

December 10, 2019

Melanie A. Bachman Executive Director Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

RE: Notice of Exempt Modification for Verizon

Crown Site BU: 841290

363 Riversville Road, Greenwich, CT 06831 Lat: 41° 3' 58.60"/ Long: -73° 40' 17.40"

Dear Ms. Bachman:

Verizon currently maintains fifteen (15) total antennas at the 142-foot mount on the existing 160-foot monopole tower, located at 363 Riversville Road, Greenwich, CT. The tower is owned by Crown Castle and the property is owned by the Greenwich Council Boy Scouts of America. Verizon now intends to replace nine (9) existing antennas at the 142-foot mount.

Tower modifications:

- Remove three (3) 700 LTE antennas
- Remove three (3) PCS LTE antennas
- Remove three (3) AWS LTE antennas
- Remove three (3) 700 LTE RRHs
- Remove three (3) PCS LTE RRHs
- Remove three (3) AWS LTE RRHs
- Add six (6) octaport antennas on side-by-side mounting brackets
- Add three (3) CBRS antennas
- Add three (3) PCS/AWS LTE RRHs
- Add three (3) CBRS RRHs

Ground modifications:

- None

This facility was approved by the Town of Greenwich on July 9, 1985. There is no copy available of the original approval. Email attached from the Town of Greenwich confirms this.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.S.C.A. § 16-50j-73, a copy of this letter is being sent to Mr. Fred Camillo - First-Selectman, Ms. Katie DeLuca - Town Planner, as well as the property owner.

- 1. The proposed modifications will not result in an increase in the height of the existing tower.
- 2. The proposed modifications will not require the extension of the site boundary.
- 3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
- 4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
- 5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
- 6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, Verizon respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to my attention at the address listed below.

Sincerely,

Richard Zajac

Network Real Estate Specialist

300 Meridian Centre Rochester, NY 14618

585-445-5896

richard.zajac@crowncastle.com

Melanie A. Bachman

cc:

Mr. Fred Camillo – First Selectman Town of Greenwich 101 Field Point Road Greenwich, CT 06830

Ms. Katie DeLuca – Town Planner Town of Greenwich 101 Field Point Road Greenwich, CT 06830

Greenwich Council Boy Scouts of America 63 Mason Street Greenwich, CT 06830



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Exhibit A

Original Facility Approval

Terry, Dashanna

From: Patrick LaRow < Patrick.LaRow@greenwichct.org >

Sent: Thursday, January 21, 2016 12:08 PM

To: Terry, Dashanna
Cc: Barbadora, Jeff

Subject: Re: Zoning Documents - Tower at 363 Riversville Road

The Planning and Zoning office does not have any documents related to a telecommunications facility at this address.

Patrick LaRow, AICP
Deputy Director / Assistant Town Planner

Town of Greenwich Planning and Zoning 101 Field Point Road Greenwich, CT 06830

Phone: (203) 622-7894 Fax: (203) 622-3795

Patrick.LaRow@greenwichct.org

From: "Terry, Dashanna" < <u>Dashanna.Terry@crowncastle.com</u>>

To: "patrick.larow@greenwichct.org" <patrick.larow@greenwichct.org>

Cc: "Barbadora, Jeff" < <u>Jeff.Barbadora@crowncastle.com</u>>

Date: 01/21/2016 10:29 AM

Subject: Zoning Documents - Tower at 363 Riversville Road

Hello Patrick,

Thank you for speaking with me this morning regarding zoning documents for the tower at 363 Riversville Road. Could you please confirm here that you do not have original zoning documents for this tower?

Best, Dashanna

DASHANNA TERRY
Real Estate Project Coordinator
T: (781) 970-0067 | M: (571) 241-0984

cid:image001.png@01CF9124.0525FEA0

12 Gill Street, Suite 5800, Woburn, MA 01801 Crowncastle.com

Exhibit B

Property Card

Headquarters Greenwich,

Connecticut

Country United States

Founded 1912

Website reenwichscouting.org

Greenwich Council: Camps

It owns and operates the Ernest Thompson Seton Scout Reservation, a 249-acre (1.01 km) camp located off 363 Riversville Road in Greenwich and named for Ernest Thompson Seton.

Greenwich Council: Order of the Arrow

Achewon Netopalis Lodge No. 427 is the Order of the Arrow lodge for the Greenwich Council. The lodge's name translates to "Spiritual Warrior" in the Algonquian language. The lodge totem is a green witch. Founded in 1949, it is still in existence. In 1977, the lodge received the E. Urner Goodman Award for its effectiveness in promoting and increasing Scout camping in its council.

Greenwich Council: See also

Scouting in Connecticut

Greenwich Council: References

Boy Scouts of America Organization

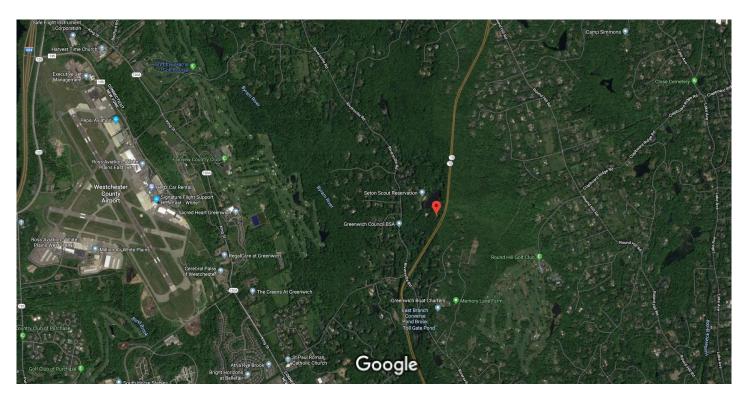
- Boy Scouts of America
- Cub Scouting
- Boy Scouting
- Varsity Scouting
- Venturing
- Sea Scouting
- Order of the Arrow
- National Eagle Scout Association
- Learning for Life

Evaluring 10

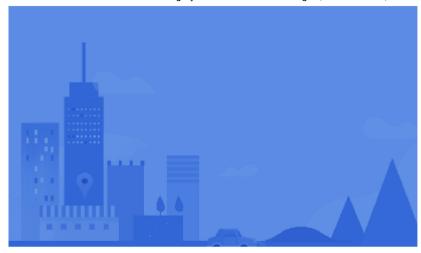


41°03'58.6"N 73°40'17.4"W

Crown Castle - tower location



Imagery ©2019 Maxar Technologies, New York GIS, USDA Farm Service Agency, Map data ©2019 1000 ft □



41°03'58.6"N 73°40'17.4"W

41.066278, -73.671500











Directions S

Save

Nearby

Send to your phone

Share



Greenwich, CT 06831



388H+GC Greenwich, Connecticut

Exhibit C

Construction Drawings

verizon /

W GREENWICH CT 363 RIVERSVILLE ROAD GREENWICH, CT 06831

PROJECT SUMMARY

SITE NAME: W GREENWICH CT 363 RIVERSVILLE ROAD GREENWICH, CT 06831 SITE ADDRESS-TOWER OWNER CROWN CASTLE 2000 CORPORATE DR CANONSBURG, PA 15317

BU NUMBER:

VERIZON WIRELESS 400 FRIEBERG PARKWAY WESTBOROUGH, MA 01581 DAN MYZYRI (617) 945-7288 CUSTOMER/APPLICANT

CONTACT NAD83 LATITUDE 3' 58 3488" N LONGITUDE: ELEVATION:

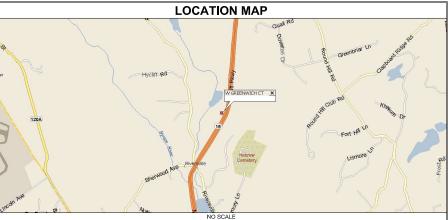
73° 40° 16.4640" W 225' CURRENT ZONING B+T GROUP 1717 S. BOULDER, SUITE 300 TULSA, OK 74119 A&F FIRM

(918) 587-4630 OCCUPANCY TYPE: UNMANNED FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. A.D.A. COMPLIANCE:

CODE COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE BUILDING CODE 2018 CT SBC STRUCTURAL MECHANICAL 2018 CT SBC 2018 CT SBC NEC 2017



DRIVING DIRECTIONS

DEPART LA GUARDIA AIRPORT ON LOCAL ROAD(S) ON CENTRAL TERMINAL DR. BEAR RIGHT ONTO 94TH ST. TAKE RAMP (RIGHT) ONTO GRAND CENTRAL PKWY. AT EXIT 9E, KEEP RIGHT ONTO RAMP. KEEP LEFT TO STAY ON RAMP. KEEP LEFT TO STAY ON RAMP. TAKE RAMP (LEFT) ONTO 1-678 [WHITESTONE EXPY]. STAY ON 1-678 [WHITESTONE EXPY]. STAY ON 1-678 [HUTCHINSON RIVER PKWY]. ROAD NAME CHANGES TO HUTCHINSON RIVER PKWY]. AT EXIT 27, KEEP RIGHT ONTO RAMP. BEAR RIGHT ONTO LOCAL ROAD(S). TURN LEFT ONTO RAMP, THEN IMMEDIATELY TURN LEFT ONTO GLEN RIGGE RO. BEAR LEFT ONTO GLENVILLE RO. BEAR RIGHT ONTO HOLD RIVERSVILLE RO. BEAR RIGHT ONTO HUNDER MOUNTAIN RD. TURN LEFT TO ARRIVE AT W GREENWICH CT.

Ш		BIGATING INDEX						
	SHEET#	SHEET DESCRIPTION	REV.#					
	T-1	TITLE SHEET	0					
	A-1	COMPOUND PLAN AND TOWER ELEVATION	0					
П		FOURDISET DETAILS						

DRAWING INDEX

A/E DOCUMENT REVIEW STATUS

TITLE	SIGNATURE	DATE
OWNER:		
R.F. ENGINEER:		
CONSTRUCTION MGR.:		
LEASING & ZONING:		
VERIZON WIRELESS:		

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN, ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

DO NOT SCALE DRAWINGS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11x17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER
IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



CALL CONNECTICUT ONE CALL (800) 922-4455 CALL 3 WORKING DAYS BEFORE YOU DIG!



B+T GRP

verizon v WESTBOROUGH MA 01581

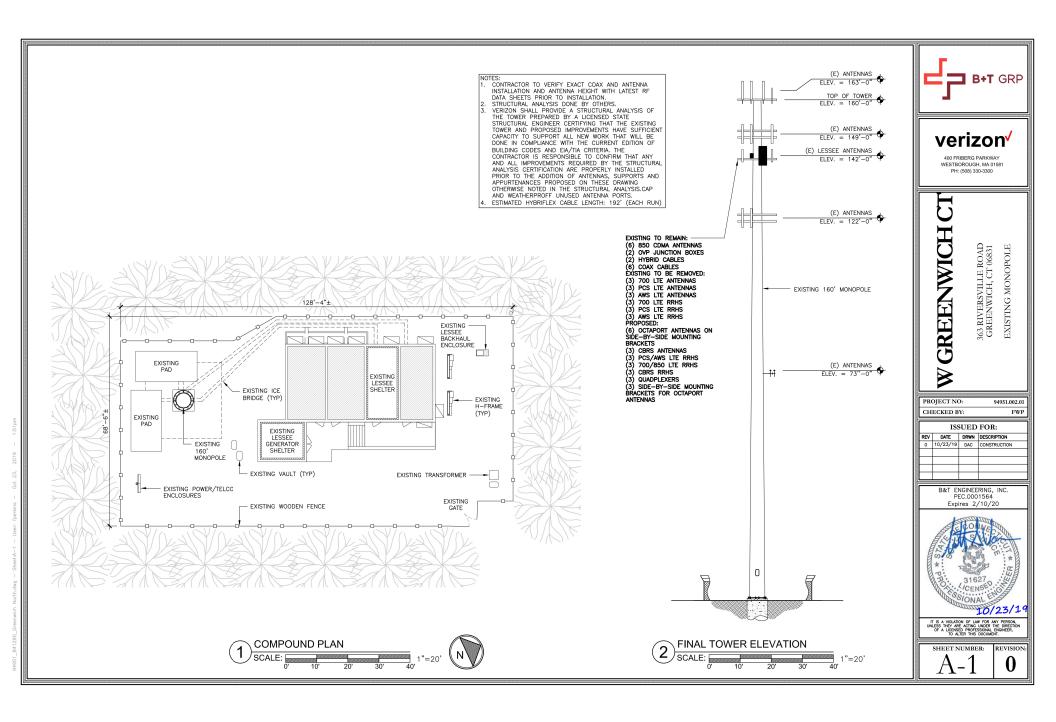
PROJECT NO: CHECKED BY: ISSUED FOR: DATE DRWN DESCRIPTION 10/23/19 DAC CONSTRUCTION

> B&T ENGINEERING, INC Expires 2/10/20

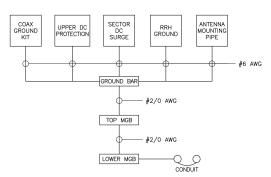


SHEET NUMBER:

REVISION



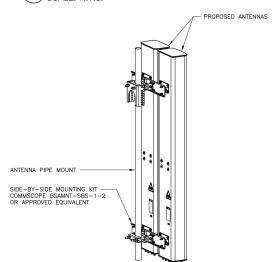
- 1. INSTALL ALL EQUIPMENT, MOUNTING BRACKETS AND HARDWARE ACCORDING WITH MANUFACTURE'S RECOMMENDATIONS.
- 2. GROUND DISTRIBUTION BOXES, MOUNTING PIPES AND RRHs IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.
- INSTALLED EQUIPMENT AND MOUNTING BRACKETS SHALL NOT INTERFERE WITH CLIMBING ACCESS NOR ANT INSTALLED SAFETY DEVICES.
- EQUIPMENT TO BE INSTALLED AT VERIZON'S RAD. CENTER IN ACCORDANCE WITH TOWER STRUCTURAL ANALYSIS (ANALYSIS BY OTHERS).



- BOND ANTENNA GROUNDING KIT CABLES TO TOP CIEE. BOND ANTENNA GROUNDING KIT CABLE TO BOTTOM CIBE.
- TYPICAL FOR ALL SECTORS.

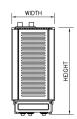
GROUNDING SCHEMATIC DIAGRAM

SCALE: N.T.S.



1	ANTENNA MOUNTING DETAIL SCALE: N.T.S.
4)	SCALE: N.T.S.

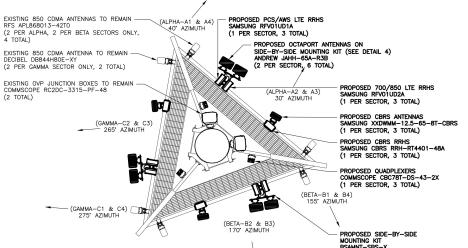
REMOTE RADIO HEAD DIMENSIONS (INCHES)						
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT		
B2/B66A RRH-BR049	15.0"	15.0"	10.0"	84.4 LBS		
B5/B13 RRH-BR04C	15.0"	15.0"	8.1"	70.3 LBS		
CBRS RRH-RT4401-48A	12.1"	8.5"	4.1"	18.6 LBS		



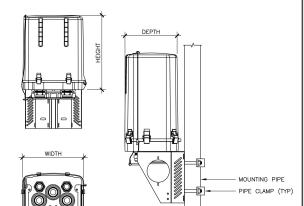


SCALE: N.T.S.

SCALE: N.T.S.



DC SURGE SUPPRESSION DIMENSIONS (INCHES) MODEL HEIGHT WIDTH DEPTH WEIGHT RC2DC-3315-PF-48 28 93" 15.73" 10.3" 32 LBS



RAYCAP SPECIFICATIONS

(1 PER SECTOR, 3 TOTAL)

SCALE: N.T.S.





WESTBOROUGH, MA 01581 PH: (508) 330-3300

GREENWICH 363 RIVERSVILLE ROAD GREENWICH, CT 06831 EXISTING MONOPOLE

PROJECT NO:	94951.002.01
CHECKED BY:	FWP

	ISSUED FOR:								
RE			DESCRIPTION						
0	10/23/1	9 DAC	CONSTRUCTION						

B&T ENGINEERING, INC. PEC.0001564 Expires 2/10/20



SHEET NUMBER:

REVISION

PROPOSED ANTENNA ORIENTATION

Exhibit D

Structural Analysis Report



Date: December 02, 2019

Denice Nicholson Crown Castle 3 Corporate Dr Clifton Park, NY 12065 Paul J. Ford and Company 250 E. Broad St., Ste 600 Columbus, OH 43215 614-221-6679

Subject: Structural Analysis Report

Carrier Designation: Verizon Wireless Co-Locate

Carrier Site Number: NG59564

Carrier Site Name: W GREENWICH CT

Crown Castle Designation: Crown Castle BU Number: 841290

Crown Castle Site Name: GREENWICH NORTH

Crown Castle JDE Job Number: 590342
Crown Castle Work Order Number: 1796229
Crown Castle Order Number: 504982 Rev. 1

Engineering Firm Designation: Paul J. Ford and Company Project Number: 37519-3700.001.7805

Site Data: 363 RIVERSVILLE ROAD, GREENWICH, Fairfield County, CT

Latitude 41° 3′ 58.6″, Longitude -73° 40′ 17.4″

160 Foot - Monopole Tower

Dear Denice Nicholson,

Paul J. Ford and Company is pleased to submit this "Structural Analysis Report" to determine the structural integrity of the above mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration

Sufficient Capacity (67.7%)

This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2018 Connecticut State Building Code and Appendix N. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Respectfully submitted by:

Christophel Poelking, E.I

Structural Designer cpoelking@pauliford.com

ANTOS CONNECTOR ANTOS CONNECTO

12/03/2019

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tnxTower Output

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Base Level Drawing

7) APPENDIX C

Additional Calculations

1) INTRODUCTION

This tower is a 160 ft Monopole tower designed by ENGINEERED ENDEAVORS, INC. from April 2003.

2) ANALYSIS CRITERIA

TIA-222 Revision: TIA-222-H

Risk Category:

Wind Speed: 120 mph

Exposure Category:
Topographic Factor:
Ice Thickness:
Wind Speed with Ice:
Service Wind Speed:

B
1.5 in
50 mph
60 mph

Table 1 - Proposed Equipment Configuration

Mounting Line		Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		3	commscope	CBC78T-DS-43-2X		
		6	commscope	JAHH-65B-R3B w/ Mount Pipe		
		2	commscope	RC2DC-3315-PF-48	pe Barrel Line Size (in)	
		2	decibel	DB844H80E-XY w/ Mount Pipe		
	141.0	4	rfs celwave	APL868013-42T0 w/ Mount Pipe	8	
		3	samsung telecommunications	20W CBRS		
140.0		3	samsung telecommunications	CBRS w/ Mount Pipe		1-5/8
		3	samsung telecommunications	RFV01U-D1A		
		1 4 1	samsung telecommunications	RFV01U-D2A		
	140.0	1	tower mounts	Platform Mount [LP 712-1]		
	140.0	1	tower mounts	Side Arm Mount [SO 701-3]		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		3	ericsson	AIR 32 B2A/B66AA w/ Mount Pipe		
		3	ericsson	ERICSSON AIR 21 B2A B4P w/ Mount Pipe		4.5/0
	163.0	3	ericsson	RADIO 4449 B12/B71		
160.0).0	3	rfs celwave	APXVAARR24_43-U-NA20 w/ Mount Pipe	11 2	1-5/8 1-3/8
		3	rfs celwave	ATMAA1412D-1A20		
	160.0	1	tower mounts	Platform Mount [LP 712-1]		
	100.0	1	tower mounts	Side Arm Mount [SO 701-3]		

Mounting Level (ft)	rel (ft) Elevation Antennas Manufacturer (ft)		Antenna Model	Number of Feed Lines	Feed Line Size (in)	
		3 ericsson RRUS 11				
153.0	153.0	3	ericsson	RRUS 32 B2		
		1	tower mounts	Side Arm Mount [SO 102-3]		
		3	cci antennas	HPA-65R-BUU-H6 w/ Mount Pipe		
		3	ericsson	RADIO 4426		
		3	ericsson	RRUS 32		
		3	kaelus	DBC0061F1V51-2		12 1-5/8 2 3/8 4 3/4
		3	powerwave technologies	7770.00 w/ Mount Pipe	12	1-5/8
149.0	149.0	12	powerwave technologies	LGP21401 2		
		3	quintel technology	QS66512-2 w/ Mount Pipe		
1		1	raycap	DC6-48-60-18-8C		
		1	raycap	DC6-48-60-18-8F		
		1	tower mounts	Platform Mount [LP 712-1]		
		1	tower mounts	Side Arm Mount [SO 701-3]	3/4 w/ Mount Pipe 8-60-18-8C 8-60-18-8F ount [LP 712-1] ount [SO 701-3] H8X20-25 -C-A20 w/ Mount	
		3	alcatel lucent	TD-RRH8X20-25		
		3	rfs celwave	APXVSPP18-C-A20 w/ Mount Pipe		4.10
120.0	120.0	3	rfs celwave	APXVTM14-ALU-I20 w/ Mount Pipe	3 4	1/2 1-1/4
		1	tower mounts	Platform Mount [LP 712-1]		
		1	tower mounts	Side Arm Mount [SO 701-3]		
		3	alcatel lucent	1900MHZ RRH		
119.0	119.0	3	alcatel lucent	800MHZ RRH	<u></u>	
		1	tower mounts	Side Arm Mount [SO 102-3]		
70.0	73.0	2	gps	GPS_A		
72.0	72.0	1	tower mounts	Side Arm Mount [SO 601-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Table & Bearmonte I Terrada							
Document	Remarks	Reference	Source				
4-GEOTECHNICAL REPORTS	WEI, 2009-895, 9/4/2009	5121535	CCISITES				
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	WEI, 2009-895, 9/4/2009	5121536	CCISITES				
4-TOWER MANUFACTURER DRAWINGS	EEI, 5590, 4/5/2003	5164738	CCISITES				

3.1) Analysis Method

tnxTower (version 8.0.5.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

- 1) Tower and structures were built in accordance with the manufacturer's specifications.
- 2) The tower and structures have been maintained in accordance with the manufacturer's specification.
- 3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
- 4) The foundation (structural) capacity of the pad portion of the foundation was unable to be determined due to the lack of existing reinforcing steel information. Therefore, it was assumed that the pad portion of the foundation was properly designed to meet the minimum amount of steel per ACI requirements. The minimum steel values were then used for the analyses of the pad.

This analysis may be affected if any assumptions are not valid or have been made in error. Paul J. Ford and Company should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element		SF*P_allow (K)	% Capacity	Pass / Fail
L1	160 - 152	Pole	TP30.62x29x0.188	1	-4.82	1112.47	7.4	Pass
L2	152 - 111.29	Pole	TP38.86x30.62x0.25	2	-19.89	1828.41	37.0	Pass
L3	111.29 - 77.42	Pole	TP45.09x37.263x0.313	3	-27.60	2653.22	48.6	Pass
L4	77.42 - 36.46	Pole	TP52.62x43.236x0.438	4	-41.64	4330.74	43.0	Pass
L5	36.46 - 0	Pole	TP59x50.335x0.5	5	-61.39	5702.67	43.9	Pass
							Summary	
						Pole (L3)	48.6	Pass
						RATING =	48.6	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Flange Bolts	152	9.4	Pass
1	Flange Plate	152	8.0	Pass
1	Anchor Rods	0	42.0	Pass
1	Base Plate	0	47.4	Pass
1	Base Foundation	0	67.7	Pass
1	Base Foundation Soil Interaction	0	43.2	Pass

Structure Rating (max from all components) =	67.7%

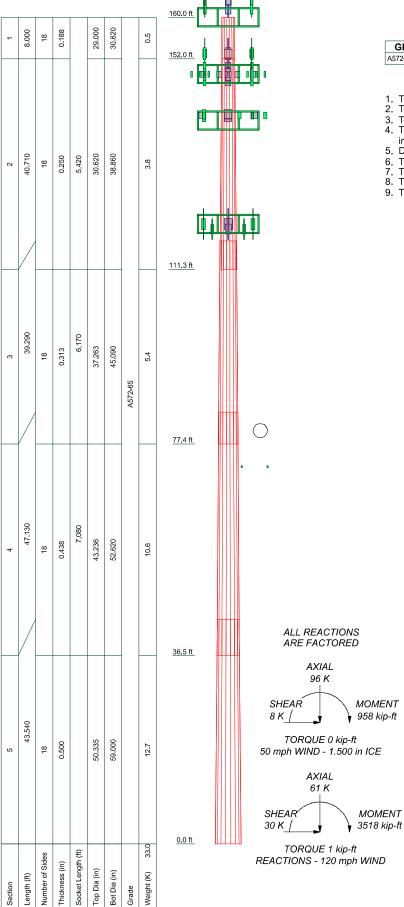
Notes:

- All structural ratings are per TIA-222-H Section 15.5
- 1) See additional documentation in "Appendix C Additional Calculations" for calculations supporting the % capacity consumed.

4.1) Recommendations

The monopole and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A TNXTOWER OUTPUT



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572 65	65 kgi	90 kgi			

TOWER DESIGN NOTES

- 1. Tower is located in Fairfield County, Connecticut.
- 2. Tower designed for Exposure B to the TIA-222-H Standard.
- 3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-H Standard.
- 4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
- 5. Deflections are based upon a 60 mph wind.
- Tower Risk Category II.
 Topographic Category 1 with Crest Height of 0,000 ft
- 8. TIA-222-H Annex S 9. TOWER RATING: 48.6%



Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

- 1) Tower is located in Fairfield County, Connecticut.
- 2) Tower base elevation above sea level: 223.310 ft.
- 3) Basic wind speed of 120 mph.
- 4) Risk Category II.
- 5) Exposure Category B.
- 6) Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- 7) Topographic Category: 1.
- 8) Crest Height: 0.000 ft.
- 9) Nominal ice thickness of 1.500 in.
- 10) Ice thickness is considered to increase with height.
- 11) Ice density of 56.00 pcf.
- 12) A wind speed of 50 mph is used in combination with ice.
- 13) Temperature drop of 50.00 °F.
- 14) Deflections calculated using a wind speed of 60 mph.
- 15) TIA-222-H Annex S.
- 16) A non-linear (P-delta) analysis was used.
- 17) Pressures are calculated at each section.
- 18) Stress ratio used in pole design is 1.05.
- 19) Tower analysis based on target reliabilities in accordance with Annex S.
- 20) Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- 21) Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification Use Code Stress Ratios

✓ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile

Include Bolts In Member Capacity

Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric Distribute Leg Loads As Uniform Assume Legs Pinned

- √ Assume Rigid Index Plate
 √ Use Clear Spans For Wind Area
 Use Clear Spans For KL/r
 Retension Guys To Initial Tension
- √ Bypass Mast Stability Checks
- √ Use Azimuth Dish Coefficients
 √ Project Wind Area of Appurt.

Autocalc Torque Arm Areas

Add IBC .6D+W Combination Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs Use ASCE 10 X-Brace Ly Rules Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation

 ✓ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice

Use TIA-222-H Tension Splice Exemption

Poles

✓ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known

Tapered Pole Section Geometry

Section	Elevation	Section	Splice	Number	Тор	Bottom	Wall	Bend	Pole Grade
	ft	Length	Length	of	Diameter	Diameter	Thickness	Radius	
		ft	ft	Sides	in	in	in	in	
L1	160.000-	8.000	0.00	18	29.000	30.620	0.188	0.750	A572-65
	152.000								(65 ksi)
L2	152.000-	40.710	5.42	18	30,620	38.860	0.250	1.000	A572-65
	111.290								(65 ksi)
L3	111.290-	39.290	6.17	18	37.263	45.090	0.313	1.250	A572-65
	77.420								(65 ksi)

Section	Elevation	Section	Splice	Number	Тор	Bottom	Wall	Bend	Pole Grade
	ft	Length	Length	of	Diameter	Diameter	Thickness	Radius	
		ft	ft	Sides	in	in	in	in	
L4	77.420-36.460	47.130	7.08	18	43.236	52.620	0.438	1.750	A572-65
									(65 ksi)
L5	36.460-0.000	43.540		18	50.335	59.000	0.500	2.000	A572-65
									(65 ksi)

Tapered Pole Properties

Section	Tip Dia.	Area	1	r	С	I/C	J	It/Q	W	w/t
	in	in²	in⁴	in	in	in³	in⁴	in²	in	
L1	29.418	17.147	1798.409	10.228	14.732	122.075	3599.184	8.575	4.774	25.461
	31.063	18.111	2119.135	10.804	15.555	136.235	4241.058	9.057	5.059	26.982
L2	31.054	24.099	2808.140	10.781	15.555	180.530	5619.975	12.052	4.949	19.796
	39.421	30.637	5770.106	13.707	19.741	292.292	11547.804	15.321	6.399	25.597
L3	38.886	36.650	6321.988	13.117	18.930	333.974	12652.295	18.329	6.008	19.226
	45.737	44.414	11250.554	15.896	22.906	491.168	22515.912	22.211	7.386	23.635
L4	45.083	59.431	13753.203	15.193	21.964	626.175	27524.502	29.721	6.840	15.633
	53.364	72.462	24928.553	18.525	26.731	932.572	49889.908	36,238	8.491	19.408
L5	52.465	79.089	24815.629	17.692	25.570	970.485	49663.912	39.552	7.979	15.958
	59.833	92.840	40140.426	20.767	29.972	1339.264	80333.669	46.429	9.504	19.008

Tower Elevation ft	Gusset Area (per face) ft²	Gusset Thickness in	Gusset Grade Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 160.000-			1	1	1			
152.000								
L2 152.000-			1	1	1			
111.290								
L3 111.290-			1	1	1			
77.420								
L4 77.420-			1	1	1			
36.460								
L5 36.460-			1	1	1			
0.000								

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or	Allow Shield	Exclude From	Componen t	Placement ft	Total Number		C _A A _A ft²/ft	Weight plf
	Leg		Torque Calculation	Type 1					
LDF7-50A(1-5/8)	С	No	No	Inside Pole	160.000 -	10	No Ice	0.000	0.82
					0.000		1/2" I ce	0.000	0.82
							1" Ice	0.000	0.82
	_				100 000		2" Ice	0.000	0.82
MLE HYBRID	С	No	No	Inside Pole	160.000 -	1	No Ice	0.000	1.07
9POWER/18FIBE					0.000		1/2" I ce 1" I ce	0.000 0.000	1.07
R RL 2(1-5/8)							2" Ice	0.000	1.07 1.07
HCS 6X12	С	No	No	Inside Pole	160.000 -	2	No Ice	0.000	1.70
6AWG(1-3/8)	O	110	140	maide i die	0.000	2	1/2" Ice	0.000	1.70
0/11/0/0/					0.000		1" Ice	0.000	1.70
							2" Ice	0.000	1.70

LDF7-50A(1-5/8)	С	No	No	Inside Pole	149.000 -	12	No Ice	0.000	0.82
					0.000		1/2" I ce	0.000	0.82
							1" I ce	0.000	0.82
	_					_	2" Ice	0.000	0.82
FB-L98B-034-	С	No	No	Inside Pole	149.000 -	2	No Ice	0.000	0.06
XXX(3/8)					0.000		1/2" Ice	0.000	0.06
							1" Ice	0.000	0.06
WR-VG86ST-	С	No	No	Inside Pole	149.000 -	4	2" Ice No Ice	0.000 0.000	0.06 0.58
BRD(3/4)	C	NO	INO	mside Pole	0.000	4	1/2" Ice	0.000	0.58

Description	Face or Leg	Allow Shield	Exclude From Torque	Componen t Type	Placement ft	Total Number		C _A A _A ft²/ft	Weight plf
			Calculation	1					
							1" I ce	0.000	0.58
*****							2" I ce	0.000	0.58
	_			5 .	1.10.000			0.000	0.00
LDF7-50A(1-5/8)	С	No	No	Inside Pole	140.000 -	6	No Ice	0.000	0.82
					0.000		1/2" I ce	0.000	0.82
							1" Ice	0.000	0.82
							2" I ce	0.000	0.82
HB158-1-08U8-	С	No	No	Inside Pole	140.000 -	2	No Ice	0.000	1.30
S8J18(1-5/8)					0.000		1/2" I ce	0.000	1.30
							1" Ice	0.000	1.30
							2" I ce	0.000	1.30

LDF4-50A(1/2)	С	No	No	Inside Pole	120.000 -	3	No Ice	0.000	0.15
					0.000		1/2" I ce	0.000	0.15
							1" I ce	0.000	0.15
							2" Ice	0.000	0.15
HB114-1-05U3-	С	No	No	Inside Pole	120.000 -	3	No Ice	0.000	0.90
S3J(1-1/4)					0.000		1/2" I ce	0.000	0.90
, ,							1" I ce	0.000	0.90
							2" I ce	0.000	0.90
HB114-21U3M12-	С	No	No	Inside Pole	120.000 -	1	No Ice	0.000	1.22
XXXF(1-1/4)	-				0.000	-	1/2" I ce	0.000	1,22
					0.000		1" Ice	0.000	1,22
							2" I ce	0.000	1,22

Feed Line/Linear Appurtenances Section Areas

Tower	Tower	Face	A_R	A _F	$C_A A_A$	$C_A A_A$	Weight
Sectio	Elevation		ft ²		In Face	Out Face	ĸ
n	ft			ft²	ft ²	ft ²	
L1	160.000-152.000	Α	0.000	0.000	0.000	0.000	0.00
		В	0.000	0.000	0.000	0.000	0.00
		С	0.000	0.000	0.000	0.000	0.10
L2	152.000-111.290	Α	0.000	0.000	0.000	0.000	0.00
		В	0.000	0.000	0.000	0.000	0.00
		С	0.000	0.000	0.000	0.000	1.23
L3	111 290-77 420	Α	0.000	0.000	0.000	0.000	0.00
		В	0.000	0.000	0.000	0.000	0.00
		С	0.000	0.000	0.000	0.000	1.25
L4	77.420-36.460	Α	0.000	0.000	0.000	0.000	0.00
		В	0.000	0.000	0.000	0.000	0.00
		С	0.000	0.000	0.000	0.000	1.51
L5	36.460-0.000	Α	0.000	0.000	0.000	0.000	0.00
		В	0.000	0.000	0.000	0.000	0.00
		С	0.000	0.000	0.000	0.000	1.34

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower	Tower	Face	Ice	A_R	A_{\digamma}	$C_A A_A$	$C_A A_A$	Weight
Sectio	Elevation	or	Thickness	ft ²		In Face	Out Face	K
n	ft	Leg	in		ft²	ft²	ft ²	
L1	160.000-152.000	Α	1.489	0.000	0.000	0.000	0.000	0.00
		В		0.000	0.000	0.000	0.000	0.00
		С		0.000	0.000	0.000	0.000	0.10
L2	152.000-111.290	Α	1.464	0.000	0.000	0.000	0.000	0.00
		В		0.000	0.000	0.000	0.000	0.00
		С		0.000	0.000	0.000	0.000	1.23
L3	111.290-77.420	Α	1.416	0.000	0.000	0.000	0.000	0.00
		В		0.000	0.000	0.000	0.000	0.00
		С		0.000	0.000	0.000	0.000	1.25
L4	77.420-36.460	Α	1.346	0.000	0.000	0.000	0.000	0.00
		В		0.000	0.000	0.000	0.000	0.00
		С		0.000	0.000	0.000	0.000	1.51
L5	36.460-0.000	Α	1.199	0.000	0.000	0.000	0.000	0.00
		В		0.000	0.000	0.000	0.000	0.00

Tower	Tower	Face	Ice	A_R	A_F	$C_A A_A$	$C_A A_A$	Weight
Sectio	Elevation	or	Thickness	ft ²		In Face	Out Face	ĸ
n	ft	Leg	in		ft ²	ft ²	ft ²	
		С		0.000	0.000	0.000	0.000	1.34

Feed Line Center of Pressure

Section	Elevation	CP_X	CPz	CP_X	CPz
	ft	in	in	Ice	Ice
				in	in
L1	160.000-152.000	0.000	0.000	0.000	0.000
L2	152.000-111.290	0.000	0.000	0.000	0.000
L3	111.290-77.420	0.000	0.000	0.000	0.000
L4	77.420-36.460	0.000	0.000	0.000	0.000
L5	36.460-0.000	0.000	0.000	0.000	0.000

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Feed Line Section Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
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Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	А	From Leg	4.000 0.00 3.00	0.00	160.000	No Ice 1/2" Ice 1" Ice 2" Ice	6.329 6.775 7.214 8.117	5.642 6.426 7.131 8.591	0.11 0.17 0.23 0.38
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	В	From Leg	4.000 0.00 3.00	0.00	160.000	No Ice 1/2" Ice 1" Ice 2" Ice	6.329 6.775 7.214 8.117	5.642 6.426 7.131 8.591	0.11 0.17 0.23 0.38
ERICSSON AIR 21 B2A B4P w/ Mount Pipe	С	From Leg	4.000 0.00 3.00	0.00	160.000	No Ice 1/2" Ice 1" Ice 2" Ice	6.329 6.775 7.214 8.117	5.642 6.426 7.131 8.591	0.11 0.17 0.23 0.38
ATMAA1412D-1A20	Α	From Leg	4.000 0.00 3.00	0.00	160.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.000 1.126 1.259 1.548	0.407 0.497 0.593 0.815	0.01 0.02 0.03 0.06
ATMAA1412D-1A20	В	From Leg	4.000 0.00 3.00	0.00	160.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.000 1.126 1.259 1.548	0.407 0.497 0.593 0.815	0.01 0.02 0.03 0.06
ATMAA1412D-1A20	С	From Leg	4.000 0.00 3.00	0.00	160.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.000 1.126 1.259 1.548	0.407 0.497 0.593 0.815	0.01 0.02 0.03 0.06
AIR 32 B2A/B66AA w/ Mount Pipe	Α	From Leg	4.000 0.00 3.00	0.00	160.000	No Ice 1/2" Ice 1" Ice	6.747 7.202 7.648 8.565	6.070 6.867 7.583 9.063	0.15 0.21 0.28 0.44

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustmen t	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
			ft ft ft						
AIR 32 B2A/B66AA w/	В	Framilar	4.000	0.00	160,000	2" Ice No Ice	6 747	6.070	0.15
Mount Pipe	Б	From Leg	4.000 0.00	0.00	160.000	1/2"	6.747 7.202	6.070 6.867	0.15 0.21
•			3.00			Ice	7.648	7.583	0.28
						1" Ice 2" Ice	8.565	9.063	0.44
AIR 32 B2A/B66AA w/	С	From Leg	4.000	0.00	160.000	No Ice	6.747	6.070	0.15
Mount Pipe		_	0.00			1/2"	7.202	6.867	0.21
			3.00			Ice 1" Ice	7.648 8.565	7.583 9.063	0.28 0.44
						2" Ice	0.000	0.000	0.44
APXVAARR24_43-U-NA20	Α	From Leg	4.000	0.00	160.000	No Ice 1/2"	14.690 15.460	6.870	0.19
w/ Mount Pipe			0.00 3.00			lce	16.230	7.550 8.250	0.31 0.46
						1" I ce	17.820	9.670	0.79
APXVAARR24 43-U-NA20	В	From Leg	4.000	0.00	160,000	2" Ice No Ice	14,690	6.870	0.19
w/ Mount Pipe	Ь	i ioni Leg	0.00	0.00	100.000	1/2"	15.460	7.550	0.13
·			3.00			Ice	16.230	8.250	0.46
						1" Ice 2" Ice	17.820	9.670	0.79
APXVAARR24_43-U-NA20	С	From Leg	4.000	0.00	160.000	No Ice	14.690	6.870	0.19
w/ Mount Pipe			0.00			1/2"	15.460	7.550	0.31
			3.00			Ice 1" Ice	16.230 17.820	8.250 9.670	0.46 0.79
						2" I ce			
RADIO 4449 B12/B71	Α	From Leg	4.000 0.00	0.00	160.000	No Ice 1/2"	1.650 1.810	1.163 1.301	0.07 0.09
			3.00			Ice	1.978	1.447	0.11
						1" Ice 2" Ice	2.336	1.762	0.16
RADIO 4449 B12/B71	В	From Leg	4.000	0.00	160.000	No Ice	1.650	1.163	0.07
		· ·	0.00			1/2"	1.810	1.301	0.09
			3.00			Ice 1" Ice	1.978 2.336	1.447 1.762	0.11 0.16
						2" Ice			0.10
RADIO 4449 B12/B71	С	From Leg	4.000 0.00	0.00	160.000	No Ice 1/2"	1.650 1.810	1.163 1.301	0.07 0.09
			3.00			lce	1.978	1.447	0.09
						1" Ice	2.336	1.762	0.16
Side Arm Mount [SO 701-	С	None		0.00	160.000	2" Ice No Ice	3.020	3.020	0.20
3]		110110		0,00	1001000	1/2"	4.180	4.180	0.24
						Ice 1" Ice	5.330 7.630	5.330 7.630	0.28 0.36
						2" Ice	7.030	7.000	0.30
Platform Mount [LP 712-1]	С	None		0.00	160.000	No Ice	24.560	24.560	1.34
						1/2" I ce	27.920 31.270	27.920 31.270	1.91 2.55
						1" I ce	37.980	37.980	3.97
2.375" OD x 6' Mount Pipe	Α	From Leg	4.000	0.00	160.000	2" Ice No Ice	1.425	1.425	0.03
2.373 OD X 0 Mount Fipe	^	i ioni Leg	0.00	0.00	100.000	1/2"	1.925	1.925	0.03
			3.00			Ice	2.294	2.294	0.05
						1" Ice 2" Ice	3.060	3.060	0.09
2.375" OD x 6' Mount Pipe	В	From Leg	4.000	0.00	160.000	No Ice	1.425	1.425	0.03
			0.00			1/2"	1.925 2.294	1.925	0.04
			3.00			Ice 1" Ice	2.294 3.060	2.294 3.060	0.05 0.09
0.07511.07	_		4 = = =		465.5==	2" I ce			
2.375" OD x 6' Mount Pipe	С	From Leg	4.000 0.00	0.00	160.000	No Ice 1/2"	1.425 1.925	1.425 1.925	0.03 0.04
			3.00			Ice	2.294	2.294	0.05
						1" I ce	3.060	3.060	0.09

