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

February 15, 2021

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

RE: Notice of Exempt Modification // Site: Falls Village CT PCS CT (ATC: 415121)
188 Route 7, Falls Village CT, 06031
N 41.94459921 // W 73.36053901

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains Twelve (12) antenna at approximately 150' level on the existing 149 ft Tower, located at 188 Route 7, Falls Village, CT. The tower is owned by American Tower. The property is also owned by Cellco Partnership. Verizon Wireless now intends to install three (3) new antenna for the LTE (3700 MHz) replacements for its 5G upgrade. Additionally, Verizon Wireless will be removing three (3) existing antenna and six (6) RRH's, one (1) OVP and associated cabling and installing one (1) mount modifications, six (6) RRH's and one (1) OVP with 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 Henry W. Todd, First Selectman, its Building Enforcement Officer, James Clarke, American Tower, the tower owner and Cellco Partnership the property owner.

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 January 20, 2022, by Dewberry Engineers Inc., a structural analysis dated December 6, 2021, by AiroSmith Engineering, and a structural mount analysis by Maser Consulting Connecticut date November 16, 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 AiroSmith Engineering, dated December 6, 2021, and a structural mount analysis by Maser Consulting Connecticut, dated November 16, 2021, pursuant to certain conditions defined therein. Design and engineering is fully illustrated within final construction drawings, signed and stamped dated January 20, 2022.

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: Henry W. Todd, First Selectman – Chief Elected Official
James Clarke – Zoning Enforcement Officer - as P&Z official
Cellco Partnership - Property Owner

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a Daily Pickup
   Your driver will pickup your shipment(s) as usual.

   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
CVS STORE # 972
555 WASHINGTON ST
SOUTH EASTON ,MA 02375

UPS Access Point™
CVS STORE # 7232
689 DEPOT ST
NORTH EASTON ,MA 02356

UPS Access Point™
TOWNLINE GENERAL STORE
450 E CENTER ST
WEST BRIDGEWATER ,MA 02379

FOLD HERE

From: UPS
To: John Coleman
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030330360498
Date: Thursday, February 24, 2022 12:07:22 PM

Hello, your package has been delivered.

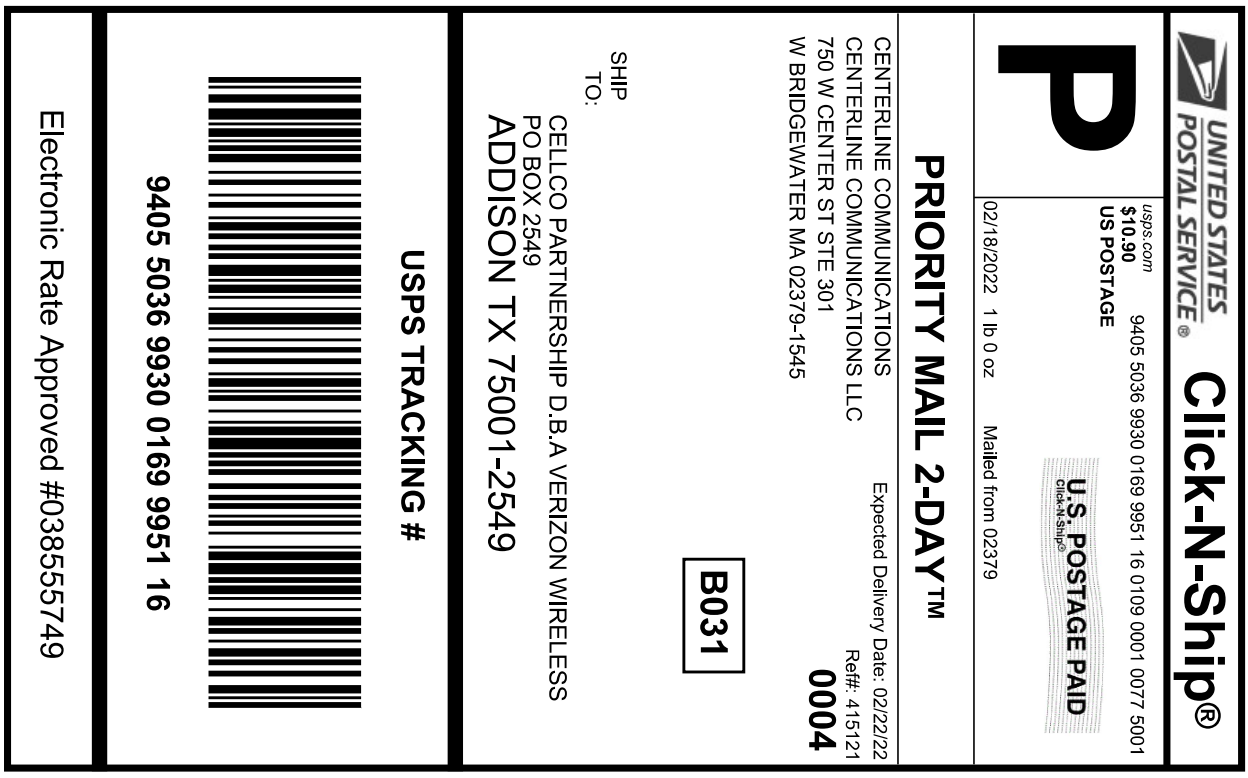
Delivery Date: Thursday, 02/24/2022
Delivery Time: 11:56 AM
Left At: INSIDE DELIV
Signed by: JOHANNA

Set Delivery Instructions | Manage Preferences | View My Packages

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030330360498
Ship To:	F.S. HENRY W. TODD TOWN HALL OF FALLS VILLAGE 108 MAIN STREET BOX 47 FALLS VILLAGE, CT 060311309 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	1.0 LBS
Reference Number:	415121 - FALLS VILLAGE CT

Download the UPS mobile app



Cut on dotted line.

Instructions

1. **Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.**
2. **Place your label so it does not wrap around the edge of the package.**
3. **Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.**
4. **To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.**
5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0169 9951 16

Trans. #:	556897303
Print Date:	02/17/2022
Ship Date:	02/18/2022
Expected Delivery Date:	02/22/2022

Priority Mail® Postage:	**$10.90**
Total:	**$10.90**

From: CENTERLINE COMMUNICATIONS Ref#: 415121
CENTERLINE COMMUNICATIONS LLC
750 W CENTER ST STE 301
W BRIDGEWATER MA 02379-1545

To: CELLCO PARTNERSHIP D.B.A VERIZON WIRELESS
PO BOX 2549
ADDISON TX 75001-2549

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.

Thank you for shipping with the United States Postal Service!
Check the status of your shipment on the USPS Tracking® page at usps.com

USPS Tracking®

FAQs >

Track Another Package +

Tracking Number: 9405503699300169995116

Remove ×

Your item has been delivered and is available at a PO Box at 1:22 pm on February 28, 2022 in ADDISON, TX 75001.

USPS Tracking Plus® Available ⌄

Delivered, PO Box

February 28, 2022 at 1:22 pm
ADDISON, TX 75001

Get Updates ⌄

Feedback

Text & Email Updates ⌄

Tracking History ⌃

February 28, 2022, 1:22 pm
Delivered, PO Box
ADDISON, TX 75001
Your item has been delivered and is available at a PO Box at 1:22 pm on February 28, 2022 in ADDISON, TX 75001.

February 28, 2022, 8:08 am
Arrived at Post Office
ADDISON, TX 75001

February 28, 2022, 5:18 am
Arrived at USPS Facility
ADDISON, TX 75001

February 28, 2022, 4:43 am
Departed USPS Regional Facility
COPPELL TX DISTRIBUTION CENTER

February 27, 2022, 5:48 am
Arrived at USPS Regional Facility
COPPELL TX DISTRIBUTION CENTER

February 27, 2022, 3:06 am
Departed USPS Regional Facility
DALLAS TX NETWORK DISTRIBUTION CENTER

February 27, 2022, 1:02 am
Arrived at USPS Regional Destination Facility
DALLAS TX NETWORK DISTRIBUTION CENTER

February 26, 2022
In Transit to Next Facility

February 25, 2022, 7:54 pm
Arrived at USPS Regional Origin Facility
NASHUA NH DISTRIBUTION CENTER

February 25, 2022, 4:10 pm
Departed Post Office
WEST BRIDGEWATER, MA 02379

February 25, 2022, 9:46 am
Acceptance
WEST BRIDGEWATER, MA 02379

February 17, 2022
Pre-Shipment Info Sent to USPS, USPS Awaiting Item

USPS Tracking Plus®

Product Information

See Less

Can’t find what you’re looking for?

