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

November 1, 2021

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

RE: Notice of Exempt Modification // Site: BYRAM PARK CT (ATC: 414240)
48 RITCH AVE WEST, GREENWICH, CT 06830
N 41.00506388 // W -73.64831111

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains twelve (12) antenna at the 57-ft level on the existing 77ft Monopine tower, located at 48 Ritch Avenue West, Greenwich, CT. The tower is owned by American Tower. The property is owned by 36 Ritch Avenue LLC. The Council approved Verizon Wireless use of the existing tower in July 2011. Verizon Wireless now intends to remove Nine (9) antenna, Nine (9) RRH's, One (1) OVP and associated cabling, and install Nine (9) 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 Fred Camillo, First Selectman, its Director of Planning & Zoning, Katie DeLuca, American Tower, the tower owner, and the property owner, 36 Ritch Avenue LLC.

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 21, 2021, by A.T. NB&C Engineering Services, LLC, a structural analysis dated July 28, 2021, by American Tower Corp., and a structural mount analysis by Maser Consulting Connecticut date July 7, 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 Corp., dated July 28, 2021, and a structural mount analysis by Maser Consulting Connecticut, dated July 7, 2021, pursuant to certain conditions defined therein. Design and engineering are fully illustrated within final construction drawings, signed and stamped dated September 21, 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: Fred Camillo – First Selectman – Chief Elected Official
Katie DeLuca, Building Official - as P&Z official
American Tower Corporation - as tower owner
36 Ritch Avenue LLC – as ground owner

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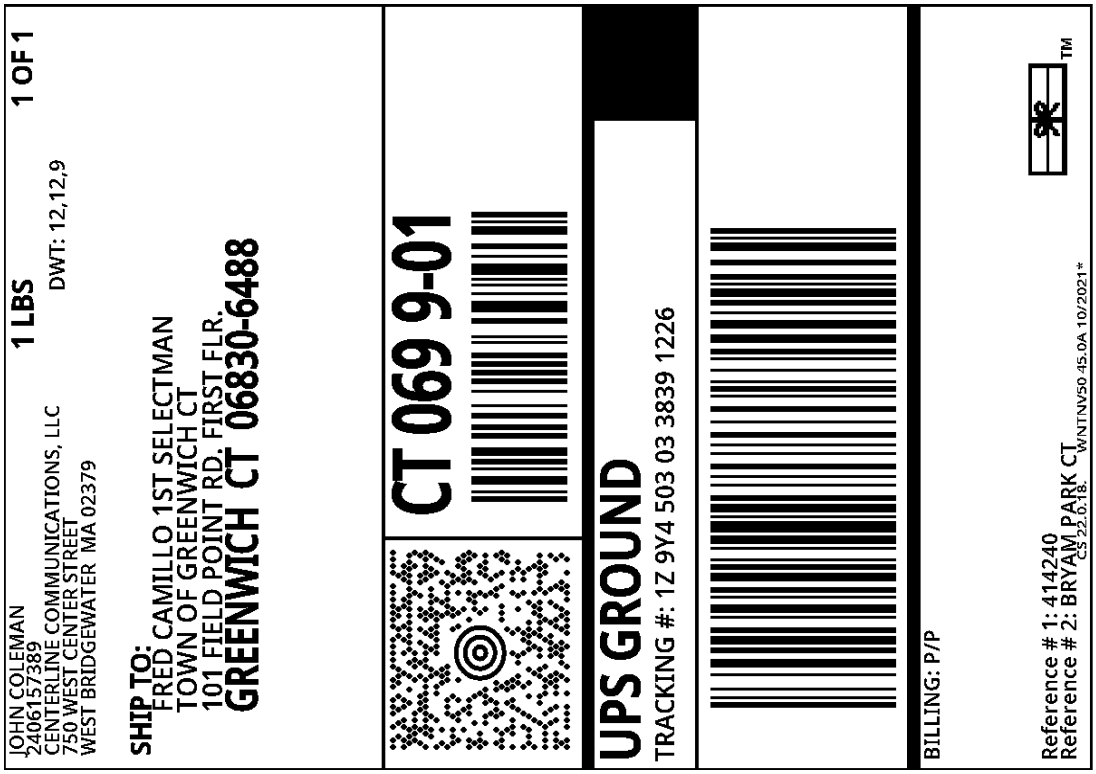

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To: Barbara Kassabian
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Date: Friday, November 5, 2021 10:04:11 AM

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Delivery Time: 10:02 AM
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Signed by: CALABRECE

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Tracking Number:	1Z9Y45030338391226
Ship To:	TOWN OF GREENWICH CT 101 FIELD POINT RD. FIRST FLR. GREENWICH, CT 068306488 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	414240
Reference Number:	BRYAM PARK CT

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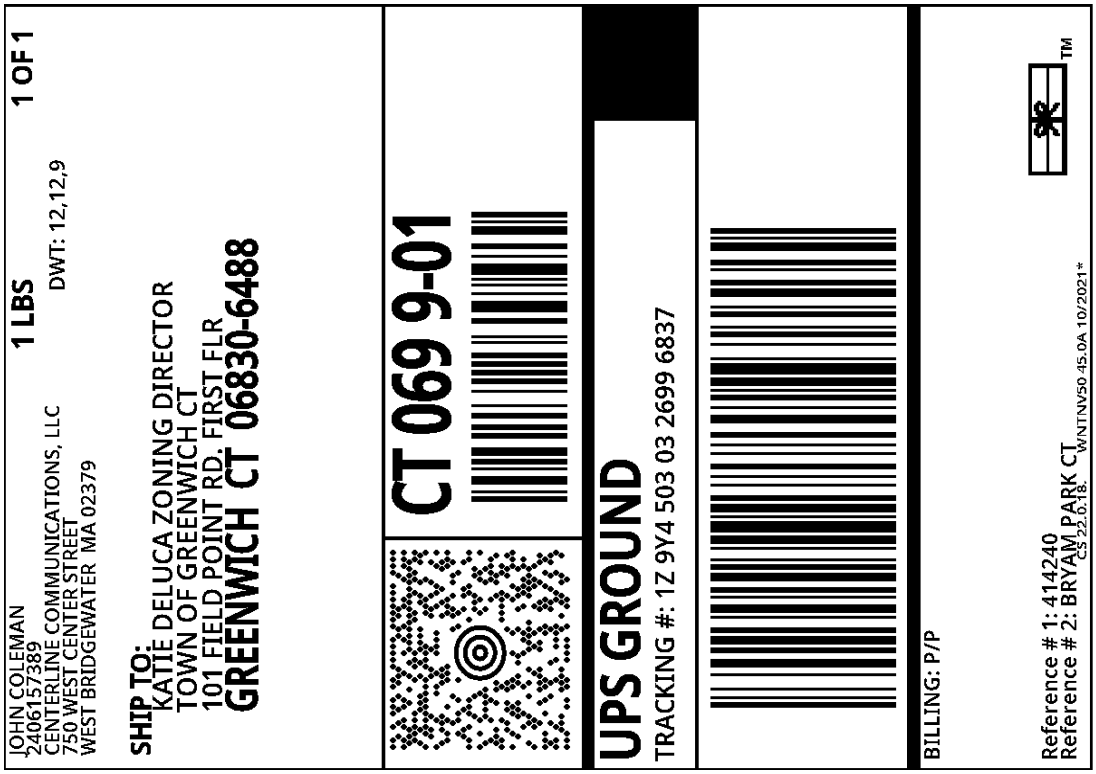

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Tracking Number:	1Z9Y45030326996837
Ship To:	TOWN OF GREENWICH CT 101 FIELD POINT RD. FIRST FLR GREENWICH, CT 068306488 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	414240
Reference Number:	BRYAM PARK CT

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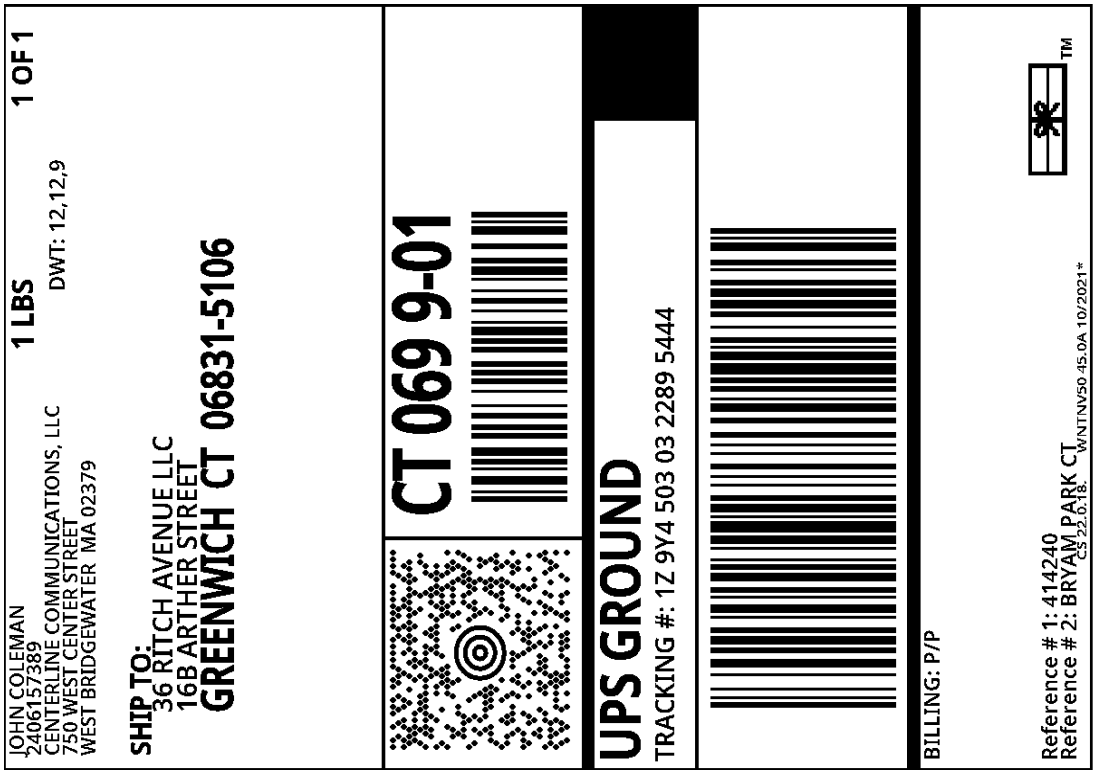

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CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030322895444
Ship To:	36 RITCH AVENUE LLC 16B ARTHER STREET GREENWICH, CT 068315106 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	414240
Reference Number:	BRYAM PARK CT

Download the UPS mobile app

DOCKET NO. 414 - Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located at 36 Ritch Avenue, Greenwich, Connecticut.	}	Connecticut Siting Council July 14, 2011

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, maintenance, and operation of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to Cellco Partnership d/b/a Verizon Wireless, hereinafter referred to as the Certificate Holder, for a telecommunications facility at 36 Ritch Avenue in Greenwich, Connecticut.

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

1. The tower shall be constructed as a 77-foot monopole, designed as a simulated pine tree. Simulated branches shall not extend higher than 84 feet above ground level. The tower shall be no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of Cellco, T-Mobile, AT&T and other entities, both public and private.

2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Greenwich for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
    a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping; and
    b) construction plans for site clearing, grading, landscaping, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.
    c) simulated pine tree tower designs and photographs of actual installations from various manufacturers.
    d) construction schedule.

3. Prior to the commencement of operation, the Certificate Holder shall provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, and at the nearest point of abutting property lines consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. Additionally, the Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

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

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

6. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Greenwich public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.

7. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed with at least one fully operational wireless telecommunications carrier providing wireless service within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The Certificate Holder shall provide written notice to the Executive Director of any schedule changes as soon as is practicable.

8. Any request for extension of the time period referred to in Condition 7 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Greenwich. Any proposed modifications to this Decision and Order shall likewise be so served.

9. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.

10. Any nonfunctioning antenna, and associated antenna mounting equipment, on this facility shall be removed within 60 days of the date the antenna ceased to function.

11. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction, and the commencement of site operation.

12. The Certificate Holder shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v.

13. This Certificate may be transferred in accordance with Conn. Gen. Stat. §16-50k(b), provided both the Certificate Holder/transferor and the transferee are current with payments to the Council for their respective annual assessments and invoices under Conn. Gen. Stat. §16-50v. In addition, both the Certificate Holder/transferor and the transferee shall provide the Council a written agreement as to the entity responsible for any quarterly assessment charges under Conn. Gen. Stat. §16-50v(b)(2) that may be associated with this facility.

14. The Certificate Holder shall maintain the facility and associated equipment, including but not limited to, the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line and landscaping in a reasonable physical and operational condition that is consistent with this Decision and Order and a Development and Management Plan to be approved by the Council.

15. If the Certificate Holder is a wholly-owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the Certificate Holder within 30 days of the sale and/or transfer.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the *Greenwich Time*.

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

The parties and intervenors to this proceeding are:

Applicant
Cellco Partnership d/b/a
Verizon Wireless

Its Representative
Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

Alexandria Carter
Regulatory Manager
Verizon Wireless
99 East River Drive
East Hartford, CT 06108

Party
John Hartwell
42 Ritch Avenue W.
Greenwich, CT 06830

Intervenor
T-Mobile Northeast LLC

Its Representative
Julie D. Kohler, Esq.
Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604

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Structural Analysis Report

Structure	:	**83.2 ft Monopine**
ATC Site Name	:	**Byram Park CT, CT**
ATC Asset Number	:	**414240**
Engineering Number	:	**13701270_C3_02**
Proposed Carrier	:	**VERIZON WIRELESS**
Carrier Site Name	:	**BYRAM PARK CT**
Carrier Site Number	:	**468044**
Site Location	:	**48 RITCH AVENUE WEST** **GREENWICH, CT 06830-9992** **41.005100,-73.648300**
County	:	**Fairfield**
Date	:	**July 28, 2021**
Max Usage	:	**96%**
Result	:	**Pass**

Prepared By:
Sarah Kramer
Structural Engineer

Sarah D. Kramer

Reviewed By:

Authorized by "EOR"
28 Jul 2021 09:17:22 cosign

COA: PEC.0001553

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Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 83.2 ft monopine to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	EEI Project #16733 Rev. 3, dated December 9, 2011
Foundation Drawing	Centek Engineering Job #09129 Rev. 0, dated February 14, 2012
Geotechnical Report	DET Job #2010.14, dated October 4, 2010
Modifications	ATC Project #OAA711130_C6_09, dated October 26, 2018

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:	113.06 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	48.73 mph (3-Second Gust) w/ 0.85" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	D
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Crest Height (H):	0 ft
Spectral Response:	Ss = 0.28, S_1 = 0.06
Site Class:	D - Stiff Soil

****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 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
89.0	2	dbSpectra DS7C09P36U-D	Pole Mount	(2) 1/2" Coax (2) 7/8" Coax	TOWN OF GREENWICH, CT
	1	Bird 428D-83I-01-T			
77.0	3	Ericsson AIR32 B66Aa/B2a	T-Arm	(6) 1 1/4" (1.25"-31.8mm) Fiber (1) 1 1/4" Hybriflex Cable (3) 1 5/8" (1.63"-41.3mm) Fiber	T-MOBILE
	3	RFS APXVAARR24_43-U-NA20			
	3	Ericsson RRUS 32 B66			
	3	Ericsson Air6449 B41			
	3	Ericsson Radio 4449 B71 B85A			
	3	Commscope CBC1923Q-43			
	3	Ericsson RRUS 4415 B25			
67.0	6	CCI DMP65R-BU4D	Site Pro 1 RMV12-496 T-Arms	(2) 0.39" (10mm) Fiber Trunk (8) 0.78" (19.7mm) 8 AWG 6 (12) 1 5/8" Coax (1) 2" conduit (3) 3" conduit	AT&T MOBILITY
	3	CCI OPA-65R-LCUU-H6			
	3	Powerwave Allgon P65-16-XLH-RR			
	6	CCI DTMABP7819VG12A			
	1	Raycap DC6-48-60-0-8C-EV			
	2	Raycap DC6-48-60-18-8F(32.8 lbs)			
	3	Ericsson RRUS 4426 B66			
	3	Ericsson RRUS 4449 B5, B12			
	3	Ericsson RRUS 4478 B14			
	3	Ericsson RRUS 32 B2			
	3	Ericsson RRUS-32 (77 lbs)			
56.0	6	Amphenol Antel LPA-80063-6CF-EDIN-X	T-Arm	(16) 1 5/8" Coax (1) 1 5/8" Hybriflex	VERIZON WIRELESS
	1	VZW Unused Reserve (14306.88 sqin)			

Equipment to be Removed

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
56.0	3	Alcatel-Lucent RRH 2X60-1900	-	(1) 1 5/8" (1.63"-41.3mm) Fiber	VERIZON WIRELESS
	3	Alcatel-Lucent RRH2x60 700			
	3	Alcatel-Lucent B66 RRH4x45			
	4	Commscope SBNHH-1D45A			
	3	Amphenol Antel BXA-171063-12CF			
	2	Commscope SBNHH-1D65A			
	2	Commscope RC2DC-4750-PF-48			

Proposed Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
56.0	3	Commscope CBC78T-DS-43-2X	T-Arm	(1) 1 5/8" Hybriflex	VERIZON WIRELESS
	3	Samsung B2/B66A RRH-BR049			
	3	Samsung B5/B13 RRH-BR04C			
	3	Samsung MT6407-77A			
	1	Raycap RCMDC-6627-PF-48			
	2	Commscope JAHH-65A-R3B			
	4	Commscope JAHH-45A-R3B			

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

Install proposed lines inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	46%	Pass
Shaft	96%	Pass
Base Plate	23%	Pass
Flanges	4%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	4,725.0	4,725.0	2,646.4	56%
Shear (Kips)	75.6	75.6	49.9	66%

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
56.0	Commscope CBC78T-DS-43-2X	VERIZON WIRELESS	0.172	0.325
	Samsung B2/B66A RRH-BR049			
	Samsung B5/B13 RRH-BR04C			
	Raycap RCMDC-6627-PF-48			
	Samsung MT6407-77A			
	Commscope JAHH-65A-R3B			
	Commscope JAHH-45A-R3B			

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

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Standard Conditions

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

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

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

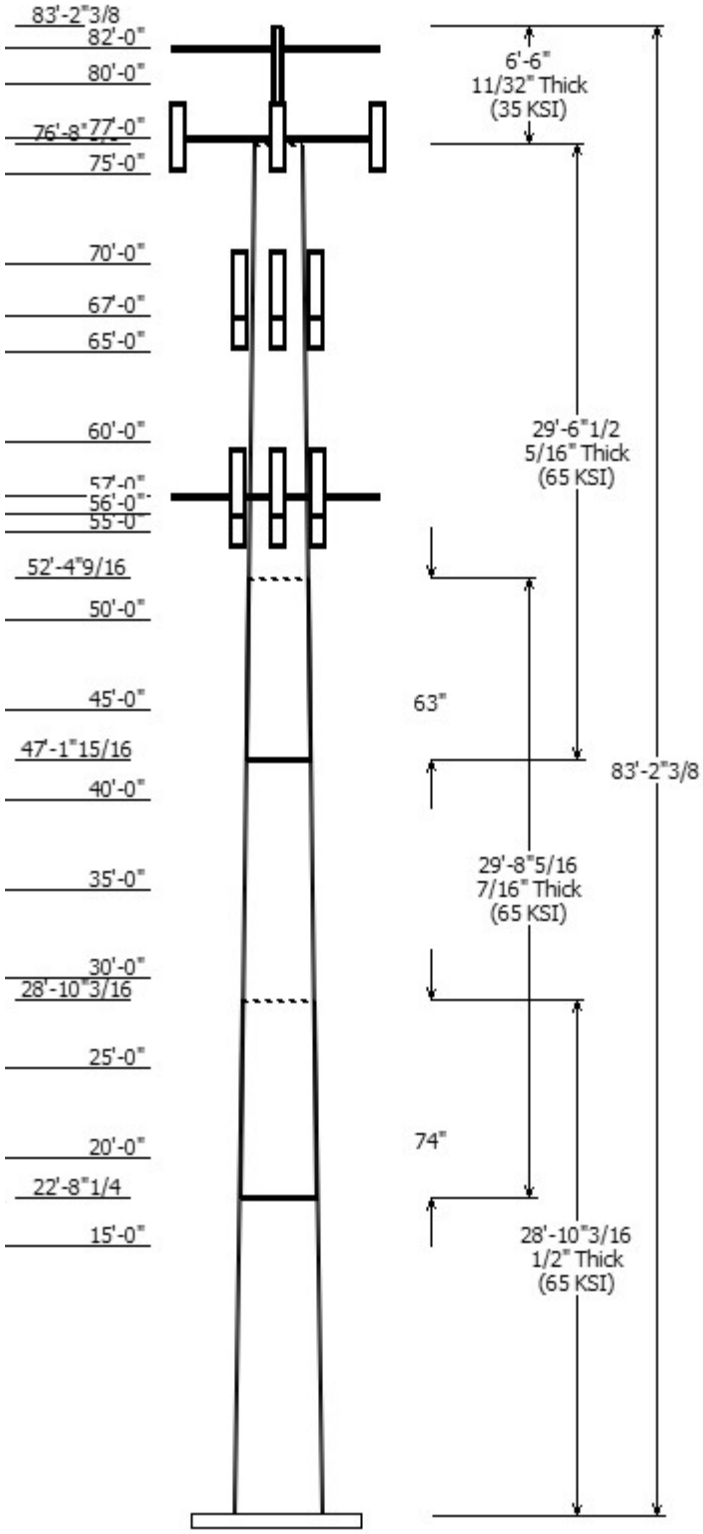
All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with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

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

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

Job Information

Client :	VERIZON WIRELESS		
Pole :	414240	Code:	ANSI/TIA-222-H
Location :	Byram Park CT, CT		
Description :	83.2 ft monopine	Risk Category :	II
Shape :	18 Sides	Exposure :	D
Height :	83.20 (ft)	Topo Method :	Method 1
Base Elev (ft):	0.00	Topographic Category :	1
Taper:	0.335724 (in/ft)		

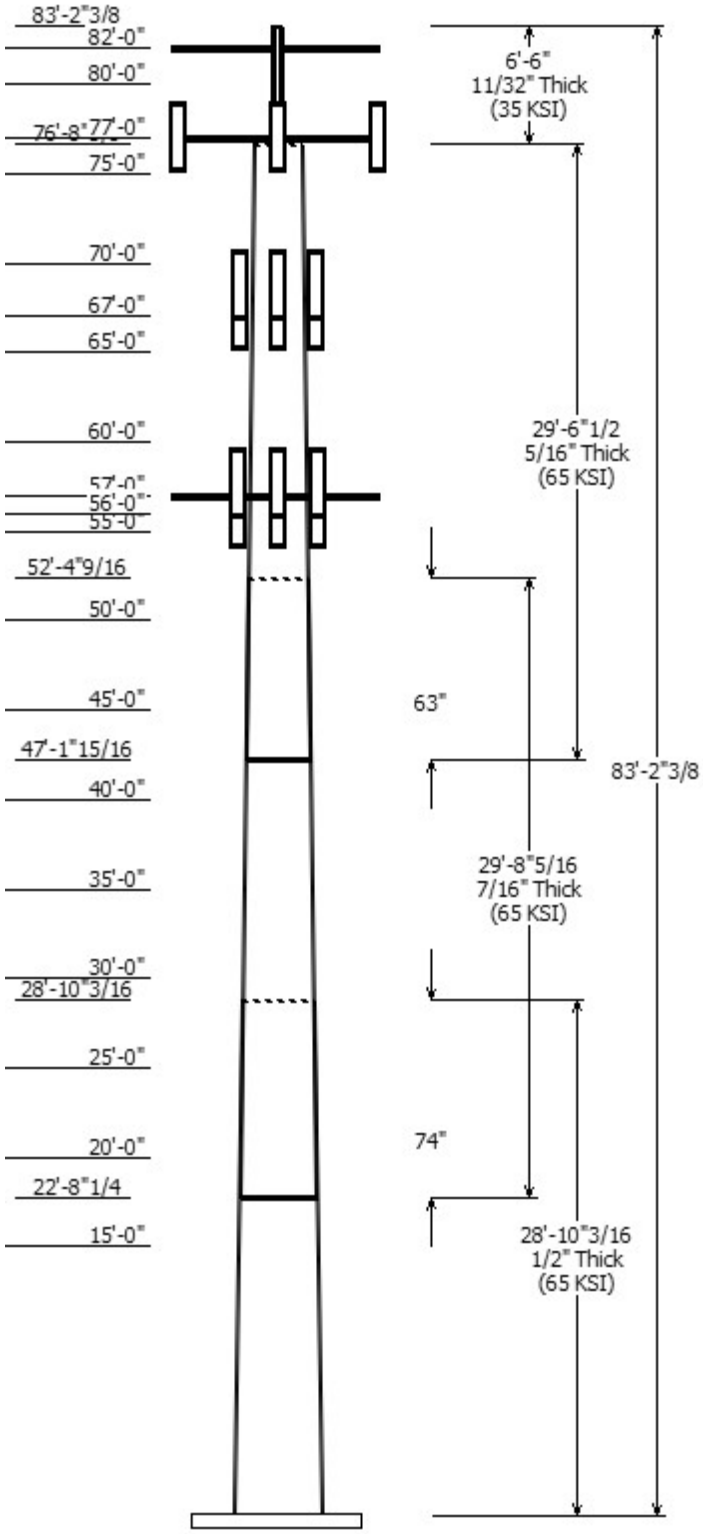


Sections Properties

Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
1	28.852	42.31	52.00	0.500		0.000	18 Sides	65
2	29.693	35.29	45.25	0.438	Slip Joint	73.969	18 Sides	65
3	29.541	27.75	37.66	0.313	Slip Joint	62.656	18 Sides	65
4	6.500	4.500	4.500	0.337	Butt Joint	0.000	Round	35

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
89.000	89.000	2	dbSpectra DS7C09P36U-D
89.000	89.000	1	Bird 428D-83I-01-T
82.000	82.000	2	Pole Mount
80.000	80.000	1	Pine Branches
77.000	77.000	3	Ericsson AIR32 B66Aa/B2a
77.000	77.000	3	Ericsson Air6449 B41
77.000	77.000	3	Ericsson RRUS 32 B66
77.000	77.000	3	RFS APXVAARR24_43-U-NA20
77.000	77.000	3	Ericsson RRUS 4415 B25
77.000	77.000	3	Ericsson Radio 4449 B71 B85A
77.000	77.000	3	Commscope CBC1923Q-43
77.000	77.000	3	Flat T-Arms
75.000	75.400	1	Pine Branches
70.000	70.000	1	Pine Branches
67.000	68.000	3	Powerwave Allgon P65-16-
67.000	68.000	3	Ericsson RRUS-32 (77 lbs)
67.000	68.000	3	Ericsson RRUS 32 B2
67.000	67.000	3	Ericsson RRUS 4478 B14
67.000	67.000	3	Ericsson RRUS 4449 B5, B12
67.000	68.000	3	Ericsson RRUS 4426 B66
67.000	68.000	2	Raycap DC6-48-60-18-8F(32.8 lb
67.000	67.000	1	Raycap DC6-48-60-0-8C-EV
67.000	68.000	6	CCI DTMABP7819VG12A
67.000	67.000	3	Site PRO1, RMV12-496
67.000	68.000	3	CCI OPA-65R-LCUU-H6
67.000	67.000	6	CCI DMP65R-BU4D
65.000	65.000	1	Pine Branches
60.000	60.000	1	Pine Branches
57.000	57.000	3	Flat T-Arm
56.000	56.000	1	VZW Unused Reserve
56.000	57.000	6	Amphenol Antel LPA-80063-
56.000	56.000	4	Commscope JAHH-45A-R3B
56.000	56.000	2	Commscope JAHH-65A-R3B
56.000	56.000	1	Raycap RCMDC-6627-PF-48
56.000	56.000	3	Samsung MT6407-77A
56.000	56.000	3	Samsung B5/B13 RRH-BR04C
56.000	56.000	3	Samsung B2/B66A RRH-BR049
56.000	56.000	3	Commscope CBC78T-DS-43-2X
55.000	55.000	1	Pine Branches
50.000	50.000	1	Pine Branches
45.000	45.000	1	Pine Branches
40.000	40.000	1	Pine Branches
35.000	35.000	1	Pine Branches
30.000	30.000	1	Pine Branches



25.000	25.000	1	Pine Branches
20.000	20.000	1	Pine Branches
15.000	15.000	1	Pine Branches

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	56.000	1 5/8" Coax	No
0.000	56.000	1 5/8" Hybriflex	No
0.000	56.000	1 5/8" Hybriflex	No
0.000	67.000	0.39" (10mm)	No
0.000	67.000	0.78" (19.7mm) 8	No
0.000	67.000	0.78" (19.7mm) 8	No
0.000	67.000	1 5/8" Coax	No
0.000	67.000	2" conduit	No
0.000	67.000	3" conduit	No
0.000	77.000	1 1/4" (1.25"-	No
0.000	77.000	1 1/4" (1.25"-	No
0.000	77.000	1 1/4" Hybriflex	No
0.000	77.000	1 5/8" (1.63"-	No
0.000	89.000	1/2" Coax	No
0.000	89.000	7/8" Coax	No

Load Cases

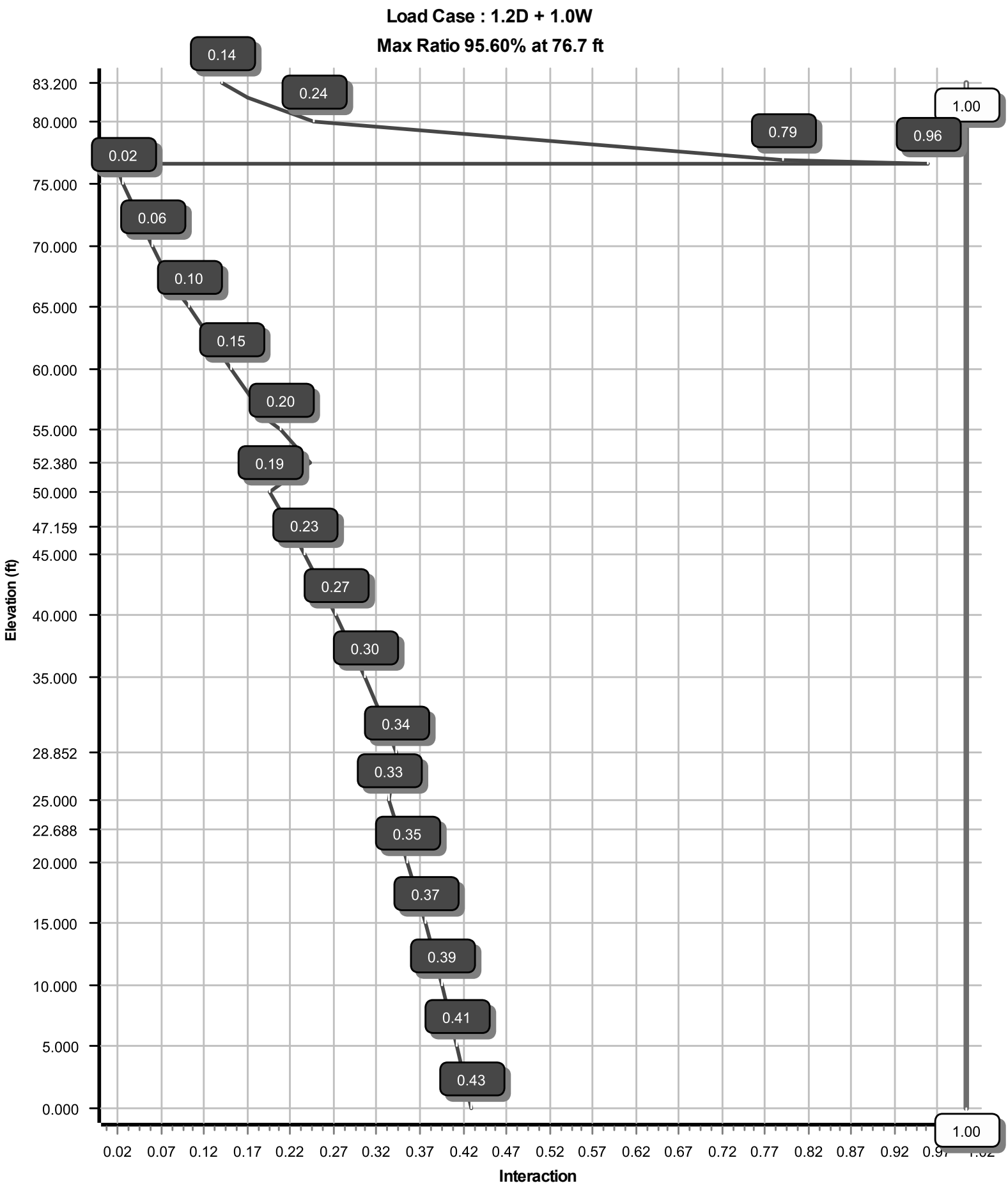
1.2D + 1.0W	113 mph with No Ice
0.9D + 1.0W	113 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	49 mph with 0.85 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.0W	2646.41	49.86	45.98
0.9D + 1.0W	2640.27	49.84	34.47
1.2D + 1.0Di + 1.0Wi	667.14	12.70	56.25
1.2D + 1.0Ev + 1.0Eh	177.57	3.14	46.11
0.9D - 1.0Ev + 1.0Eh	177.01	3.14	30.84
1.0D + 1.0W	666.45	12.57	38.36

Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
	0.00	0.000	0.000


Load Case : 1.2D + 1.0W
Max Ratio 95.60% at 76.7 ft
0.14
0.24
0.79
1.00
0.96
0.02
0.06
0.10
0.15
0.20
0.19
0.23
0.27
0.30
0.34
0.33
0.35
0.37
0.39
0.41
0.43
1.00
83.200
80.000
75.000
70.000
65.000
60.000
55.000
52.380
50.000
47.159
45.000
40.000
35.000
28.852
25.000
22.688
20.000
15.000
10.000
5.000
0.000
Elevation (ft)
0.02 0.07 0.12 0.17 0.22 0.27 0.32 0.37 0.42 0.47 0.52 0.57 0.62 0.67 0.72 0.77 0.82 0.87 0.92
Interaction

Site Number: 414240 **Code:** ANSI/TIA-222-H

Site Name: Byram Park CT, CT **Engineering Number:**13701270_C3_02 **7/28/2021 2:56:36 PM**

Customer: VERIZON WIRELESS

Analysis Parameters

Location :	Fairfield County, CT	Height (ft) :	83.2
Code :	ANSI/TIA-222-H	Base Diameter (in) :	52.00
Shape :	18 Sides. Sect 4: Round	Top Diameter (in) :	4.50
Pole Type :	Custom	Taper (in/ft) :	0.336
Pole Manfacturer :	EEI	Rotation (deg) :	0.00
Kd (non-service) :	0.95	Ke :	1.00

Ice & Wind Parameters

Exposure Category:	D	Design Wind Speed Without Ice:	113 mph
Risk Category:	II	Design Wind Speed With Ice:	49 mph
Topographic Factor Procedure:	Method 1	Operational Wind Speed:	60 mph
Topographic Category:	1	Design Ice Thickness:	0.85 in
Crest Height:	0 ft	HMSL:	50.00 ft

Seismic Parameters

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil				
Period Based on Rayleigh Method (sec):	0.78				
T_L (sec):	6	p:	1	C_s:	0.082
S_s:	0.277	S_1:	0.060	C_s Max:	0.082
F_a:	1.578	F_v:	2.400	C_s Min:	0.030
S_{ds}:	0.291	S_{d1}:	0.096		

Load Cases

1.2D + 1.0W	113 mph with No Ice
0.9D + 1.0W	113 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	49 mph with 0.85 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in²)	Bottom Ix (in⁴)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (in²)	Top Ix (in⁴)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	28.852	0.5000	65		0.00	7,269	52.00	0.00	81.73	27386.5	16.93	104.00	42.31	28.85	66.36	14658.0	13.51	84.63	0.335724
2-18	29.693	0.4375	65	Slip	73.97	5,589	45.25	22.69	62.24	15796.5	16.83	103.45	35.29	52.38	48.39	7427.0	12.81	80.66	0.335724
3-18	29.541	0.3125	65	Slip	62.66	3,230	37.66	47.16	37.05	6532.0	19.84	120.54	27.75	76.70	27.21	2588.4	14.25	88.80	0.335724
4-R	6.500	0.3370	35	Butt	0.00	97	4.500	76.70	4.41	9.6	0.00	13.35	4.500	83.20	4.41	9.6	0.00	13.35	0.000000
				Shaft Weight		16,186													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor
89.00	Bird 428D-83I-01-T	1	1.00	0.000	8.90	0.465	1.00	18.26	0.719	1.00
89.00	dbSpectra DS7C09P36U-D	2	1.00	0.000	70.00	3.550	1.00	119.07	6.250	1.00
82.00	Pole Mount	2	1.00	0.000	40.00	1.630	1.00	65.19	2.236	1.00
80.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	822.47	61.685	1.00
77.00	Commscope CBC1923Q-43	3	0.80	0.000	7.30	0.318	0.50	13.17	0.532	0.50
77.00	Ericsson Radio 4449 B71 B85A	3	0.80	0.000	75.00	1.650	0.50	106.94	2.101	0.50
77.00	Ericsson RRUS 4415 B25	3	0.80	0.000	46.00	1.842	0.50	72.04	2.318	0.50
77.00	Ericsson RRUS 32 B66	3	0.80	0.000	53.00	2.743	0.67	92.06	3.364	0.67
77.00	Ericsson Air6449 B41	3	0.80	0.000	104.00	5.682	0.63	176.38	6.525	0.63
77.00	Ericsson AIR32 B66Aa/B2a	3	0.80	0.000	132.20	6.510	0.71	216.97	7.673	0.71
77.00	Flat T-Arms	3	0.75	0.000	250.00	12.900	0.67	361.00	17.243	0.67
77.00	RFS APXVAARR24_43-U-NA20	3	0.80	0.000	127.90	20.243	0.63	336.40	22.213	0.63
75.00	Pine Branches	1	1.00	0.400	600.00	45.000	1.00	820.71	61.553	1.00
70.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	819.46	61.459	1.00
67.00	CCI DTMABP7819VG12A	6	0.80	1.000	19.20	0.972	0.50	32.52	1.315	0.50
67.00	Raycap DC6-48-60-0-8C-EV	1	0.80	0.000	16.00	1.020	1.00	39.69	1.315	1.00
67.00	Raycap DC6-48-60-18-8F(32.8	2	0.80	1.000	32.80	1.470	1.00	65.07	1.835	1.00
67.00	Ericsson RRUS 4426 B66	3	0.80	1.000	48.40	1.650	0.50	71.75	2.094	0.50
67.00	Ericsson RRUS 4449 B5, B12	3	0.80	0.000	71.00	1.969	0.50	104.71	2.457	0.50
67.00	Ericsson RRUS 4478 B14	3	0.80	0.000	59.40	2.021	0.67	91.50	2.514	0.67
67.00	Ericsson RRUS 32 B2	3	0.80	1.000	53.00	2.743	0.67	91.47	3.355	0.67
67.00	Ericsson RRUS-32 (77 lbs)	3	0.80	1.000	77.00	3.314	0.71	127.87	3.985	0.71
67.00	Powerwave Allgon P65-16-XLH-	3	0.80	1.000	53.00	8.133	0.67	139.16	9.591	0.67
67.00	CCI DMP65R-BU4D	6	0.80	0.000	67.90	8.280	0.62	162.37	9.339	0.62
67.00	CCI OPA-65R-LCUU-H6	3	0.80	1.000	73.00	9.658	0.66	179.46	11.108	0.66
67.00	Site PRO1, RMV12-496	3	0.75	0.000	452.60	9.700	0.67	617.53	13.235	0.67
65.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	817.45	61.309	1.00
60.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	816.02	61.202	1.00
57.00	Flat T-Arm	3	0.75	0.000	250.00	12.900	0.67	357.64	17.112	0.67
56.00	Commscope CBC78T-DS-43-2X	3	0.80	0.000	20.70	0.552	0.50	32.06	0.813	0.50
56.00	Samsung B2/B66A RRH-BR049	3	0.80	0.000	84.40	1.875	0.50	117.20	2.339	0.50
56.00	Samsung B5/B13 RRH-BR04C	3	0.80	0.000	70.30	1.875	0.50	99.71	2.339	0.50
56.00	Raycap RCMDC-6627-PF-48	1	0.80	0.000	32.00	4.056	1.00	97.34	4.758	1.00
56.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	134.00	5.490	0.61
56.00	Commscope JAHH-65A-R3B	2	0.80	0.000	50.70	6.673	0.76	132.01	7.772	0.76
56.00	Commscope JAHH-45A-R3B	4	0.80	0.000	70.50	8.420	0.63	162.31	9.548	0.63
56.00	Amphenol Antel LPA-80063-6CF-	6	0.80	1.000	27.00	9.732	0.75	161.15	11.140	0.75
56.00	VZW Unused Reserve (14306.88	1	0.80	0.000	1,151.60	99.353	0.90	1,564.04	134.936	0.90
55.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	814.17	61.063	1.00
50.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	812.04	60.903	1.00
45.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	809.23	60.692	1.00
40.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	806.62	60.497	1.00
35.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	803.69	60.277	1.00
30.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	801.67	60.126	1.00
25.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	797.48	59.811	1.00
20.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	791.46	59.360	1.00
15.00	Pine Branches	1	1.00	0.000	600.00	45.000	1.00	785.13	58.885	1.00

Totals Num Loadings:47 111 17,531.50 27,202.09

Linear Appurtenance Properties

Load Case Azimuth (deg) :

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax / Row	Dist Between Rows (in)	Dist Between Cols (in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	89.00	2	1/2" Coax	0.63	0.15	N	0	0.00	0.00	0	0.00	N	TOWN OF
0.00	89.00	2	7/8" Coax	1.09	0.33	N	0	0.00	0.00	0	0.00	N	TOWN OF
0.00	77.00	3	1 1/4" (1.25"- 31.8mm)	1.25	1.05	N	0	0.00	0.00	0	0.00	N	T-MOBILE
0.00	77.00	3	1 1/4" (1.25"- 31.8mm)	1.25	1.05	N	0	0.00	0.00	0	0.00	N	T-MOBILE
0.00	77.00	1	1 1/4" Hybriflex Cable	1.54	1.00	N	0	0.00	0.00	0	0.00	N	T-MOBILE
0.00	77.00	3	1 5/8" (1.63"-41.3mm)	1.63	1.61	N	0	0.00	0.00	0	0.00	N	T-MOBILE
0.00	67.00	2	0.39" (10mm) Fiber	0.39	0.06	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	67.00	6	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	67.00	2	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	67.00	12	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	67.00	1	2" conduit	2.38	3.65	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	67.00	3	3" conduit	3.50	7.58	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	56.00	16	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	56.00	1	1 5/8" Hybriflex	1.98	1.30	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	56.00	1	1 5/8" Hybriflex	1.98	1.30	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS

Segment Properties (Max Len : 5.ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)
0.00		0.5000	52.000	81.728	27,386.5	16.93	104.00	81.5	1037.	0.0	0.0
5.00		0.5000	50.321	79.064	24,794.9	16.34	100.64	82.2	970.5	0.0	1,367.8
10.00		0.5000	48.643	76.400	22,372.1	15.74	97.29	82.6	905.9	0.0	1,322.5
15.00		0.5000	46.964	73.736	20,112.6	15.15	93.93	82.6	843.5	0.0	1,277.2
20.00		0.5000	45.286	71.072	18,010.6	14.56	90.57	82.6	783.3	0.0	1,231.9
22.69	Bot - Section 2	0.5000	44.383	69.640	16,943.8	14.24	88.77	82.6	751.9	0.0	643.4
25.00		0.5000	43.607	68.408	16,060.4	13.97	87.21	82.6	725.4	0.0	1,028.6
28.85	Top - Section 1	0.4375	43.189	59.363	13,707.9	16.00	98.72	82.6	625.1	0.0	1,672.9
30.00		0.4375	42.803	58.828	13,340.4	15.84	97.84	82.6	613.9	0.0	230.9
35.00		0.4375	41.125	56.497	11,816.7	15.16	94.00	82.6	565.9	0.0	981.1
40.00		0.4375	39.446	54.166	10,413.6	14.49	90.16	82.6	520.0	0.0	941.4
45.00		0.4375	37.767	51.835	9,126.3	13.81	86.33	82.6	475.9	0.0	901.8
47.16	Bot - Section 3	0.4375	37.043	50.829	8,605.0	13.52	84.67	82.6	457.5	0.0	377.1
50.00		0.4375	36.089	49.505	7,949.7	13.13	82.49	82.6	433.9	0.0	838.6
52.38	Top - Section 2	0.3125	35.915	35.312	5,654.9	18.85	114.93	79.2	310.1	0.0	685.7
55.00		0.3125	35.035	34.439	5,246.1	18.36	112.11	79.8	294.9	0.0	310.9
56.00		0.3125	34.699	34.106	5,095.4	18.17	111.04	80.0	289.2	0.0	116.6
57.00		0.3125	34.364	33.773	4,947.6	17.98	109.96	80.3	283.6	0.0	115.5
60.00		0.3125	33.357	32.774	4,521.4	17.41	106.74	80.9	267.0	0.0	339.7
65.00		0.3125	31.678	31.110	3,866.8	16.46	101.37	82.0	240.4	0.0	543.5
67.00		0.3125	31.007	30.444	3,623.7	16.08	99.22	82.5	230.2	0.0	209.5
70.00		0.3125	29.999	29.445	3,278.6	15.52	96.00	82.6	215.3	0.0	305.7
75.00		0.3125	28.321	27.780	2,753.3	14.57	90.63	82.6	191.5	0.0	486.8
76.70	Top - Section 3	0.3125	27.750	27.214	2,588.4	14.25	88.80	82.6	183.7	0.0	159.1
76.70	Bot - Section 4	0.3370	4.500	4.407	9.6	0.00	13.35	35.0	4.2	5.9	
77.00		0.3370	4.500	4.407	9.6	0.00	13.35	35.0	4.2	5.9	4.5
80.00		0.3370	4.500	4.407	9.6	0.00	13.35	35.0	4.2	5.9	45.0
82.00		0.3370	4.500	4.407	9.6	0.00	13.35	35.0	4.2	5.9	30.0
83.20		0.3370	4.500	4.407	9.6	0.00	13.35	35.0	4.2	5.9	18.0
											16,185.5