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustmen t	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
			ft ft						
			ft			2" I ce			
******		_							
RRUS 11	Α	From Leg	4.000 0.00 0.00	0.00	153.000	No Ice 1/2" Ice 1" Ice 2" Ice	2.791 2.998 3.213 3.666	1.192 1.340 1.496 1.839	0.05 0.07 0.10 0.15
RRUS 11	В	From Leg	4.000 0.00 0.00	0.00	153.000	No Ice 1/2" Ice	2.791 2.998 3.213	1.192 1.340 1.496	0.05 0.07 0.10
						1" Ice 2" Ice	3.666	1.839	0.15
RRUS 11	С	From Leg	4.000 0.00 0.00	0.00	153,000	No Ice 1/2" Ice 1" Ice	2.791 2.998 3.213 3.666	1.192 1.340 1.496 1.839	0.05 0.07 0.10 0.15
RRUS 32 B2	Α	From Leg	4.000 0.00	0.00	153.000	2" Ice No Ice 1/2"	2.743 2.965	1.668 1.855	0.05 0.07
			0.00			Ice 1" Ice 2" Ice	3.194 3.675	2.049 2.458	0.10 0.16
RRUS 32 B2	В	From Leg	4.000 0.00 0.00	0.00	153.000	No Ice 1/2" Ice 1" Ice	2.743 2.965 3.194 3.675	1.668 1.855 2.049 2.458	0.05 0.07 0.10 0.16
RRUS 32 B2	С	From Leg	4.000 0.00	0.00	153.000	2" I ce No I ce 1/2"	2.743 2.965	1.668 1.855	0.05 0.07
			0.00			Ice 1" Ice 2" Ice	3.194 3.675	2.049 2.458	0.10 0.16
Side Arm Mount [SO 102- 3]	С	None		0.00	153,000	No Ice 1/2" Ice 1" Ice	3.600 4.180 4.750 5.900	3.600 4.180 4.750 5.900	0.07 0.11 0.14 0.20
(2) 2.375" OD x 6' Mount	Α	From Leg	4.000	0.00	153,000	2" Ice No Ice	1.425	1.425	0.03
Pipe	, ,	r rom Log	0.00	0.00	100.000	1/2" Ice 1" Ice	1.925 2.294 3.060	1.925 2.294 3.060	0.04 0.05 0.09
(2) 2.375" OD x 6' Mount Pipe	В	From Leg	4.000 0.00	0.00	153.000	2" Ice No Ice 1/2"	1.425 1.925	1.425 1.925	0.03 0.04
·			0.00			Ice 1" Ice 2" Ice	2.294 3.060	2.294 3.060	0.05 0.09
(2) 2.375" OD x 6' Mount Pipe	С	From Leg	4.000 0.00 0.00	0.00	153.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.03 0.04 0.05 0.09
HPA-65R-BUU-H6 w/ Mount Pipe	Α	From Leg	4.000 0.00 0.00	0.00	149.000	No Ice 1/2" Ice 1" Ice	9.220 9.980 10.760 12.360	6.250 6.960 7.700 9.220	0.07 0.14 0.22 0.42
HPA-65R-BUU-H6 w/ Mount Pipe	В	From Leg	4.000 0.00 0.00	0.00	149.000	2" Ice No Ice 1/2" Ice 1" Ice	9.220 9.980 10.760 12.360	6.250 6.960 7.700 9.220	0.07 0.14 0.22 0.42
HPA-65R-BUU-H6 w/ Mount Pipe	С	From Leg	4.000 0.00	0.00	149.000	2" I ce No I ce 1/2"	9.220 9.980	6.250 6.960	0.07 0.14

Description	Face or Leg	Offset Type	Offsets: Horz Lateral	Azimuth Adjustmen t	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
			Vert ft ft ft						
			0.00			Ice	10.760	7.700	0,22
						1" Ice 2" Ice	12.360	9.220	0.42
7770.00 w/ Mount Pipe	Α	From Leg	4.000	0.00	149.000	No Ice	5.746	4.254	0.06
			0.00			1/2"	6.179	5.014	0.10
			0.00			Ice 1" Ice	6.607 7.488	5.711 7.155	0.16 0.29
						2" I ce			
7770.00 w/ Mount Pipe	В	From Leg	4.000	0.00	149.000	No Ice	5.746	4.254	0.06
			0.00			1/2"	6.179	5.014	0.10
			0.00			Ice	6.607	5.711	0.16
						1" I ce 2" I ce	7.488	7.155	0.29
7770.00 w/ Mount Pipe	С	From Leg	4.000	0.00	149.000	No Ice	5.746	4.254	0.06
			0.00			1/2"	6.179	5.014	0.10
			0.00			Ice	6.607	5.711	0.16
						1" I ce 2" I ce	7.488	7.155	0.29
QS66512-2 w/ Mount Pipe	Α	From Leg	4.000	0.00	149.000	No Ice	4.040	4.180	0.14
•		3	0.00			1/2"	4.420	4.570	0.21
			0.00			Ice	4.820	4.970	0.29
						1" Ice	5.630	5.790	0.48
OSSSE12 2 w/ Marint Dina	В	From Los	4.000	0.00	140.000	2" Ice	4.040	4 100	0.14
QS66512-2 w/ Mount Pipe	В	From Leg	4.000 0.00	0.00	149.000	No Ice 1/2"	4.040 4.420	4.180 4.570	0.14
			0.00			Ice	4.820	4.970	0.29
			0.00			1" Ice	5.630	5.790	0.48
						2" Ice			
QS66512-2 w/ Mount Pipe	С	From Leg	4.000	0.00	149.000	No Ice	4.040	4.180	0.14
			0.00 0.00			1/2" I ce	4.420 4.820	4.570 4.970	0.21 0.29
			0.00			1" Ice	5.630	5.790	0.29
						2" Ice	0.000	0.700	0.10
RRUS 32	Α	From Leg	4.000	0.00	149.000	No Ice	2.857	1.777	0.06
			0.00			1/2"	3.083	1.968	0.08
			0.00			lce 1" lce	3.316 3.805	2.166 2.583	0.10 0.16
						2" Ice	3.003	2.000	0.10
RRUS 32	В	From Leg	4.000	0.00	149.000	No Ice	2.857	1.777	0.06
		_	0.00			1/2"	3.083	1.968	0.08
			0.00			Ice	3.316	2.166	0.10
						1" I ce 2" I ce	3.805	2.583	0.16
RRUS 32	С	From Leg	4.000	0.00	149.000	No Ice	2.857	1.777	0.06
11100 02	Ü	1 Tom Log	0.00	0.00	1 10.000	1/2"	3.083	1.968	0.08
			0.00			Ice	3.316	2.166	0.10
						1" Ice	3.805	2.583	0.16
RADIO 4426	Α	From Leg	4.000	0.00	149,000	2" Ice No Ice	1.644	0.725	0.05
TOADIO 4420		1 Tolli Leg	0.00	0.00	149.000	1/2"	1.804	0.723	0.05
			0.00			Ice	1.972	0.969	0.08
						1" Ice	2.329	1.244	0.12
DADIO 4400	Б.	F	4.000	0.00	4.40,000	2" Ice	1 011	0.705	0.05
RADIO 4426	В	From Leg	4.000 0.00	0.00	149.000	No Ice 1/2"	1.644 1.804	0.725 0.842	0.05 0.06
			0.00			Ice	1.972	0.969	0.08
			3100			1" Ice	2.329	1.244	0.12
DADIS 1122	_					2" Ice			
RADIO 4426	С	From Leg	4.000	0.00	149.000	No Ice	1.644	0.725	0.05
			0.00 0.00			1/2" I ce	1.804 1.972	0.842 0.969	0.06 0.08
			0.00			1" Ice	2.329	0.969 1.244	0.08
						2" I ce	2.020	1.47	0.12
DBC0061F1V51-2	Α	From Leg	4.000	0.00	149.000	No Ice	0.213	0.413	0.01
		-	0.00			1/2"	0.279	0.496	0.02

Description	Face or Leg	Offset Type	Offsets: Horz Lateral	Azimuth Adjustmen t	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
			Vert ft ft ft	Š					
			0.00			Ice 1" Ice	0.353 0.521	0.586 0.788	0.02 0.04
DBC0061F1V51-2	В	From Leg	4.000 0.00	0.00	149.000	2" Ice No Ice 1/2"	0.213 0.279	0.413 0.496	0.01 0.02
			0.00			Ice 1" Ice 2" Ice	0.353 0.521	0.586 0.788	0.02 0.04
DBC0061F1V51-2	С	From Leg	4.000 0.00	0.00	149.000	No Ice 1/2"	0.213 0.279	0.413 0.496	0.01 0.02
			0.00			Ice 1" Ice 2" Ice	0.353 0.521	0.586 0.788	0.02 0.04
(4) LGP21401	Α	From Leg	4.000 0.00	0.00	149.000	No Ice 1/2"	1.104 1.239	0.347 0.442	0.01 0.02
			0.00			Ice 1" Ice 2" Ice	1.381 1.688	0.544 0.770	0.03 0.05
(4) LGP21401	В	From Leg	4.000 0.00	0.00	149.000	No Ice 1/2"	1.104 1.239	0.347 0.442	0.01 0.02
			0.00			Ice 1" Ice 2" Ice	1.381 1.688	0.544 0.770	0.03 0.05
(4) LGP21401	С	From Leg	4.000 0.00	0.00	149.000	No Ice 1/2"	1.104 1.239	0.347 0.442	0.01 0.02
			0.00			Ice 1" Ice	1.381 1.688	0.544 0.770	0.03 0.05
DC6-48-60-18-8F	Α	From Leg	4.000	0.00	149.000	2" Ice No Ice	1,212	1.212	0.03
			0.00 0.00			1/2" Ice 1" Ice	1.892 2.105 2.570	1.892 2.105 2.570	0.05 0.08 0.14
DC6-48-60-18-8C	В	From Leg	4.000	0.00	149.000	2" Ice No Ice	2.737	2.737	0.03
			0.00 0.00			1/2" Ice 1" Ice 2" Ice	2.963 3.196 3.684	2.963 3.196 3.684	0.05 0.08 0.15
Side Arm Mount [SO 701- 3]	С	None		0.00	149.000	No Ice 1/2"	3.020 4.180	3.020 4.180	0.20 0.24
ν,						Ice 1" Ice 2" Ice	5.330 7.630	5.330 7.630	0.28 0.36
Platform Mount [LP 712-1]	С	None		0.00	149.000	No Ice 1/2"	24.560 27.920	24.560 27.920	1.34 1.91
						Ice 1" Ice 2" Ice	31.270 37.980	31.270 37.980	2.55 3.97
**************************************	Α	From Leg	4.000 0.00	0.00	140.000	No Ice 1/2"	2.630 3.070	4.130 4.600	0.03 0.06
meant pe			1.00			Ice 1" Ice	3.530 4.490	5.090 6.110	0.11 0.21
(2) APL868013-42T0 w/ Mount Pipe	В	From Leg	4.000 0.00	0.00	140.000	2" Ice No Ice 1/2"	2.630 3.070	4.130 4.600	0.03 0.06
Mount Fipe			1.00			Ice 1" Ice 2" Ice	3.530 4.490	5.090 6.110	0.00 0.11 0.21
(2) DB844H80E-XY w/ Mount Pipe	С	From Leg	4.000 0.00	0.00	140.000	No Ice 1/2"	2.240 2.610	3.340 3.730	0.04 0.08
,			1.00			Ice 1" Ice 2" Ice	2.990 3.780	4.130 4.970	0.12 0.23
RC2DC-3315-PF-48	Α	From Leg	4.000	0.00	140.000	No Ice	3.792	2.512	0.03

Description	Face	Offset	Offsets:	Azimuth	Placement		$C_A A_A$	$C_A A_A$	Weight
Восопраст	or	Type	Horz	Adjustmen	ft		Front	Side	K
	Leg		Lateral Vert	t °			ft ²	ft ²	
			ft						
			ft ft						
			0.00			1/2"	4.044	2.725	0.06
			1.00			lce 1" lce	4.303 4.844	2.945 3.414	0.10 0.18
						2" Ice	4.044	3.414	0.10
RC2DC-3315-PF-48	С	From Leg	4.000	0.00	140.000	No Ice	3.792	2.512	0.03
			0.00 1.00			1/2" I ce	4.044 4.303	2.725 2.945	0.06 0.10
			1.00			1" I ce	4.844	3.414	0.18
(2) IAIIII GED D2D/	۸	Francis a	4.000	0.00	140,000	2" Ice	E E00	4 200	0.40
(2) JAHH-65B-R3B w/ Mount Pipe	Α	From Leg	4.000 0.00	0.00	140.000	No Ice 1/2"	5.500 5.970	4.380 4.840	0.10 0.17
oupo			1.00			Ice	6.450	5.300	0.25
						1" Ice 2" Ice	7.440	6.260	0.46
(2) JAHH-65B-R3B w/	В	From Leg	4.000	0.00	140,000	No Ice	5.500	4,380	0.10
Mount Pipe			0.00			1/2"	5.970	4.840	0.17
			1.00			Ice 1" Ice	6.450 7.440	5.300	0.25
						2" I ce	7.440	6.260	0.46
(2) JAHH-65B-R3B w/	С	From Leg	4.000	0.00	140.000	No Ice	5.500	4.380	0.10
Mount Pipe			0.00 1.00			1/2" I ce	5.970 6.450	4.840 5.300	0.17 0.25
			1,00			1" Ice	7.440	6.260	0.25
						2" I ce			
CBRS w/ Mount Pipe	Α	From Leg	4.000 0.00	0.00	140.000	No Ice 1/2"	1.714 1.934	1.168 1.437	0.03 0.05
			1.00			lce	2.166	1.723	0.03
						1" I ce	2.664	2.351	0.13
CBRS w/ Mount Pipe	В	From Leg	4.000	0.00	140.000	2" Ice No Ice	1.714	1.168	0.03
CBRO W/ Modrit Fipe	ь	i ioni L e g	0.00	0.00	140.000	1/2"	1.934	1.437	0.05
			1.00			Ice	2.166	1.723	0.07
						1" Ice 2" Ice	2.664	2.351	0.13
CBRS w/ Mount Pipe	С	From Leg	4.000	0.00	140.000	No Ice	1.714	1.168	0.03
·		_	0.00			1/2"	1.934	1.437	0.05
			1.00			Ice 1" Ice	2.166 2.664	1.723 2.351	0.07 0.13
						2" I ce	2.004	2.001	0.10
(3) RFV01U-D1A	Α	From Leg	4.000	0.00	140.000	No Ice	1.875	1.250	0.08
			0.00 1.00			1/2" I ce	2.045 2.223	1.393 1.543	0.10 0.12
			1,00			1" I ce	2.601	1.865	0.18
DEV/0411 D2A	۸	From Log	4.000	0.00	140,000	2" Ice	1 075	1.012	0.07
RFV01U-D2A	Α	From Leg	4.000 0.00	0.00	140.000	No Ice 1/2"	1.875 2.045	1.013 1.145	0.07 0.09
			1.00			Ice	2.223	1.284	0.11
						1" Ice 2" Ice	2.601	1.585	0.15
(3) CBC78T-DS-43-2X	В	From Leg	4.000	0.00	140.000	No Ice	0.368	0.512	0.02
()		Ü	0.00			1/2"	0.446	0.605	0.03
			1.00			Ice 1" Ice	0.531 0.723	0.705 0.927	0.04 0.06
						2" Ice	0.725	0.321	0.00
(3) 20W CBRS	В	From Leg	4.000	0.00	140.000	No Ice	0.857	0.420	0.02
			0.00 1.00			1/2" I ce	0.975 1.101	0.510 0.608	0.03 0.03
			1.00			1" Ice	1.374	0.833	0.06
(2) DEVO414 DO4	Б	Erom I	4.000	0.00	140.000	2" Ice	1 075	1.010	0.07
(2) RFV01U-D2A	В	From Leg	4.000 0.00	0.00	140.000	No Ice 1/2"	1.875 2.045	1.013 1.145	0.07 0.09
			1.00			Ice	2.223	1.284	0.11
						1" Ice	2.601	1.585	0.15
Side Arm Mount [SO 701-	С	None		0.00	140.000	2" Ice No Ice	3.020	3.020	0.20
		-		-			=		-

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustmen t	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
			ft ft						
3]			ft			1/2"	4.180	4.180	0,24
3]						lce	5.330	5.330	0.24
						1" Ice	7.630	7.630	0.36
						2" I ce			
Platform Mount [LP 712-1]	С	None		0.00	140.000	No Ice	24.560	24.560	1.34
						1/2"	27.920	27.920	1.91
						Ice	31.270	31.270	2.55
						1" Ice 2" Ice	37.980	37.980	3.97
**************************************	Α	From Leg	4.000	0.00	120.000	No Ice	4.090	2.860	0.08
Mount Pipe			0.00	3.33	0.000	1/2"	4.480	3.230	0.13
·			0.00			Ice	4.880	3.610	0.19
						1" Ice 2" Ice	5.710	4.400	0.33
APXVTM14-ALU-I20 w/	В	From Leg	4.000	0.00	120.000	No Ice	4.090	2.860	0.08
Mount Pipe		3	0.00			1/2"	4.480	3.230	0.13
·			0.00			Ice	4.880	3.610	0.19
						1" Ice	5.710	4.400	0.33
APXVTM14-ALU-I20 w/	С	Erom Log	4.000	0.00	120,000	2" Ice No Ice	4.090	2 960	0.08
Mount Pipe	C	From Leg	0.00	0.00	120.000	1/2"	4.090 4.480	2.860 3.230	0.08
Wount i ipe			0.00			Ice	4.880	3.610	0.19
			0.00			1" Ice	5.710	4.400	0.33
						2" I ce			
APXVSPP18-C-A20 w/	Α	From Leg	4.000	0.00	120.000	No Ice	4.600	4.010	0.10
Mount Pipe			0.00			1/2"	5.050	4.450	0.16
			0.00			Ice 1" Ice	5.500 6.440	4.890 5.820	0.23 0.42
						2" I ce	0.110	0.020	0.72
APXVSPP18-C-A20 w/	В	From Leg	4.000	0.00	120,000	No Ice	4.600	4.010	0.10
Mount Pipe			0.00			1/2"	5.050	4.450	0.16
			0.00			Ice	5.500	4.890	0.23
						1" Ice 2" Ice	6.440	5.820	0.42
APXVSPP18-C-A20 w/	С	From Leg	4.000	0.00	120.000	No Ice	4.600	4.010	0.10
Mount Pipe			0.00			1/2"	5.050	4.450	0.16
			0.00			Ice	5.500	4.890	0.23
						1" Ice 2" Ice	6.440	5.820	0.42
TD-RRH8X20-25	Α	From Leg	4.000	0.00	120.000	No Ice	4.045	1.535	0.07
			0.00			1/2"	4.298	1.714	0.10
			0.00			Ice	4.557	1.901	0.13
						1" Ice	5.098	2.295	0.20
TD-RRH8X20-25	В	From Leg	4.000	0.00	120.000	2" Ice No Ice	4.045	1.535	0.07
1B 14(10)(20 20		1 Tolli Log	0.00	0.00	120.000	1/2"	4.298	1.714	0.10
			0.00			Ice	4.557	1.901	0.13
						1" Ice	5.098	2.295	0.20
TD-RRH8X20-25	С	From Leg	4.000	0.00	120,000	2" Ice No Ice	4.045	1.535	0.07
1D-RR110A20-23	C	From Leg	0.00	0.00	120.000	1/2"	4.043	1.714	0.10
			0.00			lce	4.557	1.901	0.13
						1" Ice	5.098	2.295	0.20
						2" Ice			
Side Arm Mount [SO 701-	С	None		0.00	120.000	No Ice	3.020	3.020	0.20
3]						1/2" I ce	4.180 5.330	4.180 5.330	0.24 0.28
						1" Ice	7.630	7.630	0.36
						2" Ice	, 1000	. 1000	0.00
Platform Mount [LP 712-1]	С	None		0.00	120.000	No Ice	24.560	24.560	1.34
						1/2"	27.920	27.920	1.91
						Ice	31.270	31.270	2.55
						1" Ice 2" Ice	37.980	37.980	3.97
						∠ IU U			

Description	Face or Leg	Offset Type	Offsets: Horz Lateral	Azimuth Adjustmen t	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
	209		Vert ft ft ft	ò				, a	
(2) 2.375" OD x 6' Mount	Α	From Leg	4.000	0.00	120.000	No Ice	1,425	1.425	0.03
Pipe			0.00	5.55		1/2"	1.925	1.925	0.04
			0.00			Ice	2.294	2.294	0.05
						1" Ice 2" Ice	3.060	3.060	0.09
(2) 2.375" OD x 6' Mount	В	From Leg	4.000	0.00	120.000	∠" ice No Ice	1.425	1.425	0.03
Pipe	D	i ioni Leg	0.00	0.00	120.000	1/2"	1.925	1.925	0.03
			0.00			Ice	2.294	2.294	0.05
						1" Ice 2" Ice	3.060	3.060	0.09
(2) 2.375" OD x 6' Mount	С	From Leg	4.000	0.00	120.000	No Ice	1.425	1.425	0.03
Pipe			0.00			1/2"	1.925	1.925	0.04
			0.00			Ice	2.294	2.294	0.05
						1" I ce 2" I ce	3.060	3.060	0.09

800MHZ RRH	Α	From Leg	2.000	0.00	119.000	No Ice	2.134	1.773	0.05
			0.00 0.00			1/2" I ce	2.320 2.512	1.946 2.127	0.07 0.10
			0.00			1" Ice	2.920	2.510	0.16
						2" I ce	_10_0	_10.0	01.0
800MHZ RRH	В	From Leg	2.000	0.00	119.000	No Ice	2.134	1.773	0.05
			0.00			1/2"	2.320	1.946	0.07
			0.00			lce 1" lce	2.512 2.920	2.127 2.510	0.10 0.16
						2" Ice	2.920	2.510	0.10
800MHZ RRH	С	From Leg	2.000	0.00	119.000	No Ice	2.134	1.773	0.05
			0.00			1/2"	2.320	1.946	0.07
			0.00			lce 1" lce	2.512 2.920	2.127	0.10 0.16
						2" Ice	2.920	2.510	0.16
1900MHZ RRH	Α	From Leg	2.000	0.00	119.000	No Ice	2.492	3.258	0.04
			0.00			1/2"	2.695	3.484	0.08
			0.00			Ice 1" Ice	2.906	3.718	0.11
						2" I ce	3.351	4.206	0.19
1900MHZ RRH	В	From Leg	2.000	0.00	119.000	No Ice	2.492	3.258	0.04
		•	0.00			1/2"	2.695	3.484	0.08
			0.00			Ice	2.906	3.718	0.11
						1" Ice 2" Ice	3.351	4.206	0.19
1900MHZ RRH	С	From Leg	2.000	0.00	119.000	No Ice	2.492	3.258	0.04
		Ü	0.00			1/2"	2.695	3.484	80.0
			0.00			Ice	2.906	3.718	0.11
						1" Ice 2" Ice	3.351	4.206	0.19
Side Arm Mount [SO 102-	С	None		0.00	119.000	No Ice	3.600	3.600	0.07
3]						1/2"	4.180	4.180	0.11
						Ice	4.750	4.750	0.14
						1" Ice 2" Ice	5.900	5.900	0.20
(2) 2.375" OD x 4' Mount	Α	From Leg	2.000	0.00	119.000	No Ice	0.866	0.866	0.02
` ´ Pipe		Ü	0.00			1/2"	1.111	1.111	0.03
			0.00			Ice	1.365	1.365	0.04
						1" Ice 2" Ice	1.901	1.901	0.06
(2) 2.375" OD x 4' Mount	В	From Leg	2.000	0.00	119.000	No Ice	0.866	0.866	0.02
Pipe			0.00			1/2"	1.111	1.111	0.03
			0.00			lce 1" lce	1.365 1.901	1.365 1.901	0.04 0.06
						2" I ce			
(2) 2.375" OD x 4' Mount	С	From Leg	2.000	0.00	119.000	No Ice	0.866	0.866	0.02
Pipe			0.00			1/2"	1.111	1.111	0.03
			0.00			Ice 1" Ice	1.365 1.901	1.365 1.901	0.04 0.06
									-100

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft	Azimuth Adjustmen t °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
**********						2" I ce			
(2) GPS_A	В	From Leg	4.000 0.00 1.00	0.00	72.000	No Ice 1/2" Ice 1" Ice 2" Ice	0.255 0.320 0.393 0.561	0.255 0.320 0.393 0.561	0.00 0.00 0.01 0.02
Side Arm Mount [SO 601- 1]	В	None		0.00	72.000	No Ice 1/2" Ice 1" Ice 2" Ice	1.040 1.410 1.780 2.520	5.320 6.430 7.670 10.670	0.16 0.20 0.24 0.36

Tower Pressures - No Ice

G_H = 1.100

Section	Z	Kz	qz	A_G	F	A_F	A_R	A_{leg}	Leg	$C_A A_A$	$C_A A_A$
Elevation	ft		psf	ft ²	а	ft ²	ft ²	ft ²	%	In	Out
ft					С					Face	Face
					е					ft²	ft ²
L1 160.000-	155.964	1.122	37.03	20.161	Α	0.000	20.161	20.161	100.00	0.000	0.000
152.000					В	0.000	20.161		100.00	0.000	0.000
					С	0.000	20.161		100.00	0.000	0.000
L2 152.000-	131.064	1.068	35.20	119.54	Α	0.000	119.543	119.543	100.00	0.000	0.000
111,290				3	В	0.000	119.543		100.00	0.000	0.000
					С	0.000	119.543		100.00	0.000	0.000
L3 111.290-	94.116	0.971	32.01	119.42	Α	0.000	119.425	119.425	100.00	0.000	0.000
77.420				5	В	0.000	119.425		100.00	0.000	0.000
					С	0.000	119.425		100.00	0.000	0.000
L4 77.420-	56.898	0.841	27.59	168.01	Α	0.000	168.016	168.016	100.00	0.000	0.000
36.460				6	В	0.000	168.016		100.00	0.000	0.000
					С	0.000	168.016		100.00	0.000	0.000
L5 36.460-	17.831	0.7	23.10	170.60	Α	0.000	170.600	170.600	100.00	0.000	0.000
0.000				0	В	0.000	170,600		100.00	0.000	0.000
					С	0.000	170.600		100.00	0.000	0.000

Tower Pressure - With Ice

 $G_H = 1.100$

Section	Z	Kz	q_z	t_Z	A_G	F	A_{F}	A_R	A _{leg}	Leg	$C_A A_A$	$C_A A_A$
Elevation	ft		psf	in	ft ²	а	ft ²	ft²	ft ²	%	In	Out
ft						C					Face	Face
						e					ft ²	ft ²
L1 160.000-	155.964	1.122	6.43	1.489	22.146	Α	0.000	22.146	22,146	100.00	0.000	0.000
152.000						В	0.000	22.146		100.00	0.000	0.000
						С	0.000	22.146		100.00	0.000	0.000
L2 152.000-	131.064	1.068	6.11	1.464	129.473	Α	0.000	129.473	129.473	100.00	0.000	0.000
111.290						В	0.000	129.473		100.00	0.000	0.000
						С	0.000	129.473		100.00	0.000	0.000
L3 111.290-	94.116	0.971	5.56	1.416	127.686	Α	0.000	127.686	127.686	100.00	0.000	0.000
77.420						В	0.000	127.686		100.00	0.000	0.000
						С	0.000	127.686		100.00	0.000	0.000
L4 77.420-	56.898	0.841	4.79	1.346	177.682	Α	0.000	177.682	177.682	100.00	0.000	0.000
36.460						В	0.000	177.682		100.00	0.000	0.000
						С	0.000	177.682	J	100.00	0.000	0.000
L5 36.460-	17.831	0.7	4.01	1.199	178.781	Α	0.000	178.781	178.781	100.00	0.000	0.000
0.000						В	0.000	178.781		100.00	0.000	0.000
						С	0.000	178.781		100.00	0.000	0.000

Tower Pressure - Service GH = 1.100

Section	Z	Kz	q_z	A_{G}	F	A_{F}	A_R	A_{leg}	Leg	$C_A A_A$	$C_A A_A$
Elevation	ft		psf	ft ²	а	ft ²	ft²	ft ²	%	In	Out
ft					С					Face	Face
					е					ft ²	ft ²
L1 160.000-	155.964	1.122	8.72	20.161	Α	0.000	20.161	20.161	100.00	0.000	0.000
152.000					В	0.000	20.161		100.00	0.000	0.000
					С	0.000	20.161		100.00	0.000	0.000
L2 152.000-	131.064	1.068	8.29	119.54	Α	0.000	119.543	119.543	100.00	0.000	0.000
111.290				3	В	0.000	119.543		100.00	0.000	0.000
					С	0.000	119.543		100.00	0.000	0.000
L3 111.290-	94.116	0.971	7.54	119.42	Α	0.000	119.425	119.425	100.00	0.000	0.000
77.420				5	В	0.000	119.425		100.00	0.000	0.000
					С	0.000	119.425		100.00	0.000	0.000
L4 77.420-	56.898	0.841	6.50	168.01	Α	0.000	168.016	168.016	100.00	0.000	0.000
36.460				6	В	0.000	168.016		100.00	0.000	0.000
					С	0.000	168.016		100.00	0.000	0.000
L5 36.460-	17.831	0.7	5.44	170.60	Α	0.000	170.600	170.600	100.00	0.000	0.000
0.000				0	В	0.000	170.600		100.00	0.000	0.000
					С	0.000	170.600		100.00	0.000	0.000

Load Combinations

	D : "
Comb. No.	Description
1	Dead Only
2	1,2 Dead+1,0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1,2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1,2 Dead+1,0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32 33	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp 1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
33 34	1.2 Dead+1.0 Wind 100 deg+1.0 Ice+1.0 Temp
3 4 35	1.2 Dead+1.0 Wind 210 deg+1.0 ice+1.0 Temp 1.2 Dead+1.0 Wind 240 deg+1.0 ice+1.0 Temp
36	1.2 Dead+1.0 Wind 240 deg+1.0 ice+1.0 Temp 1.2 Dead+1.0 Wind 270 deg+1.0 ice+1.0 Temp
36 37	1.2 Dead+1.0 Wind 270 deg+1.0 remp 1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Nind 0 deg - Service
40	Dead+Wind 30 deg - Service Dead+Wind 30 deg - Service
41	Dead+Wind 50 deg - Service Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
	2000 1 2000 000.000

Comb. No.	Description
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Sectio n No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	160 - 152	Pole	Max Tension	26	0.00	0.00	-0.00
			Max. Compression	26	-11.43	-0.01	0.01
			Max. Mx	8	-4.82	-50.72	0.01
			Max, My	2	4.82	-0.01	50.73
			Max Vy	8	6.19	-50.72	0.01
			Max. Vx	2	-6.19	-0.01	50.73
			Max. Torque	22			0.00
L2	152 - 111.29	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-44.15	-2.57	2.56
			Max. Mx	8	-19.90	-551.99	1.04
			Max. My	2	-19.89	-1.07	553.65
			Max. Vý	8	20.24	-551.99	1.04
			Max, Vx	2	-20,31	-1,07	553.65
			Max. Torque	13			1,38
L3	111,29 - 77,42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-54,49	-2.62	2,62
			Max Mx	8	-27.61	-1271.32	0.77
			Max, My	2	-27.60	-0,81	1275,28
			Max. Vy	8	23.15	-1271.32	0.77
			Max. Vx	2	-23.22	-0.81	1275,28
			Max. Torque	13			1.38
L4	77.42 - 36.46	Pole	Max Tension	1	0.00	0.00	0.00
			Max, Compression	26	-72.12	-2.78	2,53
			Max. Mx	8	-41,64	-2274.44	0.42
			Max. My	2	-41.64	-0.47	2281.14
			Max. Vv	8	26.74	-2274.44	0.42
			Max. Vx	2	-26.81	-0.47	2281.14
			Max. Torque	13			1.43
L5	36.46 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-95.63	-2.78	2.53
			Max, Mx	8	-61.39	-3507.93	0.03
			Max. My	2	-61.39	-0.08	3517.58
			Max. Vy	8	29.81	-3507.93	0.03
			Max. Vx	2	-29.87	-0.08	3517.58
			Max. Torque	13			1.43

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	27	95.63	0.00	8.09
	Max. H _x	20	61.40	29.78	0.01
	Max. H _z	2	61.40	0.01	29.85
	Max. M _x	2	3517.58	0.01	29.85
	$Max. M_z$	8	3507.93	-29.78	-0.01
	Max. Torsion	13	1.43	-14.90	-25.85
	Min. Vert	19	46.05	25.79	-14.92
	Min. H _x	8	61.40	-29.78	-0.01
	Min. H _z	14	61.40	-0.01	-29.85

Location	Condition	Gov.	Vertical	Horizontal, X	Horizontal, Z
		Load	K	K	K
		Comb.			
	Min. M _x	14	-3514.89	-0.01	-29.85
	$Min. M_z$	20	-3505.13	29.78	0.01
	Min. Torsion	25	-1.43	14.90	25.85

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear₂ K	Overturning Moment, M _x kip-ft	Overturning Moment, M₂ kip-ft	Torque kip-ft
Dead Only	51.17	0.00	0.00	-1.05	-1.09	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	61.40	-0.01	-29.85	-3517.58	-0.08	1.16
0.9 Dead+1.0 Wind 0 deg - No Ice	46.05	-0.01	-29.85	-3484.53	0.27	1.17
1.2 Dead+1.0 Wind 30 deg - No Ice	61.40	14.88	-25.84	-3045.85	-1753.53	0.60
0.9 Dead+1.0 Wind 30 deg - No Ice	46.05	14.88	-25.84	-3017.18	-1736.87	0.60
1.2 Dead+1.0 Wind 60 deg - No Ice	61.40	25.79	-14.92	-1758.34	-3037.49	-0.13
0.9 Dead+1.0 Wind 60 deg - No Ice	46.05	25.79	-14.92	-1741.64	-3008.89	-0.13
1.2 Dead+1.0 Wind 90 deg - No Ice	61.40	29.78	0.01	-0.03	-3507.93	-0.82
0.9 Dead+1.0 Wind 90 deg - No Ice	46.05	29.78	0.01	0.31	-3474.96	-0.83
1.2 Dead+1.0 Wind 120 deg - No Ice	61.40	25.80	14.93	1757.92	-3038.80	-1.29
0.9 Dead+1.0 Wind 120 deg - No Ice	46.05	25.80	14.93	1741.91	-3010.19	-1.30
1.2 Dead+1.0 Wind 150 deg - No Ice	61.40	14.90	25.85	3044.47	-1755.80	-1.42
0.9 Dead+1.0 Wind 150 deg - No Ice	46.05	14.90	25.85	3016.50	-1739.11	-1.43
1.2 Dead+1.0 Wind 180 deg - No Ice	61.40	0.01	29.85	3514.89	-2.71	-1.16
0.9 Dead+1.0 Wind 180 deg - No Ice	46.05	0.01	29.85	3482,55	-2.33	-1.17
1.2 Dead+1.0 Wind 210 deg - No Ice	61.40	-14.88	25.84	3043.16	1750.73	-0.60
0.9 Dead+1.0 Wind 210 deg - No Ice	46.05	-14.88	25.84	3015.20	1734.81	-0.60
1.2 Dead+1.0 Wind 240 deg - No Ice	61.40	-25.79	14.92	1755.65	3034.70	0.13
0.9 Dead+1.0 Wind 240 deg - No Ice	46.05	-25.79	14.92	1739.66	3006.83	0.13
1.2 Dead+1.0 Wind 270 deg - No Ice	61.40	-29.78	-0.01	-2.66	3505.13	0.82
0.9 Dead+1.0 Wind 270 deg - No Ice	46.05	-29.78	-0.01	-2.29	3472.90	0.83
1.2 Dead+1.0 Wind 300 deg - No Ice	61.40	-25.80	-14.93	-1760.61	3036.01	1.29
0.9 Dead+1.0 Wind 300 deg	46.05	-25.80	-14.93	-1743.89	3008.13	1.30
No Ice1.2 Dead+1.0 Wind 330 degNo Ice	61.40	-14.90	-25.85	-3047.16	1753.00	1.41
0.9 Dead+1.0 Wind 330 deg	46.05	-14.90	-25.85	-3018.48	1737.06	1.43
- No Ice 1.2 Dead+1.0 Ice+1.0 Temp	95.63	0.00	-0.00	-2.53	-2.78	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	95.63	-0.00	-8.09	-957.54	-2.65 470.43	0.30
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	95.63	4.03	-7.00	-829.46	-479.12	0.17
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	95.63	6.99	-4.04	-479.84	-828.01	-0.01
1.2 Dead+1.0 Wind 90	95.63	8.07	0.00	-2.38	-955.82	-0.18

Load Combination	Vertical K	Shear _x K	Shear₂ K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 120	95.63	6.99	4.04	475.01	-828.32	-0.31
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 150	95.63	4.04	7.00	824.39	-479.66	-0.35
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 180	95.63	0.00	8.09	952.16	-3.27	-0.30
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 210	95.63	-4.03	7.00	824.08	473.20	-0.17
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 240	95.63	-6.99	4.04	474.46	822.08	0.01
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 270	95.63	-8.07	-0.00	-3.00	949.90	0.18
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 300	95.63	-6.99	-4.04	-480.39	822.40	0.31
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 330	95.63	-4.04	-7.00	-829.77	473.74	0.35
deg+1.0 Ice+1.0 Temp						
Dead+Wind 0 deg - Service	51.17	-0.00	-7.03	-824.35	-0.85	0.28
Dead+Wind 30 deg - Service	51.17	3.50	-6.09	-713.91	-411.37	0.14
Dead+Wind 60 deg - Service	51.17	6.07	-3.51	-412.47	-711.98	-0.03
Dead+Wind 90 deg - Service	51.17	7.01	0.00	-0.81	-822.12	-0.19
Dead+Wind 120 deg -	51.17	6.07	3.52	410.77	-712.29	-0.31
Service						
Dead+Wind 150 deg -	51.17	3.51	6.09	711.99	-411.91	-0.34
Service						
Dead+Wind 180 deg -	51.17	0.00	7.03	822.13	-1.46	-0.28
Service						
Dead+Wind 210 deg -	51.17	-3.50	6.09	711.68	409.06	-0.14
Service						
Dead+Wind 240 deg -	51.17	-6.07	3.51	410.24	709.67	0.03
Service						
Dead+Wind 270 deg -	51.17	-7.01	-0.00	-1.42	819.81	0.19
Service						
Dead+Wind 300 deg -	51.17	-6.07	-3.52	-413.00	709.97	0.31
Service						
Dead+Wind 330 deg -	51.17	-3.51	-6.09	-714.21	409.59	0.34
Service						