Go to our FAQs section to find answers to your tracking questions.

FAQs

Feedback

DOCKET NO. 360 - 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 188 Route 7 South, Falls Village (Canaan), Connecticut.	}	Connecticut
	}	Siting
	}	Council
		March 12, 2009

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility, 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 188 Route 7 South, Falls Village (Canaan), Connecticut.

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

1. The Certificate Holder shall confer with the National Park Service, State Historic Preservation Office, and the Town of Canaan (Board of Selectmen and Planning and Zoning Commission) as to the appropriate design of the tower structure. Documentation of discussion and justification of a recommended tower design shall be submitted as part of the Development and Management Plan.

2. The tower shall be constructed, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of Verizon Wireless and other entities, both public and private, but such tower shall not exceed a height of 150 feet above ground level, or in the case of a monopine no taller than 157 feet. The height at the top of the antennas shall not exceed 153 feet above ground level.

3. 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 Canaan 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, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

4. The Certificate Holder shall, prior to the commencement of operation, 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, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. 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.

5. 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.

6. 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.

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

8. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed and providing wireless services 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.

9. Any request for extension of the time period referred to in Condition 8 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 Canaan. Any proposed modifications to this Decision and Order shall likewise be so served.

10. 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.

11. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.

12. 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

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 Hartford Courant and the Register Citizen.

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	**Representative**
Cellco Partnership d/b/a Verizon Wireless	Sandy Carter, Regulatory Manager Verizon Wireless 99 East River Drive East Hartford, CT 06108 Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597
Intervenor	**Representative**
Dina Jaeger 167 Beebe Hill Road Falls Village, CT 06031	Gabriel North Seymour P.C. 200 Route 126 Falls Village, CT 06031 Whitney North Seymour, Jr. 425 Lexington Avenue, Room 1721 New York, NY 10017

AMERICAN TOWER®
CORPORATION

AIROSMITH ENGINEERING

Structural Analysis Report

Structure	:	**149 ft Monopine**
ATC Site Name	:	**Falls Village CT PCS CT, CT**
ATC Site Number	:	**415121**
Engineering Number	:	**13734056_C3_02**
Proposed Carrier	:	**VERIZON WIRELESS**
Carrier Site Name	:	**FALLS VILLAGE CT**
Carrier Site Number	:	**468318**
Site Location	:	**188 Route 7** **Falls Village, CT 06031-1608** **41.9446, -73.3605**
County	:	**Litchfield**
Date	:	**December 6, 2021**
Max Usage	:	**83%**
Result	:	**Pass**

Prepared By:

Brad Davenport
Airosmith Engineering

Brad Davenport

Reviewed By:

STATE OF CONNECTICUT
JOSEPH R. JOHNSTON
29460
LICENSED
PROFESSIONAL ENGINEER

Joseph R. Johnston

12/8/2021

COA : PEC.0001553

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 149 ft Monopine to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	EEI Drawing #16975-P01, dated February 6, 2013
Foundation Drawing	EEI Drawing #16975-FND, dated February 6, 2013
Geotechnical Report	Terracon Project #J2095143, dated April 30, 2009

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:	114 mph (3-second gust)
Basic Wind Speed w/ Ice:	40 mph (3-second gust) w/ 1.00" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.17, S_1 = 0.05
Site Class:	D - Stiff Soil - Default

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
149.0	9	Commscope SBNHH-1D65B	T-Arm	-	VERIZON WIRELESS
148.0	3	Alcatel-Lucent B66A RRH 4x45			
146.0	1	VZW Unused Reserve (17107.24 sqin)			
135.0	9	Ericsson RRUS 12 w/ RRUS A2 (80 lb)	T-arm with Pipes and Sector Frame	(2) 0.39" (10mm) Fiber Trunk (8) 0.78" (19.7mm) 8 AWG 6 (3) 1/2" Coax (4) 3" conduit	AT&T MOBILITY
	6	Ericsson RRUS-11			
	3	CCI HPA-65R-BUU-H8			
	6	Kathrein Scala 80010966			
	3	Ericsson RRUS 4478 B14			
	3	Ericsson RRUS 8843 B2, B66A			
	4	Raycap DC6-48-60-18-8F(32.8 lbs)			
	3	Ericsson RRUS 4449 B5, B12			

Equipment to be Removed

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
149.2	3	Alcatel-Lucent B13 RRH4x30-4R 700U	-	(2) 1.54" (39.2mm) Hybrid	VERIZON WIRELESS
149.0	2	RFS DB-T1-6Z-8AB-0Z			
	3	Commscope SBNHH-1D65B			
	3	Alcatel-Lucent B66A RRH 4x45			

Proposed Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
149.0	3	Samsung RF4440d-13A	T-Arm	(1) 2.00" (50.8mm) Hybrid	VERIZON WIRELESS
	3	Samsung RF4439d-25A			
	2	Raycap RVZDC-6627-PF-48			
	3	Samsung MT6407-77A			

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

Install proposed lines inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	66%	Pass
Shaft	67%	Pass
Base Plate	51%	Pass

Foundations

Reaction Component	Original Design Reactions	Analysis Reactions	% of Design
Moment (Kips-Ft)	6642.1	5527.9	83%
Shear (Kips)	62.3	50.0	80%

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) (°)
149.0	Samsung RF4440d-13A	VERIZON WIRELESS	1.830	1.280
	Samsung MT6407-77A			
	Raycap RVZDC-6627-PF-48			
	Samsung RF4439d-25A			

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

Standard Conditions

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

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

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

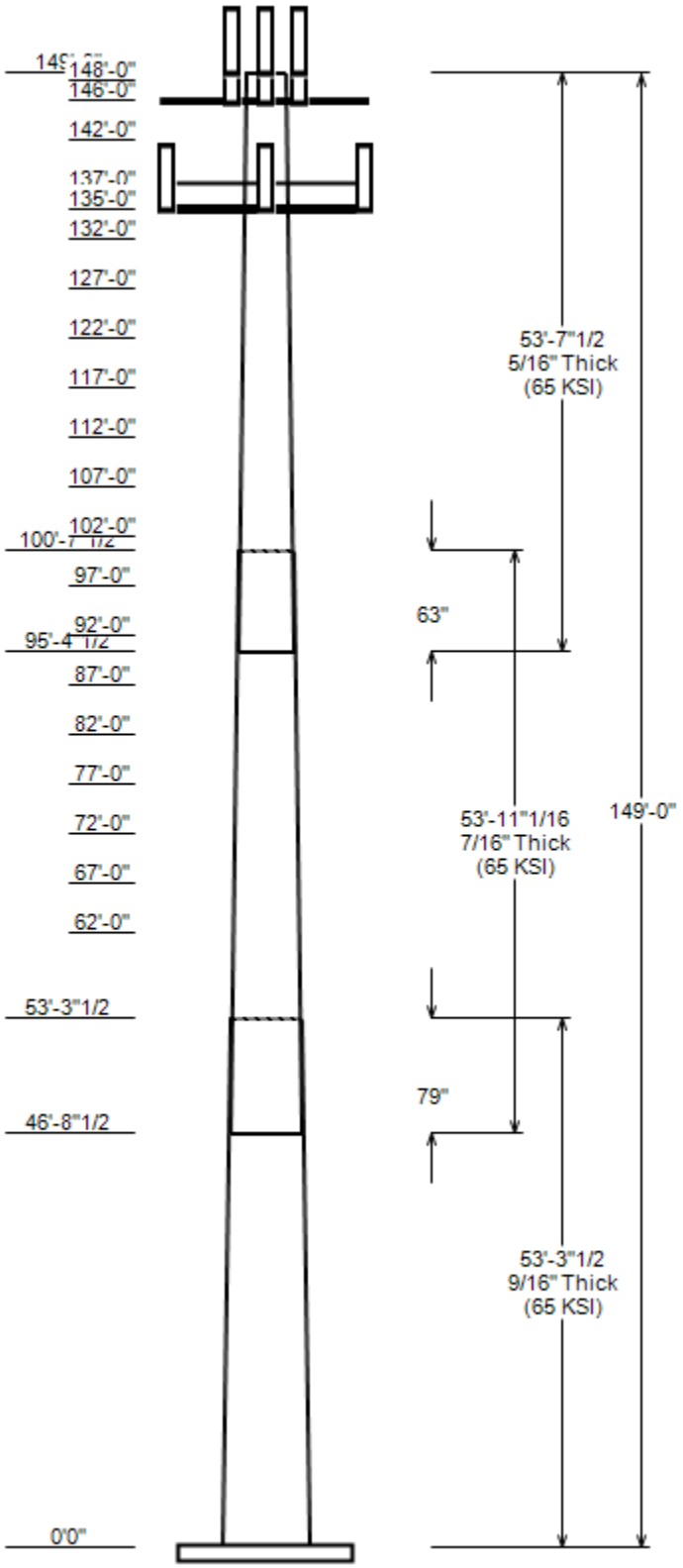
All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with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

