

John Coleman, Project Manager
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Floor 3
West Bridgewater, MA 02379
Mobile: (240) 615 -7389
JColeman@clinellc.com

October 20, 2021

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

**RE: Notice of Exempt Modification // Site: HRFR - SOUTH (ATC: 302481)
289H MOUNTAIN STREET, HARTFORD, CT 06106
N 41.726583 // W -72.708167**

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains 6 antennas at the 80-ft level on the existing 110ft Monopole tower, located at 289H Mountain Street, Hartford, CT. The tower is owned by American Tower. The property is also owned by Springwhich Cellular Tower Holdings LLC. The Council approved Verizon Wireless use of the existing tower on June 2, 2009. Verizon Wireless now intends to remove twelve (12) RRH's, two (2) OVP's and associated cables and install six (6) new antenna for the LTE (3700 MHz) replacements for its 5G upgrade. Additionally, Verizon Wireless intends to install nine (9) new Remote Radio Heads (RRHs) three (3) Diplexers, one (1) OVP and associated cabling; 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 Luke Bronin, Mayor, its Building Official, John J. Collins, American Tower, the tower owner, and the property owner, SNET.

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 16, 2021, by RPM Engineering, a structural analysis dated August 9, 2021, by American Tower Corporation, and a structural mount analysis by Maser Consulting Connecticut date July 13, 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 American Tower Corporation, dated August 9, 2021, and a structural mount analysis by Maser Consulting Connecticut, dated July 13, 2021, pursuant to certain conditions defined therein. Design and engineering are fully illustrated within final construction drawings, signed and stamped dated September 16, 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,

John Coleman

John Coleman, Project Manager
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Floor 3
West Bridgewater, MA 02379
Mobile: (240) 615 -7389
JColeman@clinellc.com

Attachments

cc: Luke Bronin - Mayor – Chief Elected Official
John J. Collins, Building Official- as P&Z official
American Tower Corporation - as tower owner
SNET – as ground owner

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Reference Number:	HRFR SOUTH



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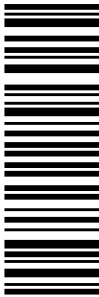
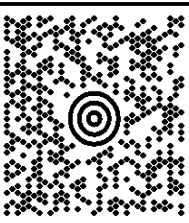
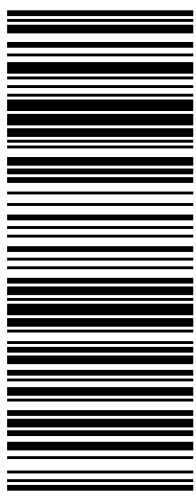

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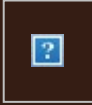
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Ship To:	SPRINGWHICH CELLULAR TOWER HOLDINGS 909 CHESTNUT RM 36-M-1 SAINT LOUIS, MO 631012065 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	0.5 LBS
Reference Number:	302481
Reference Number:	HRFR SOUTH



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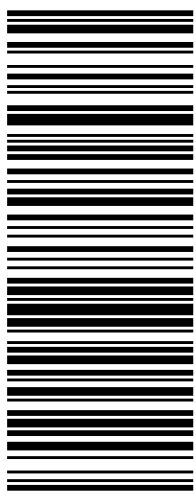

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<p>JOHN COLEMAN 2406157369 CENTERLINE COMMUNICATIONS, LLC 750 WEST CENTER STREET WEST BRIDGEWATER MA 02379</p> <p>SHIP TO: JOHN J. COLLINS DEPT. OF LICENSES & INSPECTIONS 1ST FLOOR 260 CONSTITUTION PLAZA HARTFORD CT 06103-1820</p>	<p>1 OF 1</p> <p>1 LBS</p>	<p>CT 061 9-03</p> 	<p>UPS GROUND</p> <p>TRACKING #: 1Z 9Y4 503 03 2732 9378</p> 
<p>BILLING: P/P</p>		<p>Reference # 1: 302481 Reference # 2: Hrrf South <small>CS 23.0.18. W/NTNV50 43.0A 10/2021 *</small></p> 	

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Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	0.5 LBS
Reference Number:	302481
Reference Number:	HRFR SOUTH



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AN APPLICATION SUBMITTED BY THE SOUTHERN : CONNECTICUT SITING
NEW ENGLAND TELEPHONE COMPANY FOR A
CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY :
AND PUBLIC NEED FOR THE CONSTRUCTION, : COUNCIL
MAINTENANCE, AND OPERATION OF FACILITIES
TO PROVIDE CELLULAR SERVICE IN THE HARTFORD :
AND MIDDLESEX COUNTIES. : May 15, 1984

D E C I S I O N A N D O R D E R

Pursuant to the foregoing opinion, the Council hereby directs that a certificate of environmental compatibility and public need as required by section 16-50k of the General Statutes of Connecticut, revisions of 1958, revised to 1983, as amended, be issued to Southern New England Telephone for the construction, operation, and maintenance of a telecommunications tower and associated equipment to provide cellular service at each of the following sites:

Shuttle Meadow Road, Southington, Connecticut;
Mountain Street, Hartford, Connecticut;
Prestige Park Road, East Hartford, Connecticut;
Beckley Road, Berlin, Connecticut;
Slicer tract, Niederwerfer Road, South Windsor, Connecticut; and
Kikapoo Road, Middlefield, Connecticut.

The facilities shall be constructed, operated, and maintained as specified in the Council's record on this matter, and subject to the following conditions.

1. The towers shall be no taller than necessary to provide the proposed service and in no event shall exceed
 - a) 150 feet at the Southington site,
 - b) 100 feet at the Hartford site,
 - c) 150 feet at the East Hartford site,
 - d) 150 feet at the Berlin site,
 - e) 75 feet at the South Windsor site, and
 - f) 75 feet at the Middlefield site.
2. A fence not lower than eight feet shall surround each tower and its associated equipment.

3. The applicant or its successor shall notify the Council if and when directional antennas or any other equipment is added to any of these facilities.
4. The applicant or its successor shall permit in accordance with representations made by it during the proceeding public or private entities to share space on the facilities, for due consideration received, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
5. Unless necessary to comply with condition number seven, below, no lights shall be installed on any of these towers.
6. The facility construction shall be conducted in accordance with all applicable federal, state, and municipal laws and regulations.
7. The applicant shall submit a development and management plan (D&M) for the South Windsor, Southington, and Berlin sites pursuant to sections 16-50j-85 through 16-50j-87 of the regulations of state agencies, except that irrelevant items in section 16-50j-86 need only be identified as such. The D&M plans shall include appropriate evergreen screening of the sites. The applicant shall comply with the reporting requirements of section 16-50j-87 for all sites. The applicant shall consult with Mrs. Claire Aubin and the Town of South Windsor in the preparation of the South Windsor site D&M.
8. Construction activities shall take place during daylight working hours.
9. This decision and order shall be void and the towers and associated equipment approved herein shall be dismantled and removed,

or reapplication for any new use shall be made to the Connecticut Siting Council before any such new use is made, if the towers do not provide or permanently cease to provide cellular service following completion of construction.

10. This decision and order shall be void if all construction authorized is not completed within three years of the issuance of this decision.

Pursuant to section 16-50p(c) of the General Statutes, we hereby direct that a copy of the opinion and decision and order be served on each person listed below. A notice of the issuance shall be published in the Hartford Courant, Journal Inquirer, and the Middletown Press.

The parties to this proceeding are

Southern New England
Telephone Company
Room 314
227 Church Street
New Haven, Connecticut 06506

(Applicant)

ATTN: Mr. Peter J. Tyrrell, Esquire

(its attorney)

Town of South Windsor
1540 Sullivan Avenue
South Windsor, Connecticut 06074

represented by:

Mr. Richard M. Rittenband
Town Attorney
1734 Ellington Road
South Windsor, Connecticut 06074

Frank Niederwerfer
260 Niederwerfer Road
South Windsor, Connecticut 06074

(service waived)

Claire Aubin
407 Niederwerfer Road
South Windsor, Connecticut 06074

(service waived)

Betty S. Kleiner
Chairman
Hartford Audubon Society, Inc.
5 Flintlock Ridge
Simsbury, Connecticut 06070

(service waived)

Roger Thorpe
2916 Ellington Road
South Windsor, Connecticut 06074

Intervenors in this proceeding are

Dwight A. Johnson
Murtha, Cullina, Richter
and Pinney
101 Pearl Street
P.O. Box 3197
Hartford, Connecticut 06103-0197

representing:

Metromedia TeleCommunications
Nutmeg Telecommunications, Inc.
CSI of New Haven
CSI of Stamford
Cellular Communications, Inc.
LIN Cellular Corp.
Cellular Mobile Services
Maxcell TeleCommunications, Inc.
Mobile Cellular Telephone, Inc.
Cellular Dynamics
Connecticut Corridor Cellular
Chase/Post Cellular

C E R T I F I C A T I O N

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case or read the record thereof, and that we voted as follows:

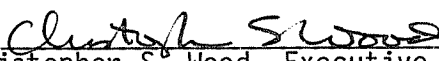
Dated at New Britain, Connecticut, this 15th day of May, 1984.

<u>Council Members</u>	<u>Vote Cast</u>
<u>Gloria Dibble Pond</u>) Gloria Dibble Pond Chairperson	Yes
<u>P. G. Boucher</u>) Commissioner John Downey Designee: Commissioner Peter G. Boucher	Yes
<u>Stanley Pac</u>) Commissioner Stanley Pac Designee: Christopher Cooper	Yes
<u>Owen L. Clark</u>) Owen L. Clark	Yes
<u>Fred J. Doocy</u>) Fred J. Doocy	Yes Abstain <i>FJ</i>
<u>Mortimer A. Gelston</u>) Mortimer A. Gelston	Yes
<u>James G. Horsfall</u>) James G. Horsfall	Absent
<u>Janet Sitty</u>) Janet Sitty	Yes
<u>Colin C. Tait</u>) Colin C. Tait	Absent

STATE OF CONNECTICUT)
 :
COUNTY OF HARTFORD) ss. New Britain, May 15, 1984

I hereby certify that the foregoing is a true and correct copy of the decision and order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:



Christopher S. Wood, Executive Director
Connecticut Siting Council



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 110 ft Monopole
ATC Site Name : Hrrf - South, CT
ATC Site Number : 302481
Engineering Number : 13685587_C3_03
Proposed Carrier : VERIZON WIRELESS
Carrier Site Name : HARTFORD SO III CT
Carrier Site Number : 467278
Site Location : 289 Mountain Street
Hartford, CT 06106-4121
41.7266, -72.7082
County : Hartford
Date : August 9, 2021
Max Usage : 95%
Result : Pass*

Prepared By:

Reviewed By:



COA : PEC.0001553



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 110 ft Monopole to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	Mapped by Smith Cullum Site #CT-0017(A), dated June 6, 2001
Foundation Drawing	Girard & Co Engineering Job #39902, dated April 29, 1988
Geotechnical Report	TEP Project #071162.01, dated July 23, 2007
Modifications	ATC Project #42719232, dated January 12, 2009 ATC Project #43595333, dated July 1, 2009 ATC Project #43930034, dated September 15, 2009 ATC Project #44662232, dated March 30, 2010 ATC Project #OAA739695_C6_06, dated February 25, 2019 ATC Project #13251341_C6_06, dated September 4, 2020* (Pending)*
Site Specific Study	ICE Wind Study for Site 302481, dated May 22, 2020

* The modifications by ATC Job #13251341_C6_06 are scheduled to be installed by 8/29/2021.

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:	115.01 mph (3-second gust)
Basic Wind Speed w/ Ice:	48.73 mph (3-second gust) w/ 1.275" 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 3
Topographic Category:	4
Crest Height (H):	148 ft
Crest Length (L):	0 ft
Spectral Response:	$S_s = 0.19$, $S_i = 0.06$
Site Class:	D - Stiff Soil - Default

**Wind load and Ice thickness have been reduced by applicable existing structure load modification factors in accordance with TIA-222-H, Annex S.

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 the pending modifications cited in the Supporting Documents table are not completed by the forecast date above, the results of this analysis are no longer valid, and VERIZON WIRELESS should contact American Tower's Site Manager for further direction on how to proceed.

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
110.0	3	DragonWave Horizon Compact	Side Arm	(3) 1/2" Coax (1) 2" conduit (6) 5/16" (0.31"-7.9mm) Coax	CLEARWIRE CORPORATION
	1	Generic 12" x 12" Junction Box			
	1	DragonWave A-ANT-23G-1-C			
	3	NextNet BTS-2500			
	3	Argus LLPX310R			
	2	DragonWave A-ANT-11G-2.5-C			
100.0	3	Ericsson RRUS-32 (77 lbs)	Triangular Platform with Handrails	(4) 0.39" (10mm) Fiber Trunk (10) 0.78" (19.7mm) 8 AWG 6 (24) 1 5/8" Coax (1) 3" conduit	AT&T MOBILITY
	3	Ericsson RRUS 32 B2			
	3	Ericsson RRUS-11 (50 lbs.)			
	6	CCI TPX-070821			
	2	Raycap DC6-48-60-18-8F(32.8 lbs)			
	3	Powerwave Allgon LGP21401			
	2	Quintel QS66512-2			
	2	CCI OPA-65R-LCUU-H6			
	1	CCI OPA-65R-LCUU-H8 (92.7")			
	1	CCI TPA-65R-LCUUUU-H8			
90.0	3	RFS APXVAARR24_43-U-NA20	Triangular Low Profile Platform	(4) 1 1/4" (1.25"-31.8mm) Fiber (6) 1 5/8" Coax (18) 7/8" Coax	T-MOBILE
	3	Ericsson Air 3246 B66			
	3	Ericsson AIR32 B66Aa/B2a			
	3	Ericsson RRUS 4415 B25			
	3	Ericsson Radio 4449 B71 B85A			
	3	Ericsson Air6449 B41			
80.0	1	Raycap RVZDC-6627-PF-48	Triangular Low Profile Platform	(12) 1 5/8" Coax (2) 1 5/8" Hybriflex	VERIZON WIRELESS
	6	Commscope JAHH-65B-R3B (63.3 lb)			
75.0	1	Scala 840 10212	Stand-Off	(1) 7/8" Coax	TOWN OF WEST HARTFORD
	1	TX RX Systems 421-86A-10-18-12-N			
70.0	3	RFS APXV18-206517S-C	Side Arm	(6) 1 5/8" Coax	METRO PCS INC
60.0	1	Radio Waves SP2-4.7	Stand-Off	(2) 0.41" (10.3mm) LMR-400 (1) 7/8" Coax	TOWN OF WEST HARTFORD
	1	Scala 840 10212			
	1	Generic Radio/ODU			

Equipment to be Removed

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
80.0	3	Nokia AirScale RRH 4T4R B5 160W AHCA	-	-	VERIZON WIRELESS
	3	Alcatel-Lucent B66A RRH 4x45			
	3	Alcatel-Lucent B13 RRH4x30-4R			
	3	Alcatel-Lucent B25 RRH4x30			



Proposed Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
80.0	3	Commscope CBC78T-DS-43-2X	Triangular Low Profile Platform	-	VERIZON WIRELESS
	3	Samsung Outdoor CBRS 20W RRH –Clip-on Antenna			
	3	Samsung RT4401-48A			
	3	Samsung B5/B13 RRH-BR04C			
	3	Samsung B2/B66A RRH-BR049			
	3	Samsung MT6407-77A			

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

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	60%	Pass
Shaft	71%	Pass
Base Plate	93%	Pass
Reinforcement	95%	Pass
Flanges	35%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	2408.0	83%
Axial (Kips)	49.0	6%
Shear (Kips)	33.6	50%

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, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
110.0	DragonWave A-ANT-11G-2.5-C	CLEARWIRE CORPORATION	1.367	1.170
	DragonWave A-ANT-23G-1-C			
80.0	Samsung Outdoor CBRS 20W RRH – Clip-on Antenna	VERIZON WIRELESS	0.793	0.980
	Commscope CBC78T-DS-43-2X			
	Samsung RT4401-48A			
	Samsung B5/B13 RRH-BR04C			
	Samsung B2/B66A RRH-BR049			
Samsung MT6407-77A				
60.0	Radio Waves SP2-4.7	TOWN OF WEST HARTFORD	0.473	0.830

*Deflection, Twist 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.

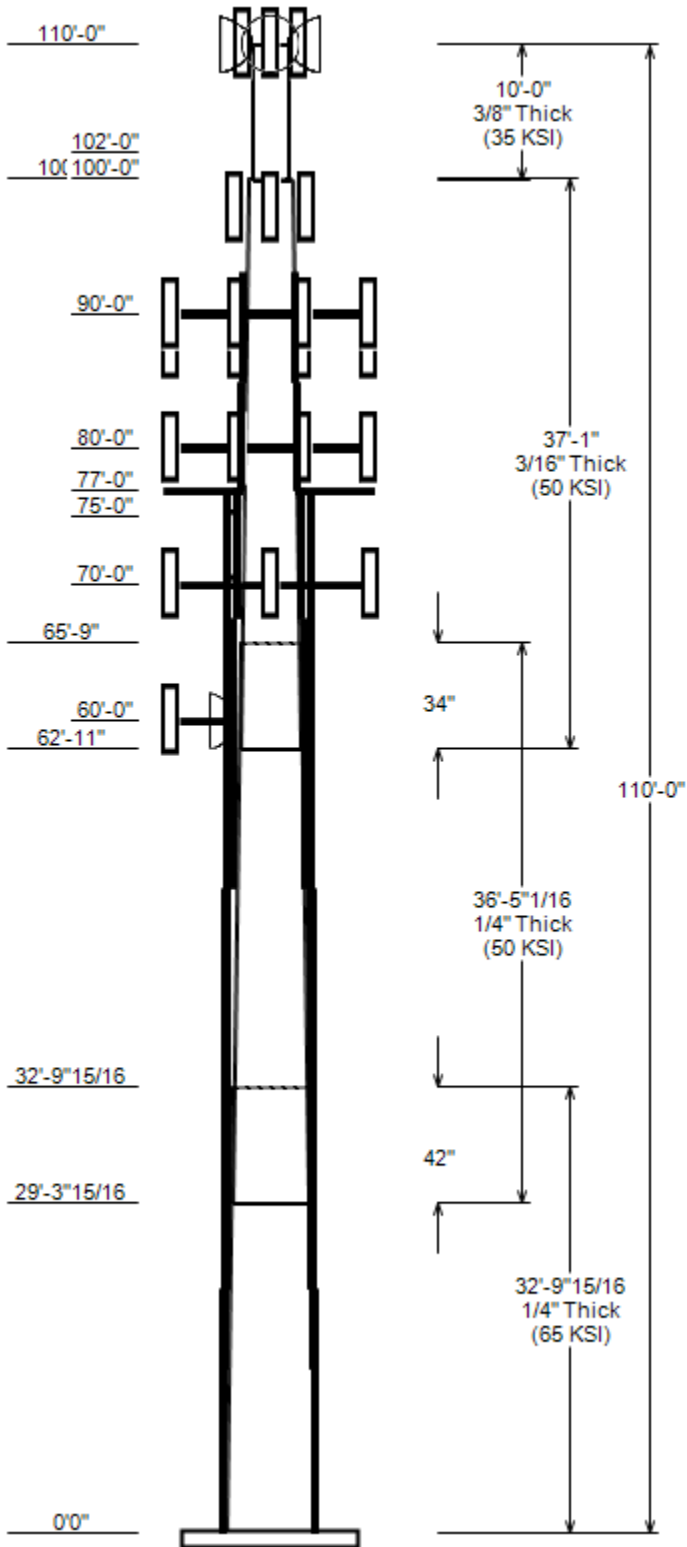
Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

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

Asset : 302481, Hrfr - South
 Client : VERIZON WIRELESS
 Code : ANSI/TIA-222-H

Height : 110 ft
 Base Width : 30
 Shape : 12 Sides. Sect 4: Round



SITE PARAMETERS

Base Elev (ft): 0.00 Structure Class: II
 Taper : 0.16400 (In/ft) Exposure : B
 Topographic Category : 4 Topographic Feature:
 Topo Method : Method 3

SECTION PROPERTIES

Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Overlap Length (in)	Steel Grade (ksi)
		Across Flats Top	Across Flats Bottom			
1	32.830	24.62	30.00	0.250	0.000	12 Sides 65
2	36.420	19.73	25.70	0.250	Slip Joint 42.000	12 Sides 50
3	37.083	14.50	20.57	0.188	Slip Joint 34.000	12 Sides 50
4	10.000	12.75	12.75	0.375	Butt Joint 0.000	Round 35

DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
110.0	110.0	3	DragonWave Horizon Compact
110.0	110.0	1	Generic 12" x 12" Junction Box
110.0	110.0	1	DragonWave A-ANT-23G-1-C
110.0	110.0	3	NextNet BTS-2500
110.0	110.0	3	Argus LLPX310R
110.0	110.0	1	Clearwire Side Arm
110.0	110.0	2	DragonWave A-ANT-11G-2.5-C
102.0	102.0	1	Small Platform with Handrails
100.0	98.0	6	CCI TPX-070821
100.0	98.0	3	Powerwave Allgon LGP21401
100.0	98.0	2	Raycap DC6-48-60-18-8F(32.8 lb
100.0	98.0	3	Ericsson RRUS-11 (50 lbs.)
100.0	98.0	3	Ericsson RRUS 32 B2
100.0	98.0	3	Ericsson RRUS-32 (77 lbs)
100.0	98.0	3	Powerwave Allgon 7770.00
100.0	98.0	2	Quintel QS66512-2
100.0	98.0	2	CCI OPA-65R-LCUU-H6
100.0	98.0	1	CCI OPA-65R-LCUU-H8 (92.7")
100.0	98.0	1	CCI TPA-65R-LCUUUU-H8
90.0	90.0	3	Ericsson Radio 4449 B71 B85A
90.0	90.0	3	Ericsson RRUS 4415 B25
90.0	90.0	3	Ericsson Air6449 B41
90.0	87.0	3	Ericsson AIR32 B66Aa/B2a
90.0	90.0	3	Ericsson Air 3246 B66
90.0	90.0	3	RFS APXVAARR24_43-U-NA20
90.0	90.0	1	Generic Flat Low Profile Plat
80.0	80.0	3	Commscope CBC78T-DS-43-2X
80.0	80.0	3	Samsung Outdoor CBRS 20W RRH -
80.0	80.0	3	Samsung RT4401-48A
80.0	80.0	3	Samsung B2/B66A RRH-BR049
80.0	80.0	3	Samsung B5/B13 RRH-BR04C
80.0	80.0	1	Raycap RVZDC-6627-PF-48
80.0	80.0	3	Samsung MT6407-77A
80.0	80.0	6	Commscope JAHH-65B-R3B (63.3 l
80.0	80.0	1	Generic Round Low Profile Plat
77.0	77.0	2	Stand Offs
75.0	73.0	1	Scala 840 10212
75.0	73.0	1	TX RX Systems 421-86A-10-18-12
70.0	70.0	3	Round Side Arms
70.0	70.0	3	RFS APXV18-206517S-C
60.0	60.0	1	Generic Radio/ODU
60.0	60.0	1	Scala 840 10212
60.0	60.0	1	Stand Off
60.0	60.0	1	Radio Waves SP2-4.7

JOB INFORMATION

Asset : 302481, Hrfr - South
 Client : VERIZON WIRELESS
 Code : ANSI/TIA-222-H

Height : 110 ft
 Base Width : 30
 Shape : 12 Sides. Sect 4: Round

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	110.0	5/16" (0.31"-7.9mm) Coax	No
0.0	110.0	2" conduit	Yes
0.0	110.0	1/2" Coax	Yes
0.0	102.0	1 5/8" Coax	No
0.0	102.0	1 5/8" Coax	Yes
0.0	102.0	0.78" (19.7mm) 8 AWG 6	No
0.0	102.0	0.78" (19.7mm) 8 AWG 6	Yes
0.0	102.0	0.39" (10mm) Fiber Trunk	No
0.0	102.0	0.39" (10mm) Fiber Trunk	Yes
0.0	100.0	3" conduit	No
0.0	100.0	1 5/8" Coax	No
0.0	100.0	0.78" (19.7mm) 8 AWG 6	No
0.0	100.0	0.39" (10mm) Fiber Trunk	No
0.0	90.0	1 5/8" Coax	No
0.0	90.0	1 1/4" (1.25"- 31.8mm) Fiber	No
75.0	87.0	1.25" Thick Flat Plate	Yes
75.0	87.0	1.25" Thick Flat Plate	Yes
75.0	87.0	1.25" Thick Flat Plate	Yes
75.0	87.0	1.25" Thick Flat Plate	Yes
0.0	87.0	7/8" Coax	No
0.0	81.0	#20 DYWIDAG	Yes
0.0	81.0	#20 DYWIDAG	Yes
0.0	81.0	#20 DYWIDAG	Yes
0.0	81.0	#20 DYWIDAG	Yes
0.0	80.0	1 5/8" Hybriflex	Yes
0.0	80.0	1 5/8" Coax	No
0.0	75.0	7/8" Coax	Yes
0.0	70.0	1 5/8" Coax	Yes
0.0	60.0	7/8" Coax	Yes
0.0	60.0	0.41" (10.3mm) LMR-400	Yes
0.0	20.0	1.25" Thick Flat Plate	Yes
0.0	20.0	1.25" Thick Flat Plate	Yes
0.0	20.0	1.25" Thick Flat Plate	Yes
0.0	20.0	1.25" Thick Flat Plate	Yes

LOAD CASES

1.2D + 1.0W Normal	115.01 mph wind with no ice
0.9D + 1.0W Normal	115.01 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Nor	48.73 mph wind with 1.275" radial
1.2D + 1.0Ev + 1.0Eh Nor	Seismic
0.9D - 1.0Ev + 1.0Eh Nor	Seismic (Reduced DL)
1.0D + 1.0W Service Norm	60 mph Wind with No Ice

REACTIONS

Load Case	Moment (kip-ft)	Shear (Kip)	Axial (Kip)
1.2D + 1.0W Normal	2407.96	33.56	48.95
0.9D + 1.0W Normal	2379.06	33.52	36.69
1.2D + 1.0Di + 1.0Wi Normal	703.98	9.38	77.87
1.2D + 1.0Ev + 1.0Eh Normal	103.77	1.23	48.62
0.9D - 1.0Ev + 1.0Eh Normal	102.22	1.23	33.66
1.0D + 1.0W Service Normal	586.06	8.26	40.87

DISH DEFLECTIONS

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W Service Normal	60.00	5.673	0.831
1.0D + 1.0W	110.00	16.405	1.174

JOB INFORMATION

Asset : 302481, Hrfr - South
Client : VERIZON WIRELESS
Code : ANSI/TIA-222-H

Height : 110 ft
Base Width : 30
Shape : 12 Sides. Sect 4: Round

DISH DEFLECTIONS

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
Service Normal			
1.0D + 1.0W	110.00	16.405	1.174
Service Normal			

ASSET: 302481, Hrfr - South
CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
ENG NO: 13685587_C3_03

ANALYSIS PARAMETERS

Location:	Hartford County,CT	Height:	110 ft
Type and Shape:	Custom, 12 Sides. Sect 4: Round	Base Diameter:	30.00 in
Manufacturer:	ITT Meyer	Top Diameter:	12.75 in
K _d (non-service):	0.95	Taper:	0.1640 in/ft
K _e :	0.99	Rotation:	0.000°

ICE & WIND PARAMETERS

Exposure Category:	B	Design Wind Speed w/o Ice:	115 mph
Risk Category:	II	Design Wind Speed w/Ice:	49 mph
Topo Factor Procedure:	Method 3	Operational Wind Speed:	60 mph
Topographic Category:	4	Design Ice Thickness:	1.28 in
Crest Height:	148 ft	HMSL:	286.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):	1.99		
T _L (sec):	6	P:	1	C _s :	0.030
S _s :	0.192	S ₁ :	0.055	C _s Max:	0.030
F _a :	1.600	F _v :	2.400	C _s Min:	0.030
S _{ds} :	0.205	S _{d1} :	0.088		

LOAD CASES

1.2D + 1.0W Normal	115.01 mph wind with no ice
0.9D + 1.0W Normal	115.01 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Normal	48.73 mph wind with 1.275" radial ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL)
1.0D + 1.0W Service Normal	60 mph Wind with No Ice

ASSET: 302481, Hrfr - South
 CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
 ENG NO: 13685587_C3_03

SHAFT SECTION PROPERTIES

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint len (in)	Bottom							Top						
						Weight (lb)	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-12	32.83	0.2500	65		0.00	2,434	30.00	0.000	23.95	2,705.5	29.47	120.00	24.62	32.83	19.62	1,488.2	23.71	98.50	0.1637
2-12	36.42	0.2500	50	Slip	42.00	2,241	25.70	29.330	20.49	1,693.5	24.86	102.79	19.73	65.75	15.69	760.3	18.47	78.94	0.1637
3-12	37.08	0.1875	50	Slip	34.00	1,322	20.57	62.917	12.31	653.1	26.72	109.72	14.50	100.00	8.64	226.2	18.05	77.33	0.1637
4-R	10.00	0.3750	35	Butt	0.00	496	12.75	100.000	14.58	279.3	0.00	34.00	12.75	110.00	14.58	279.3	0.00	34.00	0.0000

Shaft Weight 6,493

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice			Ice		
					Weight (lb)	EPAA (sf)	Orientation Factor	Weight (lb)	EPAA (sf)	Orientation Factor
110.00	DragonWave A-ANT-11G-2.5-C	2	1.00	0.000	47.60	8.670	1.00	215.17	10.304	1.00
110.00	Argus LLPX310R	3	0.80	0.000	28.60	4.292	0.63	113.83	5.856	0.63
110.00	Clearwire Side Arm	1	1.00	0.000	560.00	8.500	0.67	928.97	14.100	0.67
110.00	NextNet BTS-2500	3	0.80	0.000	35.00	1.817	0.50	78.86	2.684	0.50
110.00	DragonWave A-ANT-23G-1-C	1	1.00	0.000	15.00	1.610	1.00	48.42	2.326	1.00
110.00	Generic 12" x 12" Junction Box	1	0.80	0.000	10.00	1.200	1.00	49.39	1.886	1.00
110.00	DragonWave Horizon Compact	3	0.80	0.000	10.60	0.721	0.50	31.87	1.259	0.50
102.00	Small Platform with Handrails	1	1.00	0.000	2000.00	34.800	1.00	3320.72	57.780	1.00
100.00	Raycap DC6-48-60-18-8F(32.8 lb	2	0.75	-2.000	32.80	1.470	0.50	91.35	2.133	0.50
100.00	Powerwave Allgon LGP21401	3	0.75	-2.000	14.10	1.104	0.50	37.78	1.781	0.50
100.00	CCI TPX-070821	6	0.75	-2.000	7.50	0.469	0.50	19.01	0.924	0.50
100.00	CCI OPA-65R-LCUU-H8 (92.7")	1	0.75	-2.000	88.00	12.746	0.67	323.64	16.159	0.67
100.00	Ericsson RRUS 32 B2	3	0.75	-2.000	53.00	2.743	0.50	122.80	3.853	0.50
100.00	Ericsson RRUS-32 (77 lbs)	3	0.75	-2.000	77.00	3.314	0.50	169.30	4.532	0.50
100.00	Powerwave Allgon 7770.00	3	0.75	-2.000	35.00	5.508	0.65	161.49	6.505	0.65
100.00	Quintel QS66512-2	2	0.75	-2.000	111.00	8.133	0.74	300.13	10.779	0.74
100.00	CCI OPA-65R-LCUU-H6	2	0.75	-2.000	73.00	9.658	0.66	266.16	12.289	0.66
100.00	Ericsson RRUS-11 (50 lbs.)	3	0.75	-2.000	50.00	2.566	0.50	114.70	3.560	0.50
100.00	CCI TPA-65R-LCUUUU-H8	1	0.75	-2.000	81.60	13.298	0.69	344.29	16.841	0.69
90.00	Ericsson RRUS 4415 B25	3	0.80	0.000	46.00	1.842	0.50	92.70	2.696	0.50
90.00	Ericsson Air6449 B41	3	0.80	0.000	104.00	5.682	0.63	233.80	7.194	0.63
90.00	Ericsson AIR32 B66Aa/B2a	3	0.80	-3.000	132.20	6.510	0.71	284.21	8.596	0.71
90.00	Ericsson Air 3246 B66	3	0.80	0.000	180.00	7.939	0.69	2755.45	10.099	0.69
90.00	Ericsson Radio 4449 B71 B85A	3	0.80	0.000	75.00	1.650	0.50	132.28	2.459	0.50
90.00	RFS APXVAARR24_43-U-NA20	3	0.80	0.000	127.90	20.243	0.63	501.81	23.775	0.63
90.00	Generic Flat Low Profile Platf	1	1.00	0.000	1875.00	26.100	1.00	2646.34	44.284	1.00
80.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	178.98	6.160	0.61
80.00	Commscope JAHH-65B-R3B (63.3 l	6	0.80	0.000	63.30	9.113	0.69	256.59	11.764	0.69
80.00	Generic Round Low Profile Plat	1	1.00	0.000	1875.00	21.700	1.00	2648.72	40.042	1.00
80.00	Raycap RVZDC-6627-PF-48	1	0.80	0.000	32.00	3.781	0.50	136.77	5.044	0.50
80.00	Samsung B2/B66A RRH-BR049	3	0.80	0.000	84.40	1.875	0.50	145.35	2.737	0.50
80.00	Samsung B5/B13 RRH-BR04C	3	0.80	0.000	70.30	1.875	0.50	124.95	2.737	0.50
80.00	Samsung RT4401-48A	3	0.80	0.000	18.60	0.996	0.50	44.40	1.650	0.50
80.00	Samsung Outdoor CBRS 20W RRH -	3	0.80	0.000	4.40	0.892	0.50	21.60	1.502	0.50
80.00	Commscope CBC78T-DS-43-2X	3	0.80	0.000	20.70	0.552	0.50	41.81	1.037	0.50
77.00	Stand Offs	2	1.00	0.000	75.00	2.500	1.00	109.97	3.433	1.00
75.00	TX RX Systems 421-86A-10-18-12	1	0.90	-2.000	15.00	2.217	0.50	59.82	3.162	0.50
75.00	Scala 840 10212	1	0.90	-2.000	6.70	2.175	0.50	54.78	3.208	0.50
70.00	RFS APXV18-206517S-C	3	0.80	0.000	26.40	5.160	0.68	115.19	7.427	0.68
70.00	Round Side Arms	3	1.00	0.000	100.00	4.000	0.67	146.73	6.003	0.67
60.00	Radio Waves SP2-4.7	1	1.00	0.000	22.00	5.228	1.00	75.22	6.715	1.00
60.00	Stand Off	1	1.00	0.000	75.00	2.500	1.00	110.13	3.755	1.00
60.00	Scala 840 10212	1	1.00	0.000	6.70	2.175	0.50	54.95	3.211	0.50
60.00	Generic Radio/ODU	1	1.00	0.000	30.00	1.600	0.50	79.13	2.408	0.50

Totals Num Loadings: 44 103 11,920.00 31,450.12

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg) : _

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Max Coax/ Row	Dist Between Rows(in)	Dist Between Cols(in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	110.00	6	5/16" (0.31"-7.9mm) C	0.31	0.05	N	0	0	0	0	N	CLEARWIRE COR

ASSET: 302481, Hrfr - South
 CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
 ENG NO: 13685587_C3_03

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	110.00	3	1/2" Coax	0.63	0.15	N	1	0	0	290	0.5	Y	CLEARWIRE COR
0.00	110.00	1	2" conduit	2.38	3.65	N	1	0	0	280	0	Y	CLEARWIRE COR
0.00	102.00	6	1 5/8" Coax	1.98	0.82	N	3	0	0	218	0.5	Y	AT&T MOBILITY
0.00	102.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	102.00	4	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	102.00	2	0.78" (19.7mm) 8 AWG	0.78	0.59	N	2	0.5	0.5	13	0.5	Y	AT&T MOBILITY
0.00	102.00	1	0.39" (10mm) Fiber Tr	0.39	0.06	N	1	0	0	8	0.5	Y	AT&T MOBILITY
0.00	102.00	1	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	100.00	12	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	100.00	4	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	100.00	2	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	100.00	1	3" conduit	3.5	7.58	N	1	0	0	0	0	N	AT&T MOBILITY
0.00	90.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	T-MOBILE
0.00	90.00	4	1 1/4" (1.25"- 31.8mm	1.25	1.05	N	0	0	0	0	0	N	T-MOBILE
0.00	87.00	18	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	T-MOBILE
75.00	87.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	210	0	Y	
75.00	87.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	30	0	Y	
75.00	87.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	300	0	Y	
75.00	87.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	120	0	Y	
0.00	81.00	1	#20 DYWIDAG	4	4.68	N	1	0	0	180	0	Y	
0.00	81.00	1	#20 DYWIDAG	4	4.68	N	1	0	0	90	0	Y	
0.00	81.00	1	#20 DYWIDAG	4	4.68	N	1	0	0	270	0	Y	
0.00	81.00	1	#20 DYWIDAG	4	4.68	N	1	0	0	0	0	Y	
0.00	80.00	12	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	VERIZON WIREL
0.00	80.00	2	1 5/8" Hybriflex	1.98	1.3	N	2	0.25	0.25	65	0.5	Y	VERIZON WIREL
0.00	75.00	1	7/8" Coax	1.09	0.33	N	1	0	0	79	0.5	Y	TOWN OF WEST
0.00	70.00	6	1 5/8" Coax	1.98	0.82	N	3	0.5	0.5	310	0.5	Y	METRO PCS INC
0.00	60.00	2	0.41" (10.3mm) LMR-40	0.41	0.07	N	2	0.25	0.25	73	0.5	Y	TOWN OF WEST
0.00	60.00	1	7/8" Coax	1.09	0.33	N	1	0	0	69	0.5	Y	TOWN OF WEST
0.00	20.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	30	0	Y	
0.00	20.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	300	0	Y	
0.00	20.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	210	0	Y	
0.00	20.00	1	1.25" Thick Flat Plat	1.25	0	Y	1	0	0	120	0	Y	

ADDITIONAL STEEL

Intermediate Connectors

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Description	Spacing (in)	Len (in)	Connectors	Continuation?
0.00	18.00	4	PL PL 6 x 1.25	65	0.00	AJAX M20 Class 8.8	24.00	3.00	AJAX M20 Class 8.8	N
0.00	12.00	4	SOL #20 All Thread Bar	80	2.31	6" Angle Bracket	39.00	3.31	5/8" A36 U-Bolt	N
12.00	47.50	4	SOL #20 All Thread Bar	80	2.31	6" Angle Bracket	30.00	3.31	5/8" A36 U-Bolt	Y
18.00	77.00	4	PL PL 6 x 1.25	65	0.00	AJAX M20 Class 8.8	24.00		AJAX M20 Class 8.8	Y
47.50	67.50	4	SOL #20 All Thread Bar	80	2.31	6" Angle Bracket	30.00	3.31	5/8" A36 U-Bolt	Y
67.50	77.00	4	SOL #20 All Thread Bar	80	2.31	6" Angle Bracket	30.00	3.31	5/8" A36 U-Bolt	Y
77.00	85.00	4	PL PL 5" x 1.25"	65	0.00	AJAX M20 Class 8.8	24.00	3.00	AJAX M20 Class 8.8	N
85.00	93.00	4	PL PL 5" x 1.25"	65	0.00	AJAX M20 Class 8.8	24.00	3.00	AJAX M20 Class 8.8	Y

SEGMENT PROPERTIES

(Max Len: 5.ft)

Additional Reinforcing

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)	Area (in ²)	Ix (in ⁴)	Weight (lb)
0.00		0.2500	30.000	23.949	2,705.50	29.47	120.00	72.6	174.2	0.0	0.0	49.640	7,171.70	0.0
5.00		0.2500	29.182	23.290	2,488.30	28.60	116.73	73.5	164.7	0.0	401.9	49.640	6,828.10	844.0
10.00		0.2500	28.363	22.631	2,283.00	27.72	113.45	74.5	155.5	0.0	390.6	49.640	6,493.00	844.0
12.00	Reinf. Top Reinf Bottom	0.2500	28.036	22.367	2,204.20	27.37	112.14	74.9	151.9	0.0	153.1	49.640	6,361.40	337.6
15.00		0.2500	27.545	21.972	2,089.30	26.84	110.18	75.4	146.5	0.0	226.3	49.640	6,166.50	506.4
18.00	Reinf. Top Reinf Bottom	0.2500	27.053	21.577	1,978.60	26.32	108.21	76	141.3	0.0	222.3	49.640	5,974.60	506.4
20.00		0.2500	26.726	21.313	1,906.90	25.97	106.90	76.4	137.8	0.0	145.9	49.640	5,848.50	337.6
25.00		0.2500	25.908	20.654	1,735.50	25.09	103.63	77.4	129.4	0.0	357.0	49.640	5,539.00	844.0
29.33	Bot - Section 2	0.2500	25.199	20.084	1,595.60	24.33	100.79	78.2	122.3	0.0	300.1	49.640	5,278.00	730.9
30.00		0.2500	25.089	19.995	1,574.70	24.21	100.36	78.3	121.2	0.0	92.3	49.640	5,420.90	113.1
32.83	Top - Section 1	0.2500	25.126	20.025	1,581.60	24.25	100.50	62.7	121.6	0.0	385.4	49.640	5,251.40	477.7
35.00		0.2500	24.771	19.739	1,514.90	23.87	99.08	63	118.1	0.0	146.8	49.640	5,123.30	366.3
40.00		0.2500	23.952	19.080	1,368.20	22.99	95.81	63	110.3	0.0	330.2	49.640	4,834.30	844.0
45.00		0.2500	23.134	18.421	1,231.30	22.11	92.53	63	102.8	0.0	319.0	49.640	4,553.90	844.0
47.50	Reinf. Top Reinf Bottom	0.2500	22.724	18.092	1,166.40	21.68	90.90	63	99.2	0.0	155.3	49.640	4,416.80	422.0
50.00		0.2500	22.315	17.762	1,103.80	21.24	89.26	63	95.6	0.0	152.5	49.640	4,282.00	422.0
55.00		0.2500	21.497	17.103	985.50	20.36	85.99	63	88.6	0.0	296.6	49.640	4,018.60	844.0
60.00		0.2500	20.678	16.445	875.90	19.48	82.71	63	81.8	0.0	285.4	49.640	3,763.80	844.0
62.92	Bot - Section 3	0.2500	20.201	16.060	815.90	18.97	80.80	63	78.0	0.0	161.3	49.640	3,619.10	492.3
65.00		0.2500	19.860	15.786	774.80	18.61	79.44	63	75.4	0.0	199.4	49.640	3,629.30	351.7
65.75	Top - Section 2	0.1875	20.112	12.029	609.50	26.06	107.26	61.4	58.5	0.0	70.9	49.640	3,592.50	126.6
67.50	Reinf. Top Reinf Bottom	0.1875	19.825	11.856	583.60	25.65	105.73	61.7	56.9	0.0	71.1	49.640	3,507.40	295.4
70.00		0.1875	19.416	11.609	547.90	25.07	103.55	62.1	54.5	0.0	99.8	49.640	3,387.60	422.0
75.00		0.1875	18.598	11.115	480.80	23.90	99.19	63	49.9	0.0	193.3	49.640	3,154.60	844.0
77.00	Reinf. Top Reinf Bottom	0.1875	18.270	10.917	455.60	23.43	97.44	63	48.2	0.0	75.0	49.640	3,063.70	337.6
77.04	Reinf. Top	0.1875	18.264	10.913	455.10	23.42	97.41	63	48.1	0.0	1.5	44.640	2,804.60	6.1
80.00		0.1875	17.779	10.621	419.50	22.73	94.82	63	45.6	0.0	108.4	25.000	1,159.20	252.2
85.00	Reinf. Top Reinf Bottom	0.1875	16.961	10.127	363.60	21.56	90.46	63	41.4	0.0	176.5	25.000	1,064.00	426.0
90.00		0.1875	16.142	9.633	313.00	20.39	86.09	63	37.5	0.0	168.1	25.000	972.90	426.0
93.00	Reinf. Top	0.1875	15.651	9.336	284.90	19.69	83.47	63	35.2	0.0	96.8	25.000	920.30	255.6
95.00		0.1875	15.324	9.138	267.20	19.22	81.73	63	33.7	0.0	62.9			
100.00	Top - Section 3	0.1875	14.505	8.644	226.20	18.05	77.36	63	30.1	0.0	151.3			
100.00	Bot - Section 4	0.3750	12.750	14.579	279.30	0.00	34.00	35	43.8	57.4				
102.00		0.3750	12.750	14.579	279.30	0.00	34.00	35	43.8	57.4	99.2			
105.00		0.3750	12.750	14.579	279.30	0.00	34.00	35	43.8	57.4	148.8			
110.00		0.3750	12.750	14.579	279.30	0.00	34.00	35	43.8	57.4	248.0			

Totals: 6,493.0 14,363.5

Load Case: 1.2D + 1.0W Normal	115.01 mph wind with no ice	22 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	-48.95	-33.56	0.00	-2,408.0	0.00	2,407.96	1,564.13	420.30	1,179.53	948.21	0.00	0	0.712
5.00	-46.73	-32.63	0.00	-2,240.2	0.00	2,240.17	1,541.15	408.74	1,115.53	908.36	0.18	-0.33	0.675
10.00	-44.59	-31.93	0.00	-2,077.0	0.00	2,077.01	1,517.04	397.17	1,053.33	868.64	0.71	-0.66	0.638
12.00	-43.70	-31.52	0.00	-2,013.2	0.00	2,013.15	1,507.08	392.55	1,028.94	852.79	1.02	-0.8	0.623
15.00	-42.40	-31.01	0.00	-1,918.6	0.00	1,918.59	1,491.79	385.61	992.90	829.09	1.59	-0.99	0.601
18.00	-41.13	-30.57	0.00	-1,825.6	0.00	1,825.56	1,476.10	378.67	957.51	805.48	2.28	-1.19	0.579
20.00	-40.23	-30.08	0.00	-1,764.4	0.00	1,764.42	1,465.41	374.05	934.26	789.78	2.80	-1.31	0.564
25.00	-38.13	-29.32	0.00	-1,614.0	0.00	1,614.02	1,437.89	362.48	877.41	750.77	4.35	-1.62	0.527
29.33	-36.37	-28.83	0.00	-1,487.1	0.00	1,487.06	1,413.15	352.47	829.62	717.27	5.95	-1.89	0.495
30.00	-36.01	-28.61	0.00	-1,467.7	0.00	1,467.74	1,409.24	350.92	822.34	712.11	6.22	-1.93	0.478
32.83	-34.62	-28.19	0.00	-1,386.8	0.00	1,386.77	1,130.12	270.34	634.44	571.92	7.41	-2.09	0.581
35.00	-33.69	-27.70	0.00	-1,325.6	0.00	1,325.59	1,119.20	266.48	616.46	558.23	8.39	-2.22	0.561
40.00	-31.66	-26.89	0.00	-1,187.1	0.00	1,187.11	1,081.84	257.58	576.00	521.40	10.86	-2.49	0.521
45.00	-29.67	-26.20	0.00	-1,052.7	0.00	1,052.68	1,044.48	248.69	536.92	485.83	13.61	-2.74	0.480
47.50	-28.68	-25.79	0.00	-987.2	0.00	987.18	1,025.80	244.24	517.89	468.51	15.08	-2.87	0.459
50.00	-27.67	-25.26	0.00	-922.7	0.00	922.70	1,007.12	239.79	499.21	451.52	16.62	-2.99	0.437
55.00	-25.72	-24.44	0.00	-796.4	0.00	796.42	969.76	230.90	462.88	418.46	19.87	-3.22	0.393
60.00	-23.67	-23.19	0.00	-674.2	0.00	674.21	932.41	222.00	427.91	386.66	23.36	-3.43	0.346
62.92	-22.56	-22.76	0.00	-606.6	0.00	606.57	910.61	216.81	408.15	368.69	25.49	-3.54	0.320
65.00	-21.68	-22.48	0.00	-559.2	0.00	559.15	895.05	213.11	394.32	356.11	27.05	-3.62	0.293
65.75	-21.35	-22.30	0.00	-542.3	0.00	542.30	664.45	162.40	305.24	269.50	27.62	-3.64	0.317
67.50	-20.72	-21.98	0.00	-503.3	0.00	503.27	658.11	160.06	296.53	263.05	28.97	-3.7	0.298
70.00	-19.42	-20.53	0.00	-448.3	0.00	448.32	648.89	156.72	284.30	253.91	30.94	-3.79	0.269
75.00	-17.66	-19.77	0.00	-345.7	0.00	345.66	629.88	150.05	260.62	235.88	34.99	-3.93	0.216
77.00	-16.81	-19.26	0.00	-306.1	0.00	306.13	619.01	147.38	251.44	227.65	36.64	-3.98	0.210
77.00	-16.81	-19.26	0.00	-306.1	0.00	306.13	619.01	147.38	251.44	227.65	36.64	-3.98	0.196
77.04	-16.80	-19.12	0.00	-305.4	0.00	305.36	618.79	147.33	251.26	227.48	36.68	-3.98	0.390
77.04	-16.80	-19.12	0.00	-305.4	0.00	305.36	618.79	147.33	251.26	227.48	36.68	-3.98	0.210
80.00	-12.58	-14.69	0.00	-248.8	0.00	248.76	602.20	143.38	237.97	215.39	39.17	-4.05	0.324
85.00	-11.53	-14.00	0.00	-175.3	0.00	175.32	574.18	136.71	216.35	195.71	43.53	-4.25	0.244
90.00	-6.28	-8.24	0.00	-105.3	0.00	105.32	546.16	130.04	195.76	176.97	48.05	-4.39	0.152
93.00	-5.74	-7.98	0.00	-80.6	0.00	80.59	529.35	126.04	183.90	166.19	50.83	-4.45	0.500
93.00	-5.74	-7.98	0.00	-80.6	0.00	80.59	529.35	126.04	183.90	166.19	50.83	-4.45	0.122
95.00	-5.57	-7.69	0.00	-64.6	0.00	64.63	518.15	123.37	176.19	159.18	52.70	-4.48	0.421
100.00	-3.81	-4.47	0.00	-26.2	0.00	26.19	490.13	116.70	157.66	142.33	57.53	-4.72	0.193
100.00	-3.81	-4.47	0.00	-26.2	0.00	26.19	459.24	137.77	149.89	150.79	57.53	-4.72	0.183
102.00	-1.41	-2.29	0.00	-17.3	0.00	17.26	459.24	137.77	149.89	150.79	59.52	-4.78	0.118
105.00	-1.24	-2.08	0.00	-10.4	0.00	10.38	459.24	137.77	149.89	150.79	62.54	-4.82	0.072
110.00	0.00	-1.96	0.00	0.0	0.00	0.00	459.24	137.77	149.89	150.79	67.60	-4.85	0.000

ASSET: 302481, Hrfr - South
 CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
 ENG NO: 13685587_C3_03

Load Case: 0.9D + 1.0W Normal	115.01 mph wind with no ice	22 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	-36.69	-33.52	0.00	-2,379.1	0.00	2,379.06	1,564.13	420.30	1,179.53	948.21	0.00	0	0.701
5.00	-34.98	-32.52	0.00	-2,211.5	0.00	2,211.46	1,541.15	408.74	1,115.53	908.36	0.18	-0.33	0.664
10.00	-33.35	-31.78	0.00	-2,048.8	0.00	2,048.84	1,517.04	397.17	1,053.33	868.64	0.71	-0.66	0.627
12.00	-32.66	-31.34	0.00	-1,985.3	0.00	1,985.28	1,507.08	392.55	1,028.94	852.79	1.01	-0.79	0.612
15.00	-31.67	-30.80	0.00	-1,891.3	0.00	1,891.26	1,491.79	385.61	992.90	829.09	1.57	-0.98	0.590
18.00	-30.69	-30.33	0.00	-1,798.9	0.00	1,798.87	1,476.10	378.67	957.51	805.48	2.25	-1.17	0.568
20.00	-30.00	-29.81	0.00	-1,738.2	0.00	1,738.21	1,465.41	374.05	934.26	789.78	2.77	-1.3	0.554
25.00	-28.40	-29.01	0.00	-1,589.2	0.00	1,589.18	1,437.89	362.48	877.41	750.77	4.29	-1.6	0.517
29.33	-27.06	-28.51	0.00	-1,463.6	0.00	1,463.57	1,413.15	352.47	829.62	717.27	5.87	-1.86	0.486
30.00	-26.78	-28.28	0.00	-1,444.5	0.00	1,444.47	1,409.24	350.92	822.34	712.11	6.13	-1.9	0.469
32.83	-25.72	-27.84	0.00	-1,364.4	0.00	1,364.45	1,130.12	270.34	634.44	571.92	7.31	-2.06	0.569
35.00	-25.02	-27.32	0.00	-1,304.0	0.00	1,304.03	1,119.20	266.48	616.46	558.23	8.28	-2.18	0.550
40.00	-23.47	-26.49	0.00	-1,167.4	0.00	1,167.42	1,081.84	257.58	576.00	521.40	10.71	-2.45	0.510
45.00	-21.97	-25.81	0.00	-1,035.0	0.00	1,034.95	1,044.48	248.69	536.92	485.83	13.42	-2.7	0.470
47.50	-21.22	-25.39	0.00	-970.4	0.00	970.43	1,025.80	244.24	517.89	468.51	14.87	-2.83	0.449
50.00	-20.45	-24.85	0.00	-907.0	0.00	906.95	1,007.12	239.79	499.21	451.52	16.38	-2.95	0.428
55.00	-18.98	-24.03	0.00	-782.7	0.00	782.72	969.76	230.90	462.88	418.46	19.59	-3.17	0.384
60.00	-17.45	-22.80	0.00	-662.6	0.00	662.57	932.41	222.00	427.91	386.66	23.02	-3.37	0.339
62.92	-16.61	-22.37	0.00	-596.1	0.00	596.08	910.61	216.81	408.15	368.69	25.12	-3.49	0.313
65.00	-15.95	-22.09	0.00	-549.5	0.00	549.48	895.05	213.11	394.32	356.11	26.66	-3.56	0.286
65.75	-15.70	-21.92	0.00	-532.9	0.00	532.91	664.45	162.40	305.24	269.50	27.22	-3.59	0.310
67.50	-15.23	-21.60	0.00	-494.6	0.00	494.55	658.11	160.06	296.53	263.05	28.55	-3.65	0.291
70.00	-14.27	-20.17	0.00	-440.5	0.00	440.54	648.89	156.72	284.30	253.91	30.48	-3.73	0.262
75.00	-12.95	-19.43	0.00	-339.7	0.00	339.71	629.88	150.05	260.62	235.88	34.47	-3.87	0.211
77.00	-12.32	-18.93	0.00	-300.9	0.00	300.86	619.01	147.38	251.44	227.65	36.10	-3.92	0.191
77.00	-12.32	-18.93	0.00	-300.9	0.00	300.86	619.01	147.38	251.44	227.65	36.10	-3.92	0.205
77.00	-12.30	-18.79	0.00	-300.1	0.00	300.10	618.79	147.33	251.26	227.48	36.14	-3.92	0.204
77.04	-12.30	-18.79	0.00	-300.1	0.00	300.10	618.79	147.33	251.26	227.48	36.14	-3.92	0.381
80.00	-9.20	-14.43	0.00	-244.5	0.00	244.49	602.20	143.38	237.97	215.39	38.59	-3.99	0.316
85.00	-8.42	-13.75	0.00	-172.3	0.00	172.33	574.18	136.71	216.35	195.71	42.88	-4.18	0.239
90.00	-4.57	-8.10	0.00	-103.6	0.00	103.56	546.16	130.04	195.76	176.97	47.33	-4.32	0.149
93.00	-4.17	-7.85	0.00	-79.2	0.00	79.25	529.35	126.04	183.90	166.19	50.07	-4.38	0.119
93.00	-4.17	-7.85	0.00	-79.2	0.00	79.25	529.35	126.04	183.90	166.19	50.07	-4.38	0.489
95.00	-4.04	-7.56	0.00	-63.5	0.00	63.54	518.15	123.37	176.19	159.18	51.91	-4.41	0.411
100.00	-2.78	-4.38	0.00	-25.8	0.00	25.75	490.13	116.70	157.66	142.33	56.67	-4.65	0.188
100.00	-2.78	-4.38	0.00	-25.8	0.00	25.75	459.24	137.77	149.89	150.79	56.67	-4.65	0.178
102.00	-1.02	-2.26	0.00	-17.0	0.00	17.00	459.24	137.77	149.89	150.79	58.62	-4.7	0.115
105.00	-0.89	-2.05	0.00	-10.2	0.00	10.23	459.24	137.77	149.89	150.79	61.59	-4.74	0.070
110.00	0.00	-1.96	0.00	0.0	0.00	0.00	459.24	137.77	149.89	150.79	66.57	-4.77	0.000

ASSET: 302481, Hrfr - South
 CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
 ENG NO: 13685587_C3_03

Load Case: 1.2D + 1.0Di + 1.0Wi Normal	48.73 mph wind with 1.275" radial ice		21 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	-77.87	-9.38	0.00	-704.0	0.00	703.98	1,564.13	420.30	1,179.53	948.21	0.00	0	0.220
5.00	-75.18	-9.28	0.00	-657.1	0.00	657.06	1,541.15	408.74	1,115.53	908.36	0.05	-0.1	0.209
10.00	-72.46	-9.15	0.00	-610.7	0.00	610.68	1,517.04	397.17	1,053.33	868.64	0.21	-0.19	0.198
12.00	-71.36	-9.08	0.00	-592.4	0.00	592.38	1,507.08	392.55	1,028.94	852.79	0.30	-0.23	0.194
15.00	-69.72	-8.99	0.00	-565.1	0.00	565.14	1,491.79	385.61	992.90	829.09	0.47	-0.29	0.187
18.00	-68.07	-8.91	0.00	-538.2	0.00	538.17	1,476.10	378.67	957.51	805.48	0.67	-0.35	0.181
20.00	-66.98	-8.82	0.00	-520.4	0.00	520.35	1,465.41	374.05	934.26	789.78	0.82	-0.39	0.176
25.00	-64.30	-8.65	0.00	-476.2	0.00	476.23	1,437.89	362.48	877.41	750.77	1.28	-0.48	0.165
29.33	-62.00	-8.51	0.00	-438.8	0.00	438.79	1,413.15	352.47	829.62	717.27	1.75	-0.56	0.155
30.00	-61.58	-8.47	0.00	-433.1	0.00	433.08	1,409.24	350.92	822.34	712.11	1.83	-0.57	0.150
32.83	-59.85	-8.35	0.00	-409.1	0.00	409.13	1,130.12	270.34	634.44	571.92	2.18	-0.62	0.182
35.00	-58.70	-8.24	0.00	-391.0	0.00	391.00	1,119.20	266.48	616.46	558.23	2.47	-0.65	0.176
40.00	-56.06	-8.02	0.00	-349.8	0.00	349.79	1,081.84	257.58	576.00	521.40	3.19	-0.73	0.163
45.00	-53.46	-7.80	0.00	-309.7	0.00	309.70	1,044.48	248.69	536.92	485.83	4.00	-0.81	0.151
47.50	-52.16	-7.68	0.00	-290.2	0.00	290.20	1,025.80	244.24	517.89	468.51	4.44	-0.84	0.144
50.00	-50.86	-7.53	0.00	-271.0	0.00	271.01	1,007.12	239.79	499.21	451.52	4.89	-0.88	0.137
55.00	-48.30	-7.27	0.00	-233.4	0.00	233.37	969.76	230.90	462.88	418.46	5.85	-0.95	0.124
60.00	-45.44	-6.88	0.00	-197.0	0.00	197.04	932.41	222.00	427.91	386.66	6.87	-1.01	0.109
62.92	-43.99	-6.72	0.00	-177.0	0.00	176.98	910.61	216.81	408.15	368.69	7.50	-1.04	0.101
65.00	-42.85	-6.61	0.00	-163.0	0.00	162.98	895.05	213.11	394.32	356.11	7.96	-1.06	0.093
65.75	-42.44	-6.56	0.00	-158.0	0.00	158.02	664.45	162.40	305.24	269.50	8.13	-1.07	0.099
67.50	-41.60	-6.45	0.00	-146.6	0.00	146.55	658.11	160.06	296.53	263.05	8.53	-1.09	0.093
70.00	-39.61	-6.02	0.00	-130.4	0.00	130.44	648.89	156.72	284.30	253.91	9.10	-1.11	0.085
75.00	-37.25	-5.75	0.00	-100.4	0.00	100.35	629.88	150.05	260.62	235.88	10.29	-1.15	0.069
77.00	-36.11	-5.59	0.00	-88.8	0.00	88.85	619.01	147.38	251.44	227.65	10.78	-1.17	0.067
77.00	-36.11	-5.59	0.00	-88.8	0.00	88.85	619.01	147.38	251.44	227.65	10.78	-1.17	0.062
77.04	-36.09	-5.56	0.00	-88.6	0.00	88.63	618.79	147.33	251.26	227.48	10.79	-1.17	0.067
77.04	-36.09	-5.56	0.00	-88.6	0.00	88.63	618.79	147.33	251.26	227.48	10.79	-1.17	0.125
80.00	-28.88	-4.27	0.00	-72.2	0.00	72.18	602.20	143.38	237.97	215.39	11.53	-1.19	0.104
85.00	-27.41	-4.09	0.00	-50.8	0.00	50.83	574.18	136.71	216.35	195.71	12.80	-1.25	0.081
90.00	-12.30	-2.40	0.00	-30.4	0.00	30.38	546.16	130.04	195.76	176.97	14.13	-1.29	0.048
93.00	-11.55	-2.31	0.00	-23.2	0.00	23.18	529.35	126.04	183.90	166.19	14.95	-1.3	0.039
93.00	-11.55	-2.31	0.00	-23.2	0.00	23.18	529.35	126.04	183.90	166.19	14.95	-1.3	0.162
95.00	-11.25	-2.23	0.00	-18.6	0.00	18.57	518.15	123.37	176.19	159.18	15.50	-1.31	0.139
100.00	-6.71	-1.35	0.00	-7.4	0.00	7.43	459.24	137.77	149.89	150.79	16.92	-1.38	0.064
100.00	-6.71	-1.35	0.00	-7.4	0.00	7.43	490.13	116.70	157.66	142.33	16.92	-1.38	0.066
102.00	-2.93	-0.64	0.00	-4.7	0.00	4.73	459.24	137.77	149.89	150.79	17.50	-1.4	0.038
105.00	-2.62	-0.56	0.00	-2.8	0.00	2.82	459.24	137.77	149.89	150.79	18.38	-1.41	0.024
110.00	0.00	-0.50	0.00	0.0	0.00	0.00	459.24	137.77	149.89	150.79	19.86	-1.42	0.000