Load Case: 1.2D + 1.0W — 113 mph with No Ice — 16 Iterations

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

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		277.8	0.0					0.0	0.0	277.8	0.0	0.0	0.0
5.00		546.5	1,641.4					0.0	419.3	546.5	2,060.7	0.0	0.0
10.00		528.2	1,587.0					0.0	419.3	528.2	2,006.3	0.0	0.0
15.00	Appurtenance(s)	516.9	1,532.6	1,582.5	0.0	0.0	720.0	0.0	419.3	2,099.4	2,671.9	0.0	0.0
20.00	Appurtenance(s)	396.5	1,478.2	1,663.7	0.0	0.0	720.0	0.0	419.3	2,060.2	2,617.5	0.0	0.0
22.69	Bot - Section 2	261.3	772.1					0.0	225.4	261.3	997.4	0.0	0.0
25.00	Appurtenance(s)	325.2	1,234.4	1,729.6	0.0	0.0	720.0	0.0	193.9	2,054.8	2,148.3	0.0	0.0
28.85	Top - Section 1	263.3	2,007.5					0.0	323.0	263.3	2,330.5	0.0	0.0
30.00	Appurtenance(s)	321.0	277.1	1,785.3	0.0	0.0	720.0	0.0	96.3	2,106.3	1,093.4	0.0	0.0
35.00	Appurtenance(s)	517.3	1,177.3	1,833.8	0.0	0.0	720.0	0.0	419.3	2,351.1	2,316.6	0.0	0.0
40.00	Appurtenance(s)	507.9	1,129.7	1,876.9	0.0	0.0	720.0	0.0	419.3	2,384.8	2,269.0	0.0	0.0
45.00	Appurtenance(s)	357.9	1,082.1	1,915.7	0.0	0.0	720.0	0.0	419.3	2,273.6	2,221.4	0.0	0.0
47.16	Bot - Section 3	247.4	452.5					0.0	181.0	247.4	633.5	0.0	0.0
50.00	Appurtenance(s)	257.0	1,006.3	1,951.2	0.0	0.0	720.0	0.0	238.2	2,208.2	1,964.6	0.0	0.0
52.38	Top - Section 2	242.2	822.8					0.0	199.6	242.2	1,022.4	0.0	0.0
55.00	Appurtenance(s)	173.6	373.1	1,983.8	0.0	0.0	720.0	0.0	219.7	2,157.3	1,312.8	0.0	0.0
56.00	Appurtenance(s)	94.8	139.9	6,503.6	0.0	1,554.1	3,000.0	0.0	83.9	6,598.4	3,223.8	0.0	0.0
57.00	Appurtenance(s)	187.0	138.6	862.6	0.0	0.0	900.0	0.0	65.0	1,049.7	1,103.6	0.0	0.0
60.00	Appurtenance(s)	366.1	407.6	2,014.0	0.0	0.0	720.0	0.0	195.0	2,380.2	1,322.6	0.0	0.0
65.00	Appurtenance(s)	314.4	652.1	2,042.2	0.0	0.0	720.0	0.0	325.0	2,356.7	1,697.1	0.0	0.0
67.00	Appurtenance(s)	217.5	251.3	4,147.5	0.0	2,062.9	3,919.7	0.0	130.0	4,365.0	4,301.0	0.0	0.0
70.00	Appurtenance(s)	337.7	366.8	2,068.7	0.0	0.0	720.0	0.0	47.1	2,406.5	1,133.9	0.0	0.0
75.00	Appurtenance(s)	276.9	584.2	2,095.6	0.0	838.3	720.0	0.0	78.5	2,372.6	1,382.7	0.0	0.0
76.70	Top - Section 3	71.1	190.9					0.0	26.7	71.1	217.6	0.0	0.0
77.00	Appurtenance(s)	27.3	5.4	3,679.4	0.0	0.0	2,863.4	0.0	4.7	3,706.8	2,873.6	0.0	0.0
80.00	Appurtenance(s)	41.5	54.0	2,117.3	0.0	0.0	720.0	0.0	3.5	2,158.8	777.4	0.0	0.0
82.00	Appurtenance(s)	26.6	36.0	154.0	0.0	0.0	96.0	0.0	2.3	180.7	134.3	0.0	0.0
83.20		10.0	21.6					0.0	1.4	10.0	23.0	0.0	0.0
									Totals:	49,718.8	45,856.8	0.00	0.00

Load Case: 1.2D + 1.0W — 113 mph with No Ice — 16 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	-45.98	-49.86	0.00	-2,646.41	0.00	2,646.41	5,994.05	1,434.32	6,672.27	6,339.93	0.00	0.00	0.426
5.00	-43.80	-49.41	0.00	-2,397.12	0.00	2,397.12	5,848.22	1,387.57	6,244.46	5,982.13	0.07	-0.13	0.409
10.00	-41.69	-48.97	0.00	-2,150.08	0.00	2,150.08	5,676.12	1,340.82	5,830.83	5,608.53	0.28	-0.26	0.392
15.00	-38.92	-46.94	0.00	-1,905.23	0.00	1,905.23	5,478.21	1,294.07	5,431.37	5,222.30	0.63	-0.39	0.373
20.00	-36.25	-44.92	0.00	-1,670.53	0.00	1,670.53	5,280.30	1,247.31	5,046.08	4,849.84	1.11	-0.52	0.353
22.69	-35.20	-44.69	0.00	-1,549.80	0.00	1,549.80	5,173.92	1,222.19	4,844.84	4,655.34	1.42	-0.59	0.341
25.00	-33.02	-42.66	0.00	-1,446.46	0.00	1,446.46	5,082.39	1,200.56	4,674.96	4,491.17	1.72	-0.64	0.330
28.85	-30.65	-42.40	0.00	-1,282.17	0.00	1,282.17	4,410.41	1,041.83	4,023.22	3,870.44	2.28	-0.74	0.340
30.00	-29.53	-40.32	0.00	-1,233.48	0.00	1,233.48	4,370.63	1,032.43	3,950.99	3,800.59	2.46	-0.76	0.333
35.00	-27.17	-37.99	0.00	-1,031.91	0.00	1,031.91	4,197.46	991.53	3,644.15	3,503.90	3.33	-0.89	0.302
40.00	-24.87	-35.61	0.00	-841.98	0.00	841.98	4,024.29	950.62	3,349.71	3,219.28	4.32	-1.00	0.269
45.00	-22.65	-33.33	0.00	-663.93	0.00	663.93	3,851.11	909.71	3,067.67	2,946.70	5.42	-1.10	0.233
47.16	-22.00	-33.08	0.00	-591.99	0.00	591.99	3,776.34	892.05	2,949.72	2,832.74	5.93	-1.14	0.216
50.00	-20.05	-30.85	0.00	-497.99	0.00	497.99	3,677.94	868.80	2,798.03	2,686.19	6.63	-1.19	0.192
52.38	-19.02	-30.60	0.00	-424.56	0.00	424.56	2,517.80	619.72	1,992.88	1,842.71	7.23	-1.23	0.240
55.00	-17.74	-28.42	0.00	-344.40	0.00	344.40	2,473.70	604.41	1,895.64	1,765.31	7.92	-1.27	0.204
56.00	-14.66	-21.76	0.00	-314.42	0.00	314.42	2,456.62	598.57	1,859.17	1,736.02	8.19	-1.29	0.188
57.00	-13.56	-20.69	0.00	-292.66	0.00	292.66	2,439.40	592.72	1,823.05	1,706.88	8.46	-1.31	0.178
60.00	-12.28	-18.29	0.00	-230.59	0.00	230.59	2,386.97	575.19	1,716.81	1,620.34	9.30	-1.35	0.148
65.00	-10.63	-15.90	0.00	-139.12	0.00	139.12	2,296.90	545.97	1,546.84	1,479.25	10.75	-1.41	0.100
67.00	-6.44	-11.43	0.00	-105.25	0.00	105.25	2,259.94	534.28	1,481.33	1,423.98	11.35	-1.43	0.077
70.00	-5.36	-9.00	0.00	-70.95	0.00	70.95	2,187.59	516.75	1,385.73	1,332.71	12.25	-1.45	0.056
75.00	-4.04	-6.60	0.00	-25.10	0.00	25.10	2,063.89	487.53	1,233.47	1,185.51	13.78	-1.47	0.023
76.70	-3.82	-6.52	0.00	-13.89	0.00	13.89	2,021.83	477.60	1,183.72	1,137.43	14.31	-1.47	0.014
76.70	-3.82	-6.52	0.00	-13.89	0.00	13.89	138.83	41.65	15.24	15.36	14.31	-1.47	0.956
77.00	-1.02	-2.75	0.00	-11.93	0.00	11.93	138.83	41.65	15.24	15.36	14.40	-1.47	0.788
80.00	-0.31	-0.57	0.00	-3.69	0.00	3.69	138.83	41.65	15.24	15.36	15.59	-2.17	0.243
82.00	-0.19	-0.38	0.00	-2.56	0.00	2.56	138.83	41.65	15.24	15.36	16.54	-2.36	0.168
83.20	0.00	-0.37	0.00	-2.10	0.00	2.10	138.83	41.65	15.24	15.36	17.14	-2.44	0.137

Load Case: 0.9D + 1.0W — 113 mph with No Ice (Reduced DL) — 16 Iterations

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

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		277.8	0.0					0.0	0.0	277.8	0.0	0.0	0.0
5.00		546.5	1,231.1					0.0	314.5	546.5	1,545.5	0.0	0.0
10.00		528.2	1,190.3					0.0	314.5	528.2	1,504.7	0.0	0.0
15.00	Appurtenance(s)	516.9	1,149.5	1,582.5	0.0	0.0	540.0	0.0	314.5	2,099.4	2,003.9	0.0	0.0
20.00	Appurtenance(s)	396.5	1,108.7	1,663.7	0.0	0.0	540.0	0.0	314.5	2,060.2	1,963.1	0.0	0.0
22.69	Bot - Section 2	261.3	579.1					0.0	169.0	261.3	748.1	0.0	0.0
25.00	Appurtenance(s)	325.2	925.8	1,729.6	0.0	0.0	540.0	0.0	145.4	2,054.8	1,611.2	0.0	0.0
28.85	Top - Section 1	263.3	1,505.6					0.0	242.2	263.3	1,747.8	0.0	0.0
30.00	Appurtenance(s)	321.0	207.8	1,785.3	0.0	0.0	540.0	0.0	72.2	2,106.3	820.1	0.0	0.0
35.00	Appurtenance(s)	517.3	883.0	1,833.8	0.0	0.0	540.0	0.0	314.5	2,351.1	1,737.4	0.0	0.0
40.00	Appurtenance(s)	507.9	847.3	1,876.9	0.0	0.0	540.0	0.0	314.5	2,384.8	1,701.7	0.0	0.0
45.00	Appurtenance(s)	357.9	811.6	1,915.7	0.0	0.0	540.0	0.0	314.5	2,273.6	1,666.0	0.0	0.0
47.16	Bot - Section 3	247.4	339.4					0.0	135.8	247.4	475.2	0.0	0.0
50.00	Appurtenance(s)	257.0	754.8	1,951.2	0.0	0.0	540.0	0.0	178.7	2,208.2	1,473.4	0.0	0.0
52.38	Top - Section 2	242.2	617.1					0.0	149.7	242.2	766.8	0.0	0.0
55.00	Appurtenance(s)	173.6	279.8	1,983.8	0.0	0.0	540.0	0.0	164.8	2,157.3	984.6	0.0	0.0
56.00	Appurtenance(s)	94.8	105.0	6,503.6	0.0	1,554.1	2,250.0	0.0	62.9	6,598.4	2,417.9	0.0	0.0
57.00	Appurtenance(s)	187.0	103.9	862.6	0.0	0.0	675.0	0.0	48.7	1,049.7	827.7	0.0	0.0
60.00	Appurtenance(s)	366.1	305.7	2,014.0	0.0	0.0	540.0	0.0	146.2	2,380.2	991.9	0.0	0.0
65.00	Appurtenance(s)	314.4	489.1	2,042.2	0.0	0.0	540.0	0.0	243.7	2,356.7	1,272.8	0.0	0.0
67.00	Appurtenance(s)	217.5	188.5	4,147.5	0.0	2,062.9	2,939.8	0.0	97.5	4,365.0	3,225.8	0.0	0.0
70.00	Appurtenance(s)	337.7	275.1	2,068.7	0.0	0.0	540.0	0.0	35.3	2,406.5	850.5	0.0	0.0
75.00	Appurtenance(s)	276.9	438.1	2,095.6	0.0	838.3	540.0	0.0	58.9	2,372.6	1,037.0	0.0	0.0
76.70	Top - Section 3	71.1	143.2					0.0	20.0	71.1	163.2	0.0	0.0
77.00	Appurtenance(s)	27.3	4.0	3,679.4	0.0	0.0	2,147.6	0.0	3.5	3,706.8	2,155.2	0.0	0.0
80.00	Appurtenance(s)	41.5	40.5	2,117.3	0.0	0.0	540.0	0.0	2.6	2,158.8	583.1	0.0	0.0
82.00	Appurtenance(s)	26.6	27.0	154.0	0.0	0.0	72.0	0.0	1.7	180.7	100.7	0.0	0.0
83.20		10.0	16.2					0.0	1.0	10.0	17.2	0.0	0.0
									Totals:	49,718.8	34,392.6	0.00	0.00

Load Case: 0.9D + 1.0W — 113 mph with No Ice (Reduced DL) — 16 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	-34.47	-49.84	0.00	-2,640.27	0.00	2,640.27	5,994.05	1,434.32	6,672.27	6,339.93	0.00	0.00	0.423
5.00	-32.81	-49.37	0.00	-2,391.05	0.00	2,391.05	5,848.22	1,387.57	6,244.46	5,982.13	0.07	-0.13	0.407
10.00	-31.20	-48.91	0.00	-2,144.19	0.00	2,144.19	5,676.12	1,340.82	5,830.83	5,608.53	0.28	-0.26	0.389
15.00	-29.10	-46.86	0.00	-1,899.65	0.00	1,899.65	5,478.21	1,294.07	5,431.37	5,222.30	0.63	-0.39	0.370
20.00	-27.08	-44.83	0.00	-1,665.34	0.00	1,665.34	5,280.30	1,247.31	5,046.08	4,849.84	1.10	-0.52	0.350
22.69	-26.28	-44.59	0.00	-1,544.86	0.00	1,544.86	5,173.92	1,222.19	4,844.84	4,655.34	1.41	-0.58	0.338
25.00	-24.64	-42.55	0.00	-1,441.74	0.00	1,441.74	5,082.39	1,200.56	4,674.96	4,491.17	1.71	-0.64	0.327
28.85	-22.85	-42.29	0.00	-1,277.84	0.00	1,277.84	4,410.41	1,041.83	4,023.22	3,870.44	2.27	-0.73	0.337
30.00	-22.00	-40.21	0.00	-1,229.27	0.00	1,229.27	4,370.63	1,032.43	3,950.99	3,800.59	2.45	-0.76	0.330
35.00	-20.22	-37.87	0.00	-1,028.25	0.00	1,028.25	4,197.46	991.53	3,644.15	3,503.90	3.32	-0.88	0.300
40.00	-18.50	-35.49	0.00	-838.90	0.00	838.90	4,024.29	950.62	3,349.71	3,219.28	4.30	-0.99	0.267
45.00	-16.83	-33.21	0.00	-661.44	0.00	661.44	3,851.11	909.71	3,067.67	2,946.70	5.40	-1.10	0.230
47.16	-16.33	-32.97	0.00	-589.74	0.00	589.74	3,776.34	892.05	2,949.72	2,832.74	5.91	-1.14	0.214
50.00	-14.88	-30.74	0.00	-496.08	0.00	496.08	3,677.94	868.80	2,798.03	2,686.19	6.61	-1.19	0.190
52.38	-14.10	-30.49	0.00	-422.92	0.00	422.92	2,517.80	619.72	1,992.88	1,842.71	7.21	-1.23	0.238
55.00	-13.15	-28.32	0.00	-343.03	0.00	343.03	2,473.70	604.41	1,895.64	1,765.31	7.90	-1.27	0.202
56.00	-10.87	-21.67	0.00	-313.16	0.00	313.16	2,456.62	598.57	1,859.17	1,736.02	8.17	-1.29	0.186
57.00	-10.06	-20.61	0.00	-291.49	0.00	291.49	2,439.40	592.72	1,823.05	1,706.88	8.44	-1.30	0.176
60.00	-9.10	-18.22	0.00	-229.66	0.00	229.66	2,386.97	575.19	1,716.81	1,620.34	9.27	-1.35	0.147
65.00	-7.88	-15.83	0.00	-138.59	0.00	138.59	2,296.90	545.97	1,546.84	1,479.25	10.72	-1.41	0.098
67.00	-4.76	-11.39	0.00	-104.86	0.00	104.86	2,259.94	534.28	1,481.33	1,423.98	11.31	-1.42	0.076
70.00	-3.96	-8.97	0.00	-70.68	0.00	70.68	2,187.59	516.75	1,385.73	1,332.71	12.21	-1.44	0.055
75.00	-2.99	-6.57	0.00	-25.01	0.00	25.01	2,063.89	487.53	1,233.47	1,185.51	13.74	-1.47	0.023
76.70	-2.82	-6.49	0.00	-13.84	0.00	13.84	2,021.83	477.60	1,183.72	1,137.43	14.26	-1.47	0.014
76.70	-2.82	-6.49	0.00	-13.84	0.00	13.84	138.83	41.65	15.24	15.36	14.26	-1.47	0.946
77.00	-0.75	-2.74	0.00	-11.90	0.00	11.90	138.83	41.65	15.24	15.36	14.36	-1.47	0.784
80.00	-0.23	-0.56	0.00	-3.68	0.00	3.68	138.83	41.65	15.24	15.36	15.54	-2.17	0.242
82.00	-0.14	-0.38	0.00	-2.56	0.00	2.56	138.83	41.65	15.24	15.36	16.49	-2.35	0.168
83.20	0.00	-0.37	0.00	-2.10	0.00	2.10	138.83	41.65	15.24	15.36	17.09	-2.43	0.137

Site Number: 414240 | Code: ANSI/TIA-222-H |

Site Name: Byram Park CT, CT | Engineering Number:13701270_C3_02 | 7/28/2021 2:56:43 PM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0Di + 1.0Wi | 49 mph with 0.85 in Radial Ice | 15 Iterations

Gust Response Factor :1.10 | Ice Dead Load Factor :1.00

Dead Load Factor :1.20 | Ice Importance Factor :1.00

Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		87.0	0.0					0.0	0.0	87.0	0.0	0.0	0.0
5.00		171.4	1,851.2					0.0	419.3	171.4	2,270.4	0.0	0.0
10.00		166.2	1,813.8					0.0	419.3	166.2	2,233.0	0.0	0.0
15.00	Appurtenance(s)	163.1	1,763.3	384.7	0.0	0.0	845.1	0.0	419.3	547.8	3,027.7	0.0	0.0
20.00	Appurtenance(s)	125.3	1,708.6	407.7	0.0	0.0	851.5	0.0	419.3	533.0	2,979.3	0.0	0.0
22.69	Bot - Section 2	82.7	895.9					0.0	225.4	82.7	1,121.3	0.0	0.0
25.00	Appurtenance(s)	103.0	1,342.4	427.1	0.0	0.0	857.5	0.0	193.9	530.1	2,393.8	0.0	0.0
28.85	Top - Section 1	83.5	2,184.4					0.0	323.0	83.5	2,507.4	0.0	0.0
30.00	Appurtenance(s)	101.9	329.9	443.2	0.0	0.0	861.7	0.0	96.3	545.1	1,287.9	0.0	0.0
35.00	Appurtenance(s)	164.5	1,400.4	456.4	0.0	0.0	863.7	0.0	419.3	620.8	2,683.4	0.0	0.0
40.00	Appurtenance(s)	161.8	1,347.1	468.8	0.0	0.0	866.6	0.0	419.3	630.6	2,633.0	0.0	0.0
45.00	Appurtenance(s)	114.2	1,293.1	480.0	0.0	0.0	869.2	0.0	419.3	594.3	2,581.6	0.0	0.0
47.16	Bot - Section 3	79.1	542.7					0.0	181.0	79.1	723.7	0.0	0.0
50.00	Appurtenance(s)	82.2	1,124.6	490.6	0.0	0.0	872.0	0.0	238.2	572.8	2,234.9	0.0	0.0
52.38	Top - Section 2	77.6	920.3					0.0	199.6	77.6	1,119.9	0.0	0.0
55.00	Appurtenance(s)	55.6	478.3	500.1	0.0	0.0	874.2	0.0	219.7	555.8	1,572.2	0.0	0.0
56.00	Appurtenance(s)	30.4	179.9	1,516.0	0.0	330.5	4,578.8	0.0	83.9	1,546.4	4,842.5	0.0	0.0
57.00	Appurtenance(s)	60.1	178.2	212.6	0.0	0.0	1,132.9	0.0	65.0	272.7	1,376.1	0.0	0.0
60.00	Appurtenance(s)	117.9	523.5	508.9	0.0	0.0	876.0	0.0	195.0	626.8	1,594.5	0.0	0.0
65.00	Appurtenance(s)	101.4	837.1	516.9	0.0	0.0	877.5	0.0	325.0	618.3	2,039.5	0.0	0.0
67.00	Appurtenance(s)	70.3	324.2	930.2	0.0	457.3	5,619.8	0.0	130.0	1,000.5	6,074.0	0.0	0.0
70.00	Appurtenance(s)	109.4	473.1	524.9	0.0	0.0	879.5	0.0	47.1	634.4	1,399.6	0.0	0.0
75.00	Appurtenance(s)	89.9	752.6	532.6	0.0	213.0	880.7	0.0	78.5	622.5	1,711.8	0.0	0.0
76.70	Top - Section 3	23.1	247.3					0.0	26.7	23.1	274.0	0.0	0.0
77.00	Appurtenance(s)	9.1	7.2	815.2	0.0	0.0	4,132.2	0.0	4.7	824.3	4,144.1	0.0	0.0
80.00	Appurtenance(s)	13.9	72.4	539.2	0.0	0.0	882.5	0.0	3.5	553.1	958.3	0.0	0.0
82.00	Appurtenance(s)	8.9	48.3	39.3	0.0	0.0	132.8	0.0	2.3	48.2	183.5	0.0	0.0
83.20		3.4	29.0					0.0	1.4	3.4	30.4	0.0	0.0
									Totals:	12,651.3	55,997.9	0.00	0.00

Load Case: 1.2D + 1.0Di + 1.0Wi — 49 mph with 0.85 in Radial Ice — 15 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	-56.25	-12.70	0.00	-667.14	0.00	667.14	5,994.05	1,434.32	6,672.27	6,339.93	0.00	0.00	0.115
5.00	-53.97	-12.56	0.00	-603.64	0.00	603.64	5,848.22	1,387.57	6,244.46	5,982.13	0.02	-0.03	0.110
10.00	-51.73	-12.42	0.00	-540.86	0.00	540.86	5,676.12	1,340.82	5,830.83	5,608.53	0.07	-0.07	0.106
15.00	-48.70	-11.89	0.00	-478.76	0.00	478.76	5,478.21	1,294.07	5,431.37	5,222.30	0.16	-0.10	0.101
20.00	-45.72	-11.37	0.00	-419.29	0.00	419.29	5,280.30	1,247.31	5,046.08	4,849.84	0.28	-0.13	0.095
22.69	-44.59	-11.30	0.00	-388.72	0.00	388.72	5,173.92	1,222.19	4,844.84	4,655.34	0.36	-0.15	0.092
25.00	-42.20	-10.78	0.00	-362.59	0.00	362.59	5,082.39	1,200.56	4,674.96	4,491.17	0.43	-0.16	0.089
28.85	-39.69	-10.70	0.00	-321.08	0.00	321.08	4,410.41	1,041.83	4,023.22	3,870.44	0.57	-0.19	0.092
30.00	-38.40	-10.16	0.00	-308.79	0.00	308.79	4,370.63	1,032.43	3,950.99	3,800.59	0.62	-0.19	0.090
35.00	-35.71	-9.55	0.00	-257.98	0.00	257.98	4,197.46	991.53	3,644.15	3,503.90	0.84	-0.22	0.082
40.00	-33.08	-8.92	0.00	-210.24	0.00	210.24	4,024.29	950.62	3,349.71	3,219.28	1.08	-0.25	0.074
45.00	-30.50	-8.33	0.00	-165.62	0.00	165.62	3,851.11	909.71	3,067.67	2,946.70	1.36	-0.28	0.064
47.16	-29.77	-8.25	0.00	-147.64	0.00	147.64	3,776.34	892.05	2,949.72	2,832.74	1.49	-0.29	0.060
50.00	-27.54	-7.67	0.00	-124.21	0.00	124.21	3,677.94	868.80	2,798.03	2,686.19	1.66	-0.30	0.054
52.38	-26.42	-7.59	0.00	-105.95	0.00	105.95	2,517.80	619.72	1,992.88	1,842.71	1.82	-0.31	0.068
55.00	-24.85	-7.03	0.00	-86.06	0.00	86.06	2,473.70	604.41	1,895.64	1,765.31	1.99	-0.32	0.059
56.00	-20.01	-5.46	0.00	-78.70	0.00	78.70	2,456.62	598.57	1,859.17	1,736.02	2.06	-0.32	0.054
57.00	-18.64	-5.18	0.00	-73.24	0.00	73.24	2,439.40	592.72	1,823.05	1,706.88	2.13	-0.33	0.051
60.00	-17.05	-4.55	0.00	-57.70	0.00	57.70	2,386.97	575.19	1,716.81	1,620.34	2.33	-0.34	0.043
65.00	-15.01	-3.92	0.00	-34.95	0.00	34.95	2,296.90	545.97	1,546.84	1,479.25	2.70	-0.35	0.030
67.00	-8.94	-2.88	0.00	-26.66	0.00	26.66	2,259.94	534.28	1,481.33	1,423.98	2.85	-0.36	0.023
70.00	-7.55	-2.24	0.00	-18.01	0.00	18.01	2,187.59	516.75	1,385.73	1,332.71	3.07	-0.36	0.017
75.00	-5.84	-1.61	0.00	-6.59	0.00	6.59	2,063.89	487.53	1,233.47	1,185.51	3.46	-0.37	0.008
76.70	-5.56	-1.58	0.00	-3.86	0.00	3.86	2,021.83	477.60	1,183.72	1,137.43	3.59	-0.37	0.006
76.70	-5.56	-1.58	0.00	-3.86	0.00	3.86	138.83	41.65	15.24	15.36	3.59	-0.37	0.293
77.00	-1.42	-0.73	0.00	-3.38	0.00	3.38	138.83	41.65	15.24	15.36	3.61	-0.37	0.231
80.00	-0.47	-0.17	0.00	-1.18	0.00	1.18	138.83	41.65	15.24	15.36	3.92	-0.57	0.080
82.00	-0.29	-0.12	0.00	-0.83	0.00	0.83	138.83	41.65	15.24	15.36	4.17	-0.63	0.056
83.20	0.00	-0.12	0.00	-0.68	0.00	0.68	138.83	41.65	15.24	15.36	4.34	-0.66	0.044

Load Case: 1.0D + 1.0W Serviceability 60 mph 15 Iterations

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

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		70.0	0.0					0.0	0.0	70.0	0.0	0.0	0.0
5.00		137.7	1,367.8					0.0	349.4	137.7	1,717.2	0.0	0.0
10.00		133.1	1,322.5					0.0	349.4	133.1	1,671.9	0.0	0.0
15.00	Appurtenance(s)	130.2	1,277.2	398.8	0.0	0.0	600.0	0.0	349.4	529.0	2,226.6	0.0	0.0
20.00	Appurtenance(s)	99.9	1,231.9	419.2	0.0	0.0	600.0	0.0	349.4	519.1	2,181.3	0.0	0.0
22.69	Bot - Section 2	65.8	643.4					0.0	187.8	65.8	831.2	0.0	0.0
25.00	Appurtenance(s)	81.9	1,028.6	435.8	0.0	0.0	600.0	0.0	161.6	517.8	1,790.2	0.0	0.0
28.85	Top - Section 1	66.4	1,672.9					0.0	269.1	66.4	1,942.0	0.0	0.0
30.00	Appurtenance(s)	80.9	230.9	449.8	0.0	0.0	600.0	0.0	80.3	530.7	911.2	0.0	0.0
35.00	Appurtenance(s)	130.3	981.1	462.1	0.0	0.0	600.0	0.0	349.4	592.4	1,930.5	0.0	0.0
40.00	Appurtenance(s)	128.0	941.4	472.9	0.0	0.0	600.0	0.0	349.4	600.9	1,890.8	0.0	0.0
45.00	Appurtenance(s)	90.2	901.8	482.7	0.0	0.0	600.0	0.0	349.4	572.9	1,851.2	0.0	0.0
47.16	Bot - Section 3	62.3	377.1					0.0	150.9	62.3	528.0	0.0	0.0
50.00	Appurtenance(s)	64.8	838.6	491.6	0.0	0.0	600.0	0.0	198.5	556.4	1,637.2	0.0	0.0
52.38	Top - Section 2	61.0	685.7					0.0	166.3	61.0	852.0	0.0	0.0
55.00	Appurtenance(s)	43.7	310.9	499.9	0.0	0.0	600.0	0.0	183.1	543.6	1,094.0	0.0	0.0
56.00	Appurtenance(s)	23.9	116.6	1,638.8	0.0	391.6	2,500.0	0.0	69.9	1,662.6	2,686.5	0.0	0.0
57.00	Appurtenance(s)	47.1	115.5	217.4	0.0	0.0	750.0	0.0	54.2	264.5	919.6	0.0	0.0
60.00	Appurtenance(s)	92.3	339.7	507.5	0.0	0.0	600.0	0.0	162.5	599.7	1,102.2	0.0	0.0
65.00	Appurtenance(s)	79.2	543.5	514.6	0.0	0.0	600.0	0.0	270.8	593.8	1,414.3	0.0	0.0
67.00	Appurtenance(s)	54.8	209.5	1,045.1	0.0	519.8	3,266.4	0.0	108.3	1,099.9	3,584.2	0.0	0.0
70.00	Appurtenance(s)	85.1	305.7	521.3	0.0	0.0	600.0	0.0	39.3	606.4	944.9	0.0	0.0
75.00	Appurtenance(s)	69.8	486.8	528.1	0.0	211.2	600.0	0.0	65.4	597.8	1,152.3	0.0	0.0
76.70	Top - Section 3	18.1	159.1					0.0	22.3	18.1	181.3	0.0	0.0
77.00	Appurtenance(s)	8.8	4.5	927.1	0.0	0.0	2,386.2	0.0	3.9	935.9	2,394.6	0.0	0.0
80.00	Appurtenance(s)	13.3	45.0	533.5	0.0	0.0	600.0	0.0	2.9	546.8	647.9	0.0	0.0
82.00	Appurtenance(s)	8.6	30.0	38.8	0.0	0.0	80.0	0.0	1.9	47.4	111.9	0.0	0.0
83.20		3.2	18.0					0.0	1.2	3.2	19.1	0.0	0.0
									Totals:	12,535.4	38,214.0	0.00	0.00

Load Case: 1.0D + 1.0W Serviceability 60 mph 15 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	-38.36	-12.57	0.00	-666.45	0.00	666.45	5,994.05	1,434.32	6,672.27	6,339.93	0.00	0.00	0.112
5.00	-36.63	-12.45	0.00	-603.61	0.00	603.61	5,848.22	1,387.57	6,244.46	5,982.13	0.02	-0.03	0.107
10.00	-34.96	-12.34	0.00	-541.36	0.00	541.36	5,676.12	1,340.82	5,830.83	5,608.53	0.07	-0.07	0.103
15.00	-32.72	-11.82	0.00	-479.68	0.00	479.68	5,478.21	1,294.07	5,431.37	5,222.30	0.16	-0.10	0.098
20.00	-30.54	-11.31	0.00	-420.57	0.00	420.57	5,280.30	1,247.31	5,046.08	4,849.84	0.28	-0.13	0.093
22.69	-29.70	-11.25	0.00	-390.17	0.00	390.17	5,173.92	1,222.19	4,844.84	4,655.34	0.36	-0.15	0.090
25.00	-27.91	-10.74	0.00	-364.15	0.00	364.15	5,082.39	1,200.56	4,674.96	4,491.17	0.43	-0.16	0.087
28.85	-25.97	-10.67	0.00	-322.78	0.00	322.78	4,410.41	1,041.83	4,023.22	3,870.44	0.57	-0.19	0.089
30.00	-25.05	-10.15	0.00	-310.53	0.00	310.53	4,370.63	1,032.43	3,950.99	3,800.59	0.62	-0.19	0.088
35.00	-23.12	-9.56	0.00	-259.79	0.00	259.79	4,197.46	991.53	3,644.15	3,503.90	0.84	-0.22	0.080
40.00	-21.23	-8.96	0.00	-211.98	0.00	211.98	4,024.29	950.62	3,349.71	3,219.28	1.09	-0.25	0.071
45.00	-19.38	-8.39	0.00	-167.17	0.00	167.17	3,851.11	909.71	3,067.67	2,946.70	1.36	-0.28	0.062
47.16	-18.85	-8.33	0.00	-149.07	0.00	149.07	3,776.34	892.05	2,949.72	2,832.74	1.49	-0.29	0.058
50.00	-17.21	-7.76	0.00	-125.41	0.00	125.41	3,677.94	868.80	2,798.03	2,686.19	1.67	-0.30	0.051
52.38	-16.36	-7.70	0.00	-106.93	0.00	106.93	2,517.80	619.72	1,992.88	1,842.71	1.82	-0.31	0.065
55.00	-15.27	-7.15	0.00	-86.76	0.00	86.76	2,473.70	604.41	1,895.64	1,765.31	1.99	-0.32	0.055
56.00	-12.59	-5.48	0.00	-79.21	0.00	79.21	2,456.62	598.57	1,859.17	1,736.02	2.06	-0.32	0.051
57.00	-11.67	-5.21	0.00	-73.74	0.00	73.74	2,439.40	592.72	1,823.05	1,706.88	2.13	-0.33	0.048
60.00	-10.57	-4.60	0.00	-58.11	0.00	58.11	2,386.97	575.19	1,716.81	1,620.34	2.34	-0.34	0.040
65.00	-9.16	-4.00	0.00	-35.09	0.00	35.09	2,296.90	545.97	1,546.84	1,479.25	2.71	-0.36	0.028
67.00	-5.58	-2.88	0.00	-26.56	0.00	26.56	2,259.94	534.28	1,481.33	1,423.98	2.86	-0.36	0.021
70.00	-4.64	-2.27	0.00	-17.91	0.00	17.91	2,187.59	516.75	1,385.73	1,332.71	3.09	-0.36	0.016
75.00	-3.49	-1.67	0.00	-6.35	0.00	6.35	2,063.89	487.53	1,233.47	1,185.51	3.47	-0.37	0.007
76.70	-3.31	-1.65	0.00	-3.52	0.00	3.52	2,021.83	477.60	1,183.72	1,137.43	3.60	-0.37	0.005
76.70	-3.31	-1.65	0.00	-3.52	0.00	3.52	138.83	41.65	15.24	15.36	3.60	-0.37	0.254
77.00	-0.92	-0.70	0.00	-3.02	0.00	3.02	138.83	41.65	15.24	15.36	3.63	-0.37	0.204
80.00	-0.28	-0.14	0.00	-0.93	0.00	0.93	138.83	41.65	15.24	15.36	3.93	-0.55	0.063
82.00	-0.17	-0.10	0.00	-0.65	0.00	0.65	138.83	41.65	15.24	15.36	4.17	-0.60	0.043
83.20	0.00	-0.09	0.00	-0.53	0.00	0.53	138.83	41.65	15.24	15.36	4.32	-0.62	0.034

Equivalent Lateral Forces Method Analysis

Spectral Response Acceleration for Short Period (S_s):	0.28
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Long-Period Transition Period (T_L):	6
Importance Factor (I_E):	1.00
Site Coefficient F_a:	1.58
Site Coeffiecient F_v:	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.29
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Seismic Response Coefficient (C_s):	0.08
Upper Limit C_s	0.08
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	0.78
Redundancy Factor (p):	1.00
Seismic Force Distribution Exponent (k):	1.14
Total Unfactored Dead Load:	38.36 k
Seismic Base Shear (E):	3.14 k

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

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
27	82.60	19	3	0.001	3	24
26	81.00	32	5	0.002	5	40
25	78.50	48	7	0.002	7	60
24	76.85	8	1	0.000	1	11
23	75.85	181	25	0.009	27	228
22	72.50	552	73	0.025	79	695
21	68.50	345	43	0.015	46	434
20	66.00	318	38	0.013	41	400
19	62.50	814	91	0.031	98	1,025
18	58.50	502	52	0.018	56	632
17	56.50	170	17	0.006	18	213
16	55.50	187	18	0.006	20	235
15	53.69	494	46	0.016	50	622
14	51.19	852	76	0.026	82	1,072
13	48.58	1,037	87	0.030	94	1,305
12	46.08	528	42	0.014	45	664
11	42.50	1,251	90	0.031	97	1,574
10	37.50	1,291	81	0.028	87	1,624
9	32.50	1,330	71	0.024	76	1,674
8	29.43	311	15	0.005	16	392
7	26.93	1,942	83	0.029	90	2,444
6	23.84	1,190	44	0.015	48	1,498
5	21.34	831	27	0.009	29	1,046
4	17.50	1,581	41	0.014	45	1,990
3	12.50	1,627	29	0.010	31	2,047

2	7.50	1,672	17	0.006	18	2,104
1	2.50	1,717	5	0.002	5	2,161
Bird 428D-83I-01-T	83.20	9	1	0.000	1	11
dbSpectra DS7C09P36U	83.20	140	22	0.007	23	176
Pole Mount	82.00	80	12	0.004	13	101
Pine Branches	80.00	600	89	0.030	96	755
Commscope CBC1923Q-4	77.00	22	3	0.001	3	28
Ericsson Radio 4449	77.00	225	32	0.011	34	283
Ericsson RRUS 4415 B	77.00	138	20	0.007	21	174
Ericsson RRUS 32 B66	77.00	159	23	0.008	24	200
Ericsson Air6449 B41	77.00	312	44	0.015	48	393
Ericsson AIR32 B66Aa	77.00	397	56	0.019	61	499
Flat T-Arms	77.00	750	106	0.036	115	944
RFS APXVAARR24_43-U-	77.00	384	54	0.019	59	483
Pine Branches	75.00	600	83	0.028	89	755
Pine Branches	70.00	600	76	0.026	82	755
CCI DTMABP7819VG12A	67.00	115	14	0.005	15	145
Raycap DC6-48-60-0-8	67.00	16	2	0.001	2	20
Raycap DC6-48-60-18-	67.00	66	8	0.003	9	83
Ericsson RRUS 4426 B	67.00	145	18	0.006	19	183
Ericsson RRUS 4449 B	67.00	213	26	0.009	28	268
Ericsson RRUS 4478 B	67.00	178	22	0.007	23	224
Ericsson RRUS 32 B2	67.00	159	19	0.007	21	200
Ericsson RRUS-32 (77	67.00	231	28	0.010	30	291
Powerwave Allgon P65	67.00	159	19	0.007	21	200
CCI DMP65R-BU4D	67.00	407	49	0.017	53	513
CCI OPA-65R-LCUU-H6	67.00	219	26	0.009	29	276
Site PRO1, RMV12-496	67.00	1,358	164	0.056	177	1,709
Pine Branches	65.00	600	70	0.024	76	755
Pine Branches	60.00	600	64	0.022	69	755
Flat T-Arm	57.00	750	75	0.026	81	944
Commscope CBC78T-DS-	56.00	62	6	0.002	7	78
Samsung B2/B66A RRH-	56.00	253	25	0.009	27	319
Samsung B5/B13 RRH-B	56.00	211	21	0.007	22	265
Raycap RCMDC-6627-PF	56.00	32	3	0.001	3	40
Samsung MT6407-77A	56.00	245	24	0.008	26	308
Commscope JAHH-65A-R	56.00	101	10	0.003	11	128
Commscope JAHH-45A-R	56.00	282	28	0.010	30	355
Amphenol Antel LPA-8	56.00	162	16	0.005	17	204
VZW Unused Reserve (	56.00	1,152	113	0.039	123	1,449
Pine Branches	55.00	600	58	0.020	63	755
Pine Branches	50.00	600	52	0.018	56	755
Pine Branches	45.00	600	46	0.016	50	755
Pine Branches	40.00	600	40	0.014	43	755
Pine Branches	35.00	600	35	0.012	37	755
Pine Branches	30.00	600	29	0.010	31	755
Pine Branches	25.00	600	24	0.008	25	755
Pine Branches	20.00	600	18	0.006	20	755
Pine Branches	15.00	600	13	0.005	14	755
		38,363	2,913	1.000	3,144	48,272

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

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
27	82.60	19	3	0.001	3	16
26	81.00	32	5	0.002	5	27
25	78.50	48	7	0.002	7	40
24	76.85	8	1	0.000	1	7
23	75.85	181	25	0.009	27	153
22	72.50	552	73	0.025	79	465

21	68.50	345	43	0.015	46	290
20	66.00	318	38	0.013	41	267
19	62.50	814	91	0.031	98	685
18	58.50	502	52	0.018	56	423
17	56.50	170	17	0.006	18	143
16	55.50	187	18	0.006	20	157
15	53.69	494	46	0.016	50	416
14	51.19	852	76	0.026	82	717
13	48.58	1,037	87	0.030	94	873
12	46.08	528	42	0.014	45	444
11	42.50	1,251	90	0.031	97	1,053
10	37.50	1,291	81	0.028	87	1,086
9	32.50	1,330	71	0.024	76	1,120
8	29.43	311	15	0.005	16	262
7	26.93	1,942	83	0.029	90	1,635
6	23.84	1,190	44	0.015	48	1,002
5	21.34	831	27	0.009	29	700
4	17.50	1,581	41	0.014	45	1,331
3	12.50	1,627	29	0.010	31	1,369
2	7.50	1,672	17	0.006	18	1,407
1	2.50	1,717	5	0.002	5	1,445
Bird 428D-83I-01-T	83.20	9	1	0.000	1	7
dbSpectra DS7C09P36U	83.20	140	22	0.007	23	118
Pole Mount	82.00	80	12	0.004	13	67
Pine Branches	80.00	600	89	0.030	96	505
Commscope CBC1923Q-4	77.00	22	3	0.001	3	18
Ericsson Radio 4449	77.00	225	32	0.011	34	189
Ericsson RRUS 4415 B	77.00	138	20	0.007	21	116
Ericsson RRUS 32 B66	77.00	159	23	0.008	24	134
Ericsson Air6449 B41	77.00	312	44	0.015	48	263
Ericsson AIR32 B66Aa	77.00	397	56	0.019	61	334
Flat T-Arms	77.00	750	106	0.036	115	631
RFS APXVAARR24_43-U-	77.00	384	54	0.019	59	323
Pine Branches	75.00	600	83	0.028	89	505
Pine Branches	70.00	600	76	0.026	82	505
CCI DTMABP7819VG12A	67.00	115	14	0.005	15	97
Raycap DC6-48-60-0-8	67.00	16	2	0.001	2	13
Raycap DC6-48-60-18-	67.00	66	8	0.003	9	55
Ericsson RRUS 4426 B	67.00	145	18	0.006	19	122
Ericsson RRUS 4449 B	67.00	213	26	0.009	28	179
Ericsson RRUS 4478 B	67.00	178	22	0.007	23	150
Ericsson RRUS 32 B2	67.00	159	19	0.007	21	134
Ericsson RRUS-32 (77	67.00	231	28	0.010	30	194
Powerwave Allgon P65	67.00	159	19	0.007	21	134
CCI DMP65R-BU4D	67.00	407	49	0.017	53	343
CCI OPA-65R-LCUU-H6	67.00	219	26	0.009	29	184
Site PRO1, RMV12-496	67.00	1,358	164	0.056	177	1,143
Pine Branches	65.00	600	70	0.024	76	505
Pine Branches	60.00	600	64	0.022	69	505
Flat T-Arm	57.00	750	75	0.026	81	631
Commscope CBC78T-DS-	56.00	62	6	0.002	7	52
Samsung B2/B66A RRH-	56.00	253	25	0.009	27	213
Samsung B5/B13 RRH-B	56.00	211	21	0.007	22	178
Raycap RCMDC-6627-PF	56.00	32	3	0.001	3	27
Samsung MT6407-77A	56.00	245	24	0.008	26	206
Commscope JAHH-65A-R	56.00	101	10	0.003	11	85
Commscope JAHH-45A-R	56.00	282	28	0.010	30	237
Amphenol Antel LPA-8	56.00	162	16	0.005	17	136
VZW Unused Reserve (	56.00	1,152	113	0.039	123	969
Pine Branches	55.00	600	58	0.020	63	505
Pine Branches	50.00	600	52	0.018	56	505
Pine Branches	45.00	600	46	0.016	50	505
Pine Branches	40.00	600	40	0.014	43	505
Pine Branches	35.00	600	35	0.012	37	505

