XY	0.1052	0.1044	0.01585	-0.2698	0.2734	0.0189	-2.347	-2.348	66.14
32Y	0.1052	0.1031	-0.007765	-0.2781	0.2739	-0.1215	-2.347	2.555	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	1.125	1.114	-0.03729	-1.0432	1.0700	0.1584	1.775	1.764	147.7
3S	1.078	1.068	-0.03712	-1.0358	1.0614	0.1584	1.728	1.718	145.2
4S	1.032	1.023	-0.03674	-1.0373	1.0608	0.1584	1.682	1.673	142.7
5S	0.9861	0.9782	-0.03616	-1.0121	1.0318	0.1584	1.636	1.628	140.2
6S	0.9415	0.9345	-0.03552	-0.9939	1.0135	0.1584	1.592	1.584	137.7
7S	0.8979	0.8917	-0.03466	-0.9617	0.9754	0.1584	1.548	1.542	135.2
8S	0.8646	0.8589	-0.03387	-0.9093	0.9352	0.1584	1.515	1.509	133.2
12S	0.7025	0.6998	-0.05045	-1.0292	1.0472	0.1290	1.843	1.84	124.6
13S	0.6571	0.6548	-0.04925	-1.0010	1.0114	0.1142	1.797	1.795	122.2
14S	0.6143	0.6125	-0.04744	-0.9775	0.9800	0.0965	1.754	1.752	119.7
15S	0.572	0.5703	-0.04526	-0.8997	0.9211	0.0788	1.712	1.71	117.2
16S	0.5334	0.532	-0.04338	-0.8777	0.8781	0.0687	1.673	1.672	114.7
17S	0.4956	0.4943	-0.04121	-0.8121	0.8150	0.0586	1.636	1.634	112.2
18S	0.4679	0.4667	-0.03964	-0.8011	0.8026	0.0529	1.608	1.607	110.2
21S	0.3574	0.3573	-0.05595	-0.5761	0.5785	0.0299	2.809	2.809	99.34
22S	0.3307	0.3307	-0.0539	-0.5238	0.5248	0.0268	2.783	2.783	96.55
23S	0.3062	0.3062	-0.05203	-0.5219	0.5228	0.0248	2.758	2.758	93.85
24S	0.2819	0.2819	-0.04999	-0.4940	0.4947	0.0228	2.734	2.734	91.15
25S	0.2582	0.2583	-0.0484	-0.4822	0.4827	0.0217	2.71	2.71	88.35
26S	0.2348	0.2349	-0.04667	-0.4621	0.4624	0.0206	2.687	2.687	85.55
27S	0.2129	0.213	-0.04483	-0.4462	0.4463	0.0195	2.665	2.665	82.76

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28S	0.1913	0.1914	-0.04283	-0.4243	0.4241	0.0185	2.643	2.643	79.96
29S	0.1718	0.1719	-0.0407	-0.4019	0.4019	0.0175	2.624	2.624	77.21
30S	0.1528	0.1529	-0.03841	-0.3735	0.3734	0.0164	2.605	2.605	74.46
31S	0.1363	0.1364	-0.03597	-0.3398	0.3401	0.0154	2.588	2.588	71.76
33S	0.08053	0.08081	-0.03107	-0.1832	0.1806	0.0119	3.303	3.304	59.77
34S	0.06218	0.06246	-0.03015	-0.1547	0.1520	0.0106	4.016	4.016	53.77
35S	0.04745	0.04772	-0.02858	-0.1179	0.1159	0.0094	4.733	4.733	47.77
36S	0.03533	0.03565	-0.02645	-0.1139	0.1122	0.0082	5.452	5.452	41.77
37S	0.02355	0.02387	-0.02434	-0.0817	0.0796	0.0069	6.171	6.171	35.78
371S	0.02366	0.02442	-0.0152	0.0000	0.0000	0.0000	6.171	0.02442	35.78
372S	0.02409	0.02365	-0.01514	0.0000	0.0000	0.0000	0.02409	6.171	35.78
373S	0.02483	0.02397	0.004813	0.0000	0.0000	0.0000	-6.123	0.02397	35.8
374S	0.02432	0.02482	0.004769	0.0000	0.0000	0.0000	0.02432	-6.123	35.8
38S	0.01668	0.01694	-0.02101	-0.0668	0.0648	0.0057	6.895	6.896	29.78
39S	0.00879	0.008995	-0.01779	-0.0470	0.0455	0.0045	7.619	7.619	23.78
391S	0.008884	0.009674	-0.01162	0.0000	0.0000	0.0000	7.619	0.009674	23.79
392S	0.009469	0.008892	-0.01159	0.0000	0.0000	0.0000	0.009469	7.619	23.79
393S	0.01034	0.009458	0.003795	0.0000	0.0000	0.0000	-7.599	0.009458	23.8
394S	0.009647	0.01034	0.003753	0.0000	0.0000	0.0000	0.009647	-7.599	23.8
40S	0.00548	0.005642	-0.01341	-0.0368	0.0358	0.0033	8.346	8.347	17.79
41S	0.0001216	0.000263	-0.009903	-0.0292	0.0282	0.0022	9.072	9.072	11.79
411S	0.0001295	0.001046	-0.004115	0.0000	0.0000	0.0000	9.072	0.001046	11.8
412S	0.0009047	0.0001537	-0.004097	0.0000	0.0000	0.0000	0.0009047	9.072	11.8
413S	0.001868	0.0008964	-0.0005919	0.0000	0.0000	0.0000	-9.07	0.0008964	11.8
414S	0.000988	0.001894	-0.0005983	0.0000	0.0000	0.0000	0.000988	-9.07	11.8
42S	-0.000388	-0.0003302	-0.005179	0.0139	-0.0150	0.0011	9.803	9.803	5.795
2X	1.147	1.114	-0.01375	-1.0487	1.3398	0.4701	1.797	0.4644	147.7
2XY	1.148	1.13	0.0167	-1.3304	1.3604	0.2434	0.4978	0.48	147.7
2Y	1.125	1.129	-0.01309	-1.3068	1.0749	-0.0707	0.4754	1.779	147.7
3X	1.088	1.068	-0.01371	-1.0512	1.3534	0.4701	1.738	0.4185	145.2
3XY	1.088	1.072	0.01659	-1.3099	1.3416	0.2434	0.4384	0.4219	145.2
3Y	1.078	1.072	-0.01307	-1.3233	1.0759	-0.0707	0.4284	1.722	145.2
4X	1.029	1.023	-0.01364	-1.0282	1.3311	0.4701	1.679	0.3731	142.7
4XY	1.03	1.015	0.01635	-1.3141	1.3428	0.2434	0.3805	0.3653	142.7
4Y	1.032	1.014	-0.01303	-1.3001	1.0529	-0.0707	0.3819	1.664	142.7
5X	0.9716	0.9784	-0.01356	-1.0329	1.3439	0.4701	1.622	0.3284	140.2
5XY	0.9718	0.9579	0.01593	-1.2717	1.3075	0.2434	0.3218	0.3079	140.2
5Y	0.9862	0.9577	-0.01299	-1.3158	1.0498	-0.0708	0.3362	1.608	140.2
6X	0.9133	0.9339	-0.01348	-0.9852	1.2927	0.4701	1.563	0.2839	137.7
6XY	0.9152	0.9027	0.01542	-1.2781	1.3035	0.2434	0.2652	0.2527	137.7
6Y	0.941	0.9006	-0.01294	-1.2639	1.0063	-0.0708	0.291	1.551	137.7
7X	0.8585	0.8918	-0.01338	-0.9782	1.2609	0.4702	1.509	0.2418	135.2
7XY	0.8587	0.8473	0.0147	-1.2142	1.2500	0.2435	0.2087	0.1973	135.2
7Y	0.898	0.8472	-0.01288	-1.2298	0.9887	-0.0708	0.248	1.497	135.2
8X	0.8143	0.8583	-0.01328	-0.8958	1.2505	0.4702	1.464	0.2083	133.2
8XY	0.8155	0.8052	0.01401	-1.2505	1.2565	0.2435	0.1655	0.1552	133.2
8Y	0.864	0.8038	-0.01281	-1.2398	0.9265	-0.0708	0.214	1.454	133.2
12X	0.6775	0.6991	-0.01001	-1.0056	0.9079	0.4228	1.817	-0.4409	124.7
12XY	0.679	0.6708	0.02519	-0.9231	0.9311	0.1964	-0.461	-0.4692	124.7
12Y	0.7019	0.6691	-0.009367	-0.8943	1.0276	-0.0994	-0.4381	1.809	124.7
13X	0.6394	0.655	-0.009886	-1.0225	0.8735	0.4002	1.779	-0.485	122.2
13XY	0.6397	0.6322	0.02419	-0.8364	0.8612	0.1733	-0.5003	-0.5078	122.2
13Y	0.6573	0.632	-0.009288	-0.8526	1.0289	-0.1144	-0.4827	1.772	122.2
14X	0.6012	0.6109	-0.009728	-0.9661	0.8344	0.3733	1.741	-0.5291	119.7
14XY	0.6033	0.5969	0.02272	-0.8244	0.8388	0.1457	-0.5367	-0.5431	119.7
14Y	0.6128	0.5946	-0.0092	-0.8129	0.9748	-0.1324	-0.5272	1.735	119.7
15X	0.5666	0.5705	-0.00959	-0.9281	0.7921	0.3463	1.707	-0.5695	117.2
15XY	0.567	0.5613	0.02097	-0.7471	0.7814	0.1181	-0.573	-0.5787	117.2

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15Y	0.5721	0.561	-0.009144	-0.7825	0.9276	-0.1504	-0.5679	1.701	117.2
16X	0.5323	0.5306	-0.009512	-0.8679	0.7439	0.3309	1.672	-0.6094	114.7
16XY	0.5345	0.5295	0.01949	-0.7357	0.7466	0.1023	-0.6055	-0.6105	114.7
16Y	0.5321	0.5273	-0.009122	-0.7271	0.8740	-0.1607	-0.6079	1.667	114.7
17X	0.5016	0.4944	-0.009463	-0.8261	0.7071	0.3155	1.642	-0.6456	112.2
17XY	0.502	0.4976	0.01778	-0.6863	0.7016	0.0865	-0.638	-0.6424	112.2
17Y	0.4957	0.4972	-0.009131	-0.6928	0.8280	-0.1709	-0.6443	1.637	112.2
18X	0.477	0.4659	-0.009438	-0.7817	0.6683	0.3067	1.617	-0.6741	110.2
18XY	0.4783	0.4744	0.01656	-0.6672	0.6798	0.0775	-0.6617	-0.6656	110.2
18Y	0.4671	0.4731	-0.009142	-0.6551	0.7838	-0.1768	-0.6729	1.613	110.2
21X	0.3648	0.3575	-0.01009	-0.5509	0.5618	0.2379	2.817	-2.094	99.39
21XY	0.3658	0.3625	0.03712	-0.5802	0.5846	0.0424	-2.086	-2.089	99.44
21Y	0.3576	0.3615	-0.009768	-0.5566	0.5540	-0.1658	-2.094	2.813	99.39
22X	0.3375	0.3309	-0.009906	-0.5409	0.5600	0.2220	2.79	-2.121	96.59
22XY	0.3382	0.3351	0.03547	-0.5383	0.5444	0.0379	-2.114	-2.117	96.64
22Y	0.331	0.3345	-0.00961	-0.5542	0.5417	-0.1574	-2.121	2.786	96.59
23X	0.3115	0.3059	-0.009729	-0.5140	0.5312	0.2118	2.764	-2.146	93.89
23XY	0.3129	0.3101	0.03395	-0.5334	0.5387	0.0351	-2.139	-2.142	93.93
23Y	0.3059	0.3087	-0.009457	-0.5257	0.5150	-0.1521	-2.146	2.761	93.89
24X	0.2872	0.2823	-0.009542	-0.4988	0.5172	0.2016	2.739	-2.17	91.19
24XY	0.2878	0.2852	0.03226	-0.5039	0.5092	0.0323	-2.164	-2.167	91.23
24Y	0.2823	0.2847	-0.009292	-0.5121	0.4994	-0.1467	-2.17	2.737	91.19
25X	0.2621	0.2581	-0.009396	-0.4803	0.4964	0.1959	2.714	-2.194	88.39
25XY	0.2634	0.2611	0.03093	-0.4941	0.4991	0.0307	-2.189	-2.191	88.43
25Y	0.2581	0.2598	-0.009162	-0.4914	0.4808	-0.1437	-2.194	2.712	88.39
26X	0.2386	0.2353	-0.009242	-0.4656	0.4815	0.1902	2.691	-2.217	85.59
26XY	0.2392	0.2371	0.02946	-0.4733	0.4782	0.0291	-2.213	-2.215	85.63
26Y	0.2352	0.2366	-0.009024	-0.4767	0.4659	-0.1407	-2.217	2.689	85.59
27X	0.2152	0.2127	-0.009078	-0.4445	0.4601	0.1848	2.667	-2.239	82.79
27XY	0.2166	0.2148	0.0279	-0.4568	0.4614	0.0276	-2.235	-2.237	82.83
27Y	0.2126	0.2133	-0.008875	-0.4555	0.4447	-0.1379	-2.239	2.665	82.79
28X	0.1936	0.1918	-0.008905	-0.4282	0.4423	0.1795	2.646	-2.26	79.99
28XY	0.1942	0.1925	0.02619	-0.4350	0.4395	0.0261	-2.258	-2.259	80.03
28Y	0.1917	0.192	-0.008718	-0.4378	0.4280	-0.1351	-2.26	2.644	79.99
29X	0.1725	0.1714	-0.008722	-0.4002	0.4146	0.1742	2.624	-2.281	77.24
29XY	0.174	0.1726	0.02435	-0.4109	0.4149	0.0246	-2.278	-2.279	77.27
29Y	0.1714	0.1711	-0.00855	-0.4105	0.4002	-0.1323	-2.281	2.623	77.24
30X	0.1538	0.1533	-0.00853	-0.3748	0.3857	0.1690	2.606	-2.299	74.49
30XY	0.1544	0.1532	0.02236	-0.3839	0.3876	0.0232	-2.298	-2.299	74.52
30Y	0.1532	0.1526	-0.008373	-0.3820	0.3748	-0.1295	-2.299	2.605	74.49
31X	0.1356	0.1357	-0.008327	-0.3569	0.3705	0.1638	2.588	-2.316	71.79
31XY	0.1373	0.1363	0.02023	-0.3466	0.3496	0.0217	-2.315	-2.316	71.82
31Y	0.1356	0.1345	-0.008185	-0.3676	0.3571	-0.1268	-2.316	2.587	71.79
33X	0.07817	0.07973	-0.007373	-0.2151	0.2146	0.1474	3.301	-3.143	59.79
33XY	0.08051	0.0798	0.01692	-0.1808	0.1864	0.0168	-3.142	-3.143	59.82
33Y	0.07947	0.07746	-0.007258	-0.2099	0.2119	-0.1189	-3.143	3.3	59.79
34X	0.06063	0.06242	-0.006857	-0.1639	0.1644	0.1392	4.015	-3.892	53.79
34XY	0.06226	0.06169	0.01689	-0.1501	0.1549	0.0151	-3.892	-3.892	53.82
34Y	0.06215	0.06005	-0.006746	-0.1599	0.1605	-0.1137	-3.892	4.014	53.79
35X	0.04624	0.04806	-0.006287	-0.1414	0.1397	0.1244	4.731	-4.637	47.79
35XY	0.04765	0.04718	0.0163	-0.1132	0.1172	0.0134	-4.637	-4.638	47.82
35Y	0.04781	0.04579	-0.006181	-0.1364	0.1390	-0.1017	-4.637	4.731	47.79
36X	0.03421	0.0359	-0.005666	-0.1251	0.1205	0.1082	5.45	-5.38	41.79
36XY	0.03608	0.03566	0.01518	-0.1056	0.1089	0.0117	-5.38	-5.381	41.82
36Y	0.03556	0.03377	-0.005559	-0.1178	0.1233	-0.0884	-5.381	5.45	41.79
37X	0.02377	0.02506	-0.004984	-0.1007	0.0973	0.0935	6.171	-6.122	35.8
37XY	0.02496	0.02461	0.01424	-0.0766	0.0798	0.0099	-6.122	-6.123	35.81
37Y	0.02473	0.02342	-0.004883	-0.0943	0.0980	-0.0768	-6.123	6.171	35.8

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

38X	0.01593	0.01728	-0.004316	-0.0782	0.0778	0.0781	6.895	-6.861	29.8
38XY	0.01816	0.0179	0.01228	-0.0651	0.0679	0.0081	-6.86	-6.861	29.81
38Y	0.01704	0.01567	-0.004237	-0.0752	0.0757	-0.0644	-6.862	6.894	29.8
39X	0.008952	0.01045	-0.003587	-0.0670	0.0682	0.0601	7.619	-7.599	23.8
39XY	0.01043	0.01024	0.01053	-0.0440	0.0462	0.0064	-7.599	-7.599	23.81
39Y	0.01025	0.008771	-0.003521	-0.0665	0.0654	-0.0492	-7.599	7.619	23.8
40X	0.003359	0.004971	-0.002816	-0.0558	0.0483	0.0433	8.344	-8.336	17.8
40XY	0.007068	0.006941	0.007769	-0.0438	0.0454	0.0047	-8.334	-8.334	17.81
40Y	0.004796	0.003207	-0.00276	-0.0471	0.0547	-0.0353	-8.336	8.344	17.8
41X	0.0001574	0.001995	-0.002022	0.0095	0.0166	0.0371	9.072	-9.07	11.8
41XY	0.001931	0.001839	0.005864	-0.0012	0.0024	0.0032	-9.07	-9.07	11.81
41Y	0.001837	5.654e-005	-0.001976	-0.0153	-0.0107	-0.0318	-9.07	9.072	11.8
42X	9.874e-005	0.004741	-0.001499	-0.0202	-0.0014	0.0176	9.803	-9.798	5.799
42XY	0.00425	0.004216	0.002178	-0.0059	0.0069	0.0016	-9.799	-9.799	5.802
42Y	0.004677	6.454e-005	-0.001475	0.0023	0.0189	-0.0149	-9.799	9.803	5.799

Joint Support Reactions for Load Case "LC4 WIND 45° C.T.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X Moment (kN-m)	X-M. Usage %	Y Moment (kN-m)	Y-M. Usage %	Z Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-267.25	0.0	-269.59	0.0	1798.09	0.0	0.0	1837.72	0.0	-0.57	0.0	0.6	0.0	-0.02	0.0	0.0
ANX	-27.10	0.0	55.41	0.0	321.19	0.0	0.0	327.06	0.0	5.26	0.0	-0.1	0.0	0.33	0.0	0.0
ANXY	-184.36	0.0	-183.08	0.0	-1147.50	0.0	0.0	1176.55	0.0	4.53	0.0	-4.6	0.0	-0.03	0.0	0.0
ANY	56.49	0.0	-24.98	0.0	315.16	0.0	0.0	321.16	0.0	0.07	0.0	-5.2	0.0	-0.37	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC4 WIND 45° C.T.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.1574	1.1574	-3.3400	-1.1562	-1.1562	3.3400	1.1852	1.1726	-0.0374
10P	4.1269	4.1269	-5.9748	-4.1260	-4.1260	5.9747	0.8385	0.8332	-0.0331
11P	4.4277	4.4277	-6.8775	-4.4270	-4.4270	6.8775	0.7560	0.7527	-0.0515
19P	2.2116	2.2116	-6.4568	-2.2112	-2.2112	6.4568	0.4460	0.4448	-0.0383
20P	3.2313	3.2313	-8.4605	-3.2309	-3.2309	8.4604	0.3855	0.3854	-0.0579
32P	3.8075	3.8075	-14.7387	-3.8074	-3.8074	14.7387	0.1049	0.1050	-0.0309
ANP	1.0140	1.0140	-6.4695	266.2404	268.5712	-1791.6212	0.0000	0.0000	0.0000
1X	1.1574	1.1574	-3.3400	-1.1562	-1.1562	3.3400	1.2228	1.1727	-0.0138
1XY	1.1574	1.1574	-3.3400	-1.1562	-1.1562	3.3400	1.2230	1.2033	0.0167
1Y	0.5254	0.5254	-1.9600	-0.5242	-0.5242	1.9600	1.1853	1.2032	-0.0131
10X	4.1269	4.1269	-5.9748	-4.1261	-4.1260	5.9748	0.7818	0.8335	-0.0132
10XY	1.9029	1.9029	-3.9948	-1.9021	-1.9021	3.9948	0.7819	0.7721	0.0133
10Y	1.2709	1.2709	-2.6148	-1.2700	-1.2701	2.6148	0.8387	0.7721	-0.0128
11X	4.4277	4.4277	-6.8775	-4.4270	-4.4270	6.8775	0.7245	0.7527	-0.0102
11XY	1.5717	1.5717	-3.5175	-1.5710	-1.5710	3.5175	0.7249	0.7155	0.0261
11Y	1.5717	1.5717	-3.5175	-1.5710	-1.5710	3.5175	0.7560	0.7151	-0.0095
19X	2.2116	2.2116	-6.4568	-2.2112	-2.2112	6.4568	0.4594	0.4455	-0.0094
19XY	2.2116	2.2116	-6.4568	-2.2112	-2.2112	6.4568	0.4594	0.4559	0.0155
19Y	2.2116	2.2116	-6.4568	-2.2112	-2.2112	6.4568	0.4467	0.4559	-0.0092
20X	3.2313	3.2313	-8.4605	-3.2309	-3.2309	8.4605	0.3931	0.3847	-0.0103
20XY	2.9163	2.9163	-7.6805	-2.9159	-2.9159	7.6805	0.3945	0.3908	0.0386
20Y	2.9163	2.9163	-7.6805	-2.9159	-2.9159	7.6805	0.3849	0.3895	-0.0099
32X	3.8075	3.8075	-14.7387	-3.8074	-3.8074	14.7387	0.1039	0.1053	-0.0079
32XY	3.8075	3.8075	-14.7387	-3.8074	-3.8074	14.7388	0.1052	0.1044	0.0158

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

32Y	3.8075	3.8075	-14.7387	-3.8074	-3.8074	14.7387	0.1052	0.1031	-0.0078
ANX	1.0140	1.0140	-6.4695	26.0907	-56.4215	-314.7173	0.0000	0.0000	0.0000
ANXY	1.0140	1.0140	-6.4695	183.3490	182.0618	1153.9685	0.0000	0.0000	0.0000
ANY	1.0140	1.0140	-6.4695	-57.5069	23.9623	-308.6900	0.0000	0.0000	0.0000
2S	1.1574	1.1574	-2.3400	-1.1563	-1.1563	2.3400	1.1247	1.1136	-0.0373
3S	0.9911	0.9911	-1.8608	-0.9901	-0.9901	1.8608	1.0783	1.0684	-0.0371
4S	1.0977	1.0977	-2.2809	-1.0967	-1.0967	2.2808	1.0319	1.0231	-0.0367
5S	1.0465	1.0465	-1.9718	-1.0456	-1.0456	1.9718	0.9861	0.9782	-0.0362
6S	0.5808	0.5808	-1.0710	-0.5799	-0.5799	1.0709	0.9415	0.9345	-0.0355
7S	1.0176	1.0176	-1.8562	-1.0167	-1.0167	1.8562	0.8979	0.8917	-0.0347
8S	0.4368	0.4368	-0.7852	-0.4359	-0.4359	0.7852	0.8646	0.8589	-0.0339
12S	3.5936	3.5936	-5.0480	-3.5929	-3.5929	5.0479	0.7025	0.6998	-0.0505
13S	4.2546	4.2546	-6.6054	-4.2540	-4.2540	6.6054	0.6571	0.6548	-0.0493
14S	3.8320	3.8320	-5.6974	-3.8314	-3.8314	5.6974	0.6143	0.6125	-0.0474
15S	1.6736	1.6736	-4.2601	-1.6730	-1.6730	4.2601	0.5720	0.5703	-0.0453
16S	0.6976	0.6976	-1.9227	-0.6971	-0.6971	1.9226	0.5334	0.5320	-0.0434
17S	1.5231	1.5231	-4.2731	-1.5227	-1.5227	4.2731	0.4956	0.4943	-0.0412
18S	0.8255	0.8255	-2.3504	-0.8251	-0.8251	2.3504	0.4679	0.4667	-0.0396
21S	1.2152	1.2152	-2.7941	-1.2149	-1.2149	2.7941	0.3574	0.3573	-0.0560
22S	5.0333	5.0333	-7.5810	-5.0329	-5.0329	7.5809	0.3307	0.3307	-0.0539
23S	3.8180	3.8180	-4.7869	-3.8177	-3.8177	4.7868	0.3062	0.3062	-0.0520
24S	2.6206	2.6206	-6.6427	-2.6203	-2.6203	6.6426	0.2819	0.2819	-0.0500
25S	1.3475	1.3475	-3.6558	-1.3473	-1.3473	3.6558	0.2582	0.2583	-0.0484
26S	2.6701	2.6701	-7.3771	-2.6699	-2.6699	7.3770	0.2348	0.2349	-0.0467
27S	1.3226	1.3226	-3.7212	-1.3224	-1.3224	3.7212	0.2129	0.2130	-0.0448
28S	2.6051	2.6051	-7.5257	-2.6049	-2.6049	7.5257	0.1913	0.1914	-0.0428
29S	1.4275	1.4275	-4.0545	-1.4274	-1.4274	4.0544	0.1718	0.1719	-0.0407
30S	2.3138	2.3138	-6.9180	-2.3136	-2.3136	6.9180	0.1528	0.1529	-0.0384
31S	2.8142	2.8142	-9.9146	-2.8141	-2.8141	9.9145	0.1363	0.1364	-0.0360
33S	3.9389	3.9389	-14.0824	-3.9388	-3.9388	14.0824	0.0805	0.0808	-0.0311
34S	4.0099	4.0099	-13.1473	-4.0099	-4.0099	13.1473	0.0622	0.0625	-0.0301
35S	11.4962	11.4962	-19.4895	-11.4962	-11.4962	19.4895	0.0474	0.0477	-0.0286
36S	10.6909	10.6909	-18.1292	-10.6908	-10.6908	18.1292	0.0353	0.0356	-0.0264
37S	2.6867	2.6867	-10.8319	-2.6867	-2.6867	10.8319	0.0235	0.0239	-0.0243
371S	2.6867	2.6867	-10.8319	-2.6867	-2.6867	10.8319	0.0237	0.0244	-0.0152
372S	2.6867	2.6867	-10.8319	-2.6867	-2.6867	10.8319	0.0241	0.0237	-0.0151
373S	2.6867	2.6867	-10.8319	-2.6867	-2.6867	10.8319	0.0248	0.0240	0.0048
374S	2.6867	2.6867	-10.8319	-2.6867	-2.6867	10.8319	0.0243	0.0248	0.0048
38S	2.7670	2.7670	-11.7082	-2.7670	-2.7670	11.7082	0.0167	0.0169	-0.0210
39S	2.7370	2.7370	-12.1364	-2.7370	-2.7370	12.1364	0.0088	0.0090	-0.0178
391S	2.7370	2.7370	-12.1364	-2.7370	-2.7370	12.1364	0.0089	0.0097	-0.0116
392S	2.7370	2.7370	-12.1364	-2.7370	-2.7370	12.1364	0.0095	0.0089	-0.0116
393S	2.7370	2.7370	-12.1364	-2.7370	-2.7370	12.1364	0.0103	0.0095	0.0038
394S	2.7370	2.7370	-12.1364	-2.7370	-2.7370	12.1364	0.0096	0.0103	0.0038
40S	5.8550	5.8550	-16.8647	-5.8550	-5.8550	16.8647	0.0055	0.0056	-0.0134
41S	5.0499	5.0499	-15.7247	-5.0499	-5.0499	15.7246	0.0001	0.0003	-0.0099
411S	2.2974	2.2974	-14.7464	-2.2974	-2.2974	14.7464	0.0001	0.0010	-0.0041
412S	2.2974	2.2974	-14.7464	-2.2974	-2.2974	14.7464	0.0009	0.0002	-0.0041
413S	2.2974	2.2974	-14.7464	-2.2974	-2.2974	14.7464	0.0019	0.0009	-0.0006
414S	2.2974	2.2974	-14.7464	-2.2974	-2.2974	14.7464	0.0010	0.0019	-0.0006
42S	1.5755	1.5755	-10.9472	-1.5755	-1.5755	10.9472	-0.0004	-0.0003	-0.0052
2X	1.1574	1.1574	-2.3400	-1.1563	-1.1563	2.3400	1.1466	1.1144	-0.0137
2XY	1.1574	1.1574	-2.3400	-1.1563	-1.1563	2.3400	1.1478	1.1300	0.0167
2Y	0.5254	0.5254	-0.9600	-0.5243	-0.5243	0.9600	1.1254	1.1286	-0.0131
3X	0.9911	0.9911	-1.8608	-0.9901	-0.9901	1.8608	1.0883	1.0685	-0.0137
3XY	0.9911	0.9911	-1.8608	-0.9901	-0.9901	1.8609	1.0884	1.0719	0.0166
3Y	0.9911	0.9911	-1.8608	-0.9901	-0.9901	1.8608	1.0784	1.0717	-0.0131
4X	1.0977	1.0977	-2.2809	-1.0967	-1.0967	2.2808	1.0290	1.0231	-0.0136

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

4XY	1.0977	1.0977	-2.2809	-1.0967	-1.0967	2.2809	1.0305	1.0153	0.0163
4Y	0.4657	0.4657	-0.9009	-0.4647	-0.4647	0.9008	1.0319	1.0137	-0.0130
5X	1.6785	1.6785	-3.3518	-1.6776	-1.6776	3.3518	0.9716	0.9784	-0.0136
5XY	1.6785	1.6785	-3.3518	-1.6776	-1.6776	3.3518	0.9718	0.9579	0.0159
5Y	1.0465	1.0465	-1.9718	-1.0456	-1.0456	1.9718	0.9862	0.9577	-0.0130
6X	1.2128	1.2128	-2.4510	-1.2119	-1.2119	2.4509	0.9133	0.9339	-0.0135
6XY	1.2128	1.2128	-2.4510	-1.2119	-1.2119	2.4510	0.9152	0.9027	0.0154
6Y	0.5808	0.5808	-1.0710	-0.5799	-0.5799	1.0709	0.9410	0.9006	-0.0129
7X	1.0176	1.0176	-1.8562	-1.0167	-1.0167	1.8562	0.8585	0.8918	-0.0134
7XY	1.0176	1.0176	-1.8562	-1.0167	-1.0167	1.8562	0.8587	0.8473	0.0147
7Y	1.0176	1.0176	-1.8562	-1.0167	-1.0167	1.8562	0.8980	0.8472	-0.0129
8X	1.0688	1.0688	-2.1652	-1.0679	-1.0679	2.1652	0.8143	0.8583	-0.0133
8XY	1.0688	1.0688	-2.1652	-1.0679	-1.0680	2.1652	0.8155	0.8052	0.0140
8Y	0.4368	0.4368	-0.7852	-0.4359	-0.4360	0.7852	0.8640	0.8038	-0.0128
12X	3.5936	3.5936	-5.0480	-3.5930	-3.5929	5.0480	0.6775	0.6991	-0.0100
12XY	0.7376	0.7376	-1.6880	-0.7370	-0.7370	1.6880	0.6790	0.6708	0.0252
12Y	0.7376	0.7376	-1.6880	-0.7369	-0.7370	1.6880	0.7019	0.6691	-0.0094
13X	4.2546	4.2546	-6.6054	-4.2540	-4.2540	6.6054	0.6394	0.6550	-0.0099
13XY	1.3986	1.3986	-3.2454	-1.3980	-1.3980	3.2455	0.6397	0.6322	0.0242
13Y	1.3986	1.3986	-3.2454	-1.3980	-1.3980	3.2454	0.6573	0.6320	-0.0093
14X	3.8320	3.8320	-5.6974	-3.8314	-3.8314	5.6974	0.6012	0.6109	-0.0097
14XY	0.6610	0.6610	-1.5574	-0.6604	-0.6604	1.5575	0.6033	0.5969	0.0227
14Y	0.9760	0.9760	-2.3374	-0.9754	-0.9754	2.3374	0.6128	0.5946	-0.0092
15X	1.6736	1.6736	-4.2601	-1.6730	-1.6730	4.2601	0.5666	0.5705	-0.0096
15XY	1.3586	1.3586	-3.4801	-1.3580	-1.3580	3.4802	0.5670	0.5613	0.0210
15Y	1.6736	1.6736	-4.2601	-1.6730	-1.6730	4.2601	0.5721	0.5610	-0.0091
16X	0.6976	0.6976	-1.9227	-0.6971	-0.6971	1.9227	0.5323	0.5306	-0.0095
16XY	0.6976	0.6976	-1.9227	-0.6971	-0.6971	1.9227	0.5345	0.5295	0.0195
16Y	0.6976	0.6976	-1.9227	-0.6971	-0.6971	1.9227	0.5321	0.5273	-0.0091
17X	1.5231	1.5231	-4.2731	-1.5226	-1.5227	4.2731	0.5016	0.4944	-0.0095
17XY	1.2081	1.2081	-3.4931	-1.2076	-1.2076	3.4931	0.5020	0.4976	0.0178
17Y	1.5231	1.5231	-4.2731	-1.5227	-1.5226	4.2731	0.4957	0.4972	-0.0091
18X	0.8255	0.8255	-2.3504	-0.8251	-0.8251	2.3504	0.4770	0.4659	-0.0094
18XY	0.5105	0.5105	-1.5704	-0.5101	-0.5101	1.5705	0.4783	0.4744	0.0166
18Y	0.8255	0.8255	-2.3504	-0.8251	-0.8251	2.3504	0.4671	0.4731	-0.0091
21X	1.2152	1.2152	-2.7941	-1.2149	-1.2149	2.7941	0.3648	0.3575	-0.0101
21XY	1.2152	1.2152	-2.7941	-1.2149	-1.2149	2.7942	0.3658	0.3625	0.0371
21Y	1.2152	1.2152	-2.7941	-1.2149	-1.2149	2.7941	0.3576	0.3615	-0.0098
22X	2.4883	2.4883	-5.7810	-2.4879	-2.4879	5.7810	0.3375	0.3309	-0.0099
22XY	3.7613	3.7613	-6.6810	-3.7609	-3.7609	6.6810	0.3382	0.3351	0.0355
22Y	2.4883	2.4883	-5.7810	-2.4879	-2.4879	5.7810	0.3310	0.3345	-0.0096
23X	1.2730	1.2730	-2.9869	-1.2727	-1.2727	2.9868	0.3115	0.3059	-0.0097
23XY	1.2730	1.2730	-2.9869	-1.2727	-1.2727	2.9869	0.3129	0.3101	0.0339
23Y	1.2730	1.2730	-2.9869	-1.2727	-1.2727	2.9868	0.3059	0.3087	-0.0095
24X	2.6206	2.6206	-6.6427	-2.6203	-2.6203	6.6427	0.2872	0.2823	-0.0095
24XY	2.6206	2.6206	-6.6427	-2.6203	-2.6203	6.6427	0.2878	0.2852	0.0323
24Y	2.6206	2.6206	-6.6427	-2.6203	-2.6203	6.6427	0.2823	0.2847	-0.0093
25X	1.3475	1.3475	-3.6558	-1.3473	-1.3473	3.6558	0.2621	0.2581	-0.0094
25XY	1.3475	1.3475	-3.6558	-1.3473	-1.3473	3.6559	0.2634	0.2611	0.0309
25Y	1.3475	1.3475	-3.6558	-1.3473	-1.3473	3.6558	0.2581	0.2598	-0.0092
26X	2.6701	2.6701	-7.3771	-2.6699	-2.6699	7.3771	0.2386	0.2353	-0.0092
26XY	2.6701	2.6701	-7.3771	-2.6699	-2.6699	7.3771	0.2392	0.2371	0.0295
26Y	2.6701	2.6701	-7.3771	-2.6699	-2.6699	7.3771	0.2352	0.2366	-0.0090
27X	1.3226	1.3226	-3.7212	-1.3224	-1.3224	3.7212	0.2152	0.2127	-0.0091
27XY	1.3226	1.3226	-3.7212	-1.3224	-1.3224	3.7213	0.2166	0.2148	0.0279
27Y	1.3226	1.3226	-3.7212	-1.3224	-1.3224	3.7212	0.2126	0.2133	-0.0089
28X	2.6051	2.6051	-7.5257	-2.6049	-2.6049	7.5257	0.1936	0.1918	-0.0089
28XY	2.6051	2.6051	-7.5257	-2.6049	-2.6049	7.5257	0.1942	0.1925	0.0262

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28Y	2.6051	2.6051	-7.5257	-2.6049	-2.6049	7.5257	0.1917	0.1920	-0.0087
29X	1.2825	1.2825	-3.8045	-1.2824	-1.2824	3.8045	0.1725	0.1714	-0.0087
29XY	1.2825	1.2825	-3.8045	-1.2824	-1.2824	3.8045	0.1740	0.1726	0.0244
29Y	1.2825	1.2825	-3.8045	-1.2824	-1.2824	3.8045	0.1714	0.1711	-0.0085
30X	2.3138	2.3138	-6.9180	-2.3136	-2.3136	6.9180	0.1538	0.1533	-0.0085
30XY	2.3138	2.3138	-6.9180	-2.3136	-2.3136	6.9181	0.1544	0.1532	0.0224
30Y	2.3138	2.3138	-6.9180	-2.3136	-2.3136	6.9180	0.1532	0.1526	-0.0084
31X	2.8142	2.8142	-9.9146	-2.8141	-2.8141	9.9146	0.1356	0.1357	-0.0083
31XY	2.9592	2.9592	-10.1646	-2.9591	-2.9591	10.1646	0.1373	0.1363	0.0202
31Y	2.9592	2.9592	-10.1646	-2.9591	-2.9591	10.1646	0.1356	0.1345	-0.0082
33X	3.9389	3.9389	-14.0824	-3.9388	-3.9388	14.0824	0.0782	0.0797	-0.0074
33XY	3.9389	3.9389	-14.0824	-3.9388	-3.9388	14.0824	0.0805	0.0798	0.0169
33Y	3.9389	3.9389	-14.0824	-3.9388	-3.9388	14.0824	0.0795	0.0775	-0.0073
34X	4.0099	4.0099	-13.1473	-4.0099	-4.0099	13.1473	0.0606	0.0624	-0.0069
34XY	4.0099	4.0099	-13.1473	-4.0099	-4.0099	13.1473	0.0623	0.0617	0.0169
34Y	4.0099	4.0099	-13.1473	-4.0099	-4.0099	13.1473	0.0621	0.0600	-0.0067
35X	4.2862	4.2862	-14.3795	-4.2862	-4.2862	14.3795	0.0462	0.0481	-0.0063
35XY	4.2862	4.2862	-14.3795	-4.2862	-4.2862	14.3795	0.0476	0.0472	0.0163
35Y	6.7852	6.7852	-15.4795	-6.7852	-6.7852	15.4795	0.0478	0.0458	-0.0062
36X	5.2829	5.2829	-15.3492	-5.2828	-5.2828	15.3492	0.0342	0.0359	-0.0057
36XY	4.3959	4.3959	-13.6042	-4.3958	-4.3958	13.6042	0.0361	0.0357	0.0152
36Y	3.4809	3.4809	-13.0192	-3.4808	-3.4808	13.0192	0.0356	0.0338	-0.0056
37X	3.4877	3.4877	-12.6719	-3.4877	-3.4877	12.6719	0.0238	0.0251	-0.0050
37XY	2.6867	2.6867	-10.8319	-2.6867	-2.6867	10.8319	0.0250	0.0246	0.0142
37Y	2.6867	2.6867	-10.8319	-2.6867	-2.6867	10.8319	0.0247	0.0234	-0.0049
38X	2.7670	2.7670	-11.7082	-2.7670	-2.7670	11.7082	0.0159	0.0173	-0.0043
38XY	2.7670	2.7670	-11.7082	-2.7670	-2.7670	11.7082	0.0182	0.0179	0.0123
38Y	2.9120	2.9120	-11.9582	-2.9120	-2.9120	11.9582	0.0170	0.0157	-0.0042
39X	2.7370	2.7370	-12.1364	-2.7370	-2.7370	12.1364	0.0090	0.0104	-0.0036
39XY	2.7370	2.7370	-12.1364	-2.7370	-2.7370	12.1364	0.0104	0.0102	0.0105
39Y	3.5380	3.5380	-13.9764	-3.5380	-3.5380	13.9764	0.0103	0.0088	-0.0035
40X	6.2540	6.2540	-18.5547	-6.2540	-6.2540	18.5547	0.0034	0.0050	-0.0028
40XY	2.6500	2.6500	-13.8947	-2.6500	-2.6500	13.8947	0.0071	0.0069	0.0078
40Y	4.4520	4.4520	-16.2247	-4.4520	-4.4520	16.2247	0.0048	0.0032	-0.0028
41X	2.6459	2.6459	-14.5947	-2.6459	-2.6459	14.5947	0.0002	0.0020	-0.0020
41XY	1.8449	1.8449	-12.7547	-1.8449	-1.8449	12.7547	0.0019	0.0018	0.0059
41Y	1.8449	1.8449	-12.7547	-1.8449	-1.8449	12.7547	0.0018	0.0001	-0.0020
42X	1.5755	1.5755	-10.9472	-1.5755	-1.5755	10.9472	0.0001	0.0047	-0.0015
42XY	1.5755	1.5755	-10.9472	-1.5755	-1.5755	10.9472	0.0043	0.0042	0.0022
42Y	1.5755	1.5755	-10.9472	-1.5755	-1.5755	10.9472	0.0047	0.0001	-0.0015

Moments for Angles Modeled as Beams:

Angle Label	Torsion (N-m)	Origin X Moment (N-m)	Origin Y Moment (N-m)	End X Moment (N-m)	End Y Moment (N-m)	X Shear (N)	Y Shear (N)
1P	-0.00	-0.02	0.02	-17.79	43.29	-5.55	13.49
1X	-0.01	-0.02	0.02	15.65	94.76	4.87	29.52
1XY	-0.00	-0.02	0.02	42.60	-89.78	13.26	-27.95
1Y	0.00	-0.02	0.02	-45.10	-30.68	-14.05	-9.55
2P	-0.01	17.77	-43.28	5.70	-9.59	9.39	-21.14
2X	-0.02	-15.67	-94.73	-11.61	-147.89	-10.91	-97.05
2XY	-0.01	-42.62	89.81	-76.09	163.26	-47.49	101.23
2Y	0.00	45.08	30.70	72.13	27.01	46.88	23.09
3P	-0.01	-5.72	9.61	-3.38	11.83	-3.64	8.57
3X	-0.02	11.60	147.91	-26.02	235.04	-5.77	153.18
3XY	-0.01	76.07	-163.24	82.85	-167.69	63.57	-132.37

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

3Y	0.00	-72.15	-26.99	-110.08	63.11	-72.90	14.45
4P	-0.01	3.36	-11.81	-37.73	101.80	-13.75	36.00
4X	-0.03	26.01	-235.01	33.66	-284.91	23.87	-207.97
4XY	-0.02	-82.88	167.71	-152.20	305.80	-94.03	189.40
4Y	0.00	110.06	-63.09	135.63	-51.06	98.28	-45.66
5P	-0.01	37.71	-101.79	-47.49	79.81	-3.91	-8.79
5X	-0.04	-33.68	284.93	-256.42	793.35	-116.04	431.31
5XY	0.02	152.17	-305.77	181.98	-266.17	133.66	-228.78
5Y	0.01	-135.66	51.08	-377.90	482.66	-205.42	213.50
6P	-0.02	47.48	-79.79	-102.75	298.92	-22.11	87.65
6X	-0.05	256.41	-793.33	223.99	-477.58	192.16	-508.36
6XY	-0.03	-182.00	266.19	-480.40	797.93	-264.96	425.65
6Y	0.01	377.88	-482.64	218.76	-307.04	238.66	-315.87
7P	-0.02	102.74	-298.90	-358.95	427.04	-128.11	64.07
7X	-0.06	-224.00	477.60	-949.82	663.85	-586.91	570.73
7XY	-0.03	480.38	-797.91	800.37	-916.42	640.38	-857.16
7Y	0.01	-218.78	307.06	-130.24	1429.85	-174.51	868.45
8P	-0.02	358.93	-427.02	1699.50	-2092.53	1311.10	-1604.81
8X	-0.07	949.81	-663.83	2284.29	3071.24	2059.93	1533.38
8XY	-0.03	-800.39	916.44	-3141.70	3845.43	-2510.89	3033.04
8Y	0.01	130.22	-1429.83	-2446.92	-2758.15	-1475.61	-2667.50
9P	46.96	2681.39	-273.92	1843.97	-262.68	1104.02	-130.91
9X	94.00	-3786.93	-548.44	-2277.65	-269.42	-1479.53	-199.53
9XY	84.09	4940.62	-490.45	2560.04	-346.72	1829.88	-204.24
9Y	37.22	-3680.54	-216.92	-2261.65	-327.79	-1449.67	-132.89
10P	90.69	1126.41	-1481.32	308.33	-369.67	496.45	-640.48
10X	138.18	1433.99	1787.09	-5.85	1573.35	494.17	1162.78
10XY	141.49	-1578.65	2041.82	-312.53	411.05	-654.39	848.75
10Y	92.10	-1375.24	-1823.20	-919.03	354.20	-793.86	-508.30
11P	90.69	-308.35	369.69	-591.54	1150.17	-359.96	607.94
11X	138.18	5.83	-1573.33	175.83	-824.65	72.67	-959.19
11XY	141.48	312.51	-411.04	-558.92	1110.65	-98.56	279.85
11Y	92.10	919.01	-354.19	499.61	-383.02	567.45	-294.88
12P	90.68	591.52	-1150.16	389.74	-582.95	392.51	-693.24
12X	138.17	-175.85	824.66	-659.38	1530.79	-334.09	942.18
12XY	141.48	558.90	-1110.64	455.43	-705.86	405.73	-726.60
12Y	92.10	-499.62	383.04	-840.55	1360.27	-536.07	697.32
13P	90.68	-389.76	582.97	-1057.08	1647.34	-578.74	892.13
13X	138.16	659.36	-1530.77	333.29	-766.71	397.06	-918.99
13XY	141.48	-455.45	705.87	-1118.15	1743.35	-629.44	979.69
13Y	92.11	840.53	-1360.26	580.19	-506.29	568.29	-746.62
14P	90.68	1057.06	-1647.33	544.09	-644.33	640.46	-916.66
14X	138.16	-333.31	766.73	-1735.75	1891.25	-827.62	1063.19
14XY	141.48	1118.13	-1743.33	852.66	-932.86	788.32	-1070.48
14Y	92.11	-580.20	506.31	-1870.50	1756.33	-980.28	905.06
15P	90.68	-544.10	644.34	-2071.26	2113.59	-1046.15	1103.17
15X	138.15	1735.74	-1891.24	762.00	-1034.72	999.09	-1170.38
15XY	141.47	-852.67	932.87	-2003.96	1982.49	-1142.65	1166.14
15Y	92.11	1870.49	-1756.32	1071.04	-684.11	1176.61	-976.17
16P	90.68	2071.25	-2113.57	1619.48	-1603.17	1845.36	-1858.37
16X	138.14	-762.01	1034.73	-2582.92	2625.53	-1672.47	1830.13
16XY	141.47	2003.95	-1982.47	1218.26	-1090.60	1611.10	-1536.53
16Y	92.11	-1071.05	684.13	-2618.41	2493.02	-1844.73	1588.57
17P	90.68	-1619.49	1603.18	-4281.18	4441.18	-3734.60	3825.54
17X	138.14	2582.91	-2625.52	-1545.17	-722.77	656.80	-2119.17
17XY	141.47	-1218.27	1090.61	-1799.64	1554.16	-1910.07	1673.90
17Y	92.12	2618.40	-2493.01	591.93	1814.51	2031.86	-429.43
18P	55.70	-6167.62	133.86	-3069.94	91.57	-1382.30	33.73

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

18X	294.16	1603.68	-520.29	748.99	498.70	352.05	-3.23
18XY	87.71	2371.47	206.04	1032.16	158.91	509.32	54.61
18Y	-151.52	1701.61	856.06	794.29	-251.50	373.48	90.47
19P	28.08	-2097.64	2243.93	-950.02	993.30	-1088.45	1156.15
19X	144.13	-133.11	-926.12	-232.19	147.25	-130.46	-278.17
19XY	40.14	-855.03	604.68	-403.41	340.85	-449.44	337.69
19Y	-75.73	762.23	361.06	-183.70	296.58	206.62	234.87
20P	28.08	950.01	-993.29	-277.53	265.57	240.17	-259.90
20X	144.12	232.18	-147.24	-2.64	-106.29	81.98	-90.55
20XY	40.14	403.40	-340.84	-581.25	602.18	-63.52	93.33
20Y	-75.73	183.69	-296.57	126.07	-7.11	110.63	-108.46
21P	28.08	277.52	-265.56	207.35	-190.34	179.58	-168.85
21X	144.12	2.63	106.30	-989.82	1170.90	-365.62	473.04
21XY	40.14	581.25	-602.17	400.94	-393.26	363.77	-368.68
21Y	-75.73	-126.08	7.12	-1177.38	990.97	-482.76	369.66
22P	28.08	-207.36	190.35	-1236.35	1228.75	-534.71	525.59
22X	144.11	989.81	-1170.89	427.60	-656.76	524.97	-676.91
22XY	40.14	-400.95	393.27	-1486.74	1483.93	-699.14	695.26
22Y	-75.72	1177.37	-990.96	674.58	-413.68	685.91	-520.24
23P	28.08	1236.34	-1228.75	467.45	-447.89	608.50	-598.80
23X	144.11	-427.61	656.76	-1636.43	2020.10	-737.16	956.02
23XY	40.14	1486.73	-1483.92	843.86	-825.35	832.36	-824.74
23Y	-75.72	-674.58	413.69	-2026.85	1630.36	-964.80	730.02
24P	28.08	-467.46	447.90	-1786.56	1779.53	-805.01	795.51
24X	144.11	1636.42	-2020.09	674.37	-1047.11	825.28	-1095.43
24XY	40.14	-843.87	825.36	-2202.81	2195.27	-1088.10	1078.80
24Y	-75.72	2026.84	-1630.35	1066.40	-654.35	1104.73	-815.97
25P	28.08	1786.55	-1779.52	674.87	-656.48	879.08	-870.00
25X	144.10	-674.38	1047.12	-2147.79	2546.21	-1007.92	1283.33
25XY	40.14	2202.81	-2195.26	1046.74	-1024.83	1160.55	-1150.03
25Y	-75.72	-1066.41	654.36	-2551.65	2138.46	-1292.16	997.44
26P	28.08	-674.88	656.49	-2209.18	2209.10	-1030.02	1023.42
26X	144.10	2147.78	-2546.20	1003.93	-1302.34	1125.61	-1374.48
26XY	40.14	-1046.75	1024.84	-2572.43	2557.46	-1292.57	1279.39
26Y	-75.71	2551.64	-2138.45	1314.53	-975.82	1380.77	-1112.24
27P	28.08	2209.17	-2209.09	612.87	-621.40	1026.20	-1029.27
27X	144.10	-1003.94	1302.35	-2999.46	3280.17	-1455.78	1666.37
27XY	40.14	2572.43	-2557.45	851.60	-802.68	1245.10	-1221.87
27Y	-75.71	-1314.53	975.83	-3257.53	2962.12	-1662.57	1431.98
28P	28.08	-612.88	621.41	-2632.89	2645.59	-1180.28	1188.00
28X	144.09	2999.45	-3280.16	1193.78	-1227.52	1524.81	-1639.16
28XY	40.14	-851.60	802.69	-2774.51	2747.30	-1318.59	1290.91
28Y	-75.71	3257.52	-2962.12	1224.25	-1152.05	1629.73	-1496.06
29P	28.08	2632.88	-2645.59	189.09	-229.47	1045.18	-1064.84
29X	144.09	-1193.79	1227.53	-2496.00	2330.46	-1366.59	1317.77
29XY	40.14	2774.51	-2747.30	68.42	8.45	1052.93	-1014.39
29Y	-75.71	-1224.25	1152.05	-2272.21	2432.33	-1294.98	1327.55
30P	28.08	-189.10	229.47	-2863.38	2932.43	-537.88	557.16
30X	144.09	2496.00	-2330.45	-523.92	941.96	347.50	-244.67
30XY	40.14	-68.42	-8.44	-2887.57	2789.60	-520.88	490.07
30Y	-75.70	2272.20	-2432.32	-1011.86	624.85	222.09	-318.50
31P	19.38	-4098.25	52.89	556.93	-15.03	-551.76	5.90
31X	318.03	-295.60	-997.00	-96.35	2374.96	-61.07	214.69
31XY	27.79	4014.36	75.09	-811.64	8.11	499.00	12.96
31Y	-271.15	-273.66	1127.66	-102.46	-2373.30	-58.60	-194.08
32P	19.38	-556.93	15.03	1091.82	3.10	87.85	2.98
32X	318.02	96.35	-2374.96	68.14	457.93	27.02	-314.86
32XY	27.79	811.63	-8.11	-985.34	1.42	-28.53	-1.10

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32Y	-271.15	102.46	2373.30	62.95	-478.07	27.17	311.28
33P	19.38	-1091.81	-3.10	1014.21	8.16	-12.75	0.83
33X	318.02	-68.14	-457.93	-3.74	781.55	-11.81	53.15
33XY	27.79	985.34	-1.42	-1171.52	11.12	-30.58	1.59
33Y	-271.15	-62.95	478.06	-3.79	-720.31	-10.96	-39.79
34P	19.38	-1014.20	-8.16	-792.99	-5.65	-296.82	-2.27
34X	318.02	3.74	-781.55	86.83	120.37	14.87	-108.60
34XY	27.79	1171.52	-11.12	714.19	-4.72	309.72	-2.60
34Y	-271.15	3.79	720.31	86.57	-163.97	14.84	91.37
35P	19.38	792.99	5.65	2668.84	-15.91	568.59	-1.68
35X	318.02	-86.83	-120.36	-122.90	1130.86	-34.45	165.97
35XY	27.79	-714.20	4.72	-2396.84	-4.43	-510.97	0.05
35Y	-271.14	-86.57	163.97	-140.84	-1144.41	-37.35	-161.03
36P	19.38	-2668.83	15.91	-1812.32	9.27	-736.01	4.14
36X	318.01	122.90	-1130.86	37.97	-39.80	26.42	-192.28
36XY	27.79	2396.84	4.43	1724.06	5.28	676.84	1.59
36Y	-271.14	140.84	1144.41	48.59	51.16	31.11	196.37
37P	19.38	1812.33	-9.27	2940.64	-3.46	780.65	-2.09
37X	318.01	-37.97	39.81	-86.41	503.91	-20.43	89.30
37XY	27.78	-1724.06	-5.28	-2962.70	-1.53	-769.78	-1.12
37Y	-271.14	-48.59	-51.17	-93.59	-488.03	-23.35	-88.56
38P	19.38	-2940.64	3.46	-2364.22	9.53	-871.30	2.13
38X	318.01	86.41	-503.90	336.97	266.63	69.54	-38.97
38XY	27.78	2962.70	1.53	2934.86	7.93	968.65	1.55
38Y	-271.14	93.59	488.03	347.09	-270.94	72.38	35.66
39P	19.38	2364.22	-9.53	2860.88	-17.62	858.20	-4.46
39X	318.01	-336.97	-266.62	-1435.91	2821.70	-291.19	419.66
39XY	27.78	-2934.86	-7.93	-5743.67	-7.71	-1425.41	-2.57
39Y	-271.14	-347.09	270.94	-1453.02	-2844.04	-295.66	-422.62
40P	19.38	-2860.88	17.62	-26.83	3.31	-474.29	3.44
40X	318.01	1435.91	-2821.70	3002.20	-3356.17	728.94	-1014.69
40XY	27.78	5743.67	7.71	6044.09	3.06	1936.09	1.77
40Y	-271.14	1453.02	2844.04	3001.61	3364.70	731.65	1019.76
41P	19.38	26.83	-3.31	-837.93	23.54	-137.81	3.44
41X	318.01	-3002.20	3356.17	-3649.84	3784.94	-1130.24	1213.34
41XY	27.78	-6044.09	-3.06	-6425.85	13.47	-2118.76	1.77
41Y	-271.14	-3001.61	-3364.70	-3634.47	-3746.57	-1127.53	-1208.27

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 5 "LC5 WIND 0° DEFLEX"

Equilibrium Joint Positions and Rotations for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	0.4063	-0.00241	-0.01667	-0.0216	0.4465	-0.0860	1.056	0.6476	150.9
10P	0.2662	-0.006018	-0.01563	0.0073	0.3583	-0.0860	0.9162	0.644	131.6
11P	0.2452	-0.003186	-0.01751	0.0439	0.3146	-0.0818	1.385	1.137	127.6
19P	0.1536	0.002858	-0.01455	0.0025	0.2216	-0.0524	1.294	1.143	108.6
20P	0.1314	0.001886	-0.01809	-0.0051	0.2000	-0.0440	2.583	2.454	102.2
32P	0.03483	0.000108	-0.01162	-0.0001	0.0924	-0.0266	2.487	2.452	66.11
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	0.407	-0.00228	-0.01649	0.0059	0.4128	0.0222	1.057	-0.6523	150.9
1XY	0.4072	-0.002333	-0.00752	0.0442	0.3825	0.0263	-0.2428	-0.6523	150.9
1Y	0.4065	-0.002461	-0.00692	0.0086	0.4159	-0.0818	-0.2435	0.6475	150.9
10X	0.2784	-0.005794	-0.01522	0.0072	0.3504	0.0223	0.9284	-0.6558	131.6
10XY	0.2786	0.006155	-0.007719	-0.0089	0.3576	0.0263	-0.3714	-0.6438	131.6
10Y	0.2664	0.006002	-0.007132	0.0067	0.3676	-0.0818	-0.3836	0.656	131.6
11X	0.2518	-0.003051	-0.01835	0.0326	0.3734	0.0234	1.392	-1.143	127.6
11XY	0.252	0.003653	-0.004243	-0.0213	0.3654	0.0269	-0.888	-1.136	127.6
11Y	0.2454	0.003377	-0.004924	-0.0488	0.3052	-0.0779	-0.8946	1.143	127.6
19X	0.1482	0.00336	-0.01524	0.0215	0.2455	0.0344	1.288	-1.137	108.6
19XY	0.1486	-0.002025	-0.005439	-0.0179	0.2415	0.0356	-0.9914	-1.142	108.6
19Y	0.154	-0.002276	-0.006137	-0.0064	0.2179	-0.0509	-0.986	1.138	108.6
20X	0.128	0.001878	-0.01785	-0.0122	0.1819	0.0320	2.58	-2.45	102.2
20XY	0.1284	-0.0006701	-0.00183	0.0154	0.1781	0.0328	-2.324	-2.453	102.2
20Y	0.1317	-0.00136	-0.001647	0.0003	0.1958	-0.0430	-2.32	2.451	102.2
32X	0.034	0.0007209	-0.01154	-0.0025	0.0903	0.0211	2.486	-2.451	66.11
32XY	0.03477	0.0003883	-0.003776	0.0021	0.0900	0.0214	-2.417	-2.452	66.12
32Y	0.0356	-0.0005477	-0.003759	-0.0010	0.0921	-0.0262	-2.416	2.451	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	0.3817	-0.003264	-0.01661	-0.0025	0.4237	-0.0860	1.032	0.6467	147.7
3S	0.3634	-0.003198	-0.01655	-0.0052	0.4282	-0.0860	1.013	0.6468	145.2
4S	0.3445	-0.003748	-0.01644	-0.0098	0.4238	-0.0860	0.9945	0.6463	142.7
5S	0.3264	-0.00398	-0.01629	-0.0095	0.4242	-0.0860	0.9764	0.646	140.2
6S	0.3079	-0.004507	-0.01614	-0.0129	0.4094	-0.0860	0.9579	0.6455	137.7
7S	0.2906	-0.004993	-0.01595	-0.0087	0.3975	-0.0860	0.9406	0.645	135.2
8S	0.2767	-0.005475	-0.01578	-0.0258	0.3957	-0.0860	0.9267	0.6445	133.2
12S	0.2289	-0.002142	-0.01723	0.0128	0.3152	-0.0767	1.369	1.138	124.7
13S	0.2157	-0.001306	-0.01695	0.0256	0.3004	-0.0722	1.356	1.139	122.2
14S	0.2026	-0.0002082	-0.01653	0.0167	0.2902	-0.0669	1.343	1.14	119.7
15S	0.1904	0.0003615	-0.01603	0.0222	0.2726	-0.0616	1.33	1.14	117.2
16S	0.1788	0.00136	-0.01562	0.0162	0.2569	-0.0586	1.319	1.141	114.7
17S	0.1681	0.001927	-0.01516	0.0208	0.2385	-0.0555	1.308	1.142	112.2
18S	0.1599	0.002701	-0.01483	0.0142	0.2303	-0.0538	1.3	1.143	110.2
21S	0.1217	0.001502	-0.01762	-0.0061	0.1920	-0.0413	2.574	2.454	99.38
22S	0.1126	0.001399	-0.01711	-0.0005	0.1843	-0.0385	2.565	2.453	96.58
23S	0.104	0.001315	-0.01665	-0.0041	0.1788	-0.0367	2.556	2.453	93.88
24S	0.09578	0.001096	-0.01615	-0.0025	0.1721	-0.0350	2.548	2.453	91.18
25S	0.08747	0.001013	-0.01576	-0.0030	0.1658	-0.0340	2.539	2.453	88.38
26S	0.07957	0.0008321	-0.01534	-0.0019	0.1598	-0.0330	2.532	2.453	85.58
27S	0.07186	0.0007914	-0.0149	-0.0027	0.1534	-0.0320	2.524	2.453	82.79

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28S	0.06459	0.0005995	-0.01443	-0.0014	0.1462	-0.0311	2.517	2.453	79.99
29S	0.05771	0.0006121	-0.01393	-0.0025	0.1380	-0.0302	2.51	2.453	77.24
30S	0.05138	0.0003975	-0.01339	-0.0011	0.1275	-0.0293	2.503	2.452	74.49
31S	0.04553	0.000509	-0.01282	0.0007	0.1202	-0.0284	2.498	2.453	71.79
33S	0.02644	0.0001981	-0.01125	0.0048	0.0662	-0.0255	3.249	3.223	59.79
34S	0.02038	-0.0001451	-0.0107	0.0006	0.0533	-0.0241	3.974	3.954	53.79
35S	0.01549	-0.0003522	-0.01	0.0034	0.0431	-0.0215	4.701	4.685	47.79
36S	0.01136	-0.0004616	-0.00917	0.0016	0.0397	-0.0186	5.428	5.416	41.79
37S	0.007554	-0.0006862	-0.008278	0.0036	0.0298	-0.0160	6.155	6.147	35.79
371S	0.007444	-9.481e-005	-0.008538	0.0000	0.0000	0.0000	6.155	-9.481e-005	35.79
372S	0.008132	-0.0005761	-0.005215	0.0000	0.0000	0.0000	0.008132	6.147	35.79
373S	0.008615	0.0001144	-0.001853	0.0000	0.0000	0.0000	-6.139	0.0001144	35.8
374S	0.007899	0.0005956	-0.005169	0.0000	0.0000	0.0000	0.007899	-6.147	35.79
38S	0.005064	-0.0005652	-0.007149	0.0023	0.0237	-0.0134	6.884	6.878	29.79
39S	0.002514	-0.0008064	-0.005993	0.0032	0.0196	-0.0103	7.612	7.609	23.79
391S	0.002454	-7.609e-005	-0.006481	0.0000	0.0000	0.0000	7.612	-7.609e-005	23.79
392S	0.003231	-0.0007353	-0.003931	0.0000	0.0000	0.0000	0.003231	7.609	23.8
393S	0.003907	5.795e-005	-0.001336	0.0000	0.0000	0.0000	-7.606	5.795e-005	23.8
394S	0.003094	0.0007172	-0.003893	0.0000	0.0000	0.0000	0.003094	-7.609	23.8
40S	0.000944	-0.0004452	-0.0046	0.0059	0.0117	-0.0074	8.342	8.34	17.8
41S	-0.0005203	-0.0009335	-0.003351	-0.0152	0.0162	-0.0064	9.072	9.071	11.8
411S	-0.0005494	-4.357e-005	-0.002945	0.0000	0.0000	0.0000	9.072	-4.357e-005	11.8
412S	0.0003356	-0.0008822	-0.00236	0.0000	0.0000	0.0000	0.0003356	9.071	11.8
413S	0.001189	1.878e-005	-0.001766	0.0000	0.0000	0.0000	-9.071	1.878e-005	11.8
414S	0.0002688	0.0008574	-0.002345	0.0000	0.0000	0.0000	0.0002688	-9.071	11.8
42S	-0.001552	-0.002412	-0.002118	0.0132	-0.0096	-0.0030	9.802	9.801	5.798
2X	0.3843	-0.002309	-0.01643	-0.0133	0.3908	0.0223	1.034	-0.6523	147.7
2XY	0.3853	-0.000354	-0.007475	0.0176	0.4038	0.0263	-0.2647	-0.6504	147.7
2Y	0.3828	-0.001498	-0.006885	0.0344	0.4370	-0.0818	-0.2672	0.6485	147.7
3X	0.3674	-0.003079	-0.01636	-0.0112	0.3953	0.0223	1.017	-0.6531	145.2
3XY	0.3676	0.0002543	-0.007467	0.0274	0.3969	0.0263	-0.2824	-0.6497	145.2
3Y	0.3636	0.0001381	-0.00689	0.0235	0.4293	-0.0818	-0.2864	0.6501	145.2
4X	0.3499	-0.003274	-0.01624	-0.0080	0.3912	0.0223	0.9999	-0.6533	142.7
4XY	0.3506	0.001818	-0.007462	0.0221	0.3925	0.0263	-0.2994	-0.6482	142.7
4Y	0.3452	0.0007806	-0.006892	0.0283	0.4259	-0.0818	-0.3048	0.6508	142.7
5X	0.3332	-0.003857	-0.01606	-0.0102	0.3911	0.0223	0.9832	-0.6539	140.2
5XY	0.3334	0.00245	-0.007478	0.0352	0.3834	0.0263	-0.3166	-0.6475	140.2
5Y	0.3265	0.002324	-0.006916	0.0138	0.4143	-0.0818	-0.3235	0.6523	140.2
6X	0.3163	-0.004257	-0.01588	-0.0111	0.3755	0.0223	0.9663	-0.6543	137.7
6XY	0.3169	0.004048	-0.007508	0.0221	0.3768	0.0263	-0.3331	-0.646	137.7
6Y	0.3087	0.002877	-0.006952	0.0282	0.4113	-0.0818	-0.3413	0.6529	137.7
7X	0.3004	-0.004871	-0.01563	-0.0150	0.3632	0.0223	0.9504	-0.6549	135.2
7XY	0.3006	0.004607	-0.007571	0.0247	0.3648	0.0263	-0.3494	-0.6454	135.2
7Y	0.2908	0.004461	-0.007013	0.0202	0.3987	-0.0818	-0.3592	0.6545	135.2
8X	0.2878	-0.005448	-0.01541	-0.0202	0.3500	0.0223	0.9378	-0.6554	133.2
8XY	0.2881	0.005747	-0.007638	0.0311	0.3482	0.0263	-0.3619	-0.6443	133.2
8Y	0.277	0.005073	-0.007068	0.0337	0.3942	-0.0818	-0.373	0.6551	133.2
12X	0.2336	-0.002003	-0.01805	0.0193	0.3486	0.0253	1.374	-1.142	124.7
12XY	0.2341	0.003133	-0.004309	-0.0183	0.3507	0.0284	-0.9059	-1.137	124.7
12Y	0.2295	0.002184	-0.004992	-0.0066	0.3179	-0.0732	-0.9105	1.142	124.7
13X	0.2187	-0.001094	-0.01774	0.0163	0.3390	0.0270	1.359	-1.141	122.2
13XY	0.2189	0.002026	-0.004405	-0.0162	0.3418	0.0297	-0.9211	-1.138	122.2
13Y	0.2159	0.001813	-0.005089	-0.0203	0.3031	-0.0691	-0.9241	1.142	122.2
14X	0.2041	-0.0005027	-0.01729	0.0207	0.3265	0.0289	1.344	-1.141	119.7
14XY	0.2044	0.001714	-0.004554	-0.0188	0.3260	0.0313	-0.9356	-1.138	119.7
14Y	0.203	0.0006382	-0.005242	-0.0148	0.2897	-0.0642	-0.937	1.141	119.7
15X	0.1903	0.0005564	-0.01677	0.0145	0.3088	0.0309	1.33	-1.139	117.2
15XY	0.1905	0.0005534	-0.004753	-0.0100	0.3073	0.0329	-0.9495	-1.139	117.2

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

15Y	0.1907	0.0003052	-0.005443	-0.0244	0.2713	-0.0594	-0.9493	1.14	117.2
16X	0.1771	0.001144	-0.01634	0.0200	0.2927	0.0321	1.317	-1.139	114.7
16XY	0.1775	0.0002135	-0.004928	-0.0186	0.2917	0.0338	-0.9625	-1.14	114.7
16Y	0.1793	-0.0008563	-0.005619	-0.0160	0.2559	-0.0566	-0.9607	1.139	114.7
17X	0.1648	0.002128	-0.01586	0.0136	0.2730	0.0332	1.305	-1.138	112.2
17XY	0.1651	-0.0009223	-0.005144	-0.0170	0.2767	0.0347	-0.9749	-1.141	112.2
17Y	0.1683	-0.001226	-0.005839	-0.0168	0.2423	-0.0538	-0.9717	1.139	112.2
18X	0.1554	0.002577	-0.01552	0.0232	0.2683	0.0338	1.295	-1.137	110.2
18XY	0.1556	-0.001374	-0.005296	-0.0195	0.2646	0.0352	-0.9844	-1.141	110.2
18Y	0.1601	-0.001984	-0.005993	-0.0177	0.2267	-0.0522	-0.9799	1.138	110.2
21X	0.1186	0.001965	-0.01737	0.0030	0.1904	0.0303	2.571	-2.45	99.38
21XY	0.1192	-0.0005296	-0.001936	-0.0031	0.1896	0.0310	-2.333	-2.453	99.4
21Y	0.1223	-0.001279	-0.001757	0.0046	0.1914	-0.0403	-2.33	2.451	99.4
22X	0.1098	0.001778	-0.01686	-0.0061	0.1787	0.0285	2.562	-2.45	96.58
22XY	0.1102	-0.0005418	-0.002064	0.0051	0.1789	0.0292	-2.342	-2.453	96.6
22Y	0.1131	-0.001059	-0.00189	0.0003	0.1847	-0.0376	-2.339	2.451	96.6
23X	0.1014	0.001583	-0.01641	-0.0016	0.1737	0.0274	2.553	-2.45	93.88
23XY	0.1019	-0.0002926	-0.002181	0.0007	0.1738	0.0280	-2.35	-2.452	93.9
23Y	0.1045	-0.001113	-0.002015	0.0032	0.1787	-0.0359	-2.347	2.451	93.9
24X	0.09341	0.001532	-0.01592	-0.0032	0.1670	0.0263	2.545	-2.45	91.18
24XY	0.09387	-0.0003622	-0.002319	0.0038	0.1655	0.0269	-2.358	-2.452	91.2
24Y	0.09625	-0.0008581	-0.002163	0.0001	0.1705	-0.0342	-2.356	2.451	91.2
25X	0.08534	0.001347	-0.01554	-0.0024	0.1610	0.0257	2.537	-2.451	88.38
25XY	0.08592	-0.0001028	-0.002428	0.0013	0.1613	0.0262	-2.366	-2.452	88.4
25Y	0.08805	-0.0009358	-0.002281	0.0023	0.1661	-0.0333	-2.364	2.451	88.4
26X	0.07766	0.001272	-0.01513	-0.0032	0.1552	0.0251	2.53	-2.451	85.58
26XY	0.07814	-0.0001832	-0.002555	0.0022	0.1553	0.0256	-2.374	-2.452	85.6
26Y	0.08004	-0.0006849	-0.002418	0.0012	0.1599	-0.0323	-2.372	2.451	85.6
27X	0.07017	0.001071	-0.0147	-0.0021	0.1491	0.0245	2.522	-2.451	82.79
27XY	0.07074	7.202e-005	-0.00269	0.0014	0.1490	0.0250	-2.381	-2.452	82.8
27Y	0.07243	-0.0007825	-0.002565	0.0017	0.1532	-0.0314	-2.38	2.451	82.8
28X	0.0631	0.001036	-0.01425	-0.0031	0.1423	0.0239	2.515	-2.451	79.99
28XY	0.06357	-3.094e-005	-0.002843	0.0017	0.1428	0.0244	-2.388	-2.452	80
28Y	0.06506	-0.0005367	-0.002732	0.0011	0.1468	-0.0305	-2.387	2.451	80
29X	0.0564	0.0008181	-0.01376	-0.0015	0.1345	0.0233	2.508	-2.451	77.24
29XY	0.05694	0.0002168	-0.003009	0.0014	0.1338	0.0238	-2.395	-2.452	77.25
29Y	0.05826	-0.0006604	-0.002913	0.0010	0.1373	-0.0296	-2.394	2.451	77.25
30X	0.05023	0.0008482	-0.01324	-0.0026	0.1244	0.0227	2.502	-2.451	74.49
30XY	0.05071	8.492e-005	-0.003194	0.0001	0.1260	0.0232	-2.401	-2.452	74.5
30Y	0.05186	-0.0004242	-0.003116	0.0019	0.1291	-0.0288	-2.4	2.452	74.5
31X	0.04451	0.0005765	-0.01269	-0.0037	0.1178	0.0222	2.497	-2.451	71.79
31XY	0.04499	0.000317	-0.003392	0.0048	0.1158	0.0226	-2.407	-2.452	71.8
31Y	0.04601	-0.0005737	-0.003332	-0.0035	0.1182	-0.0279	-2.406	2.451	71.8
33X	0.0258	0.0002641	-0.01114	-0.0070	0.0642	0.0205	3.249	-3.223	59.79
33XY	0.02644	0.0006214	-0.003192	0.0048	0.0658	0.0208	-3.196	-3.222	59.8
33Y	0.02708	-0.0005836	-0.00317	-0.0040	0.0677	-0.0251	-3.196	3.222	59.8
34X	0.01983	0.0003713	-0.01058	-0.0021	0.0523	0.0196	3.974	-3.954	53.79
34XY	0.02063	0.0005964	-0.00279	0.0019	0.0518	0.0199	-3.933	-3.953	53.8
34Y	0.02118	-0.0004778	-0.002775	-0.0019	0.0527	-0.0237	-3.933	3.953	53.8
35X	0.01498	0.000378	-0.009874	-0.0044	0.0420	0.0176	4.7	-4.685	47.79
35XY	0.01588	0.0006157	-0.002439	0.0038	0.0420	0.0178	-4.669	-4.684	47.8
35Y	0.01638	-0.0004493	-0.002429	-0.0039	0.0432	-0.0211	-4.669	4.685	47.8
36X	0.01097	0.0003598	-0.009042	-0.0022	0.0378	0.0153	5.427	-5.416	41.79
36XY	0.01205	0.0007734	-0.00215	0.0021	0.0377	0.0155	-5.404	-5.415	41.8
36Y	0.01241	-0.0005702	-0.002132	-0.0021	0.0395	-0.0183	-5.404	5.416	41.8
37X	0.007321	0.0004998	-0.008158	-0.0034	0.0285	0.0133	6.155	-6.147	35.79
37XY	0.008506	0.0007086	-0.001775	0.0025	0.0291	0.0135	-6.139	-6.147	35.8
37Y	0.008739	-0.000048	-0.001752	-0.0031	0.0303	-0.0159	-6.139	6.147	35.8

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

38X	0.004879	0.0004061	-0.007058	-0.0018	0.0232	0.0112	6.883	-6.878	29.79
38XY	0.006167	0.0008813	-0.00154	0.0011	0.0237	0.0113	-6.872	-6.878	29.8
38Y	0.00635	-0.0007181	-0.001535	-0.0020	0.0243	-0.0133	-6.872	6.878	29.8
39X	0.002376	0.0006545	-0.005921	-0.0026	0.0190	0.0086	7.612	-7.609	23.79
39XY	0.003842	0.0007934	-0.001218	0.0039	0.0178	0.0086	-7.606	-7.609	23.8
39Y	0.003987	-0.0006806	-0.001225	-0.0046	0.0184	-0.0102	-7.606	7.609	23.8
40X	0.0008934	0.0003584	-0.004555	-0.0055	0.0113	0.0061	8.342	-8.341	17.8
40XY	0.002424	0.001166	-0.001024	-0.0023	0.0191	0.0062	-8.338	-8.34	17.8
40Y	0.002524	-0.00111	-0.001037	0.0018	0.0196	-0.0073	-8.338	8.34	17.8
41X	-0.0005986	0.0008443	-0.003317	0.0154	0.0158	0.0055	9.071	-9.071	11.8
41XY	0.001172	0.0009065	-0.0006832	0.0110	-0.0107	0.0055	-9.071	-9.071	11.8
41Y	0.001239	-0.0008691	-0.0006918	-0.0113	-0.0102	-0.0063	-9.071	9.071	11.8
42X	-0.001583	0.00237	-0.0021	-0.0125	-0.0101	0.0026	9.802	-9.801	5.798
42XY	0.003038	0.002238	-0.000878	-0.0086	0.0111	0.0026	-9.8	-9.801	5.799
42Y	0.003061	-0.002223	-0.0008817	0.0083	0.0116	-0.0030	-9.8	9.801	5.799

Joint Support Reactions for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X Moment (kN-m)	X-M. Usage %	Y Moment (kN-m)	Y-M. Usage %	Z Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-77.67	0.0	-81.75	0.0	570.71	0.0	0.0	581.75	0.0	-2.71	0.0	1.8	0.0	-0.06	0.0	0.0
ANX	-75.84	0.0	82.36	0.0	565.27	0.0	0.0	576.25	0.0	2.68	0.0	1.8	0.0	0.06	0.0	0.0
ANXY	7.02	0.0	1.15	0.0	75.21	0.0	0.0	75.55	0.0	2.46	0.0	-3.4	0.0	0.06	0.0	0.0
ANY	6.30	0.0	-1.76	0.0	75.74	0.0	0.0	76.03	0.0	-2.45	0.0	-3.4	0.0	-0.06	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	0.3927	0.0000	-3.3400	-0.3923	-0.0000	3.3400	0.4063	-0.0024	-0.0167
10P	1.4037	0.0000	-5.9748	-1.4034	-0.0000	5.9748	0.2662	-0.0060	-0.0156
11P	1.5071	0.0000	-6.8775	-1.5068	-0.0000	6.8775	0.2452	-0.0032	-0.0175
19P	0.7112	0.0000	-6.4568	-0.7111	0.0000	6.4568	0.1536	0.0029	-0.0145
20P	1.0549	0.0000	-8.4605	-1.0548	0.0000	8.4605	0.1314	0.0019	-0.0181
32P	1.2296	0.0000	-14.7387	-1.2296	0.0000	14.7387	0.0348	0.0001	-0.0116
ANP	0.3467	0.0000	-6.4695	77.3194	81.7476	-564.2434	0.0000	0.0000	0.0000
1X	0.3927	0.0000	-3.3400	-0.3923	-0.0000	3.3400	0.4070	-0.0023	-0.0165
1XY	0.3927	0.0000	-3.3400	-0.3923	-0.0000	3.3400	0.4072	-0.0023	-0.0075
1Y	0.1687	0.0000	-1.9600	-0.1683	-0.0000	1.9600	0.4065	-0.0025	-0.0069
10X	1.4037	0.0000	-5.9748	-1.4034	-0.0000	5.9748	0.2784	-0.0058	-0.0152
10XY	0.6177	0.0000	-3.9948	-0.6174	0.0000	3.9948	0.2786	0.0062	-0.0077
10Y	0.3937	0.0000	-2.6148	-0.3934	0.0000	2.6148	0.2664	0.0060	-0.0071
11X	1.5071	0.0000	-6.8775	-1.5068	-0.0000	6.8775	0.2518	-0.0031	-0.0184
11XY	0.4971	0.0000	-3.5175	-0.4968	0.0000	3.5175	0.2520	0.0037	-0.0042
11Y	0.4971	0.0000	-3.5175	-0.4968	0.0000	3.5175	0.2454	0.0034	-0.0049
19X	0.7112	0.0000	-6.4568	-0.7111	0.0000	6.4568	0.1482	0.0034	-0.0152
19XY	0.7112	0.0000	-6.4568	-0.7111	-0.0000	6.4568	0.1486	-0.0020	-0.0054
19Y	0.7112	0.0000	-6.4568	-0.7111	-0.0000	6.4568	0.1540	-0.0023	-0.0061
20X	1.0549	0.0000	-8.4605	-1.0548	0.0000	8.4605	0.1280	0.0019	-0.0178
20XY	0.9429	0.0000	-7.6805	-0.9428	-0.0000	7.6805	0.1284	-0.0007	-0.0018
20Y	0.9429	0.0000	-7.6805	-0.9428	-0.0000	7.6805	0.1317	-0.0014	-0.0016
32X	1.2296	0.0000	-14.7387	-1.2296	0.0000	14.7387	0.0340	0.0007	-0.0115
32XY	1.2296	0.0000	-14.7387	-1.2296	0.0000	14.7387	0.0348	0.0004	-0.0038

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

32Y	1.2296	0.0000	-14.7387	-1.2296	-0.0000	14.7387	0.0356	-0.0005	-0.0038
ANX	0.3467	0.0000	-6.4695	75.4902	-82.3629	-558.7991	0.0000	0.0000	0.0000
ANXY	0.3467	0.0000	-6.4695	-7.3701	-1.1469	-68.7422	0.0000	0.0000	0.0000
ANY	0.3467	0.0000	-6.4695	-6.6421	1.7622	-69.2754	0.0000	0.0000	0.0000
2S	0.3927	0.0000	-2.3400	-0.3923	-0.0000	2.3400	0.3817	-0.0033	-0.0166
3S	0.3192	0.0000	-1.8608	-0.3189	-0.0000	1.8608	0.3634	-0.0032	-0.0166
4S	0.3745	0.0000	-2.2809	-0.3742	-0.0000	2.2808	0.3445	-0.0037	-0.0164
5S	0.3303	0.0000	-1.9718	-0.3300	-0.0000	1.9718	0.3264	-0.0040	-0.0163
6S	0.1798	0.0000	-1.0710	-0.1795	-0.0000	1.0709	0.3079	-0.0045	-0.0161
7S	0.3132	0.0000	-1.8562	-0.3129	-0.0000	1.8562	0.2906	-0.0050	-0.0159
8S	0.1334	0.0000	-0.7852	-0.1331	-0.0000	0.7852	0.2767	-0.0055	-0.0158
12S	1.2468	0.0000	-5.0480	-1.2466	-0.0000	5.0480	0.2289	-0.0021	-0.0172
13S	1.4597	0.0000	-6.6054	-1.4595	-0.0000	6.6054	0.2157	-0.0013	-0.0170
14S	1.3349	0.0000	-5.6974	-1.3347	-0.0000	5.6974	0.2026	-0.0002	-0.0165
15S	0.5474	0.0000	-4.2601	-0.5472	0.0000	4.2601	0.1904	0.0004	-0.0160
16S	0.2225	0.0000	-1.9227	-0.2223	0.0000	1.9227	0.1788	0.0014	-0.0156
17S	0.4966	0.0000	-4.2731	-0.4964	0.0000	4.2731	0.1681	0.0019	-0.0152
18S	0.2740	0.0000	-2.3504	-0.2739	0.0000	2.3504	0.1599	0.0027	-0.0148
21S	0.3937	0.0000	-2.7941	-0.3936	0.0000	2.7941	0.1217	0.0015	-0.0176
22S	1.7014	0.0000	-7.5810	-1.7013	0.0000	7.5810	0.1126	0.0014	-0.0171
23S	1.3076	0.0000	-4.7869	-1.3075	0.0000	4.7868	0.1040	0.0013	-0.0167
24S	0.8370	0.0000	-6.6427	-0.8369	0.0000	6.6427	0.0958	0.0011	-0.0162
25S	0.4294	0.0000	-3.6558	-0.4293	0.0000	3.6558	0.0875	0.0010	-0.0158
26S	0.8508	0.0000	-7.3771	-0.8507	0.0000	7.3771	0.0796	0.0008	-0.0153
27S	0.4214	0.0000	-3.7212	-0.4213	0.0000	3.7212	0.0719	0.0008	-0.0149
28S	0.8297	0.0000	-7.5257	-0.8296	0.0000	7.5257	0.0646	0.0006	-0.0144
29S	0.4593	0.0000	-4.0545	-0.4592	0.0000	4.0545	0.0577	0.0006	-0.0139
30S	0.7317	0.0000	-6.9180	-0.7317	0.0000	6.9180	0.0514	0.0004	-0.0134
31S	0.8965	0.0000	-9.9146	-0.8965	0.0000	9.9146	0.0455	0.0005	-0.0128
33S	1.2880	0.0000	-14.0824	-1.2880	0.0000	14.0824	0.0264	0.0002	-0.0113
34S	1.3247	0.0000	-13.1473	-1.3247	-0.0000	13.1473	0.0204	-0.0001	-0.0107
35S	3.9722	0.0000	-19.4895	-3.9722	-0.0000	19.4895	0.0155	-0.0004	-0.0100
36S	3.7133	0.0000	-18.1292	-3.7133	-0.0000	18.1292	0.0114	-0.0005	-0.0092
37S	0.9040	0.0000	-10.8319	-0.9040	-0.0000	10.8319	0.0076	-0.0007	-0.0083
371S	0.9040	0.0000	-10.8319	-0.9040	-0.0000	10.8319	0.0074	-0.0001	-0.0085
372S	0.9040	0.0000	-10.8319	-0.9040	-0.0000	10.8319	0.0081	-0.0006	-0.0052
373S	0.9040	0.0000	-10.8319	-0.9040	0.0000	10.8319	0.0086	0.0001	-0.0019
374S	0.9040	0.0000	-10.8319	-0.9040	0.0000	10.8319	0.0079	0.0006	-0.0052
38S	0.9319	0.0000	-11.7082	-0.9319	-0.0000	11.7082	0.0051	-0.0006	-0.0071
39S	0.9237	0.0000	-12.1364	-0.9237	-0.0000	12.1364	0.0025	-0.0008	-0.0060
391S	0.9237	0.0000	-12.1364	-0.9237	-0.0000	12.1364	0.0025	-0.0001	-0.0065
392S	0.9237	0.0000	-12.1364	-0.9237	-0.0000	12.1364	0.0032	-0.0007	-0.0039
393S	0.9237	0.0000	-12.1364	-0.9237	0.0000	12.1364	0.0039	0.0001	-0.0013
394S	0.9237	0.0000	-12.1364	-0.9237	0.0000	12.1364	0.0031	0.0007	-0.0039
40S	2.0297	0.0000	-16.8647	-2.0297	-0.0000	16.8647	0.0010	-0.0004	-0.0046
41S	1.7649	0.0000	-15.7247	-1.7649	-0.0000	15.7246	-0.0005	-0.0009	-0.0034
411S	0.7810	0.0000	-14.7464	-0.7810	-0.0000	14.7464	-0.0005	-0.0000	-0.0029
412S	0.7810	0.0000	-14.7464	-0.7810	-0.0000	14.7464	0.0003	-0.0009	-0.0024
413S	0.7810	0.0000	-14.7464	-0.7810	0.0000	14.7464	0.0012	0.0000	-0.0018
414S	0.7810	0.0000	-14.7464	-0.7810	0.0000	14.7464	0.0003	0.0009	-0.0023
42S	0.5433	0.0000	-10.9472	-0.5433	-0.0000	10.9472	-0.0016	-0.0024	-0.0021
2X	0.3927	0.0000	-2.3400	-0.3923	-0.0000	2.3400	0.3843	-0.0023	-0.0164
2XY	0.3927	0.0000	-2.3400	-0.3923	-0.0000	2.3400	0.3853	-0.0004	-0.0075
2Y	0.1687	0.0000	-0.9600	-0.1683	-0.0000	0.9600	0.3828	-0.0015	-0.0069
3X	0.3192	0.0000	-1.8608	-0.3189	-0.0000	1.8608	0.3674	-0.0031	-0.0164
3XY	0.3192	0.0000	-1.8608	-0.3189	0.0000	1.8608	0.3676	0.0003	-0.0075
3Y	0.3192	0.0000	-1.8608	-0.3189	0.0000	1.8608	0.3636	0.0001	-0.0069
4X	0.3745	0.0000	-2.2809	-0.3742	-0.0000	2.2808	0.3499	-0.0033	-0.0162

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	117 of 136
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

4XY	0.3745	0.0000	-2.2809	-0.3742	0.0000	2.2808	0.3506	0.0018	-0.0075
4Y	0.1505	0.0000	-0.9009	-0.1502	0.0000	0.9008	0.3452	0.0008	-0.0069
5X	0.5543	0.0000	-3.3518	-0.5540	-0.0000	3.3518	0.3332	-0.0039	-0.0161
5XY	0.5543	0.0000	-3.3518	-0.5540	0.0000	3.3518	0.3334	0.0025	-0.0075
5Y	0.3303	0.0000	-1.9718	-0.3300	0.0000	1.9718	0.3265	0.0023	-0.0069
6X	0.4038	0.0000	-2.4510	-0.4035	-0.0000	2.4509	0.3163	-0.0043	-0.0159
6XY	0.4038	0.0000	-2.4510	-0.4035	0.0000	2.4510	0.3169	0.0040	-0.0075
6Y	0.1798	0.0000	-1.0710	-0.1795	0.0000	1.0710	0.3087	0.0029	-0.0070
7X	0.3132	0.0000	-1.8562	-0.3129	-0.0000	1.8562	0.3004	-0.0049	-0.0156
7XY	0.3132	0.0000	-1.8562	-0.3129	0.0000	1.8562	0.3006	0.0046	-0.0076
7Y	0.3132	0.0000	-1.8562	-0.3129	0.0000	1.8562	0.2908	0.0045	-0.0070
8X	0.3574	0.0000	-2.1652	-0.3571	-0.0000	2.1652	0.2878	-0.0054	-0.0154
8XY	0.3574	0.0000	-2.1652	-0.3571	0.0000	2.1652	0.2881	0.0057	-0.0076
8Y	0.1334	0.0000	-0.7852	-0.1331	0.0000	0.7852	0.2770	0.0051	-0.0071
12X	1.2468	0.0000	-5.0480	-1.2466	-0.0000	5.0480	0.2336	-0.0020	-0.0181
12XY	0.2368	0.0000	-1.6880	-0.2366	0.0000	1.6880	0.2341	0.0031	-0.0043
12Y	0.2368	0.0000	-1.6880	-0.2366	0.0000	1.6880	0.2295	0.0022	-0.0050
13X	1.4597	0.0000	-6.6054	-1.4595	-0.0000	6.6054	0.2187	-0.0011	-0.0177
13XY	0.4497	0.0000	-3.2454	-0.4495	0.0000	3.2454	0.2189	0.0020	-0.0044
13Y	0.4497	0.0000	-3.2454	-0.4495	0.0000	3.2454	0.2159	0.0018	-0.0051
14X	1.3349	0.0000	-5.6974	-1.3347	-0.0000	5.6974	0.2041	-0.0005	-0.0173
14XY	0.2129	0.0000	-1.5574	-0.2127	0.0000	1.5574	0.2044	0.0017	-0.0046
14Y	0.3249	0.0000	-2.3374	-0.3247	0.0000	2.3374	0.2030	0.0006	-0.0052
15X	0.5474	0.0000	-4.2601	-0.5472	0.0000	4.2601	0.1903	0.0006	-0.0168
15XY	0.4354	0.0000	-3.4801	-0.4352	0.0000	3.4801	0.1905	0.0006	-0.0048
15Y	0.5474	0.0000	-4.2601	-0.5472	0.0000	4.2601	0.1907	0.0003	-0.0054
16X	0.2225	0.0000	-1.9227	-0.2223	0.0000	1.9227	0.1771	0.0011	-0.0163
16XY	0.2225	0.0000	-1.9227	-0.2223	0.0000	1.9227	0.1775	0.0002	-0.0049
16Y	0.2225	0.0000	-1.9227	-0.2223	-0.0000	1.9227	0.1793	-0.0009	-0.0056
17X	0.4966	0.0000	-4.2731	-0.4964	0.0000	4.2731	0.1648	0.0021	-0.0159
17XY	0.3846	0.0000	-3.4931	-0.3844	-0.0000	3.4931	0.1651	-0.0009	-0.0051
17Y	0.4966	0.0000	-4.2731	-0.4964	-0.0000	4.2731	0.1683	-0.0012	-0.0058
18X	0.2740	0.0000	-2.3504	-0.2739	0.0000	2.3504	0.1554	0.0026	-0.0155
18XY	0.1620	0.0000	-1.5704	-0.1619	-0.0000	1.5704	0.1556	-0.0014	-0.0053
18Y	0.2740	0.0000	-2.3504	-0.2739	-0.0000	2.3504	0.1601	-0.0020	-0.0060
21X	0.3937	0.0000	-2.7941	-0.3936	0.0000	2.7941	0.1186	0.0020	-0.0174
21XY	0.3937	0.0000	-2.7941	-0.3936	-0.0000	2.7941	0.1192	-0.0005	-0.0019
21Y	0.3937	0.0000	-2.7941	-0.3936	-0.0000	2.7941	0.1223	-0.0013	-0.0018
22X	0.8014	0.0000	-5.7810	-0.8013	0.0000	5.7810	0.1098	0.0018	-0.0169
22XY	1.2514	0.0000	-6.6810	-1.2513	-0.0000	6.6810	0.1102	-0.0005	-0.0021
22Y	0.8014	0.0000	-5.7810	-0.8013	-0.0000	5.7810	0.1131	-0.0011	-0.0019
23X	0.4076	0.0000	-2.9869	-0.4075	0.0000	2.9868	0.1014	0.0016	-0.0164
23XY	0.4076	0.0000	-2.9869	-0.4075	-0.0000	2.9868	0.1019	-0.0003	-0.0022
23Y	0.4076	0.0000	-2.9869	-0.4075	-0.0000	2.9868	0.1045	-0.0011	-0.0020
24X	0.8370	0.0000	-6.6427	-0.8369	0.0000	6.6427	0.0934	0.0015	-0.0159
24XY	0.8370	0.0000	-6.6427	-0.8369	-0.0000	6.6427	0.0939	-0.0004	-0.0023
24Y	0.8370	0.0000	-6.6427	-0.8369	-0.0000	6.6427	0.0962	-0.0009	-0.0022
25X	0.4294	0.0000	-3.6558	-0.4293	0.0000	3.6558	0.0853	0.0013	-0.0155
25XY	0.4294	0.0000	-3.6558	-0.4293	-0.0000	3.6558	0.0859	-0.0001	-0.0024
25Y	0.4294	0.0000	-3.6558	-0.4293	-0.0000	3.6558	0.0881	-0.0009	-0.0023
26X	0.8508	0.0000	-7.3771	-0.8507	0.0000	7.3771	0.0777	0.0013	-0.0151
26XY	0.8508	0.0000	-7.3771	-0.8507	-0.0000	7.3771	0.0781	-0.0002	-0.0026
26Y	0.8508	0.0000	-7.3771	-0.8507	-0.0000	7.3771	0.0800	-0.0007	-0.0024
27X	0.4214	0.0000	-3.7212	-0.4213	0.0000	3.7212	0.0702	0.0011	-0.0147
27XY	0.4214	0.0000	-3.7212	-0.4213	0.0000	3.7212	0.0707	0.0001	-0.0027
27Y	0.4214	0.0000	-3.7212	-0.4213	-0.0000	3.7212	0.0724	-0.0008	-0.0026
28X	0.8297	0.0000	-7.5257	-0.8296	0.0000	7.5257	0.0631	0.0010	-0.0142
28XY	0.8297	0.0000	-7.5257	-0.8296	-0.0000	7.5257	0.0636	-0.0000	-0.0028

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	118 of 136
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28Y	0.8297	0.0000	-7.5257	-0.8296	-0.0000	7.5257	0.0651	-0.0005	-0.0027
29X	0.4083	0.0000	-3.8045	-0.4082	0.0000	3.8045	0.0564	0.0008	-0.0138
29XY	0.4083	0.0000	-3.8045	-0.4082	0.0000	3.8045	0.0569	0.0002	-0.0030
29Y	0.4083	0.0000	-3.8045	-0.4082	-0.0000	3.8045	0.0583	-0.0007	-0.0029
30X	0.7317	0.0000	-6.9180	-0.7317	0.0000	6.9180	0.0502	0.0008	-0.0132
30XY	0.7317	0.0000	-6.9180	-0.7317	0.0000	6.9180	0.0507	0.0001	-0.0032
30Y	0.7317	0.0000	-6.9180	-0.7317	-0.0000	6.9180	0.0519	-0.0004	-0.0031
31X	0.8965	0.0000	-9.9146	-0.8965	0.0000	9.9146	0.0445	0.0006	-0.0127
31XY	0.9475	0.0000	-10.1646	-0.9475	0.0000	10.1646	0.0450	0.0003	-0.0034
31Y	0.9475	0.0000	-10.1646	-0.9475	-0.0000	10.1646	0.0460	-0.0006	-0.0033
33X	1.2880	0.0000	-14.0824	-1.2880	0.0000	14.0824	0.0258	0.0003	-0.0111
33XY	1.2880	0.0000	-14.0824	-1.2880	0.0000	14.0824	0.0264	0.0006	-0.0032
33Y	1.2880	0.0000	-14.0824	-1.2880	-0.0000	14.0824	0.0271	-0.0006	-0.0032
34X	1.3247	0.0000	-13.1473	-1.3247	0.0000	13.1473	0.0198	0.0004	-0.0106
34XY	1.3247	0.0000	-13.1473	-1.3247	0.0000	13.1473	0.0206	0.0006	-0.0028
34Y	1.3247	0.0000	-13.1473	-1.3247	-0.0000	13.1473	0.0212	-0.0005	-0.0028
35X	1.4212	0.0000	-14.3795	-1.4212	0.0000	14.3795	0.0150	0.0004	-0.0099
35XY	1.4212	0.0000	-14.3795	-1.4212	0.0000	14.3795	0.0159	0.0006	-0.0024
35Y	2.3052	0.0000	-15.4795	-2.3052	-0.0000	15.4795	0.0164	-0.0004	-0.0024
36X	1.7993	0.0000	-15.3492	-1.7993	0.0000	15.3492	0.0110	0.0004	-0.0090
36XY	1.4863	0.0000	-13.6042	-1.4863	0.0000	13.6042	0.0120	0.0008	-0.0022
36Y	1.1623	0.0000	-13.0192	-1.1623	-0.0000	13.0192	0.0124	-0.0006	-0.0021
37X	1.1880	0.0000	-12.6719	-1.1880	0.0000	12.6719	0.0073	0.0005	-0.0082
37XY	0.9040	0.0000	-10.8319	-0.9040	0.0000	10.8319	0.0085	0.0007	-0.0018
37Y	0.9040	0.0000	-10.8319	-0.9040	-0.0000	10.8319	0.0087	-0.0005	-0.0018
38X	0.9319	0.0000	-11.7082	-0.9319	0.0000	11.7082	0.0049	0.0004	-0.0071
38XY	0.9319	0.0000	-11.7082	-0.9319	0.0000	11.7082	0.0062	0.0009	-0.0015
38Y	0.9829	0.0000	-11.9582	-0.9829	-0.0000	11.9582	0.0063	-0.0007	-0.0015
39X	0.9237	0.0000	-12.1364	-0.9237	0.0000	12.1364	0.0024	0.0007	-0.0059
39XY	0.9237	0.0000	-12.1364	-0.9237	0.0000	12.1364	0.0038	0.0008	-0.0012
39Y	1.2077	0.0000	-13.9764	-1.2077	-0.0000	13.9764	0.0040	-0.0007	-0.0012
40X	2.1697	0.0000	-18.5547	-2.1697	0.0000	18.5547	0.0009	0.0004	-0.0046
40XY	0.8957	0.0000	-13.8947	-0.8957	0.0000	13.8947	0.0024	0.0012	-0.0010
40Y	1.5327	0.0000	-16.2247	-1.5327	-0.0000	16.2247	0.0025	-0.0011	-0.0010
41X	0.9149	0.0000	-14.5947	-0.9149	0.0000	14.5946	-0.0006	0.0008	-0.0033
41XY	0.6309	0.0000	-12.7547	-0.6309	0.0000	12.7547	0.0012	0.0009	-0.0007
41Y	0.6309	0.0000	-12.7547	-0.6309	-0.0000	12.7547	0.0012	-0.0009	-0.0007
42X	0.5433	0.0000	-10.9472	-0.5433	0.0000	10.9472	-0.0016	0.0024	-0.0021
42XY	0.5433	0.0000	-10.9472	-0.5433	0.0000	10.9472	0.0030	0.0022	-0.0009
42Y	0.5433	0.0000	-10.9472	-0.5433	-0.0000	10.9472	0.0031	-0.0022	-0.0009

Moments for Angles Modeled as Beams:

Angle Label	Torsion (N-m)	Origin X Moment (N-m)	Origin Y Moment (N-m)	End X Moment (N-m)	End Y Moment (N-m)	X Shear (N)	Y Shear (N)
1P	0.00	-0.00	0.01	-24.24	69.54	-7.55	21.66
1X	-0.00	0.00	0.01	24.49	67.16	7.63	20.92
1XY	-0.00	0.00	0.01	33.85	-64.98	10.54	-20.23
1Y	0.00	0.00	0.01	-32.91	-64.19	-10.25	-19.99
2P	0.00	24.24	-69.53	28.65	-87.19	21.15	-62.69
2X	-0.00	-24.49	-67.15	-27.90	-84.74	-20.96	-60.75
2XY	-0.00	-33.85	64.98	-49.93	92.06	-33.51	62.82
2Y	0.00	32.91	64.20	50.76	94.17	33.47	63.35
3P	0.00	-28.65	87.20	-21.23	104.35	-19.95	76.62
3X	-0.00	27.90	84.74	22.60	100.78	20.20	74.21
3XY	-0.00	49.93	-92.06	58.64	-74.91	43.43	-66.79

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

3Y	0.00	-50.76	-94.16	-58.53	-80.76	-43.72	-69.97
4P	0.01	21.23	-104.34	20.71	-105.80	16.78	-84.06
4X	-0.00	-22.60	-100.77	-18.95	-100.63	-16.62	-80.56
4XY	-0.00	-58.64	74.92	-80.16	110.56	-55.52	74.19
4Y	0.01	58.53	80.77	82.26	126.11	56.32	82.75
5P	0.01	-20.71	105.81	-4.79	253.36	-10.20	143.67
5X	-0.00	18.95	100.64	23.05	256.20	16.80	142.74
5XY	-0.00	80.16	-110.55	141.51	-44.68	88.67	-62.09
5Y	0.01	-82.26	-126.11	-149.73	-96.27	-92.80	-88.95
6P	0.01	4.79	-253.35	-14.70	-135.26	-3.96	-155.45
6X	-0.00	-23.05	-256.20	-4.90	-134.28	-11.18	-156.19
6XY	-0.00	-141.51	44.68	-153.48	163.68	-118.00	83.35
6Y	0.01	149.73	96.28	186.94	222.09	134.67	127.35
7P	0.01	14.70	135.27	165.45	167.86	90.07	151.56
7X	-0.00	4.90	134.29	50.23	372.34	27.56	253.32
7XY	-0.00	153.48	-163.67	97.18	136.86	125.33	-13.41
7Y	0.01	-186.94	-222.09	-305.10	-141.13	-246.02	-181.61
8P	0.01	-165.45	-167.85	-536.81	692.66	-447.30	334.27
8X	-0.00	-50.23	-372.34	-357.08	-382.17	-259.43	-480.58
8XY	-0.00	-97.18	-136.85	351.20	-353.95	161.80	-312.62
8Y	0.01	305.10	141.14	607.90	753.23	581.53	569.66
9P	-18.62	-869.36	108.61	-521.25	52.63	-339.26	39.34
9X	-3.00	522.73	17.49	313.13	42.69	203.92	14.68
9XY	-0.33	-498.62	1.92	-411.24	45.55	-221.97	11.58
9Y	-17.36	962.46	101.28	451.55	46.70	344.96	36.10
10P	-27.24	-334.12	403.04	-63.50	391.31	-137.59	274.86
10X	-10.18	-192.02	-250.80	-76.29	215.27	-92.84	-12.29
10XY	-8.03	259.08	-322.49	233.17	-45.81	170.33	-127.44
10Y	-25.00	288.82	349.77	-78.82	111.52	72.67	159.62
11P	-27.24	63.50	-391.30	-64.85	-69.86	-0.54	-184.46
11X	-10.18	76.29	-215.27	106.73	-6.22	73.21	-88.60
11XY	-8.03	-233.17	45.82	-253.75	239.67	-194.77	114.19
11Y	-25.00	78.82	-111.52	216.90	210.51	118.29	39.60
12P	-27.24	64.85	69.86	140.43	255.44	82.11	130.12
12X	-10.18	-106.73	6.23	-144.61	232.07	-100.54	95.32
12XY	-8.03	253.75	-239.66	275.30	45.55	211.62	-77.64
12Y	-25.00	-216.90	-210.50	-264.35	32.41	-192.50	-71.23
13P	-27.24	-140.43	-255.44	-186.89	61.62	-130.93	-77.53
13X	-10.18	144.61	-232.07	197.53	89.09	136.86	-57.19
13XY	-8.03	-275.30	-45.54	-350.46	293.79	-250.30	99.30
13Y	-25.00	264.35	-32.41	346.88	298.87	244.49	106.58
14P	-27.24	186.89	-61.61	326.06	305.37	205.18	97.50
14X	-10.18	-197.53	-89.08	-324.95	285.97	-208.99	78.75
14XY	-8.03	350.46	-293.79	551.45	69.27	360.76	-89.81
14Y	-25.00	-346.88	-298.86	-541.33	61.99	-355.28	-94.75
15P	-27.24	-326.06	-305.37	-432.90	122.69	-303.59	-73.07
15X	-10.18	324.95	-285.96	473.84	173.39	319.51	-45.03
15XY	-8.03	-551.45	-69.27	-589.54	280.08	-456.40	84.32
15Y	-25.00	541.33	-61.98	558.97	254.49	440.12	77.00
16P	-27.24	432.90	-122.68	703.67	216.49	568.29	46.90
16X	-10.18	-473.84	-173.39	-869.52	19.39	-671.68	-77.00
16XY	-8.03	589.54	-280.07	694.52	217.21	642.03	-31.43
16Y	-25.00	-558.97	-254.49	-520.20	385.27	-539.59	65.39
17P	-27.24	-703.67	-216.48	-98.55	230.98	-507.74	9.17
17X	-10.18	869.52	-19.38	957.80	1164.11	1156.53	724.52
17XY	-8.03	-694.52	-217.21	-779.07	982.75	-932.66	484.52
17Y	-25.00	520.20	-385.27	-66.35	67.97	287.25	-200.82
18P	-52.16	-233.01	82.39	-136.08	-90.15	-55.23	-1.16

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18X	30.72	-1500.42	-142.98	-824.25	49.75	-347.86	-13.95
18XY	32.27	1245.79	-140.58	573.09	52.48	272.18	-13.18
18Y	-50.38	1.14	84.30	-106.14	-87.26	-15.71	-0.44
19P	-25.08	-167.70	24.74	-146.01	212.95	-112.04	84.89
19X	15.70	622.66	543.01	266.19	344.69	317.45	317.04
19XY	16.43	-447.22	363.25	-10.91	93.91	-163.62	163.27
19Y	-24.17	-5.88	-144.21	-106.60	-42.20	-40.17	-66.57
20P	-25.08	146.01	-212.95	14.33	-30.63	57.26	-86.99
20X	15.70	-266.19	-344.69	-52.27	-70.02	-113.74	-148.11
20XY	16.43	10.91	-93.91	-182.44	156.90	-61.26	22.50
20Y	-24.17	106.60	42.20	221.55	201.00	117.20	86.86
21P	-25.08	-14.33	30.63	119.75	233.04	39.04	97.66
21X	15.70	52.27	70.02	-113.73	253.36	-22.76	119.77
21XY	16.43	182.44	-156.90	346.22	29.75	195.80	-47.09
21Y	-24.17	-221.55	-201.00	-352.08	20.06	-212.45	-67.02
22P	-25.08	-119.75	-233.04	-180.04	12.55	-111.03	-81.66
22X	15.70	113.73	-253.36	171.05	-7.18	105.47	-96.49
22XY	16.43	-346.22	-29.74	-460.74	276.38	-298.87	91.35
22Y	-24.17	352.08	-20.05	468.91	279.79	304.07	96.20
23P	-25.08	180.04	-12.55	212.43	400.58	140.17	138.58
23X	15.70	-171.05	7.18	-219.79	399.29	-139.58	145.17
23XY	16.43	460.74	-276.37	623.99	-2.94	387.40	-99.75
23Y	-24.17	-468.91	-279.79	-617.16	8.51	-387.88	-96.88
24P	-25.08	-212.43	-400.58	-280.54	-5.50	-176.06	-145.03
24X	15.70	219.79	-399.28	270.87	-17.80	175.24	-148.96
24XY	16.42	-623.99	2.94	-684.61	395.17	-467.36	142.18
24Y	-24.17	617.16	-8.51	693.65	401.86	468.14	140.48
25P	-25.08	280.54	5.51	338.27	452.89	221.00	163.71
25X	15.70	-270.87	17.80	-349.66	443.56	-221.62	164.77
25XY	16.42	684.61	-395.17	741.55	50.94	509.34	-122.94
25Y	-24.17	-693.65	-401.86	-730.77	64.08	-508.72	-120.64
26P	-25.08	-338.27	-452.89	-431.16	47.94	-274.80	-144.63
26X	15.70	349.66	-443.56	419.29	34.95	274.62	-145.93
26XY	16.42	-741.55	-50.94	-760.79	377.05	-536.55	116.47
26Y	-24.17	730.77	-64.08	772.06	385.60	536.72	114.83
27P	-25.08	431.16	-47.93	511.20	536.28	342.68	177.58
27X	15.70	-419.29	-34.94	-528.39	519.00	-344.61	176.02
27XY	16.42	760.79	-377.04	781.46	264.30	560.82	-41.00
27Y	-24.17	-772.06	-385.60	-765.00	286.72	-558.93	-35.96
28P	-25.07	-511.20	-536.28	-615.09	215.24	-409.56	-116.74
28X	15.70	528.39	-519.00	603.66	204.93	411.65	-114.21
28XY	16.42	-781.46	-264.30	-693.94	296.13	-536.51	11.58
28Y	-24.17	765.00	-286.72	704.09	302.63	534.21	5.79
29P	-25.07	615.09	-215.23	488.47	312.84	408.73	36.15
29X	15.70	-603.66	-204.92	-522.20	272.35	-416.99	24.97
29XY	16.42	693.94	-296.13	351.74	442.25	387.29	54.12
29Y	-24.17	-704.09	-302.63	-317.71	483.43	-378.44	66.96
30P	-25.07	-488.47	-312.84	-458.55	705.55	-166.88	69.20
30X	15.70	522.20	-272.35	477.03	735.56	176.07	81.62
30XY	16.42	-351.74	-442.24	-249.52	505.16	-105.95	11.09
30Y	-24.17	317.71	-483.42	226.65	477.12	95.92	-1.11
31P	-54.37	-823.14	167.86	31.61	-398.27	-123.32	-35.90
31X	46.51	-857.43	-177.49	-17.94	401.13	-136.39	34.84
31XY	46.88	533.64	-175.35	-202.52	400.93	51.59	35.15
31Y	-53.89	497.64	170.43	-251.20	-399.30	38.40	-35.66
32P	-54.37	-31.61	398.27	222.06	-81.53	31.28	52.02
32X	46.51	17.94	-401.13	221.07	73.46	39.26	-53.82
32XY	46.88	202.52	-400.93	-119.09	74.16	13.70	-53.67

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32Y	-53.89	251.20	399.30	-122.62	-78.55	21.12	52.68
33P	-54.37	-222.06	81.53	150.88	-112.64	-11.69	-5.11
33X	46.51	-221.07	-73.46	144.84	139.74	-12.52	10.89
33XY	46.88	119.09	-74.16	-221.54	134.08	-16.83	9.84
33Y	-53.89	122.62	78.55	-209.17	-115.62	-14.22	-6.09
34P	-54.37	-150.88	112.64	-103.28	-13.87	-41.74	16.22
34X	46.51	-144.84	-139.74	-87.87	24.94	-38.22	-18.85
34XY	46.88	221.54	-134.08	146.21	23.38	60.40	-18.18
34Y	-53.89	209.17	115.62	152.19	-25.14	59.35	14.86
35P	-54.37	103.28	13.87	446.92	-194.82	90.37	-29.72
35X	46.51	87.87	-24.94	391.32	194.77	78.70	27.89
35XY	46.88	-146.21	-23.38	-404.63	193.91	-90.47	28.01
35Y	-53.89	-152.19	25.14	-445.42	-190.09	-98.15	-27.09
36P	-54.37	-446.92	194.82	-307.76	5.68	-123.95	32.93
36X	46.51	-391.32	-194.77	-282.86	-14.52	-110.73	-34.38
36XY	46.88	404.63	-193.91	290.00	-13.72	114.09	-34.10
36Y	-53.89	445.42	190.09	302.25	5.20	122.80	32.08
37P	-54.37	307.76	-5.68	452.42	-74.93	124.86	-13.24
37X	46.51	282.86	14.52	426.49	93.84	116.51	17.80
37XY	46.88	-290.00	13.72	-542.21	85.49	-136.69	16.30
37Y	-53.89	-302.25	-5.20	-547.12	-77.19	-139.51	-13.53
38P	-54.37	-452.42	74.93	-144.71	-55.05	-98.07	3.26
38X	46.51	-426.48	-93.84	-122.85	26.52	-90.23	-11.06
38XY	46.88	542.21	-85.49	758.24	35.86	213.59	-8.15
38Y	-53.89	547.12	77.19	766.13	-50.62	215.70	4.36
39P	-54.37	144.71	55.05	-698.73	-471.66	-90.99	-68.43
39X	46.51	122.85	-26.52	-709.89	496.87	-96.42	77.25
39XY	46.88	-758.24	-35.86	-2173.22	489.69	-481.48	74.54
39Y	-53.89	-766.13	50.62	-2173.44	-481.81	-482.81	-70.82
40P	-54.37	698.73	471.66	2479.43	580.09	522.00	172.74
40X	46.51	709.89	-496.87	2477.69	-582.92	523.55	-177.35
40XY	46.88	2173.22	-489.69	3532.69	-583.62	937.17	-176.29
40Y	-53.89	2173.45	481.81	3530.95	579.90	936.92	174.38
41P	-54.37	-2479.43	-580.09	-3162.43	-664.20	-958.60	-211.41
41X	46.51	-2477.69	582.92	-3155.07	634.25	-957.06	206.81
41XY	46.88	-3532.69	583.62	-4121.93	639.83	-1300.59	207.87
41Y	-53.89	-3530.95	-579.90	-4125.14	-654.75	-1300.84	-209.78

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 6 "LC6 WIND 45° DEFLEX"

Equilibrium Joint Positions and Rotations for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	0.3078	0.2927	-0.01846	-0.2778	0.3067	0.0277	0.9578	0.9427	150.9
10P	0.2139	0.207	-0.01702	-0.2520	0.2628	0.0277	0.8639	0.857	131.6
11P	0.1931	0.1876	-0.02144	-0.2739	0.2849	0.0256	1.333	1.328	127.6
19P	0.1141	0.1121	-0.01735	-0.1866	0.1907	0.0081	1.254	1.252	108.6
20P	0.09841	0.09692	-0.02205	-0.1354	0.1382	0.0055	2.55	2.549	102.2
32P	0.02632	0.02611	-0.01356	-0.0674	0.0683	0.0022	2.478	2.478	66.11
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	0.3148	0.2928	-0.01252	-0.2495	0.3601	0.1122	0.9648	-0.3572	150.9
1XY	0.3149	0.298	-0.004756	-0.2963	0.3274	0.0573	-0.3351	-0.352	150.9
1Y	0.3079	0.2979	-0.01185	-0.3318	0.2781	-0.0250	-0.3421	0.9479	150.9
10X	0.2025	0.2072	-0.01197	-0.2543	0.2791	0.1123	0.8525	-0.4428	131.6
10XY	0.2026	0.1946	-0.005191	-0.2614	0.2946	0.0573	-0.4474	-0.4554	131.6
10Y	0.2141	0.1945	-0.01152	-0.2474	0.2637	-0.0251	-0.4359	0.8445	131.6
11X	0.1868	0.1877	-0.01131	-0.2807	0.2450	0.1076	1.327	-0.9523	127.6
11XY	0.187	0.1799	-0.001639	-0.1981	0.2256	0.0526	-0.953	-0.9601	127.6
11Y	0.1933	0.1797	-0.01063	-0.2213	0.2866	-0.0273	-0.9467	1.32	127.6
19X	0.1163	0.1125	-0.01029	-0.1711	0.1671	0.0749	1.256	-1.027	108.6
19XY	0.1166	0.1139	-0.003698	-0.1659	0.1739	0.0181	-1.023	-1.026	108.6
19Y	0.1146	0.1137	-0.01002	-0.1580	0.1762	-0.0480	-1.025	1.254	108.6
20X	0.09963	0.097	-0.01006	-0.1398	0.1544	0.0638	2.552	-2.355	102.2
20XY	0.1002	0.09787	0.002393	-0.1369	0.1428	0.0125	-2.352	-2.354	102.2
20Y	0.0985	0.09727	-0.009707	-0.1494	0.1416	-0.0455	-2.354	2.549	102.2
32X	0.02607	0.02676	-0.007758	-0.0691	0.0716	0.0387	2.478	-2.425	66.12
32XY	0.02696	0.02652	-0.001731	-0.0674	0.0693	0.0051	-2.425	-2.425	66.12
32Y	0.02698	0.02562	-0.007643	-0.0698	0.0699	-0.0312	-2.425	2.478	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	0.291	0.2775	-0.01839	-0.2577	0.2857	0.0277	0.941	0.9275	147.7
3S	0.2787	0.2664	-0.01832	-0.2604	0.2876	0.0277	0.9287	0.9164	145.2
4S	0.2659	0.2548	-0.01818	-0.2605	0.2864	0.0277	0.9159	0.9048	142.7
5S	0.2538	0.2437	-0.01797	-0.2587	0.2823	0.0277	0.9038	0.8937	140.2
6S	0.2415	0.2324	-0.01776	-0.2501	0.2728	0.0277	0.8915	0.8824	137.7
7S	0.23	0.2219	-0.01749	-0.2423	0.2623	0.0277	0.88	0.8719	135.2
8S	0.2209	0.2135	-0.01724	-0.2326	0.2541	0.0277	0.8709	0.8635	133.2
12S	0.1793	0.1745	-0.02108	-0.2523	0.2681	0.0225	1.319	1.314	124.7
13S	0.1678	0.1636	-0.0207	-0.2438	0.2578	0.0199	1.308	1.304	122.2
14S	0.1568	0.1532	-0.02013	-0.2398	0.2504	0.0167	1.297	1.293	119.7
15S	0.146	0.1429	-0.01944	-0.2215	0.2345	0.0136	1.286	1.283	117.2
16S	0.1362	0.1334	-0.01887	-0.2154	0.2230	0.0117	1.276	1.273	114.7
17S	0.1267	0.1243	-0.01822	-0.1976	0.2046	0.0099	1.267	1.264	112.2
18S	0.1197	0.1175	-0.01775	-0.1975	0.2033	0.0089	1.26	1.257	110.2
21S	0.09109	0.08976	-0.02142	-0.1452	0.1484	0.0050	2.543	2.542	99.38
22S	0.08429	0.08311	-0.02076	-0.1320	0.1349	0.0044	2.536	2.535	96.58
23S	0.07793	0.07689	-0.02016	-0.1315	0.1341	0.0041	2.53	2.529	93.88
24S	0.07174	0.07081	-0.0195	-0.1251	0.1274	0.0038	2.524	2.523	91.18
25S	0.06562	0.06481	-0.019	-0.1214	0.1236	0.0036	2.518	2.517	88.38
26S	0.05968	0.05896	-0.01845	-0.1164	0.1184	0.0034	2.512	2.511	85.58
27S	0.05403	0.05341	-0.01787	-0.1125	0.1143	0.0032	2.506	2.505	82.78

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28S	0.04854	0.04799	-0.01725	-0.1067	0.1083	0.0031	2.501	2.5	79.98
29S	0.04352	0.04306	-0.01659	-0.1015	0.1030	0.0029	2.496	2.495	77.23
30S	0.03869	0.0383	-0.01588	-0.0935	0.0949	0.0027	2.491	2.49	74.48
31S	0.03448	0.03414	-0.01513	-0.0863	0.0877	0.0025	2.486	2.486	71.78
33S	0.02016	0.02007	-0.01325	-0.0454	0.0457	0.0019	3.243	3.243	59.79
34S	0.01542	0.01538	-0.01266	-0.0391	0.0391	0.0017	3.969	3.969	53.79
35S	0.01162	0.01162	-0.01188	-0.0296	0.0297	0.0015	4.697	4.697	47.79
36S	0.008476	0.008519	-0.01092	-0.0285	0.0286	0.0013	5.425	5.425	41.79
37S	0.005461	0.005532	-0.009905	-0.0201	0.0199	0.0011	6.153	6.153	35.79
371S	0.005498	0.006113	-0.007755	0.0000	0.0000	0.0000	6.153	0.006113	35.79
372S	0.006042	0.005485	-0.007702	0.0000	0.0000	0.0000	0.006042	6.153	35.79
373S	0.006669	0.006007	-0.002634	0.0000	0.0000	0.0000	-6.141	0.006007	35.8
374S	0.006104	0.006656	-0.002683	0.0000	0.0000	0.0000	0.006104	-6.141	35.8
38S	0.003696	0.003757	-0.008556	-0.0165	0.0162	0.0009	6.882	6.882	29.79
39S	0.001637	0.001694	-0.007191	-0.0122	0.0120	0.0007	7.611	7.611	23.79
391S	0.001665	0.002414	-0.005879	0.0000	0.0000	0.0000	7.611	0.002414	23.79
392S	0.002357	0.001673	-0.005845	0.0000	0.0000	0.0000	0.002357	7.611	23.79
393S	0.003118	0.002359	-0.001939	0.0000	0.0000	0.0000	-7.607	0.002359	23.8
394S	0.0024	0.003126	-0.001977	0.0000	0.0000	0.0000	0.0024	-7.607	23.8
40S	0.0007803	0.0008343	-0.005495	-0.0063	0.0062	0.0005	8.342	8.342	17.79
41S	-0.000665	-0.0006109	-0.004018	-0.0173	0.0170	0.0003	9.071	9.071	11.8
411S	-0.0006477	0.0002537	-0.002809	0.0000	0.0000	0.0000	9.071	0.0002537	11.8
412S	0.0001995	-0.0006229	-0.002795	0.0000	0.0000	0.0000	0.0001995	9.071	11.8
413S	0.001091	0.0002138	-0.001901	0.0000	0.0000	0.0000	-9.071	0.0002138	11.8
414S	0.0002179	0.001117	-0.001911	0.0000	0.0000	0.0000	0.0002179	-9.071	11.8
42S	-0.001845	-0.001822	-0.002433	0.0116	-0.0120	0.0001	9.801	9.801	5.798
2X	0.2951	0.2784	-0.01246	-0.2692	0.3360	0.1123	0.9451	-0.3716	147.7
2XY	0.2961	0.2809	-0.004714	-0.3225	0.3510	0.0573	-0.3539	-0.3691	147.7
2Y	0.292	0.2798	-0.01181	-0.3059	0.2973	-0.0250	-0.358	0.9298	147.7
3X	0.2806	0.2665	-0.01243	-0.2652	0.3437	0.1123	0.9306	-0.3835	145.2
3XY	0.2807	0.2667	-0.004715	-0.3131	0.3420	0.0573	-0.3693	-0.3833	145.2
3Y	0.2789	0.2666	-0.0118	-0.3158	0.2921	-0.0250	-0.3711	0.9166	145.2
4X	0.2652	0.2553	-0.01236	-0.2598	0.3382	0.1123	0.9152	-0.3947	142.7
4XY	0.2661	0.2534	-0.004728	-0.3154	0.3422	0.0573	-0.3839	-0.3966	142.7
4Y	0.2665	0.2524	-0.01176	-0.3102	0.2858	-0.0250	-0.3835	0.9024	142.7
5X	0.2509	0.2438	-0.01228	-0.2564	0.3449	0.1123	0.9009	-0.4062	140.2
5XY	0.251	0.2394	-0.004773	-0.3012	0.3300	0.0573	-0.399	-0.4106	140.2
5Y	0.2539	0.2393	-0.01171	-0.3203	0.2796	-0.0250	-0.3961	0.8893	140.2
6X	0.2358	0.2328	-0.0122	-0.2494	0.3286	0.1123	0.8858	-0.4172	137.7
6XY	0.2368	0.2264	-0.00484	-0.3084	0.3323	0.0573	-0.4132	-0.4236	137.7
6Y	0.2419	0.2253	-0.01166	-0.3031	0.2724	-0.0250	-0.4081	0.8753	137.7
7X	0.2221	0.222	-0.01211	-0.2472	0.3208	0.1123	0.8721	-0.428	135.2
7XY	0.2222	0.2128	-0.004953	-0.2939	0.3194	0.0573	-0.4278	-0.4372	135.2
7Y	0.2301	0.2127	-0.01161	-0.2972	0.2666	-0.0250	-0.4199	0.8627	135.2
8X	0.2107	0.2136	-0.01203	-0.2279	0.3185	0.1123	0.8607	-0.4364	133.2
8XY	0.2113	0.2027	-0.005068	-0.3007	0.3185	0.0573	-0.4387	-0.4473	133.2
8Y	0.221	0.2021	-0.01155	-0.2990	0.2506	-0.0251	-0.429	0.8521	133.2
12X	0.1741	0.1747	-0.01118	-0.2479	0.2404	0.1019	1.314	-0.9653	124.7
12XY	0.1749	0.1688	-0.001786	-0.2337	0.2480	0.0466	-0.9651	-0.9712	124.7
12Y	0.1795	0.1679	-0.01054	-0.2241	0.2654	-0.0309	-0.9605	1.308	124.7
13X	0.1641	0.1638	-0.01106	-0.2516	0.2318	0.0969	1.304	-0.9762	122.2
13XY	0.1643	0.1588	-0.001968	-0.2134	0.2308	0.0413	-0.9757	-0.9812	122.2
13Y	0.168	0.1586	-0.01046	-0.2159	0.2642	-0.0340	-0.972	1.299	122.2
14X	0.1539	0.153	-0.01089	-0.2368	0.2221	0.0910	1.294	-0.987	119.7
14XY	0.1547	0.15	-0.002242	-0.2096	0.2228	0.0351	-0.9853	-0.99	119.7
14Y	0.1567	0.149	-0.01036	-0.2065	0.2486	-0.0378	-0.9833	1.289	119.7
15X	0.1447	0.1431	-0.01071	-0.2266	0.2106	0.0851	1.285	-0.9969	117.2
15XY	0.145	0.1408	-0.002584	-0.1890	0.2071	0.0289	-0.995	-0.9992	117.2

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

15Y	0.1462	0.1406	-0.01026	-0.2009	0.2355	-0.0415	-0.9938	1.281	117.2
16X	0.1356	0.1334	-0.01057	-0.2124	0.1976	0.0817	1.276	-1.007	114.7
16XY	0.1364	0.1328	-0.002878	-0.1877	0.1974	0.0253	-1.004	-1.007	114.7
16Y	0.1362	0.1319	-0.01018	-0.1858	0.2210	-0.0437	-1.004	1.272	114.7
17X	0.1275	0.1245	-0.01044	-0.2040	0.1855	0.0783	1.267	-1.016	112.2
17XY	0.1278	0.1246	-0.003227	-0.1768	0.1869	0.0218	-1.012	-1.015	112.2
17Y	0.1269	0.1243	-0.01011	-0.1758	0.2107	-0.0458	-1.013	1.264	112.2
18X	0.121	0.1175	-0.01036	-0.1897	0.1785	0.0764	1.261	-1.023	110.2
18XY	0.1215	0.1186	-0.003474	-0.1699	0.1786	0.0197	-1.019	-1.021	110.2
18Y	0.1197	0.1181	-0.01006	-0.1694	0.1960	-0.0470	-1.02	1.258	110.2
21X	0.09233	0.09026	-0.009866	-0.1381	0.1436	0.0598	2.544	-2.362	99.39
21XY	0.09304	0.09091	0.002151	-0.1449	0.1488	0.0113	-2.359	-2.361	99.4
21Y	0.09159	0.09019	-0.009542	-0.1392	0.1419	-0.0432	-2.36	2.542	99.39
22X	0.08544	0.0835	-0.009668	-0.1365	0.1421	0.0558	2.537	-2.368	96.59
22XY	0.08594	0.08401	0.00187	-0.1342	0.1383	0.0102	-2.366	-2.368	96.6
22Y	0.08468	0.08351	-0.009373	-0.1382	0.1392	-0.0409	-2.367	2.536	96.59
23X	0.07881	0.07722	-0.009491	-0.1295	0.1349	0.0533	2.531	-2.375	93.89
23XY	0.07955	0.07781	0.001611	-0.1331	0.1368	0.0094	-2.372	-2.374	93.9
23Y	0.07827	0.07705	-0.009218	-0.1311	0.1322	-0.0395	-2.374	2.529	93.89
24X	0.07266	0.07125	-0.009306	-0.1252	0.1318	0.0507	2.525	-2.381	91.19
24XY	0.07315	0.07157	0.001313	-0.1252	0.1287	0.0087	-2.379	-2.38	91.2
24Y	0.07218	0.07109	-0.009056	-0.1284	0.1275	-0.0380	-2.38	2.523	91.19
25X	0.06625	0.0652	-0.009164	-0.1211	0.1258	0.0493	2.518	-2.387	88.39
25XY	0.06701	0.06561	0.001078	-0.1234	0.1267	0.0083	-2.385	-2.386	88.4
25Y	0.06602	0.06483	-0.00893	-0.1225	0.1233	-0.0372	-2.386	2.517	88.39
26X	0.06033	0.05941	-0.009015	-0.1174	0.1221	0.0478	2.512	-2.393	85.59
26XY	0.06082	0.05957	0.0008111	-0.1182	0.1213	0.0078	-2.391	-2.392	85.6
26Y	0.06013	0.05907	-0.008797	-0.1190	0.1194	-0.0364	-2.392	2.511	85.59
27X	0.05435	0.05375	-0.00886	-0.1120	0.1167	0.0465	2.506	-2.398	82.79
27XY	0.05513	0.05403	0.0005263	-0.1140	0.1169	0.0074	-2.397	-2.398	82.8
27Y	0.05438	0.05324	-0.008657	-0.1138	0.1138	-0.0356	-2.398	2.505	82.79
28X	0.04891	0.04844	-0.008698	-0.1081	0.1119	0.0452	2.501	-2.404	79.99
28XY	0.04941	0.04844	0.0002077	-0.1089	0.1116	0.0070	-2.403	-2.404	80
28Y	0.04898	0.04794	-0.008511	-0.1091	0.1097	-0.0349	-2.403	2.5	79.99
29X	0.04354	0.04334	-0.008527	-0.1006	0.1053	0.0438	2.496	-2.409	77.24
29XY	0.04433	0.04349	-0.0001348	-0.1024	0.1049	0.0067	-2.408	-2.409	77.25
29Y	0.04381	0.0427	-0.008355	-0.1028	0.1021	-0.0341	-2.408	2.495	77.24
30X	0.03882	0.03875	-0.00835	-0.0950	0.0972	0.0425	2.491	-2.413	74.49
30XY	0.03932	0.0386	-0.0005128	-0.0966	0.0989	0.0063	-2.413	-2.413	74.5
30Y	0.03915	0.0381	-0.008193	-0.0949	0.0964	-0.0334	-2.413	2.49	74.49
31X	0.03421	0.03431	-0.008164	-0.0892	0.0946	0.0412	2.486	-2.418	71.79
31XY	0.035	0.03438	-0.0009158	-0.0859	0.0879	0.0059	-2.417	-2.418	71.8
31Y	0.03465	0.03358	-0.008022	-0.0927	0.0905	-0.0326	-2.417	2.486	71.79
33X	0.01958	0.02027	-0.007267	-0.0548	0.0539	0.0371	3.242	-3.202	59.79
33XY	0.02064	0.0203	-0.001091	-0.0459	0.0480	0.0046	-3.202	-3.202	59.8
33Y	0.02037	0.01923	-0.007153	-0.0522	0.0546	-0.0305	-3.202	3.242	59.79
34X	0.01506	0.01596	-0.006779	-0.0411	0.0420	0.0350	3.969	-3.938	53.79
34XY	0.01606	0.01581	-0.0007372	-0.0376	0.0393	0.0041	-3.938	-3.938	53.8
34Y	0.01601	0.0148	-0.006668	-0.0405	0.0408	-0.0291	-3.938	3.969	53.79
35X	0.01136	0.01238	-0.006242	-0.0356	0.0355	0.0313	4.696	-4.673	47.79
35XY	0.01238	0.01219	-0.0004852	-0.0285	0.0299	0.0037	-4.673	-4.673	47.8
35Y	0.01239	0.01117	-0.006136	-0.0344	0.0354	-0.0260	-4.673	4.696	47.79
36X	0.00822	0.009391	-0.005669	-0.0313	0.0308	0.0273	5.424	-5.407	41.79
36XY	0.0095	0.009358	-0.0003449	-0.0265	0.0278	0.0032	-5.407	-5.407	41.8
36Y	0.009343	0.008074	-0.005562	-0.0298	0.0312	-0.0226	-5.407	5.424	41.79
37X	0.00552	0.006721	-0.005026	-0.0255	0.0244	0.0236	6.153	-6.141	35.79
37XY	0.006708	0.006611	-0.0001073	-0.0195	0.0205	0.0027	-6.141	-6.141	35.8
37Y	0.006645	0.005423	-0.004925	-0.0236	0.0250	-0.0197	-6.141	6.153	35.8

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

38X	0.003509	0.004803	-0.00435	-0.0199	0.0194	0.0197	6.882	-6.874	29.8
38XY	0.005031	0.004964	-0.000105	-0.0166	0.0174	0.0023	-6.874	-6.874	29.8
38Y	0.004748	0.003438	-0.004271	-0.0187	0.0193	-0.0165	-6.874	6.882	29.8
39X	0.001677	0.003156	-0.003616	-0.0163	0.0177	0.0151	7.611	-7.607	23.8
39XY	0.003147	0.003105	1.433e-006	-0.0105	0.0112	0.0018	-7.607	-7.607	23.8
39Y	0.003105	0.001635	-0.00355	-0.0172	0.0160	-0.0126	-7.607	7.611	23.8
40X	0.0002427	0.001813	-0.002832	-0.0169	0.0093	0.0109	8.341	-8.339	17.8
40XY	0.002328	0.00231	-0.000113	-0.0139	0.0144	0.0013	-8.339	-8.339	17.8
40Y	0.00176	0.0002134	-0.002776	-0.0089	0.0167	-0.0091	-8.339	8.341	17.8
41X	-0.0006569	0.001158	-0.002033	0.0123	0.0140	0.0093	9.071	-9.071	11.8
41XY	0.001118	0.001114	-4.82e-006	0.0096	-0.0093	0.0009	-9.071	-9.071	11.8
41Y	0.001097	-0.0006607	-0.001987	-0.0137	-0.0126	-0.0081	-9.071	9.071	11.8
42X	-0.001722	0.002916	-0.001505	-0.0130	-0.0086	0.0045	9.801	-9.8	5.798
42XY	0.002781	0.002781	-0.0005572	-0.0093	0.0095	0.0005	-9.8	-9.8	5.799
42Y	0.002889	-0.00172	-0.001482	0.0086	0.0125	-0.0038	-9.8	9.801	5.799

Joint Support Reactions for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X Moment (kN-m)	X-M. Usage %	Y Moment (kN-m)	Y-M. Usage %	Z Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-98.34	0.0	-99.31	0.0	695.27	0.0	0.0	709.17	0.0	-2.08	0.0	2.1	0.0	-0.00	0.0	0.0
ANX	-37.91	0.0	45.76	0.0	324.11	0.0	0.0	329.51	0.0	3.24	0.0	1.9	0.0	0.08	0.0	0.0
ANXY	-15.01	0.0	-15.08	0.0	-50.52	0.0	0.0	54.81	0.0	3.06	0.0	-3.1	0.0	-0.01	0.0	0.0
ANY	45.64	0.0	-36.99	0.0	318.08	0.0	0.0	323.46	0.0	-1.91	0.0	-3.2	0.0	-0.09	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	0.2894	0.2894	-3.3400	-0.2891	-0.2891	3.3400	0.3078	0.2927	-0.0185
10P	1.0319	1.0319	-5.9748	-1.0317	-1.0317	5.9748	0.2139	0.2070	-0.0170
11P	1.1072	1.1072	-6.8775	-1.1070	-1.1070	6.8775	0.1931	0.1876	-0.0214
19P	0.5532	0.5532	-6.4568	-0.5531	-0.5531	6.4568	0.1141	0.1121	-0.0174
20P	0.8085	0.8085	-8.4605	-0.8084	-0.8084	8.4605	0.0984	0.0969	-0.0220
32P	0.9524	0.9524	-14.7387	-0.9524	-0.9524	14.7387	0.0263	0.0261	-0.0136
ANP	0.2536	0.2536	-6.4695	98.0827	99.0572	-688.7973	0.0000	0.0000	0.0000
1X	0.2894	0.2894	-3.3400	-0.2891	-0.2891	3.3400	0.3148	0.2928	-0.0125
1XY	0.2894	0.2894	-3.3400	-0.2891	-0.2891	3.3400	0.3149	0.2980	-0.0048
1Y	0.1314	0.1314	-1.9600	-0.1311	-0.1311	1.9600	0.3079	0.2979	-0.0119
10X	1.0319	1.0319	-5.9748	-1.0317	-1.0317	5.9748	0.2025	0.2072	-0.0120
10XY	0.4759	0.4759	-3.9948	-0.4757	-0.4757	3.9948	0.2026	0.1946	-0.0052
10Y	0.3179	0.3179	-2.6148	-0.3177	-0.3177	2.6148	0.2141	0.1945	-0.0115
11X	1.1072	1.1072	-6.8775	-1.1070	-1.1070	6.8775	0.1868	0.1877	-0.0113
11XY	0.3932	0.3932	-3.5175	-0.3930	-0.3930	3.5175	0.1870	0.1799	-0.0016
11Y	0.3932	0.3932	-3.5175	-0.3930	-0.3930	3.5175	0.1933	0.1797	-0.0106
19X	0.5532	0.5532	-6.4568	-0.5531	-0.5531	6.4568	0.1163	0.1125	-0.0103
19XY	0.5532	0.5532	-6.4568	-0.5531	-0.5531	6.4568	0.1166	0.1139	-0.0037
19Y	0.5532	0.5532	-6.4568	-0.5531	-0.5531	6.4568	0.1146	0.1137	-0.0100
20X	0.8085	0.8085	-8.4605	-0.8084	-0.8084	8.4605	0.0996	0.0970	-0.0101
20XY	0.7295	0.7295	-7.6805	-0.7294	-0.7294	7.6805	0.1002	0.0979	0.0024
20Y	0.7295	0.7295	-7.6805	-0.7294	-0.7294	7.6805	0.0985	0.0973	-0.0097
32X	0.9524	0.9524	-14.7387	-0.9524	-0.9524	14.7387	0.0261	0.0268	-0.0078
32XY	0.9524	0.9524	-14.7387	-0.9524	-0.9524	14.7387	0.0270	0.0265	-0.0017

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

32Y	0.9524	0.9524	-14.7387	-0.9524	-0.9524	14.7387	0.0270	0.0256	-0.0076
ANX	0.2536	0.2536	-6.4695	37.6571	-46.0155	-317.6374	0.0000	0.0000	0.0000
ANXY	0.2536	0.2536	-6.4695	14.7573	14.8265	56.9847	0.0000	0.0000	0.0000
ANY	0.2536	0.2536	-6.4695	-45.8961	36.7335	-311.6100	0.0000	0.0000	0.0000
2S	0.2894	0.2894	-2.3400	-0.2891	-0.2892	2.3400	0.2910	0.2775	-0.0184
3S	0.2479	0.2479	-1.8608	-0.2477	-0.2477	1.8608	0.2787	0.2664	-0.0183
4S	0.2745	0.2745	-2.2809	-0.2742	-0.2742	2.2808	0.2659	0.2548	-0.0182
5S	0.2618	0.2618	-1.9718	-0.2615	-0.2615	1.9718	0.2538	0.2437	-0.0180
6S	0.1453	0.1453	-1.0710	-0.1450	-0.1451	1.0709	0.2415	0.2324	-0.0178
7S	0.2545	0.2545	-1.8562	-0.2543	-0.2543	1.8562	0.2300	0.2219	-0.0175
8S	0.1093	0.1093	-0.7852	-0.1090	-0.1090	0.7852	0.2209	0.2135	-0.0172
12S	0.8985	0.8985	-5.0480	-0.8983	-0.8983	5.0480	0.1793	0.1745	-0.0211
13S	1.0639	1.0639	-6.6054	-1.0637	-1.0637	6.6054	0.1678	0.1636	-0.0207
14S	0.9584	0.9584	-5.6974	-0.9582	-0.9582	5.6974	0.1568	0.1532	-0.0201
15S	0.4189	0.4189	-4.2601	-0.4187	-0.4187	4.2601	0.1460	0.1429	-0.0194
16S	0.1745	0.1745	-1.9227	-0.1744	-0.1744	1.9227	0.1362	0.1334	-0.0189
17S	0.3812	0.3812	-4.2731	-0.3811	-0.3811	4.2731	0.1267	0.1243	-0.0182
18S	0.2067	0.2067	-2.3504	-0.2066	-0.2066	2.3504	0.1197	0.1175	-0.0178
21S	0.3040	0.3040	-2.7941	-0.3039	-0.3039	2.7941	0.0911	0.0898	-0.0214
22S	1.2584	1.2584	-7.5810	-1.2584	-1.2584	7.5809	0.0843	0.0831	-0.0208
23S	0.9545	0.9545	-4.7869	-0.9544	-0.9544	4.7868	0.0779	0.0769	-0.0202
24S	0.6555	0.6555	-6.6427	-0.6555	-0.6555	6.6427	0.0717	0.0708	-0.0195
25S	0.3371	0.3371	-3.6558	-0.3370	-0.3370	3.6558	0.0656	0.0648	-0.0190
26S	0.6679	0.6679	-7.3771	-0.6679	-0.6679	7.3771	0.0597	0.0590	-0.0184
27S	0.3308	0.3308	-3.7212	-0.3308	-0.3308	3.7212	0.0540	0.0534	-0.0179
28S	0.6517	0.6517	-7.5257	-0.6516	-0.6516	7.5257	0.0485	0.0480	-0.0172
29S	0.3568	0.3568	-4.0545	-0.3568	-0.3568	4.0545	0.0435	0.0431	-0.0166
30S	0.5788	0.5788	-6.9180	-0.5788	-0.5788	6.9180	0.0387	0.0383	-0.0159
31S	0.7040	0.7040	-9.9146	-0.7039	-0.7039	9.9146	0.0345	0.0341	-0.0151
33S	0.9853	0.9853	-14.0824	-0.9853	-0.9853	14.0824	0.0202	0.0201	-0.0132
34S	1.0031	1.0031	-13.1473	-1.0031	-1.0031	13.1473	0.0154	0.0154	-0.0127
35S	2.8762	2.8762	-19.4895	-2.8762	-2.8762	19.4895	0.0116	0.0116	-0.0119
36S	2.6747	2.6747	-18.1292	-2.6747	-2.6747	18.1292	0.0085	0.0085	-0.0109
37S	0.6721	0.6721	-10.8319	-0.6721	-0.6721	10.8319	0.0055	0.0055	-0.0099
371S	0.6721	0.6721	-10.8319	-0.6721	-0.6721	10.8319	0.0055	0.0061	-0.0078
372S	0.6721	0.6721	-10.8319	-0.6721	-0.6721	10.8319	0.0060	0.0055	-0.0077
373S	0.6721	0.6721	-10.8319	-0.6721	-0.6721	10.8319	0.0067	0.0060	-0.0026
374S	0.6721	0.6721	-10.8319	-0.6721	-0.6721	10.8319	0.0061	0.0067	-0.0027
38S	0.6922	0.6922	-11.7082	-0.6922	-0.6922	11.7082	0.0037	0.0038	-0.0086
39S	0.6847	0.6847	-12.1364	-0.6847	-0.6847	12.1364	0.0016	0.0017	-0.0072
391S	0.6847	0.6847	-12.1364	-0.6847	-0.6847	12.1364	0.0017	0.0024	-0.0059
392S	0.6847	0.6847	-12.1364	-0.6847	-0.6847	12.1364	0.0024	0.0017	-0.0058
393S	0.6847	0.6847	-12.1364	-0.6847	-0.6847	12.1364	0.0031	0.0024	-0.0019
394S	0.6847	0.6847	-12.1364	-0.6847	-0.6847	12.1364	0.0024	0.0031	-0.0020
40S	1.4649	1.4649	-16.8647	-1.4649	-1.4649	16.8647	0.0008	0.0008	-0.0055
41S	1.2635	1.2635	-15.7247	-1.2635	-1.2635	15.7246	-0.0007	-0.0006	-0.0040
411S	0.5747	0.5747	-14.7464	-0.5747	-0.5747	14.7464	-0.0006	0.0003	-0.0028
412S	0.5747	0.5747	-14.7464	-0.5747	-0.5747	14.7464	0.0002	-0.0006	-0.0028
413S	0.5747	0.5747	-14.7464	-0.5747	-0.5747	14.7464	0.0011	0.0002	-0.0019
414S	0.5747	0.5747	-14.7464	-0.5747	-0.5747	14.7464	0.0002	0.0011	-0.0019
42S	0.3941	0.3941	-10.9472	-0.3941	-0.3941	10.9472	-0.0018	-0.0018	-0.0024
2X	0.2894	0.2894	-2.3400	-0.2891	-0.2892	2.3400	0.2951	0.2784	-0.0125
2XY	0.2894	0.2894	-2.3400	-0.2891	-0.2891	2.3400	0.2961	0.2809	-0.0047
2Y	0.1314	0.1314	-0.9600	-0.1311	-0.1312	0.9600	0.2920	0.2798	-0.0118
3X	0.2479	0.2479	-1.8608	-0.2477	-0.2477	1.8608	0.2806	0.2665	-0.0124
3XY	0.2479	0.2479	-1.8608	-0.2477	-0.2477	1.8608	0.2807	0.2667	-0.0047
3Y	0.2479	0.2479	-1.8608	-0.2477	-0.2477	1.8608	0.2789	0.2666	-0.0118
4X	0.2745	0.2745	-2.2809	-0.2742	-0.2742	2.2808	0.2652	0.2553	-0.0124

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

4XY	0.2745	0.2745	-2.2809	-0.2742	-0.2743	2.2808	0.2661	0.2534	-0.0047
4Y	0.1165	0.1165	-0.9009	-0.1162	-0.1163	0.9008	0.2665	0.2524	-0.0118
5X	0.4198	0.4198	-3.3518	-0.4195	-0.4195	3.3518	0.2509	0.2438	-0.0123
5XY	0.4198	0.4198	-3.3518	-0.4195	-0.4196	3.3518	0.2510	0.2394	-0.0048
5Y	0.2618	0.2618	-1.9718	-0.2615	-0.2616	1.9718	0.2539	0.2393	-0.0117
6X	0.3033	0.3033	-2.4510	-0.3031	-0.3031	2.4509	0.2358	0.2328	-0.0122
6XY	0.3033	0.3033	-2.4510	-0.3031	-0.3031	2.4510	0.2368	0.2264	-0.0048
6Y	0.1453	0.1453	-1.0710	-0.1450	-0.1451	1.0709	0.2419	0.2253	-0.0117
7X	0.2545	0.2545	-1.8562	-0.2543	-0.2543	1.8562	0.2221	0.2220	-0.0121
7XY	0.2545	0.2545	-1.8562	-0.2543	-0.2543	1.8562	0.2222	0.2128	-0.0050
7Y	0.2545	0.2545	-1.8562	-0.2543	-0.2543	1.8562	0.2301	0.2127	-0.0116
8X	0.2673	0.2673	-2.1652	-0.2670	-0.2670	2.1652	0.2107	0.2136	-0.0120
8XY	0.2673	0.2673	-2.1652	-0.2670	-0.2671	2.1652	0.2113	0.2027	-0.0051
8Y	0.1093	0.1093	-0.7852	-0.1090	-0.1091	0.7852	0.2210	0.2021	-0.0116
12X	0.8985	0.8985	-5.0480	-0.8983	-0.8983	5.0480	0.1741	0.1747	-0.0112
12XY	0.1845	0.1845	-1.6880	-0.1843	-0.1844	1.6880	0.1749	0.1688	-0.0018
12Y	0.1845	0.1845	-1.6880	-0.1843	-0.1844	1.6880	0.1795	0.1679	-0.0105
13X	1.0639	1.0639	-6.6054	-1.0637	-1.0637	6.6054	0.1641	0.1638	-0.0111
13XY	0.3499	0.3499	-3.2454	-0.3497	-0.3497	3.2454	0.1643	0.1588	-0.0020
13Y	0.3499	0.3499	-3.2454	-0.3497	-0.3497	3.2454	0.1680	0.1586	-0.0105
14X	0.9584	0.9584	-5.6974	-0.9582	-0.9582	5.6974	0.1539	0.1530	-0.0109
14XY	0.1654	0.1654	-1.5574	-0.1652	-0.1652	1.5574	0.1547	0.1500	-0.0022
14Y	0.2444	0.2444	-2.3374	-0.2442	-0.2442	2.3374	0.1567	0.1490	-0.0104
15X	0.4189	0.4189	-4.2601	-0.4187	-0.4187	4.2601	0.1447	0.1431	-0.0107
15XY	0.3399	0.3399	-3.4801	-0.3397	-0.3397	3.4801	0.1450	0.1408	-0.0026
15Y	0.4189	0.4189	-4.2601	-0.4187	-0.4187	4.2601	0.1462	0.1406	-0.0103
16X	0.1745	0.1745	-1.9227	-0.1744	-0.1744	1.9227	0.1356	0.1334	-0.0106
16XY	0.1745	0.1745	-1.9227	-0.1744	-0.1744	1.9227	0.1364	0.1328	-0.0029
16Y	0.1745	0.1745	-1.9227	-0.1744	-0.1744	1.9227	0.1362	0.1319	-0.0102
17X	0.3812	0.3812	-4.2731	-0.3811	-0.3811	4.2731	0.1275	0.1245	-0.0104
17XY	0.3022	0.3022	-3.4931	-0.3021	-0.3021	3.4931	0.1278	0.1246	-0.0032
17Y	0.3812	0.3812	-4.2731	-0.3811	-0.3811	4.2731	0.1269	0.1243	-0.0101
18X	0.2067	0.2067	-2.3504	-0.2066	-0.2066	2.3504	0.1210	0.1175	-0.0104
18XY	0.1277	0.1277	-1.5704	-0.1276	-0.1276	1.5704	0.1215	0.1186	-0.0035
18Y	0.2067	0.2067	-2.3504	-0.2066	-0.2066	2.3504	0.1197	0.1181	-0.0101
21X	0.3040	0.3040	-2.7941	-0.3039	-0.3039	2.7941	0.0923	0.0903	-0.0099
21XY	0.3040	0.3040	-2.7941	-0.3039	-0.3039	2.7941	0.0930	0.0909	-0.0022
21Y	0.3040	0.3040	-2.7941	-0.3039	-0.3039	2.7941	0.0916	0.0902	-0.0095
22X	0.6224	0.6224	-5.7810	-0.6224	-0.6224	5.7810	0.0854	0.0835	-0.0097
22XY	0.9404	0.9404	-6.6810	-0.9404	-0.9404	6.6810	0.0859	0.0840	-0.0019
22Y	0.6224	0.6224	-5.7810	-0.6224	-0.6224	5.7810	0.0847	0.0835	-0.0094
23X	0.3185	0.3185	-2.9869	-0.3184	-0.3184	2.9868	0.0788	0.0772	-0.0095
23XY	0.3185	0.3185	-2.9869	-0.3184	-0.3184	2.9869	0.0795	0.0778	-0.0016
23Y	0.3185	0.3185	-2.9869	-0.3184	-0.3184	2.9868	0.0783	0.0771	-0.0092
24X	0.6555	0.6555	-6.6427	-0.6555	-0.6555	6.6427	0.0727	0.0713	-0.0093
24XY	0.6555	0.6555	-6.6427	-0.6555	-0.6555	6.6427	0.0731	0.0716	-0.0013
24Y	0.6555	0.6555	-6.6427	-0.6555	-0.6555	6.6427	0.0722	0.0711	-0.0091
25X	0.3371	0.3371	-3.6558	-0.3370	-0.3370	3.6558	0.0662	0.0652	-0.0092
25XY	0.3371	0.3371	-3.6558	-0.3370	-0.3370	3.6558	0.0670	0.0656	-0.0011
25Y	0.3371	0.3371	-3.6558	-0.3370	-0.3370	3.6558	0.0660	0.0648	-0.0089
26X	0.6679	0.6679	-7.3771	-0.6679	-0.6679	7.3771	0.0603	0.0594	-0.0090
26XY	0.6679	0.6679	-7.3771	-0.6679	-0.6679	7.3771	0.0608	0.0596	-0.0008
26Y	0.6679	0.6679	-7.3771	-0.6679	-0.6679	7.3771	0.0601	0.0591	-0.0088
27X	0.3308	0.3308	-3.7212	-0.3308	-0.3308	3.7212	0.0543	0.0538	-0.0089
27XY	0.3308	0.3308	-3.7212	-0.3308	-0.3308	3.7212	0.0551	0.0540	-0.0005
27Y	0.3308	0.3308	-3.7212	-0.3308	-0.3308	3.7212	0.0544	0.0532	-0.0087
28X	0.6517	0.6517	-7.5257	-0.6516	-0.6516	7.5257	0.0489	0.0484	-0.0087
28XY	0.6517	0.6517	-7.5257	-0.6516	-0.6516	7.5257	0.0494	0.0484	-0.0002

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28Y	0.6517	0.6517	-7.5257	-0.6516	-0.6516	7.5257	0.0490	0.0479	-0.0085
29X	0.3208	0.3208	-3.8045	-0.3208	-0.3208	3.8045	0.0435	0.0433	-0.0085
29XY	0.3208	0.3208	-3.8045	-0.3208	-0.3208	3.8045	0.0443	0.0435	-0.0001
29Y	0.3208	0.3208	-3.8045	-0.3208	-0.3208	3.8045	0.0438	0.0427	-0.0084
30X	0.5788	0.5788	-6.9180	-0.5788	-0.5788	6.9180	0.0388	0.0388	-0.0084
30XY	0.5788	0.5788	-6.9180	-0.5788	-0.5788	6.9180	0.0393	0.0386	-0.0005
30Y	0.5788	0.5788	-6.9180	-0.5788	-0.5788	6.9180	0.0392	0.0381	-0.0082
31X	0.7040	0.7040	-9.9146	-0.7039	-0.7039	9.9146	0.0342	0.0343	-0.0082
31XY	0.7400	0.7400	-10.1646	-0.7399	-0.7399	10.1646	0.0350	0.0344	-0.0009
31Y	0.7400	0.7400	-10.1646	-0.7399	-0.7399	10.1646	0.0346	0.0336	-0.0080
33X	0.9853	0.9853	-14.0824	-0.9853	-0.9853	14.0824	0.0196	0.0203	-0.0073
33XY	0.9853	0.9853	-14.0824	-0.9853	-0.9853	14.0824	0.0206	0.0203	-0.0011
33Y	0.9853	0.9853	-14.0824	-0.9853	-0.9853	14.0824	0.0204	0.0192	-0.0072
34X	1.0031	1.0031	-13.1473	-1.0031	-1.0031	13.1473	0.0151	0.0160	-0.0068
34XY	1.0031	1.0031	-13.1473	-1.0031	-1.0031	13.1473	0.0161	0.0158	-0.0007
34Y	1.0031	1.0031	-13.1473	-1.0031	-1.0031	13.1473	0.0160	0.0148	-0.0067
35X	1.0722	1.0722	-14.3795	-1.0722	-1.0722	14.3795	0.0114	0.0124	-0.0062
35XY	1.0722	1.0722	-14.3795	-1.0722	-1.0722	14.3795	0.0124	0.0122	-0.0005
35Y	1.6972	1.6972	-15.4795	-1.6972	-1.6972	15.4795	0.0124	0.0112	-0.0061
36X	1.3217	1.3217	-15.3492	-1.3217	-1.3217	15.3492	0.0082	0.0094	-0.0057
36XY	1.0997	1.0997	-13.6042	-1.0997	-1.0997	13.6042	0.0095	0.0094	-0.0003
36Y	0.8707	0.8707	-13.0192	-0.8707	-0.8707	13.0192	0.0093	0.0081	-0.0056
37X	0.8721	0.8721	-12.6719	-0.8721	-0.8721	12.6719	0.0055	0.0067	-0.0050
37XY	0.6721	0.6721	-10.8319	-0.6721	-0.6721	10.8319	0.0067	0.0066	-0.0001
37Y	0.6721	0.6721	-10.8319	-0.6721	-0.6721	10.8319	0.0066	0.0054	-0.0049
38X	0.6922	0.6922	-11.7082	-0.6922	-0.6922	11.7082	0.0035	0.0048	-0.0044
38XY	0.6922	0.6922	-11.7082	-0.6922	-0.6922	11.7082	0.0050	0.0050	-0.0001
38Y	0.7282	0.7282	-11.9582	-0.7282	-0.7282	11.9582	0.0047	0.0034	-0.0043
39X	0.6847	0.6847	-12.1364	-0.6847	-0.6847	12.1364	0.0017	0.0032	-0.0036
39XY	0.6847	0.6847	-12.1364	-0.6847	-0.6847	12.1364	0.0031	0.0031	0.0000
39Y	0.8847	0.8847	-13.9764	-0.8847	-0.8847	13.9764	0.0031	0.0016	-0.0036
40X	1.5649	1.5649	-18.5547	-1.5649	-1.5649	18.5547	0.0002	0.0018	-0.0028
40XY	0.6629	0.6629	-13.8947	-0.6629	-0.6629	13.8947	0.0023	0.0023	-0.0001
40Y	1.1139	1.1139	-16.2247	-1.1139	-1.1139	16.2247	0.0018	0.0002	-0.0028
41X	0.6615	0.6615	-14.5947	-0.6615	-0.6615	14.5947	-0.0007	0.0012	-0.0020
41XY	0.4615	0.4615	-12.7547	-0.4615	-0.4615	12.7547	0.0011	0.0011	-0.0000
41Y	0.4615	0.4615	-12.7547	-0.4615	-0.4615	12.7547	0.0011	-0.0007	-0.0020
42X	0.3941	0.3941	-10.9472	-0.3941	-0.3941	10.9472	-0.0017	0.0029	-0.0015
42XY	0.3941	0.3941	-10.9472	-0.3941	-0.3941	10.9472	0.0028	0.0028	-0.0006
42Y	0.3941	0.3941	-10.9472	-0.3941	-0.3941	10.9472	0.0029	-0.0017	-0.0015

Moments for Angles Modeled as Beams:

Angle Label	Torsion (N-m)	Origin X Moment (N-m)	Origin Y Moment (N-m)	End X Moment (N-m)	End Y Moment (N-m)	X Shear (N)	Y Shear (N)
1P	-0.00	-0.00	0.01	-25.62	64.11	-7.98	19.97
1X	-0.00	-0.00	0.01	25.09	73.24	7.81	22.81
1XY	-0.00	-0.01	0.01	33.40	-71.99	10.40	-22.42
1Y	0.00	-0.01	0.00	-32.99	-58.48	-10.28	-18.21
2P	-0.00	25.62	-64.10	30.07	-71.61	22.28	-54.28
2X	-0.00	-25.09	-73.24	-31.54	-103.27	-22.65	-70.60
2XY	-0.00	-33.40	72.00	-48.85	107.12	-32.90	71.65
2Y	0.00	32.99	58.48	49.13	78.91	32.85	54.96
3P	-0.00	-30.08	71.61	-29.95	76.50	-24.01	59.25
3X	-0.01	31.54	103.28	22.60	124.69	21.65	91.19
3XY	-0.00	48.84	-107.11	52.71	-107.77	40.62	-85.95

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	Project	Date
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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

3Y	0.00	-49.13	-78.90	-58.32	-54.52	-42.98	-53.37
4P	-0.00	29.95	-76.50	27.03	-60.49	22.79	-54.80
4X	-0.01	-22.60	-124.68	-28.08	-150.58	-20.27	-110.11
4XY	-0.00	-52.72	107.77	-75.96	155.46	-51.47	105.30
4Y	0.00	58.31	54.52	74.80	79.07	53.25	53.44
5P	-0.00	-27.03	60.50	-67.45	154.38	-37.79	85.95
5X	-0.01	28.07	150.59	-4.63	312.01	9.38	185.04
5XY	-0.00	75.95	-155.46	109.43	-178.19	74.15	-133.46
5Y	0.00	-74.81	-79.06	-154.85	-7.74	-91.86	-34.72
6P	-0.00	67.44	-154.38	31.08	-49.93	39.41	-81.72
6X	-0.01	4.63	-312.01	-5.87	-234.42	-0.50	-218.57
6XY	-0.01	-109.43	178.20	-177.00	306.46	-114.57	193.86
6Y	0.00	154.84	7.74	127.07	64.87	112.77	29.05
7P	-0.00	-31.09	49.94	-116.22	198.55	-73.65	124.24
7X	-0.01	5.86	234.42	-163.45	275.76	-78.79	255.09
7XY	-0.01	176.99	-306.45	236.33	-290.98	206.66	-298.72
7Y	0.00	-127.08	-64.87	-110.58	224.10	-118.83	79.62
8P	-0.00	116.22	-198.54	333.66	-399.96	286.55	-381.21
8X	-0.02	163.44	-275.75	458.74	630.52	396.30	225.97
8XY	-0.01	-236.34	290.98	-676.21	842.08	-581.24	721.70
8Y	0.00	110.58	-224.09	-468.66	-525.13	-228.08	-477.21
9P	7.92	518.76	-46.21	328.08	-49.60	206.60	-23.37
9X	20.52	-770.22	-119.72	-507.71	-59.97	-311.77	-43.84
9XY	19.82	1073.59	-115.60	499.74	-73.36	383.83	-46.10
9Y	6.76	-702.71	-39.36	-490.07	-74.26	-290.99	-27.72
10P	16.19	198.36	-265.60	10.60	51.20	72.31	-74.19
10X	30.36	319.66	398.35	33.86	486.40	122.32	306.14
10XY	31.93	-304.61	402.12	5.15	-20.95	-103.62	131.90
10Y	19.21	-295.59	-397.47	-271.08	2.05	-196.08	-136.82
11P	16.19	-10.61	-51.19	-96.62	172.91	-42.89	48.69
11X	30.36	-33.86	-486.40	3.03	-299.42	-12.33	-314.33
11XY	31.93	-5.15	20.95	-210.11	395.01	-86.11	166.39
11Y	19.21	271.07	-2.05	188.68	24.31	183.90	8.91
12P	16.19	96.62	-172.91	62.48	-38.80	63.64	-84.68
12X	30.35	-3.03	299.42	-130.01	473.91	-53.22	309.33
12XY	31.93	210.11	-395.01	177.95	-249.81	155.22	-257.93
12Y	19.21	-188.68	-24.31	-269.14	257.02	-183.13	93.08
13P	16.19	-62.48	38.81	-219.51	324.71	-112.80	145.41
13X	30.35	130.01	-473.90	42.65	-265.23	69.06	-295.65
13XY	31.93	-177.96	249.81	-354.40	533.73	-212.94	313.42
13Y	19.21	269.14	-257.02	220.98	-18.76	196.05	-110.31
14P	16.19	219.50	-324.70	78.69	-55.29	119.28	-152.00
14X	30.35	-42.65	265.24	-373.51	567.27	-166.47	333.00
14XY	31.93	354.40	-533.72	322.67	-308.73	270.83	-336.98
14Y	19.22	-220.98	18.76	-572.00	354.78	-317.19	149.42
15P	16.19	-78.69	55.30	-493.25	484.25	-228.78	215.82
15X	30.35	373.51	-567.26	177.98	-284.70	220.60	-340.79
15XY	31.93	-322.68	308.73	-575.33	553.77	-359.20	345.00
15Y	19.22	572.00	-354.77	337.61	-112.72	363.84	-187.00
16P	16.19	493.25	-484.24	488.55	-433.81	490.90	-459.03
16X	30.35	-177.98	284.71	-762.74	573.54	-470.36	429.12
16XY	31.93	575.33	-553.76	289.97	-211.21	432.65	-382.49
16Y	19.22	-337.62	112.73	-600.69	715.39	-469.15	414.06
17P	16.19	-488.56	433.81	-1055.27	1090.75	-977.11	964.91
17X	30.35	762.74	-573.53	-203.69	18.47	353.83	-351.31
17XY	31.93	-289.98	211.21	-497.87	453.47	-498.64	420.69
17Y	19.22	600.69	-715.39	8.35	313.04	385.47	-254.65
18P	8.59	-1517.46	28.60	-796.05	12.80	-346.19	6.19

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

18X	72.77	130.97	-142.48	1.54	121.38	19.83	-3.16
18XY	21.96	672.69	39.03	255.13	37.82	138.84	11.50
18Y	-41.35	227.26	212.31	46.28	-69.24	40.93	21.41
19P	4.70	-552.52	573.28	-322.95	332.44	-312.67	323.47
19X	36.20	95.65	-97.83	54.86	153.61	53.75	19.92
19XY	10.59	-210.41	150.41	-22.19	10.02	-83.07	57.29
19Y	-20.50	87.88	-22.43	-150.17	-30.13	-22.25	-18.77
20P	4.70	322.95	-332.44	13.23	-14.47	120.06	-123.90
20X	36.20	-54.86	-153.61	-91.34	-118.15	-52.21	-97.05
20XY	10.59	22.18	-10.01	-230.77	236.28	-74.50	80.81
20Y	-20.50	150.17	30.13	125.96	93.01	98.62	43.98
21P	4.70	-13.23	14.47	-29.09	42.87	-15.67	21.24
21X	36.20	91.34	118.15	-165.85	384.61	-27.60	186.21
21XY	10.59	230.77	-236.27	193.20	-181.40	157.03	-154.69
21Y	-20.50	-125.96	-93.01	-387.83	164.20	-190.29	26.36
22P	4.70	29.08	-42.87	-210.12	204.30	-67.05	59.79
22X	36.20	165.85	-384.60	4.78	-270.25	63.19	-242.54
22XY	10.59	-193.21	181.40	-487.06	482.34	-251.95	245.83
22Y	-20.50	387.83	-164.19	286.39	10.51	249.71	-56.92
23P	4.70	210.11	-204.30	-26.40	45.53	65.61	-56.70
23X	36.20	-4.78	270.25	-268.52	660.75	-97.61	332.50
23XY	10.59	487.05	-482.33	373.42	-354.52	307.31	-298.88
23Y	-20.50	-286.39	-10.51	-667.16	262.25	-340.56	89.91
24P	4.70	26.40	-45.53	-303.56	296.35	-98.99	89.58
24X	36.20	268.52	-660.75	22.50	-413.70	103.94	-383.73
24XY	10.59	-373.42	354.53	-715.03	707.69	-388.73	379.36
24Y	-20.50	667.16	-262.25	433.23	-2.78	393.00	-94.65
25P	4.70	303.56	-296.35	30.78	-11.08	119.41	-109.80
25X	36.20	-22.50	413.70	-402.27	787.61	-151.70	429.04
25XY	10.59	715.03	-707.69	420.74	-400.16	405.63	-395.66
25Y	-20.50	-433.23	2.78	-794.52	394.39	-438.48	141.85
26P	4.70	-30.78	11.08	-436.83	431.18	-167.01	157.95
26X	36.20	402.26	-787.61	132.30	-450.53	190.92	-442.19
26XY	10.59	-420.74	400.16	-780.69	771.33	-429.08	418.39
26Y	-20.50	794.51	-394.39	468.72	-110.15	451.16	-180.19
27P	4.70	436.83	-431.17	66.96	-54.05	183.20	-176.44
27X	36.20	-132.30	450.53	-667.64	918.82	-290.89	497.95
27XY	10.59	780.69	-771.33	320.21	-293.05	400.33	-387.05
27Y	-20.50	-468.73	110.15	-918.77	652.80	-504.54	277.43
28P	4.70	-66.96	54.05	-636.69	634.98	-255.87	250.56
28X	36.20	667.64	-918.82	272.85	-337.28	342.00	-456.76
28XY	10.59	-320.22	293.05	-735.88	724.65	-384.04	370.07
28Y	-20.50	918.76	-652.79	351.12	-248.14	461.78	-327.61
29P	4.70	636.69	-634.98	116.06	-114.85	278.80	-277.71
29X	36.19	-272.85	337.28	-695.89	520.76	-358.79	317.79
29XY	10.59	735.88	-724.65	-39.23	67.83	258.02	-243.27
29Y	-20.50	-351.12	248.14	-509.01	678.68	-318.57	343.27
30P	4.70	-116.06	114.85	-812.59	826.06	-163.64	165.80
30X	36.19	695.89	-520.76	-43.36	327.05	114.98	-34.13
30XY	10.59	39.23	-67.83	-639.02	616.40	-105.69	96.67
30Y	-20.49	509.01	-678.68	-330.64	77.98	31.43	-105.85
31P	3.01	-1158.70	10.18	63.31	-11.01	-170.67	-0.13
31X	80.15	-200.60	-251.96	-107.33	600.23	-47.98	54.26
31XY	7.72	887.72	17.56	-285.25	8.13	93.87	4.00
31Y	-69.27	-178.65	281.26	-113.43	-600.73	-45.51	-49.78
32P	3.01	-63.31	11.01	309.70	1.03	40.47	1.98
32X	80.15	107.33	-600.23	56.81	114.34	26.96	-79.80
32XY	7.72	285.25	-8.13	-209.44	0.40	12.45	-1.27

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32Y	-69.27	113.43	600.73	51.61	-119.14	27.11	79.10
33P	3.01	-309.70	-1.03	237.27	1.03	-11.90	-0.00
33X	80.15	-56.81	-114.34	-29.55	199.85	-14.18	14.04
33XY	7.72	209.44	-0.40	-322.65	3.71	-18.59	0.54
33Y	-69.27	-51.61	119.13	-29.61	-184.59	-13.34	-10.75
34P	3.01	-237.27	-1.03	-173.07	-1.79	-67.40	-0.46
34X	80.15	29.55	-199.85	40.35	32.03	11.48	-27.56
34XY	7.72	322.65	-3.71	204.20	-0.79	86.53	-0.74
34Y	-69.26	29.61	184.59	40.09	-42.93	11.45	23.27
35P	3.01	173.07	1.79	668.09	-8.27	138.16	-1.06
35X	80.15	-40.35	-32.03	-22.02	288.65	-10.24	42.15
35XY	7.72	-204.20	0.79	-617.28	3.18	-134.92	0.65
35Y	-69.26	-40.09	42.93	-39.96	-292.03	-13.15	-40.91
36P	3.01	-668.09	8.27	-458.69	3.82	-185.07	1.99
36X	80.15	22.02	-288.65	4.35	-12.53	4.33	-49.47
36XY	7.72	617.28	-3.18	441.27	-0.18	173.86	-0.55
36Y	-69.26	39.96	292.03	14.97	15.37	9.02	50.49
37P	3.01	458.69	-3.82	705.41	-1.59	191.20	-0.89
37X	80.14	-4.35	12.53	-58.92	130.14	-10.39	23.43
37XY	7.72	-441.27	0.18	-793.59	0.34	-202.82	0.08
37Y	-69.26	-14.97	-15.37	-66.10	-126.18	-13.32	-23.25
38P	3.01	-705.41	1.59	-367.60	2.99	-176.24	0.75
38X	80.14	58.92	-130.14	317.97	63.83	61.90	-10.89
38XY	7.72	793.59	-0.34	981.85	1.38	291.61	0.17
38Y	-69.26	66.10	126.18	328.09	-64.91	64.74	10.06
39P	3.01	367.60	-2.99	-349.01	-8.13	3.05	-1.83
39X	80.14	-317.97	-63.83	-1431.53	713.29	-287.35	106.67
39XY	7.72	-981.85	-1.38	-2528.12	1.79	-576.50	0.07
39Y	-69.26	-328.09	64.91	-1448.63	-718.87	-291.82	-107.41
40P	3.01	349.01	8.13	2247.48	0.92	426.46	1.49
40X	80.14	1431.53	-713.29	3004.36	-839.72	728.57	-255.07
40XY	7.72	2528.12	-1.79	3764.83	0.67	1033.59	-0.18
40Y	-69.26	1448.63	718.87	3003.77	841.85	731.29	256.34
41P	3.01	-2247.48	-0.92	-2952.21	9.67	-883.47	1.49
41X	80.14	-3004.36	839.72	-3649.84	939.27	-1130.61	302.27
41XY	7.72	-3764.83	-0.67	-4326.79	-0.41	-1374.84	-0.18
41Y	-69.26	-3003.77	-841.85	-3634.46	-929.68	-1127.90	-301.00

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Resumen completo para todos los casos de carga - uso= esfuerzo máximo/Esfuerzo permisible
Printed capacities do not include EIA allowable stress increase for wind load cases.
Printed capacities do not include the strength factor entered for each loadcase.