ASSET: 302481, Hrfr - South
 CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
 ENG NO: 13685587_C3_03

Load Case: 1.0D + 1.0W Service Normal	60 mph Wind with No Ice	21 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	-40.87	-8.26	0.00	-586.1	0.00	586.06	1,564.13	420.30	1,179.53	948.21	0.00	0	0.178
5.00	-39.16	-8.01	0.00	-544.8	0.00	544.78	1,541.15	408.74	1,115.53	908.36	0.04	-0.08	0.169
10.00	-37.47	-7.83	0.00	-504.7	0.00	504.72	1,517.04	397.17	1,053.33	868.64	0.17	-0.16	0.159
12.00	-36.80	-7.72	0.00	-489.1	0.00	489.06	1,507.08	392.55	1,028.94	852.79	0.25	-0.19	0.156
15.00	-35.79	-7.59	0.00	-465.9	0.00	465.91	1,491.79	385.61	992.90	829.09	0.39	-0.24	0.150
18.00	-34.79	-7.47	0.00	-443.2	0.00	443.15	1,476.10	378.67	957.51	805.48	0.55	-0.29	0.144
20.00	-34.12	-7.34	0.00	-428.2	0.00	428.20	1,465.41	374.05	934.26	789.78	0.68	-0.32	0.141
25.00	-32.46	-7.15	0.00	-391.5	0.00	391.48	1,437.89	362.48	877.41	750.77	1.06	-0.39	0.131
29.33	-31.04	-7.02	0.00	-360.5	0.00	360.53	1,413.15	352.47	829.62	717.27	1.45	-0.46	0.123
30.00	-30.77	-6.97	0.00	-355.8	0.00	355.82	1,409.24	350.92	822.34	712.11	1.51	-0.47	0.119
32.83	-29.65	-6.86	0.00	-336.1	0.00	336.10	1,130.12	270.34	634.44	571.92	1.80	-0.51	0.144
35.00	-28.94	-6.74	0.00	-321.2	0.00	321.21	1,119.20	266.48	616.46	558.23	2.04	-0.54	0.139
40.00	-27.31	-6.53	0.00	-287.5	0.00	287.53	1,081.84	257.58	576.00	521.40	2.64	-0.6	0.129
45.00	-25.69	-6.36	0.00	-254.9	0.00	254.87	1,044.48	248.69	536.92	485.83	3.31	-0.67	0.119
47.50	-24.89	-6.26	0.00	-239.0	0.00	238.96	1,025.80	244.24	517.89	468.51	3.66	-0.7	0.114
50.00	-24.09	-6.13	0.00	-223.3	0.00	223.32	1,007.12	239.79	499.21	451.52	4.04	-0.73	0.108
55.00	-22.50	-5.92	0.00	-192.7	0.00	192.69	969.76	230.90	462.88	418.46	4.83	-0.78	0.097
60.00	-20.79	-5.62	0.00	-163.1	0.00	163.07	932.41	222.00	427.91	386.66	5.67	-0.83	0.086
62.92	-19.87	-5.51	0.00	-146.7	0.00	146.69	910.61	216.81	408.15	368.69	6.19	-0.86	0.079
65.00	-19.13	-5.44	0.00	-135.2	0.00	135.20	895.05	213.11	394.32	356.11	6.57	-0.88	0.073
65.75	-18.87	-5.40	0.00	-131.1	0.00	131.12	664.45	162.40	305.24	269.50	6.71	-0.88	0.077
67.50	-18.35	-5.32	0.00	-121.7	0.00	121.67	658.11	160.06	296.53	263.05	7.04	-0.9	0.072
70.00	-17.23	-4.97	0.00	-108.4	0.00	108.37	648.89	156.72	284.30	253.91	7.51	-0.92	0.065
75.00	-15.75	-4.78	0.00	-83.5	0.00	83.53	629.88	150.05	260.62	235.88	8.49	-0.95	0.052
77.00	-15.02	-4.66	0.00	-74.0	0.00	73.97	619.01	147.38	251.44	227.65	8.90	-0.97	0.047
77.00	-15.02	-4.66	0.00	-74.0	0.00	73.97	619.01	147.38	251.44	227.65	8.90	-0.97	0.051
77.04	-15.01	-4.62	0.00	-73.8	0.00	73.78	618.79	147.33	251.26	227.48	8.90	-0.97	0.051
77.04	-15.01	-4.62	0.00	-73.8	0.00	73.78	618.79	147.33	251.26	227.48	8.90	-0.97	0.097
80.00	-11.29	-3.55	0.00	-60.1	0.00	60.10	602.20	143.38	237.97	215.39	9.51	-0.98	0.080
85.00	-10.40	-3.38	0.00	-42.3	0.00	42.34	574.18	136.71	216.35	195.71	10.57	-1.03	0.061
90.00	-5.71	-1.99	0.00	-25.4	0.00	25.45	546.16	130.04	195.76	176.97	11.66	-1.06	0.038
93.00	-5.25	-1.93	0.00	-19.5	0.00	19.48	529.35	126.04	183.90	166.19	12.34	-1.08	0.031
93.00	-5.25	-1.93	0.00	-19.5	0.00	19.48	529.35	126.04	183.90	166.19	12.34	-1.08	0.127
95.00	-5.11	-1.86	0.00	-15.6	0.00	15.62	518.15	123.37	176.19	159.18	12.79	-1.09	0.108
100.00	-3.45	-1.08	0.00	-6.3	0.00	6.33	459.24	137.77	149.89	150.79	13.96	-1.14	0.050
100.00	-3.45	-1.08	0.00	-6.3	0.00	6.33	490.13	116.70	157.66	142.33	13.96	-1.14	0.052
102.00	-1.32	-0.56	0.00	-4.2	0.00	4.18	459.24	137.77	149.89	150.79	14.45	-1.16	0.031
105.00	-1.16	-0.50	0.00	-2.5	0.00	2.51	459.24	137.77	149.89	150.79	15.18	-1.17	0.019
110.00	0.00	-0.48	0.00	0.0	0.00	0.00	459.24	137.77	149.89	150.79	16.40	-1.17	0.000

EQUIVALENT LATERAL FORCES METHOD ANALYSIS
(Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period (S_S):	0.192
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.055
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.000
Site Coefficient F_a :	1.600
Site Coefficient F_v :	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.205
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.088
Seismic Response Coefficient (C_s):	0.030
Upper Limit C_s :	0.030
Lower Limit C_s :	0.030
Period based on Rayleigh Method (sec):	1.990
Redundancy Factor (ρ):	1.000
Seismic Force Distribution Exponent (k):	1.750
Total Unfactored Dead Load:	40.870 k
Seismic Base Shear (E):	1.230 k

1.2D + 1.0Ev + 1.0Eh Normal Seismic

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
34	107.5	270	955	0.016	20	335
33	103.5	162	536	0.009	11	201
32	101	135	428	0.007	9	168
31	97.5	340	1,015	0.017	21	422
30	94	138	387	0.007	8	172
29	91.5	466	1,243	0.021	26	578
28	87.5	841	2,075	0.035	43	1,043
27	82.5	886	1,972	0.033	41	1,099
26	78.52	609	1,245	0.021	26	756
25	77.02	11	22	0.000	0	14
24	76	581	1,120	0.019	23	721
23	72.5	1,459	2,593	0.044	54	1,811
22	68.75	745	1,207	0.020	25	924
21	66.625	523	802	0.014	17	649
20	65.375	264	392	0.007	8	328
19	63.9583	737	1,052	0.018	22	915
18	61.4583	914	1,217	0.021	25	1,134
17	57.5	1,578	1,871	0.032	39	1,958
16	52.5	1,589	1,607	0.027	33	1,972
15	48.75	799	710	0.012	15	991
14	46.25	802	650	0.011	13	995
13	42.5	1,612	1,127	0.019	23	2,000
12	37.5	1,623	912	0.015	19	2,014
11	33.915	708	334	0.006	7	878
10	31.415	1,117	461	0.008	10	1,386
9	29.665	266	99	0.002	2	330
8	27.165	1,420	454	0.008	9	1,762
7	22.5	1,650	380	0.006	8	2,047
6	19	663	114	0.002	2	823
5	16.5	998	134	0.002	3	1,238
4	13.5	1,002	94	0.002	2	1,243
3	11	670	44	0.001	1	832
2	7.5	1,683	57	0.001	1	2,089
1	2.5	1,695	8	0.000	0	2,103

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
DragonWave Horizon Compact	110	32	117	0.002	2	39
Generic 12" x 12" Junction Box	110	10	37	0.001	1	12
DragonWave A-ANT-23G-1-C	110	15	55	0.001	1	19
NextNet BTS-2500	110	105	387	0.006	8	130
Argus LLPX310R	110	86	316	0.005	7	106
Clearwire Side Arm	110	560	2,062	0.035	43	695
DragonWave A-ANT-11G-2.5-C	110	95	350	0.006	7	118
Small Platform with Handrails	102	2,000	6,453	0.109	134	2,482
CCI TPX-070821	100	45	140	0.002	3	56
Powerwave Allgon LGP21401	100	42	132	0.002	3	52
Raycap DC6-48-60-18-8F(32.8 lbs)	100	66	204	0.004	4	81
Ericsson RRUS-11 (50 lbs.)	100	150	468	0.008	10	186
Ericsson RRUS 32 B2	100	159	496	0.008	10	197
Ericsson RRUS-32 (77 lbs)	100	231	720	0.012	15	287
Powerwave Allgon 7770.00	100	105	327	0.006	7	130
Quintel QS66512-2	100	222	692	0.012	14	275
CCI OPA-65R-LCUU-H6	100	146	455	0.008	9	181
CCI OPA-65R-LCUU-H8 (92.7")	100	88	274	0.005	6	109
CCI TPA-65R-LCUUUU-H8	100	82	254	0.004	5	101
Ericsson Radio 4449 B71 B85A	90	225	583	0.010	12	279
Ericsson RRUS 4415 B25	90	138	358	0.006	7	171
Ericsson Air6449 B41	90	312	809	0.014	17	387
Ericsson AIR32 B66Aa/B2a	90	397	1,028	0.017	21	492
Ericsson Air 3246 B66	90	540	1,400	0.024	29	670
RFS APXVAARR24_43-U-NA20	90	384	995	0.017	21	476
Generic Flat Low Profile Platform	90	1,875	4,862	0.082	101	2,327
Commscope CBC78T-DS-43-2X	80	62	131	0.002	3	77
Samsung Outdoor CBRS 20W RRH –Clip-on Antenna	80	13	28	0.000	1	16
Samsung RT4401-48A	80	56	118	0.002	2	69
Samsung B5/B13 RRH-BR04C	80	211	445	0.008	9	262
Samsung B2/B66A RRH-BR049	80	253	534	0.009	11	314
Raycap RVZDC-6627-PF-48	80	32	68	0.001	1	40
Samsung MT6407-77A	80	245	517	0.009	11	304
Commscope JAHH-65B-R3B (63.3 lb)	80	380	802	0.014	17	471
Generic Round Low Profile Platform	80	1,875	3,958	0.067	82	2,327
Stand Offs	77	150	296	0.005	6	186
Scala 840 10212	75	7	13	0.000	0	8
Scala 840 10212	60	7	9	0.000	0	8
TX RX Systems 421-86A-10-18-12-N	75	15	28	0.000	1	19
Round Side Arms	70	300	501	0.008	10	372
RFS APXV18-206517S-C	70	79	132	0.002	3	98
Generic Radio/ODU	60	30	38	0.001	1	37
Stand Off	60	75	96	0.002	2	93
Radio Waves SP2-4.7	60	22	28	0.000	1	27
		40,874	59,033	1.000	1,226	50,723

0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
34	107.5	270	955	0.016	20	232
33	103.5	162	536	0.009	11	139
32	101	135	428	0.007	9	116
31	97.5	340	1,015	0.017	21	292
30	94	138	387	0.007	8	119
29	91.5	466	1,243	0.021	26	400
28	87.5	841	2,075	0.035	43	722
27	82.5	886	1,972	0.033	41	761
26	78.52	609	1,245	0.021	26	523
25	77.02	11	22	0.000	0	9
24	76	581	1,120	0.019	23	499
23	72.5	1,459	2,593	0.044	54	1,253

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
22	68.75	745	1,207	0.020	25	640
21	66.625	523	802	0.014	17	449
20	65.375	264	392	0.007	8	227
19	63.9583	737	1,052	0.018	22	633
18	61.4583	914	1,217	0.021	25	785
17	57.5	1,578	1,871	0.032	39	1,356
16	52.5	1,589	1,607	0.027	33	1,365
15	48.75	799	710	0.012	15	686
14	46.25	802	650	0.011	13	689
13	42.5	1,612	1,127	0.019	23	1,385
12	37.5	1,623	912	0.015	19	1,394
11	33.915	708	334	0.006	7	608
10	31.415	1,117	461	0.008	10	960
9	29.665	266	99	0.002	2	228
8	27.165	1,420	454	0.008	9	1,219
7	22.5	1,650	380	0.006	8	1,417
6	19	663	114	0.002	2	570
5	16.5	998	134	0.002	3	857
4	13.5	1,002	94	0.002	2	861
3	11	670	44	0.001	1	576
2	7.5	1,683	57	0.001	1	1,446
1	2.5	1,695	8	0.000	0	1,456
DragonWave Horizon Compact	110	32	117	0.002	2	27
Generic 12" x 12" Junction Box	110	10	37	0.001	1	9
DragonWave A-ANT-23G-1-C	110	15	55	0.001	1	13
NextNet BTS-2500	110	105	387	0.006	8	90
Argus LLPX310R	110	86	316	0.005	7	74
Clearwire Side Arm	110	560	2,062	0.035	43	481
DragonWave A-ANT-11G-2.5-C	110	95	350	0.006	7	82
Small Platform with Handrails	102	2,000	6,453	0.109	134	1,718
CCI TPX-070821	100	45	140	0.002	3	39
Powerwave Allgon LGP21401	100	42	132	0.002	3	36
Raycap DC6-48-60-18-8F(32.8 lbs)	100	66	204	0.004	4	56
Ericsson RRUS-11 (50 lbs.)	100	150	468	0.008	10	129
Ericsson RRUS 32 B2	100	159	496	0.008	10	137
Ericsson RRUS-32 (77 lbs)	100	231	720	0.012	15	198
Powerwave Allgon 7770.00	100	105	327	0.006	7	90
Quintel QS66512-2	100	222	692	0.012	14	191
CCI OPA-65R-LCUU-H6	100	146	455	0.008	9	125
CCI OPA-65R-LCUU-H8 (92.7")	100	88	274	0.005	6	76
CCI TPA-65R-LCUUUU-H8	100	82	254	0.004	5	70
Ericsson Radio 4449 B71 B85A	90	225	583	0.010	12	193
Ericsson RRUS 4415 B25	90	138	358	0.006	7	119
Ericsson Air6449 B41	90	312	809	0.014	17	268
Ericsson AIR32 B66A/B2a	90	397	1,028	0.017	21	341
Ericsson Air 3246 B66	90	540	1,400	0.024	29	464
RFS APXVAARR24_43-U-NA20	90	384	995	0.017	21	330
Generic Flat Low Profile Platform	90	1,875	4,862	0.082	101	1,611
Commscope CBC78T-DS-43-2X	80	62	131	0.002	3	53
Samsung Outdoor CBRS 20W RRH –Clip-on Antenna	80	13	28	0.000	1	11
Samsung RT4401-48A	80	56	118	0.002	2	48
Samsung B5/B13 RRH-BR04C	80	211	445	0.008	9	181
Samsung B2/B66A RRH-BR049	80	253	534	0.009	11	218
Raycap RVZDC-6627-PF-48	80	32	68	0.001	1	27
Samsung MT6407-77A	80	245	517	0.009	11	210
Commscope JAHH-65B-R3B (63.3 lb)	80	380	802	0.014	17	326
Generic Round Low Profile Platform	80	1,875	3,958	0.067	82	1,611
Stand Offs	77	150	296	0.005	6	129
Scala 840 10212	75	7	13	0.000	0	6
Scala 840 10212	60	7	9	0.000	0	6
TX RX Systems 421-86A-10-18-12-N	75	15	28	0.000	1	13
Round Side Arms	70	300	501	0.008	10	258
RFS APXV18-206517S-C	70	79	132	0.002	3	68
Generic Radio/ODU	60	30	38	0.001	1	26
Stand Off	60	75	96	0.002	2	64
Radio Waves SP2-4.7	60	22	28	0.000	1	19
		40,874	59,033	1.000	1,226	35,113

1.2D + 1.0Ev + 1.0Eh Normal Seismic

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-48.62	-1.23	0.00	-103.77	0.00	103.77	1,564.13	420.30	1,180	948.21	0.00	0.00	0.04
5.00	-46.53	-1.24	0.00	-97.61	0.00	97.61	1,541.15	408.74	1,116	908.36	0.01	-0.01	0.04
10.00	-45.70	-1.25	0.00	-91.40	0.00	91.40	1,517.04	397.17	1,053	868.64	0.03	-0.03	0.04
12.00	-44.46	-1.25	0.00	-88.91	0.00	88.91	1,507.08	392.55	1,029	852.79	0.04	-0.03	0.04
12.00	-44.46	-1.25	0.00	-88.91	0.00	88.91	1,507.08	392.55	1,029	852.79	0.04	-0.03	0.04
15.00	-43.22	-1.25	0.00	-85.15	0.00	85.15	1,491.79	385.61	993	829.09	0.07	-0.04	0.04
18.00	-42.39	-1.26	0.00	-81.39	0.00	81.39	1,476.10	378.67	958	805.48	0.10	-0.05	0.03
18.00	-42.39	-1.26	0.00	-81.39	0.00	81.39	1,476.10	378.67	958	805.48	0.10	-0.05	0.03
20.00	-40.35	-1.25	0.00	-78.87	0.00	78.87	1,465.41	374.05	934	789.78	0.12	-0.06	0.03
25.00	-38.58	-1.25	0.00	-72.61	0.00	72.61	1,437.89	362.48	877	750.77	0.19	-0.07	0.03
29.33	-38.26	-1.25	0.00	-67.19	0.00	67.19	1,413.15	352.47	830	717.27	0.26	-0.08	0.03
30.00	-36.87	-1.24	0.00	-66.35	0.00	66.35	1,409.24	350.92	822	712.11	0.27	-0.09	0.03
32.83	-35.99	-1.24	0.00	-62.83	0.00	62.83	1,130.12	270.34	634	571.92	0.33	-0.09	0.04
35.00	-33.98	-1.22	0.00	-60.14	0.00	60.14	1,119.20	266.48	616	558.23	0.37	-0.10	0.03
40.00	-31.98	-1.20	0.00	-54.02	0.00	54.02	1,081.84	257.58	576	521.40	0.48	-0.11	0.03
45.00	-30.98	-1.19	0.00	-48.00	0.00	48.00	1,044.48	248.69	537	485.83	0.60	-0.12	0.03
47.50	-29.99	-1.18	0.00	-45.02	0.00	45.02	1,025.80	244.24	518	468.51	0.67	-0.13	0.03
47.50	-29.99	-1.18	0.00	-45.02	0.00	45.02	1,025.80	244.24	518	468.51	0.67	-0.13	0.03
50.00	-28.02	-1.14	0.00	-42.08	0.00	42.08	1,007.12	239.79	499	451.52	0.74	-0.13	0.03
55.00	-26.06	-1.11	0.00	-36.36	0.00	36.36	969.76	230.90	463	418.46	0.88	-0.14	0.02
60.00	-24.76	-1.08	0.00	-30.83	0.00	30.83	932.41	222.00	428	386.66	1.04	-0.15	0.02
62.92	-23.84	-1.05	0.00	-27.69	0.00	27.69	910.61	216.81	408	368.69	1.13	-0.16	0.02
65.00	-23.52	-1.05	0.00	-25.50	0.00	25.50	895.05	213.11	394	356.11	1.20	-0.16	0.02
65.75	-22.87	-1.03	0.00	-24.71	0.00	24.71	664.45	162.40	305	269.50	1.23	-0.16	0.02
67.50	-21.94	-1.00	0.00	-22.91	0.00	22.91	658.11	160.06	297	263.05	1.29	-0.17	0.02
67.50	-21.94	-1.00	0.00	-22.91	0.00	22.91	658.11	160.06	297	263.05	1.29	-0.17	0.02
70.00	-19.66	-0.93	0.00	-20.41	0.00	20.41	648.89	156.72	284	253.91	1.38	-0.17	0.02
75.00	-18.91	-0.90	0.00	-15.76	0.00	15.76	629.88	150.05	261	235.88	1.56	-0.18	0.01
77.00	-18.71	-0.90	0.00	-13.95	0.00	13.95	619.01	147.38	251	227.65	1.63	-0.18	0.01
77.00	-18.71	-0.90	0.00	-13.95	0.00	13.95	619.01	147.38	251	227.65	1.63	-0.18	0.02
77.04	-17.96	-0.87	0.00	-13.92	0.00	13.92	618.79	147.33	251	227.48	1.64	-0.18	0.01
77.04	-17.96	-0.87	0.00	-13.92	0.00	13.92	618.79	147.33	251	227.48	1.64	-0.18	0.03
80.00	-12.98	-0.68	0.00	-11.34	0.00	11.34	602.20	143.38	238	215.39	1.75	-0.18	0.02
85.00	-11.94	-0.63	0.00	-7.95	0.00	7.95	574.18	136.71	216	195.71	1.94	-0.19	0.02
85.00	-11.94	-0.63	0.00	-7.95	0.00	7.95	574.18	136.71	216	195.71	1.94	-0.19	0.02
90.00	-6.56	-0.38	0.00	-4.79	0.00	4.79	546.16	130.04	196	176.97	2.15	-0.20	0.01
93.00	-6.38	-0.37	0.00	-3.65	0.00	3.65	529.35	126.04	184	166.19	2.27	-0.20	0.01
93.00	-6.38	-0.37	0.00	-3.65	0.00	3.65	529.35	126.04	184	166.19	2.27	-0.20	0.03
95.00	-5.96	-0.35	0.00	-2.90	0.00	2.90	518.15	123.37	176	159.18	2.36	-0.20	0.03
100.00	-4.14	-0.25	0.00	-1.15	0.00	1.15	490.13	116.70	158	142.33	2.58	-0.21	0.02
100.00	-4.14	-0.25	0.00	-1.15	0.00	1.15	459.24	137.77	150	150.79	2.58	-0.21	0.02
102.00	-1.46	-0.09	0.00	-0.65	0.00	0.65	459.24	137.77	150	150.79	2.66	-0.21	0.01
105.00	-1.12	-0.07	0.00	-0.37	0.00	0.37	459.24	137.77	150	150.79	2.80	-0.22	0.01
110.00	0.00	-0.07	0.00	0.00	0.00	0.00	459.24	137.77	150	150.79	3.03	-0.22	0.00

0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-33.66	-1.23	0.00	-102.22	0.00	102.22	1,564.13	420.30	1,180	948.21	0.00	0.00	0.04
5.00	-32.21	-1.24	0.00	-96.08	0.00	96.08	1,541.15	408.74	1,116	908.36	0.01	-0.01	0.04
10.00	-31.63	-1.24	0.00	-89.90	0.00	89.90	1,517.04	397.17	1,053	868.64	0.03	-0.03	0.03
12.00	-30.77	-1.24	0.00	-87.41	0.00	87.41	1,507.08	392.55	1,029	852.79	0.04	-0.03	0.03
12.00	-30.77	-1.24	0.00	-87.41	0.00	87.41	1,507.08	392.55	1,029	852.79	0.04	-0.03	0.03
15.00	-29.92	-1.24	0.00	-83.69	0.00	83.69	1,491.79	385.61	993	829.09	0.07	-0.04	0.03
18.00	-29.35	-1.24	0.00	-79.96	0.00	79.96	1,476.10	378.67	958	805.48	0.10	-0.05	0.03
18.00	-29.35	-1.24	0.00	-79.96	0.00	79.96	1,476.10	378.67	958	805.48	0.10	-0.05	0.03
20.00	-27.93	-1.24	0.00	-77.47	0.00	77.47	1,465.41	374.05	934	789.78	0.12	-0.06	0.03
25.00	-26.71	-1.23	0.00	-71.28	0.00	71.28	1,437.89	362.48	877	750.77	0.19	-0.07	0.03
29.33	-26.48	-1.24	0.00	-65.93	0.00	65.93	1,413.15	352.47	830	717.27	0.26	-0.08	0.03
30.00	-25.52	-1.23	0.00	-65.10	0.00	65.10	1,409.24	350.92	822	712.11	0.27	-0.08	0.03
32.83	-24.91	-1.22	0.00	-61.63	0.00	61.63	1,130.12	270.34	634	571.92	0.32	-0.09	0.03

ASSET: 302481, Hrfr - South
 CUSTOMER: VERIZON WIRELESS

CODE: ANSI/TIA-222-H
 ENG NO: 13685587_C3_03

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
35.00	-23.52	-1.20	0.00	-58.98	0.00	58.98	1,119.20	266.48	616	558.23	0.36	-0.10	0.03
40.00	-22.13	-1.18	0.00	-52.97	0.00	52.97	1,081.84	257.58	576	521.40	0.47	-0.11	0.03
45.00	-21.45	-1.17	0.00	-47.05	0.00	47.05	1,044.48	248.69	537	485.83	0.59	-0.12	0.03
47.50	-20.76	-1.16	0.00	-44.13	0.00	44.13	1,025.80	244.24	518	468.51	0.66	-0.13	0.03
47.50	-20.76	-1.16	0.00	-44.13	0.00	44.13	1,025.80	244.24	518	468.51	0.66	-0.13	0.03
50.00	-19.39	-1.12	0.00	-41.24	0.00	41.24	1,007.12	239.79	499	451.52	0.72	-0.13	0.02
55.00	-18.04	-1.08	0.00	-35.62	0.00	35.62	969.76	230.90	463	418.46	0.87	-0.14	0.02
60.00	-17.14	-1.05	0.00	-30.21	0.00	30.21	932.41	222.00	428	386.66	1.02	-0.15	0.02
62.92	-16.50	-1.03	0.00	-27.13	0.00	27.13	910.61	216.81	408	368.69	1.11	-0.16	0.02
65.00	-16.28	-1.02	0.00	-24.98	0.00	24.98	895.05	213.11	394	356.11	1.18	-0.16	0.02
65.75	-15.83	-1.01	0.00	-24.21	0.00	24.21	664.45	162.40	305	269.50	1.21	-0.16	0.02
67.50	-15.19	-0.98	0.00	-22.45	0.00	22.45	658.11	160.06	297	263.05	1.27	-0.16	0.02
67.50	-15.19	-0.98	0.00	-22.45	0.00	22.45	658.11	160.06	297	263.05	1.27	-0.16	0.02
70.00	-13.61	-0.91	0.00	-20.00	0.00	20.00	648.89	156.72	284	253.91	1.35	-0.17	0.02
75.00	-13.09	-0.89	0.00	-15.45	0.00	15.45	629.88	150.05	261	235.88	1.53	-0.17	0.01
77.00	-12.95	-0.88	0.00	-13.67	0.00	13.67	619.01	147.38	251	227.65	1.61	-0.18	0.01
77.00	-12.95	-0.88	0.00	-13.67	0.00	13.67	619.01	147.38	251	227.65	1.61	-0.18	0.01
77.04	-12.43	-0.85	0.00	-13.64	0.00	13.64	618.79	147.33	251	227.48	1.61	-0.18	0.01
77.04	-12.43	-0.85	0.00	-13.64	0.00	13.64	618.79	147.33	251	227.48	1.61	-0.18	0.02
80.00	-8.98	-0.66	0.00	-11.12	0.00	11.12	602.20	143.38	238	215.39	1.72	-0.18	0.02
85.00	-8.26	-0.62	0.00	-7.80	0.00	7.80	574.18	136.71	216	195.71	1.91	-0.19	0.01
85.00	-8.26	-0.62	0.00	-7.80	0.00	7.80	574.18	136.71	216	195.71	1.91	-0.19	0.01
90.00	-4.54	-0.37	0.00	-4.70	0.00	4.70	546.16	130.04	196	176.97	2.11	-0.19	0.01
93.00	-4.42	-0.37	0.00	-3.58	0.00	3.58	529.35	126.04	184	166.19	2.23	-0.20	0.01
93.00	-4.42	-0.37	0.00	-3.58	0.00	3.58	529.35	126.04	184	166.19	2.23	-0.20	0.03
95.00	-4.13	-0.34	0.00	-2.84	0.00	2.84	518.15	123.37	176	159.18	2.32	-0.20	0.03
100.00	-2.86	-0.24	0.00	-1.13	0.00	1.13	490.13	116.70	158	142.33	2.53	-0.21	0.01
100.00	-2.86	-0.24	0.00	-1.13	0.00	1.13	459.24	137.77	150	150.79	2.53	-0.21	0.01
102.00	-1.01	-0.09	0.00	-0.64	0.00	0.64	459.24	137.77	150	150.79	2.62	-0.21	0.01
105.00	-0.78	-0.07	0.00	-0.36	0.00	0.36	459.24	137.77	150	150.79	2.75	-0.21	0.00
110.00	0.00	-0.07	0.00	0.00	0.00	0.00	459.24	137.77	150	150.79	2.97	-0.21	0.00

ANALYSIS SUMMARY

Load Case	Reactions						Max Usage	
	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 Normal	33.56	0.00	48.95	0.00	0.00	2407.96	0.00	0.71
0.9D + 1.0W Normal	33.52	0.00	36.69	0.00	0.00	2379.06	0.00	0.70
1.2D + 1.0Di + 1.0Wi Normal	9.38	0.00	77.87	0.00	0.00	703.98	0.00	0.22
1.2D + 1.0Ev + 1.0Eh Normal	1.26	0.00	48.62	0.00	0.00	103.77	0.00	0.04
0.9D - 1.0Ev + 1.0Eh Normal	1.24	0.00	33.66	0.00	0.00	102.22	0.00	0.04
1.0D + 1.0W Service Normal	8.26	0.00	40.87	0.00	0.00	586.06	0.00	0.18

ADDITIONAL STEEL SUMMARY

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors				Max member		
			VQ/I	Shear Applied (kips)	Shear (phiVn) (kips)	Ratio	Pu (kip)	PhiPn (kip)	Ratio
0.00	12.00	SOL #20 All Thread Bar	320.5	12.5	16.8	0.7437	272.7	315.5	0.8644
0.00	18.00	PL PL 6 x 1.25	408.0	9.8	38.3	0.2558	347.8	395.0	0.8805
12.00	47.50	SOL #20 All Thread Bar	340.0	10.2	16.8	0.6068	248.6	330.5	0.7524
18.00	77.00	PL PL 6 x 1.25	424.6	10.2	38.3	0.2663	296.7	395.0	0.7511
47.50	67.50	SOL #20 All Thread Bar	355.9	10.7	16.8	0.6351	158.3	330.5	0.4789
67.50	77.04	SOL #20 All Thread Bar	367.8	11.0	16.8	0.6564	99.4	330.5	0.3009
77.00	85.00	PL PL 5" x 1.25"	697.0	16.7	38.3	0.4371	136.5	329.2	0.4147
85.00	93.00	PL PL 5" x 1.25"	558.1	13.4	38.3	0.35	85.9	329.2	0.2610

Elev From (ft)	Elev To (ft)	Member	Upper Termination Connectors				Lower Termination Connectors					
			MQ/I	phiVn (kips)	Num Reqd	Num Actual	Ratio	MQ/I (kips)	phiVn (kip)	Num Reqd	Num Actual	Ratio
0.00	12.00	SOL #20 All Thread Bar	0	12	0	0	0.0000	0	12	0	0	0.0000
0.00	18.00	PL PL 6 x 1.25	292.3516	38.27	8	8	0.9549	0	38.27	0	0	0.0000
12.00	47.50	SOL #20 All Thread Bar	0	12	0	0	0.0000	0	12	0	0	0.0000
18.00	77.00	PL PL 6 x 1.25	0	38.27	0	8	0.0000	0	38.27	0	0	0.0000
47.50	67.50	SOL #20 All Thread Bar	0	12	0	0	0.0000	0	12	0	0	0.0000
67.50	77.04	SOL #20 All Thread Bar	69.9954	12	6	7	0.8333	0	12	0	0	0.0000
77.00	85.00	PL PL 5" x 1.25"	0	38.27	0	8	0.0000	0	38.27	0	8	0.0000
85.00	93.00	PL PL 5" x 1.25"	0	38.27	0	8	0.0000	0	38.27	0	8	0.0000

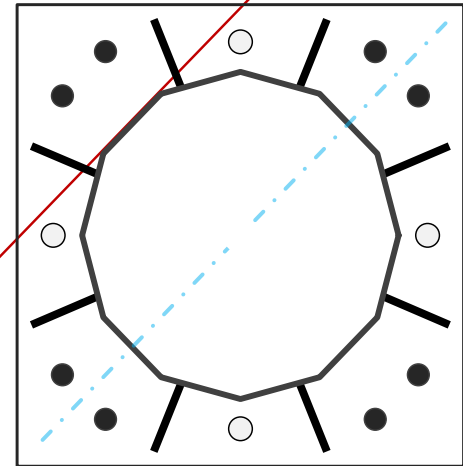
Base Plate & Anchor Rod Analysis

Pole Dimensions		
Number of Sides	12	-
Diameter	30	in
Thickness	1/4	in
Orientation Offset	0	°

Base Reactions		
Moment, Mu	2408.0	k-ft
Axial, Pu	49.0	k
Shear, Vu	33.6	k
Neutral Axis	45	°

Report Capacities		
Component	Capacity	Result
Base Plate	93%	Pass
Anchor Rods	60%	Pass
Dwyidag	87%	Pass

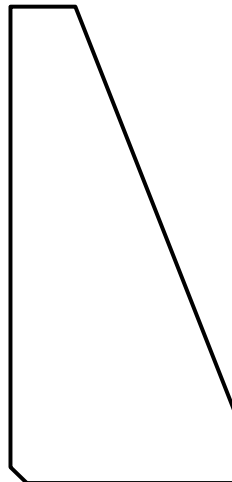
Base Plate		
Shape	Square	-
Width	44	in
Thickness	2	in
Grade	A572-60	
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Clip	0	in
Orientation Offset	0	°
Anchor Rod Detail	c	$\eta=0.55$
Clear Distance	N/A	in
Applied Moment, Mu	1930.9	k
Bending Stress, ϕMn	2085.6	k



Dwyidag Reinforcement		
Quantity	4	-
Bar Size	#20	in
Diameter, ϕ	2.5	in
Bracket Type	Angle	-
Circle	36.88	in
Orientation Offset	0	°
Applied Force, Pu	320.3	k
Dwyidag Bar, ϕPn	368.2	k

Original Anchor Rods		
Arrangement	Cluster	-
Quantity	8	-
Diameter, ϕ	2 1/4	in
Bolt Circle	44	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	6.0	in
Orientation Offset	0	°
Applied Force, Pu	143.4	k
Anchor Rods, ϕPn	243.6	k

Stiffeners		
Arrangement	Radial	-
Quantity	8	-
Height	15	in
Width	7	in
Effective Width	7.000	in
Thickness	3/4	in
Effective Thickness	0.750	in
Notch	0.5	in
Flat Edge	2	in
Grade	A572-50	
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Horizontal Weld	Fillet	
Horizontal Fillet Size	3/8	in
Bevel Depth	in	
Vertical Weld	Fillet	
Vertical Fillet Size	1/4	in
Weld Strength	70	ksi
Electrode Coefficient	1	-
Orientation Offset	°	
Vertical Weld, ϕRn	165.2	k
Horz. Weld, ϕRn	124.1	k
Ten. Capacity, ϕTn	213.9	k
Comp. Capacity, ϕPn	637.3	k



Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	33.6	1042.8	0.43
Anchor Rod Forces	33.6	1042.8	0.43
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	1365.1	0.57
Stiffener Forces	23.6	734.7	0.31

Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in ²	in ²	in ⁴	#	in ⁴
Pole	23.0996	1.9250	0.0403		2556.06
Bolt	3.9761	3.2477	0.8393	4.5	6294.24
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	4.9087	4.9087	1.9175		3345.94
Stiffener	4.8750	4.3875	85.7500		6093.22

Base Plate		
Shape	Square	-
Width, W	44	in
Thickness, t	2	in
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	75	ksi
Base Plate Chord	32.187	in
Detail Type	c	-
Detail Factor	0.55	-
Clear Distance	N/A	-

Anchor Rods		
Anchor Rod Quantity, N	8	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	44	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	143.4	k
Applied Shear, Vu	1.0	k
Compressive Capacity, φPn	243.6	k
Tensile Capacity, φRnt	0.589	OK
Interaction Capacity	0.596	OK

Base Plate Stiffeners		
Applied Axial Force, Pu	110.4	k
Applied Horizontal Force, Vu	1.48	k

Vertical Weld		
Vert.-to-Stiffener a=e _v /l	0.156	-
Spacing Ratio, k	0.050	-
Weld Coefficient, C	3.670	-
Compressive Capacity, φPn	165.2	k
Vert.-to-Plate a=e _v /l	0.333	-
Spacing Ratio, k	0.050	-
Weld Coefficient, C	2.940	-
Shear Capacity, φVn	132.3	k
P _u /φ _p P _n + V _u /φ _v V _n	0.679	OK

External Base Plate		
Chord Length AA	32.100	in
Additional AA	6.521	in
Section Modulus, Z	38.622	in ³
Applied Moment, Mu	1930.9	k-ft
Bending Capacity, φMn	2085.6	k-ft
Capacity, Mu/φMn	0.926	OK
Chord Length AB	31.038	in
Additional AB	5.206	in
Section Modulus, Z	36.244	in ³
Applied Moment, Mu	1778.5	k-ft
Bending Capacity, φMn	1957.2	k-ft
Capacity, Mu/φMn	0.909	OK
Bend Line Length	0.000	in
Additional Bend Line	#N/A	in
Section Modulus, Z	#N/A	in ³
Applied Moment, Mu	0.0	k-ft
Bending Capacity, φMn	#N/A	k-ft
Capacity, Mu/φMn		

Horizontal Weld		
Horz.-to-Stiffener a=e _h /l	0.167	-
Spacing Ratio, k	0.107	-
Weld Coefficient, C	3.940	-
Effective Fillet	0.375	in
Compressive Capacity, φPn	124.1	k
Horz.-to-Pole a=e _h /l	0.357	-
Spacing Ratio, k	0.107	-
Weld Coefficient, C	3.090	-
Shear Capacity, φVn	97.3	k
P _u /φ _p P _n + V _u /φ _v V _n	0.904	OK

Plate Tension		
Gross Cross Section	4.875	in ²
Net Cross Section	4.388	in ²
Tensile Capacity, φTn	213.9	k
Capacity, Tu/φTn	0.258	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		

Dywidag Reinforcement		
Dywidag Quantity, N	4	-
Dywidag Diameter, d	2.5	in
Bolt Circle, BC	36.88	in
Yield Strength, Fy	80	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	320.3	k
Compressive Capacity, φPn	368.2	k
Capacity, Pu/φPn	0.870	OK

Plate Compression		
Radius of Gyration	0.217	in ³
kl/r	41.57	-
4.71 √(E/Fy)	113.43	-
Buckling Stress(F _e)	165.6	-
Crit. Buckling Stress(F _{cr})	145.3	ksi
Compressive Capacity, φPn	637.3	k
Capacity, Pu/φPn	0.087	OK

Flange Plate Analysis

Flange Plate	Plate Type	Flange	100 ft
	Pole Diameter	12.75	in
	Pole Thickness	0.375	in
	Plate Diameter	28.5	in
	Plate Thickness	1.5	in
	Plate Fy	36	ksi
	Weld Length	0.25	in
	f _s Resistance	60.83	k-in
	Applied	21.57	k-in

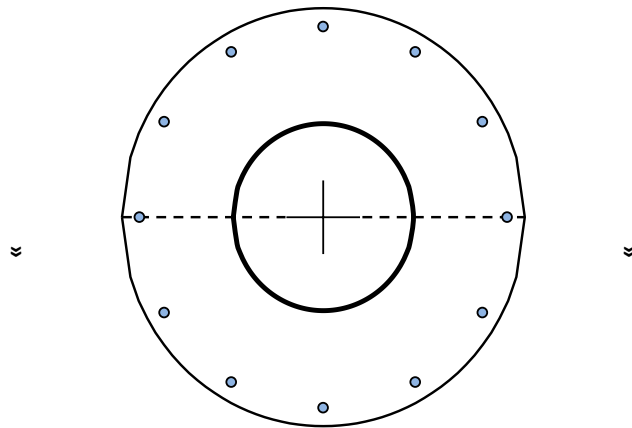
Code Rev.	H
Moment	26.2 k-ft
Axial	3.8 k

Date	8/9/2021
Engineer	RC
Site #	302481
Carrier	VERIZON WIRELESS

Required Flange Thickness:
0.89 in OK

Stiffeners	#	
------------	---	--

Bolts	#	12	
	Bolt Circle (R)adial / (S)quare	26	in
	Bolt Gap	R	
	Diameter	6	in
	Hole Diameter	1	in
	Type	1.125	in
	Fy	A325	
	Fu	92	ksi
	f _s Resistance	120	ksi
	Applied	54.52	k
	3.71	k	



Reinforcement	#	
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Plate Stress Ratio:
35% Pass

Bolt Stress Ratio:
7% Pass

Extra Bolts	#	
-------------	---	--

Site Name:	HRFR - South
Site Number:	302481
Engineering Number:	13685587_C3_03
Engineer:	RC
Date:	8/9/2021

Design Base Loads (Factored) - Design per TIA-222-G Standard

Moment (Overturning) (M_u):	2408.0 k-ft
Shear/Leg (V_u):	33.6 k
Compression/Leg (P_u):	49.0 k
Uplift/Leg (T_u):	0.0 k
Tower Type (GT / SST / MP):	MP
Length of Block:	9.0 ft
Width of Block:	13.0 ft
Thickness of Block:	6.0 ft
Block Height Above Ground:	1.0 ft
Depth Below Ground Surface to Water Table (w):	30.0 ft
Unit Weight of Concrete:	150.0 pcf
Unit Weight of Soil:	162.2 pcf
Unit Weight of Water:	62.4 pcf
Ultimate Compressive Bearing Pressure:	15000 psf
Capacity Increase (Due to Transient Loads):	1.00
Pullout Angle:	45.0 degrees
Rod Diameter:	1.00 in
Rod Ultimate Strength:	71 ksi
Rod Net Area:	0.85 in ²
Number of Rods:	18
Diameter of Cored Hole:	2.50 in
Ultimate Grout / Rock Interface Bond Strength:	100 psi
Ultimate Grout / Rock Anchor Interface Bond Strength:	400 psi
Overall Rod Embedment Length:	192 in
Rod Exposure Above Lock Off Nut in Foundation:	72 in
Rod Embedment Square:	78 in
Free Stress Length:	0 in
Soil / Concrete Friction Coefficient:	0.45
Lock Off Load:	60 k
Rock Anchor Design Plastic or Elastic:	Elastic
Ignore Pullout Weight Resistance (Y/N):	N
Weight of Concrete (Buoyancy Effect Considered):	105.3 k
Compressive Bearing Resistance:	954.3 k
Total Rock / Grout Bond Strength:	2714.3 k
Total Grout / Rod Bond Strength:	4342.9 k
Total Rod Mechanical Strength:	1080.0 k
Pullout Weight / Rod:	84.3 k
Rock / Grout Bond Strength / Rod:	150.8 k
Grout / Rod Bond Strength / Rod:	241.3 k
Rod Mechanical Strength / Rod:	60.0 k
Soil Strength Reduction Factor (ϕ_s):	0.75
Factored Nominal Moment Capacity per Leg ($\phi_s M_n$):	3146.5 k
Factored Nominal Uplift Capacity per Leg ($\phi_s T_n$):	925.7 k
Factored Nominal Compressive Capacity per Leg ($\phi_s P_n$):	715.7 k
Factored Nominal Shear Capacity per Leg ($\phi_s V_n$):	486.0 k
M_u :	2609.3 k-ft
T_u :	0.0 k
P_u :	39.9 k
V_u :	33.6 k
$T_u/\phi_s T_n + M_u/\phi_s M_n$:	0.83 Result: OK

$P_u/\phi_s P_n$: 0.06 Result: OK

$V_u/\phi_s V_n$: 0.07 Result: OK

Caisson Strength Capacity

Concrete Compressive Strength (f'_c):	3000 psi
Vertical Steel Rebar Size #:	11
Vertical Steel Rebar Area:	1.56 in ²
# of Vertical Steel Rebars:	52 Minimum # of vertical rebar met
Vertical Steel Rebar Yield Strength (F_y):	60 ksi
Horizontal Tie / Stirrup Size #:	4
Horizontal Tie / Stirrup Area:	0.20 in ²
Horizontal Tie / Stirrup Spacing:	12.0 in
Horizontal Tie / Stirrup Steel Yield Strength (F_y):	60 ksi
Anchor Rod Nut Diameter:	2.02 in
Rebar Cage Diameter:	108.0 in
Strength Bending/Tension Reduction Factor (ϕ_B):	0.90 ACI318-05 - 9.3.2.1
Strength Shear Reduction Factor (ϕ_V):	0.75 ACI318-05 - 9.3.2.3
Strength Compression/Bearing Reduction Factor ($\phi_{P/B}$):	0.65 ACI318-05 - 9.3.2.2
Steel Elastic Modulus:	29000 ksi
Design Moment (M_u):	2609.3 k-ft
Factored Nominal Moment Capacity ($\phi_B M_n$):	19276.7 k-ft - ACI318-05 - 10.2
$M_u/\phi_B M_n$:	0.14 Result: OK
Design Shear (V_u):	302.7 k
Factored Nominal Shear Capacity ($\phi_V V_n$):	603.4 k - ACI318-05 - 11.3.1.1 or 11.5.7.2
$V_u/\phi_V V_n$:	0.50 Result: OK
Design Tension (T_u):	0.0 k
Factored Nominal Tension Capacity ($\phi_T T_n$):	4380.5 k - ACI318-05 - 10.2
$T_u/\phi_T T_n$:	0.00 Result: OK
Design Compression (P_u):	49.0 k
Factored Nominal Compression Capacity ($\phi_P P_n$):	14164.4 k - ACI318-05 - 10.3.6.2
$P_u/\phi_P P_n$:	0.00 Result: OK

Site Name: **HARTFORD S 3 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	636	2544	80	0.0143	0.5007	2.86%
VZW Cellular	869	4	788	3153	80	0.0177	0.5793	3.06%
VZW PCS	1970	4	1630	6520	80	0.0366	1.0000	3.66%
VZW AWS	2110	4	1672	6688	80	0.0376	1.0000	3.76%
VZW CBAND	3730	4	6531	26124	82	0.1397	1.0000	13.97%
VZW CBRS	3625	4	12	48	78.5	0.0003	1.0000	0.03%

Total Percentage of Maximum Permissible Exposure 27.34%

*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

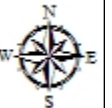
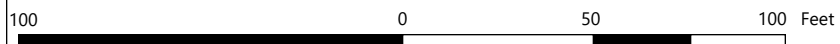
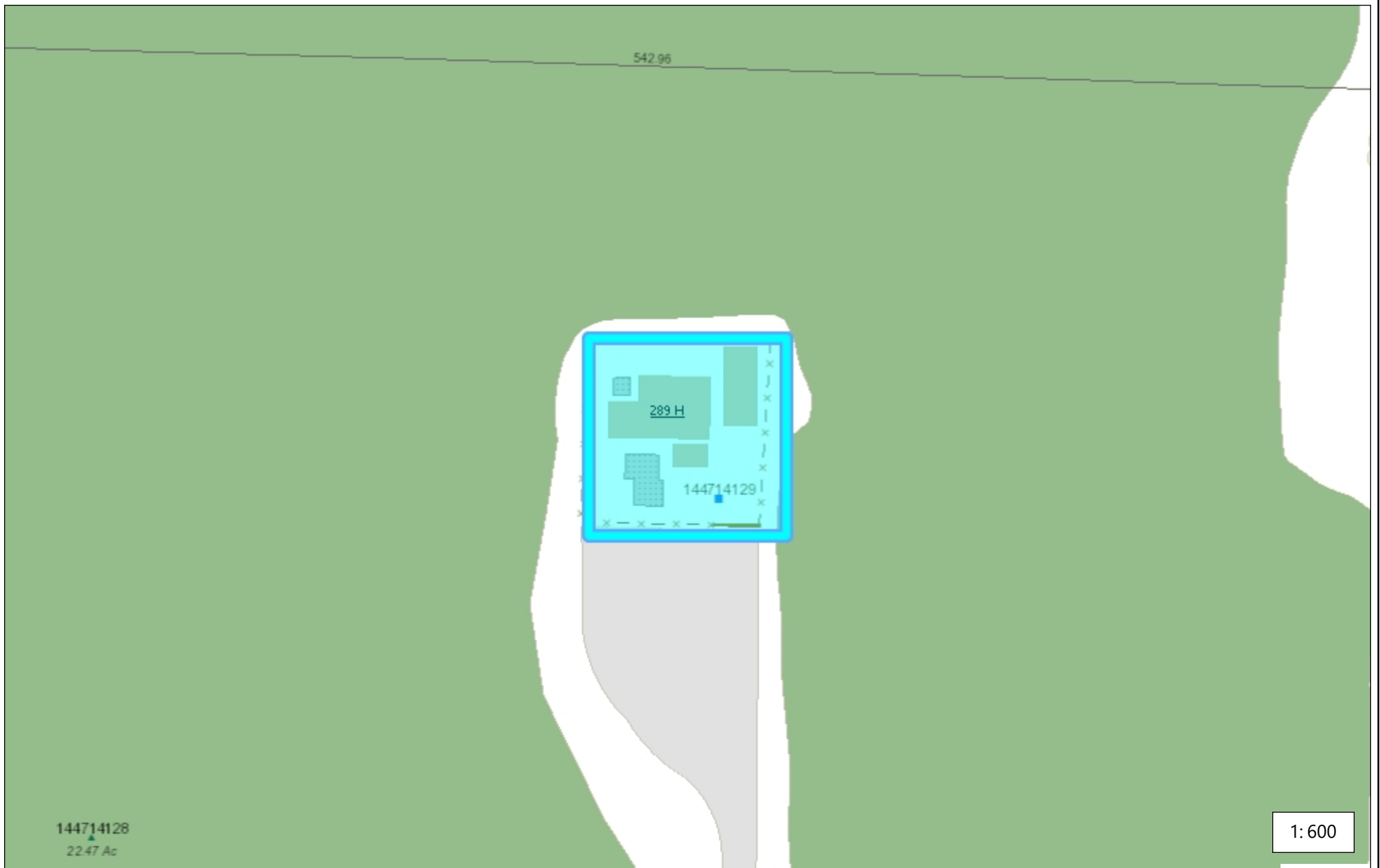
mW/cm² = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used.



City of Hartford - Property Map



Unofficial Property Record Card - Hartford, CT

General Property Data

Parcel ID 144-714-129 Prior Parcel ID Property Owner SPRINGWHICH CELLULAR TOWER HOLDINGS LLC Mailing Address 909 CHESTNUT, RM 36-M-1 AT & T MOBILITY LLC City ST LOUIS Mailing State MO Zip 63101 ParcelZoning CAMP	Account Number Property Location 289-H MOUNTAIN ST Property Use OTHER UTILITY Most Recent Sale Date 7/7/2003 Legal Reference 04797-0166 Grantor METROPOLITAN DISTRICT BUREAU OF Sale Price 0 Land Area 0.000 acres
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Current Property Assessment

Card 1 Value	Building Value 18,410	Xtra Features Value 0	Land Value 0	Total Value 18,410
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Building Description

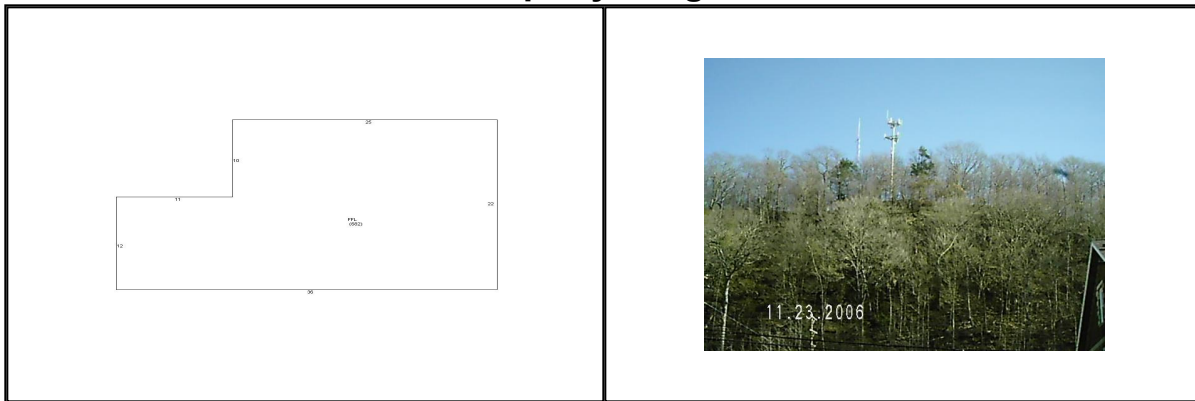
Building Style MFG/PROCESS # of Living Units 0 Year Built 1984 Building Grade Good Building Condition N/A Finished Area (SF) 682 Number Rooms 0 # of 3/4 Baths 0	Foundation Type Concrete Frame Type Wood Frame Roof Structure FLAT Roof Cover Membrane Siding Brick Interior Walls DRYWALL # of Bedrooms 0 # of 1/2 Baths 0	Flooring Type COMBINATION Basement Floor N/A Heating Type N/A Heating Fuel N/A Air Conditioning 0% # of Bsmt Garages 0 # of Full Baths 0 # of Other Fixtures 0
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Legal Description

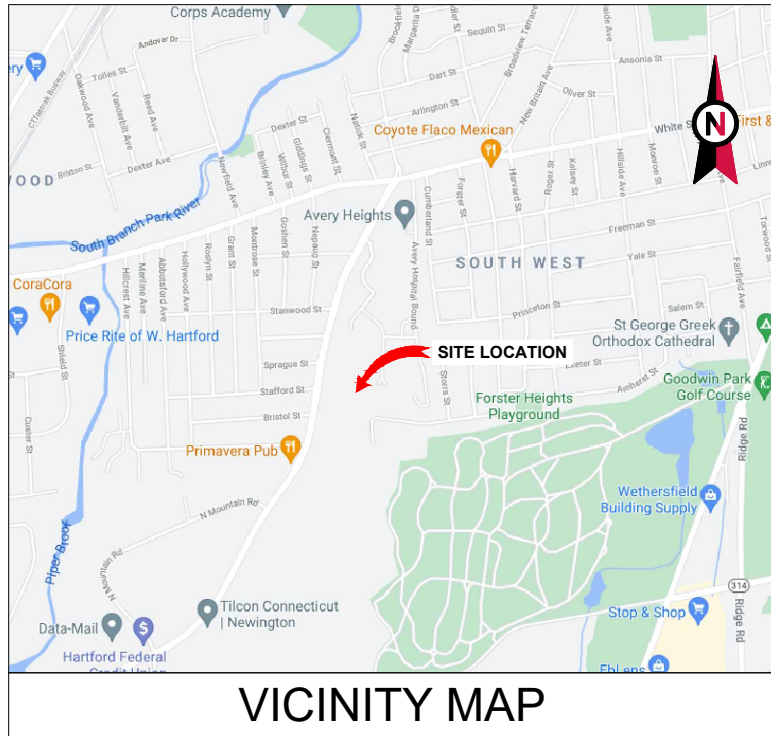
Narrative Description of Property

This property contains 0.000 acres of land mainly classified as OTHER UTILITY with a(n) MFG/PROCESS style building, built about 1984 , having Brick exterior and Membrane roof cover, with 0 commercial unit(s) and 0 residential unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images



Disclaimer: This information is believed to be correct but is subject to change and is not warranted.



VICINITY MAP



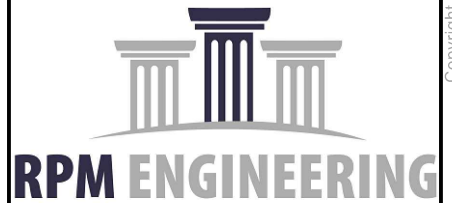
AMERICAN TOWER®

ATC SITE NAME: HRFR - SOUTH
 ATC SITE NUMBER: 302481
 VERIZON PACE NUMBERS: N/A
 VERIZON SITE ID: 1875555
 VERIZON FA CODE: N/A
 VERIZON SITE NAME: HARTFORD S 3 CT
 SITE ADDRESS: 289H MOUNTAIN ST
 HARTFORD, CT 06106



LOCATION MAP

AMERICAN TOWER®
ATC TOWER SERVICES
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: C01229-00



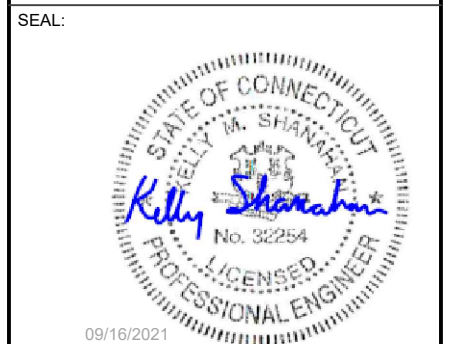
REV.	DESCRIPTION	BY	DATE
A	PRELIM	DL	06/11/21
0	FINAL	TM	09/16/21

ATC SITE NUMBER:
302481

ATC SITE NAME:
HRFR - SOUTH

VERIZON WIRELESS SITE NAME:
HAVERHILL_S_MA

SITE ADDRESS:
 289H MOUNTAIN ST
 HARTFORD, CT 06106



DATE DRAWN:	06/11/21
ATC JOB NO:	13685587
CUSTOMER ID:	1875555
CUSTOMER #:	467278

TITLE SHEET

SHEET NUMBER:
G-001

REVISION:
0

**VERIZON WIRELESS
 ANTENNA AMENDMENT PLAN**

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX				
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 BUILDING CODE (IBC) 2. 2014 NATIONAL ELECTRIC CODE (NEC) 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> 289H MOUNTAIN ST HARTFORD, CT 06106 COUNTY: HARTFORD COUNTY <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41.726583 / 41° 43' 35.6988" N LONGITUDE: -72.708167 / 72° 42' 29.4012" W GROUND ELEVATION: 286' AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: <u>TOWER WORK:</u> REMOVE: (12) RRU(S), (2) OVP(S), (2) HYBRID CABLE(S) INSTALL: (6) ANTENNA(S), (9) RRU(S), (3) DIPLEXER(S), (1) OVP(S), (2) HYBRID CABLE(S) EXISTING: (6) ANTENNA(S), (3) BSAMNT-SBS-2-3 <u>GROUND WORK:</u> N/A	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
	<u>PROJECT TEAM</u> <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 <u>ENGINEER:</u> RPM ENGINEERING LLC 139 E CHESTNUT STREET COATESVILLE, PA 19320 <u>PROPERTY OWNER:</u> SPRINGWHICH CELLULAR TOWER HOLDINGS LLC 909 CHESTNUT, RM 36-M-1 ST. LOUIS, MO 63101	<u>PROJECT NOTES</u> 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.	G-001	TITLE SHEET	0	9/16/2021	TM
<u>UTILITY COMPANIES</u> POWER COMPANY: N/A PHONE: (-) TELEPHONE COMPANY: N/A PHONE: (-)	<u>PROJECT LOCATION DIRECTIONS</u> FROM HARTFORD TAKE MAPLE AVENUE SOUTH TO WHITE STREET. TURN RIGHT ONTO WHITE STREET AND FOLLOW TO MOUNTAIN ROAD AND TURN LEFT. FOLLOW MOUNTAIN ROAD TO THE END WHERE THE ACCESS GATE WILL BE FOR THE ACCESS ROAD (METROPOLITAN DISTRICT COMMISSION SIGN ON GATE)	G-002	GENERAL NOTES	0	9/16/2021	TM	
	<u>PROJECT LOCATION DIRECTIONS</u> FROM HARTFORD TAKE MAPLE AVENUE SOUTH TO WHITE STREET. TURN RIGHT ONTO WHITE STREET AND FOLLOW TO MOUNTAIN ROAD AND TURN LEFT. FOLLOW MOUNTAIN ROAD TO THE END WHERE THE ACCESS GATE WILL BE FOR THE ACCESS ROAD (METROPOLITAN DISTRICT COMMISSION SIGN ON GATE)	C-101	DETAILED SITE PLAN	0	9/16/2021	TM	
		C-102	DETAILED SHELTER PLAN	0	9/16/2021	TM	
		C-201	TOWER ELEVATION	0	9/16/2021	TM	
		C-401	RF SCHEDULE AND ANTENNA INSTALLATION	0	9/16/2021	TM	
		C-501	CONSTRUCTION DETAILS	0	9/16/2021	TM	
		E-501	GROUNDING DETAILS	0	9/16/2021	TM	
		R-601	SUPPLEMENTAL				
		R-602	SUPPLEMENTAL				

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GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, VERIZON WIRELESS "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 WIRELESS 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 WIRELESS REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON WIRELESS REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON WIRELESS 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 WIRELESS 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 WIRELESS 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 WIRELESS 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 WIRELESS 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 WIRELESS REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON WIRELESS SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON WIRELESS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON WIRELESS 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 WIRELESS 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 NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE 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 WIRELESS REP. ANY WORK FOUND BY THE VERIZON WIRELESS 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 WIRELESS FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE VERIZON WIRELESS 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 WIRELESS 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 WIRELESS OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION

ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
 - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY VERIZON WIRELESS UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
 - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND VERIZON WIRELESS 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 GREEDED 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.