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

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

JOB INFORMATION

Asset :	415121, Falls Village CT PCS CT	Height :	149 ft
Client :	VERIZON WIRELESS	Base Width :	58.5
Code :	ANSI/TIA-222-H	Shape :	18 Sides



SITE PARAMETERS

Base Elev (ft):	0.00	Structure Class:	II
Taper :	0.23500 (In/ft)	Exposure :	B
Topographic Category :	1	Topographic Feature:	
Topo Method :	Method 1		

SECTION PROPERTIES

Shaft Section	Length (ft)	Diameter (in) Across Flats Top	Diameter (in) Across Flats Bottom	Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
1	53.290	45.98	58.50	0.562		0.000	18 Sides	65
2	53.920	35.74	48.40	0.438	Slip Joint	79.000	18 Sides	65
3	53.623	25.00	37.60	0.312	Slip Joint	63.000	18 Sides	65

DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
149.0	149.0	3	Samsung RF4440d-13A
149.0	149.0	3	Samsung RF4439d-25A
149.0	149.0	2	Raycap RVZDC-6627-PF-48
149.0	149.0	3	Samsung MT6407-77A
149.0	152.1	9	Commscope SBNHH-1D65B
148.0	149.4	3	Alcatel-Lucent B66A RRH 4x45
147.0	147.0	1	PINE BRANCH
146.0	146.0	3	Flat T-Arm
146.0	146.0	1	VZW Unused Reserve (17107.24 s
142.0	142.0	1	PINE BRANCH
137.0	137.0	1	PINE BRANCH
135.0	135.5	4	Raycap DC6-48-60-18-8F(32.8 lb
135.0	138.9	3	Ericsson RRUS 8843 B2, B66A
135.0	138.8	3	Ericsson RRUS 4478 B14
135.0	138.9	3	Ericsson RRUS 4449 B5, B12
135.0	136.8	9	Ericsson RRUS 12 w/ RRUS A2 (8
135.0	136.9	6	Ericsson RRUS-11
135.0	136.3	3	CCI HPA-65R-BUU-H8
135.0	137.2	6	Kathrein Scala 80010966
135.0	135.0	3	T-Arms with SIte Pro 1 Pipes a
132.0	132.0	1	PINE BRANCH
127.0	127.0	1	PINE BRANCH
122.0	122.0	1	PINE BRANCH
117.0	117.0	1	PINE BRANCH
112.0	112.0	1	PINE BRANCH
107.0	107.0	1	PINE BRANCH
102.0	102.0	1	PINE BRANCH
97.0	97.0	1	PINE BRANCH
92.0	92.0	1	PINE BRANCH
87.0	87.0	1	PINE BRANCH
82.0	82.0	1	PINE BRANCH
77.0	77.0	1	PINE BRANCH
72.0	72.0	1	PINE BRANCH
67.0	67.0	1	PINE BRANCH
62.0	62.0	1	PINE BRANCH

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	149.0	2.00" (50.8mm) Hybrid	No
0.0	135.0	3" conduit	No
0.0	135.0	1/2" Coax	No
0.0	135.0	0.78" (19.7mm) 8 AWG 6	No
0.0	135.0	0.39" (10mm) Fiber Trunk	No

JOB INFORMATION			
Asset :	415121, Falls Village CT PCS CT	Height :	149 ft
Client :	VERIZON WIRELESS	Base Width :	58.5
Code :	ANSI/TIA-222-H	Shape :	18 Sides

LOAD CASES	
1.2D + 1.0W	114 mph wind with no ice
0.9D + 1.0W	114 mph wind with no ice
1.2D + 1.0Di + 1.0Wi	40 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

REACTIONS

Load Case	Moment (kip-ft)	Shear (Kip)	Axial (Kip)
1.2D + 1.0W	5527.91	49.96	67.30
0.9D + 1.0W	5480.30	49.94	50.45
1.2D + 1.0Di + 1.0Wi	1005.21	9.12	84.52
1.2D + 1.0Ev + 1.0Eh	199.13	1.69	66.98
0.9D - 1.0Ev + 1.0Eh	197.01	1.69	46.86
1.0D + 1.0W	1363.53	12.38	56.14

DISH DEFLECTIONS

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

ANALYSIS PARAMETERS

Location:	Litchfield County,CT	**Height:**	149 ft
Type and Shape:	Taper, 18 Sides	**Base Diameter:**	58.50 in
Manufacturer:	EEI	**Top Diameter:**	25.00 in
K_d (non-service):	0.95	**Taper:**	0.2350 in/ft
K_e:	0.98	**Rotation:**	0.000°

ICE & WIND PARAMETERS

Exposure Category:	B	**Design Wind Speed w/o Ice:**	114 mph
Risk Category:	II	**Design Wind Speed w/Ice:**	40 mph
Topo Factor Procedure:	Method 1	**Operational Wind Speed:**	60 mph
Topographic Category:	1	**Design Ice Thickness:**	1.00 in
Crest Height:	0 ft	**HMSL:**	647.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil			**Period Based on Rayleigh Method (sec):**	2.03
T_L (sec):	6	**P:**	1	**C_s:**	0.030
S_s:	0.167	**S_1:**	0.054	**C_s Max:**	0.030
F_a:	1.600	**F_v:**	2.400	**C_s Min:**	0.030
S_{ds}:	0.178	**S_{d1}:**	0.086		

LOAD CASES

1.2D + 1.0W	114 mph wind with no ice
0.9D + 1.0W	114 mph wind with no ice
1.2D + 1.0Di + 1.0Wi	40 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

SHAFT SECTION PROPERTIES

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in²)	Bottom Ix (in⁴)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (in)	Top Area (in²)	Top Ix (in⁴)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
									103.4							21,135.7			
1-18	53.29	0.5625	65		0.00	16,730	58.50	0.000	4	43,867.8	16.93	104.00	45.98	53.29	81.09		13.00	81.75	0.2349
2-18	53.92	0.4375	65	Slip	79.00	10,607	48.40	46.710	66.61	19,361.6	18.10	110.64	35.74	100.63	49.02	7,717.9	12.99	81.69	0.2349
3-18	53.62	0.3125	65	Slip	63.00	5,608	37.60	95.377	36.98	6,495.1	19.80	120.31	25.00	149.00	24.49	1,885.9	12.70	80.01	0.2349
				Shaft Weight		32,945													