Rs:

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (MPa)	Max Usage %	Max Use In Comp. %	Comp. Control Member	Comp. Force (kN)	Comp. Control Load Case	L/R Capacity (kN)	Comp. Conn. Shear Capacity (kN)	Comp. Conn. Bearing Capacity (kN)	RLX	RLY	RLZ	L/R Length Comp. Member (m)	Curve No.	No. Bolts Comp.	Of
M1	M1	DAE	2.5X2.5X0.25	344.7	9.31	9.31	2P	-21.716LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M2	M2	DAE	2.5X2.5X0.25	344.7	30.58	30.58	4P	-71.291LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M3	M3	DAE	3.5X3.5X0.25	344.7	40.03	40.03	6P	-149.524LC4	WIND 4	373.558	878.079	758.976	0.500	0.500	0.500	45.15	2.500	1	7
M4	M4	DAE	4X4X0.25	344.7	57.07	57.07	8P	-239.445LC4	WIND 4	419.569	878.079	758.976	0.500	0.500	0.500	24.72	1.570	1	7
M5	M5	DAE	4X4X0.375	344.7	34.96	34.96	9P	-238.383LC4	WIND 4	681.890	878.079	1138.464	0.250	0.250	0.250	32.80	4.099	1	7
M6	M6	DAE	4X4X0.375	344.7	53.88	53.88	11P	-354.139LC4	WIND 4	657.230	878.079	1138.464	0.500	0.500	0.500	40.01	2.500	1	7
M7	M7	DAE	4X4X0.3125	344.7	98.06	98.06	13P	-541.772LC4	WIND 4	552.486	878.079	948.720	0.500	0.500	0.500	39.69	2.500	1	7
M8	M8	PAE	2L4X0.3125+L4X0.25	344.7	99.52	99.52	15P	-765.992LC4	WIND 4	769.721	2161.836	1951.652	0.500	0.500	0.500	43.69	2.500	1	12
M9	M9	PAE	2L4X0.3125+L4X0.5	344.7	89.90	89.90	17P	-962.817LC4	WIND 4	1070.965	1801.530	1626.377	0.500	0.500	0.500	26.25	1.580	1	10
M10	M10	PAE	2L4X0.375+L4X0.25	344.7	89.52	89.52	18P	-711.261LC4	WIND 4	794.504	1261.071	1366.156	0.250	0.250	0.250	58.68	6.683	1	7
M11	M11	PAE	2L4X0.375+L4X0.25	344.7	86.86	86.86	20P	-736.392LC4	WIND 4	847.755	1261.071	1366.156	0.500	0.500	0.500	49.17	2.800	1	7
M12	M12	PAE	2L5X0.375+L4X0.25	344.7	85.85	85.85	22P	-905.645LC4	WIND 4	1054.946	1261.071	1366.156	0.500	0.500	0.500	42.06	2.700	1	7
M13	M13	PAE	2L6X0.5+L4X0.25	344.7	75.81	75.81	24P	-1092.521LC4	WIND 4	1576.992	1441.224	2081.762	0.500	0.500	0.500	38.99	2.800	1	8
M14	M14	PAE	2L6X0.5+L4X0.3125	344.7	80.13	80.13	26P	-1299.183LC4	WIND 4	1637.637	1621.377	2341.982	0.500	0.500	0.500	38.35	2.800	1	9
M15	M15	PAE	2L6X0.5+L4X0.3125	344.7	92.53	92.53	28P	-1520.734LC4	WIND 4	1643.537	2059.520	3035.903	0.500	0.500	0.500	37.67	2.750	1	10
M16	M16	PAE	2L6X0.5+L4X0.3125	344.7	99.63	99.63	29P	-1643.303LC4	WIND 4	1649.388	2059.520	3035.903	0.500	0.500	0.500	36.98	2.700	1	10
M17	M17	PAE	2L6X0.5+L4X0.375	344.7	99.19	99.19	30P	-1678.993LC4	WIND 4	1692.784	2059.520	3035.903	0.250	0.250	0.250	38.31	5.675	1	10
M18	M18	PAE	2L6X0.5+L5X0.375	344.7	99.55	99.55	31P	-1749.943LC4	WIND 4	1757.803	2059.520	3035.903	0.250	0.250	0.250	40.62	6.418	1	10
M19	M19	PAE	2L6X0.5+L5X0.375	344.7	97.23	97.23	32P	-1728.417LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M20	M20	PAE	2L6X0.5+L5X0.375	344.7	92.89	92.89	33P	-1651.365LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M21	M21	PAE	2L6X0.5+L5X0.375	344.7	91.72	91.72	34P	-1630.583LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M22	M22	PAE	2L6X0.5+L5X0.375	344.7	89.70	89.70	35P	-1594.624LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M23	M23	PAE	2L6X0.5+L5X0.375	344.7	90.31	90.31	36P	-1605.391LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M24	M24	PAE	2L6X0.5+L5X0.375	344.7	92.94	92.94	37P	-1652.123LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M25	M25	PAE	2L6X0.5+L5X0.375	344.7	93.61	93.61	38P	-1664.153LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M26	M26	PAE	2L6X0.5+L5X0.5	344.7	92.90	92.90	39P	-1661.299LC4	WIND 4	1788.309	2059.520	3035.903	0.334	0.334	0.334	50.21	6.088	1	10
M27	M27	PAE	2L6X0.5+L5X0.5	344.7	93.78	93.78	40P	-1677.026LC4	WIND 4	1788.309	2059.520	3035.903	0.334	0.334	0.334	50.21	6.088	1	10
M28	M28	PAE	2L6X0.5+L5X0.375	344.7	94.33	94.33	41P	-1688.192LC4	WIND 4	1789.706	2265.472	3339.493	0.250	0.250	0.250	37.25	5.885	1	11
D1	D1	SAE	1.5X1.5X0.1875	344.7	32.95	32.95	43XY	-4.304LC1	WIND 0	9.821	30.915	32.528	0.750	0.500	0.500	232.74	3.464	6	1
D2	D2	SAE	1.5X1.5X0.1875	344.7	56.48	56.48	45XY	-7.518LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D3	D3	SAE	1.5X1.5X0.1875	344.7	69.05	69.05	47XY	-9.192LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D4	D4	SAE	1.5X1.5X0.1875	344.7	96.41	96.41	49XY	-12.833LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D5	D5	SAE	2X2X0.125	344.7	92.21	92.21	51XY	-16.897LC3	WIND 0	18.324	30.915	21.685	0.750	0.500	0.500	139.37	2.818	6	1
D6	D6	SAE	2.5X2.5X0.1875	344.7	44.53	44.53	53XY	-21.248LC3	WIND 0	47.716	61.830	65.055	0.750	0.500	0.500	112.06	2.818	1	2
D7	D7	SAE	2X2X0.125	344.7	80.66	80.66	55XY	-18.477LC3	WIND 0	22.907	61.830	43.370	0.750	0.500	0.500	117.98	2.385	1	2
D8	D8	SAE	2X2X0.125	344.7	70.08	70.08	57XY	-21.720LC3	WIND 0	30.995	61.830	43.370	0.750	0.500	0.500	100.82	2.038	1	2
D9	D9	SAE	2.5X2.5X0.1875	344.7	60.19	60.19	58X	-32.067LC1	WIND 0	40.059	61.830	65.055	0.550	0.250	0.250	123.74	4.446	6	2
D10	D10	SAE	2.5X2.5X0.1875	344.7	87.52	87.52	61XY	-28.254LC3	WIND 0	32.285	61.830	65.055	0.750	0.500	0.500	146.39	3.681	6	2
D11	D11	DAE	2X2X0.1875	344.7	68.88	68.88	63XY	-30.784LC3	WIND 0	44.694	61.830	130.110	0.750	0.500	0.500	161.93	3.384	6	2
D12	D12	DAE	2X2X0.1875	344.7	79.55	79.55	65XY	-35.553LC3	WIND 0	44.694	61.830	130.110	0.750	0.500	0.500	161.93	3.384	6	2
D13	D13	DAE	2X2X0.1875	344.7	98.85	98.85	66X	-44.180LC4	WIND 4	44.694	61.830	130.110	0.750	0.500	0.500	161.93	3.384	6	2
D14	D14	DAE	2.5X2.5X0.1875	344.7	73.66	72.67	69XY	-44.931LC3	WIND 0	76.308	61.830	130.110	0.750	0.500	0.500	128.42	3.384	6	2
D15	D15	DAE	2.5X2.5X0.1875	344.7	78.17	78.17	70X	-48.335LC4	WIND 4	76.308	61.830	130.110	0.750	0.500	0.500	128.42	3.384	6	2
D16	D16	DAE	2X2X0.1875	344.7	80.88	80.88	73XY	-41.868LC3	WIND 0	51.764	61.830	130.110	0.750	0.500	0.500	145.14	3.033	6	2
D17	D17	DAE	2X2X0.1875	344.7	75.29	75.29	75Y	-43.760LC3	WIND 0	58.120	61.830	130.110	0.750	0.500	0.500	132.75	2.774	6	2
D18	D18	SAE	4X4X0.375	344.7	96.12	96.12	77P	-198.233LC4	WIND 4	206.237	250.880	325.275	0.250	0.250	0.250	93.34	7.473	1	4
D19	D19	SAE	4X4X0.25	344.7	64.04	64.04	79XY	-47.226LC4	WIND 4	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D20	D20	SAE	4X4X0.25	344.7	68.07	68.07	81XY	-50.197LC3	WIND 0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D21	D21	SAE	4X4X0.25	344.7	70.68	70.68	83XY	-52.713LC3	WIND 0	74.581	125.440	108.425	0.750	0.500	0.500	138.62	5.598	6	2
D22	D22	SAE	4X4X0.25	344.7	77.12	77.12	85Y	-57.514LC3	WIND 0	74.581	125.440	108.425	0.750	0.500	0.500	138.62	5.598	6	2
D23	D23	SAE	4X4X0.25	344.7	84.39	84.39	87Y	-62.233LC3	WIND 0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D24	D24	SAE	4X4X0.25	344.7	87.25	87.25	89Y	-64.339LC3	WIND 0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D25	D25	SAE	4X4X0.25	344.7	92.29	92.29	91Y	-68.054LC3	WIND 0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D26	D26	SAE	4X4X0.25	344.7	95.31	95.31	93Y	-70.284LC3	WIND 0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D27	D27	SAE	4X4X0.25	344.7	98.68	98.68	95Y	-73.184LC3	WIND 0	74.163	125.440	108.425	0.750	0.500	0.500	139.22	5.622	6	2
D28	D28	SAE	4X4X0.3125	344.7	83.42	83.42	97Y	-76.035LC3	WIND 0	91.148	125.440	135.531	0.750	0.500	0.500	139.92	5.622	6	2
D29	D29	SAE	4X4X0.3125	344.7	84.60	84.60	99Y	-77.544LC3	WIND 0	91.662	125.440	135.531	0.750	0.500	0.500	139.32	5.598	6	2
D30	D30	SAE	5X5X0.5	344.7	74.67	73.82	100X	-185.193LC4	WIND 4	283.477	250.880	433.700	0.550	0.250	0.250	105.46	7.500	1	4
D31	D31	SAE	5X5X0.5	344.7	76.47	76.47	103P	-167.622LC4	WIND 4	219.214	250.880	433.700	0.550	0.250	0.250	119.97	8.532	1	4
D32	D32	SAE	4X4X0.25	344.7	99.44	99.44	105P	-59.982LC3	WIND 0	60.322	125.440	108.425	0.550	0.250	0.250	162.54	9.383	6	2
D33	D33	SAE	4X4X0.25	344.7	93.91	93.91	107P	-48.154LC4	WIND 4	51.279	125.440	108.425	0.550	0.250	0.250	182.64	10.544	6	2
D34	D34	SAE	4X4X0.25	344.7	63.30	63.30	109P	-36.837LC2	WIND 4	43.758	125.440	108.425	0.550	0.250	0.250	203.92	11.772	6	2
D35	D35	SAE	4X4X0.25	344.7	58.43	58.43	117P	-56.896LC1	WIND 0	73.220	125.440	108.425	0.550	0.250	0.250	140.59	8.116	6	2
D36	D36	SAE	4X4X0.25	344.7	93.73	93.73	124P	-77.736LC1	WIND 0	62.359	125.440	108.425	0.550	0.250	0.250	158.62	9.157	6	2
D37	D37	SAE	4X4X0.25	344.7	39.49	39.49	133P	-32.753LC1	WIND 0	62.359	125.440	108.425	0.550	0.250	0.250	158.62	9.157	6	2
D38	D38	SAE	4X4X0.25	344.7	70.19	70.19	140P	-49.474LC1	WIND 0	52.994	125.440	108.425	0.550	0.250	0.250	178.44	10.301	6	2
D39	D39	SAE	4X4X0.5	344.7	94.81	94.81	149P	-124.807LC1	WIND 0	98.982	125.440	216.850	0.550	0.333	0.333	182.83	10.301	6	2
D40	D40	SAE	5X5X0.5	344.7	96.57	96.57	158P	-120.475LC2	WIND 4	93.797	188.160	325.275	0.550	0.143	0.143	223.10	15.867	6	3
H1	H1	SAE	1.5X1.5X0.1875	344.7	3.69	3.69	166P	-0.551LC3	WIND 0	14.917	62.720	40.659	1.000	1.000	1.000	174.68	1.300	6	1
H2	H2	SAE	1.5X1.5X0.1875	344.7	2.74	2.74	1671P	-0.408LC3	WIND 0	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2
H3	H3	SAE	1.5X1.5X0.1875	344.7	5.63	5.63	1672X	-0.840LC4	WIND 4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2
H4	H4	SAE	1.5X1.5X0.1875	344.7	23.46	23.46	1674X	-3.500LC4	WIND 4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2
H5	H5	SAE	2X2X0.1875	344.7	48.28	48.28	168P	-14.322LC3	WIND 0	29.665	125.440	81.319	1.000	1.000	1.000	129.90	1.300	6	2
H6	H6	SAE	3X3X0.25	344.7	44.35	44.35	170Y	-21.813LC3	WIND 0	49.188	125.440	108.425	1.000	1.000	1.000	151.63	2.280	6	2
H7	H7	SAE	2X2X0.1875	344.7	11.25	11.25	1712X	-1.529LC4	WIND 4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2
H8	H8	SAE	2X2X0.1875	344.7	33.87	33.87	1714X	-4.601LC4	WIND 4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2
H9	H9	SAE	2X2X0.1875	344.7	69.66	69.66	1704Y	-9.464LC3	WIND 0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2
H10	H10	SAE	3X3X0.25	344.7	48.02	48.02	172P	-52.063LC3	WIND 0	127.059	125.440	108.425	0.500	0.500	0.500	75.81	2.280	1	2
H11	H11	SAE	4X4X0.375	344.7	71.84	71.84	1722Y	-92.386LC3	WIND 0	128.604	188.160	243.956	0.500	0.500	0.500	122.51	4.904	6	3
H12	H12	SAE	2.5X2.5X0.25	344.7	28.46	28.46	17231Y	-8.056LC3	WIND 0	28.304	125.440	108.425	0.500	0.500	0.500	196.61	4.904	6	2
H13	H13	SAE	3.5X3.5X0.25	344.7	8.42	8.42	17251Y	-5.445LC3	WIND 0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H14	H14	SAE	3.5X3.5X0.25	344.7	9.11	9.11	17252Y	-5.891LC3	WIND 0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H15	H15	SAE	3.5X3.5X0.25	344.7	10.16	10.16	17253Y	-6.574LC3	WIND 0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H16	H16	SAE	3.5X3.5X0.25	344.7	9.30	9.30	17254Y	-6.015LC3	WIND 0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H17	H17	SAE	4X4X0.25	344.7	95.04	95.04	17255Y	-83.824LC3	WIND 0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2
H18	H18	SAE	4X4X0.25	344.7	55.14	55.14	1724Y	-48.633LC3	WIND 0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2
H19	H19	SAE	4X4X0.25	344.7	81.76	81.76	1728Y	-88.645LC3	WIND 0	119.442	125.440	108.425	0.500	0.250	0.250	101.50	6.446	1	2
H20	H20	SAE	4X4X0.25	344.7	42.92	42.92	1729Y	-36.682LC3	WIND 0	85.473	125.440	108.425	0.500	0.250	0.250	124.53	7.908	6	2
H21	H21	SAE	5X5X0.375	344.7	27.24	27.24	17291Y	-34.171LC3	WIND 0	260.955	125.440	162.638	0.250	0.250	0.250	93.16	9.370	1	2
H22	H22	SAE	5X5X0.375	344.7	38.02	38.02	17292Y	-47.689LC3	WIND 0	206.750	125.440	162.638	0.250	0.250	0.250	107.70	10.832	1	2
H23	H23	SAE	5X5X0.375	344.7	4.56	4.56	174P	-5.715LC3	WIND 0	313.027	125.440	162.638	0.500	0.250	0.250	77.57	6.147	1	2
H24	H24	SAE	6X6X0.375	344.7	41.12	40.24	17293Y	-50.475LC3	WIND 0	223.518	125.440	162.638	0.250	0.250	0.250	113.79	13.757	1	2
H25	H25	SAE	6X6X0.375	344.7	5.93	5.93	182P	-7.436LC3	WIND 0	336.759	125.440	162.638	0.500	0.250	0.250	79.68	7.610	1	2
H26	H26	SAE	6X6X0.375	344.7	81.61	77.60	17294Y	-97.339LC3	WIND 0	168.624	125.440	162.638	0.250	0.250	0.250	137.98	16.682	6	2
H27	H27	SAE	6X6X0.375	344.7	7.77	7.77	215P	-9.744LC4	WIND 4	159.752	125.440	162.638	0.500	0.500	0.500	143.81	8.694	6	2

Group Summary (Tension Portion):

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (MPa)	Max Usage %	Max Use In Tens. %	Tension Control Member	Tension Force (kN)	Tension Control Load Case	Net Section Capacity (kN)	Tens. Conn. Shear Capacity (kN)	Tens. Conn. Bearing Capacity (kN)	Tens. Conn. Rupture Capacity (kN)	Length Tens. Member (m)	No. Of Bolts Tens.	No. Of Holes	Hole Diameter (cm)
M1	M1	DAE	2.5X2.5X0.25	344.7	9.31	4.43	2XY	13.047LC4	WIND 4	294.374	752.639	650.551	0.000	2.500	6	2.000	1.746



**INSTATel COLOMBIA CI
LTDA**

Carrera 124 No. 17-98

Fontibón - Bogotá - Phone: (57) 5470790

Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page	134 of 136
Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

M2	M2	DAE	2.5X2.5X0.25	344.7	30.58	17.58	4XY	51.759LC4	WIND	4	294.374	752.639	650.551	0.000	2.500	6	2.000	1.746
M3	M3	DAE	3.5X3.5X0.25	344.7	40.03	28.70	6XY	125.958LC4	WIND	4	438.941	878.079	758.976	0.000	2.500	7	2.000	1.746
M4	M4	DAE	4X4X0.25	344.7	57.07	41.68	8XY	213.070LC4	WIND	4	511.224	878.079	758.976	0.000	1.570	7	2.000	1.746
M5	M5	DAE	4X4X0.375	344.7	34.96	24.20	9XY	182.073LC4	WIND	4	752.381	878.079	1138.464	0.000	4.099	7	2.000	1.746
M6	M6	DAE	4X4X0.375	344.7	53.88	39.11	11XY	294.290LC4	WIND	4	752.381	878.079	1138.464	0.000	2.500	7	2.000	1.746
M7	M7	DAE	4X4X0.3125	344.7	98.06	68.71	13XY	434.086LC4	WIND	4	631.803	878.079	948.720	0.000	2.500	7	2.000	1.746
M8	M8	PAE	2L4X0.3125+L4X0.25	344.7	99.52	71.70	15XY	603.568LC4	WIND	4	841.811	2161.836	1951.652	0.000	2.500	12	2.000	2.064
M9	M9	PAE	2L4X0.3125+L4X0.5	344.7	89.90	67.95	17XY	756.997LC4	WIND	4	1114.067	1801.530	1626.377	0.000	1.580	10	2.000	2.064
M10	M10	PAE	2L4X0.375+L4X0.25	344.7	89.52	52.75	18XY	500.823LC4	WIND	4	949.358	1261.071	1366.156	0.000	6.683	7	2.000	2.064
M11	M11	PAE	2L4X0.375+L4X0.25	344.7	86.86	62.35	20XY	591.960LC4	WIND	4	949.358	1261.071	1366.156	0.000	2.800	7	2.000	2.064
M12	M12	PAE	2L5X0.375+L4X0.25	344.7	85.85	64.26	22XY	749.432LC4	WIND	4	1166.266	1261.071	1366.156	0.000	2.700	7	2.000	2.064
M13	M13	PAE	2L6X0.5+L4X0.25	344.7	75.81	64.08	24XY	923.596LC4	WIND	4	1738.319	1441.224	2081.762	0.000	2.800	8	2.000	2.064
M14	M14	PAE	2L6X0.5+L4X0.3125	344.7	80.13	68.82	26XY	1115.840LC4	WIND	4	1807.335	1621.377	2341.982	0.000	2.800	9	2.000	2.064
M15	M15	PAE	2L6X0.5+L4X0.3125	344.7	92.53	74.66	28XY	1322.338LC4	WIND	4	1771.193	2059.520	3035.903	0.000	2.750	10	2.000	2.381
M16	M16	PAE	2L6X0.5+L4X0.3125	344.7	99.63	80.89	29XY	1432.649LC4	WIND	4	1771.193	2059.520	3035.903	0.000	2.700	10	2.000	2.381
M17	M17	PAE	2L6X0.5+L4X0.375	344.7	99.19	79.14	30XY	1455.793LC4	WIND	4	1839.537	2059.520	3035.903	0.000	5.675	10	2.000	2.381
M18	M18	PAE	2L6X0.5+L5X0.375	344.7	99.55	76.86	31XY	1497.266LC4	WIND	4	1947.992	2059.520	3035.903	0.000	6.418	10	2.000	2.381
M19	M19	PAE	2L6X0.5+L5X0.375	344.7	97.23	73.54	32XY	1432.472LC4	WIND	4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M20	M20	PAE	2L6X0.5+L5X0.375	344.7	92.89	68.00	33XY	1324.688LC4	WIND	4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M21	M21	PAE	2L6X0.5+L5X0.375	344.7	91.72	64.82	34XY	1262.717LC4	WIND	4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M22	M22	PAE	2L6X0.5+L5X0.375	344.7	89.70	59.90	35XY	1166.934LC4	WIND	4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M23	M23	PAE	2L6X0.5+L5X0.375	344.7	90.31	59.33	36XY	1155.738LC4	WIND	4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M24	M24	PAE	2L6X0.5+L5X0.375	344.7	92.94	59.51	37XY	1159.228LC4	WIND	4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M25	M25	PAE	2L6X0.5+L5X0.375	344.7	93.61	58.86	38XY	1146.614LC4	WIND	4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M26	M26	PAE	2L6X0.5+L5X0.5	344.7	92.90	52.84	39XY	1088.202LC4	WIND	4	2118.964	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M27	M27	PAE	2L6X0.5+L5X0.5	344.7	93.78	52.18	40XY	1074.680LC4	WIND	4	2118.964	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M28	M28	PAE	2L6X0.5+L5X0.375	344.7	94.33	54.63	41XY	1064.270LC4	WIND	4	1947.992	2265.472	3339.493	0.000	5.885	11	2.000	2.381
D1	D1	SAE	1.5X1.5X0.1875	344.7	32.95	17.12	43X	5.293LC3	WIND	0	46.030	30.915	32.528	0.000	3.464	1	1.000	1.429
D2	D2	SAE	1.5X1.5X0.1875	344.7	56.48	19.63	45X	8.073LC1	WIND	0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429
D3	D3	SAE	1.5X1.5X0.1875	344.7	69.05	31.88	47X	9.856LC3	WIND	0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429
D4	D4	SAE	1.5X1.5X0.1875	344.7	96.41	41.44	49X	12.811LC3	WIND	0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429
D5	D5	SAE	2X2X0.125	344.7	92.21	81.15	51X	17.597LC3	WIND	0	44.420	30.915	21.685	0.000	2.818	1	1.000	1.429
D6	D6	SAE	2.5X2.5X0.1875	344.7	44.53	34.80	53X	21.519LC3	WIND	0	86.364	61.830	65.055	0.000	2.818	2	1.000	1.429
D7	D7	SAE	2X2X0.125	344.7	80.66	46.71	55X	20.258LC3	WIND	0	44.420	61.830	43.370	0.000	2.385	2	1.000	1.429
D8	D8	SAE	2X2X0.125	344.7	70.08	48.27	57X	20.933LC3	WIND	0	44.420	61.830	43.370	0.000	2.038	2	1.000	1.429
D9	D9	SAE	2.5X2.5X0.1875	344.7	60.19	50.07	58XY	30.956LC3	WIND	0	86.364	61.830	65.055	0.000	4.446	2	1.000	1.429
D10	D10	SAE	2.5X2.5X0.1875	344.7	87.52	52.37	61X	32.383LC3	WIND	0	86.364	61.830	65.055	0.000	3.681	2	1.000	1.429
D11	D11	DAE	2X2X0.1875	344.7	68.88	53.84	63X	33.287LC3	WIND	0	143.612	61.830	130.110	0.000	3.384	2	1.000	1.429
D12	D12	DAE	2X2X0.1875	344.7	79.55	64.28	65X	39.745LC3	WIND	0	143.612	61.830	130.110	0.000	3.384	2	1.000	1.429
D13	D13	DAE	2X2X0.1875	344.7	98.85	70.43	67X	43.546LC3	WIND	0	143.612	61.830	130.110	0.000	3.384	2	1.000	1.429
D14	D14	DAE	2.5X2.5X0.1875	344.7	73.66	73.66	69X	45.542LC3	WIND	0	183.730	61.830	130.110	0.000	3.384	2	1.000	1.429
D15	D15	DAE	2.5X2.5X0.1875	344.7	78.17	74.89	71X	46.302LC3	WIND	0	183.730	61.830	130.110	0.000	3.384	2	1.000	1.429
D16	D16	DAE	2X2X0.1875	344.7	80.88	75.47	73X	46.662LC3	WIND	0	143.612	61.830	130.110	0.000	3.033	2	1.000	1.429
D17	D17	DAE	2X2X0.1875	344.7	75.29	63.62	75P	39.334LC3	WIND	0	143.612	61.830	130.110	0.000	2.774	2	1.000	1.429
D18	D18	SAE	4X4X0.375	344.7	96.12	72.34	76XY	181.492LC4	WIND	4	282.143	250.880	325.275	0.000	7.473	4	1.000	1.746
D19	D19	SAE	4X4X0.25	344.7	64.04	44.24	79P	47.962LC3	WIND	0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D20	D20	SAE	4X4X0.25	344.7	68.07	44.65	81X	48.409LC4	WIND	4	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D21	D21	SAE	4X4X0.25	344.7	70.68	51.43	83P	55.764LC3	WIND	0	191.709	125.440	108.425	0.000	5.598	2	1.000	1.746
D22	D22	SAE	4X4X0.25	344.7	77.12	54.10	85P	58.654LC3	WIND	0	191.709	125.440	108.425	0.000	5.598	2	1.000	1.746
D23	D23	SAE	4X4X0.25	344.7	84.39	57.67	87P	62.525LC3	WIND	0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D24	D24	SAE	4X4X0.25	344.7	87.25	59.56	89P	64.583LC3	WIND	0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D25	D25	SAE	4X4X0.25	344.7	92.29	63.16	91P	68.482LC3	WIND	0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D26	D26	SAE	4X4X0.25	344.7	95.31	64.99	93P	70.466LC3	WIND	0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D27	D27	SAE	4X4X0.25	344.7	98.68	68.04	95P	73.772LC3	WIND	0	191.709	125.440	108.425	0.000	5.622	2	1.000	1.746
D28	D28	SAE	4X4X0.3125	344.7	83.42	60.63	97P	76.054LC3	WIND	0	236.925	125.440	135.531	0.000	5.622	2	1.000	1.746
D29	D29	SAE	4X4X0.3125	344.7	84.60	63.45	99P	79.589LC3	WIND	0	236.925	125.440	135.531	0.000	5.598	2	1.000	1.746
D30	D30	SAE	5X5X0.5	344.7	74.67	74.67	101X	187.320LC4	WIND	4	477.748	250.880	433.700	0.000	7.500	4	1.000	1.746
D31	D31	SAE	5X5X0.5	344.7	76.47	66.80	102XY	167.578LC4	WIND	4	477.748	250.880	433.700	0.000	8.532	4	1.000	1.746

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 - REFORZADA	Page	135 of 136
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

D32	D32	SAE	4X4X0.25	344.7	99.44	57.50	104XY	62.339LC4	WIND 4	191.709	125.440	108.425	0.000	9.383	2	1.000	1.746
D33	D33	SAE	4X4X0.25	344.7	93.91	45.79	106XY	49.644LC4	WIND 4	191.709	125.440	108.425	0.000	10.544	2	1.000	1.746
D34	D34	SAE	4X4X0.25	344.7	63.30	29.29	108XY	31.754LC4	WIND 4	191.709	125.440	108.425	0.000	11.772	2	1.000	1.746
D35	D35	SAE	4X4X0.25	344.7	58.43	46.44	113P	50.348LC4	WIND 4	191.709	125.440	108.425	0.000	8.116	2	1.000	1.746
D36	D36	SAE	4X4X0.25	344.7	93.73	42.55	121P	46.132LC3	WIND 0	191.709	125.440	108.425	0.000	9.157	2	1.000	1.746
D37	D37	SAE	4X4X0.25	344.7	39.49	27.03	128P	29.311LC3	WIND 0	191.709	125.440	108.425	0.000	9.157	2	1.000	1.746
D38	D38	SAE	4X4X0.25	344.7	70.19	21.40	138P	23.201LC4	WIND 4	191.709	125.440	108.425	0.000	10.301	2	1.000	1.746
D39	D39	SAE	4X4X0.5	344.7	94.81	76.87	144P	96.420LC3	WIND 0	369.323	125.440	216.850	0.000	10.301	2	1.000	1.746
D40	D40	SAE	5X5X0.5	344.7	96.57	38.30	162P	72.068LC4	WIND 4	477.748	188.160	325.275	0.000	15.867	3	1.000	1.746
H1	H1	SAE	1.5X1.5X0.1875	344.7	3.69	0.00	167X	0.000		43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H2	H2	SAE	1.5X1.5X0.1875	344.7	2.74	1.79	1661Y	0.780LC4	WIND 4	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H3	H3	SAE	1.5X1.5X0.1875	344.7	5.63	0.29	1662P	0.169LC1	WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H4	H4	SAE	1.5X1.5X0.1875	344.7	23.46	4.74	1663P	2.741LC1	WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H5	H5	SAE	2X2X0.1875	344.7	48.28	8.84	168Y	7.407LC1	WIND 0	63.005	125.440	81.319	0.000	1.300	2	1.000	1.746
H6	H6	SAE	3X3X0.25	344.7	44.35	21.35	170P	30.787LC1	WIND 0	137.497	125.440	108.425	0.000	2.280	2	1.000	1.746
H7	H7	SAE	2X2X0.1875	344.7	11.25	1.66	1712P	1.389LC2	WIND 4	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746
H8	H8	SAE	2X2X0.1875	344.7	33.87	5.75	1703P	4.819LC1	WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746
H9	H9	SAE	2X2X0.1875	344.7	69.66	10.65	1704P	8.925LC1	WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746
H10	H10	SAE	3X3X0.25	344.7	48.02	24.89	172Y	35.897LC1	WIND 0	137.497	125.440	108.425	0.000	2.280	2	1.000	1.746
H11	H11	SAE	4X4X0.375	344.7	71.84	58.57	1722P	110.205LC3	WIND 0	282.143	188.160	243.956	0.000	4.904	3	1.000	1.746
H12	H12	SAE	2.5X2.5X0.25	344.7	28.46	8.07	17231P	8.754LC3	WIND 0	110.390	125.440	108.425	0.000	4.904	2	1.000	1.746
H13	H13	SAE	3.5X3.5X0.25	344.7	8.42	4.55	17251P	6.555LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H14	H14	SAE	3.5X3.5X0.25	344.7	9.11	4.62	17252P	6.662LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H15	H15	SAE	3.5X3.5X0.25	344.7	10.16	5.23	17253P	7.539LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H16	H16	SAE	3.5X3.5X0.25	344.7	9.30	4.09	17254P	5.898LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H17	H17	SAE	4X4X0.25	344.7	95.04	75.77	17255P	109.262LC1	WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746
H18	H18	SAE	4X4X0.25	344.7	55.14	18.75	1724P	27.044LC1	WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746
H19	H19	SAE	4X4X0.25	344.7	81.76	79.98	1728P	115.335LC1	WIND 0	191.709	125.440	108.425	0.000	6.446	2	1.000	1.746
H20	H20	SAE	4X4X0.25	344.7	42.92	31.33	1729P	45.177LC1	WIND 0	191.709	125.440	108.425	0.000	7.908	2	1.000	1.746
H21	H21	SAE	5X5X0.375	344.7	27.24	26.16	17291P	43.637LC1	WIND 0	363.462	125.440	162.638	0.000	9.370	2	1.000	1.746
H22	H22	SAE	5X5X0.375	344.7	38.02	34.13	17292P	56.938LC1	WIND 0	363.462	125.440	162.638	0.000	10.832	2	1.000	1.746
H23	H23	SAE	5X5X0.375	344.7	4.56	3.12	178P	3.914LC3	WIND 0	363.462	125.440	162.638	0.000	6.147	2	1.000	1.746
H24	H24	SAE	6X6X0.375	344.7	41.12	41.12	17293P	68.604LC1	WIND 0	444.781	125.440	162.638	0.000	13.757	2	1.000	1.746
H25	H25	SAE	6X6X0.375	344.7	5.93	2.41	181P	3.029LC3	WIND 0	444.781	125.440	162.638	0.000	7.610	2	1.000	1.746
H26	H26	SAE	6X6X0.375	344.7	81.61	81.61	17294P	136.157LC1	WIND 0	444.781	125.440	162.638	0.000	16.682	2	1.000	1.746
H27	H27	SAE	6X6X0.375	344.7	7.77	4.96	189P	6.228LC3	WIND 0	444.781	125.440	162.638	0.000	9.072	2	1.000	1.746

*** Resumen de esfuerzos máximos por cada caso de carga

Summary of Maximum Usages by Load Case:

Load Case	Maximum Usage %	Element Label	Element Type
LC1 WIND 0° C.D.	98.82	105P	Angle
LC2 WIND 45° C.D.	97.92	105P	Angle
LC3 WIND 0° C.T.	99.44	105P	Angle
LC4 WIND 45° C.T.	99.63	29P	Angle
LC5 WIND 0° DEFLEX	30.40	124P	Angle
LC6 WIND 45° DEFLEX	36.79	41P	Angle

*** Peso de la estructura (N):
Weight of Angles*Section DLF: 680661.2
Total: 680661.2

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 – RESUMEN DE REFUERZO	Page	1 of 5
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

*** Resumen completo para todos los casos de carga - uso= esfuerzo máximo/Esfuerzo permisible
Printed capacities do not include EIA allowable stress increase for wind load cases.
Printed capacities do not include the strength factor entered for each loadcase.

Rs:

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (MPa)	Max Usage %	Max In Comp. %	Comp. Control Member	Comp. Force (kN)	Comp. Control Load Case	L/R Capacity (kN)	Comp. Conn. Shear Capacity (kN)	Comp. Conn. Bearing Capacity (kN)	RLX	RLY	RLZ	L/R Length (m)	Curve No.	No. Of Bolts	Comp.
M1	M1	DAE	2.5X2.5X0.25	344.7	9.31	9.31	2P	-21.716LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M2	M2	DAE	2.5X2.5X0.25	344.7	30.58	30.58	4P	-71.291LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M3	M3	DAE	3.5X3.5X0.25	344.7	40.03	40.03	6P	-149.524LC4	WIND 4	373.558	878.079	758.976	0.500	0.500	0.500	45.15	2.500	1	7
M4	M4	DAE	4X4X0.25	344.7	57.07	57.07	8P	-239.445LC4	WIND 4	419.569	878.079	758.976	0.500	0.500	0.500	24.72	1.570	1	7
M5	M5	DAE	4X4X0.375	344.7	34.96	34.96	9P	-238.383LC4	WIND 4	681.890	878.079	1138.464	0.250	0.250	0.250	32.80	4.099	1	7
M6	M6	DAE	4X4X0.375	344.7	53.88	53.88	11P	-354.139LC4	WIND 4	657.230	878.079	1138.464	0.500	0.500	0.500	40.01	2.500	1	7
M7	M7	DAE	4X4X0.3125	344.7	98.06	98.06	13P	-541.772LC4	WIND 4	552.486	878.079	948.720	0.500	0.500	0.500	39.69	2.500	1	7
M8	M8	PAE	2L4X0.3125+L4X0.25	344.7	99.52	99.52	15P	-765.992LC4	WIND 4	769.721	2161.836	1951.652	0.500	0.500	0.500	43.69	2.500	1	12
M9	M9	PAE	2L4X0.3125+L4X0.5	344.7	89.90	89.90	17P	-962.817LC4	WIND 4	1070.965	1801.530	1626.377	0.500	0.500	0.500	26.25	1.580	1	10
M10	M10	PAE	2L4X0.375+L4X0.25	344.7	89.52	89.52	18P	-711.261LC4	WIND 4	794.504	1261.071	1366.156	0.250	0.250	0.250	58.68	6.683	1	7
M11	M11	PAE	2L4X0.375+L4X0.25	344.7	86.86	86.86	20P	-736.392LC4	WIND 4	847.755	1261.071	1366.156	0.500	0.500	0.500	49.17	2.800	1	7
M12	M12	PAE	2L5X0.375+L4X0.25	344.7	85.85	85.85	22P	-905.645LC4	WIND 4	1054.946	1261.071	1366.156	0.500	0.500	0.500	42.06	2.700	1	7
M13	M13	PAE	2L6X0.5+L4X0.25	344.7	75.81	75.81	24P	-1092.521LC4	WIND 4	1576.992	1441.224	2081.762	0.500	0.500	0.500	38.99	2.800	1	8
M14	M14	PAE	2L6X0.5+L4X0.3125	344.7	80.13	80.13	26P	-1299.183LC4	WIND 4	1637.637	1621.377	2341.982	0.500	0.500	0.500	38.35	2.800	1	9
M15	M15	PAE	2L6X0.5+L4X0.3125	344.7	92.53	92.53	28P	-1520.734LC4	WIND 4	1643.537	2059.520	3035.903	0.500	0.500	0.500	37.67	2.750	1	10
M16	M16	PAE	2L6X0.5+L4X0.3125	344.7	99.63	99.63	29P	-1643.303LC4	WIND 4	1649.388	2059.520	3035.903	0.500	0.500	0.500	36.98	2.700	1	10
M17	M17	PAE	2L6X0.5+L4X0.375	344.7	99.19	99.19	30P	-1678.993LC4	WIND 4	1692.784	2059.520	3035.903	0.250	0.250	0.250	38.31	5.675	1	10
M18	M18	PAE	2L6X0.5+L5X0.375	344.7	99.55	99.55	31P	-1749.943LC4	WIND 4	1757.803	2059.520	3035.903	0.250	0.250	0.250	40.62	6.418	1	10
M19	M19	PAE	2L6X0.5+L5X0.375	344.7	97.23	97.23	32P	-1728.417LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M20	M20	PAE	2L6X0.5+L5X0.375	344.7	92.89	92.89	33P	-1651.365LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M21	M21	PAE	2L6X0.5+L5X0.375	344.7	91.72	91.72	34P	-1630.583LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M22	M22	PAE	2L6X0.5+L5X0.375	344.7	89.70	89.70	35P	-1594.624LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M23	M23	PAE	2L6X0.5+L5X0.375	344.7	90.31	90.31	36P	-1605.391LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M24	M24	PAE	2L6X0.5+L5X0.375	344.7	92.94	92.94	37P	-1652.123LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M25	M25	PAE	2L6X0.5+L5X0.375	344.7	93.61	93.61	38P	-1664.153LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M26	M26	PAE	2L6X0.5+L5X0.5	344.7	92.90	92.90	39P	-1661.299LC4	WIND 4	1788.309	2059.520	3035.903	0.334	0.334	0.334	50.21	6.088	1	10
M27	M27	PAE	2L6X0.5+L5X0.5	344.7	93.78	93.78	40P	-1677.026LC4	WIND 4	1788.309	2059.520	3035.903	0.334	0.334	0.334	50.21	6.088	1	10
M28	M28	PAE	2L6X0.5+L5X0.375	344.7	94.33	94.33	41P	-1688.192LC4	WIND 4	1789.706	2265.472	3339.493	0.250	0.250	0.250	37.25	5.885	1	11
D1	D1	SAE	1.5X1.5X0.1875	344.7	32.95	32.95	43XY	-4.304LC1	WIND 0	9.821	30.915	32.528	0.750	0.500	0.500	232.74	3.464	6	1
D2	D2	SAE	1.5X1.5X0.1875	344.7	56.48	56.48	45XY	-7.518LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D3	D3	SAE	1.5X1.5X0.1875	344.7	69.05	69.05	47XY	-9.192LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D4	D4	SAE	1.5X1.5X0.1875	344.7	96.41	96.41	49XY	-12.833LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D5	D5	SAE	2X2X0.125	344.7	92.21	92.21	51XY	-16.897LC3	WIND 0	18.324	30.915	21.685	0.750	0.500	0.500	139.37	2.818	6	1
D6	D6	SAE	2.5X2.5X0.1875	344.7	44.53	44.53	53XY	-21.248LC3	WIND 0	47.716	61.830	65.055	0.750	0.500	0.500	112.06	2.818	1	2
D7	D7	SAE	2X2X0.125	344.7	80.66	80.66	55XY	-18.477LC3	WIND 0	22.907	61.830	43.370	0.750	0.500	0.500	117.98	2.385	1	2
D8	D8	SAE	2X2X0.125	344.7	70.08	70.08	57XY	-21.720LC3	WIND 0	30.995	61.830	43.370	0.750	0.500	0.500	100.82	2.038	1	2
D9	D9	SAE	2.5X2.5X0.1875	344.7	60.19	60.19	58XY	-32.067LC1	WIND 0	40.059	61.830	65.055	0.550	0.250	0.250	123.74	4.446	6	2
D10	D10	SAE	2.5X2.5X0.1875	344.7	87.52	87.52	61XY	-28.254LC3	WIND 0	32.285	61.830	65.055	0.750	0.500	0.500	146.39	3.681	6	2
D11	D11	DAE	2X2X0.1875	344.7	68.88	68.88	63XY	-30.784LC3	WIND 0	44.694	61.830	130.110	0.750	0.500	0.500	161.93	3.384	6	2
D12	D12	DAE	2X2X0.1875	344.7	79.55	79.55	65XY	-35.553LC3	WIND 0	44.694	61.830	130.110	0.750	0.500	0.500	161.93	3.384	6	2

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	Project	Date
	Client	Designed by
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 – RESUMEN DE REFUERZO TORRE CUADRADA AUTOSOPORTADA DE 150m	2 of 5 17:07:07 03/17/10 Leopoldo Barrera

D13	D13	DAE	2X2X0.1875	344.7	98.85	98.85	66X	-44.180LC4	WIND	4	44.694	61.830	130.110	0.750	0.500	0.500	161.93	3.384	6	2
D14	D14	DAE	2.5X2.5X0.1875	344.7	73.66	72.67	69XY	-44.931LC3	WIND	0	76.308	61.830	130.110	0.750	0.500	0.500	128.42	3.384	6	2
D15	D15	DAE	2.5X2.5X0.1875	344.7	78.17	78.17	70X	-48.335LC4	WIND	4	76.308	61.830	130.110	0.750	0.500	0.500	128.42	3.384	6	2
D16	D16	DAE	2X2X0.1875	344.7	80.88	80.88	73XY	-41.868LC3	WIND	0	51.764	61.830	130.110	0.750	0.500	0.500	145.14	3.033	6	2
D17	D17	DAE	2X2X0.1875	344.7	75.29	75.29	75Y	-43.760LC3	WIND	0	58.120	61.830	130.110	0.750	0.500	0.500	132.75	2.774	6	2
D18	D18	SAE	4X4X0.375	344.7	96.12	96.12	77P	-198.233LC4	WIND	4	206.237	250.880	325.275	0.250	0.250	0.250	93.34	7.473	1	4
D19	D19	SAE	4X4X0.25	344.7	64.04	64.04	79XY	-47.226LC4	WIND	4	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D20	D20	SAE	4X4X0.25	344.7	68.07	68.07	81XY	-50.197LC3	WIND	0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D21	D21	SAE	4X4X0.25	344.7	70.68	70.68	83XY	-52.713LC3	WIND	0	74.581	125.440	108.425	0.750	0.500	0.500	138.62	5.598	6	2
D22	D22	SAE	4X4X0.25	344.7	77.12	77.12	85Y	-57.514LC3	WIND	0	74.581	125.440	108.425	0.750	0.500	0.500	138.62	5.598	6	2
D23	D23	SAE	4X4X0.25	344.7	84.39	84.39	87Y	-62.233LC3	WIND	0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D24	D24	SAE	4X4X0.25	344.7	87.25	87.25	89Y	-64.339LC3	WIND	0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D25	D25	SAE	4X4X0.25	344.7	92.29	92.29	91Y	-68.054LC3	WIND	0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D26	D26	SAE	4X4X0.25	344.7	95.31	95.31	93Y	-70.284LC3	WIND	0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D27	D27	SAE	4X4X0.25	344.7	98.68	98.68	95Y	-73.184LC3	WIND	0	74.163	125.440	108.425	0.750	0.500	0.500	139.22	5.622	6	2
D28	D28	SAE	4X4X0.3125	344.7	83.42	83.42	97Y	-76.035LC3	WIND	0	91.148	125.440	135.531	0.750	0.500	0.500	139.92	5.622	6	2
D29	D29	SAE	4X4X0.3125	344.7	84.60	84.60	99Y	-77.544LC3	WIND	0	91.662	125.440	135.531	0.750	0.500	0.500	139.32	5.598	6	2
D30	D30	SAE	5X5X0.5	344.7	74.67	73.82	100X	-185.193LC4	WIND	4	283.477	250.880	433.700	0.550	0.250	0.250	105.46	7.500	1	4
D31	D31	SAE	5X5X0.5	344.7	76.47	76.47	103P	-167.622LC4	WIND	4	219.214	250.880	433.700	0.550	0.250	0.250	119.97	8.532	1	4
D32	D32	SAE	4X4X0.25	344.7	99.44	99.44	105P	-59.982LC3	WIND	0	60.322	125.440	108.425	0.550	0.250	0.250	162.54	9.383	6	2
D33	D33	SAE	4X4X0.25	344.7	93.91	93.91	107P	-48.154LC4	WIND	4	51.279	125.440	108.425	0.550	0.250	0.250	162.64	10.544	6	2
D34	D34	SAE	4X4X0.25	344.7	63.30	63.30	109P	-36.837LC2	WIND	4	43.758	125.440	108.425	0.550	0.250	0.250	203.92	11.772	6	2
D35	D35	SAE	4X4X0.25	344.7	58.43	58.43	117P	-56.896LC1	WIND	0	73.220	125.440	108.425	0.550	0.250	0.250	140.59	8.116	6	2
D36	D36	SAE	4X4X0.25	344.7	93.73	93.73	124P	-77.736LC1	WIND	0	62.359	125.440	108.425	0.550	0.250	0.250	158.62	9.157	6	2
D37	D37	SAE	4X4X0.25	344.7	39.49	39.49	133P	-32.753LC1	WIND	0	62.359	125.440	108.425	0.550	0.250	0.250	158.62	9.157	6	2
D38	D38	SAE	4X4X0.25	344.7	70.19	70.19	140P	-49.474LC1	WIND	0	52.994	125.440	108.425	0.550	0.250	0.250	178.44	10.301	6	2
D39	D39	SAE	4X4X0.5	344.7	94.81	94.81	149P	-124.807LC1	WIND	0	98.982	125.440	216.850	0.550	0.333	0.333	182.83	10.301	6	2
D40	D40	SAE	5X5X0.5	344.7	96.57	96.57	158P	-120.475LC2	WIND	4	93.797	188.160	325.275	0.550	0.143	0.143	223.10	15.867	6	3
H1	H1	SAE	1.5X1.5X0.1875	344.7	3.69	3.69	166P	-0.551LC3	WIND	0	14.917	62.720	40.659	1.000	1.000	1.000	174.68	1.300	6	1
H2	H2	SAE	1.5X1.5X0.1875	344.7	2.74	2.74	1671P	-0.408LC3	WIND	0	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2
H3	H3	SAE	1.5X1.5X0.1875	344.7	5.63	5.63	1672X	-0.840LC4	WIND	4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2
H4	H4	SAE	1.5X1.5X0.1875	344.7	23.46	23.46	1674X	-3.500LC4	WIND	4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2
H5	H5	SAE	2X2X0.1875	344.7	48.28	48.28	168P	-14.322LC3	WIND	0	29.665	125.440	81.319	1.000	1.000	1.000	129.90	1.300	6	2
H6	H6	SAE	3X3X0.25	344.7	44.35	44.35	170Y	-21.813LC3	WIND	0	49.188	125.440	108.425	1.000	1.000	1.000	151.63	2.280	6	2
H7	H7	SAE	2X2X0.1875	344.7	11.25	11.25	1712X	-1.529LC4	WIND	4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2
H8	H8	SAE	2X2X0.1875	344.7	33.87	33.87	1714X	-4.601LC4	WIND	4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2
H9	H9	SAE	2X2X0.1875	344.7	69.66	69.66	1704Y	-9.464LC3	WIND	0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2
H10	H10	SAE	3X3X0.25	344.7	48.02	48.02	172P	-52.063LC3	WIND	0	127.059	125.440	108.425	0.500	0.500	0.500	75.81	2.280	1	2
H11	H11	SAE	4X4X0.375	344.7	71.84	71.84	1722Y	-92.386LC3	WIND	0	128.604	188.160	243.956	0.500	0.500	0.500	122.51	4.904	6	3
H12	H12	SAE	2.5X2.5X0.25	344.7	28.46	28.46	17231Y	-8.056LC3	WIND	0	28.304	125.440	108.425	0.500	0.500	0.500	196.61	4.904	6	2
H13	H13	SAE	3.5X3.5X0.25	344.7	8.42	8.42	17251Y	-5.445LC3	WIND	0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H14	H14	SAE	3.5X3.5X0.25	344.7	9.11	9.11	17252Y	-5.891LC3	WIND	0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H15	H15	SAE	3.5X3.5X0.25	344.7	10.16	10.16	17253Y	-6.574LC3	WIND	0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H16	H16	SAE	3.5X3.5X0.25	344.7	9.30	9.30	17254Y	-6.015LC3	WIND	0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H17	H17	SAE	4X4X0.25	344.7	95.04	95.04	17255Y	-83.824LC3	WIND	0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2
H18	H18	SAE	4X4X0.25	344.7	55.14	55.14	1724Y	-48.633LC3	WIND	0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2
H19	H19	SAE	4X4X0.25	344.7	81.76	81.76	1728Y	-88.645LC3	WIND	0	119.442	125.440	108.425	0.500	0.250	0.250	101.50	6.446	1	2
H20	H20	SAE	4X4X0.25	344.7	42.92	42.92	1729Y	-36.682LC3	WIND	0	85.473	125.440	108.425	0.500	0.250	0.250	124.53	7.908	6	2
H21	H21	SAE	5X5X0.375	344.7	27.24	27.24	17291Y	-34.171LC3	WIND	0	260.955	125.440	162.638	0.250	0.250	0.250	93.16	9.370	1	2
H22	H22	SAE	5X5X0.375	344.7	38.02	38.02	17292Y	-47.689LC3	WIND	0	206.750	125.440	162.638	0.250	0.250	0.250	107.70	10.832	1	2
H23	H23	SAE	5X5X0.375	344.7	4.56	4.56	174P	-5.715LC3	WIND	0	313.027	125.440	162.638	0.500	0.250	0.250	77.57	6.147	1	2
H24	H24	SAE	6X6X0.375	344.7	41.12	40.24	17293Y	-50.475LC3	WIND	0	223.518	125.440	162.638	0.250	0.250	0.250	113.79	13.757	1	2
H25	H25	SAE	6X6X0.375	344.7	5.93	5.93	182P	-7.436LC3	WIND	0	336.759	125.440	162.638	0.500	0.250	0.250	79.68	7.610	1	2

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 – RESUMEN DE REFUERZO	Page	3 of 5
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

H26	H26	SAE	6X6X0.375	344.7	81.61	77.60	17294Y	-97.339LC3	WIND 0	168.624	125.440	162.638	0.250	0.250	0.250	137.98	16.682	6	2
H27	H27	SAE	6X6X0.375	344.7	7.77	7.77	215P	-9.744LC4	WIND 4	159.752	125.440	162.638	0.500	0.500	0.500	143.81	8.694	6	2

Group Summary (Tension Portion):

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (MPa)	Max Usage %	Max Tension Tens. %	Tension Control Member	Tension Force (kN)	Tension Control Load Case	Net Section Capacity (kN)	Tens. Conn. Shear Capacity (kN)	Tens. Conn. Bearing Capacity (kN)	Tens. Conn. Rupture Capacity (kN)	Length Member (m)	No. Bolts Tens.	Of Holes	Hole Diameter (cm)
M1	M1	DAE	2.5X2.5X0.25	344.7	9.31	4.43	2XY	13.047LC4	WIND 4	294.374	752.639	650.551	0.000	2.500	6	2.000	1.746
M2	M2	DAE	2.5X2.5X0.25	344.7	30.58	17.58	4XY	51.759LC4	WIND 4	294.374	752.639	650.551	0.000	2.500	6	2.000	1.746
M3	M3	DAE	3.5X3.5X0.25	344.7	40.03	28.70	6XY	125.958LC4	WIND 4	438.941	878.079	758.976	0.000	2.500	7	2.000	1.746
M4	M4	DAE	4X4X0.25	344.7	57.07	41.68	8XY	213.070LC4	WIND 4	511.224	878.079	758.976	0.000	1.570	7	2.000	1.746
M5	M5	DAE	4X4X0.375	344.7	34.96	24.20	9XY	182.073LC4	WIND 4	752.381	878.079	1138.464	0.000	4.099	7	2.000	1.746
M6	M6	DAE	4X4X0.375	344.7	53.88	39.11	11XY	294.290LC4	WIND 4	752.381	878.079	1138.464	0.000	2.500	7	2.000	1.746
M7	M7	DAE	4X4X0.3125	344.7	98.06	68.71	13XY	434.086LC4	WIND 4	631.803	878.079	948.720	0.000	2.500	7	2.000	1.746
M8	M8	PAE	2L4X0.3125+L4X0.25	344.7	99.52	71.70	15XY	603.568LC4	WIND 4	841.811	2161.836	1951.652	0.000	2.500	12	2.000	2.064
M9	M9	PAE	2L4X0.3125+L4X0.5	344.7	89.90	67.95	17XY	756.997LC4	WIND 4	1114.067	1801.530	1626.377	0.000	1.580	10	2.000	2.064
M10	M10	PAE	2L4X0.375+L4X0.25	344.7	89.52	52.75	18XY	500.823LC4	WIND 4	949.358	1261.071	1366.156	0.000	6.683	7	2.000	2.064
M11	M11	PAE	2L4X0.375+L4X0.25	344.7	86.86	62.35	20XY	591.960LC4	WIND 4	949.358	1261.071	1366.156	0.000	2.800	7	2.000	2.064
M12	M12	PAE	2L5X0.375+L4X0.25	344.7	85.85	64.26	22XY	749.432LC4	WIND 4	1166.266	1261.071	1366.156	0.000	2.700	7	2.000	2.064
M13	M13	PAE	2L6X0.5+L4X0.25	344.7	75.81	64.08	24XY	923.596LC4	WIND 4	1738.319	1441.224	2081.762	0.000	2.800	8	2.000	2.064
M14	M14	PAE	2L6X0.5+L4X0.3125	344.7	80.13	68.82	26XY	1115.840LC4	WIND 4	1807.335	1621.377	2341.982	0.000	2.800	9	2.000	2.064
M15	M15	PAE	2L6X0.5+L4X0.3125	344.7	92.53	74.66	28XY	1322.338LC4	WIND 4	1771.193	2059.520	3035.903	0.000	2.750	10	2.000	2.381
M16	M16	PAE	2L6X0.5+L4X0.3125	344.7	99.63	80.89	29XY	1432.649LC4	WIND 4	1771.193	2059.520	3035.903	0.000	2.700	10	2.000	2.381
M17	M17	PAE	2L6X0.5+L4X0.375	344.7	99.19	79.14	30XY	1455.793LC4	WIND 4	1839.537	2059.520	3035.903	0.000	5.675	10	2.000	2.381
M18	M18	PAE	2L6X0.5+L5X0.375	344.7	99.55	76.86	31XY	1497.266LC4	WIND 4	1947.992	2059.520	3035.903	0.000	6.418	10	2.000	2.381
M19	M19	PAE	2L6X0.5+L5X0.375	344.7	97.23	73.54	32XY	1432.472LC4	WIND 4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M20	M20	PAE	2L6X0.5+L5X0.375	344.7	92.89	68.00	33XY	1324.688LC4	WIND 4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M21	M21	PAE	2L6X0.5+L5X0.375	344.7	91.72	64.82	34XY	1262.717LC4	WIND 4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M22	M22	PAE	2L6X0.5+L5X0.375	344.7	89.70	59.90	35XY	1166.934LC4	WIND 4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M23	M23	PAE	2L6X0.5+L5X0.375	344.7	90.31	59.33	36XY	1155.738LC4	WIND 4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M24	M24	PAE	2L6X0.5+L5X0.375	344.7	92.94	59.51	37XY	1159.228LC4	WIND 4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M25	M25	PAE	2L6X0.5+L5X0.375	344.7	93.61	58.86	38XY	1146.614LC4	WIND 4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M26	M26	PAE	2L6X0.5+L5X0.5	344.7	92.90	52.84	39XY	1088.202LC4	WIND 4	2118.964	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M27	M27	PAE	2L6X0.5+L5X0.5	344.7	93.78	52.18	40XY	1074.680LC4	WIND 4	2118.964	2059.520	3035.903	0.000	6.088	10	2.000	2.381
M28	M28	PAE	2L6X0.5+L5X0.375	344.7	94.33	54.63	41XY	1064.270LC4	WIND 4	1947.992	2265.472	3339.493	0.000	5.885	11	2.000	2.381
D1	D1	SAE	1.5X1.5X0.1875	344.7	32.95	17.12	43X	5.293LC3	WIND 0	46.030	30.915	32.528	0.000	3.464	1	1.000	1.429
D2	D2	SAE	1.5X1.5X0.1875	344.7	56.48	19.63	45X	8.073LC1	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429
D3	D3	SAE	1.5X1.5X0.1875	344.7	69.05	31.88	47X	9.856LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429
D4	D4	SAE	1.5X1.5X0.1875	344.7	96.41	41.44	49X	12.811LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429
D5	D5	SAE	2X2X0.125	344.7	92.21	81.15	51X	17.597LC3	WIND 0	44.420	30.915	21.685	0.000	2.818	1	1.000	1.429
D6	D6	SAE	2.5X2.5X0.1875	344.7	44.53	34.80	53X	21.519LC3	WIND 0	86.364	61.830	65.055	0.000	2.818	2	1.000	1.429
D7	D7	SAE	2X2X0.125	344.7	80.66	46.71	55X	20.258LC3	WIND 0	44.420	61.830	43.370	0.000	2.385	2	1.000	1.429
D8	D8	SAE	2X2X0.125	344.7	70.08	48.27	57X	20.933LC3	WIND 0	44.420	61.830	43.370	0.000	2.038	2	1.000	1.429
D9	D9	SAE	2.5X2.5X0.1875	344.7	60.19	50.07	58XY	30.956LC3	WIND 0	86.364	61.830	65.055	0.000	4.446	2	1.000	1.429
D10	D10	SAE	2.5X2.5X0.1875	344.7	87.52	52.37	61X	32.383LC3	WIND 0	86.364	61.830	65.055	0.000	3.681	2	1.000	1.429
D11	D11	DAE	2X2X0.1875	344.7	68.88	53.84	63X	33.287LC3	WIND 0	143.612	61.830	130.110	0.000	3.384	2	1.000	1.429
D12	D12	DAE	2X2X0.1875	344.7	79.55	64.28	65X	39.745LC3	WIND 0	143.612	61.830	130.110	0.000	3.384	2	1.000	1.429
D13	D13	DAE	2X2X0.1875	344.7	98.85	70.43	67X	43.546LC3	WIND 0	143.612	61.830	130.110	0.000	3.384	2	1.000	1.429
D14	D14	DAE	2.5X2.5X0.1875	344.7	73.66	73.66	69X	45.542LC3	WIND 0	183.730	61.830	130.110	0.000	3.384	2	1.000	1.429

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	Project	Date
	Client	Designed by
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 – RESUMEN DE REFUERZO	4 of 5
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D15	D15	DAE	2.5X2.5X0.1875	344.7	78.17	74.89	71X	46.302LC3	WIND 0	183.730	61.830	130.110	0.000	3.384	2	1.000	1.429
D16	D16	DAE	2X2X0.1875	344.7	80.88	75.47	73X	46.662LC3	WIND 0	143.612	61.830	130.110	0.000	3.033	2	1.000	1.429
D17	D17	DAE	2X2X0.1875	344.7	75.29	63.62	75P	39.334LC3	WIND 0	143.612	61.830	130.110	0.000	2.774	2	1.000	1.429
D18	D18	SAE	4X4X0.375	344.7	96.12	72.34	76XY	181.492LC4	WIND 4	282.143	250.880	325.275	0.000	7.473	4	1.000	1.746
D19	D19	SAE	4X4X0.25	344.7	64.04	44.24	79P	47.962LC3	WIND 0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D20	D20	SAE	4X4X0.25	344.7	68.07	44.65	81X	48.409LC4	WIND 4	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D21	D21	SAE	4X4X0.25	344.7	70.68	51.43	83P	55.764LC3	WIND 0	191.709	125.440	108.425	0.000	5.598	2	1.000	1.746
D22	D22	SAE	4X4X0.25	344.7	77.12	54.10	85P	58.654LC3	WIND 0	191.709	125.440	108.425	0.000	5.598	2	1.000	1.746
D23	D23	SAE	4X4X0.25	344.7	84.39	57.67	87P	62.525LC3	WIND 0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D24	D24	SAE	4X4X0.25	344.7	87.25	59.56	89P	64.583LC3	WIND 0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D25	D25	SAE	4X4X0.25	344.7	92.29	63.16	91P	68.482LC3	WIND 0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D26	D26	SAE	4X4X0.25	344.7	95.31	64.99	93P	70.466LC3	WIND 0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D27	D27	SAE	4X4X0.25	344.7	98.68	68.04	95P	73.772LC3	WIND 0	191.709	125.440	108.425	0.000	5.622	2	1.000	1.746
D28	D28	SAE	4X4X0.3125	344.7	83.42	60.63	97P	76.054LC3	WIND 0	236.925	125.440	135.531	0.000	5.622	2	1.000	1.746
D29	D29	SAE	4X4X0.3125	344.7	84.60	63.45	99P	79.589LC3	WIND 0	236.925	125.440	135.531	0.000	5.598	2	1.000	1.746
D30	D30	SAE	5X5X0.5	344.7	74.67	74.67	101X	187.320LC4	WIND 4	477.748	250.880	433.700	0.000	7.500	4	1.000	1.746
D31	D31	SAE	5X5X0.5	344.7	76.47	66.80	102XY	167.578LC4	WIND 4	477.748	250.880	433.700	0.000	8.532	4	1.000	1.746
D32	D32	SAE	4X4X0.25	344.7	99.44	57.50	104XY	62.339LC4	WIND 4	191.709	125.440	108.425	0.000	9.383	2	1.000	1.746
D33	D33	SAE	4X4X0.25	344.7	93.91	45.79	106XY	49.644LC4	WIND 4	191.709	125.440	108.425	0.000	10.544	2	1.000	1.746
D34	D34	SAE	4X4X0.25	344.7	63.30	29.29	108XY	31.754LC4	WIND 4	191.709	125.440	108.425	0.000	11.772	2	1.000	1.746
D35	D35	SAE	4X4X0.25	344.7	58.43	46.44	113P	50.348LC4	WIND 4	191.709	125.440	108.425	0.000	8.116	2	1.000	1.746
D36	D36	SAE	4X4X0.25	344.7	93.73	42.55	121P	46.132LC3	WIND 0	191.709	125.440	108.425	0.000	9.157	2	1.000	1.746
D37	D37	SAE	4X4X0.25	344.7	39.49	27.03	128P	29.311LC3	WIND 0	191.709	125.440	108.425	0.000	9.157	2	1.000	1.746
D38	D38	SAE	4X4X0.25	344.7	70.19	21.40	138P	23.201LC4	WIND 4	191.709	125.440	108.425	0.000	10.301	2	1.000	1.746
D39	D39	SAE	4X4X0.5	344.7	94.81	76.87	144P	96.420LC3	WIND 0	369.323	125.440	216.850	0.000	10.301	2	1.000	1.746
D40	D40	SAE	5X5X0.5	344.7	96.57	38.30	162P	72.068LC4	WIND 4	477.748	188.160	325.275	0.000	15.867	3	1.000	1.746
H1	H1	SAE	1.5X1.5X0.1875	344.7	3.69	0.00	167X	0.000		43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H2	H2	SAE	1.5X1.5X0.1875	344.7	2.74	1.79	1661Y	0.780LC4	WIND 4	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H3	H3	SAE	1.5X1.5X0.1875	344.7	5.63	0.29	1662P	0.169LC1	WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H4	H4	SAE	1.5X1.5X0.1875	344.7	23.46	4.74	1663P	2.741LC1	WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H5	H5	SAE	2X2X0.1875	344.7	48.28	8.84	168Y	7.407LC1	WIND 0	63.005	125.440	81.319	0.000	1.300	2	1.000	1.746
H6	H6	SAE	3X3X0.25	344.7	44.35	21.35	170P	30.787LC1	WIND 0	137.497	125.440	108.425	0.000	2.280	2	1.000	1.746
H7	H7	SAE	2X2X0.1875	344.7	11.25	1.66	1712P	1.389LC2	WIND 4	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746
H8	H8	SAE	2X2X0.1875	344.7	33.87	5.75	1703P	4.819LC1	WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746
H9	H9	SAE	2X2X0.1875	344.7	69.66	10.65	1704P	8.925LC1	WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746
H10	H10	SAE	3X3X0.25	344.7	48.02	24.89	172Y	35.897LC1	WIND 0	137.497	125.440	108.425	0.000	2.280	2	1.000	1.746
H11	H11	SAE	4X4X0.375	344.7	71.84	58.57	1722P	110.205LC3	WIND 0	282.143	188.160	243.956	0.000	4.904	3	1.000	1.746
H12	H12	SAE	2.5X2.5X0.25	344.7	28.46	8.07	17231P	8.754LC3	WIND 0	110.390	125.440	108.425	0.000	4.904	2	1.000	1.746
H13	H13	SAE	3.5X3.5X0.25	344.7	8.42	4.55	17251P	6.555LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H14	H14	SAE	3.5X3.5X0.25	344.7	9.11	4.62	17252P	6.662LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H15	H15	SAE	3.5X3.5X0.25	344.7	10.16	5.23	17253P	7.539LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H16	H16	SAE	3.5X3.5X0.25	344.7	9.30	4.09	17254P	5.898LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H17	H17	SAE	4X4X0.25	344.7	95.04	75.77	17255P	109.262LC1	WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746
H18	H18	SAE	4X4X0.25	344.7	55.14	18.75	1724P	27.044LC1	WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746
H19	H19	SAE	4X4X0.25	344.7	81.76	79.98	1728P	115.335LC1	WIND 0	191.709	125.440	108.425	0.000	6.446	2	1.000	1.746
H20	H20	SAE	4X4X0.25	344.7	42.92	31.33	1729P	45.177LC1	WIND 0	191.709	125.440	108.425	0.000	7.908	2	1.000	1.746
H21	H21	SAE	5X5X0.375	344.7	27.24	26.16	17291P	43.637LC1	WIND 0	363.462	125.440	162.638	0.000	9.370	2	1.000	1.746
H22	H22	SAE	5X5X0.375	344.7	38.02	34.13	17292P	56.938LC1	WIND 0	363.462	125.440	162.638	0.000	10.832	2	1.000	1.746
H23	H23	SAE	5X5X0.375	344.7	4.56	3.12	178P	3.914LC3	WIND 0	363.462	125.440	162.638	0.000	6.147	2	1.000	1.746
H24	H24	SAE	6X6X0.375	344.7	41.12	41.12	17293P	68.604LC1	WIND 0	444.781	125.440	162.638	0.000	13.757	2	1.000	1.746
H25	H25	SAE	6X6X0.375	344.7	5.93	2.41	181P	3.029LC3	WIND 0	444.781	125.440	162.638	0.000	7.610	2	1.000	1.746
H26	H26	SAE	6X6X0.375	344.7	81.61	81.61	17294P	136.157LC1	WIND 0	444.781	125.440	162.638	0.000	16.682	2	1.000	1.746
H27	H27	SAE	6X6X0.375	344.7	7.77	4.96	189P	6.228LC3	WIND 0	444.781	125.440	162.638	0.000	9.072	2	1.000	1.746

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 1 – RESUMEN DE REFUERZO	Page 5 of 5
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
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DAE = Angulo doble.
SAE = Angulo sencillo.
PAE = Sección compuestas

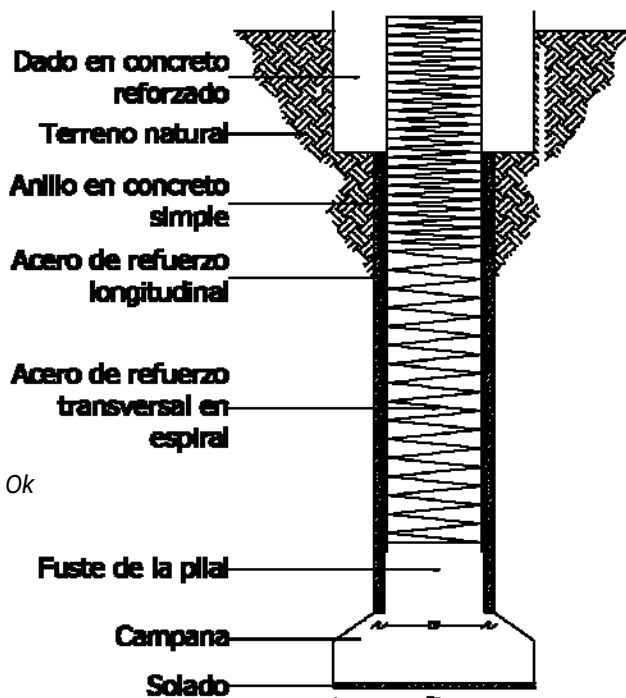
EST-014-EVALUACION TORRE CERRO KENNEDY

Edición: 1.0
Fecha: 31/03/2010

CHEQUEO DE LA CIMENTACION PARA LA HIPOTESIS 1

DATOS DE ENTRADA

Carga ultima en la columna:	2389.00 KN
Carga ultima por arrancamiento:	1475.00 KN
Momento último en la columna (X):	6.06 KN-m
Momento último en la columna (Y):	7.08 KN-m
Tipo de suelo:	Granular
Peso específico del suelo:	22.20 KN/m ³
Altura del pedestal:	0.50 m
Ancho del pedestal:	0.80 m
Capacidad portante por punta:	0.25 Mpa.
Capacidad portante por fuste:	0.08 Mpa.
Longitud aproximada de la pila:	6.00 m
Diámetro de la pila existente:	1.50 m
Area del Fuste:	28.27 m ²
Area del punta (sin tener cuenta la campana):	1.77 m ²
Capacidad de la pila por punta (sin campana):	441.79 KN
Capacidad de la pila por fuste:	2120.58 KN
Capacidad de carga de la pila:	2562.36 KN
Porcentaje de carga asumido por punta:	17.24%
Porcentaje de carga asumido por fuste:	82.76%
Carga ultima asumida por punta:	411.90 KN
Carga ultima asumida por fuste:	1977.1 KN
Concreto f'c:	21.10 MPa
f'cu Compresión axial:	8.44 MPa
Vcu Cortante dos direcciones:	2.07 MPa
Vcu Cortante una dirección:	4.13 MPa
Factor de seguridad:	1.50
Capacidad portante Util por punta:	0.38 Mpa.
Capacidad portante Util por fuste:	0.11 Mpa.



Ok

DIÁMETRO REQUERIDO DEL FUSTE

$$D_f = 146 \times \sqrt{\frac{P_u}{f'_c}}$$

D_f: 0.491 m Ok

DIÁMETRO REQUERIDO DE LA CAMPANA

$$D_c = \sqrt{\frac{4R_u}{\pi \sigma_{unil}}}$$

D_c: 1.183 m Ok

De acuerdo con lo anterior, para la pila existente, y asumiendo que no tiene campana, sino que su sección es constante hasta el fondo, (caso en que la transmisión de esfuerzos sería crítico), sus dimensiones son adecuadas para transmitir las cargas al suelo de fundación.

FOR-DIS-20 Versión: 01	INSTATEL COLOMBIA CI LTDA. DISEÑO DE PILAS	

EST-014-EVALUACION TORRE CERRO KENNEDY

CHEQUEO POR COMPRESIÓN

Diámetro efectivo del fuste: 1.40 m
Area del fuste: 1.53938 m²

$$f_{yu(c)} = \frac{P_u}{A} \quad f_{yu(c)} \quad 1.35 \text{ Mpa} \quad Ok$$

CHEQUEO POR ARRANCAMIENTO

Arrancamiento 1475.00 KN

Volumen de Concreto

Pila: 10.60 m³

Dado 0.32 m³

Volumne cono de arrancamiento

r1 0.60 m

r2 7.00 m

h 6.00 m

Vol.: 325.6 m³

Peso resistente: 7490.57 KN *Ok*



EVALUACIÓN ESTRUCTURAL

HIPOTESIS 2

ESTACIÓN CERRO KENNEDY

TORRE CADRADA DE SECCIÓN VARIABLE

ALTURA 150m

Diseñó:

ING. LEOPOLDO BARRERA GARZÓN

MAT. 25202 – 124789 CND

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page 1 of 144
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DATOS DE ENTRADA Y SALIDA DEL ANALISIS ESTRUCTURAL – CONDICIONES ACTUALES – HIPOTESIS 2 PROGRAMA TOWER.

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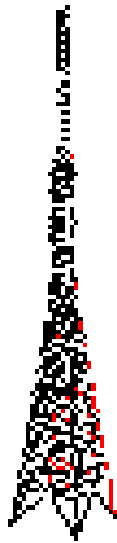
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* TOWER - Analysis and Design - Copyright Power Line Systems, Inc. 1986-2006 *
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Análisis lineal exitosamente realizado

The model has 0 warnings.

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page 2 of 144
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Opciones de verif. de elem: TIA/EIA 222-F
Verificar rupturas en conexión: Not Checked
Crossing diagonal check: Fixed

Geometría de Uniones:

Etiqueta de Unión	Cód.de Sim.	Coord. X (m)	Coord. Y (m)	Coord. Z (m)	Res. Des. X	Res. Des. Y	Res. Des. Z	Res. Rot. X	Res. Rot. Y	Res. Rot. Z
1P XY-Symmetry	0.65	0.65	150.9	Free	Free	Free	Free	Free	Free	

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10P	XY-Symmetry	0.65	0.65	131.6	Free	Free	Free	Free	Free
11P	XY-Symmetry	1.14	1.14	127.6	Free	Free	Free	Free	Free
19P	XY-Symmetry	1.14	1.14	108.6	Free	Free	Free	Free	Free
20P	XY-Symmetry	2.452	2.452	102.2	Free	Free	Free	Free	Free
32P	XY-Symmetry	2.452	2.452	66.13	Free	Free	Free	Free	Free
ANP	XY-Symmetry	10.51	10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed
1X	X-GenXY	0.65	-0.65	150.9	Free	Free	Free	Free	Free
1XY	XY-GenXY	-0.65	-0.65	150.9	Free	Free	Free	Free	Free
1Y	Y-GenXY	-0.65	0.65	150.9	Free	Free	Free	Free	Free
10X	X-GenXY	0.65	-0.65	131.6	Free	Free	Free	Free	Free
10XY	XY-GenXY	-0.65	-0.65	131.6	Free	Free	Free	Free	Free
10Y	Y-GenXY	-0.65	0.65	131.6	Free	Free	Free	Free	Free
11X	X-GenXY	1.14	-1.14	127.6	Free	Free	Free	Free	Free
11XY	XY-GenXY	-1.14	-1.14	127.6	Free	Free	Free	Free	Free
11Y	Y-GenXY	-1.14	1.14	127.6	Free	Free	Free	Free	Free
19X	X-GenXY	1.14	-1.14	108.6	Free	Free	Free	Free	Free
19XY	XY-GenXY	-1.14	-1.14	108.6	Free	Free	Free	Free	Free
19Y	Y-GenXY	-1.14	1.14	108.6	Free	Free	Free	Free	Free
20X	X-GenXY	2.452	-2.452	102.2	Free	Free	Free	Free	Free
20XY	XY-GenXY	-2.452	-2.452	102.2	Free	Free	Free	Free	Free
20Y	Y-GenXY	-2.452	2.452	102.2	Free	Free	Free	Free	Free
32X	X-GenXY	2.452	-2.452	66.13	Free	Free	Free	Free	Free
32XY	XY-GenXY	-2.452	-2.452	66.13	Free	Free	Free	Free	Free
32Y	Y-GenXY	-2.452	2.452	66.13	Free	Free	Free	Free	Free
ANX	X-GenXY	10.51	-10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed
ANXY	XY-GenXY	-10.51	-10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed
ANY	Y-GenXY	-10.51	10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed

Uniones Secundariaws:

Etqta de Unión	Cód de Origen Sime. Unión	Fin Unión	Fracc.	Elev. (m)	Res. Des. X	Res. Des. y	Res. Des. Z	Res. Rot. X	Res. Rot. Y	Res. Rot. Z
2S	XY-Symmetry	1P 10P	0	147.7	Free	Free	Free	Free	Free	Free
3S	XY-Symmetry	1P 10P	0	145.2	Free	Free	Free	Free	Free	Free
4S	XY-Symmetry	1P 10P	0	142.7	Free	Free	Free	Free	Free	Free
5S	XY-Symmetry	1P 10P	0	140.2	Free	Free	Free	Free	Free	Free
6S	XY-Symmetry	1P 10P	0	137.7	Free	Free	Free	Free	Free	Free
7S	XY-Symmetry	1P 10P	0	135.2	Free	Free	Free	Free	Free	Free
8S	XY-Symmetry	1P 10P	0	133.2	Free	Free	Free	Free	Free	Free
12S	XY-Symmetry	11P 19P	0	124.7	Free	Free	Free	Free	Free	Free
13S	XY-Symmetry	11P 19P	0	122.2	Free	Free	Free	Free	Free	Free
14S	XY-Symmetry	11P 19P	0	119.7	Free	Free	Free	Free	Free	Free
15S	XY-Symmetry	11P 19P	0	117.2	Free	Free	Free	Free	Free	Free
16S	XY-Symmetry	11P 19P	0	114.7	Free	Free	Free	Free	Free	Free
17S	XY-Symmetry	11P 19P	0	112.2	Free	Free	Free	Free	Free	Free
18S	XY-Symmetry	11P 19P	0	110.2	Free	Free	Free	Free	Free	Free
21S	XY-Symmetry	20P 32P	0	99.4	Free	Free	Free	Free	Free	Free
22S	XY-Symmetry	20P 32P	0	96.6	Free	Free	Free	Free	Free	Free
23S	XY-Symmetry	20P 32P	0	93.9	Free	Free	Free	Free	Free	Free
24S	XY-Symmetry	20P 32P	0	91.2	Free	Free	Free	Free	Free	Free
25S	XY-Symmetry	20P 32P	0	88.4	Free	Free	Free	Free	Free	Free
26S	XY-Symmetry	20P 32P	0	85.6	Free	Free	Free	Free	Free	Free
27S	XY-Symmetry	20P 32P	0	82.8	Free	Free	Free	Free	Free	Free
28S	XY-Symmetry	20P 32P	0	80	Free	Free	Free	Free	Free	Free

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29S	XY-Symmetry	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
30S	XY-Symmetry	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
31S	XY-Symmetry	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
33S	XY-Symmetry	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
34S	XY-Symmetry	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
35S	XY-Symmetry	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
36S	XY-Symmetry	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
37S	XY-Symmetry	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
371S	None	37X	37S	0.5	0	Free	Free	Free	Free	Free	Free
372S	None	37S	37Y	0.5	0	Free	Free	Free	Free	Free	Free
373S	None	37Y	37XY	0.5	0	Free	Free	Free	Free	Free	Free
374S	None	37XY	37X	0.5	0	Free	Free	Free	Free	Free	Free
38S	XY-Symmetry	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
39S	XY-Symmetry	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
391S	None	39X	39S	0.5	0	Free	Free	Free	Free	Free	Free
392S	None	39S	39Y	0.5	0	Free	Free	Free	Free	Free	Free
393S	None	39Y	39XY	0.5	0	Free	Free	Free	Free	Free	Free
394S	None	39XY	39X	0.5	0	Free	Free	Free	Free	Free	Free
40S	XY-Symmetry	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
41S	XY-Symmetry	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
411S	None	41X	41S	0.5	0	Free	Free	Free	Free	Free	Free
412S	None	41S	41Y	0.5	0	Free	Free	Free	Free	Free	Free
413S	None	41Y	41XY	0.5	0	Free	Free	Free	Free	Free	Free
414S	None	41XY	41X	0.5	0	Free	Free	Free	Free	Free	Free
42S	XY-Symmetry	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
2X	X-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
2XY	XY-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
2Y	Y-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
3X	X-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
3XY	XY-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
3Y	Y-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
4X	X-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
4XY	XY-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
4Y	Y-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
5X	X-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
5XY	XY-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
5Y	Y-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
6X	X-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
6XY	XY-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
6Y	Y-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
7X	X-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
7XY	XY-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
7Y	Y-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
8X	X-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
8XY	XY-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
8Y	Y-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
12X	X-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
12XY	XY-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
12Y	Y-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
13X	X-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
13XY	XY-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
13Y	Y-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
14X	X-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
14XY	XY-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
14Y	Y-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
15X	X-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free

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15XY	XY-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
15Y	Y-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
16X	X-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
16XY	XY-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
16Y	Y-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
17X	X-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
17XY	XY-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
17Y	Y-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
18X	X-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
18XY	XY-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
18Y	Y-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
21X	X-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
21XY	XY-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
21Y	Y-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
22X	X-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
22XY	XY-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
22Y	Y-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
23X	X-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
23XY	XY-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
23Y	Y-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
24X	X-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
24XY	XY-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
24Y	Y-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
25X	X-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
25XY	XY-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
25Y	Y-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
26X	X-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
26XY	XY-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
26Y	Y-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
27X	X-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
27XY	XY-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
27Y	Y-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
28X	X-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
28XY	XY-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
28Y	Y-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
29X	X-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
29XY	XY-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
29Y	Y-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
30X	X-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
30XY	XY-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
30Y	Y-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
31X	X-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
31XY	XY-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
31Y	Y-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
33X	X-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
33XY	XY-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
33Y	Y-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
34X	X-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
34XY	XY-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
34Y	Y-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
35X	X-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
35XY	XY-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
35Y	Y-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
36X	X-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
36XY	XY-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
36Y	Y-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

37X	X-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
37XY	XY-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
37Y	Y-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
38X	X-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
38XY	XY-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
38Y	Y-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
39X	X-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
39XY	XY-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
39Y	Y-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
40X	X-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
40XY	XY-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
40Y	Y-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
41X	X-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
41XY	XY-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
41Y	Y-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
42X	X-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
42XY	XY-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
42Y	Y-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free

Propiedades del acero:

Etiqueta del Acero	Mód. de Elast. (MPa)	Esfzo de Fluen. Fy (MPa)	Esfzo Ruptura Fu (MPa)	Todos los Elem Esfzo Hyp. 1 (MPa)	Todos los Elem Esfzo Hyp. 2 (MPa)	Elemto Rupt. Hyp. 1 (MPa)	Elemto Rupt. Hyp. 2 (MPa)	Elemto flex Hyp. 1 (MPa)	Elemto flex bearing Hyp. 2 (MPa)
A572-50	1.999e+005	344.7	448.2	0	0	0	0	0	0

Tornillos:

Etqta Tornillo	Diám. (cm)	Barreno (cm)	Cap al Corte (kN)	Dist. al Paño (cm)	Esp. entre Torn. (cm)	Cap. Corte Hyp. 1 (kN)	Cap. Corte Hyp. 2 (kN)
1/2 A394 TYPE0 X	1.27	1.429	30.92	0	0	0	0
5/8 A394 TYPE0 X	1.587	1.746	62.72	0	0	0	0
3/4 A394 TYPE0 X	1.905	2.064	90.08	0	0	0	0
7/8 A394 TYPE0 N	2.223	2.381	103	0	0	0	0

Number Bolts Used By Type:

Bolt Type	Number Bolts
5/8 A394 TYPE0 X	910
3/4 A394 TYPE0 X	428
7/8 A394 TYPE0 N	604
1/2 A394 TYPE0 X	136

Angle Properties:

Angle Type	Angle Size	Long Leg	Short Leg	Thick. Leg	Unit Weight	Gross Area	w/t Ratio	Radius of Gyration Rx	Radius of Gyration Ry	Radius of Gyration Rz	Number of Angles	Wind Width	Short Edge Dist.	Long Edge Dist.	Optimize Cost Factor	Section Modulus

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
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		(cm)	(cm)	(cm)	(N/m)	(cm^2)		(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	(cm^3)	
SAE	6X6X0.375	15	15	0.9525	2.2e+002	28.1	14	4.775	4.775	3.023	1	15	0	0	1.00	0
SAE	5X5X0.375	13	13	0.9525	1.8e+002	23.3	11	3.962	3.962	2.515	1	13	0	0	1.00	0
SAE	4X4X0.25	10	10	0.635	96	12.5	14	3.175	3.175	2.019	1	10	0	0	1.00	0
SAE	3.5X3.5X0.25	8.9	8.9	0.635	85	10.9	12	2.769	2.769	1.763	1	8.9	0	0	1.00	0
SAE	2.5X2.5X0.3125	6.3	6.3	0.7937	73	9.42	6	1.933	1.933	1.242	1	6.3	0	0	1.00	0
SAE	2.5X2.5X0.25	6.3	6.3	0.635	60	7.68	7.8	1.953	1.953	1.247	1	6.3	0	0	1.00	0
SAE	2.5X2.5X0.1875	6.3	6.3	0.4763	45	5.82	11	1.976	1.976	1.257	1	6.3	0	0	1.00	0
SAE	2X2X0.1875	5.1	5.1	0.4763	36	4.58	8	1.567	1.567	1.001	1	5.1	0	0	1.00	0
SAE	1.5X1.5X0.1875	3.8	3.8	0.4763	26	3.42	5	1.161	1.161	0.7442	1	3.8	0	0	1.00	0
DAE	6X6X0.5	15	15	1.27	5.7e+002	74.2	10	4.724	6.706	4.724	2	15	0	0	1.00	0
DAE	5X5X0.5	13	13	1.27	4.7e+002	61.3	8	3.912	5.69	3.912	2	13	0	0	1.00	0
DAE	4X4X0.375	10	10	0.9525	2.9e+002	36.9	8.7	3.124	4.597	3.124	2	10	0	0	1.00	0
DAE	4X4X0.3125	10	10	0.7937	2.4e+002	31	11	3.15	4.572	3.15	2	10	0	0	1.00	0
DAE	4X4X0.25	10	10	0.635	1.9e+002	25	14	3.175	4.547	3.175	2	10	0	0	1.00	0
DAE	3.5X3.5X0.25	8.9	8.9	0.635	1.7e+002	21.8	12	2.769	4.039	2.769	2	8.9	0	0	1.00	0
DAE	2.5X2.5X0.25	6.3	6.3	0.635	1.2e+002	15.4	7.8	1.953	3.023	1.953	2	6.3	0	0	1.00	0

Grupo de Angulos:

Etqta	Desc.	Tipo	Tam.	Mat.	Elemto	Gpo Tipo	Opt. Grupo	Permitir adicionar > perfil para opt. (cm)
0.000000	M1	DAE	2.5X2.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M2	DAE	2.5X2.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M3	DAE	3.5X3.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M4	DAE	4X4X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M5	DAE	4X4X0.375	A572-50	Beam	Leg	None	30.480000
0.000000	M6	DAE	4X4X0.375	A572-50	Beam	Leg	None	30.480000
0.000000	M7	DAE	4X4X0.3125	A572-50	Beam	Leg	None	30.480000
0.000000	M8	DAE	4X4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M9	DAE	4X4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M10	DAE	4X4X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M11	DAE	4X4X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M12	DAE	4X4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M13	DAE	5X5X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M14	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M15	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M16	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M17	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M18	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M19	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M20	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M21	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M22	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M23	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M24	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M25	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M26	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M27	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M28	DAE	6X6X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	D1	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

0.000000	D2	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D3	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D4	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D5	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D6	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D7	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D8	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D9	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D10	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D11	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D12	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D13	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D14	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D15	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D16	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D17	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D18	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	D19	SAE	2.5X2.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D20	SAE	2.5X2.5X0.1875	A572-50	Truss	None	30.480000
0.000000	D21	SAE	2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D22	SAE	2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D23	SAE	2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D24	SAE	2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D25	SAE	2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D26	SAE	2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D27	SAE	2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D28	SAE	2.5X2.5X0.1875	A572-50	Truss	None	0.000000
0.000000	D29	SAE	2X2X0.1875	A572-50	Truss	None	0.000000
0.000000	D30	SAE	2X2X0.1875	A572-50	Truss	None	0.000000
0.000000	D31	SAE	2.5X2.5X0.3125	A572-50	Truss	None	0.000000
0.000000	D32	SAE	2.5X2.5X0.3125	A572-50	Truss	None	0.000000
0.000000	D33	SAE	2.5X2.5X0.3125	A572-50	Truss	None	0.000000
0.000000	D34	SAE	2.5X2.5X0.3125	A572-50	Truss	None	0.000000
0.000000	D35	SAE	2.5X2.5X0.3125	A572-50	Truss	None	0.000000
0.000000	D36	SAE	3.5X3.5X0.25	A572-50	Truss	None	0.000000
0.000000	D37	SAE	3.5X3.5X0.25	A572-50	Truss	None	0.000000
0.000000	D38	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D39	SAE	4X4X0.25	A572-50	Truss	None	0.000000
0.000000	D40	SAE	5X5X0.375	A572-50	Truss	None	0.000000
0.000000	H1	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H2	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H3	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H4	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H5	SAE	1.5X1.5X0.1875	A572-50	Truss	None	30.480000
0.000000	H6	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H7	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H8	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H9	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H10	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H11	SAE	2.5X2.5X0.25	A572-50	Truss	None	30.480000
0.000000	H12	SAE	2.5X2.5X0.25	A572-50	Truss	None	30.480000
0.000000	H13	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H14	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H15	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H16	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H17	SAE	4X4X0.25	A572-50	Truss	None	30.480000



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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	4XY	M2	XY-GenXY	4XY	5XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	4Y	M2	Y-GenXY	4Y	5Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5P	M3	XY-Symmetry	5S	6S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5X	M3	X-GenXY	5X	6X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5XY	M3	XY-GenXY	5XY	6XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	5Y	M3	Y-GenXY	5Y	6Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	6	2	2	Both	0	0	0	0
0	6P	M3	XY-Symmetry	6S	7S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	6X	M3	X-GenXY	6X	7X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	6XY	M3	XY-GenXY	6XY	7XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	6Y	M3	Y-GenXY	6Y	7Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7P	M4	XY-Symmetry	7S	8S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7X	M4	X-GenXY	7X	8X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7XY	M4	XY-GenXY	7XY	8XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	7Y	M4	Y-GenXY	7Y	8Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	8P	M4	XY-Symmetry	8S	10P	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	8X	M4	X-GenXY	8X	10X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	8XY	M4	XY-GenXY	8XY	10XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	8Y	M4	Y-GenXY	8Y	10Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	9P	M5	XY-Symmetry	10P	11P	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	9X	M5	X-GenXY	10X	11X	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	9XY	M5	XY-GenXY	10XY	11XY	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	9Y	M5	Y-GenXY	10Y	11Y	1	4	0.25	0.25	0.25 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	10P	M6	XY-Symmetry	11P	12S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	10X	M6	X-GenXY	11X	12X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	10XY	M6	XY-GenXY	11XY	12XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	10Y	M6	Y-GenXY	11Y	12Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	3	2	2	Both	0	0	0	0
0	11P	M6	XY-Symmetry	12S	13S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	11X	M6	X-GenXY	12X	13X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	11XY	M6	XY-GenXY	12XY	13XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	11Y	M6	Y-GenXY	12Y	13Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	12P	M7	XY-Symmetry	13S	14S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	12X	M7	X-GenXY	13X	14X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	12XY	M7	XY-GenXY	13XY	14XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	12Y	M7	Y-GenXY	13Y	14Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	13P	M7	XY-Symmetry	14S	15S	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	13X	M7	X-GenXY	14X	15X	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	13XY	M7	XY-GenXY	14XY	15XY	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	13Y	M7	Y-GenXY	14Y	15Y	1	4	0.5	0.5	0.5 5/8 A394 TYPE0 X	5	2	2	Both	0	0	0	0
0	14P	M8	XY-Symmetry	15S	16S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	14X	M8	X-GenXY	15X	16X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	14XY	M8	XY-GenXY	15XY	16XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	14Y	M8	Y-GenXY	15Y	16Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15P	M8	XY-Symmetry	16S	17S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15X	M8	X-GenXY	16X	17X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15XY	M8	XY-GenXY	16XY	17XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	15Y	M8	Y-GenXY	16Y	17Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	12	2	2	Both	0	0	0	0
0	16P	M9	XY-Symmetry	17S	18S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	16X	M9	X-GenXY	17X	18X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	16XY	M9	XY-GenXY	17XY	18XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	16Y	M9	Y-GenXY	17Y	18Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	17P	M9	XY-Symmetry	18S	19P	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	17X	M9	X-GenXY	18X	19X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	17XY	M9	XY-GenXY	18XY	19XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	17Y	M9	Y-GenXY	18Y	19Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18P	M10	XY-Symmetry	19P	20P	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18X	M10	X-GenXY	19X	20X	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	18XY	M10	XY-GenXY	19XY	20XY	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	18Y	M10	Y-GenXY	19Y	20Y	1	4	0.25	0.25	0.25 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19P	M11	XY-Symmetry	20P	21S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19X	M11	X-GenXY	20X	21X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19XY	M11	XY-GenXY	20XY	21XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	19Y	M11	Y-GenXY	20Y	21Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20P	M11	XY-Symmetry	21S	22S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20X	M11	X-GenXY	21X	22X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20XY	M11	XY-GenXY	21XY	22XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	20Y	M11	Y-GenXY	21Y	22Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21P	M12	XY-Symmetry	22S	23S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21X	M12	X-GenXY	22X	23X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21XY	M12	XY-GenXY	22XY	23XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	21Y	M12	Y-GenXY	22Y	23Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22P	M12	XY-Symmetry	23S	24S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22X	M12	X-GenXY	23X	24X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22XY	M12	XY-GenXY	23XY	24XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	22Y	M12	Y-GenXY	23Y	24Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	7	2	2	Both	0	0	0	0
0	23P	M13	XY-Symmetry	24S	25S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	23X	M13	X-GenXY	24X	25X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	23XY	M13	XY-GenXY	24XY	25XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	23Y	M13	Y-GenXY	24Y	25Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	24P	M13	XY-Symmetry	25S	26S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	24X	M13	X-GenXY	25X	26X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	24XY	M13	XY-GenXY	25XY	26XY	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	24Y	M13	Y-GenXY	25Y	26Y	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	8	2	2	Both	0	0	0	0
0	25P	M14	XY-Symmetry	26S	27S	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0
0	25X	M14	X-GenXY	26X	27X	1	4	0.5	0.5	0.5 3/4 A394 TYPE0 X	9	2	2	Both	0	0	0	0

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	25XY	M14	XY-GenXY	26XY	27XY	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	9	2	2	Both	0	0	0	0
0	25Y	M14	Y-GenXY	26Y	27Y	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	9	2	2	Both	0	0	0	0
0	26P	M14	XY-Symmetry	27S	28S	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	9	2	2	Both	0	0	0	0
0	26X	M14	X-GenXY	27X	28X	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	9	2	2	Both	0	0	0	0
0	26XY	M14	XY-GenXY	27XY	28XY	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	9	2	2	Both	0	0	0	0
0	26Y	M14	Y-GenXY	27Y	28Y	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	9	2	2	Both	0	0	0	0
0	27P	M15	XY-Symmetry	28S	29S	1	4	0.5	0.5	0.5 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	27X	M15	X-GenXY	28X	29X	1	4	0.5	0.5	0.5 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	27XY	M15	XY-GenXY	28XY	29XY	1	4	0.5	0.5	0.5 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	27Y	M15	Y-GenXY	28Y	29Y	1	4	0.5	0.5	0.5 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	28P	M15	XY-Symmetry	29S	30S	1	4	0.5	0.5	0.5 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	28X	M15	X-GenXY	29X	30X	1	4	0.5	0.5	0.5 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	28XY	M15	XY-GenXY	29XY	30XY	1	4	0.5	0.5	0.5 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	28Y	M15	Y-GenXY	29Y	30Y	1	4	0.5	0.5	0.5 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	29P	M16	XY-Symmetry	30S	31S	1	4	0.5	0.5	0.5 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	29X	M16	X-GenXY	30X	31X	1	4	0.5	0.5	0.5 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	29XY	M16	XY-GenXY	30XY	31XY	1	4	0.5	0.5	0.5 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	29Y	M16	Y-GenXY	30Y	31Y	1	4	0.5	0.5	0.5 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	30P	M17	XY-Symmetry	31S	32P	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	30X	M17	X-GenXY	31X	32X	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	30XY	M17	XY-GenXY	31XY	32XY	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	30Y	M17	Y-GenXY	31Y	32Y	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	31P	M18	XY-Symmetry	32P	33S	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	31X	M18	X-GenXY	32X	33X	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	31XY	M18	XY-GenXY	32XY	33XY	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	31Y	M18	Y-GenXY	32Y	33Y	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	32P	M19	XY-Symmetry	33S	34S	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	32X	M19	X-GenXY	33X	34X	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0

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0	32XY	M19	XY-GenXY	33XY	34XY	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	32Y	M19	Y-GenXY	33Y	34Y	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	33P	M20	XY-Symmetry	34S	35S	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	33X	M20	X-GenXY	34X	35X	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	33XY	M20	XY-GenXY	34XY	35XY	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	33Y	M20	Y-GenXY	34Y	35Y	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	34P	M21	XY-Symmetry	35S	36S	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	34X	M21	X-GenXY	35X	36X	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	34XY	M21	XY-GenXY	35XY	36XY	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	34Y	M21	Y-GenXY	35Y	36Y	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	35P	M22	XY-Symmetry	36S	37S	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	35X	M22	X-GenXY	36X	37X	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	35XY	M22	XY-GenXY	36XY	37XY	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	35Y	M22	Y-GenXY	36Y	37Y	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	36P	M23	XY-Symmetry	37S	38S	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	36X	M23	X-GenXY	37X	38X	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	36XY	M23	XY-GenXY	37XY	38XY	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	36Y	M23	Y-GenXY	37Y	38Y	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	37P	M24	XY-Symmetry	38S	39S	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	37X	M24	X-GenXY	38X	39X	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	37XY	M24	XY-GenXY	38XY	39XY	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	37Y	M24	Y-GenXY	38Y	39Y	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	38P	M25	XY-Symmetry	39S	40S	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	38X	M25	X-GenXY	39X	40X	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	38XY	M25	XY-GenXY	39XY	40XY	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	38Y	M25	Y-GenXY	39Y	40Y	1	4	0.25	0.25	0.25 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	39P	M26	XY-Symmetry	40S	41S	1	4	0.334	0.334	0.334 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0
0	39X	M26	X-GenXY	40X	41X	1	4	0.334	0.334	0.334 7/8 A394	TYPE0 N	10	2	2	Both	0	0	0	0

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0	39XY	M26	XY-GenXY	40XY	41XY	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	39Y	M26	Y-GenXY	40Y	41Y	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	40P	M27	XY-Symmetry	41S	42S	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	40X	M27	X-GenXY	41X	42X	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	40XY	M27	XY-GenXY	41XY	42XY	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	40Y	M27	Y-GenXY	41Y	42Y	1	4	0.334	0.334	0.334 7/8 A394 TYPE0 N	10	2	2	Both	0	0	0	0
0	41P	M28	XY-Symmetry	42S	ANP	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	11	2	2	Both	0	0	0	0
0	41X	M28	X-GenXY	42X	ANX	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	11	2	2	Both	0	0	0	0
0	41XY	M28	XY-GenXY	42XY	ANXY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	11	2	2	Both	0	0	0	0
0	41Y	M28	Y-GenXY	42Y	ANY	1	4	0.25	0.25	0.25 7/8 A394 TYPE0 N	11	2	2	Both	0	0	0	0
0	42P	D1	XY-Symmetry	1P	2X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	42X	D1	X-GenXY	1X	2S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	42XY	D1	XY-GenXY	1XY	2Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	42Y	D1	Y-GenXY	1Y	2XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	43P	D1	XY-Symmetry	1P	2Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	43X	D1	X-GenXY	1X	2XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	43XY	D1	XY-GenXY	1XY	2X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	43Y	D1	Y-GenXY	1Y	2S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	44P	D2	XY-Symmetry	2S	3X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	44X	D2	X-GenXY	2X	3S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	44XY	D2	XY-GenXY	2XY	3Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	44Y	D2	Y-GenXY	2Y	3XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	45P	D2	XY-Symmetry	2S	3Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	45X	D2	X-GenXY	2X	3XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	45XY	D2	XY-GenXY	2XY	3X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	45Y	D2	Y-GenXY	2Y	3S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	46P	D3	XY-Symmetry	3S	4X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	46X	D3	X-GenXY	3X	4S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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0	46XY	D3	XY-GenXY	3XY	4Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	46Y	D3	Y-GenXY	3Y	4XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47P	D3	XY-Symmetry	3S	4Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47X	D3	X-GenXY	3X	4XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47XY	D3	XY-GenXY	3XY	4X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	47Y	D3	Y-GenXY	3Y	4S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48P	D4	XY-Symmetry	4S	5X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48X	D4	X-GenXY	4X	5S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48XY	D4	XY-GenXY	4XY	5Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	48Y	D4	Y-GenXY	4Y	5XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49P	D4	XY-Symmetry	4S	5Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49X	D4	X-GenXY	4X	5XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49XY	D4	XY-GenXY	4XY	5X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	49Y	D4	Y-GenXY	4Y	5S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50P	D5	XY-Symmetry	5S	6X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50X	D5	X-GenXY	5X	6S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50XY	D5	XY-GenXY	5XY	6Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	50Y	D5	Y-GenXY	5Y	6XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51P	D5	XY-Symmetry	5S	6Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51X	D5	X-GenXY	5X	6XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51XY	D5	XY-GenXY	5XY	6X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	51Y	D5	Y-GenXY	5Y	6S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52P	D6	XY-Symmetry	6S	7X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52X	D6	X-GenXY	6X	7S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52XY	D6	XY-GenXY	6XY	7Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	52Y	D6	Y-GenXY	6Y	7XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	53P	D6	XY-Symmetry	6S	7Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	53X	D6	X-GenXY	6X	7XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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0	53XY	D6	XY-GenXY	6XY	7X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	53Y	D6	Y-GenXY	6Y	7S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	54P	D7	XY-Symmetry	7S	8X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	54X	D7	X-GenXY	7X	8S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	54XY	D7	XY-GenXY	7XY	8Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	54Y	D7	Y-GenXY	7Y	8XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	55P	D7	XY-Symmetry	7S	8Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	55X	D7	X-GenXY	7X	8XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	55XY	D7	XY-GenXY	7XY	8X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	55Y	D7	Y-GenXY	7Y	8S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	56P	D8	XY-Symmetry	8S	10X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	56X	D8	X-GenXY	8X	10P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	56XY	D8	XY-GenXY	8XY	10Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	56Y	D8	Y-GenXY	8Y	10XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	57P	D8	XY-Symmetry	8S	10Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	57X	D8	X-GenXY	8X	10XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	57XY	D8	XY-GenXY	8XY	10X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	57Y	D8	Y-GenXY	8Y	10P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	58P	D9	XY-Symmetry	10P	11X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	58X	D9	X-GenXY	10X	11P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	58XY	D9	XY-GenXY	10XY	11Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	58Y	D9	Y-GenXY	10Y	11XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	59P	D9	XY-Symmetry	10P	11Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	59X	D9	X-GenXY	10X	11XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	59XY	D9	XY-GenXY	10XY	11X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	59Y	D9	Y-GenXY	10Y	11P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	60P	D10	XY-Symmetry	11P	12X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	60X	D10	X-GenXY	11X	12S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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0	60XY	D10	XY-GenXY	11XY	12Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	60Y	D10	Y-GenXY	11Y	12XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	61P	D10	XY-Symmetry	11P	12Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	61X	D10	X-GenXY	11X	12XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	61XY	D10	XY-GenXY	11XY	12X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	61Y	D10	Y-GenXY	11Y	12S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	62P	D11	XY-Symmetry	12S	13X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	62X	D11	X-GenXY	12X	13S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	62XY	D11	XY-GenXY	12XY	13Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	62Y	D11	Y-GenXY	12Y	13XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	63P	D11	XY-Symmetry	12S	13Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	63X	D11	X-GenXY	12X	13XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	63XY	D11	XY-GenXY	12XY	13X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	63Y	D11	Y-GenXY	12Y	13S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	64P	D12	XY-Symmetry	13S	14X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	64X	D12	X-GenXY	13X	14S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	64XY	D12	XY-GenXY	13XY	14Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	64Y	D12	Y-GenXY	13Y	14XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	65P	D12	XY-Symmetry	13S	14Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	65X	D12	X-GenXY	13X	14XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	65XY	D12	XY-GenXY	13XY	14X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	65Y	D12	Y-GenXY	13Y	14S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	66P	D13	XY-Symmetry	14S	15X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	66X	D13	X-GenXY	14X	15S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	66XY	D13	XY-GenXY	14XY	15Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	66Y	D13	Y-GenXY	14Y	15XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	67P	D13	XY-Symmetry	14S	15Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	67X	D13	X-GenXY	14X	15XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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0	67XY	D13	XY-GenXY	14XY	15X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	67Y	D13	Y-GenXY	14Y	15S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	68P	D14	XY-Symmetry	15S	16X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	68X	D14	X-GenXY	15X	16S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	68XY	D14	XY-GenXY	15XY	16Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	68Y	D14	Y-GenXY	15Y	16XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	69P	D14	XY-Symmetry	15S	16Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	69X	D14	X-GenXY	15X	16XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	69XY	D14	XY-GenXY	15XY	16X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	69Y	D14	Y-GenXY	15Y	16S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	70P	D15	XY-Symmetry	16S	17X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	70X	D15	X-GenXY	16X	17S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	70XY	D15	XY-GenXY	16XY	17Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	70Y	D15	Y-GenXY	16Y	17XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	71P	D15	XY-Symmetry	16S	17Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	71X	D15	X-GenXY	16X	17XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	71XY	D15	XY-GenXY	16XY	17X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	71Y	D15	Y-GenXY	16Y	17S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	72P	D16	XY-Symmetry	17S	18X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	72X	D16	X-GenXY	17X	18S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	72XY	D16	XY-GenXY	17XY	18Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	72Y	D16	Y-GenXY	17Y	18XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	73P	D16	XY-Symmetry	17S	18Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	73X	D16	X-GenXY	17X	18XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	73XY	D16	XY-GenXY	17XY	18X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	73Y	D16	Y-GenXY	17Y	18S	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	74P	D17	XY-Symmetry	18S	19X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	74X	D17	X-GenXY	18X	19P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0

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0	74XY	D17	XY-GenXY	18XY	19Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	74Y	D17	Y-GenXY	18Y	19XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	75P	D17	XY-Symmetry	18S	19Y	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	75X	D17	X-GenXY	18X	19XY	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	75XY	D17	XY-GenXY	18XY	19X	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	75Y	D17	Y-GenXY	18Y	19P	1	6	0.75	0.5	0.5 1/2 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	76P	D18	XY-Symmetry	19P	20X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	76X	D18	X-GenXY	19X	20P	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	76XY	D18	XY-GenXY	19XY	20Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	76Y	D18	Y-GenXY	19Y	20XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	77P	D18	XY-Symmetry	19P	20Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	77X	D18	X-GenXY	19X	20XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	77XY	D18	XY-GenXY	19XY	20X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	77Y	D18	Y-GenXY	19Y	20P	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78P	D19	XY-Symmetry	20P	21X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78X	D19	X-GenXY	20X	21S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78XY	D19	XY-GenXY	20XY	21Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	78Y	D19	Y-GenXY	20Y	21XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79P	D19	XY-Symmetry	20P	21Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79X	D19	X-GenXY	20X	21XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79XY	D19	XY-GenXY	20XY	21X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	79Y	D19	Y-GenXY	20Y	21S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80P	D20	XY-Symmetry	21S	22X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80X	D20	X-GenXY	21X	22S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80XY	D20	XY-GenXY	21XY	22Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	80Y	D20	Y-GenXY	21Y	22XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81P	D20	XY-Symmetry	21S	22Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81X	D20	X-GenXY	21X	22XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	81XY	D20	XY-GenXY	21XY	22X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	81Y	D20	Y-GenXY	21Y	22S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82P	D21	XY-Symmetry	22S	23X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82X	D21	X-GenXY	22X	23S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82XY	D21	XY-GenXY	22XY	23Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	82Y	D21	Y-GenXY	22Y	23XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83P	D21	XY-Symmetry	22S	23Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83X	D21	X-GenXY	22X	23XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83XY	D21	XY-GenXY	22XY	23X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	83Y	D21	Y-GenXY	22Y	23S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84P	D22	XY-Symmetry	23S	24X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84X	D22	X-GenXY	23X	24S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84XY	D22	XY-GenXY	23XY	24Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	84Y	D22	Y-GenXY	23Y	24XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85P	D22	XY-Symmetry	23S	24Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85X	D22	X-GenXY	23X	24XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85XY	D22	XY-GenXY	23XY	24X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	85Y	D22	Y-GenXY	23Y	24S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86P	D23	XY-Symmetry	24S	25X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86X	D23	X-GenXY	24X	25S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86XY	D23	XY-GenXY	24XY	25Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	86Y	D23	Y-GenXY	24Y	25XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87P	D23	XY-Symmetry	24S	25Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87X	D23	X-GenXY	24X	25XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87XY	D23	XY-GenXY	24XY	25X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	87Y	D23	Y-GenXY	24Y	25S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88P	D24	XY-Symmetry	25S	26X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88X	D24	X-GenXY	25X	26S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	88XY	D24	XY-GenXY	25XY	26Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	88Y	D24	Y-GenXY	25Y	26XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89P	D24	XY-Symmetry	25S	26Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89X	D24	X-GenXY	25X	26XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89XY	D24	XY-GenXY	25XY	26X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	89Y	D24	Y-GenXY	25Y	26S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90P	D25	XY-Symmetry	26S	27X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90X	D25	X-GenXY	26X	27S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90XY	D25	XY-GenXY	26XY	27Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	90Y	D25	Y-GenXY	26Y	27XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91P	D25	XY-Symmetry	26S	27Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91X	D25	X-GenXY	26X	27XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91XY	D25	XY-GenXY	26XY	27X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	91Y	D25	Y-GenXY	26Y	27S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92P	D26	XY-Symmetry	27S	28X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92X	D26	X-GenXY	27X	28S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92XY	D26	XY-GenXY	27XY	28Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	92Y	D26	Y-GenXY	27Y	28XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93P	D26	XY-Symmetry	27S	28Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93X	D26	X-GenXY	27X	28XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93XY	D26	XY-GenXY	27XY	28X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	93Y	D26	Y-GenXY	27Y	28S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94P	D27	XY-Symmetry	28S	29X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94X	D27	X-GenXY	28X	29S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94XY	D27	XY-GenXY	28XY	29Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	94Y	D27	Y-GenXY	28Y	29XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95P	D27	XY-Symmetry	28S	29Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95X	D27	X-GenXY	28X	29XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	95XY	D27	XY-GenXY	28XY	29X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	95Y	D27	Y-GenXY	28Y	29S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96P	D28	XY-Symmetry	29S	30X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96X	D28	X-GenXY	29X	30S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96XY	D28	XY-GenXY	29XY	30Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	96Y	D28	Y-GenXY	29Y	30XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97P	D28	XY-Symmetry	29S	30Y	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97X	D28	X-GenXY	29X	30XY	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97XY	D28	XY-GenXY	29XY	30X	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	97Y	D28	Y-GenXY	29Y	30S	1	6	0.75	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98P	D29	XY-Symmetry	30S	31X	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98X	D29	X-GenXY	30X	31S	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98XY	D29	XY-GenXY	30XY	31Y	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	98Y	D29	Y-GenXY	30Y	31XY	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99P	D29	XY-Symmetry	30S	31Y	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99X	D29	X-GenXY	30X	31XY	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99XY	D29	XY-GenXY	30XY	31X	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	99Y	D29	Y-GenXY	30Y	31S	1	6	0.6	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	100P	D30	XY-Symmetry	31S	32X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	100X	D30	X-GenXY	31X	32P	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	100XY	D30	XY-GenXY	31XY	32Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	100Y	D30	Y-GenXY	31Y	32XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	101P	D30	XY-Symmetry	31S	32Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	101X	D30	X-GenXY	31X	32XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	101XY	D30	XY-GenXY	31XY	32X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	101Y	D30	Y-GenXY	31Y	32P	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	102P	D31	XY-Symmetry	32P	33X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	102X	D31	X-GenXY	32X	33S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	102XY	D31	XY-GenXY	32XY	33Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	102Y	D31	Y-GenXY	32Y	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	103P	D31	XY-Symmetry	32P	33Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	103X	D31	X-GenXY	32X	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	103XY	D31	XY-GenXY	32XY	33X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	103Y	D31	Y-GenXY	32Y	33S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104P	D32	XY-Symmetry	33S	34X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104X	D32	X-GenXY	33X	34S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104XY	D32	XY-GenXY	33XY	34Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	104Y	D32	Y-GenXY	33Y	34XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105P	D32	XY-Symmetry	33S	34Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105X	D32	X-GenXY	33X	34XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105XY	D32	XY-GenXY	33XY	34X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	105Y	D32	Y-GenXY	33Y	34S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106P	D33	XY-Symmetry	34S	35X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106X	D33	X-GenXY	34X	35S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106XY	D33	XY-GenXY	34XY	35Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	106Y	D33	Y-GenXY	34Y	35XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107P	D33	XY-Symmetry	34S	35Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107X	D33	X-GenXY	34X	35XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107XY	D33	XY-GenXY	34XY	35X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	107Y	D33	Y-GenXY	34Y	35S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108P	D34	XY-Symmetry	35S	36X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108X	D34	X-GenXY	35X	36S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108XY	D34	XY-GenXY	35XY	36Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	108Y	D34	Y-GenXY	35Y	36XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109P	D34	XY-Symmetry	35S	36Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109X	D34	X-GenXY	35X	36XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	109XY	D34	XY-GenXY	35XY	36X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	109Y	D34	Y-GenXY	35Y	36S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	110P	D35	None	36S	372S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	111P	D35	None	372S	36Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	112P	D35	None	36Y	373S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	113P	D35	None	373S	36XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	114P	D35	None	36XY	374S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	115P	D35	None	374S	36X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	116P	D35	None	36X	371S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	117P	D35	None	371S	36S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	118P	D36	None	38S	372S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	119P	D36	None	372S	38Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	120P	D36	None	38Y	373S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	121P	D36	None	373S	38XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	122P	D36	None	38XY	374S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	123P	D36	None	374S	38X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	124P	D36	None	38X	371S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	125P	D36	None	371S	38S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	126P	D37	None	38S	392S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	127P	D37	None	392S	38Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	128P	D37	None	38Y	393S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	129P	D37	None	393S	38XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	130P	D37	None	38XY	394S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	131P	D37	None	394S	38X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	132P	D37	None	38X	391S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	133P	D37	None	391S	38S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	134P	D38	None	40S	392S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	135P	D38	None	392S	40Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	136P	D38	None	40Y	393S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	137P	D38	None	393S	40XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	138P	D38	None	40XY	394S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	139P	D38	None	394S	40X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	140P	D38	None	40X	391S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	141P	D38	None	391S	40S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	142P	D39	None	40S	412S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	143P	D39	None	412S	40Y	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	144P	D39	None	40Y	413S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	145P	D39	None	413S	40XY	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	146P	D39	None	40XY	414S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	147P	D39	None	414S	40X	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	148P	D39	None	40X	411S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	149P	D39	None	411S	40S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	158P	D40	None	ANP	411S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	159P	D40	None	ANY	412S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	160P	D40	None	ANY	413S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	161P	D40	None	ANXY	413S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	162P	D40	None	ANXY	414S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	163P	D40	None	ANX	414S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	164P	D40	None	ANX	411S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	165P	D40	None	ANP	412S	1	6	0.6	0.4	0.4 5/8 A394 TYPE0 X	3	1	1	Long only	0	0	0	0
0	166P	H1	Y-Symmetry	1P	1X	1	6	1	1	1 5/8 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	166Y	H1	Y-Gen	1Y	1XY	1	6	1	1	1 5/8 A394 TYPE0 X	1	1	1	Long only	0	0	0	0
0	167P	H1	X-Symmetry	1P	1Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	167X	H1	X-Gen	1X	1XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1661P	H2	Y-Symmetry	3S	3X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1661Y	H2	Y-Gen	3Y	3XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	1671P	H2	X-Symmetry	3S	3Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1671X	H2	X-Gen	3X	3XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1662P	H3	Y-Symmetry	5S	5X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1662Y	H3	Y-Gen	5Y	5XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1672P	H3	X-Symmetry	5S	5Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1672X	H3	X-Gen	5X	5XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1663P	H4	Y-Symmetry	7S	7X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1663Y	H4	Y-Gen	7Y	7XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1674P	H4	X-Symmetry	7S	7Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1674X	H4	X-Gen	7X	7XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	168P	H5	Y-Symmetry	10P	10X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	168Y	H5	Y-Gen	10Y	10XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	169P	H5	X-Symmetry	10P	10Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	169X	H5	X-Gen	10X	10XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	170P	H6	Y-Symmetry	11P	11X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	170Y	H6	Y-Gen	11Y	11XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	171P	H6	X-Symmetry	11P	11Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	171X	H6	X-Gen	11X	11XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1701P	H7	Y-Symmetry	13S	13X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1701Y	H7	Y-Gen	13Y	13XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1712P	H7	X-Symmetry	13S	13Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1712X	H7	X-Gen	13X	13XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1703P	H8	Y-Symmetry	15S	15X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1703Y	H8	Y-Gen	15Y	15XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1714P	H8	X-Symmetry	15S	15Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1714X	H8	X-Gen	15X	15XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1704P	H9	Y-Symmetry	17S	17X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1704Y	H9	Y-Gen	17Y	17XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	1705P	H9	X-Symmetry	17S	17Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1705X	H9	X-Gen	17X	17XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	172P	H10	Y-Symmetry	19P	19X	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	172Y	H10	Y-Gen	19Y	19XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1721P	H10	X-Symmetry	19P	19Y	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1721X	H10	X-Gen	19X	19XY	1	6	1	1	1 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1722P	H11	Y-Symmetry	20P	20X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1722Y	H11	Y-Gen	20Y	20XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1723P	H11	X-Symmetry	20P	20Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1723X	H11	X-Gen	20X	20XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17231P	H12	Y-Symmetry	22S	22X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17231Y	H12	Y-Gen	22Y	22XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17241P	H12	X-Symmetry	22S	22Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17241X	H12	X-Gen	22X	22XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17251P	H13	Y-Symmetry	24S	24X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17251Y	H13	Y-Gen	24Y	24XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1726P	H13	X-Symmetry	24S	24Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1726X	H13	X-Gen	24X	24XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17252P	H14	Y-Symmetry	26S	26X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17252Y	H14	Y-Gen	26Y	26XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17261P	H14	X-Symmetry	26S	26Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17261X	H14	X-Gen	26X	26XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17253P	H15	Y-Symmetry	28S	28X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17253Y	H15	Y-Gen	28Y	28XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17262P	H15	X-Symmetry	28S	28Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17262X	H15	X-Gen	28X	28XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17254P	H16	Y-Symmetry	30S	30X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17254Y	H16	Y-Gen	30Y	30XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0	17263P	H16	X-Symmetry	30S	30Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17263X	H16	X-Gen	30X	30XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17255P	H17	Y-Symmetry	31S	31X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17255Y	H17	Y-Gen	31Y	31XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17264P	H17	X-Symmetry	31S	31Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17264X	H17	X-Gen	31X	31XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1724P	H18	Y-Symmetry	32P	32X	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1724Y	H18	Y-Gen	32Y	32XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1725P	H18	X-Symmetry	32P	32Y	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1725X	H18	X-Gen	32X	32XY	1	6	0.5	0.5	0.5 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1728P	H19	Y-Symmetry	33S	33X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1728Y	H19	Y-Gen	33Y	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1727P	H19	X-Symmetry	33S	33Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1727X	H19	X-Gen	33X	33XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1729P	H20	Y-Symmetry	34S	34X	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1729Y	H20	Y-Gen	34Y	34XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1720P	H20	X-Symmetry	34S	34Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	1720X	H20	X-Gen	34X	34XY	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17291P	H21	Y-Symmetry	35S	35X	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17291Y	H21	Y-Gen	35Y	35XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17201P	H21	X-Symmetry	35S	35Y	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17201X	H21	X-Gen	35X	35XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17292P	H22	Y-Symmetry	36S	36X	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17292Y	H22	Y-Gen	36Y	36XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17202P	H22	X-Symmetry	36S	36Y	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	17202X	H22	X-Gen	36X	36XY	1	6	0.25	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	173P	H23	None	37S	372S	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0
0	174P	H23	None	372S	37Y	1	6	0.5	0.25	0.25 5/8 A394 TYPE0 X	2	1	1	Long only	0	0	0	0

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0	175P	H23	None	37Y	373S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	176P	H23	None	373S	37XY	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	177P	H23	None	37XY	374S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	178P	H23	None	374S	37X	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	179P	H23	None	37X	371S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	180P	H23	None	371S	37S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17293P	H24	Y-Symmetry	38S	38X	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17293Y	H24	Y-Gen	38Y	38XY	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17203P	H24	X-Symmetry	38S	38Y	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17203X	H24	X-Gen	38X	38XY	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	181P	H25	None	39S	392S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	182P	H25	None	392S	39Y	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	183P	H25	None	39Y	393S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	184P	H25	None	393S	39XY	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	185P	H25	None	39XY	394S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	186P	H25	None	394S	39X	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	187P	H25	None	39X	391S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	188P	H25	None	391S	39S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17294P	H26	Y-Symmetry	40S	40X	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17294Y	H26	Y-Gen	40Y	40XY	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17204P	H26	X-Symmetry	40S	40Y	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	17204X	H26	X-Gen	40X	40XY	1	6	0.25	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	189P	H27	None	41S	412S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	190P	H27	None	412S	41Y	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	191P	H27	None	41Y	413S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	192P	H27	None	413S	41XY	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	193P	H27	None	41XY	414S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	194P	H27	None	414S	41X	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0



**INSTATEL COLOMBIA CI
LTDA**

Carrera 124 No. 17-98
Fontibón - Bogotá - Phone: (57) 5470790

Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA
HIPOTESIS 2

Project	TORRE CUADRADA AUTOSOPORTADA DE 150m

Client
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0	195P	H27	None	41X	411S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	196P	H27	None	411S	41S	1	6	0.5	0.25	0.25	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	205P	H26	None	411S	412S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	206P	H27	None	412S	413S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	207P	H27	None	413S	414S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	208P	H27	None	414S	411S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	209P	H27	None	391S	392S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	210P	H27	None	392S	393S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	211P	H27	None	393S	394S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	212P	H27	None	394S	391S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	213P	H27	None	371S	372S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	214P	H27	None	372S	373S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	215P	H27	None	373S	374S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0
0	216P	H27	None	374S	371S	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0

Member Capacities and Overrides:

Member Label	Group Label	Design	Comp.	Design	Tension	L/r	Length	L/r	Connection	Connection	Net	Rupture	RTE	RTE	Override	Override	Override	Override	Override	Warnings
		Comp.	Control	Tension	Control			Comp.	Shear	Bearing	Section	Tension	End	Edge	Comp.	Comp.	Tension	Tension	Face	or
		Capacity	Criterion	Capacity	Criterion			Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Capacity	Criterion	Criterion	Member	Errors	
		(kN)		(kN)			(m)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)			ship		
1P	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
1X	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
1XY	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
1Y	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
2P	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
2X	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
2XY	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
2Y	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
3P	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
3X	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
3XY	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
3Y	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
4P	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
4X	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
4XY	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
4Y	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000	Automatic		
5P	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000	0.000		0.000	Automatic		
5X	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000	0.000		0.000	Automatic		

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5XY	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
5Y	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
6P	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
6X	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
6XY	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
6Y	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
7P	M4	408.498	L/r	511.224	Net Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
7X	M4	408.498	L/r	511.224	Net Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
7XY	M4	408.498	L/r	511.224	Net Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
7Y	M4	408.498	L/r	511.224	Net Sect	31	2.00	408.498	878.079	758.976	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
8P	M4	325.275	Bearing	325.275	Bearing	25	1.57	419.569	376.319	325.275	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
8X	M4	325.275	Bearing	325.275	Bearing	25	1.57	419.569	376.319	325.275	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
8XY	M4	325.275	Bearing	325.275	Bearing	25	1.57	419.569	376.319	325.275	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
8Y	M4	325.275	Bearing	325.275	Bearing	25	1.57	419.569	376.319	325.275	511.224	0.000	0.000	0.000	0.000	0.000	Automatic
9P	M5	376.319	Shear	376.319	Shear	33	4.10	681.890	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
9X	M5	376.319	Shear	376.319	Shear	33	4.10	681.890	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
9XY	M5	376.319	Shear	376.319	Shear	33	4.10	681.890	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
9Y	M5	376.319	Shear	376.319	Shear	33	4.10	681.890	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
10P	M6	376.319	Shear	376.319	Shear	46	2.89	634.163	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
10X	M6	376.319	Shear	376.319	Shear	46	2.89	634.163	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
10XY	M6	376.319	Shear	376.319	Shear	46	2.89	634.163	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
10Y	M6	376.319	Shear	376.319	Shear	46	2.89	634.163	376.319	487.913	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
11P	M6	627.199	Shear	627.199	Shear	40	2.50	657.230	627.199	813.188	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
11X	M6	627.199	Shear	627.199	Shear	40	2.50	657.230	627.199	813.188	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
11XY	M6	627.199	Shear	627.199	Shear	40	2.50	657.230	627.199	813.188	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
11Y	M6	627.199	Shear	627.199	Shear	40	2.50	657.230	627.199	813.188	752.381	0.000	0.000	0.000	0.000	0.000	Automatic
12P	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
12X	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
12XY	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
12Y	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
13P	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
13X	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
13XY	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
13Y	M7	552.486	L/r	627.199	Shear	40	2.50	552.486	627.199	677.657	631.803	0.000	0.000	0.000	0.000	0.000	Automatic
14P	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
14X	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
14XY	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
14Y	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
15P	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
15X	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
15XY	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
15Y	M8	552.486	L/r	620.508	Net Sect	40	2.50	552.486	2161.836	1951.652	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
16P	M9	575.075	L/r	620.508	Net Sect	32	2.00	575.075	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
16X	M9	575.075	L/r	620.508	Net Sect	32	2.00	575.075	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
16XY	M9	575.075	L/r	620.508	Net Sect	32	2.00	575.075	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
16Y	M9	575.075	L/r	620.508	Net Sect	32	2.00	575.075	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
17P	M9	592.276	L/r	620.508	Net Sect	25	1.58	592.276	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
17X	M9	592.276	L/r	620.508	Net Sect	25	1.58	592.276	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
17XY	M9	592.276	L/r	620.508	Net Sect	25	1.58	592.276	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
17Y	M9	592.276	L/r	620.508	Net Sect	25	1.58	592.276	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
18P	M10	605.559	L/r	738.828	Net Sect	53	6.68	605.559	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
18X	M10	605.559	L/r	738.828	Net Sect	53	6.68	605.559	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
18XY	M10	605.559	L/r	738.828	Net Sect	53	6.68	605.559	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
18Y	M10	605.559	L/r	738.828	Net Sect	53	6.68	605.559	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
19P	M11	639.624	L/r	738.828	Net Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
19X	M11	639.624	L/r	738.828	Net Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic



19XY	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
19Y	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
20P	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
20X	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
20XY	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
20Y	M11	639.624	L/r	738.828	Net	Sect	45	2.80	639.624	1261.071	1366.156	738.828	0.000	0.000	0.000	0.000	0.000	Automatic
21P	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
21X	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
21XY	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
21Y	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
22P	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
22X	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
22XY	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
22Y	M12	542.838	L/r	620.508	Net	Sect	43	2.70	542.838	1261.071	1138.464	620.508	0.000	0.000	0.000	0.000	0.000	Automatic
23P	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
23X	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
23XY	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
23Y	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
24P	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
24X	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
24XY	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
24Y	M13	1115.960	L/r	1255.924	Net	Sect	36	2.80	1115.960	1441.224	2081.762	1255.924	0.000	0.000	0.000	0.000	0.000	Automatic
25P	M14	1391.298	L/r															



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75XY	D17	27.301	L/r	30.915	Shear	139	2.77	27.301	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
75Y	D17	27.301	L/r	30.915	Shear	139	2.77	27.301	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
76P	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
76X	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
76XY	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
76Y	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
77P	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
77X	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
77XY	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
77Y	D18	12.685	L/r	63.005	Net Sect	238	7.47	12.685	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
78P	D19	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
78X	D19	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
78XY	D19	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
78Y	D19	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
79P	D19	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
79X	D19	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
79XY	D19	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
79Y	D19	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
80P	D20	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
80X	D20	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
80XY	D20	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
80Y	D20	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
81P	D20	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000	0.000	Automatic
81X	D20	17.638	L/r	81.319	Bearing	225	5.65	17.638	125.440	81.319	83.823	0.000	0.000	0.000	0.000		

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 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	Project	Date
	Client	Designed by
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	41 of 144
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

140P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
141P	D38	60.486	L/r	108.425	Bearing	162	10.30	60.486	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
142P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
143P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
144P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
145P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
146P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
147P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
148P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
149P	D39	43.718	L/r	108.425	Bearing	204	10.30	43.718	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
158P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
159P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
160P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
161P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
162P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
163P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
164P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
165P	D40	59.103	L/r	188.160	Shear	252	15.87	59.103	188.160	243.956	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
166P	H1	14.917	L/r	40.659	Bearing	175	1.30	14.917	62.720	40.659	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
166Y	H1	14.917	L/r	40.659	Bearing	175	1.30	14.917	62.720	40.659	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
167P	H1	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
167X	H1	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1661P	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1661Y	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1671P	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1671X	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1662P	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1662Y	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1672P	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1672X	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1663P	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1663Y	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1674P	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1674X	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
168P	H5	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
168Y	H5	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
169P	H5	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
169X	H5	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
170P	H6	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
170Y	H6	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
171P	H6	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
171X	H6	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1701P	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1701Y	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1712P	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1712X	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1703P	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1703Y	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1714P	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1714X	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1704P	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1704Y	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1705P	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1705X	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
172P	H10	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
172Y	H10	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic

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	Project	Date
	Client	Designed by
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	42 of 144
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

1721P	H10	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1721X	H10	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1722P	H11	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
1722Y	H11	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
1723P	H11	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
1723X	H11	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17231P	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17231Y	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17241P	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17241X	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17251P	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17251Y	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
1726P	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
1726X	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17252P	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17252Y	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17261P	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17261X	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17253P	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17253Y	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17262P	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17262X	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17254P	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17254Y	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17263P	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17263X	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17255P	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17255Y	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17264P	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17264X	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1724P	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1724Y	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1725P	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1725X	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1728P	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1728Y	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1727P	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1727X	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1729P	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1729Y	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1720P	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1720X	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17291P	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17291Y	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17201P	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17201X	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17292P	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17292Y	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17202P	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17202X	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
173P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
174P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
175P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
176P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
177P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
178P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page	43 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

179P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
180P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17293P	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17293Y	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17203P	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17203X	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
181P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
182P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
183P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
184P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
185P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
186P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
187P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
188P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17294P	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17294Y	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17204P	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17204X	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
189P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
190P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
191P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
192P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
193P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
194P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
195P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
196P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
205P	H26	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
206P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
207P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
208P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
209P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
210P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
211P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
212P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
213P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
214P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
215P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
216P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic

Section Joint Information:

Section	Joint	Joint
Label	Label	Elevation (m)
1	1P	150.911
1	2S	147.700
1	1X	150.911
1	2X	147.700
1	1XY	150.911
1	2XY	147.700
1	1Y	150.911
1	2Y	147.700
1	3S	145.200
1	3X	145.200
1	3XY	145.200

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

1	3Y	145.200
2	3S	145.200
2	4S	142.700
2	3X	145.200
2	4X	142.700
2	3XY	145.200
2	4XY	142.700
2	3Y	145.200
2	4Y	142.700
2	5S	140.200
2	5X	140.200
2	5XY	140.200
2	5Y	140.200
3	5S	140.200
3	6S	137.700
3	5X	140.200
3	6X	137.700
3	5XY	140.200
3	6XY	137.700
3	5Y	140.200
3	6Y	137.700
3	7S	135.200
3	7X	135.200
3	7XY	135.200
3	7Y	135.200
4	7S	135.200
4	8S	133.200
4	7X	135.200
4	8X	133.200
4	7XY	135.200
4	8XY	133.200
4	7Y	135.200
4	8Y	133.200
4	10P	131.630
4	10X	131.630
4	10XY	131.630
4	10Y	131.630
5	10P	131.630
5	11P	127.590
5	10X	131.630
5	11X	127.590
5	10XY	131.630
5	11XY	127.590
5	10Y	131.630
5	11Y	127.590
6	11P	127.590
6	12S	124.700
6	11X	127.590
6	12X	124.700
6	11XY	127.590
6	12XY	124.700
6	11Y	127.590
6	12Y	124.700
6	13S	122.200
6	13X	122.200
6	13XY	122.200

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

6 13Y 122.200
7 13S 122.200
7 14S 119.700
7 13X 122.200
7 14X 119.700
7 13XY 122.200
7 14XY 119.700
7 13Y 122.200
7 14Y 119.700
7 15S 117.200
7 15X 117.200
7 15XY 117.200
7 15Y 117.200
8 15S 117.200
8 16S 114.700
8 15X 117.200
8 16X 114.700
8 15XY 117.200
8 16XY 114.700
8 15Y 117.200
8 16Y 114.700
8 17S 112.200
8 17X 112.200
8 17XY 112.200
8 17Y 112.200
9 17S 112.200
9 18S 110.200
9 17X 112.200
9 18X 110.200
9 17XY 112.200
9 18XY 110.200
9 17Y 112.200
9 18Y 110.200
9 19P 108.620
9 19X 108.620
9 19XY 108.620
9 19Y 108.620
10 19P 108.620
10 20P 102.200
10 19X 108.620
10 20X 102.200
10 19XY 108.620
10 20XY 102.200
10 19Y 108.620
10 20Y 102.200
11 20P 102.200
11 21S 99.400
11 20X 102.200
11 21X 99.400
11 20XY 102.200
11 21XY 99.400
11 20Y 102.200
11 21Y 99.400
11 22S 96.600
11 22X 96.600
11 22XY 96.600

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	Project	Date
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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

11	22Y	96.600
12	22S	96.600
12	23S	93.900
12	22X	96.600
12	23X	93.900
12	22XY	96.600
12	23XY	93.900
12	22Y	96.600
12	23Y	93.900
12	24S	91.200
12	24X	91.200
12	24XY	91.200
12	24Y	91.200
13	24S	91.200
13	25S	88.400
13	24X	91.200
13	25X	88.400
13	24XY	91.200
13	25XY	88.400
13	24Y	91.200
13	25Y	88.400
13	26S	85.600
13	26X	85.600
13	26XY	85.600
13	26Y	85.600
14	26S	85.600
14	27S	82.800
14	26X	85.600
14	27X	82.800
14	26XY	85.600
14	27XY	82.800
14	26Y	85.600
14	27Y	82.800
14	28S	80.000
14	28X	80.000
14	28XY	80.000
14	28Y	80.000
15	28S	80.000
15	29S	77.250
15	28X	80.000
15	29X	77.250
15	28XY	80.000
15	29XY	77.250
15	28Y	80.000
15	29Y	77.250
15	30S	74.500
15	30X	74.500
15	30XY	74.500
15	30Y	74.500
16	30S	74.500
16	31S	71.800
16	30X	74.500
16	31X	71.800
16	30XY	74.500
16	31XY	71.800
16	30Y	74.500

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

16 31Y 71.800
17 31S 71.800
17 32P 66.125
17 31X 71.800
17 32X 66.125
17 31XY 71.800
17 32XY 66.125
17 31Y 71.800
17 32Y 66.125
18 32P 66.125
18 33S 59.800
18 32X 66.125
18 33X 59.800
18 32XY 66.125
18 33XY 59.800
18 32Y 66.125
18 33Y 59.800
19 33S 59.800
19 34S 53.800
19 33X 59.800
19 34X 53.800
19 33XY 59.800
19 34XY 53.800
19 33Y 59.800
19 34Y 53.800
20 34S 53.800
20 35S 47.800
20 34X 53.800
20 35X 47.800
20 34XY 53.800
20 35XY 47.800
20 34Y 53.800
20 35Y 47.800
21 35S 47.800
21 36S 41.800
21 35X 47.800
21 36X 41.800
21 35XY 47.800
21 36XY 41.800
21 35Y 47.800
21 36Y 41.800
22 36S 41.800
22 37S 35.800
22 36X 41.800
22 37X 35.800
22 36XY 41.800
22 37XY 35.800
22 36Y 41.800
22 37Y 35.800
22 372S 35.800
22 373S 35.800
22 374S 35.800
22 371S 35.800
23 37S 35.800
23 38S 29.800
23 37X 35.800

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

23 38X 29.800
23 37XY 35.800
23 38XY 29.800
23 37Y 35.800
23 38Y 29.800
23 372S 35.800
23 373S 35.800
23 374S 35.800
23 371S 35.800
24 38S 29.800
24 39S 23.800
24 38X 29.800
24 39X 23.800
24 38XY 29.800
24 39XY 23.800
24 38Y 29.800
24 39Y 23.800
24 392S 23.800
24 393S 23.800
24 394S 23.800
24 391S 23.800
25 39S 23.800
25 40S 17.800
25 39X 23.800
25 40X 17.800
25 39XY 23.800
25 40XY 17.800
25 39Y 23.800
25 40Y 17.800
25 392S 23.800
25 393S 23.800
25 394S 23.800
25 391S 23.800
26 40S 17.800
26 41S 11.800
26 40X 17.800
26 41X 11.800
26 40XY 17.800
26 41XY 11.800
26 40Y 17.800
26 41Y 11.800
26 412S 11.800
26 413S 11.800
26 414S 11.800
26 411S 11.800
27 41S 11.800
27 42S 5.800
27 41X 11.800
27 42X 5.800
27 41XY 11.800
27 42XY 5.800
27 41Y 11.800
27 42Y 5.800
28 42S 5.800
28 ANP 0.000
28 42X 5.800

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28 ANX 0.000
28 42XY 5.800
28 ANXY 0.000
28 42Y 5.800
28 ANY 0.000
28 411S 11.800
28 412S 11.800
28 413S 11.800
28 414S 11.800

EIA Sections Information:

Section Label	Top Z (m)	Bottom Z (m)	Joint Z Count	Member Count	Top Width (m)	Bottom Width (m)	Gross Area (m^2)	Face Adjust Factor	Ar Adjust Factor	Dead Load Factor
1	150.911	145.200	12	32	1.30	1.30	7.42	1.0000	1.0000	1.000
2	145.200	140.200	12	28	1.30	1.30	6.50	1.0000	1.0000	1.000
3	140.200	135.200	12	28	1.30	1.30	6.50	1.0000	1.0000	1.000
4	135.200	131.630	12	28	1.30	1.30	4.64	1.0000	1.0000	1.000
5	131.630	127.590	8	16	1.30	2.28	7.23	1.0000	1.0000	1.000
6	127.590	122.200	12	28	2.28	2.28	12.29	1.0000	1.0000	1.000
7	122.200	117.200	12	28	2.28	2.28	11.40	1.0000	1.0000	1.000
8	117.200	112.200	12	28	2.28	2.28	11.40	1.0000	1.0000	1.000
9	112.200	108.620	12	28	2.28	2.28	8.16	1.0000	1.0000	1.000
10	108.620	102.200	8	16	2.28	4.90	23.06	1.0000	1.0000	1.000
11	102.200	96.600	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
12	96.600	91.200	12	28	4.90	4.90	26.48	1.0000	1.0000	1.000
13	91.200	85.600	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
14	85.600	80.000	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
15	80.000	74.500	12	28	4.90	4.90	26.97	1.0000	1.0000	1.000
16	74.500	71.800	8	16	4.90	4.90	13.24	1.0000	1.0000	1.000
17	71.800	66.125	8	16	4.90	4.90	27.83	1.0000	1.0000	1.000
18	66.125	59.800	8	16	4.90	6.45	35.89	1.0000	1.0000	1.000
19	59.800	53.800	8	16	6.45	7.91	43.06	1.0000	1.0000	1.000
20	53.800	47.800	8	16	7.91	9.37	51.83	1.0000	1.0000	1.000
21	47.800	41.800	8	16	9.37	10.83	60.61	1.0000	1.0000	1.000
22	41.800	35.800	12	24	10.83	12.29	69.38	1.0000	1.0000	1.000
23	35.800	29.800	12	16	12.29	13.76	78.16	1.0000	1.0000	1.000
24	29.800	23.800	12	24	13.76	15.22	86.93	1.0000	1.0000	1.000
25	23.800	17.800	12	16	15.22	16.68	95.70	1.0000	1.0000	1.000
26	17.800	11.800	12	24	16.68	18.14	104.48	1.0000	1.0000	1.000
27	11.800	5.800	8	4	18.14	19.61	113.25	1.0000	1.0000	1.000
28	5.800	0.000	12	12	19.61	21.02	117.82	1.0000	1.0000	1.000

Linear Appurtenances:

Description	From (m)	To (m)	Quantity	Shape	Width or Diameter (cm)	Perimeter (cm)	Unit Weight (N/m)	In Face Zone	Include in Wind Load
ESCALERA DE ACCESO	0	150	2	Flat	5.1	10.2	300	No	Yes
CABLES GUIA DE ONDA	0	150	8	Round	4.13	12.97	19.7	No	Yes

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page	50 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

*** Datos de las cargas

Structure Height Summary (used for calculating wind/ice adjust with height):
Structure height above ground 150.91 (m)
Elevation of structure bottom for wind height adjustment: 0.00 (m)

Structure height for structure gust response factor: 150.91 (m)
Structure gust response factor, Gh: 1.0575
Guy installation temperature: 22.00 (deg C)
Tower Type: Rectangular Latticed

EIA Rev. F Load Cases:

Load Case Description	Dead Load Factor	Wind Load Factor	Ice Load Factor	Strength Factor	Allowable Stress Increase Factor	Basic Wind Speed (m/s)	Wind Dir. (Deg)	Ice Thick. (cm)	Ice Density (N/m^3)	Ice Temperature (deg C)	Point Loads	Joint Displ.
LC1 WIND 0° C.D.	1.9500	1.3000	1.0000	1.0000	1.3300	33.330	0	0.0000	0.0000	14.000	63 loads	
LC2 WIND 45° C.D.	1.9500	1.3000	1.0000	1.0000	1.3300	33.330	45	0.0000	0.0000	14.000	63 loads	
LC3 WIND 0° C.T.	1.5000	1.0000	1.0000	1.0000	1.0000	33.330	0	0.0000	0.0000	14.000	63 loads	
LC4 WIND 45° C.T.	1.5000	1.0000	1.0000	1.0000	1.0000	33.330	45	0.0000	0.0000	14.000	63 loads	
LC5 WIND 0° DEFLEX	1.5000	1.0000	1.0000	1.0000	1.0000	16.670	0	0.0000	0.0000	14.000	63 loads	
LC6 WIND 45° DEFLEX	1.5000	1.0000	1.0000	1.0000	1.0000	16.670	45	0.0000	0.0000	14.000	63 loads	

Concentrated Loads for Load Case "LC1 WIND 0° C.D.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	1162	0	1794	0	0	0	
1P	1162	0	1794	0	0	0	
1XY	1162	0	1794	0	0	0	
2X	1162	0	1794	0	0	0	
2S	1162	0	1794	0	0	0	
2XY	1162	0	1794	0	0	0	
4X	1162	0	1794	0	0	0	
4S	1162	0	1794	0	0	0	
4XY	1162	0	1794	0	0	0	
5X	1162	0	1794	0	0	0	
5XY	1162	0	1794	0	0	0	
6X	1162	0	1794	0	0	0	
6XY	1162	0	1794	0	0	0	
8X	1162	0	1794	0	0	0	
8XY	1162	0	1794	0	0	0	
10XY	1162	0	1794	0	0	0	
14X	580	0	1014	0	0	0	
14S	580	0	1014	0	0	0	
14Y	580	0	1014	0	0	0	
15X	580	0	1014	0	0	0	
15S	580	0	1014	0	0	0	
15Y	580	0	1014	0	0	0	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page	51 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

17X	580	0	1014	0	0	0
17S	580	0	1014	0	0	0
17Y	580	0	1014	0	0	0
18X	580	0	1014	0	0	0
18S	580	0	1014	0	0	0
18Y	580	0	1014	0	0	0
20X	580	0	1014	0	0	0
20P	580	0	1014	0	0	0
22S	4679	0	2340	0	0	0
22XY	2340	0	1170	0	0	0
23S	4679	0	2340	0	0	0
31XY	267	0	325	0	0	0
29S	267	0	325	0	0	0
31Y	267	0	325	0	0	0
38Y	267	0	325	0	0	0
35Y	4594	0	1430	0	0	0
36XY	1682	1	761	0	0	0
35S	13256	0	6643	0	0	0
36X	3314	0	3029	0	0	0
36S	13256	0	6643	0	0	0
37X	1473	0	2392	0	0	0
39Y	1473	0	2392	0	0	0
40Y	3314	0	3029	0	0	0
40S	5892	0	3861	0	0	0
40X	6627	0	6058	0	0	0
41S	5892	0	3861	0	0	0
41X	1473	0	2392	0	0	0
1X	0	0	1300	0	0	0
1P	0	0	1300	0	0	0
1Y	0	0	1300	0	0	0
1XY	0	0	1300	0	0	0
5X	5249	0	4368	0	0	0 FUTURAS
5S	5249	0	4368	0	0	0 FUTURAS
6X	5249	0	4368	0	0	0 FUTURAS
6S	5249	0	4368	0	0	0 FUTURAS
7X	5249	0	4368	0	0	0 FUTURAS
7S	5249	0	4368	0	0	0 FUTURAS
8X	5249	0	4368	0	0	0 FUTURAS
8S	5249	0	4368	0	0	0 FUTURAS
10X	5249	0	4368	0	0	0 FUTURAS
10P	5249	0	4368	0	0	0 FUTURAS

EIA Section Load Case Information for "LC1 WIND 0° C.D.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	Elev. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20		148.06	2018.54	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	8121	0.49	2.00	1.59	1.20	1.90	5818	13939	15529
2	145.20	140.20		142.70	1997.41	0.00	1.11	0.00	0.00	6.5	0.17	1.00	1.00	0.58	3.11	1.1	6912	0.51	2.00	1.65	1.20	1.98	5997	12909	14630
3	140.20	135.20		137.70	1977.15	0.00	1.37	0.00	0.00	6.5	0.21	1.00	1.00	0.59	2.94	1.4	7940	0.51	2.00	1.65	1.20	1.98	5936	13876	16565
4	135.20	131.63		133.41	1959.38	0.00	1.11	0.00	0.00	4.6	0.24	1.00	1.00	0.60	2.82	1.1	6136	0.36	2.00	1.18	1.20	1.42	4200	10336	12717
5	131.63	127.59		129.61	1943.24	0.00	1.40	0.00	0.00	7.2	0.19	1.00	1.00	0.59	3.01	1.4	8184	0.41	2.00	1.33	1.20	1.60	4714	12899	18217
6	127.59	122.20		124.90	1922.78	0.00	1.93	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.17	1.9	11766	0.55	2.00	1.78	1.20	2.14	6223	17989	24546
7	122.20	117.20		119.70	1899.58	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	10922	0.51	2.00	1.65	1.20	1.98	5703	16625	21113
8	117.20	112.20		114.70	1876.56	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	10790	0.51	2.00	1.65	1.20	1.98	5634	16424	21113

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page	52 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

9	112.20	108.62	110.41	1856.24	0.00	1.43	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.09	1.4	8214	0.37	2.00	1.18	1.20	1.42	3990	12204	15831
10	108.62	102.20	105.41	1831.82	0.00	2.43	0.00	0.00	23.1	0.11	1.00	1.00	0.58	3.42	2.4	15228	0.65	2.00	2.12	1.20	2.55	7062	22290	30834
11	102.20	96.60	99.40	1801.35	0.00	2.88	0.00	0.00	27.5	0.11	1.00	1.00	0.58	3.42	2.9	17789	0.57	2.00	1.85	1.20	2.22	6057	23846	30950
12	96.60	91.20	93.90	1772.29	0.00	2.96	0.00	0.00	26.5	0.11	1.00	1.00	0.58	3.39	3.0	17762	0.55	2.00	1.78	1.20	2.14	5747	23509	29122
13	91.20	85.60	88.40	1741.99	0.00	3.29	0.00	0.00	27.5	0.12	1.00	1.00	0.58	3.35	3.3	19216	0.57	2.00	1.85	1.20	2.22	5858	25074	40058
14	85.60	80.00	82.80	1709.72	0.00	3.58	0.00	0.00	27.5	0.13	1.00	1.00	0.58	3.30	3.6	20179	0.57	2.00	1.85	1.20	2.22	5749	25928	44393
15	80.00	74.50	77.25	1676.16	0.00	3.54	0.00	0.00	27.0	0.13	1.00	1.00	0.58	3.29	3.5	19551	0.56	2.00	1.82	1.20	2.18	5536	25086	43765
16	74.50	71.80	73.15	1650.25	0.00	1.89	0.00	0.00	13.2	0.14	1.00	1.00	0.58	3.24	1.9	10103	0.28	2.00	0.89	1.20	1.07	2676	12779	22831
17	71.80	66.13	68.96	1622.69	0.00	2.99	0.00	0.00	27.8	0.11	1.00	1.00	0.58	3.41	3.0	16556	0.58	2.00	1.88	1.20	2.25	5530	22086	41558
18	66.13	59.80	62.96	1581.03	0.00	3.69	0.00	0.00	35.9	0.10	1.00	1.00	0.58	3.44	3.7	20066	0.65	2.00	2.09	1.20	2.51	6005	26071	52539
19	59.80	53.80	56.80	1535.18	0.00	3.85	0.00	0.00	43.1	0.09	1.00	1.00	0.57	3.50	3.9	20717	0.61	2.00	1.98	1.20	2.38	5531	26248	52654
20	53.80	47.80	50.80	1486.98	0.00	4.38	0.00	0.00	51.8	0.08	1.00	1.00	0.57	3.53	4.4	23013	0.61	2.00	1.98	1.20	2.38	5357	28370	61154
21	47.80	41.80	44.80	1434.53	0.00	4.73	0.00	0.00	60.6	0.06	1.00	1.00	0.57	3.56	4.7	24166	0.61	2.00	1.98	1.20	2.38	5168	29335	64599
22	41.80	35.80	38.80	1376.79	0.00	4.45	0.00	0.00	69.4	0.06	1.00	1.00	0.57	3.64	4.4	22280	0.61	2.00	1.98	1.20	2.38	4960	27240	77231
23	35.80	29.80	32.80	1312.27	0.00	5.58	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.60	5.6	26357	0.61	2.00	1.98	1.20	2.38	4728	31085	71457
24	29.80	23.80	26.80	1238.67	0.00	5.80	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.62	5.8	26950	0.61	2.00	1.98	1.20	2.38	4463	30513	92190
25	23.80	17.80	20.80	1152.14	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	27060	0.61	2.00	1.98	1.20	2.38	4151	31211	79804
26	17.80	11.80	14.80	1045.39	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	25530	0.61	2.00	1.98	1.20	2.38	3766	29296	104045
27	11.80	5.80	8.80	936.17	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	6783	0.61	2.00	1.98	1.20	2.38	3373	10156	36032
28	5.80	0.00	2.90	936.17	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	20273	0.59	2.00	1.92	1.20	2.30	3260	23533	79263

Concentrated Loads for Load Case "LC2 WIND 45° C.D.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	822	822	1794	0	0	0	
1P	822	822	1794	0	0	0	
1XY	822	822	1794	0	0	0	
2X	822	822	1794	0	0	0	
2S	822	822	1794	0	0	0	
2XY	822	822	1794	0	0	0	
4X	822	822	1794	0	0	0	
4S	822	822	1794	0	0	0	
4XY	822	822	1794	0	0	0	
5X	822	822	1794	0	0	0	
5XY	822	822	1794	0	0	0	
6X	822	822	1794	0	0	0	
6XY	822	822	1794	0	0	0	
8X	822	822	1794	0	0	0	
8XY	822	822	1794	0	0	0	
10XY	822	822	1794	0	0	0	
14X	410	410	1014	0	0	0	
14S	410	410	1014	0	0	0	
14Y	410	410	1014	0	0	0	
15X	410	410	1014	0	0	0	
15S	410	410	1014	0	0	0	
15Y	410	410	1014	0	0	0	
17X	410	410	1014	0	0	0	
17S	410	410	1014	0	0	0	
17Y	410	410	1014	0	0	0	
18X	410	410	1014	0	0	0	
18S	410	410	1014	0	0	0	
18Y	410	410	1014	0	0	0	
20X	410	410	1014	0	0	0	

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	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

20P	410	410	1014	0	0	0
22S	3309	3309	2340	0	0	0
22XY	1655	1655	1170	0	0	0
23S	3309	3309	2340	0	0	0
31XY	189	189	325	0	0	0
29S	189	189	325	0	0	0
31Y	189	189	325	0	0	0
38Y	189	189	325	0	0	0
35Y	3249	3249	1430	0	0	0
36XY	1190	1190	761	0	0	0
35S	9373	9373	6643	0	0	0
36X	2343	2343	3029	0	0	0
36S	9373	9373	6643	0	0	0
37X	1041	1041	2392	0	0	0
39Y	1041	1041	2392	0	0	0
40Y	2343	2343	3029	0	0	0
40S	4167	4167	3861	0	0	0
40X	4685	4685	6058	0	0	0
41S	4167	4167	3861	0	0	0
41X	1041	1041	2392	0	0	0
1X	0	0	1300	0	0	0
1P	0	0	1300	0	0	0
1Y	0	0	1300	0	0	0
1XY	0	0	1300	0	0	0
5X	3713	3713	4368	0	0	0 FUTURAS
5S	3713	3713	4368	0	0	0 FUTURAS
6X	3713	3713	4368	0	0	0 FUTURAS
6S	3713	3713	4368	0	0	0 FUTURAS
7X	3713	3713	4368	0	0	0 FUTURAS
7S	3713	3713	4368	0	0	0 FUTURAS
8X	3713	3713	4368	0	0	0 FUTURAS
8S	3713	3713	4368	0	0	0 FUTURAS
10X	3713	3713	4368	0	0	0 FUTURAS
10P	3713	3713	4368	0	0	0 FUTURAS

EIA Section Load Case Information for "LC2 WIND 45° C.D.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	Elev. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20		148.06	2018.54	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	9190	0.49	2.00	1.59	1.20	1.90	5818	15009	15529
2	145.20	140.20		142.70	1997.41	0.00	1.11	0.00	0.00	6.5	0.17	1.13	1.13	0.58	3.11	1.3	7800	0.51	2.00	1.65	1.20	1.98	5997	13797	14630
3	140.20	135.20		137.70	1977.15	0.00	1.37	0.00	0.00	6.5	0.21	1.16	1.16	0.59	2.94	1.6	9193	0.51	2.00	1.65	1.20	1.98	5936	15129	16565
4	135.20	131.63		133.41	1959.38	0.00	1.11	0.00	0.00	4.6	0.24	1.18	1.18	0.60	2.82	1.3	7238	0.36	2.00	1.18	1.20	1.42	4200	11439	12717
5	131.63	127.59		129.61	1943.24	0.00	1.40	0.00	0.00	7.2	0.19	1.15	1.15	0.59	3.01	1.6	9373	0.41	2.00	1.33	1.20	1.60	4714	14087	18217
6	127.59	122.20		124.90	1922.78	0.00	1.93	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.17	2.2	13151	0.55	2.00	1.78	1.20	2.14	6223	19374	24546
7	122.20	117.20		119.70	1899.58	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	12229	0.51	2.00	1.65	1.20	1.98	5703	17933	21113
8	117.20	112.20		114.70	1876.56	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	12081	0.51	2.00	1.65	1.20	1.98	5634	17715	21113
9	112.20	108.62		110.41	1856.24	0.00	1.43	0.00	0.00	8.2	0.18	1.13	1.13	0.59	3.09	1.6	9295	0.37	2.00	1.18	1.20	1.42	3990	13286	15831
10	108.62	102.20		105.41	1831.82	0.00	2.43	0.00	0.00	23.1	0.11	1.08	1.08	0.58	3.42	2.6	16431	0.65	2.00	2.12	1.20	2.55	7062	23493	30834
11	102.20	96.60		99.40	1801.35	0.00	2.88	0.00	0.00	27.5	0.11	1.08	1.08	0.58	3.42	3.1	19190	0.57	2.00	1.85	1.20	2.22	6057	25247	30950
12	96.60	91.20		93.90	1772.29	0.00	2.96	0.00	0.00	26.5	0.11	1.08	1.08	0.58	3.39	3.2	19249	0.55	2.00	1.78	1.20	2.14	5747	24996	29122
13	91.20	85.60		88.40	1741.99	0.00	3.29	0.00	0.00	27.5	0.12	1.09	1.09	0.58	3.35	3.6	20944	0.57	2.00	1.85	1.20	2.22	5858	26802	40058
14	85.60	80.00		82.80	1709.72	0.00	3.58	0.00	0.00	27.5	0.13	1.10	1.10	0.58	3.30	3.9	22150	0.57	2.00	1.85	1.20	2.22	5749	27899	44393
15	80.00	74.50		77.25	1676.16	0.00	3.54	0.00	0.00	27.0	0.13	1.10	1.10	0.58	3.29	3.9	21475	0.56	2.00	1.82	1.20	2.18	5536	27011	43765

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

16	74.50	71.80	73.15	1650.25	0.00	1.89	0.00	0.00	13.2	0.14	1.11	1.11	0.58	3.24	2.1	11185	0.28	2.00	0.89	1.20	1.07	2676	13860	22831
17	71.80	66.13	68.96	1622.69	0.00	2.99	0.00	0.00	27.8	0.11	1.08	1.08	0.58	3.41	3.2	17890	0.58	2.00	1.88	1.20	2.25	5530	23420	41558
18	66.13	59.80	62.96	1581.03	0.00	3.69	0.00	0.00	35.9	0.10	1.08	1.08	0.58	3.44	4.0	21615	0.65	2.00	2.09	1.20	2.51	6005	27620	52539
19	59.80	53.80	56.80	1535.18	0.00	3.85	0.00	0.00	43.1	0.09	1.07	1.07	0.57	3.50	4.1	22106	0.61	2.00	1.98	1.20	2.38	5531	27637	52654
20	53.80	47.80	50.80	1486.98	0.00	4.38	0.00	0.00	51.8	0.08	1.06	1.06	0.57	3.53	4.7	24473	0.61	2.00	1.98	1.20	2.38	5357	29830	61154
21	47.80	41.80	44.80	1434.53	0.00	4.73	0.00	0.00	60.6	0.08	1.06	1.06	0.57	3.56	5.0	25580	0.61	2.00	1.98	1.20	2.38	5168	30748	64599
22	41.80	35.80	38.80	1376.79	0.00	4.45	0.00	0.00	69.4	0.06	1.05	1.05	0.57	3.64	4.7	23351	0.61	2.00	1.98	1.20	2.38	4960	28312	77231
23	35.80	29.80	32.80	1312.27	0.00	5.58	0.00	0.00	78.2	0.07	1.05	1.05	0.57	3.60	5.9	27768	0.61	2.00	1.98	1.20	2.38	4728	32496	71457
24	29.80	23.80	26.80	1238.67	0.00	5.80	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.62	6.1	27355	0.61	2.00	1.98	1.20	2.38	4463	31817	92190
25	23.80	17.80	20.80	1152.14	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	28436	0.61	2.00	1.98	1.20	2.38	4151	32587	79804
26	17.80	11.80	14.80	1045.39	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	26760	0.61	2.00	1.98	1.20	2.38	3766	30527	104045
27	11.80	5.80	8.80	936.17	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	6866	0.61	2.00	1.98	1.20	2.38	3373	10239	36032
28	5.80	0.00	2.90	936.17	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	21024	0.59	2.00	1.92	1.20	2.30	3260	24285	79263

Concentrated Loads for Load Case "LC3 WIND 0° C.T.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	894	0	1380	0	0	0	
1P	894	0	1380	0	0	0	
1XY	894	0	1380	0	0	0	
2X	894	0	1380	0	0	0	
2S	894	0	1380	0	0	0	
2XY	894	0	1380	0	0	0	
4X	894	0	1380	0	0	0	
4S	894	0	1380	0	0	0	
4XY	894	0	1380	0	0	0	
5X	894	0	1380	0	0	0	
5XY	894	0	1380	0	0	0	
6X	894	0	1380	0	0	0	
6XY	894	0	1380	0	0	0	
8X	894	0	1380	0	0	0	
8XY	894	0	1380	0	0	0	
10XY	894	0	1380	0	0	0	
14X	446	0	780	0	0	0	
14S	446	0	780	0	0	0	
14Y	446	0	780	0	0	0	
15X	446	0	780	0	0	0	
15S	446	0	780	0	0	0	
15Y	446	0	780	0	0	0	
17X	446	0	780	0	0	0	
17S	446	0	780	0	0	0	
17Y	446	0	780	0	0	0	
18X	446	0	780	0	0	0	
18S	446	0	780	0	0	0	
18Y	446	0	780	0	0	0	
20X	446	0	780	0	0	0	
20P	446	0	780	0	0	0	
22S	3599	0	1800	0	0	0	
22XY	1800	0	900	0	0	0	
23S	3599	0	1800	0	0	0	
31XY	205	0	250	0	0	0	
29S	205	0	250	0	0	0	
31Y	205	0	250	0	0	0	

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

38Y	205	0	250	0	0	0
35Y	3534	0	1100	0	0	0
36XY	1294	1	585	0	0	0
35S	10197	0	5110	0	0	0
36X	2549	0	2330	0	0	0
36S	10197	0	5110	0	0	0
37X	1133	0	1840	0	0	0
39Y	1133	0	1840	0	0	0
40Y	2549	0	2330	0	0	0
40S	4532	0	2970	0	0	0
40X	5098	0	4660	0	0	0
41S	4532	0	2970	0	0	0
41X	1133	0	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
5X	4038	0	3360	0	0	0 FUTURAS
5S	4038	0	3360	0	0	0 FUTURAS
6X	4038	0	3360	0	0	0 FUTURAS
6S	4038	0	3360	0	0	0 FUTURAS
7X	4038	0	3360	0	0	0 FUTURAS
7S	4038	0	3360	0	0	0 FUTURAS
8X	4038	0	3360	0	0	0 FUTURAS
8S	4038	0	3360	0	0	0 FUTURAS
10X	4038	0	3360	0	0	0 FUTURAS
10P	4038	0	3360	0	0	0 FUTURAS

EIA Section Load Case Information for "LC3 WIND 0° C.T.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	Elev. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20		148.06	1552.72	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	6247	0.49	2.00	1.59	1.20	1.90	4475	10723	11945
2	145.20	140.20		142.70	1536.47	0.00	1.11	0.00	0.00	6.5	0.17	1.00	1.00	0.58	3.11	1.1	5317	0.51	2.00	1.65	1.20	1.98	4613	9930	11253
3	140.20	135.20		137.70	1520.89	0.00	1.37	0.00	0.00	6.5	0.21	1.00	1.00	0.59	2.94	1.4	6107	0.51	2.00	1.65	1.20	1.98	4566	10674	12742
4	135.20	131.63		133.41	1507.21	0.00	1.11	0.00	0.00	4.6	0.24	1.00	1.00	0.60	2.82	1.1	4720	0.36	2.00	1.18	1.20	1.42	3231	7951	9783
5	131.63	127.59		129.61	1494.80	0.00	1.40	0.00	0.00	7.2	0.19	1.00	1.00	0.59	3.01	1.4	6296	0.41	2.00	1.33	1.20	1.60	3626	9922	14013
6	127.59	122.20		124.90	1479.06	0.00	1.93	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.17	1.9	9051	0.55	2.00	1.78	1.20	2.14	4787	13838	18882
7	122.20	117.20		119.70	1461.22	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	8402	0.51	2.00	1.65	1.20	1.98	4387	12789	16241
8	117.20	112.20		114.70	1443.51	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	8300	0.51	2.00	1.65	1.20	1.98	4334	12634	16241
9	112.20	108.62		110.41	1427.87	0.00	1.43	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.09	1.4	6318	0.37	2.00	1.18	1.20	1.42	3070	9388	12178
10	108.62	102.20		105.41	1409.09	0.00	2.43	0.00	0.00	23.1	0.11	1.00	1.00	0.58	3.42	2.4	11714	0.65	2.00	2.12	1.20	2.55	5432	17146	23719
11	102.20	96.60		99.40	1385.65	0.00	2.88	0.00	0.00	27.5	0.11	1.00	1.00	0.58	3.42	2.9	13684	0.57	2.00	1.85	1.20	2.22	4660	18343	23808
12	96.60	91.20		93.90	1363.30	0.00	2.96	0.00	0.00	26.5	0.11	1.00	1.00	0.58	3.39	3.0	13663	0.55	2.00	1.78	1.20	2.14	4421	18084	22401
13	91.20	85.60		88.40	1339.99	0.00	3.29	0.00	0.00	27.5	0.12	1.00	1.00	0.58	3.35	3.3	14781	0.57	2.00	1.85	1.20	2.22	4506	19287	30814
14	85.60	80.00		82.80	1315.17	0.00	3.58	0.00	0.00	27.5	0.13	1.00	1.00	0.58	3.30	3.6	15522	0.57	2.00	1.85	1.20	2.22	4423	19945	34149
15	80.00	74.50		77.25	1289.36	0.00	3.54	0.00	0.00	27.0	0.13	1.00	1.00	0.58	3.29	3.5	15039	0.56	2.00	1.82	1.20	2.18	4258	19297	33665
16	74.50	71.80		73.15	1269.42	0.00	1.89	0.00	0.00	13.2	0.14	1.00	1.00	0.58	3.24	1.9	7772	0.28	2.00	0.89	1.20	1.07	2058	9830	17562
17	71.80	66.13		68.96	1248.22	0.00	2.99	0.00	0.00	27.8	0.11	1.00	1.00	0.58	3.41	3.0	12735	0.58	2.00	1.88	1.20	2.25	4254	16989	31967
18	66.13	59.80		62.96	1216.18	0.00	3.69	0.00	0.00	35.9	0.10	1.00	1.00	0.58	3.44	3.7	15435	0.65	2.00	2.09	1.20	2.51	4619	20054	40415
19	59.80	53.80		56.80	1180.91	0.00	3.85	0.00	0.00	43.1	0.09	1.00	1.00	0.57	3.50	3.9	15936	0.61	2.00	1.98	1.20	2.38	4255	20191	40503
20	53.80	47.80		50.80	1143.83	0.00	4.38	0.00	0.00	51.8	0.08	1.00	1.00	0.57	3.53	4.4	17702	0.61	2.00	1.98	1.20	2.38	4121	21823	47041
21	47.80	41.80		44.80	1103.49	0.00	4.73	0.00	0.00	60.6	0.08	1.00	1.00	0.57	3.56	4.7	18590	0.61	2.00	1.98	1.20	2.38	3976	22565	49691
22	41.80	35.80		38.80	1059.07	0.00	4.45	0.00	0.00	69.4	0.06	1.00	1.00	0.57	3.64	4.4	17138	0.61	2.00	1.98	1.20	2.38	3816	20954	59408

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	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

23	35.80	29.80	32.80	1009.44	0.00	5.58	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.60	5.6	20274	0.61	2.00	1.98	1.20	2.38	3637	23911	54967
24	29.80	23.80	26.80	952.82	0.00	5.80	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.62	5.8	20039	0.61	2.00	1.98	1.20	2.38	3433	23472	70915
25	23.80	17.80	20.80	886.26	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	20815	0.61	2.00	1.98	1.20	2.38	3193	24008	61387
26	17.80	11.80	14.80	804.14	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	19638	0.61	2.00	1.98	1.20	2.38	2897	22536	80034
27	11.80	5.80	8.80	720.13	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	5218	0.61	2.00	1.98	1.20	2.38	2595	7812	27717
28	5.80	0.00	2.90	720.13	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	15594	0.59	2.00	1.92	1.20	2.30	2508	18102	60972

Concentrated Loads for Load Case "LC4 WIND 45° C.T.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	632	632	1380	0	0	0	
1P	632	632	1380	0	0	0	
1XY	632	632	1380	0	0	0	
2X	632	632	1380	0	0	0	
2S	632	632	1380	0	0	0	
2XY	632	632	1380	0	0	0	
4X	632	632	1380	0	0	0	
4S	632	632	1380	0	0	0	
4XY	632	632	1380	0	0	0	
5X	632	632	1380	0	0	0	
5XY	632	632	1380	0	0	0	
6X	632	632	1380	0	0	0	
6XY	632	632	1380	0	0	0	
8X	632	632	1380	0	0	0	
8XY	632	632	1380	0	0	0	
10XY	632	632	1380	0	0	0	
14X	315	315	780	0	0	0	
14S	315	315	780	0	0	0	
14Y	315	315	780	0	0	0	
15X	315	315	780	0	0	0	
15S	315	315	780	0	0	0	
15Y	315	315	780	0	0	0	
17X	315	315	780	0	0	0	
17S	315	315	780	0	0	0	
17Y	315	315	780	0	0	0	
18X	315	315	780	0	0	0	
18S	315	315	780	0	0	0	
18Y	315	315	780	0	0	0	
20X	315	315	780	0	0	0	
20P	315	315	780	0	0	0	
22S	2545	2545	1800	0	0	0	
22XY	1273	1273	900	0	0	0	
23S	2545	2545	1800	0	0	0	
31XY	145	145	250	0	0	0	
29S	145	145	250	0	0	0	
31Y	145	145	250	0	0	0	
38Y	145	145	250	0	0	0	
35Y	2499	2499	1100	0	0	0	
36XY	915	915	585	0	0	0	
35S	7210	7210	5110	0	0	0	
36X	1802	1802	2330	0	0	0	
36S	7210	7210	5110	0	0	0	
37X	801	801	1840	0	0	0	

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

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39Y 801 801 1840 0 0 0
40Y 1802 1802 2330 0 0 0
40S 3205 3205 2970 0 0 0
40X 3604 3604 4660 0 0 0
41S 3205 3205 2970 0 0 0
41X 801 801 1840 0 0 0
1X 0 0 1000 0 0 0
1P 0 0 1000 0 0 0
1Y 0 0 1000 0 0 0
1XY 0 0 1000 0 0 0
5X 2856 2856 3360 0 0 0 FUTURAS
5S 2856 2856 3360 0 0 0 FUTURAS
6X 2856 2856 3360 0 0 0 FUTURAS
6S 2856 2856 3360 0 0 0 FUTURAS
7X 2856 2856 3360 0 0 0 FUTURAS
7S 2856 2856 3360 0 0 0 FUTURAS
8X 2856 2856 3360 0 0 0 FUTURAS
8S 2856 2856 3360 0 0 0 FUTURAS
10X 2856 2856 3360 0 0 0 FUTURAS
10P 2856 2856 3360 0 0 0 FUTURAS

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EIA Section Load Case Information for "LC4 WIND 45° C.T.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Above Gnd. (m)	Elev. Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20		148.06	1552.72	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	7070	0.49	2.00	1.59	1.20	1.90	4475	11545	11945
2	145.20	140.20		142.70	1536.47	0.00	1.11	0.00	0.00	6.5	0.17	1.13	1.13	0.58	3.11	1.3	6000	0.51	2.00	1.65	1.20	1.98	4613	10613	11253
3	140.20	135.20		137.70	1520.89	0.00	1.37	0.00	0.00	6.5	0.21	1.16	1.16	0.59	2.94	1.6	7071	0.51	2.00	1.65	1.20	1.98	4566	11638	12742
4	135.20	131.63		133.41	1507.21	0.00	1.11	0.00	0.00	4.6	0.24	1.18	1.18	0.60	2.82	1.3	5568	0.36	2.00	1.18	1.20	1.42	3231	8799	9783
5	131.63	127.59		129.61	1494.80	0.00	1.40	0.00	0.00	7.2	0.19	1.15	1.15	0.59	3.01	1.6	7210	0.41	2.00	1.33	1.20	1.60	3626	10836	14013
6	127.59	122.20		124.90	1479.06	0.00	1.93	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.17	2.2	10116	0.55	2.00	1.78	1.20	2.14	4787	14903	18882
7	122.20	117.20		119.70	1461.22	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	9407	0.51	2.00	1.65	1.20	1.98	4387	13794	16241
8	117.20	112.20		114.70	1443.51	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	9293	0.51	2.00	1.65	1.20	1.98	4334	13627	16241
9	112.20	108.62		110.41	1427.87	0.00	1.43	0.00	0.00	8.2	0.18	1.13	1.13	0.59	3.09	1.6	7150	0.37	2.00	1.18	1.20	1.42	3070	10220	12178
10	108.62	102.20		105.41	1409.09	0.00	2.43	0.00	0.00	23.1	0.11	1.08	1.08	0.58	3.42	2.6	12639	0.65	2.00	2.12	1.20	2.55	5432	18071	23719
11	102.20	96.60		99.40	1385.65	0.00	2.88	0.00	0.00	27.5	0.11	1.08	1.08	0.58	3.42	3.1	14762	0.57	2.00	1.85	1.20	2.22	4660	19421	23808
12	96.60	91.20		93.90	1363.30	0.00	2.96	0.00	0.00	26.5	0.11	1.08	1.08	0.58	3.39	3.2	14807	0.55	2.00	1.78	1.20	2.14	4421	19227	22401
13	91.20	85.60		88.40	1339.99	0.00	3.29	0.00	0.00	27.5	0.12	1.09	1.09	0.58	3.35	3.6	16111	0.57	2.00	1.85	1.20	2.22	4506	20617	30814
14	85.60	80.00		82.80	1315.17	0.00	3.58	0.00	0.00	27.5	0.13	1.10	1.10	0.58	3.30	3.9	17039	0.57	2.00	1.85	1.20	2.22	4423	21461	34149
15	80.00	74.50		77.25	1289.36	0.00	3.54	0.00	0.00	27.0	0.13	1.10	1.10	0.58	3.29	3.9	16519	0.56	2.00	1.82	1.20	2.18	4258	20778	33665
16	74.50	71.80		73.15	1269.42	0.00	1.89	0.00	0.00	13.2	0.14	1.11	1.11	0.58	3.24	2.1	8604	0.28	2.00	0.89	1.20	1.07	2058	10662	17562
17	71.80	66.13		68.96	1248.22	0.00	2.99	0.00	0.00	27.8	0.11	1.08	1.08	0.58	3.41	3.2	13762	0.58	2.00	1.88	1.20	2.25	4254	18015	31967
18	66.13	59.80		62.96	1216.18	0.00	3.69	0.00	0.00	35.9	0.10	1.08	1.08	0.58	3.44	4.0	16627	0.65	2.00	2.09	1.20	2.51	4619	21246	40415
19	59.80	53.80		56.80	1180.91	0.00	3.85	0.00	0.00	43.1	0.09	1.07	1.07	0.57	3.50	4.1	17005	0.61	2.00	1.98	1.20	2.38	4255	21259	40503
20	53.80	47.80		50.80	1143.83	0.00	4.38	0.00	0.00	51.8	0.08	1.06	1.06	0.57	3.53	4.7	18825	0.61	2.00	1.98	1.20	2.38	4121	22947	47041
21	47.80	41.80		44.80	1103.49	0.00	4.73	0.00	0.00	60.6	0.08	1.06	1.06	0.57	3.56	5.0	19677	0.61	2.00	1.98	1.20	2.38	3976	23653	49691
22	41.80	35.80		38.80	1059.07	0.00	4.45	0.00	0.00	69.4	0.06	1.05	1.05	0.57	3.64	4.7	17962	0.61	2.00	1.98	1.20	2.38	3816	21778	59408
23	35.80	29.80		32.80	1009.44	0.00	5.58	0.00	0.00	78.2	0.07	1.05	1.05	0.57	3.60	5.9	21360	0.61	2.00	1.98	1.20	2.38	3637	24997	54967
24	29.80	23.80		26.80	952.82	0.00	5.80	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.62	6.1	21042	0.61	2.00	1.98	1.20	2.38	3433	24475	70915
25	23.80	17.80		20.80	886.26	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	21874	0.61	2.00	1.98	1.20	2.38	3193	25067	61387
26	17.80	11.80		14.80	804.14	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	20585	0.61	2.00	1.98	1.20	2.38	2897	23482	80034
27	11.80	5.80		8.80	720.13	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	5282	0.61	2.00	1.98	1.20	2.38	2595	7876	27717
28	5.80	0.00		2.90	720.13	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	16172	0.59	2.00	1.92	1.20	2.30	2508	18681	60972

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Concentrated Loads for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	224	0	1380	0	0	0	
1P	224	0	1380	0	0	0	
1XY	224	0	1380	0	0	0	
2X	224	0	1380	0	0	0	
2S	224	0	1380	0	0	0	
2XY	224	0	1380	0	0	0	
4X	224	0	1380	0	0	0	
4S	224	0	1380	0	0	0	
4XY	224	0	1380	0	0	0	
5X	224	0	1380	0	0	0	
5XY	224	0	1380	0	0	0	
6X	224	0	1380	0	0	0	
6XY	224	0	1380	0	0	0	
8X	224	0	1380	0	0	0	
8XY	224	0	1380	0	0	0	
10XY	224	0	1380	0	0	0	
14X	112	0	780	0	0	0	
14S	112	0	780	0	0	0	
14Y	112	0	780	0	0	0	
15X	112	0	780	0	0	0	
15S	112	0	780	0	0	0	
15Y	112	0	780	0	0	0	
17X	112	0	780	0	0	0	
17S	112	0	780	0	0	0	
17Y	112	0	780	0	0	0	
18X	112	0	780	0	0	0	
18S	112	0	780	0	0	0	
18Y	112	0	780	0	0	0	
20X	112	0	780	0	0	0	
20P	112	0	780	0	0	0	
22S	900	0	1800	0	0	0	
22XY	450	0	900	0	0	0	
23S	900	0	1800	0	0	0	
31XY	51	0	250	0	0	0	
29S	51	0	250	0	0	0	
31Y	51	0	250	0	0	0	
38Y	51	0	250	0	0	0	
35Y	884	0	1100	0	0	0	
36XY	324	0	585	0	0	0	
35S	2551	0	5110	0	0	0	
36X	637	0	2330	0	0	0	
36S	2551	0	5110	0	0	0	
37X	284	0	1840	0	0	0	
39Y	284	0	1840	0	0	0	
40Y	637	0	2330	0	0	0	
40S	1134	0	2970	0	0	0	
40X	1274	0	4660	0	0	0	
41S	1134	0	2970	0	0	0	
41X	284	0	1840	0	0	0	
1X	0	0	1000	0	0	0	

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1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
5X	1010	0	3360	0	0	0 FUTURAS
5S	1010	0	3360	0	0	0 FUTURAS
6X	1010	0	3360	0	0	0 FUTURAS
6S	1010	0	3360	0	0	0 FUTURAS
7X	1010	0	3360	0	0	0 FUTURAS
7S	1010	0	3360	0	0	0 FUTURAS
8X	1010	0	3360	0	0	0 FUTURAS
8S	1010	0	3360	0	0	0 FUTURAS
10X	1010	0	3360	0	0	0 FUTURAS
10P	1010	0	3360	0	0	0 FUTURAS

EIA Section Load Case Information for "LC5 WIND 0° DEFLEX":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above (m)	Elev. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20		148.06	388.41	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	1563	0.49	2.00	1.59	1.20	1.90	1120	2682	11945
2	145.20	140.20		142.70	384.35	0.00	1.11	0.00	0.00	6.5	0.17	1.00	1.00	0.58	3.11	1.1	1330	0.51	2.00	1.65	1.20	1.98	1154	2484	11253
3	140.20	135.20		137.70	380.45	0.00	1.37	0.00	0.00	6.5	0.21	1.00	1.00	0.59	2.94	1.4	1528	0.51	2.00	1.65	1.20	1.98	1142	2670	12742
4	135.20	131.63		133.41	377.03	0.00	1.11	0.00	0.00	4.6	0.24	1.00	1.00	0.60	2.82	1.1	1181	0.36	2.00	1.18	1.20	1.42	808	1989	9783
5	131.63	127.59		129.61	373.93	0.00	1.40	0.00	0.00	7.2	0.19	1.00	1.00	0.59	3.01	1.4	1575	0.41	2.00	1.33	1.20	1.60	907	2482	14013
6	127.59	122.20		124.90	369.99	0.00	1.93	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.17	1.9	2264	0.55	2.00	1.78	1.20	2.14	1197	3462	18882
7	122.20	117.20		119.70	365.52	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	2102	0.51	2.00	1.65	1.20	1.98	1097	3199	16241
8	117.20	112.20		114.70	361.09	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	2076	0.51	2.00	1.65	1.20	1.98	1084	3160	16241
9	112.20	108.62		110.41	357.18	0.00	1.43	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.09	1.4	1581	0.37	2.00	1.18	1.20	1.42	768	2348	12178
10	108.62	102.20		105.41	352.48	0.00	2.43	0.00	0.00	23.1	0.11	1.00	1.00	0.58	3.42	2.4	2930	0.65	2.00	2.12	1.20	2.55	1359	4289	23719
11	102.20	96.60		99.40	346.62	0.00	2.88	0.00	0.00	27.5	0.11	1.00	1.00	0.58	3.42	2.9	3423	0.57	2.00	1.85	1.20	2.22	1166	4589	23808
12	96.60	91.20		93.90	341.03	0.00	2.96	0.00	0.00	26.5	0.11	1.00	1.00	0.58	3.39	3.0	3418	0.55	2.00	1.78	1.20	2.14	1106	4524	22401
13	91.20	85.60		88.40	335.20	0.00	3.29	0.00	0.00	27.5	0.12	1.00	1.00	0.58	3.35	3.3	3698	0.57	2.00	1.85	1.20	2.22	1127	4825	30814
14	85.60	80.00		82.80	328.99	0.00	3.58	0.00	0.00	27.5	0.13	1.00	1.00	0.58	3.30	3.6	3883	0.57	2.00	1.85	1.20	2.22	1106	4989	34149
15	80.00	74.50		77.25	322.53	0.00	3.54	0.00	0.00	27.0	0.13	1.00	1.00	0.58	3.29	3.5	3762	0.56	2.00	1.82	1.20	2.18	1065	4827	33665
16	74.50	71.80		73.15	317.55	0.00	1.89	0.00	0.00	13.2	0.14	1.00	1.00	0.58	3.24	1.9	1944	0.28	2.00	0.89	1.20	1.07	515	2459	17562
17	71.80	66.13		68.96	312.24	0.00	2.99	0.00	0.00	27.8	0.11	1.00	1.00	0.58	3.41	3.0	3186	0.58	2.00	1.88	1.20	2.25	1064	4250	31967
18	66.13	59.80		62.96	304.23	0.00	3.69	0.00	0.00	35.9	0.10	1.00	1.00	0.58	3.44	3.7	3861	0.65	2.00	2.09	1.20	2.51	1155	5017	40415
19	59.80	53.80		56.80	295.40	0.00	3.85	0.00	0.00	43.1	0.09	1.00	1.00	0.57	3.50	3.9	3986	0.61	2.00	1.98	1.20	2.38	1064	5051	40503
20	53.80	47.80		50.80	286.13	0.00	4.38	0.00	0.00	51.8	0.08	1.00	1.00	0.57	3.53	4.4	4428	0.61	2.00	1.98	1.20	2.38	1031	5459	47041
21	47.80	41.80		44.80	276.04	0.00	4.73	0.00	0.00	60.6	0.08	1.00	1.00	0.57	3.56	4.7	4650	0.61	2.00	1.98	1.20	2.38	995	5645	49691
22	41.80	35.80		38.80	264.93	0.00	4.45	0.00	0.00	69.4	0.06	1.00	1.00	0.57	3.64	4.4	4287	0.61	2.00	1.98	1.20	2.38	954	5242	59408
23	35.80	29.80		32.80	252.51	0.00	5.58	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.60	5.6	5072	0.61	2.00	1.98	1.20	2.38	910	5981	54967
24	29.80	23.80		26.80	238.35	0.00	5.80	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.62	5.8	5013	0.61	2.00	1.98	1.20	2.38	859	5871	70915
25	23.80	17.80		20.80	221.70	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	5207	0.61	2.00	1.98	1.20	2.38	799	6006	61387
26	17.80	11.80		14.80	201.16	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	4913	0.61	2.00	1.98	1.20	2.38	725	5637	80034
27	11.80	5.80		8.80	180.14	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	1305	0.61	2.00	1.98	1.20	2.38	649	1954	27717
28	5.80	0.00		2.90	180.14	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	3901	0.59	2.00	1.92	1.20	2.30	627	4528	60972

Concentrated Loads for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	158	158	1380	0	0	0	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page	60 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

1P	158	158	1380	0	0	0
1XY	158	158	1380	0	0	0
2X	158	158	1380	0	0	0
2S	158	158	1380	0	0	0
2XY	158	158	1380	0	0	0
4X	158	158	1380	0	0	0
4S	158	158	1380	0	0	0
4XY	158	158	1380	0	0	0
5X	158	158	1380	0	0	0
5XY	158	158	1380	0	0	0
6X	158	158	1380	0	0	0
6XY	158	158	1380	0	0	0
8X	158	158	1380	0	0	0
8XY	158	158	1380	0	0	0
10XY	158	158	1380	0	0	0
14X	79	79	780	0	0	0
14S	79	79	780	0	0	0
14Y	79	79	780	0	0	0
15X	79	79	780	0	0	0
15S	79	79	780	0	0	0
15Y	79	79	780	0	0	0
17X	79	79	780	0	0	0
17S	79	79	780	0	0	0
17Y	79	79	780	0	0	0
18X	79	79	780	0	0	0
18S	79	79	780	0	0	0
18Y	79	79	780	0	0	0
20X	79	79	780	0	0	0
20P	79	79	780	0	0	0
22S	636	636	1800	0	0	0
22XY	318	318	900	0	0	0
23S	636	636	1800	0	0	0
31XY	36	36	250	0	0	0
29S	36	36	250	0	0	0
31Y	36	36	250	0	0	0
38Y	36	36	250	0	0	0
35Y	625	625	1100	0	0	0
36XY	229	229	585	0	0	0
35S	1804	1804	5110	0	0	0
36X	451	451	2330	0	0	0
36S	1804	1804	5110	0	0	0
37X	200	200	1840	0	0	0
39Y	200	200	1840	0	0	0
40Y	451	451	2330	0	0	0
40S	802	802	2970	0	0	0
40X	902	902	4660	0	0	0
41S	802	802	2970	0	0	0
41X	200	200	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
5X	714	714	3360	0	0	0
5S	714	714	3360	0	0	0
6X	714	714	3360	0	0	0
6S	714	714	3360	0	0	0



7X	714	714	3360	0	0	0
7S	714	714	3360	0	0	0
8X	714	714	3360	0	0	0
8S	714	714	3360	0	0	0
10X	714	714	3360	0	0	0
10P	714	714	3360	0	0	0

EIA Section Load Case Information for "LC6 WIND 45° DEFLEX":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	388.41	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	1768	0.49	2.00	1.59	1.20	1.90	1120	2888	11945
2	145.20	140.20	142.70	384.35	0.00	1.11	0.00	0.00	6.5	0.17	1.13	1.13	0.58	3.11	1.3	1501	0.51	2.00	1.65	1.20	1.98	1154	2655	11253
3	140.20	135.20	137.70	380.45	0.00	1.37	0.00	0.00	6.5	0.21	1.16	1.16	0.59	2.94	1.6	1769	0.51	2.00	1.65	1.20	1.98	1142	2911	12742
4	135.20	131.63	133.41	377.03	0.00	1.11	0.00	0.00	4.6	0.24	1.18	1.18	0.60	2.82	1.3	1393	0.36	2.00	1.18	1.20	1.42	808	2201	9783
5	131.63	127.59	129.61	373.93	0.00	1.40	0.00	0.00	7.2	0.19	1.15	1.15	0.59	3.01	1.6	1804	0.41	2.00	1.33	1.20	1.60	907	2711	14013
6	127.59	122.20	124.90	369.99	0.00	1.93	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.17	2.2	2531	0.55	2.00	1.78	1.20	2.14	1197	3728	18882
7	122.20	117.20	119.70	365.52	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	2353	0.51	2.00	1.65	1.20	1.98	1097	3451	16241
8	117.20	112.20	114.70	361.09	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	2325	0.51	2.00	1.65	1.20	1.98	1084	3409	16241
9	112.20	108.62	110.41	357.18	0.00	1.43	0.00	0.00	8.2	0.18	1.13	1.13	0.59	3.09	1.6	1789	0.37	2.00	1.18	1.20	1.42	768	2556	12178
10	108.62	102.20	105.41	352.48	0.00	2.43	0.00	0.00	23.1	0.11	1.08	1.08	0.58	3.42	2.6	3162	0.65	2.00	2.12	1.20	2.55	1359	4521	23719
11	102.20	96.60	99.40	346.62	0.00	2.88	0.00	0.00	27.5	0.11	1.08	1.08	0.58	3.42	3.1	3693	0.57	2.00	1.85	1.20	2.22	1166	4858	23808
12	96.60	91.20	93.90	341.03	0.00	2.96	0.00	0.00	26.5	0.11	1.08	1.08	0.58	3.39	3.2	3704	0.55	2.00	1.78	1.20	2.14	1106	4810	22401
13	91.20	85.60	88.40	335.20	0.00	3.29	0.00	0.00	27.5	0.12	1.09	1.09	0.58	3.35	3.6	4030	0.57	2.00	1.85	1.20	2.22	1127	5157	30814
14	85.60	80.00	82.80	328.99	0.00	3.58	0.00	0.00	27.5	0.13	1.10	1.10	0.58	3.30	3.9	4262	0.57	2.00	1.85	1.20	2.22	1106	5368	34149
15	80.00	74.50	77.25	322.53	0.00	3.54	0.00	0.00	27.0	0.13	1.10	1.10	0.58	3.29	3.9	4132	0.56	2.00	1.82	1.20	2.18	1065	5198	33665

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	Project	Date
	Client	Designed by
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	62 of 144
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados

El uso máximo del elemento es: 1490.04% for Angle "77P" in load case "LC4 WIND 45° C.T." NG