REV.	DESCRIPTION	BY	DATE
A	PRELIM	DL	06/11/21
0	FINAL	TM	09/16/21

ATC SITE NUMBER:
302481

ATC SITE NAME:
HRFR - SOUTH

VERIZON WIRELESS SITE NAME:
HAVERHILL_S_MA

SITE ADDRESS:
289H MOUNTAIN ST
HARTFORD, CT 06106



DATE DRAWN:	06/11/21
ATC JOB NO:	13685587
CUSTOMER ID:	1875555
CUSTOMER #:	467278

GENERAL NOTES

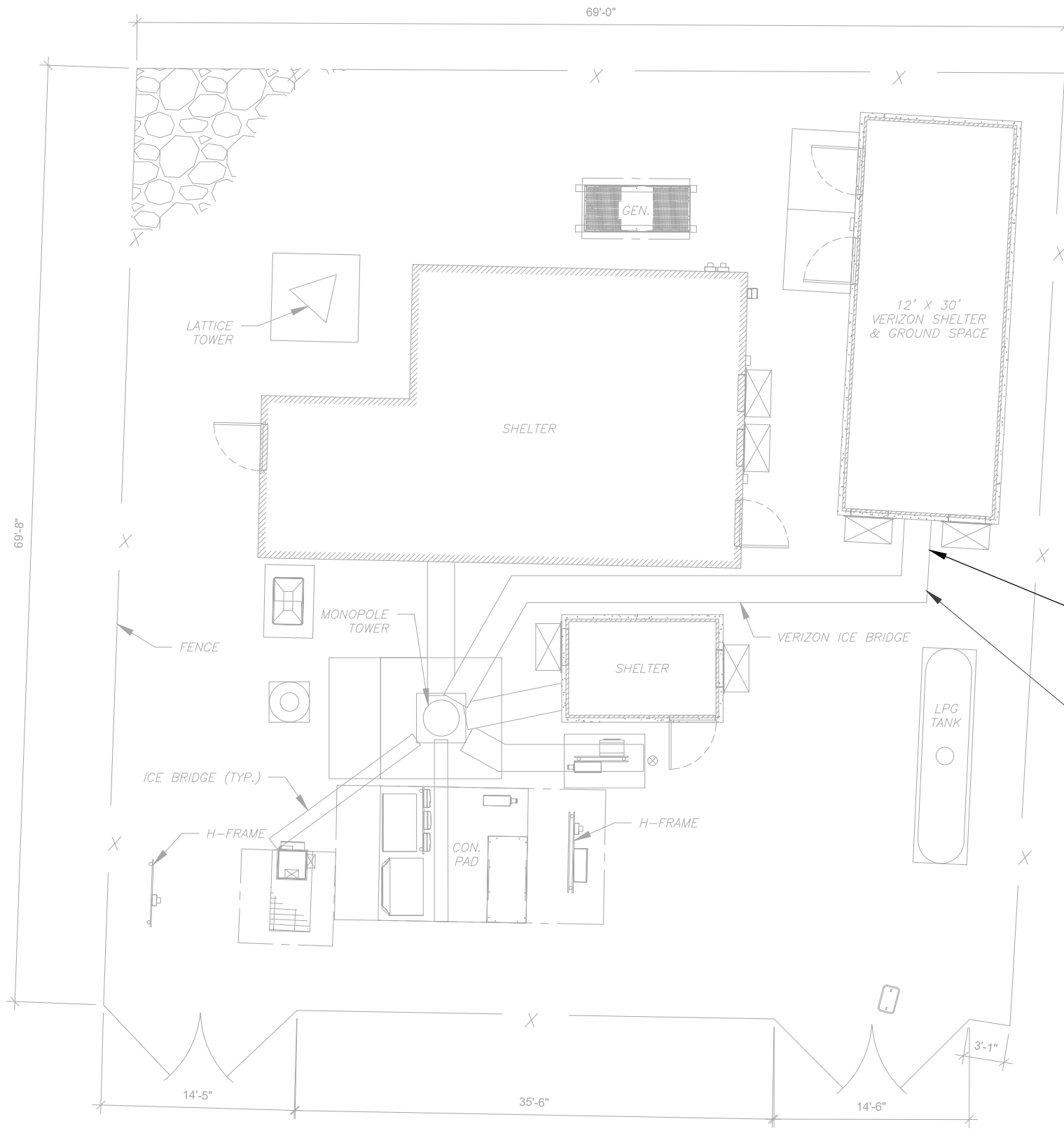
SHEET NUMBER: G-002	REVISION: B
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SITE PLAN NOTES:

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



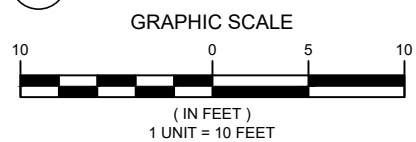
PROPOSED VERIZON MOBILITY
(2) 6X12 LI HYBRID CABLES
(ROUTED PER PROPOSED CABLE
LENGTH NOTE 2)
(REFER TO PROPOSED CABLE
LENGTH NOTE ON THIS PAGE)

EXISTING VERIZON
(2) 6X12 HYBRID CABLES
(TO REMOVE)

PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **150'**. 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. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).

1 DETAILED SITE PLAN



AMERICAN TOWER®
ATC TOWER SERVICES
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: C01229-00

RPM ENGINEERING

REV.	DESCRIPTION	BY	DATE
A	PRELIM	DL	06/11/21
0	FINAL	TM	09/16/21

ATC SITE NUMBER:
302481

ATC SITE NAME:
HRFR - SOUTH

VERIZON WIRELESS SITE NAME:
HAVERHILL_S_MA

SITE ADDRESS:
289H MOUNTAIN ST
HARTFORD, CT 06106

SEAL:

DATE DRAWN:	06/11/21
ATC JOB NO:	13685587
CUSTOMER ID:	1875555
CUSTOMER #:	467278

DETAILED SITE PLAN	
SHEET NUMBER:	REVISION:
C-101	0

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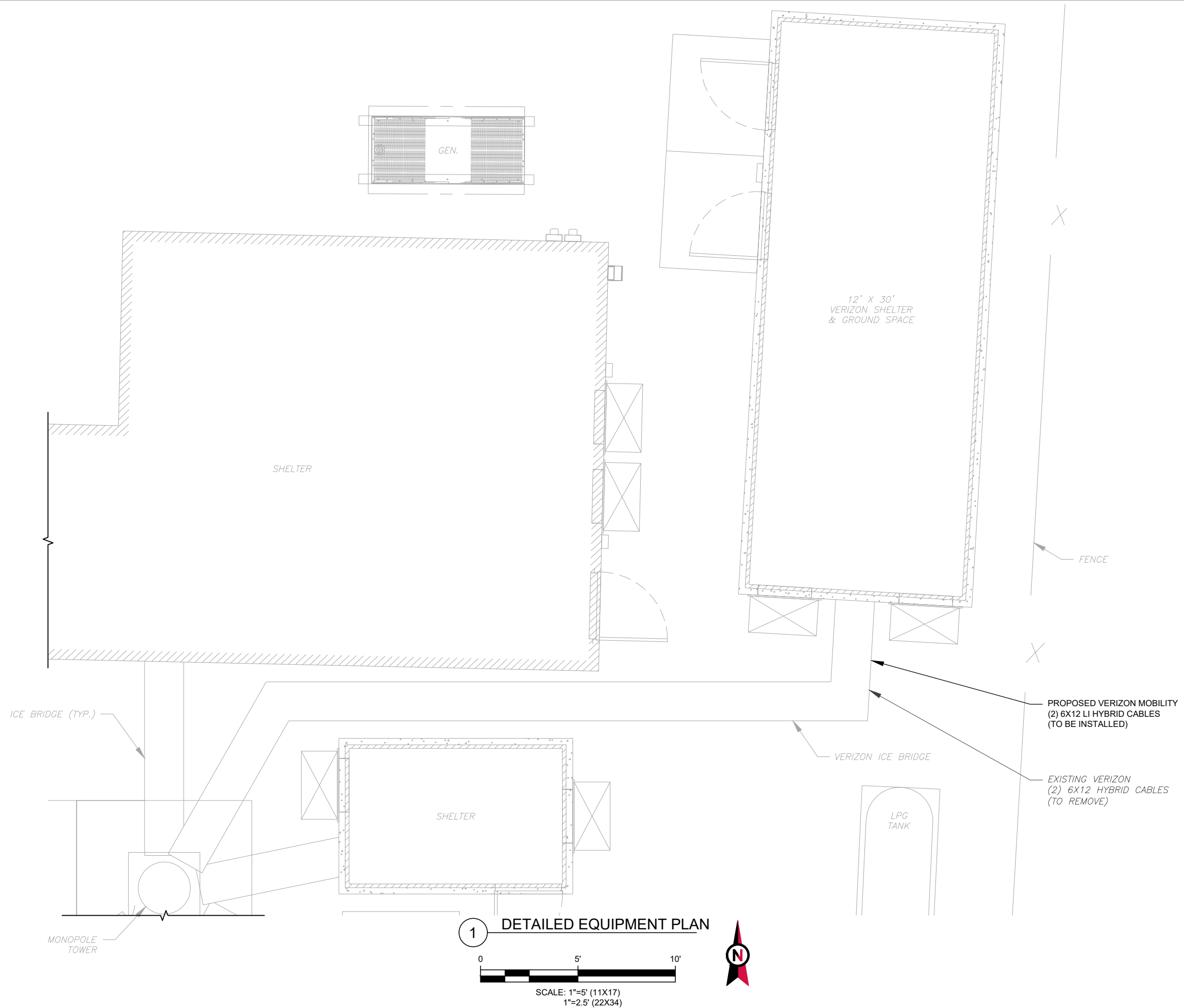
SEAL:



DATE DRAWN:	06/11/21
ATC JOB NO:	13685587
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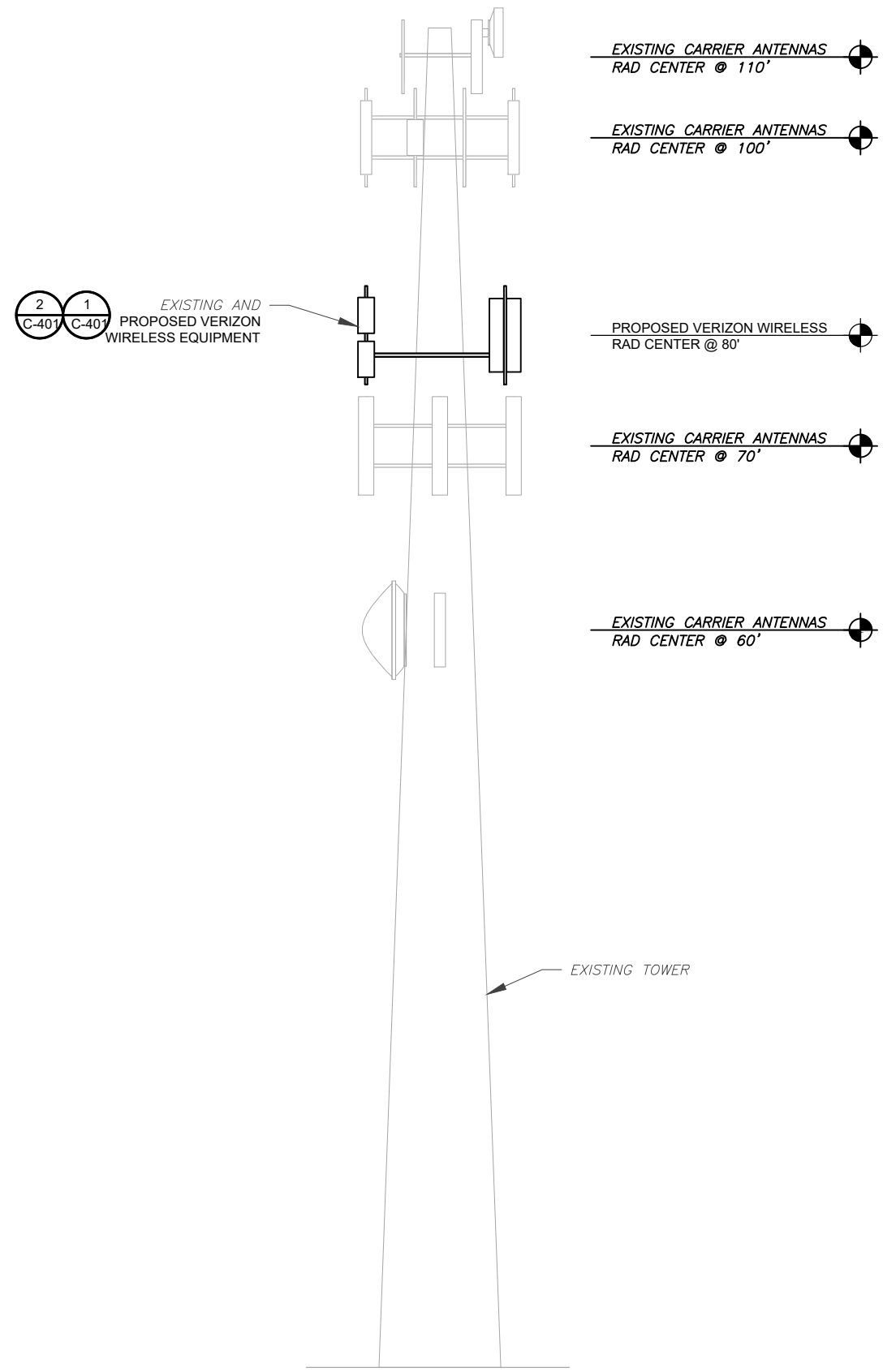
DETAILED EQUIPMENT LAYOUT

SHEET NUMBER:	REVISION:
C-102	0



1 DETAILED EQUIPMENT PLAN
 SCALE: 1"=5' (11X17)
 1"=2.5' (22X34)

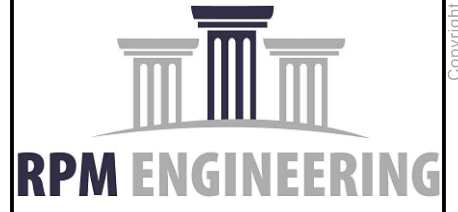
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ATC IS ANALYZING THE ANTENNA MOUNT UNDER A SEPARATE PROJECT. CONSTRUCTION IS NOT TO PROCEED UNTIL THE MOUNT ANALYSIS IS COMPLETE AND INDICATES THE ADDITIONAL LOADING DOES NOT OVERSTRESS THE MOUNT

- TOWER NOTE:**
- 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.
 - 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.
 - 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.
 - TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)

1 TOWER ELEVATION
SCALE: N.T.S.



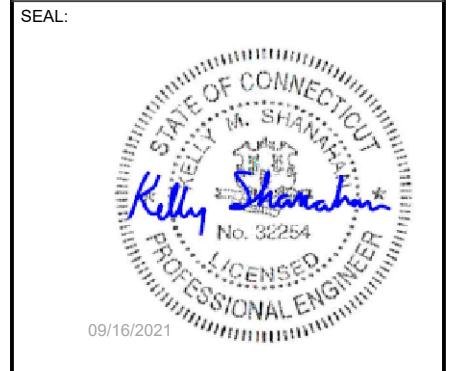
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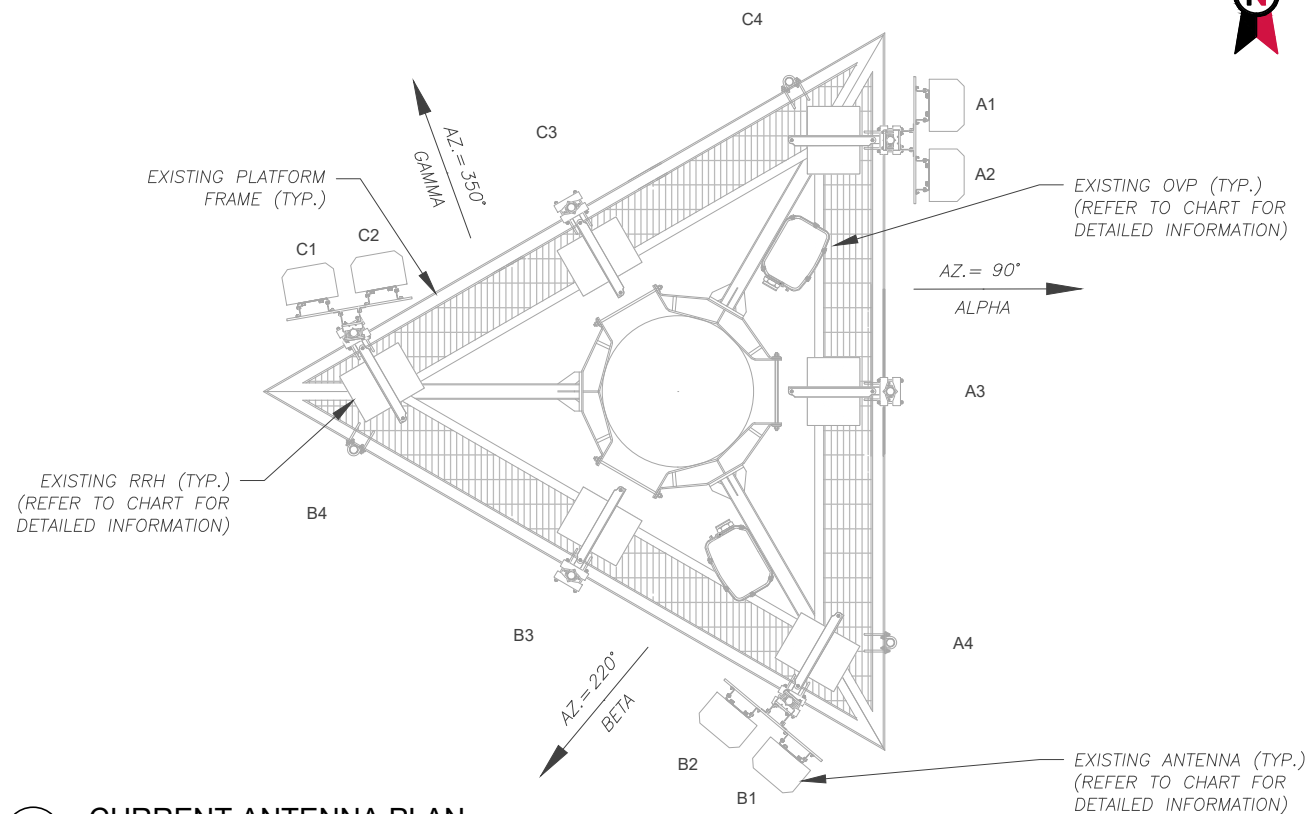
DATE DRAWN:	06/11/21
ATC JOB NO:	13685587
CUSTOMER ID:	1875555
CUSTOMER #:	467278

TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

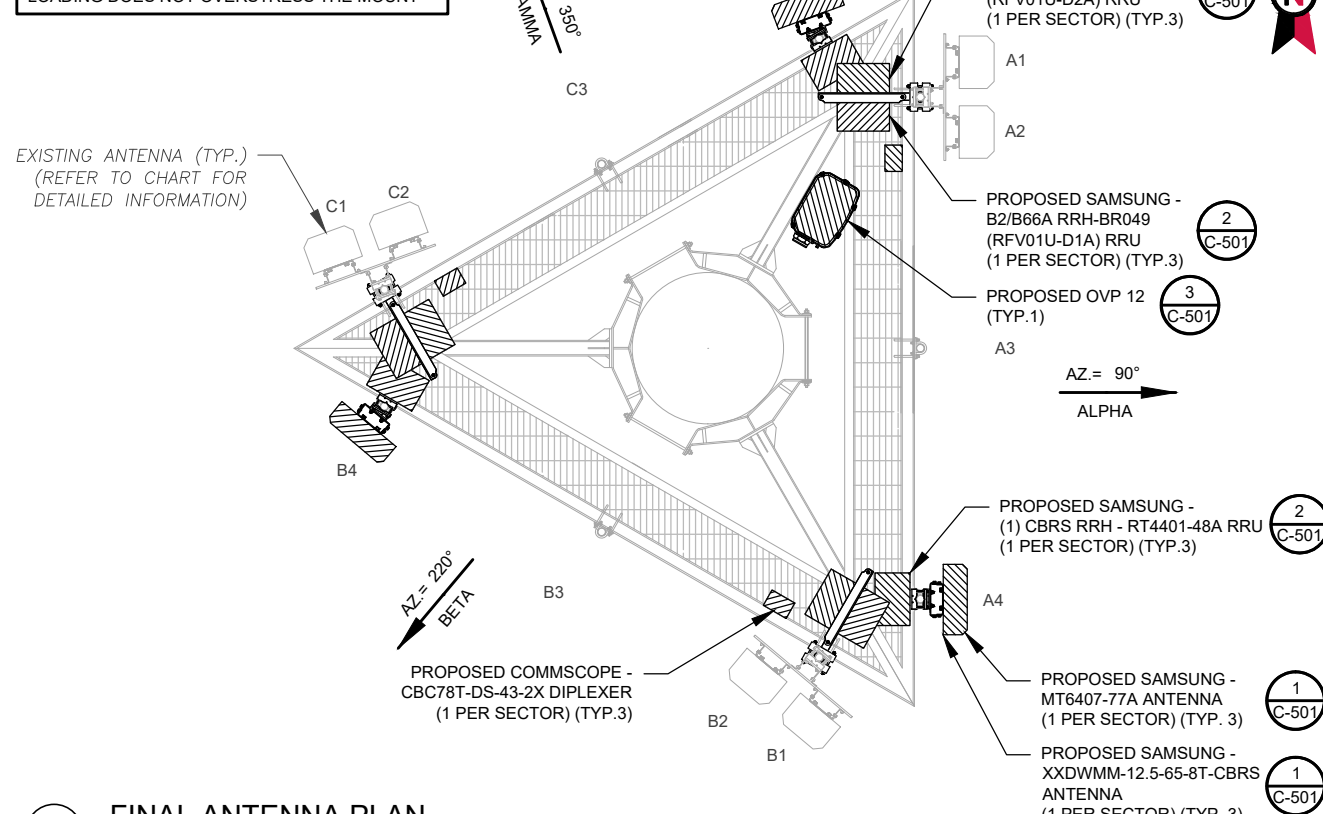
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EXISTING CONFIGURATIONS ARE BASED ON RFDS. CONTRACTOR TO VERIFY EXISTING CONDITIONS.



1 CURRENT ANTENNA PLAN
SCALE: N.T.S.

ATC IS ANALYZING THE ANTENNA MOUNT UNDER A SEPARATE PROJECT. CONSTRUCTION IS NOT TO PROCEED UNTIL THE MOUNT ANALYSIS IS COMPLETE AND INDICATES THE ADDITIONAL LOADING DOES NOT OVERSTRESS THE MOUNT



2 FINAL ANTENNA PLAN
SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE								
LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	80°	90°	A1	ANDREW JAHH-65B-R3B	LTE 700, LTE 850, LTE 1900, LTE 2100	RMN	(1) AHCA AIRSCALE RRH 4T4R B5 160W (1) UHBA B13 RRH 4X30	RMV RMV
			A2	ANDREW JAHH-65B-R3B	LTE 700, LTE 850, LTE 1900, LTE 2100	RMN	-	-
			A3	-	-	-	(1) UHFA B25 RRH 4X30 (1) UHIE B66A RRH 4X45	RMV RMV
			A4	-	-	-	-	-
BETA	80°	220°	B1	ANDREW JAHH-65B-R3B	LTE 700, LTE 850, LTE 1900, LTE 2100	RMN	(1) AHCA AIRSCALE RRH 4T4R B5 160W (1) UHBA B13 RRH 4X30	RMV RMV
			B2	ANDREW JAHH-65B-R3B	LTE 700, LTE 850, LTE 1900, LTE 2100	RMN	-	-
			B3	-	-	-	(1) UHFA B25 RRH 4X30 (1) UHIE B66A RRH 4X45	RMV RMV
			B4	-	-	-	-	-
GAMMA	80°	350°	C1	ANDREW JAHH-65B-R3B	LTE 700, LTE 850, LTE 1900, LTE 2100	RMN	(1) AHCA AIRSCALE RRH 4T4R B5 160W (1) UHBA B13 RRH 4X30	RMV RMV
			C2	ANDREW JAHH-65B-R3B	LTE 700, LTE 850, LTE 1900, LTE 2100	RMN	-	-
			C3	-	-	-	(1) UHFA B25 RRH 4X30 (1) UHIE B66A RRH 4X45	RMV RMV
			C4	-	-	-	-	-

- NOTES**
- CONFIRM WITH VERIZON WIRELESS REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
 - CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
 - THE ANTENNA ORIENTATION PLAN IS A SCHEMATIC. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA AZIMUTHS, MOUNT CONFIGURATIONS AND TOWER ORIENTATION. SCALES SHOWN ARE FOR REFERENCE ONLY AND EXISTING DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION AND NOTIFY ATC OF ANY DISCREPANCIES.
 - CONTRACTOR TO ENSURE PROPER SEPARATION IN ACCORDANCE WITH VERIZON'S FIRSTNET REQUIREMENTS (SEE SHEET R-602)

PROPOSED ANTENNA SCHEDULE								
LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	80°	90°	A1	ANDREW JAHH-65B-R3B	LTE 700, LTE 850, LTE 1900, LTE 2100	RMN	(1) B5/B13 RRH-BR04C (RFV01U-D2A)	ADD
			A2	ANDREW JAHH-65B-R3B	LTE 700, LTE 850, LTE 1900, LTE 2100	RMN	(1) B2/B66A RRH-BR049 (RFV01U-D1A) (1) CBC78T-DS-43-2X	ADD
			A3	-	-	-	-	-
			A4	SAMSUNG - MT6407-77A SAMSUNG - XXDWMM-12.5-65-8T-CBRS	LTE 700, LTE 850, LTE 1900, LTE 2100 LTE CBRS	ADD	(1) CBRS RRH - RT4401-48A	ADD
BETA	80°	220°	B1	ANDREW JAHH-65B-R3B	LTE 700, LTE 850, LTE 1900, LTE 2100	RMN	(1) B5/B13 RRH-BR04C (RFV01U-D2A)	ADD
			B2	ANDREW JAHH-65B-R3B	LTE 700, LTE 850, LTE 1900, LTE 2100	RMN	(1) B2/B66A RRH-BR049 (RFV01U-D1A) (1) CBC78T-DS-43-2X	ADD
			B3	-	-	-	-	-
			B4	SAMSUNG - MT6407-77A SAMSUNG - XXDWMM-12.5-65-8T-CBRS	LTE 700, LTE 850, LTE 1900, LTE 2100 LTE CBRS	ADD	(1) CBRS RRH - RT4401-48A	ADD
GAMMA	80°	350°	C1	ANDREW JAHH-65B-R3B	LTE 700, LTE 850, LTE 1900, LTE 2100	RMN	(1) B5/B13 RRH-BR04C (RFV01U-D2A)	ADD
			C2	ANDREW JAHH-65B-R3B	LTE 700, LTE 850, LTE 1900, LTE 2100	RMN	(1) B2/B66A RRH-BR049 (RFV01U-D1A) (1) CBC78T-DS-43-2X	ADD
			C3	-	-	-	-	-
			C4	SAMSUNG - MT6407-77A SAMSUNG - XXDWMM-12.5-65-8T-CBRS	LTE 700, LTE 850, LTE 1900, LTE 2100 LTE CBRS	ADD	(1) CBRS RRH - RT4401-48A	ADD

EXISTING FIBER DISTRIBUTION/SQUID		EXISTING CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS
(2) OVP 6	RMV	-	-	(2) 6X12	RMV
-	-	-	-	-	-
-	-	-	-	-	-

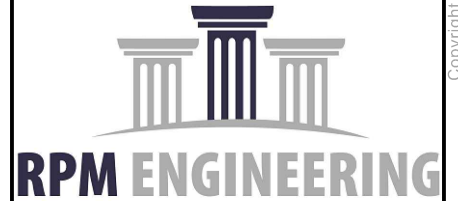
STATUS ABBREVIATIONS
 RMV: TO BE REMOVED
 RMN: TO REMAIN
 REL: TO BE RELOCATED
 ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS
 JUNCTION BOX TO RRU: 15'
 RRU TO ANTENNA: 10'

3 EQUIPMENT SCHEDULES

PROPOSED FIBER DISTRIBUTION/SQUID		PROPOSED CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS
(1) OVP 12	ADD	-	-	(2) 6X12 LI	ADD
-	-	-	-	-	-

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ATC TOWER SERVICES
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
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 COA: C01229-00



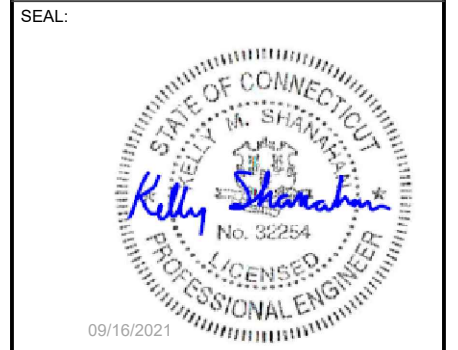
REV.	DESCRIPTION	BY	DATE
A	PRELIM	DL	06/11/21
0	FINAL	TM	09/16/21

ATC SITE NUMBER:
302481

ATC SITE NAME:
HRFR - SOUTH

VERIZON WIRELESS SITE NAME:
HAVERHILL_S_MA

SITE ADDRESS:
289H MOUNTAIN ST
HARTFORD, CT 06106



DATE DRAWN:	06/11/21
ATC JOB NO:	13685587
CUSTOMER ID:	1875555
CUSTOMER #:	467278

RF SCHEDULE AND ANTENNA INSTALLATION

SHEET NUMBER:
C-401

REVISION:
B

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REV.	DESCRIPTION	BY	DATE
A	PRELIM	DL	06/11/21
0	FINAL	TM	09/16/21

ATC SITE NUMBER:
302481

ATC SITE NAME:
HRFR - SOUTH

VERIZON WIRELESS SITE NAME:
HAVERHILL_S_MA

SITE ADDRESS:
289H MOUNTAIN ST
HARTFORD, CT 06106

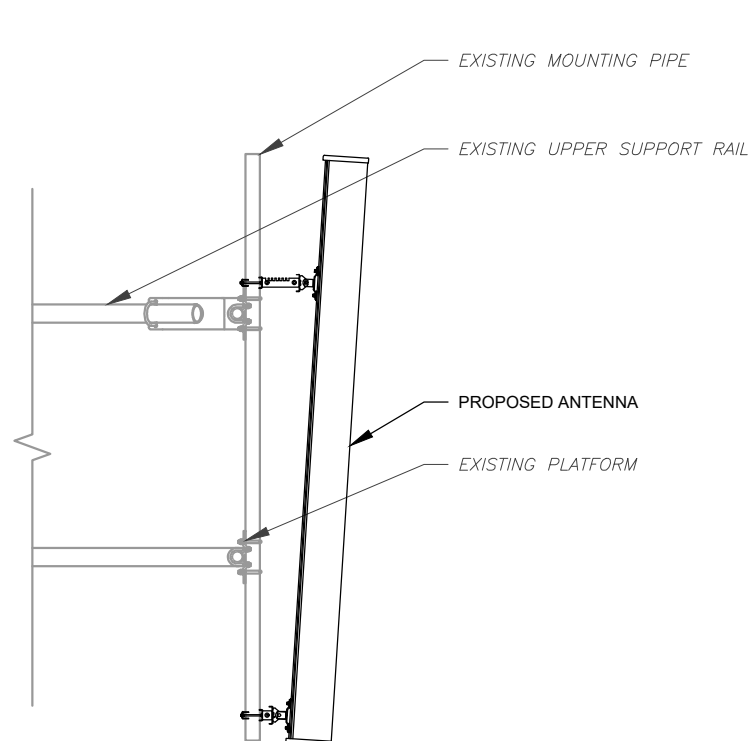
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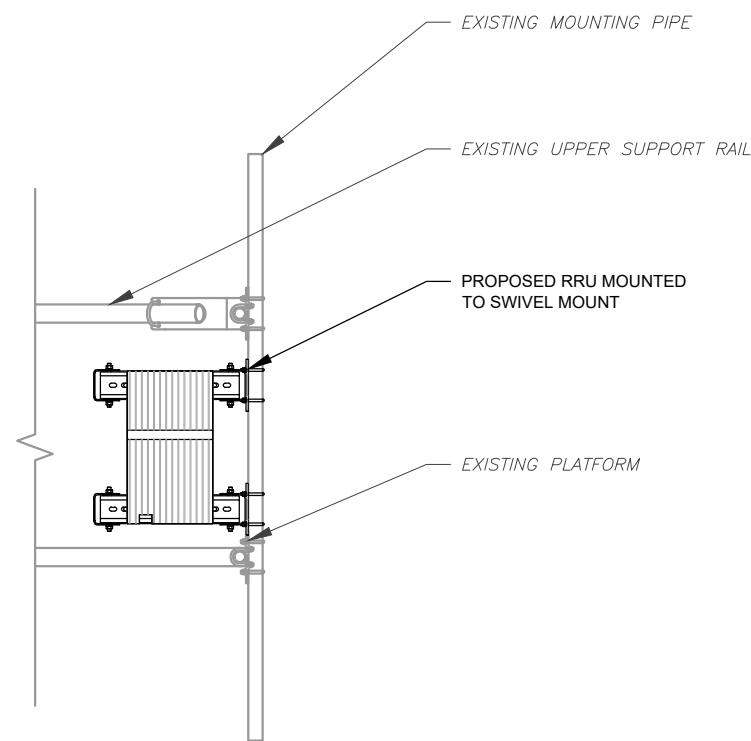
DATE DRAWN:	06/11/21
ATC JOB NO:	13685587
CUSTOMER ID:	1875555
CUSTOMER #:	467278

**CONSTRUCTION
DETAILS**

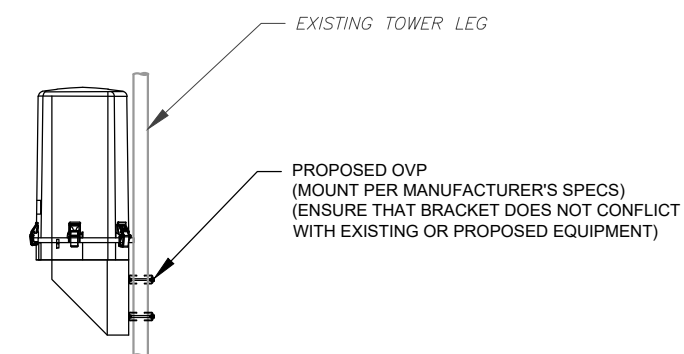
SHEET NUMBER:	REVISION:
C-501	B



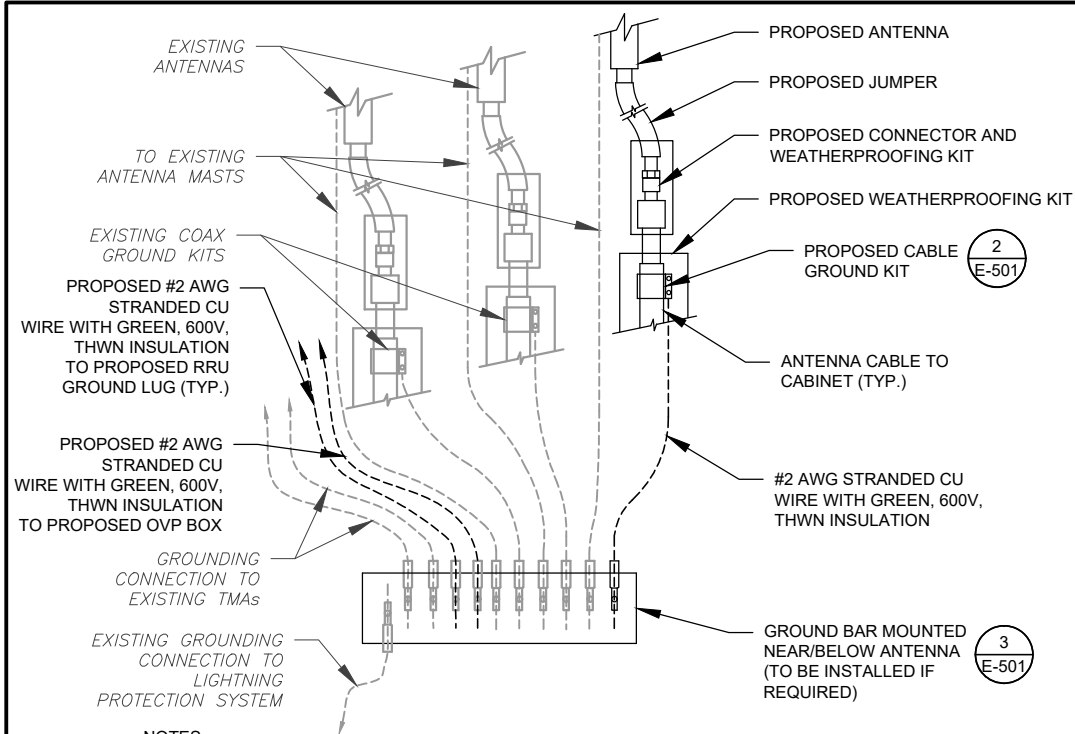
1 ANTENNA DETAIL
SCALE: N.T.S.



2 PROPOSED RRU MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



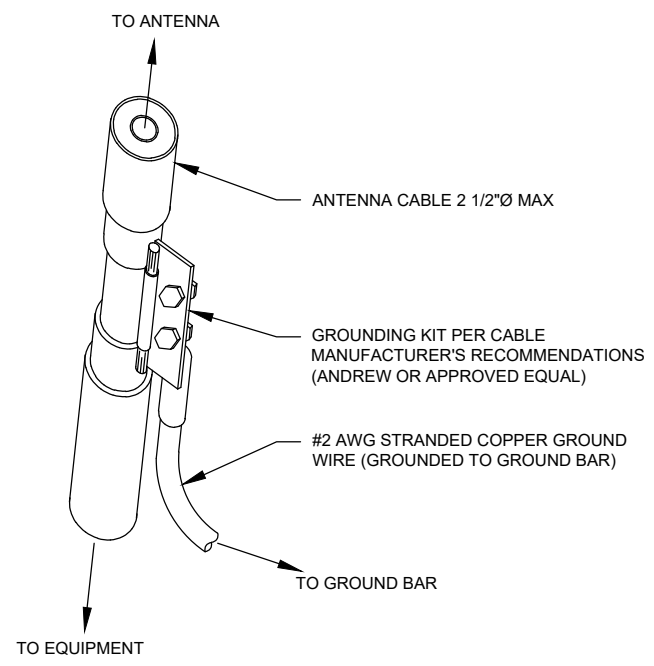
3 PROPOSED OVP MOUNTING
SCALE: N.T.S.



NOTES:

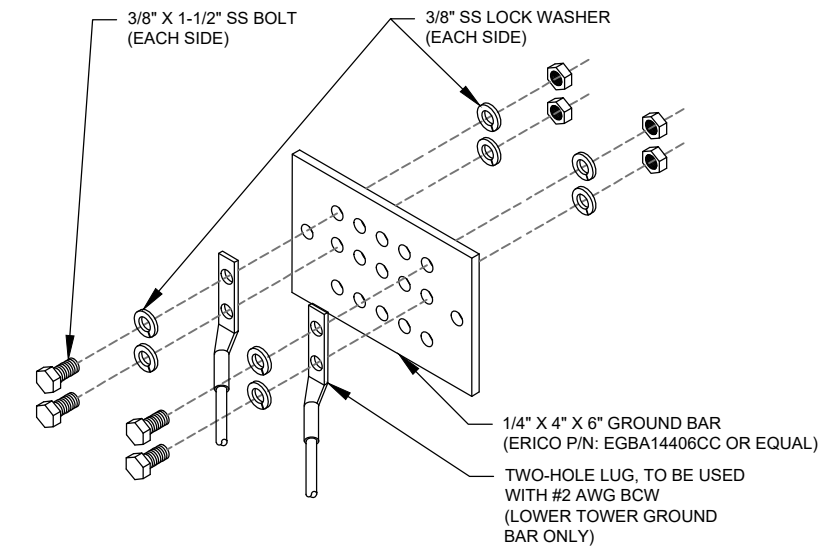
1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH VERIZON WIRELESS GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH VERIZON WIRELESS 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.



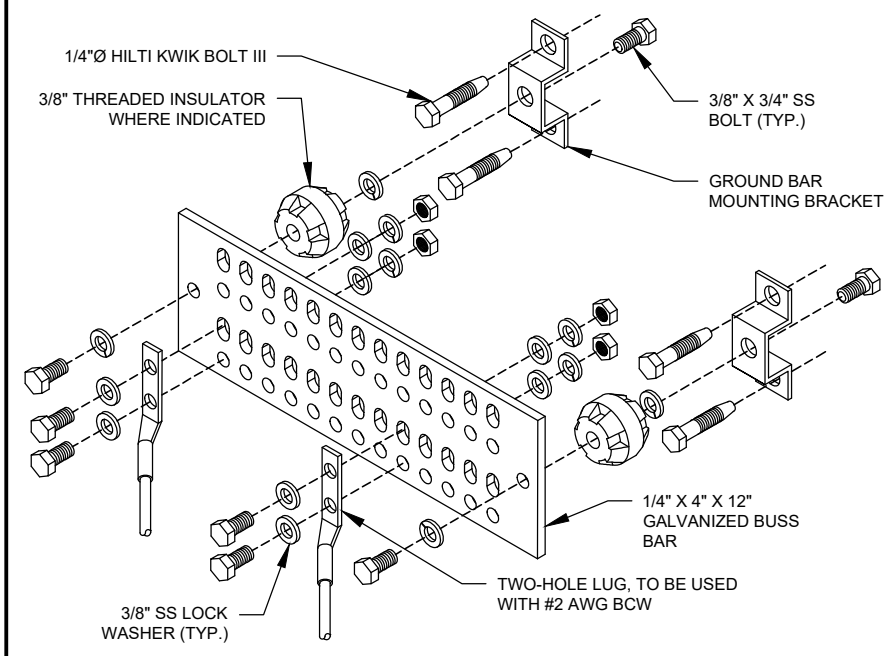
- GROUND KIT NOTES:**
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL
SCALE: N.T.S.



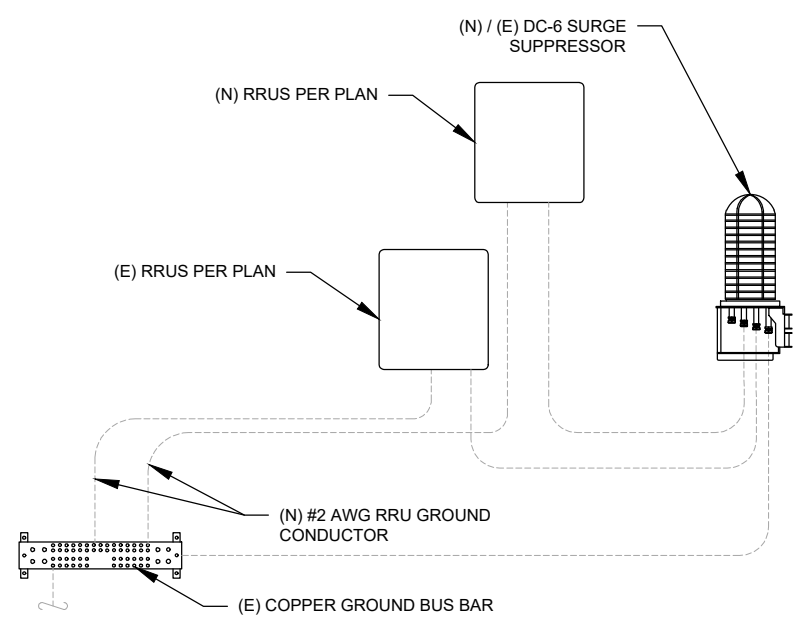
- GROUND BAR NOTES:**
1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
 2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL
SCALE: N.T.S.

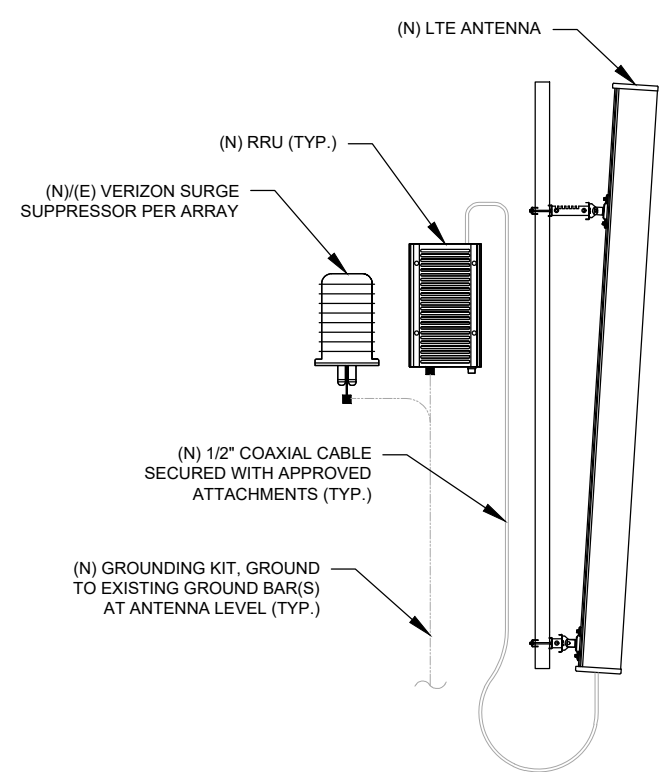


- GROUND BAR NOTES**
1. GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
 2. GROUND BAR SHALL BE BOLTED TO STRUCTURAL MEMBER OR ANCHORED TO CONCRETE SLAB W/ HILTI KWIK BOLT III.

4 MAIN GROUND BAR DETAIL
SCALE: N.T.S.



5 RRU GROUNDING
SCALE: N.T.S.



6 ANTENNA/RRU GROUNDING
SCALE: N.T.S.

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 COA: C01229-00

RPM ENGINEERING

REV.	DESCRIPTION	BY	DATE
A	PRELIM	DL	06/11/21
0	FINAL	TM	09/16/21

ATC SITE NUMBER:
302481

ATC SITE NAME:
HRFR - SOUTH

VERIZON WIRELESS SITE NAME:
HAVERHILL_S_MA

SITE ADDRESS:
289H MOUNTAIN ST
HARTFORD, CT 06106

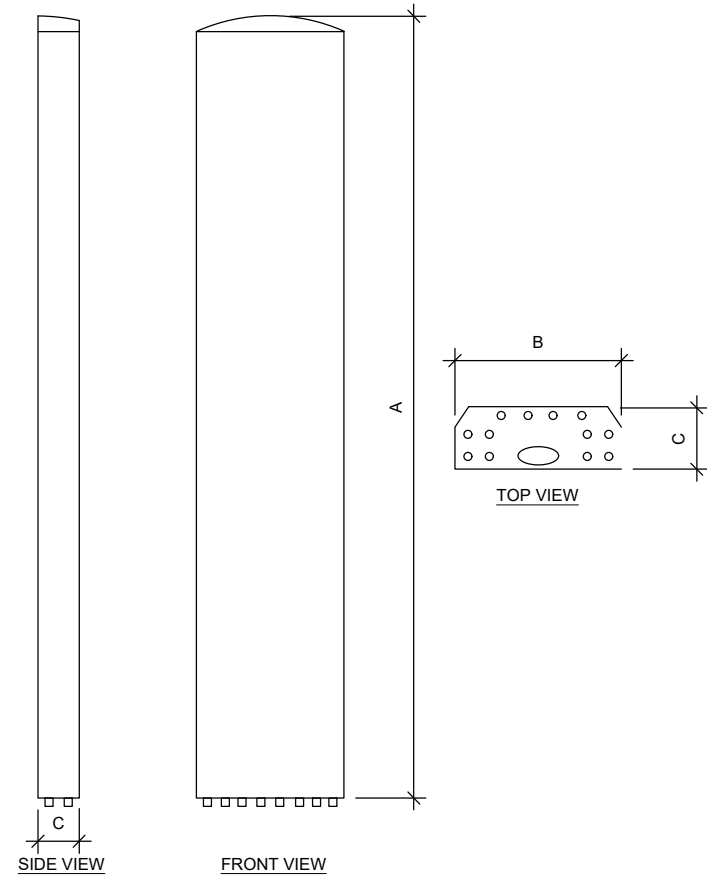
SEAL:

DATE DRAWN:	06/11/21
ATC JOB NO:	13685587
CUSTOMER ID:	1875555
CUSTOMER #:	467278

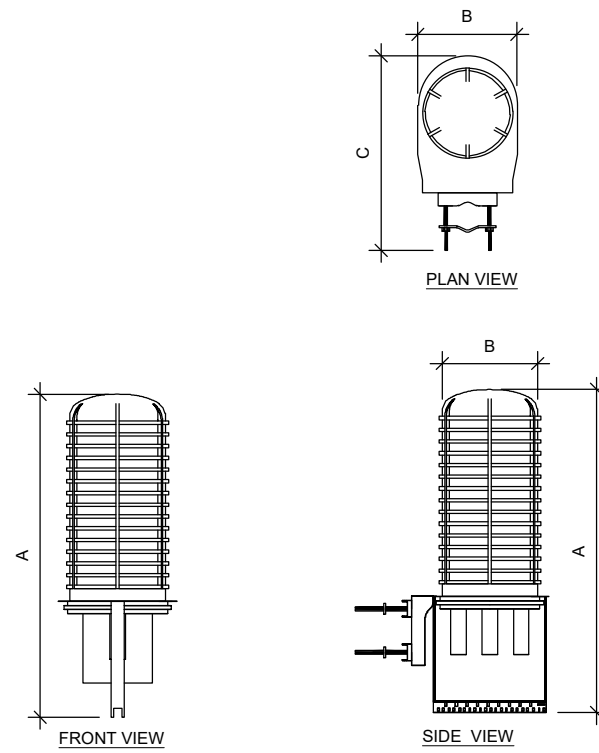
GROUNDING DETAILS

SHEET NUMBER: E-501	REVISION: B
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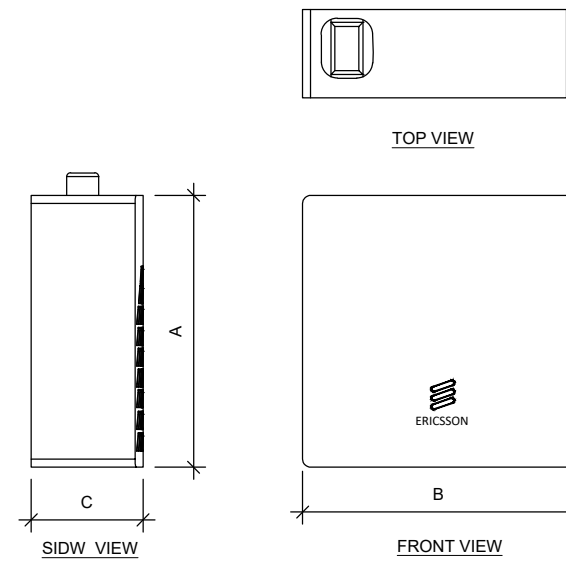
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ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
XXDWMM-12.5-65-8T-CBRS	12.3"	8.7"	1.4"	4.4
JAHH-65B-R3B	72"	13.8"	8.2"	63.3
MT6407-77A	35.1"	16.1"	5.5"	81.6



RAYCAP SPECIFICATIONS				
RAYCAP MODEL	A	B	C	WEIGHT (LBS)
RVZDC-6627-PF-48	28.9"	15.7"	10.3"	32



RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
RVZDC-6627-PF-48	29"	15.7"	10.3"	32
B5/B13 RRH-BR04C	15"	15"	8.1"	70
RT4401-48A	14"	8.6"	4.2"	18.6
B3/B66A RRH-BR049	15"	15"	10"	84.4



Structural Analysis Report

Structure : 110 ft Monopole
 ATC Site Name : Hfr - South, CT
 ATC Site Number : 302481
 Engineering Number : 13685587_C3_03
 Proposed Carrier : VERIZON WIRELESS
 Carrier Site Name : HARTFORD SO III CT
 Carrier Site Number : 467278
 Site Location : 289 Mountain Street
 Hartford, CT 06106-4121
 41.7266, -72.7082
 County : Hartford
 Date : August 9, 2021
 Max Usage : 95%
 Result : Pass*

Prepared By:

Reviewed By:



Authorized by "EOR"
13 Aug 2021 04:02:27

COA : PEC.0001553

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 110 ft Monopole to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	Mapped by Smith Cullum Site #CT-0017(A), dated June 6, 2001
Foundation Drawing	Girard & Co Engineering Job #39902, dated April 29, 1988
Geotechnical Report	TEP Project #071162.01, dated July 23, 2007
Modifications	ATC Project #42719232, dated January 12, 2009 ATC Project #43595333, dated July 1, 2009 ATC Project #43930034, dated September 15, 2009 ATC Project #44662232, dated March 30, 2010 ATC Project #OAA739695_C6_06, dated February 25, 2019 ATC Project #13251341_C6_06, dated September 4, 2020* (Pending)*
Site Specific Study	ICE Wind Study for Site 302481, dated May 22, 2020

* The modifications by ATC Job #13251341_C6_06 are scheduled to be installed by 8/29/2021.

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:	115.01 mph (3-second gust)
Basic Wind Speed w/ Ice:	48.73 mph (3-second gust) w/ 1.275" 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 3
Topographic Category:	4
Crest Height (H):	148 ft
Crest Length (L):	0 ft
Spectral Response:	S _s = 0.19, S _i = 0.06
Site Class:	D - Stiff Soil - Default

**Wind load and ice thickness have been reduced by applicable existing structure load modification factors in accordance with TIA-222-H, Annex S.

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 the pending modifications cited in the Supporting Documents table are not completed by the forecast date above, the results of this analysis are no longer valid, and VERIZON WIRELESS should contact American Tower's Site Manager for further direction on how to proceed.

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.

SUPPLEMENTAL

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT.



Maser Consulting Connecticut
2000 Midlantic Drive, Suite 100
Mt. Laurel, NJ 08054
(856) 797-0412
peter.albano@colliersengineering.com

Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10085156
Maser Consulting Connecticut Project #: 21777757A

July 13, 2021

Site Information

Site ID: 467278-VZW / HARTFORD S 3 CT
Site Name: HARTFORD S 3 CT
Carrier Name: Verizon Wireless
Address: 289H Mountain St
Hartford, Connecticut 06106
Hartford County
Latitude: 41.726583°
Longitude: -72.708167°

Structure Information

Tower Type: 110-Ft Monopole
Mount Type: 12.75-Ft Platform

FUZE ID # 16093011

Analysis Results

Platform: 53.3% 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 also Noted on Mount Modification Drawings

Requirements may also be Noted on A & E drawings

Report Prepared By: Devin Castillo

Executive Summary:

The objective of this report is to summarize the analysis results of the antenna support mount including the proposed modifications at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards.

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
<i>Radio Frequency Data Sheet (RFDS)</i>	<i>Verizon RFDS, Site ID: 1875555, dated March 16, 2021</i>
<i>Desktop Mount Mapping</i>	<i>Colliers Engineering & Design, Colliers Project No. 21777757A, dated June 17, 2021</i>
<i>Site Photos</i>	<i>Dated May 6, 2021</i>
<i>Previous Mount Analysis Report</i>	<i>Maser Consulting Project # 21777757A, dated June 6, 2021</i>
<i>Mount Modification Drawings</i>	<i>Maser Consulting Project #: 21777757A, dated June 13, 2021</i>

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 118 mph
	Ice Wind Speed (3-sec. Gust): 50 mph
	Design Ice Thickness: 1.50 in
	Risk Category: II
	Exposure Category: B
	Topographic Category: 4
	Topographic Feature Considered: Ridge
	Topographic Method: Method 2
	Ground Elevation Factor, K_e : 0.990
Seismic Parameters:	S_s : 0.192
	S_1 : 0.055
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph
	Maintenance Live Load, L_v : 250 lbs.
	Maintenance Live Load, L_m : 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
80.00	78.50	3	Samsung	XXDWMM-12.5-65-8T-CBRS	Added
	80.00	3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		6	Andrew	JAHH-65B-R3B	Retained
		3	Commscope	CBC78T-DS-43-2X	
	1	Raycap	OVP12		
	82.00	3	Samsung	MT6407-77A	Added

The recent mount mapping reported existing OVP units. 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 unless replacing an existing OVP.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Maser Consulting Connecticut 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 Maser Consulting Connecticut 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 Maser Consulting Connecticut, 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. Maser Consulting Connecticut 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
8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

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

Analysis Results:

Component	Utilization %	Pass/Fail
<i>Kicker</i>	<i>12.5%</i>	<i>Pass</i>
<i>Support Rail Corner</i>	<i>24.9%</i>	<i>Pass</i>
<i>Support Rail</i>	<i>12.2%</i>	<i>Pass</i>
<i>Mount Pipe</i>	<i>48.9%</i>	<i>Pass</i>
<i>Standoff Horizontal</i>	<i>36.4%</i>	<i>Pass</i>
<i>Face Horizontal</i>	<i>17.4%</i>	<i>Pass</i>
<i>Cross Member</i>	<i>45.5%</i>	<i>Pass</i>
<i>Connection Check</i>	<i>53.3%</i>	<i>Pass</i>

Structure Rating – (Controlling Utilization of all Components)	53.3%
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Recommendation:


The existing mount is be **SUFFICIENT** for the final loading after the proposed modifications are successfully completed.

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. Desktop Mount Mapping Report (for reference only)
3. Mount Geometry Verification
4. Analysis Calculations
5. **Contractor Required PMI Report Deliverables**
6. Antenna Placement Diagrams
7. TIA Adoption and Wind Speed Suage Letter



	Desktop Mount Mapping Form			
	Site Name:	Hartford S 3 CT	Tower Type:	Monopole
	Site ID:	467278	Tower Owner:	ATC
	FUZE Project ID:	16093011	Tower Height (Ft.):	110
	Customer:	Verizon Wireless	Mount Elevation (Ft.):	80
	Colliers Project No.:	21777757A	Date:	6/17/2021

The information contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of Colliers Engineering & Design.

Document Type	Provided? (Yes/No)	Source Name	Project No.	Dated	Comments/Remarks
Previous Mount Mapping	No				
Previous Mapping Photos	No				
Previous Mount Analysis	Yes	Hartford S 3 CT_850-LTE PCS CA MA_C	A42918-0014.001.81	7/3/2018	
Previous Mount Modifications	No				
Previous Structural Analysis	Yes	Hartford South 3_ATC Structural Analy	OAA708587_C3_01	8/17/2017	
Construction Drawings	Yes	Hartford S 3 CT 850-LTE PCS Carrier Add CD's 08-02-18 V0 Stamped		8/2/2018	
Closeout Package	No				
Closeout Photos	No				
Handover Package	No				
New Build 445 Documentation	No				
Other	Yes	ULP12-4XX (Assembly)		5/24/2018	
Previous PMI	No				

The **desktop mount mapping** is based on the engineering review of the available site documents in FUZE, as listed above, in place of a full mount mapping. It is assumed that the information provided in the documents listed above, provide an accurate representation of the existing mount. EOR reserves the right and will typically require additional clarification and verification as will be included in the PMI requirements. During the Post Modification Inspection (PMI) process, the GC on site will be required to confirm all questions, confirmations, and validations as posed by the EOR. The engineering review for this desktop mount mapping was performed in accordance to the ANSI/TIA-222-H requirements and Verizon's NSTD446 standard.