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
149.00	Commscope SBNHH-1D65B	9	0.80	3.100	50.70	8.173	0.69	167.83	10.062	0.69
149.00	Raycap RVZDC-6627-PF-48	2	0.80	0.000	32.00	3.781	0.77	105.18	4.663	0.77
149.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	149.62	5.723	0.61
149.00	Samsung RF4439d-25A	3	0.80	0.000	74.70	2.500	0.67	128.04	3.199	0.67
149.00	Samsung RF4440d-13A	3	0.80	0.000	70.30	1.875	0.50	110.57	2.477	0.50
148.00	Alcatel-Lucent B66A RRH 4x45	3	0.80	1.400	67.00	2.580	0.67	114.44	3.333	0.67
147.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	878.58	65.893	1.00
146.00	Flat T-Arm	3	0.75	0.000	250.00	12.900	0.67	389.19	18.347	0.67
146.00	VZW Unused Reserve (17107.24 s	1	0.80	0.000	1098.90	118.800	0.90	1608.76	173.920	0.90
142.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	877.51	65.813	1.00
137.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	876.51	65.738	1.00
135.00	Ericsson RRUS 12 w/ RRUS A2 (8	9	0.80	1.800	80.00	3.145	0.67	143.22	3.910	0.67
135.00	Ericsson RRUS-11	6	0.80	1.900	55.00	3.792	0.61	114.28	4.640	0.61
135.00	CCI HPA-65R-BUU-H8	3	0.80	1.300	68.00	12.976	0.67	237.66	15.340	0.67
135.00	Raycap DC6-48-60-18-8F(32.8 lb	4	0.80	0.500	32.80	1.470	1.00	73.54	1.931	1.00
135.00	T-Arms with SIte Pro 1 Pipes a	3	0.75	0.000	400.00	17.900	0.75	598.72	27.863	0.75
135.00	Ericsson RRUS 8843 B2, B66A	3	0.80	3.900	72.00	1.639	0.50	112.47	2.197	0.50
135.00	Ericsson RRUS 4449 B5, B12	3	0.80	3.900	71.00	1.969	0.50	113.56	2.585	0.50
135.00	Ericsson RRUS 4478 B14	3	0.80	3.800	59.90	1.842	0.50	96.41	2.434	0.50
135.00	Kathrein Scala 80010966	6	0.80	2.200	114.60	17.363	0.63	326.62	19.799	0.63
132.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	875.48	65.661	1.00
127.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	874.41	65.581	1.00
122.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	873.30	65.497	1.00
117.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	872.15	65.411	1.00
112.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	870.95	65.321	1.00
107.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	869.71	65.228	1.00
102.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	868.49	65.137	1.00
97.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	867.10	65.032	1.00
92.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	865.62	64.922	1.00
87.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	864.13	64.809	1.00
82.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	862.55	64.691	1.00
77.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	860.88	64.566	1.00
72.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	859.11	64.433	1.00
67.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	857.23	64.292	1.00
62.00	PINE BRANCH	1	1.00	0.000	600.00	45.000	1.00	855.21	64.141	1.00
Totals	Num Loadings: 35	85			17,931.50			29,339.09		

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	149.00	1	2.00" (50.8mm) Hybrid	2	3.09	N	0	0	0	0	0	N	VERIZON WIREL
0.00	135.00	8	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	135.00	4	3" conduit	3.5	7.58	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	135.00	3	1/2" Coax	0.63	0.15	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	135.00	2	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY

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		0.5625	58.500	103.436	43,867.80	16.93	104.00	81.5	1477.0	0.0	0.0
5.00		0.5625	57.326	101.340	41,253.80	16.56	101.91	81.9	1417.4	0.0	1,742.0
10.00		0.5625	56.151	99.243	38,745.80	16.19	99.82	82.4	1359.1	0.0	1,706.3
15.00		0.5625	54.977	97.146	36,341.50	15.82	97.74	82.6	1302.0	0.0	1,670.7
20.00		0.5625	53.802	95.049	34,038.80	15.45	95.65	82.6	1246.1	0.0	1,635.0
25.00		0.5625	52.628	92.953	31,835.50	15.09	93.56	82.6	1191.5	0.0	1,599.3
30.00		0.5625	51.453	90.856	29,729.40	14.72	91.47	82.6	1138.0	0.0	1,563.7
35.00		0.5625	50.279	88.759	27,718.30	14.35	89.38	82.6	1085.8	0.0	1,528.0
40.00		0.5625	49.104	86.662	25,799.90	13.98	87.30	82.6	1034.9	0.0	1,492.3
45.00		0.5625	47.930	84.566	23,972.20	13.61	85.21	82.6	985.1	0.0	1,456.6
46.71	Bot - Section 2	0.5625	47.529	83.850	23,368.70	13.49	84.50	82.6	968.4	0.0	489.0
50.00		0.5625	46.756	82.469	22,233.00	13.25	83.12	82.6	936.6	0.0	1,672.3
53.29	Top - Section 1	0.4375	46.858	64.458	17,548.70	17.47	107.10	80.8	737.6	0.0	1,643.2
55.00		0.4375	46.456	63.900	17,097.10	17.31	106.19	81	724.9	0.0	373.4
60.00		0.4375	45.282	62.270	15,821.30	16.84	103.50	81.6	688.2	0.0	1,073.3
62.00		0.4375	44.812	61.617	15,329.20	16.65	102.43	81.8	673.8	0.0	421.6
65.00		0.4375	44.107	60.639	14,610.50	16.37	100.82	82.2	652.4	0.0	624.0
67.00		0.4375	43.637	59.986	14,144.00	16.18	99.74	82.4	638.4	0.0	410.5
70.00		0.4375	42.933	59.008	13,463.10	15.89	98.13	82.6	617.6	0.0	607.4
72.00		0.4375	42.463	58.356	13,021.50	15.70	97.06	82.6	604.0	0.0	399.4
75.00		0.4375	41.758	57.377	12,377.40	15.42	95.45	82.6	583.8	0.0	590.7
77.00		0.4375	41.289	56.725	11,960.10	15.23	94.37	82.6	570.5	0.0	388.3
80.00		0.4375	40.584	55.746	11,351.70	14.95	92.76	82.6	550.9	0.0	574.1
82.00		0.4375	40.114	55.094	10,957.90	14.76	91.69	82.6	538.0	0.0	377.2
85.00		0.4375	39.409	54.116	10,384.40	14.47	90.08	82.6	519.0	0.0	557.4
87.00		0.4375	38.940	53.463	10,013.30	14.28	89.01	82.6	506.5	0.0	366.1
90.00		0.4375	38.235	52.485	9,473.50	14.00	87.39	82.6	488.0	0.0	540.8
92.00		0.4375	37.765	51.832	9,124.70	13.81	86.32	82.6	475.9	0.0	355.0
95.00		0.4375	37.061	50.854	8,617.60	13.53	84.71	82.6	458.0	0.0	524.1
95.38	Bot - Section 3	0.4375	36.972	50.731	8,555.30	13.49	84.51	82.6	455.8	0.0	65.1
97.00		0.4375	36.591	50.202	8,290.20	13.34	83.64	82.6	446.2	0.0	482.0
100.00		0.4375	35.886	49.223	7,814.90	13.05	82.03	82.6	428.9	0.0	877.6
100.63	Top - Section 2	0.3125	36.364	35.757	5,871.70	19.11	116.36	78.9	318.0	0.0	181.2
102.00		0.3125	36.041	35.437	5,715.50	18.93	115.33	79.1	312.3	0.0	166.4
105.00		0.3125	35.337	34.738	5,383.90	18.53	113.08	79.6	300.1	0.0	358.2
107.00		0.3125	34.867	34.272	5,170.20	18.26	111.57	79.9	292.1	0.0	234.8
110.00		0.3125	34.162	33.574	4,860.30	17.87	109.32	80.4	280.2	0.0	346.3
112.00		0.3125	33.692	33.108	4,660.70	17.60	107.82	80.7	272.5	0.0	226.9
115.00		0.3125	32.988	32.409	4,371.70	17.20	105.56	81.2	261.0	0.0	334.4
117.00		0.3125	32.518	31.943	4,185.90	16.94	104.06	81.5	253.5	0.0	219.0
120.00		0.3125	31.813	31.244	3,917.10	16.54	101.80	81.9	242.5	0.0	322.5
122.00		0.3125	31.344	30.778	3,744.40	16.27	100.30	82.3	235.3	0.0	211.0
125.00		0.3125	30.639	30.079	3,495.10	15.88	98.04	82.6	224.7	0.0	310.6
127.00		0.3125	30.169	29.613	3,335.20	15.61	96.54	82.6	217.7	0.0	203.1
130.00		0.3125	29.464	28.914	3,104.60	15.21	94.29	82.6	207.5	0.0	298.7
132.00		0.3125	28.995	28.448	2,956.90	14.95	92.78	82.6	200.9	0.0	195.2
135.00		0.3125	28.290	27.749	2,744.20	14.55	90.53	82.6	191.1	0.0	286.8
137.00		0.3125	27.820	27.283	2,608.30	14.29	89.02	82.6	184.7	0.0	187.3
140.00		0.3125	27.116	26.584	2,413.00	13.89	86.77	82.6	175.3	0.0	274.9
142.00		0.3125	26.646	26.118	2,288.30	13.62	85.27	82.6	169.1	0.0	179.3
145.00		0.3125	25.941	25.420	2,109.50	13.23	83.01	82.6	160.2	0.0	263.1
146.00		0.3125	25.706	25.187	2,052.00	13.09	82.26	82.6	157.2	0.0	86.1
147.00		0.3125	25.471	24.954	1,995.60	12.96	81.51	82.6	154.3	0.0	85.3
148.00		0.3125	25.236	24.721	1,940.20	12.83	80.76	82.6	151.4	0.0	84.5
149.00		0.3125	25.002	24.488	1,885.90	12.70	80.01	82.6	148.6	0.0	83.7
									Totals:		32,945.7