Angle Forces For All Load Cases:
Positive for tension - negative for compression

Group Label	Angle Label	Max. Tens. For All LC (kN)	Max. Comp. For All LC (kN)	LC 1 (kN)	LC 2 (kN)	LC 3 (kN)	LC 4 (kN)	LC 5 (kN)	LC 6 (kN)
M1	1P	0.000	-14.932	-11.752	-14.932	-9.511	-11.955	-6.427	-7.037
M1	1X	0.000	-12.684	-12.684	-6.456	-10.227	-5.437	-6.615	-5.415
M1	1XY	2.134	-4.186	-0.125	2.134	-0.566	1.170	-4.186	-3.753
M1	1Y	0.000	-4.555	-0.271	-4.555	-0.678	-3.974	-3.174	-3.999
M1	2P	0.000	-32.128	-21.572	-32.128	-16.294	-24.409	-7.382	-9.409
M1	2X	0.000	-25.962	-25.962	-6.137	-19.672	-4.420	-8.218	-4.400
M1	2XY	19.895	-0.582	13.737	19.895	10.868	15.600	-0.582	0.597
M1	2Y	11.523	-2.514	11.523	-2.514	9.165	-1.633	1.043	-1.659
M2	3P	0.000	-68.971	-45.526	-68.971	-35.097	-53.122	-14.899	-19.402
M2	3X	0.000	-54.599	-54.599	-10.659	-42.077	-8.275	-16.674	-8.212
M2	3XY	48.071	0.000	33.700	48.071	25.850	36.894	0.360	3.114
M2	3Y	27.258	-6.680	27.258	-6.680	20.894	-5.214	1.206	-5.328
M2	4P	0.000	-107.491	-69.428	-107.491	-53.466	-82.731	-20.834	-28.147
M2	4X	0.000	-83.939	-83.939	-12.884	-64.630	-9.968	-23.592	-9.909
M2	4XY	81.745	0.000	58.255	81.745	44.758	62.811	3.750	8.253
M2	4Y	47.876	-7.447	47.876	-7.447	36.772	-5.786	4.801	-5.850
M3	5P	0.000	-186.942	-120.832	-186.942	-93.080	-143.912	-35.320	-48.022
M3	5X	0.000	-146.656	-146.656	-21.499	-112.947	-16.666	-41.355	-17.256
M3	5XY	140.304	0.000	101.385	140.304	77.866	107.779	9.007	16.469
M3	5Y	84.631	-9.009	84.631	-9.009	64.976	-7.058	9.927	-8.099
M3	6P	0.000	-281.442	-173.740	-281.442	-133.753	-216.571	-48.217	-68.913
M3	6X	0.000	-214.670	-214.670	-19.029	-165.243	-14.739	-58.116	-20.448
M3	6XY	210.244	0.000	160.669	210.244	123.499	161.598	19.044	28.545
M3	6Y	132.008	-7.085	132.008	-1.354	101.447	-1.143	18.587	-7.085
M4	7P	0.000	-404.005	-245.695	-404.005	-189.500	-311.236	-67.471	-97.895
M4	7X	0.000	-299.204	-299.204	-16.372	-230.667	-13.089	-79.749	-25.298
M4	7XY	299.881	0.000	234.231	299.881	179.695	230.147	30.351	42.932
M4	7Y	193.202	-8.510	193.202	5.413	148.128	3.669	27.639	-8.510
M4	8P	0.000	-531.015	-306.221	-531.015	-235.359	-408.229	-79.753	-122.958
M4	8X	4.176	-381.267	-381.267	4.176	-293.095	3.419	-97.643	-23.443
M4	8XY	372.398	0.000	310.880	372.398	239.361	286.622	45.934	57.708
M4	8Y	251.695	-1.853	251.695	32.796	193.825	25.434	40.285	-1.853
M5	9P	0.000	-530.920	-319.480	-530.920	-248.204	-410.804	-91.627	-132.263
M5	9X	0.000	-377.239	-377.239	-8.679	-292.641	-9.116	-105.442	-34.497
M5	9XY	357.512	0.000	287.019	357.512	218.359	272.529	31.217	44.722
M5	9Y	242.130	-16.449	242.130	14.591	183.823	8.785	27.352	-16.449
M6	10P	0.000	-588.250	-389.352	-588.250	-299.754	-452.697	-102.208	-140.421
M6	10X	0.000	-413.970	-413.970	-28.744	-318.694	-22.349	-109.125	-34.974
M6	10XY	458.642	0.000	324.864	458.642	249.673	352.521	40.111	65.790
M6	10Y	310.519	-20.527	310.519	-9.590	238.635	-7.615	41.090	-20.527
M6	11P	0.000	-712.894	-470.544	-712.894	-361.885	-548.242	-117.514	-164.075
M6	11X	0.000	-493.109	-493.109	-22.446	-379.245	-17.177	-124.193	-33.600

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M6	11XY	570.555	0.000	403.640	570.555	310.601	438.929	55.546	87.590
M6	11Y	391.235	-19.379	391.235	-3.973	301.055	-2.967	56.693	-19.379
M7	12P	0.000	-847.427	-564.810	-847.427	-434.584	-651.905	-138.598	-192.894
M7	12X	0.000	-582.894	-582.894	-26.420	-448.497	-20.418	-144.401	-37.293
M7	12XY	692.384	0.000	483.660	692.384	371.974	532.453	68.030	108.109
M7	12Y	476.001	-22.818	476.001	-6.695	366.080	-5.245	70.093	-22.818
M7	13P	0.000	-977.387	-653.362	-977.387	-502.682	-751.845	-157.000	-219.253
M7	13X	0.000	-667.334	-667.334	-25.757	-513.433	-19.887	-162.067	-38.580
M7	13XY	812.617	0.000	564.103	812.617	433.878	624.954	82.708	130.433
M7	13Y	559.669	-24.205	559.669	-6.543	430.464	-5.107	84.782	-24.205
M8	14P	0.000	-1131.382	-759.555	-1131.382	-584.392	-870.313	-180.211	-251.648
M8	14X	0.000	-768.385	-768.385	-27.789	-591.187	-21.471	-184.310	-41.767
M8	14XY	952.134	0.000	656.953	952.134	505.283	732.246	98.404	155.097
M8	14Y	656.278	-27.219	656.278	-7.671	504.761	-5.996	100.580	-27.219
M8	15P	0.000	-1274.650	-856.832	-1274.650	-659.183	-980.470	-199.653	-279.928
M8	15X	0.000	-860.341	-860.341	-25.566	-661.885	-19.722	-202.757	-42.087
M8	15XY	1086.128	0.000	746.214	1086.128	573.988	835.350	114.858	180.148
M8	15Y	750.863	-27.653	750.863	-6.008	577.561	-4.678	118.031	-27.653
M9	16P	0.000	-1437.202	-968.231	-1437.202	-745.167	-1105.788	-224.999	-315.104
M9	16X	0.000	-967.215	-967.215	-28.260	-744.389	-22.086	-227.283	-46.564
M9	16XY	1229.953	0.000	841.297	1229.953	646.841	945.685	129.886	204.543
M9	16Y	849.743	-32.127	849.743	-9.005	653.335	-7.275	133.166	-32.127
M9	17P	0.000	-1529.999	-1032.565	-1529.999	-794.107	-1176.614	-235.906	-331.480
M9	17X	0.000	-1025.492	-1025.492	-25.792	-788.669	-19.640	-236.947	-44.536
M9	17XY	1324.361	0.000	903.846	1324.361	695.505	1018.851	143.885	224.667
M9	17Y	917.207	-30.056	917.207	-5.652	705.780	-4.148	147.579	-30.056
M10	18P	0.000	-1231.881	-844.569	-1231.881	-651.955	-949.781	-206.571	-280.988
M10	18X	0.000	-836.794	-836.794	-49.992	-645.977	-40.722	-206.648	-55.212
M10	18XY	1046.075	0.000	697.883	1046.075	534.595	802.335	95.265	162.160
M10	18Y	709.896	-45.441	709.896	-37.764	543.834	-31.317	98.469	-45.441
M11	19P	0.000	-1046.432	-734.412	-1046.432	-564.925	-804.853	-186.498	-246.450
M11	19X	0.000	-730.482	-730.482	-79.127	-561.902	-60.843	-186.643	-61.275
M11	19XY	895.124	0.000	579.022	895.124	445.447	688.518	70.268	131.007
M11	19Y	586.092	-69.327	586.092	-69.327	450.885	-53.304	72.407	-53.746
M11	20P	0.000	-1114.308	-785.039	-1114.308	-603.946	-857.136	-196.007	-259.274
M11	20X	0.000	-779.312	-779.312	-85.193	-599.539	-65.585	-195.681	-62.081
M11	20XY	977.986	0.000	629.271	977.986	484.024	752.178	80.076	147.086
M11	20Y	637.590	-75.990	637.590	-75.990	490.424	-58.505	82.535	-54.811
M12	21P	0.000	-1239.245	-877.051	-1239.245	-674.695	-953.203	-218.960	-288.555
M12	21X	0.000	-866.698	-866.698	-98.593	-666.731	-75.862	-216.329	-68.488
M12	21XY	1096.701	0.000	702.067	1096.701	540.052	843.519	89.576	165.414
M12	21Y	712.517	-88.592	712.517	-88.592	548.091	-68.169	93.197	-60.995
M12	22P	0.000	-1346.467	-955.358	-1346.467	-734.935	-1035.677	-236.581	-311.733
M12	22X	0.000	-939.355	-939.355	-104.914	-722.624	-80.728	-231.445	-70.837
M12	22XY	1206.595	0.000	770.401	1206.595	592.615	928.045	101.496	185.324
M12	22Y	784.845	-95.177	784.845	-95.177	603.727	-73.238	105.973	-63.407
M13	23P	0.000	-1470.096	-1045.538	-1470.096	-804.334	-1130.798	-257.501	-339.082
M13	23X	0.000	-1025.044	-1025.044	-114.316	-788.568	-87.991	-251.419	-76.129
M13	23XY	1326.224	0.000	844.113	1326.224	649.288	1020.030	112.132	204.788
M13	23Y	864.057	-104.183	864.057	-104.183	664.630	-80.195	117.739	-68.619
M13	24P	0.000	-1595.784	-1136.022	-1595.784	-873.923	-1227.458	-276.792	-365.140
M13	24X	0.000	-1110.356	-1110.356	-121.129	-854.179	-93.216	-269.637	-79.238
M13	24XY	1452.706	0.000	922.983	1452.706	709.973	1117.333	125.433	227.243
M13	24Y	947.964	-111.258	947.964	-111.258	729.191	-85.623	132.088	-71.780
M14	25P	0.000	-1732.494	-1235.307	-1732.494	-950.332	-1332.647	-300.114	-395.655
M14	25X	0.000	-1204.571	-1204.571	-132.062	-926.688	-101.662	-291.904	-85.477

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M14	25XY	1582.442	0.000	1002.848	1582.442	771.373	1217.088	136.588	247.987
M14	25Y	1032.949	-121.965	1032.949	-121.965	794.529	-93.896	144.307	-77.978
M14	26P	0.000	-1869.795	-1333.624	-1869.795	-1025.953	-1438.247	-321.155	-424.190
M14	26X	0.000	-1297.792	-1297.792	-139.279	-998.388	-107.206	-311.885	-88.906
M14	26XY	1719.841	0.000	1088.825	1719.841	837.519	1322.781	151.015	272.302
M14	26Y	1124.027	-129.329	1124.027	-129.329	864.598	-99.552	159.795	-81.435
M15	27P	0.000	-2016.849	-1439.586	-2016.849	-1107.470	-1551.365	-345.858	-456.792
M15	27X	0.000	-1398.662	-1398.662	-150.229	-1075.989	-115.637	-335.530	-95.245
M15	27XY	1859.329	0.000	1174.910	1859.329	903.731	1430.066	163.272	294.827
M15	27Y	1215.129	-140.489	1215.129	-140.489	934.671	-108.144	173.095	-87.816
M15	28P	0.000	-2164.037	-1544.621	-2164.037	-1188.245	-1664.555	-368.340	-487.377
M15	28X	0.000	-1498.273	-1498.273	-157.612	-1152.590	-121.294	-356.704	-98.670
M15	28XY	2006.154	0.000	1267.361	2006.154	974.871	1543.025	178.985	320.996
M15	28Y	1312.683	-147.384	1312.683	-147.384	1009.736	-113.426	189.868	-91.144
M16	29P	0.000	-2311.770	-1650.255	-2311.770	-1269.730	-1778.417	-392.802	-519.933
M16	29X	0.000	-1598.826	-1598.826	-167.197	-1230.167	-128.895	-380.111	-104.570
M16	29XY	2147.505	0.000	1354.486	2147.505	1041.663	1651.523	191.598	344.036
M16	29Y	1404.958	-158.181	1404.958	-158.181	1080.489	-121.960	203.550	-97.299
M17	30P	0.000	-2495.520	-1782.638	-2495.520	-1372.626	-1920.817	-423.140	-560.148
M17	30X	0.000	-1723.370	-1723.370	-179.001	-1327.034	-139.039	-408.832	-111.595
M17	30XY	2328.425	0.000	1465.481	2328.425	1125.981	1789.621	207.772	373.658
M17	30Y	1523.811	-170.627	1523.811	-170.627	1170.852	-132.597	221.358	-104.758
M18	31P	0.000	-2490.640	-1776.620	-2490.640	-1369.010	-1918.084	-428.934	-566.169
M18	31X	0.000	-1722.098	-1722.098	-185.575	-1327.068	-145.111	-416.043	-120.319
M18	31XY	2292.181	0.000	1441.438	2292.181	1106.469	1760.730	195.444	358.990
M18	31Y	1495.137	-178.117	1495.137	-178.117	1147.777	-139.374	207.705	-114.331
M19	32P	0.000	-2347.878	-1666.874	-2347.878	-1283.491	-1807.190	-414.996	-545.896
M19	32X	0.000	-1629.885	-1629.885	-187.210	-1255.037	-145.272	-406.453	-128.795
M19	32XY	2089.888	0.000	1317.186	2089.888	1011.981	1606.226	163.398	311.944
M19	32Y	1353.565	-180.728	1353.565	-180.728	1039.966	-140.285	171.436	-123.852
M20	33P	0.000	-2234.268	-1582.870	-2234.268	-1218.543	-1719.485	-405.944	-531.161
M20	33X	0.000	-1556.634	-1556.634	-192.175	-1198.362	-148.763	-400.103	-137.501
M20	33XY	1930.250	0.000	1215.809	1930.250	934.322	1483.764	136.056	273.405
M20	33Y	1241.145	-186.872	1241.145	-186.872	953.811	-144.684	141.429	-133.404
M21	34P	0.000	-2188.231	-1551.506	-2188.231	-1194.144	-1683.809	-411.827	-534.232
M21	34X	0.000	-1521.541	-1521.541	-199.180	-1171.094	-153.879	-402.218	-147.721
M21	34XY	1828.442	0.000	1148.949	1828.442	883.160	1405.727	114.336	244.969
M21	34Y	1169.815	-195.959	1169.815	-195.959	899.211	-151.402	117.611	-145.241
M22	35P	0.000	-2109.348	-1498.303	-2109.348	-1154.879	-1624.805	-415.221	-532.699
M22	35X	0.000	-1458.863	-1458.863	-201.540	-1124.540	-157.357	-403.504	-161.526
M22	35XY	1676.298	0.000	1048.087	1676.298	803.909	1287.041	82.897	203.677
M22	35Y	1078.085	-196.450	1078.085	-196.450	826.984	-153.441	87.682	-157.607
M23	36P	0.000	-2121.731	-1510.748	-2121.731	-1164.454	-1634.332	-424.869	-542.335
M23	36X	0.000	-1473.749	-1473.749	-216.548	-1135.993	-168.903	-415.021	-173.067
M23	36XY	1663.559	0.000	1035.403	1663.559	794.151	1277.240	73.203	193.972
M23	36Y	1065.388	-209.031	1065.388	-209.031	817.216	-163.121	77.986	-167.281
M24	37P	0.000	-2157.659	-1539.374	-2157.659	-1185.480	-1660.983	-444.653	-563.532
M24	37X	0.000	-1514.928	-1514.928	-245.224	-1166.676	-189.969	-437.494	-193.137
M24	37XY	1647.760	0.000	1020.329	1647.760	783.545	1266.084	54.589	175.227
M24	37Y	1039.471	-239.341	1039.471	-239.341	798.269	-185.444	57.501	-188.608
M25	38P	0.000	-2171.958	-1553.755	-2171.958	-1196.546	-1671.986	-455.818	-574.681
M25	38X	0.000	-1529.315	-1529.315	-259.781	-1177.746	-201.170	-448.660	-204.336
M25	38XY	1632.959	0.000	1005.608	1632.959	772.218	1254.695	43.358	163.980
M25	38Y	1022.319	-256.325	1022.319	-256.325	785.072	-198.512	44.402	-201.674
M26	39P	0.000	-2163.072	-1554.874	-2163.072	-1200.697	-1668.449	-473.856	-590.802
M26	39X	0.000	-1538.756	-1538.756	-289.147	-1188.298	-227.050	-469.745	-229.259

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M26	39XY	1577.810	0.000	963.042	1577.810	736.182	1208.988	17.966	136.176
M26	39Y	972.344	-283.758	972.344	-283.758	743.337	-222.906	16.624	-225.111
M27	40P	0.000	-2180.068	-1572.019	-2180.068	-1213.885	-1681.523	-487.231	-604.149
M27	40X	0.000	-1554.411	-1554.411	-305.127	-1200.340	-239.343	-481.975	-241.551
M27	40XY	1563.785	0.000	949.165	1563.785	725.507	1198.199	7.478	125.659
M27	40Y	958.466	-297.312	958.466	-297.312	732.661	-233.331	6.137	-235.537
M28	41P	0.000	-2191.577	-1583.355	-2191.577	-1222.605	-1690.376	-495.727	-612.678
M28	41X	0.000	-1565.747	-1565.747	-316.075	-1209.060	-247.764	-490.471	-249.972
M28	41XY	1553.398	-0.869	938.605	1553.398	717.384	1190.210	-0.869	117.346
M28	41Y	947.906	-308.260	947.906	-308.260	724.538	-241.753	-2.210	-243.958
D1	42P	6.043	0.000	1.658	6.043	1.522	4.894	1.185	2.028
D1	42X	1.657	-3.034	1.657	-3.034	1.521	-2.087	1.184	0.282
D1	42XY	0.943	-3.229	0.461	-3.229	0.601	-2.237	0.943	0.234
D1	42Y	3.658	0.000	0.460	3.658	0.601	3.060	0.944	1.560
D1	43P	6.287	0.000	6.287	5.332	5.097	4.362	2.107	1.922
D1	43X	7.293	0.000	7.293	5.265	5.871	4.310	2.310	1.919
D1	43XY	0.174	-5.060	-5.060	-3.808	-3.632	-2.667	-0.069	0.174
D1	43Y	0.602	-2.967	-2.967	-1.542	-2.021	-0.925	0.327	0.602
D2	44P	6.165	-1.367	-1.367	6.165	-1.230	4.563	-0.905	0.544
D2	44X	0.000	-8.606	-1.369	-8.606	-1.232	-6.797	-0.905	-2.297
D2	44XY	0.000	-6.516	-0.210	-6.516	-0.340	-5.190	-0.670	-1.883
D2	44Y	4.690	-0.670	-0.211	4.690	-0.341	3.429	-0.670	0.273
D2	45P	7.587	0.000	7.587	4.955	5.676	3.651	0.884	0.376
D2	45X	9.301	0.000	9.301	7.101	6.995	5.300	1.201	0.775
D2	45XY	0.000	-10.794	-10.794	-7.660	-8.464	-6.052	-2.669	-2.064
D2	45Y	0.000	-7.491	-7.491	-6.252	-5.923	-4.969	-2.018	-1.779
D3	46P	12.736	0.000	2.167	12.736	1.695	9.823	0.605	2.638
D3	46X	2.164	-9.348	2.164	-9.348	1.692	-7.162	0.604	-1.610
D3	46XY	0.000	-10.856	-1.651	-10.856	-1.242	-8.322	-0.163	-1.933
D3	46Y	7.683	-1.654	-1.654	7.683	-1.245	5.937	-0.164	1.633
D3	47P	13.138	0.000	13.138	11.101	10.164	8.595	2.765	2.371
D3	47X	15.119	0.000	15.119	10.117	11.688	7.839	3.173	2.209
D3	47XY	0.000	-14.594	-14.594	-11.945	-11.169	-9.129	-2.548	-2.035
D3	47Y	0.000	-11.536	-11.536	-7.380	-8.817	-5.619	-1.985	-1.184
D4	48P	12.749	-2.453	-2.453	12.749	-1.868	9.824	-0.547	2.377
D4	48X	0.000	-16.494	-2.454	-16.494	-1.869	-12.667	-0.547	-3.248
D4	48XY	2.185	-10.758	2.185	-10.758	1.700	-8.256	0.391	-2.099
D4	48Y	13.056	0.000	2.187	13.056	1.701	10.061	0.393	2.483
D4	49P	16.624	0.000	16.624	10.544	12.835	8.156	3.244	2.072
D4	49X	19.702	0.000	19.702	16.397	15.203	12.657	3.790	3.150
D4	49XY	0.000	-19.793	-19.793	-12.793	-15.180	-9.793	-3.814	-2.463
D4	49Y	0.000	-15.313	-15.313	-13.321	-11.733	-10.200	-2.899	-2.514
D5	50P	28.886	0.000	2.882	28.886	2.267	22.267	0.849	5.850
D5	50X	2.818	-25.377	2.818	-25.377	2.218	-19.468	0.833	-4.590
D5	50XY	0.000	-18.523	-2.184	-18.523	-1.630	-14.197	-0.231	-3.374
D5	50Y	14.520	-2.241	-2.241	14.520	-1.674	11.218	-0.242	2.983
D5	51P	29.437	0.000	29.437	22.997	22.740	17.784	5.990	4.748
D5	51X	35.749	0.000	35.749	25.167	27.596	19.452	7.230	5.188
D5	51XY	0.000	-29.491	-29.491	-22.980	-22.592	-17.579	-5.321	-4.063
D5	51Y	0.000	-23.308	-23.308	-15.904	-17.835	-12.138	-4.155	-2.728
D6	52P	34.620	-4.283	-4.283	34.620	-3.259	26.664	-0.960	6.523
D6	52X	0.000	-41.769	-4.121	-41.769	-3.134	-32.090	-0.919	-8.159
D6	52XY	3.803	-16.514	3.803	-16.514	2.961	-12.666	0.753	-3.156
D6	52Y	21.412	0.000	3.970	21.412	3.090	16.505	0.798	4.153
D6	53P	36.947	0.000	36.947	24.134	28.502	18.643	7.190	4.722
D6	53X	45.671	0.000	45.671	36.389	35.213	28.067	8.800	7.006

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D6	53XY	0.000	-40.692	-40.692	-26.207	-31.225	-20.077	-7.830	-5.036
D6	53Y	0.000	-31.672	-31.672	-27.121	-24.285	-20.782	-5.997	-5.119
D7	54P	39.299	-0.865	-0.865	39.299	-0.383	30.510	0.652	8.377
D7	54X	0.389	-41.428	-1.920	-41.428	-1.195	-31.581	0.389	-7.209
D7	54XY	3.753	-18.307	3.753	-18.307	3.170	-13.798	1.613	-2.631
D7	54Y	23.146	0.000	2.688	23.146	2.350	18.086	1.342	5.277
D7	55P	40.691	0.000	40.691	25.863	31.611	20.202	8.748	5.892
D7	55X	47.031	0.000	47.031	39.042	36.489	30.337	9.864	8.320
D7	55XY	0.000	-41.871	-41.871	-30.349	-31.902	-23.033	-7.181	-4.957
D7	55Y	0.000	-35.462	-35.462	-26.064	-26.971	-19.739	-5.970	-4.159
D8	56P	48.255	-5.485	-5.485	48.255	-4.375	36.962	-1.834	8.503
D8	56X	0.000	-53.525	-0.086	-53.525	-0.221	-41.325	-0.485	-10.763
D8	56XY	0.000	-9.302	-1.457	-9.302	-1.276	-7.309	-1.012	-2.521
D8	56Y	10.018	0.000	4.033	10.018	2.947	7.549	0.407	1.558
D8	57P	36.326	0.000	36.326	36.127	27.834	27.679	6.282	6.241
D8	57X	50.732	0.000	50.732	27.213	38.916	20.818	9.397	4.865
D8	57XY	0.000	-47.641	-47.641	-20.858	-36.760	-16.152	-9.871	-4.712
D8	57Y	0.000	-38.721	-32.971	-38.721	-25.474	-29.895	-6.606	-7.710
D9	58P	0.000	-34.621	-16.330	-34.621	-11.235	-25.303	-0.276	-3.795
D9	58X	0.432	-41.066	-41.066	-6.724	-30.265	-3.844	-6.183	0.432
D9	58XY	44.151	0.000	44.151	34.226	35.292	27.648	11.218	9.300
D9	58Y	23.559	0.000	23.559	17.451	19.449	14.753	8.498	7.323
D9	59P	0.000	-61.143	-10.288	-61.143	-6.593	-45.708	-0.554	-10.332
D9	59X	36.222	-22.986	-22.986	36.222	-16.362	29.184	-3.383	8.011
D9	59XY	27.577	0.000	27.577	12.837	22.535	11.191	9.484	6.644
D9	59Y	22.630	0.000	16.344	22.630	13.893	18.727	7.728	8.934
D10	60P	53.435	0.000	4.888	53.435	3.897	41.238	1.441	10.778
D10	60X	2.423	-47.665	2.423	-47.665	2.001	-36.525	1.076	-8.558
D10	60XY	0.249	-34.345	-1.051	-34.345	-0.672	-26.280	0.249	-6.156
D10	60Y	31.357	-3.485	-3.485	31.357	-2.544	24.256	-0.092	6.611
D10	61P	55.442	0.000	55.442	42.900	42.817	33.165	11.168	8.750
D10	61X	58.947	0.000	58.947	41.798	45.514	32.316	12.011	8.705
D10	61XY	0.000	-57.434	-57.434	-43.372	-44.015	-33.192	-10.518	-7.805
D10	61Y	0.000	-53.978	-53.978	-38.355	-41.356	-29.334	-9.704	-6.693
D11	62P	42.253	-1.509	-1.509	42.253	-1.232	32.429	-0.654	7.763
D11	62X	0.000	-48.018	-5.933	-48.018	-4.635	-37.005	-1.533	-9.626
D11	62XY	4.941	-33.568	4.941	-33.568	3.730	-25.891	0.621	-6.788
D11	62Y	37.315	-0.264	0.509	37.315	0.320	28.631	-0.264	6.817
D11	63P	53.848	0.000	53.848	32.274	41.374	24.775	10.072	5.917
D11	63X	54.438	0.000	54.438	47.420	41.828	36.424	10.152	8.796
D11	63XY	0.000	-55.394	-55.394	-42.935	-42.662	-33.073	-10.975	-8.572
D11	63Y	0.000	-54.727	-54.727	-38.595	-42.149	-29.736	-10.851	-7.743
D12	64P	50.557	0.000	3.621	50.557	2.831	38.933	0.818	9.845
D12	64X	0.099	-47.920	-0.168	-47.920	-0.083	-36.813	0.099	-9.086
D12	64XY	0.466	-38.511	0.466	-38.511	0.404	-29.576	0.221	-7.277
D12	64Y	36.732	-3.321	-3.321	36.732	-2.509	28.299	-0.496	7.210
D12	65P	58.152	0.000	58.152	39.760	44.817	30.665	11.372	7.829
D12	65X	59.631	0.000	59.631	47.467	45.955	36.593	11.660	9.313
D12	65XY	0.000	-58.968	-58.968	-46.790	-45.280	-35.907	-11.191	-8.842
D12	65Y	0.000	-57.764	-57.764	-39.490	-44.353	-30.292	-10.908	-7.388
D13	66P	47.615	-2.853	-2.853	47.615	-2.163	36.655	-0.578	9.130
D13	66X	0.000	-54.806	-6.802	-54.806	-5.201	-42.123	-1.336	-10.569
D13	66XY	6.648	-36.163	6.648	-36.163	5.146	-27.785	1.281	-6.956
D13	66Y	43.379	0.000	2.698	43.379	2.107	33.398	0.522	8.348
D13	67P	61.016	0.000	61.016	37.112	47.005	28.613	11.787	7.183
D13	67X	61.984	0.000	61.984	53.921	47.750	41.542	11.985	10.427

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D13	67XY	0.000	-61.592	-61.592	-44.745	-47.313	-34.349	-11.814	-8.567
D13	67Y	0.000	-61.073	-61.073	-46.090	-46.913	-35.383	-11.695	-8.807
D14	68P	56.346	0.000	3.684	56.346	2.883	43.388	0.822	10.951
D14	68X	0.078	-53.691	-0.204	-53.691	-0.108	-41.248	0.078	-10.211
D14	68XY	0.470	-44.179	0.470	-44.179	0.410	-33.933	0.225	-8.366
D14	68Y	42.054	-3.419	-3.419	42.054	-2.581	32.395	-0.519	8.230
D14	69P	66.030	0.000	66.030	45.043	50.872	34.723	12.842	8.798
D14	69X	66.387	0.000	66.387	53.177	51.147	40.980	12.916	10.368
D14	69XY	0.000	-66.214	-66.214	-52.107	-50.858	-40.001	-12.625	-9.904
D14	69Y	0.000	-65.805	-65.805	-45.713	-50.542	-35.083	-12.513	-8.642
D15	70P	51.537	-4.428	-4.428	51.537	-3.387	39.659	-0.944	9.822
D15	70X	0.000	-61.134	-8.402	-61.134	-6.445	-47.002	-1.709	-11.852
D15	70XY	8.068	-40.152	8.068	-40.152	6.226	-30.865	1.490	-7.788
D15	70Y	49.080	0.000	4.094	49.080	3.169	37.770	0.725	9.380
D15	71P	67.695	0.000	67.695	40.580	52.128	31.267	12.991	7.769
D15	71X	67.946	0.000	67.946	59.983	52.322	46.191	13.040	11.501
D15	71XY	0.000	-68.288	-68.288	-48.349	-52.477	-37.135	-13.194	-9.351
D15	71Y	0.000	-67.988	-67.988	-52.849	-52.247	-40.596	-13.109	-10.191
D16	72P	61.391	0.000	10.485	61.391	8.322	47.475	3.158	12.949
D16	72X	7.276	-47.437	7.276	-47.437	5.853	-36.230	2.560	-7.965
D16	72XY	0.273	-46.788	-4.265	-46.788	-3.025	-35.731	0.273	-7.907
D16	72Y	39.140	-7.478	-7.478	39.140	-5.496	30.362	-0.328	8.642
D16	73P	66.647	0.000	66.647	51.191	51.533	39.639	13.900	10.921
D16	73X	67.111	0.000	67.111	48.888	51.891	37.869	14.019	10.507
D16	73XY	0.000	-63.874	-63.874	-53.783	-48.870	-41.103	-11.230	-9.282
D16	73Y	0.000	-63.787	-63.787	-40.321	-48.802	-30.747	-11.173	-6.653
D17	74P	33.764	-14.263	-14.263	33.764	-11.164	25.776	-3.928	5.312
D17	74X	0.000	-59.325	-19.034	-59.325	-14.835	-45.822	-4.932	-12.681
D17	74XY	15.658	-29.680	15.658	-29.680	11.853	-23.022	1.951	-6.774
D17	74Y	48.731	0.000	10.904	48.731	8.196	37.290	0.961	8.238
D17	75P	57.690	0.000	57.690	23.460	44.211	17.876	9.953	3.363
D17	75X	59.702	0.000	55.442	59.702	42.481	45.753	9.402	10.215
D17	75XY	0.000	-58.748	-58.748	-36.472	-45.360	-28.221	-12.459	-8.168
D17	75Y	0.000	-61.223	-61.223	-53.617	-47.263	-41.407	-13.006	-11.537
D18	76P	0.000	-236.090	-82.769	-236.090	-62.404	-180.324	-14.883	-44.366
D18	76X	113.254	-82.683	-82.683	113.254	-62.339	88.377	-15.549	22.149
D18	76XY	222.511	0.000	80.966	222.511	63.552	172.414	16.763	43.980
D18	76Y	82.959	-101.217	82.959	-101.217	65.083	-76.585	17.563	-17.872
D18	77P	0.000	-247.376	-233.617	-247.376	-178.451	-189.008	-45.175	-47.793
D18	77X	0.000	-229.155	-229.155	-95.372	-175.019	-72.094	-44.556	-18.795
D18	77XY	228.177	0.000	228.177	214.776	176.793	166.462	46.333	43.729
D18	77Y	233.148	0.000	233.148	126.516	180.617	98.574	47.320	26.779
D19	78P	63.580	0.000	21.250	63.580	16.315	48.871	5.096	13.238
D19	78X	19.631	-32.577	19.631	-32.577	15.070	-25.088	4.718	-5.328
D19	78XY	0.000	-63.908	-16.372	-63.908	-12.626	-49.188	-2.274	-11.418
D19	78Y	39.426	-17.985	-17.985	39.426	-13.867	30.294	-2.648	8.399
D19	79P	68.702	0.000	68.702	59.120	52.828	45.452	14.185	12.336
D19	79X	68.341	0.000	68.341	43.666	52.550	33.566	14.062	9.310
D19	79XY	0.000	-67.574	-64.687	-67.574	-49.781	-51.996	-11.455	-12.004
D19	79Y	0.000	-65.591	-65.591	-28.479	-50.476	-21.925	-11.731	-4.586
D20	80P	37.042	-18.270	-18.270	37.042	-14.007	28.539	-4.382	6.261
D20	80X	0.000	-65.515	-19.274	-65.515	-14.779	-50.344	-4.608	-13.502
D20	80XY	16.247	-42.605	16.247	-42.605	12.546	-32.723	2.373	-8.952
D20	80Y	65.005	0.000	15.241	65.005	11.772	50.048	2.145	11.718
D20	81P	69.214	0.000	69.214	33.592	53.295	25.890	12.545	5.687
D20	81X	69.116	0.000	69.116	68.553	53.219	52.781	12.476	12.361

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D20	81XY	0.000	-72.434	-72.434	-46.621	-55.667	-35.807	-14.740	-9.768
D20	81Y	0.000	-71.974	-71.974	-61.558	-55.314	-47.296	-14.662	-12.652
D21	82P	58.785	0.000	3.198	58.785	2.473	45.228	0.778	11.472
D21	82X	2.045	-52.616	2.045	-52.616	1.586	-40.458	0.516	-10.001
D21	82XY	0.000	-59.210	-1.630	-59.210	-1.241	-45.530	-0.169	-11.247
D21	82Y	55.852	-2.782	-2.782	55.852	-2.128	42.973	-0.432	10.849
D21	83P	78.538	0.000	78.538	54.388	60.443	41.861	15.286	10.634
D21	83X	75.512	0.000	75.512	60.173	58.115	46.311	14.652	11.695
D21	83XY	0.000	-75.387	-75.387	-62.431	-57.963	-47.992	-14.348	-11.849
D21	83Y	0.000	-75.091	-75.091	-49.369	-57.735	-37.945	-14.323	-9.369
D22	84P	57.295	-3.210	-3.210	57.295	-2.452	44.086	-0.710	10.930
D22	84X	0.000	-61.440	-4.319	-61.440	-3.306	-47.240	-0.963	-11.951
D22	84XY	3.918	-56.716	3.918	-56.716	3.031	-43.608	0.687	-10.979
D22	84Y	61.779	0.000	2.808	61.779	2.177	47.536	0.434	11.779
D22	85P	82.643	0.000	82.643	53.149	63.601	40.910	15.835	10.155
D22	85X	77.744	0.000	77.744	65.869	59.833	50.694	14.865	12.574
D22	85XY	0.000	-77.902	-77.902	-60.144	-59.896	-46.232	-15.052	-11.630
D22	85Y	0.000	-80.896	-80.896	-57.979	-62.200	-44.567	-15.677	-11.263
D23	86P	63.126	0.000	0.361	63.126	0.315	48.591	0.171	12.246
D23	86X	0.000	-63.520	-0.770	-63.520	-0.556	-48.820	-0.087	-12.159
D23	86XY	0.935	-62.924	0.935	-62.924	0.757	-48.363	0.288	-11.999
D23	86Y	63.499	-0.196	-0.196	63.499	-0.114	48.879	0.030	12.284
D23	87P	86.997	0.000	86.997	58.423	66.988	45.005	16.892	11.389
D23	87X	83.063	0.000	83.063	68.084	63.963	52.436	16.095	13.207
D23	87XY	0.000	-82.871	-82.871	-65.805	-63.681	-50.549	-15.800	-12.511
D23	87Y	0.000	-86.987	-86.987	-60.433	-66.847	-46.416	-16.632	-11.517
D24	88P	63.639	-1.600	-1.600	63.639	-1.205	48.975	-0.287	12.264
D24	88X	0.000	-66.782	-2.728	-66.782	-2.073	-51.341	-0.544	-12.867
D24	88XY	2.654	-63.547	2.654	-63.547	2.068	-48.854	0.539	-12.198
D24	88Y	66.645	0.000	1.527	66.645	1.200	51.288	0.282	12.811
D24	89P	89.599	0.000	89.599	59.165	68.971	45.556	17.296	11.435
D24	89X	85.544	0.000	85.544	71.109	65.851	54.743	16.477	13.694
D24	89XY	0.000	-85.586	-85.586	-66.693	-65.788	-51.251	-16.418	-12.777
D24	89Y	0.000	-89.553	-89.553	-63.609	-68.840	-48.878	-17.222	-12.224
D25	90P	68.012	-0.519	-0.519	68.012	-0.345	52.367	0.021	13.206
D25	90X	0.000	-69.576	-1.645	-69.576	-1.211	-53.462	-0.235	-13.304
D25	90XY	1.825	-67.718	1.825	-67.718	1.458	-52.033	0.482	-12.898
D25	90Y	69.636	0.000	0.700	69.636	0.592	53.617	0.226	13.489
D25	91P	94.283	0.000	94.283	63.121	72.617	48.642	18.330	12.328
D25	91X	90.279	0.000	90.279	74.380	69.537	57.302	17.520	14.455
D25	91XY	0.000	-90.020	-90.020	-70.374	-69.156	-54.039	-17.139	-13.353
D25	91Y	0.000	-94.037	-94.037	-66.617	-72.246	-51.150	-17.952	-12.671
D26	92P	68.963	-2.009	-2.009	68.963	-1.499	53.091	-0.318	13.337
D26	92X	0.000	-72.793	-3.138	-72.793	-2.368	-55.944	-0.575	-13.975
D26	92XY	3.164	-68.830	3.164	-68.830	2.480	-52.897	0.687	-13.165
D26	92Y	72.702	0.000	2.034	72.702	1.610	55.967	0.429	14.025
D26	93P	97.153	0.000	97.153	64.292	74.815	49.533	18.827	12.499
D26	93X	93.146	0.000	93.146	77.525	71.733	59.712	18.017	15.005
D26	93XY	0.000	-93.045	-93.045	-71.722	-71.493	-55.086	-17.777	-13.668
D26	93Y	0.000	-97.073	-97.073	-69.909	-74.591	-53.691	-18.592	-13.360
D27	94P	72.864	-1.169	-1.169	72.864	-0.840	56.105	-0.110	14.133
D27	94X	0.000	-75.296	-2.290	-75.296	-1.702	-57.856	-0.365	-14.410
D27	94XY	2.433	-72.561	2.433	-72.561	1.931	-55.754	0.594	-13.835
D27	94Y	75.377	0.000	1.312	75.377	1.069	58.039	0.339	14.588
D27	95P	101.201	0.000	101.201	68.108	77.932	52.472	19.631	13.258
D27	95X	97.142	0.000	97.142	79.867	74.810	61.517	18.810	15.480

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D27	95XY	0.000	-96.968	-96.968	-75.354	-74.507	-57.877	-18.507	-14.343
D27	95Y	0.000	-100.897	-100.897	-72.181	-77.529	-55.436	-19.303	-13.772
D28	96P	74.928	-1.497	-1.497	74.928	-1.121	57.663	-0.245	14.458
D28	96X	0.000	-77.904	-2.629	-77.904	-1.992	-59.891	-0.503	-14.984
D28	96XY	2.616	-74.659	2.616	-74.659	2.043	-57.397	0.553	-14.315
D28	96Y	77.706	0.000	1.483	77.706	1.171	59.801	0.295	14.960
D28	97P	104.936	0.000	104.936	70.402	80.788	54.219	20.296	13.645
D28	97X	100.691	0.000	100.691	83.052	77.522	63.949	19.440	16.041
D28	97XY	0.000	-100.635	-100.635	-77.741	-77.345	-59.730	-19.265	-14.855
D28	97Y	0.000	-104.756	-104.756	-75.517	-80.515	-58.019	-20.099	-14.468
D29	98P	70.511	-11.482	-11.482	70.511	-8.544	54.524	-1.786	13.989
D29	98X	0.000	-88.291	-12.584	-88.291	-9.392	-67.622	-2.039	-16.603
D29	98XY	13.066	-69.874	13.066	-69.874	10.340	-53.458	2.988	-12.971
D29	98Y	88.609	0.000	11.966	88.609	9.493	68.447	2.736	17.481
D29	99P	108.122	0.000	108.122	66.732	83.453	51.611	21.244	13.275
D29	99X	104.018	0.000	104.018	91.833	80.296	70.918	20.417	18.066
D29	99XY	0.000	-103.572	-103.572	-73.653	-79.390	-56.371	-19.494	-13.732
D29	99Y	0.000	-107.696	-107.696	-84.019	-82.562	-64.344	-20.330	-15.768
D30	100P	63.644	-60.688	-60.688	63.644	-45.800	49.838	-11.336	12.589
D30	100X	0.000	-155.493	-62.213	-155.493	-46.974	-118.718	-11.680	-29.621
D30	100XY	60.611	-65.123	60.611	-65.123	47.509	-49.209	12.214	-11.981
D30	100Y	153.765	0.000	59.084	153.765	46.333	119.157	11.869	30.080
D30	101P	148.344	0.000	148.344	58.734	114.996	46.063	28.990	11.743
D30	101X	158.453	0.000	142.839	158.453	110.762	122.764	27.891	30.886
D30	101XY	0.000	-144.442	-144.442	-70.034	-110.226	-52.985	-27.345	-13.022
D30	101Y	0.000	-150.386	-149.983	-150.386	-114.487	-114.788	-28.471	-28.541
D31	102P	0.000	-189.354	-120.767	-189.354	-91.335	-144.079	-23.494	-36.678
D31	102X	15.121	-111.632	-111.632	15.121	-84.308	13.192	-21.302	3.090
D31	102XY	200.204	0.000	106.763	200.204	83.692	155.556	20.686	38.653
D31	102Y	115.745	-35.846	115.745	-35.846	90.601	-26.007	22.760	-6.412
D31	103P	0.000	-193.729	-154.327	-193.729	-117.153	-147.444	-30.224	-37.788
D31	103X	0.000	-148.783	-148.783	-32.223	-112.888	-23.221	-28.751	-6.312
D31	103XY	196.017	0.000	143.871	196.017	112.238	152.335	28.100	38.118
D31	103Y	149.365	0.000	149.365	20.057	116.465	16.988	29.529	4.636
D32	104P	0.000	-98.493	-47.877	-98.493	-35.859	-74.786	-8.930	-18.663
D32	104X	31.262	-41.667	-41.667	31.262	-31.082	25.014	-7.438	6.595
D32	104XY	107.628	0.000	40.048	107.628	31.777	83.754	8.132	21.129
D32	104Y	46.154	-43.895	46.154	-43.895	36.474	-32.792	9.544	-7.782
D32	105P	0.000	-101.880	-98.516	-101.880	-74.814	-77.391	-18.921	-19.557
D32	105X	0.000	-94.660	-94.660	-41.663	-71.848	-31.076	-17.909	-7.703
D32	105XY	105.257	0.000	92.994	105.257	72.506	81.931	18.566	20.915
D32	105Y	96.744	0.000	96.744	34.881	75.392	27.797	19.553	7.640
D33	106P	0.000	-72.266	-40.121	-72.266	-30.054	-54.775	-7.819	-14.000
D33	106X	16.204	-35.294	-35.294	16.204	-26.341	13.270	-6.659	3.250
D33	106XY	78.612	0.000	32.756	78.612	26.006	61.274	6.326	15.144
D33	106Y	37.495	-26.612	37.495	-26.612	29.651	-19.660	7.420	-4.915
D33	107P	0.000	-74.976	-68.328	-74.976	-51.753	-56.859	-13.443	-14.714
D33	107X	0.000	-65.729	-65.729	-24.978	-49.755	-18.403	-12.712	-4.864
D33	107XY	76.527	0.000	63.178	76.527	49.409	59.670	12.376	14.937
D33	107Y	66.365	0.000	66.365	18.707	51.861	15.195	13.172	3.995
D34	108P	0.000	-46.767	-31.557	-46.767	-23.635	-35.330	-6.848	-9.771
D34	108X	4.181	-26.776	-26.776	4.181	-19.958	3.853	-5.234	0.721
D34	108XY	54.139	0.000	23.856	54.139	18.991	42.281	4.276	10.099
D34	108Y	27.501	-16.496	27.501	-16.496	21.795	-12.048	5.018	-3.447
D34	109P	0.000	-47.092	-38.239	-47.092	-28.776	-35.580	-8.249	-9.946
D34	109X	0.000	-46.143	-46.143	-16.730	-34.857	-12.228	-9.308	-3.644

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D34	109XY	54.214	0.000	43.020	54.214	33.734	42.339	8.078	10.226
D34	109Y	37.023	0.000	37.023	4.481	29.121	4.084	7.198	0.930
D35	110P	0.000	-64.893	-23.794	-64.893	-16.755	-48.361	-3.836	-11.736
D35	111P	24.655	-32.474	24.655	-32.474	20.518	-23.431	7.118	-3.880
D35	112P	68.184	0.000	68.184	18.366	54.000	15.678	14.961	5.374
D35	113P	80.307	0.000	64.179	80.307	50.919	63.320	14.080	17.177
D35	114P	79.083	0.000	36.859	79.083	29.905	62.378	9.000	17.117
D35	115P	19.389	-36.337	-36.337	19.389	-26.403	16.465	-5.541	5.187
D35	116P	0.000	-63.136	-63.136	-34.825	-47.016	-25.240	-10.166	-4.717
D35	117P	0.000	-68.786	-68.786	-63.066	-51.363	-46.956	-12.317	-11.209
D36	118P	3.624	-52.771	2.436	-52.771	3.624	-38.844	-2.720	-13.347
D36	119P	0.000	-75.994	-20.374	-75.994	-13.925	-56.702	-8.123	-18.819
D36	120P	59.490	0.000	59.490	55.778	47.511	44.649	8.174	7.452
D36	121P	70.939	0.000	70.939	36.640	56.318	29.933	10.046	3.445
D36	122P	38.029	-22.892	-22.892	38.029	-15.862	31.002	-8.490	3.236
D36	123P	54.163	-2.153	4.571	54.163	5.267	43.407	-2.153	7.382
D36	124P	0.000	-90.140	-90.140	-73.546	-67.590	-54.819	-21.307	-18.108
D36	125P	0.000	-77.610	-77.610	-55.810	-57.952	-41.182	-18.605	-14.408
D37	126P	0.632	-38.799	-2.899	-38.799	-1.226	-28.836	0.632	-6.271
D37	127P	5.074	-27.705	5.074	-27.705	4.910	-20.307	2.962	-3.349
D37	128P	51.934	0.000	51.934	31.774	40.955	25.447	11.551	7.672
D37	129P	42.674	0.000	42.674	39.520	33.832	31.401	10.067	9.456
D37	130P	38.408	0.000	7.439	38.408	6.729	30.546	3.517	9.471
D37	131P	32.906	-4.580	-4.580	32.906	-2.519	26.318	0.347	7.563
D37	132P	0.000	-40.079	-40.079	-29.966	-29.825	-22.047	-6.056	-4.110
D37	133P	0.000	-50.263	-50.263	-36.895	-37.659	-27.371	-8.252	-5.676
D38	134P	0.000	-54.775	-22.347	-54.775	-16.058	-41.004	-9.300	-15.542
D38	135P	1.274	-44.643	0.188	-44.643	1.274	-33.206	-5.585	-14.207
D38	136P	36.774	-1.180	36.774	19.788	29.419	16.348	2.093	-1.180
D38	137P	45.045	0.000	45.045	35.804	35.781	28.673	3.298	1.519
D38	138P	36.403	-6.028	-2.325	36.403	-0.659	29.134	-6.028	1.427
D38	139P	19.212	-19.065	-19.065	19.212	-13.533	15.905	-8.553	-1.193
D38	140P	0.000	-67.854	-67.854	-43.727	-51.065	-32.501	-18.579	-13.932
D38	141P	0.000	-58.379	-58.379	-56.092	-43.777	-42.018	-16.445	-16.004
D39	142P	14.243	-80.609	13.425	-80.609	14.243	-58.084	3.069	-15.019
D39	143P	0.000	-102.324	-23.880	-102.324	-14.451	-74.791	-3.516	-18.611
D39	144P	114.390	0.000	114.390	92.489	91.910	75.060	22.948	18.730
D39	145P	107.848	0.000	107.848	70.830	86.878	58.396	22.256	15.126
D39	146P	69.057	-18.920	-18.920	69.057	-10.636	57.032	-2.097	14.825
D39	147P	93.924	0.000	9.861	93.924	11.502	76.164	2.369	18.547
D39	148P	0.000	-117.793	-117.793	-105.349	-86.694	-77.119	-22.051	-19.653
D39	149P	0.000	-125.477	-125.477	-78.695	-92.604	-56.612	-23.619	-14.610
D40	158P	0.000	-112.761	-100.810	-112.761	-74.479	-83.671	-24.662	-26.960
D40	159P	28.624	-55.515	28.624	-55.515	25.084	-39.631	-0.450	-16.634
D40	160P	72.857	0.000	72.857	27.361	59.112	24.110	9.313	0.553
D40	161P	80.671	0.000	80.671	80.018	65.123	64.620	10.292	10.164
D40	162P	82.412	-1.862	20.625	82.412	18.932	66.462	-1.862	10.031
D40	163P	24.701	-48.261	-48.261	24.701	-34.055	22.064	-13.726	0.307
D40	164P	0.000	-110.272	-110.272	-51.932	-81.757	-36.875	-26.910	-15.678
D40	165P	0.000	-108.308	-57.354	-108.308	-41.048	-80.244	-15.701	-25.508
H1	166P	0.000	-0.623	-0.623	-0.567	-0.574	-0.531	-0.452	-0.441
H1	166Y	0.000	-0.507	-0.189	-0.507	-0.240	-0.485	-0.365	-0.426
H1	167P	0.000	-0.413	-0.058	-0.306	-0.148	-0.339	-0.366	-0.413
H1	167X	0.000	-0.441	-0.438	-0.305	-0.441	-0.338	-0.441	-0.415
H2	1661P	0.125	-0.316	-0.316	-0.194	-0.191	-0.097	0.102	0.125
H2	1661Y	1.014	0.000	0.703	1.014	0.593	0.832	0.304	0.364

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H2	1671P	0.000	-0.500	-0.490	-0.500	-0.369	-0.377	-0.052	-0.054
H2	1671X	0.267	0.000	0.110	0.267	0.092	0.213	0.065	0.095
H3	1662P	0.128	-0.192	0.128	-0.149	0.038	-0.175	-0.138	-0.192
H3	1662Y	0.000	-0.429	-0.429	-0.379	-0.390	-0.352	-0.232	-0.222
H3	1672P	1.329	-0.167	0.850	1.329	0.527	0.895	-0.167	-0.075
H3	1672X	1.154	-0.324	1.154	-0.115	0.761	-0.216	-0.080	-0.324
H4	1663P	3.987	0.000	3.987	3.146	2.845	2.197	0.326	0.163
H4	1663Y	0.000	-4.972	-4.972	-3.557	-4.047	-2.958	-1.559	-1.286
H4	1674P	4.329	-0.727	0.046	4.329	-0.269	3.025	-0.727	0.097
H4	1674X	0.208	-4.547	0.208	-4.547	-0.145	-3.802	-0.593	-1.508
H5	168P	0.000	-27.906	-27.906	-21.967	-22.076	-17.505	-9.508	-8.362
H5	168Y	17.413	-0.935	17.413	11.515	12.787	8.248	0.203	-0.935
H5	169P	0.000	-19.350	-3.791	-19.350	-3.566	-15.533	-4.265	-7.258
H5	169X	10.071	-4.923	-4.923	10.071	-4.437	7.096	-4.836	-1.952
H6	170P	47.669	0.000	47.669	36.193	36.187	27.354	11.132	8.918
H6	170Y	0.000	-41.306	-41.306	-29.824	-32.260	-23.423	-7.195	-4.980
H6	171P	35.203	0.000	2.699	35.203	1.565	26.566	1.589	7.841
H6	171X	3.504	-28.973	3.504	-28.973	2.185	-22.795	2.204	-4.043
H7	1701P	2.762	0.000	2.762	2.082	2.091	1.567	0.613	0.482
H7	1701Y	0.000	-2.456	-2.456	-1.849	-1.923	-1.456	-0.439	-0.322
H7	1712P	4.123	-0.124	-0.002	4.123	-0.124	3.048	-0.123	0.671
H7	1712X	0.000	-4.123	-0.031	-4.123	-0.146	-3.294	-0.087	-0.874
H8	1703P	4.659	0.000	4.659	3.432	3.480	2.536	0.793	0.557
H8	1703Y	0.000	-4.770	-4.770	-3.448	-3.773	-2.756	-1.087	-0.832
H8	1714P	6.840	-0.281	-0.111	6.840	-0.281	5.066	-0.280	1.057
H8	1714X	0.085	-6.907	0.085	-6.907	-0.129	-5.507	-0.212	-1.557
H9	1704P	2.390	-0.457	2.390	1.534	1.590	0.932	-0.292	-0.457
H9	1704Y	0.000	-4.185	-4.185	-3.229	-3.467	-2.732	-1.589	-1.404
H9	1705P	6.480	-0.913	-0.776	6.480	-0.913	4.668	-0.912	0.484
H9	1705X	0.000	-7.866	-0.569	-7.866	-0.754	-6.367	-0.838	-2.242
H10	172P	0.000	-147.463	-147.463	-112.316	-114.125	-87.078	-36.454	-29.678
H10	172Y	123.986	0.000	123.986	88.754	94.691	67.578	17.014	10.221
H10	1721P	0.000	-107.955	-11.399	-107.955	-9.483	-83.750	-9.474	-28.048
H10	1721X	84.672	-11.922	-11.922	84.672	-9.885	64.411	-9.814	8.766
H11	1722P	144.588	0.000	144.588	110.443	110.862	84.586	34.949	28.367
H11	1722Y	0.000	-120.252	-120.252	-86.101	-92.869	-66.588	-16.953	-10.369
H11	1723P	109.519	0.000	12.308	109.519	9.092	83.863	8.885	27.585
H11	1723X	12.444	-84.922	12.444	-84.922	9.197	-65.694	9.095	-9.635
H12	17231P	14.135	0.000	14.135	11.413	10.800	8.704	3.313	2.788
H12	17231Y	0.000	-11.966	-11.966	-9.255	-9.278	-7.192	-1.790	-1.267
H12	17241P	12.048	0.000	1.978	12.048	1.410	9.155	0.848	2.785
H12	17241X	0.521	-9.939	0.153	-9.939	0.006	-7.756	0.521	-1.420
H13	17251P	5.003	0.000	5.003	3.145	3.765	2.335	0.954	0.596
H13	17251Y	0.000	-4.810	-4.810	-3.610	-3.784	-2.861	-0.972	-0.741
H13	1726P	5.210	-0.705	-0.705	5.210	-0.695	3.855	-0.245	0.893
H13	1726X	0.000	-5.677	-0.012	-5.677	-0.162	-4.519	-0.120	-1.210
H14	17252P	5.463	0.000	5.463	3.999	4.060	2.934	0.855	0.573
H14	17252Y	0.000	-5.700	-5.700	-4.267	-4.527	-3.424	-1.323	-1.046
H14	17261P	6.859	-0.429	-0.233	6.859	-0.429	5.026	-0.420	0.945
H14	17261X	0.000	-7.308	-0.221	-7.308	-0.420	-5.870	-0.419	-1.783
H15	17253P	7.226	0.000	7.226	5.296	5.376	3.892	1.134	0.762
H15	17253Y	0.000	-7.543	-7.543	-5.646	-5.985	-4.525	-1.742	-1.377
H15	17262P	8.523	-0.526	-0.297	8.523	-0.526	6.258	-0.508	1.189
H15	17262X	0.000	-9.078	-0.268	-9.078	-0.503	-7.280	-0.503	-2.198
H16	17254P	15.041	0.000	15.041	11.099	11.242	8.209	2.478	1.719
H16	17254Y	0.000	-15.452	-15.452	-11.543	-12.215	-9.207	-3.452	-2.699

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

H16	17263P	13.078	-0.584	-0.256	13.078	-0.584	9.672	-0.568	1.997
H16	17263X	0.000	-13.554	-0.226	-13.554	-0.561	-10.813	-0.566	-3.130
H17	17255P	48.987	0.000	48.987	36.514	36.869	27.271	8.856	6.452
H17	17255Y	0.000	-48.442	-48.442	-35.967	-38.078	-28.478	-10.064	-7.660
H17	17264P	35.535	-0.679	0.154	35.535	-0.679	26.535	-0.614	6.193
H17	17264X	0.139	-35.176	0.139	-35.176	-0.690	-27.854	-0.625	-7.419
H18	1724P	0.000	-105.206	-105.206	-82.101	-82.691	-64.912	-30.744	-26.292
H18	1724Y	75.422	-0.144	75.422	52.312	56.256	38.474	4.309	-0.144
H18	1725P	0.000	-81.753	-14.895	-81.753	-13.221	-64.646	-13.222	-26.084
H18	1725X	51.989	-14.867	-14.867	51.989	-13.199	38.225	-13.202	-0.340
H19	1728P	102.097	0.000	102.097	76.179	76.821	56.878	18.363	13.369
H19	1728Y	0.000	-101.104	-101.104	-75.130	-79.490	-59.505	-21.032	-16.027
H19	1727P	75.907	-1.321	0.540	75.907	-1.301	56.669	-1.321	13.179
H19	1727X	0.484	-74.894	0.484	-74.894	-1.344	-59.322	-1.344	-15.845
H20	1729P	62.787	0.000	62.787	46.469	46.915	34.359	10.780	7.636
H20	1729Y	0.000	-62.789	-62.789	-46.894	-49.683	-37.454	-13.550	-10.487
H20	1720P	46.478	-1.567	-0.239	46.478	-1.567	34.366	-1.419	7.569
H20	1720X	0.000	-46.656	-0.016	-46.656	-1.396	-37.270	-1.399	-10.372
H21	17291P	52.833	0.000	52.833	43.003	39.443	31.879	9.205	7.310
H21	17291Y	0.000	-52.018	-52.018	-37.236	-41.213	-29.840	-10.985	-8.137
H21	17201P	41.389	-0.438	3.219	41.389	1.278	30.638	-0.438	6.906
H21	17201X	0.476	-38.521	0.476	-38.521	-0.832	-30.828	-0.788	-8.290
H22	17292P	70.723	0.000	70.723	55.105	52.725	40.708	11.495	8.486
H22	17292Y	0.000	-72.288	-72.288	-54.684	-57.285	-43.740	-16.071	-12.680
H22	17202P	56.264	-1.219	4.598	56.264	1.859	41.599	-1.219	8.721
H22	17202X	0.000	-53.566	-0.140	-53.566	-1.786	-42.880	-2.198	-12.476
H23	173P	4.240	-0.321	4.240	2.868	3.254	2.199	-0.057	-0.321
H23	174P	0.000	-7.220	-7.220	-5.627	-5.561	-4.336	-2.264	-1.957
H23	175P	2.541	-1.684	-1.684	2.541	-1.303	1.947	-1.197	-0.384
H23	176P	0.000	-5.783	-1.630	-5.783	-1.262	-4.456	-1.189	-1.988
H23	177P	0.000	-7.169	-7.169	-5.783	-5.523	-4.456	-2.257	-1.990
H23	178P	5.345	-0.405	5.345	3.297	4.104	2.529	-0.010	-0.405
H23	179P	0.000	-6.963	-1.665	-6.963	-1.288	-5.364	-1.361	-2.381
H23	180P	2.865	-1.325	-1.325	2.865	-1.027	2.196	-1.129	-0.323
H24	17293P	91.907	0.000	91.907	69.330	68.699	51.329	18.018	13.669
H24	17293Y	0.000	-84.504	-84.504	-62.032	-67.003	-49.713	-16.333	-12.004
H24	17203P	68.867	0.000	3.291	68.867	0.532	50.972	0.832	13.449
H24	17203X	3.294	-62.042	3.294	-62.042	0.535	-49.721	0.695	-11.875
H25	181P	4.339	-0.452	4.339	3.067	3.325	2.347	-0.207	-0.452
H25	182P	0.000	-9.672	-9.672	-7.327	-7.453	-5.649	-3.075	-2.623
H25	183P	3.140	-2.529	-2.529	3.140	-1.958	2.403	-1.698	-0.608
H25	184P	0.000	-6.612	-2.208	-6.612	-1.711	-5.099	-1.471	-2.318
H25	185P	0.000	-7.899	-7.899	-6.614	-6.089	-5.100	-2.566	-2.319
H25	186P	4.335	-0.580	4.335	2.404	3.322	1.836	-0.208	-0.580
H25	187P	0.000	-6.005	-1.375	-6.005	-1.071	-4.632	-1.309	-2.200
H25	188P	3.069	-1.336	-1.336	3.069	-1.040	2.348	-1.299	-0.451
H26	17294P	151.114	0.000	151.114	115.133	111.967	84.283	31.275	24.345
H26	17294Y	0.000	-129.443	-129.443	-92.751	-103.848	-75.619	-23.180	-16.113
H26	17204P	115.846	0.000	12.055	115.846	4.997	84.832	4.396	24.364
H26	17204X	13.222	-91.630	13.222	-91.630	5.895	-74.756	4.393	-15.779
H27	189P	9.253	-0.480	9.253	6.006	7.117	4.620	0.145	-0.480
H27	190P	0.000	-8.580	-8.580	-6.753	-6.600	-5.195	-3.021	-2.669
H27	191P	2.004	-2.583	-2.583	2.004	-1.987	1.541	-1.864	-0.981
H27	192P	0.000	-7.043	-2.565	-7.043	-1.974	-5.418	-1.862	-2.724
H27	193P	0.000	-8.586	-8.586	-7.042	-6.605	-5.417	-3.022	-2.725
H27	194P	5.036	-1.004	5.036	2.755	3.873	2.120	-0.564	-1.004

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

H27	195P	0.000	-8.083	-2.473	-8.083	-1.902	-6.218	-2.013	-3.092
H27	196P	6.000	-2.622	-2.622	6.000	-2.017	4.615	-2.142	-0.483
H26	205P	1.954	-0.477	1.870	1.954	1.439	1.503	-0.477	-0.461
H27	206P	0.000	-4.503	-4.503	-0.019	-3.464	-0.015	-1.548	-0.685
H27	207P	0.000	-7.181	-4.356	-7.181	-3.351	-5.524	-1.675	-2.219
H27	208P	1.723	-0.685	1.723	-0.019	1.326	-0.015	-0.350	-0.685
H27	209P	3.109	-0.313	2.358	3.109	1.814	2.392	-0.313	-0.169
H27	210P	0.000	-4.828	-4.828	-0.212	-3.714	-0.163	-1.587	-0.699
H27	211P	0.000	-7.625	-4.916	-7.625	-3.781	-5.865	-1.713	-2.234
H27	212P	2.446	-0.699	2.446	-0.212	1.881	-0.163	-0.187	-0.699
H27	213P	0.000	-4.112	-1.861	-4.112	-1.431	-3.163	-0.744	-1.178
H27	214P	7.044	-0.898	-0.275	7.044	-0.211	5.419	-0.898	0.510
H27	215P	0.000	-14.246	-8.734	-14.246	-6.719	-10.959	-2.067	-3.128
H27	216P	7.044	0.000	6.599	7.044	5.076	5.419	0.424	0.510

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*** Análisis de resultados por caso de carga No. 1 "LC1 WIND 0° C.D."

Equilibrium Joint Positions and Rotations for Load Case "LC1 WIND 0° C.D.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	3.526	-0.009366	-0.05881	-0.0500	3.7212	-0.8722	4.176	0.6406	150.9
10P	2.303	-0.02939	-0.05394	0.0273	3.3212	-0.8724	2.953	0.6206	131.6
11P	2.097	-0.01524	-0.07536	0.2843	3.0020	-0.8802	3.237	1.125	127.5
19P	1.207	0.01348	-0.05503	-0.0703	2.0837	-1.0246	2.347	1.153	108.6
20P	1.047	0.01063	-0.08031	0.0714	1.5831	-0.9676	3.499	2.463	102.1
32P	0.2559	0.0003979	-0.04137	0.0167	0.8496	-0.7998	2.708	2.452	66.08
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	3.542	-0.009233	-0.05777	-0.0419	3.6092	0.5704	4.192	-0.6592	150.9
1XY	3.542	0.002469	0.02351	0.0966	3.5809	0.5514	2.892	-0.6475	150.9
1Y	3.526	0.002344	0.02513	0.0459	3.6968	-0.8392	2.876	0.6523	150.9
10X	2.362	-0.02874	-0.05183	0.0354	3.2925	0.5705	3.012	-0.6787	131.6
10XY	2.363	0.02913	0.01924	-0.0290	3.2842	0.5515	1.713	-0.6209	131.6
10Y	2.303	0.02934	0.02162	-0.0138	3.3161	-0.8394	1.653	0.6793	131.7
11X	2.13	-0.01622	-0.07944	0.0841	3.2982	0.6011	3.27	-1.156	127.5
11XY	2.13	0.01691	0.04733	-0.0750	3.2918	0.5831	0.9899	-1.123	127.6
11Y	2.097	0.01567	0.04354	-0.2819	2.9937	-0.8491	0.9574	1.156	127.6
19X	1.176	0.01736	-0.05878	0.1792	2.2246	0.9722	2.316	-1.123	108.6
19XY	1.177	-0.01505	0.02977	-0.1660	2.2060	0.9609	0.03683	-1.155	108.6
19Y	1.207	-0.01218	0.02605	0.0575	2.0669	-1.0059	0.0673	1.128	108.6
20X	1.027	0.006473	-0.07911	-0.1624	1.5166	0.9474	3.479	-2.446	102.1
20XY	1.027	-0.004844	0.05164	0.1650	1.5069	0.9376	-1.425	-2.457	102.3
20Y	1.047	-0.009144	0.05272	-0.0776	1.5718	-0.9520	-1.405	2.443	102.3
32X	0.2509	0.002919	-0.04103	-0.0285	0.8362	0.7805	2.703	-2.449	66.08
32XY	0.2516	-0.001567	0.02005	0.0275	0.8343	0.7751	-2.2	-2.454	66.15
32Y	0.2567	-0.0005484	0.02026	-0.0182	0.8476	-0.7924	-2.195	2.451	66.15
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	3.318	-0.01214	-0.05869	-0.0487	3.7011	-0.8722	3.968	0.6379	147.6
3S	3.156	-0.01401	-0.05851	-0.0318	3.7001	-0.8722	3.806	0.636	145.1
4S	2.995	-0.01564	-0.05814	-0.0643	3.6842	-0.8723	3.645	0.6344	142.6
5S	2.835	-0.01851	-0.05758	-0.0209	3.6495	-0.8723	3.485	0.6315	140.1
6S	2.676	-0.01984	-0.05688	-0.0819	3.6286	-0.8724	3.326	0.6302	137.6
7S	2.52	-0.02405	-0.05589	-0.0316	3.5445	-0.8724	3.17	0.626	135.1
8S	2.397	-0.02558	-0.0549	-0.1458	3.4917	-0.8724	3.047	0.6244	133.1
12S	1.945	-0.00951	-0.07383	0.0330	3.0006	-0.8995	3.085	1.13	124.6
13S	1.816	-0.006566	-0.07224	0.1291	2.9079	-0.9162	2.956	1.133	122.1
14S	1.691	-0.0001149	-0.06996	0.0808	2.8152	-0.9362	2.831	1.14	119.6
15S	1.571	0.001664	-0.06732	0.1138	2.6931	-0.9561	2.711	1.142	117.1
16S	1.456	0.008786	-0.06425	0.0759	2.5590	-0.9761	2.596	1.149	114.6
17S	1.348	0.00964	-0.06079	0.1313	2.3855	-0.9960	2.488	1.15	112.1
18S	1.267	0.01575	-0.05767	0.0378	2.2575	-1.0120	2.407	1.156	110.1
21S	0.9684	0.007865	-0.07752	-0.0794	1.5896	-0.9425	3.42	2.46	99.32
22S	0.8931	0.00712	-0.07455	0.0309	1.5082	-0.9173	3.345	2.459	96.53
23S	0.8233	0.008104	-0.07072	-0.0313	1.4473	-0.8883	3.275	2.46	93.83
24S	0.7571	0.005659	-0.06656	0.0014	1.3582	-0.8594	3.209	2.458	91.13
25S	0.6917	0.006117	-0.06417	-0.0182	1.3132	-0.8496	3.144	2.458	88.34

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.6289	0.004456	-0.06157	-0.0026	1.2595	-0.8397	3.081	2.456	85.54
27S	0.5683	0.004882	-0.05924	-0.0135	1.2157	-0.8340	3.02	2.457	82.74
28S	0.5102	0.003401	-0.05672	-0.0083	1.1660	-0.8283	2.962	2.455	79.94
29S	0.4554	0.004003	-0.05405	-0.0057	1.1104	-0.8226	2.907	2.456	77.2
30S	0.4034	0.002593	-0.05119	-0.0194	1.0671	-0.8170	2.855	2.455	74.45
31S	0.3534	0.002528	-0.04819	-0.0080	1.0548	-0.8115	2.805	2.455	71.75
33S	0.1976	0.001952	-0.04049	0.1291	0.5089	-0.7410	3.42	3.225	59.76
34S	0.1531	0.001027	-0.03908	0.0682	0.4683	-0.6712	4.107	3.955	53.76
35S	0.1172	6.025e-005	-0.03699	0.0806	0.3678	-0.5998	4.802	4.685	47.76
36S	0.08728	-4.406e-005	-0.03418	0.0609	0.3404	-0.5234	5.504	5.416	41.77
37S	0.05953	-0.001225	-0.03146	0.0651	0.2611	-0.4504	6.207	6.146	35.77
371S	0.0588	-0.000632	-0.03208	0.0000	0.0000	0.0000	6.206	-0.000632	35.77
372S	0.06005	-0.0005653	-0.007251	0.0000	0.0000	0.0000	0.06005	6.147	35.79
373S	0.05997	0.0006781	0.0176	0.0000	0.0000	0.0000	-6.087	0.0006781	35.82
374S	0.05856	0.0006115	-0.007193	0.0000	0.0000	0.0000	0.05856	-6.147	35.79
38S	0.04158	-3.748e-005	-0.02722	0.0506	0.2112	-0.3761	6.92	6.879	29.77
39S	0.02324	-0.001199	-0.02318	0.0509	0.1657	-0.2995	7.633	7.609	23.78
391S	0.02281	-0.000469	-0.02448	0.0000	0.0000	0.0000	7.633	-0.000469	23.78
392S	0.02389	-0.0007412	-0.005535	0.0000	0.0000	0.0000	0.02389	7.609	23.79
393S	0.02427	0.0004422	0.0135	0.0000	0.0000	0.0000	-7.585	0.0004422	23.81
394S	0.02298	0.0007145	-0.005478	0.0000	0.0000	0.0000	0.02298	-7.609	23.79
40S	0.01264	0.001127	-0.01772	0.0416	0.1303	-0.2228	8.354	8.342	17.78
41S	0.001511	-0.001135	-0.01288	-0.0078	0.0555	-0.1557	9.074	9.071	11.79
411S	0.001222	-0.0002434	-0.006684	0.0000	0.0000	0.0000	9.073	-0.0002434	11.79
412S	0.002211	-0.0008924	-0.002764	0.0000	0.0000	0.0000	0.002211	9.071	11.8
413S	0.002962	0.000201	0.001159	0.0000	0.0000	0.0000	-9.069	0.000201	11.8
414S	0.001772	0.00085	-0.002734	0.0000	0.0000	0.0000	0.001772	-9.071	11.8
42S	0.00268	-0.002706	-0.006378	0.0361	0.0010	-0.0749	9.806	9.801	5.794
2X	3.34	-0.01163	-0.05764	-0.0443	3.5869	0.5704	3.99	-0.6616	147.6
2XY	3.341	0.007137	0.02351	0.0567	3.5987	0.5514	2.691	-0.6429	147.7
2Y	3.319	0.005669	0.02513	0.0862	3.7110	-0.8392	2.669	0.6557	147.7
3X	3.184	-0.01388	-0.05742	-0.0643	3.5845	0.5704	3.834	-0.6639	145.1
3XY	3.184	0.009587	0.0234	0.0863	3.5877	0.5514	2.534	-0.6404	145.2
3Y	3.157	0.009479	0.02504	0.0582	3.7026	-0.8392	2.507	0.6595	145.2
4X	3.028	-0.01658	-0.05698	-0.0387	3.5647	0.5704	3.678	-0.6666	142.6
4XY	3.028	0.01387	0.02313	0.0613	3.5618	0.5514	2.378	-0.6361	142.7
4Y	2.996	0.01159	0.02482	0.0882	3.6825	-0.8393	2.346	0.6616	142.7
5X	2.873	-0.01839	-0.0563	-0.0916	3.5231	0.5705	3.523	-0.6684	140.1
5XY	2.873	0.01612	0.02265	0.1181	3.5330	0.5515	2.223	-0.6339	140.2
5Y	2.835	0.01599	0.02443	0.0371	3.6556	-0.8393	2.185	0.666	140.2
6X	2.72	-0.02228	-0.05546	-0.0498	3.4975	0.5705	3.37	-0.6723	137.6
6XY	2.72	0.0213	0.02207	0.0690	3.4937	0.5515	2.07	-0.6287	137.7
6Y	2.676	0.01784	0.02394	0.1018	3.6260	-0.8394	2.026	0.6678	137.7
7X	2.569	-0.024	-0.05422	-0.0950	3.4060	0.5705	3.219	-0.674	135.1
7XY	2.569	0.02342	0.02115	0.1077	3.4101	0.5515	1.919	-0.6266	135.2
7Y	2.52	0.0232	0.02318	0.0511	3.5476	-0.8394	1.87	0.6732	135.2
8X	2.452	-0.02798	-0.05303	-0.0873	3.2887	0.5705	3.102	-0.678	133.1
8XY	2.452	0.02801	0.02021	0.1055	3.2855	0.5515	1.802	-0.622	133.2
8Y	2.397	0.02519	0.02241	0.1569	3.4893	-0.8394	1.747	0.6752	133.2
12X	1.967	-0.01189	-0.07782	0.1211	3.1740	0.6507	3.107	-1.152	124.6
12XY	1.967	0.01325	0.04606	-0.1145	3.1743	0.6336	0.8274	-1.127	124.7
12Y	1.945	0.009933	0.04232	-0.0265	3.0019	-0.8701	0.805	1.15	124.7
13X	1.83	-0.006421	-0.07615	0.0738	3.1063	0.6936	2.97	-1.146	122.1
13XY	1.83	0.007776	0.04469	-0.0724	3.1103	0.6773	0.6901	-1.132	122.2
13Y	1.816	0.007502	0.04099	-0.1201	2.9113	-0.8882	0.6762	1.148	122.2
14X	1.696	-0.00459	-0.07379	0.1043	3.0035	0.7449	2.836	-1.145	119.6

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14XY	1.697	0.006243	0.04274	-0.0984	3.0023	0.7295	0.5567	-1.134	119.7
14Y	1.691	0.001172	0.03907	-0.0781	2.8138	-0.9099	0.5512	1.141	119.7
15X	1.568	0.001762	-0.0711	0.0717	2.8809	0.7962	2.708	-1.138	117.1
15XY	1.568	-2.679e-005	0.04046	-0.0705	2.8822	0.7817	0.4283	-1.14	117.2
15Y	1.571	-0.0003589	0.03681	-0.1083	2.6951	-0.9315	0.4309	1.14	117.2
16X	1.445	0.002673	-0.068	0.1086	2.7458	0.8474	2.585	-1.137	114.6
16XY	1.445	-0.0007919	0.03781	-0.1034	2.7434	0.8339	0.3055	-1.141	114.7
16Y	1.456	-0.007375	0.03416	-0.0762	2.5565	-0.9532	0.3163	1.133	114.7
17X	1.329	0.009794	-0.06452	0.0458	2.5682	0.8987	2.469	-1.13	112.1
17XY	1.329	-0.007822	0.03479	-0.0518	2.5754	0.8861	0.1893	-1.148	112.2
17Y	1.348	-0.00814	0.03113	-0.1221	2.3923	-0.9749	0.2082	1.132	112.2
18X	1.242	0.01009	-0.0614	0.1661	2.4556	0.9397	2.382	-1.13	110.1
18XY	1.242	-0.008262	0.03208	-0.1565	2.4484	0.9279	0.1018	-1.148	110.2
18Y	1.267	-0.01401	0.02839	-0.0451	2.2508	-0.9922	0.1272	1.126	110.2
21X	0.9501	0.007784	-0.07634	0.0664	1.5738	0.9224	3.402	-2.444	99.32
21XY	0.9508	-0.005657	0.04944	-0.0619	1.5687	0.9132	-1.501	-2.458	99.45
21Y	0.9691	-0.007018	0.0505	0.0720	1.5852	-0.9281	-1.483	2.445	99.45
22X	0.876	0.007127	-0.07338	-0.0639	1.4809	0.8974	3.328	-2.445	96.53
22XY	0.8764	-0.005294	0.04705	0.0557	1.4870	0.8888	-1.576	-2.457	96.65
22Y	0.8935	-0.006135	0.04808	-0.0260	1.5169	-0.9041	-1.559	2.446	96.65
23X	0.8075	0.004819	-0.0696	0.0049	1.4192	0.8685	3.259	-2.447	93.83
23XY	0.8078	-0.003133	0.04399	-0.0050	1.4182	0.8608	-1.644	-2.455	93.94
23Y	0.8235	-0.007127	0.04497	0.0281	1.4445	-0.8766	-1.628	2.445	93.94
24X	0.7427	0.006006	-0.0655	-0.0274	1.3301	0.8398	3.195	-2.446	91.13
24XY	0.7431	-0.004293	0.04063	0.0280	1.3279	0.8327	-1.709	-2.456	91.24
24Y	0.7576	-0.00486	0.04155	-0.0052	1.3554	-0.8490	-1.694	2.447	91.24
25X	0.6786	0.004309	-0.06316	-0.0066	1.2870	0.8300	3.131	-2.448	88.34
25XY	0.6791	-0.002616	0.0387	0.0044	1.2876	0.8232	-1.773	-2.455	88.44
25Y	0.6922	-0.005453	0.03957	0.0173	1.3143	-0.8397	-1.76	2.447	88.44
26X	0.617	0.004792	-0.06062	-0.0208	1.2343	0.8202	3.069	-2.447	85.54
26XY	0.6175	-0.003227	0.03659	0.0201	1.2336	0.8137	-1.835	-2.455	85.64
26Y	0.6293	-0.003814	0.03741	0.0002	1.2586	-0.8304	-1.823	2.448	85.64
27X	0.5576	0.003255	-0.05835	-0.0086	1.1919	0.8145	3.01	-2.449	82.74
27XY	0.5582	-0.001699	0.0347	0.0070	1.1919	0.8082	-1.894	-2.454	82.83
27Y	0.5688	-0.004382	0.03546	0.0120	1.2158	-0.8249	-1.883	2.448	82.84
28X	0.5006	0.003697	-0.0559	-0.0122	1.1438	0.8088	2.953	-2.448	79.94
28XY	0.5011	-0.00228	0.03264	0.0103	1.1441	0.8026	-1.951	-2.454	80.03
28Y	0.5106	-0.002909	0.03334	0.0072	1.1665	-0.8195	-1.941	2.449	80.03
29X	0.4469	0.002154	-0.05331	-0.0129	1.0899	0.8032	2.899	-2.45	77.2
29XY	0.4474	-0.0007688	0.03047	0.0119	1.0896	0.7972	-2.005	-2.453	77.28
29Y	0.4559	-0.003624	0.03108	0.0038	1.1101	-0.8141	-1.996	2.448	77.28
30X	0.3958	0.002714	-0.05053	0.0025	1.0477	0.7976	2.848	-2.449	74.45
30XY	0.3963	-0.001439	0.02812	-0.0052	1.0488	0.7917	-2.056	-2.453	74.53
30Y	0.4038	-0.002246	0.02865	0.0192	1.0681	-0.8087	-2.048	2.45	74.53
31X	0.3468	0.002027	-0.04762	-0.0066	1.0364	0.7921	2.799	-2.45	71.75
31XY	0.3472	-0.0008313	0.02565	0.0068	1.0351	0.7864	-2.105	-2.453	71.83
31Y	0.3539	-0.00224	0.02609	0.0049	1.0535	-0.8035	-2.098	2.45	71.83
33X	0.1934	-7.435e-005	-0.04011	-0.1381	0.5015	0.7232	3.416	-3.223	59.76
33XY	0.194	0.001118	0.02042	0.1338	0.5034	0.7183	-3.029	-3.222	59.82
33Y	0.1982	-0.002089	0.02064	-0.1271	0.5105	-0.7343	-3.025	3.221	59.82
34X	0.1494	-0.0002171	-0.03867	-0.0754	0.4638	0.6551	4.103	-3.954	53.76
34XY	0.1501	0.001273	0.02026	0.0739	0.4628	0.6507	-3.804	-3.953	53.82
34Y	0.1539	-0.001451	0.02048	-0.0692	0.4673	-0.6652	-3.8	3.952	53.82
35X	0.1136	-0.0001258	-0.03655	-0.0858	0.3621	0.5858	4.799	-4.685	47.76
35XY	0.1145	0.001175	0.01955	0.0837	0.3622	0.5819	-4.571	-4.684	47.82
35Y	0.118	-0.0007485	0.01978	-0.0804	0.3687	-0.5943	-4.567	4.684	47.82

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36X  0.0846  -0.0006753  -0.03369  -0.0659  0.3275  0.5121  5.501  -5.417  41.77
36XY 0.08561  0.001808  0.0182  0.0649  0.3271  0.5086  -5.331  -5.414  41.82
36Y  0.08819  -0.0008872  0.01852  -0.0610  0.3395  -0.5188  -5.328  5.415  41.82
37X  0.05805  -3.458e-005  -0.03092  -0.0649  0.2528  0.4409  6.205  -6.147  35.77
37XY 0.05923  0.001275  0.01712  0.0627  0.2537  0.4379  -6.088  -6.146  35.82
37Y  0.06072  8.049e-005  0.01749  -0.0635  0.2613  -0.4465  -6.087  6.147  35.82
38X  0.04038  -0.0009979  -0.02682  -0.0473  0.2088  0.3680  6.919  -6.88  29.77
38XY 0.04159  0.002207  0.01484  0.0452  0.2097  0.3656  -6.837  -6.876  29.81
38Y  0.04278  -0.001148  0.01509  -0.0492  0.2122  -0.3728  -6.836  6.877  29.82
39X  0.02233  0.0002619  -0.02287  -0.0485  0.1622  0.2932  7.632  -7.609  23.78
39XY 0.0238  0.001184  0.01289  0.0502  0.1605  0.2911  -7.586  -7.609  23.81
39Y  0.02474  -0.0003043  0.01306  -0.0529  0.1635  -0.2968  -7.585  7.609  23.81
40X  0.01194  -0.001794  -0.01751  -0.0387  0.1283  0.2181  8.353  -8.343  17.78
40XY 0.01311  0.003  0.009779  0.0183  0.1484  0.2166  -8.328  -8.338  17.81
40Y  0.01384  -0.002401  0.009878  -0.0213  0.1510  -0.2207  -8.327  8.338  17.81
41X  0.001004  0.0006457  -0.01273  0.0103  0.0528  0.1529  9.073  -9.071  11.79
41XY 0.002759  0.001092  0.007262  0.0615  -0.0198  0.1520  -9.069  -9.071  11.81
41Y  0.003199  -0.0006898  0.007334  -0.0639  -0.0164  -0.1544  -9.069  9.071  11.81
42X  0.002493  0.002524  -0.006307  -0.0329  -0.0021  0.0739  9.806  -9.801  5.794
42XY 0.01228  0.007243  0.0014  -0.0062  0.0371  0.0734  -9.791  -9.796  5.801
42Y  0.01242  -0.0071  0.001438  0.0036  0.0396  -0.0744  -9.791  9.796  5.801

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Joint Support Reactions for Load Case "LC1 WIND 0° C.D.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Usage %	X-Moment (kN-m)	X-M. Usage %	Y-Moment (kN-m)	Y-M. Usage %	Z-Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-240.12	0.0	-261.27	0.0	1684.58	0.0	0.0	1721.54	0.0	-2.90	0.0	-2.7	0.0	0.22	0.0	0.0
ANX	-232.83	0.0	264.62	0.0	1667.50	0.0	0.0	1704.34	0.0	2.80	0.0	-2.6	0.0	-0.23	0.0	0.0
ANXY	-138.10	0.0	-168.76	0.0	-993.31	0.0	0.0	1016.96	0.0	2.27	0.0	-7.7	0.0	-0.22	0.0	0.0
ANY	-143.82	0.0	165.42	0.0	-1002.61	0.0	0.0	1026.29	0.0	-2.20	0.0	-7.8	0.0	0.22	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC1 WIND 0° C.D.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	2.3236	0.0000	-4.3881	-2.3201	-0.0000	4.3880	3.5259	-0.0094	-0.0588
10P	7.7227	0.0000	-7.7049	-7.7204	-0.0000	7.7048	2.3028	-0.0294	-0.0539
11P	3.1114	0.0000	-4.3226	-3.1093	-0.0000	4.3225	2.0972	-0.0152	-0.0754
19P	3.8032	0.0000	-5.1735	-3.8020	0.0000	5.1735	1.2068	0.0135	-0.0550
20P	5.3534	0.0000	-7.4474	-5.3524	0.0000	7.4473	1.0470	0.0106	-0.0803
32P	6.0195	0.0000	-11.7621	-6.0193	0.0000	11.7620	0.2559	0.0004	-0.0414
ANP	1.9611	0.0000	-6.6053	238.1603	261.2740	-1677.9700	0.0000	0.0000	0.0000
1X	2.3236	0.0000	-4.3881	-2.3201	-0.0000	4.3880	3.5421	-0.0092	-0.0578
1XY	2.3236	0.0000	-4.3881	-2.3201	0.0000	4.3881	3.5423	0.0025	0.0235
1Y	1.1616	0.0000	-2.5941	-1.1581	0.0000	2.5941	3.5260	0.0023	0.0251
10X	7.7227	0.0000	-7.7049	-7.7203	-0.0000	7.7048	2.3624	-0.0287	-0.0518
10XY	3.6357	0.0000	-5.1309	-3.6333	0.0000	5.1309	2.3626	0.0291	0.0192
10Y	2.4737	0.0000	-3.3369	-2.4714	0.0000	3.3369	2.3030	0.0293	0.0216
11X	3.1114	0.0000	-4.3226	-3.1093	-0.0000	4.3225	2.1297	-0.0162	-0.0794
11XY	3.1114	0.0000	-4.3226	-3.1093	0.0000	4.3226	2.1299	0.0169	0.0473
11Y	3.1114	0.0000	-4.3226	-3.1093	0.0000	4.3226	2.0974	0.0157	0.0435

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19X	3.8032	0.0000	-5.1735	-3.8021	0.0000	5.1735	1.1763	0.0174	-0.0588
19XY	3.8032	0.0000	-5.1735	-3.8021	-0.0000	5.1736	1.1768	-0.0151	0.0298
19Y	3.8032	0.0000	-5.1735	-3.8020	-0.0000	5.1736	1.2073	-0.0122	0.0260
20X	5.3534	0.0000	-7.4474	-5.3524	0.0000	7.4473	1.0274	0.0065	-0.0791
20XY	4.7734	0.0000	-6.4334	-4.7724	-0.0000	6.4335	1.0274	-0.0048	0.0516
20Y	4.7734	0.0000	-6.4334	-4.7724	-0.0000	6.4335	1.0471	-0.0091	0.0527
32X	6.0195	0.0000	-11.7621	-6.0193	0.0000	11.7620	0.2509	0.0029	-0.0410
32XY	6.0195	0.0000	-11.7621	-6.0193	-0.0000	11.7621	0.2516	-0.0016	0.0200
32Y	6.0195	0.0000	-11.7621	-6.0193	-0.0000	11.7621	0.2567	-0.0005	0.0203
ANX	1.9611	0.0000	-6.6053	230.8688	-264.6150	-1660.8917	0.0000	0.0000	0.0000
ANXY	1.9611	0.0000	-6.6053	136.1433	168.7627	999.9110	0.0000	0.0000	0.0000
ANY	1.9611	0.0000	-6.6053	141.8567	-165.4207	1009.2147	0.0000	0.0000	0.0000
2S	2.3236	0.0000	-3.0881	-2.3203	-0.0000	3.0880	3.3177	-0.0121	-0.0587
3S	2.2374	0.0000	-2.5132	-2.2342	-0.0000	2.5132	3.1565	-0.0140	-0.0585
4S	2.2377	0.0000	-3.0131	-2.2347	-0.0000	3.0131	2.9951	-0.0156	-0.0581
5S	7.4810	0.0000	-6.9675	-7.4782	-0.0000	6.9675	2.8352	-0.0185	-0.0576
6S	6.4053	0.0000	-5.7484	-6.4026	-0.0000	5.7483	2.6763	-0.0198	-0.0569
7S	7.2666	0.0000	-6.8082	-7.2641	-0.0000	6.8081	2.5195	-0.0240	-0.0559
8S	6.1103	0.0000	-5.4278	-6.1079	-0.0000	5.4277	2.3968	-0.0256	-0.0549
12S	1.4991	0.0000	-2.0455	-1.4972	-0.0000	2.0454	1.9446	-0.0095	-0.0738
13S	2.8845	0.0000	-3.8050	-2.8827	-0.0000	3.8049	1.8160	-0.0066	-0.0722
14S	1.9654	0.0000	-2.7734	-1.9638	-0.0000	2.7734	1.6909	-0.0001	-0.0700
15S	3.3341	0.0000	-4.5329	-3.3325	0.0000	4.5328	1.5707	0.0017	-0.0673
16S	1.3687	0.0000	-1.7594	-1.3672	0.0000	1.7594	1.4560	0.0088	-0.0643
17S	2.9657	0.0000	-4.0927	-2.9643	0.0000	4.0926	1.3480	0.0096	-0.0608
18S	1.5970	0.0000	-2.3333	-1.5957	0.0000	2.3332	1.2671	0.0158	-0.0577
21S	1.9872	0.0000	-2.5791	-1.9862	0.0000	2.5791	0.9684	0.0079	-0.0775
22S	8.6253	0.0000	-7.3460	-8.6244	0.0000	7.3459	0.8931	0.0071	-0.0745
23S	6.6381	0.0000	-4.7668	-6.6373	0.0000	4.7667	0.8233	0.0081	-0.0707
24S	4.0486	0.0000	-5.7650	-4.0478	0.0000	5.7649	0.7571	0.0057	-0.0666
25S	2.0895	0.0000	-3.3382	-2.0888	0.0000	3.3381	0.6917	0.0061	-0.0642
26S	4.2501	0.0000	-7.0376	-4.2495	0.0000	7.0376	0.6289	0.0045	-0.0616
27S	2.1607	0.0000	-3.6994	-2.1601	0.0000	3.6994	0.5683	0.0049	-0.0592
28S	4.2512	0.0000	-7.3465	-4.2507	0.0000	7.3464	0.5102	0.0034	-0.0567
29S	2.3575	0.0000	-3.9721	-2.3571	0.0000	3.9720	0.4554	0.0040	-0.0541
30S	3.6879	0.0000	-6.5009	-3.6875	0.0000	6.5009	0.4034	0.0026	-0.0512
31S	4.3581	0.0000	-8.0486	-4.3577	0.0000	8.0485	0.3534	0.0025	-0.0482
33S	6.5398	0.0000	-13.1491	-6.5396	0.0000	13.1491	0.1976	0.0020	-0.0405
34S	6.8273	0.0000	-14.2259	-6.8271	0.0000	14.2259	0.1531	0.0010	-0.0391
35S	20.4692	0.0000	-22.3621	-20.4690	0.0000	22.3620	0.1172	0.0001	-0.0370
36S	19.1929	0.0000	-21.1538	-19.1928	-0.0000	21.1537	0.0873	-0.0000	-0.0342
37S	4.8604	0.0000	-12.3906	-4.8603	-0.0000	12.3906	0.0595	-0.0012	-0.0315
371S	4.8604	0.0000	-12.3906	-4.8603	-0.0000	12.3906	0.0588	-0.0006	-0.0321
372S	4.8604	0.0000	-12.3906	-4.8603	-0.0000	12.3906	0.0601	-0.0006	-0.0073
373S	4.8604	0.0000	-12.3906	-4.8603	0.0000	12.3906	0.0600	0.0007	0.0176
374S	4.8604	0.0000	-12.3906	-4.8604	0.0000	12.3906	0.0586	0.0006	-0.0072
38S	5.1331	0.0000	-13.6372	-5.1331	-0.0000	13.6372	0.0416	-0.0000	-0.0272
39S	5.1437	0.0000	-14.3328	-5.1436	-0.0000	14.3328	0.0232	-0.0012	-0.0232
391S	5.1437	0.0000	-14.3328	-5.1436	-0.0000	14.3328	0.0228	-0.0005	-0.0245
392S	5.1437	0.0000	-14.3328	-5.1436	-0.0000	14.3328	0.0239	-0.0007	-0.0055
393S	5.1437	0.0000	-14.3328	-5.1436	0.0000	14.3328	0.0243	0.0004	0.0135
394S	5.1437	0.0000	-14.3328	-5.1436	0.0000	14.3328	0.0230	0.0007	-0.0055
40S	10.9343	0.0000	-19.1817	-10.9342	0.0000	19.1817	0.0126	0.0011	-0.0177
41S	9.6029	0.0000	-17.0354	-9.6028	-0.0000	17.0354	0.0015	-0.0011	-0.0129
411S	4.4024	0.0000	-15.2757	-4.4024	-0.0000	15.2757	0.0012	-0.0002	-0.0067
412S	4.4024	0.0000	-15.2757	-4.4024	-0.0000	15.2757	0.0022	-0.0009	-0.0028

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	4.4024	0.0000	-15.2757	-4.4024	0.0000	15.2757	0.0030	0.0002	0.0012
414S	4.4024	0.0000	-15.2757	-4.4024	0.0000	15.2757	0.0018	0.0009	-0.0027
42S	3.2306	0.0000	-11.1093	-3.2306	-0.0000	11.1093	0.0027	-0.0027	-0.0064
2X	2.3236	0.0000	-3.0881	-2.3203	-0.0000	3.0880	3.3403	-0.0116	-0.0576
2XY	2.3236	0.0000	-3.0881	-2.3203	0.0000	3.0881	3.3412	0.0071	0.0235
2Y	1.1616	0.0000	-1.2941	-1.1583	0.0000	1.2941	3.3186	0.0057	0.0251
3X	2.2374	0.0000	-2.5132	-2.2342	-0.0000	2.5132	3.1840	-0.0139	-0.0574
3XY	2.2374	0.0000	-2.5132	-2.2342	0.0000	2.5132	3.1842	0.0096	0.0234
3Y	2.2374	0.0000	-2.5132	-2.2342	0.0000	2.5132	3.1566	0.0095	0.0250
4X	2.2377	0.0000	-3.0131	-2.2347	-0.0000	3.0131	3.0277	-0.0166	-0.0570
4XY	2.2377	0.0000	-3.0131	-2.2347	0.0000	3.0132	3.0284	0.0139	0.0231
4Y	1.0757	0.0000	-1.2191	-1.0727	0.0000	1.2192	2.9956	0.0116	0.0248
5X	8.6430	0.0000	-8.7615	-8.6402	-0.0000	8.7615	2.8733	-0.0184	-0.0563
5XY	3.3940	0.0000	-4.3935	-3.3912	0.0000	4.3935	2.8734	0.0161	0.0227
5Y	2.2320	0.0000	-2.5995	-2.2292	0.0000	2.5995	2.8354	0.0160	0.0244
6X	7.5673	0.0000	-7.5424	-7.5646	-0.0000	7.5423	2.7200	-0.0223	-0.0555
6XY	2.3183	0.0000	-3.1744	-2.3156	0.0000	3.1744	2.7200	0.0213	0.0221
6Y	1.1563	0.0000	-1.3804	-1.1536	0.0000	1.3804	2.6764	0.0178	0.0239
7X	7.2666	0.0000	-6.8082	-7.2641	-0.0000	6.8081	2.5690	-0.0240	-0.0542
7XY	2.0176	0.0000	-2.4402	-2.0151	0.0000	2.4402	2.5691	0.0234	0.0212
7Y	2.0176	0.0000	-2.4402	-2.0151	0.0000	2.4402	2.5196	0.0232	0.0232
8X	7.2723	0.0000	-7.2218	-7.2699	-0.0000	7.2217	2.4519	-0.0280	-0.0530
8XY	2.0233	0.0000	-2.8538	-2.0209	0.0000	2.8538	2.4519	0.0280	0.0202
8Y	0.8613	0.0000	-1.0598	-0.8589	0.0000	1.0598	2.3969	0.0252	0.0224
12X	1.4991	0.0000	-2.0455	-1.4971	-0.0000	2.0454	1.9670	-0.0119	-0.0778
12XY	1.4991	0.0000	-2.0455	-1.4971	0.0000	2.0456	1.9674	0.0133	0.0461
12Y	1.4991	0.0000	-2.0455	-1.4972	0.0000	2.0456	1.9450	0.0099	0.0423
13X	2.8845	0.0000	-3.8050	-2.8827	-0.0000	3.8049	1.8299	-0.0064	-0.0761
13XY	2.8845	0.0000	-3.8050	-2.8827	0.0000	3.8050	1.8301	0.0078	0.0447
13Y	2.8845	0.0000	-3.8050	-2.8827	0.0000	3.8050	1.8162	0.0075	0.0410
14X	1.9654	0.0000	-2.7734	-1.9637	-0.0000	2.7734	1.6965	-0.0046	-0.0738
14XY	1.3854	0.0000	-1.7594	-1.3837	0.0000	1.7595	1.6967	0.0062	0.0427
14Y	1.9654	0.0000	-2.7734	-1.9638	0.0000	2.7735	1.6912	0.0012	0.0391
15X	3.3341	0.0000	-4.5329	-3.3325	0.0000	4.5328	1.5681	0.0018	-0.0711
15XY	2.7541	0.0000	-3.5189	-2.7525	-0.0000	3.5189	1.5683	-0.0000	0.0405
15Y	3.3341	0.0000	-4.5329	-3.3325	-0.0000	4.5329	1.5709	-0.0004	0.0368
16X	1.3687	0.0000	-1.7594	-1.3672	0.0000	1.7594	1.4453	0.0027	-0.0680
16XY	1.3687	0.0000	-1.7594	-1.3672	-0.0000	1.7595	1.4455	-0.0008	0.0378
16Y	1.3687	0.0000	-1.7594	-1.3672	-0.0000	1.7595	1.4563	-0.0074	0.0342
17X	2.9657	0.0000	-4.0927	-2.9643	0.0000	4.0926	1.3291	0.0098	-0.0645
17XY	2.3857	0.0000	-3.0787	-2.3843	-0.0000	3.0787	1.3293	-0.0078	0.0348
17Y	2.9657	0.0000	-4.0927	-2.9643	-0.0000	4.0927	1.3482	-0.0081	0.0311
18X	1.5970	0.0000	-2.3333	-1.5958	0.0000	2.3332	1.2417	0.0101	-0.0614
18XY	1.0170	0.0000	-1.3193	-1.0158	-0.0000	1.3193	1.2418	-0.0083	0.0321
18Y	1.5970	0.0000	-2.3333	-1.5957	-0.0000	2.3333	1.2672	-0.0140	0.0284
21X	1.9872	0.0000	-2.5791	-1.9862	0.0000	2.5791	0.9501	0.0078	-0.0763
21XY	1.9872	0.0000	-2.5791	-1.9862	-0.0000	2.5792	0.9508	-0.0057	0.0494
21Y	1.9872	0.0000	-2.5791	-1.9862	-0.0000	2.5792	0.9691	-0.0070	0.0505
22X	3.9463	0.0000	-5.0060	-3.9454	0.0000	5.0059	0.8760	0.0071	-0.0734
22XY	6.2863	0.0000	-6.1760	-6.2854	-0.0000	6.1760	0.8764	-0.0053	0.0471
22Y	3.9463	0.0000	-5.0060	-3.9454	-0.0000	5.0060	0.8935	-0.0061	0.0481
23X	1.9591	0.0000	-2.4268	-1.9583	0.0000	2.4267	0.8075	0.0048	-0.0696
23XY	1.9591	0.0000	-2.4268	-1.9583	-0.0000	2.4269	0.8078	-0.0031	0.0440
23Y	1.9591	0.0000	-2.4268	-1.9583	-0.0000	2.4269	0.8235	-0.0071	0.0450
24X	4.0486	0.0000	-5.7650	-4.0478	0.0000	5.7649	0.7427	0.0060	-0.0655
24XY	4.0486	0.0000	-5.7650	-4.0478	-0.0000	5.7650	0.7431	-0.0043	0.0406

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	4.0486	0.0000	-5.7650	-4.0478	-0.0000	5.7650	0.7576	-0.0049	0.0415
25X	2.0895	0.0000	-3.3382	-2.0888	0.0000	3.3381	0.6786	0.0043	-0.0632
25XY	2.0895	0.0000	-3.3382	-2.0888	-0.0000	3.3382	0.6791	-0.0026	0.0387
25Y	2.0895	0.0000	-3.3382	-2.0888	-0.0000	3.3382	0.6922	-0.0055	0.0396
26X	4.2501	0.0000	-7.0376	-4.2495	0.0000	7.0376	0.6170	0.0048	-0.0606
26XY	4.2501	0.0000	-7.0376	-4.2495	-0.0000	7.0376	0.6175	-0.0032	0.0366
26Y	4.2501	0.0000	-7.0376	-4.2495	-0.0000	7.0376	0.6293	-0.0038	0.0374
27X	2.1607	0.0000	-3.6994	-2.1601	0.0000	3.6994	0.5576	0.0033	-0.0584
27XY	2.1607	0.0000	-3.6994	-2.1601	-0.0000	3.6995	0.5582	-0.0017	0.0347
27Y	2.1607	0.0000	-3.6994	-2.1601	-0.0000	3.6995	0.5688	-0.0044	0.0355
28X	4.2512	0.0000	-7.3465	-4.2507	0.0000	7.3464	0.5006	0.0037	-0.0559
28XY	4.2512	0.0000	-7.3465	-4.2507	-0.0000	7.3465	0.5011	-0.0023	0.0326
28Y	4.2512	0.0000	-7.3465	-4.2507	-0.0000	7.3465	0.5106	-0.0029	0.0333
29X	2.0905	0.0000	-3.6471	-2.0901	0.0000	3.6470	0.4469	0.0022	-0.0533
29XY	2.0905	0.0000	-3.6471	-2.0901	-0.0000	3.6471	0.4474	-0.0008	0.0305
29Y	2.0905	0.0000	-3.6471	-2.0901	-0.0000	3.6471	0.4559	-0.0036	0.0311
30X	3.6879	0.0000	-6.5009	-3.6875	0.0000	6.5009	0.3958	0.0027	-0.0505
30XY	3.6879	0.0000	-6.5009	-3.6875	-0.0000	6.5009	0.3963	-0.0014	0.0281
30Y	3.6879	0.0000	-6.5009	-3.6875	-0.0000	6.5009	0.4038	-0.0022	0.0287
31X	4.3581	0.0000	-8.0486	-4.3577	0.0000	8.0485	0.3468	0.0020	-0.0476
31XY	4.6251	0.0000	-8.3736	-4.6247	-0.0000	8.3736	0.3472	-0.0008	0.0257
31Y	4.6251	0.0000	-8.3736	-4.6247	-0.0000	8.3736	0.3539	-0.0022	0.0261
33X	6.5398	0.0000	-13.1491	-6.5396	-0.0000	13.1491	0.1934	-0.0001	-0.0401
33XY	6.5398	0.0000	-13.1491	-6.5396	0.0000	13.1491	0.1940	0.0011	0.0204
33Y	6.5398	0.0000	-13.1491	-6.5396	-0.0000	13.1491	0.1982	-0.0021	0.0206
34X	6.8273	0.0000	-14.2259	-6.8271	-0.0000	14.2259	0.1494	-0.0002	-0.0387
34XY	6.8273	0.0000	-14.2259	-6.8271	0.0000	14.2260	0.1501	0.0013	0.0203
34Y	6.8273	0.0000	-14.2259	-6.8271	-0.0000	14.2260	0.1539	-0.0015	0.0205
35X	7.2132	0.0000	-15.7191	-7.2130	-0.0000	15.7190	0.1136	-0.0001	-0.0366
35XY	7.2132	0.0000	-15.7191	-7.2130	0.0000	15.7191	0.1145	0.0012	0.0195
35Y	11.8072	0.0000	-17.1491	-11.8070	-0.0000	17.1491	0.1180	-0.0007	0.0198
36X	9.2509	0.0000	-17.5398	-9.2508	-0.0000	17.5397	0.0846	-0.0007	-0.0337
36XY	7.6189	0.0010	-15.2718	-7.6188	-0.0010	15.2718	0.0856	0.0018	0.0182
36Y	5.9369	0.0000	-14.5108	-5.9368	-0.0000	14.5108	0.0882	-0.0009	0.0185
37X	6.3334	0.0000	-14.7826	-6.3334	-0.0000	14.7826	0.0581	-0.0000	-0.0309
37XY	4.8604	0.0000	-12.3906	-4.8603	0.0000	12.3906	0.0592	0.0013	0.0171
37Y	4.8604	0.0000	-12.3906	-4.8603	0.0000	12.3906	0.0607	0.0001	0.0175
38X	5.1331	0.0000	-13.6372	-5.1331	-0.0000	13.6372	0.0404	-0.0010	-0.0268
38XY	5.1331	0.0000	-13.6372	-5.1331	0.0000	13.6373	0.0416	0.0022	0.0148
38Y	5.4001	0.0000	-13.9622	-5.4001	-0.0000	13.9623	0.0428	-0.0011	0.0151
39X	5.1437	0.0000	-14.3328	-5.1436	0.0000	14.3328	0.0223	0.0003	-0.0229
39XY	5.1437	0.0000	-14.3328	-5.1436	0.0000	14.3328	0.0238	0.0012	0.0129
39Y	6.6167	0.0000	-16.7248	-6.6166	-0.0000	16.7248	0.0247	-0.0003	0.0131
40X	11.6693	0.0000	-21.3787	-11.6692	-0.0000	21.3787	0.0119	-0.0018	-0.0175
40XY	5.0423	0.0000	-15.3207	-5.0422	0.0000	15.3207	0.0131	0.0030	0.0098
40Y	8.3563	0.0000	-18.3497	-8.3562	-0.0000	18.3497	0.0138	-0.0024	0.0099
41X	5.1839	0.0000	-15.5664	-5.1839	0.0000	15.5664	0.0010	0.0006	-0.0127
41XY	3.7109	0.0000	-13.1744	-3.7108	0.0000	13.1744	0.0028	0.0011	0.0073
41Y	3.7109	0.0000	-13.1744	-3.7108	-0.0000	13.1744	0.0032	-0.0007	0.0073
42X	3.2306	0.0000	-11.1093	-3.2306	0.0000	11.1093	0.0025	0.0025	-0.0063
42XY	3.2306	0.0000	-11.1093	-3.2306	0.0000	11.1093	0.0123	0.0072	0.0014
42Y	3.2306	0.0000	-11.1093	-3.2306	-0.0000	11.1093	0.0124	-0.0071	0.0014

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.02	-0.00	0.06	-1.71	61.27	-0.53
1X	-0.01	-0.00	0.06	3.04	68.03	0.95
1XY	-0.01	0.00	0.06	50.83	-54.10	15.83
1Y	0.01	0.00	0.06	-51.27	-43.24	-15.97
2P	0.03	1.71	-61.20	-25.84	-57.42	-9.65
2X	-0.02	-3.04	-67.96	29.59	-58.63	10.62
2XY	-0.02	-50.83	54.16	-99.26	97.14	-60.04
2Y	0.03	51.27	43.30	97.05	76.40	59.33
3P	0.05	25.84	57.49	78.89	119.89	41.89
3X	-0.03	-29.59	58.69	-71.52	136.31	-40.44
3XY	-0.03	99.27	-97.08	140.14	4.64	95.76
3Y	0.04	-97.05	-76.33	-146.08	2.43	-97.25
4P	0.06	-78.90	-119.82	-149.81	16.05	-91.48
4X	-0.04	71.52	-136.25	158.05	26.57	91.83
4XY	-0.04	-140.14	-4.57	-233.13	107.87	-149.31
4Y	0.06	146.08	-2.36	229.54	102.72	150.25
5P	0.08	149.81	-15.98	434.72	191.89	233.81
5X	-0.05	-158.05	-26.50	-353.04	228.21	-204.44
5XY	-0.05	233.13	-107.81	462.61	283.20	278.29
5Y	0.07	-229.54	-102.65	-531.24	191.59	-304.31
6P	0.09	-434.72	-191.83	-669.84	642.72	-441.82
6X	-0.06	353.04	-228.15	564.06	679.81	366.84
6XY	-0.06	-462.60	-283.14	-643.28	546.30	-442.36
6Y	0.09	531.24	-191.53	767.67	587.50	519.57
7P	0.11	669.84	-642.66	1676.01	311.25	1172.93
7X	-0.07	-564.06	-679.75	-632.03	1438.00	-598.04
7XY	-0.07	643.29	-546.24	662.46	1704.62	652.87
7Y	0.10	-767.67	-587.44	-1699.31	464.63	-1233.49
8P	0.12	-1676.01	-311.19	-3617.58	3610.13	-3371.72
8X	-0.08	632.03	-1437.95	-744.49	-1524.11	-71.63
8XY	-0.08	-662.46	-1704.57	846.36	-1674.81	117.13
8Y	0.12	1699.31	-464.56	3613.86	3519.52	3384.18
9P	1.03	-5110.72	-5.21	-2611.30	-598.17	-1883.88
9X	-93.29	1604.18	543.36	1368.64	1010.00	725.26
9XY	-99.13	-1782.78	577.40	-1549.92	1003.94	-813.05
9Y	11.41	5044.02	-65.76	2482.64	-589.83	1836.22
10P	102.16	-2263.22	1429.76	-76.51	1455.53	-809.59
10X	-262.71	-275.03	-1660.46	-597.28	677.55	-301.84
10XY	-267.43	408.14	-1783.72	751.23	430.66	401.16
10Y	110.98	2165.19	1345.83	-56.72	1190.31	729.58
11P	102.17	76.51	-1455.48	-890.56	563.17	-325.62
11X	-262.72	597.28	-677.50	1073.64	796.66	668.37
11XY	-267.44	-751.23	-430.60	-1174.57	961.77	-770.32
11Y	110.99	56.72	-1190.26	997.58	782.49	421.72
12P	102.19	890.56	-563.12	1305.19	1112.62	878.30
12X	-262.73	-1073.64	-796.60	-1335.18	1061.38	-963.53
12XY	-267.46	1174.56	-961.71	1397.36	991.56	1028.77
12Y	111.01	-997.58	-782.44	-1357.76	979.89	-942.13
13P	102.21	-1305.19	-1112.58	-1588.23	1093.16	-1157.37
13X	-262.74	1335.18	-1061.33	1614.62	1154.50	1179.92
13XY	-267.47	-1397.36	-991.51	-1636.14	1177.38	-1213.40
13Y	111.03	1357.76	-979.84	1617.20	1165.93	1189.98
14P	102.22	1588.23	-1093.11	1913.31	1331.53	1400.62

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X	-262.76	-1614.62	-1154.45	-1931.55	1287.59	-1418.47	53.25
14XY	-267.48	1636.14	-1177.33	1917.77	1332.00	1421.56	61.87
14Y	111.04	-1617.20	-1165.89	-1892.71	1338.20	-1403.96	68.92
15P	102.24	-1913.31	-1331.48	-2388.29	1803.95	-1720.64	188.99
15X	-262.77	1931.56	-1287.54	2470.24	1921.18	1760.72	253.46
15XY	-267.50	-1917.77	-1331.95	-2360.10	1703.15	-1711.15	148.48
15Y	111.06	1892.70	-1338.15	2286.06	1629.98	1671.51	116.73
16P	102.26	2388.29	-1803.91	3390.50	1086.14	2889.39	-358.88
16X	-262.79	-2470.24	-1921.14	-3760.08	622.15	-3115.16	-649.50
16XY	-267.51	2360.10	-1703.10	3482.75	1166.32	2921.43	-268.39
16Y	111.08	-2286.06	-1629.94	-3111.48	1566.77	-2698.77	-31.58
17P	102.28	-3390.50	-1086.10	-1924.35	3885.06	-3363.82	1771.49
17X	-262.80	3760.08	-622.10	3583.13	5985.95	4647.61	3394.84
17XY	-267.53	-3482.76	-1166.28	-3353.54	5766.70	-4326.77	2911.66
17Y	111.09	3111.48	-1566.73	1719.40	3691.55	3057.52	1344.82
18P	-286.66	-4107.84	1360.30	-2399.43	-496.59	-973.74	129.24
18X	219.24	-6766.33	-1705.19	-3974.60	266.19	-1607.26	-215.33
18XY	216.74	6448.96	-1713.53	3708.65	270.38	1519.97	-215.95
18Y	-280.44	3826.10	1370.52	2149.85	-499.28	894.24	130.37
19P	-137.50	-2090.27	1303.07	-736.29	1176.77	-1009.49	885.66
19X	136.70	3034.33	2586.63	979.88	1475.27	1433.65	1450.68
19XY	133.13	-2848.63	2396.21	-810.94	1194.26	-1306.99	1282.31
19Y	-130.77	1914.39	1125.98	571.49	865.62	887.81	711.28
20P	-137.48	736.29	-1176.74	-253.53	407.01	172.42	-274.90
20X	136.68	-979.88	-1475.24	189.86	330.44	-282.15	-408.86
20XY	133.11	810.94	-1194.23	-244.96	394.55	202.13	-285.60
20Y	-130.75	-571.48	-865.59	308.50	462.61	-93.92	-143.92
21P	-137.46	253.53	-406.99	747.07	612.57	370.59	76.14
21X	136.67	-189.86	-330.42	-735.83	702.50	-342.85	137.81
21XY	133.10	244.97	-394.53	726.51	756.94	359.81	134.23
21Y	-130.74	-308.50	-462.58	-737.98	748.60	-387.59	105.93
22P	-137.45	-747.07	-612.54	-1006.79	877.55	-649.58	98.15
22X	136.65	735.83	-702.47	992.13	787.65	639.99	31.55
22XY	133.08	-726.51	-756.91	-988.25	753.90	-635.10	-1.12
22Y	-130.72	737.98	-748.58	1002.19	743.28	644.51	-1.96
23P	-137.43	1006.79	-877.53	1464.60	1346.17	882.64	167.37
23X	136.64	-992.13	-787.63	-1477.45	1347.34	-881.99	199.90
23XY	133.07	988.25	-753.88	1540.88	1236.53	903.26	172.38
23Y	-130.71	-1002.19	-743.26	-1528.30	1287.75	-903.75	194.46
24P	-137.42	-1464.60	-1346.15	-1829.11	1312.77	-1176.32	-11.92
24X	136.62	1477.45	-1347.32	1808.41	1256.93	1173.52	-32.28
24XY	133.05	-1540.88	-1236.51	-1908.30	1435.09	-1231.85	70.92
24Y	-130.69	1528.30	-1287.73	1928.47	1465.53	1234.56	63.50
25P	-137.40	1829.11	-1312.74	2279.72	2326.71	1467.44	362.13
25X	136.61	-1808.41	-1256.90	-2311.49	2271.21	-1471.39	362.25
25XY	133.04	1908.30	-1435.07	2449.76	2029.67	1556.45	212.36
25Y	-130.68	-1928.47	-1465.51	-2418.57	2099.57	-1552.51	226.45
26P	-137.39	-2279.72	-2326.69	-2494.75	1811.04	-1705.17	-184.16
26X	136.59	2311.49	-2271.19	2461.32	1731.26	1704.58	-192.83
26XY	133.02	-2449.76	-2029.65	-2585.69	1945.88	-1798.37	-29.92
26Y	-130.66	2418.57	-2099.55	2618.51	1999.84	1798.96	-35.61
27P	-137.38	2494.75	-1811.02	2387.79	2893.56	1775.47	393.65
27X	136.58	-2461.32	-1731.24	-2431.69	2827.47	-1779.28	398.63
27XY	133.01	2585.69	-1945.86	2518.17	2674.96	1855.95	265.13
27Y	-130.65	-2618.51	-1999.82	-2474.93	2777.75	-1852.16	282.89
28P	-137.36	-2387.79	-2893.54	-1812.48	769.28	-1527.37	-772.46

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X 136.56 2431.69 -2827.45 1784.94 743.13 1533.32 -757.93
28XY 132.99 -2518.17 -2674.94 -1799.49 774.17 -1570.06 -691.19
28Y -130.64 2474.93 -2777.73 1825.53 776.67 1563.81 -727.66
29P -137.35 1812.48 -769.26 1324.38 298.66 1161.80 -174.30
29X 136.55 -1784.94 -743.11 -1396.46 232.49 -1178.30 -189.12
29XY 132.98 1799.49 -774.15 1285.79 409.97 1142.70 -134.88
29Y -130.62 -1825.53 -776.65 -1212.12 479.68 -1125.06 -109.99
30P -137.33 -1324.38 -298.64 -1827.51 8120.25 -555.40 1378.26
30X 136.54 1396.46 -232.47 1843.03 7982.82 570.84 1365.70
30XY 132.97 -1285.79 -409.95 -1707.29 7828.66 -527.41 1307.26
30Y -130.61 1212.12 -479.66 1683.63 7970.35 510.26 1319.95
31P -891.02 -7034.12 4361.66 -1265.93 -1046.52 -1293.20 516.52
31X 871.86 -6947.91 -4255.22 -1290.12 1082.33 -1283.53 -494.35
31XY 866.14 6742.92 -4243.00 1174.28 1084.47 1233.55 -492.12
31Y -883.67 6826.39 4358.62 1147.82 -1053.26 1242.43 514.99
32P -891.00 1265.93 1046.51 994.24 -1206.16 371.22 -26.22
32X 871.85 1290.12 -1082.33 953.89 1153.16 368.57 11.63
32XY 866.12 -1174.29 -1084.46 -914.22 1155.01 -343.03 11.59
32Y -883.65 -1147.82 1053.25 -950.48 -1190.82 -344.64 -22.59
33P -890.99 -994.24 1206.16 521.45 -676.14 -77.65 87.05
33X 871.84 -953.88 -1153.15 550.89 829.31 -66.19 -53.19
33XY 866.11 914.22 -1155.01 -567.29 816.24 56.98 -55.64
33Y -883.64 950.48 1190.81 -522.63 -677.30 70.27 84.34
34P -890.98 -521.44 676.14 -418.34 -81.49 -154.36 97.67
34X 871.83 -550.89 -829.31 -353.44 144.46 -148.53 -112.48
34XY 866.10 567.29 -816.24 348.16 143.93 150.36 -110.42
34Y -883.63 522.63 677.30 390.79 -130.95 150.02 89.74
35P -890.97 418.35 81.49 1539.02 -1448.38 321.49 -224.50
35X 871.82 353.44 -144.46 1342.90 1409.16 278.62 207.72
35XY 866.09 -348.16 -143.92 -1303.15 1412.13 -271.22 208.30
35Y -883.62 -390.79 130.94 -1473.87 -1415.91 -306.26 -211.05
36P -890.96 -1539.02 1448.37 -1062.23 215.19 -427.24 273.23
36X 871.81 -1342.89 -1409.16 -988.80 -239.94 -382.97 -270.86
36XY 866.08 1303.15 -1412.12 947.10 -241.03 369.59 -271.52
36Y -883.61 1473.87 1415.90 1007.09 206.23 407.49 266.43
37P -890.95 1062.23 -215.20 1676.03 -920.60 449.75 -186.55
37X 871.80 988.81 239.94 1630.37 960.70 430.19 197.20
37XY 866.07 -947.10 241.03 -1674.98 935.12 -430.67 193.18
37Y -883.60 -1007.09 -206.23 -1711.29 -913.30 -446.48 -183.88
38P -890.95 -1676.03 920.60 -1325.65 228.48 -493.01 188.73
38X 871.80 -1630.37 -960.70 -1306.68 -280.36 -482.40 -203.84
38XY 866.07 1674.98 -935.12 1940.93 -246.97 593.90 -194.15
38Y -883.60 1711.29 913.29 1969.12 234.35 604.49 188.50
39P -890.94 1325.65 -228.48 1666.42 -3103.64 491.43 -547.29
39X 871.79 1306.69 280.36 1662.23 3175.12 487.63 567.55
39XY 866.06 -1940.93 246.97 -4777.71 3157.69 -1103.51 559.20
39Y -883.59 -1969.12 -234.35 -4788.61 -3131.30 -1109.93 -552.79
40P -890.94 -1666.42 3103.64 -344.67 3345.33 -330.31 1059.21
40X 871.79 -1662.23 -3175.12 -345.27 -3378.36 -329.72 -1076.38
40XY 866.06 4777.71 -3157.69 6449.46 -3381.57 1844.01 -1074.05
40Y -883.59 4788.62 3131.30 6446.37 3345.64 1845.30 1063.81
41P -890.94 344.67 -3345.33 -143.64 -3865.33 34.16 -1225.16
41X 871.79 345.27 3378.36 -140.77 3731.27 34.75 1207.99
41XY 866.06 -6449.46 3381.57 -7051.18 3741.79 -2293.88 1210.32
41Y -883.59 -6446.37 -3345.64 -7046.72 -3837.97 -2292.60 -1220.56

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 2 "LC2 WIND 45° C.D."

Equilibrium Joint Positions and Rotations for Load Case "LC2 WIND 45° C.D.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	2.603	2.586	-0.07424	-2.3591	2.4117	0.3093	3.253	3.236	150.8
10P	1.816	1.812	-0.06642	-2.4481	2.3669	0.3094	2.466	2.462	131.6
11P	1.617	1.615	-0.1115	-2.7383	2.6803	0.2678	2.757	2.755	127.5
19P	0.8587	0.8586	-0.08115	-1.7363	1.8653	-0.1583	1.999	1.999	108.5
20P	0.7579	0.7591	-0.1105	-0.9345	1.0518	-0.2117	3.21	3.211	102.1
32P	0.1887	0.1889	-0.05567	-0.5528	0.6128	-0.1695	2.641	2.641	66.07
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	2.651	2.586	-0.02108	-2.3456	3.0446	1.3892	3.301	1.936	150.9
1XY	2.651	2.614	0.0473	-2.9402	3.0018	0.7229	2.001	1.964	151
1Y	2.603	2.613	-0.01981	-2.9899	2.3996	-0.3095	1.953	3.263	150.9
10X	1.652	1.812	-0.02049	-2.4443	2.5416	1.3896	2.302	1.162	131.6
10XY	1.652	1.635	0.04168	-2.3523	2.5903	0.7231	1.002	0.9853	131.7
10Y	1.817	1.635	-0.0197	-2.3384	2.3100	-0.3096	1.167	2.285	131.6
11X	1.527	1.614	-0.01165	-2.8857	1.9972	1.3757	2.667	0.4739	127.6
11XY	1.528	1.511	0.06982	-1.7138	1.8967	0.6860	0.3876	0.3715	127.7
11Y	1.616	1.511	-0.01061	-1.8689	2.7657	-0.3769	0.4764	2.651	127.6
19X	0.9159	0.8616	-0.01088	-1.5483	1.3410	1.3260	2.056	-0.2784	108.6
19XY	0.914	0.9081	0.04443	-1.4599	1.5653	0.3401	-0.226	-0.2319	108.7
19Y	0.8616	0.9101	-0.01041	-1.2984	1.6059	-1.1162	-0.2784	2.05	108.6
20X	0.7869	0.756	-0.0152	-1.1066	1.2576	1.2115	3.239	-1.696	102.2
20XY	0.79	0.7838	0.08531	-1.0950	1.1948	0.2772	-1.662	-1.668	102.3
20Y	0.7549	0.7806	-0.01472	-1.2758	1.0937	-1.1219	-1.697	3.233	102.2
32X	0.1888	0.191	-0.01108	-0.5863	0.6444	1.0073	2.641	-2.261	66.11
32XY	0.1883	0.1871	0.03559	-0.5659	0.6402	0.2085	-2.264	-2.265	66.16
32Y	0.1908	0.1877	-0.01092	-0.5998	0.6131	-0.9560	-2.261	2.64	66.11
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	2.468	2.454	-0.07408	-2.3508	2.4029	0.3093	3.118	3.104	147.6
3S	2.363	2.351	-0.07382	-2.3355	2.3859	0.3093	3.013	3.001	145.1
4S	2.259	2.249	-0.07326	-2.3404	2.3896	0.3093	2.909	2.899	142.6
5S	2.156	2.148	-0.07239	-2.2928	2.3300	0.3094	2.806	2.798	140.1
6S	2.054	2.048	-0.07131	-2.3050	2.3330	0.3094	2.704	2.698	137.6
7S	1.953	1.948	-0.0697	-2.2467	2.2546	0.3094	2.603	2.598	135.1
8S	1.877	1.872	-0.06809	-2.0994	2.1412	0.3094	2.527	2.522	133.1
12S	1.488	1.487	-0.1092	-2.4861	2.5143	0.2108	2.628	2.627	124.6
13S	1.379	1.377	-0.1068	-2.4478	2.4555	0.1615	2.519	2.517	122.1
14S	1.275	1.274	-0.1034	-2.3791	2.3876	0.1026	2.415	2.414	119.6
15S	1.171	1.171	-0.09941	-2.2647	2.2733	0.0438	2.311	2.311	117.1
16S	1.076	1.076	-0.09484	-2.1893	2.1894	-0.0151	2.216	2.216	114.6
17S	0.9814	0.9811	-0.08969	-1.9973	2.0147	-0.0740	2.121	2.121	112.1
18S	0.9139	0.9139	-0.08505	-2.0298	1.9912	-0.1211	2.054	2.054	110.1
21S	0.7003	0.7015	-0.1065	-1.2203	1.1888	-0.2054	3.152	3.153	99.29
22S	0.6463	0.6474	-0.1023	-1.0372	1.0481	-0.1990	3.098	3.099	96.5
23S	0.5975	0.5987	-0.09685	-1.0508	1.0472	-0.1917	3.049	3.051	93.8
24S	0.5489	0.55	-0.09098	-0.9609	0.9628	-0.1844	3.001	3.002	91.11
25S	0.5028	0.504	-0.08762	-0.9450	0.9428	-0.1820	2.955	2.956	88.31

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.4571	0.4582	-0.08398	-0.8957	0.8968	-0.1795	2.909	2.91	85.52
27S	0.4144	0.4155	-0.08071	-0.8739	0.8719	-0.1781	2.866	2.867	82.72
28S	0.3721	0.373	-0.07718	-0.8358	0.8343	-0.1766	2.824	2.825	79.92
29S	0.3336	0.3345	-0.07344	-0.7959	0.7943	-0.1752	2.786	2.787	77.18
30S	0.2956	0.2963	-0.06943	-0.7746	0.7736	-0.1738	2.748	2.748	74.43
31S	0.2599	0.2605	-0.06522	-0.7706	0.7561	-0.1724	2.712	2.713	71.73
33S	0.1475	0.1477	-0.05479	-0.2664	0.2997	-0.1558	3.37	3.37	59.75
34S	0.1142	0.1145	-0.05311	-0.2751	0.3103	-0.1395	4.068	4.068	53.75
35S	0.08704	0.08729	-0.05043	-0.1975	0.2280	-0.1241	4.772	4.772	47.75
36S	0.06486	0.0652	-0.04671	-0.1935	0.2208	-0.1084	5.481	5.481	41.75
37S	0.04341	0.04378	-0.04315	-0.1351	0.1574	-0.0930	6.191	6.191	35.76
371S	0.04353	0.04432	-0.02575	0.0000	0.0000	0.0000	6.191	0.04432	35.77
372S	0.04395	0.04349	-0.02567	0.0000	0.0000	0.0000	0.04395	6.191	35.77
373S	0.0447	0.04373	0.01128	0.0000	0.0000	0.0000	-6.103	0.04373	35.81
374S	0.04418	0.04467	0.01122	0.0000	0.0000	0.0000	0.04418	-6.103	35.81
38S	0.03096	0.03127	-0.03736	-0.1106	0.1289	-0.0774	6.91	6.91	29.76
39S	0.01657	0.01684	-0.03188	-0.0773	0.0922	-0.0618	7.626	7.627	23.77
391S	0.0167	0.01751	-0.01965	0.0000	0.0000	0.0000	7.626	0.01751	23.78
392S	0.01724	0.01671	-0.01961	0.0000	0.0000	0.0000	0.01724	7.626	23.78
393S	0.01816	0.01722	0.008669	0.0000	0.0000	0.0000	-7.592	0.01722	23.81
394S	0.01748	0.01817	0.008605	0.0000	0.0000	0.0000	0.01748	-7.592	23.81
40S	0.01038	0.01065	-0.02435	-0.0647	0.0757	-0.0462	8.351	8.352	17.78
41S	0.0006056	0.0008122	-0.01773	-0.0281	0.0346	-0.0308	9.073	9.073	11.78
411S	0.0006248	0.001565	-0.005694	0.0000	0.0000	0.0000	9.073	0.001565	11.79
412S	0.001358	0.0006623	-0.005669	0.0000	0.0000	0.0000	0.001358	9.073	11.79
413S	0.002365	0.001354	0.0001747	0.0000	0.0000	0.0000	-9.07	0.001354	11.8
414S	0.001484	0.002404	0.0001638	0.0000	0.0000	0.0000	0.001484	-9.07	11.8
42S	0.002106	0.002181	-0.008301	0.0183	-0.0158	-0.0152	9.805	9.805	5.792
2X	2.481	2.454	-0.02102	-2.3508	3.0102	1.3892	3.131	1.804	147.7
2XY	2.482	2.448	0.04728	-2.9774	3.0336	0.7229	1.832	1.798	147.7
2Y	2.468	2.447	-0.01977	-2.9500	2.4024	-0.3095	1.818	3.097	147.7
3X	2.35	2.351	-0.02097	-2.3601	3.0270	1.3893	3	1.701	145.2
3XY	2.35	2.318	0.04711	-2.9501	3.0093	0.7229	1.7	1.668	145.2
3Y	2.364	2.318	-0.01975	-2.9707	2.4091	-0.3095	1.714	2.968	145.2
4X	2.218	2.249	-0.02088	-2.3221	2.9968	1.3893	2.868	1.599	142.7
4XY	2.219	2.19	0.04672	-2.9595	3.0114	0.7229	1.569	1.54	142.7
4Y	2.259	2.188	-0.01969	-2.9389	2.3722	-0.3095	1.609	2.838	142.7
5X	2.088	2.148	-0.02077	-2.3414	3.0007	1.3894	2.738	1.498	140.2
5XY	2.088	2.061	0.04606	-2.8851	2.9596	0.7230	1.438	1.411	140.2
5Y	2.156	2.061	-0.01963	-2.9490	2.3792	-0.3095	1.506	2.711	140.2
6X	1.957	2.046	-0.02065	-2.2821	2.9596	1.3895	2.607	1.396	137.7
6XY	1.959	1.935	0.04525	-2.9168	2.9757	0.7230	1.309	1.285	137.7
6Y	2.053	1.933	-0.01958	-2.8916	2.3126	-0.3095	1.403	2.583	137.7
7X	1.83	1.948	-0.02054	-2.2944	2.9057	1.3895	2.48	1.298	135.2
7XY	1.83	1.809	0.04405	-2.7840	2.8763	0.7230	1.18	1.159	135.2
7Y	1.953	1.809	-0.01957	-2.8253	2.2913	-0.3095	1.303	2.459	135.2
8X	1.728	1.87	-0.02048	-2.0551	2.8941	1.3896	2.378	1.22	133.2
8XY	1.73	1.712	0.04285	-2.9081	2.9139	0.7231	1.08	1.062	133.2
8Y	1.875	1.709	-0.01959	-2.8708	2.1157	-0.3095	1.225	2.359	133.2
12X	1.421	1.485	-0.01154	-2.4208	2.0685	1.3691	2.561	0.345	124.7
12XY	1.424	1.409	0.06802	-2.1181	2.1169	0.6398	0.2836	0.2694	124.8
12Y	1.487	1.407	-0.01057	-2.0528	2.4676	-0.4757	0.3469	2.547	124.7
13X	1.334	1.378	-0.01146	-2.4898	2.0080	1.3633	2.474	0.2376	122.2
13XY	1.334	1.321	0.06609	-1.9344	1.9815	0.5997	0.1939	0.1811	122.3
13Y	1.379	1.321	-0.01056	-1.9685	2.4893	-0.5613	0.2389	2.461	122.2
14X	1.246	1.271	-0.01136	-2.3613	1.9326	1.3564	2.386	0.1305	119.7

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	1.249	1.238	0.06329	-1.9154	1.9441	0.5519	0.1095	0.09835	119.8
14Y	1.272	1.235	-0.01053	-1.9007	2.3734	-0.6634	0.1316	2.375	119.7
15X	1.165	1.171	-0.01125	-2.2965	1.8652	1.3496	2.305	0.03063	117.2
15XY	1.165	1.155	0.06001	-1.8073	1.8404	0.5041	0.02519	0.01527	117.3
15Y	1.171	1.155	-0.01051	-1.8351	2.3014	-0.7656	0.03118	2.295	117.2
16X	1.084	1.071	-0.01114	-2.1643	1.7510	1.3427	2.224	-0.0689	114.7
16XY	1.088	1.08	0.05617	-1.7408	1.7665	0.4563	-0.05157	-0.05997	114.8
16Y	1.072	1.075	-0.01048	-1.7213	2.1690	-0.8677	-0.06837	2.215	114.7
17X	1.012	0.9813	-0.01104	-2.0627	1.6634	1.3358	2.152	-0.1587	112.2
17XY	1.012	1.005	0.05178	-1.5886	1.6240	0.4085	-0.128	-0.1354	112.3
17Y	0.9814	1.004	-0.01045	-1.6385	2.0680	-0.9699	-0.1586	2.144	112.2
18X	0.9543	0.9097	-0.01095	-1.9325	1.5123	1.3303	2.094	-0.2303	110.2
18XY	0.9582	0.9519	0.04781	-1.5711	1.5686	0.3703	-0.1818	-0.1881	110.2
18Y	0.91	0.9476	-0.01042	-1.4908	1.9209	-1.0516	-0.23	2.088	110.2
21X	0.7284	0.7016	-0.0149	-1.1105	1.1659	1.1809	3.18	-1.75	99.39
21XY	0.7296	0.7238	0.08191	-1.2452	1.2299	0.2669	-1.722	-1.728	99.48
21Y	0.7004	0.7227	-0.01446	-1.1478	1.1155	-1.0970	-1.752	3.175	99.39
22X	0.6713	0.6475	-0.01458	-1.1112	1.1747	1.1503	3.123	-1.804	96.59
22XY	0.6721	0.6667	0.0782	-1.1099	1.1274	0.2566	-1.78	-1.785	96.68
22Y	0.6463	0.666	-0.01417	-1.1689	1.1094	-1.0722	-1.806	3.118	96.59
23X	0.6172	0.5963	-0.01415	-1.0227	1.0862	1.1150	3.069	-1.856	93.89
23XY	0.6201	0.6153	0.07342	-1.1003	1.1060	0.2448	-1.832	-1.837	93.97
23Y	0.5952	0.6122	-0.01378	-1.0758	1.0239	-1.0435	-1.857	3.064	93.89
24X	0.5683	0.5504	-0.01369	-0.9813	1.0386	1.0798	3.02	-1.902	91.19
24XY	0.5689	0.5643	0.06815	-1.0076	1.0182	0.2329	-1.883	-1.888	91.27
24Y	0.5492	0.5638	-0.01337	-1.0330	0.9783	-1.0149	-1.903	3.016	91.19
25X	0.518	0.5028	-0.01343	-0.9370	0.9925	1.0678	2.97	-1.949	88.39
25XY	0.5201	0.516	0.06512	-0.9932	0.9996	0.2289	-1.932	-1.936	88.47
25Y	0.5018	0.5138	-0.01313	-0.9833	0.9373	-1.0051	-1.95	2.966	88.39
26X	0.471	0.4586	-0.01315	-0.9089	0.9599	1.0559	2.923	-1.993	85.59
26XY	0.4717	0.4679	0.0618	-0.9395	0.9495	0.2249	-1.98	-1.984	85.66
26Y	0.4574	0.4673	-0.01287	-0.9545	0.9057	-0.9954	-1.995	2.919	85.59
27X	0.4245	0.4144	-0.0129	-0.8703	0.9207	1.0489	2.876	-2.038	82.79
27XY	0.4264	0.4231	0.05882	-0.9166	0.9232	0.2225	-2.026	-2.029	82.86
27Y	0.4135	0.421	-0.01264	-0.9128	0.8695	-0.9898	-2.039	2.873	82.79
28X	0.381	0.3734	-0.01264	-0.8390	0.8857	1.0419	2.833	-2.079	79.99
28XY	0.3816	0.3786	0.05557	-0.8762	0.8835	0.2202	-2.07	-2.073	80.06
28Y	0.3724	0.378	-0.0124	-0.8784	0.8373	-0.9841	-2.08	2.83	79.99
29X	0.3388	0.3333	-0.01236	-0.8012	0.8446	1.0350	2.791	-2.119	77.24
29XY	0.3408	0.3383	0.05213	-0.8326	0.8396	0.2179	-2.111	-2.114	77.3
29Y	0.3325	0.336	-0.01214	-0.8387	0.7987	-0.9785	-2.12	2.788	77.24
30X	0.2999	0.2966	-0.01207	-0.7586	0.8017	1.0282	2.752	-2.155	74.49
30XY	0.3007	0.2984	0.04841	-0.8092	0.8180	0.2156	-2.151	-2.154	74.55
30Y	0.2957	0.2976	-0.01187	-0.7907	0.7593	-0.9729	-2.156	2.75	74.49
31X	0.2618	0.2603	-0.01177	-0.7692	0.8027	1.0214	2.714	-2.192	71.79
31XY	0.263	0.261	0.0445	-0.8009	0.7981	0.2133	-2.189	-2.191	71.84
31Y	0.2597	0.2599	-0.01158	-0.8027	0.7581	-0.9675	-2.192	2.712	71.79
33X	0.1437	0.1464	-0.01033	-0.4657	0.4533	0.9345	3.366	-3.076	59.79
33XY	0.1462	0.1453	0.03574	-0.2616	0.3049	0.1915	-3.077	-3.077	59.84
33Y	0.1461	0.1428	-0.01017	-0.4550	0.4516	-0.8877	-3.077	3.366	59.79
34X	0.1108	0.1138	-0.009576	-0.3823	0.3852	0.8480	4.065	-3.84	53.79
34XY	0.1131	0.1123	0.0351	-0.2696	0.3144	0.1716	-3.841	-3.842	53.84
34Y	0.1135	0.1101	-0.009423	-0.3757	0.3791	-0.8060	-3.84	4.064	53.79
35X	0.0845	0.0873	-0.008763	-0.3221	0.3164	0.7587	4.77	-4.598	47.79
35XY	0.08615	0.08557	0.0336	-0.1899	0.2275	0.1527	-4.599	-4.6	47.83
35Y	0.08709	0.08395	-0.008613	-0.3118	0.3177	-0.7212	-4.598	4.769	47.79

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.06269	0.06494	-0.007865	-0.2872	0.2771	0.6627	5.479	-5.351	41.79
36XY	0.06495	0.06442	0.03114	-0.1790	0.2121	0.1335	-5.351	-5.352	41.83
36Y	0.06456	0.06214	-0.00771	-0.2727	0.2846	-0.6298	-5.352	5.478	41.79
37X	0.04365	0.04499	-0.006916	-0.2320	0.2249	0.5708	6.191	-6.102	35.79
37XY	0.04483	0.04438	0.02906	-0.1271	0.1559	0.1143	-6.103	-6.103	35.83
37Y	0.04459	0.04319	-0.006767	-0.2204	0.2279	-0.5429	-6.103	6.191	35.79
38X	0.02957	0.03086	-0.006008	-0.1841	0.1833	0.4767	6.908	-6.848	29.79
38XY	0.03238	0.03203	0.02515	-0.1097	0.1338	0.0951	-6.846	-6.847	29.83
38Y	0.03056	0.02923	-0.005888	-0.1795	0.1805	-0.4536	-6.848	6.908	29.79
39X	0.0168	0.01831	-0.005013	-0.1506	0.1526	0.3796	7.627	-7.591	23.79
39XY	0.01828	0.01802	0.02171	-0.0731	0.0922	0.0760	-7.591	-7.592	23.82
39Y	0.01805	0.01655	-0.004911	-0.1500	0.1484	-0.3609	-7.592	7.626	23.8
40X	0.00744	0.008794	-0.003912	-0.1303	0.1107	0.2821	8.348	-8.332	17.8
40XY	0.01172	0.01151	0.01651	-0.0840	0.0984	0.0568	-8.329	-8.329	17.82
40Y	0.008507	0.0072	-0.00382	-0.1086	0.1286	-0.2682	-8.332	8.348	17.8
41X	0.0006796	0.002544	-0.00277	0.0044	0.0667	0.1989	9.073	-9.07	11.8
41XY	0.002447	0.002317	0.01219	0.0463	-0.0363	0.0376	-9.07	-9.07	11.81
41Y	0.002316	0.0005375	-0.002696	-0.0645	-0.0067	-0.1899	-9.07	9.073	11.8
42X	-0.001153	0.008656	-0.002468	-0.0431	0.0033	0.0959	9.802	-9.795	5.798
42XY	0.01192	0.01188	0.003354	-0.0192	0.0244	0.0184	-9.791	-9.791	5.803
42Y	0.008575	-0.001195	-0.002432	-0.0020	0.0411	-0.0915	-9.795	9.802	5.798

Joint Support Reactions for Load Case "LC2 WIND 45° C.D.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X Moment (kN-m)	X-M. Usage %	Y Moment (kN-m)	Y-M. Usage %	Z Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-346.96	0.0	-349.51	0.0	2330.66	0.0	0.0	2382.12	0.0	0.97	0.0	-1.0	0.0	0.18	0.0	0.0
ANX	-28.19	0.0	66.66	0.0	338.53	0.0	0.0	346.18	0.0	6.50	0.0	-1.4	0.0	-0.19	0.0	0.0
ANXY	-251.77	0.0	-250.40	0.0	-1644.54	0.0	0.0	1682.44	0.0	6.02	0.0	-6.1	0.0	-0.21	0.0	0.0
ANY	67.86	0.0	-25.81	0.0	331.52	0.0	0.0	339.37	0.0	1.38	0.0	-6.5	0.0	0.15	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC2 WIND 45° C.D.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.7064	1.7064	-4.3881	-1.7038	-1.7038	4.3880	2.6029	2.5856	-0.0742
10P	5.6322	5.6322	-7.7049	-5.6304	-5.6304	7.7048	1.8164	1.8116	-0.0664
11P	2.3868	2.3868	-4.3226	-2.3852	-2.3852	4.3225	1.6171	1.6146	-0.1115
19P	2.8593	2.8593	-5.1735	-2.8585	-2.8585	5.1734	0.8587	0.8586	-0.0811
20P	3.9742	3.9742	-7.4474	-3.9734	-3.9734	7.4473	0.7579	0.7591	-0.1105
32P	4.5113	4.5113	-11.7621	-4.5111	-4.5111	11.7620	0.1887	0.1889	-0.0557
ANP	1.4310	1.4310	-6.6053	345.5246	348.0758	-2324.0501	0.0000	0.0000	0.0000
1X	1.7064	1.7064	-4.3881	-1.7037	-1.7038	4.3881	2.6512	2.5858	-0.0211
1XY	1.7064	1.7064	-4.3881	-1.7037	-1.7038	4.3881	2.6513	2.6136	0.0473
1Y	0.8844	0.8844	-2.5941	-0.8818	-0.8818	2.5941	2.6030	2.6134	-0.0198
10X	5.6322	5.6322	-7.7049	-5.6305	-5.6304	7.7049	1.6525	1.8121	-0.0205
10XY	2.7412	2.7412	-5.1309	-2.7395	-2.7396	5.1309	1.6524	1.6353	0.0417
10Y	1.9192	1.9192	-3.3369	-1.9174	-1.9176	3.3369	1.8169	1.6354	-0.0197
11X	2.3868	2.3868	-4.3226	-2.3853	-2.3852	4.3226	1.5267	1.6139	-0.0117
11XY	2.3868	2.3868	-4.3226	-2.3853	-2.3853	4.3227	1.5276	1.5115	0.0698
11Y	2.3868	2.3868	-4.3226	-2.3852	-2.3853	4.3226	1.6164	1.5105	-0.0106

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	2.8593	2.8593	-5.1735	-2.8584	-2.8585	5.1735	0.9159	0.8616	-0.0109
19XY	2.8593	2.8593	-5.1735	-2.8584	-2.8584	5.1736	0.9140	0.9081	0.0444
19Y	2.8593	2.8593	-5.1735	-2.8585	-2.8584	5.1735	0.8616	0.9101	-0.0104
20X	3.9742	3.9742	-7.4474	-3.9734	-3.9734	7.4474	0.7869	0.7560	-0.0152
20XY	3.5642	3.5642	-6.4334	-3.5634	-3.5634	6.4335	0.7900	0.7838	0.0853
20Y	3.5642	3.5642	-6.4334	-3.5634	-3.5634	6.4334	0.7549	0.7806	-0.0147
32X	4.5113	4.5113	-11.7621	-4.5111	-4.5111	11.7621	0.1888	0.1910	-0.0111
32XY	4.5113	4.5113	-11.7621	-4.5111	-4.5111	11.7621	0.1883	0.1871	0.0356
32Y	4.5113	4.5113	-11.7621	-4.5111	-4.5111	11.7621	0.1908	0.1877	-0.0109
ANX	1.4310	1.4310	-6.6053	26.7544	-68.0902	-331.9255	0.0000	0.0000	0.0000
ANXY	1.4310	1.4310	-6.6053	250.3434	248.9727	1651.1502	0.0000	0.0000	0.0000
ANY	1.4310	1.4310	-6.6053	-69.2883	24.3768	-324.9106	0.0000	0.0000	0.0000
2S	1.7064	1.7064	-3.0881	-1.7039	-1.7039	3.0880	2.4679	2.4536	-0.0741
3S	1.6974	1.6974	-2.5132	-1.6950	-1.6950	2.5131	2.3634	2.3513	-0.0738
4S	1.6350	1.6350	-3.0131	-1.6327	-1.6328	3.0131	2.2594	2.2495	-0.0733
5S	5.4175	5.4175	-6.9675	-5.4153	-5.4153	6.9674	2.1558	2.1478	-0.0724
6S	4.6045	4.6045	-5.7484	-4.6024	-4.6024	5.7483	2.0545	2.0479	-0.0713
7S	5.2785	5.2785	-6.8082	-5.2766	-5.2766	6.8081	1.9534	1.9477	-0.0697
8S	4.3870	4.3870	-5.4278	-4.3852	-4.3852	5.4277	1.8767	1.8716	-0.0681
12S	1.1416	1.1416	-2.0455	-1.1402	-1.1402	2.0454	1.4884	1.4866	-0.1092
13S	2.1983	2.1983	-3.8050	-2.1970	-2.1970	3.8048	1.3788	1.3775	-0.1068
14S	1.4667	1.4667	-2.7734	-1.4654	-1.4654	2.7733	1.2746	1.2738	-0.1034
15S	2.5106	2.5106	-4.5329	-2.5094	-2.5094	4.5328	1.1711	1.1705	-0.0994
16S	1.0439	1.0439	-1.7594	-1.0428	-1.0428	1.7593	1.0757	1.0756	-0.0948
17S	2.2368	2.2368	-4.0927	-2.2358	-2.2358	4.0926	0.9814	0.9811	-0.0897
18S	1.1929	1.1929	-2.3333	-1.1920	-1.1920	2.3332	0.9139	0.9139	-0.0851
21S	1.4877	1.4877	-2.5791	-1.4870	-1.4870	2.5790	0.7003	0.7015	-0.1065
22S	6.2696	6.2696	-7.3460	-6.2690	-6.2690	7.3459	0.6463	0.6474	-0.1023
23S	4.7819	4.7819	-4.7668	-4.7813	-4.7813	4.7667	0.5975	0.5987	-0.0969
24S	3.0522	3.0522	-5.7650	-3.0516	-3.0516	5.7649	0.5489	0.5500	-0.0910
25S	1.5793	1.5793	-3.3382	-1.5788	-1.5788	3.3381	0.5028	0.5040	-0.0876
26S	3.2233	3.2233	-7.0376	-3.2228	-3.2228	7.0375	0.4571	0.4582	-0.0840
27S	1.6440	1.6440	-3.6994	-1.6436	-1.6436	3.6993	0.4144	0.4155	-0.0807
28S	3.2356	3.2356	-7.3465	-3.2353	-3.2353	7.3464	0.3721	0.3730	-0.0772
29S	1.7806	1.7806	-3.9721	-1.7803	-1.7803	3.9720	0.3336	0.3345	-0.0734
30S	2.8167	2.8167	-6.5009	-2.8164	-2.8164	6.5009	0.2956	0.2963	-0.0694
31S	3.2951	3.2951	-8.0486	-3.2949	-3.2949	8.0485	0.2599	0.2605	-0.0652
33S	4.8841	4.8841	-13.1491	-4.8839	-4.8839	13.1490	0.1475	0.1477	-0.0548
34S	5.0795	5.0795	-14.2259	-5.0794	-5.0794	14.2259	0.1142	0.1145	-0.0531
35S	14.7275	14.7275	-22.3621	-14.7274	-14.7274	22.3620	0.0870	0.0873	-0.0504
36S	13.7591	13.7591	-21.1538	-13.7590	-13.7590	21.1537	0.0649	0.0652	-0.0467
37S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0434	0.0438	-0.0432
371S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0435	0.0443	-0.0258
372S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0439	0.0435	-0.0257
373S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0447	0.0437	0.0113
374S	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0442	0.0447	0.0112
38S	3.7897	3.7897	-13.6372	-3.7897	-3.7897	13.6372	0.0310	0.0313	-0.0374
39S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0166	0.0168	-0.0319
391S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0167	0.0175	-0.0197
392S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0172	0.0167	-0.0196
393S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0182	0.0172	0.0087
394S	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0175	0.0182	0.0086
40S	7.8860	7.8860	-19.1817	-7.8860	-7.8860	19.1817	0.0104	0.0106	-0.0243
41S	6.8708	6.8708	-17.0354	-6.8708	-6.8708	17.0354	0.0006	0.0008	-0.0177
411S	3.2298	3.2298	-15.2757	-3.2298	-3.2298	15.2757	0.0006	0.0016	-0.0057
412S	3.2298	3.2298	-15.2757	-3.2298	-3.2298	15.2757	0.0014	0.0007	-0.0057

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	3.2298	3.2298	-15.2757	-3.2298	-3.2298	15.2757	0.0024	0.0014	0.0002
414S	3.2298	3.2298	-15.2757	-3.2298	-3.2298	15.2757	0.0015	0.0024	0.0002
42S	2.3360	2.3360	-11.1093	-2.3360	-2.3360	11.1093	0.0021	0.0022	-0.0083
2X	1.7064	1.7064	-3.0881	-1.7039	-1.7039	3.0881	2.4812	2.4542	-0.0210
2XY	1.7064	1.7064	-3.0881	-1.7039	-1.7039	3.0881	2.4825	2.4481	0.0473
2Y	0.8844	0.8844	-1.2941	-0.8819	-0.8819	1.2941	2.4685	2.4466	-0.0198
3X	1.6974	1.6974	-2.5132	-1.6950	-1.6950	2.5132	2.3500	2.3515	-0.0210
3XY	1.6974	1.6974	-2.5132	-1.6950	-1.6951	2.5133	2.3501	2.3181	0.0471
3Y	1.6974	1.6974	-2.5132	-1.6950	-1.6951	2.5132	2.3635	2.3180	-0.0197
4X	1.6350	1.6350	-3.0131	-1.6328	-1.6328	3.0131	2.2177	2.2489	-0.0209
4XY	1.6350	1.6350	-3.0131	-1.6328	-1.6328	3.0132	2.2195	2.1901	0.0467
4Y	0.8130	0.8130	-1.2191	-0.8107	-0.8108	1.2191	2.2589	2.1881	-0.0197
5X	6.2395	6.2395	-8.7615	-6.2374	-6.2373	8.7615	2.0880	2.1480	-0.0208
5XY	2.5265	2.5265	-4.3935	-2.5244	-2.5244	4.3936	2.0881	2.0611	0.0461
5Y	1.7045	1.7045	-2.5995	-1.7023	-1.7024	2.5995	2.1559	2.0610	-0.0196
6X	5.4265	5.4265	-7.5424	-5.4245	-5.4244	7.5424	1.9572	2.0464	-0.0207
6XY	1.7135	1.7135	-3.1744	-1.7115	-1.7115	3.1744	1.9593	1.9355	0.0453
6Y	0.8915	0.8915	-1.3804	-0.8894	-0.8895	1.3804	2.0527	1.9326	-0.0196
7X	5.2785	5.2785	-6.8082	-5.2767	-5.2766	6.8082	1.8299	1.9478	-0.0205
7XY	1.5655	1.5655	-2.4402	-1.5637	-1.5637	2.4402	1.8301	1.8089	0.0440
7Y	1.5655	1.5655	-2.4402	-1.5636	-1.5637	2.4402	1.9534	1.8088	-0.0196
8X	5.2090	5.2090	-7.2218	-5.2073	-5.2072	7.2218	1.7285	1.8699	-0.0205
8XY	1.4960	1.4960	-2.8538	-1.4943	-1.4943	2.8538	1.7302	1.7117	0.0428
8Y	0.6740	0.6740	-1.0598	-0.6722	-0.6723	1.0598	1.8750	1.7095	-0.0196
12X	1.1416	1.1416	-2.0455	-1.1402	-1.1402	2.0455	1.4211	1.4850	-0.0115
12XY	1.1416	1.1416	-2.0455	-1.1402	-1.1402	2.0456	1.4236	1.4094	0.0680
12Y	1.1416	1.1416	-2.0455	-1.1402	-1.1402	2.0455	1.4869	1.4068	-0.0106
13X	2.1983	2.1983	-3.8050	-2.1970	-2.1970	3.8049	1.3336	1.3776	-0.0115
13XY	2.1983	2.1983	-3.8050	-2.1970	-2.1970	3.8050	1.3339	1.3211	0.0661
13Y	2.1983	2.1983	-3.8050	-2.1970	-2.1970	3.8049	1.3789	1.3209	-0.0106
14X	1.4667	1.4667	-2.7734	-1.4654	-1.4654	2.7734	1.2459	1.2705	-0.0114
14XY	1.0567	1.0567	-1.7594	-1.0554	-1.0555	1.7595	1.2495	1.2384	0.0633
14Y	1.4667	1.4667	-2.7734	-1.4654	-1.4655	2.7734	1.2716	1.2345	-0.0105
15X	2.5106	2.5106	-4.5329	-2.5094	-2.5094	4.5329	1.1648	1.1706	-0.0113
15XY	2.1006	2.1006	-3.5189	-2.0994	-2.0994	3.5189	1.1652	1.1553	0.0600
15Y	2.5106	2.5106	-4.5329	-2.5094	-2.5094	4.5329	1.1712	1.1550	-0.0105
16X	1.0439	1.0439	-1.7594	-1.0428	-1.0428	1.7594	1.0838	1.0711	-0.0111
16XY	1.0439	1.0439	-1.7594	-1.0428	-1.0428	1.7595	1.0884	1.0800	0.0562
16Y	1.0439	1.0439	-1.7594	-1.0428	-1.0428	1.7594	1.0716	1.0751	-0.0105
17X	2.2368	2.2368	-4.0927	-2.2357	-2.2358	4.0927	1.0116	0.9813	-0.0110
17XY	1.8268	1.8268	-3.0787	-1.8257	-1.8258	3.0788	1.0120	1.0046	0.0518
17Y	2.2368	2.2368	-4.0927	-2.2358	-2.2358	4.0927	0.9814	1.0043	-0.0105
18X	1.1929	1.1929	-2.3333	-1.1919	-1.1920	2.3332	0.9543	0.9097	-0.0109
18XY	0.7829	0.7829	-1.3193	-0.7819	-0.7819	1.3193	0.9582	0.9519	0.0478
18Y	1.1929	1.1929	-2.3333	-1.1920	-1.1919	2.3332	0.9100	0.9476	-0.0104
21X	1.4877	1.4877	-2.5791	-1.4870	-1.4870	2.5791	0.7284	0.7016	-0.0149
21XY	1.4877	1.4877	-2.5791	-1.4870	-1.4870	2.5792	0.7296	0.7238	0.0819
21Y	1.4877	1.4877	-2.5791	-1.4870	-1.4870	2.5791	0.7004	0.7227	-0.0145
22X	2.9606	2.9606	-5.0060	-2.9599	-2.9600	5.0059	0.6713	0.6475	-0.0146
22XY	4.6156	4.6156	-6.1760	-4.6149	-4.6149	6.1760	0.6721	0.6667	0.0782
22Y	2.9606	2.9606	-5.0060	-2.9600	-2.9599	5.0059	0.6463	0.6660	-0.0142
23X	1.4729	1.4729	-2.4268	-1.4723	-1.4723	2.4268	0.6172	0.5963	-0.0141
23XY	1.4729	1.4729	-2.4268	-1.4723	-1.4723	2.4269	0.6201	0.6153	0.0734
23Y	1.4729	1.4729	-2.4268	-1.4723	-1.4723	2.4268	0.5952	0.6122	-0.0138
24X	3.0522	3.0522	-5.7650	-3.0516	-3.0516	5.7650	0.5683	0.5504	-0.0137
24XY	3.0522	3.0522	-5.7650	-3.0516	-3.0516	5.7651	0.5689	0.5643	0.0682

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24Y	3.0522	3.0522	-5.7650	-3.0516	-3.0516	5.7650	0.5492	0.5638	-0.0134
25X	1.5793	1.5793	-3.3382	-1.5788	-1.5788	3.3382	0.5180	0.5028	-0.0134
25XY	1.5793	1.5793	-3.3382	-1.5788	-1.5788	3.3383	0.5201	0.5160	0.0651
25Y	1.5793	1.5793	-3.3382	-1.5788	-1.5788	3.3382	0.5018	0.5138	-0.0131
26X	3.2233	3.2233	-7.0376	-3.2228	-3.2228	7.0376	0.4710	0.4586	-0.0132
26XY	3.2233	3.2233	-7.0376	-3.2228	-3.2228	7.0377	0.4717	0.4679	0.0618
26Y	3.2233	3.2233	-7.0376	-3.2228	-3.2228	7.0376	0.4574	0.4673	-0.0129
27X	1.6440	1.6440	-3.6994	-1.6436	-1.6436	3.6994	0.4245	0.4144	-0.0129
27XY	1.6440	1.6440	-3.6994	-1.6436	-1.6436	3.6995	0.4264	0.4231	0.0588
27Y	1.6440	1.6440	-3.6994	-1.6436	-1.6436	3.6994	0.4135	0.4210	-0.0126
28X	3.2356	3.2356	-7.3465	-3.2353	-3.2353	7.3465	0.3810	0.3734	-0.0126
28XY	3.2356	3.2356	-7.3465	-3.2353	-3.2353	7.3465	0.3816	0.3786	0.0556
28Y	3.2356	3.2356	-7.3465	-3.2353	-3.2353	7.3465	0.3724	0.3780	-0.0124
29X	1.5916	1.5916	-3.6471	-1.5913	-1.5913	3.6470	0.3388	0.3333	-0.0124
29XY	1.5916	1.5916	-3.6471	-1.5913	-1.5913	3.6471	0.3408	0.3383	0.0521
29Y	1.5916	1.5916	-3.6471	-1.5913	-1.5913	3.6470	0.3325	0.3360	-0.0121
30X	2.8167	2.8167	-6.5009	-2.8164	-2.8164	6.5009	0.2999	0.2966	-0.0121
30XY	2.8167	2.8167	-6.5009	-2.8164	-2.8164	6.5010	0.3007	0.2984	0.0484
30Y	2.8167	2.8167	-6.5009	-2.8164	-2.8164	6.5009	0.2957	0.2976	-0.0119
31X	3.2951	3.2951	-8.0486	-3.2949	-3.2949	8.0486	0.2618	0.2603	-0.0118
31XY	3.4841	3.4841	-8.3736	-3.4839	-3.4839	8.3736	0.2630	0.2610	0.0445
31Y	3.4841	3.4841	-8.3736	-3.4839	-3.4839	8.3736	0.2597	0.2599	-0.0116
33X	4.8841	4.8841	-13.1491	-4.8840	-4.8840	13.1491	0.1437	0.1464	-0.0103
33XY	4.8841	4.8841	-13.1491	-4.8840	-4.8840	13.1491	0.1462	0.1453	0.0357
33Y	4.8841	4.8841	-13.1491	-4.8840	-4.8840	13.1491	0.1461	0.1428	-0.0102
34X	5.0795	5.0795	-14.2259	-5.0794	-5.0794	14.2259	0.1108	0.1138	-0.0096
34XY	5.0795	5.0795	-14.2259	-5.0794	-5.0794	14.2260	0.1131	0.1123	0.0351
34Y	5.0795	5.0795	-14.2259	-5.0794	-5.0794	14.2259	0.1135	0.1101	-0.0094
35X	5.3545	5.3545	-15.7191	-5.3544	-5.3544	15.7190	0.0845	0.0873	-0.0088
35XY	5.3545	5.3545	-15.7191	-5.3544	-5.3544	15.7191	0.0862	0.0856	0.0336
35Y	8.6035	8.6035	-17.1491	-8.6034	-8.6034	17.1491	0.0871	0.0839	-0.0086
36X	6.7291	6.7291	-17.5398	-6.7290	-6.7290	17.5397	0.0627	0.0649	-0.0079
36XY	5.5761	5.5761	-15.2718	-5.5760	-5.5760	15.2718	0.0650	0.0644	0.0311
36Y	4.3861	4.3861	-14.5108	-4.3860	-4.3860	14.5107	0.0646	0.0621	-0.0077
37X	4.6241	4.6241	-14.7826	-4.6241	-4.6241	14.7826	0.0436	0.0450	-0.0069
37XY	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0448	0.0444	0.0291
37Y	3.5831	3.5831	-12.3906	-3.5831	-3.5831	12.3906	0.0446	0.0432	-0.0068
38X	3.7897	3.7897	-13.6372	-3.7897	-3.7897	13.6372	0.0296	0.0309	-0.0060
38XY	3.7897	3.7897	-13.6372	-3.7897	-3.7897	13.6373	0.0324	0.0320	0.0252
38Y	3.9787	3.9787	-13.9622	-3.9787	-3.9787	13.9622	0.0306	0.0292	-0.0059
39X	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0168	0.0183	-0.0050
39XY	3.7951	3.7951	-14.3328	-3.7951	-3.7951	14.3328	0.0183	0.0180	0.0217
39Y	4.8361	4.8361	-16.7248	-4.8361	-4.8361	16.7248	0.0180	0.0165	-0.0049
40X	8.4040	8.4040	-21.3787	-8.4040	-8.4040	21.3787	0.0074	0.0088	-0.0039
40XY	3.7190	3.7190	-15.3207	-3.7190	-3.7190	15.3207	0.0117	0.0115	0.0165
40Y	6.0620	6.0620	-18.3497	-6.0620	-6.0620	18.3497	0.0085	0.0072	-0.0038
41X	3.7448	3.7448	-15.5664	-3.7448	-3.7448	15.5664	0.0007	0.0025	-0.0028
41XY	2.7038	2.7038	-13.1744	-2.7038	-2.7038	13.1744	0.0024	0.0023	0.0122
41Y	2.7038	2.7038	-13.1744	-2.7038	-2.7038	13.1744	0.0023	0.0005	-0.0027
42X	2.3360	2.3360	-11.1093	-2.3360	-2.3360	11.1093	-0.0012	0.0087	-0.0025
42XY	2.3360	2.3360	-11.1093	-2.3360	-2.3360	11.1093	0.0119	0.0119	0.0034
42Y	2.3360	2.3360	-11.1093	-2.3360	-2.3360	11.1093	0.0086	-0.0012	-0.0024

Moments for Angles Modeled as Beams:

Angle	Torsion	Origin	Origin	End	End	X	Y

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page	92 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	-0.01	-0.04	0.04	-10.62	26.93	-3.32
1X	-0.02	-0.04	0.05	6.58	104.95	2.04
1XY	-0.01	-0.05	0.05	47.28	-96.83	14.71
1Y	0.01	-0.05	0.04	-50.87	-8.31	-15.86
2P	-0.01	10.58	-26.89	-14.39	39.31	-1.52
2X	-0.05	-6.63	-104.89	8.69	-170.73	0.83
2XY	-0.03	-47.33	96.88	-91.95	192.06	-55.71
2Y	0.01	50.82	8.35	84.57	-18.05	54.16
3P	-0.02	14.34	-39.27	22.40	-53.53	14.70
3X	-0.07	-8.73	170.78	-70.86	289.01	-31.84
3XY	-0.04	91.90	-192.01	107.19	-200.25	79.64
3Y	0.02	-84.62	18.09	-136.62	162.87	-88.50
4P	-0.02	-22.44	53.58	-100.34	286.86	-49.11
4X	-0.10	70.82	-288.95	102.38	-304.12	69.28
4XY	-0.05	-107.24	200.30	-228.90	403.15	-134.45
4Y	0.02	136.57	-162.83	153.20	-190.46	115.91
5P	-0.03	100.30	-286.82	157.45	-316.25	103.10
5X	-0.12	-102.42	304.17	-379.34	712.06	-192.70
5XY	-0.06	228.84	-403.10	376.59	-563.19	242.17
5Y	0.03	-153.25	190.50	-421.42	851.59	-229.87
6P	-0.03	-157.49	316.29	-429.91	1094.38	-234.96
6X	-0.15	379.30	-712.00	436.60	-176.75	326.36
6XY	-0.08	-376.64	563.24	-996.14	1550.07	-549.11
6Y	0.03	421.37	-851.55	112.35	-639.57	213.49
7P	-0.04	429.87	-1094.34	-866.49	953.46	-218.31
7X	-0.17	-436.64	176.80	-2543.73	386.05	-1490.18
7XY	-0.09	996.10	-1550.02	2089.24	-2228.44	1542.67
7Y	0.04	-112.40	639.61	288.37	3811.05	87.98
8P	-0.04	866.45	-953.42	4777.16	-6144.88	3594.66
8X	-0.19	2543.70	-386.00	6909.89	7722.53	6021.39
8XY	-0.10	-2089.29	2228.50	-8325.01	9671.61	-6633.31
8Y	0.04	-288.42	-3811.01	-6261.41	-8282.17	-4171.87
9P	163.45	7723.11	-953.21	5105.08	-831.97	3129.59
9X	96.92	-10346.68	-566.32	-6071.18	356.07	-4005.33
9XY	160.86	12725.47	-938.50	6948.54	-511.66	4799.71
9Y	241.62	-10283.86	-1408.37	-6271.49	-1687.74	-4038.88
10P	301.75	3049.50	-4170.08	855.88	-1041.86	1351.34
10X	35.30	4552.66	4033.27	508.19	2689.39	1751.16
10XY	245.04	-4576.03	5250.76	-1058.68	1103.52	-1949.72
10Y	523.47	-3287.30	-5581.91	-1687.17	33.28	-1721.27
11P	301.74	-855.93	1041.91	-1241.22	2320.98	-838.86
11X	35.28	-508.23	-2689.36	185.67	-1370.53	-129.02
11XY	245.02	1058.64	-1103.49	-789.10	1844.33	107.82
11Y	523.48	1687.14	-33.23	839.06	-505.46	1010.48
12P	301.74	1241.18	-2320.93	651.55	-1094.05	757.09
12X	35.26	-185.71	1370.56	-1288.04	2732.46	-589.50
12XY	245.01	789.06	-1844.30	626.55	-1168.41	566.25
12Y	523.49	-839.09	505.50	-1420.54	2599.09	-903.85
13P	301.74	-651.60	1094.10	-1632.65	3161.32	-913.70
13X	35.23	1287.99	-2732.43	732.17	-1513.26	808.07
13XY	245.00	-626.58	1168.44	-1554.21	3043.07	-872.32
13Y	523.50	1420.51	-2599.05	857.96	-1297.28	911.39
14P	301.74	1632.61	-3161.28	985.88	-1645.07	1047.40

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X 35.21 -732.21 1513.30 -1866.00 3577.18 -1039.29 2036.19
14XY 245.00 1554.18 -3043.04 984.01 -1706.90 1015.28 -1899.98
14Y 523.52 -857.99 1297.32 -1833.58 3690.45 -1076.63 1995.11
15P 301.74 -985.92 1645.11 -2632.29 4801.82 -1447.28 2578.77
15X 35.19 1865.97 -3577.15 994.52 -1994.75 1144.19 -2228.76
15XY 244.99 -984.04 1706.93 -2288.95 4282.33 -1309.20 2395.70
15Y 523.53 1833.55 -3690.41 1123.17 -1865.63 1182.69 -2222.42
16P 301.74 2632.26 -4801.78 2980.90 -4271.20 2806.58 -4536.49
16X 35.16 -994.55 1994.78 -2390.31 5408.07 -1692.43 3701.43
16XY 244.98 2288.92 -4282.30 2101.11 -3032.36 2195.01 -3657.33
16Y 523.55 -1123.20 1865.67 -2706.80 5188.70 -1915.00 3527.19
17P 301.74 -2980.93 4271.24 -6964.79 7870.24 -6294.76 7684.48
17X 35.14 2390.28 -5408.04 -2823.24 -509.98 -274.02 -3745.59
17XY 244.97 -2101.13 3032.39 -3610.89 3129.04 -3615.20 3899.63
17Y 523.57 2706.78 -5188.67 95.47 3817.91 1773.57 -867.57
18P 112.12 -10489.90 698.85 -6193.16 512.59 -2496.44 181.28
18X 487.88 2356.94 -1561.62 1404.03 1085.14 562.79 -71.30
18XY 140.74 4765.81 395.34 2809.69 284.27 1133.59 101.70
18Y -227.80 2767.18 2674.02 1464.64 -298.30 633.24 355.50
19P -34.61 -4009.02 4749.46 -1442.94 2084.86 -1947.13 2440.83
19X 167.39 -159.89 -1825.70 -124.98 -42.87 -101.74 -667.35
19XY 56.27 -2207.51 1766.03 -858.44 1082.42 -1094.98 1017.30
19Y -136.01 1282.99 788.31 133.84 365.06 506.01 411.92
20P -34.60 1442.92 -2084.83 -201.11 650.97 443.50 -512.09
20X 167.37 124.96 42.89 130.88 -127.93 91.37 -30.37
20XY 56.27 858.42 -1082.40 -356.53 911.38 179.25 -61.08
20Y -135.99 -133.86 -365.04 55.71 -246.80 -27.91 -218.51
21P -34.60 201.09 -650.95 309.14 -635.26 188.98 -476.37
21X 167.35 -130.90 127.95 -833.64 1608.12 -357.24 642.99
21XY 56.26 356.51 -911.36 279.73 -554.21 235.64 -542.80
21Y -135.97 -55.73 246.82 -795.14 1678.57 -315.14 713.11
22P -34.60 -309.16 635.27 -1023.26 2048.02 -493.49 993.81
22X 167.33 833.62 -1608.10 504.69 -811.40 495.67 -896.11
22XY 56.26 -279.75 554.23 -1015.43 2023.59 -479.70 954.75
22Y -135.95 795.12 -1678.55 454.92 -916.17 462.98 -961.01
23P -34.59 1023.25 -2048.01 651.32 -1060.09 598.06 -1110.03
23X 167.31 -504.71 811.42 -1540.31 3091.45 -730.37 1393.88
23XY 56.25 1015.41 -2023.57 677.65 -1101.04 604.67 -1115.93
23Y -135.93 -454.94 916.18 -1615.45 2944.24 -739.43 1378.72
24P -34.59 -651.33 1060.11 -1804.38 3335.45 -877.04 1569.84
24X 167.29 1540.29 -3091.43 884.01 -1480.65 865.82 -1632.89
24XY 56.25 -677.67 1101.06 -1932.58 3577.62 -932.23 1670.96
24Y -135.91 1615.44 -2944.22 941.97 -1383.36 913.36 -1545.57
25P -34.59 1804.37 -3335.43 905.16 -1264.82 967.69 -1642.95
25X 167.27 -884.03 1480.66 -2477.25 4741.16 -1200.45 2222.08
25XY 56.24 1932.56 -3577.60 987.54 -1393.62 1042.89 -1775.44
25Y -135.90 -941.99 1383.38 -2664.93 4397.36 -1288.18 2064.55
26P -34.58 -905.18 1264.84 -2477.42 4390.68 -1208.07 2019.83
26X 167.25 2477.23 -4741.14 1184.17 -1825.30 1307.64 -2345.16
26XY 56.24 -987.56 1393.63 -2653.79 4700.91 -1300.48 2176.62
26Y -135.88 2664.91 -4397.34 1245.61 -1725.52 1396.61 -2186.74
27P -34.58 2477.41 -4390.67 801.83 -1006.76 1192.45 -1962.70
27X 167.23 -1184.19 1825.32 -2772.17 5299.93 -1438.67 2591.00
27XY 56.24 2653.77 -4700.89 820.39 -983.94 1263.33 -2067.21
27Y -135.86 -1245.62 1725.54 -2913.30 4999.80 -1512.33 2445.58
28P -34.58 -801.84 1006.78 -1696.65 2758.59 -908.54 1369.22

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	Project	Date
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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X	167.22	2772.15	-5299.92	983.38	-1662.80	1365.65	-2531.90
28XY	56.23	-820.41	983.95	-1803.90	2806.12	-954.29	1378.21
28Y	-135.85	2913.28	-4999.79	894.51	-1668.40	1384.65	-2424.80
29P	-34.58	1696.63	-2758.58	1523.36	-1245.88	1192.59	-1483.13
29X	167.20	-983.39	1662.82	-530.41	1577.04	-560.67	1199.95
29XY	56.23	1803.88	-2806.10	1449.47	-1082.64	1204.94	-1440.27
29Y	-135.83	-894.52	1668.41	-378.78	1773.88	-471.59	1274.92
30P	-34.57	-1523.38	1245.89	-5959.51	7124.45	-1318.57	1474.95
30X	167.18	530.39	-1577.03	-3194.66	4917.10	-469.47	588.56
30XY	56.23	-1449.48	1082.65	-6236.59	7558.52	-1354.37	1522.67
30Y	-135.81	378.76	-1773.87	-3753.61	4177.34	-594.69	423.52
31P	-173.96	-9251.75	805.90	-1617.61	215.77	-1693.51	159.18
31X	1138.87	-1217.95	-5624.15	-320.10	1805.77	-239.64	-594.93
31XY	214.16	9754.60	-911.62	1609.45	-232.20	1770.59	-178.21
31Y	-1086.25	299.62	5503.48	88.05	-1817.31	60.40	574.33
32P	-173.96	1617.62	-215.77	1358.32	-60.01	488.78	-45.30
32X	1138.85	320.10	-1805.76	114.28	1672.65	71.34	-21.86
32XY	214.15	-1609.46	232.20	-1374.30	62.95	-490.07	48.48
32Y	-1086.23	-88.05	1817.30	2.81	-1697.93	-14.00	19.61
33P	-173.96	-1358.31	60.01	787.28	35.55	-93.79	15.69
33X	1138.84	-114.28	-1672.64	1.86	1183.97	-18.46	-80.26
33XY	214.15	1374.30	-62.95	-861.46	5.11	84.23	-9.50
33Y	-1086.21	-2.81	1697.92	31.21	-1092.25	4.66	99.48
34P	-173.96	-787.28	-35.55	-635.95	-19.70	-233.76	-9.07
34X	1138.82	-1.86	-1183.96	57.15	168.20	9.08	-166.83
34XY	214.15	861.45	-5.11	508.00	-8.47	224.93	-2.23
34Y	-1086.20	-31.21	1092.24	48.43	-237.30	2.83	140.42
35P	-173.96	635.96	19.70	2270.23	-13.29	477.33	1.05
35X	1138.81	-57.15	-168.20	-98.33	2100.03	-25.54	317.29
35XY	214.14	-508.01	8.47	-1958.40	-2.04	-405.10	1.06
35Y	-1086.19	-48.43	237.29	-106.80	-2106.72	-25.50	-307.04
36P	-173.95	-2270.23	13.29	-1557.56	7.14	-628.70	3.36
36X	1138.80	98.33	-2100.03	14.12	-328.46	18.47	-398.87
36XY	214.14	1958.40	2.04	1427.66	3.41	556.15	0.90
36Y	-1086.18	106.80	2106.72	19.54	334.57	20.75	400.97
37P	-173.95	1557.56	-7.14	2495.59	4.24	665.71	-0.48
37X	1138.79	-14.12	328.47	-51.47	1407.66	-10.77	285.15
37XY	214.14	-1427.67	-3.41	-2476.82	4.47	-641.29	0.17
37Y	-1086.17	-19.54	-334.57	-53.88	-1372.18	-12.06	-280.33
38P	-173.95	-2495.59	-4.24	-2104.92	-6.73	-755.61	-1.80
38X	1138.78	51.47	-1407.66	341.10	-379.32	64.48	-293.50
38XY	214.14	2476.82	-4.47	2706.34	-3.95	851.31	-1.38
38Y	-1086.16	53.88	1372.18	343.42	341.13	65.25	281.40
39P	-173.95	2104.92	6.73	3149.00	-13.72	862.93	-1.15
39X	1138.78	-341.10	379.32	-1559.16	4598.49	-312.11	817.58
39XY	214.14	-2706.34	3.95	-6263.93	-2.69	-1473.33	0.21
39Y	-1086.16	-343.42	-341.13	-1568.18	-4610.13	-313.97	-813.22
40P	-173.95	-3149.00	13.72	-1849.51	7.11	-820.98	3.42
40X	1138.78	1559.16	-4598.49	3048.65	-4842.13	756.81	-1550.58
40XY	214.14	6263.93	2.69	7956.99	5.88	2335.72	1.41
40Y	-1086.15	1568.18	4610.13	3049.07	4857.94	758.36	1555.09
41P	-173.95	1849.51	-7.11	1375.44	27.24	547.95	3.42
41X	1138.77	-3048.65	4842.13	-3601.38	5475.52	-1129.90	1753.06
41XY	214.14	-7956.99	-5.88	-8561.45	14.17	-2806.63	1.41
41Y	-1086.15	-3049.07	-4857.94	-3591.84	-5433.17	-1128.35	-1748.55

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 3 "LC3 WIND 0° C.T."