Photo taken from: Design Visit

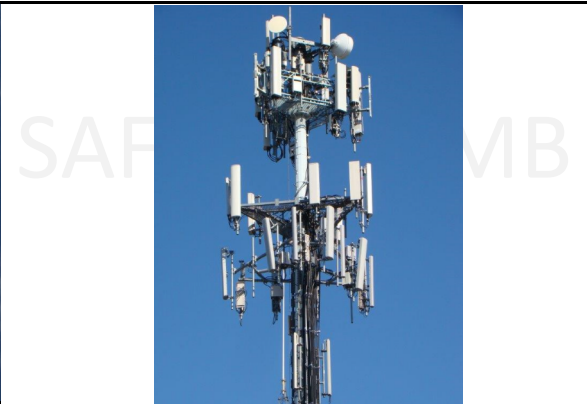
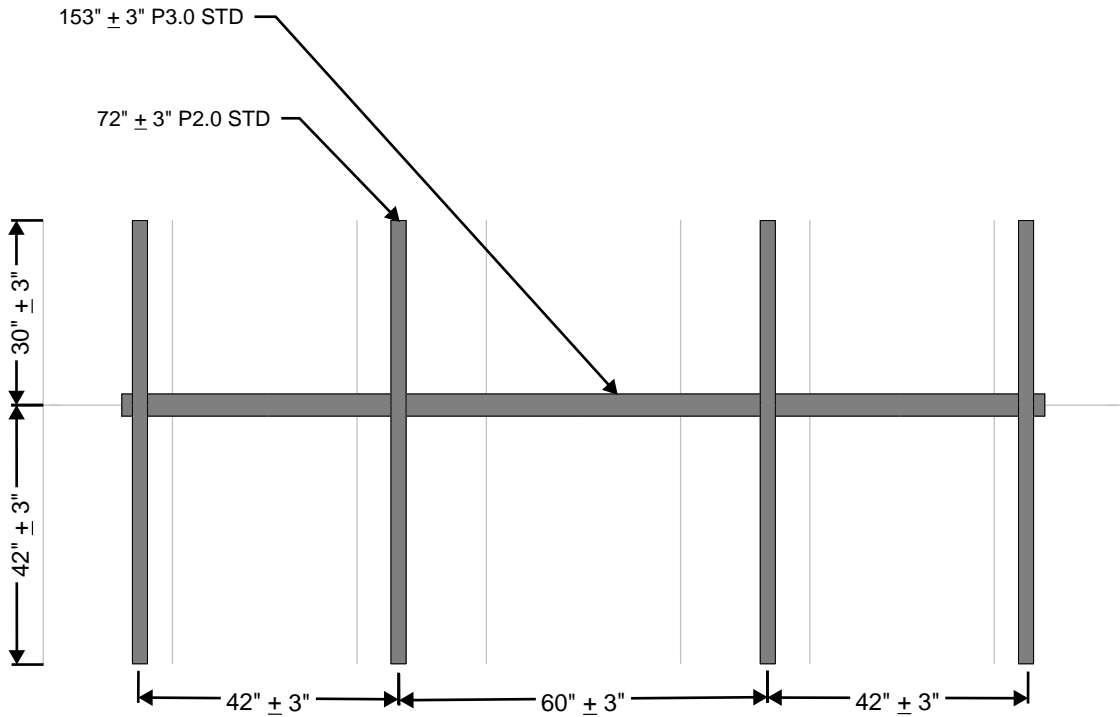


Photo taken from: Design Visit



MOUNT GEOMETRY VERIFICATION

ELEVATION VIEW

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND MEMBER SIZES SHOWN IN THIS SKETCH. DOCUMENT ALL VARIATIONS OR DEVIATIONS VIA PHOTOS AND SKETCHES AND PROVIDE TO THE EOR FOR EVALUATION

Maser Consulting

CJG

467278-VZW_MT_LO_H

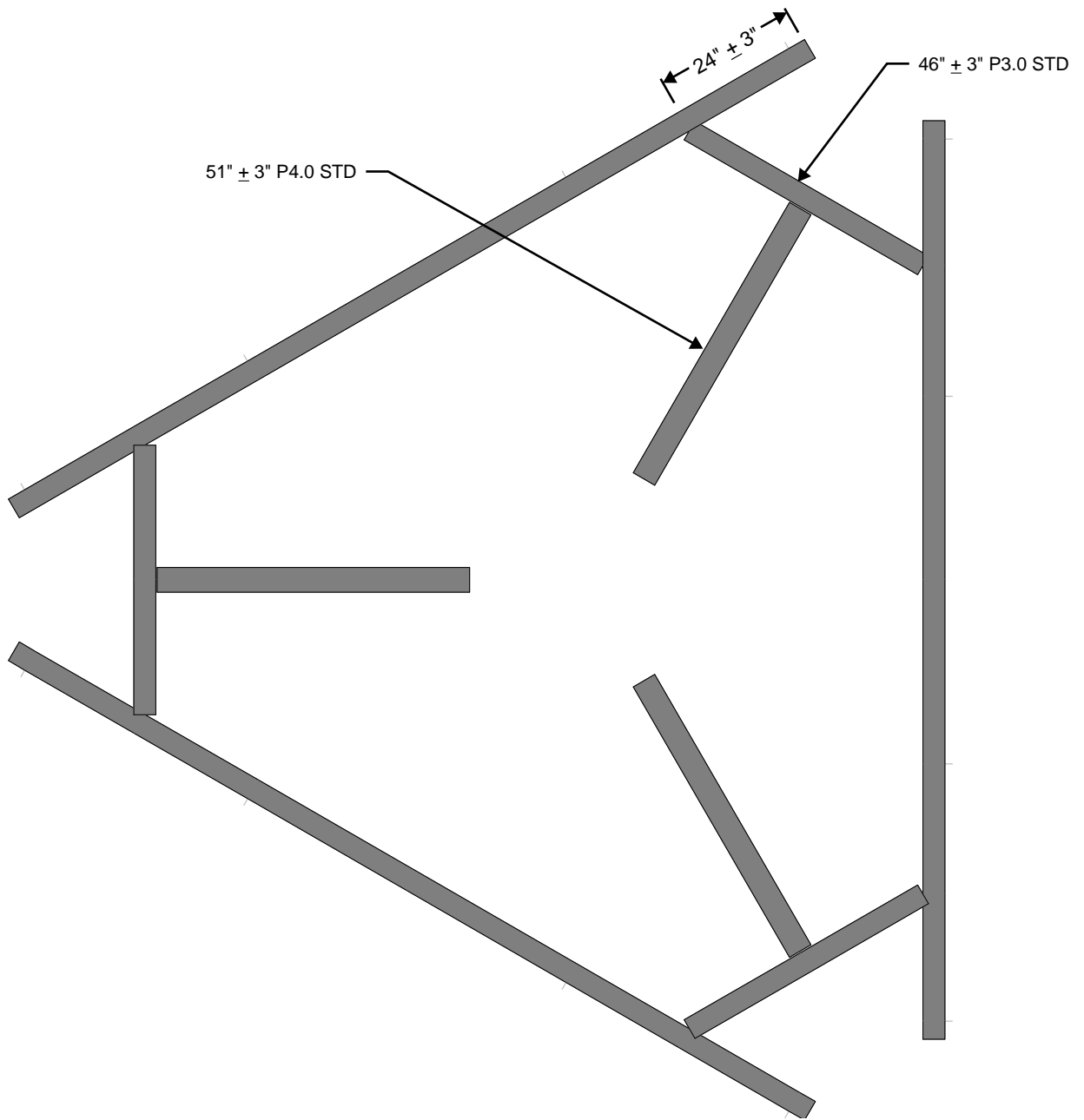
SK - 2

July 1, 2021 at 12:36 PM

467278-VZW_MT_LO_H.r3d



MOUNT GEOMETRY VERIFICATION PLAN VIEW



CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND MEMBER SIZES SHOWN IN THIS SKETCH. DOCUMENT ALL VARIATIONS OR DEVIATIONS VIA PHOTOS AND SKETCHES AND PROVIDE TO THE EOR FOR EVALUATION

Maser Consulting

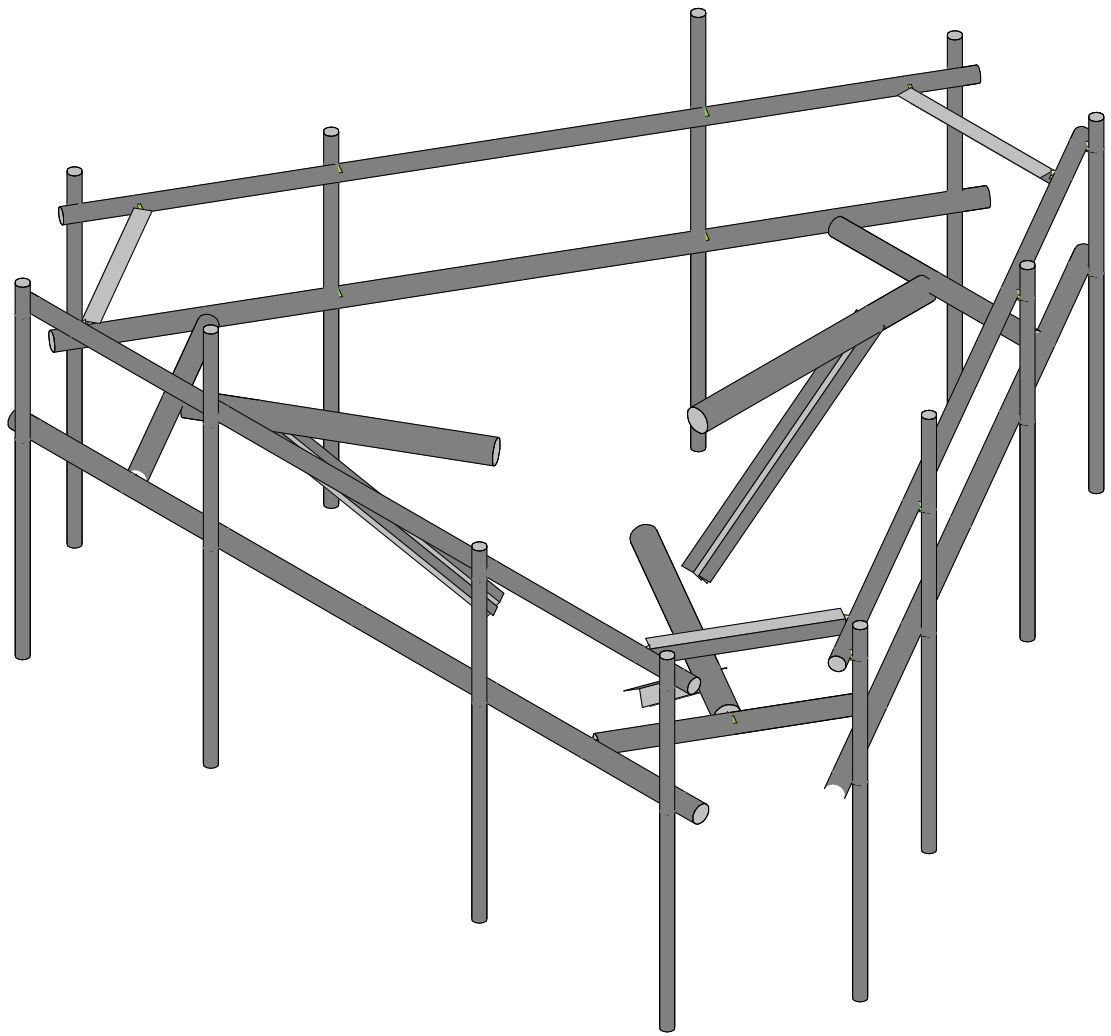
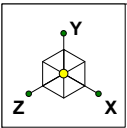
CJG

467278-VZW_MT_LO_H

SK - 3

July 1, 2021 at 12:38 PM

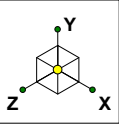
467278-VZW_MT_LO_H.r3d



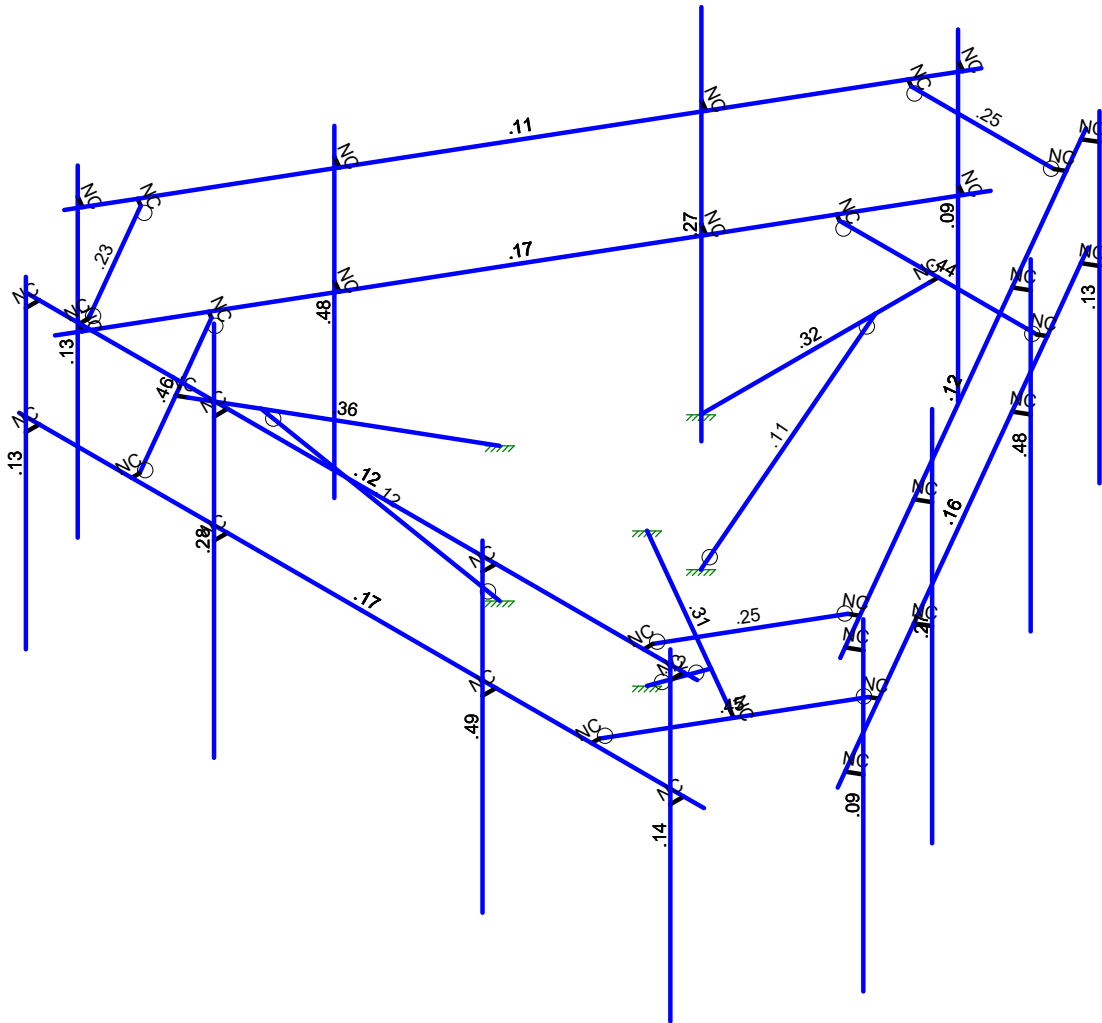
Maser Consulting
DC

Antenna Mount analysis

SK - 1
July 13, 2021 at 9:33 AM
Loaded_MOD_467278-VZW_MT_...

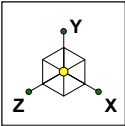


Code Check (Env)	
Black	No Calc
Red	> 1.0
Pink	.90-1.0
Green	.75-.90
Cyan	.50-.75
Blue	0-.50



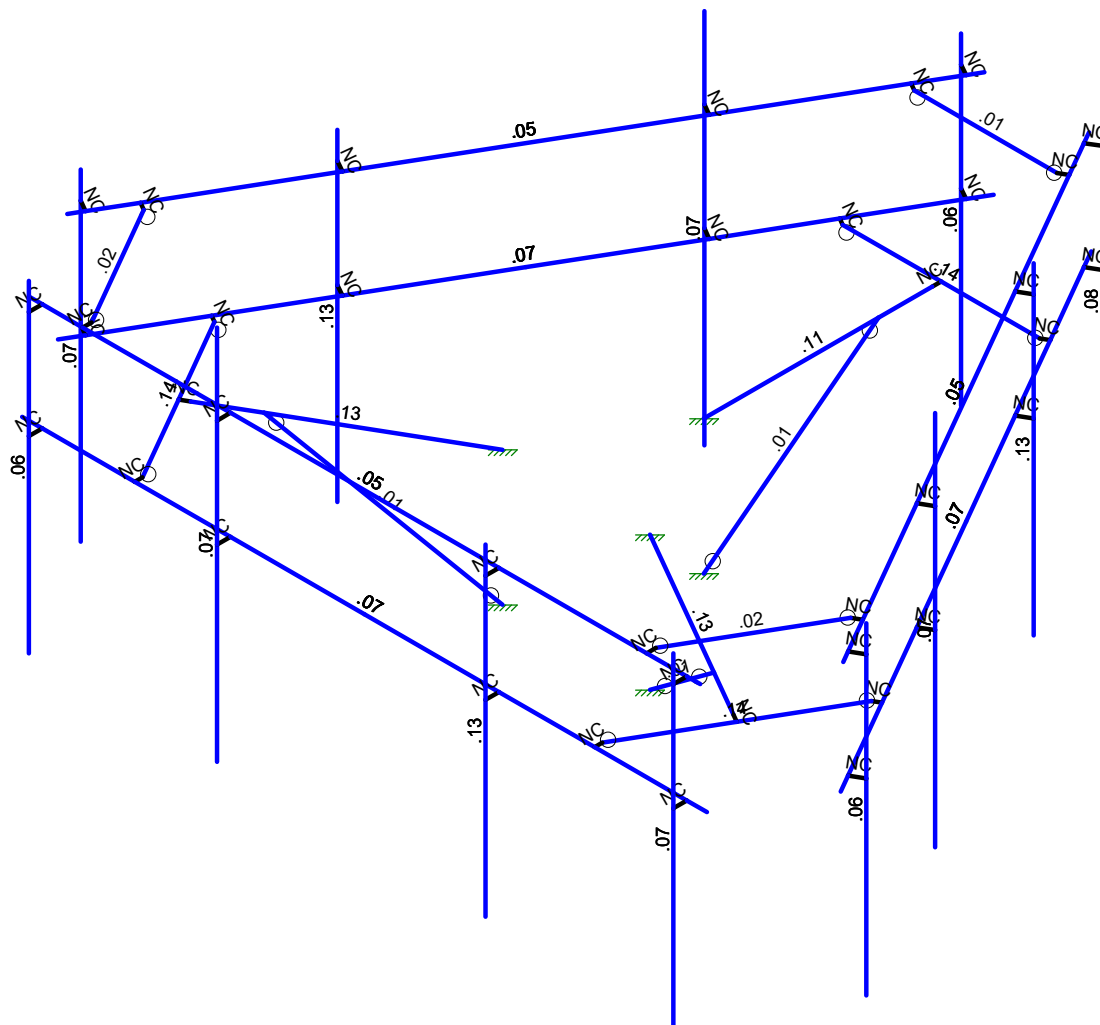
Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)

Maser Consulting	Antenna Mount analysis	SK - 2
DC		July 13, 2021 at 9:33 AM
		Loaded_MOD_467278-VZW_MT_...



Shear Check (Env)

- No Calc
- > 1.0
- .90-1.0
- .75-.90
- .50-.75
- 0.-.50



Member Shear Checks Displayed (Enveloped)
 Results for LC 1, 1.2D+1.0Wo (0 Deg)

Maser Consulting	Antenna Mount analysis	SK - 3
DC		July 13, 2021 at 9:33 AM
		Loaded_MOD_467278-VZW_MT_...



Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut..	Area(M...)	Surface...
1	Antenna D	None					93			
2	Antenna Di	None					93			
3	Antenna Wo (0 Deg)	None					93			
4	Antenna Wo (30 Deg)	None					93			
5	Antenna Wo (60 Deg)	None					93			
6	Antenna Wo (90 Deg)	None					93			
7	Antenna Wo (120 Deg)	None					93			
8	Antenna Wo (150 Deg)	None					93			
9	Antenna Wo (180 Deg)	None					93			
10	Antenna Wo (210 Deg)	None					93			
11	Antenna Wo (240 Deg)	None					93			
12	Antenna Wo (270 Deg)	None					93			
13	Antenna Wo (300 Deg)	None					93			
14	Antenna Wo (330 Deg)	None					93			
15	Antenna Wi (0 Deg)	None					93			
16	Antenna Wi (30 Deg)	None					93			
17	Antenna Wi (60 Deg)	None					93			
18	Antenna Wi (90 Deg)	None					93			
19	Antenna Wi (120 Deg)	None					93			
20	Antenna Wi (150 Deg)	None					93			
21	Antenna Wi (180 Deg)	None					93			
22	Antenna Wi (210 Deg)	None					93			
23	Antenna Wi (240 Deg)	None					93			
24	Antenna Wi (270 Deg)	None					93			
25	Antenna Wi (300 Deg)	None					93			
26	Antenna Wi (330 Deg)	None					93			
27	Antenna Wm (0 Deg)	None					93			
28	Antenna Wm (30 Deg)	None					93			
29	Antenna Wm (60 Deg)	None					93			
30	Antenna Wm (90 Deg)	None					93			
31	Antenna Wm (120 Deg)	None					93			
32	Antenna Wm (150 Deg)	None					93			
33	Antenna Wm (180 Deg)	None					93			
34	Antenna Wm (210 Deg)	None					93			
35	Antenna Wm (240 Deg)	None					93			
36	Antenna Wm (270 Deg)	None					93			
37	Antenna Wm (300 Deg)	None					93			
38	Antenna Wm (330 Deg)	None					93			
39	Structure D	None		-1						
40	Structure Di	None						30		
41	Structure Wo (0 Deg)	None						60		
42	Structure Wo (30 Deg)	None						60		
43	Structure Wo (60 Deg)	None						60		
44	Structure Wo (90 Deg)	None						60		
45	Structure Wo (120 Deg)	None						60		
46	Structure Wo (150 Deg)	None						60		
47	Structure Wo (180 Deg)	None						60		
48	Structure Wo (210 Deg)	None						60		
49	Structure Wo (240 Deg)	None						60		
50	Structure Wo (270 Deg)	None						60		
51	Structure Wo (300 Deg)	None						60		
52	Structure Wo (330 Deg)	None						60		
53	Structure Wi (0 Deg)	None						60		
54	Structure Wi (30 Deg)	None						60		
55	Structure Wi (60 Deg)	None						60		
56	Structure Wi (90 Deg)	None						60		



Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut.	Area(M...)	Surface...
57	Structure Wi (120 Deg)	None						60		
58	Structure Wi (150 Deg)	None						60		
59	Structure Wi (180 Deg)	None						60		
60	Structure Wi (210 Deg)	None						60		
61	Structure Wi (240 Deg)	None						60		
62	Structure Wi (270 Deg)	None						60		
63	Structure Wi (300 Deg)	None						60		
64	Structure Wi (330 Deg)	None						60		
65	Structure Wm (0 Deg)	None						60		
66	Structure Wm (30 Deg)	None						60		
67	Structure Wm (60 Deg)	None						60		
68	Structure Wm (90 Deg)	None						60		
69	Structure Wm (120 Deg)	None						60		
70	Structure Wm (150 Deg)	None						60		
71	Structure Wm (180 Deg)	None						60		
72	Structure Wm (210 Deg)	None						60		
73	Structure Wm (240 Deg)	None						60		
74	Structure Wm (270 Deg)	None						60		
75	Structure Wm (300 Deg)	None						60		
76	Structure Wm (330 Deg)	None						60		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			

Load Combinations

	Description	S...P	Delta	S...B...	F...	BLC	F...	BLC	F...	B...F...	B...F...	B...F...	B...F...	B...F...	B...F...	B...F...
1	1.2D+1.0Wo (0 Deg)	Y...	Y	1	1.2	39	1.2	3	1	41	1					
2	1.2D+1.0Wo (30 Deg)	Y...	Y	1	1.2	39	1.2	4	1	42	1					
3	1.2D+1.0Wo (60 Deg)	Y...	Y	1	1.2	39	1.2	5	1	43	1					
4	1.2D+1.0Wo (90 Deg)	Y...	Y	1	1.2	39	1.2	6	1	44	1					
5	1.2D+1.0Wo (120 Deg)	Y...	Y	1	1.2	39	1.2	7	1	45	1					
6	1.2D+1.0Wo (150 Deg)	Y...	Y	1	1.2	39	1.2	8	1	46	1					
7	1.2D+1.0Wo (180 Deg)	Y...	Y	1	1.2	39	1.2	9	1	47	1					
8	1.2D+1.0Wo (210 Deg)	Y...	Y	1	1.2	39	1.2	10	1	48	1					
9	1.2D+1.0Wo (240 Deg)	Y...	Y	1	1.2	39	1.2	11	1	49	1					
10	1.2D+1.0Wo (270 Deg)	Y...	Y	1	1.2	39	1.2	12	1	50	1					
11	1.2D+1.0Wo (300 Deg)	Y...	Y	1	1.2	39	1.2	13	1	51	1					
12	1.2D+1.0Wo (330 Deg)	Y...	Y	1	1.2	39	1.2	14	1	52	1					
13	1.2D + 1.0Di + 1.0Wi (0 Deg)	Y...	Y	1	1.2	39	1.2	2	1	40	1	15	1	53	1	
14	1.2D + 1.0Di + 1.0Wi (30 Deg)	Y...	Y	1	1.2	39	1.2	2	1	40	1	16	1	54	1	
15	1.2D + 1.0Di + 1.0Wi (60 Deg)	Y...	Y	1	1.2	39	1.2	2	1	40	1	17	1	55	1	
16	1.2D + 1.0Di + 1.0Wi (90 Deg)	Y...	Y	1	1.2	39	1.2	2	1	40	1	18	1	56	1	
17	1.2D + 1.0Di + 1.0Wi (120 Deg)	Y...	Y	1	1.2	39	1.2	2	1	40	1	19	1	57	1	
18	1.2D + 1.0Di + 1.0Wi (150 Deg)	Y...	Y	1	1.2	39	1.2	2	1	40	1	20	1	58	1	
19	1.2D + 1.0Di + 1.0Wi (180 Deg)	Y...	Y	1	1.2	39	1.2	2	1	40	1	21	1	59	1	
20	1.2D + 1.0Di + 1.0Wi (210 Deg)	Y...	Y	1	1.2	39	1.2	2	1	40	1	22	1	60	1	
21	1.2D + 1.0Di + 1.0Wi (240 Deg)	Y...	Y	1	1.2	39	1.2	2	1	40	1	23	1	61	1	
22	1.2D + 1.0Di + 1.0Wi (270 Deg)	Y...	Y	1	1.2	39	1.2	2	1	40	1	24	1	62	1	
23	1.2D + 1.0Di + 1.0Wi (300 Deg)	Y...	Y	1	1.2	39	1.2	2	1	40	1	25	1	63	1	
24	1.2D + 1.0Di + 1.0Wi (330 Deg)	Y...	Y	1	1.2	39	1.2	2	1	40	1	26	1	64	1	
25	1.2D + 1.5Lm1 + 1.0Wm (0 Deg)	Y...	Y	1	1.2	39	1.2	77	1.5	27	1	65	1			
26	1.2D + 1.5Lm1 + 1.0Wm (30 Deg)	Y...	Y	1	1.2	39	1.2	77	1.5	28	1	66	1			
27	1.2D + 1.5Lm1 + 1.0Wm (60 Deg)	Y...	Y	1	1.2	39	1.2	77	1.5	29	1	67	1			
28	1.2D + 1.5Lm1 + 1.0Wm (90 Deg)	Y...	Y	1	1.2	39	1.2	77	1.5	30	1	68	1			



Load Combinations (Continued)

	Description	S...	PDelta	S...	B...	F...	BLC	F...	BLC	F...	B...	F...	B...	F...	B...	F...	B...	F...	B...	F...
29	1.2D + 1.5Lm1 + 1.0Wm (120 D...	Y...	Y		1	1.2	39	1.2	77	1.5	31	1	69	1						
30	1.2D + 1.5Lm1 + 1.0Wm (150 D...	Y...	Y		1	1.2	39	1.2	77	1.5	32	1	70	1						
31	1.2D + 1.5Lm1 + 1.0Wm (180 D...	Y...	Y		1	1.2	39	1.2	77	1.5	33	1	71	1						
32	1.2D + 1.5Lm1 + 1.0Wm (210 D...	Y...	Y		1	1.2	39	1.2	77	1.5	34	1	72	1						
33	1.2D + 1.5Lm1 + 1.0Wm (240 D...	Y...	Y		1	1.2	39	1.2	77	1.5	35	1	73	1						
34	1.2D + 1.5Lm1 + 1.0Wm (270 D...	Y...	Y		1	1.2	39	1.2	77	1.5	36	1	74	1						
35	1.2D + 1.5Lm1 + 1.0Wm (300 D...	Y...	Y		1	1.2	39	1.2	77	1.5	37	1	75	1						
36	1.2D + 1.5Lm1 + 1.0Wm (330 D...	Y...	Y		1	1.2	39	1.2	77	1.5	38	1	76	1						
37	1.2D + 1.5Lm2 + 1.0Wm (0 Deg)	Y...	Y		1	1.2	39	1.2	78	1.5	27	1	65	1						
38	1.2D + 1.5Lm2 + 1.0Wm (30 Deg)	Y...	Y		1	1.2	39	1.2	78	1.5	28	1	66	1						
39	1.2D + 1.5Lm2 + 1.0Wm (60 Deg)	Y...	Y		1	1.2	39	1.2	78	1.5	29	1	67	1						
40	1.2D + 1.5Lm2 + 1.0Wm (90 Deg)	Y...	Y		1	1.2	39	1.2	78	1.5	30	1	68	1						
41	1.2D + 1.5Lm2 + 1.0Wm (120 D...	Y...	Y		1	1.2	39	1.2	78	1.5	31	1	69	1						
42	1.2D + 1.5Lm2 + 1.0Wm (150 D...	Y...	Y		1	1.2	39	1.2	78	1.5	32	1	70	1						
43	1.2D + 1.5Lm2 + 1.0Wm (180 D...	Y...	Y		1	1.2	39	1.2	78	1.5	33	1	71	1						
44	1.2D + 1.5Lm2 + 1.0Wm (210 D...	Y...	Y		1	1.2	39	1.2	78	1.5	34	1	72	1						
45	1.2D + 1.5Lm2 + 1.0Wm (240 D...	Y...	Y		1	1.2	39	1.2	78	1.5	35	1	73	1						
46	1.2D + 1.5Lm2 + 1.0Wm (270 D...	Y...	Y		1	1.2	39	1.2	78	1.5	36	1	74	1						
47	1.2D + 1.5Lm2 + 1.0Wm (300 D...	Y...	Y		1	1.2	39	1.2	78	1.5	37	1	75	1						
48	1.2D + 1.5Lm2 + 1.0Wm (330 D...	Y...	Y		1	1.2	39	1.2	78	1.5	38	1	76	1						
49	1.2D + 1.5Lv1	Y...	Y		1	1.2	39	1.2	79	1.5										
50	1.2D + 1.5Lv2	Y...	Y		1	1.2	39	1.2	80	1.5										
51	1.4D	Y...	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 Deg)		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	.....					
55	1.2D + 1.0Ev + 1.0Eh (60 Deg)		Y		1	1.2	39	1.2	SX	.8...	SY	1	SZ	-.5						
56	1.2D + 1.0Ev + 1.0Eh (90 Deg)		Y		1	1.2	39	1.2	SX	1	SY	1	SZ							
57	1.2D + 1.0Ev + 1.0Eh (120 Deg)		Y		1	1.2	39	1.2	SX	.8...	SY	1	SZ	.5						
58	1.2D + 1.0Ev + 1.0Eh (150 Deg)		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	.8...						
59	1.2D + 1.0Ev + 1.0Eh (180 Deg)		Y		1	1.2	39	1.2	SX		SY	1	SZ	1						
60	1.2D + 1.0Ev + 1.0Eh (210 Deg)		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	.8...						
61	1.2D + 1.0Ev + 1.0Eh (240 Deg)		Y		1	1.2	39	1.2	SX	.....	SY	1	SZ	.5						
62	1.2D + 1.0Ev + 1.0Eh (270 Deg)		Y		1	1.2	39	1.2	SX	-1	SY	1	SZ							
63	1.2D + 1.0Ev + 1.0Eh (300 Deg)		Y		1	1.2	39	1.2	SX	.....	SY	1	SZ	-.5						
64	1.2D + 1.0Ev + 1.0Eh (330 Deg)		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	.....					

Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1	CENTER	0	0	0	0	
2	N12	-0.	0	-19.	0	
3	N13	-0.	0	-70.	0	
4	N16	-0.	0	-72	0	
5	N22	22.	0	-72.	0	
6	N25	-22.	0	-72.	0	
7	N28A	23.5	0	-72.866025	0	
8	N33	-23.5	0	-72.866025	0	
9	N10	-60.621778	0	35.	0	
10	N11	-62.353829	0	36.	0	
11	N12A	-73.353829	0	16.947441	0	
12	N13A	-51.353829	0	55.052559	0	
13	N14	-74.853829	0	16.081416	0	
14	N15	-51.353829	0	56.78461	0	
15	N17	60.621778	0	35.	0	
16	N18	62.353829	0	36.	0	



Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
17	N19	51.353829	0	55.052559	0	
18	N20	73.353829	0	16.947441	0	
19	N21	51.353829	0	56.78461	0	
20	N22A	74.853829	0	16.081416	0	
21	N23	0.	0	56.78461	0	
22	N24	-76.5	0	56.78461	0	
23	N25A	76.5	0	56.78461	0	
24	N26	49.176915	0	-28.392305	0	
25	N27	87.426915	0	37.858639	0	
26	N28	10.926915	0	-94.643248	0	
27	N29	-49.176915	0	-28.392305	0	
28	N30	-10.926915	0	-94.643248	0	
29	N31	-87.426915	0	37.858639	0	
30	N30A	-16.454483	0	9.5	0	
31	N32	16.454483	0	9.5	0	
32	N32A	72.	0	56.78461	0	
33	N33A	30.	0	56.78461	0	
34	N34	-30.	0	56.78461	0	
35	N35	-72.	0	56.78461	0	
36	N36	72.	0	59.78461	0	
37	N37	30.	0	59.78461	0	
38	N38	-30.	0	59.78461	0	
39	N39	-72.	0	59.78461	0	
40	N40	72.	-42	59.78461	0	
41	N41	30.	-42	59.78461	0	
42	N42	-30.	-42	59.78461	0	
43	N43	-72.	-42	59.78461	0	
44	N44	72.	30	59.78461	0	
45	N45	30.	30	59.78461	0	
46	N46	-30.	42	59.78461	0	
47	N47	-72.	30	59.78461	0	
48	N48	13.176915	0	-90.746134	0	
49	N49	34.176915	0	-54.373067	0	
50	N50	64.176915	0	-2.411543	0	
51	N51	85.176915	0	33.961524	0	
52	N52	15.774991	0	-92.246134	0	
53	N53	36.774991	0	-55.873067	0	
54	N54	66.774991	0	-3.911543	0	
55	N55	87.774991	0	32.461524	0	
56	N56	15.774991	-42	-92.246134	0	
57	N57	36.774991	-42	-55.873067	0	
58	N58	66.774991	-42	-3.911543	0	
59	N59	87.774991	-42	32.461524	0	
60	N60	15.774991	30	-92.246134	0	
61	N61	36.774991	30	-55.873067	0	
62	N62	66.774991	42	-3.911543	0	
63	N63	87.774991	30	32.461524	0	
64	N64	-85.176915	0	33.961524	0	
65	N65	-64.176915	0	-2.411543	0	
66	N66	-34.176915	0	-54.373067	0	
67	N67	-13.176915	0	-90.746134	0	
68	N68	-87.774991	0	32.461524	0	
69	N69	-66.774991	0	-3.911543	0	
70	N70	-36.774991	0	-55.873067	0	
71	N71	-15.774991	0	-92.246134	0	
72	N72	-87.774991	-42	32.461524	0	
73	N73	-66.774991	-42	-3.911543	0	



Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
74	N74	-36.774991	-42	-55.873067	0	
75	N75	-15.774991	-42	-92.246134	0	
76	N76	-87.774991	30	32.461524	0	
77	N77	-66.774991	30	-3.911543	0	
78	N78	-36.774991	42	-55.873067	0	
79	N79	-15.774991	30	-92.246134	0	
80	N80	-75.	24	56.78461	0	
81	N81	75.	24	56.78461	0	
82	N82	86.676915	24	36.5596	0	
83	N83	11.676915	24	-93.34421	0	
84	N84	-11.676915	24	-93.34421	0	
85	N85	-86.676915	24	36.5596	0	
86	N86	72.	24	56.78461	0	
87	N87	30.	24	56.78461	0	
88	N88	-30.	24	56.78461	0	
89	N89	-72.	24	56.78461	0	
90	N90	72.	24	59.78461	0	
91	N91	30.	24	59.78461	0	
92	N92	-30.	24	59.78461	0	
93	N93	-72.	24	59.78461	0	
94	N94	13.176915	24	-90.746134	0	
95	N95	34.176915	24	-54.373067	0	
96	N96	64.176915	24	-2.411543	0	
97	N97	85.176915	24	33.961524	0	
98	N98	15.774991	24	-92.246134	0	
99	N99	36.774991	24	-55.873067	0	
100	N100	66.774991	24	-3.911543	0	
101	N101	87.774991	24	32.461524	0	
102	N102	-85.176915	24	33.961524	0	
103	N103	-64.176915	24	-2.411543	0	
104	N104	-34.176915	24	-54.373067	0	
105	N105	-13.176915	24	-90.746134	0	
106	N106	-87.774991	24	32.461524	0	
107	N107	-66.774991	24	-3.911543	0	
108	N108	-36.774991	24	-55.873067	0	
109	N109	-15.774991	24	-92.246134	0	
110	N110	-63.	24	56.78461	0	
111	N111	-63.	24	54.78461	0	
112	N112	63.	24	56.78461	0	
113	N113	63.	24	54.78461	0	
114	N114	80.676915	24	26.167296	0	
115	N115	78.944864	24	27.167296	0	
116	N116	17.676915	24	-82.951905	0	
117	N117	15.944864	24	-81.951905	0	
118	N118	-17.676915	24	-82.951905	0	
119	N119	-15.944864	24	-81.951905	0	
120	N120	-80.676915	24	26.167296	0	
121	N121	-78.944864	24	27.167296	0	
122	N122	-0.	-30	-19.	0	
123	N123	-0.	0	-58.	0	
124	N124	-16.454483	-30	9.5	0	
125	N125	-50.229473	0	29.	0	
126	N126	16.454483	-30	9.5	0	
127	N127	50.229473	0	29.	0	



Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [i...	Izz [i...	J [in4]
1	Standoff Horizontal	PIPE 4.0	Beam	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
2	Cross Member	PIPE 3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
3	Face Horizontal	PIPE 3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
4	Mount Pipe	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
5	Support Rail	PIPE 2.5	Beam	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
6	Support Rail Corn...	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	.031
7	Kicker	LL3x3x3x3	Column	Double Angle (3/8 Ga...	A36 Gr.36	Typical	2.18	4.09	1.9	.027

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/...	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	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
5	A500 Gr. B 42	29000	11154	.3	.65	.49	42	1.4	58	1.3
6	A500 Gr. B 46	29000	11154	.3	.65	.49	46	1.4	58	1.3

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M8	N13	N16			RIGID	None	None	RIGID	Typical
2	M11	N25	N22			Cross Member	Beam	Pipe	A53 Gr. B	Typical
3	M17	N22	N28A			RIGID	None	None	RIGID	Typical
4	M18A	N25	N33			RIGID	None	None	RIGID	Typical
5	M20A	N12	N13			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
6	M7	N10	N11			RIGID	None	None	RIGID	Typical
7	OVP	N13A	N12A			Cross Member	Beam	Pipe	A53 Gr. B	Typical
8	M10A	N12A	N14			RIGID	None	None	RIGID	Typical
9	M11A	N13A	N15			RIGID	None	None	RIGID	Typical
10	M13	N17	N18			RIGID	None	None	RIGID	Typical
11	M15	N20	N19			Cross Member	Beam	Pipe	A53 Gr. B	Typical
12	M16	N19	N21			RIGID	None	None	RIGID	Typical
13	M17A	N20	N22A			RIGID	None	None	RIGID	Typical
14	FACE	N24	N25A			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
15	M20	N27	N28			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
16	M21	N30	N31			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
17	M20B	N30A	N10			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
18	M21A	N32	N17			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
19	M19A	N35	N39			RIGID	None	None	RIGID	Typical
20	LIVE1	N34	N38			RIGID	None	None	RIGID	Typical
21	LIVE2	N33A	N37			RIGID	None	None	RIGID	Typical
22	M22	N32A	N36			RIGID	None	None	RIGID	Typical
23	MP4A	N47	N43			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
24	MP3A	N46	N42			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
25	MP2A	N45	N41			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
26	MP1A	N44	N40			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
27	M27	N51	N55			RIGID	None	None	RIGID	Typical
28	M28	N50	N54			RIGID	None	None	RIGID	Typical
29	M29	N49	N53			RIGID	None	None	RIGID	Typical
30	M30	N48	N52			RIGID	None	None	RIGID	Typical
31	MP4C	N63	N59			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
32	MP3C	N62	N58			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
33	MP2C	N61	N57			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
34	MP1C	N60	N56			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
35	M35	N67	N71			RIGID	None	None	RIGID	Typical
36	M36	N66	N70			RIGID	None	None	RIGID	Typical
37	M37	N65	N69			RIGID	None	None	RIGID	Typical
38	M38	N64	N68			RIGID	None	None	RIGID	Typical
39	MP4B	N79	N75			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
40	MP3B	N78	N74			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
41	MP2B	N77	N73			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
42	MP1B	N76	N72			Mount Pipe	Beam	Pipe	A53 Gr. B	Typical
43	M43	N80	N81			Support Rail	Beam	Pipe	A53 Gr. B	Typical
44	M44	N82	N83			Support Rail	Beam	Pipe	A53 Gr. B	Typical
45	M45	N84	N85			Support Rail	Beam	Pipe	A53 Gr. B	Typical
46	M46	N89	N93			RIGID	None	None	RIGID	Typical
47	M47	N88	N92			RIGID	None	None	RIGID	Typical
48	M48	N87	N91			RIGID	None	None	RIGID	Typical
49	M49	N86	N90			RIGID	None	None	RIGID	Typical
50	M50	N97	N101			RIGID	None	None	RIGID	Typical
51	M51	N96	N100			RIGID	None	None	RIGID	Typical
52	M52	N95	N99			RIGID	None	None	RIGID	Typical
53	M53	N94	N98			RIGID	None	None	RIGID	Typical
54	M54	N105	N109			RIGID	None	None	RIGID	Typical
55	M55	N104	N108			RIGID	None	None	RIGID	Typical
56	M56	N103	N107			RIGID	None	None	RIGID	Typical
57	M57	N102	N106			RIGID	None	None	RIGID	Typical
58	M58	N110	N111			RIGID	None	None	RIGID	Typical
59	M59	N112	N113			RIGID	None	None	RIGID	Typical
60	M60	N114	N115			RIGID	None	None	RIGID	Typical
61	M61	N116	N117			RIGID	None	None	RIGID	Typical
62	M62	N118	N119			RIGID	None	None	RIGID	Typical
63	M63	N120	N121			RIGID	None	None	RIGID	Typical
64	M64	N111	N121		90	Support Rail C...	Beam	Single Angle	A36 Gr.36	Typical
65	M65	N119	N117		90	Support Rail C...	Beam	Single Angle	A36 Gr.36	Typical
66	M66	N115	N113		90	Support Rail C...	Beam	Single Angle	A36 Gr.36	Typical
67	M67	N123	N122			Kicker	Column	Double Angle (...)	A36 Gr.36	Typical
68	M68	N125	N124			Kicker	Column	Double Angle (...)	A36 Gr.36	Typical
69	M69	N127	N126			Kicker	Column	Double Angle (...)	A36 Gr.36	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp t...	Lcomp b...	L-tor...	Kyy	Kzz	Cb	Function
1	M11	Cross Member	44			Lbyy						Lateral
2	M20A	Standoff Horizontal	51			Lbyy						Lateral
3	OVP	Cross Member	44			Lbyy						Lateral
4	M15	Cross Member	44			Lbyy						Lateral
5	FACE	Face Horizontal	153			Lbyy						Lateral
6	M20	Face Horizontal	153			Lbyy						Lateral
7	M21	Face Horizontal	153			Lbyy						Lateral
8	M20B	Standoff Horizontal	51			Lbyy						Lateral
9	M21A	Standoff Horizontal	51			Lbyy						Lateral
10	MP4A	Mount Pipe	72			Lbyy						Lateral
11	MP3A	Mount Pipe	84			Lbyy						Lateral
12	MP2A	Mount Pipe	72			Lbyy						Lateral
13	MP1A	Mount Pipe	72			Lbyy						Lateral
14	MP4C	Mount Pipe	72			Lbyy						Lateral
15	MP3C	Mount Pipe	84			Lbyy						Lateral
16	MP2C	Mount Pipe	72			Lbyy						Lateral
17	MP1C	Mount Pipe	72			Lbyy						Lateral



Hot Rolled Steel Design Parameters (Continued)

Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp t...	Lcomp b...	L-tor...	Kyy	Kzz	Cb	Function
18	MP4B	Mount Pipe	72				Lbyy				Lateral
19	MP3B	Mount Pipe	84				Lbyy				Lateral
20	MP2B	Mount Pipe	72				Lbyy				Lateral
21	MP1B	Mount Pipe	72				Lbyy				Lateral
22	M43	Support Rail	150				Lbyy				Lateral
23	M44	Support Rail	150				Lbyy				Lateral
24	M45	Support Rail	150				Lbyy				Lateral
25	M64	Support Rail Corner	31.89				Lbyy				Lateral
26	M65	Support Rail Corner	31.89				Lbyy				Lateral
27	M66	Support Rail Corner	31.89				Lbyy				Lateral
28	M67	Kicker	49.204								Lateral
29	M68	Kicker	49.204								Lateral
30	M69	Kicker	49.204								Lateral

Member Point Loads (BLC 1 : Antenna D)

Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]	
1	MP3A	Y	-43.55	12
2	MP3A	My	-.022	12
3	MP3A	Mz	0	12
4	MP3A	Y	-43.55	24
5	MP3A	My	-.022	24
6	MP3A	Mz	0	24
7	MP3B	Y	-43.55	12
8	MP3B	My	.014	12
9	MP3B	Mz	-.017	12
10	MP3B	Y	-43.55	24
11	MP3B	My	.014	24
12	MP3B	Mz	-.017	24
13	MP3C	Y	-43.55	12
14	MP3C	My	.004	12
15	MP3C	Mz	.021	12
16	MP3C	Y	-43.55	24
17	MP3C	My	.004	24
18	MP3C	Mz	.021	24
19	MP3A	Y	-4.4	60
20	MP3A	My	-.002	60
21	MP3A	Mz	0	60
22	MP3B	Y	-4.4	60
23	MP3B	My	.001	60
24	MP3B	Mz	-.002	60
25	MP3C	Y	-4.4	60
26	MP3C	My	.000382	60
27	MP3C	Mz	.002	60
28	MP2A	Y	-84.4	18
29	MP2A	My	.042	18
30	MP2A	Mz	0	18
31	MP2B	Y	-84.4	18
32	MP2B	My	-.027	18
33	MP2B	Mz	.032	18
34	MP2C	Y	-84.4	18
35	MP2C	My	-.007	18
36	MP2C	Mz	-.042	18
37	MP3A	Y	-70.3	18
38	MP3A	My	.035	18
39	MP3A	Mz	0	18



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
40	MP3B	Y	-70.3	18
41	MP3B	My	-.023	18
42	MP3B	Mz	.027	18
43	MP3C	Y	-70.3	18
44	MP3C	My	-.006	18
45	MP3C	Mz	-.035	18
46	MP2A	Y	-31.65	6
47	MP2A	My	-.016	6
48	MP2A	Mz	.018	6
49	MP2A	Y	-31.65	54
50	MP2A	My	-.016	54
51	MP2A	Mz	.018	54
52	MP2B	Y	-31.65	6
53	MP2B	My	-.004	6
54	MP2B	Mz	-.024	6
55	MP2B	Y	-31.65	54
56	MP2B	My	-.004	54
57	MP2B	Mz	-.024	54
58	MP2C	Y	-31.65	6
59	MP2C	My	.021	6
60	MP2C	Mz	.012	6
61	MP2C	Y	-31.65	54
62	MP2C	My	.021	54
63	MP2C	Mz	.012	54
64	MP2A	Y	-31.65	6
65	MP2A	My	-.016	6
66	MP2A	Mz	-.018	6
67	MP2A	Y	-31.65	54
68	MP2A	My	-.016	54
69	MP2A	Mz	-.018	54
70	MP2B	Y	-31.65	6
71	MP2B	My	.024	6
72	MP2B	Mz	-.000255	6
73	MP2B	Y	-31.65	54
74	MP2B	My	.024	54
75	MP2B	Mz	-.000255	54
76	MP2C	Y	-31.65	6
77	MP2C	My	-.015	6
78	MP2C	Mz	.019	6
79	MP2C	Y	-31.65	54
80	MP2C	My	-.015	54
81	MP2C	Mz	.019	54
82	MP2A	Y	-20.8	48
83	MP2A	My	.01	48
84	MP2A	Mz	0	48
85	MP2B	Y	-20.8	48
86	MP2B	My	-.007	48
87	MP2B	Mz	.008	48
88	MP2C	Y	-20.8	48
89	MP2C	My	-.002	48
90	MP2C	Mz	-.01	48
91	OVP	Y	-32	12
92	OVP	My	0	12
93	OVP	Mz	0	12

Member Point Loads (BLC 2 : Antenna Di)



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	Y	-63.391	12
2	MP3A	My	-.032	12
3	MP3A	Mz	0	12
4	MP3A	Y	-63.391	24
5	MP3A	My	-.032	24
6	MP3A	Mz	0	24
7	MP3B	Y	-63.391	12
8	MP3B	My	.02	12
9	MP3B	Mz	-.024	12
10	MP3B	Y	-63.391	24
11	MP3B	My	.02	24
12	MP3B	Mz	-.024	24
13	MP3C	Y	-63.391	12
14	MP3C	My	.006	12
15	MP3C	Mz	.031	12
16	MP3C	Y	-63.391	24
17	MP3C	My	.006	24
18	MP3C	Mz	.031	24
19	MP3A	Y	-26.143	60
20	MP3A	My	-.013	60
21	MP3A	Mz	0	60
22	MP3B	Y	-26.143	60
23	MP3B	My	.008	60
24	MP3B	Mz	-.01	60
25	MP3C	Y	-26.143	60
26	MP3C	My	.002	60
27	MP3C	Mz	.013	60
28	MP2A	Y	-80.768	18
29	MP2A	My	.04	18
30	MP2A	Mz	0	18
31	MP2B	Y	-80.768	18
32	MP2B	My	-.026	18
33	MP2B	Mz	.031	18
34	MP2C	Y	-80.768	18
35	MP2C	My	-.007	18
36	MP2C	Mz	-.04	18
37	MP3A	Y	-73.009	18
38	MP3A	My	.037	18
39	MP3A	Mz	0	18
40	MP3B	Y	-73.009	18
41	MP3B	My	-.023	18
42	MP3B	Mz	.028	18
43	MP3C	Y	-73.009	18
44	MP3C	My	-.006	18
45	MP3C	Mz	-.036	18
46	MP2A	Y	-122.941	6
47	MP2A	My	-.061	6
48	MP2A	Mz	.072	6
49	MP2A	Y	-122.941	54
50	MP2A	My	-.061	54
51	MP2A	Mz	.072	54
52	MP2B	Y	-122.941	6
53	MP2B	My	-.015	6
54	MP2B	Mz	-.093	6
55	MP2B	Y	-122.941	54
56	MP2B	My	-.015	54
57	MP2B	Mz	-.093	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
58	MP2C	Y	-122.941	6
59	MP2C	My	.081	6
60	MP2C	Mz	.048	6
61	MP2C	Y	-122.941	54
62	MP2C	My	.081	54
63	MP2C	Mz	.048	54
64	MP2A	Y	-122.941	6
65	MP2A	My	-.061	6
66	MP2A	Mz	-.072	6
67	MP2A	Y	-122.941	54
68	MP2A	My	-.061	54
69	MP2A	Mz	-.072	54
70	MP2B	Y	-122.941	6
71	MP2B	My	.094	6
72	MP2B	Mz	-.000991	6
73	MP2B	Y	-122.941	54
74	MP2B	My	.094	54
75	MP2B	Mz	-.000991	54
76	MP2C	Y	-122.941	6
77	MP2C	My	-.06	6
78	MP2C	Mz	.073	6
79	MP2C	Y	-122.941	54
80	MP2C	My	-.06	54
81	MP2C	Mz	.073	54
82	MP2A	Y	-21.03	48
83	MP2A	My	.011	48
84	MP2A	Mz	0	48
85	MP2B	Y	-21.03	48
86	MP2B	My	-.007	48
87	MP2B	Mz	.008	48
88	MP2C	Y	-21.03	48
89	MP2C	My	-.002	48
90	MP2C	Mz	-.01	48
91	OVP	Y	-154.671	12
92	OVP	My	0	12
93	OVP	Mz	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	0	12
2	MP3A	Z	-101.699	12
3	MP3A	Mx	0	12
4	MP3A	X	0	24
5	MP3A	Z	-101.699	24
6	MP3A	Mx	0	24
7	MP3B	X	0	12
8	MP3B	Z	-65.384	12
9	MP3B	Mx	.025	12
10	MP3B	X	0	24
11	MP3B	Z	-65.384	24
12	MP3B	Mx	.025	24
13	MP3C	X	0	12
14	MP3C	Z	-41.681	12
15	MP3C	Mx	-.021	12
16	MP3C	X	0	24
17	MP3C	Z	-41.681	24



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
18	MP3C	Mx	-.021	24
19	MP3A	X	0	60
20	MP3A	Z	-38.516	60
21	MP3A	Mx	0	60
22	MP3B	X	0	60
23	MP3B	Z	-20.346	60
24	MP3B	Mx	.008	60
25	MP3C	X	0	60
26	MP3C	Z	-8.487	60
27	MP3C	Mx	-.004	60
28	MP2A	X	0	18
29	MP2A	Z	-80.927	18
30	MP2A	Mx	0	18
31	MP2B	X	0	18
32	MP2B	Z	-65.182	18
33	MP2B	Mx	-.025	18
34	MP2C	X	0	18
35	MP2C	Z	-54.905	18
36	MP2C	Mx	.027	18
37	MP3A	X	0	18
38	MP3A	Z	-80.927	18
39	MP3A	Mx	0	18
40	MP3B	X	0	18
41	MP3B	Z	-59.15	18
42	MP3B	Mx	-.023	18
43	MP3C	X	0	18
44	MP3C	Z	-44.936	18
45	MP3C	Mx	.022	18
46	MP2A	X	0	6
47	MP2A	Z	-197.124	6
48	MP2A	Mx	-.115	6
49	MP2A	X	0	54
50	MP2A	Z	-197.124	54
51	MP2A	Mx	-.115	54
52	MP2B	X	0	6
53	MP2B	Z	-157.422	6
54	MP2B	Mx	.119	6
55	MP2B	X	0	54
56	MP2B	Z	-157.422	54
57	MP2B	Mx	.119	54
58	MP2C	X	0	6
59	MP2C	Z	-131.509	6
60	MP2C	Mx	-.051	6
61	MP2C	X	0	54
62	MP2C	Z	-131.509	54
63	MP2C	Mx	-.051	54
64	MP2A	X	0	6
65	MP2A	Z	-197.124	6
66	MP2A	Mx	.115	6
67	MP2A	X	0	54
68	MP2A	Z	-197.124	54
69	MP2A	Mx	.115	54
70	MP2B	X	0	6
71	MP2B	Z	-157.422	6
72	MP2B	Mx	.001	6
73	MP2B	X	0	54
74	MP2B	Z	-157.422	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
75	MP2B	Mx	.001	54
76	MP2C	X	0	6
77	MP2C	Z	-131.509	6
78	MP2C	Mx	-.078	6
79	MP2C	X	0	54
80	MP2C	Z	-131.509	54
81	MP2C	Mx	-.078	54
82	MP2A	X	0	48
83	MP2A	Z	-16.012	48
84	MP2A	Mx	0	48
85	MP2B	X	0	48
86	MP2B	Z	-13.117	48
87	MP2B	Mx	-.005	48
88	MP2C	X	0	48
89	MP2C	Z	-11.228	48
90	MP2C	Mx	.006	48
91	OVP	X	0	12
92	OVP	Z	-134.049	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	43.114	12
2	MP3A	Z	-74.676	12
3	MP3A	Mx	-.022	12
4	MP3A	X	43.114	24
5	MP3A	Z	-74.676	24
6	MP3A	Mx	-.022	24
7	MP3B	X	20.841	12
8	MP3B	Z	-36.097	12
9	MP3B	Mx	.021	12
10	MP3B	X	20.841	24
11	MP3B	Z	-36.097	24
12	MP3B	Mx	.021	24
13	MP3C	X	32.692	12
14	MP3C	Z	-56.624	12
15	MP3C	Mx	-.025	12
16	MP3C	X	32.692	24
17	MP3C	Z	-56.624	24
18	MP3C	Mx	-.025	24
19	MP3A	X	15.388	60
20	MP3A	Z	-26.652	60
21	MP3A	Mx	-.008	60
22	MP3B	X	4.243	60
23	MP3B	Z	-7.35	60
24	MP3B	Mx	.004	60
25	MP3C	X	10.173	60
26	MP3C	Z	-17.62	60
27	MP3C	Mx	-.008	60
28	MP2A	X	37.109	18
29	MP2A	Z	-64.276	18
30	MP2A	Mx	.019	18
31	MP2B	X	27.452	18
32	MP2B	Z	-47.549	18
33	MP2B	Mx	-.027	18
34	MP2C	X	32.591	18



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]	
35	MP2C	Z	-56.449	18
36	MP2C	Mx	.025	18
37	MP3A	X	35.825	18
38	MP3A	Z	-62.05	18
39	MP3A	Mx	.018	18
40	MP3B	X	22.468	18
41	MP3B	Z	-38.916	18
42	MP3B	Mx	-.022	18
43	MP3C	X	29.575	18
44	MP3C	Z	-51.225	18
45	MP3C	Mx	.023	18
46	MP2A	X	90.105	6
47	MP2A	Z	-156.066	6
48	MP2A	Mx	-.136	6
49	MP2A	X	90.105	54
50	MP2A	Z	-156.066	54
51	MP2A	Mx	-.136	54
52	MP2B	X	65.754	6
53	MP2B	Z	-113.89	6
54	MP2B	Mx	.078	6
55	MP2B	X	65.754	54
56	MP2B	Z	-113.89	54
57	MP2B	Mx	.078	54
58	MP2C	X	78.711	6
59	MP2C	Z	-136.331	6
60	MP2C	Mx	-.001	6
61	MP2C	X	78.711	54
62	MP2C	Z	-136.331	54
63	MP2C	Mx	-.001	54
64	MP2A	X	90.105	6
65	MP2A	Z	-156.066	6
66	MP2A	Mx	.046	6
67	MP2A	X	90.105	54
68	MP2A	Z	-156.066	54
69	MP2A	Mx	.046	54
70	MP2B	X	65.754	6
71	MP2B	Z	-113.89	6
72	MP2B	Mx	.051	6
73	MP2B	X	65.754	54
74	MP2B	Z	-113.89	54
75	MP2B	Mx	.051	54
76	MP2C	X	78.711	6
77	MP2C	Z	-136.331	6
78	MP2C	Mx	-.119	6
79	MP2C	X	78.711	54
80	MP2C	Z	-136.331	54
81	MP2C	Mx	-.119	54
82	MP2A	X	7.389	48
83	MP2A	Z	-12.799	48
84	MP2A	Mx	.004	48
85	MP2B	X	5.614	48
86	MP2B	Z	-9.723	48
87	MP2B	Mx	-.006	48
88	MP2C	X	6.559	48
89	MP2C	Z	-11.36	48
90	MP2C	Mx	.005	48
91	OVP	X	72.231	12