Pine Branches	**30.00**	**600**	**29**	**0.010**	**31**	**505**
Pine Branches	**25.00**	**600**	**24**	**0.008**	**25**	**505**
Pine Branches	**20.00**	**600**	**18**	**0.006**	**20**	**505**
Pine Branches	**15.00**	**600**	**13**	**0.005**	**14**	**505**
		38,363	**2,913**	**1.000**	**3,144**	**32,290**

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

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-46.11	-3.14	0.00	-177.57	0.00	177.57	5,994.05	1,434.32	6,672.27	6,339.93	0.00	0.00	0.036
5.00	-44.01	-3.13	0.00	-161.85	0.00	161.85	5,848.22	1,387.57	6,244.46	5,982.13	0.00	-0.01	0.035
10.00	-41.96	-3.11	0.00	-146.20	0.00	146.20	5,676.12	1,340.82	5,830.83	5,608.53	0.02	-0.02	0.033
15.00	-39.21	-3.05	0.00	-130.67	0.00	130.67	5,478.21	1,294.07	5,431.37	5,222.30	0.04	-0.03	0.032
20.00	-37.41	-3.01	0.00	-115.42	0.00	115.42	5,280.30	1,247.31	5,046.08	4,849.84	0.07	-0.04	0.031
22.69	-35.92	-2.96	0.00	-107.34	0.00	107.34	5,173.92	1,222.19	4,844.84	4,655.34	0.10	-0.04	0.030
25.00	-32.72	-2.85	0.00	-100.49	0.00	100.49	5,082.39	1,200.56	4,674.96	4,491.17	0.12	-0.04	0.029
28.85	-32.32	-2.83	0.00	-89.53	0.00	89.53	4,410.41	1,041.83	4,023.22	3,870.44	0.15	-0.05	0.030
30.00	-29.90	-2.72	0.00	-86.28	0.00	86.28	4,370.63	1,032.43	3,950.99	3,800.59	0.17	-0.05	0.030
35.00	-27.52	-2.60	0.00	-72.66	0.00	72.66	4,197.46	991.53	3,644.15	3,503.90	0.23	-0.06	0.027
40.00	-25.19	-2.46	0.00	-59.65	0.00	59.65	4,024.29	950.62	3,349.71	3,219.28	0.29	-0.07	0.025
45.00	-23.77	-2.37	0.00	-47.34	0.00	47.34	3,851.11	909.71	3,067.67	2,946.70	0.37	-0.08	0.022
47.16	-22.46	-2.27	0.00	-42.23	0.00	42.23	3,776.34	892.05	2,949.72	2,832.74	0.41	-0.08	0.021
50.00	-20.64	-2.13	0.00	-35.77	0.00	35.77	3,677.94	868.80	2,798.03	2,686.19	0.45	-0.08	0.019
52.38	-20.01	-2.08	0.00	-30.69	0.00	30.69	2,517.80	619.72	1,992.88	1,842.71	0.50	-0.09	0.025
55.00	-19.02	-2.00	0.00	-25.23	0.00	25.23	2,473.70	604.41	1,895.64	1,765.31	0.54	-0.09	0.022
56.00	-15.67	-1.71	0.00	-23.23	0.00	23.23	2,456.62	598.57	1,859.17	1,736.02	0.56	-0.09	0.020
57.00	-14.09	-1.57	0.00	-21.52	0.00	21.52	2,439.40	592.72	1,823.05	1,706.88	0.58	-0.09	0.018
60.00	-12.31	-1.40	0.00	-16.80	0.00	16.80	2,386.97	575.19	1,716.81	1,620.34	0.64	-0.09	0.016
65.00	-11.16	-1.29	0.00	-9.79	0.00	9.79	2,296.90	545.97	1,546.84	1,479.25	0.74	-0.10	0.011
67.00	-6.61	-0.80	0.00	-7.22	0.00	7.22	2,259.94	534.28	1,481.33	1,423.98	0.78	-0.10	0.008
70.00	-5.16	-0.64	0.00	-4.80	0.00	4.80	2,187.59	516.75	1,385.73	1,332.71	0.85	-0.10	0.006
75.00	-4.18	-0.52	0.00	-1.59	0.00	1.59	2,063.89	487.53	1,233.47	1,185.51	0.95	-0.10	0.003
76.70	-4.17	-0.52	0.00	-0.70	0.00	0.70	2,021.83	477.60	1,183.72	1,137.43	0.99	-0.10	0.003
76.70	-4.17	-0.52	0.00	-0.70	0.00	0.70	138.83	41.65	15.24	15.36	0.99	-0.10	0.076
77.00	-1.11	-0.14	0.00	-0.55	0.00	0.55	138.83	41.65	15.24	15.36	1.00	-0.10	0.044
80.00	-0.31	-0.04	0.00	-0.11	0.00	0.11	138.83	41.65	15.24	15.36	1.07	-0.13	0.010
82.00	-0.19	-0.03	0.00	-0.03	0.00	0.03	138.83	41.65	15.24	15.36	1.13	-0.14	0.003
83.20	0.00	-0.02	0.00	0.00	0.00	0.00	138.83	41.65	15.24	15.36	1.16	-0.14	0.000

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

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-30.84	-3.14	0.00	-177.01	0.00	177.01	5,994.05	1,434.32	6,672.27	6,339.93	0.00	0.00	0.033
5.00	-29.44	-3.13	0.00	-161.30	0.00	161.30	5,848.22	1,387.57	6,244.46	5,982.13	0.00	-0.01	0.032
10.00	-28.07	-3.10	0.00	-145.67	0.00	145.67	5,676.12	1,340.82	5,830.83	5,608.53	0.02	-0.02	0.031
15.00	-26.23	-3.04	0.00	-130.17	0.00	130.17	5,478.21	1,294.07	5,431.37	5,222.30	0.04	-0.03	0.030
20.00	-25.03	-3.00	0.00	-114.95	0.00	114.95	5,280.30	1,247.31	5,046.08	4,849.84	0.07	-0.04	0.028
22.69	-24.02	-2.95	0.00	-106.89	0.00	106.89	5,173.92	1,222.19	4,844.84	4,655.34	0.10	-0.04	0.028
25.00	-21.88	-2.84	0.00	-100.07	0.00	100.07	5,082.39	1,200.56	4,674.96	4,491.17	0.12	-0.04	0.027
28.85	-21.62	-2.82	0.00	-89.14	0.00	89.14	4,410.41	1,041.83	4,023.22	3,870.44	0.15	-0.05	0.028
30.00	-20.00	-2.71	0.00	-85.90	0.00	85.90	4,370.63	1,032.43	3,950.99	3,800.59	0.17	-0.05	0.027
35.00	-18.41	-2.59	0.00	-72.33	0.00	72.33	4,197.46	991.53	3,644.15	3,503.90	0.23	-0.06	0.025
40.00	-16.85	-2.45	0.00	-59.37	0.00	59.37	4,024.29	950.62	3,349.71	3,219.28	0.29	-0.07	0.023
45.00	-15.90	-2.36	0.00	-47.11	0.00	47.11	3,851.11	909.71	3,067.67	2,946.70	0.37	-0.08	0.020
47.16	-15.02	-2.26	0.00	-42.02	0.00	42.02	3,776.34	892.05	2,949.72	2,832.74	0.40	-0.08	0.019
50.00	-13.80	-2.12	0.00	-35.60	0.00	35.60	3,677.94	868.80	2,798.03	2,686.19	0.45	-0.08	0.017
52.38	-13.39	-2.07	0.00	-30.54	0.00	30.54	2,517.80	619.72	1,992.88	1,842.71	0.49	-0.09	0.022
55.00	-12.72	-1.99	0.00	-25.11	0.00	25.11	2,473.70	604.41	1,895.64	1,765.31	0.54	-0.09	0.019
56.00	-10.48	-1.70	0.00	-23.12	0.00	23.12	2,456.62	598.57	1,859.17	1,736.02	0.56	-0.09	0.018
57.00	-9.42	-1.56	0.00	-21.41	0.00	21.41	2,439.40	592.72	1,823.05	1,706.88	0.58	-0.09	0.016
60.00	-8.23	-1.40	0.00	-16.72	0.00	16.72	2,386.97	575.19	1,716.81	1,620.34	0.64	-0.09	0.014
65.00	-7.46	-1.28	0.00	-9.74	0.00	9.74	2,296.90	545.97	1,546.84	1,479.25	0.74	-0.10	0.010
67.00	-4.42	-0.80	0.00	-7.18	0.00	7.18	2,259.94	534.28	1,481.33	1,423.98	0.78	-0.10	0.007
70.00	-3.45	-0.64	0.00	-4.78	0.00	4.78	2,187.59	516.75	1,385.73	1,332.71	0.84	-0.10	0.005
75.00	-2.80	-0.52	0.00	-1.59	0.00	1.59	2,063.89	487.53	1,233.47	1,185.51	0.95	-0.10	0.003
76.70	-2.79	-0.52	0.00	-0.70	0.00	0.70	2,021.83	477.60	1,183.72	1,137.43	0.99	-0.10	0.002
76.70	-2.79	-0.52	0.00	-0.70	0.00	0.70	138.83	41.65	15.24	15.36	0.99	-0.10	0.066
77.00	-0.74	-0.14	0.00	-0.54	0.00	0.54	138.83	41.65	15.24	15.36	0.99	-0.10	0.041
80.00	-0.21	-0.04	0.00	-0.11	0.00	0.11	138.83	41.65	15.24	15.36	1.07	-0.13	0.009
82.00	-0.13	-0.03	0.00	-0.03	0.00	0.03	138.83	41.65	15.24	15.36	1.12	-0.14	0.003
83.20	0.00	-0.02	0.00	0.00	0.00	0.00	138.83	41.65	15.24	15.36	1.16	-0.14	0.000

Analysis Summary

	Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W	49.86	0.00	45.98	0.00	0.00	2646.41	76.70	0.96
0.9D + 1.0W	49.84	0.00	34.47	0.00	0.00	2640.27	76.70	0.95
1.2D + 1.0Di + 1.0Wi	12.70	0.00	56.25	0.00	0.00	667.14	76.70	0.29
1.2D + 1.0Ev + 1.0Eh	3.14	0.00	46.11	0.00	0.00	177.57	76.70	0.08
0.9D - 1.0Ev + 1.0Eh	3.14	0.00	30.84	0.00	0.00	177.01	76.70	0.07
1.0D + 1.0W	12.57	0.00	38.36	0.00	0.00	666.45	76.70	0.25

Base Plate & Anchor Rod Analysis

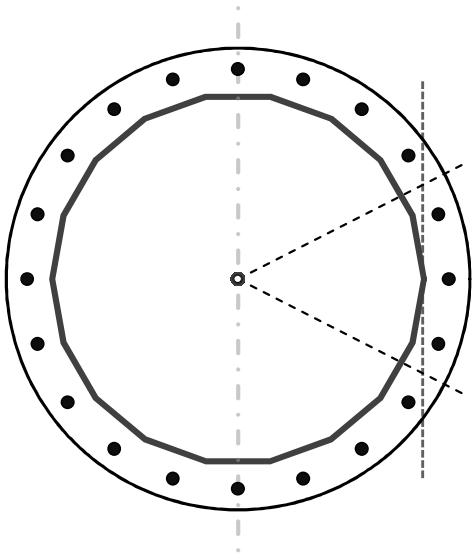
Pole Dimensions		
Number of Sides	18	-
Diameter	52	in
Thickness	1/2	in
Orientation Offset		°

Base Reactions		
Moment, Mu	2,646.4	k-ft
Axial, Pu	46.0	k
Shear, Vu	49.9	k
Neutral Axis	270	°

Report Capacities		
Component	Capacity	Result
Base Plate	23%	Pass
Anchor Rods	46%	Pass
Dwyidag	-	-

Base Plate		
Shape	Round	-
Diameter, ø	66	in
Thickness	2 3/4	in
Grade	A572-50	
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Clip	N/A	in
Orientation Offset		°
Anchor Rod Detail	d	η=0.5
Clear Distance	4 1/2	in
Applied Moment, Mu	596.1	k
Bending Stress, ϕMn	2601.6	k

Original Anchor Rods		
Arrangement	Radial	-
Quantity	20	-
Diameter, ø	2 1/4	in
Bolt Circle	60	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	9.4	in
Orientation Offset		°
Applied Force, Pu	112.4	k
Anchor Rods, ϕPn	243.6	k



Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	49.9	2646.4	1.00
Anchor Rod Forces	49.9	2646.4	1.00
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	0.0	0.00
Stiffener Forces	0.0	0.0	0.00

Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in^2	in^2	in^4	#	in^4
Pole	80.4859	4.4714	0.3744		26690.34
Bolt	3.9761	3.2477	0.8393	4.5	26977.81
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	0.0000	0.0000	0.0000		0.00
Stiffener	0.0000	0.0000	0.0000		0.00

Base Plate		
Shape	Round	-
Diameter, D	66	in
Thickness, t	2.75	in
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Base Plate Chord	40.645	in
Detail Type	d	-
Detail Factor	0.50	-
Clear Distance	4.5	-

Anchor Rods		
Anchor Rod Quantity, N	20	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	60	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	112.4	k
Applied Shear, Vu	1.2	k
Compressive Capacity, ϕPn	243.6	k
Tensile Capacity, ϕRnt	0.462	OK
Interaction Capacity	0.232	OK

External Base Plate		
Chord Length AA	34.485	in
Additional AA	5.500	in
Section Modulus, Z	75.597	in^3
Applied Moment, Mu	596.1	k-ft
Bending Capacity, ϕMn	3401.9	k-ft
Capacity, Mu/ϕMn	0.175	OK
Chord Length AB	33.238	in
Additional AB	5.500	in
Section Modulus, Z	73.239	in^3
Applied Moment, Mu	464.8	k-ft
Bending Capacity, ϕMn	3295.7	k-ft
Capacity, Mu/ϕMn	0.141	OK
Bend Line Length	30.579	in
Additional Bend Line	0.000	in
Section Modulus, Z	57.814	in^3
Applied Moment, Mu	596.1	k-ft
Bending Capacity, ϕMn	2601.6	k-ft
Capacity, Mu/ϕMn	0.229	OK

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

Flange Plate Analysis

Flange Plate

Plate Type	***Flange***	***@ 77.00 ft***
Pole Diameter	4.5	in
Pole Thickness	0.337	in
Plate Diameter	35	in
Plate Thickness	1.5	in
Plate Fy	50	ksi
Weld Length	0.3125	in
f_s Resistance	936.85	k-in
Applied	25.70	k-in

Code Rev.	***H***
Moment	13.9 k-ft
Axial	3.8 k

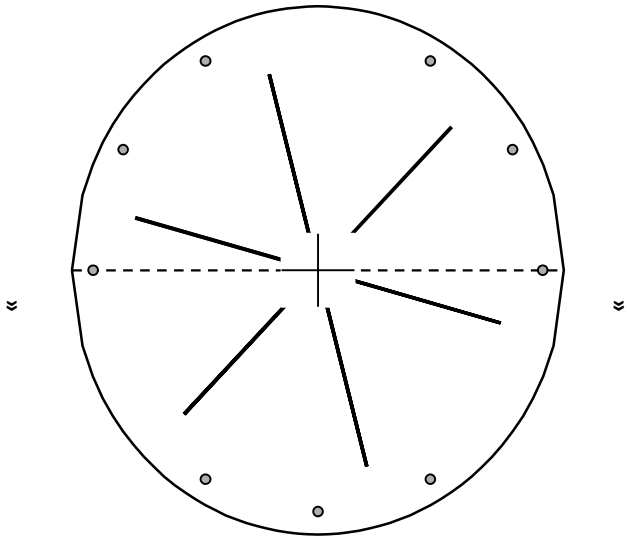
Date	7/28/2021
Engineer	SDK
Site #	414240
Carrier	VERIZON WIRELESS

Stiffeners

#	***6***	***Show***
Thickness	0.75	in
Length	12	in
Height	12	in
Chamfer	1.25	in
Offset Angle	0	°
Fy	50	ksi

Bolts

#	***12***	
Bolt Circle	32	in
(R)adial / (S)quare	R	
Bolt Gap	6	in
Diameter	1	in
Hole Diameter	1.125	in
Type	A325	
Fy	92	ksi
Fu	120	ksi
f_s Resistance	54.52	k
Applied	2.00	k



Reinforcement

#	***0***	

Plate Stress Ratio:

3%	Pass

Bolt Stress Ratio:

4%	Pass

Extra Bolts O

#	***0***	

Maser Consulting Connecticut
2000 Midlantic Drive, Suite 100
Mount Laurel, NJ 08054
856.797.0412
Greg.Dulnik@colliersengineering.com

Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10084892
Maser Consulting Connecticut Project #: 20777259A

July 7, 2021

Site Information	*Site ID:*	*468044-VZW / Byram Park CT*
	Site Name:	*Byram Park CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*36 Ritch Ave W* *Greenwich, Connecticut 06830* *Fairfield County*
	Latitude:	*41.005064°*
	Longitude:	*-73.648312°*
Structure Information	*Tower Type:*	*79-Ft Monopole*
	Mount Type:	*10.00-Ft T-Frame*

FUZE ID # 16231909

Analysis Results

T-Frame: **79.9% Pass**

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

Report Prepared By: Frank Centone

Digitally signed by Derek Hartzell
Date: 2021.07.07 08:39:26-07'00'

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
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS, Site ID: 688717, dated November 10, 2020*
Mount Mapping Report	*Tower Engineering Professionals, Site ID: 468044-VZW, dated October 21, 2020*
Previous Mount Analysis Report	*Maser Consulting Connecticut Project #: 20777259A, dated July 2 , 2021*
Mount Modification Drawings	*Maser Consulting Connecticut Project #: 20777259A, dated July 7, 2021*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	116 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	D
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.998
Seismic Parameters:	S_S:	0.277
	S_1:	0.060
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
56.00	57.00	6	Antel	LPA-80063/6CF	Retained
		4	Commscope	JAHH-45A-R3B	Added
		2	Commscope	JAHH-65A-R3B	
		3	Samsung	MT6407-77A	
		3	Commscope	CBC78T-DS-43	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		1	Raycap	RVZDC-6627-PF-48	

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:
   - Channel, Solid Round, Angle, Plate — ASTM A36 (Gr. 36)
   - HSS (Rectangular) — ASTM 500 (Gr. B-46)
   - Pipe — ASTM A53 (Gr. B-35)
   - Threaded Rod — F1554 (Gr. 36)
   - 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
Mod Standoff	27.9%	Pass
Mod Face	20.3%	Pass
Antenna Pipe	71.2%	Pass
Face Horizontal	20.8%	Pass
Standoff	33.6%	Pass
Standoff Vertical	0.0%	Pass
Existing Connection	79.9%	Pass
MOD Connection	26.4%	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**79.9%**

Recommendation:

The existing mounts will 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:

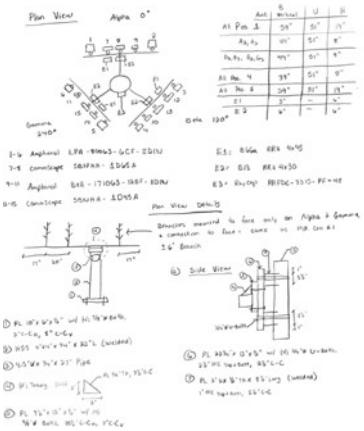
1. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
4. **Contractor Required PMI Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption and Wind Speed Usage Letter

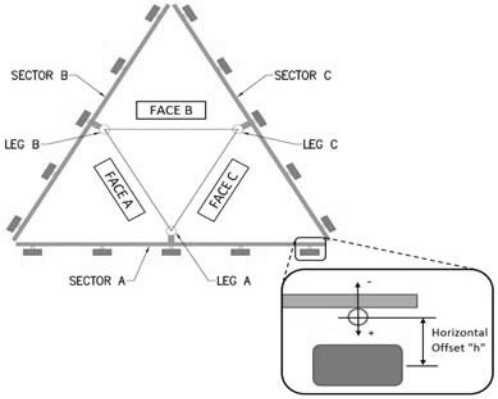
V3.0 Updated on 8-31-2020

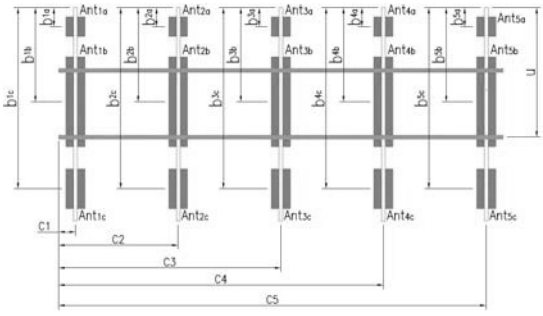
Antenna Mount Mapping Form (PATENT PENDING)

FCC #: N/A

Tower Owner:	American Tower	**Mapping Date:**	10/21/2020
Site Name:	Byram Park CT	**Tower Type:**	Monopole
Site Number or ID:	468044-VZW	**Tower Height (Ft.):**	79
Mapping Contractor:	TEP	**Mount Elevation (Ft.):**	57







Antenna Layout (Looking Out From Tower)

Mount Pipe Configuration and Geometries [Unit = Inches]

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	2.4"Øx0.15625"x8'-6"	51.00	4.00	C1	2.4"Øx0.15625"x8'-6"	51.00	4.00
A2	2.4"Øx0.15625"x8'-6"	51.00	28.50	C2	2.4"Øx0.15625"x8'-6"	51.00	28.50
A3	2.4"Øx0.15625"x8'-6"	51.00	60.00	C3	2.4"Øx0.15625"x8'-6"	51.00	60.00
A4	2.4"Øx0.15625"x8'-6"	51.00	91.50	C4	2.4"Øx0.15625"x8'-6"	51.00	91.50
A5	2.4"Øx0.15625"x8'-6"	51.00	116.00	C5	2.4"Øx0.15625"x8'-6"	51.00	116.00
A6				C6			
B1	2.4"Øx0.15625"x8'-6"	51.00	4.00	D1			
B2	2.4"Øx0.15625"x8'-6"	51.00	28.50	D2			
B3	2.4"Øx0.15625"x8'-6"	51.00	60.00	D3			
B4	2.4"Øx0.15625"x8'-6"	51.00	91.50	D4			
B5	2.4"Øx0.15625"x8'-6"	51.00	116.00	D5			
B6				D6			

Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	0.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	

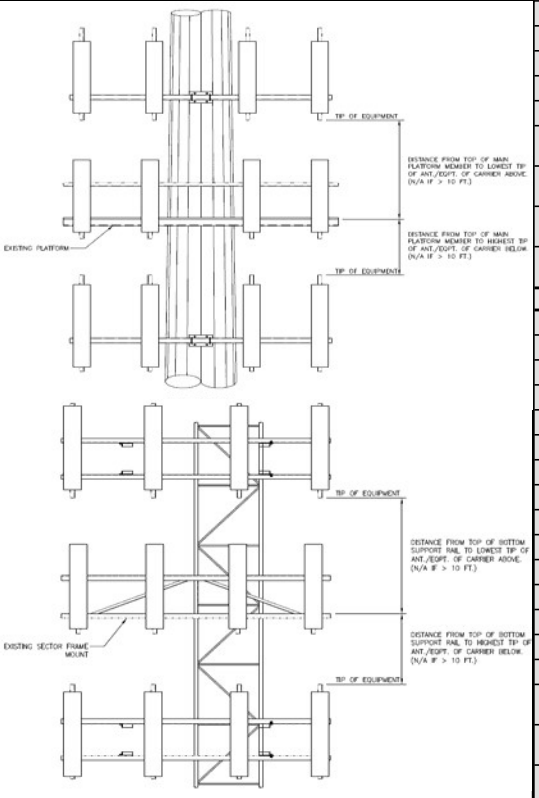
Please enter additional infomation or comments below.

Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	34.5

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant_{1a}										
Ant_{1b}	LPA-80063-6CF-EDIN	14.96	13.07	70.87	1)FH 1-5/	58	39.00	14.00	2.00	46-47
Ant_{1c}										
Ant_{2a}	B66a RRH 4x45	11.80	10.30	28.93	from Ray	60.8333	5.00	-6.00		51-52
Ant_{2b}	SBNHH-1D65A	11.85	7.09	55.63	from Ray	57.5833	44.00	8.00	3.00	48-50
Ant_{2c}										
Ant_{3a}	B13 RRH 4x30	12.00	8.50	21.50	from Ray	60.75	6.00	-6.00		55-56
Ant_{3b}	SBNHH-1D65A	11.85	7.09	55.63	from Ray	57.5833	44.00	8.00	3.00	53-54
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	BXA-171063-12BF-ED	4.10	6.10	72.50	2)FH 1-5/	58	39.00	8.00	3.00	57-58
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	LPA-80063-6CF-EDIN	14.96	13.07	70.87	1)FH 1-5/	58	39.00	14.00	2.00	59-60
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	0.00	Deg	Leg A:		Deg
Sector B:	120.00	Deg	Leg B:		Deg
Sector C:	240.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	Flat 1	Deg	Sector A
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.



Sector B										
Ant_{1a}										
Ant_{1b}	LPA-80063-6CF-EDIN	14.96	13.07	70.87	1)FH 1-5/	58	39.00	14.00	118.00	61-63
Ant_{1c}										
Ant_{2a}	B66a RRH 4x45	11.80	10.30	28.93	from Ray	60.8333	5.00	-6.00		66
Ant_{2b}	SBNHH-1D45A	17.99	7.01	48.03	from Ray	57.5833	44.00	9.00	117.00	64-65
Ant_{2c}										
Ant_{3a}	B13 RRH 4x30	12.00	8.50	21.50	from Ray	60.75	6.00	-6.00		70-71
Ant_{3b}	SBNHH-1D45A	17.99	7.01	48.03	from Ray	57.5833	44.00	9.00	118.00	67-69
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	BXA-171063-12BF-ED	4.10	6.10	72.50	2)FH 1-5/	58	39.00	8.00	118.00	72-73
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	LPA-80063-6CF-EDIN	14.96	13.07	70.87	1)FH 1-5/	58	39.00	14.00	117.00	74-75
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower	RRFDC-3315-PF-48 (M	11.88	8.50	21.50	Hybrid 1.5	60				77-78
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}	LPA-80063-6CF-EDIN	14.96	13.07	70.87	1)FH 1-5/	58	39.00	14.00	241.00	79-81
Ant_{1c}										
Ant_{2a}	B66a RRH 4x45	11.80	10.30	28.93	from Ray	60.8333	5.00	-6.00		84-85
Ant_{2b}	SBNHH-1D45A	17.99	7.01	48.03	from Ray	57.5833	44.00	9.00	241.00	82-83
Ant_{2c}										
Ant_{3a}	B13 RRH 4x30	12.00	8.50	21.50	from Ray	60.75	6.00	-6.00		88-89
Ant_{3b}	SBNHH-1D45A	17.99	7.01	48.03	from Ray	57.5833	44.00	9.00	241.00	86-87
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	BXA-171063-12BF-ED	4.10	6.10	72.50	2)FH 1-5/	58	39.00	8.00	241.00	90-91
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	LPA-80063-6CF-EDIN	14.96	13.07	70.87	1)FH 1-5/	58	39.00	14.00	241.00	92-93
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #

1	(6) Unused (cut) FH 1-5/8 at mount	
2		
3		
4		
5		
6		
7		
8		

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

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

Antenna Mount Mapping Form (PATENT PENDING)

FCC #
N/A

Tower Owner:	American Tower	**Mapping Date:**	10/21/2020
Site Name:	Byram Park CT	**Tower Type:**	Monopole
Site Number or ID:	468044-VZW	**Tower Height (Ft.):**	79
Mapping Contractor:	TEP	**Mount Elevation (Ft.):**	57

Please Insert Sketches of the Antenna Mount

Byram Park CT

Owner: American Tower - 414240

FCC: N/A

Safety: FL 1, 3/8"ø (7- strand), Height = 14'

FL 1 Az = 0°

T/Tower = 77'-0"

Verizon Coax:

(18) FH 1 5/8

(1) Hybrid 1 1/4 (1.6"ø)

* (6) FH 1 5/8 cut @ mnt

Verizon:

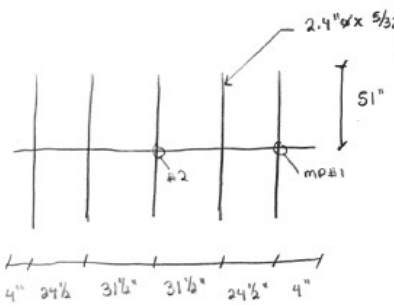
Mnt CL = 57'-0"

Ant CL = Position 2&3 = 57'-0"

Position 1, 4, 5 = 58'-0"

W3 FL = 18"

Front View



m.p. cxn #1:

PL 8"x7"x5/16" w/ (2) 1/2"ø U-Bolts, 6 1/2" C-C

(2) PL 6 3/4"x3"x5/16" w/ (4) 1/2"ø Bolts, 4 3/4" C-C v, 5 1/2" C-C H

m.p. cxn #2:

L 3"x3"x5/16"x6" L w/

(2) 3/8"ø T.R., 3 1/2" C-C, [Go through HSS]

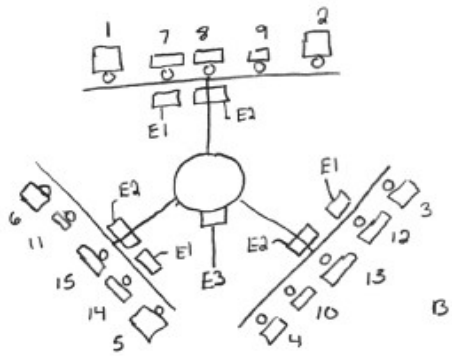
(1) 1/2"ø U-Bolt, 13/4" GA

(Typ 2) (Top & Bottom HSS)

Please Insert Sketches of the Antenna Mount, cont'd

Plan View

Alpha 0°



Gamma 240°

Beta 120°

Ant	B Vertical	U	H
All Pos. 1	39"	51"	14"
A_2, A_3	44"	51"	8"
B_2, B_3, G_2, G_3	44"	51"	9"
All Pos. 4	39"	51"	8"
All Pos. 5	39"	51"	14"
E1	5"	—	6"
E2	6"	—	6"

1-6 Amphenol LPA-80063-6CF-EDIN

7-8 Commscope SBNHH-1D65A

9-11 Amphenol BXA-171063-12BF-EDIN

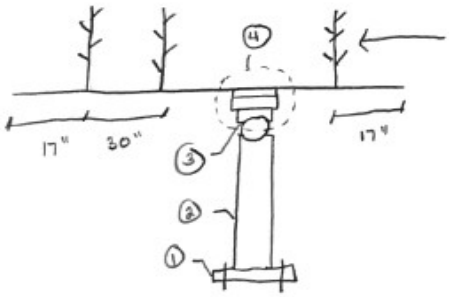
12-15 Commscope SBNHH-1045A

E1 = B66a RRH 4x45

E2 = B13 RRH 4x30

E3 = Raycap RRFDC-3315-PF-48

Plan View Details

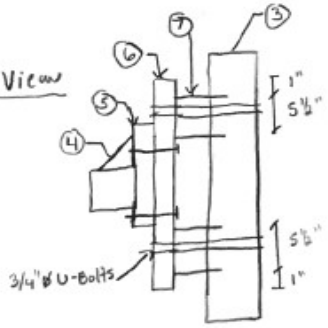


Branches mounted to face only on Alpha & Gamma

* connection to face = same as M.P. Cxn #1

± 6' Branch

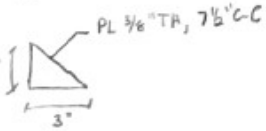
(4) Side View



(1) PL 10" x 6" x ½" w/ (4) 5/8"ø Bolts, 3"C-C$_H$, 8" C-C$_V$

(2) HSS 4"x4" x ¼" x 23"L (welded)

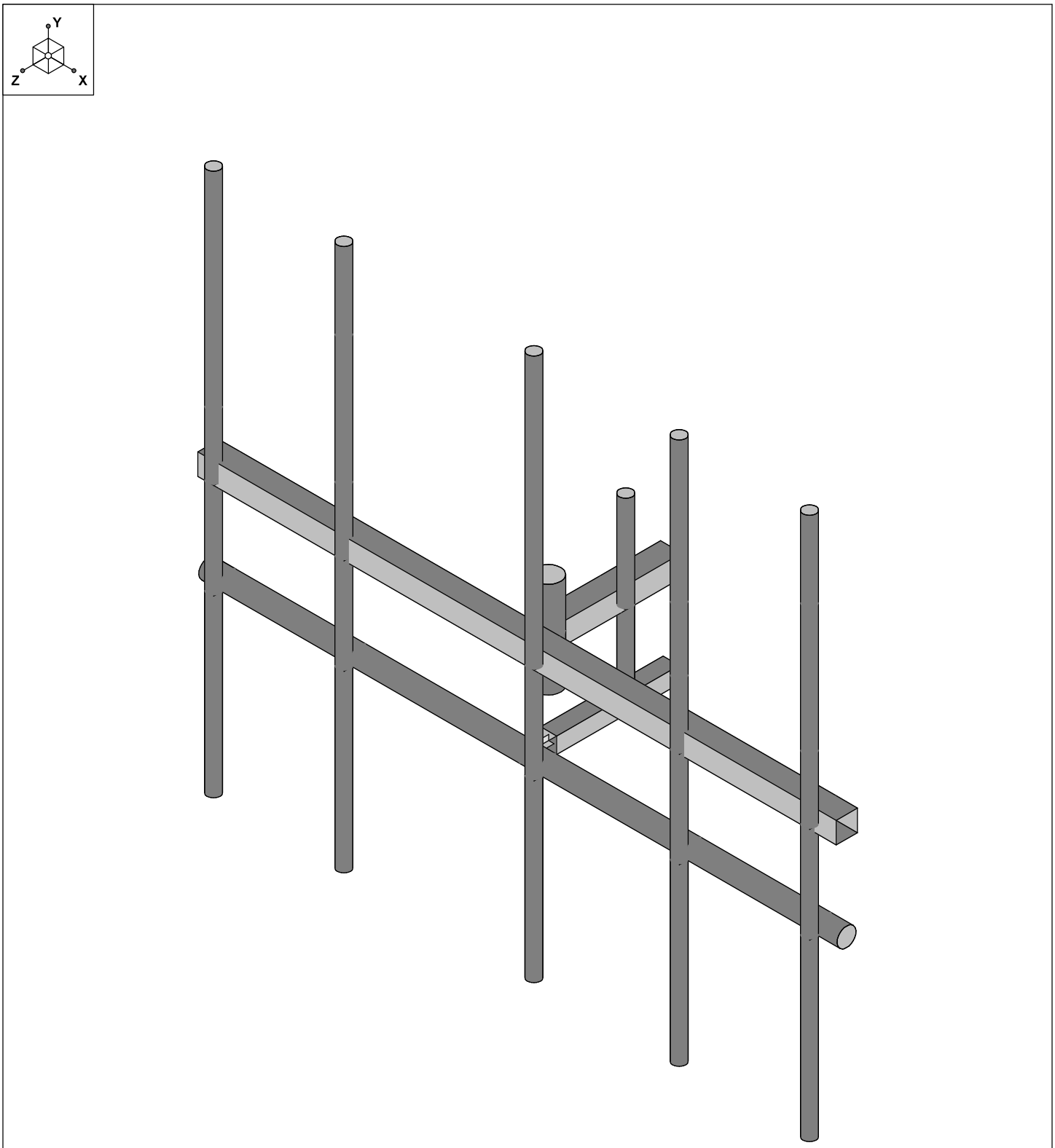
(3) 4.5"ø x ¼" x 27" Pipe

(4) (2) Trang. STIFF 

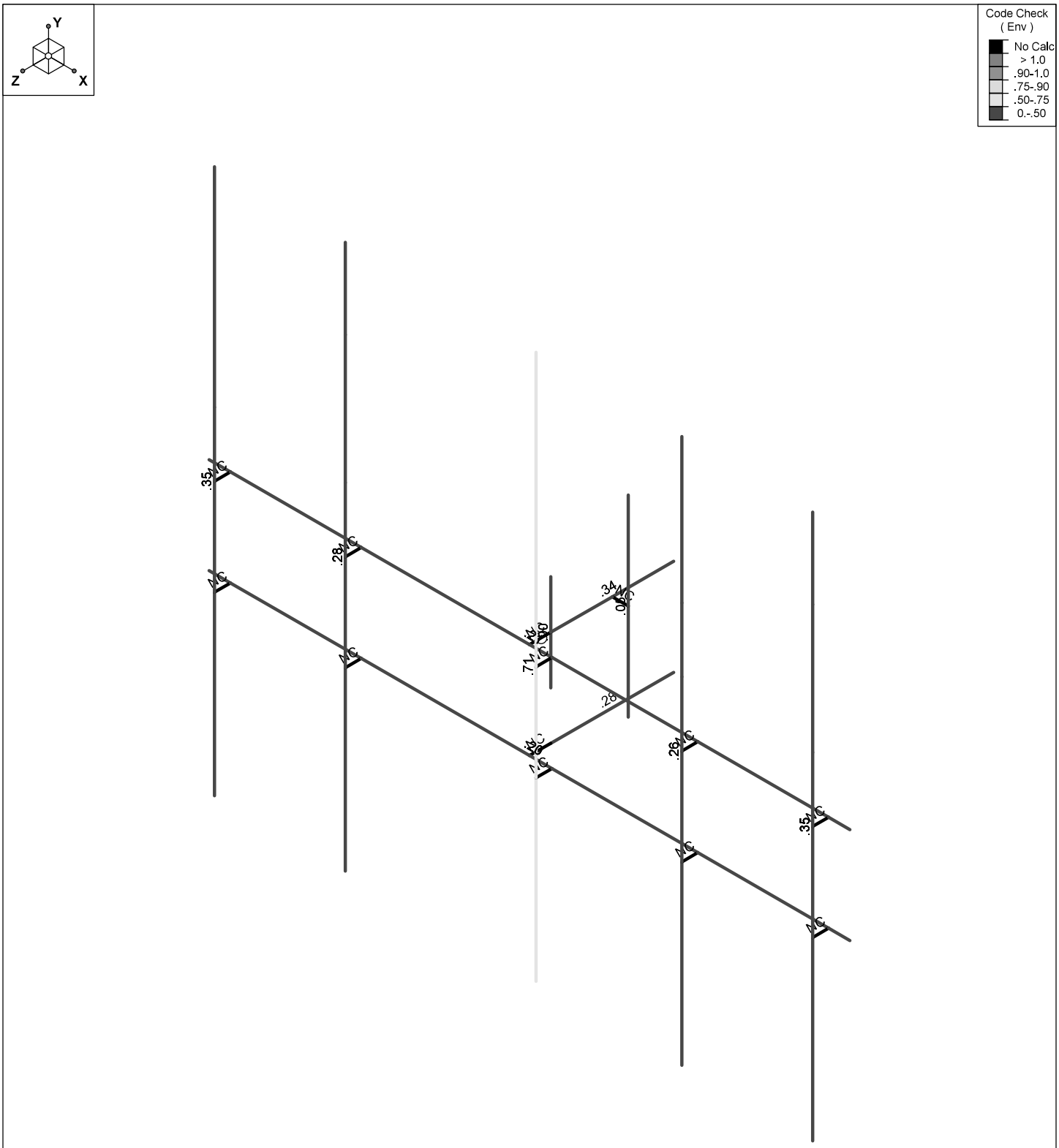
(5) PL 9½" x 13" x ½" w/ (4) 5/8"ø Bolts, 10½" C-C$_H$, 7" C-C$_V$

(6) PL 23¼" x 13" x ½" w/ (4) ¾"ø U-Bolts, 2½" ME Top & Bott, 2½" C-C

(7) PL 3" D x ½" TH x 8½" Long (welded) 1" ME Top & Bott, 5½" C-C

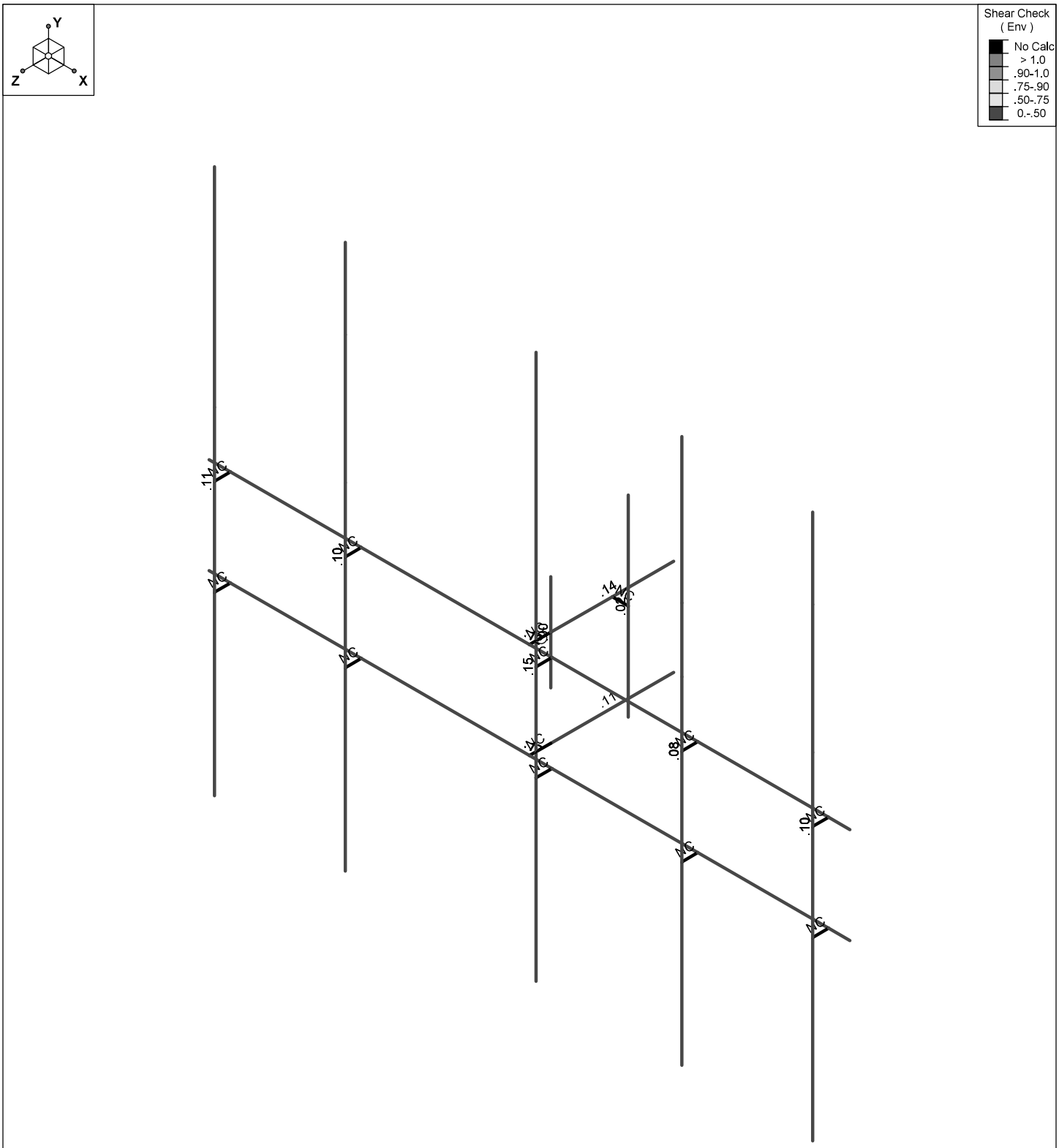


Maser Consulting	468044-VZW_MT_LOT_SectorC_H	SK - 1
		July 7, 2021 at 9:26 AM
		468044-VZW_MT_LOT_A_H - LO...



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

Maser Consulting	468044-VZW_MT_LOT_SectorC_H	SK - 2
		July 7, 2021 at 9:26 AM
		468044-VZW_MT_LOT_A_H - LO...



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

Maser Consulting	468044-VZW_MT_LOT_SectorC_H	SK - 3
		July 7, 2021 at 9:26 AM
		468044-VZW_MT_LOT_A_H - LO...

