MJ Umali, Site Acquisition Consultant
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Floor 3
West Bridgewater, MA 02379
Mobile: (978) 568-7906
MUmali@centerlinecommunications.com

September 21, 2021

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

RE: Notice of Exempt Modification // Site: Middle Haddam Road (ATC: 411257)
191 Middle Haddam Rd, Portland, CT 06480
N 41.9809 // W 73.4184

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains 15 antennas at the 128-ft level on the existing 138.5 ft Monopole Tower, located at 191 Middle Haddam Rd, Portland, CT. The tower is owned by American Tower. The property is also owned by the Town of Salisbury. The tower was approved by the Council in 2002. Verizon Wireless now intends to remove 9 antennas and install 9 new ones on 3 dual antenna mounting brackets for the LTE (3700 MHz) replacements for its 5G upgrade. Additionally, Verizon Wireless will install 6 new Remote Radio Heads (RRHs), remove 1 Hybrid Cables, install 3 diplexers, install 1 OVP, 10 Coax Cables, and 2 Hybrid cables; altogether updating leased equipment rights, as reflected by the final configuration outlined in the structural analysis and proposed hereby.

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.C.S.A. § 16-50j-73, a copy of this letter is being sent to Susan S. Bransfield, First Selectwoman, its Zoning Enforcement Officer, John Herring, American Tower, the tower owner, and the property owner, Verizon Wireless.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). Enclosed to accommodate this filing are construction drawings dated September 1, 2021, by Colliers Engineering & Design, a structural analysis dated August 6, 2021, by A.T. Engineering Service, PLLC., and a structural mount analysis by Network Building and Consulting dated August 2, 2021, and radio frequency (RF) analysis table showing worst-case RF emission calculation by Verizon Wireless RF Design Engineering.

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications 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 new antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications 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, as shown in the attached structural analysis by A.T. Engineering Service, PLLC., dated August 6, 2021, and a structural mount analysis by Network Building and Consulting, dated August 2, 2021, pursuant to certain conditions defined therein. Design and engineering is fully illustrated within final construction drawings, signed and stamped dated September 1, 2021.

For the foregoing reasons, Verizon Wireless respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

MJ Umali

_____

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c/o Cellco Partnership d/b/a Verizon Wireless
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750 West Center Street, Floor 3
West Bridgewater, MA 02379
Mobile: (978) 568-7906
MUmali@centerlinecommunications.com

Attachments
cc: Susan S. Bransfield, First Selectwoman – Chief Elected Official
John Herring, Zoning Enforcement Officer - as P&Z official
American Tower Corporation - as tower owner
Verizon Wireless – Property Owner

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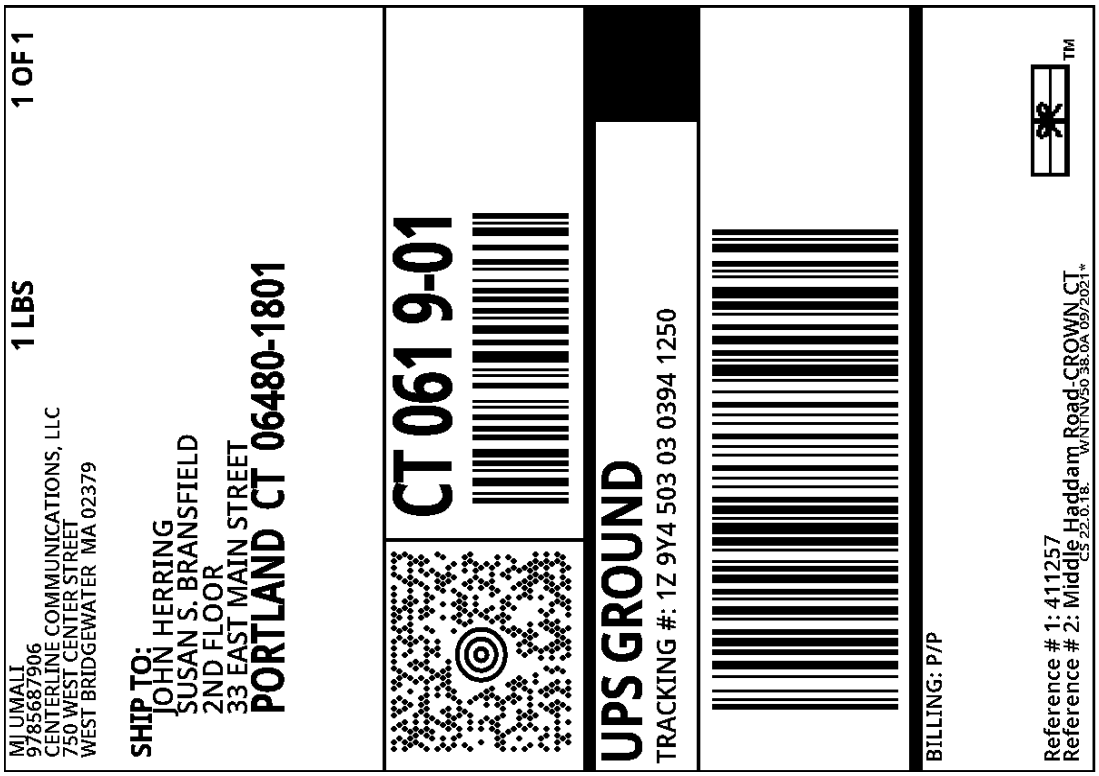

Your shipment from

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Estimated delivery

Tuesday, September 28 between 10:30 A.M. - 2:30 P.M.

Label Created

Shipped

Out for Delivery

Delivery

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SUSAN S. BRANSFIELD
JOHN HERRING
33 EAST MAIN STREET
2ND FLOOR
PORTLAND, CT 064801801 US

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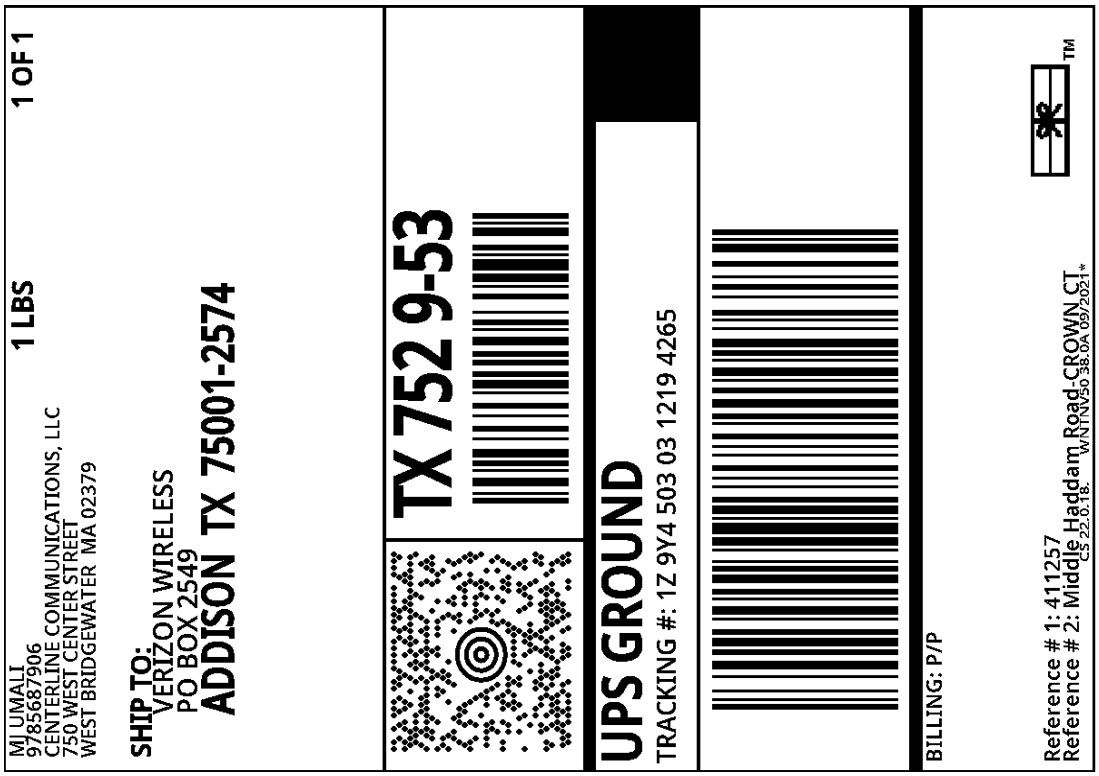

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Estimated delivery

Wednesday, September 29 by 7:00 P.M.

- Label Created
- Shipped
- **On the Way**
- Delivery

Ship To

VERIZON WIRELESS
PO BOX 2549
ADDISON, TX 750012574 US

Connecticut Siting Council(/CSC)

Decisions (/CSC/Decisions/Decisions) >

Meetings and Minutes (/CSC/Common-Elements/v4-template/Council-Activity) >

Pending Matters (/CSC/1_Applications-and-Other-Pending-Matters/Pending-Matters) >

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DOCKET NO. 206 - Crown Atlantic Company LLC and Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a cellular telecommunications facility at 191 Middle Haddam Road, Portland, Connecticut.

} Connecticut

} Siting

} Council

July 11, 2002

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility at the proposed prime site in Portland, Connecticut, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to Crown Atlantic Company LLC and Cellco Partnership d/b/a Verizon Wireless for the construction, maintenance and operation of a cellular telecommunications facility at the proposed prime site located at 191 Middle Haddam Road, Portland, Connecticut. We deny certification of the proposed alternate site located at 191 Middle Haddam Road, Portland, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of Cellco and other entities, both public and private, but such tower shall not exceed a height of 130 feet above ground level unless the need for other wireless telecommunications providers require a height greater than 130 feet, which if approved by the Council through a petition pursuant to Sections 16-50j-38 through 16-50j-40 of the Regulations of Connecticut State Agencies, shall authorize the extension of the tower to a maximum height of 180 feet above ground level.

2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be submitted to and approved by the Council prior to the commencement of facility construction and shall include: a final site plan(s) for site development to include the location for the tower 180 feet west of the east property boundary and 180 feet north of the south property boundary that incorporates the tower radius within the lessor's property, tower foundation, antennas, equipment building, security fence, access road, utility line, and landscaping plan. The Certificate holder shall provide plans for either an architecturally treated equipment building or security fence. The D&M Plan shall also include construction plans to be submitted prior to construction for site clearing, water drainage, and erosion and sedimentation control consistent with the Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

3. The Certificate Holder shall provide a recalculated report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

4. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.

5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.

6. Following completion of construction, if the facility does not initially provide, or permanently ceases to provide wireless telecommunications services following completion of construction, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment within sixty days or reapply for any continued or new use to the Council before any such use is made.

7. Any antenna that becomes obsolete and ceases to function shall be removed within sixty days after such antennas become obsolete and ceases to function.

8. Unless otherwise approved by the Council, this Decision and Order shall be void if construction and operation authorized herein is not completed within one year of the effective date of this Decision and Order or within one year after all appeals to this Decision and Order have been resolved.

Pursuant to General Statutes § 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in The Hartford Courant, New Haven Register, and The Middletown Press.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The party to this proceeding is:

Crown Atlantic Company LLC And Cellco Partnership d/b/a Verizon Wireless	Robert Stanford, Project Manager Crown Atlantic Company LLC 703 Hebron Avenue Glastonbury, CT 06033 Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**138.5 ft Monopole**
ATC Site Name	:	**Middle Haddam Road-CROWN CT, CT**
ATC Asset Number	:	**411257**
Engineering Number	:	**13701319_C3_02**
Proposed Carrier	:	**VERIZON WIRELESS**
Carrier Site Name	:	**PORTLAND SOUTH**
Carrier Site Number	:	**467183**
Site Location	:	**191 Middle Haddam Rd** **Portland, CT 06480-1767** **41.562200,-72.573800**
County	:	**Middlesex**
Date	:	**August 6, 2021**
Max Usage	:	**50%**
Result	:	**Pass**

Prepared By:
Sarah Nagy
Engineer Intern

Sarah Nagy

Reviewed By:

Authorized by "EOR"
06 Aug 2021 04:24:07 cosign

COA: PEC.0001553

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Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 138.5 ft monopole to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	EEI Job #12477 Revision II, dated May 13, 2004 Mapping by HTS, ATC Site #411257, dated March 24, 2016
Foundation Drawing	Mapping by TPS Report #TPS-CT-257, dated October 22, 2015
Geotechnical Report	CHA Project #11869.1011.1502, dated September 23, 2002

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	120 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Crest Height (H):	0 ft
Spectral Response:	Ss = 0.21, S_1 = 0.06
Site Class:	D - Stiff Soil

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
138.0	1	Generic 10' Omni	Triangular Low Profile Platform	-	VERIZON WIRELESS
137.0	6	Ericsson KRY 112 20		(24) 1 5/8" Coax	T-MOBILE
	3	Andrew LNX-6515DS-A1M			
	3	RFS APXV18-209014-C			
128.0	4	Decibel DB846H80E-SX	Triangular Low Profile Platform	(6) 1 5/8" Coax	VERIZON WIRELESS
	3	Samsung B2/B66A RRH-BR049			
	3	Samsung B5/B13 RRH-BR04C			
	2	RFS APL866513-44T0			
	1	Raycap RCMDC-6627-PF-48			
	1	VZW Unused Reserve (16760.40 sqin)			
119.0	2	Raycap DC6-48-60-18-8F	Triangular Platform with Handrails	(2) 0.39" (10mm) Fiber Trunk (4) 0.78" (19.7mm) 8 AWG 6 (12) 1 5/8" Coax (1) 1/2" Coax (3) 3" conduit	AT&T MOBILITY
	6	Powerwave Allgon LGP21401			
	6	Generic 7" x 6" x 3" Diplexer			
	3	Ericsson Radio 8843 - B2 + B66A			
	3	CCI DMP65R-BU6DA			
	3	Commscope NNH4-65B-R6			
	3	Powerwave Allgon 7770.00			
	3	Ericsson RRUS 4449 B5, B12			
117.0	6	Generic 7" x 6" x 3" Diplexer			
104.0	1	RFI Antennas CC807-08	Side Arm	(2) 1/2" Coax (1) 7/8" Coax	CITY OF MIDDLETOWN, CT
100.0	1	Bird DS428E83I01T			
87.0	1	RFI Antennas CC807-08		(1) 7/8" Coax	
80.0	1	RFI Antennas OA20-41-DIN	Pole Mount	(1) 7/8" Coax (2) EW90	
	2	Radio Waves HP3-11			
69.0	3	Fujitsu TA08025-B605	Triangular Platform with Handrails	(1) 1.60" (40.6mm) Hybrid	DISH WIRELESS L.L.C.
	1	Commscope RDIDC-9181-PF-48			
	3	Fujitsu TA08025-B604			
	3	JMA Wireless MX08FRO665-21			

Equipment to be Removed

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
128.0	6	Quintel QS6656-3 (65 lbs)	-	(1) 2.02 (51.2mm) Hybrid	VERIZON WIRELESS

Proposed Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
128.0	3	Commscope CBC78T-DS-43-2X	Triangular Low Profile Platform	(10) 1 5/8" Coax (2) 1 5/8" Hybriflex	VERIZON WIRELESS
	3	Samsung MT6407-77A			
	6	Commscope JAHH-65B-R3B			

[1] Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	44%	Pass
Shaft	50%	Pass
Base Plate	22%	Pass
Flange Plate	2%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	2,987.2	9%
Axial (Kips)	79.4	2%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
128.0	Commscope CBC78T-DS-43-2X	VERIZON WIRELESS	0.615	0.469
	Samsung MT6407-77A			
	Commscope JAHH-65B-R3B			
80.0	Radio Waves HP3-11	CITY OF MIDDLETOWN, CT	0.258	0.355

***Deflection and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-H**

Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

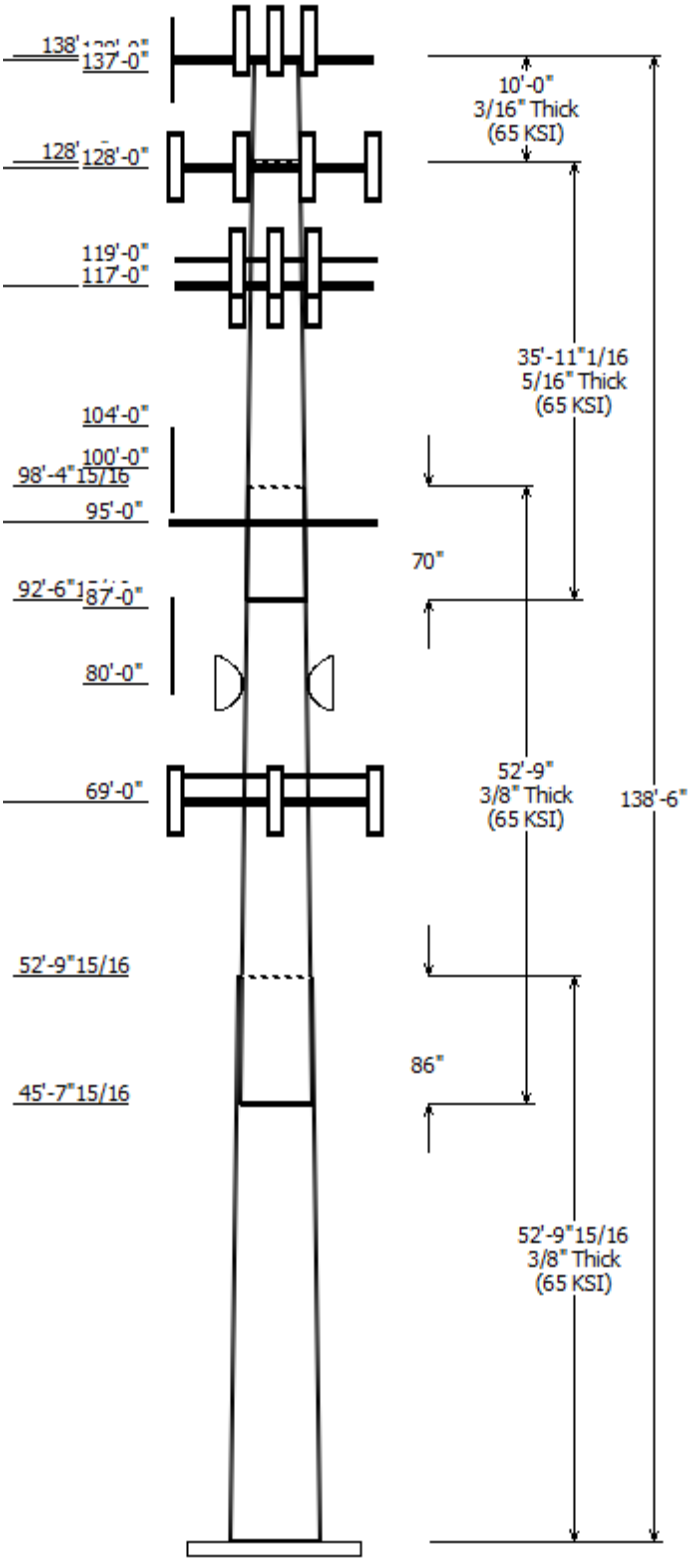
- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.



Job Information

Client :	VERIZON WIRELESS
Pole :	411257
Code:	ANSI/TIA-222-H
Location :	Middle Haddam Road-CROWN CT, CT
Description :	138.5 ft Monopole
Risk Category :	II
Shape :	18 Sides
Exposure :	B
Height :	138.50 (ft)
Topo Method :	Method 1
Base Elev (ft):	0.00
Topographic Category :	1
Taper:	0.245523 (in/ft)

Sections Properties

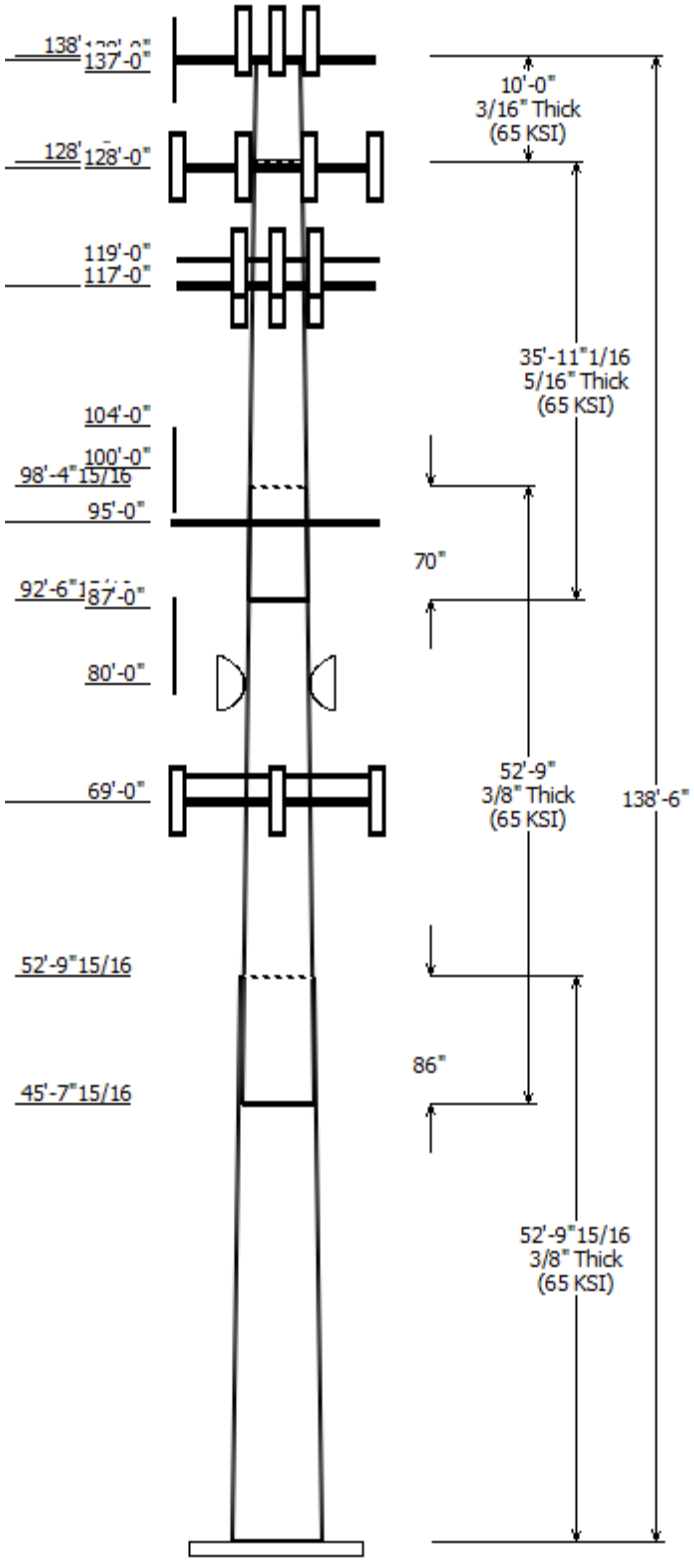
Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
1	52.830	51.40	64.38	0.375		0.000	18 Sides	65
2	52.750	40.96	53.91	0.375	Slip Joint	86.000	18 Sides	65
3	35.920	34.20	43.02	0.313	Slip Joint	70.000	18 Sides	65
4	10.000	31.75	34.20	0.188	Butt Joint	0.000	18 Sides	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
138.000	138.000	1	Generic Round Low Profile
138.000	138.000	1	Generic 10' Omni
137.000	139.000	3	Andrew LNX-6515DS-A1M
137.000	139.000	3	RFS APXV18-209014-C
137.000	139.000	6	Ericsson KRY 112 20
128.000	128.000	1	Generic Flat Low Profile Platf
128.000	128.000	6	Commscope JAHH-65B-R3B
128.000	128.000	4	Decibel DB846H80E-SX
128.000	128.000	3	Samsung MT6407-77A
128.000	128.000	1	Raycap RCMDC-6627-PF-48
128.000	128.000	2	RFS APL866513-44T0
128.000	128.000	3	Samsung B5/B13 RRH-BR04C
128.000	128.000	3	Samsung B2/B66A RRH-BR049
128.000	128.000	3	Commscope CBC78T-DS-43-2X
128.000	128.000	1	VZW Unused Reserve
119.000	119.000	3	CCI DMP65R-BU6DA
119.000	119.000	3	Commscope NNH4-65B-R6
119.000	117.000	3	Powerwave Allgon 7770.00
119.000	119.000	3	Ericsson RRUS 4449 B5, B12
119.000	119.000	3	Ericsson Radio 8843 - B2 + B66
119.000	117.000	2	Raycap DC6-48-60-18-8F
119.000	117.000	6	Powerwave Allgon LGP21401
119.000	119.000	6	Generic 7" x 6" x 3" Diplexer
117.000	117.000	1	Generic Round Platform with
117.000	117.000	6	Generic 7" x 6" x 3" Diplexer
104.000	102.000	1	RFI Antennas CC807-08
100.000	100.000	1	Bird DS428E83I01T
95.000	95.000	3	Round Side Arm
87.000	86.000	1	RFI Antennas CC807-08
80.000	80.000	2	Radio Waves HP3-11
80.000	82.000	1	RFI Antennas OA20-41-DIN
69.000	69.000	1	Generic Flat Platform with Han
69.000	69.000	3	JMA Wireless MX08FRO665-21
69.000	69.000	3	Fujitsu TA08025-B604
69.000	69.000	3	Fujitsu TA08025-B605
69.000	69.000	1	Commscope RDIDC-9181-PF-48

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	69.000	1.60" (40.6mm)	No
0.000	80.000	7/8" Coax	No



0.000	80.000	EW90	No
0.000	87.000	7/8" Coax	No
0.000	100.0	1/2" Coax	No
0.000	100.0	7/8" Coax	No
0.000	104.0	1/2" Coax	No
0.000	119.0	0.39" (10mm)	No
0.000	119.0	0.78" (19.7mm) 8	No
0.000	119.0	1 5/8" Coax	No
0.000	119.0	1/2" Coax	No
0.000	119.0	3" conduit	No
0.000	119.0	3" conduit	No
0.000	128.0	1 5/8" Coax	Yes
0.000	128.0	1 5/8" Coax	No
0.000	128.0	1 5/8" Hybriflex	No
0.000	137.0	1 5/8" Coax	No
0.000	137.0	1 5/8" Coax	No
0.000	137.0	1 5/8" Coax	Yes

Load Cases

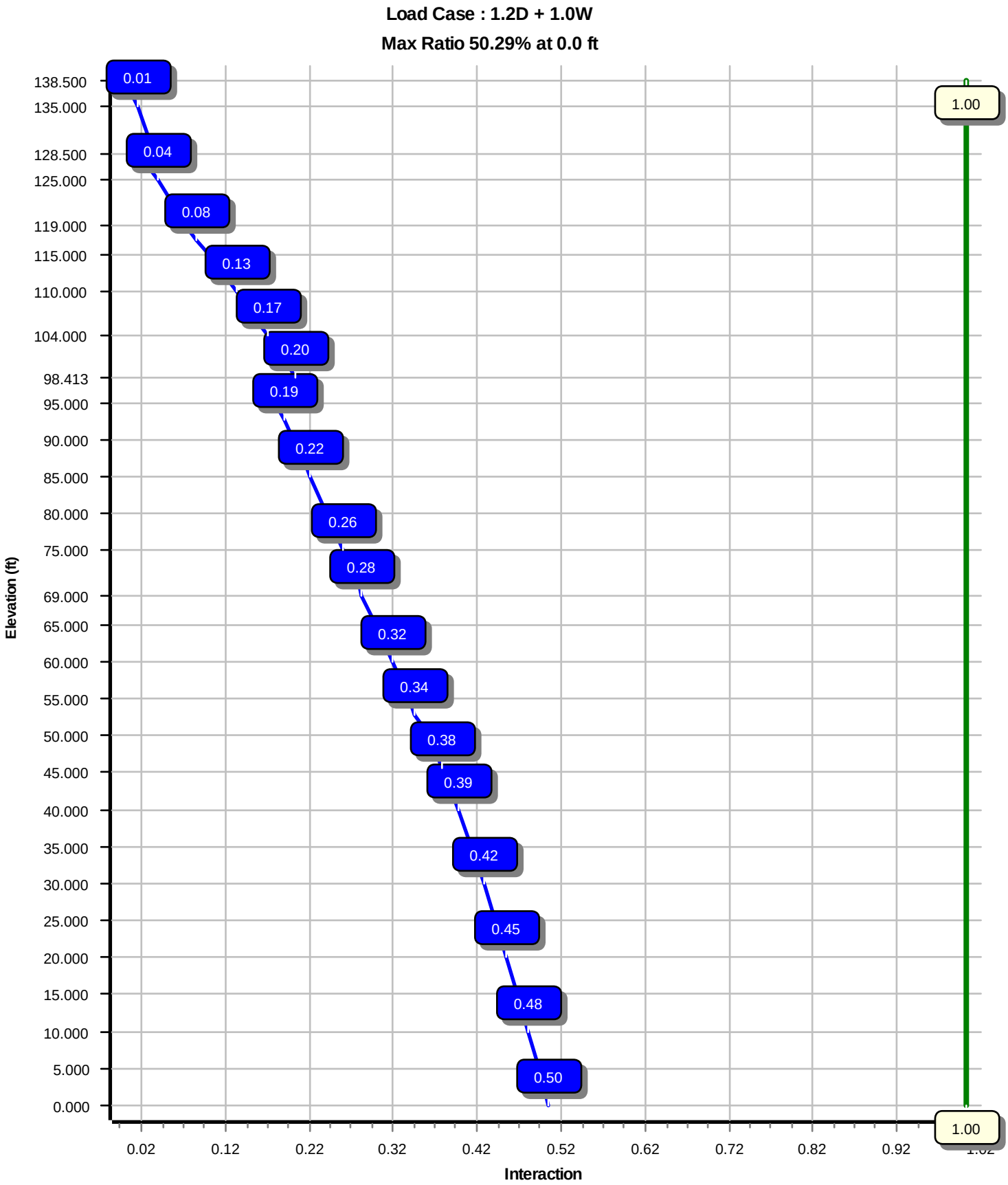
1.2D + 1.0W	120 mph with No Ice
0.9D + 1.0W	120 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.0W	2987.21	30.84	59.62
0.9D + 1.0W	2968.37	30.83	44.71
1.2D + 1.0Di + 1.0Wi	728.73	7.66	79.44
1.2D + 1.0Ev + 1.0Eh	188.06	1.81	59.81
0.9D - 1.0Ev + 1.0Eh	186.59	1.81	41.09
1.0D + 1.0W	665.48	6.90	49.71

Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	80.00	3.102	0.355


Load Case : 1.2D + 1.0W
Max Ratio 50.29% at 0.0 ft
Elevation (ft)
138.500
135.000
128.500
125.000
119.000
115.000
110.000
104.000
98.413
95.000
90.000
85.000
80.000
75.000
69.000
65.000
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30.000
25.000
20.000
15.000
10.000
5.000
0.000
0.01
0.04
0.08
0.13
0.17
0.20
0.19
0.22
0.26
0.28
0.32
0.34
0.38
0.39
0.42
0.45
0.48
0.50
1.00
1.00
0.02
0.12
0.22
0.32
0.42
0.52
0.62
0.72
0.82
0.92
Interaction

Site Number: 411257 **Code:** ANSI/TIA-222-H

Site Name: Middle Haddam Road-CROWN CT,CT **Engineering Number:** 13701319_C3_02 **8/6/2021 4:04:11 PM**

Customer: VERIZON WIRELESS

Analysis Parameters

Location :	Middlesex County, CT	**Height (ft) :**	138.5
Code :	ANSI/TIA-222-H	**Base Diameter (in) :**	64.38
Shape :	18 Sides	**Top Diameter (in) :**	31.75
Pole Type :	Taper	**Taper (in/ft) :**	0.246
Pole Manfacturer :	EEI	**Rotation (deg) :**	0.00
Kd (non-service) :	0.95	**Ke :**	0.99

Ice & Wind Parameters

Exposure Category:	B	**Design Wind Speed Without Ice:**	120 mph
Risk Category:	II	**Design Wind Speed With Ice:**	50 mph
Topographic Factor Procedure:	Method 1	**Operational Wind Speed:**	60 mph
Topographic Category:	1	**Design Ice Thickness:**	1.00 in
Crest Height:	0 ft	**HMSL:**	250.00 ft

Seismic Parameters

Analysis Method: Equivalent Lateral Force Method

Site Class: D - Stiff Soil

Period Based on Rayleigh Method (sec): 1.65

T_L (sec):	6	**p:**	1	**C_s:**	0.036
S_s:	0.210	**S_1:**	0.056	**C_s Max:**	0.036
F_a:	1.600	**F_v:**	2.400	**C_s Min:**	0.030
S_{ds}:	0.224	**S_{d1}:**	0.090		

Load Cases

1.2D + 1.0W	120 mph with No Ice
0.9D + 1.0W	120 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in²)	Bottom Ix (in⁴)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (in²)	Top Ix (in⁴)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	52.830	0.3750	65		0.00	12,307	64.38	0.00	76.18	39429.1	28.86	171.68	51.40	52.83	60.74	19987.3	22.76	137.09	0.245523
2-18	52.750	0.3750	65	Slip	86.00	10,055	53.91	45.66	63.73	23083.3	23.94	143.78	40.96	98.41	48.31	10057.8	17.85	109.25	0.245523
3-18	35.920	0.3125	65	Slip	70.00	4,643	43.02	92.58	42.36	9764.3	22.87	137.68	34.20	128.50	33.62	4878.8	17.89	109.46	0.245523
4-18	10.000	0.1875	65	Butt	0.00	664	34.20	128.50	20.24	2959.8	30.76	182.43	31.75	138.50	18.78	2364.1	28.45	169.33	0.245523
				Shaft Weight		27,670													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor
138.00	Generic 10' Omni	1	1.00	0.000	25.00	3.000	1.00	75.27	5.383	1.00
138.00	Generic Round Low Profile	1	1.00	0.000	1,875.00	21.700	1.00	2,411.33	34.415	1.00
137.00	Ericsson KRY 112 20	6	0.80	2.000	12.10	0.449	0.50	22.45	0.782	0.50
137.00	RFS APXV18-209014-C	3	0.80	2.000	18.70	3.570	0.67	71.14	4.175	0.67
137.00	Andrew LNX-6515DS-A1M	3	0.80	2.000	49.80	11.410	0.70	201.34	13.555	0.70
128.00	Commscope CBC78T-DS-43-2X	3	0.80	0.000	20.70	0.552	0.50	35.21	0.886	0.50
128.00	Samsung B2/B66A RRH-BR049	3	0.80	0.000	84.40	1.875	0.50	126.30	2.468	0.50
128.00	Samsung B5/B13 RRH-BR04C	3	0.80	0.000	70.30	1.875	0.50	107.87	2.468	0.50
128.00	RFS APL866513-44T0	2	0.80	0.000	15.70	4.050	0.82	93.81	4.637	0.82
128.00	Raycap RCMDC-6627-PF-48	1	0.80	0.000	32.00	4.056	1.00	115.47	4.952	1.00
128.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	148.54	5.707	0.61
128.00	Decibel DB846H80E-SX	4	0.80	0.000	16.00	5.867	0.73	112.31	5.776	0.73
128.00	Commscope JAHH-65B-R3B	6	0.80	0.000	60.60	9.113	0.69	193.46	10.935	0.69
128.00	Generic Flat Low Profile Platform	1	1.00	0.000	1,875.00	26.100	1.00	2,406.88	38.639	1.00
128.00	VZW Unused Reserve (16760.40	1	0.80	0.000	0.00	116.392	0.90	0.00	169.645	0.90
119.00	Generic 7" x 6" x 3" Diplexer	6	0.75	0.000	5.00	0.350	0.50	12.22	0.615	0.50
119.00	Powerwave Allgon LGP21401	6	0.75	-2.000	14.10	1.104	0.50	30.37	1.569	0.50
119.00	Raycap DC6-48-60-18-8F	2	0.75	-2.000	20.00	1.260	1.00	54.34	1.689	1.00
119.00	Ericsson Radio 8843 - B2 + B66A	3	0.75	0.000	71.90	1.650	0.50	112.08	2.203	0.50
119.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	113.03	2.577	0.50
119.00	Powerwave Allgon 7770.00	3	0.75	-2.000	35.00	5.508	0.65	116.09	6.178	0.65
119.00	Commscope NNH4-65B-R6	3	0.75	0.000	89.70	12.271	0.64	253.58	14.100	0.64
119.00	CCI DMP65R-BU6DA	3	0.75	0.000	79.40	12.709	0.63	247.41	14.528	0.63
117.00	Generic 7" x 6" x 3" Diplexer	6	0.75	0.000	5.00	0.350	0.50	12.20	0.615	0.50
117.00	Generic Round Platform with	1	1.00	0.000	2,500.00	27.200	1.00	3,554.57	43.115	1.00
104.00	RFI Antennas CC807-08	1	1.00	-2.000	24.30	2.855	1.00	71.25	5.039	1.00
100.00	Bird DS428E83I01T	1	0.80	0.000	8.90	0.465	1.00	20.09	0.769	1.00
95.00	Round Side Arm	3	1.00	0.000	150.00	5.200	0.67	196.62	6.932	0.67
87.00	RFI Antennas CC807-08	1	1.00	-1.000	24.30	2.855	1.00	70.46	5.002	1.00
80.00	RFI Antennas OA20-41-DIN	1	1.00	2.000	28.00	4.410	1.00	104.23	8.408	1.00
80.00	Radio Waves HP3-11	2	1.00	0.000	50.00	8.918	1.00	163.86	10.014	1.00
69.00	Commscope RDIDC-9181-PF-48	1	0.75	0.000	21.90	1.867	1.00	56.97	2.422	1.00
69.00	Fujitsu TA08025-B605	3	0.75	0.000	75.00	1.962	0.50	113.61	2.529	0.50
69.00	Fujitsu TA08025-B604	3	0.75	0.000	63.90	1.962	0.50	99.84	2.529	0.50
69.00	JMA Wireless MX08FRO665-21	3	0.75	0.000	64.50	12.489	0.64	222.91	14.221	0.64
69.00	Generic Flat Platform with	1	1.00	0.000	2,500.00	42.400	1.00	3,594.85	55.325	1.00
Totals	Num Loadings:36	97			12,808.30			21,675.56		

Linear Appurtenance Properties

Load Case Azimuth (deg) :

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax / Row	Dist Between Rows (in)	Dist Between Cols (in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	137.00	12	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	T-MOBILE

0.00	137.00	6	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	T-MOBILE
0.00	137.00	6	1 5/8" Coax	1.98	0.82	N	6	1.00	1.00	270	1.00	Y	T-MOBILE
0.00	128.00	6	1 5/8" Coax	1.98	0.82	N	6	1.00	1.00	90	1.00	Y	VERIZON WIRELESS
0.00	128.00	10	1 5/8" Coax	1.98	0.82	N	6	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	128.00	2	1 5/8" Hybriflex	1.98	1.30	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	119.00	2	0.39" (10mm) Fiber	0.39	0.06	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	119.00	4	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	119.00	12	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	119.00	1	1/2" Coax	0.63	0.15	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	119.00	1	3" conduit	3.50	7.58	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	119.00	2	3" conduit	3.50	7.58	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	104.00	1	1/2" Coax	0.63	0.15	N	0	0.00	0.00	0	0.00	N	CITY OF
0.00	100.00	1	1/2" Coax	0.63	0.15	N	0	0.00	0.00	0	0.00	N	CITY OF
0.00	100.00	1	7/8" Coax	1.09	0.33	N	0	0.00	0.00	0	0.00	N	CITY OF
0.00	87.00	1	7/8" Coax	1.09	0.33	N	0	0.00	0.00	0	0.00	N	CITY OF
0.00	80.00	1	7/8" Coax	1.09	0.33	N	0	0.00	0.00	0	0.00	N	CITY OF
0.00	80.00	2	EW90	1.32	0.32	N	0	0.00	0.00	0	0.00	N	CITY OF
0.00	69.00	1	1.60" (40.6mm) Hybrid	1.60	2.34	N	0	0.00	0.00	0	0.00	N	DISH WIRELESS

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)
0.00		0.3750	64.380	76.179	39,429.1	28.86	171.68	67.5	1206.	0.0	0.0
5.00		0.3750	63.152	74.718	37,203.6	28.28	168.41	68.1	1160.	0.0	1,283.7
10.00		0.3750	61.925	73.257	35,063.5	27.71	165.13	68.8	1115.	0.0	1,258.8
15.00		0.3750	60.697	71.796	33,007.0	27.13	161.86	69.5	1071.	0.0	1,234.0
20.00		0.3750	59.470	70.335	31,032.5	26.55	158.59	70.2	1027.	0.0	1,209.1
25.00		0.3750	58.242	68.874	29,138.5	25.98	155.31	70.8	985.4	0.0	1,184.2
30.00		0.3750	57.014	67.412	27,323.0	25.40	152.04	71.5	943.9	0.0	1,159.4
35.00		0.3750	55.787	65.951	25,584.7	24.82	148.76	72.2	903.3	0.0	1,134.5
40.00		0.3750	54.559	64.490	23,921.6	24.24	145.49	72.9	863.6	0.0	1,109.7
45.00		0.3750	53.331	63.029	22,332.2	23.67	142.22	73.6	824.8	0.0	1,084.8
45.66	Bot - Section 2	0.3750	53.169	62.835	22,126.8	23.59	141.78	73.7	819.7	0.0	142.1
50.00		0.3750	52.104	61.568	20,814.9	23.09	138.94	74.2	786.8	0.0	1,849.0
52.83	Top - Section 1	0.3750	52.159	61.634	20,881.5	23.11	139.09	74.2	788.5	0.0	1,186.4
55.00		0.3750	51.626	61.000	20,243.6	22.86	137.67	74.5	772.3	0.0	452.8
60.00		0.3750	50.399	59.538	18,823.5	22.29	134.40	75.2	735.6	0.0	1,025.4
65.00		0.3750	49.171	58.077	17,471.4	21.71	131.12	75.9	699.8	0.0	1,000.6
69.00		0.3750	48.189	56.908	16,437.6	21.25	128.50	76.4	671.8	0.0	782.5
70.00		0.3750	47.943	56.616	16,185.7	21.13	127.85	76.5	664.9	0.0	193.1
75.00		0.3750	46.716	55.155	14,964.6	20.56	124.58	77.2	630.9	0.0	950.8
80.00		0.3750	45.488	53.694	13,806.5	19.98	121.30	77.9	597.8	0.0	926.0
85.00		0.3750	44.261	52.233	12,709.8	19.40	118.03	78.6	565.6	0.0	901.1
87.00		0.3750	43.769	51.648	12,287.9	19.17	116.72	78.9	553.0	0.0	353.5
90.00		0.3750	43.033	50.772	11,672.8	18.82	114.75	79.3	534.3	0.0	522.8
92.58	Bot - Section 3	0.3750	42.399	50.018	11,160.4	18.53	113.07	79.6	518.4	0.0	442.4
95.00		0.3750	41.805	49.311	10,693.7	18.25	111.48	79.9	503.8	0.0	755.4
98.41	Top - Section 2	0.3125	41.592	40.943	8,814.6	22.06	133.10	75.5	417.4	0.0	1,047.3
100.0		0.3125	41.203	40.556	8,567.4	21.84	131.85	75.7	409.5	0.0	220.0
104.0		0.3125	40.221	39.582	7,964.8	21.28	128.71	76.4	390.0	0.0	545.4
105.0		0.3125	39.975	39.339	7,818.7	21.15	127.92	76.5	385.2	0.0	134.3
110.0		0.3125	38.747	38.121	7,115.0	20.45	123.99	77.3	361.7	0.0	658.9
115.0		0.3125	37.520	36.904	6,454.7	19.76	120.06	78.2	338.8	0.0	638.2
117.0		0.3125	37.029	36.417	6,202.5	19.48	118.49	78.5	329.9	0.0	249.5
119.0		0.3125	36.538	35.930	5,957.0	19.21	116.92	78.8	321.1	0.0	246.2
120.0		0.3125	36.292	35.686	5,836.7	19.07	116.13	79.0	316.8	0.0	121.8
125.0		0.3125	35.065	34.468	5,259.4	18.37	112.21	79.8	295.4	0.0	596.8
128.0		0.3125	34.328	33.738	4,932.0	17.96	109.85	80.3	283.0	0.0	348.1
128.5	Top - Section 3	0.3125	34.205	33.616	4,878.8	17.89	109.46	80.4	280.9	0.0	57.3
128.5	Bot - Section 4	0.1875	34.205	20.244	2,959.8	30.76	182.43	65.2	170.4	0.0	
130.0		0.1875	33.837	20.025	2,864.7	30.41	180.46	65.6	166.8	0.0	102.8
135.0		0.1875	32.609	19.294	2,562.5	29.26	173.92	67.0	154.8	0.0	334.5
137.0		0.1875	32.118	19.002	2,447.8	28.79	171.30	67.5	150.1	0.0	130.3
138.0		0.1875	31.873	18.856	2,391.8	28.56	169.99	67.8	147.8	0.0	64.4
138.5		0.1875	31.750	18.783	2,364.1	28.45	169.33	67.9	146.7	0.0	32.0
											27,669.9

Load Case: 1.2D + 1.0W — 120 mph with No Ice — 21 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		263.2	0.0					0.0	0.0	263.2	0.0	0.0	0.0
5.00		521.2	1,540.4					0.0	449.3	521.2	1,989.7	0.0	0.0
10.00		511.1	1,510.6					0.0	449.3	511.1	1,959.9	0.0	0.0
15.00		501.0	1,480.7					0.0	449.3	501.0	1,930.0	0.0	0.0
20.00		490.8	1,450.9					0.0	449.3	490.8	1,900.2	0.0	0.0
25.00		480.7	1,421.1					0.0	449.3	480.7	1,870.4	0.0	0.0
30.00		476.2	1,391.3					0.0	449.3	476.2	1,840.5	0.0	0.0
35.00		484.5	1,361.4					0.0	449.3	484.5	1,810.7	0.0	0.0
40.00		500.0	1,331.6					0.0	449.3	500.0	1,780.9	0.0	0.0
45.00		288.1	1,301.8					0.0	449.3	288.1	1,751.0	0.0	0.0
45.66	Bot - Section 2	264.2	170.5					0.0	59.6	264.2	230.1	0.0	0.0
50.00		382.7	2,218.7					0.0	389.7	382.7	2,608.4	0.0	0.0
52.83	Top - Section 1	269.9	1,423.7					0.0	254.3	269.9	1,678.0	0.0	0.0
55.00		391.2	543.3					0.0	195.0	391.2	738.3	0.0	0.0
60.00		553.1	1,230.5					0.0	449.3	553.1	1,679.8	0.0	0.0
65.00		504.9	1,200.7					0.0	449.3	504.9	1,649.9	0.0	0.0
69.00	Appurtenance(s)	282.8	939.1	2,246.2	0.0	0.0	3,758.5	0.0	359.4	2,529.0	5,057.0	0.0	0.0
70.00		343.1	231.8					0.0	87.0	343.1	318.8	0.0	0.0
75.00		575.5	1,141.0					0.0	435.2	575.5	1,576.2	0.0	0.0
80.00	Appurtenance(s)	581.4	1,111.2	788.5	0.0	314.4	153.6	0.0	435.2	1,370.0	1,700.0	0.0	0.0
85.00		409.7	1,081.3					0.0	429.4	409.7	1,510.8	0.0	0.0
87.00	Appurtenance(s)	294.7	424.2	103.2	0.0	-103.2	29.2	0.0	171.8	397.8	625.1	0.0	0.0
90.00		330.1	627.3					0.0	256.5	330.1	883.8	0.0	0.0
92.58	Bot - Section 3	299.1	530.9					0.0	220.6	299.1	751.5	0.0	0.0
95.00	Appurtenance(s)	353.2	906.5	388.6	0.0	0.0	540.0	0.0	206.9	741.8	1,653.4	0.0	0.0
98.41	Top - Section 2	302.6	1,256.8					0.0	291.8	302.6	1,548.6	0.0	0.0
100.00	Appurtenance(s)	337.2	264.0	14.0	0.0	0.0	10.7	0.0	135.6	351.3	410.3	0.0	0.0
104.00	Appurtenance(s)	302.3	654.5	108.3	0.0	-216.6	29.2	0.0	339.6	410.6	1,023.3	0.0	0.0
105.00		364.7	161.1					0.0	84.7	364.7	245.9	0.0	0.0
110.00		610.0	790.7					0.0	423.7	610.0	1,214.4	0.0	0.0
115.00		428.6	765.9					0.0	423.7	428.6	1,189.5	0.0	0.0
117.00	Appurtenance(s)	245.8	299.4	1,104.3	0.0	0.0	3,036.0	0.0	169.5	1,350.1	3,504.9	0.0	0.0
119.00	Appurtenance(s)	184.7	295.4	2,098.0	0.0	-980.9	1,434.7	0.0	169.5	2,282.6	1,899.6	0.0	0.0
120.00		370.6	146.2					0.0	42.5	370.6	188.7	0.0	0.0
125.00		495.1	716.2					0.0	212.4	495.1	928.6	0.0	0.0
128.00	Appurtenance(s)	207.6	417.8	7,060.5	0.0	0.0	3,764.4	0.0	127.4	7,268.1	4,309.6	0.0	0.0
128.50	Top - Section 3	85.4	68.8					0.0	11.8	85.4	80.6	0.0	0.0
130.00		273.8	123.3					0.0	35.4	273.8	158.7	0.0	0.0
135.00		292.1	401.4					0.0	118.1	292.1	519.5	0.0	0.0
137.00	Appurtenance(s)	117.6	156.4	1,077.1	0.0	2,154.2	333.7	0.0	47.2	1,194.7	537.3	0.0	0.0
138.00	Appurtenance(s)	52.8	77.3	1,021.7	0.0	0.0	2,280.0	0.0	0.0	1,074.5	2,357.3	0.0	0.0
138.50		17.5	38.4					0.0	0.0	17.5	38.4	0.0	0.0
								Totals:		31,051.2	59,649.4	0.00	0.00

Load Case: 1.2D + 1.0W — 120 mph with No Ice — 21 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-59.62	-30.84	0.00	-2,987.21	0.00	2,987.21	4,624.80	1,336.95	7,728.54	6,102.72	0.00	0.00	0.503
5.00	-57.58	-30.43	0.00	-2,832.99	0.00	2,832.99	4,581.75	1,311.30	7,434.94	5,929.27	0.06	-0.10	0.491
10.00	-55.56	-30.01	0.00	-2,680.86	0.00	2,680.86	4,536.92	1,285.66	7,147.03	5,755.76	0.22	-0.21	0.479
15.00	-53.58	-29.60	0.00	-2,530.80	0.00	2,530.80	4,490.29	1,260.02	6,864.80	5,582.30	0.50	-0.32	0.466
20.00	-51.63	-29.19	0.00	-2,382.79	0.00	2,382.79	4,441.89	1,234.37	6,588.26	5,409.05	0.89	-0.42	0.453
25.00	-49.71	-28.79	0.00	-2,236.83	0.00	2,236.83	4,391.70	1,208.73	6,317.40	5,236.13	1.39	-0.53	0.439
30.00	-47.82	-28.38	0.00	-2,092.88	0.00	2,092.88	4,339.72	1,183.09	6,052.23	5,063.69	2.00	-0.63	0.425
35.00	-45.97	-27.96	0.00	-1,950.97	0.00	1,950.97	4,285.96	1,157.45	5,792.74	4,891.85	2.72	-0.74	0.410
40.00	-44.14	-27.52	0.00	-1,811.17	0.00	1,811.17	4,230.41	1,131.80	5,538.94	4,720.76	3.55	-0.84	0.395
45.00	-42.37	-27.24	0.00	-1,673.58	0.00	1,673.58	4,173.07	1,106.16	5,290.83	4,550.55	4.49	-0.95	0.379
45.66	-42.12	-27.01	0.00	-1,655.51	0.00	1,655.51	4,165.33	1,102.76	5,258.34	4,528.04	4.63	-0.96	0.376
50.00	-39.48	-26.64	0.00	-1,538.36	0.00	1,538.36	4,113.95	1,080.52	5,048.39	4,381.35	5.54	-1.05	0.361
52.83	-37.79	-26.37	0.00	-1,462.98	0.00	1,462.98	4,116.65	1,081.67	5,059.17	4,388.93	6.18	-1.11	0.343
55.00	-37.02	-26.01	0.00	-1,405.76	0.00	1,405.76	4,090.47	1,070.54	4,955.61	4,315.83	6.70	-1.15	0.335
60.00	-35.31	-25.48	0.00	-1,275.72	0.00	1,275.72	4,028.87	1,044.90	4,721.08	4,148.28	7.95	-1.25	0.317
65.00	-33.64	-24.98	0.00	-1,148.34	0.00	1,148.34	3,965.49	1,019.26	4,492.23	3,982.07	9.31	-1.34	0.297
69.00	-28.63	-22.36	0.00	-1,048.41	0.00	1,048.41	3,913.49	998.74	4,313.24	3,850.16	10.46	-1.41	0.280
70.00	-28.30	-22.03	0.00	-1,026.05	0.00	1,026.05	3,900.32	993.61	4,269.07	3,817.34	10.76	-1.43	0.277
75.00	-26.71	-21.45	0.00	-915.90	0.00	915.90	3,833.36	967.97	4,051.59	3,654.23	12.30	-1.51	0.258
80.00	-25.02	-20.07	0.00	-808.32	0.00	808.32	3,764.62	942.33	3,839.79	3,492.87	13.93	-1.60	0.239
85.00	-23.50	-19.64	0.00	-707.95	0.00	707.95	3,694.09	916.69	3,633.69	3,333.39	15.65	-1.67	0.219
87.00	-22.87	-19.24	0.00	-668.67	0.00	668.67	3,665.38	906.43	3,552.83	3,270.16	16.35	-1.70	0.211
90.00	-21.99	-18.90	0.00	-610.95	0.00	610.95	3,621.78	891.04	3,433.26	3,175.95	17.44	-1.75	0.199
92.58	-21.23	-18.59	0.00	-562.18	0.00	562.18	3,583.76	877.81	3,332.07	3,095.54	18.40	-1.79	0.188
95.00	-19.59	-17.81	0.00	-517.19	0.00	517.19	3,547.68	865.40	3,238.53	3,020.66	19.31	-1.82	0.177
98.41	-18.04	-17.47	0.00	-456.40	0.00	456.40	2,780.48	718.55	2,679.07	2,362.30	20.63	-1.86	0.200
100.00	-17.64	-17.12	0.00	-428.68	0.00	428.68	2,763.68	711.77	2,628.75	2,325.70	21.25	-1.88	0.191
104.00	-16.62	-16.68	0.00	-360.22	0.00	360.22	2,720.52	694.67	2,504.01	2,233.97	22.85	-1.94	0.168
105.00	-16.37	-16.32	0.00	-343.54	0.00	343.54	2,709.55	690.40	2,473.30	2,211.17	23.26	-1.95	0.162
110.00	-15.17	-15.68	0.00	-261.95	0.00	261.95	2,653.64	669.03	2,322.58	2,097.99	25.33	-2.00	0.131
115.00	-13.99	-15.22	0.00	-183.56	0.00	183.56	2,595.94	647.66	2,176.60	1,986.29	27.45	-2.05	0.098
117.00	-10.53	-13.74	0.00	-153.12	0.00	153.12	2,572.36	639.11	2,119.53	1,942.06	28.31	-2.06	0.083
119.00	-8.71	-11.40	0.00	-125.64	0.00	125.64	2,548.49	630.56	2,063.23	1,898.09	29.18	-2.07	0.070
120.00	-8.53	-11.02	0.00	-114.24	0.00	114.24	2,536.45	626.29	2,035.36	1,876.21	29.62	-2.08	0.065
125.00	-7.62	-10.49	0.00	-59.14	0.00	59.14	2,475.18	604.92	1,898.85	1,767.88	31.81	-2.10	0.037
128.00	-3.58	-3.07	0.00	-27.66	0.00	27.66	2,437.56	592.10	1,819.22	1,703.78	33.13	-2.11	0.018
128.50	-3.50	-2.98	0.00	-26.13	0.00	26.13	2,431.23	589.96	1,806.12	1,693.17	33.35	-2.11	0.017
128.50	-3.50	-2.98	0.00	-26.13	0.00	26.13	1,188.40	355.28	1,091.56	833.74	33.35	-2.11	0.034
130.00	-3.35	-2.70	0.00	-21.65	0.00	21.65	1,182.87	351.44	1,068.05	820.83	34.01	-2.11	0.029
135.00	-2.85	-2.39	0.00	-8.13	0.00	8.13	1,163.30	338.62	991.55	777.64	36.23	-2.12	0.013
137.00	-2.35	-1.18	0.00	-1.19	0.00	1.19	1,154.97	333.49	961.74	760.31	37.12	-2.12	0.004
138.00	-0.04	-0.02	0.00	-0.01	0.00	0.01	1,150.69	330.92	947.01	751.64	37.56	-2.12	0.000
138.50	0.00	-0.02	0.00	0.00	0.00	0.00	1,148.53	329.64	939.69	747.30	37.78	-2.12	0.000