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
92	OVP	Z	-125.108	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
1	MP3A	X	47.879	12
2	MP3A	Z	-27.643	12
3	MP3A	Mx	-.024	12
4	MP3A	X	47.879	24
5	MP3A	Z	-27.643	24
6	MP3A	Mx	-.024	24
7	MP3B	X	40.75	12
8	MP3B	Z	-23.527	12
9	MP3B	Mx	.022	12
10	MP3B	X	40.75	24
11	MP3B	Z	-23.527	24
12	MP3B	Mx	.022	24
13	MP3C	X	81.805	12
14	MP3C	Z	-47.23	12
15	MP3C	Mx	-.016	12
16	MP3C	X	81.805	24
17	MP3C	Z	-47.23	24
18	MP3C	Mx	-.016	24
19	MP3A	X	13.245	60
20	MP3A	Z	-7.647	60
21	MP3A	Mx	-.007	60
22	MP3B	X	9.678	60
23	MP3B	Z	-5.588	60
24	MP3B	Mx	.005	60
25	MP3C	X	30.219	60
26	MP3C	Z	-17.447	60
27	MP3C	Mx	-.006	60
28	MP2A	X	52.657	18
29	MP2A	Z	-30.402	18
30	MP2A	Mx	.026	18
31	MP2B	X	49.566	18
32	MP2B	Z	-28.617	18
33	MP2B	Mx	-.027	18
34	MP2C	X	67.367	18
35	MP2C	Z	-38.894	18
36	MP2C	Mx	.013	18
37	MP3A	X	45.981	18
38	MP3A	Z	-26.547	18
39	MP3A	Mx	.023	18
40	MP3B	X	41.706	18
41	MP3B	Z	-24.079	18
42	MP3B	Mx	-.023	18
43	MP3C	X	66.325	18
44	MP3C	Z	-38.293	18
45	MP3C	Mx	.013	18
46	MP2A	X	126.771	6
47	MP2A	Z	-73.191	6
48	MP2A	Mx	-.106	6
49	MP2A	X	126.771	54
50	MP2A	Z	-73.191	54
51	MP2A	Mx	-.106	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
52	MP2B	X	118.977	6
53	MP2B	Z	-68.691	6
54	MP2B	Mx	.037	6
55	MP2B	X	118.977	54
56	MP2B	Z	-68.691	54
57	MP2B	Mx	.037	54
58	MP2C	X	163.86	6
59	MP2C	Z	-94.605	6
60	MP2C	Mx	.071	6
61	MP2C	X	163.86	54
62	MP2C	Z	-94.605	54
63	MP2C	Mx	.071	54
64	MP2A	X	126.771	6
65	MP2A	Z	-73.191	6
66	MP2A	Mx	-.021	6
67	MP2A	X	126.771	54
68	MP2A	Z	-73.191	54
69	MP2A	Mx	-.021	54
70	MP2B	X	118.977	6
71	MP2B	Z	-68.691	6
72	MP2B	Mx	.092	6
73	MP2B	X	118.977	54
74	MP2B	Z	-68.691	54
75	MP2B	Mx	.092	54
76	MP2C	X	163.86	6
77	MP2C	Z	-94.605	6
78	MP2C	Mx	-.136	6
79	MP2C	X	163.86	54
80	MP2C	Z	-94.605	54
81	MP2C	Mx	-.136	54
82	MP2A	X	10.663	48
83	MP2A	Z	-6.156	48
84	MP2A	Mx	.005	48
85	MP2B	X	10.094	48
86	MP2B	Z	-5.828	48
87	MP2B	Mx	-.005	48
88	MP2C	X	13.367	48
89	MP2C	Z	-7.718	48
90	MP2C	Mx	.003	48
91	OVP	X	143.144	12
92	OVP	Z	-82.644	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	39.815	12
2	MP3A	Z	0	12
3	MP3A	Mx	-.02	12
4	MP3A	X	39.815	24
5	MP3A	Z	0	24
6	MP3A	Mx	-.02	24
7	MP3B	X	76.13	12
8	MP3B	Z	0	12
9	MP3B	Mx	.024	12
10	MP3B	X	76.13	24
11	MP3B	Z	0	24



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
12	MP3B	Mx	.024	24
13	MP3C	X	99.833	12
14	MP3C	Z	0	12
15	MP3C	Mx	.009	12
16	MP3C	X	99.833	24
17	MP3C	Z	0	24
18	MP3C	Mx	.009	24
19	MP3A	X	7.553	60
20	MP3A	Z	0	60
21	MP3A	Mx	-.004	60
22	MP3B	X	25.723	60
23	MP3B	Z	0	60
24	MP3B	Mx	.008	60
25	MP3C	X	37.582	60
26	MP3C	Z	0	60
27	MP3C	Mx	.003	60
28	MP2A	X	54.095	18
29	MP2A	Z	0	18
30	MP2A	Mx	.027	18
31	MP2B	X	69.841	18
32	MP2B	Z	0	18
33	MP2B	Mx	-.022	18
34	MP2C	X	80.118	18
35	MP2C	Z	0	18
36	MP2C	Mx	-.007	18
37	MP3A	X	43.817	18
38	MP3A	Z	0	18
39	MP3A	Mx	.022	18
40	MP3B	X	65.594	18
41	MP3B	Z	0	18
42	MP3B	Mx	-.021	18
43	MP3C	X	79.808	18
44	MP3C	Z	0	18
45	MP3C	Mx	-.007	18
46	MP2A	X	129.468	6
47	MP2A	Z	0	6
48	MP2A	Mx	-.065	6
49	MP2A	X	129.468	54
50	MP2A	Z	0	54
51	MP2A	Mx	-.065	54
52	MP2B	X	169.17	6
53	MP2B	Z	0	6
54	MP2B	Mx	-.021	6
55	MP2B	X	169.17	54
56	MP2B	Z	0	54
57	MP2B	Mx	-.021	54
58	MP2C	X	195.084	6
59	MP2C	Z	0	6
60	MP2C	Mx	.129	6
61	MP2C	X	195.084	54
62	MP2C	Z	0	54
63	MP2C	Mx	.129	54
64	MP2A	X	129.468	6
65	MP2A	Z	0	6
66	MP2A	Mx	-.065	6
67	MP2A	X	129.468	54
68	MP2A	Z	0	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
69	MP2A	Mx	-.065	54
70	MP2B	X	169.17	6
71	MP2B	Z	0	6
72	MP2B	Mx	.13	6
73	MP2B	X	169.17	54
74	MP2B	Z	0	54
75	MP2B	Mx	.13	54
76	MP2C	X	195.084	6
77	MP2C	Z	0	6
78	MP2C	Mx	-.095	6
79	MP2C	X	195.084	54
80	MP2C	Z	0	54
81	MP2C	Mx	-.095	54
82	MP2A	X	11.079	48
83	MP2A	Z	0	48
84	MP2A	Mx	.006	48
85	MP2B	X	13.974	48
86	MP2B	Z	0	48
87	MP2B	Mx	-.004	48
88	MP2C	X	15.863	48
89	MP2C	Z	0	48
90	MP2C	Mx	-.001	48
91	OVP	X	175.702	12
92	OVP	Z	0	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
1	MP3A	X	47.879	12
2	MP3A	Z	27.643	12
3	MP3A	Mx	-.024	12
4	MP3A	X	47.879	24
5	MP3A	Z	27.643	24
6	MP3A	Mx	-.024	24
7	MP3B	X	86.458	12
8	MP3B	Z	49.917	12
9	MP3B	Mx	.009	12
10	MP3B	X	86.458	24
11	MP3B	Z	49.917	24
12	MP3B	Mx	.009	24
13	MP3C	X	65.931	12
14	MP3C	Z	38.065	12
15	MP3C	Mx	.024	12
16	MP3C	X	65.931	24
17	MP3C	Z	38.065	24
18	MP3C	Mx	.024	24
19	MP3A	X	13.245	60
20	MP3A	Z	7.647	60
21	MP3A	Mx	-.007	60
22	MP3B	X	32.547	60
23	MP3B	Z	18.791	60
24	MP3B	Mx	.003	60
25	MP3C	X	22.277	60
26	MP3C	Z	12.861	60
27	MP3C	Mx	.008	60
28	MP2A	X	52.657	18



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
29	MP2A	Z	30.402	18
30	MP2A	Mx	.026	18
31	MP2B	X	69.384	18
32	MP2B	Z	40.059	18
33	MP2B	Mx	-.007	18
34	MP2C	X	60.484	18
35	MP2C	Z	34.92	18
36	MP2C	Mx	-.022	18
37	MP3A	X	45.981	18
38	MP3A	Z	26.547	18
39	MP3A	Mx	.023	18
40	MP3B	X	69.116	18
41	MP3B	Z	39.904	18
42	MP3B	Mx	-.007	18
43	MP3C	X	56.806	18
44	MP3C	Z	32.797	18
45	MP3C	Mx	-.021	18
46	MP2A	X	126.771	6
47	MP2A	Z	73.191	6
48	MP2A	Mx	-.021	6
49	MP2A	X	126.771	54
50	MP2A	Z	73.191	54
51	MP2A	Mx	-.021	54
52	MP2B	X	168.948	6
53	MP2B	Z	97.542	6
54	MP2B	Mx	-.095	6
55	MP2B	X	168.948	54
56	MP2B	Z	97.542	54
57	MP2B	Mx	-.095	54
58	MP2C	X	146.506	6
59	MP2C	Z	84.585	6
60	MP2C	Mx	.13	6
61	MP2C	X	146.506	54
62	MP2C	Z	84.585	54
63	MP2C	Mx	.13	54
64	MP2A	X	126.771	6
65	MP2A	Z	73.191	6
66	MP2A	Mx	-.106	6
67	MP2A	X	126.771	54
68	MP2A	Z	73.191	54
69	MP2A	Mx	-.106	54
70	MP2B	X	168.948	6
71	MP2B	Z	97.542	6
72	MP2B	Mx	.129	6
73	MP2B	X	168.948	54
74	MP2B	Z	97.542	54
75	MP2B	Mx	.129	54
76	MP2C	X	146.506	6
77	MP2C	Z	84.585	6
78	MP2C	Mx	-.021	6
79	MP2C	X	146.506	54
80	MP2C	Z	84.585	54
81	MP2C	Mx	-.021	54
82	MP2A	X	10.663	48
83	MP2A	Z	6.156	48
84	MP2A	Mx	.005	48
85	MP2B	X	13.738	48



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
86	MP2B	Z	7.932	48
87	MP2B	Mx	-0.01	48
88	MP2C	X	12.102	48
89	MP2C	Z	6.987	48
90	MP2C	Mx	-0.04	48
91	OVP	X	143.144	12
92	OVP	Z	82.644	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	43.114	12
2	MP3A	Z	74.676	12
3	MP3A	Mx	-0.22	12
4	MP3A	X	43.114	24
5	MP3A	Z	74.676	24
6	MP3A	Mx	-0.22	24
7	MP3B	X	47.23	12
8	MP3B	Z	81.805	12
9	MP3B	Mx	-0.16	12
10	MP3B	X	47.23	24
11	MP3B	Z	81.805	24
12	MP3B	Mx	-0.16	24
13	MP3C	X	23.527	12
14	MP3C	Z	40.75	12
15	MP3C	Mx	.022	12
16	MP3C	X	23.527	24
17	MP3C	Z	40.75	24
18	MP3C	Mx	.022	24
19	MP3A	X	15.388	60
20	MP3A	Z	26.652	60
21	MP3A	Mx	-0.08	60
22	MP3B	X	17.447	60
23	MP3B	Z	30.219	60
24	MP3B	Mx	-0.06	60
25	MP3C	X	5.588	60
26	MP3C	Z	9.678	60
27	MP3C	Mx	.005	60
28	MP2A	X	37.109	18
29	MP2A	Z	64.276	18
30	MP2A	Mx	.019	18
31	MP2B	X	38.894	18
32	MP2B	Z	67.367	18
33	MP2B	Mx	.013	18
34	MP2C	X	28.617	18
35	MP2C	Z	49.566	18
36	MP2C	Mx	-0.27	18
37	MP3A	X	35.825	18
38	MP3A	Z	62.05	18
39	MP3A	Mx	.018	18
40	MP3B	X	38.293	18
41	MP3B	Z	66.325	18
42	MP3B	Mx	.013	18
43	MP3C	X	24.079	18
44	MP3C	Z	41.706	18
45	MP3C	Mx	-0.23	18



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
46	MP2A	X	90.105	6
47	MP2A	Z	156.066	6
48	MP2A	Mx	.046	6
49	MP2A	X	90.105	54
50	MP2A	Z	156.066	54
51	MP2A	Mx	.046	54
52	MP2B	X	94.605	6
53	MP2B	Z	163.86	6
54	MP2B	Mx	-.136	6
55	MP2B	X	94.605	54
56	MP2B	Z	163.86	54
57	MP2B	Mx	-.136	54
58	MP2C	X	68.691	6
59	MP2C	Z	118.977	6
60	MP2C	Mx	.092	6
61	MP2C	X	68.691	54
62	MP2C	Z	118.977	54
63	MP2C	Mx	.092	54
64	MP2A	X	90.105	6
65	MP2A	Z	156.066	6
66	MP2A	Mx	-.136	6
67	MP2A	X	90.105	54
68	MP2A	Z	156.066	54
69	MP2A	Mx	-.136	54
70	MP2B	X	94.605	6
71	MP2B	Z	163.86	6
72	MP2B	Mx	.071	6
73	MP2B	X	94.605	54
74	MP2B	Z	163.86	54
75	MP2B	Mx	.071	54
76	MP2C	X	68.691	6
77	MP2C	Z	118.977	6
78	MP2C	Mx	.037	6
79	MP2C	X	68.691	54
80	MP2C	Z	118.977	54
81	MP2C	Mx	.037	54
82	MP2A	X	7.389	48
83	MP2A	Z	12.799	48
84	MP2A	Mx	.004	48
85	MP2B	X	7.718	48
86	MP2B	Z	13.367	48
87	MP2B	Mx	.003	48
88	MP2C	X	5.828	48
89	MP2C	Z	10.094	48
90	MP2C	Mx	-.005	48
91	OVP	X	72.231	12
92	OVP	Z	125.108	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	0	12
2	MP3A	Z	101.699	12
3	MP3A	Mx	0	12
4	MP3A	X	0	24
5	MP3A	Z	101.699	24



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]	
6	MP3A	Mx	0	24
7	MP3B	X	0	12
8	MP3B	Z	65.384	12
9	MP3B	Mx	-.025	12
10	MP3B	X	0	24
11	MP3B	Z	65.384	24
12	MP3B	Mx	-.025	24
13	MP3C	X	0	12
14	MP3C	Z	41.681	12
15	MP3C	Mx	.021	12
16	MP3C	X	0	24
17	MP3C	Z	41.681	24
18	MP3C	Mx	.021	24
19	MP3A	X	0	60
20	MP3A	Z	38.516	60
21	MP3A	Mx	0	60
22	MP3B	X	0	60
23	MP3B	Z	20.346	60
24	MP3B	Mx	-.008	60
25	MP3C	X	0	60
26	MP3C	Z	8.487	60
27	MP3C	Mx	.004	60
28	MP2A	X	0	18
29	MP2A	Z	80.927	18
30	MP2A	Mx	0	18
31	MP2B	X	0	18
32	MP2B	Z	65.182	18
33	MP2B	Mx	.025	18
34	MP2C	X	0	18
35	MP2C	Z	54.905	18
36	MP2C	Mx	-.027	18
37	MP3A	X	0	18
38	MP3A	Z	80.927	18
39	MP3A	Mx	0	18
40	MP3B	X	0	18
41	MP3B	Z	59.15	18
42	MP3B	Mx	.023	18
43	MP3C	X	0	18
44	MP3C	Z	44.936	18
45	MP3C	Mx	-.022	18
46	MP2A	X	0	6
47	MP2A	Z	197.124	6
48	MP2A	Mx	.115	6
49	MP2A	X	0	54
50	MP2A	Z	197.124	54
51	MP2A	Mx	.115	54
52	MP2B	X	0	6
53	MP2B	Z	157.422	6
54	MP2B	Mx	-.119	6
55	MP2B	X	0	54
56	MP2B	Z	157.422	54
57	MP2B	Mx	-.119	54
58	MP2C	X	0	6
59	MP2C	Z	131.509	6
60	MP2C	Mx	.051	6
61	MP2C	X	0	54
62	MP2C	Z	131.509	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
63	MP2C	Mx	.051	54
64	MP2A	X	0	6
65	MP2A	Z	197.124	6
66	MP2A	Mx	-.115	6
67	MP2A	X	0	54
68	MP2A	Z	197.124	54
69	MP2A	Mx	-.115	54
70	MP2B	X	0	6
71	MP2B	Z	157.422	6
72	MP2B	Mx	-.001	6
73	MP2B	X	0	54
74	MP2B	Z	157.422	54
75	MP2B	Mx	-.001	54
76	MP2C	X	0	6
77	MP2C	Z	131.509	6
78	MP2C	Mx	.078	6
79	MP2C	X	0	54
80	MP2C	Z	131.509	54
81	MP2C	Mx	.078	54
82	MP2A	X	0	48
83	MP2A	Z	16.012	48
84	MP2A	Mx	0	48
85	MP2B	X	0	48
86	MP2B	Z	13.117	48
87	MP2B	Mx	.005	48
88	MP2C	X	0	48
89	MP2C	Z	11.228	48
90	MP2C	Mx	-.006	48
91	OVP	X	0	12
92	OVP	Z	134.049	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	-43.114	12
2	MP3A	Z	74.676	12
3	MP3A	Mx	.022	12
4	MP3A	X	-43.114	24
5	MP3A	Z	74.676	24
6	MP3A	Mx	.022	24
7	MP3B	X	-20.841	12
8	MP3B	Z	36.097	12
9	MP3B	Mx	-.021	12
10	MP3B	X	-20.841	24
11	MP3B	Z	36.097	24
12	MP3B	Mx	-.021	24
13	MP3C	X	-32.692	12
14	MP3C	Z	56.624	12
15	MP3C	Mx	.025	12
16	MP3C	X	-32.692	24
17	MP3C	Z	56.624	24
18	MP3C	Mx	.025	24
19	MP3A	X	-15.388	60
20	MP3A	Z	26.652	60
21	MP3A	Mx	.008	60
22	MP3B	X	-4.243	60



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]	
23	MP3B	Z	7.35	60
24	MP3B	Mx	-0.04	60
25	MP3C	X	-10.173	60
26	MP3C	Z	17.62	60
27	MP3C	Mx	.008	60
28	MP2A	X	-37.109	18
29	MP2A	Z	64.276	18
30	MP2A	Mx	-.019	18
31	MP2B	X	-27.452	18
32	MP2B	Z	47.549	18
33	MP2B	Mx	.027	18
34	MP2C	X	-32.591	18
35	MP2C	Z	56.449	18
36	MP2C	Mx	-.025	18
37	MP3A	X	-35.825	18
38	MP3A	Z	62.05	18
39	MP3A	Mx	-.018	18
40	MP3B	X	-22.468	18
41	MP3B	Z	38.916	18
42	MP3B	Mx	.022	18
43	MP3C	X	-29.575	18
44	MP3C	Z	51.225	18
45	MP3C	Mx	-.023	18
46	MP2A	X	-90.105	6
47	MP2A	Z	156.066	6
48	MP2A	Mx	.136	6
49	MP2A	X	-90.105	54
50	MP2A	Z	156.066	54
51	MP2A	Mx	.136	54
52	MP2B	X	-65.754	6
53	MP2B	Z	113.89	6
54	MP2B	Mx	-.078	6
55	MP2B	X	-65.754	54
56	MP2B	Z	113.89	54
57	MP2B	Mx	-.078	54
58	MP2C	X	-78.711	6
59	MP2C	Z	136.331	6
60	MP2C	Mx	.001	6
61	MP2C	X	-78.711	54
62	MP2C	Z	136.331	54
63	MP2C	Mx	.001	54
64	MP2A	X	-90.105	6
65	MP2A	Z	156.066	6
66	MP2A	Mx	-.046	6
67	MP2A	X	-90.105	54
68	MP2A	Z	156.066	54
69	MP2A	Mx	-.046	54
70	MP2B	X	-65.754	6
71	MP2B	Z	113.89	6
72	MP2B	Mx	-.051	6
73	MP2B	X	-65.754	54
74	MP2B	Z	113.89	54
75	MP2B	Mx	-.051	54
76	MP2C	X	-78.711	6
77	MP2C	Z	136.331	6
78	MP2C	Mx	.119	6
79	MP2C	X	-78.711	54



Company : Maser Consulting
 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

July 13, 2021
 9:33 AM
 Checked By: DX

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]
80	MP2C	Z	136.331	54
81	MP2C	Mx	.119	54
82	MP2A	X	-7.389	48
83	MP2A	Z	12.799	48
84	MP2A	Mx	-.004	48
85	MP2B	X	-5.614	48
86	MP2B	Z	9.723	48
87	MP2B	Mx	.006	48
88	MP2C	X	-6.559	48
89	MP2C	Z	11.36	48
90	MP2C	Mx	-.005	48
91	OVP	X	-72.231	12
92	OVP	Z	125.108	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]
1	MP3A	X	-47.879	12
2	MP3A	Z	27.643	12
3	MP3A	Mx	.024	12
4	MP3A	X	-47.879	24
5	MP3A	Z	27.643	24
6	MP3A	Mx	.024	24
7	MP3B	X	-40.75	12
8	MP3B	Z	23.527	12
9	MP3B	Mx	-.022	12
10	MP3B	X	-40.75	24
11	MP3B	Z	23.527	24
12	MP3B	Mx	-.022	24
13	MP3C	X	-81.805	12
14	MP3C	Z	47.23	12
15	MP3C	Mx	.016	12
16	MP3C	X	-81.805	24
17	MP3C	Z	47.23	24
18	MP3C	Mx	.016	24
19	MP3A	X	-13.245	60
20	MP3A	Z	7.647	60
21	MP3A	Mx	.007	60
22	MP3B	X	-9.678	60
23	MP3B	Z	5.588	60
24	MP3B	Mx	-.005	60
25	MP3C	X	-30.219	60
26	MP3C	Z	17.447	60
27	MP3C	Mx	.006	60
28	MP2A	X	-52.657	18
29	MP2A	Z	30.402	18
30	MP2A	Mx	-.026	18
31	MP2B	X	-49.566	18
32	MP2B	Z	28.617	18
33	MP2B	Mx	.027	18
34	MP2C	X	-67.367	18
35	MP2C	Z	38.894	18
36	MP2C	Mx	-.013	18
37	MP3A	X	-45.981	18
38	MP3A	Z	26.547	18
39	MP3A	Mx	-.023	18



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]	
40	MP3B	X	-41.706	18
41	MP3B	Z	24.079	18
42	MP3B	Mx	.023	18
43	MP3C	X	-66.325	18
44	MP3C	Z	38.293	18
45	MP3C	Mx	-.013	18
46	MP2A	X	-126.771	6
47	MP2A	Z	73.191	6
48	MP2A	Mx	.106	6
49	MP2A	X	-126.771	54
50	MP2A	Z	73.191	54
51	MP2A	Mx	.106	54
52	MP2B	X	-118.977	6
53	MP2B	Z	68.691	6
54	MP2B	Mx	-.037	6
55	MP2B	X	-118.977	54
56	MP2B	Z	68.691	54
57	MP2B	Mx	-.037	54
58	MP2C	X	-163.86	6
59	MP2C	Z	94.605	6
60	MP2C	Mx	-.071	6
61	MP2C	X	-163.86	54
62	MP2C	Z	94.605	54
63	MP2C	Mx	-.071	54
64	MP2A	X	-126.771	6
65	MP2A	Z	73.191	6
66	MP2A	Mx	.021	6
67	MP2A	X	-126.771	54
68	MP2A	Z	73.191	54
69	MP2A	Mx	.021	54
70	MP2B	X	-118.977	6
71	MP2B	Z	68.691	6
72	MP2B	Mx	-.092	6
73	MP2B	X	-118.977	54
74	MP2B	Z	68.691	54
75	MP2B	Mx	-.092	54
76	MP2C	X	-163.86	6
77	MP2C	Z	94.605	6
78	MP2C	Mx	.136	6
79	MP2C	X	-163.86	54
80	MP2C	Z	94.605	54
81	MP2C	Mx	.136	54
82	MP2A	X	-10.663	48
83	MP2A	Z	6.156	48
84	MP2A	Mx	-.005	48
85	MP2B	X	-10.094	48
86	MP2B	Z	5.828	48
87	MP2B	Mx	.005	48
88	MP2C	X	-13.367	48
89	MP2C	Z	7.718	48
90	MP2C	Mx	-.003	48
91	OVP	X	-143.144	12
92	OVP	Z	82.644	12
93	OVP	Mx	0	12

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



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
1	MP3A	X	-39.815	12
2	MP3A	Z	0	12
3	MP3A	Mx	.02	12
4	MP3A	X	-39.815	24
5	MP3A	Z	0	24
6	MP3A	Mx	.02	24
7	MP3B	X	-76.13	12
8	MP3B	Z	0	12
9	MP3B	Mx	-.024	12
10	MP3B	X	-76.13	24
11	MP3B	Z	0	24
12	MP3B	Mx	-.024	24
13	MP3C	X	-99.833	12
14	MP3C	Z	0	12
15	MP3C	Mx	-.009	12
16	MP3C	X	-99.833	24
17	MP3C	Z	0	24
18	MP3C	Mx	-.009	24
19	MP3A	X	-7.553	60
20	MP3A	Z	0	60
21	MP3A	Mx	.004	60
22	MP3B	X	-25.723	60
23	MP3B	Z	0	60
24	MP3B	Mx	-.008	60
25	MP3C	X	-37.582	60
26	MP3C	Z	0	60
27	MP3C	Mx	-.003	60
28	MP2A	X	-54.095	18
29	MP2A	Z	0	18
30	MP2A	Mx	-.027	18
31	MP2B	X	-69.841	18
32	MP2B	Z	0	18
33	MP2B	Mx	.022	18
34	MP2C	X	-80.118	18
35	MP2C	Z	0	18
36	MP2C	Mx	.007	18
37	MP3A	X	-43.817	18
38	MP3A	Z	0	18
39	MP3A	Mx	-.022	18
40	MP3B	X	-65.594	18
41	MP3B	Z	0	18
42	MP3B	Mx	.021	18
43	MP3C	X	-79.808	18
44	MP3C	Z	0	18
45	MP3C	Mx	.007	18
46	MP2A	X	-129.468	6
47	MP2A	Z	0	6
48	MP2A	Mx	.065	6
49	MP2A	X	-129.468	54
50	MP2A	Z	0	54
51	MP2A	Mx	.065	54
52	MP2B	X	-169.17	6
53	MP2B	Z	0	6
54	MP2B	Mx	.021	6
55	MP2B	X	-169.17	54
56	MP2B	Z	0	54
57	MP2B	Mx	.021	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
58	MP2C	X	-195.084	6
59	MP2C	Z	0	6
60	MP2C	Mx	-.129	6
61	MP2C	X	-195.084	54
62	MP2C	Z	0	54
63	MP2C	Mx	-.129	54
64	MP2A	X	-129.468	6
65	MP2A	Z	0	6
66	MP2A	Mx	.065	6
67	MP2A	X	-129.468	54
68	MP2A	Z	0	54
69	MP2A	Mx	.065	54
70	MP2B	X	-169.17	6
71	MP2B	Z	0	6
72	MP2B	Mx	-.13	6
73	MP2B	X	-169.17	54
74	MP2B	Z	0	54
75	MP2B	Mx	-.13	54
76	MP2C	X	-195.084	6
77	MP2C	Z	0	6
78	MP2C	Mx	.095	6
79	MP2C	X	-195.084	54
80	MP2C	Z	0	54
81	MP2C	Mx	.095	54
82	MP2A	X	-11.079	48
83	MP2A	Z	0	48
84	MP2A	Mx	-.006	48
85	MP2B	X	-13.974	48
86	MP2B	Z	0	48
87	MP2B	Mx	.004	48
88	MP2C	X	-15.863	48
89	MP2C	Z	0	48
90	MP2C	Mx	.001	48
91	OVP	X	-175.702	12
92	OVP	Z	0	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	-47.879	12
2	MP3A	Z	-27.643	12
3	MP3A	Mx	.024	12
4	MP3A	X	-47.879	24
5	MP3A	Z	-27.643	24
6	MP3A	Mx	.024	24
7	MP3B	X	-86.458	12
8	MP3B	Z	-49.917	12
9	MP3B	Mx	-.009	12
10	MP3B	X	-86.458	24
11	MP3B	Z	-49.917	24
12	MP3B	Mx	-.009	24
13	MP3C	X	-65.931	12
14	MP3C	Z	-38.065	12
15	MP3C	Mx	-.024	12
16	MP3C	X	-65.931	24
17	MP3C	Z	-38.065	24



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]	
18	MP3C	Mx	.024	24
19	MP3A	X	-13.245	60
20	MP3A	Z	-7.647	60
21	MP3A	Mx	.007	60
22	MP3B	X	-32.547	60
23	MP3B	Z	-18.791	60
24	MP3B	Mx	-.003	60
25	MP3C	X	-22.277	60
26	MP3C	Z	-12.861	60
27	MP3C	Mx	-.008	60
28	MP2A	X	-52.657	18
29	MP2A	Z	-30.402	18
30	MP2A	Mx	-.026	18
31	MP2B	X	-69.384	18
32	MP2B	Z	-40.059	18
33	MP2B	Mx	.007	18
34	MP2C	X	-60.484	18
35	MP2C	Z	-34.92	18
36	MP2C	Mx	.022	18
37	MP3A	X	-45.981	18
38	MP3A	Z	-26.547	18
39	MP3A	Mx	-.023	18
40	MP3B	X	-69.116	18
41	MP3B	Z	-39.904	18
42	MP3B	Mx	.007	18
43	MP3C	X	-56.806	18
44	MP3C	Z	-32.797	18
45	MP3C	Mx	.021	18
46	MP2A	X	-126.771	6
47	MP2A	Z	-73.191	6
48	MP2A	Mx	.021	6
49	MP2A	X	-126.771	54
50	MP2A	Z	-73.191	54
51	MP2A	Mx	.021	54
52	MP2B	X	-168.948	6
53	MP2B	Z	-97.542	6
54	MP2B	Mx	.095	6
55	MP2B	X	-168.948	54
56	MP2B	Z	-97.542	54
57	MP2B	Mx	.095	54
58	MP2C	X	-146.506	6
59	MP2C	Z	-84.585	6
60	MP2C	Mx	-.13	6
61	MP2C	X	-146.506	54
62	MP2C	Z	-84.585	54
63	MP2C	Mx	-.13	54
64	MP2A	X	-126.771	6
65	MP2A	Z	-73.191	6
66	MP2A	Mx	.106	6
67	MP2A	X	-126.771	54
68	MP2A	Z	-73.191	54
69	MP2A	Mx	.106	54
70	MP2B	X	-168.948	6
71	MP2B	Z	-97.542	6
72	MP2B	Mx	-.129	6
73	MP2B	X	-168.948	54
74	MP2B	Z	-97.542	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
75	MP2B	Mx	-.129	54
76	MP2C	X	-146.506	6
77	MP2C	Z	-84.585	6
78	MP2C	Mx	.021	6
79	MP2C	X	-146.506	54
80	MP2C	Z	-84.585	54
81	MP2C	Mx	.021	54
82	MP2A	X	-10.663	48
83	MP2A	Z	-6.156	48
84	MP2A	Mx	-.005	48
85	MP2B	X	-13.738	48
86	MP2B	Z	-7.932	48
87	MP2B	Mx	.001	48
88	MP2C	X	-12.102	48
89	MP2C	Z	-6.987	48
90	MP2C	Mx	.004	48
91	OVP	X	-143.144	12
92	OVP	Z	-82.644	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	-43.114	12
2	MP3A	Z	-74.676	12
3	MP3A	Mx	.022	12
4	MP3A	X	-43.114	24
5	MP3A	Z	-74.676	24
6	MP3A	Mx	.022	24
7	MP3B	X	-47.23	12
8	MP3B	Z	-81.805	12
9	MP3B	Mx	.016	12
10	MP3B	X	-47.23	24
11	MP3B	Z	-81.805	24
12	MP3B	Mx	.016	24
13	MP3C	X	-23.527	12
14	MP3C	Z	-40.75	12
15	MP3C	Mx	-.022	12
16	MP3C	X	-23.527	24
17	MP3C	Z	-40.75	24
18	MP3C	Mx	-.022	24
19	MP3A	X	-15.388	60
20	MP3A	Z	-26.652	60
21	MP3A	Mx	.008	60
22	MP3B	X	-17.447	60
23	MP3B	Z	-30.219	60
24	MP3B	Mx	.006	60
25	MP3C	X	-5.588	60
26	MP3C	Z	-9.678	60
27	MP3C	Mx	-.005	60
28	MP2A	X	-37.109	18
29	MP2A	Z	-64.276	18
30	MP2A	Mx	-.019	18
31	MP2B	X	-38.894	18
32	MP2B	Z	-67.367	18
33	MP2B	Mx	-.013	18
34	MP2C	X	-28.617	18



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]	
35	MP2C	Z	-49.566	18
36	MP2C	Mx	.027	18
37	MP3A	X	-35.825	18
38	MP3A	Z	-62.05	18
39	MP3A	Mx	-.018	18
40	MP3B	X	-38.293	18
41	MP3B	Z	-66.325	18
42	MP3B	Mx	-.013	18
43	MP3C	X	-24.079	18
44	MP3C	Z	-41.706	18
45	MP3C	Mx	.023	18
46	MP2A	X	-90.105	6
47	MP2A	Z	-156.066	6
48	MP2A	Mx	-.046	6
49	MP2A	X	-90.105	54
50	MP2A	Z	-156.066	54
51	MP2A	Mx	-.046	54
52	MP2B	X	-94.605	6
53	MP2B	Z	-163.86	6
54	MP2B	Mx	.136	6
55	MP2B	X	-94.605	54
56	MP2B	Z	-163.86	54
57	MP2B	Mx	.136	54
58	MP2C	X	-68.691	6
59	MP2C	Z	-118.977	6
60	MP2C	Mx	-.092	6
61	MP2C	X	-68.691	54
62	MP2C	Z	-118.977	54
63	MP2C	Mx	-.092	54
64	MP2A	X	-90.105	6
65	MP2A	Z	-156.066	6
66	MP2A	Mx	.136	6
67	MP2A	X	-90.105	54
68	MP2A	Z	-156.066	54
69	MP2A	Mx	.136	54
70	MP2B	X	-94.605	6
71	MP2B	Z	-163.86	6
72	MP2B	Mx	-.071	6
73	MP2B	X	-94.605	54
74	MP2B	Z	-163.86	54
75	MP2B	Mx	-.071	54
76	MP2C	X	-68.691	6
77	MP2C	Z	-118.977	6
78	MP2C	Mx	-.037	6
79	MP2C	X	-68.691	54
80	MP2C	Z	-118.977	54
81	MP2C	Mx	-.037	54
82	MP2A	X	-7.389	48
83	MP2A	Z	-12.799	48
84	MP2A	Mx	-.004	48
85	MP2B	X	-7.718	48
86	MP2B	Z	-13.367	48
87	MP2B	Mx	-.003	48
88	MP2C	X	-5.828	48
89	MP2C	Z	-10.094	48
90	MP2C	Mx	.005	48
91	OVP	X	-72.231	12



Company : Maser Consulting
 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

July 13, 2021
 9:33 AM
 Checked By: DX

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
92	OVP	Z	-125.108	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	0	12
2	MP3A	Z	-22.264	12
3	MP3A	Mx	0	12
4	MP3A	X	0	24
5	MP3A	Z	-22.264	24
6	MP3A	Mx	0	24
7	MP3B	X	0	12
8	MP3B	Z	-15.074	12
9	MP3B	Mx	.006	12
10	MP3B	X	0	24
11	MP3B	Z	-15.074	24
12	MP3B	Mx	.006	24
13	MP3C	X	0	12
14	MP3C	Z	-10.382	12
15	MP3C	Mx	-.005	12
16	MP3C	X	0	24
17	MP3C	Z	-10.382	24
18	MP3C	Mx	-.005	24
19	MP3A	X	0	60
20	MP3A	Z	-10.509	60
21	MP3A	Mx	0	60
22	MP3B	X	0	60
23	MP3B	Z	-6.521	60
24	MP3B	Mx	.002	60
25	MP3C	X	0	60
26	MP3C	Z	-3.918	60
27	MP3C	Mx	-.002	60
28	MP2A	X	0	18
29	MP2A	Z	-19.447	18
30	MP2A	Mx	0	18
31	MP2B	X	0	18
32	MP2B	Z	-16.174	18
33	MP2B	Mx	-.006	18
34	MP2C	X	0	18
35	MP2C	Z	-14.038	18
36	MP2C	Mx	.007	18
37	MP3A	X	0	18
38	MP3A	Z	-19.447	18
39	MP3A	Mx	0	18
40	MP3B	X	0	18
41	MP3B	Z	-14.93	18
42	MP3B	Mx	-.006	18
43	MP3C	X	0	18
44	MP3C	Z	-11.982	18
45	MP3C	Mx	.006	18
46	MP2A	X	0	6
47	MP2A	Z	-41.15	6
48	MP2A	Mx	-.024	6
49	MP2A	X	0	54
50	MP2A	Z	-41.15	54
51	MP2A	Mx	-.024	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
52	MP2B	X	0	6
53	MP2B	Z	-33.787	6
54	MP2B	Mx	.026	6
55	MP2B	X	0	54
56	MP2B	Z	-33.787	54
57	MP2B	Mx	.026	54
58	MP2C	X	0	6
59	MP2C	Z	-28.981	6
60	MP2C	Mx	-.011	6
61	MP2C	X	0	54
62	MP2C	Z	-28.981	54
63	MP2C	Mx	-.011	54
64	MP2A	X	0	6
65	MP2A	Z	-41.15	6
66	MP2A	Mx	.024	6
67	MP2A	X	0	54
68	MP2A	Z	-41.15	54
69	MP2A	Mx	.024	54
70	MP2B	X	0	6
71	MP2B	Z	-33.787	6
72	MP2B	Mx	.000272	6
73	MP2B	X	0	54
74	MP2B	Z	-33.787	54
75	MP2B	Mx	.000272	54
76	MP2C	X	0	6
77	MP2C	Z	-28.981	6
78	MP2C	Mx	-.017	6
79	MP2C	X	0	54
80	MP2C	Z	-28.981	54
81	MP2C	Mx	-.017	54
82	MP2A	X	0	48
83	MP2A	Z	-5.329	48
84	MP2A	Mx	0	48
85	MP2B	X	0	48
86	MP2B	Z	-4.64	48
87	MP2B	Mx	-.002	48
88	MP2C	X	0	48
89	MP2C	Z	-4.191	48
90	MP2C	Mx	.002	48
91	OVP	X	0	12
92	OVP	Z	-30.692	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	9.6	12
2	MP3A	Z	-16.628	12
3	MP3A	Mx	-.005	12
4	MP3A	X	9.6	24
5	MP3A	Z	-16.628	24
6	MP3A	Mx	-.005	24
7	MP3B	X	5.191	12
8	MP3B	Z	-8.991	12
9	MP3B	Mx	.005	12
10	MP3B	X	5.191	24
11	MP3B	Z	-8.991	24



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
12	MP3B	Mx	.005	24
13	MP3C	X	7.537	12
14	MP3C	Z	-13.055	12
15	MP3C	Mx	-.006	12
16	MP3C	X	7.537	24
17	MP3C	Z	-13.055	24
18	MP3C	Mx	-.006	24
19	MP3A	X	4.405	60
20	MP3A	Z	-7.63	60
21	MP3A	Mx	-.002	60
22	MP3B	X	1.959	60
23	MP3B	Z	-3.394	60
24	MP3B	Mx	.002	60
25	MP3C	X	3.261	60
26	MP3C	Z	-5.648	60
27	MP3C	Mx	-.002	60
28	MP2A	X	9.026	18
29	MP2A	Z	-15.634	18
30	MP2A	Mx	.005	18
31	MP2B	X	7.019	18
32	MP2B	Z	-12.157	18
33	MP2B	Mx	-.007	18
34	MP2C	X	8.087	18
35	MP2C	Z	-14.007	18
36	MP2C	Mx	.006	18
37	MP3A	X	8.761	18
38	MP3A	Z	-15.175	18
39	MP3A	Mx	.004	18
40	MP3B	X	5.991	18
41	MP3B	Z	-10.377	18
42	MP3B	Mx	-.006	18
43	MP3C	X	7.465	18
44	MP3C	Z	-12.93	18
45	MP3C	Mx	.006	18
46	MP2A	X	19.007	6
47	MP2A	Z	-32.921	6
48	MP2A	Mx	-.029	6
49	MP2A	X	19.007	54
50	MP2A	Z	-32.921	54
51	MP2A	Mx	-.029	54
52	MP2B	X	14.491	6
53	MP2B	Z	-25.098	6
54	MP2B	Mx	.017	6
55	MP2B	X	14.491	54
56	MP2B	Z	-25.098	54
57	MP2B	Mx	.017	54
58	MP2C	X	16.894	6
59	MP2C	Z	-29.261	6
60	MP2C	Mx	-.000272	6
61	MP2C	X	16.894	54
62	MP2C	Z	-29.261	54
63	MP2C	Mx	-.000272	54
64	MP2A	X	19.007	6
65	MP2A	Z	-32.921	6
66	MP2A	Mx	.01	6
67	MP2A	X	19.007	54
68	MP2A	Z	-32.921	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
69	MP2A	Mx	.01	54
70	MP2B	X	14.491	6
71	MP2B	Z	-25.098	6
72	MP2B	Mx	.011	6
73	MP2B	X	14.491	54
74	MP2B	Z	-25.098	54
75	MP2B	Mx	.011	54
76	MP2C	X	16.894	6
77	MP2C	Z	-29.261	6
78	MP2C	Mx	-.026	6
79	MP2C	X	16.894	54
80	MP2C	Z	-29.261	54
81	MP2C	Mx	-.026	54
82	MP2A	X	2.518	48
83	MP2A	Z	-4.361	48
84	MP2A	Mx	.001	48
85	MP2B	X	2.095	48
86	MP2B	Z	-3.629	48
87	MP2B	Mx	-.002	48
88	MP2C	X	2.32	48
89	MP2C	Z	-4.019	48
90	MP2C	Mx	.002	48
91	OVP	X	16.347	12
92	OVP	Z	-28.314	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	11.323	12
2	MP3A	Z	-6.538	12
3	MP3A	Mx	-.006	12
4	MP3A	X	11.323	24
5	MP3A	Z	-6.538	24
6	MP3A	Mx	-.006	24
7	MP3B	X	9.912	12
8	MP3B	Z	-5.723	12
9	MP3B	Mx	.005	12
10	MP3B	X	9.912	24
11	MP3B	Z	-5.723	24
12	MP3B	Mx	.005	24
13	MP3C	X	18.04	12
14	MP3C	Z	-10.415	12
15	MP3C	Mx	-.004	12
16	MP3C	X	18.04	24
17	MP3C	Z	-10.415	24
18	MP3C	Mx	-.004	24
19	MP3A	X	4.687	60
20	MP3A	Z	-2.706	60
21	MP3A	Mx	-.002	60
22	MP3B	X	3.904	60
23	MP3B	Z	-2.254	60
24	MP3B	Mx	.002	60
25	MP3C	X	8.413	60
26	MP3C	Z	-4.857	60
27	MP3C	Mx	-.002	60
28	MP2A	X	13.219	18



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
29	MP2A	Z	-7.632	18
30	MP2A	Mx	.007	18
31	MP2B	X	12.577	18
32	MP2B	Z	-7.261	18
33	MP2B	Mx	-.007	18
34	MP2C	X	16.277	18
35	MP2C	Z	-9.397	18
36	MP2C	Mx	.003	18
37	MP3A	X	11.842	18
38	MP3A	Z	-6.837	18
39	MP3A	Mx	.006	18
40	MP3B	X	10.956	18
41	MP3B	Z	-6.325	18
42	MP3B	Mx	-.006	18
43	MP3C	X	16.062	18
44	MP3C	Z	-9.273	18
45	MP3C	Mx	.003	18
46	MP2A	X	27.487	6
47	MP2A	Z	-15.87	6
48	MP2A	Mx	-.023	6
49	MP2A	X	27.487	54
50	MP2A	Z	-15.87	54
51	MP2A	Mx	-.023	54
52	MP2B	X	26.042	6
53	MP2B	Z	-15.035	6
54	MP2B	Mx	.008	6
55	MP2B	X	26.042	54
56	MP2B	Z	-15.035	54
57	MP2B	Mx	.008	54
58	MP2C	X	34.366	6
59	MP2C	Z	-19.841	6
60	MP2C	Mx	.015	6
61	MP2C	X	34.366	54
62	MP2C	Z	-19.841	54
63	MP2C	Mx	.015	54
64	MP2A	X	27.487	6
65	MP2A	Z	-15.87	6
66	MP2A	Mx	-.004	6
67	MP2A	X	27.487	54
68	MP2A	Z	-15.87	54
69	MP2A	Mx	-.004	54
70	MP2B	X	26.042	6
71	MP2B	Z	-15.035	6
72	MP2B	Mx	.02	6
73	MP2B	X	26.042	54
74	MP2B	Z	-15.035	54
75	MP2B	Mx	.02	54
76	MP2C	X	34.366	6
77	MP2C	Z	-19.841	6
78	MP2C	Mx	-.029	6
79	MP2C	X	34.366	54
80	MP2C	Z	-19.841	54
81	MP2C	Mx	-.029	54
82	MP2A	X	3.853	48
83	MP2A	Z	-2.224	48
84	MP2A	Mx	.002	48
85	MP2B	X	3.718	48



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
86	MP2B	Z	-2.146	48
87	MP2B	Mx	-0.02	48
88	MP2C	X	4.496	48
89	MP2C	Z	-2.596	48
90	MP2C	Mx	.000888	48
91	OVP	X	31.784	12
92	OVP	Z	-18.35	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	10.012	12
2	MP3A	Z	0	12
3	MP3A	Mx	-0.05	12
4	MP3A	X	10.012	24
5	MP3A	Z	0	24
6	MP3A	Mx	-0.05	24
7	MP3B	X	17.202	12
8	MP3B	Z	0	12
9	MP3B	Mx	.006	12
10	MP3B	X	17.202	24
11	MP3B	Z	0	24
12	MP3B	Mx	.006	24
13	MP3C	X	21.894	12
14	MP3C	Z	0	12
15	MP3C	Mx	.002	12
16	MP3C	X	21.894	24
17	MP3C	Z	0	24
18	MP3C	Mx	.002	24
19	MP3A	X	3.714	60
20	MP3A	Z	0	60
21	MP3A	Mx	-0.02	60
22	MP3B	X	7.701	60
23	MP3B	Z	0	60
24	MP3B	Mx	.002	60
25	MP3C	X	10.304	60
26	MP3C	Z	0	60
27	MP3C	Mx	.000895	60
28	MP2A	X	13.87	18
29	MP2A	Z	0	18
30	MP2A	Mx	.007	18
31	MP2B	X	17.143	18
32	MP2B	Z	0	18
33	MP2B	Mx	-0.06	18
34	MP2C	X	19.279	18
35	MP2C	Z	0	18
36	MP2C	Mx	-0.02	18
37	MP3A	X	11.75	18
38	MP3A	Z	0	18
39	MP3A	Mx	.006	18
40	MP3B	X	16.267	18
41	MP3B	Z	0	18
42	MP3B	Mx	-0.05	18
43	MP3C	X	19.215	18
44	MP3C	Z	0	18
45	MP3C	Mx	-0.02	18



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
46	MP2A	X	28.603	6
47	MP2A	Z	0	6
48	MP2A	Mx	-.014	6
49	MP2A	X	28.603	54
50	MP2A	Z	0	54
51	MP2A	Mx	-.014	54
52	MP2B	X	35.966	6
53	MP2B	Z	0	6
54	MP2B	Mx	-.005	6
55	MP2B	X	35.966	54
56	MP2B	Z	0	54
57	MP2B	Mx	-.005	54
58	MP2C	X	40.772	6
59	MP2C	Z	0	6
60	MP2C	Mx	.027	6
61	MP2C	X	40.772	54
62	MP2C	Z	0	54
63	MP2C	Mx	.027	54
64	MP2A	X	28.603	6
65	MP2A	Z	0	6
66	MP2A	Mx	-.014	6
67	MP2A	X	28.603	54
68	MP2A	Z	0	54
69	MP2A	Mx	-.014	54
70	MP2B	X	35.966	6
71	MP2B	Z	0	6
72	MP2B	Mx	.028	6
73	MP2B	X	35.966	54
74	MP2B	Z	0	54
75	MP2B	Mx	.028	54
76	MP2C	X	40.772	6
77	MP2C	Z	0	6
78	MP2C	Mx	-.02	6
79	MP2C	X	40.772	54
80	MP2C	Z	0	54
81	MP2C	Mx	-.02	54
82	MP2A	X	4.156	48
83	MP2A	Z	0	48
84	MP2A	Mx	.002	48
85	MP2B	X	4.844	48
86	MP2B	Z	0	48
87	MP2B	Mx	-.002	48
88	MP2C	X	5.293	48
89	MP2C	Z	0	48
90	MP2C	Mx	-.00046	48
91	OVP	X	38.704	12
92	OVP	Z	0	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	11.323	12
2	MP3A	Z	6.538	12
3	MP3A	Mx	-.006	12
4	MP3A	X	11.323	24
5	MP3A	Z	6.538	24



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
6	MP3A	Mx	24
7	MP3B	X	12
8	MP3B	Z	12
9	MP3B	Mx	12
10	MP3B	X	24
11	MP3B	Z	24
12	MP3B	Mx	24
13	MP3C	X	12
14	MP3C	Z	12
15	MP3C	Mx	12
16	MP3C	X	24
17	MP3C	Z	24
18	MP3C	Mx	24
19	MP3A	X	60
20	MP3A	Z	60
21	MP3A	Mx	60
22	MP3B	X	60
23	MP3B	Z	60
24	MP3B	Mx	60
25	MP3C	X	60
26	MP3C	Z	60
27	MP3C	Mx	60
28	MP2A	X	18
29	MP2A	Z	18
30	MP2A	Mx	18
31	MP2B	X	18
32	MP2B	Z	18
33	MP2B	Mx	18
34	MP2C	X	18
35	MP2C	Z	18
36	MP2C	Mx	18
37	MP3A	X	18
38	MP3A	Z	18
39	MP3A	Mx	18
40	MP3B	X	18
41	MP3B	Z	18
42	MP3B	Mx	18
43	MP3C	X	18
44	MP3C	Z	18
45	MP3C	Mx	18
46	MP2A	X	6
47	MP2A	Z	6
48	MP2A	Mx	6
49	MP2A	X	54
50	MP2A	Z	54
51	MP2A	Mx	54
52	MP2B	X	6
53	MP2B	Z	6
54	MP2B	Mx	6
55	MP2B	X	54
56	MP2B	Z	54
57	MP2B	Mx	54
58	MP2C	X	6
59	MP2C	Z	6
60	MP2C	Mx	6
61	MP2C	X	54
62	MP2C	Z	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
63	MP2C	Mx	.028	54
64	MP2A	X	27.487	6
65	MP2A	Z	15.87	6
66	MP2A	Mx	-.023	6
67	MP2A	X	27.487	54
68	MP2A	Z	15.87	54
69	MP2A	Mx	-.023	54
70	MP2B	X	35.31	6
71	MP2B	Z	20.386	6
72	MP2B	Mx	.027	6
73	MP2B	X	35.31	54
74	MP2B	Z	20.386	54
75	MP2B	Mx	.027	54
76	MP2C	X	31.147	6
77	MP2C	Z	17.983	6
78	MP2C	Mx	-.005	6
79	MP2C	X	31.147	54
80	MP2C	Z	17.983	54
81	MP2C	Mx	-.005	54
82	MP2A	X	3.853	48
83	MP2A	Z	2.224	48
84	MP2A	Mx	.002	48
85	MP2B	X	4.584	48
86	MP2B	Z	2.647	48
87	MP2B	Mx	-.000459	48
88	MP2C	X	4.195	48
89	MP2C	Z	2.422	48
90	MP2C	Mx	-.002	48
91	OVP	X	31.784	12
92	OVP	Z	18.35	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	9.6	12
2	MP3A	Z	16.628	12
3	MP3A	Mx	-.005	12
4	MP3A	X	9.6	24
5	MP3A	Z	16.628	24
6	MP3A	Mx	-.005	24
7	MP3B	X	10.415	12
8	MP3B	Z	18.04	12
9	MP3B	Mx	-.004	12
10	MP3B	X	10.415	24
11	MP3B	Z	18.04	24
12	MP3B	Mx	-.004	24
13	MP3C	X	5.723	12
14	MP3C	Z	9.912	12
15	MP3C	Mx	.005	12
16	MP3C	X	5.723	24
17	MP3C	Z	9.912	24
18	MP3C	Mx	.005	24
19	MP3A	X	4.405	60
20	MP3A	Z	7.63	60
21	MP3A	Mx	-.002	60
22	MP3B	X	4.857	60



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]	
23	MP3B	Z	8.413	60
24	MP3B	Mx	-.002	60
25	MP3C	X	2.254	60
26	MP3C	Z	3.904	60
27	MP3C	Mx	.002	60
28	MP2A	X	9.026	18
29	MP2A	Z	15.634	18
30	MP2A	Mx	.005	18
31	MP2B	X	9.397	18
32	MP2B	Z	16.277	18
33	MP2B	Mx	.003	18
34	MP2C	X	7.261	18
35	MP2C	Z	12.577	18
36	MP2C	Mx	-.007	18
37	MP3A	X	8.761	18
38	MP3A	Z	15.175	18
39	MP3A	Mx	.004	18
40	MP3B	X	9.273	18
41	MP3B	Z	16.062	18
42	MP3B	Mx	.003	18
43	MP3C	X	6.325	18
44	MP3C	Z	10.956	18
45	MP3C	Mx	-.006	18
46	MP2A	X	19.007	6
47	MP2A	Z	32.921	6
48	MP2A	Mx	.01	6
49	MP2A	X	19.007	54
50	MP2A	Z	32.921	54
51	MP2A	Mx	.01	54
52	MP2B	X	19.841	6
53	MP2B	Z	34.366	6
54	MP2B	Mx	-.029	6
55	MP2B	X	19.841	54
56	MP2B	Z	34.366	54
57	MP2B	Mx	-.029	54
58	MP2C	X	15.035	6
59	MP2C	Z	26.042	6
60	MP2C	Mx	.02	6
61	MP2C	X	15.035	54
62	MP2C	Z	26.042	54
63	MP2C	Mx	.02	54
64	MP2A	X	19.007	6
65	MP2A	Z	32.921	6
66	MP2A	Mx	-.029	6
67	MP2A	X	19.007	54
68	MP2A	Z	32.921	54
69	MP2A	Mx	-.029	54
70	MP2B	X	19.841	6
71	MP2B	Z	34.366	6
72	MP2B	Mx	.015	6
73	MP2B	X	19.841	54
74	MP2B	Z	34.366	54
75	MP2B	Mx	.015	54
76	MP2C	X	15.035	6
77	MP2C	Z	26.042	6
78	MP2C	Mx	.008	6
79	MP2C	X	15.035	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]
80	MP2C	Z	26.042	54
81	MP2C	Mx	.008	54
82	MP2A	X	2.518	48
83	MP2A	Z	4.361	48
84	MP2A	Mx	.001	48
85	MP2B	X	2.596	48
86	MP2B	Z	4.496	48
87	MP2B	Mx	.000888	48
88	MP2C	X	2.146	48
89	MP2C	Z	3.718	48
90	MP2C	Mx	-.002	48
91	OVP	X	16.347	12
92	OVP	Z	28.314	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]
1	MP3A	X	0	12
2	MP3A	Z	22.264	12
3	MP3A	Mx	0	12
4	MP3A	X	0	24
5	MP3A	Z	22.264	24
6	MP3A	Mx	0	24
7	MP3B	X	0	12
8	MP3B	Z	15.074	12
9	MP3B	Mx	-.006	12
10	MP3B	X	0	24
11	MP3B	Z	15.074	24
12	MP3B	Mx	-.006	24
13	MP3C	X	0	12
14	MP3C	Z	10.382	12
15	MP3C	Mx	.005	12
16	MP3C	X	0	24
17	MP3C	Z	10.382	24
18	MP3C	Mx	.005	24
19	MP3A	X	0	60
20	MP3A	Z	10.509	60
21	MP3A	Mx	0	60
22	MP3B	X	0	60
23	MP3B	Z	6.521	60
24	MP3B	Mx	-.002	60
25	MP3C	X	0	60
26	MP3C	Z	3.918	60
27	MP3C	Mx	.002	60
28	MP2A	X	0	18
29	MP2A	Z	19.447	18
30	MP2A	Mx	0	18
31	MP2B	X	0	18
32	MP2B	Z	16.174	18
33	MP2B	Mx	.006	18
34	MP2C	X	0	18
35	MP2C	Z	14.038	18
36	MP2C	Mx	-.007	18
37	MP3A	X	0	18
38	MP3A	Z	19.447	18
39	MP3A	Mx	0	18



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
40	MP3B	X	0	18
41	MP3B	Z	14.93	18
42	MP3B	Mx	.006	18
43	MP3C	X	0	18
44	MP3C	Z	11.982	18
45	MP3C	Mx	-.006	18
46	MP2A	X	0	6
47	MP2A	Z	41.15	6
48	MP2A	Mx	.024	6
49	MP2A	X	0	54
50	MP2A	Z	41.15	54
51	MP2A	Mx	.024	54
52	MP2B	X	0	6
53	MP2B	Z	33.787	6
54	MP2B	Mx	-.026	6
55	MP2B	X	0	54
56	MP2B	Z	33.787	54
57	MP2B	Mx	-.026	54
58	MP2C	X	0	6
59	MP2C	Z	28.981	6
60	MP2C	Mx	.011	6
61	MP2C	X	0	54
62	MP2C	Z	28.981	54
63	MP2C	Mx	.011	54
64	MP2A	X	0	6
65	MP2A	Z	41.15	6
66	MP2A	Mx	-.024	6
67	MP2A	X	0	54
68	MP2A	Z	41.15	54
69	MP2A	Mx	-.024	54
70	MP2B	X	0	6
71	MP2B	Z	33.787	6
72	MP2B	Mx	-.000272	6
73	MP2B	X	0	54
74	MP2B	Z	33.787	54
75	MP2B	Mx	-.000272	54
76	MP2C	X	0	6
77	MP2C	Z	28.981	6
78	MP2C	Mx	.017	6
79	MP2C	X	0	54
80	MP2C	Z	28.981	54
81	MP2C	Mx	.017	54
82	MP2A	X	0	48
83	MP2A	Z	5.329	48
84	MP2A	Mx	0	48
85	MP2B	X	0	48
86	MP2B	Z	4.64	48
87	MP2B	Mx	.002	48
88	MP2C	X	0	48
89	MP2C	Z	4.191	48
90	MP2C	Mx	-.002	48
91	OVP	X	0	12
92	OVP	Z	30.692	12
93	OVP	Mx	0	12

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



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	-9.6	12
2	MP3A	Z	16.628	12
3	MP3A	Mx	.005	12
4	MP3A	X	-9.6	24
5	MP3A	Z	16.628	24
6	MP3A	Mx	.005	24
7	MP3B	X	-5.191	12
8	MP3B	Z	8.991	12
9	MP3B	Mx	-.005	12
10	MP3B	X	-5.191	24
11	MP3B	Z	8.991	24
12	MP3B	Mx	-.005	24
13	MP3C	X	-7.537	12
14	MP3C	Z	13.055	12
15	MP3C	Mx	.006	12
16	MP3C	X	-7.537	24
17	MP3C	Z	13.055	24
18	MP3C	Mx	.006	24
19	MP3A	X	-4.405	60
20	MP3A	Z	7.63	60
21	MP3A	Mx	.002	60
22	MP3B	X	-1.959	60
23	MP3B	Z	3.394	60
24	MP3B	Mx	-.002	60
25	MP3C	X	-3.261	60
26	MP3C	Z	5.648	60
27	MP3C	Mx	.002	60
28	MP2A	X	-9.026	18
29	MP2A	Z	15.634	18
30	MP2A	Mx	-.005	18
31	MP2B	X	-7.019	18
32	MP2B	Z	12.157	18
33	MP2B	Mx	.007	18
34	MP2C	X	-8.087	18
35	MP2C	Z	14.007	18
36	MP2C	Mx	-.006	18
37	MP3A	X	-8.761	18
38	MP3A	Z	15.175	18
39	MP3A	Mx	-.004	18
40	MP3B	X	-5.991	18
41	MP3B	Z	10.377	18
42	MP3B	Mx	.006	18
43	MP3C	X	-7.465	18
44	MP3C	Z	12.93	18
45	MP3C	Mx	-.006	18
46	MP2A	X	-19.007	6
47	MP2A	Z	32.921	6
48	MP2A	Mx	.029	6
49	MP2A	X	-19.007	54
50	MP2A	Z	32.921	54
51	MP2A	Mx	.029	54
52	MP2B	X	-14.491	6
53	MP2B	Z	25.098	6
54	MP2B	Mx	-.017	6
55	MP2B	X	-14.491	54
56	MP2B	Z	25.098	54
57	MP2B	Mx	-.017	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
58	MP2C	X	-16.894	6
59	MP2C	Z	29.261	6
60	MP2C	Mx	.000272	6
61	MP2C	X	-16.894	54
62	MP2C	Z	29.261	54
63	MP2C	Mx	.000272	54
64	MP2A	X	-19.007	6
65	MP2A	Z	32.921	6
66	MP2A	Mx	-.01	6
67	MP2A	X	-19.007	54
68	MP2A	Z	32.921	54
69	MP2A	Mx	-.01	54
70	MP2B	X	-14.491	6
71	MP2B	Z	25.098	6
72	MP2B	Mx	-.011	6
73	MP2B	X	-14.491	54
74	MP2B	Z	25.098	54
75	MP2B	Mx	-.011	54
76	MP2C	X	-16.894	6
77	MP2C	Z	29.261	6
78	MP2C	Mx	.026	6
79	MP2C	X	-16.894	54
80	MP2C	Z	29.261	54
81	MP2C	Mx	.026	54
82	MP2A	X	-2.518	48
83	MP2A	Z	4.361	48
84	MP2A	Mx	-.001	48
85	MP2B	X	-2.095	48
86	MP2B	Z	3.629	48
87	MP2B	Mx	.002	48
88	MP2C	X	-2.32	48
89	MP2C	Z	4.019	48
90	MP2C	Mx	-.002	48
91	OVP	X	-16.347	12
92	OVP	Z	28.314	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	-11.323	12
2	MP3A	Z	6.538	12
3	MP3A	Mx	.006	12
4	MP3A	X	-11.323	24
5	MP3A	Z	6.538	24
6	MP3A	Mx	.006	24
7	MP3B	X	-9.912	12
8	MP3B	Z	5.723	12
9	MP3B	Mx	-.005	12
10	MP3B	X	-9.912	24
11	MP3B	Z	5.723	24
12	MP3B	Mx	-.005	24
13	MP3C	X	-18.04	12
14	MP3C	Z	10.415	12
15	MP3C	Mx	.004	12
16	MP3C	X	-18.04	24
17	MP3C	Z	10.415	24