Solution Summary

	Sun	n of Applied Force	es		Sum of Reactio	ns	
Load	PX	PY	PZ	PX	PY	PZ	% Error
Comb.	K	K	K	K	K	K	
1	0.00	-51.17	0.00	0.00	51.17	0.00	0.000%
2	-0.01	-61.40	-29.85	0.01	61.40	29.85	0.000%
3	-0.01	-46.05	-29.85	0.01	46.05	29.85	0.000%
4	14.88	-61.40	-25.84	-14.88	61.40	25.84	0.000%
5	14.88	-46.05	-25.84	-14.88	46.05	25.84	0.000%
6	25.79	-61.40	-14.92	-25.79	61.40	14.92	0.000%
7	25.79	-46.05	-14.92	-25.79	46.05	14.92	0.000%
8	29.78	-61.40	0.01	-29.78	61.40	-0.01	0.000%
9	29.78	-46.05	0.01	-29.78	46.05	-0.01	0.000%
10	25.80	-61.40	14.93	-25.80	61.40	-14.93	0.000%
11	25.80	-46.05	14.93	-25.80	46.05	-14.93	0.000%
12	14.90	-61.40	25.85	-14.90	61.40	-25.85	0.000%
13	14.90	-46.05	25.85	-14.90	46.05	-25.85	0.000%
14	0.01	-61.40	29.85	-0.01	61.40	-29.85	0.000%
15	0.01	-46.05	29.85	-0.01	46.05	-29.85	0.000%
16	-14.88	-61.40	25.84	14.88	61.40	-25.84	0.000%
17	-14.88	-46.05	25.84	14.88	46.05	-25.84	0.000%
18	-25.79	-61.40	14.92	25.79	61.40	-14.92	0.000%
19	-25.79	-46.05	14.92	25.79	46.05	-14.92	0.000%
20	-29.78	-61.40	-0.01	29.78	61.40	0.01	0.000%
21	-29.78	-46.05	-0.01	29.78	46.05	0.01	0.000%
22	-25.80	-61.40	-14.93	25.80	61.40	14.93	0.000%
23	-25.80	-46.05	-14.93	25.80	46.05	14.93	0.000%
24	-14.90	-61.40	-25.85	14.90	61.40	25.85	0.000%

	Sun	n of Applied Force	es		Sum of Reaction	าร	
Load	PX	PY	PZ	PX	PY	PZ	% Error
Comb.	K	K	K	K	K	K	
25	-14.90	-46.05	-25.85	14.90	46.05	25.85	0.000%
26	0.00	-95.63	0.00	-0.00	95.63	0.00	0.000%
27	-0.00	-95.63	-8.09	0.00	95.63	8.09	0.000%
28	4.03	-95.63	-7.00	-4.03	95.63	7.00	0.000%
29	6.99	-95.63	-4.04	-6.99	95.63	4.04	0.000%
30	8.07	-95.63	0.00	-8.07	95.63	-0.00	0.000%
31	6.99	-95.63	4.04	-6.99	95.63	-4.04	0.000%
32	4.04	-95.63	7.00	-4.04	95.63	-7.00	0.000%
33	0.00	-95.63	8.09	-0.00	95.63	-8.09	0.000%
34	-4.03	-95.63	7.00	4.03	95.63	-7.00	0.000%
35	-6.99	-95.63	4.04	6.99	95.63	-4.04	0.000%
36	-8.07	-95.63	-0.00	8.07	95.63	0.00	0.000%
37	-6.99	-95.63	-4.04	6.99	95.63	4.04	0.000%
38	-4.04	-95.63	-7.00	4.04	95.63	7.00	0.000%
39	-0.00	-51.17	-7.03	0.00	51.17	7.03	0.000%
40	3.50	-51.17	-6.09	-3.50	51.17	6.09	0.000%
41	6.07	-51.17	-3.51	-6.07	51.17	3.51	0.000%
42	7.01	-51.17	0.00	-7.01	51.17	-0.00	0.000%
43	6.07	-51.17	3.52	-6.07	51.17	-3.52	0.000%
44	3.51	-51.17	6.09	-3.51	51.17	-6.09	0.000%
45	0.00	-51.17	7.03	-0.00	51.17	-7.03	0.000%
46	-3.50	-51.17	6.09	3.50	51.17	-6.09	0.000%
47	-6.07	-51.17	3.51	6.07	51.17	-3.51	0.000%
48	-7.01	-51.17	-0.00	7.01	51.17	0.00	0.000%
49	-6.07	-51.17	-3.52	6.07	51.17	3.52	0.000%
50	-3.51	-51.17	-6.09	3.51	51.17	6.09	0.000%

Non-Linear Convergence Results

Load	Converged?	Number	Displacement	Force
Combination		of Cycles	Tolerance	Tolerance
1	Yes	4	0.0000001	0.0000001
2	Yes	4	0.0000001	0.00066790
3	Yes	4	0.0000001	0.00043975
4	Yes	5	0.0000001	0.00055997
5	Yes	5	0.0000001	0.00026767
6	Yes	5	0.0000001	0.00055403
7	Yes	5	0.00000001	0.00026470
8	Yes	4	0.0000001	0.00051232
9	Yes	4	0.00000001	0.00033121
10	Yes	5	0.0000001	0.00053558
11	Yes	5	0.0000001	0.00025549
12	Yes	5	0.0000001	0.00057042
13	Yes	5	0.0000001	0.00027337
14	Yes	4	0.0000001	0.00068847
15	Yes	4	0.0000001	0.00045389
16	Yes	5	0.0000001	0.00054146
17	Yes	5	0.0000001	0.00025888
18	Yes	5	0.0000001	0.00054606
19	Yes	5	0.0000001	0.00026130
20	Yes	4	0.0000001	0.00053218
21	Yes	4	0.0000001	0.00034508
22	Yes	5	0.0000001	0.00056813
23	Yes	5	0.0000001	0.00027228
24	Yes	5	0.0000001	0.00053460
25	Yes	5	0.0000001	0.00025494
26	Yes	4	0.0000001	0.00002517
27	Yes	5	0.0000001	0.00030441
28	Yes	5	0.0000001	0.00035564
29	Yes	5	0.0000001	0.00035487
30	Yes	5	0.0000001	0.00030370
31	Yes	5	0.0000001	0.00035004
32	Yes	5	0.0000001	0.00035224
33	Yes	5	0.0000001	0.00030055
34	Yes	5	0.0000001	0.00034580
35	Yes	5	0.0000001	0.00034586
36	Yes	5	0.0000001	0.00029966

37	Yes	5	0.0000001	0.00035157
38	Yes	5	0.0000001	0.00035005
39	Yes	4	0.0000001	0.00005564
40	Yes	4	0.0000001	0.00020662
41	Yes	4	0.0000001	0.00020032
42	Yes	4	0.0000001	0.00004977
43	Yes	4	0.0000001	0.00018211
44	Yes	4	0.0000001	0.00021833
45	Yes	4	0.0000001	0.00005550
46	Yes	4	0.0000001	0.00018615
47	Yes	4	0.0000001	0.00019078
48	Yes	4	0.0000001	0.00004962
49	Yes	4	0.0000001	0.00021587
50	Yes	4	0.00000001	0.00018124

Maximum Tower Deflections - Service Wind

Section	Elevation	Horz.	Gov.	Tilt	Twist
No.	ft	Deflection	Load	•	0
		in	Comb.		
L1	160 - 152	15.88	40	0.87	0.00
L2	152 - 111 29	14.43	40	0.86	0.00
L3	116.71 - 77.42	8.51	39	0.71	0.00
L4	83.59 - 36.46	4.28	39	0.48	0.00
L5	43.54 - 0	1.17	39	0.24	0.00

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
160.000	ERICSSON AIR 21 B2A B4P w/ Mount Pipe	40	15.88	0.87	0.00	57033
153.000	RRUS 11	40	14.61	0.86	0.00	41397
149.000	HPA-65R-BUU-H6 w/ Mount Pipe	40	13.90	0.85	0.00	28318
140.000	(2) APL868013-42T0 w/ Mount Pipe	39	12.31	0.83	0.00	17523
120.000	APXVTM14-ALU-I20 w/ Mount Pipe	39	9.01	0.73	0.00	9500
119.000	800MHZ RRH	39	8.86	0.72	0.00	9309
72.000	(2) GPS_A	39	3.15	0.41	0.00	8698

Maximum Tower Deflections - Design Wind

Section	Elevation	Horz.	Gov.	Tilt	Twist
No.	ft	Deflection	Load	0	0
		in	Comb.		
L1	160 - 152	67.74	2	3.69	0.01
L2	152 - 111.29	61.58	2	3.66	0.01
L3	116.71 - 77.42	36.32	2	3.03	0.00
L4	83.59 - 36.46	18.28	2	2.07	0.00
L5	43.54 - 0	4.99	2	1.03	0.00

Critical Deflections and Radius of Curvature - Design Wind

Elevation	Appurtenance	Gov.	Deflection	Tilt	Twist	Radius of
ft		Load	in	0	0	Curvature
		Comb.				ft
160.000	ERICSSON AIR 21 B2A B4P w/ Mount Pipe	2	67.74	3.69	0.01	13630
153.000	RRUS 11	2	62.35	3.66	0.01	9891
149.000	HPA-65R-BUU-H6 w/ Mount Pipe	2	59.29	3.64	0.01	6759

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
140.000	(2) ADL 000042 40T0/ Maximi	COITID.	F0 F0	2.52	0.01	
140.000	(2) APL868013-42T0 w/ Mount Pipe	2	52.52	3.53	0.01	4170
120.000	APXVTM14-ALU-I20 w/ Mount Pipe	2	38.46	3.11	0.00	2254
119.000	800MHZ RRH	2	37.80	3.09	0.00	2208
72.000	(2) GPS_A	2	13.44	1.75	0.00	2040

Compression Checks Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in²	P _u K	$^{\phi P_n}$ $^{\kappa}$	Ratio P _u
									$\overline{\phi P_n}$
L1	160 - 152 (1)	TP30.62x29x0.188	8.000	0.000	0.0	18.111	-4.82	1059.50	0.005
L2	152 - 111.29 (2)	TP38.86x30.62x0.25	40.710	0.000	0.0	29.767	-19.89	1741.34	0.011
L3	111.29 - 77.42 (3)	TP45.09x37.263x0.313	39.290	0.000	0.0	43.194	-27.60	2526.88	0.011
L4	77.42 - 36.46 (4)	TP52.62x43.236x0.438	47.130	0.000	0.0	70.504	-41.64	4124.51	0.010
L5	36.46 - 0 (5)	TP59x50.335x0.5	43.540	0.000	0.0	92.840	-61.39	5431.11	0.011

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{nx} kip-ft	Ratio M _{ux}	M _{uy} kip-ft	φM _{ny} kip-ft	Ratio M _{uy}
					ϕM_{nx}			ϕM_{ny}
L1	160 - 152 (1)	TP30.62x29x0.188	50.73	701.24	0.072	0.00	701.24	0.000
L2	152 - 111.29	TP38.86x30.62x0.25	553.65	1472.44	0.376	0.00	1472.44	0.000
L3	(2) 111.29 - 77.42 (3)	TP45.09x37.263x0.313	1275.28	2556.32	0.499	0.00	2556.32	0.000
L4	77.42 - 36.46 (4)	TP52.62x43.236x0.438	2281.14	5177.14	0.441	0.00	5177.14	0.000
L5	36.46 - 0 (5)	TP59x50.335x0.5	3517.58	7835.57	0.449	0.00	7835.57	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V _u K	φV _n Κ	$\frac{Ratio}{V_u}$	Actual T _u kip-ft	φΤ _n kip-ft	Ratio T _u
	400 450 (4)	TD00 00 00 0 100		047.05			0.47.44	$\frac{\phi T_n}{2.000}$
L1	160 - 152 (1)	TP30.62x29x0.188	6.19	317.85	0.019	0.00	847.11	0.000
L2	152 - 111.29 (2)	TP38.86x30.62x0.25	20.31	517.17	0.039	1.08	1716.19	0.001
L3	111.29 - 77.42 (3)	TP45.09x37.263x0.313	23.22	752.73	0.031	1.08	2891.07	0.000
L4	77.42 - 36.46 (4)	TP52.62x43.236x0.438	26.81	1228.22	0.022	1.16	5501.79	0.000
L5	36.46 - 0 (5)	TP59x50.335x0.5	29.87	1618.70	0.018	1.16	8347.33	0.000

Pole Interaction Design Data

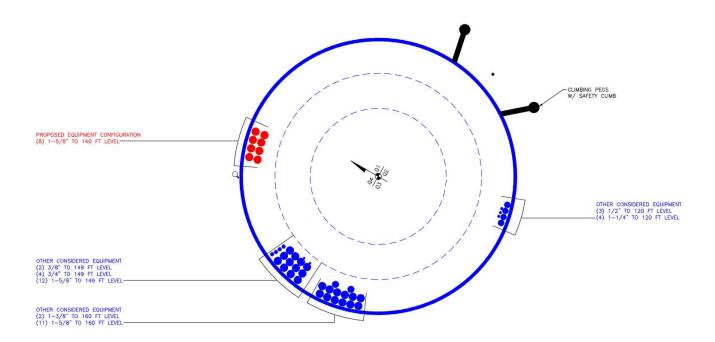
Section No.	Elevation ft	Ratio P _u	Ratio M _{ux}	Ratio M _{uy}	Ratio Vu	Ratio T _u	Comb. Stress	Allow. Stress	Criteria
		$\overline{\phi P_n}$	φ <i>M</i> _{nx}	φ <i>M</i> _{ny}	ϕV_n	ϕT_n	Ratio	Ratio	
L1	160 - 152 (1)	0.005	0.072	0.000	0.019	0.000	0.077	1.050	4.8.2
L2	152 - 111.29 (2)	0.011	0.376	0.000	0.039	0.001	0.389	1.050	4.8.2

Section No.	Elevation ft	Ratio Pu	Ratio M _{ux}	Ratio M _{uy}	Ratio Vu	Ratio Tu	Comb. Stress	Allow. Stress	Criteria
		ϕP_n	φ M _{nx}	ϕM_{ny}	ϕV_n	ϕT_n	Ratio	Ratio	
L3	111.29 - 77.42 (3)	0.011	0.499	0.000	0.031	0.000	0.511	1.050	4.8.2
L4	77.42 - 36.46 (4)	0.010	0.441	0.000	0.022	0.000	0.451	1.050	4.8.2
L5	36.46 - 0 (5)	0.011	0.449	0.000	0.018	0.000	0.461	1.050	4.8.2

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	øP _{allow} K	% Capacity	Pass Fail
L1	160 - 152	Pole	TP30.62x29x0.188	1	-4.82	1112.47	7.4	Pass
L2	152 - 111.29	Pole	TP38.86x30.62x0.25	2	-19.89	1828.41	37.0	Pass
L3	111.29 - 77.42	Pole	TP45.09x37.263x0.313	3	-27.60	2653.22	48.6	Pass
L4	77.42 - 36.46	Pole	TP52.62x43.236x0.438	4	41.64	4330.74	43.0	Pass
L5	36.46 - 0	Pole	TP59x50.335x0.5	5	-61.39	5702.67	43.9	Pass
							Summary	
						Pole (L3)	48.6	Pass
						RATING =	48.6	Pass

APPENDIX B BASE LEVEL DRAWING



APPENDIX C ADDITIONAL CALCULATIONS

Monopole Flange Plate Connection

BU#	
Site Name	
Order#	
TIA-222 Revision	Н

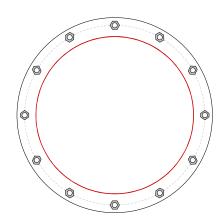
Top Plate - External

Elevation = 152 ft.

Applied Loads						
Moment (kip-ft)	50.73					
Axial Force (kips)	4.82					
Shear Force (kips)	6.19					

^{*}TIA-222-H Section 15.5 Applied

Bottom Plate - External



Connection Properties

Bolt Data

(12) 1" ø bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 35" BC

Top Plate Data

38" OD x 1" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Top Stiffener Data

N/A

Top Pole Data

30.62" x 0.1875" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Bottom Plate Data

38" OD x 1" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Bottom Stiffener Data

N/A

Bottom Pole Data

30.62" x 0.25" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results					
Bolt Capacity					
Max Load (kips)	5.39				
Allowable (kips)	54.53				
Stress Rating:	9.4%	Pass			

Top Plate Capacity

Top Tiate capacity			
Max Stress (ksi):	4.51	(Flexural)	
Allowable Stress (ksi):	54.00		
Stress Rating:	8.0%	Pass	
Tension Side Stress Rating	3.4%	Pacc	

Bottom Plate Capacity

Max Stress (ksi):	4.51	(Flexural)	
Allowable Stress (ksi):	54.00		
Stress Rating:	8.0%	Pass	
Tension Side Stress Rating:	3.4%	Pass	

CCIplate - version 3.6.0 Analysis Date: 12/3/2019

Monopole Base Plate Connection

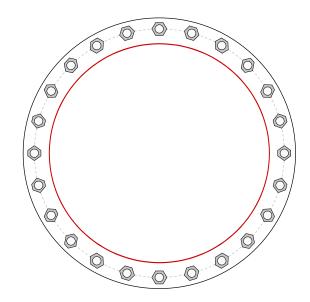


Site Info	
BU#	
Site Name	
Order #	

Analysis Considerations	
TIA-222 Revision	Н
Grout Considered:	No
I _{ar} (in)	0.5

Applied Loads		
Moment (kip-ft)	3517.58	
Axial Force (kips)	61.39	
Shear Force (kips)	29.87	

^{*}TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results		
Anchor Rod Data	Anchor Rod Summary		(units of kips, kip-in)
(24) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 67" BC	Pu_c = 107.51	φPn_c = 243.75	Stress Rating
	Vu = 1.24	φVn = 73.13	42.0%
Base Plate Data	Mu = n/a	φMn = n/a	Pass
73" OD x 2.25" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)			
	Base Plate Summary		
Stiffener Data	Max Stress (ksi):	26.89	(Flexural)
N/A	Allowable Stress (ksi):	54	
	Stress Rating:	47.4%	Pass
	•		

59" x 0.5" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

CCIplate - version 3.6.0 Analysis Date: 12/3/2019

Pier and Pad Foundation

BU # :
Site Name:
App. Number:



TIA-222 Revision: H
Tower Type: Monopole

Top & Bot. Pad Rein. Different?:	1
Block Foundation?:	**

Superstructure Analysis Reactions		
Compression, P _{comp} :	61	kips
Base Shear, Vu_comp:	30	kips
Moment, M _u :	3518	ft-kips
Tower Height, H :	160	ft
BP Dist. Above Fdn, bp _{dist} :	2.75	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
Lateral (Sliding) (kips)	501.72	30.00	5.7%	Pass
Bearing Pressure (ksf)	7.50	2.68	34.0%	Pass
Overturning (kip*ft)	8860.43	3824.88	43.2%	Pass
Pier Flexure (Comp.) (kip*ft)	5183.57	3683.00	67.7%	Pass
Pier Compression (kip)	23390.64	109.51	0.4%	Pass
Pad Flexure (kip*ft)	5006.20	1250.46	23.8%	Pass
Pad Shear - 1-way (kips)	1224.67	158.18	12.3%	Pass
Pad Shear - 2-way (Comp) (ksi)	0.164	0.018	10.6%	Pass
Flexural 2-way (Comp) (kip*ft)	8182.13	2209.80	25.7%	Pass

Pier Properties		
Pier Shape:	Square	
Pier Diameter, dpier :	7	ft
Ext. Above Grade, E:	0.5	ft
Pier Rebar Size, Sc :	11	
Pier Rebar Quantity, mc :	21	
Pier Tie/Spiral Size, St :	4	
Pier Tie/Spiral Quantity, mt :	8	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	4	in

*Rating per TIA-222-H Section 15.5

Pad Properties		
Depth, D :	9.5	ft
Pad Width, W :	25	ft
Pad Thickness, T :	4.5	ft
Pad Rebar Size (Bottom), Sp :	7	
Pad Rebar Quantity (Bottom), mp :	38	
Pad Clear Cover, cc_{pad} :	3	in

Soil Rating*:	43.2%
Structural Rating*:	67.7%

Material Propert	ies	
Rebar Grade, Fy :	60	ksi
Concrete Compressive Strength, F'c:	3	ksi
Dry Concrete Density, δ c :	150	pcf

Soil Properties	S	
Total Soil Unit Weight, γ :	120	pcf
Ultimate Gross Bearing, Qult:	10.000	ksf
Cohesion, Cu :		ksf
Friction Angle, $oldsymbol{arphi}$:	34	degrees
SPT Blow Count, N blows:	16	
Base Friction, μ :		
Neglected Depth, N:	5.00	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, gw :	n/a	ft

<--Toggle between Gross and Net



Address:

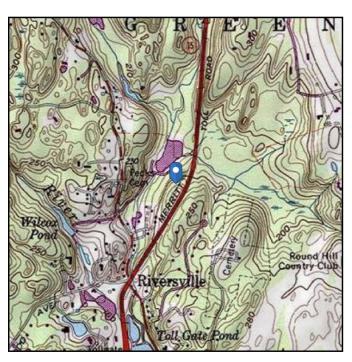
No Address at This Location

ASCE 7 Hazards Report

Standard: ASCE/SEI 7-10 Elevation: 223.31 ft (NAVD 88)

Risk Category: || Latitude: 41.066278

Soil Class: D - Stiff Soil Longitude: -73.6715





Wind

Results:

Wind Speed: 116 Vmph
10-year MRI 76 Vmph
25-year MRI 85 Vmph
50-year MRI 90 Vmph
100-year MRI 96 Vmph

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1—CC-4, incorporating errata of

March 12, 2014

Date Accessed: Wed Nov 27 2019

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

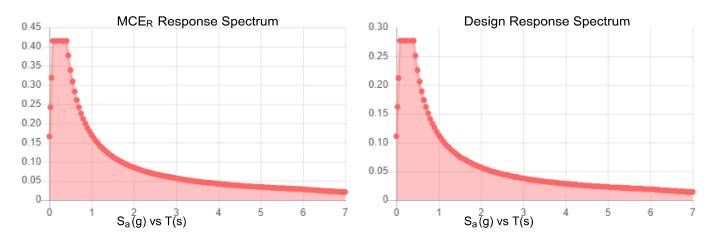
Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.



Seismic

Site Soil Class: Results:	D - Stiff Soil			
S _s :	0.261	$S_{ extsf{DS}}$:	0.277	
S_1 :	0.071	S_{D1} :	0.113	
F _a :	1.591	T _L :	6	
F _v :	2.4	PGA:	0.154	
S _{MS} :	0.415	PGA _M :	0.23	
S _{M1} :	0.17	F _{PGA} :	1.492	
		l _e :	1	

Seismic Design Category B



Data Accessed: Wed Nov 27 2019

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating

Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with

ASCE/SEI 7-10 Ch. 21 are available from USGS.



lce

Results:

Ice Thickness: 0.75 in.

Concurrent Temperature: 15 F

Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8

Date Accessed: Wed Nov 27 2019

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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Exhibit E

Mount Analysis

Date: October 15, 2019

Darcy Tarr Crown Castle 3530 Toringdon Way, Suite 300 Charlotte, NC 28277 (704) 405-6589



Subject: Mount Analysis Report

Carrier Designation: Verizon Wireless Equipment Change-Out

Carrier Site Number: NG59564

Carrier Site Name: W GREENWICH CT

Crown Castle Designation: Crown Castle BU Number: 841290

Crown Castle Site Name: GREENWICH NORTH

Crown Castle JDE Job Number: 590342 **Crown Castle Order Number:** 504982 Rev. 0

Engineering Firm Designation: ETS, PLLC Report Designation: 196498.14

Site Data: 363 Riversville Road, Greenwich, Fairfield County, CT 06831

Latitude: 41° 3' 58.60" Longitude: -73° 40' 17.40"

Structure Information: Tower Height & Type: 160.0 ft Monopole

Mount Elevation: 140.0 ft

Mount Type: 13.0 ft Platform Mount

Dear Darcy Tarr,

Engineered Tower Solutions, PLLC is pleased to submit this "Mount Analysis Report" to determine the structural integrity of Verizon Wireless's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Platform Mount Sufficient

This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Bach S. Tran, El

Respectfully Submitted by:

Frederic G. Bost, PE, CWI, GC Owner/President (919) 782-2710 Geoff.Bost@ets-pllc.com



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1) INTRODUCTION

This mount is an existing 13.0 ft Platform Mount. This mount is installed at the 140.0 ft elevation of the 160.0 ft Monopole. ETS, PLLC did not visit this site. A mapping and/or mount manufacturer drawings were not provided. Therefore, per direction of Crown Castle, photos of the tower were compared with other mounts within our database and a similar and comparable mount was used to perform this mount analysis.

2) ANALYSIS CRITERIA

Building Code: 2015 IBC **TIA-222 Revision:** TIA-222-H

Risk Category:

Ultimate Wind Speed: 120 mph **Exposure Category:** В **Topographic Factor at Base:** 1.00 **Topographic Factor at Mount:** 1.00 Ice Thickness: 1.50 in Wind Speed with Ice: 50 mph Seismic S_s: 0.259 Seismic S₁: 0.070 Service Wind Speed: 30 mph Man Live Load at Mid/End-Point: 250 lb Man Live Load At Mount Pipes: 500 lb

Table 1 - Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
		2	Decibel	DB844H80E-XY	
		4	RFS/Celwave	APL868013-42T0	
		6	Commscope	JAHH-65B-R3B	
		3	Samsung Telecommunications	CBRS	
		2	Commscope	RC2DC-3315-PF-48	
140.0	142.0	3	Commscope	CBC78T-DS-43-2X	13.0 ft Platform
1 1010		3	Samsung Telecommunications	20W CBRS	Mount
		3	Samsung Telecommunications	RFV01U-D1A	
		3	Samsung Telecommunications	RFV01U-D2A	
		3	Commscope	BSAMNT-SBS-2-2	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Carrier Application	Verizon Wireless	09/27/2019	CCI Sites
4-Structural Analysis Report	Jacobs Engineering Group, Inc	7708031	CCI Sites

3.1) Analysis Method

RISA-3D (version 17.0.2), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases.

A tool internally developed, using Microsoft Excel, by ETS, PLLC was used to calculate wind loading on all appurtenances, dishes, and mount members for various load cases. Selected output from the analysis is included in Appendix B.

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 Tower Mount Analysis (Revision C).

3.2) Assumptions

- 1) ETS, PLLC did not visit this site. A mapping and/or mount manufacturer drawings were not provided. Therefore, per direction of Crown Castle, photos of the tower were compared with other mounts within our database and a similar and comparable mount was used to perform this mount analysis.
- 2) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specification.
- 3) The configuration of antennas, mounts and other appurtenances are as specified in Table 1 and the referenced drawings.
- 4) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
- 5) This Structural Analysis is not a condition assessment of the mount and is an evaluation of the theoretical structural capacity.
- 6) This analysis is based from the information supplied, and therefore, this report's results are as accurate as the supplied data.
- 7) Engineered Tower Solutions, PLLC makes no warranties, expressed and/or implied, in connection with this report, and disclaims any liability associated with material, fabrication, or erection of the mount. Engineered Tower Solutions, PLLC will not be held responsible from any consequential or incidental damages sustained by any person, firm, or organization as a result of the contents of this report. The maximum liability of Engineered Tower Solutions, PLLC pursuant to this report will be limited to the total fee received for compilation of this report.
- It is the tower owner's responsibility to verify that the mount modeled and analyzed is the correct structure modeled.
- 9) The use of this report shall be limited to the purpose for which it was commissioned and may not be used for any other purposes without the written consent of Engineered Tower Solutions, PLLC.
- 10) Steel grades have been assumed as follows:

Channel, Solid Round, Angle, Plate ASTM A36 (Gr 36) HSS (Rectangular) ASTM A500 (Gr B-46) b) HSS (Round) c) ASTM A500 (Gr B-42) d) Pipe ASTM A53 (Gr 35) **Connection Bolts** ASTM A325 e) f) **U-Bolts** SAE 429 Gr.2

This analysis may be affected if any assumptions are not valid or have been made in error. Engineered Tower Solutions, PLLC should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (Platform Mount)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass/Fail
1	Face Mount – Horizontal	FM3		28.5	PASS
1	Mount Pipe – Vertical	MP13	140.0	81.7	PASS
1	Sidearm – Horizontal	SA2		73.3	PASS

Notes:

1) See additional documentation in "Appendix C – Software Analysis Output" for calculations supporting the % capacity consumed.

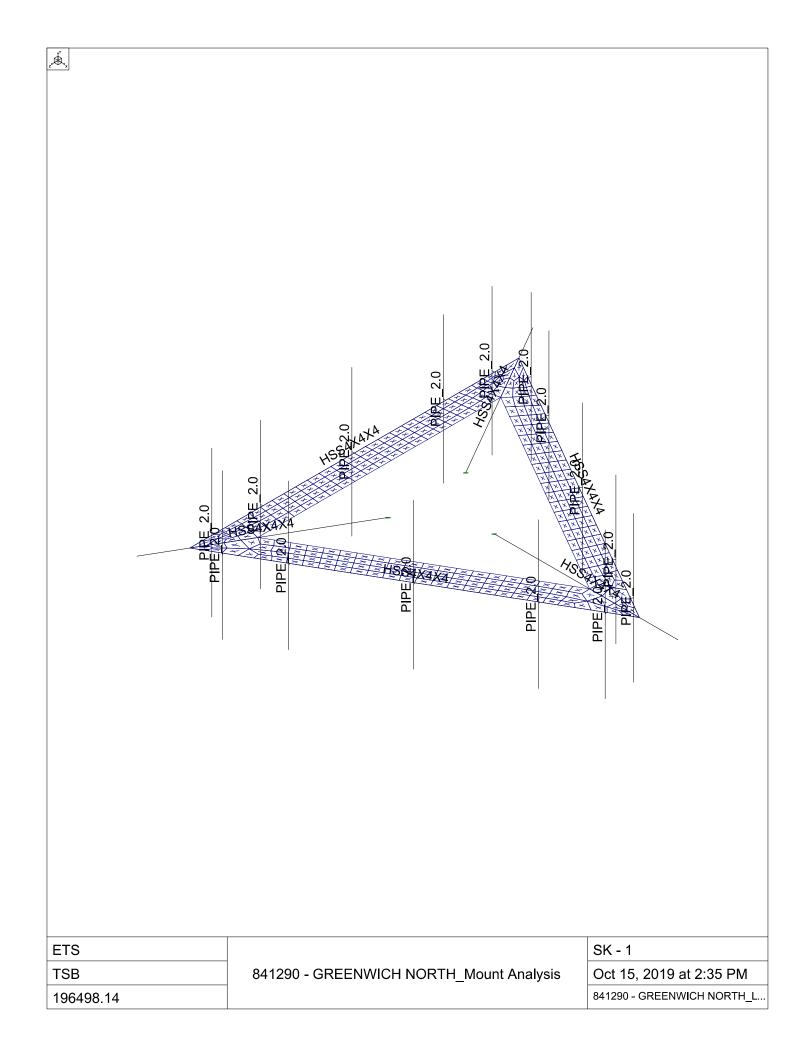
Tower Mount Rating (max from all components) = 81.7%
--

Verizon Mount Classification	M800R(550)-5[6]
------------------------------	-----------------

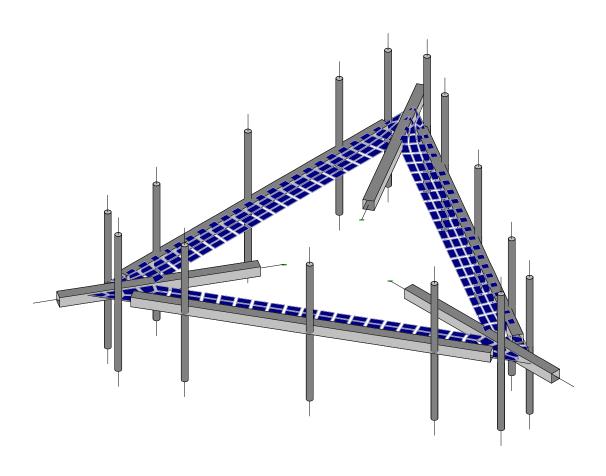
4.1) Recommendations

The mount has sufficient capacity to carry the proposed loading configuration. No modifications are required at this time.

APPENDIX A WIRE FRAME AND RENDERED MODELS







ETS		SK - 2
TSB	841290 - GREENWICH NORTH_Mount Analysis	Oct 15, 2019 at 2:35 PM
196498.14		841290 - GREENWICH NORTH_L

APPENDIX B SOFTWARE INPUT CALCULATIONS



Address:

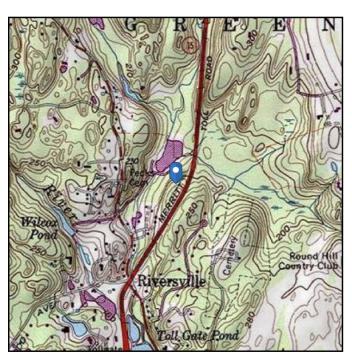
No Address at This Location

ASCE 7 Hazards Report

Standard: ASCE/SEI 7-10 Elevation: 223.31 ft (NAVD 88)

Risk Category: || Latitude: 41.066278

Soil Class: D - Stiff Soil Longitude: -73.6715





Wind

Results:

Wind Speed: - Vmph Local Code: 120 Vmph

10-year MRI 76 Vmph 25-year MRI 85 Vmph 50-year MRI 90 Vmph 100-year MRI 96 Vmph

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1—CC-4, incorporating errata of

March 12, 2014

Date Accessed: Tue Oct 15 2019

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

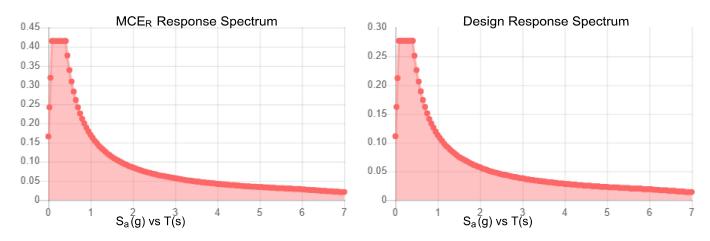
Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.



Seismic

Site Soil Class: Results:	D - Stiff Soil			
S _s :	0.259	S _{DS} :	0.277	
S_1 :	0.070	S_{D1} :	0.113	
F _a :	1.591	T _L :	6	
F _v :	2.4	PGA:	0.154	
S _{MS} :	0.415	PGA _M :	0.23	
S _{M1} :	0.17	F _{PGA} :	1.492	
		e:	1	

Seismic Design Category B



Data Accessed: Tue Oct 15 2019

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating

Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with

ASCE/SEI 7-10 Ch. 21 are available from USGS.



lce

Results:

Ice Thickness: 0.75 in.

Concurrent Temperature: 15 F

Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8

Date Accessed: Tue Oct 15 2019

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

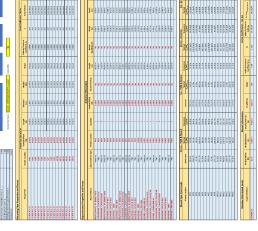
The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.