Load Case: 0.9D + 1.0W — 120 mph with No Ice (Reduced DL) — 21 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		263.2	0.0					0.0	0.0	263.2	0.0	0.0	0.0
5.00		521.2	1,155.3					0.0	337.0	521.2	1,492.3	0.0	0.0
10.00		511.1	1,132.9					0.0	337.0	511.1	1,469.9	0.0	0.0
15.00		501.0	1,110.6					0.0	337.0	501.0	1,447.5	0.0	0.0
20.00		490.8	1,088.2					0.0	337.0	490.8	1,425.1	0.0	0.0
25.00		480.7	1,065.8					0.0	337.0	480.7	1,402.8	0.0	0.0
30.00		476.2	1,043.4					0.0	337.0	476.2	1,380.4	0.0	0.0
35.00		484.5	1,021.1					0.0	337.0	484.5	1,358.0	0.0	0.0
40.00		500.0	998.7					0.0	337.0	500.0	1,335.7	0.0	0.0
45.00		288.1	976.3					0.0	337.0	288.1	1,313.3	0.0	0.0
45.66	Bot - Section 2	264.2	127.8					0.0	44.7	264.2	172.5	0.0	0.0
50.00		382.7	1,664.1					0.0	292.3	382.7	1,956.3	0.0	0.0
52.83	Top - Section 1	269.9	1,067.8					0.0	190.7	269.9	1,258.5	0.0	0.0
55.00		391.2	407.5					0.0	146.2	391.2	553.7	0.0	0.0
60.00		553.1	922.9					0.0	337.0	553.1	1,259.8	0.0	0.0
65.00		504.9	900.5					0.0	337.0	504.9	1,237.5	0.0	0.0
69.00	Appurtenance(s)	282.8	704.3	2,246.2	0.0	0.0	2,818.9	0.0	269.6	2,529.0	3,792.7	0.0	0.0
70.00		343.1	173.8					0.0	65.3	343.1	239.1	0.0	0.0
75.00		575.5	855.7					0.0	326.4	575.5	1,182.2	0.0	0.0
80.00	Appurtenance(s)	581.4	833.4	788.5	0.0	314.4	115.2	0.0	326.4	1,370.0	1,275.0	0.0	0.0
85.00		409.7	811.0					0.0	322.1	409.7	1,133.1	0.0	0.0
87.00	Appurtenance(s)	294.7	318.1	103.2	0.0	-103.2	21.9	0.0	128.8	397.8	468.8	0.0	0.0
90.00		330.1	470.5					0.0	192.3	330.1	662.8	0.0	0.0
92.58	Bot - Section 3	299.1	398.2					0.0	165.4	299.1	563.6	0.0	0.0
95.00	Appurtenance(s)	353.2	679.9	388.6	0.0	0.0	405.0	0.0	155.2	741.8	1,240.0	0.0	0.0
98.41	Top - Section 2	302.6	942.6					0.0	218.8	302.6	1,161.4	0.0	0.0
100.00	Appurtenance(s)	337.2	198.0	14.0	0.0	0.0	8.0	0.0	101.7	351.3	307.7	0.0	0.0
104.00	Appurtenance(s)	302.3	490.9	108.3	0.0	-216.6	21.9	0.0	254.7	410.6	767.5	0.0	0.0
105.00		364.7	120.8					0.0	63.5	364.7	184.4	0.0	0.0
110.00		610.0	593.1					0.0	317.7	610.0	910.8	0.0	0.0
115.00		428.6	574.4					0.0	317.7	428.6	892.2	0.0	0.0
117.00	Appurtenance(s)	245.8	224.5	1,104.3	0.0	0.0	2,277.0	0.0	127.1	1,350.1	2,628.6	0.0	0.0
119.00	Appurtenance(s)	184.7	221.6	2,098.0	0.0	-980.9	1,076.0	0.0	127.1	2,282.6	1,424.7	0.0	0.0
120.00		370.6	109.7					0.0	31.9	370.6	141.5	0.0	0.0
125.00		495.1	537.1					0.0	159.3	495.1	696.4	0.0	0.0
128.00	Appurtenance(s)	207.6	313.3	7,060.5	0.0	0.0	2,823.3	0.0	95.6	7,268.1	3,232.2	0.0	0.0
128.50	Top - Section 3	85.4	51.6					0.0	8.9	85.4	60.4	0.0	0.0
130.00		273.8	92.5					0.0	26.6	273.8	119.1	0.0	0.0
135.00		292.1	301.0					0.0	88.6	292.1	389.6	0.0	0.0
137.00	Appurtenance(s)	117.6	117.3	1,077.1	0.0	2,154.2	250.3	0.0	35.4	1,194.7	403.0	0.0	0.0
138.00	Appurtenance(s)	52.8	58.0	1,021.7	0.0	0.0	1,710.0	0.0	0.0	1,074.5	1,768.0	0.0	0.0
138.50		17.5	28.8					0.0	0.0	17.5	28.8	0.0	0.0
								Totals:		31,051.2	44,737.0	0.00	0.00

Load Case: 0.9D + 1.0W — 120 mph with No Ice (Reduced DL) — 21 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-44.71	-30.83	0.00	-2,968.37	0.00	2,968.37	4,624.80	1,336.95	7,728.54	6,102.72	0.00	0.00	0.497
5.00	-43.16	-30.39	0.00	-2,814.22	0.00	2,814.22	4,581.75	1,311.30	7,434.94	5,929.27	0.06	-0.10	0.485
10.00	-41.64	-29.95	0.00	-2,662.29	0.00	2,662.29	4,536.92	1,285.66	7,147.03	5,755.76	0.22	-0.21	0.472
15.00	-40.14	-29.51	0.00	-2,512.56	0.00	2,512.56	4,490.29	1,260.02	6,864.80	5,582.30	0.50	-0.31	0.460
20.00	-38.66	-29.08	0.00	-2,365.00	0.00	2,365.00	4,441.89	1,234.37	6,588.26	5,409.05	0.89	-0.42	0.446
25.00	-37.21	-28.66	0.00	-2,219.58	0.00	2,219.58	4,391.70	1,208.73	6,317.40	5,236.13	1.38	-0.52	0.433
30.00	-35.78	-28.24	0.00	-2,076.28	0.00	2,076.28	4,339.72	1,183.09	6,052.23	5,063.69	1.99	-0.63	0.419
35.00	-34.38	-27.80	0.00	-1,935.11	0.00	1,935.11	4,285.96	1,157.45	5,792.74	4,891.85	2.70	-0.73	0.404
40.00	-33.00	-27.34	0.00	-1,796.12	0.00	1,796.12	4,230.41	1,131.80	5,538.94	4,720.76	3.53	-0.84	0.389
45.00	-31.67	-27.06	0.00	-1,659.43	0.00	1,659.43	4,173.07	1,106.16	5,290.83	4,550.55	4.46	-0.94	0.373
45.66	-31.48	-26.82	0.00	-1,641.48	0.00	1,641.48	4,165.33	1,102.76	5,258.34	4,528.04	4.59	-0.95	0.371
50.00	-29.49	-26.44	0.00	-1,525.16	0.00	1,525.16	4,113.95	1,080.52	5,048.39	4,381.35	5.50	-1.04	0.356
52.83	-28.22	-26.18	0.00	-1,450.33	0.00	1,450.33	4,116.65	1,081.67	5,059.17	4,388.93	6.14	-1.10	0.338
55.00	-27.64	-25.81	0.00	-1,393.53	0.00	1,393.53	4,090.47	1,070.54	4,955.61	4,315.83	6.65	-1.14	0.330
60.00	-26.35	-25.27	0.00	-1,264.49	0.00	1,264.49	4,028.87	1,044.90	4,721.08	4,148.28	7.90	-1.24	0.312
65.00	-25.09	-24.77	0.00	-1,138.14	0.00	1,138.14	3,965.49	1,019.26	4,492.23	3,982.07	9.24	-1.33	0.293
69.00	-21.34	-22.17	0.00	-1,039.05	0.00	1,039.05	3,913.49	998.74	4,313.24	3,850.16	10.39	-1.40	0.276
70.00	-21.09	-21.84	0.00	-1,016.88	0.00	1,016.88	3,900.32	993.61	4,269.07	3,817.34	10.68	-1.42	0.272
75.00	-19.89	-21.26	0.00	-907.68	0.00	907.68	3,833.36	967.97	4,051.59	3,654.23	12.21	-1.50	0.254
80.00	-18.63	-19.89	0.00	-801.05	0.00	801.05	3,764.62	942.33	3,839.79	3,492.87	13.83	-1.58	0.235
85.00	-17.49	-19.46	0.00	-701.62	0.00	701.62	3,694.09	916.69	3,633.69	3,333.39	15.53	-1.66	0.216
87.00	-17.02	-19.06	0.00	-662.70	0.00	662.70	3,665.38	906.43	3,552.83	3,270.16	16.23	-1.69	0.208
90.00	-16.35	-18.72	0.00	-605.51	0.00	605.51	3,621.78	891.04	3,433.26	3,175.95	17.31	-1.73	0.196
92.58	-15.79	-18.42	0.00	-557.21	0.00	557.21	3,583.76	877.81	3,332.07	3,095.54	18.25	-1.77	0.185
95.00	-14.56	-17.65	0.00	-512.65	0.00	512.65	3,547.68	865.40	3,238.53	3,020.66	19.16	-1.80	0.174
98.41	-13.40	-17.31	0.00	-452.42	0.00	452.42	2,780.48	718.55	2,679.07	2,362.30	20.47	-1.85	0.197
100.00	-13.09	-16.96	0.00	-424.95	0.00	424.95	2,763.68	711.77	2,628.75	2,325.70	21.08	-1.87	0.188
104.00	-12.33	-16.53	0.00	-357.11	0.00	357.11	2,720.52	694.67	2,504.01	2,233.97	22.67	-1.92	0.165
105.00	-12.15	-16.17	0.00	-340.57	0.00	340.57	2,709.55	690.40	2,473.30	2,211.17	23.08	-1.93	0.159
110.00	-11.25	-15.54	0.00	-259.73	0.00	259.73	2,653.64	669.03	2,322.58	2,097.99	25.13	-1.99	0.129
115.00	-10.36	-15.08	0.00	-182.05	0.00	182.05	2,595.94	647.66	2,176.60	1,986.29	27.24	-2.03	0.096
117.00	-7.78	-13.64	0.00	-151.88	0.00	151.88	2,572.36	639.11	2,119.53	1,942.06	28.09	-2.05	0.082
119.00	-6.44	-11.31	0.00	-124.60	0.00	124.60	2,548.49	630.56	2,063.23	1,898.09	28.95	-2.06	0.068
120.00	-6.31	-10.94	0.00	-113.29	0.00	113.29	2,536.45	626.29	2,035.36	1,876.21	29.38	-2.06	0.063
125.00	-5.62	-10.42	0.00	-58.61	0.00	58.61	2,475.18	604.92	1,898.85	1,767.88	31.56	-2.08	0.036
128.00	-2.66	-3.04	0.00	-27.35	0.00	27.35	2,437.56	592.10	1,819.22	1,703.78	32.87	-2.09	0.017
128.50	-2.60	-2.95	0.00	-25.84	0.00	25.84	2,431.23	589.96	1,806.12	1,693.17	33.09	-2.09	0.016
128.50	-2.60	-2.95	0.00	-25.84	0.00	25.84	1,188.40	355.28	1,091.56	833.74	33.09	-2.09	0.033
130.00	-2.49	-2.67	0.00	-21.41	0.00	21.41	1,182.87	351.44	1,068.05	820.83	33.74	-2.09	0.028
135.00	-2.11	-2.37	0.00	-8.05	0.00	8.05	1,163.30	338.62	991.55	777.64	35.94	-2.10	0.012
137.00	-1.76	-1.16	0.00	-1.17	0.00	1.17	1,154.97	333.49	961.74	760.31	36.82	-2.10	0.003
138.00	-0.03	-0.02	0.00	-0.01	0.00	0.01	1,150.69	330.92	947.01	751.64	37.26	-2.10	0.000
138.50	0.00	-0.02	0.00	0.00	0.00	0.00	1,148.53	329.64	939.69	747.30	37.48	-2.10	0.000

Load Case: 1.2D + 1.0Di + 1.0Wi — 50 mph with 1.00 in Radial Ice — 20 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		76.9	0.0					0.0	0.0	76.9	0.0	0.0	0.0
5.00		152.5	1,849.8					0.0	574.7	152.5	2,424.5	0.0	0.0
10.00		150.0	1,849.8					0.0	583.1	150.0	2,432.9	0.0	0.0
15.00		147.3	1,831.0					0.0	587.4	147.3	2,418.4	0.0	0.0
20.00		144.5	1,806.1					0.0	590.3	144.5	2,396.4	0.0	0.0
25.00		141.7	1,778.1					0.0	592.6	141.7	2,370.7	0.0	0.0
30.00		140.5	1,748.0					0.0	594.5	140.5	2,342.5	0.0	0.0
35.00		142.2	1,716.6					0.0	596.1	142.2	2,312.7	0.0	0.0
40.00		144.7	1,684.2					0.0	597.5	144.7	2,281.7	0.0	0.0
45.00		82.6	1,651.0					0.0	598.7	82.6	2,249.7	0.0	0.0
45.66	Bot - Section 2	74.5	217.0					0.0	79.5	74.5	296.5	0.0	0.0
50.00		107.2	2,522.6					0.0	520.3	107.2	3,043.0	0.0	0.0
52.83	Top - Section 1	75.1	1,620.9					0.0	340.0	75.1	1,960.9	0.0	0.0
55.00		108.0	693.7					0.0	260.9	108.0	954.6	0.0	0.0
60.00		150.8	1,571.3					0.0	601.8	150.8	2,173.0	0.0	0.0
65.00		135.7	1,536.1					0.0	602.6	135.7	2,138.8	0.0	0.0
69.00	Appurtenance(s)	75.3	1,204.1	490.8	0.0	0.0	5,161.4	0.0	482.7	566.1	6,848.1	0.0	0.0
70.00		90.1	297.9					0.0	117.9	90.1	415.9	0.0	0.0
75.00		149.6	1,464.9					0.0	590.2	149.6	2,055.1	0.0	0.0
80.00	Appurtenance(s)	148.6	1,429.0	175.1	0.0	104.1	387.8	0.0	590.9	323.7	2,407.6	0.0	0.0
85.00		103.4	1,392.7					0.0	585.7	103.4	1,978.4	0.0	0.0
87.00	Appurtenance(s)	73.3	547.9	31.4	0.0	-31.4	64.8	0.0	234.5	104.7	847.2	0.0	0.0
90.00		81.4	810.4					0.0	350.7	81.4	1,161.1	0.0	0.0
92.58	Bot - Section 3	73.0	686.6					0.0	301.8	73.0	988.4	0.0	0.0
95.00	Appurtenance(s)	85.2	1,053.0	89.9	0.0	0.0	604.9	0.0	283.2	175.1	1,941.1	0.0	0.0
98.41	Top - Section 2	72.6	1,460.1					0.0	399.7	72.6	1,859.8	0.0	0.0
100.00	Appurtenance(s)	80.4	357.9	4.0	0.0	0.0	19.4	0.0	185.9	84.4	563.2	0.0	0.0
104.00	Appurtenance(s)	71.7	886.4	33.2	0.0	-66.4	65.6	0.0	466.5	104.8	1,418.5	0.0	0.0
105.00		84.8	218.9					0.0	116.5	84.8	335.4	0.0	0.0
110.00		140.0	1,071.8					0.0	582.8	140.0	1,654.7	0.0	0.0
115.00		96.8	1,039.6					0.0	583.4	96.8	1,622.9	0.0	0.0
117.00	Appurtenance(s)	54.6	407.8	304.8	0.0	0.0	3,891.8	0.0	233.5	359.4	4,533.1	0.0	0.0
119.00	Appurtenance(s)	40.7	402.6	431.5	0.0	-206.9	2,810.3	0.0	233.6	472.2	3,446.5	0.0	0.0
120.00		80.3	199.5					0.0	74.6	80.3	274.1	0.0	0.0
125.00		106.2	974.7					0.0	373.0	106.2	1,347.8	0.0	0.0
128.00	Appurtenance(s)	45.9	570.2	1,657.8	0.0	0.0	5,786.9	0.0	224.0	1,703.8	6,581.2	0.0	0.0
128.50	Top - Section 3	26.0	94.1					0.0	19.9	26.0	114.0	0.0	0.0
130.00		83.4	198.7					0.0	59.6	83.4	258.3	0.0	0.0
135.00		89.1	644.4					0.0	198.8	89.1	843.2	0.0	0.0
137.00	Appurtenance(s)	36.6	252.4	225.7	0.0	451.4	895.6	0.0	79.6	262.3	1,227.6	0.0	0.0
138.00	Appurtenance(s)	17.1	125.0	285.8	0.0	0.0	2,739.4	0.0	0.0	302.9	2,864.5	0.0	0.0
138.50		5.7	62.2					0.0	0.0	5.7	62.2	0.0	0.0
								Totals:		7,716.28	79,446.1	0.00	0.00

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph with 1.00 in Radial Ice 20 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-79.44	-7.66	0.00	-728.73	0.00	728.73	4,624.80	1,336.95	7,728.54	6,102.72	0.00	0.00	0.137
5.00	-77.02	-7.54	0.00	-690.44	0.00	690.44	4,581.75	1,311.30	7,434.94	5,929.27	0.01	-0.03	0.133
10.00	-74.58	-7.42	0.00	-652.75	0.00	652.75	4,536.92	1,285.66	7,147.03	5,755.76	0.05	-0.05	0.130
15.00	-72.16	-7.30	0.00	-615.65	0.00	615.65	4,490.29	1,260.02	6,864.80	5,582.30	0.12	-0.08	0.126
20.00	-69.76	-7.19	0.00	-579.13	0.00	579.13	4,441.89	1,234.37	6,588.26	5,409.05	0.22	-0.10	0.123
25.00	-67.39	-7.07	0.00	-543.21	0.00	543.21	4,391.70	1,208.73	6,317.40	5,236.13	0.34	-0.13	0.119
30.00	-65.04	-6.95	0.00	-507.86	0.00	507.86	4,339.72	1,183.09	6,052.23	5,063.69	0.49	-0.15	0.115
35.00	-62.73	-6.83	0.00	-473.10	0.00	473.10	4,285.96	1,157.45	5,792.74	4,891.85	0.66	-0.18	0.111
40.00	-60.44	-6.71	0.00	-438.94	0.00	438.94	4,230.41	1,131.80	5,538.94	4,720.76	0.86	-0.21	0.107
45.00	-58.19	-6.63	0.00	-405.42	0.00	405.42	4,173.07	1,106.16	5,290.83	4,550.55	1.09	-0.23	0.103
45.66	-57.89	-6.57	0.00	-401.02	0.00	401.02	4,165.33	1,102.76	5,258.34	4,528.04	1.13	-0.23	0.102
50.00	-54.85	-6.46	0.00	-372.55	0.00	372.55	4,113.95	1,080.52	5,048.39	4,381.35	1.35	-0.26	0.098
52.83	-52.89	-6.39	0.00	-354.26	0.00	354.26	4,116.65	1,081.67	5,059.17	4,388.93	1.50	-0.27	0.094
55.00	-51.93	-6.29	0.00	-340.39	0.00	340.39	4,090.47	1,070.54	4,955.61	4,315.83	1.63	-0.28	0.092
60.00	-49.76	-6.15	0.00	-308.93	0.00	308.93	4,028.87	1,044.90	4,721.08	4,148.28	1.93	-0.30	0.087
65.00	-47.62	-6.02	0.00	-278.18	0.00	278.18	3,965.49	1,019.26	4,492.23	3,982.07	2.26	-0.32	0.082
69.00	-40.77	-5.42	0.00	-254.10	0.00	254.10	3,913.49	998.74	4,313.24	3,850.16	2.54	-0.34	0.076
70.00	-40.35	-5.34	0.00	-248.68	0.00	248.68	3,900.32	993.61	4,269.07	3,817.34	2.62	-0.35	0.076
75.00	-38.30	-5.19	0.00	-222.00	0.00	222.00	3,833.36	967.97	4,051.59	3,654.23	2.99	-0.37	0.071
80.00	-35.89	-4.86	0.00	-195.95	0.00	195.95	3,764.62	942.33	3,839.79	3,492.87	3.39	-0.39	0.066
85.00	-33.91	-4.75	0.00	-171.64	0.00	171.64	3,694.09	916.69	3,633.69	3,333.39	3.80	-0.41	0.061
87.00	-33.06	-4.65	0.00	-162.14	0.00	162.14	3,665.38	906.43	3,552.83	3,270.16	3.97	-0.41	0.059
90.00	-31.90	-4.56	0.00	-148.20	0.00	148.20	3,621.78	891.04	3,433.26	3,175.95	4.24	-0.42	0.055
92.58	-30.91	-4.49	0.00	-136.43	0.00	136.43	3,583.76	877.81	3,332.07	3,095.54	4.47	-0.43	0.053
95.00	-28.97	-4.30	0.00	-125.58	0.00	125.58	3,547.68	865.40	3,238.53	3,020.66	4.69	-0.44	0.050
98.41	-27.11	-4.22	0.00	-110.90	0.00	110.90	2,780.48	718.55	2,679.07	2,362.30	5.01	-0.45	0.057
100.00	-26.55	-4.13	0.00	-104.21	0.00	104.21	2,763.68	711.77	2,628.75	2,325.70	5.16	-0.46	0.054
104.00	-25.13	-4.02	0.00	-87.68	0.00	87.68	2,720.52	694.67	2,504.01	2,233.97	5.55	-0.47	0.049
105.00	-24.80	-3.94	0.00	-83.66	0.00	83.66	2,709.55	690.40	2,473.30	2,211.17	5.65	-0.47	0.047
110.00	-23.14	-3.79	0.00	-63.98	0.00	63.98	2,653.64	669.03	2,322.58	2,097.99	6.15	-0.49	0.039
115.00	-21.52	-3.68	0.00	-45.05	0.00	45.05	2,595.94	647.66	2,176.60	1,986.29	6.67	-0.50	0.031
117.00	-16.99	-3.28	0.00	-37.69	0.00	37.69	2,572.36	639.11	2,119.53	1,942.06	6.88	-0.50	0.026
119.00	-13.55	-2.78	0.00	-31.13	0.00	31.13	2,548.49	630.56	2,063.23	1,898.09	7.09	-0.50	0.022
120.00	-13.28	-2.70	0.00	-28.35	0.00	28.35	2,536.45	626.29	2,035.36	1,876.21	7.19	-0.51	0.020
125.00	-11.93	-2.58	0.00	-14.86	0.00	14.86	2,475.18	604.92	1,898.85	1,767.88	7.72	-0.51	0.013
128.00	-5.36	-0.82	0.00	-7.12	0.00	7.12	2,437.56	592.10	1,819.22	1,703.78	8.05	-0.51	0.006
128.50	-5.25	-0.79	0.00	-6.71	0.00	6.71	2,431.23	589.96	1,806.12	1,693.17	8.10	-0.51	0.006
128.50	-5.25	-0.79	0.00	-6.71	0.00	6.71	1,188.40	355.28	1,091.56	833.74	8.10	-0.51	0.012
130.00	-4.99	-0.70	0.00	-5.53	0.00	5.53	1,182.87	351.44	1,068.05	820.83	8.26	-0.51	0.011
135.00	-4.15	-0.61	0.00	-2.01	0.00	2.01	1,163.30	338.62	991.55	777.64	8.80	-0.51	0.006
137.00	-2.92	-0.33	0.00	-0.34	0.00	0.34	1,154.97	333.49	961.74	760.31	9.02	-0.52	0.003
138.00	-0.06	-0.01	0.00	0.00	0.00	0.00	1,150.69	330.92	947.01	751.64	9.12	-0.52	0.000
138.50	0.00	-0.01	0.00	0.00	0.00	0.00	1,148.53	329.64	939.69	747.30	9.18	-0.52	0.000

Load Case: 1.0D + 1.0W Serviceability 60 mph 20 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.00
Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		58.9	0.0					0.0	0.0	58.9	0.0	0.0	0.0
5.00		116.6	1,283.7					0.0	374.4	116.6	1,658.1	0.0	0.0
10.00		114.3	1,258.8					0.0	374.4	114.3	1,633.2	0.0	0.0
15.00		112.1	1,234.0					0.0	374.4	112.1	1,608.4	0.0	0.0
20.00		109.8	1,209.1					0.0	374.4	109.8	1,583.5	0.0	0.0
25.00		107.5	1,184.2					0.0	374.4	107.5	1,558.6	0.0	0.0
30.00		106.5	1,159.4					0.0	374.4	106.5	1,533.8	0.0	0.0
35.00		108.4	1,134.5					0.0	374.4	108.4	1,508.9	0.0	0.0
40.00		111.8	1,109.7					0.0	374.4	111.8	1,484.1	0.0	0.0
45.00		64.4	1,084.8					0.0	374.4	64.4	1,459.2	0.0	0.0
45.66	Bot - Section 2	59.1	142.1					0.0	49.7	59.1	191.7	0.0	0.0
50.00		85.6	1,849.0					0.0	324.7	85.6	2,173.7	0.0	0.0
52.83	Top - Section 1	60.4	1,186.4					0.0	211.9	60.4	1,398.3	0.0	0.0
55.00		87.5	452.8					0.0	162.5	87.5	615.3	0.0	0.0
60.00		123.7	1,025.4					0.0	374.4	123.7	1,399.8	0.0	0.0
65.00		112.9	1,000.6					0.0	374.4	112.9	1,375.0	0.0	0.0
69.00	Appurtenance(s)	63.3	782.5	502.4	0.0	0.0	3,132.1	0.0	299.5	565.7	4,214.2	0.0	0.0
70.00		76.7	193.1					0.0	72.5	76.7	265.7	0.0	0.0
75.00		128.7	950.8					0.0	362.7	128.7	1,313.5	0.0	0.0
80.00	Appurtenance(s)	130.1	926.0	176.4	0.0	70.3	128.0	0.0	362.7	306.4	1,416.7	0.0	0.0
85.00		91.6	901.1					0.0	357.9	91.6	1,259.0	0.0	0.0
87.00	Appurtenance(s)	65.9	353.5	23.1	0.0	-23.1	24.3	0.0	143.1	89.0	520.9	0.0	0.0
90.00		73.8	522.8					0.0	213.7	73.8	736.5	0.0	0.0
92.58	Bot - Section 3	66.9	442.4					0.0	183.8	66.9	626.2	0.0	0.0
95.00	Appurtenance(s)	79.0	755.4	86.9	0.0	0.0	450.0	0.0	172.4	165.9	1,377.8	0.0	0.0
98.41	Top - Section 2	67.7	1,047.3					0.0	243.2	67.7	1,290.5	0.0	0.0
100.00	Appurtenance(s)	75.4	220.0	3.1	0.0	0.0	8.9	0.0	113.0	78.6	341.9	0.0	0.0
104.00	Appurtenance(s)	67.6	545.4	24.2	0.0	-48.5	24.3	0.0	283.0	91.8	852.7	0.0	0.0
105.00		81.6	134.3					0.0	70.6	81.6	204.9	0.0	0.0
110.00		136.4	658.9					0.0	353.1	136.4	1,012.0	0.0	0.0
115.00		95.9	638.2					0.0	353.1	95.9	991.3	0.0	0.0
117.00	Appurtenance(s)	55.0	249.5	247.0	0.0	0.0	2,530.0	0.0	141.2	302.0	2,920.7	0.0	0.0
119.00	Appurtenance(s)	41.3	246.2	469.3	0.0	-219.4	1,195.6	0.0	141.2	510.6	1,583.0	0.0	0.0
120.00		82.9	121.8					0.0	35.4	82.9	157.2	0.0	0.0
125.00		110.7	596.8					0.0	177.0	110.7	773.8	0.0	0.0
128.00	Appurtenance(s)	46.4	348.1	1,579.3	0.0	0.0	3,137.0	0.0	106.2	1,625.8	3,591.3	0.0	0.0
128.50	Top - Section 3	19.1	57.3					0.0	9.8	19.1	67.1	0.0	0.0
130.00		61.2	102.8					0.0	29.5	61.2	132.3	0.0	0.0
135.00		65.3	334.5					0.0	98.4	65.3	432.9	0.0	0.0
137.00	Appurtenance(s)	26.3	130.3	240.9	0.0	481.9	278.1	0.0	39.4	267.2	447.8	0.0	0.0
138.00	Appurtenance(s)	11.8	64.4	228.5	0.0	0.0	1,900.0	0.0	0.0	240.3	1,964.4	0.0	0.0
138.50		3.9	32.0					0.0	0.0	3.9	32.0	0.0	0.0
								Totals:		6,945.67	49,707.8	0.00	0.00

Load Case: 1.0D + 1.0W Serviceability 60 mph 20 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.00
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-49.71	-6.90	0.00	-665.48	0.00	665.48	4,624.80	1,336.95	7,728.54	6,102.72	0.00	0.00	0.120
5.00	-48.05	-6.80	0.00	-631.00	0.00	631.00	4,581.75	1,311.30	7,434.94	5,929.27	0.01	-0.02	0.117
10.00	-46.41	-6.70	0.00	-597.00	0.00	597.00	4,536.92	1,285.66	7,147.03	5,755.76	0.05	-0.05	0.114
15.00	-44.80	-6.61	0.00	-563.49	0.00	563.49	4,490.29	1,260.02	6,864.80	5,582.30	0.11	-0.07	0.111
20.00	-43.21	-6.51	0.00	-530.45	0.00	530.45	4,441.89	1,234.37	6,588.26	5,409.05	0.20	-0.09	0.108
25.00	-41.65	-6.42	0.00	-497.88	0.00	497.88	4,391.70	1,208.73	6,317.40	5,236.13	0.31	-0.12	0.105
30.00	-40.12	-6.33	0.00	-465.78	0.00	465.78	4,339.72	1,183.09	6,052.23	5,063.69	0.45	-0.14	0.101
35.00	-38.60	-6.23	0.00	-434.15	0.00	434.15	4,285.96	1,157.45	5,792.74	4,891.85	0.61	-0.16	0.098
40.00	-37.12	-6.13	0.00	-403.00	0.00	403.00	4,230.41	1,131.80	5,538.94	4,720.76	0.79	-0.19	0.094
45.00	-35.66	-6.07	0.00	-372.35	0.00	372.35	4,173.07	1,106.16	5,290.83	4,550.55	1.00	-0.21	0.090
45.66	-35.47	-6.01	0.00	-368.33	0.00	368.33	4,165.33	1,102.76	5,258.34	4,528.04	1.03	-0.21	0.090
50.00	-33.29	-5.93	0.00	-342.24	0.00	342.24	4,113.95	1,080.52	5,048.39	4,381.35	1.23	-0.23	0.086
52.83	-31.89	-5.87	0.00	-325.46	0.00	325.46	4,116.65	1,081.67	5,059.17	4,388.93	1.38	-0.25	0.082
55.00	-31.27	-5.79	0.00	-312.72	0.00	312.72	4,090.47	1,070.54	4,955.61	4,315.83	1.49	-0.26	0.080
60.00	-29.87	-5.67	0.00	-283.78	0.00	283.78	4,028.87	1,044.90	4,721.08	4,148.28	1.77	-0.28	0.076
65.00	-28.50	-5.56	0.00	-255.44	0.00	255.44	3,965.49	1,019.26	4,492.23	3,982.07	2.07	-0.30	0.071
69.00	-24.29	-4.97	0.00	-233.21	0.00	233.21	3,913.49	998.74	4,313.24	3,850.16	2.33	-0.31	0.067
70.00	-24.02	-4.90	0.00	-228.23	0.00	228.23	3,900.32	993.61	4,269.07	3,817.34	2.40	-0.32	0.066
75.00	-22.70	-4.77	0.00	-203.73	0.00	203.73	3,833.36	967.97	4,051.59	3,654.23	2.74	-0.34	0.062
80.00	-21.29	-4.46	0.00	-179.80	0.00	179.80	3,764.62	942.33	3,839.79	3,492.87	3.10	-0.35	0.057
85.00	-20.03	-4.37	0.00	-157.48	0.00	157.48	3,694.09	916.69	3,633.69	3,333.39	3.48	-0.37	0.053
87.00	-19.51	-4.28	0.00	-148.75	0.00	148.75	3,665.38	906.43	3,552.83	3,270.16	3.64	-0.38	0.051
90.00	-18.77	-4.20	0.00	-135.91	0.00	135.91	3,621.78	891.04	3,433.26	3,175.95	3.88	-0.39	0.048
92.58	-18.15	-4.13	0.00	-125.07	0.00	125.07	3,583.76	877.81	3,332.07	3,095.54	4.09	-0.40	0.045
95.00	-16.77	-3.96	0.00	-115.07	0.00	115.07	3,547.68	865.40	3,238.53	3,020.66	4.30	-0.40	0.043
98.41	-15.48	-3.89	0.00	-101.55	0.00	101.55	2,780.48	718.55	2,679.07	2,362.30	4.59	-0.41	0.049
100.00	-15.14	-3.81	0.00	-95.38	0.00	95.38	2,763.68	711.77	2,628.75	2,325.70	4.73	-0.42	0.047
104.00	-14.28	-3.71	0.00	-80.15	0.00	80.15	2,720.52	694.67	2,504.01	2,233.97	5.09	-0.43	0.041
105.00	-14.08	-3.63	0.00	-76.44	0.00	76.44	2,709.55	690.40	2,473.30	2,211.17	5.18	-0.43	0.040
110.00	-13.07	-3.49	0.00	-58.29	0.00	58.29	2,653.64	669.03	2,322.58	2,097.99	5.64	-0.45	0.033
115.00	-12.08	-3.39	0.00	-40.86	0.00	40.86	2,595.94	647.66	2,176.60	1,986.29	6.11	-0.46	0.025
117.00	-9.16	-3.06	0.00	-34.08	0.00	34.08	2,572.36	639.11	2,119.53	1,942.06	6.30	-0.46	0.021
119.00	-7.58	-2.54	0.00	-27.96	0.00	27.96	2,548.49	630.56	2,063.23	1,898.09	6.50	-0.46	0.018
120.00	-7.42	-2.45	0.00	-25.43	0.00	25.43	2,536.45	626.29	2,035.36	1,876.21	6.59	-0.46	0.016
125.00	-6.65	-2.34	0.00	-13.16	0.00	13.16	2,475.18	604.92	1,898.85	1,767.88	7.08	-0.47	0.010
128.00	-3.07	-0.68	0.00	-6.14	0.00	6.14	2,437.56	592.10	1,819.22	1,703.78	7.37	-0.47	0.005
128.50	-3.00	-0.66	0.00	-5.80	0.00	5.80	2,431.23	589.96	1,806.12	1,693.17	7.42	-0.47	0.005
128.50	-3.00	-0.66	0.00	-5.80	0.00	5.80	1,188.40	355.28	1,091.56	833.74	7.42	-0.47	0.009
130.00	-2.87	-0.60	0.00	-4.81	0.00	4.81	1,182.87	351.44	1,068.05	820.83	7.57	-0.47	0.008
135.00	-2.44	-0.53	0.00	-1.81	0.00	1.81	1,163.30	338.62	991.55	777.64	8.06	-0.47	0.004
137.00	-1.99	-0.26	0.00	-0.26	0.00	0.26	1,154.97	333.49	961.74	760.31	8.26	-0.47	0.002
138.00	-0.03	0.00	0.00	0.00	0.00	0.00	1,150.69	330.92	947.01	751.64	8.36	-0.47	0.000
138.50	0.00	0.00	0.00	0.00	0.00	0.00	1,148.53	329.64	939.69	747.30	8.41	-0.47	0.000

Equivalent Lateral Forces Method Analysis

Spectral Response Acceleration for Short Period (S_S):	0.21	
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06	
Long-Period Transition Period (T_L):	6	
Importance Factor (I_E):	1.00	
Site Coefficient F_a:	1.60	
Site Coeffiecient F_v:	2.40	
Response Modification Coefficient (R):	1.50	
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.22	
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09	
Seismic Response Coefficient (C_s):	0.04	
Upper Limit C_s	0.04	
Lower Limit C_s	0.03	
Period based on Rayleigh Method (sec):	1.65	
Redundancy Factor (p):	1.00	
Seismic Force Distribution Exponent (k):	1.57	
Total Unfactored Dead Load:	49.71	k
Seismic Base Shear (E):	1.80	k

Load Case 1.2D + 1.0Ev + 1.0Eh **Seismic**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
41	138.25	32	74	0.002	3	40
40	137.50	64	149	0.003	6	80
39	136.00	170	385	0.008	14	211
38	132.50	433	942	0.020	35	539
37	129.25	132	277	0.006	10	165
36	128.25	67	139	0.003	5	84
35	126.50	454	919	0.019	34	566
34	122.50	774	1,488	0.031	56	963
33	119.50	157	291	0.006	11	196
32	118.00	387	702	0.015	26	482
31	116.00	391	690	0.014	26	486
30	112.50	991	1,667	0.035	62	1,234
29	107.50	1,012	1,585	0.033	59	1,260
28	104.50	205	307	0.006	11	255
27	102.00	828	1,195	0.025	45	1,031
26	99.21	333	460	0.010	17	415
25	96.71	1,290	1,711	0.035	64	1,606
24	93.79	928	1,172	0.024	44	1,155
23	91.29	626	758	0.016	28	780
22	88.50	736	849	0.018	32	917
21	86.00	497	548	0.011	20	618
20	82.50	1,259	1,300	0.027	49	1,567
19	77.50	1,289	1,206	0.025	45	1,604
18	72.50	1,314	1,107	0.023	41	1,635
17	69.50	266	210	0.004	8	331

16	67.00	1,082	806	0.017	30	1,347
15	62.50	1,375	918	0.019	34	1,712
14	57.50	1,400	819	0.017	31	1,742
13	53.92	615	325	0.007	12	766
12	51.42	1,398	687	0.014	26	1,741
11	47.83	2,174	953	0.020	36	2,706
10	45.33	192	77	0.002	3	239
9	42.50	1,459	531	0.011	20	1,816
8	37.50	1,484	444	0.009	17	1,847
7	32.50	1,509	360	0.007	13	1,878
6	27.50	1,534	281	0.006	11	1,909
5	22.50	1,559	209	0.004	8	1,940
4	17.50	1,583	143	0.003	5	1,971
3	12.50	1,608	85	0.002	3	2,002
2	7.50	1,633	39	0.001	1	2,033
1	2.50	1,658	7	0.000	0	2,064
Generic 10' Omni	138.00	25	58	0.001	2	31
Generic Round Low Pr	138.00	1,875	4,349	0.090	163	2,334
Ericsson KRY 112 20	137.00	73	166	0.003	6	90
RFS APXV18-209014-C	137.00	56	129	0.003	5	70
Andrew LNX-6515DS-A1	137.00	149	343	0.007	13	186
Commscope CBC78T-DS-	128.00	62	128	0.003	5	77
Samsung B2/B66A RRH-	128.00	253	522	0.011	20	315
Samsung B5/B13 RRH-B	128.00	211	435	0.009	16	263
RFS APL866513-44T0	128.00	31	65	0.001	2	39
Raycap RCMDC-6627-PF	128.00	32	66	0.001	2	40
Samsung MT6407-77A	128.00	245	504	0.010	19	305
Decibel DB846H80E-SX	128.00	64	132	0.003	5	80
Commscope JAHH-65B-R	128.00	364	749	0.016	28	453
Generic Flat Low Pro	128.00	1,875	3,864	0.080	144	2,334
VZW Unused Reserve (	128.00	0	0	0.000	0	0
Generic 7" x 6" x 3"	119.00	30	55	0.001	2	37
Powerwave Allgon LGP	119.00	85	155	0.003	6	105
Raycap DC6-48-60-18-	119.00	40	73	0.002	3	50
Ericsson Radio 8843	119.00	216	396	0.008	15	269
Ericsson RRUS 4449 B	119.00	213	391	0.008	15	265
Powerwave Allgon 777	119.00	105	193	0.004	7	131
Commscope NNH4-65B-R	119.00	269	494	0.010	18	335
CCI DMP65R-BU6DA	119.00	238	438	0.009	16	297
Generic 7" x 6" x 3"	117.00	30	54	0.001	2	37
Generic Round Platfo	117.00	2,500	4,473	0.093	167	3,112
RFI Antennas CC807-0	104.00	24	36	0.001	1	30
Bird DS428E83I01T	100.00	9	12	0.000	0	11
Round Side Arm	95.00	450	580	0.012	22	560
RFI Antennas CC807-0	87.00	24	27	0.001	1	30
RFI Antennas OA20-41	80.00	28	28	0.001	1	35
Radio Waves HP3-11	80.00	100	98	0.002	4	124
Commscope RDIDC-9181	69.00	22	17	0.000	1	27
Fujitsu TA08025-B605	69.00	225	175	0.004	7	280
Fujitsu TA08025-B604	69.00	192	149	0.003	6	239
JMA Wireless MX08FRO	69.00	193	151	0.003	6	241
Generic Flat Platfor	69.00	2,500	1,949	0.040	73	3,112
		49,708	48,271	1.000	1,805	61,876

Load Case 0.9D - 1.0Ev + 1.0Eh **Seismic (Reduced DL)**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
41	138.25	32	74	0.002	3	27
40	137.50	64	149	0.003	6	55
39	136.00	170	385	0.008	14	145

38	132.50	433	942	0.020	35	370
37	129.25	132	277	0.006	10	113
36	128.25	67	139	0.003	5	57
35	126.50	454	919	0.019	34	389
34	122.50	774	1,488	0.031	56	662
33	119.50	157	291	0.006	11	134
32	118.00	387	702	0.015	26	331
31	116.00	391	690	0.014	26	334
30	112.50	991	1,667	0.035	62	848
29	107.50	1,012	1,585	0.033	59	865
28	104.50	205	307	0.006	11	175
27	102.00	828	1,195	0.025	45	708
26	99.21	333	460	0.010	17	285
25	96.71	1,290	1,711	0.035	64	1,104
24	93.79	928	1,172	0.024	44	793
23	91.29	626	758	0.016	28	536
22	88.50	736	849	0.018	32	630
21	86.00	497	548	0.011	20	425
20	82.50	1,259	1,300	0.027	49	1,077
19	77.50	1,289	1,206	0.025	45	1,102
18	72.50	1,314	1,107	0.023	41	1,123
17	69.50	266	210	0.004	8	227
16	67.00	1,082	806	0.017	30	925
15	62.50	1,375	918	0.019	34	1,176
14	57.50	1,400	819	0.017	31	1,197
13	53.92	615	325	0.007	12	526
12	51.42	1,398	687	0.014	26	1,196
11	47.83	2,174	953	0.020	36	1,859
10	45.33	192	77	0.002	3	164
9	42.50	1,459	531	0.011	20	1,248
8	37.50	1,484	444	0.009	17	1,269
7	32.50	1,509	360	0.007	13	1,290
6	27.50	1,534	281	0.006	11	1,312
5	22.50	1,559	209	0.004	8	1,333
4	17.50	1,583	143	0.003	5	1,354
3	12.50	1,608	85	0.002	3	1,375
2	7.50	1,633	39	0.001	1	1,397
1	2.50	1,658	7	0.000	0	1,418
Generic 10' Omni	138.00	25	58	0.001	2	21
Generic Round Low Pr	138.00	1,875	4,349	0.090	163	1,604
Ericsson KRY 112 20	137.00	73	166	0.003	6	62
RFS APXV18-209014-C	137.00	56	129	0.003	5	48
Andrew LNX-6515DS-A1	137.00	149	343	0.007	13	128
Commscope CBC78T-DS-	128.00	62	128	0.003	5	53
Samsung B2/B66A RRH-	128.00	253	522	0.011	20	217
Samsung B5/B13 RRH-B	128.00	211	435	0.009	16	180
RFS APL866513-44T0	128.00	31	65	0.001	2	27
Raycap RCMDC-6627-PF	128.00	32	66	0.001	2	27
Samsung MT6407-77A	128.00	245	504	0.010	19	209
Decibel DB846H80E-SX	128.00	64	132	0.003	5	55
Commscope JAHH-65B-R	128.00	364	749	0.016	28	311
Generic Flat Low Pro	128.00	1,875	3,864	0.080	144	1,604
VZW Unused Reserve (	128.00	0	0	0.000	0	0
Generic 7" x 6" x 3"	119.00	30	55	0.001	2	26
Powerwave Allgon LGP	119.00	85	155	0.003	6	72
Raycap DC6-48-60-18-	119.00	40	73	0.002	3	34
Ericsson Radio 8843	119.00	216	396	0.008	15	184
Ericsson RRUS 4449 B	119.00	213	391	0.008	15	182
Powerwave Allgon 777	119.00	105	193	0.004	7	90
Commscope NNH4-65B-R	119.00	269	494	0.010	18	230
CCI DMP65R-BU6DA	119.00	238	438	0.009	16	204
Generic 7" x 6" x 3"	117.00	30	54	0.001	2	26
Generic Round Platfo	117.00	2,500	4,473	0.093	167	2,138
RFI Antennas CC807-0	104.00	24	36	0.001	1	21

Bird DS428E83I01T	**100.00**	**9**	**12**	**0.000**	**0**	**8**
Round Side Arm	**95.00**	**450**	**580**	**0.012**	**22**	**385**
RFI Antennas CC807-0	**87.00**	**24**	**27**	**0.001**	**1**	**21**
RFI Antennas OA20-41	**80.00**	**28**	**28**	**0.001**	**1**	**24**
Radio Waves HP3-11	**80.00**	**100**	**98**	**0.002**	**4**	**86**
Commscope RDIDC-9181	**69.00**	**22**	**17**	**0.000**	**1**	**19**
Fujitsu TA08025-B605	**69.00**	**225**	**175**	**0.004**	**7**	**192**
Fujitsu TA08025-B604	**69.00**	**192**	**149**	**0.003**	**6**	**164**
JMA Wireless MX08FRO	**69.00**	**193**	**151**	**0.003**	**6**	**165**
Generic Flat Platfor	**69.00**	**2,500**	**1,949**	**0.040**	**73**	**2,138**
		49,708	**48,271**	**1.000**	**1,805**	**42,510**

Load Case **1.2D + 1.0Ev + 1.0Eh** **Seismic**

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-59.81	-1.81	0.00	-188.06	0.00	188.06	4,624.80	1,336.95	7,728.54	6,102.72	0.00	0.00	0.044
5.00	-57.78	-1.81	0.00	-179.02	0.00	179.02	4,581.75	1,311.30	7,434.94	5,929.27	0.00	-0.01	0.043
10.00	-55.78	-1.82	0.00	-169.96	0.00	169.96	4,536.92	1,285.66	7,147.03	5,755.76	0.01	-0.01	0.042
15.00	-53.81	-1.82	0.00	-160.88	0.00	160.88	4,490.29	1,260.02	6,864.80	5,582.30	0.03	-0.02	0.041
20.00	-51.86	-1.81	0.00	-151.81	0.00	151.81	4,441.89	1,234.37	6,588.26	5,409.05	0.06	-0.03	0.040
25.00	-49.96	-1.81	0.00	-142.74	0.00	142.74	4,391.70	1,208.73	6,317.40	5,236.13	0.09	-0.03	0.039
30.00	-48.08	-1.80	0.00	-133.70	0.00	133.70	4,339.72	1,183.09	6,052.23	5,063.69	0.13	-0.04	0.037
35.00	-46.23	-1.79	0.00	-124.71	0.00	124.71	4,285.96	1,157.45	5,792.74	4,891.85	0.17	-0.05	0.036
40.00	-44.41	-1.77	0.00	-115.78	0.00	115.78	4,230.41	1,131.80	5,538.94	4,720.76	0.23	-0.05	0.035
45.00	-44.17	-1.77	0.00	-106.93	0.00	106.93	4,173.07	1,106.16	5,290.83	4,550.55	0.29	-0.06	0.034
45.66	-41.47	-1.73	0.00	-105.75	0.00	105.75	4,165.33	1,102.76	5,258.34	4,528.04	0.29	-0.06	0.033
50.00	-39.73	-1.71	0.00	-98.24	0.00	98.24	4,113.95	1,080.52	5,048.39	4,381.35	0.35	-0.07	0.032
52.83	-38.96	-1.70	0.00	-93.40	0.00	93.40	4,116.65	1,081.67	5,059.17	4,388.93	0.39	-0.07	0.031
55.00	-37.22	-1.67	0.00	-89.72	0.00	89.72	4,090.47	1,070.54	4,955.61	4,315.83	0.43	-0.07	0.030
60.00	-35.51	-1.64	0.00	-81.37	0.00	81.37	4,028.87	1,044.90	4,721.08	4,148.28	0.51	-0.08	0.028
65.00	-34.16	-1.61	0.00	-73.20	0.00	73.20	3,965.49	1,019.26	4,492.23	3,982.07	0.59	-0.09	0.027
69.00	-29.93	-1.50	0.00	-66.77	0.00	66.77	3,913.49	998.74	4,313.24	3,850.16	0.67	-0.09	0.025
70.00	-28.30	-1.46	0.00	-65.27	0.00	65.27	3,900.32	993.61	4,269.07	3,817.34	0.68	-0.09	0.024
75.00	-26.69	-1.41	0.00	-57.97	0.00	57.97	3,833.36	967.97	4,051.59	3,654.23	0.78	-0.10	0.023
80.00	-24.96	-1.36	0.00	-50.90	0.00	50.90	3,764.62	942.33	3,839.79	3,492.87	0.89	-0.10	0.021
85.00	-24.35	-1.34	0.00	-44.09	0.00	44.09	3,694.09	916.69	3,633.69	3,333.39	1.00	-0.11	0.020
87.00	-23.40	-1.31	0.00	-41.41	0.00	41.41	3,665.38	906.43	3,552.83	3,270.16	1.04	-0.11	0.019
90.00	-22.62	-1.28	0.00	-37.49	0.00	37.49	3,621.78	891.04	3,433.26	3,175.95	1.11	-0.11	0.018
92.58	-21.47	-1.23	0.00	-34.19	0.00	34.19	3,583.76	877.81	3,332.07	3,095.54	1.17	-0.11	0.017
95.00	-19.30	-1.14	0.00	-31.21	0.00	31.21	3,547.68	865.40	3,238.53	3,020.66	1.23	-0.12	0.016
98.41	-18.88	-1.13	0.00	-27.31	0.00	27.31	2,780.48	718.55	2,679.07	2,362.30	1.31	-0.12	0.018
100.00	-17.84	-1.08	0.00	-25.52	0.00	25.52	2,763.68	711.77	2,628.75	2,325.70	1.35	-0.12	0.017
104.00	-17.56	-1.07	0.00	-21.20	0.00	21.20	2,720.52	694.67	2,504.01	2,233.97	1.45	-0.12	0.016
105.00	-16.30	-1.01	0.00	-20.13	0.00	20.13	2,709.55	690.40	2,473.30	2,211.17	1.48	-0.12	0.015
110.00	-15.06	-0.94	0.00	-15.11	0.00	15.11	2,653.64	669.03	2,322.58	2,097.99	1.61	-0.13	0.013
115.00	-14.58	-0.91	0.00	-10.40	0.00	10.40	2,595.94	647.66	2,176.60	1,986.29	1.74	-0.13	0.011
117.00	-10.95	-0.71	0.00	-8.57	0.00	8.57	2,572.36	639.11	2,119.53	1,942.06	1.80	-0.13	0.009
119.00	-9.26	-0.61	0.00	-7.15	0.00	7.15	2,548.49	630.56	2,063.23	1,898.09	1.85	-0.13	0.007
120.00	-8.30	-0.56	0.00	-6.53	0.00	6.53	2,536.45	626.29	2,035.36	1,876.21	1.88	-0.13	0.007
125.00	-7.73	-0.52	0.00	-3.75	0.00	3.75	2,475.18	604.92	1,898.85	1,767.88	2.02	-0.13	0.005
128.00	-3.75	-0.27	0.00	-2.19	0.00	2.19	2,437.56	592.10	1,819.22	1,703.78	2.10	-0.13	0.003
128.50	-3.58	-0.25	0.00	-2.05	0.00	2.05	2,431.23	589.96	1,806.12	1,693.17	2.11	-0.13	0.003
128.50	-3.58	-0.25	0.00	-2.05	0.00	2.05	1,188.40	355.28	1,091.56	833.74	2.11	-0.13	0.005
130.00	-3.04	-0.22	0.00	-1.67	0.00	1.67	1,182.87	351.44	1,068.05	820.83	2.15	-0.13	0.005
135.00	-2.83	-0.20	0.00	-0.58	0.00	0.58	1,163.30	338.62	991.55	777.64	2.29	-0.13	0.003
137.00	-2.40	-0.17	0.00	-0.17	0.00	0.17	1,154.97	333.49	961.74	760.31	2.35	-0.13	0.002
138.00	0.00	0.00	0.00	0.00	0.00	0.00	1,150.69	330.92	947.01	751.64	2.38	-0.13	0.000
138.50	0.00	0.00	0.00	0.00	0.00	0.00	1,148.53	329.64	939.69	747.30	2.39	-0.13	0.000

Load Case 0.9D - 1.0Ev + 1.0Eh **Seismic (Reduced DL)**

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-41.09	-1.81	0.00	-186.59	0.00	186.59	4,624.80	1,336.95	7,728.54	6,102.72	0.00	0.00	0.039
5.00	-39.70	-1.81	0.00	-177.56	0.00	177.56	4,581.75	1,311.30	7,434.94	5,929.27	0.00	-0.01	0.039
10.00	-38.32	-1.81	0.00	-168.51	0.00	168.51	4,536.92	1,285.66	7,147.03	5,755.76	0.01	-0.01	0.038
15.00	-36.97	-1.81	0.00	-159.46	0.00	159.46	4,490.29	1,260.02	6,864.80	5,582.30	0.03	-0.02	0.037
20.00	-35.63	-1.80	0.00	-150.42	0.00	150.42	4,441.89	1,234.37	6,588.26	5,409.05	0.06	-0.03	0.036
25.00	-34.32	-1.80	0.00	-141.39	0.00	141.39	4,391.70	1,208.73	6,317.40	5,236.13	0.09	-0.03	0.035
30.00	-33.03	-1.79	0.00	-132.41	0.00	132.41	4,339.72	1,183.09	6,052.23	5,063.69	0.13	-0.04	0.034
35.00	-31.76	-1.77	0.00	-123.47	0.00	123.47	4,285.96	1,157.45	5,792.74	4,891.85	0.17	-0.05	0.033
40.00	-30.51	-1.76	0.00	-114.61	0.00	114.61	4,230.41	1,131.80	5,538.94	4,720.76	0.22	-0.05	0.031
45.00	-30.35	-1.75	0.00	-105.83	0.00	105.83	4,173.07	1,106.16	5,290.83	4,550.55	0.28	-0.06	0.031
45.66	-28.49	-1.72	0.00	-104.66	0.00	104.66	4,165.33	1,102.76	5,258.34	4,528.04	0.29	-0.06	0.030
50.00	-27.29	-1.69	0.00	-97.21	0.00	97.21	4,113.95	1,080.52	5,048.39	4,381.35	0.35	-0.07	0.029
52.83	-26.77	-1.68	0.00	-92.42	0.00	92.42	4,116.65	1,081.67	5,059.17	4,388.93	0.39	-0.07	0.028
55.00	-25.57	-1.65	0.00	-88.76	0.00	88.76	4,090.47	1,070.54	4,955.61	4,315.83	0.42	-0.07	0.027
60.00	-24.39	-1.62	0.00	-80.50	0.00	80.50	4,028.87	1,044.90	4,721.08	4,148.28	0.50	-0.08	0.025
65.00	-23.47	-1.59	0.00	-72.41	0.00	72.41	3,965.49	1,019.26	4,492.23	3,982.07	0.59	-0.08	0.024
69.00	-20.56	-1.49	0.00	-66.05	0.00	66.05	3,913.49	998.74	4,313.24	3,850.16	0.66	-0.09	0.022
70.00	-19.44	-1.45	0.00	-64.56	0.00	64.56	3,900.32	993.61	4,269.07	3,817.34	0.68	-0.09	0.022
75.00	-18.34	-1.40	0.00	-57.33	0.00	57.33	3,833.36	967.97	4,051.59	3,654.23	0.78	-0.10	0.020
80.00	-17.15	-1.35	0.00	-50.33	0.00	50.33	3,764.62	942.33	3,839.79	3,492.87	0.88	-0.10	0.019
85.00	-16.73	-1.33	0.00	-43.60	0.00	43.60	3,694.09	916.69	3,633.69	3,333.39	0.99	-0.11	0.018
87.00	-16.08	-1.29	0.00	-40.95	0.00	40.95	3,665.38	906.43	3,552.83	3,270.16	1.03	-0.11	0.017
90.00	-15.54	-1.26	0.00	-37.07	0.00	37.07	3,621.78	891.04	3,433.26	3,175.95	1.10	-0.11	0.016
92.58	-14.75	-1.22	0.00	-33.81	0.00	33.81	3,583.76	877.81	3,332.07	3,095.54	1.16	-0.11	0.015
95.00	-13.26	-1.13	0.00	-30.86	0.00	30.86	3,547.68	865.40	3,238.53	3,020.66	1.22	-0.11	0.014
98.41	-12.97	-1.11	0.00	-27.00	0.00	27.00	2,780.48	718.55	2,679.07	2,362.30	1.30	-0.12	0.016
100.00	-12.26	-1.07	0.00	-25.24	0.00	25.24	2,763.68	711.77	2,628.75	2,325.70	1.34	-0.12	0.015
104.00	-12.06	-1.05	0.00	-20.96	0.00	20.96	2,720.52	694.67	2,504.01	2,233.97	1.44	-0.12	0.014
105.00	-11.20	-0.99	0.00	-19.91	0.00	19.91	2,709.55	690.40	2,473.30	2,211.17	1.46	-0.12	0.013
110.00	-10.35	-0.93	0.00	-14.94	0.00	14.94	2,653.64	669.03	2,322.58	2,097.99	1.59	-0.12	0.011
115.00	-10.01	-0.90	0.00	-10.29	0.00	10.29	2,595.94	647.66	2,176.60	1,986.29	1.73	-0.13	0.009
117.00	-7.52	-0.70	0.00	-8.48	0.00	8.48	2,572.36	639.11	2,119.53	1,942.06	1.78	-0.13	0.007
119.00	-6.36	-0.61	0.00	-7.07	0.00	7.07	2,548.49	630.56	2,063.23	1,898.09	1.83	-0.13	0.006
120.00	-5.70	-0.55	0.00	-6.46	0.00	6.46	2,536.45	626.29	2,035.36	1,876.21	1.86	-0.13	0.006
125.00	-5.31	-0.52	0.00	-3.71	0.00	3.71	2,475.18	604.92	1,898.85	1,767.88	2.00	-0.13	0.004
128.00	-2.57	-0.26	0.00	-2.16	0.00	2.16	2,437.56	592.10	1,819.22	1,703.78	2.08	-0.13	0.002
128.50	-2.46	-0.25	0.00	-2.03	0.00	2.03	2,431.23	589.96	1,806.12	1,693.17	2.09	-0.13	0.002
128.50	-2.46	-0.25	0.00	-2.03	0.00	2.03	1,188.40	355.28	1,091.56	833.74	2.09	-0.13	0.005
130.00	-2.09	-0.22	0.00	-1.65	0.00	1.65	1,182.87	351.44	1,068.05	820.83	2.13	-0.13	0.004
135.00	-1.94	-0.20	0.00	-0.57	0.00	0.57	1,163.30	338.62	991.55	777.64	2.27	-0.13	0.002
137.00	-1.65	-0.17	0.00	-0.17	0.00	0.17	1,154.97	333.49	961.74	760.31	2.33	-0.13	0.002
138.00	0.00	0.00	0.00	0.00	0.00	0.00	1,150.69	330.92	947.01	751.64	2.35	-0.13	0.000
138.50	0.00	0.00	0.00	0.00	0.00	0.00	1,148.53	329.64	939.69	747.30	2.37	-0.13	0.000