Company : Maser Consulting
 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

July 13, 2021
 9:33 AM
 Checked By: DX

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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]	
18	MP3C	Mx	.004	24
19	MP3A	X	-4.687	60
20	MP3A	Z	2.706	60
21	MP3A	Mx	.002	60
22	MP3B	X	-3.904	60
23	MP3B	Z	2.254	60
24	MP3B	Mx	-.002	60
25	MP3C	X	-8.413	60
26	MP3C	Z	4.857	60
27	MP3C	Mx	.002	60
28	MP2A	X	-13.219	18
29	MP2A	Z	7.632	18
30	MP2A	Mx	-.007	18
31	MP2B	X	-12.577	18
32	MP2B	Z	7.261	18
33	MP2B	Mx	.007	18
34	MP2C	X	-16.277	18
35	MP2C	Z	9.397	18
36	MP2C	Mx	-.003	18
37	MP3A	X	-11.842	18
38	MP3A	Z	6.837	18
39	MP3A	Mx	-.006	18
40	MP3B	X	-10.956	18
41	MP3B	Z	6.325	18
42	MP3B	Mx	.006	18
43	MP3C	X	-16.062	18
44	MP3C	Z	9.273	18
45	MP3C	Mx	-.003	18
46	MP2A	X	-27.487	6
47	MP2A	Z	15.87	6
48	MP2A	Mx	.023	6
49	MP2A	X	-27.487	54
50	MP2A	Z	15.87	54
51	MP2A	Mx	.023	54
52	MP2B	X	-26.042	6
53	MP2B	Z	15.035	6
54	MP2B	Mx	-.008	6
55	MP2B	X	-26.042	54
56	MP2B	Z	15.035	54
57	MP2B	Mx	-.008	54
58	MP2C	X	-34.366	6
59	MP2C	Z	19.841	6
60	MP2C	Mx	-.015	6
61	MP2C	X	-34.366	54
62	MP2C	Z	19.841	54
63	MP2C	Mx	-.015	54
64	MP2A	X	-27.487	6
65	MP2A	Z	15.87	6
66	MP2A	Mx	.004	6
67	MP2A	X	-27.487	54
68	MP2A	Z	15.87	54
69	MP2A	Mx	.004	54
70	MP2B	X	-26.042	6
71	MP2B	Z	15.035	6
72	MP2B	Mx	-.02	6
73	MP2B	X	-26.042	54
74	MP2B	Z	15.035	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
75	MP2B	Mx	-.02	54
76	MP2C	X	-34.366	6
77	MP2C	Z	19.841	6
78	MP2C	Mx	.029	6
79	MP2C	X	-34.366	54
80	MP2C	Z	19.841	54
81	MP2C	Mx	.029	54
82	MP2A	X	-3.853	48
83	MP2A	Z	2.224	48
84	MP2A	Mx	-.002	48
85	MP2B	X	-3.718	48
86	MP2B	Z	2.146	48
87	MP2B	Mx	.002	48
88	MP2C	X	-4.496	48
89	MP2C	Z	2.596	48
90	MP2C	Mx	-.000888	48
91	OVP	X	-31.784	12
92	OVP	Z	18.35	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
1	MP3A	X	-10.012	12
2	MP3A	Z	0	12
3	MP3A	Mx	.005	12
4	MP3A	X	-10.012	24
5	MP3A	Z	0	24
6	MP3A	Mx	.005	24
7	MP3B	X	-17.202	12
8	MP3B	Z	0	12
9	MP3B	Mx	-.006	12
10	MP3B	X	-17.202	24
11	MP3B	Z	0	24
12	MP3B	Mx	-.006	24
13	MP3C	X	-21.894	12
14	MP3C	Z	0	12
15	MP3C	Mx	-.002	12
16	MP3C	X	-21.894	24
17	MP3C	Z	0	24
18	MP3C	Mx	-.002	24
19	MP3A	X	-3.714	60
20	MP3A	Z	0	60
21	MP3A	Mx	.002	60
22	MP3B	X	-7.701	60
23	MP3B	Z	0	60
24	MP3B	Mx	-.002	60
25	MP3C	X	-10.304	60
26	MP3C	Z	0	60
27	MP3C	Mx	-.000895	60
28	MP2A	X	-13.87	18
29	MP2A	Z	0	18
30	MP2A	Mx	-.007	18
31	MP2B	X	-17.143	18
32	MP2B	Z	0	18
33	MP2B	Mx	.006	18
34	MP2C	X	-19.279	18



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]	
35	MP2C	Z	0	18
36	MP2C	Mx	.002	18
37	MP3A	X	-11.75	18
38	MP3A	Z	0	18
39	MP3A	Mx	-.006	18
40	MP3B	X	-16.267	18
41	MP3B	Z	0	18
42	MP3B	Mx	.005	18
43	MP3C	X	-19.215	18
44	MP3C	Z	0	18
45	MP3C	Mx	.002	18
46	MP2A	X	-28.603	6
47	MP2A	Z	0	6
48	MP2A	Mx	.014	6
49	MP2A	X	-28.603	54
50	MP2A	Z	0	54
51	MP2A	Mx	.014	54
52	MP2B	X	-35.966	6
53	MP2B	Z	0	6
54	MP2B	Mx	.005	6
55	MP2B	X	-35.966	54
56	MP2B	Z	0	54
57	MP2B	Mx	.005	54
58	MP2C	X	-40.772	6
59	MP2C	Z	0	6
60	MP2C	Mx	-.027	6
61	MP2C	X	-40.772	54
62	MP2C	Z	0	54
63	MP2C	Mx	-.027	54
64	MP2A	X	-28.603	6
65	MP2A	Z	0	6
66	MP2A	Mx	.014	6
67	MP2A	X	-28.603	54
68	MP2A	Z	0	54
69	MP2A	Mx	.014	54
70	MP2B	X	-35.966	6
71	MP2B	Z	0	6
72	MP2B	Mx	-.028	6
73	MP2B	X	-35.966	54
74	MP2B	Z	0	54
75	MP2B	Mx	-.028	54
76	MP2C	X	-40.772	6
77	MP2C	Z	0	6
78	MP2C	Mx	.02	6
79	MP2C	X	-40.772	54
80	MP2C	Z	0	54
81	MP2C	Mx	.02	54
82	MP2A	X	-4.156	48
83	MP2A	Z	0	48
84	MP2A	Mx	-.002	48
85	MP2B	X	-4.844	48
86	MP2B	Z	0	48
87	MP2B	Mx	.002	48
88	MP2C	X	-5.293	48
89	MP2C	Z	0	48
90	MP2C	Mx	.00046	48
91	OVP	X	-38.704	12



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
92	OVP	Z	0	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	-11.323	12
2	MP3A	Z	-6.538	12
3	MP3A	Mx	.006	12
4	MP3A	X	-11.323	24
5	MP3A	Z	-6.538	24
6	MP3A	Mx	.006	24
7	MP3B	X	-18.961	12
8	MP3B	Z	-10.947	12
9	MP3B	Mx	-.002	12
10	MP3B	X	-18.961	24
11	MP3B	Z	-10.947	24
12	MP3B	Mx	-.002	24
13	MP3C	X	-14.897	12
14	MP3C	Z	-8.601	12
15	MP3C	Mx	-.006	12
16	MP3C	X	-14.897	24
17	MP3C	Z	-8.601	24
18	MP3C	Mx	-.006	24
19	MP3A	X	-4.687	60
20	MP3A	Z	-2.706	60
21	MP3A	Mx	.002	60
22	MP3B	X	-8.924	60
23	MP3B	Z	-5.152	60
24	MP3B	Mx	-.000895	60
25	MP3C	X	-6.67	60
26	MP3C	Z	-3.851	60
27	MP3C	Mx	-.002	60
28	MP2A	X	-13.219	18
29	MP2A	Z	-7.632	18
30	MP2A	Mx	-.007	18
31	MP2B	X	-16.696	18
32	MP2B	Z	-9.64	18
33	MP2B	Mx	.002	18
34	MP2C	X	-14.846	18
35	MP2C	Z	-8.571	18
36	MP2C	Mx	.006	18
37	MP3A	X	-11.842	18
38	MP3A	Z	-6.837	18
39	MP3A	Mx	-.006	18
40	MP3B	X	-16.641	18
41	MP3B	Z	-9.608	18
42	MP3B	Mx	.002	18
43	MP3C	X	-14.088	18
44	MP3C	Z	-8.133	18
45	MP3C	Mx	.005	18
46	MP2A	X	-27.487	6
47	MP2A	Z	-15.87	6
48	MP2A	Mx	.004	6
49	MP2A	X	-27.487	54
50	MP2A	Z	-15.87	54
51	MP2A	Mx	.004	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]
52	MP2B	X	-35.31	6
53	MP2B	Z	-20.386	6
54	MP2B	Mx	.02	6
55	MP2B	X	-35.31	54
56	MP2B	Z	-20.386	54
57	MP2B	Mx	.02	54
58	MP2C	X	-31.147	6
59	MP2C	Z	-17.983	6
60	MP2C	Mx	-.028	6
61	MP2C	X	-31.147	54
62	MP2C	Z	-17.983	54
63	MP2C	Mx	-.028	54
64	MP2A	X	-27.487	6
65	MP2A	Z	-15.87	6
66	MP2A	Mx	.023	6
67	MP2A	X	-27.487	54
68	MP2A	Z	-15.87	54
69	MP2A	Mx	.023	54
70	MP2B	X	-35.31	6
71	MP2B	Z	-20.386	6
72	MP2B	Mx	-.027	6
73	MP2B	X	-35.31	54
74	MP2B	Z	-20.386	54
75	MP2B	Mx	-.027	54
76	MP2C	X	-31.147	6
77	MP2C	Z	-17.983	6
78	MP2C	Mx	.005	6
79	MP2C	X	-31.147	54
80	MP2C	Z	-17.983	54
81	MP2C	Mx	.005	54
82	MP2A	X	-3.853	48
83	MP2A	Z	-2.224	48
84	MP2A	Mx	-.002	48
85	MP2B	X	-4.584	48
86	MP2B	Z	-2.647	48
87	MP2B	Mx	.000459	48
88	MP2C	X	-4.195	48
89	MP2C	Z	-2.422	48
90	MP2C	Mx	.002	48
91	OVP	X	-31.784	12
92	OVP	Z	-18.35	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]
1	MP3A	X	-9.6	12
2	MP3A	Z	-16.628	12
3	MP3A	Mx	.005	12
4	MP3A	X	-9.6	24
5	MP3A	Z	-16.628	24
6	MP3A	Mx	.005	24
7	MP3B	X	-10.415	12
8	MP3B	Z	-18.04	12
9	MP3B	Mx	.004	12
10	MP3B	X	-10.415	24
11	MP3B	Z	-18.04	24



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
12	MP3B	Mx	.004	24
13	MP3C	X	-5.723	12
14	MP3C	Z	-9.912	12
15	MP3C	Mx	-.005	12
16	MP3C	X	-5.723	24
17	MP3C	Z	-9.912	24
18	MP3C	Mx	-.005	24
19	MP3A	X	-4.405	60
20	MP3A	Z	-7.63	60
21	MP3A	Mx	.002	60
22	MP3B	X	-4.857	60
23	MP3B	Z	-8.413	60
24	MP3B	Mx	.002	60
25	MP3C	X	-2.254	60
26	MP3C	Z	-3.904	60
27	MP3C	Mx	-.002	60
28	MP2A	X	-9.026	18
29	MP2A	Z	-15.634	18
30	MP2A	Mx	-.005	18
31	MP2B	X	-9.397	18
32	MP2B	Z	-16.277	18
33	MP2B	Mx	-.003	18
34	MP2C	X	-7.261	18
35	MP2C	Z	-12.577	18
36	MP2C	Mx	.007	18
37	MP3A	X	-8.761	18
38	MP3A	Z	-15.175	18
39	MP3A	Mx	-.004	18
40	MP3B	X	-9.273	18
41	MP3B	Z	-16.062	18
42	MP3B	Mx	-.003	18
43	MP3C	X	-6.325	18
44	MP3C	Z	-10.956	18
45	MP3C	Mx	.006	18
46	MP2A	X	-19.007	6
47	MP2A	Z	-32.921	6
48	MP2A	Mx	-.01	6
49	MP2A	X	-19.007	54
50	MP2A	Z	-32.921	54
51	MP2A	Mx	-.01	54
52	MP2B	X	-19.841	6
53	MP2B	Z	-34.366	6
54	MP2B	Mx	.029	6
55	MP2B	X	-19.841	54
56	MP2B	Z	-34.366	54
57	MP2B	Mx	.029	54
58	MP2C	X	-15.035	6
59	MP2C	Z	-26.042	6
60	MP2C	Mx	-.02	6
61	MP2C	X	-15.035	54
62	MP2C	Z	-26.042	54
63	MP2C	Mx	-.02	54
64	MP2A	X	-19.007	6
65	MP2A	Z	-32.921	6
66	MP2A	Mx	.029	6
67	MP2A	X	-19.007	54
68	MP2A	Z	-32.921	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
69	MP2A	Mx	.029	54
70	MP2B	X	-19.841	6
71	MP2B	Z	-34.366	6
72	MP2B	Mx	-.015	6
73	MP2B	X	-19.841	54
74	MP2B	Z	-34.366	54
75	MP2B	Mx	-.015	54
76	MP2C	X	-15.035	6
77	MP2C	Z	-26.042	6
78	MP2C	Mx	-.008	6
79	MP2C	X	-15.035	54
80	MP2C	Z	-26.042	54
81	MP2C	Mx	-.008	54
82	MP2A	X	-2.518	48
83	MP2A	Z	-4.361	48
84	MP2A	Mx	-.001	48
85	MP2B	X	-2.596	48
86	MP2B	Z	-4.496	48
87	MP2B	Mx	-.000888	48
88	MP2C	X	-2.146	48
89	MP2C	Z	-3.718	48
90	MP2C	Mx	.002	48
91	OVP	X	-16.347	12
92	OVP	Z	-28.314	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	0	12
2	MP3A	Z	-6.574	12
3	MP3A	Mx	0	12
4	MP3A	X	0	24
5	MP3A	Z	-6.574	24
6	MP3A	Mx	0	24
7	MP3B	X	0	12
8	MP3B	Z	-4.226	12
9	MP3B	Mx	.002	12
10	MP3B	X	0	24
11	MP3B	Z	-4.226	24
12	MP3B	Mx	.002	24
13	MP3C	X	0	12
14	MP3C	Z	-2.694	12
15	MP3C	Mx	-.001	12
16	MP3C	X	0	24
17	MP3C	Z	-2.694	24
18	MP3C	Mx	-.001	24
19	MP3A	X	0	60
20	MP3A	Z	-2.49	60
21	MP3A	Mx	0	60
22	MP3B	X	0	60
23	MP3B	Z	-1.315	60
24	MP3B	Mx	.000504	60
25	MP3C	X	0	60
26	MP3C	Z	-.549	60
27	MP3C	Mx	-.00027	60
28	MP2A	X	0	18



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
29	MP2A	Z	-5.231	18
30	MP2A	Mx	0	18
31	MP2B	X	0	18
32	MP2B	Z	-4.213	18
33	MP2B	Mx	-.002	18
34	MP2C	X	0	18
35	MP2C	Z	-3.549	18
36	MP2C	Mx	.002	18
37	MP3A	X	0	18
38	MP3A	Z	-5.231	18
39	MP3A	Mx	0	18
40	MP3B	X	0	18
41	MP3B	Z	-3.823	18
42	MP3B	Mx	-.001	18
43	MP3C	X	0	18
44	MP3C	Z	-2.905	18
45	MP3C	Mx	.001	18
46	MP2A	X	0	6
47	MP2A	Z	-12.741	6
48	MP2A	Mx	-.007	6
49	MP2A	X	0	54
50	MP2A	Z	-12.741	54
51	MP2A	Mx	-.007	54
52	MP2B	X	0	6
53	MP2B	Z	-10.175	6
54	MP2B	Mx	.008	6
55	MP2B	X	0	54
56	MP2B	Z	-10.175	54
57	MP2B	Mx	.008	54
58	MP2C	X	0	6
59	MP2C	Z	-8.5	6
60	MP2C	Mx	-.003	6
61	MP2C	X	0	54
62	MP2C	Z	-8.5	54
63	MP2C	Mx	-.003	54
64	MP2A	X	0	6
65	MP2A	Z	-12.741	6
66	MP2A	Mx	.007	6
67	MP2A	X	0	54
68	MP2A	Z	-12.741	54
69	MP2A	Mx	.007	54
70	MP2B	X	0	6
71	MP2B	Z	-10.175	6
72	MP2B	Mx	8.2e-5	6
73	MP2B	X	0	54
74	MP2B	Z	-10.175	54
75	MP2B	Mx	8.2e-5	54
76	MP2C	X	0	6
77	MP2C	Z	-8.5	6
78	MP2C	Mx	-.005	6
79	MP2C	X	0	54
80	MP2C	Z	-8.5	54
81	MP2C	Mx	-.005	54
82	MP2A	X	0	48
83	MP2A	Z	-1.035	48
84	MP2A	Mx	0	48
85	MP2B	X	0	48



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
86	MP2B	Z	-.848	48
87	MP2B	Mx	-.000325	48
88	MP2C	X	0	48
89	MP2C	Z	-.726	48
90	MP2C	Mx	.000357	48
91	OVP	X	0	12
92	OVP	Z	-8.664	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	2.787	12
2	MP3A	Z	-4.827	12
3	MP3A	Mx	-.001	12
4	MP3A	X	2.787	24
5	MP3A	Z	-4.827	24
6	MP3A	Mx	-.001	24
7	MP3B	X	1.347	12
8	MP3B	Z	-2.333	12
9	MP3B	Mx	.001	12
10	MP3B	X	1.347	24
11	MP3B	Z	-2.333	24
12	MP3B	Mx	.001	24
13	MP3C	X	2.113	12
14	MP3C	Z	-3.66	12
15	MP3C	Mx	-.002	12
16	MP3C	X	2.113	24
17	MP3C	Z	-3.66	24
18	MP3C	Mx	-.002	24
19	MP3A	X	.995	60
20	MP3A	Z	-1.723	60
21	MP3A	Mx	-.000498	60
22	MP3B	X	.274	60
23	MP3B	Z	-.475	60
24	MP3B	Mx	.00027	60
25	MP3C	X	.658	60
26	MP3C	Z	-1.139	60
27	MP3C	Mx	-.000504	60
28	MP2A	X	2.399	18
29	MP2A	Z	-4.155	18
30	MP2A	Mx	.001	18
31	MP2B	X	1.774	18
32	MP2B	Z	-3.073	18
33	MP2B	Mx	-.002	18
34	MP2C	X	2.107	18
35	MP2C	Z	-3.649	18
36	MP2C	Mx	.002	18
37	MP3A	X	2.316	18
38	MP3A	Z	-4.011	18
39	MP3A	Mx	.001	18
40	MP3B	X	1.452	18
41	MP3B	Z	-2.515	18
42	MP3B	Mx	-.001	18
43	MP3C	X	1.912	18
44	MP3C	Z	-3.311	18
45	MP3C	Mx	.001	18



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
46	MP2A	X	5.824	6
47	MP2A	Z	-10.088	6
48	MP2A	Mx	-.009	6
49	MP2A	X	5.824	54
50	MP2A	Z	-10.088	54
51	MP2A	Mx	-.009	54
52	MP2B	X	4.25	6
53	MP2B	Z	-7.361	6
54	MP2B	Mx	.005	6
55	MP2B	X	4.25	54
56	MP2B	Z	-7.361	54
57	MP2B	Mx	.005	54
58	MP2C	X	5.088	6
59	MP2C	Z	-8.812	6
60	MP2C	Mx	-8.2e-5	6
61	MP2C	X	5.088	54
62	MP2C	Z	-8.812	54
63	MP2C	Mx	-8.2e-5	54
64	MP2A	X	5.824	6
65	MP2A	Z	-10.088	6
66	MP2A	Mx	.003	6
67	MP2A	X	5.824	54
68	MP2A	Z	-10.088	54
69	MP2A	Mx	.003	54
70	MP2B	X	4.25	6
71	MP2B	Z	-7.361	6
72	MP2B	Mx	.003	6
73	MP2B	X	4.25	54
74	MP2B	Z	-7.361	54
75	MP2B	Mx	.003	54
76	MP2C	X	5.088	6
77	MP2C	Z	-8.812	6
78	MP2C	Mx	-.008	6
79	MP2C	X	5.088	54
80	MP2C	Z	-8.812	54
81	MP2C	Mx	-.008	54
82	MP2A	X	.478	48
83	MP2A	Z	-.827	48
84	MP2A	Mx	.000239	48
85	MP2B	X	.363	48
86	MP2B	Z	-.628	48
87	MP2B	Mx	-.000357	48
88	MP2C	X	.424	48
89	MP2C	Z	-.734	48
90	MP2C	Mx	.000325	48
91	OVP	X	4.669	12
92	OVP	Z	-8.087	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	3.095	12
2	MP3A	Z	-1.787	12
3	MP3A	Mx	-.002	12
4	MP3A	X	3.095	24
5	MP3A	Z	-1.787	24



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
6	MP3A	Mx	24
7	MP3B	X	12
8	MP3B	Z	12
9	MP3B	Mx	12
10	MP3B	X	24
11	MP3B	Z	24
12	MP3B	Mx	24
13	MP3C	X	12
14	MP3C	Z	12
15	MP3C	Mx	12
16	MP3C	X	24
17	MP3C	Z	24
18	MP3C	Mx	24
19	MP3A	X	60
20	MP3A	Z	60
21	MP3A	Mx	60
22	MP3B	X	60
23	MP3B	Z	60
24	MP3B	Mx	60
25	MP3C	X	60
26	MP3C	Z	60
27	MP3C	Mx	60
28	MP2A	X	18
29	MP2A	Z	18
30	MP2A	Mx	18
31	MP2B	X	18
32	MP2B	Z	18
33	MP2B	Mx	18
34	MP2C	X	18
35	MP2C	Z	18
36	MP2C	Mx	18
37	MP3A	X	18
38	MP3A	Z	18
39	MP3A	Mx	18
40	MP3B	X	18
41	MP3B	Z	18
42	MP3B	Mx	18
43	MP3C	X	18
44	MP3C	Z	18
45	MP3C	Mx	18
46	MP2A	X	6
47	MP2A	Z	6
48	MP2A	Mx	6
49	MP2A	X	54
50	MP2A	Z	54
51	MP2A	Mx	54
52	MP2B	X	6
53	MP2B	Z	6
54	MP2B	Mx	6
55	MP2B	X	54
56	MP2B	Z	54
57	MP2B	Mx	54
58	MP2C	X	6
59	MP2C	Z	6
60	MP2C	Mx	6
61	MP2C	X	54
62	MP2C	Z	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
63	MP2C	Mx	.005	54
64	MP2A	X	8.194	6
65	MP2A	Z	-4.731	6
66	MP2A	Mx	-.001	6
67	MP2A	X	8.194	54
68	MP2A	Z	-4.731	54
69	MP2A	Mx	-.001	54
70	MP2B	X	7.69	6
71	MP2B	Z	-4.44	6
72	MP2B	Mx	.006	6
73	MP2B	X	7.69	54
74	MP2B	Z	-4.44	54
75	MP2B	Mx	.006	54
76	MP2C	X	10.591	6
77	MP2C	Z	-6.115	6
78	MP2C	Mx	-.009	6
79	MP2C	X	10.591	54
80	MP2C	Z	-6.115	54
81	MP2C	Mx	-.009	54
82	MP2A	X	.689	48
83	MP2A	Z	-.398	48
84	MP2A	Mx	.000344	48
85	MP2B	X	.652	48
86	MP2B	Z	-.377	48
87	MP2B	Mx	-.000354	48
88	MP2C	X	.864	48
89	MP2C	Z	-.499	48
90	MP2C	Mx	.000171	48
91	OVP	X	9.252	12
92	OVP	Z	-5.342	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	2.574	12
2	MP3A	Z	0	12
3	MP3A	Mx	-.001	12
4	MP3A	X	2.574	24
5	MP3A	Z	0	24
6	MP3A	Mx	-.001	24
7	MP3B	X	4.921	12
8	MP3B	Z	0	12
9	MP3B	Mx	.002	12
10	MP3B	X	4.921	24
11	MP3B	Z	0	24
12	MP3B	Mx	.002	24
13	MP3C	X	6.453	12
14	MP3C	Z	0	12
15	MP3C	Mx	.00056	12
16	MP3C	X	6.453	24
17	MP3C	Z	0	24
18	MP3C	Mx	.00056	24
19	MP3A	X	.488	60
20	MP3A	Z	0	60
21	MP3A	Mx	-.000244	60
22	MP3B	X	1.663	60



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]	
23	MP3B	Z	0	60
24	MP3B	Mx	.000534	60
25	MP3C	X	2.429	60
26	MP3C	Z	0	60
27	MP3C	Mx	.000211	60
28	MP2A	X	3.497	18
29	MP2A	Z	0	18
30	MP2A	Mx	.002	18
31	MP2B	X	4.514	18
32	MP2B	Z	0	18
33	MP2B	Mx	-.001	18
34	MP2C	X	5.179	18
35	MP2C	Z	0	18
36	MP2C	Mx	-.00045	18
37	MP3A	X	2.832	18
38	MP3A	Z	0	18
39	MP3A	Mx	.001	18
40	MP3B	X	4.24	18
41	MP3B	Z	0	18
42	MP3B	Mx	-.001	18
43	MP3C	X	5.159	18
44	MP3C	Z	0	18
45	MP3C	Mx	-.000448	18
46	MP2A	X	8.368	6
47	MP2A	Z	0	6
48	MP2A	Mx	-.004	6
49	MP2A	X	8.368	54
50	MP2A	Z	0	54
51	MP2A	Mx	-.004	54
52	MP2B	X	10.935	6
53	MP2B	Z	0	6
54	MP2B	Mx	-.001	6
55	MP2B	X	10.935	54
56	MP2B	Z	0	54
57	MP2B	Mx	-.001	54
58	MP2C	X	12.61	6
59	MP2C	Z	0	6
60	MP2C	Mx	.008	6
61	MP2C	X	12.61	54
62	MP2C	Z	0	54
63	MP2C	Mx	.008	54
64	MP2A	X	8.368	6
65	MP2A	Z	0	6
66	MP2A	Mx	-.004	6
67	MP2A	X	8.368	54
68	MP2A	Z	0	54
69	MP2A	Mx	-.004	54
70	MP2B	X	10.935	6
71	MP2B	Z	0	6
72	MP2B	Mx	.008	6
73	MP2B	X	10.935	54
74	MP2B	Z	0	54
75	MP2B	Mx	.008	54
76	MP2C	X	12.61	6
77	MP2C	Z	0	6
78	MP2C	Mx	-.006	6
79	MP2C	X	12.61	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]
80	MP2C	Z	0	54
81	MP2C	Mx	-.006	54
82	MP2A	X	.716	48
83	MP2A	Z	0	48
84	MP2A	Mx	.000358	48
85	MP2B	X	.903	48
86	MP2B	Z	0	48
87	MP2B	Mx	-.00029	48
88	MP2C	X	1.025	48
89	MP2C	Z	0	48
90	MP2C	Mx	-8.9e-5	48
91	OVP	X	11.357	12
92	OVP	Z	0	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in,%]
1	MP3A	X	3.095	12
2	MP3A	Z	1.787	12
3	MP3A	Mx	-.002	12
4	MP3A	X	3.095	24
5	MP3A	Z	1.787	24
6	MP3A	Mx	-.002	24
7	MP3B	X	5.588	12
8	MP3B	Z	3.226	12
9	MP3B	Mx	.00056	12
10	MP3B	X	5.588	24
11	MP3B	Z	3.226	24
12	MP3B	Mx	.00056	24
13	MP3C	X	4.262	12
14	MP3C	Z	2.46	12
15	MP3C	Mx	.002	12
16	MP3C	X	4.262	24
17	MP3C	Z	2.46	24
18	MP3C	Mx	.002	24
19	MP3A	X	.856	60
20	MP3A	Z	.494	60
21	MP3A	Mx	-.000428	60
22	MP3B	X	2.104	60
23	MP3B	Z	1.215	60
24	MP3B	Mx	.000211	60
25	MP3C	X	1.44	60
26	MP3C	Z	.831	60
27	MP3C	Mx	.000534	60
28	MP2A	X	3.404	18
29	MP2A	Z	1.965	18
30	MP2A	Mx	.002	18
31	MP2B	X	4.485	18
32	MP2B	Z	2.589	18
33	MP2B	Mx	-.00045	18
34	MP2C	X	3.909	18
35	MP2C	Z	2.257	18
36	MP2C	Mx	-.001	18
37	MP3A	X	2.972	18
38	MP3A	Z	1.716	18
39	MP3A	Mx	.001	18



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
40	MP3B	X	4.467	18
41	MP3B	Z	2.579	18
42	MP3B	Mx	-.000448	18
43	MP3C	X	3.672	18
44	MP3C	Z	2.12	18
45	MP3C	Mx	-.001	18
46	MP2A	X	8.194	6
47	MP2A	Z	4.731	6
48	MP2A	Mx	-.001	6
49	MP2A	X	8.194	54
50	MP2A	Z	4.731	54
51	MP2A	Mx	-.001	54
52	MP2B	X	10.92	6
53	MP2B	Z	6.305	6
54	MP2B	Mx	-.006	6
55	MP2B	X	10.92	54
56	MP2B	Z	6.305	54
57	MP2B	Mx	-.006	54
58	MP2C	X	9.47	6
59	MP2C	Z	5.467	6
60	MP2C	Mx	.008	6
61	MP2C	X	9.47	54
62	MP2C	Z	5.467	54
63	MP2C	Mx	.008	54
64	MP2A	X	8.194	6
65	MP2A	Z	4.731	6
66	MP2A	Mx	-.007	6
67	MP2A	X	8.194	54
68	MP2A	Z	4.731	54
69	MP2A	Mx	-.007	54
70	MP2B	X	10.92	6
71	MP2B	Z	6.305	6
72	MP2B	Mx	.008	6
73	MP2B	X	10.92	54
74	MP2B	Z	6.305	54
75	MP2B	Mx	.008	54
76	MP2C	X	9.47	6
77	MP2C	Z	5.467	6
78	MP2C	Mx	-.001	6
79	MP2C	X	9.47	54
80	MP2C	Z	5.467	54
81	MP2C	Mx	-.001	54
82	MP2A	X	.689	48
83	MP2A	Z	.398	48
84	MP2A	Mx	.000344	48
85	MP2B	X	.888	48
86	MP2B	Z	.513	48
87	MP2B	Mx	-8.9e-5	48
88	MP2C	X	.782	48
89	MP2C	Z	.452	48
90	MP2C	Mx	-.00029	48
91	OVP	X	9.252	12
92	OVP	Z	5.342	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
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Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	2.787	12
2	MP3A	Z	4.827	12
3	MP3A	Mx	-.001	12
4	MP3A	X	2.787	24
5	MP3A	Z	4.827	24
6	MP3A	Mx	-.001	24
7	MP3B	X	3.053	12
8	MP3B	Z	5.288	12
9	MP3B	Mx	-.001	12
10	MP3B	X	3.053	24
11	MP3B	Z	5.288	24
12	MP3B	Mx	-.001	24
13	MP3C	X	1.521	12
14	MP3C	Z	2.634	12
15	MP3C	Mx	.001	12
16	MP3C	X	1.521	24
17	MP3C	Z	2.634	24
18	MP3C	Mx	.001	24
19	MP3A	X	.995	60
20	MP3A	Z	1.723	60
21	MP3A	Mx	-.000498	60
22	MP3B	X	1.128	60
23	MP3B	Z	1.953	60
24	MP3B	Mx	-.000386	60
25	MP3C	X	.361	60
26	MP3C	Z	.626	60
27	MP3C	Mx	.00034	60
28	MP2A	X	2.399	18
29	MP2A	Z	4.155	18
30	MP2A	Mx	.001	18
31	MP2B	X	2.514	18
32	MP2B	Z	4.354	18
33	MP2B	Mx	.00086	18
34	MP2C	X	1.85	18
35	MP2C	Z	3.204	18
36	MP2C	Mx	-.002	18
37	MP3A	X	2.316	18
38	MP3A	Z	4.011	18
39	MP3A	Mx	.001	18
40	MP3B	X	2.475	18
41	MP3B	Z	4.287	18
42	MP3B	Mx	.000847	18
43	MP3C	X	1.556	18
44	MP3C	Z	2.696	18
45	MP3C	Mx	-.001	18
46	MP2A	X	5.824	6
47	MP2A	Z	10.088	6
48	MP2A	Mx	.003	6
49	MP2A	X	5.824	54
50	MP2A	Z	10.088	54
51	MP2A	Mx	.003	54
52	MP2B	X	6.115	6
53	MP2B	Z	10.591	6
54	MP2B	Mx	-.009	6
55	MP2B	X	6.115	54
56	MP2B	Z	10.591	54
57	MP2B	Mx	-.009	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
58	MP2C	X	4.44	6
59	MP2C	Z	7.69	6
60	MP2C	Mx	.006	6
61	MP2C	X	4.44	54
62	MP2C	Z	7.69	54
63	MP2C	Mx	.006	54
64	MP2A	X	5.824	6
65	MP2A	Z	10.088	6
66	MP2A	Mx	-.009	6
67	MP2A	X	5.824	54
68	MP2A	Z	10.088	54
69	MP2A	Mx	-.009	54
70	MP2B	X	6.115	6
71	MP2B	Z	10.591	6
72	MP2B	Mx	.005	6
73	MP2B	X	6.115	54
74	MP2B	Z	10.591	54
75	MP2B	Mx	.005	54
76	MP2C	X	4.44	6
77	MP2C	Z	7.69	6
78	MP2C	Mx	.002	6
79	MP2C	X	4.44	54
80	MP2C	Z	7.69	54
81	MP2C	Mx	.002	54
82	MP2A	X	.478	48
83	MP2A	Z	.827	48
84	MP2A	Mx	.000239	48
85	MP2B	X	.499	48
86	MP2B	Z	.864	48
87	MP2B	Mx	.000171	48
88	MP2C	X	.377	48
89	MP2C	Z	.652	48
90	MP2C	Mx	-.000354	48
91	OVP	X	4.669	12
92	OVP	Z	8.087	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	0	12
2	MP3A	Z	6.574	12
3	MP3A	Mx	0	12
4	MP3A	X	0	24
5	MP3A	Z	6.574	24
6	MP3A	Mx	0	24
7	MP3B	X	0	12
8	MP3B	Z	4.226	12
9	MP3B	Mx	-.002	12
10	MP3B	X	0	24
11	MP3B	Z	4.226	24
12	MP3B	Mx	-.002	24
13	MP3C	X	0	12
14	MP3C	Z	2.694	12
15	MP3C	Mx	.001	12
16	MP3C	X	0	24
17	MP3C	Z	2.694	24



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 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
18	MP3C	Mx	24
19	MP3A	X	60
20	MP3A	Z	60
21	MP3A	Mx	60
22	MP3B	X	60
23	MP3B	Z	60
24	MP3B	Mx	60
25	MP3C	X	60
26	MP3C	Z	60
27	MP3C	Mx	60
28	MP2A	X	18
29	MP2A	Z	18
30	MP2A	Mx	18
31	MP2B	X	18
32	MP2B	Z	18
33	MP2B	Mx	18
34	MP2C	X	18
35	MP2C	Z	18
36	MP2C	Mx	18
37	MP3A	X	18
38	MP3A	Z	18
39	MP3A	Mx	18
40	MP3B	X	18
41	MP3B	Z	18
42	MP3B	Mx	18
43	MP3C	X	18
44	MP3C	Z	18
45	MP3C	Mx	18
46	MP2A	X	6
47	MP2A	Z	6
48	MP2A	Mx	6
49	MP2A	X	54
50	MP2A	Z	54
51	MP2A	Mx	54
52	MP2B	X	6
53	MP2B	Z	6
54	MP2B	Mx	6
55	MP2B	X	54
56	MP2B	Z	54
57	MP2B	Mx	54
58	MP2C	X	6
59	MP2C	Z	6
60	MP2C	Mx	6
61	MP2C	X	54
62	MP2C	Z	54
63	MP2C	Mx	54
64	MP2A	X	6
65	MP2A	Z	6
66	MP2A	Mx	6
67	MP2A	X	54
68	MP2A	Z	54
69	MP2A	Mx	54
70	MP2B	X	6
71	MP2B	Z	6
72	MP2B	Mx	6
73	MP2B	X	54
74	MP2B	Z	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
75	MP2B	Mx	-8.2e-5	54
76	MP2C	X	0	6
77	MP2C	Z	8.5	6
78	MP2C	Mx	.005	6
79	MP2C	X	0	54
80	MP2C	Z	8.5	54
81	MP2C	Mx	.005	54
82	MP2A	X	0	48
83	MP2A	Z	1.035	48
84	MP2A	Mx	0	48
85	MP2B	X	0	48
86	MP2B	Z	.848	48
87	MP2B	Mx	.000325	48
88	MP2C	X	0	48
89	MP2C	Z	.726	48
90	MP2C	Mx	-.000357	48
91	OVP	X	0	12
92	OVP	Z	8.664	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	-2.787	12
2	MP3A	Z	4.827	12
3	MP3A	Mx	.001	12
4	MP3A	X	-2.787	24
5	MP3A	Z	4.827	24
6	MP3A	Mx	.001	24
7	MP3B	X	-1.347	12
8	MP3B	Z	2.333	12
9	MP3B	Mx	-.001	12
10	MP3B	X	-1.347	24
11	MP3B	Z	2.333	24
12	MP3B	Mx	-.001	24
13	MP3C	X	-2.113	12
14	MP3C	Z	3.66	12
15	MP3C	Mx	.002	12
16	MP3C	X	-2.113	24
17	MP3C	Z	3.66	24
18	MP3C	Mx	.002	24
19	MP3A	X	-.995	60
20	MP3A	Z	1.723	60
21	MP3A	Mx	.000498	60
22	MP3B	X	-.274	60
23	MP3B	Z	.475	60
24	MP3B	Mx	-.00027	60
25	MP3C	X	-.658	60
26	MP3C	Z	1.139	60
27	MP3C	Mx	.000504	60
28	MP2A	X	-2.399	18
29	MP2A	Z	4.155	18
30	MP2A	Mx	-.001	18
31	MP2B	X	-1.774	18
32	MP2B	Z	3.073	18
33	MP2B	Mx	.002	18
34	MP2C	X	-2.107	18



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]	
35	MP2C	Z	3.649	18
36	MP2C	Mx	-0.002	18
37	MP3A	X	-2.316	18
38	MP3A	Z	4.011	18
39	MP3A	Mx	-0.001	18
40	MP3B	X	-1.452	18
41	MP3B	Z	2.515	18
42	MP3B	Mx	.001	18
43	MP3C	X	-1.912	18
44	MP3C	Z	3.311	18
45	MP3C	Mx	-0.001	18
46	MP2A	X	-5.824	6
47	MP2A	Z	10.088	6
48	MP2A	Mx	.009	6
49	MP2A	X	-5.824	54
50	MP2A	Z	10.088	54
51	MP2A	Mx	.009	54
52	MP2B	X	-4.25	6
53	MP2B	Z	7.361	6
54	MP2B	Mx	-0.005	6
55	MP2B	X	-4.25	54
56	MP2B	Z	7.361	54
57	MP2B	Mx	-0.005	54
58	MP2C	X	-5.088	6
59	MP2C	Z	8.812	6
60	MP2C	Mx	8.2e-5	6
61	MP2C	X	-5.088	54
62	MP2C	Z	8.812	54
63	MP2C	Mx	8.2e-5	54
64	MP2A	X	-5.824	6
65	MP2A	Z	10.088	6
66	MP2A	Mx	-0.003	6
67	MP2A	X	-5.824	54
68	MP2A	Z	10.088	54
69	MP2A	Mx	-0.003	54
70	MP2B	X	-4.25	6
71	MP2B	Z	7.361	6
72	MP2B	Mx	-0.003	6
73	MP2B	X	-4.25	54
74	MP2B	Z	7.361	54
75	MP2B	Mx	-0.003	54
76	MP2C	X	-5.088	6
77	MP2C	Z	8.812	6
78	MP2C	Mx	.008	6
79	MP2C	X	-5.088	54
80	MP2C	Z	8.812	54
81	MP2C	Mx	.008	54
82	MP2A	X	-4.78	48
83	MP2A	Z	.827	48
84	MP2A	Mx	-0.000239	48
85	MP2B	X	-.363	48
86	MP2B	Z	.628	48
87	MP2B	Mx	.000357	48
88	MP2C	X	-.424	48
89	MP2C	Z	.734	48
90	MP2C	Mx	-0.000325	48
91	OVP	X	-4.669	12



Company : Maser Consulting
 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
92	OVP	Z	8.087	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
1	MP3A	X	-3.095	12
2	MP3A	Z	1.787	12
3	MP3A	Mx	.002	12
4	MP3A	X	-3.095	24
5	MP3A	Z	1.787	24
6	MP3A	Mx	.002	24
7	MP3B	X	-2.634	12
8	MP3B	Z	1.521	12
9	MP3B	Mx	-.001	12
10	MP3B	X	-2.634	24
11	MP3B	Z	1.521	24
12	MP3B	Mx	-.001	24
13	MP3C	X	-5.288	12
14	MP3C	Z	3.053	12
15	MP3C	Mx	.001	12
16	MP3C	X	-5.288	24
17	MP3C	Z	3.053	24
18	MP3C	Mx	.001	24
19	MP3A	X	-.856	60
20	MP3A	Z	.494	60
21	MP3A	Mx	.000428	60
22	MP3B	X	-.626	60
23	MP3B	Z	.361	60
24	MP3B	Mx	-.000339	60
25	MP3C	X	-1.953	60
26	MP3C	Z	1.128	60
27	MP3C	Mx	.000386	60
28	MP2A	X	-3.404	18
29	MP2A	Z	1.965	18
30	MP2A	Mx	-.002	18
31	MP2B	X	-3.204	18
32	MP2B	Z	1.85	18
33	MP2B	Mx	.002	18
34	MP2C	X	-4.354	18
35	MP2C	Z	2.514	18
36	MP2C	Mx	-.00086	18
37	MP3A	X	-2.972	18
38	MP3A	Z	1.716	18
39	MP3A	Mx	-.001	18
40	MP3B	X	-2.696	18
41	MP3B	Z	1.556	18
42	MP3B	Mx	.001	18
43	MP3C	X	-4.287	18
44	MP3C	Z	2.475	18
45	MP3C	Mx	-.000846	18
46	MP2A	X	-8.194	6
47	MP2A	Z	4.731	6
48	MP2A	Mx	.007	6
49	MP2A	X	-8.194	54
50	MP2A	Z	4.731	54
51	MP2A	Mx	.007	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
52	MP2B	X	-7.69	6
53	MP2B	Z	4.44	6
54	MP2B	Mx	-.002	6
55	MP2B	X	-7.69	54
56	MP2B	Z	4.44	54
57	MP2B	Mx	-.002	54
58	MP2C	X	-10.591	6
59	MP2C	Z	6.115	6
60	MP2C	Mx	-.005	6
61	MP2C	X	-10.591	54
62	MP2C	Z	6.115	54
63	MP2C	Mx	-.005	54
64	MP2A	X	-8.194	6
65	MP2A	Z	4.731	6
66	MP2A	Mx	.001	6
67	MP2A	X	-8.194	54
68	MP2A	Z	4.731	54
69	MP2A	Mx	.001	54
70	MP2B	X	-7.69	6
71	MP2B	Z	4.44	6
72	MP2B	Mx	-.006	6
73	MP2B	X	-7.69	54
74	MP2B	Z	4.44	54
75	MP2B	Mx	-.006	54
76	MP2C	X	-10.591	6
77	MP2C	Z	6.115	6
78	MP2C	Mx	.009	6
79	MP2C	X	-10.591	54
80	MP2C	Z	6.115	54
81	MP2C	Mx	.009	54
82	MP2A	X	-.689	48
83	MP2A	Z	.398	48
84	MP2A	Mx	-.000344	48
85	MP2B	X	-.652	48
86	MP2B	Z	.377	48
87	MP2B	Mx	.000354	48
88	MP2C	X	-.864	48
89	MP2C	Z	.499	48
90	MP2C	Mx	-.000171	48
91	OVP	X	-9.252	12
92	OVP	Z	5.342	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	-2.574	12
2	MP3A	Z	0	12
3	MP3A	Mx	.001	12
4	MP3A	X	-2.574	24
5	MP3A	Z	0	24
6	MP3A	Mx	.001	24
7	MP3B	X	-4.921	12
8	MP3B	Z	0	12
9	MP3B	Mx	-.002	12
10	MP3B	X	-4.921	24
11	MP3B	Z	0	24



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

Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
12	MP3B	Mx	24
13	MP3C	X	12
14	MP3C	Z	12
15	MP3C	Mx	12
16	MP3C	X	24
17	MP3C	Z	24
18	MP3C	Mx	24
19	MP3A	X	60
20	MP3A	Z	60
21	MP3A	Mx	60
22	MP3B	X	60
23	MP3B	Z	60
24	MP3B	Mx	60
25	MP3C	X	60
26	MP3C	Z	60
27	MP3C	Mx	60
28	MP2A	X	18
29	MP2A	Z	18
30	MP2A	Mx	18
31	MP2B	X	18
32	MP2B	Z	18
33	MP2B	Mx	18
34	MP2C	X	18
35	MP2C	Z	18
36	MP2C	Mx	18
37	MP3A	X	18
38	MP3A	Z	18
39	MP3A	Mx	18
40	MP3B	X	18
41	MP3B	Z	18
42	MP3B	Mx	18
43	MP3C	X	18
44	MP3C	Z	18
45	MP3C	Mx	18
46	MP2A	X	6
47	MP2A	Z	6
48	MP2A	Mx	6
49	MP2A	X	54
50	MP2A	Z	54
51	MP2A	Mx	54
52	MP2B	X	6
53	MP2B	Z	6
54	MP2B	Mx	6
55	MP2B	X	54
56	MP2B	Z	54
57	MP2B	Mx	54
58	MP2C	X	6
59	MP2C	Z	6
60	MP2C	Mx	6
61	MP2C	X	54
62	MP2C	Z	54
63	MP2C	Mx	54
64	MP2A	X	6
65	MP2A	Z	6
66	MP2A	Mx	6
67	MP2A	X	54
68	MP2A	Z	54



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
69	MP2A	Mx	.004	54
70	MP2B	X	-10.935	6
71	MP2B	Z	0	6
72	MP2B	Mx	-.008	6
73	MP2B	X	-10.935	54
74	MP2B	Z	0	54
75	MP2B	Mx	-.008	54
76	MP2C	X	-12.61	6
77	MP2C	Z	0	6
78	MP2C	Mx	.006	6
79	MP2C	X	-12.61	54
80	MP2C	Z	0	54
81	MP2C	Mx	.006	54
82	MP2A	X	-.716	48
83	MP2A	Z	0	48
84	MP2A	Mx	-.000358	48
85	MP2B	X	-.903	48
86	MP2B	Z	0	48
87	MP2B	Mx	.00029	48
88	MP2C	X	-1.025	48
89	MP2C	Z	0	48
90	MP2C	Mx	8.9e-5	48
91	OVP	X	-11.357	12
92	OVP	Z	0	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
1	MP3A	X	-3.095	12
2	MP3A	Z	-1.787	12
3	MP3A	Mx	.002	12
4	MP3A	X	-3.095	24
5	MP3A	Z	-1.787	24
6	MP3A	Mx	.002	24
7	MP3B	X	-5.588	12
8	MP3B	Z	-3.226	12
9	MP3B	Mx	-.00056	12
10	MP3B	X	-5.588	24
11	MP3B	Z	-3.226	24
12	MP3B	Mx	-.00056	24
13	MP3C	X	-4.262	12
14	MP3C	Z	-2.46	12
15	MP3C	Mx	-.002	12
16	MP3C	X	-4.262	24
17	MP3C	Z	-2.46	24
18	MP3C	Mx	-.002	24
19	MP3A	X	-.856	60
20	MP3A	Z	-.494	60
21	MP3A	Mx	.000428	60
22	MP3B	X	-2.104	60
23	MP3B	Z	-1.215	60
24	MP3B	Mx	-.000211	60
25	MP3C	X	-1.44	60
26	MP3C	Z	-.831	60
27	MP3C	Mx	-.000534	60
28	MP2A	X	-3.404	18



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in. %]
29	MP2A	Z	-1.965	18
30	MP2A	Mx	-.002	18
31	MP2B	X	-4.485	18
32	MP2B	Z	-2.589	18
33	MP2B	Mx	.00045	18
34	MP2C	X	-3.909	18
35	MP2C	Z	-2.257	18
36	MP2C	Mx	.001	18
37	MP3A	X	-2.972	18
38	MP3A	Z	-1.716	18
39	MP3A	Mx	-.001	18
40	MP3B	X	-4.467	18
41	MP3B	Z	-2.579	18
42	MP3B	Mx	.000448	18
43	MP3C	X	-3.672	18
44	MP3C	Z	-2.12	18
45	MP3C	Mx	.001	18
46	MP2A	X	-8.194	6
47	MP2A	Z	-4.731	6
48	MP2A	Mx	.001	6
49	MP2A	X	-8.194	54
50	MP2A	Z	-4.731	54
51	MP2A	Mx	.001	54
52	MP2B	X	-10.92	6
53	MP2B	Z	-6.305	6
54	MP2B	Mx	.006	6
55	MP2B	X	-10.92	54
56	MP2B	Z	-6.305	54
57	MP2B	Mx	.006	54
58	MP2C	X	-9.47	6
59	MP2C	Z	-5.467	6
60	MP2C	Mx	-.008	6
61	MP2C	X	-9.47	54
62	MP2C	Z	-5.467	54
63	MP2C	Mx	-.008	54
64	MP2A	X	-8.194	6
65	MP2A	Z	-4.731	6
66	MP2A	Mx	.007	6
67	MP2A	X	-8.194	54
68	MP2A	Z	-4.731	54
69	MP2A	Mx	.007	54
70	MP2B	X	-10.92	6
71	MP2B	Z	-6.305	6
72	MP2B	Mx	-.008	6
73	MP2B	X	-10.92	54
74	MP2B	Z	-6.305	54
75	MP2B	Mx	-.008	54
76	MP2C	X	-9.47	6
77	MP2C	Z	-5.467	6
78	MP2C	Mx	.001	6
79	MP2C	X	-9.47	54
80	MP2C	Z	-5.467	54
81	MP2C	Mx	.001	54
82	MP2A	X	-.689	48
83	MP2A	Z	-.398	48
84	MP2A	Mx	-.000344	48
85	MP2B	X	-.888	48



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
86	MP2B	Z	-513	48
87	MP2B	Mx	8.9e-5	48
88	MP2C	X	-782	48
89	MP2C	Z	-452	48
90	MP2C	Mx	.00029	48
91	OVP	X	-9.252	12
92	OVP	Z	-5.342	12
93	OVP	Mx	0	12

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	MP3A	X	-2.787	12
2	MP3A	Z	-4.827	12
3	MP3A	Mx	.001	12
4	MP3A	X	-2.787	24
5	MP3A	Z	-4.827	24
6	MP3A	Mx	.001	24
7	MP3B	X	-3.053	12
8	MP3B	Z	-5.288	12
9	MP3B	Mx	.001	12
10	MP3B	X	-3.053	24
11	MP3B	Z	-5.288	24
12	MP3B	Mx	.001	24
13	MP3C	X	-1.521	12
14	MP3C	Z	-2.634	12
15	MP3C	Mx	-.001	12
16	MP3C	X	-1.521	24
17	MP3C	Z	-2.634	24
18	MP3C	Mx	-.001	24
19	MP3A	X	-.995	60
20	MP3A	Z	-1.723	60
21	MP3A	Mx	.000498	60
22	MP3B	X	-1.128	60
23	MP3B	Z	-1.953	60
24	MP3B	Mx	.000386	60
25	MP3C	X	-.361	60
26	MP3C	Z	-.626	60
27	MP3C	Mx	-.00034	60
28	MP2A	X	-2.399	18
29	MP2A	Z	-4.155	18
30	MP2A	Mx	-.001	18
31	MP2B	X	-2.514	18
32	MP2B	Z	-4.354	18
33	MP2B	Mx	-.00086	18
34	MP2C	X	-1.85	18
35	MP2C	Z	-3.204	18
36	MP2C	Mx	.002	18
37	MP3A	X	-2.316	18
38	MP3A	Z	-4.011	18
39	MP3A	Mx	-.001	18
40	MP3B	X	-2.475	18
41	MP3B	Z	-4.287	18
42	MP3B	Mx	-.000847	18
43	MP3C	X	-1.556	18
44	MP3C	Z	-2.696	18
45	MP3C	Mx	.001	18



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
46	MP2A	X	-5.824	6
47	MP2A	Z	-10.088	6
48	MP2A	Mx	-.003	6
49	MP2A	X	-5.824	54
50	MP2A	Z	-10.088	54
51	MP2A	Mx	-.003	54
52	MP2B	X	-6.115	6
53	MP2B	Z	-10.591	6
54	MP2B	Mx	.009	6
55	MP2B	X	-6.115	54
56	MP2B	Z	-10.591	54
57	MP2B	Mx	.009	54
58	MP2C	X	-4.44	6
59	MP2C	Z	-7.69	6
60	MP2C	Mx	-.006	6
61	MP2C	X	-4.44	54
62	MP2C	Z	-7.69	54
63	MP2C	Mx	-.006	54
64	MP2A	X	-5.824	6
65	MP2A	Z	-10.088	6
66	MP2A	Mx	.009	6
67	MP2A	X	-5.824	54
68	MP2A	Z	-10.088	54
69	MP2A	Mx	.009	54
70	MP2B	X	-6.115	6
71	MP2B	Z	-10.591	6
72	MP2B	Mx	-.005	6
73	MP2B	X	-6.115	54
74	MP2B	Z	-10.591	54
75	MP2B	Mx	-.005	54
76	MP2C	X	-4.44	6
77	MP2C	Z	-7.69	6
78	MP2C	Mx	-.002	6
79	MP2C	X	-4.44	54
80	MP2C	Z	-7.69	54
81	MP2C	Mx	-.002	54
82	MP2A	X	-4.78	48
83	MP2A	Z	-.827	48
84	MP2A	Mx	-.000239	48
85	MP2B	X	-.499	48
86	MP2B	Z	-.864	48
87	MP2B	Mx	-.000171	48
88	MP2C	X	-.377	48
89	MP2C	Z	-.652	48
90	MP2C	Mx	.000354	48
91	OVP	X	-4.669	12
92	OVP	Z	-8.087	12
93	OVP	Mx	0	12

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	LIVE1	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	LIVE2	Y	-500	0



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 Model Name : Antenna Mount analysis

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Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	FACE	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[in.%]
1	FACE	Y	-250	%50

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...]
1	M11	Y	-12.619	-12.619	0	%100
2	M20A	Y	-13.786	-13.786	0	%100
3	OVP	Y	-12.619	-12.619	0	%100
4	M15	Y	-12.619	-12.619	0	%100
5	FACE	Y	-12.619	-12.619	0	%100
6	M20	Y	-12.619	-12.619	0	%100
7	M21	Y	-12.619	-12.619	0	%100
8	M20B	Y	-13.786	-13.786	0	%100
9	M21A	Y	-13.786	-13.786	0	%100
10	MP4A	Y	-9.995	-9.995	0	%100
11	MP3A	Y	-9.995	-9.995	0	%100
12	MP2A	Y	-9.995	-9.995	0	%100
13	MP1A	Y	-9.995	-9.995	0	%100
14	MP4C	Y	-9.995	-9.995	0	%100
15	MP3C	Y	-9.995	-9.995	0	%100
16	MP2C	Y	-9.995	-9.995	0	%100
17	MP1C	Y	-9.995	-9.995	0	%100
18	MP4B	Y	-9.995	-9.995	0	%100
19	MP3B	Y	-9.995	-9.995	0	%100
20	MP2B	Y	-9.995	-9.995	0	%100
21	MP1B	Y	-9.995	-9.995	0	%100
22	M43	Y	-11.161	-11.161	0	%100
23	M44	Y	-11.161	-11.161	0	%100
24	M45	Y	-11.161	-11.161	0	%100
25	M64	Y	-14.352	-14.352	0	%100
26	M65	Y	-14.352	-14.352	0	%100
27	M66	Y	-14.352	-14.352	0	%100
28	M67	Y	-19.326	-19.326	0	%100
29	M68	Y	-19.326	-19.326	0	%100
30	M69	Y	-19.326	-19.326	0	%100

Member Distributed Loads (BLC 41 : Structure Wo (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...]
1	M11	X	0	0	0	%100
2	M11	Z	-11.288	-11.288	0	%100
3	M20A	X	0	0	0	%100
4	M20A	Z	0	0	0	%100
5	OVP	X	0	0	0	%100
6	OVP	Z	-2.822	-2.822	0	%100
7	M15	X	0	0	0	%100
8	M15	Z	-2.822	-2.822	0	%100
9	FACE	X	0	0	0	%100
10	FACE	Z	-14.404	-14.404	0	%100
11	M20	X	0	0	0	%100
12	M20	Z	-3.601	-3.601	0	%100
13	M21	X	0	0	0	%100



Member Distributed Loads (BLC 41 : Structure Wo (0 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
14	M21	Z	-3.601	-3.601	0 %100
15	M20B	X	0	0	0 %100
16	M20B	Z	-8.91	-8.91	0 %100
17	M21A	X	0	0	0 %100
18	M21A	Z	-8.91	-8.91	0 %100
19	MP4A	X	0	0	0 %100
20	MP4A	Z	-10.278	-10.278	0 %100
21	MP3A	X	0	0	0 %100
22	MP3A	Z	-10.278	-10.278	0 %100
23	MP2A	X	0	0	0 %100
24	MP2A	Z	-10.278	-10.278	0 %100
25	MP1A	X	0	0	0 %100
26	MP1A	Z	-10.278	-10.278	0 %100
27	MP4C	X	0	0	0 %100
28	MP4C	Z	-10.278	-10.278	0 %100
29	MP3C	X	0	0	0 %100
30	MP3C	Z	-10.278	-10.278	0 %100
31	MP2C	X	0	0	0 %100
32	MP2C	Z	-10.278	-10.278	0 %100
33	MP1C	X	0	0	0 %100
34	MP1C	Z	-10.278	-10.278	0 %100
35	MP4B	X	0	0	0 %100
36	MP4B	Z	-10.278	-10.278	0 %100
37	MP3B	X	0	0	0 %100
38	MP3B	Z	-10.278	-10.278	0 %100
39	MP2B	X	0	0	0 %100
40	MP2B	Z	-10.278	-10.278	0 %100
41	MP1B	X	0	0	0 %100
42	MP1B	Z	-10.278	-10.278	0 %100
43	M43	X	0	0	0 %100
44	M43	Z	-12.442	-12.442	0 %100
45	M44	X	0	0	0 %100
46	M44	Z	-3.11	-3.11	0 %100
47	M45	X	0	0	0 %100
48	M45	Z	-3.11	-3.11	0 %100
49	M64	X	0	0	0 %100
50	M64	Z	-4.114	-4.114	0 %100
51	M65	X	0	0	0 %100
52	M65	Z	-16.456	-16.456	0 %100
53	M66	X	0	0	0 %100
54	M66	Z	-4.114	-4.114	0 %100
55	M67	X	0	0	0 %100
56	M67	Z	-12.17	-12.17	0 %100
57	M68	X	0	0	0 %100
58	M68	Z	-16.945	-16.945	0 %100
59	M69	X	0	0	0 %100
60	M69	Z	-16.945	-16.945	0 %100