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146	9119	20.2 to	66.10	133.7 %	0.10	100
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COM	125.6 th	1338	46.10	803.00	909	38
504	658	0229	979	153.78	83.60	30
668	154.2.8	2063.0	10.76	15448	462.0	100
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APPENDIX C SOFTWARE ANALYSIS OUTPUT



: ETS : TSB : 196498.14

: 841290 - GREENWICH NORTH_Mount Analysis

Oct 15, 2019 2:34 PM Checked By: JAA

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	FM1	N1	N2		, ,,	HSS4X4X4	None	None	A500 Gr.B	Typical
2	FM2	N3	N1			HSS4X4X4	None	None	A500 Gr.B	Typical
3	FM3	N2	N3			HSS4X4X4	None	None	A500 Gr.B	Typical
4	SA2	N9	N10			HSS4X4X4	None	None	A500 Gr.B	Typical
5	SA3	N7	N8			HSS4X4X4	None	None	A500 Gr.B	Typical
6	SA1	N5	N6			HSS4X4X4	None	None	A500 Gr.B	Typical
7	M11	N381A	N386A			RIGID	None	None	RIGID	Typical
8	M12	N382A	N387A			RIGID	None	None	RIGID	Typical
9	M13	N67	N383A			RIGID	None	None	RIGID	Typical
10	M14	N380A	N385A			RIGID	None	None	RIGID	Typical
11	M15	N379A	N384A			RIGID	None	None	RIGID	Typical
12	MP1	N396A	N391A			PIPE_2.0	Column	Pipe	A53 Gr.B	
13	MP2	N397A	N392A			PIPE 2.0	Column	Pipe	A53 Gr.B	
14	MP3	N393A	N388A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
15	MP4	N395A	N390A			PIPE 2.0	Column	Pipe	A53 Gr.B	Typical
16	MP5	N394A	N389A			PIPE_2.0	Column	Pipe	A53 Gr.B	Typical
17	M21	N402A	N407			RIGID	None	None	RIGID	Typical
18	M22	N403A	N408			RIGID	None	None	RIGID	Typical
19	M23	N327	N404A			RIGID	None	None	RIGID	Typical
20	M24	N401A	N406			RIGID	None	None	RIGID	Typical
21	M25	N400A	N405A			RIGID	None	None	RIGID	Typical
22	MP11	N417	N412			PIPE_2.0	Column	Pipe	A53 Gr.B	
23	MP12	N418	N413			PIPE 2.0	Column	Pipe	A53 Gr.B	
24	MP13	N414	N409			PIPE_2.0	Column	Pipe	A53 Gr.B	
25	MP14	N416	N411			PIPE 2.0	Column	Pipe	A53 Gr.B	Typical
26	MP15	N415	N410			PIPE_2.0	Column	Pipe	A53 Gr.B	
27	M31	N423	N428			RIGID	None	None	RIGID	Typical
28	M32	N424	N429			RIGID	None	None	RIGID	Typical
29	M33	N213	N425			RIGID	None	None	RIGID	Typical
30	M34	N422	N427			RIGID	None	None	RIGID	Typical
31	M35	N421	N426			RIGID	None	None	RIGID	Typical
32	MP6	N438	N433			PIPE_2.0	Column	Pipe	A53 Gr.B	
33	MP7	N439	N434			PIPE 2.0	Column	Pipe Pipe	A53 Gr.B	
34	MP8	N435	N430			PIPE_2.0	Column	Pipe	A53 Gr.B	
35	MP9	N437	N432			PIPE 2.0	Column	Pipe .	A53 Gr.B	Typical
36	MP10	N436	N431			PIPE 2.0	Column	Pipe	A53 Gr.B	

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				
2	RIGID		15	17.8	0
3	Total General		15	17.8	0
4					
5	Hot Rolled Steel				
6	A500 Gr.B Rect	HSS4X4X4	6	757.5	.8
7	A53 Gr.B	PIPE 2.0	15	1080	.3
8	Total HR Steel		21	1837.5	1.1
9					
10	Plate Elements	Thickness (in)		Volume (yds^3)	
11	GRATE	.1	294	0	.2
12	Total Plates		294	0	.2



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Member Point Loads (BLC 1 : Dead Load)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Υ	-38.3	%8 3
2	MP2	Υ	-126.6	%50
3	MP3	Υ	-6.3	%50
4	MP4	Υ	-154.7	%83
5	MP5	Υ	-41.8	%83
6	MP6	Υ	-38.3	%83
7	MP7	Y	-126.6	%50
8	MP8	Υ	-6.3	%50
9	MP9	Υ	-154.7	%83
10	MP10	Υ	-41.8	%83
11	MP11	Υ	-78	%83
12	MP12	Y	-46	%83
13	MP13	Υ	-126.6	%50
14	MP14	Υ	-154.7	%83
15	MP15	Υ	-41.8	%83

Member Point Loads (BLC 2: Wind Load (0 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Χ	32.8	%83
2	MP2	Χ	13.5	%50
3	MP3	Χ	20.2	%50
4	MP4	Χ	168.5	%83
5	MP5	Χ	60.6	%83
6	MP6	Χ	57.7	%83
7	MP7	Χ	39.7	%50
8	MP8	Χ	41.4	%50
9	MP9	Χ	136.4	%83
10	MP10	Χ	62.3	%83
11	MP11	Χ	154.4	%83
12	MP12	Χ	138.1	%83
13	MP13	X	39.7	%50
14	MP14	Χ	136.4	%83
15	MP15	X	62.3	%83
16	MP1	Z	0	%83
17	MP2	Z	0	%50
18	MP3	Z	0	%50
19	MP4	Z	0	%83
20	MP5	Z	0	%83
21	MP6	Z	0	%83
22	MP7	Z	0	%50
23	MP8	Z	0	%50
24	MP9	Z	0	%83
25	MP10	Z	0	%83
26	MP11	Z	0	%83
27	MP12	Z	0	%83
28	MP13	Z	0	%50
29	MP14	Z	0	%83
30	MP15	Z	0	%83

Member Point Loads (BLC 3: Wind Load (30 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	35.6	%83
2	MP2	X	19.2	%50
3	MP3	X	23.6	%50
4	MP4	Χ	136.6	%83



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Member Point Loads (BLC 3: Wind Load (30 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
5	MP5	×	53	%83
6	MP6	X	57.1	%83
7	MP7	X	42	%50
8	MP8	Χ	42	%50
9	MP9	X	108.9	%83
10	MP10	X	54.4	%83
11	MP11	X	138.3	%83
12	MP12	X	126.3	%83
13	MP13	X	19.2	%50
14	MP14	X	136.6	%83
15	MP15	X	53	%83
16	MP1	Z	20.5	%83
17	MP2	Z	11.1	%50
18	MP3	Z	13.6	%50
19	MP4	Z	78.9	%83
20	MP5	Z	30.6	%83
21	MP6	Z	33	%83
22	MP7	Z	24.2	%50
23	MP8	Z	24.2	%50
24	MP9	Z	62.9	%83
25	MP10	Z	31.4	%83
26	MP11	Z	79.8	%83
27	MP12	Z	72.9	%83
28	MP13	Z	11.1	%50
29	MP14	Z	78.9	%83
30	MP15	Z	30.6	%83

Member Point Loads (BLC 4: Wind Load (60 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	28.8	%83
2	MP2	Χ	19.9	%50
3	MP3	X	20.7	%50
4	MP4	X	68.2	%83
5	MP5	X	31.1	%83
6	MP6	X	28.8	%83
7	MP7	Χ	19.9	%50
8	MP8	Χ	20.7	%50
9	MP9	X	68.2	%83
10	MP10	X	31.1	%83
11	MP11	X	81.1	%83
12	MP12	X	74.9	%83
13	MP13	X	6.7	%50
14	MP14	X	84.2	%83
15	MP15	X	30.3	%83
16	MP1	Z	49.9	%83
17	MP2	Z	34.4	%50
18	MP3	Z	35.9	%50
19	MP4	Z	118.1	%83
20	MP5	Z	53.9	%83
21	MP6	Z	49.9	%83
22	MP7	Z	34.4	%50
23	MP8	Z	35.9	%50
24	MP9	Z	118.1	%83
25	MP10	Z	53.9	%83
26	MP11	Z	140.5	%83
27	MP12	Z	129.7	%83



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Member Point Loads (BLC 4: Wind Load (60 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
28	MP13	Z	11.7	%50
29	MP14	Z	145.9	%83
30	MP15	Z	52.5	%83

Member Point Loads (BLC 5: Wind Load (90 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%83
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%83
5	MP5	X	0	%83
6	MP6	X	0	%83
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%83
10	MP10	X	0	%83
11	MP11	X	0	%83
12	MP12	X	0	%83
13	MP13	X	0	%50
14	MP14	X	0	%83
15	MP15	X	0	%83
16	MP1	Z	66	%83
17	MP2	Z	48.5	%50
18	MP3	Z	48.5	%50
19	MP4	Z	125.7	%83
20	MP5	Z	62.8	%83
21	MP6	Z	41.1	%83
22	MP7	Z	22.2	%50
23	MP8	Z	27.3	%50
24	MP9	Z	157.8	%83
25	MP10	Z	61.2	%83
26	MP11	Z	159.6	%83
27	MP12	Z	145.8	%83
28	MP13	Z	22.2	%50
29	MP14	Z	157.8	%83
30	MP15	Z	61.2	%83

Member Point Loads (BLC 6: Wind Load (120 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-28.8	%83
2	MP2	X	-19.9	%50
3	MP3	X	-20.7	%50
4	MP4	X	-68.2	%83
5	MP5	X	-31.1	%83
6	MP6	X	-16.4	%83
7	MP7	X	-6.7	%50
8	MP8	X	-10.1	%50
9	MP9	X	-84.2	%83
10	MP10	X	-30.3	%83
11	MP11	X	-77.2	%83
12	MP12	X	-69.1	%83
13	MP13	X	-19.9	%50
14	MP14	X	-68.2	%83
15	MP15	X	-31.1	%83
16	MP1	Z	49.9	%83
17	MP2	Z	34.4	%50



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Member Point Loads (BLC 6: Wind Load (120 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
18	MP3	Z	35.9	%50
19	MP4	Z	118.1	%83
20	MP5	Z	53.9	%83
21	MP6	Z	28.4	%83
22	MP7	Z	11.7	%50
23	MP8	Z	17.5	%50
24	MP9	Z	145.9	%83
25	MP10	Z	52.5	%83
26	MP11	Z	133.7	%83
27	MP12	Z	119.6	%83
28	MP13	Z	34.4	%50
29	MP14	Z	118.1	%83
30	MP15	Z	53.9	%83

Member Point Loads (BLC 7: Wind Load (150 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-35.6	%83
2	MP2	X	-19.2	%50
3	MP3	X	-23.6	%50
4	MP4	X	-136.6	%83
5	MP5	X	-53	%83
6	MP6	Χ	-35.6	%83
7	MP7	X	-19.2	%50
8	MP8	X	-23.6	%50
9	MP9	X	-136.6	%83
10	MP10	X	-53	%83
11	MP11	X	-131.4	%83
12	MP12	X	-116.3	%83
13	MP13	X	-42	%50
14	MP14	Χ	-108.9	%83
15	MP15	X	-54.4	%83
16	MP1	Z	20.5	%83
17	MP2	Z	11.1	%50
18	MP3	Z	13.6	%50
19	MP4	Z	78.9	%83
20	MP5	Z	30.6	%83
21	MP6	Z	20.5	%83
22	MP7	Z	11.1	%50
23	MP8	Z	13.6	%50
24	MP9	Z	78.9	%83
25	MP10	Z	30.6	<u>%83</u>
26	MP11	Z	75.9	%83
27	MP12	Z	67.1	%83
28	MP13	Z	24.2	%50
29	MP14	Z	62.9	%83
30	MP15	Z	31.4	%83

Member Point Loads (BLC 8: Wind Load (180 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-32.8	%83
2	MP2	X	-13.5	%50
3	MP3	X	-20.2	%50
4	MP4	X	-168.5	%83
5	MP5	X	-60.6	%83
6	MP6	X	-57.7	%83
7	MP7	X	-39.7	%50



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Member Point Loads (BLC 8: Wind Load (180 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
8	MP8	X	-41.4	%50
9	MP9	X	-136.4	%83
10	MP10	X	- 62.3	%83
11	MP11	X	-154.4	%83
12	MP12	X	-138.1	%83
13	MP13	X	-39.7	%50
14	MP14	X	-136.4	%83
15	MP15	X	- 62.3	%83
16	MP1	Z	0	%83
17	MP2	Z	0	%50
18	MP3	Z	0	%50
19	MP4	Z	0	%83
20	MP5	Z	0	%83
21	MP6	Z	0	%83
22	MP7	Z	0	%50
23	MP8	Z	0	%50
24	MP9	Z	0	%83
25	MP10	Z	0	%83
26	MP11	Z	0	%83
27	MP12	Z	0	%83
28	MP13	Z	0	%50
29	MP14	Z	0	%83
30	MP15	Z	0	%83

Member Point Loads (BLC 9: Wind Load (210 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-35.6	<u>%83</u>
2	MP2	X	-19.2	%50
3	MP3	X	-23.6	%50
4	MP4	Χ	-136.6	%83
5	MP5	Χ	-53	%83
6	MP6	X	-57.1	%83
7	MP7	Χ	-42	%50
8	MP8	X	-42	%50
9	MP9	Χ	-108.9	%83
10	MP10	X	-54.4	%83
11	MP11	X	-138.3	%83
12	MP12	X	-126.3	%83
13	MP13	X	-19.2	%50
14	MP14	X	-136.6	%83
15	MP15	X	-53	%83
16	MP1	Z	-20.5	%83
17	MP2	Z	-11.1	%50
18	MP3	Z	-13.6	%50
19	MP4	Z	-78.9	%83
20	MP5	Z	-30.6	%83
21	MP6	Z	-33	%83
22	MP7	Z	-24.2	%50
23	MP8	Z	-24.2	%50
24	MP9	Z	-62.9	%83
25	MP10	Z	-31.4	%83
26	MP11	Z	-79.8	%83
27	MP12	Z	-72.9	%83
28	MP13	Z	-11.1	%50
29	MP14	Z	-78.9	%83
30	MP15	Z	-30.6	%83



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Member Point Loads (BLC 10: Wind Load (240 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-28.8	%83
2	MP2	X	-19.9	%50
3	MP3	X	-20.7	%50
4	MP4	Χ	-68.2	%83
5	MP5	X	-31.1	%83
6	MP6	Χ	-28.8	%83
7	MP7	X	-19.9	%50
8	MP8	X	-20.7	%50
9	MP9	X	-68.2	%83
10	MP10	X	-31.1	%83
11	MP11	Χ	- 81.1	%83
12	MP12	X	-74.9	%83
13	MP13	X	-6.7	%50
14	MP14	X	-84.2	%83
15	MP15	X	-30.3	%83
16	MP1	Z	-49.9	%83
17	MP2	Z	-34.4	%50
18	MP3	Z	-35.9	%50
19	MP4	Z	-118.1	%83
20	MP5	Z	-53.9	%83
21	MP6	Z	-49.9	%83
22	MP7	Z	-34.4	%50
23	MP8	Z	- 35.9	%50
24	MP9	Z	-118.1	%83
25	MP10	Z	-53.9	%83
26	MP11	Z	-140.5	%83
27	MP12	Z	-129.7	%83
28	MP13	Z	-11.7	%50
29	MP14	Z	-145.9	%83
30	MP15	Z	-52.5	%83

Member Point Loads (BLC 11: Wind Load (270 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%83
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%83
5	MP5	X	0	%83
6	MP6	X	0	%83
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%83
10	MP10	X	0	%83
11	MP11	X	0	%83
12	MP12	X	0	%83
13	MP13	X	0	%50
14	MP14	X	0	%83
15	MP15	X	0	%83
16	MP1	Z	-66	%83
17	MP2	Z	-48.5	%50
18	MP3	Z	- 48.5	%50
19	MP4	Z	-125.7	%83
20	MP5	Z	-62.8	%83
21	MP6	Z	- 41.1	%83
22	MP7	Z	-22.2	%50
23	MP8	Z	-27 .3	%50



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Member Point Loads (BLC 11: Wind Load (270 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
24	MP9	Z	-157.8	%83
25	MP10	Z	-61.2	%83
26	MP11	Z	-159.6	%83
27	MP12	Z	-145.8	%83
28	MP13	Z	-22.2	%50
29	MP14	Z	-157.8	%83
30	MP15	Z	-61.2	%83

Member Point Loads (BLC 12: Wind Load (300 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	28.8	%8 3
2	MP2	X	19.9	%50
3	MP3	X	20.7	%50
4	MP4	X	68.2	%83
5	MP5	X	31.1	%83
6	MP6	X	16.4	%83
7	MP7	X	6.7	%50
8	MP8	X	10.1	%50
9	MP9	X	84.2	%83
10	MP10	X	30.3	%83
11	MP11	X	77.2	%83
12	MP12	X	69.1	%83
13	MP13	X	19.9	%50
14	MP14	X	68.2	%83
15	MP15	X	31.1	%83
16	MP1	Z	-49.9	%83
17	MP2	Z	-34.4	%50
18	MP3	Z	-35.9	%50
19	MP4	Z	-118.1	%83
20	MP5	Z	-53.9	%83
21	MP6	Z	-28.4	%83
22	MP7	Z	-11.7	%50
23	MP8	Z	-17.5	%50
24	MP9	Z	-145.9	%83
25	MP10	Z	-52.5	%83
26	MP11	Z	-133.7	%83
27	MP12	Z	-119.6	%83
28	MP13	Z	-34.4	%50
29	MP14	Z	-118.1	%83
30	MP15	Z	-53.9	%83

Member Point Loads (BLC 13: Wind Load (330 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	35.6	%83
2	MP2	X	19.2	%50
3	MP3	X	23.6	%50
4	MP4	X	136.6	%83
5	MP5	X	53	%83
6	MP6	X	35.6	%83
7	MP7	X	19.2	%50
8	MP8	X	23.6	%50
9	MP9	X	136.6	%83
10	MP10	X	53	%83
11	MP11	X	131.4	%83
12	MP12	X	116.3	%83
13	MP13	X	42	%50



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Member Point Loads (BLC 13: Wind Load (330 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
14	MP14	X	108.9	%83
15	MP15	X	54.4	%83
16	MP1	Z	-20.5	%83
17	MP2	Z	-11.1	%50
18	MP3	Z	-13.6	%50
19	MP4	Z	- 78.9	%83
20	MP5	Z	-30.6	%83
21	MP6	Z	-20.5	%83
22	MP7	Z	-11.1	%50
23	MP8	Z	-13.6	%50
24	MP9	Z	- 78.9	%83
25	MP10	Z	-30.6	%83
26	MP11	Z	-7 5.9	%83
27	MP12	Z	-67.1	%83
28	MP13	Z	-24.2	%50
29	MP14	Z	-62.9	%83
30	MP15	Z	-31.4	%83

Member Point Loads (BLC 14 : Ice Load)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Υ	-167.1	%83
2	MP2	Υ	-977	%50
3	MP3	Υ	-151.7	%50
4	MP4	Υ	-154.4	%83
5	MP5	Υ	-117.1	%83
6	MP6	Υ	-167.1	%83
7	MP7	Υ	-977	%50
8	MP8	Υ	-151.7	%50
9	MP9	Υ	-154.4	%83
10	MP10	Υ	-117.1	%83
11	MP11	Υ	-274.7	%83
12	MP12	Υ	-259.3	%83
13	MP13	Υ	-977	%50
14	MP14	Υ	-154.4	%83
15	MP15	Υ	-117.1	%83

Member Point Loads (BLC 15: Wind on Ice (0 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	12.6	%83
2	MP2	X	6.6	%50
3	MP3	X	9.5	%50
4	MP4	X	46.3	%83
5	MP5	X	20.8	%83
6	MP6	X	19.5	%83
7	MP7	X	14.3	%50
8	MP8	X	15	%50
9	MP9	X	38.4	%83
10	MP10	X	21.2	%83
11	MP11	X	40.3	%83
12	MP12	X	35.8	%83
13	MP13	X	14.3	%50
14	MP14	X	38.4	%83
15	MP15	X	21.2	%83
16	MP1	Z	0	%83
17	MP2	Z	0	%50
18	MP3	Z	0	%50



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Member Point Loads (BLC 15: Wind on Ice (0 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
19	MP4	Z	0	%83
20	MP5	Z	0	%83
21	MP6	Z	0	%83
22	MP7	Z	0	%50
23	MP8	Z	0	%50
24	MP9	Z	0	%83
25	MP10	Z	0	%83
26	MP11	Z	0	%83
27	MP12	Z	0	%83
28	MP13	Z	0	%50
29	MP14	Z	0	%83
30	MP15	Z	0	%83

Member Point Loads (BLC 16: Wind on Ice (30 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	12.9	%83
2	MP2	Χ	7.9	%50
3	MP3	Χ	9.8	%50
4	MP4	Χ	37.8	%83
5	MP5	X	18.1	%83
6	MP6	X	18.9	%83
7	MP7	X	14.6	%50
8	MP8	Χ	14.6	%50
9	MP9	Χ	31	%83
10	MP10	Χ	18.4	%83
11	MP11	X	34.1	%83
12	MP12	X	31	%83
13	MP13	X	7.9	%50
14	MP14	X	37.8	%83
15	MP15	Χ	18.1	%83
16	MP1	Z	7.5	%83
17	MP2	Z	4.6	%50
18	MP3	Z	5.7	%50
19	MP4	Z	21.8	%83
20	MP5	Z	10.5	%83
21	MP6	Z	10.9	%83
22	MP7	Z	8.4	%50
23	MP8	Z	8.4	%50
24	MP9	Z	17.9	%83
25	MP10	Z	10.6	%83
26	MP11	Z	19.7	%83
27	MP12	Z	17.9	%83
28	MP13	Z	4.6	%50
29	MP14	Z	21.8	%83
30	MP15	Z	10.5	%83

Member Point Loads (BLC 17: Wind on Ice (60 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	9.8	%8 3
2	MP2	X	7.1	%50
3	MP3	X	7.5	%50
4	MP4	X	19.2	%83
5	MP5	X	10.6	%83
6	MP6	X	9.8	%83
7	MP7	X	7.1	%50
8	MP8	X	7.5	%50



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Member Point Loads (BLC 17: Wind on Ice (60 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
9	MP9	X	19.2	%83
10	MP10	X	10.6	%83
11	MP11	X	19.5	%83
12	MP12	Χ	17.9	%83
13	MP13	Χ	3.3	%50
14	MP14	Χ	23.2	%83
15	MP15	X	10.4	%83
16	MP1	Z	16.9	%83
17	MP2	Z	12.4	%50
18	MP3	Z	13	%50
19	MP4	Z	33.3	%83
20	MP5	Z	18.3	%83
21	MP6	Z	16.9	%83
22	MP7	Z	12.4	%50
23	MP8	Z	13	%50
24	MP9	Z	33.3	%83
25	MP10	Z	18.3	%83
26	MP11	Z	33.7	%83
27	MP12	Z	31	%83
28	MP13	Z	5.7	%50
29	MP14	Z	40.1	%83
30	MP15	Z	18.1	%83

Member Point Loads (BLC 18: Wind on Ice (90 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%83
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%83
5	MP5	X	0	%83
6	MP6	X	0	%83
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%83
10	MP10	X	0	%83
11	MP11	X	0	%83
12	MP12	X	0	%83
13	MP13	X	0	%50
14	MP14	X	0	%83
15	MP15	X	0	%83
16	MP1	Z	21.8	%83
17	MP2	Z	16.8	%50
18	MP3	Z	16.8	%50
19	MP4	Z	35.8	%83
20	MP5	Z	21.3	%83
21	MP6	Z	14.9	%83
22	MP7	Z	9.1	%50
23	MP8	Z	11.3	%50
24	MP9	Z	43.7	%83
25	MP10	Z	21	%83
26	MP11	Z	39.4	%83
27	MP12	Z	35.8	%83
28	MP13	Z	9.1	%50
29	MP14	Z	43.7	%83
30	MP15	Z	21	%83



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Member Point Loads (BLC 19: Wind on Ice (120 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-9.8	%83
2	MP2	Χ	-7.1	%50
3	MP3	Χ	-7.5	%50
4	MP4	X	-19.2	%83
5	MP5	Χ	-10.6	%83
6	MP6	X	-6.3	%83
7	MP7	X	-3.3	%50
8	MP8	X	-4.7	%50
9	MP9	X	-23.2	%83
10	MP10	X	-10.4	%83
11	MP11	Χ	-20.2	%83
12	MP12	X	-17.9	%83
13	MP13	X	-7.1	%50
14	MP14	X	-19.2	%83
15	MP15	X	-10.6	%83
16	MP1	Z	16.9	%83
17	MP2	Z	12.4	%50
18	MP3	Z	13	%50
19	MP4	Z	33.3	%83
20	MP5	Z	18.3	%83
21	MP6	Z	10.9	%83
22	MP7	Z	5.7	%50
23	MP8	Z	8.2	%50
24	MP9	Z	40.1	%83
25	MP10	Z	18.1	%83
26	MP11	Z	34.9	%83
27	MP12	Z	31	%83
28	MP13	Z	12.4	%50
29	MP14	Z	33.3	%83
30	MP15	Z	18.3	%83

Member Point Loads (BLC 20 : Wind on Ice (150 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-12.9	%83
2	MP2	Χ	- 7.9	%50
3	MP3	X	-9.8	%50
4	MP4	X	- 37.8	%83
5	MP5	X	-18.1	%83
6	MP6	X	-12.9	%83
7	MP7	X	- 7.9	%50
8	MP8	X	-9.8	%50
9	MP9	X	-37.8	%83
10	MP10	X	-18.1	%83
11	MP11	X	-35.4	%83
12	MP12	X	-31	%83
13	MP13	X	-14.6	%50
14	MP14	X	-31	%83
15	MP15	X	-18.4	%83
16	MP1	Z	7.5	%83
17	MP2	Z	4.6	%50
18	MP3	Z	5.7	%50
19	MP4	Z	21.8	%83
20	MP5	Z	10.5	%83
21	MP6	Z	7.5	%83
22	MP7	Z	4.6	%50
23	MP8	Z	5.7	%50



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Member Point Loads (BLC 20: Wind on Ice (150 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
24	MP9	Z	21.8	%83
25	MP10	Z	10.5	%83
26	MP11	Z	20.4	%83
27	MP12	Z	17.9	%83
28	MP13	Z	8.4	%50
29	MP14	Z	17.9	%83
30	MP15	Z	10.6	%83

Member Point Loads (BLC 21: Wind on Ice (180 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-12.6	%8 3
2	MP2	X	-6.6	%50
3	MP3	Χ	-9.5	%50
4	MP4	X	-46.3	%83
5	MP5	X	-20.8	%83
6	MP6	X	-19.5	%83
7	MP7	X	-14.3	%50
8	MP8	X	-15	%50
9	MP9	X	-38.4	%83
10	MP10	X	-21.2	%83
11	MP11	X	-40.3	%83
12	MP12	X	-35.8	%83
13	MP13	X	-14.3	%50
14	MP14	X	-38.4	%83
15	MP15	X	-21.2	%83
16	MP1	Z	0	%83
17	MP2	Z	0	%50
18	MP3	Z	0	%50
19	MP4	Z	0	%83
20	MP5	Z	0	%83
21	MP6	Z	0	%83
22	MP7	Z	0	%50
23	MP8	Z	0	%50
24	MP9	Z	0	%83
25	MP10	Z	0	%83
26	MP11	Z	0	%83
27	MP12	Z	0	%83
28	MP13	Z	0	%50
29	MP14	Z	0	%83
30	MP15	Z	0	%83

Member Point Loads (BLC 22: Wind on Ice (210 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-12.9	%83
2	MP2	X	-7.9	%50
3	MP3	X	-9.8	%50
4	MP4	X	-37.8	%83
5	MP5	X	-18.1	%83
6	MP6	X	-18.9	%83
7	MP7	X	-14.6	%50
8	MP8	X	-14.6	%50
9	MP9	X	-31	%83
10	MP10	X	-18.4	%83
11	MP11	X	-34.1	%83
12	MP12	X	-31	%83
13	MP13	X	- 7.9	%50



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Member Point Loads (BLC 22: Wind on Ice (210 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
14	MP14	X	-37.8	%83
15	MP15	X	-18.1	%83
16	MP1	Z	-7.5	%83
17	MP2	Z	-4.6	%50
18	MP3	Z	-5.7	%50
19	MP4	Z	-21.8	%83
20	MP5	Z	-10.5	%83
21	MP6	Z	-10.9	%83
22	MP7	Z	-8.4	%50
23	MP8	Z	-8.4	%50
24	MP9	Z	-17.9	%83
25	MP10	Z	-10.6	%83
26	MP11	Z	-19.7	%83
27	MP12	Z	-17.9	%83
28	MP13	Z	-4.6	%50
29	MP14	Z	-21.8	%83
30	MP15	Z	-10.5	%83

Member Point Loads (BLC 23: Wind on Ice (240 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-9.8	%83
2	MP2	X	-7.1	%50
3	MP3	X	-7.5	%50
4	MP4	X	-19.2	%83
5	MP5	X	-10.6	%83
6	MP6	X	-9.8	%83
7	MP7	X	-7.1	%50
8	MP8	X	-7.5	%50
9	MP9	Χ	-19.2	%83
10	MP10	X	-10.6	%83
11	MP11	X	-19.5	%83
12	MP12	X	-17.9	%83
13	MP13	X	-3.3	%50
14	MP14	X	-23.2	%83
15	MP15	X	-10.4	%83
16	MP1	Z	-16.9	%83
17	MP2	Z	-12.4	%50
18	MP3	Z	-13	%50
19	MP4	Z	-33.3	%83
20	MP5	Z	-18.3	%83
21	MP6	Z	-16.9	%83
22	MP7	Z	-12.4	%50
23	MP8	Z	-13	%50
24	MP9	Z	-33.3	%83
25	MP10	Z	-18.3	%83
26	MP11	Z	-33.7	%83
27	MP12	Z	-31	%83
28	MP13	Z	-5.7	%50
29	MP14	Z	-40.1	%83
30	MP15	Z	-18.1	%83

Member Point Loads (BLC 24: Wind on Ice (270 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%83
2	MP2	X	0	%50
3	MP3	X	0	%50



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Member Point Loads (BLC 24: Wind on Ice (270 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
4	MP4	X	0	%83
5	MP5	X	0	%83
6	MP6	X	0	%83
7	MP7	Χ	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%83
10	MP10	X	0	%83
11	MP11	X	0	%83
12	MP12	X	0	%83
13	MP13	X	0	%50
14	MP14	Χ	0	%83
15	MP15	X	0	%83
16	MP1	Z	-21.8	%83
17	MP2	Z	-16.8	%50
18	MP3	Z	-16.8	%50
19	MP4	Z	-35.8	%83
20	MP5	Z	-21.3	%83
21	MP6	Z	-14.9	%83
22	MP7	Z	-9.1	%50
23	MP8	Z	-11.3	%50
24	MP9	Z	-43.7	%83
25	MP10	Z	-21	%83
26	MP11	Z	-39.4	%83
27	MP12	Z	-35.8	%83
28	MP13	Z	-9.1	%50
29	MP14	Z	-43.7	%83
30	MP15	Z	-21	%83

Member Point Loads (BLC 25: Wind on Ice (300 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Χ	9.8	%83
2	MP2	X	7.1	%50
3	MP3	Χ	7.5	%50
4	MP4	Χ	19.2	%83
5	MP5	Χ	10.6	%83
6	MP6	Χ	6.3	%83
7	MP7	Χ	3.3	%50
8	MP8	Χ	4.7	%50
9	MP9	Χ	23.2	%83
10	MP10	Χ	10.4	%83
11	MP11	X	20.2	%83
12	MP12	Χ	17.9	%83
13	MP13	X	7.1	%50
14	MP14	X	19.2	%83
15	MP15	X	10.6	%83
16	MP1	Z	-16.9	%83
17	MP2	Z	-12.4	%50
18	MP3	Z	-13	%50
19	MP4	Z	-33.3	%83
20	MP5	Z	-18.3	%83
21	MP6	Z	-10.9	%83
22	MP7	Z	-5.7	%50
23	MP8	Z	-8.2	%50
24	MP9	Z	-40.1	%83
25	MP10	Z	-18.1	%83
26	MP11	Z	-34.9	%83



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Member Point Loads (BLC 25: Wind on Ice (300 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
27	MP12	Z	-31	%83
28	MP13	Z	-12.4	%50
29	MP14	Z	-33.3	%83
30	MP15	Z	-18.3	%83

Member Point Loads (BLC 26: Wind on Ice (330 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Χ	12.9	%83
2	MP2	Χ	7.9	%50
3	MP3	Χ	9.8	%50
4	MP4	Χ	37.8	%83
5	MP5	Х	18.1	%83
6	MP6	Χ	12.9	%83
7	MP7	X	7.9	%50
8	MP8	Χ	9.8	%50
9	MP9	Χ	37.8	%83
10	MP10	Χ	18.1	%83
11	MP11	X	35.4	%83
12	MP12	X	31	%83
13	MP13	X	14.6	%50
14	MP14	X	31	%83
15	MP15	Χ	18.4	%83
16	MP1	Z	-7.5	%83
17	MP2	Z	-4.6	%50
18	MP3	Z	-5.7	%50
19	MP4	Z	-21.8	%83
20	MP5	Z	-10.5	%83
21	MP6	Z	-7.5	%83
22	MP7	Z	-4.6	%50
23	MP8	Z	-5.7	%50
24	MP9	Z	-21.8	%83
25	MP10	Z	-10.5	%83
26	MP11	Z	-20.4	%83
27	MP12	Z	-17.9	%83
28	MP13	Z	-8.4	%50
29	MP14	Z	-17.9	%83
30	MP15	Z	-10.6	%83

Member Point Loads (BLC 27 : Horizontal Seismic, Eh (0))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	38.3	%83 ⁻
2	MP2	X	126.6	%50
3	MP3	X	6.3	%50
4	MP4	X	154.7	%83
5	MP5	X	41.8	%83
6	MP6	X	38.3	%83
7	MP7	X	126.6	%50
8	MP8	X	6.3	%50
9	MP9	X	154.7	%83
10	MP10	X	41.8	%83
11	MP11	X	78	%83
12	MP12	X	46	%83
13	MP13	X	126.6	%50
14	MP14	X	154.7	%83
15	MP15	X	41.8	%83
16	MP1	Z	0	%83



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Member Point Loads (BLC 27: Horizontal Seismic, Eh (0)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
17	MP2	Z	0	%50
18	MP3	Z	0	%50
19	MP4	Z	0	%83
20	MP5	Z	0	%83
21	MP6	Z	0	%83
22	MP7	Z	0	%50
23	MP8	Z	0	%50
24	MP9	Z	0	%83
25	MP10	Z	0	%83
26	MP11	Z	0	%83
27	MP12	Z	0	%83
28	MP13	Z	0	%50
29	MP14	Z	0	%83
30	MP15	Z	0	%83

Member Point Loads (BLC 28: Horizontal Seismic, Eh (30))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Χ	33.2	%83
2	MP2	Χ	109.6	%50
3	MP3	Χ	5.5	%50
4	MP4	Χ	134	%83
5	MP5	Χ	36.2	%83
6	MP6	Χ	33.2	%83
7	MP7	Χ	109.6	%50
8	MP8	Χ	5.5	%50
9	MP9	X	134	%83
10	MP10	X	36.2	%83
11	MP11	X	67.5	%83
12	MP12	Χ	39.8	%83
13	MP13	X	109.6	%50
14	MP14	X	134	%83
15	MP15	X	36.2	%83
16	MP1	Z	19.2	%83
17	MP2	Z	63.3	%50
18	MP3	Z	3.2	%50
19	MP4	Z	77.3	%83
20	MP5	Z	20.9	%83
21	MP6	Z	19.2	%83
22	MP7	Z	63.3	%50
23	MP8	Z	3.2	%50
24	MP9	Z	77.3	%83
25	MP10	Z	20.9	%83
26	MP11	Z	39	%83
27	MP12	Z	23	%83
28	MP13	Z	63.3	%50
29	MP14	Z	77.3	%83
30	MP15	Z	20.9	%83

Member Point Loads (BLC 29: Horizontal Seismic, Eh (60))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	19.2	%83
2	MP2	X	63.3	%50
3	MP3	X	3.2	%50
4	MP4	X	77.4	%83
5	MP5	Χ	20.9	%83
6	MP6	X	19.2	%83



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Member Point Loads (BLC 29: Horizontal Seismic, Eh (60)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
7	MP7	X	63.3	%50
8	MP8	X	3.2	%50
9	MP9	Χ	77.4	%83
10	MP10	Χ	20.9	%83
11	MP11	Χ	39	%83
12	MP12	Χ	23	%83
13	MP13	X	63.3	%50
14	MP14	X	77.4	%83
15	MP15	X	20.9	%83
16	MP1	Z	33.2	%83
17	MP2	Z	109.6	%50
18	MP3	Z	5.5	%50
19	MP4	Z	134	%83
20	MP5	Z	36.2	%83
21	MP6	Z	33.2	%83
22	MP7	Z	109.6	%50
23	MP8	Z	5.5	%50
24	MP9	Z	134	%83
25	MP10	Z	36.2	%83
26	MP11	Z	67.5	%83
27	MP12	Z	39.8	%83
28	MP13	Z	109.6	%50
29	MP14	Z	134	%83
30	MP15	Z	36.2	%83

Member Point Loads (BLC 30 : Horizontal Seismic, Eh (90))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	%83
2	MP2	Χ	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%83
5	MP5	X	0	%83
6	MP6	X	0	%83
7	MP7	X	0	<u>%50</u>
8	MP8	X	0	%50
9	MP9	X	0	<u>%83</u>
10	MP10	X	0	%83
11	MP11	X	0	<u>%83</u>
12	MP12	X	0	<u>%83</u>
13	MP13	X	0	<u>%50</u>
14	MP14	X	0	%83
15	MP15	X	0	%83
16	MP1	Z	38.3	%83
17	MP2	Z	126.6	<u>%50</u>
18	MP3	Z	6.3	%50
19	MP4	Z	154.7	<u>%83</u>
20	MP5	Z	41.8	%83
21	MP6	Z	38.3	%83
22	MP7	Z	126.6	%50
23	MP8	Z	6.3	%50
24	MP9	Z	154.7	%83
25	MP10	Z	41.8	%83
26	MP11	Z	78	%83
27	MP12	Z	46	%83
28	MP13	Z	126.6	%50
29	MP14	Z	154.7	%83



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Member Point Loads (BLC 30: Horizontal Seismic, Eh (90)) (Continued)

_		Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
	30	MP15	Z	41.8	%83

Member Point Loads (BLC 31 : Horizontal Seismic, Eh (120))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-19.2	%83
2	MP2	Χ	-63.3	%50
3	MP3	Χ	-3.2	%50
4	MP4	Χ	-77.3	%83
5	MP5	Χ	-20.9	%83
6	MP6	Χ	-19.2	%83
7	MP7	Χ	-63.3	%50
8	MP8	Χ	-3.2	%50
9	MP9	Χ	-77.3	%83
10	MP10	X	-20.9	%83
11	MP11	X	-39	%83
12	MP12	X	-23	%83
13	MP13	X	-63.3	%50
14	MP14	X	-77.3	%83
15	MP15	X	-20.9	%83
16	MP1	Z	33.2	%83
17	MP2	Z	109.6	%50
18	MP3	Z	5.5	%50
19	MP4	Z	134	%83
20	MP5	Z	36.2	%83
21	MP6	Z	33.2	%83
22	MP7	Z	109.6	%50
23	MP8	Z	5.5	%50
24	MP9	Z	134	%83
25	MP10	Z	36.2	%83
26	MP11	Z	67.5	%83
27	MP12	Z	39.8	%83
28	MP13	Z	109.6	%50
29	MP14	Z	134	%83
30	MP15	Z	36.2	%83

Member Point Loads (BLC 32: Horizontal Seismic, Eh (150))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-33.2	%83
2	MP2	Χ	-109.6	%50
3	MP3	X	-5.5	%50
4	MP4	X	-134	%83
5	MP5	Χ	-36.2	%83
6	MP6	Χ	-33.2	%83
7	MP7	Χ	-109.6	%50
8	MP8	Χ	-5.5	%50
9	MP9	X	-134	%83
10	MP10	X	-36.2	%83
11	MP11	Χ	-67.5	%83
12	MP12	Χ	-39.8	%83
13	MP13	Χ	-109.6	%50
14	MP14	Χ	-134	%83
15	MP15	X	-36.2	%83
16	MP1	Z	19.2	%83
17	MP2	Z	63.3	%50
18	MP3	Z	3.2	%50
19	MP4	Z	77.3	%83



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Member Point Loads (BLC 32: Horizontal Seismic, Eh (150)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
20	MP5	Z	20.9	%83
21	MP6	Z	19.2	%83
22	MP7	Z	63.3	%50
23	MP8	Z	3.2	%50
24	MP9	Z	77.3	%83
25	MP10	Z	20.9	%83
26	MP11	Z	39	%83
27	MP12	Z	23	%83
28	MP13	Z	63.3	%50
29	MP14	Z	77.3	%83
30	MP15	Z	20.9	%83

Member Point Loads (BLC 33: Horizontal Seismic, Eh (180))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-38.3	%83
2	MP2	Χ	-126.6	%50
3	MP3	X	-6.3	%50
4	MP4	Χ	-154.7	%83
5	MP5	Χ	-41.8	%83
6	MP6	X	-38.3	%83
7	MP7	X	-126.6	%50
8	MP8	X	-6.3	%50
9	MP9	X	-154.7	%83
10	MP10	X	-41.8	%83
11	MP11	X	-78	%83
12	MP12	X	-46	%83
13	MP13	X	-126.6	%50
14	MP14	X	-154.7	%83
15	MP15	X	-41.8	%83
16	MP1	Z	0	%83
17	MP2	Z	0	%50
18	MP3	Z	0	%50
19	MP4	Z	0	%83
20	MP5	Z	0	%83
21	MP6	Z	0	%83
22	MP7	Z	0	%50
23	MP8	Z	0	%50
24	MP9	Z	0	%83
25	MP10	Z	0	%83
26	MP11	Z	0	%83
27	MP12	Z	0	%83
28	MP13	Z	0	%50
29	MP14	Z	0	%83
30	MP15	Z	0	%83

Member Point Loads (BLC 34: Horizontal Seismic, Eh (210))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-33.2	%83
2	MP2	X	-109.6	%50
3	MP3	X	-5.5	%50
4	MP4	X	-134	%83
5	MP5	X	-36.2	%83
6	MP6	X	-33.2	%83
7	MP7	X	-109.6	%50
8	MP8	X	-5.5	%50
9	MP9	X	-134	%83



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Member Point Loads (BLC 34: Horizontal Seismic, Eh (210)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
10	MP10	X	-36.2	%83
11	MP11	X	-67.5	%83
12	MP12	X	-39.8	%83
13	MP13	X	-109.6	%50
14	MP14	X	-134	%83
15	MP15	X	-36.2	%83
16	MP1	Z	-19.2	%83
17	MP2	Z	-63.3	%50
18	MP3	Z	-3.2	%50
19	MP4	Z	-77.4	%83
20	MP5	Z	-20.9	%83
21	MP6	Z	-19.2	%83
22	MP7	Z	-63.3	%50
23	MP8	Z	-3.2	%50
24	MP9	Z	-77.4	%83
25	MP10	Z	-20.9	%83
26	MP11	Z	-39	%83
27	MP12	Z	-23	%83
28	MP13	Z	-63.3	%50
29	MP14	Z	-77.4	%83
30	MP15	Z	-20.9	%83

Member Point Loads (BLC 35 : Horizontal Seismic, Eh (240))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-19.2	%83
2	MP2	X	-63.3	%50
3	MP3	X	-3.2	%50
4	MP4	X	-77.4	%83
5	MP5	X	-20.9	%83
6	MP6	X	-19.2	%83
7	MP7	X	-63.3	%50
8	MP8	X	-3.2	%50
9	MP9	X	-77.4	%83
10	MP10	X	-20.9	%83
11	MP11	X	-39	%83
12	MP12	X	-23	%83
13	MP13	X	-63.3	%50
14	MP14	X	-77.4	%83
15	MP15	X	-20.9	%83
16	MP1	Z	-33.2	%83
17	MP2	Ζ	-109.6	%50
18	MP3	Z	-5.5	%50
19	MP4	Z	-134	%83
20	MP5	Z	-36.2	%83
21	MP6	Z	-33.2	%83
22	MP7	Z	-109.6	%50
23	MP8	Z	-5.5	%50
24	MP9	Z	-134	%83
25	MP10	Z	-36.2	%83
26	MP11	Z	-67.5	%83
27	MP12	Z	-39.8	%83
28	MP13	Z	-109.6	%50
29	MP14	Ζ	-134	%83
30	MP15	Z	-36.2	%83