Load Case: 1.2D + 1.0W 114 mph wind with no ice 23 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	-67.30	-49.96	0.00	-5,527.9	0.00	5,527.91	7,586.22	1,815.31	9,500.17	9,026.97	0	0	0.622
5.00	-64.82	-49.74	0.00	-5,278.1	0.00	5,278.10	7,471.93	1,778.51	9,118.97	8,709.02	0.09	-0.18	0.616
10.00	-62.39	-49.51	0.00	-5,029.4	0.00	5,029.41	7,356.01	1,741.71	8,745.59	8,394.77	0.37	-0.35	0.608
15.00	-60.00	-49.28	0.00	-4,781.9	0.00	4,781.86	7,217.48	1,704.92	8,380.00	8,060.91	0.84	-0.53	0.602
20.00	-57.65	-49.05	0.00	-4,535.5	0.00	4,535.46	7,061.70	1,668.12	8,022.22	7,714.96	1.5	-0.72	0.597
25.00	-55.35	-48.81	0.00	-4,290.2	0.00	4,290.24	6,905.92	1,631.32	7,672.25	7,376.60	2.35	-0.9	0.591
30.00	-53.09	-48.56	0.00	-4,046.2	0.00	4,046.20	6,750.14	1,594.52	7,330.08	7,045.83	3.39	-1.09	0.583
35.00	-50.87	-48.30	0.00	-3,803.4	0.00	3,803.39	6,594.37	1,557.72	6,995.72	6,722.64	4.63	-1.27	0.574
40.00	-48.70	-48.02	0.00	-3,561.9	0.00	3,561.88	6,438.59	1,520.93	6,669.16	6,407.04	6.06	-1.46	0.564
45.00	-46.62	-47.81	0.00	-3,321.8	0.00	3,321.76	6,282.81	1,484.13	6,350.41	6,099.03	7.7	-1.65	0.553
46.71	-45.88	-47.67	0.00	-3,240.2	0.00	3,240.17	6,229.64	1,471.57	6,243.39	5,995.63	8.3	-1.72	0.549
50.00	-43.63	-47.43	0.00	-3,083.2	0.00	3,083.19	6,127.03	1,447.33	6,039.46	5,798.61	9.53	-1.85	0.540
53.29	-41.43	-47.23	0.00	-2,927.2	0.00	2,927.15	4,690.13	1,131.24	4,743.28	4,472.73	10.85	-1.97	0.665
55.00	-40.79	-47.04	0.00	-2,846.4	0.00	2,846.39	4,660.50	1,121.45	4,661.57	4,405.65	11.57	-2.04	0.657
60.00	-39.15	-46.81	0.00	-2,611.2	0.00	2,611.19	4,572.76	1,092.83	4,426.70	4,211.35	13.83	-2.27	0.630
62.00	-37.81	-45.31	0.00	-2,517.6	0.00	2,517.58	4,537.20	1,081.38	4,334.45	4,134.41	14.8	-2.36	0.619
65.00	-36.84	-45.15	0.00	-2,381.6	0.00	2,381.64	4,483.38	1,064.21	4,197.91	4,019.86	16.32	-2.49	0.602
67.00	-35.52	-43.61	0.00	-2,291.4	0.00	2,291.35	4,447.18	1,052.76	4,108.09	3,944.07	17.39	-2.59	0.591
70.00	-34.58	-43.44	0.00	-2,160.5	0.00	2,160.53	4,383.99	1,035.59	3,975.18	3,823.98	19.06	-2.72	0.575
72.00	-33.28	-41.87	0.00	-2,073.6	0.00	2,073.65	4,335.53	1,024.14	3,887.79	3,739.48	20.21	-2.81	0.564
75.00	-32.36	-41.69	0.00	-1,948.1	0.00	1,948.06	4,262.83	1,006.97	3,758.53	3,614.49	22.02	-2.94	0.548
77.00	-31.09	-40.08	0.00	-1,864.7	0.00	1,864.69	4,214.37	995.52	3,673.56	3,532.34	23.27	-3.03	0.537
80.00	-30.20	-39.89	0.00	-1,744.4	0.00	1,744.45	4,141.67	978.35	3,547.94	3,410.90	25.22	-3.16	0.520
82.00	-28.96	-38.26	0.00	-1,664.7	0.00	1,664.66	4,093.21	966.90	3,465.41	3,331.11	26.56	-3.24	0.508
85.00	-28.10	-38.07	0.00	-1,549.9	0.00	1,549.90	4,020.51	949.73	3,343.43	3,213.21	28.64	-3.37	0.491
87.00	-26.88	-36.40	0.00	-1,473.8	0.00	1,473.76	3,972.05	938.28	3,263.32	3,135.78	30.07	-3.45	0.478
90.00	-26.04	-36.20	0.00	-1,364.6	0.00	1,364.57	3,899.35	921.11	3,144.99	3,021.42	32.27	-3.57	0.460
92.00	-24.85	-34.50	0.00	-1,292.2	0.00	1,292.17	3,850.89	909.66	3,067.31	2,946.36	33.79	-3.65	0.446
95.00	-24.05	-34.35	0.00	-1,188.7	0.00	1,188.66	3,778.19	892.49	2,952.61	2,835.53	36.12	-3.77	0.427
95.38	-23.94	-34.29	0.00	-1,175.7	0.00	1,175.72	3,769.06	890.33	2,938.37	2,821.77	36.41	-3.78	0.424
97.00	-22.63	-32.56	0.00	-1,120.1	0.00	1,120.06	3,729.73	881.04	2,877.36	2,762.83	37.71	-3.84	0.413
100.00	-21.41	-32.37	0.00	-1,022.4	0.00	1,022.38	3,657.03	863.87	2,766.31	2,655.55	40.16	-3.95	0.392
100.63	-21.15	-32.29	0.00	-1,002.1	0.00	1,002.10	2,539.98	627.54	2,043.48	1,882.60	40.68	-3.98	0.543
102.00	-20.24	-30.57	0.00	-957.8	0.00	957.76	2,524.08	621.92	2,007.08	1,853.93	41.83	-4.03	0.527
105.00	-19.62	-30.39	0.00	-866.0	0.00	866.04	2,488.92	609.66	1,928.70	1,791.74	44.41	-4.16	0.494
107.00	-18.61	-28.62	0.00	-805.3	0.00	805.27	2,465.15	601.48	1,877.32	1,750.61	46.17	-4.25	0.470
110.00	-18.02	-28.43	0.00	-719.4	0.00	719.40	2,429.01	589.22	1,801.54	1,689.46	48.88	-4.38	0.436
112.00	-17.02	-26.64	0.00	-662.5	0.00	662.54	2,404.59	581.04	1,751.89	1,649.05	50.73	-4.46	0.411
115.00	-16.45	-26.45	0.00	-582.6	0.00	582.62	2,367.47	568.77	1,678.71	1,589.00	53.57	-4.57	0.376
117.00	-15.49	-24.63	0.00	-529.7	0.00	529.73	2,342.39	560.59	1,630.80	1,549.35	55.5	-4.65	0.350
120.00	-14.94	-24.44	0.00	-455.8	0.00	455.82	2,304.29	548.33	1,560.22	1,490.48	58.45	-4.75	0.314
122.00	-14.00	-22.60	0.00	-407.0	0.00	406.95	2,278.56	540.15	1,514.04	1,451.64	60.45	-4.81	0.288
125.00	-13.47	-22.41	0.00	-339.1	0.00	339.13	2,234.71	527.89	1,446.07	1,391.06	63.49	-4.89	0.252
127.00	-12.55	-20.55	0.00	-294.3	0.00	294.32	2,200.10	519.71	1,401.62	1,348.08	65.55	-4.94	0.226
130.00	-12.05	-20.36	0.00	-232.7	0.00	232.66	2,148.17	507.44	1,336.25	1,284.87	68.68	-5.01	0.188
132.00	-11.15	-18.48	0.00	-191.9	0.00	191.94	2,113.55	499.26	1,293.54	1,243.58	70.79	-5.05	0.161
135.00	-6.50	-12.72	0.00	-128.5	0.00	128.46	2,061.63	487.00	1,230.77	1,182.90	73.97	-5.1	0.112
137.00	-5.71	-10.83	0.00	-103.0	0.00	103.03	2,027.01	478.82	1,189.79	1,143.30	76.11	-5.12	0.093
140.00	-5.38	-10.65	0.00	-70.5	0.00	70.53	1,975.09	466.56	1,129.63	1,085.15	79.34	-5.15	0.068
142.00	-4.60	-8.75	0.00	-49.2	0.00	49.24	1,940.47	458.38	1,090.38	1,047.23	81.5	-5.17	0.050
145.00	-4.28	-8.60	0.00	-23.0	0.00	22.98	1,888.54	446.11	1,032.82	991.61	84.74	-5.18	0.026
146.00	-2.33	-4.42	0.00	-14.4	0.00	14.38	1,871.23	442.02	1,013.98	973.41	85.83	-5.18	0.016
147.00	-1.66	-2.61	0.00	-10.0	0.00	9.96	1,853.93	437.94	995.31	955.38	86.91	-5.18	0.011
148.00	-1.34	-2.37	0.00	-7.1	0.00	7.13	1,836.62	433.85	976.81	937.51	87.99	-5.18	0.008
149.00	0.00	-2.24	0.00	-4.8	0.00	4.76	1,819.31	429.76	958.49	919.82	89.08	-5.18	0.005