Member Distributed Loads (BLC 42 : Structure Wo (30 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	4.233	4.233	0 %100
2	M11	Z	-7.332	-7.332	0 %100
3	M20A	X	1.485	1.485	0 %100
4	M20A	Z	-2.572	-2.572	0 %100
5	OVP	X	4.233	4.233	0 %100
6	OVP	Z	-7.332	-7.332	0 %100



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 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

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Member Distributed Loads (BLC 42 : Structure Wo (30 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...	
7	M15	X	0	0	%100	
8	M15	Z	0	0	%100	
9	FACE	X	5.401	5.401	0	%100
10	FACE	Z	-9.355	-9.355	0	%100
11	M20	X	5.401	5.401	0	%100
12	M20	Z	-9.355	-9.355	0	%100
13	M21	X	0	0	0	%100
14	M21	Z	0	0	0	%100
15	M20B	X	1.485	1.485	0	%100
16	M20B	Z	-2.572	-2.572	0	%100
17	M21A	X	5.94	5.94	0	%100
18	M21A	Z	-10.288	-10.288	0	%100
19	MP4A	X	5.139	5.139	0	%100
20	MP4A	Z	-8.901	-8.901	0	%100
21	MP3A	X	5.139	5.139	0	%100
22	MP3A	Z	-8.901	-8.901	0	%100
23	MP2A	X	5.139	5.139	0	%100
24	MP2A	Z	-8.901	-8.901	0	%100
25	MP1A	X	5.139	5.139	0	%100
26	MP1A	Z	-8.901	-8.901	0	%100
27	MP4C	X	5.139	5.139	0	%100
28	MP4C	Z	-8.901	-8.901	0	%100
29	MP3C	X	5.139	5.139	0	%100
30	MP3C	Z	-8.901	-8.901	0	%100
31	MP2C	X	5.139	5.139	0	%100
32	MP2C	Z	-8.901	-8.901	0	%100
33	MP1C	X	5.139	5.139	0	%100
34	MP1C	Z	-8.901	-8.901	0	%100
35	MP4B	X	5.139	5.139	0	%100
36	MP4B	Z	-8.901	-8.901	0	%100
37	MP3B	X	5.139	5.139	0	%100
38	MP3B	Z	-8.901	-8.901	0	%100
39	MP2B	X	5.139	5.139	0	%100
40	MP2B	Z	-8.901	-8.901	0	%100
41	MP1B	X	5.139	5.139	0	%100
42	MP1B	Z	-8.901	-8.901	0	%100
43	M43	X	4.666	4.666	0	%100
44	M43	Z	-8.081	-8.081	0	%100
45	M44	X	4.666	4.666	0	%100
46	M44	Z	-8.081	-8.081	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	0	0	0	%100
49	M64	X	6.171	6.171	0	%100
50	M64	Z	-10.688	-10.688	0	%100
51	M65	X	6.171	6.171	0	%100
52	M65	Z	-10.688	-10.688	0	%100
53	M66	X	0	0	0	%100
54	M66	Z	0	0	0	%100
55	M67	X	6.881	6.881	0	%100
56	M67	Z	-11.918	-11.918	0	%100
57	M68	X	6.881	6.881	0	%100
58	M68	Z	-11.918	-11.918	0	%100
59	M69	X	9.269	9.269	0	%100
60	M69	Z	-16.054	-16.054	0	%100

Member Distributed Loads (BLC 43 : Structure Wo (60 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
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Member Distributed Loads (BLC 43 : Structure Wo (60 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
1	M11	X	2.444	2.444	0 %100
2	M11	Z	-1.411	-1.411	0 %100
3	M20A	X	7.716	7.716	0 %100
4	M20A	Z	-4.455	-4.455	0 %100
5	OVP	X	9.776	9.776	0 %100
6	OVP	Z	-5.644	-5.644	0 %100
7	M15	X	2.444	2.444	0 %100
8	M15	Z	-1.411	-1.411	0 %100
9	FACE	X	3.118	3.118	0 %100
10	FACE	Z	-1.8	-1.8	0 %100
11	M20	X	12.474	12.474	0 %100
12	M20	Z	-7.202	-7.202	0 %100
13	M21	X	3.118	3.118	0 %100
14	M21	Z	-1.8	-1.8	0 %100
15	M20B	X	0	0	0 %100
16	M20B	Z	0	0	0 %100
17	M21A	X	7.716	7.716	0 %100
18	M21A	Z	-4.455	-4.455	0 %100
19	MP4A	X	8.901	8.901	0 %100
20	MP4A	Z	-5.139	-5.139	0 %100
21	MP3A	X	8.901	8.901	0 %100
22	MP3A	Z	-5.139	-5.139	0 %100
23	MP2A	X	8.901	8.901	0 %100
24	MP2A	Z	-5.139	-5.139	0 %100
25	MP1A	X	8.901	8.901	0 %100
26	MP1A	Z	-5.139	-5.139	0 %100
27	MP4C	X	8.901	8.901	0 %100
28	MP4C	Z	-5.139	-5.139	0 %100
29	MP3C	X	8.901	8.901	0 %100
30	MP3C	Z	-5.139	-5.139	0 %100
31	MP2C	X	8.901	8.901	0 %100
32	MP2C	Z	-5.139	-5.139	0 %100
33	MP1C	X	8.901	8.901	0 %100
34	MP1C	Z	-5.139	-5.139	0 %100
35	MP4B	X	8.901	8.901	0 %100
36	MP4B	Z	-5.139	-5.139	0 %100
37	MP3B	X	8.901	8.901	0 %100
38	MP3B	Z	-5.139	-5.139	0 %100
39	MP2B	X	8.901	8.901	0 %100
40	MP2B	Z	-5.139	-5.139	0 %100
41	MP1B	X	8.901	8.901	0 %100
42	MP1B	Z	-5.139	-5.139	0 %100
43	M43	X	2.694	2.694	0 %100
44	M43	Z	-1.555	-1.555	0 %100
45	M44	X	10.775	10.775	0 %100
46	M44	Z	-6.221	-6.221	0 %100
47	M45	X	2.694	2.694	0 %100
48	M45	Z	-1.555	-1.555	0 %100
49	M64	X	14.251	14.251	0 %100
50	M64	Z	-8.228	-8.228	0 %100
51	M65	X	3.563	3.563	0 %100
52	M65	Z	-2.057	-2.057	0 %100
53	M66	X	3.563	3.563	0 %100
54	M66	Z	-2.057	-2.057	0 %100
55	M67	X	14.675	14.675	0 %100
56	M67	Z	-8.473	-8.473	0 %100
57	M68	X	10.54	10.54	0 %100



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Member Distributed Loads (BLC 43 : Structure Wo (60 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
58	M68	Z	-6.085	-6.085	0 %100
59	M69	X	14.675	14.675	0 %100
60	M69	Z	-8.473	-8.473	0 %100

Member Distributed Loads (BLC 44 : Structure Wo (90 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	0	0	%100
2	M11	Z	0	0	%100
3	M20A	X	11.88	11.88	0 %100
4	M20A	Z	0	0	%100
5	OVP	X	8.466	8.466	0 %100
6	OVP	Z	0	0	%100
7	M15	X	8.466	8.466	0 %100
8	M15	Z	0	0	%100
9	FACE	X	0	0	%100
10	FACE	Z	0	0	%100
11	M20	X	10.803	10.803	0 %100
12	M20	Z	0	0	%100
13	M21	X	10.803	10.803	0 %100
14	M21	Z	0	0	%100
15	M20B	X	2.97	2.97	0 %100
16	M20B	Z	0	0	%100
17	M21A	X	2.97	2.97	0 %100
18	M21A	Z	0	0	%100
19	MP4A	X	10.278	10.278	0 %100
20	MP4A	Z	0	0	%100
21	MP3A	X	10.278	10.278	0 %100
22	MP3A	Z	0	0	%100
23	MP2A	X	10.278	10.278	0 %100
24	MP2A	Z	0	0	%100
25	MP1A	X	10.278	10.278	0 %100
26	MP1A	Z	0	0	%100
27	MP4C	X	10.278	10.278	0 %100
28	MP4C	Z	0	0	%100
29	MP3C	X	10.278	10.278	0 %100
30	MP3C	Z	0	0	%100
31	MP2C	X	10.278	10.278	0 %100
32	MP2C	Z	0	0	%100
33	MP1C	X	10.278	10.278	0 %100
34	MP1C	Z	0	0	%100
35	MP4B	X	10.278	10.278	0 %100
36	MP4B	Z	0	0	%100
37	MP3B	X	10.278	10.278	0 %100
38	MP3B	Z	0	0	%100
39	MP2B	X	10.278	10.278	0 %100
40	MP2B	Z	0	0	%100
41	MP1B	X	10.278	10.278	0 %100
42	MP1B	Z	0	0	%100
43	M43	X	0	0	%100
44	M43	Z	0	0	%100
45	M44	X	9.331	9.331	0 %100
46	M44	Z	0	0	%100
47	M45	X	9.331	9.331	0 %100
48	M45	Z	0	0	%100
49	M64	X	12.342	12.342	0 %100
50	M64	Z	0	0	%100



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Member Distributed Loads (BLC 44 : Structure Wo (90 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
51	M65	X	0	0	%100
52	M65	Z	0	0	%100
53	M66	X	12.342	12.342	0
54	M66	Z	0	0	%100
55	M67	X	18.537	18.537	0
56	M67	Z	0	0	%100
57	M68	X	13.762	13.762	0
58	M68	Z	0	0	%100
59	M69	X	13.762	13.762	0
60	M69	Z	0	0	%100

Member Distributed Loads (BLC 45 : Structure Wo (120 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	2.444	2.444	0
2	M11	Z	1.411	1.411	0
3	M20A	X	7.716	7.716	0
4	M20A	Z	4.455	4.455	0
5	OVP	X	2.444	2.444	0
6	OVP	Z	1.411	1.411	0
7	M15	X	9.776	9.776	0
8	M15	Z	5.644	5.644	0
9	FACE	X	3.118	3.118	0
10	FACE	Z	1.8	1.8	0
11	M20	X	3.118	3.118	0
12	M20	Z	1.8	1.8	0
13	M21	X	12.474	12.474	0
14	M21	Z	7.202	7.202	0
15	M20B	X	7.716	7.716	0
16	M20B	Z	4.455	4.455	0
17	M21A	X	0	0	0
18	M21A	Z	0	0	0
19	MP4A	X	8.901	8.901	0
20	MP4A	Z	5.139	5.139	0
21	MP3A	X	8.901	8.901	0
22	MP3A	Z	5.139	5.139	0
23	MP2A	X	8.901	8.901	0
24	MP2A	Z	5.139	5.139	0
25	MP1A	X	8.901	8.901	0
26	MP1A	Z	5.139	5.139	0
27	MP4C	X	8.901	8.901	0
28	MP4C	Z	5.139	5.139	0
29	MP3C	X	8.901	8.901	0
30	MP3C	Z	5.139	5.139	0
31	MP2C	X	8.901	8.901	0
32	MP2C	Z	5.139	5.139	0
33	MP1C	X	8.901	8.901	0
34	MP1C	Z	5.139	5.139	0
35	MP4B	X	8.901	8.901	0
36	MP4B	Z	5.139	5.139	0
37	MP3B	X	8.901	8.901	0
38	MP3B	Z	5.139	5.139	0
39	MP2B	X	8.901	8.901	0
40	MP2B	Z	5.139	5.139	0
41	MP1B	X	8.901	8.901	0
42	MP1B	Z	5.139	5.139	0
43	M43	X	2.694	2.694	0



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Member Distributed Loads (BLC 45 : Structure Wo (120 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
44	M43	Z	1.555	0	%100
45	M44	X	2.694	0	%100
46	M44	Z	1.555	0	%100
47	M45	X	10.775	0	%100
48	M45	Z	6.221	0	%100
49	M64	X	3.563	0	%100
50	M64	Z	2.057	0	%100
51	M65	X	3.563	0	%100
52	M65	Z	2.057	0	%100
53	M66	X	14.251	0	%100
54	M66	Z	8.228	0	%100
55	M67	X	14.675	0	%100
56	M67	Z	8.473	0	%100
57	M68	X	14.675	0	%100
58	M68	Z	8.473	0	%100
59	M69	X	10.54	0	%100
60	M69	Z	6.085	0	%100

Member Distributed Loads (BLC 46 : Structure Wo (150 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	4.233	0	%100
2	M11	Z	7.332	0	%100
3	M20A	X	1.485	0	%100
4	M20A	Z	2.572	0	%100
5	OVP	X	0	0	%100
6	OVP	Z	0	0	%100
7	M15	X	4.233	0	%100
8	M15	Z	7.332	0	%100
9	FACE	X	5.401	0	%100
10	FACE	Z	9.355	0	%100
11	M20	X	0	0	%100
12	M20	Z	0	0	%100
13	M21	X	5.401	0	%100
14	M21	Z	9.355	0	%100
15	M20B	X	5.94	0	%100
16	M20B	Z	10.288	0	%100
17	M21A	X	1.485	0	%100
18	M21A	Z	2.572	0	%100
19	MP4A	X	5.139	0	%100
20	MP4A	Z	8.901	0	%100
21	MP3A	X	5.139	0	%100
22	MP3A	Z	8.901	0	%100
23	MP2A	X	5.139	0	%100
24	MP2A	Z	8.901	0	%100
25	MP1A	X	5.139	0	%100
26	MP1A	Z	8.901	0	%100
27	MP4C	X	5.139	0	%100
28	MP4C	Z	8.901	0	%100
29	MP3C	X	5.139	0	%100
30	MP3C	Z	8.901	0	%100
31	MP2C	X	5.139	0	%100
32	MP2C	Z	8.901	0	%100
33	MP1C	X	5.139	0	%100
34	MP1C	Z	8.901	0	%100
35	MP4B	X	5.139	0	%100
36	MP4B	Z	8.901	0	%100



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Member Distributed Loads (BLC 46 : Structure Wo (150 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[...
37	MP3B	X	5.139	0	%100
38	MP3B	Z	8.901	0	%100
39	MP2B	X	5.139	0	%100
40	MP2B	Z	8.901	0	%100
41	MP1B	X	5.139	0	%100
42	MP1B	Z	8.901	0	%100
43	M43	X	4.666	0	%100
44	M43	Z	8.081	0	%100
45	M44	X	0	0	%100
46	M44	Z	0	0	%100
47	M45	X	4.666	0	%100
48	M45	Z	8.081	0	%100
49	M64	X	0	0	%100
50	M64	Z	0	0	%100
51	M65	X	6.171	0	%100
52	M65	Z	10.688	0	%100
53	M66	X	6.171	0	%100
54	M66	Z	10.688	0	%100
55	M67	X	6.881	0	%100
56	M67	Z	11.918	0	%100
57	M68	X	9.269	0	%100
58	M68	Z	16.054	0	%100
59	M69	X	6.881	0	%100
60	M69	Z	11.918	0	%100

Member Distributed Loads (BLC 47 : Structure Wo (180 Deg))

Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[...
1	M11	X	0	0	%100
2	M11	Z	11.288	0	%100
3	M20A	X	0	0	%100
4	M20A	Z	0	0	%100
5	OVP	X	0	0	%100
6	OVP	Z	2.822	0	%100
7	M15	X	0	0	%100
8	M15	Z	2.822	0	%100
9	FACE	X	0	0	%100
10	FACE	Z	14.404	0	%100
11	M20	X	0	0	%100
12	M20	Z	3.601	0	%100
13	M21	X	0	0	%100
14	M21	Z	3.601	0	%100
15	M20B	X	0	0	%100
16	M20B	Z	8.91	0	%100
17	M21A	X	0	0	%100
18	M21A	Z	8.91	0	%100
19	MP4A	X	0	0	%100
20	MP4A	Z	10.278	0	%100
21	MP3A	X	0	0	%100
22	MP3A	Z	10.278	0	%100
23	MP2A	X	0	0	%100
24	MP2A	Z	10.278	0	%100
25	MP1A	X	0	0	%100
26	MP1A	Z	10.278	0	%100
27	MP4C	X	0	0	%100
28	MP4C	Z	10.278	0	%100
29	MP3C	X	0	0	%100



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Member Distributed Loads (BLC 47 : Structure Wo (180 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
30	MP3C	Z	10.278	0	%100
31	MP2C	X	0	0	%100
32	MP2C	Z	10.278	0	%100
33	MP1C	X	0	0	%100
34	MP1C	Z	10.278	0	%100
35	MP4B	X	0	0	%100
36	MP4B	Z	10.278	0	%100
37	MP3B	X	0	0	%100
38	MP3B	Z	10.278	0	%100
39	MP2B	X	0	0	%100
40	MP2B	Z	10.278	0	%100
41	MP1B	X	0	0	%100
42	MP1B	Z	10.278	0	%100
43	M43	X	0	0	%100
44	M43	Z	12.442	0	%100
45	M44	X	0	0	%100
46	M44	Z	3.11	0	%100
47	M45	X	0	0	%100
48	M45	Z	3.11	0	%100
49	M64	X	0	0	%100
50	M64	Z	4.114	0	%100
51	M65	X	0	0	%100
52	M65	Z	16.456	0	%100
53	M66	X	0	0	%100
54	M66	Z	4.114	0	%100
55	M67	X	0	0	%100
56	M67	Z	12.17	0	%100
57	M68	X	0	0	%100
58	M68	Z	16.945	0	%100
59	M69	X	0	0	%100
60	M69	Z	16.945	0	%100

Member Distributed Loads (BLC 48 : Structure Wo (210 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	-4.233	0	%100
2	M11	Z	7.332	0	%100
3	M20A	X	-1.485	0	%100
4	M20A	Z	2.572	0	%100
5	OVP	X	-4.233	0	%100
6	OVP	Z	7.332	0	%100
7	M15	X	0	0	%100
8	M15	Z	0	0	%100
9	FACE	X	-5.401	0	%100
10	FACE	Z	9.355	0	%100
11	M20	X	-5.401	0	%100
12	M20	Z	9.355	0	%100
13	M21	X	0	0	%100
14	M21	Z	0	0	%100
15	M20B	X	-1.485	0	%100
16	M20B	Z	2.572	0	%100
17	M21A	X	-5.94	0	%100
18	M21A	Z	10.288	0	%100
19	MP4A	X	-5.139	0	%100
20	MP4A	Z	8.901	0	%100
21	MP3A	X	-5.139	0	%100
22	MP3A	Z	8.901	0	%100



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Member Distributed Loads (BLC 48 : Structure Wo (210 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...
23	MP2A	X	-5.139	0	%100
24	MP2A	Z	8.901	0	%100
25	MP1A	X	-5.139	0	%100
26	MP1A	Z	8.901	0	%100
27	MP4C	X	-5.139	0	%100
28	MP4C	Z	8.901	0	%100
29	MP3C	X	-5.139	0	%100
30	MP3C	Z	8.901	0	%100
31	MP2C	X	-5.139	0	%100
32	MP2C	Z	8.901	0	%100
33	MP1C	X	-5.139	0	%100
34	MP1C	Z	8.901	0	%100
35	MP4B	X	-5.139	0	%100
36	MP4B	Z	8.901	0	%100
37	MP3B	X	-5.139	0	%100
38	MP3B	Z	8.901	0	%100
39	MP2B	X	-5.139	0	%100
40	MP2B	Z	8.901	0	%100
41	MP1B	X	-5.139	0	%100
42	MP1B	Z	8.901	0	%100
43	M43	X	-4.666	0	%100
44	M43	Z	8.081	0	%100
45	M44	X	-4.666	0	%100
46	M44	Z	8.081	0	%100
47	M45	X	0	0	%100
48	M45	Z	0	0	%100
49	M64	X	-6.171	0	%100
50	M64	Z	10.688	0	%100
51	M65	X	-6.171	0	%100
52	M65	Z	10.688	0	%100
53	M66	X	0	0	%100
54	M66	Z	0	0	%100
55	M67	X	-6.881	0	%100
56	M67	Z	11.918	0	%100
57	M68	X	-6.881	0	%100
58	M68	Z	11.918	0	%100
59	M69	X	-9.269	0	%100
60	M69	Z	16.054	0	%100

Member Distributed Loads (BLC 49 : Structure Wo (240 Deg))

Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...
1	M11	X	-2.444	0	%100
2	M11	Z	1.411	0	%100
3	M20A	X	-7.716	0	%100
4	M20A	Z	4.455	0	%100
5	OVP	X	-9.776	0	%100
6	OVP	Z	5.644	0	%100
7	M15	X	-2.444	0	%100
8	M15	Z	1.411	0	%100
9	FACE	X	-3.118	0	%100
10	FACE	Z	1.8	0	%100
11	M20	X	-12.474	0	%100
12	M20	Z	7.202	0	%100
13	M21	X	-3.118	0	%100
14	M21	Z	1.8	0	%100
15	M20B	X	0	0	%100



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Member Distributed Loads (BLC 49 : Structure Wo (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...
16	M20B	Z	0	0	0	%100
17	M21A	X	-7.716	-7.716	0	%100
18	M21A	Z	4.455	4.455	0	%100
19	MP4A	X	-8.901	-8.901	0	%100
20	MP4A	Z	5.139	5.139	0	%100
21	MP3A	X	-8.901	-8.901	0	%100
22	MP3A	Z	5.139	5.139	0	%100
23	MP2A	X	-8.901	-8.901	0	%100
24	MP2A	Z	5.139	5.139	0	%100
25	MP1A	X	-8.901	-8.901	0	%100
26	MP1A	Z	5.139	5.139	0	%100
27	MP4C	X	-8.901	-8.901	0	%100
28	MP4C	Z	5.139	5.139	0	%100
29	MP3C	X	-8.901	-8.901	0	%100
30	MP3C	Z	5.139	5.139	0	%100
31	MP2C	X	-8.901	-8.901	0	%100
32	MP2C	Z	5.139	5.139	0	%100
33	MP1C	X	-8.901	-8.901	0	%100
34	MP1C	Z	5.139	5.139	0	%100
35	MP4B	X	-8.901	-8.901	0	%100
36	MP4B	Z	5.139	5.139	0	%100
37	MP3B	X	-8.901	-8.901	0	%100
38	MP3B	Z	5.139	5.139	0	%100
39	MP2B	X	-8.901	-8.901	0	%100
40	MP2B	Z	5.139	5.139	0	%100
41	MP1B	X	-8.901	-8.901	0	%100
42	MP1B	Z	5.139	5.139	0	%100
43	M43	X	-2.694	-2.694	0	%100
44	M43	Z	1.555	1.555	0	%100
45	M44	X	-10.775	-10.775	0	%100
46	M44	Z	6.221	6.221	0	%100
47	M45	X	-2.694	-2.694	0	%100
48	M45	Z	1.555	1.555	0	%100
49	M64	X	-14.251	-14.251	0	%100
50	M64	Z	8.228	8.228	0	%100
51	M65	X	-3.563	-3.563	0	%100
52	M65	Z	2.057	2.057	0	%100
53	M66	X	-3.563	-3.563	0	%100
54	M66	Z	2.057	2.057	0	%100
55	M67	X	-14.675	-14.675	0	%100
56	M67	Z	8.473	8.473	0	%100
57	M68	X	-10.54	-10.54	0	%100
58	M68	Z	6.085	6.085	0	%100
59	M69	X	-14.675	-14.675	0	%100
60	M69	Z	8.473	8.473	0	%100

Member Distributed Loads (BLC 50 : Structure Wo (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...
1	M11	X	0	0	0	%100
2	M11	Z	0	0	0	%100
3	M20A	X	-11.88	-11.88	0	%100
4	M20A	Z	0	0	0	%100
5	OVP	X	-8.466	-8.466	0	%100
6	OVP	Z	0	0	0	%100
7	M15	X	-8.466	-8.466	0	%100
8	M15	Z	0	0	0	%100



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Member Distributed Loads (BLC 50 : Structure Wo (270 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
9	FACE	X	0	0	0	%100
10	FACE	Z	0	0	0	%100
11	M20	X	-10.803	-10.803	0	%100
12	M20	Z	0	0	0	%100
13	M21	X	-10.803	-10.803	0	%100
14	M21	Z	0	0	0	%100
15	M20B	X	-2.97	-2.97	0	%100
16	M20B	Z	0	0	0	%100
17	M21A	X	-2.97	-2.97	0	%100
18	M21A	Z	0	0	0	%100
19	MP4A	X	-10.278	-10.278	0	%100
20	MP4A	Z	0	0	0	%100
21	MP3A	X	-10.278	-10.278	0	%100
22	MP3A	Z	0	0	0	%100
23	MP2A	X	-10.278	-10.278	0	%100
24	MP2A	Z	0	0	0	%100
25	MP1A	X	-10.278	-10.278	0	%100
26	MP1A	Z	0	0	0	%100
27	MP4C	X	-10.278	-10.278	0	%100
28	MP4C	Z	0	0	0	%100
29	MP3C	X	-10.278	-10.278	0	%100
30	MP3C	Z	0	0	0	%100
31	MP2C	X	-10.278	-10.278	0	%100
32	MP2C	Z	0	0	0	%100
33	MP1C	X	-10.278	-10.278	0	%100
34	MP1C	Z	0	0	0	%100
35	MP4B	X	-10.278	-10.278	0	%100
36	MP4B	Z	0	0	0	%100
37	MP3B	X	-10.278	-10.278	0	%100
38	MP3B	Z	0	0	0	%100
39	MP2B	X	-10.278	-10.278	0	%100
40	MP2B	Z	0	0	0	%100
41	MP1B	X	-10.278	-10.278	0	%100
42	MP1B	Z	0	0	0	%100
43	M43	X	0	0	0	%100
44	M43	Z	0	0	0	%100
45	M44	X	-9.331	-9.331	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-9.331	-9.331	0	%100
48	M45	Z	0	0	0	%100
49	M64	X	-12.342	-12.342	0	%100
50	M64	Z	0	0	0	%100
51	M65	X	0	0	0	%100
52	M65	Z	0	0	0	%100
53	M66	X	-12.342	-12.342	0	%100
54	M66	Z	0	0	0	%100
55	M67	X	-18.537	-18.537	0	%100
56	M67	Z	0	0	0	%100
57	M68	X	-13.762	-13.762	0	%100
58	M68	Z	0	0	0	%100
59	M69	X	-13.762	-13.762	0	%100
60	M69	Z	0	0	0	%100

Member Distributed Loads (BLC 51 : Structure Wo (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
1	M11	X	-2.444	-2.444	0	%100



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Member Distributed Loads (BLC 51 : Structure Wo (300 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Locationfi...
2	M11	Z	-1.411	-1.411	0 %100
3	M20A	X	-7.716	-7.716	0 %100
4	M20A	Z	-4.455	-4.455	0 %100
5	OVP	X	-2.444	-2.444	0 %100
6	OVP	Z	-1.411	-1.411	0 %100
7	M15	X	-9.776	-9.776	0 %100
8	M15	Z	-5.644	-5.644	0 %100
9	FACE	X	-3.118	-3.118	0 %100
10	FACE	Z	-1.8	-1.8	0 %100
11	M20	X	-3.118	-3.118	0 %100
12	M20	Z	-1.8	-1.8	0 %100
13	M21	X	-12.474	-12.474	0 %100
14	M21	Z	-7.202	-7.202	0 %100
15	M20B	X	-7.716	-7.716	0 %100
16	M20B	Z	-4.455	-4.455	0 %100
17	M21A	X	0	0	0 %100
18	M21A	Z	0	0	0 %100
19	MP4A	X	-8.901	-8.901	0 %100
20	MP4A	Z	-5.139	-5.139	0 %100
21	MP3A	X	-8.901	-8.901	0 %100
22	MP3A	Z	-5.139	-5.139	0 %100
23	MP2A	X	-8.901	-8.901	0 %100
24	MP2A	Z	-5.139	-5.139	0 %100
25	MP1A	X	-8.901	-8.901	0 %100
26	MP1A	Z	-5.139	-5.139	0 %100
27	MP4C	X	-8.901	-8.901	0 %100
28	MP4C	Z	-5.139	-5.139	0 %100
29	MP3C	X	-8.901	-8.901	0 %100
30	MP3C	Z	-5.139	-5.139	0 %100
31	MP2C	X	-8.901	-8.901	0 %100
32	MP2C	Z	-5.139	-5.139	0 %100
33	MP1C	X	-8.901	-8.901	0 %100
34	MP1C	Z	-5.139	-5.139	0 %100
35	MP4B	X	-8.901	-8.901	0 %100
36	MP4B	Z	-5.139	-5.139	0 %100
37	MP3B	X	-8.901	-8.901	0 %100
38	MP3B	Z	-5.139	-5.139	0 %100
39	MP2B	X	-8.901	-8.901	0 %100
40	MP2B	Z	-5.139	-5.139	0 %100
41	MP1B	X	-8.901	-8.901	0 %100
42	MP1B	Z	-5.139	-5.139	0 %100
43	M43	X	-2.694	-2.694	0 %100
44	M43	Z	-1.555	-1.555	0 %100
45	M44	X	-2.694	-2.694	0 %100
46	M44	Z	-1.555	-1.555	0 %100
47	M45	X	-10.775	-10.775	0 %100
48	M45	Z	-6.221	-6.221	0 %100
49	M64	X	-3.563	-3.563	0 %100
50	M64	Z	-2.057	-2.057	0 %100
51	M65	X	-3.563	-3.563	0 %100
52	M65	Z	-2.057	-2.057	0 %100
53	M66	X	-14.251	-14.251	0 %100
54	M66	Z	-8.228	-8.228	0 %100
55	M67	X	-14.675	-14.675	0 %100
56	M67	Z	-8.473	-8.473	0 %100
57	M68	X	-14.675	-14.675	0 %100
58	M68	Z	-8.473	-8.473	0 %100



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Member Distributed Loads (BLC 51 : Structure Wo (300 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
59	M69	X	-10.54	-10.54	0 %100
60	M69	Z	-6.085	-6.085	0 %100

Member Distributed Loads (BLC 52 : Structure Wo (330 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	-4.233	-4.233	0 %100
2	M11	Z	-7.332	-7.332	0 %100
3	M20A	X	-1.485	-1.485	0 %100
4	M20A	Z	-2.572	-2.572	0 %100
5	OVP	X	0	0	0 %100
6	OVP	Z	0	0	0 %100
7	M15	X	-4.233	-4.233	0 %100
8	M15	Z	-7.332	-7.332	0 %100
9	FACE	X	-5.401	-5.401	0 %100
10	FACE	Z	-9.355	-9.355	0 %100
11	M20	X	0	0	0 %100
12	M20	Z	0	0	0 %100
13	M21	X	-5.401	-5.401	0 %100
14	M21	Z	-9.355	-9.355	0 %100
15	M20B	X	-5.94	-5.94	0 %100
16	M20B	Z	-10.288	-10.288	0 %100
17	M21A	X	-1.485	-1.485	0 %100
18	M21A	Z	-2.572	-2.572	0 %100
19	MP4A	X	-5.139	-5.139	0 %100
20	MP4A	Z	-8.901	-8.901	0 %100
21	MP3A	X	-5.139	-5.139	0 %100
22	MP3A	Z	-8.901	-8.901	0 %100
23	MP2A	X	-5.139	-5.139	0 %100
24	MP2A	Z	-8.901	-8.901	0 %100
25	MP1A	X	-5.139	-5.139	0 %100
26	MP1A	Z	-8.901	-8.901	0 %100
27	MP4C	X	-5.139	-5.139	0 %100
28	MP4C	Z	-8.901	-8.901	0 %100
29	MP3C	X	-5.139	-5.139	0 %100
30	MP3C	Z	-8.901	-8.901	0 %100
31	MP2C	X	-5.139	-5.139	0 %100
32	MP2C	Z	-8.901	-8.901	0 %100
33	MP1C	X	-5.139	-5.139	0 %100
34	MP1C	Z	-8.901	-8.901	0 %100
35	MP4B	X	-5.139	-5.139	0 %100
36	MP4B	Z	-8.901	-8.901	0 %100
37	MP3B	X	-5.139	-5.139	0 %100
38	MP3B	Z	-8.901	-8.901	0 %100
39	MP2B	X	-5.139	-5.139	0 %100
40	MP2B	Z	-8.901	-8.901	0 %100
41	MP1B	X	-5.139	-5.139	0 %100
42	MP1B	Z	-8.901	-8.901	0 %100
43	M43	X	-4.666	-4.666	0 %100
44	M43	Z	-8.081	-8.081	0 %100
45	M44	X	0	0	0 %100
46	M44	Z	0	0	0 %100
47	M45	X	-4.666	-4.666	0 %100
48	M45	Z	-8.081	-8.081	0 %100
49	M64	X	0	0	0 %100
50	M64	Z	0	0	0 %100
51	M65	X	-6.171	-6.171	0 %100



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Member Distributed Loads (BLC 52 : Structure Wo (330 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...
52	M65	Z	-10.688	0	%100
53	M66	X	-6.171	0	%100
54	M66	Z	-10.688	0	%100
55	M67	X	-6.881	0	%100
56	M67	Z	-11.918	0	%100
57	M68	X	-9.269	0	%100
58	M68	Z	-16.054	0	%100
59	M69	X	-6.881	0	%100
60	M69	Z	-11.918	0	%100

Member Distributed Loads (BLC 53 : Structure Wi (0 Deg))

Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...
1	M11	X	0	0	%100
2	M11	Z	-4.32	0	%100
3	M20A	X	0	0	%100
4	M20A	Z	0	0	%100
5	OVP	X	0	0	%100
6	OVP	Z	-1.08	0	%100
7	M15	X	0	0	%100
8	M15	Z	-1.08	0	%100
9	FACE	X	0	0	%100
10	FACE	Z	-5.687	0	%100
11	M20	X	0	0	%100
12	M20	Z	-1.422	0	%100
13	M21	X	0	0	%100
14	M21	Z	-1.422	0	%100
15	M20B	X	0	0	%100
16	M20B	Z	-3.548	0	%100
17	M21A	X	0	0	%100
18	M21A	Z	-3.548	0	%100
19	MP4A	X	0	0	%100
20	MP4A	Z	-4.475	0	%100
21	MP3A	X	0	0	%100
22	MP3A	Z	-4.648	0	%100
23	MP2A	X	0	0	%100
24	MP2A	Z	-4.475	0	%100
25	MP1A	X	0	0	%100
26	MP1A	Z	-4.475	0	%100
27	MP4C	X	0	0	%100
28	MP4C	Z	-4.475	0	%100
29	MP3C	X	0	0	%100
30	MP3C	Z	-4.648	0	%100
31	MP2C	X	0	0	%100
32	MP2C	Z	-4.475	0	%100
33	MP1C	X	0	0	%100
34	MP1C	Z	-4.475	0	%100
35	MP4B	X	0	0	%100
36	MP4B	Z	-4.475	0	%100
37	MP3B	X	0	0	%100
38	MP3B	Z	-4.648	0	%100
39	MP2B	X	0	0	%100
40	MP2B	Z	-4.475	0	%100
41	MP1B	X	0	0	%100
42	MP1B	Z	-4.475	0	%100
43	M43	X	0	0	%100
44	M43	Z	-5.201	0	%100



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Member Distributed Loads (BLC 53 : Structure Wi (0 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
45	M44	X	0	0	%100
46	M44	Z	-1.3	0	%100
47	M45	X	0	0	%100
48	M45	Z	-1.3	0	%100
49	M64	X	0	0	%100
50	M64	Z	-1.252	0	%100
51	M65	X	0	0	%100
52	M65	Z	-5.007	0	%100
53	M66	X	0	0	%100
54	M66	Z	-1.252	0	%100
55	M67	X	0	0	%100
56	M67	Z	-3.041	0	%100
57	M68	X	0	0	%100
58	M68	Z	-4.983	0	%100
59	M69	X	0	0	%100
60	M69	Z	-4.983	0	%100

Member Distributed Loads (BLC 54 : Structure Wi (30 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
1	M11	X	1.62	0	%100
2	M11	Z	-2.806	0	%100
3	M20A	X	.591	0	%100
4	M20A	Z	-1.024	0	%100
5	OVP	X	1.62	0	%100
6	OVP	Z	-2.806	0	%100
7	M15	X	0	0	%100
8	M15	Z	0	0	%100
9	FACE	X	2.133	0	%100
10	FACE	Z	-3.694	0	%100
11	M20	X	2.133	0	%100
12	M20	Z	-3.694	0	%100
13	M21	X	0	0	%100
14	M21	Z	0	0	%100
15	M20B	X	.591	0	%100
16	M20B	Z	-1.024	0	%100
17	M21A	X	2.365	0	%100
18	M21A	Z	-4.097	0	%100
19	MP4A	X	2.237	0	%100
20	MP4A	Z	-3.875	0	%100
21	MP3A	X	2.324	0	%100
22	MP3A	Z	-4.025	0	%100
23	MP2A	X	2.237	0	%100
24	MP2A	Z	-3.875	0	%100
25	MP1A	X	2.237	0	%100
26	MP1A	Z	-3.875	0	%100
27	MP4C	X	2.237	0	%100
28	MP4C	Z	-3.875	0	%100
29	MP3C	X	2.324	0	%100
30	MP3C	Z	-4.025	0	%100
31	MP2C	X	2.237	0	%100
32	MP2C	Z	-3.875	0	%100
33	MP1C	X	2.237	0	%100
34	MP1C	Z	-3.875	0	%100
35	MP4B	X	2.237	0	%100
36	MP4B	Z	-3.875	0	%100
37	MP3B	X	2.324	0	%100



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Member Distributed Loads (BLC 54 : Structure Wi (30 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
38	MP3B	Z	-4.025	-4.025	0 %100
39	MP2B	X	2.237	2.237	0 %100
40	MP2B	Z	-3.875	-3.875	0 %100
41	MP1B	X	2.237	2.237	0 %100
42	MP1B	Z	-3.875	-3.875	0 %100
43	M43	X	1.95	1.95	0 %100
44	M43	Z	-3.378	-3.378	0 %100
45	M44	X	1.95	1.95	0 %100
46	M44	Z	-3.378	-3.378	0 %100
47	M45	X	0	0	0 %100
48	M45	Z	0	0	0 %100
49	M64	X	1.878	1.878	0 %100
50	M64	Z	-3.252	-3.252	0 %100
51	M65	X	1.878	1.878	0 %100
52	M65	Z	-3.252	-3.252	0 %100
53	M66	X	0	0	0 %100
54	M66	Z	0	0	0 %100
55	M67	X	1.844	1.844	0 %100
56	M67	Z	-3.194	-3.194	0 %100
57	M68	X	1.844	1.844	0 %100
58	M68	Z	-3.194	-3.194	0 %100
59	M69	X	2.815	2.815	0 %100
60	M69	Z	-4.876	-4.876	0 %100

Member Distributed Loads (BLC 55 : Structure Wi (60 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	.935	.935	0 %100
2	M11	Z	-.54	-.54	0 %100
3	M20A	X	3.072	3.072	0 %100
4	M20A	Z	-1.774	-1.774	0 %100
5	OVP	X	3.741	3.741	0 %100
6	OVP	Z	-2.16	-2.16	0 %100
7	M15	X	.935	.935	0 %100
8	M15	Z	-.54	-.54	0 %100
9	FACE	X	1.231	1.231	0 %100
10	FACE	Z	-.711	-.711	0 %100
11	M20	X	4.925	4.925	0 %100
12	M20	Z	-2.843	-2.843	0 %100
13	M21	X	1.231	1.231	0 %100
14	M21	Z	-.711	-.711	0 %100
15	M20B	X	0	0	0 %100
16	M20B	Z	0	0	0 %100
17	M21A	X	3.072	3.072	0 %100
18	M21A	Z	-1.774	-1.774	0 %100
19	MP4A	X	3.875	3.875	0 %100
20	MP4A	Z	-2.237	-2.237	0 %100
21	MP3A	X	4.025	4.025	0 %100
22	MP3A	Z	-2.324	-2.324	0 %100
23	MP2A	X	3.875	3.875	0 %100
24	MP2A	Z	-2.237	-2.237	0 %100
25	MP1A	X	3.875	3.875	0 %100
26	MP1A	Z	-2.237	-2.237	0 %100
27	MP4C	X	3.875	3.875	0 %100
28	MP4C	Z	-2.237	-2.237	0 %100
29	MP3C	X	4.025	4.025	0 %100
30	MP3C	Z	-2.324	-2.324	0 %100



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Member Distributed Loads (BLC 55 : Structure Wi (60 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
31	MP2C	X	3.875	3.875	0 %100
32	MP2C	Z	-2.237	-2.237	0 %100
33	MP1C	X	3.875	3.875	0 %100
34	MP1C	Z	-2.237	-2.237	0 %100
35	MP4B	X	3.875	3.875	0 %100
36	MP4B	Z	-2.237	-2.237	0 %100
37	MP3B	X	4.025	4.025	0 %100
38	MP3B	Z	-2.324	-2.324	0 %100
39	MP2B	X	3.875	3.875	0 %100
40	MP2B	Z	-2.237	-2.237	0 %100
41	MP1B	X	3.875	3.875	0 %100
42	MP1B	Z	-2.237	-2.237	0 %100
43	M43	X	1.126	1.126	0 %100
44	M43	Z	-.65	-.65	0 %100
45	M44	X	4.504	4.504	0 %100
46	M44	Z	-2.601	-2.601	0 %100
47	M45	X	1.126	1.126	0 %100
48	M45	Z	-.65	-.65	0 %100
49	M64	X	4.336	4.336	0 %100
50	M64	Z	-2.504	-2.504	0 %100
51	M65	X	1.084	1.084	0 %100
52	M65	Z	-.626	-.626	0 %100
53	M66	X	1.084	1.084	0 %100
54	M66	Z	-.626	-.626	0 %100
55	M67	X	4.315	4.315	0 %100
56	M67	Z	-2.491	-2.491	0 %100
57	M68	X	2.633	2.633	0 %100
58	M68	Z	-1.52	-1.52	0 %100
59	M69	X	4.315	4.315	0 %100
60	M69	Z	-2.491	-2.491	0 %100

Member Distributed Loads (BLC 56 : Structure Wi (90 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	0	0	0 %100
2	M11	Z	0	0	0 %100
3	M20A	X	4.73	4.73	0 %100
4	M20A	Z	0	0	0 %100
5	OVP	X	3.24	3.24	0 %100
6	OVP	Z	0	0	0 %100
7	M15	X	3.24	3.24	0 %100
8	M15	Z	0	0	0 %100
9	FACE	X	0	0	0 %100
10	FACE	Z	0	0	0 %100
11	M20	X	4.265	4.265	0 %100
12	M20	Z	0	0	0 %100
13	M21	X	4.265	4.265	0 %100
14	M21	Z	0	0	0 %100
15	M20B	X	1.183	1.183	0 %100
16	M20B	Z	0	0	0 %100
17	M21A	X	1.183	1.183	0 %100
18	M21A	Z	0	0	0 %100
19	MP4A	X	4.475	4.475	0 %100
20	MP4A	Z	0	0	0 %100
21	MP3A	X	4.648	4.648	0 %100
22	MP3A	Z	0	0	0 %100
23	MP2A	X	4.475	4.475	0 %100



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Member Distributed Loads (BLC 56 : Structure Wi (90 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...	
24	MP2A	Z	0	0	%100	
25	MP1A	X	4.475	4.475	0	%100
26	MP1A	Z	0	0	0	%100
27	MP4C	X	4.475	4.475	0	%100
28	MP4C	Z	0	0	0	%100
29	MP3C	X	4.648	4.648	0	%100
30	MP3C	Z	0	0	0	%100
31	MP2C	X	4.475	4.475	0	%100
32	MP2C	Z	0	0	0	%100
33	MP1C	X	4.475	4.475	0	%100
34	MP1C	Z	0	0	0	%100
35	MP4B	X	4.475	4.475	0	%100
36	MP4B	Z	0	0	0	%100
37	MP3B	X	4.648	4.648	0	%100
38	MP3B	Z	0	0	0	%100
39	MP2B	X	4.475	4.475	0	%100
40	MP2B	Z	0	0	0	%100
41	MP1B	X	4.475	4.475	0	%100
42	MP1B	Z	0	0	0	%100
43	M43	X	0	0	0	%100
44	M43	Z	0	0	0	%100
45	M44	X	3.901	3.901	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	3.901	3.901	0	%100
48	M45	Z	0	0	0	%100
49	M64	X	3.755	3.755	0	%100
50	M64	Z	0	0	0	%100
51	M65	X	0	0	0	%100
52	M65	Z	0	0	0	%100
53	M66	X	3.755	3.755	0	%100
54	M66	Z	0	0	0	%100
55	M67	X	5.63	5.63	0	%100
56	M67	Z	0	0	0	%100
57	M68	X	3.688	3.688	0	%100
58	M68	Z	0	0	0	%100
59	M69	X	3.688	3.688	0	%100
60	M69	Z	0	0	0	%100

Member Distributed Loads (BLC 57 : Structure Wi (120 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...	
1	M11	X	.935	.935	0	%100
2	M11	Z	.54	.54	0	%100
3	M20A	X	3.072	3.072	0	%100
4	M20A	Z	1.774	1.774	0	%100
5	OVP	X	.935	.935	0	%100
6	OVP	Z	.54	.54	0	%100
7	M15	X	3.741	3.741	0	%100
8	M15	Z	2.16	2.16	0	%100
9	FACE	X	1.231	1.231	0	%100
10	FACE	Z	.711	.711	0	%100
11	M20	X	1.231	1.231	0	%100
12	M20	Z	.711	.711	0	%100
13	M21	X	4.925	4.925	0	%100
14	M21	Z	2.843	2.843	0	%100
15	M20B	X	3.072	3.072	0	%100
16	M20B	Z	1.774	1.774	0	%100



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Member Distributed Loads (BLC 57 : Structure Wi (120 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...]
17	M21A	X	0	0	0	%100
18	M21A	Z	0	0	0	%100
19	MP4A	X	3.875	3.875	0	%100
20	MP4A	Z	2.237	2.237	0	%100
21	MP3A	X	4.025	4.025	0	%100
22	MP3A	Z	2.324	2.324	0	%100
23	MP2A	X	3.875	3.875	0	%100
24	MP2A	Z	2.237	2.237	0	%100
25	MP1A	X	3.875	3.875	0	%100
26	MP1A	Z	2.237	2.237	0	%100
27	MP4C	X	3.875	3.875	0	%100
28	MP4C	Z	2.237	2.237	0	%100
29	MP3C	X	4.025	4.025	0	%100
30	MP3C	Z	2.324	2.324	0	%100
31	MP2C	X	3.875	3.875	0	%100
32	MP2C	Z	2.237	2.237	0	%100
33	MP1C	X	3.875	3.875	0	%100
34	MP1C	Z	2.237	2.237	0	%100
35	MP4B	X	3.875	3.875	0	%100
36	MP4B	Z	2.237	2.237	0	%100
37	MP3B	X	4.025	4.025	0	%100
38	MP3B	Z	2.324	2.324	0	%100
39	MP2B	X	3.875	3.875	0	%100
40	MP2B	Z	2.237	2.237	0	%100
41	MP1B	X	3.875	3.875	0	%100
42	MP1B	Z	2.237	2.237	0	%100
43	M43	X	1.126	1.126	0	%100
44	M43	Z	.65	.65	0	%100
45	M44	X	1.126	1.126	0	%100
46	M44	Z	.65	.65	0	%100
47	M45	X	4.504	4.504	0	%100
48	M45	Z	2.601	2.601	0	%100
49	M64	X	1.084	1.084	0	%100
50	M64	Z	.626	.626	0	%100
51	M65	X	1.084	1.084	0	%100
52	M65	Z	.626	.626	0	%100
53	M66	X	4.336	4.336	0	%100
54	M66	Z	2.504	2.504	0	%100
55	M67	X	4.315	4.315	0	%100
56	M67	Z	2.491	2.491	0	%100
57	M68	X	4.315	4.315	0	%100
58	M68	Z	2.491	2.491	0	%100
59	M69	X	2.633	2.633	0	%100
60	M69	Z	1.52	1.52	0	%100

Member Distributed Loads (BLC 58 : Structure Wi (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...]
1	M11	X	1.62	1.62	0	%100
2	M11	Z	2.806	2.806	0	%100
3	M20A	X	.591	.591	0	%100
4	M20A	Z	1.024	1.024	0	%100
5	OVP	X	0	0	0	%100
6	OVP	Z	0	0	0	%100
7	M15	X	1.62	1.62	0	%100
8	M15	Z	2.806	2.806	0	%100
9	FACE	X	2.133	2.133	0	%100



Member Distributed Loads (BLC 58 : Structure Wi (150 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
10	FACE	Z	3.694	0	%100
11	M20	X	0	0	%100
12	M20	Z	0	0	%100
13	M21	X	2.133	0	%100
14	M21	Z	3.694	0	%100
15	M20B	X	2.365	0	%100
16	M20B	Z	4.097	0	%100
17	M21A	X	.591	0	%100
18	M21A	Z	1.024	0	%100
19	MP4A	X	2.237	0	%100
20	MP4A	Z	3.875	0	%100
21	MP3A	X	2.324	0	%100
22	MP3A	Z	4.025	0	%100
23	MP2A	X	2.237	0	%100
24	MP2A	Z	3.875	0	%100
25	MP1A	X	2.237	0	%100
26	MP1A	Z	3.875	0	%100
27	MP4C	X	2.237	0	%100
28	MP4C	Z	3.875	0	%100
29	MP3C	X	2.324	0	%100
30	MP3C	Z	4.025	0	%100
31	MP2C	X	2.237	0	%100
32	MP2C	Z	3.875	0	%100
33	MP1C	X	2.237	0	%100
34	MP1C	Z	3.875	0	%100
35	MP4B	X	2.237	0	%100
36	MP4B	Z	3.875	0	%100
37	MP3B	X	2.324	0	%100
38	MP3B	Z	4.025	0	%100
39	MP2B	X	2.237	0	%100
40	MP2B	Z	3.875	0	%100
41	MP1B	X	2.237	0	%100
42	MP1B	Z	3.875	0	%100
43	M43	X	1.95	0	%100
44	M43	Z	3.378	0	%100
45	M44	X	0	0	%100
46	M44	Z	0	0	%100
47	M45	X	1.95	0	%100
48	M45	Z	3.378	0	%100
49	M64	X	0	0	%100
50	M64	Z	0	0	%100
51	M65	X	1.878	0	%100
52	M65	Z	3.252	0	%100
53	M66	X	1.878	0	%100
54	M66	Z	3.252	0	%100
55	M67	X	1.844	0	%100
56	M67	Z	3.194	0	%100
57	M68	X	2.815	0	%100
58	M68	Z	4.876	0	%100
59	M69	X	1.844	0	%100
60	M69	Z	3.194	0	%100

Member Distributed Loads (BLC 59 : Structure Wi (180 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	0	0	%100
2	M11	Z	4.32	0	%100



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Member Distributed Loads (BLC 59 : Structure Wi (180 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
3	M20A	X	0	0	%100
4	M20A	Z	0	0	%100
5	OVP	X	0	0	%100
6	OVP	Z	1.08	1.08	%100
7	M15	X	0	0	%100
8	M15	Z	1.08	1.08	%100
9	FACE	X	0	0	%100
10	FACE	Z	5.687	5.687	%100
11	M20	X	0	0	%100
12	M20	Z	1.422	1.422	%100
13	M21	X	0	0	%100
14	M21	Z	1.422	1.422	%100
15	M20B	X	0	0	%100
16	M20B	Z	3.548	3.548	%100
17	M21A	X	0	0	%100
18	M21A	Z	3.548	3.548	%100
19	MP4A	X	0	0	%100
20	MP4A	Z	4.475	4.475	%100
21	MP3A	X	0	0	%100
22	MP3A	Z	4.648	4.648	%100
23	MP2A	X	0	0	%100
24	MP2A	Z	4.475	4.475	%100
25	MP1A	X	0	0	%100
26	MP1A	Z	4.475	4.475	%100
27	MP4C	X	0	0	%100
28	MP4C	Z	4.475	4.475	%100
29	MP3C	X	0	0	%100
30	MP3C	Z	4.648	4.648	%100
31	MP2C	X	0	0	%100
32	MP2C	Z	4.475	4.475	%100
33	MP1C	X	0	0	%100
34	MP1C	Z	4.475	4.475	%100
35	MP4B	X	0	0	%100
36	MP4B	Z	4.475	4.475	%100
37	MP3B	X	0	0	%100
38	MP3B	Z	4.648	4.648	%100
39	MP2B	X	0	0	%100
40	MP2B	Z	4.475	4.475	%100
41	MP1B	X	0	0	%100
42	MP1B	Z	4.475	4.475	%100
43	M43	X	0	0	%100
44	M43	Z	5.201	5.201	%100
45	M44	X	0	0	%100
46	M44	Z	1.3	1.3	%100
47	M45	X	0	0	%100
48	M45	Z	1.3	1.3	%100
49	M64	X	0	0	%100
50	M64	Z	1.252	1.252	%100
51	M65	X	0	0	%100
52	M65	Z	5.007	5.007	%100
53	M66	X	0	0	%100
54	M66	Z	1.252	1.252	%100
55	M67	X	0	0	%100
56	M67	Z	3.041	3.041	%100
57	M68	X	0	0	%100
58	M68	Z	4.983	4.983	%100
59	M69	X	0	0	%100



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Member Distributed Loads (BLC 59 : Structure Wi (180 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
60	M69	Z	4.983	0	%100

Member Distributed Loads (BLC 60 : Structure Wi (210 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	-1.62	0	%100
2	M11	Z	2.806	0	%100
3	M20A	X	-.591	0	%100
4	M20A	Z	1.024	0	%100
5	OVP	X	-1.62	0	%100
6	OVP	Z	2.806	0	%100
7	M15	X	0	0	%100
8	M15	Z	0	0	%100
9	FACE	X	-2.133	0	%100
10	FACE	Z	3.694	0	%100
11	M20	X	-2.133	0	%100
12	M20	Z	3.694	0	%100
13	M21	X	0	0	%100
14	M21	Z	0	0	%100
15	M20B	X	-.591	0	%100
16	M20B	Z	1.024	0	%100
17	M21A	X	-2.365	0	%100
18	M21A	Z	4.097	0	%100
19	MP4A	X	-2.237	0	%100
20	MP4A	Z	3.875	0	%100
21	MP3A	X	-2.324	0	%100
22	MP3A	Z	4.025	0	%100
23	MP2A	X	-2.237	0	%100
24	MP2A	Z	3.875	0	%100
25	MP1A	X	-2.237	0	%100
26	MP1A	Z	3.875	0	%100
27	MP4C	X	-2.237	0	%100
28	MP4C	Z	3.875	0	%100
29	MP3C	X	-2.324	0	%100
30	MP3C	Z	4.025	0	%100
31	MP2C	X	-2.237	0	%100
32	MP2C	Z	3.875	0	%100
33	MP1C	X	-2.237	0	%100
34	MP1C	Z	3.875	0	%100
35	MP4B	X	-2.237	0	%100
36	MP4B	Z	3.875	0	%100
37	MP3B	X	-2.324	0	%100
38	MP3B	Z	4.025	0	%100
39	MP2B	X	-2.237	0	%100
40	MP2B	Z	3.875	0	%100
41	MP1B	X	-2.237	0	%100
42	MP1B	Z	3.875	0	%100
43	M43	X	-1.95	0	%100
44	M43	Z	3.378	0	%100
45	M44	X	-1.95	0	%100
46	M44	Z	3.378	0	%100
47	M45	X	0	0	%100
48	M45	Z	0	0	%100
49	M64	X	-1.878	0	%100
50	M64	Z	3.252	0	%100
51	M65	X	-1.878	0	%100
52	M65	Z	3.252	0	%100



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Member Distributed Loads (BLC 60 : Structure Wi (210 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
53	M66	X	0	0	%100
54	M66	Z	0	0	%100
55	M67	X	-1.844	-1.844	0
56	M67	Z	3.194	3.194	0
57	M68	X	-1.844	-1.844	0
58	M68	Z	3.194	3.194	0
59	M69	X	-2.815	-2.815	0
60	M69	Z	4.876	4.876	0

Member Distributed Loads (BLC 61 : Structure Wi (240 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
1	M11	X	-.935	-.935	0
2	M11	Z	.54	.54	0
3	M20A	X	-3.072	-3.072	0
4	M20A	Z	1.774	1.774	0
5	OVP	X	-3.741	-3.741	0
6	OVP	Z	2.16	2.16	0
7	M15	X	-.935	-.935	0
8	M15	Z	.54	.54	0
9	FACE	X	-1.231	-1.231	0
10	FACE	Z	.711	.711	0
11	M20	X	-4.925	-4.925	0
12	M20	Z	2.843	2.843	0
13	M21	X	-1.231	-1.231	0
14	M21	Z	.711	.711	0
15	M20B	X	0	0	0
16	M20B	Z	0	0	0
17	M21A	X	-3.072	-3.072	0
18	M21A	Z	1.774	1.774	0
19	MP4A	X	-3.875	-3.875	0
20	MP4A	Z	2.237	2.237	0
21	MP3A	X	-4.025	-4.025	0
22	MP3A	Z	2.324	2.324	0
23	MP2A	X	-3.875	-3.875	0
24	MP2A	Z	2.237	2.237	0
25	MP1A	X	-3.875	-3.875	0
26	MP1A	Z	2.237	2.237	0
27	MP4C	X	-3.875	-3.875	0
28	MP4C	Z	2.237	2.237	0
29	MP3C	X	-4.025	-4.025	0
30	MP3C	Z	2.324	2.324	0
31	MP2C	X	-3.875	-3.875	0
32	MP2C	Z	2.237	2.237	0
33	MP1C	X	-3.875	-3.875	0
34	MP1C	Z	2.237	2.237	0
35	MP4B	X	-3.875	-3.875	0
36	MP4B	Z	2.237	2.237	0
37	MP3B	X	-4.025	-4.025	0
38	MP3B	Z	2.324	2.324	0
39	MP2B	X	-3.875	-3.875	0
40	MP2B	Z	2.237	2.237	0
41	MP1B	X	-3.875	-3.875	0
42	MP1B	Z	2.237	2.237	0
43	M43	X	-1.126	-1.126	0
44	M43	Z	.65	.65	0
45	M44	X	-4.504	-4.504	0



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 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

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Member Distributed Loads (BLC 61 : Structure Wi (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
46	M44	Z	2.601	2.601	0	%100
47	M45	X	-1.126	-1.126	0	%100
48	M45	Z	.65	.65	0	%100
49	M64	X	-4.336	-4.336	0	%100
50	M64	Z	2.504	2.504	0	%100
51	M65	X	-1.084	-1.084	0	%100
52	M65	Z	.626	.626	0	%100
53	M66	X	-1.084	-1.084	0	%100
54	M66	Z	.626	.626	0	%100
55	M67	X	-4.315	-4.315	0	%100
56	M67	Z	2.491	2.491	0	%100
57	M68	X	-2.633	-2.633	0	%100
58	M68	Z	1.52	1.52	0	%100
59	M69	X	-4.315	-4.315	0	%100
60	M69	Z	2.491	2.491	0	%100

Member Distributed Loads (BLC 62 : Structure Wi (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	0	0	0	%100
2	M11	Z	0	0	0	%100
3	M20A	X	-4.73	-4.73	0	%100
4	M20A	Z	0	0	0	%100
5	OVP	X	-3.24	-3.24	0	%100
6	OVP	Z	0	0	0	%100
7	M15	X	-3.24	-3.24	0	%100
8	M15	Z	0	0	0	%100
9	FACE	X	0	0	0	%100
10	FACE	Z	0	0	0	%100
11	M20	X	-4.265	-4.265	0	%100
12	M20	Z	0	0	0	%100
13	M21	X	-4.265	-4.265	0	%100
14	M21	Z	0	0	0	%100
15	M20B	X	-1.183	-1.183	0	%100
16	M20B	Z	0	0	0	%100
17	M21A	X	-1.183	-1.183	0	%100
18	M21A	Z	0	0	0	%100
19	MP4A	X	-4.475	-4.475	0	%100
20	MP4A	Z	0	0	0	%100
21	MP3A	X	-4.648	-4.648	0	%100
22	MP3A	Z	0	0	0	%100
23	MP2A	X	-4.475	-4.475	0	%100
24	MP2A	Z	0	0	0	%100
25	MP1A	X	-4.475	-4.475	0	%100
26	MP1A	Z	0	0	0	%100
27	MP4C	X	-4.475	-4.475	0	%100
28	MP4C	Z	0	0	0	%100
29	MP3C	X	-4.648	-4.648	0	%100
30	MP3C	Z	0	0	0	%100
31	MP2C	X	-4.475	-4.475	0	%100
32	MP2C	Z	0	0	0	%100
33	MP1C	X	-4.475	-4.475	0	%100
34	MP1C	Z	0	0	0	%100
35	MP4B	X	-4.475	-4.475	0	%100
36	MP4B	Z	0	0	0	%100
37	MP3B	X	-4.648	-4.648	0	%100
38	MP3B	Z	0	0	0	%100