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Member Point Loads (BLC 36: Horizontal Seismic, Eh (270))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	×	0	%83
2	MP2	X	0	%50
3	MP3	X	0	%50
4	MP4	X	0	%83
5	MP5	X	0	%83
6	MP6	X	0	%83
7	MP7	X	0	%50
8	MP8	X	0	%50
9	MP9	X	0	%83
10	MP10	X	0	%83
11	MP11	X	0	%83
12	MP12	X	0	%83
13	MP13	X	0	%50
14	MP14	X	0	%83
15	MP15	X	0	%83
16	MP1	Z	-38.3	%83
17	MP2	Z	-126.6	%50
18	MP3	Z	-6.3	%50
19	MP4	Z	-154.7	%83
20	MP5	Z	-41.8	%83
21	MP6	Z	-38.3	%83
22	MP7	Z	-126.6	%50
23	MP8	Z	-6.3	%50
24	MP9	Z	-154.7	%83
25	MP10	Z	-41.8	%83
26	MP11	Z	-78	%83
27	MP12	Z	-46	%83
28	MP13	Z	-126.6	%50
29	MP14	Z	-154.7	%83
30	MP15	Z	-41.8	%83

Member Point Loads (BLC 37: Horizontal Seismic, Eh (300))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	19.2	%83
2	MP2	Χ	63.3	%50
3	MP3	Χ	3.2	%50
4	MP4	Χ	77.4	%83
5	MP5	Χ	20.9	%83
6	MP6	Χ	19.2	%83
7	MP7	X	63.3	%50
8	MP8	Χ	3.2	%50
9	MP9	Χ	77.4	%83
10	MP10	X	20.9	%83
11	MP11	X	39	%83
12	MP12	X	23	%83
13	MP13	Χ	63.3	%50
14	MP14	Χ	77.4	%83
15	MP15	X	20.9	%83
16	MP1	Z	-33.2	%83
17	MP2	Z	-109.6	%50
18	MP3	Z	-5.5	%50
19	MP4	Z	-134	%83
20	MP5	Z	-36.2	%83
21	MP6	Z	-33.2	%83
22	MP7	Z	-109.6	%50
23	MP8	Z	-5.5	%50



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Member Point Loads (BLC 37: Horizontal Seismic, Eh (300)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
24	MP9	Z	-134	%83
25	MP10	Z	-36.2	%83
26	MP11	Z	-67.5	%83
27	MP12	Z	-39.8	%83
28	MP13	Z	-109.6	%50
29	MP14	Z	-134	%83
30	MP15	Z	-36.2	%83

Member Point Loads (BLC 38: Horizontal Seismic, Eh (330))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	33.2	%8 3
2	MP2	Χ	109.6	%50
3	MP3	Χ	5.5	%50
4	MP4	X	134	%83
5	MP5	X	36.2	%83
6	MP6	Χ	33.2	%83
7	MP7	Χ	109.6	%50
8	MP8	Χ	5.5	%50
9	MP9	Χ	134	%83
10	MP10	Χ	36.2	%83
11	MP11	X	67.5	%83
12	MP12	X	39.8	%83
13	MP13	X	109.6	%50
14	MP14	X	134	%83
15	MP15	X	36.2	%83
16	MP1	Z	-19.2	%83
17	MP2	Z	-63.3	%50
18	MP3	Z	-3.2	%50
19	MP4	Z	-77.4	%83
20	MP5	Z	- 20.9	%83
21	MP6	Z	-19.2	%83
22	MP7	Z	-63.3	%50
23	MP8	Z	-3.2	%50
24	MP9	Z	-77.4	%83
25	MP10	Z	-20.9	%83
26	MP11	Z	-39	%83
27	MP12	Z	-23	%83
28	MP13	Z	-63.3	%50
29	MP14	Z	-77.4	%83
30	MP15	Z	-20.9	%83

Member Point Loads (BLC 39 : Maintenance Load, Lm (MP1))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Υ	-500	%50

Member Point Loads (BLC 40 : Maintenance Load, Lm (MP2))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	Y	-500	%50

Member Point Loads (BLC 41: Maintenance Load, Lm (MP3))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP3	Υ	-500	%50

Member Point Loads (BLC 42 : Maintenance Load, Lm (MP4))

Member Label	Direction	Magnitude[lb.lb-ft]	Location[in %]
		<u> </u>	



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Me	ember Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP4	Υ	-500	%50
lember Point I	oads (BI C 43 · I	Maintenance Load,	I m (MP5))	
	ember Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP5	Y	-500	%50
lember Point I	oads (RI C 111 : I	Maintenance Load,	I m (MD6))	
	ember Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP6	Y	-500	<u>Location[in, %]</u> %50
lombor Doint L		Maintananaa Laad		,,,,,
		<u>Maintenance Load,</u>		
Me	ember Label MP7	Direction V	Magnitude[lb,lb-ft] -500	Location[in,%] %50
1	IVIP1	I	-500	7650
<u> 1ember Point L</u>	<u>oads (BLC 46 : l</u>	<u> Maintenance Load,</u>	<u>Lm (MP8))</u>	
	ember Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP8	Y	-500	<u>%50</u>
<u> 1ember Point L</u>	oads (BLC 47 : I	<u>Maintenance Load,</u>	Lm (MP9))	
Me	ember Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP9	Υ	-500	%50
<u> 1ember Point L</u>	oads (BLC 48 : I	<u>Maintenance Load,</u>	Lm (MP10))	
Me	ember Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP10	Υ	-500	%50
lember Point L	oads (BLC 49 : I	Maintenance Load,	Lm (MP11))	
	ember Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP11	Υ	-500	%50
lember Point I	oads (BLC 50 : I	Maintenance Load,	Lm (MP12))	
	ember Label	Direction	Magnitude[lb,lb-ft]	
			Madriiludenb.ib=iti	Location[in.%]
	MP12	Y	-500	Location[in,%] %50
1 Me		Υ	-500	
1 Member Point L	oads (BLC 51 : I	Y Maintenance Load,	-500 Lm (MP13))	%5 <u>0</u>
1 Member Point L		Υ	-500	
Member Point L Member 1	oads (BLC 51 : Insured the second sec	Y Maintenance Load, Direction Y	-500 Lm (MP13)) Magnitude[lb,lb-ft] -500	%50 Location[in,%]
Member Point L Member Point L Me 1 Member Point L	oads (BLC 51 : I ember Label MP13 oads (BLC 52 : I	Maintenance Load, Direction Y Maintenance Load,	-500 Lm (MP13)) Magnitude[lb,lb-ft] -500 Lm (MP14))	%50 Location[in,%] %50
Member Point L Member Point L Me 1 Member Point L	oads (BLC 51 : Insured the second sec	Y Maintenance Load, Direction Y	-500 Lm (MP13)) Magnitude[lb,lb-ft] -500	%50 Location[in,%]
Member Point L Member Point L Me Member Point L Member Point L	oads (BLC 51 : Internal Intern	Maintenance Load, Direction Y Maintenance Load, Direction Y	-500 Lm (MP13)) Magnitude[lb,lb-ft] -500 Lm (MP14)) Magnitude[lb,lb-ft] -500	%50 Location[in,%] %50 Location[in,%]
Member Point L Member Point L Member Point L Me 1 Member Point L	oads (BLC 51 : Interpretate in the state of	Maintenance Load, Direction Y Maintenance Load, Direction Y Maintenance Load, V Maintenance Load,	-500 Lm (MP13)) Magnitude[lb,lb-ft] -500 Lm (MP14)) Magnitude[lb,lb-ft] -500 Lm (MP15))	%50 Location[in,%]
Member Point L Member Point L Member Point L Me 1 Member Point L	oads (BLC 51 : Interpretate of the state of	Maintenance Load, Direction Y Maintenance Load, Direction Y Maintenance Load, Direction Oirection	-500 Lm (MP13)) Magnitude[lb,lb-ft] -500 Lm (MP14)) Magnitude[lb,lb-ft] -500 Lm (MP15)) Magnitude[lb,lb-ft]	%50 Location[in,%]
Member Point L Member Point L Member Point L Me 1 Member Point L	oads (BLC 51 : Interpretate in the state of	Maintenance Load, Direction Y Maintenance Load, Direction Y Maintenance Load, V Maintenance Load,	-500 Lm (MP13)) Magnitude[lb,lb-ft] -500 Lm (MP14)) Magnitude[lb,lb-ft] -500 Lm (MP15))	%50 Location[in,%]
Member Point L Member Point L Me 1 Member Point L Me 1 Member Point L Me 1	oads (BLC 51 : International I	Maintenance Load, Direction Y Maintenance Load, Direction Y Maintenance Load, Direction Oirection	-500 Lm (MP13)) Magnitude[lb,lb-ft] -500 Lm (MP14)) Magnitude[lb,lb-ft] -500 Lm (MP15)) Magnitude[lb,lb-ft] -500	%50 Location[in,%]
Member Point L Member Point L Member Point L Me Member Point L Member Point L Me Member Point L	oads (BLC 51 : International I	Maintenance Load, Direction Y Maintenance Load, Direction Y Maintenance Load, Direction Y Maintenance Load, Direction Y	-500 Lm (MP13)) Magnitude[lb,lb-ft] -500 Lm (MP14)) Magnitude[lb,lb-ft] -500 Lm (MP15)) Magnitude[lb,lb-ft] -500	%50 Location[in,%]



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	Mombor Labol	Direction	Magnitude[lb,lb-ft]	Location in 0/1
1	Member Label FM1	Direction	-250	Location[in,%] %50
	T IVI I		200	7000
<u> 1ember F</u>	Point Loads (BLC 77 :	<u> Maintenance Load,</u>	Lv (Pos. 3))	
	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM1	Υ	-250	%100
lember F	Point Loads (BLC 78 :	Maintenance I oad	Ly (Pos 4))	
<u>ieiiibei r</u>				
1	Member Label FM2	Direction V	Magnitude[Ib,Ib-ft] -250	Location[in,%] 0
I	I IVIZ		-250	<u> </u>
<u>/lember F</u>	<u> Point Loads (BLC 79 : </u>	<u>Maintenance Load,</u>	Lv (Pos. 5))	
	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM2	Υ Υ	-250	<u>%50</u>
/lember F	Point Loads (BLC 80 :	Maintenance Load.	Lv (Pos. 6))	
	Member Label	Direction	Magnitude[Ib,Ib-ft]	Location[in,%]
1	FM2	Y	-250	%100
lombor [Point Loads (BLC 81 :	Maintonanas Laad		
<u>lember F</u>		•		L t' F' - 0/1
1	Member Label FM3	Direction V	Magnitude[lb,lb-ft] -250	Location[in,%]
	TIMO		200	
<u> Member F</u>	<u> Point Loads (BLC 82 : </u>	<u>Maintenance Load,</u>	Lv (Pos. 8))	
	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM3	Υ	-250	<u>%50</u>
Member F	Point Loads (BLC 83 :	Maintenance Load,	Lv (Pos. 9))	
	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	FM3	Y	-250	%100
Mamhar E	Point Loads (BLC 84 :	Maintenance I oad	Ly (Pos. 10))	
	Offic Loads (DLC 07.	<i>Manntenance</i> Loau,	LV (1 03. 10))	
<u>nember i</u>	Manahan Lahal	Discotion	Managerita and a file tile file	L = ==4:===F:== 0/1
1	Member Label SA1	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	SA1	Υ	-250	Location[in,%] 0
1	SA1 Point Loads (BLC 85 :	│ Y Maintenance Load,	-250 Lv (Pos. 11))	0
1 Member F	SA1 Point Loads (BLC 85 : Member Label	Υ	-250 Lv (Pos. 11)) Magnitude[lb,lb-ft]	0 Location[in,%]
1	SA1 Point Loads (BLC 85 :	│ Y Maintenance Load,	-250 Lv (Pos. 11))	0
1 Member F	SA1 Point Loads (BLC 85 : Member Label	Maintenance Load, Direction	-250 Lv (Pos. 11)) Magnitude[lb,lb-ft] -250	0 Location[in,%]
1 Member F	SA1 Point Loads (BLC 85 : Member Label SA1 Point Loads (BLC 86 : Member Label	Maintenance Load, Direction	-250 Lv (Pos. 11)) Magnitude[lb,lb-ft] -250 Lv (Pos. 12)) Magnitude[lb,lb-ft]	0 Location[in,%]
1 Member F	SA1 Point Loads (BLC 85 : Member Label SA1 Point Loads (BLC 86 :	Maintenance Load, Direction Y Maintenance Load,	-250 Lv (Pos. 11)) Magnitude[lb,lb-ft] -250 Lv (Pos. 12))	Location[in,%] %100
1 Member F 1 Member F	SA1 Point Loads (BLC 85 : Member Label SA1 Point Loads (BLC 86 : Member Label SA2	Maintenance Load, Direction Y Maintenance Load, Direction Y	-250 Lv (Pos. 11)) Magnitude[lb,lb-ft] -250 Lv (Pos. 12)) Magnitude[lb,lb-ft] -250	Location[in,%] %100 Location[in,%]
1 Member F 1 Member F	SA1 Point Loads (BLC 85 : Member Label SA1 Point Loads (BLC 86 : Member Label	Maintenance Load, Direction Y Maintenance Load, Direction Y Maintenance Load,	-250 Lv (Pos. 11)) Magnitude[lb,lb-ft] -250 Lv (Pos. 12)) Magnitude[lb,lb-ft] -250 Lv (Pos. 13))	Location[in,%] %100 Location[in,%]
1 Member F 1 Member F	SA1 Point Loads (BLC 85 : Member Label SA1 Point Loads (BLC 86 : Member Label SA2 Point Loads (BLC 87 :	Maintenance Load, Direction Y Maintenance Load, Direction Y	-250 Lv (Pos. 11)) Magnitude[lb,lb-ft] -250 Lv (Pos. 12)) Magnitude[lb,lb-ft] -250	0 Location[in,%] %100 Location[in,%] 0
1 Member F 1 Member F 1 Member F	SA1 Point Loads (BLC 85 : Member Label SA1 Point Loads (BLC 86 : Member Label SA2 Point Loads (BLC 87 : Member Label SA2	Maintenance Load, Direction Maintenance Load, Direction Y Maintenance Load, Direction Y Maintenance Load, Direction Y	-250 Lv (Pos. 11)) Magnitude[lb,lb-ft] -250 Lv (Pos. 12)) Magnitude[lb,lb-ft] -250 Lv (Pos. 13)) Magnitude[lb,lb-ft] -250	Location[in,%] %100 Location[in,%] 0 Location[in,%]
1 Member F 1 Member F 1 Member F	SA1 Point Loads (BLC 85 : Member Label SA1 Point Loads (BLC 86 : Member Label SA2 Point Loads (BLC 87 : Member Label	Maintenance Load, Direction Maintenance Load, Direction Y Maintenance Load, Direction Y Maintenance Load, Direction Y	-250 Lv (Pos. 11)) Magnitude[lb,lb-ft] -250 Lv (Pos. 12)) Magnitude[lb,lb-ft] -250 Lv (Pos. 13)) Magnitude[lb,lb-ft] -250	Location[in,%] %100 Location[in,%] 0 Location[in,%]



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Member Point Loads (BLC 89: Maintenance Load, Lv (Pos. 15))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	SA3	Υ	-250	%100

Member Point Loads (BLC 175 : Antenna Wind Load (0 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	32.6	%58.333
2	MP1	X	65.3	%95.833
3	MP2	X	166.6	%41.667
4	MP2	X	555.5	%95.833
5	MP3	X	32.6	%58.333
6	MP3	Х	65.3	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	26.2	%80.444
10	MP5	X	26.2	%86.222
11	MP6	X	39	%58.333
12	MP6	X	78	%95.833
13	MP7	X	77.8	%41.667
14	MP7	X	259.2	%95.833
15	MP8	X	39	%58.333
16	MP8	X	78	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	16.1	%80.444
20	MP10	X	16.1	%86.222
21	MP11	X	39.6	%58.333
22	MP11	X	79.2	%95.833
23	MP12	X	39.6	%58.333
24	MP12	X	79.2	%95.833
25	MP13	Х	77.8	%41.667
26	MP13	X	259.2	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	16.1	%80.444
30	MP15	X	16.1	%86.222
31	MP1	Z	0	0
32	MP1	Z	0	0
33	MP2	Z	0	0
34	MP2	Z	0	0
35	MP3	Z	0	0
36	MP3	Z	0	0
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	0	0
40	MP5	Z	0	0
41	MP6	Z	0	0
42	MP6	Z	0	0
43	MP7	Z	0	0
44	MP7	Z	0	0
45	MP8	Z	0	0
46	MP8	Z	0	0
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	0	0
50	MP10	Z	0	0
51	MP11	Z	0	0
52	MP11	Z	0	0



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Member Point Loads (BLC 175: Antenna Wind Load (0 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
53	MP12	Z	0	0
54	MP12	Z	0	0
55	MP13	Z	0	0
56	MP13	Z	0	0
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	0	0
60	MP15	Z	0	0

Member Point Loads (BLC 176: Antenna Wind Load (30 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	30.1	%58.333
2	MP1	X	60.2	%95.833
3	MP2	X	118.7	%41.667
4	MP2	X	395.5	%95.833
5	MP3	X	30.1	%58.333
6	MP3	X	60.2	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	19.8	%80.444
10	MP5	X	19.8	%86.222
11	MP6	X	35.6	%58.333
12	MP6	X	71.3	%95.833
13	MP7	X	41.7	%41.667
14	MP7	X	138.9	%95.833
15	MP8	X	35.6	%58.333
16	MP8	X	71.3	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	11	%80.444
20	MP10	X	11	%86.222
21	MP11	X	31.5	%58.333
22	MP11	X	63.1	%95.833
23	MP12	X	31.5	%58.333
24	MP12	X	63.1	%95.833
25	MP13	X	118.7	%93.667 %41.667
26	MP13	X	395.5	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	19.8	 %80.444
30	MP15	X	19.8	%86.222
31	MP1	Z	17.4	%58.333
32	MP1	Z	34.8	%30.333 %95.833
33	MP2	Z	68.5	%93.655 %41.667
34	MP2	Z	228.4	%41.007 %95.833
35	MP3	Z	17.4	<u>%95.633</u> %58.333
36	MP3	Z	34.8	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	11.4	 %80.444
40	MP5	Z	11.4	%86.222
41	MP6	Z	20.6	%86.222 %58.333
41		Z		
	MP6		41.2	<u>%95.833</u>
43	MP7	Z	24.1	%41.667 %05.833
44	MP7	Z	80.2	<u>%95.833</u>
45	MP8	Z	20.6	%58.333



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Member Point Loads (BLC 176: Antenna Wind Load (30 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
46	MP8	Z	41.2	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	6.4	%80.444
50	MP10	Z	6.4	%86.222
51	MP11	Z	18.2	%58.333
52	MP11	Z	36.4	%95.833
53	MP12	Z	18.2	%58.333
54	MP12	Z	36.4	%95.833
55	MP13	Z	68.5	%41.667
56	MP13	Z	228.4	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	11.4	%80.444
60	MP15	Z	11.4	%86.222

Member Point Loads (BLC 177: Antenna Wind Load (60 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	19.5	%58.333
2	MP1	X	39	%95.833
3	MP2	X	38.9	%41.667
4	MP2	X	129.6	%95.833
5	MP3	X	19.5	%58.333
6	MP3	X	39	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	8.1	%80.444
10	MP5	X	8.1	%86.222
11	MP6	X	19.5	%58.333
12	MP6	X	39	%95.833
13	MP7	X	38.9	%41.667
14	MP7	X	129.6	%95.833
15	MP8	X	19.5	%58.333
16	MP8	X	39	%95.833
17	MP9	Χ	0	0
18	MP9	X	0	0
19	MP10	X	8.1	%80.444
20	MP10	X	8.1	%86.222
21	MP11	X	17.4	%58.333
22	MP11	Χ	34.8	%95.833
23	MP12	X	17.4	%58.333
24	MP12	X	34.8	%95.833
25	MP13	X	83.3	%41.667
26	MP13	X	277.7	%95.833
27	MP14	X	0	0
28	MP14	Χ	0	0
29	MP15	X	13.1	%80.444
30	MP15	X	13.1	%86.222
31	MP1	Z	33.8	%58.333
32	MP1	Z	67.6	%95.833
33	MP2	Z	67.3	%41.667
34	MP2	Z	224.5	%95.833
35	MP3	Z	33.8	%58.333
36	MP3	Z	67.6	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0



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Member Point Loads (BLC 177: Antenna Wind Load (60 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
39	MP5	Z	14	%80.444
40	MP5	Z	14	%86.222
41	MP6	Z	33.8	%58.333
42	MP6	Z	67.6	%95.833
43	MP7	Z	67.3	%41.667
44	MP7	Z	224.5	%95.833
45	MP8	Z	33.8	%58.333
46	MP8	Z	67.6	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	14	%80.444
50	MP10	Z	14	%86.222
51	MP11	Z	30.2	%58.333
52	MP11	Z	60.4	%95.833
53	MP12	Z	30.2	%58.333
54	MP12	Z	60.4	%95.833
55	MP13	Z	144.3	%41.667
56	MP13	Z	481.1	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	22.7	%80.444
60	MP15	Z	22.7	%86.222

Member Point Loads (BLC 178: Antenna Wind Load (90 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	0	0
10	MP5	X	0	0
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	0	0
16	MP8	X	0	0
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	0	0
24	MP12	X	0	0
25	MP13	X	0	0
26	MP13	X	0	0
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	0	0
30	MP15	X	0	0
31	MP1	Z	41.2	%58.333



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Member Point Loads (BLC 178: Antenna Wind Load (90 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
32	MP1	Z	82.3	%95.833
33	MP2	Z	48.1	%41.667
34	MP2	Z	160.4	%95.833
35	MP3	Z	41.2	%58.333
36	MP3	Z	82.3	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	12.7	%80.444
40	MP5	Z	12.7	%86.222
41	MP6	Z	34.8	%58.333
42	MP6	Z	69.5	%95.833
43	MP7	Z	137	%41.667
44	MP7	Z	456.7	%95.833
45	MP8	Z	34.8	%58.333
46	MP8	Z	69.5	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	22.8	%80.444
50	MP10	Z	22.8	%86.222
51	MP11	Z	36.4	%58.333
52	MP11	Z	72.8	%95.833
53	MP12	Z	36.4	%58.333
54	MP12	Z	72.8	%95.833
55	MP13	Z	137	%41.667
56	MP13	Z	456.7	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	22.8	%80.444
60	MP15	Z	22.8	%86.222

Member Point Loads (BLC 179: Antenna Wind Load (120 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-19.5	%58.333
2	MP1	X	-39	%95.833
3	MP2	X	-38.9	%41.667
4	MP2	Χ	-129.6	%95.833
5	MP3	X	-19.5	%58.333
6	MP3	X	-39	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	-8.1	%80.444
10	MP5	X	-8.1	%86.222
11	MP6	X	-16.3	%58.333
12	MP6	X	-32.6	%95.833
13	MP7	X	-83.3	%41.667
14	MP7	X	-277.7	%95.833
15	MP8	X	-16.3	%58.333
16	MP8	X	- 32.6	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	-13.1	%80.444
20	MP10	X	-13.1	%86.222
21	MP11	X	-19.8	%58.333
22	MP11	X	-39.6	%95.833
23	MP12	X	-19.8	%58.333
24	MP12	X	-39.6	%95.833



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Member Point Loads (BLC 179: Antenna Wind Load (120 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
25	MP13	X	-38.9	%41.667
26	MP13	X	-129.6	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	Χ	-8.1	%80.444
30	MP15	X	-8.1	%86.222
31	MP1	Z	33.8	%58.333
32	MP1	Z	67.6	%95.833
33	MP2	Z	67.3	%41.667
34	MP2	Z	224.5	%95.833
35	MP3	Z	33.8	%58.333
36	MP3	Z	67.6	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	14	%80.444
40	MP5	Z	14	%86.222
41	MP6	Z	28.3	%58.333
42	MP6	Z	56.5	%95.833
43	MP7	Z	144.3	%41.667
44	MP7	Z	481.1	%95.833
45	MP8	Z	28.3	%58.333
46	MP8	Z	56.5	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	22.7	%80.444
50	MP10	Z	22.7	%86.222
51	MP11	Z	34.3	%58.333
52	MP11	Z	68.5	%95.833
53	MP12	Z	34.3	%58.333
54	MP12	Z	68.5	%95.833
55	MP13	Z	67.3	%41.667
56	MP13	Z	224.5	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	14	%80.444
60	MP15	Z	14	%86.222

Member Point Loads (BLC 180: Antenna Wind Load (150 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-30.1	%58.333
2	MP1	X	-60,2	%95.833
3	MP2	X	-118.7	%41.667
4	MP2	X	- 395.5	%95.833
5	MP3	X	-30.1	%58.333
6	MP3	X	-60.2	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	-19.8	%80.444
10	MP5	X	-19.8	%86.222
11	MP6	X	-30.1	%58.333
12	MP6	X	-60.2	%95.833
13	MP7	X	-118.7	%41.667
14	MP7	X	- 395.5	%95.833
15	MP8	X	-30.1	%58.333
16	MP8	X	-60.2	%95.833
17	MP9	X	0	0



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Member Point Loads (BLC 180 : Antenna Wind Load (150 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
18	MP9	X	0	0
19	MP10	X	-19.8	%80.444
20	MP10	X	-19.8	%86.222
21	MP11	X	-35.6	%58.333
22	MP11	X	-71.3	%95.833
23	MP12	X	-35.6	%58.333
24	MP12	X	-71.3	%95.833
25	MP13	X	-41.7	%41.667
26	MP13	X	-138.9	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	-11	%80.444
30	MP15	X	-11	%86.222
31	MP1	Ž	17.4	%58.333
32	MP1	Z	34.8	%95.833
33	MP2	Z	68.5	%41.667
34	MP2	Z	228.4	%95.833
35	MP3	Z	17.4	%58.333
36	MP3	Z	34.8	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	11.4	%80.444
40	MP5	Z	11.4	%86.222
41	MP6	Z	17.4	%58.333
42	MP6	Z	34.8	%95.833
43	MP7	Z	68.5	%41.667
44	MP7	Z	228.4	%95.833
45	MP8	Z	17.4	%58.333
46	MP8	Z	34.8	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	11.4	%80.444
50	MP10	Z	11.4	%86.222
51	MP11	Z	20.6	%58.333
52	MP11	Z	41.2	%95.833
53	MP12	Z	20.6	%58.333
54	MP12	Z	41.2	%95.833
55	MP13	Z	24.1	%41.667
56	MP13	Z	80.2	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	6.4	%80.444
60	MP15	7	6.4	%86.222

Member Point Loads (BLC 181 : Antenna Wind Load (180 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-32.6	%58.333
2	MP1	X	-65.3	%95.833
3	MP2	X	-166.6	%41.667
4	MP2	X	-555.5	%95.833
5	MP3	X	-32.6	%58.333
6	MP3	X	-65.3	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	-26.2	%80.444
10	MP5	X	-26.2	%86.222



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Member Point Loads (BLC 181: Antenna Wind Load (180 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
11	MP6	X	-39	%58.333
12	MP6	X	-78	%95.833
13	MP7	X	-77.8	%41.667
14	MP7	X	-259.2	%95.833
15	MP8	Х	-39	%58.333
16	MP8	X	-78	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	-16.1	%80.444
20	MP10	X	-16.1	%86.222
21	MP11	X	-39.6	%58.333
22	MP11	X	-79.2	%95.833
23	MP12	X	-39.6	%58.333
24	MP12	X	-79.2	%95.833
25	MP13	X	-77.8	%41.667
26	MP13	X	-259.2	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	-16.1	%80.444
30	MP15	X	-16.1	%86.222
31	MP1	Z	0	0
32	MP1	Z	0	0
33	MP2	Z	0	0
34	MP2	Z	0	0
35	MP3	Z	0	0
36	MP3	Z	0	0
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	0	0
40	MP5	Z	0	0
41	MP6	Z	0	0
42	MP6	Z	0	0
43	MP7	Z	0	0
44	MP7	Z	0	0
45	MP8	Z	0	0
46	MP8	Z	0	0
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	0	0
50	MP10	Z	0	0
51	MP11	Z Z	0	0
52	MP11		0	0
53	MP12	Z Z	0	0
54	MP12		0	0
55	MP13	Z	0	0
56	MP13	Z	0	0
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	0	0
60	MP15	Z	0	0

Member Point Loads (BLC 182: Antenna Wind Load (210 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-30.1	%58.333
2	MP1	X	-60.2	%95.833
3	MP2	X	-118.7	%41.667



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Member Point Loads (BLC 182: Antenna Wind Load (210 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
4	MP2	Χ	-395.5	%95.833
5	MP3	Χ	-30.1	%58.333
6	MP3	X	-60.2	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	-19.8	%80.444
10	MP5	X	-19.8	%86.222
11	MP6	X	-35.6	%58.333
12	MP6	X	-71.3	%95.833
13	MP7	X	-41.7	%41.667
14	MP7	Χ	-138.9	%95.833
15	MP8	Χ	-35.6	%58.333
16	MP8	X	-71.3	%95.833
17	MP9	X	0	0
18	MP9	Χ	0	0
19	MP10	Χ	-11	%80.444
20	MP10	Χ	-11	%86.222
21	MP11	Χ	-31.5	%58.333
22	MP11	Χ	-63.1	%95.833
23	MP12	X	-31.5	%58.333
24	MP12	X	-63.1	%95.833
25	MP13	Χ	-118.7	%41.667
26	MP13	Χ	-395.5	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	-19.8	%80.444
30	MP15	X	-19.8	%86.222
31	MP1	Z	-17.4	%58.333
32	MP1	Z	-34.8	%95.833
33	MP2	Z	-68.5	%41.667
34	MP2	Z	-228.4	%95.833
35	MP3	Z	-17.4	%58.333
36	MP3	Z	-34.8	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	-11.4	%80.444
40	MP5	Z	-11.4	%86,222
41	MP6	Z	-20.6	%58.333
42	MP6	Z	-41.2	%95.833
43	MP7	Z	-24.1	%41.667
44	MP7	Z	-80.2	%95.833
45	MP8	Z	-20.6	%58.333
46	MP8	Z	-41.2	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	-6.4	%80.444
50	MP10	Z	-6.4	%86.222
51	MP11		-18.2	%58.333
52	MP11	Z Z	-36.4	%95.833
53	MP12	Z	-18.2	%58.333
54	MP12	Z	-36.4	%95.833
55	MP13	Z	-68.5	%41.667
56	MP13	Z	-228.4	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	-11.4	%80.444
60	MP15	Z	-11.4	%86.222
	-	- -		



: ETS : TSB : 196498.14

841290 - GREENWICH NORTH_Mount Analysis

Oct 15, 2019 2:34 PM Checked By: JAA

Member Point Loads (BLC 183: Antenna Wind Load (240 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-19.5	%58.333 ⁻
2	MP1	X	-39	%95.833
3	MP2	X	-38.9	%41.667
4	MP2	X	-129.6	%95.833
5	MP3	X	-19.5	%58.333
6	MP3	X	-39	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	-8.1	%80.444
10	MP5	X	-8.1	%86.222
11	MP6	X	-19.5	%58.333
12	MP6	X	-39	%95.833
13	MP7	X	-38.9	%41.667
14	MP7	X	-129.6	%95.833
15	MP8	X	-19.5	%58.333
16	MP8	X	-39	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	-8.1	%80.444
20	MP10	X	-8.1	%86.222 %50.222
21	MP11	X	-17.4	%58.333 %55.333
22	MP11		-34.8	%95.833 %50.000
23	MP12	X	-17.4	%58.333 %55.333
24	MP12	X	-34.8	<u>%95.833</u>
25	MP13	X	-83.3	%41.667
26	MP13	X	-277.7	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	-13.1	%80.444
30	MP15	X	-13.1	%86.222
31	MP1	Z	-33.8	%58.333
32	MP1	Z	-67.6	%95.833
33	MP2	Z	-67.3	%41.667
34	MP2	Z	-224.5	%95.833
35	MP3	Z	-33.8	%58.333
36	MP3	Z	- 67.6	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	-14	%80.444
40	MP5	Z	-14	%86.222
41	MP6	Z	-33.8	%58.333
42	MP6	Z	-67.6	%95.833
43	MP7	Z	-67.3	%41.667
44	MP7	Z	-224.5	%95.833
45	MP8	Z	-33.8	%58.333
46	MP8	Z	-67.6	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	-14	<u> </u>
50	MP10 MP10	Z	-14	%86.222
51		Z	-30.2	
	MP11	Z		%58.333 %05.833
52	MP11		-60.4	%95.833 % 50.333
53	MP12	Z	-30.2	%58.333 %05.033
54	MP12	Z	-60.4	%95.833
55	MP13	<u>Z</u>	-144.3	%41.667
56	MP13	Z	-481.1	<u>%95.833</u>
57	MP14	Z	0	0



: TSB : 196498.14

: 841290 - GREENWICH NORTH_Mount Analysis

Oct 15, 2019 2:34 PM Checked By: JAA

Member Point Loads (BLC 183 : Antenna Wind Load (240 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
58	MP14	Z	0	0
59	MP15	Z	-22.7	%80.444
60	MP15	Z	-22.7	%86.222

Member Point Loads (BLC 184 : Antenna Wind Load (270 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	0	0
10	MP5	X	0	0
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	0	0
16	MP8	X	0	0
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	0	0
24	MP12	X	0	0
25	MP13	X	0	0
26	MP13	X	0	0
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	0	0
30	MP15	X	0	0
31	MP1	Z	- 41.2	%58.333
32	MP1	Z	-82.3	%95.833
33	MP2	Z	-48.1	%41.667
34	MP2	Z	-160.4	%95.833
35	MP3	Z	-41.2	%58.333
36	MP3	Z	-82.3	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	-12.7	%80.444
40	MP5	Z	-12.7	%86.222
41	MP6	Z	-34.8	%58.333
42	MP6	Z	-69.5	%95.833
43	MP7	Z	-137	%41.667
44	MP7	Z	-456.7	%95.833
45	MP8	Z	-34.8	%58.333
46	MP8	Z	-69.5	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	-22.8	%80.444
50	MP10	Z	-22.8	%86.222



: TSB : 196498.14

: 841290 - GREENWICH NORTH_Mount Analysis

Oct 15, 2019 2:34 PM Checked By: JAA

Member Point Loads (BLC 184: Antenna Wind Load (270 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
51	MP11	Z	-36.4	%58.333
52	MP11	Z	-72.8	%95.833
53	MP12	Z	-36.4	%58.333
54	MP12	Z	- 72.8	%95.833
55	MP13	Z	-137	%41.667
56	MP13	Z	-456.7	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	-22.8	%80.444
60	MP15	Z	-22.8	%86.222

Member Point Loads (BLC 185: Antenna Wind Load (300 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	19.5	%58.333
2	MP1	X	39	%95.833
3	MP2	X	38.9	%41.667
4	MP2	X	129.6	%95.833
5	MP3	X	19.5	%58.333
6	MP3	X	39	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	8.1	%80.444
10	MP5	X	8.1	%86.222
11	MP6	X	16.3	%58.333
12	MP6	X	32.6	%95.833
13	MP7	X	83.3	%41.667
14	MP7	X	277.7	%95.833
15	MP8	X	16.3	%58.333
16	MP8	X	32.6	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	13.1	%80.444
20	MP10	X	13.1	%86.222
21	MP11	X	19.8	%58.333
22	MP11	X	39.6	%95.833
23	MP12	X	19.8	%58.333
24	MP12	X	39.6	%95.833
25	MP13	X	38.9	%41.667
26	MP13	X	129.6	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	8.1	%80.444
30	MP15	X	8.1	%86.222
31	MP1	Z	-33.8	%58.333
32	MP1	Z	-67.6	%95.833
33	MP2	Z	-67.3	%41.667
34	MP2	Z	-224.5	%95.833
35	MP3	Z	-33.8	%58.333
36	MP3	Z	-67.6	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	-14	%80.444
40	MP5	Z	-14	%86.222
41	MP6	Z	-28.3	%58.333
42	MP6	Z	-56.5	%95.833
43	MP7	Z	-144.3	%41.667



: TSB : 196498.14

841290 - GREENWICH NORTH_Mount Analysis

Oct 15, 2019 2:34 PM Checked By: JAA

Member Point Loads (BLC 185: Antenna Wind Load (300 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
44	MP7	Z	-481.1	%95.833
45	MP8	Z	-28.3	%58.333
46	MP8	Z	-56.5	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	-22.7	%80.444
50	MP10	Z	-22.7	%86.222
51	MP11	Z	-34.3	%58.333
52	MP11	Z	-68.5	%95.833
53	MP12	Z	-34.3	%58.333
54	MP12	Z	-68.5	%95.833
55	MP13	Z	-67.3	%41.667
56	MP13	Z	-224.5	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	-14	%80.444
60	MP15	Z	-14	%86.222

Member Point Loads (BLC 186: Antenna Wind Load (330 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	30.1	%58.333
2	MP1	X	60.2	%95.833
3	MP2	X	118.7	%41.667
4	MP2	X	395.5	%95.833
5	MP3	X	30.1	%58.333
6	MP3	X	60.2	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	19.8	%80.444
10	MP5	X	19.8	%86.222
11	MP6	X	30.1	%58.333
12	MP6	X	60.2	%95.833
13	MP7	X	118.7	%41.667
14	MP7	X	395.5	%95.833
15	MP8	X	30.1	%58.333
16	MP8	X	60.2	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	19.8	%80.444
20	MP10	X	19.8	%86.222
21	MP11	X	35.6	%58.333
22	MP11	X	71.3	%95.833
23	MP12	X	35.6	%58.333
24	MP12	X	71.3	%95.833
25	MP13	X	41.7	%41.667
26	MP13	X	138.9	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	11	%80.444
30	MP15	X	11	%86.222
31	MP1	Z	-17.4	%58.333
32	MP1	Z	-34.8	%95.833
33	MP2	Z	-68.5	%41.667
34	MP2	Z	-228.4	%95.833
35	MP3	Z	-17.4	%58.333
36	MP3	Z	-34.8	%95.833



: ETS : TSB : 196498.14

841290 - GREENWICH NORTH_Mount Analysis

Oct 15, 2019 2:34 PM Checked By: JAA

Member Point Loads (BLC 186 : Antenna Wind Load (330 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	-11.4	%80.444
40	MP5	Z	-11.4	%86.222
41	MP6	Z	-17.4	%58.333
42	MP6	Z	-34.8	%95.833
43	MP7	Z	-68.5	%41.667
44	MP7	Z	-228.4	%95.833
45	MP8	Z	-17.4	%58.333
46	MP8	Z	-34.8	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	-11.4	%80.444
50	MP10	Z	-11.4	%86.222
51	MP11	Z	-20.6	%58.333
52	MP11	Z	-41.2	%95.833
53	MP12	Z	-20.6	%58.333
54	MP12	Z	-41.2	%95.833
55	MP13	Z	-24.1	%41.667
56	MP13	Z	-80.2	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	-6.4	%80.444
60	MP15	Z	-6.4	%86.222

Member Point Loads (BLC 187: Antenna Wind on Ice (0 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Χ	7.1	%58.333
2	MP1	Χ	14.3	%95.833
3	MP2	Χ	38	%41.667
4	MP2	Χ	126.6	%95.833
5	MP3	X	7.1	%58.333
6	MP3	X	14.3	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	5.5	%80.444
10	MP5	X	5.5	%86.222
11	MP6	X	8.5	%58.333
12	MP6	X	16.9	%95.833
13	MP7	X	18.9	%41.667
14	MP7	X	63.1	<u>%95.833</u>
15	MP8	X	8.5	%58.333
16	MP8	X	16.9	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	4	%80.444
20	MP10	X	4	%86.222
21	MP11	X	8.6	%58.333
22	MP11	X	17.1	%95.833
23	MP12	X	8.6	%58.333
24	MP12	X	17.1	%95.833
25	MP13	X	18.9	%41.667
26	MP13	X	63.1	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	4	%80.444