Basic Load Cases

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

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
57	Structure Wi (120 De...	None						22		
58	Structure Wi (150 De...	None						22		
59	Structure Wi (180 De...	None						22		
60	Structure Wi (210 De...	None						22		
61	Structure Wi (240 De...	None						22		
62	Structure Wi (270 De...	None						22		
63	Structure Wi (300 De...	None						22		
64	Structure Wi (330 De...	None						22		
65	Structure Wm (0 Deg)	None						22		
66	Structure Wm (30 De...	None						22		
67	Structure Wm (60 De...	None						22		
68	Structure Wm (90 De...	None						22		
69	Structure Wm (120 D...	None						22		
70	Structure Wm (150 D...	None						22		
71	Structure Wm (180 D...	None						22		
72	Structure Wm (210 D...	None						22		
73	Structure Wm (240 D...	None						22		
74	Structure Wm (270 D...	None						22		
75	Structure Wm (300 D...	None						22		
76	Structure Wm (330 D...	None						22		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			

Load Combinations

	Description	Sol...	PD...	SR...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
1	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								
20	1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								
22	1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										

Load Combinations (Continued)

	Description	Sol...	PD...	SR...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...	BLC	Fact...
29	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	79	1.5														
50	1.2D + 1.5...	Yes	Y		1	1.2	39	1.2	80	1.5														
51	1.4D	Yes	Y		1	1.4	39	1.4																
52	Seismic M...		Y		1	1	39	1																
53	1.2D + 1.0...		Y		1	1.2	39	1.2	SX		SY	1	SZ	-1										
54	1.2D + 1.0...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	-.866										
55	1.2D + 1.0...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5										
56	1.2D + 1.0...		Y		1	1.2	39	1.2	SX	1	SY	1	SZ											
57	1.2D + 1.0...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	.5										
58	1.2D + 1.0...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	.866										
59	1.2D + 1.0...		Y		1	1.2	39	1.2	SX		SY	1	SZ	1										
60	1.2D + 1.0...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866										
61	1.2D + 1.0...		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	.5										
62	1.2D + 1.0...		Y		1	1.2	39	1.2	SX	-1	SY	1	SZ											
63	1.2D + 1.0...		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	-.5										
64	1.2D + 1.0...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	-.866										

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	0	0	0.708333	0	
2	N3	0	0	2.625	0	
3	N4	0	0	2.958333	0	
4	N5	0	-.75	2.625	0	
5	N6	0	.75	2.625	0	
6	N7	5	0	2.958333	0	
7	N8	-5	0	2.958333	0	
8	N9	-4.666667	0	2.958333	0	
9	N11	4.666667	0	2.958333	0	
10	N12	-4.666667	0	3.208333	0	
11	N13	.35	0	3.208333	0	
12	N14	4.666667	0	3.208333	0	
13	N15	-4.666667	4.25	3.208333	0	
14	N16	.35	4.25	3.208333	0	
15	N17	4.666667	4.25	3.208333	0	
16	N18	-4.666667	-4.25	3.208333	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
17	N19	.35	-4.25	3.208333	0	
18	N20	4.666667	-4.25	3.208333	0	
19	N20A	0	0	1.666667	0	
20	N21	.25	0	1.666667	0	
21	N22	.25	1.5	1.666667	0	
22	N23	.25	-1.5	1.666667	0	
23	N24	2.625	0	2.958333	0	
24	N25	2.625	0	3.208333	0	
25	N26	2.625	4.25	3.208333	0	
26	N27	2.625	-4.25	3.208333	0	
27	N28	-2.625	0	2.958333	0	
28	N29	-2.625	0	3.208333	0	
29	N30	-2.625	4.25	3.208333	0	
30	N31	-2.625	-4.25	3.208333	0	
31	N31A	4.666667	1	3.208333	0	
32	N32	4.666667	3	3.208333	0	
33	N33	-4.666667	1	3.208333	0	
34	N35	2.625	1	3.208333	0	
35	N36	-2.625	1	3.208333	0	
36	N37	2.625	2	3.208333	0	
37	N38	-2.625	3	3.208333	0	
38	N39	0	-1.5	2.958333	0	
39	N40	5	-1.5	2.958333	0	
40	N41	-5	-1.5	2.958333	0	
41	N42	-4.666667	-1.5	2.958333	0	
42	N43	4.666667	-1.5	2.958333	0	
43	N44	-4.666667	-1.5	3.208333	0	
44	N45	.35	-1.5	3.208333	0	
45	N46	4.666667	-1.5	3.208333	0	
46	N47	2.625	-1.5	2.958333	0	
47	N48	2.625	-1.5	3.208333	0	
48	N49	-2.625	-1.5	2.958333	0	
49	N50	-2.625	-1.5	3.208333	0	
50	N51	0	-1.5	0.708333	0	
51	N52	0	-1.5	2.625	0	
52	N53	.35	0	2.958333	0	
53	N54	.35	-1.5	2.958333	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Face Horizontal	HSS4X4X4	Beam	SquareTube	A500 Gr. ...	Typical	3.37	7.8	7.8	12.8
3	Standoff Vertical	PIPE_4.0	Column	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
4	Standoff	HSS4X4X4	Beam	SquareTube	A500 Gr. ...	Typical	3.37	7.8	7.8	12.8
5	MOD STANDOFF	HSS3X3X4	Beam	SquareTube	A500 Gr. ...	Typical	2.44	3.02	3.02	5.08
6	Prop Antenna Pipe	PIPE_2.5	Beam	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
7	MOD FACE	PIPE_3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft...	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

Hot Rolled Steel Properties (Continued)

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...Density[k/ft...		Yield[ksi]	Ry	Fu[ksi]	Rt
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	M4	N6	N5			Standoff Vertical	Column	Pipe	A53 Gr. B	Typical
2	M3	N1	N3			Standoff	Beam	SquareTube	A500 Gr. ...	Typical
3	M1	N3	N4			RIGID	None	None	RIGID	Typical
4	M9	N9	N12			RIGID	None	None	RIGID	Typical
5	M10	N53	N13			RIGID	None	None	RIGID	Typical
6	M11	N11	N14			RIGID	None	None	RIGID	Typical
7	M11A	N20A	N21			RIGID	None	None	RIGID	Typical
8	M14	N24	N25			RIGID	None	None	RIGID	Typical
9	M16	N28	N29			RIGID	None	None	RIGID	Typical
10	M5	N8	N7			Face Horizontal	Beam	SquareTube	A500 Gr. ...	Typical
11	MP1A	N17	N20			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
12	MP3A	N16	N19			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
13	MP5A	N15	N18			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
14	M17	N22	N23			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
15	MP2A	N26	N27			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
16	MP4A	N30	N31			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
17	M17A	N42	N44			RIGID	None	None	RIGID	Typical
18	M18	N54	N45			RIGID	None	None	RIGID	Typical
19	M19	N43	N46			RIGID	None	None	RIGID	Typical
20	M20	N47	N48			RIGID	None	None	RIGID	Typical
21	M21	N49	N50			RIGID	None	None	RIGID	Typical
22	M22	N41	N40			MOD FACE	Beam	Pipe	A53 Gr. B	Typical
23	M23	N51	N52			MOD STAND...	Beam	SquareTube	A500 Gr. ...	Typical
24	M24	N52	N39			RIGID	None	None	RIGID	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
1	M4	Standoff Ve...	1.5			Lbyy						Lateral
2	M3	Standoff	1.917			Lbyy						Lateral
3	M5	Face Horizo..	10			Lbyy						Lateral
4	MP1A	Antenna Pipe	8.5			Lbyy						Lateral
5	MP3A	Antenna Pipe	8.5			Lbyy						Lateral
6	MP5A	Antenna Pipe	8.5			Lbyy						Lateral
7	M17	Antenna Pipe	3			Lbyy						Lateral
8	MP2A	Antenna Pipe	8.5			Lbyy						Lateral
9	MP4A	Antenna Pipe	8.5			Lbyy						Lateral
10	M22	MOD FACE	10			Lbyy						Lateral
11	M23	MOD STAN..	1.917			Lbyy						Lateral

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-13.5	1.25
2	MP1A	My	-.009	1.25
3	MP1A	Mz	0	1.25
4	MP1A	Y	-13.5	5.25
5	MP1A	My	-.009	5.25
6	MP1A	Mz	0	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP5A	Y	-13.5	1.25
8	MP5A	My	-.009	1.25
9	MP5A	Mz	0	1.25
10	MP5A	Y	-13.5	5.25
11	MP5A	My	-.009	5.25
12	MP5A	Mz	0	5.25
13	MP3A	Y	-36.93	1.25
14	MP3A	My	-.022	1.25
15	MP3A	Mz	.034	1.25
16	MP3A	Y	-36.93	5.25
17	MP3A	My	-.022	5.25
18	MP3A	Mz	.034	5.25
19	MP3A	Y	-36.93	1.25
20	MP3A	My	-.022	1.25
21	MP3A	Mz	-.034	1.25
22	MP3A	Y	-36.93	5.25
23	MP3A	My	-.022	5.25
24	MP3A	Mz	-.034	5.25
25	MP4A	Y	-43.55	2.25
26	MP4A	My	-.015	2.25
27	MP4A	Mz	0	2.25
28	MP4A	Y	-43.55	4.25
29	MP4A	My	-.015	4.25
30	MP4A	Mz	0	4.25
31	MP3A	Y	-10.4	7
32	MP3A	My	.003	7
33	MP3A	Mz	0	7
34	MP3A	Y	-84.4	1.5
35	MP3A	My	.056	1.5
36	MP3A	Mz	0	1.5
37	MP4A	Y	-70.3	1.5
38	MP4A	My	.047	1.5
39	MP4A	Mz	0	1.5
40	M17	Y	-32	1
41	M17	My	0	1
42	M17	Mz	0	1

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-80.467	1.25
2	MP1A	My	-.054	1.25
3	MP1A	Mz	0	1.25
4	MP1A	Y	-80.467	5.25
5	MP1A	My	-.054	5.25
6	MP1A	Mz	0	5.25
7	MP5A	Y	-80.467	1.25
8	MP5A	My	-.054	1.25
9	MP5A	Mz	0	1.25
10	MP5A	Y	-80.467	5.25
11	MP5A	My	-.054	5.25
12	MP5A	Mz	0	5.25
13	MP3A	Y	-55.968	1.25
14	MP3A	My	-.033	1.25
15	MP3A	Mz	.051	1.25
16	MP3A	Y	-55.968	5.25
17	MP3A	My	-.033	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP3A	Mz	.051	5.25
19	MP3A	Y	-55.968	1.25
20	MP3A	My	-.033	1.25
21	MP3A	Mz	-.051	1.25
22	MP3A	Y	-55.968	5.25
23	MP3A	My	-.033	5.25
24	MP3A	Mz	-.051	5.25
25	MP4A	Y	-32.218	2.25
26	MP4A	My	-.011	2.25
27	MP4A	Mz	0	2.25
28	MP4A	Y	-32.218	4.25
29	MP4A	My	-.011	4.25
30	MP4A	Mz	0	4.25
31	MP3A	Y	-9.588	7
32	MP3A	My	.003	7
33	MP3A	Mz	0	7
34	MP3A	Y	-40.562	1.5
35	MP3A	My	.027	1.5
36	MP3A	Mz	0	1.5
37	MP4A	Y	-36.452	1.5
38	MP4A	My	.024	1.5
39	MP4A	Mz	0	1.5
40	M17	Y	-79.66	1
41	M17	My	0	1
42	M17	Mz	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	1.25
2	MP1A	Z	-182.808	1.25
3	MP1A	Mx	0	1.25
4	MP1A	X	0	5.25
5	MP1A	Z	-182.808	5.25
6	MP1A	Mx	0	5.25
7	MP5A	X	0	1.25
8	MP5A	Z	-182.808	1.25
9	MP5A	Mx	0	1.25
10	MP5A	X	0	5.25
11	MP5A	Z	-182.808	5.25
12	MP5A	Mx	0	5.25
13	MP3A	X	0	1.25
14	MP3A	Z	-170.431	1.25
15	MP3A	Mx	-.156	1.25
16	MP3A	X	0	5.25
17	MP3A	Z	-170.431	5.25
18	MP3A	Mx	-.156	5.25
19	MP3A	X	0	1.25
20	MP3A	Z	-170.431	1.25
21	MP3A	Mx	.156	1.25
22	MP3A	X	0	5.25
23	MP3A	Z	-170.431	5.25
24	MP3A	Mx	.156	5.25
25	MP4A	X	0	2.25
26	MP4A	Z	-89.5	2.25
27	MP4A	Mx	0	2.25
28	MP4A	X	0	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP4A	Z	-89.5	4.25
30	MP4A	Mx	0	4.25
31	MP3A	X	0	7
32	MP3A	Z	-14.091	7
33	MP3A	Mx	0	7
34	MP3A	X	0	1.5
35	MP3A	Z	-71.219	1.5
36	MP3A	Mx	0	1.5
37	MP4A	X	0	1.5
38	MP4A	Z	-71.219	1.5
39	MP4A	Mx	0	1.5
40	M17	X	0	1
41	M17	Z	-139.48	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	88.964	1.25
2	MP1A	Z	-154.09	1.25
3	MP1A	Mx	-.059	1.25
4	MP1A	X	88.964	5.25
5	MP1A	Z	-154.09	5.25
6	MP1A	Mx	-.059	5.25
7	MP5A	X	88.964	1.25
8	MP5A	Z	-154.09	1.25
9	MP5A	Mx	-.059	1.25
10	MP5A	X	88.964	5.25
11	MP5A	Z	-154.09	5.25
12	MP5A	Mx	-.059	5.25
13	MP3A	X	73.029	1.25
14	MP3A	Z	-126.49	1.25
15	MP3A	Mx	-.159	1.25
16	MP3A	X	73.029	5.25
17	MP3A	Z	-126.49	5.25
18	MP3A	Mx	-.159	5.25
19	MP3A	X	73.029	1.25
20	MP3A	Z	-126.49	1.25
21	MP3A	Mx	.073	1.25
22	MP3A	X	73.029	5.25
23	MP3A	Z	-126.49	5.25
24	MP3A	Mx	.073	5.25
25	MP4A	X	37.942	2.25
26	MP4A	Z	-65.718	2.25
27	MP4A	Mx	-.013	2.25
28	MP4A	X	37.942	4.25
29	MP4A	Z	-65.718	4.25
30	MP4A	Mx	-.013	4.25
31	MP3A	X	6.503	7
32	MP3A	Z	-11.264	7
33	MP3A	Mx	.002	7
34	MP3A	X	32.658	1.5
35	MP3A	Z	-56.565	1.5
36	MP3A	Mx	.022	1.5
37	MP4A	X	31.527	1.5
38	MP4A	Z	-54.607	1.5
39	MP4A	Mx	.021	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	M17	X	61.128	1
41	M17	Z	-105.877	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	145.636	1.25
2	MP1A	Z	-84.083	1.25
3	MP1A	Mx	-.097	1.25
4	MP1A	X	145.636	5.25
5	MP1A	Z	-84.083	5.25
6	MP1A	Mx	-.097	5.25
7	MP5A	X	145.636	1.25
8	MP5A	Z	-84.083	1.25
9	MP5A	Mx	-.097	1.25
10	MP5A	X	145.636	5.25
11	MP5A	Z	-84.083	5.25
12	MP5A	Mx	-.097	5.25
13	MP3A	X	84.277	1.25
14	MP3A	Z	-48.657	1.25
15	MP3A	Mx	-.094	1.25
16	MP3A	X	84.277	5.25
17	MP3A	Z	-48.657	5.25
18	MP3A	Mx	-.094	5.25
19	MP3A	X	84.277	1.25
20	MP3A	Z	-48.657	1.25
21	MP3A	Mx	-.005	1.25
22	MP3A	X	84.277	5.25
23	MP3A	Z	-48.657	5.25
24	MP3A	Mx	-.005	5.25
25	MP4A	X	42.136	2.25
26	MP4A	Z	-24.327	2.25
27	MP4A	Mx	-.014	2.25
28	MP4A	X	42.136	4.25
29	MP4A	Z	-24.327	4.25
30	MP4A	Mx	-.014	4.25
31	MP3A	X	9.384	7
32	MP3A	Z	-5.418	7
33	MP3A	Mx	.003	7
34	MP3A	X	46.341	1.5
35	MP3A	Z	-26.755	1.5
36	MP3A	Mx	.031	1.5
37	MP4A	X	40.466	1.5
38	MP4A	Z	-23.363	1.5
39	MP4A	Mx	.027	1.5
40	M17	X	103.121	1
41	M17	Z	-59.537	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	163.285	1.25
2	MP1A	Z	0	1.25
3	MP1A	Mx	-.109	1.25
4	MP1A	X	163.285	5.25
5	MP1A	Z	0	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP1A	Mx	-.109	5.25
7	MP5A	X	163.285	1.25
8	MP5A	Z	0	1.25
9	MP5A	Mx	-.109	1.25
10	MP5A	X	163.285	5.25
11	MP5A	Z	0	5.25
12	MP5A	Mx	-.109	5.25
13	MP3A	X	72.942	1.25
14	MP3A	Z	0	1.25
15	MP3A	Mx	-.043	1.25
16	MP3A	X	72.942	5.25
17	MP3A	Z	0	5.25
18	MP3A	Mx	-.043	5.25
19	MP3A	X	72.942	1.25
20	MP3A	Z	0	1.25
21	MP3A	Mx	-.043	1.25
22	MP3A	X	72.942	5.25
23	MP3A	Z	0	5.25
24	MP3A	Mx	-.043	5.25
25	MP4A	X	35.039	2.25
26	MP4A	Z	0	2.25
27	MP4A	Mx	-.012	2.25
28	MP4A	X	35.039	4.25
29	MP4A	Z	0	4.25
30	MP4A	Mx	-.012	4.25
31	MP3A	X	9.75	7
32	MP3A	Z	0	7
33	MP3A	Mx	.003	7
34	MP3A	X	47.606	1.5
35	MP3A	Z	0	1.5
36	MP3A	Mx	.032	1.5
37	MP4A	X	38.561	1.5
38	MP4A	Z	0	1.5
39	MP4A	Mx	.026	1.5
40	M17	X	133.114	1
41	M17	Z	0	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	145.636	1.25
2	MP1A	Z	84.083	1.25
3	MP1A	Mx	-.097	1.25
4	MP1A	X	145.636	5.25
5	MP1A	Z	84.083	5.25
6	MP1A	Mx	-.097	5.25
7	MP5A	X	145.636	1.25
8	MP5A	Z	84.083	1.25
9	MP5A	Mx	-.097	1.25
10	MP5A	X	145.636	5.25
11	MP5A	Z	84.083	5.25
12	MP5A	Mx	-.097	5.25
13	MP3A	X	84.277	1.25
14	MP3A	Z	48.657	1.25
15	MP3A	Mx	-.005	1.25
16	MP3A	X	84.277	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP3A	Z	48.657	5.25
18	MP3A	Mx	-.005	5.25
19	MP3A	X	84.277	1.25
20	MP3A	Z	48.657	1.25
21	MP3A	Mx	-.094	1.25
22	MP3A	X	84.277	5.25
23	MP3A	Z	48.657	5.25
24	MP3A	Mx	-.094	5.25
25	MP4A	X	42.136	2.25
26	MP4A	Z	24.327	2.25
27	MP4A	Mx	-.014	2.25
28	MP4A	X	42.136	4.25
29	MP4A	Z	24.327	4.25
30	MP4A	Mx	-.014	4.25
31	MP3A	X	9.384	7
32	MP3A	Z	5.418	7
33	MP3A	Mx	.003	7
34	MP3A	X	46.341	1.5
35	MP3A	Z	26.755	1.5
36	MP3A	Mx	.031	1.5
37	MP4A	X	40.466	1.5
38	MP4A	Z	23.363	1.5
39	MP4A	Mx	.027	1.5
40	M17	X	130.196	1
41	M17	Z	75.169	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	88.964	1.25
2	MP1A	Z	154.09	1.25
3	MP1A	Mx	-.059	1.25
4	MP1A	X	88.964	5.25
5	MP1A	Z	154.09	5.25
6	MP1A	Mx	-.059	5.25
7	MP5A	X	88.964	1.25
8	MP5A	Z	154.09	1.25
9	MP5A	Mx	-.059	1.25
10	MP5A	X	88.964	5.25
11	MP5A	Z	154.09	5.25
12	MP5A	Mx	-.059	5.25
13	MP3A	X	73.029	1.25
14	MP3A	Z	126.49	1.25
15	MP3A	Mx	.073	1.25
16	MP3A	X	73.029	5.25
17	MP3A	Z	126.49	5.25
18	MP3A	Mx	.073	5.25
19	MP3A	X	73.029	1.25
20	MP3A	Z	126.49	1.25
21	MP3A	Mx	-.159	1.25
22	MP3A	X	73.029	5.25
23	MP3A	Z	126.49	5.25
24	MP3A	Mx	-.159	5.25
25	MP4A	X	37.942	2.25
26	MP4A	Z	65.718	2.25
27	MP4A	Mx	-.013	2.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP4A	X	37.942	4.25
29	MP4A	Z	65.718	4.25
30	MP4A	Mx	-.013	4.25
31	MP3A	X	6.503	7
32	MP3A	Z	11.264	7
33	MP3A	Mx	.002	7
34	MP3A	X	32.658	1.5
35	MP3A	Z	56.565	1.5
36	MP3A	Mx	.022	1.5
37	MP4A	X	31.527	1.5
38	MP4A	Z	54.607	1.5
39	MP4A	Mx	.021	1.5
40	M17	X	76.76	1
41	M17	Z	132.952	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	1.25
2	MP1A	Z	182.808	1.25
3	MP1A	Mx	0	1.25
4	MP1A	X	0	5.25
5	MP1A	Z	182.808	5.25
6	MP1A	Mx	0	5.25
7	MP5A	X	0	1.25
8	MP5A	Z	182.808	1.25
9	MP5A	Mx	0	1.25
10	MP5A	X	0	5.25
11	MP5A	Z	182.808	5.25
12	MP5A	Mx	0	5.25
13	MP3A	X	0	1.25
14	MP3A	Z	170.431	1.25
15	MP3A	Mx	.156	1.25
16	MP3A	X	0	5.25
17	MP3A	Z	170.431	5.25
18	MP3A	Mx	.156	5.25
19	MP3A	X	0	1.25
20	MP3A	Z	170.431	1.25
21	MP3A	Mx	-.156	1.25
22	MP3A	X	0	5.25
23	MP3A	Z	170.431	5.25
24	MP3A	Mx	-.156	5.25
25	MP4A	X	0	2.25
26	MP4A	Z	89.5	2.25
27	MP4A	Mx	0	2.25
28	MP4A	X	0	4.25
29	MP4A	Z	89.5	4.25
30	MP4A	Mx	0	4.25
31	MP3A	X	0	7
32	MP3A	Z	14.091	7
33	MP3A	Mx	0	7
34	MP3A	X	0	1.5
35	MP3A	Z	71.219	1.5
36	MP3A	Mx	0	1.5
37	MP4A	X	0	1.5
38	MP4A	Z	71.219	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
39	MP4A	Mx	0	1.5
40	M17	X	0	1
41	M17	Z	139.48	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-88.964	1.25
2	MP1A	Z	154.09	1.25
3	MP1A	Mx	.059	1.25
4	MP1A	X	-88.964	5.25
5	MP1A	Z	154.09	5.25
6	MP1A	Mx	.059	5.25
7	MP5A	X	-88.964	1.25
8	MP5A	Z	154.09	1.25
9	MP5A	Mx	.059	1.25
10	MP5A	X	-88.964	5.25
11	MP5A	Z	154.09	5.25
12	MP5A	Mx	.059	5.25
13	MP3A	X	-73.029	1.25
14	MP3A	Z	126.49	1.25
15	MP3A	Mx	.159	1.25
16	MP3A	X	-73.029	5.25
17	MP3A	Z	126.49	5.25
18	MP3A	Mx	.159	5.25
19	MP3A	X	-73.029	1.25
20	MP3A	Z	126.49	1.25
21	MP3A	Mx	-.073	1.25
22	MP3A	X	-73.029	5.25
23	MP3A	Z	126.49	5.25
24	MP3A	Mx	-.073	5.25
25	MP4A	X	-37.942	2.25
26	MP4A	Z	65.718	2.25
27	MP4A	Mx	.013	2.25
28	MP4A	X	-37.942	4.25
29	MP4A	Z	65.718	4.25
30	MP4A	Mx	.013	4.25
31	MP3A	X	-6.503	7
32	MP3A	Z	11.264	7
33	MP3A	Mx	-.002	7
34	MP3A	X	-32.658	1.5
35	MP3A	Z	56.565	1.5
36	MP3A	Mx	-.022	1.5
37	MP4A	X	-31.527	1.5
38	MP4A	Z	54.607	1.5
39	MP4A	Mx	-.021	1.5
40	M17	X	-61.128	1
41	M17	Z	105.877	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-145.636	1.25
2	MP1A	Z	84.083	1.25
3	MP1A	Mx	.097	1.25
4	MP1A	X	-145.636	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP1A	Z	84.083	5.25
6	MP1A	Mx	.097	5.25
7	MP5A	X	-145.636	1.25
8	MP5A	Z	84.083	1.25
9	MP5A	Mx	.097	1.25
10	MP5A	X	-145.636	5.25
11	MP5A	Z	84.083	5.25
12	MP5A	Mx	.097	5.25
13	MP3A	X	-84.277	1.25
14	MP3A	Z	48.657	1.25
15	MP3A	Mx	.094	1.25
16	MP3A	X	-84.277	5.25
17	MP3A	Z	48.657	5.25
18	MP3A	Mx	.094	5.25
19	MP3A	X	-84.277	1.25
20	MP3A	Z	48.657	1.25
21	MP3A	Mx	.005	1.25
22	MP3A	X	-84.277	5.25
23	MP3A	Z	48.657	5.25
24	MP3A	Mx	.005	5.25
25	MP4A	X	-42.136	2.25
26	MP4A	Z	24.327	2.25
27	MP4A	Mx	.014	2.25
28	MP4A	X	-42.136	4.25
29	MP4A	Z	24.327	4.25
30	MP4A	Mx	.014	4.25
31	MP3A	X	-9.384	7
32	MP3A	Z	5.418	7
33	MP3A	Mx	-.003	7
34	MP3A	X	-46.341	1.5
35	MP3A	Z	26.755	1.5
36	MP3A	Mx	-.031	1.5
37	MP4A	X	-40.466	1.5
38	MP4A	Z	23.363	1.5
39	MP4A	Mx	-.027	1.5
40	M17	X	-103.121	1
41	M17	Z	59.537	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-163.285	1.25
2	MP1A	Z	0	1.25
3	MP1A	Mx	.109	1.25
4	MP1A	X	-163.285	5.25
5	MP1A	Z	0	5.25
6	MP1A	Mx	.109	5.25
7	MP5A	X	-163.285	1.25
8	MP5A	Z	0	1.25
9	MP5A	Mx	.109	1.25
10	MP5A	X	-163.285	5.25
11	MP5A	Z	0	5.25
12	MP5A	Mx	.109	5.25
13	MP3A	X	-72.942	1.25
14	MP3A	Z	0	1.25
15	MP3A	Mx	.043	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	MP3A	X	-72.942	5.25
17	MP3A	Z	0	5.25
18	MP3A	Mx	.043	5.25
19	MP3A	X	-72.942	1.25
20	MP3A	Z	0	1.25
21	MP3A	Mx	.043	1.25
22	MP3A	X	-72.942	5.25
23	MP3A	Z	0	5.25
24	MP3A	Mx	.043	5.25
25	MP4A	X	-35.039	2.25
26	MP4A	Z	0	2.25
27	MP4A	Mx	.012	2.25
28	MP4A	X	-35.039	4.25
29	MP4A	Z	0	4.25
30	MP4A	Mx	.012	4.25
31	MP3A	X	-9.75	7
32	MP3A	Z	0	7
33	MP3A	Mx	-.003	7
34	MP3A	X	-47.606	1.5
35	MP3A	Z	0	1.5
36	MP3A	Mx	-.032	1.5
37	MP4A	X	-38.561	1.5
38	MP4A	Z	0	1.5
39	MP4A	Mx	-.026	1.5
40	M17	X	-133.114	1
41	M17	Z	0	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-145.636	1.25
2	MP1A	Z	-84.083	1.25
3	MP1A	Mx	.097	1.25
4	MP1A	X	-145.636	5.25
5	MP1A	Z	-84.083	5.25
6	MP1A	Mx	.097	5.25
7	MP5A	X	-145.636	1.25
8	MP5A	Z	-84.083	1.25
9	MP5A	Mx	.097	1.25
10	MP5A	X	-145.636	5.25
11	MP5A	Z	-84.083	5.25
12	MP5A	Mx	.097	5.25
13	MP3A	X	-84.277	1.25
14	MP3A	Z	-48.657	1.25
15	MP3A	Mx	.005	1.25
16	MP3A	X	-84.277	5.25
17	MP3A	Z	-48.657	5.25
18	MP3A	Mx	.005	5.25
19	MP3A	X	-84.277	1.25
20	MP3A	Z	-48.657	1.25
21	MP3A	Mx	.094	1.25
22	MP3A	X	-84.277	5.25
23	MP3A	Z	-48.657	5.25
24	MP3A	Mx	.094	5.25
25	MP4A	X	-42.136	2.25
26	MP4A	Z	-24.327	2.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP4A	Mx	.014	2.25
28	MP4A	X	-42.136	4.25
29	MP4A	Z	-24.327	4.25
30	MP4A	Mx	.014	4.25
31	MP3A	X	-9.384	7
32	MP3A	Z	-5.418	7
33	MP3A	Mx	-.003	7
34	MP3A	X	-46.341	1.5
35	MP3A	Z	-26.755	1.5
36	MP3A	Mx	-.031	1.5
37	MP4A	X	-40.466	1.5
38	MP4A	Z	-23.363	1.5
39	MP4A	Mx	-.027	1.5
40	M17	X	-130.196	1
41	M17	Z	-75.169	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-88.964	1.25
2	MP1A	Z	-154.09	1.25
3	MP1A	Mx	.059	1.25
4	MP1A	X	-88.964	5.25
5	MP1A	Z	-154.09	5.25
6	MP1A	Mx	.059	5.25
7	MP5A	X	-88.964	1.25
8	MP5A	Z	-154.09	1.25
9	MP5A	Mx	.059	1.25
10	MP5A	X	-88.964	5.25
11	MP5A	Z	-154.09	5.25
12	MP5A	Mx	.059	5.25
13	MP3A	X	-73.029	1.25
14	MP3A	Z	-126.49	1.25
15	MP3A	Mx	-.073	1.25
16	MP3A	X	-73.029	5.25
17	MP3A	Z	-126.49	5.25
18	MP3A	Mx	-.073	5.25
19	MP3A	X	-73.029	1.25
20	MP3A	Z	-126.49	1.25
21	MP3A	Mx	.159	1.25
22	MP3A	X	-73.029	5.25
23	MP3A	Z	-126.49	5.25
24	MP3A	Mx	.159	5.25
25	MP4A	X	-37.942	2.25
26	MP4A	Z	-65.718	2.25
27	MP4A	Mx	.013	2.25
28	MP4A	X	-37.942	4.25
29	MP4A	Z	-65.718	4.25
30	MP4A	Mx	.013	4.25
31	MP3A	X	-6.503	7
32	MP3A	Z	-11.264	7
33	MP3A	Mx	-.002	7
34	MP3A	X	-32.658	1.5
35	MP3A	Z	-56.565	1.5
36	MP3A	Mx	-.022	1.5
37	MP4A	X	-31.527	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP4A	Z	-54.607	1.5
39	MP4A	Mx	-.021	1.5
40	M17	X	-76.76	1
41	M17	Z	-132.952	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	1.25
2	MP1A	Z	-36.778	1.25
3	MP1A	Mx	0	1.25
4	MP1A	X	0	5.25
5	MP1A	Z	-36.778	5.25
6	MP1A	Mx	0	5.25
7	MP5A	X	0	1.25
8	MP5A	Z	-36.778	1.25
9	MP5A	Mx	0	1.25
10	MP5A	X	0	5.25
11	MP5A	Z	-36.778	5.25
12	MP5A	Mx	0	5.25
13	MP3A	X	0	1.25
14	MP3A	Z	-32.344	1.25
15	MP3A	Mx	-.03	1.25
16	MP3A	X	0	5.25
17	MP3A	Z	-32.344	5.25
18	MP3A	Mx	-.03	5.25
19	MP3A	X	0	1.25
20	MP3A	Z	-32.344	1.25
21	MP3A	Mx	.03	1.25
22	MP3A	X	0	5.25
23	MP3A	Z	-32.344	5.25
24	MP3A	Mx	.03	5.25
25	MP4A	X	0	2.25
26	MP4A	Z	-18.594	2.25
27	MP4A	Mx	0	2.25
28	MP4A	X	0	4.25
29	MP4A	Z	-18.594	4.25
30	MP4A	Mx	0	4.25
31	MP3A	X	0	7
32	MP3A	Z	-3.721	7
33	MP3A	Mx	0	7
34	MP3A	X	0	1.5
35	MP3A	Z	-15.596	1.5
36	MP3A	Mx	0	1.5
37	MP4A	X	0	1.5
38	MP4A	Z	-15.596	1.5
39	MP4A	Mx	0	1.5
40	M17	X	0	1
41	M17	Z	-29.271	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	17.925	1.25
2	MP1A	Z	-31.047	1.25
3	MP1A	Mx	-.012	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP1A	X	17.925	5.25
5	MP1A	Z	-31.047	5.25
6	MP1A	Mx	-.012	5.25
7	MP5A	X	17.925	1.25
8	MP5A	Z	-31.047	1.25
9	MP5A	Mx	-.012	1.25
10	MP5A	X	17.925	5.25
11	MP5A	Z	-31.047	5.25
12	MP5A	Mx	-.012	5.25
13	MP3A	X	14.077	1.25
14	MP3A	Z	-24.381	1.25
15	MP3A	Mx	-.031	1.25
16	MP3A	X	14.077	5.25
17	MP3A	Z	-24.381	5.25
18	MP3A	Mx	-.031	5.25
19	MP3A	X	14.077	1.25
20	MP3A	Z	-24.381	1.25
21	MP3A	Mx	.014	1.25
22	MP3A	X	14.077	5.25
23	MP3A	Z	-24.381	5.25
24	MP3A	Mx	.014	5.25
25	MP4A	X	7.956	2.25
26	MP4A	Z	-13.779	2.25
27	MP4A	Mx	-.003	2.25
28	MP4A	X	7.956	4.25
29	MP4A	Z	-13.779	4.25
30	MP4A	Mx	-.003	4.25
31	MP3A	X	1.743	7
32	MP3A	Z	-3.018	7
33	MP3A	Mx	.000581	7
34	MP3A	X	7.2	1.5
35	MP3A	Z	-12.471	1.5
36	MP3A	Mx	.005	1.5
37	MP4A	X	6.973	1.5
38	MP4A	Z	-12.077	1.5
39	MP4A	Mx	.005	1.5
40	M17	X	12.975	1
41	M17	Z	-22.474	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	29.44	1.25
2	MP1A	Z	-16.997	1.25
3	MP1A	Mx	-.02	1.25
4	MP1A	X	29.44	5.25
5	MP1A	Z	-16.997	5.25
6	MP1A	Mx	-.02	5.25
7	MP5A	X	29.44	1.25
8	MP5A	Z	-16.997	1.25
9	MP5A	Mx	-.02	1.25
10	MP5A	X	29.44	5.25
11	MP5A	Z	-16.997	5.25
12	MP5A	Mx	-.02	5.25
13	MP3A	X	17.123	1.25
14	MP3A	Z	-9.886	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
15	MP3A	Mx	-.019	1.25
16	MP3A	X	17.123	5.25
17	MP3A	Z	-9.886	5.25
18	MP3A	Mx	-.019	5.25
19	MP3A	X	17.123	1.25
20	MP3A	Z	-9.886	1.25
21	MP3A	Mx	-.000926	1.25
22	MP3A	X	17.123	5.25
23	MP3A	Z	-9.886	5.25
24	MP3A	Mx	-.000926	5.25
25	MP4A	X	9.132	2.25
26	MP4A	Z	-5.272	2.25
27	MP4A	Mx	-.003	2.25
28	MP4A	X	9.132	4.25
29	MP4A	Z	-5.272	4.25
30	MP4A	Mx	-.003	4.25
31	MP3A	X	2.609	7
32	MP3A	Z	-1.506	7
33	MP3A	Mx	.00087	7
34	MP3A	X	10.399	1.5
35	MP3A	Z	-6.004	1.5
36	MP3A	Mx	.007	1.5
37	MP4A	X	9.218	1.5
38	MP4A	Z	-5.322	1.5
39	MP4A	Mx	.006	1.5
40	M17	X	21.942	1
41	M17	Z	-12.668	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	33.067	1.25
2	MP1A	Z	0	1.25
3	MP1A	Mx	-.022	1.25
4	MP1A	X	33.067	5.25
5	MP1A	Z	0	5.25
6	MP1A	Mx	-.022	5.25
7	MP5A	X	33.067	1.25
8	MP5A	Z	0	1.25
9	MP5A	Mx	-.022	1.25
10	MP5A	X	33.067	5.25
11	MP5A	Z	0	5.25
12	MP5A	Mx	-.022	5.25
13	MP3A	X	15.581	1.25
14	MP3A	Z	0	1.25
15	MP3A	Mx	-.009	1.25
16	MP3A	X	15.581	5.25
17	MP3A	Z	0	5.25
18	MP3A	Mx	-.009	5.25
19	MP3A	X	15.581	1.25
20	MP3A	Z	0	1.25
21	MP3A	Mx	-.009	1.25
22	MP3A	X	15.581	5.25
23	MP3A	Z	0	5.25
24	MP3A	Mx	-.009	5.25
25	MP4A	X	7.862	2.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP4A	Z	0	2.25
27	MP4A	Mx	-.003	2.25
28	MP4A	X	7.862	4.25
29	MP4A	Z	0	4.25
30	MP4A	Mx	-.003	4.25
31	MP3A	X	2.777	7
32	MP3A	Z	0	7
33	MP3A	Mx	.000926	7
34	MP3A	X	10.811	1.5
35	MP3A	Z	0	1.5
36	MP3A	Mx	.007	1.5
37	MP4A	X	8.993	1.5
38	MP4A	Z	0	1.5
39	MP4A	Mx	.006	1.5
40	M17	X	28.044	1
41	M17	Z	0	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	29.44	1.25
2	MP1A	Z	16.997	1.25
3	MP1A	Mx	-.02	1.25
4	MP1A	X	29.44	5.25
5	MP1A	Z	16.997	5.25
6	MP1A	Mx	-.02	5.25
7	MP5A	X	29.44	1.25
8	MP5A	Z	16.997	1.25
9	MP5A	Mx	-.02	1.25
10	MP5A	X	29.44	5.25
11	MP5A	Z	16.997	5.25
12	MP5A	Mx	-.02	5.25
13	MP3A	X	17.123	1.25
14	MP3A	Z	9.886	1.25
15	MP3A	Mx	-.000926	1.25
16	MP3A	X	17.123	5.25
17	MP3A	Z	9.886	5.25
18	MP3A	Mx	-.000926	5.25
19	MP3A	X	17.123	1.25
20	MP3A	Z	9.886	1.25
21	MP3A	Mx	-.019	1.25
22	MP3A	X	17.123	5.25
23	MP3A	Z	9.886	5.25
24	MP3A	Mx	-.019	5.25
25	MP4A	X	9.132	2.25
26	MP4A	Z	5.272	2.25
27	MP4A	Mx	-.003	2.25
28	MP4A	X	9.132	4.25
29	MP4A	Z	5.272	4.25
30	MP4A	Mx	-.003	4.25
31	MP3A	X	2.609	7
32	MP3A	Z	1.506	7
33	MP3A	Mx	.00087	7
34	MP3A	X	10.399	1.5
35	MP3A	Z	6.004	1.5
36	MP3A	Mx	.007	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
37	MP4A	X	9.218	1.5
38	MP4A	Z	5.322	1.5
39	MP4A	Mx	.006	1.5
40	M17	X	27.162	1
41	M17	Z	15.682	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	17.925	1.25
2	MP1A	Z	31.047	1.25
3	MP1A	Mx	-.012	1.25
4	MP1A	X	17.925	5.25
5	MP1A	Z	31.047	5.25
6	MP1A	Mx	-.012	5.25
7	MP5A	X	17.925	1.25
8	MP5A	Z	31.047	1.25
9	MP5A	Mx	-.012	1.25
10	MP5A	X	17.925	5.25
11	MP5A	Z	31.047	5.25
12	MP5A	Mx	-.012	5.25
13	MP3A	X	14.077	1.25
14	MP3A	Z	24.381	1.25
15	MP3A	Mx	.014	1.25
16	MP3A	X	14.077	5.25
17	MP3A	Z	24.381	5.25
18	MP3A	Mx	.014	5.25
19	MP3A	X	14.077	1.25
20	MP3A	Z	24.381	1.25
21	MP3A	Mx	-.031	1.25
22	MP3A	X	14.077	5.25
23	MP3A	Z	24.381	5.25
24	MP3A	Mx	-.031	5.25
25	MP4A	X	7.956	2.25
26	MP4A	Z	13.779	2.25
27	MP4A	Mx	-.003	2.25
28	MP4A	X	7.956	4.25
29	MP4A	Z	13.779	4.25
30	MP4A	Mx	-.003	4.25
31	MP3A	X	1.743	7
32	MP3A	Z	3.018	7
33	MP3A	Mx	.000581	7
34	MP3A	X	7.2	1.5
35	MP3A	Z	12.471	1.5
36	MP3A	Mx	.005	1.5
37	MP4A	X	6.973	1.5
38	MP4A	Z	12.077	1.5
39	MP4A	Mx	.005	1.5
40	M17	X	15.989	1
41	M17	Z	27.693	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	1.25
2	MP1A	Z	36.778	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
3	MP1A	Mx	0	1.25
4	MP1A	X	0	5.25
5	MP1A	Z	36.778	5.25
6	MP1A	Mx	0	5.25
7	MP5A	X	0	1.25
8	MP5A	Z	36.778	1.25
9	MP5A	Mx	0	1.25
10	MP5A	X	0	5.25
11	MP5A	Z	36.778	5.25
12	MP5A	Mx	0	5.25
13	MP3A	X	0	1.25
14	MP3A	Z	32.344	1.25
15	MP3A	Mx	.03	1.25
16	MP3A	X	0	5.25
17	MP3A	Z	32.344	5.25
18	MP3A	Mx	.03	5.25
19	MP3A	X	0	1.25
20	MP3A	Z	32.344	1.25
21	MP3A	Mx	-.03	1.25
22	MP3A	X	0	5.25
23	MP3A	Z	32.344	5.25
24	MP3A	Mx	-.03	5.25
25	MP4A	X	0	2.25
26	MP4A	Z	18.594	2.25
27	MP4A	Mx	0	2.25
28	MP4A	X	0	4.25
29	MP4A	Z	18.594	4.25
30	MP4A	Mx	0	4.25
31	MP3A	X	0	7
32	MP3A	Z	3.721	7
33	MP3A	Mx	0	7
34	MP3A	X	0	1.5
35	MP3A	Z	15.596	1.5
36	MP3A	Mx	0	1.5
37	MP4A	X	0	1.5
38	MP4A	Z	15.596	1.5
39	MP4A	Mx	0	1.5
40	M17	X	0	1
41	M17	Z	29.271	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-17.925	1.25
2	MP1A	Z	31.047	1.25
3	MP1A	Mx	.012	1.25
4	MP1A	X	-17.925	5.25
5	MP1A	Z	31.047	5.25
6	MP1A	Mx	.012	5.25
7	MP5A	X	-17.925	1.25
8	MP5A	Z	31.047	1.25
9	MP5A	Mx	.012	1.25
10	MP5A	X	-17.925	5.25
11	MP5A	Z	31.047	5.25
12	MP5A	Mx	.012	5.25
13	MP3A	X	-14.077	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP3A	Z	24.381	1.25
15	MP3A	Mx	.031	1.25
16	MP3A	X	-14.077	5.25
17	MP3A	Z	24.381	5.25
18	MP3A	Mx	.031	5.25
19	MP3A	X	-14.077	1.25
20	MP3A	Z	24.381	1.25
21	MP3A	Mx	-.014	1.25
22	MP3A	X	-14.077	5.25
23	MP3A	Z	24.381	5.25
24	MP3A	Mx	-.014	5.25
25	MP4A	X	-7.956	2.25
26	MP4A	Z	13.779	2.25
27	MP4A	Mx	.003	2.25
28	MP4A	X	-7.956	4.25
29	MP4A	Z	13.779	4.25
30	MP4A	Mx	.003	4.25
31	MP3A	X	-1.743	7
32	MP3A	Z	3.018	7
33	MP3A	Mx	-.000581	7
34	MP3A	X	-7.2	1.5
35	MP3A	Z	12.471	1.5
36	MP3A	Mx	-.005	1.5
37	MP4A	X	-6.973	1.5
38	MP4A	Z	12.077	1.5
39	MP4A	Mx	-.005	1.5
40	M17	X	-12.975	1
41	M17	Z	22.474	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-29.44	1.25
2	MP1A	Z	16.997	1.25
3	MP1A	Mx	.02	1.25
4	MP1A	X	-29.44	5.25
5	MP1A	Z	16.997	5.25
6	MP1A	Mx	.02	5.25
7	MP5A	X	-29.44	1.25
8	MP5A	Z	16.997	1.25
9	MP5A	Mx	.02	1.25
10	MP5A	X	-29.44	5.25
11	MP5A	Z	16.997	5.25
12	MP5A	Mx	.02	5.25
13	MP3A	X	-17.123	1.25
14	MP3A	Z	9.886	1.25
15	MP3A	Mx	.019	1.25
16	MP3A	X	-17.123	5.25
17	MP3A	Z	9.886	5.25
18	MP3A	Mx	.019	5.25
19	MP3A	X	-17.123	1.25
20	MP3A	Z	9.886	1.25
21	MP3A	Mx	.000926	1.25
22	MP3A	X	-17.123	5.25
23	MP3A	Z	9.886	5.25
24	MP3A	Mx	.000926	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	MP4A	X	-9.132	2.25
26	MP4A	Z	5.272	2.25
27	MP4A	Mx	.003	2.25
28	MP4A	X	-9.132	4.25
29	MP4A	Z	5.272	4.25
30	MP4A	Mx	.003	4.25
31	MP3A	X	-2.609	7
32	MP3A	Z	1.506	7
33	MP3A	Mx	-.00087	7
34	MP3A	X	-10.399	1.5
35	MP3A	Z	6.004	1.5
36	MP3A	Mx	-.007	1.5
37	MP4A	X	-9.218	1.5
38	MP4A	Z	5.322	1.5
39	MP4A	Mx	-.006	1.5
40	M17	X	-21.942	1
41	M17	Z	12.668	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-33.067	1.25
2	MP1A	Z	0	1.25
3	MP1A	Mx	.022	1.25
4	MP1A	X	-33.067	5.25
5	MP1A	Z	0	5.25
6	MP1A	Mx	.022	5.25
7	MP5A	X	-33.067	1.25
8	MP5A	Z	0	1.25
9	MP5A	Mx	.022	1.25
10	MP5A	X	-33.067	5.25
11	MP5A	Z	0	5.25
12	MP5A	Mx	.022	5.25
13	MP3A	X	-15.581	1.25
14	MP3A	Z	0	1.25
15	MP3A	Mx	.009	1.25
16	MP3A	X	-15.581	5.25
17	MP3A	Z	0	5.25
18	MP3A	Mx	.009	5.25
19	MP3A	X	-15.581	1.25
20	MP3A	Z	0	1.25
21	MP3A	Mx	.009	1.25
22	MP3A	X	-15.581	5.25
23	MP3A	Z	0	5.25
24	MP3A	Mx	.009	5.25
25	MP4A	X	-7.862	2.25
26	MP4A	Z	0	2.25
27	MP4A	Mx	.003	2.25
28	MP4A	X	-7.862	4.25
29	MP4A	Z	0	4.25
30	MP4A	Mx	.003	4.25
31	MP3A	X	-2.777	7
32	MP3A	Z	0	7
33	MP3A	Mx	-.000926	7
34	MP3A	X	-10.811	1.5
35	MP3A	Z	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP3A	Mx	-.007	1.5
37	MP4A	X	-8.993	1.5
38	MP4A	Z	0	1.5
39	MP4A	Mx	-.006	1.5
40	M17	X	-28.044	1
41	M17	Z	0	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-29.44	1.25
2	MP1A	Z	-16.997	1.25
3	MP1A	Mx	.02	1.25
4	MP1A	X	-29.44	5.25
5	MP1A	Z	-16.997	5.25
6	MP1A	Mx	.02	5.25
7	MP5A	X	-29.44	1.25
8	MP5A	Z	-16.997	1.25
9	MP5A	Mx	.02	1.25
10	MP5A	X	-29.44	5.25
11	MP5A	Z	-16.997	5.25
12	MP5A	Mx	.02	5.25
13	MP3A	X	-17.123	1.25
14	MP3A	Z	-9.886	1.25
15	MP3A	Mx	.000926	1.25
16	MP3A	X	-17.123	5.25
17	MP3A	Z	-9.886	5.25
18	MP3A	Mx	.000926	5.25
19	MP3A	X	-17.123	1.25
20	MP3A	Z	-9.886	1.25
21	MP3A	Mx	.019	1.25
22	MP3A	X	-17.123	5.25
23	MP3A	Z	-9.886	5.25
24	MP3A	Mx	.019	5.25
25	MP4A	X	-9.132	2.25
26	MP4A	Z	-5.272	2.25
27	MP4A	Mx	.003	2.25
28	MP4A	X	-9.132	4.25
29	MP4A	Z	-5.272	4.25
30	MP4A	Mx	.003	4.25
31	MP3A	X	-2.609	7
32	MP3A	Z	-1.506	7
33	MP3A	Mx	-.00087	7
34	MP3A	X	-10.399	1.5
35	MP3A	Z	-6.004	1.5
36	MP3A	Mx	-.007	1.5
37	MP4A	X	-9.218	1.5
38	MP4A	Z	-5.322	1.5
39	MP4A	Mx	-.006	1.5
40	M17	X	-27.162	1
41	M17	Z	-15.682	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-17.925	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
2	MP1A	Z	-31.047	1.25
3	MP1A	Mx	.012	1.25
4	MP1A	X	-17.925	5.25
5	MP1A	Z	-31.047	5.25
6	MP1A	Mx	.012	5.25
7	MP5A	X	-17.925	1.25
8	MP5A	Z	-31.047	1.25
9	MP5A	Mx	.012	1.25
10	MP5A	X	-17.925	5.25
11	MP5A	Z	-31.047	5.25
12	MP5A	Mx	.012	5.25
13	MP3A	X	-14.077	1.25
14	MP3A	Z	-24.381	1.25
15	MP3A	Mx	-.014	1.25
16	MP3A	X	-14.077	5.25
17	MP3A	Z	-24.381	5.25
18	MP3A	Mx	-.014	5.25
19	MP3A	X	-14.077	1.25
20	MP3A	Z	-24.381	1.25
21	MP3A	Mx	.031	1.25
22	MP3A	X	-14.077	5.25
23	MP3A	Z	-24.381	5.25
24	MP3A	Mx	.031	5.25
25	MP4A	X	-7.956	2.25
26	MP4A	Z	-13.779	2.25
27	MP4A	Mx	.003	2.25
28	MP4A	X	-7.956	4.25
29	MP4A	Z	-13.779	4.25
30	MP4A	Mx	.003	4.25
31	MP3A	X	-1.743	7
32	MP3A	Z	-3.018	7
33	MP3A	Mx	-.000581	7
34	MP3A	X	-7.2	1.5
35	MP3A	Z	-12.471	1.5
36	MP3A	Mx	-.005	1.5
37	MP4A	X	-6.973	1.5
38	MP4A	Z	-12.077	1.5
39	MP4A	Mx	-.005	1.5
40	M17	X	-15.989	1
41	M17	Z	-27.693	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	1.25
2	MP1A	Z	-12.227	1.25
3	MP1A	Mx	0	1.25
4	MP1A	X	0	5.25
5	MP1A	Z	-12.227	5.25
6	MP1A	Mx	0	5.25
7	MP5A	X	0	1.25
8	MP5A	Z	-12.227	1.25
9	MP5A	Mx	0	1.25
10	MP5A	X	0	5.25
11	MP5A	Z	-12.227	5.25
12	MP5A	Mx	0	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP3A	X	0	1.25
14	MP3A	Z	-11.399	1.25
15	MP3A	Mx	-.01	1.25
16	MP3A	X	0	5.25
17	MP3A	Z	-11.399	5.25
18	MP3A	Mx	-.01	5.25
19	MP3A	X	0	1.25
20	MP3A	Z	-11.399	1.25
21	MP3A	Mx	.01	1.25
22	MP3A	X	0	5.25
23	MP3A	Z	-11.399	5.25
24	MP3A	Mx	.01	5.25
25	MP4A	X	0	2.25
26	MP4A	Z	-5.986	2.25
27	MP4A	Mx	0	2.25
28	MP4A	X	0	4.25
29	MP4A	Z	-5.986	4.25
30	MP4A	Mx	0	4.25
31	MP3A	X	0	7
32	MP3A	Z	-.943	7
33	MP3A	Mx	0	7
34	MP3A	X	0	1.5
35	MP3A	Z	-4.763	1.5
36	MP3A	Mx	0	1.5
37	MP4A	X	0	1.5
38	MP4A	Z	-4.763	1.5
39	MP4A	Mx	0	1.5
40	M17	X	0	1
41	M17	Z	-9.329	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	5.95	1.25
2	MP1A	Z	-10.306	1.25
3	MP1A	Mx	-.004	1.25
4	MP1A	X	5.95	5.25
5	MP1A	Z	-10.306	5.25
6	MP1A	Mx	-.004	5.25
7	MP5A	X	5.95	1.25
8	MP5A	Z	-10.306	1.25
9	MP5A	Mx	-.004	1.25
10	MP5A	X	5.95	5.25
11	MP5A	Z	-10.306	5.25
12	MP5A	Mx	-.004	5.25
13	MP3A	X	4.885	1.25
14	MP3A	Z	-8.46	1.25
15	MP3A	Mx	-.011	1.25
16	MP3A	X	4.885	5.25
17	MP3A	Z	-8.46	5.25
18	MP3A	Mx	-.011	5.25
19	MP3A	X	4.885	1.25
20	MP3A	Z	-8.46	1.25
21	MP3A	Mx	.005	1.25
22	MP3A	X	4.885	5.25
23	MP3A	Z	-8.46	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP3A	Mx	.005	5.25
25	MP4A	X	2.538	2.25
26	MP4A	Z	-4.396	2.25
27	MP4A	Mx	-.000846	2.25
28	MP4A	X	2.538	4.25
29	MP4A	Z	-4.396	4.25
30	MP4A	Mx	-.000846	4.25
31	MP3A	X	.435	7
32	MP3A	Z	-.753	7
33	MP3A	Mx	.000145	7
34	MP3A	X	2.184	1.5
35	MP3A	Z	-3.783	1.5
36	MP3A	Mx	.001	1.5
37	MP4A	X	2.109	1.5
38	MP4A	Z	-3.652	1.5
39	MP4A	Mx	.001	1.5
40	M17	X	4.089	1
41	M17	Z	-7.082	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	9.741	1.25
2	MP1A	Z	-5.624	1.25
3	MP1A	Mx	-.006	1.25
4	MP1A	X	9.741	5.25
5	MP1A	Z	-5.624	5.25
6	MP1A	Mx	-.006	5.25
7	MP5A	X	9.741	1.25
8	MP5A	Z	-5.624	1.25
9	MP5A	Mx	-.006	1.25
10	MP5A	X	9.741	5.25
11	MP5A	Z	-5.624	5.25
12	MP5A	Mx	-.006	5.25
13	MP3A	X	5.637	1.25
14	MP3A	Z	-3.254	1.25
15	MP3A	Mx	-.006	1.25
16	MP3A	X	5.637	5.25
17	MP3A	Z	-3.254	5.25
18	MP3A	Mx	-.006	5.25
19	MP3A	X	5.637	1.25
20	MP3A	Z	-3.254	1.25
21	MP3A	Mx	-.000305	1.25
22	MP3A	X	5.637	5.25
23	MP3A	Z	-3.254	5.25
24	MP3A	Mx	-.000305	5.25
25	MP4A	X	2.818	2.25
26	MP4A	Z	-1.627	2.25
27	MP4A	Mx	-.000939	2.25
28	MP4A	X	2.818	4.25
29	MP4A	Z	-1.627	4.25
30	MP4A	Mx	-.000939	4.25
31	MP3A	X	.628	7
32	MP3A	Z	-.362	7
33	MP3A	Mx	.000209	7
34	MP3A	X	3.099	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP3A	Z	-1.789	1.5
36	MP3A	Mx	.002	1.5
37	MP4A	X	2.707	1.5
38	MP4A	Z	-1.563	1.5
39	MP4A	Mx	.002	1.5
40	M17	X	6.897	1
41	M17	Z	-3.982	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	10.921	1.25
2	MP1A	Z	0	1.25
3	MP1A	Mx	-.007	1.25
4	MP1A	X	10.921	5.25
5	MP1A	Z	0	5.25
6	MP1A	Mx	-.007	5.25
7	MP5A	X	10.921	1.25
8	MP5A	Z	0	1.25
9	MP5A	Mx	-.007	1.25
10	MP5A	X	10.921	5.25
11	MP5A	Z	0	5.25
12	MP5A	Mx	-.007	5.25
13	MP3A	X	4.879	1.25
14	MP3A	Z	0	1.25
15	MP3A	Mx	-.003	1.25
16	MP3A	X	4.879	5.25
17	MP3A	Z	0	5.25
18	MP3A	Mx	-.003	5.25
19	MP3A	X	4.879	1.25
20	MP3A	Z	0	1.25
21	MP3A	Mx	-.003	1.25
22	MP3A	X	4.879	5.25
23	MP3A	Z	0	5.25
24	MP3A	Mx	-.003	5.25
25	MP4A	X	2.344	2.25
26	MP4A	Z	0	2.25
27	MP4A	Mx	-.000781	2.25
28	MP4A	X	2.344	4.25
29	MP4A	Z	0	4.25
30	MP4A	Mx	-.000781	4.25
31	MP3A	X	.652	7
32	MP3A	Z	0	7
33	MP3A	Mx	.000217	7
34	MP3A	X	3.184	1.5
35	MP3A	Z	0	1.5
36	MP3A	Mx	.002	1.5
37	MP4A	X	2.579	1.5
38	MP4A	Z	0	1.5
39	MP4A	Mx	.002	1.5
40	M17	X	8.903	1
41	M17	Z	0	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	9.741	1.25
2	MP1A	Z	5.624	1.25
3	MP1A	Mx	-.006	1.25
4	MP1A	X	9.741	5.25
5	MP1A	Z	5.624	5.25
6	MP1A	Mx	-.006	5.25
7	MP5A	X	9.741	1.25
8	MP5A	Z	5.624	1.25
9	MP5A	Mx	-.006	1.25
10	MP5A	X	9.741	5.25
11	MP5A	Z	5.624	5.25
12	MP5A	Mx	-.006	5.25
13	MP3A	X	5.637	1.25
14	MP3A	Z	3.254	1.25
15	MP3A	Mx	-.000305	1.25
16	MP3A	X	5.637	5.25
17	MP3A	Z	3.254	5.25
18	MP3A	Mx	-.000305	5.25
19	MP3A	X	5.637	1.25
20	MP3A	Z	3.254	1.25
21	MP3A	Mx	-.006	1.25
22	MP3A	X	5.637	5.25
23	MP3A	Z	3.254	5.25
24	MP3A	Mx	-.006	5.25
25	MP4A	X	2.818	2.25
26	MP4A	Z	1.627	2.25
27	MP4A	Mx	-.000939	2.25
28	MP4A	X	2.818	4.25
29	MP4A	Z	1.627	4.25
30	MP4A	Mx	-.000939	4.25
31	MP3A	X	.628	7
32	MP3A	Z	.362	7
33	MP3A	Mx	.000209	7
34	MP3A	X	3.099	1.5
35	MP3A	Z	1.789	1.5
36	MP3A	Mx	.002	1.5
37	MP4A	X	2.707	1.5
38	MP4A	Z	1.563	1.5
39	MP4A	Mx	.002	1.5
40	M17	X	8.708	1
41	M17	Z	5.028	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	5.95	1.25
2	MP1A	Z	10.306	1.25
3	MP1A	Mx	-.004	1.25
4	MP1A	X	5.95	5.25
5	MP1A	Z	10.306	5.25
6	MP1A	Mx	-.004	5.25
7	MP5A	X	5.95	1.25
8	MP5A	Z	10.306	1.25
9	MP5A	Mx	-.004	1.25
10	MP5A	X	5.95	5.25
11	MP5A	Z	10.306	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP5A	Mx	-.004	5.25
13	MP3A	X	4.885	1.25
14	MP3A	Z	8.46	1.25
15	MP3A	Mx	.005	1.25
16	MP3A	X	4.885	5.25
17	MP3A	Z	8.46	5.25
18	MP3A	Mx	.005	5.25
19	MP3A	X	4.885	1.25
20	MP3A	Z	8.46	1.25
21	MP3A	Mx	-.011	1.25
22	MP3A	X	4.885	5.25
23	MP3A	Z	8.46	5.25
24	MP3A	Mx	-.011	5.25
25	MP4A	X	2.538	2.25
26	MP4A	Z	4.396	2.25
27	MP4A	Mx	-.000846	2.25
28	MP4A	X	2.538	4.25
29	MP4A	Z	4.396	4.25
30	MP4A	Mx	-.000846	4.25
31	MP3A	X	.435	7
32	MP3A	Z	.753	7
33	MP3A	Mx	.000145	7
34	MP3A	X	2.184	1.5
35	MP3A	Z	3.783	1.5
36	MP3A	Mx	.001	1.5
37	MP4A	X	2.109	1.5
38	MP4A	Z	3.652	1.5
39	MP4A	Mx	.001	1.5
40	M17	X	5.134	1
41	M17	Z	8.892	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	1.25
2	MP1A	Z	12.227	1.25
3	MP1A	Mx	0	1.25
4	MP1A	X	0	5.25
5	MP1A	Z	12.227	5.25
6	MP1A	Mx	0	5.25
7	MP5A	X	0	1.25
8	MP5A	Z	12.227	1.25
9	MP5A	Mx	0	1.25
10	MP5A	X	0	5.25
11	MP5A	Z	12.227	5.25
12	MP5A	Mx	0	5.25
13	MP3A	X	0	1.25
14	MP3A	Z	11.399	1.25
15	MP3A	Mx	.01	1.25
16	MP3A	X	0	5.25
17	MP3A	Z	11.399	5.25
18	MP3A	Mx	.01	5.25
19	MP3A	X	0	1.25
20	MP3A	Z	11.399	1.25
21	MP3A	Mx	-.01	1.25
22	MP3A	X	0	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP3A	Z	11.399	5.25
24	MP3A	Mx	-.01	5.25
25	MP4A	X	0	2.25
26	MP4A	Z	5.986	2.25
27	MP4A	Mx	0	2.25
28	MP4A	X	0	4.25
29	MP4A	Z	5.986	4.25
30	MP4A	Mx	0	4.25
31	MP3A	X	0	7
32	MP3A	Z	.943	7
33	MP3A	Mx	0	7
34	MP3A	X	0	1.5
35	MP3A	Z	4.763	1.5
36	MP3A	Mx	0	1.5
37	MP4A	X	0	1.5
38	MP4A	Z	4.763	1.5
39	MP4A	Mx	0	1.5
40	M17	X	0	1
41	M17	Z	9.329	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-5.95	1.25
2	MP1A	Z	10.306	1.25
3	MP1A	Mx	.004	1.25
4	MP1A	X	-5.95	5.25
5	MP1A	Z	10.306	5.25
6	MP1A	Mx	.004	5.25
7	MP5A	X	-5.95	1.25
8	MP5A	Z	10.306	1.25
9	MP5A	Mx	.004	1.25
10	MP5A	X	-5.95	5.25
11	MP5A	Z	10.306	5.25
12	MP5A	Mx	.004	5.25
13	MP3A	X	-4.885	1.25
14	MP3A	Z	8.46	1.25
15	MP3A	Mx	.011	1.25
16	MP3A	X	-4.885	5.25
17	MP3A	Z	8.46	5.25
18	MP3A	Mx	.011	5.25
19	MP3A	X	-4.885	1.25
20	MP3A	Z	8.46	1.25
21	MP3A	Mx	-.005	1.25
22	MP3A	X	-4.885	5.25
23	MP3A	Z	8.46	5.25
24	MP3A	Mx	-.005	5.25
25	MP4A	X	-2.538	2.25
26	MP4A	Z	4.396	2.25
27	MP4A	Mx	.000846	2.25
28	MP4A	X	-2.538	4.25
29	MP4A	Z	4.396	4.25
30	MP4A	Mx	.000846	4.25
31	MP3A	X	-.435	7
32	MP3A	Z	.753	7
33	MP3A	Mx	-.000145	7