Analysis Summary

	Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W	30.84	0.00	59.62	0.00	0.00	2987.21	0.00	0.50
0.9D + 1.0W	30.83	0.00	44.71	0.00	0.00	2968.37	0.00	0.50
1.2D + 1.0Di + 1.0Wi	7.66	0.00	79.44	0.00	0.00	728.73	0.00	0.14
1.2D + 1.0Ev + 1.0Eh	1.81	0.00	59.81	0.00	0.00	188.06	0.00	0.04
0.9D - 1.0Ev + 1.0Eh	1.81	0.00	41.09	0.00	0.00	186.59	0.00	0.04
1.0D + 1.0W	6.90	0.00	49.71	0.00	0.00	665.48	0.00	0.12

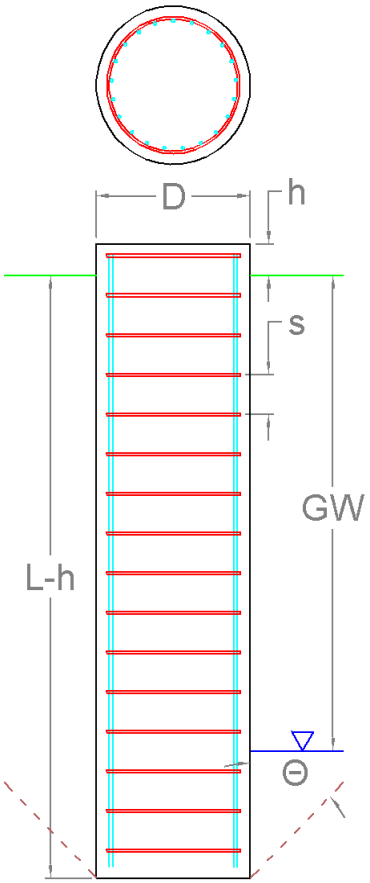
Pier Foundation Analysis (ANSI/TIA-222-H)

Foundation Analysis Parameters			
Pier Diameter	*D*	8.00	ft
Pier Embedment	*L-h*	18.5	ft
Pier Height above Ground	*H*	0.50	ft
Water Table Depth [BGL]	*GW*	99	ft
Pullout Angle	Θ	30	°
Unit Weight of Concrete		150	pcf
Uplift Skin Friction Factor		1.000	

Reactions		
Moment, M_u	2,987.2	k-ft
Shear, V_u	30.8	k
Axial, P_u	59.6	k
Uplift, T_u	0.0	k

Soil Properties

Layer Depth (ft)		Unit Weight	Cohesion	Friction Angle	Ultimate Skin Friction	Ultimate Bearing Pressure
TOP	BTM	pcf	psf	°	psf	psf
0.0	2.0	105	0	0	0	0
2.0	4.0	140	11,323	0	0	0
4.0	9.0	140	13,483	0	6,067	0
9.0	19.5	140	16,171	0	7,277	47,204



Soil Strength Capacities		
Volume of Concrete	955.0	ft^3
Weight of Concrete [Buoyancy Considered]	143.3	k
Average Soil Unit Weight	136.2	pcf
Skin Friction Resistance	2,499.9	k
Compressive Bearing Resistance	2,372.7	k
Pullout Weight [Minus Concrete Weight]	639.3	k
Compressive Force, P_u	75.0	k
Nominal Compressive Capacity, $\phi_s P_n$	3,654.5	k
$P_u / \phi_s P_n$	**2.1%**	
Total Lateral Resistance	13,306.5	k
Inflection Point [BGL]	10.8	ft
Moment at Inflection Point, M_D	3,335.4	k-ft
Nominal Moment Capacity, $\phi_s M_n$	38,592.2	k-ft
$M_D / \phi_s M_n$	**8.6%**	

Base Plate & Anchor Rod Analysis

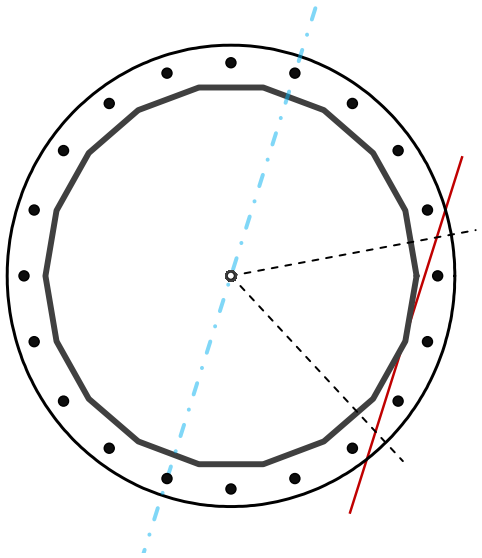
Pole Dimensions		
Number of Sides	18	-
Diameter	64.38	in
Thickness	3/8	in
Orientation Offset		°

Base Reactions		
Moment, Mu	2,987.2	k-ft
Axial, Pu	59.6	k
Shear, Vu	30.8	k
Neutral Axis	252	°

Report Capacities		
Component	Capacity	Result
Base Plate	22%	Pass
Anchor Rods	44%	Pass
Dwyidag	-	-

Base Plate		
Shape	Round	-
Diameter, ø	79	in
Thickness	2 1/4	in
Grade	A572-60	
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Clip	N/A	in
Orientation Offset		°
Anchor Rod Detail	d	η=0.5
Clear Distance	4	in
Applied Moment, Mu	584.6	k
Bending Stress, ϕMn	2615.1	k

Original Anchor Rods		
Arrangement	Radial	-
Quantity	20	-
Diameter, ø	2 1/4	in
Bolt Circle	73	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	11.5	in
Orientation Offset		°
Applied Force, Pu	104.5	k
Anchor Rods, ϕPn	243.6	k



Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	30.8	2987.2	1.00
Anchor Rod Forces	30.8	2987.2	1.00
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	0.0	0.00
Stiffener Forces	0.0	0.0	0.00

Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in^2	in^2	in^4	#	in^4
Pole	75.0219	4.1679	0.1959		38420.73
Bolt	3.9761	3.2477	0.8393	4.5	40514.59
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	0.0000	0.0000	0.0000		0.00
Stiffener	0.0000	0.0000	0.0000		0.00

Base Plate		
Shape	Round	-
Diameter, D	79	in
Thickness, t	2.25	in
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Base Plate Chord	45.784	in
Detail Type	d	-
Detail Factor	0.50	-
Clear Distance	4	-

Anchor Rods		
Anchor Rod Quantity, N	20	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	73	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	104.5	k
Applied Shear, Vu	0.8	k
Compressive Capacity, ϕPn	243.6	k
Tensile Capacity, ϕRnt	0.429	OK
Interaction Capacity	0.435	OK

External Base Plate		
Chord Length AA	39.235	in
Additional AA	4.500	in
Section Modulus, Z	55.352	in^3
Applied Moment, Mu	584.6	k-ft
Bending Capacity, ϕMn	2989.0	k-ft
Capacity, Mu/ϕMn	0.196	OK
Chord Length AB	37.550	in
Additional AB	4.500	in
Section Modulus, Z	53.219	in^3
Applied Moment, Mu	433.6	k-ft
Bending Capacity, ϕMn	2873.8	k-ft
Capacity, Mu/ϕMn	0.151	OK
Bend Line Length	38.264	in
Additional Bend Line	0.000	in
Section Modulus, Z	48.428	in^3
Applied Moment, Mu	584.6	k-ft
Bending Capacity, ϕMn	2615.1	k-ft
Capacity, Mu/ϕMn	0.224	OK

Internal Base Plate		
Arc Length	0.000	in
Section Modulus, Z	0.000	in^3
Moment Arm	0.000	in
Applied Moment, Mu	0.0	k-ft
Bending Capacity, ϕMn	0.0	k-ft
Capacity, Mu/ϕMn		

Flange Plate Analysis

Flange Plate

Plate Type	***Flange***	***128.5 ft***
Pole Diameter	34.2064	in
Pole Thickness	0.1875	in
Plate Diameter	41	in
Plate Thickness	1	in
Plate Fy	60	ksi
Weld Length	0.55	in
f_s Resistance	62.98	k-in
Applied	1.05	k-in

Code Rev.	***H***
Moment	26.1 k-ft
Axial	3.5 k

Required Flange Thickness:
0.13 in OK

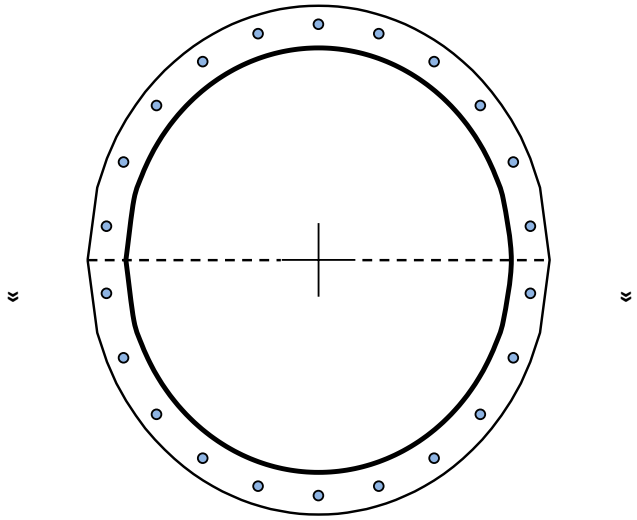
Date	8/6/2021
Engineer	Sarah Nagy
Site #	411257
Carrier	VZW

Stiffeners

#	

Bolts

#	***22***	
Bolt Circle	38	in
(R)adial / (S)quare	R	
Bolt Gap	6	in
Diameter	1	in
Hole Diameter	1.125	in
Type	A325	
Fy	92	ksi
Fu	120	ksi
f_s Resistance	54.52	k
Applied	1.34	k



Reinforcement

#	

Plate Stress Ratio:
2% Pass

Bolt Stress Ratio:
2% Pass

Extra Bolts O

#	

Network Building + Consulting, LLC
1777 Sentry Parkway W VEVA 17, Suite 400
Blue Bell, PA 19422
(267)460-0122
NBC_SmartTool@nbcllc.com

Antenna Mount Analysis Report and PMI Requirements

Mount Analysis

SMART Tool Project #: 10050391
NB+C ES Project # 100820

August 2, 2021

Site Information	*Site ID:*	*467183-VZW / PORTLAND S CT*
	Site Name:	*PORTLAND S CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*191 MIDDLE HADDAM RD* *PORTLAND, Connecticut 06480* *Middlesex County*
	Latitude:	*41.562250°*
	Longitude:	*-72.573778°*
Structure Information	*Tower Type:*	*Monopole*
	Mount Type:	*13.69-Ft Platform*

FUZE ID # 16272069

Analysis Results

Platform: **86.9% Pass**

******Contractor PMI Requirements***:
Included at the end of this MA report
Available & Submitted via portal at https://pmi.vzwsmart.com
Contractor - Please Review Specific Site PMI Requirements Upon Award
Requirements may also be Noted on A & E drawings

Report Prepared By: Vipul Patel, PE

STATE OF CONNECTICUT
KRUPAKARAN KOLANDAVELU
PEN.0028997
LICENSED PROFESSIONAL ENGINEER

DocuSigned by:
krupakaran kolandavelu
81AC599182D841D...
8/2/2021

Executive Summary:

The objective of this report is to determine the capacity of the antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet	Verizon RFDS Site ID: 675017, dated June 14, 2021
Mount Mapping Report	RKS Design & Engineering, LLC Site ID: ATC: 411257, dated July 22, 2021

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	120 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	C
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.991
Seismic Parameters:	S_S:	0.21
	S_1:	0.056
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

The following equipment has been considered for the analysis of the mount:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
126.0	127.0	3	Samsung	MT6407-77A	Added
		6	Commscope	JAHH-65B-R3B	
		3	Samsung	B2/B66A RRH-BR049 (RFV01U-D1A)	
		3	Samsung	B5/B13 RRH-BR04C (RFV01U-D2A)	
		3	Commscope	CBC78T-DS-43-2X	
		1	Raycap	OVP-12*	
		2	RFS	APL866513	Retained
		4	Andrew	DB846H80E-SX	

* Equipment to be flush mounted directly to the Monopole. They are not mounted on the Platform mount and are not included in this mount analysis.

The recent mount mapping did not report existing OVP units. However, it is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required.

Model Number	Ports	AKA
RHSDC-1064-PF-48	2	OVP-2
RC3DC-3315-PF-48	6	OVP-6
RC3DC-3300-PF-48	6	OVP-6
RC3DC-4750-PF-48	6	OVP-6
RHSDC-6627-PF-48	12	OVP-12
RHSDC-6600-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Network Building + Consulting and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Network Building + Consulting to verify deviation will not adversely impact the analysis.

2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

   Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

   The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped by Network Building + Consulting, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

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. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Network Building + Consulting is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
   - o Channel, Solid Round, Angle, Plate — ASTM A36 (Gr. 36)
   - o HSS (Rectangular) — ASTM 500 (Gr. B-46)
   - o Pipe — ASTM A53 (Gr. B-35)
   - o Threaded Rod — F1554 (Gr. 36)
   - o Bolts — ASTM A325

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Network Building + Consulting.

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff Arm	49.6 %	Pass
Grating Angle	2.9 %	Pass
Footrail	23.2 %	Pass
Mount Pipe	86.9 %	Pass
Mount Connection	82.1%	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**86.9%**

Recommendation:

The existing mount is **SUFFICIENT** for the final loading configuration and do not require modifications.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

1. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
4. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
5. Antenna Placement Diagrams

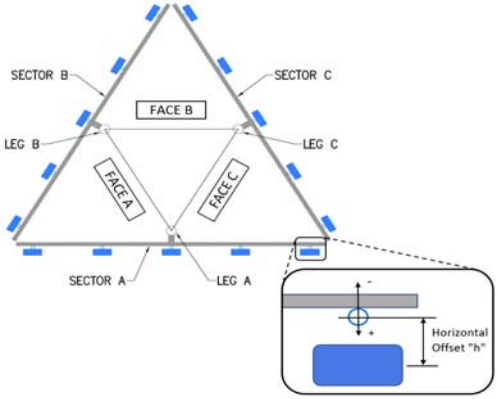
V4.0 Updated on 3-31-2021

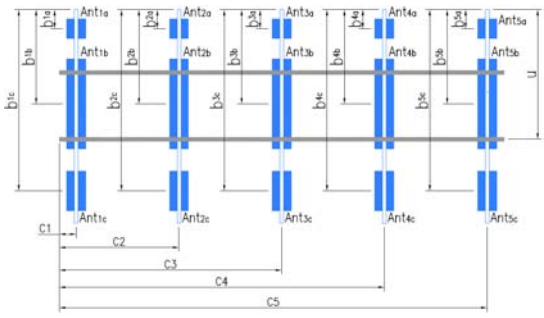
Antenna Mount Mapping Form (PATENT PENDING)

FCC #
UNKNOWN

Tower Owner:	ATC	**Mapping Date:**	7/22/2021
Site Name:	ATC : MIDDLE HADDAM ROAD CROWN CT; VZW : PORTLAND	**Tower Type:**	Monopole
Site Number or ID:	ATC : 411257	**Tower Height (Ft.):**	UNKNOWN
Mapping Contractor:	RKS Design & Engineering, LLC	**Mount Elevation (Ft.):**	127.1

Please insert the sketches of the antenna mount from the "Sketches" tab with dimensions and members here.





Antenna Layout (Looking Out From Tower)

Mount Pipe Configuration and Geometries [Unit = Inches]

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	PIPE 2.375"Ø x 0.15" x 102" LONG	63.50	10.00	C1	PIPE 2.375"Ø x 0.15" x 102" LONG	62.50	11.25
A2	PIPE 2.375"Ø x 0.15" x 102" LONG	63.50	35.25	C2	PIPE 2.375"Ø x 0.15" x 102" LONG	62.50	34.00
A3	PIPE 2.375"Ø x 0.15" x 84" LONG	48.75	82.75	C3	PIPE 2.375"Ø x 0.15" x 84" LONG	48.75	80.00
A4	PIPE 2.375"Ø x 0.15" x 102" LONG	63.50	129.25	C4	PIPE 2.375"Ø x 0.15" x 102" LONG	62.50	128.25
A5	PIPE 2.375"Ø x 0.15" x 102" LONG	63.50	153.75	C5	PIPE 2.375"Ø x 0.15" x 102" LONG	62.50	151.75
A6				C6			
B1	PIPE 2.375"Ø x 0.15" x 102" LONG	63.50	10.00	D1			
B2	PIPE 2.375"Ø x 0.15" x 102" LONG	63.50	35.25	D2			
B3	PIPE 2.375"Ø x 0.15" x 84" LONG	48.75	82.75	D3			
B4	PIPE 2.375"Ø x 0.15" x 102" LONG	63.50	129.25	D4			
B5	PIPE 2.375"Ø x 0.15" x 102" LONG	63.50	153.75	D5			
B6				D6			

Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	7.75
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	6.25
Please enter additional infomation or comments below.	

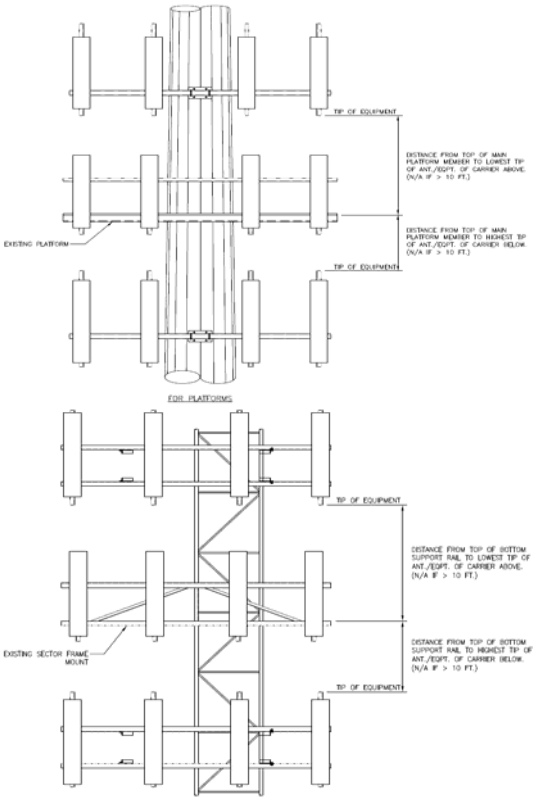
Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	34.9
For T-Arms/Platforms on monopoles, report the weld size from the main standoff to the plate bolting into the collar mount.			0.18

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant_{1a}	OMNI	1.00	1.00	72.00		135.392	-36.00			5
Ant_{1b}	UNKNOWN-PANEL	6.25	8.00	72.00		127.954	53.25	7.25	40.00	5,66
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	LPA-185080/12CF E-D	4.10	5.90	71.10		128.204	50.25	11.75	40.00	5,66
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BXA-70063-6BF-EDIN	11.00	5.30	68.60		128.183	35.75	11.00	40.00	5,66
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	LPA-185080/12CF E-D	4.10	5.90	71.10		128.204	50.25	11.75	40.00	5,69
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	UNKNOWN-PANEL	6.25	8.00	72.00		127.954	53.25	7.25	40.00	5,69
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

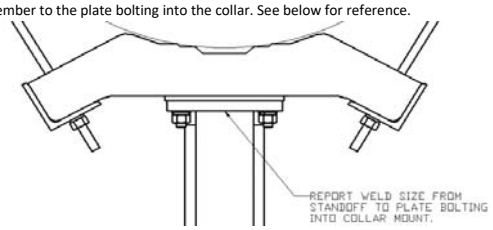
Mount Azimuth (Degree) for Each Sector			Tower Leg Azimuth (Degree) for Each Sector		
Sector A:	40.00	Deg	Leg A:		Deg
Sector B:	160.00	Deg	Leg B:		Deg
Sector C:	280.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information		
Location:	160.00 Deg	N/A
Climbing Facility	Corrosion Type:	N/A
	Access:	Climbing path was unobstructed.
	Condition:	Good condition.

Please insert a photo of the mount centerline measurement here.



For T-Arms/Platforms on monopoles, record the weld size from the main standoff member to the plate bolting into the collar. See below for reference.



Sector B										
Ant_{1a}										
Ant_{1b}	UNKNOWN-PANEL	6.25	8.00	72.00		127.954	53.25	7.25	160.00	13,71
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	LPA-185080/12CF E-D	4.10	5.90	71.10		128.204	50.25	11.75	70.00	13,71
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BXA-70063-6BF-EDIN	11.00	5.30	68.60		128.183	35.75	11.00	160.00	13,75
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	LPA-185080/12CF E-D	4.10	5.90	71.10		128.204	50.25	11.75	160.00	13,75
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	UNKNOWN-PANEL	6.25	8.00	72.00		127.954	53.25	7.25	160.00	13,77
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}	UNKNOWN-PANEL	6.20	8.00	48.00		128.121	50.25	9.25	280.00	20,79
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	LPA-185063-8CF E-DI	6.60	5.80	47.20		127.975	52.00	8.50	280.00	20,79
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BXA-70063-6BF-EDIN	11.00	5.30	68.60		127.454	44.50	9.00	280.00	20,81
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	LPA-185063-8CF E-DI	6.60	5.80	47.20		127.975	52.00	8.50	280.00	20,81
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	UNKNOWN-PANEL	6.20	8.00	48.00		128.121	50.25	9.25	280.00	20,81
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #
1	COAX TOTAL (18): (18) FH 1 5/8	
2		
3		
4		
5		
6		
7		
8		

Observed Obstructions to Tower Lighting System					
If the tower lighting system is being obstructed by the carrier's equipment (for example: a light nested by the antennas), please provide photos and fill in the information below.					Photo #
Description of Obstruction:					
Type of Light:		Photo #		Additional Comments:	
Lighting Technology:		Photo #			
Elevation (AGL) at base of light (Ft.):		Photo #			
Is a service loop available?		Photo #			
Is beacon installed on an extension?		Photo #			

Mapping Notes
1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)
2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness.
3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.
4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.
5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.
6. Please measure and report the size and length of all existing antenna mounting pipes.
7. Please measure and report the antenna information for all sectors.
8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

Standard Conditions
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.

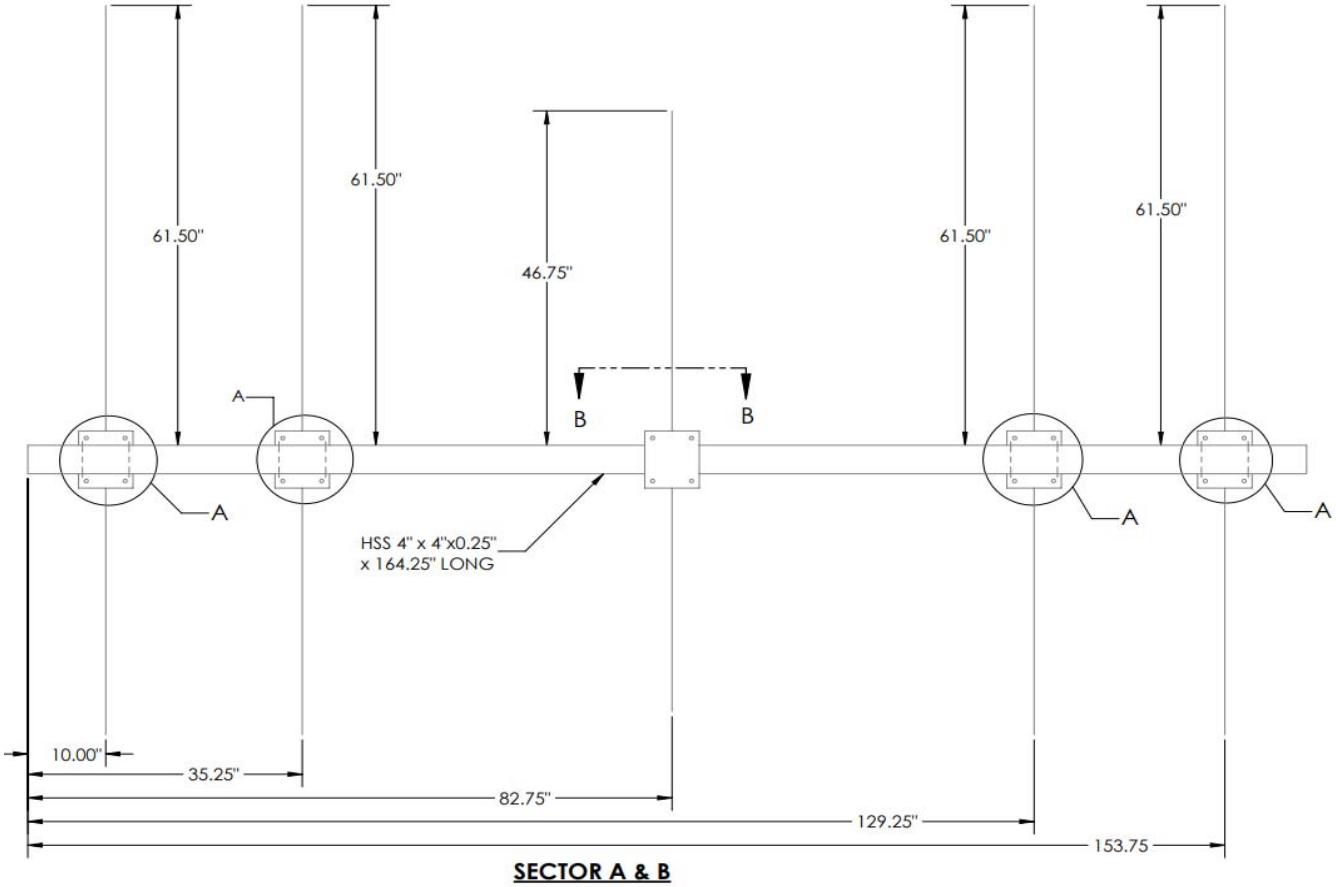
V4.0 Updated on 3-31-2021

Antenna Mount Mapping Form (PATENT PENDING)

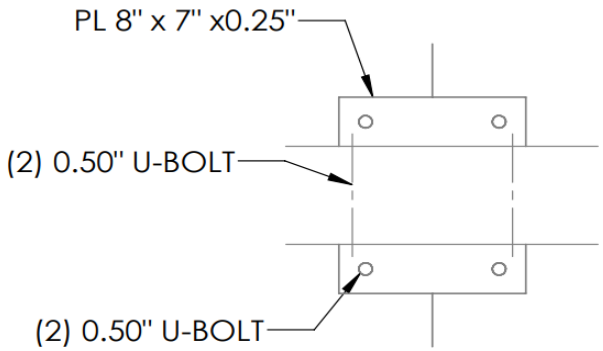
FCC #
UNKNOWN

Tower Owner:	ATC	**Mapping Date:**	7/22/2021
Site Name:	ATC : MIDDLE HADDAM ROAD CROWN CT; VZW : PORTLAND	**Tower Type:**	Monopole
Site Number or ID:	ATC : 411257	**Tower Height (Ft.):**	UNKNOWN
Mapping Contractor:	RKS Design & Engineering, LLC	**Mount Elevation (Ft.):**	127.1

Please Insert Sketches of the Antenna Mount

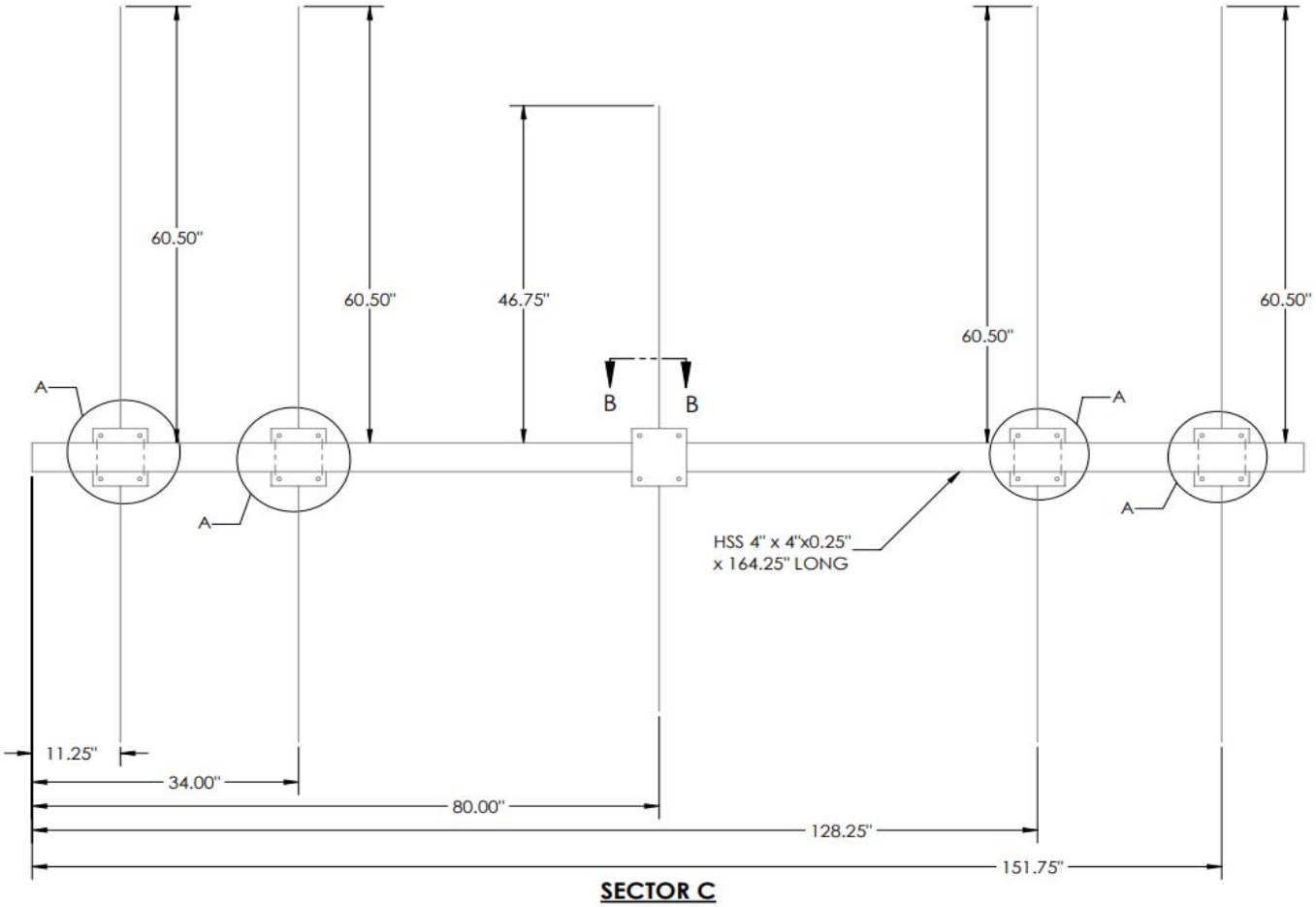


SECTOR A & B

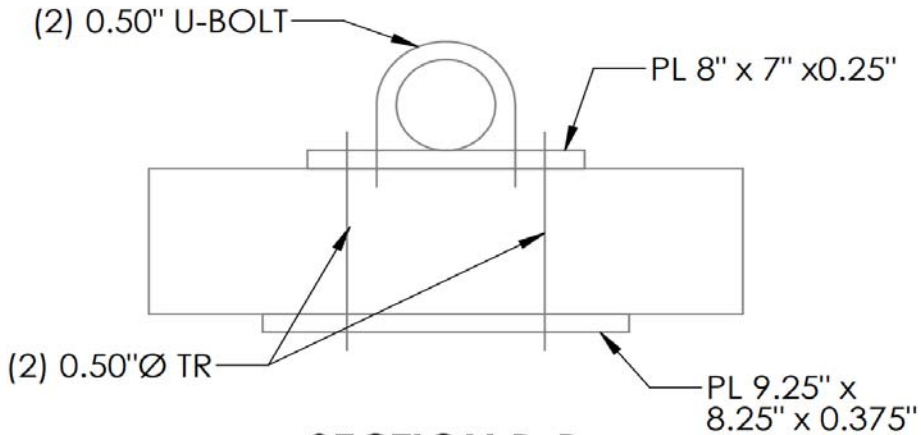


DETAIL A

Please Insert Sketches of the Antenna Mount, cont'd

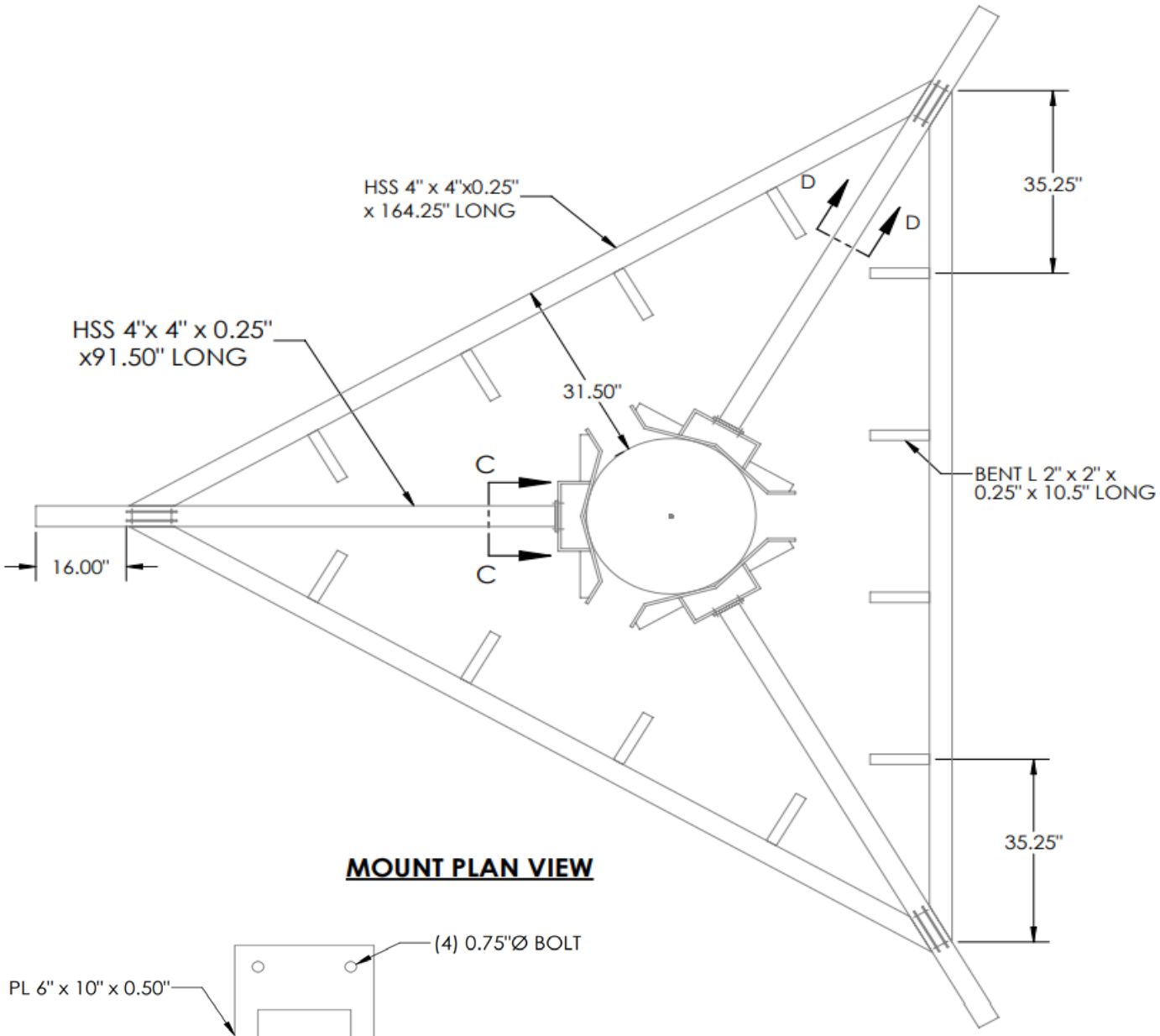


SECTOR C

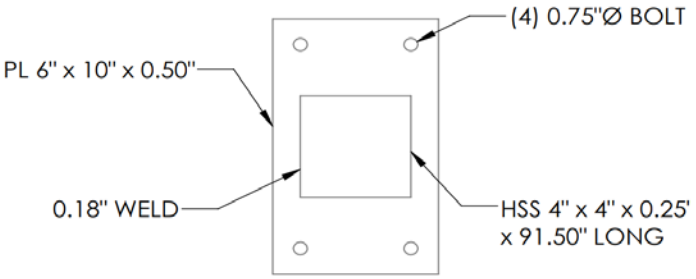


SECTION B-B

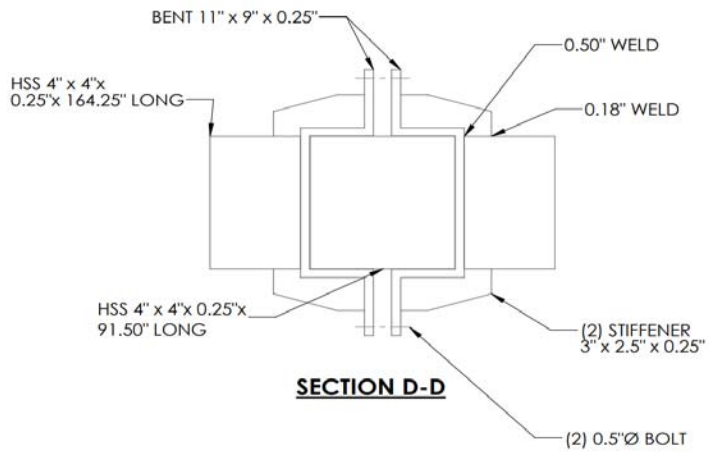
Please Insert Sketches of the Antenna Mount, cont'd



MOUNT PLAN VIEW

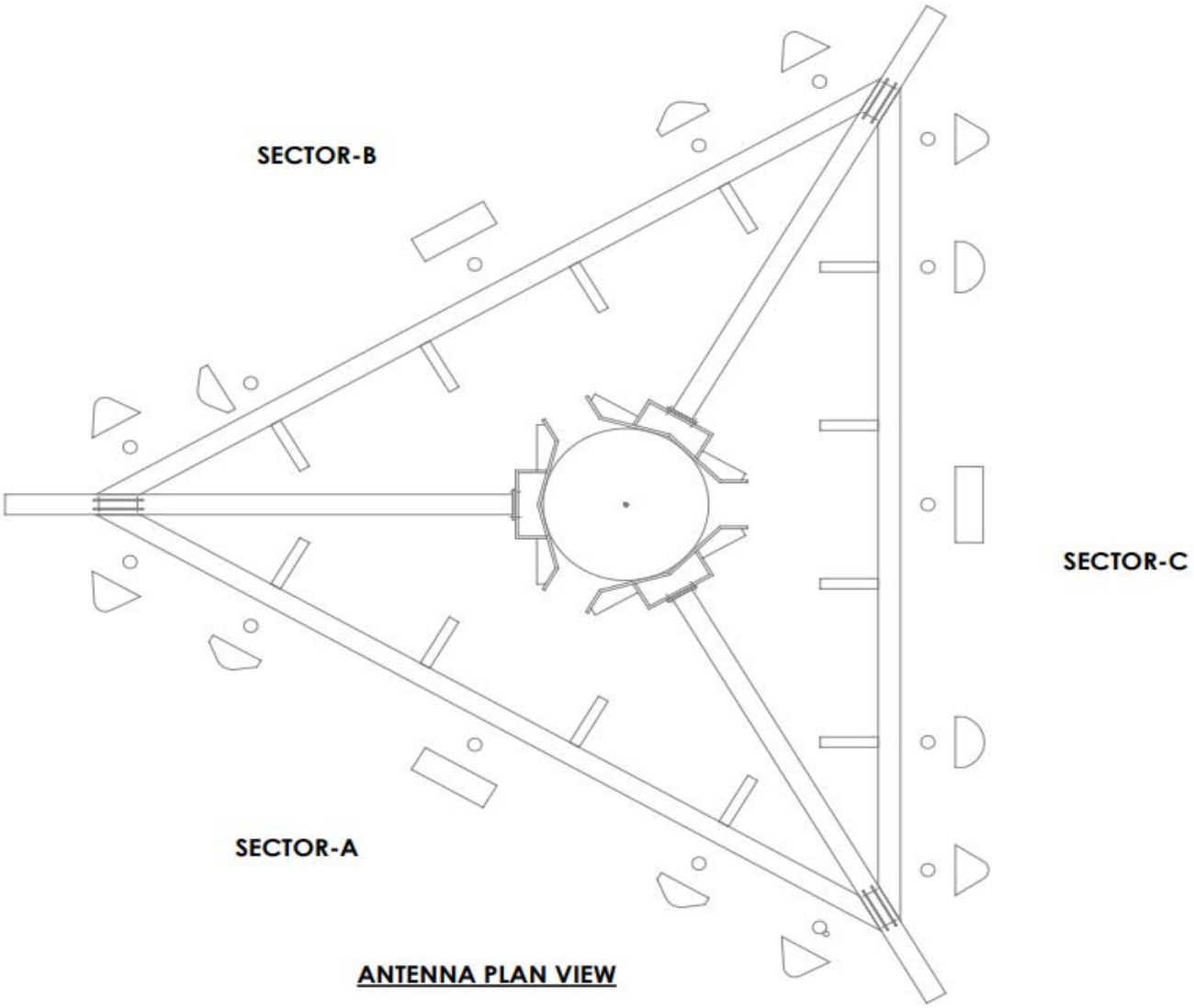


SECTION C-C

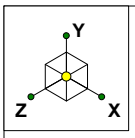


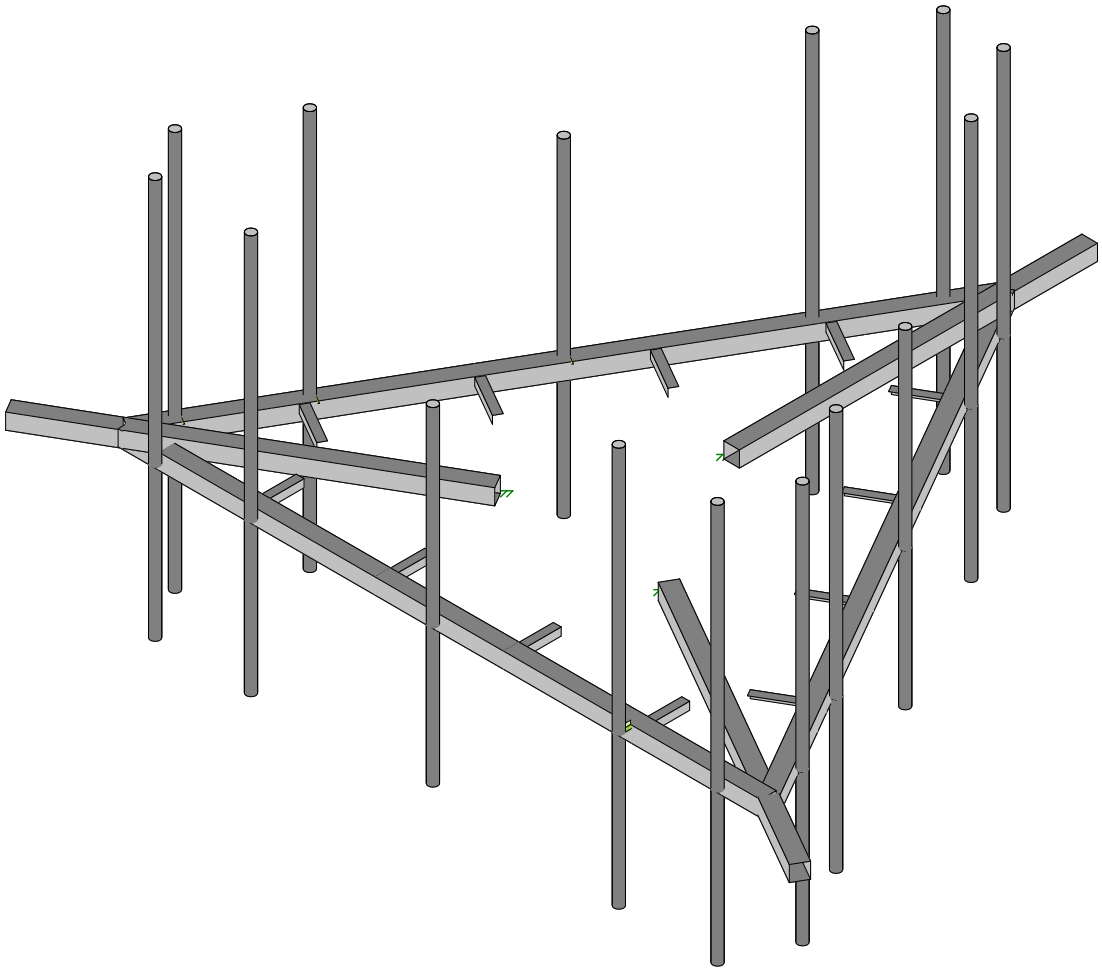
SECTION D-D

Please Insert Sketches of the Antenna Mount, cont'd



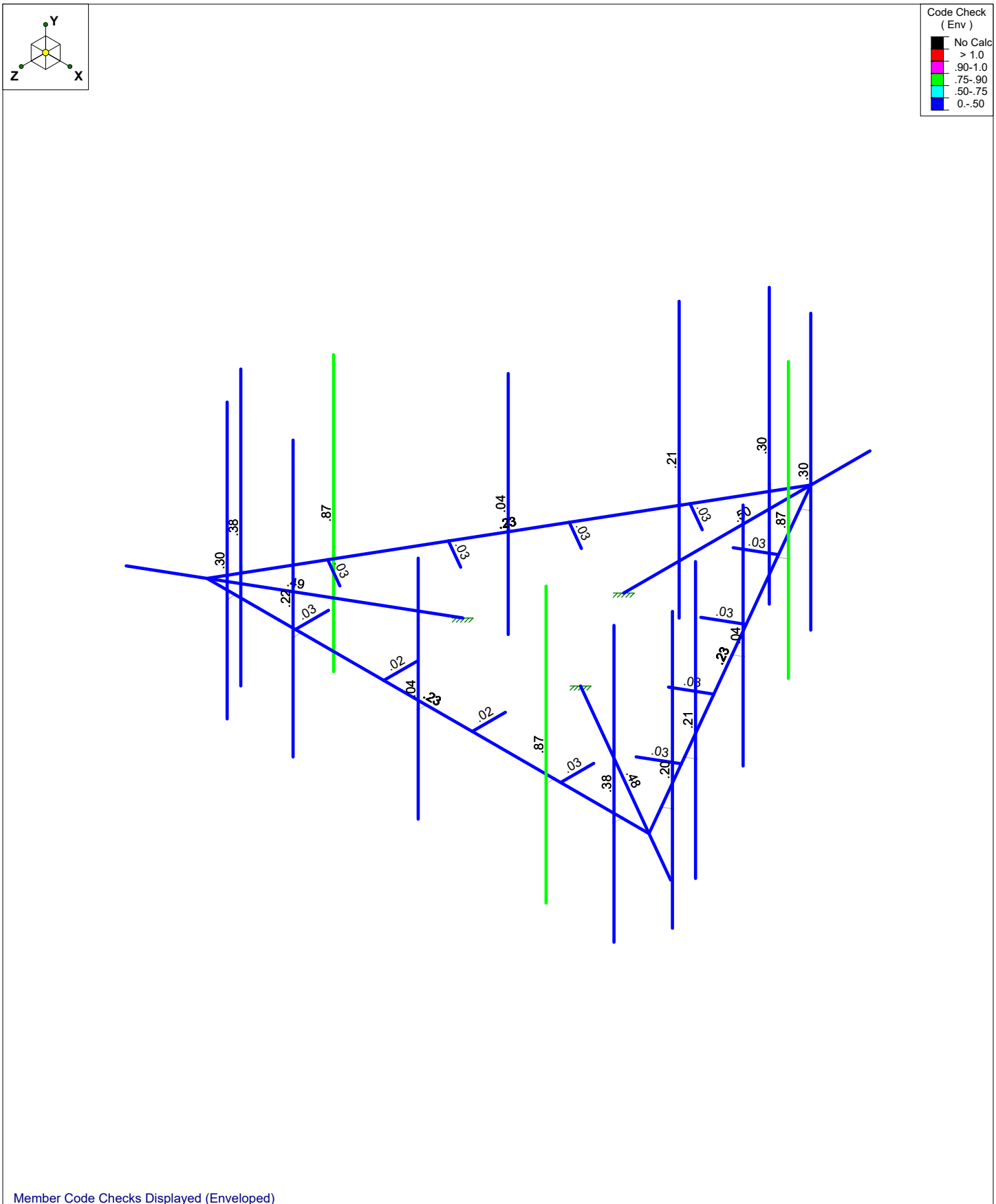
ANTENNA PLAN VIEW





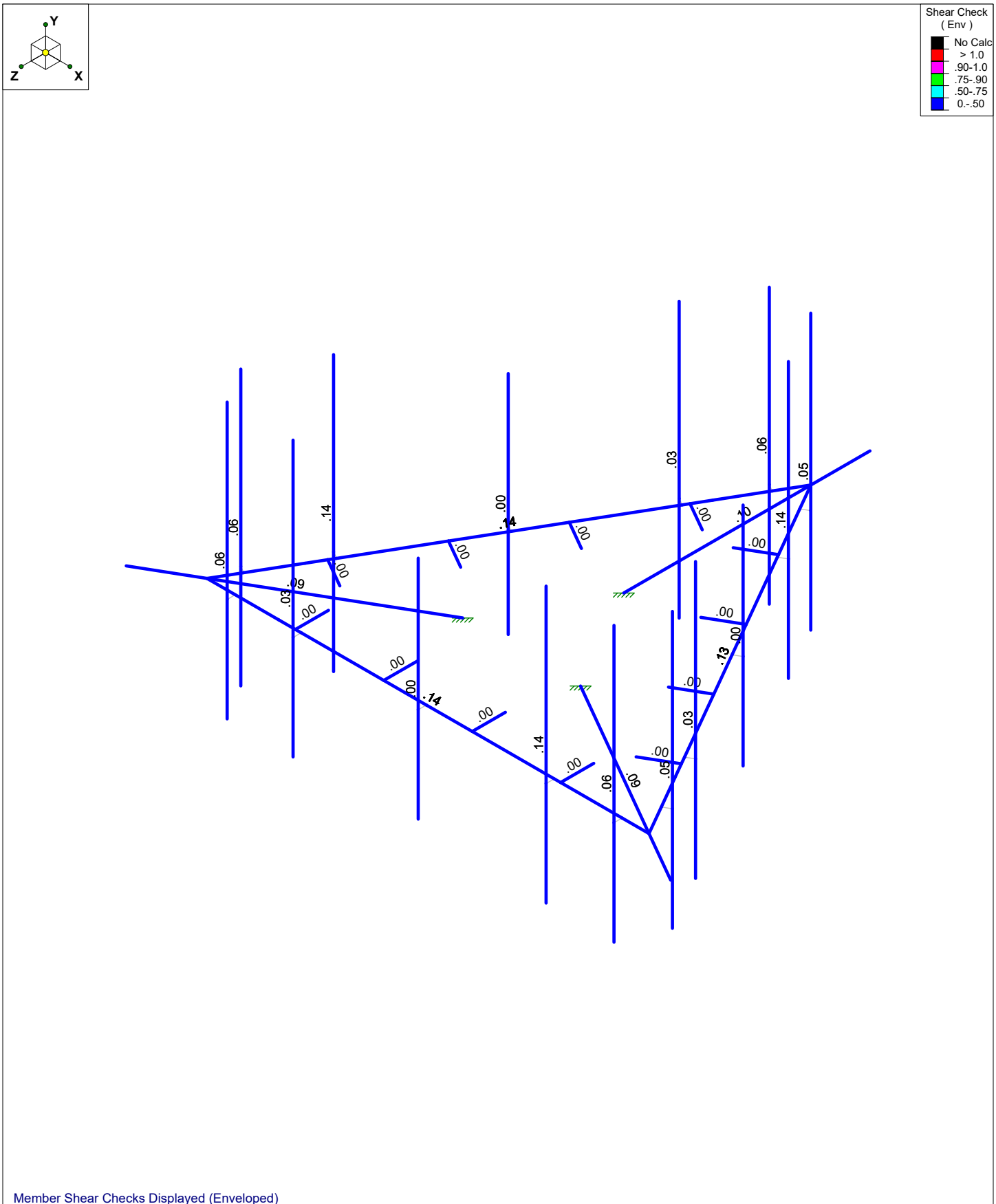
Envelope Only Solution

Network Building + Consu...		SK - 1
Vipul Patel, PE	467183-VZW_MT_LO_H	Aug 2, 2021 at 5:06 PM
Project No. 10050391	Mount Rendering	467183-VZW_MT_LO_H.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Network Building + Consu...		SK - 2
Vipul Patel, PE	467183-VZW_MT_LO_H	Aug 2, 2021 at 5:07 PM
Project No. 10050391	Member Bending	467183-VZW_MT_LO_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Network Building + Consu...		SK - 3
Vipul Patel, PE	467183-VZW_MT_LO_H	Aug 2, 2021 at 5:07 PM
Project No. 10050391	Member Shear	467183-VZW_MT_LO_H.r3d

(Global) Model Settings

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (ft/sec^2)	32.2
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 15th(360-16): LRFD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 15th(360-16): LRFD
Cold Formed Steel Code	AISI S100-16: LRFD
Wood Code	AWC NDS-12: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-11
Masonry Code	ACI 530-11: ASD
Aluminum Code	AA ADM1-10: ASD - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	No
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

(Global) Model Settings, Continued

Seismic Code	ASCE 7-16
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Antenna D	None					117			
2	Antenna Di	None					117			
3	Antenna Wo (0 Deg)	None					117			
4	Antenna Wo (30 Deg)	None					117			
5	Antenna Wo (60 Deg)	None					117			
6	Antenna Wo (90 Deg)	None					117			
7	Antenna Wo (120 Deg)	None					117			
8	Antenna Wo (150 Deg)	None					117			
9	Antenna Wo (180 Deg)	None					117			
10	Antenna Wo (210 Deg)	None					117			
11	Antenna Wo (240 Deg)	None					117			
12	Antenna Wo (270 Deg)	None					117			
13	Antenna Wo (300 Deg)	None					117			
14	Antenna Wo (330 Deg)	None					117			
15	Antenna Wi (0 Deg)	None					117			
16	Antenna Wi (30 Deg)	None					117			
17	Antenna Wi (60 Deg)	None					117			
18	Antenna Wi (90 Deg)	None					117			
19	Antenna Wi (120 Deg)	None					117			
20	Antenna Wi (150 Deg)	None					117			
21	Antenna Wi (180 Deg)	None					117			
22	Antenna Wi (210 Deg)	None					117			
23	Antenna Wi (240 Deg)	None					117			
24	Antenna Wi (270 Deg)	None					117			
25	Antenna Wi (300 Deg)	None					117			
26	Antenna Wi (330 Deg)	None					117			
27	Antenna Wm (0 Deg)	None					117			
28	Antenna Wm (30 Deg)	None					117			
29	Antenna Wm (60 Deg)	None					117			
30	Antenna Wm (90 Deg)	None					117			