Load Case: 0.9D + 1.0W 114 mph wind with no ice 23 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	-50.45	-49.94	0.00	-5,480.3	0.00	5,480.30	7,586.22	1,815.31	9,500.17	9,026.97	0	0	0.615
5.00	-48.56	-49.66	0.00	-5,230.6	0.00	5,230.62	7,471.93	1,778.51	9,118.97	8,709.02	0.09	-0.17	0.608
10.00	-46.70	-49.39	0.00	-4,982.3	0.00	4,982.31	7,356.01	1,741.71	8,745.59	8,394.77	0.37	-0.35	0.601
15.00	-44.87	-49.11	0.00	-4,735.4	0.00	4,735.39	7,217.48	1,704.92	8,380.00	8,060.91	0.83	-0.53	0.594
20.00	-43.08	-48.83	0.00	-4,489.8	0.00	4,489.84	7,061.70	1,668.12	8,022.22	7,714.96	1.48	-0.71	0.589
25.00	-41.31	-48.56	0.00	-4,245.7	0.00	4,245.67	6,905.92	1,631.32	7,672.25	7,376.60	2.32	-0.89	0.582
30.00	-39.58	-48.28	0.00	-4,002.9	0.00	4,002.89	6,750.14	1,594.52	7,330.08	7,045.83	3.36	-1.08	0.575
35.00	-37.88	-47.98	0.00	-3,761.5	0.00	3,761.51	6,594.37	1,557.72	6,995.72	6,722.64	4.58	-1.26	0.566
40.00	-36.22	-47.67	0.00	-3,521.6	0.00	3,521.60	6,438.59	1,520.93	6,669.16	6,407.04	6.01	-1.45	0.556
45.00	-34.64	-47.45	0.00	-3,283.2	0.00	3,283.24	6,282.81	1,484.13	6,350.41	6,099.03	7.62	-1.64	0.545
46.71	-34.07	-47.29	0.00	-3,202.3	0.00	3,202.26	6,229.64	1,471.57	6,243.39	5,995.63	8.22	-1.7	0.541
50.00	-32.35	-47.04	0.00	-3,046.5	0.00	3,046.53	6,127.03	1,447.33	6,039.46	5,798.61	9.44	-1.83	0.532
53.29	-30.69	-46.84	0.00	-2,891.8	0.00	2,891.77	4,690.13	1,131.24	4,743.28	4,472.73	10.74	-1.95	0.655
55.00	-30.18	-46.63	0.00	-2,811.7	0.00	2,811.68	4,660.50	1,121.45	4,661.57	4,405.65	11.45	-2.02	0.646
60.00	-28.93	-46.38	0.00	-2,578.5	0.00	2,578.53	4,572.76	1,092.83	4,426.70	4,211.35	13.69	-2.24	0.620
62.00	-27.91	-44.88	0.00	-2,485.8	0.00	2,485.77	4,537.20	1,081.38	4,334.45	4,134.41	14.65	-2.33	0.609
65.00	-27.17	-44.70	0.00	-2,351.1	0.00	2,351.14	4,483.38	1,064.21	4,197.91	4,019.86	16.16	-2.47	0.593
67.00	-26.18	-43.16	0.00	-2,261.7	0.00	2,261.74	4,447.18	1,052.76	4,108.09	3,944.07	17.21	-2.56	0.581
70.00	-25.45	-42.98	0.00	-2,132.2	0.00	2,132.25	4,383.99	1,035.59	3,975.18	3,823.98	18.86	-2.69	0.565
72.00	-24.48	-41.41	0.00	-2,046.3	0.00	2,046.29	4,335.53	1,024.14	3,887.79	3,739.48	20.01	-2.78	0.554
75.00	-23.78	-41.22	0.00	-1,922.1	0.00	1,922.06	4,262.83	1,006.97	3,758.53	3,614.49	21.79	-2.91	0.539
77.00	-22.83	-39.62	0.00	-1,839.6	0.00	1,839.62	4,214.37	995.52	3,673.56	3,532.34	23.03	-2.99	0.528
80.00	-22.14	-39.43	0.00	-1,720.8	0.00	1,720.77	4,141.67	978.35	3,547.94	3,410.90	24.95	-3.12	0.511
82.00	-21.22	-37.79	0.00	-1,641.9	0.00	1,641.91	4,093.21	966.90	3,465.41	3,331.11	26.28	-3.21	0.500
85.00	-20.56	-37.60	0.00	-1,528.5	0.00	1,528.53	4,020.51	949.73	3,343.43	3,213.21	28.33	-3.33	0.482
87.00	-19.65	-35.94	0.00	-1,453.3	0.00	1,453.33	3,972.05	938.28	3,263.32	3,135.78	29.75	-3.41	0.470
90.00	-19.01	-35.74	0.00	-1,345.5	0.00	1,345.52	3,899.35	921.11	3,144.99	3,021.42	31.93	-3.53	0.452
92.00	-18.13	-34.05	0.00	-1,274.0	0.00	1,274.04	3,850.89	909.66	3,067.31	2,946.36	33.42	-3.61	0.439
95.00	-17.53	-33.91	0.00	-1,171.9	0.00	1,171.88	3,778.19	892.49	2,952.61	2,835.53	35.73	-3.72	0.419
95.38	-17.44	-33.84	0.00	-1,159.1	0.00	1,159.11	3,769.06	890.33	2,938.37	2,821.77	36.02	-3.74	0.417
97.00	-16.47	-32.13	0.00	-1,104.2	0.00	1,104.17	3,729.73	881.04	2,877.36	2,762.83	37.3	-3.8	0.405
100.00	-15.55	-31.95	0.00	-1,007.8	0.00	1,007.80	3,657.03	863.87	2,766.31	2,655.55	39.72	-3.91	0.385
100.63	-15.35	-31.87	0.00	-987.8	0.00	987.78	2,539.98	627.54	2,043.48	1,882.60	40.24	-3.93	0.533
102.00	-14.69	-30.16	0.00	-944.0	0.00	944.02	2,524.08	621.92	2,007.08	1,853.93	41.38	-3.98	0.517
105.00	-14.22	-29.97	0.00	-853.5	0.00	853.53	2,488.92	609.66	1,928.70	1,791.74	43.92	-4.11	0.485
107.00	-13.47	-28.22	0.00	-793.6	0.00	793.59	2,465.15	601.48	1,877.32	1,750.61	45.66	-4.2	0.461
110.00	-13.02	-28.03	0.00	-708.9	0.00	708.93	2,429.01	589.22	1,801.54	1,689.46	48.34	-4.32	0.427
112.00	-12.30	-26.25	0.00	-652.9	0.00	652.87	2,404.59	581.04	1,751.89	1,649.05	50.17	-4.4	0.403
115.00	-11.86	-26.06	0.00	-574.1	0.00	574.11	2,367.47	568.77	1,678.71	1,589.00	52.97	-4.52	0.368
117.00	-11.16	-24.27	0.00	-522.0	0.00	521.99	2,342.39	560.59	1,630.80	1,549.35	54.88	-4.59	0.344
120.00	-10.75	-24.08	0.00	-449.2	0.00	449.19	2,304.29	548.33	1,560.22	1,490.48	57.79	-4.69	0.308
122.00	-10.07	-22.26	0.00	-401.0	0.00	401.04	2,278.56	540.15	1,514.04	1,451.64	59.76	-4.75	0.282
125.00	-9.68	-22.07	0.00	-334.3	0.00	334.26	2,234.71	527.89	1,446.07	1,391.06	62.77	-4.83	0.246
127.00	-9.02	-20.23	0.00	-290.1	0.00	290.12	2,200.10	519.71	1,401.62	1,348.08	64.81	-4.88	0.221
130.00	-8.64	-20.04	0.00	-229.4	0.00	229.42	2,148.17	507.44	1,336.25	1,284.87	67.89	-4.95	0.184
132.00	-8.00	-18.19	0.00	-189.3	0.00	189.34	2,113.55	499.26	1,293.54	1,243.58	69.97	-4.99	0.157
135.00	-4.62	-12.54	0.00	-126.7	0.00	126.73	2,061.63	487.00	1,230.77	1,182.90	73.12	-5.04	0.110
137.00	-4.06	-10.68	0.00	-101.6	0.00	101.64	2,027.01	478.82	1,189.79	1,143.30	75.23	-5.06	0.091
140.00	-3.82	-10.50	0.00	-69.6	0.00	69.61	1,975.09	466.56	1,129.63	1,085.15	78.42	-5.09	0.067
142.00	-3.27	-8.63	0.00	-48.6	0.00	48.60	1,940.47	458.38	1,090.38	1,047.23	80.55	-5.1	0.048
145.00	-3.04	-8.48	0.00	-22.7	0.00	22.72	1,888.54	446.11	1,032.82	991.61	83.76	-5.11	0.025
146.00	-1.66	-4.36	0.00	-14.2	0.00	14.24	1,871.23	442.02	1,013.98	973.41	84.83	-5.12	0.016
147.00	-1.19	-2.57	0.00	-9.9	0.00	9.88	1,853.93	437.94	995.31	955.38	85.9	-5.12	0.011
148.00	-0.95	-2.33	0.00	-7.1	0.00	7.09	1,836.62	433.85	976.81	937.51	86.97	-5.12	0.008
149.00	0.00	-2.24	0.00	-4.8	0.00	4.76	1,819.31	429.76	958.49	919.82	88.04	-5.12	0.005