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP3A	X	-2.184	1.5
35	MP3A	Z	3.783	1.5
36	MP3A	Mx	-.001	1.5
37	MP4A	X	-2.109	1.5
38	MP4A	Z	3.652	1.5
39	MP4A	Mx	-.001	1.5
40	M17	X	-4.089	1
41	M17	Z	7.082	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-9.741	1.25
2	MP1A	Z	5.624	1.25
3	MP1A	Mx	.006	1.25
4	MP1A	X	-9.741	5.25
5	MP1A	Z	5.624	5.25
6	MP1A	Mx	.006	5.25
7	MP5A	X	-9.741	1.25
8	MP5A	Z	5.624	1.25
9	MP5A	Mx	.006	1.25
10	MP5A	X	-9.741	5.25
11	MP5A	Z	5.624	5.25
12	MP5A	Mx	.006	5.25
13	MP3A	X	-5.637	1.25
14	MP3A	Z	3.254	1.25
15	MP3A	Mx	.006	1.25
16	MP3A	X	-5.637	5.25
17	MP3A	Z	3.254	5.25
18	MP3A	Mx	.006	5.25
19	MP3A	X	-5.637	1.25
20	MP3A	Z	3.254	1.25
21	MP3A	Mx	.000305	1.25
22	MP3A	X	-5.637	5.25
23	MP3A	Z	3.254	5.25
24	MP3A	Mx	.000305	5.25
25	MP4A	X	-2.818	2.25
26	MP4A	Z	1.627	2.25
27	MP4A	Mx	.000939	2.25
28	MP4A	X	-2.818	4.25
29	MP4A	Z	1.627	4.25
30	MP4A	Mx	.000939	4.25
31	MP3A	X	-.628	7
32	MP3A	Z	.362	7
33	MP3A	Mx	-.000209	7
34	MP3A	X	-3.099	1.5
35	MP3A	Z	1.789	1.5
36	MP3A	Mx	-.002	1.5
37	MP4A	X	-2.707	1.5
38	MP4A	Z	1.563	1.5
39	MP4A	Mx	-.002	1.5
40	M17	X	-6.897	1
41	M17	Z	3.982	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-10.921	1.25
2	MP1A	Z	0	1.25
3	MP1A	Mx	.007	1.25
4	MP1A	X	-10.921	5.25
5	MP1A	Z	0	5.25
6	MP1A	Mx	.007	5.25
7	MP5A	X	-10.921	1.25
8	MP5A	Z	0	1.25
9	MP5A	Mx	.007	1.25
10	MP5A	X	-10.921	5.25
11	MP5A	Z	0	5.25
12	MP5A	Mx	.007	5.25
13	MP3A	X	-4.879	1.25
14	MP3A	Z	0	1.25
15	MP3A	Mx	.003	1.25
16	MP3A	X	-4.879	5.25
17	MP3A	Z	0	5.25
18	MP3A	Mx	.003	5.25
19	MP3A	X	-4.879	1.25
20	MP3A	Z	0	1.25
21	MP3A	Mx	.003	1.25
22	MP3A	X	-4.879	5.25
23	MP3A	Z	0	5.25
24	MP3A	Mx	.003	5.25
25	MP4A	X	-2.344	2.25
26	MP4A	Z	0	2.25
27	MP4A	Mx	.000781	2.25
28	MP4A	X	-2.344	4.25
29	MP4A	Z	0	4.25
30	MP4A	Mx	.000781	4.25
31	MP3A	X	-.652	7
32	MP3A	Z	0	7
33	MP3A	Mx	-.000217	7
34	MP3A	X	-3.184	1.5
35	MP3A	Z	0	1.5
36	MP3A	Mx	-.002	1.5
37	MP4A	X	-2.579	1.5
38	MP4A	Z	0	1.5
39	MP4A	Mx	-.002	1.5
40	M17	X	-8.903	1
41	M17	Z	0	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-9.741	1.25
2	MP1A	Z	-5.624	1.25
3	MP1A	Mx	.006	1.25
4	MP1A	X	-9.741	5.25
5	MP1A	Z	-5.624	5.25
6	MP1A	Mx	.006	5.25
7	MP5A	X	-9.741	1.25
8	MP5A	Z	-5.624	1.25
9	MP5A	Mx	.006	1.25
10	MP5A	X	-9.741	5.25
11	MP5A	Z	-5.624	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP5A	Mx	.006	5.25
13	MP3A	X	-5.637	1.25
14	MP3A	Z	-3.254	1.25
15	MP3A	Mx	.000305	1.25
16	MP3A	X	-5.637	5.25
17	MP3A	Z	-3.254	5.25
18	MP3A	Mx	.000305	5.25
19	MP3A	X	-5.637	1.25
20	MP3A	Z	-3.254	1.25
21	MP3A	Mx	.006	1.25
22	MP3A	X	-5.637	5.25
23	MP3A	Z	-3.254	5.25
24	MP3A	Mx	.006	5.25
25	MP4A	X	-2.818	2.25
26	MP4A	Z	-1.627	2.25
27	MP4A	Mx	.000939	2.25
28	MP4A	X	-2.818	4.25
29	MP4A	Z	-1.627	4.25
30	MP4A	Mx	.000939	4.25
31	MP3A	X	-.628	7
32	MP3A	Z	-.362	7
33	MP3A	Mx	-.000209	7
34	MP3A	X	-3.099	1.5
35	MP3A	Z	-1.789	1.5
36	MP3A	Mx	-.002	1.5
37	MP4A	X	-2.707	1.5
38	MP4A	Z	-1.563	1.5
39	MP4A	Mx	-.002	1.5
40	M17	X	-8.708	1
41	M17	Z	-5.028	1
42	M17	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-5.95	1.25
2	MP1A	Z	-10.306	1.25
3	MP1A	Mx	.004	1.25
4	MP1A	X	-5.95	5.25
5	MP1A	Z	-10.306	5.25
6	MP1A	Mx	.004	5.25
7	MP5A	X	-5.95	1.25
8	MP5A	Z	-10.306	1.25
9	MP5A	Mx	.004	1.25
10	MP5A	X	-5.95	5.25
11	MP5A	Z	-10.306	5.25
12	MP5A	Mx	.004	5.25
13	MP3A	X	-4.885	1.25
14	MP3A	Z	-8.46	1.25
15	MP3A	Mx	-.005	1.25
16	MP3A	X	-4.885	5.25
17	MP3A	Z	-8.46	5.25
18	MP3A	Mx	-.005	5.25
19	MP3A	X	-4.885	1.25
20	MP3A	Z	-8.46	1.25
21	MP3A	Mx	.011	1.25
22	MP3A	X	-4.885	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP3A	Z	-8.46	5.25
24	MP3A	Mx	.011	5.25
25	MP4A	X	-2.538	2.25
26	MP4A	Z	-4.396	2.25
27	MP4A	Mx	.000846	2.25
28	MP4A	X	-2.538	4.25
29	MP4A	Z	-4.396	4.25
30	MP4A	Mx	.000846	4.25
31	MP3A	X	-.435	7
32	MP3A	Z	-.753	7
33	MP3A	Mx	-.000145	7
34	MP3A	X	-2.184	1.5
35	MP3A	Z	-3.783	1.5
36	MP3A	Mx	-.001	1.5
37	MP4A	X	-2.109	1.5
38	MP4A	Z	-3.652	1.5
39	MP4A	Mx	-.001	1.5
40	M17	X	-5.134	1
41	M17	Z	-8.892	1
42	M17	Mx	0	1

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M10	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M5	Y	-500	%97

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M5	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M5	Y	-250	%50

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	Y	-7.154	-7.154	0	%100
2	M3	Y	-8.645	-8.645	0	%100
3	M5	Y	-8.645	-8.645	0	%100
4	MP1A	Y	-4.417	-4.417	0	%100
5	MP3A	Y	-4.417	-4.417	0	%100
6	MP5A	Y	-4.417	-4.417	0	%100
7	M17	Y	-4.417	-4.417	0	%100
8	MP2A	Y	-4.417	-4.417	0	%100
9	MP4A	Y	-4.417	-4.417	0	%100
10	M22	Y	-5.866	-5.866	0	%100
11	M23	Y	-6.823	-6.823	0	%100

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	0	0	0	%100
2	M4	Z	-9.394	-9.394	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	-15.869	-15.869	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-9.045	-9.045	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	-9.045	-9.045	0	%100
11	MP5A	X	0	0	0	%100
12	MP5A	Z	-9.045	-9.045	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-7.397	-7.397	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	-9.045	-9.045	0	%100
17	MP4A	X	0	0	0	%100
18	MP4A	Z	-9.045	-9.045	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	-13.33	-13.33	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	4.697	4.697	0	%100
2	M4	Z	-8.135	-8.135	0	%100
3	M3	X	1.406	1.406	0	%100
4	M3	Z	-2.436	-2.436	0	%100
5	M5	X	5.951	5.951	0	%100
6	M5	Z	-10.307	-10.307	0	%100
7	MP1A	X	4.523	4.523	0	%100
8	MP1A	Z	-7.833	-7.833	0	%100
9	MP3A	X	4.523	4.523	0	%100
10	MP3A	Z	-7.833	-7.833	0	%100
11	MP5A	X	4.523	4.523	0	%100
12	MP5A	Z	-7.833	-7.833	0	%100
13	M17	X	3.698	3.698	0	%100
14	M17	Z	-6.406	-6.406	0	%100
15	MP2A	X	4.523	4.523	0	%100
16	MP2A	Z	-7.833	-7.833	0	%100
17	MP4A	X	4.523	4.523	0	%100
18	MP4A	Z	-7.833	-7.833	0	%100
19	M22	X	4.999	4.999	0	%100
20	M22	Z	-8.658	-8.658	0	%100
21	M23	X	1.087	1.087	0	%100
22	M23	Z	-1.882	-1.882	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	8.135	8.135	0	%100
2	M4	Z	-4.697	-4.697	0	%100
3	M3	X	7.307	7.307	0	%100
4	M3	Z	-4.218	-4.218	0	%100
5	M5	X	3.436	3.436	0	%100
6	M5	Z	-1.984	-1.984	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	MP1A	X	7.833	7.833	0	%100
8	MP1A	Z	-4.523	-4.523	0	%100
9	MP3A	X	7.833	7.833	0	%100
10	MP3A	Z	-4.523	-4.523	0	%100
11	MP5A	X	7.833	7.833	0	%100
12	MP5A	Z	-4.523	-4.523	0	%100
13	M17	X	6.406	6.406	0	%100
14	M17	Z	-3.698	-3.698	0	%100
15	MP2A	X	7.833	7.833	0	%100
16	MP2A	Z	-4.523	-4.523	0	%100
17	MP4A	X	7.833	7.833	0	%100
18	MP4A	Z	-4.523	-4.523	0	%100
19	M22	X	2.886	2.886	0	%100
20	M22	Z	-1.666	-1.666	0	%100
21	M23	X	5.646	5.646	0	%100
22	M23	Z	-3.26	-3.26	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	9.394	9.394	0	%100
2	M4	Z	0	0	0	%100
3	M3	X	11.249	11.249	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	9.045	9.045	0	%100
8	MP1A	Z	0	0	0	%100
9	MP3A	X	9.045	9.045	0	%100
10	MP3A	Z	0	0	0	%100
11	MP5A	X	9.045	9.045	0	%100
12	MP5A	Z	0	0	0	%100
13	M17	X	7.397	7.397	0	%100
14	M17	Z	0	0	0	%100
15	MP2A	X	9.045	9.045	0	%100
16	MP2A	Z	0	0	0	%100
17	MP4A	X	9.045	9.045	0	%100
18	MP4A	Z	0	0	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	8.693	8.693	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	8.135	8.135	0	%100
2	M4	Z	4.697	4.697	0	%100
3	M3	X	7.307	7.307	0	%100
4	M3	Z	4.218	4.218	0	%100
5	M5	X	3.436	3.436	0	%100
6	M5	Z	1.984	1.984	0	%100
7	MP1A	X	7.833	7.833	0	%100
8	MP1A	Z	4.523	4.523	0	%100
9	MP3A	X	7.833	7.833	0	%100
10	MP3A	Z	4.523	4.523	0	%100
11	MP5A	X	7.833	7.833	0	%100
12	MP5A	Z	4.523	4.523	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
13	M17	X	6.406	6.406	0	%100
14	M17	Z	3.698	3.698	0	%100
15	MP2A	X	7.833	7.833	0	%100
16	MP2A	Z	4.523	4.523	0	%100
17	MP4A	X	7.833	7.833	0	%100
18	MP4A	Z	4.523	4.523	0	%100
19	M22	X	2.886	2.886	0	%100
20	M22	Z	1.666	1.666	0	%100
21	M23	X	5.646	5.646	0	%100
22	M23	Z	3.26	3.26	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	4.697	4.697	0	%100
2	M4	Z	8.135	8.135	0	%100
3	M3	X	1.406	1.406	0	%100
4	M3	Z	2.436	2.436	0	%100
5	M5	X	5.951	5.951	0	%100
6	M5	Z	10.307	10.307	0	%100
7	MP1A	X	4.523	4.523	0	%100
8	MP1A	Z	7.833	7.833	0	%100
9	MP3A	X	4.523	4.523	0	%100
10	MP3A	Z	7.833	7.833	0	%100
11	MP5A	X	4.523	4.523	0	%100
12	MP5A	Z	7.833	7.833	0	%100
13	M17	X	3.698	3.698	0	%100
14	M17	Z	6.406	6.406	0	%100
15	MP2A	X	4.523	4.523	0	%100
16	MP2A	Z	7.833	7.833	0	%100
17	MP4A	X	4.523	4.523	0	%100
18	MP4A	Z	7.833	7.833	0	%100
19	M22	X	4.999	4.999	0	%100
20	M22	Z	8.658	8.658	0	%100
21	M23	X	1.087	1.087	0	%100
22	M23	Z	1.882	1.882	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	0	0	0	%100
2	M4	Z	9.394	9.394	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	15.869	15.869	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	9.045	9.045	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	9.045	9.045	0	%100
11	MP5A	X	0	0	0	%100
12	MP5A	Z	9.045	9.045	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	7.397	7.397	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	9.045	9.045	0	%100
17	MP4A	X	0	0	0	%100
18	MP4A	Z	9.045	9.045	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
19	M22	X	0	0	0	%100
20	M22	Z	13.33	13.33	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-4.697	-4.697	0	%100
2	M4	Z	8.135	8.135	0	%100
3	M3	X	-1.406	-1.406	0	%100
4	M3	Z	2.436	2.436	0	%100
5	M5	X	-5.951	-5.951	0	%100
6	M5	Z	10.307	10.307	0	%100
7	MP1A	X	-4.523	-4.523	0	%100
8	MP1A	Z	7.833	7.833	0	%100
9	MP3A	X	-4.523	-4.523	0	%100
10	MP3A	Z	7.833	7.833	0	%100
11	MP5A	X	-4.523	-4.523	0	%100
12	MP5A	Z	7.833	7.833	0	%100
13	M17	X	-3.698	-3.698	0	%100
14	M17	Z	6.406	6.406	0	%100
15	MP2A	X	-4.523	-4.523	0	%100
16	MP2A	Z	7.833	7.833	0	%100
17	MP4A	X	-4.523	-4.523	0	%100
18	MP4A	Z	7.833	7.833	0	%100
19	M22	X	-4.999	-4.999	0	%100
20	M22	Z	8.658	8.658	0	%100
21	M23	X	-1.087	-1.087	0	%100
22	M23	Z	1.882	1.882	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-8.135	-8.135	0	%100
2	M4	Z	4.697	4.697	0	%100
3	M3	X	-7.307	-7.307	0	%100
4	M3	Z	4.218	4.218	0	%100
5	M5	X	-3.436	-3.436	0	%100
6	M5	Z	1.984	1.984	0	%100
7	MP1A	X	-7.833	-7.833	0	%100
8	MP1A	Z	4.523	4.523	0	%100
9	MP3A	X	-7.833	-7.833	0	%100
10	MP3A	Z	4.523	4.523	0	%100
11	MP5A	X	-7.833	-7.833	0	%100
12	MP5A	Z	4.523	4.523	0	%100
13	M17	X	-6.406	-6.406	0	%100
14	M17	Z	3.698	3.698	0	%100
15	MP2A	X	-7.833	-7.833	0	%100
16	MP2A	Z	4.523	4.523	0	%100
17	MP4A	X	-7.833	-7.833	0	%100
18	MP4A	Z	4.523	4.523	0	%100
19	M22	X	-2.886	-2.886	0	%100
20	M22	Z	1.666	1.666	0	%100
21	M23	X	-5.646	-5.646	0	%100
22	M23	Z	3.26	3.26	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-9.394	-9.394	0	%100
2	M4	Z	0	0	0	%100
3	M3	X	-11.249	-11.249	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	-9.045	-9.045	0	%100
8	MP1A	Z	0	0	0	%100
9	MP3A	X	-9.045	-9.045	0	%100
10	MP3A	Z	0	0	0	%100
11	MP5A	X	-9.045	-9.045	0	%100
12	MP5A	Z	0	0	0	%100
13	M17	X	-7.397	-7.397	0	%100
14	M17	Z	0	0	0	%100
15	MP2A	X	-9.045	-9.045	0	%100
16	MP2A	Z	0	0	0	%100
17	MP4A	X	-9.045	-9.045	0	%100
18	MP4A	Z	0	0	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	-8.693	-8.693	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-8.135	-8.135	0	%100
2	M4	Z	-4.697	-4.697	0	%100
3	M3	X	-7.307	-7.307	0	%100
4	M3	Z	-4.218	-4.218	0	%100
5	M5	X	-3.436	-3.436	0	%100
6	M5	Z	-1.984	-1.984	0	%100
7	MP1A	X	-7.833	-7.833	0	%100
8	MP1A	Z	-4.523	-4.523	0	%100
9	MP3A	X	-7.833	-7.833	0	%100
10	MP3A	Z	-4.523	-4.523	0	%100
11	MP5A	X	-7.833	-7.833	0	%100
12	MP5A	Z	-4.523	-4.523	0	%100
13	M17	X	-6.406	-6.406	0	%100
14	M17	Z	-3.698	-3.698	0	%100
15	MP2A	X	-7.833	-7.833	0	%100
16	MP2A	Z	-4.523	-4.523	0	%100
17	MP4A	X	-7.833	-7.833	0	%100
18	MP4A	Z	-4.523	-4.523	0	%100
19	M22	X	-2.886	-2.886	0	%100
20	M22	Z	-1.666	-1.666	0	%100
21	M23	X	-5.646	-5.646	0	%100
22	M23	Z	-3.26	-3.26	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-4.697	-4.697	0	%100
2	M4	Z	-8.135	-8.135	0	%100
3	M3	X	-1.406	-1.406	0	%100
4	M3	Z	-2.436	-2.436	0	%100
5	M5	X	-5.951	-5.951	0	%100
6	M5	Z	-10.307	-10.307	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	MP1A	X	-4.523	-4.523	0	%100
8	MP1A	Z	-7.833	-7.833	0	%100
9	MP3A	X	-4.523	-4.523	0	%100
10	MP3A	Z	-7.833	-7.833	0	%100
11	MP5A	X	-4.523	-4.523	0	%100
12	MP5A	Z	-7.833	-7.833	0	%100
13	M17	X	-3.698	-3.698	0	%100
14	M17	Z	-6.406	-6.406	0	%100
15	MP2A	X	-4.523	-4.523	0	%100
16	MP2A	Z	-7.833	-7.833	0	%100
17	MP4A	X	-4.523	-4.523	0	%100
18	MP4A	Z	-7.833	-7.833	0	%100
19	M22	X	-4.999	-4.999	0	%100
20	M22	Z	-8.658	-8.658	0	%100
21	M23	X	-1.087	-1.087	0	%100
22	M23	Z	-1.882	-1.882	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	0	0	0	%100
2	M4	Z	-2.983	-2.983	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	-4.44	-4.44	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-3.173	-3.173	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	-3.173	-3.173	0	%100
11	MP5A	X	0	0	0	%100
12	MP5A	Z	-3.173	-3.173	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-2.647	-2.647	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	-3.173	-3.173	0	%100
17	MP4A	X	0	0	0	%100
18	MP4A	Z	-3.173	-3.173	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	-3.969	-3.969	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	1.491	1.491	0	%100
2	M4	Z	-2.583	-2.583	0	%100
3	M3	X	.399	.399	0	%100
4	M3	Z	-.691	-.691	0	%100
5	M5	X	1.665	1.665	0	%100
6	M5	Z	-2.884	-2.884	0	%100
7	MP1A	X	1.586	1.586	0	%100
8	MP1A	Z	-2.747	-2.747	0	%100
9	MP3A	X	1.586	1.586	0	%100
10	MP3A	Z	-2.747	-2.747	0	%100
11	MP5A	X	1.586	1.586	0	%100
12	MP5A	Z	-2.747	-2.747	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
13	M17	X	1.324	1.324	0	%100
14	M17	Z	-2.293	-2.293	0	%100
15	MP2A	X	1.586	1.586	0	%100
16	MP2A	Z	-2.747	-2.747	0	%100
17	MP4A	X	1.586	1.586	0	%100
18	MP4A	Z	-2.747	-2.747	0	%100
19	M22	X	1.488	1.488	0	%100
20	M22	Z	-2.578	-2.578	0	%100
21	M23	X	.34	.34	0	%100
22	M23	Z	-.588	-.588	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	2.583	2.583	0	%100
2	M4	Z	-1.491	-1.491	0	%100
3	M3	X	2.074	2.074	0	%100
4	M3	Z	-1.197	-1.197	0	%100
5	M5	X	.961	.961	0	%100
6	M5	Z	-.555	-.555	0	%100
7	MP1A	X	2.747	2.747	0	%100
8	MP1A	Z	-1.586	-1.586	0	%100
9	MP3A	X	2.747	2.747	0	%100
10	MP3A	Z	-1.586	-1.586	0	%100
11	MP5A	X	2.747	2.747	0	%100
12	MP5A	Z	-1.586	-1.586	0	%100
13	M17	X	2.293	2.293	0	%100
14	M17	Z	-1.324	-1.324	0	%100
15	MP2A	X	2.747	2.747	0	%100
16	MP2A	Z	-1.586	-1.586	0	%100
17	MP4A	X	2.747	2.747	0	%100
18	MP4A	Z	-1.586	-1.586	0	%100
19	M22	X	.859	.859	0	%100
20	M22	Z	-.496	-.496	0	%100
21	M23	X	1.765	1.765	0	%100
22	M23	Z	-1.019	-1.019	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	2.983	2.983	0	%100
2	M4	Z	0	0	0	%100
3	M3	X	3.193	3.193	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	3.173	3.173	0	%100
8	MP1A	Z	0	0	0	%100
9	MP3A	X	3.173	3.173	0	%100
10	MP3A	Z	0	0	0	%100
11	MP5A	X	3.173	3.173	0	%100
12	MP5A	Z	0	0	0	%100
13	M17	X	2.647	2.647	0	%100
14	M17	Z	0	0	0	%100
15	MP2A	X	3.173	3.173	0	%100
16	MP2A	Z	0	0	0	%100
17	MP4A	X	3.173	3.173	0	%100
18	MP4A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
19	M22	X	0	0	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	2.718	2.718	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	2.583	2.583	0	%100
2	M4	Z	1.491	1.491	0	%100
3	M3	X	2.074	2.074	0	%100
4	M3	Z	1.197	1.197	0	%100
5	M5	X	.961	.961	0	%100
6	M5	Z	.555	.555	0	%100
7	MP1A	X	2.747	2.747	0	%100
8	MP1A	Z	1.586	1.586	0	%100
9	MP3A	X	2.747	2.747	0	%100
10	MP3A	Z	1.586	1.586	0	%100
11	MP5A	X	2.747	2.747	0	%100
12	MP5A	Z	1.586	1.586	0	%100
13	M17	X	2.293	2.293	0	%100
14	M17	Z	1.324	1.324	0	%100
15	MP2A	X	2.747	2.747	0	%100
16	MP2A	Z	1.586	1.586	0	%100
17	MP4A	X	2.747	2.747	0	%100
18	MP4A	Z	1.586	1.586	0	%100
19	M22	X	.859	.859	0	%100
20	M22	Z	.496	.496	0	%100
21	M23	X	1.765	1.765	0	%100
22	M23	Z	1.019	1.019	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	1.491	1.491	0	%100
2	M4	Z	2.583	2.583	0	%100
3	M3	X	.399	.399	0	%100
4	M3	Z	.691	.691	0	%100
5	M5	X	1.665	1.665	0	%100
6	M5	Z	2.884	2.884	0	%100
7	MP1A	X	1.586	1.586	0	%100
8	MP1A	Z	2.747	2.747	0	%100
9	MP3A	X	1.586	1.586	0	%100
10	MP3A	Z	2.747	2.747	0	%100
11	MP5A	X	1.586	1.586	0	%100
12	MP5A	Z	2.747	2.747	0	%100
13	M17	X	1.324	1.324	0	%100
14	M17	Z	2.293	2.293	0	%100
15	MP2A	X	1.586	1.586	0	%100
16	MP2A	Z	2.747	2.747	0	%100
17	MP4A	X	1.586	1.586	0	%100
18	MP4A	Z	2.747	2.747	0	%100
19	M22	X	1.488	1.488	0	%100
20	M22	Z	2.578	2.578	0	%100
21	M23	X	.34	.34	0	%100
22	M23	Z	.588	.588	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	0	0	0	%100
2	M4	Z	2.983	2.983	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	4.44	4.44	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	3.173	3.173	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	3.173	3.173	0	%100
11	MP5A	X	0	0	0	%100
12	MP5A	Z	3.173	3.173	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	2.647	2.647	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	3.173	3.173	0	%100
17	MP4A	X	0	0	0	%100
18	MP4A	Z	3.173	3.173	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	3.969	3.969	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-1.491	-1.491	0	%100
2	M4	Z	2.583	2.583	0	%100
3	M3	X	-.399	-.399	0	%100
4	M3	Z	.691	.691	0	%100
5	M5	X	-1.665	-1.665	0	%100
6	M5	Z	2.884	2.884	0	%100
7	MP1A	X	-1.586	-1.586	0	%100
8	MP1A	Z	2.747	2.747	0	%100
9	MP3A	X	-1.586	-1.586	0	%100
10	MP3A	Z	2.747	2.747	0	%100
11	MP5A	X	-1.586	-1.586	0	%100
12	MP5A	Z	2.747	2.747	0	%100
13	M17	X	-1.324	-1.324	0	%100
14	M17	Z	2.293	2.293	0	%100
15	MP2A	X	-1.586	-1.586	0	%100
16	MP2A	Z	2.747	2.747	0	%100
17	MP4A	X	-1.586	-1.586	0	%100
18	MP4A	Z	2.747	2.747	0	%100
19	M22	X	-1.488	-1.488	0	%100
20	M22	Z	2.578	2.578	0	%100
21	M23	X	-.34	-.34	0	%100
22	M23	Z	.588	.588	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-2.583	-2.583	0	%100
2	M4	Z	1.491	1.491	0	%100
3	M3	X	-2.074	-2.074	0	%100
4	M3	Z	1.197	1.197	0	%100
5	M5	X	-.961	-.961	0	%100
6	M5	Z	.555	.555	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	MP1A	X	-2.747	-2.747	0	%100
8	MP1A	Z	1.586	1.586	0	%100
9	MP3A	X	-2.747	-2.747	0	%100
10	MP3A	Z	1.586	1.586	0	%100
11	MP5A	X	-2.747	-2.747	0	%100
12	MP5A	Z	1.586	1.586	0	%100
13	M17	X	-2.293	-2.293	0	%100
14	M17	Z	1.324	1.324	0	%100
15	MP2A	X	-2.747	-2.747	0	%100
16	MP2A	Z	1.586	1.586	0	%100
17	MP4A	X	-2.747	-2.747	0	%100
18	MP4A	Z	1.586	1.586	0	%100
19	M22	X	-.859	-.859	0	%100
20	M22	Z	.496	.496	0	%100
21	M23	X	-1.765	-1.765	0	%100
22	M23	Z	1.019	1.019	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-2.983	-2.983	0	%100
2	M4	Z	0	0	0	%100
3	M3	X	-3.193	-3.193	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	-3.173	-3.173	0	%100
8	MP1A	Z	0	0	0	%100
9	MP3A	X	-3.173	-3.173	0	%100
10	MP3A	Z	0	0	0	%100
11	MP5A	X	-3.173	-3.173	0	%100
12	MP5A	Z	0	0	0	%100
13	M17	X	-2.647	-2.647	0	%100
14	M17	Z	0	0	0	%100
15	MP2A	X	-3.173	-3.173	0	%100
16	MP2A	Z	0	0	0	%100
17	MP4A	X	-3.173	-3.173	0	%100
18	MP4A	Z	0	0	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	-2.718	-2.718	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-2.583	-2.583	0	%100
2	M4	Z	-1.491	-1.491	0	%100
3	M3	X	-2.074	-2.074	0	%100
4	M3	Z	-1.197	-1.197	0	%100
5	M5	X	-.961	-.961	0	%100
6	M5	Z	-.555	-.555	0	%100
7	MP1A	X	-2.747	-2.747	0	%100
8	MP1A	Z	-1.586	-1.586	0	%100
9	MP3A	X	-2.747	-2.747	0	%100
10	MP3A	Z	-1.586	-1.586	0	%100
11	MP5A	X	-2.747	-2.747	0	%100
12	MP5A	Z	-1.586	-1.586	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
13	M17	X	-2.293	-2.293	0	%100
14	M17	Z	-1.324	-1.324	0	%100
15	MP2A	X	-2.747	-2.747	0	%100
16	MP2A	Z	-1.586	-1.586	0	%100
17	MP4A	X	-2.747	-2.747	0	%100
18	MP4A	Z	-1.586	-1.586	0	%100
19	M22	X	-.859	-.859	0	%100
20	M22	Z	-.496	-.496	0	%100
21	M23	X	-1.765	-1.765	0	%100
22	M23	Z	-1.019	-1.019	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-1.491	-1.491	0	%100
2	M4	Z	-2.583	-2.583	0	%100
3	M3	X	-.399	-.399	0	%100
4	M3	Z	-.691	-.691	0	%100
5	M5	X	-1.665	-1.665	0	%100
6	M5	Z	-2.884	-2.884	0	%100
7	MP1A	X	-1.586	-1.586	0	%100
8	MP1A	Z	-2.747	-2.747	0	%100
9	MP3A	X	-1.586	-1.586	0	%100
10	MP3A	Z	-2.747	-2.747	0	%100
11	MP5A	X	-1.586	-1.586	0	%100
12	MP5A	Z	-2.747	-2.747	0	%100
13	M17	X	-1.324	-1.324	0	%100
14	M17	Z	-2.293	-2.293	0	%100
15	MP2A	X	-1.586	-1.586	0	%100
16	MP2A	Z	-2.747	-2.747	0	%100
17	MP4A	X	-1.586	-1.586	0	%100
18	MP4A	Z	-2.747	-2.747	0	%100
19	M22	X	-1.488	-1.488	0	%100
20	M22	Z	-2.578	-2.578	0	%100
21	M23	X	-.34	-.34	0	%100
22	M23	Z	-.588	-.588	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	0	0	0	%100
2	M4	Z	-.628	-.628	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	-1.061	-1.061	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-.605	-.605	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	-.605	-.605	0	%100
11	MP5A	X	0	0	0	%100
12	MP5A	Z	-.605	-.605	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-.495	-.495	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	-.605	-.605	0	%100
17	MP4A	X	0	0	0	%100
18	MP4A	Z	-.605	-.605	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
19	M22	X	0	0	0	%100
20	M22	Z	-.892	-.892	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	.314	.314	0	%100
2	M4	Z	-.544	-.544	0	%100
3	M3	X	.094	.094	0	%100
4	M3	Z	-.163	-.163	0	%100
5	M5	X	.398	.398	0	%100
6	M5	Z	-.689	-.689	0	%100
7	MP1A	X	.302	.302	0	%100
8	MP1A	Z	-.524	-.524	0	%100
9	MP3A	X	.302	.302	0	%100
10	MP3A	Z	-.524	-.524	0	%100
11	MP5A	X	.302	.302	0	%100
12	MP5A	Z	-.524	-.524	0	%100
13	M17	X	.247	.247	0	%100
14	M17	Z	-.428	-.428	0	%100
15	MP2A	X	.302	.302	0	%100
16	MP2A	Z	-.524	-.524	0	%100
17	MP4A	X	.302	.302	0	%100
18	MP4A	Z	-.524	-.524	0	%100
19	M22	X	.334	.334	0	%100
20	M22	Z	-.579	-.579	0	%100
21	M23	X	.073	.073	0	%100
22	M23	Z	-.126	-.126	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	.544	.544	0	%100
2	M4	Z	-.314	-.314	0	%100
3	M3	X	.489	.489	0	%100
4	M3	Z	-.282	-.282	0	%100
5	M5	X	.23	.23	0	%100
6	M5	Z	-.133	-.133	0	%100
7	MP1A	X	.524	.524	0	%100
8	MP1A	Z	-.302	-.302	0	%100
9	MP3A	X	.524	.524	0	%100
10	MP3A	Z	-.302	-.302	0	%100
11	MP5A	X	.524	.524	0	%100
12	MP5A	Z	-.302	-.302	0	%100
13	M17	X	.428	.428	0	%100
14	M17	Z	-.247	-.247	0	%100
15	MP2A	X	.524	.524	0	%100
16	MP2A	Z	-.302	-.302	0	%100
17	MP4A	X	.524	.524	0	%100
18	MP4A	Z	-.302	-.302	0	%100
19	M22	X	.193	.193	0	%100
20	M22	Z	-.111	-.111	0	%100
21	M23	X	.378	.378	0	%100
22	M23	Z	-.218	-.218	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	.628	.628	0	%100
2	M4	Z	0	0	0	%100
3	M3	X	.752	.752	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	.605	.605	0	%100
8	MP1A	Z	0	0	0	%100
9	MP3A	X	.605	.605	0	%100
10	MP3A	Z	0	0	0	%100
11	MP5A	X	.605	.605	0	%100
12	MP5A	Z	0	0	0	%100
13	M17	X	.495	.495	0	%100
14	M17	Z	0	0	0	%100
15	MP2A	X	.605	.605	0	%100
16	MP2A	Z	0	0	0	%100
17	MP4A	X	.605	.605	0	%100
18	MP4A	Z	0	0	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	.581	.581	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	.544	.544	0	%100
2	M4	Z	.314	.314	0	%100
3	M3	X	.489	.489	0	%100
4	M3	Z	.282	.282	0	%100
5	M5	X	.23	.23	0	%100
6	M5	Z	.133	.133	0	%100
7	MP1A	X	.524	.524	0	%100
8	MP1A	Z	.302	.302	0	%100
9	MP3A	X	.524	.524	0	%100
10	MP3A	Z	.302	.302	0	%100
11	MP5A	X	.524	.524	0	%100
12	MP5A	Z	.302	.302	0	%100
13	M17	X	.428	.428	0	%100
14	M17	Z	.247	.247	0	%100
15	MP2A	X	.524	.524	0	%100
16	MP2A	Z	.302	.302	0	%100
17	MP4A	X	.524	.524	0	%100
18	MP4A	Z	.302	.302	0	%100
19	M22	X	.193	.193	0	%100
20	M22	Z	.111	.111	0	%100
21	M23	X	.378	.378	0	%100
22	M23	Z	.218	.218	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	.314	.314	0	%100
2	M4	Z	.544	.544	0	%100
3	M3	X	.094	.094	0	%100
4	M3	Z	.163	.163	0	%100
5	M5	X	.398	.398	0	%100
6	M5	Z	.689	.689	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	MP1A	X	.302	.302	0	%100
8	MP1A	Z	.524	.524	0	%100
9	MP3A	X	.302	.302	0	%100
10	MP3A	Z	.524	.524	0	%100
11	MP5A	X	.302	.302	0	%100
12	MP5A	Z	.524	.524	0	%100
13	M17	X	.247	.247	0	%100
14	M17	Z	.428	.428	0	%100
15	MP2A	X	.302	.302	0	%100
16	MP2A	Z	.524	.524	0	%100
17	MP4A	X	.302	.302	0	%100
18	MP4A	Z	.524	.524	0	%100
19	M22	X	.334	.334	0	%100
20	M22	Z	.579	.579	0	%100
21	M23	X	.073	.073	0	%100
22	M23	Z	.126	.126	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	0	0	0	%100
2	M4	Z	.628	.628	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	1.061	1.061	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	.605	.605	0	%100
9	MP3A	X	0	0	0	%100
10	MP3A	Z	.605	.605	0	%100
11	MP5A	X	0	0	0	%100
12	MP5A	Z	.605	.605	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	.495	.495	0	%100
15	MP2A	X	0	0	0	%100
16	MP2A	Z	.605	.605	0	%100
17	MP4A	X	0	0	0	%100
18	MP4A	Z	.605	.605	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	.892	.892	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-.314	-.314	0	%100
2	M4	Z	.544	.544	0	%100
3	M3	X	-.094	-.094	0	%100
4	M3	Z	.163	.163	0	%100
5	M5	X	-.398	-.398	0	%100
6	M5	Z	.689	.689	0	%100
7	MP1A	X	-.302	-.302	0	%100
8	MP1A	Z	.524	.524	0	%100
9	MP3A	X	-.302	-.302	0	%100
10	MP3A	Z	.524	.524	0	%100
11	MP5A	X	-.302	-.302	0	%100
12	MP5A	Z	.524	.524	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
13	M17	X	-.247	-.247	0	%100
14	M17	Z	.428	.428	0	%100
15	MP2A	X	-.302	-.302	0	%100
16	MP2A	Z	.524	.524	0	%100
17	MP4A	X	-.302	-.302	0	%100
18	MP4A	Z	.524	.524	0	%100
19	M22	X	-.334	-.334	0	%100
20	M22	Z	.579	.579	0	%100
21	M23	X	-.073	-.073	0	%100
22	M23	Z	.126	.126	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-.544	-.544	0	%100
2	M4	Z	.314	.314	0	%100
3	M3	X	-.489	-.489	0	%100
4	M3	Z	.282	.282	0	%100
5	M5	X	-.23	-.23	0	%100
6	M5	Z	.133	.133	0	%100
7	MP1A	X	-.524	-.524	0	%100
8	MP1A	Z	.302	.302	0	%100
9	MP3A	X	-.524	-.524	0	%100
10	MP3A	Z	.302	.302	0	%100
11	MP5A	X	-.524	-.524	0	%100
12	MP5A	Z	.302	.302	0	%100
13	M17	X	-.428	-.428	0	%100
14	M17	Z	.247	.247	0	%100
15	MP2A	X	-.524	-.524	0	%100
16	MP2A	Z	.302	.302	0	%100
17	MP4A	X	-.524	-.524	0	%100
18	MP4A	Z	.302	.302	0	%100
19	M22	X	-.193	-.193	0	%100
20	M22	Z	.111	.111	0	%100
21	M23	X	-.378	-.378	0	%100
22	M23	Z	.218	.218	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-.628	-.628	0	%100
2	M4	Z	0	0	0	%100
3	M3	X	-.752	-.752	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	-.605	-.605	0	%100
8	MP1A	Z	0	0	0	%100
9	MP3A	X	-.605	-.605	0	%100
10	MP3A	Z	0	0	0	%100
11	MP5A	X	-.605	-.605	0	%100
12	MP5A	Z	0	0	0	%100
13	M17	X	-.495	-.495	0	%100
14	M17	Z	0	0	0	%100
15	MP2A	X	-.605	-.605	0	%100
16	MP2A	Z	0	0	0	%100
17	MP4A	X	-.605	-.605	0	%100
18	MP4A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
19	M22	X	0	0	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	-.581	-.581	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-.544	-.544	0	%100
2	M4	Z	-.314	-.314	0	%100
3	M3	X	-.489	-.489	0	%100
4	M3	Z	-.282	-.282	0	%100
5	M5	X	-.23	-.23	0	%100
6	M5	Z	-.133	-.133	0	%100
7	MP1A	X	-.524	-.524	0	%100
8	MP1A	Z	-.302	-.302	0	%100
9	MP3A	X	-.524	-.524	0	%100
10	MP3A	Z	-.302	-.302	0	%100
11	MP5A	X	-.524	-.524	0	%100
12	MP5A	Z	-.302	-.302	0	%100
13	M17	X	-.428	-.428	0	%100
14	M17	Z	-.247	-.247	0	%100
15	MP2A	X	-.524	-.524	0	%100
16	MP2A	Z	-.302	-.302	0	%100
17	MP4A	X	-.524	-.524	0	%100
18	MP4A	Z	-.302	-.302	0	%100
19	M22	X	-.193	-.193	0	%100
20	M22	Z	-.111	-.111	0	%100
21	M23	X	-.378	-.378	0	%100
22	M23	Z	-.218	-.218	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M4	X	-.314	-.314	0	%100
2	M4	Z	-.544	-.544	0	%100
3	M3	X	-.094	-.094	0	%100
4	M3	Z	-.163	-.163	0	%100
5	M5	X	-.398	-.398	0	%100
6	M5	Z	-.689	-.689	0	%100
7	MP1A	X	-.302	-.302	0	%100
8	MP1A	Z	-.524	-.524	0	%100
9	MP3A	X	-.302	-.302	0	%100
10	MP3A	Z	-.524	-.524	0	%100
11	MP5A	X	-.302	-.302	0	%100
12	MP5A	Z	-.524	-.524	0	%100
13	M17	X	-.247	-.247	0	%100
14	M17	Z	-.428	-.428	0	%100
15	MP2A	X	-.302	-.302	0	%100
16	MP2A	Z	-.524	-.524	0	%100
17	MP4A	X	-.302	-.302	0	%100
18	MP4A	Z	-.524	-.524	0	%100
19	M22	X	-.334	-.334	0	%100
20	M22	Z	-.579	-.579	0	%100
21	M23	X	-.073	-.073	0	%100
22	M23	Z	-.126	-.126	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	N1	max	2141.075	10	1566.92	13	2422.851	1	-.527	1	3.933	10	1.523	39
2		min	-2002.487	4	309.206	7	-3422.625	7	-2.719	19	-3.666	4	-1.087	49
3	N51	max	749.689	41	835.369	19	1208.908	18	.136	1	1.442	47	.6	39
4		min	-482.534	49	-48.593	1	177.799	1	-1.296	19	-.926	49	-.436	49
5	Totals:	max	1702.948	10	2221.259	19	2600.65	1						
6		min	-1702.948	4	1058.347	1	-2600.649	7						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc ...	phi*Pnt [...	phi*Mn y...	phi*Mn z...	Cb	Eqn
1	M4	PIPE_4.0	.000	.75	8	.000	.75		8	92571.3...	93240	10.631	10.631	1....	H1-1b
2	M3	HSS4X4X4	.336	0	9	.143	0	y	39	137389....	139518	16.181	16.181	1....	H1-1b
3	M5	HSS4X4X4	.208	5	7	.119	5	z	1	91806.5...	139518	16.181	16.181	1....	H1-1b
4	MP1A	PIPE_2.0	.346	4.25	7	.104	4.25		4	13511.2...	32130	1.872	1.872	1....	H1-1b
5	MP3A	PIPE_2.0	.712	4.25	1	.155	5.313		9	13511.2...	32130	1.872	1.872	4....	H1-1b
6	MP5A	PIPE_2.0	.347	4.25	7	.110	4.25		10	13511.2...	32130	1.872	1.872	1....	H1-1b
7	M17	PIPE_2.0	.046	1.5	6	.017	1.5		6	28843.4...	32130	1.872	1.872	1....	H1-1b
8	MP2A	PIPE_2.0	.263	4.25	41	.084	4.25		6	13511.2...	32130	1.872	1.872	1....	H1-1b
9	MP4A	PIPE_2.0	.281	4.25	1	.101	4.25		8	13511.2...	32130	1.872	1.872	1....	H1-1b
10	M22	PIPE_3.0	.203	5	12	.167	5.313		6	38176.7	65205	5.749	5.749	1....	H1-1b
11	M23	HSS3X3X4	.279	0	44	.110	1.917	z	40	98153.0...	101016	8.556	8.556	2....	H1-1b