: ETS : TSB : 196498.14

841290 - GREENWICH NORTH_Mount Analysis

Oct 15, 2019 2:34 PM Checked By: JAA

Member Point Loads (BLC 187: Antenna Wind on Ice (0 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
30	MP15	Χ	4	%86.222
31	MP1	Z	0	0
32	MP1	Z	0	0
33	MP2	Z	0	0
34	MP2	Z	0	0
35	MP3	Z	0	0
36	MP3	Z	0	0
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	0	0
40	MP5	Z	0	0
41	MP6	Z	0	0
42	MP6	Z	0	0
43	MP7	Z	0	0
44	MP7	Z	0	0
45	MP8	Z	0	0
46	MP8	Z	0	0
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	0	0
50	MP10	Z	0	0
51	MP11	Z	0	0
52	MP11	Z	0	0
53	MP12	Z	0	0
54	MP12	Z	0	0
55	MP13	Z	0	0
56	MP13	Z	0	0
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	0	0
60	MP15	Z	0	0

Member Point Loads (BLC 188: Antenna Wind on Ice (30 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	6.6	%58.333
2	MP1	X	13.1	%95.833
3	MP2	X	27.4	%41.667
4	MP2	X	91.3	%95.833
5	MP3	X	6.6	%58.333
6	MP3	X	13.1	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	4.3	%80.444
10	MP5	X	4.3	%86.222
11	MP6	X	7.7	%58.333
12	MP6	X	15.4	%95.833
13	MP7	X	10.9	%41.667
14	MP7	X	36.3	%95.833
15	MP8	X	7.7	%58.333
16	MP8	X	15.4	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	3	%80.444
20	MP10	X	3	%86.222
21	MP11	X	6.8	%58.333
22	MP11	X	13.6	%95.833



: TSB : 196498.14

: 841290 - GREENWICH NORTH_Mount Analysis

Oct 15, 2019 2:34 PM Checked By: JAA

Member Point Loads (BLC 188: Antenna Wind on Ice (30 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
23	MP12	X	6.8	%58.333
24	MP12	X	13.6	%95.833
25	MP13	X	27.4	%41.667
26	MP13	Χ	91.3	%95.833
27	MP14	Χ	0	0
28	MP14	Χ	0	0
29	MP15	X	4.3	%80.444
30	MP15	Χ	4.3	%86.222
31	MP1	Z	3.8	%58.333
32	MP1	Z	7.6	%95.833
33	MP2	Z	15.8	%41.667
34	MP2	Z	52.7	%95.833
35	MP3	Z	3.8	%58.333
36	MP3	Z	7.6	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	2.5	%80.444
40	MP5	Z	2.5	%86.222
41	MP6	Z	4.4	%58.333
42	MP6	Z	8.9	%95.833
43	MP7	Z	6.3	%41.667
44	MP7	Z	21	%95.833
45	MP8	Z	4.4	%58.333
46	MP8	Z	8.9	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	1.7	%80.444
50	MP10	Z	1.7	%86.222
51	MP11	Z	3.9	%58.333
52	MP11	Z	7.9	%95.833
53	MP12	Z	3.9	%58.333
54	MP12	Z	7.9	%95.833
55	MP13	Z	15.8	%41.667
56	MP13	Z	52.7	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	2.5	%80.444
60	MP15	Z	2.5	%86.222

Member Point Loads (BLC 189: Antenna Wind on Ice (60 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	4.2	%58.333
2	MP1	X	8.5	%95.833
3	MP2	X	9.5	%41.667
4	MP2	X	31.6	%95.833
5	MP3	X	4.2	%58.333
6	MP3	X	8.5	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	2	%80.444
10	MP5	X	2	%86.222
11	MP6	X	4.2	%58.333
12	MP6	X	8.5	%95.833
13	MP7	X	9.5	%41.667
14	MP7	X	31.6	%95.833
15	MP8	X	4.2	%58.333



: TSB : 196498.14

: 841290 - GREENWICH NORTH_Mount Analysis

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Member Point Loads (BLC 189: Antenna Wind on Ice (60 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
16	MP8	X	8.5	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	2	%80.444
20	MP10	X	2	%86.222
21	MP11	X	3.8	%58.333
22	MP11	X	7.5	%95.833
23	MP12	X	3.8	%58.333
24	MP12	X	7.5	%95.833
25	MP13	X	19	%41.667
26	MP13	X	63.3	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	2.8	%80.444
30	MP15	X	2.8	%86.222
31	MP1	Ž	7.3	%58.333
32	MP1	Z	14.6	%95.833
33	MP2	Z	16.4	%41.667
34	MP2	Z	54.7	%95.833
35	MP3	Z	7.3	%58.333
36	MP3	Z	14.6	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	3.4	%80.444
40	MP5	Z	3.4	%86.222
41	MP6	Z	7.3	%58.333
42	MP6	Z	14.6	%95.833
43	MP7	Z	16.4	%41.667
44	MP7	Z	54.7	%95.833
45	MP8	Z	7.3	%58.333
46	MP8	Z	14.6	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	3.4	%80.444
50	MP10	Z	3.4	%86.222
51	MP11	Z	6.5	%58.333
52	MP11	Z	13	%95.833
53	MP12	Z	6.5	%58.333
54	MP12	Z	13	%95.833
55	MP13	Z	32.9	%41.667
56	MP13	Z	109.7	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	4.8	%80.444
60	MP15	7	4.8	%86.222

Member Point Loads (BLC 190: Antenna Wind on Ice (90 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	0	0
8	MP4	X	0	0



: ETS : TSB : 196498.14

: 841290 - GREENWICH NORTH_Mount Analysis

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Member Point Loads (BLC 190: Antenna Wind on Ice (90 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
9	MP5	Χ	0	0
10	MP5	Χ	0	0
11	MP6	Χ	0	0
12	MP6	Χ	0	0
13	MP7	Χ	0	0
14	MP7	Χ	0	0
15	MP8	Χ	0	0
16	MP8	Χ	0	0
17	MP9	Χ	0	0
18	MP9	Χ	0	0
19	MP10	Χ	0	0
20	MP10	Χ	0	0
21	MP11	Х	0	0
22	MP11	Χ	0	0
23	MP12	Χ	0	0
24	MP12	Χ	0	0
25	MP13	X	0	0
26	MP13	X	0	0
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	0	0
30	MP15	X	0	0
31	MP1	Z	8.9	%58.333
32	MP1	Z	17.8	%95.833
33	MP2	Z	12.6	%41.667
34	MP2	Z	42	%95.833
35	MP3	Z	8.9	%58.333
36	MP3	Z	17.8	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	3.4	%80.444
40	MP5	Z	3.4	%86.222
41	MP6	Z	7.6	%58.333
42	MP6	Z	15.2	%95.833
43	MP7	Z	31.6	%41.667
44	MP7	Z	105.5	%95.833
45	MP8	Z	7.6	%58.333
46	MP8	Z	15.2	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	5	%80.444
50	MP10	Z	5	%86.222
51	MP11	Z	7.9	%58.333
52	MP11	Z	15.7	%95.833
53	MP12	Z	7.9	%58.333
54	MP12	Z	15.7	%95.833
55	MP13		31.6	%41.667
56	MP13	Z Z	105.5	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	5	%80.444
60	MP15	Z	5 5	%86.222

Member Point Loads (BLC 191: Antenna Wind on Ice (120 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-4.2	%58.333



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Member Point Loads (BLC 191: Antenna Wind on Ice (120 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
2	MP1	X	-8.5	%95.833
3	MP2	X	-9.5	%41.667
4	MP2	X	-31.6	%95.833
5	MP3	X	-4.2	%58.333
6	MP3	X	-8.5	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	-2	%80.444
10	MP5	X	-2	%86.222
11	MP6	X	-3.6	%58.333
12	MP6	X	-7.1	<u>%95.833</u>
13	MP7	X	-19	%41.667
14	MP7	X	-63.3	<u>%95.833</u>
15	MP8	X	-3.6	%58.333
16	MP8	X	-7.1	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	-2.8	%80.444
20	MP10	X	-2.8	%86.222
21	MP11	X	-4.3	%58.333
22	MP11	X	-8.6	%95.833 %50.000
23	MP12	X	-4.3	%58.333
24	MP12	X	-8.6	%95.833
25	MP13	X	-9.5	%41.667
26	MP13	X	-31.6	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	-2	%80.444
30	MP15	X	-2	%86.222 %50.222
31	MP1	Z	7.3	%58.333 %05.033
32	MP1	Z	14.6	%95.833
33	MP2	Z Z	16.4	%41.667 %05.833
34 35	MP2 MP3	Z	54.7 7.3	%95.833 %58.333
36	MP3	Z	14.6	
37	MP4			%95.833
38	MP4	Z Z	0	0
39	MP5	Z	3.4	%80.444
40	MP5	Z	3.4	%86.222
41	MP6	Z	6.2	%60.222 %58.333
42	MP6	Z	12.4	%36.333 %95.833
43	MP7	Z	32.9	%95.855 %41.667
44	MP7	Z	109.7	%41.007 %95.833
45	MP8	Z	6.2	%58.333
46	MP8	Z	12.4	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	4.8	%80.444
50	MP10	Z	4.8	%86.222
51	MP11	Z	7.4	%58.333
52	MP11	Z	14.8	%95.833
53	MP12	Z	7.4	%58.333
54	MP12	Z	14.8	%95.833
55	MP13	Z	16.4	%41.667
56	MP13	Z	54.7	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0



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Member Point Loads (BLC 191: Antenna Wind on Ice (120 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
59	MP15	Z	3.4	%80.444
60	MP15	Z	3.4	%86,222

Member Point Loads (BLC 192 : Antenna Wind on Ice (150 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-6.6	%58.333
2	MP1	X	-13.1	%95.833
3	MP2	X	-27.4	%41.667
4	MP2	X	-91.3	%95.833
5	MP3	X	-6.6	%58.333
6	MP3	X	-13.1	%95.833
7	MP4	Х	0	0
8	MP4	X	0	0
9	MP5	Х	-4.3	%80.444
10	MP5	X	-4.3	%86.222
11	MP6	X	-6.6	%58.333
12	MP6	X	-13.1	%95.833
13	MP7	X	-27.4	%41.667
14	MP7	X	-91.3	%95.833
15	MP8	X	-6.6	%58.333
16	MP8	X	-13.1	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	-4.3	%80.444
20	MP10	X	-4.3	%86.222
21	MP11	X	-7.7	%58.333
22	MP11	X	-15.4	%95.833
23	MP12	X	-7.7	%58.333
24	MP12	X	-15.4	%95.833
25	MP13	X	-10.9	%41.667
26	MP13	X	-36.3	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	-3	<u>%80.444</u>
30	MP15	X	-3	%86.222
31	MP1	Z	3.8	%58.333
32	MP1	Z	7.6	%95.833
33	MP2	Z	15.8	%41.667
34	MP2	Z	52.7	%95.833
35	MP3	Z	3.8	%58.333
36	MP3	Z	7.6	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	<u>Z</u>	2.5	%80.444
40	MP5	Z	2.5	<u>%86.222</u>
41	MP6	Z	3.8	%58.333
42	MP6	Z	7.6	<u>%95.833</u>
43	MP7	Z	15.8	%41.667
44	MP7	Z	52.7	<u>%95.833</u>
45	MP8	Z	3.8	%58.333 %55.333
46	MP8	Z	7.6	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	2.5	%80.444
50	MP10	Z	2.5	%86.222 %50.222
51	MP11	Z	4.4	%58.333



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Member Point Loads (BLC 192: Antenna Wind on Ice (150 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
52	MP11	Z	8.9	%95.833
53	MP12	Z	4.4	%58.333
54	MP12	Z	8.9	%95.833
55	MP13	Z	6.3	%41.667
56	MP13	Z	21	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	1.7	%80.444
60	MP15	Z	1.7	%86.222

Member Point Loads (BLC 193 : Antenna Wind on Ice (180 deg))

	Member Label	Direction	Magnitude[Ib,Ib-ft]	Location[in,%]
1	MP1	X	-7.1	%58.333
2	MP1	X	-14.3	%95.833
3	MP2	Χ	-38	%41.667
4	MP2	Χ	-126.6	%95.833
5	MP3	Χ	-7.1	%58.333
6	MP3	Χ	-14.3	%95.833
7	MP4	Х	0	0
8	MP4	X	0	0
9	MP5	X	-5.5	%80.444
10	MP5	Х	-5.5	%86.222
11	MP6	Χ	-8.5	%58.333
12	MP6	Χ	-16.9	%95.833
13	MP7	Χ	-18.9	%41.667
14	MP7	X	-63.1	%95.833
15	MP8	X	-8.5	%58.333
16	MP8	Χ	-16.9	%95.833
17	MP9	X	0	0
18	MP9	Х	0	0
19	MP10	X	-4	%80.444
20	MP10	X	-4	%86.222
21	MP11	X	-8.6	%58.333
22	MP11	X	-17.1	%95.833
23	MP12	X	-8.6	%58.333
24	MP12	X	-17.1	%95.833
25	MP13	X	-18.9	%41.667
26	MP13	X	-63.1	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	Χ	-4	%80.444
30	MP15	X	-4	%86.222
31	MP1	Z	0	0
32	MP1	Z	0	0
33	MP2	Z	0	0
34	MP2	Z	0	0
35	MP3	Z	0	0
36	MP3	Z	0	0
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	0	0
40	MP5	Z	0	0
41	MP6	Z	0	0
42	MP6	Z	0	0
43	MP7	Z	0	0
44	MP7	Z	0	0



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Member Point Loads (BLC 193: Antenna Wind on Ice (180 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
45	MP8	Z	0	0
46	MP8	Z	0	0
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	0	0
50	MP10	Z	0	0
51	MP11	Z	0	0
52	MP11	Z	0	0
53	MP12	Z	0	0
54	MP12	Z	0	0
55	MP13	Z	0	0
56	MP13	Z	0	0
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	0	0
60	MP15	Z	0	0

Member Point Loads (BLC 194 : Antenna Wind on Ice (210 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-6.6	%58.333
2	MP1	X	-13.1	%95.833
3	MP2	X	-27.4	%41.667
4	MP2	Х	-91.3	%95.833
5	MP3	Х	-6.6	%58.333
6	MP3	X	-13.1	%95.833
7	MP4	Χ	0	0
8	MP4	X	0	0
9	MP5	X	-4.3	%80.444
10	MP5	X	-4.3	%86.222
11	MP6	X	-7.7	%58.333
12	MP6	X	-15.4	%95.833
13	MP7	X	-10.9	%41.667
14	MP7	X	-36.3	%95.833
15	MP8	X	-7.7	%58.333
16	MP8	X	-15.4	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	-3	%80.444
20	MP10	X	-3	%86.222
21	MP11	X	-6.8	%58.333
22	MP11	X	-13.6	%95.833
23	MP12	X	-6.8	%58.333
24	MP12	X	-13.6	%95.833
25	MP13	X	-27.4	%41.667
26	MP13	X	-91.3	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	-4.3	%80.444
30	MP15	X	-4.3	%86.222
31	MP1	Z	-3.8	%58.333
32	MP1	Z	-7.6	%95.833
33	MP2	Z	-15.8	%41.667
34	MP2	<u>Z</u>	-52.7	%95.833
35	MP3	Z	-3.8	%58.333
36	MP3	Z	-7.6	%95.833
37	MP4	Z	0	0



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Member Point Loads (BLC 194: Antenna Wind on Ice (210 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
38	MP4	Z	0	0
39	MP5	Z	-2.5	%80.444
40	MP5	Z	-2.5	%86.222
41	MP6	Z	-4.4	%58.333
42	MP6	Z	-8.9	%95.833
43	MP7	Z	-6.3	%41.667
44	MP7	Z	-21	%95.833
45	MP8	Z	-4.4	%58.333
46	MP8	Z	-8.9	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	-1.7	%80.444
50	MP10	Z	-1.7	%86.222
51	MP11	Z	-3.9	%58.333
52	MP11	Z	-7.9	%95.833
53	MP12	Z	-3.9	%58.333
54	MP12	Z	-7.9	%95.833
55	MP13	Z	-15.8	%41.667
56	MP13	Z	-52.7	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	-2.5	%80.444
60	MP15	Z	-2.5	%86.222

Member Point Loads (BLC 195 : Antenna Wind on Ice (240 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-4.2	%58.333
2	MP1	X	-8.5	%95.833
3	MP2	X	-9.5	%41.667
4	MP2	Х	-31.6	%95.833
5	MP3	X	-4.2	%58.333
6	MP3	Χ	-8.5	%95.833
7	MP4	Χ	0	0
8	MP4	Χ	0	0
9	MP5	Χ	-2	%80.444
10	MP5	Χ	-2	%86.222
11	MP6	Χ	-4.2	%58.333
12	MP6	X	-8.5	%95.833
13	MP7	X	-9.5	%41.667
14	MP7	X	-31.6	%95.833
15	MP8	X	-4.2	%58.333
16	MP8	X	-8.5	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	-2	%80.444
20	MP10	X	-2	%86.222
21	MP11	X	-3.8	%58.333
22	MP11	X	-7 .5	%95.833
23	MP12	X	-3.8	%58.333
24	MP12	X	- 7.5	%95.833
25	MP13	X	-19	%41.667
26	MP13	X	-63.3	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	-2.8	%80.444
30	MP15	X	-2.8	%86.222



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Member Point Loads (BLC 195: Antenna Wind on Ice (240 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
31	MP1	Z	-7.3	%58.333
32	MP1	Z	-14.6	%95.833
33	MP2	Z	-16.4	%41.667
34	MP2	Z	-54.7	%95.833
35	MP3	Z	-7.3	%58.333
36	MP3	Z	-14.6	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	-3.4	%80.444
40	MP5	Z	-3.4	%86.222
41	MP6	Z	-7.3	%58.333
42	MP6	Z	-14.6	%95.833
43	MP7	Z	-16.4	%41.667
44	MP7	Z	-54.7	%95.833
45	MP8	Z	-7.3	%58.333
46	MP8	Z	-14.6	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	-3.4	%80.444
50	MP10	Z	-3.4	%86.222
51	MP11	Z	-6.5	%58.333
52	MP11	Z	-13	%95.833
53	MP12	Z	-6.5	%58.333
54	MP12	Z	-13	%95.833
55	MP13	Z	-32.9	%41.667
56	MP13	Z	-109.7	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	-4.8	%80.444
60	MP15	Z	-4.8	%86.222

Member Point Loads (BLC 196: Antenna Wind on Ice (270 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	0	0
2	MP1	X	0	0
3	MP2	X	0	0
4	MP2	X	0	0
5	MP3	X	0	0
6	MP3	X	0	0
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	0	0
10	MP5	X	0	0
11	MP6	X	0	0
12	MP6	X	0	0
13	MP7	X	0	0
14	MP7	X	0	0
15	MP8	X	0	0
16	MP8	X	0	0
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	0	0
20	MP10	X	0	0
21	MP11	X	0	0
22	MP11	X	0	0
23	MP12	X	0	0



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Member Point Loads (BLC 196: Antenna Wind on Ice (270 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
24	MP12	X	0	0
25	MP13	X	0	0
26	MP13	Χ	0	0
27	MP14	Χ	0	0
28	MP14	Χ	0	0
29	MP15	Χ	0	0
30	MP15	X	0	0
31	MP1	Z	-8.9	%58.333
32	MP1	Z	-17.8	%95.833
33	MP2	Z	-12.6	%41.667
34	MP2	Z	-42	%95.833
35	MP3	Z	-8.9	%58.333
36	MP3	Z	-17.8	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	-3.4	%80.444
40	MP5	Z	-3.4	%86.222
41	MP6	Z	-7.6	%58.333
42	MP6	Z	-15.2	%95.833
43	MP7	Z	-31.6	%41.667
44	MP7	Z	-105.5	%95.833
45	MP8	Z	-7.6	%58.333
46	MP8	Z	-15.2	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	- 5	%80.444
50	MP10	Z	- 5	%86.222
51	MP11	Z	-7.9	%58.333
52	MP11	Z	-15.7	%95.833
53	MP12	Z	-7.9	%58.333
54	MP12	Z	-15.7	%95.833
55	MP13	Z	-31.6	%41.667
56	MP13	Z	-105.5	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	-5	%80.444
60	MP15	Z	-5	%86.222

Member Point Loads (BLC 197 : Antenna Wind on Ice (300 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	4.2	%58.333
2	MP1	X	8.5	%95.833
3	MP2	X	9.5	%41.667
4	MP2	X	31.6	%95.833
5	MP3	X	4.2	%58.333
6	MP3	X	8.5	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	2	%80.444
10	MP5	X	2	%86.222
11	MP6	X	3.6	%58.333
12	MP6	X	7.1	%95.833
13	MP7	X	19	%41.667
14	MP7	X	63.3	%95.833
15	MP8	X	3.6	%58.333
16	MP8	X	7.1	%95.833



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Member Point Loads (BLC 197: Antenna Wind on Ice (300 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	2.8	%80.444
20	MP10	X	2.8	%86.222
21	MP11	X	4.3	%58.333
22	MP11	X	8.6	%95.833
23	MP12	X	4.3	%58.333
24	MP12	X	8.6	%95.833
25	MP13	X	9.5	%41.667
26	MP13	X	31.6	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	2	%80.444
30	MP15	X	2	%86.222
31	MP1	Z	-7.3	%58.333
32	MP1	Z	-14.6	%95.833
33	MP2	Z	-16.4	%41.667
34	MP2	Z	-54.7	%95.833
35	MP3	Z	-7.3	%58.333
36	MP3	Z	-14.6	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	-3.4	%80.444
40	MP5	Z	-3.4	%86.222
41	MP6	Z	-6.2	%58.333
42	MP6	Z	-12.4	%95.833
43	MP7	Z	-32.9	%41.667
44	MP7	Z	-109.7	%95.833
45	MP8	Z	-6.2	<u>%58.333</u>
46	MP8	Z	-12.4	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	-4.8	%80.444
50	MP10	Z	-4.8	%86.222
51	MP11	Z	-7.4	%58.333
52	MP11	Z	-14.8	%95.833
53	MP12	Z	-7.4	%58.333
54	MP12	Z	-14.8	%95.833
55	MP13	Z	-16.4	%41.667
56	MP13	Z	-54.7	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	-3.4	%80.444
60	MP15	Z	-3.4	%86.222

Member Point Loads (BLC 198 : Antenna Wind on Ice (330 deg))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	6.6	%58.333
2	MP1	X	13.1	%95.833
3	MP2	X	27.4	%41.667
4	MP2	X	91.3	%95.833
5	MP3	X	6.6	%58.333
6	MP3	X	13.1	%95.833
7	MP4	X	0	0
8	MP4	X	0	0
9	MP5	X	4.3	%80.444



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Member Point Loads (BLC 198: Antenna Wind on Ice (330 deg)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
10	MP5	X	4.3	%86.222
11	MP6	X	6.6	%58.333
12	MP6	X	13.1	%95.833
13	MP7	X	27.4	%41.667
14	MP7	X	91.3	%95.833
15	MP8	X	6.6	%58.333
16	MP8	X	13.1	%95.833
17	MP9	X	0	0
18	MP9	X	0	0
19	MP10	X	4.3	%80.444
20	MP10	X	4.3	%86.222
21	MP11	X	7.7	%58.333
22	MP11	X	15.4	%95.833
23	MP12	X	7.7	%58.333
24	MP12	X	15.4	%95.833
25	MP13	X	10.9	%41.667
26	MP13	X	36.3	%95.833
27	MP14	X	0	0
28	MP14	X	0	0
29	MP15	X	3	%80.444
30	MP15	X	3	%86.222
31	MP1	Z	-3.8	%58.333
32	MP1	Z	-7.6	%95.833
33	MP2	Z	-15.8	%41.667
34	MP2	Z	-52.7	%95.833
35	MP3	Z	-3.8	%58.333
36	MP3	Z	-7.6	%95.833
37	MP4	Z	0	0
38	MP4	Z	0	0
39	MP5	Z	-2.5	%80.444
40	MP5	Z	-2.5	%86.222
41	MP6	Z	-3.8	%58.333
42	MP6	Z	-7.6	%95.833
43	MP7	Z	-15.8	%41.667
44	MP7	Z	-52.7	%95.833
45	MP8	Z	-3.8	%58.333
46	MP8	Z	-7.6	%95.833
47	MP9	Z	0	0
48	MP9	Z	0	0
49	MP10	Z	-2.5	%80.444
50	MP10	Z	-2.5	%86.222
51	MP11	Z	-4.4	%58.333
52	MP11	Z	-8.9	%95.833
53	MP12	Z	-4.4	%58.333
54	MP12	Z	-8.9	%95.833
55	MP13	Z	-6.3	%41.667
56	MP13	Z	-21	%95.833
57	MP14	Z	0	0
58	MP14	Z	0	0
59	MP15	Z	-1.7	%80.444
60	MP15	Z	-1.7	%86.222

Member Distributed Loads (BLC 2: Wind Load (0 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	14.2	14.2	0	0



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Member Distributed Loads (BLC 2: Wind Load (0 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
2	FM2	Χ	14.2	14.2	0	0
3	FM3	X	14.2	14.2	0	0
4	SA1	X	0	0	0	0
5	SA2	X	14.2	14.2	0	0
6	SA3	Χ	14.2	14.2	0	0
7	FM1	Ζ	0	0	0	0
8	FM2	Ζ	0	0	0	0
9	FM3	Ζ	0	0	0	0
10	SA1	Ζ	0	0	0	0
11	SA2	Z	0	0	0	0
12	SA3	Z	0	0	0	0

Member Distributed Loads (BLC 3: Wind Load (30 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	Χ	12.3	12.3	0	0
2	FM2	Χ	0	0	0	0
3	FM3	Χ	12.3	12.3	0	0
4	SA1	X	12.3	12.3	0	0
5	SA2	X	12.3	12.3	0	0
6	SA3	X	12.3	12.3	0	0
7	FM1	Z	7.1	7.1	0	0
8	FM2	Z	0	0	0	0
9	FM3	Ζ	7.1	7.1	0	0
10	SA1	Ζ	7.1	7.1	0	0
11	SA2	Ζ	7.1	7.1	0	0
12	SA3	Z	7.1	7.1	0	0

Member Distributed Loads (BLC 4: Wind Load (60 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	Х	7.1	7.1	0	0
2	FM2	X	7.1	7.1	0	0
3	FM3	X	7.1	7.1	0	0
4	SA1	Χ	7.1	7.1	0	0
5	SA2	X	7.1	7.1	0	0
6	SA3	X	0	0	0	0
7	FM1	Z	12.3	12.3	0	0
8	FM2	Z	12.3	12.3	0	0
9	FM3	Z	12.3	12.3	0	0
10	SA1	Z	12.3	12.3	0	0
11	SA2	Z	12.3	12.3	0	0
12	SA3	Z	0	0	0	0

Member Distributed Loads (BLC 5: Wind Load (90 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	0	0	0	0
2	FM2	Χ	0	0	0	0
3	FM3	X	0	0	0	0
4	SA1	X	0	0	0	0
5	SA2	X	0	0	0	0
6	SA3	Χ	0	0	0	0
7	FM1	Ζ	0	0	0	0
8	FM2	Z	14.2	14.2	0	0
9	FM3	Z	14.2	14.2	0	0
10	SA1	Z	14.2	14.2	0	0
11	SA2	Z	14.2	14.2	0	0



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Member Distributed Loads (BLC 5: Wind Load (90 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
12	SA3	Z	14.2	14.2	0	0

Member Distributed Loads (BLC 6: Wind Load (120 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	-7.1	-7.1	0	0
2	FM2	X	-7.1	-7.1	0	0
3	FM3	X	-7.1	-7.1	0	0
4	SA1	X	-7.1	-7.1	0	0
5	SA2	X	0	0	0	0
6	SA3	X	-7.1	-7.1	0	0
7	FM1	Z	12.3	12.3	0	0
8	FM2	Z	12.3	12.3	0	0
9	FM3	Ζ	12.3	12.3	0	0
10	SA1	Z	12.3	12.3	0	0
11	SA2	Z	0	0	0	0
12	SA3	Z	12.3	12.3	0	0

Member Distributed Loads (BLC 7: Wind Load (150 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	-12.3	-12.3	0	0
2	FM2	X	-12.3	-12.3	0	0
3	FM3	X	0	0	0	0
4	SA1	X	-12.3	-12.3	0	0
5	SA2	X	-12.3	-12.3	0	0
6	SA3	X	-12.3	-12.3	0	0
7	FM1	Z	7.1	7.1	0	0
8	FM2	Z	7.1	7.1	0	0
9	FM3	Z	0	0	0	0
10	SA1	Z	7.1	7.1	0	0
11	SA2	Z	7.1	7.1	0	0
12	SA3	Z	7.1	7.1	0	0

Member Distributed Loads (BLC 8: Wind Load (180 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	-14.2	-14.2	0	0
2	FM2	X	-14.2	-14.2	0	0
3	FM3	X	-14.2	-14.2	0	0
4	SA1	X	0	0	0	0
5	SA2	X	-14.2	-14.2	0	0
6	SA3	X	-14.2	-14.2	0	0
7	FM1	Ζ	0	0	0	0
8	FM2	Ζ	0	0	0	0
9	FM3	Ζ	0	0	0	0
10	SA1	Ζ	0	0	0	0
11	SA2	Z	0	0	0	0
12	SA3	Z	0	0	0	0

Member Distributed Loads (BLC 9: Wind Load (210 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	-12.3	-12.3	0	0
2	FM2	X	0	0	0	0
3	FM3	X	-12.3	-12.3	0	0
4	SA1	X	-12.3	-12.3	0	0
5	SA2	X	-12.3	-12.3	0	0
6	SA3	X	-12.3	-12.3	0	0



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Member Distributed Loads (BLC 9: Wind Load (210 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
7	FM1	Z	-7.1	-7.1	0	0
8	FM2	Z	0	0	0	0
9	FM3	Z	-7.1	-7.1	0	0
10	SA1	Z	-7.1	-7.1	0	0
11	SA2	Z	-7.1	-7.1	0	0
12	SA3	Z	-7.1	-7.1	0	0

Member Distributed Loads (BLC 10 : Wind Load (240 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	-7.1	-7.1	0	0
2	FM2	Χ	-7.1	-7.1	0	0
3	FM3	X	-7.1	-7.1	0	0
4	SA1	X	-7.1	-7.1	0	0
5	SA2	Χ	-7.1	-7.1	0	0
6	SA3	Χ	0	0	0	0
7	FM1	Ζ	-12.3	-12.3	0	0
8	FM2	Ζ	-12.3	-12.3	0	0
9	FM3	Ζ	-12.3	-12.3	0	0
10	SA1	Z	-12.3	-12.3	0	0
11	SA2	Z	-12.3	-12.3	0	0
12	SA3	Z	0	0	0	0

Member Distributed Loads (BLC 11: Wind Load (270 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	0	0	0	0
2	FM2	X	0	0	0	0
3	FM3	X	0	0	0	0
4	SA1	X	0	0	0	0
5	SA2	X	0	0	0	0
6	SA3	X	0	0	0	0
7	FM1	Ζ	0	0	0	0
8	FM2	Ζ	-14.2	-14.2	0	0
9	FM3	Ζ	-14.2	-14.2	0	0
10	SA1	Ζ	-14.2	-14.2	0	0
11	SA2	Z	-14.2	-14.2	0	0
12	SA3	Z	-14.2	-14.2	0	0

Member Distributed Loads (BLC 12: Wind Load (300 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	7.1	7.1	0	0
2	FM2	X	7.1	7.1	0	0
3	FM3	X	7.1	7.1	0	0
4	SA1	X	7.1	7.1	0	0
5	SA2	X	0	0	0	0
6	SA3	X	7.1	7.1	0	0
7	FM1	Z	-12.3	-12.3	0	0
8	FM2	Z	-12.3	-12.3	0	0
9	FM3	Z	-12.3	-12.3	0	0
10	SA1	Z	-12.3	-12.3	0	0
11	SA2	Z	0	0	0	0
12	SA3	Z	-12.3	-12.3	0	0

Member Distributed Loads (BLC 13: Wind Load (330 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	12.3	12.3	0	0



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Member Distributed Loads (BLC 13: Wind Load (330 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
2	FM2	Χ	12.3	12.3	0	0
3	FM3	X	0	0	0	0
4	SA1	X	12.3	12.3	0	0
5	SA2	X	12.3	12.3	0	0
6	SA3	Χ	12.3	12.3	0	0
7	FM1	Z	-7.1	-7.1	0	0
8	FM2	Z	-7.1	-7.1	0	0
9	FM3	Z	0	0	0	0
10	SA1	Z	-7.1	-7.1	0	0
11	SA2	Z	-7.1	-7.1	0	0
12	SA3	Z	-7.1	-7.1	0	0

Member Distributed Loads (BLC 14 : Ice Load)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	Υ	-15.6	-15.6	0	0
2	FM2	Υ	-15.6	-15.6	0	0
3	FM3	Υ	-15.6	-15.6	0	0
4	SA1	Υ	-15.6	-15.6	0	0
5	SA2	Υ	-15.6	-15.6	0	0
6	SA3	Υ	-15.6	-15.6	0	0

Member Distributed Loads (BLC 15: Wind on Ice (0 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	4.4	4.4	0	0
2	FM2	X	4.4	4.4	0	0
3	FM3	X	4.4	4.4	0	0
4	SA1	X	0	0	0	0
5	SA2	X	4.4	4.4	0	0
6	SA3	X	4.4	4.4	0	0
7	FM1	Ζ	0	0	0	0
8	FM2	Ζ	0	0	0	0
9	FM3	Ζ	0	0	0	0
10	SA1	Z	0	0	0	0
11	SA2	Z	0	0	0	0
12	SA3	Z	0	0	0	0

Member Distributed Loads (BLC 16: Wind on Ice (30 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	3.8	3.8	0	0
2	FM2	X	0	0	0	0
3	FM3	X	3.8	3.8	0	0
4	SA1	X	3.8	3.8	0	0
5	SA2	X	3.8	3.8	0	0
6	SA3	Χ	3.8	3.8	0	0
7	FM1	Ζ	2.2	2.2	0	0
8	FM2	Z	0	0	0	0
9	FM3	Ζ	2.2	2.2	0	0
10	SA1	Ζ	2.2	2.2	0	0
11	SA2	Ζ	2.2	2.2	0	0
12	SA3	Ζ	2.2	2.2	0	0

Member Distributed Loads (BLC 17: Wind on Ice (60 deg))

	Member Label	Direction	Start Magnitude[Ib/ft,	.End Magnitude[Ib/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	2.2	2.2	0	0
2	FM2	X	2.2	2.2	0	0



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Member Distributed Loads (BLC 17: Wind on Ice (60 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
3	FM3	X	2.2	2.2	0	0
4	SA1	Χ	2.2	2.2	0	0
5	SA2	X	2.2	2.2	0	0
6	SA3	Χ	0	0	0	0
7	FM1	Z	3.8	3.8	0	0
8	FM2	Ζ	3.8	3.8	0	0
9	FM3	Z	3.8	3.8	0	0
10	SA1	Ζ	3.8	3.8	0	0
11	SA2	Z	3.8	3.8	0	0
12	SA3	Z	0	0	0	0

Member Distributed Loads (BLC 18: Wind on Ice (90 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	Χ	0	0	0	0
2	FM2	Χ	0	0	0	0
3	FM3	Χ	0	0	0	0
4	SA1	X	0	0	0	0
5	SA2	X	0	0	0	0
6	SA3	X	0	0	0	0
7	FM1	Z	0	0	0	0
8	FM2	Z	4.4	4.4	0	0
9	FM3	Ζ	4.4	4.4	0	0
10	SA1	Ζ	4.4	4.4	0	0
11	SA2	Ζ	4.4	4.4	0	0
12	SA3	Ζ	4.4	4.4	0	0

Member Distributed Loads (BLC 19: Wind on Ice (120 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	-2.2	-2.2	0	0
2	FM2	X	-2.2	-2.2	0	0
3	FM3	X	-2.2	-2.2	0	0
4	SA1	Χ	-2.2	-2.2	0	0
5	SA2	Χ	0	0	0	0
6	SA3	Χ	-2.2	-2.2	0	0
7	FM1	Ζ	3.8	3.8	0	0
8	FM2	Z	3.8	3.8	0	0
9	FM3	Ζ	3.8	3.8	0	0
10	SA1	Ζ	3.8	3.8	0	0
11	SA2	Z	0	0	0	0
12	SA3	Z	3.8	3.8	0	0

Member Distributed Loads (BLC 20 : Wind on Ice (150 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	-3.8	-3.8	0	0
2	FM2	X	-3.8	-3.8	0	0
3	FM3	X	0	0	0	0
4	SA1	X	-3.8	-3.8	0	0
5	SA2	X	-3.8	-3.8	0	0
6	SA3	X	-3.8	-3.8	0	0
7	FM1	Z	2.2	2.2	0	0
8	FM2	Z	2.2	2.2	0	0
9	FM3	Z	0	0	0	0
10	SA1	Z	2.2	2.2	0	0
11	SA2	Z	2.2	2.2	0	0
12	SA3	Z	2.2	2.2	0	0



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Member Distributed Loads (BLC 21: Wind on Ice (180 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	-4.4	-4.4	0	0
2	FM2	X	-4.4	-4.4	0	0
3	FM3	X	-4.4	-4.4	0	0
4	SA1	X	0	0	0	0
5	SA2	Х	-4.4	-4.4	0	0
6	SA3	Χ	-4.4	-4.4	0	0
7	FM1	Z	0	0	0	0
8	FM2	Z	0	0	0	0
9	FM3	Z	0	0	0	0
10	SA1	Z	0	0	0	0
11	SA2	Z	0	0	0	0
12	SA3	Z	0	0	0	0

Member Distributed Loads (BLC 22: Wind on Ice (210 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	-3.8	-3.8	0	0
2	FM2	X	0	0	0	0
3	FM3	X	-3.8	-3.8	0	0
4	SA1	X	-3.8	-3.8	0	0
5	SA2	X	-3.8	-3.8	0	0
6	SA3	Χ	-3.8	-3.8	0	0
7	FM1	Ζ	-2.2	-2.2	0	0
8	FM2	Ζ	0	0	0	0
9	FM3	Ζ	-2.2	-2.2	0	0
10	SA1	Ζ	-2.2	-2.2	0	0
11	SA2	Z	-2.2	-2.2	0	0
12	SA3	Z	-2.2	-2.2	0	0

Member Distributed Loads (BLC 23: Wind on Ice (240 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	.End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	-2.2	-2.2	0	0
2	FM2	Χ	-2.2	-2.2	0	0
3	FM3	X	-2.2	-2.2	0	0
4	SA1	Χ	-2.2	-2.2	0	0
5	SA2	Χ	-2.2	-2.2	0	0
6	SA3	Χ	0	0	0	0
7	FM1	Z	-3.8	-3.8	0	0
8	FM2	Z	-3.8	-3.8	0	0
9	FM3	Z	-3.8	-3.8	0	0
10	SA1	Z	-3.8	-3.8	0	0
11	SA2	Z	-3.8	-3.8	0	0
12	SA3	Z	0	0	0	0

Member Distributed Loads (BLC 24 : Wind on Ice (270 deg))

	Member Label	Direction	Start Magnitude[Ib/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	0	0	0	0
2	FM2	X	0	0	0	0
3	FM3	X	0	0	0	0
4	SA1	Χ	0	0	0	0
5	SA2	X	0	0	0	0
6	SA3	X	0	0	0	0
7	FM1	Ζ	0	0	0	0
8	FM2	Z	-4.4	-4.4	0	0
9	FM3	Z	-4.4	-4.4	0	0
10	SA1	Z	-4.4	-4.4	0	0



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Member Distributed Loads (BLC 24: Wind on Ice (270 deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
11	SA2	Z	-4.4	-4.4	0	0
12	SA3	7	-4 4	-4 4	0	0

Member Distributed Loads (BLC 25: Wind on Ice (300 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	2.2	2.2	0	0
2	FM2	X	2.2	2.2	0	0
3	FM3	X	2.2	2.2	0	0
4	SA1	Χ	2.2	2.2	0	0
5	SA2	X	0	0	0	0
6	SA3	X	2.2	2.2	0	0
7	FM1	Ζ	-3.8	-3.8	0	0
8	FM2	Ζ	-3.8	-3.8	0	0
9	FM3	Z	-3.8	-3.8	0	0
10	SA1	Z	-3.8	-3.8	0	0
11	SA2	Z	0	0	0	0
12	SA3	Z	-3.8	-3.8	0	0