Load Case: 1.2D + 1.0Di + 1.0Wi		40 mph wind with 1" radial ice			22 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	-84.52	-9.12	0.00	-1,005.2	0.00	1,005.21	7,586.22	1,815.31	9,500.17	9,026.97	0	0	0.123
5.00	-81.91	-9.08	0.00	-959.6	0.00	959.59	7,471.93	1,778.51	9,118.97	8,709.02	0.02	-0.03	0.121
10.00	-79.31	-9.04	0.00	-914.2	0.00	914.19	7,356.01	1,741.71	8,745.59	8,394.77	0.07	-0.06	0.120
15.00	-76.75	-8.99	0.00	-869.0	0.00	869.00	7,217.48	1,704.92	8,380.00	8,060.91	0.15	-0.1	0.118
20.00	-74.23	-8.95	0.00	-824.0	0.00	824.03	7,061.70	1,668.12	8,022.22	7,714.96	0.27	-0.13	0.117
25.00	-71.75	-8.90	0.00	-779.3	0.00	779.28	6,905.92	1,631.32	7,672.25	7,376.60	0.43	-0.16	0.116
30.00	-69.32	-8.86	0.00	-734.8	0.00	734.76	6,750.14	1,594.52	7,330.08	7,045.83	0.62	-0.2	0.115
35.00	-66.93	-8.81	0.00	-690.5	0.00	690.47	6,594.37	1,557.72	6,995.72	6,722.64	0.84	-0.23	0.113
40.00	-64.58	-8.75	0.00	-646.4	0.00	646.44	6,438.59	1,520.93	6,669.16	6,407.04	1.1	-0.27	0.111
45.00	-62.28	-8.71	0.00	-602.7	0.00	602.67	6,282.81	1,484.13	6,350.41	6,099.03	1.4	-0.3	0.109
46.71	-61.51	-8.68	0.00	-587.8	0.00	587.80	6,229.64	1,471.57	6,243.39	5,995.63	1.51	-0.31	0.108
50.00	-59.13	-8.64	0.00	-559.2	0.00	559.20	6,127.03	1,447.33	6,039.46	5,798.61	1.73	-0.34	0.106
53.29	-56.80	-8.60	0.00	-530.8	0.00	530.78	4,690.13	1,131.24	4,743.28	4,472.73	1.97	-0.36	0.131
55.00	-56.16	-8.56	0.00	-516.1	0.00	516.08	4,660.50	1,121.45	4,661.57	4,405.65	2.1	-0.37	0.129
60.00	-54.33	-8.52	0.00	-473.3	0.00	473.27	4,572.76	1,092.83	4,426.70	4,211.35	2.51	-0.41	0.124
62.00	-52.70	-8.25	0.00	-456.2	0.00	456.23	4,537.20	1,081.38	4,334.45	4,134.41	2.69	-0.43	0.122
65.00	-51.62	-8.22	0.00	-431.5	0.00	431.48	4,483.38	1,064.21	4,197.91	4,019.86	2.97	-0.45	0.119
67.00	-50.00	-7.94	0.00	-415.0	0.00	415.05	4,447.18	1,052.76	4,108.09	3,944.07	3.16	-0.47	0.117
70.00	-48.95	-7.91	0.00	-391.2	0.00	391.22	4,383.99	1,035.59	3,975.18	3,823.98	3.46	-0.49	0.114
72.00	-47.34	-7.63	0.00	-375.4	0.00	375.40	4,335.53	1,024.14	3,887.79	3,739.48	3.67	-0.51	0.111
75.00	-46.32	-7.59	0.00	-352.5	0.00	352.52	4,262.83	1,006.97	3,758.53	3,614.49	4	-0.53	0.108
77.00	-44.72	-7.30	0.00	-337.3	0.00	337.34	4,214.37	995.52	3,673.56	3,532.34	4.23	-0.55	0.106
80.00	-43.72	-7.26	0.00	-315.4	0.00	315.44	4,141.67	978.35	3,547.94	3,410.90	4.58	-0.57	0.103
82.00	-42.14	-6.97	0.00	-300.9	0.00	300.91	4,093.21	966.90	3,465.41	3,331.11	4.82	-0.59	0.101
85.00	-41.16	-6.93	0.00	-280.0	0.00	280.00	4,020.51	949.73	3,343.43	3,213.21	5.2	-0.61	0.097
87.00	-39.60	-6.63	0.00	-266.2	0.00	266.15	3,972.05	938.28	3,263.32	3,135.78	5.46	-0.63	0.095
90.00	-38.65	-6.59	0.00	-246.3	0.00	246.27	3,899.35	921.11	3,144.99	3,021.42	5.86	-0.65	0.091
92.00	-37.10	-6.28	0.00	-233.1	0.00	233.09	3,850.89	909.66	3,067.31	2,946.36	6.14	-0.66	0.089
95.00	-36.17	-6.25	0.00	-214.3	0.00	214.26	3,778.19	892.49	2,952.61	2,835.53	6.56	-0.68	0.085
95.38	-36.05	-6.23	0.00	-211.9	0.00	211.91	3,769.06	890.33	2,938.37	2,821.77	6.61	-0.69	0.085
97.00	-34.39	-5.92	0.00	-201.8	0.00	201.79	3,729.73	881.04	2,877.36	2,762.83	6.85	-0.7	0.082
100.00	-33.03	-5.88	0.00	-184.0	0.00	184.03	3,657.03	863.87	2,766.31	2,655.55	7.29	-0.72	0.078
100.63	-32.75	-5.86	0.00	-180.4	0.00	180.35	2,539.98	627.54	2,043.48	1,882.60	7.39	-0.72	0.109
102.00	-31.49	-5.55	0.00	-172.3	0.00	172.30	2,524.08	621.92	2,007.08	1,853.93	7.6	-0.73	0.105
105.00	-30.77	-5.51	0.00	-155.6	0.00	155.65	2,488.92	609.66	1,928.70	1,791.74	8.06	-0.75	0.099
107.00	-29.37	-5.19	0.00	-144.6	0.00	144.62	2,465.15	601.48	1,877.32	1,750.61	8.38	-0.77	0.095
110.00	-28.66	-5.15	0.00	-129.1	0.00	129.06	2,429.01	589.22	1,801.54	1,689.46	8.87	-0.79	0.088
112.00	-27.27	-4.82	0.00	-118.8	0.00	118.76	2,404.59	581.04	1,751.89	1,649.05	9.21	-0.81	0.083
115.00	-26.58	-4.78	0.00	-104.3	0.00	104.29	2,367.47	568.77	1,678.71	1,589.00	9.72	-0.83	0.077
117.00	-25.20	-4.45	0.00	-94.7	0.00	94.73	2,342.39	560.59	1,630.80	1,549.35	10.07	-0.84	0.072
120.00	-24.54	-4.40	0.00	-81.4	0.00	81.40	2,304.29	548.33	1,560.22	1,490.48	10.61	-0.86	0.065
122.00	-23.17	-4.07	0.00	-72.6	0.00	72.59	2,278.56	540.15	1,514.04	1,451.64	10.97	-0.87	0.060
125.00	-22.52	-4.02	0.00	-60.4	0.00	60.39	2,234.71	527.89	1,446.07	1,391.06	11.52	-0.88	0.054
127.00	-21.16	-3.68	0.00	-52.3	0.00	52.34	2,200.10	519.71	1,401.62	1,348.08	11.89	-0.89	0.048
130.00	-20.53	-3.64	0.00	-41.3	0.00	41.30	2,148.17	507.44	1,336.25	1,284.87	12.46	-0.91	0.042
132.00	-19.19	-3.29	0.00	-34.0	0.00	34.03	2,113.55	499.26	1,293.54	1,243.58	12.84	-0.91	0.036
135.00	-10.94	-2.32	0.00	-23.0	0.00	22.98	2,061.63	487.00	1,230.77	1,182.90	13.42	-0.92	0.025
137.00	-9.70	-1.97	0.00	-18.4	0.00	18.35	2,027.01	478.82	1,189.79	1,143.30	13.8	-0.93	0.021
140.00	-9.23	-1.92	0.00	-12.4	0.00	12.45	1,975.09	466.56	1,129.63	1,085.15	14.39	-0.93	0.016
142.00	-8.00	-1.57	0.00	-8.6	0.00	8.60	1,940.47	458.38	1,090.38	1,047.23	14.78	-0.93	0.012
145.00	-7.55	-1.54	0.00	-3.9	0.00	3.89	1,888.54	446.11	1,032.82	991.61	15.37	-0.94	0.008
146.00	-4.47	-0.77	0.00	-2.4	0.00	2.35	1,871.23	442.02	1,013.98	973.41	15.56	-0.94	0.005
147.00	-3.40	-0.44	0.00	-1.6	0.00	1.58	1,853.93	437.94	995.31	955.38	15.76	-0.94	0.003
148.00	-2.90	-0.39	0.00	-1.1	0.00	1.11	1,836.62	433.85	976.81	937.51	15.95	-0.94	0.003
149.00	0.00	-0.34	0.00	-0.7	0.00	0.72	1,819.31	429.76	958.49	919.82	16.15	-0.94	0.001