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Member Distributed Loads (BLC 62 : Structure Wi (270 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
39	MP2B	X	-4.475	0	%100
40	MP2B	Z	0	0	%100
41	MP1B	X	-4.475	0	%100
42	MP1B	Z	0	0	%100
43	M43	X	0	0	%100
44	M43	Z	0	0	%100
45	M44	X	-3.901	0	%100
46	M44	Z	0	0	%100
47	M45	X	-3.901	0	%100
48	M45	Z	0	0	%100
49	M64	X	-3.755	0	%100
50	M64	Z	0	0	%100
51	M65	X	0	0	%100
52	M65	Z	0	0	%100
53	M66	X	-3.755	0	%100
54	M66	Z	0	0	%100
55	M67	X	-5.63	0	%100
56	M67	Z	0	0	%100
57	M68	X	-3.688	0	%100
58	M68	Z	0	0	%100
59	M69	X	-3.688	0	%100
60	M69	Z	0	0	%100

Member Distributed Loads (BLC 63 : Structure Wi (300 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
1	M11	X	-.935	0	%100
2	M11	Z	-.54	0	%100
3	M20A	X	-3.072	0	%100
4	M20A	Z	-1.774	0	%100
5	OVP	X	-.935	0	%100
6	OVP	Z	-.54	0	%100
7	M15	X	-3.741	0	%100
8	M15	Z	-2.16	0	%100
9	FACE	X	-1.231	0	%100
10	FACE	Z	-.711	0	%100
11	M20	X	-1.231	0	%100
12	M20	Z	-.711	0	%100
13	M21	X	-4.925	0	%100
14	M21	Z	-2.843	0	%100
15	M20B	X	-3.072	0	%100
16	M20B	Z	-1.774	0	%100
17	M21A	X	0	0	%100
18	M21A	Z	0	0	%100
19	MP4A	X	-3.875	0	%100
20	MP4A	Z	-2.237	0	%100
21	MP3A	X	-4.025	0	%100
22	MP3A	Z	-2.324	0	%100
23	MP2A	X	-3.875	0	%100
24	MP2A	Z	-2.237	0	%100
25	MP1A	X	-3.875	0	%100
26	MP1A	Z	-2.237	0	%100
27	MP4C	X	-3.875	0	%100
28	MP4C	Z	-2.237	0	%100
29	MP3C	X	-4.025	0	%100
30	MP3C	Z	-2.324	0	%100
31	MP2C	X	-3.875	0	%100



Member Distributed Loads (BLC 63 : Structure Wi (300 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...
32	MP2C	Z	-2.237	0	%100
33	MP1C	X	-3.875	0	%100
34	MP1C	Z	-2.237	0	%100
35	MP4B	X	-3.875	0	%100
36	MP4B	Z	-2.237	0	%100
37	MP3B	X	-4.025	0	%100
38	MP3B	Z	-2.324	0	%100
39	MP2B	X	-3.875	0	%100
40	MP2B	Z	-2.237	0	%100
41	MP1B	X	-3.875	0	%100
42	MP1B	Z	-2.237	0	%100
43	M43	X	-1.126	0	%100
44	M43	Z	-.65	0	%100
45	M44	X	-1.126	0	%100
46	M44	Z	-.65	0	%100
47	M45	X	-4.504	0	%100
48	M45	Z	-2.601	0	%100
49	M64	X	-1.084	0	%100
50	M64	Z	-.626	0	%100
51	M65	X	-1.084	0	%100
52	M65	Z	-.626	0	%100
53	M66	X	-4.336	0	%100
54	M66	Z	-2.504	0	%100
55	M67	X	-4.315	0	%100
56	M67	Z	-2.491	0	%100
57	M68	X	-4.315	0	%100
58	M68	Z	-2.491	0	%100
59	M69	X	-2.633	0	%100
60	M69	Z	-1.52	0	%100

Member Distributed Loads (BLC 64 : Structure Wi (330 Deg))

Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...
1	M11	X	-1.62	0	%100
2	M11	Z	-2.806	0	%100
3	M20A	X	-.591	0	%100
4	M20A	Z	-1.024	0	%100
5	OVP	X	0	0	%100
6	OVP	Z	0	0	%100
7	M15	X	-1.62	0	%100
8	M15	Z	-2.806	0	%100
9	FACE	X	-2.133	0	%100
10	FACE	Z	-3.694	0	%100
11	M20	X	0	0	%100
12	M20	Z	0	0	%100
13	M21	X	-2.133	0	%100
14	M21	Z	-3.694	0	%100
15	M20B	X	-2.365	0	%100
16	M20B	Z	-4.097	0	%100
17	M21A	X	-.591	0	%100
18	M21A	Z	-1.024	0	%100
19	MP4A	X	-2.237	0	%100
20	MP4A	Z	-3.875	0	%100
21	MP3A	X	-2.324	0	%100
22	MP3A	Z	-4.025	0	%100
23	MP2A	X	-2.237	0	%100
24	MP2A	Z	-3.875	0	%100



Member Distributed Loads (BLC 64 : Structure Wi (330 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
25	MP1A	X	-2.237	-2.237	0 %100
26	MP1A	Z	-3.875	-3.875	0 %100
27	MP4C	X	-2.237	-2.237	0 %100
28	MP4C	Z	-3.875	-3.875	0 %100
29	MP3C	X	-2.324	-2.324	0 %100
30	MP3C	Z	-4.025	-4.025	0 %100
31	MP2C	X	-2.237	-2.237	0 %100
32	MP2C	Z	-3.875	-3.875	0 %100
33	MP1C	X	-2.237	-2.237	0 %100
34	MP1C	Z	-3.875	-3.875	0 %100
35	MP4B	X	-2.237	-2.237	0 %100
36	MP4B	Z	-3.875	-3.875	0 %100
37	MP3B	X	-2.324	-2.324	0 %100
38	MP3B	Z	-4.025	-4.025	0 %100
39	MP2B	X	-2.237	-2.237	0 %100
40	MP2B	Z	-3.875	-3.875	0 %100
41	MP1B	X	-2.237	-2.237	0 %100
42	MP1B	Z	-3.875	-3.875	0 %100
43	M43	X	-1.95	-1.95	0 %100
44	M43	Z	-3.378	-3.378	0 %100
45	M44	X	0	0	0 %100
46	M44	Z	0	0	0 %100
47	M45	X	-1.95	-1.95	0 %100
48	M45	Z	-3.378	-3.378	0 %100
49	M64	X	0	0	0 %100
50	M64	Z	0	0	0 %100
51	M65	X	-1.878	-1.878	0 %100
52	M65	Z	-3.252	-3.252	0 %100
53	M66	X	-1.878	-1.878	0 %100
54	M66	Z	-3.252	-3.252	0 %100
55	M67	X	-1.844	-1.844	0 %100
56	M67	Z	-3.194	-3.194	0 %100
57	M68	X	-2.815	-2.815	0 %100
58	M68	Z	-4.876	-4.876	0 %100
59	M69	X	-1.844	-1.844	0 %100
60	M69	Z	-3.194	-3.194	0 %100

Member Distributed Loads (BLC 65 : Structure Wm (0 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
1	M11	X	0	0	0 %100
2	M11	Z	-.73	-.73	0 %100
3	M20A	X	0	0	0 %100
4	M20A	Z	0	0	0 %100
5	OVP	X	0	0	0 %100
6	OVP	Z	-.182	-.182	0 %100
7	M15	X	0	0	0 %100
8	M15	Z	-.182	-.182	0 %100
9	FACE	X	0	0	0 %100
10	FACE	Z	-.931	-.931	0 %100
11	M20	X	0	0	0 %100
12	M20	Z	-.233	-.233	0 %100
13	M21	X	0	0	0 %100
14	M21	Z	-.233	-.233	0 %100
15	M20B	X	0	0	0 %100
16	M20B	Z	-.576	-.576	0 %100
17	M21A	X	0	0	0 %100



Member Distributed Loads (BLC 65 : Structure Wm (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
18	M21A	Z	-.576	-.576	0	%100
19	MP4A	X	0	0	0	%100
20	MP4A	Z	-.664	-.664	0	%100
21	MP3A	X	0	0	0	%100
22	MP3A	Z	-.664	-.664	0	%100
23	MP2A	X	0	0	0	%100
24	MP2A	Z	-.664	-.664	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	-.664	-.664	0	%100
27	MP4C	X	0	0	0	%100
28	MP4C	Z	-.664	-.664	0	%100
29	MP3C	X	0	0	0	%100
30	MP3C	Z	-.664	-.664	0	%100
31	MP2C	X	0	0	0	%100
32	MP2C	Z	-.664	-.664	0	%100
33	MP1C	X	0	0	0	%100
34	MP1C	Z	-.664	-.664	0	%100
35	MP4B	X	0	0	0	%100
36	MP4B	Z	-.664	-.664	0	%100
37	MP3B	X	0	0	0	%100
38	MP3B	Z	-.664	-.664	0	%100
39	MP2B	X	0	0	0	%100
40	MP2B	Z	-.664	-.664	0	%100
41	MP1B	X	0	0	0	%100
42	MP1B	Z	-.664	-.664	0	%100
43	M43	X	0	0	0	%100
44	M43	Z	-.804	-.804	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	-.201	-.201	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	-.201	-.201	0	%100
49	M64	X	0	0	0	%100
50	M64	Z	-.266	-.266	0	%100
51	M65	X	0	0	0	%100
52	M65	Z	-1.064	-1.064	0	%100
53	M66	X	0	0	0	%100
54	M66	Z	-.266	-.266	0	%100
55	M67	X	0	0	0	%100
56	M67	Z	-.787	-.787	0	%100
57	M68	X	0	0	0	%100
58	M68	Z	-1.095	-1.095	0	%100
59	M69	X	0	0	0	%100
60	M69	Z	-1.095	-1.095	0	%100

Member Distributed Loads (BLC 66 : Structure Wm (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	.274	.274	0	%100
2	M11	Z	-.474	-.474	0	%100
3	M20A	X	.096	.096	0	%100
4	M20A	Z	-.166	-.166	0	%100
5	OVP	X	.274	.274	0	%100
6	OVP	Z	-.474	-.474	0	%100
7	M15	X	0	0	0	%100
8	M15	Z	0	0	0	%100
9	FACE	X	.349	.349	0	%100
10	FACE	Z	-.605	-.605	0	%100



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 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

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Member Distributed Loads (BLC 66 : Structure Wm (30 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...
11	M20	X	.349	0	%100
12	M20	Z	-.605	0	%100
13	M21	X	0	0	%100
14	M21	Z	0	0	%100
15	M20B	X	.096	0	%100
16	M20B	Z	-.166	0	%100
17	M21A	X	.384	0	%100
18	M21A	Z	-.665	0	%100
19	MP4A	X	.332	0	%100
20	MP4A	Z	-.575	0	%100
21	MP3A	X	.332	0	%100
22	MP3A	Z	-.575	0	%100
23	MP2A	X	.332	0	%100
24	MP2A	Z	-.575	0	%100
25	MP1A	X	.332	0	%100
26	MP1A	Z	-.575	0	%100
27	MP4C	X	.332	0	%100
28	MP4C	Z	-.575	0	%100
29	MP3C	X	.332	0	%100
30	MP3C	Z	-.575	0	%100
31	MP2C	X	.332	0	%100
32	MP2C	Z	-.575	0	%100
33	MP1C	X	.332	0	%100
34	MP1C	Z	-.575	0	%100
35	MP4B	X	.332	0	%100
36	MP4B	Z	-.575	0	%100
37	MP3B	X	.332	0	%100
38	MP3B	Z	-.575	0	%100
39	MP2B	X	.332	0	%100
40	MP2B	Z	-.575	0	%100
41	MP1B	X	.332	0	%100
42	MP1B	Z	-.575	0	%100
43	M43	X	.302	0	%100
44	M43	Z	-.522	0	%100
45	M44	X	.302	0	%100
46	M44	Z	-.522	0	%100
47	M45	X	0	0	%100
48	M45	Z	0	0	%100
49	M64	X	.399	0	%100
50	M64	Z	-.691	0	%100
51	M65	X	.399	0	%100
52	M65	Z	-.691	0	%100
53	M66	X	0	0	%100
54	M66	Z	0	0	%100
55	M67	X	.445	0	%100
56	M67	Z	-.77	0	%100
57	M68	X	.445	0	%100
58	M68	Z	-.77	0	%100
59	M69	X	.599	0	%100
60	M69	Z	-1.038	0	%100

Member Distributed Loads (BLC 67 : Structure Wm (60 Deg))

Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...
1	M11	X	.158	0	%100
2	M11	Z	-.091	0	%100
3	M20A	X	.499	0	%100



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 Designer : DC
 Job Number :
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Member Distributed Loads (BLC 67 : Structure Wm (60 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Locationfi...
4	M20A	Z	-.288	0	%100
5	OVP	X	.632	0	%100
6	OVP	Z	-.365	0	%100
7	M15	X	.158	0	%100
8	M15	Z	-.091	0	%100
9	FACE	X	.202	0	%100
10	FACE	Z	-.116	0	%100
11	M20	X	.806	0	%100
12	M20	Z	-.466	0	%100
13	M21	X	.202	0	%100
14	M21	Z	-.116	0	%100
15	M20B	X	0	0	%100
16	M20B	Z	0	0	%100
17	M21A	X	.499	0	%100
18	M21A	Z	-.288	0	%100
19	MP4A	X	.575	0	%100
20	MP4A	Z	-.332	0	%100
21	MP3A	X	.575	0	%100
22	MP3A	Z	-.332	0	%100
23	MP2A	X	.575	0	%100
24	MP2A	Z	-.332	0	%100
25	MP1A	X	.575	0	%100
26	MP1A	Z	-.332	0	%100
27	MP4C	X	.575	0	%100
28	MP4C	Z	-.332	0	%100
29	MP3C	X	.575	0	%100
30	MP3C	Z	-.332	0	%100
31	MP2C	X	.575	0	%100
32	MP2C	Z	-.332	0	%100
33	MP1C	X	.575	0	%100
34	MP1C	Z	-.332	0	%100
35	MP4B	X	.575	0	%100
36	MP4B	Z	-.332	0	%100
37	MP3B	X	.575	0	%100
38	MP3B	Z	-.332	0	%100
39	MP2B	X	.575	0	%100
40	MP2B	Z	-.332	0	%100
41	MP1B	X	.575	0	%100
42	MP1B	Z	-.332	0	%100
43	M43	X	.174	0	%100
44	M43	Z	-.101	0	%100
45	M44	X	.696	0	%100
46	M44	Z	-.402	0	%100
47	M45	X	.174	0	%100
48	M45	Z	-.101	0	%100
49	M64	X	.921	0	%100
50	M64	Z	-.532	0	%100
51	M65	X	.23	0	%100
52	M65	Z	-.133	0	%100
53	M66	X	.23	0	%100
54	M66	Z	-.133	0	%100
55	M67	X	.949	0	%100
56	M67	Z	-.548	0	%100
57	M68	X	.681	0	%100
58	M68	Z	-.393	0	%100
59	M69	X	.949	0	%100
60	M69	Z	-.548	0	%100



Company : Maser Consulting
 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

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Member Distributed Loads (BLC 68 : Structure Wm (90 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
1	M11	X	0	0	%100
2	M11	Z	0	0	%100
3	M20A	X	.768	.768	0
4	M20A	Z	0	0	%100
5	OVP	X	.547	.547	0
6	OVP	Z	0	0	%100
7	M15	X	.547	.547	0
8	M15	Z	0	0	%100
9	FACE	X	0	0	%100
10	FACE	Z	0	0	%100
11	M20	X	.698	.698	0
12	M20	Z	0	0	%100
13	M21	X	.698	.698	0
14	M21	Z	0	0	%100
15	M20B	X	.192	.192	0
16	M20B	Z	0	0	%100
17	M21A	X	.192	.192	0
18	M21A	Z	0	0	%100
19	MP4A	X	.664	.664	0
20	MP4A	Z	0	0	%100
21	MP3A	X	.664	.664	0
22	MP3A	Z	0	0	%100
23	MP2A	X	.664	.664	0
24	MP2A	Z	0	0	%100
25	MP1A	X	.664	.664	0
26	MP1A	Z	0	0	%100
27	MP4C	X	.664	.664	0
28	MP4C	Z	0	0	%100
29	MP3C	X	.664	.664	0
30	MP3C	Z	0	0	%100
31	MP2C	X	.664	.664	0
32	MP2C	Z	0	0	%100
33	MP1C	X	.664	.664	0
34	MP1C	Z	0	0	%100
35	MP4B	X	.664	.664	0
36	MP4B	Z	0	0	%100
37	MP3B	X	.664	.664	0
38	MP3B	Z	0	0	%100
39	MP2B	X	.664	.664	0
40	MP2B	Z	0	0	%100
41	MP1B	X	.664	.664	0
42	MP1B	Z	0	0	%100
43	M43	X	0	0	%100
44	M43	Z	0	0	%100
45	M44	X	.603	.603	0
46	M44	Z	0	0	%100
47	M45	X	.603	.603	0
48	M45	Z	0	0	%100
49	M64	X	.798	.798	0
50	M64	Z	0	0	%100
51	M65	X	0	0	%100
52	M65	Z	0	0	%100
53	M66	X	.798	.798	0
54	M66	Z	0	0	%100
55	M67	X	1.198	1.198	0
56	M67	Z	0	0	%100
57	M68	X	.89	.89	0



Company : Maser Consulting
 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

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Member Distributed Loads (BLC 68 : Structure Wm (90 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
58	M68	Z	0	0	%100
59	M69	X	.89	0	%100
60	M69	Z	0	0	%100

Member Distributed Loads (BLC 69 : Structure Wm (120 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	.158	0	%100
2	M11	Z	.091	0	%100
3	M20A	X	.499	0	%100
4	M20A	Z	.288	0	%100
5	OVP	X	.158	0	%100
6	OVP	Z	.091	0	%100
7	M15	X	.632	0	%100
8	M15	Z	.365	0	%100
9	FACE	X	.202	0	%100
10	FACE	Z	.116	0	%100
11	M20	X	.202	0	%100
12	M20	Z	.116	0	%100
13	M21	X	.806	0	%100
14	M21	Z	.466	0	%100
15	M20B	X	.499	0	%100
16	M20B	Z	.288	0	%100
17	M21A	X	0	0	%100
18	M21A	Z	0	0	%100
19	MP4A	X	.575	0	%100
20	MP4A	Z	.332	0	%100
21	MP3A	X	.575	0	%100
22	MP3A	Z	.332	0	%100
23	MP2A	X	.575	0	%100
24	MP2A	Z	.332	0	%100
25	MP1A	X	.575	0	%100
26	MP1A	Z	.332	0	%100
27	MP4C	X	.575	0	%100
28	MP4C	Z	.332	0	%100
29	MP3C	X	.575	0	%100
30	MP3C	Z	.332	0	%100
31	MP2C	X	.575	0	%100
32	MP2C	Z	.332	0	%100
33	MP1C	X	.575	0	%100
34	MP1C	Z	.332	0	%100
35	MP4B	X	.575	0	%100
36	MP4B	Z	.332	0	%100
37	MP3B	X	.575	0	%100
38	MP3B	Z	.332	0	%100
39	MP2B	X	.575	0	%100
40	MP2B	Z	.332	0	%100
41	MP1B	X	.575	0	%100
42	MP1B	Z	.332	0	%100
43	M43	X	.174	0	%100
44	M43	Z	.101	0	%100
45	M44	X	.174	0	%100
46	M44	Z	.101	0	%100
47	M45	X	.696	0	%100
48	M45	Z	.402	0	%100
49	M64	X	.23	0	%100
50	M64	Z	.133	0	%100



Company : Maser Consulting
 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

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Member Distributed Loads (BLC 69 : Structure Wm (120 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
51	M65	X	.23	0	%100
52	M65	Z	.133	0	%100
53	M66	X	.921	0	%100
54	M66	Z	.532	0	%100
55	M67	X	.949	0	%100
56	M67	Z	.548	0	%100
57	M68	X	.949	0	%100
58	M68	Z	.548	0	%100
59	M69	X	.681	0	%100
60	M69	Z	.393	0	%100

Member Distributed Loads (BLC 70 : Structure Wm (150 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	.274	0	%100
2	M11	Z	.474	0	%100
3	M20A	X	.096	0	%100
4	M20A	Z	.166	0	%100
5	OVP	X	0	0	%100
6	OVP	Z	0	0	%100
7	M15	X	.274	0	%100
8	M15	Z	.474	0	%100
9	FACE	X	.349	0	%100
10	FACE	Z	.605	0	%100
11	M20	X	0	0	%100
12	M20	Z	0	0	%100
13	M21	X	.349	0	%100
14	M21	Z	.605	0	%100
15	M20B	X	.384	0	%100
16	M20B	Z	.665	0	%100
17	M21A	X	.096	0	%100
18	M21A	Z	.166	0	%100
19	MP4A	X	.332	0	%100
20	MP4A	Z	.575	0	%100
21	MP3A	X	.332	0	%100
22	MP3A	Z	.575	0	%100
23	MP2A	X	.332	0	%100
24	MP2A	Z	.575	0	%100
25	MP1A	X	.332	0	%100
26	MP1A	Z	.575	0	%100
27	MP4C	X	.332	0	%100
28	MP4C	Z	.575	0	%100
29	MP3C	X	.332	0	%100
30	MP3C	Z	.575	0	%100
31	MP2C	X	.332	0	%100
32	MP2C	Z	.575	0	%100
33	MP1C	X	.332	0	%100
34	MP1C	Z	.575	0	%100
35	MP4B	X	.332	0	%100
36	MP4B	Z	.575	0	%100
37	MP3B	X	.332	0	%100
38	MP3B	Z	.575	0	%100
39	MP2B	X	.332	0	%100
40	MP2B	Z	.575	0	%100
41	MP1B	X	.332	0	%100
42	MP1B	Z	.575	0	%100
43	M43	X	.302	0	%100



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 Designer : DC
 Job Number :
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Member Distributed Loads (BLC 70 : Structure Wm (150 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
44	M43	Z	.522	0	%100
45	M44	X	0	0	%100
46	M44	Z	0	0	%100
47	M45	X	.302	0	%100
48	M45	Z	.522	0	%100
49	M64	X	0	0	%100
50	M64	Z	0	0	%100
51	M65	X	.399	0	%100
52	M65	Z	.691	0	%100
53	M66	X	.399	0	%100
54	M66	Z	.691	0	%100
55	M67	X	.445	0	%100
56	M67	Z	.77	0	%100
57	M68	X	.599	0	%100
58	M68	Z	1.038	0	%100
59	M69	X	.445	0	%100
60	M69	Z	.77	0	%100

Member Distributed Loads (BLC 71 : Structure Wm (180 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	0	0	%100
2	M11	Z	.73	0	%100
3	M20A	X	0	0	%100
4	M20A	Z	0	0	%100
5	OVP	X	0	0	%100
6	OVP	Z	.182	0	%100
7	M15	X	0	0	%100
8	M15	Z	.182	0	%100
9	FACE	X	0	0	%100
10	FACE	Z	.931	0	%100
11	M20	X	0	0	%100
12	M20	Z	.233	0	%100
13	M21	X	0	0	%100
14	M21	Z	.233	0	%100
15	M20B	X	0	0	%100
16	M20B	Z	.576	0	%100
17	M21A	X	0	0	%100
18	M21A	Z	.576	0	%100
19	MP4A	X	0	0	%100
20	MP4A	Z	.664	0	%100
21	MP3A	X	0	0	%100
22	MP3A	Z	.664	0	%100
23	MP2A	X	0	0	%100
24	MP2A	Z	.664	0	%100
25	MP1A	X	0	0	%100
26	MP1A	Z	.664	0	%100
27	MP4C	X	0	0	%100
28	MP4C	Z	.664	0	%100
29	MP3C	X	0	0	%100
30	MP3C	Z	.664	0	%100
31	MP2C	X	0	0	%100
32	MP2C	Z	.664	0	%100
33	MP1C	X	0	0	%100
34	MP1C	Z	.664	0	%100
35	MP4B	X	0	0	%100
36	MP4B	Z	.664	0	%100



Company : Maser Consulting
 Designer : DC
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Member Distributed Loads (BLC 71 : Structure Wm (180 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...]
37	MP3B	X	0	0	%100
38	MP3B	Z	.664	.664	%100
39	MP2B	X	0	0	%100
40	MP2B	Z	.664	.664	%100
41	MP1B	X	0	0	%100
42	MP1B	Z	.664	.664	%100
43	M43	X	0	0	%100
44	M43	Z	.804	.804	%100
45	M44	X	0	0	%100
46	M44	Z	.201	.201	%100
47	M45	X	0	0	%100
48	M45	Z	.201	.201	%100
49	M64	X	0	0	%100
50	M64	Z	.266	.266	%100
51	M65	X	0	0	%100
52	M65	Z	1.064	1.064	%100
53	M66	X	0	0	%100
54	M66	Z	.266	.266	%100
55	M67	X	0	0	%100
56	M67	Z	.787	.787	%100
57	M68	X	0	0	%100
58	M68	Z	1.095	1.095	%100
59	M69	X	0	0	%100
60	M69	Z	1.095	1.095	%100

Member Distributed Loads (BLC 72 : Structure Wm (210 Deg))

Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...]
1	M11	X	-.274	0	%100
2	M11	Z	.474	.474	%100
3	M20A	X	-.096	0	%100
4	M20A	Z	.166	.166	%100
5	OVP	X	-.274	0	%100
6	OVP	Z	.474	.474	%100
7	M15	X	0	0	%100
8	M15	Z	0	0	%100
9	FACE	X	-.349	0	%100
10	FACE	Z	.605	.605	%100
11	M20	X	-.349	0	%100
12	M20	Z	.605	.605	%100
13	M21	X	0	0	%100
14	M21	Z	0	0	%100
15	M20B	X	-.096	0	%100
16	M20B	Z	.166	.166	%100
17	M21A	X	-.384	0	%100
18	M21A	Z	.665	.665	%100
19	MP4A	X	-.332	0	%100
20	MP4A	Z	.575	.575	%100
21	MP3A	X	-.332	0	%100
22	MP3A	Z	.575	.575	%100
23	MP2A	X	-.332	0	%100
24	MP2A	Z	.575	.575	%100
25	MP1A	X	-.332	0	%100
26	MP1A	Z	.575	.575	%100
27	MP4C	X	-.332	0	%100
28	MP4C	Z	.575	.575	%100
29	MP3C	X	-.332	0	%100



Member Distributed Loads (BLC 72 : Structure Wm (210 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
30	MP3C	Z	.575	0	%100
31	MP2C	X	-.332	0	%100
32	MP2C	Z	.575	0	%100
33	MP1C	X	-.332	0	%100
34	MP1C	Z	.575	0	%100
35	MP4B	X	-.332	0	%100
36	MP4B	Z	.575	0	%100
37	MP3B	X	-.332	0	%100
38	MP3B	Z	.575	0	%100
39	MP2B	X	-.332	0	%100
40	MP2B	Z	.575	0	%100
41	MP1B	X	-.332	0	%100
42	MP1B	Z	.575	0	%100
43	M43	X	-.302	0	%100
44	M43	Z	.522	0	%100
45	M44	X	-.302	0	%100
46	M44	Z	.522	0	%100
47	M45	X	0	0	%100
48	M45	Z	0	0	%100
49	M64	X	-.399	0	%100
50	M64	Z	.691	0	%100
51	M65	X	-.399	0	%100
52	M65	Z	.691	0	%100
53	M66	X	0	0	%100
54	M66	Z	0	0	%100
55	M67	X	-.445	0	%100
56	M67	Z	.77	0	%100
57	M68	X	-.445	0	%100
58	M68	Z	.77	0	%100
59	M69	X	-.599	0	%100
60	M69	Z	1.038	0	%100

Member Distributed Loads (BLC 73 : Structure Wm (240 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	-.158	0	%100
2	M11	Z	.091	0	%100
3	M20A	X	-.499	0	%100
4	M20A	Z	.288	0	%100
5	OVP	X	-.632	0	%100
6	OVP	Z	.365	0	%100
7	M15	X	-.158	0	%100
8	M15	Z	.091	0	%100
9	FACE	X	-.202	0	%100
10	FACE	Z	.116	0	%100
11	M20	X	-.806	0	%100
12	M20	Z	.466	0	%100
13	M21	X	-.202	0	%100
14	M21	Z	.116	0	%100
15	M20B	X	0	0	%100
16	M20B	Z	0	0	%100
17	M21A	X	-.499	0	%100
18	M21A	Z	.288	0	%100
19	MP4A	X	-.575	0	%100
20	MP4A	Z	.332	0	%100
21	MP3A	X	-.575	0	%100
22	MP3A	Z	.332	0	%100



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 Job Number :
 Model Name : Antenna Mount analysis

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Member Distributed Loads (BLC 73 : Structure Wm (240 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
23	MP2A	X	-.575	0	%100
24	MP2A	Z	.332	0	%100
25	MP1A	X	-.575	0	%100
26	MP1A	Z	.332	0	%100
27	MP4C	X	-.575	0	%100
28	MP4C	Z	.332	0	%100
29	MP3C	X	-.575	0	%100
30	MP3C	Z	.332	0	%100
31	MP2C	X	-.575	0	%100
32	MP2C	Z	.332	0	%100
33	MP1C	X	-.575	0	%100
34	MP1C	Z	.332	0	%100
35	MP4B	X	-.575	0	%100
36	MP4B	Z	.332	0	%100
37	MP3B	X	-.575	0	%100
38	MP3B	Z	.332	0	%100
39	MP2B	X	-.575	0	%100
40	MP2B	Z	.332	0	%100
41	MP1B	X	-.575	0	%100
42	MP1B	Z	.332	0	%100
43	M43	X	-.174	0	%100
44	M43	Z	.101	0	%100
45	M44	X	-.696	0	%100
46	M44	Z	.402	0	%100
47	M45	X	-.174	0	%100
48	M45	Z	.101	0	%100
49	M64	X	-.921	0	%100
50	M64	Z	.532	0	%100
51	M65	X	-.23	0	%100
52	M65	Z	.133	0	%100
53	M66	X	-.23	0	%100
54	M66	Z	.133	0	%100
55	M67	X	-.949	0	%100
56	M67	Z	.548	0	%100
57	M68	X	-.681	0	%100
58	M68	Z	.393	0	%100
59	M69	X	-.949	0	%100
60	M69	Z	.548	0	%100

Member Distributed Loads (BLC 74 : Structure Wm (270 Deg))

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
1	M11	X	0	0	%100
2	M11	Z	0	0	%100
3	M20A	X	-.768	0	%100
4	M20A	Z	0	0	%100
5	OVP	X	-.547	0	%100
6	OVP	Z	0	0	%100
7	M15	X	-.547	0	%100
8	M15	Z	0	0	%100
9	FACE	X	0	0	%100
10	FACE	Z	0	0	%100
11	M20	X	-.698	0	%100
12	M20	Z	0	0	%100
13	M21	X	-.698	0	%100
14	M21	Z	0	0	%100
15	M20B	X	-.192	0	%100



Company : Maser Consulting
 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

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Member Distributed Loads (BLC 74 : Structure Wm (270 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...
16	M20B	Z	0	0	0	%100
17	M21A	X	-.192	-.192	0	%100
18	M21A	Z	0	0	0	%100
19	MP4A	X	-.664	-.664	0	%100
20	MP4A	Z	0	0	0	%100
21	MP3A	X	-.664	-.664	0	%100
22	MP3A	Z	0	0	0	%100
23	MP2A	X	-.664	-.664	0	%100
24	MP2A	Z	0	0	0	%100
25	MP1A	X	-.664	-.664	0	%100
26	MP1A	Z	0	0	0	%100
27	MP4C	X	-.664	-.664	0	%100
28	MP4C	Z	0	0	0	%100
29	MP3C	X	-.664	-.664	0	%100
30	MP3C	Z	0	0	0	%100
31	MP2C	X	-.664	-.664	0	%100
32	MP2C	Z	0	0	0	%100
33	MP1C	X	-.664	-.664	0	%100
34	MP1C	Z	0	0	0	%100
35	MP4B	X	-.664	-.664	0	%100
36	MP4B	Z	0	0	0	%100
37	MP3B	X	-.664	-.664	0	%100
38	MP3B	Z	0	0	0	%100
39	MP2B	X	-.664	-.664	0	%100
40	MP2B	Z	0	0	0	%100
41	MP1B	X	-.664	-.664	0	%100
42	MP1B	Z	0	0	0	%100
43	M43	X	0	0	0	%100
44	M43	Z	0	0	0	%100
45	M44	X	-.603	-.603	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-.603	-.603	0	%100
48	M45	Z	0	0	0	%100
49	M64	X	-.798	-.798	0	%100
50	M64	Z	0	0	0	%100
51	M65	X	0	0	0	%100
52	M65	Z	0	0	0	%100
53	M66	X	-.798	-.798	0	%100
54	M66	Z	0	0	0	%100
55	M67	X	-1.198	-1.198	0	%100
56	M67	Z	0	0	0	%100
57	M68	X	-.89	-.89	0	%100
58	M68	Z	0	0	0	%100
59	M69	X	-.89	-.89	0	%100
60	M69	Z	0	0	0	%100

Member Distributed Loads (BLC 75 : Structure Wm (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location...	End Location[i...
1	M11	X	-.158	-.158	0	%100
2	M11	Z	-.091	-.091	0	%100
3	M20A	X	-.499	-.499	0	%100
4	M20A	Z	-.288	-.288	0	%100
5	OVP	X	-.158	-.158	0	%100
6	OVP	Z	-.091	-.091	0	%100
7	M15	X	-.632	-.632	0	%100
8	M15	Z	-.365	-.365	0	%100



Company : Maser Consulting
 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

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Member Distributed Loads (BLC 75 : Structure Wm (300 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
9	FACE	X	-.202	-.202	0	%100
10	FACE	Z	-.116	-.116	0	%100
11	M20	X	-.202	-.202	0	%100
12	M20	Z	-.116	-.116	0	%100
13	M21	X	-.806	-.806	0	%100
14	M21	Z	-.466	-.466	0	%100
15	M20B	X	-.499	-.499	0	%100
16	M20B	Z	-.288	-.288	0	%100
17	M21A	X	0	0	0	%100
18	M21A	Z	0	0	0	%100
19	MP4A	X	-.575	-.575	0	%100
20	MP4A	Z	-.332	-.332	0	%100
21	MP3A	X	-.575	-.575	0	%100
22	MP3A	Z	-.332	-.332	0	%100
23	MP2A	X	-.575	-.575	0	%100
24	MP2A	Z	-.332	-.332	0	%100
25	MP1A	X	-.575	-.575	0	%100
26	MP1A	Z	-.332	-.332	0	%100
27	MP4C	X	-.575	-.575	0	%100
28	MP4C	Z	-.332	-.332	0	%100
29	MP3C	X	-.575	-.575	0	%100
30	MP3C	Z	-.332	-.332	0	%100
31	MP2C	X	-.575	-.575	0	%100
32	MP2C	Z	-.332	-.332	0	%100
33	MP1C	X	-.575	-.575	0	%100
34	MP1C	Z	-.332	-.332	0	%100
35	MP4B	X	-.575	-.575	0	%100
36	MP4B	Z	-.332	-.332	0	%100
37	MP3B	X	-.575	-.575	0	%100
38	MP3B	Z	-.332	-.332	0	%100
39	MP2B	X	-.575	-.575	0	%100
40	MP2B	Z	-.332	-.332	0	%100
41	MP1B	X	-.575	-.575	0	%100
42	MP1B	Z	-.332	-.332	0	%100
43	M43	X	-.174	-.174	0	%100
44	M43	Z	-.101	-.101	0	%100
45	M44	X	-.174	-.174	0	%100
46	M44	Z	-.101	-.101	0	%100
47	M45	X	-.696	-.696	0	%100
48	M45	Z	-.402	-.402	0	%100
49	M64	X	-.23	-.23	0	%100
50	M64	Z	-.133	-.133	0	%100
51	M65	X	-.23	-.23	0	%100
52	M65	Z	-.133	-.133	0	%100
53	M66	X	-.921	-.921	0	%100
54	M66	Z	-.532	-.532	0	%100
55	M67	X	-.949	-.949	0	%100
56	M67	Z	-.548	-.548	0	%100
57	M68	X	-.949	-.949	0	%100
58	M68	Z	-.548	-.548	0	%100
59	M69	X	-.681	-.681	0	%100
60	M69	Z	-.393	-.393	0	%100

Member Distributed Loads (BLC 76 : Structure Wm (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[...
1	M11	X	-.274	-.274	0	%100



Company : Maser Consulting
 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

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Member Distributed Loads (BLC 76 : Structure Wm (330 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Locationfi...
2	M11	Z	-474	0	%100
3	M20A	X	-096	0	%100
4	M20A	Z	-166	0	%100
5	OVP	X	0	0	%100
6	OVP	Z	0	0	%100
7	M15	X	-274	0	%100
8	M15	Z	-474	0	%100
9	FACE	X	-349	0	%100
10	FACE	Z	-605	0	%100
11	M20	X	0	0	%100
12	M20	Z	0	0	%100
13	M21	X	-349	0	%100
14	M21	Z	-605	0	%100
15	M20B	X	-384	0	%100
16	M20B	Z	-665	0	%100
17	M21A	X	-096	0	%100
18	M21A	Z	-166	0	%100
19	MP4A	X	-332	0	%100
20	MP4A	Z	-575	0	%100
21	MP3A	X	-332	0	%100
22	MP3A	Z	-575	0	%100
23	MP2A	X	-332	0	%100
24	MP2A	Z	-575	0	%100
25	MP1A	X	-332	0	%100
26	MP1A	Z	-575	0	%100
27	MP4C	X	-332	0	%100
28	MP4C	Z	-575	0	%100
29	MP3C	X	-332	0	%100
30	MP3C	Z	-575	0	%100
31	MP2C	X	-332	0	%100
32	MP2C	Z	-575	0	%100
33	MP1C	X	-332	0	%100
34	MP1C	Z	-575	0	%100
35	MP4B	X	-332	0	%100
36	MP4B	Z	-575	0	%100
37	MP3B	X	-332	0	%100
38	MP3B	Z	-575	0	%100
39	MP2B	X	-332	0	%100
40	MP2B	Z	-575	0	%100
41	MP1B	X	-332	0	%100
42	MP1B	Z	-575	0	%100
43	M43	X	-302	0	%100
44	M43	Z	-522	0	%100
45	M44	X	0	0	%100
46	M44	Z	0	0	%100
47	M45	X	-302	0	%100
48	M45	Z	-522	0	%100
49	M64	X	0	0	%100
50	M64	Z	0	0	%100
51	M65	X	-399	0	%100
52	M65	Z	-691	0	%100
53	M66	X	-399	0	%100
54	M66	Z	-691	0	%100
55	M67	X	-445	0	%100
56	M67	Z	-.77	0	%100
57	M68	X	-.599	0	%100
58	M68	Z	-1.038	0	%100



Member Distributed Loads (BLC 76 : Structure Wm (330 Deg)) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location...	End Location[i...
59 M69	X	- .445	- .445	0	%100
60 M69	Z	- .77	- .77	0	%100

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
No Data to Print ...						

Envelope Joint Reactions

Joint	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1 N30A	m... 4403.535	21	-190.327	3	648.85	1	.519	19	3.761	12	.749	35
2	min -782.513	3	-949.591	21	-2608.468	19	-.381	25	-3.761	6	.132	5
3 N12	m... 1368.807	10	-166.774	7	4675.429	13	-.155	7	3.345	4	.244	22
4	min -1368.897	4	-865.028	13	-845.032	7	-.716	13	-3.345	10	-.054	5
5 N32	m... 776.973	11	-158.531	11	739.14	12	.181	20	3.183	8	-.134	10
6	min -4103.091	17	-875.261	17	-2436.783	18	-.443	37	-3.182	2	-.771	40
7 N122	m... 33.692	10	3386.68	13	-1167.797	7	0	51	0	4	0	10
8	min -33.615	4	897.324	7	-4323.267	13	0	1	0	10	0	4
9 N124	m... -1090.72	3	3677.279	21	2350.408	21	0	6	0	12	0	12
10	min -4071.721	21	967.97	3	630.113	3	0	12	0	6	0	6
11 N126	m... 3790.365	17	3427.847	17	2188.568	17	0	8	0	8	0	8
12	min 994.496	11	882.305	11	574.013	11	0	2	0	2	0	2
13 Totals:	m... 4758.942	10	7671.758	18	4661.412	1						
14	min -4758.943	4	2741.01	12	-4661.413	7						

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

Member	Shape	Code Ch...	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*...	phi*...	phi*...	phi*...	Eqn
1 M11	PIPE_...	.444	22	21	.140	22		21	6067...	65205	5.749	5.749	H1-...
2 M20A	PIPE_...	.324	0	4	.108	39.312		23	8800...	93240	10.631	10.631	H1-...
3 OVP	PIPE_...	.455	22	17	.137	22		17	6067...	65205	5.749	5.749	H1-...
4 M15	PIPE_...	.450	22	13	.141	22		24	6067...	65205	5.749	5.749	H1-...
5 FACE	PIPE_...	.174	105.187	6	.071	127.5		14	2731...	65205	5.749	5.749	H1-...
6 M20	PIPE_...	.165	25.5	17	.069	127.5		22	2731...	65205	5.749	5.749	H1-...
7 M21	PIPE_...	.166	105.187	10	.072	127.5		18	2731...	65205	5.749	5.749	H1-...
8 M20B	PIPE_...	.364	0	12	.127	39.313		36	8800...	93240	10.631	10.631	H1-...
9 M21A	PIPE_...	.309	0	8	.132	39.313		39	8800...	93240	10.631	10.631	H1-...
10 MP4A	PIPE_...	.133	6	35	.061	30		11	2086...	32130	1.872	1.872	H1-...
11 MP3A	PIPE_...	.282	42	12	.075	42		11	1785...	32130	1.872	1.872	H1-...
12 MP2A	PIPE_...	.489	30	1	.131	30		3	2086...	32130	1.872	1.872	H1-...
13 MP1A	PIPE_...	.140	6	40	.072	30		3	2086...	32130	1.872	1.872	H1-...
14 MP4C	PIPE_...	.090	30	19	.058	30		7	2086...	32130	1.872	1.872	H1-...
15 MP3C	PIPE_...	.272	42	19	.073	42		6	1785...	32130	1.872	1.872	H1-...
16 MP2C	PIPE_...	.480	30	10	.131	30		12	2086...	32130	1.872	1.872	H1-...
17 MP1C	PIPE_...	.129	30	22	.078	30		11	2086...	32130	1.872	1.872	H1-...
18 MP4B	PIPE_...	.090	30	16	.057	30		3	2086...	32130	1.872	1.872	H1-...
19 MP3B	PIPE_...	.271	42	4	.069	42		3	1785...	32130	1.872	1.872	H1-...
20 MP2B	PIPE_...	.480	30	5	.130	30		7	2086...	32130	1.872	1.872	H1-...
21 MP1B	PIPE_...	.129	30	18	.074	30		7	2086...	32130	1.872	1.872	H1-...
22 M43	PIPE_...	.120	137.5	4	.049	137.5		7	1455...	50715	3.596	3.596	H1-...
23 M44	PIPE_...	.122	137.5	12	.048	12.5		4	1455...	50715	3.596	3.596	H1-...
24 M45	PIPE_...	.111	137.5	8	.048	137.5		11	1455...	50715	3.596	3.596	H1-...
25 M64	L3X3X4	.226	31.89	2	.016	31.89	z	49	3989...	46656	1.688	3.756	H2-1
26 M65	L3X3X4	.249	31.89	6	.015	31.89	y	11	3989...	46656	1.688	3.756	H2-1



Company : Maser Consulting
 Designer : DC
 Job Number :
 Model Name : Antenna Mount analysis

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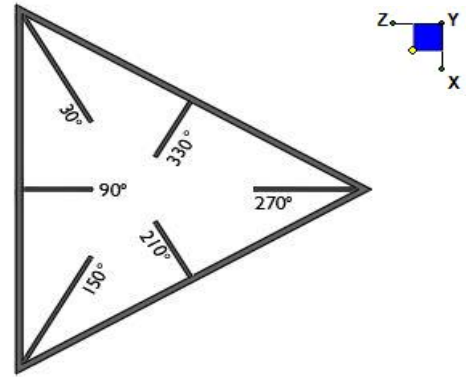
Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

Member	Shape	Code Ch...	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*...	phi*...	phi*...	phi*...	Eqn	
27	M66	L3X3X4	.248	31.89	10	.016	31.89	y	46	3989...	46656	1.688	3.756	H2-1
28	M67	LL3x3x...	.115	49.204	13	.006	0	z	10	4792...	70632	5.543	3.751	1 H1-...
29	M68	LL3x3x...	.125	49.204	21	.007	0	z	6	4792...	70632	5.543	3.751	1 H1-...
30	M69	LL3x3x...	.116	49.204	17	.006	49.204	z	2	4792...	70632	5.543	3.751	1 H1-...

I. Mount-to-Tower Connection Check

RISA Model Data

Nodes (labeled per RISA)	Orientation (per graphic of typical platform)
N30A	30
N32	150
N12	270



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:

Bolt Quantity per Reaction:

d_x (in) (Delta X of typ. bolt config. sketch):

d_y (in) (Delta Y of typ. bolt config. sketch):

Bolt Type:

Bolt Diameter (in):

Required Tensile Strength (kips):

Required Shear Strength (kips):

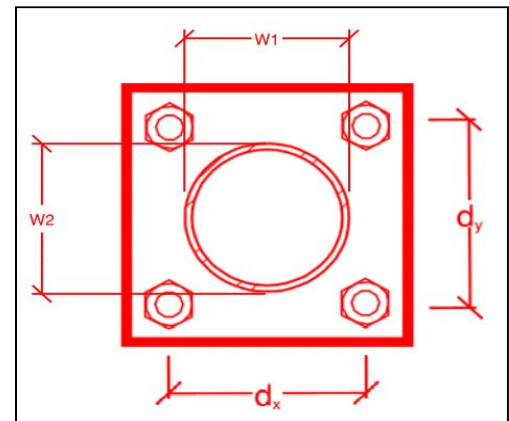
Tensile Strength / bolt (kips):

Shear Strength / bolt (kips):

Tensile Capacity Overall:

Shear Capacity Overall:

yes
4
6
6
A325N
0.625
16.7
3.6
20.7
12.4
20.2%*
7.3%



*Note: Tension reduction not required if tension or shear capacity < 30%

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:

Plate Width (in):

Plate Height (in):

W1 (in):

W2 (in):

F_y (ksi, plate):

t_{plate} (in):

Weld Size (1/16 in):

$\Phi_i * R_n$ (kip/in):

Required Weld Strength (kip/in):

Plate Bending Capacity:

Weld Capacity:

Round
8
8
4.5
4.5
36
0.5
4
5.57
2.97
41.1%
53.3%

Max Plate Bending Strengths

$M_{u_{xx}}$ (kip-in):	0.4
$\Phi_i * M_{n_{xx}}$ (kip-in):	16.2
$M_{u_{yy}}$ (kip-in):	6.2
$\Phi_i * M_{n_{yy}}$ (kip-in):	16.2

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

Purpose – to provide MASER CONSULTING CONNECTICUT 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 modification was completed in accordance with the modification drawings.
- Contractor shall relay any data that can impact the performance of the mount or the mount modification, this includes safety issues.

Base Requirements:

- Any special photos outside of the standard requirements will be indicated on the drawings
- Provide “as built drawings” showing contractor’s name, preparer’s signature, and date. Any deviations from the drawings (proposed modification) must be shown.
- Notation that all hardware was properly installed, and the existing hardware was inspected for any issues.
- Verification that loading is as communicated in the modification drawings. NOTE If loading is different than what is conveyed in the modification drawing contact MASER CONSULTING CONNECTICUT 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 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 modifications. Each entire sector must be in one photo to show in the inter-connection of members.
 - 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
 - Close-up photos of each installed modification per the modification drawings; pictures should also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
 - Photos showing the measurements of the installed modification member sizes (i.e. lengths, widths, depths, diameters, thicknesses)
 - Photos showing the elevation or distances of the installed modifications from the appropriate reference locations shown in the modification drawings
 - Photos showing the installed modifications onto the tower with tape drop measurements (if applicable) (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, a tape drop measurement shall be provided before the elevation change
 - 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.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by Maser Consulting Connecticut .
 - If the drawings are as specified on the drawings
 - The contractor should provide the packing list or the materials utilized to perform the mount modification
 - If an equivalent is utilized
 - It is required that the MASER CONSULTING CONNECTICUT certification of such is included in the contractor submission package. There may be an additional charge for this certification if the equivalent submission doesn't meet specifications as prescribed in the drawings.
- The contractor must certify that the materials meet these specifications by one of these methods.

The Material utilized was as specified on the MASER CONSULTING CONNECTICUT Mount Modification Drawings and included in the Material certification folder is a packing list or invoice for these materials

The material utilized was an "equivalent" and included as part of the contractor submission is the Maser Consulting Connecticut certification, invoices, or specifications validating accepted status

Certifying Individual: Company _____

Name _____

Signature _____

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 Mod Drawings:

Issue:

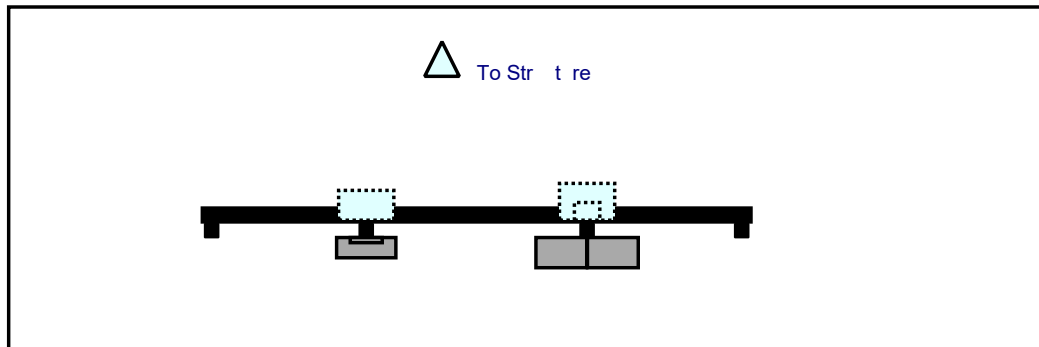
1. Contractor to install safety climb guide (SitePro 1, part #: 120-203-317 or EOR approved equivalent) in locations where wire rope is rubbing against mount to tower attachments. Contractor to provide photos of safety climb guide installation.

Response:

Schedule A – Photo & Document File Structure

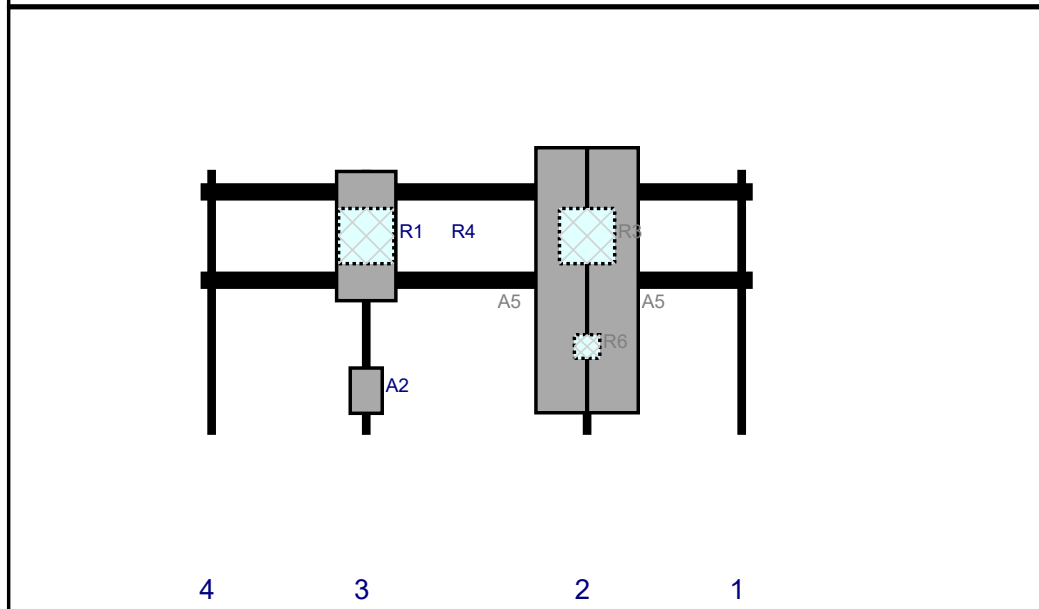
- 📁 VzW Site Number / Name
 - 📁 Base & “During Installation” Photos
 - 📁 Pre-Installation Photos
 - 📁 Alpha
 - 📁 Beta
 - 📁 Gamma
 - 📁 Ground Level
 - 📁 Tape Drop
 - 📁 Post-Installation Photos
 - 📁 Alpha
 - 📁 Beta
 - 📁 Gamma
 - 📁 Ground Level
 - 📁 Tape Drop
 - 📁 Photos of climbing facility and safety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

Plan View



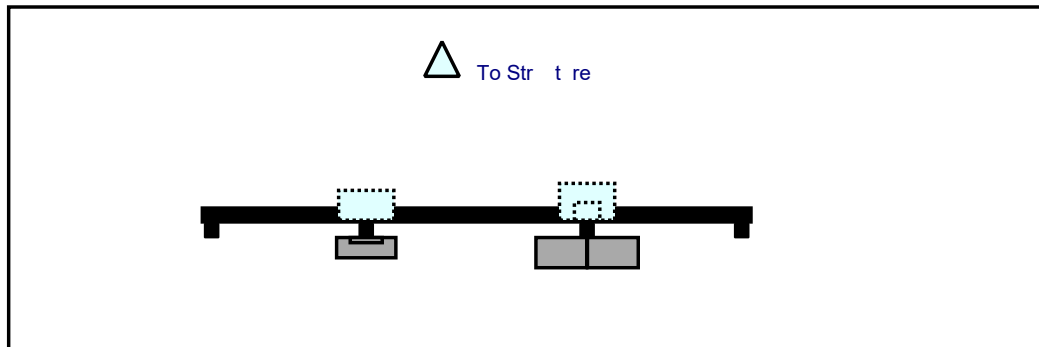
Front View

Lo o i g t Str t re



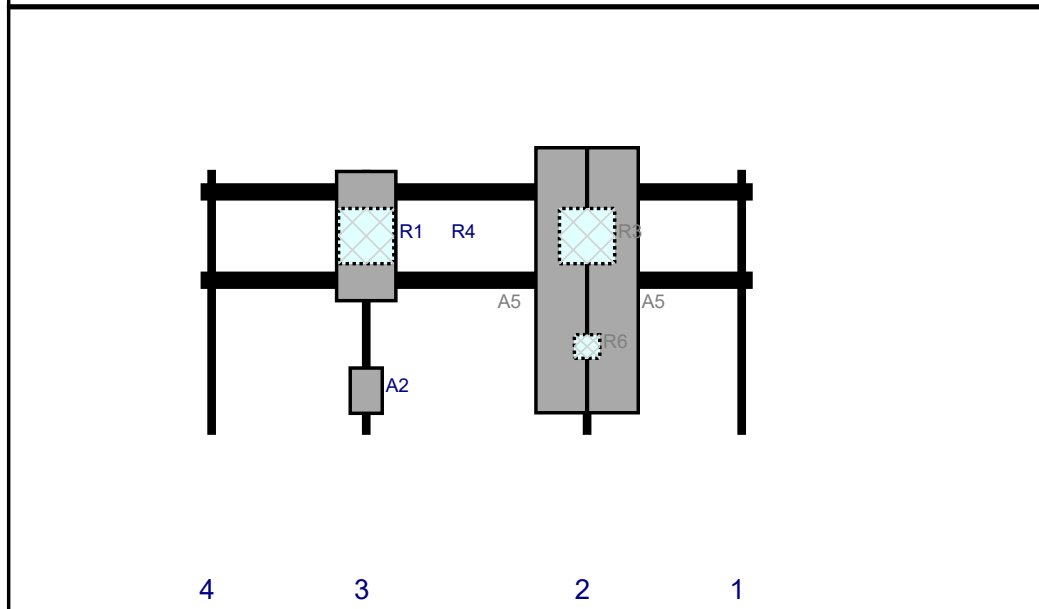
Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A5	JAHH-65B-R3B	72	13.8	105	2		Fro t	30	7	Ret i ed	
A5	JAHH-65B-R3B	72	13.8	105	2		Fro t	30	-7	Ret i ed	
R3	B2/B66A RRH-BR049	15	15	105	2		Behi d	18	0	Added	
R6	CBC78T-DS-43-2X	6.4	6.9	105	2		Behi d	48	0	Ret i ed	
A2	XXDWMM-12.5-65-8T-CBRS	12.3	8.7	45	3		Fro t	60	0	Added	
R1	MT6407-77A	35.1	16.1	45	3		Fro t	18	0	Added	
R4	B5/B13 RRH-BR04C	15	15	45	3		Behi d	18	0	Added	

Plan View



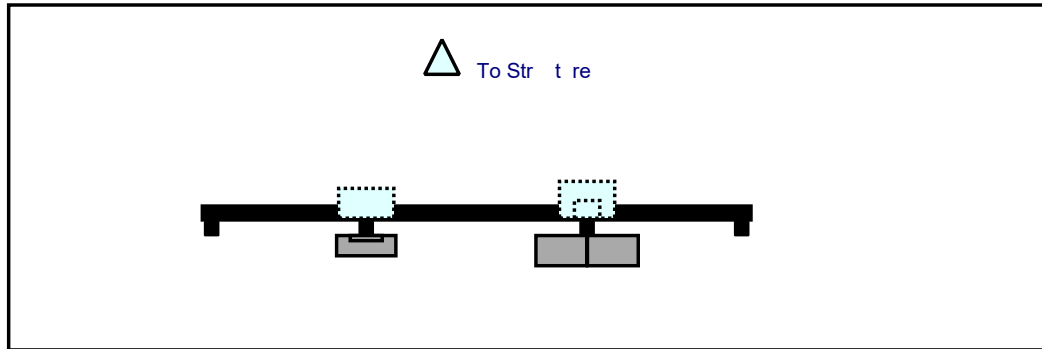
Front View

Lo o i g t Str t re



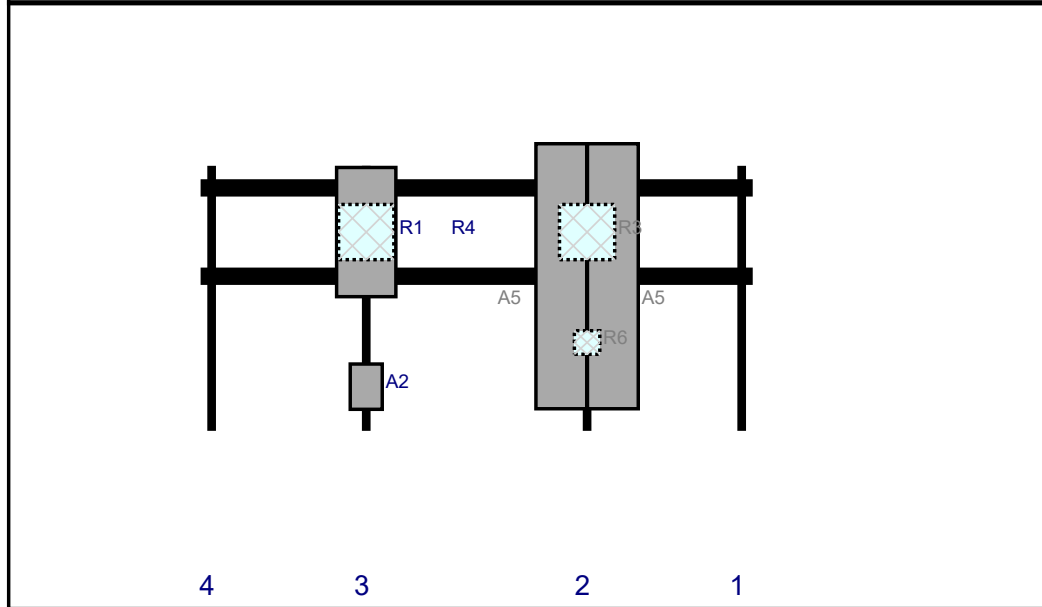
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Plan View



Front View

Lo o i g t Str t re



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Maser Consulting Connecticut

Subject

TIA-222-H Usage

Site Information

Site ID: 467278-VZW / HARTFORD S 3 CT
Site Name: HARTFORD S 3 CT
Carrier Name: Verizon Wireless
Address: 289H Mountain St
Hartford, Connecticut 06106
Hartford County
Latitude: 41.726583°
Longitude: -72.708167°

Structure Information

Tower Type: 110-Ft Monopole
Mount Type: 12.50-Ft Platform

To Whom It May Concern,

We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

The 2015 International Building Code states that, in Section 3108, telecommunication towers shall be designed and constructed in accordance with the provisions of TIA-222. TIA-222-H is the latest revision of the TIA-222 Standard, effective as of January 01, 2018.

As with all ANSI standards and engineering best practice is to apply the most current revision of the standard. This ensures the engineer is applying all updates. As an example, the TIA-222-H Standard includes updates to bring it in line with the latest AISC and ACI standards and it also incorporates the latest wind speed maps by ASCE 7 based on updated studies of the wind data.

The TIA-222-H standard clarifies these specific requirements for the antenna mount analysis such as modeling methods, seismic analysis, 30-degree increment wind directions and maintenance loading. Therefore, it is our opinion that TIA-222-H is the most appropriate standard for antenna mount structural analysis and is acceptable for use at this site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,



Derek Hartzell, PE
Technical Specialist