Equilibrium Joint Positions and Rotations for Load Case "LC3 WIND 0° C.T.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	2.712	-0.007221	-0.0454	-0.0428	2.8668	-0.6709	3.362	0.6428	150.9
10P	1.771	-0.02263	-0.04165	0.0225	2.5532	-0.6711	2.421	0.6274	131.6
11P	1.613	-0.01176	-0.05812	0.2171	2.3110	-0.6772	2.753	1.128	127.5
19P	0.9283	0.01034	-0.04248	-0.0533	1.6022	-0.7882	2.068	1.15	108.6
20P	0.8053	0.008121	-0.06191	0.0541	1.2187	-0.7443	3.257	2.46	102.1
32P	0.1968	0.0002359	-0.03195	0.0128	0.6536	-0.6152	2.649	2.452	66.09
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	2.725	-0.007088	-0.0446	-0.0280	2.7806	0.4388	3.375	-0.6571	150.9
1XY	2.725	0.001916	0.01792	0.0786	2.7505	0.4242	2.075	-0.6481	150.9
1Y	2.712	0.001789	0.01917	0.0310	2.8396	-0.6456	2.062	0.6518	150.9
10X	1.817	-0.02209	-0.04003	0.0257	2.5311	0.4389	2.467	-0.6721	131.6
10XY	1.817	0.02243	0.01464	-0.0239	2.5281	0.4243	1.167	-0.6276	131.6
10Y	1.772	0.02255	0.01648	-0.0090	2.5526	-0.6457	1.122	0.6726	131.6
11X	1.638	-0.01244	-0.06126	0.0663	2.5389	0.4624	2.778	-1.152	127.5
11XY	1.638	0.01304	0.03626	-0.0561	2.5306	0.4486	0.4984	-1.127	127.6
11Y	1.613	0.01202	0.03334	-0.2185	2.3012	-0.6532	0.4735	1.152	127.6
19X	0.9048	0.01339	-0.04536	0.1371	1.7105	0.7478	2.045	-1.127	108.6
19XY	0.9053	-0.01155	0.02276	-0.1284	1.6977	0.7392	-0.2347	-1.152	108.6
19Y	0.9287	-0.009403	0.01989	0.0450	1.5907	-0.7738	-0.2113	1.131	108.6
20X	0.7902	0.005038	-0.06099	-0.1241	1.1675	0.7288	3.242	-2.447	102.1
20XY	0.7904	-0.003668	0.03959	0.1278	1.1583	0.7212	-1.662	-2.456	102.2
20Y	0.8055	-0.007093	0.04042	-0.0605	1.2083	-0.7323	-1.646	2.445	102.2
32X	0.1929	0.002315	-0.03169	-0.0219	0.6433	0.6004	2.645	-2.45	66.09
32XY	0.1936	-0.001135	0.01529	0.0212	0.6417	0.5963	-2.258	-2.453	66.14
32Y	0.1975	-0.000492	0.01546	-0.0141	0.6519	-0.6096	-2.254	2.452	66.14
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	2.552	-0.009481	-0.0453	-0.0355	2.8452	-0.6709	3.202	0.6405	147.7
3S	2.428	-0.01079	-0.04517	-0.0247	2.8465	-0.6710	3.078	0.6392	145.2
4S	2.304	-0.01214	-0.04489	-0.0490	2.8337	-0.6710	2.954	0.6379	142.7
5S	2.181	-0.01426	-0.04445	-0.0179	2.8089	-0.6710	2.831	0.6357	140.2
6S	2.059	-0.01538	-0.04392	-0.0626	2.7910	-0.6711	2.709	0.6346	137.7
7S	1.938	-0.01852	-0.04315	-0.0244	2.7266	-0.6711	2.588	0.6315	135.2
8S	1.844	-0.01974	-0.04239	-0.1122	2.6861	-0.6711	2.494	0.6303	133.2
12S	1.496	-0.007404	-0.05694	0.0261	2.3075	-0.6920	2.636	1.133	124.6
13S	1.397	-0.005076	-0.05572	0.0994	2.2368	-0.7048	2.537	1.135	122.1
14S	1.301	-0.000169	-0.05396	0.0621	2.1657	-0.7202	2.441	1.14	119.6
15S	1.208	0.001254	-0.05193	0.0876	2.0716	-0.7355	2.348	1.141	117.1
16S	1.12	0.006679	-0.04957	0.0582	1.9686	-0.7509	2.26	1.147	114.7
17S	1.037	0.007388	-0.04691	0.1014	1.8346	-0.7662	2.177	1.147	112.2
18S	0.9747	0.01207	-0.0445	0.0288	1.7369	-0.7785	2.115	1.152	110.2
21S	0.7449	0.005967	-0.05977	-0.0608	1.2226	-0.7250	3.197	2.458	99.34
22S	0.6869	0.005423	-0.05748	0.0237	1.1602	-0.7056	3.139	2.457	96.54
23S	0.6333	0.006151	-0.05454	-0.0239	1.1132	-0.6833	3.085	2.458	93.85
24S	0.5823	0.0043	-0.05133	0.0005	1.0453	-0.6611	3.034	2.456	91.15
25S	0.532	0.004621	-0.04949	-0.0138	1.0101	-0.6535	2.984	2.457	88.35

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.4837	0.003374	-0.0475	-0.0022	0.9690	-0.6460	2.936	2.455	85.55
27S	0.4371	0.003673	-0.0457	-0.0103	0.9352	-0.6415	2.889	2.456	82.75
28S	0.3924	0.002561	-0.04377	-0.0063	0.8969	-0.6371	2.844	2.455	79.96
29S	0.3503	0.002998	-0.04171	-0.0045	0.8543	-0.6328	2.802	2.455	77.21
30S	0.3102	0.001938	-0.03951	-0.0145	0.8205	-0.6284	2.762	2.454	74.46
31S	0.2718	0.001884	-0.0372	-0.0064	0.8116	-0.6242	2.724	2.454	71.76
33S	0.1519	0.00141	-0.03127	0.0991	0.3917	-0.5700	3.375	3.224	59.77
34S	0.1177	0.0006825	-0.03018	0.0524	0.3603	-0.5163	4.072	3.955	53.77
35S	0.09001	-6.686e-005	-0.02857	0.0618	0.2831	-0.4614	4.775	4.685	47.77
36S	0.067	-0.0001704	-0.02641	0.0468	0.2619	-0.4026	5.483	5.416	41.77
37S	0.04566	-0.001075	-0.02431	0.0498	0.2011	-0.3465	6.193	6.146	35.78
371S	0.0451	-0.0004861	-0.02478	0.0000	0.0000	0.0000	6.193	-0.0004861	35.78
372S	0.0462	-0.0005676	-0.005675	0.0000	0.0000	0.0000	0.0462	6.147	35.79
373S	0.04626	0.0005216	0.01344	0.0000	0.0000	0.0000	-6.101	0.0005216	35.81
374S	0.04505	0.0006032	-0.00563	0.0000	0.0000	0.0000	0.04505	-6.147	35.79
38S	0.03181	-0.0002018	-0.02105	0.0389	0.1625	-0.2893	6.91	6.878	29.78
39S	0.01771	-0.001087	-0.01794	0.0388	0.1279	-0.2304	7.627	7.609	23.78
391S	0.01738	-0.0003607	-0.0189	0.0000	0.0000	0.0000	7.627	-0.0003607	23.78
392S	0.01838	-0.0007345	-0.004328	0.0000	0.0000	0.0000	0.01838	7.609	23.8
393S	0.01883	0.0003402	0.01032	0.0000	0.0000	0.0000	-7.591	0.0003402	23.81
394S	0.01768	0.000714	-0.004284	0.0000	0.0000	0.0000	0.01768	-7.609	23.8
40S	0.009478	0.0006233	-0.01375	0.0317	0.1006	-0.1713	8.35	8.342	17.79
41S	0.0009666	-0.001069	-0.00999	-0.0049	0.0416	-0.1198	9.073	9.071	11.79
411S	0.0007443	-0.0001872	-0.005486	0.0000	0.0000	0.0000	9.073	-0.0001872	11.79
412S	0.001701	-0.0008824	-0.00247	0.0000	0.0000	0.0000	0.001701	9.071	11.8
413S	0.002474	0.0001546	0.0005475	0.0000	0.0000	0.0000	-9.07	0.0001546	11.8
414S	0.001363	0.0008498	-0.002447	0.0000	0.0000	0.0000	0.001363	-9.071	11.8
42S	0.001993	-0.002149	-0.004941	0.0290	-0.0004	-0.0576	9.805	9.801	5.795
2X	2.569	-0.008807	-0.0445	-0.0361	2.7574	0.4388	3.219	-0.6588	147.7
2XY	2.57	0.00563	0.01793	0.0416	2.7702	0.4242	1.92	-0.6444	147.7
2Y	2.553	0.004223	0.01917	0.0683	2.8567	-0.6456	1.903	0.6542	147.7
3X	2.449	-0.01066	-0.04434	-0.0493	2.7576	0.4388	3.099	-0.6607	145.2
3XY	2.449	0.007389	0.01784	0.0666	2.7598	0.4242	1.799	-0.6426	145.2
3Y	2.428	0.007279	0.0191	0.0446	2.8481	-0.6456	1.778	0.6573	145.2
4X	2.329	-0.01264	-0.04399	-0.0302	2.7418	0.4388	2.979	-0.6626	142.7
4XY	2.33	0.01079	0.01763	0.0467	2.7403	0.4242	1.68	-0.6392	142.7
4Y	2.305	0.008801	0.01893	0.0683	2.8332	-0.6456	1.655	0.6588	142.7
5X	2.21	-0.01414	-0.04347	-0.0686	2.7117	0.4388	2.86	-0.6641	140.2
5XY	2.21	0.01242	0.01727	0.0927	2.7163	0.4242	1.56	-0.6376	140.2
5Y	2.181	0.01229	0.01863	0.0268	2.8107	-0.6457	1.531	0.6623	140.2
6X	2.092	-0.01703	-0.04282	-0.0387	2.6901	0.4389	2.742	-0.667	137.7
6XY	2.092	0.01649	0.01682	0.0526	2.6879	0.4242	1.442	-0.6335	137.7
6Y	2.059	0.01361	0.01826	0.0787	2.7897	-0.6457	1.409	0.6636	137.7
7X	1.976	-0.01845	-0.04187	-0.0730	2.6201	0.4389	2.626	-0.6684	135.2
7XY	1.976	0.01803	0.01611	0.0829	2.6233	0.4243	1.326	-0.632	135.2
7Y	1.938	0.01783	0.01768	0.0393	2.7290	-0.6457	1.288	0.6678	135.2
8X	1.886	-0.02147	-0.04095	-0.0671	2.5300	0.4389	2.536	-0.6715	133.2
8XY	1.886	0.02161	0.01539	0.0812	2.5273	0.4243	1.236	-0.6284	133.2
8Y	1.844	0.01932	0.01708	0.1207	2.6841	-0.6457	1.194	0.6693	133.2
12X	1.513	-0.009057	-0.06001	0.0925	2.4410	0.5006	2.653	-1.149	124.6
12XY	1.514	0.01028	0.03528	-0.0888	2.4425	0.4874	0.3735	-1.13	124.7
12Y	1.496	0.007554	0.03241	-0.0197	2.3099	-0.6693	0.3563	1.148	124.7
13X	1.408	-0.004915	-0.05872	0.0566	2.3894	0.5336	2.548	-1.145	122.1
13XY	1.408	0.006007	0.03423	-0.0558	2.3928	0.5210	0.2678	-1.134	122.2
13Y	1.397	0.005746	0.03139	-0.0923	2.2397	-0.6832	0.2571	1.146	122.2
14X	1.305	-0.003451	-0.05691	0.0803	2.3106	0.5730	2.445	-1.143	119.6

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	1.305	0.004883	0.03273	-0.0756	2.3094	0.5612	0.1653	-1.135	119.7
14Y	1.301	0.0008215	0.02991	-0.0601	2.1645	-0.6999	0.161	1.141	119.7
15X	1.206	0.001381	-0.05484	0.0551	2.2161	0.6125	2.346	-1.139	117.1
15XY	1.206	5.422e-006	0.03098	-0.0543	2.2172	0.6013	0.06643	-1.14	117.2
15Y	1.208	-0.0003019	0.02817	-0.0833	2.0733	-0.7166	0.06846	1.14	117.2
16X	1.112	0.002136	-0.05245	0.0837	2.1124	0.6519	2.252	-1.138	114.6
16XY	1.112	-0.0005297	0.02894	-0.0794	2.1102	0.6415	-0.02798	-1.141	114.7
16Y	1.12	-0.005753	0.02613	-0.0588	1.9665	-0.7333	-0.01968	1.134	114.7
17X	1.022	0.007562	-0.04978	0.0348	1.9752	0.6914	2.162	-1.132	112.2
17XY	1.023	-0.005989	0.02662	-0.0403	1.9816	0.6816	-0.1174	-1.146	112.2
17Y	1.037	-0.006289	0.0238	-0.0935	1.8407	-0.7499	-0.1029	1.134	112.2
18X	0.9552	0.007806	-0.04738	0.1280	1.8893	0.7229	2.095	-1.132	110.2
18XY	0.9553	-0.006309	0.02453	-0.1202	1.8832	0.7138	-0.1847	-1.146	110.2
18Y	0.9748	-0.01082	0.02169	-0.0349	1.7312	-0.7633	-0.1652	1.129	110.2
21X	0.7308	0.006071	-0.05885	0.0508	1.2104	0.7095	3.183	-2.446	99.34
21XY	0.7315	-0.004268	0.0379	-0.0479	1.2070	0.7025	-1.721	-2.456	99.44
21Y	0.7455	-0.005482	0.03871	0.0557	1.2197	-0.7139	-1.706	2.447	99.44
22X	0.6738	0.005537	-0.05658	-0.0490	1.1392	0.6903	3.126	-2.446	96.54
22XY	0.6743	-0.004018	0.03606	0.0429	1.1438	0.6838	-1.778	-2.456	96.64
22Y	0.6873	-0.004774	0.03685	-0.0201	1.1668	-0.6955	-1.765	2.447	96.64
23X	0.6211	0.00379	-0.05367	0.0036	1.0916	0.6681	3.073	-2.448	93.85
23XY	0.6215	-0.002327	0.03371	-0.0040	1.0910	0.6622	-1.831	-2.454	93.93
23Y	0.6336	-0.005566	0.03446	0.0217	1.1113	-0.6743	-1.818	2.446	93.93
24X	0.5712	0.004674	-0.05052	-0.0205	1.0237	0.6460	3.023	-2.447	91.15
24XY	0.5717	-0.003249	0.03112	0.0221	1.0210	0.6406	-1.88	-2.455	91.23
24Y	0.5828	-0.003793	0.03183	-0.0046	1.0421	-0.6531	-1.869	2.448	91.23
25X	0.5219	0.0034	-0.04872	-0.0053	0.9898	0.6385	2.974	-2.449	88.35
25XY	0.5225	-0.001928	0.02964	0.0032	0.9907	0.6333	-1.93	-2.454	88.43
25Y	0.5326	-0.004279	0.03031	0.0135	1.0112	-0.6460	-1.919	2.448	88.43
26X	0.4746	0.003741	-0.04677	-0.0157	0.9497	0.6310	2.927	-2.448	85.55
26XY	0.4751	-0.002428	0.02802	0.0157	0.9488	0.6260	-1.977	-2.454	85.63
26Y	0.4842	-0.002989	0.02864	-0.0001	0.9680	-0.6388	-1.968	2.449	85.63
27X	0.4289	0.002587	-0.04502	-0.0067	0.9168	0.6266	2.881	-2.449	82.75
27XY	0.4294	-0.001224	0.02656	0.0053	0.9169	0.6217	-2.023	-2.453	82.83
27Y	0.4376	-0.003453	0.02714	0.0093	0.9353	-0.6346	-2.014	2.449	82.83
28X	0.385	0.002899	-0.04313	-0.0094	0.8798	0.6222	2.837	-2.449	79.96
28XY	0.3855	-0.001699	0.02498	0.0079	0.8802	0.6174	-2.066	-2.454	80.02
28Y	0.3928	-0.002293	0.02551	0.0056	0.8973	-0.6304	-2.059	2.45	80.03
29X	0.3437	0.001738	-0.04114	-0.0098	0.8385	0.6179	2.796	-2.45	77.21
29XY	0.3442	-0.0005105	0.0233	0.0093	0.8380	0.6132	-2.108	-2.453	77.27
29Y	0.3508	-0.002868	0.02378	0.0028	0.8538	-0.6263	-2.101	2.449	77.27
30X	0.3044	0.002144	-0.039	0.0015	0.8056	0.6135	2.756	-2.45	74.46
30XY	0.3049	-0.00105	0.0215	-0.0044	0.8072	0.6090	-2.147	-2.453	74.52
30Y	0.3107	-0.001784	0.02191	0.0152	0.8220	-0.6221	-2.141	2.45	74.52
31X	0.2667	0.00162	-0.03676	-0.0048	0.7975	0.6093	2.719	-2.45	71.76
31XY	0.2671	-0.0005785	0.0196	0.0055	0.7960	0.6049	-2.185	-2.453	71.82
31Y	0.2723	-0.001784	0.01994	0.0035	0.8102	-0.6181	-2.18	2.45	71.82
33X	0.1487	3.454e-005	-0.03098	-0.1060	0.3860	0.5563	3.371	-3.223	59.77
33XY	0.1493	0.0009517	0.01558	0.1032	0.3870	0.5526	-3.073	-3.222	59.82
33Y	0.1526	-0.001699	0.01576	-0.0980	0.3925	-0.5649	-3.07	3.221	59.82
34X	0.1148	-5.975e-005	-0.02987	-0.0579	0.3568	0.5039	4.069	-3.954	53.77
34XY	0.1156	0.001086	0.01546	0.0569	0.3559	0.5005	-3.838	-3.953	53.82
34Y	0.1185	-0.001224	0.01564	-0.0533	0.3594	-0.5117	-3.835	3.953	53.82
35X	0.0873	1.655e-005	-0.02823	-0.0658	0.2787	0.4506	4.772	-4.685	47.77
35XY	0.08819	0.001017	0.01492	0.0646	0.2785	0.4476	-4.597	-4.684	47.81
35Y	0.09086	-0.000689	0.01509	-0.0620	0.2835	-0.4572	-4.594	4.684	47.82

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.06494	-0.0003829	-0.02603	-0.0506	0.2519	0.3939	5.481	-5.417	41.77
36XY	0.06599	0.001527	0.01388	0.0500	0.2516	0.3912	-5.35	-5.415	41.81
36Y	0.06797	-0.000819	0.01412	-0.0469	0.2611	-0.3991	-5.348	5.415	41.81
37X	0.04452	0.0001063	-0.0239	-0.0497	0.1947	0.3392	6.192	-6.147	35.78
37XY	0.04569	0.001114	0.01306	0.0484	0.1950	0.3369	-6.102	-6.146	35.81
37Y	0.04684	-7.097e-005	0.01334	-0.0491	0.2008	-0.3435	-6.101	6.147	35.81
38X	0.03089	-0.0005945	-0.02074	-0.0363	0.1607	0.2831	6.909	-6.879	29.78
38XY	0.03216	0.001871	0.01131	0.0348	0.1612	0.2812	-6.846	-6.877	29.81
38Y	0.03308	-0.001056	0.0115	-0.0379	0.1632	-0.2868	-6.845	6.878	29.81
39X	0.01701	0.0003661	-0.01769	-0.0369	0.1252	0.2255	7.627	-7.609	23.78
39XY	0.01847	0.001076	0.00981	0.0390	0.1231	0.2239	-7.591	-7.609	23.81
39Y	0.01919	-0.0003986	0.009946	-0.0411	0.1254	-0.2283	-7.591	7.609	23.81
40X	0.008944	-0.001136	-0.01359	-0.0294	0.0991	0.1678	8.35	-8.342	17.79
40XY	0.01033	0.002551	0.007406	0.0144	0.1138	0.1666	-8.331	-8.338	17.81
40Y	0.01089	-0.00209	0.007482	-0.0167	0.1158	-0.1698	-8.33	8.339	17.81
41X	0.0005762	0.0006926	-0.009881	0.0069	0.0395	0.1176	9.073	-9.071	11.79
41XY	0.002319	0.001036	0.005501	0.0462	-0.0141	0.1169	-9.07	-9.071	11.81
41Y	0.002657	-0.0007266	0.005556	-0.0480	-0.0115	-0.1188	-9.069	9.071	11.81
42X	0.00185	0.002009	-0.004887	-0.0265	-0.0028	0.0569	9.805	-9.801	5.795
42XY	0.009515	0.005639	0.001041	-0.0059	0.0298	0.0565	-9.794	-9.798	5.801
42Y	0.00962	-0.005529	0.001071	0.0040	0.0316	-0.0572	-9.794	9.798	5.801

Joint Support Reactions for Load Case "LC3 WIND 0° C.T.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Comp. Force (kN)	Z Comp. Usage %	Uplift Result. Force (kN)	Uplift Result. Usage %	X X-M. Usage (kN-m)	X X-M. Moment (kN-m)	Y Y-M. Usage (kN-m)	Y Y-M. Moment (kN-m)	Z Z-M. Usage (kN-m)	Z Z-M. Moment (kN-m)	Max. Usage %
ANP	-182.95	0.0	-199.23	0.0	1295.84	0.0	0.0	1323.77	0.0	-2.25	0.0	-2.1	0.0	0.17	0.0
ANX	-177.34	0.0	201.80	0.0	1282.70	0.0	0.0	1310.53	0.0	2.17	0.0	-0.17	0.0	0.0	0.0
ANXY	-107.99	0.0	-131.58	0.0	-764.09	0.0	0.0	782.82	0.0	1.77	0.0	-5.9	0.0	-0.17	0.0
ANY	-112.39	0.0	129.00	0.0	-771.25	0.0	0.0	790.00	0.0	-1.71	0.0	-6.0	0.0	0.17	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC3 WIND 0° C.T.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.7876	0.0000	-3.3754	-1.7848	-0.0000	3.3754	2.7123	-0.0072	-0.0454
10P	5.9408	0.0000	-5.9268	-5.9390	-0.0000	5.9268	1.7714	-0.0226	-0.0417
11P	2.3934	0.0000	-3.3251	-2.3918	-0.0000	3.3250	1.6133	-0.0118	-0.0581
19P	2.9256	0.0000	-3.9796	-2.9246	0.0000	3.9796	0.9283	0.0103	-0.0425
20P	4.1179	0.0000	-5.7288	-4.1171	0.0000	5.7287	0.8053	0.0081	-0.0619
32P	4.6304	0.0000	-9.0478	-4.6302	0.0000	9.0477	0.1968	0.0002	-0.0319
ANP	1.5085	0.0000	-5.0810	181.4441	199.2255	-1290.7553	0.0000	0.0000	0.0000
1X	1.7876	0.0000	-3.3754	-1.7848	-0.0000	3.3754	2.7248	-0.0071	-0.0446
1XY	1.7876	0.0000	-3.3754	-1.7848	0.0000	3.3755	2.7249	0.0019	0.0179
1Y	0.8936	0.0000	-1.9954	-0.8908	0.0000	1.9955	2.7124	0.0018	0.0192
10X	5.9408	0.0000	-5.9268	-5.9390	-0.0000	5.9268	1.8172	-0.0221	-0.0400
10XY	2.7968	0.0000	-3.9468	-2.7950	0.0000	3.9468	1.8174	0.0224	0.0146
10Y	1.9028	0.0000	-2.5668	-1.9010	0.0000	2.5668	1.7716	0.0226	0.0165
11X	2.3934	0.0000	-3.3251	-2.3918	-0.0000	3.3250	1.6383	-0.0124	-0.0613
11XY	2.3934	0.0000	-3.3251	-2.3918	0.0000	3.3251	1.6384	0.0130	0.0363
11Y	2.3934	0.0000	-3.3251	-2.3918	0.0000	3.3251	1.6135	0.0120	0.0333

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	Project	Date
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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	2.9256	0.0000	-3.9796	-2.9247	0.0000	3.9796	0.9048	0.0134	-0.0454
19XY	2.9256	0.0000	-3.9796	-2.9247	-0.0000	3.9797	0.9053	-0.0115	0.0228
19Y	2.9256	0.0000	-3.9796	-2.9246	-0.0000	3.9797	0.9287	-0.0094	0.0199
20X	4.1179	0.0000	-5.7288	-4.1171	0.0000	5.7287	0.7902	0.0050	-0.0610
20XY	3.6719	0.0000	-4.9488	-3.6711	-0.0000	4.9488	0.7904	-0.0037	0.0396
20Y	3.6719	0.0000	-4.9488	-3.6711	-0.0000	4.9488	0.8055	-0.0071	0.0404
32X	4.6304	0.0000	-9.0478	-4.6302	0.0000	9.0477	0.1929	0.0023	-0.0317
32XY	4.6304	0.0000	-9.0478	-4.6302	-0.0000	9.0478	0.1936	-0.0011	0.0153
32Y	4.6304	0.0000	-9.0478	-4.6302	-0.0000	9.0478	0.1975	-0.0005	0.0155
ANX	1.5085	0.0000	-5.0810	175.8355	-201.7952	-1277.6179	0.0000	0.0000	0.0000
ANXY	1.5085	0.0000	-5.0810	106.4822	131.5752	769.1719	0.0000	0.0000	0.0000
ANY	1.5085	0.0000	-5.0810	110.8767	-129.0045	776.3278	0.0000	0.0000	0.0000
2S	1.7876	0.0000	-2.3754	-1.7850	-0.0000	2.3754	2.5520	-0.0095	-0.0453
3S	1.7210	0.0000	-1.9332	-1.7186	-0.0000	1.9332	2.4281	-0.0108	-0.0452
4S	1.7215	0.0000	-2.3178	-1.7192	-0.0000	2.3177	2.3038	-0.0121	-0.0449
5S	5.7550	0.0000	-5.3596	-5.7528	-0.0000	5.3596	2.1810	-0.0143	-0.0445
6S	4.9275	0.0000	-4.4218	-4.9254	-0.0000	4.4218	2.0587	-0.0154	-0.0439
7S	5.5900	0.0000	-5.2371	-5.5881	-0.0000	5.2370	1.9381	-0.0185	-0.0432
8S	4.7006	0.0000	-4.1752	-4.6987	-0.0000	4.1752	1.8437	-0.0197	-0.0424
12S	1.1532	0.0000	-1.5735	-1.1517	-0.0000	1.5734	1.4958	-0.0074	-0.0569
13S	2.2189	0.0000	-2.9269	-2.2175	-0.0000	2.9268	1.3969	-0.0051	-0.0557
14S	1.5117	0.0000	-2.1334	-1.5104	-0.0000	2.1334	1.3006	-0.0002	-0.0540
15S	2.5645	0.0000	-3.4868	-2.5633	0.0000	3.4868	1.2082	0.0013	-0.0519
16S	1.0528	0.0000	-1.3534	-1.0517	0.0000	1.3534	1.1200	0.0067	-0.0496
17S	2.2811	0.0000	-3.1482	-2.2801	0.0000	3.1482	1.0369	0.0074	-0.0469
18S	1.2283	0.0000	-1.7948	-1.2273	0.0000	1.7948	0.9747	0.0121	-0.0445
21S	1.5286	0.0000	-1.9840	-1.5279	0.0000	1.9839	0.7449	0.0060	-0.0598
22S	6.6346	0.0000	-5.6507	-6.6339	0.0000	5.6507	0.6869	0.0054	-0.0575
23S	5.1060	0.0000	-3.6668	-5.1054	0.0000	3.6667	0.6333	0.0062	-0.0545
24S	3.1143	0.0000	-4.4346	-3.1137	0.0000	4.4346	0.5823	0.0043	-0.0513
25S	1.6073	0.0000	-2.5678	-1.6067	0.0000	2.5678	0.5320	0.0046	-0.0495
26S	3.2693	0.0000	-5.4135	-3.2689	0.0000	5.4135	0.4837	0.0034	-0.0475
27S	1.6621	0.0000	-2.8457	-1.6616	0.0000	2.8457	0.4371	0.0037	-0.0457
28S	3.2702	0.0000	-5.6511	-3.2698	0.0000	5.6511	0.3924	0.0026	-0.0438
29S	1.8131	0.0000	-3.0554	-1.8128	0.0000	3.0554	0.3503	0.0030	-0.0417
30S	2.8368	0.0000	-5.0007	-2.8365	0.0000	5.0007	0.3102	0.0019	-0.0395
31S	3.3523	0.0000	-6.1912	-3.3521	0.0000	6.1912	0.2718	0.0019	-0.0372
33S	5.0306	0.0000	-10.1147	-5.0305	0.0000	10.1147	0.1519	0.0014	-0.0313
34S	5.2518	0.0000	-10.9430	-5.2516	0.0000	10.9430	0.1177	0.0007	-0.0302
35S	15.7456	0.0000	-17.2016	-15.7455	-0.0000	17.2016	0.0900	-0.0001	-0.0286
36S	14.7638	0.0000	-16.2721	-14.7638	-0.0000	16.2721	0.0670	-0.0002	-0.0264
37S	3.7388	0.0000	-9.5312	-3.7387	-0.0000	9.5312	0.0457	-0.0011	-0.0243
371S	3.7388	0.0000	-9.5312	-3.7387	-0.0000	9.5312	0.0451	-0.0005	-0.0248
372S	3.7388	0.0000	-9.5312	-3.7387	-0.0000	9.5312	0.0462	-0.0006	-0.0057
373S	3.7388	0.0000	-9.5312	-3.7387	0.0000	9.5313	0.0463	0.0005	0.0134
374S	3.7388	0.0000	-9.5312	-3.7387	0.0000	9.5312	0.0450	0.0006	-0.0056
38S	3.9486	0.0000	-10.4902	-3.9485	-0.0000	10.4902	0.0318	-0.0002	-0.0210
39S	3.9567	0.0000	-11.0252	-3.9566	-0.0000	11.0252	0.0177	-0.0011	-0.0179
391S	3.9567	0.0000	-11.0252	-3.9566	-0.0000	11.0252	0.0174	-0.0004	-0.0189
392S	3.9567	0.0000	-11.0252	-3.9566	-0.0000	11.0252	0.0184	-0.0007	-0.0043
393S	3.9567	0.0000	-11.0252	-3.9566	0.0000	11.0253	0.0188	0.0003	0.0103
394S	3.9567	0.0000	-11.0252	-3.9566	0.0000	11.0252	0.0177	0.0007	-0.0043
40S	8.4107	0.0000	-14.7552	-8.4106	0.0000	14.7551	0.0095	0.0006	-0.0137
41S	7.3865	0.0000	-13.1041	-7.3865	-0.0000	13.1041	0.0010	-0.0011	-0.0100
411S	3.3865	0.0000	-11.7505	-3.3865	-0.0000	11.7505	0.0007	-0.0002	-0.0055
412S	3.3865	0.0000	-11.7505	-3.3865	-0.0000	11.7505	0.0017	-0.0009	-0.0025

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	Project	Date
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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	3.3865	0.0000	-11.7505	-3.3865	0.0000	11.7505	0.0025	0.0002	0.0005
414S	3.3865	0.0000	-11.7505	-3.3865	0.0000	11.7505	0.0014	0.0008	-0.0024
42S	2.4851	0.0000	-8.5456	-2.4851	-0.0000	8.5456	0.0020	-0.0021	-0.0049
2X	1.7876	0.0000	-2.3754	-1.7850	-0.0000	2.3754	2.5694	-0.0088	-0.0445
2XY	1.7876	0.0000	-2.3754	-1.7850	0.0000	2.3755	2.5704	0.0056	0.0179
2Y	0.8936	0.0000	-0.9954	-0.8910	0.0000	0.9955	2.5530	0.0042	0.0192
3X	1.7210	0.0000	-1.9332	-1.7186	-0.0000	1.9332	2.4493	-0.0107	-0.0443
3XY	1.7210	0.0000	-1.9332	-1.7186	0.0000	1.9333	2.4494	0.0074	0.0178
3Y	1.7210	0.0000	-1.9332	-1.7186	0.0000	1.9333	2.4282	0.0073	0.0191
4X	1.7215	0.0000	-2.3178	-1.7192	-0.0000	2.3177	2.3290	-0.0126	-0.0440
4XY	1.7215	0.0000	-2.3178	-1.7192	0.0000	2.3178	2.3297	0.0108	0.0176
4Y	0.8275	0.0000	-0.9378	-0.8252	0.0000	0.9378	2.3045	0.0088	0.0189
5X	6.6490	0.0000	-6.7396	-6.6467	-0.0000	6.7396	2.2103	-0.0141	-0.0435
5XY	2.6110	0.0000	-3.3796	-2.6087	0.0000	3.3796	2.2104	0.0124	0.0173
5Y	1.7170	0.0000	-1.9996	-1.7148	0.0000	1.9996	2.1811	0.0123	0.0186
6X	5.8215	0.0000	-5.8018	-5.8194	-0.0000	5.8018	2.0922	-0.0170	-0.0428
6XY	1.7835	0.0000	-2.4418	-1.7814	0.0000	2.4419	2.0924	0.0165	0.0168
6Y	0.8895	0.0000	-1.0618	-0.8874	0.0000	1.0619	2.0590	0.0136	0.0183
7X	5.5900	0.0000	-5.2371	-5.5881	-0.0000	5.2370	1.9762	-0.0184	-0.0419
7XY	1.5520	0.0000	-1.8771	-1.5501	0.0000	1.8771	1.9763	0.0180	0.0161
7Y	1.5520	0.0000	-1.8771	-1.5501	0.0000	1.8771	1.9382	0.0178	0.0177
8X	5.5946	0.0000	-5.5552	-5.5927	-0.0000	5.5552	1.8861	-0.0215	-0.0409
8XY	1.5566	0.0000	-2.1952	-1.5547	0.0000	2.1952	1.8862	0.0216	0.0154
8Y	0.6626	0.0000	-0.8152	-0.6607	0.0000	0.8152	1.8438	0.0193	0.0171
12X	1.1532	0.0000	-1.5735	-1.1516	-0.0000	1.5734	1.5130	-0.0091	-0.0600
12XY	1.1532	0.0000	-1.5735	-1.1516	0.0000	1.5735	1.5135	0.0103	0.0353
12Y	1.1532	0.0000	-1.5735	-1.1517	0.0000	1.5735	1.4963	0.0076	0.0324
13X	2.2189	0.0000	-2.9269	-2.2175	-0.0000	2.9268	1.4076	-0.0049	-0.0587
13XY	2.2189	0.0000	-2.9269	-2.2175	0.0000	2.9269	1.4078	0.0060	0.0342
13Y	2.2189	0.0000	-2.9269	-2.2175	0.0000	2.9269	1.3971	0.0057	0.0314
14X	1.5117	0.0000	-2.1334	-1.5104	-0.0000	2.1334	1.3050	-0.0035	-0.0569
14XY	1.0657	0.0000	-1.3534	-1.0644	0.0000	1.3534	1.3053	0.0049	0.0327
14Y	1.5117	0.0000	-2.1334	-1.5104	0.0000	2.1334	1.3010	0.0008	0.0299
15X	2.5645	0.0000	-3.4868	-2.5633	0.0000	3.4868	1.2062	0.0014	-0.0548
15XY	2.1185	0.0000	-2.7068	-2.1173	0.0000	2.7069	1.2064	0.0000	0.0310
15Y	2.5645	0.0000	-3.4868	-2.5633	-0.0000	3.4869	1.2085	-0.0003	0.0282
16X	1.0528	0.0000	-1.3534	-1.0517	0.0000	1.3534	1.1117	0.0021	-0.0525
16XY	1.0528	0.0000	-1.3534	-1.0517	-0.0000	1.3534	1.1120	-0.0005	0.0289
16Y	1.0528	0.0000	-1.3534	-1.0517	-0.0000	1.3534	1.1203	-0.0058	0.0261
17X	2.2811	0.0000	-3.1482	-2.2801	0.0000	3.1482	1.0224	0.0076	-0.0498
17XY	1.8351	0.0000	-2.3682	-1.8341	-0.0000	2.3683	1.0226	-0.0060	0.0266
17Y	2.2811	0.0000	-3.1482	-2.2801	-0.0000	3.1483	1.0371	-0.0063	0.0238
18X	1.2283	0.0000	-1.7948	-1.2274	0.0000	1.7948	0.9552	0.0078	-0.0474
18XY	0.7823	0.0000	-1.0148	-0.7814	-0.0000	1.0148	0.9553	-0.0063	0.0245
18Y	1.2283	0.0000	-1.7948	-1.2273	-0.0000	1.7948	0.9748	-0.0108	0.0217
21X	1.5286	0.0000	-1.9840	-1.5279	0.0000	1.9839	0.7308	0.0061	-0.0589
21XY	1.5286	0.0000	-1.9840	-1.5279	-0.0000	1.9840	0.7315	-0.0043	0.0379
21Y	1.5286	0.0000	-1.9840	-1.5279	-0.0000	1.9840	0.7455	-0.0055	0.0387
22X	3.0356	0.0000	-3.8507	-3.0349	0.0000	3.8507	0.6738	0.0055	-0.0566
22XY	4.8356	0.0000	-4.7507	-4.8349	-0.0000	4.7508	0.6743	-0.0040	0.0361
22Y	3.0356	0.0000	-3.8507	-3.0349	-0.0000	3.8508	0.6873	-0.0048	0.0369
23X	1.5070	0.0000	-1.8668	-1.5064	0.0000	1.8667	0.6211	0.0038	-0.0537
23XY	1.5070	0.0000	-1.8668	-1.5064	-0.0000	1.8668	0.6215	-0.0023	0.0337
23Y	1.5070	0.0000	-1.8668	-1.5064	-0.0000	1.8668	0.6336	-0.0056	0.0345
24X	3.1143	0.0000	-4.4346	-3.1137	0.0000	4.4346	0.5712	0.0047	-0.0505
24XY	3.1143	0.0000	-4.4346	-3.1137	-0.0000	4.4346	0.5717	-0.0032	0.0311

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24Y	3.1143	0.0000	-4.4346	-3.1137	-0.0000	4.4346	0.5828	-0.0038	0.0318
25X	1.6073	0.0000	-2.5678	-1.6068	0.0000	2.5678	0.5219	0.0034	-0.0487
25XY	1.6073	0.0000	-2.5678	-1.6068	-0.0000	2.5679	0.5225	-0.0019	0.0296
25Y	1.6073	0.0000	-2.5678	-1.6067	-0.0000	2.5679	0.5326	-0.0043	0.0303
26X	3.2693	0.0000	-5.4135	-3.2689	0.0000	5.4135	0.4746	0.0037	-0.0468
26XY	3.2693	0.0000	-5.4135	-3.2689	-0.0000	5.4136	0.4751	-0.0024	0.0280
26Y	3.2693	0.0000	-5.4135	-3.2689	-0.0000	5.4136	0.4842	-0.0030	0.0286
27X	1.6621	0.0000	-2.8457	-1.6616	0.0000	2.8457	0.4289	0.0026	-0.0450
27XY	1.6621	0.0000	-2.8457	-1.6616	-0.0000	2.8457	0.4294	-0.0012	0.0266
27Y	1.6621	0.0000	-2.8457	-1.6616	-0.0000	2.8457	0.4376	-0.0035	0.0271
28X	3.2702	0.0000	-5.6511	-3.2698	0.0000	5.6511	0.3850	0.0029	-0.0431
28XY	3.2702	0.0000	-5.6511	-3.2698	-0.0000	5.6512	0.3855	-0.0017	0.0250
28Y	3.2702	0.0000	-5.6511	-3.2698	-0.0000	5.6512	0.3928	-0.0023	0.0255
29X	1.6081	0.0000	-2.8054	-1.6078	0.0000	2.8054	0.3437	0.0017	-0.0411
29XY	1.6081	0.0000	-2.8054	-1.6078	-0.0000	2.8055	0.3442	-0.0005	0.0233
29Y	1.6081	0.0000	-2.8054	-1.6078	-0.0000	2.8055	0.3508	-0.0029	0.0238
30X	2.8368	0.0000	-5.0007	-2.8365	0.0000	5.0007	0.3044	0.0021	-0.0390
30XY	2.8368	0.0000	-5.0007	-2.8365	-0.0000	5.0007	0.3049	-0.0011	0.0215
30Y	2.8368	0.0000	-5.0007	-2.8365	-0.0000	5.0007	0.3107	-0.0018	0.0219
31X	3.3523	0.0000	-6.1912	-3.3521	0.0000	6.1912	0.2667	0.0016	-0.0368
31XY	3.3573	0.0000	-6.4412	-3.5571	-0.0000	6.4412	0.2671	-0.0006	0.0196
31Y	3.3573	0.0000	-6.4412	-3.5571	-0.0000	6.4412	0.2723	-0.0018	0.0199
33X	5.0306	0.0000	-10.1147	-5.0305	0.0000	10.1147	0.1487	0.0000	-0.0310
33XY	5.0306	0.0000	-10.1147	-5.0305	0.0000	10.1147	0.1493	0.0010	0.0156
33Y	5.0306	0.0000	-10.1147	-5.0305	-0.0000	10.1147	0.1526	-0.0017	0.0158
34X	5.2518	0.0000	-10.9430	-5.2516	-0.0000	10.9430	0.1148	-0.0001	-0.0299
34XY	5.2518	0.0000	-10.9430	-5.2516	0.0000	10.9430	0.1156	0.0011	0.0155
34Y	5.2518	0.0000	-10.9430	-5.2516	-0.0000	10.9430	0.1185	-0.0012	0.0156
35X	5.5486	0.0000	-12.0916	-5.5485	0.0000	12.0916	0.0873	0.0000	-0.0282
35XY	5.5486	0.0000	-12.0916	-5.5485	0.0000	12.0916	0.0882	0.0010	0.0149
35Y	9.0826	0.0000	-13.1916	-9.0825	-0.0000	13.1916	0.0909	-0.0007	0.0151
36X	7.1158	0.0000	-13.4921	-7.1158	-0.0000	13.4921	0.0649	-0.0004	-0.0260
36XY	5.8608	0.0010	-11.7471	-5.8608	-0.0010	11.7471	0.0660	0.0015	0.0139
36Y	4.5668	0.0000	-11.1621	-4.5668	-0.0000	11.1621	0.0680	-0.0008	0.0141
37X	4.8718	0.0000	-11.3712	-4.8717	0.0000	11.3712	0.0445	0.0001	-0.0239
37XY	3.7388	0.0000	-9.5312	-3.7387	0.0000	9.5313	0.0457	0.0011	0.0131
37Y	3.7388	0.0000	-9.5312	-3.7387	-0.0000	9.5313	0.0468	-0.0001	0.0133
38X	3.9486	0.0000	-10.4902	-3.9485	-0.0000	10.4902	0.0309	-0.0006	-0.0207
38XY	3.9486	0.0000	-10.4902	-3.9485	0.0000	10.4902	0.0322	0.0019	0.0113
38Y	4.1536	0.0000	-10.7402	-4.1535	-0.0000	10.7402	0.0331	-0.0011	0.0115
39X	3.9567	0.0000	-11.0252	-3.9566	0.0000	11.0252	0.0170	0.0004	-0.0177
39XY	3.9567	0.0000	-11.0252	-3.9566	0.0000	11.0253	0.0185	0.0011	0.0098
39Y	5.0897	0.0000	-12.8652	-5.0896	-0.0000	12.8653	0.0192	-0.0004	0.0099
40X	8.9767	0.0000	-16.4452	-8.9766	-0.0000	16.4451	0.0089	-0.0011	-0.0136
40XY	3.8787	0.0000	-11.7852	-3.8786	0.0000	11.7852	0.0103	0.0026	0.0074
40Y	6.4277	0.0000	-14.1152	-6.4276	-0.0000	14.1152	0.0109	-0.0021	0.0075
41X	3.9875	0.0000	-11.9741	-3.9875	0.0000	11.9741	0.0006	0.0007	-0.0099
41XY	2.8545	0.0000	-10.1341	-2.8545	0.0000	10.1341	0.0023	0.0010	0.0055
41Y	2.8545	0.0000	-10.1341	-2.8545	-0.0000	10.1341	0.0027	-0.0007	0.0056
42X	2.4851	0.0000	-8.5456	-2.4851	0.0000	8.5456	0.0018	0.0020	-0.0049
42XY	2.4851	0.0000	-8.5456	-2.4851	0.0000	8.5456	0.0095	0.0056	0.0010
42Y	2.4851	0.0000	-8.5456	-2.4851	-0.0000	8.5456	0.0096	-0.0055	0.0011

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

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Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.01	-0.00	0.05	-9.29	65.77	-2.89
1X	-0.01	-0.00	0.05	10.32	70.97	3.21
1XY	-0.01	0.00	0.05	47.08	-60.26	14.66
1Y	0.01	0.00	0.05	-47.42	-51.90	-14.77
2P	0.02	9.29	-65.72	-8.37	-70.79	0.37
2X	-0.02	-10.32	-70.92	11.26	-71.71	0.38
2XY	-0.01	-47.08	60.30	-87.87	101.34	-53.98
2Y	0.02	47.42	51.95	86.16	85.38	53.43
3P	0.04	8.37	70.84	48.09	120.85	22.59
3X	-0.02	-11.26	71.76	-42.42	133.49	-21.47
3XY	-0.02	87.87	-101.29	120.41	-25.07	83.31
3Y	0.03	-86.16	-85.33	-124.98	-26.76	-84.45
4P	0.05	-48.09	-120.80	-98.94	-23.59	-58.81
4X	-0.03	42.41	-133.44	105.27	-15.50	59.08
4XY	-0.03	-120.41	25.11	-195.65	118.92	-126.42
4Y	0.05	124.98	26.81	192.89	114.95	127.15
5P	0.06	98.94	23.64	307.70	201.56	162.65
5X	-0.04	-105.27	15.54	-244.86	229.51	-140.05
5XY	-0.04	195.65	-118.87	382.58	163.91	231.29
5Y	0.06	-192.89	-114.90	-435.39	93.44	-251.31
6P	0.07	-307.70	-201.51	-486.18	437.57	-317.55
6X	-0.05	244.86	-229.46	404.80	466.11	259.86
6XY	-0.04	-382.58	-163.86	-523.97	477.12	-362.62
6Y	0.07	435.39	-93.39	619.66	508.80	422.02
7P	0.08	486.18	-437.52	1260.00	293.25	873.09
7X	-0.05	-404.80	-466.06	-456.86	1160.08	-430.83
7XY	-0.05	523.98	-477.07	538.92	1257.50	531.45
7Y	0.08	-619.66	-508.75	-1336.58	303.56	-978.12
8P	0.09	-1260.01	-293.20	-2771.72	2764.67	-2567.98
8X	-0.06	456.86	-1160.03	-584.05	-1185.12	-81.02
8XY	-0.06	-538.92	-1257.46	639.90	-1275.86	64.32
8Y	0.09	1336.58	-303.51	2791.37	2720.15	2629.27
9P	0.95	-3914.78	-4.93	-2020.47	-459.17	-1447.98
9X	-71.93	1251.03	418.92	1041.33	775.98	559.25
9XY	-76.09	-1354.68	443.24	-1203.98	773.27	-624.21
9Y	8.62	3897.20	-49.65	1898.30	-454.71	1413.88
10P	78.58	-1748.58	1108.83	-86.61	1174.23	-635.01
10X	-202.08	-204.12	-1268.49	-431.73	575.74	-220.02
10XY	-205.73	321.52	-1381.11	605.66	276.76	320.82
10Y	85.38	1658.17	1026.47	-71.37	861.16	549.06
11P	78.59	86.61	-1174.19	-651.24	366.48	-225.85
11X	-202.09	431.73	-575.70	792.08	546.11	489.53
11XY	-205.74	-605.66	-276.72	-937.40	806.61	-617.23
11Y	85.39	71.37	-861.12	801.24	668.69	349.05
12P	78.60	651.24	-366.44	971.62	918.99	649.14
12X	-202.10	-792.08	-546.06	-994.69	879.57	-714.71
12XY	-205.75	937.40	-806.57	1107.37	699.70	817.91
12Y	85.40	-801.25	-668.65	-1076.91	690.73	-751.26
13P	78.61	-971.62	-918.95	-1190.46	780.19	-864.83
13X	-202.11	994.69	-879.53	1210.77	827.38	882.18
13XY	-205.76	-1107.37	-699.66	-1289.95	966.48	-958.93
13Y	85.41	1076.91	-690.69	1275.37	957.67	940.91
14P	78.63	1190.46	-780.15	1442.47	1081.26	1053.17

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14X	-202.12	-1210.77	-827.34	-1456.51	1047.46	-1066.91	88.05
14XY	-205.77	1289.95	-966.44	1504.65	967.70	1117.84	0.51
14Y	85.43	-1275.37	-957.64	-1485.37	972.47	-1104.30	5.93
15P	78.64	-1442.47	-1081.22	-1812.84	1341.05	-1302.12	103.93
15X	-202.13	1456.51	-1047.43	1875.89	1431.23	1332.96	153.52
15XY	-205.78	-1504.65	-967.67	-1839.94	1356.85	-1337.84	155.68
15Y	85.44	1485.37	-972.43	1782.98	1300.56	1307.34	131.25
16P	78.65	1812.84	-1341.01	2590.91	867.18	2201.88	-236.92
16X	-202.15	-1875.88	-1431.20	-2875.22	510.24	-2375.55	-460.48
16XY	-205.80	1839.94	-1356.82	2696.44	865.57	2268.19	-245.63
16Y	85.45	-1782.98	-1300.53	-2410.83	1173.62	-2096.90	-63.45
17P	78.67	-2590.91	-867.15	-1475.91	2984.25	-2573.94	1339.94
17X	-202.16	2875.22	-510.21	2751.97	4600.42	3561.51	2588.74
17XY	-205.81	-2696.44	-865.53	-2584.17	4440.53	-3342.16	2262.66
17Y	85.47	2410.83	-1173.59	1327.07	2844.16	2365.76	1057.32
18P	-220.54	-3153.79	1046.45	-1847.77	-381.98	-748.43	99.43
18X	168.67	-5198.90	-1311.78	-3059.51	204.73	-1235.78	-165.66
18XY	166.72	4967.20	-1318.16	2850.96	208.01	1169.90	-166.12
18Y	-215.72	2949.49	1054.28	1651.82	-384.10	688.54	100.29
19P	-105.80	-1609.35	1003.82	-577.88	928.25	-781.15	690.02
19X	105.19	2335.59	1991.23	765.27	1157.88	1107.45	1124.68
19XY	102.40	-2189.97	1841.92	-612.35	895.70	-1000.83	977.72
19Y	-100.58	1471.28	864.76	428.15	642.88	678.37	538.44
20P	-105.78	577.88	-928.23	-180.27	283.84	142.00	-230.14
20X	105.17	-765.26	-1157.86	131.29	224.94	-226.42	-333.19
20XY	102.39	612.35	-895.68	-203.19	332.77	146.13	-201.04
20Y	-100.57	-428.15	-642.86	252.07	385.13	-62.89	-92.05
21P	-105.77	180.27	-283.82	558.11	503.33	273.48	81.30
21X	105.16	-131.29	-224.92	-549.47	572.50	-252.13	128.73
21XY	102.37	203.19	-332.75	575.45	550.18	288.39	80.53
21Y	-100.56	-252.07	-385.11	-584.27	543.76	-309.75	58.76
22P	-105.76	-558.11	-503.31	-752.23	632.80	-485.31	47.96
22X	105.15	549.47	-572.48	740.96	563.64	477.94	-3.27
22XY	102.36	-575.45	-550.16	-782.46	622.21	-502.93	26.68
22Y	-100.55	584.27	-543.74	793.18	614.04	510.17	26.04
23P	-105.75	752.23	-632.78	1086.88	1108.81	656.82	170.01
23X	105.14	-740.96	-563.62	-1096.76	1109.71	-656.33	195.03
23XY	102.35	782.46	-622.19	1225.10	877.95	716.98	91.34
23Y	-100.53	-793.18	-614.02	-1215.42	917.34	-717.36	108.33
24P	-105.74	-1086.88	-1108.80	-1356.34	919.66	-872.58	-67.55
24X	105.13	1096.76	-1109.69	1340.42	876.70	870.42	-83.21
24XY	102.34	-1225.10	-877.93	-1518.67	1194.14	-979.92	112.93
24Y	-100.52	1215.42	-917.32	1534.19	1217.56	982.00	107.23
25P	-105.73	1356.34	-919.64	1689.61	1898.78	1087.84	349.69
25X	105.12	-1340.42	-876.69	-1714.05	1856.08	-1090.88	349.78
25XY	102.33	1518.67	-1194.13	1948.55	1452.39	1238.29	92.24
25Y	-100.51	-1534.19	-1217.55	-1924.56	1506.15	-1235.27	103.07
26P	-105.71	-1689.61	-1898.76	-1854.38	1283.85	-1265.71	-219.61
26X	105.10	1714.05	-1856.06	1828.66	1222.49	1265.26	-226.27
26XY	102.32	-1948.55	-1452.37	-2053.75	1606.17	-1429.39	54.93
26Y	-100.50	1924.56	-1506.14	2079.00	1647.69	1429.84	50.55
27P	-105.70	1854.38	-1283.83	1779.28	2323.62	1321.33	378.10
27X	105.09	-1828.66	-1222.48	-1813.05	2272.73	-1324.26	381.91
27XY	102.31	2053.75	-1606.15	1994.63	1960.00	1472.14	128.67
27Y	-100.49	-2079.00	-1647.67	-1961.37	2039.06	-1469.23	142.33
28P	-105.69	-1779.28	-2323.60	-1359.34	532.75	-1141.31	-651.22

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28X	105.08	1813.05	-2272.72	1338.15	512.64	1145.89	-640.03
28XY	102.30	-1994.63	-1959.99	-1419.17	654.57	-1241.38	-474.70
28Y	-100.48	1961.37	-2039.05	1439.20	656.51	1236.57	-502.74
29P	-105.68	1359.33	-532.74	1012.23	239.43	878.36	-108.63
29X	105.07	-1338.15	-512.63	-1067.67	188.52	-891.04	-120.04
29XY	102.29	1419.17	-654.56	995.66	305.78	894.38	-129.18
29Y	-100.47	-1439.20	-656.50	-938.99	359.40	-880.81	-110.04
30P	-105.67	-1012.23	-239.41	-1402.80	6243.01	-425.55	1057.90
30X	105.06	1067.67	-188.50	1414.72	6137.29	437.42	1048.24
30XY	102.28	-995.66	-305.76	-1316.37	6025.55	-407.40	1007.89
30Y	-100.46	938.99	-359.39	1298.18	6134.55	394.21	1017.65
31P	-685.38	-5406.39	3354.87	-972.62	-805.11	-993.89	397.27
31X	670.66	-5340.07	-3273.00	-991.23	832.66	-986.45	-380.22
31XY	666.30	5191.51	-3264.15	904.49	834.16	949.79	-378.61
31Y	-679.79	5255.73	3353.08	884.14	-810.15	956.63	396.20
32P	-685.37	972.63	805.11	768.06	-927.81	285.90	-20.15
32X	670.65	991.23	-832.66	737.01	887.04	283.86	8.93
32XY	666.29	-904.50	-834.16	-700.02	888.50	-263.53	8.93
32Y	-679.77	-884.14	810.15	-727.91	-916.04	-264.77	-17.39
33P	-685.36	-768.05	927.81	394.19	-520.13	-61.41	66.96
33X	670.64	-737.01	-887.04	416.84	637.95	-52.59	-40.91
33XY	666.28	700.02	-888.50	-443.32	627.88	42.16	-42.81
33Y	-679.76	727.91	916.04	-408.96	-521.01	52.39	64.88
34P	-685.35	-394.18	520.12	-310.67	-62.69	-115.77	75.13
34X	670.63	-416.83	-637.94	-260.74	111.13	-111.29	-86.53
34XY	666.28	443.31	-627.88	278.95	110.72	118.63	-84.94
34Y	-679.76	408.96	521.00	311.74	-100.73	118.37	69.03
35P	-685.35	310.67	62.69	1167.53	-1114.15	242.79	-172.70
35X	670.62	260.75	-111.12	1016.67	1083.99	209.81	159.79
35XY	666.27	-278.95	-110.72	-1018.79	1086.27	-213.15	160.23
35Y	-679.75	-311.75	100.73	-1150.11	-1089.17	-240.10	-162.35
36P	-685.34	-1167.53	1114.15	-796.46	165.54	-322.58	210.18
36X	670.61	-1016.67	-1083.99	-739.98	-184.58	-288.52	-208.36
36XY	666.26	1018.79	-1086.27	749.20	-185.41	290.38	-208.87
36Y	-679.74	1150.11	1089.17	795.35	158.64	319.53	204.95
37P	-685.34	796.46	-165.54	1259.94	-708.17	337.75	-143.50
37X	670.61	739.98	184.58	1224.82	739.01	322.71	151.70
37XY	666.26	-749.20	185.41	-1317.80	719.34	-339.50	148.60
37Y	-679.74	-795.35	-158.64	-1345.72	-702.55	-351.66	-141.45
38P	-685.33	-1259.94	708.17	-990.27	175.76	-369.59	145.18
38X	670.60	-1224.82	-739.01	-975.69	-215.67	-361.42	-156.80
38XY	666.25	1317.80	-719.34	1522.50	-189.98	466.51	-149.35
38Y	-679.73	1345.72	702.54	1544.18	180.27	474.65	145.00
39P	-685.33	990.27	-175.76	1291.92	-2387.43	374.84	-420.99
39X	670.60	975.69	215.67	1288.70	2442.41	371.92	436.58
39XY	666.25	-1522.50	189.98	-3665.12	2429.01	-852.04	430.16
39Y	-679.73	-1544.18	-180.27	-3673.51	-2408.71	-856.98	-425.23
40P	-685.33	-1291.92	2387.43	-272.88	2573.33	-257.01	814.78
40X	670.60	-1288.70	-2442.41	-273.34	-2598.74	-256.56	-827.99
40XY	666.25	3665.13	-2429.01	4953.37	-2601.21	1415.55	-826.19
40Y	-679.73	3673.51	2408.71	4951.00	2573.57	1416.54	818.32
41P	-685.32	272.88	-2573.33	-135.45	-2973.31	23.35	-942.43
41X	670.60	273.34	2598.74	-133.24	2870.20	23.80	929.22
41XY	666.25	-4953.38	2601.21	-5448.93	2878.29	-1767.45	931.02
41Y	-679.73	-4951.00	-2573.57	-5445.49	-2952.27	-1766.46	-938.89

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 4 "LC4 WIND 45° C.T."

Equilibrium Joint Positions and Rotations for Load Case "LC4 WIND 45° C.T.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	2.002	1.989	-0.05727	-1.8188	1.8591	0.2380	2.652	2.639	150.9
10P	1.397	1.393	-0.05125	-1.8814	1.8189	0.2380	2.047	2.043	131.6
11P	1.244	1.242	-0.08591	-2.1079	2.0634	0.2060	2.384	2.382	127.5
19P	0.6604	0.6604	-0.06256	-1.3348	1.4341	-0.1218	1.8	1.8	108.6
20P	0.5829	0.5838	-0.08509	-0.7196	0.8098	-0.1628	3.035	3.036	102.1
32P	0.1451	0.1452	-0.04295	-0.4253	0.4714	-0.1303	2.597	2.597	66.08
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	2.039	1.989	-0.01638	-1.7998	2.3460	1.0685	2.689	1.339	150.9
1XY	2.039	2.01	0.03621	-2.2573	2.3047	0.5561	1.389	1.36	150.9
1Y	2.002	2.01	-0.01541	-2.3041	1.8415	-0.2380	1.352	2.66	150.9
10X	1.271	1.394	-0.01592	-1.8816	1.9533	1.0689	1.921	0.7439	131.6
10XY	1.271	1.258	0.0319	-1.8108	1.9941	0.5562	0.621	0.6078	131.7
10Y	1.398	1.258	-0.01531	-1.7970	1.7784	-0.2380	0.7475	1.908	131.6
11X	1.174	1.241	-0.00911	-2.2181	1.5379	1.0582	2.314	0.1014	127.6
11XY	1.175	1.163	0.05355	-1.3165	1.4571	0.5277	0.03504	0.02259	127.6
11Y	1.243	1.162	-0.008309	-1.4390	2.1256	-0.2898	0.1033	2.302	127.6
19X	0.7044	0.6627	-0.008514	-1.1916	1.0307	1.0199	1.844	-0.4773	108.6
19XY	0.7031	0.6985	0.03403	-1.1236	1.2046	0.2616	-0.4369	-0.4415	108.7
19Y	0.6627	0.7	-0.00815	-0.9979	1.2360	-0.8585	-0.4773	1.84	108.6
20X	0.6052	0.5816	-0.01183	-0.8503	0.9681	0.9319	3.057	-1.87	102.2
20XY	0.6077	0.6029	0.06548	-0.8414	0.9182	0.2132	-1.844	-1.849	102.3
20Y	0.5807	0.6004	-0.01146	-0.9822	0.8404	-0.8629	-1.871	3.052	102.2
32X	0.1452	0.147	-0.00865	-0.4509	0.4957	0.7747	2.597	-2.305	66.12
32XY	0.1449	0.144	0.02725	-0.4352	0.4924	0.1604	-2.307	-2.308	66.15
32Y	0.1468	0.1443	-0.008531	-0.4615	0.4715	-0.7353	-2.305	2.596	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	1.898	1.887	-0.05714	-1.8061	1.8462	0.2380	2.548	2.537	147.6
3S	1.818	1.809	-0.05694	-1.7965	1.8353	0.2380	2.468	2.459	145.1
4S	1.738	1.73	-0.05651	-1.7996	1.8376	0.2380	2.388	2.38	142.6
5S	1.658	1.652	-0.05584	-1.7653	1.7936	0.2380	2.308	2.302	140.1
6S	1.58	1.575	-0.05501	-1.7725	1.7941	0.2380	2.23	2.225	137.6
7S	1.502	1.498	-0.05377	-1.7281	1.7341	0.2380	2.152	2.148	135.1
8S	1.443	1.44	-0.05253	-1.6148	1.6470	0.2380	2.093	2.09	133.1
12S	1.145	1.143	-0.08413	-1.9116	1.9332	0.1622	2.285	2.283	124.6
13S	1.061	1.059	-0.08228	-1.8827	1.8886	0.1243	2.201	2.199	122.1
14S	0.9803	0.9797	-0.07965	-1.8300	1.8366	0.0790	2.12	2.12	119.6
15S	0.9008	0.9003	-0.07661	-1.7419	1.7485	0.0337	2.041	2.04	117.1
16S	0.8273	0.8272	-0.0731	-1.6841	1.6842	-0.0116	1.967	1.967	114.6
17S	0.7548	0.7546	-0.06914	-1.5359	1.5492	-0.0569	1.895	1.895	112.1
18S	0.7029	0.7029	-0.06557	-1.5615	1.5318	-0.0931	1.843	1.843	110.1
21S	0.5386	0.5395	-0.08204	-0.9383	0.9141	-0.1580	2.991	2.991	99.32
22S	0.497	0.4979	-0.07879	-0.7979	0.8062	-0.1531	2.949	2.95	96.52
23S	0.4595	0.4605	-0.07463	-0.8081	0.8053	-0.1475	2.911	2.912	93.83
24S	0.4221	0.423	-0.07011	-0.7397	0.7410	-0.1419	2.874	2.875	91.13
25S	0.3867	0.3876	-0.06753	-0.7267	0.7250	-0.1400	2.839	2.84	88.33

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.3516	0.3524	-0.06473	-0.6892	0.6900	-0.1381	2.804	2.804	85.54
27S	0.3187	0.3195	-0.06221	-0.6721	0.6706	-0.1369	2.771	2.772	82.74
28S	0.2862	0.2869	-0.0595	-0.6428	0.6417	-0.1358	2.738	2.739	79.94
29S	0.2565	0.2572	-0.05662	-0.6123	0.6111	-0.1347	2.708	2.709	77.19
30S	0.2273	0.2279	-0.05354	-0.5954	0.5947	-0.1336	2.679	2.68	74.45
31S	0.1999	0.2003	-0.0503	-0.5930	0.5818	-0.1326	2.652	2.652	71.75
33S	0.1134	0.1135	-0.04226	-0.2051	0.2307	-0.1198	3.336	3.336	59.76
34S	0.08777	0.08795	-0.04097	-0.2116	0.2387	-0.1073	4.042	4.042	53.76
35S	0.06684	0.06703	-0.03891	-0.1521	0.1756	-0.0954	4.752	4.752	47.76
36S	0.04975	0.05002	-0.03605	-0.1488	0.1699	-0.0834	5.466	5.466	41.76
37S	0.03326	0.03354	-0.0333	-0.1041	0.1213	-0.0715	6.181	6.181	35.77
371S	0.03335	0.03409	-0.01991	0.0000	0.0000	0.0000	6.181	0.03409	35.78
372S	0.0338	0.03332	-0.01984	0.0000	0.0000	0.0000	0.0338	6.181	35.78
373S	0.03452	0.03364	0.00858	0.0000	0.0000	0.0000	-6.113	0.03364	35.81
374S	0.03398	0.03449	0.008529	0.0000	0.0000	0.0000	0.03398	-6.113	35.81
38S	0.02364	0.02388	-0.02885	-0.0851	0.0992	-0.0595	6.902	6.902	29.77
39S	0.01258	0.01279	-0.02463	-0.0599	0.0713	-0.0475	7.622	7.623	23.78
391S	0.01268	0.01347	-0.01519	0.0000	0.0000	0.0000	7.622	0.01347	23.78
392S	0.01326	0.01269	-0.01515	0.0000	0.0000	0.0000	0.01326	7.622	23.78
393S	0.01413	0.01324	0.006597	0.0000	0.0000	0.0000	-7.596	0.01324	23.81
394S	0.01345	0.01414	0.006548	0.0000	0.0000	0.0000	0.01345	-7.596	23.81
40S	0.007742	0.007947	-0.01884	-0.0502	0.0586	-0.0356	8.349	8.349	17.78
41S	0.00027	0.0004289	-0.01372	-0.0205	0.0255	-0.0236	9.072	9.072	11.79
411S	0.0002848	0.001204	-0.004724	0.0000	0.0000	0.0000	9.072	0.001204	11.8
412S	0.001045	0.0003136	-0.004705	0.0000	0.0000	0.0000	0.001045	9.072	11.8
413S	0.002015	0.001042	-0.00021	0.0000	0.0000	0.0000	-9.07	0.001042	11.8
414S	0.001142	0.002045	-0.0002183	0.0000	0.0000	0.0000	0.001142	-9.07	11.8
42S	0.001552	0.00161	-0.00642	0.0153	-0.0134	-0.0117	9.805	9.805	5.794
2X	1.908	1.888	-0.01633	-1.8100	2.3135	1.0686	2.558	1.238	147.7
2XY	1.91	1.883	0.0362	-2.2921	2.3352	0.5561	1.26	1.233	147.7
2Y	1.899	1.882	-0.01536	-2.2671	1.8497	-0.2380	1.249	2.532	147.7
3X	1.808	1.809	-0.01629	-1.8151	2.3284	1.0686	2.458	1.159	145.2
3XY	1.808	1.783	0.03608	-2.2690	2.3145	0.5561	1.158	1.133	145.2
3Y	1.818	1.783	-0.01535	-2.2851	1.8528	-0.2380	1.168	2.433	145.2
4X	1.706	1.73	-0.01622	-1.7865	2.3047	1.0687	2.356	1.08	142.7
4XY	1.707	1.685	0.03578	-2.2768	2.3166	0.5561	1.057	1.035	142.7
4Y	1.738	1.683	-0.01531	-2.2600	1.8249	-0.2380	1.088	2.333	142.7
5X	1.606	1.652	-0.01614	-1.7991	2.3095	1.0687	2.256	1.002	140.2
5XY	1.606	1.585	0.03526	-2.2174	2.2749	0.5561	0.9561	0.9353	140.2
5Y	1.658	1.585	-0.01526	-2.2701	1.8285	-0.2380	1.008	2.235	140.2
6X	1.505	1.574	-0.01605	-1.7557	2.2761	1.0688	2.155	0.9241	137.7
6XY	1.507	1.489	0.03465	-2.2439	2.2892	0.5562	0.8571	0.8388	137.7
6Y	1.579	1.486	-0.01522	-2.2237	1.7791	-0.2380	0.929	2.136	137.7
7X	1.407	1.498	-0.01596	-1.7646	2.2350	1.0688	2.057	0.8482	135.2
7XY	1.408	1.391	0.03372	-2.1413	2.2124	0.5562	0.7576	0.7414	135.2
7Y	1.503	1.391	-0.01521	-2.1733	1.7624	-0.2380	0.8525	2.041	135.2
8X	1.329	1.438	-0.01591	-1.5806	2.2262	1.0688	1.979	0.7883	133.2
8XY	1.331	1.317	0.0328	-2.2368	2.2412	0.5562	0.6809	0.6666	133.2
8Y	1.442	1.315	-0.01523	-2.2083	1.6271	-0.2380	0.7923	1.965	133.2
12X	1.093	1.142	-0.009023	-1.8627	1.5903	1.0531	2.233	0.002298	124.7
12XY	1.095	1.084	0.05217	-1.6299	1.6289	0.4921	-0.04496	-0.05588	124.8
12Y	1.144	1.082	-0.008279	-1.5782	1.8987	-0.3659	0.003772	2.222	124.7
13X	1.026	1.06	-0.008965	-1.9152	1.5443	1.0486	2.166	-0.08035	122.2
13XY	1.026	1.016	0.05069	-1.4879	1.5242	0.4613	-0.114	-0.1238	122.3
13Y	1.061	1.016	-0.008269	-1.5140	1.9149	-0.4317	-0.07933	2.156	122.2
14X	0.9583	0.9773	-0.008882	-1.8162	1.4865	1.0433	2.098	-0.1627	119.7

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14XY	0.9611	0.9526	0.04854	-1.4732	1.4953	0.4245	-0.1789	-0.1874	119.7
14Y	0.9781	0.9495	-0.008248	-1.4620	1.8255	-0.5102	-0.1619	2.089	119.7
15X	0.8959	0.9004	-0.008802	-1.7665	1.4345	1.0381	2.036	-0.2396	117.2
15XY	0.8963	0.8886	0.04601	-1.3901	1.4156	0.3878	-0.2437	-0.2514	117.2
15Y	0.9009	0.8884	-0.008228	-1.4114	1.7703	-0.5888	-0.2391	2.028	117.2
16X	0.8336	0.8239	-0.008715	-1.6646	1.3469	1.0328	1.974	-0.3161	114.7
16XY	0.8373	0.8308	0.04306	-1.3388	1.3585	0.3510	-0.3027	-0.3092	114.7
16Y	0.8243	0.8269	-0.008203	-1.3241	1.6682	-0.6674	-0.3157	1.967	114.7
17X	0.7781	0.7548	-0.008636	-1.5870	1.2790	1.0275	1.918	-0.3852	112.2
17XY	0.7785	0.7727	0.03968	-1.2223	1.2495	0.3142	-0.3615	-0.3673	112.2
17Y	0.7549	0.7725	-0.008184	-1.2598	1.5911	-0.7460	-0.3851	1.912	112.2
18X	0.7339	0.6998	-0.008564	-1.4862	1.1634	1.0232	1.874	-0.4402	110.2
18XY	0.7371	0.7322	0.03663	-1.2082	1.2063	0.2848	-0.4029	-0.4078	110.2
18Y	0.7	0.7288	-0.008161	-1.1469	1.4773	-0.8088	-0.44	1.869	110.2
21X	0.5602	0.5397	-0.0116	-0.8545	0.8965	0.9083	3.012	-1.912	99.39
21XY	0.5613	0.5568	0.06287	-0.9581	0.9463	0.2053	-1.891	-1.895	99.46
21Y	0.5388	0.5558	-0.01125	-0.8826	0.8583	-0.8438	-1.913	3.008	99.39
22X	0.5163	0.4981	-0.01135	-0.8546	0.9036	0.8847	2.968	-1.954	96.59
22XY	0.517	0.5129	0.06001	-0.8537	0.8671	0.1974	-1.935	-1.939	96.66
22Y	0.4972	0.5122	-0.01103	-0.8992	0.8533	-0.8247	-1.955	2.964	96.59
23X	0.4746	0.4587	-0.01102	-0.7868	0.8354	0.8576	2.927	-1.993	93.89
23XY	0.4771	0.4734	0.05634	-0.8465	0.8509	0.1883	-1.975	-1.979	93.96
23Y	0.4579	0.4708	-0.01073	-0.8273	0.7876	-0.8026	-1.994	2.923	93.89
24X	0.437	0.4234	-0.01066	-0.7542	0.7994	0.8305	2.889	-2.029	91.19
24XY	0.4376	0.4341	0.05229	-0.7745	0.7827	0.1792	-2.014	-2.018	91.25
24Y	0.4225	0.4336	-0.01041	-0.7951	0.7520	-0.7806	-2.03	2.886	91.19
25X	0.3983	0.3868	-0.01046	-0.7209	0.7633	0.8213	2.85	-2.065	88.39
25XY	0.4001	0.397	0.04996	-0.7641	0.7690	0.1761	-2.052	-2.055	88.45
25Y	0.386	0.3951	-0.01023	-0.7562	0.7211	-0.7731	-2.066	2.847	88.39
26X	0.3623	0.3528	-0.01025	-0.6988	0.7386	0.8121	2.814	-2.099	85.59
26XY	0.3629	0.36	0.04741	-0.7224	0.7301	0.1730	-2.089	-2.092	85.65
26Y	0.3519	0.3594	-0.01004	-0.7345	0.6965	-0.7657	-2.1	2.811	85.59
27X	0.3264	0.3188	-0.01006	-0.6694	0.7082	0.8067	2.778	-2.133	82.79
27XY	0.3281	0.3255	0.04511	-0.7051	0.7102	0.1712	-2.124	-2.126	82.85
27Y	0.3181	0.3237	-0.009859	-0.7020	0.6688	-0.7613	-2.134	2.776	82.79
28X	0.293	0.2873	-0.009856	-0.6453	0.6812	0.8014	2.745	-2.165	79.99
28XY	0.2936	0.2913	0.04261	-0.6740	0.6796	0.1694	-2.158	-2.161	80.04
28Y	0.2865	0.2907	-0.009671	-0.6756	0.6441	-0.7570	-2.166	2.743	79.99
29X	0.2605	0.2564	-0.009642	-0.6161	0.6498	0.7961	2.712	-2.196	77.24
29XY	0.2622	0.2603	0.03996	-0.6403	0.6457	0.1676	-2.19	-2.192	77.29
29Y	0.2558	0.2584	-0.00947	-0.6453	0.6142	-0.7527	-2.196	2.71	77.24
30X	0.2306	0.2282	-0.009417	-0.5839	0.6163	0.7908	2.683	-2.224	74.49
30XY	0.2313	0.2295	0.0371	-0.6228	0.6296	0.1658	-2.221	-2.222	74.54
30Y	0.2275	0.2289	-0.00926	-0.6078	0.5844	-0.7484	-2.224	2.681	74.49
31X	0.2013	0.2003	-0.009182	-0.5914	0.6176	0.7856	2.653	-2.252	71.79
31XY	0.2023	0.2008	0.03409	-0.6158	0.6136	0.1641	-2.25	-2.251	71.83
31Y	0.1998	0.1998	-0.009038	-0.6177	0.5829	-0.7442	-2.252	2.652	71.79
33X	0.1104	0.1127	-0.008064	-0.3580	0.3489	0.7188	3.333	-3.11	59.79
33XY	0.1126	0.1119	0.02736	-0.2010	0.2343	0.1473	-3.11	-3.111	59.83
33Y	0.1125	0.1097	-0.007943	-0.3502	0.3472	-0.6828	-3.11	3.333	59.79
34X	0.08515	0.0876	-0.007487	-0.2940	0.2963	0.6522	4.039	-3.866	53.79
34XY	0.08707	0.08652	0.02688	-0.2073	0.2418	0.1320	-3.867	-3.867	53.83
34Y	0.08743	0.08459	-0.007369	-0.2891	0.2916	-0.6200	-3.866	4.039	53.79
35X	0.06488	0.06727	-0.006859	-0.2476	0.2435	0.5836	4.75	-4.618	47.79
35XY	0.06638	0.06594	0.02572	-0.1459	0.1748	0.1175	-4.619	-4.619	47.83
35Y	0.0671	0.06446	-0.006743	-0.2400	0.2442	-0.5547	-4.618	4.75	47.79

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.04809	0.05009	-0.006171	-0.2209	0.2132	0.5097	5.464	-5.366	41.79
36XY	0.0501	0.04969	0.02383	-0.1376	0.1631	0.1027	-5.366	-5.367	41.82
36Y	0.0498	0.04766	-0.006052	-0.2098	0.2189	-0.4844	-5.366	5.464	41.79
37X	0.03344	0.03474	-0.00543	-0.1782	0.1732	0.4391	6.181	-6.113	35.79
37XY	0.03462	0.03427	0.02224	-0.0975	0.1197	0.0879	-6.113	-6.113	35.82
37Y	0.03444	0.03309	-0.005316	-0.1697	0.1750	-0.4176	-6.113	6.18	35.79
38X	0.02258	0.02391	-0.004732	-0.1415	0.1411	0.3667	6.901	-6.855	29.8
38XY	0.02508	0.02481	0.01923	-0.0843	0.1029	0.0732	-6.853	-6.854	29.82
38Y	0.02368	0.02231	-0.004639	-0.1381	0.1387	-0.3489	-6.855	6.901	29.8
39X	0.01276	0.01425	-0.003959	-0.1155	0.1178	0.2919	7.622	-7.595	23.8
39XY	0.01423	0.01402	0.0166	-0.0558	0.0706	0.0585	-7.596	-7.596	23.82
39Y	0.01405	0.01256	-0.003881	-0.1158	0.1138	-0.2776	-7.596	7.622	23.8
40X	0.005479	0.007008	-0.003126	-0.0998	0.0855	0.2170	8.346	-8.334	17.8
40XY	0.009258	0.009099	0.01258	-0.0642	0.0753	0.0437	-8.332	-8.332	17.81
40Y	0.006787	0.005295	-0.003055	-0.0839	0.0985	-0.2063	-8.334	8.346	17.8
41X	0.000327	0.002153	-0.002217	0.0023	0.0502	0.1530	9.072	-9.07	11.8
41XY	0.002078	0.001978	0.009287	0.0345	-0.0268	0.0289	-9.07	-9.07	11.81
41Y	0.001978	0.0002176	-0.002159	-0.0486	-0.0041	-0.1461	-9.07	9.072	11.8
42X	-0.0009549	0.006726	-0.001934	-0.0343	0.0013	0.0737	9.802	-9.796	5.798
42XY	0.009235	0.009203	0.002545	-0.0159	0.0199	0.0142	-9.794	-9.794	5.803
42Y	0.006664	-0.0009869	-0.001906	-0.0004	0.0328	-0.0704	-9.797	9.802	5.798

Joint Support Reactions for Load Case "LC4 WIND 45° C.T.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X X-M. Moment (kN-m)	X-M. Usage %	Y Y-M. Moment (kN-m)	Y-M. Usage %	Z Z-M. Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-265.12	0.0	-267.08	0.0	1792.73	0.0	0.0	1831.80	0.0	0.73	0.0	-0.7	0.0	0.14	0.0	0.0
ANX	-19.93	0.0	49.52	0.0	260.41	0.0	0.0	265.82	0.0	5.02	0.0	-1.1	0.0	-0.15	0.0	0.0
ANXY	-195.42	0.0	-194.36	0.0	-1264.95	0.0	0.0	1294.63	0.0	4.65	0.0	-4.7	0.0	-0.16	0.0	0.0
ANY	50.44	0.0	-18.10	0.0	255.01	0.0	0.0	260.58	0.0	1.04	0.0	-5.0	0.0	0.11	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC4 WIND 45° C.T.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.3123	1.3123	-3.3754	-1.3103	-1.3103	3.3754	2.0020	1.9888	-0.0573
10P	4.3323	4.3323	-5.9268	-4.3309	-4.3309	5.9268	1.3971	1.3934	-0.0512
11P	1.8360	1.8360	-3.3251	-1.8348	-1.8348	3.3250	1.2438	1.2419	-0.0859
19P	2.1995	2.1995	-3.9796	-2.1988	-2.1988	3.9796	0.6604	0.6604	-0.0626
20P	3.0567	3.0567	-5.7288	-3.0561	-3.0561	5.7287	0.5829	0.5838	-0.0851
32P	3.4702	3.4702	-9.0478	-3.4701	-3.4701	9.0477	0.1451	0.1452	-0.0430
ANP	1.1008	1.1008	-5.0810	264.0212	265.9840	-1787.6482	0.0000	0.0000	0.0000
1X	1.3123	1.3123	-3.3754	-1.3103	-1.3103	3.3754	2.0392	1.9889	-0.0164
1XY	1.3123	1.3123	-3.3754	-1.3103	-1.3103	3.3755	2.0393	2.0103	0.0362
1Y	0.6803	0.6803	-1.9954	-0.6783	-0.6783	1.9954	2.0022	2.0101	-0.0154
10X	4.3323	4.3323	-5.9268	-4.3310	-4.3309	5.9268	1.2710	1.3939	-0.0159
10XY	2.1083	2.1083	-3.9468	-2.1070	-2.1070	3.9469	1.2710	1.2578	0.0319
10Y	1.4763	1.4763	-2.5668	-1.4749	-1.4750	2.5668	1.3975	1.2579	-0.0153
11X	1.8360	1.8360	-3.3251	-1.8348	-1.8348	3.3251	1.1743	1.2414	-0.0091
11XY	1.8360	1.8360	-3.3251	-1.8348	-1.8348	3.3251	1.1750	1.1626	0.0536
11Y	1.8360	1.8360	-3.3251	-1.8348	-1.8348	3.3251	1.2433	1.1618	-0.0083

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	Client	Designed by
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19X	2.1995	2.1995	-3.9796	-2.1988	-2.1988	3.9796	0.7044	0.6627	-0.0085
19XY	2.1995	2.1995	-3.9796	-2.1988	-2.1988	3.9797	0.7031	0.6985	0.0340
19Y	2.1995	2.1995	-3.9796	-2.1988	-2.1988	3.9796	0.6627	0.7000	-0.0082
20X	3.0567	3.0567	-5.7288	-3.0561	-3.0561	5.7288	0.6052	0.5816	-0.0118
20XY	2.7417	2.7417	-4.9488	-2.7411	-2.7411	4.9489	0.6077	0.6029	0.0655
20Y	2.7417	2.7417	-4.9488	-2.7411	-2.7411	4.9488	0.5807	0.6004	-0.0115
32X	3.4702	3.4702	-9.0478	-3.4701	-3.4701	9.0477	0.1452	0.1470	-0.0087
32XY	3.4702	3.4702	-9.0478	-3.4701	-3.4701	9.0478	0.1449	0.1440	0.0272
32Y	3.4702	3.4702	-9.0478	-3.4701	-3.4701	9.0477	0.1468	0.1443	-0.0085
ANX	1.1008	1.1008	-5.0810	18.8271	-50.6179	-255.3275	0.0000	0.0000	0.0000
ANXY	1.1008	1.1008	-5.0810	194.3177	193.2630	1270.0336	0.0000	0.0000	0.0000
ANY	1.1008	1.1008	-5.0810	-51.5398	16.9979	-249.9314	0.0000	0.0000	0.0000
2S	1.3123	1.3123	-2.3754	-1.3104	-1.3104	2.3754	1.8981	1.8871	-0.0571
3S	1.3057	1.3057	-1.9332	-1.3039	-1.3039	1.9332	1.8178	1.8086	-0.0569
4S	1.2574	1.2574	-2.3178	-1.2557	-1.2557	2.3177	1.7377	1.7301	-0.0565
5S	4.1671	4.1671	-5.3596	-4.1655	-4.1655	5.3596	1.6581	1.6520	-0.0558
6S	3.5418	3.5418	-4.4218	-3.5402	-3.5402	4.4218	1.5802	1.5751	-0.0550
7S	4.0602	4.0602	-5.2371	-4.0587	-4.0587	5.2370	1.5025	1.4981	-0.0538
8S	3.3745	3.3745	-4.1752	-3.3730	-3.3730	4.1752	1.4434	1.4395	-0.0525
12S	0.8782	0.8782	-1.5735	-0.8770	-0.8770	1.5734	1.1447	1.1434	-0.0841
13S	1.6910	1.6910	-2.9269	-1.6900	-1.6900	2.9268	1.0605	1.0595	-0.0823
14S	1.1278	1.1278	-2.1334	-1.1269	-1.1269	2.1333	0.9803	0.9797	-0.0796
15S	1.9308	1.9308	-3.4868	-1.9299	-1.9299	3.4868	0.9008	0.9003	-0.0766
16S	0.8030	0.8030	-1.3534	-0.8022	-0.8022	1.3533	0.8273	0.8272	-0.0731
17S	1.7202	1.7202	-3.1482	-1.7194	-1.7194	3.1482	0.7548	0.7546	-0.0691
18S	0.9172	0.9172	-1.7948	-0.9165	-0.9165	1.7947	0.7029	0.7029	-0.0656
21S	1.1444	1.1444	-1.9840	-1.1439	-1.1439	1.9839	0.5386	0.5395	-0.0820
22S	4.8224	4.8224	-5.6507	-4.8219	-4.8219	5.6507	0.4970	0.4979	-0.0788
23S	3.6780	3.6780	-3.6668	-3.6775	-3.6775	3.6667	0.4595	0.4605	-0.0746
24S	2.3478	2.3478	-4.4346	-2.3474	-2.3474	4.4345	0.4221	0.4230	-0.0701
25S	1.2148	1.2148	-2.5678	-1.2145	-1.2145	2.5678	0.3867	0.3876	-0.0675
26S	2.4794	2.4794	-5.4135	-2.4791	-2.4791	5.4135	0.3516	0.3524	-0.0647
27S	1.2646	1.2646	-2.8457	-1.2643	-1.2643	2.8456	0.3187	0.3195	-0.0622
28S	2.4889	2.4889	-5.6511	-2.4887	-2.4887	5.6511	0.2862	0.2869	-0.0595
29S	1.3693	1.3693	-3.0554	-1.3691	-1.3691	3.0554	0.2565	0.2572	-0.0566
30S	2.1667	2.1667	-5.0007	-2.1665	-2.1665	5.0007	0.2273	0.2279	-0.0535
31S	2.5347	2.5347	-6.1912	-2.5345	-2.5345	6.1912	0.1999	0.2003	-0.0503
33S	3.7570	3.7570	-10.1147	-3.7569	-3.7569	10.1147	0.1134	0.1135	-0.0423
34S	3.9073	3.9073	-10.9430	-3.9072	-3.9072	10.9430	0.0878	0.0879	-0.0410
35S	11.3288	11.3288	-17.2016	-11.3287	-11.3287	17.2015	0.0668	0.0670	-0.0389
36S	10.5839	10.5839	-16.2721	-10.5839	-10.5839	16.2721	0.0498	0.0500	-0.0361
37S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5312	0.0333	0.0335	-0.0333
371S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5312	0.0334	0.0341	-0.0199
372S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5312	0.0338	0.0333	-0.0198
373S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5313	0.0345	0.0336	0.0086
374S	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5313	0.0340	0.0345	0.0085
38S	2.9152	2.9152	-10.4902	-2.9151	-2.9151	10.4902	0.0236	0.0239	-0.0288
39S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0252	0.0126	0.0128	-0.0246
391S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0252	0.0127	0.0135	-0.0152
392S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0252	0.0133	0.0127	-0.0152
393S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0253	0.0141	0.0132	0.0066
394S	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0253	0.0134	0.0141	0.0065
40S	6.0658	6.0658	-14.7552	-6.0658	-6.0658	14.7551	0.0077	0.0079	-0.0188
41S	5.2849	5.2849	-13.1041	-5.2849	-5.2849	13.1041	0.0003	0.0004	-0.0137
411S	2.4845	2.4845	-11.7505	-2.4845	-2.4845	11.7505	0.0003	0.0012	-0.0047
412S	2.4845	2.4845	-11.7505	-2.4845	-2.4845	11.7505	0.0010	0.0003	-0.0047

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413S	2.4845	2.4845	-11.7505	-2.4845	-2.4845	11.7505	0.0020	0.0010	-0.0002
414S	2.4845	2.4845	-11.7505	-2.4845	-2.4845	11.7505	0.0011	0.0020	-0.0002
42S	1.7969	1.7969	-8.5456	-1.7969	-1.7969	8.5456	0.0016	0.0016	-0.0064
2X	1.3123	1.3123	-2.3754	-1.3104	-1.3104	2.3754	1.9083	1.8878	-0.0163
2XY	1.3123	1.3123	-2.3754	-1.3104	-1.3104	2.3755	1.9096	1.8831	0.0362
2Y	0.6803	0.6803	-0.9954	-0.6784	-0.6784	0.9954	1.8988	1.8817	-0.0154
3X	1.3057	1.3057	-1.9332	-1.3039	-1.3039	1.9332	1.8075	1.8087	-0.0163
3XY	1.3057	1.3057	-1.9332	-1.3039	-1.3039	1.9333	1.8076	1.7831	0.0361
3Y	1.3057	1.3057	-1.9332	-1.3039	-1.3039	1.9332	1.8180	1.7829	-0.0154
4X	1.2574	1.2574	-2.3178	-1.2557	-1.2557	2.3178	1.7057	1.7299	-0.0162
4XY	1.2574	1.2574	-2.3178	-1.2557	-1.2557	2.3178	1.7073	1.6847	0.0358
4Y	0.6254	0.6254	-0.9378	-0.6237	-0.6237	0.9378	1.7376	1.6829	-0.0153
5X	4.7991	4.7991	-6.7396	-4.7975	-4.7975	6.7396	1.6060	1.6522	-0.0161
5XY	1.9431	1.9431	-3.3796	-1.9415	-1.9416	3.3797	1.6061	1.5853	0.0353
5Y	1.3111	1.3111	-1.9996	-1.3095	-1.3096	1.9996	1.6583	1.5852	-0.0153
6X	4.1738	4.1738	-5.8018	-4.1722	-4.1722	5.8018	1.5053	1.5741	-0.0160
6XY	1.3178	1.3178	-2.4418	-1.3162	-1.3163	2.4419	1.5071	1.4888	0.0346
6Y	0.6858	0.6858	-1.0618	-0.6842	-0.6843	1.0618	1.5790	1.4864	-0.0152
7X	4.0602	4.0602	-5.2371	-4.0588	-4.0587	5.2370	1.4074	1.4982	-0.0160
7XY	1.2042	1.2042	-1.8771	-1.2028	-1.2028	1.8771	1.4076	1.3914	0.0337
7Y	1.2042	1.2042	-1.8771	-1.2027	-1.2028	1.8770	1.5025	1.3912	-0.0152
8X	4.0065	4.0065	-5.5552	-4.0052	-4.0050	5.5552	1.3294	1.4383	-0.0159
8XY	1.1505	1.1505	-2.1952	-1.1492	-1.1492	2.1953	1.3309	1.3166	0.0328
8Y	0.5185	0.5185	-0.8152	-0.5170	-0.5172	0.8152	1.4423	1.3148	-0.0152
12X	0.8782	0.8782	-1.5735	-0.8771	-0.8770	1.5735	1.0930	1.1423	-0.0090
12XY	0.8782	0.8782	-1.5735	-0.8771	-0.8771	1.5735	1.0950	1.0841	0.0522
12Y	0.8782	0.8782	-1.5735	-0.8770	-0.8771	1.5735	1.1438	1.0820	-0.0083
13X	1.6910	1.6910	-2.9269	-1.6900	-1.6900	2.9269	1.0257	1.0597	-0.0090
13XY	1.6910	1.6910	-2.9269	-1.6900	-1.6900	2.9269	1.0260	1.0162	0.0507
13Y	1.6910	1.6910	-2.9269	-1.6900	-1.6900	2.9269	1.0607	1.0160	-0.0083
14X	1.1278	1.1278	-2.1334	-1.1269	-1.1269	2.1334	0.9583	0.9773	-0.0089
14XY	0.8128	0.8128	-1.3534	-0.8119	-0.8119	1.3535	0.9611	0.9526	0.0485
14Y	1.1278	1.1278	-2.1334	-1.1269	-1.1269	2.1334	0.9781	0.9495	-0.0082
15X	1.9308	1.9308	-3.4868	-1.9299	-1.9299	3.4868	0.8959	0.9004	-0.0088
15XY	1.6158	1.6158	-2.7068	-1.6149	-1.6149	2.7069	0.8963	0.8886	0.0460
15Y	1.9308	1.9308	-3.4868	-1.9299	-1.9299	3.4868	0.9009	0.8884	-0.0082
16X	0.8030	0.8030	-1.3534	-0.8022	-0.8022	1.3534	0.8336	0.8239	-0.0087
16XY	0.8030	0.8030	-1.3534	-0.8022	-0.8022	1.3535	0.8373	0.8308	0.0431
16Y	0.8030	0.8030	-1.3534	-0.8022	-0.8022	1.3534	0.8243	0.8269	-0.0082
17X	1.7202	1.7202	-3.1482	-1.7194	-1.7194	3.1482	0.7781	0.7548	-0.0086
17XY	1.4052	1.4052	-2.3682	-1.4044	-1.4044	2.3683	0.7785	0.7727	0.0397
17Y	1.7202	1.7202	-3.1482	-1.7194	-1.7194	3.1482	0.7549	0.7725	-0.0082
18X	0.9172	0.9172	-1.7948	-0.9165	-0.9165	1.7948	0.7339	0.6998	-0.0086
18XY	0.6022	0.6022	-1.0148	-0.6015	-0.6015	1.0149	0.7371	0.7322	0.0366
18Y	0.9172	0.9172	-1.7948	-0.9165	-0.9165	1.7948	0.7000	0.7288	-0.0082
21X	1.1444	1.1444	-1.9840	-1.1438	-1.1439	1.9839	0.5602	0.5397	-0.0116
21XY	1.1444	1.1444	-1.9840	-1.1438	-1.1438	1.9840	0.5613	0.5568	0.0629
21Y	1.1444	1.1444	-1.9840	-1.1439	-1.1438	1.9839	0.5388	0.5558	-0.0113
22X	2.2774	2.2774	-3.8507	-2.2769	-2.2769	3.8507	0.5163	0.4981	-0.0113
22XY	3.5504	3.5504	-4.7507	-3.5499	-3.5499	4.7508	0.5170	0.5129	0.0600
22Y	2.2774	2.2774	-3.8507	-2.2769	-2.2769	3.8507	0.4972	0.5122	-0.0110
23X	1.1330	1.1330	-1.8668	-1.1325	-1.1325	1.8668	0.4746	0.4587	-0.0110
23XY	1.1330	1.1330	-1.8668	-1.1325	-1.1325	1.8668	0.4771	0.4734	0.0563
23Y	1.1330	1.1330	-1.8668	-1.1325	-1.1325	1.8668	0.4579	0.4708	-0.0107
24X	2.3478	2.3478	-4.4346	-2.3474	-2.3474	4.4346	0.4370	0.4234	-0.0107
24XY	2.3478	2.3478	-4.4346	-2.3474	-2.3474	4.4347	0.4376	0.4341	0.0523

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	2.3478	2.3478	-4.4346	-2.3474	-2.3474	4.4346	0.4225	0.4336	-0.0104
25X	1.2148	1.2148	-2.5678	-1.2144	-1.2145	2.5678	0.3983	0.3868	-0.0105
25XY	1.2148	1.2148	-2.5678	-1.2144	-1.2144	2.5679	0.4001	0.3970	0.0500
25Y	1.2148	1.2148	-2.5678	-1.2145	-1.2144	2.5678	0.3860	0.3951	-0.0102
26X	2.4794	2.4794	-5.4135	-2.4791	-2.4791	5.4135	0.3623	0.3528	-0.0103
26XY	2.4794	2.4794	-5.4135	-2.4791	-2.4791	5.4136	0.3629	0.3600	0.0474
26Y	2.4794	2.4794	-5.4135	-2.4791	-2.4791	5.4135	0.3519	0.3594	-0.0100
27X	1.2646	1.2646	-2.8457	-1.2643	-1.2643	2.8457	0.3264	0.3188	-0.0101
27XY	1.2646	1.2646	-2.8457	-1.2643	-1.2643	2.8458	0.3281	0.3255	0.0451
27Y	1.2646	1.2646	-2.8457	-1.2643	-1.2643	2.8457	0.3181	0.3237	-0.0099
28X	2.4889	2.4889	-5.6511	-2.4887	-2.4887	5.6511	0.2930	0.2873	-0.0099
28XY	2.4889	2.4889	-5.6511	-2.4887	-2.4887	5.6512	0.2936	0.2913	0.0426
28Y	2.4889	2.4889	-5.6511	-2.4887	-2.4887	5.6511	0.2865	0.2907	-0.0097
29X	1.2243	1.2243	-2.8054	-1.2241	-1.2241	2.8054	0.2605	0.2564	-0.0096
29XY	1.2243	1.2243	-2.8054	-1.2241	-1.2241	2.8055	0.2622	0.2603	0.0400
29Y	1.2243	1.2243	-2.8054	-1.2241	-1.2241	2.8054	0.2558	0.2584	-0.0095
30X	2.1667	2.1667	-5.0007	-2.1665	-2.1665	5.0007	0.2306	0.2282	-0.0094
30XY	2.1667	2.1667	-5.0007	-2.1665	-2.1665	5.0007	0.2313	0.2295	0.0371
30Y	2.1667	2.1667	-5.0007	-2.1665	-2.1665	5.0007	0.2275	0.2289	-0.0093
31X	2.5347	2.5347	-6.1912	-2.5345	-2.5345	6.1912	0.2013	0.2003	-0.0092
31XY	2.6797	2.6797	-6.4412	-2.6795	-2.6795	6.4413	0.2023	0.2008	0.0341
31Y	2.6797	2.6797	-6.4412	-2.6795	-2.6795	6.4412	0.1998	0.1998	-0.0090
33X	3.7570	3.7570	-10.1147	-3.7569	-3.7569	10.1147	0.1104	0.1127	-0.0081
33XY	3.7570	3.7570	-10.1147	-3.7569	-3.7569	10.1147	0.1126	0.1119	0.0274
33Y	3.7570	3.7570	-10.1147	-3.7569	-3.7569	10.1147	0.1125	0.1097	-0.0079
34X	3.9073	3.9073	-10.9430	-3.9072	-3.9072	10.9430	0.0852	0.0876	-0.0075
34XY	3.9073	3.9073	-10.9430	-3.9072	-3.9072	10.9431	0.0871	0.0865	0.0269
34Y	3.9073	3.9073	-10.9430	-3.9072	-3.9072	10.9430	0.0874	0.0846	-0.0074
35X	4.1188	4.1188	-12.0916	-4.1188	-4.1187	12.0916	0.0649	0.0673	-0.0069
35XY	4.1188	4.1188	-12.0916	-4.1187	-4.1187	12.0916	0.0664	0.0659	0.0257
35Y	6.6178	6.6178	-13.1916	-6.6177	-6.6178	13.1916	0.0671	0.0645	-0.0067
36X	5.1759	5.1759	-13.4921	-5.1759	-5.1759	13.4921	0.0481	0.0501	-0.0062
36XY	4.2889	4.2889	-11.7471	-4.2889	-4.2889	11.7471	0.0501	0.0497	0.0238
36Y	3.3739	3.3739	-11.1621	-3.3739	-3.3739	11.1621	0.0498	0.0477	-0.0061
37X	3.5572	3.5572	-11.3712	-3.5572	-3.5572	11.3712	0.0334	0.0347	-0.0054
37XY	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5313	0.0346	0.0343	0.0222
37Y	2.7562	2.7562	-9.5312	-2.7562	-2.7562	9.5312	0.0344	0.0331	-0.0053
38X	2.9152	2.9152	-10.4902	-2.9151	-2.9151	10.4902	0.0226	0.0239	-0.0047
38XY	2.9152	2.9152	-10.4902	-2.9151	-2.9151	10.4902	0.0251	0.0248	0.0192
38Y	3.0602	3.0602	-10.7402	-3.0601	-3.0601	10.7402	0.0237	0.0223	-0.0046
39X	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0252	0.0128	0.0142	-0.0040
39XY	2.9193	2.9193	-11.0252	-2.9193	-2.9193	11.0253	0.0142	0.0140	0.0166
39Y	3.7203	3.7203	-12.8652	-3.7203	-3.7203	12.8652	0.0140	0.0126	-0.0039
40X	6.4648	6.4648	-16.4452	-6.4648	-6.4648	16.4452	0.0055	0.0070	-0.0031
40XY	2.8608	2.8608	-11.7852	-2.8608	-2.8608	11.7852	0.0093	0.0091	0.0126
40Y	4.6628	4.6628	-14.1152	-4.6628	-4.6628	14.1152	0.0068	0.0053	-0.0031
41X	2.8809	2.8809	-11.9741	-2.8809	-2.8809	11.9741	0.0003	0.0022	-0.0022
41XY	2.0799	2.0799	-10.1341	-2.0799	-2.0799	10.1342	0.0021	0.0020	0.0093
41Y	2.0799	2.0799	-10.1341	-2.0799	-2.0799	10.1341	0.0020	0.0002	-0.0022
42X	1.7969	1.7969	-8.5456	-1.7969	-1.7969	8.5456	-0.0010	0.0067	-0.0019
42XY	1.7969	1.7969	-8.5456	-1.7969	-1.7969	8.5456	0.0092	0.0092	0.0025
42Y	1.7969	1.7969	-8.5456	-1.7969	-1.7969	8.5456	0.0067	-0.0010	-0.0019

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

 INSTATel COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page 114 of 144
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	-0.00	-0.03	0.03	-16.15	39.36	-5.04
1X	-0.02	-0.03	0.04	13.05	99.37	4.05
1XY	-0.01	-0.04	0.04	44.35	-93.12	13.80
1Y	0.00	-0.04	0.03	-47.10	-25.04	-14.68
2P	-0.01	16.12	-39.33	0.45	3.60	6.63
2X	-0.04	-13.08	-99.33	-4.83	-157.94	-7.16
2XY	-0.02	-44.39	93.16	-82.23	174.34	-50.65
2Y	0.01	47.07	25.08	76.56	12.75	49.45
3P	-0.01	-0.48	-3.56	4.62	-12.52	1.66
3X	-0.06	4.79	157.98	-41.90	250.92	-14.84
3XY	-0.03	82.19	-174.30	95.05	-182.66	70.89
3Y	0.01	-76.60	-12.72	-117.68	96.62	-77.71
4P	-0.02	-4.65	12.56	-60.85	184.67	-26.20
4X	-0.07	41.87	-250.88	62.43	-269.85	41.72
4XY	-0.04	-95.09	182.70	-192.36	346.01	-114.98
4Y	0.02	117.64	-96.59	134.14	-110.54	100.72
5P	-0.02	60.82	-184.64	94.37	-189.26	62.07
5X	-0.09	-62.46	269.89	-265.05	601.61	-131.00
5XY	-0.05	192.32	-345.97	316.38	-487.13	203.48
5Y	0.02	-134.18	110.57	-350.84	601.02	-194.01
6P	-0.02	-94.40	189.29	-301.50	784.82	-158.36
6X	-0.11	265.02	-601.57	306.73	-192.78	228.70
6XY	-0.06	-316.42	487.17	-795.32	1249.09	-444.69
6Y	0.02	350.80	-600.99	115.50	-435.08	186.52
7P	-0.03	301.47	-784.79	-696.00	787.45	-197.26
7X	-0.13	-306.76	192.82	-1927.39	350.53	-1117.07
7XY	-0.07	795.28	-1249.05	1636.46	-1768.06	1215.87
7Y	0.03	-115.53	435.11	192.69	2877.63	38.58
8P	-0.03	695.97	-787.42	3686.58	-4740.07	2791.43
8X	-0.15	1927.36	-350.49	5304.46	5928.28	4606.26
8XY	-0.08	-1636.50	1768.10	-6415.35	7452.59	-5128.57
8Y	0.03	-192.73	-2877.60	-4805.63	-6358.78	-3183.67
9P	125.90	5958.59	-734.22	3915.84	-639.03	2408.98
9X	74.40	-7942.75	-434.74	-4682.10	272.81	-3079.98
9XY	123.91	9806.07	-722.90	5333.70	-392.65	3693.53
9Y	185.71	-7894.43	-1082.47	-4836.17	-1299.20	-3105.78
10P	232.12	2338.57	-3199.18	630.70	-746.99	1027.43
10X	27.19	3509.73	3111.75	418.77	2123.26	1359.34
10XY	188.49	-3512.68	4030.36	-786.66	794.40	-1487.66
10Y	402.68	-2536.47	-4302.90	-1325.59	-29.11	-1336.35
11P	232.11	-630.73	747.02	-920.88	1718.48	-620.64
11X	27.17	-418.81	-2123.23	108.93	-1120.96	-123.95
11XY	188.49	786.63	-794.37	-640.75	1485.30	58.35
11Y	402.69	1325.57	29.14	679.25	-321.98	801.93
12P	232.11	920.85	-1718.44	468.73	-778.42	555.83
12X	27.15	-108.96	1120.98	-958.27	2164.79	-426.90
12XY	188.48	640.73	-1485.27	514.34	-961.77	462.03
12Y	402.69	-679.28	322.02	-1125.06	1936.04	-721.74
13P	232.11	-468.76	778.45	-1224.47	2370.82	-677.29
13X	27.13	958.24	-2164.77	531.84	-1224.70	596.03
13XY	188.47	-514.37	961.79	-1226.74	2401.36	-696.44
13Y	402.70	1125.04	-1936.00	691.23	-937.05	726.51
14P	232.11	1224.43	-2370.79	728.93	-1208.37	781.35

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X	27.12	-531.87	1224.73	-1405.88	2808.39	-775.10	1613.25
14XY	188.46	1226.72	-2401.33	786.24	-1369.84	805.18	-1508.47
14Y	402.71	-691.25	937.08	-1439.70	2781.58	-852.38	1487.46
15P	232.11	-728.96	1208.40	-2000.29	3646.73	-1091.70	1942.05
15X	27.10	1405.85	-2808.36	740.55	-1580.97	858.56	-1755.73
15XY	188.46	-786.26	1369.86	-1784.94	3340.45	-1028.48	1884.12
15Y	402.72	1439.67	-2781.55	888.30	-1388.28	931.19	-1667.93
16P	232.11	2000.27	-3646.71	2275.60	-3253.70	2137.93	-3450.20
16X	27.08	-740.57	1580.99	-1821.21	4191.39	-1280.89	2886.19
16XY	188.45	1784.92	-3340.43	1633.28	-2363.90	1709.10	-2852.17
16Y	402.74	-888.32	1388.31	-2099.31	3959.25	-1493.81	2673.78
17P	232.11	-2275.62	3253.73	-5352.96	6049.52	-4828.22	5888.13
17X	27.06	1821.18	-4191.37	-2176.24	-397.05	-224.72	-2904.06
17XY	188.45	-1633.31	2363.93	-2781.44	2410.69	-2794.14	3021.91
17Y	402.75	2099.29	-3959.23	78.15	2941.38	1378.13	-644.21
18P	86.23	-8062.74	537.62	-4765.83	394.35	-1919.66	139.46
18X	375.28	1819.58	-1201.08	1078.23	834.68	433.63	-54.83
18XY	108.25	3671.36	304.17	2158.81	218.73	872.42	78.25
18Y	-175.19	2135.13	2056.80	1124.86	-229.41	487.82	273.45
19P	-26.64	-3085.15	3654.78	-1121.39	1626.67	-1502.34	1886.23
19X	128.76	-121.76	-1403.09	-84.69	-10.02	-73.73	-504.68
19XY	43.26	-1696.36	1356.68	-648.75	809.47	-837.54	773.63
19Y	-104.59	985.61	605.17	91.51	257.83	384.69	308.22
20P	-26.64	1121.37	-1626.65	-139.92	471.42	350.52	-412.58
20X	128.74	84.68	10.04	85.93	-127.65	60.93	-42.00
20XY	43.25	648.73	-809.46	-289.00	730.28	128.48	-28.28
20Y	-104.57	-91.52	-257.82	57.59	-160.59	-12.12	-149.43
21P	-26.64	139.90	-471.41	221.20	-456.51	133.74	-343.67
21X	128.73	-85.94	127.66	-624.63	1269.01	-263.18	517.29
21XY	43.25	288.98	-730.26	231.73	-458.38	192.86	-440.24
21Y	-104.56	-57.61	160.60	-628.17	1258.99	-253.99	525.78
22P	-26.63	-221.22	456.52	-764.81	1532.99	-365.19	736.86
22X	128.71	624.62	-1268.99	365.95	-666.36	366.88	-716.80
22XY	43.25	-231.75	458.39	-803.28	1598.73	-383.34	761.90
22Y	-104.55	628.15	-1258.98	372.15	-662.43	370.48	-711.63
23P	-26.63	764.80	-1532.98	461.20	-742.12	437.85	-812.53
23X	128.70	-365.97	666.38	-1144.97	2451.11	-539.62	1113.39
23XY	43.24	803.26	-1598.72	561.00	-920.14	487.24	-899.59
23Y	-104.53	-372.17	662.44	-1282.33	2191.33	-590.89	1019.20
24P	-26.63	-461.21	742.13	-1337.15	2475.29	-642.27	1149.08
24X	128.68	1144.96	-2451.09	629.25	-1229.06	633.65	-1314.34
24XY	43.24	-561.01	920.16	-1537.18	2841.98	-749.35	1343.62
24Y	-104.52	1282.32	-2191.32	775.24	-973.85	734.84	-1130.42
25P	-26.63	1337.14	-2475.28	632.15	-863.92	703.32	-1192.57
25X	128.67	-629.26	1229.08	-1841.33	3755.70	-882.36	1780.28
25XY	43.24	1537.16	-2841.97	823.65	-1180.86	843.15	-1436.73
25Y	-104.50	-775.25	973.86	-2113.85	3273.33	-1031.82	1516.85
26P	-26.62	-632.16	863.93	-1840.81	3267.82	-883.20	1475.62
26X	128.65	1841.32	-3755.69	846.12	-1513.27	959.80	-1881.77
26XY	43.23	-823.67	1180.88	-2105.92	3725.08	-1046.28	1752.13
26Y	-104.49	2113.84	-3273.32	1022.80	-1217.93	1120.23	-1604.02
27P	-26.62	1840.80	-3267.81	559.20	-676.63	872.72	-1434.34
27X	128.64	-846.13	1513.28	-2074.72	4174.27	-1062.13	2068.20
27XY	43.23	2105.91	-3725.07	688.54	-854.51	1016.16	-1665.30
27Y	-104.48	-1022.81	1217.94	-2298.36	3747.96	-1207.70	1805.78
28P	-26.62	-559.21	676.64	-1270.06	2062.73	-665.19	996.14

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X 128.63 2074.71 -4174.26 721.48 -1338.02 1016.80 -2004.46
28XY 43.23 -688.55 854.52 -1422.40 2217.38 -767.62 1117.05
28Y -104.47 2298.35 -3747.94 722.96 -1224.29 1098.66 -1808.08
29P -26.62 1270.05 -2062.72 1165.18 -948.68 901.94 -1115.34
29X 128.61 -721.49 1338.03 -401.40 1222.63 -415.89 948.39
29XY 43.22 1422.39 -2217.37 1121.44 -842.37 942.16 -1133.24
29Y -104.45 -722.97 1224.30 -297.89 1354.77 -378.10 955.21
30P -26.62 -1165.19 948.69 -4580.83 5476.47 -1012.52 1132.19
30X 128.60 401.39 -1222.62 -2460.26 3778.77 -362.80 450.42
30XY 43.22 -1121.45 842.38 -4800.08 5817.29 -1043.44 1173.51
30Y -104.44 297.88 -1354.76 -2884.20 3216.48 -455.74 328.06
31P -133.78 -7111.58 619.59 -1243.04 165.89 -1301.70 122.38
31X 875.96 -932.32 -4325.72 -245.04 1389.00 -183.44 -457.56
31XY 164.75 7507.60 -701.49 1239.14 -178.68 1362.79 -137.14
31Y -835.54 234.96 4233.42 68.90 -1397.75 47.34 441.81
32P -133.78 1243.04 -165.89 1048.02 -46.14 376.30 -34.82
32X 875.95 245.04 -1389.00 91.15 1286.54 55.22 -16.83
32XY 164.74 -1239.14 178.68 -1053.84 48.44 -376.61 37.30
32Y -835.52 -68.90 1397.74 5.41 -1306.02 -10.43 15.07
33P -133.78 -1048.01 46.14 598.62 27.34 -73.81 12.07
33X 875.93 -91.15 -1286.54 -5.50 910.67 -15.87 -61.73
33XY 164.74 1053.84 -48.44 -669.54 3.93 63.12 -7.31
33Y -835.51 -5.41 1306.01 17.08 -840.12 1.92 76.52
34P -133.78 -598.62 -27.34 -478.04 -15.15 -176.84 -6.98
34X 875.92 5.50 -910.67 55.10 129.38 9.95 -128.32
34XY 164.74 669.54 -3.93 401.87 -6.51 175.97 -1.71
34Y -835.50 -17.08 840.11 48.39 -182.53 5.14 108.01
35P -133.78 478.04 15.15 1729.87 -10.23 362.64 0.81
35X 875.91 -55.10 -129.38 -91.99 1615.28 -24.16 244.05
35XY 164.74 -401.87 6.51 -1522.69 -1.57 -316.10 0.81
35Y -835.49 -48.39 182.52 -98.51 -1620.43 -24.13 -236.17
36P -133.77 -1729.87 10.23 -1177.39 5.49 -477.50 2.58
36X 875.90 91.99 -1615.27 31.52 -252.63 20.29 -306.79
36XY 164.74 1522.69 1.57 1118.78 2.62 433.85 0.69
36Y -835.48 98.51 1620.43 35.69 257.32 22.04 308.41
37P -133.77 1177.39 -5.49 1890.24 3.26 503.84 -0.37
37X 875.90 -31.52 252.63 -68.92 1082.74 -16.50 219.33
37XY 164.74 -1118.78 -2.62 -1934.46 3.44 -501.48 0.13
37Y -835.48 -35.69 -257.32 -70.78 -1055.44 -17.49 -215.61
38P -133.77 -1890.23 -3.26 -1589.62 -5.18 -571.55 -1.39
38X 875.89 68.92 -1082.74 291.85 -291.79 59.25 -225.76
38XY 164.73 1934.46 -3.44 2111.18 -3.04 664.48 -1.06
38Y -835.47 70.78 1055.44 293.64 262.40 59.85 216.45
39P -133.77 1589.62 5.18 2432.28 -10.56 660.58 -0.88
39X 875.89 -291.85 291.79 -1189.31 3537.21 -243.27 628.90
39XY 164.73 -2111.19 3.04 -4808.28 -2.07 -1136.49 0.16
39Y -835.47 -293.64 -262.40 -1196.25 -3546.17 -244.71 -625.54
40P -133.77 -2432.28 10.56 -1430.46 5.47 -634.44 2.63
40X 875.88 1189.31 -3537.21 2337.37 -3724.72 579.24 -1192.74
40XY 164.73 4808.28 2.07 6113.03 4.52 1793.78 1.08
40Y -835.47 1196.25 3546.17 2337.69 3736.89 580.43 1196.21
41P -133.77 1430.46 -5.47 1033.14 20.96 418.59 2.63
41X 875.88 -2337.37 3724.72 -2795.24 4212.00 -872.08 1348.52
41XY 164.73 -6113.03 -4.52 -6610.74 10.90 -2161.88 1.08
41Y -835.46 -2337.69 -3736.89 -2787.90 -4179.42 -870.88 -1345.05

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 5 "LC5 WIND 0° DEFLEX"

Equilibrium Joint Positions and Rotations for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	0.6934	-0.002606	-0.02154	-0.0246	0.7628	-0.1920	1.343	0.6474	150.9
10P	0.4477	-0.007399	-0.02012	0.0105	0.6549	-0.1920	1.098	0.6426	131.6
11P	0.4081	-0.00379	-0.02397	0.0651	0.5858	-0.1922	1.548	1.136	127.6
19P	0.2351	0.003688	-0.01912	-0.0139	0.4076	-0.2082	1.375	1.144	108.6
20P	0.2038	0.002846	-0.02374	0.0092	0.3139	-0.1945	2.656	2.455	102.2
32P	0.04942	-3.563e-005	-0.01425	0.0025	0.1659	-0.1578	2.501	2.452	66.11
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	0.6938	-0.002476	-0.02129	0.0021	0.7204	0.1119	1.344	-0.6525	150.9
1XY	0.694	-0.002861	-0.005339	0.0497	0.6902	0.1072	0.04397	-0.6529	150.9
1Y	0.6935	-0.00299	-0.004618	0.0136	0.7323	-0.1758	0.04348	0.647	150.9
10X	0.4625	-0.007096	-0.01963	0.0078	0.6446	0.1119	1.113	-0.6571	131.6
10XY	0.4627	0.007379	-0.00575	-0.0061	0.6467	0.1072	-0.1873	-0.6426	131.6
10Y	0.4479	0.007261	-0.005043	0.0032	0.6592	-0.1758	-0.2021	0.6573	131.6
11X	0.4162	-0.003854	-0.02504	0.0300	0.6585	0.1183	1.556	-1.144	127.6
11XY	0.4164	0.004387	5.809e-005	-0.0189	0.6500	0.1133	-0.7236	-1.136	127.6
11Y	0.4083	0.003994	-0.0007869	-0.0672	0.5758	-0.1765	-0.7317	1.144	127.6
19X	0.2277	0.004809	-0.02005	0.0413	0.4426	0.1948	1.368	-1.135	108.6
19XY	0.2281	-0.003003	-0.002544	-0.0323	0.4303	0.1888	-0.9119	-1.143	108.6
19Y	0.2355	-0.002793	-0.003455	0.0054	0.3962	-0.1966	-0.9045	1.137	108.6
20X	0.1992	0.002189	-0.02339	-0.0327	0.2969	0.1899	2.651	-2.45	102.2
20XY	0.1993	-0.0008449	0.002001	0.0368	0.2876	0.1839	-2.253	-2.453	102.2
20Y	0.204	-0.001845	0.00226	-0.0158	0.3041	-0.1844	-2.248	2.45	102.2
32X	0.04843	0.001026	-0.01412	-0.0061	0.1627	0.1537	2.5	-2.451	66.11
32XY	0.04915	0.0001514	-0.002266	0.0055	0.1611	0.1500	-2.403	-2.452	66.12
32Y	0.05013	-0.0002231	-0.002232	-0.0039	0.1642	-0.1528	-2.402	2.452	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	0.651	-0.003644	-0.02147	-0.0063	0.7400	-0.1920	1.301	0.6464	147.7
3S	0.6189	-0.003734	-0.02141	-0.0080	0.7443	-0.1920	1.269	0.6463	145.2
4S	0.5862	-0.004406	-0.02129	-0.0142	0.7403	-0.1920	1.236	0.6456	142.7
5S	0.5543	-0.004815	-0.02112	-0.0093	0.7362	-0.1920	1.204	0.6452	140.2
6S	0.5222	-0.005377	-0.02092	-0.0183	0.7273	-0.1920	1.172	0.6446	137.7
7S	0.491	-0.00612	-0.02064	-0.0071	0.7080	-0.1920	1.141	0.6439	135.2
8S	0.4664	-0.006578	-0.02037	-0.0350	0.6996	-0.1920	1.116	0.6434	133.2
12S	0.3782	-0.00248	-0.02357	0.0123	0.5841	-0.1943	1.518	1.138	124.7
13S	0.3533	-0.001493	-0.02317	0.0332	0.5644	-0.1962	1.493	1.139	122.2
14S	0.3289	-3.025e-005	-0.02261	0.0213	0.5475	-0.1984	1.469	1.14	119.7
15S	0.3057	0.0006503	-0.02198	0.0288	0.5220	-0.2006	1.446	1.141	117.2
16S	0.2834	0.002244	-0.02125	0.0196	0.4969	-0.2028	1.423	1.142	114.7
17S	0.2625	0.002696	-0.02045	0.0335	0.4595	-0.2050	1.402	1.143	112.2
18S	0.2469	0.004118	-0.01972	0.0104	0.4384	-0.2068	1.387	1.144	110.2
21S	0.1883	0.002053	-0.02303	-0.0179	0.3111	-0.1890	2.64	2.454	99.38
22S	0.1737	0.001933	-0.02228	0.0064	0.2928	-0.1835	2.626	2.454	96.58
23S	0.16	0.002055	-0.02133	-0.0077	0.2827	-0.1772	2.612	2.454	93.88
24S	0.1471	0.001517	-0.0203	-0.0021	0.2659	-0.1709	2.599	2.454	91.18
25S	0.1343	0.001501	-0.01971	-0.0043	0.2557	-0.1687	2.586	2.454	88.38

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26S	0.1221	0.001167	-0.01908	-0.0021	0.2458	-0.1666	2.574	2.453 85.58
27S	0.1103	0.00115	-0.01851	-0.0036	0.2368	-0.1653	2.562	2.453 82.78
28S	0.09899	0.0008574	-0.0179	-0.0025	0.2270	-0.1641	2.551	2.453 79.98
29S	0.0883	0.0008899	-0.01726	-0.0023	0.2165	-0.1628	2.54	2.453 77.23
30S	0.07819	0.0006066	-0.01658	-0.0039	0.2071	-0.1616	2.53	2.453 74.48
31S	0.06847	0.000551	-0.01587	-0.0032	0.2058	-0.1604	2.52	2.453 71.78
33S	0.03809	0.0002362	-0.01371	0.0254	0.0988	-0.1462	3.261	3.223 59.79
34S	0.02936	-4.744e-005	-0.01308	0.0129	0.0916	-0.1324	3.983	3.954 53.79
35S	0.02231	-0.0003207	-0.01228	0.0155	0.0719	-0.1183	4.707	4.685 47.79
36S	0.01643	-0.0004278	-0.0113	0.0120	0.0663	-0.1032	5.433	5.416 41.79
37S	0.01101	-0.0006989	-0.01026	0.0130	0.0505	-0.0888	6.158	6.147 35.79
371S	0.01088	-0.0001086	-0.01052	0.0000	0.0000	0.0000	6.158	-0.0001086 35.79
372S	0.01159	-0.0005646	-0.005694	0.0000	0.0000	0.0000	0.01159	6.147 35.79
373S	0.01205	0.0001485	-0.0008176	0.0000	0.0000	0.0000	-6.135	0.0001485 35.8
374S	0.01131	0.0006046	-0.005631	0.0000	0.0000	0.0000	0.01131	-6.147 35.79
38S	0.007499	-0.0005189	-0.008898	0.0102	0.0407	-0.0742	6.886	6.878 29.79
39S	0.003873	-0.0008262	-0.007525	0.0090	0.0332	-0.0591	7.614	7.609 23.79
391S	0.003793	-9.639e-005	-0.007997	0.0000	0.0000	0.0000	7.614	-9.639e-005 23.79
392S	0.004588	-0.0007344	-0.004319	0.0000	0.0000	0.0000	0.004588	7.609 23.8
393S	0.005243	7.747e-005	-0.0005834	0.0000	0.0000	0.0000	-7.604	7.747e-005 23.8
394S	0.00441	0.0007154	-0.004268	0.0000	0.0000	0.0000	0.00441	-7.609 23.8
40S	0.001811	-0.0003868	-0.005825	0.0136	0.0199	-0.0439	8.343	8.341 17.79
41S	-0.0004546	-0.0009415	-0.004195	-0.0211	0.0304	-0.0307	9.072	9.071 11.8
411S	-0.0004973	-5.783e-005	-0.003239	0.0000	0.0000	0.0000	9.072	-5.783e-005 11.8
412S	0.0003923	-0.000882	-0.002475	0.0000	0.0000	0.0000	0.0003923	9.071 11.8
413S	0.001233	2.517e-005	-0.001698	0.0000	0.0000	0.0000	-9.071	2.517e-005 11.8
414S	0.0003052	0.0008493	-0.002458	0.0000	0.0000	0.0000	0.0003052	-9.071 11.8
42S	-0.002392	-0.003419	-0.002704	0.0197	-0.0126	-0.0148	9.801	9.8 5.797
2X	0.6539	-0.002703	-0.02122	-0.0164	0.6984	0.1119	1.304	-0.6527 147.7
2XY	0.6549	-0.0005822	-0.005295	0.0226	0.7113	0.1072	0.004895	-0.6506 147.7
2Y	0.652	-0.001737	-0.004585	0.0399	0.7532	-0.1758	0.002049	0.6483 147.7
3X	0.6236	-0.003615	-0.02115	-0.0153	0.7026	0.1119	1.274	-0.6536 145.2
3XY	0.6237	0.0002508	-0.00529	0.0331	0.7045	0.1072	-0.02628	-0.6497 145.2
3Y	0.6191	0.0001349	-0.004594	0.0283	0.7457	-0.1758	0.03094	0.6501 145.2
4X	0.5927	-0.003985	-0.02101	-0.0104	0.6990	0.1119	1.243	-0.654 142.7
4XY	0.5934	0.002066	-0.005293	0.0269	0.6993	0.1072	-0.05661	-0.6479 142.7
4Y	0.5869	0.0009852	-0.004603	0.0340	0.7413	-0.1758	-0.06307	0.651 142.7
5X	0.5626	-0.00469	-0.02082	-0.0171	0.6940	0.1119	1.213	-0.6547 140.2
5XY	0.5627	0.002907	-0.005324	0.0419	0.6906	0.1072	-0.08726	-0.6471 140.2
5Y	0.5545	0.002781	-0.004642	0.0175	0.7308	-0.1758	-0.09554	0.6528 140.2
6X	0.5323	-0.005353	-0.02058	-0.0127	0.6854	0.1119	1.182	-0.6554 137.7
6XY	0.5328	0.004783	-0.005375	0.0265	0.6853	0.1072	-0.1172	-0.6452 137.7
6Y	0.5228	0.003515	-0.004699	0.0346	0.7278	-0.1758	-0.1272	0.6535 137.7
7X	0.503	-0.006005	-0.02025	-0.0224	0.6660	0.1119	1.153	-0.656 135.2
7XY	0.5031	0.005525	-0.005484	0.0322	0.6692	0.1072	-0.1469	-0.6445 135.2
7Y	0.4912	0.005374	-0.004806	0.0222	0.7106	-0.1758	-0.1588	0.6554 135.2
8X	0.48	-0.006846	-0.01993	-0.0208	0.6432	0.1119	1.13	-0.6568 133.2
8XY	0.4802	0.006928	-0.005606	0.0349	0.6404	0.1072	-0.1698	-0.6431 133.2
8Y	0.4667	0.006092	-0.004916	0.0435	0.6973	-0.1758	-0.1833	0.6561 133.2
12X	0.3839	-0.002516	-0.02461	0.0287	0.6264	0.1285	1.524	-1.143 124.7
12XY	0.3844	0.003684	-9.901e-005	-0.0252	0.6281	0.1234	-0.7556	-1.136 124.7
12Y	0.3787	0.002571	-0.0009478	-0.0057	0.5865	-0.1792	-0.7613	1.143 124.7
13X	0.3569	-0.001295	-0.02419	0.0199	0.6131	0.1374	1.497	-1.141 122.2
13XY	0.3571	0.002331	-0.0002872	-0.0189	0.6163	0.1322	-0.7829	-1.138 122.2
13Y	0.3535	0.002107	-0.00114	-0.0260	0.5673	-0.1815	-0.7865	1.142 122.2
14X	0.3305	-0.0005915	-0.02361	0.0270	0.5941	0.1479	1.47	-1.141 119.7

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	0.3308	0.00197	-0.0005619	-0.0223	0.5929	0.1426	-0.8092	-1.138	119.7
14Y	0.3293	0.0006283	-0.001423	-0.0193	0.5463	-0.1843	-0.8107	1.141	119.7
15X	0.3051	0.0008439	-0.02295	0.0193	0.5686	0.1585	1.445	-1.139	117.2
15XY	0.3054	0.0004917	-0.0008958	-0.0185	0.5701	0.1530	-0.8346	-1.14	117.2
15Y	0.3059	0.0002513	-0.001765	-0.0244	0.5237	-0.1871	-0.8341	1.14	117.2
16X	0.2808	0.001327	-0.02221	0.0279	0.5433	0.1691	1.421	-1.139	114.7
16XY	0.2812	0.0002321	-0.001293	-0.0235	0.5411	0.1635	-0.8588	-1.14	114.7
16Y	0.2837	-0.001365	-0.002171	-0.0201	0.4947	-0.1899	-0.8563	1.139	114.7
17X	0.2579	0.002917	-0.02139	0.0116	0.5049	0.1797	1.398	-1.137	112.2
17XY	0.2582	-0.001389	-0.001757	-0.0170	0.5110	0.1739	-0.8818	-1.141	112.2
17Y	0.2627	-0.001642	-0.002648	-0.0255	0.4655	-0.1926	-0.8773	1.138	112.2
18X	0.2407	0.003119	-0.02066	0.0410	0.4876	0.1881	1.381	-1.137	110.2
18XY	0.2408	-0.001663	-0.002176	-0.0331	0.4817	0.1822	-0.8992	-1.142	110.2
18Y	0.247	-0.002913	-0.003078	-0.0163	0.4327	-0.1949	-0.893	1.137	110.2
21X	0.184	0.002571	-0.02269	0.0136	0.3067	0.1845	2.636	-2.449	99.38
21XY	0.1846	-0.000789	0.001734	-0.0107	0.3037	0.1789	-2.267	-2.453	99.4
21Y	0.1889	-0.00159	0.001985	0.0130	0.3083	-0.1797	-2.263	2.45	99.4
22X	0.1697	0.002287	-0.02194	-0.0157	0.2855	0.1791	2.622	-2.45	96.58
22XY	0.1701	-0.0007847	0.001431	0.0097	0.2901	0.1738	-2.282	-2.453	96.6
22Y	0.1741	-0.001301	0.001672	-0.0028	0.2979	-0.1749	-2.278	2.451	96.6
23X	0.1564	0.001782	-0.021	-0.0000	0.2755	0.1728	2.608	-2.45	93.88
23XY	0.1568	-0.0003312	0.00104	-0.0003	0.2747	0.1679	-2.295	-2.452	93.9
23Y	0.1604	-0.001483	0.001265	0.0056	0.2816	-0.1695	-2.292	2.451	93.9
24X	0.1438	0.001954	-0.01999	-0.0054	0.2589	0.1666	2.596	-2.45	91.18
24XY	0.1443	-0.0005412	0.0005975	0.0070	0.2563	0.1621	-2.308	-2.453	91.2
24Y	0.1476	-0.001022	0.0008032	-0.0019	0.2632	-0.1640	-2.304	2.451	91.2
25X	0.1314	0.001612	-0.01942	-0.0028	0.2491	0.1645	2.583	-2.45	88.38
25XY	0.1319	-0.0001513	0.0003413	0.0007	0.2499	0.1601	-2.32	-2.452	88.4
25Y	0.1349	-0.00117	0.0005342	0.0041	0.2565	-0.1622	-2.317	2.451	88.4
26X	0.1195	0.001607	-0.0188	-0.0046	0.2396	0.1624	2.571	-2.45	85.58
26XY	0.1199	-0.0003032	5.467e-005	0.0047	0.2387	0.1581	-2.332	-2.452	85.6
26Y	0.1226	-0.000792	0.0002324	-0.0002	0.2449	-0.1603	-2.329	2.451	85.6
27X	0.1079	0.001302	-0.01825	-0.0028	0.2309	0.1611	2.56	-2.451	82.78
27XY	0.1085	5.272e-005	-0.0002031	0.0015	0.2310	0.1569	-2.344	-2.452	82.8
27Y	0.1108	-0.000939	-3.998e-005	0.0026	0.2369	-0.1592	-2.341	2.451	82.8
28X	0.09691	0.001291	-0.01766	-0.0035	0.2215	0.1599	2.549	-2.451	79.98
28XY	0.09738	-9.84e-005	-0.0004882	0.0020	0.2218	0.1558	-2.355	-2.452	80
28Y	0.09946	-0.0005966	-0.0003416	0.0017	0.2274	-0.1582	-2.353	2.451	80
29X	0.08647	0.0009811	-0.01704	-0.0032	0.2114	0.1587	2.538	-2.451	77.23
29XY	0.08701	0.0002399	-0.0007908	0.0027	0.2109	0.1546	-2.365	-2.452	77.25
29Y	0.08883	-0.0007666	-0.0006625	0.0006	0.2160	-0.1571	-2.363	2.451	77.25
30X	0.0766	0.00101	-0.01638	-0.0012	0.2023	0.1574	2.529	-2.451	74.48
30XY	0.07708	7.848e-005	-0.001123	-0.0017	0.2039	0.1535	-2.375	-2.452	74.5
30Y	0.07866	-0.0004582	-0.001014	0.0046	0.2086	-0.1560	-2.373	2.452	74.5
31X	0.0671	0.0008365	-0.01569	-0.0014	0.2013	0.1563	2.519	-2.451	71.78
31XY	0.06757	0.0002006	-0.001471	0.0021	0.1999	0.1524	-2.384	-2.452	71.8
31Y	0.06894	-0.0004556	-0.001385	0.0003	0.2044	-0.1550	-2.383	2.452	71.8
33X	0.03729	0.0003666	-0.01357	-0.0280	0.0973	0.1424	3.26	-3.222	59.79
33XY	0.03793	0.0006192	-0.001814	0.0251	0.0983	0.1390	-3.185	-3.222	59.8
33Y	0.03873	-0.0005257	-0.00179	-0.0244	0.0997	-0.1416	-3.184	3.222	59.8
34X	0.02867	0.0003521	-0.01293	-0.0151	0.0906	0.1290	3.983	-3.954	53.79
34XY	0.02946	0.0006764	-0.001469	0.0141	0.0898	0.1259	-3.924	-3.953	53.8
34Y	0.03015	-0.0004919	-0.001455	-0.0138	0.0907	-0.1283	-3.924	3.953	53.8
35X	0.02168	0.0003711	-0.01212	-0.0171	0.0707	0.1153	4.707	-4.685	47.79
35XY	0.02257	0.0006666	-0.001195	0.0159	0.0705	0.1126	-4.663	-4.684	47.8
35Y	0.02319	-0.0004315	-0.001189	-0.0158	0.0717	-0.1146	-4.662	4.685	47.8

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36X	0.01595	0.0003187	-0.01113	-0.0129	0.0640	0.1008	5.432	-5.416	41.79
36XY	0.01701	0.0008304	-0.001014	0.0123	0.0636	0.0984	-5.399	-5.415	41.8
36Y	0.01747	-0.0005573	-0.0009969	-0.0121	0.0657	-0.1001	-5.399	5.416	41.8
37X	0.01073	0.0004848	-0.01011	-0.0130	0.0491	0.0868	6.158	-6.147	35.79
37XY	0.01191	0.0007396	-0.0007267	0.0118	0.0495	0.0848	-6.135	-6.147	35.8
37Y	0.0122	-0.0004427	-0.0007051	-0.0123	0.0507	-0.0861	-6.135	6.147	35.8
38X	0.007268	0.0003281	-0.008783	-0.0098	0.0402	0.0725	6.886	-6.878	29.79
38XY	0.008539	0.0009512	-0.0006461	0.0083	0.0410	0.0708	-6.87	-6.878	29.8
38Y	0.008766	-0.000736	-0.0006476	-0.0093	0.0414	-0.0719	-6.87	6.878	29.8
39X	0.003695	0.0006336	-0.007434	-0.0086	0.0326	0.0577	7.613	-7.609	23.79
39XY	0.005157	0.0008096	-0.0004441	0.0106	0.0302	0.0563	-7.605	-7.609	23.8
39Y	0.005342	-0.0006578	-0.0004603	-0.0113	0.0307	-0.0573	-7.604	7.609	23.8
40X	0.001667	0.000247	-0.005765	-0.0130	0.0195	0.0430	8.343	-8.341	17.79
40XY	0.003098	0.001169	-0.0004175	-0.0019	0.0341	0.0419	-8.338	-8.34	17.8
40Y	0.003242	-0.00108	-0.0004407	0.0013	0.0347	-0.0426	-8.338	8.34	17.8
41X	-0.0005531	0.0008238	-0.00415	0.0215	0.0298	0.0301	9.071	-9.071	11.8
41XY	0.001203	0.0009043	-0.0002292	0.0315	-0.0235	0.0294	-9.071	-9.071	11.8
41Y	0.00129	-0.000854	-0.0002446	-0.0319	-0.0228	-0.0298	-9.071	9.071	11.8
42X	-0.002426	0.003371	-0.002681	-0.0189	-0.0131	0.0146	9.801	-9.8	5.797
42XY	0.005237	0.004277	-0.001163	-0.0136	0.0194	0.0142	-9.798	-9.799	5.799
42Y	0.005263	-0.00426	-0.001169	0.0133	0.0199	-0.0144	-9.798	9.799	5.799

Joint Support Reactions for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X Moment (kN-m)	X-M. Usage %	Y Moment (kN-m)	Y-M. Usage %	Z Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-72.26	0.0	-76.67	0.0	523.73	0.0	0.0	534.23	0.0	-2.05	0.0	1.0	0.0	0.05	0.0	0.0
ANX	-70.52	0.0	77.35	0.0	518.76	0.0	0.0	529.21	0.0	2.02	0.0	0.0	0.0	-0.05	0.0	0.0
ANXY	-0.90	0.0	-7.14	0.0	-0.15	0.0	0.0	7.20	0.0	1.92	0.0	-3.0	0.0	-0.04	0.0	0.0
ANY	-1.59	0.0	6.46	0.0	0.85	0.0	0.0	6.71	0.0	-1.91	0.0	-3.0	0.0	0.04	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	0.4475	0.0000	-3.3754	-0.4468	-0.0000	3.3754	0.6934	-0.0026	-0.0215
10P	1.4860	0.0000	-5.9268	-1.4855	-0.0000	5.9268	0.4477	-0.0074	-0.0201
11P	0.5987	0.0000	-3.3251	-0.5983	-0.0000	3.3250	0.4081	-0.0038	-0.0240
19P	0.7318	0.0000	-3.9796	-0.7316	0.0000	3.9796	0.2351	0.0037	-0.0191
20P	1.0305	0.0000	-5.7288	-1.0303	0.0000	5.7288	0.2038	0.0028	-0.0237
32P	1.1583	0.0000	-9.0478	-1.1583	-0.0000	9.0477	0.0494	-0.0000	-0.0142
ANP	0.3774	0.0000	-5.0810	71.8805	76.6716	-518.6527	0.0000	0.0000	0.0000
1X	0.4475	0.0000	-3.3754	-0.4468	-0.0000	3.3754	0.6938	-0.0025	-0.0213
1XY	0.4475	0.0000	-3.3754	-0.4468	-0.0000	3.3754	0.6940	-0.0029	-0.0053
1Y	0.2235	0.0000	-1.9954	-0.2228	-0.0000	1.9954	0.6935	-0.0030	-0.0046
10X	1.4860	0.0000	-5.9268	-1.4855	-0.0000	5.9268	0.4625	-0.0071	-0.0196
10XY	0.7000	0.0000	-3.9468	-0.6995	0.0000	3.9468	0.4627	0.0074	-0.0057
10Y	0.4760	0.0000	-2.5668	-0.4755	0.0000	2.5668	0.4479	0.0073	-0.0050
11X	0.5987	0.0000	-3.3251	-0.5983	-0.0000	3.3250	0.4162	-0.0039	-0.0250
11XY	0.5987	0.0000	-3.3251	-0.5983	0.0000	3.3251	0.4164	0.0044	0.0001
11Y	0.5987	0.0000	-3.3251	-0.5983	0.0000	3.3251	0.4083	0.0040	-0.0008

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	0.7318	0.0000	-3.9796	-0.7316	0.0000	3.9796	0.2277	0.0048	-0.0201
19XY	0.7318	0.0000	-3.9796	-0.7316	-0.0000	3.9796	0.2281	-0.0030	-0.0025
19Y	0.7318	0.0000	-3.9796	-0.7316	-0.0000	3.9796	0.2355	-0.0028	-0.0035
20X	1.0305	0.0000	-5.7288	-1.0303	0.0000	5.7288	0.1992	0.0022	-0.0234
20XY	0.9185	0.0000	-4.9488	-0.9183	-0.0000	4.9488	0.1993	-0.0008	0.0020
20Y	0.9185	0.0000	-4.9488	-0.9183	-0.0000	4.9488	0.2040	-0.0018	0.0023
32X	1.1583	0.0000	-9.0478	-1.1583	0.0000	9.0477	0.0484	0.0010	-0.0141
32XY	1.1583	0.0000	-9.0478	-1.1583	0.0000	9.0478	0.0492	0.0002	-0.0023
32Y	1.1583	0.0000	-9.0478	-1.1582	-0.0000	9.0478	0.0501	-0.0002	-0.0022
ANX	0.3774	0.0000	-5.0810	0.3774	-513.6758	0.0000	0.0000	0.0000	0.0000
ANXY	0.3774	0.0000	-5.0810	0.5227	7.1430	5.2276	0.0000	0.0000	0.0000
ANY	0.3774	0.0000	-5.0810	1.2089	-6.4607	4.2274	0.0000	0.0000	0.0000
2S	0.4475	0.0000	-2.3754	-0.4469	-0.0000	2.3754	0.6510	-0.0036	-0.0215
3S	0.4305	0.0000	-1.9332	-0.4299	-0.0000	1.9332	0.6189	-0.0037	-0.0214
4S	0.4310	0.0000	-2.3178	-0.4304	-0.0000	2.3178	0.5862	-0.0044	-0.0213
5S	1.4395	0.0000	-5.3596	-1.4389	-0.0000	5.3596	0.5543	-0.0048	-0.0211
6S	1.2325	0.0000	-4.4218	-1.2320	-0.0000	4.4218	0.5222	-0.0054	-0.0209
7S	1.3982	0.0000	-5.2371	-1.3978	-0.0000	5.2370	0.4910	-0.0061	-0.0206
8S	1.1757	0.0000	-4.1752	-1.1753	-0.0000	4.1752	0.4664	-0.0066	-0.0204
12S	0.2885	0.0000	-1.5735	-0.2881	-0.0000	1.5734	0.3782	-0.0025	-0.0236
13S	0.5551	0.0000	-2.9269	-0.5547	-0.0000	2.9269	0.3533	-0.0015	-0.0232
14S	0.3786	0.0000	-2.1334	-0.3783	-0.0000	2.1334	0.3289	-0.0000	-0.0226
15S	0.6420	0.0000	-3.4868	-0.6416	0.0000	3.4868	0.3057	0.0007	-0.0220
16S	0.2634	0.0000	-1.3534	-0.2631	0.0000	1.3534	0.2834	0.0022	-0.0213
17S	0.5711	0.0000	-3.1482	-0.5708	0.0000	3.1482	0.2625	0.0027	-0.0204
18S	0.3077	0.0000	-1.7948	-0.3074	0.0000	1.7948	0.2469	0.0041	-0.0197
21S	0.3824	0.0000	-1.9840	-0.3822	0.0000	1.9839	0.1883	0.0021	-0.0230
22S	1.6594	0.0000	-5.6507	-1.6592	0.0000	5.6507	0.1737	0.0019	-0.0223
23S	1.2770	0.0000	-3.6668	-1.2768	0.0000	3.6668	0.1600	0.0021	-0.0213
24S	0.7790	0.0000	-4.4346	-0.7789	0.0000	4.4346	0.1471	0.0015	-0.0203
25S	0.4021	0.0000	-2.5678	-0.4019	0.0000	2.5678	0.1343	0.0015	-0.0197
26S	0.8178	0.0000	-5.4135	-0.8177	0.0000	5.4135	0.1221	0.0012	-0.0191
27S	0.4158	0.0000	-2.8457	-0.4157	0.0000	2.8457	0.1103	0.0012	-0.0185
28S	0.8180	0.0000	-5.6511	-0.8179	0.0000	5.6511	0.0990	0.0009	-0.0179
29S	0.4533	0.0000	-3.0554	-0.4532	0.0000	3.0554	0.0883	0.0009	-0.0173
30S	0.7096	0.0000	-5.0007	-0.7096	0.0000	5.0007	0.0782	0.0006	-0.0166
31S	0.8386	0.0000	-6.1912	-0.8385	0.0000	6.1912	0.0685	0.0006	-0.0159
33S	1.2584	0.0000	-10.1147	-1.2584	0.0000	10.1147	0.0381	0.0002	-0.0137
34S	1.3137	0.0000	-10.9430	-1.3137	-0.0000	10.9430	0.0294	-0.0000	-0.0131
35S	3.9390	0.0000	-17.2016	-3.9390	-0.0000	17.2016	0.0223	-0.0003	-0.0123
36S	3.6934	0.0000	-16.2721	-3.6934	-0.0000	16.2721	0.0164	-0.0004	-0.0113
37S	0.9353	0.0000	-9.5312	-0.9352	-0.0000	9.5312	0.0110	-0.0007	-0.0103
371S	0.9353	0.0000	-9.5312	-0.9352	-0.0000	9.5312	0.0109	-0.0001	-0.0105
372S	0.9353	0.0000	-9.5312	-0.9352	-0.0000	9.5312	0.0116	-0.0006	-0.0057
373S	0.9353	0.0000	-9.5312	-0.9352	0.0000	9.5312	0.0120	0.0001	-0.0008
374S	0.9353	0.0000	-9.5312	-0.9352	0.0000	9.5312	0.0113	0.0006	-0.0056
38S	0.9877	0.0000	-10.4902	-0.9877	-0.0000	10.4902	0.0075	-0.0005	-0.0089
39S	0.9898	0.0000	-11.0252	-0.9898	-0.0000	11.0252	0.0039	-0.0008	-0.0075
391S	0.9898	0.0000	-11.0252	-0.9898	-0.0000	11.0252	0.0038	-0.0001	-0.0080
392S	0.9898	0.0000	-11.0252	-0.9898	-0.0000	11.0252	0.0046	-0.0007	-0.0043
393S	0.9898	0.0000	-11.0252	-0.9898	0.0000	11.0252	0.0052	0.0001	-0.0006
394S	0.9898	0.0000	-11.0252	-0.9898	0.0000	11.0252	0.0044	0.0007	-0.0043
40S	2.1042	0.0000	-14.7552	-2.1042	-0.0000	14.7551	0.0018	-0.0004	-0.0058
41S	1.8481	0.0000	-13.1041	-1.8481	-0.0000	13.1041	-0.0005	-0.0009	-0.0042
411S	0.8471	0.0000	-11.7505	-0.8471	-0.0000	11.7505	-0.0005	-0.0001	-0.0032
412S	0.8471	0.0000	-11.7505	-0.8471	-0.0000	11.7505	0.0004	-0.0009	-0.0025

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	0.8471	0.0000	-11.7505	-0.8471	0.0000	11.7505	0.0012	0.0000	-0.0017
414S	0.8471	0.0000	-11.7505	-0.8471	0.0000	11.7505	0.0003	0.0008	-0.0025
42S	0.6216	0.0000	-8.5456	-0.6216	-0.0000	8.5456	-0.0024	-0.0034	-0.0027
2X	0.4475	0.0000	-2.3754	-0.4469	-0.0000	2.3754	0.6539	-0.0027	-0.0212
2XY	0.4475	0.0000	-2.3754	-0.4469	-0.0000	2.3754	0.6549	-0.0006	-0.0053
2Y	0.2235	0.0000	-0.9954	-0.2229	-0.0000	0.9954	0.6520	-0.0017	-0.0046
3X	0.4305	0.0000	-1.9332	-0.4299	-0.0000	1.9332	0.6236	-0.0036	-0.0211
3XY	0.4305	0.0000	-1.9332	-0.4299	0.0000	1.9332	0.6237	0.0003	-0.0053
3Y	0.4305	0.0000	-1.9332	-0.4299	0.0000	1.9332	0.6191	0.0001	-0.0046
4X	0.4310	0.0000	-2.3178	-0.4304	-0.0000	2.3178	0.5927	-0.0040	-0.0210
4XY	0.4310	0.0000	-2.3178	-0.4304	0.0000	2.3178	0.5934	0.0021	-0.0053
4Y	0.2070	0.0000	-0.9378	-0.2064	0.0000	0.9378	0.5869	0.0010	-0.0046
5X	1.6635	0.0000	-6.7396	-1.6629	-0.0000	6.7396	0.5626	-0.0047	-0.0208
5XY	0.6535	0.0000	-3.3796	-0.6529	0.0000	3.3796	0.5627	0.0029	-0.0053
5Y	0.4295	0.0000	-1.9996	-0.4289	0.0000	1.9996	0.5545	0.0028	-0.0046
6X	1.4565	0.0000	-5.8018	-1.4560	-0.0000	5.8018	0.5323	-0.0054	-0.0206
6XY	0.4465	0.0000	-2.4418	-0.4460	0.0000	2.4418	0.5328	0.0048	-0.0054
6Y	0.2225	0.0000	-1.0618	-0.2220	0.0000	1.0618	0.5228	0.0035	-0.0047
7X	1.3982	0.0000	-5.2371	-1.3977	-0.0000	5.2370	0.5030	-0.0060	-0.0203
7XY	0.3882	0.0000	-1.8771	-0.3877	0.0000	1.8771	0.5031	0.0055	-0.0055
7Y	0.3882	0.0000	-1.8771	-0.3878	0.0000	1.8771	0.4912	0.0054	-0.0048
8X	1.3997	0.0000	-5.5552	-1.3993	-0.0000	5.5552	0.4800	-0.0068	-0.0199
8XY	0.3897	0.0000	-2.1952	-0.3893	0.0000	2.1952	0.4802	0.0069	-0.0056
8Y	0.1657	0.0000	-0.8152	-0.1653	0.0000	0.8152	0.4667	0.0061	-0.0049
12X	0.2885	0.0000	-1.5735	-0.2881	-0.0000	1.5734	0.3839	-0.0025	-0.0246
12XY	0.2885	0.0000	-1.5735	-0.2881	0.0000	1.5735	0.3844	0.0037	-0.0001
12Y	0.2885	0.0000	-1.5735	-0.2881	0.0000	1.5735	0.3787	0.0026	-0.0009
13X	0.5551	0.0000	-2.9269	-0.5547	-0.0000	2.9269	0.3569	-0.0013	-0.0242
13XY	0.5551	0.0000	-2.9269	-0.5547	0.0000	2.9269	0.3571	0.0023	-0.0003
13Y	0.5551	0.0000	-2.9269	-0.5547	0.0000	2.9269	0.3535	0.0021	-0.0011
14X	0.3786	0.0000	-2.1334	-0.3783	-0.0000	2.1334	0.3305	-0.0006	-0.0236
14XY	0.2666	0.0000	-1.3534	-0.2663	0.0000	1.3534	0.3308	0.0020	-0.0006
14Y	0.3786	0.0000	-2.1334	-0.3783	0.0000	2.1334	0.3293	0.0006	-0.0014
15X	0.6420	0.0000	-3.4868	-0.6416	0.0000	3.4868	0.3051	0.0008	-0.0230
15XY	0.5300	0.0000	-2.7068	-0.5296	0.0000	2.7068	0.3054	0.0005	-0.0009
15Y	0.6420	0.0000	-3.4868	-0.6416	0.0000	3.4868	0.3059	0.0003	-0.0018
16X	0.2634	0.0000	-1.3534	-0.2631	0.0000	1.3534	0.2808	0.0013	-0.0222
16XY	0.2634	0.0000	-1.3534	-0.2631	0.0000	1.3534	0.2812	0.0002	-0.0013
16Y	0.2634	0.0000	-1.3534	-0.2631	-0.0000	1.3534	0.2837	-0.0014	-0.0022
17X	0.5711	0.0000	-3.1482	-0.5708	0.0000	3.1482	0.2579	0.0029	-0.0214
17XY	0.4591	0.0000	-2.3682	-0.4588	-0.0000	2.3682	0.2582	-0.0014	-0.0018
17Y	0.5711	0.0000	-3.1482	-0.5708	-0.0000	3.1482	0.2627	-0.0016	-0.0026
18X	0.3077	0.0000	-1.7948	-0.3075	0.0000	1.7948	0.2407	0.0031	-0.0207
18XY	0.1957	0.0000	-1.0148	-0.1955	-0.0000	1.0148	0.2408	-0.0017	-0.0022
18Y	0.3077	0.0000	-1.7948	-0.3074	-0.0000	1.7948	0.2470	-0.0029	-0.0031
21X	0.3824	0.0000	-1.9840	-0.3822	0.0000	1.9839	0.1840	0.0026	-0.0227
21XY	0.3824	0.0000	-1.9840	-0.3822	-0.0000	1.9840	0.1846	-0.0008	0.0017
21Y	0.3824	0.0000	-1.9840	-0.3822	-0.0000	1.9840	0.1889	-0.0016	0.0020
22X	0.7594	0.0000	-3.8507	-0.7592	0.0000	3.8507	0.1697	0.0023	-0.0219
22XY	1.2094	0.0000	-4.7507	-1.2092	-0.0000	4.7507	0.1701	-0.0008	0.0014
22Y	0.7594	0.0000	-3.8507	-0.7592	-0.0000	3.8507	0.1741	-0.0013	0.0017
23X	0.3770	0.0000	-1.8668	-0.3768	0.0000	1.8668	0.1564	0.0018	-0.0210
23XY	0.3770	0.0000	-1.8668	-0.3768	-0.0000	1.8668	0.1568	-0.0003	0.0010
23Y	0.3770	0.0000	-1.8668	-0.3768	-0.0000	1.8668	0.1604	-0.0015	0.0013
24X	0.7790	0.0000	-4.4346	-0.7789	0.0000	4.4346	0.1438	0.0020	-0.0200
24XY	0.7790	0.0000	-4.4346	-0.7789	-0.0000	4.4346	0.1443	-0.0005	0.0006

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	0.7790	0.0000	-4.4346	-0.7789	-0.0000	4.4346	0.1476	-0.0010	0.0008
25X	0.4021	0.0000	-2.5678	-0.4019	0.0000	2.5678	0.1314	0.0016	-0.0194
25XY	0.4021	0.0000	-2.5678	-0.4019	-0.0000	2.5678	0.1319	-0.0002	0.0003
25Y	0.4021	0.0000	-2.5678	-0.4019	-0.0000	2.5678	0.1349	-0.0012	0.0005
26X	0.8178	0.0000	-5.4135	-0.8177	0.0000	5.4135	0.1195	0.0016	-0.0188
26XY	0.8178	0.0000	-5.4135	-0.8177	-0.0000	5.4135	0.1199	-0.0003	0.0001
26Y	0.8178	0.0000	-5.4135	-0.8177	-0.0000	5.4135	0.1226	-0.0008	0.0002
27X	0.4158	0.0000	-2.8457	-0.4157	0.0000	2.8457	0.1079	0.0013	-0.0182
27XY	0.4158	0.0000	-2.8457	-0.4157	0.0000	2.8457	0.1085	0.0001	-0.0002
27Y	0.4158	0.0000	-2.8457	-0.4157	-0.0000	2.8457	0.1108	-0.0009	-0.0000
28X	0.8180	0.0000	-5.6511	-0.8179	0.0000	5.6511	0.0969	0.0013	-0.0177
28XY	0.8180	0.0000	-5.6511	-0.8179	-0.0000	5.6511	0.0974	-0.0001	-0.0005
28Y	0.8180	0.0000	-5.6511	-0.8179	-0.0000	5.6511	0.0995	-0.0006	-0.0003
29X	0.4023	0.0000	-2.8054	-0.4022	0.0000	2.8054	0.0865	0.0010	-0.0170
29XY	0.4023	0.0000	-2.8054	-0.4022	0.0000	2.8054	0.0870	0.0002	-0.0008
29Y	0.4023	0.0000	-2.8054	-0.4022	-0.0000	2.8054	0.0888	-0.0008	-0.0007
30X	0.7096	0.0000	-5.0007	-0.7096	0.0000	5.0007	0.0766	0.0010	-0.0164
30XY	0.7096	0.0000	-5.0007	-0.7096	0.0000	5.0007	0.0771	0.0001	-0.0011
30Y	0.7096	0.0000	-5.0007	-0.7096	-0.0000	5.0007	0.0787	-0.0005	-0.0010
31X	0.8386	0.0000	-6.1912	-0.8385	0.0000	6.1912	0.0671	0.0008	-0.0157
31XY	0.8386	0.0000	-6.4412	-0.8895	0.0000	6.4412	0.0676	0.0002	-0.0015
31Y	0.8896	0.0000	-6.4412	-0.8895	-0.0000	6.4412	0.0689	-0.0005	-0.0014
33X	1.2584	0.0000	-10.1147	-1.2584	0.0000	10.1147	0.0373	0.0004	-0.0136
33XY	1.2584	0.0000	-10.1147	-1.2584	0.0000	10.1147	0.0379	0.0006	-0.0018
33Y	1.2584	0.0000	-10.1147	-1.2584	-0.0000	10.1147	0.0387	-0.0005	-0.0018
34X	1.3137	0.0000	-10.9430	-1.3137	0.0000	10.9430	0.0287	0.0004	-0.0129
34XY	1.3137	0.0000	-10.9430	-1.3137	0.0000	10.9430	0.0295	0.0007	-0.0015
34Y	1.3137	0.0000	-10.9430	-1.3137	-0.0000	10.9430	0.0301	-0.0005	-0.0015
35X	1.3880	0.0000	-12.0916	-1.3880	0.0000	12.0916	0.0217	0.0004	-0.0121
35XY	1.3880	0.0000	-12.0916	-1.3880	0.0000	12.0916	0.0226	0.0007	-0.0012
35Y	2.2720	0.0000	-13.1916	-2.2720	-0.0000	13.1916	0.0232	-0.0004	-0.0012
36X	1.7794	0.0000	-13.4921	-1.7794	0.0000	13.4921	0.0159	0.0003	-0.0111
36XY	1.4664	0.0000	-11.7471	-1.4664	0.0000	11.7471	0.0170	0.0008	-0.0010
36Y	1.1424	0.0000	-11.1621	-1.1424	-0.0000	11.1621	0.0175	-0.0006	-0.0010
37X	1.2193	0.0000	-11.3712	-1.2192	0.0000	11.3712	0.0107	0.0005	-0.0101
37XY	0.9353	0.0000	-9.5312	-0.9352	0.0000	9.5312	0.0119	0.0007	-0.0007
37Y	0.9353	0.0000	-9.5312	-0.9352	-0.0000	9.5312	0.0122	-0.0004	-0.0007
38X	0.9877	0.0000	-10.4902	-0.9877	0.0000	10.4902	0.0073	0.0003	-0.0008
38XY	0.9877	0.0000	-10.4902	-0.9877	0.0000	10.4902	0.0085	0.0010	-0.0006
38Y	1.0387	0.0000	-10.7402	-1.0387	-0.0000	10.7402	0.0088	-0.0007	-0.0006
39X	0.9898	0.0000	-11.0252	-0.9898	0.0000	11.0252	0.0037	0.0006	-0.0074
39XY	0.9898	0.0000	-11.0252	-0.9898	0.0000	11.0252	0.0052	0.0008	-0.0004
39Y	1.2738	0.0000	-12.8652	-1.2738	-0.0000	12.8652	0.0053	-0.0007	-0.0005
40X	2.2442	0.0000	-16.4452	-2.2442	0.0000	16.4451	0.0017	0.0002	-0.0058
40XY	0.9702	0.0000	-11.7852	-0.9702	0.0000	11.7852	0.0031	0.0012	-0.0004
40Y	1.6072	0.0000	-14.1152	-1.6072	-0.0000	14.1152	0.0032	-0.0011	-0.0004
41X	0.9981	0.0000	-11.9741	-0.9981	0.0000	11.9741	-0.0006	0.0008	-0.0041
41XY	0.7141	0.0000	-10.1341	-0.7141	0.0000	10.1341	0.0012	0.0009	-0.0002
41Y	0.7141	0.0000	-10.1341	-0.7141	-0.0000	10.1341	0.0013	-0.0009	-0.0002
42X	0.6216	0.0000	-8.5456	-0.6216	0.0000	8.5456	-0.0024	0.0034	-0.0027
42XY	0.6216	0.0000	-8.5456	-0.6216	0.0000	8.5456	0.0052	0.0043	-0.0012
42Y	0.6216	0.0000	-8.5456	-0.6216	-0.0000	8.5456	0.0053	-0.0043	-0.0012

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

 INSTATel COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page 125 of 144
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.00	-0.00	0.01	-23.38	69.51	-7.28
1X	-0.00	0.00	0.01	23.63	67.08	7.36
1XY	-0.00	0.00	0.01	34.46	-64.42	10.73
1Y	0.00	0.00	0.01	-33.51	-63.58	-10.44
2P	0.01	23.38	-69.49	26.15	-86.24	19.81
2X	-0.00	-23.63	-67.07	-25.43	-83.58	-19.62
2XY	-0.00	-34.46	64.43	-51.66	91.12	-34.45
2Y	0.01	33.52	63.60	52.50	92.96	34.41
3P	0.01	-26.15	86.25	-15.90	101.94	-16.82
3X	-0.01	25.43	83.60	17.34	97.59	17.10
3XY	-0.01	51.66	-91.11	61.90	-70.79	45.43
3Y	0.01	-52.50	-92.94	-61.86	-75.61	-45.74
4P	0.01	15.90	-101.92	7.85	-86.06	9.50
4X	-0.01	-17.34	-97.57	-6.36	-77.82	-9.48
4XY	-0.01	-61.90	70.80	-86.53	104.96	-59.37
4Y	0.01	61.86	75.62	88.89	116.54	60.30
5P	0.02	-7.85	86.07	34.12	175.25	10.51
5X	-0.01	6.36	77.83	-14.02	162.62	-3.07
5XY	-0.01	86.53	-104.95	158.75	-52.41	98.11
5Y	0.02	-88.89	-116.53	-168.90	-86.56	-103.11
6P	0.02	-34.12	-175.23	-86.27	15.77	-48.16
6X	-0.01	14.02	-162.61	58.96	30.54	29.19
6XY	-0.01	-158.74	52.42	-185.51	212.92	-137.70
6Y	0.02	168.90	86.58	227.12	257.60	158.41
7P	0.02	86.27	-15.76	331.96	135.65	209.11
7X	-0.01	-58.96	-30.53	-72.74	380.86	-65.85
7XY	-0.01	185.51	-212.91	161.58	306.78	173.55
7Y	0.02	-227.12	-257.58	-415.24	-18.21	-321.18
8P	0.03	-331.96	-135.64	-843.27	892.74	-748.55
8X	-0.02	72.74	-380.85	-248.53	-412.92	-111.97
8XY	-0.01	-161.58	-306.77	298.92	-452.58	87.47
8Y	0.02	415.25	18.22	868.04	895.05	817.38
9P	-5.88	-1227.54	34.47	-691.19	-101.23	-468.10
9X	-19.67	467.72	114.57	311.44	205.69	190.09
9XY	-18.39	-531.40	107.10	-462.02	208.94	-242.36
9Y	-3.20	1246.69	18.82	579.85	-102.81	445.61
10P	11.32	-560.00	417.50	-101.02	450.00	-228.73
10X	-54.16	-79.22	-361.20	-67.56	243.54	-50.79
10XY	-53.45	183.28	-470.11	237.95	-57.84	145.75
10Y	14.23	482.05	337.99	-53.66	137.24	148.23
11P	11.32	101.02	-449.99	-109.20	-20.93	-3.28
11X	-54.16	67.56	-243.53	156.19	45.30	89.50
11XY	-53.45	-237.95	57.85	-300.89	315.38	-215.54
11Y	14.23	53.66	-137.23	258.59	281.37	124.90
12P	11.33	109.20	20.94	210.95	324.92	128.06
12X	-54.17	-156.19	-45.29	-217.27	298.96	-149.38
12XY	-53.45	300.89	-315.36	329.85	107.32	252.30
12Y	14.24	-258.59	-281.36	-316.34	96.60	-229.97
13P	11.33	-210.95	-324.91	-275.27	135.69	-194.49
13X	-54.17	217.27	-298.95	283.39	160.31	200.26
13XY	-53.46	-329.85	-107.31	-362.68	304.41	-277.01
13Y	14.24	316.34	-96.59	360.20	313.21	270.62
14P	11.33	275.27	-135.68	354.63	319.53	251.96

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14X	-54.17	-283.39	-160.30	-357.44	298.55	-256.33	55.30
14XY	-53.46	362.68	-304.40	405.65	219.33	307.33	-34.03
14Y	14.24	-360.20	-313.21	-397.57	210.69	-303.11	-41.00
15P	11.34	-354.63	-319.52	-474.37	356.19	-331.60	14.67
15X	-54.17	357.44	-298.54	497.06	395.29	341.80	38.70
15XY	-53.46	-405.65	-219.32	-461.34	324.45	-346.79	42.05
15Y	14.25	397.57	-210.69	444.71	315.74	336.91	42.02
16P	11.34	474.37	-356.18	722.30	118.72	598.33	-118.73
16X	-54.18	-497.06	-395.28	-811.98	-5.91	-654.52	-200.60
16XY	-53.46	461.34	-324.44	634.09	338.49	547.71	7.02
16Y	14.25	-444.71	-315.74	-543.43	425.64	-494.07	54.95
17P	11.34	-722.30	-118.71	-392.66	762.60	-705.67	407.52
17X	-54.18	811.98	5.92	808.24	1292.47	1025.46	821.77
17XY	-53.47	-634.09	-338.48	-644.82	1130.02	-809.43	500.98
17Y	14.25	543.43	-425.63	249.02	618.22	501.55	121.89
18P	-61.73	-816.88	254.45	-506.20	-105.22	-197.98	22.33
18X	43.01	-1485.42	-343.98	-900.92	42.09	-357.09	-45.18
18XY	43.89	1255.00	-344.44	691.62	51.81	291.29	-43.79
18Y	-58.79	613.23	254.75	312.09	-110.17	138.46	21.63
19P	-30.08	-441.53	274.35	-197.85	330.09	-228.35	215.87
19X	29.63	674.08	600.02	258.45	408.51	333.05	360.19
19XY	27.78	-532.86	445.25	-106.64	132.30	-228.39	206.27
19Y	-25.88	307.06	134.30	48.95	53.12	127.15	66.94
20P	-30.08	197.85	-330.09	-20.30	24.83	63.41	-109.02
20X	29.63	-258.45	-408.51	4.83	4.60	-90.58	-144.25
20XY	27.77	106.64	-132.30	-76.55	133.25	10.75	0.34
20Y	-25.88	-48.95	-53.12	92.23	150.46	15.46	34.77
21P	-30.08	20.30	-24.83	132.18	144.98	56.47	44.50
21X	29.63	-4.83	-4.60	-129.70	162.22	-49.82	58.38
21XY	27.77	76.55	-133.25	156.13	123.24	86.18	-3.71
21Y	-25.88	-92.23	-150.45	-158.45	121.93	-92.84	-10.56
22P	-30.07	-132.18	-144.97	-176.37	135.01	-114.28	-3.69
22X	29.62	129.70	-162.21	172.16	115.37	111.80	-17.35
22XY	27.77	-156.13	-123.23	-213.88	184.59	-137.04	22.72
22Y	-25.87	158.45	-121.93	217.66	184.94	139.30	23.34
23P	-30.07	176.37	-135.01	227.41	371.28	144.21	84.38
23X	29.62	-172.16	-115.37	-231.16	369.20	-144.04	90.65
23XY	27.76	213.88	-184.59	359.54	133.35	204.79	-18.30
23Y	-25.87	-217.66	-184.93	-356.04	146.06	-204.89	-13.88
24P	-30.07	-227.41	-371.27	-278.45	116.65	-180.66	-90.93
24X	29.62	231.16	-369.19	272.82	102.31	179.99	-95.31
24XY	27.76	-359.54	-133.35	-451.06	421.29	-289.50	102.84
24Y	-25.87	356.04	-146.06	456.31	429.80	290.13	101.34
25P	-30.06	278.45	-116.65	339.48	633.46	220.69	184.58
25X	29.61	-272.82	-102.31	-347.82	619.32	-221.66	184.65
25XY	27.76	451.06	-421.28	582.30	215.33	369.06	-73.55
25Y	-25.86	-456.31	-429.80	-574.42	233.51	-368.12	-70.10
26P	-30.06	-339.48	-633.46	-386.60	185.40	-259.31	-160.02
26X	29.61	347.82	-619.31	378.01	165.33	259.23	-162.14
26XY	27.76	-582.30	-215.33	-603.11	548.85	-423.36	119.11
26Y	-25.86	574.42	-233.51	611.25	562.53	423.45	117.51
27P	-30.06	386.60	-185.39	381.18	705.02	279.19	188.95
27X	29.61	-378.01	-165.33	-391.95	688.54	-279.99	190.26
27XY	27.75	603.11	-548.84	573.60	376.71	427.89	-62.60
27Y	-25.86	-611.25	-562.52	-563.31	401.56	-427.11	-58.53
28P	-30.05	-381.18	-705.01	-315.13	89.43	-253.20	-223.85

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28X	29.61	391.95	-688.54	307.15	79.85	254.22	-221.34
28XY	27.75	-573.60	-376.70	-388.30	218.81	-349.78	-57.42
28Y	-25.86	563.31	-401.56	395.16	223.19	348.53	-64.86
29P	-30.05	315.13	-89.43	283.49	21.14	221.71	-25.29
29X	29.60	-307.15	-79.85	-297.51	5.57	-223.95	-27.51
29XY	27.75	388.30	-218.80	225.09	125.95	227.51	-34.39
29Y	-25.85	-395.16	-223.19	-210.84	141.37	-224.44	-30.30
30P	-30.05	-283.49	-21.13	-399.11	1614.22	-120.28	280.72
30X	29.60	297.51	-5.57	392.47	1578.14	121.58	277.10
30XY	27.74	-225.99	-125.95	-295.51	1463.79	-91.89	235.74
30Y	-25.85	210.84	-141.36	296.19	1504.31	89.34	240.17
31P	-175.53	-1423.64	841.63	-277.86	-203.72	-265.10	99.39
31X	171.55	-1393.43	-821.19	-281.22	211.00	-260.92	-95.07
31XY	167.64	1244.01	-809.38	194.09	213.54	224.07	-92.84
31Y	-170.55	1273.14	837.47	190.96	-206.38	228.12	98.33
32P	-175.53	277.86	203.72	206.35	-233.38	79.53	-4.87
32X	171.55	281.22	-211.00	199.10	222.61	78.89	1.91
32XY	167.63	-194.09	-213.54	-161.53	222.88	-58.41	1.53
32Y	-170.55	-190.96	206.38	-170.36	-229.60	-59.35	-3.81
33P	-175.53	-206.35	233.37	95.00	-130.27	-18.29	16.93
33X	171.55	-199.10	-222.60	93.77	164.35	-17.30	-9.57
33XY	167.63	161.53	-222.88	-121.60	157.40	6.56	-10.75
33Y	-170.55	170.36	229.60	-112.11	-135.17	9.57	15.51
34P	-175.52	-95.00	130.27	-67.96	-16.61	-26.76	18.67
34X	171.55	-93.77	-164.35	-59.78	30.57	-25.22	-21.97
34XY	167.63	121.60	-157.40	78.84	28.58	32.92	-21.16
34Y	-170.55	112.11	135.17	82.69	-27.94	32.00	17.61
35P	-175.52	67.96	16.61	293.56	-282.60	59.38	-43.69
35X	171.55	59.78	-30.56	261.41	276.29	52.75	40.36
35XY	167.63	-78.84	-28.58	-261.85	275.63	-55.96	40.58
35Y	-170.55	-82.69	27.94	-286.70	-277.60	-60.67	-41.01
36P	-175.52	-293.56	282.60	-199.69	42.65	-81.01	53.42
36X	171.54	-261.41	-276.29	-185.65	-48.28	-73.43	-53.31
36XY	167.63	261.85	-275.63	194.19	-47.62	74.90	-53.09
36Y	-170.54	286.70	277.60	201.88	41.79	80.25	52.46
37P	-175.52	199.69	-42.65	283.09	-177.28	79.44	-36.12
37X	171.54	185.65	48.28	271.11	187.95	75.02	38.80
37XY	167.62	-194.19	47.62	-370.35	180.08	-92.72	37.40
37Y	-170.54	-201.88	-41.79	-373.46	-178.82	-94.50	-36.23
38P	-175.52	-283.99	177.28	-44.06	43.17	-53.88	36.21
38X	171.54	-271.11	-187.95	-35.16	-53.62	-50.30	-39.68
38XY	167.62	370.35	-180.08	591.75	-46.73	158.02	-37.25
38Y	-170.54	373.46	178.82	596.60	44.77	159.33	36.72
39P	-175.52	44.06	-43.17	-561.78	-600.43	-85.03	-105.71
39X	171.54	35.16	53.62	-566.82	617.53	-87.32	110.23
39XY	167.62	-591.75	46.73	-1813.27	610.83	-395.01	108.00
39Y	-170.54	-596.60	-44.77	-1813.38	-609.11	-395.83	-107.40
40P	-175.52	561.78	600.43	1685.81	644.07	369.16	204.40
40X	171.54	566.82	-617.53	1685.36	-650.86	369.91	-208.33
40XY	167.62	1813.27	-610.83	2993.48	-651.05	789.49	-207.26
40Y	-170.54	1813.39	609.11	2992.46	644.56	789.34	205.91
41P	-175.52	-1685.81	-644.07	-2133.77	-739.98	-648.98	-235.16
41X	171.54	-1685.36	650.86	-2129.79	710.09	-648.23	231.24
41XY	167.62	-2993.48	651.05	-3451.20	716.20	-1095.01	232.31
41Y	-170.54	-2992.46	-644.56	-3453.10	-730.62	-1095.16	-233.66

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*** Análisis de resultados por caso de carga No. 6 "LC6 WIND 45° DEFLEX"

Equilibrium Joint Positions and Rotations for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	0.5155	0.4966	-0.0245	-0.4688	0.5105	0.0354	1.165	1.147	150.9
10P	0.3539	0.3468	-0.02252	-0.4656	0.4710	0.0354	1.004	0.9968	131.6
11P	0.3155	0.3098	-0.03092	-0.5164	0.5236	0.0288	1.456	1.45	127.6
19P	0.168	0.1663	-0.02414	-0.3344	0.3654	-0.0414	1.308	1.306	108.6
20P	0.1481	0.1468	-0.02953	-0.1843	0.2116	-0.0490	2.6	2.599	102.2
32P	0.03647	0.03623	-0.017	-0.1070	0.1203	-0.0365	2.488	2.488	66.11
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	0.5221	0.4967	-0.01422	-0.4410	0.6114	0.2693	1.172	-0.1533	150.9
1XY	0.5222	0.4994	-0.0007677	-0.5345	0.5784	0.1401	-0.1278	-0.1506	150.9
1Y	0.5156	0.4993	-0.01327	-0.5704	0.4824	-0.0738	-0.1344	1.149	150.9
10X	0.3257	0.3471	-0.01359	-0.4692	0.4998	0.2694	0.9757	-0.3029	131.6
10XY	0.3259	0.3164	-0.001437	-0.4530	0.5129	0.1401	-0.3241	-0.3336	131.6
10Y	0.3542	0.3162	-0.013	-0.4440	0.4653	-0.0738	-0.2958	0.9662	131.6
11X	0.3	0.3097	-0.01199	-0.5413	0.4079	0.2672	1.44	-0.8303	127.6
11XY	0.3003	0.2919	0.004378	-0.3341	0.3813	0.1331	-0.8397	-0.8481	127.6
11Y	0.3156	0.2916	-0.01121	-0.3725	0.5317	-0.0856	-0.8244	1.432	127.6
19X	0.1775	0.1672	-0.01083	-0.2911	0.2725	0.2627	1.317	-0.9728	108.6
19XY	0.1775	0.1746	0.0002727	-0.2812	0.3068	0.0693	-0.9625	-0.9654	108.6
19Y	0.1689	0.1746	-0.01047	-0.2555	0.3074	-0.2177	-0.9711	1.315	108.6
20X	0.1528	0.1464	-0.01109	-0.2143	0.2469	0.2406	2.605	-2.306	102.2
20XY	0.1536	0.1509	0.008473	-0.2056	0.2275	0.0568	-2.298	-2.301	102.2
20Y	0.1477	0.1501	-0.01072	-0.2463	0.2120	-0.2170	-2.304	2.602	102.2
32X	0.03648	0.03721	-0.008357	-0.1134	0.1258	0.1973	2.488	-2.415	66.12
32XY	0.03694	0.03645	0.0007222	-0.1087	0.1237	0.0410	-2.415	-2.416	66.13
32Y	0.03744	0.03599	-0.008234	-0.1158	0.1191	-0.1842	-2.415	2.488	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	0.4872	0.4707	-0.02443	-0.4491	0.4899	0.0354	1.137	1.121	147.7
3S	0.4661	0.4513	-0.02435	-0.4511	0.4911	0.0354	1.116	1.101	145.2
4S	0.4444	0.4313	-0.0242	-0.4521	0.4908	0.0354	1.094	1.081	142.7
5S	0.4234	0.4119	-0.02397	-0.4464	0.4820	0.0354	1.073	1.062	140.2
6S	0.4023	0.3924	-0.02369	-0.4460	0.4776	0.0354	1.052	1.042	137.7
7S	0.3819	0.3732	-0.0233	-0.4333	0.4595	0.0354	1.032	1.023	135.2
8S	0.3661	0.3584	-0.02291	-0.4108	0.4395	0.0354	1.016	1.008	133.2
12S	0.2903	0.2853	-0.03037	-0.4723	0.4902	0.0194	1.43	1.425	124.7
13S	0.2691	0.2648	-0.02981	-0.4625	0.4770	0.0113	1.409	1.405	122.2
14S	0.2487	0.245	-0.02903	-0.4519	0.4650	0.0016	1.389	1.385	119.7
15S	0.2287	0.2255	-0.02815	-0.4287	0.4410	-0.0081	1.369	1.366	117.2
16S	0.2101	0.2075	-0.02713	-0.4162	0.4255	-0.0178	1.35	1.347	114.7
17S	0.1918	0.1896	-0.026	-0.3759	0.3879	-0.0275	1.332	1.33	112.2
18S	0.1788	0.1769	-0.02498	-0.3873	0.3870	-0.0353	1.319	1.317	110.2
21S	0.1366	0.1355	-0.02859	-0.2374	0.2338	-0.0472	2.589	2.587	99.37
22S	0.1261	0.1251	-0.02761	-0.1991	0.2042	-0.0453	2.578	2.577	96.57
23S	0.1165	0.1157	-0.02635	-0.2038	0.2056	-0.0431	2.569	2.568	93.87
24S	0.107	0.1062	-0.02499	-0.1873	0.1898	-0.0409	2.559	2.558	91.18
25S	0.09794	0.09729	-0.02422	-0.1826	0.1843	-0.0402	2.55	2.549	88.38

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26S	0.08904	0.08846	-0.02338	-0.1739	0.1760	-0.0395	2.541	2.54	85.58
27S	0.08062	0.08015	-0.02264	-0.1691	0.1706	-0.0391	2.533	2.532	82.78
28S	0.0724	0.07197	-0.02184	-0.1617	0.1631	-0.0386	2.524	2.524	79.98
29S	0.06482	0.06448	-0.02099	-0.1544	0.1556	-0.0382	2.517	2.516	77.23
30S	0.05743	0.05712	-0.02009	-0.1492	0.1505	-0.0378	2.509	2.509	74.48
31S	0.05046	0.05019	-0.01914	-0.1499	0.1483	-0.0374	2.502	2.502	71.78
33S	0.02843	0.02828	-0.01646	-0.0507	0.0586	-0.0335	3.251	3.251	59.78
34S	0.02188	0.02178	-0.01578	-0.0532	0.0612	-0.0300	3.976	3.976	53.78
35S	0.01651	0.01646	-0.01487	-0.0380	0.0449	-0.0267	4.702	4.702	47.79
36S	0.01211	0.01213	-0.01371	-0.0370	0.0432	-0.0233	5.428	5.428	41.79
37S	0.00791	0.00796	-0.01251	-0.0255	0.0305	-0.0200	6.155	6.155	35.79
371S	0.007941	0.00854	-0.009297	0.0000	0.0000	0.0000	6.155	0.00854	35.79
372S	0.00849	0.007912	-0.009238	0.0000	0.0000	0.0000	0.00849	6.155	35.79
373S	0.009109	0.008432	-0.002034	0.0000	0.0000	0.0000	-6.138	0.008432	35.8
374S	0.008539	0.009081	-0.002089	0.0000	0.0000	0.0000	0.008539	-6.138	35.8
38S	0.005454	0.005505	-0.01085	-0.0208	0.0249	-0.0167	6.884	6.884	29.79
39S	0.002588	0.002645	-0.009199	-0.0157	0.0191	-0.0133	7.612	7.612	23.79
391S	0.002618	0.003364	-0.007067	0.0000	0.0000	0.0000	7.612	0.003364	23.79
392S	0.003306	0.002623	-0.007027	0.0000	0.0000	0.0000	0.003306	7.612	23.79
393S	0.004068	0.003305	-0.001515	0.0000	0.0000	0.0000	-7.606	0.003305	23.8
394S	0.003352	0.004073	-0.001559	0.0000	0.0000	0.0000	0.003352	-7.606	23.8
40S	0.001377	0.001445	-0.007099	-0.0069	0.0094	-0.0100	8.342	8.342	17.79
41S	-0.0006287	-0.0005668	-0.005128	-0.0250	0.0264	-0.0066	9.071	9.071	11.79
411S	-0.0006121	0.0002902	-0.003048	0.0000	0.0000	0.0000	9.071	0.0002902	11.8
412S	0.0002282	-0.0005827	-0.003033	0.0000	0.0000	0.0000	0.0002282	9.071	11.8
413S	0.001119	0.0002472	-0.001888	0.0000	0.0000	0.0000	-9.071	0.0002472	11.8
414S	0.0002501	0.001148	-0.0019	0.0000	0.0000	0.0000	0.0002501	-9.071	11.8
42S	-0.002502	-0.002478	-0.003073	0.0162	-0.0158	-0.0033	9.801	9.801	5.797
2X	0.4883	0.4717	-0.01417	-0.4601	0.5870	0.2693	1.138	-0.1783	147.7
2XY	0.4894	0.469	-0.0007284	-0.5610	0.6022	0.1401	-0.1606	-0.181	147.7
2Y	0.4882	0.4678	-0.01323	-0.5441	0.5910	-0.0738	-0.1618	1.118	147.7
3X	0.4628	0.4514	-0.01413	-0.4570	0.5950	0.2694	1.113	-0.1986	145.2
3XY	0.463	0.4444	-0.0007333	-0.5510	0.5928	0.1401	-0.187	-0.2056	145.2
3Y	0.4662	0.4442	-0.01321	-0.5543	0.4965	-0.0738	-0.1838	1.094	145.2
4X	0.4366	0.4318	-0.01406	-0.4497	0.5894	0.2694	1.087	-0.2182	142.7
4XY	0.4375	0.4207	-0.0007586	-0.5542	0.5931	0.1401	-0.2125	-0.2293	142.7
4Y	0.4449	0.4197	-0.01317	-0.5483	0.4888	-0.0738	-0.2051	1.07	142.7
5X	0.4113	0.4121	-0.01398	-0.4499	0.5931	0.2694	1.061	-0.2379	140.2
5XY	0.4114	0.3963	-0.0008258	-0.5358	0.5799	0.1401	-0.2386	-0.2537	140.2
5Y	0.4235	0.3962	-0.01312	-0.5569	0.4849	-0.0738	-0.2265	1.046	140.2
6X	0.3854	0.3926	-0.01389	-0.4422	0.5816	0.2694	1.035	-0.2574	137.7
6XY	0.3863	0.373	-0.0009203	-0.5479	0.5853	0.1401	-0.2637	-0.277	137.7
6Y	0.4026	0.3719	-0.01308	-0.5412	0.4748	-0.0738	-0.2474	1.022	137.7
7X	0.3605	0.3733	-0.01377	-0.4454	0.5694	0.2694	1.011	-0.2767	135.2
7XY	0.3607	0.349	-0.001084	-0.5241	0.5661	0.1401	-0.2893	-0.301	135.2
7Y	0.382	0.3489	-0.01303	-0.5312	0.4685	-0.0738	-0.268	0.9989	135.2
8X	0.3406	0.3583	-0.01367	-0.3993	0.5670	0.2694	0.9906	-0.2917	133.2
8XY	0.3412	0.3308	-0.001255	-0.5448	0.5686	0.1401	-0.3088	-0.3192	133.2
8Y	0.3661	0.3301	-0.013	-0.5389	0.4327	-0.0738	-0.2839	0.9801	133.2
12X	0.2787	0.2855	-0.01186	-0.4603	0.4134	0.2666	1.419	-0.8545	124.7
12XY	0.2796	0.2723	0.00412	-0.4106	0.4243	0.1245	-0.8604	-0.8677	124.7
12Y	0.2904	0.2713	-0.01113	-0.3954	0.4834	-0.1032	-0.8496	1.411	124.7
13X	0.2613	0.265	-0.01174	-0.4733	0.4015	0.2661	1.401	-0.875	122.2
13XY	0.2615	0.255	0.003823	-0.3771	0.3988	0.1172	-0.8785	-0.885	122.2
13Y	0.2693	0.2548	-0.01106	-0.3816	0.4858	-0.1185	-0.8707	1.395	122.2
14X	0.2436	0.2447	-0.01159	-0.4473	0.3877	0.2655	1.384	-0.8953	119.7

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	0.2446	0.239	0.003387	-0.3718	0.3890	0.1083	-0.8954	-0.901	119.7
14Y	0.2484	0.2379	-0.01097	-0.3699	0.4614	-0.1368	-0.8916	1.378	119.7
15X	0.2274	0.2257	-0.01144	-0.4363	0.3730	0.2649	1.367	-0.9143	117.2
15XY	0.2277	0.2228	0.00286	-0.3525	0.3694	0.0995	-0.9123	-0.9172	117.2
15Y	0.2288	0.2225	-0.01087	-0.3566	0.4477	-0.1550	-0.9112	1.363	117.2
16X	0.2112	0.2069	-0.01127	-0.4094	0.3516	0.2642	1.351	-0.9331	114.7
16XY	0.2123	0.2082	0.002234	-0.3384	0.3529	0.0907	-0.9277	-0.9318	114.7
16Y	0.2096	0.2069	-0.01076	-0.3365	0.4199	-0.1733	-0.9304	1.347	114.7
17X	0.1967	0.1898	-0.0111	-0.3940	0.3305	0.2636	1.337	-0.9502	112.2
17XY	0.197	0.1934	0.001507	-0.3126	0.3277	0.0819	-0.943	-0.9466	112.2
17Y	0.192	0.1931	-0.01065	-0.3173	0.4029	-0.1916	-0.948	1.333	112.2
18X	0.1853	0.1762	-0.01095	-0.3627	0.3059	0.2631	1.325	-0.9638	110.2
18XY	0.1862	0.1831	0.0008459	-0.3052	0.3122	0.0749	-0.9538	-0.9569	110.2
18Y	0.1782	0.1821	-0.01055	-0.2945	0.3691	-0.2062	-0.9618	1.322	110.2
21X	0.1413	0.136	-0.01086	-0.2128	0.2281	0.2341	2.593	-2.316	99.39
21XY	0.142	0.1396	0.007976	-0.2383	0.2384	0.0544	-2.31	-2.312	99.41
21Y	0.1372	0.1388	-0.01052	-0.2217	0.2178	-0.2121	-2.315	2.591	99.39
22X	0.1302	0.1255	-0.01063	-0.2172	0.2265	0.2276	2.582	-2.327	96.59
22XY	0.1307	0.1285	0.007418	-0.2145	0.2208	0.0521	-2.321	-2.323	96.61
22Y	0.1265	0.128	-0.01031	-0.2226	0.2193	-0.2072	-2.326	2.58	96.59
23X	0.1197	0.1156	-0.01033	-0.1977	0.2114	0.2201	2.572	-2.336	93.89
23XY	0.1207	0.1186	0.006697	-0.2110	0.2146	0.0493	-2.331	-2.333	93.91
23Y	0.1165	0.1177	-0.01004	-0.2068	0.2005	-0.2015	-2.336	2.57	93.89
24X	0.1102	0.1067	-0.01002	-0.1889	0.2027	0.2127	2.562	-2.345	91.19
24XY	0.1107	0.1089	0.005888	-0.1923	0.1967	0.0466	-2.341	-2.343	91.21
24Y	0.1074	0.1084	-0.009766	-0.1996	0.1906	-0.1958	-2.345	2.56	91.19
25X	0.1004	0.09752	-0.009844	-0.1818	0.1924	0.2101	2.552	-2.354	88.39
25XY	0.1013	0.09963	0.005421	-0.1912	0.1944	0.0457	-2.351	-2.352	88.41
25Y	0.09819	0.09873	-0.009609	-0.1885	0.1839	-0.1939	-2.354	2.551	88.39
26X	0.09134	0.08891	-0.009663	-0.1755	0.1867	0.2076	2.543	-2.363	85.59
26XY	0.09184	0.09034	0.004901	-0.1799	0.1839	0.0447	-2.36	-2.362	85.6
26Y	0.08947	0.08986	-0.009445	-0.1839	0.1769	-0.1920	-2.363	2.542	85.59
27X	0.08226	0.08041	-0.009502	-0.1686	0.1787	0.2061	2.534	-2.372	82.79
27XY	0.0831	0.08179	0.004433	-0.1762	0.1792	0.0442	-2.369	-2.37	82.8
27Y	0.08091	0.0809	-0.009298	-0.1753	0.1702	-0.1909	-2.371	2.533	82.79
28X	0.07386	0.07242	-0.009334	-0.1626	0.1717	0.2046	2.526	-2.38	79.99
28XY	0.07437	0.07318	0.003919	-0.1686	0.1716	0.0437	-2.378	-2.379	80
28Y	0.07283	0.07269	-0.009144	-0.1686	0.1639	-0.1898	-2.379	2.525	79.99
29X	0.06564	0.06468	-0.009158	-0.1549	0.1641	0.2032	2.518	-2.387	77.24
29XY	0.06648	0.06547	0.003373	-0.1598	0.1627	0.0431	-2.386	-2.387	77.25
29Y	0.06506	0.06458	-0.008981	-0.1615	0.1560	-0.1887	-2.387	2.517	77.24
30X	0.05813	0.05754	-0.008975	-0.1476	0.1549	0.2017	2.51	-2.394	74.49
30XY	0.05866	0.05776	0.002778	-0.1564	0.1594	0.0426	-2.393	-2.394	74.5
30Y	0.05784	0.05724	-0.008812	-0.1512	0.1491	-0.1876	-2.394	2.509	74.49
31X	0.05074	0.05052	-0.008784	-0.1481	0.1563	0.2003	2.503	-2.401	71.79
31XY	0.05134	0.05058	0.002152	-0.1533	0.1542	0.0421	-2.401	-2.401	71.8
31Y	0.05079	0.04997	-0.008635	-0.1551	0.1475	-0.1865	-2.401	2.502	71.79
33X	0.02772	0.02854	-0.00784	-0.0910	0.0880	0.1830	3.25	-3.194	59.79
33XY	0.02873	0.02837	0.001131	-0.0509	0.0601	0.0376	-3.194	-3.194	59.8
33Y	0.0287	0.02735	-0.007719	-0.0875	0.0884	-0.1710	-3.194	3.25	59.79
34X	0.02126	0.02228	-0.007329	-0.0742	0.0754	0.1660	3.975	-3.932	53.79
34XY	0.02232	0.02204	0.001384	-0.0519	0.0612	0.0337	-3.932	-3.932	53.8
34Y	0.02238	0.02097	-0.007211	-0.0728	0.0737	-0.1553	-3.932	3.975	53.79
35X	0.01607	0.01719	-0.006768	-0.0626	0.0619	0.1485	4.701	-4.668	47.79
35XY	0.01711	0.0169	0.001507	-0.0367	0.0445	0.0300	-4.668	-4.668	47.8
35Y	0.01725	0.01586	-0.006653	-0.0603	0.0618	-0.1390	-4.668	4.701	47.79