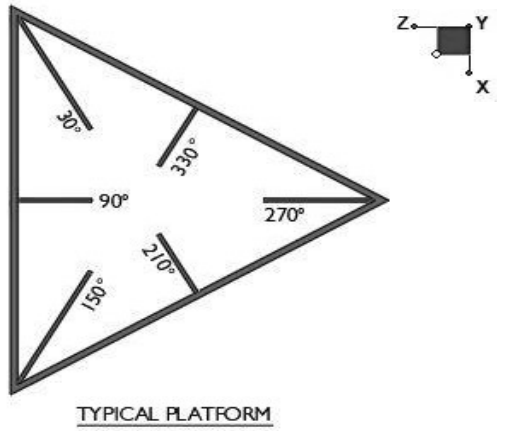
Client:	Verizon Wireless	Date:	7/7/2021
Site Name:	Byram Park CT		
Project No.	20777259A		
Title:	Antenna Mount Analysis	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check

RISA Model Data

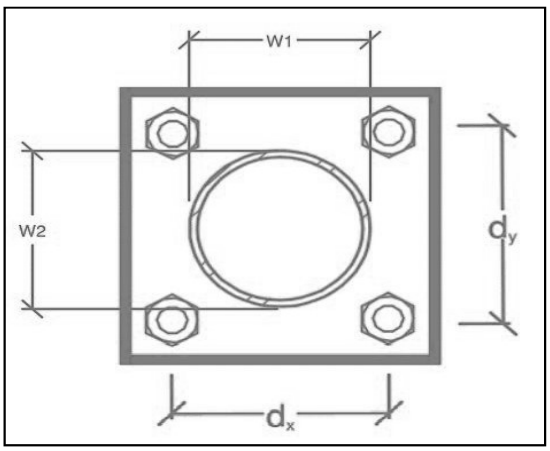
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N1	90



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:	yes
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)*:	3
d_y (in) *(Delta Y of typ. bolt config. sketch)*:	8
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength (kips):	14.8
Required Shear Strength (kips):	33.6
Tensile Strength / bolt (kips):	20.7
Shear Strength / bolt (kips):	12.4
Tensile Capacity Overall:	**17.9%***
Shear Capacity Overall:	**67.7%**



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

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:	Rect
Plate Width (in):	6
Plate Height (in):	10
W1 (in):	4
W2 (in):	4
Fy (ksi, plate):	36
t_{Plate} (in):	0.5
Weld Size (1/16 in):	3
Phi*Rn (kip/in):	4.18
Required Weld Strength (kip/in):	2.44
Plate Bending Capacity:	**79.9%**
Weld Capacity:	**58.4%**

Max Plate Bending Strengths

Mu_{xx} *(kip-in)*:	9.9
$Phi*Mn_{xx}$ *(kip-in)*:	12.2
Mu_{yy} *(kip-in)*:	-0.3
$Phi*Mn_{yy}$ *(kip-in)*:	20.3

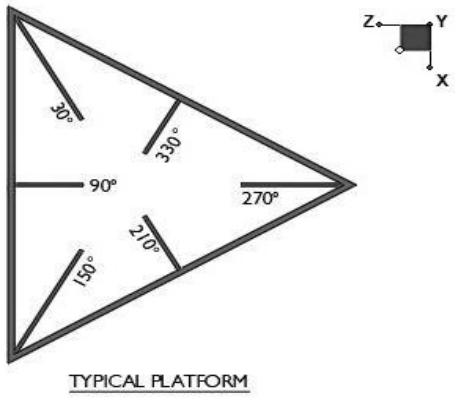
Client:	Verizon Wireless	Date:	7/7/2021
Site Name:	Byram Park CT		
Project No.	20777259A		
Title:	Antenna Mount Analysis	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check - Proposed

RISA Model Data

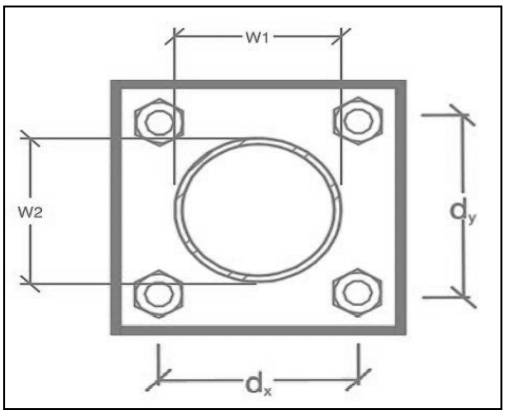
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N51	90



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:	yes
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)*:	6
d_y (in) *(Delta Y of typ. bolt config. sketch)*:	6
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength (kips):	6.0
Required Shear Strength (kips):	6.8
Tensile Strength / bolt (kips):	20.7
Shear Strength / bolt (kips):	12.4
Tensile Capacity Overall:	**7.3%***
Shear Capacity Overall:	**13.8%**



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

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:	Rect
Plate Width (in):	8.25
Plate Height (in):	8.25
W1 (in):	3
W2 (in):	3
Fy (ksi, plate):	50
t_{Plate} (in):	0.75
Weld Size (1/16 in):	5
Phi*Rn (kip/in):	6.96
Required Weld Strength (kip/in):	1.84
Plate Bending Capacity:	**14.7%**
Weld Capacity:	**26.4%**

Max Plate Bending Strengths

Mu_{xx} *(kip-in)*:	3.1
$Phi*Mn_{xx}$ *(kip-in)*:	52.2
Mu_{yy} *(kip-in)*:	4.6
$Phi*Mn_{yy}$ *(kip-in)*:	52.2

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:

Contractor to Install safety climb wire clip on existing/proposed standoff such that the existing safety climb wire does not contact the existing/proposed mount members. Contractor to install 36” long P2.0 STD mount pipe on Gamma standoff horizontal. Attach proposed mount pipe to the standoff with crossover plate (Site Pro 1 – SQCX4-K, or EOR approved equivalent). Contractor shall attach proposed OVP 12” from top of mount pipe.

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

Structure: 468044-VZW - Byram Park CT

Sector: **A**

Structure Type: Monopole

Mount Elev: 56.00

10084892

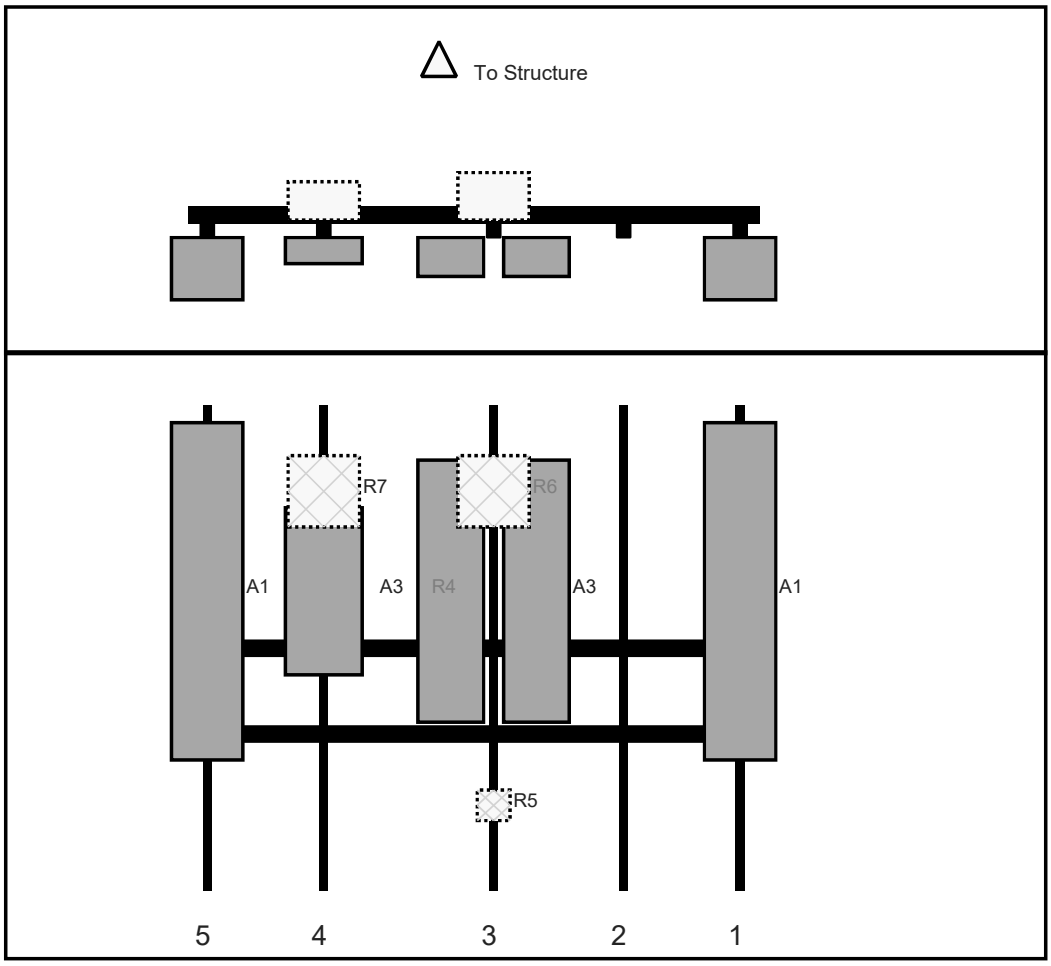
7/7/2021

Page: 1

MASER CONSULTING — CONNECTICUT —

Plan View

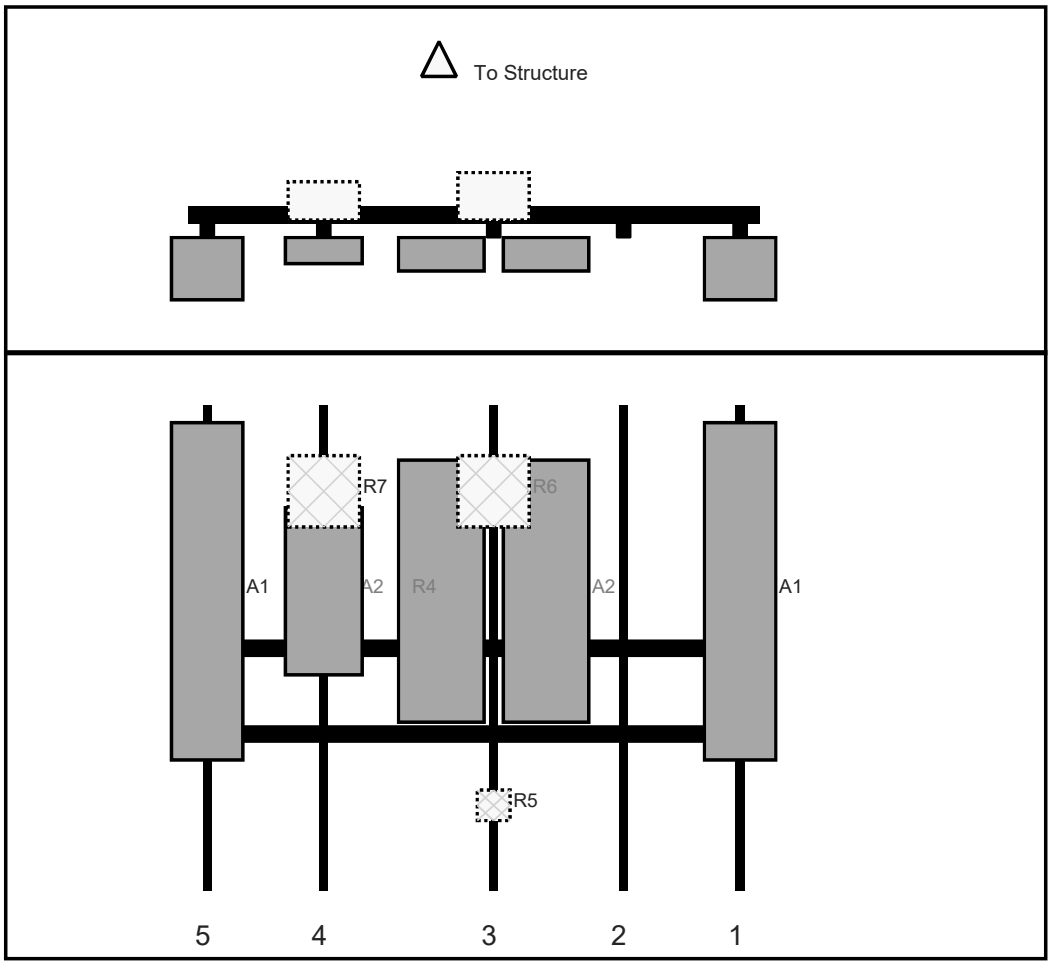
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A1	LPA-80063/6CF	70.9	15	116	1	a	Front	39	0	Retained	10/21/2020
A3	JAHH-65A-R3B	55.1	13.8	64.2	3	a	Front	39	9	Added	
A3	JAHH-65A-R3B	55.1	13.8	64.2	3	b	Front	39	-9	Added	
R5	CBC78T-DS-43	6.4	6.9	64.2	3	a	Behind	84	0	Added	
R6	B2/B66A RRH-BR049	15	15	64.2	3	a	Behind	18	0	Added	
R4	MT6407-77A	35.1	16.1	28.5	4	a	Front	39	0	Added	
R7	B5/B13 RRH-BR04C	15	15	28.5	4	a	Behind	18	0	Added	
A1	LPA-80063/6CF	70.9	15	4	5	a	Front	39	0	Retained	10/21/2020

Plan View

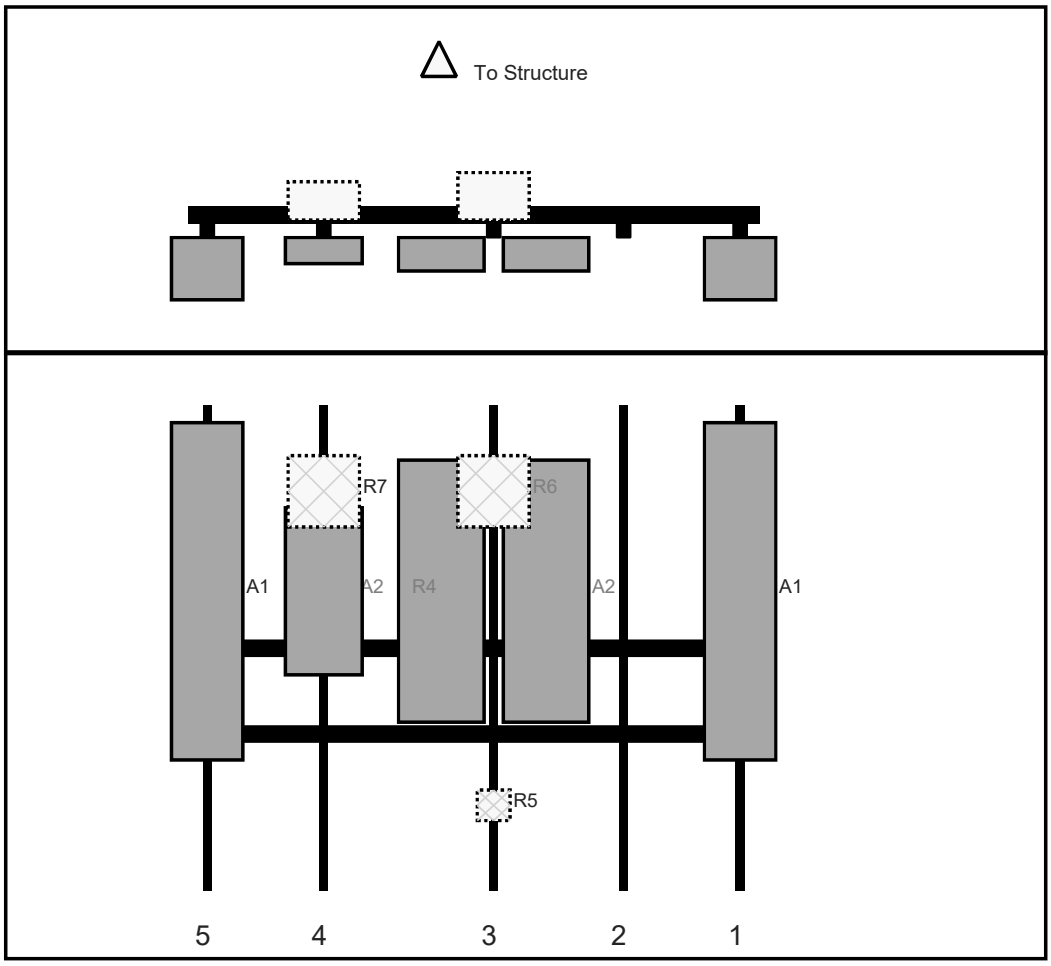
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A1	LPA-80063/6CF	70.9	15	116	1	a	Front	39	0	Retained	10/21/2020
A2	JAHH-45A-R3B	55.08	17.99	64.2	3	a	Front	39	11	Added	
A2	JAHH-45A-R3B	55.08	17.99	64.2	3	b	Front	39	-11	Added	
R5	CBC78T-DS-43	6.4	6.9	64.2	3	a	Behind	84	0	Added	
R6	B2/B66A RRH-BR049	15	15	64.2	3	a	Behind	18	0	Added	
R4	MT6407-77A	35.1	16.1	28.5	4	a	Front	39	0	Added	
R7	B5/B13 RRH-BR04C	15	15	28.5	4	a	Behind	18	0	Added	
A1	LPA-80063/6CF	70.9	15	4	5	a	Front	39	0	Retained	10/21/2020

Plan View

Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A1	LPA-80063/6CF	70.9	15	116	1	a	Front	39	0	Retained	10/21/2020
A2	JAHH-45A-R3B	55.08	17.99	64.2	3	a	Front	39	11	Added	
A2	JAHH-45A-R3B	55.08	17.99	64.2	3	b	Front	39	-11	Added	
R5	CBC78T-DS-43	6.4	6.9	64.2	3	a	Behind	84	0	Added	
R6	B2/B66A RRH-BR049	15	15	64.2	3	a	Behind	18	0	Added	
R4	MT6407-77A	35.1	16.1	28.5	4	a	Front	39	0	Added	
R7	B5/B13 RRH-BR04C	15	15	28.5	4	a	Behind	18	0	Added	
A1	LPA-80063/6CF	70.9	15	4	5	a	Front	39	0	Retained	10/21/2020

Maser Consulting Connecticut

Subject	TIA-222-H Usage	
Site Information	Site ID:	468044-VZW / Byram Park CT
	Site Name:	Byram Park CT
	Carrier Name:	Verizon Wireless
	Address:	36 Ritch Ave W Greenwich, Connecticut 6830 Fairfield County
	Latitude:	41.005064°
	Longitude:	-73.648312°
Structure Information	Tower Type:	79-Ft Monopole
	Mount Type:	10.00-Ft T-Arm

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

Site Name: ***BYRAM PARK 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	739	2954	57	0.0327	0.5007	6.53%
VZW CDMA	877.26	2	499	998	57	0.0110	0.5848	1.89%
VZW Cellular	874	4	841	3365	57	0.0372	0.5827	6.39%
VZW PCS	1980	4	2035	8139	57	0.0901	1.0000	9.01%
VZW AWS	2120	4	2035	8141	57	0.0901	1.0000	9.01%
VZW CBAND	3730.08	4	6531	26125	57	0.2892	1.0000	28.92%
Total Percentage of Maximum Permissible Exposure								61.75%

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

**Calculation includes a -10 dB Off Beam Antenna Pattern Adjustment pursuant to Attachments B and C of the Siting Council's November 10, 2015 Memorandum for Exempt Modification filings

MHz = Megahertz

mW/cm^2 = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used.

Legend

- Property Lines
- Town Boundary

Utility Features

- Street Light
- Traffic Signal
- Parking Meter
- Tree
- Pedestrian signals
- Fences
- Stone Walls
- Retaining Walls
- Hydrology
- Railroad
- Roads Centerline
- Sidewalk
- Crosswalk

Building Features

- Residential- Single Family
- Residential-Two Family
- Residential- Multi Family
- Commercial/Industrial
- Institutional
- Public
- Other Structure
- Residential Garages
- Building under construction (4/2013)
- Water Towers
- Foundations (4/2013)
- Patio
- Deck
- Courtyards
- Non-building polygons

Topology Features

- Contours 10ft
- Contours 1ft

Cultural Features

- Cemetery
- Under Construction
- Landfill

Recreation Features

- Building
- Fairway
- Green
- Sand
- Water
- Golf Courses
- Baseball\Athletic Fields
- Swimming Pools
- Tennis Courts

Path Features

- Paved
- Unpaved

Driveway Features

- Paved
- Unpaved

Parking Features

- Paved
- Unpaved

Bridge Features

- Bridge
- Overpass

Road Features

- Cement-Paved
- Construction
- Island
- Paved
- Unpaved

Marine Features

- Docks
- Piers
- Marine Structure
- Boardwalk

Hydrology Features

- Island
- Pond
- Reservoir
- River
- Sea

Wetlands

- Estuarine
- Freshwater Open Lake
- Freshwater Open Water with Vegetation
- Freshwater Shrub Scrub
- Freshwater Emergent
- Freshwater Wooded Scrub

Flood Zones

- 100 Year Flood Zone
- 500 Year Flood Zone
  (FEMA Base: 7/8/13)

ADMINISTRATIVE INFORMATION

PARCEL NUMBER
04-2334/S

Parent Parcel Number

Property Address
RITCH AVENUE 0036

Neighborhood
2700 BYRAM

Property Class
270 Telecommunications

TAXING DISTRICT INFORMATION

Jurisdiction	57	Greenwich, CT
Area	001	
Corporation	057	
District	04	
Section & Plat	040	
Routing Number	7117N0001	

Site Description

Topography:

Public Utilities:
Water, Sewer, Electric

Street or Road:

Neighborhood:

Zoning:
R-7 Single Family 7,500 SF

Legal Acres:
0.2670

OWNERSHIP

36 RITCH AVENUE LLC
16B ARTHER STREET
GREENWICH, CT 06831

LOT NO PT5 & PT7A-1-1-3 R ITCH AV N1B

Tax ID 182/005 Printed 01/12/2021 Card No. 1 of 1

TRANSFER OF OWNERSHIP

Date		
02/15/2002	KELLY BRIAN & LAURA W/S Bk/Pg: 3786, 114	$0
11/16/2000	CATALANO ANTHONY ETAL DBA CATALANO B Bk/Pg: 3492, 86	$125000
08/20/1986	NA Bk/Pg: 1611, 290	$0

COMMERCIAL

VALUATION RECORD

Assessment Year		10/01/2015	10/01/2015	10/01/2016	10/01/2017	10/01/2018	10/01/2019	10/01/2020
Reason for Change		2015 Final	2015 BAA	2016 List	2017 List	2018 List	2019 List	2020 List
VALUATION	L	664000	664000	664000	664000	664000	664000	664000
Market	B	2350700	2236000	2236000	2236000	2236000	2236000	2236000
	T	3014700	2900000	2900000	2900000	2900000	2900000	2900000
VALUATION	L	464800	464800	464800	464800	464800	464800	464800
70% Assessed	B	1645490	1565200	1565200	1565200	1565200	1565200	1565200
	T	2110290	2030000	2030000	2030000	2030000	2030000	2030000

LAND DATA AND CALCULATIONS

Land Type	Rating Soil ID -or- Actual Frontage	Measured Acreage -or- Effective Frontage	Table Effective Depth	Prod. Factor -or- Depth Factor -or- Square Feet	Base Rate	Adjusted Rate	Extended Value	Influence Factor	Value
1 Primary Commercial				11630.52	57.09	57.09	664000		664000

BA10: Sustained
BA15: Decrease Total value by $114,700
BP15: 15-0972, $15,000 9 Antenna Panels
BP17: 16-3234, 16-4235, 16-4392: Cellular Work, $85,000
CKMP: 8586
DBA: Telecommunications site w/ a 70' flagpole monopole owned by Cingular (and carrier), and a 77' monopine (pole) owned by Verizon (w/ Verizon, ATT & Mobile carriers) both serviced by a custom utility bldg.
LAND: See BP03 memo.