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
31	Antenna Wm (120 De...	None					117			
32	Antenna Wm (150 De...	None					117			
33	Antenna Wm (180 De...	None					117			
34	Antenna Wm (210 De...	None					117			
35	Antenna Wm (240 De...	None					117			
36	Antenna Wm (270 De...	None					117			
37	Antenna Wm (300 De...	None					117			
38	Antenna Wm (330 De...	None					117			
39	Structure D	None		-1					3	
40	Structure Di	None						33	3	
41	Structure Wo (0 Deg)	None						66		
42	Structure Wo (30 Deg)	None						66		
43	Structure Wo (60 Deg)	None						66		
44	Structure Wo (90 Deg)	None						66		
45	Structure Wo (120 D...	None						66		
46	Structure Wo (150 D...	None						66		
47	Structure Wo (180 D...	None						66		
48	Structure Wo (210 D...	None						66		
49	Structure Wo (240 D...	None						66		
50	Structure Wo (270 D...	None						66		
51	Structure Wo (300 D...	None						66		
52	Structure Wo (330 D...	None						66		
53	Structure Wi (0 Deg)	None						66		
54	Structure Wi (30 Deg)	None						66		
55	Structure Wi (60 Deg)	None						66		
56	Structure Wi (90 Deg)	None						66		
57	Structure Wi (120 De...	None						66		
58	Structure Wi (150 De...	None						66		
59	Structure Wi (180 De...	None						66		
60	Structure Wi (210 De...	None						66		
61	Structure Wi (240 De...	None						66		
62	Structure Wi (270 De...	None						66		
63	Structure Wi (300 De...	None						66		
64	Structure Wi (330 De...	None						66		
65	Structure Wm (0 Deg)	None						66		
66	Structure Wm (30 De...	None						66		
67	Structure Wm (60 De...	None						66		
68	Structure Wm (90 De...	None						66		
69	Structure Wm (120 D...	None						66		
70	Structure Wm (150 D...	None						66		
71	Structure Wm (180 D...	None						66		
72	Structure Wm (210 D...	None						66		
73	Structure Wm (240 D...	None						66		
74	Structure Wm (270 D...	None						66		
75	Structure Wm (300 D...	None						66		
76	Structure Wm (330 D...	None						66		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	BLC 39 Transient Are...	None						53		
82	BLC 40 Transient Are...	None						53		

Load Combinations

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (30 Deg)	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (60 Deg)	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (90 Deg)	Yes	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0Wo (120 Deg)	Yes	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0Wo (150 Deg)	Yes	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0Wo (180 Deg)	Yes	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0Wo (210 Deg)	Yes	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0Wo (240 Deg)	Yes	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0Wo (270 Deg)	Yes	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0Wo (300 Deg)	Yes	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0Wo (330 Deg)	Yes	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0Di + 1.0Wi (0 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + 1.0Wi (30 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + 1.0Wi (60 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + 1.0Wi (90 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + 1.0Wi (120 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0Di + 1.0Wi (150 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0Di + 1.0Wi (180 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								
20	1.2D + 1.0Di + 1.0Wi (210 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0Di + 1.0Wi (240 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								
22	1.2D + 1.0Di + 1.0Wi (270 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0Di + 1.0Wi (300 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0Di + 1.0Wi (330 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5Lm1 + 1.0Wm (0 ...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5Lm1 + 1.0Wm (30 ...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5Lm1 + 1.0Wm (60 ...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + 1.0Wm (90 ...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + 1.0Wm (12...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + 1.0Wm (15...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + 1.0Wm (18...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + 1.0Wm (21...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + 1.0Wm (24...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + 1.0Wm (27...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + 1.0Wm (30...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + 1.0Wm (33...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + 1.0Wm (0 ...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1.0Wm (30 ...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1.0Wm (60 ...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1.0Wm (90 ...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1.0Wm (12...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1.0Wm (15...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1.0Wm (18...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1.0Wm (21...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1.0Wm (24...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + 1.0Wm (27...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1.0Wm (30...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1.0Wm (33...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5														
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5														
51	1.4D	Yes	Y		1	1.4	39	1.4																
52	Seismic Mass		Y		1	1	39	1																
53	1.2D + 1.0Ev + 1.0Eh (0 Deg)		Y		1	1.2	39	1.2	SX		SY	1	SZ	-1										
54	1.2D + 1.0Ev + 1.0Eh (30 De...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	-.866										
55	1.2D + 1.0Ev + 1.0Eh (60 De...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5										
56	1.2D + 1.0Ev + 1.0Eh (90 De...		Y		1	1.2	39	1.2	SX	1	SY	1	SZ											

Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
57	1.2D + 1.0Ev + 1.0Eh (120 D...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	.5										
58	1.2D + 1.0Ev + 1.0Eh (150 D...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	.866										
59	1.2D + 1.0Ev + 1.0Eh (180 D...		Y		1	1.2	39	1.2	SX		SY	1	SZ	1										
60	1.2D + 1.0Ev + 1.0Eh (210 D...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866										
61	1.2D + 1.0Ev + 1.0Eh (240 D...		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	.5										
62	1.2D + 1.0Ev + 1.0Eh (270 D...		Y		1	1.2	39	1.2	SX	-1	SY	1	SZ											
63	1.2D + 1.0Ev + 1.0Eh (300 D...		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	-.5										
64	1.2D + 1.0Ev + 1.0Eh (330 D...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	-.866										

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Desig..	A [in2]	Iyy [i...	Izz [i...	J [in4]
1	Standoff Arm	HSS4X4X4	Beam	SquareTube	A500 Gr.B ...	Typical	3.37	7.8	7.8	12.8
2	Footrail	HSS4X4X4	Beam	SquareTube	A500 Gr.B ...	Typical	3.37	7.8	7.8	12.8
3	Grating Angle	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical	.722	.271	.271	.009
4	Mount Pipe	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	-6.84375	0	3.951241	0	
2	N2	6.843752	0	3.951241	0	
3	CG	0	0	0	0	
4	N21	-0.	0	-7.902483	0	
5	N65	-4.10625	0	3.951241	0	
6	N66	-1.368749	0	3.951241	0	
7	N67	1.368751	0	3.951241	0	
8	N68	4.106251	0	3.951241	0	
9	N69	-4.10625	0	2.924422	0	
10	N70	-1.368749	0	2.924422	0	
11	N71	1.368751	0	2.924422	0	
12	N72	4.106251	0	2.924422	0	
13	N74	5.475001	0	1.580496	0	
14	N75	4.10625	0	-0.790249	0	
15	N76	2.7375	0	-3.160994	0	
16	N77	1.36875	0	-5.531739	0	
17	N78	4.585749	0	2.093905	0	
18	N79	3.216999	0	-0.276839	0	
19	N80	1.848248	0	-2.647584	0	
20	N81	0.479498	0	-5.018329	0	
21	N83	-1.368751	0	-5.531737	0	
22	N84	-2.737501	0	-3.160992	0	
23	N85	-4.106251	0	-0.790247	0	
24	N86	-5.475001	0	1.580497	0	
25	N87	-0.479499	0	-5.018328	0	
26	N88	-1.848249	0	-2.647583	0	
27	N89	-3.216999	0	-0.276838	0	
28	N90	-4.58575	0	2.093907	0	
29	N90A	-4.619659	0	2.924422	0	
30	N91	4.619661	0	2.924422	0	
31	N92	-4.619659	0	3.951241	0	
32	N93	4.619661	0	3.951241	0	
33	N95	4.842454	0	2.538531	0	
34	N96	0.222793	0	-5.462955	0	
35	N97	5.731705	0	2.025122	0	
36	N98	1.112045	0	-5.976364	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
37	N100	-0.222794	0	-5.462953	0	
38	N101	-4.842454	0	2.538533	0	
39	N102	-1.112046	0	-5.976363	0	
40	N103	-5.731706	0	2.025123	0	
41	N50	-0.	0	-9.732483	0	
42	N50A	-0.	0	-2.107483	0	
43	N50B	-8.428578	0	4.866242	0	
44	N51	-1.825134	0	1.053742	0	
45	N53	8.428578	0	4.866241	0	
46	N54	1.825134	0	1.053741	0	
47	N68B	-6.64363	0	3.10453	0	
48	N69A	-6.64363	-3.208	3.10453	0	
49	N70A	-6.64363	5.292	3.10453	0	
50	N71A	-6.427083	0	3.229553	0	
51	N72A	-5.59163	0	1.282413	0	
52	N73	-5.59163	-3.208	1.282413	0	
53	N74A	-5.59163	5.292	1.282413	0	
54	N75A	-5.375083	0	1.407436	0	
55	N76A	-3.61263	0	-2.145316	0	
56	N77A	-3.61263	-2.9375	-2.145316	0	
57	N78A	-3.61263	4.0625	-2.145316	0	
58	N79A	-3.396084	0	-2.020293	0	
59	N80A	-1.67513	0	-5.501164	0	
60	N81A	-1.67513	-3.208	-5.501164	0	
61	N82	-1.67513	5.292	-5.501164	0	
62	N83A	-1.458584	0	-5.376142	0	
63	N84A	-0.65413	0	-7.269588	0	
64	N85A	-0.65413	-3.208	-7.269588	0	
65	N86A	-0.65413	5.292	-7.269588	0	
66	N87A	-0.437584	0	-7.144566	0	
67	N87B	6.010417	0	4.201287	0	
68	N88A	6.010417	-3.208	4.201287	0	
69	N89A	6.010417	5.292	4.201287	0	
70	N90B	6.010417	0	3.951241	0	
71	N91A	3.906417	0	4.201287	0	
72	N92A	3.906417	-3.208	4.201287	0	
73	N93A	3.906417	5.292	4.201287	0	
74	N94	3.906417	0	3.951241	0	
75	N95A	-0.051583	0	4.201287	0	
76	N96A	-0.051583	-2.9375	4.201287	0	
77	N97A	-0.051583	4.0625	4.201287	0	
78	N98A	-0.051583	0	3.951241	0	
79	N99	-3.926583	0	4.201287	0	
80	N100A	-3.926583	-3.208	4.201287	0	
81	N101A	-3.926583	5.292	4.201287	0	
82	N102A	-3.926583	0	3.951241	0	
83	N103A	-5.968583	0	4.201287	0	
84	N104	-5.968583	-3.208	4.201287	0	
85	N105	-5.968583	5.292	4.201287	0	
86	N106	-5.968583	0	3.951241	0	
87	N108	0.685295	0	-7.215608	0	
88	N109	0.685295	-3.208	-7.215608	0	
89	N110	0.685295	5.292	-7.215608	0	
90	N111	0.46875	0	-7.090585	0	
91	N112	1.633295	0	-5.573623	0	
92	N113	1.633295	-3.208	-5.573623	0	
93	N114	1.633295	5.292	-5.573623	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
94	N115	1.41675	0	-5.448601	0	
95	N116	3.549795	0	-2.254148	0	
96	N117	3.549795	-2.9375	-2.254148	0	
97	N118	3.549795	4.0625	-2.254148	0	
98	N119	3.33325	0	-2.129125	0	
99	N120	5.560295	0	1.22814	0	
100	N121	5.560295	-3.208	1.22814	0	
101	N122	5.560295	5.292	1.22814	0	
102	N123	5.34375	0	1.353163	0	
103	N124	6.539295	0	2.923818	0	
104	N125	6.539295	-3.208	2.923818	0	
105	N126	6.539295	5.292	2.923818	0	
106	N127	6.32275	0	3.04884	0	

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N50A	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N51	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N54	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Rul...
1	M16	N50	N50A			Standoff Arm	Beam	SquareTube	A500 Gr....	Typical
2	M22	N65	N69		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
3	M23	N66	N70		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
4	M24	N67	N71		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
5	M25	N68	N72		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
6	M26	N74	N78		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
7	M27	N75	N79		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
8	M28	N76	N80		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
9	M29	N77	N81		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
10	M30	N83	N87		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
11	M31	N84	N88		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
12	M32	N85	N89		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
13	M33	N86	N90		180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
14	M1	N1	N2			Footrail	Beam	SquareTube	A500 Gr....	Typical
15	M8	N2	N21			Footrail	Beam	SquareTube	A500 Gr....	Typical
16	M15	N21	N1			Footrail	Beam	SquareTube	A500 Gr....	Typical
17	M19	N50B	N51			Standoff Arm	Beam	SquareTube	A500 Gr....	Typical
18	M20	N53	N54			Standoff Arm	Beam	SquareTube	A500 Gr....	Typical
19	MP1B	N70A	N69A		120	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
20	M30A	N68B	N71A			RIGID	None	None	RIGID	Typical
21	MP2B	N74A	N73		120	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
22	M32A	N72A	N75A			RIGID	None	None	RIGID	Typical
23	MP3B	N78A	N77A		120	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
24	M34	N76A	N79A			RIGID	None	None	RIGID	Typical
25	MP4B	N82	N81A		120	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
26	M36	N80A	N83A			RIGID	None	None	RIGID	Typical
27	MP5B	N86A	N85A		120	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
28	M38	N84A	N87A			RIGID	None	None	RIGID	Typical
29	MP1A	N89A	N88A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
30	M40	N87B	N90B			RIGID	None	None	RIGID	Typical
31	MP2A	N93A	N92A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
32	M42	N91A	N94			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Rul...
33	MP3A	N97A	N96A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
34	M44	N95A	N98A			RIGID	None	None	RIGID	Typical
35	MP4A	N101A	N100A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
36	M46	N99	N102A			RIGID	None	None	RIGID	Typical
37	MP5A	N105	N104			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
38	M48	N103A	N106			RIGID	None	None	RIGID	Typical
39	MP1C	N110	N109		240	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
40	M50	N108	N111			RIGID	None	None	RIGID	Typical
41	MP2C	N114	N113		240	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
42	M52	N112	N115			RIGID	None	None	RIGID	Typical
43	MP3C	N118	N117		240	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
44	M54	N116	N119			RIGID	None	None	RIGID	Typical
45	MP4C	N122	N121		240	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
46	M56	N120	N123			RIGID	None	None	RIGID	Typical
47	MP5C	N126	N125		240	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
48	M58	N124	N127			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Options	Analysis ...	Inactive	Seismi...
1	M16						Yes	Default			None
2	M22						Yes				None
3	M23						Yes				None
4	M24						Yes				None
5	M25						Yes				None
6	M26						Yes				None
7	M27						Yes				None
8	M28						Yes				None
9	M29						Yes				None
10	M30						Yes				None
11	M31						Yes				None
12	M32						Yes				None
13	M33						Yes				None
14	M1						Yes				None
15	M8						Yes				None
16	M15						Yes				None
17	M19						Yes	Default			None
18	M20						Yes	Default			None
19	MP1B						Yes				None
20	M30A						Yes	** NA **			None
21	MP2B						Yes				None
22	M32A						Yes	** NA **			None
23	MP3B						Yes				None
24	M34						Yes	** NA **			None
25	MP4B						Yes				None
26	M36						Yes	** NA **			None
27	MP5B						Yes				None
28	M38						Yes	** NA **			None
29	MP1A						Yes				None
30	M40						Yes	** NA **			None
31	MP2A						Yes				None
32	M42						Yes	** NA **			None
33	MP3A						Yes				None
34	M44						Yes	** NA **			None
35	MP4A						Yes				None
36	M46						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Options	Analysis ...	Inactive	Seismi...
37	MP5A						Yes				None
38	M48						Yes	** NA **			None
39	MP1C						Yes				None
40	M50						Yes	** NA **			None
41	MP2C						Yes				None
42	M52						Yes	** NA **			None
43	MP3C						Yes				None
44	M54						Yes	** NA **			None
45	MP4C						Yes				None
46	M56						Yes	** NA **			None
47	MP5C						Yes				None
48	M58						Yes	** NA **			None

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E5 F)	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
3	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-43.55	2.92
2	MP4A	My	-.033	2.92
3	MP4A	Mz	0	2.92
4	MP4A	Y	-43.55	5.67
5	MP4A	My	-.033	5.67
6	MP4A	Mz	0	5.67
7	MP4B	Y	-43.55	2.92
8	MP4B	My	.016	2.92
9	MP4B	Mz	-.028	2.92
10	MP4B	Y	-43.55	5.67
11	MP4B	My	.016	5.67
12	MP4B	Mz	-.028	5.67
13	MP4C	Y	-43.55	2.92
14	MP4C	My	.016	2.92
15	MP4C	Mz	.028	2.92
16	MP4C	Y	-43.55	5.67
17	MP4C	My	.016	5.67
18	MP4C	Mz	.028	5.67
19	MP1A	Y	-84.4	3.5
20	MP1A	My	.056	3.5
21	MP1A	Mz	0	3.5
22	MP1B	Y	-84.4	3.5
23	MP1B	My	-.028	3.5
24	MP1B	Mz	.049	3.5
25	MP1C	Y	-84.4	3.5
26	MP1C	My	-.028	3.5
27	MP1C	Mz	-.049	3.5
28	MP2A	Y	-70.3	3.5
29	MP2A	My	.047	3.5

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP2A	Mz	0	3.5
31	MP2B	Y	-70.3	3.5
32	MP2B	My	-.023	3.5
33	MP2B	Mz	.041	3.5
34	MP2C	Y	-70.3	3.5
35	MP2C	My	-.023	3.5
36	MP2C	Mz	-.041	3.5
37	MP2A	Y	-31.65	1.75
38	MP2A	My	-.024	1.75
39	MP2A	Mz	.026	1.75
40	MP2A	Y	-31.65	6.75
41	MP2A	My	-.024	6.75
42	MP2A	Mz	.026	6.75
43	MP2B	Y	-31.65	1.75
44	MP2B	My	-.011	1.75
45	MP2B	Mz	-.034	1.75
46	MP2B	Y	-31.65	6.75
47	MP2B	My	-.011	6.75
48	MP2B	Mz	-.034	6.75
49	MP2C	Y	-31.65	1.75
50	MP2C	My	.035	1.75
51	MP2C	Mz	.007	1.75
52	MP2C	Y	-31.65	6.75
53	MP2C	My	.035	6.75
54	MP2C	Mz	.007	6.75
55	MP2A	Y	-31.65	1.75
56	MP2A	My	-.024	1.75
57	MP2A	Mz	-.026	1.75
58	MP2A	Y	-31.65	6.75
59	MP2A	My	-.024	6.75
60	MP2A	Mz	-.026	6.75
61	MP2B	Y	-31.65	1.75
62	MP2B	My	.035	1.75
63	MP2B	Mz	-.007	1.75
64	MP2B	Y	-31.65	6.75
65	MP2B	My	.035	6.75
66	MP2B	Mz	-.007	6.75
67	MP2C	Y	-31.65	1.75
68	MP2C	My	-.011	1.75
69	MP2C	Mz	.034	1.75
70	MP2C	Y	-31.65	6.75
71	MP2C	My	-.011	6.75
72	MP2C	Mz	.034	6.75
73	MP1C	Y	-7.85	2.42
74	MP1C	My	.003	2.42
75	MP1C	Mz	.005	2.42
76	MP1C	Y	-7.85	6
77	MP1C	My	.003	6
78	MP1C	Mz	.005	6
79	MP5C	Y	-7.85	2.42
80	MP5C	My	.003	2.42
81	MP5C	Mz	.005	2.42
82	MP5C	Y	-7.85	6
83	MP5C	My	.003	6
84	MP5C	Mz	.005	6
85	MP1A	Y	-8	1.75
86	MP1A	My	-.005	1.75

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
87	MP1A	Mz	0	1.75
88	MP1A	Y	-8	6.75
89	MP1A	My	-.005	6.75
90	MP1A	Mz	0	6.75
91	MP1B	Y	-8	1.75
92	MP1B	My	.002	1.75
93	MP1B	Mz	-.004	1.75
94	MP1B	Y	-8	6.75
95	MP1B	My	.002	6.75
96	MP1B	Mz	-.004	6.75
97	MP5A	Y	-8	1.75
98	MP5A	My	-.005	1.75
99	MP5A	Mz	0	1.75
100	MP5A	Y	-8	6.75
101	MP5A	My	-.005	6.75
102	MP5A	Mz	0	6.75
103	MP5B	Y	-8	1.75
104	MP5B	My	.002	1.75
105	MP5B	Mz	-.004	1.75
106	MP5B	Y	-8	6.75
107	MP5B	My	.002	6.75
108	MP5B	Mz	-.004	6.75
109	MP2A	Y	-10.4	4.5
110	MP2A	My	.004	4.5
111	MP2A	Mz	0	4.5
112	MP2B	Y	-10.4	4.5
113	MP2B	My	-.002	4.5
114	MP2B	Mz	.004	4.5
115	MP2C	Y	-10.4	4.5
116	MP2C	My	-.002	4.5
117	MP2C	Mz	-.004	4.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-35.279	2.92
2	MP4A	My	-.026	2.92
3	MP4A	Mz	0	2.92
4	MP4A	Y	-35.279	5.67
5	MP4A	My	-.026	5.67
6	MP4A	Mz	0	5.67
7	MP4B	Y	-35.279	2.92
8	MP4B	My	.013	2.92
9	MP4B	Mz	-.023	2.92
10	MP4B	Y	-35.279	5.67
11	MP4B	My	.013	5.67
12	MP4B	Mz	-.023	5.67
13	MP4C	Y	-35.279	2.92
14	MP4C	My	.013	2.92
15	MP4C	Mz	.023	2.92
16	MP4C	Y	-35.279	5.67
17	MP4C	My	.013	5.67
18	MP4C	Mz	.023	5.67
19	MP1A	Y	-44.473	3.5
20	MP1A	My	.03	3.5
21	MP1A	Mz	0	3.5
22	MP1B	Y	-44.473	3.5

Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP1B	My	-.015	3.5
24	MP1B	Mz	.026	3.5
25	MP1C	Y	-44.473	3.5
26	MP1C	My	-.015	3.5
27	MP1C	Mz	-.026	3.5
28	MP2A	Y	-39.992	3.5
29	MP2A	My	.027	3.5
30	MP2A	Mz	0	3.5
31	MP2B	Y	-39.992	3.5
32	MP2B	My	-.013	3.5
33	MP2B	Mz	.023	3.5
34	MP2C	Y	-39.992	3.5
35	MP2C	My	-.013	3.5
36	MP2C	Mz	-.023	3.5
37	MP2A	Y	-69.303	1.75
38	MP2A	My	-.052	1.75
39	MP2A	Mz	.058	1.75
40	MP2A	Y	-69.303	6.75
41	MP2A	My	-.052	6.75
42	MP2A	Mz	.058	6.75
43	MP2B	Y	-69.303	1.75
44	MP2B	My	-.024	1.75
45	MP2B	Mz	-.074	1.75
46	MP2B	Y	-69.303	6.75
47	MP2B	My	-.024	6.75
48	MP2B	Mz	-.074	6.75
49	MP2C	Y	-69.303	1.75
50	MP2C	My	.076	1.75
51	MP2C	Mz	.016	1.75
52	MP2C	Y	-69.303	6.75
53	MP2C	My	.076	6.75
54	MP2C	Mz	.016	6.75
55	MP2A	Y	-69.303	1.75
56	MP2A	My	-.052	1.75
57	MP2A	Mz	-.058	1.75
58	MP2A	Y	-69.303	6.75
59	MP2A	My	-.052	6.75
60	MP2A	Mz	-.058	6.75
61	MP2B	Y	-69.303	1.75
62	MP2B	My	.076	1.75
63	MP2B	Mz	-.016	1.75
64	MP2B	Y	-69.303	6.75
65	MP2B	My	.076	6.75
66	MP2B	Mz	-.016	6.75
67	MP2C	Y	-69.303	1.75
68	MP2C	My	-.024	1.75
69	MP2C	Mz	.074	1.75
70	MP2C	Y	-69.303	6.75
71	MP2C	My	-.024	6.75
72	MP2C	Mz	.074	6.75
73	MP1C	Y	-37.792	2.42
74	MP1C	My	.015	2.42
75	MP1C	Mz	.025	2.42
76	MP1C	Y	-37.792	6
77	MP1C	My	.015	6
78	MP1C	Mz	.025	6
79	MP5C	Y	-37.792	2.42

Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
80	MP5C	My	.015	2.42
81	MP5C	Mz	.025	2.42
82	MP5C	Y	-37.792	6
83	MP5C	My	.015	6
84	MP5C	Mz	.025	6
85	MP1A	Y	-46.51	1.75
86	MP1A	My	-.028	1.75
87	MP1A	Mz	0	1.75
88	MP1A	Y	-46.51	6.75
89	MP1A	My	-.028	6.75
90	MP1A	Mz	0	6.75
91	MP1B	Y	-46.51	1.75
92	MP1B	My	.014	1.75
93	MP1B	Mz	-.024	1.75
94	MP1B	Y	-46.51	6.75
95	MP1B	My	.014	6.75
96	MP1B	Mz	-.024	6.75
97	MP5A	Y	-46.51	1.75
98	MP5A	My	-.028	1.75
99	MP5A	Mz	0	1.75
100	MP5A	Y	-46.51	6.75
101	MP5A	My	-.028	6.75
102	MP5A	Mz	0	6.75
103	MP5B	Y	-46.51	1.75
104	MP5B	My	.014	1.75
105	MP5B	Mz	-.024	1.75
106	MP5B	Y	-46.51	6.75
107	MP5B	My	.014	6.75
108	MP5B	Mz	-.024	6.75
109	MP2A	Y	-10.626	4.5
110	MP2A	My	.004	4.5
111	MP2A	Mz	0	4.5
112	MP2B	Y	-10.626	4.5
113	MP2B	My	-.002	4.5
114	MP2B	Mz	.004	4.5
115	MP2C	Y	-10.626	4.5
116	MP2C	My	-.002	4.5
117	MP2C	Mz	-.004	4.5

Member Point Loads (BLC 3 : Antenna Wo (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2.92
2	MP4A	Z	-97.691	2.92
3	MP4A	Mx	0	2.92
4	MP4A	X	0	5.67
5	MP4A	Z	-97.691	5.67
6	MP4A	Mx	0	5.67
7	MP4B	X	0	2.92
8	MP4B	Z	-53.107	2.92
9	MP4B	Mx	.034	2.92
10	MP4B	X	0	5.67
11	MP4B	Z	-53.107	5.67
12	MP4B	Mx	.034	5.67
13	MP4C	X	0	2.92
14	MP4C	Z	-53.107	2.92
15	MP4C	Mx	-.034	2.92

Member Point Loads (BLC 3 : Antenna Wo (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	MP4C	X	0	5.67
17	MP4C	Z	-53.107	5.67
18	MP4C	Mx	-.034	5.67
19	MP1A	X	0	3.5
20	MP1A	Z	-77.737	3.5
21	MP1A	Mx	0	3.5
22	MP1B	X	0	3.5
23	MP1B	Z	-58.406	3.5
24	MP1B	Mx	-.034	3.5
25	MP1C	X	0	3.5
26	MP1C	Z	-58.406	3.5
27	MP1C	Mx	.034	3.5
28	MP2A	X	0	3.5
29	MP2A	Z	-77.737	3.5
30	MP2A	Mx	0	3.5
31	MP2B	X	0	3.5
32	MP2B	Z	-51.002	3.5
33	MP2B	Mx	-.029	3.5
34	MP2C	X	0	3.5
35	MP2C	Z	-51.002	3.5
36	MP2C	Mx	.029	3.5
37	MP2A	X	0	1.75
38	MP2A	Z	-189.353	1.75
39	MP2A	Mx	-.158	1.75
40	MP2A	X	0	6.75
41	MP2A	Z	-189.353	6.75
42	MP2A	Mx	-.158	6.75
43	MP2B	X	0	1.75
44	MP2B	Z	-140.612	1.75
45	MP2B	Mx	.15	1.75
46	MP2B	X	0	6.75
47	MP2B	Z	-140.612	6.75
48	MP2B	Mx	.15	6.75
49	MP2C	X	0	1.75
50	MP2C	Z	-140.612	1.75
51	MP2C	Mx	-.033	1.75
52	MP2C	X	0	6.75
53	MP2C	Z	-140.612	6.75
54	MP2C	Mx	-.033	6.75
55	MP2A	X	0	1.75
56	MP2A	Z	-189.353	1.75
57	MP2A	Mx	.158	1.75
58	MP2A	X	0	6.75
59	MP2A	Z	-189.353	6.75
60	MP2A	Mx	.158	6.75
61	MP2B	X	0	1.75
62	MP2B	Z	-140.612	1.75
63	MP2B	Mx	.033	1.75
64	MP2B	X	0	6.75
65	MP2B	Z	-140.612	6.75
66	MP2B	Mx	.033	6.75
67	MP2C	X	0	1.75
68	MP2C	Z	-140.612	1.75
69	MP2C	Mx	-.15	1.75
70	MP2C	X	0	6.75
71	MP2C	Z	-140.612	6.75
72	MP2C	Mx	-.15	6.75

Member Point Loads (BLC 3 : Antenna Wo (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
73	MP1C	X	0	2.42
74	MP1C	Z	-77.396	2.42
75	MP1C	Mx	-.052	2.42
76	MP1C	X	0	6
77	MP1C	Z	-77.396	6
78	MP1C	Mx	-.052	6
79	MP5C	X	0	2.42
80	MP5C	Z	-77.396	2.42
81	MP5C	Mx	-.052	2.42
82	MP5C	X	0	6
83	MP5C	Z	-77.396	6
84	MP5C	Mx	-.052	6
85	MP1A	X	0	1.75
86	MP1A	Z	-104.134	1.75
87	MP1A	Mx	0	1.75
88	MP1A	X	0	6.75
89	MP1A	Z	-104.134	6.75
90	MP1A	Mx	0	6.75
91	MP1B	X	0	1.75
92	MP1B	Z	-117.488	1.75
93	MP1B	Mx	.061	1.75
94	MP1B	X	0	6.75
95	MP1B	Z	-117.488	6.75
96	MP1B	Mx	.061	6.75
97	MP5A	X	0	1.75
98	MP5A	Z	-104.134	1.75
99	MP5A	Mx	0	1.75
100	MP5A	X	0	6.75
101	MP5A	Z	-104.134	6.75
102	MP5A	Mx	0	6.75
103	MP5B	X	0	1.75
104	MP5B	Z	-117.488	1.75
105	MP5B	Mx	.061	1.75
106	MP5B	X	0	6.75
107	MP5B	Z	-117.488	6.75
108	MP5B	Mx	.061	6.75
109	MP2A	X	0	4.5
110	MP2A	Z	-15.381	4.5
111	MP2A	Mx	0	4.5
112	MP2B	X	0	4.5
113	MP2B	Z	-11.827	4.5
114	MP2B	Mx	-.004	4.5
115	MP2C	X	0	4.5
116	MP2C	Z	-11.827	4.5
117	MP2C	Mx	.004	4.5

Member Point Loads (BLC 4 : Antenna Wo (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	41.415	2.92
2	MP4A	Z	-71.732	2.92
3	MP4A	Mx	-.031	2.92
4	MP4A	X	41.415	5.67
5	MP4A	Z	-71.732	5.67
6	MP4A	Mx	-.031	5.67
7	MP4B	X	19.123	2.92
8	MP4B	Z	-33.122	2.92

Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP4B	Mx	.029	2.92
10	MP4B	X	19.123	5.67
11	MP4B	Z	-33.122	5.67
12	MP4B	Mx	.029	5.67
13	MP4C	X	41.415	2.92
14	MP4C	Z	-71.732	2.92
15	MP4C	Mx	-.031	2.92
16	MP4C	X	41.415	5.67
17	MP4C	Z	-71.732	5.67
18	MP4C	Mx	-.031	5.67
19	MP1A	X	35.647	3.5
20	MP1A	Z	-61.742	3.5
21	MP1A	Mx	.024	3.5
22	MP1B	X	25.982	3.5
23	MP1B	Z	-45.001	3.5
24	MP1B	Mx	-.035	3.5
25	MP1C	X	35.647	3.5
26	MP1C	Z	-61.742	3.5
27	MP1C	Mx	.024	3.5
28	MP2A	X	34.413	3.5
29	MP2A	Z	-59.604	3.5
30	MP2A	Mx	.023	3.5
31	MP2B	X	21.045	3.5
32	MP2B	Z	-36.451	3.5
33	MP2B	Mx	-.028	3.5
34	MP2C	X	34.413	3.5
35	MP2C	Z	-59.604	3.5
36	MP2C	Mx	.023	3.5
37	MP2A	X	86.553	1.75
38	MP2A	Z	-149.914	1.75
39	MP2A	Mx	-.19	1.75
40	MP2A	X	86.553	6.75
41	MP2A	Z	-149.914	6.75
42	MP2A	Mx	-.19	6.75
43	MP2B	X	62.182	1.75
44	MP2B	Z	-107.703	1.75
45	MP2B	Mx	.093	1.75
46	MP2B	X	62.182	6.75
47	MP2B	Z	-107.703	6.75
48	MP2B	Mx	.093	6.75
49	MP2C	X	86.553	1.75
50	MP2C	Z	-149.914	1.75
51	MP2C	Mx	.06	1.75
52	MP2C	X	86.553	6.75
53	MP2C	Z	-149.914	6.75
54	MP2C	Mx	.06	6.75
55	MP2A	X	86.553	1.75
56	MP2A	Z	-149.914	1.75
57	MP2A	Mx	.06	1.75
58	MP2A	X	86.553	6.75
59	MP2A	Z	-149.914	6.75
60	MP2A	Mx	.06	6.75
61	MP2B	X	62.182	1.75
62	MP2B	Z	-107.703	1.75
63	MP2B	Mx	.093	1.75
64	MP2B	X	62.182	6.75
65	MP2B	Z	-107.703	6.75

Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
66	MP2B	Mx	.093	6.75
67	MP2C	X	86.553	1.75
68	MP2C	Z	-149.914	1.75
69	MP2C	Mx	-.19	1.75
70	MP2C	X	86.553	6.75
71	MP2C	Z	-149.914	6.75
72	MP2C	Mx	-.19	6.75
73	MP1C	X	40.959	2.42
74	MP1C	Z	-70.944	2.42
75	MP1C	Mx	-.032	2.42
76	MP1C	X	40.959	6
77	MP1C	Z	-70.944	6
78	MP1C	Mx	-.032	6
79	MP5C	X	40.959	2.42
80	MP5C	Z	-70.944	2.42
81	MP5C	Mx	-.032	2.42
82	MP5C	X	40.959	6
83	MP5C	Z	-70.944	6
84	MP5C	Mx	-.032	6
85	MP1A	X	54.293	1.75
86	MP1A	Z	-94.038	1.75
87	MP1A	Mx	-.033	1.75
88	MP1A	X	54.293	6.75
89	MP1A	Z	-94.038	6.75
90	MP1A	Mx	-.033	6.75
91	MP1B	X	60.97	1.75
92	MP1B	Z	-105.603	1.75
93	MP1B	Mx	.074	1.75
94	MP1B	X	60.97	6.75
95	MP1B	Z	-105.603	6.75
96	MP1B	Mx	.074	6.75
97	MP5A	X	54.293	1.75
98	MP5A	Z	-94.038	1.75
99	MP5A	Mx	-.033	1.75
100	MP5A	X	54.293	6.75
101	MP5A	Z	-94.038	6.75
102	MP5A	Mx	-.033	6.75
103	MP5B	X	60.97	1.75
104	MP5B	Z	-105.603	1.75
105	MP5B	Mx	.074	1.75
106	MP5B	X	60.97	6.75
107	MP5B	Z	-105.603	6.75
108	MP5B	Mx	.074	6.75
109	MP2A	X	7.098	4.5
110	MP2A	Z	-12.294	4.5
111	MP2A	Mx	.003	4.5
112	MP2B	X	5.321	4.5
113	MP2B	Z	-9.216	4.5
114	MP2B	Mx	-.004	4.5
115	MP2C	X	7.098	4.5
116	MP2C	Z	-12.294	4.5
117	MP2C	Mx	.003	4.5

Member Point Loads (BLC 5 : Antenna Wo (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	45.992	2.92

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
2	MP4A	Z	-26.553	2.92
3	MP4A	Mx	-.034	2.92
4	MP4A	X	45.992	5.67
5	MP4A	Z	-26.553	5.67
6	MP4A	Mx	-.034	5.67
7	MP4B	X	45.992	2.92
8	MP4B	Z	-26.553	2.92
9	MP4B	Mx	.034	2.92
10	MP4B	X	45.992	5.67
11	MP4B	Z	-26.553	5.67
12	MP4B	Mx	.034	5.67
13	MP4C	X	84.603	2.92
14	MP4C	Z	-48.845	2.92
15	MP4C	Mx	0	2.92
16	MP4C	X	84.603	5.67
17	MP4C	Z	-48.845	5.67
18	MP4C	Mx	0	5.67
19	MP1A	X	50.582	3.5
20	MP1A	Z	-29.203	3.5
21	MP1A	Mx	.034	3.5
22	MP1B	X	50.582	3.5
23	MP1B	Z	-29.203	3.5
24	MP1B	Mx	-.034	3.5
25	MP1C	X	67.322	3.5
26	MP1C	Z	-38.868	3.5
27	MP1C	Mx	0	3.5
28	MP2A	X	44.169	3.5
29	MP2A	Z	-25.501	3.5
30	MP2A	Mx	.029	3.5
31	MP2B	X	44.169	3.5
32	MP2B	Z	-25.501	3.5
33	MP2B	Mx	-.029	3.5
34	MP2C	X	67.322	3.5
35	MP2C	Z	-38.868	3.5
36	MP2C	Mx	0	3.5
37	MP2A	X	121.774	1.75
38	MP2A	Z	-70.306	1.75
39	MP2A	Mx	-.15	1.75
40	MP2A	X	121.774	6.75
41	MP2A	Z	-70.306	6.75
42	MP2A	Mx	-.15	6.75
43	MP2B	X	121.774	1.75
44	MP2B	Z	-70.306	1.75
45	MP2B	Mx	.033	1.75
46	MP2B	X	121.774	6.75
47	MP2B	Z	-70.306	6.75
48	MP2B	Mx	.033	6.75
49	MP2C	X	163.985	1.75
50	MP2C	Z	-94.677	1.75
51	MP2C	Mx	.158	1.75
52	MP2C	X	163.985	6.75
53	MP2C	Z	-94.677	6.75
54	MP2C	Mx	.158	6.75
55	MP2A	X	121.774	1.75
56	MP2A	Z	-70.306	1.75
57	MP2A	Mx	-.033	1.75
58	MP2A	X	121.774	6.75

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
59	MP2A	Z	-70.306	6.75
60	MP2A	Mx	-.033	6.75
61	MP2B	X	121.774	1.75
62	MP2B	Z	-70.306	1.75
63	MP2B	Mx	.15	1.75
64	MP2B	X	121.774	6.75
65	MP2B	Z	-70.306	6.75
66	MP2B	Mx	.15	6.75
67	MP2C	X	163.985	1.75
68	MP2C	Z	-94.677	1.75
69	MP2C	Mx	-.158	1.75
70	MP2C	X	163.985	6.75
71	MP2C	Z	-94.677	6.75
72	MP2C	Mx	-.158	6.75
73	MP1C	X	72.902	2.42
74	MP1C	Z	-42.09	2.42
75	MP1C	Mx	0	2.42
76	MP1C	X	72.902	6
77	MP1C	Z	-42.09	6
78	MP1C	Mx	0	6
79	MP5C	X	72.902	2.42
80	MP5C	Z	-42.09	2.42
81	MP5C	Mx	0	2.42
82	MP5C	X	72.902	6
83	MP5C	Z	-42.09	6
84	MP5C	Mx	0	6
85	MP1A	X	101.748	1.75
86	MP1A	Z	-58.744	1.75
87	MP1A	Mx	-.061	1.75
88	MP1A	X	101.748	6.75
89	MP1A	Z	-58.744	6.75
90	MP1A	Mx	-.061	6.75
91	MP1B	X	101.748	1.75
92	MP1B	Z	-58.744	1.75
93	MP1B	Mx	.061	1.75
94	MP1B	X	101.748	6.75
95	MP1B	Z	-58.744	6.75
96	MP1B	Mx	.061	6.75
97	MP5A	X	101.748	1.75
98	MP5A	Z	-58.744	1.75
99	MP5A	Mx	-.061	1.75
100	MP5A	X	101.748	6.75
101	MP5A	Z	-58.744	6.75
102	MP5A	Mx	-.061	6.75
103	MP5B	X	101.748	1.75
104	MP5B	Z	-58.744	1.75
105	MP5B	Mx	.061	1.75
106	MP5B	X	101.748	6.75
107	MP5B	Z	-58.744	6.75
108	MP5B	Mx	.061	6.75
109	MP2A	X	10.242	4.5
110	MP2A	Z	-5.913	4.5
111	MP2A	Mx	.004	4.5
112	MP2B	X	10.242	4.5
113	MP2B	Z	-5.913	4.5
114	MP2B	Mx	-.004	4.5
115	MP2C	X	13.32	4.5

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
116	MP2C	Z	-7.691	4.5
117	MP2C	Mx	0	4.5

Member Point Loads (BLC 6 : Antenna Wo (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	38.246	2.92
2	MP4A	Z	0	2.92
3	MP4A	Mx	-.029	2.92
4	MP4A	X	38.246	5.67
5	MP4A	Z	0	5.67
6	MP4A	Mx	-.029	5.67
7	MP4B	X	82.829	2.92
8	MP4B	Z	0	2.92
9	MP4B	Mx	.031	2.92
10	MP4B	X	82.829	5.67
11	MP4B	Z	0	5.67
12	MP4B	Mx	.031	5.67
13	MP4C	X	82.829	2.92
14	MP4C	Z	0	2.92
15	MP4C	Mx	.031	2.92
16	MP4C	X	82.829	5.67
17	MP4C	Z	0	5.67
18	MP4C	Mx	.031	5.67
19	MP1A	X	51.963	3.5
20	MP1A	Z	0	3.5
21	MP1A	Mx	.035	3.5
22	MP1B	X	71.293	3.5
23	MP1B	Z	0	3.5
24	MP1B	Mx	-.024	3.5
25	MP1C	X	71.293	3.5
26	MP1C	Z	0	3.5
27	MP1C	Mx	-.024	3.5
28	MP2A	X	42.09	3.5
29	MP2A	Z	0	3.5
30	MP2A	Mx	.028	3.5
31	MP2B	X	68.825	3.5
32	MP2B	Z	0	3.5
33	MP2B	Mx	-.023	3.5
34	MP2C	X	68.825	3.5
35	MP2C	Z	0	3.5
36	MP2C	Mx	-.023	3.5
37	MP2A	X	124.365	1.75
38	MP2A	Z	0	1.75
39	MP2A	Mx	-.093	1.75
40	MP2A	X	124.365	6.75
41	MP2A	Z	0	6.75
42	MP2A	Mx	-.093	6.75
43	MP2B	X	173.106	1.75
44	MP2B	Z	0	1.75
45	MP2B	Mx	-.06	1.75
46	MP2B	X	173.106	6.75
47	MP2B	Z	0	6.75
48	MP2B	Mx	-.06	6.75
49	MP2C	X	173.106	1.75
50	MP2C	Z	0	1.75
51	MP2C	Mx	.19	1.75

Member Point Loads (BLC 6 : Antenna Wo (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
52	MP2C	X	173.106	6.75
53	MP2C	Z	0	6.75
54	MP2C	Mx	.19	6.75
55	MP2A	X	124.365	1.75
56	MP2A	Z	0	1.75
57	MP2A	Mx	-.093	1.75
58	MP2A	X	124.365	6.75
59	MP2A	Z	0	6.75
60	MP2A	Mx	-.093	6.75
61	MP2B	X	173.106	1.75
62	MP2B	Z	0	1.75
63	MP2B	Mx	.19	1.75
64	MP2B	X	173.106	6.75
65	MP2B	Z	0	6.75
66	MP2B	Mx	.19	6.75
67	MP2C	X	173.106	1.75
68	MP2C	Z	0	1.75
69	MP2C	Mx	-.06	1.75
70	MP2C	X	173.106	6.75
71	MP2C	Z	0	6.75
72	MP2C	Mx	-.06	6.75
73	MP1C	X	81.919	2.42
74	MP1C	Z	0	2.42
75	MP1C	Mx	.032	2.42
76	MP1C	X	81.919	6
77	MP1C	Z	0	6
78	MP1C	Mx	.032	6
79	MP5C	X	81.919	2.42
80	MP5C	Z	0	2.42
81	MP5C	Mx	.032	2.42
82	MP5C	X	81.919	6
83	MP5C	Z	0	6
84	MP5C	Mx	.032	6
85	MP1A	X	121.94	1.75
86	MP1A	Z	0	1.75
87	MP1A	Mx	-.074	1.75
88	MP1A	X	121.94	6.75
89	MP1A	Z	0	6.75
90	MP1A	Mx	-.074	6.75
91	MP1B	X	108.585	1.75
92	MP1B	Z	0	1.75
93	MP1B	Mx	.033	1.75
94	MP1B	X	108.585	6.75
95	MP1B	Z	0	6.75
96	MP1B	Mx	.033	6.75
97	MP5A	X	121.94	1.75
98	MP5A	Z	0	1.75
99	MP5A	Mx	-.074	1.75
100	MP5A	X	121.94	6.75
101	MP5A	Z	0	6.75
102	MP5A	Mx	-.074	6.75
103	MP5B	X	108.585	1.75
104	MP5B	Z	0	1.75
105	MP5B	Mx	.033	1.75
106	MP5B	X	108.585	6.75
107	MP5B	Z	0	6.75
108	MP5B	Mx	.033	6.75

Member Point Loads (BLC 6 : Antenna Wo (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
109	MP2A	X	10.642	4.5
110	MP2A	Z	0	4.5
111	MP2A	Mx	.004	4.5
112	MP2B	X	14.196	4.5
113	MP2B	Z	0	4.5
114	MP2B	Mx	-.003	4.5
115	MP2C	X	14.196	4.5
116	MP2C	Z	0	4.5
117	MP2C	Mx	-.003	4.5

Member Point Loads (BLC 7 : Antenna Wo (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	45.992	2.92
2	MP4A	Z	26.553	2.92
3	MP4A	Mx	-.034	2.92
4	MP4A	X	45.992	5.67
5	MP4A	Z	26.553	5.67
6	MP4A	Mx	-.034	5.67
7	MP4B	X	84.603	2.92
8	MP4B	Z	48.845	2.92
9	MP4B	Mx	0	2.92
10	MP4B	X	84.603	5.67
11	MP4B	Z	48.845	5.67
12	MP4B	Mx	0	5.67
13	MP4C	X	45.992	2.92
14	MP4C	Z	26.553	2.92
15	MP4C	Mx	.034	2.92
16	MP4C	X	45.992	5.67
17	MP4C	Z	26.553	5.67
18	MP4C	Mx	.034	5.67
19	MP1A	X	50.582	3.5
20	MP1A	Z	29.203	3.5
21	MP1A	Mx	.034	3.5
22	MP1B	X	67.322	3.5
23	MP1B	Z	38.868	3.5
24	MP1B	Mx	0	3.5
25	MP1C	X	50.582	3.5
26	MP1C	Z	29.203	3.5
27	MP1C	Mx	-.034	3.5
28	MP2A	X	44.169	3.5
29	MP2A	Z	25.501	3.5
30	MP2A	Mx	.029	3.5
31	MP2B	X	67.322	3.5
32	MP2B	Z	38.868	3.5
33	MP2B	Mx	0	3.5
34	MP2C	X	44.169	3.5
35	MP2C	Z	25.501	3.5
36	MP2C	Mx	-.029	3.5
37	MP2A	X	121.774	1.75
38	MP2A	Z	70.306	1.75
39	MP2A	Mx	-.033	1.75
40	MP2A	X	121.774	6.75
41	MP2A	Z	70.306	6.75
42	MP2A	Mx	-.033	6.75
43	MP2B	X	163.985	1.75
44	MP2B	Z	94.677	1.75

Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
45	MP2B	Mx	-.158	1.75
46	MP2B	X	163.985	6.75
47	MP2B	Z	94.677	6.75
48	MP2B	Mx	-.158	6.75
49	MP2C	X	121.774	1.75
50	MP2C	Z	70.306	1.75
51	MP2C	Mx	.15	1.75
52	MP2C	X	121.774	6.75
53	MP2C	Z	70.306	6.75
54	MP2C	Mx	.15	6.75
55	MP2A	X	121.774	1.75
56	MP2A	Z	70.306	1.75
57	MP2A	Mx	-.15	1.75
58	MP2A	X	121.774	6.75
59	MP2A	Z	70.306	6.75
60	MP2A	Mx	-.15	6.75
61	MP2B	X	163.985	1.75
62	MP2B	Z	94.677	1.75
63	MP2B	Mx	.158	1.75
64	MP2B	X	163.985	6.75
65	MP2B	Z	94.677	6.75
66	MP2B	Mx	.158	6.75
67	MP2C	X	121.774	1.75
68	MP2C	Z	70.306	1.75
69	MP2C	Mx	.033	1.75
70	MP2C	X	121.774	6.75
71	MP2C	Z	70.306	6.75
72	MP2C	Mx	.033	6.75
73	MP1C	X	67.027	2.42
74	MP1C	Z	38.698	2.42
75	MP1C	Mx	.052	2.42
76	MP1C	X	67.027	6
77	MP1C	Z	38.698	6
78	MP1C	Mx	.052	6
79	MP5C	X	67.027	2.42
80	MP5C	Z	38.698	2.42
81	MP5C	Mx	.052	2.42
82	MP5C	X	67.027	6
83	MP5C	Z	38.698	6
84	MP5C	Mx	.052	6
85	MP1A	X	101.748	1.75
86	MP1A	Z	58.744	1.75
87	MP1A	Mx	-.061	1.75
88	MP1A	X	101.748	6.75
89	MP1A	Z	58.744	6.75
90	MP1A	Mx	-.061	6.75
91	MP1B	X	90.183	1.75
92	MP1B	Z	52.067	1.75
93	MP1B	Mx	0	1.75
94	MP1B	X	90.183	6.75
95	MP1B	Z	52.067	6.75
96	MP1B	Mx	0	6.75
97	MP5A	X	101.748	1.75
98	MP5A	Z	58.744	1.75
99	MP5A	Mx	-.061	1.75
100	MP5A	X	101.748	6.75
101	MP5A	Z	58.744	6.75

Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
102	MP5A	Mx	-.061	6.75
103	MP5B	X	90.183	1.75
104	MP5B	Z	52.067	1.75
105	MP5B	Mx	0	1.75
106	MP5B	X	90.183	6.75
107	MP5B	Z	52.067	6.75
108	MP5B	Mx	0	6.75
109	MP2A	X	10.242	4.5
110	MP2A	Z	5.913	4.5
111	MP2A	Mx	.004	4.5
112	MP2B	X	13.32	4.5
113	MP2B	Z	7.691	4.5
114	MP2B	Mx	0	4.5
115	MP2C	X	10.242	4.5
116	MP2C	Z	5.913	4.5
117	MP2C	Mx	-.004	4.5

Member Point Loads (BLC 8 : Antenna Wo (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	41.415	2.92
2	MP4A	Z	71.732	2.92
3	MP4A	Mx	-.031	2.92
4	MP4A	X	41.415	5.67
5	MP4A	Z	71.732	5.67
6	MP4A	Mx	-.031	5.67
7	MP4B	X	41.415	2.92
8	MP4B	Z	71.732	2.92
9	MP4B	Mx	-.031	2.92
10	MP4B	X	41.415	5.67
11	MP4B	Z	71.732	5.67
12	MP4B	Mx	-.031	5.67
13	MP4C	X	19.123	2.92
14	MP4C	Z	33.122	2.92
15	MP4C	Mx	.029	2.92
16	MP4C	X	19.123	5.67
17	MP4C	Z	33.122	5.67
18	MP4C	Mx	.029	5.67
19	MP1A	X	35.647	3.5
20	MP1A	Z	61.742	3.5
21	MP1A	Mx	.024	3.5
22	MP1B	X	35.647	3.5
23	MP1B	Z	61.742	3.5
24	MP1B	Mx	.024	3.5
25	MP1C	X	25.982	3.5
26	MP1C	Z	45.001	3.5
27	MP1C	Mx	-.035	3.5
28	MP2A	X	34.413	3.5
29	MP2A	Z	59.604	3.5
30	MP2A	Mx	.023	3.5
31	MP2B	X	34.413	3.5
32	MP2B	Z	59.604	3.5
33	MP2B	Mx	.023	3.5
34	MP2C	X	21.045	3.5
35	MP2C	Z	36.451	3.5
36	MP2C	Mx	-.028	3.5
37	MP2A	X	86.553	1.75

Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP2A	Z	149.914	1.75
39	MP2A	Mx	.06	1.75
40	MP2A	X	86.553	6.75
41	MP2A	Z	149.914	6.75
42	MP2A	Mx	.06	6.75
43	MP2B	X	86.553	1.75
44	MP2B	Z	149.914	1.75
45	MP2B	Mx	-.19	1.75
46	MP2B	X	86.553	6.75
47	MP2B	Z	149.914	6.75
48	MP2B	Mx	-.19	6.75
49	MP2C	X	62.182	1.75
50	MP2C	Z	107.703	1.75
51	MP2C	Mx	.093	1.75
52	MP2C	X	62.182	6.75
53	MP2C	Z	107.703	6.75
54	MP2C	Mx	.093	6.75
55	MP2A	X	86.553	1.75
56	MP2A	Z	149.914	1.75
57	MP2A	Mx	-.19	1.75
58	MP2A	X	86.553	6.75
59	MP2A	Z	149.914	6.75
60	MP2A	Mx	-.19	6.75
61	MP2B	X	86.553	1.75
62	MP2B	Z	149.914	1.75
63	MP2B	Mx	.06	1.75
64	MP2B	X	86.553	6.75
65	MP2B	Z	149.914	6.75
66	MP2B	Mx	.06	6.75
67	MP2C	X	62.182	1.75
68	MP2C	Z	107.703	1.75
69	MP2C	Mx	.093	1.75
70	MP2C	X	62.182	6.75
71	MP2C	Z	107.703	6.75
72	MP2C	Mx	.093	6.75
73	MP1C	X	37.567	2.42
74	MP1C	Z	65.069	2.42
75	MP1C	Mx	.058	2.42
76	MP1C	X	37.567	6
77	MP1C	Z	65.069	6
78	MP1C	Mx	.058	6
79	MP5C	X	37.567	2.42
80	MP5C	Z	65.069	2.42
81	MP5C	Mx	.058	2.42
82	MP5C	X	37.567	6
83	MP5C	Z	65.069	6
84	MP5C	Mx	.058	6
85	MP1A	X	54.293	1.75
86	MP1A	Z	94.038	1.75
87	MP1A	Mx	-.033	1.75
88	MP1A	X	54.293	6.75
89	MP1A	Z	94.038	6.75
90	MP1A	Mx	-.033	6.75
91	MP1B	X	54.293	1.75
92	MP1B	Z	94.038	1.75
93	MP1B	Mx	-.033	1.75
94	MP1B	X	54.293	6.75

Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
95	MP1B	Z	94.038	6.75
96	MP1B	Mx	-.033	6.75
97	MP5A	X	54.293	1.75
98	MP5A	Z	94.038	1.75
99	MP5A	Mx	-.033	1.75
100	MP5A	X	54.293	6.75
101	MP5A	Z	94.038	6.75
102	MP5A	Mx	-.033	6.75
103	MP5B	X	54.293	1.75
104	MP5B	Z	94.038	1.75
105	MP5B	Mx	-.033	1.75
106	MP5B	X	54.293	6.75
107	MP5B	Z	94.038	6.75
108	MP5B	Mx	-.033	6.75
109	MP2A	X	7.098	4.5
110	MP2A	Z	12.294	4.5
111	MP2A	Mx	.003	4.5
112	MP2B	X	7.098	4.5
113	MP2B	Z	12.294	4.5
114	MP2B	Mx	.003	4.5
115	MP2C	X	5.321	4.5
116	MP2C	Z	9.216	4.5
117	MP2C	Mx	-.004	4.5