Member Distributed Loads (BLC 26: Wind on Ice (330 deg))

	Member Label	Direction	Start Magnitude[lb/ft,	End Magnitude[lb/ft,	Start Location[in,%]	End Location[in,%]
1	FM1	X	3.8	3.8	0	0
2	FM2	X	3.8	3.8	0	0
3	FM3	X	0	0	0	0
4	SA1	X	3.8	3.8	0	0
5	SA2	X	3.8	3.8	0	0
6	SA3	X	3.8	3.8	0	0
7	FM1	Ζ	-2.2	-2.2	0	0
8	FM2	Z	-2.2	-2.2	0	0
9	FM3	Ζ	0	0	0	0
10	SA1	Ζ	-2.2	-2.2	0	0
11	SA2	Ζ	-2.2	-2.2	0	0
12	SA3	Z	-2.2	-2.2	0	0

Load Combinations

	a Combinatione																							
	Description			S	BLC	Fac.	BLC	Fac.	.BLC	Fac.	BLC	Fac												
1	1.4D	Yes	Υ		1	1.4																		
2	1.2D + 1.0W (0 deg)	Yes	Υ		1	1.2	2	1	175	1														
3	1.2D + 1.0W (30 deg)				1	1.2	3	1	176	1														
4	1.2D + 1.0W (60 deg)				1	1.2	4	1	177	1														
5	1.2D + 1.0W (90 deg)	Yes	Υ		1	1.2	5	1	178	1														
6	1.2D + 1.0W (120 deg)	Yes	Υ		1	1.2	6	1	179	1														
7	1.2D + 1.0W (150 deg)				1	1.2	7	1	180	1														
8	1.2D + 1.0W (180 deg)	Yes	Υ		1	1.2	8	1	181	1														
9	1.2D + 1.0W (210 deg)				1	1.2	9	1	182	1														
10	1.2D + 1.0W (240 deg)	Yes	Υ		1	1.2	10	1	183	1														
11	1.2D + 1.0W (270 deg)	Yes	Υ		1	1.2	11	1	184	1														
12	1.2D + 1.0W (300 deg)	Yes	Υ		1	1.2	12	1	185	1														
13	1.2D + 1.0W (330 deg)	Yes	Υ		1	1.2	13	1	186	1														
14	1.2D + Di + Wi (0 deg)	Yes	Υ		1	1.2	14	1	15	1	187	1												
15	1.2D + Di + Wi (30 deg)	Yes	Υ		1	1.2	14	1	16	1	188	1												
16	1.2D + Di + Wi (60 deg)	Yes	Υ		1	1.2	14	1	17	1	189	1												
17	1.2D + Di + Wi (90 deg)	Yes	Υ		1	1.2	14	1	18	1	190	1												
18	1.2D + Di + Wi (120 de.	.Yes	Υ		1	1.2	14	1	19	1	191	1												
19	1.2D + Di + Wi (150 de.	.Yes	Υ		1	1.2	14	1	20	1	192	1												



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	<u>a combinations</u>	•																					
	Description	So	P	S BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac.	BLC	Fac	BLC	Fa
20	1.2D + Di + Wi (180 de	Yes	Y	1	1.2	14	1	21	1	193	1												
21	1.2D + Di + Wi (210 de	Yes	Υ	1				22		194	1												
	1.2D + Di + Wi (240 de	_	_					23		195													
											•												
23	1.2D + Di + Wi (270 de							24	1	196													
24	1.2D + Di + Wi (300 de				1.2	14	1_	25		197													
25	1.2D + Di + Wi (330 de	Yes	Υ	1	1.2	14	1	26	1	198	1												
26	1.2D + 1.0 Ev + 1.0Eh	Yes	Υ	1	1.2	1	.055		.138														
27					1.2	1			.138														
									.138														
28					1.2	1																	
29	1.2D + 1.0 Ev + 1.0Eh			1	1.2	1			.138														
30	1.2D + 1.0 Ev + 1.0Eh			1	1.2	1	.055	31	.138														
31	1.2D + 1.0 Ev + 1.0Eh	Yes	Υ	1	1.2	1	.055	32	.138														
32	1.2D + 1.0 Ev + 1.0Eh	Yes	Υ	1	1.2	1	.055	33	.138														
33					1.2	1			.138														
	1.2D + 1.0 Ev + 1.0Eh					1			.138														
34					1.2																		
35	1.2D + 1.0 Ev + 1.0Eh				1.2	1			.138														
36	1.2D + 1.0 Ev + 1.0Eh			1	1.2	1			.138														
37	1.2D + 1.0 Ev + 1.0Eh	Yes	Y	1	1.2	1	.055	38	.138					L		L l							
38		Yes	Υ	1		39			.063		.063												
39	1.2D + 1.5Lm1 + 1.0W						1.5																
					1.2		1.5																
	1.2D + 1.5Lm1 + 1.0W																						
41							1.5																
	1.2D + 1.5Lm1 + 1.0W						1.5																
43	1.2D + 1.5Lm1 + 1.0W						1.5				.063												
44	1.2D + 1.5Lm1 + 1.0W			1	1.2	39	1.5	8	.063	181	.063												
45	1.2D + 1.5Lm1 + 1.0W	Yes	Y	1	1.2	39	1.5	9	.063	182	.063												
46	1.2D + 1.5Lm1 + 1.0W	Yes	Υ	1			1.5																
47							1.5																
48							1.5																
49		_		1			1.5		.003	100	.003												
	1.2D + 1.5Lm2 + 1.0W			1	1.2		1.5		.063														
_51	1.2D + 1.5Lm2 + 1.0W			1		40	1.5	3	.063	176	.063												
52	1.2D + 1.5Lm2 + 1.0W	Yes	Υ	1	1.2	40	1.5	4	.063	177	.063												
53	1.2D + 1.5Lm2 + 1.0W	Yes	Υ	1	1.2	40	1.5	5	.063	178	.063												
54	1.2D + 1.5Lm2 + 1.0W	Yes	Υ		1.2	40	1.5	6	.063	179	.063												
55	1.2D + 1.5Lm2 + 1.0W			1	1.2		1.5		.063														
	1.2D + 1.5Lm2 + 1.0W					40	1.5	0															
				1																			
57					1.2		1.5			_	.063	_											
58	1.2D + 1.5Lm2 + 1.0W			1			1.5																
59	1.2D + 1.5Lm2 + 1.0W			1	1.2	40	1.5	11	.063	184	.063												
60	1.2D + 1.5Lm2 + 1.0W	Yes	Y	1	1.2	40	1.5	12	.063	185	.063												
61				1			1.5																
	1.2D + 1.5Lm3 + 1.0W			1	12	41	1.5	2	.063	175	.063												
	1.2D + 1.5Lm3 + 1.0W						1.5				.063												
				1																			
	1.2D + 1.5Lm3 + 1.0W			1			1.5			_	.063												
65				1	1.2		1.5															\Box	
66	1.2D + 1.5Lm3 + 1.0W			1	1.2	41	1.5	6	.063	179	.063												
67				1			1.5				.063												
	1.2D + 1.5Lm3 + 1.0W			1			1.5				.063												
69			_	1	1.2		1.5																
			<u> </u>																				
	1.2D + 1.5Lm3 + 1.0W			1			1.5																
71				1	1.2		1.5																
	1.2D + 1.5Lm3 + 1.0W			1	1.2	41	1.5	12	.063	185	.063												
73	1.2D + 1.5Lm3 + 1.0W	Yes	Υ	1	1.2	41	1.5	13	.063	186	.063												
	1.2D + 1.5Lm4 + 1.0W	_	_	1	1.2		1.5				.063												
75		_	_	1	1.2		1.5			_													
76			<u> </u>	1	1.2	12	1.5	1															
70	1.20 · 1.3LIII4 + 1.0VV	165	ľ		1.2	42	1.5	4	.003	111	.003												



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Loud Combinations																						
Description	_So	P \$	S BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac	<u>BLC</u>	Fac
77 1.2D + 1.5Lm4 + 1.0W	Yes	Υ	1	1.2	42	1.5	5	.063	178	.063												
78 1.2D + 1.5Lm4 + 1.0W	Yes	Υ	1	1.2	42	1.5	6	.063	179	.063												
79 1.2D + 1.5Lm4 + 1.0W			1			1.5																
80 1.2D + 1.5Lm4 + 1.0W			1			1.5																
								.063														
			1	1.2		1.5																
82 1.2D + 1.5Lm4 + 1.0W			1	1.2		1.5																
83 1.2D + 1.5Lm4 + 1.0W			1	1.2		1.5																
84 1.2D + 1.5Lm4 + 1.0W	Yes	Υ	1	1.2	42	1.5	12	.063	185	.063												
85 1.2D + 1.5Lm4 + 1.0W	Yes	Υ	1	1.2	42	1.5	13	.063	186	.063												
86 1.2D + 1.5Lm5 + 1.0W	Yes	Υ	1	1.2	43		2			.063												
87 1.2D + 1.5Lm5 + 1.0W			1	1.2		1.5																
			1			1.5																
89 1.2D + 1.5Lm5 + 1.0W			1			1.5			170	.003												
90 1.2D + 1.5Lm5 + 1.0W			1			1.5				.063												
91 1.2D + 1.5Lm5 + 1.0W			1	1.2		1.5				.063												
92 1.2D + 1.5Lm5 + 1.0W			1	1.2	43	1.5																
93 1.2D + 1.5Lm5 + 1.0W	Yes	Υ	1	1.2	43	1.5	9	.063	182	.063												
94 1.2D + 1.5Lm5 + 1.0W			1	1.2		1.5																
95 1.2D + 1.5Lm5 + 1.0W			1			1.5		.063														
			1	1.2		1.5																
								.063	196	.003												
			1	1.2		1.5																
98 1.2D + 1.5Lm6 + 1.0W			1			1.5				.063												
99 1.2D + 1.5Lm6 + 1.0W	\rightarrow	_	1			1.5		.063														
100 1.2D + 1.5Lm6 + 1.0W	Yes	Υ	1	1.2	44	1.5	4	.063	177	.063												
101 1.2D + 1.5Lm6 + 1.0W	Yes	Υ	1	1.2	44	1.5	5	.063	178	.063												
102 1.2D + 1.5Lm6 + 1.0W	Yes	Υ	1	1.2		1.5			179	.063												
103 1.2D + 1.5Lm6 + 1.0W			1	1.2		1.5																
104 1.2D + 1.5Lm6 + 1.0W	$\overline{}$	_	1	1.2		1.5																
		_								.063												
105 1.2D + 1.5Lm6 + 1.0W			1	1.2		1.5																
106 1.2D + 1.5Lm6 + 1.0W			1	1.2		1.5																
107 1.2D + 1.5Lm6 + 1.0W		-	1	1.2		1.5	11															
108 1.2D + 1.5Lm6 + 1.0W	Yes	Υ	1	1.2	44	1.5	12	.063	185	.063												
109 1.2D + 1.5Lm6 + 1.0W	Yes	Υ	1	1.2	44	1.5	13	.063	186	.063												
110 1.2D + 1.5Lm7 + 1.0W	Yes	Υ	1			1.5				.063												
111 1.2D + 1.5Lm7 + 1.0W	_		1	1.2		1.5				.063												
112 1.2D + 1.5Lm7 + 1.0W			1	1.2		1.5																
		-																				
113 1.2D + 1.5Lm7 + 1.0W		-	1	1.2		1.5																
114 1.2D + 1.5Lm7 + 1.0W	_		1	1.2		1.5				.063												
115 1.2D + 1.5Lm7 + 1.0W			1	1.2		1.5				.063												
116 1.2D + 1.5Lm7 + 1.0W			1	1.2	45	1.5	0			.063												
117 1.2D + 1.5Lm7 + 1.0W	Yes	Υ	1	1.2	45	1.5	9	.063	182	.063					╚		LΠ		L		LĪ	_
118 1.2D + 1.5Lm7 + 1.0W	Yes	Υ	1	1.2	45	1.5	10	.063	183	.063												
119 1.2D + 1.5Lm7 + 1.0W		-	1	12	45	1.5	11	.063	184	.063												
120 1.2D + 1.5Lm7 + 1.0W			1	1.2	15	1.5	12	063	185	063												
120 1.2D + 1.5Lm7 + 1.0W																						
			1	1.2		1.5		.003	100	.003												
122 1.2D + 1.5Lm8 + 1.0W			1	1.2		1.5				.063												
123 1.2D + 1.5Lm8 + 1.0W			1	1.2	46	1.5				.063												
124 1.2D + 1.5Lm8 + 1.0W	Yes	Υ	1	1.2	46	1.5	4	.063	177	.063												
125 1.2D + 1.5Lm8 + 1.0W	Yes	Υ	1	1.2	46	1.5	5	.063	178	.063												
126 1.2D + 1.5Lm8 + 1.0W		_	1	1.2	46	1.5	6	.063	179	.063												
127 1.2D + 1.5Lm8 + 1.0W		_	1			1.5		063	180	.063												
128 1.2D + 1.5Lm8 + 1.0W		_			46	1.5	0	062	121	.062												
			1	1.2	40	1.5	ğ	.003	101	.003												
129 1.2D + 1.5Lm8 + 1.0W			1	1.2	46	1.5	9	.063	182	.063												
130 1.2D + 1.5Lm8 + 1.0W			1	1.2	46	1.5	10	.063	183	.063												
131 1.2D + 1.5Lm8 + 1.0W	Yes	Υ	1	1.2	46	1.5	11	.063	184	.063												
132 1.2D + 1.5Lm8 + 1.0W	Yes	Υ	1	1.2	46	1.5	12	.063	185	.063												
133 1.2D + 1.5Lm8 + 1.0W		_	1	1.2	46	1.5	13	.063	186	.063												
100 1.25 - 102110 - 1.00		1		1.4	₁ + U	_ լ.∪	LIU	1.550		.550										L		_



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Description So. P. S. BLCFac, BLCF	Description	90	D	S BLC	`Eac	BI C	Eac	BI C	Eac	BI C	Eac	BI C	Eac	BI C	Eac	BI CI	=20	BI C	Eac	BI C	Eac	BI C	Eac
135 1.20 + 1.5Lm + 1.0W, Nes Y 1 1.2 47 1.5 4 0.80 177,083													гас	BLC	rac	BLCI	-ac	BLC	rac.	BLC	гас	BLC	гас
136 12D + 1.5Lm9 + 1.0W. Yes Y 1 1.2 47 1.5 5 0.081 177,083 138 12D + 1.5Lm9 + 1.0W. Yes Y 1 1.2 47 1.5 6 .083 179,083 139 12D + 1.5Lm9 + 1.0W. Yes Y 1 1.2 47 1.5 6 .083 179,083 140 12D + 1.5Lm9 + 1.0W. Yes Y 1 1.2 47 1.5 7 .083 180,083 141 12D + 1.5Lm9 + 1.0W. Yes Y 1 1.2 47 1.5 8 .083 181,083 141 12D + 1.5Lm9 + 1.0W. Yes Y 1 1.2 47 1.5 9 .083 182,083 142 12D + 1.5Lm9 + 1.0W. Yes Y 1 1.2 47 1.5 10 .083 183,083 143 12D + 1.5Lm9 + 1.0W. Yes Y 1 1.2 47 1.5 10 .083 183,083 144 12D + 1.5Lm9 + 1.0W. Yes Y 1 1.2 47 1.5 10 .083 183,083 144 12D + 1.5Lm9 + 1.0W. Yes Y 1 1.2 47 1.5 10 .083 183,083 144 12D + 1.5Lm9 + 1.0W. Yes Y 1 1.2 47 1.5 10 .083 183,083 144 12D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 2 .083 175,083 146 12D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 2 .083 175,083 147 12D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 3 .083 176,083 148 1.2D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 5 .083 177,083 149 1.2D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 5 .083 177,083 149 1.2D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 5 .083 177,083 185 1.2D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 5 .083 177,083 185 12D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 5 .083 177,083 185 1.2D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 5 .083 177,083 185 1.2D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 1.5 0.083 185 1.2D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 1.5 0.083 185 1.2D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 1.5 0.083 185 1.2D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 1.5 0.083 185 1.2D + 1.5Lm10 + 1.0. Yes Y 1 1.2 48 1.5 1.5 0.083 185 0.083 1 1.5Lm10 + 1.0. Yes																							
137 1.20 + 1.5Lm9 + 1.0W. Yes Y				+ + +																			
138 120 + 1.5Lm9 + 1.0W\fost Y 1 1.2 47 1.5 6 .063 179, 1063 189 120 + 1.5Lm9 + 1.0W\fost Y 1 1.2 47 1.5 7 .063 180, 1063 141 120 + 1.5Lm9 + 1.0W\fost Y 1 1.2 47 1.5 8 .063 181, 1063 141 120 + 1.5Lm9 + 1.0W\fost Y 1 1.2 47 1.5 10, 363 183, 1063 141 120 + 1.5Lm9 + 1.0W\fost Y 1 1.2 47 1.5 11, 1063 183, 1063 141 120 + 1.5Lm9 + 1.0W\fost Y 1 1.2 47 1.5 11, 063 184, 1063 141 120 + 1.5Lm9 + 1.0W\fost Y 1 1.2 47 1.5 11, 063 184, 1063 141 120 + 1.5Lm9 + 1.0W\fost Y 1 1.2 47 1.5 12, 063 185, 1063 141 120 + 1.5Lm9 + 1.0W\fost Y 1 1.2 47 1.5 12, 063 185, 1063 141 120 + 1.5Lm10 + 1.0\fost Y 1 1.2 48 1.5 2, 063 175, 1063 141 120 + 1.5Lm10 + 1.0\fost Y 1 1.2 48 1.5 3, 063 175, 1063 141 120 + 1.5Lm10 + 1.0\fost Y 1 1.2 48 1.5 3, 063 176, 1063 141 120 + 1.5Lm10 + 1.0\fost Y 1 1.2 48 1.5 3, 063 176, 1063 141 120 + 1.5Lm10 + 1.0\fost Y 1 1.2 48 1.5 7, 063 160, 1063 141 120 + 1.5Lm10 + 1.0\fost Y 1 1.2 48 1.5 7, 063 160, 1063								4	.003	177	.003												
139 120 + 1.5Lm9 + 1.0W. Ves Y																							
140 1.20 + 1.5Lm9 + 1.0W. Yes Y																							
141 1.20 + 1.5Lm9 + 1.0W. Yes Y																							
142 12P + 15LmP + 10W, Yes Y 1 1,2 47 1,5 10 063 183 063 184 12P + 15LmP + 10W, Yes Y 1 1,2 47 1,5 12 063 185 063 184 12P + 15LmP + 10W, Yes Y 1 1,2 47 1,5 12 063 185 063 184 12P + 15LmP + 10W, Yes Y 1 1,2 48 1,5 2 063 185 063 184 12P + 15LmD + 10 Yes Y 1 1,2 48 1,5 2 063 185 063 184 12P + 15LmD + 10 Yes Y 1 1,2 48 1,5 2 063 175 063 184 12P + 15LmD + 10 Yes Y 1 1,2 48 1,5 2 063 175 063 184 12P + 15LmD + 10 Yes Y 1 1,2 48 1,5 5 063 175 063 184 12P + 15LmD + 10 Yes Y 1 1,2 48 1,5 5 063 175 063 184 12P + 15LmD + 10 Yes Y 1 1,2 48 1,5 5 063 178 063 184 12P + 15LmD + 10 Yes Y 1 1,2 48 1,5 5 063 178 063 184 12P + 15LmD + 10 Yes Y 1 1,2 48 1,5 7 063 180 063 185 12P + 15LmD + 10 Yes Y 1 1,2 48 1,5 7 063 180 063 185 12P + 15LmD + 10 Yes Y 1 1,2 48 1,5 9 063 180 063 185 12P + 15LmD + 10 Yes Y 1 1,2 48 1,5 9 063 180 063 185 12P + 15LmD + 10 Yes Y 1 1,2 48 1,5 10 063 180 063 180		_	_																				
143 120 + 15Lm9 + 1,0W, Yes Y 1 1,2 47 1,5 11 1083 1083 144 120 + 15Lm9 + 1,0W, Yes Y 1 1,2 47 1,5 13 083 185 083 146 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 2 .083 186 .083 147 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 3 .083 175 .083 148 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 3 .083 175 .083 148 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 4 .083 177 .083 148 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 5 .083 175 .083 149 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 5 .083 179 .083 150 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 6 .083 179 .083 151 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 6 .083 181 .083 153 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 8 .083 181 .083 155 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 1,0 38 184 .083 155 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 10 .083 184 .083 156 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 1,0 .083 184 .083 155 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 1,0 .083 184 .083 155 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 1,0 .083 184 .083 155 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 1,0 .083 184 .083 155 120 + 15Lm10 + 1,0 Yes Y 1 1,2 48 1,5 1,0 .083 184 .083 184 .083 185 .083 185 .083 185 .083 185 .083 185 .083 185 .083 185 .083 185 .083 185 .083 185 .083 185 .083 185 .083				1	1.2																		
144 120 + 1.5Lm9 + 1.0W, Yes Y 1 1.2 47 1.5 12 0.681 185 0.683 145 1.2D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 2 0.681 175 0.683 147 1.2D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 2 0.681 175 0.683 147 1.2D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 2 0.681 175 0.683 148 1.2D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 5 0.681 177 0.683 149 1.2D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 5 0.681 178 0.683 149 1.2D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 5 0.681 178 0.683 145 1.2D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 7 0.681 1.2D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 7 0.681 1.2D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 9 0.681 12 0.683 1.2D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 10 0.681 183 0.683 1.5D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 10 0.681 183 0.683 1.5D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 11 0.681 184 0.683 1.5D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 12 0.681 185 0.683 1.5D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 12 0.681 1.60 1.5D 1.5D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 12 0.681 1.5D 0.683 185 0.683 1.5D 1.2D + 1.5Lm10 + 1.0D., Yes Y 1 1.2 48 1.5 1.2 0.681 1.5D 0.683 1.5D 0.683 1.5D 1.2D + 1.5Lm11 + 1.0D., Yes Y 1 1.2 48 1.5 1.5 0.683 175 0.683 1.5D 1.2D + 1.5Lm11 + 1.0D., Yes Y 1 1.2 48 1.5 1.5 0.683 175 0.683 1.5D 1.5D				1	1.2	47	1.5	10	.063	183	.063												
145 120 + 15Lm9 + 1.0W. Yes Y				1	1.2	47	1.5	11															
146 1.20 + 1.5Lm10 + 1.0 Yes Y 1 1.2 48 1.5 2 .063 175 .063																							
147 1.20 + 1.5Lm10 + 1.0 Yes Y	145 1.2D + 1.5Lm9 + 1.0W.	. Yes	Υ	1	1.2	47	1.5	13	.063	186	.063												
147 1.20 + 1.5Lm10 + 1.0 Yes Y 1 2 48 1.5 3 .063 176 .063	146 1.2D + 1.5Lm10 + 1.0	. Yes	Υ	1																			
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149 1.20 + 1.5.Lm10 + 1.0 Yes Y	148 1.2D + 1.5Lm10 + 1.0	. Yes	Y	1	1.2				.063	177	.063												
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154 1.2D + 1.5Lm10 + 1.0 Yes Y																							
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157 1.2D + 1.5Lm10 + 1.0 Yes Y																							
158 1.2D + 1.5Lm11 + 1.0 Yes Y			_				1.5	12	.003	186	.003												
159 1.2D + 1.5Lm11 + 1.0 Yes Y																							
160 1.2D + 1.5Lm11 + 1.0 Yes Y						_		_															
161 1.2D + 1.5Lm11 + 1.0 Yes Y 1 1.2 49 1.5 5 .063 178 .063 <																							
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163 1.2D + 1.5Lm11 + 1.0 Yes Y 1 1.2 49 1.5 7 .063 180 .063 164 1.2D + 1.5Lm11 + 1.0 Yes Y 1 1.2 49 1.5 9 .063 181 .063 165 1.2D + 1.5Lm11 + 1.0 Yes Y 1 1.2 49 1.5 9 .063 182 .063 166 1.2D + 1.5Lm11 + 1.0 Yes Y 1 1.2 49 1.5 10 .063 183 .063 167 1.2D + 1.5Lm11 + 1.0 Yes Y 1 1.2 49 1.5 11 .063 184 .063 168 1.2D + 1.5Lm11 + 1.0 Yes Y 1 1.2 49 1.5 12 .063 185 .063 170 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 2 .063 175 .063 171 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 2 .063 177 .063 172 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 5 .063 178 .063 174 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5																							
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167 1.2D + 1.5Lm11 + 1.0 Yes Y 1 1.2 49 1.5 11.063 184 .063 168 1.2D + 1.5Lm11 + 1.0 Yes Y 1 1.2 49 1.5 12.063 185 .063 170 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 49 1.5 12.063 186 .063 171 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 2.063 175 .063 172 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 3.063 176 .063 173 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 5.063 178 .063 174 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 5.063 178 .063 175 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 7.063 180 .063 176 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 9.063				1	1.2																		
168 1.2D + 1.5Lm11 + 1.0 Yes Y 1 1.2 49 1.5 12 .063 185 .063 169 1.2D + 1.5Lm11 + 1.0 Yes Y 1 1.2 49 1.5 13 .063 186 .063 170 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 3 .063 175 .063 171 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 3 .063 177 .063 172 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 5 .063 177 .063 173 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 5 .063 178 .063 174 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 7 .063 180 .063 175 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 8 .063 181 .063 176 1.2D + 1.5Lm12 + 1				1	1.2	49	1.5	10	.063	183	.063												
169 1.2D + 1.5Lm11 + 1.0 Yes Y	167 1.2D + 1.5Lm11 + 1.0	. Yes	Υ	1	1.2	49	1.5		_														
170 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 2 .063 175 .063 171 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 3 .063 176 .063 173 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 4 .063 177 .063 174 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 6 .063 178 .063 175 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 7 .063 180 .063 176 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 8 .063 181 .063 177 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 9 .063 182 .063 179 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 1 <	168 1.2D + 1.5Lm11 + 1.0	. Yes	Υ	1	1.2																		
170 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 2 .063 175 .063 171 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 3 .063 176 .063 173 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 4 .063 177 .063 174 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 6 .063 178 .063 175 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 7 .063 180 .063 176 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 8 .063 181 .063 177 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 9 .063 182 .063 179 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 1 <	169 1.2D + 1.5Lm11 + 1.0	. Yes	Υ	1	1.2	49	1.5	13	.063	186	.063												
172 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 4 .063 177 .063 173 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 5 .063 178 .063 174 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 6 .063 179 .063 175 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 7 .063 180 .063 176 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 8 .063 181 .063 177 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 10 .063 183 .063 178 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 10 .063 183 .063 180 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 11 .063 185 .063 181 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 50 1.5 13 .	170 1.2D + 1.5Lm12 + 1.0	. Yes	Υ	1	1.2																		
173 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 5 .063 178 .063 174 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 6 .063 179 .063 175 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 7 .063 180 .063 176 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 9 .063 181 .063 177 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 9 .063 182 .063 178 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 10 .063 183 .063 180 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 10 .063 184 .063 181 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 50 1.5 1.3 .063 186 .063 186 .063 186	171 1.2D + 1.5Lm12 + 1.0	. Yes	Υ	1	1.2	50	1.5	3	.063	176	.063												
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174 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 6 .063 179 .063 175 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 7 .063 180 .063 176 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 8 .063 181 .063 177 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 9 .063 182 .063 178 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 10 .063 183 .063 180 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 12 .063 184 .063 181 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 50 1.5 13 .063 186 .063 182 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 2		_		1				5															
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177 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 9 .063 182 .063 178 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 10 .063 183 .063 179 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 11 .063 184 .063 180 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 12 .063 185 .063 181 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 50 1.5 13 .063 186 .063 183 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 2 .063 175 .063 184 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 4 .063 177 .063 185 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 5																							
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179 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 11 .063 184 .063 180 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 12 .063 185 .063 181 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 13 .063 186 .063 182 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 2 .063 175 .063 183 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 3 .063 176 .063 184 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 4 .063 177 .063 185 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 6 .063 179 .063 187 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51		_	<u> </u>		1.2	50	1.5	10	063	183	063												
180 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 12 .063 185 .063 181 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 13 .063 186 .063 182 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 2 .063 175 .063 183 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 3 .063 176 .063 184 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 4 .063 177 .063 185 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 5 .063 178 .063 187 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 7 .063 180 .063 189 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51					1.2	50	1.5	11	.003	184	.000												
181 1.2D + 1.5Lm12 + 1.0 Yes Y 1 1.2 50 1.5 13 .063 186 .063					1.2	50	1.5	12	.003	185	.003												
182 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 2 .063 175 .063 183 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 3 .063 176 .063 184 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 4 .063 177 .063 185 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 5 .063 178 .063 186 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 7 .063 180 .063 188 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 8 .063 181 .063 189 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 9 .063 182 .063					1.2	50	1.5	12	062	196	.003												
183 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 3 .063 176 .063 184 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 4 .063 177 .063 185 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 5 .063 178 .063 186 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 6 .063 179 .063 187 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 8 .063 181 .063 189 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 9 .063 182 .063			_		1.2	50	1.5	13	.003	175	.003												
184 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 4 .063 177 .063								2	.003	175	000												
185 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 5 .063 178 .063					1.2	51	1.5	3	.063	1/6	.063												
186 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 6 .063 179 .063					1.2	51	1.5	4	.063	1/7	.063												
187 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 7 .063 180 .063					1.2	51	1.5	5	.063	178	.063												
188 1.2D + 1.5Lm13 + 1.0 Yes Y				1																			
189 1.2D + 1.5Lm13 + 1.0 Yes Y				1								_											
189 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 9 .063 182 .063				1																			
190 1.2D + 1.5Lm13 + 1.0 Yes Y 1 1.2 51 1.5 10 .063 183 .063					1.2	51	1.5	9	.063	182	.063												
	190 1.2D + 1.5Lm13 + 1.0	. Yes	Υ	1	1.2	51	1.5	10	.063	183	.063												



: ETS : TSB : 196498.14

: 841290 - GREENWICH NORTH_Mount Analysis

Oct 15, 2019 2:34 PM Checked By: JAA

191 120 + 1.5Lm13 + 1.0L. Ves Y	Description So	P '	S BLC	`Fac	BL C	Fac	BI C	Fac	BI C	Fac	BI C	Fac	BLCI	-ac	BL C	Fac	BI C	Fac	BL C	Fac	BL C	Fac
199 120 + 15Lm13 + 10 Yes Y 1 12 51 15 12 063 185 063												1 40	DEUI	ac		1 40		1 40		1 ac		1 40
193 120 + 15Lm14 + 1.0. Ves Y 1 1.2 52 1.5 2.0 53 75 508 3			1																			
194 1.20 + 1.5Lm14 + 1.0. Yes Y 1 1.2 52 1.5 2 083 175 083			1																			
196 120 + 15.5mt4 + 10 Yes Y 1 12 52 15 3 365 176,063		_																				
196 120 + 1.5Lm14 + 1.0L. Yes Y																						
197 120 + 1.5Lm14 + 1.0L. Yes Y									_													
198 120 + 15Lm14 + 1.0 Yes Y 1 1,2 52 1,5 6 063 179,063																						
199 120 + 1.5Lm14 + 1.0L. Yes Y																						
120 120 + 15Lm14 + 1.0 Yes Y 1 1.2 52 1.5 8 063 181 063 182																						
120 1.20 + 1.5Lm14 + 1.0 Yes Y 1 1.2 52 1.5 9 .063 182 .063		_						_	_													
202 1.20 + 1.5Lm14 + 1.0. Yes Y 1 1.2 52 1.5 10 063 183 063			1																			
203 1.20 + 1.5Lm14 + 1.0 Yes Y 1 1.2 52 1.5 11 .063 184 .063			1																			
204 1.20 + 1.5Lm14 + 1.0 Yes Y 1 1.2 52 1.5 12 .063 165 .063 205 1.20 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 2 .063 175 .063 208 1.20 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 2 .063 175 .063 209 1.20 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 3 .063 176 .063 209 1.20 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 4 .063 177 .063 201 1.20 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 5 .063 178 .063 211 1.20 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 6 .063 179 .063 212 1.20 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 7 .063 180 .063 213 1.20 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 7 .063 180 .063 214 1.20 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 9 .063 182 .063 215 1.20 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 10 .063 183 .063 216 1.20 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 11 .063 183 .063 217 1.20 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 11 .063 185 .063 218 1.20 + 1.5Lm16 + 1.0 Yes Y 1 1.2 53 1.5 11 .063 185 .063 219 1.20 + 1.5Lm16 + 1.0 Yes Y 1 1.2 53 1.5 12 .063 185 .063 219 1.20 + 1.5Lm16 + 1.0 Yes Y 1 1.2 54 1.5 1.3 .063 175 .063 210 1.20 + 1.5Lm16 + 1.0 Y Y 1 1.2 54 1.5 3 .063 176 .063 221 1.20 + 1.5Lm16 + 1.0 Y Y 1 1.2 54 1.5 3 .063 176 .063 221 1.20 + 1.5Lm16 + 1.0 Y Y 1 1.2 54 1.5 7 .063 180 .063 222 1.20 + 1.5Lm16 + 1.0 Y Y 1 1.2 54 1.5 7 .063 180 .063 223 1.20 + 1.5Lm16 + 1.0 Y Y 1 1.2 54 1.5 7 .063 180 .063 224 1.20 + 1.5Lm16 + 1.0 Y Y 1 1.2 54 1.5 7 .063 180 .063 22		Υ	1	1.2						_												
205 1.20 + 1.5Lm14 + 1.0 Yes Y	203 1.2D + 1.5Lm14 + 1.0 Yes	Υ	1	1.2	52	1.5	11	.063	184	.063												
206 1.20 + 1.5Lm15 + 1.0 Yes Y		Υ	1	1.2	52	1.5	12	.063	185	.063												
206 120 + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 2 .063 175 .063	205 1.2D + 1.5Lm14 + 1.0 Yes	Υ	1	1.2	52	1.5	13	.063	186	.063												
207 1.20 + 1.5Lm15 + 1.0 Yes Y			1						175	.063												
208 1.20 + 1.5Lm15 + 1.0 Yes Y		-	1																			
209 1.2D + 1.5Lm15 + 1.0 Yes Y																						
210 1.2D + 1.5Lm15 + 1.0 Yes Y		-	1						_													
211 1.2D + 1.5Lm16 + 1.0 Yes Y		-							_													
212 1.2D + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 8 .063 181 .063																						
213 1.2D + 1.5Lm15 + 1.0 Yes Y																						
214 1.2D + 1.5Lm15 + 1.0 Yes Y 1 1.2 53 1.5 10 0.63 183 0.63			1																			
215 1.2D + 1.5Lm15 + 1.0 Yes Y			1																			
216 1.2D + 1.5Lm15 + 1.0 Yes Y		-																				
217 1.2D + 1.5Lm16 + 1.0 Y																						
218 1.2D + 1.5Lm16 + 1.0									_													
219 1.2D + 1.5Lm16 + 1.0 Y		-	1						_													
220 1.2D + 1.5Lm16 + 1.0 Y			1																			
221 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 5 .063 178 .063									_													
222 1.2D + 1.5Lm16 + 1.0 Y 1 1,2 54 1,5 6 .063 179 .063 223 1.2D + 1.5Lm16 + 1.0 Y 1 1,2 54 1,5 7 .063 180 .063 224 1.2D + 1.5Lm16 + 1.0 Y 1 1,2 54 1,5 9 .063 181 .063 226 1.2D + 1.5Lm16 + 1.0 Y 1 1,2 54 1,5 10 .063 183 .063 227 1.2D + 1.5Lm16 + 1.0 Y 1 1,2 54 1,5 10 .063 183 .063 228 1.2D + 1.5Lm16 + 1.0 Y 1 1,2 54 1,5 11 .063 184 .063 229 1.2D + 1.5Lm16 + 1.0 Y 1 1,2 54 1,5 13 .063 185 .063 230 1.2D + 1.5Lm17 + 1.0 Y 1 1,2 55 1,5 2 .063 177 .063 234 1.2D + 1.5Lm17 + 1.0 Y																						
223 1.2D + 1.5Lm16 + 1.0		Υ	1																			
224 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 8 .063 181 .063 225 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 9 .063 182 .063 226 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 10 .063 183 .063 227 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 10 .063 184 .063 229 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 12 .063 185 .063 230 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 2 .063 175 .063 231 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 3 .063 177 .063 233 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 5 .063 177 .063 234 1.2D + 1.5Lm17 + 1.0 Y		-	1	1.2	54																	
225 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 9 .063 182 .063 226 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 10 .063 183 .063 227 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 11 .063 184 .063 228 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 12 .063 185 .063 229 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 13 .063 186 .063 230 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 2 .063 175 .063 231 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 1.063 177 .063 234 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 1.063 180 .063 235 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 <td></td> <td></td> <td>1</td> <td>1.2</td> <td>54</td> <td>1.5</td> <td></td> <td>_</td> <td>_</td> <td>_</td> <td></td>			1	1.2	54	1.5		_	_	_												
226 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 10 .063 183 .063 227 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 11 .063 184 .063 228 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 12 .063 185 .063 230 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 54 1.5 13 .063 185 .063 231 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 3 .063 175 .063 232 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 4 .063 177 .063 234 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 6 .063 178 .063 235 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 6 .063 179 .063 236 1.2D + 1.5Lm17 + 1.0 Y		Υ	1	1.2	54	1.5	8															
227 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 11 .063 184 .063 228 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 12 .063 185 .063 229 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 13 .063 176 .063 231 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 4 .063 177 .063 232 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 4 .063 177 .063 233 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 4 .063 177 .063 234 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 5 .063 179 .063 235 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 7 .063 180 .063 237 1.2D + 1.5Lm17 + 1.0 Y		Υ	1	1.2	54	1.5	9	.063	182	.063												
228 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 12 .063 185 .063 229 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 13 .063 186 .063 230 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 2 .063 175 .063 231 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 4 .063 177 .063 233 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 5 .063 178 .063 234 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 5 .063 179 .063 235 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 8 .063 181 .063 237 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 9 .063 182 .063 238 1.2D + 1.5Lm17 + 1.0 Y	226 1.2D + 1.5Lm16 + 1.0	Υ	1	1.2	54	1.5	10	.063	183	.063												
229 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 13 .063 186 .063 230 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 2 .063 175 .063 231 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 3 .063 177 .063 232 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 5 .063 177 .063 234 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 5 .063 179 .063 235 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 7.063 180 .063 236 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 9 .063 181 .063 237 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 9 .063 182 .063 239 1.2D + 1.5Lm17 + 1.0 Y 1	227 1.2D + 1.5Lm16 + 1.0	Υ	1	1.2	54	1.5	11	.063	184	.063												
229 1.2D + 1.5Lm16 + 1.0 Y 1 1.2 54 1.5 13 .063 186 .063 230 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 2 .063 175 .063 231 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 3 .063 177 .063 232 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 5 .063 177 .063 234 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 5 .063 179 .063 235 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 7.063 180 .063 236 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 9 .063 181 .063 237 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 9 .063 182 .063 239 1.2D + 1.5Lm17 + 1.0 Y 1	228 1.2D + 1.5Lm16 + 1.0	Υ	1				_	.063	185	.063												
230 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 2 .063 175 .063			1	1.2																		
231 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 3 .063 176 .063 232 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 4 .063 177 .063 233 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 5 .063 178 .063 234 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 6 .063 179 .063 235 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 7 .063 180 .063 237 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 8 .063 181 .063 238 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 10 .063 182 .063 239 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 11 .063 184 .063 240 1.2D + 1.5Lm17 + 1.0 Y			1		_																	
232 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 4 .063 177 .063 233 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 5 .063 178 .063 234 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 6 .063 179 .063 235 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 7 .063 180 .063 236 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 9 .063 181 .063 238 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 10 .063 182 .063 239 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 10 .063 183 .063 240 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 12 .063 185 .063 241 1.2D + 1.5Lm18 + 1.0 Y			1						_													
233 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 5 .063 178 .063 234 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 6 .063 179 .063 235 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 7 .063 180 .063 236 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 8 .063 181 .063 237 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 10 .063 182 .063 239 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 10 .063 183 .063 240 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 11 .063 184 .063 241 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 12 .063 185 .063 242 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 2 .063 175 .063 243<																						
234 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 6 .063 179 .063			1																			
235 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 7 .063 180 .063 236 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 8 .063 181 .063 237 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 9 .063 182 .063 238 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 10 .063 184 .063 240 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 12 .063 185 .063 241 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 12 .063 185 .063 241 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 13 .063 186 .063 242 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 2 .063 175 .063 244 1.2D + 1.5Lm18 + 1.0 Y			1																			
236 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 8 .063 181 .063 237 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 9 .063 182 .063 238 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 10 .063 183 .063 239 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 11 .063 184 .063 240 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 12 .063 185 .063 241 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 13 .063 186 .063 242 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 2 .063 175 .063 244 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 4 .063 177 .063 245 1.2D + 1.5Lm18 + 1.0 Y			1																			
237 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 9 .063 182 .063 238 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 10 .063 183 .063 239 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 11 .063 184 .063 240 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 12 .063 185 .063 241 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 13 .063 186 .063 242 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 2 .063 175 .063 244 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 4 .063 177 .063 245 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 5 .063 178 .063 246 1.2D + 1.5Lm18 + 1.0 Y			1					_														
238 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 10 .063 183 .063			1																			
239 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 11 .063 184 .063 240 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 12 .063 185 .063 241 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 13 .063 186 .063 242 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 2 .063 175 .063 243 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 3 .063 176 .063 244 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 4 .063 177 .063 245 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 5 .063 178 .063 246 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 6 .063 179 .063																						
240 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 12 .063 185 .063 241 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 13 .063 186 .063 242 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 2 .063 175 .063 243 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 3 .063 176 .063 244 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 4 .063 177 .063 245 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 5 .063 178 .063 246 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 6 .063 179 .063			1																			
241 1.2D + 1.5Lm17 + 1.0 Y 1 1.2 55 1.5 13 .063 186 .063 242 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 2 .063 175 .063 243 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 3 .063 176 .063 244 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 5 .063 178 .063 245 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 5 .063 179 .063 246 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 6 .063 179 .063			1	1.2	55	1.5	11															
242 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 2 .063 175 .063			1																			
243 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 3 .063 176 .063 244 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 4 .063 177 .063 245 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 5 .063 178 .063 246 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 6 .063 179 .063			1																			
244 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 4 .063 177 .063 245 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 5 .063 178 .063 246 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 6 .063 179 .063			1																			
245 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 5 .063 178 .063 246 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 6 .063 179 .063			1																			
246 1.2D + 1.5Lm18 + 1.0 Y 1 1.2 56 1.5 6 .063 179 .063			1								_											
			1	1.2	56	1.5	5															
		Υ	1	1.2	56	1.5	6															
	247 1.2D + 1.5Lm18 + 1.0	Υ	1																			