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36X	0.01173	0.01294	-0.006164	-0.0555	0.0543	0.1297	5.428	-5.403	41.79
36XY	0.01303	0.01288	0.001474	-0.0346	0.0415	0.0262	-5.403	-5.403	41.8
36Y	0.01292	0.01157	-0.006044	-0.0528	0.0552	-0.1214	-5.403	5.428	41.79
37X	0.007959	0.009147	-0.005488	-0.0451	0.0437	0.1118	6.155	-6.138	35.79
37XY	0.009141	0.009034	0.001569	-0.0248	0.0306	0.0225	-6.138	-6.138	35.8
37Y	0.009091	0.007852	-0.005374	-0.0424	0.0443	-0.1047	-6.138	6.155	35.79
38X	0.005188	0.006459	-0.004777	-0.0361	0.0353	0.0933	6.884	-6.872	29.8
38XY	0.006766	0.00669	0.001336	-0.0215	0.0263	0.0187	-6.872	-6.872	29.8
38Y	0.006413	0.005109	-0.004685	-0.0343	0.0353	-0.0874	-6.872	6.884	29.8
39X	0.002632	0.004106	-0.003998	-0.0282	0.0307	0.0743	7.612	-7.606	23.8
39XY	0.004095	0.004048	0.001253	-0.0131	0.0170	0.0149	-7.606	-7.606	23.8
39Y	0.004054	0.002584	-0.00392	-0.0300	0.0278	-0.0696	-7.606	7.612	23.8
40X	0.0008002	0.002284	-0.003148	-0.0306	0.0161	0.0553	8.342	-8.339	17.8
40XY	0.00283	0.002807	0.000876	-0.0216	0.0245	0.0112	-8.338	-8.338	17.8
40Y	0.002215	0.0007678	-0.003077	-0.0155	0.0303	-0.0517	-8.339	8.342	17.8
41X	-0.0006152	0.001189	-0.002232	0.0204	0.0325	0.0389	9.071	-9.071	11.8
41XY	0.001143	0.00114	0.0007175	0.0286	-0.0267	0.0074	-9.071	-9.071	11.8
41Y	0.00112	-0.0006178	-0.002175	-0.0320	-0.0209	-0.0366	-9.071	9.071	11.8
42X	-0.003128	0.004551	-0.001942	-0.0208	-0.0121	0.0188	9.8	-9.799	5.798
42XY	0.005167	0.005168	-0.000787	-0.0161	0.0169	0.0036	-9.798	-9.798	5.799
42Y	0.004524	-0.003124	-0.001914	0.0122	0.0202	-0.0177	-9.799	9.8	5.798

Joint Support Reactions for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Z Usage %	Comp. Usage %	Uplift Result. (kN)	Result. Usage %	X X-M. Moment (kN-m)	X X-M. Usage %	Y Y-M. Moment (kN-m)	Y Y-M. Usage %	Z Z-M. Moment (kN-m)	Z Z-M. Usage %	Max. Usage %
ANP	-92.81	0.0	-93.64	0.0	647.97	0.0	0.0	661.25	0.0	-1.30	0.0	1.3	0.0	0.04	0.0	0.0
ANX	-31.14	0.0	39.25	0.0	263.00	0.0	0.0	267.73	0.0	2.73	0.0	1.2	0.0	-0.04	0.0	0.0
ANXY	-22.76	0.0	-22.84	0.0	-125.38	0.0	0.0	129.46	0.0	2.64	0.0	-2.7	0.0	-0.04	0.0	0.0
ANY	39.15	0.0	-30.34	0.0	257.60	0.0	0.0	262.32	0.0	-1.22	0.0	-2.7	0.0	0.03	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	0.3282	0.3282	-3.3754	-0.3277	-0.3277	3.3754	0.5155	0.4966	-0.0245
10P	1.0833	1.0833	-5.9268	-1.0829	-1.0829	5.9268	0.3539	0.3468	-0.0225
11P	0.4593	0.4593	-3.3251	-0.4590	-0.4590	3.3250	0.3155	0.3098	-0.0309
19P	0.5502	0.5502	-3.9796	-0.5500	-0.5500	3.9796	0.1680	0.1663	-0.0241
20P	0.7648	0.7648	-5.7288	-0.7647	-0.7647	5.7288	0.1481	0.1468	-0.0295
32P	0.8681	0.8681	-9.0478	-0.8680	-0.8680	9.0477	0.0365	0.0362	-0.0170
ANP	0.2754	0.2754	-5.0810	92.5311	93.3628	-642.8896	0.0000	0.0000	0.0000
1X	0.3282	0.3282	-3.3754	-0.3277	-0.3277	3.3754	0.5221	0.4967	-0.0142
1XY	0.3282	0.3282	-3.3754	-0.3277	-0.3277	3.3754	0.5222	0.4994	-0.0008
1Y	0.1702	0.1702	-1.9954	-0.1697	-0.1697	1.9954	0.5156	0.4993	-0.0133
10X	1.0833	1.0833	-5.9268	-1.0830	-1.0829	5.9268	0.3257	0.3471	-0.0136
10XY	0.5273	0.5273	-3.9468	-0.5270	-0.5270	3.9468	0.3259	0.3164	-0.0014
10Y	0.3693	0.3693	-2.5668	-0.3689	-0.3690	2.5668	0.3542	0.3162	-0.0130
11X	0.4593	0.4593	-3.3251	-0.4590	-0.4590	3.3251	0.3000	0.3097	-0.0120
11XY	0.4593	0.4593	-3.3251	-0.4590	-0.4590	3.3251	0.3003	0.2919	0.0044
11Y	0.4593	0.4593	-3.3251	-0.4590	-0.4590	3.3251	0.3156	0.2916	-0.0112

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	0.5502	0.5502	-3.9796	-0.5500	-0.5500	3.9796	0.1775	0.1672	-0.0108
19XY	0.5502	0.5502	-3.9796	-0.5500	-0.5500	3.9796	0.1775	0.1746	0.0003
19Y	0.5502	0.5502	-3.9796	-0.5500	-0.5500	3.9796	0.1689	0.1746	-0.0105
20X	0.7648	0.7648	-5.7288	-0.7647	-0.7647	5.7288	0.1528	0.1464	-0.0111
20XY	0.6858	0.6858	-4.9488	-0.6857	-0.6857	4.9488	0.1536	0.1509	0.0085
20Y	0.6858	0.6858	-4.9488	-0.6857	-0.6857	4.9488	0.1477	0.1501	-0.0107
32X	0.8681	0.8681	-9.0478	-0.8680	-0.8680	9.0477	0.0365	0.0372	-0.0084
32XY	0.8681	0.8681	-9.0478	-0.8680	-0.8680	9.0478	0.0369	0.0364	0.0007
32Y	0.8681	0.8681	-9.0478	-0.8680	-0.8680	9.0477	0.0374	0.0360	-0.0082
ANX	0.2754	0.2754	-5.0810	30.8661	-39.5303	-257.9196	0.0000	0.0000	0.0000
ANXY	0.2754	0.2754	-5.0810	22.4888	22.5655	130.4568	0.0000	0.0000	0.0000
ANY	0.2754	0.2754	-5.0810	-39.4206	30.0680	-252.5210	0.0000	0.0000	0.0000
2S	0.3282	0.3282	-2.3754	-0.3277	-0.3277	2.3754	0.4872	0.4707	-0.0244
3S	0.3266	0.3266	-1.9332	-0.3262	-0.3262	1.9332	0.4661	0.4513	-0.0244
4S	0.3144	0.3144	-2.3178	-0.3140	-0.3140	2.3178	0.4444	0.4313	-0.0242
5S	1.0420	1.0420	-5.3596	-1.0416	-1.0416	5.3596	0.4234	0.4119	-0.0240
6S	0.8855	0.8855	-4.4218	-0.8851	-0.8851	4.4218	0.4023	0.3924	-0.0237
7S	1.0152	1.0152	-5.2371	-1.0149	-1.0149	5.2370	0.3819	0.3732	-0.0233
8S	0.8437	0.8437	-4.1752	-0.8433	-0.8433	4.1752	0.3661	0.3584	-0.0229
12S	0.2197	0.2197	-1.5735	-0.2194	-0.2194	1.5734	0.2903	0.2853	-0.0304
13S	0.4230	0.4230	-2.9269	-0.4227	-0.4227	2.9269	0.2691	0.2648	-0.0298
14S	0.2823	0.2823	-2.1334	-0.2821	-0.2821	2.1334	0.2487	0.2450	-0.0290
15S	0.4832	0.4832	-3.4868	-0.4830	-0.4830	3.4868	0.2287	0.2255	-0.0281
16S	0.2009	0.2009	-1.3534	-0.2007	-0.2007	1.3534	0.2101	0.2075	-0.0271
17S	0.4305	0.4305	-3.1482	-0.4303	-0.4303	3.1482	0.1918	0.1896	-0.0260
18S	0.2296	0.2296	-1.7948	-0.2295	-0.2295	1.7948	0.1788	0.1769	-0.0250
21S	0.2863	0.2863	-1.9840	-0.2861	-0.2861	1.9839	0.1366	0.1355	-0.0286
22S	1.2057	1.2057	-5.6507	-1.2056	-1.2056	5.6507	0.1261	0.1251	-0.0276
23S	0.9194	0.9194	-3.6668	-0.9193	-0.9193	3.6668	0.1165	0.1157	-0.0264
24S	0.5873	0.5873	-4.4346	-0.5872	-0.5872	4.4346	0.1070	0.1062	-0.0250
25S	0.3039	0.3039	-2.5678	-0.3038	-0.3038	2.5678	0.0979	0.0973	-0.0242
26S	0.6202	0.6202	-5.4135	-0.6201	-0.6201	5.4135	0.0890	0.0885	-0.0234
27S	0.3163	0.3163	-2.8457	-0.3163	-0.3163	2.8457	0.0806	0.0801	-0.0226
28S	0.6226	0.6226	-5.6511	-0.6225	-0.6225	5.6511	0.0724	0.0720	-0.0218
29S	0.3423	0.3423	-3.0554	-0.3422	-0.3422	3.0554	0.0648	0.0645	-0.0210
30S	0.5420	0.5420	-5.0007	-0.5419	-0.5419	5.0007	0.0574	0.0571	-0.0201
31S	0.6341	0.6341	-6.1912	-0.6340	-0.6340	6.1912	0.0505	0.0502	-0.0191
33S	0.9398	0.9398	-10.1147	-0.9398	-0.9398	10.1147	0.0284	0.0283	-0.0165
34S	0.9774	0.9774	-10.9430	-0.9774	-0.9774	10.9430	0.0219	0.0218	-0.0158
35S	2.8343	2.8343	-17.2016	-2.8343	-2.8343	17.2016	0.0165	0.0165	-0.0149
36S	2.6480	2.6480	-16.2721	-2.6480	-2.6480	16.2721	0.0121	0.0121	-0.0137
37S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0079	0.0080	-0.0125
371S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0079	0.0085	-0.0093
372S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0085	0.0079	-0.0092
373S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0091	0.0084	-0.0020
374S	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0085	0.0091	-0.0021
38S	0.7292	0.7292	-10.4902	-0.7292	-0.7292	10.4902	0.0055	0.0055	-0.0108
39S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0026	0.0026	-0.0092
391S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0026	0.0034	-0.0071
392S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0033	0.0026	-0.0070
393S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0041	0.0033	-0.0015
394S	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0034	0.0041	-0.0016
40S	1.5176	1.5176	-14.7552	-1.5176	-1.5176	14.7551	0.0014	0.0014	-0.0071
41S	1.3223	1.3223	-13.1041	-1.3223	-1.3223	13.1041	-0.0006	-0.0006	-0.0051
411S	0.6215	0.6215	-11.7505	-0.6215	-0.6215	11.7505	-0.0006	0.0003	-0.0030
412S	0.6215	0.6215	-11.7505	-0.6215	-0.6215	11.7505	0.0002	-0.0006	-0.0030

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	0.6215	0.6215	-11.7505	-0.6215	-0.6215	11.7505	0.0011	0.0002	-0.0019
414S	0.6215	0.6215	-11.7505	-0.6215	-0.6215	11.7505	0.0003	0.0011	-0.0019
42S	0.4495	0.4495	-8.5456	-0.4495	-0.4495	8.5456	-0.0025	-0.0025	-0.0031
2X	0.3282	0.3282	-2.3754	-0.3277	-0.3277	2.3754	0.4883	0.4717	-0.0142
2XY	0.3282	0.3282	-2.3754	-0.3277	-0.3277	2.3754	0.4894	0.4690	-0.0007
2Y	0.1702	0.1702	-0.9954	-0.1697	-0.1697	0.9954	0.4882	0.4678	-0.0132
3X	0.3266	0.3266	-1.9332	-0.3262	-0.3262	1.9332	0.4628	0.4514	-0.0141
3XY	0.3266	0.3266	-1.9332	-0.3262	-0.3262	1.9332	0.4630	0.4444	-0.0007
3Y	0.3266	0.3266	-1.9332	-0.3262	-0.3262	1.9332	0.4662	0.4442	-0.0132
4X	0.3144	0.3144	-2.3178	-0.3140	-0.3140	2.3178	0.4366	0.4318	-0.0141
4XY	0.3144	0.3144	-2.3178	-0.3140	-0.3140	2.3178	0.4375	0.4207	-0.0008
4Y	0.1564	0.1564	-0.9378	-0.1560	-0.1560	0.9378	0.4449	0.4197	-0.0132
5X	1.2000	1.2000	-6.7396	-1.1996	-1.1996	6.7396	0.4113	0.4121	-0.0140
5XY	0.4860	0.4860	-3.3796	-0.4856	-0.4856	3.3796	0.4114	0.3963	-0.0008
5Y	0.3280	0.3280	-1.9996	-0.3276	-0.3276	1.9996	0.4235	0.3962	-0.0131
6X	1.0435	1.0435	-5.8018	-1.0432	-1.0431	5.8018	0.3854	0.3926	-0.0139
6XY	0.3295	0.3295	-2.4418	-0.3292	-0.3292	2.4418	0.3863	0.3730	-0.0009
6Y	0.1715	0.1715	-1.0618	-0.1711	-0.1712	1.0618	0.4026	0.3719	-0.0131
7X	1.0152	1.0152	-5.2371	-1.0149	-1.0149	5.2370	0.3605	0.3733	-0.0138
7XY	0.3012	0.3012	-1.8771	-0.3009	-0.3009	1.8771	0.3607	0.3490	-0.0011
7Y	0.3012	0.3012	-1.8771	-0.3009	-0.3009	1.8770	0.3820	0.3489	-0.0130
8X	1.0017	1.0017	-5.5552	-1.0014	-1.0013	5.5552	0.3406	0.3583	-0.0137
8XY	0.2877	0.2877	-2.1952	-0.2874	-0.2874	2.1952	0.3412	0.3308	-0.0013
8Y	0.1297	0.1297	-0.8152	-0.1293	-0.1294	0.8152	0.3661	0.3301	-0.0130
12X	0.2197	0.2197	-1.5735	-0.2194	-0.2194	1.5735	0.2787	0.2855	-0.0119
12XY	0.2197	0.2197	-1.5735	-0.2194	-0.2194	1.5735	0.2796	0.2723	-0.0041
12Y	0.2197	0.2197	-1.5735	-0.2194	-0.2194	1.5735	0.2904	0.2713	-0.0111
13X	0.4230	0.4230	-2.9269	-0.4227	-0.4227	2.9269	0.2613	0.2650	-0.0117
13XY	0.4230	0.4230	-2.9269	-0.4227	-0.4228	2.9269	0.2615	0.2550	-0.0038
13Y	0.4230	0.4230	-2.9269	-0.4227	-0.4228	2.9269	0.2693	0.2548	-0.0111
14X	0.2823	0.2823	-2.1334	-0.2821	-0.2821	2.1334	0.2436	0.2447	-0.0116
14XY	0.2033	0.2033	-1.3534	-0.2031	-0.2031	1.3534	0.2446	0.2390	-0.0034
14Y	0.2823	0.2823	-2.1334	-0.2821	-0.2821	2.1334	0.2484	0.2379	-0.0110
15X	0.4832	0.4832	-3.4868	-0.4830	-0.4830	3.4868	0.2274	0.2257	-0.0114
15XY	0.4042	0.4042	-2.7068	-0.4040	-0.4040	2.7068	0.2277	0.2228	-0.0029
15Y	0.4832	0.4832	-3.4868	-0.4830	-0.4830	3.4868	0.2288	0.2225	-0.0109
16X	0.2009	0.2009	-1.3534	-0.2007	-0.2007	1.3534	0.2112	0.2069	-0.0113
16XY	0.2009	0.2009	-1.3534	-0.2007	-0.2007	1.3534	0.2123	0.2082	-0.0022
16Y	0.2009	0.2009	-1.3534	-0.2007	-0.2007	1.3534	0.2096	0.2069	-0.0108
17X	0.4305	0.4305	-3.1482	-0.4303	-0.4303	3.1482	0.1967	0.1898	-0.0111
17XY	0.3515	0.3515	-2.3682	-0.3513	-0.3513	2.3682	0.1970	0.1934	-0.0015
17Y	0.4305	0.4305	-3.1482	-0.4303	-0.4303	3.1482	0.1920	0.1931	-0.0107
18X	0.2296	0.2296	-1.7948	-0.2295	-0.2295	1.7948	0.1853	0.1762	-0.0109
18XY	0.1506	0.1506	-1.0148	-0.1505	-0.1505	1.0148	0.1862	0.1831	-0.0008
18Y	0.2296	0.2296	-1.7948	-0.2295	-0.2295	1.7948	0.1782	0.1821	-0.0105
21X	0.2863	0.2863	-1.9840	-0.2861	-0.2861	1.9839	0.1413	0.1360	-0.0109
21XY	0.2863	0.2863	-1.9840	-0.2861	-0.2861	1.9840	0.1420	0.1396	-0.0080
21Y	0.2863	0.2863	-1.9840	-0.2861	-0.2861	1.9840	0.1372	0.1388	-0.0105
22X	0.5697	0.5697	-3.8507	-0.5696	-0.5696	3.8507	0.1302	0.1255	-0.0106
22XY	0.8877	0.8877	-4.7507	-0.8876	-0.8876	4.7507	0.1307	0.1285	-0.0074
22Y	0.5697	0.5697	-3.8507	-0.5696	-0.5696	3.8507	0.1265	0.1280	-0.0103
23X	0.2834	0.2834	-1.8668	-0.2833	-0.2833	1.8668	0.1197	0.1156	-0.0103
23XY	0.2834	0.2834	-1.8668	-0.2833	-0.2833	1.8668	0.1207	0.1186	-0.0067
23Y	0.2834	0.2834	-1.8668	-0.2833	-0.2833	1.8668	0.1165	0.1177	-0.0100
24X	0.5873	0.5873	-4.4346	-0.5872	-0.5872	4.4346	0.1102	0.1067	-0.0100
24XY	0.5873	0.5873	-4.4346	-0.5872	-0.5872	4.4346	0.1107	0.1089	-0.0059

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	0.5873	0.5873	-4.4346	-0.5872	-0.5872	4.4346	0.1074	0.1084	-0.0098
25X	0.3039	0.3039	-2.5678	-0.3038	-0.3038	2.5678	0.1004	0.0975	-0.0098
25XY	0.3039	0.3039	-2.5678	-0.3038	-0.3038	2.5678	0.1013	0.0996	0.0054
25Y	0.3039	0.3039	-2.5678	-0.3038	-0.3038	2.5678	0.0982	0.0987	-0.0096
26X	0.6202	0.6202	-5.4135	-0.6201	-0.6201	5.4135	0.0913	0.0889	-0.0097
26XY	0.6202	0.6202	-5.4135	-0.6201	-0.6201	5.4136	0.0918	0.0903	0.0049
26Y	0.6202	0.6202	-5.4135	-0.6201	-0.6201	5.4135	0.0895	0.0899	-0.0094
27X	0.3163	0.3163	-2.8457	-0.3163	-0.3163	2.8457	0.0823	0.0804	-0.0095
27XY	0.3163	0.3163	-2.8457	-0.3163	-0.3163	2.8457	0.0831	0.0818	0.0044
27Y	0.3163	0.3163	-2.8457	-0.3163	-0.3163	2.8457	0.0809	0.0809	-0.0093
28X	0.6226	0.6226	-5.6511	-0.6225	-0.6225	5.6511	0.0739	0.0724	-0.0093
28XY	0.6226	0.6226	-5.6511	-0.6225	-0.6225	5.6511	0.0744	0.0732	0.0039
28Y	0.6226	0.6226	-5.6511	-0.6225	-0.6225	5.6511	0.0728	0.0727	-0.0091
29X	0.3063	0.3063	-2.8054	-0.3062	-0.3062	2.8054	0.0656	0.0647	-0.0092
29XY	0.3063	0.3063	-2.8054	-0.3062	-0.3062	2.8054	0.0665	0.0655	0.0034
29Y	0.3063	0.3063	-2.8054	-0.3062	-0.3062	2.8054	0.0651	0.0646	-0.0090
30X	0.5420	0.5420	-5.0007	-0.5419	-0.5419	5.0007	0.0581	0.0575	-0.0090
30XY	0.5420	0.5420	-5.0007	-0.5419	-0.5419	5.0007	0.0587	0.0578	0.0028
30Y	0.5420	0.5420	-5.0007	-0.5419	-0.5419	5.0007	0.0578	0.0572	-0.0088
31X	0.6341	0.6341	-6.1912	-0.6340	-0.6340	6.1912	0.0507	0.0505	-0.0088
31XY	0.6701	0.6701	-6.4412	-0.6700	-0.6700	6.4412	0.0513	0.0506	0.0022
31Y	0.6701	0.6701	-6.4412	-0.6700	-0.6700	6.4412	0.0508	0.0500	-0.0086
33X	0.9398	0.9398	-10.1147	-0.9398	-0.9398	10.1147	0.0277	0.0285	-0.0078
33XY	0.9398	0.9398	-10.1147	-0.9398	-0.9398	10.1147	0.0287	0.0284	0.0011
33Y	0.9398	0.9398	-10.1147	-0.9398	-0.9398	10.1147	0.0287	0.0274	-0.0077
34X	0.9774	0.9774	-10.9430	-0.9774	-0.9774	10.9430	0.0213	0.0223	-0.0073
34XY	0.9774	0.9774	-10.9430	-0.9774	-0.9774	10.9430	0.0223	0.0220	0.0014
34Y	0.9774	0.9774	-10.9430	-0.9774	-0.9774	10.9430	0.0224	0.0210	-0.0072
35X	1.0303	1.0303	-12.0916	-1.0303	-1.0303	12.0916	0.0161	0.0172	-0.0068
35XY	1.0303	1.0303	-12.0916	-1.0303	-1.0303	12.0916	0.0171	0.0169	0.0015
35Y	1.6553	1.6553	-13.1916	-1.6553	-1.6553	13.1916	0.0172	0.0159	-0.0067
36X	1.2950	1.2950	-13.4921	-1.2950	-1.2950	13.4921	0.0117	0.0129	-0.0062
36XY	1.0730	1.0730	-11.7471	-1.0730	-1.0730	11.7471	0.0130	0.0129	0.0015
36Y	0.8440	0.8440	-11.1621	-0.8440	-0.8440	11.1621	0.0129	0.0116	-0.0060
37X	0.8895	0.8895	-11.3712	-0.8895	-0.8895	11.3712	0.0080	0.0091	-0.0055
37XY	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0091	0.0090	0.0016
37Y	0.6895	0.6895	-9.5312	-0.6895	-0.6895	9.5312	0.0091	0.0079	-0.0054
38X	0.7292	0.7292	-10.4902	-0.7292	-0.7292	10.4902	0.0052	0.0065	-0.0048
38XY	0.7292	0.7292	-10.4902	-0.7292	-0.7292	10.4902	0.0068	0.0067	0.0013
38Y	0.7652	0.7652	-10.7402	-0.7652	-0.7652	10.7402	0.0064	0.0051	-0.0047
39X	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0026	0.0041	-0.0040
39XY	0.7303	0.7303	-11.0252	-0.7303	-0.7303	11.0252	0.0041	0.0040	0.0013
39Y	0.9303	0.9303	-12.8652	-0.9303	-0.9303	12.8652	0.0041	0.0026	-0.0039
40X	1.6176	1.6176	-16.4452	-1.6176	-1.6176	16.4452	0.0008	0.0023	-0.0031
40XY	0.7156	0.7156	-11.7852	-0.7156	-0.7156	11.7852	0.0028	0.0028	0.0009
40Y	1.1666	1.1666	-14.1152	-1.1666	-1.1666	14.1152	0.0022	0.0008	-0.0031
41X	0.7203	0.7203	-11.9741	-0.7203	-0.7203	11.9741	-0.0006	0.0012	-0.0022
41XY	0.5203	0.5203	-10.1341	-0.5203	-0.5203	10.1341	0.0011	0.0011	0.0007
41Y	0.5203	0.5203	-10.1341	-0.5203	-0.5203	10.1341	0.0011	-0.0006	-0.0022
42X	0.4495	0.4495	-8.5456	-0.4495	-0.4495	8.5456	-0.0031	0.0046	-0.0019
42XY	0.4495	0.4495	-8.5456	-0.4495	-0.4495	8.5456	0.0052	0.0052	-0.0008
42Y	0.4495	0.4495	-8.5456	-0.4495	-0.4495	8.5456	0.0045	-0.0031	-0.0019

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page 136 of 144
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	-0.00	-0.01	0.01	-25.10	62.91	-7.82
1X	-0.00	-0.01	0.01	24.32	74.18	7.57
1XY	-0.00	-0.01	0.01	33.77	-72.64	10.51
1Y	0.00	-0.01	0.01	-33.43	-56.87	-10.41
2P	-0.00	25.09	-62.90	28.37	-67.65	21.38
2X	-0.01	-24.33	-74.17	-29.46	-105.16	-21.51
2XY	-0.00	-33.78	72.65	-50.24	109.37	-33.61
2Y	0.00	33.42	56.88	50.09	74.79	33.41
3P	-0.00	-28.38	67.66	-26.79	68.58	-22.06
3X	-0.01	29.45	105.17	17.48	126.95	18.77
3XY	-0.01	50.23	-109.36	55.54	-110.21	42.31
3Y	0.00	-50.10	-74.79	-60.02	-44.76	-44.05
4P	-0.00	26.78	-68.58	17.39	-34.00	17.67
4X	-0.02	-17.49	-126.94	-17.10	-141.45	-13.84
4XY	-0.01	-55.55	110.22	-85.68	161.74	-56.49
4Y	0.01	60.01	44.77	74.17	60.14	53.67
5P	-0.00	-17.40	34.01	-19.30	77.49	-14.68
5X	-0.02	17.09	141.46	-19.02	255.66	-0.77
5XY	-0.01	85.67	-161.73	142.14	-215.27	91.12
5Y	0.01	-74.18	-60.13	-147.69	40.34	-88.75
6P	-0.00	19.29	-77.48	-40.01	102.55	-8.29
6X	-0.03	19.01	-255.65	34.35	-134.36	21.34
6XY	-0.01	-142.15	215.28	-253.28	405.88	-158.17
6Y	0.01	147.68	-40.33	100.96	21.49	99.45
7P	-0.00	40.00	-102.54	-157.39	259.20	-58.69
7X	-0.03	-34.35	134.37	-440.41	178.26	-237.38
7XY	-0.02	253.28	-405.87	435.97	-450.04	344.62
7Y	0.01	-100.97	-21.48	-32.62	625.47	-66.80
8P	-0.00	157.38	-259.19	772.11	-984.34	592.03
8X	-0.04	440.40	-178.25	1224.06	1365.99	1060.17
8XY	-0.02	-435.98	450.05	-1465.46	1730.24	-1211.11
8Y	0.01	32.61	-625.46	-1032.11	-1375.70	-636.62
9P	25.36	1242.01	-147.91	793.56	-146.15	496.60
9X	16.92	-1831.44	-98.91	-1119.93	79.77	-720.02
9XY	31.63	2259.69	-184.54	1172.98	-82.71	837.44
9Y	41.09	-1702.58	-239.47	-1104.51	-313.95	-684.82
10P	49.71	462.30	-659.94	78.36	-30.58	187.08
10X	3.19	849.52	734.30	145.19	630.46	344.19
10XY	45.16	-775.57	883.29	-110.30	71.52	-306.53
10Y	93.57	-567.13	-994.89	-367.30	-85.52	-323.33
11P	49.71	-78.37	30.59	-176.54	317.10	-101.96
11X	3.18	-145.20	-630.45	-14.76	-371.70	-63.98
11XY	45.15	110.29	-71.51	-226.59	485.01	-46.52
11Y	93.57	367.30	85.53	227.99	33.55	238.11
12P	49.71	176.53	-317.09	85.06	-99.66	104.64
12X	3.18	14.75	371.71	-208.03	620.27	-77.31
12XY	45.15	226.59	-485.00	181.41	-308.29	163.20
12Y	93.58	-228.00	-33.54	-328.25	407.94	-222.50
13P	49.71	-85.07	99.67	-283.61	533.37	-147.47
13X	3.17	208.02	-620.26	113.45	-353.00	128.59
13XY	45.15	-181.42	308.30	-346.72	663.14	-211.25
13Y	93.58	328.25	-407.93	213.97	-160.73	216.89
14P	49.71	283.61	-533.37	176.01	-253.20	183.85

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	137 of 144
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X	3.17	-113.46	353.00	-344.60	738.81	-183.22	436.73
14XY	45.15	346.71	-663.13	225.80	-365.38	229.01	-411.41
14Y	93.58	-213.97	160.74	-385.97	663.00	-239.98	329.50
15P	49.71	-176.02	253.21	-521.03	932.66	-278.82	474.35
15X	3.17	344.59	-738.80	212.91	-358.19	223.00	-438.80
15XY	45.15	-225.81	365.39	-447.36	820.36	-269.27	474.30
15Y	93.58	385.97	-662.99	220.75	-356.86	242.68	-407.94
16P	49.71	521.02	-932.65	643.15	-911.99	582.09	-922.32
16X	3.16	-212.92	358.19	-548.06	914.64	-380.49	636.42
16XY	45.15	447.36	-820.35	367.88	-469.26	407.62	-644.80
16Y	93.59	-220.75	356.87	-465.23	1122.19	-342.99	739.53
17P	49.71	-643.16	911.99	-1362.09	1528.82	-1269.15	1544.82
17X	3.16	548.06	-914.63	-424.55	42.14	78.17	-552.21
17XY	45.14	-367.88	469.26	-693.85	621.88	-671.98	690.59
17Y	93.59	465.22	-1122.18	-63.48	642.16	254.27	-303.81
18P	15.02	-2044.18	127.06	-1235.76	88.97	-490.81	32.33
18X	94.65	270.40	-316.14	134.22	199.61	60.55	-17.44
18XY	29.24	930.35	61.43	518.19	54.46	216.76	17.34
18Y	-48.62	409.18	505.32	180.08	-71.47	88.18	64.92
19P	-10.27	-810.43	937.20	-333.72	504.67	-408.63	514.95
19X	35.50	59.27	-249.08	45.81	116.32	37.53	-47.42
19XY	12.97	-409.16	323.69	-115.67	110.63	-187.44	155.11
19Y	-26.86	185.43	69.25	-35.30	-43.27	53.62	9.28
20P	-10.27	333.71	-504.66	-10.19	71.72	115.54	-154.62
20X	35.50	-45.81	-116.32	-6.54	-83.62	-18.70	-71.41
20XY	12.96	115.66	-110.62	-98.00	232.64	6.31	43.58
20Y	-26.86	35.30	43.27	43.57	13.94	28.17	20.43
21P	-10.27	10.18	-71.71	47.85	-95.14	21.50	-61.80
21X	35.49	6.54	83.63	-148.44	336.37	-52.56	155.55
21XY	12.96	98.00	-232.64	70.11	-129.07	62.26	-133.96
21Y	-26.85	-43.57	-13.93	-169.38	300.76	-78.87	106.23
22P	-10.27	-47.86	95.14	-179.43	360.08	-84.18	168.60
22X	35.49	148.44	-336.36	78.29	-192.33	83.97	-195.81
22XY	12.96	-70.12	129.07	-219.01	428.76	-107.09	206.60
22Y	-26.85	169.37	-300.76	112.28	-134.38	104.32	-161.16
23P	-10.27	179.43	-360.08	70.81	-91.76	89.37	-161.37
23X	35.49	-78.30	192.33	-243.11	704.59	-114.79	320.33
23XY	12.96	219.01	-428.76	193.33	-316.47	147.26	-266.15
23Y	-26.85	-112.28	134.38	-372.66	464.60	-173.19	213.92
24P	-10.27	-70.81	91.76	-273.51	505.62	-122.97	213.35
24X	35.48	243.10	-704.59	94.82	-424.47	120.69	-403.24
24XY	12.96	-193.33	316.47	-455.55	833.31	-231.74	410.64
24Y	-26.84	372.66	-464.59	266.36	-118.41	228.22	-208.21
25P	-10.27	273.51	-505.61	74.83	-57.68	124.40	-201.17
25X	35.48	-94.82	424.48	-379.48	1094.28	-169.39	542.41
25XY	12.96	455.55	-833.31	300.79	-443.43	270.12	-455.98
25Y	-26.84	-266.37	118.41	-621.60	675.35	-317.13	283.48
26P	-10.26	-74.83	57.68	-383.02	681.46	-163.52	263.98
26X	35.47	379.48	-1094.28	132.09	-519.06	182.70	-576.19
26XY	12.96	-300.79	443.43	-615.98	1078.66	-327.42	543.61
26Y	-26.84	621.60	-675.34	346.91	-154.35	345.90	-296.32
27P	-10.26	383.02	-681.46	75.84	-45.57	166.86	-264.37
27X	35.47	-132.09	519.07	-457.23	1163.96	-214.30	612.01
27XY	12.96	615.98	-1078.66	246.76	-327.42	313.72	-511.30
27Y	-26.83	-346.91	154.36	-647.43	828.79	-361.58	357.51
28P	-10.26	-75.84	45.57	-292.66	472.00	-134.00	188.21

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X	35.47	457.22	-1163.96	152.80	-383.11	221.83	-562.57
28XY	12.96	-246.77	327.43	-388.98	609.59	-231.18	340.73
28Y	-26.83	647.43	-828.79	215.90	-247.32	313.94	-391.31
29P	-10.26	292.66	-472.00	321.66	-276.10	227.53	-277.07
29X	35.46	-152.80	383.12	-130.77	264.14	-105.02	239.73
29XY	12.96	388.97	-609.59	257.36	-161.29	239.38	-285.51
29Y	-26.83	-215.91	247.32	-50.40	390.25	-98.63	236.14
30P	-10.26	-321.67	276.10	-1193.87	1422.04	-267.06	299.23
30X	35.46	130.76	-264.14	-576.87	987.82	-78.61	127.52
30XY	12.96	-257.36	161.29	-1166.74	1411.27	-250.94	277.10
30Y	-26.82	50.40	-390.25	-750.04	774.01	-123.28	67.62
31P	-37.51	-1849.73	157.25	-345.42	39.22	-342.02	30.61
31X	222.84	-290.59	-1084.30	-94.51	350.06	-60.00	-114.40
31XY	42.13	1822.92	-168.20	277.73	-39.86	327.29	-32.42
31Y	-209.45	16.95	1057.45	-13.01	-353.27	0.61	109.72
32P	-37.51	345.42	-39.22	276.32	-12.78	102.12	-8.54
32X	222.84	94.51	-350.06	37.50	322.46	21.68	-4.53
32XY	42.13	-277.73	39.86	-249.98	12.70	-86.67	8.63
32Y	-209.45	13.01	353.27	13.12	-327.07	4.29	4.30
33P	-37.51	-276.32	12.78	146.10	6.71	-21.39	3.20
33X	222.84	-37.50	-322.46	-11.90	232.52	-8.11	-14.77
33XY	42.13	249.97	-12.70	-178.15	1.28	11.80	-1.87
33Y	-209.45	-13.12	327.07	-5.52	-214.93	-3.06	18.42
34P	-37.51	-146.10	-6.71	-109.81	-4.72	-42.03	-1.88
34X	222.83	11.90	-232.52	19.24	35.10	5.11	-32.43
34XY	42.13	178.15	-1.28	109.57	-0.75	47.26	-0.33
34Y	-209.44	5.52	214.93	16.80	-48.38	3.67	27.36
35P	-37.51	109.81	4.72	434.15	-6.40	89.34	-0.28
35X	222.83	-19.24	-35.10	-15.96	409.12	-5.78	61.43
35XY	42.13	-109.57	0.75	-387.81	3.47	-81.69	0.69
35Y	-209.44	-16.80	48.38	-23.60	-410.40	-6.64	-59.46
36P	-37.51	-434.14	6.40	-294.92	2.60	-119.75	1.48
36X	222.83	15.96	-409.12	7.36	-65.28	3.83	-77.92
36XY	42.13	387.81	-3.47	286.57	-0.58	110.76	-0.66
36Y	-209.44	23.60	410.40	11.83	66.45	5.82	78.32
37P	-37.51	294.92	-2.60	441.57	0.70	120.97	-0.31
37X	222.83	-7.36	65.29	-52.56	273.89	-9.84	55.71
37XY	42.13	-286.58	0.58	-524.52	0.97	-133.22	0.25
37Y	-209.44	-11.83	-66.45	-54.50	-267.06	-10.89	-54.78
38P	-37.51	-441.57	-0.70	-193.92	-2.09	-104.38	-0.46
38X	222.83	52.56	-273.88	281.94	-72.69	54.94	-56.92
38XY	42.13	524.52	-0.97	738.95	0.03	207.52	-0.15
38Y	-209.44	54.50	267.06	283.75	65.34	55.56	54.60
39P	-37.51	193.92	2.09	-276.58	-5.82	-13.58	-0.61
39X	222.83	-281.94	72.70	-1186.72	891.35	-241.22	158.34
39XY	42.13	-738.95	-0.03	-2099.17	2.67	-466.15	0.43
39Y	-209.44	-283.75	-65.34	-1193.67	-893.58	-242.66	-157.50
40P	-37.51	276.59	5.82	1396.23	1.72	274.75	1.24
40X	222.82	1186.72	-891.35	2338.42	-932.52	578.99	-299.56
40XY	42.13	2099.17	-2.67	3283.57	0.78	884.09	-0.31
40Y	-209.43	1193.67	893.58	2338.74	935.57	580.18	300.43
41P	-37.51	-1396.23	-1.72	-1841.40	9.02	-550.10	1.24
41X	222.82	-2338.42	932.52	-2795.67	1045.79	-872.33	336.13
41XY	42.13	-3283.57	-0.78	-3741.88	-1.05	-1193.69	-0.31
41Y	-209.43	-2338.74	-935.57	-2788.32	-1037.65	-871.14	-335.27

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page	140 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

*** Resumen completo para todos los casos de carga - uso= esfuerzo máximo/Esfuerzo permisible
Printed capacities do not include EIA allowable stress increase for wind load cases.
Printed capacities do not include the strength factor entered for each loadcase.

Rs:

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (MPa)	Max Usage %	Max Use In Comp. %	Comp. Control Member	Comp. Force (kN)	Comp. Control Load Case	L/R Capacity (kN)	Comp. Shear Capacity (kN)	Comp. Bearing Capacity (kN)	RLX	RLY	RLZ	L/R Length Comp. Member (m)	Curve No.	No. Of Bolts Comp.	
M1	M1	DAE	2.5X2.5X0.25	344.7	10.47	10.47	2P	-24.409LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M2	M2	DAE	2.5X2.5X0.25	344.7	35.48	35.48	4P	-82.731LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M3	M3	DAE	3.5X3.5X0.25	344.7	57.98	57.98	6P	-216.571LC4	WIND 4	373.558	878.079	758.976	0.500	0.500	0.500	45.15	2.500	1	7
M4	M4	DAE	4X4X0.25	344.7	125.50	125.50	8P	-408.229LC4	WIND 4	419.569	376.319	325.275	0.500	0.500	0.500	24.72	1.570	1	3 NG
M5	M5	DAE	4X4X0.375	344.7	109.16	109.16	9P	-410.804LC4	WIND 4	681.890	376.319	487.913	0.250	0.250	0.250	32.80	4.099	1	3 NG
M6	M6	DAE	4X4X0.375	344.7	120.30	120.30	10P	-452.697LC4	WIND 4	634.163	376.319	487.913	0.500	0.500	0.500	46.25	2.890	1	3 NG
M7	M7	DAE	4X4X0.3125	344.7	136.08	136.08	13P	-751.845LC4	WIND 4	552.486	627.199	677.657	0.500	0.500	0.500	39.69	2.500	1	5 NG
M8	M8	DAE	4X4X0.3125	344.7	177.46	177.46	15P	-980.470LC4	WIND 4	552.486	2161.836	1951.652	0.500	0.500	0.500	39.69	2.500	1	12 NG
M9	M9	DAE	4X4X0.3125	344.7	198.66	198.66	17P	-1176.614LC4	WIND 4	592.276	1261.071	1138.464	0.500	0.500	0.500	25.08	1.580	1	7 NG
M10	M10	DAE	4X4X0.375	344.7	156.84	156.84	18P	-949.781LC4	WIND 4	605.559	1261.071	1366.156	0.250	0.250	0.250	53.48	6.683	1	7 NG
M11	M11	DAE	4X4X0.375	344.7	134.01	134.01	20P	-857.136LC4	WIND 4	639.624	1261.071	1366.156	0.500	0.500	0.500	44.81	2.800	1	7 NG
M12	M12	DAE	4X4X0.3125	344.7	190.79	190.79	22P	-1035.677LC4	WIND 4	542.838	1261.071	1138.464	0.500	0.500	0.500	42.86	2.700	1	7 NG
M13	M13	DAE	5X5X0.5	344.7	109.99	109.99	24P	-1227.458LC4	WIND 4	1115.960	1441.224	2081.762	0.500	0.500	0.500	35.79	2.800	1	8 NG
M14	M14	DAE	6X6X0.5	344.7	103.37	103.37	26P	-1438.247LC4	WIND 4	1391.298	1621.377	2341.982	0.500	0.500	0.500	29.63	2.800	1	9 NG
M15	M15	DAE	6X6X0.5	344.7	119.36	119.36	28P	-1664.555LC4	WIND 4	1394.615	2059.520	3035.903	0.500	0.500	0.500	29.10	2.750	1	10 NG
M16	M16	DAE	6X6X0.5	344.7	127.22	127.22	29P	-1778.417LC4	WIND 4	1397.906	2059.520	3035.903	0.500	0.500	0.500	28.58	2.700	1	10 NG
M17	M17	DAE	6X6X0.5	344.7	138.31	138.31	30P	-1920.817LC4	WIND 4	1388.794	2059.520	3035.903	0.250	0.250	0.250	30.03	5.675	1	10 NG
M18	M18	DAE	6X6X0.5	344.7	140.70	140.70	31P	-1918.084LC4	WIND 4	1363.232	2059.520	3035.903	0.250	0.250	0.250	33.96	6.418	1	10 NG
M19	M19	DAE	6X6X0.5	344.7	131.46	131.46	32P	-1807.190LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M20	M20	DAE	6X6X0.5	344.7	125.08	125.08	33P	-1719.485LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M21	M21	DAE	6X6X0.5	344.7	122.48	122.48	34P	-1683.809LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M22	M22	DAE	6X6X0.5	344.7	118.19	118.19	35P	-1624.805LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M23	M23	DAE	6X6X0.5	344.7	118.88	118.88	36P	-1634.332LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M24	M24	DAE	6X6X0.5	344.7	120.82	120.82	37P	-1660.983LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M25	M25	DAE	6X6X0.5	344.7	121.62	121.62	38P	-1671.986LC4	WIND 4	1374.741	2059.520	3035.903	0.250	0.250	0.250	32.22	6.088	1	10 NG
M26	M26	DAE	6X6X0.5	344.7	128.42	128.42	39P	-1668.449LC4	WIND 4	1299.208	2059.520	3035.903	0.334	0.334	0.334	43.04	6.088	1	10 NG
M27	M27	DAE	6X6X0.5	344.7	129.43	129.43	40P	-1681.523LC4	WIND 4	1299.208	2059.520	3035.903	0.334	0.334	0.334	43.04	6.088	1	10 NG
M28	M28	DAE	6X6X0.5	344.7	122.34	122.34	41P	-1690.376LC4	WIND 4	1381.692	2265.472	3339.493	0.250	0.250	0.250	31.14	5.885	1	11 NG
D1	D1	SAE	1.5X1.5X0.1875	344.7	38.74	38.74	43XY	-5.060LC1	WIND 0	9.821	30.915	32.528	0.750	0.500	0.500	232.74	3.464	6	1
D2	D2	SAE	1.5X1.5X0.1875	344.7	63.58	63.58	45XY	-8.464LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D3	D3	SAE	1.5X1.5X0.1875	344.7	83.91	83.91	47XY	-11.169LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D4	D4	SAE	1.5X1.5X0.1875	344.7	114.04	114.04	49XY	-15.180LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1 NG
D5	D5	SAE	1.5X1.5X0.1875	344.7	169.72	169.72	51XY	-22.592LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1 NG
D6	D6	SAE	1.5X1.5X0.1875	344.7	241.07	241.07	52X	-32.090LC4	WIND 4	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1 NG
D7	D7	SAE	1.5X1.5X0.1875	344.7	189.89	189.89	55XY	-31.902LC3	WIND 0	16.800	30.915	32.528	0.750	0.500	0.500	160.26	2.385	6	1 NG
D8	D8	SAE	1.5X1.5X0.1875	344.7	199.66	199.66	56X	-41.325LC4	WIND 4	20.697	30.915	32.528	0.750	0.500	0.500	136.95	2.038	6	1 NG
D9	D9	SAE	2X2X0.1875	344.7	325.75	325.75	59P	-61.143LC2	WIND 4	14.113	30.915	32.528	0.750	0.500	0.500	222.12	4.446	6	1 NG
D10	D10	SAE	2X2X0.1875	344.7	236.85	236.85	61XY	-44.015LC3	WIND 0	18.583	30.915	32.528	0.750	0.500	0.500	183.92	3.681	6	1 NG
D11	D11	SAE	2X2X0.1875	344.7	203.98	203.98	63XY	-42.662LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG
D12	D12	SAE	2X2X0.1875	344.7	216.49	216.49	65XY	-45.280LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG
D13	D13	SAE	2X2X0.1875	344.7	226.21	226.21	67XY	-47.313LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG
D14	D14	SAE	2X2X0.1875	344.7	243.17	243.17	69XY	-50.858LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1 NG

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page	141 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

D15	D15	SAE	2X2X0.1875	344.7	250.91	250.91	71XY	-52.477LC3	WIND 0	20.915	30.915	32.528	0.750	0.500	0.500	169.05	3.384	6	1	NG
D16	D16	SAE	2X2X0.1875	344.7	201.33	201.33	73XY	-48.870LC3	WIND 0	24.273	30.915	32.528	0.750	0.500	0.500	151.53	3.033	6	1	NG
D17	D17	SAE	2X2X0.1875	344.7	173.12	173.12	75Y	-47.263LC3	WIND 0	27.301	30.915	32.528	0.750	0.500	0.500	138.59	2.774	6	1	NG
D18	D18	SAE	2X2X0.1875	344.7	1490.04	1490.04	77P	-189.008LC4	WIND 4	12.685	125.440	81.319	0.500	0.250	0.250	238.41	7.473	6	2	NG
D19	D19	SAE	2.5X2.5X0.1875	344.7	294.80	294.80	79XY	-51.996LC4	WIND 4	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D20	D20	SAE	2.5X2.5X0.1875	344.7	315.61	315.61	81XY	-55.667LC3	WIND 0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D21	D21	SAE	2.5X2.5X0.1875	344.7	324.38	324.38	83XY	-57.963LC3	WIND 0	17.869	125.440	81.319	0.750	0.500	0.500	222.63	5.598	6	2	NG
D22	D22	SAE	2.5X2.5X0.1875	344.7	348.09	348.09	85Y	-62.200LC3	WIND 0	17.869	125.440	81.319	0.750	0.500	0.500	222.63	5.598	6	2	NG
D23	D23	SAE	2.5X2.5X0.1875	344.7	379.00	379.00	87Y	-66.847LC3	WIND 0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D24	D24	SAE	2.5X2.5X0.1875	344.7	390.30	390.30	89Y	-68.840LC3	WIND 0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D25	D25	SAE	2.5X2.5X0.1875	344.7	409.61	409.61	91Y	-72.246LC3	WIND 0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D26	D26	SAE	2.5X2.5X0.1875	344.7	422.91	422.91	93Y	-74.591LC3	WIND 0	17.638	125.440	81.319	0.750	0.500	0.500	224.57	5.647	6	2	NG
D27	D27	SAE	2.5X2.5X0.1875	344.7	436.70	436.70	95Y	-77.529LC3	WIND 0	17.754	125.440	81.319	0.750	0.500	0.500	223.59	5.622	6	2	NG
D28	D28	SAE	2.5X2.5X0.1875	344.7	453.52	453.52	97Y	-80.515LC3	WIND 0	17.754	125.440	81.319	0.750	0.500	0.500	223.59	5.622	6	2	NG
D29	D29	SAE	2X2X0.1875	344.7	833.56	833.56	99Y	-82.562LC3	WIND 0	9.905	125.440	81.319	0.600	0.500	0.500	279.69	5.598	6	2	NG
D30	D30	SAE	2X2X0.1875	344.7	941.19	941.19	100X	-118.718LC4	WIND 4	12.614	125.440	81.319	0.500	0.250	0.250	239.29	7.500	6	2	NG
D31	D31	SAE	2.5X2.5X0.3125	344.7	503.25	503.25	103P	-147.444LC4	WIND 4	29.299	125.440	135.531	0.500	0.250	0.250	220.71	8.532	6	2	NG
D32	D32	SAE	2.5X2.5X0.3125	344.7	304.89	304.89	105P	-77.391LC4	WIND 4	25.383	125.440	135.531	0.500	0.250	0.250	242.71	9.383	6	2	NG
D33	D33	SAE	2.5X2.5X0.3125	344.7	268.32	268.32	107P	-56.859LC4	WIND 4	21.190	125.440	135.531	0.500	0.250	0.250	272.73	10.544	6	2	NG
D34	D34	SAE	2.5X2.5X0.3125	344.7	199.97	199.97	109P	-35.580LC4	WIND 4	17.792	125.440	135.531	0.500	0.250	0.250	304.50	11.772	6	2	NG
D35	D35	SAE	2.5X2.5X0.3125	344.7	163.90	163.90	117P	-68.786LC1	WIND 0	31.554	125.440	135.531	0.500	0.250	0.250	209.94	8.116	6	2	NG
D36	D36	SAE	3.5X3.5X0.25	344.7	132.07	132.07	124P	-90.140LC1	WIND 0	51.318	125.440	108.425	0.500	0.250	0.250	165.37	9.157	6	2	NG
D37	D37	SAE	3.5X3.5X0.25	344.7	73.64	73.64	133P	-50.263LC1	WIND 0	51.318	125.440	108.425	0.500	0.250	0.250	165.37	9.157	6	2	
D38	D38	SAE	4X4X0.25	344.7	84.42	84.42	140P	-51.065LC3	WIND 0	60.486	125.440	108.425	0.500	0.250	0.250	162.22	10.301	6	2	
D39	D39	SAE	4X4X0.25	344.7	215.80	215.80	149P	-125.477LC1	WIND 0	43.718	125.440	108.425	0.600	0.400	0.400	204.05	10.301	6	2	NG
D40	D40	SAE	5X5X0.375	344.7	143.45	143.45	158P	-112.761LC2	WIND 4	59.103	188.160	243.956	0.600	0.400	0.400	252.40	15.867	6	3	NG
H1	H1	SAE	1.5X1.5X0.1875	344.7	3.85	3.85	166P	-0.574LC3	WIND 0	14.917	62.720	40.659	1.000	1.000	1.000	174.68	1.300	6	1	
H2	H2	SAE	1.5X1.5X0.1875	344.7	2.53	2.53	1671P	-0.377LC4	WIND 4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2	
H3	H3	SAE	1.5X1.5X0.1875	344.7	2.62	2.62	1662Y	-0.390LC3	WIND 0	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2	
H4	H4	SAE	1.5X1.5X0.1875	344.7	27.13	27.13	1663Y	-4.047LC3	WIND 0	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2	
H5	H5	SAE	1.5X1.5X0.1875	344.7	147.99	147.99	168P	-22.076LC3	WIND 0	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2	NG
H6	H6	SAE	2X2X0.1875	344.7	237.44	237.44	170Y	-32.260LC3	WIND 0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	NG
H7	H7	SAE	2X2X0.1875	344.7	24.24	24.24	1712X	-3.294LC4	WIND 4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	
H8	H8	SAE	2X2X0.1875	344.7	40.53	40.53	1714X	-5.507LC4	WIND 4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	
H9	H9	SAE	2X2X0.1875	344.7	46.86	46.86	1705X	-6.367LC4	WIND 4	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	
H10	H10	SAE	2X2X0.1875	344.7	839.99	839.99	172P	-114.125LC3	WIND 0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2	NG
H11	H11	SAE	2.5X2.5X0.25	344.7	328.11	328.11	1722Y	-92.869LC3	WIND 0	28.304	125.440	108.425	0.500	0.500	0.500	196.61	4.904	6	2	NG
H12	H12	SAE	2.5X2.5X0.25	344.7	32.78	32.78	17231Y	-9.278LC3	WIND 0	28.304	125.440	108.425	0.500	0.500	0.500	196.61	4.904	6	2	
H13	H13	SAE	3.5X3.5X0.25	344.7	6.99	6.99	1726X	-4.519LC4	WIND 4	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2	
H14	H14	SAE	3.5X3.5X0.25	344.7	9.08	9.08	17261X	-5.870LC4	WIND 4	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2	
H15	H15	SAE	3.5X3.5X0.25	344.7	11.26	11.26	17262X	-7.280LC4	WIND 4	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2	
H16	H16	SAE	3.5X3.5X0.25	344.7	18.89	18.89	17254Y	-12.215LC3	WIND 0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2	
H17	H17	SAE	4X4X0.25	344.7	43.17	43.17	17255Y	-38.078LC3	WIND 0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2	
H18	H18	SAE	4X4X0.25	344.7	93.76	93.76	1724P	-82.691LC3	WIND 0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2	
H19	H19	SAE	4X4X0.25	344.7	73.31	73.31	1728Y	-79.490LC3	WIND 0	119.442	125.440	108.425	0.500	0.250	0.250	101.50	6.446	1	2	
H20	H20	SAE	4X4X0.25	344.7	58.13	58.13	1729Y	-49.683LC3	WIND 0	85.473	125.440	108.425	0.500	0.250	0.250	124.53	7.908	6	2	
H21	H21	SAE	5X5X0.375	344.7	32.85	32.85	17291Y	-41.213LC3	WIND 0	260.955	125.440	162.638	0.250	0.250	0.250	93.16	9.370	1	2	
H22	H22	SAE	5X5X0.375	344.7	45.67	45.67	17292Y	-57.285LC3	WIND 0	206.750	125.440	162.638	0.250	0.250	0.250	107.70	10.832	1	2	
H23	H23	SAE	5X5X0.375	344.7	4.43	4.43	174P	-5.561LC3	WIND 0	313.027	125.440	162.638	0.500	0.250	0.250	77.57	6.147	1	2	
H24	H24	SAE	6X6X0.375	344.7	55.09	53.41	17293Y	-67.003LC3	WIND 0	223.518	125.440	162.638	0.250	0.250	0.250	113.79	13.757	1	2	
H25	H25	SAE	6X6X0.375	344.7	5.94	5.94	182P	-7.453LC3	WIND 0	336.759	125.440	162.638	0.500	0.250	0.250	79.68	7.610	1	2	
H26	H26	SAE	6X6X0.375	344.7	90.58	82.79	17294Y	-103.848LC3	WIND 0	168.624	125.440	162.638	0.250	0.250	0.250	137.98	16.682	6	2	
H27	H27	SAE	6X6X0.375	344.7	8.74	8.74	215P	-10.959LC4	WIND 4	159.752	125.440	162.638	0.500	0.500	0.500	143.81	8.694	6	2	

Group Summary (Tension Portion):

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page	142 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (MPa)	Max Usage %	Max Tens. %	Tension Control Member	Tension Force (kN)	Tension Control Load Case	Section Capacity (kN)	Tens. Shear Capacity (kN)	Tens. Conn. Bearing Capacity (kN)	Tens. Conn. Rupture Capacity (kN)	Length Member (m)	No. Bolts Tens.	No. Of Holes	Hole Diameter (cm)
M1	M1	DAE	2.5X2.5X0.25	344.7	10.47	5.30	2XY	15.600LC4	WIND 4	294.374	752.639	650.551	0.000	2.500	6	2.000	1.746
M2	M2	DAE	2.5X2.5X0.25	344.7	35.48	21.34	4XY	62.811LC4	WIND 4	294.374	752.639	650.551	0.000	2.500	6	2.000	1.746
M3	M3	DAE	3.5X3.5X0.25	344.7	57.98	36.82	6XY	161.598LC4	WIND 4	438.941	878.079	758.976	0.000	2.500	7	2.000	1.746
M4	M4	DAE	4X4X0.25	344.7	125.50	88.12	8XY	286.622LC4	WIND 4	511.224	376.319	325.275	0.000	1.570	3	2.000	1.746 NG
M5	M5	DAE	4X4X0.375	344.7	109.16	72.42	9XY	272.529LC4	WIND 4	752.381	376.319	487.913	0.000	4.099	3	2.000	1.746 NG
M6	M6	DAE	4X4X0.375	344.7	120.30	93.68	10XY	352.521LC4	WIND 4	752.381	376.319	487.913	0.000	2.890	3	2.000	1.746 NG
M7	M7	DAE	4X4X0.3125	344.7	136.08	99.64	13XY	624.954LC4	WIND 4	631.803	627.199	677.657	0.000	2.500	5	2.000	1.746 NG
M8	M8	DAE	4X4X0.3125	344.7	177.46	134.62	15XY	835.350LC4	WIND 4	620.508	2161.836	1951.652	0.000	2.500	12	2.000	2.064 NG
M9	M9	DAE	4X4X0.3125	344.7	198.66	164.20	17XY	1018.851LC4	WIND 4	620.508	1261.071	1138.464	0.000	1.580	7	2.000	2.064 NG
M10	M10	DAE	4X4X0.375	344.7	156.84	108.60	18XY	802.335LC4	WIND 4	738.828	1261.071	1366.156	0.000	6.683	7	2.000	2.064 NG
M11	M11	DAE	4X4X0.375	344.7	134.01	101.81	20XY	752.178LC4	WIND 4	738.828	1261.071	1366.156	0.000	2.800	7	2.000	2.064 NG
M12	M12	DAE	4X4X0.3125	344.7	190.79	149.56	22XY	928.045LC4	WIND 4	620.508	1261.071	1138.464	0.000	2.700	7	2.000	2.064 NG
M13	M13	DAE	5X5X0.5	344.7	109.99	88.97	24XY	1117.333LC4	WIND 4	1255.924	1441.224	2081.762	0.000	2.800	8	2.000	2.064 NG
M14	M14	DAE	6X6X0.5	344.7	103.37	86.20	26XY	1322.781LC4	WIND 4	1534.633	1621.377	2341.982	0.000	2.800	9	2.000	2.064 NG
M15	M15	DAE	6X6X0.5	344.7	119.36	101.05	28XY	1543.025LC4	WIND 4	1526.987	2059.520	3035.903	0.000	2.750	10	2.000	2.381 NG
M16	M16	DAE	6X6X0.5	344.7	127.22	108.16	29XY	1651.523LC4	WIND 4	1526.987	2059.520	3035.903	0.000	2.700	10	2.000	2.381 NG
M17	M17	DAE	6X6X0.5	344.7	138.31	117.20	30XY	1789.621LC4	WIND 4	1526.987	2059.520	3035.903	0.000	5.675	10	2.000	2.381 NG
M18	M18	DAE	6X6X0.5	344.7	140.70	115.31	31XY	1760.730LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.418	10	2.000	2.381 NG
M19	M19	DAE	6X6X0.5	344.7	131.46	105.19	32XY	1606.226LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M20	M20	DAE	6X6X0.5	344.7	125.08	97.17	33XY	1483.764LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M21	M21	DAE	6X6X0.5	344.7	122.48	92.06	34XY	1405.727LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M22	M22	DAE	6X6X0.5	344.7	118.19	84.29	35XY	1287.041LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M23	M23	DAE	6X6X0.5	344.7	118.88	83.64	36XY	1277.240LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M24	M24	DAE	6X6X0.5	344.7	120.82	82.91	37XY	1266.084LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M25	M25	DAE	6X6X0.5	344.7	121.62	82.17	38XY	1254.695LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M26	M26	DAE	6X6X0.5	344.7	128.42	79.17	39XY	1208.988LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M27	M27	DAE	6X6X0.5	344.7	129.43	78.47	40XY	1198.199LC4	WIND 4	1526.987	2059.520	3035.903	0.000	6.088	10	2.000	2.381 NG
M28	M28	DAE	6X6X0.5	344.7	122.34	77.94	41XY	1190.210LC4	WIND 4	1526.987	2265.472	3339.493	0.000	5.885	11	2.000	2.381 NG
D1	D1	SAE	1.5X1.5X0.1875	344.7	38.74	18.99	43X	5.871LC3	WIND 0	46.030	30.915	32.528	0.000	3.464	1	1.000	1.429
D2	D2	SAE	1.5X1.5X0.1875	344.7	63.58	22.63	45X	6.995LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429
D3	D3	SAE	1.5X1.5X0.1875	344.7	83.91	37.81	47X	11.688LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429
D4	D4	SAE	1.5X1.5X0.1875	344.7	114.04	49.18	49X	15.203LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429 NG
D5	D5	SAE	1.5X1.5X0.1875	344.7	169.72	89.26	51X	27.596LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429 NG
D6	D6	SAE	1.5X1.5X0.1875	344.7	241.07	113.90	53X	35.213LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429 NG
D7	D7	SAE	1.5X1.5X0.1875	344.7	189.89	118.03	55X	36.489LC3	WIND 0	46.030	30.915	32.528	0.000	2.385	1	1.000	1.429 NG
D8	D8	SAE	1.5X1.5X0.1875	344.7	199.66	125.88	57X	38.916LC3	WIND 0	46.030	30.915	32.528	0.000	2.038	1	1.000	1.429 NG
D9	D9	SAE	2X2X0.1875	344.7	325.75	114.16	58XY	35.292LC3	WIND 0	65.546	30.915	32.528	0.000	4.446	1	1.000	1.429 NG
D10	D10	SAE	2X2X0.1875	344.7	236.85	147.22	61X	45.514LC3	WIND 0	65.546	30.915	32.528	0.000	3.681	1	1.000	1.429 NG
D11	D11	SAE	2X2X0.1875	344.7	203.98	135.30	63X	41.828LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D12	D12	SAE	2X2X0.1875	344.7	216.49	148.65	65X	45.955LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D13	D13	SAE	2X2X0.1875	344.7	226.21	154.46	67X	47.750LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D14	D14	SAE	2X2X0.1875	344.7	243.17	165.44	69X	51.147LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D15	D15	SAE	2X2X0.1875	344.7	250.91	169.24	71X	52.322LC3	WIND 0	65.546	30.915	32.528	0.000	3.384	1	1.000	1.429 NG
D16	D16	SAE	2X2X0.1875	344.7	201.33	167.85	73X	51.891LC3	WIND 0	65.546	30.915	32.528	0.000	3.033	1	1.000	1.429 NG
D17	D17	SAE	2X2X0.1875	344.7	173.12	148.00	75X	45.753LC4	WIND 4	65.546	30.915	32.528	0.000	2.774	1	1.000	1.429 NG
D18	D18	SAE	2X2X0.1875	344.7	1490.04	286.67	77Y	180.617LC3	WIND 0	63.005	125.440	81.319	0.000	7.473	2	1.000	1.746 NG
D19	D19	SAE	2.5X2.5X0.1875	344.7	294.80	64.96	79P	52.828LC3	WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746 NG
D20	D20	SAE	2.5X2.5X0.1875	344.7	315.61	65.54	81P	53.295LC3	WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746 NG
D21	D21	SAE	2.5X2.5X0.1875	344.7	324.38	74.33	83P	60.443LC3	WIND 0	83.823	125.440	81.319	0.000	5.598	2	1.000	1.746 NG
D22	D22	SAE	2.5X2.5X0.1875	344.7	348.09	78.21	85P	63.601LC3	WIND 0	83.823	125.440	81.319	0.000	5.598	2	1.000	1.746 NG

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page	143 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

D23	D23	SAE 2.5X2.5X0.1875	344.7	379.00	82.38	87P	66.988LC3 WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746	NG
D24	D24	SAE 2.5X2.5X0.1875	344.7	390.30	84.82	89P	68.971LC3 WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746	NG
D25	D25	SAE 2.5X2.5X0.1875	344.7	409.61	89.30	91P	72.617LC3 WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746	NG
D26	D26	SAE 2.5X2.5X0.1875	344.7	422.91	92.00	93P	74.815LC3 WIND 0	83.823	125.440	81.319	0.000	5.647	2	1.000	1.746	NG
D27	D27	SAE 2.5X2.5X0.1875	344.7	436.70	95.84	95P	77.932LC3 WIND 0	83.823	125.440	81.319	0.000	5.622	2	1.000	1.746	NG
D28	D28	SAE 2.5X2.5X0.1875	344.7	453.52	99.35	97P	80.788LC3 WIND 0	83.823	125.440	81.319	0.000	5.622	2	1.000	1.746	NG
D29	D29	SAE 2X2X0.1875	344.7	833.56	132.45	99P	83.453LC3 WIND 0	63.005	125.440	81.319	0.000	5.598	2	1.000	1.746	NG
D30	D30	SAE 2X2X0.1875	344.7	941.19	194.85	101X	122.764LC4 WIND 4	63.005	125.440	81.319	0.000	7.500	2	1.000	1.746	NG
D31	D31	SAE 2.5X2.5X0.3125	344.7	503.25	124.01	102XY	155.556LC4 WIND 4	135.006	125.440	135.531	0.000	8.532	2	1.000	1.746	NG
D32	D32	SAE 2.5X2.5X0.3125	344.7	304.89	66.77	104XY	83.754LC4 WIND 4	135.006	125.440	135.531	0.000	9.383	2	1.000	1.746	NG
D33	D33	SAE 2.5X2.5X0.3125	344.7	268.32	48.85	106XY	61.274LC4 WIND 4	135.006	125.440	135.531	0.000	10.544	2	1.000	1.746	NG
D34	D34	SAE 2.5X2.5X0.3125	344.7	199.97	33.75	109XY	42.339LC4 WIND 4	135.006	125.440	135.531	0.000	11.772	2	1.000	1.746	NG
D35	D35	SAE 2.5X2.5X0.3125	344.7	163.90	50.48	113P	63.320LC4 WIND 4	135.006	125.440	135.531	0.000	8.116	2	1.000	1.746	NG
D36	D36	SAE 3.5X3.5X0.25	344.7	132.07	51.94	121P	56.318LC3 WIND 0	164.603	125.440	108.425	0.000	9.157	2	1.000	1.746	NG
D37	D37	SAE 3.5X3.5X0.25	344.7	73.64	37.77	128P	40.955LC3 WIND 0	164.603	125.440	108.425	0.000	9.157	2	1.000	1.746	
D38	D38	SAE 4X4X0.25	344.7	84.42	33.00	137P	35.781LC3 WIND 0	191.709	125.440	108.425	0.000	10.301	2	1.000	1.746	
D39	D39	SAE 4X4X0.25	344.7	215.80	84.77	144P	91.910LC3 WIND 0	191.709	125.440	108.425	0.000	10.301	2	1.000	1.746	NG
D40	D40	SAE 5X5X0.375	344.7	143.45	35.32	162P	66.462LC4 WIND 4	363.462	188.160	243.956	0.000	15.867	3	1.000	1.746	NG
H1	H1	SAE 1.5X1.5X0.1875	344.7	3.85	0.00	167X	0.000	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	
H2	H2	SAE 1.5X1.5X0.1875	344.7	2.53	1.91	1661Y	0.832LC4 WIND 4	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	
H3	H3	SAE 1.5X1.5X0.1875	344.7	2.62	2.30	1672P	1.329LC2 WIND 4	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	
H4	H4	SAE 1.5X1.5X0.1875	344.7	27.13	7.48	1674P	4.329LC2 WIND 4	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	
H5	H5	SAE 1.5X1.5X0.1875	344.7	147.99	30.10	168Y	17.413LC1 WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746	NG
H6	H6	SAE 2X2X0.1875	344.7	237.44	57.43	170P	36.187LC3 WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	NG
H7	H7	SAE 2X2X0.1875	344.7	24.24	4.92	1712P	4.123LC2 WIND 4	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	
H8	H8	SAE 2X2X0.1875	344.7	40.53	8.16	1714P	6.840LC2 WIND 4	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	
H9	H9	SAE 2X2X0.1875	344.7	46.86	7.73	1705P	6.480LC2 WIND 4	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	
H10	H10	SAE 2X2X0.1875	344.7	839.99	150.29	172Y	94.691LC3 WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746	NG
H11	H11	SAE 2.5X2.5X0.25	344.7	328.11	102.25	1722P	110.862LC3 WIND 0	110.390	125.440	108.425	0.000	4.904	2	1.000	1.746	NG
H12	H12	SAE 2.5X2.5X0.25	344.7	32.78	9.96	17231P	10.800LC3 WIND 0	110.390	125.440	108.425	0.000	4.904	2	1.000	1.746	
H13	H13	SAE 3.5X3.5X0.25	344.7	6.99	3.61	1726P	5.210LC2 WIND 4	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746	
H14	H14	SAE 3.5X3.5X0.25	344.7	9.08	4.76	17261P	6.859LC2 WIND 4	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746	
H15	H15	SAE 3.5X3.5X0.25	344.7	11.26	5.91	17262P	8.523LC2 WIND 4	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746	
H16	H16	SAE 3.5X3.5X0.25	344.7	18.89	10.43	17254P	15.041LC1 WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746	
H17	H17	SAE 4X4X0.25	344.7	43.17	34.00	17255P	36.869LC3 WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746	
H18	H18	SAE 4X4X0.25	344.7	93.76	52.30	1724Y	75.422LC1 WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746	
H19	H19	SAE 4X4X0.25	344.7	73.31	70.85	1728P	76.821LC3 WIND 0	191.709	125.440	108.425	0.000	6.446	2	1.000	1.746	
H20	H20	SAE 4X4X0.25	344.7	58.13	43.54	1729P	62.787LC1 WIND 0	191.709	125.440	108.425	0.000	7.908	2	1.000	1.746	
H21	H21	SAE 5X5X0.375	344.7	32.85	31.67	17291P	52.833LC1 WIND 0	363.462	125.440	162.638	0.000	9.370	2	1.000	1.746	
H22	H22	SAE 5X5X0.375	344.7	45.67	42.39	17292P	70.723LC1 WIND 0	363.462	125.440	162.638	0.000	10.832	2	1.000	1.746	
H23	H23	SAE 5X5X0.375	344.7	4.43	3.27	178P	4.104LC3 WIND 0	363.462	125.440	162.638	0.000	6.147	2	1.000	1.746	
H24	H24	SAE 6X6X0.375	344.7	55.09	55.09	17293P	91.907LC1 WIND 0	444.781	125.440	162.638	0.000	13.757	2	1.000	1.746	
H25	H25	SAE 6X6X0.375	344.7	5.94	2.65	181P	3.325LC3 WIND 0	444.781	125.440	162.638	0.000	7.610	2	1.000	1.746	
H26	H26	SAE 6X6X0.375	344.7	90.58	90.58	17294P	151.114LC1 WIND 0	444.781	125.440	162.638	0.000	16.682	2	1.000	1.746	
H27	H27	SAE 6X6X0.375	344.7	8.74	5.67	189P	7.117LC3 WIND 0	444.781	125.440	162.638	0.000	9.072	2	1.000	1.746	

*** Resumen de esfuerzos máximos por cada caso de carga

Summary of Maximum Usages by Load Case:

Load Case	Maximum Element Usage %	Element Label	Element Type

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2	Page 144 of 144
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

LC1 WIND 0° C.D.	1384.75	77P	Angle	NG
LC2 WIND 45° C.D.	1466.30	77P	Angle	NG
LC3 WIND 0° C.T.	1406.81	77P	Angle	NG
LC4 WIND 45° C.T.	1490.04	77P	Angle	NG
LC5 WIND 0° DEFLEX	356.13	77P	Angle	NG
LC6 WIND 45° DEFLEX	376.77	77P	Angle	NG

*** Peso de la estructura (N):
Weight of Angles*Section DLF: 509302.7
Total: 509302.7

*** End of Report



EVALUACIÓN ESTRUCTURAL

HIPOTESIS 2 REFORZADA

ESTACIÓN CERRO KENNEDY

TORRE CADRADA DE SECCIÓN VARIABLE

ALTURA 150m

Diseñó:

ING. LEOPOLDO BARRERA GARZÓN

MAT. 25202 – 124789 CND

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	Page 1 of 134
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

DATOS DE ENTRADA Y SALIDA DEL ANALISIS ESTRUCTURAL – CONDICIONES REFORZADAS – HIPOTESIS 2 PROGRAMA TOWER

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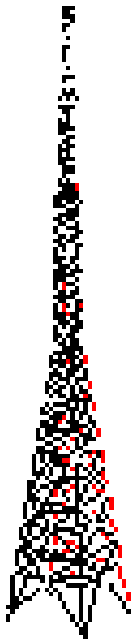
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* TOWER - Analysis and Design - Copyright Power Line Systems, Inc. 1986-2006 *
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Análisis lineal exitosamente realizado

The model has 0 warnings.

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	Page 2 of 134
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera



Opciones de verif. de elem: TIA/EIA 222-F
Verificar rupturas en conexión: Not Checked
Crossing diagonal check: Fixed

Geometría de Uniones:

Etiqueta de Unión	Cód.de Sim.	Coord. X (m)	Coord. Y (m)	Coord. Z (m)	Res. Des. X	Res. Des. Y	Res. Des. Z	Res. Rot. X	Res. Rot. Y	Res. Rot. Z
1P	XY-Symmetry	0.65	0.65	150.9	Free	Free	Free	Free	Free	Free
10P	XY-Symmetry	0.65	0.65	131.6	Free	Free	Free	Free	Free	Free

 INSTATel COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	3 of 134
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

11P	XY-Symmetry	1.14	1.14	127.6	Free	Free	Free	Free	Free
19P	XY-Symmetry	1.14	1.14	108.6	Free	Free	Free	Free	Free
20P	XY-Symmetry	2.452	2.452	102.2	Free	Free	Free	Free	Free
32P	XY-Symmetry	2.452	2.452	66.13	Free	Free	Free	Free	Free
ANP	XY-Symmetry	10.51	10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed
1X	X-GenXY	0.65	-0.65	150.9	Free	Free	Free	Free	Free
1XY	XY-GenXY	-0.65	-0.65	150.9	Free	Free	Free	Free	Free
1Y	Y-GenXY	-0.65	0.65	150.9	Free	Free	Free	Free	Free
10X	X-GenXY	0.65	-0.65	131.6	Free	Free	Free	Free	Free
10XY	XY-GenXY	-0.65	-0.65	131.6	Free	Free	Free	Free	Free
10Y	Y-GenXY	-0.65	0.65	131.6	Free	Free	Free	Free	Free
11X	X-GenXY	1.14	-1.14	127.6	Free	Free	Free	Free	Free
11XY	XY-GenXY	-1.14	-1.14	127.6	Free	Free	Free	Free	Free
11Y	Y-GenXY	-1.14	1.14	127.6	Free	Free	Free	Free	Free
19X	X-GenXY	1.14	-1.14	108.6	Free	Free	Free	Free	Free
19XY	XY-GenXY	-1.14	-1.14	108.6	Free	Free	Free	Free	Free
19Y	Y-GenXY	-1.14	1.14	108.6	Free	Free	Free	Free	Free
20X	X-GenXY	2.452	-2.452	102.2	Free	Free	Free	Free	Free
20XY	XY-GenXY	-2.452	-2.452	102.2	Free	Free	Free	Free	Free
20Y	Y-GenXY	-2.452	2.452	102.2	Free	Free	Free	Free	Free
32X	X-GenXY	2.452	-2.452	66.13	Free	Free	Free	Free	Free
32XY	XY-GenXY	-2.452	-2.452	66.13	Free	Free	Free	Free	Free
32Y	Y-GenXY	-2.452	2.452	66.13	Free	Free	Free	Free	Free
ANX	X-GenXY	10.51	-10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed
ANXY	XY-GenXY	-10.51	-10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed
ANY	Y-GenXY	-10.51	10.51	0	Fixed	Fixed	Fixed	Fixed	Fixed

Uniones Secundariaws:

Etqta de Unión	Cód de Origen Síme. Unión	Fin Unión	Fracc.	Elev. (m)	Res. Des. X	Res. Des. y	Res. Des. Z	Res. Rot. X	Res. Rot. Y	Res. Rot. Z
2S	XY-Symmetry	1P	10P	0	147.7	Free	Free	Free	Free	Free
3S	XY-Symmetry	1P	10P	0	145.2	Free	Free	Free	Free	Free
4S	XY-Symmetry	1P	10P	0	142.7	Free	Free	Free	Free	Free
5S	XY-Symmetry	1P	10P	0	140.2	Free	Free	Free	Free	Free
6S	XY-Symmetry	1P	10P	0	137.7	Free	Free	Free	Free	Free
7S	XY-Symmetry	1P	10P	0	135.2	Free	Free	Free	Free	Free
8S	XY-Symmetry	1P	10P	0	133.2	Free	Free	Free	Free	Free
12S	XY-Symmetry	11P	19P	0	124.7	Free	Free	Free	Free	Free
13S	XY-Symmetry	11P	19P	0	122.2	Free	Free	Free	Free	Free
14S	XY-Symmetry	11P	19P	0	119.7	Free	Free	Free	Free	Free
15S	XY-Symmetry	11P	19P	0	117.2	Free	Free	Free	Free	Free
16S	XY-Symmetry	11P	19P	0	114.7	Free	Free	Free	Free	Free
17S	XY-Symmetry	11P	19P	0	112.2	Free	Free	Free	Free	Free
18S	XY-Symmetry	11P	19P	0	110.2	Free	Free	Free	Free	Free
21S	XY-Symmetry	20P	32P	0	99.4	Free	Free	Free	Free	Free
22S	XY-Symmetry	20P	32P	0	96.6	Free	Free	Free	Free	Free
23S	XY-Symmetry	20P	32P	0	93.9	Free	Free	Free	Free	Free
24S	XY-Symmetry	20P	32P	0	91.2	Free	Free	Free	Free	Free
25S	XY-Symmetry	20P	32P	0	88.4	Free	Free	Free	Free	Free
26S	XY-Symmetry	20P	32P	0	85.6	Free	Free	Free	Free	Free
27S	XY-Symmetry	20P	32P	0	82.8	Free	Free	Free	Free	Free
28S	XY-Symmetry	20P	32P	0	80	Free	Free	Free	Free	Free
29S	XY-Symmetry	20P	32P	0	77.25	Free	Free	Free	Free	Free

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30S	XY-Symmetry	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
31S	XY-Symmetry	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
33S	XY-Symmetry	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
34S	XY-Symmetry	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
35S	XY-Symmetry	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
36S	XY-Symmetry	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
37S	XY-Symmetry	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
371S	None	37X	37S	0.5	0	Free	Free	Free	Free	Free	Free
372S	None	37S	37Y	0.5	0	Free	Free	Free	Free	Free	Free
373S	None	37Y	37XY	0.5	0	Free	Free	Free	Free	Free	Free
374S	None	37XY	37X	0.5	0	Free	Free	Free	Free	Free	Free
38S	XY-Symmetry	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
39S	XY-Symmetry	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
391S	None	39X	39S	0.5	0	Free	Free	Free	Free	Free	Free
392S	None	39S	39Y	0.5	0	Free	Free	Free	Free	Free	Free
393S	None	39Y	39XY	0.5	0	Free	Free	Free	Free	Free	Free
394S	None	39XY	39X	0.5	0	Free	Free	Free	Free	Free	Free
40S	XY-Symmetry	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
41S	XY-Symmetry	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
411S	None	41X	41S	0.5	0	Free	Free	Free	Free	Free	Free
412S	None	41S	41Y	0.5	0	Free	Free	Free	Free	Free	Free
413S	None	41Y	41XY	0.5	0	Free	Free	Free	Free	Free	Free
414S	None	41XY	41X	0.5	0	Free	Free	Free	Free	Free	Free
42S	XY-Symmetry	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
2X	X-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
2XY	XY-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
2Y	Y-GenXY	1P	10P	0	147.7	Free	Free	Free	Free	Free	Free
3X	X-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
3XY	XY-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
3Y	Y-GenXY	1P	10P	0	145.2	Free	Free	Free	Free	Free	Free
4X	X-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
4XY	XY-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
4Y	Y-GenXY	1P	10P	0	142.7	Free	Free	Free	Free	Free	Free
5X	X-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
5XY	XY-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
5Y	Y-GenXY	1P	10P	0	140.2	Free	Free	Free	Free	Free	Free
6X	X-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
6XY	XY-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
6Y	Y-GenXY	1P	10P	0	137.7	Free	Free	Free	Free	Free	Free
7X	X-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
7XY	XY-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
7Y	Y-GenXY	1P	10P	0	135.2	Free	Free	Free	Free	Free	Free
8X	X-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
8XY	XY-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
8Y	Y-GenXY	1P	10P	0	133.2	Free	Free	Free	Free	Free	Free
12X	X-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
12XY	XY-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
12Y	Y-GenXY	11P	19P	0	124.7	Free	Free	Free	Free	Free	Free
13X	X-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
13XY	XY-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
13Y	Y-GenXY	11P	19P	0	122.2	Free	Free	Free	Free	Free	Free
14X	X-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
14XY	XY-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
14Y	Y-GenXY	11P	19P	0	119.7	Free	Free	Free	Free	Free	Free
15X	X-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
15XY	XY-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free

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	Client	Designed by
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15Y	Y-GenXY	11P	19P	0	117.2	Free	Free	Free	Free	Free	Free
16X	X-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
16XY	XY-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
16Y	Y-GenXY	11P	19P	0	114.7	Free	Free	Free	Free	Free	Free
17X	X-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
17XY	XY-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
17Y	Y-GenXY	11P	19P	0	112.2	Free	Free	Free	Free	Free	Free
18X	X-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
18XY	XY-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
18Y	Y-GenXY	11P	19P	0	110.2	Free	Free	Free	Free	Free	Free
21X	X-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
21XY	XY-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
21Y	Y-GenXY	20P	32P	0	99.4	Free	Free	Free	Free	Free	Free
22X	X-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
22XY	XY-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
22Y	Y-GenXY	20P	32P	0	96.6	Free	Free	Free	Free	Free	Free
23X	X-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
23XY	XY-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
23Y	Y-GenXY	20P	32P	0	93.9	Free	Free	Free	Free	Free	Free
24X	X-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
24XY	XY-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
24Y	Y-GenXY	20P	32P	0	91.2	Free	Free	Free	Free	Free	Free
25X	X-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
25XY	XY-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
25Y	Y-GenXY	20P	32P	0	88.4	Free	Free	Free	Free	Free	Free
26X	X-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
26XY	XY-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
26Y	Y-GenXY	20P	32P	0	85.6	Free	Free	Free	Free	Free	Free
27X	X-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
27XY	XY-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
27Y	Y-GenXY	20P	32P	0	82.8	Free	Free	Free	Free	Free	Free
28X	X-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
28XY	XY-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
28Y	Y-GenXY	20P	32P	0	80	Free	Free	Free	Free	Free	Free
29X	X-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
29XY	XY-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
29Y	Y-GenXY	20P	32P	0	77.25	Free	Free	Free	Free	Free	Free
30X	X-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
30XY	XY-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
30Y	Y-GenXY	20P	32P	0	74.5	Free	Free	Free	Free	Free	Free
31X	X-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
31XY	XY-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
31Y	Y-GenXY	20P	32P	0	71.8	Free	Free	Free	Free	Free	Free
33X	X-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
33XY	XY-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
33Y	Y-GenXY	32P	ANP	0	59.8	Free	Free	Free	Free	Free	Free
34X	X-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
34XY	XY-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
34Y	Y-GenXY	32P	ANP	0	53.8	Free	Free	Free	Free	Free	Free
35X	X-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
35XY	XY-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
35Y	Y-GenXY	32P	ANP	0	47.8	Free	Free	Free	Free	Free	Free
36X	X-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
36XY	XY-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
36Y	Y-GenXY	32P	ANP	0	41.8	Free	Free	Free	Free	Free	Free
37X	X-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free

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37XY	XY-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
37Y	Y-GenXY	32P	ANP	0	35.8	Free	Free	Free	Free	Free	Free
38X	X-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
38XY	XY-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
38Y	Y-GenXY	32P	ANP	0	29.8	Free	Free	Free	Free	Free	Free
39X	X-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
39XY	XY-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
39Y	Y-GenXY	32P	ANP	0	23.8	Free	Free	Free	Free	Free	Free
40X	X-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
40XY	XY-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
40Y	Y-GenXY	32P	ANP	0	17.8	Free	Free	Free	Free	Free	Free
41X	X-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
41XY	XY-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
41Y	Y-GenXY	32P	ANP	0	11.8	Free	Free	Free	Free	Free	Free
42X	X-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
42XY	XY-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free
42Y	Y-GenXY	32P	ANP	0	5.8	Free	Free	Free	Free	Free	Free

Propiedades del acero:

Etiqueta del Acero	Mód. Elast. (MPa)	Esfzo de Fluen. Fy (MPa)	Esfzo Ruptura Fu (MPa)	Todos los Elem Esfzo Hyp. 1 (MPa)	Todos los Elem Esfzo Hyp. 2 (MPa)	Elemto Rupt. Hyp. 1 (MPa)	Elemto Rupt. Hyp. 2 (MPa)	Elemto flex Hyp. 1 (MPa)	Elemto flex bearing Hyp. 2 (MPa)
A572-50	1.999e+005	344.7	448.2	0	0	0	0	0	0

Tornillos:

Etqta Tornillo	Diám. (cm)	Barreno (cm)	Cap al Corte (kN)	Dist. al Paño (cm)	Esp. entre Torn. (cm)	Cap. Corte Hyp. 1 (kN)	Cap. Corte Hyp. 2 (kN)
1/2 A394 TYPE0 X	1.27	1.429	30.92	0	0	0	0
5/8 A394 TYPE0 X	1.587	1.746	62.72	0	0	0	0
3/4 A394 TYPE0 X	1.905	2.064	90.08	0	0	0	0
7/8 A394 TYPE0 N	2.223	2.381	103	0	0	0	0

Number Bolts Used By Type:

Bolt Type	Number Bolts
5/8 A394 TYPE0 X	1034
3/4 A394 TYPE0 X	452
7/8 A394 TYPE0 N	604
1/2 A394 TYPE0 X	232

Angle Properties:

Angle Type	Angle Size	Long Leg	Short Leg	Thick. (cm)	Unit Weight (N/m)	Gross Area (cm^2)	w/t Ratio	Radius of Gyration Rx (cm)	Radius of Gyration Ry (cm)	Radius of Gyration Rz (cm)	Number of Angles	Wind Width (cm)	Short Edge Dist. (cm)	Long Edge Dist. (cm)	Optimize Cost Factor	Section Modulus (cm^3)

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	Client	Designed by
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SAE	6X6X0.375	15	15	0.9525	2.2e+002	28.1	14	4.775	4.775	3.023	1	15	0	0	1.00	0
SAE	5X5X0.5	13	13	1.27	2.4e+002	30.6	8	3.912	3.912	2.497	1	13	0	0	1.00	0
SAE	5X5X0.375	13	13	0.9525	1.8e+002	23.3	11	3.962	3.962	2.515	1	13	0	0	1.00	0
SAE	4X4X0.5	10	10	1.27	1.9e+002	24.2	6.3	3.099	3.099	1.986	1	10	0	0	1.00	0
SAE	4X4X0.375	10	10	0.9525	1.4e+002	18.5	8.7	3.124	3.124	2.002	1	10	0	0	1.00	0
SAE	4X4X0.3125	10	10	0.7937	1.2e+002	15.5	11	3.15	3.15	2.009	1	10	0	0	1.00	0
SAE	4X4X0.25	10	10	0.635		96	12.5	3.175	3.175	2.019	1	10	0	0	1.00	0
SAE	3.5X3.5X0.25	8.9	8.9	0.635		85	10.9	2.769	2.769	1.763	1	8.9	0	0	1.00	0
SAE	3X3X0.25	7.6	7.6	0.635		72	9.29	2.362	2.362	1.504	1	7.6	0	0	1.00	0
SAE	2.5X2.5X0.25	6.3	6.3	0.635		60	7.68	1.953	1.953	1.247	1	6.3	0	0	1.00	0
SAE	2.5X2.5X0.1875	6.3	6.3	0.4763		45	5.82	1.976	1.976	1.257	1	6.3	0	0	1.00	0
SAE	2X2X0.1875	5.1	5.1	0.4763		36	4.58	1.567	1.567	1.001	1	5.1	0	0	1.00	0
SAE	2X2X0.125	5.1	5.1	0.3175		24	3.1	1.59	1.59	1.011	1	5.1	0	0	1.00	0
SAE	1.5X1.5X0.1875	3.8	3.8	0.4763		26	3.42	1.161	1.161	0.7442	1	3.8	0	0	1.00	0
PAE	2L6X0.5+L5X0.375	15	15	2.54	7.5e+002	99	10	6	6	3.95	1	15	0	0	1.00	0
PAE	2L6X0.5+L5X0.5	15	15	2.54	8.1e+002	107	10	6.16	6.16	4.05	1	15	0	0	1.00	0
PAE	2L5X0.375+L5X0.375	13	13	1.905	5.4e+002	70.9	11	5.495	5.495	3.614	1	13	0	0	1.00	0
PAE	2L4X0.375+L4X0.375	10	10	1.905	4.3e+002	56.4	8.2	4.51	4.51	2.966	1	10	0	0	1.00	0
PAE	2L4X0.375+L4X0.3125	10	10	1.905	4.1e+002	53.3	8.2	4.43	4.43	2.91	1	10	0	0	1.00	0
PAE	2L4X0.375+L4X0.5	10	10	1.905	4.7e+002	62.4	8.2	4.61	4.61	3.03	1	10	0	0	1.00	0
PAE	2L4X0.3125+L4X0.5	10	10	1.587	4.3e+002	56.3	11	4.57	4.57	3.01	1	10	0	0	1.00	0
PAE	2L4X0.25+L4X0.375	10	10	1.27	3.4e+002	44.1	14	4.49	4.49	2.953	1	10	0	0	1.00	0
DAE	3.5X3.5X0.25	8.9	8.9	0.635	1.7e+002	21.8	12	2.769	4.039	2.769	2	8.9	0	0	1.00	0
DAE	2.5X2.5X0.25	6.3	6.3	0.635	1.2e+002	15.4	7.8	1.953	3.023	1.953	2	6.3	0	0	1.00	0
DAE	2.5X2.5X0.1875	6.3	6.3	0.4763		90	11.6	1.976	2.997	1.976	2	6.3	0	0	1.00	0
DAE	2X2X0.1875	5.1	5.1	0.4763		71	9.23	1.567	2.482	1.567	2	5.1	0	0	1.00	0

Grupo de Angulos:

Etqta	Desc.	Tipo	Tam.	Mat.	Elemto	Gpo Tipo	Opt. Grupo	Permitir adicionar > perfil para opt. (cm)
0.000000	M1	DAE	2.5X2.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M2	DAE	2.5X2.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M3	DAE	3.5X3.5X0.25	A572-50	Beam	Leg	None	30.480000
0.000000	M4	PAE	2L4X0.25+L4X0.375	A572-50	Beam	Leg	None	30.480000
0.000000	M5	PAE	2L4X0.375+L4X0.5	A572-50	Beam	Leg	None	30.480000
0.000000	M6	PAE	2L4X0.375+L4X0.5	A572-50	Beam	Leg	None	30.480000
0.000000	M7	PAE	2L4X0.3125+L4X0.5	A572-50	Beam	Leg	None	30.480000
0.000000	M8	PAE	2L4X0.3125+L4X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M9	PAE	2L4X0.3125+L4X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M10	PAE	2L4X0.375+L4X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M11	PAE	2L4X0.375+L4X0.3125	A572-50	Beam	Leg	None	0.000000
0.000000	M12	PAE	2L5X0.375+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M13	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M14	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M15	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M16	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M17	PAE	2L6X0.5+L5X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M18	PAE	2L6X0.5+L5X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M19	PAE	2L6X0.5+L5X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M20	PAE	2L6X0.5+L5X0.5	A572-50	Beam	Leg	None	0.000000

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	Client	Designed by
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0.000000	M21	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M22	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M23	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M24	PAE	2L6X0.5+L5X0.375	A572-50	Beam	Leg	None	0.000000
0.000000	M25	PAE	2L6X0.5+L5X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M26	PAE	2L6X0.5+L5X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M27	PAE	2L6X0.5+L5X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	M28	PAE	2L6X0.5+L5X0.5	A572-50	Beam	Leg	None	0.000000
0.000000	D1	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D2	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D3	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D4	SAE	2X2X0.125	A572-50	Truss		None	30.480000
0.000000	D5	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D6	SAE	2.5X2.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D7	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D8	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D9	DAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D10	DAE	2.5X2.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D11	DAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D12	DAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D13	DAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D14	DAE	2.5X2.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D15	DAE	2.5X2.5X0.1875	A572-50	Truss		None	30.480000
0.000000	D16	DAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D17	DAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	D18	SAE	4X4X0.5	A572-50	Truss		None	30.480000
0.000000	D19	SAE	4X4X0.25	A572-50	Truss		None	30.480000
0.000000	D20	SAE	4X4X0.25	A572-50	Truss		None	30.480000
0.000000	D21	SAE	4X4X0.25	A572-50	Truss		None	0.000000
0.000000	D22	SAE	4X4X0.25	A572-50	Truss		None	0.000000
0.000000	D23	SAE	4X4X0.25	A572-50	Truss		None	0.000000
0.000000	D24	SAE	4X4X0.25	A572-50	Truss		None	0.000000
0.000000	D25	SAE	4X4X0.25	A572-50	Truss		None	0.000000
0.000000	D26	SAE	4X4X0.3125	A572-50	Truss		None	0.000000
0.000000	D27	SAE	4X4X0.3125	A572-50	Truss		None	0.000000
0.000000	D28	SAE	4X4X0.3125	A572-50	Truss		None	0.000000
0.000000	D29	SAE	4X4X0.3125	A572-50	Truss		None	0.000000
0.000000	D30	SAE	5X5X0.5	A572-50	Truss		None	0.000000
0.000000	D31	SAE	5X5X0.5	A572-50	Truss		None	0.000000
0.000000	D32	SAE	4X4X0.5	A572-50	Truss		None	0.000000
0.000000	D33	SAE	4X4X0.375	A572-50	Truss		None	0.000000
0.000000	D34	SAE	4X4X0.375	A572-50	Truss		None	0.000000
0.000000	D35	SAE	4X4X0.375	A572-50	Truss		None	0.000000
0.000000	D36	SAE	4X4X0.375	A572-50	Truss		None	0.000000
0.000000	D37	SAE	4X4X0.375	A572-50	Truss		None	0.000000
0.000000	D38	SAE	4X4X0.375	A572-50	Truss		None	0.000000
0.000000	D39	SAE	4X4X0.5	A572-50	Truss		None	0.000000
0.000000	D40	SAE	5X5X0.5	A572-50	Truss		None	0.000000
0.000000	H1	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	H2	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	H3	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	H4	SAE	1.5X1.5X0.1875	A572-50	Truss		None	30.480000
0.000000	H5	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	H6	SAE	3X3X0.25	A572-50	Truss		None	30.480000
0.000000	H7	SAE	2X2X0.1875	A572-50	Truss		None	30.480000
0.000000	H8	SAE	2X2X0.1875	A572-50	Truss		None	30.480000

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0.000000	H9	SAE	2X2X0.1875	A572-50	Truss	None	30.480000
0.000000	H10	SAE	3X3X0.25	A572-50	Truss	None	30.480000
0.000000	H11	SAE	4X4X0.375	A572-50	Truss	None	30.480000
0.000000	H12	SAE	2.5X2.5X0.25	A572-50	Truss	None	30.480000
0.000000	H13	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H14	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H15	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H16	SAE	3.5X3.5X0.25	A572-50	Truss	None	30.480000
0.000000	H17	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H18	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H19	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H20	SAE	4X4X0.25	A572-50	Truss	None	30.480000
0.000000	H21	SAE	5X5X0.375	A572-50	Truss	None	30.480000
0.000000	H22	SAE	5X5X0.375	A572-50	Truss	None	30.480000
0.000000	H23	SAE	5X5X0.375	A572-50	Truss	None	30.480000
0.000000	H24	SAE	6X6X0.375	A572-50	Truss	None	30.480000
0.000000	H25	SAE	6X6X0.375	A572-50	Truss	None	30.480000
0.000000	H26	SAE	6X6X0.375	A572-50	Truss	None	30.480000
0.000000	H27	SAE	6X6X0.375	A572-50	Truss	None	30.480000

Aggregate Angle Information:

Angle Type	Angle Size	Material Type	Total Length (m)	Total Surface Area (m^2)	Total Weight (N)
DAE	2.5X2.5X0.25	A572-50	42.84	10.88	5127.14
DAE	3.5X3.5X0.25	A572-50	20.00	7.11	3385.78
PAE	2L4X0.25+L4X0.375	A572-50	14.28	5.80	4793.20
PAE	2L4X0.375+L4X0.5	A572-50	37.96	15.43	17947.19
PAE	2L4X0.3125+L4X0.5	A572-50	54.32	22.08	23148.03
PAE	2L4X0.375+L4X0.375	A572-50	26.73	10.86	11469.20
PAE	2L4X0.375+L4X0.3125	A572-50	22.40	9.10	9087.90
PAE	2L5X0.375+L5X0.375	A572-50	21.60	10.97	11631.92
PAE	2L6X0.5+L5X0.375	A572-50	175.02	106.69	131537.89
PAE	2L6X0.5+L5X0.5	A572-50	193.68	118.07	156593.63
SAE	1.5X1.5X0.1875	A572-50	93.60	14.26	2458.73
SAE	2X2X0.125	A572-50	22.54	4.58	542.82
SAE	2X2X0.1875	A572-50	90.49	18.39	3222.35
SAE	2.5X2.5X0.1875	A572-50	22.54	5.73	1009.97
DAE	2X2X0.1875	A572-50	163.23	33.17	11624.72
DAE	2.5X2.5X0.1875	A572-50	83.59	21.23	7489.81
SAE	4X4X0.5	A572-50	217.25	88.29	40582.80
SAE	4X4X0.25	A572-50	412.10	167.48	39693.15
SAE	4X4X0.3125	A572-50	179.92	73.12	21531.08
SAE	5X5X0.5	A572-50	255.20	129.64	60334.57
SAE	4X4X0.375	A572-50	491.98	199.94	70363.39
SAE	3X3X0.25	A572-50	18.24	5.56	1304.34
SAE	2.5X2.5X0.25	A572-50	19.62	4.98	1173.72
SAE	3.5X3.5X0.25	A572-50	78.46	27.90	6641.55
SAE	5X5X0.375	A572-50	129.99	66.03	23333.84
SAE	6X6X0.375	A572-50	384.35	234.30	83576.81

Sections:

The adjustment factors below only apply to dead load and wind areas that are calculated for members in the model.

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They do not apply to equipment or to manually input dead load and drag areas.

Section Label	Joint Defining Section Bottom	Dead Load Adjust. Factor	Transverse Drag x Area For Face	Longitudinal Drag x Area For Face	Transverse Area Factor (CD From Code)	Longitudinal Area Factor (CD From Code)	Af Flat Factor For Face EIA Only	Ar Round Factor For Face EIA Only	Transverse Drag x Area For All	Longitudinal Drag x Area For All	SAPS Angle Drag x Area Factor	SAPS Round Drag x Area Factor	Force Solid Face
1	3S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
2	5S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
3	7S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
4	10P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
5	11P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
6	13S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
7	15S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
8	17S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
9	19P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
10	20P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
11	22S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
12	24S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
13	26S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
14	28S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
15	30S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
16	31S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
17	32P	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
18	33S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
19	34S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
20	35S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
21	36S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
22	37S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
23	38S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
24	39S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
25	40S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
26	41S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
27	42S	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None
28	ANP	1.000	1.000	1.000	0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000	None

Conectividad:

Etiqueta de Elemento	Etiqueta del Grupo	Etiqueta de la Sección	Código de Simetría	Unión de Origen	Unión Final	Cód. de Exc.	Cód. de Rest.	Relac. RLX	Relac. RLY	Relac. RLZ	Torn. Tipo	# Torn.	# Barr.	# Planos de Corte	Lado a Conec.	Dist. Corta al Paño (cm)	Dist. Larga al Paño (cm)	Dist. Final (cm)	Esp. / Torn. (cm)	Coef. de Restr.
1P	M1		XY-Symmetry	1P	2S	1	5	0.5	0.5	0.5 5/8	A394 TYPE0 X	6	2	2	Both	0	0	0	0	0
1X	M1		X-GenXY	1X	2X	1	5	0.5	0.5	0.5 5/8	A394 TYPE0 X	6	2	2	Both	0	0	0	0	0
1XY	M1		XY-GenXY	1XY	2XY	1	5	0.5	0.5	0.5 5/8	A394 TYPE0 X	6	2	2	Both	0	0	0	0	0
1Y	M1		Y-GenXY	1Y	2Y	1	5	0.5	0.5	0.5 5/8	A394 TYPE0 X	6	2	2	Both	0	0	0	0	0
2P	M1		XY-Symmetry	2S	3S	1	4	0.5	0.5	0.5 5/8	A394 TYPE0 X	6	2	2	Both	0	0	0	0	0
2X	M1		X-GenXY	2X	3X	1	4	0.5	0.5	0.5 5/8	A394 TYPE0 X	6	2	2	Both	0	0	0	0	0
2XY	M1		XY-GenXY	2XY	3XY	1	4	0.5	0.5	0.5 5/8	A394 TYPE0 X	6	2	2	Both	0	0	0	0	0
2Y	M1		Y-GenXY	2Y	3Y	1	4	0.5	0.5	0.5 5/8	A394 TYPE0 X	6	2	2	Both	0	0	0	0	0
3P	M2		XY-Symmetry	3S	4S	1	4	0.5	0.5	0.5 5/8	A394 TYPE0 X	6	2	2	Both	0	0	0	0	0
3X	M2		X-GenXY	3X	4X	1	4	0.5	0.5	0.5 5/8	A394 TYPE0 X	6	2	2	Both	0	0	0	0	0
3XY	M2		XY-GenXY	3XY	4XY	1	4	0.5	0.5	0.5 5/8	A394 TYPE0 X	6	2	2	Both	0	0	0	0	0
3Y	M2		Y-GenXY	3Y	4Y	1	4	0.5	0.5	0.5 5/8	A394 TYPE0 X	6	2	2	Both	0	0	0	0	0

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4P	M2	XY-Symmetry	4S	5S	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0	0
4X	M2	X-GenXY	4X	5X	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0	0
4XY	M2	XY-GenXY	4XY	5XY	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0	0
4Y	M2	Y-GenXY	4Y	5Y	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0	0
5P	M3	XY-Symmetry	5S	6S	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0	0
5X	M3	X-GenXY	5X	6X	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0	0
5XY	M3	XY-GenXY	5XY	6XY	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0	0
5Y	M3	Y-GenXY	5Y	6Y	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	6	2	2	Both	0	0	0	0	0
6P	M3	XY-Symmetry	6S	7S	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
6X	M3	X-GenXY	6X	7X	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
6XY	M3	XY-GenXY	6XY	7XY	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
6Y	M3	Y-GenXY	6Y	7Y	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
7P	M4	XY-Symmetry	7S	8S	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
7X	M4	X-GenXY	7X	8X	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
7XY	M4	XY-GenXY	7XY	8XY	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
7Y	M4	Y-GenXY	7Y	8Y	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
8P	M4	XY-Symmetry	8S	10P	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
8X	M4	X-GenXY	8X	10X	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
8XY	M4	XY-GenXY	8XY	10XY	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
8Y	M4	Y-GenXY	8Y	10Y	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
9P	M5	XY-Symmetry	10P	11P	1	4	0.25	0.25	0.25 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
9X	M5	X-GenXY	10X	11X	1	4	0.25	0.25	0.25 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
9XY	M5	XY-GenXY	10XY	11XY	1	4	0.25	0.25	0.25 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
9Y	M5	Y-GenXY	10Y	11Y	1	4	0.25	0.25	0.25 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
10P	M6	XY-Symmetry	11P	12S	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
10X	M6	X-GenXY	11X	12X	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
10XY	M6	XY-GenXY	11XY	12XY	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
10Y	M6	Y-GenXY	11Y	12Y	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
11P	M6	XY-Symmetry	12S	13S	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
11X	M6	X-GenXY	12X	13X	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
11XY	M6	XY-GenXY	12XY	13XY	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
11Y	M6	Y-GenXY	12Y	13Y	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
12P	M7	XY-Symmetry	13S	14S	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
12X	M7	X-GenXY	13X	14X	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
12XY	M7	XY-GenXY	13XY	14XY	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
12Y	M7	Y-GenXY	13Y	14Y	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
13P	M7	XY-Symmetry	14S	15S	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
13X	M7	X-GenXY	14X	15X	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
13XY	M7	XY-GenXY	14XY	15XY	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
13Y	M7	Y-GenXY	14Y	15Y	1	4	0.5	0.5	0.5 5/8 A394	TYPE0 X	7	2	2	Both	0	0	0	0	0
14P	M8	XY-Symmetry	15S	16S	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	12	2	2	Both	0	0	0	0	0
14X	M8	X-GenXY	15X	16X	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	12	2	2	Both	0	0	0	0	0
14XY	M8	XY-GenXY	15XY	16XY	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	12	2	2	Both	0	0	0	0	0
14Y	M8	Y-GenXY	15Y	16Y	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	12	2	2	Both	0	0	0	0	0
15P	M8	XY-Symmetry	16S	17S	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	12	2	2	Both	0	0	0	0	0
15X	M8	X-GenXY	16X	17X	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	12	2	2	Both	0	0	0	0	0
15XY	M8	XY-GenXY	16XY	17XY	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	12	2	2	Both	0	0	0	0	0
15Y	M8	Y-GenXY	16Y	17Y	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	12	2	2	Both	0	0	0	0	0
16P	M9	XY-Symmetry	17S	18S	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	10	2	2	Both	0	0	0	0	0
16X	M9	X-GenXY	17X	18X	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	10	2	2	Both	0	0	0	0	0
16XY	M9	XY-GenXY	17XY	18XY	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	10	2	2	Both	0	0	0	0	0
16Y	M9	Y-GenXY	17Y	18Y	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	10	2	2	Both	0	0	0	0	0
17P	M9	XY-Symmetry	18S	19P	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	10	2	2	Both	0	0	0	0	0
17X	M9	X-GenXY	18X	19X	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	10	2	2	Both	0	0	0	0	0
17XY	M9	XY-GenXY	18XY	19XY	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	10	2	2	Both	0	0	0	0	0
17Y	M9	Y-GenXY	18Y	19Y	1	4	0.5	0.5	0.5 3/4 A394	TYPE0 X	10	2	2	Both	0	0	0	0	0

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18P	M10	XY-Symmetry	19P	20P	1	4	0.25	0.25	0.25 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
18X	M10	X-GenXY	19X	20X	1	4	0.25	0.25	0.25 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
18XY	M10	XY-GenXY	19XY	20XY	1	4	0.25	0.25	0.25 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
18Y	M10	Y-GenXY	19Y	20Y	1	4	0.25	0.25	0.25 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
19P	M11	XY-Symmetry	20P	21S	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
19X	M11	X-GenXY	20X	21X	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
19XY	M11	XY-GenXY	20XY	21XY	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
19Y	M11	Y-GenXY	20Y	21Y	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
20P	M11	XY-Symmetry	21S	22S	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
20X	M11	X-GenXY	21X	22X	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
20XY	M11	XY-GenXY	21XY	22XY	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
20Y	M11	Y-GenXY	21Y	22Y	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
21P	M12	XY-Symmetry	22S	23S	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
21X	M12	X-GenXY	22X	23X	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
21XY	M12	XY-GenXY	22XY	23XY	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
21Y	M12	Y-GenXY	22Y	23Y	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
22P	M12	XY-Symmetry	23S	24S	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
22X	M12	X-GenXY	23X	24X	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
22XY	M12	XY-GenXY	23XY	24XY	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
22Y	M12	Y-GenXY	23Y	24Y	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	7	2	2	Both	0	0	0	0	0
23P	M13	XY-Symmetry	24S	25S	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	8	2	2	Both	0	0	0	0	0
23X	M13	X-GenXY	24X	25X	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	8	2	2	Both	0	0	0	0	0
23XY	M13	XY-GenXY	24XY	25XY	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	8	2	2	Both	0	0	0	0	0
23Y	M13	Y-GenXY	24Y	25Y	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	8	2	2	Both	0	0	0	0	0
24P	M13	XY-Symmetry	25S	26S	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	8	2	2	Both	0	0	0	0	0
24X	M13	X-GenXY	25X	26X	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	8	2	2	Both	0	0	0	0	0
24XY	M13	XY-GenXY	25XY	26XY	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	8	2	2	Both	0	0	0	0	0
24Y	M13	Y-GenXY	25Y	26Y	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	8	2	2	Both	0	0	0	0	0
25P	M14	XY-Symmetry	26S	27S	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	9	2	2	Both	0	0	0	0	0
25X	M14	X-GenXY	26X	27X	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	9	2	2	Both	0	0	0	0	0
25XY	M14	XY-GenXY	26XY	27XY	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	9	2	2	Both	0	0	0	0	0
25Y	M14	Y-GenXY	26Y	27Y	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	9	2	2	Both	0	0	0	0	0
26P	M14	XY-Symmetry	27S	28S	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	9	2	2	Both	0	0	0	0	0
26X	M14	X-GenXY	27X	28X	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	9	2	2	Both	0	0	0	0	0
26XY	M14	XY-GenXY	27XY	28XY	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	9	2	2	Both	0	0	0	0	0
26Y	M14	Y-GenXY	27Y	28Y	1	4	0.5	0.5	0.5 3/4	A394	TYPE0	X	9	2	2	Both	0	0	0	0	0
27P	M15	XY-Symmetry	28S	29S	1	4	0.5	0.5	0.5 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
27X	M15	X-GenXY	28X	29X	1	4	0.5	0.5	0.5 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
27XY	M15	XY-GenXY	28XY	29XY	1	4	0.5	0.5	0.5 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
27Y	M15	Y-GenXY	28Y	29Y	1	4	0.5	0.5	0.5 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
28P	M15	XY-Symmetry	29S	30S	1	4	0.5	0.5	0.5 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
28X	M15	X-GenXY	29X	30X	1	4	0.5	0.5	0.5 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
28XY	M15	XY-GenXY	29XY	30XY	1	4	0.5	0.5	0.5 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
28Y	M15	Y-GenXY	29Y	30Y	1	4	0.5	0.5	0.5 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
29P	M16	XY-Symmetry	30S	31S	1	4	0.5	0.5	0.5 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
29X	M16	X-GenXY	30X	31X	1	4	0.5	0.5	0.5 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
29XY	M16	XY-GenXY	30XY	31XY	1	4	0.5	0.5	0.5 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
29Y	M16	Y-GenXY	30Y	31Y	1	4	0.5	0.5	0.5 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
30P	M17	XY-Symmetry	31S	32P	1	4	0.25	0.25	0.25 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
30X	M17	X-GenXY	31X	32X	1	4	0.25	0.25	0.25 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
30XY	M17	XY-GenXY	31XY	32XY	1	4	0.25	0.25	0.25 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
30Y	M17	Y-GenXY	31Y	32Y	1	4	0.25	0.25	0.25 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
31P	M18	XY-Symmetry	32P	33S	1	4	0.25	0.25	0.25 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
31X	M18	X-GenXY	32X	33X	1	4	0.25	0.25	0.25 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
31XY	M18	XY-GenXY	32XY	33XY	1	4	0.25	0.25	0.25 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
31Y	M18	Y-GenXY	32Y	33Y	1	4	0.25	0.25	0.25 7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0

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32P	M19	XY-Symmetry	33S	34S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
32X	M19	X-GenXY	33X	34X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
32XY	M19	XY-GenXY	33XY	34XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
32Y	M19	Y-GenXY	33Y	34Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
33P	M20	XY-Symmetry	34S	35S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
33X	M20	X-GenXY	34X	35X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
33XY	M20	XY-GenXY	34XY	35XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
33Y	M20	Y-GenXY	34Y	35Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
34P	M21	XY-Symmetry	35S	36S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
34X	M21	X-GenXY	35X	36X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
34XY	M21	XY-GenXY	35XY	36XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
34Y	M21	Y-GenXY	35Y	36Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
35P	M22	XY-Symmetry	36S	37S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
35X	M22	X-GenXY	36X	37X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
35XY	M22	XY-GenXY	36XY	37XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
35Y	M22	Y-GenXY	36Y	37Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
36P	M23	XY-Symmetry	37S	38S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
36X	M23	X-GenXY	37X	38X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
36XY	M23	XY-GenXY	37XY	38XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
36Y	M23	Y-GenXY	37Y	38Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
37P	M24	XY-Symmetry	38S	39S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
37X	M24	X-GenXY	38X	39X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
37XY	M24	XY-GenXY	38XY	39XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
37Y	M24	Y-GenXY	38Y	39Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
38P	M25	XY-Symmetry	39S	40S	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
38X	M25	X-GenXY	39X	40X	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
38XY	M25	XY-GenXY	39XY	40XY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
38Y	M25	Y-GenXY	39Y	40Y	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
39P	M26	XY-Symmetry	40S	41S	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
39X	M26	X-GenXY	40X	41X	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
39XY	M26	XY-GenXY	40XY	41XY	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
39Y	M26	Y-GenXY	40Y	41Y	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
40P	M27	XY-Symmetry	41S	42S	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
40X	M27	X-GenXY	41X	42X	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
40XY	M27	XY-GenXY	41XY	42XY	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
40Y	M27	Y-GenXY	41Y	42Y	1	4	0.334	0.334	0.334	7/8	A394	TYPE0	N	10	2	2	Both	0	0	0	0	0
41P	M28	XY-Symmetry	42S	ANP	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	11	2	2	Both	0	0	0	0	0
41X	M28	X-GenXY	42X	ANX	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	11	2	2	Both	0	0	0	0	0
41XY	M28	XY-GenXY	42XY	ANXY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	11	2	2	Both	0	0	0	0	0
41Y	M28	Y-GenXY	42Y	ANY	1	4	0.25	0.25	0.25	7/8	A394	TYPE0	N	11	2	2	Both	0	0	0	0	0
42P	D1	XY-Symmetry	1P	2X	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
42X	D1	X-GenXY	1X	2S	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
42XY	D1	XY-GenXY	1XY	2Y	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
42Y	D1	Y-GenXY	1Y	2XY	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
43P	D1	XY-Symmetry	1P	2Y	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
43X	D1	X-GenXY	1X	2XY	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
43XY	D1	XY-GenXY	1XY	2X	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
43Y	D1	Y-GenXY	1Y	2S	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
44P	D2	XY-Symmetry	2S	3X	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
44X	D2	X-GenXY	2X	3S	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
44XY	D2	XY-GenXY	2XY	3Y	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
44Y	D2	Y-GenXY	2Y	3XY	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
45P	D2	XY-Symmetry	2S	3Y	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
45X	D2	X-GenXY	2X	3XY	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
45XY	D2	XY-GenXY	2XY	3X	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0
45Y	D2	Y-GenXY	2Y	3S	1	6	0.75	0.5	0.5	1/2	A394	TYPE0	X	1	1	1	Long only	0	0	0	0	0

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

46P	D3	XY-Symmetry	3S	4X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
46X	D3	X-GenXY	3X	4S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
46XY	D3	XY-GenXY	3XY	4Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
46Y	D3	Y-GenXY	3Y	4XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
47P	D3	XY-Symmetry	3S	4Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
47X	D3	X-GenXY	3X	4XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
47XY	D3	XY-GenXY	3XY	4X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
47Y	D3	Y-GenXY	3Y	4S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
48P	D4	XY-Symmetry	4S	5X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
48X	D4	X-GenXY	4X	5S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
48XY	D4	XY-GenXY	4XY	5Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
48Y	D4	Y-GenXY	4Y	5XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
49P	D4	XY-Symmetry	4S	5Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
49X	D4	X-GenXY	4X	5XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
49XY	D4	XY-GenXY	4XY	5X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
49Y	D4	Y-GenXY	4Y	5S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
50P	D5	XY-Symmetry	5S	6X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
50X	D5	X-GenXY	5X	6S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
50XY	D5	XY-GenXY	5XY	6Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
50Y	D5	Y-GenXY	5Y	6XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
51P	D5	XY-Symmetry	5S	6Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
51X	D5	X-GenXY	5X	6XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
51XY	D5	XY-GenXY	5XY	6X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
51Y	D5	Y-GenXY	5Y	6S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
52P	D6	XY-Symmetry	6S	7X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
52X	D6	X-GenXY	6X	7S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
52XY	D6	XY-GenXY	6XY	7Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
52Y	D6	Y-GenXY	6Y	7XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
53P	D6	XY-Symmetry	6S	7Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
53X	D6	X-GenXY	6X	7XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
53XY	D6	XY-GenXY	6XY	7X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
53Y	D6	Y-GenXY	6Y	7S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
54P	D7	XY-Symmetry	7S	8X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
54X	D7	X-GenXY	7X	8S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
54XY	D7	XY-GenXY	7XY	8Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
54Y	D7	Y-GenXY	7Y	8XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
55P	D7	XY-Symmetry	7S	8Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
55X	D7	X-GenXY	7X	8XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
55XY	D7	XY-GenXY	7XY	8X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
55Y	D7	Y-GenXY	7Y	8S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
56P	D8	XY-Symmetry	8S	10X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
56X	D8	X-GenXY	8X	10P	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
56XY	D8	XY-GenXY	8XY	10Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
56Y	D8	Y-GenXY	8Y	10XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
57P	D8	XY-Symmetry	8S	10Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
57X	D8	X-GenXY	8X	10XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
57XY	D8	XY-GenXY	8XY	10X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
57Y	D8	Y-GenXY	8Y	10P	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
58P	D9	XY-Symmetry	10P	11X	1	6	0.55	0.25	0.25 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
58X	D9	X-GenXY	10X	11P	1	6	0.55	0.25	0.25 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
58XY	D9	XY-GenXY	10XY	11Y	1	6	0.55	0.25	0.25 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
58Y	D9	Y-GenXY	10Y	11XY	1	6	0.55	0.25	0.25 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
59P	D9	XY-Symmetry	10P	11Y	1	6	0.55	0.25	0.25 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
59X	D9	X-GenXY	10X	11XY	1	6	0.55	0.25	0.25 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
59XY	D9	XY-GenXY	10XY	11X	1	6	0.55	0.25	0.25 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
59Y	D9	Y-GenXY	10Y	11P	1	6	0.55	0.25	0.25 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

60P	D10	XY-Symmetry	11P	12X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
60X	D10	X-GenXY	11X	12S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
60XY	D10	XY-GenXY	11XY	12Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
60Y	D10	Y-GenXY	11Y	12XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
61P	D10	XY-Symmetry	11P	12Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
61X	D10	X-GenXY	11X	12XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
61XY	D10	XY-GenXY	11XY	12X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
61Y	D10	Y-GenXY	11Y	12S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
62P	D11	XY-Symmetry	12S	13X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
62X	D11	X-GenXY	12X	13S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
62XY	D11	XY-GenXY	12XY	13Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
62Y	D11	Y-GenXY	12Y	13XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
63P	D11	XY-Symmetry	12S	13Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
63X	D11	X-GenXY	12X	13XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
63XY	D11	XY-GenXY	12XY	13X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
63Y	D11	Y-GenXY	12Y	13S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
64P	D12	XY-Symmetry	13S	14X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
64X	D12	X-GenXY	13X	14S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
64XY	D12	XY-GenXY	13XY	14Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
64Y	D12	Y-GenXY	13Y	14XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
65P	D12	XY-Symmetry	13S	14Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
65X	D12	X-GenXY	13X	14XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
65XY	D12	XY-GenXY	13XY	14X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
65Y	D12	Y-GenXY	13Y	14S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
66P	D13	XY-Symmetry	14S	15X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
66X	D13	X-GenXY	14X	15S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
66XY	D13	XY-GenXY	14XY	15Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
66Y	D13	Y-GenXY	14Y	15XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
67P	D13	XY-Symmetry	14S	15Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
67X	D13	X-GenXY	14X	15XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
67XY	D13	XY-GenXY	14XY	15X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
67Y	D13	Y-GenXY	14Y	15S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
68P	D14	XY-Symmetry	15S	16X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
68X	D14	X-GenXY	15X	16S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
68XY	D14	XY-GenXY	15XY	16Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
68Y	D14	Y-GenXY	15Y	16XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
69P	D14	XY-Symmetry	15S	16Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
69X	D14	X-GenXY	15X	16XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
69XY	D14	XY-GenXY	15XY	16X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
69Y	D14	Y-GenXY	15Y	16S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
70P	D15	XY-Symmetry	16S	17X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
70X	D15	X-GenXY	16X	17S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
70XY	D15	XY-GenXY	16XY	17Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
70Y	D15	Y-GenXY	16Y	17XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
71P	D15	XY-Symmetry	16S	17Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
71X	D15	X-GenXY	16X	17XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
71XY	D15	XY-GenXY	16XY	17X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
71Y	D15	Y-GenXY	16Y	17S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
72P	D16	XY-Symmetry	17S	18X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
72X	D16	X-GenXY	17X	18S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
72XY	D16	XY-GenXY	17XY	18Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
72Y	D16	Y-GenXY	17Y	18XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
73P	D16	XY-Symmetry	17S	18Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
73X	D16	X-GenXY	17X	18XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
73XY	D16	XY-GenXY	17XY	18X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
73Y	D16	Y-GenXY	17Y	18S	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

74P	D17	XY-Symmetry	18S	19X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
74X	D17	X-GenXY	18X	19P	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
74XY	D17	XY-GenXY	18XY	19Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
74Y	D17	Y-GenXY	18Y	19XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
75P	D17	XY-Symmetry	18S	19Y	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
75X	D17	X-GenXY	18X	19XY	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
75XY	D17	XY-GenXY	18XY	19X	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
75Y	D17	Y-GenXY	18Y	19P	1	6	0.75	0.5	0.5 1/2 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
76P	D18	XY-Symmetry	19P	20X	1	6	0.25	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
76X	D18	X-GenXY	19X	20P	1	6	0.25	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
76XY	D18	XY-GenXY	19XY	20Y	1	6	0.25	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
76Y	D18	Y-GenXY	19Y	20XY	1	6	0.25	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
77P	D18	XY-Symmetry	19P	20Y	1	6	0.25	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
77X	D18	X-GenXY	19X	20XY	1	6	0.25	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
77XY	D18	XY-GenXY	19XY	20X	1	6	0.25	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
77Y	D18	Y-GenXY	19Y	20P	1	6	0.25	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
78P	D19	XY-Symmetry	20P	21X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
78X	D19	X-GenXY	20X	21S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
78XY	D19	XY-GenXY	20XY	21Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
78Y	D19	Y-GenXY	20Y	21XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
79P	D19	XY-Symmetry	20P	21Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
79X	D19	X-GenXY	20X	21XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
79XY	D19	XY-GenXY	20XY	21X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
79Y	D19	Y-GenXY	20Y	21S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
80P	D20	XY-Symmetry	21S	22X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
80X	D20	X-GenXY	21X	22S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
80XY	D20	XY-GenXY	21XY	22Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
80Y	D20	Y-GenXY	21Y	22XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
81P	D20	XY-Symmetry	21S	22Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
81X	D20	X-GenXY	21X	22XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
81XY	D20	XY-GenXY	21XY	22X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
81Y	D20	Y-GenXY	21Y	22S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
82P	D21	XY-Symmetry	22S	23X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
82X	D21	X-GenXY	22X	23S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
82XY	D21	XY-GenXY	22XY	23Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
82Y	D21	Y-GenXY	22Y	23XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
83P	D21	XY-Symmetry	22S	23Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
83X	D21	X-GenXY	22X	23XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
83XY	D21	XY-GenXY	22XY	23X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
83Y	D21	Y-GenXY	22Y	23S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
84P	D22	XY-Symmetry	23S	24X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
84X	D22	X-GenXY	23X	24S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
84XY	D22	XY-GenXY	23XY	24Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
84Y	D22	Y-GenXY	23Y	24XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
85P	D22	XY-Symmetry	23S	24Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
85X	D22	X-GenXY	23X	24XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
85XY	D22	XY-GenXY	23XY	24X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
85Y	D22	Y-GenXY	23Y	24S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
86P	D23	XY-Symmetry	24S	25X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
86X	D23	X-GenXY	24X	25S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
86XY	D23	XY-GenXY	24XY	25Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
86Y	D23	Y-GenXY	24Y	25XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
87P	D23	XY-Symmetry	24S	25Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
87X	D23	X-GenXY	24X	25XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
87XY	D23	XY-GenXY	24XY	25X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
87Y	D23	Y-GenXY	24Y	25S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

88P	D24	XY-Symmetry	25S	26X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
88X	D24	X-GenXY	25X	26S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
88XY	D24	XY-GenXY	25XY	26Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
88Y	D24	Y-GenXY	25Y	26XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
89P	D24	XY-Symmetry	25S	26Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
89X	D24	X-GenXY	25X	26XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
89XY	D24	XY-GenXY	25XY	26X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
89Y	D24	Y-GenXY	25Y	26S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
90P	D25	XY-Symmetry	26S	27X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
90X	D25	X-GenXY	26X	27S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
90XY	D25	XY-GenXY	26XY	27Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
90Y	D25	Y-GenXY	26Y	27XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
91P	D25	XY-Symmetry	26S	27Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
91X	D25	X-GenXY	26X	27XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
91XY	D25	XY-GenXY	26XY	27X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
91Y	D25	Y-GenXY	26Y	27S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
92P	D26	XY-Symmetry	27S	28X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
92X	D26	X-GenXY	27X	28S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
92XY	D26	XY-GenXY	27XY	28Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
92Y	D26	Y-GenXY	27Y	28XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
93P	D26	XY-Symmetry	27S	28Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
93X	D26	X-GenXY	27X	28XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
93XY	D26	XY-GenXY	27XY	28X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
93Y	D26	Y-GenXY	27Y	28S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
94P	D27	XY-Symmetry	28S	29X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
94X	D27	X-GenXY	28X	29S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
94XY	D27	XY-GenXY	28XY	29Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
94Y	D27	Y-GenXY	28Y	29XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
95P	D27	XY-Symmetry	28S	29Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
95X	D27	X-GenXY	28X	29XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
95XY	D27	XY-GenXY	28XY	29X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
95Y	D27	Y-GenXY	28Y	29S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
96P	D28	XY-Symmetry	29S	30X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
96X	D28	X-GenXY	29X	30S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
96XY	D28	XY-GenXY	29XY	30Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
96Y	D28	Y-GenXY	29Y	30XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
97P	D28	XY-Symmetry	29S	30Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
97X	D28	X-GenXY	29X	30XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
97XY	D28	XY-GenXY	29XY	30X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
97Y	D28	Y-GenXY	29Y	30S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
98P	D29	XY-Symmetry	30S	31X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
98X	D29	X-GenXY	30X	31S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
98XY	D29	XY-GenXY	30XY	31Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
98Y	D29	Y-GenXY	30Y	31XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
99P	D29	XY-Symmetry	30S	31Y	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
99X	D29	X-GenXY	30X	31XY	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
99XY	D29	XY-GenXY	30XY	31X	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
99Y	D29	Y-GenXY	30Y	31S	1	6	0.75	0.5	0.5 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
100P	D30	XY-Symmetry	31S	32X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
100X	D30	X-GenXY	31X	32P	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
100XY	D30	XY-GenXY	31XY	32Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
100Y	D30	Y-GenXY	31Y	32XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
101P	D30	XY-Symmetry	31S	32Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
101X	D30	X-GenXY	31X	32XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
101XY	D30	XY-GenXY	31XY	32X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
101Y	D30	Y-GenXY	31Y	32P	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

102P	D31	XY-Symmetry	32P	33X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
102X	D31	X-GenXY	32X	33S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
102XY	D31	XY-GenXY	32XY	33Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
102Y	D31	Y-GenXY	32Y	33XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
103P	D31	XY-Symmetry	32P	33Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
103X	D31	X-GenXY	32X	33XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
103XY	D31	XY-GenXY	32XY	33X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
103Y	D31	Y-GenXY	32Y	33S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	4	1	1	Long only	0	0	0	0	0
104P	D32	XY-Symmetry	33S	34X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
104X	D32	X-GenXY	33X	34S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
104XY	D32	XY-GenXY	33XY	34Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
104Y	D32	Y-GenXY	33Y	34XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
105P	D32	XY-Symmetry	33S	34Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
105X	D32	X-GenXY	33X	34XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
105XY	D32	XY-GenXY	33XY	34X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
105Y	D32	Y-GenXY	33Y	34S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
106P	D33	XY-Symmetry	34S	35X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
106X	D33	X-GenXY	34X	35S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
106XY	D33	XY-GenXY	34XY	35Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
106Y	D33	Y-GenXY	34Y	35XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
107P	D33	XY-Symmetry	34S	35Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
107X	D33	X-GenXY	34X	35XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
107XY	D33	XY-GenXY	34XY	35X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
107Y	D33	Y-GenXY	34Y	35S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
108P	D34	XY-Symmetry	35S	36X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
108X	D34	X-GenXY	35X	36S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
108XY	D34	XY-GenXY	35XY	36Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
108Y	D34	Y-GenXY	35Y	36XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
109P	D34	XY-Symmetry	35S	36Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
109X	D34	X-GenXY	35X	36XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
109XY	D34	XY-GenXY	35XY	36X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
109Y	D34	Y-GenXY	35Y	36S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
110P	D35	None	36S	372S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
111P	D35	None	372S	36Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
112P	D35	None	36Y	373S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
113P	D35	None	373S	36XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
114P	D35	None	36XY	374S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
115P	D35	None	374S	36X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
116P	D35	None	36X	371S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
117P	D35	None	371S	36S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
118P	D36	None	38S	372S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
119P	D36	None	372S	38Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
120P	D36	None	38Y	373S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
121P	D36	None	373S	38XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
122P	D36	None	38XY	374S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
123P	D36	None	374S	38X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
124P	D36	None	38X	371S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
125P	D36	None	371S	38S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
126P	D37	None	38S	392S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
127P	D37	None	392S	38Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
128P	D37	None	38Y	393S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
129P	D37	None	393S	38XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
130P	D37	None	38XY	394S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
131P	D37	None	394S	38X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
132P	D37	None	38X	391S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
133P	D37	None	391S	38S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

134P	D38	None	40S	392S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
135P	D38	None	392S	40Y	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
136P	D38	None	40Y	393S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
137P	D38	None	393S	40XY	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
138P	D38	None	40XY	394S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
139P	D38	None	394S	40X	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
140P	D38	None	40X	391S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
141P	D38	None	391S	40S	1	6	0.55	0.25	0.25 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
142P	D39	None	40S	412S	1	6	0.55	0.333	0.333 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
143P	D39	None	412S	40Y	1	6	0.55	0.333	0.333 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
144P	D39	None	40Y	413S	1	6	0.55	0.333	0.333 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
145P	D39	None	413S	40XY	1	6	0.55	0.333	0.333 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
146P	D39	None	40XY	414S	1	6	0.55	0.333	0.333 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
147P	D39	None	414S	40X	1	6	0.55	0.333	0.333 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
148P	D39	None	40X	411S	1	6	0.55	0.333	0.333 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
149P	D39	None	411S	40S	1	6	0.55	0.333	0.333 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
158P	D40	None	ANP	411S	1	6	0.55	0.143	0.143 5/8 A394	TYPE0 X	3	1	1	Long only	0	0	0	0	0
159P	D40	None	ANY	412S	1	6	0.55	0.143	0.143 5/8 A394	TYPE0 X	3	1	1	Long only	0	0	0	0	0
160P	D40	None	ANY	413S	1	6	0.55	0.143	0.143 5/8 A394	TYPE0 X	3	1	1	Long only	0	0	0	0	0
161P	D40	None	ANXY	413S	1	6	0.55	0.143	0.143 5/8 A394	TYPE0 X	3	1	1	Long only	0	0	0	0	0
162P	D40	None	ANXY	414S	1	6	0.55	0.143	0.143 5/8 A394	TYPE0 X	3	1	1	Long only	0	0	0	0	0
163P	D40	None	ANX	414S	1	6	0.55	0.143	0.143 5/8 A394	TYPE0 X	3	1	1	Long only	0	0	0	0	0
164P	D40	None	ANX	411S	1	6	0.55	0.143	0.143 5/8 A394	TYPE0 X	3	1	1	Long only	0	0	0	0	0
165P	D40	None	ANP	412S	1	6	0.55	0.143	0.143 5/8 A394	TYPE0 X	3	1	1	Long only	0	0	0	0	0
166P	H1	Y-Symmetry	1P	1X	1	6	1	1	1 5/8 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
166Y	H1	Y-Gen	1Y	1XY	1	6	1	1	1 5/8 A394	TYPE0 X	1	1	1	Long only	0	0	0	0	0
167P	H1	X-Symmetry	1P	1Y	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
167X	H1	X-Gen	1X	1XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1661P	H2	Y-Symmetry	3S	3X	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1661Y	H2	Y-Gen	3Y	3XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1671P	H2	X-Symmetry	3S	3Y	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1671X	H2	X-Gen	3X	3XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1662P	H3	Y-Symmetry	5S	5X	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1662Y	H3	Y-Gen	5Y	5XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1672P	H3	X-Symmetry	5S	5Y	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1672X	H3	X-Gen	5X	5XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1663P	H4	Y-Symmetry	7S	7X	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1663Y	H4	Y-Gen	7Y	7XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1674P	H4	X-Symmetry	7S	7Y	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1674X	H4	X-Gen	7X	7XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
168P	H5	Y-Symmetry	10P	10X	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
168Y	H5	Y-Gen	10Y	10XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
169P	H5	X-Symmetry	10P	10Y	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
169X	H5	X-Gen	10X	10XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
170P	H6	Y-Symmetry	11P	11X	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
170Y	H6	Y-Gen	11Y	11XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
171P	H6	X-Symmetry	11P	11Y	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
171X	H6	X-Gen	11X	11XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1701P	H7	Y-Symmetry	13S	13X	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1701Y	H7	Y-Gen	13Y	13XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1712P	H7	X-Symmetry	13S	13Y	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1712X	H7	X-Gen	13X	13XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1703P	H8	Y-Symmetry	15S	15X	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1703Y	H8	Y-Gen	15Y	15XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1714P	H8	X-Symmetry	15S	15Y	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0
1714X	H8	X-Gen	15X	15XY	1	6	1	1	1 5/8 A394	TYPE0 X	2	1	1	Long only	0	0	0	0	0



**INSTATel COLOMBIA CI
LTDA**

Carrera 124 No. 17-98
Fontibón - Bogotá - Phone: (57) 5470790

Job

EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA
ESTADO REFORZADO

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Project

TORRE CUADRADA AUTOSOPORTADA DE 150m

Date

17:07:07 03/17/10

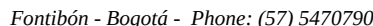
Client

TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA

Designed by

Leopoldo Barrera

1704P	H9	Y-Symmetry	17S	17X	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1704Y	H9	Y-Gen	17Y	17XY	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1705P	H9	X-Symmetry	17S	17Y	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1705X	H9	X-Gen	17X	17XY	1	6	1	1	1	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
172P	H10	Y-Symmetry	19P	19X	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
172Y	H10	Y-Gen	19Y	19XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1721P	H10	X-Symmetry	19P	19Y	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1721X	H10	X-Gen	19X	19XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1722P	H11	Y-Symmetry	20P	20X	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	3	1	1	Long only	0	0	0	0	0
1722Y	H11	Y-Gen	20Y	20XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	3	1	1	Long only	0	0	0	0	0
1723P	H11	X-Symmetry	20P	20Y	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	3	1	1	Long only	0	0	0	0	0
1723X	H11	X-Gen	20X	20XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	3	1	1	Long only	0	0	0	0	0
17231P	H12	Y-Symmetry	22S	22X	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17231Y	H12	Y-Gen	22Y	22XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17241P	H12	X-Symmetry	22S	22Y	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17241X	H12	X-Gen	22X	22XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17251P	H13	Y-Symmetry	24S	24X	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17251Y	H13	Y-Gen	24Y	24XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1726P	H13	X-Symmetry	24S	24Y	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1726X	H13	X-Gen	24X	24XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17252P	H14	Y-Symmetry	26S	26X	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17252Y	H14	Y-Gen	26Y	26XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17261P	H14	X-Symmetry	26S	26Y	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17261X	H14	X-Gen	26X	26XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17253P	H15	Y-Symmetry	28S	28X	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17253Y	H15	Y-Gen	28Y	28XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17262P	H15	X-Symmetry	28S	28Y	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17262X	H15	X-Gen	28X	28XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17254P	H16	Y-Symmetry	30S	30X	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17254Y	H16	Y-Gen	30Y	30XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17263P	H16	X-Symmetry	30S	30Y	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17263X	H16	X-Gen	30X	30XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17255P	H17	Y-Symmetry	31S	31X	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17255Y	H17	Y-Gen	31Y	31XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17264P	H17	X-Symmetry	31S	31Y	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17264X	H17	X-Gen	31X	31XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1724P	H18	Y-Symmetry	32P	32X	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1724Y	H18	Y-Gen	32Y	32XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1725P	H18	X-Symmetry	32P	32Y	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1725X	H18	X-Gen	32X	32XY	1	6	0.5	0.5	0.5	5/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1728P	H19	Y-Symmetry	33S	33X	1	6	0.5	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1728Y	H19	Y-Gen	33Y	33XY	1	6	0.5	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1727P	H19	X-Symmetry	33S	33Y	1	6	0.5	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1727X	H19	X-Gen	33X	33XY	1	6	0.5	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1729P	H20	Y-Symmetry	34S	34X	1	6	0.5	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1729Y	H20	Y-Gen	34Y	34XY	1	6	0.5	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1720P	H20	X-Symmetry	34S	34Y	1	6	0.5	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
1720X	H20	X-Gen	34X	34XY	1	6	0.5	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17291P	H21	Y-Symmetry	35S	35X	1	6	0.25	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17291Y	H21	Y-Gen	35Y	35XY	1	6	0.25	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17201P	H21	X-Symmetry	35S	35Y	1	6	0.25	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17201X	H21	X-Gen	35X	35XY	1	6	0.25	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17292P	H22	Y-Symmetry	36S	36X	1	6	0.25	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17292Y	H22	Y-Gen	36Y	36XY	1	6	0.25	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17202P	H22	X-Symmetry	36S	36Y	1	6	0.25	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0
17202X	H22	X-Gen	36X	36XY	1	6	0.25	0.25	0.25	25/8	A394	TYPE0	X	2	1	1	Long only	0	0	0	0	0



TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA

Leopoldo Barrera

Member Label	Group Label	Design Comp. Capacity	Comp. Control Criterion	Design Tension Capacity	Tension Control Criterion	L/r Length		L/r Comp. Capacity	Connection Shear Capacity	Connection Bearing Capacity	Net Section Tension Capacity	Rupture Tension Capacity	RTE End Dist. Tension Capacity	RTE Edge Dist. Tension Capacity	Override Comp. Capacity	Override Comp. Control Criterion	Override Tension Capacity	Override Tension Control Criterion	Override Face Member ship	Warnings or Errors
		(kN)		(kN)			(m)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)		(kN)			
1P	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000		Automatic	
1X	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000		Automatic	
1XY	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000	0.000		0.000		Automatic	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	Project	Date
	Client	Designed by
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	22 of 134
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

1Y	M1	196.594	L/r	294.374	Net Sect	82	3.21	196.594	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
2P	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
2X	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
2XY	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
2Y	M1	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
3P	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
3X	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
3XY	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
3Y	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
4P	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
4X	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
4XY	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
4Y	M2	233.161	L/r	294.374	Net Sect	64	2.50	233.161	752.639	650.551	294.374	0.000	0.000	0.000	0.000	0.000	Automatic
5P	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
5X	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
5XY	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
5Y	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	752.639	650.551	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
6P	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
6X	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
6XY	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
6Y	M3	373.558	L/r	438.941	Net Sect	45	2.50	373.558	878.079	758.976	438.941	0.000	0.000	0.000	0.000	0.000	Automatic
7P	M4	712.242	L/r	758.976	Bearing	34	2.00	712.242	878.079	758.976	888.575	0.000	0.000	0.000	0.000	0.000	Automatic
7X	M4	712.242	L/r	758.976	Bearing	34	2.00	712.242	878.079	758.976	888.575	0.000	0.000	0.000	0.000	0.000	Automatic
7XY	M4	712.242	L/r	758.976	Bearing	34	2.00	712.242	878.079	758.976	888.575	0.000	0.000	0.000	0.000	0.000	Automatic
7Y	M4	712.242	L/r	758.976	Bearing	34	2.00	712.242	878.079	758.976	888.575	0.000	0.000	0.000	0.000	0.000	Automatic
8P	M4	733.836	L/r	758.976	Bearing	27	1.57	733.836	878.079	758.976	888.575	0.000	0.000	0.000	0.000	0.000	Automatic
8X	M4	733.836	L/r	758.976	Bearing	27	1.57	733.836	878.079	758.976	888.575	0.000	0.000	0.000	0.000	0.000	Automatic
8XY	M4	733.836	L/r	758.976	Bearing	27	1.57	733.836	878.079	758.976	888.575	0.000	0.000	0.000	0.000	0.000	Automatic
8Y	M4	733.836	L/r	758.976	Bearing	27	1.57	733.836	878.079	758.976	888.575	0.000	0.000	0.000	0.000	0.000	Automatic
9P	M5	878.079	Shear	878.079	Shear	34	4.10	1146.974	878.079	1138.464	1248.720	0.000	0.000	0.000	0.000	0.000	Automatic
9X	M5	878.079	Shear	878.079	Shear	34	4.10	1146.974	878.079	1138.464	1248.720	0.000	0.000	0.000	0.000	0.000	Automatic
9XY	M5	878.079	Shear	878.079	Shear	34	4.10	1146.974	878.079	1138.464	1248.720	0.000	0.000	0.000	0.000	0.000	Automatic
9Y	M5	878.079	Shear	878.079	Shear	34	4.10	1146.974	878.079	1138.464	1248.720	0.000	0.000	0.000	0.000	0.000	Automatic
10P	M6	878.079	Shear	878.079	Shear	48	2.89	1062.617	878.079	1138.464	1248.720	0.000	0.000	0.000	0.000	0.000	Automatic
10X	M6	878.079	Shear	878.079	Shear	48	2.89	1062.617	878.079	1138.464	1248.720	0.000	0.000	0.000	0.000	0.000	Automatic
10XY	M6	878.079	Shear	878.079	Shear	48	2.89	1062.617	878.079	1138.464	1248.720	0.000	0.000	0.000	0.000	0.000	Automatic
10Y	M6	878.079	Shear	878.079	Shear	48	2.89	1062.617	878.079	1138.464	1248.720	0.000	0.000	0.000	0.000	0.000	Automatic
11P	M6	878.079	Shear	878.079	Shear	41	2.50	1103.402	878.079	1138.464	1248.720	0.000	0.000	0.000	0.000	0.000	Automatic
11X	M6	878.079	Shear	878.079	Shear	41	2.50	1103.402	878.079	1138.464	1248.720	0.000	0.000	0.000	0.000	0.000	Automatic
11XY	M6	878.079	Shear	878.079	Shear	41	2.50	1103.402	878.079	1138.464	1248.720	0.000	0.000	0.000	0.000	0.000	Automatic
11Y	M6	878.079	Shear	878.079	Shear	41	2.50	1103.402	878.079	1138.464	1248.720	0.000	0.000	0.000	0.000	0.000	Automatic
12P	M7	878.079	Shear	878.079	Shear	42	2.50	993.810	878.079	948.720	1136.655	0.000	0.000	0.000	0.000	0.000	Automatic
12X	M7	878.079	Shear	878.079	Shear	42	2.50	993.810	878.079	948.720	1136.655	0.000	0.000	0.000	0.000	0.000	Automatic
12XY	M7	878.079	Shear	878.079	Shear	42	2.50	993.810	878.079	948.720	1136.655	0.000	0.000	0.000	0.000	0.000	Automatic
12Y	M7	878.079	Shear	878.079	Shear	42	2.50	993.810	878.079	948.720	1136.655	0.000	0.000	0.000	0.000	0.000	Automatic
13P	M7	878.079	Shear	878.079	Shear	42	2.50	993.810	878.079	948.720	1136.655	0.000	0.000	0.000	0.000	0.000	Automatic
13X	M7	878.079	Shear	878.079	Shear	42	2.50	993.810	878.079	948.720	1136.655	0.000	0.000	0.000	0.000	0.000	Automatic
13XY	M7	878.079	Shear	878.079	Shear	42	2.50	993.810	878.079	948.720	1136.655	0.000	0.000	0.000	0.000	0.000	Automatic
13Y	M7	878.079	Shear	878.079	Shear	42	2.50	993.810	878.079	948.720	1136.655	0.000	0.000	0.000	0.000	0.000	Automatic
14P	M8	993.810	L/r	1114.067	Net Sect	42	2.50	993.810	2161.836	1951.652	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
14X	M8	993.810	L/r	1114.067	Net Sect	42	2.50	993.810	2161.836	1951.652	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
14XY	M8	993.810	L/r	1114.067	Net Sect	42	2.50	993.810	2161.836	1951.652	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
14Y	M8	993.810	L/r	1114.067	Net Sect	42	2.50	993.810	2161.836	1951.652	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
15P	M8	993.810	L/r	1114.067	Net Sect	42	2.50	993.810	2161.836	1951.652	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
15X	M8	993.810	L/r	1114.067	Net Sect	42	2.50	993.810	2161.836	1951.652	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
15XY	M8	993.810	L/r	1114.067	Net Sect	42	2.50	993.810	2161.836	1951.652	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	23 of 134
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

15Y	M8	993.810	L/r	1114.067	Net Sect	42	2.50	993.810	2161.836	1951.652	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
16P	M9	1037.636	L/r	1114.067	Net Sect	33	2.00	1037.636	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
16X	M9	1037.636	L/r	1114.067	Net Sect	33	2.00	1037.636	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
16XY	M9	1037.636	L/r	1114.067	Net Sect	33	2.00	1037.636	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
16Y	M9	1037.636	L/r	1114.067	Net Sect	33	2.00	1037.636	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
17P	M9	1070.965	L/r	1114.067	Net Sect	26	1.58	1070.965	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
17X	M9	1070.965	L/r	1114.067	Net Sect	26	1.58	1070.965	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
17XY	M9	1070.965	L/r	1114.067	Net Sect	26	1.58	1070.965	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
17Y	M9	1070.965	L/r	1114.067	Net Sect	26	1.58	1070.965	1801.530	1626.377	1114.067	0.000	0.000	0.000	0.000	0.000	Automatic
18P	M10	906.746	L/r	1086.718	Net Sect	56	6.68	906.746	1261.071	1366.156	1086.718	0.000	0.000	0.000	0.000	0.000	Automatic
18X	M10	906.746	L/r	1086.718	Net Sect	56	6.68	906.746	1261.071	1366.156	1086.718	0.000	0.000	0.000	0.000	0.000	Automatic
18XY	M10	906.746	L/r	1086.718	Net Sect	56	6.68	906.746	1261.071	1366.156	1086.718	0.000	0.000	0.000	0.000	0.000	Automatic
18Y	M10	906.746	L/r	1086.718	Net Sect	56	6.68	906.746	1261.071	1366.156	1086.718	0.000	0.000	0.000	0.000	0.000	Automatic
19P	M11	905.756	L/r	1018.374	Net Sect	48	2.80	905.756	1261.071	1366.156	1018.374	0.000	0.000	0.000	0.000	0.000	Automatic
19X	M11	905.756	L/r	1018.374	Net Sect	48	2.80	905.756	1261.071	1366.156	1018.374	0.000	0.000	0.000	0.000	0.000	Automatic
19XY	M11	905.756	L/r	1018.374	Net Sect	48	2.80	905.756	1261.071	1366.156	1018.374	0.000	0.000	0.000	0.000	0.000	Automatic
19Y	M11	905.756	L/r	1018.374	Net Sect	48	2.80	905.756	1261.071	1366.156	1018.374	0.000	0.000	0.000	0.000	0.000	Automatic
20P	M11	905.756	L/r	1018.374	Net Sect	48	2.80	905.756	1261.071	1366.156	1018.374	0.000	0.000	0.000	0.000	0.000	Automatic
20X	M11	905.756	L/r	1018.374	Net Sect	48	2.80	905.756	1261.071	1366.156	1018.374	0.000	0.000	0.000	0.000	0.000	Automatic
20XY	M11	905.756	L/r	1018.374	Net Sect	48	2.80	905.756	1261.071	1366.156	1018.374	0.000	0.000	0.000	0.000	0.000	Automatic
20Y	M11	905.756	L/r	1018.374	Net Sect	48	2.80	905.756	1261.071	1366.156	1018.374	0.000	0.000	0.000	0.000	0.000	Automatic
21P	M12	1261.071	Shear	1261.071	Shear	37	2.70	1280.273	1261.071	1366.156	1412.081	0.000	0.000	0.000	0.000	0.000	Automatic
21X	M12	1261.071	Shear	1261.071	Shear	37	2.70	1280.273	1261.071	1366.156	1412.081	0.000	0.000	0.000	0.000	0.000	Automatic
21XY	M12	1261.071	Shear	1261.071	Shear	37	2.70	1280.273	1261.071	1366.156	1412.081	0.000	0.000	0.000	0.000	0.000	Automatic
21Y	M12	1261.071	Shear	1261.071	Shear	37	2.70	1280.273	1261.071	1366.156	1412.081	0.000	0.000	0.000	0.000	0.000	Automatic
22P	M12	1261.071	Shear	1261.071	Shear	37	2.70	1280.273	1261.071	1366.156	1412.081	0.000	0.000	0.000	0.000	0.000	Automatic
22X	M12	1261.071	Shear	1261.071	Shear	37	2.70	1280.273	1261.071	1366.156	1412.081	0.000	0.000	0.000	0.000	0.000	Automatic
22XY	M12	1261.071	Shear	1261.071	Shear	37	2.70	1280.273	1261.071	1366.156	1412.081	0.000	0.000	0.000	0.000	0.000	Automatic
22Y	M12	1261.071	Shear	1261.071	Shear	37	2.70	1280.273	1261.071	1366.156	1412.081	0.000	0.000	0.000	0.000	0.000	Automatic
23P	M13	1441.224	Shear	1441.224	Shear	35	2.80	1806.282	1441.224	2081.762	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
23X	M13	1441.224	Shear	1441.224	Shear	35	2.80	1806.282	1441.224	2081.762	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
23XY	M13	1441.224	Shear	1441.224	Shear	35	2.80	1806.282	1441.224	2081.762	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
23Y	M13	1441.224	Shear	1441.224	Shear	35	2.80	1806.282	1441.224	2081.762	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
24P	M13	1441.224	Shear	1441.224	Shear	35	2.80	1806.282	1441.224	2081.762	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
24X	M13	1441.224	Shear	1441.224	Shear	35	2.80	1806.282	1441.224	2081.762	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
24XY	M13	1441.224	Shear	1441.224	Shear	35	2.80	1806.282	1441.224	2081.762	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
24Y	M13	1441.224	Shear	1441.224	Shear	35	2.80	1806.282	1441.224	2081.762	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
25P	M14	1621.377	Shear	1621.377	Shear	35	2.80	1806.282	1621.377	2341.982	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
25X	M14	1621.377	Shear	1621.377	Shear	35	2.80	1806.282	1621.377	2341.982	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
25XY	M14	1621.377	Shear	1621.377	Shear	35	2.80	1806.282	1621.377	2341.982	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
25Y	M14	1621.377	Shear	1621.377	Shear	35	2.80	1806.282	1621.377	2341.982	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
26P	M14	1621.377	Shear	1621.377	Shear	35	2.80	1806.282	1621.377	2341.982	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
26X	M14	1621.377	Shear	1621.377	Shear	35	2.80	1806.282	1621.377	2341.982	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
26XY	M14	1621.377	Shear	1621.377	Shear	35	2.80	1806.282	1621.377	2341.982	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
26Y	M14	1621.377	Shear	1621.377	Shear	35	2.80	1806.282	1621.377	2341.982	1984.133	0.000	0.000	0.000	0.000	0.000	Automatic
27P	M15	1812.000	L/r	1947.992	Net Sect	35	2.75	1812.000	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
27X	M15	1812.000	L/r	1947.992	Net Sect	35	2.75	1812.000	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
27XY	M15	1812.000	L/r	1947.992	Net Sect	35	2.75	1812.000	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
27Y	M15	1812.000	L/r	1947.992	Net Sect	35	2.75	1812.000	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
28P	M15	1812.000	L/r	1947.992	Net Sect	35	2.75	1812.000	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
28X	M15	1812.000	L/r	1947.992	Net Sect	35	2.75	1812.000	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
28XY	M15	1812.000	L/r	1947.992	Net Sect	35	2.75	1812.000	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
28Y	M15	1812.000	L/r	1947.992	Net Sect	35	2.75	1812.000	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
29P	M16	1817.673	L/r	1947.992	Net Sect	34	2.70	1817.673	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
29X	M16	1817.673	L/r	1947.992	Net Sect	34	2.70	1817.673	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
29XY	M16	1817.673	L/r	1947.992	Net Sect	34	2.70	1817.673	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	24 of 134
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

29Y	M16	1817.673	L/r	1947.992	Net Sect	34	2.70	1817.673	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
30P	M17	1949.468	L/r	2059.520	Shear	35	5.67	1949.468	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
30X	M17	1949.468	L/r	2059.520	Shear	35	5.67	1949.468	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
30XY	M17	1949.468	L/r	2059.520	Shear	35	5.67	1949.468	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
30Y	M17	1949.468	L/r	2059.520	Shear	35	5.67	1949.468	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
31P	M18	1903.600	L/r	2059.520	Shear	40	6.42	1903.600	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
31X	M18	1903.600	L/r	2059.520	Shear	40	6.42	1903.600	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
31XY	M18	1903.600	L/r	2059.520	Shear	40	6.42	1903.600	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
31Y	M18	1903.600	L/r	2059.520	Shear	40	6.42	1903.600	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
32P	M19	1924.265	L/r	2059.520	Shear	38	6.09	1924.265	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
32X	M19	1924.265	L/r	2059.520	Shear	38	6.09	1924.265	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
32XY	M19	1924.265	L/r	2059.520	Shear	38	6.09	1924.265	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
32Y	M19	1924.265	L/r	2059.520	Shear	38	6.09	1924.265	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
33P	M20	1924.265	L/r	2059.520	Shear	38	6.09	1924.265	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
33X	M20	1924.265	L/r	2059.520	Shear	38	6.09	1924.265	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
33XY	M20	1924.265	L/r	2059.520	Shear	38	6.09	1924.265	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
33Y	M20	1924.265	L/r	2059.520	Shear	38	6.09	1924.265	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
34P	M21	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
34X	M21	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
34XY	M21	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
34Y	M21	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
35P	M22	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
35X	M22	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
35XY	M22	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
35Y	M22	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
36P	M23	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
36X	M23	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
36XY	M23	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
36Y	M23	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
37P	M24	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
37X	M24	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
37XY	M24	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
37Y	M24	1777.701	L/r	1947.992	Net Sect	39	6.09	1777.701	2059.520	3035.903	1947.992	0.000	0.000	0.000	0.000	0.000	Automatic
38P	M25	1924.265	L/r	2059.520	Shear	38	6.09	1924.265	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
38X	M25	1924.265	L/r	2059.520	Shear	38	6.09	1924.265	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
38XY	M25	1924.265	L/r	2059.520	Shear	38	6.09	1924.265	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
38Y	M25	1924.265	L/r	2059.520	Shear	38	6.09	1924.265	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
39P	M26	1788.309	L/r	2059.520	Shear	50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
39X	M26	1788.309	L/r	2059.520	Shear	50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
39XY	M26	1788.309	L/r	2059.520	Shear	50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
39Y	M26	1788.309	L/r	2059.520	Shear	50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
40P	M27	1788.309	L/r	2059.520	Shear	50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
40X	M27	1788.309	L/r	2059.520	Shear	50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
40XY	M27	1788.309	L/r	2059.520	Shear	50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
40Y	M27	1788.309	L/r	2059.520	Shear	50	6.09	1788.309	2059.520	3035.903	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
41P	M28	1936.735	L/r	2118.964	Net Sect	36	5.89	1936.735	2265.472	3339.493	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
41X	M28	1936.735	L/r	2118.964	Net Sect	36	5.89	1936.735	2265.472	3339.493	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
41XY	M28	1936.735	L/r	2118.964	Net Sect	36	5.89	1936.735	2265.472	3339.493	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
41Y	M28	1936.735	L/r	2118.964	Net Sect	36	5.89	1936.735	2265.472	3339.493	2118.964	0.000	0.000	0.000	0.000	0.000	Automatic
42P	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
42X	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
42XY	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
42Y	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
43P	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
43X	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
43XY	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic

 INSTATEL COLOMBIA CI LTD Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	25 of 134
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

43Y	D1	9.821	L/r	30.915	Shear	233	3.46	9.821	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
44P	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
44X	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
44XY	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
44Y	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
45P	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
45X	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
45XY	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
45Y	D2	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
46P	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
46X	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
46XY	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
46Y	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
47P	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
47X	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
47XY	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
47Y	D3	13.312	L/r	30.915	Shear	189	2.82	13.312	30.915	32.528	46.030	0.000	0.000	0.000	0.000	0.000	Automatic
48P	D4	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
48X	D4	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
48XY	D4	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
48Y	D4	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
49P	D4	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
49X	D4	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
49XY	D4	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
49Y	D4	18.324	L/r	21.685	Bearing	139	2.82	18.324	30.915	21.685	44.420	0.000	0.000	0.000	0.000	0.000	Automatic
50P	D5	26.750	L/r	30.915	Shear	141	2.82	26.750	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
50X	D5	26.750	L/r	30.915	Shear	141	2.82	26.750	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
50XY	D5	26.750	L/r	30.915	Shear	141	2.82	26.750	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
50Y	D5	26.750	L/r	30.915	Shear	141	2.82	26.750	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
51P	D5	26.750	L/r	30.915	Shear	141	2.82	26.750	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
51X	D5	26.750	L/r	30.915	Shear	141	2.82	26.750	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
51XY	D5	26.750	L/r	30.915	Shear	141	2.82	26.750	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
51Y	D5	26.750	L/r	30.915	Shear	141	2.82	26.750	30.915	32.528	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
52P	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
52X	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
52XY	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
52Y	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
53P	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
53X	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
53XY	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
53Y	D6	47.716	L/r	61.830	Shear	112	2.82	47.716	61.830	65.055	86.364	0.000	0.000	0.000	0.000	0.000	Automatic
54P	D7	33.205	L/r	61.830	Shear	119	2.39	33.205	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
54X	D7	33.205	L/r	61.830	Shear	119	2.39	33.205	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
54XY	D7	33.205	L/r	61.830	Shear	119	2.39	33.205	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
54Y	D7	33.205	L/r	61.830	Shear	119	2.39	33.205	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
55P	D7	33.205	L/r	61.830	Shear	119	2.39	33.205	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
55X	D7	33.205	L/r	61.830	Shear	119	2.39	33.205	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
55XY	D7	33.205	L/r	61.830	Shear	119	2.39	33.205	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
55Y	D7	33.205	L/r	61.830	Shear	119	2.39	33.205	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
56P	D8	45.091	L/r	61.830	Shear	102	2.04	45.091	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
56X	D8	45.091	L/r	61.830	Shear	102	2.04	45.091	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
56XY	D8	45.091	L/r	61.830	Shear	102	2.04	45.091	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
56Y	D8	45.091	L/r	61.830	Shear	102	2.04	45.091	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
57P	D8	45.091	L/r	61.830	Shear	102	2.04	45.091	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
57X	D8	45.091	L/r	61.830	Shear	102	2.04	45.091	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
57XY	D8	45.091	L/r	61.830	Shear	102	2.04	45.091	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic



**INSTATEL COLOMBIA CI
LTDA**
Carrera 124 No. 17-98
Fontibón - Bogotá - Phone: (57) 5470790

Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO
Project	TORRE CUADRADA AUTOSOPORTADA DE 150m
Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA

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Date	17:07:07 03/17/10
Designed by	Leopoldo Barrera

57Y	D8	45.091	L/r	61.830	Shear	102	2.04	45.091	61.830	65.055	65.546	0.000	0.000	0.000	0.000	0.000	Automatic
58P	D9	47.004	L/r	61.830	Shear	156	4.45	47.004	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
58X	D9	47.004	L/r	61.830	Shear	156	4.45	47.004	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
58XY	D9	47.004	L/r	61.830	Shear	156	4.45	47.004	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
58Y	D9	47.004	L/r	61.830	Shear	156	4.45	47.004	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
59P	D9	47.004	L/r	61.830	Shear	156	4.45	47.004	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
59X	D9	47.004	L/r	61.830	Shear	156	4.45	47.004	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
59XY	D9	47.004	L/r	61.830	Shear	156	4.45	47.004	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
59Y	D9	47.004	L/r	61.830	Shear	156	4.45	47.004	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
60P	D10	61.830	Shear	61.830	Shear	140	3.68	68.496	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
60X	D10	61.830	Shear	61.830	Shear	140	3.68	68.496	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
60XY	D10	61.830	Shear	61.830	Shear	140	3.68	68.496	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
60Y	D10	61.830	Shear	61.830	Shear	140	3.68	68.496	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
61P	D10	61.830	Shear	61.830	Shear	140	3.68	68.496	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
61X	D10	61.830	Shear	61.830	Shear	140	3.68	68.496	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
61XY	D10	61.830	Shear	61.830	Shear	140	3.68	68.496	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
61Y	D10	61.830	Shear	61.830	Shear	140	3.68	68.496	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
62P	D11	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
62X	D11	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
62XY	D11	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
62Y	D11	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
63P	D11	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
63X	D11	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
63XY	D11	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
63Y	D11	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
64P	D12	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
64X	D12	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
64XY	D12	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
64Y	D12	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
65P	D12	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
65X	D12	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
65XY	D12	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
65Y	D12	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
66P	D13	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
66X	D13	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
66XY	D13	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
66Y	D13	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
67P	D13	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
67X	D13	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
67XY	D13	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
67Y	D13	44.694	L/r	61.830	Shear	162	3.38	44.694	61.830	130.110	143.612	0.000	0.000	0.000	0.000	0.000	Automatic
68P	D14	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
68X	D14	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
68XY	D14	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
68Y	D14	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
69P	D14	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
69X	D14	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
69XY	D14	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
69Y	D14	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
70P	D15	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
70X	D15	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
70XY	D15	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
70Y	D15	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
71P	D15	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
71X	D15	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
71XY	D15	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic



D15	61.830	Shear	61.830	Shear	128	3.38	76.308	61.830	130.110	183.730	0.000	0.000	0.000	0.000	0.000	Automatic
72P	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
72X	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
72XY	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
72Y	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
73P	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
73X	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
73XY	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
73Y	D16	51.764	L/r	61.830	Shear	145	3.03	51.764	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
74P	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
74X	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
74XY	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
74Y	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
75P	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
75X	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
75XY	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
75Y	D17	58.120	L/r	61.830	Shear	133	2.77	58.120	61.830	130.110	143.612	0.000	0.000	0.000	0.000	Automatic
76P	D18	250.880	Shear	250.880	Shear	94	7.47	267.776	250.880	433.700	369.323	0.000	0.000	0.000	0.000	Automatic
76X	D18	250.880	Shear	250.880	Shear	94	7.47	267.776	250.880	433.700	369.323	0.000	0.000	0.000	0.000	Automatic
76XY	D18	250.880	Shear	250.880	Shear	94	7.47	267.776	250.880	433.700	369.323	0.000	0.000	0.000	0.000	Automatic
76Y	D18	250.880	Shear	250.880	Shear	94	7.47	267.776	250.880	433.700	369.323	0.000	0.000	0.000	0.000	Automatic
77P	D18	250.880	Shear	250.880	Shear	94	7.47	267.776	250.880	433.700	369.323	0.000	0.000	0.000	0.000	Automatic
77X	D18	250.880	Shear	250.880	Shear	94	7.47	267.776	250.880	433.700	369.323	0.000	0.000	0.000	0.000	Automatic
77XY	D18	250.880	Shear	250.880	Shear	94	7.47	267.776	250.880	433.700	369.323	0.000	0.000	0.000	0.000	Automatic
77Y	D18	250.880	Shear	250.880	Shear	94	7.47	267.776	250.880	433.700	369.323	0.000	0.000	0.000		

[illegible]



Carrera 124 No. 17-98
Fontibón - Bogotá - Phone: (57) 5470790

Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO
Project	TORRE CUADRADA AUTOSOPORTADA DE 150m
Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA

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Date
17:07:07 03/17/10

Designed by
Leopoldo Barrera

99Y	D29	91.662	L/r	125.440	Shear	139	5.60	91.662	125.440	135.531	236.925	0.000	0.000	0.000	0.000	0.000	Automatic
100P	D30	250.880	Shear	250.880	Shear	105	7.50	283.477	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
100X	D30	250.880	Shear	250.880	Shear	105	7.50	283.477	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
100XY	D30	250.880	Shear	250.880	Shear	105	7.50	283.477	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
100Y	D30	250.880	Shear	250.880	Shear	105	7.50	283.477	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
101P	D30	250.880	Shear	250.880	Shear	105	7.50	283.477	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
101X	D30	250.880	Shear	250.880	Shear	105	7.50	283.477	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
101XY	D30	250.880	Shear	250.880	Shear	105	7.50	283.477	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
101Y	D30	250.880	Shear	250.880	Shear	105	7.50	283.477	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
102P	D31	219.214	L/r	250.880	Shear	120	8.53	219.214	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
102X	D31	219.214	L/r	250.880	Shear	120	8.53	219.214	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
102XY	D31	219.214	L/r	250.880	Shear	120	8.53	219.214	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
102Y	D31	219.214	L/r	250.880	Shear	120	8.53	219.214	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
103P	D31	219.214	L/r	250.880	Shear	120	8.53	219.214	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
103X	D31	219.214	L/r	250.880	Shear	120	8.53	219.214	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
103XY	D31	219.214	L/r	250.880	Shear	120	8.53	219.214	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
103Y	D31	219.214	L/r	250.880	Shear	120	8.53	219.214	250.880	433.700	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
104P	D32	112.776	L/r	125.440	Shear	167	9.38	112.776	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
104X	D32	112.776	L/r	125.440	Shear	167	9.38	112.776	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
104XY	D32	112.776	L/r	125.440	Shear	167	9.38	112.776	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
104Y	D32	112.776	L/r	125.440	Shear	167	9.38	112.776	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
105P	D32	112.776	L/r	125.440	Shear	167	9.38	112.776	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
105X	D32	112.776	L/r	125.440	Shear	167	9.38	112.776	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic

 INSTATel COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	30 of 134
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

125P	D36	89.936	L/r	125.440	Shear	161	9.16	89.936	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
126P	D37	89.936	L/r	125.440	Shear	161	9.16	89.936	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
127P	D37	89.936	L/r	125.440	Shear	161	9.16	89.936	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
128P	D37	89.936	L/r	125.440	Shear	161	9.16	89.936	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
129P	D37	89.936	L/r	125.440	Shear	161	9.16	89.936	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
130P	D37	89.936	L/r	125.440	Shear	161	9.16	89.936	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
131P	D37	89.936	L/r	125.440	Shear	161	9.16	89.936	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
132P	D37	89.936	L/r	125.440	Shear	161	9.16	89.936	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
133P	D37	89.936	L/r	125.440	Shear	161	9.16	89.936	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
134P	D38	76.368	L/r	125.440	Shear	181	10.30	76.368	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
135P	D38	76.368	L/r	125.440	Shear	181	10.30	76.368	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
136P	D38	76.368	L/r	125.440	Shear	181	10.30	76.368	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
137P	D38	76.368	L/r	125.440	Shear	181	10.30	76.368	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
138P	D38	76.368	L/r	125.440	Shear	181	10.30	76.368	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
139P	D38	76.368	L/r	125.440	Shear	181	10.30	76.368	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
140P	D38	76.368	L/r	125.440	Shear	181	10.30	76.368	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
141P	D38	76.368	L/r	125.440	Shear	181	10.30	76.368	125.440	162.638	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
142P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
143P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
144P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
145P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
146P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
147P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
148P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
149P	D39	98.982	L/r	125.440	Shear	183	10.30	98.982	125.440	216.850	369.323	0.000	0.000	0.000	0.000	0.000	Automatic
158P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
159P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
160P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
161P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
162P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
163P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
164P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
165P	D40	93.797	L/r	188.160	Shear	223	15.87	93.797	188.160	325.275	477.748	0.000	0.000	0.000	0.000	0.000	Automatic
166P	H1	14.917	L/r	40.659	Bearing	175	1.30	14.917	62.720	40.659	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
166Y	H1	14.917	L/r	40.659	Bearing	175	1.30	14.917	62.720	40.659	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
167P	H1	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
167X	H1	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1661P	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1661Y	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1671P	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1671X	H2	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1662P	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1662Y	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1672P	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1672X	H3	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1663P	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1663Y	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1674P	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
1674X	H4	14.917	L/r	43.489	Net Sect	175	1.30	14.917	125.440	81.319	43.489	0.000	0.000	0.000	0.000	0.000	Automatic
168P	H5	29.665	L/r	63.005	Net Sect	130	1.30	29.665	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
168Y	H5	29.665	L/r	63.005	Net Sect	130	1.30	29.665	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
169P	H5	29.665	L/r	63.005	Net Sect	130	1.30	29.665	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
169X	H5	29.665	L/r	63.005	Net Sect	130	1.30	29.665	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
170P	H6	49.188	L/r	108.425	Bearing	152	2.28	49.188	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
170Y	H6	49.188	L/r	108.425	Bearing	152	2.28	49.188	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
171P	H6	49.188	L/r	108.425	Bearing	152	2.28	49.188	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic

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171X	H6	49.188	L/r	108.425	Bearing	152	2.28	49.188	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
1701P	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1701Y	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1712P	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1712X	H7	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1703P	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1703Y	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1714P	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1714X	H8	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1704P	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1704Y	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1705P	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
1705X	H9	13.587	L/r	63.005	Net Sect	228	2.28	13.587	125.440	81.319	63.005	0.000	0.000	0.000	0.000	0.000	Automatic
172P	H10	108.425	Bearing	108.425	Bearing	76	2.28	127.059	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
172Y	H10	108.425	Bearing	108.425	Bearing	76	2.28	127.059	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
1721P	H10	108.425	Bearing	108.425	Bearing	76	2.28	127.059	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
1721X	H10	108.425	Bearing	108.425	Bearing	76	2.28	127.059	125.440	108.425	137.497	0.000	0.000	0.000	0.000	0.000	Automatic
1722P	H11	128.604	L/r	188.160	Shear	123	4.90	128.604	188.160	243.956	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
1722Y	H11	128.604	L/r	188.160	Shear	123	4.90	128.604	188.160	243.956	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
1723P	H11	128.604	L/r	188.160	Shear	123	4.90	128.604	188.160	243.956	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
1723X	H11	128.604	L/r	188.160	Shear	123	4.90	128.604	188.160	243.956	282.143	0.000	0.000	0.000	0.000	0.000	Automatic
17231P	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17231Y	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17241P	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17241X	H12	28.304	L/r	108.425	Bearing	197	4.90	28.304	125.440	108.425	110.390	0.000	0.000	0.000	0.000	0.000	Automatic
17251P	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17251Y	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
1726P	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
1726X	H13	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17252P	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17252Y	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17261P	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17261X	H14	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17253P	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17253Y	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17262P	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17262X	H15	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17254P	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17254Y	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17263P	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17263X	H16	64.676	L/r	108.425	Bearing	139	4.90	64.676	125.440	108.425	164.603	0.000	0.000	0.000	0.000	0.000	Automatic
17255P	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17255Y	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17264P	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17264X	H17	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1724P	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1724Y	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1725P	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1725X	H18	88.195	L/r	108.425	Bearing	121	4.90	88.195	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1728P	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1728Y	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1727P	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1727X	H19	108.425	Bearing	108.425	Bearing	102	6.45	119.442	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1729P	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1729Y	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
1720P	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic

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1720X	H20	85.473	L/r	108.425	Bearing	125	7.91	85.473	125.440	108.425	191.709	0.000	0.000	0.000	0.000	0.000	Automatic
17291P	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17291Y	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17201P	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17201X	H21	125.440	Shear	125.440	Shear	93	9.37	260.955	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17292P	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17292Y	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17202P	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17202X	H22	125.440	Shear	125.440	Shear	108	10.83	206.750	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
173P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
174P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
175P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
176P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
177P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
178P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
179P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
180P	H23	125.440	Shear	125.440	Shear	78	6.15	313.027	125.440	162.638	363.462	0.000	0.000	0.000	0.000	0.000	Automatic
17293P	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17293Y	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17203P	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17203X	H24	125.440	Shear	125.440	Shear	114	13.76	223.518	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
181P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
182P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
183P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
184P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
185P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
186P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
187P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
188P	H25	125.440	Shear	125.440	Shear	80	7.61	336.759	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17294P	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17294Y	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17204P	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
17204X	H26	125.440	Shear	125.440	Shear	138	16.68	168.624	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
189P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
190P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
191P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
192P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
193P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
194P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
195P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
196P	H27	125.440	Shear	125.440	Shear	95	9.07	289.154	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
205P	H26	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
206P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
207P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
208P	H27	92.735	L/r	125.440	Shear	212	12.83	92.735	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
209P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
210P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
211P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
212P	H27	119.492	L/r	125.440	Shear	178	10.76	119.492	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
213P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
214P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
215P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic
216P	H27	125.440	Shear	125.440	Shear	144	8.69	159.752	125.440	162.638	444.781	0.000	0.000	0.000	0.000	0.000	Automatic

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Section Joint Joint
Label Label Elevation
(m)

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1 1P 150.911
1 2S 147.700
1 1X 150.911
1 2X 147.700
1 1XY 150.911
1 2XY 147.700
1 1Y 150.911
1 2Y 147.700
1 3S 145.200
1 3X 145.200
1 3XY 145.200
1 3Y 145.200
2 3S 145.200
2 4S 142.700
2 3X 145.200
2 4X 142.700
2 3XY 145.200
2 4XY 142.700
2 3Y 145.200
2 4Y 142.700
2 5S 140.200
2 5X 140.200
2 5XY 140.200
2 5Y 140.200
3 5S 140.200
3 6S 137.700
3 5X 140.200
3 6X 137.700
3 5XY 140.200
3 6XY 137.700
3 5Y 140.200
3 6Y 137.700
3 7S 135.200
3 7X 135.200
3 7XY 135.200
3 7Y 135.200
4 7S 135.200
4 8S 133.200
4 7X 135.200
4 8X 133.200
4 7XY 135.200
4 8XY 133.200
4 7Y 135.200
4 8Y 133.200
4 10P 131.630
4 10X 131.630
4 10XY 131.630
4 10Y 131.630
5 10P 131.630
5 11P 127.590
5 10X 131.630
5 11X 127.590

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

5 10XY 131.630
5 11XY 127.590
5 10Y 131.630
5 11Y 127.590
6 11P 127.590
6 12S 124.700
6 11X 127.590
6 12X 124.700
6 11XY 127.590
6 12XY 124.700
6 11Y 127.590
6 12Y 124.700
6 13S 122.200
6 13X 122.200
6 13XY 122.200
6 13Y 122.200
7 13S 122.200
7 14S 119.700
7 13X 122.200
7 14X 119.700
7 13XY 122.200
7 14XY 119.700
7 13Y 122.200
7 14Y 119.700
7 15S 117.200
7 15X 117.200
7 15XY 117.200
7 15Y 117.200
8 15S 117.200
8 16S 114.700
8 15X 117.200
8 16X 114.700
8 15XY 117.200
8 16XY 114.700
8 15Y 117.200
8 16Y 114.700
8 17S 112.200
8 17X 112.200
8 17XY 112.200
8 17Y 112.200
9 17S 112.200
9 18S 110.200
9 17X 112.200
9 18X 110.200
9 17XY 112.200
9 18XY 110.200
9 17Y 112.200
9 18Y 110.200
9 19P 108.620
9 19X 108.620
9 19XY 108.620
9 19Y 108.620
10 19P 108.620
10 20P 102.200
10 19X 108.620
10 20X 102.200

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

10	19XY	108.620
10	20XY	102.200
10	19Y	108.620
10	20Y	102.200
11	20P	102.200
11	21S	99.400
11	20X	102.200
11	21X	99.400
11	20XY	102.200
11	21XY	99.400
11	20Y	102.200
11	21Y	99.400
11	22S	96.600
11	22X	96.600
11	22XY	96.600
11	22Y	96.600
12	22S	96.600
12	23S	93.900
12	22X	96.600
12	23X	93.900
12	22XY	96.600
12	23XY	93.900
12	22Y	96.600
12	23Y	93.900
12	24S	91.200
12	24X	91.200
12	24XY	91.200
12	24Y	91.200
13	24S	91.200
13	25S	88.400
13	24X	91.200
13	25X	88.400
13	24XY	91.200
13	25XY	88.400
13	24Y	91.200
13	25Y	88.400
13	26S	85.600
13	26X	85.600
13	26XY	85.600
13	26Y	85.600
14	26S	85.600
14	27S	82.800
14	26X	85.600
14	27X	82.800
14	26XY	85.600
14	27XY	82.800
14	26Y	85.600
14	27Y	82.800
14	28S	80.000
14	28X	80.000
14	28XY	80.000
14	28Y	80.000
15	28S	80.000
15	29S	77.250
15	28X	80.000
15	29X	77.250

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

15	28XY	80.000
15	29XY	77.250
15	28Y	80.000
15	29Y	77.250
15	30S	74.500
15	30X	74.500
15	30XY	74.500
15	30Y	74.500
16	30S	74.500
16	31S	71.800
16	30X	74.500
16	31X	71.800
16	30XY	74.500
16	31XY	71.800
16	30Y	74.500
16	31Y	71.800
17	31S	71.800
17	32P	66.125
17	31X	71.800
17	32X	66.125
17	31XY	71.800
17	32XY	66.125
17	31Y	71.800
17	32Y	66.125
18	32P	66.125
18	33S	59.800
18	32X	66.125
18	33X	59.800
18	32XY	66.125
18	33XY	59.800
18	32Y	66.125
18	33Y	59.800
19	33S	59.800
19	34S	53.800
19	33X	59.800
19	34X	53.800
19	33XY	59.800
19	34XY	53.800
19	33Y	59.800
19	34Y	53.800
20	34S	53.800
20	35S	47.800
20	34X	53.800
20	35X	47.800
20	34XY	53.800
20	35XY	47.800
20	34Y	53.800
20	35Y	47.800
21	35S	47.800
21	36S	41.800
21	35X	47.800
21	36X	41.800
21	35XY	47.800
21	36XY	41.800
21	35Y	47.800
21	36Y	41.800

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

22	36S	41.800
22	37S	35.800
22	36X	41.800
22	37X	35.800
22	36XY	41.800
22	37XY	35.800
22	36Y	41.800
22	37Y	35.800
22	372S	35.800
22	373S	35.800
22	374S	35.800
22	371S	35.800
23	37S	35.800
23	38S	29.800
23	37X	35.800
23	38X	29.800
23	37XY	35.800
23	38XY	29.800
23	37Y	35.800
23	38Y	29.800
23	372S	35.800
23	373S	35.800
23	374S	35.800
23	371S	35.800
24	38S	29.800
24	39S	23.800
24	38X	29.800
24	39X	23.800
24	38XY	29.800
24	39XY	23.800
24	38Y	29.800
24	39Y	23.800
24	392S	23.800
24	393S	23.800
24	394S	23.800
24	391S	23.800
25	39S	23.800
25	40S	17.800
25	39X	23.800
25	40X	17.800
25	39XY	23.800
25	40XY	17.800
25	39Y	23.800
25	40Y	17.800
25	392S	23.800
25	393S	23.800
25	394S	23.800
25	391S	23.800
26	40S	17.800
26	41S	11.800
26	40X	17.800
26	41X	11.800
26	40XY	17.800
26	41XY	11.800
26	40Y	17.800
26	41Y	11.800

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	Page 38 of 134
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	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

26 412S 11.800
26 413S 11.800
26 414S 11.800
26 411S 11.800
27 41S 11.800
27 42S 5.800
27 41X 11.800
27 42X 5.800
27 41XY 11.800
27 42XY 5.800
27 41Y 11.800
27 42Y 5.800
28 42S 5.800
28 ANP 0.000
28 42X 5.800
28 ANX 0.000
28 42XY 5.800
28 ANXY 0.000
28 42Y 5.800
28 ANY 0.000
28 411S 11.800
28 412S 11.800
28 413S 11.800
28 414S 11.800

EIA Sections Information:

Section Label	Top Z (m)	Bottom Z (m)	Joint Count	Member Count	Top Width (m)	Bottom Width (m)	Gross Area (m^2)	Face Adjust Factor	Face Ar Adjust Factor	Dead Load Factor
1	150.911	145.200	12	32	1.30	1.30	7.42	1.0000	1.0000	1.000
2	145.200	140.200	12	28	1.30	1.30	6.50	1.0000	1.0000	1.000
3	140.200	135.200	12	28	1.30	1.30	6.50	1.0000	1.0000	1.000
4	135.200	131.630	12	28	1.30	1.30	4.64	1.0000	1.0000	1.000
5	131.630	127.590	8	16	1.30	2.28	7.23	1.0000	1.0000	1.000
6	127.590	122.200	12	28	2.28	2.28	12.29	1.0000	1.0000	1.000
7	122.200	117.200	12	28	2.28	2.28	11.40	1.0000	1.0000	1.000
8	117.200	112.200	12	28	2.28	2.28	11.40	1.0000	1.0000	1.000
9	112.200	108.620	12	28	2.28	2.28	8.16	1.0000	1.0000	1.000
10	108.620	102.200	8	16	2.28	4.90	23.06	1.0000	1.0000	1.000
11	102.200	96.600	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
12	96.600	91.200	12	28	4.90	4.90	26.48	1.0000	1.0000	1.000
13	91.200	85.600	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
14	85.600	80.000	12	28	4.90	4.90	27.46	1.0000	1.0000	1.000
15	80.000	74.500	12	28	4.90	4.90	26.97	1.0000	1.0000	1.000
16	74.500	71.800	8	16	4.90	4.90	13.24	1.0000	1.0000	1.000
17	71.800	66.125	8	16	4.90	4.90	27.83	1.0000	1.0000	1.000
18	66.125	59.800	8	16	4.90	6.45	35.89	1.0000	1.0000	1.000
19	59.800	53.800	8	16	6.45	7.91	43.06	1.0000	1.0000	1.000
20	53.800	47.800	8	16	7.91	9.37	51.83	1.0000	1.0000	1.000
21	47.800	41.800	8	16	9.37	10.83	60.61	1.0000	1.0000	1.000
22	41.800	35.800	12	24	10.83	12.29	69.38	1.0000	1.0000	1.000
23	35.800	29.800	12	16	12.29	13.76	78.16	1.0000	1.0000	1.000
24	29.800	23.800	12	24	13.76	15.22	86.93	1.0000	1.0000	1.000
25	23.800	17.800	12	16	15.22	16.68	95.70	1.0000	1.0000	1.000