Member Point Loads (BLC 9 : Antenna Wo (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2.92
2	MP4A	Z	97.691	2.92
3	MP4A	Mx	0	2.92
4	MP4A	X	0	5.67
5	MP4A	Z	97.691	5.67
6	MP4A	Mx	0	5.67
7	MP4B	X	0	2.92
8	MP4B	Z	53.107	2.92
9	MP4B	Mx	-.034	2.92
10	MP4B	X	0	5.67
11	MP4B	Z	53.107	5.67
12	MP4B	Mx	-.034	5.67
13	MP4C	X	0	2.92
14	MP4C	Z	53.107	2.92
15	MP4C	Mx	.034	2.92
16	MP4C	X	0	5.67
17	MP4C	Z	53.107	5.67
18	MP4C	Mx	.034	5.67
19	MP1A	X	0	3.5
20	MP1A	Z	77.737	3.5
21	MP1A	Mx	0	3.5
22	MP1B	X	0	3.5
23	MP1B	Z	58.406	3.5
24	MP1B	Mx	.034	3.5
25	MP1C	X	0	3.5
26	MP1C	Z	58.406	3.5
27	MP1C	Mx	-.034	3.5
28	MP2A	X	0	3.5
29	MP2A	Z	77.737	3.5
30	MP2A	Mx	0	3.5

Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP2B	X	0	3.5
32	MP2B	Z	51.002	3.5
33	MP2B	Mx	.029	3.5
34	MP2C	X	0	3.5
35	MP2C	Z	51.002	3.5
36	MP2C	Mx	-.029	3.5
37	MP2A	X	0	1.75
38	MP2A	Z	189.353	1.75
39	MP2A	Mx	.158	1.75
40	MP2A	X	0	6.75
41	MP2A	Z	189.353	6.75
42	MP2A	Mx	.158	6.75
43	MP2B	X	0	1.75
44	MP2B	Z	140.612	1.75
45	MP2B	Mx	-.15	1.75
46	MP2B	X	0	6.75
47	MP2B	Z	140.612	6.75
48	MP2B	Mx	-.15	6.75
49	MP2C	X	0	1.75
50	MP2C	Z	140.612	1.75
51	MP2C	Mx	.033	1.75
52	MP2C	X	0	6.75
53	MP2C	Z	140.612	6.75
54	MP2C	Mx	.033	6.75
55	MP2A	X	0	1.75
56	MP2A	Z	189.353	1.75
57	MP2A	Mx	-.158	1.75
58	MP2A	X	0	6.75
59	MP2A	Z	189.353	6.75
60	MP2A	Mx	-.158	6.75
61	MP2B	X	0	1.75
62	MP2B	Z	140.612	1.75
63	MP2B	Mx	-.033	1.75
64	MP2B	X	0	6.75
65	MP2B	Z	140.612	6.75
66	MP2B	Mx	-.033	6.75
67	MP2C	X	0	1.75
68	MP2C	Z	140.612	1.75
69	MP2C	Mx	.15	1.75
70	MP2C	X	0	6.75
71	MP2C	Z	140.612	6.75
72	MP2C	Mx	.15	6.75
73	MP1C	X	0	2.42
74	MP1C	Z	77.396	2.42
75	MP1C	Mx	.052	2.42
76	MP1C	X	0	6
77	MP1C	Z	77.396	6
78	MP1C	Mx	.052	6
79	MP5C	X	0	2.42
80	MP5C	Z	77.396	2.42
81	MP5C	Mx	.052	2.42
82	MP5C	X	0	6
83	MP5C	Z	77.396	6
84	MP5C	Mx	.052	6
85	MP1A	X	0	1.75
86	MP1A	Z	104.134	1.75
87	MP1A	Mx	0	1.75

Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
88	MP1A	X	0	6.75
89	MP1A	Z	104.134	6.75
90	MP1A	Mx	0	6.75
91	MP1B	X	0	1.75
92	MP1B	Z	117.488	1.75
93	MP1B	Mx	-.061	1.75
94	MP1B	X	0	6.75
95	MP1B	Z	117.488	6.75
96	MP1B	Mx	-.061	6.75
97	MP5A	X	0	1.75
98	MP5A	Z	104.134	1.75
99	MP5A	Mx	0	1.75
100	MP5A	X	0	6.75
101	MP5A	Z	104.134	6.75
102	MP5A	Mx	0	6.75
103	MP5B	X	0	1.75
104	MP5B	Z	117.488	1.75
105	MP5B	Mx	-.061	1.75
106	MP5B	X	0	6.75
107	MP5B	Z	117.488	6.75
108	MP5B	Mx	-.061	6.75
109	MP2A	X	0	4.5
110	MP2A	Z	15.381	4.5
111	MP2A	Mx	0	4.5
112	MP2B	X	0	4.5
113	MP2B	Z	11.827	4.5
114	MP2B	Mx	.004	4.5
115	MP2C	X	0	4.5
116	MP2C	Z	11.827	4.5
117	MP2C	Mx	-.004	4.5

Member Point Loads (BLC 10 : Antenna Wo (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-41.415	2.92
2	MP4A	Z	71.732	2.92
3	MP4A	Mx	.031	2.92
4	MP4A	X	-41.415	5.67
5	MP4A	Z	71.732	5.67
6	MP4A	Mx	.031	5.67
7	MP4B	X	-19.123	2.92
8	MP4B	Z	33.122	2.92
9	MP4B	Mx	-.029	2.92
10	MP4B	X	-19.123	5.67
11	MP4B	Z	33.122	5.67
12	MP4B	Mx	-.029	5.67
13	MP4C	X	-41.415	2.92
14	MP4C	Z	71.732	2.92
15	MP4C	Mx	.031	2.92
16	MP4C	X	-41.415	5.67
17	MP4C	Z	71.732	5.67
18	MP4C	Mx	.031	5.67
19	MP1A	X	-35.647	3.5
20	MP1A	Z	61.742	3.5
21	MP1A	Mx	-.024	3.5
22	MP1B	X	-25.982	3.5
23	MP1B	Z	45.001	3.5

Member Point Loads (BLC 10 : Antenna Wo (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP1B	Mx	.035	3.5
25	MP1C	X	-35.647	3.5
26	MP1C	Z	61.742	3.5
27	MP1C	Mx	-.024	3.5
28	MP2A	X	-34.413	3.5
29	MP2A	Z	59.604	3.5
30	MP2A	Mx	-.023	3.5
31	MP2B	X	-21.045	3.5
32	MP2B	Z	36.451	3.5
33	MP2B	Mx	.028	3.5
34	MP2C	X	-34.413	3.5
35	MP2C	Z	59.604	3.5
36	MP2C	Mx	-.023	3.5
37	MP2A	X	-86.553	1.75
38	MP2A	Z	149.914	1.75
39	MP2A	Mx	.19	1.75
40	MP2A	X	-86.553	6.75
41	MP2A	Z	149.914	6.75
42	MP2A	Mx	.19	6.75
43	MP2B	X	-62.182	1.75
44	MP2B	Z	107.703	1.75
45	MP2B	Mx	-.093	1.75
46	MP2B	X	-62.182	6.75
47	MP2B	Z	107.703	6.75
48	MP2B	Mx	-.093	6.75
49	MP2C	X	-86.553	1.75
50	MP2C	Z	149.914	1.75
51	MP2C	Mx	-.06	1.75
52	MP2C	X	-86.553	6.75
53	MP2C	Z	149.914	6.75
54	MP2C	Mx	-.06	6.75
55	MP2A	X	-86.553	1.75
56	MP2A	Z	149.914	1.75
57	MP2A	Mx	-.06	1.75
58	MP2A	X	-86.553	6.75
59	MP2A	Z	149.914	6.75
60	MP2A	Mx	-.06	6.75
61	MP2B	X	-62.182	1.75
62	MP2B	Z	107.703	1.75
63	MP2B	Mx	-.093	1.75
64	MP2B	X	-62.182	6.75
65	MP2B	Z	107.703	6.75
66	MP2B	Mx	-.093	6.75
67	MP2C	X	-86.553	1.75
68	MP2C	Z	149.914	1.75
69	MP2C	Mx	.19	1.75
70	MP2C	X	-86.553	6.75
71	MP2C	Z	149.914	6.75
72	MP2C	Mx	.19	6.75
73	MP1C	X	-40.959	2.42
74	MP1C	Z	70.944	2.42
75	MP1C	Mx	.032	2.42
76	MP1C	X	-40.959	6
77	MP1C	Z	70.944	6
78	MP1C	Mx	.032	6
79	MP5C	X	-40.959	2.42
80	MP5C	Z	70.944	2.42

Member Point Loads (BLC 10 : Antenna Wo (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
81	MP5C	Mx	.032	2.42
82	MP5C	X	-40.959	6
83	MP5C	Z	70.944	6
84	MP5C	Mx	.032	6
85	MP1A	X	-54.293	1.75
86	MP1A	Z	94.038	1.75
87	MP1A	Mx	.033	1.75
88	MP1A	X	-54.293	6.75
89	MP1A	Z	94.038	6.75
90	MP1A	Mx	.033	6.75
91	MP1B	X	-60.97	1.75
92	MP1B	Z	105.603	1.75
93	MP1B	Mx	-.074	1.75
94	MP1B	X	-60.97	6.75
95	MP1B	Z	105.603	6.75
96	MP1B	Mx	-.074	6.75
97	MP5A	X	-54.293	1.75
98	MP5A	Z	94.038	1.75
99	MP5A	Mx	.033	1.75
100	MP5A	X	-54.293	6.75
101	MP5A	Z	94.038	6.75
102	MP5A	Mx	.033	6.75
103	MP5B	X	-60.97	1.75
104	MP5B	Z	105.603	1.75
105	MP5B	Mx	-.074	1.75
106	MP5B	X	-60.97	6.75
107	MP5B	Z	105.603	6.75
108	MP5B	Mx	-.074	6.75
109	MP2A	X	-7.098	4.5
110	MP2A	Z	12.294	4.5
111	MP2A	Mx	-.003	4.5
112	MP2B	X	-5.321	4.5
113	MP2B	Z	9.216	4.5
114	MP2B	Mx	.004	4.5
115	MP2C	X	-7.098	4.5
116	MP2C	Z	12.294	4.5
117	MP2C	Mx	-.003	4.5

Member Point Loads (BLC 11 : Antenna Wo (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-45.992	2.92
2	MP4A	Z	26.553	2.92
3	MP4A	Mx	.034	2.92
4	MP4A	X	-45.992	5.67
5	MP4A	Z	26.553	5.67
6	MP4A	Mx	.034	5.67
7	MP4B	X	-45.992	2.92
8	MP4B	Z	26.553	2.92
9	MP4B	Mx	-.034	2.92
10	MP4B	X	-45.992	5.67
11	MP4B	Z	26.553	5.67
12	MP4B	Mx	-.034	5.67
13	MP4C	X	-84.603	2.92
14	MP4C	Z	48.845	2.92
15	MP4C	Mx	0	2.92
16	MP4C	X	-84.603	5.67

Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP4C	Z	48.845	5.67
18	MP4C	Mx	0	5.67
19	MP1A	X	-50.582	3.5
20	MP1A	Z	29.203	3.5
21	MP1A	Mx	-.034	3.5
22	MP1B	X	-50.582	3.5
23	MP1B	Z	29.203	3.5
24	MP1B	Mx	.034	3.5
25	MP1C	X	-67.322	3.5
26	MP1C	Z	38.868	3.5
27	MP1C	Mx	0	3.5
28	MP2A	X	-44.169	3.5
29	MP2A	Z	25.501	3.5
30	MP2A	Mx	-.029	3.5
31	MP2B	X	-44.169	3.5
32	MP2B	Z	25.501	3.5
33	MP2B	Mx	.029	3.5
34	MP2C	X	-67.322	3.5
35	MP2C	Z	38.868	3.5
36	MP2C	Mx	0	3.5
37	MP2A	X	-121.774	1.75
38	MP2A	Z	70.306	1.75
39	MP2A	Mx	.15	1.75
40	MP2A	X	-121.774	6.75
41	MP2A	Z	70.306	6.75
42	MP2A	Mx	.15	6.75
43	MP2B	X	-121.774	1.75
44	MP2B	Z	70.306	1.75
45	MP2B	Mx	-.033	1.75
46	MP2B	X	-121.774	6.75
47	MP2B	Z	70.306	6.75
48	MP2B	Mx	-.033	6.75
49	MP2C	X	-163.985	1.75
50	MP2C	Z	94.677	1.75
51	MP2C	Mx	-.158	1.75
52	MP2C	X	-163.985	6.75
53	MP2C	Z	94.677	6.75
54	MP2C	Mx	-.158	6.75
55	MP2A	X	-121.774	1.75
56	MP2A	Z	70.306	1.75
57	MP2A	Mx	.033	1.75
58	MP2A	X	-121.774	6.75
59	MP2A	Z	70.306	6.75
60	MP2A	Mx	.033	6.75
61	MP2B	X	-121.774	1.75
62	MP2B	Z	70.306	1.75
63	MP2B	Mx	-.15	1.75
64	MP2B	X	-121.774	6.75
65	MP2B	Z	70.306	6.75
66	MP2B	Mx	-.15	6.75
67	MP2C	X	-163.985	1.75
68	MP2C	Z	94.677	1.75
69	MP2C	Mx	.158	1.75
70	MP2C	X	-163.985	6.75
71	MP2C	Z	94.677	6.75
72	MP2C	Mx	.158	6.75
73	MP1C	X	-72.902	2.42

Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
74	MP1C	Z	42.09	2.42
75	MP1C	Mx	0	2.42
76	MP1C	X	-72.902	6
77	MP1C	Z	42.09	6
78	MP1C	Mx	0	6
79	MP5C	X	-72.902	2.42
80	MP5C	Z	42.09	2.42
81	MP5C	Mx	0	2.42
82	MP5C	X	-72.902	6
83	MP5C	Z	42.09	6
84	MP5C	Mx	0	6
85	MP1A	X	-101.748	1.75
86	MP1A	Z	58.744	1.75
87	MP1A	Mx	.061	1.75
88	MP1A	X	-101.748	6.75
89	MP1A	Z	58.744	6.75
90	MP1A	Mx	.061	6.75
91	MP1B	X	-101.748	1.75
92	MP1B	Z	58.744	1.75
93	MP1B	Mx	-.061	1.75
94	MP1B	X	-101.748	6.75
95	MP1B	Z	58.744	6.75
96	MP1B	Mx	-.061	6.75
97	MP5A	X	-101.748	1.75
98	MP5A	Z	58.744	1.75
99	MP5A	Mx	.061	1.75
100	MP5A	X	-101.748	6.75
101	MP5A	Z	58.744	6.75
102	MP5A	Mx	.061	6.75
103	MP5B	X	-101.748	1.75
104	MP5B	Z	58.744	1.75
105	MP5B	Mx	-.061	1.75
106	MP5B	X	-101.748	6.75
107	MP5B	Z	58.744	6.75
108	MP5B	Mx	-.061	6.75
109	MP2A	X	-10.242	4.5
110	MP2A	Z	5.913	4.5
111	MP2A	Mx	-.004	4.5
112	MP2B	X	-10.242	4.5
113	MP2B	Z	5.913	4.5
114	MP2B	Mx	.004	4.5
115	MP2C	X	-13.32	4.5
116	MP2C	Z	7.691	4.5
117	MP2C	Mx	0	4.5

Member Point Loads (BLC 12 : Antenna Wo (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-38.246	2.92
2	MP4A	Z	0	2.92
3	MP4A	Mx	.029	2.92
4	MP4A	X	-38.246	5.67
5	MP4A	Z	0	5.67
6	MP4A	Mx	.029	5.67
7	MP4B	X	-82.829	2.92
8	MP4B	Z	0	2.92
9	MP4B	Mx	-.031	2.92

Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP4B	X	-82.829	5.67
11	MP4B	Z	0	5.67
12	MP4B	Mx	-.031	5.67
13	MP4C	X	-82.829	2.92
14	MP4C	Z	0	2.92
15	MP4C	Mx	-.031	2.92
16	MP4C	X	-82.829	5.67
17	MP4C	Z	0	5.67
18	MP4C	Mx	-.031	5.67
19	MP1A	X	-51.963	3.5
20	MP1A	Z	0	3.5
21	MP1A	Mx	-.035	3.5
22	MP1B	X	-71.293	3.5
23	MP1B	Z	0	3.5
24	MP1B	Mx	.024	3.5
25	MP1C	X	-71.293	3.5
26	MP1C	Z	0	3.5
27	MP1C	Mx	.024	3.5
28	MP2A	X	-42.09	3.5
29	MP2A	Z	0	3.5
30	MP2A	Mx	-.028	3.5
31	MP2B	X	-68.825	3.5
32	MP2B	Z	0	3.5
33	MP2B	Mx	.023	3.5
34	MP2C	X	-68.825	3.5
35	MP2C	Z	0	3.5
36	MP2C	Mx	.023	3.5
37	MP2A	X	-124.365	1.75
38	MP2A	Z	0	1.75
39	MP2A	Mx	.093	1.75
40	MP2A	X	-124.365	6.75
41	MP2A	Z	0	6.75
42	MP2A	Mx	.093	6.75
43	MP2B	X	-173.106	1.75
44	MP2B	Z	0	1.75
45	MP2B	Mx	.06	1.75
46	MP2B	X	-173.106	6.75
47	MP2B	Z	0	6.75
48	MP2B	Mx	.06	6.75
49	MP2C	X	-173.106	1.75
50	MP2C	Z	0	1.75
51	MP2C	Mx	-.19	1.75
52	MP2C	X	-173.106	6.75
53	MP2C	Z	0	6.75
54	MP2C	Mx	-.19	6.75
55	MP2A	X	-124.365	1.75
56	MP2A	Z	0	1.75
57	MP2A	Mx	.093	1.75
58	MP2A	X	-124.365	6.75
59	MP2A	Z	0	6.75
60	MP2A	Mx	.093	6.75
61	MP2B	X	-173.106	1.75
62	MP2B	Z	0	1.75
63	MP2B	Mx	-.19	1.75
64	MP2B	X	-173.106	6.75
65	MP2B	Z	0	6.75
66	MP2B	Mx	-.19	6.75

Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
67	MP2C	X	-173.106	1.75
68	MP2C	Z	0	1.75
69	MP2C	Mx	.06	1.75
70	MP2C	X	-173.106	6.75
71	MP2C	Z	0	6.75
72	MP2C	Mx	.06	6.75
73	MP1C	X	-81.919	2.42
74	MP1C	Z	0	2.42
75	MP1C	Mx	-.032	2.42
76	MP1C	X	-81.919	6
77	MP1C	Z	0	6
78	MP1C	Mx	-.032	6
79	MP5C	X	-81.919	2.42
80	MP5C	Z	0	2.42
81	MP5C	Mx	-.032	2.42
82	MP5C	X	-81.919	6
83	MP5C	Z	0	6
84	MP5C	Mx	-.032	6
85	MP1A	X	-121.94	1.75
86	MP1A	Z	0	1.75
87	MP1A	Mx	.074	1.75
88	MP1A	X	-121.94	6.75
89	MP1A	Z	0	6.75
90	MP1A	Mx	.074	6.75
91	MP1B	X	-108.585	1.75
92	MP1B	Z	0	1.75
93	MP1B	Mx	-.033	1.75
94	MP1B	X	-108.585	6.75
95	MP1B	Z	0	6.75
96	MP1B	Mx	-.033	6.75
97	MP5A	X	-121.94	1.75
98	MP5A	Z	0	1.75
99	MP5A	Mx	.074	1.75
100	MP5A	X	-121.94	6.75
101	MP5A	Z	0	6.75
102	MP5A	Mx	.074	6.75
103	MP5B	X	-108.585	1.75
104	MP5B	Z	0	1.75
105	MP5B	Mx	-.033	1.75
106	MP5B	X	-108.585	6.75
107	MP5B	Z	0	6.75
108	MP5B	Mx	-.033	6.75
109	MP2A	X	-10.642	4.5
110	MP2A	Z	0	4.5
111	MP2A	Mx	-.004	4.5
112	MP2B	X	-14.196	4.5
113	MP2B	Z	0	4.5
114	MP2B	Mx	.003	4.5
115	MP2C	X	-14.196	4.5
116	MP2C	Z	0	4.5
117	MP2C	Mx	.003	4.5

Member Point Loads (BLC 13 : Antenna Wo (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-45.992	2.92
2	MP4A	Z	-26.553	2.92

Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
3	MP4A	Mx	.034	2.92
4	MP4A	X	-45.992	5.67
5	MP4A	Z	-26.553	5.67
6	MP4A	Mx	.034	5.67
7	MP4B	X	-84.603	2.92
8	MP4B	Z	-48.845	2.92
9	MP4B	Mx	0	2.92
10	MP4B	X	-84.603	5.67
11	MP4B	Z	-48.845	5.67
12	MP4B	Mx	0	5.67
13	MP4C	X	-45.992	2.92
14	MP4C	Z	-26.553	2.92
15	MP4C	Mx	-.034	2.92
16	MP4C	X	-45.992	5.67
17	MP4C	Z	-26.553	5.67
18	MP4C	Mx	-.034	5.67
19	MP1A	X	-50.582	3.5
20	MP1A	Z	-29.203	3.5
21	MP1A	Mx	-.034	3.5
22	MP1B	X	-67.322	3.5
23	MP1B	Z	-38.868	3.5
24	MP1B	Mx	0	3.5
25	MP1C	X	-50.582	3.5
26	MP1C	Z	-29.203	3.5
27	MP1C	Mx	.034	3.5
28	MP2A	X	-44.169	3.5
29	MP2A	Z	-25.501	3.5
30	MP2A	Mx	-.029	3.5
31	MP2B	X	-67.322	3.5
32	MP2B	Z	-38.868	3.5
33	MP2B	Mx	0	3.5
34	MP2C	X	-44.169	3.5
35	MP2C	Z	-25.501	3.5
36	MP2C	Mx	.029	3.5
37	MP2A	X	-121.774	1.75
38	MP2A	Z	-70.306	1.75
39	MP2A	Mx	.033	1.75
40	MP2A	X	-121.774	6.75
41	MP2A	Z	-70.306	6.75
42	MP2A	Mx	.033	6.75
43	MP2B	X	-163.985	1.75
44	MP2B	Z	-94.677	1.75
45	MP2B	Mx	.158	1.75
46	MP2B	X	-163.985	6.75
47	MP2B	Z	-94.677	6.75
48	MP2B	Mx	.158	6.75
49	MP2C	X	-121.774	1.75
50	MP2C	Z	-70.306	1.75
51	MP2C	Mx	-.15	1.75
52	MP2C	X	-121.774	6.75
53	MP2C	Z	-70.306	6.75
54	MP2C	Mx	-.15	6.75
55	MP2A	X	-121.774	1.75
56	MP2A	Z	-70.306	1.75
57	MP2A	Mx	.15	1.75
58	MP2A	X	-121.774	6.75
59	MP2A	Z	-70.306	6.75

Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
60	MP2A	Mx	.15	6.75
61	MP2B	X	-163.985	1.75
62	MP2B	Z	-94.677	1.75
63	MP2B	Mx	-.158	1.75
64	MP2B	X	-163.985	6.75
65	MP2B	Z	-94.677	6.75
66	MP2B	Mx	-.158	6.75
67	MP2C	X	-121.774	1.75
68	MP2C	Z	-70.306	1.75
69	MP2C	Mx	-.033	1.75
70	MP2C	X	-121.774	6.75
71	MP2C	Z	-70.306	6.75
72	MP2C	Mx	-.033	6.75
73	MP1C	X	-67.027	2.42
74	MP1C	Z	-38.698	2.42
75	MP1C	Mx	-.052	2.42
76	MP1C	X	-67.027	6
77	MP1C	Z	-38.698	6
78	MP1C	Mx	-.052	6
79	MP5C	X	-67.027	2.42
80	MP5C	Z	-38.698	2.42
81	MP5C	Mx	-.052	2.42
82	MP5C	X	-67.027	6
83	MP5C	Z	-38.698	6
84	MP5C	Mx	-.052	6
85	MP1A	X	-101.748	1.75
86	MP1A	Z	-58.744	1.75
87	MP1A	Mx	.061	1.75
88	MP1A	X	-101.748	6.75
89	MP1A	Z	-58.744	6.75
90	MP1A	Mx	.061	6.75
91	MP1B	X	-90.183	1.75
92	MP1B	Z	-52.067	1.75
93	MP1B	Mx	0	1.75
94	MP1B	X	-90.183	6.75
95	MP1B	Z	-52.067	6.75
96	MP1B	Mx	0	6.75
97	MP5A	X	-101.748	1.75
98	MP5A	Z	-58.744	1.75
99	MP5A	Mx	.061	1.75
100	MP5A	X	-101.748	6.75
101	MP5A	Z	-58.744	6.75
102	MP5A	Mx	.061	6.75
103	MP5B	X	-90.183	1.75
104	MP5B	Z	-52.067	1.75
105	MP5B	Mx	0	1.75
106	MP5B	X	-90.183	6.75
107	MP5B	Z	-52.067	6.75
108	MP5B	Mx	0	6.75
109	MP2A	X	-10.242	4.5
110	MP2A	Z	-5.913	4.5
111	MP2A	Mx	-.004	4.5
112	MP2B	X	-13.32	4.5
113	MP2B	Z	-7.691	4.5
114	MP2B	Mx	0	4.5
115	MP2C	X	-10.242	4.5
116	MP2C	Z	-5.913	4.5

Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
117	MP2C	Mx	.004	4.5

Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-41.415	2.92
2	MP4A	Z	-71.732	2.92
3	MP4A	Mx	.031	2.92
4	MP4A	X	-41.415	5.67
5	MP4A	Z	-71.732	5.67
6	MP4A	Mx	.031	5.67
7	MP4B	X	-41.415	2.92
8	MP4B	Z	-71.732	2.92
9	MP4B	Mx	.031	2.92
10	MP4B	X	-41.415	5.67
11	MP4B	Z	-71.732	5.67
12	MP4B	Mx	.031	5.67
13	MP4C	X	-19.123	2.92
14	MP4C	Z	-33.122	2.92
15	MP4C	Mx	-.029	2.92
16	MP4C	X	-19.123	5.67
17	MP4C	Z	-33.122	5.67
18	MP4C	Mx	-.029	5.67
19	MP1A	X	-35.647	3.5
20	MP1A	Z	-61.742	3.5
21	MP1A	Mx	-.024	3.5
22	MP1B	X	-35.647	3.5
23	MP1B	Z	-61.742	3.5
24	MP1B	Mx	-.024	3.5
25	MP1C	X	-25.982	3.5
26	MP1C	Z	-45.001	3.5
27	MP1C	Mx	.035	3.5
28	MP2A	X	-34.413	3.5
29	MP2A	Z	-59.604	3.5
30	MP2A	Mx	-.023	3.5
31	MP2B	X	-34.413	3.5
32	MP2B	Z	-59.604	3.5
33	MP2B	Mx	-.023	3.5
34	MP2C	X	-21.045	3.5
35	MP2C	Z	-36.451	3.5
36	MP2C	Mx	.028	3.5
37	MP2A	X	-86.553	1.75
38	MP2A	Z	-149.914	1.75
39	MP2A	Mx	-.06	1.75
40	MP2A	X	-86.553	6.75
41	MP2A	Z	-149.914	6.75
42	MP2A	Mx	-.06	6.75
43	MP2B	X	-86.553	1.75
44	MP2B	Z	-149.914	1.75
45	MP2B	Mx	.19	1.75
46	MP2B	X	-86.553	6.75
47	MP2B	Z	-149.914	6.75
48	MP2B	Mx	.19	6.75
49	MP2C	X	-62.182	1.75
50	MP2C	Z	-107.703	1.75
51	MP2C	Mx	-.093	1.75
52	MP2C	X	-62.182	6.75

Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
53	MP2C	Z	-107.703	6.75
54	MP2C	Mx	-.093	6.75
55	MP2A	X	-86.553	1.75
56	MP2A	Z	-149.914	1.75
57	MP2A	Mx	.19	1.75
58	MP2A	X	-86.553	6.75
59	MP2A	Z	-149.914	6.75
60	MP2A	Mx	.19	6.75
61	MP2B	X	-86.553	1.75
62	MP2B	Z	-149.914	1.75
63	MP2B	Mx	-.06	1.75
64	MP2B	X	-86.553	6.75
65	MP2B	Z	-149.914	6.75
66	MP2B	Mx	-.06	6.75
67	MP2C	X	-62.182	1.75
68	MP2C	Z	-107.703	1.75
69	MP2C	Mx	-.093	1.75
70	MP2C	X	-62.182	6.75
71	MP2C	Z	-107.703	6.75
72	MP2C	Mx	-.093	6.75
73	MP1C	X	-37.567	2.42
74	MP1C	Z	-65.069	2.42
75	MP1C	Mx	-.058	2.42
76	MP1C	X	-37.567	6
77	MP1C	Z	-65.069	6
78	MP1C	Mx	-.058	6
79	MP5C	X	-37.567	2.42
80	MP5C	Z	-65.069	2.42
81	MP5C	Mx	-.058	2.42
82	MP5C	X	-37.567	6
83	MP5C	Z	-65.069	6
84	MP5C	Mx	-.058	6
85	MP1A	X	-54.293	1.75
86	MP1A	Z	-94.038	1.75
87	MP1A	Mx	.033	1.75
88	MP1A	X	-54.293	6.75
89	MP1A	Z	-94.038	6.75
90	MP1A	Mx	.033	6.75
91	MP1B	X	-54.293	1.75
92	MP1B	Z	-94.038	1.75
93	MP1B	Mx	.033	1.75
94	MP1B	X	-54.293	6.75
95	MP1B	Z	-94.038	6.75
96	MP1B	Mx	.033	6.75
97	MP5A	X	-54.293	1.75
98	MP5A	Z	-94.038	1.75
99	MP5A	Mx	.033	1.75
100	MP5A	X	-54.293	6.75
101	MP5A	Z	-94.038	6.75
102	MP5A	Mx	.033	6.75
103	MP5B	X	-54.293	1.75
104	MP5B	Z	-94.038	1.75
105	MP5B	Mx	.033	1.75
106	MP5B	X	-54.293	6.75
107	MP5B	Z	-94.038	6.75
108	MP5B	Mx	.033	6.75
109	MP2A	X	-7.098	4.5

Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
110	MP2A	Z	-12.294	4.5
111	MP2A	Mx	-.003	4.5
112	MP2B	X	-7.098	4.5
113	MP2B	Z	-12.294	4.5
114	MP2B	Mx	-.003	4.5
115	MP2C	X	-5.321	4.5
116	MP2C	Z	-9.216	4.5
117	MP2C	Mx	.004	4.5

Member Point Loads (BLC 15 : Antenna Wi (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2.92
2	MP4A	Z	-19.141	2.92
3	MP4A	Mx	0	2.92
4	MP4A	X	0	5.67
5	MP4A	Z	-19.141	5.67
6	MP4A	Mx	0	5.67
7	MP4B	X	0	2.92
8	MP4B	Z	-10.896	2.92
9	MP4B	Mx	.007	2.92
10	MP4B	X	0	5.67
11	MP4B	Z	-10.896	5.67
12	MP4B	Mx	.007	5.67
13	MP4C	X	0	2.92
14	MP4C	Z	-10.896	2.92
15	MP4C	Mx	-.007	2.92
16	MP4C	X	0	5.67
17	MP4C	Z	-10.896	5.67
18	MP4C	Mx	-.007	5.67
19	MP1A	X	0	3.5
20	MP1A	Z	-16.124	3.5
21	MP1A	Mx	0	3.5
22	MP1B	X	0	3.5
23	MP1B	Z	-12.44	3.5
24	MP1B	Mx	-.007	3.5
25	MP1C	X	0	3.5
26	MP1C	Z	-12.44	3.5
27	MP1C	Mx	.007	3.5
28	MP2A	X	0	3.5
29	MP2A	Z	-16.124	3.5
30	MP2A	Mx	0	3.5
31	MP2B	X	0	3.5
32	MP2B	Z	-11.04	3.5
33	MP2B	Mx	-.006	3.5
34	MP2C	X	0	3.5
35	MP2C	Z	-11.04	3.5
36	MP2C	Mx	.006	3.5
37	MP2A	X	0	1.75
38	MP2A	Z	-35.996	1.75
39	MP2A	Mx	-.03	1.75
40	MP2A	X	0	6.75
41	MP2A	Z	-35.996	6.75
42	MP2A	Mx	-.03	6.75
43	MP2B	X	0	1.75
44	MP2B	Z	-27.409	1.75
45	MP2B	Mx	.029	1.75

Member Point Loads (BLC 15 : Antenna Wi (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
46	MP2B	X	0	6.75
47	MP2B	Z	-27.409	6.75
48	MP2B	Mx	.029	6.75
49	MP2C	X	0	1.75
50	MP2C	Z	-27.409	1.75
51	MP2C	Mx	-.006	1.75
52	MP2C	X	0	6.75
53	MP2C	Z	-27.409	6.75
54	MP2C	Mx	-.006	6.75
55	MP2A	X	0	1.75
56	MP2A	Z	-35.996	1.75
57	MP2A	Mx	.03	1.75
58	MP2A	X	0	6.75
59	MP2A	Z	-35.996	6.75
60	MP2A	Mx	.03	6.75
61	MP2B	X	0	1.75
62	MP2B	Z	-27.409	1.75
63	MP2B	Mx	.006	1.75
64	MP2B	X	0	6.75
65	MP2B	Z	-27.409	6.75
66	MP2B	Mx	.006	6.75
67	MP2C	X	0	1.75
68	MP2C	Z	-27.409	1.75
69	MP2C	Mx	-.029	1.75
70	MP2C	X	0	6.75
71	MP2C	Z	-27.409	6.75
72	MP2C	Mx	-.029	6.75
73	MP1C	X	0	2.42
74	MP1C	Z	-15.498	2.42
75	MP1C	Mx	-.01	2.42
76	MP1C	X	0	6
77	MP1C	Z	-15.498	6
78	MP1C	Mx	-.01	6
79	MP5C	X	0	2.42
80	MP5C	Z	-15.498	2.42
81	MP5C	Mx	-.01	2.42
82	MP5C	X	0	6
83	MP5C	Z	-15.498	6
84	MP5C	Mx	-.01	6
85	MP1A	X	0	1.75
86	MP1A	Z	-20.843	1.75
87	MP1A	Mx	0	1.75
88	MP1A	X	0	6.75
89	MP1A	Z	-20.843	6.75
90	MP1A	Mx	0	6.75
91	MP1B	X	0	1.75
92	MP1B	Z	-23.295	1.75
93	MP1B	Mx	.012	1.75
94	MP1B	X	0	6.75
95	MP1B	Z	-23.295	6.75
96	MP1B	Mx	.012	6.75
97	MP5A	X	0	1.75
98	MP5A	Z	-20.843	1.75
99	MP5A	Mx	0	1.75
100	MP5A	X	0	6.75
101	MP5A	Z	-20.843	6.75
102	MP5A	Mx	0	6.75

Member Point Loads (BLC 15 : Antenna Wi (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
103	MP5B	X	0	1.75
104	MP5B	Z	-23.295	1.75
105	MP5B	Mx	.012	1.75
106	MP5B	X	0	6.75
107	MP5B	Z	-23.295	6.75
108	MP5B	Mx	.012	6.75
109	MP2A	X	0	4.5
110	MP2A	Z	-3.907	4.5
111	MP2A	Mx	0	4.5
112	MP2B	X	0	4.5
113	MP2B	Z	-3.175	4.5
114	MP2B	Mx	-.001	4.5
115	MP2C	X	0	4.5
116	MP2C	Z	-3.175	4.5
117	MP2C	Mx	.001	4.5

Member Point Loads (BLC 16 : Antenna Wi (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	8.196	2.92
2	MP4A	Z	-14.196	2.92
3	MP4A	Mx	-.006	2.92
4	MP4A	X	8.196	5.67
5	MP4A	Z	-14.196	5.67
6	MP4A	Mx	-.006	5.67
7	MP4B	X	4.074	2.92
8	MP4B	Z	-7.056	2.92
9	MP4B	Mx	.006	2.92
10	MP4B	X	4.074	5.67
11	MP4B	Z	-7.056	5.67
12	MP4B	Mx	.006	5.67
13	MP4C	X	8.196	2.92
14	MP4C	Z	-14.196	2.92
15	MP4C	Mx	-.006	2.92
16	MP4C	X	8.196	5.67
17	MP4C	Z	-14.196	5.67
18	MP4C	Mx	-.006	5.67
19	MP1A	X	7.448	3.5
20	MP1A	Z	-12.901	3.5
21	MP1A	Mx	.005	3.5
22	MP1B	X	5.606	3.5
23	MP1B	Z	-9.71	3.5
24	MP1B	Mx	-.007	3.5
25	MP1C	X	7.448	3.5
26	MP1C	Z	-12.901	3.5
27	MP1C	Mx	.005	3.5
28	MP2A	X	7.215	3.5
29	MP2A	Z	-12.497	3.5
30	MP2A	Mx	.005	3.5
31	MP2B	X	4.673	3.5
32	MP2B	Z	-8.094	3.5
33	MP2B	Mx	-.006	3.5
34	MP2C	X	7.215	3.5
35	MP2C	Z	-12.497	3.5
36	MP2C	Mx	.005	3.5
37	MP2A	X	16.567	1.75
38	MP2A	Z	-28.695	1.75

Member Point Loads (BLC 16 : Antenna Wi (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
39	MP2A	Mx	-.036	1.75
40	MP2A	X	16.567	6.75
41	MP2A	Z	-28.695	6.75
42	MP2A	Mx	-.036	6.75
43	MP2B	X	12.274	1.75
44	MP2B	Z	-21.258	1.75
45	MP2B	Mx	.018	1.75
46	MP2B	X	12.274	6.75
47	MP2B	Z	-21.258	6.75
48	MP2B	Mx	.018	6.75
49	MP2C	X	16.567	1.75
50	MP2C	Z	-28.695	1.75
51	MP2C	Mx	.011	1.75
52	MP2C	X	16.567	6.75
53	MP2C	Z	-28.695	6.75
54	MP2C	Mx	.011	6.75
55	MP2A	X	16.567	1.75
56	MP2A	Z	-28.695	1.75
57	MP2A	Mx	.011	1.75
58	MP2A	X	16.567	6.75
59	MP2A	Z	-28.695	6.75
60	MP2A	Mx	.011	6.75
61	MP2B	X	12.274	1.75
62	MP2B	Z	-21.258	1.75
63	MP2B	Mx	.018	1.75
64	MP2B	X	12.274	6.75
65	MP2B	Z	-21.258	6.75
66	MP2B	Mx	.018	6.75
67	MP2C	X	16.567	1.75
68	MP2C	Z	-28.695	1.75
69	MP2C	Mx	-.036	1.75
70	MP2C	X	16.567	6.75
71	MP2C	Z	-28.695	6.75
72	MP2C	Mx	-.036	6.75
73	MP1C	X	8.161	2.42
74	MP1C	Z	-14.135	2.42
75	MP1C	Mx	-.006	2.42
76	MP1C	X	8.161	6
77	MP1C	Z	-14.135	6
78	MP1C	Mx	-.006	6
79	MP5C	X	8.161	2.42
80	MP5C	Z	-14.135	2.42
81	MP5C	Mx	-.006	2.42
82	MP5C	X	8.161	6
83	MP5C	Z	-14.135	6
84	MP5C	Mx	-.006	6
85	MP1A	X	10.83	1.75
86	MP1A	Z	-18.758	1.75
87	MP1A	Mx	-.007	1.75
88	MP1A	X	10.83	6.75
89	MP1A	Z	-18.758	6.75
90	MP1A	Mx	-.007	6.75
91	MP1B	X	12.056	1.75
92	MP1B	Z	-20.882	1.75
93	MP1B	Mx	.015	1.75
94	MP1B	X	12.056	6.75
95	MP1B	Z	-20.882	6.75

Member Point Loads (BLC 16 : Antenna Wi (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
96	MP1B	Mx	.015	6.75
97	MP5A	X	10.83	1.75
98	MP5A	Z	-18.758	1.75
99	MP5A	Mx	-.007	1.75
100	MP5A	X	10.83	6.75
101	MP5A	Z	-18.758	6.75
102	MP5A	Mx	-.007	6.75
103	MP5B	X	12.056	1.75
104	MP5B	Z	-20.882	1.75
105	MP5B	Mx	.015	1.75
106	MP5B	X	12.056	6.75
107	MP5B	Z	-20.882	6.75
108	MP5B	Mx	.015	6.75
109	MP2A	X	1.832	4.5
110	MP2A	Z	-3.172	4.5
111	MP2A	Mx	.000763	4.5
112	MP2B	X	1.465	4.5
113	MP2B	Z	-2.538	4.5
114	MP2B	Mx	-.001	4.5
115	MP2C	X	1.832	4.5
116	MP2C	Z	-3.172	4.5
117	MP2C	Mx	.000763	4.5

Member Point Loads (BLC 17 : Antenna Wi (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	9.436	2.92
2	MP4A	Z	-5.448	2.92
3	MP4A	Mx	-.007	2.92
4	MP4A	X	9.436	5.67
5	MP4A	Z	-5.448	5.67
6	MP4A	Mx	-.007	5.67
7	MP4B	X	9.436	2.92
8	MP4B	Z	-5.448	2.92
9	MP4B	Mx	.007	2.92
10	MP4B	X	9.436	5.67
11	MP4B	Z	-5.448	5.67
12	MP4B	Mx	.007	5.67
13	MP4C	X	16.576	2.92
14	MP4C	Z	-9.57	2.92
15	MP4C	Mx	0	2.92
16	MP4C	X	16.576	5.67
17	MP4C	Z	-9.57	5.67
18	MP4C	Mx	0	5.67
19	MP1A	X	10.774	3.5
20	MP1A	Z	-6.22	3.5
21	MP1A	Mx	.007	3.5
22	MP1B	X	10.774	3.5
23	MP1B	Z	-6.22	3.5
24	MP1B	Mx	-.007	3.5
25	MP1C	X	13.964	3.5
26	MP1C	Z	-8.062	3.5
27	MP1C	Mx	0	3.5
28	MP2A	X	9.561	3.5
29	MP2A	Z	-5.52	3.5
30	MP2A	Mx	.006	3.5
31	MP2B	X	9.561	3.5

Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
32	MP2B	Z	-5.52	3.5
33	MP2B	Mx	-.006	3.5
34	MP2C	X	13.964	3.5
35	MP2C	Z	-8.062	3.5
36	MP2C	Mx	0	3.5
37	MP2A	X	23.737	1.75
38	MP2A	Z	-13.705	1.75
39	MP2A	Mx	-.029	1.75
40	MP2A	X	23.737	6.75
41	MP2A	Z	-13.705	6.75
42	MP2A	Mx	-.029	6.75
43	MP2B	X	23.737	1.75
44	MP2B	Z	-13.705	1.75
45	MP2B	Mx	.006	1.75
46	MP2B	X	23.737	6.75
47	MP2B	Z	-13.705	6.75
48	MP2B	Mx	.006	6.75
49	MP2C	X	31.173	1.75
50	MP2C	Z	-17.998	1.75
51	MP2C	Mx	.03	1.75
52	MP2C	X	31.173	6.75
53	MP2C	Z	-17.998	6.75
54	MP2C	Mx	.03	6.75
55	MP2A	X	23.737	1.75
56	MP2A	Z	-13.705	1.75
57	MP2A	Mx	-.006	1.75
58	MP2A	X	23.737	6.75
59	MP2A	Z	-13.705	6.75
60	MP2A	Mx	-.006	6.75
61	MP2B	X	23.737	1.75
62	MP2B	Z	-13.705	1.75
63	MP2B	Mx	.029	1.75
64	MP2B	X	23.737	6.75
65	MP2B	Z	-13.705	6.75
66	MP2B	Mx	.029	6.75
67	MP2C	X	31.173	1.75
68	MP2C	Z	-17.998	1.75
69	MP2C	Mx	-.03	1.75
70	MP2C	X	31.173	6.75
71	MP2C	Z	-17.998	6.75
72	MP2C	Mx	-.03	6.75
73	MP1C	X	14.491	2.42
74	MP1C	Z	-8.367	2.42
75	MP1C	Mx	0	2.42
76	MP1C	X	14.491	6
77	MP1C	Z	-8.367	6
78	MP1C	Mx	0	6
79	MP5C	X	14.491	2.42
80	MP5C	Z	-8.367	2.42
81	MP5C	Mx	0	2.42
82	MP5C	X	14.491	6
83	MP5C	Z	-8.367	6
84	MP5C	Mx	0	6
85	MP1A	X	20.174	1.75
86	MP1A	Z	-11.648	1.75
87	MP1A	Mx	-.012	1.75
88	MP1A	X	20.174	6.75

Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
89	MP1A	Z	-11.648	6.75
90	MP1A	Mx	-.012	6.75
91	MP1B	X	20.174	1.75
92	MP1B	Z	-11.648	1.75
93	MP1B	Mx	.012	1.75
94	MP1B	X	20.174	6.75
95	MP1B	Z	-11.648	6.75
96	MP1B	Mx	.012	6.75
97	MP5A	X	20.174	1.75
98	MP5A	Z	-11.648	1.75
99	MP5A	Mx	-.012	1.75
100	MP5A	X	20.174	6.75
101	MP5A	Z	-11.648	6.75
102	MP5A	Mx	-.012	6.75
103	MP5B	X	20.174	1.75
104	MP5B	Z	-11.648	1.75
105	MP5B	Mx	.012	1.75
106	MP5B	X	20.174	6.75
107	MP5B	Z	-11.648	6.75
108	MP5B	Mx	.012	6.75
109	MP2A	X	2.749	4.5
110	MP2A	Z	-1.587	4.5
111	MP2A	Mx	.001	4.5
112	MP2B	X	2.749	4.5
113	MP2B	Z	-1.587	4.5
114	MP2B	Mx	-.001	4.5
115	MP2C	X	3.384	4.5
116	MP2C	Z	-1.954	4.5
117	MP2C	Mx	0	4.5

Member Point Loads (BLC 18 : Antenna Wi (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	8.147	2.92
2	MP4A	Z	0	2.92
3	MP4A	Mx	-.006	2.92
4	MP4A	X	8.147	5.67
5	MP4A	Z	0	5.67
6	MP4A	Mx	-.006	5.67
7	MP4B	X	16.392	2.92
8	MP4B	Z	0	2.92
9	MP4B	Mx	.006	2.92
10	MP4B	X	16.392	5.67
11	MP4B	Z	0	5.67
12	MP4B	Mx	.006	5.67
13	MP4C	X	16.392	2.92
14	MP4C	Z	0	2.92
15	MP4C	Mx	.006	2.92
16	MP4C	X	16.392	5.67
17	MP4C	Z	0	5.67
18	MP4C	Mx	.006	5.67
19	MP1A	X	11.212	3.5
20	MP1A	Z	0	3.5
21	MP1A	Mx	.007	3.5
22	MP1B	X	14.896	3.5
23	MP1B	Z	0	3.5
24	MP1B	Mx	-.005	3.5

Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	MP1C	X	14.896	3.5
26	MP1C	Z	0	3.5
27	MP1C	Mx	-.005	3.5
28	MP2A	X	9.346	3.5
29	MP2A	Z	0	3.5
30	MP2A	Mx	.006	3.5
31	MP2B	X	14.43	3.5
32	MP2B	Z	0	3.5
33	MP2B	Mx	-.005	3.5
34	MP2C	X	14.43	3.5
35	MP2C	Z	0	3.5
36	MP2C	Mx	-.005	3.5
37	MP2A	X	24.547	1.75
38	MP2A	Z	0	1.75
39	MP2A	Mx	-.018	1.75
40	MP2A	X	24.547	6.75
41	MP2A	Z	0	6.75
42	MP2A	Mx	-.018	6.75
43	MP2B	X	33.134	1.75
44	MP2B	Z	0	1.75
45	MP2B	Mx	-.011	1.75
46	MP2B	X	33.134	6.75
47	MP2B	Z	0	6.75
48	MP2B	Mx	-.011	6.75
49	MP2C	X	33.134	1.75
50	MP2C	Z	0	1.75
51	MP2C	Mx	.036	1.75
52	MP2C	X	33.134	6.75
53	MP2C	Z	0	6.75
54	MP2C	Mx	.036	6.75
55	MP2A	X	24.547	1.75
56	MP2A	Z	0	1.75
57	MP2A	Mx	-.018	1.75
58	MP2A	X	24.547	6.75
59	MP2A	Z	0	6.75
60	MP2A	Mx	-.018	6.75
61	MP2B	X	33.134	1.75
62	MP2B	Z	0	1.75
63	MP2B	Mx	.036	1.75
64	MP2B	X	33.134	6.75
65	MP2B	Z	0	6.75
66	MP2B	Mx	.036	6.75
67	MP2C	X	33.134	1.75
68	MP2C	Z	0	1.75
69	MP2C	Mx	-.011	1.75
70	MP2C	X	33.134	6.75
71	MP2C	Z	0	6.75
72	MP2C	Mx	-.011	6.75
73	MP1C	X	16.321	2.42
74	MP1C	Z	0	2.42
75	MP1C	Mx	.006	2.42
76	MP1C	X	16.321	6
77	MP1C	Z	0	6
78	MP1C	Mx	.006	6
79	MP5C	X	16.321	2.42
80	MP5C	Z	0	2.42
81	MP5C	Mx	.006	2.42

Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
82	MP5C	X	16.321	6
83	MP5C	Z	0	6
84	MP5C	Mx	.006	6
85	MP1A	X	24.112	1.75
86	MP1A	Z	0	1.75
87	MP1A	Mx	-.015	1.75
88	MP1A	X	24.112	6.75
89	MP1A	Z	0	6.75
90	MP1A	Mx	-.015	6.75
91	MP1B	X	21.66	1.75
92	MP1B	Z	0	1.75
93	MP1B	Mx	.007	1.75
94	MP1B	X	21.66	6.75
95	MP1B	Z	0	6.75
96	MP1B	Mx	.007	6.75
97	MP5A	X	24.112	1.75
98	MP5A	Z	0	1.75
99	MP5A	Mx	-.015	1.75
100	MP5A	X	24.112	6.75
101	MP5A	Z	0	6.75
102	MP5A	Mx	-.015	6.75
103	MP5B	X	21.66	1.75
104	MP5B	Z	0	1.75
105	MP5B	Mx	.007	1.75
106	MP5B	X	21.66	6.75
107	MP5B	Z	0	6.75
108	MP5B	Mx	.007	6.75
109	MP2A	X	2.931	4.5
110	MP2A	Z	0	4.5
111	MP2A	Mx	.001	4.5
112	MP2B	X	3.663	4.5
113	MP2B	Z	0	4.5
114	MP2B	Mx	-.000763	4.5
115	MP2C	X	3.663	4.5
116	MP2C	Z	0	4.5
117	MP2C	Mx	-.000763	4.5

Member Point Loads (BLC 19 : Antenna Wi (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	9.436	2.92
2	MP4A	Z	5.448	2.92
3	MP4A	Mx	-.007	2.92
4	MP4A	X	9.436	5.67
5	MP4A	Z	5.448	5.67
6	MP4A	Mx	-.007	5.67
7	MP4B	X	16.576	2.92
8	MP4B	Z	9.57	2.92
9	MP4B	Mx	0	2.92
10	MP4B	X	16.576	5.67
11	MP4B	Z	9.57	5.67
12	MP4B	Mx	0	5.67
13	MP4C	X	9.436	2.92
14	MP4C	Z	5.448	2.92
15	MP4C	Mx	.007	2.92
16	MP4C	X	9.436	5.67
17	MP4C	Z	5.448	5.67

Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP4C	Mx	.007	5.67
19	MP1A	X	10.774	3.5
20	MP1A	Z	6.22	3.5
21	MP1A	Mx	.007	3.5
22	MP1B	X	13.964	3.5
23	MP1B	Z	8.062	3.5
24	MP1B	Mx	0	3.5
25	MP1C	X	10.774	3.5
26	MP1C	Z	6.22	3.5
27	MP1C	Mx	-.007	3.5
28	MP2A	X	9.561	3.5
29	MP2A	Z	5.52	3.5
30	MP2A	Mx	.006	3.5
31	MP2B	X	13.964	3.5
32	MP2B	Z	8.062	3.5
33	MP2B	Mx	0	3.5
34	MP2C	X	9.561	3.5
35	MP2C	Z	5.52	3.5
36	MP2C	Mx	-.006	3.5
37	MP2A	X	23.737	1.75
38	MP2A	Z	13.705	1.75
39	MP2A	Mx	-.006	1.75
40	MP2A	X	23.737	6.75
41	MP2A	Z	13.705	6.75
42	MP2A	Mx	-.006	6.75
43	MP2B	X	31.173	1.75
44	MP2B	Z	17.998	1.75
45	MP2B	Mx	-.03	1.75
46	MP2B	X	31.173	6.75
47	MP2B	Z	17.998	6.75
48	MP2B	Mx	-.03	6.75
49	MP2C	X	23.737	1.75
50	MP2C	Z	13.705	1.75
51	MP2C	Mx	.029	1.75
52	MP2C	X	23.737	6.75
53	MP2C	Z	13.705	6.75
54	MP2C	Mx	.029	6.75
55	MP2A	X	23.737	1.75
56	MP2A	Z	13.705	1.75
57	MP2A	Mx	-.029	1.75
58	MP2A	X	23.737	6.75
59	MP2A	Z	13.705	6.75
60	MP2A	Mx	-.029	6.75
61	MP2B	X	31.173	1.75
62	MP2B	Z	17.998	1.75
63	MP2B	Mx	.03	1.75
64	MP2B	X	31.173	6.75
65	MP2B	Z	17.998	6.75
66	MP2B	Mx	.03	6.75
67	MP2C	X	23.737	1.75
68	MP2C	Z	13.705	1.75
69	MP2C	Mx	.006	1.75
70	MP2C	X	23.737	6.75
71	MP2C	Z	13.705	6.75
72	MP2C	Mx	.006	6.75
73	MP1C	X	13.421	2.42
74	MP1C	Z	7.749	2.42

Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP1C	Mx	.01	2.42
76	MP1C	X	13.421	6
77	MP1C	Z	7.749	6
78	MP1C	Mx	.01	6
79	MP5C	X	13.421	2.42
80	MP5C	Z	7.749	2.42
81	MP5C	Mx	.01	2.42
82	MP5C	X	13.421	6
83	MP5C	Z	7.749	6
84	MP5C	Mx	.01	6
85	MP1A	X	20.174	1.75
86	MP1A	Z	11.648	1.75
87	MP1A	Mx	-.012	1.75
88	MP1A	X	20.174	6.75
89	MP1A	Z	11.648	6.75
90	MP1A	Mx	-.012	6.75
91	MP1B	X	18.051	1.75
92	MP1B	Z	10.421	1.75
93	MP1B	Mx	0	1.75
94	MP1B	X	18.051	6.75
95	MP1B	Z	10.421	6.75
96	MP1B	Mx	0	6.75
97	MP5A	X	20.174	1.75
98	MP5A	Z	11.648	1.75
99	MP5A	Mx	-.012	1.75
100	MP5A	X	20.174	6.75
101	MP5A	Z	11.648	6.75
102	MP5A	Mx	-.012	6.75
103	MP5B	X	18.051	1.75
104	MP5B	Z	10.421	1.75
105	MP5B	Mx	0	1.75
106	MP5B	X	18.051	6.75
107	MP5B	Z	10.421	6.75
108	MP5B	Mx	0	6.75
109	MP2A	X	2.749	4.5
110	MP2A	Z	1.587	4.5
111	MP2A	Mx	.001	4.5
112	MP2B	X	3.384	4.5
113	MP2B	Z	1.954	4.5
114	MP2B	Mx	0	4.5
115	MP2C	X	2.749	4.5
116	MP2C	Z	1.587	4.5
117	MP2C	Mx	-.001	4.5

Member Point Loads (BLC 20 : Antenna Wi (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	8.196	2.92
2	MP4A	Z	14.196	2.92
3	MP4A	Mx	-.006	2.92
4	MP4A	X	8.196	5.67
5	MP4A	Z	14.196	5.67
6	MP4A	Mx	-.006	5.67
7	MP4B	X	8.196	2.92
8	MP4B	Z	14.196	2.92
9	MP4B	Mx	-.006	2.92
10	MP4B	X	8.196	5.67

Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP4B	Z	14.196	5.67
12	MP4B	Mx	-.006	5.67
13	MP4C	X	4.074	2.92
14	MP4C	Z	7.056	2.92
15	MP4C	Mx	.006	2.92
16	MP4C	X	4.074	5.67
17	MP4C	Z	7.056	5.67
18	MP4C	Mx	.006	5.67
19	MP1A	X	7.448	3.5
20	MP1A	Z	12.901	3.5
21	MP1A	Mx	.005	3.5
22	MP1B	X	7.448	3.5
23	MP1B	Z	12.901	3.5
24	MP1B	Mx	.005	3.5
25	MP1C	X	5.606	3.5
26	MP1C	Z	9.71	3.5
27	MP1C	Mx	-.007	3.5
28	MP2A	X	7.215	3.5
29	MP2A	Z	12.497	3.5
30	MP2A	Mx	.005	3.5
31	MP2B	X	7.215	3.5
32	MP2B	Z	12.497	3.5
33	MP2B	Mx	.005	3.5
34	MP2C	X	4.673	3.5
35	MP2C	Z	8.094	3.5
36	MP2C	Mx	-.006	3.5
37	MP2A	X	16.567	1.75
38	MP2A	Z	28.695	1.75
39	MP2A	Mx	.011	1.75
40	MP2A	X	16.567	6.75
41	MP2A	Z	28.695	6.75
42	MP2A	Mx	.011	6.75
43	MP2B	X	16.567	1.75
44	MP2B	Z	28.695	1.75
45	MP2B	Mx	-.036	1.75
46	MP2B	X	16.567	6.75
47	MP2B	Z	28.695	6.75
48	MP2B	Mx	-.036	6.75
49	MP2C	X	12.274	1.75
50	MP2C	Z	21.258	1.75
51	MP2C	Mx	.018	1.75
52	MP2C	X	12.274	6.75
53	MP2C	Z	21.258	6.75
54	MP2C	Mx	.018	6.75
55	MP2A	X	16.567	1.75
56	MP2A	Z	28.695	1.75
57	MP2A	Mx	-.036	1.75
58	MP2A	X	16.567	6.75
59	MP2A	Z	28.695	6.75
60	MP2A	Mx	-.036	6.75
61	MP2B	X	16.567	1.75
62	MP2B	Z	28.695	1.75
63	MP2B	Mx	.011	1.75
64	MP2B	X	16.567	6.75
65	MP2B	Z	28.695	6.75
66	MP2B	Mx	.011	6.75
67	MP2C	X	12.274	1.75

Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
68	MP2C	Z	21.258	1.75
69	MP2C	Mx	.018	1.75
70	MP2C	X	12.274	6.75
71	MP2C	Z	21.258	6.75
72	MP2C	Mx	.018	6.75
73	MP1C	X	7.543	2.42
74	MP1C	Z	13.065	2.42
75	MP1C	Mx	.012	2.42
76	MP1C	X	7.543	6
77	MP1C	Z	13.065	6
78	MP1C	Mx	.012	6
79	MP5C	X	7.543	2.42
80	MP5C	Z	13.065	2.42
81	MP5C	Mx	.012	2.42
82	MP5C	X	7.543	6
83	MP5C	Z	13.065	6
84	MP5C	Mx	.012	6
85	MP1A	X	10.83	1.75
86	MP1A	Z	18.758	1.75
87	MP1A	Mx	-.007	1.75
88	MP1A	X	10.83	6.75
89	MP1A	Z	18.758	6.75
90	MP1A	Mx	-.007	6.75
91	MP1B	X	10.83	1.75
92	MP1B	Z	18.758	1.75
93	MP1B	Mx	-.007	1.75
94	MP1B	X	10.83	6.75
95	MP1B	Z	18.758	6.75
96	MP1B	Mx	-.007	6.75
97	MP5A	X	10.83	1.75
98	MP5A	Z	18.758	1.75
99	MP5A	Mx	-.007	1.75
100	MP5A	X	10.83	6.75
101	MP5A	Z	18.758	6.75
102	MP5A	Mx	-.007	6.75
103	MP5B	X	10.83	1.75
104	MP5B	Z	18.758	1.75
105	MP5B	Mx	-.007	1.75
106	MP5B	X	10.83	6.75
107	MP5B	Z	18.758	6.75
108	MP5B	Mx	-.007	6.75
109	MP2A	X	1.832	4.5
110	MP2A	Z	3.172	4.5
111	MP2A	Mx	.000763	4.5
112	MP2B	X	1.832	4.5
113	MP2B	Z	3.172	4.5
114	MP2B	Mx	.000763	4.5
115	MP2C	X	1.465	4.5
116	MP2C	Z	2.538	4.5
117	MP2C	Mx	-.001	4.5

Member Point Loads (BLC 21 : Antenna Wi (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2.92
2	MP4A	Z	19.141	2.92
3	MP4A	Mx	0	2.92

Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP4A	X	0	5.67
5	MP4A	Z	19.141	5.67
6	MP4A	Mx	0	5.67
7	MP4B	X	0	2.92
8	MP4B	Z	10.896	2.92
9	MP4B	Mx	-.007	2.92
10	MP4B	X	0	5.67
11	MP4B	Z	10.896	5.67
12	MP4B	Mx	-.007	5.67
13	MP4C	X	0	2.92
14	MP4C	Z	10.896	2.92
15	MP4C	Mx	.007	2.92
16	MP4C	X	0	5.67
17	MP4C	Z	10.896	5.67
18	MP4C	Mx	.007	5.67
19	MP1A	X	0	3.5
20	MP1A	Z	16.124	3.5
21	MP1A	Mx	0	3.5
22	MP1B	X	0	3.5
23	MP1B	Z	12.44	3.5
24	MP1B	Mx	.007	3.5
25	MP1C	X	0	3.5
26	MP1C	Z	12.44	3.5
27	MP1C	Mx	-.007	3.5
28	MP2A	X	0	3.5
29	MP2A	Z	16.124	3.5
30	MP2A	Mx	0	3.5
31	MP2B	X	0	3.5
32	MP2B	Z	11.04	3.5
33	MP2B	Mx	.006	3.5
34	MP2C	X	0	3.5
35	MP2C	Z	11.04	3.5
36	MP2C	Mx	-.006	3.5
37	MP2A	X	0	1.75
38	MP2A	Z	35.996	1.75
39	MP2A	Mx	.03	1.75
40	MP2A	X	0	6.75
41	MP2A	Z	35.996	6.75
42	MP2A	Mx	.03	6.75
43	MP2B	X	0	1.75
44	MP2B	Z	27.409	1.75
45	MP2B	Mx	-.029	1.75
46	MP2B	X	0	6.75
47	MP2B	Z	27.409	6.75
48	MP2B	Mx	-.029	6.75
49	MP2C	X	0	1.75
50	MP2C	Z	27.409	1.75
51	MP2C	Mx	.006	1.75
52	MP2C	X	0	6.75
53	MP2C	Z	27.409	6.75
54	MP2C	Mx	.006	6.75
55	MP2A	X	0	1.75
56	MP2A	Z	35.996	1.75
57	MP2A	Mx	-.03	1.75
58	MP2A	X	0	6.75
59	MP2A	Z	35.996	6.75
60	MP2A	Mx	-.03	6.75

Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
61	MP2B	X	0	1.75
62	MP2B	Z	27.409	1.75
63	MP2B	Mx	-.006	1.75
64	MP2B	X	0	6.75
65	MP2B	Z	27.409	6.75
66	MP2B	Mx	-.006	6.75
67	MP2C	X	0	1.75
68	MP2C	Z	27.409	1.75
69	MP2C	Mx	.029	1.75
70	MP2C	X	0	6.75
71	MP2C	Z	27.409	6.75
72	MP2C	Mx	.029	6.75
73	MP1C	X	0	2.42
74	MP1C	Z	15.498	2.42
75	MP1C	Mx	.01	2.42
76	MP1C	X	0	6
77	MP1C	Z	15.498	6
78	MP1C	Mx	.01	6
79	MP5C	X	0	2.42
80	MP5C	Z	15.498	2.42
81	MP5C	Mx	.01	2.42
82	MP5C	X	0	6
83	MP5C	Z	15.498	6
84	MP5C	Mx	.01	6
85	MP1A	X	0	1.75
86	MP1A	Z	20.843	1.75
87	MP1A	Mx	0	1.75
88	MP1A	X	0	6.75
89	MP1A	Z	20.843	6.75
90	MP1A	Mx	0	6.75
91	MP1B	X	0	1.75
92	MP1B	Z	23.295	1.75
93	MP1B	Mx	-.012	1.75
94	MP1B	X	0	6.75
95	MP1B	Z	23.295	6.75
96	MP1B	Mx	-.012	6.75
97	MP5A	X	0	1.75
98	MP5A	Z	20.843	1.75
99	MP5A	Mx	0	1.75
100	MP5A	X	0	6.75
101	MP5A	Z	20.843	6.75
102	MP5A	Mx	0	6.75
103	MP5B	X	0	1.75
104	MP5B	Z	23.295	1.75
105	MP5B	Mx	-.012	1.75
106	MP5B	X	0	6.75
107	MP5B	Z	23.295	6.75
108	MP5B	Mx	-.012	6.75
109	MP2A	X	0	4.5
110	MP2A	Z	3.907	4.5
111	MP2A	Mx	0	4.5
112	MP2B	X	0	4.5
113	MP2B	Z	3.175	4.5
114	MP2B	Mx	.001	4.5
115	MP2C	X	0	4.5
116	MP2C	Z	3.175	4.5
117	MP2C	Mx	-.001	4.5

Member Point Loads (BLC 22 : Antenna Wi (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-8.196	2.92
2	MP4A	Z	14.196	2.92
3	MP4A	Mx	.006	2.92
4	MP4A	X	-8.196	5.67
5	MP4A	Z	14.196	5.67
6	MP4A	Mx	.006	5.67
7	MP4B	X	-4.074	2.92
8	MP4B	Z	7.056	2.92
9	MP4B	Mx	-.006	2.92
10	MP4B	X	-4.074	5.67
11	MP4B	Z	7.056	5.67
12	MP4B	Mx	-.006	5.67
13	MP4C	X	-8.196	2.92
14	MP4C	Z	14.196	2.92
15	MP4C	Mx	.006	2.92
16	MP4C	X	-8.196	5.67
17	MP4C	Z	14.196	5.67
18	MP4C	Mx	.006	5.67
19	MP1A	X	-7.448	3.5
20	MP1A	Z	12.901	3.5
21	MP1A	Mx	-.005	3.5
22	MP1B	X	-5.606	3.5
23	MP1B	Z	9.71	3.5
24	MP1B	Mx	.007	3.5
25	MP1C	X	-7.448	3.5
26	MP1C	Z	12.901	3.5
27	MP1C	Mx	-.005	3.5
28	MP2A	X	-7.215	3.5
29	MP2A	Z	12.497	3.5
30	MP2A	Mx	-.005	3.5
31	MP2B	X	-4.673	3.5
32	MP2B	Z	8.094	3.5
33	MP2B	Mx	.006	3.5
34	MP2C	X	-7.215	3.5
35	MP2C	Z	12.497	3.5
36	MP2C	Mx	-.005	3.5
37	MP2A	X	-16.567	1.75
38	MP2A	Z	28.695	1.75
39	MP2A	Mx	.036	1.75
40	MP2A	X	-16.567	6.75
41	MP2A	Z	28.695	6.75
42	MP2A	Mx	.036	6.75
43	MP2B	X	-12.274	1.75
44	MP2B	Z	21.258	1.75
45	MP2B	Mx	-.018	1.75
46	MP2B	X	-12.274	6.75
47	MP2B	Z	21.258	6.75
48	MP2B	Mx	-.018	6.75
49	MP2C	X	-16.567	1.75
50	MP2C	Z	28.695	1.75
51	MP2C	Mx	-.011	1.75
52	MP2C	X	-16.567	6.75
53	MP2C	Z	28.695	6.75
54	MP2C	Mx	-.011	6.75
55	MP2A	X	-16.567	1.75
56	MP2A	Z	28.695	1.75
57	MP2A	Mx	-.011	1.75

Member Point Loads (BLC 22 : Antenna Wi (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP2A	X	-16.567	6.75
59	MP2A	Z	28.695	6.75
60	MP2A	Mx	-.011	6.75
61	MP2B	X	-12.274	1.75
62	MP2B	Z	21.258	1.75
63	MP2B	Mx	-.018	1.75
64	MP2B	X	-12.274	6.75
65	MP2B	Z	21.258	6.75
66	MP2B	Mx	-.018	6.75
67	MP2C	X	-16.567	1.75
68	MP2C	Z	28.695	1.75
69	MP2C	Mx	.036	1.75
70	MP2C	X	-16.567	6.75
71	MP2C	Z	28.695	6.75
72	MP2C	Mx	.036	6.75
73	MP1C	X	-8.161	2.42
74	MP1C	Z	14.135	2.42
75	MP1C	Mx	.006	2.42
76	MP1C	X	-8.161	6
77	MP1C	Z	14.135	6
78	MP1C	Mx	.006	6
79	MP5C	X	-8.161	2.42
80	MP5C	Z	14.135	2.42
81	MP5C	Mx	.006	2.42
82	MP5C	X	-8.161	6
83	MP5C	Z	14.135	6
84	MP5C	Mx	.006	6
85	MP1A	X	-10.83	1.75
86	MP1A	Z	18.758	1.75
87	MP1A	Mx	.007	1.75
88	MP1A	X	-10.83	6.75
89	MP1A	Z	18.758	6.75
90	MP1A	Mx	.007	6.75
91	MP1B	X	-12.056	1.75
92	MP1B	Z	20.882	1.75
93	MP1B	Mx	-.015	1.75
94	MP1B	X	-12.056	6.75
95	MP1B	Z	20.882	6.75
96	MP1B	Mx	-.015	6.75
97	MP5A	X	-10.83	1.75
98	MP5A	Z	18.758	1.75
99	MP5A	Mx	.007	1.75
100	MP5A	X	-10.83	6.75
101	MP5A	Z	18.758	6.75
102	MP5A	Mx	.007	6.75
103	MP5B	X	-12.056	1.75
104	MP5B	Z	20.882	1.75
105	MP5B	Mx	-.015	1.75
106	MP5B	X	-12.056	6.75
107	MP5B	Z	20.882	6.75
108	MP5B	Mx	-.015	6.75
109	MP2A	X	-1.832	4.5
110	MP2A	Z	3.172	4.5
111	MP2A	Mx	-.000763	4.5
112	MP2B	X	-1.465	4.5
113	MP2B	Z	2.538	4.5
114	MP2B	Mx	.001	4.5

Member Point Loads (BLC 22 : Antenna Wi (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
115	MP2C	X	-1.832	4.5
116	MP2C	Z	3.172	4.5
117	MP2C	Mx	-.000763	4.5

Member Point Loads (BLC 23 : Antenna Wi (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-9.436	2.92
2	MP4A	Z	5.448	2.92
3	MP4A	Mx	.007	2.92
4	MP4A	X	-9.436	5.67
5	MP4A	Z	5.448	5.67
6	MP4A	Mx	.007	5.67
7	MP4B	X	-9.436	2.92
8	MP4B	Z	5.448	2.92
9	MP4B	Mx	-.007	2.92
10	MP4B	X	-9.436	5.67
11	MP4B	Z	5.448	5.67
12	MP4B	Mx	-.007	5.67
13	MP4C	X	-16.576	2.92
14	MP4C	Z	9.57	2.92
15	MP4C	Mx	0	2.92
16	MP4C	X	-16.576	5.67
17	MP4C	Z	9.57	5.67
18	MP4C	Mx	0	5.67
19	MP1A	X	-10.774	3.5
20	MP1A	Z	6.22	3.5
21	MP1A	Mx	-.007	3.5
22	MP1B	X	-10.774	3.5
23	MP1B	Z	6.22	3.5
24	MP1B	Mx	.007	3.5
25	MP1C	X	-13.964	3.5
26	MP1C	Z	8.062	3.5
27	MP1C	Mx	0	3.5
28	MP2A	X	-9.561	3.5
29	MP2A	Z	5.52	3.5
30	MP2A	Mx	-.006	3.5
31	MP2B	X	-9.561	3.5
32	MP2B	Z	5.52	3.5
33	MP2B	Mx	.006	3.5
34	MP2C	X	-13.964	3.5
35	MP2C	Z	8.062	3.5
36	MP2C	Mx	0	3.5
37	MP2A	X	-23.737	1.75
38	MP2A	Z	13.705	1.75
39	MP2A	Mx	.029	1.75
40	MP2A	X	-23.737	6.75
41	MP2A	Z	13.705	6.75
42	MP2A	Mx	.029	6.75
43	MP2B	X	-23.737	1.75
44	MP2B	Z	13.705	1.75
45	MP2B	Mx	-.006	1.75
46	MP2B	X	-23.737	6.75
47	MP2B	Z	13.705	6.75
48	MP2B	Mx	-.006	6.75
49	MP2C	X	-31.173	1.75
50	MP2C	Z	17.998	1.75

Member Point Loads (BLC 23 : Antenna Wi (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
51	MP2C	Mx	-.03	1.75
52	MP2C	X	-31.173	6.75
53	MP2C	Z	17.998	6.75
54	MP2C	Mx	-.03	6.75
55	MP2A	X	-23.737	1.75
56	MP2A	Z	13.705	1.75
57	MP2A	Mx	.006	1.75
58	MP2A	X	-23.737	6.75
59	MP2A	Z	13.705	6.75
60	MP2A	Mx	.006	6.75
61	MP2B	X	-23.737	1.75
62	MP2B	Z	13.705	1.75
63	MP2B	Mx	-.029	1.75
64	MP2B	X	-23.737	6.75
65	MP2B	Z	13.705	6.75
66	MP2B	Mx	-.029	6.75
67	MP2C	X	-31.173	1.75
68	MP2C	Z	17.998	1.75
69	MP2C	Mx	.03	1.75
70	MP2C	X	-31.173	6.75
71	MP2C	Z	17.998	6.75
72	MP2C	Mx	.03	6.75
73	MP1C	X	-14.491	2.42
74	MP1C	Z	8.367	2.42
75	MP1C	Mx	0	2.42
76	MP1C	X	-14.491	6
77	MP1C	Z	8.367	6
78	MP1C	Mx	0	6
79	MP5C	X	-14.491	2.42
80	MP5C	Z	8.367	2.42
81	MP5C	Mx	0	2.42
82	MP5C	X	-14.491	6
83	MP5C	Z	8.367	6
84	MP5C	Mx	0	6
85	MP1A	X	-20.174	1.75
86	MP1A	Z	11.648	1.75
87	MP1A	Mx	.012	1.75
88	MP1A	X	-20.174	6.75
89	MP1A	Z	11.648	6.75
90	MP1A	Mx	.012	6.75
91	MP1B	X	-20.174	1.75
92	MP1B	Z	11.648	1.75
93	MP1B	Mx	-.012	1.75
94	MP1B	X	-20.174	6.75
95	MP1B	Z	11.648	6.75
96	MP1B	Mx	-.012	6.75
97	MP5A	X	-20.174	1.75
98	MP5A	Z	11.648	1.75
99	MP5A	Mx	.012	1.75
100	MP5A	X	-20.174	6.75
101	MP5A	Z	11.648	6.75
102	MP5A	Mx	.012	6.75
103	MP5B	X	-20.174	1.75
104	MP5B	Z	11.648	1.75
105	MP5B	Mx	-.012	1.75
106	MP5B	X	-20.174	6.75
107	MP5B	Z	11.648	6.75

Member Point Loads (BLC 23 : Antenna Wi (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
108	MP5B	Mx	-.012	6.75
109	MP2A	X	-2.749	4.5
110	MP2A	Z	1.587	4.5
111	MP2A	Mx	-.001	4.5
112	MP2B	X	-2.749	4.5
113	MP2B	Z	1.587	4.5
114	MP2B	Mx	.001	4.5
115	MP2C	X	-3.384	4.5
116	MP2C	Z	1.954	4.5
117	MP2C	Mx	0	4.5

Member Point Loads (BLC 24 : Antenna Wi (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-8.147	2.92
2	MP4A	Z	0	2.92
3	MP4A	Mx	.006	2.92
4	MP4A	X	-8.147	5.67
5	MP4A	Z	0	5.67
6	MP4A	Mx	.006	5.67
7	MP4B	X	-16.392	2.92
8	MP4B	Z	0	2.92
9	MP4B	Mx	-.006	2.92
10	MP4B	X	-16.392	5.67
11	MP4B	Z	0	5.67
12	MP4B	Mx	-.006	5.67
13	MP4C	X	-16.392	2.92
14	MP4C	Z	0	2.92
15	MP4C	Mx	-.006	2.92
16	MP4C	X	-16.392	5.67
17	MP4C	Z	0	5.67
18	MP4C	Mx	-.006	5.67
19	MP1A	X	-11.212	3.5
20	MP1A	Z	0	3.5
21	MP1A	Mx	-.007	3.5
22	MP1B	X	-14.896	3.5
23	MP1B	Z	0	3.5
24	MP1B	Mx	.005	3.5
25	MP1C	X	-14.896	3.5
26	MP1C	Z	0	3.5
27	MP1C	Mx	.005	3.5
28	MP2A	X	-9.346	3.5
29	MP2A	Z	0	3.5
30	MP2A	Mx	-.006	3.5
31	MP2B	X	-14.43	3.5
32	MP2B	Z	0	3.5
33	MP2B	Mx	.005	3.5
34	MP2C	X	-14.43	3.5
35	MP2C	Z	0	3.5
36	MP2C	Mx	.005	3.5
37	MP2A	X	-24.547	1.75
38	MP2A	Z	0	1.75
39	MP2A	Mx	.018	1.75
40	MP2A	X	-24.547	6.75
41	MP2A	Z	0	6.75
42	MP2A	Mx	.018	6.75
43	MP2B	X	-33.134	1.75

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
44	MP2B	Z	0	1.75
45	MP2B	Mx	.011	1.75
46	MP2B	X	-33.134	6.75
47	MP2B	Z	0	6.75
48	MP2B	Mx	.011	6.75
49	MP2C	X	-33.134	1.75
50	MP2C	Z	0	1.75
51	MP2C	Mx	-.036	1.75
52	MP2C	X	-33.134	6.75
53	MP2C	Z	0	6.75
54	MP2C	Mx	-.036	6.75
55	MP2A	X	-24.547	1.75
56	MP2A	Z	0	1.75
57	MP2A	Mx	.018	1.75
58	MP2A	X	-24.547	6.75
59	MP2A	Z	0	6.75
60	MP2A	Mx	.018	6.75
61	MP2B	X	-33.134	1.75
62	MP2B	Z	0	1.75
63	MP2B	Mx	-.036	1.75
64	MP2B	X	-33.134	6.75
65	MP2B	Z	0	6.75
66	MP2B	Mx	-.036	6.75
67	MP2C	X	-33.134	1.75
68	MP2C	Z	0	1.75
69	MP2C	Mx	.011	1.75
70	MP2C	X	-33.134	6.75
71	MP2C	Z	0	6.75
72	MP2C	Mx	.011	6.75
73	MP1C	X	-16.321	2.42
74	MP1C	Z	0	2.42
75	MP1C	Mx	-.006	2.42
76	MP1C	X	-16.321	6
77	MP1C	Z	0	6
78	MP1C	Mx	-.006	6
79	MP5C	X	-16.321	2.42
80	MP5C	Z	0	2.42
81	MP5C	Mx	-.006	2.42
82	MP5C	X	-16.321	6
83	MP5C	Z	0	6
84	MP5C	Mx	-.006	6
85	MP1A	X	-24.112	1.75
86	MP1A	Z	0	1.75
87	MP1A	Mx	.015	1.75
88	MP1A	X	-24.112	6.75
89	MP1A	Z	0	6.75
90	MP1A	Mx	.015	6.75
91	MP1B	X	-21.66	1.75
92	MP1B	Z	0	1.75
93	MP1B	Mx	-.007	1.75
94	MP1B	X	-21.66	6.75
95	MP1B	Z	0	6.75
96	MP1B	Mx	-.007	6.75
97	MP5A	X	-24.112	1.75
98	MP5A	Z	0	1.75
99	MP5A	Mx	.015	1.75
100	MP5A	X	-24.112	6.75

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
101	MP5A	Z	0	6.75
102	MP5A	Mx	.015	6.75
103	MP5B	X	-21.66	1.75
104	MP5B	Z	0	1.75
105	MP5B	Mx	-.007	1.75
106	MP5B	X	-21.66	6.75
107	MP5B	Z	0	6.75
108	MP5B	Mx	-.007	6.75
109	MP2A	X	-2.931	4.5
110	MP2A	Z	0	4.5
111	MP2A	Mx	-.001	4.5
112	MP2B	X	-3.663	4.5
113	MP2B	Z	0	4.5
114	MP2B	Mx	.000763	4.5
115	MP2C	X	-3.663	4.5
116	MP2C	Z	0	4.5
117	MP2C	Mx	.000763	4.5

Member Point Loads (BLC 25 : Antenna Wi (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-9.436	2.92
2	MP4A	Z	-5.448	2.92
3	MP4A	Mx	.007	2.92
4	MP4A	X	-9.436	5.67
5	MP4A	Z	-5.448	5.67
6	MP4A	Mx	.007	5.67
7	MP4B	X	-16.576	2.92
8	MP4B	Z	-9.57	2.92
9	MP4B	Mx	0	2.92
10	MP4B	X	-16.576	5.67
11	MP4B	Z	-9.57	5.67
12	MP4B	Mx	0	5.67
13	MP4C	X	-9.436	2.92
14	MP4C	Z	-5.448	2.92
15	MP4C	Mx	-.007	2.92
16	MP4C	X	-9.436	5.67
17	MP4C	Z	-5.448	5.67
18	MP4C	Mx	-.007	5.67
19	MP1A	X	-10.774	3.5
20	MP1A	Z	-6.22	3.5
21	MP1A	Mx	-.007	3.5
22	MP1B	X	-13.964	3.5
23	MP1B	Z	-8.062	3.5
24	MP1B	Mx	0	3.5
25	MP1C	X	-10.774	3.5
26	MP1C	Z	-6.22	3.5
27	MP1C	Mx	.007	3.5
28	MP2A	X	-9.561	3.5
29	MP2A	Z	-5.52	3.5
30	MP2A	Mx	-.006	3.5
31	MP2B	X	-13.964	3.5
32	MP2B	Z	-8.062	3.5
33	MP2B	Mx	0	3.5
34	MP2C	X	-9.561	3.5
35	MP2C	Z	-5.52	3.5
36	MP2C	Mx	.006	3.5

Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
37	MP2A	X	-23.737	1.75
38	MP2A	Z	-13.705	1.75
39	MP2A	Mx	.006	1.75
40	MP2A	X	-23.737	6.75
41	MP2A	Z	-13.705	6.75
42	MP2A	Mx	.006	6.75
43	MP2B	X	-31.173	1.75
44	MP2B	Z	-17.998	1.75
45	MP2B	Mx	.03	1.75
46	MP2B	X	-31.173	6.75
47	MP2B	Z	-17.998	6.75
48	MP2B	Mx	.03	6.75
49	MP2C	X	-23.737	1.75
50	MP2C	Z	-13.705	1.75
51	MP2C	Mx	-.029	1.75
52	MP2C	X	-23.737	6.75
53	MP2C	Z	-13.705	6.75
54	MP2C	Mx	-.029	6.75
55	MP2A	X	-23.737	1.75
56	MP2A	Z	-13.705	1.75
57	MP2A	Mx	.029	1.75
58	MP2A	X	-23.737	6.75
59	MP2A	Z	-13.705	6.75
60	MP2A	Mx	.029	6.75
61	MP2B	X	-31.173	1.75
62	MP2B	Z	-17.998	1.75
63	MP2B	Mx	-.03	1.75
64	MP2B	X	-31.173	6.75
65	MP2B	Z	-17.998	6.75
66	MP2B	Mx	-.03	6.75
67	MP2C	X	-23.737	1.75
68	MP2C	Z	-13.705	1.75
69	MP2C	Mx	-.006	1.75
70	MP2C	X	-23.737	6.75
71	MP2C	Z	-13.705	6.75
72	MP2C	Mx	-.006	6.75
73	MP1C	X	-13.421	2.42
74	MP1C	Z	-7.749	2.42
75	MP1C	Mx	-.01	2.42
76	MP1C	X	-13.421	6
77	MP1C	Z	-7.749	6
78	MP1C	Mx	-.01	6
79	MP5C	X	-13.421	2.42
80	MP5C	Z	-7.749	2.42
81	MP5C	Mx	-.01	2.42
82	MP5C	X	-13.421	6
83	MP5C	Z	-7.749	6
84	MP5C	Mx	-.01	6
85	MP1A	X	-20.174	1.75
86	MP1A	Z	-11.648	1.75
87	MP1A	Mx	.012	1.75
88	MP1A	X	-20.174	6.75
89	MP1A	Z	-11.648	6.75
90	MP1A	Mx	.012	6.75
91	MP1B	X	-18.051	1.75
92	MP1B	Z	-10.421	1.75
93	MP1B	Mx	0	1.75

Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
94	MP1B	X	-18.051	6.75
95	MP1B	Z	-10.421	6.75
96	MP1B	Mx	0	6.75
97	MP5A	X	-20.174	1.75
98	MP5A	Z	-11.648	1.75
99	MP5A	Mx	.012	1.75
100	MP5A	X	-20.174	6.75
101	MP5A	Z	-11.648	6.75
102	MP5A	Mx	.012	6.75
103	MP5B	X	-18.051	1.75
104	MP5B	Z	-10.421	1.75
105	MP5B	Mx	0	1.75
106	MP5B	X	-18.051	6.75
107	MP5B	Z	-10.421	6.75
108	MP5B	Mx	0	6.75
109	MP2A	X	-2.749	4.5
110	MP2A	Z	-1.587	4.5
111	MP2A	Mx	-.001	4.5
112	MP2B	X	-3.384	4.5
113	MP2B	Z	-1.954	4.5
114	MP2B	Mx	0	4.5
115	MP2C	X	-2.749	4.5
116	MP2C	Z	-1.587	4.5
117	MP2C	Mx	.001	4.5

Member Point Loads (BLC 26 : Antenna Wi (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-8.196	2.92
2	MP4A	Z	-14.196	2.92
3	MP4A	Mx	.006	2.92
4	MP4A	X	-8.196	5.67
5	MP4A	Z	-14.196	5.67
6	MP4A	Mx	.006	5.67
7	MP4B	X	-8.196	2.92
8	MP4B	Z	-14.196	2.92
9	MP4B	Mx	.006	2.92
10	MP4B	X	-8.196	5.67
11	MP4B	Z	-14.196	5.67
12	MP4B	Mx	.006	5.67
13	MP4C	X	-4.074	2.92
14	MP4C	Z	-7.056	2.92
15	MP4C	Mx	-.006	2.92
16	MP4C	X	-4.074	5.67
17	MP4C	Z	-7.056	5.67
18	MP4C	Mx	-.006	5.67
19	MP1A	X	-7.448	3.5
20	MP1A	Z	-12.901	3.5
21	MP1A	Mx	-.005	3.5
22	MP1B	X	-7.448	3.5
23	MP1B	Z	-12.901	3.5
24	MP1B	Mx	-.005	3.5
25	MP1C	X	-5.606	3.5
26	MP1C	Z	-9.71	3.5
27	MP1C	Mx	.007	3.5
28	MP2A	X	-7.215	3.5
29	MP2A	Z	-12.497	3.5

Member Point Loads (BLC 26 : Antenna Wi (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP2A	Mx	-.005	3.5
31	MP2B	X	-7.215	3.5
32	MP2B	Z	-12.497	3.5
33	MP2B	Mx	-.005	3.5
34	MP2C	X	-4.673	3.5
35	MP2C	Z	-8.094	3.5
36	MP2C	Mx	.006	3.5
37	MP2A	X	-16.567	1.75
38	MP2A	Z	-28.695	1.75
39	MP2A	Mx	-.011	1.75
40	MP2A	X	-16.567	6.75
41	MP2A	Z	-28.695	6.75
42	MP2A	Mx	-.011	6.75
43	MP2B	X	-16.567	1.75
44	MP2B	Z	-28.695	1.75
45	MP2B	Mx	.036	1.75
46	MP2B	X	-16.567	6.75
47	MP2B	Z	-28.695	6.75
48	MP2B	Mx	.036	6.75
49	MP2C	X	-12.274	1.75
50	MP2C	Z	-21.258	1.75
51	MP2C	Mx	-.018	1.75
52	MP2C	X	-12.274	6.75
53	MP2C	Z	-21.258	6.75
54	MP2C	Mx	-.018	6.75
55	MP2A	X	-16.567	1.75
56	MP2A	Z	-28.695	1.75
57	MP2A	Mx	.036	1.75
58	MP2A	X	-16.567	6.75
59	MP2A	Z	-28.695	6.75
60	MP2A	Mx	.036	6.75
61	MP2B	X	-16.567	1.75
62	MP2B	Z	-28.695	1.75
63	MP2B	Mx	-.011	1.75
64	MP2B	X	-16.567	6.75
65	MP2B	Z	-28.695	6.75
66	MP2B	Mx	-.011	6.75
67	MP2C	X	-12.274	1.75
68	MP2C	Z	-21.258	1.75
69	MP2C	Mx	-.018	1.75
70	MP2C	X	-12.274	6.75
71	MP2C	Z	-21.258	6.75
72	MP2C	Mx	-.018	6.75
73	MP1C	X	-7.543	2.42
74	MP1C	Z	-13.065	2.42
75	MP1C	Mx	-.012	2.42
76	MP1C	X	-7.543	6
77	MP1C	Z	-13.065	6
78	MP1C	Mx	-.012	6
79	MP5C	X	-7.543	2.42
80	MP5C	Z	-13.065	2.42
81	MP5C	Mx	-.012	2.42
82	MP5C	X	-7.543	6
83	MP5C	Z	-13.065	6
84	MP5C	Mx	-.012	6
85	MP1A	X	-10.83	1.75
86	MP1A	Z	-18.758	1.75

Member Point Loads (BLC 26 : Antenna Wi (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
87	MP1A	Mx	.007	1.75
88	MP1A	X	-10.83	6.75
89	MP1A	Z	-18.758	6.75
90	MP1A	Mx	.007	6.75
91	MP1B	X	-10.83	1.75
92	MP1B	Z	-18.758	1.75
93	MP1B	Mx	.007	1.75
94	MP1B	X	-10.83	6.75
95	MP1B	Z	-18.758	6.75
96	MP1B	Mx	.007	6.75
97	MP5A	X	-10.83	1.75
98	MP5A	Z	-18.758	1.75
99	MP5A	Mx	.007	1.75
100	MP5A	X	-10.83	6.75
101	MP5A	Z	-18.758	6.75
102	MP5A	Mx	.007	6.75
103	MP5B	X	-10.83	1.75
104	MP5B	Z	-18.758	1.75
105	MP5B	Mx	.007	1.75
106	MP5B	X	-10.83	6.75
107	MP5B	Z	-18.758	6.75
108	MP5B	Mx	.007	6.75
109	MP2A	X	-1.832	4.5
110	MP2A	Z	-3.172	4.5
111	MP2A	Mx	-.000763	4.5
112	MP2B	X	-1.832	4.5
113	MP2B	Z	-3.172	4.5
114	MP2B	Mx	-.000763	4.5
115	MP2C	X	-1.465	4.5
116	MP2C	Z	-2.538	4.5
117	MP2C	Mx	.001	4.5

Member Point Loads (BLC 27 : Antenna Wm (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2.92
2	MP4A	Z	-6.106	2.92
3	MP4A	Mx	0	2.92
4	MP4A	X	0	5.67
5	MP4A	Z	-6.106	5.67
6	MP4A	Mx	0	5.67
7	MP4B	X	0	2.92
8	MP4B	Z	-3.319	2.92
9	MP4B	Mx	.002	2.92
10	MP4B	X	0	5.67
11	MP4B	Z	-3.319	5.67
12	MP4B	Mx	.002	5.67
13	MP4C	X	0	2.92
14	MP4C	Z	-3.319	2.92
15	MP4C	Mx	-.002	2.92
16	MP4C	X	0	5.67
17	MP4C	Z	-3.319	5.67
18	MP4C	Mx	-.002	5.67
19	MP1A	X	0	3.5
20	MP1A	Z	-4.859	3.5
21	MP1A	Mx	0	3.5
22	MP1B	X	0	3.5

Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP1B	Z	-3.65	3.5
24	MP1B	Mx	-.002	3.5
25	MP1C	X	0	3.5
26	MP1C	Z	-3.65	3.5
27	MP1C	Mx	.002	3.5
28	MP2A	X	0	3.5
29	MP2A	Z	-4.859	3.5
30	MP2A	Mx	0	3.5
31	MP2B	X	0	3.5
32	MP2B	Z	-3.188	3.5
33	MP2B	Mx	-.002	3.5
34	MP2C	X	0	3.5
35	MP2C	Z	-3.188	3.5
36	MP2C	Mx	.002	3.5
37	MP2A	X	0	1.75
38	MP2A	Z	-11.835	1.75
39	MP2A	Mx	-.01	1.75
40	MP2A	X	0	6.75
41	MP2A	Z	-11.835	6.75
42	MP2A	Mx	-.01	6.75
43	MP2B	X	0	1.75
44	MP2B	Z	-8.788	1.75
45	MP2B	Mx	.009	1.75
46	MP2B	X	0	6.75
47	MP2B	Z	-8.788	6.75
48	MP2B	Mx	.009	6.75
49	MP2C	X	0	1.75
50	MP2C	Z	-8.788	1.75
51	MP2C	Mx	-.002	1.75
52	MP2C	X	0	6.75
53	MP2C	Z	-8.788	6.75
54	MP2C	Mx	-.002	6.75
55	MP2A	X	0	1.75
56	MP2A	Z	-11.835	1.75
57	MP2A	Mx	.01	1.75
58	MP2A	X	0	6.75
59	MP2A	Z	-11.835	6.75
60	MP2A	Mx	.01	6.75
61	MP2B	X	0	1.75
62	MP2B	Z	-8.788	1.75
63	MP2B	Mx	.002	1.75
64	MP2B	X	0	6.75
65	MP2B	Z	-8.788	6.75
66	MP2B	Mx	.002	6.75
67	MP2C	X	0	1.75
68	MP2C	Z	-8.788	1.75
69	MP2C	Mx	-.009	1.75
70	MP2C	X	0	6.75
71	MP2C	Z	-8.788	6.75
72	MP2C	Mx	-.009	6.75
73	MP1C	X	0	2.42
74	MP1C	Z	-4.837	2.42
75	MP1C	Mx	-.003	2.42
76	MP1C	X	0	6
77	MP1C	Z	-4.837	6
78	MP1C	Mx	-.003	6
79	MP5C	X	0	2.42

Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
80	MP5C	Z	-4.837	2.42
81	MP5C	Mx	-.003	2.42
82	MP5C	X	0	6
83	MP5C	Z	-4.837	6
84	MP5C	Mx	-.003	6
85	MP1A	X	0	1.75
86	MP1A	Z	-6.508	1.75
87	MP1A	Mx	0	1.75
88	MP1A	X	0	6.75
89	MP1A	Z	-6.508	6.75
90	MP1A	Mx	0	6.75
91	MP1B	X	0	1.75
92	MP1B	Z	-7.343	1.75
93	MP1B	Mx	.004	1.75
94	MP1B	X	0	6.75
95	MP1B	Z	-7.343	6.75
96	MP1B	Mx	.004	6.75
97	MP5A	X	0	1.75
98	MP5A	Z	-6.508	1.75
99	MP5A	Mx	0	1.75
100	MP5A	X	0	6.75
101	MP5A	Z	-6.508	6.75
102	MP5A	Mx	0	6.75
103	MP5B	X	0	1.75
104	MP5B	Z	-7.343	1.75
105	MP5B	Mx	.004	1.75
106	MP5B	X	0	6.75
107	MP5B	Z	-7.343	6.75
108	MP5B	Mx	.004	6.75
109	MP2A	X	0	4.5
110	MP2A	Z	-.961	4.5
111	MP2A	Mx	0	4.5
112	MP2B	X	0	4.5
113	MP2B	Z	-.739	4.5
114	MP2B	Mx	-.000267	4.5
115	MP2C	X	0	4.5
116	MP2C	Z	-.739	4.5
117	MP2C	Mx	.000267	4.5

Member Point Loads (BLC 28 : Antenna Wm (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.588	2.92
2	MP4A	Z	-4.483	2.92
3	MP4A	Mx	-.002	2.92
4	MP4A	X	2.588	5.67
5	MP4A	Z	-4.483	5.67
6	MP4A	Mx	-.002	5.67
7	MP4B	X	1.195	2.92
8	MP4B	Z	-2.07	2.92
9	MP4B	Mx	.002	2.92
10	MP4B	X	1.195	5.67
11	MP4B	Z	-2.07	5.67
12	MP4B	Mx	.002	5.67
13	MP4C	X	2.588	2.92
14	MP4C	Z	-4.483	2.92
15	MP4C	Mx	-.002	2.92

Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	MP4C	X	2.588	5.67
17	MP4C	Z	-4.483	5.67
18	MP4C	Mx	-.002	5.67
19	MP1A	X	2.228	3.5
20	MP1A	Z	-3.859	3.5
21	MP1A	Mx	.001	3.5
22	MP1B	X	1.624	3.5
23	MP1B	Z	-2.813	3.5
24	MP1B	Mx	-.002	3.5
25	MP1C	X	2.228	3.5
26	MP1C	Z	-3.859	3.5
27	MP1C	Mx	.001	3.5
28	MP2A	X	2.151	3.5
29	MP2A	Z	-3.725	3.5
30	MP2A	Mx	.001	3.5
31	MP2B	X	1.315	3.5
32	MP2B	Z	-2.278	3.5
33	MP2B	Mx	-.002	3.5
34	MP2C	X	2.151	3.5
35	MP2C	Z	-3.725	3.5
36	MP2C	Mx	.001	3.5
37	MP2A	X	5.41	1.75
38	MP2A	Z	-9.37	1.75
39	MP2A	Mx	-.012	1.75
40	MP2A	X	5.41	6.75
41	MP2A	Z	-9.37	6.75
42	MP2A	Mx	-.012	6.75
43	MP2B	X	3.886	1.75
44	MP2B	Z	-6.731	1.75
45	MP2B	Mx	.006	1.75
46	MP2B	X	3.886	6.75
47	MP2B	Z	-6.731	6.75
48	MP2B	Mx	.006	6.75
49	MP2C	X	5.41	1.75
50	MP2C	Z	-9.37	1.75
51	MP2C	Mx	.004	1.75
52	MP2C	X	5.41	6.75
53	MP2C	Z	-9.37	6.75
54	MP2C	Mx	.004	6.75
55	MP2A	X	5.41	1.75
56	MP2A	Z	-9.37	1.75
57	MP2A	Mx	.004	1.75
58	MP2A	X	5.41	6.75
59	MP2A	Z	-9.37	6.75
60	MP2A	Mx	.004	6.75
61	MP2B	X	3.886	1.75
62	MP2B	Z	-6.731	1.75
63	MP2B	Mx	.006	1.75
64	MP2B	X	3.886	6.75
65	MP2B	Z	-6.731	6.75
66	MP2B	Mx	.006	6.75
67	MP2C	X	5.41	1.75
68	MP2C	Z	-9.37	1.75
69	MP2C	Mx	-.012	1.75
70	MP2C	X	5.41	6.75
71	MP2C	Z	-9.37	6.75
72	MP2C	Mx	-.012	6.75

Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
73	MP1C	X	2.56	2.42
74	MP1C	Z	-4.434	2.42
75	MP1C	Mx	-.002	2.42
76	MP1C	X	2.56	6
77	MP1C	Z	-4.434	6
78	MP1C	Mx	-.002	6
79	MP5C	X	2.56	2.42
80	MP5C	Z	-4.434	2.42
81	MP5C	Mx	-.002	2.42
82	MP5C	X	2.56	6
83	MP5C	Z	-4.434	6
84	MP5C	Mx	-.002	6
85	MP1A	X	3.393	1.75
86	MP1A	Z	-5.877	1.75
87	MP1A	Mx	-.002	1.75
88	MP1A	X	3.393	6.75
89	MP1A	Z	-5.877	6.75
90	MP1A	Mx	-.002	6.75
91	MP1B	X	3.811	1.75
92	MP1B	Z	-6.6	1.75
93	MP1B	Mx	.005	1.75
94	MP1B	X	3.811	6.75
95	MP1B	Z	-6.6	6.75
96	MP1B	Mx	.005	6.75
97	MP5A	X	3.393	1.75
98	MP5A	Z	-5.877	1.75
99	MP5A	Mx	-.002	1.75
100	MP5A	X	3.393	6.75
101	MP5A	Z	-5.877	6.75
102	MP5A	Mx	-.002	6.75
103	MP5B	X	3.811	1.75
104	MP5B	Z	-6.6	1.75
105	MP5B	Mx	.005	1.75
106	MP5B	X	3.811	6.75
107	MP5B	Z	-6.6	6.75
108	MP5B	Mx	.005	6.75
109	MP2A	X	.444	4.5
110	MP2A	Z	-.768	4.5
111	MP2A	Mx	.000185	4.5
112	MP2B	X	.333	4.5
113	MP2B	Z	-.576	4.5
114	MP2B	Mx	-.000277	4.5
115	MP2C	X	.444	4.5
116	MP2C	Z	-.768	4.5
117	MP2C	Mx	.000185	4.5

Member Point Loads (BLC 29 : Antenna Wm (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.874	2.92
2	MP4A	Z	-1.66	2.92
3	MP4A	Mx	-.002	2.92
4	MP4A	X	2.874	5.67
5	MP4A	Z	-1.66	5.67
6	MP4A	Mx	-.002	5.67
7	MP4B	X	2.874	2.92
8	MP4B	Z	-1.66	2.92

Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP4B	Mx	.002	2.92
10	MP4B	X	2.874	5.67
11	MP4B	Z	-1.66	5.67
12	MP4B	Mx	.002	5.67
13	MP4C	X	5.288	2.92
14	MP4C	Z	-3.053	2.92
15	MP4C	Mx	0	2.92
16	MP4C	X	5.288	5.67
17	MP4C	Z	-3.053	5.67
18	MP4C	Mx	0	5.67
19	MP1A	X	3.161	3.5
20	MP1A	Z	-1.825	3.5
21	MP1A	Mx	.002	3.5
22	MP1B	X	3.161	3.5
23	MP1B	Z	-1.825	3.5
24	MP1B	Mx	-.002	3.5
25	MP1C	X	4.208	3.5
26	MP1C	Z	-2.429	3.5
27	MP1C	Mx	0	3.5
28	MP2A	X	2.761	3.5
29	MP2A	Z	-1.594	3.5
30	MP2A	Mx	.002	3.5
31	MP2B	X	2.761	3.5
32	MP2B	Z	-1.594	3.5
33	MP2B	Mx	-.002	3.5
34	MP2C	X	4.208	3.5
35	MP2C	Z	-2.429	3.5
36	MP2C	Mx	0	3.5
37	MP2A	X	7.611	1.75
38	MP2A	Z	-4.394	1.75
39	MP2A	Mx	-.009	1.75
40	MP2A	X	7.611	6.75
41	MP2A	Z	-4.394	6.75
42	MP2A	Mx	-.009	6.75
43	MP2B	X	7.611	1.75
44	MP2B	Z	-4.394	1.75
45	MP2B	Mx	.002	1.75
46	MP2B	X	7.611	6.75
47	MP2B	Z	-4.394	6.75
48	MP2B	Mx	.002	6.75
49	MP2C	X	10.249	1.75
50	MP2C	Z	-5.917	1.75
51	MP2C	Mx	.01	1.75
52	MP2C	X	10.249	6.75
53	MP2C	Z	-5.917	6.75
54	MP2C	Mx	.01	6.75
55	MP2A	X	7.611	1.75
56	MP2A	Z	-4.394	1.75
57	MP2A	Mx	-.002	1.75
58	MP2A	X	7.611	6.75
59	MP2A	Z	-4.394	6.75
60	MP2A	Mx	-.002	6.75
61	MP2B	X	7.611	1.75
62	MP2B	Z	-4.394	1.75
63	MP2B	Mx	.009	1.75
64	MP2B	X	7.611	6.75
65	MP2B	Z	-4.394	6.75

Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
66	MP2B	Mx	.009	6.75
67	MP2C	X	10.249	1.75
68	MP2C	Z	-5.917	1.75
69	MP2C	Mx	-.01	1.75
70	MP2C	X	10.249	6.75
71	MP2C	Z	-5.917	6.75
72	MP2C	Mx	-.01	6.75
73	MP1C	X	4.556	2.42
74	MP1C	Z	-2.631	2.42
75	MP1C	Mx	0	2.42
76	MP1C	X	4.556	6
77	MP1C	Z	-2.631	6
78	MP1C	Mx	0	6
79	MP5C	X	4.556	2.42
80	MP5C	Z	-2.631	2.42
81	MP5C	Mx	0	2.42
82	MP5C	X	4.556	6
83	MP5C	Z	-2.631	6
84	MP5C	Mx	0	6
85	MP1A	X	6.359	1.75
86	MP1A	Z	-3.672	1.75
87	MP1A	Mx	-.004	1.75
88	MP1A	X	6.359	6.75
89	MP1A	Z	-3.672	6.75
90	MP1A	Mx	-.004	6.75
91	MP1B	X	6.359	1.75
92	MP1B	Z	-3.672	1.75
93	MP1B	Mx	.004	1.75
94	MP1B	X	6.359	6.75
95	MP1B	Z	-3.672	6.75
96	MP1B	Mx	.004	6.75
97	MP5A	X	6.359	1.75
98	MP5A	Z	-3.672	1.75
99	MP5A	Mx	-.004	1.75
100	MP5A	X	6.359	6.75
101	MP5A	Z	-3.672	6.75
102	MP5A	Mx	-.004	6.75
103	MP5B	X	6.359	1.75
104	MP5B	Z	-3.672	1.75
105	MP5B	Mx	.004	1.75
106	MP5B	X	6.359	6.75
107	MP5B	Z	-3.672	6.75
108	MP5B	Mx	.004	6.75
109	MP2A	X	.64	4.5
110	MP2A	Z	-.37	4.5
111	MP2A	Mx	.000267	4.5
112	MP2B	X	.64	4.5
113	MP2B	Z	-.37	4.5
114	MP2B	Mx	-.000267	4.5
115	MP2C	X	.833	4.5
116	MP2C	Z	-.481	4.5
117	MP2C	Mx	0	4.5

Member Point Loads (BLC 30 : Antenna Wm (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.39	2.92

Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
2	MP4A	Z	0	2.92
3	MP4A	Mx	-.002	2.92
4	MP4A	X	2.39	5.67
5	MP4A	Z	0	5.67
6	MP4A	Mx	-.002	5.67
7	MP4B	X	5.177	2.92
8	MP4B	Z	0	2.92
9	MP4B	Mx	.002	2.92
10	MP4B	X	5.177	5.67
11	MP4B	Z	0	5.67
12	MP4B	Mx	.002	5.67
13	MP4C	X	5.177	2.92
14	MP4C	Z	0	2.92
15	MP4C	Mx	.002	2.92
16	MP4C	X	5.177	5.67
17	MP4C	Z	0	5.67
18	MP4C	Mx	.002	5.67
19	MP1A	X	3.248	3.5
20	MP1A	Z	0	3.5
21	MP1A	Mx	.002	3.5
22	MP1B	X	4.456	3.5
23	MP1B	Z	0	3.5
24	MP1B	Mx	-.001	3.5
25	MP1C	X	4.456	3.5
26	MP1C	Z	0	3.5
27	MP1C	Mx	-.001	3.5
28	MP2A	X	2.631	3.5
29	MP2A	Z	0	3.5
30	MP2A	Mx	.002	3.5
31	MP2B	X	4.302	3.5
32	MP2B	Z	0	3.5
33	MP2B	Mx	-.001	3.5
34	MP2C	X	4.302	3.5
35	MP2C	Z	0	3.5
36	MP2C	Mx	-.001	3.5
37	MP2A	X	7.773	1.75
38	MP2A	Z	0	1.75
39	MP2A	Mx	-.006	1.75
40	MP2A	X	7.773	6.75
41	MP2A	Z	0	6.75
42	MP2A	Mx	-.006	6.75
43	MP2B	X	10.819	1.75
44	MP2B	Z	0	1.75
45	MP2B	Mx	-.004	1.75
46	MP2B	X	10.819	6.75
47	MP2B	Z	0	6.75
48	MP2B	Mx	-.004	6.75
49	MP2C	X	10.819	1.75
50	MP2C	Z	0	1.75
51	MP2C	Mx	.012	1.75
52	MP2C	X	10.819	6.75
53	MP2C	Z	0	6.75
54	MP2C	Mx	.012	6.75
55	MP2A	X	7.773	1.75
56	MP2A	Z	0	1.75
57	MP2A	Mx	-.006	1.75
58	MP2A	X	7.773	6.75

Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
59	MP2A	Z	0	6.75
60	MP2A	Mx	-.006	6.75
61	MP2B	X	10.819	1.75
62	MP2B	Z	0	1.75
63	MP2B	Mx	.012	1.75
64	MP2B	X	10.819	6.75
65	MP2B	Z	0	6.75
66	MP2B	Mx	.012	6.75
67	MP2C	X	10.819	1.75
68	MP2C	Z	0	1.75
69	MP2C	Mx	-.004	1.75
70	MP2C	X	10.819	6.75
71	MP2C	Z	0	6.75
72	MP2C	Mx	-.004	6.75
73	MP1C	X	5.12	2.42
74	MP1C	Z	0	2.42
75	MP1C	Mx	.002	2.42
76	MP1C	X	5.12	6
77	MP1C	Z	0	6
78	MP1C	Mx	.002	6
79	MP5C	X	5.12	2.42
80	MP5C	Z	0	2.42
81	MP5C	Mx	.002	2.42
82	MP5C	X	5.12	6
83	MP5C	Z	0	6
84	MP5C	Mx	.002	6
85	MP1A	X	7.621	1.75
86	MP1A	Z	0	1.75
87	MP1A	Mx	-.005	1.75
88	MP1A	X	7.621	6.75
89	MP1A	Z	0	6.75
90	MP1A	Mx	-.005	6.75
91	MP1B	X	6.787	1.75
92	MP1B	Z	0	1.75
93	MP1B	Mx	.002	1.75
94	MP1B	X	6.787	6.75
95	MP1B	Z	0	6.75
96	MP1B	Mx	.002	6.75
97	MP5A	X	7.621	1.75
98	MP5A	Z	0	1.75
99	MP5A	Mx	-.005	1.75
100	MP5A	X	7.621	6.75
101	MP5A	Z	0	6.75
102	MP5A	Mx	-.005	6.75
103	MP5B	X	6.787	1.75
104	MP5B	Z	0	1.75
105	MP5B	Mx	.002	1.75
106	MP5B	X	6.787	6.75
107	MP5B	Z	0	6.75
108	MP5B	Mx	.002	6.75
109	MP2A	X	.665	4.5
110	MP2A	Z	0	4.5
111	MP2A	Mx	.000277	4.5
112	MP2B	X	.887	4.5
113	MP2B	Z	0	4.5
114	MP2B	Mx	-.000185	4.5
115	MP2C	X	.887	4.5

Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
116	MP2C	Z	0	4.5
117	MP2C	Mx	-.000185	4.5

Member Point Loads (BLC 31 : Antenna Wm (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.874	2.92
2	MP4A	Z	1.66	2.92
3	MP4A	Mx	-.002	2.92
4	MP4A	X	2.874	5.67
5	MP4A	Z	1.66	5.67
6	MP4A	Mx	-.002	5.67
7	MP4B	X	5.288	2.92
8	MP4B	Z	3.053	2.92
9	MP4B	Mx	0	2.92
10	MP4B	X	5.288	5.67
11	MP4B	Z	3.053	5.67
12	MP4B	Mx	0	5.67
13	MP4C	X	2.874	2.92
14	MP4C	Z	1.66	2.92
15	MP4C	Mx	.002	2.92
16	MP4C	X	2.874	5.67
17	MP4C	Z	1.66	5.67
18	MP4C	Mx	.002	5.67
19	MP1A	X	3.161	3.5
20	MP1A	Z	1.825	3.5
21	MP1A	Mx	.002	3.5
22	MP1B	X	4.208	3.5
23	MP1B	Z	2.429	3.5
24	MP1B	Mx	0	3.5
25	MP1C	X	3.161	3.5
26	MP1C	Z	1.825	3.5
27	MP1C	Mx	-.002	3.5
28	MP2A	X	2.761	3.5
29	MP2A	Z	1.594	3.5
30	MP2A	Mx	.002	3.5
31	MP2B	X	4.208	3.5
32	MP2B	Z	2.429	3.5
33	MP2B	Mx	0	3.5
34	MP2C	X	2.761	3.5
35	MP2C	Z	1.594	3.5
36	MP2C	Mx	-.002	3.5
37	MP2A	X	7.611	1.75
38	MP2A	Z	4.394	1.75
39	MP2A	Mx	-.002	1.75
40	MP2A	X	7.611	6.75
41	MP2A	Z	4.394	6.75
42	MP2A	Mx	-.002	6.75
43	MP2B	X	10.249	1.75
44	MP2B	Z	5.917	1.75
45	MP2B	Mx	-.01	1.75
46	MP2B	X	10.249	6.75
47	MP2B	Z	5.917	6.75
48	MP2B	Mx	-.01	6.75
49	MP2C	X	7.611	1.75
50	MP2C	Z	4.394	1.75
51	MP2C	Mx	.009	1.75

Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
52	MP2C	X	7.611	6.75
53	MP2C	Z	4.394	6.75
54	MP2C	Mx	.009	6.75
55	MP2A	X	7.611	1.75
56	MP2A	Z	4.394	1.75
57	MP2A	Mx	-.009	1.75
58	MP2A	X	7.611	6.75
59	MP2A	Z	4.394	6.75
60	MP2A	Mx	-.009	6.75
61	MP2B	X	10.249	1.75
62	MP2B	Z	5.917	1.75
63	MP2B	Mx	.01	1.75
64	MP2B	X	10.249	6.75
65	MP2B	Z	5.917	6.75
66	MP2B	Mx	.01	6.75
67	MP2C	X	7.611	1.75
68	MP2C	Z	4.394	1.75
69	MP2C	Mx	.002	1.75
70	MP2C	X	7.611	6.75
71	MP2C	Z	4.394	6.75
72	MP2C	Mx	.002	6.75
73	MP1C	X	4.189	2.42
74	MP1C	Z	2.419	2.42
75	MP1C	Mx	.003	2.42
76	MP1C	X	4.189	6
77	MP1C	Z	2.419	6
78	MP1C	Mx	.003	6
79	MP5C	X	4.189	2.42
80	MP5C	Z	2.419	2.42
81	MP5C	Mx	.003	2.42
82	MP5C	X	4.189	6
83	MP5C	Z	2.419	6
84	MP5C	Mx	.003	6
85	MP1A	X	6.359	1.75
86	MP1A	Z	3.672	1.75
87	MP1A	Mx	-.004	1.75
88	MP1A	X	6.359	6.75
89	MP1A	Z	3.672	6.75
90	MP1A	Mx	-.004	6.75
91	MP1B	X	5.636	1.75
92	MP1B	Z	3.254	1.75
93	MP1B	Mx	0	1.75
94	MP1B	X	5.636	6.75
95	MP1B	Z	3.254	6.75
96	MP1B	Mx	0	6.75
97	MP5A	X	6.359	1.75
98	MP5A	Z	3.672	1.75
99	MP5A	Mx	-.004	1.75
100	MP5A	X	6.359	6.75
101	MP5A	Z	3.672	6.75
102	MP5A	Mx	-.004	6.75
103	MP5B	X	5.636	1.75
104	MP5B	Z	3.254	1.75
105	MP5B	Mx	0	1.75
106	MP5B	X	5.636	6.75
107	MP5B	Z	3.254	6.75
108	MP5B	Mx	0	6.75

Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
109	MP2A	X	.64	4.5
110	MP2A	Z	.37	4.5
111	MP2A	Mx	.000267	4.5
112	MP2B	X	.833	4.5
113	MP2B	Z	.481	4.5
114	MP2B	Mx	0	4.5
115	MP2C	X	.64	4.5
116	MP2C	Z	.37	4.5
117	MP2C	Mx	-.000267	4.5

Member Point Loads (BLC 32 : Antenna Wm (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.588	2.92
2	MP4A	Z	4.483	2.92
3	MP4A	Mx	-.002	2.92
4	MP4A	X	2.588	5.67
5	MP4A	Z	4.483	5.67
6	MP4A	Mx	-.002	5.67
7	MP4B	X	2.588	2.92
8	MP4B	Z	4.483	2.92
9	MP4B	Mx	-.002	2.92
10	MP4B	X	2.588	5.67
11	MP4B	Z	4.483	5.67
12	MP4B	Mx	-.002	5.67
13	MP4C	X	1.195	2.92
14	MP4C	Z	2.07	2.92
15	MP4C	Mx	.002	2.92
16	MP4C	X	1.195	5.67
17	MP4C	Z	2.07	5.67
18	MP4C	Mx	.002	5.67
19	MP1A	X	2.228	3.5
20	MP1A	Z	3.859	3.5
21	MP1A	Mx	.001	3.5
22	MP1B	X	2.228	3.5
23	MP1B	Z	3.859	3.5
24	MP1B	Mx	.001	3.5
25	MP1C	X	1.624	3.5
26	MP1C	Z	2.813	3.5
27	MP1C	Mx	-.002	3.5
28	MP2A	X	2.151	3.5
29	MP2A	Z	3.725	3.5
30	MP2A	Mx	.001	3.5
31	MP2B	X	2.151	3.5
32	MP2B	Z	3.725	3.5
33	MP2B	Mx	.001	3.5
34	MP2C	X	1.315	3.5
35	MP2C	Z	2.278	3.5
36	MP2C	Mx	-.002	3.5
37	MP2A	X	5.41	1.75
38	MP2A	Z	9.37	1.75
39	MP2A	Mx	.004	1.75
40	MP2A	X	5.41	6.75
41	MP2A	Z	9.37	6.75
42	MP2A	Mx	.004	6.75
43	MP2B	X	5.41	1.75
44	MP2B	Z	9.37	1.75

Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
45	MP2B	Mx	-.012	1.75
46	MP2B	X	5.41	6.75
47	MP2B	Z	9.37	6.75
48	MP2B	Mx	-.012	6.75
49	MP2C	X	3.886	1.75
50	MP2C	Z	6.731	1.75
51	MP2C	Mx	.006	1.75
52	MP2C	X	3.886	6.75
53	MP2C	Z	6.731	6.75
54	MP2C	Mx	.006	6.75
55	MP2A	X	5.41	1.75
56	MP2A	Z	9.37	1.75
57	MP2A	Mx	-.012	1.75
58	MP2A	X	5.41	6.75
59	MP2A	Z	9.37	6.75
60	MP2A	Mx	-.012	6.75
61	MP2B	X	5.41	1.75
62	MP2B	Z	9.37	1.75
63	MP2B	Mx	.004	1.75
64	MP2B	X	5.41	6.75
65	MP2B	Z	9.37	6.75
66	MP2B	Mx	.004	6.75
67	MP2C	X	3.886	1.75
68	MP2C	Z	6.731	1.75
69	MP2C	Mx	.006	1.75
70	MP2C	X	3.886	6.75
71	MP2C	Z	6.731	6.75
72	MP2C	Mx	.006	6.75
73	MP1C	X	2.348	2.42
74	MP1C	Z	4.067	2.42
75	MP1C	Mx	.004	2.42
76	MP1C	X	2.348	6
77	MP1C	Z	4.067	6
78	MP1C	Mx	.004	6
79	MP5C	X	2.348	2.42
80	MP5C	Z	4.067	2.42
81	MP5C	Mx	.004	2.42
82	MP5C	X	2.348	6
83	MP5C	Z	4.067	6
84	MP5C	Mx	.004	6
85	MP1A	X	3.393	1.75
86	MP1A	Z	5.877	1.75
87	MP1A	Mx	-.002	1.75
88	MP1A	X	3.393	6.75
89	MP1A	Z	5.877	6.75
90	MP1A	Mx	-.002	6.75
91	MP1B	X	3.393	1.75
92	MP1B	Z	5.877	1.75
93	MP1B	Mx	-.002	1.75
94	MP1B	X	3.393	6.75
95	MP1B	Z	5.877	6.75
96	MP1B	Mx	-.002	6.75
97	MP5A	X	3.393	1.75
98	MP5A	Z	5.877	1.75
99	MP5A	Mx	-.002	1.75
100	MP5A	X	3.393	6.75
101	MP5A	Z	5.877	6.75

Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
102	MP5A	Mx	-.002	6.75
103	MP5B	X	3.393	1.75
104	MP5B	Z	5.877	1.75
105	MP5B	Mx	-.002	1.75
106	MP5B	X	3.393	6.75
107	MP5B	Z	5.877	6.75
108	MP5B	Mx	-.002	6.75
109	MP2A	X	.444	4.5
110	MP2A	Z	.768	4.5
111	MP2A	Mx	.000185	4.5
112	MP2B	X	.444	4.5
113	MP2B	Z	.768	4.5
114	MP2B	Mx	.000185	4.5
115	MP2C	X	.333	4.5
116	MP2C	Z	.576	4.5
117	MP2C	Mx	-.000277	4.5

Member Point Loads (BLC 33 : Antenna Wm (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2.92
2	MP4A	Z	6.106	2.92
3	MP4A	Mx	0	2.92
4	MP4A	X	0	5.67
5	MP4A	Z	6.106	5.67
6	MP4A	Mx	0	5.67
7	MP4B	X	0	2.92
8	MP4B	Z	3.319	2.92
9	MP4B	Mx	-.002	2.92
10	MP4B	X	0	5.67
11	MP4B	Z	3.319	5.67
12	MP4B	Mx	-.002	5.67
13	MP4C	X	0	2.92
14	MP4C	Z	3.319	2.92
15	MP4C	Mx	.002	2.92
16	MP4C	X	0	5.67
17	MP4C	Z	3.319	5.67
18	MP4C	Mx	.002	5.67
19	MP1A	X	0	3.5
20	MP1A	Z	4.859	3.5
21	MP1A	Mx	0	3.5
22	MP1B	X	0	3.5
23	MP1B	Z	3.65	3.5
24	MP1B	Mx	.002	3.5
25	MP1C	X	0	3.5
26	MP1C	Z	3.65	3.5
27	MP1C	Mx	-.002	3.5
28	MP2A	X	0	3.5
29	MP2A	Z	4.859	3.5
30	MP2A	Mx	0	3.5
31	MP2B	X	0	3.5
32	MP2B	Z	3.188	3.5
33	MP2B	Mx	.002	3.5
34	MP2C	X	0	3.5
35	MP2C	Z	3.188	3.5
36	MP2C	Mx	-.002	3.5
37	MP2A	X	0	1.75

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP2A	Z	11.835	1.75
39	MP2A	Mx	.01	1.75
40	MP2A	X	0	6.75
41	MP2A	Z	11.835	6.75
42	MP2A	Mx	.01	6.75
43	MP2B	X	0	1.75
44	MP2B	Z	8.788	1.75
45	MP2B	Mx	-.009	1.75
46	MP2B	X	0	6.75
47	MP2B	Z	8.788	6.75
48	MP2B	Mx	-.009	6.75
49	MP2C	X	0	1.75
50	MP2C	Z	8.788	1.75
51	MP2C	Mx	.002	1.75
52	MP2C	X	0	6.75
53	MP2C	Z	8.788	6.75
54	MP2C	Mx	.002	6.75
55	MP2A	X	0	1.75
56	MP2A	Z	11.835	1.75
57	MP2A	Mx	-.01	1.75
58	MP2A	X	0	6.75
59	MP2A	Z	11.835	6.75
60	MP2A	Mx	-.01	6.75
61	MP2B	X	0	1.75
62	MP2B	Z	8.788	1.75
63	MP2B	Mx	-.002	1.75
64	MP2B	X	0	6.75
65	MP2B	Z	8.788	6.75
66	MP2B	Mx	-.002	6.75
67	MP2C	X	0	1.75
68	MP2C	Z	8.788	1.75
69	MP2C	Mx	.009	1.75
70	MP2C	X	0	6.75
71	MP2C	Z	8.788	6.75
72	MP2C	Mx	.009	6.75
73	MP1C	X	0	2.42
74	MP1C	Z	4.837	2.42
75	MP1C	Mx	.003	2.42
76	MP1C	X	0	6
77	MP1C	Z	4.837	6
78	MP1C	Mx	.003	6
79	MP5C	X	0	2.42
80	MP5C	Z	4.837	2.42
81	MP5C	Mx	.003	2.42
82	MP5C	X	0	6
83	MP5C	Z	4.837	6
84	MP5C	Mx	.003	6
85	MP1A	X	0	1.75
86	MP1A	Z	6.508	1.75
87	MP1A	Mx	0	1.75
88	MP1A	X	0	6.75
89	MP1A	Z	6.508	6.75
90	MP1A	Mx	0	6.75
91	MP1B	X	0	1.75
92	MP1B	Z	7.343	1.75
93	MP1B	Mx	-.004	1.75
94	MP1B	X	0	6.75

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
95	MP1B	Z	7.343	6.75
96	MP1B	Mx	-.004	6.75
97	MP5A	X	0	1.75
98	MP5A	Z	6.508	1.75
99	MP5A	Mx	0	1.75
100	MP5A	X	0	6.75
101	MP5A	Z	6.508	6.75
102	MP5A	Mx	0	6.75
103	MP5B	X	0	1.75
104	MP5B	Z	7.343	1.75
105	MP5B	Mx	-.004	1.75
106	MP5B	X	0	6.75
107	MP5B	Z	7.343	6.75
108	MP5B	Mx	-.004	6.75
109	MP2A	X	0	4.5
110	MP2A	Z	.961	4.5
111	MP2A	Mx	0	4.5
112	MP2B	X	0	4.5
113	MP2B	Z	.739	4.5
114	MP2B	Mx	.000267	4.5
115	MP2C	X	0	4.5
116	MP2C	Z	.739	4.5
117	MP2C	Mx	-.000267	4.5

Member Point Loads (BLC 34 : Antenna Wm (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.588	2.92
2	MP4A	Z	4.483	2.92
3	MP4A	Mx	.002	2.92
4	MP4A	X	-2.588	5.67
5	MP4A	Z	4.483	5.67
6	MP4A	Mx	.002	5.67
7	MP4B	X	-1.195	2.92
8	MP4B	Z	2.07	2.92
9	MP4B	Mx	-.002	2.92
10	MP4B	X	-1.195	5.67
11	MP4B	Z	2.07	5.67
12	MP4B	Mx	-.002	5.67
13	MP4C	X	-2.588	2.92
14	MP4C	Z	4.483	2.92
15	MP4C	Mx	.002	2.92
16	MP4C	X	-2.588	5.67
17	MP4C	Z	4.483	5.67
18	MP4C	Mx	.002	5.67
19	MP1A	X	-2.228	3.5
20	MP1A	Z	3.859	3.5
21	MP1A	Mx	-.001	3.5
22	MP1B	X	-1.624	3.5
23	MP1B	Z	2.813	3.5
24	MP1B	Mx	.002	3.5
25	MP1C	X	-2.228	3.5
26	MP1C	Z	3.859	3.5
27	MP1C	Mx	-.001	3.5
28	MP2A	X	-2.151	3.5
29	MP2A	Z	3.725	3.5
30	MP2A	Mx	-.001	3.5

Member Point Loads (BLC 34 : Antenna Wm (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP2B	X	-1.315	3.5
32	MP2B	Z	2.278	3.5
33	MP2B	Mx	.002	3.5
34	MP2C	X	-2.151	3.5
35	MP2C	Z	3.725	3.5
36	MP2C	Mx	-.001	3.5
37	MP2A	X	-5.41	1.75
38	MP2A	Z	9.37	1.75
39	MP2A	Mx	.012	1.75
40	MP2A	X	-5.41	6.75
41	MP2A	Z	9.37	6.75
42	MP2A	Mx	.012	6.75
43	MP2B	X	-3.886	1.75
44	MP2B	Z	6.731	1.75
45	MP2B	Mx	-.006	1.75
46	MP2B	X	-3.886	6.75
47	MP2B	Z	6.731	6.75
48	MP2B	Mx	-.006	6.75
49	MP2C	X	-5.41	1.75
50	MP2C	Z	9.37	1.75
51	MP2C	Mx	-.004	1.75
52	MP2C	X	-5.41	6.75
53	MP2C	Z	9.37	6.75
54	MP2C	Mx	-.004	6.75
55	MP2A	X	-5.41	1.75
56	MP2A	Z	9.37	1.75
57	MP2A	Mx	-.004	1.75
58	MP2A	X	-5.41	6.75
59	MP2A	Z	9.37	6.75
60	MP2A	Mx	-.004	6.75
61	MP2B	X	-3.886	1.75
62	MP2B	Z	6.731	1.75
63	MP2B	Mx	-.006	1.75
64	MP2B	X	-3.886	6.75
65	MP2B	Z	6.731	6.75
66	MP2B	Mx	-.006	6.75
67	MP2C	X	-5.41	1.75
68	MP2C	Z	9.37	1.75
69	MP2C	Mx	.012	1.75
70	MP2C	X	-5.41	6.75
71	MP2C	Z	9.37	6.75
72	MP2C	Mx	.012	6.75
73	MP1C	X	-2.56	2.42
74	MP1C	Z	4.434	2.42
75	MP1C	Mx	.002	2.42
76	MP1C	X	-2.56	6
77	MP1C	Z	4.434	6
78	MP1C	Mx	.002	6
79	MP5C	X	-2.56	2.42
80	MP5C	Z	4.434	2.42
81	MP5C	Mx	.002	2.42
82	MP5C	X	-2.56	6
83	MP5C	Z	4.434	6
84	MP5C	Mx	.002	6
85	MP1A	X	-3.393	1.75
86	MP1A	Z	5.877	1.75
87	MP1A	Mx	.002	1.75

Member Point Loads (BLC 34 : Antenna Wm (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
88	MP1A	X	-3.393	6.75
89	MP1A	Z	5.877	6.75
90	MP1A	Mx	.002	6.75
91	MP1B	X	-3.811	1.75
92	MP1B	Z	6.6	1.75
93	MP1B	Mx	-.005	1.75
94	MP1B	X	-3.811	6.75
95	MP1B	Z	6.6	6.75
96	MP1B	Mx	-.005	6.75
97	MP5A	X	-3.393	1.75
98	MP5A	Z	5.877	1.75
99	MP5A	Mx	.002	1.75
100	MP5A	X	-3.393	6.75
101	MP5A	Z	5.877	6.75
102	MP5A	Mx	.002	6.75
103	MP5B	X	-3.811	1.75
104	MP5B	Z	6.6	1.75
105	MP5B	Mx	-.005	1.75
106	MP5B	X	-3.811	6.75
107	MP5B	Z	6.6	6.75
108	MP5B	Mx	-.005	6.75
109	MP2A	X	-.444	4.5
110	MP2A	Z	.768	4.5
111	MP2A	Mx	-.000185	4.5
112	MP2B	X	-.333	4.5
113	MP2B	Z	.576	4.5
114	MP2B	Mx	.000277	4.5
115	MP2C	X	-.444	4.5
116	MP2C	Z	.768	4.5
117	MP2C	Mx	-.000185	4.5

Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.874	2.92
2	MP4A	Z	1.66	2.92
3	MP4A	Mx	.002	2.92
4	MP4A	X	-2.874	5.67
5	MP4A	Z	1.66	5.67
6	MP4A	Mx	.002	5.67
7	MP4B	X	-2.874	2.92
8	MP4B	Z	1.66	2.92
9	MP4B	Mx	-.002	2.92
10	MP4B	X	-2.874	5.67
11	MP4B	Z	1.66	5.67
12	MP4B	Mx	-.002	5.67
13	MP4C	X	-5.288	2.92
14	MP4C	Z	3.053	2.92
15	MP4C	Mx	0	2.92
16	MP4C	X	-5.288	5.67
17	MP4C	Z	3.053	5.67
18	MP4C	Mx	0	5.67
19	MP1A	X	-3.161	3.5
20	MP1A	Z	1.825	3.5
21	MP1A	Mx	-.002	3.5
22	MP1B	X	-3.161	3.5
23	MP1B	Z	1.825	3.5

Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP1B	Mx	.002	3.5
25	MP1C	X	-4.208	3.5
26	MP1C	Z	2.429	3.5
27	MP1C	Mx	0	3.5
28	MP2A	X	-2.761	3.5
29	MP2A	Z	1.594	3.5
30	MP2A	Mx	-.002	3.5
31	MP2B	X	-2.761	3.5
32	MP2B	Z	1.594	3.5
33	MP2B	Mx	.002	3.5
34	MP2C	X	-4.208	3.5
35	MP2C	Z	2.429	3.5
36	MP2C	Mx	0	3.5
37	MP2A	X	-7.611	1.75
38	MP2A	Z	4.394	1.75
39	MP2A	Mx	.009	1.75
40	MP2A	X	-7.611	6.75
41	MP2A	Z	4.394	6.75
42	MP2A	Mx	.009	6.75
43	MP2B	X	-7.611	1.75
44	MP2B	Z	4.394	1.75
45	MP2B	Mx	-.002	1.75
46	MP2B	X	-7.611	6.75
47	MP2B	Z	4.394	6.75
48	MP2B	Mx	-.002	6.75
49	MP2C	X	-10.249	1.75
50	MP2C	Z	5.917	1.75
51	MP2C	Mx	-.01	1.75
52	MP2C	X	-10.249	6.75
53	MP2C	Z	5.917	6.75
54	MP2C	Mx	-.01	6.75
55	MP2A	X	-7.611	1.75
56	MP2A	Z	4.394	1.75
57	MP2A	Mx	.002	1.75
58	MP2A	X	-7.611	6.75
59	MP2A	Z	4.394	6.75
60	MP2A	Mx	.002	6.75
61	MP2B	X	-7.611	1.75
62	MP2B	Z	4.394	1.75
63	MP2B	Mx	-.009	1.75
64	MP2B	X	-7.611	6.75
65	MP2B	Z	4.394	6.75
66	MP2B	Mx	-.009	6.75
67	MP2C	X	-10.249	1.75
68	MP2C	Z	5.917	1.75
69	MP2C	Mx	.01	1.75
70	MP2C	X	-10.249	6.75
71	MP2C	Z	5.917	6.75
72	MP2C	Mx	.01	6.75
73	MP1C	X	-4.556	2.42
74	MP1C	Z	2.631	2.42
75	MP1C	Mx	0	2.42
76	MP1C	X	-4.556	6
77	MP1C	Z	2.631	6
78	MP1C	Mx	0	6
79	MP5C	X	-4.556	2.42
80	MP5C	Z	2.631	2.42

Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
81	MP5C	Mx	0	2.42
82	MP5C	X	-4.556	6
83	MP5C	Z	2.631	6
84	MP5C	Mx	0	6
85	MP1A	X	-6.359	1.75
86	MP1A	Z	3.672	1.75
87	MP1A	Mx	.004	1.75
88	MP1A	X	-6.359	6.75
89	MP1A	Z	3.672	6.75
90	MP1A	Mx	.004	6.75
91	MP1B	X	-6.359	1.75
92	MP1B	Z	3.672	1.75
93	MP1B	Mx	-.004	1.75
94	MP1B	X	-6.359	6.75
95	MP1B	Z	3.672	6.75
96	MP1B	Mx	-.004	6.75
97	MP5A	X	-6.359	1.75
98	MP5A	Z	3.672	1.75
99	MP5A	Mx	.004	1.75
100	MP5A	X	-6.359	6.75
101	MP5A	Z	3.672	6.75
102	MP5A	Mx	.004	6.75
103	MP5B	X	-6.359	1.75
104	MP5B	Z	3.672	1.75
105	MP5B	Mx	-.004	1.75
106	MP5B	X	-6.359	6.75
107	MP5B	Z	3.672	6.75
108	MP5B	Mx	-.004	6.75
109	MP2A	X	-.64	4.5
110	MP2A	Z	.37	4.5
111	MP2A	Mx	-.000267	4.5
112	MP2B	X	-.64	4.5
113	MP2B	Z	.37	4.5
114	MP2B	Mx	.000267	4.5
115	MP2C	X	-.833	4.5
116	MP2C	Z	.481	4.5
117	MP2C	Mx	0	4.5

Member Point Loads (BLC 36 : Antenna Wm (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.39	2.92
2	MP4A	Z	0	2.92
3	MP4A	Mx	.002	2.92
4	MP4A	X	-2.39	5.67
5	MP4A	Z	0	5.67
6	MP4A	Mx	.002	5.67
7	MP4B	X	-5.177	2.92
8	MP4B	Z	0	2.92
9	MP4B	Mx	-.002	2.92
10	MP4B	X	-5.177	5.67
11	MP4B	Z	0	5.67
12	MP4B	Mx	-.002	5.67
13	MP4C	X	-5.177	2.92
14	MP4C	Z	0	2.92
15	MP4C	Mx	-.002	2.92
16	MP4C	X	-5.177	5.67

Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP4C	Z	0	5.67
18	MP4C	Mx	-.002	5.67
19	MP1A	X	-3.248	3.5
20	MP1A	Z	0	3.5
21	MP1A	Mx	-.002	3.5
22	MP1B	X	-4.456	3.5
23	MP1B	Z	0	3.5
24	MP1B	Mx	.001	3.5
25	MP1C	X	-4.456	3.5
26	MP1C	Z	0	3.5
27	MP1C	Mx	.001	3.5
28	MP2A	X	-2.631	3.5
29	MP2A	Z	0	3.5
30	MP2A	Mx	-.002	3.5
31	MP2B	X	-4.302	3.5
32	MP2B	Z	0	3.5
33	MP2B	Mx	.001	3.5
34	MP2C	X	-4.302	3.5
35	MP2C	Z	0	3.5
36	MP2C	Mx	.001	3.5
37	MP2A	X	-7.773	1.75
38	MP2A	Z	0	1.75
39	MP2A	Mx	.006	1.75
40	MP2A	X	-7.773	6.75
41	MP2A	Z	0	6.75
42	MP2A	Mx	.006	6.75
43	MP2B	X	-10.819	1.75
44	MP2B	Z	0	1.75
45	MP2B	Mx	.004	1.75
46	MP2B	X	-10.819	6.75
47	MP2B	Z	0	6.75
48	MP2B	Mx	.004	6.75
49	MP2C	X	-10.819	1.75
50	MP2C	Z	0	1.75
51	MP2C	Mx	-.012	1.75
52	MP2C	X	-10.819	6.75
53	MP2C	Z	0	6.75
54	MP2C	Mx	-.012	6.75
55	MP2A	X	-7.773	1.75
56	MP2A	Z	0	1.75
57	MP2A	Mx	.006	1.75
58	MP2A	X	-7.773	6.75
59	MP2A	Z	0	6.75
60	MP2A	Mx	.006	6.75
61	MP2B	X	-10.819	1.75
62	MP2B	Z	0	1.75
63	MP2B	Mx	-.012	1.75
64	MP2B	X	-10.819	6.75
65	MP2B	Z	0	6.75
66	MP2B	Mx	-.012	6.75
67	MP2C	X	-10.819	1.75
68	MP2C	Z	0	1.75
69	MP2C	Mx	.004	1.75
70	MP2C	X	-10.819	6.75
71	MP2C	Z	0	6.75
72	MP2C	Mx	.004	6.75
73	MP1C	X	-5.12	2.42

Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
74	MP1C	Z	0	2.42
75	MP1C	Mx	-.002	2.42
76	MP1C	X	-5.12	6
77	MP1C	Z	0	6
78	MP1C	Mx	-.002	6
79	MP5C	X	-5.12	2.42
80	MP5C	Z	0	2.42
81	MP5C	Mx	-.002	2.42
82	MP5C	X	-5.12	6
83	MP5C	Z	0	6
84	MP5C	Mx	-.002	6
85	MP1A	X	-7.621	1.75
86	MP1A	Z	0	1.75
87	MP1A	Mx	.005	1.75
88	MP1A	X	-7.621	6.75
89	MP1A	Z	0	6.75
90	MP1A	Mx	.005	6.75
91	MP1B	X	-6.787	1.75
92	MP1B	Z	0	1.75
93	MP1B	Mx	-.002	1.75
94	MP1B	X	-6.787	6.75
95	MP1B	Z	0	6.75
96	MP1B	Mx	-.002	6.75
97	MP5A	X	-7.621	1.75
98	MP5A	Z	0	1.75
99	MP5A	Mx	.005	1.75
100	MP5A	X	-7.621	6.75
101	MP5A	Z	0	6.75
102	MP5A	Mx	.005	6.75
103	MP5B	X	-6.787	1.75
104	MP5B	Z	0	1.75
105	MP5B	Mx	-.002	1.75
106	MP5B	X	-6.787	6.75
107	MP5B	Z	0	6.75
108	MP5B	Mx	-.002	6.75
109	MP2A	X	-.665	4.5
110	MP2A	Z	0	4.5
111	MP2A	Mx	-.000277	4.5
112	MP2B	X	-.887	4.5
113	MP2B	Z	0	4.5
114	MP2B	Mx	.000185	4.5
115	MP2C	X	-.887	4.5
116	MP2C	Z	0	4.5
117	MP2C	Mx	.000185	4.5

Member Point Loads (BLC 37 : Antenna Wm (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.874	2.92
2	MP4A	Z	-1.66	2.92
3	MP4A	Mx	.002	2.92
4	MP4A	X	-2.874	5.67
5	MP4A	Z	-1.66	5.67
6	MP4A	Mx	.002	5.67
7	MP4B	X	-5.288	2.92
8	MP4B	Z	-3.053	2.92
9	MP4B	Mx	0	2.92

Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP4B	X	-5.288	5.67
11	MP4B	Z	-3.053	5.67
12	MP4B	Mx	0	5.67
13	MP4C	X	-2.874	2.92
14	MP4C	Z	-1.66	2.92
15	MP4C	Mx	-.002	2.92
16	MP4C	X	-2.874	5.67
17	MP4C	Z	-1.66	5.67
18	MP4C	Mx	-.002	5.67
19	MP1A	X	-3.161	3.5
20	MP1A	Z	-1.825	3.5
21	MP1A	Mx	-.002	3.5
22	MP1B	X	-4.208	3.5
23	MP1B	Z	-2.429	3.5
24	MP1B	Mx	0	3.5
25	MP1C	X	-3.161	3.5
26	MP1C	Z	-1.825	3.5
27	MP1C	Mx	.002	3.5
28	MP2A	X	-2.761	3.5
29	MP2A	Z	-1.594	3.5
30	MP2A	Mx	-.002	3.5
31	MP2B	X	-4.208	3.5
32	MP2B	Z	-2.429	3.5
33	MP2B	Mx	0	3.5
34	MP2C	X	-2.761	3.5
35	MP2C	Z	-1.594	3.5
36	MP2C	Mx	.002	3.5
37	MP2A	X	-7.611	1.75
38	MP2A	Z	-4.394	1.75
39	MP2A	Mx	.002	1.75
40	MP2A	X	-7.611	6.75
41	MP2A	Z	-4.394	6.75
42	MP2A	Mx	.002	6.75
43	MP2B	X	-10.249	1.75
44	MP2B	Z	-5.917	1.75
45	MP2B	Mx	.01	1.75
46	MP2B	X	-10.249	6.75
47	MP2B	Z	-5.917	6.75
48	MP2B	Mx	.01	6.75
49	MP2C	X	-7.611	1.75
50	MP2C	Z	-4.394	1.75
51	MP2C	Mx	-.009	1.75
52	MP2C	X	-7.611	6.75
53	MP2C	Z	-4.394	6.75
54	MP2C	Mx	-.009	6.75
55	MP2A	X	-7.611	1.75
56	MP2A	Z	-4.394	1.75
57	MP2A	Mx	.009	1.75
58	MP2A	X	-7.611	6.75
59	MP2A	Z	-4.394	6.75
60	MP2A	Mx	.009	6.75
61	MP2B	X	-10.249	1.75
62	MP2B	Z	-5.917	1.75
63	MP2B	Mx	-.01	1.75
64	MP2B	X	-10.249	6.75
65	MP2B	Z	-5.917	6.75
66	MP2B	Mx	-.01	6.75

Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
67	MP2C	X	-7.611	1.75
68	MP2C	Z	-4.394	1.75
69	MP2C	Mx	-.002	1.75
70	MP2C	X	-7.611	6.75
71	MP2C	Z	-4.394	6.75
72	MP2C	Mx	-.002	6.75
73	MP1C	X	-4.189	2.42
74	MP1C	Z	-2.419	2.42
75	MP1C	Mx	-.003	2.42
76	MP1C	X	-4.189	6
77	MP1C	Z	-2.419	6
78	MP1C	Mx	-.003	6
79	MP5C	X	-4.189	2.42
80	MP5C	Z	-2.419	2.42
81	MP5C	Mx	-.003	2.42
82	MP5C	X	-4.189	6
83	MP5C	Z	-2.419	6
84	MP5C	Mx	-.003	6
85	MP1A	X	-6.359	1.75
86	MP1A	Z	-3.672	1.75
87	MP1A	Mx	.004	1.75
88	MP1A	X	-6.359	6.75
89	MP1A	Z	-3.672	6.75
90	MP1A	Mx	.004	6.75
91	MP1B	X	-5.636	1.75
92	MP1B	Z	-3.254	1.75
93	MP1B	Mx	0	1.75
94	MP1B	X	-5.636	6.75
95	MP1B	Z	-3.254	6.75
96	MP1B	Mx	0	6.75
97	MP5A	X	-6.359	1.75
98	MP5A	Z	-3.672	1.75
99	MP5A	Mx	.004	1.75
100	MP5A	X	-6.359	6.75
101	MP5A	Z	-3.672	6.75
102	MP5A	Mx	.004	6.75
103	MP5B	X	-5.636	1.75
104	MP5B	Z	-3.254	1.75
105	MP5B	Mx	0	1.75
106	MP5B	X	-5.636	6.75
107	MP5B	Z	-3.254	6.75
108	MP5B	Mx	0	6.75
109	MP2A	X	-.64	4.5
110	MP2A	Z	-.37	4.5
111	MP2A	Mx	-.000267	4.5
112	MP2B	X	-.833	4.5
113	MP2B	Z	-.481	4.5
114	MP2B	Mx	0	4.5
115	MP2C	X	-.64	4.5
116	MP2C	Z	-.37	4.5
117	MP2C	Mx	.000267	4.5

Member Point Loads (BLC 38 : Antenna Wm (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.588	2.92
2	MP4A	Z	-4.483	2.92

Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
3	MP4A	Mx	.002	2.92
4	MP4A	X	-2.588	5.67
5	MP4A	Z	-4.483	5.67
6	MP4A	Mx	.002	5.67
7	MP4B	X	-2.588	2.92
8	MP4B	Z	-4.483	2.92
9	MP4B	Mx	.002	2.92
10	MP4B	X	-2.588	5.67
11	MP4B	Z	-4.483	5.67
12	MP4B	Mx	.002	5.67
13	MP4C	X	-1.195	2.92
14	MP4C	Z	-2.07	2.92
15	MP4C	Mx	-.002	2.92
16	MP4C	X	-1.195	5.67
17	MP4C	Z	-2.07	5.67
18	MP4C	Mx	-.002	5.67
19	MP1A	X	-2.228	3.5
20	MP1A	Z	-3.859	3.5
21	MP1A	Mx	-.001	3.5
22	MP1B	X	-2.228	3.5
23	MP1B	Z	-3.859	3.5
24	MP1B	Mx	-.001	3.5
25	MP1C	X	-1.624	3.5
26	MP1C	Z	-2.813	3.5
27	MP1C	Mx	.002	3.5
28	MP2A	X	-2.151	3.5
29	MP2A	Z	-3.725	3.5
30	MP2A	Mx	-.001	3.5
31	MP2B	X	-2.151	3.5
32	MP2B	Z	-3.725	3.5
33	MP2B	Mx	-.001	3.5
34	MP2C	X	-1.315	3.5
35	MP2C	Z	-2.278	3.5
36	MP2C	Mx	.002	3.5
37	MP2A	X	-5.41	1.75
38	MP2A	Z	-9.37	1.75
39	MP2A	Mx	-.004	1.75
40	MP2A	X	-5.41	6.75
41	MP2A	Z	-9.37	6.75
42	MP2A	Mx	-.004	6.75
43	MP2B	X	-5.41	1.75
44	MP2B	Z	-9.37	1.75
45	MP2B	Mx	.012	1.75
46	MP2B	X	-5.41	6.75
47	MP2B	Z	-9.37	6.75
48	MP2B	Mx	.012	6.75
49	MP2C	X	-3.886	1.75
50	MP2C	Z	-6.731	1.75
51	MP2C	Mx	-.006	1.75
52	MP2C	X	-3.886	6.75
53	MP2C	Z	-6.731	6.75
54	MP2C	Mx	-.006	6.75
55	MP2A	X	-5.41	1.75
56	MP2A	Z	-9.37	1.75
57	MP2A	Mx	.012	1.75
58	MP2A	X	-5.41	6.75
59	MP2A	Z	-9.37	6.75

Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
60	MP2A	Mx	.012	6.75
61	MP2B	X	-5.41	1.75
62	MP2B	Z	-9.37	1.75
63	MP2B	Mx	-.004	1.75
64	MP2B	X	-5.41	6.75
65	MP2B	Z	-9.37	6.75
66	MP2B	Mx	-.004	6.75
67	MP2C	X	-3.886	1.75
68	MP2C	Z	-6.731	1.75
69	MP2C	Mx	-.006	1.75
70	MP2C	X	-3.886	6.75
71	MP2C	Z	-6.731	6.75
72	MP2C	Mx	-.006	6.75
73	MP1C	X	-2.348	2.42
74	MP1C	Z	-4.067	2.42
75	MP1C	Mx	-.004	2.42
76	MP1C	X	-2.348	6
77	MP1C	Z	-4.067	6
78	MP1C	Mx	-.004	6
79	MP5C	X	-2.348	2.42
80	MP5C	Z	-4.067	2.42
81	MP5C	Mx	-.004	2.42
82	MP5C	X	-2.348	6
83	MP5C	Z	-4.067	6
84	MP5C	Mx	-.004	6
85	MP1A	X	-3.393	1.75
86	MP1A	Z	-5.877	1.75
87	MP1A	Mx	.002	1.75
88	MP1A	X	-3.393	6.75
89	MP1A	Z	-5.877	6.75
90	MP1A	Mx	.002	6.75
91	MP1B	X	-3.393	1.75
92	MP1B	Z	-5.877	1.75
93	MP1B	Mx	.002	1.75
94	MP1B	X	-3.393	6.75
95	MP1B	Z	-5.877	6.75
96	MP1B	Mx	.002	6.75
97	MP5A	X	-3.393	1.75
98	MP5A	Z	-5.877	1.75
99	MP5A	Mx	.002	1.75
100	MP5A	X	-3.393	6.75
101	MP5A	Z	-5.877	6.75
102	MP5A	Mx	.002	6.75
103	MP5B	X	-3.393	1.75
104	MP5B	Z	-5.877	1.75
105	MP5B	Mx	.002	1.75
106	MP5B	X	-3.393	6.75
107	MP5B	Z	-5.877	6.75
108	MP5B	Mx	.002	6.75
109	MP2A	X	-.444	4.5
110	MP2A	Z	-.768	4.5
111	MP2A	Mx	-.000185	4.5
112	MP2B	X	-.444	4.5
113	MP2B	Z	-.768	4.5
114	MP2B	Mx	-.000185	4.5
115	MP2C	X	-.333	4.5
116	MP2C	Z	-.576	4.5

Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
117	MP2C	Mx	.000277	4.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%79

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%94

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-250	%50

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-250	%100

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k...	LC	MY [k...	LC	MZ [k...	LC
1	N50A	m...	681.63	10	2306.889	13	3206.912	1	7.941	13	1.554	4	.937	4
2		min	-681.12	4	642.274	7	-3202.786	7	1.687	7	-1.556	10	-.793	10
3	N51	m...	2861.041	9	2289.22	21	1591.131	3	-.577	2	1.783	12	-1.366	4
4		min	-2857.589	3	623.098	3	-1593.571	9	-4.015	20	-1.784	6	-6.827	22
5	N54	m...	2753.725	11	2255.63	17	1630.039	11	-.577	12	1.506	8	6.58	16
6		min	-2757.903	5	624.267	11	-1631.268	5	-4.112	18	-1.507	2	1.36	10
7	Totals:	m...	5769.909	10	6560.415	22	5716.189	1						
8		min	-5769.909	4	3143.775	4	-5716.189	7						

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

	Member	Shape	Code Check	L...	LC	Shear Check	Loc[ft]	Dir	LC	phi*...	phi*...	phi*M...	phi*Mn z-...	Cb	Eqn
1	MP2A	PIPE_2.0	.869	5....	1	.143	3.453		9	1351...	321...	1.872	1.872	1.66	H1-1b
2	MP2C	PIPE_2.0	.869	5....	3	.143	3.453		1	1351...	321...	1.872	1.872	1....	H1-1b
3	MP2B	PIPE_2.0	.869	5....	11	.143	3.453		1	1351...	321...	1.872	1.872	1....	H1-1b
4	M16	HSS4X4X4	.496	7....	15	.096	7.625	y	4	1093...	139...	16.181	16.181	2....	H1-1b
5	M19	HSS4X4X4	.494	7....	23	.091	7.625	y	12	1093...	139...	16.181	16.181	2....	H1-1b
6	M20	HSS4X4X4	.481	7....	17	.094	7.625	y	8	1093...	139...	16.181	16.181	2....	H1-1b
7	MP1B	PIPE_2.0	.384	5....	9	.061	3.453		8	1351...	321...	1.872	1.872	2....	H1-1b
8	MP1A	PIPE_2.0	.377	5....	1	.061	3.453		4	1351...	321...	1.872	1.872	1.74	H1-1b
9	MP5B	PIPE_2.0	.303	5....	2	.062	5.224		2	1351...	321...	1.872	1.872	2....	H1-1b
10	MP5A	PIPE_2.0	.300	5....	10	.062	5.224		10	1351...	321...	1.872	1.872	2....	H1-1b
11	MP1C	PIPE_2.0	.296	5....	4	.046	3.453		12	1351...	321...	1.872	1.872	2....	H1-1b
12	M15	HSS4X4X4	.232	1...	5	.136	13.6...	z	11	6369...	139...	16.181	16.181	2....	H1-1b
13	M8	HSS4X4X4	.230	1...	2	.132	13.6...	z	3	6369...	139...	16.181	16.181	3....	H1-1b
14	M1	HSS4X4X4	.225	1...	1	.139	13.6...	z	7	6369...	139...	16.181	16.181	2....	H1-1b
15	MP4A	PIPE_2.0	.217	5....	7	.033	5.224		6	1351...	321...	1.872	1.872	1....	H1-1b
16	MP4B	PIPE_2.0	.207	5....	5	.033	5.224		12	1351...	321...	1.872	1.872	1.92	H1-1b
17	MP4C	PIPE_2.0	.207	5....	9	.033	5.224		2	1351...	321...	1.872	1.872	1....	H1-1b
18	MP5C	PIPE_2.0	.201	5....	9	.048	5.224		6	1351...	321...	1.872	1.872	1....	H1-1b
19	MP3A	PIPE_2.0	.043	4....	7	.004	4.01		7	1785...	321...	1.872	1.872	1	H1-1b
20	MP3C	PIPE_2.0	.043	4....	3	.004	4.01		3	1785...	321...	1.872	1.872	1	H1-1b
21	MP3B	PIPE_2.0	.043	4....	11	.004	4.01		11	1785...	321...	1.872	1.872	1	H1-1b

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

	Member	Shape	Code Check	L...	LC	Shear Check	Loc[ft]	Dir	LC	phi*...	phi*...	phi*M...	phi*Mn z-...	Cb	Eqn
22	M26	L2x2x3	.029	0	18	.004	0	y	23	2218..	233...	.558	1.239	2....	H2-1
23	M30	L2x2x3	.029	0	14	.004	0	y	19	2218..	233...	.558	1.239	2....	H2-1
24	M29	L2x2x3	.029	0	18	.004	0	y	19	2218..	233...	.558	1.239	2....	H2-1
25	M33	L2x2x3	.029	0	14	.004	0	y	15	2218..	233...	.558	1.239	2....	H2-1
26	M27	L2x2x3	.025	0	18	.004	0	y	23	2218..	233...	.558	1.239	2....	H2-1
27	M28	L2x2x3	.025	0	18	.004	0	y	23	2218..	233...	.558	1.239	2....	H2-1
28	M31	L2x2x3	.025	0	14	.004	0	y	19	2218..	233...	.558	1.239	2....	H2-1
29	M32	L2x2x3	.025	0	14	.004	0	y	19	2218..	233...	.558	1.239	2....	H2-1
30	M25	L2x2x3	.025	0	22	.003	0	y	23	2218..	233...	.558	1.239	2....	H2-1
31	M22	L2x2x3	.025	0	22	.003	0	y	15	2218..	233...	.558	1.239	2....	H2-1
32	M23	L2x2x3	.024	0	22	.003	0	y	23	2218..	233...	.558	1.239	2....	H2-1
33	M24	L2x2x3	.024	0	22	.003	0	y	23	2218..	233...	.558	1.239	2....	H2-1

Connection Check Summary	
Site Name	PORTLAND S CT
Site ID	675017
NB+C Project No.	100820

Connection Properties			
Plate Properties			
Thickness	t	0.5	in
Plate length	L	6	in
Plate Grade	F_y	36	ksi
Connected Part Dimensions	Width	4	in
	Height	4	in
Horizontal Bolt Separation	d_x	3	in
Vertical Bolt Separation	d_y	8	in
Bolt Properties			
Bolt Grade		A325	
Bolt Diameter	d_b	0.75	in
Number of Bolts	N_b	4	Bolts
Weld Properties			
Weld Shape		Square	
Standoff Arm Height	d	4	in
Standoff Arm Width	b	4	in
Fillet Weld Size	a	1/4	in

Member End Reactions			
Shear	F_Y	682	lbs
	F_Z	2307	lbs
Tension	F_X	3207	lbs
Bending	M_Z	7.941	k-ft
	M_Y	1.556	k-ft
Torsion	M_X	0.937	k-ft

Connection Capacities (% Usage)			
Plate Capacity	Shear	**43.9%**	**Pass**
	Bending	**65.4%**	**Pass**
Bolt Capacity	Shear	**7.3%**	**Pass**
	Tension	**33.1%**	**Pass**
Weld Capacity	% Usage	**82.1%**	**Pass**

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

Purpose – to provide Network Building + Consulting the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the installation was completed in accordance with this Passing Mount Analysis.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

Base Requirements:

- Any special photos outside of the standard requirements will be indicated on the passing MA
- Verification that loading is as communicated in the Passing Mount Analysis. NOTE If loading is different than what is conveyed contact Network Building + Consulting immediately.
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope.
- The photos in the file structure should be uploaded to ***https://pmi.vzwsmart.com*** as depicted on the drawings

Photo Requirements:

- *Base and "During Installation Photos"*
  - Base pictures include
    - Photo of Gate Signs showing the tower owner, site name, and number
    - Photo of carrier shelter showing the carrier site name and number if available
    - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name
  - "During Installation Photos if provided - must be placed only in this folder
- *Photos taken at ground level*
  - Overall tower structure before and after installation of the equipment modifications
  - Photos of the appropriate mount before and after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed
- *Photos taken at Mount Elevation*
  - Photos showing each individual sector before and also after installation of equipment.
    - These photos should also certify that the placement and geometry of the equipment on the mount is as depicted on the sketch and table in the mount analysis

- Photos showing the safety climb wire rope above and below the mount prior to modification.
- Photos showing the climbing facility and safety climb if present.

Antenna & equipment placement and Geometry Confirmation:

- The contractor must certify that the antenna & equipment placement and geometry is in accordance with the antenna placement diagrams as included in this mount analysis.

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the antenna placement diagrams as included in this mount analysis.

☐ The contractor notes that the equipment on the mount is not in accordance with the antenna placement diagrams and has accordingly marked up the diagrams or provided a diagram outlining the differences.

Certifying Individual: Company _____

Name _____

Signature _____

Special Instructions / Validation as required from the MA or any other information the contractor deems necessary to share that was identified:

Issue:

Response:

Schedule A – Photo & Document File Structure

- VzW Site Number / Name
  - Base & “During Installation” Photos
  - Pre-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Ground Level
    - Tape Drop
  - Post-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Ground Level
    - Tape Drop
    - Photos of climbing facility and safety climb – If Present
  - Certifications – Submission of this document including certifications
  - Specific Required Additional Photos

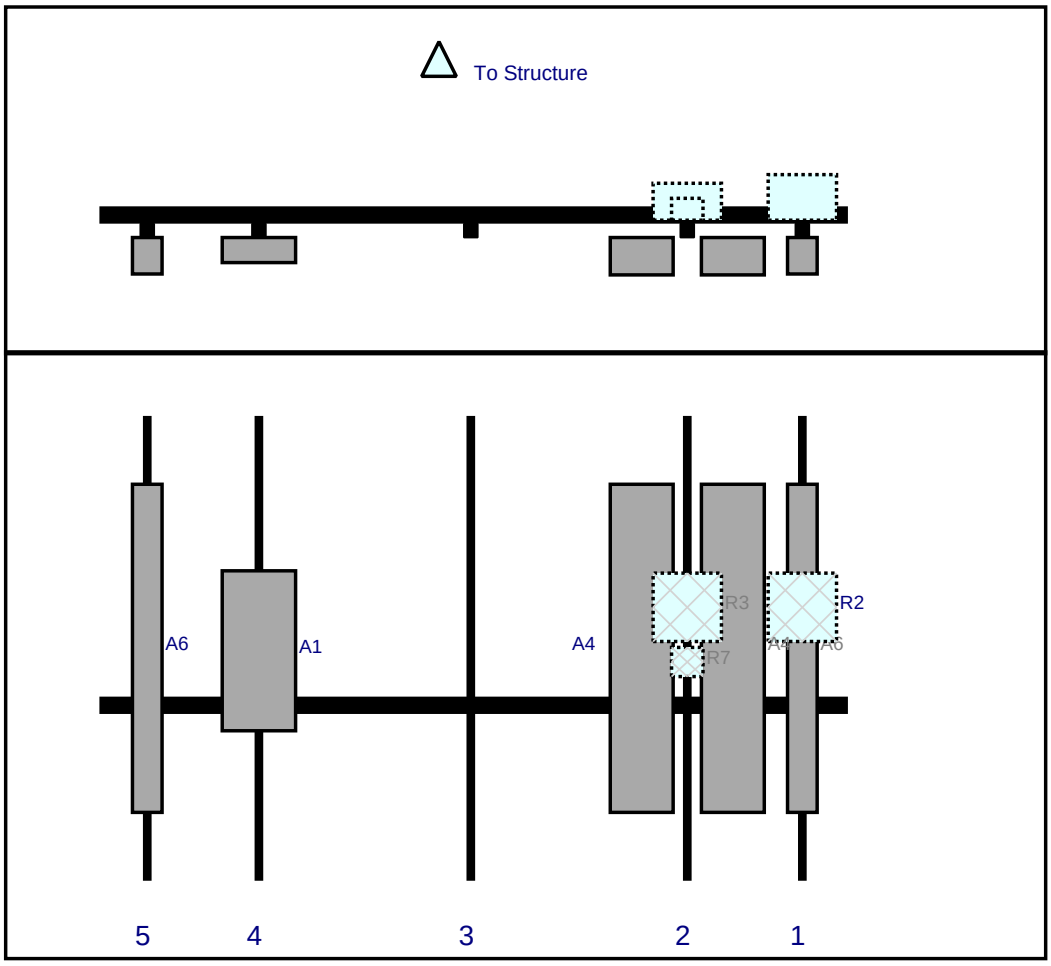
Sector: **A** 8/2/2021

Structure Type: Monopole 10050391

Mount Elev: 126.00 Page: 1

Plan View

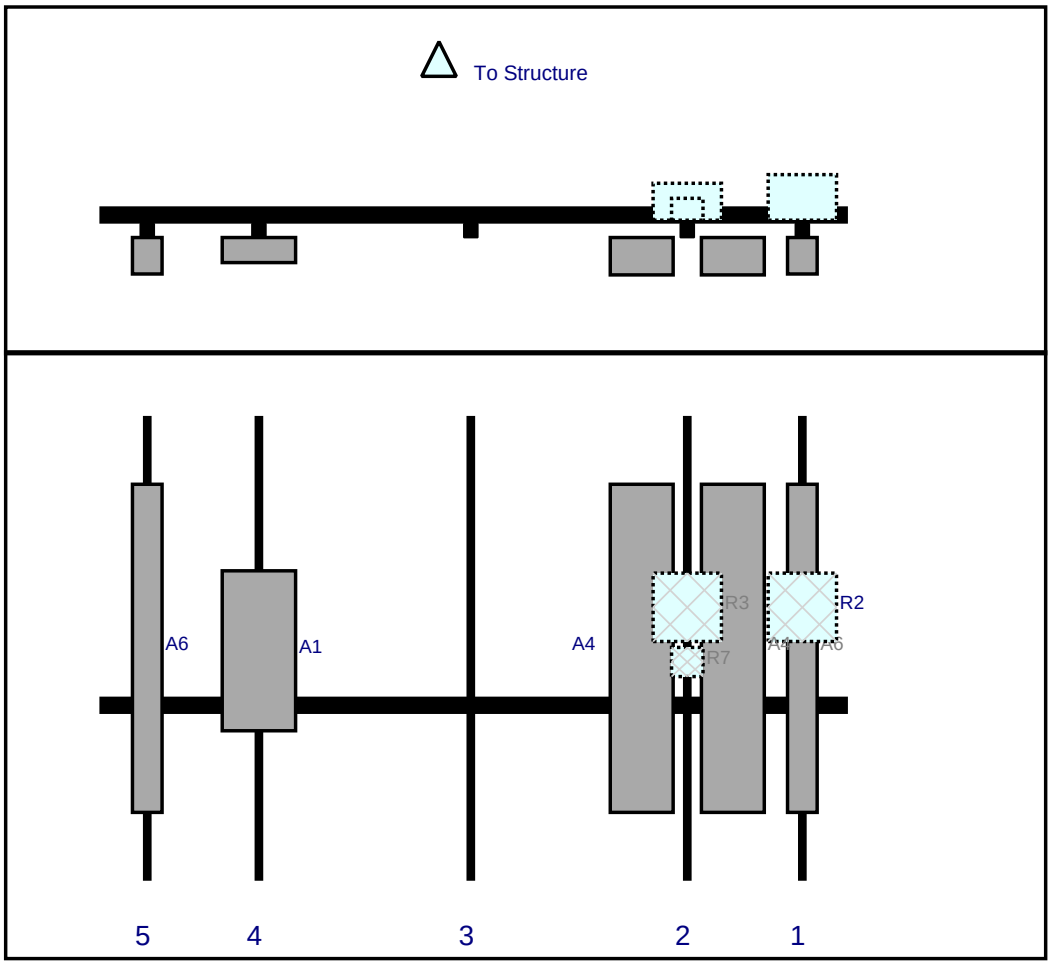
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	DB846H80E-SX	72	6.5	154.25	1	a	Front	51	0	Retained	07/22/2021
R2	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	154.25	1	a	Behind	42	0	Added	
A4	JAHH-65B-R3B	72	13.8	129	2	a	Front	51	10	Added	
A4	JAHH-65B-R3B	72	13.8	129	2	b	Front	51	-10	Added	
R3	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	129	2	a	Behind	42	0	Added	
R7	CBC78T-DS-43-2X	6.4	6.9	129	2	a	Behind	54	0	Added	
A1	MT6407-77A	35.1	16.1	35	4	a	Front	51.54	0	Added	
A6	DB846H80E-SX	72	6.5	10.5	5	a	Front	51	0	Retained	07/22/2021

Plan View

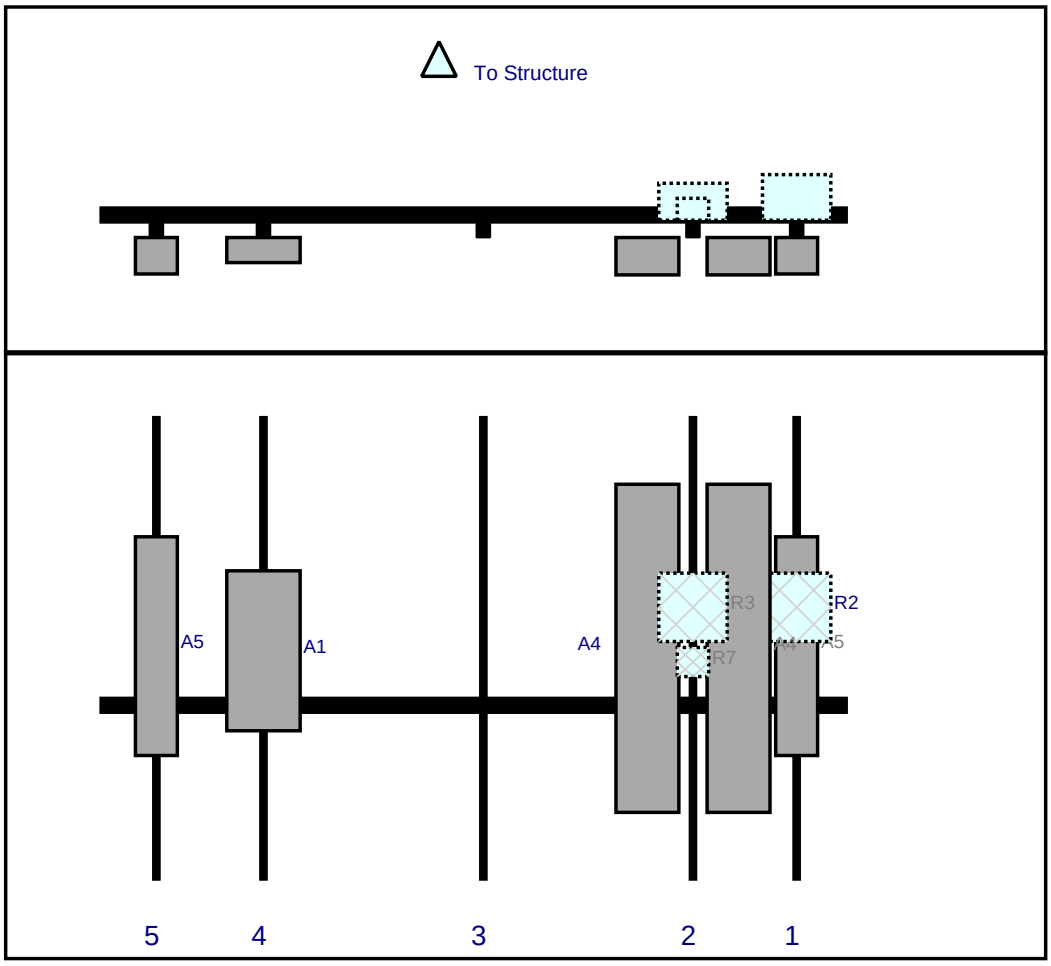
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	DB846H80E-SX	72	6.5	154.25	1	a	Front	51	0	Retained	07/22/2021
R2	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	154.25	1	a	Behind	42	0	Added	
A4	JAHH-65B-R3B	72	13.8	129	2	a	Front	51	10	Added	
A4	JAHH-65B-R3B	72	13.8	129	2	b	Front	51	-10	Added	
R3	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	129	2	a	Behind	42	0	Added	
R7	CBC78T-DS-43-2X	6.4	6.9	129	2	a	Behind	54	0	Added	
A1	MT6407-77A	35.1	16.1	35	4	a	Front	51.54	0	Added	
A6	DB846H80E-SX	72	6.5	10.5	5	a	Front	51	0	Retained	07/22/2021

Plan View

Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A5	APL866513	48	9.2	153	1	a	Front	50.52	0	Retained	07/22/2021
R2	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	153	1	a	Behind	42	0	Added	
A4	JAHH-65B-R3B	72	13.8	130.25	2	a	Front	51	10	Added	
A4	JAHH-65B-R3B	72	13.8	130.25	2	b	Front	51	-10	Added	
R3	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	130.25	2	a	Behind	42	0	Added	
R7	CBC78T-DS-43-2X	6.4	6.9	130.25	2	a	Behind	54	0	Added	
A1	MT6407-77A	35.1	16.1	36	4	a	Front	51.54	0	Added	
A5	APL866513	48	9.2	12.5	5	a	Front	50.52	0	Retained	07/22/2021

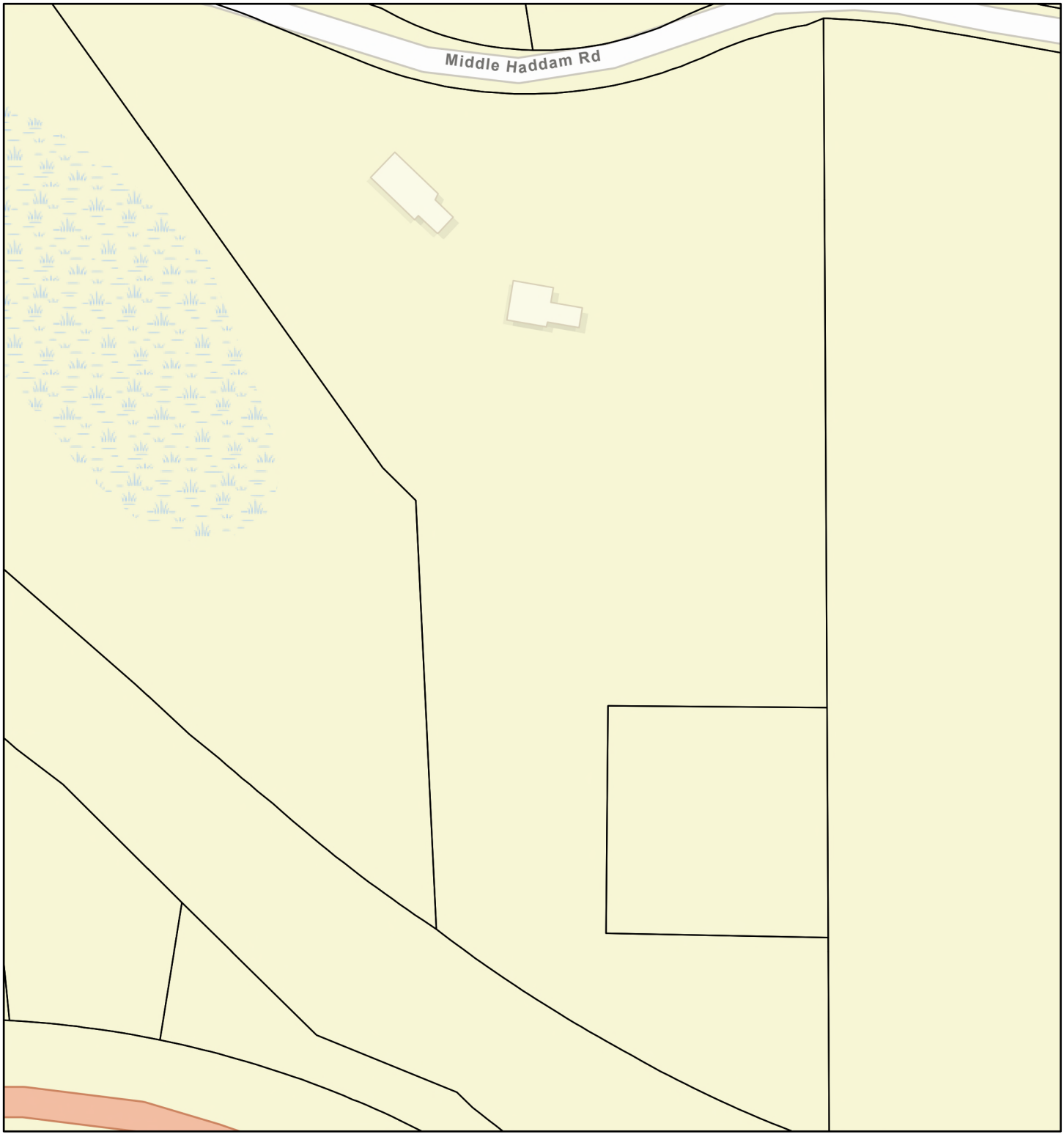
Site Name: ***PORTLAND S CT***
Cumulative Power Density

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 700	751	4	628	2511	127	0.0056	0.5007	1.12%
VZW CDMA	873.57	2	445	889	127	0.0020	0.5824	0.34%
VZW Cellular	874	4	725	2902	127	0.0065	0.5827	1.11%
VZW PCS	1975	4	1525	6100	127	0.0136	1.0000	1.36%
VZW AWS	2120	4	1493	5973	127	0.0133	1.0000	1.33%
VZW CBAND	3730.08	4	6531	26125	127	0.0583	1.0000	5.83%
Total Percentage of Maximum Permissible Exposure								11.09%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992
**Calculation includes a -10 dB Off Beam Antenna Pattern Adjustment pursuant to Attachments B and C of the Siting Council's November 10, 2015 Memorandum for Exempt Modification filings

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

Absolute worst case maximum values used.