Permit Number / Type	FilingDate	Est. Cost / Est. SqFt	Field Visit

Supplemental Cards

TRUE TAX VALUE 664000

Supplemental Cards
TOTAL LAND VALUE 664000

IMPROVEMENT DATA

PHYSICAL CHARACTERISTICS

ROOFING

Built-up

WALLS

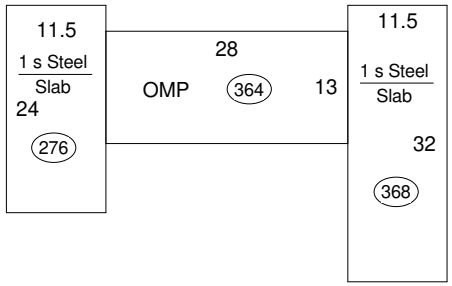
	B	1	2	U
Frame				
Brick				
Metal				
Guard				

FRAMING

	B	1	2	U
F Res	0	644	0	0

HEATING AND AIR CONDITIONING

	B	1	2	U
Heat	0	644	0	0
Sprink	0	644	0	0



01 02 03 04 05 06

Item Description	Units	Cost	Total	Pct
M & S Cost Database Date: 01/2015				
Base Cost	644	61.99	39922	
Exterior Walls	644	31.57	20331	
Heating & Cooling	644	53.92	34724	
Sprinklers	644	7.68	4946	
Basic Structure Cost	644	155.16	99923	
Physical	0	0.00	2998	3.00
Depreciated Cost	644	150.50	96925	
Rounded Total	0	0.00	96900	
OMP	364	33.87	12330	
Total Exterior Features Value				12330
Depreciated Ext Features			11960	
Total Before Adjustments			108860	
Neighborhood Adjustment			54440	50.00
TOTAL VALUE			163300	

(LCM: 150.00)

SPECIAL FEATURES

Description	Value

SUMMARY OF IMPROVEMENTS

ID	Use	Stry Hgt	Const Type	Grade	Year Const	Eff Year	Cond	Base Rate	Feat-ures	Adj Rate	Size or Area	Computed Value	Phys Depr	Obsol Depr	Market Adj	% Comp	Value
C	STGCA	0.00		Good	2012	2012	AV	0.00	N	0.00	644	0	0	0	150	100	163300
01	TOWERMON	0.00	5PF	Good	2003	2003	GD	1477	N	3323	70	232630	0	0	100	100	663000
02	STNWALGS	8.00		Good	2012	2012	AV	125.00	N	281.25	992@ 0	279000	2	0	100	100	779200
03	PAVING	0.00	85	Avg	2012	2012	AV	5.20	N	7.80	2856	22280	2	0	100	100	62200
04	RTWCBREF	0.00	41C	Good	2012	2012	AV	17.00	N	38.25	4x112	17140	2	0	100	100	47900
05	TOWERMON	0.00	5PF	Exe	2012	2012	AV	0.00	N	0.00	77	200000	2	SV	100	100	558600
06	COMCNPYH	0.00	51	Exe	2012	2012	AV	63.00	N	226.80	8x 18	32660	2	0	100	100	91200

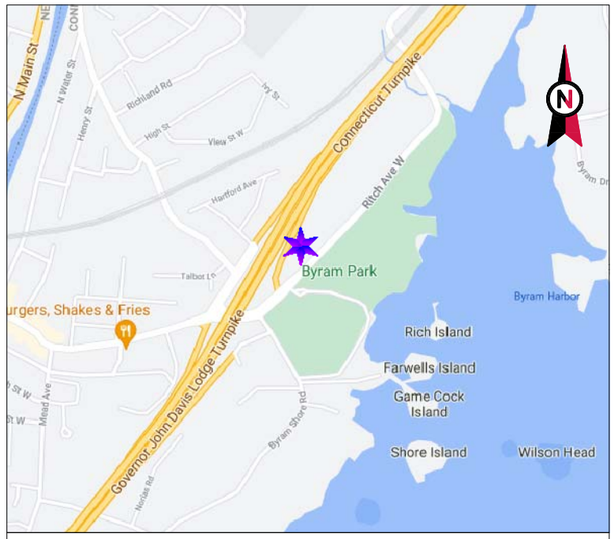
Data Collector/Date
TD 08/03/2017

Appraiser/Date
TOG 10/01/2015

Neighborhood
Neigh 2700 AV

Supplemental Cards

TOTAL IMPROVEMENT VALUE 2365400



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: BYRAM PARK CT
ATC SITE NUMBER: 414240
VERIZON SITE NAME: BYRAM PARK CT
VERIZON SITE NUMBER: 468044
SITE ADDRESS: 48 RITCH AVENUE WEST
GREENWICH, CT 06830-9992

LOCATION MAP

VERIZON
ANTENNA AMENDMENT DRAWINGS

COMPLIANCE CODE

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

1. INTERNATIONAL BUILDING CODE (IBC)
2. NATIONAL ELECTRIC CODE (NEC)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: EVERSOURCE
PHONE: (866) 554-6025

TELEPHONE COMPANY: UNKNOWN
PHONE: (000) 000-0000

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

PROJECT SUMMARY

SITE ADDRESS:

48 RITCH AVENUE WEST

GREENWICH, CT 06830-9992

COUNTY: FAIRFIELD

GEOGRAPHIC COORDINATES:

LATITUDE: 41.00506388

LONGITUDE: -73.64831111

GROUND ELEVATION: 53' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

VERIZON WIRELESS
180 WASHINGTON VALLEY RD
BEDMINSTER, NJ 07921

ENGINEER:

NB+C ENGINEERING SERVICES, LLC
8601 SIX FORKS ROAD, SUITE 540
RALEIGH, NC 27615

PROPERTY OWNER:

36 RITCH AVENUE LLC
48 RITCH AVENUE WEST
GREENWICH, CT 06830-9992

PROJECT DESCRIPTION

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

REMOVE (9) ANTENNA(s), (6) RRH(s), (1) OVP(s), AND (2) 1-5/8" HYBRID CABLE(s)

INSTALL MOUNT MODIFICATIONS, (9) ANTENNA(s), (9) RRH(s), (3) DIPLEXER(s), (1) OVP(s), AND (2) 1-5/8" HYBRID CABLE(s)

EXISTING (3) ANTENNA(s), AND (16) 1-5/8" COAX CABLE(s) TO REMAIN

PROJECT NOTES

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

PROJECT LOCATION DIRECTIONS

TAKE RITCH AVE W AND HAMILTON AVE TO GLEN ST IN GREENWICH, 4 MIN (1.6 MI), HEAD NORTHEAST ON I-95 N, 0.2 MI, TAKE EXIT 2 FOR BYRAM TOWARD DELAVAN AVE, 0.2 MI, CONTINUE ONTO DORAN AVE, 361 FT, TURN LEFT ONTO BYRAM SHORE RD, 167 FT, TURN RIGHT ONTO RITCH AVE W, 0.6 MI, CONTINUE ONTO HAMILTON AVE, 0.5 MI, TAKE RODWELL AVE TO HAMILTON AVE, 43 S (0.2 MI), TURN RIGHT ONTO GLEN ST, 351 FT, GLEN ST TURNS LEFT AND BECOMES RODWELL AVE, 476 FT, RODWELL AVE TURNS LEFT AND BECOMES STONE AVE, 358 FT, CONTINUE ON HAMILTON AVE. DRIVE TO RITCH AVE W, 3 MIN (1.1 MI), TURN LEFT ONTO HAMILTON AVE, 0.6 MI, CONTINUE ONTO RITCH AVE W, DESTINATION WILL BE ON THE RIGHT,

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	09/21/21	BIW
G-002	GENERAL NOTES	0	09/21/21	BIW
C-101	DETAILED SITE PLAN	0	09/21/21	BIW
C-201	TOWER ELEVATION	0	09/21/21	BIW
C-401	ANTENNA INFORMATION & SCHEDULE	0	09/21/21	BIW
C-501	CONSTRUCTION DETAILS	0	09/21/21	BIW
E-501	GROUNDING DETAILS	0	09/21/21	BIW
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			
R-604	SUPPLEMENTAL			
	MOUNT MODIFICATION DRAWINGS			

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: P-1177

NB+C™ TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
8601 SIX FORKS ROAD, SUITE 540
RALEIGH, NC 27615
(919) 657-9131

REV.	DESCRIPTION	BY	DATE
A	PRELIM	TH	07/23/21
0	FOR CONSTRUCTION	BIW	09/21/21

ATC SITE NUMBER:
414240

ATC SITE NAME:
BYRAM PARK CT

VERIZON SITE NAME:
BYRAM PARK CT

SITE ADDRESS:
36 RITCH AVE WEST
GREENWICH, CT 06830-9992

SEAL:

09/21/21

verizon

DATE DRAWN:	09/21/21
ATC JOB NO:	13701270
CUSTOMER ID:	BYRAM PARK CT
CUSTOMER #:	468044

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

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

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
   - A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
   - B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
   - C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
   - D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
   - E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123, EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
   - A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
   - B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
   - C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
   - D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
   - E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
   - F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
   - G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING ½" BEYOND ALL FIELD WELD SURFACES, AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.
   - H. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE REQUIRED DURING CONSTRUCTION UNTIL ALL CONNECTIONS ARE COMPLETE.
   - I. ANY FIELD CHANGES OR SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL FROM THE ENGINEER, AND T- MOBILE PROJECT MANAGER IN WRITING

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

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

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

AMERICAN TOWER®
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COA: P-1177

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NB+C ENGINEERING SERVICES, LLC.
8601 SIX FORKS ROAD, SUITE 540
RALEIGH, NC 27615
(919) 657-9131

REV.	DESCRIPTION	BY	DATE
A	PRELIM	TH	07/23/21
0	FOR CONSTRUCTION	BIW	09/21/21

ATC SITE NUMBER:
414240

ATC SITE NAME:
BYRAM PARK CT

VERIZON SITE NAME:
BYRAM PARK CT

SITE ADDRESS:
36 RITCH AVE WEST
GREENWICH, CT 06830-9992

SEAL:

09/21/21

verizon

DATE DRAWN:	09/21/21
ATC JOB NO:	13701270
CUSTOMER ID:	BYRAM PARK CT
CUSTOMER #:	468044

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

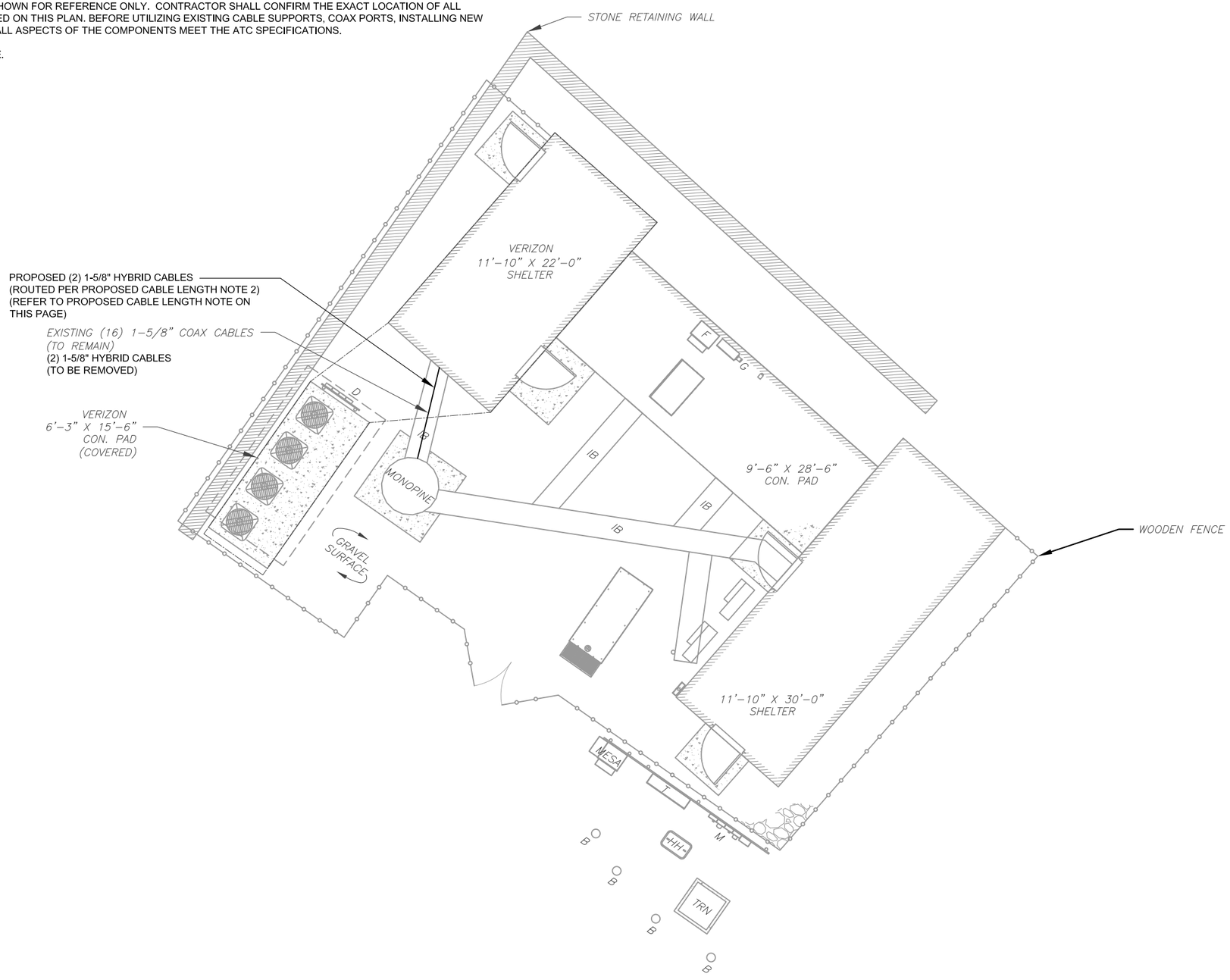
1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

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

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

LEGEND

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



1 DETAILED SITE PLAN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 UNIT = 10 FEET

PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **75**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.

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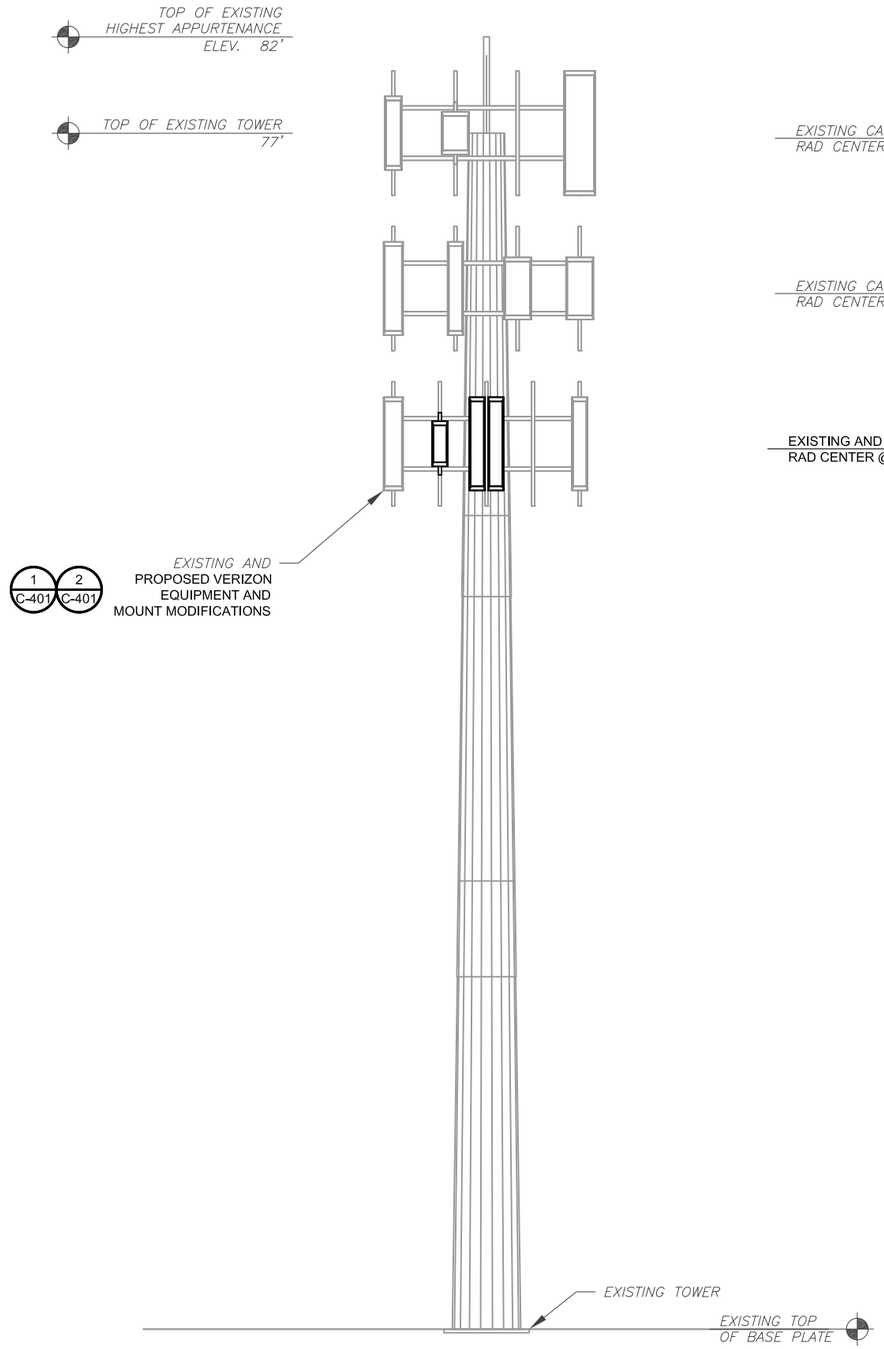
CUSTOMER #:	468044

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0



1 TOWER ELEVATION
SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING, DATED 07/07/2021, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.

TOWER NOTE:

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

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SEAL:

09/21/21

verizon

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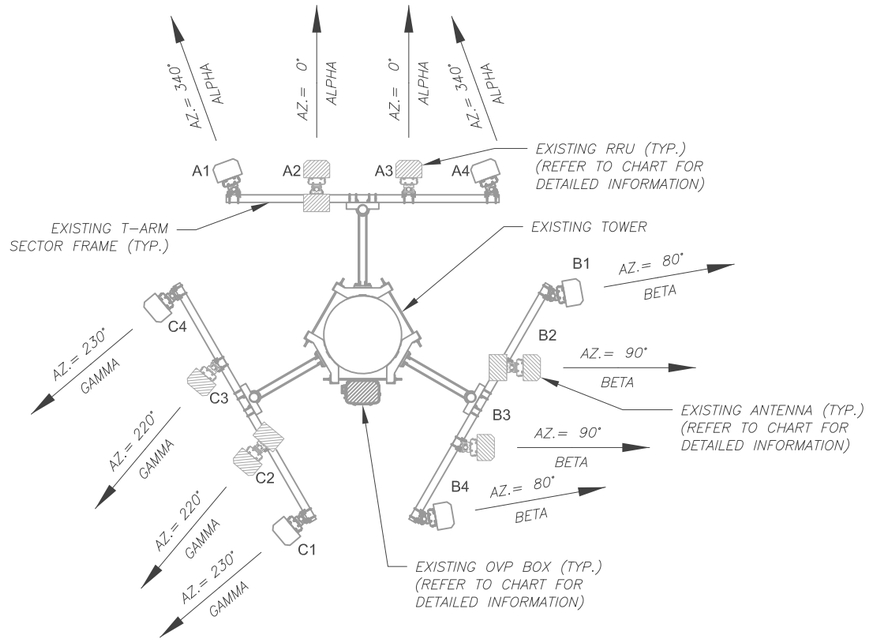
CUSTOMER ID:	BYRAM PARK CT
CUSTOMER #:	468044

TOWER ELEVATION

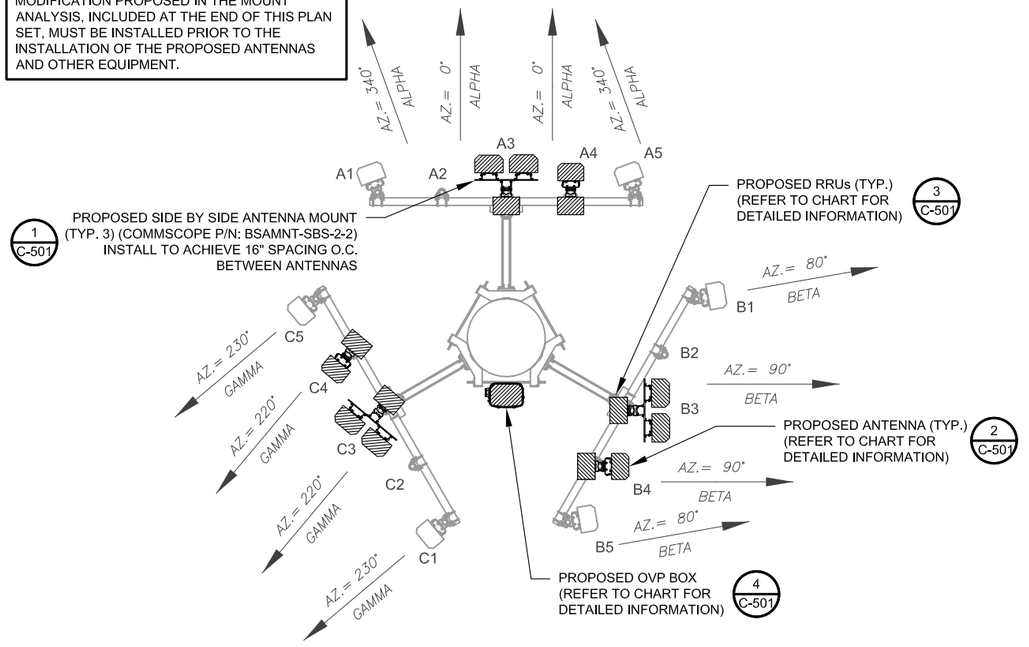
SHEET NUMBER:	REVISION:
C-201	0



1 EXISTING ANTENNA PLAN

SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING, DATED 07/07/2021, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



2 FINAL ANTENNA PLAN

SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	57'	340°	A1	LPA-80063/6CF-EDIN-X	850 CDMA	2/0	RMN	–	–
		0°	A2	SBNHH-1D65A	700/AWS	0/4/2	RMV	UHBA B13 RRH 4X30 UHIE B66A RRH 4X45	RMV
		0°	A3	BXA-171063-12CF	–	–	RMV	–	–
		340°	A4	LPA-80063/6CF-EDIN-X	850 CDMA	2/0	RMN	–	–
BETA	57'	80°	B1	LPA-80063/6CF-EDIN-X	850 CDMA	2/0	RMN	–	–
		90°	B2	SBNHH-1D45A	700/AWS	0/6/3	RMV	UHBA B13 RRH 4X30 UHIE B66A RRH 4X45	RMV
		90°	B3	BXA-171063-12CF	–	–	RMV	–	–
		80°	B4	LPA-80063/6CF-EDIN-X	850 CDMA	2/0	RMN	–	–
GAMMA	57'	230°	C1	LPA-80063/6CF-EDIN-X	850 CDMA	2/0	RMN	–	–
		220°	C2	SBNHH-1D45A	700/AWS	0/6/2	RMV	UHBA B13 RRH 4X30 UHIE B66A RRH 4X45	RMV
		220°	C3	BXA-171063-12CF	–	–	RMV	–	–
		230°	C4	LPA-80063/6CF-EDIN-X	850 CDMA	2/0	RMN	–	–

NOTES

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

STATUS ABBREVIATIONS

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

CABLE LENGTHS FOR JUMPERS

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

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	57'	340°	A1	LPA-80063/6CF-EDIN-X	850 CDMA	2/0	RMN	-	-
		-	A2	-	-	-	-	-	-
		0°	A3	JAHH-65A-R3B	700/850/1900	0/4/4/2	ADD	B5/B13 RRH-BR04C	ADD
		0°	A3	JAHH-65A-R3B	700/850/AWS	0/4/4/2	ADD	CBC78T-DS-43-2X B2/B66A RRH-BR049	ADD
		0°	A4	MT6407-77A	L-SUB6	0/6	ADD	-	-
		340°	A5	LPA-80063/6CF-EDIN-X	850 CDMA	2/0	RMN	-	-
BETA	57'	80°	B1	LPA-80063/6CF-EDIN-X	850 CDMA	2/0	RMN	-	-
		-	B2	-	-	-	-	-	-
		90°	B3	JAHH-45A-R3B	700/850/1900	0/6/10/3	ADD	B5/B13 RRH-BR04C	ADD
		90°	B3	JAHH-45A-R3B	700/850/AWS	0/6/10/3	ADD	CBC78T-DS-43-2X B2/B66A RRH-BR049	ADD
		90°	B4	MT6407-77A	L-SUB6	0/6	ADD	-	-
		80°	B5	LPA-80063/6CF-EDIN-X	850 CDMA	2/0	RMN	-	-
GAMMA	57'	230°	C1	LPA-80063/6CF-EDIN-X	850 CDMA	2/0	RMN	-	-
		-	C2	-	-	-	-	-	-
		220°	C3	JAHH-45A-R3B	700/850/1900	0/6/6/2	ADD	B5/B13 RRH-BR04C	ADD
		220°	C3	JAHH-45A-R3B	700/850/AWS	0/6/6/2	ADD	CBC78T-DS-43-2X B2/B66A RRH-BR049	ADD
		220°	C4	MT6407-77A	L-SUB6	0/6	ADD	-	-
		230°	C5	LPA-80063/6CF-EDIN-X	850 CDMA	2/0	RMN	-	-

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
RC2DC-4750-PF-48	*RMV*	*(16) 1-5/8"*	*–*	*RMN*
–	–	*(1) 1-5/8"*	*(2) 1-5/8"*	RMV

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
RCMDC-6627-PF-48	ADD	*(16) 1-5/8"*	–	*RMN*
-	-	––	(2) 1-5/8"	ADD

3 EQUIPMENT SCHEDULES

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A	PRELIM	TH	07/23/21
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verizon

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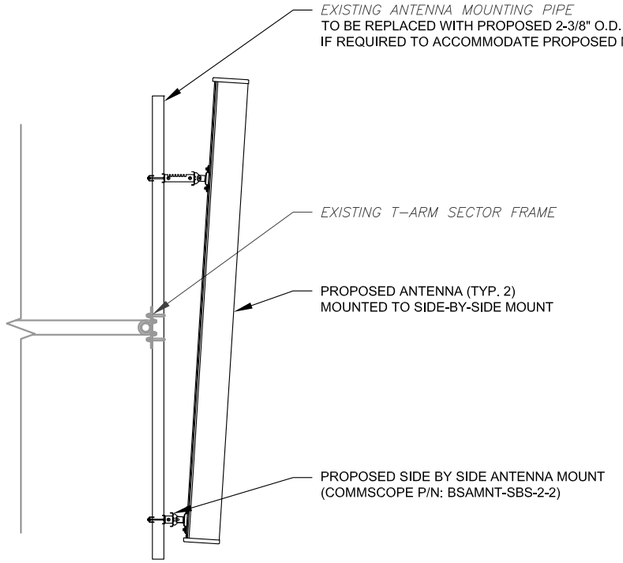
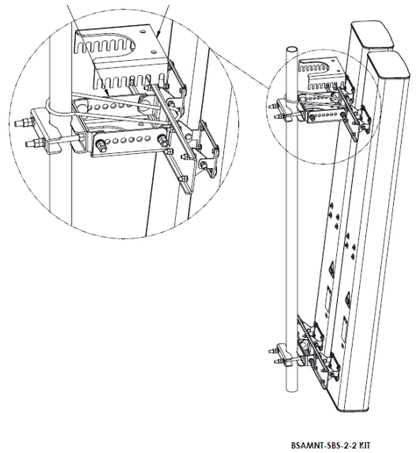
CUSTOMER #:	468044

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-401	0



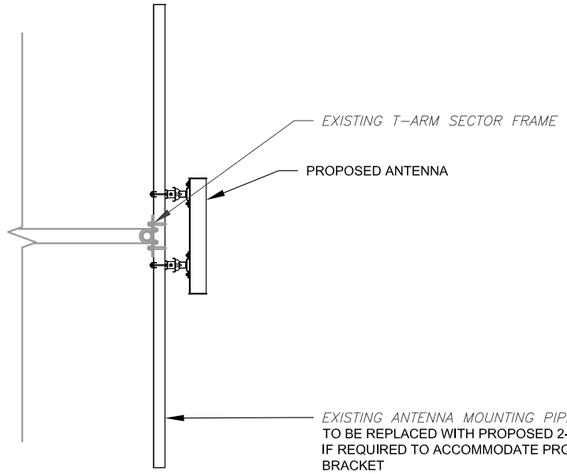
PROFILE VIEW



ISOMETRIC VIEW (BY MANUFACTURER)

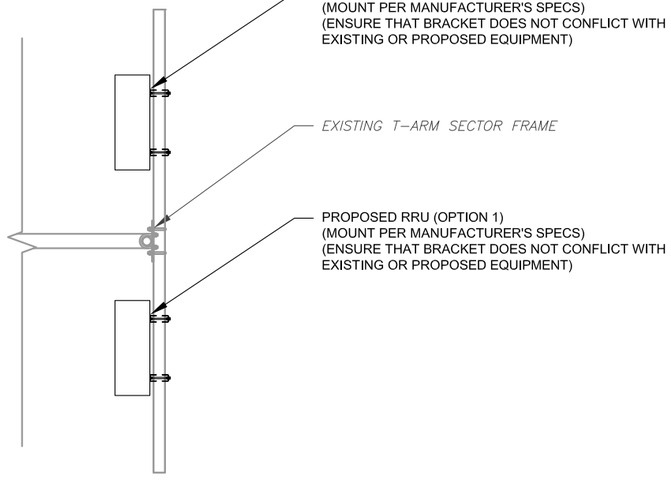
1 PROPOSED SIDE-BY-SIDE MOUNT

SCALE: NOT TO SCALE



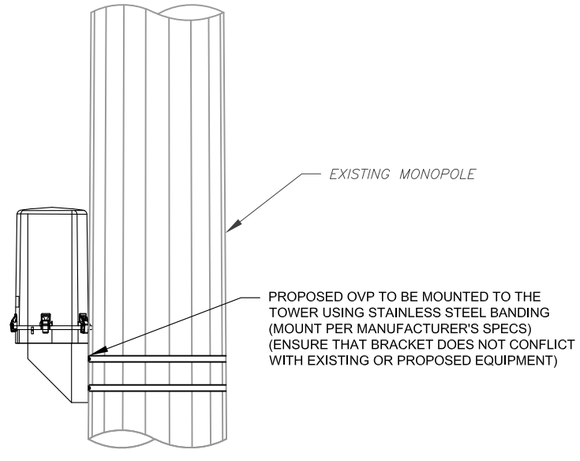
2 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



3 PROPOSED RRU MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



4 PROPOSED OVP MOUNTING

SCALE: N.T.S.

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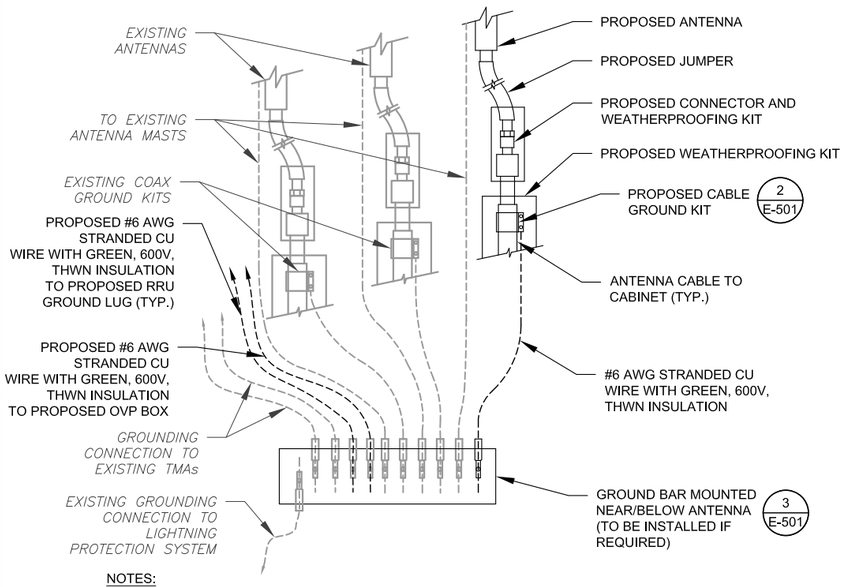
CUSTOMER #:	468044

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

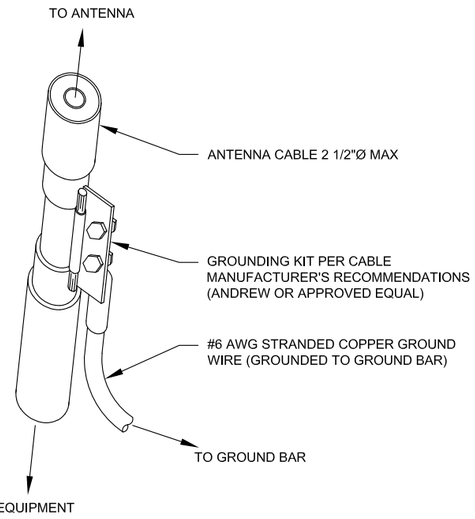


NOTES:

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

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

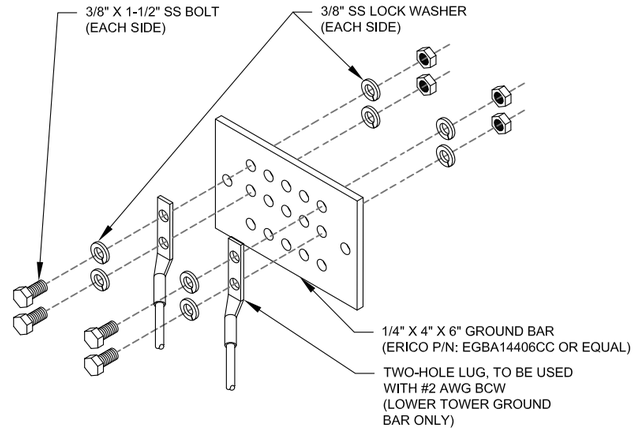


GROUND KIT NOTES:

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

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.



GROUND BAR NOTES:

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

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: P-1177

NB+C™ TOTALLY COMMITTED.
NB+C ENGINEERING SERVICES, LLC.
8601 SIX FORKS ROAD, SUITE 540
RALEIGH, NC 27615
(919) 657-9131

REV.	DESCRIPTION	BY	DATE
A	PRELIM	TH	07/23/21
0	FOR CONSTRUCTION	BIW	09/21/21

ATC SITE NUMBER:
414240

ATC SITE NAME:
BYRAM PARK CT

VERIZON SITE NAME:
BYRAM PARK CT

SITE ADDRESS:
36 RITCH AVE WEST
GREENWICH, CT 06830-9992

SEAL:

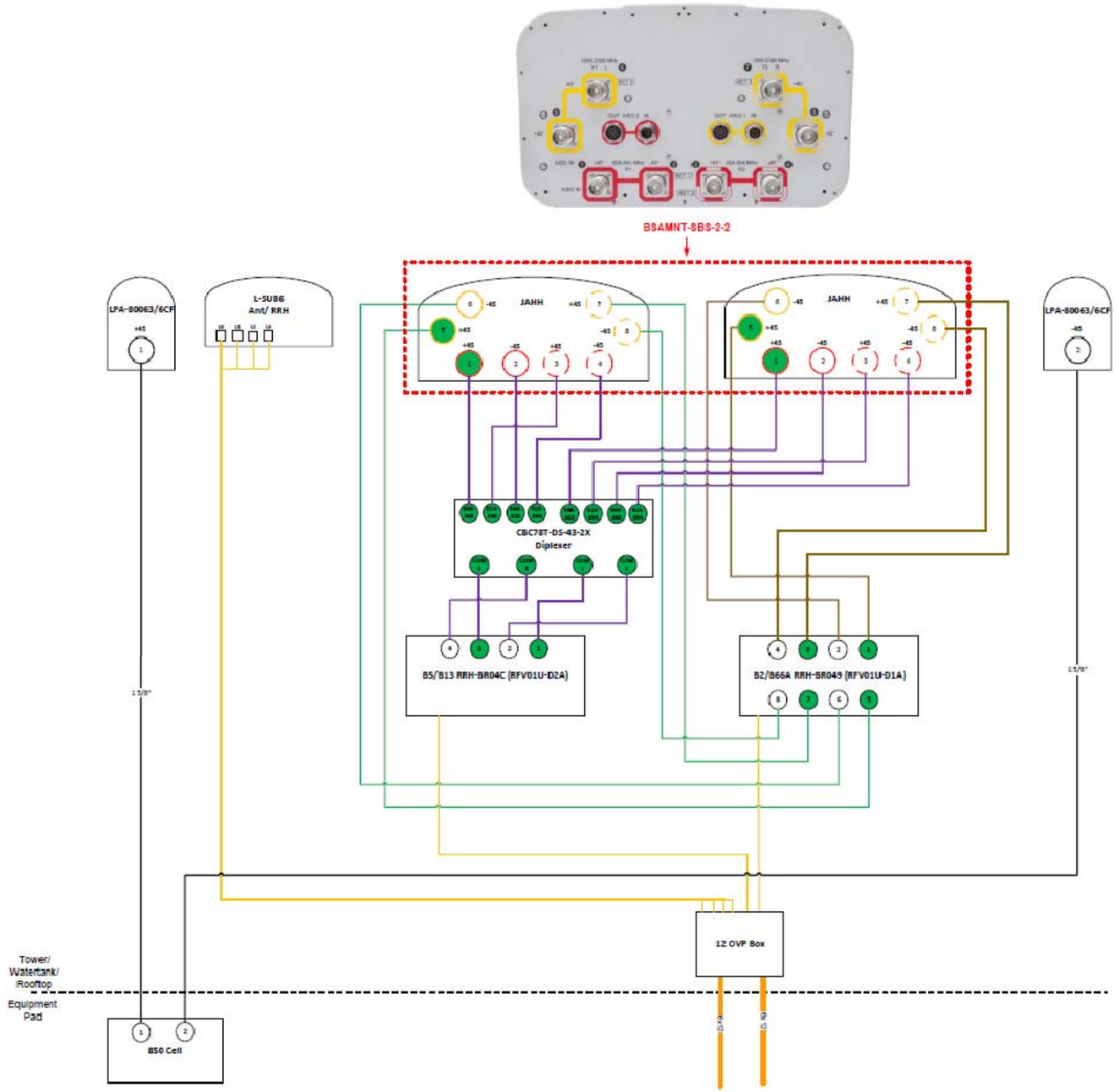
09/21/21

verizon

DATE DRAWN:	09/21/21
ATC JOB NO:	13701270
CUSTOMER ID:	BYRAM PARK CT
CUSTOMER #:	468044

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0



1 PLUMBING DIAGRAM

SCALE: NOT TO SCALE

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

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-601	0

Band	Sector 1 (Alpha) Color Codes	Sector 2 (Beta) Color Codes	Sector 3 (Gamma) Color Codes
850 CDMA	R	B	G
	R R	B B	G G
700	R P	B P	G P
	R R P	B B P	G G P
	R R R P	B B B P	G G G P
	R R R R P	B B B B P	G G G G P
850 LTE	R P P	B P P	G P P
	R R P P	B B P P	G G P P
	R R R P P	B B B P P	G G G P P
	R R R R P P	B B B B P P	G G G G P P
700 / 850	R P P P	B P P P	G P P P
	R R P P P	B B P P P	G G P P P
	R R R P P P	B B B P P P	G G G P P P
	R R R R P P P	B B B B P P P	G G G G P P P
AWS	R W	B W	G W
	R R W	B B W	G G W
	R R R W	B B B W	G G G W
	R R R R W	B B B B W	G G G G W
PCS	R W W	B W W	G W W
	R R W W	B B W W	G G W W
	R R R W W	B B B W W	G G G W W
	R R R R W W	B B B B W W	G G G G W W
AWS / PCS	R W W W	B W W W	G W W W
	R R W W W	B B W W W	G G W W W
	R R R W W W	B B B W W W	G G G W W W
	R R R R W W W	B B B B W W W	G G G G W W W
CBRS	R Y	B Y	G Y
	R R Y	B B Y	G G Y
	R R R Y	B B B Y	G G G Y
	R R R R Y	B B B B Y	G G G G Y
LAA	R Y Y	B Y Y	G Y Y
	R R Y Y	B B Y Y	G G Y Y

	Sector 4 (Delta) Color Codes	Sector 5 (Epsilon) Color Codes	Sector 6 (Zeta) Color Codes
850 CDMA	Gray R	Gray B	Gray G
	Gray R R	Gray B B	Gray G G
700	Gray R P	Gray B P	Gray G P
	Gray R R P	Gray B B P	Gray G G P
	Gray R R R P	Gray B B B P	Gray G G G P
	Gray R R R R P	Gray B B B B P	Gray G G G G P
850 LTE	Gray R P P	Gray B P P	Gray G P P
	Gray R R P P	Gray B B P P	Gray G G P P
	Gray R R R P P	Gray B B B P P	Gray G G G P P
	Gray R R R R P P	Gray B B B B P P	Gray G G G G P P
700 / 850	Gray R P P P	Gray B P P P	Gray G P P P
	Gray R R P P P	Gray B B P P P	Gray G G P P P
	Gray R R R P P P	Gray B B B P P P	Gray G G G P P P
	Gray R R R R P P P	Gray B B B B P P P	Gray G G G G P P P
AWS	Gray R W	Gray B W	Gray G W
	Gray R R W	Gray B B W	Gray G G W
	Gray R R R W	Gray B B B W	Gray G G G W
	Gray R R R R W	Gray B B B B W	Gray G G G G W
PCS	Gray R W W	Gray B W W	Gray G W W
	Gray R R W W	Gray B B W W	Gray G G W W
	Gray R R R W W	Gray B B B W W	Gray G G G W W
	Gray R R R R W W	Gray B B B B W W	Gray G G G G W W
AWS / PCS	Gray R W W W	Gray B W W W	Gray G W W W
	Gray R R W W W	Gray B B W W W	Gray G G W W W
	Gray R R R W W W	Gray B B B W W W	Gray G G G W W W
	Gray R R R R W W W	Gray B B B B W W W	Gray G G G G W W W
CBRS	Gray R Y	Gray B Y	Gray G Y
	Gray R R Y	Gray B B Y	Gray G G Y
	Gray R R R Y	Gray B B B Y	Gray G G G Y
	Gray R R R R Y	Gray B B B B Y	Gray G G G G Y
LAA	Gray R Y Y	Gray B Y Y	Gray G Y Y
	Gray R R Y Y	Gray B B Y Y	Gray G G Y Y

1 CABLE COLOR GUIDE

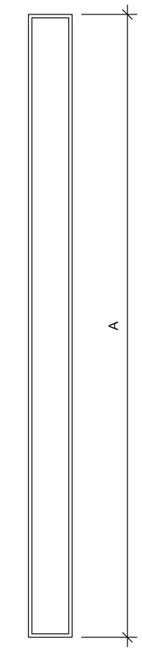
SCALE: NOT TO SCALE

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

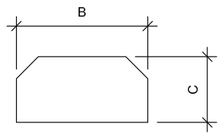
SUPPLEMENTAL

SHEET NUMBER: R-602

REVISION: 0



FRONT VIEW

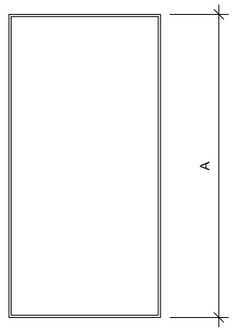


TOP VIEW

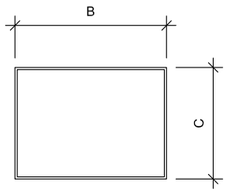
1 ANTENNA SPECIFICATIONS

FOR ILLUSTRATIVE PURPOSES ONLY - NOT TO SCALE

ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
JAHH-65A-R3B	55.0"	13.8"	8.2"	50.7
JAHH-45A-R3B	55.0"	18.0"	7.0"	70.5
MT6407-77A	35.1"	16.1"	5.5"	81.6



FRONT VIEW

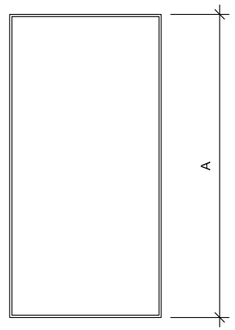


TOP VIEW

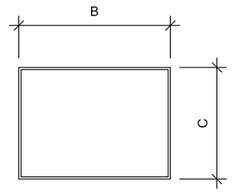
2 RRU SPECIFICATIONS

FOR ILLUSTRATIVE PURPOSES ONLY - NOT TO SCALE

RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
B2/B66A RRH-BR049	15.0"	15.0"	10.0"	84.4
B5/B13 RRH-BR04C	15.0"	15.0"	8.1"	70.3



FRONT VIEW



TOP VIEW

3 TMA SPECIFICATIONS

FOR ILLUSTRATIVE PURPOSES ONLY - NOT TO SCALE

TMA SPECIFICATIONS				
TMA MODEL	A	B	C	WEIGHT (LBS)
CBC78T-DS-43-2X	9.6"	6.9"	6.4"	20.7

SUPPLEMENTAL

SHEET NUMBER: R-603

REVISION: 0

Maser Consulting Connecticut
2000 Midlantic Drive, Suite 100
Mount Laurel, NJ 08054
856.797.0412
Greg.Dulnik@colliersengineering.com

Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10084892
Maser Consulting Connecticut Project #: 20777259A

July 7, 2021

Site Information

Site ID:	*468044-VZW / Byram Park CT*
Site Name:	*Byram Park CT*
Carrier Name:	*Verizon Wireless*
Address:	*36 Ritch Ave W* *Greenwich, Connecticut 06830* *Fairfield County*
Latitude:	*41.005064°*
Longitude:	*-73.648312°*

Structure Information

Tower Type:	*79-Ft Monopole*
Mount Type:	*10.00-Ft T-Frame*

FUZE ID # 16231909

Analysis Results

T-Frame: **79.9% Pass**

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

Report Prepared By: Frank Centorne

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:*
   - Channel, Solid Round, Angle, Plate — ASTM A36 (Gr. 36)
   - HSS (Rectangular) — ASTM 500 (Gr. B-46)
   - Pipe — ASTM A53 (Gr. B-35)
   - Threaded Rod — F1554 (Gr. 36)
   - 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
Mod Standoff	27.9%	Pass
Mod Face	20.3%	Pass
Antenna Pipe	71.2%	Pass
Face Horizontal	20.8%	Pass
Standoff	33.6%	Pass
Standoff Vertical	0.0%	Pass
Existing Connection	79.9%	Pass
MOD Connection	26.4%	Pass

Structure Rating – *(Controlling Utilization of all Components)*	79.9%

Recommendation:

The existing mounts will 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. Mount Mapping Report (for reference only)
3. Analysis Calculations
4. **Contractor Required PMI Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption and Wind Speed Usage Letter

1 MOUNT ANALYSIS
SCALE: NOT TO SCALE

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

SUPPLEMENTAL

SHEET NUMBER: R-604
REVISION: 0

PROJECT NOTES

1. SEE MODIFICATION NOTES
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC/GOVERNING AUTHORITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE AS A RESULT OF CONSTRUCTION OF THIS FACILITY AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
6. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.
8. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
9. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY POTENTIALLY DANGEROUS EXPOSURE LEVELS.
10. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.
11. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS IS REQUIRED).

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MOUNT MODIFICATION DRAWINGS
EXISTING 10.00' T-ARM

SITE NAME: BYRAM PARK CT
SITE NUMBER: 468044

36 RITCH AVE W
GREENWICH, CT 06830
FAIRFIELD COUNTY

PROJECT INFORMATION

SITE INFORMATION

LATITUDE: 41.005064° N
LONGITUDE: 73.648312° W
JURISDICTION: FAIRFIELD COUNTY

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS
ADDRESS: 118 FLANDERS ROAD, THIRD FLOOR
CITY, STATE, ZIP: WESTBOROUGH, MA 01581
CONTACT: ANDREW CANDIELLO
EMAIL: ANDREW.CANDIELLO@VERIZONWIRELESS.COM

PROJECT MANAGER

COMPANY: MASER CONSULTING CONNECTICUT
CONTACT: GREG DULNIK
PHONE: (615) 686-2575
E-MAIL: GREG.DULNIK@COLLIERSENGINEERING.COM

SHEET INDEX

SHEET	DESCRIPTION
T-1	TITLE SHEET
S-1	BILL OF MATERIALS
S-2	MODIFICATION NOTES
S-3	MODIFICATION NOTES
S-4	MODIFICATION DETAILS
S-5	MODIFICATION DETAILS
S-6	MOUNT PHOTOS
	SPECIFICATION SHEETS

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10084892
VZW LOCATION CODE (PSLC): 468044
FUZE ID: 16231909

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

REFERENCED DOCUMENTS

FAILING MOUNT ANALYSIS REPORT
SMART TOOL PROJECT #: 10017683
MASER CONSULTING PROJECT #: 20777259A
ANALYSIS DATE: 7/2/2021

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- NEW MEXICO
- MARYLAND
- GEORGIA
- TEXAS
- TENNESSEE
- COLORADO

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SCALE: AS SHOWN
JOB NUMBER: 20777259A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0	7/7/2021	ISSUED FOR CONSTRUCTION	FAC	DH

STATE OF CONNECTICUT
DEREK R. HARTZELL
LICENSED PROFESSIONAL ENGINEER
32710

Digitally signed by Derek R. Hartzell
Date: 2021.07.07 08:43:54-04'00'

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:

BYRAM PARK CT
468044

36 RITCH AVE W
GREENWICH, CT 06830
FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054

Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: TITLE SHEET

SHEET NUMBER: T-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES
3	VZWSMART	VZWSMART-SFK4	T-ARM KIT	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET S-2
1		VZWSMART-PLK7	MONOPOLE COLLAR MOUNT ASSEMBLY	
15		VZWSMART-MSK2	CROSSOVER PLATE	

OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES
3	-	-	120" LONG, P3.0 STD	GALVANIZED
3	-	-	102" LONG, P2.5 STD	GALVANIZED
4	SITE PRO 1	SQCX4-K	CROSSOVER PLATE KIT W/ SQUARE U-BOLTS AND STD. U-BOLTS	OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING FOR APPROVAL OF SUBSTITUTION
1	-	-	36" LONG, P2.0 STD	GALVANIZED

NOTE: ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE

CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM

METROSITE FABRICATORS, LLC

CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM

PERFECTVISION

CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM

SABRE INDUSTRIES, INC.

CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM

SITE PRO 1

CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

NOTE: WHEN SPECIFIED, VZWSMART KITS SHALL BE REQUIRED AND WILL BE VERIFIED DURING THE DESKTOP PMI

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SCALE: AS SHOWN
JOB NUMBER: 20777259A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	7/7/2021	ISSUED FOR CONSTRUCTION	FAC	DH

STATE OF CONNECTICUT — DEREK R. HARTZELL — 32710 — LICENSED PROFESSIONAL ENGINEER

Derek Hartzell
CONNECTICUT LICENSED PROFESSIONAL ENGINEER
LICENSE NUMBER: 32710
MASER CONSULTING
CT. C.O.A. #: PEC.0000131

Digitally signed by Derek R. Hartzell
Date: 2021.07.07 08:44:05-04'00'

SITE NAME:

BYRAM PARK CT
468044

36 RITCH AVE W
GREENWICH, CT 06830
FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE: BILL OF MATERIALS

SHEET NUMBER: S-1

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 30-MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL SYSTEMS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSI/TIA-322.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

DESIGN LOADS

WIND LOADS

a. BASIC WIND SPEED (3 SECOND GUST), V = 116 MPH

b. EXPOSURE CATEGORY C

c. TOPOGRAPHIC CATEGORY 1

d. MEAN BASE ELEVATION (AMSL) = 50.68'

ICE LOADS

a. ICE WIND SPEED (3 SECOND GUST), V = 50 MPH

b. ICE THICKNESS = 1.00 IN

SEISMIC LOADS

a. SEISMIC DESIGN CATEGORY B

b. SHORT TERM MCER GROUND MOTION, S_S = .277

c. LONG TERM MCER GROUND MOTION, S_1 = .060

STRUCTURAL STEEL

1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
   a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
   b. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS
   c. AISC CODE OF STANDARD PRACTICE
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:

CHANNELS, ANGLES, PLATES, ETC.	ASTM A36 (GR 36)
STEEL PIPE	ASTM A53 (GR 35)
BOLTS	ASTM A325
NUTS	ASTM A563
LOCK WASHERS	LOCKING STRUCTURAL GRADE

3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE IS SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
   a. SUBMIT SHOP DRAWINGS TO GREG.DULNIK@COLLIERSENGINEERING.COM
   b. PROVIDE MASER CONSULTING PROJECT # AND MASER CONSULTING PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
9. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
10. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
11. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT IS AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
12. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
13. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINGA OR ZINC COTE), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.

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SCALE :	JOB NUMBER :
AS SHOWN	20777259A

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STATE OF CONNECTICUT · DEREK R. HARTZELL · 32710 · LICENSED PROFESSIONAL ENGINEER

Derek Hartzell
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE NUMBER: 32710
MASER CONSULTING
C.T. C.OA. #: JPC.0000131

Digitally signed by Derek R. Hartzell
Date: 2021.07.07 08:44:05-04'00'

SITE NAME:

BYRAM PARK CT
468044

36 RITCH AVE W
GREENWICH, CT 06830
FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE :
MODIFICATION NOTES

SHEET NUMBER :
S-2

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

MODIFICATION INSPECTION NOTES

MI CHECKLIST	
CONSTRUCTION/ INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY EOR)	REPORT ITEM
PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING
X	EOR APPROVED SHOP DRAWINGS
NA	FABRICATION INSPECTION
NA	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
NA	FABRICATOR NDE INSPECTION
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
NA	CONTRACTOR'S CERTIFIED WELD INSPECTION AND NDE REPORTS
X	ON SITE COLD GALVANIZING VERIFICATION
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)
X	VZW PMI DOCUMENTS
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTE: X DENOTES A DOCUMENT REQUIRED FOR THE MI REPORT
NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE MI REPORT

THE MODIFICATION INSPECTION (MI) IS A VISUAL INSPECTION OF MODIFICATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE MODIFICATION DRAWINGS, AS DESIGNED BY THE ENGINEER OF RECORD (EOR).

THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, NOR DOES THE MI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.

TO ENSURE THAT THE REQUIREMENTS OF THE MI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PURCHASE ORDER (PO) IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY.

MI INSPECTOR

THE MI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE MI TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS

THE MI INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GC INSPECTION AND TEST REPORTS, REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE MI REPORT TO EOR.

GENERAL CONTRACTOR

THE GC IS REQUIRED TO CONTACT THE MI INSPECTOR AS SOON AS RECEIVING A PO FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE MI INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE MI INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS

THE GC SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MI CHECKLIST.

RECOMMENDATIONS

THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING AN MI REPORT:

- IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
- THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
- IT MAY BE BENEFICIAL TO INSTALL ALL MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTIONS TO ALLOW THE FOUNDATION AND MI INSPECTION(S) TO COMMENCE WITH ONE SITE VISIT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

CORRECTION OF FAILING MI'S

IF THE MODIFICATION INSTALLATION WOULD FAIL THE MI ("FAILED MI"), THE GC SHALL WORK WITH THE OWNER TO COORDINATE A REMEDIATION PLAN:

- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MI.

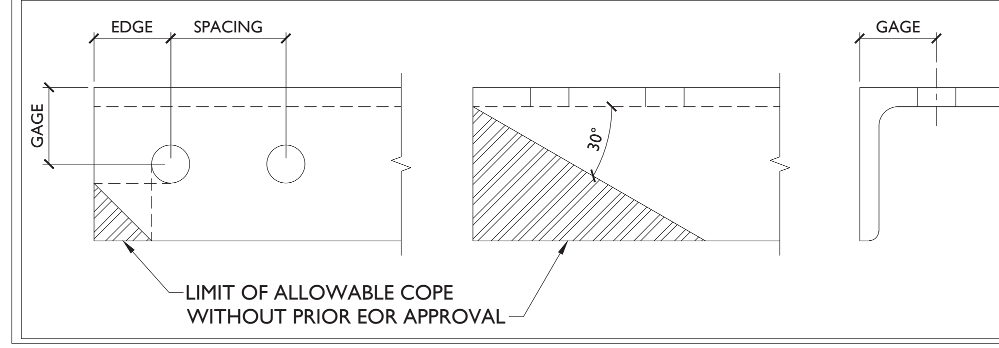
REQUIRED PHOTOS

BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:

- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
  - RAW MATERIALS
  - PHOTOS OF ALL CRITICAL DETAILS
  - FOUNDATION MODIFICATIONS
  - WELD PREPARATION
  - BOLT INSTALLATION
  - FINAL INSTALLED CONDITION
  - SURFACE COATING REPAIR
- POST CONSTRUCTION PHOTOGRAPHS
  - FINAL INFIELD CONDITION

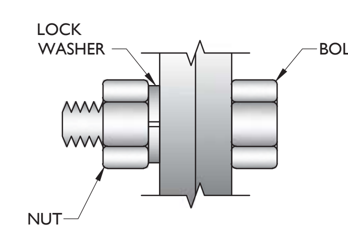
PHOTOS OF ELEVATED MODIFICATIONS TAKEN ONLY FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

ALLOWABLE COPING



BOLT SCHEDULE (IN.)				
BOLT DIAMETER	**STANDARD HOLE**	**SHORT SLOT**	**MIN. EDGE DISTANCE**	**SPACING**
1/2	9/16	9/16 x 11/16	7/8	1 1/2
5/8	11/16	11/16 x 7/8	1 1/8	1 7/8
3/4	13/16	13/16 x 1	1 1/4	2 1/4
7/8	15/16	15/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

WORKABLE GAGES (IN.)	
LEG	**GAGE**
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



TYP. BOLT ASSEMBLY

NOTES:

1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
3. SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS
4. MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.

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STATE OF CONNECTICUT DEREK R. HARTZELL 32710 LICENSED PROFESSIONAL ENGINEER
Derek Hartzell
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE NUMBER: 32710
MASER CONSULTING
C.T. C.OA. #: JPC.0000131
Digitally signed by Derek R. Hartzell
Date: 2021.07.07 08:44:05-04'00'

SITE NAME:

BYRAM PARK CT
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36 RITCH AVE W
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FAIRFIELD COUNTY

MT. LAUREL OFFICE
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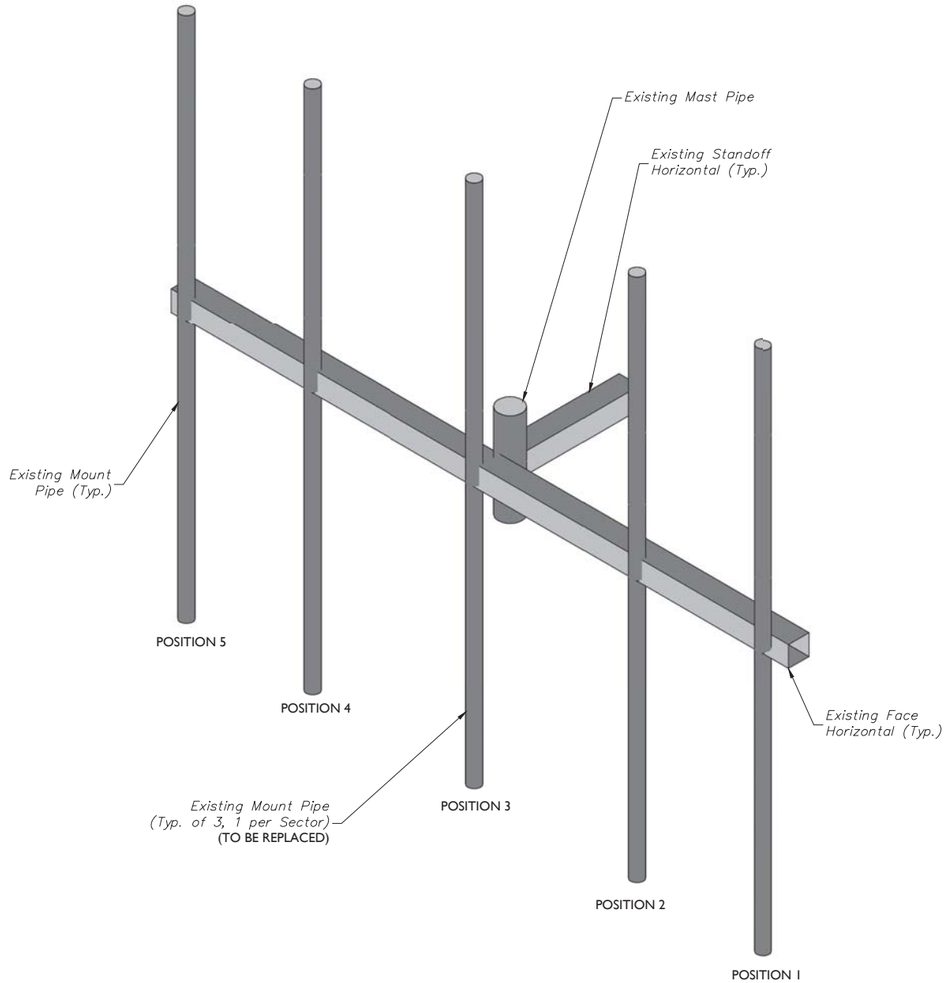
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE : MODIFICATION NOTES

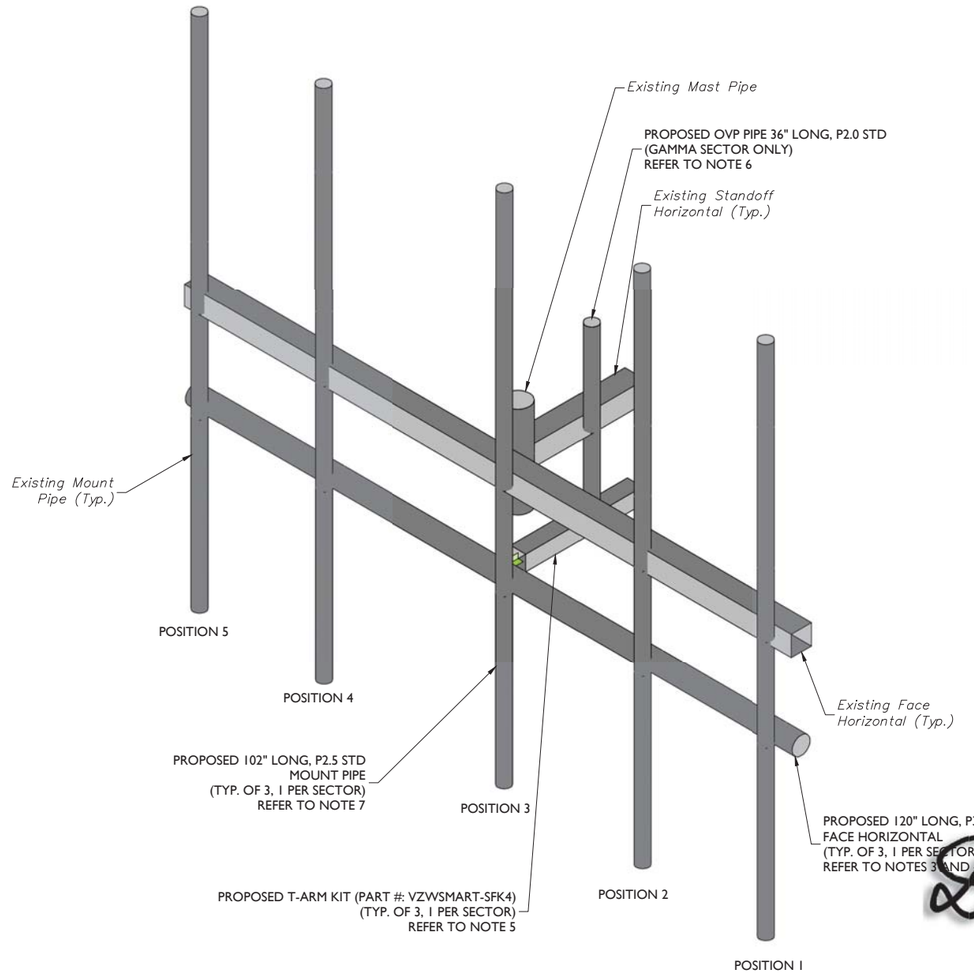
SHEET NUMBER : S-3

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



1 EXISTING T-ARM ISOMETRIC VIEW (TYP. ALL SECTORS)

SCALE : N.T.S.



2 PROPOSED T-ARM ISOMETRIC VIEW (TYP. ALL SECTORS)

SCALE : N.T.S.

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY TOWER ENGINEERING PROFESSIONALS ON 10/21/2020, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (56'-0") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.
2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.
3. CONTRACTOR TO REMOVE AND REPLACE ARTIFICIAL BRANCHES AS NEEDED FOR INSTALLATION.
4. CONTRACTOR TO WORK WITH TOWER OWNER TO REMOVE TOWER BRANCHES AS NEEDED TO INSTALL PROPOSED MOUNT CONNECTION.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET S-2.
3. RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
4. CONNECT NEW HORIZONTAL TO ALL VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
5. CONNECT OTHER END OF T-ARM KIT TO MONOPOLE COLLAR MOUNT ASSEMBLY (PART #: VZWSMART-PLK7).
6. CONNECT NEW OVP PIPE TO EXISTING STANDOFF HORIZONTAL WITH CROSSOVER PLATE (PART #: SITE PRO 1 - SQCX4-K, OR EOR APPROVED EQUAL).
7. CONNECT NEW MOUNT PIPE TO EXISTING FACE HORIZONTAL WITH CROSSOVER PLATE (PART #: SITE PRO 1 - SQCX4-K, OR EOR APPROVED EQUAL.

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Derek Hartzell
CONNECTICUT LICENSED PROFESSIONAL ENGINEER
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MASER CONSULTING
CT. C.O.A. NO. PEC.0031

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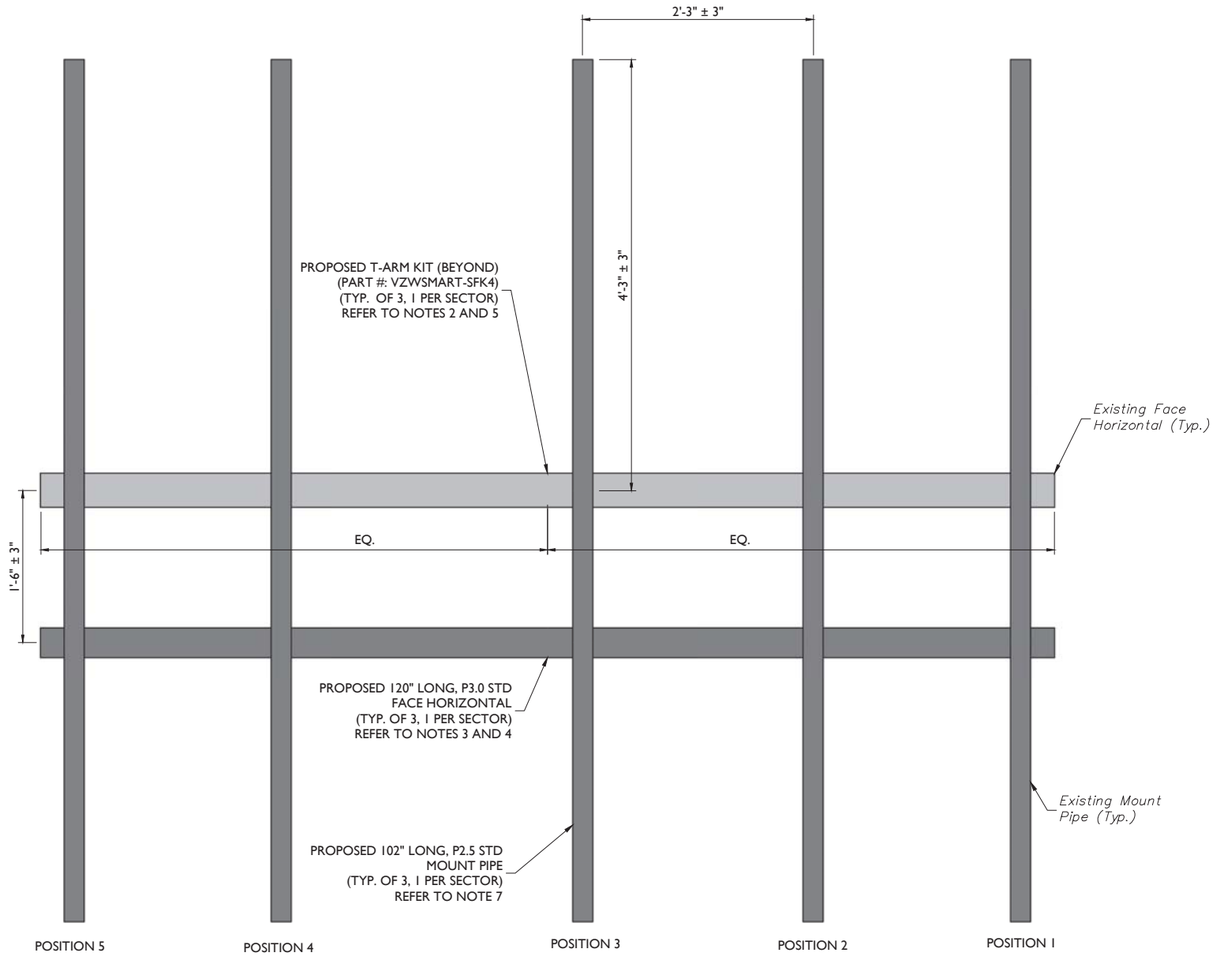
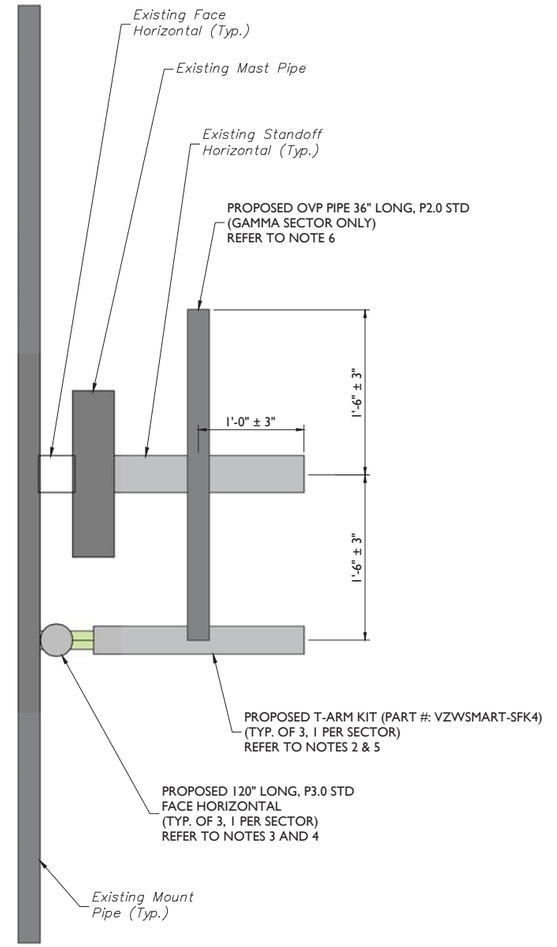
SHEET TITLE : MODIFICATION DETAILS

SHEET NUMBER : S-4



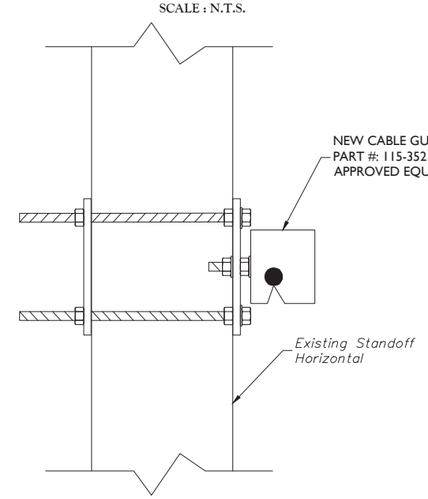
1 PROPOSED FRONT ELEVATION (TYP. ALL SECTORS)

SCALE : N.T.S.



2 PROPOSED SIDE ELEVATION (TYP. ALL SECTORS)

SCALE : N.T.S.



3 PROPOSED CABLE GUIDE STANDOFF SQUARE TUBE ATTACHMENT - PLAN VIEW

SCALE : N.T.S.

MODIFICATION NOTES:

1. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
2. CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET S-2.
3. RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
4. CONNECT NEW HORIZONTAL TO ALL VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
5. CONNECT OTHER END OF T-ARM KIT TO MONOPOLE COLLAR MOUNT ASSEMBLY (PART #: VZWSMART-PLK7).
6. CONNECT NEW OVP PIPE TO EXISTING STANDOFF HORIZONTAL WITH CROSSOVER PLATE (PART #: SITE PRO 1 - SQCX4-K, OR EOR APPROVED EQUAL).
7. CONNECT NEW MOUNT PIPE TO EXISTING FACE HORIZONTAL WITH CROSSOVER PLATE (PART #: SITE PRO 1 - SQCX4-K, OR EOR APPROVED EQUAL.

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811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
Know what's below. Call before you dig.
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE :	JOB NUMBER :
AS SHOWN	20777259A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	7/7/2021	ISSUED FOR CONSTRUCTION	FAC	DH

STATE OF CONNECTICUT
DEREK R. HARTZELL
32710
LICENSED PROFESSIONAL ENGINEER
Derek Hartzell
CONNECTICUT LICENSED PROFESSIONAL ENGINEER
LICENSE NUMBER: 32710
MASER CONSULTING
CT. C.O.A. #: PEC.0031
Digitally signed by Derek R. Hartzell
Date: 2021.07.07 08:44:05-04'00'

SITE NAME:

BYRAM PARK CT
468044

36 RITCH AVE W
GREENWICH, CT 06830
FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE :
MODIFICATION DETAILS

SHEET NUMBER :
S-5

MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3

MOUNT PHOTO 4

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SCALE : AS SHOWN

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STATE OF CONNECTICUT · DEREK R. HARTZELL · 32710 · LICENSED PROFESSIONAL ENGINEER

Derek Hartzell
CONNECTICUT PROFESSIONAL ENGINEER
LICENSE NUMBER: 32710
MASER CONSULTING
CT. COA. NO. PEC.0000131

Digitally signed by Derek R. Hartzell
Date: 2021.07.07 08:44:06-04'00'

SITE NAME:

BYRAM PARK CT
468044

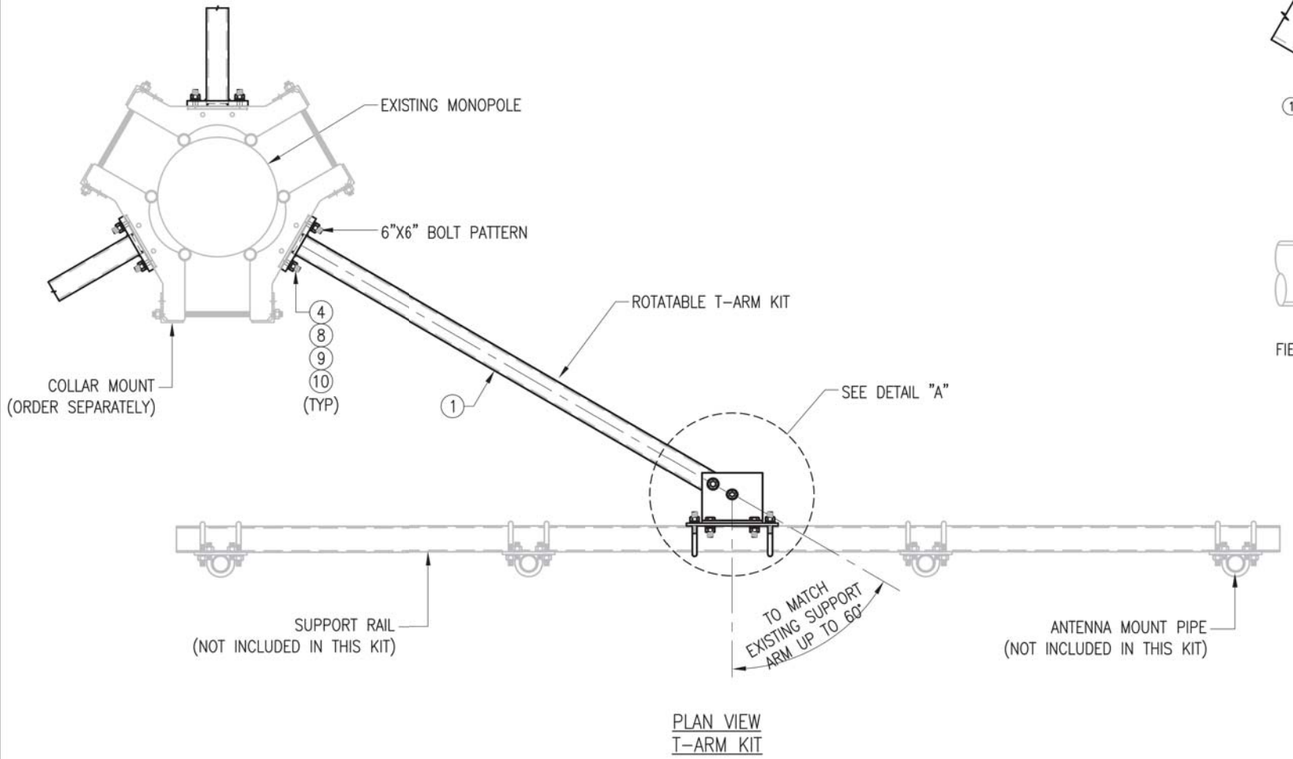
36 RITCH AVE W
GREENWICH, CT 06830
FAIRFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054

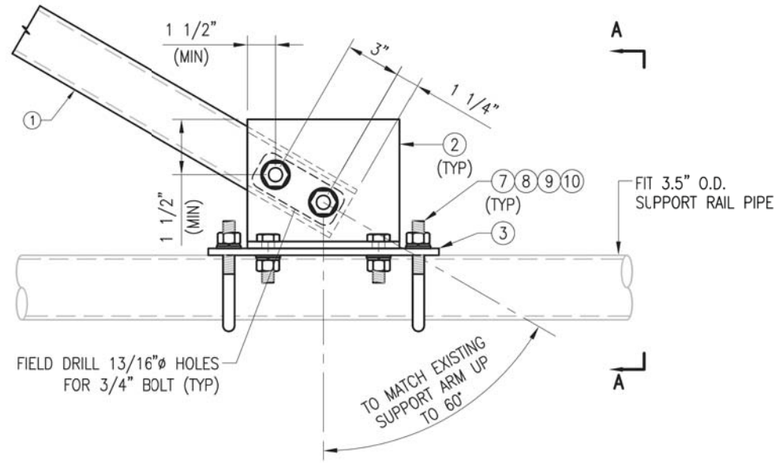
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE : MOUNT PHOTOS

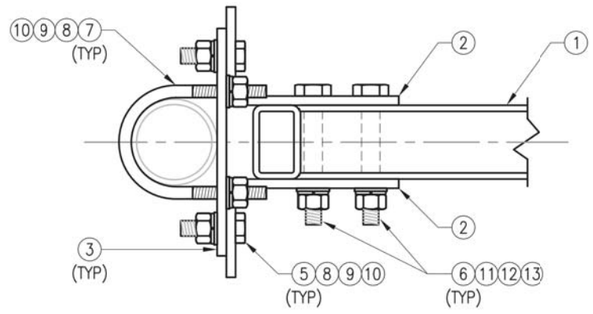
SHEET NUMBER : S-6



PLAN VIEW
T-ARM KIT



DETAIL "A"



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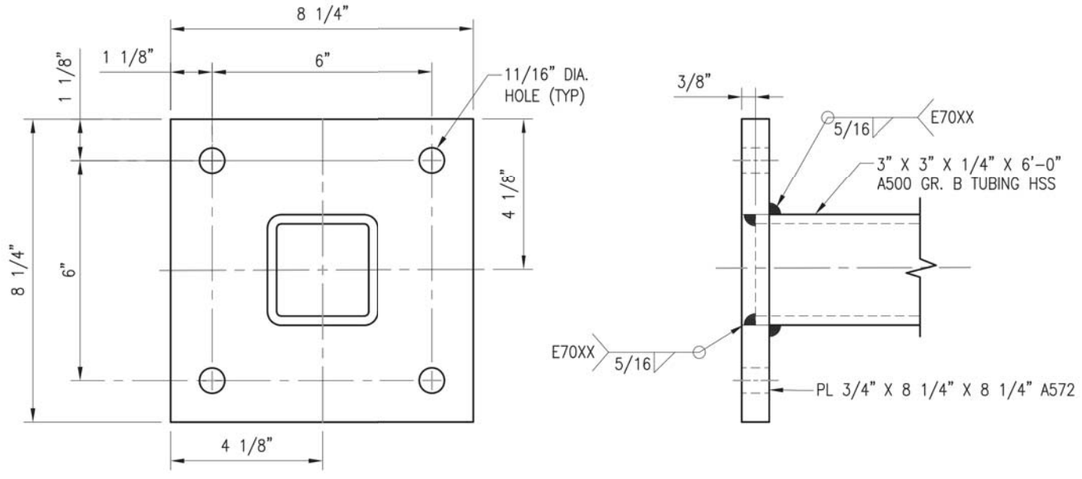

FRONT VIEW

SIDE VIEW

RO-TAW-6 WELDMENT

VZWSMART SFK4 (T ARM KIT)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	RO-TAW-6	T-ARM WELDMENT	SFK4-F1	71
2	2	BP825-94375	PL 3/8" X 8 1/4" X 9 7/16" A36 BEND PLATE	SFK4-F2	17
3	1	PL375-92512025	PL 3/8" X 9 1/4" X 1'-0 1/2" A36	SFK4-F3	12
4	4	---	BOLT 5/8" X 2 1/4" A325	---	0
5	4	---	BOLT 5/8" X 2" A325	---	0
6	2	---	BOLT 3/4" X 5 1/4" A325	---	0
7	2	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)	RBC-1	3
8	12	FW-625	5/8" HDG USS FLAT WASHER	---	1
9	12	LW-625	5/8" HDG LOCK WASHER	---	0
10	12	NUT-625	5/8" HDG HEX NUT	---	1
11	2	FW-75	3/4" HDG USS FLAT WASHER	---	0
12	2	LW-75	3/4" HDG LOCK WASHER	---	0
13	2	NUT-75	3/4" HDG HEX NUT	---	0
				GALVANIZED WT	106

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

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DRAWN BY: BT | CHECKED BY: HMA/KW

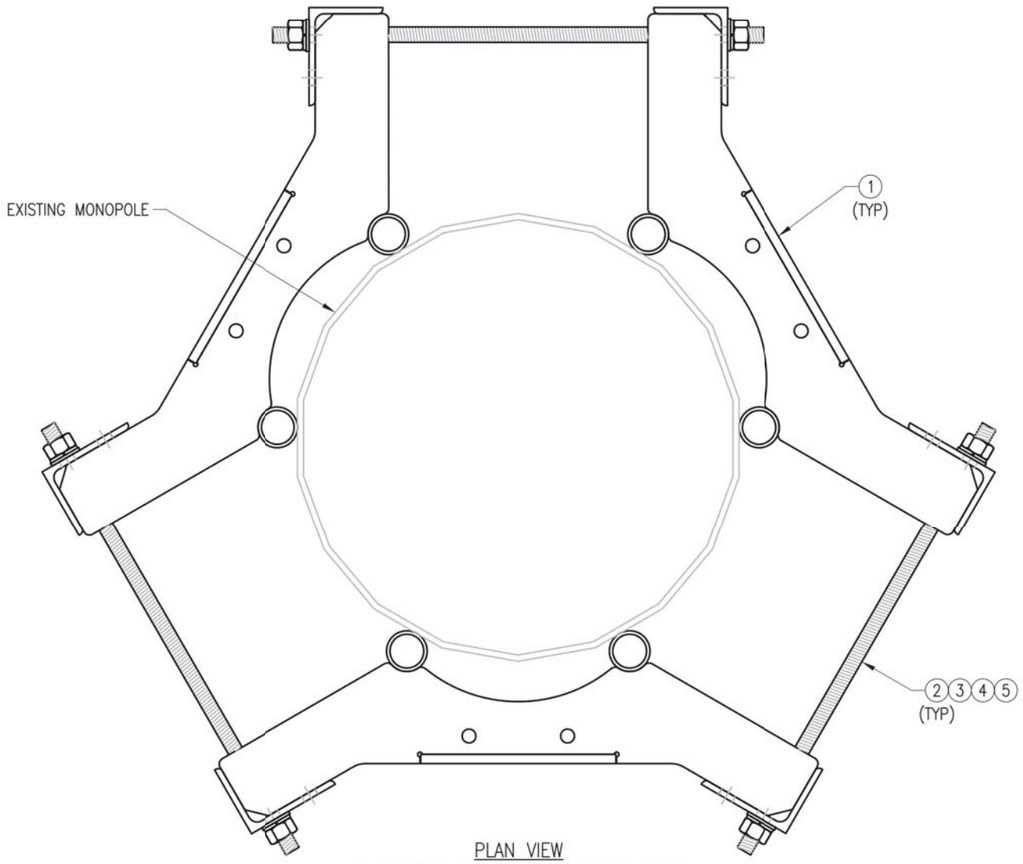
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	05/08/20

SHEET TITLE:

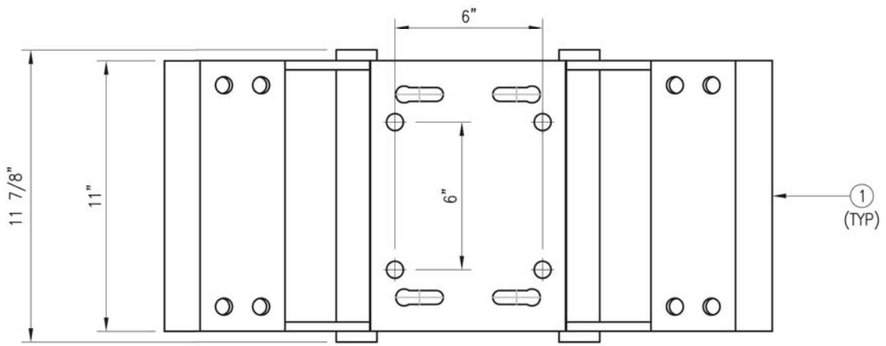
VZWSMART-SFK4
T-ARM KIT

SHEET NUMBER: VZWSMART-SFK4

REV #: 0



PLAN VIEW
MONOPOLE COLLAR MOUNT ASSEMBLY



FRONT VIEW

NOTES:
1. FIT 12" TO 45" DIA MONOPOLE.
2. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-PLK7 (MONOPOLE COLLAR MOUNT ASSEMBLY)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	3	CM-1245	COLLAR MOUNT ASSEMBLY	PLK7-F1	147
2	6	---	THREADED ROD 5/8" X 4'-0" A193-B7	---	
3	12	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	12	LW-625	5/8" HDG LOCK WASHER	---	0
5	12	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	150

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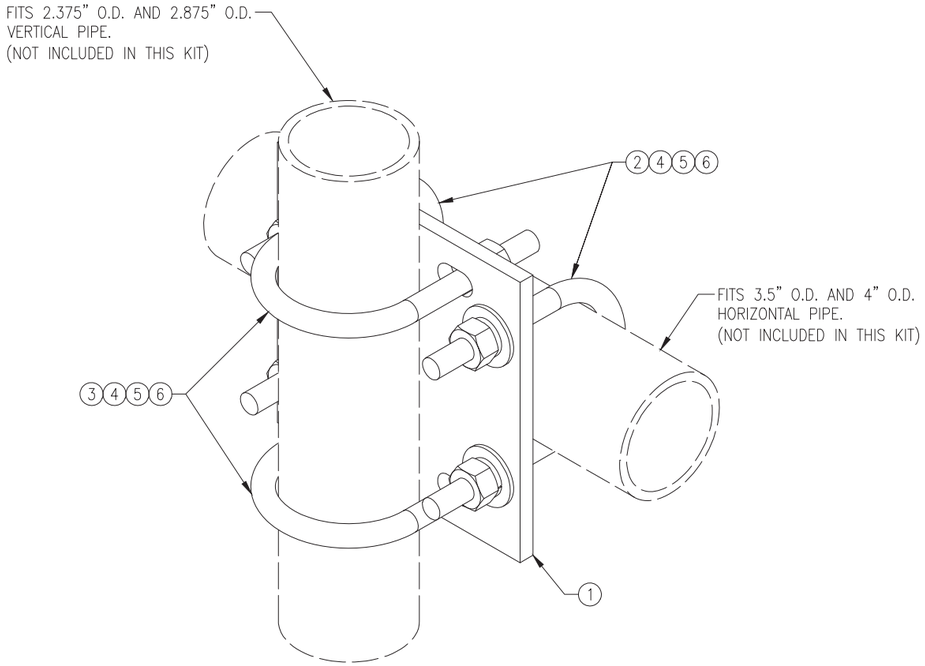
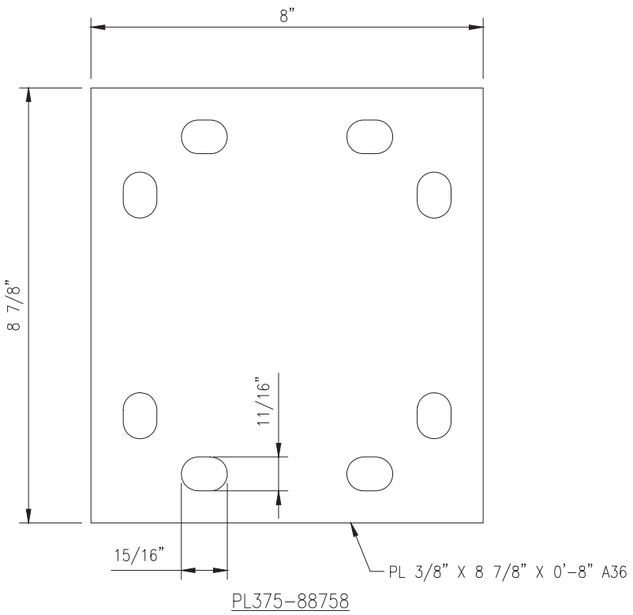
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	05/11/20

SHEET TITLE:
VZWSMART-PLK7
MONOPOLE COLLAR
MOUNT ASSEMBLY

SHEET NUMBER: VZWSMART-PLK7

REV #: 0





PL375-88758

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-MSK2 (CROSSOVER PLATE)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-88758	PL 3/8" X 8 3/4" X 0'-8" A36	MSK2-F1	8
2	2	MS02-625-4125-600	RU-BOLT 5/8" X 4 1/8" I.W. X 6" I.L. A36 (OR EQUIV.)	RBC-1	3
3	2	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	3
4	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
5	8	LW-625	5/8" HDG LOCK WASHER	---	0
6	8	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	15

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DRAWN BY: H.R | CHECKED BY: HMA

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

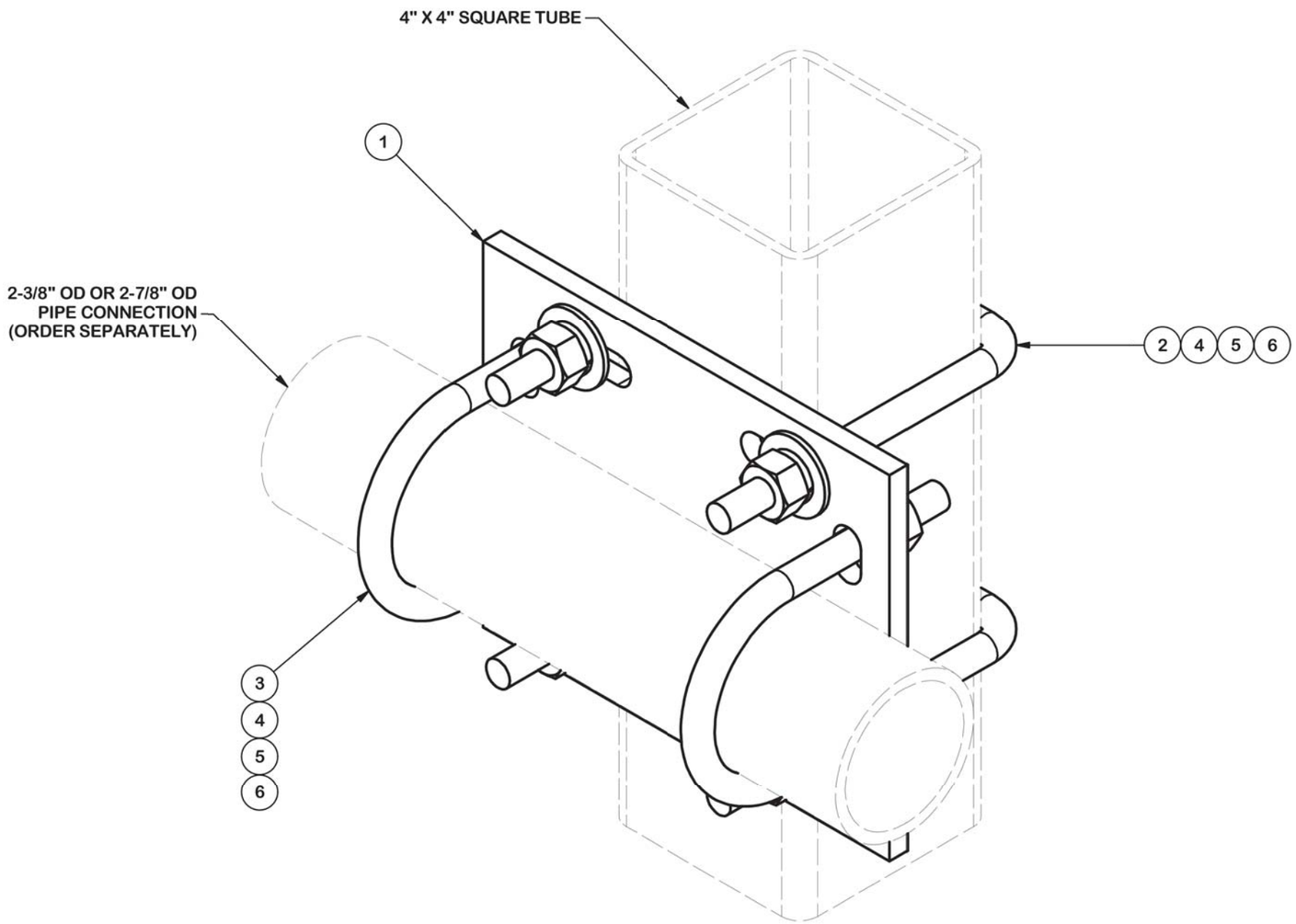
SHEET TITLE:

VZWSMART-MSK2
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK2

REV #: 0

ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	6.02
2	2	X-SUB1418	SQUARE U-BOLT 0.5" DIA. X 4.125" IW X 6" IL X 3" TR		0.98	1.95
3	2	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.60	1.19
3	2	X-UB1300	1/2" X 3" X 5" X 2" U-BOLT (HDG.)		0.67	1.34
4	8	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.27
5	8	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.11
6	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
					TOTAL WT. #	11.35



TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES (± 0.030")
DRILLED AND GAS CUT HOLES (± 0.030") - NO CONING OF HOLES
LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING (± 0.030")
ALL OTHER ASSEMBLY (± 0.060")

DESCRIPTION
CROSSOVER PLATE KIT
W/ SQUARE U-BOLTS AND STD. U-BOLTS

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A valmont COMPANY
Engineering Support Team: 1-888-753-7446
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CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
	CSL 9/18/2018	3RD PARTY	SQCX4-K	1 OF 1

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
87	02	CUSTOMER	BMC 11/12/2018	SQCX4-K