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26	17.800	11.800	12	24	16.68	18.14	104.48	1.0000	1.0000	1.000
27	11.800	5.800	8	4	18.14	19.61	113.25	1.0000	1.0000	1.000
28	5.800	0.000	12	12	19.61	21.02	117.82	1.0000	1.0000	1.000

Linear Appurtenances:

Description	From	To	Quantity	Shape	Width or Diameter	Perimeter	Unit Weight	In Face	Include in Wind Load
	(m)	(m)			(cm)	(cm)	(N/m)	Zone	
ESCALERA DE ACCESO	0	150	2	Flat	5.1	10.2	300	No	No
CABLES GUIA DE ONDA	0	150	5	Round	4.13	12.97	19.7	No	Yes

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Datos de las cargas

Structure Height Summary (used for calculating wind/ice adjust with height):

Structure height above ground 150.91 (m)
Elevation of structure bottom for wind height adjustment: 0.00 (m)

Structure height for structure gust response factor: 150.91 (m)
Structure gust response factor, G_h : 1.0575
Guy installation temperature: 22.00 (deg C)
Tower Type: Rectangular Latticed

EIA Rev. F Load Cases:

Load Case Description	Dead Load Factor	Wind Load Factor	Ice Load Factor	Strength Factor	Allowable Stress Increase Factor	Basic Wind Speed (m/s)	Wind Dir. (Deg)	Ice Thick. (cm)	Ice Temperature Density (N/m ³)	(deg C)	Point Loads	Joint Displ.
LC1 WIND 0° C.D.	1.9500	1.3000	1.0000	1.0000	1.3300	33.330	0	0.0000	0.0000	14.000	63 loads	
LC2 WIND 45° C.D.	1.9500	1.3000	1.0000	1.0000	1.3300	33.330	45	0.0000	0.0000	14.000	63 loads	
LC3 WIND 0° C.T.	1.5000	1.0000	1.0000	1.0000	1.0000	33.330	0	0.0000	0.0000	14.000	63 loads	
LC4 WIND 45° C.T.	1.5000	1.0000	1.0000	1.0000	1.0000	33.330	45	0.0000	0.0000	14.000	63 loads	
LC5 WIND 0° DEFLEX	1.5000	1.0000	1.0000	1.0000	1.0000	16.670	0	0.0000	0.0000	14.000	63 loads	
LC6 WIND 45° DEFLEX	1.5000	1.0000	1.0000	1.0000	1.0000	16.670	45	0.0000	0.0000	14.000	63 loads	

Concentrated Loads for Load Case "LC1 WIND 0° C.D.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X 1162	0	1794	0	0	0	0	
1P 1162	0	1794	0	0	0	0	
1XY 1162	0	1794	0	0	0	0	
2X 1162	0	1794	0	0	0	0	
2S 1162	0	1794	0	0	0	0	
2XY 1162	0	1794	0	0	0	0	
4X 1162	0	1794	0	0	0	0	
4S 1162	0	1794	0	0	0	0	
4XY 1162	0	1794	0	0	0	0	
5X 1162	0	1794	0	0	0	0	
5XY 1162	0	1794	0	0	0	0	
6X 1162	0	1794	0	0	0	0	
6XY 1162	0	1794	0	0	0	0	
8X 1162	0	1794	0	0	0	0	
8XY 1162	0	1794	0	0	0	0	
10XY 1162	0	1794	0	0	0	0	
14X 580	0	1014	0	0	0	0	
14S 580	0	1014	0	0	0	0	
14Y 580	0	1014	0	0	0	0	
15X 580	0	1014	0	0	0	0	

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

15S	580	0	1014	0	0	0
15Y	580	0	1014	0	0	0
17X	580	0	1014	0	0	0
17S	580	0	1014	0	0	0
17Y	580	0	1014	0	0	0
18X	580	0	1014	0	0	0
18S	580	0	1014	0	0	0
18Y	580	0	1014	0	0	0
20X	580	0	1014	0	0	0
20P	580	0	1014	0	0	0
22S	4679	0	2340	0	0	0
22XY	2340	0	1170	0	0	0
23S	4679	0	2340	0	0	0
31XY	267	0	325	0	0	0
29S	267	0	325	0	0	0
31Y	267	0	325	0	0	0
38Y	267	0	325	0	0	0
35Y	4594	0	1430	0	0	0
36XY	1682	1	761	0	0	0
35S	13256	0	6643	0	0	0
36X	3314	0	3029	0	0	0
36S	13256	0	6643	0	0	0
37X	1473	0	2392	0	0	0
39Y	1473	0	2392	0	0	0
40Y	3314	0	3029	0	0	0
40S	5892	0	3861	0	0	0
40X	6627	0	6058	0	0	0
41S	5892	0	3861	0	0	0
41X	1473	0	2392	0	0	0
1X	0	0	1300	0	0	0
1P	0	0	1300	0	0	0
1Y	0	0	1300	0	0	0
1XY	0	0	1300	0	0	0
5X	5249	0	4368	0	0	0 FUTURAS
5S	5249	0	4368	0	0	0 FUTURAS
6X	5249	0	4368	0	0	0 FUTURAS
6S	5249	0	4368	0	0	0 FUTURAS
7X	5249	0	4368	0	0	0 FUTURAS
7S	5249	0	4368	0	0	0 FUTURAS
8X	5249	0	4368	0	0	0 FUTURAS
8S	5249	0	4368	0	0	0 FUTURAS
10X	5249	0	4368	0	0	0 FUTURAS
10P	5249	0	4368	0	0	0 FUTURAS

EIA Section Load Case Information for "LC1 WIND 0° C.D.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	2018.54	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	8121	0.00	2.00	0.99	1.20	1.19	2401	10522	14976
2	145.20	140.20	142.70	1997.41	0.00	1.19	0.00	0.00	6.5	0.18	1.00	1.00	0.59	3.06	1.2	7239	0.00	2.00	1.03	1.20	1.24	2475	9714	13957
3	140.20	135.20	137.70	1977.15	0.00	1.58	0.00	0.00	6.5	0.24	1.00	1.00	0.60	2.80	1.6	8764	0.00	2.00	1.03	1.20	1.24	2450	11213	17214
4	135.20	131.63	133.41	1959.38	0.00	1.24	0.00	0.00	4.6	0.27	1.00	1.00	0.61	2.71	1.2	6585	0.00	2.00	0.74	1.20	0.88	1733	8319	17028
5	131.63	127.59	129.61	1943.24	0.00	1.46	0.00	0.00	7.2	0.20	1.00	1.00	0.59	2.97	1.5	8425	0.00	2.00	0.83	1.20	1.00	1945	10370	26832
6	127.59	122.20	124.90	1922.78	0.00	2.02	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.14	2.0	12200	0.00	2.00	1.11	1.20	1.34	2568	14768	36759

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

7	122.20	117.20	119.70	1899.58	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	10922	0.00	2.00	1.03	1.20	1.24	2354	13276	31581
8	117.20	112.20	114.70	1876.56	0.00	1.99	0.00	0.00	11.4	0.17	1.00	1.00	0.59	3.09	2.0	11552	0.00	2.00	1.03	1.20	1.24	2325	13877	33523
9	112.20	108.62	110.41	1856.24	0.00	1.49	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.06	1.5	8458	0.00	2.00	0.74	1.20	0.89	1647	10105	24499
10	108.62	102.20	105.41	1831.82	0.00	3.37	0.00	0.00	23.1	0.15	1.00	1.00	0.58	3.22	3.4	19919	0.00	2.00	1.33	1.20	1.59	2914	22833	58356
11	102.20	96.60	99.40	1801.35	0.00	3.74	0.00	0.00	27.5	0.14	1.00	1.00	0.58	3.27	3.7	22055	0.00	2.00	1.16	1.20	1.39	2500	24555	44608
12	96.60	91.20	93.90	1772.29	0.00	4.08	0.00	0.00	26.5	0.15	1.00	1.00	0.58	3.19	4.1	23049	0.00	2.00	1.12	1.20	1.34	2372	25421	50099
13	91.20	85.60	88.40	1741.99	0.00	4.44	0.00	0.00	27.5	0.16	1.00	1.00	0.58	3.15	4.4	24359	0.00	2.00	1.16	1.20	1.39	2417	26777	60665
14	85.60	80.00	82.80	1709.72	0.00	4.44	0.00	0.00	27.5	0.16	1.00	1.00	0.58	3.15	4.4	23908	0.00	2.00	1.16	1.20	1.39	2373	26281	62722
15	80.00	74.50	77.25	1676.16	0.00	4.40	0.00	0.00	27.0	0.16	1.00	1.00	0.58	3.14	4.4	23176	0.00	2.00	1.14	1.20	1.36	2284	25461	63964
16	74.50	71.80	73.15	1650.25	0.00	2.46	0.00	0.00	13.2	0.19	1.00	1.00	0.59	3.04	2.5	12344	0.00	2.00	0.56	1.20	0.67	1104	13449	33641
17	71.80	66.13	68.96	1622.69	0.00	4.13	0.00	0.00	27.8	0.15	1.00	1.00	0.58	3.21	4.1	21542	0.00	2.00	1.17	1.20	1.41	2282	23824	74865
18	66.13	59.80	62.96	1581.03	0.00	4.78	0.00	0.00	35.9	0.13	1.00	1.00	0.58	3.29	4.8	24821	0.00	2.00	1.31	1.20	1.57	2478	27299	85402
19	59.80	53.80	56.80	1535.18	0.00	4.57	0.00	0.00	43.1	0.11	1.00	1.00	0.58	3.42	4.6	23968	0.00	2.00	1.24	1.20	1.49	2283	26250	79852
20	53.80	47.80	50.80	1486.98	0.00	5.19	0.00	0.00	51.8	0.10	1.00	1.00	0.58	3.45	5.2	26612	0.00	2.00	1.24	1.20	1.49	2211	28823	83212
21	47.80	41.80	44.80	1434.53	0.00	5.62	0.00	0.00	60.6	0.09	1.00	1.00	0.57	3.49	5.6	28130	0.00	2.00	1.24	1.20	1.49	2133	30263	85296
22	41.80	35.80	38.80	1376.79	0.00	5.07	0.00	0.00	69.4	0.07	1.00	1.00	0.57	3.59	5.1	25045	0.00	2.00	1.24	1.20	1.49	2047	27092	93933
23	35.80	29.80	32.80	1312.27	0.00	5.81	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.58	5.8	27334	0.00	2.00	1.24	1.20	1.49	1951	29285	87629
24	29.80	23.80	26.80	1238.67	0.00	6.04	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.61	6.0	26987	0.00	2.00	1.24	1.20	1.49	1842	28829	108362
25	23.80	17.80	20.80	1152.14	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	27060	0.00	2.00	1.24	1.20	1.49	1713	28773	97844
26	17.80	11.80	14.80	1045.39	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	25530	0.00	2.00	1.24	1.20	1.49	1554	27084	129120
27	11.80	5.80	8.80	936.17	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	6783	0.00	2.00	1.24	1.20	1.49	1392	8175	46568
28	5.80	0.00	2.90	936.17	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	20273	0.00	2.00	1.20	1.20	1.44	1345	21618	103537

Concentrated Loads for Load Case "LC2 WIND 45° C.D.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	822	822	1794	0	0	0	
1P	822	822	1794	0	0	0	
1XY	822	822	1794	0	0	0	
2X	822	822	1794	0	0	0	
2S	822	822	1794	0	0	0	
2XY	822	822	1794	0	0	0	
4X	822	822	1794	0	0	0	
4S	822	822	1794	0	0	0	
4XY	822	822	1794	0	0	0	
5X	822	822	1794	0	0	0	
5XY	822	822	1794	0	0	0	
6X	822	822	1794	0	0	0	
6XY	822	822	1794	0	0	0	
8X	822	822	1794	0	0	0	
8XY	822	822	1794	0	0	0	
10XY	822	822	1794	0	0	0	
14X	410	410	1014	0	0	0	
14S	410	410	1014	0	0	0	
14Y	410	410	1014	0	0	0	
15X	410	410	1014	0	0	0	
15S	410	410	1014	0	0	0	
15Y	410	410	1014	0	0	0	
17X	410	410	1014	0	0	0	
17S	410	410	1014	0	0	0	
17Y	410	410	1014	0	0	0	
18X	410	410	1014	0	0	0	
18S	410	410	1014	0	0	0	

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

18Y	410	410	1014	0	0	0
20X	410	410	1014	0	0	0
20P	410	410	1014	0	0	0
22S	3309	3309	2340	0	0	0
22XY	1655	1655	1170	0	0	0
23S	3309	3309	2340	0	0	0
31XY	189	189	325	0	0	0
29S	189	189	325	0	0	0
31Y	189	189	325	0	0	0
38Y	189	189	325	0	0	0
35Y	3249	3249	1430	0	0	0
36XY	1190	1190	761	0	0	0
35S	9373	9373	6643	0	0	0
36X	2343	2343	3029	0	0	0
36S	9373	9373	6643	0	0	0
37X	1041	1041	2392	0	0	0
39Y	1041	1041	2392	0	0	0
40Y	2343	2343	3029	0	0	0
40S	4167	4167	3861	0	0	0
40X	4685	4685	6058	0	0	0
41S	4167	4167	3861	0	0	0
41X	1041	1041	2392	0	0	0
1X	0	0	1300	0	0	0
1P	0	0	1300	0	0	0
1Y	0	0	1300	0	0	0
1XY	0	0	1300	0	0	0
5X	3713	3713	4368	0	0	0 FUTURAS
5S	3713	3713	4368	0	0	0 FUTURAS
6X	3713	3713	4368	0	0	0 FUTURAS
6S	3713	3713	4368	0	0	0 FUTURAS
7X	3713	3713	4368	0	0	0 FUTURAS
7S	3713	3713	4368	0	0	0 FUTURAS
8X	3713	3713	4368	0	0	0 FUTURAS
8S	3713	3713	4368	0	0	0 FUTURAS
10X	3713	3713	4368	0	0	0 FUTURAS
10P	3713	3713	4368	0	0	0 FUTURAS

EIA Section Load Case Information for "LC2 WIND 45° C.D.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	Elev. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	2018.54	0.00	1.30	0.00	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	9190	0.00	2.00	0.99	1.20	1.19	2401	11591	14976
2	145.20	140.20	142.70	1997.41	0.00	1.19	0.00	0.00	0.00	6.5	0.18	1.14	1.14	0.59	3.06	1.3	8229	0.00	2.00	1.03	1.20	1.24	2475	10704	13957
3	140.20	135.20	137.70	1977.15	0.00	1.58	0.00	0.00	0.00	6.5	0.24	1.18	1.18	0.60	2.80	1.9	10364	0.00	2.00	1.03	1.20	1.24	2450	12814	17214
4	135.20	131.63	133.41	1959.38	0.00	1.24	0.00	0.00	0.00	4.6	0.27	1.20	1.20	0.61	2.71	1.5	7902	0.00	2.00	0.74	1.20	0.88	1733	9636	17028
5	131.63	127.59	129.61	1943.24	0.00	1.46	0.00	0.00	0.00	7.2	0.20	1.15	1.15	0.59	2.97	1.7	9699	0.00	2.00	0.83	1.20	1.00	1945	11645	26832
6	127.59	122.20	124.90	1922.78	0.00	2.02	0.00	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.14	2.3	13706	0.00	2.00	1.11	1.20	1.34	2568	16274	36759
7	122.20	117.20	119.70	1899.58	0.00	1.82	0.00	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	12229	0.00	2.00	1.03	1.20	1.24	2354	14583	31581
8	117.20	112.20	114.70	1876.56	0.00	1.99	0.00	0.00	0.00	11.4	0.17	1.13	1.13	0.59	3.09	2.3	13065	0.00	2.00	1.03	1.20	1.24	2325	15390	33523
9	112.20	108.62	110.41	1856.24	0.00	1.49	0.00	0.00	0.00	8.2	0.18	1.14	1.14	0.59	3.06	1.7	9617	0.00	2.00	0.74	1.20	0.89	1647	11263	24499
10	108.62	102.20	105.41	1831.82	0.00	3.37	0.00	0.00	0.00	23.1	0.15	1.11	1.11	0.58	3.22	3.7	22105	0.00	2.00	1.33	1.20	1.59	2914	25019	58356
11	102.20	96.60	99.40	1801.35	0.00	3.74	0.00	0.00	0.00	27.5	0.14	1.10	1.10	0.58	3.27	4.1	24310	0.00	2.00	1.16	1.20	1.39	2500	26810	44608
12	96.60	91.20	93.90	1772.29	0.00	4.08	0.00	0.00	0.00	26.5	0.15	1.12	1.12	0.58	3.19	4.6	25714	0.00	2.00	1.12	1.20	1.34	2372	28086	50099
13	91.20	85.60	88.40	1741.99	0.00	4.44	0.00	0.00	0.00	27.5	0.16	1.12	1.12	0.58	3.15	5.0	27312	0.00	2.00	1.16	1.20	1.39	2417	29729	60665

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14	85.60	80.00	82.80	1709.72	0.00	4.44	0.00	0.00	27.5	0.16	1.12	1.12	0.58	3.15	5.0	26806	0.00	2.00	1.16	1.20	1.39	2373	29178	62722
15	80.00	74.50	77.25	1676.16	0.00	4.40	0.00	0.00	27.0	0.16	1.12	1.12	0.58	3.14	4.9	26010	0.00	2.00	1.14	1.20	1.36	2284	28295	63964
16	74.50	71.80	73.15	1650.25	0.00	2.46	0.00	0.00	13.2	0.19	1.14	1.14	0.59	3.04	2.8	14064	0.00	2.00	0.56	1.20	0.67	1104	15168	33641
17	71.80	66.13	68.96	1622.69	0.00	4.13	0.00	0.00	27.8	0.15	1.11	1.11	0.58	3.21	4.6	23941	0.00	2.00	1.17	1.20	1.41	2282	26223	74865
18	66.13	59.80	62.96	1581.03	0.00	4.78	0.00	0.00	35.9	0.13	1.10	1.10	0.58	3.29	5.3	27299	0.00	2.00	1.31	1.20	1.57	2478	29777	85402
19	59.80	53.80	56.80	1535.18	0.00	4.57	0.00	0.00	43.1	0.11	1.08	1.08	0.58	3.42	4.9	25874	0.00	2.00	1.24	1.20	1.49	2283	28156	79852
20	53.80	47.80	50.80	1486.98	0.00	5.19	0.00	0.00	51.8	0.10	1.08	1.08	0.58	3.45	5.6	28610	0.00	2.00	1.24	1.20	1.49	2211	30821	83212
21	47.80	41.80	44.80	1434.53	0.00	5.62	0.00	0.00	60.6	0.09	1.07	1.07	0.57	3.49	6.0	30087	0.00	2.00	1.24	1.20	1.49	2133	32220	85296
22	41.80	35.80	38.80	1376.79	0.00	5.07	0.00	0.00	69.4	0.07	1.05	1.05	0.57	3.59	5.3	26417	0.00	2.00	1.24	1.20	1.49	2047	28464	93933
23	35.80	29.80	32.80	1312.27	0.00	5.81	0.00	0.00	78.2	0.07	1.06	1.06	0.57	3.58	6.1	28859	0.00	2.00	1.24	1.20	1.49	1951	30810	87629
24	29.80	23.80	26.80	1238.67	0.00	6.04	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.61	6.4	28393	0.00	2.00	1.24	1.20	1.49	1842	30234	108362
25	23.80	17.80	20.80	1152.14	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	28436	0.00	2.00	1.24	1.20	1.49	1713	30149	97844
26	17.80	11.80	14.80	1045.39	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	26760	0.00	2.00	1.24	1.20	1.49	1554	28315	129120
27	11.80	5.80	8.80	936.17	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	6866	0.00	2.00	1.24	1.20	1.49	1392	8258	46568
28	5.80	0.00	2.90	936.17	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	21024	0.00	2.00	1.20	1.20	1.44	1345	22370	103537

Concentrated Loads for Load Case "LC3 WIND 0° C.T.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	894	0	1380	0	0	0	
1P	894	0	1380	0	0	0	
1XY	894	0	1380	0	0	0	
2X	894	0	1380	0	0	0	
2S	894	0	1380	0	0	0	
2XY	894	0	1380	0	0	0	
4X	894	0	1380	0	0	0	
4S	894	0	1380	0	0	0	
4XY	894	0	1380	0	0	0	
5X	894	0	1380	0	0	0	
5XY	894	0	1380	0	0	0	
6X	894	0	1380	0	0	0	
6XY	894	0	1380	0	0	0	
8X	894	0	1380	0	0	0	
8XY	894	0	1380	0	0	0	
10XY	894	0	1380	0	0	0	
14X	446	0	780	0	0	0	
14S	446	0	780	0	0	0	
14Y	446	0	780	0	0	0	
15X	446	0	780	0	0	0	
15S	446	0	780	0	0	0	
15Y	446	0	780	0	0	0	
17X	446	0	780	0	0	0	
17S	446	0	780	0	0	0	
17Y	446	0	780	0	0	0	
18X	446	0	780	0	0	0	
18S	446	0	780	0	0	0	
18Y	446	0	780	0	0	0	
20X	446	0	780	0	0	0	
20P	446	0	780	0	0	0	
22S	3599	0	1800	0	0	0	
22XY	1800	0	900	0	0	0	
23S	3599	0	1800	0	0	0	
31XY	205	0	250	0	0	0	

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

29S	205	0	250	0	0	0
31Y	205	0	250	0	0	0
38Y	205	0	250	0	0	0
35Y	3534	0	1100	0	0	0
36XY	1294	1	585	0	0	0
35S	10197	0	5110	0	0	0
36X	2549	0	2330	0	0	0
36S	10197	0	5110	0	0	0
37X	1133	0	1840	0	0	0
39Y	1133	0	1840	0	0	0
40Y	2549	0	2330	0	0	0
40S	4532	0	2970	0	0	0
40X	5098	0	4660	0	0	0
41S	4532	0	2970	0	0	0
41X	1133	0	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
5X	4038	0	3360	0	0	0 FUTURAS
5S	4038	0	3360	0	0	0 FUTURAS
6X	4038	0	3360	0	0	0 FUTURAS
6S	4038	0	3360	0	0	0 FUTURAS
7X	4038	0	3360	0	0	0 FUTURAS
7S	4038	0	3360	0	0	0 FUTURAS
8X	4038	0	3360	0	0	0 FUTURAS
8S	4038	0	3360	0	0	0 FUTURAS
10X	4038	0	3360	0	0	0 FUTURAS
10P	4038	0	3360	0	0	0 FUTURAS

EIA Section Load Case Information for "LC3 WIND 0° C.T.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	1552.72	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	6247	0.00	2.00	0.99	1.20	1.19	1847	8094	11520
2	145.20	140.20	142.70	1536.47	0.00	1.19	0.00	0.00	6.5	0.18	1.00	1.00	0.59	3.06	1.2	5568	0.00	2.00	1.03	1.20	1.24	1904	7472	10736
3	140.20	135.20	137.70	1520.89	0.00	1.58	0.00	0.00	6.5	0.24	1.00	1.00	0.60	2.80	1.6	6741	0.00	2.00	1.03	1.20	1.24	1884	8626	13241
4	135.20	131.63	133.41	1507.21	0.00	1.24	0.00	0.00	4.6	0.27	1.00	1.00	0.61	2.71	1.2	5066	0.00	2.00	0.74	1.20	0.88	1333	6399	13098
5	131.63	127.59	129.61	1494.80	0.00	1.46	0.00	0.00	7.2	0.20	1.00	1.00	0.59	2.97	1.5	6481	0.00	2.00	0.83	1.20	1.00	1496	7977	20640
6	127.59	122.20	124.90	1479.06	0.00	2.02	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.14	2.0	9384	0.00	2.00	1.11	1.20	1.34	1975	11360	28276
7	122.20	117.20	119.70	1461.22	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	8402	0.00	2.00	1.03	1.20	1.24	1810	10212	24293
8	117.20	112.20	114.70	1443.51	0.00	1.99	0.00	0.00	11.4	0.17	1.00	1.00	0.59	3.09	2.0	8886	0.00	2.00	1.03	1.20	1.24	1789	10675	25787
9	112.20	108.62	110.41	1427.87	0.00	1.49	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.06	1.5	6506	0.00	2.00	0.74	1.20	0.89	1267	7773	18845
10	108.62	102.20	105.41	1409.09	0.00	3.37	0.00	0.00	23.1	0.15	1.00	1.00	0.58	3.22	3.4	15322	0.00	2.00	1.33	1.20	1.59	2242	17564	44889
11	102.20	96.60	99.40	1385.65	0.00	3.74	0.00	0.00	27.5	0.14	1.00	1.00	0.58	3.27	3.7	16965	0.00	2.00	1.16	1.20	1.39	1923	18888	34314
12	96.60	91.20	93.90	1363.30	0.00	4.08	0.00	0.00	26.5	0.15	1.00	1.00	0.58	3.19	4.1	17730	0.00	2.00	1.12	1.20	1.34	1824	19554	38537
13	91.20	85.60	88.40	1339.99	0.00	4.44	0.00	0.00	27.5	0.16	1.00	1.00	0.58	3.15	4.4	18738	0.00	2.00	1.16	1.20	1.39	1859	20598	46665
14	85.60	80.00	82.80	1315.17	0.00	4.44	0.00	0.00	27.5	0.16	1.00	1.00	0.58	3.15	4.4	18391	0.00	2.00	1.16	1.20	1.39	1825	20216	48248
15	80.00	74.50	77.25	1289.36	0.00	4.40	0.00	0.00	27.0	0.16	1.00	1.00	0.58	3.14	4.4	17828	0.00	2.00	1.14	1.20	1.36	1757	19585	49203
16	74.50	71.80	73.15	1269.42	0.00	2.46	0.00	0.00	13.2	0.19	1.00	1.00	0.59	3.04	2.5	9496	0.00	2.00	0.56	1.20	0.67	849	10345	25878
17	71.80	66.13	68.96	1248.22	0.00	4.13	0.00	0.00	27.8	0.15	1.00	1.00	0.58	3.21	4.1	16571	0.00	2.00	1.17	1.20	1.41	1755	18326	57588
18	66.13	59.80	62.96	1216.18	0.00	4.78	0.00	0.00	35.9	0.13	1.00	1.00	0.58	3.29	4.8	19093	0.00	2.00	1.31	1.20	1.57	1906	20999	65694
19	59.80	53.80	56.80	1180.91	0.00	4.57	0.00	0.00	43.1	0.11	1.00	1.00	0.58	3.42	4.6	18437	0.00	2.00	1.24	1.20	1.49	1756	20192	61425
20	53.80	47.80	50.80	1143.83	0.00	5.19	0.00	0.00	51.8	0.10	1.00	1.00	0.58	3.45	5.2	20471	0.00	2.00	1.24	1.20	1.49	1701	22172	64009

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

21	47.80	41.80	44.80	1103.49	0.00	5.62	0.00	0.00	60.6	0.09	1.00	1.00	0.57	3.49	5.6	21638	0.00	2.00	1.24	1.20	1.49	1641	23279	65612
22	41.80	35.80	38.80	1059.07	0.00	5.07	0.00	0.00	69.4	0.07	1.00	1.00	0.57	3.59	5.1	19265	0.00	2.00	1.24	1.20	1.49	1575	20840	72256
23	35.80	29.80	32.80	1009.44	0.00	5.81	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.58	5.8	21026	0.00	2.00	1.24	1.20	1.49	1501	22527	67407
24	29.80	23.80	26.80	952.82	0.00	6.04	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.61	6.0	20759	0.00	2.00	1.24	1.20	1.49	1417	22176	83355
25	23.80	17.80	20.80	886.26	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	20815	0.00	2.00	1.24	1.20	1.49	1318	22133	75265
26	17.80	11.80	14.80	804.14	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	19638	0.00	2.00	1.24	1.20	1.49	1196	20834	99323
27	11.80	5.80	8.80	720.13	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	5218	0.00	2.00	1.24	1.20	1.49	1071	6288	35822
28	5.80	0.00	2.90	720.13	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	15594	0.00	2.00	1.20	1.20	1.44	1035	16629	79644

Concentrated Loads for Load Case "LC4 WIND 45° C.T.":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	632	632	1380	0	0	0	
1P	632	632	1380	0	0	0	
1XY	632	632	1380	0	0	0	
2X	632	632	1380	0	0	0	
2S	632	632	1380	0	0	0	
2XY	632	632	1380	0	0	0	
4X	632	632	1380	0	0	0	
4S	632	632	1380	0	0	0	
4XY	632	632	1380	0	0	0	
5X	632	632	1380	0	0	0	
5XY	632	632	1380	0	0	0	
6X	632	632	1380	0	0	0	
6XY	632	632	1380	0	0	0	
8X	632	632	1380	0	0	0	
8XY	632	632	1380	0	0	0	
10XY	632	632	1380	0	0	0	
14X	315	315	780	0	0	0	
14S	315	315	780	0	0	0	
14Y	315	315	780	0	0	0	
15X	315	315	780	0	0	0	
15S	315	315	780	0	0	0	
15Y	315	315	780	0	0	0	
17X	315	315	780	0	0	0	
17S	315	315	780	0	0	0	
17Y	315	315	780	0	0	0	
18X	315	315	780	0	0	0	
18S	315	315	780	0	0	0	
18Y	315	315	780	0	0	0	
20X	315	315	780	0	0	0	
20P	315	315	780	0	0	0	
22S	2545	2545	1800	0	0	0	
22XY	1273	1273	900	0	0	0	
23S	2545	2545	1800	0	0	0	
31XY	145	145	250	0	0	0	
29S	145	145	250	0	0	0	
31Y	145	145	250	0	0	0	
38Y	145	145	250	0	0	0	
35Y	2499	2499	1100	0	0	0	
36XY	915	915	585	0	0	0	
35S	7210	7210	5110	0	0	0	
36X	1802	1802	2330	0	0	0	

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36S	7210	7210	5110	0	0	0
37X	801	801	1840	0	0	0
39Y	801	801	1840	0	0	0
40Y	1802	1802	2330	0	0	0
40S	3205	3205	2970	0	0	0
40X	3604	3604	4660	0	0	0
41S	3205	3205	2970	0	0	0
41X	801	801	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
5X	2856	2856	3360	0	0	0 FUTURAS
5S	2856	2856	3360	0	0	0 FUTURAS
6X	2856	2856	3360	0	0	0 FUTURAS
6S	2856	2856	3360	0	0	0 FUTURAS
7X	2856	2856	3360	0	0	0 FUTURAS
7S	2856	2856	3360	0	0	0 FUTURAS
8X	2856	2856	3360	0	0	0 FUTURAS
8S	2856	2856	3360	0	0	0 FUTURAS
10X	2856	2856	3360	0	0	0 FUTURAS
10P	2856	2856	3360	0	0	0 FUTURAS

EIA Section Load Case Information for "LC4 WIND 45° C.T.":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	Elev. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20		148.06	1552.72	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	7070	0.00	2.00	0.99	1.20	1.19	1847	8916	11520
2	145.20	140.20		142.70	1536.47	0.00	1.19	0.00	0.00	6.5	0.18	1.14	1.14	0.59	3.06	1.3	6330	0.00	2.00	1.03	1.20	1.24	1904	8234	10736
3	140.20	135.20		137.70	1520.89	0.00	1.58	0.00	0.00	6.5	0.24	1.18	1.18	0.60	2.80	1.9	7972	0.00	2.00	1.03	1.20	1.24	1884	9857	13241
4	135.20	131.63		133.41	1507.21	0.00	1.24	0.00	0.00	4.6	0.27	1.20	1.20	0.61	2.71	1.5	6079	0.00	2.00	0.74	1.20	0.88	1333	7412	13098
5	131.63	127.59		129.61	1494.80	0.00	1.46	0.00	0.00	7.2	0.20	1.15	1.15	0.59	2.97	1.7	7461	0.00	2.00	0.83	1.20	1.00	1496	8957	20640
6	127.59	122.20		124.90	1479.06	0.00	2.02	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.14	2.3	10543	0.00	2.00	1.11	1.20	1.34	1975	12518	28276
7	122.20	117.20		119.70	1461.22	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	9407	0.00	2.00	1.03	1.20	1.24	1810	11218	24293
8	117.20	112.20		114.70	1443.51	0.00	1.99	0.00	0.00	11.4	0.17	1.13	1.13	0.59	3.09	2.3	10050	0.00	2.00	1.03	1.20	1.24	1789	11839	25787
9	112.20	108.62		110.41	1427.87	0.00	1.49	0.00	0.00	8.2	0.18	1.14	1.14	0.59	3.06	1.7	7398	0.00	2.00	0.74	1.20	0.89	1267	8664	18845
10	108.62	102.20		105.41	1409.09	0.00	3.37	0.00	0.00	23.1	0.15	1.11	1.11	0.58	3.22	3.7	17004	0.00	2.00	1.33	1.20	1.59	2242	19246	44889
11	102.20	96.60		99.40	1385.65	0.00	3.74	0.00	0.00	27.5	0.14	1.10	1.10	0.58	3.27	4.1	18700	0.00	2.00	1.16	1.20	1.39	1923	20623	34314
12	96.60	91.20		93.90	1363.30	0.00	4.08	0.00	0.00	26.5	0.15	1.12	1.12	0.58	3.19	4.6	19780	0.00	2.00	1.12	1.20	1.34	1824	21604	38537
13	91.20	85.60		88.40	1339.99	0.00	4.44	0.00	0.00	27.5	0.16	1.12	1.12	0.58	3.15	5.0	21009	0.00	2.00	1.16	1.20	1.39	1859	22869	46665
14	85.60	80.00		82.80	1315.17	0.00	4.44	0.00	0.00	27.5	0.16	1.12	1.12	0.58	3.15	5.0	20620	0.00	2.00	1.16	1.20	1.39	1825	22445	48248
15	80.00	74.50		77.25	1289.36	0.00	4.40	0.00	0.00	27.0	0.16	1.12	1.12	0.58	3.14	4.9	20008	0.00	2.00	1.14	1.20	1.36	1757	21765	49203
16	74.50	71.80		73.15	1269.42	0.00	2.46	0.00	0.00	13.2	0.19	1.14	1.14	0.59	3.04	2.8	10818	0.00	2.00	0.56	1.20	0.67	849	11667	25878
17	71.80	66.13		68.96	1248.22	0.00	4.13	0.00	0.00	27.8	0.15	1.11	1.11	0.58	3.21	4.6	18416	0.00	2.00	1.17	1.20	1.41	1755	20172	57588
18	66.13	59.80		62.96	1216.18	0.00	4.78	0.00	0.00	35.9	0.13	1.10	1.10	0.58	3.29	5.3	20999	0.00	2.00	1.31	1.20	1.57	1906	22905	65694
19	59.80	53.80		56.80	1180.91	0.00	4.57	0.00	0.00	43.1	0.11	1.08	1.08	0.58	3.42	4.9	19903	0.00	2.00	1.24	1.20	1.49	1756	21659	61425
20	53.80	47.80		50.80	1143.83	0.00	5.19	0.00	0.00	51.8	0.10	1.08	1.08	0.58	3.45	5.6	22008	0.00	2.00	1.24	1.20	1.49	1701	23709	64009
21	47.80	41.80		44.80	1103.49	0.00	5.62	0.00	0.00	60.6	0.09	1.07	1.07	0.57	3.49	6.0	23144	0.00	2.00	1.24	1.20	1.49	1641	24785	65612
22	41.80	35.80		38.80	1059.07	0.00	5.07	0.00	0.00	69.4	0.07	1.05	1.05	0.57	3.59	5.3	20320	0.00	2.00	1.24	1.20	1.49	1575	21895	72256
23	35.80	29.80		32.80	1009.44	0.00	5.81	0.00	0.00	78.2	0.07	1.06	1.06	0.57	3.58	6.1	22199	0.00	2.00	1.24	1.20	1.49	1501	23700	67407
24	29.80	23.80		26.80	952.82	0.00	6.04	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.61	6.4	21840	0.00	2.00	1.24	1.20	1.49	1417	23257	83355
25	23.80	17.80		20.80	886.26	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	21874	0.00	2.00	1.24	1.20	1.49	1318	23192	75265
26	17.80	11.80		14.80	804.14	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	20585	0.00	2.00	1.24	1.20	1.49	1196	21780	99323
27	11.80	5.80		8.80	720.13	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	5282	0.00	2.00	1.24	1.20	1.49	1071	6353	35822

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28 5.80 0.00 2.90 720.13 0.00 5.82 0.00 0.00 117.8 0.05 1.04 1.04 0.57 3.72 6.0 16172 0.00 2.00 1.20 1.20 1.44 1035 17207 79644

Concentrated Loads for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment
1X	224	0	1380	0	0	0	
1P	224	0	1380	0	0	0	
1XY	224	0	1380	0	0	0	
2X	224	0	1380	0	0	0	
2S	224	0	1380	0	0	0	
2XY	224	0	1380	0	0	0	
4X	224	0	1380	0	0	0	
4S	224	0	1380	0	0	0	
4XY	224	0	1380	0	0	0	
5X	224	0	1380	0	0	0	
5XY	224	0	1380	0	0	0	
6X	224	0	1380	0	0	0	
6XY	224	0	1380	0	0	0	
8X	224	0	1380	0	0	0	
8XY	224	0	1380	0	0	0	
10XY	224	0	1380	0	0	0	
14X	112	0	780	0	0	0	
14S	112	0	780	0	0	0	
14Y	112	0	780	0	0	0	
15X	112	0	780	0	0	0	
15S	112	0	780	0	0	0	
15Y	112	0	780	0	0	0	
17X	112	0	780	0	0	0	
17S	112	0	780	0	0	0	
17Y	112	0	780	0	0	0	
18X	112	0	780	0	0	0	
18S	112	0	780	0	0	0	
18Y	112	0	780	0	0	0	
20X	112	0	780	0	0	0	
20P	112	0	780	0	0	0	
22S	900	0	1800	0	0	0	
22XY	450	0	900	0	0	0	
23S	900	0	1800	0	0	0	
31XY	51	0	250	0	0	0	
29S	51	0	250	0	0	0	
31Y	51	0	250	0	0	0	
38Y	51	0	250	0	0	0	
35Y	884	0	1100	0	0	0	
36XY	324	0	585	0	0	0	
35S	2551	0	5110	0	0	0	
36X	637	0	2330	0	0	0	
36S	2551	0	5110	0	0	0	
37X	284	0	1840	0	0	0	
39Y	284	0	1840	0	0	0	
40Y	637	0	2330	0	0	0	
40S	1134	0	2970	0	0	0	
40X	1274	0	4660	0	0	0	
41S	1134	0	2970	0	0	0	

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	49 of 134
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

41X	284	0	1840	0	0	0
1X	0	0	1000	0	0	0
1P	0	0	1000	0	0	0
1Y	0	0	1000	0	0	0
1XY	0	0	1000	0	0	0
5X	1010	0	3360	0	0	0 FUTURAS
5S	1010	0	3360	0	0	0 FUTURAS
6X	1010	0	3360	0	0	0 FUTURAS
6S	1010	0	3360	0	0	0 FUTURAS
7X	1010	0	3360	0	0	0 FUTURAS
7S	1010	0	3360	0	0	0 FUTURAS
8X	1010	0	3360	0	0	0 FUTURAS
8S	1010	0	3360	0	0	0 FUTURAS
10X	1010	0	3360	0	0	0 FUTURAS
10P	1010	0	3360	0	0	0 FUTURAS

EIA Section Load Case Information for "LC5 WIND 0° DEFLEX":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m^2)	Face AR (m^2)	Face RR*AR (m^2)	Face AG (m^2)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m^2)	Face WF (N)	NotF AAF (m^2)	NotF CAF	NotF AAR (m^2)	NotF CAR	NotF AAR*CAR (m^2)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	388.41	0.00	1.30	0.00	0.00	7.4	0.18	1.00	1.00	0.59	3.09	1.3	1563	0.00	2.00	0.99	1.20	1.19	462	2025	11520
2	145.20	140.20	142.70	384.35	0.00	1.19	0.00	0.00	6.5	0.18	1.00	1.00	0.59	3.06	1.2	1393	0.00	2.00	1.03	1.20	1.24	476	1869	10736
3	140.20	135.20	137.70	380.45	0.00	1.58	0.00	0.00	6.5	0.24	1.00	1.00	0.60	2.80	1.6	1686	0.00	2.00	1.03	1.20	1.24	471	2158	13241
4	135.20	131.63	133.41	377.93	0.00	1.24	0.00	0.00	4.6	0.27	1.00	1.00	0.61	2.71	1.2	1267	0.00	2.00	0.74	1.20	0.88	334	1601	13098
5	131.63	127.59	129.61	373.93	0.00	1.46	0.00	0.00	7.2	0.20	1.00	1.00	0.59	2.97	1.5	1621	0.00	2.00	0.83	1.20	1.00	374	1995	20640
6	127.59	122.20	124.90	369.99	0.00	2.02	0.00	0.00	12.3	0.16	1.00	1.00	0.58	3.14	2.0	2348	0.00	2.00	1.11	1.20	1.34	494	2842	28276
7	122.20	117.20	119.70	365.52	0.00	1.82	0.00	0.00	11.4	0.16	1.00	1.00	0.58	3.16	1.8	2102	0.00	2.00	1.03	1.20	1.24	453	2555	24293
8	117.20	112.20	114.70	361.09	0.00	1.99	0.00	0.00	11.4	0.17	1.00	1.00	0.59	3.09	2.0	2223	0.00	2.00	1.03	1.20	1.24	447	2670	25787
9	112.20	108.62	110.41	357.18	0.00	1.49	0.00	0.00	8.2	0.18	1.00	1.00	0.59	3.06	1.5	1627	0.00	2.00	0.74	1.20	0.89	317	1944	18845
10	108.62	102.20	105.41	352.48	0.00	3.37	0.00	0.00	23.1	0.15	1.00	1.00	0.58	3.22	3.4	3833	0.00	2.00	1.33	1.20	1.59	561	4394	44889
11	102.20	96.60	99.40	346.62	0.00	3.74	0.00	0.00	27.5	0.14	1.00	1.00	0.58	3.27	3.7	4244	0.00	2.00	1.16	1.20	1.39	481	4725	34314
12	96.60	91.20	93.90	341.03	0.00	4.08	0.00	0.00	26.5	0.15	1.00	1.00	0.58	3.19	4.1	4435	0.00	2.00	1.12	1.20	1.34	456	4891	38537
13	91.20	85.60	88.40	335.20	0.00	4.44	0.00	0.00	27.5	0.16	1.00	1.00	0.58	3.15	4.4	4687	0.00	2.00	1.16	1.20	1.39	465	5152	46665
14	85.60	80.00	82.80	328.99	0.00	4.44	0.00	0.00	27.5	0.16	1.00	1.00	0.58	3.15	4.4	4600	0.00	2.00	1.16	1.20	1.39	457	5057	48248
15	80.00	74.50	77.25	322.53	0.00	4.40	0.00	0.00	27.0	0.16	1.00	1.00	0.58	3.14	4.4	4460	0.00	2.00	1.14	1.20	1.36	440	4899	49203
16	74.50	71.80	73.15	317.55	0.00	2.46	0.00	0.00	13.2	0.19	1.00	1.00	0.59	3.04	2.5	2375	0.00	2.00	0.56	1.20	0.67	212	2588	25878
17	71.80	66.13	68.96	312.24	0.00	4.13	0.00	0.00	27.8	0.15	1.00	1.00	0.58	3.21	4.1	4145	0.00	2.00	1.17	1.20	1.41	439	4584	57588
18	66.13	59.80	62.96	304.23	0.00	4.78	0.00	0.00	35.9	0.13	1.00	1.00	0.58	3.29	4.8	4776	0.00	2.00	1.31	1.20	1.57	477	5253	65694
19	59.80	53.80	56.80	295.40	0.00	4.57	0.00	0.00	43.1	0.11	1.00	1.00	0.58	3.42	4.6	4612	0.00	2.00	1.24	1.20	1.49	439	5051	61425
20	53.80	47.80	50.80	286.13	0.00	5.19	0.00	0.00	51.8	0.10	1.00	1.00	0.58	3.45	5.2	5121	0.00	2.00	1.24	1.20	1.49	425	5546	64009
21	47.80	41.80	44.80	276.04	0.00	5.62	0.00	0.00	60.6	0.09	1.00	1.00	0.57	3.49	5.6	5413	0.00	2.00	1.24	1.20	1.49	410	5823	65612
22	41.80	35.80	38.80	264.93	0.00	5.07	0.00	0.00	69.4	0.07	1.00	1.00	0.57	3.59	5.1	4819	0.00	2.00	1.24	1.20	1.49	394	5213	72256
23	35.80	29.80	32.80	252.51	0.00	5.81	0.00	0.00	78.2	0.07	1.00	1.00	0.57	3.58	5.8	5260	0.00	2.00	1.24	1.20	1.49	375	5635	67407
24	29.80	23.80	26.80	238.35	0.00	6.04	0.00	0.00	86.9	0.07	1.00	1.00	0.57	3.61	6.0	5193	0.00	2.00	1.24	1.20	1.49	354	5547	83355
25	23.80	17.80	20.80	221.70	0.00	6.49	0.00	0.00	95.7	0.07	1.00	1.00	0.57	3.62	6.5	5207	0.00	2.00	1.24	1.20	1.49	330	5537	75265
26	17.80	11.80	14.80	201.16	0.00	6.71	0.00	0.00	104.5	0.06	1.00	1.00	0.57	3.64	6.7	4913	0.00	2.00	1.24	1.20	1.49	299	5212	99323
27	11.80	5.80	8.80	180.14	0.00	1.86	0.00	0.00	113.3	0.02	1.00	1.00	0.57	3.90	1.9	1305	0.00	2.00	1.24	1.20	1.49	268	1573	35822
28	5.80	0.00	2.90	180.14	0.00	5.82	0.00	0.00	117.8	0.05	1.00	1.00	0.57	3.72	5.8	3901	0.00	2.00	1.20	1.20	1.44	259	4160	79644

Concentrated Loads for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	Force X-Dir (N)	Force Y-Dir (N)	Force Vertical (N)	Moment X-Axis (N-m)	Moment Y-Axis (N-m)	Moment Z-Axis (N-m)	Load Comment

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	50 of 134
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

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1X 158 158 1380 0 0 0
1P 158 158 1380 0 0 0
1XY 158 158 1380 0 0 0
2X 158 158 1380 0 0 0
2S 158 158 1380 0 0 0
2XY 158 158 1380 0 0 0
4X 158 158 1380 0 0 0
4S 158 158 1380 0 0 0
4XY 158 158 1380 0 0 0
5X 158 158 1380 0 0 0
5XY 158 158 1380 0 0 0
6X 158 158 1380 0 0 0
6XY 158 158 1380 0 0 0
8X 158 158 1380 0 0 0
8XY 158 158 1380 0 0 0
10XY 158 158 1380 0 0 0
14X 79 79 780 0 0 0
14S 79 79 780 0 0 0
14Y 79 79 780 0 0 0
15X 79 79 780 0 0 0
15S 79 79 780 0 0 0
15Y 79 79 780 0 0 0
17X 79 79 780 0 0 0
17S 79 79 780 0 0 0
17Y 79 79 780 0 0 0
18X 79 79 780 0 0 0
18S 79 79 780 0 0 0
18Y 79 79 780 0 0 0
20X 79 79 780 0 0 0
20P 79 79 780 0 0 0
22S 636 636 1800 0 0 0
22XY 318 318 900 0 0 0
23S 636 636 1800 0 0 0
31XY 36 36 250 0 0 0
29S 36 36 250 0 0 0
31Y 36 36 250 0 0 0
38Y 36 36 250 0 0 0
35Y 625 625 1100 0 0 0
36XY 229 229 585 0 0 0
35S 1804 1804 5110 0 0 0
36X 451 451 2330 0 0 0
36S 1804 1804 5110 0 0 0
37X 200 200 1840 0 0 0
39Y 200 200 1840 0 0 0
40Y 451 451 2330 0 0 0
40S 802 802 2970 0 0 0
40X 902 902 4660 0 0 0
41S 802 802 2970 0 0 0
41X 200 200 1840 0 0 0
1X 0 0 1000 0 0 0
1P 0 0 1000 0 0 0
1Y 0 0 1000 0 0 0
1XY 0 0 1000 0 0 0
5X 714 714 3360 0 0 0
5S 714 714 3360 0 0 0

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	51 of 134
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

6X	714	714	3360	0	0	0
6S	714	714	3360	0	0	0
7X	714	714	3360	0	0	0
7S	714	714	3360	0	0	0
8X	714	714	3360	0	0	0
8S	714	714	3360	0	0	0
10X	714	714	3360	0	0	0
10P	714	714	3360	0	0	0

EIA Section Load Case Information for "LC6 WIND 45° DEFLEX":

Section Label	Z of Top (m)	Z of Bottom (m)	Ave. Elev. Above Gnd. (m)	qzGh (Pa)	Ice Thick. (cm)	Face AF (m ²)	Face AR (m ²)	Face RR*AR (m ²)	Face AG (m ²)	Face e	Face DF	Face DR	Face RR	Face CF	Face AE (m ²)	Face WF (N)	NotF AAF (m ²)	NotF CAF	NotF AAR (m ²)	NotF CAR	NotF AAR*CAR (m ²)	NotF WA (N)	Total Wind (N)	Total Weight (N)
1	150.91	145.20	148.06	388.41	0.00	1.30	0.00	0.00	7.4	0.18	1.13	1.13	0.59	3.09	1.5	1768	0.00	2.00	0.99	1.20	1.19	462	2230	11520
2	145.20	140.20	142.70	384.35	0.00	1.19	0.00	0.00	6.5	0.18	1.14	1.14	0.59	3.06	1.3	1583	0.00	2.00	1.03	1.20	1.24	476	2060	10736
3	140.20	135.20	137.70	380.45	0.00	1.58	0.00	0.00	6.5	0.24	1.18	1.18	0.60	2.80	1.9	1994	0.00	2.00	1.03	1.20	1.24	471	2466	13241
4	135.20	131.63	133.41	377.03	0.00	1.24	0.00	0.00	4.6	0.27	1.20	1.20	0.61	2.71	1.5	1521	0.00	2.00	0.74	1.20	0.88	334	1854	13098
5	131.63	127.59	129.61	373.93	0.00	1.46	0.00	0.00	7.2	0.20	1.15	1.15	0.59	2.97	1.7	1866	0.00	2.00	0.83	1.20	1.00	374	2241	20640
6	127.59	122.20	124.90	369.99	0.00	2.02	0.00	0.00	12.3	0.16	1.12	1.12	0.58	3.14	2.3	2637	0.00	2.00	1.11	1.20	1.34	494	3131	28276
7	122.20	117.20	119.70	365.52	0.00	1.82	0.00	0.00	11.4	0.16	1.12	1.12	0.58	3.16	2.0	2353	0.00	2.00	1.03	1.20	1.24	453	2806	24293
8	117.20	112.20	114.70	361.09	0.00	1.99	0.00	0.00	11.4	0.17	1.13	1.13	0.59	3.09	2.3	2514	0.00	2.00	1.03	1.20	1.24	447	2961	25787
9	112.20	108.62	110.41	357.18	0.00	1.49	0.00	0.00	8.2	0.18	1.14	1.14	0.59	3.06	1.7	1850	0.00	2.00	0.74	1.20	0.89	317	2167	18845
10	108.62	102.20	105.41	352.48	0.00	3.37	0.00	0.00	23.1	0.15	1.11	1.11	0.58	3.22	3.7	4254	0.00	2.00	1.33	1.20	1.59	561	4814	44889
11	102.20	96.60	99.40	346.62	0.00	3.74	0.00	0.00	27.5	0.14	1.10	1.10	0.58	3.27	4.1	4678	0.00	2.00	1.16	1.20	1.39	481	5159	34314
12	96.60	91.20	93.90	341.03	0.00	4.08	0.00	0.00	26.5	0.15	1.12	1.12	0.58	3.19	4.6	4948	0.00	2.00	1.12	1.20	1.34	456	5404	38537
13	91.20	85.60	88.40	335.20	0.00	4.44	0.00	0.00	27.5	0.16	1.12	1.12	0.58	3.15	5.0	5255	0.00	2.00	1.16	1.20	1.39	465	5721	46665
14	85.60	80.00	82.80	328.99	0.00	4.44	0.00	0.00	27.5	0.16	1.12	1.12	0.58	3.15	5.0	5158	0.00	2.00	1.16	1.20	1.39	457	5615	48248
15	80.00	74.50	77.25	322.53	0.00	4.40	0.00	0.00	27.0	0.16	1.12	1.12	0.58	3.14	4.9	5005	0.00	2.00	1.14	1.20	1.36	440	5445	49203
16	74.50	71.80	73.15	317.55	0.00	2.46	0.00	0.00	13.2	0.19	1.14	1.14	0.59	3.04	2.8	2706	0.00	2.00	0.56	1.20	0.67	212	2919	25878
17	71.80	66.13	68.96	312.24	0.00	4.13	0.00	0.00	27.8	0.15	1.11	1.11	0.58	3.21	4.6	4607	0.00	2.00	1.17	1.20	1.41	439	5046	57588
18	66.13	59.80	62.96	304.23	0.00	4.78	0.00	0.00	35.9	0.13	1.10	1.10	0.58	3.29	5.3	5253	0.00	2.00	1.31	1.20	1.57	477	5730	65694
19	59.80	53.80	56.80	295.40	0.00	4.57	0.00	0.00	43.1	0.11	1.08	1.08	0.58	3.42	4.9	4979	0.00	2.00	1.24	1.20	1.49	439	5418	61425
20	53.80	47.80	50.80	286.13	0.00	5.19	0.00	0.00	51.8	0.10	1.08	1.08	0.58	3.45	5.6	5505	0.00	2.00	1.24	1.20	1.49	425	5931	64009
21	47.80	41.80	44.80	276.04	0.00	5.62	0.00	0.00	60.6	0.09	1.07	1.07	0.57	3.49	6.0	5790	0.00	2.00	1.24	1.20	1.49	410	6200	65612
22	41.80	35.80	38.80	264.93	0.00	5.07	0.00	0.00	69.4	0.07	1.05	1.05	0.57	3.59	5.3	5083	0.00	2.00	1.24	1.20	1.49	394	5477	72256
23	35.80	29.80	32.80	252.51	0.00	5.81	0.00	0.00	78.2	0.07	1.06	1.06	0.57	3.58	6.1	5553	0.00	2.00	1.24	1.20	1.49	375	5929	67407
24	29.80	23.80	26.80	238.35	0.00	6.04	0.00	0.00	86.9	0.07	1.05	1.05	0.57	3.61	6.4	5463	0.00	2.00	1.24	1.20	1.49	354	5818	83355
25	23.80	17.80	20.80	221.70	0.00	6.49	0.00	0.00	95.7	0.07	1.05	1.05	0.57	3.62	6.8	5472	0.00	2.00	1.24	1.20	1.49	330	5801	75265
26	17.80	11.80	14.80	201.16	0.00	6.71	0.00	0.00	104.5	0.06	1.05	1.05	0.57	3.64	7.0	5149	0.00	2.00	1.24	1.20	1.49	299	5448	99323
27	11.80	5.80	8.80	180.14	0.00	1.86	0.00	0.00	113.3	0.02	1.01	1.01	0.57	3.90	1.9	1321	0.00	2.00	1.24	1.20	1.49	268	1589	35822
28	5.80	0.00	2.90	180.14	0.00	5.82	0.00	0.00	117.8	0.05	1.04	1.04	0.57	3.72	6.0	4046	0.00	2.00	1.20	1.20	1.44	259	4304	79644

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados

El uso máximo del elemento es: 99.90% for Angle "17P" in load case "LC4 WIND 45° C.T."

Angle Forces For All Load Cases:
Positive for tension - negative for compression

Group	Angle	Max. Tens.	Max. Comp.	LC 1	LC 2	LC 3	LC 4	LC 5	LC 6
Label	Label	For All LC (kN)	For All LC (kN)	(kN)	(kN)	(kN)	(kN)	(kN)	(kN)
M1	1P	0.000	-13.793	-10.930	-13.793	-8.878	-11.079	-6.241	-6.791
M1	1X	0.000	-11.862	-11.862	-6.405	-9.595	-5.397	-6.429	-5.378
M1	1XY	1.090	-4.299	-0.853	1.090	-1.126	0.367	-4.299	-3.927
M1	1Y	0.000	-4.513	-1.000	-4.513	-1.239	-3.942	-3.287	-3.964
M1	2P	0.000	-28.624	-19.064	-28.624	-14.365	-21.714	-6.848	-8.683
M1	2X	0.000	-23.453	-23.453	-6.040	-17.742	-4.346	-7.683	-4.329
M1	2XY	16.572	-0.978	11.407	16.572	9.076	13.044	-0.978	0.010
M1	2Y	9.195	-2.432	9.195	-2.432	7.374	-1.570	0.647	-1.592
M2	3P	0.000	-60.283	-39.311	-60.283	-30.319	-46.442	-13.592	-17.619
M2	3X	0.000	-48.364	-48.364	-10.452	-37.284	-8.119	-15.361	-8.060
M2	3XY	39.771	-0.653	27.852	39.771	21.349	30.507	-0.653	1.629
M2	3Y	21.381	-6.498	21.381	-6.498	16.370	-5.077	0.186	-5.182
M2	4P	0.000	-93.010	-59.037	-93.010	-45.471	-71.590	-18.694	-25.220
M2	4X	0.000	-73.566	-73.566	-12.631	-56.648	-9.772	-21.456	-9.721
M2	4XY	67.742	0.000	48.339	67.742	37.132	52.042	1.982	5.698
M2	4Y	37.994	-7.240	37.994	-7.240	29.173	-5.625	3.041	-5.668
M3	5P	0.000	-164.675	-104.588	-164.675	-80.598	-126.798	-32.206	-43.749
M3	5X	0.000	-130.438	-130.438	-21.238	-100.487	-16.480	-38.269	-17.240
M3	5XY	118.196	0.000	85.488	118.196	65.624	90.758	5.964	12.231
M3	5Y	68.791	-8.983	68.791	-8.983	52.777	-7.053	6.915	-8.058
M3	6P	0.000	-246.504	-148.825	-246.504	-114.593	-189.701	-43.225	-61.993
M3	6X	0.000	-189.633	-189.633	-18.938	-145.988	-14.674	-53.073	-20.206
M3	6XY	175.988	0.000	135.865	175.988	104.414	135.242	14.444	22.126
M3	6Y	107.247	-6.925	107.247	-1.340	82.396	-1.138	13.980	-6.925
M4	7P	0.000	-361.621	-215.517	-361.621	-166.539	-278.887	-62.714	-90.788
M4	7X	0.000	-268.823	-268.823	-17.963	-207.550	-14.566	-74.944	-26.646
M4	7XY	255.068	0.000	201.137	255.068	153.985	195.421	22.928	33.254
M4	7Y	160.298	-9.856	160.298	3.881	122.564	2.237	20.256	-9.856
M4	8P	0.000	-476.425	-265.094	-476.425	-203.651	-366.165	-71.732	-112.347
M4	8X	5.531	-341.057	-341.057	5.531	-262.092	4.533	-89.831	-23.109
M4	8XY	315.513	0.000	270.743	315.513	208.558	242.936	38.275	46.826
M4	8Y	210.534	-1.711	210.534	33.676	162.235	26.184	32.338	-1.711
M5	9P	0.000	-484.691	-288.318	-484.691	-226.466	-377.477	-93.742	-131.479
M5	9X	0.000	-346.329	-346.329	-18.417	-271.096	-18.839	-107.553	-44.429
M5	9XY	289.660	0.000	235.550	289.660	176.535	218.103	13.082	23.436
M5	9Y	190.097	-26.713	190.097	4.576	141.564	-1.152	9.002	-26.713
M6	10P	0.000	-536.739	-354.747	-536.739	-273.485	-413.424	-99.047	-134.007
M6	10X	0.000	-377.664	-377.664	-35.588	-291.117	-27.965	-105.544	-39.697
M6	10XY	399.773	0.000	277.768	399.773	213.095	306.887	27.540	50.953
M6	10Y	265.124	-25.371	265.124	-16.963	203.366	-13.638	28.930	-25.371
M6	11P	0.000	-648.935	-427.609	-648.935	-328.724	-498.909	-111.844	-154.360
M6	11X	0.000	-447.680	-447.680	-29.628	-344.166	-22.568	-117.913	-37.443

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

M6	11XY	502.508	0.000	348.998	502.508	268.703	386.719	42.445	71.910
M6	11Y	339.083	-23.205	339.083	-11.118	261.073	-8.330	44.207	-23.205
M7	12P	0.000	-771.571	-514.681	-771.571	-396.168	-593.699	-133.517	-182.864
M7	12X	0.000	-529.226	-529.226	-36.902	-407.359	-28.626	-138.450	-43.687
M7	12XY	608.716	0.000	414.994	608.716	319.010	467.949	50.238	87.430
M7	12Y	410.840	-29.469	410.840	-18.419	315.812	-14.408	53.160	-29.469
M7	13P	0.000	-888.056	-594.739	-888.056	-457.660	-683.201	-150.554	-206.898
M7	13X	0.000	-604.262	-604.262	-38.028	-464.988	-29.398	-154.527	-45.538
M7	13XY	716.275	0.000	484.885	716.275	372.868	550.774	62.623	107.052
M7	13Y	484.926	-31.309	484.926	-19.530	372.898	-15.170	65.793	-31.309
M8	14P	0.000	-1027.466	-691.635	-1027.466	-532.297	-790.528	-173.379	-237.890
M8	14X	0.000	-695.036	-695.036	-42.829	-534.916	-33.192	-176.143	-50.608
M8	14XY	838.679	0.000	562.979	838.679	432.844	644.823	74.070	127.014
M8	14Y	567.726	-36.394	567.726	-24.351	436.493	-18.979	77.575	-36.394
M8	15P	0.000	-1155.693	-779.249	-1155.693	-599.516	-888.974	-191.098	-263.412
M8	15X	0.000	-776.348	-776.348	-42.301	-597.287	-32.608	-192.630	-51.343
M8	15XY	958.734	0.000	640.732	958.734	492.836	737.344	88.181	149.254
M8	15Y	651.799	-37.118	651.799	-23.809	501.346	-18.383	92.929	-37.118
M9	16P	0.000	-1295.135	-876.050	-1295.135	-674.701	-996.948	-215.755	-296.262
M9	16X	0.000	-867.823	-867.823	-48.940	-668.375	-38.437	-216.258	-58.644
M9	16XY	1075.311	0.000	714.564	1075.311	548.911	826.290	96.957	166.245
M9	16Y	730.203	-44.426	730.203	-30.458	560.939	-24.220	101.993	-44.426
M9	17P	0.000	-1391.635	-942.427	-1391.635	-724.443	-1069.851	-225.613	-311.907
M9	17X	0.000	-927.069	-927.069	-45.562	-712.631	-34.521	-224.634	-54.965
M9	17XY	1177.670	0.000	780.639	1177.670	601.059	906.340	113.156	189.418
M9	17Y	802.313	-40.754	802.313	-27.086	617.728	-20.309	118.897	-40.754
M10	18P	0.000	-973.883	-676.575	-973.883	-528.752	-757.358	-193.387	-250.502
M10	18X	0.000	-663.661	-663.661	-77.271	-518.819	-67.733	-192.029	-79.163
M10	18XY	751.204	0.000	478.701	751.204	359.964	569.498	33.161	85.509
M10	18Y	495.131	-70.819	495.131	-66.424	372.601	-59.389	37.274	-70.819
M11	19P	0.000	-969.192	-681.772	-969.192	-524.386	-745.391	-189.100	-244.318
M11	19X	0.000	-678.646	-678.646	-101.046	-521.982	-77.656	-189.433	-78.256
M11	19XY	773.032	0.000	482.755	773.032	371.442	594.648	39.017	94.786
M11	19Y	489.181	-91.253	489.181	-91.253	376.385	-70.124	41.000	-70.724
M11	20P	0.000	-1032.227	-727.004	-1032.227	-559.374	-794.069	-198.199	-256.840
M11	20X	0.000	-723.480	-723.480	-106.809	-556.663	-82.284	-198.410	-79.713
M11	20XY	846.255	0.000	527.247	846.255	405.472	650.774	47.081	108.375
M11	20Y	533.182	-97.284	533.182	-97.284	410.038	-74.957	48.967	-72.386
M12	21P	0.000	-1153.437	-814.343	-1153.437	-626.494	-887.233	-222.014	-287.163
M12	21X	0.000	-807.787	-807.787	-121.684	-621.451	-93.660	-220.311	-88.249
M12	21XY	952.093	0.000	590.600	952.093	454.273	732.246	53.007	122.467
M12	21Y	597.040	-112.022	597.040	-112.022	459.227	-86.228	55.663	-80.817
M12	22P	0.000	-1254.702	-886.308	-1254.702	-681.865	-965.135	-239.216	-309.997
M12	22X	0.000	-875.859	-875.859	-128.176	-673.826	-98.667	-235.422	-91.508
M12	22XY	1050.539	0.000	651.313	1050.539	500.963	807.955	62.657	139.371
M12	22Y	660.407	-118.553	660.407	-118.553	507.960	-91.264	65.827	-84.106
M13	23P	0.000	-1377.098	-973.559	-1377.098	-749.020	-1059.316	-261.661	-339.197
M13	23X	0.000	-960.135	-960.135	-139.691	-738.693	-107.563	-257.296	-99.378
M13	23XY	1158.814	0.000	716.342	1158.814	550.948	891.199	69.535	154.563
M13	23Y	729.248	-130.054	729.248	-130.054	560.877	-100.150	73.431	-91.965
M13	24P	0.000	-1498.948	-1058.754	-1498.948	-814.537	-1153.020	-280.818	-365.400
M13	24X	0.000	-1041.750	-1041.750	-146.876	-801.455	-113.072	-275.768	-103.525
M13	24XY	1275.359	0.000	788.268	1275.359	606.295	980.861	80.614	174.221
M13	24Y	804.566	-137.242	804.566	-137.242	618.834	-105.661	85.160	-96.115
M14	25P	0.000	-1635.151	-1155.175	-1635.151	-888.719	-1257.796	-305.404	-397.633
M14	25X	0.000	-1134.734	-1134.734	-159.541	-872.994	-122.825	-299.696	-111.995

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M14	25XY	1395.289	0.000	860.395	1395.289	661.767	1073.096	88.469	191.266
M14	25Y	880.202	-149.905	880.202	-149.905	677.004	-115.413	93.686	-104.583
M14	26P	0.000	-1768.591	-1247.833	-1768.591	-960.007	-1360.446	-326.186	-426.255
M14	26X	0.000	-1223.916	-1223.916	-166.904	-941.607	-128.501	-319.813	-116.365
M14	26XY	1523.066	0.000	939.377	1523.066	722.513	1171.368	100.719	212.898
M14	26Y	962.667	-157.271	962.667	-157.271	740.429	-121.091	106.602	-108.955
M15	27P	0.000	-1916.868	-1352.030	-1916.868	-1040.151	-1474.490	-352.409	-460.952
M15	27X	0.000	-1324.621	-1324.621	-179.893	-1019.066	-138.485	-345.367	-125.038
M15	27XY	1654.368	0.000	1018.665	1654.368	783.511	1272.370	109.811	231.991
M15	27Y	1045.365	-170.258	1045.365	-170.258	804.051	-131.073	116.346	-117.626
M15	28P	0.000	-2058.592	-1449.924	-2058.592	-1115.436	-1583.482	-374.290	-491.260
M15	28X	0.000	-1418.692	-1418.692	-187.051	-1091.411	-143.973	-366.331	-129.275
M15	28XY	1790.125	0.000	1102.751	1790.125	848.212	1376.811	123.135	255.251
M15	28Y	1132.953	-177.419	1132.953	-177.419	871.446	-136.564	130.342	-121.865
M16	29P	0.000	-2218.374	-1561.346	-2218.374	-1201.290	-1706.527	-402.015	-528.282
M16	29X	0.000	-1526.659	-1526.659	-199.765	-1174.607	-153.898	-393.393	-138.005
M16	29XY	1932.942	0.000	1189.479	1932.942	914.783	1486.519	133.552	276.454
M16	29Y	1223.214	-190.126	1223.214	-190.126	940.734	-146.483	141.434	-130.590
M17	30P	0.000	-2270.016	-1600.790	-2270.016	-1236.365	-1750.986	-417.905	-546.522
M17	30X	0.000	-1560.617	-1560.617	-209.277	-1205.462	-165.949	-408.257	-148.166
M17	30XY	1977.636	0.000	1209.883	1977.636	925.743	1516.165	128.512	276.090
M17	30Y	1249.174	-200.709	1249.174	-200.709	955.968	-159.359	137.479	-141.575
M18	31P	0.000	-2351.585	-1655.263	-2351.585	-1277.691	-1813.158	-438.131	-571.965
M18	31X	0.000	-1618.128	-1618.128	-224.648	-1249.124	-177.199	-429.480	-161.283
M18	31XY	2015.789	0.000	1229.872	2015.789	941.691	1546.089	122.049	273.125
M18	31Y	1266.173	-216.957	1266.173	-216.957	969.616	-171.282	130.084	-155.366
M19	32P	0.000	-2305.938	-1621.333	-2305.938	-1249.096	-1775.566	-445.639	-577.232
M19	32X	0.000	-1596.170	-1596.170	-244.805	-1229.740	-190.211	-439.966	-179.877
M19	32XY	1892.566	0.000	1148.045	1892.566	881.235	1453.801	91.467	234.590
M19	32Y	1172.681	-238.375	1172.681	-238.375	900.187	-185.265	96.644	-174.931
M20	33P	0.000	-2207.458	-1554.009	-2207.458	-1196.735	-1699.254	-442.867	-568.479
M20	33X	0.000	-1535.894	-1535.894	-258.621	-1182.800	-200.267	-439.008	-193.183
M20	33XY	1742.625	0.000	1048.423	1742.625	805.172	1339.044	61.363	194.818
M20	33Y	1065.524	-253.282	1065.524	-253.282	818.326	-196.160	64.742	-189.076
M21	34P	0.000	-2178.305	-1538.680	-2178.305	-1184.513	-1676.409	-454.546	-577.509
M21	34X	0.000	-1514.054	-1514.054	-272.832	-1165.569	-210.769	-446.266	-207.381
M21	34XY	1651.820	0.000	984.972	1651.820	756.790	1269.629	37.568	165.769
M21	34Y	999.863	-269.601	999.863	-269.601	768.244	-208.284	39.423	-204.896
M22	35P	0.000	-2102.697	-1492.486	-2102.697	-1151.781	-1621.066	-461.709	-579.027
M22	35X	0.000	-1455.926	-1455.926	-279.353	-1123.658	-218.588	-450.713	-224.274
M22	35XY	1503.706	0.000	884.433	1503.706	676.645	1152.902	3.726	122.786
M22	35Y	911.344	-274.318	911.344	-274.318	697.345	-214.716	7.786	-220.401
M23	36P	0.000	-2117.712	-1507.612	-2117.712	-1163.421	-1632.622	-473.474	-590.771
M23	36X	0.000	-1473.500	-1473.500	-297.132	-1137.182	-232.271	-464.349	-237.950
M23	36XY	1488.063	-8.120	868.894	1488.063	664.687	1140.863	-8.120	110.920
M23	36Y	895.789	-289.672	895.789	-289.672	685.374	-226.532	-4.062	-232.211
M24	37P	0.000	-2192.604	-1565.836	-2192.604	-1205.965	-1687.993	-502.814	-623.324
M24	37X	0.000	-1543.486	-1543.486	-335.491	-1188.773	-259.534	-496.171	-263.688
M24	37XY	1495.647	-28.330	865.051	1495.647	663.971	1148.944	-28.330	92.916
M24	37Y	882.196	-329.579	882.196	-329.579	677.160	-254.987	-25.931	-259.141
M25	38P	0.000	-2209.609	-1582.986	-2209.609	-1219.168	-1701.085	-516.178	-636.661
M25	38X	0.000	-1560.644	-1560.644	-352.928	-1201.981	-272.958	-509.538	-277.109
M25	38XY	1477.799	-41.803	847.344	1477.799	650.341	1135.204	-41.803	79.415
M25	38Y	862.056	-349.444	862.056	-349.444	661.657	-270.278	-41.272	-274.429
M26	39P	0.000	-2206.332	-1591.479	-2206.332	-1231.166	-1704.038	-541.887	-660.114
M26	39X	0.000	-1577.178	-1577.178	-389.856	-1220.165	-306.831	-538.184	-309.683

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M26	39XY	1414.977	-74.893	797.584	1414.977	606.595	1081.420	-74.893	43.822
M26	39Y	805.252	-384.496	805.252	-384.496	612.493	-302.708	-76.593	-305.560
M27	40P	0.000	-2226.761	-1612.081	-2226.761	-1247.015	-1719.754	-557.944	-676.137
M27	40X	0.000	-1596.290	-1596.290	-409.329	-1234.869	-321.812	-553.095	-324.664
M27	40XY	1397.399	-88.077	780.180	1397.399	593.205	1067.897	-88.077	30.605
M27	40Y	787.845	-401.543	787.845	-401.543	599.101	-315.822	-89.776	-318.675
M28	41P	0.000	-2241.492	-1626.659	-2241.492	-1258.229	-1731.086	-568.962	-687.185
M28	41X	0.000	-1610.868	-1610.868	-423.568	-1246.083	-332.765	-564.114	-335.617
M28	41XY	1383.652	-98.965	766.280	1383.652	582.513	1057.322	-98.965	19.746
M28	41Y	773.945	-415.782	773.945	-415.782	588.409	-326.776	-100.664	-329.628
D1	42P	5.450	0.000	1.573	5.450	1.456	4.438	1.168	1.913
D1	42X	1.571	-2.562	1.571	-2.562	1.455	-1.723	1.168	0.373
D1	42XY	0.959	-2.637	0.544	-2.637	0.665	-1.782	0.959	0.347
D1	42Y	3.184	0.000	0.544	3.184	0.665	2.695	0.960	1.468
D1	43P	5.535	0.000	5.535	4.747	4.519	3.912	1.962	1.809
D1	43X	6.541	0.000	6.541	4.787	5.293	3.943	2.165	1.826
D1	43XY	0.286	-4.308	-4.308	-3.223	-3.053	-2.217	0.076	0.286
D1	43Y	0.694	-2.214	-2.214	-1.064	-1.442	-0.557	0.472	0.694
D2	44P	5.353	-1.284	-1.284	5.353	-1.166	3.938	-0.888	0.388
D2	44X	0.000	-7.675	-1.286	-7.675	-1.168	-6.081	-0.889	-2.117
D2	44XY	0.000	-5.702	-0.291	-5.702	-0.402	-4.564	-0.685	-1.726
D2	44Y	3.763	-0.685	-0.293	3.763	-0.403	2.716	-0.685	0.095
D2	45P	6.352	0.000	6.352	4.147	4.726	3.029	0.647	0.221
D2	45X	8.065	0.000	8.065	6.162	6.044	4.578	0.963	0.595
D2	45XY	0.000	-9.554	-9.554	-6.849	-7.511	-5.427	-2.430	-1.907
D2	45Y	0.000	-6.254	-6.254	-5.311	-4.972	-4.245	-1.780	-1.597
D3	46P	10.774	0.000	1.776	10.774	1.395	8.314	0.527	2.258
D3	46X	1.774	-7.944	1.774	-7.944	1.393	-6.081	0.527	-1.342
D3	46XY	0.000	-8.919	-1.273	-8.919	-0.951	-6.832	-0.092	-1.562
D3	46Y	6.242	-1.276	-1.276	6.242	-0.953	4.829	-0.092	1.354
D3	47P	10.787	0.000	10.787	9.206	8.358	7.140	2.315	2.009
D3	47X	12.747	0.000	12.747	8.704	9.866	6.754	2.719	1.938
D3	47XY	0.000	-12.208	-12.208	-10.021	-9.331	-7.647	-2.087	-1.664
D3	47Y	0.000	-9.116	-9.116	-5.931	-6.953	-4.502	-1.516	-0.903
D4	48P	10.947	-2.000	-2.000	10.947	-1.521	8.437	-0.456	2.034
D4	48X	0.000	-14.051	-2.005	-14.051	-1.524	-10.788	-0.457	-2.774
D4	48XY	1.753	-8.942	1.753	-8.942	1.367	-6.859	0.311	-1.747
D4	48Y	10.666	0.000	1.751	10.666	1.365	8.222	0.312	2.027
D4	49P	13.558	0.000	13.558	8.732	10.475	6.761	2.654	1.724
D4	49X	16.646	0.000	16.646	13.926	12.850	10.755	3.203	2.676
D4	49XY	0.000	-16.706	-16.706	-10.973	-12.807	-8.395	-3.218	-2.111
D4	49Y	0.000	-12.273	-12.273	-10.855	-9.396	-8.304	-2.315	-2.040
D5	50P	27.020	0.000	3.968	27.020	3.113	20.843	1.169	5.602
D5	50X	3.931	-21.689	3.931	-21.689	3.084	-16.621	1.160	-3.768
D5	50XY	0.000	-16.249	-2.977	-16.249	-2.229	-12.437	-0.328	-2.880
D5	50Y	11.156	-3.007	-3.007	11.156	-2.253	8.641	-0.332	2.393
D5	51P	25.244	0.000	25.244	20.998	19.520	16.251	5.249	4.429
D5	51X	31.593	0.000	31.593	21.491	24.405	16.629	6.521	4.572
D5	51XY	0.000	-25.448	-25.448	-20.976	-19.476	-16.032	-4.453	-3.587
D5	51Y	0.000	-19.321	-19.321	-12.328	-14.763	-9.382	-3.322	-1.974
D6	52P	30.815	-5.046	-5.046	30.815	-3.846	23.736	-1.182	5.716
D6	52X	0.000	-39.385	-5.000	-39.385	-3.811	-30.257	-1.170	-7.782
D6	52XY	4.440	-13.266	4.440	-13.266	3.451	-10.168	0.855	-2.552
D6	52Y	18.988	0.000	4.491	18.988	3.490	14.639	0.871	3.659
D6	53P	32.976	0.000	32.976	20.859	25.453	16.130	6.409	4.075
D6	53X	41.678	0.000	41.678	34.275	32.148	26.447	7.986	6.554

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D6	53XY	0.000	-36.274	-36.274	-22.865	-27.820	-17.500	-7.023	-4.436
D6	53Y	0.000	-27.185	-27.185	-24.470	-20.827	-18.736	-5.156	-4.631
D7	54P	36.827	-0.011	-0.011	36.827	0.435	28.769	1.371	8.456
D7	54X	1.099	-37.346	-1.122	-37.346	-0.420	-28.281	1.099	-5.868
D7	54XY	4.329	-14.270	4.329	-14.270	3.773	-10.533	2.290	-1.288
D7	54Y	20.380	0.000	3.227	20.380	2.925	16.119	2.025	5.324
D7	55P	36.883	0.000	36.883	24.290	28.824	19.134	8.553	6.128
D7	55X	43.235	0.000	43.235	35.981	33.711	28.126	9.680	8.277
D7	55XY	0.000	-36.727	-36.727	-27.090	-27.802	-20.384	-5.655	-3.794
D7	55Y	0.000	-30.311	-30.311	-21.976	-22.866	-16.452	-4.441	-2.835
D8	56P	45.176	-7.506	-7.506	45.176	-5.966	34.557	-2.523	7.611
D8	56X	0.000	-52.723	-0.838	-52.723	-0.837	-40.746	-0.877	-10.856
D8	56XY	0.000	-4.188	-1.470	-4.188	-1.324	-3.412	-1.260	-1.782
D8	56Y	5.768	0.000	5.329	5.768	3.908	4.242	0.486	0.569
D8	57P	31.786	0.000	30.143	31.786	23.021	24.283	4.813	5.127
D8	57X	44.786	0.000	44.786	22.978	34.287	17.505	7.971	3.768
D8	57XY	0.000	-42.495	-42.495	-17.108	-32.858	-13.323	-9.133	-4.242
D8	57Y	0.000	-35.387	-27.532	-35.387	-21.346	-27.387	-5.785	-7.294
D9	58P	4.198	-29.381	-12.472	-29.381	-7.058	-20.063	4.198	0.946
D9	58X	4.358	-38.516	-38.516	-5.429	-27.094	-1.638	-2.017	4.358
D9	58XY	50.612	0.000	50.612	34.941	41.471	29.407	16.402	13.377
D9	58Y	28.648	0.000	28.648	28.151	24.573	24.193	13.327	13.231
D9	59P	5.263	-54.515	-0.202	-54.515	2.378	-39.397	5.263	-5.182
D9	59X	46.051	-13.716	-13.716	46.051	-8.019	37.957	2.172	13.672
D9	59XY	27.239	0.000	27.239	14.217	23.488	13.466	13.185	10.675
D9	59Y	22.893	0.000	15.483	22.893	14.444	20.144	11.369	12.791
D10	60P	49.373	0.000	4.218	49.373	3.620	38.352	2.023	10.707
D10	60X	1.890	-44.031	1.890	-44.031	1.829	-33.491	1.688	-7.144
D10	60XY	1.407	-27.971	1.167	-27.971	1.273	-21.139	1.407	-4.198
D10	60Y	28.805	-1.108	-1.108	28.805	-0.477	22.531	1.112	6.867
D10	61P	50.337	0.000	50.337	38.513	39.098	29.999	10.863	8.584
D10	61X	53.415	0.000	53.415	39.555	41.466	30.800	11.589	8.916
D10	61XY	0.000	-50.312	-50.312	-38.703	-38.328	-29.393	-8.466	-6.226
D10	61Y	0.000	-47.282	-47.282	-33.220	-35.997	-25.176	-7.757	-5.047
D11	62P	37.736	-1.482	-1.482	37.736	-1.291	28.874	-0.905	6.638
D11	62X	0.000	-43.901	-6.207	-43.901	-4.926	-33.917	-1.855	-9.103
D11	62XY	4.571	-30.313	4.571	-30.313	3.366	-23.467	0.285	-6.426
D11	62Y	33.148	-0.676	-0.168	33.148	-0.280	25.345	-0.676	5.733
D11	63P	47.717	0.000	47.717	27.884	36.557	21.296	8.585	4.765
D11	63X	47.845	0.000	47.845	43.025	36.655	32.942	8.560	7.626
D11	63XY	0.000	-49.542	-49.542	-40.239	-38.262	-31.101	-10.152	-8.356
D11	63Y	0.000	-49.349	-49.349	-34.002	-38.113	-26.304	-10.151	-7.194
D12	64P	45.117	0.000	2.534	45.117	2.111	34.864	0.920	9.110
D12	64X	0.154	-44.051	-1.454	-44.051	-0.957	-33.721	0.154	-8.039
D12	64XY	2.454	-32.659	2.454	-32.659	2.049	-24.959	0.939	-5.816
D12	64Y	33.827	-1.531	-1.531	33.827	-1.016	26.180	0.175	6.977
D12	65P	52.049	0.000	52.049	35.251	40.201	27.276	10.478	7.241
D12	65X	53.087	0.000	53.087	43.686	41.000	33.764	10.656	8.842
D12	65XY	0.000	-51.804	-51.804	-42.621	-39.690	-32.621	-9.532	-7.759
D12	65Y	0.000	-51.006	-51.006	-34.082	-39.076	-26.053	-9.351	-6.090
D13	66P	42.212	-3.104	-3.104	42.212	-2.290	32.566	-0.480	8.237
D13	66X	0.000	-49.944	-7.262	-49.944	-5.488	-38.317	-1.290	-9.498
D13	66XY	7.389	-30.851	7.389	-30.851	5.783	-23.631	1.583	-5.774
D13	66Y	39.190	0.000	3.229	39.190	2.582	30.242	0.772	7.690
D13	67P	54.062	0.000	54.062	32.373	41.686	24.998	10.545	6.368
D13	67X	54.613	0.000	54.613	49.029	42.110	37.809	10.640	9.560

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D13	67XY	0.000	-53.986	-53.986	-40.770	-41.432	-31.261	-10.253	-7.704
D13	67Y	0.000	-53.931	-53.931	-40.028	-41.389	-30.689	-10.249	-7.569
D14	68P	49.933	0.000	2.358	49.933	1.980	38.571	0.870	10.021
D14	68X	0.074	-49.228	-1.749	-49.228	-1.180	-37.698	0.074	-9.058
D14	68XY	2.687	-37.405	2.687	-37.405	2.233	-28.605	0.980	-6.733
D14	68Y	38.579	-1.420	-1.420	38.579	-0.926	29.839	0.184	7.879
D14	69P	58.874	0.000	58.874	40.060	45.455	30.978	11.778	8.153
D14	69X	58.798	0.000	58.798	48.453	45.397	37.434	11.744	9.747
D14	69XY	0.000	-57.882	-57.882	-47.383	-44.361	-36.280	-10.709	-8.682
D14	69Y	0.000	-57.907	-57.907	-39.247	-44.380	-30.021	-10.704	-7.108
D15	70P	45.581	-4.738	-4.738	45.581	-3.600	35.102	-1.008	8.671
D15	70X	0.000	-55.953	-8.951	-55.953	-6.842	-42.992	-1.831	-10.871
D15	70XY	8.513	-34.638	8.513	-34.638	6.593	-26.599	1.582	-6.721
D15	70Y	44.138	0.000	4.300	44.138	3.352	33.994	0.759	8.423
D15	71P	59.880	0.000	59.880	35.708	46.107	27.509	11.453	6.797
D15	71X	59.695	0.000	59.695	54.007	45.965	41.585	11.397	10.296
D15	71XY	0.000	-60.148	-60.148	-44.595	-46.225	-34.257	-11.659	-8.660
D15	71Y	0.000	-60.304	-60.304	-45.998	-46.345	-35.335	-11.690	-8.932
D16	72P	48.574	0.000	0.817	48.574	1.225	37.957	2.044	11.231
D16	72X	1.425	-48.663	-2.474	-48.663	-1.307	-36.833	1.425	-7.459
D16	72XY	7.045	-32.620	7.045	-32.620	6.015	-24.494	3.288	-4.343
D16	72Y	42.156	0.000	3.752	42.156	3.482	33.021	2.668	10.056
D16	73P	59.509	0.000	59.509	39.781	46.374	31.194	13.374	9.574
D16	73X	59.620	0.000	59.620	50.966	46.459	39.797	13.391	11.719
D16	73XY	0.000	-54.636	-54.636	-41.528	-41.433	-31.346	-8.617	-6.089
D16	73Y	0.000	-54.886	-54.886	-39.745	-41.625	-29.973	-8.631	-5.713
D17	74P	34.890	-6.106	-6.106	34.890	-5.164	26.367	-3.079	4.807
D17	74X	0.000	-49.526	-11.712	-49.526	-9.478	-38.559	-4.280	-11.553
D17	74XY	6.630	-33.649	6.630	-33.649	4.633	-26.350	-0.563	-8.314
D17	74Y	38.323	-1.762	1.024	38.323	0.320	29.009	-1.762	5.413
D17	75P	50.867	0.000	50.867	26.812	38.662	20.154	7.917	3.284
D17	75X	48.055	0.000	48.055	46.387	36.499	35.211	7.248	6.922
D17	75XY	0.000	-52.852	-52.852	-41.831	-41.125	-32.643	-12.043	-9.917
D17	75Y	0.000	-55.937	-55.937	-41.316	-43.497	-32.245	-12.750	-9.932
D18	76P	0.000	-295.016	-190.075	-295.016	-141.583	-222.277	-31.165	-51.325
D18	76X	14.902	-187.123	-187.123	13.350	-139.314	14.902	-31.132	7.453
D18	76XY	292.471	0.000	191.031	292.471	151.589	229.590	43.409	62.896
D18	76Y	195.899	-1.098	195.899	-1.098	155.332	3.790	44.915	7.000
D18	77P	0.000	-306.196	-205.838	-306.196	-153.711	-230.876	-34.798	-54.073
D18	77X	7.989	-199.345	-199.345	4.363	-148.716	7.989	-33.883	5.327
D18	77XY	283.365	0.000	203.580	283.365	161.244	222.587	46.423	61.744
D18	77Y	211.396	0.000	211.396	28.249	167.256	26.362	48.298	13.040
D19	78P	59.170	0.000	19.799	59.170	15.157	45.437	4.850	12.422
D19	78X	18.805	-29.578	18.805	-29.578	14.392	-22.823	4.625	-4.685
D19	78XY	0.000	-58.043	-15.240	-58.043	-11.797	-44.718	-2.031	-10.264
D19	78Y	35.561	-16.235	-16.235	35.561	-12.562	27.279	-2.255	7.712
D19	79P	61.776	0.000	61.776	55.214	47.447	42.395	12.845	11.577
D19	79X	62.400	0.000	62.400	39.545	47.928	30.343	12.959	8.557
D19	79XY	0.000	-61.708	-58.361	-61.708	-44.967	-47.537	-10.247	-10.885
D19	79Y	0.000	-58.606	-58.606	-25.868	-45.156	-19.970	-10.354	-4.050
D20	80P	33.945	-17.891	-17.891	33.945	-13.640	26.231	-4.279	5.695
D20	80X	0.000	-61.388	-18.014	-61.388	-13.735	-47.095	-4.291	-12.634
D20	80XY	14.930	-38.056	14.930	-38.056	11.608	-29.149	2.160	-8.035
D20	80Y	59.314	0.000	14.806	59.314	11.512	45.744	2.148	10.709
D20	81P	61.817	0.000	61.817	30.241	47.675	23.382	11.135	5.055
D20	81X	62.977	0.000	62.376	62.977	48.105	48.561	11.232	11.342

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D20	81XY	0.000	-65.993	-65.993	-42.012	-50.642	-32.192	-13.488	-8.869
D20	81Y	0.000	-64.510	-64.510	-57.477	-49.502	-44.087	-13.169	-11.810
D21	82P	55.846	0.000	3.186	55.846	2.509	43.011	0.951	11.081
D21	82X	2.815	-48.773	2.815	-48.773	2.223	-37.457	0.878	-9.047
D21	82XY	0.000	-54.375	-1.886	-54.375	-1.393	-41.766	-0.047	-10.145
D21	82Y	51.161	-2.258	-2.258	51.161	-1.680	39.409	-0.119	10.158
D21	83P	71.848	0.000	71.848	52.054	55.326	40.095	14.157	10.343
D21	83X	69.387	0.000	69.387	54.959	53.433	42.330	13.678	10.896
D21	83XY	0.000	-68.912	-68.912	-58.136	-52.953	-44.659	-12.938	-10.859
D21	83Y	0.000	-67.609	-67.609	-45.000	-51.950	-34.555	-12.683	-8.328
D22	84P	53.219	-4.751	-4.751	53.219	-3.584	41.004	-1.010	10.143
D22	84X	0.000	-59.405	-5.044	-59.405	-3.810	-45.622	-1.063	-11.521
D22	84XY	4.539	-51.423	4.539	-51.423	3.562	-39.483	0.814	-9.953
D22	84Y	58.168	0.000	4.246	58.168	3.336	44.812	0.760	11.134
D22	85P	75.659	0.000	75.659	49.462	58.270	38.114	14.481	9.435
D22	85X	71.799	0.000	71.799	61.918	55.301	47.696	13.747	11.840
D22	85XY	0.000	-71.946	-71.946	-55.231	-55.274	-42.412	-13.922	-10.700
D22	85Y	0.000	-74.324	-74.324	-55.605	-57.103	-42.699	-14.382	-10.775
D23	86P	60.082	-0.464	-0.464	60.082	-0.250	46.320	0.157	11.805
D23	86X	0.098	-61.104	-0.780	-61.104	-0.494	-46.892	0.098	-11.507
D23	86XY	1.286	-58.178	1.286	-58.178	1.096	-44.642	0.504	-10.936
D23	86Y	59.952	0.000	0.970	59.952	0.853	46.221	0.445	11.793
D23	87P	80.615	0.000	80.615	56.279	62.119	43.395	15.766	11.079
D23	87X	77.530	0.000	77.530	63.756	59.746	49.146	15.174	12.518
D23	87XY	0.000	-77.083	-77.083	-61.999	-59.189	-47.581	-14.584	-11.676
D23	87Y	0.000	-80.414	-80.414	-57.281	-61.751	-43.952	-15.223	-10.766
D24	88P	60.485	-3.017	-3.017	60.485	-2.233	46.611	-0.490	11.727
D24	88X	0.000	-65.154	-3.329	-65.154	-2.473	-50.026	-0.548	-12.442
D24	88XY	3.366	-58.854	3.366	-58.854	2.677	-45.181	0.753	-11.217
D24	88Y	63.729	0.000	3.054	63.729	2.437	49.107	0.695	12.368
D24	89P	83.450	0.000	83.450	56.681	64.281	43.685	16.158	11.002
D24	89X	80.187	0.000	80.187	67.532	61.771	52.032	15.533	13.093
D24	89XY	0.000	-80.123	-80.123	-62.682	-61.546	-48.126	-15.322	-11.961
D24	89Y	0.000	-83.252	-83.252	-61.326	-63.953	-47.082	-15.923	-11.699
D25	90P	65.633	-0.899	-0.899	65.633	-0.592	50.582	0.019	12.819
D25	90X	0.000	-67.135	-1.210	-67.135	-0.832	-51.539	-0.039	-12.722
D25	90XY	1.557	-63.771	1.557	-63.771	1.297	-48.952	0.505	-12.064
D25	90Y	65.954	0.000	1.246	65.954	1.057	50.830	0.446	12.896
D25	91P	88.043	0.000	88.043	61.846	67.825	47.669	17.143	12.097
D25	91X	84.864	0.000	84.864	69.742	65.380	53.743	16.533	13.618
D25	91XY	0.000	-84.520	-84.520	-67.580	-64.917	-51.882	-16.068	-12.803
D25	91Y	0.000	-87.710	-87.710	-63.325	-67.371	-48.609	-16.680	-11.983
D26	92P	65.968	-3.828	-3.828	65.968	-2.834	50.851	-0.609	12.819
D26	92X	0.000	-71.991	-4.142	-71.991	-3.076	-55.263	-0.668	-13.721
D26	92XY	4.230	-64.353	4.230	-64.353	3.365	-49.389	0.957	-12.239
D26	92Y	70.538	0.000	3.916	70.538	3.123	54.367	0.898	13.716
D26	93P	91.241	0.000	91.241	62.153	70.297	47.917	17.694	12.092
D26	93X	88.044	0.000	88.044	74.354	67.838	57.301	17.082	14.442
D26	93XY	0.000	-87.954	-87.954	-68.194	-67.547	-52.343	-16.792	-12.984
D26	93Y	0.000	-91.173	-91.173	-68.149	-70.024	-52.308	-17.410	-12.975
D27	94P	71.644	-0.640	-0.640	71.644	-0.388	55.211	0.091	13.998
D27	94X	0.034	-72.625	-0.948	-72.625	-0.625	-55.757	0.034	-13.756
D27	94XY	1.353	-69.674	1.353	-69.674	1.145	-53.488	0.486	-13.179
D27	94Y	71.561	0.000	1.045	71.561	0.908	55.148	0.429	13.996
D27	95P	95.463	0.000	95.463	67.862	73.538	52.302	18.593	13.276
D27	95X	92.215	0.000	92.215	75.339	71.040	58.054	17.969	14.716

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D27	95XY	0.000	-91.817	-91.817	-73.476	-70.526	-56.412	-17.451	-13.916
D27	95Y	0.000	-94.925	-94.925	-68.826	-72.916	-52.835	-18.046	-13.019
D28	96P	70.265	-5.267	-5.267	70.265	-3.966	54.132	-1.024	13.508
D28	96X	0.000	-78.471	-5.590	-78.471	-4.215	-60.273	-1.084	-15.105
D28	96XY	5.293	-68.872	5.293	-68.872	4.158	-52.890	1.026	-13.243
D28	96Y	76.581	0.000	4.970	76.581	3.909	58.991	0.966	14.743
D28	97P	97.978	0.000	97.978	66.478	75.453	51.219	18.854	12.787
D28	97X	94.565	0.000	94.565	80.376	72.829	61.909	18.201	15.465
D28	97XY	0.000	-94.847	-94.847	-72.685	-72.875	-55.823	-18.254	-13.984
D28	97Y	0.000	-98.129	-98.129	-74.649	-75.399	-57.333	-18.885	-14.362
D29	98P	80.001	0.000	3.527	80.001	2.949	61.771	1.483	16.195
D29	98X	3.268	-74.349	3.268	-74.349	2.749	-56.951	1.434	-13.498
D29	98XY	0.563	-76.467	-1.285	-76.467	-0.752	-58.582	0.563	-13.902
D29	98Y	74.763	-1.543	-1.543	74.763	-0.951	57.743	0.515	15.196
D29	99P	102.540	0.000	102.540	76.235	79.113	58.874	20.541	15.475
D29	99X	99.291	0.000	99.291	78.487	76.614	60.606	19.918	15.909
D29	99XY	0.000	-97.366	-97.366	-80.245	-74.662	-61.487	-17.932	-14.632
D29	99Y	0.000	-100.645	-100.645	-70.615	-77.184	-54.080	-18.561	-12.777
D30	100P	0.000	-167.309	-167.309	-18.802	-125.423	-11.182	-31.514	-2.928
D30	100X	0.000	-236.927	-167.820	-236.927	-125.817	-178.959	-31.609	-44.890
D30	100XY	159.892	0.000	159.892	12.864	126.276	13.171	32.065	3.763
D30	100Y	226.983	0.000	159.378	226.983	125.880	177.868	31.968	44.961
D30	101P	139.443	-23.276	139.443	-23.276	110.543	-14.623	27.809	-3.503
D30	101X	231.416	0.000	134.959	231.416	107.095	181.278	26.979	45.527
D30	101XY	8.967	-142.907	-142.907	7.398	-106.651	8.967	-26.498	2.426
D30	101Y	0.000	-231.500	-147.500	-231.500	-110.183	-174.784	-27.408	-43.559
D31	102P	0.000	-218.178	-167.001	-218.178	-125.548	-164.897	-33.581	-43.412
D31	102X	0.000	-160.194	-160.194	-33.144	-120.313	-22.580	-31.958	-7.505
D31	102XY	216.292	0.000	146.593	216.292	115.683	169.280	27.332	40.726
D31	102Y	153.247	0.000	153.247	7.785	120.801	8.905	28.836	0.840
D31	103P	0.000	-222.764	-140.653	-222.764	-105.283	-168.424	-28.704	-44.484
D31	103X	11.255	-137.411	-137.411	10.841	-102.788	11.255	-27.783	0.752
D31	103XY	212.365	0.000	123.795	212.365	98.147	166.260	23.136	40.161
D31	103Y	127.003	-27.745	127.003	-27.745	100.615	-18.428	23.996	-5.790
D32	104P	0.000	-85.176	-38.279	-85.176	-27.985	-64.051	-6.661	-15.678
D32	104X	29.662	-33.716	-33.716	29.662	-24.475	24.274	-5.568	6.626
D32	104XY	90.976	0.000	31.678	90.976	25.829	71.436	6.920	18.324
D32	104Y	36.135	-40.083	36.135	-40.083	29.258	-29.368	7.931	-6.734
D32	105P	0.000	-88.453	-85.060	-88.453	-63.972	-66.572	-15.918	-16.560
D32	105X	0.000	-82.802	-82.802	-37.686	-62.235	-27.525	-15.303	-6.613
D32	105XY	88.571	0.000	80.709	88.571	63.548	69.586	16.610	18.112
D32	105Y	82.734	0.000	82.734	33.240	65.106	27.026	17.187	7.654
D33	106P	0.000	-66.352	-38.586	-66.352	-28.533	-49.886	-7.606	-12.943
D33	106X	10.535	-35.031	-35.031	10.535	-25.799	9.249	-6.754	2.013
D33	106XY	69.261	0.000	30.930	69.261	24.942	54.420	5.900	13.270
D33	106Y	34.399	-20.105	34.399	-20.105	27.609	-14.315	6.685	-3.803
D33	107P	0.000	-69.194	-58.646	-69.194	-43.967	-52.071	-11.663	-13.684
D33	107X	0.000	-57.398	-57.398	-18.591	-43.005	-13.150	-11.247	-3.774
D33	107XY	67.092	0.000	53.269	67.092	42.127	52.752	10.395	13.047
D33	107Y	55.308	0.000	55.308	12.959	43.695	11.113	10.897	2.742
D34	108P	0.000	-42.009	-31.097	-42.009	-23.056	-31.445	-7.329	-9.424
D34	108X	0.013	-27.343	-27.343	-1.105	-20.168	0.013	-5.965	-0.917
D34	108XY	45.422	0.000	21.607	45.422	17.486	35.801	3.301	7.880
D34	108Y	24.230	-11.672	24.230	-11.672	19.504	-8.111	3.794	-3.113
D34	109P	0.000	-42.349	-30.172	-42.349	-22.345	-31.706	-7.267	-9.603
D34	109X	0.000	-39.729	-39.729	-11.924	-29.697	-8.305	-8.667	-3.312

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D34	109XY	45.476	0.000	33.979	45.476	27.005	35.843	5.798	8.004
D34	109Y	27.560	-0.838	27.560	-0.838	22.067	0.218	4.754	-0.716
D35	110P	0.000	-69.085	-16.701	-69.085	-10.380	-50.667	-2.827	-12.898
D35	111P	13.426	-47.282	13.426	-47.282	12.798	-33.903	4.548	-7.139
D35	112P	73.840	0.000	73.840	30.680	59.270	26.069	15.689	7.382
D35	113P	78.310	0.000	70.900	78.310	57.008	62.701	15.069	16.487
D35	114P	77.090	0.000	26.568	77.090	22.907	61.763	6.690	16.403
D35	115P	31.716	-30.459	-30.459	31.716	-20.963	26.865	-4.797	7.172
D35	116P	0.000	-74.334	-74.334	-49.739	-54.712	-35.793	-12.756	-8.022
D35	117P	0.000	-78.927	-78.927	-67.343	-58.245	-49.327	-14.649	-12.412
D36	118P	0.000	-70.688	-9.639	-70.688	-4.628	-51.589	-6.687	-18.438
D36	119P	0.000	-83.695	-17.146	-83.695	-10.406	-61.589	-9.133	-21.931
D36	120P	64.582	0.000	64.582	53.639	52.465	44.040	7.578	5.464
D36	121P	75.629	0.000	75.629	46.238	60.963	38.353	9.362	3.705
D36	122P	47.639	-20.218	-20.218	47.639	-12.768	39.430	-9.591	3.470
D36	123P	52.031	-7.263	-7.263	52.031	-2.800	42.803	-6.036	5.366
D36	124P	0.000	-104.064	-104.064	-81.353	-77.265	-59.787	-25.646	-21.269
D36	125P	0.000	-91.943	-91.943	-73.836	-67.941	-54.011	-23.035	-19.548
D37	126P	3.097	-29.654	2.591	-29.654	3.097	-21.703	1.740	-4.460
D37	127P	1.915	-25.915	-0.593	-25.915	0.650	-18.831	1.915	-2.961
D37	128P	43.404	0.000	43.404	30.450	34.493	24.528	9.932	7.439
D37	129P	34.448	0.000	34.448	29.573	27.604	23.849	8.517	7.575
D37	130P	28.497	0.000	2.154	28.497	2.763	23.022	2.542	7.605
D37	131P	31.621	0.000	0.676	31.621	1.623	25.429	1.389	7.347
D37	132P	0.000	-32.050	-32.050	-28.189	-23.550	-20.580	-4.460	-3.716
D37	133P	0.000	-41.933	-41.933	-27.754	-31.151	-20.241	-6.588	-3.856
D38	134P	0.000	-54.205	-29.424	-54.205	-21.390	-40.455	-12.037	-16.808
D38	135P	2.911	-37.807	2.171	-37.807	2.911	-27.835	-6.545	-14.233
D38	136P	24.983	-4.922	24.983	7.435	20.460	6.958	-1.542	-4.922
D38	137P	33.094	-0.882	33.094	30.584	26.700	24.769	-0.398	-0.882
D38	138P	31.223	-7.044	-0.403	31.223	0.931	25.261	-7.044	-0.956
D38	139P	6.904	-25.914	-25.914	6.904	-18.690	6.549	-11.227	-4.918
D38	140P	0.000	-61.020	-61.020	-36.903	-45.696	-27.140	-18.596	-13.951
D38	141P	0.000	-55.530	-51.705	-55.530	-38.531	-41.473	-16.525	-17.260
D39	142P	18.995	-78.456	17.059	-78.456	18.995	-54.471	5.920	-12.454
D39	143P	0.000	-104.518	-26.674	-104.518	-14.642	-74.522	-1.926	-16.906
D39	144P	112.917	0.000	112.917	95.885	92.734	79.630	24.819	21.537
D39	145P	106.485	0.000	106.485	69.130	87.787	59.046	24.176	16.981
D39	146P	67.417	-21.430	-21.430	67.417	-10.609	57.728	-0.414	16.675
D39	147P	97.386	0.000	13.521	97.386	16.274	80.785	5.209	21.349
D39	148P	0.000	-115.802	-115.802	-107.674	-83.205	-76.950	-19.559	-17.992
D39	149P	0.000	-123.375	-123.375	-76.659	-89.030	-53.088	-21.080	-12.083
D40	158P	0.000	-117.625	-101.990	-117.625	-73.854	-85.879	-24.832	-27.839
D40	159P	28.697	-56.311	28.697	-56.311	26.674	-38.710	-0.344	-16.695
D40	160P	68.999	-0.109	68.999	23.333	57.678	22.545	8.684	-0.109
D40	161P	79.844	0.000	76.777	79.844	63.661	66.018	9.636	10.224
D40	162P	82.288	-1.749	20.792	82.288	20.594	67.899	-1.749	10.087
D40	163P	20.723	-53.057	-53.057	20.723	-36.211	20.536	-14.550	-0.359
D40	164P	0.000	-111.417	-111.417	-52.825	-81.105	-36.028	-27.053	-15.772
D40	165P	0.000	-113.075	-62.298	-113.075	-43.319	-82.378	-16.582	-26.355
H1	166P	0.000	-0.592	-0.592	-0.545	-0.550	-0.514	-0.446	-0.437
H1	166Y	0.000	-0.528	-0.219	-0.528	-0.263	-0.501	-0.370	-0.430
H1	167P	0.000	-0.410	-0.058	-0.287	-0.149	-0.325	-0.366	-0.410
H1	167X	0.000	-0.441	-0.438	-0.323	-0.441	-0.352	-0.441	-0.419
H2	1661P	0.143	-0.191	-0.191	-0.104	-0.095	-0.028	0.127	0.143
H2	1661Y	0.936	0.000	0.581	0.936	0.499	0.772	0.281	0.349

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H2	1671P	0.000	-0.509	-0.509	-0.454	-0.385	-0.343	-0.058	-0.047
H2	1671X	0.201	0.000	0.103	0.201	0.085	0.160	0.062	0.080
H3	1662P	0.000	-0.756	-0.644	-0.756	-0.561	-0.647	-0.343	-0.365
H3	1662Y	0.180	-0.173	0.180	0.039	0.072	-0.036	-0.146	-0.173
H3	1672P	0.871	-0.228	0.871	0.715	0.540	0.420	-0.198	-0.228
H3	1672X	1.140	-0.259	1.140	0.469	0.747	0.231	-0.130	-0.259
H4	1663P	3.901	-0.202	3.901	3.007	2.663	1.975	-0.029	-0.202
H4	1663Y	0.000	-5.694	-5.694	-4.247	-4.718	-3.605	-2.083	-1.804
H4	1674X	3.360	-1.203	-0.561	3.360	-0.837	2.179	-1.203	-0.448
H4	1674Y	0.000	-4.687	-0.381	-4.687	-0.698	-4.010	-1.057	-1.885
H5	168P	0.000	-23.149	-23.149	-19.191	-19.049	-16.003	-10.505	-9.742
H5	168Y	7.944	-4.497	7.944	3.960	4.870	1.803	-3.728	-4.497
H5	169P	0.000	-17.445	-6.196	-17.445	-6.026	-14.678	-6.742	-8.906
H5	169X	3.447	-7.228	-7.205	3.447	-6.802	1.390	-7.228	-5.180
H6	170P	43.222	0.000	43.222	32.785	32.230	24.197	8.778	6.763
H6	170Y	0.000	-40.329	-40.329	-29.874	-32.044	-23.997	-8.569	-6.552
H6	171P	31.241	-0.262	0.985	31.241	-0.262	23.010	-0.223	5.596
H6	171X	1.824	-28.385	1.824	-28.385	0.384	-22.851	0.418	-5.392
H7	1701P	4.424	0.000	4.424	3.249	3.219	2.315	0.575	0.348
H7	1701Y	0.000	-4.896	-4.896	-3.773	-3.950	-3.086	-1.297	-1.080
H7	1712P	3.152	-0.387	-0.264	3.152	-0.387	2.241	-0.384	0.273
H7	1712X	0.000	-3.674	-0.288	-3.674	-0.405	-3.009	-0.353	-1.005
H8	1703P	7.087	0.000	7.087	5.139	5.111	3.612	0.706	0.331
H8	1703Y	0.000	-8.386	-8.386	-6.350	-6.792	-5.226	-2.388	-1.996
H8	1714P	5.013	-0.861	-0.676	5.013	-0.861	3.514	-0.861	0.233
H8	1714X	0.000	-6.224	-0.501	-6.224	-0.727	-5.129	-0.798	-1.899
H9	1704P	11.200	0.000	11.200	8.015	8.028	5.577	0.767	0.153
H9	1704Y	0.000	-14.195	-14.195	-10.920	-11.507	-8.987	-4.250	-3.619
H9	1705P	7.864	-1.770	-1.538	7.864	-1.770	5.461	-1.769	0.040
H9	1705X	0.000	-10.779	-1.342	-10.779	-1.620	-8.879	-1.692	-3.508
H10	172P	0.000	-64.151	-64.151	-52.146	-52.022	-42.783	-24.724	-22.408
H10	172Y	31.478	-8.096	31.478	19.400	21.542	12.247	-5.766	-8.096
H10	1721P	0.000	-51.595	-16.275	-51.595	-15.192	-42.359	-15.177	-21.971
H10	1721X	18.801	-16.556	-16.556	18.801	-15.409	11.786	-15.344	-8.543
H11	1722P	167.396	0.000	167.396	129.411	127.406	98.173	39.953	32.628
H11	1722Y	0.000	-138.028	-138.028	-100.028	-107.546	-78.301	-20.088	-12.760
H11	1723P	128.298	0.000	14.899	128.298	10.095	97.317	9.849	31.663
H11	1723X	15.021	-98.536	15.021	-98.536	10.189	-77.154	10.122	-11.722
H12	17231P	13.277	0.000	13.277	10.686	9.982	7.987	2.796	2.296
H12	17231Y	0.000	-11.798	-11.798	-9.198	-9.307	-7.306	-2.120	-1.619
H12	17241P	10.603	0.000	1.489	10.603	0.913	7.924	0.471	2.224
H12	17241X	0.214	-9.087	0.039	-9.087	-0.202	-7.221	0.214	-1.542
H13	17251P	7.454	0.000	7.454	5.148	5.435	3.661	1.047	0.603
H13	17251Y	0.000	-7.865	-7.865	-6.043	-6.349	-4.947	-1.960	-1.609
H13	1726P	5.104	-0.900	-0.782	5.104	-0.900	3.627	-0.564	0.568
H13	1726X	0.000	-5.995	-0.308	-5.995	-0.535	-4.909	-0.479	-1.573
H14	17252P	7.548	0.000	7.548	5.568	5.463	3.939	0.905	0.523
H14	17252Y	0.000	-8.339	-8.339	-6.387	-6.759	-5.256	-2.201	-1.825
H14	17261P	5.528	-0.674	-0.430	5.528	-0.674	3.908	-0.654	0.492
H14	17261X	0.000	-6.347	-0.401	-6.347	-0.652	-5.225	-0.650	-1.794
H15	17253P	9.068	0.000	9.068	6.732	6.610	4.812	1.203	0.752
H15	17253Y	0.000	-9.766	-9.766	-7.456	-7.878	-6.101	-2.471	-2.025
H15	17262P	6.692	-0.662	-0.385	6.692	-0.662	4.781	-0.641	0.721
H15	17262X	0.000	-7.414	-0.348	-7.414	-0.633	-6.068	-0.634	-1.994
H16	17254P	7.135	0.000	7.135	5.199	5.087	3.597	0.620	0.246
H16	17254Y	0.000	-8.428	-8.428	-6.519	-6.886	-5.417	-2.419	-2.051

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

H16	17263P	5.176	-0.914	-0.665	5.176	-0.914	3.579	-0.902	0.221
H16	17263X	0.000	-6.472	-0.632	-6.472	-0.888	-5.380	-0.898	-2.022
H17	17255P	103.072	0.000	103.072	78.427	76.986	58.022	18.634	13.884
H17	17255Y	0.000	-99.939	-99.939	-75.282	-79.179	-60.206	-20.824	-16.072
H17	17264P	78.051	-1.138	1.513	78.051	-1.138	57.733	-1.096	13.629
H17	17264X	1.469	-75.025	1.469	-75.025	-1.171	-60.008	-1.123	-15.839
H18	1724P	10.819	-13.138	10.819	4.130	3.971	-1.176	-11.849	-13.138
H18	1724Y	0.000	-44.207	-44.207	-37.548	-38.357	-33.234	-22.538	-21.255
H18	1725P	4.070	-17.192	-16.693	4.070	-17.192	-1.222	-17.191	-13.196
H18	1725X	0.000	-37.446	-16.684	-37.446	-17.185	-33.155	-17.194	-21.189
H19	1728P	120.934	0.000	120.934	92.381	90.119	68.148	21.825	16.322
H19	1728Y	0.000	-116.509	-116.509	-87.812	-92.533	-70.452	-24.237	-18.707
H19	1727P	92.029	-1.182	2.302	92.029	-1.139	67.877	-1.182	16.080
H19	1727X	2.197	-87.558	2.197	-87.558	-1.219	-70.256	-1.216	-18.483
H20	1729P	55.250	0.000	55.250	41.628	40.482	30.001	8.755	6.130
H20	1729Y	0.000	-55.023	-55.023	-41.954	-44.344	-34.289	-12.618	-10.099
H20	1720P	41.700	-2.143	-0.162	41.700	-2.143	30.056	-1.971	6.082
H20	1720X	0.106	-41.667	0.106	-41.667	-1.937	-34.068	-1.946	-9.982
H21	17291P	51.710	0.000	51.710	42.619	38.109	31.112	9.238	7.485
H21	17291Y	0.000	-48.438	-48.438	-35.152	-38.929	-28.707	-10.077	-7.518
H21	17201P	41.109	-0.089	3.729	41.109	1.199	29.951	-0.089	7.103
H21	17201X	1.624	-36.342	1.624	-36.342	-0.420	-29.622	-0.350	-7.654
H22	17292P	77.949	0.000	77.949	61.778	57.420	44.977	13.389	10.272
H22	17292Y	0.000	-74.892	-74.892	-57.245	-60.152	-46.573	-16.146	-12.745
H22	17202P	62.884	-0.424	6.212	62.884	2.237	45.828	-0.424	10.479
H22	17202X	2.073	-56.119	2.073	-56.119	-0.947	-45.707	-1.328	-12.523
H23	173P	3.959	-0.470	3.959	3.058	3.021	2.328	-0.296	-0.470
H23	174P	0.000	-7.524	-7.524	-5.563	-5.811	-4.303	-2.509	-2.132
H23	175P	1.869	-2.540	-2.540	1.869	-1.978	1.414	-1.549	-0.700
H23	176P	0.000	-6.545	-2.463	-6.545	-1.919	-5.058	-1.538	-2.323
H23	177P	0.000	-7.468	-7.468	-6.543	-5.768	-5.057	-2.502	-2.324
H23	178P	5.049	-0.720	5.049	2.626	3.860	1.997	-0.252	-0.720
H23	179P	0.000	-6.892	-1.425	-6.892	-1.120	-5.325	-1.501	-2.552
H23	180P	3.050	-1.262	-1.051	3.050	-0.832	2.323	-1.262	-0.473
H24	17293P	93.578	0.000	93.578	72.595	69.228	53.083	19.210	15.167
H24	17293Y	0.000	-80.579	-80.579	-59.751	-64.740	-48.714	-14.736	-10.724
H24	17203P	72.054	0.000	5.948	72.054	1.820	52.668	2.203	14.922
H24	17203X	5.999	-59.800	5.999	-59.800	1.859	-48.752	2.068	-10.591
H25	181P	3.933	-0.607	3.933	3.263	2.983	2.467	-0.478	-0.607
H25	182P	0.000	-9.836	-9.836	-7.044	-7.609	-5.461	-3.302	-2.764
H25	183P	2.269	-3.506	-3.506	2.269	-2.739	1.703	-2.082	-0.971
H25	184P	0.000	-7.365	-3.167	-7.365	-2.479	-5.708	-1.853	-2.660
H25	185P	0.000	-8.062	-8.062	-7.363	-6.244	-5.707	-2.795	-2.660
H25	186P	3.926	-0.942	3.926	1.531	2.977	1.135	-0.481	-0.942
H25	187P	0.000	-5.715	-0.986	-5.715	-0.801	-4.439	-1.428	-2.338
H25	188P	3.260	-1.413	-0.927	3.260	-0.756	2.465	-1.413	-0.608
H26	17294P	143.202	0.000	143.202	111.567	104.100	79.760	28.643	22.549
H26	17294Y	0.000	-119.211	-119.211	-86.947	-97.758	-72.934	-22.334	-16.119
H26	17204P	112.166	0.000	13.114	112.166	4.032	80.221	3.483	22.539
H26	17204X	14.082	-85.914	14.082	-85.914	4.776	-72.139	3.443	-15.795
H27	189P	8.129	-0.930	8.129	5.389	6.245	4.137	-0.403	-0.930
H27	190P	0.000	-8.589	-8.589	-6.628	-6.615	-5.107	-3.357	-2.980
H27	191P	0.744	-3.573	-3.573	0.744	-2.756	0.564	-2.389	-1.558
H27	192P	0.000	-7.556	-3.542	-7.556	-2.733	-5.820	-2.386	-3.158
H27	193P	0.000	-8.600	-8.600	-7.550	-6.624	-5.816	-3.360	-3.158
H27	194P	3.922	-1.579	3.922	1.494	3.009	1.142	-1.111	-1.579

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H27	195P	0.000	-7.951	-2.624	-7.951	-2.026	-6.124	-2.374	-3.399
H27	196P	5.378	-2.762	-2.762	5.378	-2.133	4.129	-2.500	-0.934
H26	205P	1.496	-0.813	1.217	1.496	0.936	1.151	-0.813	-0.759
H27	206P	0.000	-4.558	-4.558	-0.614	-3.507	-0.472	-1.757	-0.998
H27	207P	0.000	-6.951	-4.522	-6.951	-3.479	-5.347	-1.918	-2.385
H27	208P	1.181	-0.998	1.181	-0.614	0.909	-0.472	-0.653	-0.998
H27	209P	2.607	-0.551	1.787	2.607	1.375	2.005	-0.551	-0.394
H27	210P	0.000	-4.749	-4.749	-0.537	-3.653	-0.413	-1.727	-0.916
H27	211P	0.000	-7.457	-5.001	-7.457	-3.847	-5.736	-1.858	-2.330
H27	212P	2.040	-0.916	2.040	-0.537	1.569	-0.413	-0.420	-0.916
H27	213P	0.000	-4.020	-2.516	-4.020	-1.936	-3.093	-1.027	-1.316
H27	214P	6.352	-0.979	-0.091	6.352	-0.070	4.887	-0.979	0.261
H27	215P	0.000	-13.899	-9.161	-13.899	-7.046	-10.692	-2.305	-3.217
H27	216P	6.553	0.000	6.553	6.352	5.041	4.887	0.299	0.261

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*** Análisis de resultados por caso de carga No. 1 "LC1 WIND 0° C.D."

Equilibrium Joint Positions and Rotations for Load Case "LC1 WIND 0° C.D.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	1.964	-0.00957	-0.03761	0.0015	1.9723	-0.1953	2.614	0.6404	150.9
10P	1.326	-0.01138	-0.03412	0.0098	1.6691	-0.1954	1.976	0.6386	131.6
11P	1.219	-0.005754	-0.04556	0.0986	1.5365	-0.1935	2.359	1.134	127.5
19P	0.7568	0.006232	-0.03527	-0.0190	1.1114	-0.1905	1.897	1.146	108.6
20P	0.6497	0.004719	-0.05328	0.0020	0.9494	-0.1738	3.102	2.457	102.1
32P	0.1789	0.001126	-0.02979	0.0027	0.4563	-0.1306	2.631	2.453	66.1
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	1.983	-0.009437	-0.03777	0.0127	1.9744	-0.1829	2.633	-0.6594	150.9
1XY	1.983	0.005682	0.00646	0.0341	1.9461	0.1775	1.333	-0.6443	150.9
1Y	1.965	0.005556	0.006692	-0.0137	1.9479	-0.1816	1.315	0.6556	150.9
10X	1.35	-0.01093	-0.03341	0.0244	1.7076	-0.1829	2	-0.6609	131.6
10XY	1.35	0.01174	0.003548	-0.0251	1.7071	0.1776	0.7001	-0.6383	131.6
10Y	1.327	0.01173	0.004396	0.0009	1.6696	-0.1816	0.6766	0.6617	131.6
11X	1.231	-0.006072	-0.04724	0.0400	1.6747	0.1806	2.371	-1.146	127.5
11XY	1.231	0.007024	0.01773	-0.0305	1.6683	0.1757	0.09136	-1.133	127.6
11Y	1.219	0.006316	0.01619	-0.1027	1.5287	-0.1808	0.07874	1.146	127.6
19X	0.7437	0.007233	-0.03683	0.0661	1.1613	0.1737	1.884	-1.133	108.6
19XY	0.7442	-0.005588	0.009347	-0.0592	1.1533	0.1724	-0.3958	-1.146	108.6
19Y	0.7572	-0.005415	0.00777	0.0115	1.1040	-0.1854	-0.3828	1.135	108.6
20X	0.6413	0.002953	-0.0528	-0.0429	0.9106	0.1574	3.093	-2.449	102.1
20XY	0.6416	-0.001574	0.02654	0.0447	0.9079	0.1569	-1.81	-2.454	102.2
20Y	0.65	-0.003867	0.02694	-0.0057	0.9455	-0.1704	-1.802	2.448	102.2
32X	0.1756	0.001373	-0.02969	-0.0079	0.4520	0.1202	2.628	-2.451	66.1
32XY	0.1763	-0.0001382	0.009061	0.0076	0.4513	0.1200	-2.276	-2.452	66.13
32Y	0.1797	-0.001463	0.009068	-0.0043	0.4555	-0.1292	-2.272	2.451	66.13
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	1.854	-0.009405	-0.03749	0.0058	1.9530	-0.1953	2.504	0.6406	147.7
3S	1.769	-0.008917	-0.03734	0.0188	1.9513	-0.1953	2.419	0.6411	145.2
4S	1.684	-0.008364	-0.03702	-0.0093	1.9410	-0.1953	2.334	0.6416	142.7
5S	1.6	-0.008798	-0.03654	0.0268	1.9081	-0.1954	2.25	0.6412	140.2
6S	1.518	-0.007964	-0.03594	-0.0225	1.8719	-0.1954	2.168	0.642	137.7
7S	1.437	-0.009695	-0.03508	0.0015	1.8078	-0.1954	2.087	0.6403	135.2
8S	1.374	-0.01006	-0.03459	-0.0501	1.7957	-0.1954	2.024	0.6399	133.2
12S	1.14	-0.003412	-0.04474	0.0181	1.5519	-0.1931	2.28	1.137	124.7
13S	1.073	-0.002209	-0.04388	0.0510	1.5037	-0.1927	2.213	1.138	122.2
14S	1.008	0.0003748	-0.04274	0.0331	1.4596	-0.1923	2.148	1.14	119.7
15S	0.9462	0.001121	-0.04142	0.0456	1.3947	-0.1919	2.086	1.141	117.2
16S	0.8869	0.004012	-0.03988	0.0344	1.3231	-0.1915	2.027	1.144	114.7
17S	0.8309	0.004428	-0.03815	0.0443	1.2439	-0.1911	1.971	1.144	112.2
18S	0.7885	0.006638	-0.03659	0.0252	1.1839	-0.1907	1.929	1.147	110.2
21S	0.603	0.00358	-0.05149	-0.0245	0.9403	-0.1659	3.055	2.456	99.35
22S	0.5584	0.003262	-0.04958	0.0070	0.8946	-0.1581	3.01	2.455	96.55
23S	0.5167	0.003369	-0.04803	-0.0115	0.8718	-0.1544	2.969	2.455	93.85
24S	0.4764	0.002629	-0.04634	-0.0010	0.8384	-0.1507	2.928	2.455	91.15
25S	0.436	0.00283	-0.04496	-0.0066	0.8116	-0.1484	2.888	2.455	88.36

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26S	0.3971	0.002151	-0.04346	-0.0019	0.7842	-0.1461	2.849	2.454	85.56
27S	0.3595	0.00251	-0.04183	-0.0054	0.7471	-0.1438	2.812	2.455	82.76
28S	0.3241	0.001749	-0.04007	-0.0012	0.7063	-0.1415	2.776	2.454	79.96
29S	0.291	0.002251	-0.03819	-0.0047	0.6710	-0.1392	2.743	2.454	77.21
30S	0.2598	0.001398	-0.03617	-0.0018	0.6300	-0.1369	2.712	2.453	74.46
31S	0.2311	0.002203	-0.03405	0.0109	0.5857	-0.1347	2.683	2.454	71.77
33S	0.1375	0.002019	-0.02967	0.0267	0.3375	-0.1252	3.36	3.225	59.77
34S	0.1059	0.0008973	-0.02895	0.0046	0.2807	-0.1186	4.06	3.955	53.77
35S	0.08067	0.0001696	-0.02762	0.0194	0.2227	-0.1078	4.766	4.685	47.77
36S	0.05967	0.0002404	-0.02537	0.0078	0.2043	-0.0931	5.476	5.416	41.77
37S	0.04031	-0.0009637	-0.02322	0.0175	0.1522	-0.0800	6.188	6.146	35.78
371S	0.03983	-0.0003744	-0.02385	0.0000	0.0000	0.0000	6.187	-0.0003744	35.78
372S	0.04083	-0.0005719	-0.006937	0.0000	0.0000	0.0000	0.04083	6.147	35.79
373S	0.041	0.0004124	0.009972	0.0000	0.0000	0.0000	-6.106	0.0004124	35.81
374S	0.03985	0.0006099	-0.006904	0.0000	0.0000	0.0000	0.03985	-6.147	35.79
38S	0.02801	0.000176	-0.01987	0.0107	0.1205	-0.0663	6.907	6.879	29.78
39S	0.0155	-0.001037	-0.01666	0.0185	0.0922	-0.0505	7.625	7.609	23.78
391S	0.01521	-0.0003118	-0.01798	0.0000	0.0000	0.0000	7.625	-0.0003118	23.78
392S	0.01616	-0.0007398	-0.005182	0.0000	0.0000	0.0000	0.01616	7.609	23.79
393S	0.01667	0.0002947	0.007687	0.0000	0.0000	0.0000	-7.593	0.0002947	23.81
394S	0.01554	0.0007228	-0.005143	0.0000	0.0000	0.0000	0.01554	-7.609	23.79
40S	0.008396	0.001125	-0.01268	0.0172	0.0709	-0.0371	8.349	8.342	17.79
41S	0.001061	-0.001078	-0.009228	-0.0295	0.0347	-0.0311	9.073	9.071	11.79
411S	0.0008285	-0.0001843	-0.005612	0.0000	0.0000	0.0000	9.073	-0.0001843	11.79
412S	0.001779	-0.0008931	-0.002691	0.0000	0.0000	0.0000	0.001779	9.071	11.8
413S	0.002579	0.0001521	0.0002267	0.0000	0.0000	0.0000	-9.069	0.0001521	11.8
414S	0.001444	0.0008609	-0.002664	0.0000	0.0000	0.0000	0.001444	-9.071	11.8
42S	0.0009297	-0.00033	-0.004844	0.0269	-0.0060	-0.0130	9.804	9.8	5.795
2X	1.872	-0.008823	-0.03764	0.0075	1.9530	0.1829	2.522	-0.6588	147.7
2XY	1.873	0.006899	0.006469	-0.0032	1.9650	0.1775	1.223	-0.6431	147.7
2Y	1.855	0.005491	0.006703	0.0239	1.9631	-0.1816	1.205	0.6555	147.7
3X	1.788	-0.008792	-0.03745	-0.0088	1.9496	0.1829	2.438	-0.6588	145.2
3XY	1.788	0.006718	0.006376	0.0230	1.9524	0.1775	1.138	-0.6433	145.2
3Y	1.769	0.006607	0.006628	-0.0005	1.9535	-0.1816	1.119	0.6566	145.2
4X	1.702	-0.009036	-0.03706	0.0130	1.9366	0.1829	2.352	-0.659	142.7
4XY	1.703	0.008214	0.006149	0.0016	1.9349	0.1775	1.053	-0.6418	142.7
4Y	1.685	0.006182	0.006454	0.0255	1.9405	-0.1816	1.035	0.6562	142.7
5X	1.619	-0.008664	-0.03646	-0.0344	1.8945	0.1829	2.269	-0.6587	140.2
5XY	1.619	0.007924	0.005755	0.0536	1.8999	0.1775	0.969	-0.6421	140.2
5Y	1.6	0.007806	0.006144	-0.0191	1.9096	-0.1816	0.9504	0.6578	140.2
6X	1.537	-0.01007	-0.03571	0.0006	1.8493	0.1829	2.187	-0.6601	137.7
6XY	1.537	0.01027	0.005265	0.0087	1.8472	0.1775	0.8872	-0.6397	137.7
6Y	1.518	0.007143	0.00575	0.0363	1.8710	-0.1816	0.8678	0.6571	137.7
7X	1.458	-0.009647	-0.03463	-0.0357	1.7753	0.1829	2.108	-0.6596	135.2
7XY	1.458	0.00991	0.004486	0.0482	1.7762	0.1776	0.8081	-0.6401	135.2
7Y	1.437	0.00968	0.005135	0.0023	1.8081	-0.1816	0.7874	0.6597	135.2
8X	1.397	-0.01093	-0.03402	-0.0233	1.7261	0.1829	2.047	-0.6609	133.2
8XY	1.397	0.01164	0.00403	0.0321	1.7233	0.1776	0.7468	-0.6384	133.2
8Y	1.375	0.01015	0.004771	0.0561	1.7937	-0.1816	0.7246	0.6601	133.2
12X	1.148	-0.00429	-0.04636	0.0476	1.6177	0.1796	2.288	-1.144	124.7
12XY	1.149	0.005762	0.01709	-0.0468	1.6195	0.1752	0.008826	-1.134	124.7
12Y	1.14	0.003765	0.01557	-0.0130	1.5544	-0.1814	0.0003201	1.144	124.7
13X	1.078	-0.002106	-0.04546	0.0295	1.5851	0.1788	2.218	-1.142	122.2
13XY	1.079	0.003348	0.01639	-0.0299	1.5878	0.1748	-0.06136	-1.137	122.2
13Y	1.074	0.003012	0.0149	-0.0462	1.5062	-0.1820	-0.06647	1.143	122.2
14X	1.01	-0.001361	-0.04429	0.0414	1.5354	0.1778	2.15	-1.141	119.7

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	1.011	0.002898	0.01547	-0.0385	1.5343	0.1744	-0.1294	-1.137	119.7
14Y	1.009	0.0003066	0.01398	-0.0326	1.4584	-0.1826	-0.1311	1.14	119.7
15X	0.9446	0.001158	-0.04295	0.0291	1.4708	0.1769	2.085	-1.139	117.2
15XY	0.9449	0.0002433	0.01439	-0.0296	1.4721	0.1740	-0.1951	-1.14	117.2
15Y	0.9465	-0.0001788	0.0129	-0.0428	1.3964	-0.1832	-0.1935	1.14	117.2
16X	0.882	0.001524	-0.0414	0.0407	1.3993	0.1760	2.022	-1.138	114.7
16XY	0.8824	6.673e-005	0.01314	-0.0378	1.3972	0.1735	-0.2576	-1.14	114.7
16Y	0.8873	-0.003179	0.01164	-0.0359	1.3209	-0.1838	-0.2527	1.137	114.7
17X	0.8227	0.004363	-0.03968	0.0284	1.3184	0.1750	1.963	-1.136	112.2
17XY	0.8229	-0.002879	0.01171	-0.0339	1.3243	0.1731	-0.3171	-1.143	112.2
17Y	0.8311	-0.003446	0.0102	-0.0383	1.2496	-0.1845	-0.3089	1.137	112.2
18X	0.7776	0.004776	-0.03813	0.0575	1.2685	0.1743	1.918	-1.135	110.2
18XY	0.7778	-0.003368	0.01044	-0.0525	1.2633	0.1727	-0.3622	-1.143	110.2
18Y	0.7887	-0.005573	0.008897	-0.0303	1.1789	-0.1850	-0.3513	1.134	110.2
21X	0.5951	0.00352	-0.05101	0.0207	0.9383	0.1506	3.047	-2.448	99.35
21XY	0.5957	-0.001884	0.02527	-0.0198	0.9358	0.1502	-1.856	-2.454	99.43
21Y	0.6036	-0.003083	0.02566	0.0215	0.9385	-0.1629	-1.848	2.449	99.43
22X	0.5509	0.003297	-0.04911	-0.0193	0.8843	0.1439	3.003	-2.449	96.55
22XY	0.5514	-0.001849	0.02389	0.0180	0.8849	0.1435	-1.901	-2.454	96.62
22Y	0.5588	-0.002685	0.02426	-0.0080	0.8961	-0.1554	-1.893	2.449	96.62
23X	0.5097	0.002676	-0.04757	0.0011	0.8610	0.1407	2.962	-2.449	93.85
23XY	0.5102	-0.001207	0.02276	-0.0020	0.8610	0.1403	-1.942	-2.453	93.92
23Y	0.5171	-0.002918	0.02312	0.0101	0.8707	-0.1519	-1.935	2.449	93.92
24X	0.4699	0.00292	-0.04591	-0.0093	0.8274	0.1375	2.922	-2.449	91.15
24XY	0.4704	-0.001549	0.02152	0.0091	0.8263	0.1372	-1.982	-2.454	91.22
24Y	0.4769	-0.002185	0.02186	-0.0010	0.8370	-0.1483	-1.975	2.45	91.22
25X	0.4301	0.002227	-0.04455	-0.0032	0.8015	0.1355	2.882	-2.45	88.36
25XY	0.4306	-0.0008299	0.02051	0.0021	0.8017	0.1352	-2.021	-2.453	88.42
25Y	0.4366	-0.00252	0.02083	0.0055	0.8120	-0.1461	-2.015	2.449	88.42
26X	0.3916	0.00244	-0.04307	-0.0073	0.7743	0.1335	2.844	-2.45	85.56
26XY	0.3921	-0.001171	0.01939	0.0058	0.7747	0.1332	-2.06	-2.453	85.62
26Y	0.3975	-0.001818	0.01969	0.0013	0.7844	-0.1439	-2.054	2.45	85.62
27X	0.3545	0.001644	-0.04147	-0.0032	0.7382	0.1315	2.807	-2.45	82.76
27XY	0.355	-0.0003767	0.01818	0.0024	0.7380	0.1312	-2.097	-2.452	82.82
27Y	0.36	-0.00228	0.01845	0.0041	0.7469	-0.1417	-2.092	2.45	82.82
28X	0.3195	0.002004	-0.03974	-0.0066	0.6984	0.1295	2.772	-2.45	79.96
28XY	0.32	-0.000841	0.01685	0.0050	0.6990	0.1293	-2.132	-2.453	80.02
28Y	0.3246	-0.00152	0.01709	0.0007	0.7069	-0.1395	-2.127	2.45	80.02
29X	0.2868	0.001151	-0.0379	-0.0021	0.6639	0.1276	2.739	-2.451	77.21
29XY	0.2873	-1.202e-005	0.01543	0.0017	0.6633	0.1274	-2.165	-2.452	77.27
29Y	0.2915	-0.002098	0.01563	0.0031	0.6703	-0.1374	-2.161	2.45	77.27
30X	0.2559	0.001697	-0.03593	-0.0042	0.6236	0.1256	2.708	-2.45	74.46
30XY	0.2564	-0.0006269	0.0139	0.0016	0.6251	0.1254	-2.196	-2.453	74.51
30Y	0.2603	-0.001276	0.01406	0.0023	0.6314	-0.1352	-2.192	2.451	74.51
31X	0.2275	0.000642	-0.03385	-0.0150	0.5813	0.1237	2.679	-2.451	71.77
31XY	0.2279	0.0003343	0.01228	0.0153	0.5800	0.1235	-2.224	-2.452	71.81
31Y	0.2315	-0.002083	0.01239	-0.0132	0.5843	-0.1331	-2.22	2.45	71.81
33X	0.1347	-0.000492	-0.0295	-0.0341	0.3315	0.1156	3.357	-3.223	59.77
33XY	0.1353	0.001382	0.01013	0.0305	0.3341	0.1155	-3.088	-3.221	59.81
33Y	0.138	-0.002222	0.01018	-0.0248	0.3398	-0.1239	-3.085	3.221	59.81
34X	0.1035	-0.0001084	-0.02873	-0.0097	0.2776	0.1099	4.057	-3.954	53.77
34XY	0.1043	0.001091	0.01061	0.0095	0.2768	0.1098	-3.85	-3.953	53.81
34Y	0.1067	-0.001388	0.01071	-0.0062	0.2798	-0.1174	-3.847	3.953	53.81
35X	0.07845	6.141e-006	-0.02735	-0.0236	0.2190	0.1001	4.764	-4.685	47.77
35XY	0.07929	0.0009877	0.01063	0.0216	0.2202	0.1000	-4.606	-4.684	47.81
35Y	0.08147	-0.000864	0.01076	-0.0188	0.2246	-0.1066	-4.604	4.684	47.81

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36X	0.05797	-0.0005589	-0.02505	-0.0118	0.1966	0.0869	5.474	-5.417	41.77
36XY	0.05893	0.001623	0.009962	0.0117	0.1963	0.0868	-5.357	-5.415	41.81
36Y	0.06054	-0.001133	0.01016	-0.0085	0.2036	-0.0923	-5.356	5.415	41.81
37X	0.03934	0.0002198	-0.02287	-0.0181	0.1472	0.0749	6.187	-6.147	35.78
37XY	0.04052	0.00102	0.009519	0.0158	0.1489	0.0748	-6.107	-6.146	35.81
37Y	0.04151	-0.0001965	0.009745	-0.0157	0.1533	-0.0793	-6.106	6.147	35.81
38X	0.02722	-0.0008252	-0.01962	-0.0091	0.1192	0.0621	6.906	-6.879	29.78
38XY	0.02836	0.001966	0.008175	0.0080	0.1198	0.0621	-6.85	-6.877	29.81
38Y	0.02915	-0.001293	0.008322	-0.0101	0.1213	-0.0657	-6.849	6.877	29.81
39X	0.01488	0.0004138	-0.01646	-0.0170	0.0900	0.0474	7.625	-7.609	23.78
39XY	0.01636	0.00105	0.007049	0.0166	0.0908	0.0473	-7.593	-7.609	23.81
39Y	0.017	-0.000465	0.007151	-0.0183	0.0926	-0.0500	-7.593	7.609	23.81
40X	0.007931	-0.00156	-0.01255	-0.0156	0.0700	0.0348	8.349	-8.342	17.79
40XY	0.009075	0.002744	0.005276	0.0049	0.0807	0.0347	-8.332	-8.338	17.81
40Y	0.009568	-0.002353	0.00533	-0.0066	0.0822	-0.0367	-8.331	8.339	17.81
41X	0.0006577	0.0007072	-0.009142	0.0308	0.0332	0.0297	9.073	-9.071	11.79
41XY	0.002431	0.001058	0.003981	0.0065	-0.0046	0.0297	-9.07	-9.071	11.8
41Y	0.002766	-0.0007547	0.004021	-0.0078	-0.0025	-0.0309	-9.069	9.071	11.8
42X	0.0007662	0.003148	-0.004801	-0.0244	-0.0086	0.0128	9.804	-9.8	5.795
42XY	0.006368	0.002438	0.001073	-0.0040	0.0200	0.0128	-9.797	-9.801	5.801
42Y	0.006484	-0.002319	0.001095	0.0020	0.0220	-0.0131	-9.797	9.801	5.801

Joint Support Reactions for Load Case "LC1 WIND 0° C.D.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X Moment (kN-m)	X-M. Usage %	Y Moment (kN-m)	Y-M. Usage %	Z Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-248.02	0.0	-267.33	0.0	1733.94	0.0	0.0	1771.87	0.0	-4.19	0.0	-0.9	0.0	-0.33	0.0	0.0
ANX	-240.84	0.0	270.86	0.0	1718.51	0.0	0.0	1756.32	0.0	4.09	0.0	-0.8	0.0	0.32	0.0	0.0
ANXY	-117.01	0.0	-145.66	0.0	-818.67	0.0	0.0	839.72	0.0	2.87	0.0	-7.7	0.0	0.32	0.0	0.0
ANY	-122.47	0.0	142.14	0.0	-826.32	0.0	0.0	847.35	0.0	-2.79	0.0	-7.8	0.0	-0.33	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC1 WIND 0° C.D.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	2.0389	0.0000	-4.3420	-2.0369	-0.0000	4.3419	1.9645	-0.0096	-0.0376
10P	7.2385	0.0000	-9.1409	-7.2372	-0.0000	9.1409	1.3264	-0.0114	-0.0341
11P	2.5270	0.0000	-6.4172	-2.5257	-0.0000	6.4172	1.2185	-0.0058	-0.0456
19P	3.6962	0.0000	-9.3361	-3.6955	0.0000	9.3361	0.7568	0.0062	-0.0353
20P	5.4804	0.0000	-12.0259	-5.4797	0.0000	12.0258	0.6497	0.0047	-0.0533
32P	6.3903	0.0000	-20.0334	-6.3901	0.0000	20.0333	0.1789	0.0011	-0.0298
ANP	1.8015	0.0000	-8.6281	246.2208	267.3322	-1725.3078	0.0000	0.0000	0.0000
1X	2.0389	0.0000	-4.3420	-2.0369	-0.0000	4.3419	1.9827	-0.0094	-0.0378
1XY	2.0389	0.0000	-4.3420	-2.0369	0.0000	4.3420	1.9828	0.0057	0.0065
1Y	0.8769	0.0000	-2.5480	-0.8749	0.0000	2.5480	1.9646	0.0056	0.0067
10X	7.2385	0.0000	-9.1409	-7.2372	-0.0000	9.1409	1.3498	-0.0109	-0.0334
10XY	3.1515	0.0000	-6.5669	-3.1502	0.0000	6.5670	1.3501	0.0117	0.0035
10Y	1.9895	0.0000	-4.7729	-1.9882	0.0000	4.7730	1.3266	0.0117	0.0044
11X	2.5270	0.0000	-6.4172	-2.5257	-0.0000	6.4172	1.2312	-0.0061	-0.0472
11XY	2.5270	0.0000	-6.4172	-2.5257	0.0000	6.4172	1.2314	0.0070	0.0177
11Y	2.5270	0.0000	-6.4172	-2.5257	0.0000	6.4172	1.2187	0.0063	0.0162

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19X	3.6962	0.0000	-9.3361	-3.6955	0.0000	9.3361	0.7437	0.0072	-0.0368
19XY	3.6962	0.0000	-9.3361	-3.6955	-0.0000	9.3361	0.7442	-0.0056	0.0093
19Y	3.6962	0.0000	-9.3361	-3.6955	-0.0000	9.3361	0.7572	-0.0054	0.0078
20X	5.4804	0.0000	-12.0259	-5.4797	0.0000	12.0258	0.6413	0.0030	-0.0528
20XY	4.9004	0.0000	-11.0119	-4.8997	-0.0000	11.0119	0.6416	-0.0016	0.0265
20Y	4.9004	0.0000	-11.0119	-4.8997	-0.0000	11.0119	0.6500	-0.0039	0.0269
32X	6.3903	0.0000	-20.0334	-6.3901	0.0000	20.0333	0.1756	0.0014	-0.0297
32XY	6.3903	0.0000	-20.0334	-6.3901	-0.0000	20.0334	0.1763	-0.0001	0.0091
32Y	6.3903	0.0000	-20.0334	-6.3901	-0.0000	20.0334	0.1797	-0.0015	0.0091
ANX	1.8015	0.0000	-8.6281	239.0431	-270.8576	-1709.8850	0.0000	0.0000	0.0000
ANXY	1.8015	0.0000	-8.6281	115.2111	145.6650	827.2975	0.0000	0.0000	0.0000
ANY	1.8015	0.0000	-8.6281	120.6706	-142.1387	834.9462	0.0000	0.0000	0.0000
2S	2.0389	0.0000	-3.0420	-2.0370	-0.0000	3.0419	1.8543	-0.0094	-0.0375
3S	1.6863	0.0000	-2.4111	-1.6846	-0.0000	2.4110	1.7693	-0.0089	-0.0373
4S	1.9715	0.0000	-2.9571	-1.9698	-0.0000	2.9571	1.6841	-0.0084	-0.0370
5S	6.9929	0.0000	-6.9656	-6.9913	-0.0000	6.9655	1.6003	-0.0088	-0.0365
6S	6.1834	0.0000	-5.8025	-6.1819	-0.0000	5.8024	1.5176	-0.0080	-0.0359
7S	6.8767	0.0000	-7.2215	-6.8752	-0.0000	7.2214	1.4373	-0.0097	-0.0351
8S	5.9422	0.0000	-5.7870	-5.9408	-0.0000	5.7869	1.3745	-0.0101	-0.0346
12S	1.2307	0.0000	-3.0632	-1.2295	-0.0000	3.0632	1.1398	-0.0034	-0.0447
13S	2.3370	0.0000	-5.6950	-2.3359	-0.0000	5.6950	1.0733	-0.0022	-0.0439
14S	1.6863	0.0000	-3.6458	-1.6853	0.0000	3.6457	1.0085	0.0004	-0.0427
15S	2.8427	0.0000	-6.4393	-2.8418	0.0000	6.4393	0.9462	0.0011	-0.0414
16S	1.1564	0.0000	-2.7936	-1.1555	0.0000	2.7935	0.8869	0.0040	-0.0399
17S	2.5785	0.0000	-5.8491	-2.5776	0.0000	5.8491	0.8309	0.0044	-0.0381
18S	1.4221	0.0000	-3.0556	-1.4213	0.0000	3.0555	0.7885	0.0066	-0.0366
21S	2.0462	0.0000	-3.7173	-2.0456	0.0000	3.7173	0.6030	0.0036	-0.0515
22S	8.8436	0.0000	-10.2322	-8.8430	0.0000	10.2322	0.5584	0.0033	-0.0496
23S	6.7974	0.0000	-6.5149	-6.7969	0.0000	6.5148	0.5167	0.0034	-0.0480
24S	4.3498	0.0000	-9.2303	-4.3493	0.0000	9.2302	0.4764	0.0026	-0.0463
25S	2.2314	0.0000	-5.0554	-2.2310	0.0000	5.0554	0.4360	0.0028	-0.0450
26S	4.4215	0.0000	-10.2822	-4.4211	0.0000	10.2822	0.3971	0.0022	-0.0435
27S	2.1901	0.0000	-5.2268	-2.1897	0.0000	5.2268	0.3595	0.0025	-0.0418
28S	4.3118	0.0000	-10.5572	-4.3115	0.0000	10.5571	0.3241	0.0017	-0.0401
29S	2.3887	0.0000	-5.6554	-2.3884	0.0000	5.6553	0.2910	0.0023	-0.0382
30S	3.8028	0.0000	-9.5355	-3.8025	0.0000	9.5355	0.2598	0.0014	-0.0362
31S	4.6590	0.0000	-13.5632	-4.6588	0.0000	13.5632	0.2311	0.0022	-0.0340
33S	6.6936	0.0000	-20.6568	-6.6935	0.0000	20.6567	0.1375	0.0020	-0.0297
34S	6.8842	0.0000	-20.3830	-6.8841	0.0000	20.3829	0.1059	0.0009	-0.0290
35S	20.6418	0.0000	-27.7064	-20.6417	0.0000	27.7064	0.0807	0.0002	-0.0276
36S	19.2965	0.0000	-25.1327	-19.2965	0.0000	25.1327	0.0597	0.0002	-0.0254
37S	4.6981	0.0000	-15.1301	-4.6981	-0.0000	15.1301	0.0403	-0.0010	-0.0232
371S	4.6981	0.0000	-15.1301	-4.6981	-0.0000	15.1301	0.0398	-0.0004	-0.0239
372S	4.6981	0.0000	-15.1301	-4.6981	-0.0000	15.1301	0.0408	-0.0006	-0.0069
373S	4.6981	0.0000	-15.1301	-4.6981	0.0000	15.1301	0.0410	0.0004	0.0100
374S	4.6981	0.0000	-15.1301	-4.6981	0.0000	15.1301	0.0398	0.0006	-0.0069
38S	4.8429	0.0000	-16.3325	-4.8428	0.0000	16.3325	0.0280	0.0002	-0.0199
39S	4.8001	0.0000	-17.1838	-4.8001	-0.0000	17.1838	0.0155	-0.0010	-0.0167
391S	4.8001	0.0000	-17.1838	-4.8001	-0.0000	17.1838	0.0152	-0.0003	-0.0180
392S	4.8001	0.0000	-17.1838	-4.8001	-0.0000	17.1838	0.0162	-0.0007	-0.0052
393S	4.8001	0.0000	-17.1838	-4.8001	0.0000	17.1838	0.0167	0.0003	0.0077
394S	4.8001	0.0000	-17.1838	-4.8001	0.0000	17.1838	0.0155	0.0007	-0.0051
40S	10.5467	0.0000	-22.7747	-10.5467	0.0000	22.7747	0.0084	0.0011	-0.0127
41S	9.1709	0.0000	-20.4420	-9.1709	-0.0000	20.4420	0.0011	-0.0011	-0.0092
411S	4.0585	0.0000	-19.3881	-4.0585	-0.0000	19.3881	0.0008	-0.0002	-0.0056
412S	4.0585	0.0000	-19.3881	-4.0585	-0.0000	19.3881	0.0018	-0.0009	-0.0027

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	4.0585	0.0000	-19.3881	-4.0585	0.0000	19.3881	0.0026	0.0002	0.0002
414S	4.0585	0.0000	-19.3881	-4.0585	0.0000	19.3881	0.0014	0.0009	-0.0027
42S	2.8234	0.0000	-14.4491	-2.8234	-0.0000	14.4491	0.0009	-0.0033	-0.0048
2X	2.0389	0.0000	-3.0420	-2.0370	-0.0000	3.0419	1.8724	-0.0088	-0.0376
2XY	2.0389	0.0000	-3.0420	-2.0370	0.0000	3.0420	1.8734	0.0069	0.0065
2Y	0.8769	0.0000	-1.2480	-0.8750	0.0000	1.2480	1.8551	0.0055	0.0067
3X	1.6863	0.0000	-2.4111	-1.6845	-0.0000	2.4110	1.7875	-0.0088	-0.0375
3XY	1.6863	0.0000	-2.4111	-1.6845	0.0000	2.4111	1.7876	0.0067	0.0064
3Y	1.6863	0.0000	-2.4111	-1.6846	0.0000	2.4111	1.7694	0.0066	0.0066
4X	1.9715	0.0000	-2.9571	-1.9698	-0.0000	2.9571	1.7024	-0.0090	-0.0371
4XY	1.9715	0.0000	-2.9571	-1.9698	0.0000	2.9571	1.7031	0.0082	0.0061
4Y	0.8095	0.0000	-1.1631	-0.8078	0.0000	1.1631	1.6847	0.0062	0.0065
5X	8.1549	0.0000	-8.7596	-8.1533	-0.0000	8.7595	1.6189	-0.0087	-0.0365
5XY	2.9059	0.0000	-4.3916	-2.9043	0.0000	4.3916	1.6190	0.0079	0.0058
5Y	1.7439	0.0000	-2.5976	-1.7423	0.0000	2.5976	1.6004	0.0078	0.0061
6X	7.3454	0.0000	-7.5965	-7.3439	-0.0000	7.5964	1.5370	-0.0101	-0.0357
6XY	2.0964	0.0000	-3.2285	-2.0949	0.0000	3.2285	1.5372	0.0103	0.0053
6Y	0.9344	0.0000	-1.4345	-0.9329	0.0000	1.4345	1.5178	0.0071	0.0057
7X	6.8767	0.0000	-7.2215	-6.8752	-0.0000	7.2214	1.4580	-0.0096	-0.0346
7XY	1.6277	0.0000	-2.8535	-1.6262	0.0000	2.8535	1.4581	0.0099	0.0045
7Y	1.6277	0.0000	-2.8535	-1.6262	0.0000	2.8535	1.4374	0.0097	0.0051
8X	7.1042	0.0000	-7.5810	-7.1028	-0.0000	7.5809	1.3967	-0.0109	-0.0340
8XY	1.8552	0.0000	-3.2130	-1.8538	0.0000	3.2130	1.3968	0.0116	0.0040
8Y	0.6932	0.0000	-1.4190	-0.6918	0.0000	1.4190	1.3746	0.0101	0.0048
12X	1.2307	0.0000	-3.0632	-1.2295	-0.0000	3.0632	1.1483	-0.0043	-0.0464
12XY	1.2307	0.0000	-3.0632	-1.2295	0.0000	3.0633	1.1488	0.0058	0.0171
12Y	1.2307	0.0000	-3.0632	-1.2295	0.0000	3.0633	1.1403	0.0038	0.0156
13X	2.3370	0.0000	-5.6950	-2.3359	-0.0000	5.6950	1.0784	-0.0021	-0.0455
13XY	2.3370	0.0000	-5.6950	-2.3359	0.0000	5.6950	1.0786	0.0033	0.0164
13Y	2.3370	0.0000	-5.6950	-2.3359	0.0000	5.6950	1.0735	0.0030	0.0149
14X	1.6863	0.0000	-3.6458	-1.6853	-0.0000	3.6457	1.0102	-0.0014	-0.0443
14XY	1.1063	0.0000	-2.6318	-1.1053	0.0000	2.6318	1.0106	0.0029	0.0155
14Y	1.6863	0.0000	-3.6458	-1.6853	0.0000	3.6458	1.0089	0.0003	0.0140
15X	2.8427	0.0000	-6.4393	-2.8418	0.0000	6.4393	0.9446	0.0012	-0.0429
15XY	2.2627	0.0000	-5.4253	-2.2618	0.0000	5.4254	0.9449	0.0002	0.0144
15Y	2.8427	0.0000	-6.4393	-2.8418	-0.0000	6.4394	0.9465	-0.0002	0.0129
16X	1.1564	0.0000	-2.7936	-1.1555	0.0000	2.7935	0.8820	0.0015	-0.0414
16XY	1.1564	0.0000	-2.7936	-1.1555	0.0000	2.7936	0.8824	0.0001	0.0131
16Y	1.1564	0.0000	-2.7936	-1.1555	-0.0000	2.7936	0.8873	-0.0032	0.0116
17X	2.5785	0.0000	-5.8491	-2.5776	0.0000	5.8491	0.8227	0.0044	-0.0397
17XY	1.9985	0.0000	-4.8351	-1.9976	-0.0000	4.8351	0.8229	-0.0029	0.0117
17Y	2.5785	0.0000	-5.8491	-2.5776	-0.0000	5.8491	0.8311	-0.0034	0.0102
18X	1.4221	0.0000	-3.0556	-1.4213	0.0000	3.0555	0.7776	0.0048	-0.0381
18XY	0.8421	0.0000	-2.0416	-0.8413	-0.0000	2.0416	0.7778	-0.0034	0.0104
18Y	1.4221	0.0000	-3.0556	-1.4213	-0.0000	3.0556	0.7887	-0.0056	0.0089
21X	2.0462	0.0000	-3.7173	-2.0456	0.0000	3.7173	0.5951	0.0035	-0.0510
21XY	2.0462	0.0000	-3.7173	-2.0456	-0.0000	3.7174	0.5957	-0.0019	0.0253
21Y	2.0462	0.0000	-3.7173	-2.0456	-0.0000	3.7174	0.6036	-0.0031	0.0257
22X	4.1646	0.0000	-7.8922	-4.1640	0.0000	7.8922	0.5509	0.0033	-0.0491
22XY	6.5046	0.0000	-9.0622	-6.5040	-0.0000	9.0623	0.5514	-0.0018	0.0239
22Y	4.1646	0.0000	-7.8922	-4.1640	-0.0000	7.8923	0.5588	-0.0027	0.0243
23X	2.1184	0.0000	-4.1749	-2.1179	0.0000	4.1748	0.5097	0.0027	-0.0476
23XY	2.1184	0.0000	-4.1749	-2.1179	-0.0000	4.1749	0.5102	-0.0012	0.0228
23Y	2.1184	0.0000	-4.1749	-2.1179	-0.0000	4.1749	0.5171	-0.0029	0.0231
24X	4.3498	0.0000	-9.2303	-4.3493	0.0000	9.2302	0.4699	0.0029	-0.0459
24XY	4.3498	0.0000	-9.2303	-4.3493	-0.0000	9.2303	0.4704	-0.0015	0.0215

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	4.3498	0.0000	-9.2303	-4.3493	-0.0000	9.2303	0.4769	-0.0022	0.0219
25X	2.2314	0.0000	-5.0554	-2.2310	0.0000	5.0554	0.4301	0.0022	-0.0445
25XY	2.2314	0.0000	-5.0554	-2.2310	-0.0000	5.0554	0.4306	-0.0008	0.0205
25Y	2.2314	0.0000	-5.0554	-2.2310	-0.0000	5.0554	0.4366	-0.0025	0.0208
26X	4.4215	0.0000	-10.2822	-4.4211	0.0000	10.2822	0.3916	0.0024	-0.0431
26XY	4.4215	0.0000	-10.2822	-4.4211	-0.0000	10.2822	0.3921	-0.0012	0.0194
26Y	4.4215	0.0000	-10.2822	-4.4211	-0.0000	10.2822	0.3975	-0.0018	0.0197
27X	2.1901	0.0000	-5.2268	-2.1897	0.0000	5.2268	0.3545	0.0016	-0.0415
27XY	2.1901	0.0000	-5.2268	-2.1897	-0.0000	5.2268	0.3550	-0.0004	0.0182
27Y	2.1901	0.0000	-5.2268	-2.1897	-0.0000	5.2268	0.3600	-0.0023	0.0184
28X	4.3118	0.0000	-10.5572	-4.3115	0.0000	10.5571	0.3195	0.0020	-0.0397
28XY	4.3118	0.0000	-10.5572	-4.3115	-0.0000	10.5572	0.3200	-0.0008	0.0168
28Y	4.3118	0.0000	-10.5572	-4.3115	-0.0000	10.5572	0.3246	-0.0015	0.0171
29X	2.1217	0.0000	-5.3304	-2.1214	0.0000	5.3303	0.2868	0.0012	-0.0379
29XY	2.1217	0.0000	-5.3304	-2.1214	-0.0000	5.3304	0.2873	-0.0000	0.0154
29Y	2.1217	0.0000	-5.3304	-2.1214	-0.0000	5.3304	0.2915	-0.0021	0.0156
30X	3.8028	0.0000	-9.5355	-3.8025	0.0000	9.5355	0.2559	0.0017	-0.0359
30XY	3.8028	0.0000	-9.5355	-3.8025	-0.0000	9.5355	0.2564	-0.0006	0.0139
30Y	3.8028	0.0000	-9.5355	-3.8025	-0.0000	9.5355	0.2603	-0.0013	0.0141
31X	4.6590	0.0000	-13.5632	-4.6588	0.0000	13.5632	0.2275	0.0006	-0.0338
31XY	4.6590	0.0000	-13.5632	-4.6588	0.0000	13.5632	0.2279	0.0003	0.0123
31Y	4.6590	0.0000	-13.5632	-4.6588	-0.0000	13.5632	0.2315	-0.0021	0.0124
33X	6.6936	0.0000	-20.6568	-6.6935	-0.0000	20.6567	0.1347	-0.0005	-0.0295
33XY	6.6936	0.0000	-20.6568	-6.6935	0.0000	20.6568	0.1353	0.0014	0.0101
33Y	6.6936	0.0000	-20.6568	-6.6935	-0.0000	20.6568	0.1380	-0.0022	0.0102
34X	6.8842	0.0000	-20.3830	-6.8841	-0.0000	20.3829	0.1035	-0.0001	-0.0287
34XY	6.8842	0.0000	-20.3830	-6.8841	0.0000	20.3830	0.1043	0.0011	0.0106
34Y	6.8842	0.0000	-20.3830	-6.8841	-0.0000	20.3830	0.1067	-0.0014	0.0107
35X	7.3858	0.0000	-21.0634	-7.3857	0.0000	21.0634	0.0784	0.0000	-0.0273
35XY	7.3858	0.0000	-21.0634	-7.3857	0.0000	21.0634	0.0793	0.0010	0.0106
35Y	11.9798	0.0000	-22.4934	-11.9797	-0.0000	22.4934	0.0815	-0.0009	0.0108
36X	9.3545	0.0000	-21.5187	-9.3545	-0.0000	21.5187	0.0580	-0.0006	-0.0251
36XY	7.7225	0.0010	-19.2507	-7.7225	-0.0010	19.2507	0.0589	0.0016	0.0100
36Y	6.0405	0.0000	-18.4897	-6.0405	-0.0000	18.4897	0.0605	-0.0011	0.0102
37X	6.1711	0.0000	-17.5221	-6.1711	0.0000	17.5221	0.0393	0.0002	-0.0229
37XY	4.6981	0.0000	-15.1301	-4.6981	0.0000	15.1301	0.0405	0.0010	0.0095
37Y	4.6981	0.0000	-15.1301	-4.6981	-0.0000	15.1301	0.0415	-0.0002	0.0097
38X	4.8429	0.0000	-16.3325	-4.8428	-0.0000	16.3325	0.0272	-0.0008	-0.0196
38XY	4.8429	0.0000	-16.3325	-4.8428	0.0000	16.3325	0.0284	0.0020	0.0082
38Y	5.1099	0.0000	-16.6575	-5.1098	-0.0000	16.6575	0.0292	-0.0013	0.0083
39X	4.8001	0.0000	-17.1838	-4.8001	0.0000	17.1838	0.0149	0.0004	-0.0165
39XY	4.8001	0.0000	-17.1838	-4.8001	0.0000	17.1838	0.0164	0.0010	0.0070
39Y	6.2731	0.0000	-19.5758	-6.2731	-0.0000	19.5758	0.0170	-0.0005	0.0072
40X	11.2817	0.0000	-24.9717	-11.2817	-0.0000	24.9717	0.0079	-0.0016	-0.0125
40XY	4.6547	0.0000	-18.9137	-4.6547	0.0000	18.9137	0.0091	0.0027	0.0053
40Y	7.9687	0.0000	-21.9427	-7.9687	-0.0000	21.9427	0.0096	-0.0024	0.0053
41X	4.7519	0.0000	-18.9730	-4.7519	0.0000	18.9730	0.0007	0.0007	-0.0091
41XY	3.2789	0.0000	-16.5810	-3.2789	0.0000	16.5811	0.0024	0.0011	0.0040
41Y	3.2789	0.0000	-16.5810	-3.2789	-0.0000	16.5811	0.0028	-0.0008	0.0040
42X	2.8234	0.0000	-14.4491	-2.8234	0.0000	14.4491	0.0008	0.0031	-0.0048
42XY	2.8234	0.0000	-14.4491	-2.8234	0.0000	14.4491	0.0064	0.0024	0.0011
42Y	2.8234	0.0000	-14.4491	-2.8234	-0.0000	14.4491	0.0065	-0.0023	0.0011

Moments for Angles Modeled as Beams:

Angle	Torsion	Origin	Origin	End	End	X	Y



**INSTATel COLOMBIA CI
LTDA**

Carrera 124 No. 17-98
Fontibón - Bogotá - Phone: (57) 5470790

Job

EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA
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TORRE CUADRADA AUTOSOPORTADA DE 150m

Date

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Client

TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA

Designed by

Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.00	0.00	0.03	-5.35	58.86	-1.67
1X	-0.00	0.00	0.03	6.63	65.35	2.07
1XY	-0.00	0.00	0.03	47.48	-57.65	14.79
1Y	0.00	-0.00	0.03	-47.87	-46.35	-14.91
2P	0.01	5.35	-58.82	-15.95	-51.94	-4.24
2X	-0.01	-6.63	-65.32	19.95	-51.87	5.32
2XY	-0.01	-47.48	57.68	-90.21	106.86	-55.08
2Y	0.01	47.87	46.39	87.73	84.11	54.24
3P	0.01	15.95	51.98	61.92	92.12	31.15
3X	-0.01	-19.95	51.90	-55.51	102.60	-30.18
3XY	-0.01	90.21	-106.82	125.15	-38.25	86.15
3Y	0.01	-87.73	-84.07	-130.13	-33.51	-87.15
4P	0.01	-61.92	-92.09	-121.05	36.84	-73.19
4X	-0.01	55.51	-102.57	132.97	62.62	75.39
4XY	-0.01	-125.15	38.28	-210.16	175.40	-134.12
4Y	0.01	130.13	33.54	202.97	154.74	133.24
5P	0.02	121.05	-36.80	351.08	322.45	188.85
5X	-0.02	-132.97	-62.58	-296.11	385.58	-171.63
5XY	-0.02	210.16	-175.36	419.53	347.43	251.88
5Y	0.02	-202.97	-154.70	-461.54	228.51	-265.80
6P	0.02	-351.08	-322.41	-462.91	313.84	-325.60
6X	-0.02	296.11	-385.55	465.15	349.29	304.50
6XY	-0.02	-419.53	-347.40	-603.65	357.87	-409.27
6Y	0.02	461.54	-228.48	620.28	395.98	432.73
7P	0.02	462.91	-313.81	2062.56	61.37	1262.74
7X	-0.02	-465.15	-349.26	-849.86	1176.46	-657.50
7XY	-0.02	603.65	-357.84	1103.88	1282.26	853.77
7Y	0.02	-620.28	-395.94	-2288.14	49.88	-1454.21
8P	0.03	-2062.56	-61.34	-4430.13	4942.77	-4135.47
8X	-0.03	849.85	-1176.43	-1033.28	-442.69	-116.83
8XY	-0.02	-1103.88	-1282.23	1155.56	-638.61	32.92
8Y	0.03	2288.14	-49.85	4468.97	4855.04	4303.89
9P	-61.25	-6627.62	357.26	-3094.49	-325.69	-2371.82
9X	70.57	1043.69	-411.58	1319.25	341.70	576.47
9XY	61.77	-1268.69	-360.26	-1800.43	326.86	-748.75
9Y	-46.12	6593.05	269.04	2689.89	-315.32	2264.68
10P	-5.30	-2422.44	1953.85	155.70	1462.11	-784.34
10X	11.78	-686.27	-1179.40	-929.38	645.38	-559.05
10XY	5.62	1037.91	-1508.25	1557.33	54.06	898.01
10Y	7.86	2127.31	1676.79	-744.32	854.44	478.54
11P	-5.30	-155.70	-1462.08	-1375.98	319.13	-612.67
11X	11.78	929.38	-645.36	1598.03	562.88	1010.96
11XY	5.61	-1557.34	-54.03	-2183.00	1120.29	-1496.13
11Y	7.86	744.32	-854.41	1975.27	928.17	1087.84
12P	-5.30	1375.98	-319.10	1964.07	1128.34	1336.02
12X	11.78	-1598.03	-562.85	-1987.77	1066.95	-1434.32
12XY	5.61	2183.00	-1120.26	2465.48	636.52	1859.39
12Y	7.86	-1975.27	-928.14	-2421.97	640.04	-1758.90
13P	-5.29	-1964.07	-1128.31	-2374.48	1002.99	-1735.42
13X	11.77	1987.77	-1066.92	2391.44	1053.30	1751.69
13XY	5.61	-2465.49	-636.49	-2755.21	1401.44	-2088.28
13Y	7.86	2421.97	-640.01	2753.96	1394.28	2070.37
14P	-5.29	2374.48	-1002.96	2742.61	1345.33	2046.84

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X	11.77	-2391.44	-1053.27	-2771.14	1290.78	-2065.03	95.01
14XY	5.60	2755.21	-1401.42	3022.31	1059.02	2311.01	-136.96
14Y	7.87	-2753.96	-1394.25	-2978.96	1083.95	-2293.17	-124.12
15P	-5.29	-2742.61	-1345.31	-3066.99	1253.02	-2323.84	-36.91
15X	11.77	2771.14	-1290.76	3173.06	1364.06	2377.68	29.32
15XY	5.60	-3022.31	-1058.99	-3150.31	1332.69	-2469.05	109.48
15Y	7.87	2978.96	-1083.93	3058.91	1253.53	2415.15	67.84
16P	-5.28	3066.99	-1253.00	3849.86	1209.28	3458.43	-21.86
16X	11.76	-3173.06	-1364.03	-4365.77	683.44	-3769.42	-340.30
16XY	5.60	3150.31	-1332.66	3915.10	1167.22	3532.71	-82.72
16Y	7.87	-3058.91	-1253.51	-3387.03	1646.62	-3222.97	196.55
17P	-5.28	-3849.86	-1209.26	-1553.89	2553.69	-3420.10	850.90
17X	11.76	4365.77	-683.41	3918.06	4880.41	5242.93	2656.33
17XY	5.59	-3915.10	-1167.20	-3569.35	4543.97	-4737.00	2137.20
17Y	7.88	3387.03	-1646.59	1218.07	2244.06	2914.62	378.14
18P	-201.35	-2904.49	677.69	-1355.79	-413.21	-637.50	39.58
18X	200.23	-6221.44	-650.46	-3175.97	448.01	-1406.22	-30.29
18XY	196.71	5736.97	-660.50	2779.67	438.44	1274.42	-33.23
18Y	-193.85	2448.08	699.14	961.15	-399.85	510.15	44.78
19P	-78.71	-1278.92	638.48	-588.25	877.59	-666.84	541.45
19X	67.96	2589.40	1902.12	931.24	1179.65	1257.37	1100.63
19XY	67.24	-2301.98	1629.08	-618.67	902.04	-1043.09	903.97
19Y	-75.21	989.32	369.97	278.24	552.26	452.70	329.37
20P	-78.70	588.25	-877.57	-232.87	313.54	126.92	-201.44
20X	67.96	-931.24	-1179.63	110.91	226.65	-292.98	-340.35
20XY	67.24	618.67	-902.02	-367.34	425.65	89.76	-170.13
20Y	-75.21	-278.24	-552.25	490.53	553.93	75.82	0.60
21P	-78.70	232.87	-313.53	1255.00	948.65	551.06	235.23
21X	67.96	-110.91	-226.63	-1236.13	1065.20	-498.90	310.58
21XY	67.24	367.34	-425.63	1471.72	893.67	681.13	173.35
21Y	-75.21	-490.53	-553.91	-1491.87	852.11	-734.22	110.44
22P	-78.70	-1255.00	-948.63	-1835.33	894.52	-1144.57	-20.04
22X	67.96	1236.13	-1065.18	1810.81	793.96	1128.50	-100.45
22XY	67.23	-1471.72	-893.66	-2084.58	1027.20	-1317.15	49.46
22Y	-75.20	1491.87	-852.10	2107.67	1011.14	1333.16	58.91
23P	-78.70	1835.33	-894.51	2328.87	1489.17	1487.22	212.38
23X	67.95	-1810.81	-793.95	-2349.59	1504.17	-1485.86	253.65
23XY	67.23	2084.58	-1027.19	2708.80	1160.42	1711.92	47.58
23Y	-75.20	-2107.67	-1011.13	-2688.82	1209.59	-1713.03	70.88
24P	-78.69	-2328.87	-1489.16	-2740.74	950.21	-1810.57	-192.48
24X	67.95	2349.59	-1504.15	2713.44	912.85	1808.23	-211.18
24XY	67.23	-2708.80	-1160.41	-3040.87	1234.96	-2053.45	26.63
24Y	-75.20	2688.82	-1209.58	3067.10	1243.10	2055.69	11.97
25P	-78.69	2740.74	-950.19	3044.79	2344.26	2066.26	497.88
25X	67.95	-2713.44	-912.84	-3079.91	2296.78	-2069.05	494.27
25XY	67.23	3040.87	-1234.94	3347.81	2028.69	2281.67	283.48
25Y	-75.20	-3067.10	-1243.09	-3313.58	2092.54	-2278.81	303.37
26P	-78.69	-3044.79	-2344.25	-3419.17	1283.24	-2308.56	-378.93
26X	67.95	3079.90	-2296.77	3383.50	1243.06	2308.36	-376.32
26XY	67.22	-3347.81	-2028.68	-3579.18	1440.14	-2473.93	-210.19
26Y	-75.19	3313.58	-2092.53	3613.89	1461.04	2474.10	-225.53
27P	-78.69	3419.17	-1283.23	3742.43	1913.65	2604.22	229.24
27X	67.94	-3383.50	-1243.05	-3791.20	1879.79	-2608.98	231.54
27XY	67.22	3579.18	-1440.13	3876.14	1790.31	2711.03	127.34
27Y	-75.19	-3613.89	-1461.03	-3828.53	1847.37	-2706.33	140.49
28P	-78.68	-3742.43	-1913.64	-4004.03	1790.78	-2816.89	-44.67

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X 67.94 3791.20 -1879.78 3978.55 1760.65 2825.36 -43.32
28XY 67.22 -3876.14 -1790.30 -3872.07 1660.16 -2817.53 -47.32
28Y -75.19 3828.53 -1847.36 3895.44 1673.77 2808.71 -63.12
29P -78.68 4004.03 -1790.77 2832.26 2296.70 2531.96 187.38
29X 67.94 -3978.55 -1760.64 -2981.03 2137.85 -2577.62 139.71
29XY 67.22 3872.07 -1660.15 2610.73 2501.86 2401.04 311.75
29Y -75.19 -3895.44 -1673.76 -2460.84 2665.62 -2354.18 367.35
30P -78.68 -2832.26 -2296.69 -2426.65 4143.65 -926.68 325.45
30X 67.94 2981.03 -2137.84 2628.25 4302.43 988.42 381.43
30XY 67.22 -2610.73 -2501.85 -2227.87 3904.67 -852.62 247.19
30Y -75.18 2460.84 -2665.61 2017.38 3746.29 789.11 190.43
31P -283.73 -4645.90 1183.10 -203.13 -1685.48 -755.51 -78.27
31X 268.00 -4900.73 -1155.08 -339.13 1702.93 -816.40 85.36
31XY 267.60 4336.36 -1157.03 -20.75 1701.19 672.40 84.78
31Y -281.71 4075.53 1191.99 -163.21 -1689.88 609.56 -77.57
32P -283.72 203.13 1685.47 1341.76 -812.82 253.74 143.33
32X 268.00 339.14 -1702.93 1309.62 784.01 270.80 -150.93
32XY 267.60 20.75 -1701.18 -1171.78 786.54 -189.05 -150.23
32Y -281.71 163.21 1689.87 -1193.10 -799.42 -169.16 146.25
33P -283.72 -1341.76 812.82 1045.97 -498.62 -48.58 51.61
33X 267.99 -1309.62 -784.01 1067.50 585.32 -39.77 -32.63
33XY 267.60 1171.78 -786.53 -1081.35 575.16 14.85 -34.72
33Y -281.71 1193.10 799.42 -1034.03 -492.57 26.13 50.40
34P -283.72 -1045.96 498.62 -851.81 -252.89 -311.70 40.36
34X 267.99 -1067.50 -585.32 -759.87 293.24 -300.14 -47.97
34XY 267.59 1081.34 -575.16 677.47 292.62 288.88 -46.41
34Y -281.70 1034.03 492.56 723.56 -300.54 288.68 31.54
35P -283.72 851.81 252.89 2638.92 -864.83 573.34 -100.51
35X 267.99 759.87 -293.23 2368.34 853.71 513.79 92.06
35XY 267.59 -677.48 -292.62 -2165.05 858.29 -466.87 92.91
35Y -281.70 -723.57 300.54 -2384.85 -836.29 -510.54 -87.99
36P -283.71 -2638.92 864.83 -1920.34 -134.82 -748.84 119.90
36X 267.99 -2368.33 -853.71 -1817.99 109.82 -687.59 -122.18
36XY 267.59 2165.05 -858.28 1548.85 105.88 609.99 -123.58
36Y -281.70 2384.84 836.29 1624.96 -141.73 658.59 114.08
37P -283.71 1920.34 134.81 2965.60 -339.70 802.49 -33.65
37X 267.99 1817.99 -109.82 2889.66 395.35 773.21 46.90
37XY 267.59 -1548.85 -105.88 -2635.69 372.52 -687.29 43.79
37Y -281.70 -1624.96 141.73 -2692.65 -332.48 -709.15 -31.33
38P -283.71 -2965.60 339.70 -2307.11 -285.57 -866.02 8.89
38X 267.99 -2889.66 -395.35 -2277.56 197.14 -848.69 -32.56
38XY 267.59 2635.69 -372.52 2689.17 231.47 874.58 -23.17
38Y -281.70 2692.65 332.48 2737.69 -275.70 891.91 9.33
39P -283.71 2307.11 285.57 1959.81 -2347.10 700.82 -338.60
39X 267.99 2277.56 -197.14 1957.69 2451.61 695.62 370.29
39XY 267.59 -2689.17 -231.47 -5540.24 2434.48 -1351.64 361.84
39Y -281.70 -2737.69 275.70 -5559.46 -2380.66 -1362.77 -345.73
40P -283.71 -1959.81 2347.10 1227.06 2996.25 -120.35 877.62
40X 267.99 -1957.69 -2451.61 1225.88 -3018.53 -120.20 -898.45
40XY 267.59 5540.24 -2434.48 6691.46 -3022.10 2009.00 -896.22
40Y -281.70 5559.46 2380.66 6685.60 2996.01 2011.19 883.09
41P -283.71 -1227.06 -2996.25 -2344.49 -3588.51 -606.84 -1118.81
41X 267.99 -1225.88 3018.53 -2344.77 3443.65 -606.69 1097.98
41XY 267.59 -6691.46 3022.10 -7506.41 3453.20 -2412.35 1100.21
41Y -281.70 -6685.60 -2996.01 -7499.37 -3556.54 -2410.16 -1113.34

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 2 "LC2 WIND 45° C.D."