September 16, 2021

Parcel Fabric - Public

1:2,257

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.09 km

Esri Community Maps Contributors, MassGIS, UConn/CTDEEP, BuildingFootprintUSA, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

qPublic.net™ Town of Portland, CT

Summary

Parcel Number	016-0029-1
Alternate ID/Map Block Lot	00048801
Location Address	191 MIDDLE HADDAM RD
Legal Description	(Note: Not to be used on legal documents.)
Zoning	RR
Land Use	(431) Communication Towers
Acres	1
Property Class	300
Neighborhood	300
Tax District	0
Vol/Page	496/315

Map Not Available

Owner

Owner
VERIZON WIRELESS
PO BOX 2549
ADDISON TX 75001

Valuation

	Appraised Values	Assessed Values
Current Land	$80,000	$56,000
Current Building	$172,600	$120,820
Current Total	$252,600	$176,820

Recent Sales In Area

Sale date range:

From:

09/16/2018

To:

09/16/2021

Sales by Neighborhood

Land

Descr	P	LN	CD	Acres	Frontage	Depth	Base Size	Base Rate	Sq ft.	Incr / Decr	Land-Val
PRIMARY	A	1	1	1.0000	0	0	1.00	80,000	43,560	8000 / 16000	80,000

Total Acres:
1.0000
Total Land-Value:
80,000

Commercial

Card	1	**Year Built**	2004
Building No	1	**Effective Year**	0
Structure	TLPHNE EQUIP	**Grade**	A

Interior/Exterior

Card 1

Line	Sect	From	To	Sec	Occupancy	Occ Descr	Class	Yr Built	Eff Year	Size	Area	Perim	Height	Use Type	Phy Cond	UT	Base RCN	Feat RCN	Base Value	Pct Good	Pct Comp	Adj Value
1	1	01	01		0			2004	0	24 x 12	240	65	10	SPRT AREA	3	3	32,410	0	32,410	80	0	25,930

Accessory Information

Card 1

Descr	Full Description	Type	Quantity	Year	Size	Area	Grade	Mods	Cond	F	MD%	Value
FENCE CHAI	FENCE CHAIN	FN1	1	2004	8 x 200	1,600	C -AVERAGE		3	3	0	2,640
TOWER CELL	TOWER CELLULAR	TT4	1	2005	1 x 130	130	C -AVERAGE		4	4	0	104,000

Other Features

Card 1

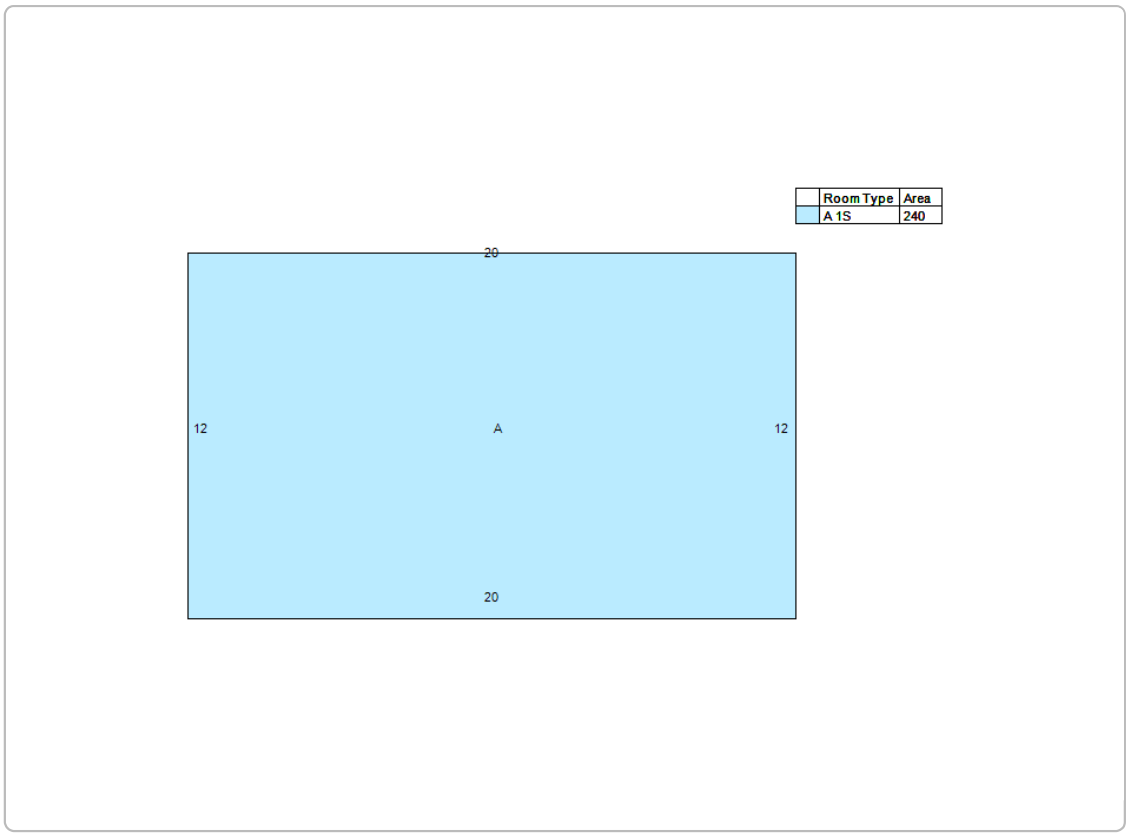
Ln	Code	Descr	Meas 1	Meas 2	Stops	IU	Value
1	VS1	1S	1	240	0	1	0

Permits

Date	Number	Amount	Purpose
5/10/2021	21-252	8,000	74 CRER
12/13/2019	19-593	25,000	OTHER
2/13/2019	19-49	13,500	OTHER
12/22/2017	17-628	60,000	OTHER
2/12/2015	15-62	11,100	BLDG
1/13/2015	15-24	29,000	BLDG
6/22/2012	12-320	25,000	BLDG
10/14/2009	9650	19,000	BLDG
3/11/2009	9447	15,000	BLDG
9/3/2004	7962	50,000	BLDG
6/29/2004	7879	180,000	BLDG

Photos

Sketches

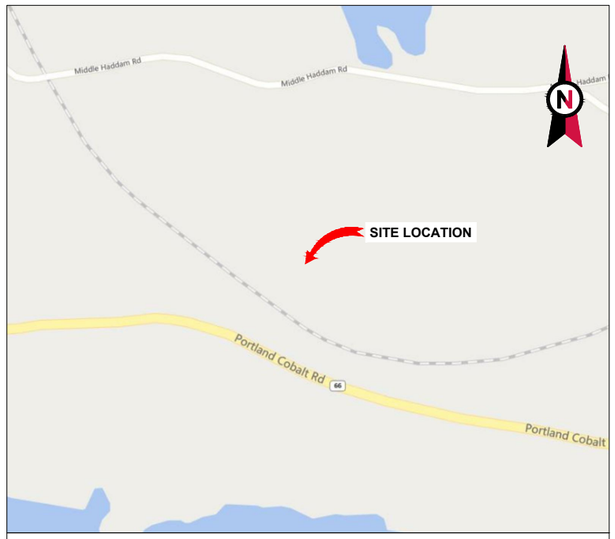


No data available for the following modules: Sales, Residential, Other Dwelling Features, Tax History, Additions.

Developed by Schneider GEOSPATIAL

Last Data Upload: 9/16/2021, 1:19:20 AM

Version 2.3.146



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: MIDDLE HADDAM ROAD-CROWN CT
ATC SITE NUMBER: 411257
VERIZON SITE NAME: PORTLAND S CT
VERIZON SITE NUMBER:467183
SITE ADDRESS: 191 MIDDLE HADDAM RD
PORTLAND, CT 06480

LOCATION MAP

VERIZON
ANTENNA AMENDMENT DRAWINGS

COMPLIANCE CODE

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

1. 2018 CONNECTICUT STATE BUILDING CODE, INCORPORATING THE 2015 IBC
2. 2017 NATIONAL ELECTRICAL CODE - NFPA 70
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: NORTHEAST UTILITY SERVICE
PHONE: (000) 000-0000

TELEPHONE COMPANY: N/A
PHONE: (000) 000-0000

811 Know what's below. Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:

191 MIDDLE HADDAM RD

PORTLAND, CT 06480

COUNTY: MIDDLESEX

GEOGRAPHIC COORDINATES:

LATITUDE: 41.56225

LONGITUDE: -72.573778

GROUND ELEVATION: 248' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

VERIZON WIRELESS

ENGINEER:

COLLIERS ENGINEERING & DESIGN CT, P.C. D/B/A MASER CONSULTING
135 NEW ROAD
MADISON, CT 06443

PROJECT #:
21904261A

PROPERTY OWNER:

PHILIP B KNOWLTON
191 MIDDLE HADDAM RD
PORTLAND, CT 06480

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

REMOVE (9) ANTENNA(s) AND (1) HYBRID CABLE(s)

INSTALL (3) DUAL ANTENNA MOUNTING BRACKETS, (9) ANTENNA(s), (3) DIPLEXER(s), (6) RRH(s), (1) OVP, (10) COAX CABLE(s), AND (2) HYBRID CABLE(s)

EXISTING (6) ANTENNA(s) AND (6) COAX CABLE(s) TO REMAIN

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.
6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).

PROJECT LOCATION DIRECTIONS

START OUT GOING EAST ON EAST RIVER DR. TOWARD PITKIN ST. MERGE ONTO CT-15 S/WILBUR CROSS HIGHWAY/US-5 S 1.0 MILES. MERGE ONTO I-91 VIA EXIT NUMBER 86 TOWARD NEW HAVEN/NY CITY...MERGE ONTO CT-9 VIA EXIT NUMBER 22S-ON THE LEFT-TOWARD MIDDLETOWN/OLD SAYBROOK....TURN RIGHT ONTO CT-17/ST JOHN'S SQ. CONTINUE TO FOLLOW CT-17...TURN SLIGHT RIGHT ONTO CT -66 E/CT-17 N. MARLBOROUGH ST. CONTINUE TO FOLLOW CT-66E...TURN SLIGHT LEFT ONTO MIDDLE HADDAM RD.....END AT 191 MIDDLE HADDAM RD. PORTLAND CT.

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	09/01/21	AJC
G-002	GENERAL NOTES	0	09/01/21	AJC
C-101	DETAILED SITE PLAN	0	09/01/21	AJC
C-201	TOWER ELEVATION	0	09/01/21	AJC
C-401	ANTENNA INFORMATION & SCHEDULE	0	09/01/21	AJC
C-501	CONSTRUCTION DETAILS	0	09/01/21	AJC
E-501	GROUNDING DETAILS	0	09/01/21	AJC
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION:	HTTPS://PMI.VZWSMART.COM
SMART TOOL VENDOR PROJECT #:	10050391
VZW LOCATION CODE (PSLC):	467183
ANALYSIS DATE:	08/02/21

*** PMI AND REQUIREMENTS ARE EMBEDDED IN MOUNT ANALYSIS REPORT

IF MOUNT MODIFICATION IS REQUIRED ONLY USE VZW APPROVED SMART KIT VENDORS

REFER TO MOUNT MODIFICATION DRAWINGS PAGE FOR VZW SMART KIT APPROVED VENDORS

AMERICAN TOWER®

Colliers Engineering & Design
www.colliersengineering.com
Doing Business as MASER CONSULTING
MADISON
135 New Road
Madison, CT 06443
Phone: 860.395.0055
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

REV.	DESCRIPTION	BY	DATE
A	PRELIM	AJC	08/06/21
0	FOR CONSTRUCTION	AMN	09/01/21

ATC SITE NUMBER:
411257

ATC SITE NAME:
MIDDLE HADDAM ROAD-CROWN CT

VERIZON SITE NAME:
PORTLAND S CT

SITE ADDRESS:
191 MIDDLE HADDAM RD
PORTLAND, CT 06480

SEAL: STATE OF CONNECTICUT · ALEC S. NORRIS · 32588 · LICENSED PROFESSIONAL ENGINEER

Digitally signed by Alec Norris
Date: 2021.09.02 13:02:23-04'00'

Alec S. Norris
CONNECTICUT LICENSED PROFESSIONAL ENGINEER
LICENSE NUMBER: 32588
COLLIERS ENGINEERING & DESIGN CT, P.C.
C.T. JPC.0000131

verizon

DATE DRAWN:	08/06/21
ATC JOB NO:	13701319_D1
CUSTOMER ID:	PORTLAND S CT
CUSTOMER #:	467183

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, VERIZON "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
   - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
   - B. AC/TELCO INTERFACE BOX (PPC)
   - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
   - D. TOWERS, MONOPOLES
   - E. TOWER LIGHTING
   - F. GENERATORS & LIQUID PROPANE TANK
   - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
   - H. ANTENNAS (INSTALLED BY OTHERS)
   - I. TRANSMISSION LINE
   - J. TRANSMISSION LINE JUMPERS
   - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   - L. TRANSMISSION LINE GROUND KITS
   - M. HANGERS
   - N. HOISTING GRIPS
   - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF VERIZON TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH VERIZON AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY VERIZON REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON REP. ANY WORK FOUND BY THE VERIZON REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. VERIZON FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE VERIZON WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. VERIZON OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO VERIZON OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
   - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY VERIZON UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OD COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
   - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND VERIZON SPECIFICATIONS.
   - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
   - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
   - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
   - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
   - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREED GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

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REV.	DESCRIPTION	BY	DATE
A	PRELIM	AJC	08/06/21
0	FOR CONSTRUCTION	AMN	09/01/21

ATC SITE NUMBER:
411257

ATC SITE NAME:
MIDDLE HADDAM ROAD-CROWN CT

VERIZON SITE NAME:
PORTLAND S CT

SITE ADDRESS:
191 MIDDLE HADDAM RD
PORTLAND, CT 06480

SEAL:

STATE OF CONNECTICUT · ALEC S. NORRIS · 32588 · LICENSED PROFESSIONAL ENGINEER

Digitally signed by Alec Norris
Date: 2021.09.02 13:02:25-04'00'

Alec S. Norris
CONNECTICUT LICENSED PROFESSIONAL ENGINEER
LICENSE NUMBER: 32588
COLLIERS ENGINEERING & DESIGN CT, P.C.
C.T. JPC.0000131

verizon

DATE DRAWN:	08/06/21
ATC JOB NO:	13701319_D1
CUSTOMER ID:	PORTLAND S CT
CUSTOMER #:	467183

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

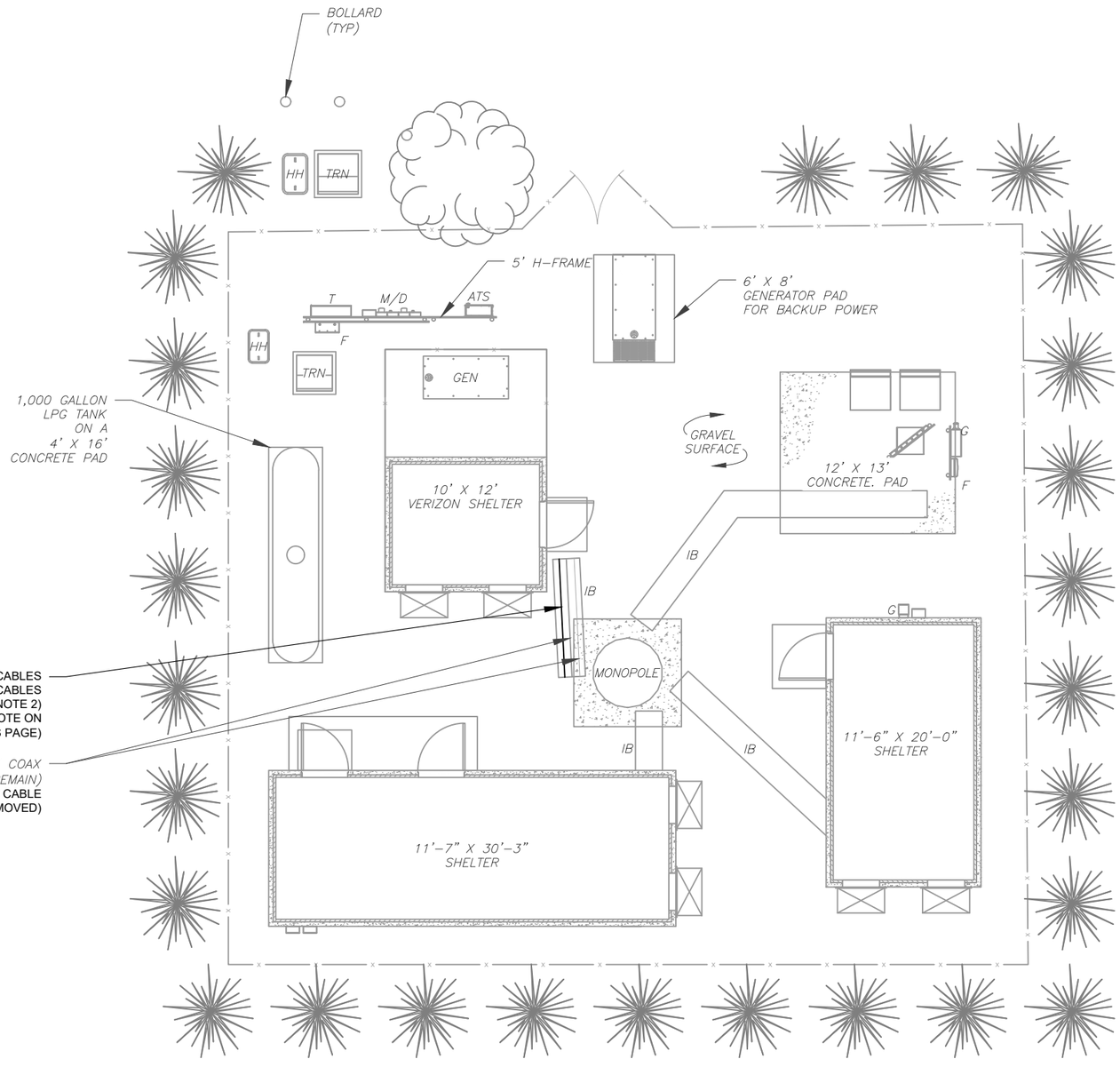
1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.

3. THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.

LEGEND

⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
——x——	CHAINLINK FENCE



1 DETAILED SITE PLAN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 UNIT = 10 FEET

PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **157'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.

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SITE ADDRESS:
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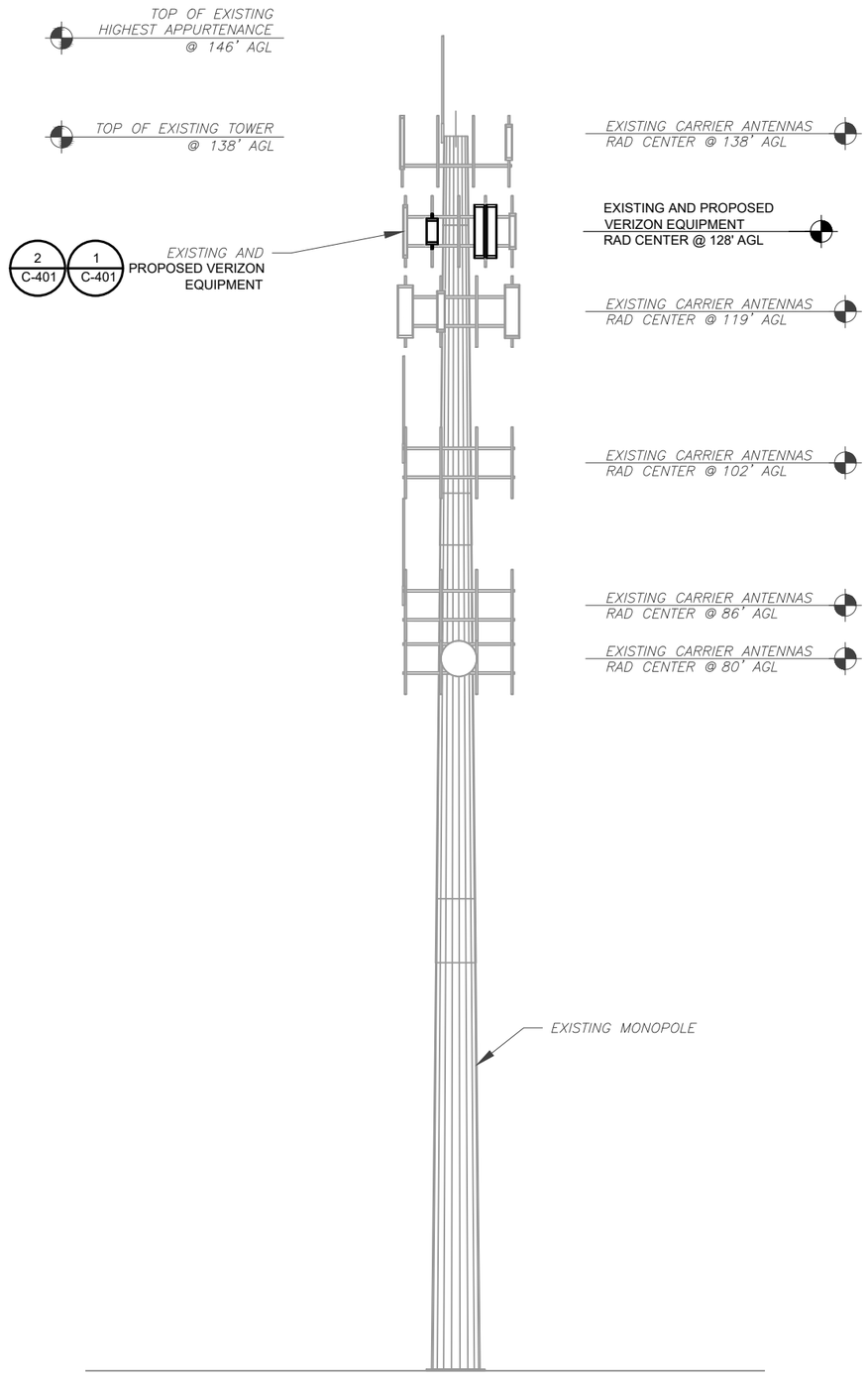
DATE DRAWN:	08/06/21
ATC JOB NO:	13701319_D1
CUSTOMER ID:	PORTLAND S CT
CUSTOMER #:	467183

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

PER MOUNT ANALYSIS COMPLETED BY NB+C, DATED 08/02/21, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



1 TOWER ELEVATION
SCALE: N.T.S.

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
4. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
5. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

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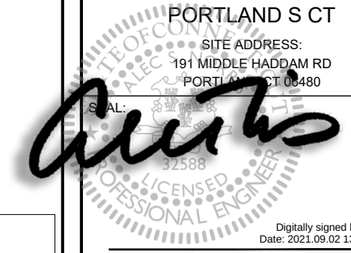

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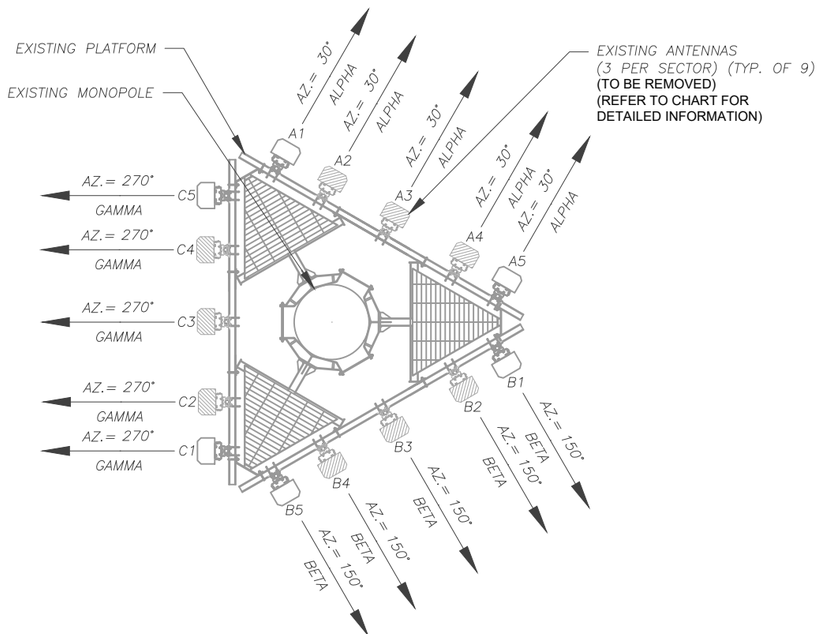
CUSTOMER ID:	PORTLAND S CT
CUSTOMER #:	467183

TOWER ELEVATION

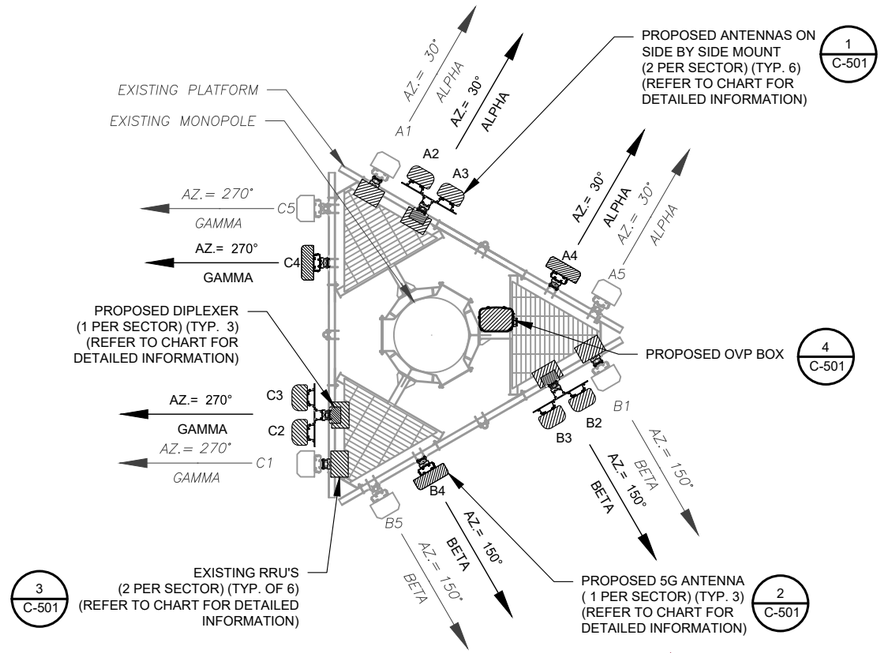
SHEET NUMBER:	REVISION:
C-201	0



1 EXISTING ANTENNA PLAN

SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY NB+C, DATED 08/02/21, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



2 FINAL ANTENNA PLAN

SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	128'	30°	A1	DB846H80E-SX	CDMA	0/2	RMN	–	–
			A2	LPA-171063-12CF	LTE	0/2	RMV	–	–
			A3	BXA-70063-6CF	LTE	0/0	RMV	–	–
			A4	LPA-171063-12CF	LTE	0/0	RMV	–	–
			A5	DB846H80E-SX	CDMA	0/2	RMN	–	–
BETA	128'	150°	B1	DB846H80E-SX	CDMA	0/2	RMN	–	–
			B2	LPA-1859801-12CF	LTE	0/2	RMV	–	–
			B3	BXA-70063-6CF	LTE	0/0	RMV	–	–
			B4	LPA-1859801-12CF	LTE	0/0	RMV	–	–
			B5	DB846H80E-SX	CDMA	0/2	RMN	–	–
GAMMA		270°	C1	APL866513-44T0	CDMA	0/2	RMN	–	–
			C2	LPA-1859801-12CF	LTE	0/2	RMV	–	–
			C3	BXA-70063-4CF	LTE	0/0	RMV	–	–
			C4	LPA-1859801-12CF	LTE	0/0	RMV	–	–
			C5	APL866513-44T0	CDMA	0/2	RMN	–	–

NOTES

1. CONFIRM WITH VERIZON REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	128'	30°	A1	DB846H80E-SX	CDMA	0/2	RMN	B2/B66A RRH-BR049	ADD
			A2	JAHH-65B-R3B	LTE	0/2	ADD	B5/B13 RRH-BR04C CBC78T-DS-43-2X	ADD
			A3	JAHH-65B-R3B	LTE	0/2	ADD	-	-
			A4	MT6407-77A	5G	0/6	ADD	-	-
			A5	DB846H80E-SX	CDMA	0/2	RMN	-	-
BETA	128'	150°	B1	DB846H80E-SX	CDMA	0/2	RMN	B2/B66A RRH-BR049	ADD
			B2	JAHH-65B-R3B	LTE	0/2	ADD	B5/B13 RRH-BR04C CBC78T-DS-43-2X	ADD
			B3	JAHH-65B-R3B	LTE	0/2	ADD	-	-
			B4	MT6407-77A	5G	0/6	ADD	-	-
			B5	DB846H80E-SX	CDMA	0/2	RMN	-	-
GAMMA	128'	270°	C1	APL866513-44T0	CDMA	0/2	RMN	B2/B66A RRH-BR049	ADD
			C2	JAHH-65B-R3B	LTE	0/2	ADD	B5/B13 RRH-BR04C CBC78T-DS-43-2X	ADD
			C3	JAHH-65B-R3B	LTE	0/2	ADD	-	-
			C4	MT6407-77A	5G	0/6	ADD	-	-
			C5	APL866513-44T0	CDMA	0/2	RMN	-	-

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
–	–	(6) 1-5/8"	–	RMN
–	–	–	(1) 2.02"	RMV

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
RHSDC-6627-PF-48	ADD	(6) 1-5/8"	–	RMN
-	-	(10) 1-5/8"	(2) 1-5/8"	ADD

3 EQUIPMENT SCHEDULES

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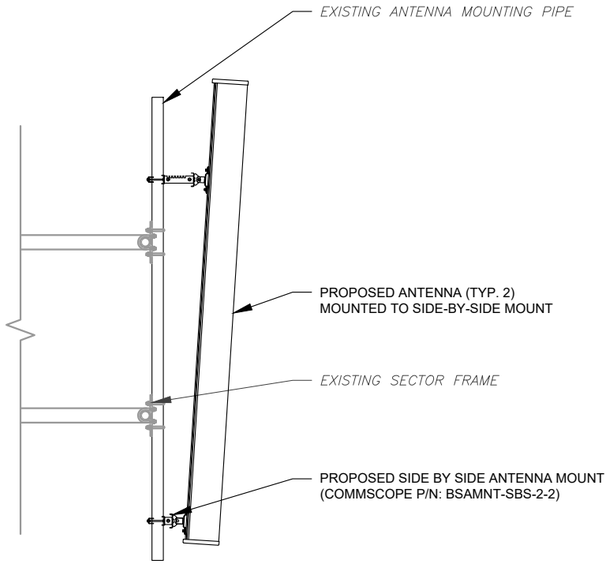
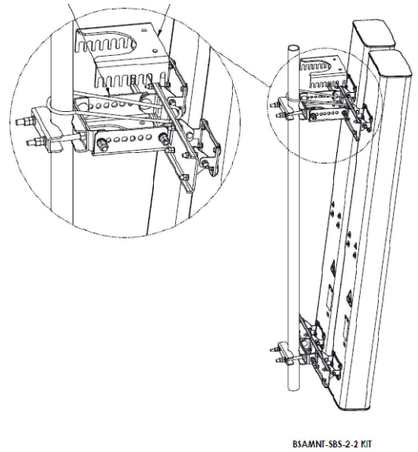
CUSTOMER ID:	PORTLAND S CT
CUSTOMER #:	467183

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-401	0



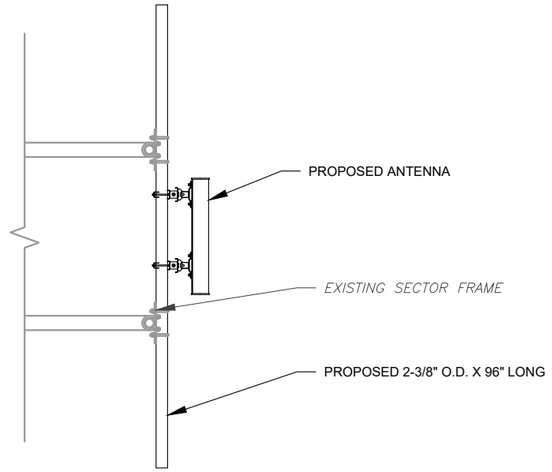
PROFILE VIEW



ISOMETRIC VIEW (BY MANUFACTURER)

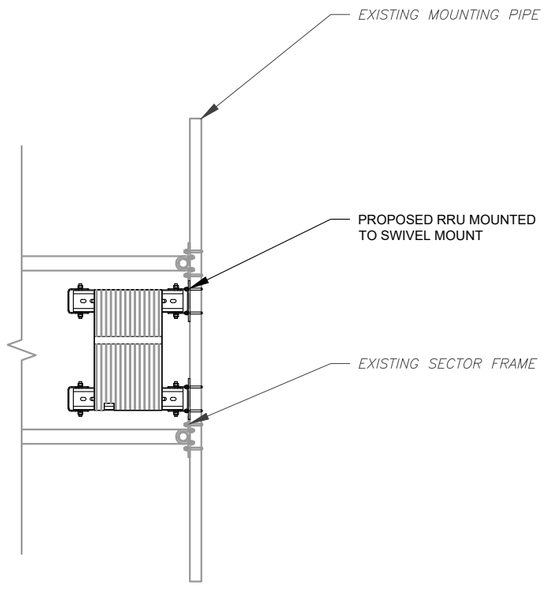
1 PROPOSED SIDE-BY-SIDE MOUNT

SCALE: NOT TO SCALE



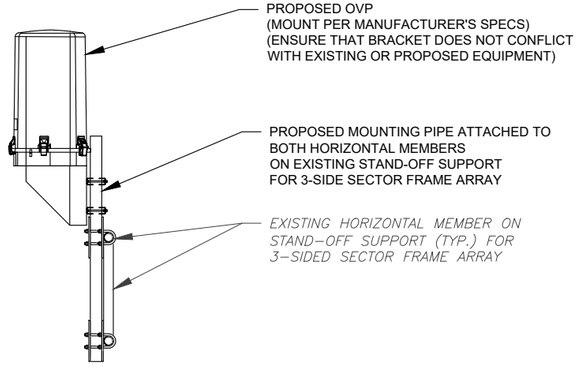
2 PROPOSED 5G/CBRS ANTENNA MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



3 PROPOSED RRU MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



4 PROPOSED OVP MOUNTING

SCALE: N.T.S.

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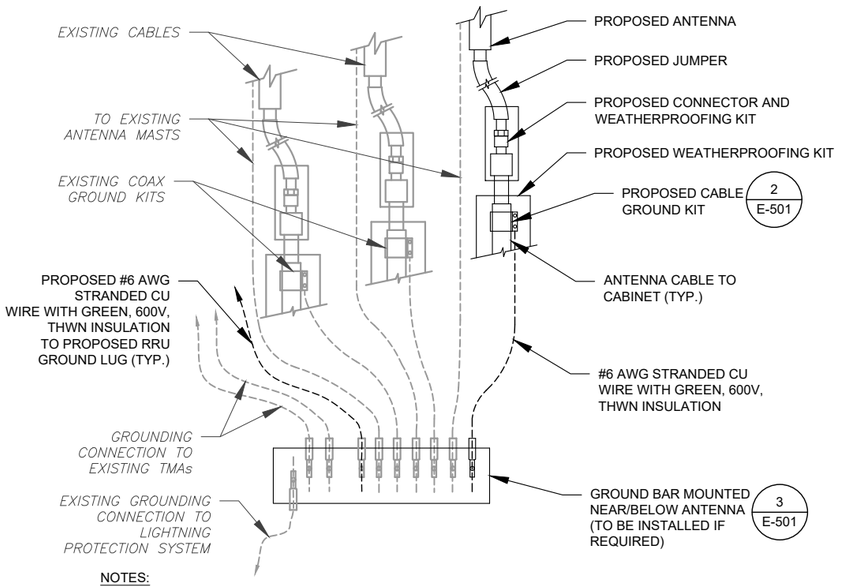
CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

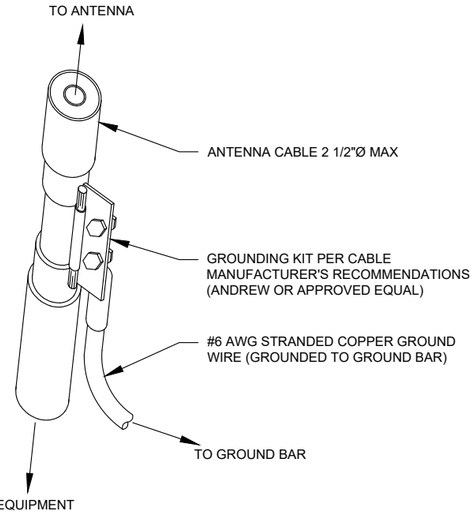


NOTES:

1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH VERIZON GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH VERIZON GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

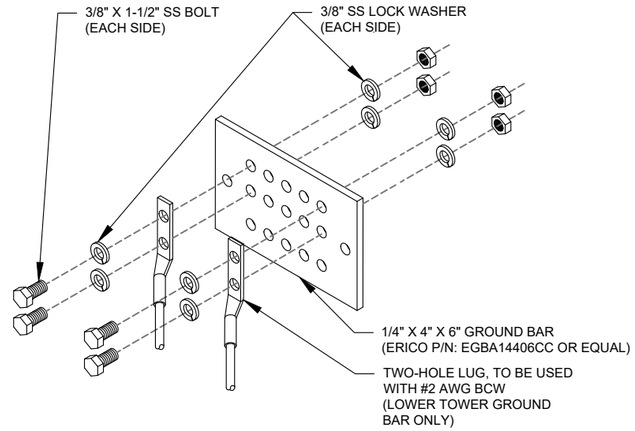


GROUND KIT NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.



GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

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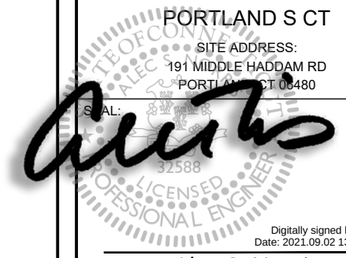

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Date: 2021.09.02 13:02:36-04'00'

Alec S. Norris
CONNECTICUT LICENSED PROFESSIONAL ENGINEER
LICENSE NUMBER: 32588
COLLIERS ENGINEERING & DESIGN CT, P.C.
C.T. JPC.0000131

verizon

DATE DRAWN:	08/06/21
ATC JOB NO:	13701319_D1
CUSTOMER ID:	PORTLAND S CT
CUSTOMER #:	467183

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

JAHH-65B-R3B

8-port sector antenna, 2x 698–787, 2x 824–894 and 4x 1695–2360 MHz, 65° HPBW, 3x RET and low bands have diplexers. Internal SBT's on first LB(Port 1) and first HB(Port 5).

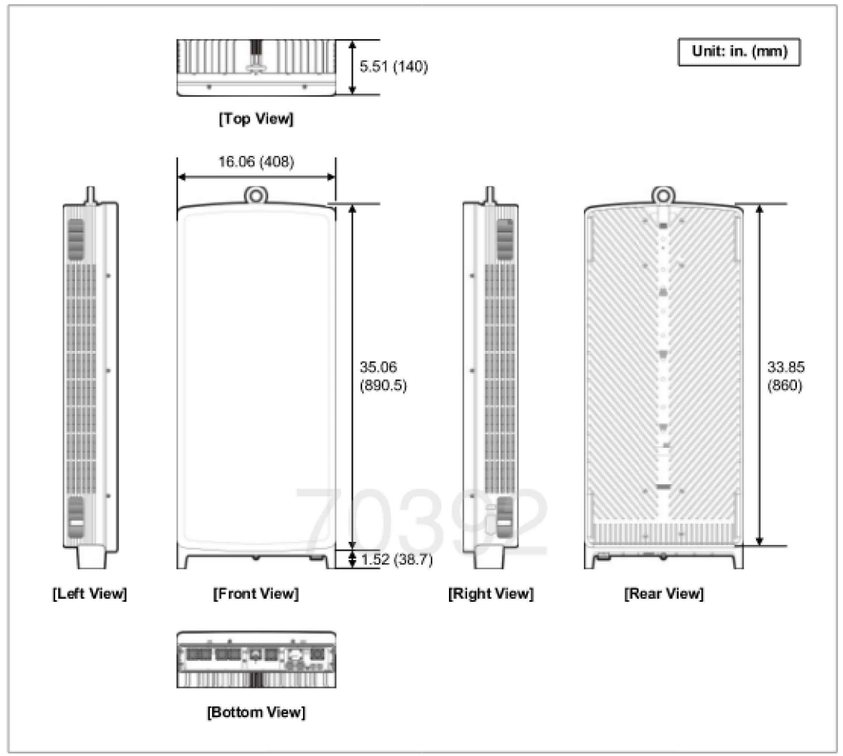
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- One RET for 700MHz, one RET for 850MHz, and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO
- Internal filter on low band and interleaved dipole technology providing for attractive, low wind load mechanical package
- Separate RS-485 RET input/output for low and high band

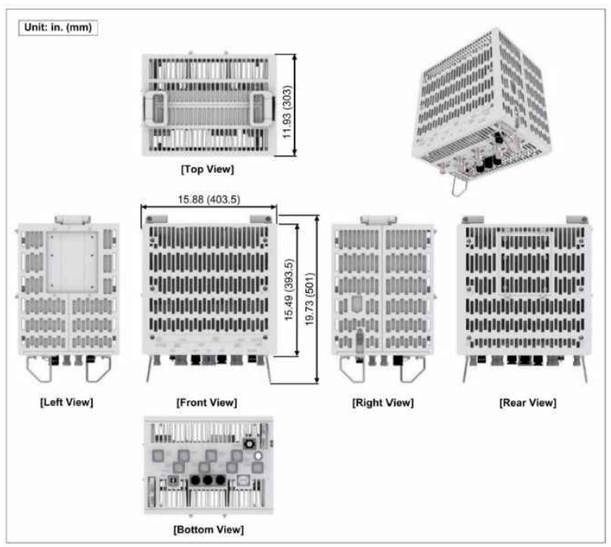
General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light gray
Grounding Type	RF connector body grounded to reflector and mounting bracket
Performance Note	Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Radome Material	Fiberglass, UV resistant
Radiator Material	Aluminum | Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	4.3-10 Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	4
RF Connector Quantity, total	8

Remote Electrical Tilt (RET) Information

RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	2 female | 2 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 | Port 5
Internal RET	High band (1) | Low band (2)
Power Consumption, idle state, maximum	2 W





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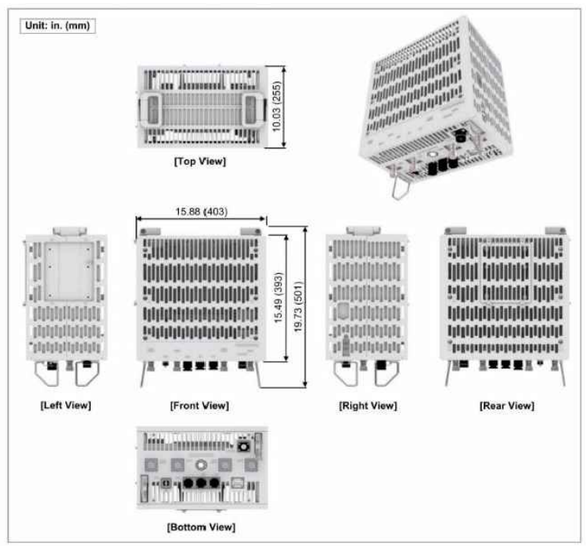
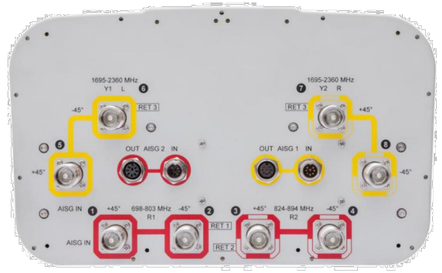


RFV01U-D2A

SUPPLEMENTAL

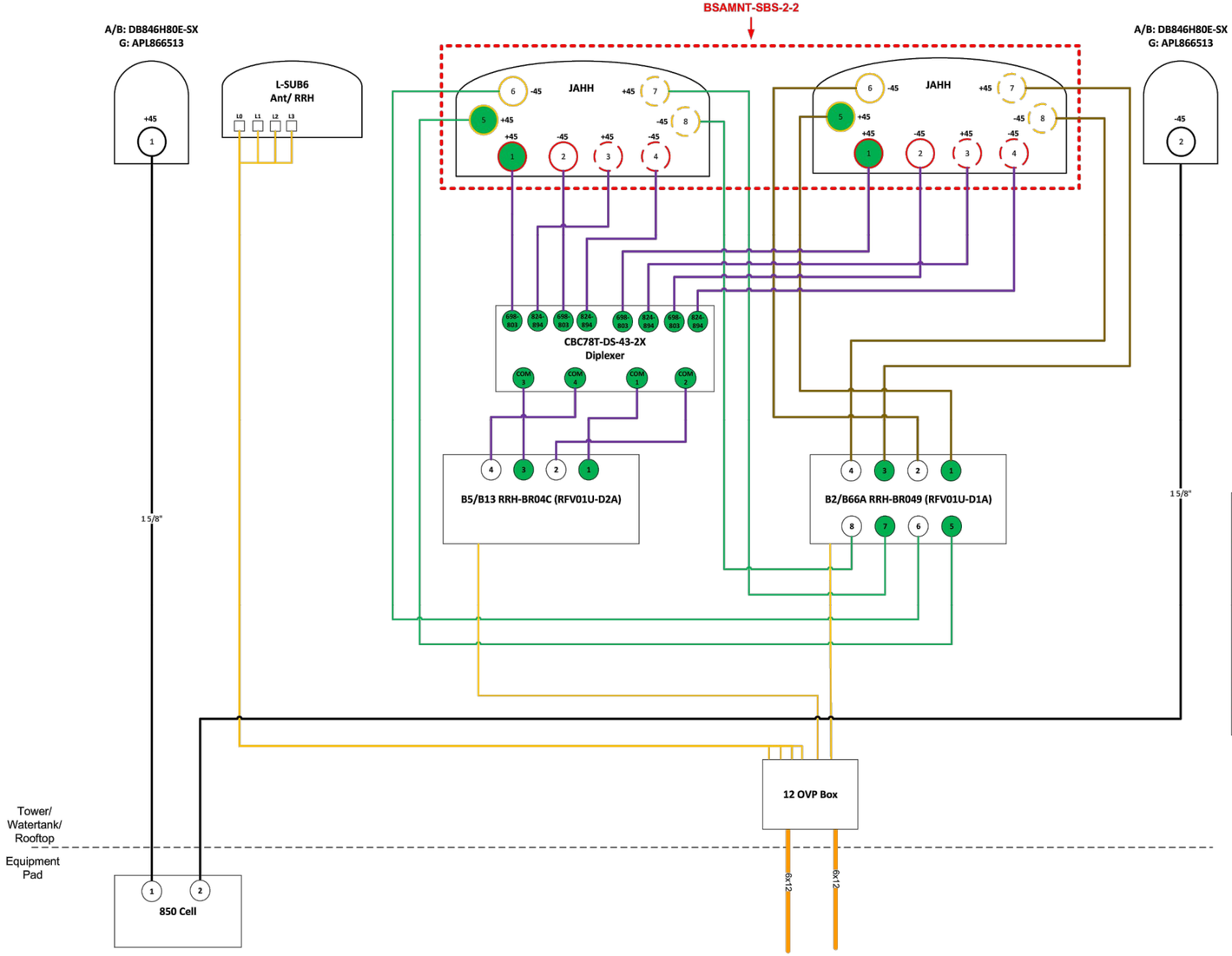
SHEET NUMBER:	REVISION:
R-601	-



BSAMNT-SBS-2-2

- Port 1 & 2 are for low band (698-896 MHz).
- Port 3,4,5, & 6 are for high band (1695-2360 MHz).
- Smart Bias Tee (SBT) is through port 1 & 3 for low band and port 1 for high band.
- AISG cable is only needed when drawn in the diagrams below, if it is not drawn then SBT is enough to control all RET motors.
- Not all SBT ports are needed to control RET, only green port connection to green port will control RET.

RET DC signal pass for RET
(Port that will control RET)



DC signal capable Port

AISG Cable

RET DC signal pass for RET
(Port that will control RET)

Hybriflex cables

Comments:

Diagram shows antenna port configuration as viewed from below antennas.

Antenna positions are indicated as viewed from IN FRONT of antennas.

Cap and weatherproof unused antenna ports.

All plumbing diagram colors are irrelevant except for AISG & Hybriflex cable. (For the coax colors follow Coax Colors guide above)

SUPPLEMENTAL

SHEET NUMBER: R-602

REVISION: -

Network Building + Consulting, LLC
1777 Sentry Parkway W VEVA 17, Suite 400
Blue Bell, PA 19422
(267)460-0122
NBC_SmartTool@nbcllc.com

Antenna Mount Analysis Report and PMI Requirements

Mount Analysis

SMART Tool Project #: 10050391
NB+C ES Project # 100820

August 2, 2021

Site Information

Site ID:	*467183-VZW / PORTLAND S CT*
Site Name:	*PORTLAND S CT*
Carrier Name:	*Verizon Wireless*
Address:	*191 MIDDLE HADDAM RD* *PORTLAND, Connecticut 06480* *Middlesex County*
Latitude:	*41.562250°*
Longitude:	*-72.573778°*

Structure Information

Tower Type:	*Monopole*
Mount Type:	*13.69-Ft Platform*

FUZE ID # 16272069

Analysis Results

Platform: **86.9% Pass**

******Contractor PMI Requirements*:**
Included at the end of this MA report
Available & Submitted via portal at https://pmi.vzwsmart.com
Contractor - Please Review Specific Site PMI Requirements Upon Award
Requirements may also be Noted on A & E drawings

Report Prepared By: Vipul Patel, PE

STATE OF CONNECTICUT · VIPULKUMAR KOLANDAVELU · PEN.0028997 · LICENSED PROFESSIONAL ENGINEER

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Final Loading Configuration:

The following equipment has been considered for the analysis of the mount:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
126.0	127.0	3	Samsung	MT6407-77A	Added
		6	Commscope	JAHH-65B-R3B	
		3	Samsung	B2/B66A RRH-BR049 (RFV01U-D1A)	
		3	Samsung	B5/B13 RRH-BR04C (RFV01U-D2A)	
		3	Commscope	CBC78T-DS-43-2X	
		1	Raycap	OVP-12*	
		2	RFS	APL866513	Retained
		4	Andrew	DB846H80E-SX	

* Equipment to be flush mounted directly to the Monopole. They are not mounted on the Platform mount and are not included in this mount analysis.

The recent mount mapping did not report existing OVP units. However, it is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required.

Model Number	Ports	AKA
RHSDC-1064-PF-48	2	OVP-2
RC3DC-3315-PF-48	6	OVP-6
RC3DC-3300-PF-48	6	OVP-6
RC3DC-4750-PF-48	6	OVP-6
RHSDC-6627-PF-48	12	OVP-12
RHSDC-6600-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Network Building + Consulting and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Network Building + Consulting to verify deviation will not adversely impact the analysis.

2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

   Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

   The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped by Network Building + Consulting, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

1 MOUNT ANALYSIS

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONSTRUCTION.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-603	-