: ETS : TSB : 196498.14

: 841290 - GREENWICH NORTH_Mount Analysis

Oct 15, 2019 2:34 PM Checked By: JAA

Loud Combinations (CO																					
Description So	P S	. BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac	BLC	Fac.	BLC	Fac	BLC	Fac	BLC	Fac	<u>BLC</u>	Fac
248 1.2D + 1.5Lm18 + 1.0	Υ	1	1.2	56	1.5		.063														
249 1.2D + 1.5Lm18 + 1.0	Υ	1	1.2		1.5		.063														
250 1.2D + 1.5Lm18 + 1.0	Y	1	1.2				.063														
251 1.2D + 1.5Lm18 + 1.0	Ÿ	1	1.2				.063														
252 1.2D + 1.5Lm18 + 1.0						10	.063	195	.000												
	Υ	1	1.2		1.5																
253 1.2D + 1.5Lm18 + 1.0	Υ	1	1.2		1.5		.063														
254 1.2D + 1.5Lm19 + 1.0	Υ	1	1.2		1.5	2			.063												
255 1.2D + 1.5Lm19 + 1.0	Υ	1	1.2	57	1.5	3			.063												
256 1.2D + 1.5Lm19 + 1.0	Υ	1	1.2	57	1.5	4	.063	177	.063												
257 1.2D + 1.5Lm19 + 1.0	Υ	1	1.2	57	1.5	5	.063	178	.063												
258 1.2D + 1.5Lm19 + 1.0	Y	1	1.2	57		6		_	.063												
259 1.2D + 1.5Lm19 + 1.0	Ÿ	1	1.2		1.5	7			.063												
260 1.2D + 1.5Lm19 + 1.0		1					.063														
	Y		1.2	57																	
261 1.2D + 1.5Lm19 + 1.0	Y	1	1.2		1.5				.063												
262 1.2D + 1.5Lm19 + 1.0	Υ	1	1.2	57			.063														
263 1.2D + 1.5Lm19 + 1.0	Υ	1	1.2		1.5	11															
264 1.2D + 1.5Lm19 + 1.0	Υ	1	1.2	57	1.5		.063														
265 1.2D + 1.5Lm19 + 1.0	Υ	1	1.2		1.5		.063														
266 1.2D + 1.5Lm20 + 1.0	Y	1	1.2	58		2			.063												
267 1.2D + 1.5Lm20 + 1.0	Y	1	1.2		1.5				.063												
268 1.2D + 1.5Lm20 + 1.0	Y	1	1.2	58					.063												
269 1.2D + 1.5Lm20 + 1.0		-				4	.063														
	Υ	1	1.2		1.5																
270 1.2D + 1.5Lm20 + 1.0	Υ	1	1.2		1.5	_	.063														
271 1.2D + 1.5Lm20 + 1.0	Υ	1	1.2	58	1.5	7		_	.063												
272 1.2D + 1.5Lm20 + 1.0	Υ	1	1.2	58	1.5	8	.063	181	.063												
273 1.2D + 1.5Lm20 + 1.0	Υ	1	1.2	58	1.5	9	.063	182	.063												
274 1.2D + 1.5Lm20 + 1.0	Y	1	1.2				.063	183	.063												
275 1.2D + 1.5Lm20 + 1.0	Ÿ	1	1.2			11			.063												
276 1.2D + 1.5Lm20 + 1.0	Υ	1	1.2	58					.063												
277 1.2D + 1.5Lm20 + 1.0																					
	Υ	1	1.2		1.5			_	_												
278 1.2D + 1.5Lm21 + 1.0	Υ	1	1.2	59		2			.063												
279 1.2D + 1.5Lm21 + 1.0	Υ	1	1.2		1.5				.063												
280 1.2D + 1.5Lm21 + 1.0	Υ	1	1.2	59	1.5	4	.063	177	.063												
281 1.2D + 1.5Lm21 + 1.0	Υ	1	1.2	59	1.5	5	.063	178	.063												
282 1.2D + 1.5Lm21 + 1.0	Υ	1	1.2	59	1.5	6	.063	179	.063												
283 1.2D + 1.5Lm21 + 1.0	Υ	1	1.2	59		7	.063	180	.063												
284 1.2D + 1.5Lm21 + 1.0	Y	1	1.2		1.5			_	.063												
285 1.2D + 1.5Lm21 + 1.0	Y	1	1.2		1.5				.063												
							.063														
286 1.2D + 1.5Lm21 + 1.0	Υ	1	1.2	59																	
287 1.2D + 1.5Lm21 + 1.0	Υ	1	1.2		1.5																
288 1.2D + 1.5Lm21 + 1.0	Υ	1					.063														
289 1.2D + 1.5Lm21 + 1.0	Υ	1	1.2	59	1.5	13	.063	186	.063												
290 1.2D + 1.5Lm22 + 1.0	Υ	1	1.2	60	1.5	2	.063	175	.063												
291 1.2D + 1.5Lm22 + 1.0	Υ	1			1.5				.063												
292 1.2D + 1.5Lm22 + 1.0	Y	1			1.5			_	.063												
293 1.2D + 1.5Lm22 + 1.0	Y	1			1.5				.063												
294 1.2D + 1.5Lm22 + 1.0	Y	1				6	.063														
					1.5																
295 1.2D + 1.5Lm22 + 1.0	Υ	1			1.5				.063												
296 1.2D + 1.5Lm22 + 1.0	Υ	1			1.5				.063												
297 1.2D + 1.5Lm22 + 1.0	Υ	1			<u>1.5</u>				.063												
298 1.2D + 1.5Lm22 + 1.0	Υ	1					.063														
299 1.2D + 1.5Lm22 + 1.0	Υ	1					.063														
300 1.2D + 1.5Lm22 + 1.0	Y	1	1.2	60	1.5	12	.063	185	.063												
301 1.2D + 1.5Lm22 + 1.0	Ÿ	1	12	60	15	13	.063	186	.063												
302 1.2D + 1.5Lm23 + 1.0	Y	1	1.2		1.5				.063												
303 1.2D + 1.5Lm23 + 1.0	-																				
	Υ	1			1.5				.063												
304 1.2D + 1.5Lm23 + 1.0	Υ	1	1.2	61	1.5	4	.063	177	.063												



: ETS : TSB : 196498.14

: 841290 - GREENWICH NORTH_Mount Analysis

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Description	90	D	S BLC	`Eac	BI C	`Fac	BI C	Fac														
305 1.2D + 1.5Lm23 + 1.0	30	Υ	1			1.5	5			.063		1 ac	BLC	1 ac								
306 1.2D + 1.5Lm23 + 1.0		Ÿ	1	1.2		1.5		.063														
307 1.2D + 1.5Lm23 + 1.0		Ÿ	1	1.2		1.5	7			.063												
308 1.2D + 1.5Lm23 + 1.0		Y	1	1.2	61		8	_	_	.063												
309 1.2D + 1.5Lm23 + 1.0		Y	1	1.2		1.5	9	.063														
310 1.2D + 1.5Lm23 + 1.0		Y	1	1.2		1.5		.063														
311 1.2D + 1.5Lm23 + 1.0		Y	1	1.2		1.5	11		_	.063												
312 1.2D + 1.5Lm23 + 1.0		Y	1				12															
313 1.2D + 1.5Lm23 + 1.0			•	1.2		1.5		.063														
314 1.2D + 1.5Lm24 + 1.0		Y	1	1.2	61					.063												
315 1.2D + 1.5Lm24 + 1.0		Y	1	1.2	62		2															
316 1.2D + 1.5Lm24 + 1.0		Y	1	1.2	62		3	_	_	.063												
		Y	1	1.2	62		4															
317 1.2D + 1.5Lm24 + 1.0		Y	1	1.2	62		5			.063												
318 1.2D + 1.5Lm24 + 1.0		Y	1	1.2	62		6			.063												
319 1.2D + 1.5Lm24 + 1.0		Y	1	1.2	62		7		_	.063												
320 1.2D + 1.5Lm24 + 1.0		Y	1	1.2	62		8			.063												
321 1.2D + 1.5Lm24 + 1.0		Y	1	1.2		1.5	9			.063												
322 1.2D + 1.5Lm24 + 1.0		Y	1	1.2	62		10		_	.063												
323 1.2D + 1.5Lm24 + 1.0		Y	1	1.2	62		11		_	.063												
324 1.2D + 1.5Lm24 + 1.0		Y	1	1.2	62		12			.063												
325 1.2D + 1.5Lm24 + 1.0		Y	1	1.2		1.5	13															
326 1.2D + 1.5Lm25 + 1.0		Y	1	1.2	63		2			.063												
327 1.2D + 1.5Lm25 + 1.0		Y	1	1.2	63		3	_	_	.063												
328 1.2D + 1.5Lm25 + 1.0		Y	1	1.2	63		4		_	.063												
329 1.2D + 1.5Lm25 + 1.0		Y	1	1.2	63		5			.063												
330 1.2D + 1.5Lm25 + 1.0		Y	1	1.2	63		6			.063												
331 1.2D + 1.5Lm25 + 1.0		Y	1	1.2	63		7		_	.063												
332 1.2D + 1.5Lm25 + 1.0		Y	1	1.2	63		8		_	.063												
333 1.2D + 1.5Lm25 + 1.0		Y	1	1.2	63		9			.063												
334 1.2D + 1.5Lm25 + 1.0		Y	1	1.2	63			.063	_													
335 1.2D + 1.5Lm25 + 1.0		Y	1	1.2		1.5	11			.063												
336 1.2D + 1.5Lm25 + 1.0		Υ	1	1.2	63			.063														
337 1.2D + 1.5Lm25 + 1.0		<u>Y</u>	1	1.2	63		13		_	.063												
338 1.2D + 1.5Lm26 + 1.0		Υ	1	1.2	64		2		_	.063												
339 1.2D + 1.5Lm26 + 1.0		<u>Y</u>	1	1.2	64		3		_	.063												
340 1.2D + 1.5Lm26 + 1.0		Υ	1	1.2		1.5	4			.063												
341 1.2D + 1.5Lm26 + 1.0		<u>Y</u>	1	1.2	64		5			.063												
342 1.2D + 1.5Lm26 + 1.0		Υ	1	1.2	64		6			.063												
343 1.2D + 1.5Lm26 + 1.0		<u>Y</u>	1	1.2		1.5	7			.063												
344 1.2D + 1.5Lm26 + 1.0		Υ	1	1.2	64		8			.063												
345 1.2D + 1.5Lm26 + 1.0		<u>Y</u>	1	1.2	64	1.5	9	.063	182	.063												
346 1.2D + 1.5Lm26 + 1.0		Υ	1			1.5																
347 1.2D + 1.5Lm26 + 1.0		Υ	1	1.2	64	1.5	11	.063	184	.063												
348 1.2D + 1.5Lm26 + 1.0		Υ	1	1.2	64	1.5	12	.063	185	.063												
349 1.2D + 1.5Lm26 + 1.0		Υ	1	1.2	64	1.5	13	.063	186	.063												
350 1.2D + 1.5Lm27 + 1.0		Υ	1	1.2	65	1.5	2	.063	175	.063												
351 1.2D + 1.5Lm27 + 1.0		Υ	1			1.5		.063	176	.063												
352 1.2D + 1.5Lm27 + 1.0		Υ	1	1.2	65	1.5	4			.063												
353 1.2D + 1.5Lm27 + 1.0		Y	1	1.2	65	1.5	5	.063	178	.063												
354 1.2D + 1.5Lm27 + 1.0		Υ	1	1.2	65	1.5	6	.063	179	.063												
355 1.2D + 1.5Lm27 + 1.0		Υ	1	1.2	65	1.5	7	.063	180	.063												
356 1.2D + 1.5Lm27 + 1.0		Υ	1	1.2	65	1.5	8	.063	181	.063												
357 1.2D + 1.5Lm27 + 1.0		Ÿ	1	1.2	65	1.5	9	.063	182	.063												
358 1.2D + 1.5Lm27 + 1.0		Y	1	1.2	65	1.5	10	.063	183	.063												
359 1.2D + 1.5Lm27 + 1.0		Ÿ	1		65	1.5	11	.063	184	.063												
360 1.2D + 1.5Lm27 + 1.0		Ÿ	1	1.2	65	1.5	12	.063	185	.063												
361 1.2D + 1.5Lm27 + 1.0		Ÿ	1	1.2	65	1.5	13	.063	186	.063												
		<u> </u>			, ,,,,,						_		-		_							



: ETS : TSB : 196498.14

: 841290 - GREENWICH NORTH_Mount Analysis

Oct 15, 2019 2:34 PM Checked By: JAA

Description So.	Р 9	S BLC	:Fac	BL C	Fac	BL C	Fac	BL C	Fac	BL C	Fac	BL C	Eac	BLC:	Fac	BL C	Fac	BL C	Fac	BLC.	Fac
362 1.2D + 1.5Lm28 + 1.0	ΤΥ	1	1.2		1.5	2			.063		1 40		1 40		1 ac	DEC	1 40		1 ac		1 ac
363 1.2D + 1.5Lm28 + 1.0	Ϋ́	1			1.5				.063												
364 1.2D + 1.5Lm28 + 1.0	Y	1	1.2		1.5				.063												
365 1.2D + 1.5Lm28 + 1.0	Ϋ́	1	1.2		1.5	5		_	.063												
366 1.2D + 1.5Lm28 + 1.0	Y	1	1.2		1.5		.063	_	_												
367 1.2D + 1.5Lm28 + 1.0	Y	1	1.2		1.5	7		_	.063												
368 1.2D + 1.5Lm28 + 1.0								_	.063												
369 1.2D + 1.5Lm28 + 1.0	Y	1	1.2	66					.063												
370 1.2D + 1.5Lm28 + 1.0	Y	1	1.2		1.5	9	.063														
371 1.2D + 1.5Lm28 + 1.0	Y	1	1.2	66					.063												
	Y	1	1.2		1.5	11															
372 1.2D + 1.5Lm28 + 1.0	Y	1	1.2		1.5	12			.063												
373 1.2D + 1.5Lm28 + 1.0	Y	1			1.5		.063														
374 1.2D + 1.5Lm29 + 1.0	Y	1	1.2		1.5	2			.063												
375 1.2D + 1.5Lm29 + 1.0	Y	1	1.2		1.5	3		_	.063												
376 1.2D + 1.5Lm29 + 1.0	Y	1	1.2	67		4			.063												
377 1.2D + 1.5Lm29 + 1.0	Y	1	1.2		1.5	5			.063												
378 1.2D + 1.5Lm29 + 1.0	Y	1	1.2	67		6		_	.063												
379 1.2D + 1.5Lm29 + 1.0	Y	1	1.2		1.5	7			.063												
380 1.2D + 1.5Lm29 + 1.0	Y	1	1.2	67		8			.063												
381 1.2D + 1.5Lm29 + 1.0	Y	1	1.2	67		9			.063												
382 1.2D + 1.5Lm29 + 1.0	Y	1	1.2		1.5	10			.063												
383 1.2D + 1.5Lm29 + 1.0	Y	1	1.2		1.5		.063														
384 1.2D + 1.5Lm29 + 1.0	Y	1	1.2		1.5	12			.063												
385 1.2D + 1.5Lm29 + 1.0	Υ	1	1.2		1.5				.063												
386 1.2D + 1.5Lm30 + 1.0	Υ	1	1.2	68		2			.063												
387 1.2D + 1.5Lm30 + 1.0	Υ	1	1.2		1.5	3			.063												
388 1.2D + 1.5Lm30 + 1.0	Υ	1	1.2	68		4			.063												
389 1.2D + 1.5Lm30 + 1.0	Υ	1	1.2		1.5	5	_	_	.063												
390 1.2D + 1.5Lm30 + 1.0	Υ	1	1.2	68		6			.063												
391 1.2D + 1.5Lm30 + 1.0	Υ	1	1.2	68		7			.063												
392 1.2D + 1.5Lm30 + 1.0	Υ	1	1.2		1.5				.063												
393 1.2D + 1.5Lm30 + 1.0	Υ_	1	1.2		1.5	9			.063												
394 1.2D + 1.5Lm30 + 1.0	Υ	1	1.2				.063														
395 1.2D + 1.5Lm30 + 1.0	Υ	1	1.2		1.5	11			.063												
396 1.2D + 1.5Lm30 + 1.0	Υ	1	1.2	68			.063	_													
397 1.2D + 1.5Lm30 + 1.0	Υ	1	1.2		1.5	13	.063														
398 1.2D + 1.5Lm31 + 1.0	Υ	1	1.2	69		2			.063												
399 1.2D + 1.5Lm31 + 1.0	Υ	1	1.2		1.5	3			.063												
400 1.2D + 1.5Lm31 + 1.0	Υ	1	1.2	69		4			.063												
401 1.2D + 1.5Lm31 + 1.0	Υ	1	1.2		1.5	5			.063												
402 1.2D + 1.5Lm31 + 1.0	Υ	1	1.2	69	1.5	6	.063	179	.063												
403 1.2D + 1.5Lm31 + 1.0	Υ	1							.063												
404 1.2D + 1.5Lm31 + 1.0	Υ	1	1.2	69	1.5	8	.063	181	.063												
405 1.2D + 1.5Lm31 + 1.0	Υ	1	1.2	69	1.5	9	.063	182	.063												
406 1.2D + 1.5Lm31 + 1.0	Υ	1	1.2	69	1.5	10	.063	183	.063												
407 1.2D + 1.5Lm31 + 1.0	Υ	1	1.2	69	1.5	11	.063	184	.063												
408 1.2D + 1.5Lm31 + 1.0	Υ	1	1.2	69	1.5	12	.063	185	.063												
409 1.2D + 1.5Lm31 + 1.0	Υ	1	1.2	69	1.5	13	.063	186	.063												
410 1.2D + 1.5Lm32 + 1.0	Υ	1			1.5	2	.063	175	.063												
411 1.2D + 1.5Lm32 + 1.0	Υ	1	1.2	70	1.5	3	.063	176	.063												
412 1.2D + 1.5Lm32 + 1.0	Υ	1	1.2	70	1.5	4	.063	177	.063												
413 1.2D + 1.5Lm32 + 1.0	Ý	1	1.2	70	1.5	5	.063	178	.063												
414 1.2D + 1.5Lm32 + 1.0	Y	1			1.5				.063												
415 1.2D + 1.5Lm32 + 1.0	Ý	1			1.5				.063												
416 1.2D + 1.5Lm32 + 1.0	Y	1							.063												
417 1.2D + 1.5Lm32 + 1.0	Ý	1			1.5				.063												
418 1.2D + 1.5Lm32 + 1.0	Y	1							.063												
				. •				_				_				_					



: ETS : TSB : 196498.14

: 841290 - GREENWICH NORTH_Mount Analysis

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Description So	P S	BI (:Fac	BI CEad	· BLC	:Fac	BI C	Eac	BL C	Eac	.BLCFac.	BI C	:Fac	BL C	Fac	BL C	Eac	BL C	Fac
419 1.2D + 1.5Lm32 + 1.0	Υ	1		70 1.						/ ac	DEOI ac.		1 40		1 40		1 ac		1 40
420 1.2D + 1.5Lm32 + 1.0	Ÿ	1		70 1.															
421 1.2D + 1.5Lm32 + 1.0	Ÿ	1		70 1.															
422 1.2D + 1.5Lm33 + 1.0	Y	1	1.2	71 1.				.063											
423 1.2D + 1.5Lm33 + 1.0	Ÿ	1	1.2	71 1.			_	.063											
424 1.2D + 1.5Lm33 + 1.0	Y	1	1.2	71 1.			_	.063											
425 1.2D + 1.5Lm33 + 1.0							_	.063											
426 1.2D + 1.5Lm33 + 1.0	Y	1						.063											
427 1.2D + 1.5Lm33 + 1.0	Y			71 1.			_	.063											
427 1.2D + 1.5Lm33 + 1.0	Y	1	1.2	71 1.5		_		.063											
	Y	1	1.2	71 1.		_	_	_											
429 1.2D + 1.5Lm33 + 1.0	Y	1	1.2	71 1.				.063											
430 1.2D + 1.5Lm33 + 1.0	Y	1		71 1.		.063	_												
431 1.2D + 1.5Lm33 + 1.0	Υ	1	1.2		5 11		_	.063											
432 1.2D + 1.5Lm33 + 1.0	Υ	1	1.2	71 1.			_	.063											
433 1.2D + 1.5Lm33 + 1.0	Υ	1	1.2		5 13		_	.063											
434 1.2D + 1.5Lm34 + 1.0	Υ	1	1.2	72 1.		_	_	.063											
435 1.2D + 1.5Lm34 + 1.0	Υ	1		72 1.				.063											
436 1.2D + 1.5Lm34 + 1.0	Υ	1	1.2	72 1.		_	_	.063											
437 1.2D + 1.5Lm34 + 1.0	Y	1	1.2	72 1.		_	_	.063											
438 1.2D + 1.5Lm34 + 1.0	Υ	1	1.2	72 1.		_	_	.063											
439 1.2D + 1.5Lm34 + 1.0	Υ	1	1.2					.063											
440 1.2D + 1.5Lm34 + 1.0	Υ	1		72 1.		_	_	.063											
441 1.2D + 1.5Lm34 + 1.0	Υ	1	1.2			_		.063				_							
442 1.2D + 1.5Lm34 + 1.0	Υ	1	1.2	72 1.		_	_	.063											
443 1.2D + 1.5Lm34 + 1.0	Υ	1	1.2		5 11	_	_	.063											
444 1.2D + 1.5Lm34 + 1.0	Υ	1	1.2		5 12		_	.063											
445 1.2D + 1.5Lm34 + 1.0	Υ	1	1.2			_	_	.063											
446 1.2D + 1.5Lm35 + 1.0	Υ	1	1.2	73 1.			_	.063											
447 1.2D + 1.5Lm35 + 1.0	Υ	1	1.2	73 1.			_	.063											
448 1.2D + 1.5Lm35 + 1.0	Υ	1	1.2	73 1.		_	_	.063											
449 1.2D + 1.5Lm35 + 1.0	Υ	1	1.2				_	.063											
450 1.2D + 1.5Lm35 + 1.0	Υ	1	1.2				_	.063											
451 1.2D + 1.5Lm35 + 1.0	Υ	1	1.2	73 1.		_	_	.063											
452 1.2D + 1.5Lm35 + 1.0	Υ	1	1.2	73 1.				.063											
453 1.2D + 1.5Lm35 + 1.0	Υ	1	1.2	73 1.		_		.063											
454 1.2D + 1.5Lm35 + 1.0	Υ	1	1.2		5 10			.063											
455 1.2D + 1.5Lm35 + 1.0	Υ	1	1.2					.063											
456 1.2D + 1.5Lm35 + 1.0	Υ	1	1.2		12	_		.063											
457 1.2D + 1.5Lm35 + 1.0	Υ	1	1.2	73 1.				.063											
458 1.2D + 1.5Lm36 + 1.0	Υ	1	1.2					.063											
459 1.2D + 1.5Lm36 + 1.0	Υ	1		74 1.															
460 1.2D + 1.5Lm36 + 1.0	Υ	1		74 1.															
461 1.2D + 1.5Lm36 + 1.0	Υ	1	1.2	74 1.	5 5	.063													
462 1.2D + 1.5Lm36 + 1.0	Υ	1		74 1.			_	.063											
463 1.2D + 1.5Lm36 + 1.0	Υ	1		74 1.				.063											
464 1.2D + 1.5Lm36 + 1.0	Υ	1		74 1.5															
465 1.2D + 1.5Lm36 + 1.0	Υ	1		74 1.				.063											
466 1.2D + 1.5Lm36 + 1.0	Υ	1		74 1.															
467 1.2D + 1.5Lm36 + 1.0	Υ	1		74 1.		_	_	.063											
468 1.2D + 1.5Lm36 + 1.0	Υ	1		74 1.5															
469 1.2D + 1.5Lm36 + 1.0	Υ	1		74 1.		.063	186	.063											
470 1.2D + 1.5Lv (Position Yes		1		75 1.															
471 1.2D + 1.5Lv (Position Yes		1		76 1.															
472 1.2D + 1.5Lv (Position Yes		1		77 1.															
473 1.2D + 1.5Lv (Position Yes		1		78 1.															
474 1.2D + 1.5Lv (Position Yes		1		79 1.															
475 1.2D + 1.5Lv (Position Yes	Y	1	1.2	80 1.	5														



: ETS : TSB : 196498.14

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Description So.	Ъ	9	BI C	Eac	BI C	Eac	BI C	Eac	BI C	Eac	BI C	Eac	BI C	`Eac	BI C	Eac	BI C	·Eac	BI C	Eac	BI C	Fac
476 1.2D + 1.5Lv (Position Yes			1			1.5	BLC	гас	BLC	гас	BLC	rat	BLC	rac	BLC	гас	BLC	rac	BLC	rac	BLC	rac
477 1.2D + 1.5Lv (Position Yes			1	1.2																		
478 1.2D + 1.5Lv (Position Yes	_		1			1.5																
479 1.2D + 1.5Lv (Position Yes	_	_	1	1.2 1.2																		
480 1.2D + 1.5Lv (Position Yes			1			1.5																
481 1.2D + 1.5Lv (Position Yes				1.2		1.5																
482 1.2D + 1.5Lv (Position Yes			1	1.2		1.5																
	_		1		87																	
483 1.2D + 1.5Lv (Position Yes			1	1.2		1.5																
484 1.2D + 1.5Lv (Position Yes	_		1	1.2		1.5																
485 1.2D + 1.5Lv (Position	Y	_	1	1.2		1.5																
486 1.2D + 1.5Lv (Position	Y		1	1.2		1.5																
487 1.2D + 1.5Lv (Position	Y	_	1			1.5																
488 1.2D + 1.5Lv (Position	Y		1	1.2		1.5																
489 1.2D + 1.5Lv (Position	Y		1	1.2		1.5																
490 1.2D + 1.5Lv (Position	Y	_	1	1.2		1.5																
491 1.2D + 1.5Lv (Position	Y	_	1	1.2		1.5																
492 1.2D + 1.5Lv (Position	Y	_	1	1.2	97																	
493 1.2D + 1.5Lv (Position	Y		1	1.2		1.5																
494 1.2D + 1.5Lv (Position	Y		1	1.2		1.5																
495 1.2D + 1.5Lv (Position	Y	_	1			1.5																
496 1.2D + 1.5Lv (Position	Y	_	1			1.5																
497 1.2D + 1.5Lv (Position	Y		1			1.5																
498 1.2D + 1.5Lv (Position	Y	_	1			1.5																
499 1.2D + 1.5Lv (Position	Υ		1			1.5																
500 1.2D + 1.5Lv (Position	Y		1			1.5																
501 1.2D + 1.5Lv (Position	Y		1	1.2	106	1.5																
502 1.2D + 1.5Lv (Position	Y		1			1.5																
503 1.2D + 1.5Lv (Position	Y		1			1.5																
504 1.2D + 1.5Lv (Position	Y		1	1.2	109	1.5																
505 1.2D + 1.5Lv (Position	Υ		1			1.5																
506 1.2D + 1.5Lv (Position	Y		1			1.5																
507 1.2D + 1.5Lv (Position	Y		1			1.5																
508 1.2D + 1.5Lv (Position	Y		1			1.5																
509 1.2D + 1.5Lv (Position	Y		1	1.2	114	1.5																
510 1.2D + 1.5Lv (Position	Y		1	1.2	115	1.5																
511 1.2D + 1.5Lv (Position	Y		1	1.2	116	1.5																
512 1.2D + 1.5Lv (Position	Y		1	1.2	117	1.5																
513 1.2D + 1.5Lv (Position	Υ		1	1.2	118	1.5																
514 1.2D + 1.5Lv (Position	Υ		1			1.5																
515 1.2D + 1.5Lv (Position	Y		1			1.5																
516 1.2D + 1.5Lv (Position	Y			1.2																		
517 1.2D + 1.5Lv (Position	Ý		1	1.2																		
518 1.2D + 1.5Lv (Position	Y		1			1.5																
519 1.2D + 1.5Lv (Position	Ý		1			1.5																
520 1.2D + 1.5Lv (Position	Ý		1			1.5																
521 1.2D + 1.5Lv (Position	İΫ		1	1.2																		
522 1.2D + 1.5Lv (Position	Ϋ́		1			1.5																
523 1.2D + 1.5Lv (Position	Τ̈́Υ	_	1	1.2																		
524 1.2D + 1.5Lv (Position	Ϋ́		1	1.2																		
525 1.2D + 1.5Lv (Position	Ÿ		1			1.5																
526 1.2D + 1.5Lv (Position	Ϋ́		1	1.2																		
527 1.2D + 1.5Lv (Position	Ϋ́	_	1			1.5																
528 1.2D + 1.5Lv (Position	Y		1			1.5																
529 1.2D + 1.5Lv (Position	Y		1			1.5																
530 1.2D + 1.5Lv (Position	Y		1			1.5																
531 1.2D + 1.5Lv (Position	Y		1			1.5																
532 1.2D + 1.5Lv (Position	Y	_	1			1.5																
JJZ 1.20 1 1.JEV (FUSILIUIT	ľ			1.2	107	1.0																



Company : ETS
Designer : TSB
Job Number : 196498.14
Model Name : 841290 - GREENWICH NORTH_Mount Analysis

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Load Combinations (Continued)

Description	SoP	S	BL0	CFac.	.BLCFac	BLC	Fac.	BLC	Fac	BLC	Fac.	BLC	Fac								
533 1.2D + 1.5Lv (Position		/	1	1.2	138 1.5	5															
534 1.2D + 1.5Lv (Position	\	/	1		139 1.5																
535 1.2D + 1.5Lv (Position	`	/	1	1.2	140 1.5	5															
536 1.2D + 1.5Lv (Position	\	/	1	1.2	141 1.5	5															
537 1.2D + 1.5Lv (Position		/	1	1.2	142 1.5	5															
538 1.2D + 1.5Lv (Position		/	1	1.2	143 1.5	5															
539 1.2D + 1.5Lv (Position		/	1	1.2	144 1.5	5															
540 1.2D + 1.5Lv (Position		1	1	1.2	145 1.5	5															
541 1.2D + 1.5Lv (Position		/	1	1.2	146 1.5	5															
542 1.2D + 1.5Lv (Position		/	1		147 1.5																
543 1.2D + 1.5Lv (Position		/	1		148 1.5																
544 1.2D + 1.5Lv (Position		/	1		149 1.5																
545 1.2D + 1.5Lv (Position		/	1		150 1.5																
546 1.2D + 1.5Lv (Position		/	1		151 1.5																
547 1.2D + 1.5Lv (Position		/	1		152 1.5																
548 1.2D + 1.5Lv (Position		/	1		153 1.5																
549 1.2D + 1.5Lv (Position		/	1		154 1.5																
550 1.2D + 1.5Lv (Position		/	1		155 1.5																
551 1.2D + 1.5Lv (Position		/	1		156 1.5																
552 1.2D + 1.5Lv (Position		/	1		157 1.5																
553 1.2D + 1.5Lv (Position		/	1		158 1.5																
554 1.2D + 1.5Lv (Position		/	1		159 1.5																
555 1.2D + 1.5Lv (Position		/	1		160 1.5																
556 1.2D + 1.5Lv (Position		/	1		161 1.5																
557 1.2D + 1.5Lv (Position		/	1		162 1.5																
558 1.2D + 1.5Lv (Position		/	1		163 1.5																
559 1.2D + 1.5Lv (Position		_	1		164 1.5																
560 1.2D + 1.5Lv (Position		/	1		165 1.5																
561 1.2D + 1.5Lv (Position		/	1		166 1.5																
562 1.2D + 1.5Lv (Position		/	1		167 1.5																
563 1.2D + 1.5Lv (Position		/	1		168 1.5																
564 1.2D + 1.5Lv (Position		/	1		169 1.5																
565 1.2D + 1.5Lv (Position		/	1		170 1.5																
566 1.2D + 1.5Lv (Position		/	1	1.2	171 1.5																
567 1.2D + 1.5Lv (Position		/	1		172 1.5																
568 1.2D + 1.5Lv (Position		/	1		173 1.5	_															
569 1.2D + 1.5Lv (Position		/	1	1.2	174 1.5	5															

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [l b]	LC	Z [l b]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC_
1	N8	max	1225.293	10	3058.888	22	2181.849	10	9094.895	23	678.931	13	-280.123	3
2		min	-1225.202	4	454.367	4	-2181.421	4	807.298	5	-679.092	7	-5182.623	21
3	N10	max	1244.646	6	3467.871	18	2127.072	12	-985.064	11	1084.933	9	-241.948	13
4		min	-1244.484	12	513.27	12	-2127.385	6	-10317.331	17	-1084.869	3	-5891.76	19
5	N6	max	2466.738	8	3026.42	14	427.96	11	978.088	11	853.775	5	10143.027	14
6		min	-2467.146	2	491.786	8	-427.99	5	-1046.082	5	-853.668	11	1086.316	8
7	Totals:	max	4133.589	8	9174.707	22	4098.893	11						
8		min	-4133.589	2	2983.453	4	-4098.893	5						

Envelope AISC 15th(360-16): LRFD Steel Code Checks

	Member	Shape	Code	Loc[in]	LC	Shear	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [phi*Mn phi*Mn Cb Eqn
1	MP13	PIPE 2.0	.817	36	4	.058	36		4	20866.733	32130 1871.625 1871.625 1 H1-1b
2	MP2	PIPE 2.0	.817	36	8	.058	36		8	20866.733	32130 1871.625 1871.625 1 H1-1b
3	MP7	PIPE_2.0	.817	36	12	.058	36		12	20866.733	32130 1871.625 1871.625 1 H1-1b



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: 841290 - GREENWICH NORTH_Mount Analysis

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Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

	Member	Shape	Code	.Loc[in]	LC	Shear	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [phi*Mn phi*Mn Cb Eqn
4	SA2	HSS4X4X4	.733	90.5	18	.115	90.5	У	15	118734.003	139518 16180.5 16180.5 2 H1-1b
5	SA3	HSS4X4X4	.648	90.5	22	.102	90.5	У	25	118734.003	139518 16180.5 16180.5 2 H1-1b
6	SA1	HSS4X4X4	.632	90.5	14	.117	90.5	<	16	118734.003	139518 16180.5 16180.5 2 H1-1b
7	MP11	PIPE 2.0	.296	36	13	.029	36		13	20866.733	32130 1871.625 1871.625 1 H1-1b
8	FM3	HSS4X4X4	.285	0	20	.132	162	У	10	65069.536	139518 16180.5 16180.5 2 H1-1b
9	MP12	PIPE 2.0	.276	36	13	.027	36		13	20866.733	32130 1871.625 1871.625 1 H1-1b
10	FM1	HSS4X4X4	.274	162	16	.119	150	У	8	65069.536	139518 16180.5 16180.5 3 H1-1b
11	FM2	HSS4X4X4	.256	162	21	.121	162	< '	6	65069.536	139518 16180.5 16180.5 3 H1-1b
12	MP1	PIPE 2.0	.204	36	5	.020	36		5	20866.733	32130 1871.625 1871.625 1 H1-1b
13	MP6	PIPE 2.0	.204	36	9	.020	36		9	20866.733	32130 1871.625 1871.625 1 H1-1b
14	MP14	PIPE 2.0	.185	36	4	.018	36		4	20866.733	32130 1871.625 1871.625 1 H1-1b
15	MP4	PIPE 2.0	.185	36	8	.018	36		8	20866.733	32130 1871.625 1871.625 1 H1-1b
16	MP9	PIPE 2.0	.185	36	12	.018	36		12	20866.733	32130 1871.625 1871.625 1 H1-1b
17	MP8	PIPE 2.0	.132	36	3	.013	36		3	20866.733	32130 1871.625 1871.625 1 H1-1b
18	MP3	PIPE 2.0	.132	36	5	.013	36		5	20866.733	32130 1871.625 1871.625 1 H1-1b
19	MP15	PIPE 2.0	.122	36	4	.012	36		4	20866.733	32130 1871.625 1871.625 1 H1-1b
20	MP10	PIPE 2.0	.122	36	12	.012	36		12	20866.733	32130 1871.625 1871.625 1 H1-1b
21	MP5	PIPE 2.0	.122	36	8	.012	36		8	20866.733	32130 1871.625 1871.625 1H1-1b

Exhibit F

Power Density/RF Emissions Report

Site Name: GREENWICH CT Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW PCS	1970	4	2041	8163.16	124	0.1909	1.0	19.09%
VZW Cellular CDMA	869	3	498	1494	124	0.0349	0.579333333	6.03%
VZW Cellular LTE	880	4	498	1992	124	0.0466	0.586666667	7.94%
VZW AWS	2145	4	2343	9372.56	124	0.2192	1.0	21.92%
VZW 700	746	4	589	2354.28	124	0.0551	0.497333333	11.07%
VZW CBRS	3550	4	50	200	124	0.0047	2.366666667	0.20%

Total Percentage of Maximum Permissible Exposure

66.26%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Section 1.13101 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz mW/cm^2 = milliwatts per square centimeter ERP = Effective Radiated Power

 $Absolute\ worst\ case\ maximum\ values\ used, including\ the\ following\ assumptions:$

- 1. closest accessible point is distance from antenna to base of pole;
- 2. continuous transmission from all available channels at full power for indefinite time period; and,
- 3. all RF energy is assumed to be directed solely to the base of the pole.