Equilibrium Joint Positions and Rotations for Load Case "LC2 WIND 45° C.D.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	1.488	1.478	-0.04746	-1.3587	1.3908	0.0303	2.138	2.128	150.9
10P	1.043	1.039	-0.04181	-1.2956	1.2981	0.0303	1.693	1.689	131.6
11P	0.944	0.9414	-0.06409	-1.3554	1.3635	0.0292	2.084	2.081	127.5
19P	0.5586	0.5573	-0.04875	-0.9324	0.9323	0.0200	1.699	1.697	108.6
20P	0.4844	0.484	-0.07288	-0.6472	0.6485	0.0164	2.936	2.936	102.1
32P	0.1355	0.1354	-0.03957	-0.3370	0.3370	0.0071	2.587	2.587	66.09
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	1.495	1.478	-0.017	-1.3430	1.5946	0.3176	2.145	0.8282	150.9
1XY	1.496	1.474	0.01853	-1.5128	1.5537	0.0475	0.8455	0.8239	150.9
1Y	1.488	1.474	-0.0162	-1.5605	1.3767	-0.2223	0.8384	2.124	150.9
10X	0.9823	1.04	-0.01643	-1.2871	1.2448	0.3177	1.632	0.3898	131.6
10XY	0.9824	0.9736	0.01468	-1.2312	1.2604	0.0475	0.3324	0.3236	131.6
10Y	1.043	0.9735	-0.01603	-1.2093	1.2854	-0.2224	0.3933	1.624	131.6
11X	0.9106	0.9412	-0.01311	-1.3974	1.0585	0.3131	2.051	-0.1988	127.6
11XY	0.9112	0.9031	0.0309	-0.9861	1.0045	0.0454	-0.2288	-0.2369	127.6
11Y	0.9438	0.9026	-0.01258	-1.0422	1.4028	-0.2225	-0.1962	2.043	127.6
19X	0.5799	0.5582	-0.01246	-0.8669	0.7875	0.2941	1.72	-0.5818	108.6
19XY	0.5799	0.5768	0.01846	-0.8269	0.8373	0.0273	-0.5601	-0.5632	108.6
19Y	0.5595	0.5768	-0.01223	-0.7761	0.8672	-0.2413	-0.5805	1.717	108.6
20X	0.4955	0.4828	-0.01382	-0.6799	0.7610	0.2654	2.947	-1.969	102.2
20XY	0.4972	0.4941	0.04762	-0.7167	0.7230	0.0215	-1.955	-1.958	102.2
20Y	0.4832	0.4923	-0.01351	-0.7550	0.6800	-0.2243	-1.969	2.944	102.2
32X	0.1339	0.1358	-0.01059	-0.3449	0.3536	0.1959	2.586	-2.316	66.11
32XY	0.1351	0.1344	0.0193	-0.3419	0.3445	0.0095	-2.317	-2.318	66.14
32Y	0.1359	0.1333	-0.01049	-0.3511	0.3447	-0.1783	-2.316	2.585	66.11
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	1.411	1.402	-0.04732	-1.3492	1.3807	0.0303	2.061	2.052	147.7
3S	1.351	1.344	-0.04709	-1.3354	1.3656	0.0303	2.001	1.994	145.2
4S	1.291	1.285	-0.0466	-1.3440	1.3711	0.0303	1.941	1.935	142.7
5S	1.232	1.227	-0.04584	-1.2947	1.3151	0.0303	1.882	1.877	140.2
6S	1.175	1.171	-0.04489	-1.2912	1.3035	0.0303	1.825	1.821	137.7
7S	1.119	1.115	-0.04348	-1.2336	1.2431	0.0303	1.769	1.765	135.2
8S	1.076	1.073	-0.04266	-1.1908	1.1890	0.0303	1.726	1.723	133.2
12S	0.8787	0.8765	-0.06285	-1.2687	1.2747	0.0279	2.019	2.017	124.6
13S	0.8231	0.8211	-0.06155	-1.2437	1.2487	0.0268	1.963	1.961	122.1
14S	0.7699	0.7682	-0.05983	-1.2103	1.2142	0.0255	1.91	1.908	119.6
15S	0.7175	0.7158	-0.05786	-1.1523	1.1559	0.0243	1.857	1.856	117.1
16S	0.6689	0.6675	-0.05558	-1.1037	1.1072	0.0230	1.809	1.807	114.6
17S	0.6212	0.6199	-0.05301	-1.0333	1.0351	0.0217	1.761	1.76	112.1
18S	0.5863	0.585	-0.05071	-1.0132	1.0138	0.0207	1.726	1.725	110.1
21S	0.4494	0.4491	-0.07034	-0.7179	0.7191	0.0147	2.901	2.901	99.33
22S	0.4164	0.4161	-0.06763	-0.6478	0.6488	0.0130	2.868	2.868	96.53
23S	0.3859	0.3857	-0.06543	-0.6475	0.6482	0.0122	2.838	2.838	93.83
24S	0.3558	0.3556	-0.06304	-0.6149	0.6155	0.0114	2.808	2.808	91.14
25S	0.3264	0.3262	-0.06109	-0.6002	0.6006	0.0109	2.778	2.778	88.34

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.2972	0.2971	-0.05897	-0.5772	0.5774	0.0104	2.749	2.749	85.54
27S	0.2699	0.2698	-0.05666	-0.5530	0.5533	0.0099	2.722	2.722	82.74
28S	0.2433	0.2432	-0.05416	-0.5206	0.5210	0.0094	2.695	2.695	79.95
29S	0.2193	0.2192	-0.0515	-0.4980	0.4981	0.0089	2.671	2.671	77.2
30S	0.1956	0.1955	-0.04864	-0.4670	0.4669	0.0084	2.648	2.648	74.45
31S	0.175	0.1749	-0.04561	-0.4251	0.4254	0.0079	2.627	2.627	71.75
33S	0.1053	0.1053	-0.03974	-0.2328	0.2318	0.0063	3.328	3.328	59.76
34S	0.08083	0.08091	-0.03901	-0.2078	0.2068	0.0057	4.035	4.035	53.76
35S	0.06126	0.06138	-0.03738	-0.1540	0.1532	0.0051	4.746	4.746	47.76
36S	0.04548	0.04567	-0.03442	-0.1485	0.1480	0.0044	5.462	5.462	41.77
37S	0.02998	0.03021	-0.03163	-0.1029	0.1021	0.0037	6.177	6.178	35.77
371S	0.03003	0.03074	-0.0198	0.0000	0.0000	0.0000	6.177	0.03074	35.78
372S	0.03052	0.02999	-0.01974	0.0000	0.0000	0.0000	0.03052	6.177	35.78
373S	0.03121	0.03032	0.005933	0.0000	0.0000	0.0000	-6.116	0.03032	35.81
374S	0.03061	0.03117	0.005889	0.0000	0.0000	0.0000	0.03061	-6.116	35.81
38S	0.02151	0.02171	-0.0271	-0.0841	0.0831	0.0030	6.9	6.9	29.77
39S	0.0112	0.01139	-0.02277	-0.0563	0.0556	0.0023	7.621	7.621	23.78
391S	0.01128	0.01206	-0.01491	0.0000	0.0000	0.0000	7.621	0.01206	23.79
392S	0.01187	0.01129	-0.01488	0.0000	0.0000	0.0000	0.01187	7.621	23.79
393S	0.01275	0.01185	0.004618	0.0000	0.0000	0.0000	-7.597	0.01185	23.8
394S	0.01203	0.01275	0.004571	0.0000	0.0000	0.0000	0.01203	-7.597	23.8
40S	0.007402	0.007578	-0.01729	-0.0433	0.0428	0.0018	8.348	8.348	17.78
41S	0.0003474	0.0005043	-0.01262	-0.0404	0.0396	0.0011	9.072	9.073	11.79
411S	0.000349	0.001267	-0.004922	0.0000	0.0000	0.0000	9.072	0.001267	11.8
412S	0.00111	0.0003772	-0.0049	0.0000	0.0000	0.0000	0.00111	9.072	11.8
413S	0.0021	0.001105	-0.0004566	0.0000	0.0000	0.0000	-9.07	0.001105	11.8
414S	0.001203	0.00213	-0.0004632	0.0000	0.0000	0.0000	0.001203	-9.07	11.8
42S	-0.0005169	-0.0004543	-0.006395	0.0174	-0.0186	0.0005	9.803	9.803	5.794
2X	1.407	1.403	-0.01693	-1.3511	1.5626	0.3176	2.057	0.7528	147.7
2XY	1.408	1.388	0.01852	-1.5487	1.5844	0.0475	0.7579	0.7384	147.7
2Y	1.411	1.387	-0.01615	-1.5230	1.3820	-0.2223	0.7611	2.037	147.7
3X	1.339	1.344	-0.01688	-1.3566	1.5763	0.3176	1.989	0.6937	145.2
3XY	1.339	1.321	0.01839	-1.5233	1.5614	0.0475	0.6887	0.6708	145.2
3Y	1.351	1.321	-0.01613	-1.5406	1.3854	-0.2223	0.7007	1.971	145.2
4X	1.27	1.285	-0.0168	-1.3278	1.5534	0.3176	1.92	0.6349	142.7
4XY	1.271	1.255	0.01806	-1.5340	1.5671	0.0475	0.6212	0.605	142.7
4Y	1.291	1.253	-0.01608	-1.5156	1.3563	-0.2223	0.6407	1.903	142.7
5X	1.203	1.227	-0.0167	-1.3374	1.5541	0.3176	1.853	0.5773	140.2
5XY	1.203	1.188	0.01751	-1.4653	1.5142	0.0475	0.5528	0.5381	140.2
5Y	1.232	1.188	-0.01602	-1.5230	1.3563	-0.2224	0.5819	1.838	140.2
6X	1.135	1.17	-0.01657	-1.2754	1.5012	0.3177	1.785	0.5196	137.7
6XY	1.137	1.125	0.01683	-1.4799	1.5136	0.0475	0.4874	0.4746	137.7
6Y	1.174	1.122	-0.01597	-1.4578	1.2900	-0.2224	0.5236	1.772	137.7
7X	1.072	1.115	-0.01647	-1.2594	1.4578	0.3177	1.722	0.4653	135.2
7XY	1.072	1.061	0.01582	-1.3875	1.4412	0.0475	0.4218	0.4105	135.2
7Y	1.119	1.06	-0.01596	-1.4241	1.2597	-0.2224	0.4689	1.71	135.2
8X	1.02	1.072	-0.01642	-1.1705	1.4655	0.3177	1.67	0.4223	133.2
8XY	1.021	1.012	0.01524	-1.4406	1.4783	0.0475	0.3715	0.3617	133.2
8Y	1.076	1.011	-0.01597	-1.4227	1.1718	-0.2224	0.4257	1.661	133.2
12X	0.854	0.876	-0.01302	-1.2471	1.1138	0.3105	1.994	-0.264	124.7
12XY	0.8556	0.8484	0.02997	-1.1209	1.1387	0.0429	-0.2844	-0.2916	124.7
12Y	0.8782	0.8468	-0.01254	-1.0950	1.2543	-0.2251	-0.2618	1.987	124.7
13X	0.8069	0.8212	-0.01297	-1.2604	1.0793	0.3082	1.947	-0.3188	122.2
13XY	0.8072	0.8009	0.02896	-1.0505	1.0680	0.0407	-0.3328	-0.3391	122.2
13Y	0.8232	0.8006	-0.01252	-1.0621	1.2652	-0.2274	-0.3168	1.941	122.2
14X	0.7597	0.767	-0.01288	-1.2038	1.0447	0.3056	1.9	-0.373	119.7

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	0.7617	0.7561	0.02761	-1.0323	1.0488	0.0382	-0.3783	-0.3839	119.7
14Y	0.7688	0.7541	-0.01248	-1.0282	1.2078	-0.2299	-0.3712	1.894	119.7
15X	0.7158	0.7159	-0.0128	-1.1651	1.0054	0.3030	1.856	-0.4241	117.2
15XY	0.7162	0.7113	0.02602	-0.9810	0.9958	0.0358	-0.4238	-0.4287	117.2
15Y	0.7176	0.7109	-0.01243	-0.9907	1.1687	-0.2325	-0.4224	1.851	117.2
16X	0.6722	0.6657	-0.0127	-1.0984	0.9481	0.3004	1.812	-0.4743	114.7
16XY	0.6747	0.6704	0.02416	-0.9362	0.9490	0.0333	-0.4653	-0.4696	114.7
16Y	0.6672	0.6679	-0.01238	-0.9353	1.1019	-0.2350	-0.4728	1.808	114.7
17X	0.633	0.6199	-0.01261	-1.0467	0.8984	0.2978	1.773	-0.5201	112.2
17XY	0.6335	0.6297	0.02203	-0.8842	0.8966	0.0308	-0.5065	-0.5103	112.2
17Y	0.6212	0.6292	-0.01233	-0.8860	1.0484	-0.2376	-0.5188	1.769	112.2
18X	0.6019	0.5837	-0.01252	-0.9877	0.8400	0.2958	1.742	-0.5563	110.2
18XY	0.6035	0.6002	0.02011	-0.8434	0.8551	0.0289	-0.5365	-0.5398	110.2
18Y	0.585	0.5985	-0.01227	-0.8281	0.9887	-0.2397	-0.555	1.738	110.2
21X	0.4601	0.4492	-0.01356	-0.6835	0.7039	0.2528	2.912	-2.003	99.39
21XY	0.4611	0.4582	0.04559	-0.7287	0.7337	0.0193	-1.991	-1.994	99.45
21Y	0.4495	0.4572	-0.01327	-0.6985	0.6853	-0.2159	-2.002	2.909	99.39
22X	0.4258	0.4163	-0.01327	-0.6686	0.6990	0.2401	2.878	-2.036	96.59
22XY	0.4266	0.4239	0.04336	-0.6748	0.6799	0.0171	-2.025	-2.028	96.64
22Y	0.4165	0.4232	-0.01302	-0.6940	0.6694	-0.2076	-2.035	2.875	96.59
23X	0.3934	0.3853	-0.01304	-0.6374	0.6648	0.2342	2.845	-2.067	93.89
23XY	0.3948	0.3924	0.04155	-0.6692	0.6740	0.0161	-2.057	-2.06	93.94
23Y	0.3855	0.391	-0.0128	-0.6599	0.6382	-0.2036	-2.067	2.843	93.89
24X	0.3629	0.356	-0.0128	-0.6206	0.6475	0.2282	2.815	-2.096	91.19
24XY	0.3635	0.3613	0.03955	-0.6349	0.6395	0.0151	-2.089	-2.091	91.24
24Y	0.3562	0.3607	-0.01258	-0.6429	0.6211	-0.1997	-2.096	2.813	91.19
25X	0.3315	0.3259	-0.0126	-0.5979	0.6225	0.2245	2.784	-2.126	88.39
25XY	0.3329	0.3309	0.03791	-0.6208	0.6252	0.0144	-2.119	-2.121	88.44
25Y	0.326	0.3295	-0.01239	-0.6181	0.5984	-0.1972	-2.126	2.782	88.39
26X	0.3019	0.2974	-0.01239	-0.5813	0.6046	0.2208	2.754	-2.155	85.59
26XY	0.3025	0.3008	0.03611	-0.5969	0.6012	0.0138	-2.149	-2.151	85.64
26Y	0.2976	0.3002	-0.0122	-0.6002	0.5815	-0.1948	-2.154	2.752	85.59
27X	0.2726	0.2693	-0.01217	-0.5513	0.5737	0.2171	2.725	-2.183	82.79
27XY	0.2742	0.2726	0.03413	-0.5710	0.5750	0.0131	-2.178	-2.179	82.83
27Y	0.2694	0.2711	-0.01199	-0.5698	0.5516	-0.1923	-2.183	2.723	82.79
28X	0.2458	0.2435	-0.01193	-0.5250	0.5450	0.2134	2.698	-2.209	79.99
28XY	0.2465	0.2451	0.03198	-0.5383	0.5418	0.0125	-2.206	-2.207	80.03
28Y	0.2436	0.2445	-0.01176	-0.5414	0.5253	-0.1899	-2.208	2.696	79.99
29X	0.2198	0.2185	-0.01168	-0.4958	0.5155	0.2098	2.672	-2.234	77.24
29XY	0.2215	0.2203	0.02968	-0.5130	0.5164	0.0119	-2.23	-2.232	77.28
29Y	0.2186	0.2186	-0.01153	-0.5121	0.4960	-0.1875	-2.233	2.671	77.24
30X	0.1964	0.1958	-0.01142	-0.4692	0.4849	0.2061	2.648	-2.256	74.49
30XY	0.197	0.1959	0.0272	-0.4823	0.4857	0.0112	-2.255	-2.256	74.53
30Y	0.196	0.1953	-0.01128	-0.4815	0.4691	-0.1851	-2.256	2.647	74.49
31X	0.1736	0.1738	-0.01115	-0.4444	0.4616	0.2025	2.626	-2.278	71.79
31XY	0.1755	0.1746	0.02456	-0.4369	0.4397	0.0106	-2.276	-2.277	71.82
31Y	0.1739	0.1727	-0.01102	-0.4589	0.4446	-0.1827	-2.278	2.625	71.79
33X	0.1016	0.1035	-0.009913	-0.2792	0.2766	0.1877	3.324	-3.119	59.79
33XY	0.1045	0.1039	0.0206	-0.2324	0.2357	0.0085	-3.118	-3.119	59.82
33Y	0.1035	0.101	-0.009807	-0.2737	0.2778	-0.1719	-3.119	3.324	59.79
34X	0.07822	0.08034	-0.009228	-0.2186	0.2185	0.1778	4.032	-3.874	53.79
34XY	0.08028	0.07982	0.021	-0.2039	0.2066	0.0077	-3.874	-3.874	53.82
34Y	0.08025	0.07775	-0.009122	-0.2157	0.2171	-0.1636	-3.874	4.032	53.79
35X	0.05939	0.0614	-0.008465	-0.1872	0.1830	0.1617	4.744	-4.624	47.79
35XY	0.061	0.06062	0.02064	-0.1506	0.1529	0.0069	-4.624	-4.624	47.82
35Y	0.06131	0.05903	-0.008361	-0.1809	0.1862	-0.1489	-4.624	4.744	47.79

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.04354	0.04524	-0.007577	-0.1626	0.1572	0.1402	5.46	-5.371	41.79
36XY	0.04586	0.04552	0.01917	-0.1402	0.1420	0.0060	-5.37	-5.371	41.82
36Y	0.04503	0.04317	-0.007469	-0.1558	0.1623	-0.1290	-5.371	5.459	41.79
37X	0.03007	0.03141	-0.006661	-0.1300	0.1250	0.1205	6.177	-6.116	35.79
37XY	0.03127	0.03098	0.01803	-0.0999	0.1016	0.0051	-6.116	-6.116	35.82
37Y	0.03117	0.02977	-0.006557	-0.1231	0.1286	-0.1113	-6.116	6.177	35.79
38X	0.02001	0.02122	-0.005719	-0.0995	0.0987	0.0999	6.899	-6.857	29.79
38XY	0.02276	0.02253	0.01545	-0.0837	0.0853	0.0041	-6.856	-6.856	29.82
38Y	0.02103	0.01978	-0.005635	-0.0971	0.0981	-0.0923	-6.858	6.898	29.79
39X	0.01133	0.01284	-0.004708	-0.0831	0.0828	0.0762	7.621	-7.597	23.8
39XY	0.01284	0.01266	0.0132	-0.0556	0.0569	0.0032	-7.597	-7.597	23.81
39Y	0.01268	0.01117	-0.004638	-0.0818	0.0825	-0.0702	-7.597	7.621	23.8
40X	0.004547	0.00583	-0.003658	-0.0711	0.0608	0.0560	8.345	-8.335	17.8
40XY	0.008657	0.008523	0.009929	-0.0539	0.0548	0.0024	-8.332	-8.332	17.81
40Y	0.005637	0.004383	-0.003594	-0.0601	0.0707	-0.0516	-8.335	8.345	17.8
41X	0.0003784	0.002244	-0.002599	0.0142	0.0227	0.0468	9.072	-9.07	11.8
41XY	0.002174	0.002076	0.007405	-0.0017	0.0026	0.0016	-9.07	-9.07	11.81
41Y	0.002066	0.0002675	-0.002547	-0.0217	-0.0152	-0.0440	-9.07	9.072	11.8
42X	0.0001313	0.005756	-0.001872	-0.0280	-0.0010	0.0202	9.803	-9.797	5.798
42XY	0.005098	0.005062	0.002637	-0.0097	0.0105	0.0007	-9.798	-9.798	5.803
42Y	0.005686	9.489e-005	-0.001846	0.0018	0.0267	-0.0190	-9.798	9.803	5.798

Joint Support Reactions for Load Case "LC2 WIND 45° C.D.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X-Moment (kN-m)	X-M. Usage %	Y-Moment (kN-m)	Y-M. Usage %	Z-Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-355.90	0.0	-358.51	0.0	2389.16	0.0	0.0	2441.98	0.0	-0.86	0.0	0.9	0.0	-0.01	0.0	0.0
ANX	-43.33	0.0	80.47	0.0	450.17	0.0	0.0	459.36	0.0	7.08	0.0	-0.1	0.0	0.44	0.0	0.0
ANXY	-231.17	0.0	-229.77	0.0	-1475.02	0.0	0.0	1510.60	0.0	6.06	0.0	-6.1	0.0	-0.01	0.0	0.0
ANY	81.62	0.0	-40.97	0.0	443.15	0.0	0.0	452.46	0.0	0.08	0.0	-7.0	0.0	-0.46	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC2 WIND 45° C.D.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.5050	1.5050	-4.3420	-1.5035	-1.5036	4.3419	1.4883	1.4781	-0.0475
10P	5.3100	5.3100	-9.1409	-5.3090	-5.3090	9.1409	1.0430	1.0395	-0.0418
11P	1.9882	1.9882	-6.4172	-1.9872	-1.9872	6.4171	0.9440	0.9414	-0.0641
19P	2.8751	2.8751	-9.3361	-2.8746	-2.8746	9.3361	0.5586	0.5573	-0.0488
20P	4.2012	4.2012	-12.0259	-4.2007	-4.2007	12.0258	0.4844	0.4840	-0.0729
32P	4.9498	4.9498	-20.0334	-4.9496	-4.9496	20.0333	0.1355	0.1354	-0.0396
ANP	1.3181	1.3181	-8.6281	354.5843	357.1916	-2380.5314	0.0000	0.0000	0.0000
1X	1.5050	1.5050	-4.3420	-1.5035	-1.5036	4.3420	1.4954	1.4782	-0.0170
1XY	1.5050	1.5050	-4.3420	-1.5035	-1.5036	4.3420	1.4955	1.4739	0.0185
1Y	0.6830	0.6830	-2.5480	-0.6815	-0.6816	2.5480	1.4884	1.4738	-0.0162
10X	5.3100	5.3100	-9.1409	-5.3091	-5.3090	9.1409	0.9823	1.0398	-0.0164
10XY	2.4190	2.4190	-6.5669	-2.4181	-2.4181	6.5670	0.9824	0.9736	0.0147
10Y	1.5970	1.5970	-4.7729	-1.5960	-1.5961	4.7729	1.0433	0.9735	-0.0160
11X	1.9882	1.9882	-6.4172	-1.9873	-1.9872	6.4172	0.9106	0.9412	-0.0131
11XY	1.9882	1.9882	-6.4172	-1.9873	-1.9873	6.4172	0.9112	0.9031	0.0309
11Y	1.9882	1.9882	-6.4172	-1.9872	-1.9873	6.4172	0.9438	0.9026	-0.0126

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	2.8751	2.8751	-9.3361	-2.8746	-2.8746	9.3361	0.5799	0.5582	-0.0125
19XY	2.8751	2.8751	-9.3361	-2.8746	-2.8746	9.3361	0.5799	0.5768	0.0185
19Y	2.8751	2.8751	-9.3361	-2.8746	-2.8746	9.3361	0.5595	0.5768	-0.0122
20X	4.2012	4.2012	-12.0259	-4.2007	-4.2007	12.0259	0.4955	0.4828	-0.0138
20XY	3.7912	3.7912	-11.0119	-3.7907	-3.7907	11.0119	0.4972	0.4941	0.0476
20Y	3.7912	3.7912	-11.0119	-3.7907	-3.7907	11.0119	0.4832	0.4923	-0.0135
32X	4.9498	4.9498	-20.0334	-4.9496	-4.9496	20.0334	0.1339	0.1358	-0.0106
32XY	4.9498	4.9498	-20.0334	-4.9496	-4.9496	20.0334	0.1351	0.1344	0.0193
32Y	4.9498	4.9498	-20.0334	-4.9496	-4.9496	20.0334	0.1359	0.1333	-0.0105
ANX	1.3181	1.3181	-8.6281	42.0069	-81.7926	-441.5445	0.0000	0.0000	0.0000
ANXY	1.3181	1.3181	-8.6281	229.8565	228.4561	1483.6491	0.0000	0.0000	0.0000
ANY	1.3181	1.3181	-8.6281	-82.9364	39.6567	-434.5221	0.0000	0.0000	0.0000
2S	1.5050	1.5050	-3.0420	-1.5036	-1.5036	3.0419	1.4105	1.4021	-0.0473
3S	1.3138	1.3138	-2.4111	-1.3124	-1.3124	2.4110	1.3506	1.3436	-0.0471
4S	1.4527	1.4527	-2.9571	-1.4514	-1.4514	2.9570	1.2910	1.2853	-0.0466
5S	5.0988	5.0988	-6.9656	-5.0975	-5.0976	6.9655	1.2318	1.2271	-0.0458
6S	4.4680	4.4680	-5.8025	-4.4669	-4.4669	5.8024	1.1750	1.1710	-0.0449
7S	5.0358	5.0358	-7.2215	-5.0347	-5.0347	7.2214	1.1188	1.1152	-0.0435
8S	4.2808	4.2808	-5.7870	-4.2797	-4.2797	5.7869	1.0763	1.0728	-0.0427
12S	0.9589	0.9589	-3.0632	-0.9581	-0.9581	3.0632	0.8787	0.8765	-0.0628
13S	1.8182	1.8182	-5.6950	-1.8174	-1.8174	5.6950	0.8231	0.8211	-0.0615
14S	1.2693	1.2693	-3.6458	-1.2685	-1.2685	3.6457	0.7699	0.7682	-0.0598
15S	2.1762	2.1762	-6.4393	-2.1755	-2.1755	6.4393	0.7175	0.7158	-0.0579
16S	0.9069	0.9069	-2.7936	-0.9062	-0.9062	2.7935	0.6689	0.6675	-0.0556
17S	1.9806	1.9806	-5.8491	-1.9800	-1.9800	5.8491	0.6212	0.6199	-0.0530
18S	1.0737	1.0737	-3.0556	-1.0731	-1.0731	3.0555	0.5863	0.5850	-0.0507
21S	1.5798	1.5798	-3.7173	-1.5793	-1.5793	3.7173	0.4494	0.4491	-0.0703
22S	6.5438	6.5438	-10.2322	-6.5433	-6.5433	10.2322	0.4164	0.4161	-0.0676
23S	4.9640	4.9640	-6.5149	-4.9636	-4.9636	6.5148	0.3859	0.3857	-0.0654
24S	3.4068	3.4068	-9.2303	-3.4064	-3.4064	9.2302	0.3558	0.3556	-0.0630
25S	1.7518	1.7518	-5.0554	-1.7515	-1.7515	5.0553	0.3264	0.3262	-0.0611
26S	3.4712	3.4712	-10.2822	-3.4709	-3.4709	10.2822	0.2972	0.2971	-0.0590
27S	1.7194	1.7194	-5.2268	-1.7191	-1.7191	5.2268	0.2699	0.2698	-0.0567
28S	3.3866	3.3866	-10.5572	-3.3864	-3.3864	10.5571	0.2433	0.2432	-0.0542
29S	1.8563	1.8563	-5.6554	-1.8561	-1.8561	5.6553	0.2193	0.2192	-0.0515
30S	3.0079	3.0079	-9.5355	-3.0077	-3.0077	9.5355	0.1956	0.1955	-0.0486
31S	3.6585	3.6585	-13.5632	-3.6583	-3.6583	13.5632	0.1750	0.1749	-0.0456
33S	5.1206	5.1206	-20.6568	-5.1205	-5.1205	20.6567	0.1053	0.1053	-0.0397
34S	5.2129	5.2129	-20.3830	-5.2128	-5.2128	20.3829	0.0808	0.0809	-0.0390
35S	14.9451	14.9451	-27.7064	-14.9451	-14.9451	27.7064	0.0613	0.0614	-0.0374
36S	13.8981	13.8981	-25.1327	-13.8981	-13.8981	25.1327	0.0455	0.0457	-0.0344
37S	3.4928	3.4928	-15.1301	-3.4927	-3.4927	15.1301	0.0300	0.0302	-0.0316
371S	3.4928	3.4928	-15.1301	-3.4927	-3.4927	15.1301	0.0300	0.0307	-0.0198
372S	3.4928	3.4928	-15.1301	-3.4927	-3.4927	15.1301	0.0305	0.0300	-0.0197
373S	3.4928	3.4928	-15.1301	-3.4927	-3.4927	15.1301	0.0312	0.0303	0.0059
374S	3.4928	3.4928	-15.1301	-3.4927	-3.4927	15.1301	0.0306	0.0312	0.0059
38S	3.5971	3.5971	-16.3325	-3.5971	-3.5971	16.3325	0.0215	0.0217	-0.0271
39S	3.5581	3.5581	-17.1838	-3.5581	-3.5581	17.1838	0.0112	0.0114	-0.0228
391S	3.5581	3.5581	-17.1838	-3.5581	-3.5581	17.1838	0.0113	0.0121	-0.0149
392S	3.5581	3.5581	-17.1838	-3.5581	-3.5581	17.1838	0.0119	0.0113	-0.0149
393S	3.5581	3.5581	-17.1838	-3.5581	-3.5581	17.1838	0.0127	0.0118	0.0046
394S	3.5581	3.5581	-17.1838	-3.5581	-3.5581	17.1838	0.0120	0.0128	0.0046
40S	7.6120	7.6120	-22.7747	-7.6120	-7.6120	22.7747	0.0074	0.0076	-0.0173
41S	6.5654	6.5654	-20.4420	-6.5654	-6.5654	20.4420	0.0003	0.0005	-0.0126
411S	2.9866	2.9866	-19.3881	-2.9866	-2.9866	19.3881	0.0003	0.0013	-0.0049
412S	2.9866	2.9866	-19.3881	-2.9866	-2.9866	19.3881	0.0011	0.0004	-0.0049

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	Project	Date
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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	2.9866	2.9866	-19.3881	-2.9866	-2.9866	19.3881	0.0021	0.0011	-0.0005
414S	2.9866	2.9866	-19.3881	-2.9866	-2.9866	19.3881	0.0012	0.0021	-0.0005
42S	2.0481	2.0481	-14.4491	-2.0481	-2.0481	14.4491	-0.0005	-0.0005	-0.0064
2X	1.5050	1.5050	-3.0420	-1.5036	-1.5036	3.0420	1.4066	1.4028	-0.0169
2XY	1.5050	1.5050	-3.0420	-1.5036	-1.5036	3.0420	1.4079	1.3884	0.0185
2Y	0.6830	0.6830	-1.2480	-0.6816	-0.6816	1.2480	1.4111	1.3870	-0.0162
3X	1.3138	1.3138	-2.4111	-1.3124	-1.3124	2.4111	1.3386	1.3437	-0.0169
3XY	1.3138	1.3138	-2.4111	-1.3124	-1.3124	2.4111	1.3387	1.3208	0.0184
3Y	1.3138	1.3138	-2.4111	-1.3124	-1.3124	2.4111	1.3507	1.3207	-0.0161
4X	1.4527	1.4527	-2.9571	-1.4515	-1.4515	2.9571	1.2696	1.2849	-0.0168
4XY	1.4527	1.4527	-2.9571	-1.4515	-1.4515	2.9571	1.2712	1.2550	0.0181
4Y	0.6307	0.6307	-1.1631	-0.6294	-0.6294	1.1631	1.2907	1.2532	-0.0161
5X	5.9208	5.9208	-8.7596	-5.9196	-5.9196	8.7596	1.2027	1.2273	-0.0167
5XY	2.2078	2.2078	-4.3916	-2.2066	-2.2066	4.3916	1.2028	1.1881	0.0175
5Y	1.3858	1.3858	-2.5976	-1.3845	-1.3845	2.5976	1.2319	1.1880	-0.0160
6X	5.2900	5.2900	-7.5965	-5.2889	-5.2889	7.5965	1.1353	1.1696	-0.0166
6XY	1.5770	1.5770	-3.2285	-1.5759	-1.5759	3.2285	1.1374	1.1246	0.0168
6Y	0.7550	0.7550	-1.4345	-0.7539	-0.7539	1.4345	1.1736	1.1221	-0.0160
7X	5.0358	5.0358	-7.2215	-5.0348	-5.0347	7.2214	1.0716	1.1153	-0.0165
7XY	1.3228	1.3228	-2.8535	-1.3218	-1.3218	2.8535	1.0718	1.0605	0.0158
7Y	1.3228	1.3228	-2.8535	-1.3217	-1.3218	2.8534	1.1189	1.0603	-0.0160
8X	5.1028	5.1028	-7.5810	-5.1018	-5.1017	7.5810	1.0205	1.0723	-0.0164
8XY	1.3898	1.3898	-3.2130	-1.3888	-1.3888	3.2130	1.0215	1.0117	0.0152
8Y	0.5678	0.5678	-1.4190	-0.5667	-0.5668	1.4190	1.0757	1.0105	-0.0160
12X	0.9589	0.9589	-3.0632	-0.9581	-0.9581	3.0632	0.8540	0.8760	-0.0130
12XY	0.9589	0.9589	-3.0632	-0.9581	-0.9581	3.0633	0.8556	0.8484	0.0300
12Y	0.9589	0.9589	-3.0632	-0.9581	-0.9581	3.0632	0.8782	0.8468	-0.0125
13X	1.8182	1.8182	-5.6950	-1.8174	-1.8174	5.6950	0.8069	0.8212	-0.0130
13XY	1.8182	1.8182	-5.6950	-1.8174	-1.8174	5.6951	0.8072	0.8009	0.0290
13Y	1.8182	1.8182	-5.6950	-1.8174	-1.8174	5.6950	0.8232	0.8006	-0.0125
14X	1.2693	1.2693	-3.6458	-1.2685	-1.2685	3.6458	0.7597	0.7670	-0.0129
14XY	0.8593	0.8593	-2.6318	-0.8585	-0.8585	2.6318	0.7617	0.7561	0.0276
14Y	1.2693	1.2693	-3.6458	-1.2685	-1.2686	3.6458	0.7688	0.7541	-0.0125
15X	2.1762	2.1762	-6.4393	-2.1755	-2.1755	6.4393	0.7158	0.7159	-0.0128
15XY	1.7662	1.7662	-5.4253	-1.7655	-1.7655	5.4254	0.7162	0.7113	0.0260
15Y	2.1762	2.1762	-6.4393	-2.1755	-2.1755	6.4393	0.7176	0.7109	-0.0124
16X	0.9069	0.9069	-2.7936	-0.9062	-0.9062	2.7935	0.6722	0.6657	-0.0127
16XY	0.9069	0.9069	-2.7936	-0.9062	-0.9062	2.7936	0.6747	0.6704	0.0242
16Y	0.9069	0.9069	-2.7936	-0.9062	-0.9062	2.7935	0.6672	0.6679	-0.0124
17X	1.9806	1.9806	-5.8491	-1.9800	-1.9800	5.8491	0.6330	0.6199	-0.0126
17XY	1.5706	1.5706	-4.8351	-1.5700	-1.5700	4.8352	0.6335	0.6297	0.0220
17Y	1.9806	1.9806	-5.8491	-1.9800	-1.9800	5.8491	0.6212	0.6292	-0.0123
18X	1.0737	1.0737	-3.0556	-1.0731	-1.0731	3.0556	0.6019	0.5837	-0.0125
18XY	0.6637	0.6637	-2.0416	-0.6631	-0.6631	2.0416	0.6035	0.6002	0.0201
18Y	1.0737	1.0737	-3.0556	-1.0731	-1.0731	3.0556	0.5850	0.5985	-0.0123
21X	1.5798	1.5798	-3.7173	-1.5793	-1.5793	3.7173	0.4601	0.4492	-0.0136
21XY	1.5798	1.5798	-3.7173	-1.5793	-1.5793	3.7174	0.4611	0.4582	0.0456
21Y	1.5798	1.5798	-3.7173	-1.5793	-1.5793	3.7173	0.4495	0.4572	-0.0133
22X	3.2348	3.2348	-7.8922	-3.2343	-3.2343	7.8922	0.4258	0.4163	-0.0133
22XY	4.8898	4.8898	-9.0622	-4.8893	-4.8893	9.0623	0.4266	0.4239	0.0434
22Y	3.2348	3.2348	-7.8922	-3.2343	-3.2343	7.8922	0.4165	0.4232	-0.0130
23X	1.6550	1.6550	-4.1749	-1.6546	-1.6546	4.1749	0.3934	0.3853	-0.0130
23XY	1.6550	1.6550	-4.1749	-1.6546	-1.6546	4.1749	0.3948	0.3924	0.0415
23Y	1.6550	1.6550	-4.1749	-1.6546	-1.6546	4.1749	0.3855	0.3910	-0.0128
24X	3.4068	3.4068	-9.2303	-3.4064	-3.4064	9.2303	0.3629	0.3560	-0.0128
24XY	3.4068	3.4068	-9.2303	-3.4064	-3.4064	9.2303	0.3635	0.3613	0.0395

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	3.4068	3.4068	-9.2303	-3.4064	-3.4064	9.2303	0.3562	0.3607	-0.0126
25X	1.7518	1.7518	-5.0554	-1.7515	-1.7515	5.0554	0.3315	0.3259	-0.0126
25XY	1.7518	1.7518	-5.0554	-1.7515	-1.7515	5.0554	0.3329	0.3309	0.0379
25Y	1.7518	1.7518	-5.0554	-1.7515	-1.7515	5.0554	0.3260	0.3295	-0.0124
26X	3.4712	3.4712	-10.2822	-3.4709	-3.4709	10.2822	0.3019	0.2974	-0.0124
26XY	3.4712	3.4712	-10.2822	-3.4709	-3.4709	10.2823	0.3025	0.3008	0.0361
26Y	3.4712	3.4712	-10.2822	-3.4709	-3.4709	10.2822	0.2976	0.3002	-0.0122
27X	1.7194	1.7194	-5.2268	-1.7191	-1.7191	5.2268	0.2726	0.2693	-0.0122
27XY	1.7194	1.7194	-5.2268	-1.7191	-1.7191	5.2269	0.2742	0.2726	0.0341
27Y	1.7194	1.7194	-5.2268	-1.7191	-1.7191	5.2268	0.2694	0.2711	-0.0120
28X	3.3866	3.3866	-10.5572	-3.3864	-3.3864	10.5572	0.2458	0.2435	-0.0119
28XY	3.3866	3.3866	-10.5572	-3.3864	-3.3864	10.5572	0.2465	0.2451	0.0320
28Y	3.3866	3.3866	-10.5572	-3.3864	-3.3864	10.5572	0.2436	0.2445	-0.0118
29X	1.6673	1.6673	-5.3304	-1.6671	-1.6671	5.3304	0.2198	0.2185	-0.0117
29XY	1.6673	1.6673	-5.3304	-1.6671	-1.6671	5.3304	0.2215	0.2203	0.0297
29Y	1.6673	1.6673	-5.3304	-1.6671	-1.6671	5.3304	0.2186	0.2186	-0.0115
30X	3.0079	3.0079	-9.5355	-3.0077	-3.0077	9.5355	0.1964	0.1958	-0.0114
30XY	3.0079	3.0079	-9.5355	-3.0077	-3.0077	9.5355	0.1970	0.1959	0.0272
30Y	3.0079	3.0079	-9.5355	-3.0077	-3.0077	9.5355	0.1960	0.1953	-0.0113
31X	3.6585	3.6585	-13.5632	-3.6583	-3.6583	13.5632	0.1736	0.1738	-0.0111
31XY	3.8475	3.8475	-13.8882	-3.8473	-3.8473	13.8883	0.1755	0.1746	0.0246
31Y	3.8475	3.8475	-13.8882	-3.8473	-3.8473	13.8882	0.1739	0.1727	-0.0110
33X	5.1206	5.1206	-20.6568	-5.1205	-5.1205	20.6568	0.1016	0.1035	-0.0099
33XY	5.1206	5.1206	-20.6568	-5.1205	-5.1205	20.6568	0.1045	0.1039	0.0206
33Y	5.1206	5.1206	-20.6568	-5.1205	-5.1205	20.6568	0.1035	0.1010	-0.0098
34X	5.2129	5.2129	-20.3830	-5.2128	-5.2128	20.3829	0.0782	0.0803	-0.0092
34XY	5.2129	5.2129	-20.3830	-5.2128	-5.2128	20.3830	0.0803	0.0798	0.0210
34Y	5.2129	5.2129	-20.3830	-5.2128	-5.2128	20.3829	0.0803	0.0778	-0.0091
35X	5.5721	5.5721	-21.0634	-5.5721	-5.5721	21.0634	0.0594	0.0614	-0.0085
35XY	5.5721	5.5721	-21.0634	-5.5721	-5.5721	21.0634	0.0610	0.0606	0.0206
35Y	8.8211	8.8211	-22.4934	-8.8211	-8.8211	22.4934	0.0613	0.0590	-0.0084
36X	6.8681	6.8681	-21.5187	-6.8681	-6.8681	21.5187	0.0435	0.0452	-0.0076
36XY	5.7151	5.7151	-19.2507	-5.7151	-5.7151	19.2507	0.0459	0.0455	0.0192
36Y	4.5251	4.5251	-18.4897	-4.5251	-4.5251	18.4897	0.0450	0.0432	-0.0075
37X	4.5338	4.5338	-17.5221	-4.5337	-4.5337	17.5221	0.0301	0.0314	-0.0067
37XY	3.4928	3.4928	-15.1301	-3.4927	-3.4927	15.1301	0.0313	0.0310	0.0180
37Y	3.4928	3.4928	-15.1301	-3.4927	-3.4927	15.1301	0.0312	0.0298	-0.0066
38X	3.5971	3.5971	-16.3325	-3.5971	-3.5971	16.3325	0.0200	0.0212	-0.0057
38XY	3.5971	3.5971	-16.3325	-3.5971	-3.5971	16.3325	0.0228	0.0225	0.0155
38Y	3.7861	3.7861	-16.6575	-3.7861	-3.7861	16.6575	0.0210	0.0198	-0.0056
39X	3.5581	3.5581	-17.1838	-3.5581	-3.5581	17.1838	0.0113	0.0128	-0.0047
39XY	3.5581	3.5581	-17.1838	-3.5581	-3.5581	17.1838	0.0128	0.0127	0.0132
39Y	4.5991	4.5991	-19.5758	-4.5991	-4.5991	19.5758	0.0127	0.0112	-0.0046
40X	8.1300	8.1300	-24.9717	-8.1300	-8.1300	24.9717	0.0045	0.0058	-0.0037
40XY	3.4450	3.4450	-18.9137	-3.4450	-3.4450	18.9137	0.0087	0.0085	0.0099
40Y	5.7880	5.7880	-21.9427	-5.7880	-5.7880	21.9427	0.0056	0.0044	-0.0036
41X	3.4394	3.4394	-18.9730	-3.4394	-3.4394	18.9730	0.0004	0.0022	-0.0026
41XY	2.3984	2.3984	-16.5810	-2.3984	-2.3984	16.5811	0.0022	0.0021	0.0074
41Y	2.3984	2.3984	-16.5810	-2.3984	-2.3984	16.5810	0.0021	0.0003	-0.0025
42X	2.0481	2.0481	-14.4491	-2.0481	-2.0481	14.4491	0.0001	0.0058	-0.0019
42XY	2.0481	2.0481	-14.4491	-2.0481	-2.0481	14.4491	0.0051	0.0051	0.0026
42Y	2.0481	2.0481	-14.4491	-2.0481	-2.0481	14.4491	0.0057	0.0001	-0.0018

Moments for Angles Modeled as Beams:

Angle Torsion Origin Origin End End X Y

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	-0.00	-0.02	0.02	-12.11	30.78	-3.78
1X	-0.01	-0.02	0.03	10.23	97.57	3.18
1XY	-0.00	-0.03	0.03	45.74	-93.85	14.24
1Y	0.00	-0.03	0.02	-47.76	-16.24	-14.88
2P	-0.00	12.09	-30.76	-10.58	28.36	0.60
2X	-0.01	-10.26	-97.54	-1.30	-151.10	-4.62
2XY	-0.00	-45.77	93.88	-87.37	184.06	-53.26
2Y	0.01	47.73	16.27	76.51	3.05	49.70
3P	-0.00	10.56	-28.34	24.64	-50.06	14.08
3X	-0.02	1.28	151.13	-45.71	240.69	-17.77
3XY	-0.00	87.34	-184.03	104.95	-206.47	76.91
3Y	0.01	-76.54	-3.02	-117.40	110.68	-77.57
4P	-0.00	-24.66	50.08	-105.31	269.34	-51.99
4X	-0.02	45.69	-240.66	61.29	-243.30	42.79
4XY	-0.00	-104.97	206.50	-217.41	413.68	-128.95
4Y	0.02	117.37	-110.66	129.51	-110.64	98.75
5P	-0.00	105.28	-269.32	89.10	-153.16	77.76
5X	-0.03	-61.32	243.33	-350.63	768.29	-164.78
5XY	-0.00	217.39	-413.65	285.72	-407.17	201.24
5Y	0.02	-129.54	110.66	-433.80	769.65	-225.33
6P	-0.00	-89.13	153.18	-357.84	752.14	-178.79
6X	-0.03	350.61	-768.26	276.15	-337.48	250.70
6XY	-0.00	-285.75	407.20	-717.13	1126.44	-401.15
6Y	0.02	433.77	-769.63	276.31	-469.51	284.03
7P	-0.00	357.82	-752.12	-970.22	927.74	-306.20
7X	-0.04	-276.18	337.51	-3033.81	99.55	-1654.99
7XY	-0.01	717.11	-1126.42	2365.12	-2277.37	1541.11
7Y	0.03	-276.34	469.53	-319.51	3196.29	-297.92
8P	-0.00	970.20	-927.72	5110.87	-5238.64	3873.29
8X	-0.04	3033.79	-99.53	7639.43	8623.06	6798.23
8XY	-0.01	-2365.14	2277.40	-10640.68	10887.52	-8283.96
8Y	0.03	319.49	-3196.26	-8111.39	-7685.80	-4963.00
9P	15.27	7318.24	-89.05	5320.86	-4.68	3083.46
9X	117.53	-11499.32	-685.50	-6763.87	491.90	-4455.52
9XY	29.50	15222.70	-172.03	7225.70	-11.45	5476.56
9Y	-50.84	-11170.30	296.58	-6630.34	-487.43	-4342.68
10P	15.84	3760.96	-3763.83	985.95	-922.67	1642.53
10X	32.67	5139.62	4425.93	326.80	2653.79	1891.49
10XY	31.01	-5104.90	5113.81	-787.62	815.57	-2038.94
10Y	32.30	-4342.60	-5034.12	-2651.75	-279.71	-2420.19
11P	15.84	-985.97	922.70	-1911.42	1883.92	-1158.96
11X	32.67	-326.82	-2653.77	165.25	-1377.19	-64.63
11XY	31.01	787.60	-815.55	-1817.17	1802.10	-411.83
11Y	32.31	2651.73	279.73	1431.64	-125.44	1633.35
12P	15.84	1911.40	-1883.90	817.85	-751.26	1091.70
12X	32.66	-165.28	1377.21	-2021.93	2512.38	-874.88
12XY	31.01	1817.15	-1802.08	1220.03	-1172.19	1214.87
12Y	32.31	-1431.66	125.47	-2543.37	2010.21	-1590.01
13P	15.84	-817.88	751.28	-2722.43	2665.18	-1416.12
13X	32.66	2021.91	-2512.36	751.89	-1221.55	1109.52
13XY	31.01	-1220.04	1172.21	-2902.55	2912.66	-1649.04
13Y	32.31	2543.35	-2010.19	1312.36	-728.69	1542.28
14P	15.84	2722.41	-2665.16	1126.77	-1066.21	1539.67

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	83 of 134
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X	32.65	-751.92	1221.57	-2940.72	3100.88	-1477.05	1728.98
14XY	31.01	2902.54	-2912.64	1431.39	-1377.70	1733.57	-1716.14
14Y	32.32	-1312.38	728.72	-3127.87	2920.92	-1776.10	1459.85
15P	15.84	-1126.79	1066.23	-3434.84	3431.26	-1824.65	1799.00
15X	32.65	2940.70	-3100.87	1243.17	-1470.06	1673.55	-1828.37
15XY	31.01	-1431.41	1377.72	-3138.67	3097.25	-1828.03	1789.99
15Y	32.32	3127.85	-2920.90	1508.44	-1166.89	1854.52	-1635.12
16P	15.84	3434.82	-3431.25	2609.46	-2558.96	3022.14	-2995.10
16X	32.64	-1243.19	1470.08	-3661.56	3864.16	-2452.38	2667.12
16XY	31.01	3138.65	-3097.23	1465.48	-1394.40	2302.06	-2245.82
16Y	32.33	-1508.46	1166.91	-3882.60	3617.07	-2695.53	2391.99
17P	15.84	-2609.48	2558.98	-6801.85	6792.13	-5956.54	5918.42
17X	32.64	3661.55	-3864.15	-2610.83	-1140.24	665.01	-3167.33
17XY	31.01	-1465.49	1394.42	-2319.10	2317.56	-2395.31	2349.35
17Y	32.33	3882.59	-3617.05	1186.94	2687.47	3208.57	-588.35
18P	17.12	-9612.37	-2.21	-4795.23	-2.00	-2155.94	-0.63
18X	320.06	2652.41	-989.90	1294.03	650.81	590.54	-50.74
18XY	29.48	3278.59	9.65	1378.34	23.16	696.86	4.91
18Y	-263.52	2739.62	1028.27	1333.37	-609.88	609.48	62.61
19P	17.01	-3388.75	3392.75	-1545.19	1550.59	-1762.12	1765.48
19X	126.77	-410.09	-1419.94	-317.08	69.95	-259.70	-482.14
19XY	21.89	-996.17	953.13	-684.40	674.65	-600.20	581.35
19Y	-83.83	1408.85	476.81	-64.75	339.53	480.04	291.55
20P	17.01	1545.17	-1550.57	-282.56	283.14	450.93	-452.65
20X	126.77	317.06	-69.94	-71.85	58.34	87.58	-4.14
20XY	21.89	684.38	-674.64	-720.97	727.33	-13.07	18.82
20Y	-83.82	64.74	-339.52	-52.71	74.37	4.29	-94.69
21P	17.01	282.55	-283.13	266.92	-251.23	203.51	-197.91
21X	126.76	71.84	-58.33	-1652.18	1831.61	-585.31	656.77
21XY	21.89	720.95	-727.32	409.93	-397.13	418.85	-416.46
21Y	-83.82	52.70	-74.36	-1833.17	1650.78	-659.43	583.86
22P	17.00	-266.93	251.24	-2071.26	2064.71	-866.00	857.76
22X	126.76	1652.17	-1831.59	720.14	-872.68	878.63	-1001.58
22XY	21.89	-409.94	397.14	-2305.42	2301.77	-1005.69	999.59
22Y	-83.82	1833.16	-1650.77	890.81	-703.26	1008.88	-871.86
23P	17.00	2071.25	-2064.70	765.09	-745.45	1012.98	-1003.62
23X	126.76	-720.15	872.69	-2729.20	3090.90	-1231.91	1415.57
23XY	21.89	2305.41	-2301.76	1049.26	-1027.38	1198.10	-1188.98
23Y	-83.81	-890.82	703.27	-3095.63	2721.53	-1423.73	1223.14
24P	17.00	-765.10	745.46	-2808.25	2807.74	-1276.20	1269.00
24X	126.75	2729.19	-3090.89	1248.61	-1496.90	1420.64	-1638.50
24XY	21.89	-1049.27	1027.39	-3171.66	3157.80	-1507.48	1494.71
24Y	-83.81	3095.62	-2721.52	1511.29	-1220.52	1645.32	-1407.87
25P	17.00	2808.24	-2807.73	655.65	-662.59	1237.10	-1239.40
25X	126.75	-1248.62	1496.91	-3912.20	4238.57	-1843.15	2048.39
25XY	21.89	3171.65	-3157.79	874.93	-824.95	1445.21	-1422.41
25Y	-83.81	-1511.30	1220.53	-4217.20	3876.11	-2045.89	1820.23
26P	17.00	-655.66	662.60	-3530.96	3531.53	-1495.22	1497.90
26X	126.74	3912.19	-4238.56	1571.62	-1682.81	1958.50	-2114.77
26XY	21.89	-874.94	824.96	-3784.83	3769.47	-1664.20	1640.87
26Y	-83.80	4217.19	-3876.10	1695.64	-1541.33	2111.72	-1934.80
27P	17.00	3530.95	-3531.52	1478.60	-1461.35	1821.66	-1815.59
27X	126.74	-1571.63	1682.82	-4210.02	4350.14	-2102.42	2193.80
27XY	21.89	3784.83	-3769.46	1493.44	-1467.81	1919.37	-1904.46
27Y	-83.80	-1695.64	1541.34	-4351.31	4196.40	-2198.89	2086.45
28P	17.00	-1478.61	1461.35	-4275.57	4281.13	-2092.43	2088.18

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	Page 84 of 134
	Project TORRE CUADRADA AUTOSOPORTADA DE 150m	Date 17:07:07 03/17/10
	Client TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by Leopoldo Barrera

28X	126.74	4210.01	-4350.13	1800.32	-1581.38	2185.58	-2156.91
28XY	21.89	-1493.44	1467.81	-4264.23	4245.75	-2093.70	2077.66
28Y	-83.80	4351.30	-4196.39	1585.70	-1762.67	2158.91	-2166.93
29P	17.00	4275.56	-4281.12	412.37	-448.54	1736.27	-1751.73
29X	126.73	-1800.33	1581.39	-4082.52	3725.07	-2178.83	1965.35
29XY	21.89	4264.22	-4245.74	77.49	-9.13	1608.04	-1575.88
29Y	-83.79	-1585.71	1762.68	-3670.11	4020.47	-1946.60	2141.91
30P	17.00	-412.38	448.55	-4797.27	4847.33	-918.00	933.19
30X	126.73	4082.51	-3725.06	-868.57	1651.21	566.33	-365.44
30XY	21.89	-77.50	9.14	-4806.40	4750.81	-860.60	838.76
30Y	-83.79	3670.11	-4020.46	-1694.83	950.32	348.07	-540.99
31P	10.74	-6819.75	37.77	-305.01	2.20	-1110.08	6.23
31X	427.48	-553.41	-1734.33	-202.01	2582.75	-117.70	132.19
31XY	14.90	6757.95	42.45	-36.08	14.42	1047.31	8.86
31Y	-400.22	-526.45	1829.00	-199.92	-2549.68	-113.17	-112.29
32P	10.74	305.02	-2.20	1949.26	-4.92	370.26	-1.17
32X	427.48	202.01	-2582.74	120.06	1177.88	52.90	-230.74
32XY	14.90	36.07	-14.42	-1851.93	-1.87	-298.25	-2.68
32Y	-400.22	199.92	2549.67	110.91	-1221.43	51.05	218.16
33P	10.74	-1949.26	4.92	1574.96	6.05	-61.48	1.80
33X	427.47	-120.06	-1177.87	15.78	856.91	-17.13	-52.72
33XY	14.90	1851.92	1.87	-1660.56	7.71	31.43	1.57
33Y	-400.22	-110.91	1221.42	16.57	-785.96	-15.50	71.52
34P	10.74	-1574.96	-6.05	-1269.24	-2.18	-467.15	-1.35
34X	427.47	-15.78	-856.91	17.18	428.12	0.23	-70.43
34XY	14.90	1660.56	-7.71	1046.90	-1.29	444.69	-1.48
34Y	-400.21	-16.57	785.96	17.99	-474.39	0.23	51.17
35P	10.74	1269.25	2.18	3914.82	-14.17	851.46	-1.97
35X	427.47	-17.18	-428.12	-28.00	1280.99	-7.42	140.08
35XY	14.90	-1046.91	1.29	-3379.86	-3.82	-727.08	-0.42
35Y	-400.21	-17.99	474.39	-47.24	-1291.24	-10.71	-134.16
36P	10.74	-3914.81	14.17	-2824.46	5.41	-1106.89	3.22
36X	427.47	28.00	-1280.99	-94.17	193.20	-10.87	-178.66
36XY	14.90	3379.86	3.82	2438.89	3.28	955.70	1.17
36Y	-400.21	47.24	1291.24	-83.18	-187.32	-5.90	181.31
37P	10.74	2824.46	-5.41	4425.19	-0.65	1190.72	-0.99
37X	427.46	94.17	-193.20	81.89	564.48	28.92	60.98
37XY	14.90	-2438.89	-3.28	-4070.13	-0.08	-1069.08	-0.55
37Y	-400.21	83.18	187.31	75.18	-538.30	26.01	-57.65
38P	10.74	-4425.18	0.65	-3577.41	2.89	-1314.39	0.58
38X	427.46	-81.89	-564.48	241.54	375.35	26.22	-31.06
38XY	14.90	4070.13	0.08	3947.05	4.03	1316.79	0.68
38Y	-400.20	-75.18	538.30	250.04	-397.12	28.72	23.19
39P	10.74	3577.41	-2.89	3778.47	-19.46	1208.17	-3.67
39X	427.46	-241.54	-375.35	-1788.76	3539.47	-333.47	519.69
39XY	14.90	-3947.05	-4.03	-7374.25	-8.25	-1859.47	-2.02
39Y	-400.20	-250.04	397.12	-1808.45	-3563.45	-338.10	-520.06
40P	10.74	-3778.47	19.46	24.83	4.93	-616.52	4.01
40X	427.46	1788.76	-3539.47	3953.23	-4344.33	943.10	-1294.88
40XY	14.90	7374.25	8.25	7896.97	4.05	2508.23	2.02
40Y	-400.20	1808.45	3563.45	3953.37	4356.25	946.35	1300.77
41P	10.74	-24.83	-4.93	-1246.89	28.51	-216.08	4.01
41X	427.46	-3953.23	4344.33	-4938.72	5081.64	-1510.82	1601.56
41XY	14.90	-7896.97	-4.05	-8582.74	15.94	-2800.05	2.02
41Y	-400.20	-3953.37	-4356.25	-4919.41	-5035.01	-1507.57	-1595.66

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 3 "LC3 WIND 0° C.T."

Equilibrium Joint Positions and Rotations for Load Case "LC3 WIND 0° C.T.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	1.511	-0.007378	-0.02915	-0.0031	1.5214	-0.1503	2.161	0.6426	150.9
10P	1.02	-0.008779	-0.02646	0.0088	1.2827	-0.1503	1.67	0.6412	131.6
11P	0.9373	-0.004458	-0.03525	0.0744	1.1834	-0.1489	2.077	1.136	127.6
19P	0.5821	0.004753	-0.02733	-0.0145	0.8548	-0.1465	1.722	1.145	108.6
20P	0.4997	0.003568	-0.04114	0.0009	0.7309	-0.1337	2.952	2.456	102.2
32P	0.1375	0.0007707	-0.02305	0.0020	0.3510	-0.1005	2.59	2.453	66.1
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	1.525	-0.007246	-0.02927	0.0141	1.5231	0.1407	2.175	-0.6572	150.9
1XY	1.525	0.004387	0.004749	0.0306	1.4928	0.1366	0.8753	-0.6456	150.9
1Y	1.511	0.00426	0.004928	-0.0148	1.4942	-0.1397	0.8613	0.6543	150.9
10X	1.038	-0.008387	-0.02591	0.0175	1.3123	0.1407	1.688	-0.6584	131.6
10XY	1.039	0.009052	0.002515	-0.0206	1.3144	0.1366	0.3886	-0.6409	131.6
10Y	1.021	0.008999	0.003168	0.0019	1.2856	-0.1397	0.3705	0.659	131.6
11X	0.947	-0.00464	-0.03654	0.0322	1.2897	0.1389	2.087	-1.145	127.6
11XY	0.9473	0.005435	0.01344	-0.0220	1.2819	0.1352	-0.1927	-1.135	127.6
11Y	0.9375	0.004828	0.01225	-0.0804	1.1745	-0.1391	-0.2025	1.145	127.6
19X	0.5721	0.005605	-0.02853	0.0507	0.8932	0.1336	1.712	-1.134	108.6
19XY	0.5725	-0.004258	0.006993	-0.0457	0.8873	0.1326	-0.5675	-1.144	108.6
19Y	0.5825	-0.004207	0.00578	0.0090	0.8494	-0.1426	-0.5575	1.136	108.6
20X	0.4932	0.002334	-0.04077	-0.0324	0.7010	0.1211	2.945	-2.45	102.2
20XY	0.4936	-0.001148	0.02026	0.0350	0.6978	0.1207	-1.958	-2.453	102.2
20Y	0.5	-0.003037	0.02057	-0.0050	0.7268	-0.1311	-1.952	2.449	102.2
32X	0.135	0.001152	-0.02298	-0.0060	0.3477	0.0924	2.587	-2.451	66.1
32XY	0.1357	-1.063e-005	0.00683	0.0059	0.3471	0.0923	-2.316	-2.452	66.13
32Y	0.1383	-0.001221	0.006835	-0.0034	0.3504	-0.0994	-2.314	2.451	66.13
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	1.426	-0.007375	-0.02906	0.0064	1.5005	-0.1503	2.076	0.6426	147.7
3S	1.361	-0.006874	-0.02894	0.0142	1.5012	-0.1503	2.011	0.6431	145.2
4S	1.295	-0.006549	-0.02869	-0.0067	1.4927	-0.1503	1.945	0.6435	142.7
5S	1.231	-0.006783	-0.02832	0.0187	1.4694	-0.1503	1.881	0.6432	140.2
6S	1.167	-0.006238	-0.02786	-0.0166	1.4395	-0.1503	1.817	0.6438	137.7
7S	1.106	-0.007476	-0.0272	0.0001	1.3911	-0.1503	1.756	0.6425	135.2
8S	1.057	-0.007794	-0.02682	-0.0384	1.3814	-0.1503	1.707	0.6422	133.2
12S	0.8767	-0.002711	-0.03461	0.0145	1.1932	-0.1486	2.017	1.137	124.7
13S	0.8256	-0.001726	-0.03395	0.0394	1.1566	-0.1483	1.966	1.138	122.2
14S	0.7757	0.0002117	-0.03307	0.0254	1.1229	-0.1479	1.916	1.14	119.7
15S	0.7279	0.0008333	-0.03206	0.0352	1.0728	-0.1476	1.868	1.141	117.2
16S	0.6821	0.003011	-0.03088	0.0262	1.0180	-0.1473	1.822	1.143	114.7
17S	0.6391	0.003374	-0.02954	0.0347	0.9563	-0.1470	1.779	1.143	112.2
18S	0.6065	0.005065	-0.02834	0.0190	0.9110	-0.1467	1.747	1.145	110.2
21S	0.4638	0.002674	-0.03976	-0.0186	0.7230	-0.1276	2.916	2.455	99.36
22S	0.4295	0.002453	-0.03829	0.0050	0.6885	-0.1216	2.881	2.454	96.56
23S	0.3974	0.002512	-0.0371	-0.0087	0.6704	-0.1187	2.849	2.455	93.86
24S	0.3664	0.001966	-0.0358	-0.0010	0.6452	-0.1159	2.818	2.454	91.16
25S	0.3353	0.002096	-0.03474	-0.0050	0.6243	-0.1141	2.787	2.454	88.37

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26S	0.3054	0.001598	-0.03359	-0.0015	0.6032	-0.1124	2.757	2.454	85.57
27S	0.2765	0.00185	-0.03233	-0.0041	0.5747	-0.1106	2.728	2.454	82.77
28S	0.2493	0.001289	-0.03097	-0.0009	0.5433	-0.1088	2.701	2.453	79.97
29S	0.2238	0.001651	-0.02953	-0.0037	0.5162	-0.1071	2.676	2.454	77.22
30S	0.1998	0.001018	-0.02798	-0.0012	0.4844	-0.1053	2.652	2.453	74.47
31S	0.1777	0.001619	-0.02634	0.0078	0.4510	-0.1036	2.63	2.454	71.77
33S	0.1057	0.001446	-0.02295	0.0204	0.2597	-0.0963	3.328	3.224	59.78
34S	0.08138	0.0005729	-0.0224	0.0035	0.2159	-0.0913	4.035	3.954	53.78
35S	0.06193	1.248e-005	-0.02137	0.0147	0.1715	-0.0829	4.747	4.685	47.78
36S	0.04575	3.843e-005	-0.01964	0.0060	0.1572	-0.0716	5.462	5.416	41.78
37S	0.03088	-0.0008743	-0.01797	0.0132	0.1173	-0.0615	6.178	6.147	35.78
371S	0.0305	-0.000288	-0.01844	0.0000	0.0000	0.0000	6.178	-0.000288	35.78
372S	0.03141	-0.0005727	-0.005431	0.0000	0.0000	0.0000	0.03141	6.147	35.79
373S	0.03167	0.0003172	0.007576	0.0000	0.0000	0.0000	-6.116	0.0003172	35.81
374S	0.03065	0.000602	-0.005405	0.0000	0.0000	0.0000	0.03065	-6.147	35.79
38S	0.02137	-4.684e-005	-0.0154	0.0082	0.0927	-0.0510	6.9	6.879	29.78
39S	0.01176	-0.0009623	-0.01292	0.0137	0.0715	-0.0389	7.621	7.609	23.79
391S	0.01153	-0.0002398	-0.01389	0.0000	0.0000	0.0000	7.621	-0.0002398	23.79
392S	0.01243	-0.0007334	-0.004046	0.0000	0.0000	0.0000	0.01243	7.609	23.8
393S	0.01299	0.0002267	0.005853	0.0000	0.0000	0.0000	-7.597	0.0002267	23.81
394S	0.01196	0.0007203	-0.004016	0.0000	0.0000	0.0000	0.01196	-7.609	23.8
40S	0.006188	0.0005958	-0.009876	0.0129	0.0549	-0.0286	8.347	8.341	17.79
41S	0.0006198	-0.001025	-0.007186	-0.0213	0.0254	-0.0239	9.073	9.071	11.79
411S	0.0004413	-0.0001417	-0.004641	0.0000	0.0000	0.0000	9.072	-0.0001417	11.8
412S	0.001368	-0.000883	-0.002394	0.0000	0.0000	0.0000	0.001368	9.071	11.8
413S	0.00218	0.000117	-0.0001501	0.0000	0.0000	0.0000	-9.07	0.000117	11.8
414S	0.00111	0.0008582	-0.002374	0.0000	0.0000	0.0000	0.00111	-9.071	11.8
42S	0.0006537	-0.0026	-0.003761	0.0218	-0.0057	-0.0100	9.804	9.801	5.796
2X	1.44	-0.006649	-0.02917	0.0038	1.5005	0.1407	2.09	-0.6566	147.7
2XY	1.441	0.005447	0.004761	-0.0044	1.5135	0.1366	0.7913	-0.6446	147.7
2Y	1.427	0.004086	0.004941	0.0204	1.5120	-0.1397	0.7772	0.6541	147.7
3X	1.375	-0.00675	-0.02903	-0.0065	1.4999	0.1407	2.025	-0.6568	145.2
3XY	1.375	0.005182	0.004687	0.0179	1.5018	0.1366	0.7252	-0.6448	145.2
3Y	1.361	0.00507	0.004881	-0.0006	1.5026	-0.1397	0.7112	0.6551	145.2
4X	1.309	-0.006837	-0.02873	0.0095	1.4894	0.1407	1.959	-0.6568	142.7
4XY	1.31	0.006434	0.004513	0.0007	1.4889	0.1366	0.6602	-0.6436	142.7
4Y	1.296	0.004642	0.004747	0.0201	1.4932	-0.1397	0.6461	0.6546	142.7
5X	1.245	-0.00665	-0.02826	-0.0246	1.4589	0.1407	1.895	-0.6567	140.2
5XY	1.245	0.006111	0.004211	0.0431	1.4600	0.1366	0.5955	-0.6439	140.2
5Y	1.231	0.005991	0.00451	-0.0166	1.4674	-0.1397	0.5811	0.656	140.2
6X	1.182	-0.007637	-0.02769	-0.0002	1.4222	0.1407	1.832	-0.6576	137.7
6XY	1.183	0.008012	0.003834	0.0060	1.4215	0.1366	0.5326	-0.642	137.7
6Y	1.168	0.005384	0.004207	0.0286	1.4397	-0.1397	0.5177	0.6554	137.7
7X	1.122	-0.007404	-0.02685	-0.0264	1.3661	0.1407	1.772	-0.6574	135.2
7XY	1.122	0.007641	0.003236	0.0381	1.3660	0.1366	0.4717	-0.6424	135.2
7Y	1.106	0.007429	0.003735	0.0008	1.3905	-0.1397	0.4558	0.6574	135.2
8X	1.074	-0.008352	-0.02638	-0.0180	1.3278	0.1407	1.724	-0.6584	133.2
8XY	1.075	0.009005	0.002886	0.0245	1.3257	0.1366	0.4246	-0.641	133.2
8Y	1.057	0.007751	0.003457	0.0433	1.3799	-0.1397	0.4075	0.6578	133.2
12X	0.8832	-0.003214	-0.03586	0.0360	1.2438	0.1382	2.023	-1.143	124.7
12XY	0.8838	0.004519	0.01295	-0.0366	1.2465	0.1348	-0.2562	-1.135	124.7
12Y	0.8773	0.00281	0.01178	-0.0094	1.1963	-0.1396	-0.2627	1.143	124.7
13X	0.8295	-0.001593	-0.03517	0.0226	1.2192	0.1375	1.97	-1.142	122.2
13XY	0.8298	0.002602	0.01241	-0.0231	1.2216	0.1345	-0.3102	-1.137	122.2
13Y	0.8258	0.00229	0.01126	-0.0354	1.1588	-0.1400	-0.3142	1.142	122.2
14X	0.777	-0.0009707	-0.03427	0.0319	1.1812	0.1368	1.917	-1.141	119.7

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14XY	0.7775	0.002306	0.0117	-0.0295	1.1802	0.1342	-0.3625	-1.138	119.7
14Y	0.7762	0.0001594	0.01056	-0.0252	1.1218	-0.1405	-0.3638	1.14	119.7
15X	0.7266	0.0009194	-0.03323	0.0223	1.1313	0.1361	1.867	-1.139	117.2
15XY	0.7269	0.0002161	0.01087	-0.0229	1.1326	0.1338	-0.4131	-1.14	117.2
15Y	0.7281	-0.0001664	0.009728	-0.0328	1.0743	-0.1409	-0.4119	1.14	117.2
16X	0.6784	0.001248	-0.03205	0.0315	1.0767	0.1354	1.818	-1.139	114.7
16XY	0.6788	0.0001268	0.009908	-0.0288	1.0745	0.1335	-0.4612	-1.14	114.7
16Y	0.6826	-0.002521	0.008759	-0.0278	1.0159	-0.1414	-0.4574	1.137	114.7
17X	0.6328	0.003388	-0.03072	0.0213	1.0136	0.1347	1.773	-1.137	112.2
17XY	0.6331	-0.002183	0.008813	-0.0267	1.0193	0.1331	-0.5069	-1.142	112.2
17Y	0.6394	-0.002682	0.007645	-0.0289	0.9619	-0.1419	-0.5006	1.137	112.2
18X	0.5981	0.003715	-0.02953	0.0446	0.9761	0.1341	1.738	-1.136	110.2
18XY	0.5983	-0.00255	0.007837	-0.0401	0.9715	0.1329	-0.5417	-1.143	110.2
18Y	0.6067	-0.004328	0.006647	-0.0237	0.9065	-0.1423	-0.5333	1.136	110.2
21X	0.4577	0.002788	-0.0394	0.0156	0.7215	0.1159	2.91	-2.449	99.36
21XY	0.4583	-0.001369	0.01929	-0.0156	0.7202	0.1155	-1.994	-2.453	99.42
21Y	0.4644	-0.002452	0.01958	0.0169	0.7223	-0.1253	-1.988	2.45	99.42
22X	0.4237	0.002593	-0.03793	-0.0144	0.6807	0.1107	2.876	-2.449	96.56
22XY	0.4242	-0.001366	0.01822	0.0142	0.6803	0.1104	-2.028	-2.453	96.62
22Y	0.4299	-0.002122	0.0185	-0.0065	0.6890	-0.1195	-2.022	2.45	96.62
23X	0.392	0.002138	-0.03675	0.0007	0.6622	0.1082	2.844	-2.45	93.86
23XY	0.3925	-0.0008483	0.01735	-0.0017	0.6625	0.1079	-2.059	-2.453	93.92
23Y	0.3979	-0.002325	0.01763	0.0080	0.6699	-0.1168	-2.054	2.45	93.92
24X	0.3614	0.002303	-0.03547	-0.0069	0.6367	0.1058	2.813	-2.45	91.16
24XY	0.3619	-0.001136	0.0164	0.0072	0.6354	0.1055	-2.09	-2.453	91.22
24Y	0.3669	-0.001737	0.01666	-0.0010	0.6437	-0.1141	-2.085	2.45	91.22
25X	0.3307	0.001795	-0.03442	-0.0025	0.6165	0.1042	2.783	-2.45	88.37
25XY	0.3313	-0.0005572	0.01562	0.0016	0.6167	0.1040	-2.121	-2.453	88.42
25Y	0.3359	-0.00202	0.01587	0.0043	0.6247	-0.1124	-2.116	2.45	88.42
26X	0.3012	0.001934	-0.03329	-0.0056	0.5957	0.1027	2.753	-2.45	85.57
26XY	0.3017	-0.000844	0.01476	0.0045	0.5959	0.1025	-2.15	-2.453	85.61
26Y	0.3059	-0.001455	0.01499	0.0010	0.6034	-0.1107	-2.146	2.451	85.61
27X	0.2726	0.001345	-0.03205	-0.0025	0.5679	0.1012	2.725	-2.451	82.77
27XY	0.2732	-0.0002088	0.01383	0.0018	0.5677	0.1010	-2.179	-2.452	82.81
27Y	0.277	-0.001835	0.01404	0.0031	0.5745	-0.1090	-2.175	2.45	82.81
28X	0.2457	0.001599	-0.03072	-0.0051	0.5372	0.0996	2.698	-2.45	79.97
28XY	0.2462	-0.0005899	0.01281	0.0038	0.5377	0.0995	-2.206	-2.453	80.01
28Y	0.2497	-0.001226	0.01299	0.0005	0.5438	-0.1073	-2.202	2.451	80.01
29X	0.2205	0.0009652	-0.02931	-0.0016	0.5107	0.0981	2.673	-2.451	77.22
29XY	0.2211	7.068e-005	0.01172	0.0014	0.5101	0.0980	-2.231	-2.452	77.26
29Y	0.2243	-0.001693	0.01187	0.0023	0.5156	-0.1057	-2.228	2.45	77.26
30X	0.1968	0.001363	-0.02779	-0.0034	0.4795	0.0966	2.649	-2.451	74.47
30XY	0.1973	-0.0004248	0.01054	0.0011	0.4811	0.0965	-2.255	-2.452	74.51
30Y	0.2003	-0.001039	0.01066	0.0020	0.4859	-0.1040	-2.252	2.451	74.51
31X	0.1749	0.0005694	-0.02619	-0.0110	0.4477	0.0952	2.627	-2.451	71.77
31XY	0.1754	0.0003327	0.009293	0.0123	0.4456	0.0950	-2.277	-2.452	71.81
31Y	0.1782	-0.001678	0.009379	-0.0107	0.4490	-0.1024	-2.274	2.45	71.81
33X	0.1035	-0.0002714	-0.02283	-0.0261	0.2551	0.0889	3.326	-3.223	59.78
33XY	0.1041	0.00117	0.007661	0.0236	0.2569	0.0888	-3.119	-3.222	59.81
33Y	0.1063	-0.001817	0.007704	-0.0192	0.2613	-0.0953	-3.116	3.221	59.81
34X	0.07951	3.391e-005	-0.02223	-0.0075	0.2135	0.0845	4.033	-3.954	53.78
34XY	0.08031	0.0009562	0.008039	0.0073	0.2129	0.0845	-3.874	-3.953	53.81
34Y	0.08219	-0.001185	0.00811	-0.0048	0.2153	-0.0903	-3.872	3.953	53.81
35X	0.06023	0.0001227	-0.02116	-0.0179	0.1686	0.0770	4.745	-4.685	47.78
35XY	0.06111	0.0008778	0.008055	0.0168	0.1692	0.0769	-4.624	-4.684	47.81
35Y	0.06279	-0.0007826	0.008152	-0.0147	0.1726	-0.0820	-4.622	4.684	47.81

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.04444	-0.0002833	-0.0194	-0.0091	0.1512	0.0669	5.461	-5.417	41.78
36XY	0.04548	0.001395	0.007536	0.0090	0.1510	0.0668	-5.371	-5.415	41.81
36Y	0.04672	-0.001018	0.007685	-0.0066	0.1566	-0.0710	-5.37	5.415	41.81
37X	0.03013	0.0003022	-0.01771	-0.0137	0.1135	0.0576	6.178	-6.147	35.78
37XY	0.0313	0.000918	0.00721	0.0124	0.1143	0.0576	-6.116	-6.146	35.81
37Y	0.03206	-0.0002843	0.007384	-0.0123	0.1177	-0.0610	-6.115	6.147	35.81
38X	0.02076	-0.0004525	-0.01521	-0.0070	0.0917	0.0478	6.899	-6.879	29.78
38XY	0.022	0.001694	0.006176	0.0062	0.0921	0.0477	-6.857	-6.877	29.81
38Y	0.02261	-0.001177	0.006289	-0.0078	0.0933	-0.0506	-6.856	6.877	29.81
39X	0.01128	0.0004833	-0.01277	-0.0125	0.0698	0.0365	7.621	-7.609	23.79
39XY	0.01275	0.0009725	0.005319	0.0133	0.0693	0.0364	-7.597	-7.609	23.81
39Y	0.01324	-0.0005226	0.005397	-0.0146	0.0707	-0.0385	-7.596	7.609	23.81
40X	0.005831	-0.0009304	-0.009778	-0.0116	0.0542	0.0268	8.347	-8.342	17.79
40XY	0.00725	0.002381	0.003933	0.0042	0.0617	0.0267	-8.334	-8.339	17.8
40Y	0.00763	-0.00208	0.003974	-0.0055	0.0629	-0.0282	-8.333	8.339	17.8
41X	0.0003098	0.0007401	-0.007119	0.0224	0.0242	0.0228	9.072	-9.071	11.79
41XY	0.002066	0.00101	0.002975	0.0037	-0.0022	0.0228	-9.07	-9.071	11.8
41Y	0.002324	-0.0007766	0.003006	-0.0047	-0.0006	-0.0237	-9.07	9.071	11.8
42X	0.0005279	0.002483	-0.003728	-0.0199	-0.0077	0.0098	9.804	-9.801	5.796
42XY	0.00496	0.001937	0.0007909	-0.0042	0.0165	0.0098	-9.798	-9.801	5.801
42Y	0.005049	-0.001845	0.0008977	0.0027	0.0180	-0.0100	-9.798	9.801	5.801

Joint Support Reactions for Load Case "LC3 WIND 0° C.T.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Force (kN)	Result. Force (kN)	Result. Usage %	X Moment (kN-m)	X-M. Usage %	Y Moment (kN-m)	Y-M. Usage %	Z Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-188.15	0.0	-203.01	0.0	1333.81	0.0	0.0	1362.22	0.0	-3.26	0.0	-0.6	0.0	-0.25	0.0	0.0
ANX	-182.63	0.0	205.72	0.0	1321.94	0.0	0.0	1350.26	0.0	3.18	0.0	-0.6	0.0	0.25	0.0	0.0
ANXY	-92.64	0.0	-114.69	0.0	-629.76	0.0	0.0	646.78	0.0	2.24	0.0	-6.0	0.0	0.25	0.0	0.0
ANY	-96.84	0.0	111.97	0.0	-635.64	0.0	0.0	652.65	0.0	-2.18	0.0	-6.0	0.0	-0.25	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC3 WIND 0° C.T.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.5685	0.0000	-3.3400	-1.5670	-0.0000	3.3400	1.5112	-0.0074	-0.0291
10P	5.5684	0.0000	-7.0315	-5.5674	-0.0000	7.0315	1.0203	-0.0088	-0.0265
11P	1.9438	0.0000	-4.9363	-1.9429	-0.0000	4.9363	0.9373	-0.0045	-0.0352
19P	2.8432	0.0000	-7.1816	-2.8427	0.0000	7.1816	0.5821	0.0048	-0.0273
20P	4.2155	0.0000	-9.2507	-4.2150	0.0000	9.2506	0.4997	0.0036	-0.0411
32P	4.9156	0.0000	-15.4103	-4.9155	0.0000	15.4103	0.1375	0.0008	-0.0231
ANP	1.3858	0.0000	-6.6370	186.7664	203.0075	-1327.1689	0.0000	0.0000	0.0000
1X	1.5685	0.0000	-3.3400	-1.5670	-0.0000	3.3400	1.5252	-0.0072	-0.0293
1XY	1.5685	0.0000	-3.3400	-1.5670	0.0000	3.3400	1.5253	0.0044	0.0047
1Y	0.6745	0.0000	-1.9600	-0.6730	0.0000	1.9600	1.5113	0.0043	0.0049
10X	5.5684	0.0000	-7.0315	-5.5674	-0.0000	7.0315	1.0383	-0.0084	-0.0259
10XY	2.4244	0.0000	-5.0515	-2.4234	0.0000	5.0515	1.0386	0.0091	0.0025
10Y	1.5304	0.0000	-3.6715	-1.5294	0.0000	3.6715	1.0205	0.0090	0.0032
11X	1.9438	0.0000	-4.9363	-1.9429	-0.0000	4.9363	0.9470	-0.0046	-0.0365
11XY	1.9438	0.0000	-4.9363	-1.9429	0.0000	4.9363	0.9473	0.0054	0.0134
11Y	1.9438	0.0000	-4.9363	-1.9429	0.0000	4.9363	0.9375	0.0048	0.0123

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	2.8432	0.0000	-7.1816	-2.8427	0.0000	7.1816	0.5721	0.0056	-0.0285
19XY	2.8432	0.0000	-7.1816	-2.8427	-0.0000	7.1816	0.5725	-0.0043	0.0070
19Y	2.8432	0.0000	-7.1816	-2.8427	-0.0000	7.1816	0.5825	-0.0042	0.0058
20X	4.2155	0.0000	-9.2507	-4.2150	0.0000	9.2506	0.4932	0.0023	-0.0408
20XY	3.7695	0.0000	-8.4707	-3.7690	-0.0000	8.4707	0.4936	-0.0011	0.0203
20Y	3.7695	0.0000	-8.4707	-3.7690	-0.0000	8.4707	0.5000	-0.0030	0.0206
32X	4.9156	0.0000	-15.4103	-4.9155	0.0000	15.4103	0.1350	0.0012	-0.0230
32XY	4.9156	0.0000	-15.4103	-4.9155	-0.0000	15.4103	0.1357	-0.0000	0.0068
32Y	4.9156	0.0000	-15.4103	-4.9155	-0.0000	15.4103	0.1383	-0.0012	0.0068
ANX	1.3858	0.0000	-6.6370	181.2453	-205.7190	-1315.3051	0.0000	0.0000	0.0000
ANXY	1.3858	0.0000	-6.6370	91.2587	114.6858	636.3924	0.0000	0.0000	0.0000
ANY	1.3858	0.0000	-6.6370	95.4578	-111.9733	642.2751	0.0000	0.0000	0.0000
2S	1.5685	0.0000	-2.3400	-1.5671	-0.0000	2.3400	1.4263	-0.0074	-0.0291
3S	1.2972	0.0000	-1.8547	-1.2958	-0.0000	1.8546	1.3610	-0.0069	-0.0289
4S	1.5167	0.0000	-2.2747	-1.5154	-0.0000	2.2747	1.2954	-0.0065	-0.0287
5S	5.3795	0.0000	-5.3581	-5.3782	-0.0000	5.3581	1.2310	-0.0068	-0.0283
6S	4.7568	0.0000	-4.4634	-4.7556	-0.0000	4.4634	1.1673	-0.0062	-0.0279
7S	5.2900	0.0000	-5.5550	-5.2889	-0.0000	5.5549	1.1056	-0.0075	-0.0272
8S	4.5712	0.0000	-4.4515	-4.5702	-0.0000	4.4515	1.0572	-0.0078	-0.0268
12S	0.9467	0.0000	-2.3563	-0.9458	-0.0000	2.3563	0.8767	-0.0027	-0.0346
13S	1.7977	0.0000	-4.3808	-1.7968	-0.0000	4.3808	0.8256	-0.0017	-0.0340
14S	1.2970	0.0000	-2.8045	-1.2962	0.0000	2.8044	0.7757	0.0002	-0.0331
15S	2.1866	0.0000	-4.9533	-2.1858	0.0000	4.9533	0.7279	0.0008	-0.0321
16S	0.8896	0.0000	-2.1489	-0.8889	0.0000	2.1489	0.6821	0.0030	-0.0309
17S	1.9833	0.0000	-4.4993	-1.9826	0.0000	4.4993	0.6391	0.0034	-0.0295
18S	1.0937	0.0000	-2.3504	-1.0931	0.0000	2.3504	0.6065	0.0051	-0.0283
21S	1.5740	0.0000	-2.8595	-1.5736	0.0000	2.8595	0.4638	0.0027	-0.0398
22S	6.8025	0.0000	-7.8709	-6.8021	0.0000	7.8709	0.4295	0.0025	-0.0383
23S	5.2285	0.0000	-5.0114	-5.2281	0.0000	5.0114	0.3974	0.0025	-0.0371
24S	3.3460	0.0000	-7.1002	-3.3456	0.0000	7.1002	0.3664	0.0020	-0.0358
25S	1.7165	0.0000	-3.8888	-1.7161	0.0000	3.8887	0.3353	0.0021	-0.0347
26S	3.4011	0.0000	-7.9094	-3.4008	0.0000	7.9094	0.3054	0.0016	-0.0336
27S	1.6847	0.0000	-4.0206	-1.6844	0.0000	4.0206	0.2765	0.0018	-0.0323
28S	3.3168	0.0000	-8.1209	-3.3165	0.0000	8.1209	0.2493	0.0013	-0.0310
29S	1.8371	0.0000	-4.3503	-1.8369	0.0000	4.3503	0.2238	0.0017	-0.0295
30S	2.9252	0.0000	-7.3350	-2.9250	0.0000	7.3350	0.1998	0.0010	-0.0280
31S	3.5839	0.0000	-10.4333	-3.5837	0.0000	10.4332	0.1777	0.0016	-0.0263
33S	5.1489	0.0000	-15.8898	-5.1488	0.0000	15.8898	0.1057	0.0014	-0.0230
34S	5.2955	0.0000	-15.6792	-5.2954	0.0000	15.6792	0.0814	0.0006	-0.0224
35S	15.8784	0.0000	-21.3126	-15.8783	0.0000	21.3126	0.0619	0.0000	-0.0214
36S	14.8436	0.0000	-19.3328	-14.8435	0.0000	19.3328	0.0458	0.0000	-0.0196
37S	3.6139	0.0000	-11.6385	-3.6139	-0.0000	11.6385	0.0309	-0.0009	-0.0180
371S	3.6139	0.0000	-11.6385	-3.6139	-0.0000	11.6385	0.0305	-0.0003	-0.0184
372S	3.6139	0.0000	-11.6385	-3.6139	-0.0000	11.6385	0.0314	-0.0006	-0.0054
373S	3.6139	0.0000	-11.6385	-3.6139	0.0000	11.6385	0.0317	0.0003	0.0076
374S	3.6139	0.0000	-11.6385	-3.6139	0.0000	11.6385	0.0307	0.0006	-0.0054
38S	3.7253	0.0000	-12.5635	-3.7253	-0.0000	12.5635	0.0214	-0.0000	-0.0154
39S	3.6924	0.0000	-13.2183	-3.6924	-0.0000	13.2183	0.0118	-0.0010	-0.0129
391S	3.6924	0.0000	-13.2183	-3.6924	-0.0000	13.2183	0.0115	-0.0002	-0.0139
392S	3.6924	0.0000	-13.2183	-3.6924	-0.0000	13.2183	0.0124	-0.0007	-0.0040
393S	3.6924	0.0000	-13.2183	-3.6924	0.0000	13.2183	0.0130	0.0002	0.0059
394S	3.6924	0.0000	-13.2183	-3.6924	0.0000	13.2183	0.0120	0.0007	-0.0040
40S	8.1126	0.0000	-17.5190	-8.1126	0.0000	17.5190	0.0062	0.0006	-0.0099
41S	7.0542	0.0000	-15.7247	-7.0542	-0.0000	15.7246	0.0006	-0.0010	-0.0072
411S	3.1219	0.0000	-14.9139	-3.1219	-0.0000	14.9139	0.0004	-0.0001	-0.0046
412S	3.1219	0.0000	-14.9139	-3.1219	-0.0000	14.9139	0.0014	-0.0009	-0.0024

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	3.1219	0.0000	-14.9139	-3.1219	0.0000	14.9139	0.0022	0.0001	-0.0002
414S	3.1219	0.0000	-14.9139	-3.1219	0.0000	14.9139	0.0011	0.0009	-0.0024
42S	2.1718	0.0000	-11.1147	-2.1718	-0.0000	11.1147	0.0007	-0.0026	-0.0038
2X	1.5685	0.0000	-2.3400	-1.5671	-0.0000	2.3400	1.4402	-0.0066	-0.0292
2XY	1.5685	0.0000	-2.3400	-1.5671	0.0000	2.3400	1.4413	0.0054	0.0048
2Y	0.6745	0.0000	-0.9600	-0.6731	0.0000	0.9600	1.4272	0.0041	0.0049
3X	1.2972	0.0000	-1.8547	-1.2958	-0.0000	1.8546	1.3750	-0.0068	-0.0290
3XY	1.2972	0.0000	-1.8547	-1.2958	0.0000	1.8547	1.3752	0.0052	0.0047
3Y	1.2972	0.0000	-1.8547	-1.2958	0.0000	1.8547	1.3612	0.0051	0.0049
4X	1.5167	0.0000	-2.2747	-1.5154	-0.0000	2.2747	1.3095	-0.0068	-0.0287
4XY	1.5167	0.0000	-2.2747	-1.5154	0.0000	2.2747	1.3102	0.0064	0.0045
4Y	0.6227	0.0000	-0.8947	-0.6214	0.0000	0.8947	1.2961	0.0046	0.0047
5X	6.2735	0.0000	-6.7381	-6.2722	-0.0000	6.7381	1.2454	-0.0067	-0.0283
5XY	2.2355	0.0000	-3.3781	-2.2342	0.0000	3.3781	1.2455	0.0061	0.0042
5Y	1.3415	0.0000	-1.9981	-1.3402	0.0000	1.9981	1.2311	0.0060	0.0045
6X	5.6508	0.0000	-5.8434	-5.6496	-0.0000	5.8434	1.1822	-0.0076	-0.0277
6XY	1.6128	0.0000	-2.4834	-1.6116	0.0000	2.4834	1.1826	0.0080	0.0038
6Y	0.7188	0.0000	-1.1034	-0.7176	0.0000	1.1035	1.1677	0.0054	0.0042
7X	5.2900	0.0000	-5.5550	-5.2889	-0.0000	5.5549	1.1215	-0.0074	-0.0269
7XY	1.2520	0.0000	-2.1950	-1.2509	0.0000	2.1950	1.1217	0.0076	0.0032
7Y	1.2520	0.0000	-2.1950	-1.2509	0.0000	2.1950	1.1058	0.0074	0.0037
8X	5.4652	0.0000	-5.8315	-5.4642	-0.0000	5.8315	1.0744	-0.0084	-0.0264
8XY	1.4272	0.0000	-2.4715	-1.4262	0.0000	2.4715	1.0746	0.0090	0.0029
8Y	0.5332	0.0000	-1.0915	-0.5322	0.0000	1.0915	1.0575	0.0078	0.0035
12X	0.9467	0.0000	-2.3563	-0.9458	-0.0000	2.3563	0.8832	-0.0032	-0.0359
12XY	0.9467	0.0000	-2.3563	-0.9458	0.0000	2.3564	0.8838	0.0045	0.0129
12Y	0.9467	0.0000	-2.3563	-0.9458	0.0000	2.3564	0.8773	0.0028	0.0118
13X	1.7977	0.0000	-4.3808	-1.7968	-0.0000	4.3808	0.8295	-0.0016	-0.0352
13XY	1.7977	0.0000	-4.3808	-1.7968	0.0000	4.3808	0.8298	0.0026	0.0124
13Y	1.7977	0.0000	-4.3808	-1.7968	0.0000	4.3808	0.8258	0.0023	0.0113
14X	1.2970	0.0000	-2.8045	-1.2962	-0.0000	2.8044	0.7770	-0.0010	-0.0343
14XY	0.8510	0.0000	-2.0245	-0.8502	0.0000	2.0245	0.7775	0.0023	0.0117
14Y	1.2970	0.0000	-2.8045	-1.2962	0.0000	2.8045	0.7762	0.0002	0.0106
15X	2.1866	0.0000	-4.9533	-2.1858	0.0000	4.9533	0.7266	0.0009	-0.0332
15XY	1.7406	0.0000	-4.1733	-1.7398	0.0000	4.1734	0.7269	0.0002	0.0109
15Y	2.1866	0.0000	-4.9533	-2.1858	-0.0000	4.9533	0.7281	-0.0002	0.0097
16X	0.8896	0.0000	-2.1489	-0.8889	0.0000	2.1489	0.6784	0.0012	-0.0320
16XY	0.8896	0.0000	-2.1489	-0.8889	0.0000	2.1489	0.6788	0.0001	0.0099
16Y	0.8896	0.0000	-2.1489	-0.8889	-0.0000	2.1489	0.6826	-0.0025	0.0088
17X	1.9833	0.0000	-4.4993	-1.9826	0.0000	4.4993	0.6328	0.0034	-0.0307
17XY	1.5373	0.0000	-3.7193	-1.5366	-0.0000	3.7193	0.6331	-0.0022	0.0088
17Y	1.9833	0.0000	-4.4993	-1.9826	-0.0000	4.4993	0.6394	-0.0027	0.0076
18X	1.0937	0.0000	-2.3504	-1.0931	0.0000	2.3504	0.5981	0.0037	-0.0295
18XY	0.6477	0.0000	-1.5704	-0.6471	-0.0000	1.5705	0.5983	-0.0025	0.0078
18Y	1.0937	0.0000	-2.3504	-1.0931	-0.0000	2.3505	0.6067	-0.0043	0.0066
21X	1.5740	0.0000	-2.8595	-1.5736	0.0000	2.8595	0.4577	0.0028	-0.0394
21XY	1.5740	0.0000	-2.8595	-1.5736	-0.0000	2.8595	0.4583	-0.0014	0.0193
21Y	1.5740	0.0000	-2.8595	-1.5736	-0.0000	2.8595	0.4644	-0.0025	0.0196
22X	3.2035	0.0000	-6.0709	-3.2031	0.0000	6.0709	0.4237	0.0026	-0.0379
22XY	5.0035	0.0000	-6.9709	-5.0031	-0.0000	6.9710	0.4242	-0.0014	0.0182
22Y	3.2035	0.0000	-6.0709	-3.2031	-0.0000	6.0710	0.4299	-0.0021	0.0185
23X	1.6295	0.0000	-3.2114	-1.6291	0.0000	3.2114	0.3920	0.0021	-0.0368
23XY	1.6295	0.0000	-3.2114	-1.6291	-0.0000	3.2115	0.3925	-0.0008	0.0174
23Y	1.6295	0.0000	-3.2114	-1.6291	-0.0000	3.2115	0.3979	-0.0023	0.0176
24X	3.3460	0.0000	-7.1002	-3.3456	0.0000	7.1002	0.3614	0.0023	-0.0355
24XY	3.3460	0.0000	-7.1002	-3.3456	-0.0000	7.1002	0.3619	-0.0011	0.0164

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24Y	3.3460	0.0000	-7.1002	-3.3456	-0.0000	7.1002	0.3669	-0.0017	0.0167
25X	1.7165	0.0000	-3.8888	-1.7161	0.0000	3.8887	0.3307	0.0018	-0.0344
25XY	1.7165	0.0000	-3.8888	-1.7161	-0.0000	3.8888	0.3313	-0.0006	0.0156
25Y	1.7165	0.0000	-3.8888	-1.7161	-0.0000	3.8888	0.3359	-0.0020	0.0159
26X	3.4011	0.0000	-7.9094	-3.4008	0.0000	7.9094	0.3012	0.0019	-0.0333
26XY	3.4011	0.0000	-7.9094	-3.4008	-0.0000	7.9094	0.3017	-0.0008	0.0148
26Y	3.4011	0.0000	-7.9094	-3.4008	-0.0000	7.9094	0.3059	-0.0015	0.0150
27X	1.6847	0.0000	-4.0206	-1.6844	0.0000	4.0206	0.2726	0.0013	-0.0321
27XY	1.6847	0.0000	-4.0206	-1.6844	-0.0000	4.0206	0.2732	-0.0002	0.0138
27Y	1.6847	0.0000	-4.0206	-1.6844	-0.0000	4.0206	0.2770	-0.0018	0.0140
28X	3.3168	0.0000	-8.1209	-3.3165	0.0000	8.1209	0.2457	0.0016	-0.0307
28XY	3.3168	0.0000	-8.1209	-3.3165	-0.0000	8.1209	0.2462	-0.0006	0.0128
28Y	3.3168	0.0000	-8.1209	-3.3165	-0.0000	8.1209	0.2497	-0.0012	0.0130
29X	1.6321	0.0000	-4.1003	-1.6319	0.0000	4.1003	0.2205	0.0010	-0.0293
29XY	1.6321	0.0000	-4.1003	-1.6319	0.0000	4.1003	0.2211	0.0001	0.0117
29Y	1.6321	0.0000	-4.1003	-1.6319	-0.0000	4.1003	0.2243	-0.0017	0.0119
30X	2.9252	0.0000	-7.3350	-2.9250	0.0000	7.3350	0.1968	0.0014	-0.0278
30XY	2.9252	0.0000	-7.3350	-2.9250	-0.0000	7.3350	0.1973	-0.0004	0.0105
30Y	2.9252	0.0000	-7.3350	-2.9250	-0.0000	7.3350	0.2003	-0.0010	0.0107
31X	3.5839	0.0000	-10.4333	-3.5837	0.0000	10.4332	0.1749	0.0006	-0.0262
31XY	3.7889	0.0000	-10.6833	-3.7887	0.0000	10.6833	0.1754	0.0003	0.0093
31Y	3.7889	0.0000	-10.6833	-3.7887	-0.0000	10.6833	0.1782	-0.0017	0.0094
33X	5.1489	0.0000	-15.8898	-5.1488	-0.0000	15.8898	0.1035	-0.0003	-0.0228
33XY	5.1489	0.0000	-15.8898	-5.1488	0.0000	15.8898	0.1041	0.0012	0.0077
33Y	5.1489	0.0000	-15.8898	-5.1488	-0.0000	15.8898	0.1063	-0.0018	0.0077
34X	5.2955	0.0000	-15.6792	-5.2954	0.0000	15.6792	0.0795	0.0000	-0.0222
34XY	5.2955	0.0000	-15.6792	-5.2954	0.0000	15.6792	0.0803	0.0010	0.0080
34Y	5.2955	0.0000	-15.6792	-5.2954	-0.0000	15.6792	0.0822	-0.0012	0.0081
35X	5.6814	0.0000	-16.2026	-5.6813	0.0000	16.2026	0.0602	0.0001	-0.0212
35XY	5.6814	0.0000	-16.2026	-5.6813	0.0000	16.2026	0.0611	0.0009	0.0081
35Y	9.2154	0.0000	-17.3026	-9.2153	-0.0000	17.3026	0.0628	-0.0008	0.0082
36X	7.1956	0.0000	-16.5528	-7.1955	-0.0000	16.5528	0.0444	-0.0003	-0.0194
36XY	5.9406	0.0010	-14.8078	-5.9405	-0.0010	14.8078	0.0455	0.0014	0.0075
36Y	4.6466	0.0000	-14.2228	-4.6465	-0.0000	14.2228	0.0467	-0.0010	0.0077
37X	4.7469	0.0000	-13.4785	-4.7469	0.0000	13.4785	0.0301	0.0003	-0.0177
37XY	3.6139	0.0000	-11.6385	-3.6139	0.0000	11.6385	0.0313	0.0009	0.0072
37Y	3.6139	0.0000	-11.6385	-3.6139	-0.0000	11.6385	0.0321	-0.0003	0.0074
38X	3.7253	0.0000	-12.5635	-3.7253	-0.0000	12.5635	0.0208	-0.0005	-0.0152
38XY	3.7253	0.0000	-12.5635	-3.7253	0.0000	12.5635	0.0220	0.0017	0.0062
38Y	3.9303	0.0000	-12.8135	-3.9303	-0.0000	12.8135	0.0226	-0.0012	0.0063
39X	3.6924	0.0000	-13.2183	-3.6924	0.0000	13.2183	0.0113	0.0005	-0.0128
39XY	3.6924	0.0000	-13.2183	-3.6924	0.0000	13.2183	0.0128	0.0010	0.0053
39Y	4.8254	0.0000	-15.0583	-4.8254	-0.0000	15.0583	0.0132	-0.0005	0.0054
40X	8.6786	0.0000	-19.2090	-8.6786	-0.0000	19.2090	0.0058	-0.0009	-0.0098
40XY	3.5806	0.0000	-14.5490	-3.5806	0.0000	14.5490	0.0073	0.0024	0.0039
40Y	6.1296	0.0000	-16.8790	-6.1296	-0.0000	16.8790	0.0076	-0.0021	0.0040
41X	3.6552	0.0000	-14.5947	-3.6552	0.0000	14.5946	0.0003	0.0007	-0.0071
41XY	2.5222	0.0000	-12.7547	-2.5222	0.0000	12.7547	0.0021	0.0010	0.0030
41Y	2.5222	0.0000	-12.7547	-2.5222	-0.0000	12.7547	0.0023	-0.0008	0.0030
42X	2.1718	0.0000	-11.1147	-2.1718	0.0000	11.1147	0.0005	0.0025	-0.0037
42XY	2.1718	0.0000	-11.1147	-2.1718	0.0000	11.1147	0.0050	0.0019	0.0008
42Y	2.1718	0.0000	-11.1147	-2.1718	-0.0000	11.1147	0.0050	-0.0018	0.0008

Moments for Angles Modeled as Beams:

Angle	Torsion	Origin	Origin	End	End	X	Y

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Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.00	-0.00	0.03	-12.10	63.91	-3.77
1X	-0.00	0.00	0.03	13.08	68.92	4.07
1XY	-0.00	0.00	0.03	44.51	-62.99	13.86
1Y	0.00	-0.00	0.03	-44.80	-54.30	-13.95
2P	0.01	12.10	-63.89	-0.75	-66.57	4.54
2X	-0.00	-13.08	-68.89	3.83	-66.51	-3.70
2XY	-0.00	-44.51	63.02	-80.92	108.82	-50.17
2Y	0.00	44.80	54.32	79.01	91.32	49.52
3P	0.01	0.76	66.60	34.97	99.58	14.29
3X	-0.01	-3.83	66.54	-30.04	107.65	-13.55
3XY	-0.01	80.92	-108.80	108.94	-58.14	75.94
3Y	0.01	-79.01	-91.29	-112.77	-54.50	-76.71
4P	0.01	-34.97	-99.56	-76.55	-8.11	-44.61
4X	-0.01	30.04	-107.63	85.73	11.73	46.31
4XY	-0.01	-108.94	58.17	-178.24	171.38	-114.87
4Y	0.01	112.77	54.52	172.71	155.48	114.19
5P	0.01	76.55	8.13	241.52	304.53	127.23
5X	-0.01	-85.73	-11.70	-199.22	353.11	-113.98
5XY	-0.01	178.24	-171.35	351.30	210.79	211.82
5Y	0.01	-172.71	-155.45	-383.62	119.30	-222.53
6P	0.02	-241.52	-304.51	-319.60	176.36	-224.45
6X	-0.01	199.22	-353.09	321.33	203.63	208.22
6XY	-0.01	-351.30	-210.76	-500.88	340.39	-340.87
6Y	0.01	383.62	-119.27	513.67	369.69	358.92
7P	0.02	319.60	-176.33	1514.46	125.01	917.03
7X	-0.02	-321.33	-203.61	-581.51	982.87	-451.42
7XY	-0.02	500.89	-340.36	921.41	908.61	711.15
7Y	0.02	-513.67	-369.66	-1832.48	-39.47	-1173.08
8P	0.02	-1514.46	-124.99	-3379.28	3773.61	-3117.03
8X	-0.02	581.51	-982.85	-823.73	-369.42	-154.28
8XY	-0.02	-921.41	-908.59	860.23	-462.50	-38.97
8Y	0.02	1832.48	39.50	3466.72	3763.76	3375.29
9P	-47.11	-5057.84	274.81	-2425.55	-250.52	-1825.66
9X	54.28	843.70	-316.61	969.95	262.83	442.46
9XY	47.52	-935.33	-277.18	-1430.06	251.46	-577.06
9Y	-35.48	5112.71	207.00	2024.36	-242.59	1741.17
10P	-4.08	-1895.35	1534.92	21.46	1223.10	-648.41
10X	9.07	-496.19	-875.50	-616.65	594.80	-385.07
10XY	4.32	830.27	-1192.11	1296.34	-56.74	735.85
10Y	6.04	1604.75	1258.15	-670.89	558.99	323.13
11P	-4.08	-21.46	-1223.08	-941.94	128.93	-385.36
11X	9.06	616.65	-594.78	1112.77	316.45	691.77
11XY	4.32	-1296.34	56.77	-1795.89	978.39	-1236.89
11Y	6.04	670.89	-558.97	1636.08	830.58	922.79
12P	-4.07	941.94	-128.91	1401.70	977.23	937.46
12X	9.06	-1112.77	-316.43	-1419.92	930.01	-1013.08
12XY	4.32	1795.89	-978.36	2005.85	380.44	1520.70
12Y	6.05	-1636.09	-830.56	-1972.39	383.15	-1443.39
13P	-4.07	-1401.70	-977.21	-1723.60	668.55	-1250.12
13X	9.06	1419.93	-929.98	1736.65	707.25	1262.63
13XY	4.32	-2005.85	-380.42	-2222.54	1181.13	-1691.36
13Y	6.05	1972.39	-383.13	2221.57	1175.61	1677.58
14P	-4.07	1723.60	-668.53	2017.37	1127.37	1496.39

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14X	9.06	-1736.65	-707.23	-2039.31	1085.42	-1510.38	151.27
14XY	4.31	2222.54	-1181.11	2417.43	722.22	1855.99	-183.55
14Y	6.05	-2221.57	-1175.59	-2384.08	741.40	-1842.26	-173.68
15P	-4.07	-2017.37	-1127.35	-2293.78	898.35	-1724.46	-91.60
15X	9.05	2039.31	-1085.40	2375.38	983.77	1765.87	-40.65
15XY	4.31	-2417.43	-722.21	-2489.01	1090.77	-1962.58	147.43
15Y	6.05	2384.08	-741.38	2418.70	1029.88	1921.11	115.40
16P	-4.06	2293.78	-898.33	2934.64	957.21	2614.21	29.44
16X	9.05	-2375.38	-983.75	-3331.51	552.70	-2853.44	-215.53
16XY	4.31	2489.01	-1090.76	3038.71	870.97	2763.86	-109.90
16Y	6.06	-2418.70	-1029.86	-2632.49	1239.75	-2525.59	104.95
17P	-4.06	-2934.64	-957.19	-1194.68	1963.79	-2613.49	637.09
17X	9.05	3331.51	-552.68	3013.35	3753.67	4015.74	2025.94
17XY	4.31	-3038.71	-870.95	-2746.47	3496.22	-3661.51	1661.56
17Y	6.06	2632.49	-1239.73	937.70	1726.96	2259.62	308.37
18P	-154.89	-2233.36	521.32	-1054.27	-317.87	-491.96	30.44
18X	154.03	-4784.99	-500.38	-2454.47	344.64	-1083.31	-23.30
18XY	151.33	4414.24	-508.10	2127.01	337.28	978.83	-25.56
18Y	-149.13	1884.19	537.82	728.08	-307.60	390.90	34.45
19P	-60.55	-991.82	499.15	-483.46	706.03	-526.89	430.42
19X	52.29	1999.93	1471.23	747.31	938.39	981.16	860.58
19XY	51.73	-1762.85	1245.21	-444.99	662.98	-788.51	681.49
19Y	-57.86	753.06	276.61	183.11	393.90	334.35	239.47
20P	-60.54	483.46	-706.01	-130.44	192.51	126.08	-183.40
20X	52.28	-747.31	-938.38	36.62	125.66	-253.82	-290.26
20XY	51.73	444.99	-662.96	-331.27	376.13	40.61	-102.44
20Y	-57.86	-183.11	-393.89	426.03	474.81	86.76	28.90
21P	-60.54	130.44	-192.50	887.98	807.20	377.19	227.67
21X	52.28	-36.62	-125.65	-873.46	896.85	-337.07	285.63
21XY	51.73	331.27	-376.12	1209.57	610.03	570.68	86.63
21Y	-57.85	-426.03	-474.80	-1225.07	578.06	-611.52	38.24
22P	-60.54	-887.98	-807.19	-1313.35	589.62	-815.31	-80.58
22X	52.28	873.46	-896.84	1294.48	512.27	802.94	-142.43
22XY	51.72	-1209.57	-610.02	-1702.07	888.68	-1078.38	103.21
22Y	-57.85	1225.07	-578.04	1719.83	876.33	1090.70	110.48
23P	-60.54	1313.35	-589.61	1668.30	1268.75	1064.88	242.55
23X	52.28	-1294.48	-512.26	-1684.24	1280.29	-1063.83	274.30
23XY	51.72	1702.07	-888.67	2296.96	769.46	1396.08	-42.57
23Y	-57.85	-1719.83	-876.32	-2191.59	807.29	-1396.94	-24.65
24P	-60.54	-1668.30	-1268.74	-1980.16	602.79	-1303.02	-237.84
24X	52.28	1684.24	-1280.27	1959.17	574.06	1301.22	-252.22
24XY	51.72	-2206.96	-769.45	-2467.36	1078.17	-1669.40	110.25
24Y	-57.85	2191.59	-807.28	2487.54	1084.44	1671.12	98.99
25P	-60.53	1980.16	-602.78	2214.20	1931.34	1497.99	474.49
25X	52.27	-1959.17	-574.05	-2241.22	1894.81	-1500.14	471.70
25XY	51.72	2467.36	-1078.15	2793.33	1432.56	1846.68	126.57
25Y	-57.85	-2487.54	-1084.43	-2676.99	1481.67	-1844.48	141.87
26P	-60.53	-2214.20	-1931.33	-2504.74	861.67	-1685.34	-382.02
26X	52.27	2241.22	-1894.80	2477.30	830.77	1685.19	-380.01
26XY	51.72	-2703.33	-1432.55	-2878.76	1233.30	-1993.60	-71.16
26Y	-57.84	2676.99	-1481.66	2905.46	1249.39	1993.73	-82.95
27P	-60.53	2504.74	-861.66	2760.96	1590.01	1914.80	264.85
27X	52.27	-2477.30	-830.76	-2798.47	1563.94	-1918.46	266.61
27XY	51.72	2878.76	-1233.29	3099.64	1259.29	2173.96	9.45
27Y	-57.84	-2905.46	-1249.38	-3063.01	1303.18	-2170.35	19.56
28P	-60.53	-2760.96	-1590.00	-2986.47	1283.93	-2089.97	-111.30

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28X	52.27	2798.47	-1563.93	2966.87	1260.76	2096.49	-110.24
28XY	51.71	-3099.64	-1259.28	-3072.22	1370.70	-2244.31	40.52
28Y	-57.84	3063.01	-1303.17	3090.19	1381.19	2237.53	28.37
29P	-60.53	2986.47	-1283.92	2153.24	1792.20	1903.60	188.25
29X	52.27	-2966.87	-1260.75	-2267.68	1670.01	-1938.72	151.58
29XY	51.71	3072.22	-1370.70	2033.78	1899.09	1891.11	195.70
29Y	-57.84	-3090.19	-1381.18	-1918.47	2025.04	-1855.06	238.47
30P	-60.52	-2153.24	-1792.19	-1865.12	3185.91	-708.08	245.59
30X	52.27	2267.68	-1670.00	2020.19	3308.04	755.57	288.64
30XY	51.71	-2033.78	-1899.08	-1715.38	3005.23	-660.64	194.92
30Y	-57.84	1918.47	-2025.04	1553.47	2883.42	611.79	151.26
31P	-218.26	-3571.61	910.09	-158.46	-1296.55	-581.17	-60.21
31X	206.16	-3767.62	-888.54	-263.08	1309.98	-628.01	65.66
31XY	205.86	3337.97	-890.03	-18.16	1308.64	517.25	65.22
31Y	-216.71	3137.35	916.93	-127.75	-1299.94	468.91	-59.67
32P	-218.25	158.46	1296.55	1043.22	-625.26	197.37	110.26
32X	206.16	263.08	-1309.98	1018.49	603.10	210.49	-116.10
32XY	205.85	18.16	-1308.63	-890.32	605.04	-143.25	-115.56
32Y	-216.70	127.74	1299.93	-906.73	-614.95	-127.94	112.50
33P	-218.25	-1043.22	625.26	779.98	-383.56	-43.23	39.70
33X	206.16	-1018.49	-603.10	796.55	450.25	-36.45	-25.10
33XY	205.85	890.32	-605.04	-856.44	442.44	5.56	-26.71
33Y	-216.70	906.72	614.95	-820.03	-378.90	14.24	38.77
34P	-218.25	-779.98	383.56	-618.59	-194.54	-229.71	31.05
34X	206.16	-796.55	-450.25	-547.87	225.57	-220.82	-36.90
34XY	205.85	856.43	-442.44	557.80	225.10	232.28	-35.70
34Y	-216.70	820.03	378.90	593.25	-231.19	232.12	24.26
35P	-218.25	618.60	194.53	1979.02	-665.27	426.65	-77.32
35X	206.15	547.88	-225.57	1770.88	656.71	380.85	70.81
35XY	205.85	-557.80	-225.10	-1716.41	660.23	-373.53	71.47
35Y	-216.70	-593.25	231.19	-1885.47	-643.31	-407.12	-67.69
36P	-218.25	-1979.02	665.26	-1413.46	-103.70	-557.20	92.23
36X	206.15	-1770.88	-656.71	-1334.73	84.48	-510.08	-93.99
36XY	205.85	1716.41	-660.23	1255.19	81.44	488.07	-95.06
36Y	-216.70	1885.47	643.31	1313.73	-109.02	525.45	87.75
37P	-218.25	1413.46	103.70	2185.56	-261.31	591.12	-25.89
37X	206.15	1334.73	-84.48	2127.15	304.13	568.60	36.08
37XY	205.85	-1255.19	-81.44	-2123.19	286.56	-554.88	33.69
37Y	-216.70	-1313.74	109.02	-2167.00	-255.76	-571.69	-24.10
38P	-218.24	-2185.56	261.31	-1667.86	-219.67	-632.91	6.84
38X	206.15	-2127.15	-304.13	-1645.14	151.64	-619.58	-25.04
38XY	205.84	2123.19	-286.56	2175.48	178.05	706.04	-17.82
38Y	-216.70	2167.00	255.76	2212.80	-212.08	719.36	7.17
39P	-218.24	1667.86	219.67	1515.19	-1805.48	522.80	-260.46
39X	206.15	1645.14	-151.64	1513.56	1885.87	518.80	284.84
39XY	205.84	-2175.48	-178.05	-4254.14	1872.69	-1056.04	278.34
39Y	-216.70	-2212.80	212.08	-4268.91	-1831.29	-1064.59	-265.95
40P	-218.24	-1515.19	1805.48	920.90	2304.81	-97.61	675.10
40X	206.15	-1513.56	-1885.87	919.99	-2321.95	-97.49	-691.11
40XY	205.84	4254.14	-1872.69	5124.28	-2324.69	1540.36	-689.40
40Y	-216.69	4268.91	1831.29	5119.77	2304.62	1542.05	679.31
41P	-218.24	-920.90	-2304.81	-1856.06	-2760.37	-471.83	-860.62
41X	206.15	-920.00	2321.95	-1856.27	2648.95	-471.71	844.60
41XY	205.84	-5124.28	2324.69	-5826.72	2656.30	-1860.68	846.32
41Y	-216.69	-5119.77	-2304.62	-5821.31	-2735.78	-1858.99	-856.41

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 4 "LC4 WIND 45° C.T."

Equilibrium Joint Positions and Rotations for Load Case "LC4 WIND 45° C.T.":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	1.145	1.137	-0.03673	-1.0494	1.0739	0.0233	1.795	1.787	150.9
10P	0.8022	0.7995	-0.03238	-0.9953	0.9972	0.0233	1.452	1.449	131.6
11P	0.7261	0.7241	-0.0495	-1.0440	1.0502	0.0224	1.866	1.864	127.5
19P	0.4296	0.4286	-0.0377	-0.7170	0.7169	0.0153	1.57	1.569	108.6
20P	0.3725	0.3722	-0.05622	-0.4984	0.4994	0.0126	2.825	2.824	102.1
32P	0.1041	0.1041	-0.03058	-0.2593	0.2593	0.0054	2.556	2.556	66.09
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	1.15	1.137	-0.0133	-1.0287	1.2307	0.2443	1.8	0.487	150.9
1XY	1.15	1.134	0.01403	-1.1593	1.1908	0.0365	0.5003	0.4837	150.9
1Y	1.145	1.134	-0.01268	-1.2045	1.0546	-0.1710	0.4948	1.784	150.9
10X	0.7555	0.7998	-0.01286	-0.9912	0.9562	0.2443	1.406	0.1498	131.6
10XY	0.7556	0.7489	0.01108	-0.9482	0.9707	0.0365	0.1056	0.09888	131.6
10Y	0.8025	0.7488	-0.01254	-0.9289	0.9900	-0.1710	0.1525	1.399	131.6
11X	0.7004	0.724	-0.01028	-1.0734	0.8156	0.2409	1.84	-0.416	127.6
11XY	0.7009	0.6947	0.02356	-0.7570	0.7711	0.0349	-0.4391	-0.4453	127.6
11Y	0.726	0.6942	-0.009878	-0.8031	1.0775	-0.1711	-0.414	1.834	127.6
19X	0.446	0.4294	-0.009781	-0.6669	0.6056	0.2262	1.586	-0.7106	108.6
19XY	0.4461	0.4437	0.014	-0.6362	0.6442	0.0210	-0.6939	-0.6963	108.6
19Y	0.4304	0.4436	-0.009609	-0.5968	0.6672	-0.1856	-0.7096	1.584	108.6
20X	0.381	0.3714	-0.01079	-0.5224	0.5859	0.2041	2.833	-2.081	102.2
20XY	0.3825	0.3801	0.03647	-0.5507	0.5556	0.0165	-2.069	-2.072	102.2
20Y	0.3717	0.3786	-0.01055	-0.5813	0.5225	-0.1725	-2.08	2.831	102.2
32X	0.1029	0.1045	-0.008289	-0.2653	0.2721	0.1507	2.555	-2.347	66.12
32XY	0.104	0.1035	0.0147	-0.2629	0.2649	0.0073	-2.348	-2.348	66.14
32Y	0.1046	0.1024	-0.008208	-0.2701	0.2651	-0.1372	-2.347	2.554	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	1.085	1.078	-0.03661	-1.0358	1.0600	0.0233	1.735	1.728	147.7
3S	1.039	1.033	-0.03644	-1.0273	1.0505	0.0233	1.689	1.683	145.2
4S	0.9929	0.9885	-0.03606	-1.0332	1.0542	0.0233	1.643	1.638	142.7
5S	0.9475	0.9439	-0.03548	-0.9977	1.0131	0.0233	1.597	1.594	140.2
6S	0.9037	0.9006	-0.03475	-0.9924	1.0021	0.0233	1.554	1.551	137.7
7S	0.8605	0.8578	-0.03366	-0.9499	0.9566	0.0233	1.511	1.508	135.2
8S	0.8278	0.8251	-0.03303	-0.9158	0.9145	0.0233	1.478	1.475	133.2
12S	0.6758	0.6741	-0.04854	-0.9752	0.9798	0.0214	1.816	1.814	124.7
13S	0.6331	0.6315	-0.04754	-0.9565	0.9604	0.0206	1.773	1.772	122.2
14S	0.5921	0.5908	-0.04622	-0.9311	0.9340	0.0196	1.732	1.731	119.7
15S	0.5518	0.5506	-0.0447	-0.8862	0.8890	0.0187	1.692	1.691	117.2
16S	0.5144	0.5133	-0.04295	-0.8491	0.8518	0.0177	1.654	1.653	114.7
17S	0.4778	0.4767	-0.04097	-0.7942	0.7956	0.0167	1.618	1.617	112.2
18S	0.4509	0.4499	-0.0392	-0.7797	0.7801	0.0160	1.591	1.59	110.2
21S	0.3456	0.3454	-0.05426	-0.5519	0.5528	0.0113	2.798	2.797	99.35
22S	0.3202	0.32	-0.05217	-0.4986	0.4994	0.0100	2.772	2.772	96.55
23S	0.2968	0.2966	-0.05048	-0.4979	0.4985	0.0094	2.749	2.749	93.85
24S	0.2736	0.2735	-0.04864	-0.4732	0.4736	0.0088	2.726	2.725	91.15
25S	0.2509	0.2508	-0.04715	-0.4616	0.4619	0.0084	2.703	2.703	88.35

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.2286	0.2285	-0.04551	-0.4440	0.4441	0.0080	2.681	2.68	85.55
27S	0.2075	0.2074	-0.04374	-0.4253	0.4256	0.0076	2.66	2.659	82.76
28S	0.1871	0.187	-0.04181	-0.4004	0.4007	0.0072	2.639	2.639	79.96
29S	0.1686	0.1685	-0.03976	-0.3831	0.3832	0.0069	2.621	2.621	77.21
30S	0.1504	0.1503	-0.03757	-0.3590	0.3590	0.0065	2.602	2.602	74.46
31S	0.1345	0.1344	-0.03524	-0.3275	0.3277	0.0061	2.587	2.586	71.76
33S	0.08086	0.08089	-0.0307	-0.1792	0.1784	0.0048	3.304	3.304	59.77
34S	0.06206	0.06212	-0.03013	-0.1598	0.1591	0.0044	4.016	4.016	53.77
35S	0.047	0.0471	-0.02888	-0.1186	0.1180	0.0039	4.732	4.732	47.77
36S	0.03484	0.03498	-0.02661	-0.1142	0.1139	0.0034	5.451	5.451	41.77
37S	0.02293	0.0231	-0.02445	-0.0794	0.0787	0.0028	6.17	6.171	35.78
371S	0.02297	0.02365	-0.01533	0.0000	0.0000	0.0000	6.17	0.02365	35.78
372S	0.02347	0.02294	-0.01528	0.0000	0.0000	0.0000	0.02347	6.17	35.78
373S	0.02414	0.02332	0.004469	0.0000	0.0000	0.0000	-6.123	0.02332	35.8
374S	0.02355	0.02411	0.004435	0.0000	0.0000	0.0000	0.02355	-6.123	35.8
38S	0.01636	0.01652	-0.02095	-0.0647	0.0640	0.0023	6.895	6.895	29.78
39S	0.008452	0.008594	-0.01762	-0.0439	0.0433	0.0018	7.618	7.618	23.78
391S	0.008515	0.009273	-0.01153	0.0000	0.0000	0.0000	7.618	0.009273	23.79
392S	0.00913	0.008518	-0.01151	0.0000	0.0000	0.0000	0.00913	7.618	23.79
393S	0.009971	0.009114	0.003492	0.0000	0.0000	0.0000	-7.6	0.009114	23.8
394S	0.009251	0.009973	0.003456	0.0000	0.0000	0.0000	0.009251	-7.6	23.8
40S	0.005424	0.005559	-0.01343	-0.0337	0.0333	0.0014	8.346	8.346	17.79
41S	7.118e-005	0.0001919	-0.009798	-0.0297	0.0291	0.0008	9.072	9.072	11.79
411S	7.261e-005	0.0009745	-0.004111	0.0000	0.0000	0.0000	9.072	0.0009745	11.8
412S	0.0008536	9.43e-005	-0.004094	0.0000	0.0000	0.0000	0.0008536	9.072	11.8
413S	0.001812	0.0008498	-0.0006759	0.0000	0.0000	0.0000	-9.07	0.0008498	11.8
414S	0.0009258	0.001835	-0.000681	0.0000	0.0000	0.0000	0.0009258	-9.07	11.8
42S	-0.0004589	-0.0004108	-0.004954	0.0145	-0.0154	0.0004	9.803	9.803	5.795
2X	1.082	1.079	-0.01324	-1.0411	1.2000	0.2443	1.732	0.4291	147.7
2XY	1.083	1.068	0.01403	-1.1932	1.2206	0.0365	0.433	0.4181	147.7
2Y	1.086	1.067	-0.01264	-1.1695	1.0648	-0.1710	0.4355	1.717	147.7
3X	1.03	1.034	-0.01321	-1.0432	1.2126	0.2443	1.68	0.3835	145.2
3XY	1.03	1.016	0.01392	-1.1714	1.2008	0.0365	0.3797	0.3659	145.2
3Y	1.039	1.016	-0.01263	-1.1852	1.0654	-0.1710	0.3889	1.666	145.2
4X	0.9764	0.9884	-0.01314	-1.0218	1.1944	0.2443	1.626	0.3384	142.7
4XY	0.9779	0.9654	0.01367	-1.1804	1.2058	0.0365	0.3279	0.3154	142.7
4Y	0.9929	0.9638	-0.01258	-1.1652	1.0436	-0.1710	0.3429	1.614	142.7
5X	0.9251	0.944	-0.01306	-1.0267	1.1969	0.2443	1.575	0.294	140.2
5XY	0.9252	0.9139	0.01325	-1.1252	1.1631	0.0365	0.2752	0.2639	140.2
5Y	0.9476	0.9137	-0.01254	-1.1733	1.0416	-0.1710	0.2976	1.564	140.2
6X	0.8731	0.8997	-0.01297	-0.9816	1.1542	0.2443	1.523	0.2497	137.7
6XY	0.8749	0.8651	0.01273	-1.1390	1.1646	0.0365	0.2249	0.2151	137.7
6Y	0.9028	0.8629	-0.0125	-1.1206	0.9926	-0.1710	0.2528	1.513	137.7
7X	0.8242	0.8579	-0.01288	-0.9677	1.1217	0.2443	1.474	0.2079	135.2
7XY	0.8244	0.8157	0.01195	-1.0662	1.1081	0.0365	0.1744	0.1657	135.2
7Y	0.8606	0.8155	-0.01249	-1.0964	0.9685	-0.1710	0.2106	1.466	135.2
8X	0.7849	0.8248	-0.01285	-0.9004	1.1272	0.2443	1.435	0.1748	133.2
8XY	0.7857	0.7782	0.01151	-1.1082	1.1370	0.0365	0.1357	0.1282	133.2
8Y	0.8275	0.7772	-0.0125	-1.0942	0.9013	-0.1710	0.1775	1.427	133.2
12X	0.6568	0.6739	-0.01022	-0.9599	0.8561	0.2388	1.797	-0.4661	124.7
12XY	0.6582	0.6527	0.02285	-0.8628	0.8765	0.0330	-0.4818	-0.4873	124.7
12Y	0.6756	0.6513	-0.009846	-0.8416	0.9654	-0.1731	-0.4644	1.791	124.7
13X	0.6206	0.6317	-0.01017	-0.9696	0.8300	0.2370	1.761	-0.5083	122.2
13XY	0.6209	0.616	0.02208	-0.8081	0.8216	0.0313	-0.5191	-0.524	122.2
13Y	0.6332	0.6157	-0.009829	-0.8167	0.9733	-0.1749	-0.5068	1.756	122.2
14X	0.5843	0.59	-0.01011	-0.9259	0.8036	0.2351	1.724	-0.55	119.7

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	0.586	0.5817	0.02104	-0.7939	0.8066	0.0294	-0.554	-0.5583	119.7
14Y	0.5914	0.5799	-0.009797	-0.7909	0.9289	-0.1768	-0.5486	1.72	119.7
15X	0.5506	0.5507	-0.01004	-0.8963	0.7732	0.2331	1.691	-0.5893	117.2
15XY	0.5509	0.5471	0.01981	-0.7547	0.7660	0.0275	-0.5891	-0.5929	117.2
15Y	0.5519	0.5468	-0.009764	-0.7619	0.8990	-0.1788	-0.5881	1.687	117.2
16X	0.517	0.5121	-0.00997	-0.8446	0.7295	0.2311	1.657	-0.6279	114.7
16XY	0.5191	0.5157	0.01838	-0.7198	0.7297	0.0256	-0.6209	-0.6243	114.7
16Y	0.5133	0.5136	-0.009721	-0.7196	0.8473	-0.1808	-0.6267	1.654	114.7
17X	0.4868	0.4768	-0.009898	-0.8057	0.6904	0.2291	1.627	-0.6632	112.2
17XY	0.4873	0.4844	0.01674	-0.6806	0.6902	0.0237	-0.6527	-0.6556	112.2
17Y	0.4778	0.4839	-0.009681	-0.6808	0.8070	-0.1828	-0.6622	1.624	112.2
18X	0.4629	0.449	-0.00983	-0.7594	0.6464	0.2275	1.603	-0.691	110.2
18XY	0.4643	0.4617	0.01527	-0.6483	0.6573	0.0222	-0.6757	-0.6783	110.2
18Y	0.45	0.4603	-0.009637	-0.6373	0.7601	-0.1843	-0.69	1.6	110.2
21X	0.3538	0.3456	-0.01058	-0.5260	0.5411	0.1944	2.806	-2.106	99.39
21XY	0.3548	0.3525	0.03491	-0.5608	0.5647	0.0148	-2.097	-2.099	99.43
21Y	0.3459	0.3516	-0.01036	-0.5370	0.5274	-0.1661	-2.106	2.804	99.39
22X	0.3275	0.3202	-0.01037	-0.5139	0.5380	0.1847	2.779	-2.132	96.59
22XY	0.3282	0.3261	0.0332	-0.5187	0.5226	0.0132	-2.124	-2.126	96.63
22Y	0.3204	0.3254	-0.01017	-0.5342	0.5145	-0.1597	-2.132	2.777	96.59
23X	0.3025	0.2964	-0.01019	-0.4904	0.5112	0.1801	2.755	-2.156	93.89
23XY	0.3038	0.3019	0.0318	-0.5149	0.5186	0.0124	-2.148	-2.15	93.93
23Y	0.2966	0.3007	-0.01	-0.5074	0.4910	-0.1566	-2.155	2.753	93.89
24X	0.2791	0.2739	-0.01	-0.4771	0.4983	0.1755	2.731	-2.178	91.19
24XY	0.2797	0.278	0.03026	-0.4881	0.4917	0.0116	-2.172	-2.174	91.23
24Y	0.274	0.2774	-0.009829	-0.4947	0.4775	-0.1536	-2.178	2.729	91.19
25X	0.2549	0.2507	-0.009848	-0.4600	0.4788	0.1727	2.707	-2.201	88.39
25XY	0.2561	0.2546	0.029	-0.4775	0.4809	0.0111	-2.196	-2.197	88.43
25Y	0.2509	0.2534	-0.009688	-0.4754	0.4603	-0.1517	-2.201	2.705	88.39
26X	0.2322	0.2288	-0.009688	-0.4471	0.4650	0.1698	2.684	-2.223	85.59
26XY	0.2328	0.2314	0.02762	-0.4591	0.4624	0.0106	-2.219	-2.221	85.63
26Y	0.2289	0.2308	-0.009538	-0.4617	0.4472	-0.1498	-2.223	2.683	85.59
27X	0.2096	0.2072	-0.009514	-0.4240	0.4413	0.1670	2.662	-2.245	82.79
27XY	0.211	0.2098	0.0261	-0.4392	0.4423	0.0101	-2.241	-2.242	82.83
27Y	0.2073	0.2084	-0.009375	-0.4383	0.4243	-0.1479	-2.245	2.66	82.79
28X	0.189	0.1873	-0.009333	-0.4038	0.4192	0.1641	2.641	-2.265	79.99
28XY	0.1896	0.1886	0.02444	-0.4141	0.4168	0.0096	-2.262	-2.263	80.02
28Y	0.1874	0.188	-0.009204	-0.4164	0.4041	-0.1461	-2.265	2.64	79.99
29X	0.169	0.1681	-0.00914	-0.3813	0.3966	0.1613	2.621	-2.284	77.24
29XY	0.1705	0.1696	0.02268	-0.3945	0.3971	0.0091	-2.282	-2.282	77.27
29Y	0.1682	0.1681	-0.009022	-0.3939	0.3814	-0.1442	-2.284	2.62	77.24
30X	0.151	0.1507	-0.00894	-0.3611	0.3728	0.1585	2.603	-2.301	74.49
30XY	0.1516	0.1508	0.02076	-0.3712	0.3738	0.0086	-2.3	-2.301	74.52
30Y	0.1508	0.1502	-0.008832	-0.3702	0.3610	-0.1423	-2.301	2.602	74.49
31X	0.1335	0.1338	-0.00873	-0.3413	0.3556	0.1558	2.585	-2.318	71.79
31XY	0.1351	0.1344	0.01874	-0.3355	0.3377	0.0082	-2.317	-2.318	71.82
31Y	0.1339	0.1328	-0.008632	-0.3535	0.3414	-0.1405	-2.318	2.585	71.79
33X	0.07804	0.07973	-0.007755	-0.2146	0.2129	0.1444	3.301	-3.143	59.79
33XY	0.08046	0.08003	0.01571	-0.1786	0.1811	0.0065	-3.142	-3.143	59.82
33Y	0.07972	0.07761	-0.007674	-0.2106	0.2136	-0.1322	-3.143	3.3	59.79
34X	0.06005	0.06191	-0.007225	-0.1682	0.1681	0.1368	4.014	-3.892	53.79
34XY	0.06187	0.06151	0.01602	-0.1569	0.1589	0.0059	-3.892	-3.892	53.82
34Y	0.06185	0.05969	-0.007144	-0.1659	0.1670	-0.1259	-3.892	4.014	53.79
35X	0.04557	0.04735	-0.006635	-0.1438	0.1409	0.1244	4.731	-4.638	47.79
35XY	0.04704	0.04674	0.01575	-0.1156	0.1174	0.0053	-4.638	-4.638	47.82
35Y	0.04728	0.04529	-0.006554	-0.1394	0.1430	-0.1145	-4.638	4.73	47.79

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.03334	0.03495	-0.005956	-0.1251	0.1209	0.1079	5.45	-5.381	41.79
36XY	0.03542	0.03516	0.01462	-0.1078	0.1093	0.0046	-5.381	-5.381	41.81
36Y	0.03479	0.03306	-0.005873	-0.1198	0.1248	-0.0992	-5.381	5.449	41.79
37X	0.023	0.02429	-0.005236	-0.0998	0.0964	0.0927	6.17	-6.123	35.79
37XY	0.02419	0.02396	0.01375	-0.0766	0.0779	0.0039	-6.123	-6.123	35.81
37Y	0.02411	0.02276	-0.005156	-0.0949	0.0987	-0.0856	-6.123	6.17	35.79
38X	0.01521	0.01651	-0.004512	-0.0765	0.0760	0.0768	6.894	-6.862	29.8
38XY	0.01769	0.01751	0.01177	-0.0644	0.0656	0.0032	-6.861	-6.861	29.81
38Y	0.01636	0.01503	-0.004448	-0.0747	0.0754	-0.0710	-6.862	6.894	29.8
39X	0.008554	0.01005	-0.003726	-0.0634	0.0642	0.0586	7.618	-7.6	23.8
39XY	0.01004	0.009903	0.01005	-0.0422	0.0432	0.0025	-7.6	-7.6	23.81
39Y	0.009917	0.008424	-0.003672	-0.0635	0.0629	-0.0540	-7.6	7.618	23.8
40X	0.003228	0.004755	-0.002939	-0.0543	0.0472	0.0431	8.344	-8.336	17.8
40XY	0.006929	0.006826	0.007511	-0.0411	0.0418	0.0018	-8.334	-8.334	17.81
40Y	0.004606	0.003101	-0.00289	-0.0466	0.0540	-0.0397	-8.336	8.344	17.8
41X	9.509e-005	0.001922	-0.002987	0.0096	0.0161	0.0360	9.072	-9.07	11.8
41XY	0.001869	0.001793	0.005608	-0.0027	0.0033	0.0012	-9.07	-9.07	11.81
41Y	0.001785	9.748e-006	-0.002046	-0.0153	-0.0104	-0.0338	-9.07	9.072	11.8
42X	3.959e-005	0.004489	-0.001474	-0.0227	-0.0019	0.0155	9.803	-9.799	5.799
42XY	0.003983	0.003955	0.001994	-0.0086	0.0092	0.0006	-9.799	-9.799	5.802
42Y	0.004435	1.161e-005	-0.001454	0.0025	0.0216	-0.0146	-9.799	9.803	5.799

Joint Support Reactions for Load Case "LC4 WIND 45° C.T.":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X-Moment (kN-m)	X-M. Usage %	Y-Moment (kN-m)	Y-M. Usage %	Z-Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-271.13	0.0	-273.13	0.0	1837.73	0.0	0.0	1877.60	0.0	-0.70	0.0	0.7	0.0	-0.00	0.0	0.0
ANX	-30.70	0.0	59.27	0.0	346.29	0.0	0.0	352.66	0.0	5.49	0.0	-0.0	0.0	0.34	0.0	0.0
ANXY	-180.45	0.0	-179.37	0.0	-1134.55	0.0	0.0	1162.73	0.0	4.70	0.0	-4.7	0.0	-0.01	0.0	0.0
ANY	60.15	0.0	-28.89	0.0	340.88	0.0	0.0	347.35	0.0	0.02	0.0	-5.4	0.0	-0.35	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC4 WIND 45° C.T.":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	1.1574	1.1574	-3.3400	-1.1563	-1.1563	3.3400	1.1447	1.1369	-0.0367
10P	4.0845	4.0845	-7.0315	-4.0837	-4.0837	7.0315	0.8022	0.7995	-0.0324
11P	1.5294	1.5294	-4.9363	-1.5286	-1.5286	4.9363	0.7261	0.7241	-0.0495
19P	2.2116	2.2116	-7.1816	-2.2112	-2.2112	7.1816	0.4296	0.4286	-0.0377
20P	3.2313	3.2313	-9.2507	-3.2310	-3.2310	9.2506	0.3725	0.3722	-0.0562
32P	3.8075	3.8075	-15.4103	-3.8074	-3.8074	15.4103	0.1041	0.1041	-0.0306
ANP	1.0140	1.0140	-6.6370	270.1121	272.1180	-1831.0955	0.0000	0.0000	0.0000
1X	1.1574	1.1574	-3.3400	-1.1563	-1.1563	3.3400	1.1502	1.1370	-0.0133
1XY	1.1574	1.1574	-3.3400	-1.1563	-1.1563	3.3400	1.1503	1.1337	0.0140
1Y	0.5254	0.5254	-1.9600	-0.5243	-0.5243	1.9600	1.1448	1.1335	-0.0127
10X	4.0845	4.0845	-7.0315	-4.0837	-4.0837	7.0315	0.7555	0.7998	-0.0129
10XY	1.8605	1.8605	-5.0515	-1.8597	-1.8597	5.0515	0.7556	0.7489	0.0111
10Y	1.2285	1.2285	-3.6715	-1.2277	-1.2277	3.6715	0.8025	0.7488	-0.0125
11X	1.5294	1.5294	-4.9363	-1.5287	-1.5286	4.9363	0.7004	0.7240	-0.0103
11XY	1.5294	1.5294	-4.9363	-1.5287	-1.5287	4.9363	0.7009	0.6947	0.0236
11Y	1.5294	1.5294	-4.9363	-1.5286	-1.5287	4.9363	0.7260	0.6942	-0.0099

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	2.2116	2.2116	-7.1816	-2.2112	-2.2112	7.1816	0.4460	0.4294	-0.0098
19XY	2.2116	2.2116	-7.1816	-2.2112	-2.2112	7.1816	0.4461	0.4437	0.0140
19Y	2.2116	2.2116	-7.1816	-2.2112	-2.2112	7.1816	0.4304	0.4436	-0.0096
20X	3.2313	3.2313	-9.2507	-3.2309	-3.2310	9.2507	0.3810	0.3714	-0.0108
20XY	2.9163	2.9163	-8.4707	-2.9159	-2.9159	8.4707	0.3825	0.3801	0.0365
20Y	2.9163	2.9163	-8.4707	-2.9160	-2.9159	8.4707	0.3717	0.3786	-0.0105
32X	3.8075	3.8075	-15.4103	-3.8074	-3.8074	15.4103	0.1029	0.1045	-0.0083
32XY	3.8075	3.8075	-15.4103	-3.8074	-3.8074	15.4103	0.1040	0.1035	0.0147
32Y	3.8075	3.8075	-15.4103	-3.8074	-3.8074	15.4103	0.1046	0.1024	-0.0082
ANX	1.0140	1.0140	-6.6370	29.6818	-60.2801	-339.6496	0.0000	0.0000	0.0000
ANXY	1.0140	1.0140	-6.6370	179.4366	178.3591	1141.1864	0.0000	0.0000	0.0000
ANY	1.0140	1.0140	-6.6370	-61.1602	27.8737	-334.2478	0.0000	0.0000	0.0000
2S	1.1574	1.1574	-2.3400	-1.1563	-1.1563	2.3400	1.0848	1.0783	-0.0366
3S	1.0106	1.0106	-1.8547	-1.0095	-1.0096	1.8546	1.0388	1.0334	-0.0364
4S	1.1172	1.1172	-2.2747	-1.1162	-1.1162	2.2746	0.9929	0.9885	-0.0361
5S	3.9220	3.9220	-5.3581	-3.9210	-3.9210	5.3581	0.9475	0.9439	-0.0355
6S	3.4368	3.4368	-4.4634	-3.4359	-3.4359	4.4634	0.9037	0.9006	-0.0347
7S	3.8736	3.8736	-5.5550	-3.8727	-3.8727	5.5549	0.8605	0.8578	-0.0337
8S	3.2928	3.2928	-4.4515	-3.2919	-3.2919	4.4515	0.8278	0.8251	-0.0330
12S	0.7376	0.7376	-2.3563	-0.7370	-0.7370	2.3563	0.6758	0.6741	-0.0485
13S	1.3986	1.3986	-4.3808	-1.3980	-1.3980	4.3807	0.6331	0.6315	-0.0475
14S	0.9760	0.9760	-2.8045	-0.9754	-0.9754	2.8044	0.5921	0.5908	-0.0462
15S	1.6736	1.6736	-4.9533	-1.6731	-1.6731	4.9533	0.5518	0.5506	-0.0447
16S	0.6976	0.6976	-2.1489	-0.6971	-0.6971	2.1488	0.5144	0.5133	-0.0429
17S	1.5231	1.5231	-4.4993	-1.5227	-1.5227	4.4993	0.4778	0.4767	-0.0410
18S	0.8255	0.8255	-2.3504	-0.8251	-0.8251	2.3504	0.4509	0.4499	-0.0392
21S	1.2152	1.2152	-2.8595	-1.2149	-1.2149	2.8594	0.3456	0.3454	-0.0543
22S	5.0333	5.0333	-7.8709	-5.0330	-5.0330	7.8709	0.3202	0.3200	-0.0522
23S	3.8180	3.8180	-5.0114	-3.8177	-3.8177	5.0114	0.2968	0.2966	-0.0505
24S	2.6206	2.6206	-7.1002	-2.6203	-2.6203	7.1002	0.2736	0.2735	-0.0486
25S	1.3475	1.3475	-3.8888	-1.3473	-1.3473	3.8887	0.2509	0.2508	-0.0471
26S	2.6701	2.6701	-7.9094	-2.6699	-2.6699	7.9094	0.2286	0.2285	-0.0455
27S	1.3226	1.3226	-4.0206	-1.3224	-1.3224	4.0206	0.2075	0.2074	-0.0437
28S	2.6051	2.6051	-8.1209	-2.6049	-2.6049	8.1209	0.1871	0.1870	-0.0418
29S	1.4275	1.4275	-4.3503	-1.4274	-1.4274	4.3502	0.1686	0.1685	-0.0398
30S	2.3138	2.3138	-7.3350	-2.3136	-2.3136	7.3350	0.1504	0.1503	-0.0376
31S	2.8142	2.8142	-10.4333	-2.8141	-2.8141	10.4332	0.1345	0.1344	-0.0352
33S	3.9389	3.9389	-15.8898	-3.9388	-3.9388	15.8898	0.0809	0.0809	-0.0307
34S	4.0099	4.0099	-15.6792	-4.0099	-4.0099	15.6792	0.0621	0.0621	-0.0301
35S	11.4962	11.4962	-21.3126	-11.4962	-11.4962	21.3126	0.0470	0.0471	-0.0289
36S	10.6909	10.6909	-19.3328	-10.6908	-10.6908	19.3328	0.0348	0.0350	-0.0266
37S	2.6867	2.6867	-11.6385	-2.6867	-2.6867	11.6385	0.0229	0.0231	-0.0244
371S	2.6867	2.6867	-11.6385	-2.6867	-2.6867	11.6385	0.0230	0.0236	-0.0153
372S	2.6867	2.6867	-11.6385	-2.6867	-2.6867	11.6385	0.0235	0.0229	-0.0153
373S	2.6867	2.6867	-11.6385	-2.6867	-2.6867	11.6385	0.0241	0.0233	0.0045
374S	2.6867	2.6867	-11.6385	-2.6867	-2.6867	11.6385	0.0235	0.0241	0.0044
38S	2.7670	2.7670	-12.5635	-2.7670	-2.7670	12.5635	0.0164	0.0165	-0.0210
39S	2.7370	2.7370	-13.2183	-2.7370	-2.7370	13.2183	0.0085	0.0086	-0.0176
391S	2.7370	2.7370	-13.2183	-2.7370	-2.7370	13.2183	0.0085	0.0093	-0.0115
392S	2.7370	2.7370	-13.2183	-2.7370	-2.7370	13.2183	0.0091	0.0085	-0.0115
393S	2.7370	2.7370	-13.2183	-2.7370	-2.7370	13.2183	0.0100	0.0091	0.0035
394S	2.7370	2.7370	-13.2183	-2.7370	-2.7370	13.2183	0.0093	0.0100	0.0035
40S	5.8550	5.8550	-17.5190	-5.8550	-5.8550	17.5190	0.0054	0.0056	-0.0134
41S	5.0499	5.0499	-15.7247	-5.0499	-5.0499	15.7246	0.0001	0.0002	-0.0098
411S	2.2974	2.2974	-14.9139	-2.2974	-2.2974	14.9139	0.0001	0.0010	-0.0041
412S	2.2974	2.2974	-14.9139	-2.2974	-2.2974	14.9139	0.0009	0.0001	-0.0041

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413S	2.2974	2.2974	-14.9139	-2.2974	-2.2974	14.9139	0.0018	0.0008	-0.0007
414S	2.2974	2.2974	-14.9139	-2.2974	-2.2974	14.9139	0.0009	0.0018	-0.0007
42S	1.5755	1.5755	-11.1147	-1.5755	-1.5755	11.1147	-0.0005	-0.0004	-0.0050
2X	1.1574	1.1574	-2.3400	-1.1563	-1.1563	2.3400	1.0818	1.0791	-0.0132
2XY	1.1574	1.1574	-2.3400	-1.1563	-1.1563	2.3400	1.0830	1.0681	0.0140
2Y	0.5254	0.5254	-0.9600	-0.5243	-0.5243	0.9600	1.0855	1.0667	-0.0126
3X	1.0106	1.0106	-1.8547	-1.0096	-1.0096	1.8547	1.0296	1.0335	-0.0132
3XY	1.0106	1.0106	-1.8547	-1.0096	-1.0096	1.8547	1.0297	1.0159	0.0139
3Y	1.0106	1.0106	-1.8547	-1.0095	-1.0096	1.8547	1.0389	1.0158	-0.0126
4X	1.1172	1.1172	-2.2747	-1.1162	-1.1162	2.2747	0.9764	0.9884	-0.0131
4XY	1.1172	1.1172	-2.2747	-1.1162	-1.1162	2.2747	0.9779	0.9654	0.0137
4Y	0.4852	0.4852	-0.8947	-0.4842	-0.4842	0.8947	0.9929	0.9638	-0.0126
5X	4.5540	4.5540	-6.7381	-4.5531	-4.5530	6.7381	0.9251	0.9440	-0.0131
5XY	1.6980	1.6980	-3.3781	-1.6971	-1.6971	3.3781	0.9252	0.9139	0.0132
5Y	1.0660	1.0660	-1.9981	-1.0650	-1.0651	1.9981	0.9476	0.9137	-0.0125
6X	4.0688	4.0688	-5.8434	-4.0679	-4.0679	5.8434	0.8731	0.8997	-0.0130
6XY	1.2128	1.2128	-2.4834	-1.2119	-1.2119	2.4835	0.8749	0.8651	0.0127
6Y	0.5808	0.5808	-1.1034	-0.5799	-0.5799	1.1034	0.9028	0.8629	-0.0125
7X	3.8736	3.8736	-5.5550	-3.8727	-3.8727	5.5550	0.8242	0.8579	-0.0129
7XY	1.0176	1.0176	-2.1950	-1.0167	-1.0168	2.1950	0.8244	0.8157	0.0120
7Y	1.0176	1.0176	-2.1950	-1.0167	-1.0168	2.1950	0.8606	0.8155	-0.0125
8X	3.9248	3.9248	-5.8315	-3.9240	-3.9239	5.8315	0.7849	0.8248	-0.0128
8XY	1.0688	1.0688	-2.4715	-1.0680	-1.0680	2.4715	0.7857	0.7782	0.0115
8Y	0.4368	0.4368	-1.0915	-0.4359	-0.4360	1.0915	0.8275	0.7772	-0.0125
12X	0.7376	0.7376	-2.3563	-0.7370	-0.7370	2.3563	0.6568	0.6739	-0.0102
12XY	0.7376	0.7376	-2.3563	-0.7370	-0.7370	2.3564	0.6582	0.6527	0.0229
12Y	0.7376	0.7376	-2.3563	-0.7370	-0.7370	2.3563	0.6756	0.6513	-0.0098
13X	1.3986	1.3986	-4.3808	-1.3980	-1.3980	4.3808	0.6206	0.6317	-0.0102
13XY	1.3986	1.3986	-4.3808	-1.3980	-1.3980	4.3808	0.6209	0.6160	0.0221
13Y	1.3986	1.3986	-4.3808	-1.3980	-1.3980	4.3808	0.6332	0.6157	-0.0098
14X	0.9760	0.9760	-2.8045	-0.9754	-0.9754	2.8044	0.5843	0.5900	-0.0101
14XY	0.6610	0.6610	-2.0245	-0.6604	-0.6604	2.0245	0.5860	0.5817	0.0210
14Y	0.9760	0.9760	-2.8045	-0.9754	-0.9754	2.8044	0.5914	0.5799	-0.0098
15X	1.6736	1.6736	-4.9533	-1.6731	-1.6731	4.9533	0.5506	0.5507	-0.0100
15XY	1.3586	1.3586	-4.1733	-1.3581	-1.3581	4.1734	0.5509	0.5471	0.0198
15Y	1.6736	1.6736	-4.9533	-1.6731	-1.6731	4.9533	0.5519	0.5468	-0.0098
16X	0.6976	0.6976	-2.1489	-0.6971	-0.6971	2.1489	0.5170	0.5121	-0.0100
16XY	0.6976	0.6976	-2.1489	-0.6971	-0.6971	2.1489	0.5191	0.5157	0.0184
16Y	0.6976	0.6976	-2.1489	-0.6971	-0.6971	2.1489	0.5133	0.5136	-0.0097
17X	1.5231	1.5231	-4.4993	-1.5227	-1.5227	4.4993	0.4868	0.4768	-0.0099
17XY	1.2081	1.2081	-3.7193	-1.2077	-1.2077	3.7194	0.4873	0.4844	0.0167
17Y	1.5231	1.5231	-4.4993	-1.5227	-1.5227	4.4993	0.4778	0.4839	-0.0097
18X	0.8255	0.8255	-2.3504	-0.8251	-0.8251	2.3504	0.4629	0.4490	-0.0098
18XY	0.5105	0.5105	-1.5704	-0.5101	-0.5101	1.5705	0.4643	0.4617	0.0153
18Y	0.8255	0.8255	-2.3504	-0.8251	-0.8251	2.3504	0.4500	0.4603	-0.0096
21X	1.2152	1.2152	-2.8595	-1.2149	-1.2149	2.8595	0.3538	0.3456	-0.0106
21XY	1.2152	1.2152	-2.8595	-1.2149	-1.2149	2.8595	0.3548	0.3525	0.0349
21Y	1.2152	1.2152	-2.8595	-1.2149	-1.2149	2.8595	0.3459	0.3516	-0.0104
22X	2.4883	2.4883	-6.0709	-2.4879	-2.4880	6.0709	0.3275	0.3202	-0.0104
22XY	3.7613	3.7613	-6.9709	-3.7609	-3.7609	6.9710	0.3282	0.3261	0.0332
22Y	2.4883	2.4883	-6.0709	-2.4880	-2.4879	6.0709	0.3204	0.3254	-0.0102
23X	1.2730	1.2730	-3.2114	-1.2727	-1.2727	3.2114	0.3025	0.2964	-0.0102
23XY	1.2730	1.2730	-3.2114	-1.2727	-1.2727	3.2115	0.3038	0.3019	0.0318
23Y	1.2730	1.2730	-3.2114	-1.2727	-1.2727	3.2114	0.2966	0.3007	-0.0100
24X	2.6206	2.6206	-7.1002	-2.6203	-2.6203	7.1002	0.2791	0.2739	-0.0100
24XY	2.6206	2.6206	-7.1002	-2.6203	-2.6203	7.1002	0.2797	0.2780	0.0303

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	2.6206	2.6206	-7.1002	-2.6203	-2.6203	7.1002	0.2740	0.2774	-0.0098
25X	1.3475	1.3475	-3.8888	-1.3473	-1.3473	3.8888	0.2549	0.2507	-0.0098
25XY	1.3475	1.3475	-3.8888	-1.3473	-1.3473	3.8888	0.2561	0.2546	0.0290
25Y	1.3475	1.3475	-3.8888	-1.3473	-1.3473	3.8888	0.2509	0.2534	-0.0097
26X	2.6701	2.6701	-7.9094	-2.6699	-2.6699	7.9094	0.2322	0.2288	-0.0097
26XY	2.6701	2.6701	-7.9094	-2.6699	-2.6699	7.9094	0.2328	0.2314	0.0276
26Y	2.6701	2.6701	-7.9094	-2.6699	-2.6699	7.9094	0.2289	0.2308	-0.0095
27X	1.3226	1.3226	-4.0206	-1.3224	-1.3224	4.0206	0.2096	0.2072	-0.0095
27XY	1.3226	1.3226	-4.0206	-1.3224	-1.3224	4.0207	0.2110	0.2098	0.0261
27Y	1.3226	1.3226	-4.0206	-1.3224	-1.3224	4.0206	0.2073	0.2084	-0.0094
28X	2.6051	2.6051	-8.1209	-2.6049	-2.6049	8.1209	0.1890	0.1873	-0.0093
28XY	2.6051	2.6051	-8.1209	-2.6049	-2.6049	8.1209	0.1896	0.1886	0.0244
28Y	2.6051	2.6051	-8.1209	-2.6049	-2.6049	8.1209	0.1874	0.1880	-0.0092
29X	1.2825	1.2825	-4.1003	-1.2824	-1.2824	4.1003	0.1690	0.1681	-0.0091
29XY	1.2825	1.2825	-4.1003	-1.2824	-1.2824	4.1003	0.1705	0.1696	0.0227
29Y	1.2825	1.2825	-4.1003	-1.2824	-1.2824	4.1003	0.1682	0.1681	-0.0090
30X	2.3138	2.3138	-7.3350	-2.3136	-2.3136	7.3350	0.1510	0.1507	-0.0089
30XY	2.3138	2.3138	-7.3350	-2.3136	-2.3136	7.3350	0.1516	0.1508	0.0208
30Y	2.3138	2.3138	-7.3350	-2.3136	-2.3136	7.3350	0.1508	0.1502	-0.0088
31X	2.8142	2.8142	-10.4333	-2.8141	-2.8141	10.4333	0.1335	0.1338	-0.0087
31XY	2.9592	2.9592	-10.6833	-2.9591	-2.9591	10.6833	0.1351	0.1344	0.0187
31Y	2.9592	2.9592	-10.6833	-2.9591	-2.9591	10.6833	0.1339	0.1328	-0.0086
33X	3.9389	3.9389	-15.8898	-3.9388	-3.9388	15.8898	0.0780	0.0797	-0.0078
33XY	3.9389	3.9389	-15.8898	-3.9388	-3.9388	15.8898	0.0805	0.0800	0.0157
33Y	3.9389	3.9389	-15.8898	-3.9388	-3.9388	15.8898	0.0797	0.0776	-0.0077
34X	4.0099	4.0099	-15.6792	-4.0099	-4.0099	15.6792	0.0601	0.0619	-0.0072
34XY	4.0099	4.0099	-15.6792	-4.0099	-4.0099	15.6792	0.0619	0.0615	0.0160
34Y	4.0099	4.0099	-15.6792	-4.0099	-4.0099	15.6792	0.0618	0.0597	-0.0071
35X	4.2862	4.2862	-16.2026	-4.2862	-4.2862	16.2026	0.0456	0.0473	-0.0066
35XY	4.2862	4.2862	-16.2026	-4.2862	-4.2862	16.2026	0.0470	0.0467	0.0158
35Y	6.7852	6.7852	-17.3026	-6.7852	-6.7852	17.3026	0.0473	0.0453	-0.0066
36X	5.2829	5.2829	-16.5528	-5.2828	-5.2828	16.5528	0.0333	0.0349	-0.0060
36XY	4.3959	4.3959	-14.8078	-4.3958	-4.3958	14.8079	0.0354	0.0352	0.0146
36Y	3.4809	3.4809	-14.2228	-3.4808	-3.4808	14.2228	0.0348	0.0331	-0.0059
37X	3.4877	3.4877	-13.4785	-3.4877	-3.4877	13.4785	0.0230	0.0243	-0.0052
37XY	2.6867	2.6867	-11.6385	-2.6867	-2.6867	11.6386	0.0242	0.0240	0.0138
37Y	2.6867	2.6867	-11.6385	-2.6867	-2.6867	11.6385	0.0241	0.0228	-0.0052
38X	2.7670	2.7670	-12.5635	-2.7670	-2.7670	12.5635	0.0152	0.0165	-0.0045
38XY	2.7670	2.7670	-12.5635	-2.7670	-2.7670	12.5635	0.0177	0.0175	0.0118
38Y	2.9120	2.9120	-12.8135	-2.9120	-2.9120	12.8135	0.0164	0.0150	-0.0044
39X	2.7370	2.7370	-13.2183	-2.7370	-2.7370	13.2183	0.0086	0.0100	-0.0037
39XY	2.7370	2.7370	-13.2183	-2.7370	-2.7370	13.2183	0.0100	0.0099	0.0100
39Y	3.5380	3.5380	-15.0583	-3.5380	-3.5380	15.0583	0.0099	0.0084	-0.0037
40X	6.2540	6.2540	-19.2090	-6.2540	-6.2540	19.2090	0.0032	0.0048	-0.0029
40XY	2.6500	2.6500	-14.5490	-2.6500	-2.6500	14.5490	0.0069	0.0068	0.0075
40Y	4.4520	4.4520	-16.8790	-4.4520	-4.4520	16.8790	0.0046	0.0031	-0.0029
41X	2.6459	2.6459	-14.5947	-2.6459	-2.6459	14.5947	0.0001	0.0019	-0.0021
41XY	1.8449	1.8449	-12.7547	-1.8449	-1.8449	12.7547	0.0019	0.0018	0.0056
41Y	1.8449	1.8449	-12.7547	-1.8449	-1.8449	12.7547	0.0018	0.0000	-0.0020
42X	1.5755	1.5755	-11.1147	-1.5755	-1.5755	11.1147	0.0000	0.0045	-0.0015
42XY	1.5755	1.5755	-11.1147	-1.5755	-1.5755	11.1147	0.0040	0.0040	0.0020
42Y	1.5755	1.5755	-11.1147	-1.5755	-1.5755	11.1147	0.0044	0.0000	-0.0015

Moments for Angles Modeled as Beams:

Angle	Torsion	Origin	Origin	End	End	X	Y

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	-0.00	-0.02	0.02	-17.30	42.33	-5.39
1X	-0.00	-0.02	0.02	15.85	93.69	4.93
1XY	-0.00	-0.02	0.02	43.17	-90.83	13.44
1Y	0.00	-0.02	0.02	-44.71	-31.15	-13.93
2P	-0.00	17.28	-42.31	3.39	-4.83	8.27
2X	-0.01	-15.87	-93.67	-12.52	-142.84	-11.36
2XY	-0.00	-43.19	90.85	-78.71	168.19	-48.76
2Y	0.01	44.69	31.17	70.37	28.98	46.02
3P	-0.00	-3.41	4.85	6.28	-9.76	1.15
3X	-0.01	12.51	142.87	-22.49	213.85	-4.00
3XY	-0.00	78.69	-168.17	93.38	-187.53	68.83
3Y	0.01	-70.39	-28.96	-102.95	56.39	-69.34
4P	-0.00	-6.30	9.78	-64.41	170.68	-28.28
4X	-0.02	22.48	-213.83	30.57	-223.58	21.22
4XY	-0.00	-93.40	187.55	-183.79	354.61	-110.87
4Y	0.01	102.93	-56.37	116.18	-48.63	87.65
5P	-0.00	64.39	-170.66	39.95	-61.27	41.74
5X	-0.02	-30.59	223.60	-241.10	647.39	-108.68
5XY	-0.00	183.77	-354.59	248.33	-369.67	172.84
5Y	0.01	-116.20	48.65	-362.21	535.45	-191.36
6P	-0.00	-39.97	61.29	-238.69	513.36	-111.46
6X	-0.03	241.09	-647.37	175.90	-324.64	166.79
6XY	-0.00	-248.35	369.69	-588.08	931.47	-334.57
6Y	0.02	362.19	-535.43	249.03	-296.04	244.49
7P	-0.00	238.67	-513.34	-818.73	791.66	-290.03
7X	-0.03	-175.92	324.66	-2261.38	154.15	-1218.65
7XY	-0.00	588.06	-931.45	1891.58	-1829.67	1239.82
7Y	0.02	-249.04	296.05	-317.75	2380.76	-283.40
8P	-0.00	818.71	-791.64	3961.05	-4059.35	3044.44
8X	-0.03	2261.37	-154.13	5848.30	6604.76	5165.39
8XY	-0.01	-1891.60	1829.69	-8214.15	8404.04	-6436.79
8Y	0.02	317.73	-2380.75	-6211.24	-5883.89	-3753.83
9P	11.75	5671.31	-68.51	4048.51	-3.57	2371.27
9X	90.39	-8805.64	-527.19	-5248.36	378.32	-3428.64
9XY	22.69	11750.82	-132.34	5513.53	-8.78	4211.84
9Y	-39.10	-8552.55	228.12	-5145.65	-374.93	-3341.84
10P	12.18	2861.62	-2863.79	660.18	-611.49	1218.62
10X	25.12	3985.60	3436.70	349.88	2139.69	1500.17
10XY	23.85	-3895.26	3902.07	-507.60	529.09	-1523.48
10Y	24.85	-3372.56	-3904.48	-2138.10	-313.68	-1906.80
11P	12.18	-660.20	611.51	-1353.61	1332.46	-805.52
11X	25.12	-349.90	-2139.68	10.47	-1175.92	-135.77
11XY	23.85	507.59	-529.08	-1514.23	1502.65	-402.66
11Y	24.85	2138.09	313.69	1217.80	20.16	1342.35
12P	12.18	1353.60	-1332.44	519.81	-468.58	749.36
12X	25.12	-10.49	1175.94	-1445.92	2041.66	-582.56
12XY	23.85	1514.22	-1502.63	1047.63	-1010.83	1024.74
12Y	24.85	-1217.81	-20.14	-2065.50	1436.90	-1313.32
13P	12.18	-519.83	468.60	-1990.92	1946.89	-1004.30
13X	25.11	1445.90	-2041.65	475.27	-1042.61	768.47
13XY	23.85	-1047.64	1010.85	-2335.55	2343.32	-1353.28
13Y	24.86	2065.48	-1436.88	1112.46	-457.42	1271.18
14P	12.18	1990.91	-1946.87	774.21	-727.62	1106.04

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14X	25.11	-475.28	1042.62	-2169.39	2477.52	-1057.87	1408.06
14XY	23.85	2335.54	-2343.31	1193.42	-1152.12	1411.58	-1398.17
14Y	24.86	-1112.47	457.43	-2498.28	2154.16	-1444.30	1044.64
15P	12.18	-774.22	727.64	-2576.38	2573.62	-1340.24	1320.50
15X	25.10	2169.37	-2477.51	890.60	-1196.29	1223.99	-1469.52
15XY	23.85	-1193.43	1152.13	-2479.66	2447.81	-1469.24	1439.97
15Y	24.86	2498.27	-2154.15	1225.81	-831.92	1489.63	-1194.43
16P	12.18	2576.36	-2573.61	1980.26	-1941.41	2278.31	-2257.51
16X	25.10	-890.61	1196.30	-2789.29	2999.16	-1839.95	2097.73
16XY	23.85	2479.65	-2447.79	1153.99	-1099.32	1816.82	-1773.56
16Y	24.87	-1225.83	831.94	-3013.35	2755.07	-2119.59	1793.50
17P	12.18	-1980.27	1941.42	-5231.48	5224.00	-4564.40	4535.07
17X	25.10	2789.28	-2999.15	-2009.27	-878.15	493.68	-2453.99
17XY	23.85	-1154.01	1099.33	-1783.94	1782.75	-1859.46	1824.10
17Y	24.87	3013.34	-2755.06	914.08	2068.22	2485.71	-434.71
18P	13.17	-7393.12	-1.70	-3699.95	-1.54	-1659.96	-0.48
18X	246.17	2041.71	-761.39	984.34	500.57	452.82	-39.03
18XY	22.68	2522.01	7.43	1048.47	17.81	534.28	3.78
18Y	-202.69	2108.80	790.90	1014.60	-469.09	467.38	48.16
19P	13.08	-2614.73	2617.81	-1219.50	1223.65	-1369.37	1371.95
19X	97.50	-307.68	-1084.40	-213.00	84.69	-185.96	-357.04
19XY	16.84	-757.94	724.84	-495.39	487.90	-447.62	433.12
19Y	-64.48	1075.87	359.00	-80.69	230.27	355.42	210.45
20P	13.08	1219.49	-1223.64	-168.60	169.05	375.32	-376.64
20X	97.50	212.99	-84.68	-103.94	-3.81	38.95	-31.60
20XY	16.84	495.38	-487.89	-603.26	608.16	-38.53	42.95
20Y	-64.47	80.68	-230.26	8.14	105.88	31.72	-44.42
21P	13.08	168.59	-169.04	127.84	-115.78	109.79	-105.49
21X	97.50	103.93	3.82	-1193.34	1486.24	-403.48	551.87
21XY	16.84	603.25	-608.15	392.76	-382.91	368.89	-367.06
21Y	-64.47	-8.15	-105.87	-1487.44	1192.26	-553.92	402.36
22P	13.08	-127.85	115.79	-1494.60	1489.56	-600.91	594.57
22X	97.49	1193.33	-1486.23	455.41	-769.74	610.64	-835.54
22XY	16.84	-392.77	382.91	-1871.73	1868.92	-838.70	834.01
22Y	-64.47	1487.43	-1192.25	783.68	-442.42	841.15	-605.43
23P	13.08	1494.59	-1489.56	465.27	-450.16	699.95	-692.76
23X	97.49	-455.41	769.75	-1975.96	2500.61	-868.35	1167.98
23XY	16.84	1871.72	-1868.92	930.26	-913.42	1000.71	-993.69
23Y	-64.46	-783.69	442.43	-2504.24	1970.07	-1174.26	861.61
24P	13.08	-465.27	450.17	-2031.80	2031.40	-891.81	886.27
24X	97.49	1975.96	-2500.60	832.22	-1279.54	1002.92	-1350.05
24XY	16.84	-930.26	913.43	-2567.69	2557.02	-1249.27	1239.45
24Y	-64.46	2504.24	-1970.06	1290.61	-810.61	1355.30	-993.10
25P	13.08	2031.79	-2031.39	376.27	-381.61	860.02	-861.78
25X	97.48	-832.23	1279.55	-2881.08	3388.18	-1326.18	1667.04
25XY	16.84	2567.68	-2557.01	800.97	-762.53	1203.09	-1185.55
25Y	-64.46	-1290.61	810.62	-3371.74	2853.32	-1665.13	1308.55
26P	13.08	-376.28	381.62	-2590.38	2590.82	-1059.52	1061.58
26X	97.48	2881.07	-3388.17	1083.37	-1419.83	1415.87	-1717.14
26XY	16.84	-800.97	762.53	-3036.62	3024.81	-1370.57	1352.62
26Y	-64.46	3371.73	-2853.32	1429.70	-1060.07	1714.80	-1397.64
27P	13.08	2590.37	-2590.81	1019.36	-1006.09	1312.63	-1307.96
27X	97.48	-1083.38	1419.84	-3120.27	3463.89	-1528.60	1775.90
27XY	16.84	3036.62	-3024.80	1266.60	-1246.88	1564.81	-1553.34
27Y	-64.45	-1429.70	1060.08	-3464.79	3109.79	-1779.82	1516.32
28P	13.08	-1019.37	1006.10	-3194.96	3199.24	-1532.48	1529.21

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X	97.48	3120.26	-3463.88	1291.13	-1309.96	1604.14	-1735.94
28XY	16.84	-1266.61	1246.89	-3373.52	3359.30	-1687.32	1674.98
28Y	-64.45	3464.78	-3109.79	1313.29	-1262.17	1737.48	-1589.80
29P	13.08	3194.96	-3199.24	291.73	-319.54	1291.36	-1303.25
29X	97.47	-1291.14	1309.97	-3114.67	2890.67	-1631.78	1555.79
29XY	16.84	3373.51	-3359.29	85.04	-32.46	1280.94	-1256.20
29Y	-64.45	-1313.30	1262.18	-2848.41	3066.95	-1541.37	1603.38
30P	13.08	-291.73	319.55	-3688.30	3726.80	-701.33	713.01
30X	97.47	3114.66	-2890.66	-669.63	1268.52	430.84	-285.84
30XY	16.84	-85.04	32.46	-3698.51	3655.76	-666.71	649.91
30Y	-64.45	2848.40	-3066.95	-1302.06	732.50	272.48	-411.36
31P	8.26	-5243.27	29.05	-236.82	1.69	-853.83	4.79
31X	328.80	-423.48	-1334.01	-157.59	1986.56	-90.53	101.67
31XY	11.46	5200.25	32.65	-29.97	11.09	805.56	6.82
31Y	-307.84	-402.74	1406.81	-155.98	-1961.13	-87.05	-86.37
32P	8.26	236.82	-1.69	1510.37	-3.79	286.97	-0.90
32X	328.80	157.59	-1986.56	103.43	905.99	42.87	-177.48
32XY	11.46	29.97	-11.09	-1413.37	-1.44	-227.22	-2.06
32Y	-307.83	155.98	1961.12	96.39	-939.48	41.45	167.80
33P	8.26	-1510.37	3.79	1186.80	4.65	-53.15	1.39
33X	328.80	-103.43	-905.98	-12.48	659.10	-19.04	-40.55
33XY	11.46	1413.37	1.44	-1301.88	5.93	18.31	1.21
33Y	-307.83	-96.39	939.48	-11.87	-604.54	-17.78	55.01
34P	8.26	-1186.79	-4.65	-939.63	-1.68	-349.26	-1.04
34X	328.79	12.48	-659.10	49.87	329.31	10.24	-54.17
34XY	11.46	1301.87	-5.93	841.89	-0.99	352.10	-1.14
34Y	-307.83	11.87	604.53	50.49	-364.89	10.24	39.36
35P	8.26	939.63	1.68	2960.25	-10.90	640.54	-1.51
35X	328.79	-49.87	-329.31	-72.48	985.29	-20.10	107.74
35XY	11.46	-841.90	0.99	-2650.63	-2.94	-573.63	-0.32
35Y	-307.83	-50.49	364.89	-87.28	-993.17	-22.63	-103.19
36P	8.26	-2960.25	10.90	-2108.76	4.16	-832.56	2.47
36X	328.79	72.48	-985.28	-8.69	148.62	10.48	-137.42
36XY	11.46	2650.62	2.94	1939.66	2.53	753.93	0.90
36Y	-307.82	87.28	993.17	-0.24	-144.10	14.30	139.46
37P	8.26	2108.76	-4.16	3308.06	-0.50	889.69	-0.76
37X	328.79	8.69	-148.62	-32.71	434.17	-3.94	46.90
37XY	11.46	-1939.67	-2.53	-3226.35	-0.06	-848.49	-0.42
37Y	-307.82	0.24	144.10	-37.87	-414.02	-6.18	-44.33
38P	8.26	-3308.06	0.50	-2644.82	2.22	-977.73	0.45
38X	328.79	32.71	-434.17	292.66	288.71	53.44	-23.89
38XY	11.46	3226.35	0.06	3142.88	3.10	1046.12	0.52
38Y	-307.82	37.87	414.02	299.20	-305.46	55.36	17.83
39P	8.26	2644.82	-2.22	2913.97	-14.97	913.01	-2.82
39X	328.79	-292.66	-288.71	-1368.35	2722.60	-272.81	399.75
39XY	11.46	-3142.88	-3.10	-5664.72	-6.35	-1446.61	-1.55
39Y	-307.82	-299.20	305.46	-1383.50	-2741.05	-276.38	-400.03
40P	8.26	-2913.97	14.97	-3.91	3.79	-479.25	3.08
40X	328.78	1368.35	-2722.60	3017.95	-3341.80	720.43	-996.05
40XY	11.46	5664.72	6.35	6051.62	3.12	1924.36	1.55
40Y	-307.82	1383.50	2741.05	3018.06	3350.97	722.94	1000.59
41P	8.26	3.91	-3.79	-1011.61	21.93	-171.22	3.08
41X	328.78	-3017.95	3341.80	-3851.60	3909.01	-1167.20	1231.98
41XY	11.46	-6051.62	-3.12	-6654.80	12.27	-2158.94	1.55
41Y	-307.82	-3018.06	-3350.97	-3836.74	-3873.14	-1164.69	-1227.44

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 5 "LC5 WIND 0° DEFLEX"

Equilibrium Joint Positions and Rotations for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	0.3867	-0.002365	-0.01656	-0.0121	0.4123	-0.0424	1.037	0.6476	150.9
10P	0.2583	-0.002755	-0.01548	0.0061	0.3261	-0.0424	0.9083	0.6472	131.6
11P	0.2374	-0.001336	-0.01753	0.0203	0.3020	-0.0418	1.377	1.139	127.6
19P	0.1474	0.001698	-0.01493	-0.0046	0.2178	-0.0387	1.287	1.142	108.6
20P	0.1264	0.001265	-0.01812	-0.0023	0.1876	-0.0349	2.578	2.453	102.2
32P	0.03445	2.793e-005	-0.01189	-0.0001	0.0891	-0.0258	2.486	2.452	66.11
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	0.3888	-0.002234	-0.0166	0.0153	0.4018	0.0375	1.039	-0.6522	150.9
1XY	0.3889	-0.0007737	-0.007876	0.0305	0.3715	0.0390	-0.2611	-0.6508	150.9
1Y	0.3868	-0.0009024	-0.007586	-0.0051	0.3818	-0.0372	-0.2632	0.6491	150.9
10X	0.264	-0.002485	-0.01532	0.0038	0.3341	0.0375	0.914	-0.6525	131.6
10XY	0.2642	0.003099	-0.008072	-0.0066	0.3393	0.0390	-0.3858	-0.6469	131.6
10Y	0.2585	0.002925	-0.007807	0.0045	0.3320	-0.0372	-0.3915	0.6529	131.6
11X	0.2405	-0.00123	-0.01797	0.0152	0.3355	0.0369	1.38	-1.141	127.6
11XY	0.2407	0.001977	-0.005122	-0.0046	0.3275	0.0383	-0.8993	-1.138	127.6
11Y	0.2376	0.001658	-0.005454	0.0267	0.2930	-0.0369	-0.9024	1.142	127.6
19X	0.1442	0.002215	-0.01531	0.0161	0.2300	0.0345	1.284	-1.138	108.6
19XY	0.1447	-0.0008992	-0.006214	-0.0110	0.2245	0.0353	-0.9953	-1.141	108.6
19Y	0.1478	-0.001183	-0.006601	-0.0009	0.2125	-0.0368	-0.9922	1.139	108.6
20X	0.1244	0.001193	-0.01797	-0.0084	0.1777	0.0311	2.576	-2.451	102.2
20XY	0.1248	-3.176e-005	-0.002533	0.0111	0.1744	0.0316	-2.327	-2.452	102.2
20Y	0.1267	-0.0007578	-0.002442	-0.0018	0.1839	-0.0336	-2.325	2.451	102.2
32X	0.0338	0.0007191	-0.01184	-0.0017	0.0881	0.0236	2.486	-2.451	66.11
32XY	0.0346	0.0004181	-0.004307	0.0016	0.0875	0.0238	-2.417	-2.452	66.12
32Y	0.03525	-0.0004825	-0.004319	-0.0013	0.0885	-0.0253	-2.417	2.452	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	0.364	-0.002688	-0.0165	0.0069	0.3896	-0.0424	1.014	0.6473	147.7
3S	0.3472	-0.00221	-0.01644	0.0044	0.3938	-0.0424	0.9972	0.6478	145.2
4S	0.3298	-0.002348	-0.01633	-0.0009	0.3908	-0.0424	0.9798	0.6477	142.7
5S	0.3131	-0.002169	-0.01618	0.0022	0.3874	-0.0424	0.9631	0.6478	140.2
6S	0.2963	-0.002197	-0.016	-0.0033	0.3747	-0.0424	0.9463	0.6478	137.7
7S	0.2804	-0.002354	-0.01575	-0.0019	0.3619	-0.0424	0.9304	0.6476	135.2
8S	0.2678	-0.002524	-0.01561	-0.0115	0.3592	-0.0424	0.9178	0.6475	133.2
12S	0.2218	-0.0008987	-0.0173	0.0069	0.3021	-0.0414	1.362	1.139	124.7
13S	0.209	-0.0004	-0.01708	0.0135	0.2923	-0.0410	1.349	1.14	122.2
14S	0.1963	0.0001075	-0.01678	0.0084	0.2848	-0.0406	1.336	1.14	119.7
15S	0.1842	0.0004551	-0.01644	0.0118	0.2707	-0.0402	1.324	1.14	117.2
16S	0.1726	0.001032	-0.01606	0.0080	0.2579	-0.0397	1.313	1.141	114.7
17S	0.1618	0.001281	-0.01563	0.0129	0.2392	-0.0393	1.302	1.141	112.2
18S	0.1536	0.001799	-0.01525	0.0052	0.2310	-0.0390	1.294	1.142	110.2
21S	0.1172	0.0009033	-0.01762	-0.0055	0.1836	-0.0332	2.569	2.453	99.38
22S	0.1086	0.0008707	-0.0171	0.0003	0.1750	-0.0316	2.561	2.453	96.58
23S	0.1004	0.0008152	-0.01668	-0.0028	0.1700	-0.0308	2.552	2.453	93.88
24S	0.09254	0.0006762	-0.01622	-0.0013	0.1640	-0.0300	2.545	2.453	91.18
25S	0.08462	0.0006373	-0.01585	-0.0018	0.1582	-0.0296	2.537	2.453	88.38

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.07708	0.0005215	-0.01545	-0.0008	0.1527	-0.0291	2.529	2.453	85.58
27S	0.06972	0.0005252	-0.01502	-0.0017	0.1456	-0.0286	2.522	2.453	82.78
28S	0.06286	0.0003893	-0.01456	-0.0006	0.1374	-0.0281	2.515	2.452	79.99
29S	0.05638	0.000432	-0.01407	-0.0017	0.1309	-0.0276	2.508	2.452	77.24
30S	0.05033	0.0002708	-0.01355	-0.0002	0.1220	-0.0272	2.502	2.452	74.49
31S	0.04474	0.0004008	-0.013	0.0008	0.1149	-0.0267	2.497	2.452	71.79
33S	0.02645	0.0002221	-0.0115	0.0056	0.0652	-0.0247	3.249	3.223	59.79
34S	0.02023	-9.206e-005	-0.01101	0.0004	0.0550	-0.0234	3.974	3.954	53.79
35S	0.01527	-0.0002947	-0.01035	0.0037	0.0433	-0.0213	4.7	4.685	47.79
36S	0.01112	-0.0003637	-0.009451	0.0014	0.0398	-0.0184	5.427	5.416	41.79
37S	0.007309	-0.0006532	-0.00851	0.0037	0.0292	-0.0158	6.155	6.147	35.79
371S	0.007224	-6.112e-005	-0.008735	0.0000	0.0000	0.0000	6.155	-6.112e-005	35.79
372S	0.007888	-0.0005697	-0.005449	0.0000	0.0000	0.0000	0.007888	6.147	35.79
373S	0.008396	9.485e-005	-0.002128	0.0000	0.0000	0.0000	-6.139	9.485e-005	35.8
374S	0.007703	0.0006035	-0.005406	0.0000	0.0000	0.0000	0.007703	-6.147	35.79
38S	0.004898	-0.0004672	-0.007304	0.0022	0.0232	-0.0131	6.883	6.878	29.79
39S	0.002385	-0.0007949	-0.006081	0.0031	0.0184	-0.0100	7.612	7.609	23.79
391S	0.002334	-6.352e-005	-0.006521	0.0000	0.0000	0.0000	7.612	-6.352e-005	23.79
392S	0.003103	-0.0007332	-0.004037	0.0000	0.0000	0.0000	0.003103	7.609	23.8
393S	0.003789	5.209e-005	-0.00151	0.0000	0.0000	0.0000	-7.606	5.209e-005	23.8
394S	0.002984	0.0007218	-0.004001	0.0000	0.0000	0.0000	0.002984	-7.609	23.8
40S	0.0009855	-0.0004015	-0.004708	0.0060	0.0111	-0.0073	8.342	8.34	17.8
41S	-0.0005382	-0.0009329	-0.003389	-0.0151	0.0161	-0.0061	9.072	9.071	11.8
411S	-0.0005681	-4.341e-005	-0.00297	0.0000	0.0000	0.0000	9.071	-4.341e-005	11.8
412S	0.0003174	-0.0008824	-0.002399	0.0000	0.0000	0.0000	0.0003174	9.071	11.8
413S	0.001171	1.861e-005	-0.001821	0.0000	0.0000	0.0000	-9.071	1.861e-005	11.8
414S	0.0002502	0.0008577	-0.002385	0.0000	0.0000	0.0000	0.0002502	-9.071	11.8
42S	-0.001512	-0.002318	-0.00206	0.0147	-0.0108	-0.0026	9.802	9.801	5.798
2X	0.3667	-0.001733	-0.01653	-0.0038	0.3799	0.0375	1.017	-0.6517	147.7
2XY	0.3677	0.0004374	-0.007831	0.0039	0.3929	0.0390	-0.2823	-0.6496	147.7
2Y	0.365	-0.0007069	-0.007552	0.0207	0.4029	-0.0372	-0.285	0.6493	147.7
3X	0.3503	-0.00209	-0.01647	-0.0020	0.3839	0.0375	1	-0.6521	145.2
3XY	0.3504	0.0004481	-0.007824	0.0138	0.3857	0.0390	-0.2996	-0.6496	145.2
3Y	0.3473	0.0003318	-0.007557	0.0098	0.3951	-0.0372	-0.3027	0.6503	145.2
4X	0.3332	-0.001872	-0.01635	0.0021	0.3816	0.0375	0.9832	-0.6519	142.7
4XY	0.334	0.001413	-0.007818	0.0081	0.3823	0.0390	-0.316	-0.6486	142.7
4Y	0.3305	0.0003773	-0.007559	0.0148	0.3921	-0.0372	-0.3195	0.6504	142.7
5X	0.317	-0.002041	-0.01617	-0.0032	0.3767	0.0375	0.967	-0.652	140.2
5XY	0.3171	0.001448	-0.007834	0.0226	0.3721	0.0390	-0.3329	-0.6486	140.2
5Y	0.3132	0.001324	-0.007584	-0.0008	0.3806	-0.0372	-0.3368	0.6513	140.2
6X	0.3006	-0.002114	-0.01595	-0.0011	0.3637	0.0375	0.9506	-0.6521	137.7
6XY	0.3012	0.002465	-0.007869	0.0067	0.3649	0.0390	-0.3488	-0.6475	137.7
6Y	0.2969	0.001261	-0.007623	0.0155	0.3766	-0.0372	-0.3531	0.6513	137.7
7X	0.2853	-0.002232	-0.01565	-0.0054	0.3501	0.0375	0.9353	-0.6522	135.2
7XY	0.2854	0.002418	-0.007951	0.0171	0.3485	0.0390	-0.3646	-0.6476	135.2
7Y	0.2806	0.002256	-0.007703	0.0028	0.3601	-0.0372	-0.3694	0.6523	135.2
8X	0.2732	-0.002426	-0.01548	-0.0053	0.3390	0.0375	0.9232	-0.6524	133.2
8XY	0.2735	0.003031	-0.008003	0.0117	0.3372	0.0390	-0.3765	-0.647	133.2
8Y	0.2681	0.002428	-0.007749	0.0165	0.3579	-0.0372	-0.3819	0.6524	133.2
12X	0.2239	-0.0005876	-0.01772	0.0105	0.3180	0.0366	1.364	-1.141	124.7
12XY	0.2245	0.001847	-0.005186	-0.0111	0.3207	0.0379	-0.9155	-1.138	124.7
12Y	0.2224	0.0009513	-0.005521	-0.0016	0.3054	-0.0369	-0.9176	1.141	124.7
13X	0.2103	-0.0002009	-0.01748	0.0075	0.3120	0.0363	1.35	-1.14	122.2
13XY	0.2105	0.001166	-0.005271	-0.0080	0.3143	0.0375	-0.9295	-1.139	122.2
13Y	0.2092	0.0009202	-0.00561	-0.0095	0.2945	-0.0369	-0.9308	1.141	122.2
14X	0.1967	0.0001565	-0.01718	0.0109	0.3033	0.0360	1.337	-1.14	119.7

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	0.1972	0.001137	-0.005383	-0.0084	0.3022	0.0371	-0.9428	-1.139	119.7
14Y	0.1967	0.0002209	-0.005728	-0.0082	0.2837	-0.0369	-0.9433	1.14	119.7
15X	0.1839	0.000651	-0.01683	0.0074	0.2894	0.0356	1.324	-1.139	117.2
15XY	0.1841	0.0004444	-0.005522	-0.0079	0.2909	0.0367	-0.9559	-1.14	117.2
15Y	0.1845	0.0001715	-0.005874	-0.0093	0.2723	-0.0369	-0.9555	1.14	117.2
16X	0.1715	0.0009044	-0.01644	0.0110	0.2767	0.0353	1.311	-1.139	114.7
16XY	0.1719	0.0004321	-0.005687	-0.0082	0.2746	0.0363	-0.9681	-1.14	114.7
16Y	0.1731	-0.0005793	-0.006046	-0.0096	0.2558	-0.0368	-0.9669	1.139	114.7
17X	0.1599	0.001475	-0.01601	0.0053	0.2575	0.0350	1.3	-1.139	112.2
17XY	0.1601	-0.0003052	-0.005883	-0.0107	0.2631	0.0359	-0.9799	-1.14	112.2
17Y	0.1621	-0.0006244	-0.006253	-0.0070	0.2447	-0.0368	-0.9779	1.139	112.2
18X	0.151	0.00161	-0.01563	0.0152	0.2518	0.0347	1.291	-1.138	110.2
18XY	0.1512	-0.0004788	-0.006055	-0.0106	0.2472	0.0355	-0.9888	-1.14	110.2
18Y	0.1538	-0.001095	-0.006434	-0.0098	0.2265	-0.0368	-0.9862	1.139	110.2
21X	0.1154	0.001379	-0.01747	0.0038	0.1828	0.0297	2.567	-2.451	99.38
21XY	0.116	1.945e-005	-0.002635	-0.0037	0.1819	0.0302	-2.336	-2.452	99.4
21Y	0.1178	-0.0007032	-0.00255	0.0040	0.1829	-0.0321	-2.334	2.451	99.4
22X	0.1068	0.00124	-0.01695	-0.0041	0.1721	0.0284	2.559	-2.451	96.58
22XY	0.1073	-3.125e-005	-0.002759	0.0040	0.1716	0.0288	-2.345	-2.452	96.6
22Y	0.109	-0.000558	-0.002679	-0.0018	0.1746	-0.0306	-2.343	2.451	96.6
23X	0.09877	0.001131	-0.01653	-0.0005	0.1672	0.0277	2.551	-2.451	93.88
23XY	0.09932	0.0001428	-0.00286	-0.0004	0.1674	0.0281	-2.353	-2.452	93.9
23Y	0.1009	-0.0006449	-0.002785	0.0021	0.1700	-0.0299	-2.351	2.451	93.9
24X	0.09109	0.001112	-0.01608	-0.0020	0.1612	0.0271	2.543	-2.451	91.18
24XY	0.09156	4.08e-005	-0.002979	0.0023	0.1600	0.0274	-2.36	-2.452	91.2
24Y	0.09302	-0.0004623	-0.00291	-0.0006	0.1628	-0.0292	-2.359	2.452	91.2
25X	0.0833	0.0009936	-0.01572	-0.0013	0.1556	0.0267	2.535	-2.451	88.38
25XY	0.08388	0.0002303	-0.003077	0.0004	0.1557	0.0270	-2.368	-2.452	88.4
25Y	0.0852	-0.0005747	-0.003014	0.0012	0.1584	-0.0287	-2.367	2.451	88.4
26X	0.07588	0.0009601	-0.01533	-0.0021	0.1502	0.0263	2.528	-2.451	85.58
26XY	0.07635	0.0001172	-0.003191	0.0010	0.1505	0.0266	-2.376	-2.452	85.6
26Y	0.07755	-0.0003914	-0.003135	0.0004	0.1530	-0.0283	-2.374	2.452	85.6
27X	0.06864	0.0008158	-0.0149	-0.0011	0.1434	0.0259	2.521	-2.451	82.79
27XY	0.0692	0.0003096	-0.003317	0.0005	0.1432	0.0262	-2.383	-2.452	82.8
27Y	0.07028	-0.0005215	-0.003267	0.0007	0.1455	-0.0278	-2.382	2.451	82.8
28X	0.06188	0.0008212	-0.01445	-0.0020	0.1354	0.0255	2.514	-2.451	79.99
28XY	0.06236	0.0001779	-0.003459	0.0007	0.1359	0.0258	-2.39	-2.452	80
28Y	0.06334	-0.0003367	-0.003418	0.0003	0.1379	-0.0274	-2.389	2.452	80
29X	0.05549	0.0006608	-0.01397	-0.0007	0.1291	0.0251	2.507	-2.451	77.24
29XY	0.05603	0.0003664	-0.003612	0.0005	0.1285	0.0254	-2.396	-2.452	77.25
29Y	0.05692	-0.0004828	-0.003579	0.0003	0.1303	-0.0270	-2.395	2.452	77.25
30X	0.04953	0.0007159	-0.01346	-0.0019	0.1204	0.0247	2.502	-2.451	74.49
30XY	0.05	0.0002144	-0.003783	-0.0004	0.1220	0.0249	-2.402	-2.452	74.5
30Y	0.05081	-0.000299	-0.00376	0.0010	0.1236	-0.0265	-2.401	2.452	74.5
31X	0.044	0.0004946	-0.01293	-0.0024	0.1138	0.0243	2.496	-2.452	71.79
31XY	0.04448	0.000401	-0.003965	0.0038	0.1117	0.0245	-2.408	-2.452	71.8
31Y	0.04522	-0.0004661	-0.003953	-0.0036	0.1129	-0.0261	-2.407	2.452	71.8
33X	0.02592	0.0002633	-0.01143	-0.0076	0.0639	0.0226	3.249	-3.223	59.79
33XY	0.02655	0.0006339	-0.003725	0.0051	0.0657	0.0229	-3.196	-3.222	59.8
33Y	0.02708	-0.0005936	-0.003734	-0.0044	0.0668	-0.0242	-3.196	3.222	59.8
34X	0.01978	0.0003715	-0.01092	-0.0020	0.0543	0.0215	3.974	-3.954	53.79
34XY	0.02058	0.0006198	-0.003261	0.0019	0.0537	0.0217	-3.933	-3.953	53.8
34Y	0.02104	-0.0005191	-0.003269	-0.0017	0.0543	-0.0230	-3.933	3.953	53.8
35X	0.01487	0.0003964	-0.01025	-0.0050	0.0426	0.0196	4.7	-4.685	47.79
35XY	0.01575	0.0006077	-0.002849	0.0039	0.0431	0.0198	-4.669	-4.684	47.8
35Y	0.01615	-0.0004722	-0.002855	-0.0037	0.0439	-0.0208	-4.669	4.685	47.8

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.01081	0.0003388	-0.009345	-0.0023	0.0385	0.0170	5.427	-5.416	41.79
36XY	0.01185	0.0007777	-0.002511	0.0022	0.0382	0.0172	-5.404	-5.415	41.8
36Y	0.01214	-0.0006118	-0.002507	-0.0020	0.0395	-0.0180	-5.404	5.416	41.8
37X	0.007125	0.0005341	-0.008411	-0.0039	0.0283	0.0147	6.155	-6.147	35.79
37XY	0.008312	0.0006905	-0.002081	0.0027	0.0293	0.0148	-6.139	-6.147	35.8
37Y	0.008497	-0.000501	-0.002073	-0.0029	0.0301	-0.0155	-6.139	6.147	35.8
38X	0.004745	0.0003506	-0.00723	-0.0021	0.0229	0.0122	6.883	-6.878	29.79
38XY	0.005982	0.0008945	-0.001797	0.0013	0.0235	0.0123	-6.873	-6.878	29.8
38Y	0.006131	-0.0007536	-0.001803	-0.0018	0.0237	-0.0129	-6.872	6.878	29.8
39X	0.002265	0.0006681	-0.006023	-0.0028	0.0180	0.0093	7.612	-7.609	23.79
39XY	0.003734	0.0007894	-0.001422	0.0037	0.0172	0.0093	-7.606	-7.609	23.8
39Y	0.00386	-0.0006884	-0.001438	-0.0041	0.0175	-0.0098	-7.606	7.609	23.8
40X	0.0008884	0.0003103	-0.004671	-0.0057	0.0109	0.0068	8.342	-8.341	17.8
40XY	0.002348	0.001142	-0.001174	-0.0017	0.0183	0.0069	-8.339	-8.34	17.8
40Y	0.002444	-0.001082	-0.001194	0.0014	0.0186	-0.0072	-8.338	8.34	17.8
41X	-0.0006168	0.000844	-0.00336	0.0154	0.0158	0.0058	9.071	-9.071	11.8
41XY	0.001154	0.0009062	-0.0007833	0.0107	-0.0103	0.0058	-9.071	-9.071	11.8
41Y	0.001221	-0.0008691	-0.0007966	-0.0109	-0.0099	-0.0060	-9.071	9.071	11.8
42X	-0.001543	0.00228	-0.002046	-0.0140	-0.0112	0.0025	9.802	-9.801	5.798
42XY	0.002888	0.00214	-0.0008899	-0.0100	0.0130	0.0025	-9.8	-9.801	5.799
42Y	0.002912	-0.002126	-0.0008959	0.0098	0.0134	-0.0026	-9.8	9.801	5.799

Joint Support Reactions for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Z Usage %	Comp. Usage %	Uplift Result.	Result.	X Usage (kN-m)	X-M. Usage (kN-m)	Y Usage (kN-m)	Y-M. Usage (kN-m)	Z Usage (kN-m)	Z-M. Usage	Max. Usage
ANP	-81.37	0.0	-85.43	0.0	598.30	0.0	0.0	609.82	0.0	-2.86	0.0	1.9	0.0	-0.06	0.0	0.0
ANX	-79.64	0.0	86.14	0.0	593.66	0.0	0.0	605.14	0.0	2.83	0.0	1.9	0.0	0.06	0.0	0.0
ANXY	10.74	0.0	4.88	0.0	98.53	0.0	0.0	99.23	0.0	2.59	0.0	-3.5	0.0	0.06	0.0	0.0
ANY	10.10	0.0	-5.59	0.0	99.86	0.0	0.0	100.53	0.0	-2.59	0.0	-3.5	0.0	-0.06	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC5 WIND 0° DEFLEX":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	0.3927	0.0000	-3.3400	-0.3923	-0.0000	3.3400	0.3867	-0.0024	-0.0166
10P	1.3928	0.0000	-7.0315	-1.3926	-0.0000	7.0315	0.2583	-0.0028	-0.0155
11P	0.4862	0.0000	-4.9363	-0.4860	-0.0000	4.9363	0.2374	-0.0013	-0.0175
19P	0.7112	0.0000	-7.1816	-0.7111	0.0000	7.1816	0.1474	0.0017	-0.0149
20P	1.0549	0.0000	-9.2507	-1.0548	0.0000	9.2507	0.1264	0.0013	-0.0181
32P	1.2296	0.0000	-15.4103	-1.2296	0.0000	15.4103	0.0345	0.0000	-0.0119
ANP	0.3467	0.0000	-6.6370	81.0194	85.4326	-591.6648	0.0000	0.0000	0.0000
1X	0.3927	0.0000	-3.3400	-0.3923	-0.0000	3.3400	0.3888	-0.0022	-0.0166
1XY	0.3927	0.0000	-3.3400	-0.3923	-0.0000	3.3400	0.3889	-0.0008	-0.0079
1Y	0.1687	0.0000	-1.9600	-0.1683	-0.0000	1.9600	0.3868	-0.0009	-0.0076
10X	1.3928	0.0000	-7.0315	-1.3926	-0.0000	7.0315	0.2640	-0.0025	-0.0153
10XY	0.6068	0.0000	-5.0515	-0.6066	0.0000	5.0515	0.2642	0.0031	-0.0081
10Y	0.3828	0.0000	-3.6715	-0.3826	0.0000	3.6715	0.2585	0.0029	-0.0078
11X	0.4862	0.0000	-4.9363	-0.4860	-0.0000	4.9363	0.2405	-0.0012	-0.0180
11XY	0.4862	0.0000	-4.9363	-0.4860	0.0000	4.9363	0.2407	0.0020	-0.0051
11Y	0.4862	0.0000	-4.9363	-0.4860	0.0000	4.9363	0.2376	0.0017	-0.0055

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	0.7112	0.0000	-7.1816	-0.7111	0.0000	7.1816	0.1442	0.0022	-0.0153
19XY	0.7112	0.0000	-7.1816	-0.7111	-0.0000	7.1816	0.1447	-0.0009	-0.0062
19Y	0.7112	0.0000	-7.1816	-0.7111	-0.0000	7.1816	0.1478	-0.0012	-0.0066
20X	1.0549	0.0000	-9.2507	-1.0548	0.0000	9.2507	0.1244	0.0012	-0.0180
20XY	0.9429	0.0000	-8.4707	-0.9428	-0.0000	8.4707	0.1248	-0.0000	-0.0025
20Y	0.9429	0.0000	-8.4707	-0.9428	-0.0000	8.4707	0.1267	-0.0008	-0.0024
32X	1.2296	0.0000	-15.4103	-1.2296	0.0000	15.4103	0.0338	0.0007	-0.0118
32XY	1.2296	0.0000	-15.4103	-1.2296	0.0000	15.4103	0.0346	0.0004	-0.0043
32Y	1.2296	0.0000	-15.4103	-1.2296	-0.0000	15.4103	0.0352	-0.0005	-0.0043
ANX	0.3467	0.0000	-6.6370	79.2894	-86.1411	-587.0261	0.0000	0.0000	0.0000
ANXY	0.3467	0.0000	-6.6370	-11.0881	-4.8771	-91.8884	0.0000	0.0000	0.0000
ANY	0.3467	0.0000	-6.6370	-10.4463	5.5855	-93.2271	0.0000	0.0000	0.0000
2S	0.3927	0.0000	-2.3400	-0.3924	-0.0000	2.3400	0.3640	-0.0027	-0.0165
3S	0.3245	0.0000	-1.8547	-0.3241	-0.0000	1.8547	0.3472	-0.0022	-0.0164
4S	0.3798	0.0000	-2.2747	-0.3794	-0.0000	2.2747	0.3298	-0.0023	-0.0163
5S	1.3456	0.0000	-5.3581	-1.3453	-0.0000	5.3581	0.3131	-0.0022	-0.0162
6S	1.1898	0.0000	-4.4634	-1.1895	-0.0000	4.4634	0.2963	-0.0022	-0.0160
7S	1.3232	0.0000	-5.5550	-1.3229	-0.0000	5.5550	0.2804	-0.0024	-0.0157
8S	1.1434	0.0000	-4.4515	-1.1431	-0.0000	4.4515	0.2678	-0.0025	-0.0156
12S	0.2368	0.0000	-2.3563	-0.2366	-0.0000	2.3563	0.2218	-0.0009	-0.0173
13S	0.4497	0.0000	-4.3808	-0.4495	-0.0000	4.3808	0.2090	-0.0004	-0.0171
14S	0.3249	0.0000	-2.8045	-0.3247	0.0000	2.8044	0.1963	0.0001	-0.0168
15S	0.5474	0.0000	-4.9533	-0.5472	0.0000	4.9533	0.1842	0.0005	-0.0164
16S	0.2225	0.0000	-2.1489	-0.2223	0.0000	2.1489	0.1726	0.0010	-0.0161
17S	0.4966	0.0000	-4.4993	-0.4964	0.0000	4.4993	0.1618	0.0013	-0.0156
18S	0.2740	0.0000	-2.3504	-0.2739	0.0000	2.3504	0.1536	0.0018	-0.0153
21S	0.3937	0.0000	-2.8595	-0.3936	0.0000	2.8595	0.1172	0.0009	-0.0176
22S	1.7014	0.0000	-7.8709	-1.7013	0.0000	7.8709	0.1086	0.0009	-0.0171
23S	1.3076	0.0000	-5.0114	-1.3075	0.0000	5.0114	0.1004	0.0008	-0.0167
24S	0.8370	0.0000	-7.1002	-0.8369	0.0000	7.1002	0.0925	0.0007	-0.0162
25S	0.4294	0.0000	-3.8888	-0.4293	0.0000	3.8888	0.0846	0.0006	-0.0158
26S	0.8508	0.0000	-7.9094	-0.8507	0.0000	7.9094	0.0771	0.0005	-0.0155
27S	0.4214	0.0000	-4.0206	-0.4213	0.0000	4.0206	0.0697	0.0005	-0.0150
28S	0.8297	0.0000	-8.1209	-0.8296	0.0000	8.1209	0.0629	0.0004	-0.0146
29S	0.4593	0.0000	-4.3503	-0.4592	0.0000	4.3503	0.0564	0.0004	-0.0141
30S	0.7317	0.0000	-7.3350	-0.7317	0.0000	7.3350	0.0503	0.0003	-0.0136
31S	0.8965	0.0000	-10.4333	-0.8965	0.0000	10.4333	0.0447	0.0004	-0.0130
33S	1.2880	0.0000	-15.8898	-1.2880	0.0000	15.8898	0.0264	0.0002	-0.0115
34S	1.3247	0.0000	-15.6792	-1.3247	-0.0000	15.6792	0.0202	-0.0001	-0.0110
35S	3.9722	0.0000	-21.3126	-3.9722	-0.0000	21.3126	0.0153	-0.0003	-0.0104
36S	3.7133	0.0000	-19.3328	-3.7133	-0.0000	19.3328	0.0111	-0.0004	-0.0095
37S	0.9040	0.0000	-11.6385	-0.9040	-0.0000	11.6385	0.0073	-0.0007	-0.0085
371S	0.9040	0.0000	-11.6385	-0.9040	-0.0000	11.6385	0.0072	-0.0001	-0.0087
372S	0.9040	0.0000	-11.6385	-0.9040	-0.0000	11.6385	0.0079	-0.0006	-0.0054
373S	0.9040	0.0000	-11.6385	-0.9040	0.0000	11.6385	0.0084	0.0001	-0.0021
374S	0.9040	0.0000	-11.6385	-0.9040	0.0000	11.6385	0.0077	0.0006	-0.0054
38S	0.9319	0.0000	-12.5635	-0.9319	-0.0000	12.5635	0.0049	-0.0005	-0.0073
39S	0.9237	0.0000	-13.2183	-0.9237	-0.0000	13.2183	0.0024	-0.0008	-0.0061
391S	0.9237	0.0000	-13.2183	-0.9237	-0.0000	13.2183	0.0023	-0.0001	-0.0065
392S	0.9237	0.0000	-13.2183	-0.9237	-0.0000	13.2183	0.0031	-0.0007	-0.0040
393S	0.9237	0.0000	-13.2183	-0.9237	0.0000	13.2183	0.0038	0.0001	-0.0015
394S	0.9237	0.0000	-13.2183	-0.9237	0.0000	13.2183	0.0030	0.0007	-0.0040
40S	2.0297	0.0000	-17.5190	-2.0297	-0.0000	17.5190	0.0010	-0.0004	-0.0047
41S	1.7649	0.0000	-15.7247	-1.7649	-0.0000	15.7246	-0.0005	-0.0009	-0.0034
411S	0.7810	0.0000	-14.9139	-0.7810	-0.0000	14.9139	-0.0006	-0.0000	-0.0030
412S	0.7810	0.0000	-14.9139	-0.7810	-0.0000	14.9139	0.0003	-0.0009	-0.0024

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	0.7810	0.0000	-14.9139	-0.7810	0.0000	14.9139	0.0012	0.0000	-0.0018
414S	0.7810	0.0000	-14.9139	-0.7810	0.0000	14.9139	0.0003	0.0009	-0.0024
42S	0.5433	0.0000	-11.1147	-0.5433	-0.0000	11.1147	-0.0015	-0.0023	-0.0021
2X	0.3927	0.0000	-2.3400	-0.3924	-0.0000	2.3400	0.3667	-0.0017	-0.0165
2XY	0.3927	0.0000	-2.3400	-0.3924	0.0000	2.3400	0.3677	0.0004	-0.0078
2Y	0.1687	0.0000	-0.9600	-0.1684	-0.0000	0.9600	0.3650	-0.0007	-0.0076
3X	0.3245	0.0000	-1.8547	-0.3241	-0.0000	1.8547	0.3503	-0.0021	-0.0165
3XY	0.3245	0.0000	-1.8547	-0.3241	0.0000	1.8547	0.3504	0.0004	-0.0078
3Y	0.3245	0.0000	-1.8547	-0.3241	0.0000	1.8547	0.3473	0.0003	-0.0076
4X	0.3798	0.0000	-2.2747	-0.3794	-0.0000	2.2747	0.3332	-0.0019	-0.0163
4XY	0.3798	0.0000	-2.2747	-0.3794	0.0000	2.2747	0.3340	0.0014	-0.0078
4Y	0.1558	0.0000	-0.8947	-0.1554	0.0000	0.8947	0.3305	0.0004	-0.0076
5X	1.5696	0.0000	-6.7381	-1.5693	-0.0000	6.7381	0.3170	-0.0020	-0.0162
5XY	0.5596	0.0000	-3.3781	-0.5593	0.0000	3.3781	0.3171	0.0014	-0.0078
5Y	0.3356	0.0000	-1.9981	-0.3353	0.0000	1.9981	0.3132	0.0013	-0.0076
6X	1.4138	0.0000	-5.8434	-1.4135	-0.0000	5.8434	0.3006	-0.0021	-0.0160
6XY	0.4038	0.0000	-2.4834	-0.4035	0.0000	2.4834	0.3012	0.0025	-0.0079
6Y	0.1798	0.0000	-1.1034	-0.1795	0.0000	1.1034	0.2969	0.0013	-0.0076
7X	1.3232	0.0000	-5.5550	-1.3229	-0.0000	5.5550	0.2853	-0.0022	-0.0156
7XY	0.3132	0.0000	-2.1950	-0.3129	0.0000	2.1950	0.2854	0.0024	-0.0080
7Y	0.3132	0.0000	-2.1950	-0.3129	0.0000	2.1950	0.2806	0.0023	-0.0077
8X	1.3674	0.0000	-5.8315	-1.3671	-0.0000	5.8315	0.2732	-0.0024	-0.0155
8XY	0.3574	0.0000	-2.4715	-0.3571	0.0000	2.4715	0.2735	0.0030	-0.0080
8Y	0.1334	0.0000	-1.0915	-0.1331	0.0000	1.0915	0.2681	0.0024	-0.0077
12X	0.2368	0.0000	-2.3563	-0.2366	-0.0000	2.3563	0.2239	-0.0006	-0.0177
12XY	0.2368	0.0000	-2.3563	-0.2366	0.0000	2.3563	0.2245	0.0018	-0.0052
12Y	0.2368	0.0000	-2.3563	-0.2366	0.0000	2.3563	0.2224	0.0010	-0.0055
13X	0.4497	0.0000	-4.3808	-0.4495	-0.0000	4.3808	0.2103	-0.0002	-0.0175
13XY	0.4497	0.0000	-4.3808	-0.4495	0.0000	4.3808	0.2105	0.0012	-0.0053
13Y	0.4497	0.0000	-4.3808	-0.4495	0.0000	4.3808	0.2092	0.0009	-0.0056
14X	0.3249	0.0000	-2.8045	-0.3247	0.0000	2.8044	0.1967	0.0002	-0.0172
14XY	0.2129	0.0000	-2.0245	-0.2127	0.0000	2.0244	0.1972	0.0011	-0.0054
14Y	0.3249	0.0000	-2.8045	-0.3247	0.0000	2.8044	0.1967	0.0002	-0.0057
15X	0.5474	0.0000	-4.9533	-0.5472	0.0000	4.9533	0.1839	0.0007	-0.0168
15XY	0.4354	0.0000	-4.1733	-0.4352	0.0000	4.1733	0.1841	0.0004	-0.0055
15Y	0.5474	0.0000	-4.9533	-0.5472	0.0000	4.9533	0.1845	0.0002	-0.0059
16X	0.2225	0.0000	-2.1489	-0.2223	0.0000	2.1489	0.1715	0.0009	-0.0164
16XY	0.2225	0.0000	-2.1489	-0.2223	0.0000	2.1489	0.1719	0.0004	-0.0057
16Y	0.2225	0.0000	-2.1489	-0.2223	-0.0000	2.1489	0.1731	-0.0006	-0.0060
17X	0.4966	0.0000	-4.4993	-0.4964	0.0000	4.4993	0.1599	0.0015	-0.0160
17XY	0.3846	0.0000	-3.7193	-0.3844	-0.0000	3.7193	0.1601	-0.0003	-0.0059
17Y	0.4966	0.0000	-4.4993	-0.4964	-0.0000	4.4993	0.1621	-0.0006	-0.0063
18X	0.2740	0.0000	-2.3504	-0.2739	0.0000	2.3504	0.1510	0.0016	-0.0156
18XY	0.1620	0.0000	-1.5704	-0.1619	-0.0000	1.5704	0.1512	-0.0005	-0.0061
18Y	0.2740	0.0000	-2.3504	-0.2739	-0.0000	2.3504	0.1538	-0.0011	-0.0064
21X	0.3937	0.0000	-2.8595	-0.3936	0.0000	2.8595	0.1154	0.0014	-0.0175
21XY	0.3937	0.0000	-2.8595	-0.3936	0.0000	2.8595	0.1160	0.0000	-0.0026
21Y	0.3937	0.0000	-2.8595	-0.3936	-0.0000	2.8595	0.1178	-0.0007	-0.0026
22X	0.8014	0.0000	-6.0709	-0.8013	0.0000	6.0709	0.1068	0.0012	-0.0169
22XY	1.2514	0.0000	-6.9709	-1.2513	-0.0000	6.9709	0.1073	-0.0000	-0.0028
22Y	0.8014	0.0000	-6.0709	-0.8013	-0.0000	6.0709	0.1090	-0.0006	-0.0027
23X	0.4076	0.0000	-3.2114	-0.4075	0.0000	3.2114	0.0988	0.0011	-0.0165
23XY	0.4076	0.0000	-3.2114	-0.4075	0.0000	3.2114	0.0993	0.0001	-0.0029
23Y	0.4076	0.0000	-3.2114	-0.4075	-0.0000	3.2114	0.1009	-0.0006	-0.0028
24X	0.8370	0.0000	-7.1002	-0.8369	0.0000	7.1002	0.0911	0.0011	-0.0161
24XY	0.8370	0.0000	-7.1002	-0.8369	0.0000	7.1002	0.0916	0.0000	-0.0030

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

24Y	0.8370	0.0000	-7.1002	-0.8369	-0.0000	7.1002	0.0930	-0.0005	-0.0029
25X	0.4294	0.0000	-3.8888	-0.4293	0.0000	3.8888	0.0833	0.0010	-0.0157
25XY	0.4294	0.0000	-3.8888	-0.4293	0.0000	3.8888	0.0839	0.0002	-0.0031
25Y	0.4294	0.0000	-3.8888	-0.4293	-0.0000	3.8888	0.0852	-0.0006	-0.0030
26X	0.8508	0.0000	-7.9094	-0.8507	0.0000	7.9094	0.0759	0.0010	-0.0153
26XY	0.8508	0.0000	-7.9094	-0.8507	0.0000	7.9094	0.0764	0.0001	-0.0032
26Y	0.8508	0.0000	-7.9094	-0.8507	-0.0000	7.9094	0.0776	-0.0004	-0.0031
27X	0.4214	0.0000	-4.0206	-0.4214	0.0000	4.0206	0.0686	0.0008	-0.0149
27XY	0.4214	0.0000	-4.0206	-0.4213	0.0000	4.0206	0.0692	0.0003	-0.0033
27Y	0.4214	0.0000	-4.0206	-0.4213	-0.0000	4.0206	0.0703	-0.0005	-0.0033
28X	0.8297	0.0000	-8.1209	-0.8296	0.0000	8.1209	0.0619	0.0008	-0.0145
28XY	0.8297	0.0000	-8.1209	-0.8296	0.0000	8.1209	0.0624	0.0002	-0.0035
28Y	0.8297	0.0000	-8.1209	-0.8296	-0.0000	8.1209	0.0633	-0.0003	-0.0034
29X	0.4083	0.0000	-4.1003	-0.4082	0.0000	4.1003	0.0555	0.0007	-0.0140
29XY	0.4083	0.0000	-4.1003	-0.4082	0.0000	4.1003	0.0560	0.0004	-0.0036
29Y	0.4083	0.0000	-4.1003	-0.4082	-0.0000	4.1003	0.0569	-0.0005	-0.0036
30X	0.7317	0.0000	-7.3350	-0.7317	0.0000	7.3350	0.0495	0.0007	-0.0135
30XY	0.7317	0.0000	-7.3350	-0.7317	0.0000	7.3350	0.0500	0.0002	-0.0038
30Y	0.7317	0.0000	-7.3350	-0.7317	-0.0000	7.3350	0.0508	-0.0003	-0.0038
31X	0.8965	0.0000	-10.4333	-0.8965	0.0000	10.4333	0.0440	0.0005	-0.0129
31XY	0.9475	0.0000	-10.6833	-0.9475	0.0000	10.6833	0.0445	0.0004	-0.0040
31Y	0.9475	0.0000	-10.6833	-0.9475	-0.0000	10.6833	0.0452	-0.0005	-0.0040
33X	1.2880	0.0000	-15.8898	-1.2880	0.0000	15.8898	0.0259	0.0003	-0.0114
33XY	1.2880	0.0000	-15.8898	-1.2880	0.0000	15.8898	0.0265	0.0006	-0.0037
33Y	1.2880	0.0000	-15.8898	-1.2880	-0.0000	15.8898	0.0271	-0.0006	-0.0037
34X	1.3247	0.0000	-15.6792	-1.3247	0.0000	15.6792	0.0198	0.0004	-0.0109
34XY	1.3247	0.0000	-15.6792	-1.3247	0.0000	15.6792	0.0206	0.0006	-0.0033
34Y	1.3247	0.0000	-15.6792	-1.3247	-0.0000	15.6792	0.0210	-0.0005	-0.0033
35X	1.4212	0.0000	-16.2026	-1.4212	0.0000	16.2026	0.0149	0.0004	-0.0102
35XY	1.4212	0.0000	-16.2026	-1.4212	0.0000	16.2026	0.0158	0.0006	-0.0028
35Y	2.3052	0.0000	-17.3026	-2.3052	-0.0000	17.3026	0.0162	-0.0005	-0.0029
36X	1.7993	0.0000	-16.5528	-1.7993	0.0000	16.5528	0.0108	0.0003	-0.0093
36XY	1.4863	0.0000	-14.8078	-1.4863	0.0000	14.8078	0.0119	0.0008	-0.0025
36Y	1.1623	0.0000	-14.2228	-1.1623	-0.0000	14.2228	0.0121	-0.0006	-0.0025
37X	1.1880	0.0000	-13.4785	-1.1880	0.0000	13.4785	0.0071	0.0005	-0.0084
37XY	0.9040	0.0000	-11.6385	-0.9040	0.0000	11.6385	0.0083	0.0007	-0.0021
37Y	0.9040	0.0000	-11.6385	-0.9040	-0.0000	11.6385	0.0085	-0.0005	-0.0021
38X	0.9319	0.0000	-12.5635	-0.9319	0.0000	12.5635	0.0047	0.0004	-0.0072
38XY	0.9319	0.0000	-12.5635	-0.9319	0.0000	12.5635	0.0060	0.0009	-0.0018
38Y	0.9829	0.0000	-12.8135	-0.9829	-0.0000	12.8135	0.0061	-0.0008	-0.0018
39X	0.9237	0.0000	-13.2183	-0.9237	0.0000	13.2183	0.0023	0.0007	-0.0060
39XY	0.9237	0.0000	-13.2183	-0.9237	0.0000	13.2183	0.0037	0.0008	-0.0014
39Y	1.2077	0.0000	-15.0583	-1.2077	-0.0000	15.0583	0.0039	-0.0007	-0.0014
40X	2.1697	0.0000	-19.2090	-2.1697	0.0000	19.2090	0.0009	0.0003	-0.0047
40XY	0.8957	0.0000	-14.5490	-0.8957	0.0000	14.5490	0.0023	0.0011	-0.0012
40Y	1.5327	0.0000	-16.8790	-1.5327	-0.0000	16.8790	0.0024	-0.0011	-0.0012
41X	0.9149	0.0000	-14.5947	-0.9149	0.0000	14.5946	-0.0006	0.0008	-0.0034
41XY	0.6309	0.0000	-12.7547	-0.6309	0.0000	12.7547	0.0012	0.0009	-0.0008
41Y	0.6309	0.0000	-12.7547	-0.6309	-0.0000	12.7547	0.0012	-0.0009	-0.0008
42X	0.5433	0.0000	-11.1147	-0.5433	0.0000	11.1147	-0.0015	0.0023	-0.0020
42XY	0.5433	0.0000	-11.1147	-0.5433	0.0000	11.1147	0.0029	0.0021	-0.0009
42Y	0.5433	0.0000	-11.1147	-0.5433	-0.0000	11.1147	0.0029	-0.0021	-0.0009

Moments for Angles Modeled as Beams:

Angle	Torsion	Origin	Origin	End	End	X	Y

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	0.00	-0.00	0.01	-24.15	69.20	-7.52
1X	-0.00	0.00	0.01	24.40	66.72	7.60
1XY	-0.00	0.00	0.01	33.89	-65.26	10.55
1Y	0.00	-0.00	0.01	-32.93	-64.34	-10.26
2P	0.00	24.15	-69.19	28.25	-85.55	20.96
2X	-0.00	-24.40	-66.72	-27.46	-82.65	-20.74
2XY	-0.00	-33.89	65.27	-50.12	93.36	-33.60
2Y	0.00	32.93	64.34	50.90	94.80	33.53
3P	0.00	-28.25	85.56	-19.56	97.34	-19.12
3X	-0.00	27.46	82.65	20.75	91.78	19.28
3XY	-0.00	50.12	-93.36	59.44	-79.75	43.83
3Y	0.00	-50.90	-94.79	-59.16	-83.23	-44.02
4P	0.00	19.56	-97.33	14.38	-83.99	13.58
4X	-0.00	-20.75	-91.77	-11.95	-72.49	-13.08
4XY	-0.00	-59.44	79.76	-83.23	119.70	-57.07
4Y	0.00	59.16	83.24	84.69	128.37	57.54
5P	0.00	-14.38	84.00	11.19	209.92	-1.28
5X	-0.00	11.95	72.50	2.19	201.34	5.66
5XY	-0.00	83.23	-119.70	157.37	-49.02	96.24
5Y	0.00	-84.69	-128.36	-160.86	-87.92	-98.22
6P	0.00	-11.19	-209.92	-17.63	-82.96	-11.53
6X	-0.00	-2.19	-201.34	17.53	-65.85	6.14
6XY	-0.00	-157.37	49.03	-205.62	211.93	-145.19
6Y	0.00	160.86	87.93	220.24	251.38	152.44
7P	0.01	17.63	82.97	315.38	168.09	166.50
7X	-0.00	-17.53	65.86	-18.93	409.30	-18.23
7XY	-0.00	205.62	-211.93	371.20	138.43	288.41
7Y	0.00	-220.24	-251.37	-645.47	-183.84	-432.86
8P	0.01	-315.38	-168.09	-1009.31	1140.44	-843.75
8X	-0.01	18.93	-409.29	-341.93	-214.15	-205.73
8XY	-0.01	-371.20	-138.43	352.74	-220.68	-11.76
8Y	0.01	645.47	183.85	1120.77	1209.43	1125.00
9P	-15.67	-1520.10	91.39	-908.95	-60.39	-592.59
9X	15.27	393.21	-89.05	187.88	65.13	141.76
9XY	15.78	-405.47	-92.03	-626.07	60.71	-251.66
9Y	-10.59	1647.70	61.78	527.33	-60.17	530.62
10P	-5.23	-686.68	598.77	-257.43	595.33	-326.68
10X	4.04	-85.63	-180.06	66.87	381.95	-6.49
10XY	5.29	398.50	-486.89	607.57	-270.97	348.12
10Y	-0.27	416.08	329.68	-387.06	-67.44	10.04
11P	-5.23	257.43	-595.32	14.95	-230.69	108.95
11X	4.04	-66.87	-381.94	42.51	-162.77	-9.74
11XY	5.29	-607.57	270.97	-725.01	508.16	-533.03
11Y	-0.27	387.06	67.44	678.57	471.01	426.25
12P	-5.23	-14.95	230.70	151.19	477.06	54.50
12X	4.03	-42.51	162.77	-154.61	449.17	-78.85
12XY	5.29	725.01	-508.16	740.56	-110.47	586.23
12Y	-0.27	-678.57	-471.01	-722.33	-117.15	-560.36
13P	-5.23	-151.19	-477.05	-261.91	-15.69	-165.24
13X	4.03	154.61	-449.17	270.08	5.76	169.87
13XY	5.29	-740.56	110.47	-756.25	482.07	-598.72
13Y	-0.26	722.33	117.16	759.96	491.49	592.92
14P	-5.23	261.91	15.69	384.36	435.45	258.51

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X	4.03	-270.08	-5.75	-387.60	412.61	-263.07	162.74
14XY	5.29	756.25	-482.07	765.76	52.77	608.80	-171.72
14Y	-0.26	-759.96	-491.48	-751.04	49.35	-604.40	-176.85
15P	-5.23	-384.36	-435.45	-542.80	180.68	-370.86	-101.91
15X	4.03	387.60	-412.61	572.73	216.59	384.13	-78.40
15XY	5.28	-765.76	-52.77	-686.55	323.72	-580.92	108.38
15Y	-0.26	751.04	-49.35	667.82	312.38	567.55	105.21
16P	-5.23	542.80	-180.67	855.97	152.82	699.39	-13.93
16X	4.03	-572.73	-216.59	-977.16	16.84	-774.94	-99.87
16XY	5.28	686.55	-323.72	685.34	327.91	685.94	2.10
16Y	-0.26	-667.82	-312.38	-555.41	435.61	-611.61	61.62
17P	-5.23	-855.97	-152.81	-344.68	534.22	-759.90	241.40
17X	4.03	977.16	-16.84	928.59	1114.09	1206.17	694.46
17XY	5.28	-685.34	-327.91	-667.89	852.60	-856.47	332.08
17Y	-0.26	555.41	-435.61	95.34	293.07	411.86	-90.21
18P	-42.23	-621.48	127.30	-346.36	-86.60	-144.83	6.09
18X	40.29	-1444.39	-124.89	-794.25	89.75	-334.99	-5.26
18XY	41.34	1075.14	-124.01	464.49	91.44	230.39	-4.87
18Y	-39.07	274.64	134.24	24.77	-80.50	44.80	8.04
19P	-16.53	-312.03	177.80	-227.46	281.98	-192.68	164.21
19X	13.79	630.50	492.74	311.96	359.96	336.59	304.53
19XY	14.32	-398.68	258.21	-10.97	64.34	-146.30	115.20
19Y	-15.18	79.87	-44.84	-71.35	-18.44	3.04	-22.60
20P	-16.53	227.46	-281.97	74.45	-56.93	107.83	-121.04
20X	13.79	-311.96	-359.95	-103.53	-80.94	-148.39	-157.46
20XY	14.32	10.97	-64.34	-190.74	203.96	-64.20	49.87
20Y	-15.18	71.35	18.44	221.33	233.85	104.53	90.11
21P	-16.53	-74.45	56.94	100.38	332.01	9.60	144.06
21X	13.79	103.53	80.94	-96.75	354.73	2.51	161.36
21XY	14.32	190.74	-203.96	434.25	29.25	231.48	-64.71
21Y	-15.18	-221.33	-233.85	-437.70	21.98	-244.08	-78.47
22P	-16.53	-100.38	-332.01	-183.79	-0.24	-105.25	-123.06
22X	13.79	96.75	-354.73	176.06	-22.39	101.04	-139.67
22XY	14.32	-434.25	-29.25	-584.28	377.83	-377.23	129.10
22Y	-15.18	437.70	-21.97	590.99	377.21	381.00	131.57
23P	-16.53	183.79	0.25	227.97	518.89	147.06	185.41
23X	13.79	-176.06	22.39	-234.48	519.83	-146.62	193.65
23XY	14.32	584.28	-377.83	757.29	-0.58	479.13	-135.15
23Y	-15.18	-590.99	-377.21	-751.42	11.48	-479.43	-130.62
24P	-16.53	-227.97	-518.89	-314.85	-33.92	-193.87	-197.43
24X	13.79	234.48	-519.83	306.97	-43.94	193.38	-201.34
24XY	14.32	-757.29	0.58	-815.11	463.38	-561.57	165.70
24Y	-15.18	751.42	-11.48	822.24	466.83	562.02	162.63
25P	-16.53	314.85	33.92	387.98	661.67	251.01	248.43
25X	13.78	-306.97	43.94	-397.33	650.79	-251.54	248.12
25XY	14.32	815.11	-463.38	859.39	187.85	598.03	-98.40
25Y	-15.18	-822.24	-466.83	-850.75	203.03	-597.50	-94.21
26P	-16.53	-387.98	-661.67	-486.31	70.93	-312.25	-210.98
26X	13.78	397.33	-650.79	476.86	60.23	312.21	-210.92
26XY	14.32	-859.39	-187.85	-878.31	462.35	-620.61	98.04
26Y	-15.18	850.75	-203.03	887.05	468.03	620.64	94.64
27P	-16.52	486.31	-70.93	585.03	515.99	389.58	161.84
27X	13.78	-476.86	-60.23	-597.09	507.77	-390.53	162.74
27XY	14.32	878.31	-462.35	898.33	204.67	646.05	-93.70
27Y	-15.18	-887.05	-468.03	-887.11	218.69	-645.15	-90.67
28P	-16.52	-585.03	-515.98	-717.72	288.02	-473.73	-82.89

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28X	13.78	597.09	-507.76	709.72	279.11	475.20	-83.15
28XY	14.32	-898.33	-204.66	-815.14	385.70	-623.08	65.83
28Y	-15.18	887.11	-218.69	821.63	390.30	621.36	62.40
29P	-16.52	717.72	-288.02	630.90	365.50	499.49	28.70
29X	13.78	-709.72	-279.11	-661.53	332.79	-507.87	19.88
29XY	14.32	815.14	-385.70	428.08	565.18	460.45	66.47
29Y	-15.18	-821.63	-390.30	-397.00	598.76	-451.35	77.21
30P	-16.52	-630.90	-365.50	-589.68	918.65	-215.08	97.47
30X	13.78	661.53	-332.78	622.74	946.56	226.30	108.15
30XY	14.32	-428.08	-565.18	-319.47	640.71	-131.73	13.31
30Y	-15.18	397.00	-598.76	280.80	615.14	119.44	2.89
31P	-55.79	-1066.55	226.43	-144.60	-327.90	-188.70	-15.81
31X	52.47	-1109.66	-223.31	-172.53	330.87	-199.77	16.76
31XY	52.69	678.95	-221.41	-109.51	330.93	88.72	17.06
31Y	-55.11	633.52	230.41	-137.46	-328.36	77.29	-15.26
32P	-55.79	144.60	327.90	309.77	-157.33	74.63	28.02
32X	52.47	172.53	-330.87	305.24	152.04	78.47	-29.37
32XY	52.69	109.51	-330.93	-175.58	152.27	-10.85	-29.34
32Y	-55.11	137.46	328.36	-181.73	-155.00	-7.27	28.47
33P	-55.79	-309.77	157.33	181.34	-96.44	-21.09	10.00
33X	52.47	-305.24	-152.04	176.10	115.35	-21.21	-6.03
33XY	52.69	175.58	-152.27	-239.11	111.18	-10.43	-6.75
33Y	-55.11	181.73	155.00	-227.90	-97.51	-7.58	9.44
34P	-55.79	-181.34	96.44	-149.12	-48.93	-54.28	7.80
34X	52.47	-176.10	-115.35	-135.63	58.32	-51.20	-9.37
34XY	52.69	239.11	-111.18	147.19	56.57	63.45	-8.97
34Y	-55.11	227.90	97.51	150.33	-59.72	62.12	6.21
35P	-55.79	149.12	48.93	524.17	-169.44	110.58	-19.79
35X	52.47	135.63	-58.32	476.21	168.61	100.49	18.11
35XY	52.68	-147.19	-56.57	-417.46	168.17	-92.74	18.33
35Y	-55.11	-150.33	59.72	-449.67	-165.26	-98.55	-17.33
36P	-55.79	-524.16	169.43	-392.14	-25.33	-150.50	23.67
36X	52.47	-476.21	-168.61	-371.51	20.06	-139.23	-24.40
36XY	52.68	417.46	-168.17	289.44	19.76	116.10	-24.38
36Y	-55.11	449.67	165.26	297.45	-26.20	122.71	22.84
37P	-55.79	392.14	25.33	555.67	-65.55	155.67	-6.61
37X	52.47	371.51	-20.06	534.27	78.53	148.77	9.60
37XY	52.68	-289.44	-19.76	-542.14	71.86	-136.58	8.56
37Y	-55.10	-297.45	26.20	-543.93	-66.43	-138.19	-6.61
38P	-55.79	-555.67	65.55	-222.26	-55.29	-127.77	1.69
38X	52.47	-534.27	-78.53	-207.51	37.64	-121.83	-6.72
38XY	52.68	542.14	-71.86	758.09	44.88	213.56	-4.43
38Y	-55.10	543.93	66.43	762.57	-52.76	214.59	2.25
39P	-55.79	222.26	55.29	-635.81	-454.89	-67.92	-65.63
39X	52.47	207.51	-37.64	-643.78	478.43	-71.66	72.40
39XY	52.68	-758.09	-44.88	-2104.04	471.71	-470.09	70.11
39Y	-55.10	-762.57	52.76	-2101.73	-464.78	-470.45	-67.67
40P	-55.79	635.81	454.89	2495.68	576.80	514.33	169.45
40X	52.47	643.78	-478.43	2494.83	-581.41	515.50	-174.07
40XY	52.68	2104.04	-471.71	3546.92	-581.78	928.14	-173.03
40Y	-55.10	2101.73	464.78	3545.47	577.07	927.53	171.12
41P	-55.79	-2495.68	-576.80	-3358.73	-686.86	-994.72	-214.71
41X	52.47	-2494.83	581.41	-3352.71	655.06	-993.55	210.09
41XY	52.68	-3546.92	581.78	-4328.27	660.83	-1338.07	211.13
41Y	-55.10	-3545.47	-577.07	-4333.34	-676.78	-1338.68	-213.04

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Análisis de resultados por caso de carga No. 6 "LC6 WIND 45° DEFLEX"

Equilibrium Joint Positions and Rotations for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X-Displ (m)	Y-Displ (m)	Z-Displ (m)	X-Rot (deg)	Y-Rot (deg)	Z-Rot (deg)	X-Pos (m)	Y-Pos (m)	Z-Pos (m)
1P	0.2949	0.2838	-0.01846	-0.2738	0.3002	0.0010	0.9449	0.9338	150.9
10P	0.2036	0.1994	-0.01695	-0.2450	0.2545	0.0010	0.8536	0.8494	131.6
11P	0.1844	0.1809	-0.02109	-0.2594	0.2686	0.0011	1.324	1.321	127.6
19P	0.1092	0.1077	-0.01753	-0.1803	0.1832	0.0018	1.249	1.248	108.6
20P	0.09457	0.09347	-0.02188	-0.1272	0.1296	0.0017	2.547	2.545	102.2
32P	0.02609	0.02586	-0.01377	-0.0654	0.0662	0.0007	2.478	2.478	66.11
ANP	0	0	0	0.0000	0.0000	0.0000	10.51	10.51	0
1X	0.2948	0.284	-0.0126	-0.2455	0.3284	0.0633	0.9448	-0.366	150.9
1XY	0.2949	0.2817	-0.005557	-0.2671	0.2958	0.0139	-0.3551	-0.3683	150.9
1Y	0.295	0.2815	-0.01199	-0.3027	0.2717	-0.0450	-0.355	0.9315	150.9
10X	0.1932	0.1997	-0.01205	-0.2485	0.2448	0.0634	0.8432	-0.4503	131.6
10XY	0.1934	0.1881	-0.005932	-0.2386	0.2532	0.0139	-0.4566	-0.4619	131.6
10Y	0.2039	0.188	-0.01174	-0.2283	0.2579	-0.0450	-0.4461	0.838	131.6
11X	0.1787	0.181	-0.0114	-0.2613	0.2168	0.0624	1.319	-0.959	127.6
11XY	0.179	0.1744	-0.002593	-0.1884	0.1996	0.0132	-0.961	-0.9656	127.6
11Y	0.1846	0.1741	-0.01099	-0.2074	0.2686	-0.0449	-0.9554	1.314	127.6
19X	0.1127	0.1082	-0.01062	-0.1634	0.1580	0.0577	1.253	-1.032	108.6
19XY	0.113	0.1111	-0.004463	-0.1586	0.1636	0.0073	-1.027	-1.029	108.6
19Y	0.1097	0.1108	-0.01045	-0.1524	0.1668	-0.0475	-1.03	1.251	108.6
20X	0.09634	0.0935	-0.01047	-0.1309	0.1489	0.0519	2.548	-2.358	102.2
20XY	0.09696	0.09532	0.001519	-0.1354	0.1388	0.0056	-2.355	-2.357	102.2
20Y	0.09461	0.09469	-0.01023	-0.1460	0.1327	-0.0440	-2.357	2.547	102.2
32X	0.02578	0.02658	-0.008163	-0.0665	0.0691	0.0381	2.478	-2.425	66.12
32XY	0.02665	0.02631	-0.002339	-0.0657	0.0669	0.0025	-2.425	-2.426	66.12
32Y	0.02681	0.02544	-0.008083	-0.0680	0.0671	-0.0347	-2.425	2.477	66.12
ANX	0	0	0	0.0000	0.0000	0.0000	10.51	-10.51	0
ANXY	0	0	0	0.0000	0.0000	0.0000	-10.51	-10.51	0
ANY	0	0	0	0.0000	0.0000	0.0000	-10.51	10.51	0
2S	0.2785	0.2689	-0.01839	-0.2538	0.2793	0.0010	0.9285	0.9189	147.7
3S	0.2665	0.258	-0.01832	-0.2561	0.2809	0.0010	0.9165	0.908	145.2
4S	0.254	0.2465	-0.01817	-0.2577	0.2810	0.0010	0.904	0.8965	142.7
5S	0.2421	0.2356	-0.01797	-0.2520	0.2731	0.0010	0.8921	0.8856	140.2
6S	0.2302	0.2246	-0.01772	-0.2473	0.2652	0.0010	0.8802	0.8746	137.7
7S	0.219	0.2141	-0.01736	-0.2395	0.2531	0.0010	0.869	0.8641	135.2
8S	0.2103	0.2058	-0.01716	-0.2309	0.2423	0.0010	0.8603	0.8558	133.2
12S	0.1715	0.1684	-0.02078	-0.2406	0.2487	0.0012	1.311	1.308	124.7
13S	0.1608	0.158	-0.02047	-0.2356	0.2431	0.0013	1.301	1.298	122.2
14S	0.1503	0.1478	-0.02006	-0.2308	0.2374	0.0013	1.29	1.288	119.7
15S	0.1402	0.138	-0.0196	-0.2187	0.2246	0.0014	1.28	1.278	117.2
16S	0.1306	0.1287	-0.01908	-0.2109	0.2163	0.0015	1.271	1.269	114.7
17S	0.1214	0.1197	-0.01849	-0.1944	0.1989	0.0016	1.261	1.26	112.2
18S	0.1147	0.1131	-0.01796	-0.1945	0.1982	0.0017	1.255	1.253	110.2
21S	0.08761	0.08662	-0.02124	-0.1389	0.1410	0.0015	2.54	2.539	99.38
22S	0.08119	0.0803	-0.02057	-0.1256	0.1276	0.0013	2.533	2.532	96.58
23S	0.07517	0.07437	-0.02002	-0.1252	0.1269	0.0012	2.527	2.526	93.88
24S	0.06931	0.06859	-0.01943	-0.1194	0.1210	0.0012	2.521	2.521	91.18
25S	0.0635	0.06285	-0.01895	-0.1160	0.1175	0.0011	2.515	2.515	88.38

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	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

26S	0.05785	0.05726	-0.01843	-0.1115	0.1129	0.0010	2.51	2.509	85.58
27S	0.05246	0.05195	-0.01787	-0.1070	0.1083	0.0010	2.504	2.504	82.78
28S	0.04729	0.04684	-0.01727	-0.1005	0.1017	0.0009	2.499	2.499	79.98
29S	0.04257	0.04217	-0.01663	-0.0965	0.0976	0.0009	2.495	2.494	77.23
30S	0.03797	0.03762	-0.01595	-0.0897	0.0906	0.0008	2.49	2.49	74.48
31S	0.03393	0.03362	-0.01523	-0.0831	0.0841	0.0008	2.486	2.486	71.78
33S	0.02024	0.02009	-0.01344	-0.0444	0.0448	0.0006	3.243	3.243	59.79
34S	0.0154	0.0153	-0.01294	-0.0404	0.0407	0.0005	3.969	3.969	53.79
35S	0.01153	0.01148	-0.01223	-0.0296	0.0299	0.0005	4.697	4.697	47.79
36S	0.008385	0.008376	-0.01119	-0.0287	0.0290	0.0004	5.425	5.425	41.79
37S	0.00532	0.005345	-0.01013	-0.0195	0.0196	0.0003	6.153	6.153	35.79
371S	0.005337	0.005926	-0.007955	0.0000	0.0000	0.0000	6.153	0.005926	35.79
372S	0.005902	0.005311	-0.007913	0.0000	0.0000	0.0000	0.005902	6.153	35.79
373S	0.00651	0.005849	-0.002906	0.0000	0.0000	0.0000	-6.141	0.005849	35.8
374S	0.005924	0.006484	-0.002945	0.0000	0.0000	0.0000	0.005924	-6.141	35.8
38S	0.003645	0.003676	-0.008693	-0.0160	0.0160	0.0003	6.882	6.882	29.79
39S	0.001558	0.001596	-0.007256	-0.0113	0.0113	0.0002	7.611	7.611	23.79
391S	0.001578	0.002316	-0.005931	0.0000	0.0000	0.0000	7.611	0.002316	23.79
392S	0.002278	0.001581	-0.005904	0.0000	0.0000	0.0000	0.002278	7.611	23.79
393S	0.003034	0.002275	-0.002101	0.0000	0.0000	0.0000	-7.607	0.002275	23.8
394S	0.002307	0.003036	-0.002132	0.0000	0.0000	0.0000	0.002307	-7.607	23.8
40S	0.0007942	0.00084	-0.005596	-0.0057	0.0057	0.0002	8.342	8.342	17.79
41S	-0.0006753	-0.0006283	-0.004042	-0.0172	0.0171	0.0001	9.071	9.071	11.8
411S	-0.0006602	0.0002359	-0.002837	0.0000	0.0000	0.0000	9.071	0.0002359	11.8
412S	0.0001888	-0.0006379	-0.002824	0.0000	0.0000	0.0000	0.0001888	9.071	11.8
413S	0.001079	0.000202	-0.001953	0.0000	0.0000	0.0000	-9.071	0.000202	11.8
414S	0.0002042	0.001102	-0.001962	0.0000	0.0000	0.0000	0.0002042	-9.071	11.8
42S	-0.00179	-0.001771	-0.002358	0.0129	-0.0132	0.0000	9.801	9.801	5.798
2X	0.2769	0.2698	-0.01255	-0.2652	0.3045	0.0633	0.9269	-0.3802	147.7
2XY	0.2779	0.2662	-0.005516	-0.2934	0.3194	0.0139	-0.3721	-0.3838	147.7
2Y	0.2794	0.2651	-0.01195	-0.2768	0.2909	-0.0450	-0.3706	0.9151	147.7
3X	0.2637	0.2581	-0.01251	-0.2612	0.3119	0.0633	0.9137	-0.3919	145.2
3XY	0.2639	0.2532	-0.005516	-0.2836	0.3103	0.0139	-0.3861	-0.3968	145.2
3Y	0.2666	0.2531	-0.01194	-0.2865	0.2856	-0.0450	-0.3834	0.9031	145.2
4X	0.2498	0.2471	-0.01245	-0.2558	0.3076	0.0633	0.8998	-0.4029	142.7
4XY	0.2507	0.2413	-0.005529	-0.2873	0.3113	0.0139	-0.3993	-0.4087	142.7
4Y	0.2545	0.2403	-0.0119	-0.2816	0.2795	-0.0450	-0.3955	0.8903	142.7
5X	0.2368	0.2357	-0.01237	-0.2539	0.3110	0.0634	0.8868	-0.4143	140.2
5XY	0.2369	0.2285	-0.005576	-0.2695	0.2976	0.0139	-0.4131	-0.4215	140.2
5Y	0.2422	0.2284	-0.01185	-0.2901	0.2740	-0.0450	-0.4078	0.8784	140.2
6X	0.2232	0.2248	-0.01227	-0.2466	0.2965	0.0634	0.8732	-0.4252	137.7
6XY	0.2241	0.2168	-0.005646	-0.2796	0.3005	0.0139	-0.4259	-0.4332	137.7
6Y	0.2305	0.2157	-0.0118	-0.2719	0.2646	-0.0450	-0.4195	0.8657	137.7
7X	0.2108	0.2142	-0.01215	-0.2408	0.2888	0.0634	0.8608	-0.4358	135.2
7XY	0.211	0.2045	-0.005773	-0.2591	0.2839	0.0139	-0.439	-0.4455	135.2
7Y	0.2191	0.2044	-0.01176	-0.2716	0.2544	-0.0450	-0.4309	0.8544	135.2
8X	0.2007	0.206	-0.01209	-0.2260	0.2887	0.0634	0.8507	-0.444	133.2
8XY	0.2011	0.1954	-0.005848	-0.2715	0.2899	0.0139	-0.4489	-0.4546	133.2
8Y	0.2105	0.1949	-0.01174	-0.2680	0.2381	-0.0450	-0.4395	0.8449	133.2
12X	0.1672	0.1688	-0.0113	-0.2386	0.2209	0.0617	1.307	-0.9712	124.7
12XY	0.168	0.164	-0.002711	-0.2177	0.2281	0.0124	-0.972	-0.976	124.7
12Y	0.1719	0.1631	-0.01093	-0.2098	0.2475	-0.0453	-0.9681	1.303	124.7
13X	0.158	0.1582	-0.01123	-0.2407	0.2146	0.0611	1.298	-0.9818	122.2
13XY	0.1582	0.1546	-0.002855	-0.2043	0.2142	0.0117	-0.9818	-0.9854	122.2
13Y	0.161	0.1544	-0.01089	-0.2049	0.2479	-0.0456	-0.979	1.294	122.2
14X	0.1485	0.148	-0.01113	-0.2286	0.2088	0.0605	1.288	-0.992	119.7

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14XY	0.1492	0.146	-0.00305	-0.1996	0.2087	0.0109	-0.9908	-0.994	119.7
14Y	0.1505	0.1452	-0.01082	-0.1997	0.2353	-0.0460	-0.9895	1.285	119.7
15X	0.1398	0.1382	-0.01103	-0.2223	0.1998	0.0599	1.28	-1.002	117.2
15XY	0.1401	0.1372	-0.003288	-0.1910	0.1991	0.0101	-0.9999	-1.003	117.2
15Y	0.1404	0.137	-0.01075	-0.1917	0.2283	-0.0463	-0.9996	1.277	117.2
16X	0.131	0.1287	-0.01092	-0.2082	0.1898	0.0592	1.271	-1.011	114.7
16XY	0.1319	0.1294	-0.00357	-0.1811	0.1882	0.0093	-1.008	-1.011	114.7
16Y	0.1307	0.1285	-0.01067	-0.1826	0.2135	-0.0467	-1.009	1.269	114.7
17X	0.1233	0.1199	-0.01081	-0.2015	0.1766	0.0586	1.263	-1.02	112.2
17XY	0.1236	0.1214	-0.003901	-0.1742	0.1807	0.0085	-1.016	-1.019	112.2
17Y	0.1216	0.1211	-0.01059	-0.1701	0.2059	-0.0470	-1.018	1.261	112.2
18X	0.1171	0.113	-0.0107	-0.1859	0.1693	0.0581	1.257	-1.027	110.2
18XY	0.1176	0.1156	-0.004197	-0.1628	0.1685	0.0078	-1.022	-1.024	110.2
18Y	0.1146	0.1151	-0.01051	-0.1632	0.1898	-0.0473	-1.025	1.255	110.2
21X	0.08934	0.08712	-0.01026	-0.1316	0.1377	0.0494	2.541	-2.365	99.39
21XY	0.09003	0.08854	0.00127	-0.1401	0.1429	0.0050	-2.362	-2.363	99.4
21Y	0.08812	0.08785	-0.01004	-0.1346	0.1340	-0.0423	-2.364	2.54	99.39
22X	0.08272	0.08069	-0.01005	-0.1291	0.1364	0.0469	2.535	-2.371	96.59
22XY	0.08323	0.08188	0.0009849	-0.1293	0.1321	0.0045	-2.369	-2.37	96.6
22Y	0.08158	0.08137	-0.009852	-0.1338	0.1309	-0.0406	-2.37	2.533	96.59
23X	0.07637	0.07474	-0.009883	-0.1234	0.1294	0.0457	2.528	-2.377	93.89
23XY	0.0771	0.07587	0.0007516	-0.1288	0.1313	0.0042	-2.375	-2.376	93.9
23Y	0.07554	0.07514	-0.009698	-0.1268	0.1252	-0.0398	-2.376	2.527	93.89
24X	0.07047	0.06903	-0.009709	-0.1196	0.1265	0.0445	2.522	-2.383	91.19
24XY	0.07096	0.06985	0.0004861	-0.1216	0.1240	0.0039	-2.381	-2.382	91.2
24Y	0.06976	0.06935	-0.009538	-0.1241	0.1211	-0.0390	-2.382	2.521	91.19
25X	0.06431	0.06326	-0.009568	-0.1157	0.1211	0.0438	2.516	-2.389	88.39
25XY	0.06505	0.06406	0.0002675	-0.1195	0.1217	0.0038	-2.387	-2.388	88.4
25Y	0.06391	0.06331	-0.009408	-0.1188	0.1172	-0.0385	-2.388	2.515	88.39
26X	0.0586	0.05771	-0.009422	-0.1125	0.1175	0.0430	2.511	-2.394	85.59
26XY	0.0591	0.05821	2.113e-005	-0.1149	0.1171	0.0036	-2.393	-2.394	85.6
26Y	0.05829	0.05771	-0.009272	-0.1154	0.1139	-0.0380	-2.394	2.51	85.59
27X	0.05286	0.0523	-0.009264	-0.1065	0.1117	0.0423	2.505	-2.4	82.79
27XY	0.05362	0.05283	-0.0002493	-0.1098	0.1118	0.0034	-2.398	-2.399	82.8
27Y	0.05282	0.05207	-0.009124	-0.1097	0.1078	-0.0375	-2.399	2.504	82.79
28X	0.04769	0.04728	-0.009099	-0.1017	0.1058	0.0416	2.5	-2.405	79.99
28XY	0.04819	0.04749	-0.0005504	-0.1038	0.1056	0.0033	-2.404	-2.405	80
28Y	0.04774	0.04699	-0.00897	-0.1040	0.1029	-0.0371	-2.404	2.499	79.99
29X	0.0426	0.04247	-0.008925	-0.0956	0.1005	0.0409	2.495	-2.41	77.24
29XY	0.04337	0.04276	-0.0008726	-0.0985	0.1002	0.0031	-2.409	-2.409	77.25
29Y	0.04287	0.04198	-0.008807	-0.0988	0.0967	-0.0366	-2.409	2.494	77.24
30X	0.03806	0.03807	-0.008746	-0.0914	0.0937	0.0401	2.49	-2.414	74.49
30XY	0.03856	0.03803	-0.001227	-0.0935	0.0951	0.0030	-2.413	-2.414	74.5
30Y	0.03842	0.03752	-0.008638	-0.0921	0.0923	-0.0361	-2.414	2.49	74.49
31X	0.03363	0.03381	-0.008558	-0.0850	0.0907	0.0394	2.486	-2.418	71.79
31XY	0.0344	0.03394	-0.001604	-0.0832	0.0847	0.0028	-2.418	-2.418	71.8
31Y	0.03413	0.03316	-0.00846	-0.0893	0.0859	-0.0356	-2.418	2.485	71.79
33X	0.01954	0.02027	-0.007663	-0.0547	0.0533	0.0365	3.242	-3.202	59.79
33XY	0.02062	0.02036	-0.001712	-0.0454	0.0467	0.0023	-3.202	-3.202	59.8
33Y	0.02043	0.01927	-0.007582	-0.0523	0.0549	-0.0335	-3.202	3.242	59.79
34X	0.01491	0.01585	-0.007167	-0.0422	0.0429	0.0346	3.969	-3.938	53.79
34XY	0.01597	0.01577	-0.001265	-0.0392	0.0402	0.0021	-3.938	-3.938	53.8
34Y	0.01594	0.01471	-0.007085	-0.0420	0.0423	-0.0318	-3.938	3.969	53.79
35X	0.0112	0.01221	-0.006615	-0.0364	0.0356	0.0314	4.696	-4.673	47.79
35XY	0.01223	0.01208	-0.0009251	-0.0292	0.0301	0.0019	-4.673	-4.673	47.8
35Y	0.01227	0.01105	-0.006535	-0.0349	0.0365	-0.0290	-4.673	4.696	47.79

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA ESTADO REFORZADO	122 of 134
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

36X	0.008027	0.009151	-0.005982	-0.0313	0.0309	0.0273	5.424	-5.407	41.79
36XY	0.009333	0.009222	-0.000741	-0.0270	0.0278	0.0016	-5.407	-5.407	41.8
36Y	0.009155	0.007912	-0.005899	-0.0303	0.0315	-0.0251	-5.407	5.424	41.79
37X	0.005339	0.006535	-0.005291	-0.0255	0.0241	0.0234	6.153	-6.141	35.79
37XY	0.00653	0.006455	-0.0004454	-0.0196	0.0202	0.0014	-6.141	-6.141	35.8
37Y	0.006506	0.005264	-0.005211	-0.0236	0.0253	-0.0217	-6.141	6.153	35.79
38X	0.003356	0.004593	-0.004554	-0.0195	0.0190	0.0194	6.882	-6.874	29.8
38XY	0.004903	0.00485	-0.0003976	-0.0164	0.0168	0.0011	-6.874	-6.874	29.8
38Y	0.004568	0.0033	-0.00449	-0.0186	0.0193	-0.0180	-6.874	6.882	29.8
39X	0.001582	0.00306	-0.00376	-0.0156	0.0166	0.0148	7.611	-7.607	23.8
39XY	0.003056	0.003023	-0.0002398	-0.0102	0.0106	0.0009	-7.607	-7.607	23.8
39Y	0.003028	0.00155	-0.003707	-0.0163	0.0155	-0.0137	-7.607	7.611	23.8
40X	0.0002374	0.001733	-0.00296	-0.0164	0.0092	0.0109	8.341	-8.339	17.8
40XY	0.002267	0.002253	-0.00028	-0.0130	0.0134	0.0006	-8.339	-8.339	17.8
40Y	0.001687	0.0002139	-0.002911	-0.0089	0.0164	-0.0100	-8.339	8.341	17.8
41X	-0.0006704	0.00114	-0.002101	0.0122	0.0138	0.0091	9.071	-9.071	11.8
41XY	0.001104	0.001102	-0.0001249	0.0091	-0.0089	0.0004	-9.071	-9.071	11.8
41Y	0.001086	-0.0006723	-0.002061	-0.0136	-0.0123	-0.0086	-9.071	9.071	11.8
42X	-0.001665	0.002782	-0.001482	-0.0147	-0.0098	0.0040	9.802	-9.8	5.799
42XY	0.002644	0.002645	-0.0005892	-0.0111	0.0112	0.0002	-9.801	-9.801	5.799
42Y	0.002759	-0.001662	-0.001462	0.0098	0.0143	-0.0037	-9.8	9.802	5.799

Joint Support Reactions for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X Force (kN)	X Usage %	Y Force (kN)	Y Usage %	Z Force (kN)	Z Usage %	Comp. Usage %	Uplift Usage %	Result. Force (kN)	Result. Usage %	X Moment (kN-m)	X-M. Usage %	Y Moment (kN-m)	Y-M. Usage %	Z Moment (kN-m)	Z-M. Usage %	Max. Usage %
ANP	-102.12	0.0	-102.97	0.0	724.30	0.0	0.0	0.0	738.67	0.0	-2.22	0.0	2.2	0.0	0.00	0.0	0.0
ANX	-41.63	0.0	49.50	0.0	349.57	0.0	0.0	0.0	355.51	0.0	3.41	0.0	2.0	0.0	0.08	0.0	0.0
ANXY	-11.22	0.0	-11.30	0.0	-27.69	0.0	0.0	0.0	31.94	0.0	3.21	0.0	-3.2	0.0	-0.00	0.0	0.0
ANY	49.37	0.0	-40.83	0.0	344.17	0.0	0.0	0.0	350.08	0.0	-2.03	0.0	-3.4	0.0	-0.09	0.0	0.0

Joint Displacements, Loads and Member Forces on Joints for Load Case "LC6 WIND 45° DEFLEX":

Joint Label	X External Load (kN)	Y External Load (kN)	Z External Load (kN)	X Member Force (kN)	Y Member Force (kN)	Z Member Force (kN)	X Disp. (m)	Y Disp. (m)	Z Disp. (m)
1P	0.2894	0.2894	-3.3400	-0.2891	-0.2891	3.3400	0.2949	0.2838	-0.0185
10P	1.0213	1.0213	-7.0315	-1.0211	-1.0211	7.0315	0.2036	0.1994	-0.0170
11P	0.3826	0.3826	-4.9363	-0.3824	-0.3824	4.9363	0.1844	0.1809	-0.0211
19P	0.5532	0.5532	-7.1816	-0.5531	-0.5531	7.1816	0.1092	0.1077	-0.0175
20P	0.8085	0.8085	-9.2507	-0.8084	-0.8084	9.2507	0.0946	0.0935	-0.0219
32P	0.9524	0.9524	-15.4103	-0.9524	-0.9524	15.4103	0.0261	0.0259	-0.0138
ANP	0.2536	0.2536	-6.6370	101.8622	102.7122	-717.6612	0.0000	0.0000	0.0000
1X	0.2894	0.2894	-3.3400	-0.2891	-0.2891	3.3400	0.2948	0.2840	-0.0126
1XY	0.2894	0.2894	-3.3400	-0.2891	-0.2891	3.3400	0.2949	0.2817	-0.0056
1Y	0.1314	0.1314	-1.9600	-0.1311	-0.1311	1.9600	0.2950	0.2815	-0.0120
10X	1.0213	1.0213	-7.0315	-1.0211	-1.0211	7.0315	0.1932	0.1997	-0.0121
10XY	0.4653	0.4653	-5.0515	-0.4651	-0.4651	5.0515	0.1934	0.1881	-0.0059
10Y	0.3073	0.3073	-3.6715	-0.3071	-0.3071	3.6715	0.2039	0.1880	-0.0117
11X	0.3826	0.3826	-4.9363	-0.3824	-0.3824	4.9363	0.1787	0.1810	-0.0114
11XY	0.3826	0.3826	-4.9363	-0.3824	-0.3824	4.9363	0.1790	0.1744	-0.0026
11Y	0.3826	0.3826	-4.9363	-0.3824	-0.3824	4.9363	0.1846	0.1741	-0.0110

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	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

19X	0.5532	0.5532	-7.1816	-0.5531	-0.5531	7.1816	0.1127	0.1082	-0.0106
19XY	0.5532	0.5532	-7.1816	-0.5531	-0.5531	7.1816	0.1130	0.1111	-0.0045
19Y	0.5532	0.5532	-7.1816	-0.5531	-0.5531	7.1816	0.1097	0.1108	-0.0105
20X	0.8085	0.8085	-9.2507	-0.8084	-0.8084	9.2507	0.0963	0.0935	-0.0105
20XY	0.7295	0.7295	-8.4707	-0.7294	-0.7294	8.4707	0.0970	0.0953	0.0015
20Y	0.7295	0.7295	-8.4707	-0.7294	-0.7294	8.4707	0.0946	0.0947	-0.0102
32X	0.9524	0.9524	-15.4103	-0.9524	-0.9524	15.4103	0.0258	0.0266	-0.0082
32XY	0.9524	0.9524	-15.4103	-0.9524	-0.9524	15.4103	0.0267	0.0263	-0.0023
32Y	0.9524	0.9524	-15.4103	-0.9524	-0.9524	15.4103	0.0268	0.0254	-0.0081
ANX	0.2536	0.2536	-6.6370	41.3748	-49.7530	-342.9358	0.0000	0.0000	0.0000
ANXY	0.2536	0.2536	-6.6370	10.9637	11.0421	34.3244	0.0000	0.0000	0.0000
ANY	0.2536	0.2536	-6.6370	-49.6253	40.5745	-337.5340	0.0000	0.0000	0.0000
2S	0.2894	0.2894	-2.3400	-0.2892	-0.2892	2.3400	0.2785	0.2689	-0.0184
3S	0.2528	0.2528	-1.8547	-0.2525	-0.2525	1.8547	0.2665	0.2580	-0.0183
4S	0.2794	0.2794	-2.2747	-0.2791	-0.2791	2.2747	0.2540	0.2465	-0.0182
5S	0.9807	0.9807	-5.3581	-0.9804	-0.9804	5.3581	0.2421	0.2356	-0.0180
6S	0.8593	0.8593	-4.4634	-0.8591	-0.8591	4.4634	0.2302	0.2246	-0.0177
7S	0.9685	0.9685	-5.5550	-0.9683	-0.9683	5.5550	0.2190	0.2141	-0.0174
8S	0.8233	0.8233	-4.4515	-0.8230	-0.8230	4.4515	0.2103	0.2058	-0.0172
12S	0.1845	0.1845	-2.3563	-0.1844	-0.1844	2.3563	0.1715	0.1684	-0.0208
13S	0.3499	0.3499	-4.3808	-0.3497	-0.3497	4.3808	0.1608	0.1580	-0.0205
14S	0.2444	0.2444	-2.8045	-0.2442	-0.2442	2.8044	0.1503	0.1478	-0.0201
15S	0.4189	0.4189	-4.9533	-0.4187	-0.4187	4.9533	0.1402	0.1380	-0.0196
16S	0.1745	0.1745	-2.1489	-0.1744	-0.1744	2.1489	0.1306	0.1287	-0.0191
17S	0.3812	0.3812	-4.4993	-0.3811	-0.3811	4.4993	0.1214	0.1197	-0.0185
18S	0.2067	0.2067	-2.3504	-0.2066	-0.2066	2.3504	0.1147	0.1131	-0.0180
21S	0.3040	0.3040	-2.8595	-0.3039	-0.3039	2.8595	0.0876	0.0866	-0.0212
22S	1.2584	1.2584	-7.8709	-1.2584	-1.2584	7.8709	0.0812	0.0803	-0.0206
23S	0.9545	0.9545	-5.0114	-0.9544	-0.9544	5.0114	0.0752	0.0744	-0.0200
24S	0.6555	0.6555	-7.1002	-0.6555	-0.6555	7.1002	0.0693	0.0686	-0.0194
25S	0.3371	0.3371	-3.8888	-0.3370	-0.3370	3.8887	0.0635	0.0628	-0.0190
26S	0.6679	0.6679	-7.9094	-0.6679	-0.6679	7.9094	0.0578	0.0573	-0.0184
27S	0.3308	0.3308	-4.0206	-0.3308	-0.3308	4.0206	0.0525	0.0519	-0.0179
28S	0.6517	0.6517	-8.1209	-0.6516	-0.6516	8.1209	0.0473	0.0468	-0.0173
29S	0.3568	0.3568	-4.3503	-0.3568	-0.3568	4.3503	0.0426	0.0422	-0.0166
30S	0.5788	0.5788	-7.3350	-0.5788	-0.5788	7.3350	0.0380	0.0376	-0.0159
31S	0.7040	0.7040	-10.4333	-0.7039	-0.7039	10.4333	0.0339	0.0336	-0.0152
33S	0.9853	0.9853	-15.8898	-0.9853	-0.9853	15.8898	0.0202	0.0201	-0.0134
34S	1.0031	1.0031	-15.6792	-1.0031	-1.0031	15.6792	0.0154	0.0153	-0.0129
35S	2.8762	2.8762	-21.3126	-2.8762	-2.8762	21.3126	0.0115	0.0115	-0.0122
36S	2.6747	2.6747	-19.3328	-2.6747	-2.6747	19.3328	0.0084	0.0084	-0.0112
37S	0.6721	0.6721	-11.6385	-0.6721	-0.6721	11.6385	0.0053	0.0053	-0.0101
371S	0.6721	0.6721	-11.6385	-0.6721	-0.6721	11.6385	0.0053	0.0059	-0.0080
372S	0.6721	0.6721	-11.6385	-0.6721	-0.6721	11.6385	0.0059	0.0053	-0.0079
373S	0.6721	0.6721	-11.6385	-0.6721	-0.6721	11.6385	0.0065	0.0058	-0.0029
374S	0.6721	0.6721	-11.6385	-0.6721	-0.6721	11.6385	0.0059	0.0065	-0.0029
38S	0.6922	0.6922	-12.5635	-0.6922	-0.6922	12.5635	0.0036	0.0037	-0.0087
39S	0.6847	0.6847	-13.2183	-0.6847	-0.6847	13.2183	0.0016	0.0016	-0.0073
391S	0.6847	0.6847	-13.2183	-0.6847	-0.6847	13.2183	0.0016	0.0023	-0.0059
392S	0.6847	0.6847	-13.2183	-0.6847	-0.6847	13.2183	0.0023	0.0016	-0.0059
393S	0.6847	0.6847	-13.2183	-0.6847	-0.6847	13.2183	0.0030	0.0023	-0.0021
394S	0.6847	0.6847	-13.2183	-0.6847	-0.6847	13.2183	0.0023	0.0030	-0.0021
40S	1.4649	1.4649	-17.5190	-1.4649	-1.4649	17.5190	0.0008	0.0008	-0.0056
41S	1.2635	1.2635	-15.7247	-1.2635	-1.2635	15.7246	-0.0007	-0.0006	-0.0040
411S	0.5747	0.5747	-14.9139	-0.5747	-0.5747	14.9139	-0.0007	0.0002	-0.0028
412S	0.5747	0.5747	-14.9139	-0.5747	-0.5747	14.9139	0.0002	-0.0006	-0.0028

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

413S	0.5747	0.5747	-14.9139	-0.5747	-0.5747	14.9139	0.0011	0.0002	-0.0020
414S	0.5747	0.5747	-14.9139	-0.5747	-0.5747	14.9139	0.0002	0.0011	-0.0020
42S	0.3941	0.3941	-11.1147	-0.3941	-0.3941	11.1147	-0.0018	-0.0018	-0.0024
2X	0.2894	0.2894	-2.3400	-0.2892	-0.2892	2.3400	0.2769	0.2698	-0.0125
2XY	0.2894	0.2894	-2.3400	-0.2892	-0.2892	2.3400	0.2779	0.2662	-0.0055
2Y	0.1314	0.1314	-0.9600	-0.1312	-0.1312	0.9600	0.2794	0.2651	-0.0120
3X	0.2528	0.2528	-1.8547	-0.2525	-0.2525	1.8547	0.2637	0.2581	-0.0125
3XY	0.2528	0.2528	-1.8547	-0.2525	-0.2525	1.8547	0.2639	0.2532	-0.0055
3Y	0.2528	0.2528	-1.8547	-0.2525	-0.2525	1.8547	0.2666	0.2531	-0.0119
4X	0.2794	0.2794	-2.2747	-0.2791	-0.2791	2.2747	0.2498	0.2471	-0.0124
4XY	0.2794	0.2794	-2.2747	-0.2791	-0.2791	2.2747	0.2507	0.2413	-0.0055
4Y	0.1214	0.1214	-0.8947	-0.1211	-0.1211	0.8947	0.2545	0.2403	-0.0119
5X	1.1387	1.1387	-6.7381	-1.1384	-1.1384	6.7381	0.2368	0.2357	-0.0124
5XY	0.4247	0.4247	-3.3781	-0.4244	-0.4244	3.3781	0.2369	0.2285	-0.0056
5Y	0.2667	0.2667	-1.9981	-0.2664	-0.2664	1.9981	0.2422	0.2284	-0.0118
6X	1.0173	1.0173	-5.8434	-1.0171	-1.0171	5.8434	0.2232	0.2248	-0.0123
6XY	0.3033	0.3033	-2.4834	-0.3031	-0.3031	2.4834	0.2241	0.2168	-0.0056
6Y	0.1453	0.1453	-1.1034	-0.1451	-0.1451	1.1034	0.2305	0.2157	-0.0118
7X	0.9685	0.9685	-5.5550	-0.9683	-0.9683	5.5550	0.2108	0.2142	-0.0122
7XY	0.2545	0.2545	-2.1950	-0.2543	-0.2543	2.1950	0.2110	0.2045	-0.0058
7Y	0.2545	0.2545	-2.1950	-0.2543	-0.2543	2.1950	0.2191	0.2044	-0.0118
8X	0.9813	0.9813	-5.8315	-0.9811	-0.9811	5.8315	0.2007	0.2060	-0.0121
8XY	0.2673	0.2673	-2.4715	-0.2671	-0.2671	2.4715	0.2011	0.1954	-0.0058
8Y	0.1093	0.1093	-1.0915	-0.1090	-0.1091	1.0915	0.2105	0.1949	-0.0117
12X	0.1845	0.1845	-2.3563	-0.1844	-0.1844	2.3563	0.1672	0.1688	-0.0113
12XY	0.1845	0.1845	-2.3563	-0.1844	-0.1844	2.3563	0.1680	0.1640	-0.0027
12Y	0.1845	0.1845	-2.3563	-0.1843	-0.1844	2.3563	0.1719	0.1631	-0.0109
13X	0.3499	0.3499	-4.3808	-0.3497	-0.3497	4.3808	0.1580	0.1582	-0.0112
13XY	0.3499	0.3499	-4.3808	-0.3497	-0.3497	4.3808	0.1582	0.1546	-0.0029
13Y	0.3499	0.3499	-4.3808	-0.3497	-0.3497	4.3808	0.1610	0.1544	-0.0109
14X	0.2444	0.2444	-2.8045	-0.2442	-0.2442	2.8044	0.1485	0.1480	-0.0111
14XY	0.1654	0.1654	-2.0245	-0.1652	-0.1652	2.0244	0.1492	0.1460	-0.0030
14Y	0.2444	0.2444	-2.8045	-0.2442	-0.2442	2.8044	0.1505	0.1452	-0.0108
15X	0.4189	0.4189	-4.9533	-0.4187	-0.4187	4.9533	0.1398	0.1382	-0.0110
15XY	0.3399	0.3399	-4.1733	-0.3397	-0.3397	4.1733	0.1401	0.1372	-0.0033
15Y	0.4189	0.4189	-4.9533	-0.4187	-0.4187	4.9533	0.1404	0.1370	-0.0108
16X	0.1745	0.1745	-2.1489	-0.1744	-0.1744	2.1489	0.1310	0.1287	-0.0109
16XY	0.1745	0.1745	-2.1489	-0.1744	-0.1744	2.1489	0.1319	0.1294	-0.0036
16Y	0.1745	0.1745	-2.1489	-0.1744	-0.1744	2.1489	0.1307	0.1285	-0.0107
17X	0.3812	0.3812	-4.4993	-0.3811	-0.3811	4.4993	0.1233	0.1199	-0.0108
17XY	0.3022	0.3022	-3.7193	-0.3021	-0.3021	3.7193	0.1236	0.1214	-0.0039
17Y	0.3812	0.3812	-4.4993	-0.3811	-0.3811	4.4993	0.1216	0.1211	-0.0106
18X	0.2067	0.2067	-2.3504	-0.2066	-0.2066	2.3504	0.1171	0.1130	-0.0107
18XY	0.1277	0.1277	-1.5704	-0.1276	-0.1276	1.5704	0.1176	0.1156	-0.0042
18Y	0.2067	0.2067	-2.3504	-0.2066	-0.2066	2.3504	0.1146	0.1151	-0.0105
21X	0.3040	0.3040	-2.8595	-0.3039	-0.3039	2.8595	0.0893	0.0871	-0.0103
21XY	0.3040	0.3040	-2.8595	-0.3039	-0.3039	2.8595	0.0900	0.0885	-0.0013
21Y	0.3040	0.3040	-2.8595	-0.3039	-0.3039	2.8595	0.0881	0.0878	-0.0100
22X	0.6224	0.6224	-6.0709	-0.6224	-0.6224	6.0709	0.0827	0.0807	-0.0101
22XY	0.9404	0.9404	-6.9709	-0.9404	-0.9404	6.9709	0.0832	0.0819	-0.0010
22Y	0.6224	0.6224	-6.0709	-0.6224	-0.6224	6.0709	0.0816	0.0814	-0.0099
23X	0.3185	0.3185	-3.2114	-0.3184	-0.3184	3.2114	0.0764	0.0747	-0.0099
23XY	0.3185	0.3185	-3.2114	-0.3184	-0.3184	3.2115	0.0771	0.0759	-0.0008
23Y	0.3185	0.3185	-3.2114	-0.3184	-0.3184	3.2114	0.0755	0.0751	-0.0097
24X	0.6555	0.6555	-7.1002	-0.6555	-0.6555	7.1002	0.0705	0.0690	-0.0097
24XY	0.6555	0.6555	-7.1002	-0.6555	-0.6555	7.1002	0.0710	0.0698	-0.0005

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
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24Y	0.6555	0.6555	-7.1002	-0.6555	-0.6555	7.1002	0.0698	0.0694	-0.0095
25X	0.3371	0.3371	-3.8888	-0.3370	-0.3370	3.8888	0.0643	0.0633	-0.0096
25XY	0.3371	0.3371	-3.8888	-0.3370	-0.3370	3.8888	0.0651	0.0641	0.0003
25Y	0.3371	0.3371	-3.8888	-0.3370	-0.3370	3.8888	0.0639	0.0633	-0.0094
26X	0.6679	0.6679	-7.9094	-0.6679	-0.6679	7.9094	0.0586	0.0577	-0.0094
26XY	0.6679	0.6679	-7.9094	-0.6679	-0.6679	7.9094	0.0591	0.0582	0.0000
26Y	0.6679	0.6679	-7.9094	-0.6679	-0.6679	7.9094	0.0583	0.0577	-0.0093
27X	0.3308	0.3308	-4.0206	-0.3308	-0.3308	4.0206	0.0529	0.0523	-0.0093
27XY	0.3308	0.3308	-4.0206	-0.3308	-0.3308	4.0206	0.0536	0.0528	-0.0002
27Y	0.3308	0.3308	-4.0206	-0.3308	-0.3308	4.0206	0.0528	0.0521	-0.0091
28X	0.6517	0.6517	-8.1209	-0.6516	-0.6516	8.1209	0.0477	0.0473	-0.0091
28XY	0.6517	0.6517	-8.1209	-0.6516	-0.6516	8.1209	0.0482	0.0475	-0.0006
28Y	0.6517	0.6517	-8.1209	-0.6516	-0.6516	8.1209	0.0477	0.0470	-0.0090
29X	0.3208	0.3208	-4.1003	-0.3208	-0.3208	4.1003	0.0426	0.0425	-0.0089
29XY	0.3208	0.3208	-4.1003	-0.3208	-0.3208	4.1003	0.0434	0.0428	-0.0009
29Y	0.3208	0.3208	-4.1003	-0.3208	-0.3208	4.1003	0.0429	0.0420	-0.0088
30X	0.5788	0.5788	-7.3350	-0.5788	-0.5788	7.3350	0.0381	0.0381	-0.0087
30XY	0.5788	0.5788	-7.3350	-0.5788	-0.5788	7.3350	0.0386	0.0380	-0.0012
30Y	0.5788	0.5788	-7.3350	-0.5788	-0.5788	7.3350	0.0384	0.0375	-0.0086
31X	0.7040	0.7040	-10.4333	-0.7039	-0.7039	10.4333	0.0336	0.0338	-0.0086
31XY	0.7400	0.7400	-10.6833	-0.7399	-0.7399	10.6833	0.0344	0.0339	-0.0016
31Y	0.7400	0.7400	-10.6833	-0.7399	-0.7399	10.6833	0.0341	0.0332	-0.0085
33X	0.9853	0.9853	-15.8898	-0.9853	-0.9853	15.8898	0.0195	0.0203	-0.0077
33XY	0.9853	0.9853	-15.8898	-0.9853	-0.9853	15.8898	0.0206	0.0204	-0.0017
33Y	0.9853	0.9853	-15.8898	-0.9853	-0.9853	15.8898	0.0204	0.0193	-0.0076
34X	1.0031	1.0031	-15.6792	-1.0031	-1.0031	15.6792	0.0149	0.0158	-0.0072
34XY	1.0031	1.0031	-15.6792	-1.0031	-1.0031	15.6792	0.0160	0.0158	-0.0013
34Y	1.0031	1.0031	-15.6792	-1.0031	-1.0031	15.6792	0.0159	0.0147	-0.0071
35X	1.0722	1.0722	-16.2026	-1.0722	-1.0722	16.2026	0.0112	0.0122	-0.0066
35XY	1.0722	1.0722	-16.2026	-1.0722	-1.0722	16.2026	0.0122	0.0121	-0.0009
35Y	1.6972	1.6972	-17.3026	-1.6972	-1.6972	17.3026	0.0123	0.0111	-0.0065
36X	1.3217	1.3217	-16.5528	-1.3217	-1.3217	16.5528	0.0080	0.0092	-0.0060
36XY	1.0997	1.0997	-14.8078	-1.0997	-1.0997	14.8078	0.0093	0.0092	-0.0007
36Y	0.8707	0.8707	-14.2228	-0.8707	-0.8707	14.2228	0.0092	0.0079	-0.0059
37X	0.8721	0.8721	-13.4785	-0.8721	-0.8721	13.4785	0.0053	0.0065	-0.0053
37XY	0.6721	0.6721	-11.6385	-0.6721	-0.6721	11.6385	0.0065	0.0065	-0.0004
37Y	0.6721	0.6721	-11.6385	-0.6721	-0.6721	11.6385	0.0065	0.0053	-0.0052
38X	0.6922	0.6922	-12.5635	-0.6922	-0.6922	12.5635	0.0034	0.0046	-0.0046
38XY	0.6922	0.6922	-12.5635	-0.6922	-0.6922	12.5635	0.0049	0.0049	-0.0004
38Y	0.7282	0.7282	-12.8135	-0.7282	-0.7282	12.8135	0.0046	0.0033	-0.0045
39X	0.6847	0.6847	-13.2183	-0.6847	-0.6847	13.2183	0.0016	0.0031	-0.0038
39XY	0.6847	0.6847	-13.2183	-0.6847	-0.6847	13.2183	0.0031	0.0030	-0.0002
39Y	0.8847	0.8847	-15.0583	-0.8847	-0.8847	15.0583	0.0030	0.0015	-0.0037
40X	1.5649	1.5649	-19.2090	-1.5649	-1.5649	19.2090	0.0002	0.0017	-0.0030
40XY	0.6629	0.6629	-14.5490	-0.6629	-0.6629	14.5490	0.0023	0.0023	-0.0003
40Y	1.1139	1.1139	-16.8790	-1.1139	-1.1139	16.8790	0.0017	0.0002	-0.0029
41X	0.6615	0.6615	-14.5947	-0.6615	-0.6615	14.5947	0.0007	0.0011	-0.0021
41XY	0.4615	0.4615	-12.7547	-0.4615	-0.4615	12.7547	0.0011	0.0011	-0.0001
41Y	0.4615	0.4615	-12.7547	-0.4615	-0.4615	12.7547	0.0011	-0.0007	-0.0021
42X	0.3941	0.3941	-11.1147	-0.3941	-0.3941	11.1147	0.0017	0.0028	-0.0015
42XY	0.3941	0.3941	-11.1147	-0.3941	-0.3941	11.1147	0.0026	0.0026	-0.0006
42Y	0.3941	0.3941	-11.1147	-0.3941	-0.3941	11.1147	0.0028	-0.0017	-0.0015

Moments for Angles Modeled as Beams:

Angle	Torsion	Origin	Origin	End	End	X	Y

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Label	X Moment (N-m)	Y Moment (N-m)	X Moment (N-m)	Y Moment (N-m)	Shear (N)	Shear (N)
1P	-0.00	-0.00	0.01	-25.46	63.80	-7.93
1X	-0.00	-0.00	0.01	25.09	72.92	7.81
1XY	-0.00	-0.00	0.01	33.55	-72.23	10.45
1Y	0.00	-0.01	0.00	-32.91	-58.55	-10.25
2P	-0.00	25.46	-63.80	29.29	-70.12	21.90
2X	-0.00	-25.10	-72.91	-31.56	-101.75	-22.66
2XY	-0.00	-33.56	72.23	-49.56	108.20	-33.25
2Y	0.00	32.90	58.56	48.73	79.21	32.65
3P	-0.00	-29.30	70.13	-26.75	70.00	-22.42
3X	-0.00	31.56	101.75	22.65	118.33	21.68
3XY	-0.00	49.55	-108.19	55.54	-112.11	42.04
3Y	0.00	-48.73	-79.20	-56.69	-55.51	-42.17
4P	-0.00	26.74	-69.99	17.44	-39.31	17.67
4X	-0.00	-22.66	-118.33	-25.78	-131.37	-19.37
4XY	-0.00	-55.54	112.12	-84.59	165.50	-56.05
4Y	0.00	56.68	55.51	70.53	77.31	50.88
5P	-0.00	-17.45	39.31	-39.28	118.42	-22.69
5X	-0.01	25.77	131.37	-8.24	274.88	7.01
5XY	-0.00	84.58	-165.49	131.57	-194.25	86.46
5Y	0.00	-70.53	-77.30	-155.44	16.11	-90.39
6P	-0.00	39.28	-118.41	2.68	1.26	16.78
6X	-0.01	8.23	-274.88	-18.93	-198.05	-4.28
6XY	-0.00	-131.57	194.26	-227.34	359.68	-143.56
6Y	0.00	155.43	-16.10	153.99	84.85	123.77
7P	-0.00	-2.68	-1.26	-268.39	334.80	-135.53
7X	-0.01	18.92	198.06	-438.90	201.93	-209.99
7XY	-0.00	227.33	-359.68	613.67	-546.51	420.50
7Y	0.01	-154.00	-84.85	-266.39	421.37	-210.19
8P	-0.00	268.38	-334.80	826.78	-818.89	697.55
8X	-0.01	438.89	-201.92	1326.59	1529.80	1124.51
8XY	-0.00	-613.68	546.51	-1916.55	1996.52	-1611.61
8Y	0.01	266.39	-421.37	-1299.89	-1203.71	-658.28
9P	-0.94	1163.67	5.50	710.34	1.40	457.19
9X	24.28	-2019.77	-141.61	-1367.25	93.98	-826.30
9XY	9.56	2766.96	-55.74	1110.44	-4.40	945.94
9Y	-11.49	-1770.31	67.03	-1266.00	-93.24	-740.74
10P	-1.17	503.14	-501.42	-97.76	136.42	140.27
10X	8.04	1035.19	898.39	308.70	768.22	465.01
10XY	10.16	-783.28	787.13	156.33	-124.53	-216.94
10Y	4.44	-828.84	-961.55	-753.91	-285.80	-547.66
11P	-1.17	97.76	-136.41	-87.81	70.20	3.98
11X	8.04	-308.70	-768.21	-233.35	-536.07	-216.82
11XY	10.16	-156.33	124.53	-654.36	639.17	-324.28
11Y	4.44	753.90	285.80	573.78	268.28	531.07
12P	-1.17	87.81	-70.20	-69.58	115.41	7.29
12X	8.04	233.35	536.07	-160.86	727.08	28.99
12XY	10.16	654.36	-639.16	500.70	-458.48	462.02
12Y	4.44	-573.79	-268.27	-745.37	146.27	-527.66
13P	-1.17	69.58	-115.40	-328.48	303.87	-103.56
13X	8.04	160.86	-727.08	-45.63	-431.98	46.09
13XY	10.16	-500.70	458.49	-784.23	772.58	-513.97
13Y	4.44	745.37	-146.26	482.33	82.98	491.08
14P	-1.17	328.48	-303.87	73.17	-28.57	160.66

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

14X	8.04	45.63	431.98	-419.83	760.62	-149.68	477.04
14XY	10.16	784.23	-772.57	459.36	-416.08	497.44	-475.46
14Y	4.44	-482.33	-82.98	-779.31	402.52	-504.65	127.82
15P	-1.17	-73.17	28.57	-613.15	599.50	-274.53	251.23
15X	8.04	419.82	-760.62	201.10	-328.73	248.37	-435.74
15XY	10.16	-459.36	416.08	-683.88	662.95	-457.30	431.61
15Y	4.44	779.30	-402.52	369.20	-153.34	459.40	-222.35
16P	-1.17	613.15	-599.49	616.93	-572.22	615.04	-585.85
16X	8.04	-201.10	328.74	-841.14	628.57	-521.12	478.65
16XY	10.16	683.88	-662.95	213.59	-164.92	448.73	-413.93
16Y	4.44	-369.20	153.35	-650.28	814.42	-509.74	483.89
17P	-1.17	-616.94	572.22	-1354.08	1349.31	-1247.48	1216.16
17X	8.03	841.13	-628.57	-327.86	-44.71	324.85	-426.13
17XY	10.16	-213.59	164.92	-426.81	423.64	-405.31	372.50
17Y	4.45	650.28	-814.42	89.28	378.17	468.08	-276.11
18P	-0.18	-1911.58	-3.56	-1007.90	-7.45	-436.87	-1.65
18X	63.31	263.45	-190.11	66.04	128.70	49.30	-9.19
18XY	9.14	601.35	4.98	194.48	11.50	119.09	2.47
18Y	-52.44	330.54	197.47	96.30	-120.84	63.87	11.47
19P	1.89	-717.79	707.60	-411.49	411.35	-403.31	399.63
19X	25.08	53.15	-146.55	71.72	146.36	44.60	-0.07
19XY	5.59	-147.13	127.91	-23.50	20.45	-60.94	52.99
19Y	-16.83	160.48	-24.29	-137.38	-59.43	8.25	-29.90
20P	1.89	411.49	-411.35	64.93	-62.84	170.15	-169.35
20X	25.08	-71.72	-146.36	-138.70	-113.36	-75.15	-92.76
20XY	5.59	23.49	-20.45	-258.76	261.96	-84.02	86.25
20Y	-16.83	137.38	59.43	116.79	141.54	90.77	71.77
21P	1.89	-64.93	62.84	-89.86	101.10	-57.33	60.72
21X	25.08	138.70	113.36	-176.63	502.06	-14.05	227.93
21XY	5.59	258.76	-261.96	229.86	-219.17	180.97	-178.20
21Y	-16.83	-116.79	-141.54	-503.21	175.51	-229.63	12.58
22P	1.89	89.86	-101.10	-228.94	224.74	-51.51	45.79
22X	25.08	176.63	-502.05	-33.96	-343.11	52.84	-313.03
22XY	5.59	-229.86	219.18	-626.55	622.91	-317.19	311.88
22Y	-16.83	503.21	-175.51	356.70	47.30	318.48	-47.48
23P	1.89	228.94	-224.74	-73.12	88.87	55.65	-48.52
23X	25.08	33.96	343.12	-307.23	824.93	-97.60	417.16
23XY	5.59	626.55	-622.91	437.78	-421.59	380.12	-373.04
23Y	-16.83	-356.70	-47.30	-829.41	302.18	-423.61	91.03
24P	1.89	73.12	-88.87	-327.53	323.28	-90.86	83.72
24X	25.08	307.23	-824.93	24.89	-507.63	118.61	-475.91
24XY	5.59	-437.78	421.59	-839.97	833.15	-456.34	448.12
24Y	-16.83	829.41	-302.18	522.65	-7.23	482.88	-110.51
25P	1.89	327.53	-323.28	-71.95	83.03	91.28	-85.80
25X	25.08	-24.89	507.64	-557.12	1024.14	-207.86	547.06
25XY	5.59	839.96	-833.15	383.34	-361.31	436.89	-426.59
25Y	-16.82	-522.66	7.24	-1024.28	545.93	-552.48	197.56
26P	1.89	71.95	-83.03	-507.45	503.29	-155.54	150.09
26X	25.08	557.12	-1024.14	127.97	-502.78	244.67	-545.33
26XY	5.59	-383.34	361.31	-917.53	910.30	-464.59	454.15
26Y	-16.82	1024.27	-545.93	517.69	-109.70	550.70	-234.16
27P	1.89	507.45	-503.29	149.15	-133.46	238.76	-231.55
27X	25.08	-127.97	502.78	-677.29	982.83	-292.82	540.22
27XY	5.59	917.53	-910.30	439.59	-422.29	493.50	-484.58
27Y	-16.82	-517.69	109.70	-987.32	670.41	-547.28	283.68
28P	1.89	-149.15	133.46	-769.57	766.93	-334.08	327.41

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

28X	25.08	677.29	-982.83	290.32	-363.99	351.86	-489.75
28XY	5.59	-439.59	422.29	-890.21	882.94	-483.57	474.63
28Y	-16.82	987.32	-670.41	376.94	-270.97	496.09	-342.32
29P	1.89	769.57	-766.93	165.12	-162.82	346.18	-344.35
29X	25.08	-290.32	363.99	-873.18	637.93	-430.93	371.08
29XY	5.59	890.21	-882.94	-59.53	81.92	307.66	-296.67
29Y	-16.82	-376.94	270.97	-629.42	859.21	-372.72	418.59
30P	1.89	-165.12	162.82	-1045.52	1053.66	-213.33	214.36
30X	25.08	873.18	-637.93	-50.19	436.20	145.02	-35.55
30XY	5.59	59.52	-81.92	-815.32	803.16	-133.18	127.09
30Y	-16.82	629.42	-859.21	-433.58	76.90	34.51	-137.85
31P	0.89	-1484.34	5.99	-164.19	-3.08	-256.85	0.45
31X	83.12	-272.95	-334.67	-146.14	499.98	-65.30	25.76
31XY	4.05	1144.44	9.43	-112.47	6.28	160.79	2.45
31Y	-77.88	-252.21	352.86	-144.53	-493.62	-61.82	-21.93
32P	0.89	164.19	3.08	426.53	-1.83	97.02	0.21
32X	83.12	146.14	-499.98	76.29	227.74	36.53	-44.71
32XY	4.05	112.47	-6.28	-306.31	0.53	-31.84	-0.94
32Y	-77.88	144.53	493.62	69.25	-236.12	35.11	42.29
33P	0.89	-426.52	1.83	283.03	0.69	-23.57	0.41
33X	83.12	-76.29	-227.74	-26.31	167.56	-16.85	-9.88
33XY	4.05	306.31	-0.53	-350.46	1.96	-7.25	0.23
33Y	-77.88	-69.25	236.12	-25.70	-153.91	-15.60	13.50
34P	0.89	-283.03	-0.69	-229.38	-0.68	-84.16	-0.22
34X	83.12	26.31	-167.56	13.91	84.24	6.61	-13.69
34XY	4.04	350.46	-1.96	218.22	0.01	93.40	-0.32
34Y	-77.88	25.70	153.91	14.54	-93.14	6.61	9.98
35P	0.89	229.38	0.68	769.46	-5.71	164.06	-0.83
35X	83.12	-13.91	-84.24	15.02	250.75	0.18	27.35
35XY	4.04	-218.22	-0.01	-650.99	2.25	-142.76	0.37
35Y	-77.88	-14.54	93.14	0.22	-252.71	-2.35	-26.21
36P	0.89	-769.46	5.71	-565.95	1.65	-219.34	1.21
36X	83.12	-15.02	-250.75	-39.75	36.11	-9.00	-35.25
36XY	4.04	650.99	-2.25	460.54	0.02	182.56	-0.37
36Y	-77.88	-0.22	252.71	-31.29	-34.98	-5.18	35.76
37P	0.89	565.95	-1.65	836.29	-0.29	230.31	-0.32
37X	83.12	39.75	-36.11	-6.10	111.04	5.53	12.31
37XY	4.04	-460.54	-0.02	-817.92	0.15	-209.98	0.02
37Y	-77.88	31.29	34.98	-11.26	-106.00	3.29	-11.66
38P	0.89	-836.29	0.29	-466.52	0.23	-213.98	0.09
38X	83.12	6.10	-111.04	277.28	71.89	46.54	-6.43
38XY	4.04	817.92	-0.15	999.95	1.11	298.58	0.16
38Y	-77.88	11.26	106.00	283.82	-76.09	48.47	4.91
39P	0.89	466.52	-0.23	-286.03	-6.97	29.64	-1.18
39X	83.12	-277.28	-71.89	-1364.74	687.70	-269.70	101.14
39XY	4.04	-999.95	-1.11	-2456.77	1.64	-567.75	0.09
39Y	-77.88	-283.82	76.09	-1379.89	-692.31	-273.26	-101.21
40P	0.89	286.03	6.97	2264.33	1.20	418.88	1.34
40X	83.12	1364.74	-687.70	3019.63	-836.52	720.11	-250.35
40XY	4.04	2456.77	-1.64	3778.90	0.53	1024.18	-0.18
40Y	-77.88	1379.89	692.31	3019.74	838.81	722.62	251.48
41P	0.89	-2264.33	-1.20	-3147.39	9.11	-919.50	1.34
41X	83.12	-3019.63	836.52	-3851.80	970.30	-1167.52	307.00
41XY	4.04	-3778.90	-0.53	-4535.51	-0.55	-1412.69	-0.18
41Y	-77.87	-3019.74	-838.81	-3836.94	-961.33	-1165.01	-305.86

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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

*** Resumen completo para todos los casos de carga - uso= esfuerzo máximo/Esfuerzo permisible
Printed capacities do not include EIA allowable stress increase for wind load cases.
Printed capacities do not include the strength factor entered for each loadcase.

Rs:

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (MPa)	Max Usage %	Max Use In Comp. %	Comp. Control Member	Comp. Force (kN)	Comp. Control Load Case	L/R Capacity (kN)	Comp. Shear Capacity (kN)	Conn. Bearing Capacity (kN)	RLX	RLY	RLZ	L/R Length (m)	Curve No.	No. Bolts	Of Comp.
M1	M1	DAE	2.5X2.5X0.25	344.7	9.31	9.31	2P	-21.714LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M2	M2	DAE	2.5X2.5X0.25	344.7	30.70	30.70	4P	-71.590LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M3	M3	DAE	3.5X3.5X0.25	344.7	50.78	50.78	6P	-189.701LC4	WIND 4	373.558	878.079	758.976	0.500	0.500	0.500	45.15	2.500	1	7
M4	M4	PAE	2L4X0.25+L4X0.375	344.7	49.90	49.90	8P	-366.165LC4	WIND 4	733.836	878.079	758.976	0.500	0.500	0.500	26.58	1.570	1	7
M5	M5	PAE	2L4X0.375+L4X0.5	344.7	42.99	42.99	9P	-377.477LC4	WIND 4	1146.974	878.079	1138.464	0.250	0.250	0.250	33.82	4.099	1	7
M6	M6	PAE	2L4X0.375+L4X0.5	344.7	56.82	56.82	11P	-498.909LC4	WIND 4	1103.402	878.079	1138.464	0.500	0.500	0.500	41.25	2.500	1	7
M7	M7	PAE	2L4X0.3125+L4X0.5	344.7	77.81	77.81	13P	-683.201LC4	WIND 4	993.810	878.079	948.720	0.500	0.500	0.500	41.53	2.500	1	7
M8	M8	PAE	2L4X0.3125+L4X0.5	344.7	89.45	89.45	15P	-888.974LC4	WIND 4	993.810	2161.836	1951.652	0.500	0.500	0.500	41.53	2.500	1	12
M9	M9	PAE	2L4X0.3125+L4X0.5	344.7	99.90	99.90	17P	-1069.851LC4	WIND 4	1070.965	1801.530	1626.377	0.500	0.500	0.500	26.25	1.580	1	10
M10	M10	PAE	2L4X0.375+L4X0.375	344.7	83.52	83.52	18P	-757.358LC4	WIND 4	906.746	1261.071	1366.156	0.250	0.250	0.250	56.33	6.683	1	7
M11	M11	PAE	2L4X0.375+L4X0.3125	344.7	87.67	87.67	20P	-794.069LC4	WIND 4	905.756	1261.071	1366.156	0.500	0.500	0.500	48.11	2.800	1	7
M12	M12	PAE	2L5X0.375+L5X0.375	344.7	76.53	76.53	22P	-965.135LC4	WIND 4	1280.273	1261.071	1366.156	0.500	0.500	0.500	37.35	2.700	1	7
M13	M13	PAE	2L6X0.5+L5X0.375	344.7	80.00	80.00	24P	-1153.020LC4	WIND 4	1806.282	1441.224	2081.762	0.500	0.500	0.500	35.44	2.800	1	8
M14	M14	PAE	2L6X0.5+L5X0.375	344.7	83.91	83.91	26P	-1360.446LC4	WIND 4	1806.282	1621.377	2341.982	0.500	0.500	0.500	35.44	2.800	1	9
M15	M15	PAE	2L6X0.5+L5X0.375	344.7	87.39	87.39	28P	-1583.482LC4	WIND 4	1812.000	2059.520	3035.903	0.500	0.500	0.500	34.81	2.750	1	10
M16	M16	PAE	2L6X0.5+L5X0.375	344.7	93.89	93.89	29P	-1706.527LC4	WIND 4	1817.673	2059.520	3035.903	0.500	0.500	0.500	34.18	2.700	1	10
M17	M17	PAE	2L6X0.5+L5X0.5	344.7	89.82	89.82	30P	-1750.986LC4	WIND 4	1949.468	2059.520	3035.903	0.250	0.250	0.250	35.03	5.675	1	10
M18	M18	PAE	2L6X0.5+L5X0.5	344.7	95.25	95.25	31P	-1813.158LC4	WIND 4	1903.600	2059.520	3035.903	0.250	0.250	0.250	39.62	6.418	1	10
M19	M19	PAE	2L6X0.5+L5X0.5	344.7	92.27	92.27	32P	-1775.566LC4	WIND 4	1924.265	2059.520	3035.903	0.250	0.250	0.250	37.58	6.088	1	10
M20	M20	PAE	2L6X0.5+L5X0.5	344.7	88.31	88.31	33P	-1699.254LC4	WIND 4	1924.265	2059.520	3035.903	0.250	0.250	0.250	37.58	6.088	1	10
M21	M21	PAE	2L6X0.5+L5X0.375	344.7	94.30	94.30	34P	-1676.409LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M22	M22	PAE	2L6X0.5+L5X0.375	344.7	91.19	91.19	35P	-1621.066LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M23	M23	PAE	2L6X0.5+L5X0.375	344.7	91.84	91.84	36P	-1632.622LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M24	M24	PAE	2L6X0.5+L5X0.375	344.7	94.95	94.95	37P	-1687.993LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M25	M25	PAE	2L6X0.5+L5X0.5	344.7	88.40	88.40	38P	-1701.085LC4	WIND 4	1924.265	2059.520	3035.903	0.250	0.250	0.250	37.58	6.088	1	10
M26	M26	PAE	2L6X0.5+L5X0.5	344.7	95.29	95.29	39P	-1704.038LC4	WIND 4	1788.309	2059.520	3035.903	0.334	0.334	0.334	50.21	6.088	1	10
M27	M27	PAE	2L6X0.5+L5X0.5	344.7	96.17	96.17	40P	-1719.754LC4	WIND 4	1788.309	2059.520	3035.903	0.334	0.334	0.334	50.21	6.088	1	10
M28	M28	PAE	2L6X0.5+L5X0.5	344.7	89.38	89.38	41P	-1731.086LC4	WIND 4	1936.735	2265.472	3339.493	0.250	0.250	0.250	36.33	5.885	1	11
D1	D1	SAE	1.5X1.5X0.1875	344.7	32.98	32.98	43XY	-4.308LC1	WIND 0	9.821	30.915	32.528	0.750	0.500	0.500	232.74	3.464	6	1
D2	D2	SAE	1.5X1.5X0.1875	344.7	56.42	56.42	45XY	-7.511LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D3	D3	SAE	1.5X1.5X0.1875	344.7	70.10	70.10	47XY	-9.331LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D4	D4	SAE	2X2X0.125	344.7	69.89	69.89	49XY	-12.897LC3	WIND 0	18.324	30.915	21.685	0.750	0.500	0.500	139.37	2.818	6	1
D5	D5	SAE	2X2X0.1875	344.7	78.94	72.81	51XY	-19.476LC3	WIND 0	26.750	30.915	32.528	0.750	0.500	0.500	140.78	2.818	6	1
D6	D6	SAE	2.5X2.5X0.1875	344.7	63.41	63.41	52X	-30.257LC4	WIND 4	47.716	61.830	65.055	0.750	0.500	0.500	112.06	2.818	1	2
D7	D7	SAE	2X2X0.1875	344.7	85.17	85.17	54X	-28.281LC4	WIND 4	33.205	61.830	65.055	0.750	0.500	0.500	119.18	2.385	1	2
D8	D8	SAE	2X2X0.1875	344.7	90.36	90.36	56X	-40.746LC4	WIND 4	45.091	61.830	65.055	0.750	0.500	0.500	101.84	2.038	1	2
D9	D9	DAE	2X2X0.1875	344.7	87.20	87.20	59P	-54.515LC2	WIND 4	47.004	61.830	130.110	0.550	0.250	0.250	156.03	4.446	6	2
D10	D10	DAE	2.5X2.5X0.1875	344.7	67.07	61.99	61XY	-38.328LC3	WIND 0	68.496	61.830	130.110	0.750	0.500	0.500	139.71	3.681	6	2
D11	D11	DAE	2X2X0.1875	344.7	85.61	85.61	63XY	-38.262LC3	WIND 0	44.694	61.830	130.110	0.750	0.500	0.500	161.93	3.384	6	2
D12	D12	DAE	2X2X0.1875	344.7	88.80	88.80	65XY	-39.690LC3	WIND 0	44.694	61.830	130.110	0.750	0.500	0.500	161.93	3.384	6	2
D13	D13	DAE	2X2X0.1875	344.7	92.70	92.70	67XY	-41.432LC3	WIND 0	44.694	61.830	130.110	0.750	0.500	0.500	161.93	3.384	6	2
D14	D14	DAE	2.5X2.5X0.1875	344.7	73.52	71.78	69Y	-44.380LC3	WIND 0	76.308	61.830	130.110	0.750	0.500	0.500	128.42	3.384	6	2

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D15	D15	DAE	2.5X2.5X0.1875	344.7	74.96	74.96	71Y	-46.345LC3	WIND 0	76.308	61.830	130.110	0.750	0.500	0.500	128.42	3.384	6	2
D16	D16	DAE	2X2X0.1875	344.7	80.41	80.41	73Y	-41.625LC3	WIND 0	51.764	61.830	130.110	0.750	0.500	0.500	145.14	3.033	6	2
D17	D17	DAE	2X2X0.1875	344.7	74.84	74.84	75Y	-43.497LC3	WIND 0	58.120	61.830	130.110	0.750	0.500	0.500	132.75	2.774	6	2
D18	D18	SAE	4X4X0.5	344.7	92.03	92.03	77P	-230.876LC4	WIND 4	267.776	250.880	433.700	0.250	0.250	0.250	94.05	7.473	1	4
D19	D19	SAE	4X4X0.25	344.7	64.46	64.46	79XY	-47.537LC4	WIND 4	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D20	D20	SAE	4X4X0.25	344.7	68.67	68.67	81XY	-50.642LC3	WIND 0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D21	D21	SAE	4X4X0.25	344.7	71.00	71.00	83XY	-52.953LC3	WIND 0	74.581	125.440	108.425	0.750	0.500	0.500	138.62	5.598	6	2
D22	D22	SAE	4X4X0.25	344.7	76.57	76.57	85Y	-57.103LC3	WIND 0	74.581	125.440	108.425	0.750	0.500	0.500	138.62	5.598	6	2
D23	D23	SAE	4X4X0.25	344.7	83.74	83.74	87Y	-61.751LC3	WIND 0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D24	D24	SAE	4X4X0.25	344.7	86.72	86.72	89Y	-63.953LC3	WIND 0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D25	D25	SAE	4X4X0.25	344.7	91.36	91.36	91Y	-67.371LC3	WIND 0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D26	D26	SAE	4X4X0.3125	344.7	77.26	77.26	93Y	-70.024LC3	WIND 0	90.630	125.440	135.531	0.750	0.500	0.500	140.53	5.647	6	2
D27	D27	SAE	4X4X0.3125	344.7	80.00	80.00	95Y	-72.916LC3	WIND 0	91.148	125.440	135.531	0.750	0.500	0.500	139.92	5.622	6	2
D28	D28	SAE	4X4X0.3125	344.7	82.72	82.72	97Y	-75.399LC3	WIND 0	91.148	125.440	135.531	0.750	0.500	0.500	139.92	5.622	6	2
D29	D29	SAE	4X4X0.3125	344.7	84.20	84.20	99Y	-77.184LC3	WIND 0	91.662	125.440	135.531	0.750	0.500	0.500	139.32	5.598	6	2
D30	D30	SAE	5X5X0.5	344.7	72.26	71.33	100X	-178.959LC4	WIND 4	283.477	250.880	433.700	0.550	0.250	0.250	105.46	7.500	1	4
D31	D31	SAE	5X5X0.5	344.7	76.83	76.83	103P	-168.424LC4	WIND 4	219.214	250.880	433.700	0.550	0.250	0.250	119.97	8.532	1	4
D32	D32	SAE	4X4X0.5	344.7	59.03	59.03	105P	-66.572LC4	WIND 4	112.776	125.440	216.850	0.550	0.250	0.250	166.54	9.383	6	2
D33	D33	SAE	4X4X0.375	344.7	70.48	70.48	107P	-52.071LC4	WIND 4	73.884	125.440	162.638	0.550	0.250	0.250	185.61	10.544	6	2
D34	D34	SAE	4X4X0.375	344.7	50.54	50.54	109P	-42.349LC2	WIND 4	63.003	125.440	162.638	0.550	0.250	0.250	207.23	11.772	6	2
D35	D35	SAE	4X4X0.375	344.7	56.15	56.15	117P	-78.927LC1	WIND 0	105.691	125.440	162.638	0.550	0.250	0.250	142.88	8.116	6	2
D36	D36	SAE	4X4X0.375	344.7	87.00	87.00	124P	-104.064LC1	WIND 0	89.936	125.440	162.638	0.550	0.250	0.250	161.20	9.157	6	2
D37	D37	SAE	4X4X0.375	344.7	35.06	35.06	133P	-41.933LC1	WIND 0	89.936	125.440	162.638	0.550	0.250	0.250	161.20	9.157	6	2
D38	D38	SAE	4X4X0.375	344.7	60.08	60.08	140P	-61.020LC1	WIND 0	76.368	125.440	162.638	0.550	0.250	0.250	181.34	10.301	6	2
D39	D39	SAE	4X4X0.5	344.7	93.72	93.72	149P	-123.375LC1	WIND 0	98.982	125.440	216.850	0.550	0.333	0.333	182.83	10.301	6	2
D40	D40	SAE	5X5X0.5	344.7	94.29	94.29	158P	-117.625LC2	WIND 4	93.797	188.160	325.275	0.550	0.143	0.143	223.10	15.867	6	3
H1	H1	SAE	1.5X1.5X0.1875	344.7	3.69	3.69	166P	-0.550LC3	WIND 0	14.917	62.720	40.659	1.000	1.000	1.000	174.68	1.300	6	1
H2	H2	SAE	1.5X1.5X0.1875	344.7	2.58	2.58	1671P	-0.385LC3	WIND 0	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2
H3	H3	SAE	1.5X1.5X0.1875	344.7	4.34	4.34	1662P	-0.647LC4	WIND 4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2
H4	H4	SAE	1.5X1.5X0.1875	344.7	31.63	31.63	1663Y	-4.718LC3	WIND 0	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2
H5	H5	SAE	2X2X0.1875	344.7	64.21	64.21	168P	-19.049LC3	WIND 0	29.665	125.440	81.319	1.000	1.000	1.000	129.90	1.300	6	2
H6	H6	SAE	3X3X0.25	344.7	65.15	65.15	170Y	-32.044LC3	WIND 0	49.188	125.440	108.425	1.000	1.000	1.000	151.63	2.280	6	2
H7	H7	SAE	2X2X0.1875	344.7	29.07	29.07	1701Y	-3.950LC3	WIND 0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2
H8	H8	SAE	2X2X0.1875	344.7	49.99	49.99	1703Y	-6.792LC3	WIND 0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2
H9	H9	SAE	2X2X0.1875	344.7	84.70	84.70	1704Y	-11.507LC3	WIND 0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2
H10	H10	SAE	3X3X0.25	344.7	47.98	47.98	172P	-52.022LC3	WIND 0	127.059	125.440	108.425	0.500	0.500	0.500	75.81	2.280	1	2
H11	H11	SAE	4X4X0.375	344.7	83.63	83.63	1722Y	-107.546LC3	WIND 0	128.604	188.160	243.956	0.500	0.500	0.500	122.51	4.904	6	3
H12	H12	SAE	2.5X2.5X0.25	344.7	32.88	32.88	17231Y	-9.307LC3	WIND 0	28.304	125.440	108.425	0.500	0.500	0.500	196.61	4.904	6	2
H13	H13	SAE	3.5X3.5X0.25	344.7	9.82	9.82	17251Y	-6.349LC3	WIND 0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H14	H14	SAE	3.5X3.5X0.25	344.7	10.45	10.45	17252Y	-6.759LC3	WIND 0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H15	H15	SAE	3.5X3.5X0.25	344.7	12.18	12.18	17253Y	-7.878LC3	WIND 0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H16	H16	SAE	3.5X3.5X0.25	344.7	10.65	10.65	17254Y	-6.886LC3	WIND 0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H17	H17	SAE	4X4X0.25	344.7	89.78	89.78	17255Y	-79.179LC3	WIND 0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2
H18	H18	SAE	4X4X0.25	344.7	43.49	43.49	1724Y	-38.357LC3	WIND 0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2
H19	H19	SAE	4X4X0.25	344.7	85.34	85.34	1728Y	-92.533LC3	WIND 0	119.442	125.440	108.425	0.500	0.250	0.250	101.50	6.446	1	2
H20	H20	SAE	4X4X0.25	344.7	51.88	51.88	1729Y	-44.344LC3	WIND 0	85.473	125.440	108.425	0.500	0.250	0.250	124.53	7.908	6	2
H21	H21	SAE	5X5X0.375	344.7	31.03	31.03	17291Y	-38.929LC3	WIND 0	260.955	125.440	162.638	0.250	0.250	0.250	93.16	9.370	1	2
H22	H22	SAE	5X5X0.375	344.7	47.95	47.95	17292Y	-60.152LC3	WIND 0	206.750	125.440	162.638	0.250	0.250	0.250	107.70	10.832	1	2
H23	H23	SAE	5X5X0.375	344.7	4.63	4.63	174P	-5.811LC3	WIND 0	313.027	125.440	162.638	0.500	0.250	0.250	77.57	6.147	1	2
H24	H24	SAE	6X6X0.375	344.7	56.09	51.61	17293Y	-64.740LC3	WIND 0	223.518	125.440	162.638	0.250	0.250	0.250	113.79	13.757	1	2
H25	H25	SAE	6X6X0.375	344.7	6.07	6.07	182P	-7.609LC3	WIND 0	336.759	125.440	162.638	0.500	0.250	0.250	79.68	7.610	1	2
H26	H26	SAE	6X6X0.375	344.7	85.83	77.93	17294Y	-97.758LC3	WIND 0	168.624	125.440	162.638	0.250	0.250	0.250	137.98	16.682	6	2
H27	H27	SAE	6X6X0.375	344.7	8.52	8.52	215P	-10.692LC4	WIND 4	159.752	125.440	162.638	0.500	0.500	0.500	143.81	8.694	6	2

Group Summary (Tension Portion):

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength	Max Usage	Max Use In Tens.	Tension Control Member	Tension Force	Tension Control Load Case	Net Section Capacity	Tens. Capacity	Conn. Shear Capacity	Tens. Bearing Capacity	Conn. Rupture Capacity	Length Tens. Member	No. Of Bolts Tens.	No. Of Holes	Hole Diameter
				(MPa)	%	%		(kN)		(kN)		(kN)	(kN)	(kN)	(m)			(cm)
M1	M1	DAE	2.5X2.5X0.25	344.7	9.31	4.43	2XY	13.044LC4	WIND 4	294.374	752.639	752.639	650.551	0.000	2.500	6	2.000	1.746
M2	M2	DAE	2.5X2.5X0.25	344.7	30.70	17.68	4XY	52.042LC4	WIND 4	294.374	752.639	752.639	650.551	0.000	2.500	6	2.000	1.746
M3	M3	DAE	3.5X3.5X0.25	344.7	50.78	30.81	6XY	135.242LC4	WIND 4	438.941	878.079	878.079	758.976	0.000	2.500	7	2.000	1.746
M4	M4	PAE	2L4X0.25+L4X0.375	344.7	49.90	32.01	8XY	242.936LC4	WIND 4	888.575	878.079	878.079	758.976	0.000	1.570	7	2.000	1.746
M5	M5	PAE	2L4X0.375+L4X0.5	344.7	42.99	24.84	9XY	218.103LC4	WIND 4	1248.720	878.079	878.079	1138.464	0.000	4.099	7	2.000	1.746
M6	M6	PAE	2L4X0.375+L4X0.5	344.7	56.82	44.04	11XY	386.719LC4	WIND 4	1248.720	878.079	878.079	1138.464	0.000	2.500	7	2.000	1.746
M7	M7	PAE	2L4X0.3125+L4X0.5	344.7	77.81	62.72	13XY	550.774LC4	WIND 4	1136.655	878.079	878.079	948.720	0.000	2.500	7	2.000	1.746
M8	M8	PAE	2L4X0.3125+L4X0.5	344.7	89.45	66.18	15XY	737.344LC4	WIND 4	1114.067	2161.836	1951.652	1951.652	0.000	2.500	12	2.000	2.064
M9	M9	PAE	2L4X0.3125+L4X0.5	344.7	99.90	81.35	17XY	906.340LC4	WIND 4	1114.067	1801.530	1626.377	1626.377	0.000	1.580	10	2.000	2.064
M10	M10	PAE	2L4X0.375+L4X0.375	344.7	83.52	52.41	18XY	569.498LC4	WIND 4	1086.718	1261.071	1366.156	1366.156	0.000	6.683	7	2.000	2.064
M11	M11	PAE	2L4X0.375+L4X0.3125	344.7	87.67	63.90	20XY	650.774LC4	WIND 4	1018.374	1261.071	1366.156	1366.156	0.000	2.800	7	2.000	2.064
M12	M12	PAE	2L5X0.375+L5X0.375	344.7	76.53	64.07	22XY	807.955LC4	WIND 4	1412.081	1261.071	1366.156	1366.156	0.000	2.700	7	2.000	2.064
M13	M13	PAE	2L6X0.5+L5X0.375	344.7	80.00	68.06	24XY	980.861LC4	WIND 4	1984.133	1441.224	2081.762	2081.762	0.000	2.800	8	2.000	2.064
M14	M14	PAE	2L6X0.5+L5X0.375	344.7	83.91	72.25	26XY	1171.368LC4	WIND 4	1984.133	1621.377	2341.982	2341.982	0.000	2.800	9	2.000	2.064
M15	M15	PAE	2L6X0.5+L5X0.375	344.7	87.39	70.68	28XY	1376.811LC4	WIND 4	1947.992	2059.520	3035.903	3035.903	0.000	2.750	10	2.000	2.381
M16	M16	PAE	2L6X0.5+L5X0.375	344.7	93.89	76.31	29XY	1486.519LC4	WIND 4	1947.992	2059.520	3035.903	3035.903	0.000	2.700	10	2.000	2.381
M17	M17	PAE	2L6X0.5+L5X0.5	344.7	89.82	73.62	30XY	1516.165LC4	WIND 4	2118.964	2059.520	3035.903	3035.903	0.000	5.675	10	2.000	2.381
M18	M18	PAE	2L6X0.5+L5X0.5	344.7	95.25	75.07	31XY	1546.089LC4	WIND 4	2118.964	2059.520	3035.903	3035.903	0.000	6.418	10	2.000	2.381
M19	M19	PAE	2L6X0.5+L5X0.5	344.7	92.27	70.59	32XY	1453.801LC4	WIND 4	2118.964	2059.520	3035.903	3035.903	0.000	6.088	10	2.000	2.381
M20	M20	PAE	2L6X0.5+L5X0.5	344.7	88.31	65.02	33XY	1339.044LC4	WIND 4	2118.964	2059.520	3035.903	3035.903	0.000	6.088	10	2.000	2.381
M21	M21	PAE	2L6X0.5+L5X0.375	344.7	94.30	65.18	34XY	1269.629LC4	WIND 4	1947.992	2059.520	3035.903	3035.903	0.000	6.088	10	2.000	2.381
M22	M22	PAE	2L6X0.5+L5X0.375	344.7	91.19	59.18	35XY	1152.902LC4	WIND 4	1947.992	2059.520	3035.903	3035.903	0.000	6.088	10	2.000	2.381
M23	M23	PAE	2L6X0.5+L5X0.375	344.7	91.84	58.57	36XY	1140.863LC4	WIND 4	1947.992	2059.520	3035.903	3035.903	0.000	6.088	10	2.000	2.381
M24	M24	PAE	2L6X0.5+L5X0.375	344.7	94.95	58.98	37XY	1148.944LC4	WIND 4	1947.992	2059.520	3035.903	3035.903	0.000	6.088	10	2.000	2.381
M25	M25	PAE	2L6X0.5+L5X0.5	344.7	88.40	55.12	38XY	1135.204LC4	WIND 4	2118.964	2059.520	3035.903	3035.903	0.000	6.088	10	2.000	2.381
M26	M26	PAE	2L6X0.5+L5X0.5	344.7	95.29	52.51	39XY	1081.420LC4	WIND 4	2118.964	2059.520	3035.903	3035.903	0.000	6.088	10	2.000	2.381
M27	M27	PAE	2L6X0.5+L5X0.5	344.7	96.17	51.85	40XY	1067.897LC4	WIND 4	2118.964	2059.520	3035.903	3035.903	0.000	6.088	10	2.000	2.381
M28	M28	PAE	2L6X0.5+L5X0.5	344.7	89.38	49.90	41XY	1057.322LC4	WIND 4	2118.964	2265.472	3339.493	3339.493	0.000	5.885	11	2.000	2.381
D1	D1	SAE	1.5X1.5X0.1875	344.7	32.98	17.12	43X	5.293LC3	WIND 0	46.030	30.915	32.528	32.528	0.000	3.464	1	1.000	1.429
D2	D2	SAE	1.5X1.5X0.1875	344.7	56.42	19.61	45X	8.065LC1	WIND 0	46.030	30.915	32.528	32.528	0.000	2.818	1	1.000	1.429
D3	D3	SAE	1.5X1.5X0.1875	344.7	70.10	31.91	47X	9.866LC3	WIND 0	46.030	30.915	32.528	32.528	0.000	2.818	1	1.000	1.429
D4	D4	SAE	2X2X0.125	344.7	69.89	59.26	49X	12.850LC3	WIND 0	44.420	30.915	21.685	21.685	0.000	2.818	1	1.000	1.429
D5	D5	SAE	2X2X0.1875	344.7	78.94	78.94	51X	24.405LC3	WIND 0	65.546	30.915	32.528	32.528	0.000	2.818	1	1.000	1.429
D6	D6	SAE	2.5X2.5X0.1875	344.7	63.41	51.99	53X	32.148LC3	WIND 0	86.364	61.830	65.055	65.055	0.000	2.818	2	1.000	1.429
D7	D7	SAE	2X2X0.1875	344.7	85.17	54.52	55X	33.711LC3	WIND 0	65.546	61.830	65.055	65.055	0.000	2.385	2	1.000	1.429
D8	D8	SAE	2X2X0.1875	344.7	90.36	55.89	56P	34.557LC4	WIND 4	65.546	61.830	65.055	65.055	0.000	2.038	2	1.000	1.429
D9	D9	DAE	2X2X0.1875	344.7	87.20	67.07	58XY	41.471LC3	WIND 0	143.612	61.830	130.110	130.110	0.000	4.446	2	1.000	1.429
D10	D10	DAE	2.5X2.5X0.1875	344.7	67.07	67.07	61X	41.466LC3	WIND 0	183.730	61.830	130.110	130.110	0.000	3.681	2	1.000	1.429
D11	D11	DAE	2X2X0.1875	344.7	85.61	59.28	63X	36.655LC3	WIND 0	143.612	61.830	130.110	130.110	0.000	3.384	2	1.000	1.429
D12	D12	DAE	2X2X0.1875	344.7	88.80	66.31	65X	41.000LC3	WIND 0	143.612	61.830	130.110	130.110	0.000	3.384	2	1.000	1.429
D13	D13	DAE	2X2X0.1875	344.7	92.70	68.11	67X	42.110LC3	WIND 0	143.612	61.830	130.110	130.110	0.000	3.384	2	1.000	1.429
D14	D14	DAE	2.5X2.5X0.1875	344.7	73.52	73.52	69P	45.455LC3	WIND 0	183.730	61.830	130.110	130.110	0.000	3.384	2	1.000	1.429
D15	D15	DAE	2.5X2.5X0.1875	344.7	74.96	74.57	71P	46.107LC3	WIND 0	183.730	61.830	130.110	130.110	0.000	3.384	2	1.000	1.429
D16	D16	DAE	2X2X0.1875	344.7	80.41	75.14	73X	46.459LC3	WIND 0	143.612	61.830	130.110	130.110	0.000	3.033	2	1.000	1.429
D17	D17	DAE	2X2X0.1875	344.7	74.84	62.53	75P	38.662LC3	WIND 0	143.612	61.830	130.110	130.110	0.000	2.774	2	1.000	1.429
D18	D18	SAE	4X4X0.5	344.7	92.03	91.51	76XY	229.590LC4	WIND 4	369.323	250.880	433.700	433.700	0.000	7.473	4	1.000	1.746
D19	D19	SAE	4X4X0.25	344.7	64.46	44.20	79X	47.928LC3	WIND 0	191.709	125.440	108.425	108.425	0.000	5.647	2	1.000	1.746
D20	D20	SAE	4X4X0.25	344.7	68.67	44.79	81X	48.561LC4	WIND 4	191.709	125.440	108.425	108.425	0.000	5.647	2	1.000	1.746
D21	D21	SAE	4X4X0.25	344.7	71.00	51.03	83P	55.326LC3	WIND 0	191.709	125.440	108.425	108.425	0.000	5.598	2	1.000	1.746
D22	D22	SAE	4X4X0.25	344.7	76.57	53.74	85P	58.270LC3	WIND 0	191.709	125.440	108.425	108.425	0.000	5.598	2	1.000	1.746

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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
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D23	D23	SAE	4X4X0.25	344.7	83.74	57.29	87P	62.119LC3	WIND 0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D24	D24	SAE	4X4X0.25	344.7	86.72	59.29	89P	64.281LC3	WIND 0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D25	D25	SAE	4X4X0.25	344.7	91.36	62.55	91P	67.825LC3	WIND 0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D26	D26	SAE	4X4X0.3125	344.7	77.26	56.04	93P	70.297LC3	WIND 0	236.925	125.440	135.531	0.000	5.647	2	1.000	1.746
D27	D27	SAE	4X4X0.3125	344.7	80.00	58.62	95P	73.538LC3	WIND 0	236.925	125.440	135.531	0.000	5.622	2	1.000	1.746
D28	D28	SAE	4X4X0.3125	344.7	82.72	60.15	97P	75.453LC3	WIND 0	236.925	125.440	135.531	0.000	5.622	2	1.000	1.746
D29	D29	SAE	4X4X0.3125	344.7	84.20	63.07	99P	79.113LC3	WIND 0	236.925	125.440	135.531	0.000	5.598	2	1.000	1.746
D30	D30	SAE	5X5X0.5	344.7	72.26	72.26	101X	181.278LC4	WIND 4	477.748	250.880	433.700	0.000	7.500	4	1.000	1.746
D31	D31	SAE	5X5X0.5	344.7	76.83	67.47	102XY	169.280LC4	WIND 4	477.748	250.880	433.700	0.000	8.532	4	1.000	1.746
D32	D32	SAE	4X4X0.5	344.7	59.03	56.95	104XY	71.436LC4	WIND 4	369.323	125.440	216.850	0.000	9.383	2	1.000	1.746
D33	D33	SAE	4X4X0.375	344.7	70.48	43.38	106XY	54.420LC4	WIND 4	282.143	125.440	162.638	0.000	10.544	2	1.000	1.746
D34	D34	SAE	4X4X0.375	344.7	50.54	28.57	109XY	35.843LC4	WIND 4	282.143	125.440	162.638	0.000	11.772	2	1.000	1.746
D35	D35	SAE	4X4X0.375	344.7	56.15	49.99	113P	62.701LC4	WIND 4	282.143	125.440	162.638	0.000	8.116	2	1.000	1.746
D36	D36	SAE	4X4X0.375	344.7	87.00	48.60	121P	60.963LC3	WIND 0	282.143	125.440	162.638	0.000	9.157	2	1.000	1.746
D37	D37	SAE	4X4X0.375	344.7	35.06	27.50	128P	34.493LC3	WIND 0	282.143	125.440	162.638	0.000	9.157	2	1.000	1.746
D38	D38	SAE	4X4X0.375	344.7	60.08	21.28	137P	26.700LC3	WIND 0	282.143	125.440	162.638	0.000	10.301	2	1.000	1.746
D39	D39	SAE	4X4X0.5	344.7	93.72	73.93	144P	92.734LC3	WIND 0	369.323	125.440	216.850	0.000	10.301	2	1.000	1.746
D40	D40	SAE	5X5X0.5	344.7	94.29	36.09	162P	67.899LC4	WIND 4	477.748	188.160	325.275	0.000	15.867	3	1.000	1.746
H1	H1	SAE	1.5X1.5X0.1875	344.7	3.69	0.00	167X	0.000		43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H2	H2	SAE	1.5X1.5X0.1875	344.7	2.58	1.77	1661Y	0.772LC4	WIND 4	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H3	H3	SAE	1.5X1.5X0.1875	344.7	4.34	1.97	1672X	1.140LC1	WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H4	H4	SAE	1.5X1.5X0.1875	344.7	31.63	6.74	1663P	3.901LC1	WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H5	H5	SAE	2X2X0.1875	344.7	64.21	9.48	168Y	7.944LC1	WIND 0	63.005	125.440	81.319	0.000	1.300	2	1.000	1.746
H6	H6	SAE	3X3X0.25	344.7	65.15	29.97	170P	43.222LC1	WIND 0	137.497	125.440	108.425	0.000	2.280	2	1.000	1.746
H7	H7	SAE	2X2X0.1875	344.7	29.07	5.28	1701P	4.424LC1	WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746
H8	H8	SAE	2X2X0.1875	344.7	49.99	8.46	1703P	7.087LC1	WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746
H9	H9	SAE	2X2X0.1875	344.7	84.70	13.37	1704P	11.200LC1	WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746
H10	H10	SAE	3X3X0.25	344.7	47.98	21.83	172Y	31.478LC1	WIND 0	137.497	125.440	108.425	0.000	2.280	2	1.000	1.746
H11	H11	SAE	4X4X0.375	344.7	83.63	67.71	1722P	127.406LC3	WIND 0	282.143	188.160	243.956	0.000	4.904	3	1.000	1.746
H12	H12	SAE	2.5X2.5X0.25	344.7	32.88	9.21	17231P	13.277LC1	WIND 0	110.390	125.440	108.425	0.000	4.904	2	1.000	1.746
H13	H13	SAE	3.5X3.5X0.25	344.7	9.82	5.17	17251P	7.454LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H14	H14	SAE	3.5X3.5X0.25	344.7	10.45	5.23	17252P	7.548LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H15	H15	SAE	3.5X3.5X0.25	344.7	12.18	6.29	17253P	9.068LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H16	H16	SAE	3.5X3.5X0.25	344.7	10.65	4.95	17254P	7.135LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H17	H17	SAE	4X4X0.25	344.7	89.78	71.48	17255P	103.072LC1	WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746
H18	H18	SAE	4X4X0.25	344.7	43.49	7.50	1724P	10.819LC1	WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746
H19	H19	SAE	4X4X0.25	344.7	85.34	83.86	1728P	120.934LC1	WIND 0	191.709	125.440	108.425	0.000	6.446	2	1.000	1.746
H20	H20	SAE	4X4X0.25	344.7	51.88	38.31	1729P	55.250LC1	WIND 0	191.709	125.440	108.425	0.000	7.908	2	1.000	1.746
H21	H21	SAE	5X5X0.375	344.7	31.03	30.99	17291P	51.710LC1	WIND 0	363.462	125.440	162.638	0.000	9.370	2	1.000	1.746
H22	H22	SAE	5X5X0.375	344.7	47.95	46.72	17292P	77.949LC1	WIND 0	363.462	125.440	162.638	0.000	10.832	2	1.000	1.746
H23	H23	SAE	5X5X0.375	344.7	4.63	3.08	178P	3.860LC3	WIND 0	363.462	125.440	162.638	0.000	6.147	2	1.000	1.746
H24	H24	SAE	6X6X0.375	344.7	56.09	56.09	17293P	93.578LC1	WIND 0	444.781	125.440	162.638	0.000	13.757	2	1.000	1.746
H25	H25	SAE	6X6X0.375	344.7	6.07	2.38	181P	2.983LC3	WIND 0	444.781	125.440	162.638	0.000	7.610	2	1.000	1.746
H26	H26	SAE	6X6X0.375	344.7	85.83	85.83	17294P	143.202LC1	WIND 0	444.781	125.440	162.638	0.000	16.682	2	1.000	1.746
H27	H27	SAE	6X6X0.375	344.7	8.52	4.98	189P	6.245LC3	WIND 0	444.781	125.440	162.638	0.000	9.072	2	1.000	1.746

*** Resumen de esfuerzos máximos por cada caso de carga

Summary of Maximum Usages by Load Case:

Load Case	Maximum	Element	Element
Usage %	Label	Type	
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	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
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	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

LC1 WIND 0° C.D.	93.72	149P	Angle
LC2 WIND 45° C.D.	97.70	17P	Angle
LC3 WIND 0° C.T.	92.70	67XY	Angle
LC4 WIND 45° C.T.	99.90	17P	Angle
LC5 WIND 0° DEFLEX	35.41	168P	Angle
LC6 WIND 45° DEFLEX	37.81	40P	Angle

*** Peso de la estructura (N):
Weight of Angles*Section DLF: 749605.6
Total: 749605.6

*** End of Report

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2 – RESUMEN DE REFUERZO	Page	1 of 5
	Project	TORRE CUADRADA AUTOSOPORTADA DE 150m	Date	17:07:07 03/17/10
	Client	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Designed by	Leopoldo Barrera

0*** Resumen completo para todos los casos de carga - uso= esfuerzo máximo/Esfuerzo permisible
Printed capacities do not include EIA allowable stress increase for wind load cases.
Printed capacities do not include the strength factor entered for each loadcase.

Rs:

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength	Max Usage	Max Use In Comp.	Comp. Control Member	Comp. Force	Comp. Control Load Case	L/R Capacity	Comp. Shear Capacity	Conn. Bearing Capacity	RLX	RLY	RLZ	L/R Length Comp. Member	Curve No.	No. Of Bolts Comp.	
				(MPa)	%	%		(kN)		(kN)	(kN)	(kN)				(m)			
M1	M1	DAE	2.5X2.5X0.25	344.7	9.31	9.31	2P	-21.714LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M2	M2	DAE	2.5X2.5X0.25	344.7	30.70	30.70	4P	-71.590LC4	WIND 4	233.161	752.639	650.551	0.500	0.500	0.500	64.00	2.500	1	6
M3	M3	DAE	3.5X3.5X0.25	344.7	50.78	50.78	6P	-189.701LC4	WIND 4	373.558	878.079	758.976	0.500	0.500	0.500	45.15	2.500	1	7
M4	M4	PAE	2L4X0.25+L4X0.375	344.7	49.90	49.90	8P	-366.165LC4	WIND 4	733.836	878.079	758.976	0.500	0.500	0.500	26.58	1.570	1	7
M5	M5	PAE	2L4X0.375+L4X0.5	344.7	42.99	42.99	9P	-377.477LC4	WIND 4	1146.974	878.079	1138.464	0.250	0.250	0.250	33.82	4.099	1	7
M6	M6	PAE	2L4X0.375+L4X0.5	344.7	56.82	56.82	11P	-498.909LC4	WIND 4	1103.402	878.079	1138.464	0.500	0.500	0.500	41.25	2.500	1	7
M7	M7	PAE	2L4X0.3125+L4X0.5	344.7	77.81	77.81	13P	-683.201LC4	WIND 4	993.810	878.079	948.720	0.500	0.500	0.500	41.53	2.500	1	7
M8	M8	PAE	2L4X0.3125+L4X0.5	344.7	89.45	89.45	15P	-888.974LC4	WIND 4	993.810	2161.836	1951.652	0.500	0.500	0.500	41.53	2.500	1	12
M9	M9	PAE	2L4X0.3125+L4X0.5	344.7	99.90	99.90	17P	-1069.851LC4	WIND 4	1070.965	1801.530	1626.377	0.500	0.500	0.500	26.25	1.580	1	10
M10	M10	PAE	2L4X0.375+L4X0.375	344.7	83.52	83.52	18P	-757.358LC4	WIND 4	906.746	1261.071	1366.156	0.250	0.250	0.250	56.33	6.683	1	7
M11	M11	PAE	2L4X0.375+L4X0.3125	344.7	87.67	87.67	20P	-794.069LC4	WIND 4	905.756	1261.071	1366.156	0.500	0.500	0.500	48.11	2.800	1	7
M12	M12	PAE	2L5X0.375+L5X0.375	344.7	76.53	76.53	22P	-965.135LC4	WIND 4	1280.273	1261.071	1366.156	0.500	0.500	0.500	37.35	2.700	1	7
M13	M13	PAE	2L6X0.5+L5X0.375	344.7	80.00	80.00	24P	-1153.020LC4	WIND 4	1806.282	1441.224	2081.762	0.500	0.500	0.500	35.44	2.800	1	8
M14	M14	PAE	2L6X0.5+L5X0.375	344.7	83.91	83.91	26P	-1360.446LC4	WIND 4	1806.282	1621.377	2341.982	0.500	0.500	0.500	35.44	2.800	1	9
M15	M15	PAE	2L6X0.5+L5X0.375	344.7	87.39	87.39	28P	-1583.482LC4	WIND 4	1812.000	2059.520	3035.903	0.500	0.500	0.500	34.81	2.750	1	10
M16	M16	PAE	2L6X0.5+L5X0.375	344.7	93.89	93.89	29P	-1706.527LC4	WIND 4	1817.673	2059.520	3035.903	0.500	0.500	0.500	34.18	2.700	1	10
M17	M17	PAE	2L6X0.5+L5X0.5	344.7	89.82	89.82	30P	-1750.986LC4	WIND 4	1949.468	2059.520	3035.903	0.250	0.250	0.250	35.03	5.675	1	10
M18	M18	PAE	2L6X0.5+L5X0.5	344.7	95.25	95.25	31P	-1813.158LC4	WIND 4	1903.600	2059.520	3035.903	0.250	0.250	0.250	39.62	6.418	1	10
M19	M19	PAE	2L6X0.5+L5X0.5	344.7	92.27	92.27	32P	-1775.566LC4	WIND 4	1924.265	2059.520	3035.903	0.250	0.250	0.250	37.58	6.088	1	10
M20	M20	PAE	2L6X0.5+L5X0.5	344.7	88.31	88.31	33P	-1699.254LC4	WIND 4	1924.265	2059.520	3035.903	0.250	0.250	0.250	37.58	6.088	1	10
M21	M21	PAE	2L6X0.5+L5X0.375	344.7	94.30	94.30	34P	-1676.409LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M22	M22	PAE	2L6X0.5+L5X0.375	344.7	91.19	91.19	35P	-1621.066LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M23	M23	PAE	2L6X0.5+L5X0.375	344.7	91.84	91.84	36P	-1632.622LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M24	M24	PAE	2L6X0.5+L5X0.375	344.7	94.95	94.95	37P	-1687.993LC4	WIND 4	1777.701	2059.520	3035.903	0.250	0.250	0.250	38.53	6.088	1	10
M25	M25	PAE	2L6X0.5+L5X0.5	344.7	88.40	88.40	38P	-1701.085LC4	WIND 4	1924.265	2059.520	3035.903	0.250	0.250	0.250	37.58	6.088	1	10
M26	M26	PAE	2L6X0.5+L5X0.5	344.7	95.29	95.29	39P	-1704.038LC4	WIND 4	1788.309	2059.520	3035.903	0.334	0.334	0.334	50.21	6.088	1	10
M27	M27	PAE	2L6X0.5+L5X0.5	344.7	96.17	96.17	40P	-1719.754LC4	WIND 4	1788.309	2059.520	3035.903	0.334	0.334	0.334	50.21	6.088	1	10
M28	M28	PAE	2L6X0.5+L5X0.5	344.7	89.38	89.38	41P	-1731.086LC4	WIND 4	1936.735	2265.472	3339.493	0.250	0.250	0.250	36.33	5.885	1	11
D1	D1	SAE	1.5X1.5X0.1875	344.7	32.98	32.98	43XY	-4.308LC1	WIND 0	9.821	30.915	32.528	0.750	0.500	0.500	232.74	3.464	6	1
D2	D2	SAE	1.5X1.5X0.1875	344.7	56.42	56.42	45XY	-7.511LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D3	D3	SAE	1.5X1.5X0.1875	344.7	70.10	70.10	47XY	-9.331LC3	WIND 0	13.312	30.915	32.528	0.750	0.500	0.500	189.31	2.818	6	1
D4	D4	SAE	2X2X0.125	344.7	69.89	69.89	49XY	-12.807LC3	WIND 0	18.324	30.915	21.685	0.750	0.500	0.500	139.37	2.818	6	1
D5	D5	SAE	2X2X0.1875	344.7	78.94	72.81	51XY	-19.476LC3	WIND 0	26.750	30.915	32.528	0.750	0.500	0.500	140.78	2.818	6	1
D6	D6	SAE	2.5X2.5X0.1875	344.7	63.41	63.41	52X	-30.257LC4	WIND 4	47.716	61.830	65.055	0.750	0.500	0.500	112.06	2.818	1	2
D7	D7	SAE	2X2X0.1875	344.7	85.17	85.17	54X	-28.281LC4	WIND 4	33.205	61.830	65.055	0.750	0.500	0.500	119.18	2.385	1	2
D8	D8	SAE	2X2X0.1875	344.7	90.36	90.36	56X	-40.746LC4	WIND 4	45.091	61.830	65.055	0.750	0.500	0.500	101.84	2.038	1	2
D9	D9	DAE	2X2X0.1875	344.7	87.20	87.20	59P	-54.515LC2	WIND 4	47.004	61.830	130.110	0.550	0.250	0.250	156.03	4.446	6	2
D10	D10	DAE	2.5X2.5X0.1875	344.7	67.07	61.99	61XY	-38.328LC3	WIND 0	68.496	61.830	130.110	0.750	0.500	0.500	139.71	3.681	6	2
D11	D11	DAE	2X2X0.1875	344.7	85.61	85.61	63XY	-38.262LC3	WIND 0	44.694	61.830	130.110	0.750	0.500	0.500	161.93	3.384	6	2
D12	D12	DAE	2X2X0.1875	344.7	88.80	88.80	65XY	-39.690LC3	WIND 0	44.694	61.830	130.110	0.750	0.500	0.500	161.93	3.384	6	2

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2 – RESUMEN DE REFUERZO	2 of 5
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D13	D13	DAE	2X2X0.1875	344.7	92.70	92.70	67XY	-41.432LC3	WIND	0	44.694	61.830	130.110	0.750	0.500	0.500	161.93	3.384	6	2
D14	D14	DAE	2.5X2.5X0.1875	344.7	73.52	71.78	69Y	-44.380LC3	WIND	0	76.308	61.830	130.110	0.750	0.500	0.500	128.42	3.384	6	2
D15	D15	DAE	2.5X2.5X0.1875	344.7	74.96	74.96	71Y	-46.345LC3	WIND	0	76.308	61.830	130.110	0.750	0.500	0.500	128.42	3.384	6	2
D16	D16	DAE	2X2X0.1875	344.7	80.41	80.41	73Y	-41.625LC3	WIND	0	51.764	61.830	130.110	0.750	0.500	0.500	145.14	3.033	6	2
D17	D17	DAE	2X2X0.1875	344.7	74.84	74.84	75Y	-43.497LC3	WIND	0	58.120	61.830	130.110	0.750	0.500	0.500	132.75	2.774	6	2
D18	D18	SAE	4X4X0.5	344.7	92.03	92.03	77P	-230.876LC4	WIND	4	267.776	250.880	433.700	0.250	0.250	0.250	94.05	7.473	1	4
D19	D19	SAE	4X4X0.25	344.7	64.46	64.46	79XY	-47.537LC4	WIND	4	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D20	D20	SAE	4X4X0.25	344.7	68.67	68.67	81XY	-50.642LC3	WIND	0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D21	D21	SAE	4X4X0.25	344.7	71.00	71.00	83XY	-52.953LC3	WIND	0	74.581	125.440	108.425	0.750	0.500	0.500	138.62	5.598	6	2
D22	D22	SAE	4X4X0.25	344.7	76.57	76.57	85Y	-57.103LC3	WIND	0	74.581	125.440	108.425	0.750	0.500	0.500	138.62	5.598	6	2
D23	D23	SAE	4X4X0.25	344.7	83.74	83.74	87Y	-61.751LC3	WIND	0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D24	D24	SAE	4X4X0.25	344.7	86.72	86.72	89Y	-63.953LC3	WIND	0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D25	D25	SAE	4X4X0.25	344.7	91.36	91.36	91Y	-67.371LC3	WIND	0	73.743	125.440	108.425	0.750	0.500	0.500	139.83	5.647	6	2
D26	D26	SAE	4X4X0.3125	344.7	77.26	77.26	93Y	-70.024LC3	WIND	0	90.630	125.440	135.531	0.750	0.500	0.500	140.53	5.647	6	2
D27	D27	SAE	4X4X0.3125	344.7	80.00	80.00	95Y	-72.916LC3	WIND	0	91.148	125.440	135.531	0.750	0.500	0.500	139.92	5.622	6	2
D28	D28	SAE	4X4X0.3125	344.7	82.72	82.72	97Y	-75.399LC3	WIND	0	91.148	125.440	135.531	0.750	0.500	0.500	139.92	5.622	6	2
D29	D29	SAE	4X4X0.3125	344.7	84.20	84.20	99Y	-77.184LC3	WIND	0	91.662	125.440	135.531	0.750	0.500	0.500	139.32	5.598	6	2
D30	D30	SAE	5X5X0.5	344.7	72.26	71.33	100X	-178.959LC4	WIND	4	283.477	250.880	433.700	0.550	0.250	0.250	105.46	7.500	1	4
D31	D31	SAE	5X5X0.5	344.7	76.83	76.83	103P	-168.424LC4	WIND	4	219.214	250.880	433.700	0.550	0.250	0.250	119.97	8.532	1	4
D32	D32	SAE	4X4X0.5	344.7	59.03	59.03	105P	-66.572LC4	WIND	4	112.776	125.440	216.850	0.550	0.250	0.250	166.54	9.383	6	2
D33	D33	SAE	4X4X0.375	344.7	70.48	70.48	107P	-52.071LC4	WIND	4	73.884	125.440	162.638	0.550	0.250	0.250	185.61	10.544	6	2
D34	D34	SAE	4X4X0.375	344.7	50.54	50.54	109P	-42.349LC2	WIND	4	63.003	125.440	162.638	0.550	0.250	0.250	207.23	11.772	6	2
D35	D35	SAE	4X4X0.375	344.7	56.15	56.15	117P	-78.927LC1	WIND	0	105.691	125.440	162.638	0.550	0.250	0.250	142.88	8.116	6	2
D36	D36	SAE	4X4X0.375	344.7	87.00	87.00	124P	-104.063LC1	WIND	0	89.936	125.440	162.638	0.550	0.250	0.250	161.20	9.157	6	2
D37	D37	SAE	4X4X0.375	344.7	35.06	35.06	133P	-41.933LC1	WIND	0	89.936	125.440	162.638	0.550	0.250	0.250	161.20	9.157	6	2
D38	D38	SAE	4X4X0.375	344.7	60.08	60.08	140P	-61.020LC1	WIND	0	76.368	125.440	162.638	0.550	0.250	0.250	181.34	10.301	6	2
D39	D39	SAE	4X4X0.5	344.7	93.72	93.72	149P	-123.375LC1	WIND	0	98.982	125.440	216.850	0.550	0.333	0.333	182.83	10.301	6	2
D40	D40	SAE	5X5X0.5	344.7	94.29	94.29	158P	-117.625LC2	WIND	4	93.797	188.160	325.275	0.550	0.143	0.143	223.10	15.867	6	3
H1	H1	SAE	1.5X1.5X0.1875	344.7	3.69	3.69	166P	-0.550LC3	WIND	0	14.917	62.720	40.659	1.000	1.000	1.000	174.68	1.300	6	1
H2	H2	SAE	1.5X1.5X0.1875	344.7	2.58	2.58	1671P	-0.385LC3	WIND	0	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2
H3	H3	SAE	1.5X1.5X0.1875	344.7	4.34	4.34	1662P	-0.647LC4	WIND	4	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2
H4	H4	SAE	1.5X1.5X0.1875	344.7	31.63	31.63	1663Y	-4.718LC3	WIND	0	14.917	125.440	81.319	1.000	1.000	1.000	174.68	1.300	6	2
H5	H5	SAE	2X2X0.1875	344.7	64.21	64.21	168P	-19.049LC3	WIND	0	29.665	125.440	81.319	1.000	1.000	1.000	129.90	1.300	6	2
H6	H6	SAE	3X3X0.25	344.7	65.15	65.15	170Y	-32.044LC3	WIND	0	49.188	125.440	108.425	1.000	1.000	1.000	151.63	2.280	6	2
H7	H7	SAE	2X2X0.1875	344.7	29.07	29.07	1701Y	-3.950LC3	WIND	0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2
H8	H8	SAE	2X2X0.1875	344.7	49.99	49.99	1703Y	-6.792LC3	WIND	0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2
H9	H9	SAE	2X2X0.1875	344.7	84.70	84.70	1704Y	-11.507LC3	WIND	0	13.587	125.440	81.319	1.000	1.000	1.000	227.83	2.280	6	2
H10	H10	SAE	3X3X0.25	344.7	47.98	47.98	172P	-52.022LC3	WIND	0	127.059	125.440	108.425	0.500	0.500	0.500	75.81	2.280	1	2
H11	H11	SAE	4X4X0.375	344.7	83.63	83.63	1722Y	-107.546LC3	WIND	0	128.604	188.160	243.956	0.500	0.500	0.500	122.51	4.904	6	3
H12	H12	SAE	2.5X2.5X0.25	344.7	32.88	32.88	17231Y	-9.307LC3	WIND	0	28.304	125.440	108.425	0.500	0.500	0.500	196.61	4.904	6	2
H13	H13	SAE	3.5X3.5X0.25	344.7	9.82	9.82	17251Y	-6.349LC3	WIND	0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H14	H14	SAE	3.5X3.5X0.25	344.7	10.45	10.45	17252Y	-6.759LC3	WIND	0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H15	H15	SAE	3.5X3.5X0.25	344.7	12.18	12.18	17253Y	-7.878LC3	WIND	0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H16	H16	SAE	3.5X3.5X0.25	344.7	10.65	10.65	17254Y	-6.886LC3	WIND	0	64.676	125.440	108.425	0.500	0.500	0.500	139.10	4.904	6	2
H17	H17	SAE	4X4X0.25	344.7	89.78	89.78	17255Y	-79.179LC3	WIND	0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2
H18	H18	SAE	4X4X0.25	344.7	43.49	43.49	1724Y	-38.357LC3	WIND	0	88.195	125.440	108.425	0.500	0.500	0.500	121.43	4.904	6	2
H19	H19	SAE	4X4X0.25	344.7	85.34	85.34	1728Y	-92.533LC3	WIND	0	119.442	125.440	108.425	0.500	0.250	0.250	101.50	6.446	1	2
H20	H20	SAE	4X4X0.25	344.7	51.88	51.88	1729Y	-44.344LC3	WIND	0	85.473	125.440	108.425	0.500	0.250	0.250	124.53	7.908	6	2
H21	H21	SAE	5X5X0.375	344.7	31.03	31.03	17291Y	-38.929LC3	WIND	0	260.955	125.440	162.638	0.250	0.250	0.250	93.16	9.370	1	2
H22	H22	SAE	5X5X0.375	344.7	47.95	47.95	17292Y	-60.152LC3	WIND	0	206.750	125.440	162.638	0.250	0.250	0.250	107.70	10.832	1	2
H23	H23	SAE	5X5X0.375	344.7	4.63	4.63	174P	-5.811LC3	WIND	0	313.027	125.440	162.638	0.500	0.250	0.250	77.57	6.147	1	2
H24	H24	SAE	6X6X0.375	344.7	56.09	51.61	17293Y	-64.740LC3	WIND	0	223.518	125.440	162.638	0.250	0.250	0.250	113.79	13.757	1	2

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2 – RESUMEN DE REFUERZO	3 of 5
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

H25	H25	SAE	6X6X0.375	344.7	6.07	6.07	182P	-7.609LC3	WIND 0	336.759	125.440	162.638	0.500	0.250	0.250	79.68	7.610	1	2
H26	H26	SAE	6X6X0.375	344.7	85.83	77.93	17294Y	-97.758LC3	WIND 0	168.624	125.440	162.638	0.250	0.250	0.250	137.98	16.682	6	2
H27	H27	SAE	6X6X0.375	344.7	8.52	8.52	215P	-10.692LC4	WIND 4	159.752	125.440	162.638	0.500	0.500	0.500	143.81	8.694	6	2

Group Summary (Tension Portion):

Group Label	Group Desc.	Angle Type	Angle Size	Steel Strength (MPa)	Max Usage %	Max Use In Tens. %	Tension Control Member	Tension Force (kN)	Tension Control Load Case	Net Section Capacity (kN)	Tens. Capacity (kN)	Conn. Shear Capacity (kN)	Tens. Capacity (kN)	Conn. Bearing Capacity (kN)	Tens. Capacity (kN)	Conn. Rupture Capacity (kN)	Length Tens. Member (m)	No. Of Bolts Tens.	No. Of Holes	Hole Diameter (cm)
M1	M1	DAE	2.5X2.5X0.25	344.7	9.31	4.43	2XY	13.044LC4	WIND 4	294.374	752.639	650.551	0.000	2.500	6	2.000	1.746			
M2	M2	DAE	2.5X2.5X0.25	344.7	30.70	17.68	4XY	52.042LC4	WIND 4	294.374	752.639	650.551	0.000	2.500	6	2.000	1.746			
M3	M3	DAE	3.5X3.5X0.25	344.7	50.78	30.81	6XY	135.242LC4	WIND 4	438.941	878.079	758.976	0.000	2.500	7	2.000	1.746			
M4	M4	PAE	2L4X0.25+L4X0.375	344.7	49.90	32.01	8XY	242.936LC4	WIND 4	888.575	878.079	758.976	0.000	1.570	7	2.000	1.746			
M5	M5	PAE	2L4X0.375+L4X0.5	344.7	42.99	24.84	9XY	218.103LC4	WIND 4	1248.720	878.079	1138.464	0.000	4.099	7	2.000	1.746			
M6	M6	PAE	2L4X0.375+L4X0.5	344.7	56.82	44.04	11XY	386.719LC4	WIND 4	1248.720	878.079	1138.464	0.000	2.500	7	2.000	1.746			
M7	M7	PAE	2L4X0.3125+L4X0.5	344.7	77.81	62.72	13XY	550.774LC4	WIND 4	1136.655	878.079	948.720	0.000	2.500	7	2.000	1.746			
M8	M8	PAE	2L4X0.3125+L4X0.5	344.7	89.45	66.18	15XY	737.344LC4	WIND 4	1114.067	2161.836	1951.652	0.000	2.500	12	2.000	2.064			
M9	M9	PAE	2L4X0.3125+L4X0.5	344.7	99.90	81.35	17XY	906.340LC4	WIND 4	1114.067	1801.530	1626.377	0.000	1.580	10	2.000	2.064			
M10	M10	PAE	2L4X0.375+L4X0.375	344.7	83.52	52.41	18XY	569.498LC4	WIND 4	1086.718	1261.071	1366.156	0.000	6.683	7	2.000	2.064			
M11	M11	PAE	2L4X0.375+L4X0.3125	344.7	87.67	63.90	20XY	650.774LC4	WIND 4	1018.374	1261.071	1366.156	0.000	2.800	7	2.000	2.064			
M12	M12	PAE	2L5X0.375+L5X0.375	344.7	76.53	64.07	22XY	807.955LC4	WIND 4	1412.081	1261.071	1366.156	0.000	2.700	7	2.000	2.064			
M13	M13	PAE	2L6X0.5+L5X0.375	344.7	80.00	68.06	24XY	980.861LC4	WIND 4	1984.133	1441.224	2081.762	0.000	2.800	8	2.000	2.064			
M14	M14	PAE	2L6X0.5+L5X0.375	344.7	83.91	72.25	26XY	1171.368LC4	WIND 4	1984.133	1621.377	2341.982	0.000	2.800	9	2.000	2.064			
M15	M15	PAE	2L6X0.5+L5X0.375	344.7	87.39	70.68	28XY	1376.811LC4	WIND 4	1947.992	2059.520	3035.903	0.000	2.750	10	2.000	2.381			
M16	M16	PAE	2L6X0.5+L5X0.375	344.7	93.89	76.31	29XY	1486.519LC4	WIND 4	1947.992	2059.520	3035.903	0.000	2.700	10	2.000	2.381			
M17	M17	PAE	2L6X0.5+L5X0.5	344.7	89.82	73.62	30XY	1516.165LC4	WIND 4	2118.964	2059.520	3035.903	0.000	5.675	10	2.000	2.381			
M18	M18	PAE	2L6X0.5+L5X0.5	344.7	95.25	75.07	31XY	1546.089LC4	WIND 4	2118.964	2059.520	3035.903	0.000	6.418	10	2.000	2.381			
M19	M19	PAE	2L6X0.5+L5X0.5	344.7	92.27	70.59	32XY	1453.801LC4	WIND 4	2118.964	2059.520	3035.903	0.000	6.088	10	2.000	2.381			
M20	M20	PAE	2L6X0.5+L5X0.5	344.7	88.31	65.02	33XY	1339.044LC4	WIND 4	2118.964	2059.520	3035.903	0.000	6.088	10	2.000	2.381			
M21	M21	PAE	2L6X0.5+L5X0.375	344.7	94.30	65.18	34XY	1269.629LC4	WIND 4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381			
M22	M22	PAE	2L6X0.5+L5X0.375	344.7	91.19	59.18	35XY	1152.902LC4	WIND 4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381			
M23	M23	PAE	2L6X0.5+L5X0.375	344.7	91.84	58.57	36XY	1140.863LC4	WIND 4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381			
M24	M24	PAE	2L6X0.5+L5X0.375	344.7	94.95	58.98	37XY	1148.944LC4	WIND 4	1947.992	2059.520	3035.903	0.000	6.088	10	2.000	2.381			
M25	M25	PAE	2L6X0.5+L5X0.5	344.7	88.40	55.12	38XY	1135.204LC4	WIND 4	2118.964	2059.520	3035.903	0.000	6.088	10	2.000	2.381			
M26	M26	PAE	2L6X0.5+L5X0.5	344.7	95.29	52.51	39XY	1081.420LC4	WIND 4	2118.964	2059.520	3035.903	0.000	6.088	10	2.000	2.381			
M27	M27	PAE	2L6X0.5+L5X0.5	344.7	96.17	51.85	40XY	1067.897LC4	WIND 4	2118.964	2059.520	3035.903	0.000	6.088	10	2.000	2.381			
M28	M28	PAE	2L6X0.5+L5X0.5	344.7	89.38	49.90	41XY	1057.322LC4	WIND 4	2118.964	2265.472	3339.493	0.000	5.885	11	2.000	2.381			
D1	D1	SAE	1.5X1.5X0.1875	344.7	32.98	17.12	43X	5.293LC3	WIND 0	46.030	30.915	32.528	0.000	3.464	1	1.000	1.429			
D2	D2	SAE	1.5X1.5X0.1875	344.7	56.42	19.61	45X	8.065LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429			
D3	D3	SAE	1.5X1.5X0.1875	344.7	70.10	31.91	47X	9.866LC3	WIND 0	46.030	30.915	32.528	0.000	2.818	1	1.000	1.429			
D4	D4	SAE	2X2X0.125	344.7	69.89	59.26	49X	12.850LC3	WIND 0	44.420	30.915	21.685	0.000	2.818	1	1.000	1.429			
D5	D5	SAE	2X2X0.1875	344.7	78.94	78.94	51X	24.405LC3	WIND 0	65.546	30.915	32.528	0.000	2.818	1	1.000	1.429			
D6	D6	SAE	2.5X2.5X0.1875	344.7	63.41	51.99	53X	32.148LC3	WIND 0	86.364	61.830	65.055	0.000	2.818	2	1.000	1.429			
D7	D7	SAE	2X2X0.1875	344.7	85.17	54.52	55X	33.711LC3	WIND 0	65.546	61.830	65.055	0.000	2.385	2	1.000	1.429			
D8	D8	SAE	2X2X0.1875	344.7	90.36	55.89	56P	34.557LC4	WIND 4	65.546	61.830	65.055	0.000	2.038	2	1.000	1.429			
D9	D9	DAE	2X2X0.1875	344.7	87.20	67.07	58XY	41.471LC3	WIND 0	143.612	61.830	130.110	0.000	4.446	2	1.000	1.429			
D10	D10	DAE	2.5X2.5X0.1875	344.7	67.07	67.07	61X	41.466LC3	WIND 0	183.730	61.830	130.110	0.000	3.681	2	1.000	1.429			
D11	D11	DAE	2X2X0.1875	344.7	85.61	59.28	63X	36.655LC3	WIND 0	143.612	61.830	130.110	0.000	3.384	2	1.000	1.429			
D12	D12	DAE	2X2X0.1875	344.7	88.80	66.31	65X	41.000LC3	WIND 0	143.612	61.830	130.110	0.000	3.384	2	1.000	1.429			

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	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2 – RESUMEN DE REFUERZO	4 of 5
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

D13	D13	DAE	2X2X0.1875	344.7	92.70	68.11	67X	42.110LC3	WIND 0	143.612	61.830	130.110	0.000	3.384	2	1.000	1.429
D14	D14	DAE	2.5X2.5X0.1875	344.7	73.52	73.52	69P	45.455LC3	WIND 0	183.730	61.830	130.110	0.000	3.384	2	1.000	1.429
D15	D15	DAE	2.5X2.5X0.1875	344.7	74.96	74.57	71P	46.107LC3	WIND 0	183.730	61.830	130.110	0.000	3.384	2	1.000	1.429
D16	D16	DAE	2X2X0.1875	344.7	80.41	75.14	73X	46.459LC3	WIND 0	143.612	61.830	130.110	0.000	3.033	2	1.000	1.429
D17	D17	DAE	2X2X0.1875	344.7	74.84	62.53	75P	38.662LC3	WIND 0	143.612	61.830	130.110	0.000	2.774	2	1.000	1.429
D18	D18	SAE	4X4X0.5	344.7	92.03	91.51	76XY	229.590LC4	WIND 4	369.323	250.880	433.700	0.000	7.473	4	1.000	1.746
D19	D19	SAE	4X4X0.25	344.7	64.46	44.20	79X	47.928LC3	WIND 0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D20	D20	SAE	4X4X0.25	344.7	68.67	44.79	81X	48.561LC4	WIND 4	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D21	D21	SAE	4X4X0.25	344.7	71.00	51.03	83P	55.326LC3	WIND 0	191.709	125.440	108.425	0.000	5.598	2	1.000	1.746
D22	D22	SAE	4X4X0.25	344.7	76.57	53.74	85P	58.270LC3	WIND 0	191.709	125.440	108.425	0.000	5.598	2	1.000	1.746
D23	D23	SAE	4X4X0.25	344.7	83.74	57.29	87P	62.119LC3	WIND 0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D24	D24	SAE	4X4X0.25	344.7	86.72	59.29	89P	64.281LC3	WIND 0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D25	D25	SAE	4X4X0.25	344.7	91.36	62.55	91P	67.825LC3	WIND 0	191.709	125.440	108.425	0.000	5.647	2	1.000	1.746
D26	D26	SAE	4X4X0.3125	344.7	77.26	56.04	93P	70.297LC3	WIND 0	236.925	125.440	135.531	0.000	5.647	2	1.000	1.746
D27	D27	SAE	4X4X0.3125	344.7	80.00	58.62	95P	73.538LC3	WIND 0	236.925	125.440	135.531	0.000	5.622	2	1.000	1.746
D28	D28	SAE	4X4X0.3125	344.7	82.72	60.15	97P	75.453LC3	WIND 0	236.925	125.440	135.531	0.000	5.622	2	1.000	1.746
D29	D29	SAE	4X4X0.3125	344.7	84.20	63.07	99P	79.113LC3	WIND 0	236.925	125.440	135.531	0.000	5.598	2	1.000	1.746
D30	D30	SAE	5X5X0.5	344.7	72.26	72.26	101X	181.278LC4	WIND 4	477.748	250.880	433.700	0.000	7.500	4	1.000	1.746
D31	D31	SAE	5X5X0.5	344.7	76.83	67.47	102XY	169.280LC4	WIND 4	477.748	250.880	433.700	0.000	8.532	4	1.000	1.746
D32	D32	SAE	4X4X0.5	344.7	59.03	56.95	104XY	71.436LC4	WIND 4	369.323	125.440	216.850	0.000	9.383	2	1.000	1.746
D33	D33	SAE	4X4X0.375	344.7	70.48	43.38	106XY	54.420LC4	WIND 4	282.143	125.440	162.638	0.000	10.544	2	1.000	1.746
D34	D34	SAE	4X4X0.375	344.7	50.54	28.57	109XY	35.843LC4	WIND 4	282.143	125.440	162.638	0.000	11.772	2	1.000	1.746
D35	D35	SAE	4X4X0.375	344.7	56.15	49.99	113P	62.701LC4	WIND 4	282.143	125.440	162.638	0.000	8.116	2	1.000	1.746
D36	D36	SAE	4X4X0.375	344.7	87.00	48.60	121P	60.963LC3	WIND 0	282.143	125.440	162.638	0.000	9.157	2	1.000	1.746
D37	D37	SAE	4X4X0.375	344.7	35.06	27.50	128P	34.493LC3	WIND 0	282.143	125.440	162.638	0.000	9.157	2	1.000	1.746
D38	D38	SAE	4X4X0.375	344.7	60.08	21.28	137P	26.700LC3	WIND 0	282.143	125.440	162.638	0.000	10.301	2	1.000	1.746
D39	D39	SAE	4X4X0.5	344.7	93.72	73.93	144P	92.734LC3	WIND 0	369.323	125.440	216.850	0.000	10.301	2	1.000	1.746
D40	D40	SAE	5X5X0.5	344.7	94.29	36.09	162P	67.899LC4	WIND 4	477.748	188.160	325.275	0.000	15.867	3	1.000	1.746
H1	H1	SAE	1.5X1.5X0.1875	344.7	3.69	0.00	167X	0.000		43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H2	H2	SAE	1.5X1.5X0.1875	344.7	2.58	1.77	1661Y	0.772LC4	WIND 4	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H3	H3	SAE	1.5X1.5X0.1875	344.7	4.34	1.97	1672X	1.140LC1	WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H4	H4	SAE	1.5X1.5X0.1875	344.7	31.63	6.74	1663P	3.901LC1	WIND 0	43.489	125.440	81.319	0.000	1.300	2	1.000	1.746
H5	H5	SAE	2X2X0.1875	344.7	64.21	9.48	168Y	7.944LC1	WIND 0	63.005	125.440	81.319	0.000	1.300	2	1.000	1.746
H6	H6	SAE	3X3X0.25	344.7	65.15	29.97	170P	43.222LC1	WIND 0	137.497	125.440	108.425	0.000	2.280	2	1.000	1.746
H7	H7	SAE	2X2X0.1875	344.7	29.07	5.28	1701P	4.424LC1	WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746
H8	H8	SAE	2X2X0.1875	344.7	49.99	8.46	1703P	7.087LC1	WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746
H9	H9	SAE	2X2X0.1875	344.7	84.70	13.37	1704P	11.200LC1	WIND 0	63.005	125.440	81.319	0.000	2.280	2	1.000	1.746
H10	H10	SAE	3X3X0.25	344.7	47.98	21.83	172Y	31.478LC1	WIND 0	137.497	125.440	108.425	0.000	2.280	2	1.000	1.746
H11	H11	SAE	4X4X0.375	344.7	83.63	67.71	1722P	127.406LC3	WIND 0	282.143	188.160	243.956	0.000	4.904	3	1.000	1.746
H12	H12	SAE	2.5X2.5X0.25	344.7	32.88	9.21	17231P	13.277LC1	WIND 0	110.390	125.440	108.425	0.000	4.904	2	1.000	1.746
H13	H13	SAE	3.5X3.5X0.25	344.7	9.82	5.17	17251P	7.454LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H14	H14	SAE	3.5X3.5X0.25	344.7	10.45	5.23	17252P	7.548LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H15	H15	SAE	3.5X3.5X0.25	344.7	12.18	6.29	17253P	9.068LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H16	H16	SAE	3.5X3.5X0.25	344.7	10.65	4.95	17254P	7.135LC1	WIND 0	164.603	125.440	108.425	0.000	4.904	2	1.000	1.746
H17	H17	SAE	4X4X0.25	344.7	89.78	71.48	17255P	103.072LC1	WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746
H18	H18	SAE	4X4X0.25	344.7	43.49	7.50	1724P	10.819LC1	WIND 0	191.709	125.440	108.425	0.000	4.904	2	1.000	1.746
H19	H19	SAE	4X4X0.25	344.7	85.34	83.86	1728P	120.934LC1	WIND 0	191.709	125.440	108.425	0.000	6.446	2	1.000	1.746
H20	H20	SAE	4X4X0.25	344.7	51.88	38.31	1729P	55.250LC1	WIND 0	191.709	125.440	108.425	0.000	7.908	2	1.000	1.746
H21	H21	SAE	5X5X0.375	344.7	31.03	30.99	17291P	51.710LC1	WIND 0	363.462	125.440	162.638	0.000	9.370	2	1.000	1.746
H22	H22	SAE	5X5X0.375	344.7	47.95	46.72	17292P	77.949LC1	WIND 0	363.462	125.440	162.638	0.000	10.832	2	1.000	1.746
H23	H23	SAE	5X5X0.375	344.7	4.63	3.08	178P	3.860LC3	WIND 0	363.462	125.440	162.638	0.000	6.147	2	1.000	1.746
H24	H24	SAE	6X6X0.375	344.7	56.09	56.09	17293P	93.578LC1	WIND 0	444.781	125.440	162.638	0.000	13.757	2	1.000	1.746

 INSTATEL COLOMBIA CI LTDA Carrera 124 No. 17-98 Fontibón - Bogotá - Phone: (57) 5470790	Job	Page
	EVALUACIÓN ESTRUCTURAL – CERRO KENNEDY – SANTA MARTA HIPOTESIS 2 – RESUMEN DE REFUERZO	5 of 5
	Project	Date
	TORRE CUADRADA AUTOSOPORTADA DE 150m	17:07:07 03/17/10
	Client	Designed by
	TELEFONICA TELECOM – RTVC RADIO TELEVISIÓN NACIONAL DE COLOMBIA	Leopoldo Barrera

H25	H25	SAE	6X6X0.375	344.7	6.07	2.38	181P	2.983LC3	WIND 0	444.781	125.440	162.638	0.000	7.610	2	1.000	1.746
H26	H26	SAE	6X6X0.375	344.7	85.83	85.83	17294P	143.202LC1	WIND 0	444.781	125.440	162.638	0.000	16.682	2	1.000	1.746
H27	H27	SAE	6X6X0.375	344.7	8.52	4.98	189P	6.245LC3	WIND 0	444.781	125.440	162.638	0.000	9.072	2	1.000	1.746

DAE = Angulo doble.
SAE = Angulo sencillo.
PAE = Sección compuestas

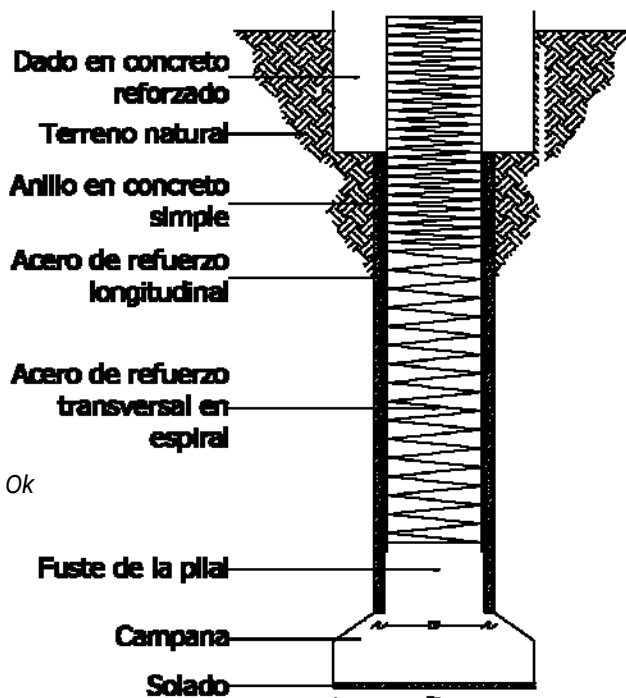
EST-014-EVALUACION TORRE CERRO KENNEDY

Edición: 1.0
Fecha: 31/03/2010

CHEQUEO DE LA CIMENTACION PARA LA HIPOTESIS 2

DATOS DE ENTRADA

Carga ultima en la columna:	2320.00 KN
Carga ultima por arrancamiento:	1577.00 KN
Momento último en la columna (X):	6.80 KN-m
Momento último en la columna (Y):	7.2 KN-m
Tipo de suelo:	Granular
Peso específico del suelo:	22.20 KN/m ³
Altura del pedestal:	0.50 m
Ancho del pedestal:	0.80 m
Capacidad portante por punta:	0.25 Mpa.
Capacidad portante por fuste:	0.08 Mpa.
Longitud aproximada de la pila:	6.00 m
Diámetro de la pila existente:	1.50 m
Area del Fuste:	28.27 m ²
Area del punta (sin tener cuenta la campana):	1.77 m ²
Capacidad de la pila por punta (sin campana):	441.79 KN
Capacidad de la pila por fuste:	2120.58 KN
Capacidad de carga de la pila:	2562.36 KN
Porcentaje de carga asumido por punta:	17.24%
Porcentaje de carga asumido por fuste:	82.76%
Carga ultima asumida por punta:	400.00 KN
Carga ultima asumida por fuste:	1920 KN
Concreto f'c:	21.10 MPa
f'cu Compresión axial:	8.44 MPa
Vcu Cortante dos direcciones:	2.07 MPa
Vcu Cortante una dirección:	4.13 MPa
Factor de seguridad:	1.50
Capacidad portante Util por punta:	0.38 Mpa.
Capacidad portante Util por fuste:	0.11 Mpa.



DIÁMETRO REQUERIDO DEL FUSTE

$$D_f = 146 \times \sqrt{\frac{P_u}{f'_c}}$$

D_f: 0.484 m Ok

DIÁMETRO REQUERIDO DE LA CAMPANA

$$D_c = \sqrt{\frac{4P_u}{\pi \sigma_{unil}}} \geq D_f$$

D_c: 1.165 m Ok

De acuerdo con lo anterior, para la pila existente, y asumiendo que no tiene campana, sino que su sección es constante hasta el fondo, (caso en que la transmisión de esfuerzos sería crítico), sus dimensiones son adecuadas para transmitir las cargas al suelo de fundación.

FOR-DIS-20 Versión: 01	INSTATEL COLOMBIA CI LTDA. DISEÑO DE PILAS	

EST-014-EVALUACION TORRE CERRO KENNEDY

CHEQUEO POR COMPRESIÓN

Diámetro efectivo del fuste: 1.40 m
Area del fuste: 1.53938 m²

$$f_{yu(c)} = \frac{P_u}{A} \quad f_{yu(c)} \quad 1.31 \text{ Mpa} \quad Ok$$

CHEQUEO POR ARRANCAMIENTO

Arrancamiento 1577.00 KN

Volumen de Concreto

Pila: 10.60 m³

Dado 0.32 m³

Volumne cono de arrancamiento

r1 0.60 m

r2 7.00 m

h 6.00 m

Vol.: 325.6 m³

Peso resistente: 7490.57 KN *Ok*