Load Case: 1.0D + 1.0W 60 mph Wind with No Ice 22 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	-56.14	-12.38	0.00	-1,363.5	0.00	1,363.53	7,586.22	1,815.31	9,500.17	9,026.97	0	0	0.158
5.00	-54.20	-12.31	0.00	-1,301.6	0.00	1,301.64	7,471.93	1,778.51	9,118.97	8,709.02	0.02	-0.04	0.157
10.00	-52.29	-12.25	0.00	-1,240.1	0.00	1,240.07	7,356.01	1,741.71	8,745.59	8,394.77	0.09	-0.09	0.155
15.00	-50.41	-12.19	0.00	-1,178.8	0.00	1,178.82	7,217.48	1,704.92	8,380.00	8,060.91	0.21	-0.13	0.153
20.00	-48.57	-12.12	0.00	-1,117.9	0.00	1,117.90	7,061.70	1,668.12	8,022.22	7,714.96	0.37	-0.18	0.152
25.00	-46.77	-12.06	0.00	-1,057.3	0.00	1,057.29	6,905.92	1,631.32	7,672.25	7,376.60	0.58	-0.22	0.150
30.00	-45.01	-11.99	0.00	-997.0	0.00	997.01	6,750.14	1,594.52	7,330.08	7,045.83	0.84	-0.27	0.148
35.00	-43.28	-11.92	0.00	-937.1	0.00	937.06	6,594.37	1,557.72	6,995.72	6,722.64	1.14	-0.31	0.146
40.00	-41.58	-11.85	0.00	-877.5	0.00	877.46	6,438.59	1,520.93	6,669.16	6,407.04	1.49	-0.36	0.143
45.00	-39.92	-11.79	0.00	-818.2	0.00	818.22	6,282.81	1,484.13	6,350.41	6,099.03	1.9	-0.41	0.141
46.71	-39.37	-11.76	0.00	-798.1	0.00	798.09	6,229.64	1,471.57	6,243.39	5,995.63	2.05	-0.42	0.139
50.00	-37.56	-11.70	0.00	-759.4	0.00	759.38	6,127.03	1,447.33	6,039.46	5,798.61	2.35	-0.45	0.137
53.29	-35.78	-11.65	0.00	-720.9	0.00	720.90	4,690.13	1,131.24	4,743.28	4,472.73	2.67	-0.49	0.169
55.00	-35.34	-11.60	0.00	-701.0	0.00	700.99	4,660.50	1,121.45	4,661.57	4,405.65	2.85	-0.5	0.167
60.00	-34.06	-11.54	0.00	-643.0	0.00	643.00	4,572.76	1,092.83	4,426.70	4,211.35	3.41	-0.56	0.160
62.00	-32.96	-11.17	0.00	-619.9	0.00	619.92	4,537.20	1,081.38	4,334.45	4,134.41	3.65	-0.58	0.157
65.00	-32.22	-11.13	0.00	-586.4	0.00	586.42	4,483.38	1,064.21	4,197.91	4,019.86	4.02	-0.61	0.153
67.00	-31.13	-10.74	0.00	-564.2	0.00	564.17	4,447.18	1,052.76	4,108.09	3,944.07	4.29	-0.64	0.150
70.00	-30.40	-10.70	0.00	-531.9	0.00	531.94	4,383.99	1,035.59	3,975.18	3,823.98	4.7	-0.67	0.146
72.00	-29.33	-10.31	0.00	-510.5	0.00	510.54	4,335.53	1,024.14	3,887.79	3,739.48	4.98	-0.69	0.143
75.00	-28.61	-10.27	0.00	-479.6	0.00	479.60	4,262.83	1,006.97	3,758.53	3,614.49	5.43	-0.72	0.140
77.00	-27.55	-9.87	0.00	-459.1	0.00	459.07	4,214.37	995.52	3,673.56	3,532.34	5.74	-0.75	0.137
80.00	-26.86	-9.82	0.00	-429.5	0.00	429.46	4,141.67	978.35	3,547.94	3,410.90	6.22	-0.78	0.132
82.00	-25.80	-9.42	0.00	-409.8	0.00	409.81	4,093.21	966.90	3,465.41	3,331.11	6.55	-0.8	0.129
85.00	-25.12	-9.37	0.00	-381.6	0.00	381.56	4,020.51	949.73	3,343.43	3,213.21	7.06	-0.83	0.125
87.00	-24.08	-8.96	0.00	-362.8	0.00	362.81	3,972.05	938.28	3,263.32	3,135.78	7.41	-0.85	0.122
90.00	-23.42	-8.91	0.00	-335.9	0.00	335.94	3,899.35	921.11	3,144.99	3,021.42	7.96	-0.88	0.117
92.00	-22.39	-8.49	0.00	-318.1	0.00	318.11	3,850.89	909.66	3,067.31	2,946.36	8.33	-0.9	0.114
95.00	-21.75	-8.46	0.00	-292.6	0.00	292.63	3,778.19	892.49	2,952.61	2,835.53	8.9	-0.93	0.109
95.38	-21.67	-8.44	0.00	-289.4	0.00	289.45	3,769.06	890.33	2,938.37	2,821.77	8.98	-0.93	0.108
97.00	-20.53	-8.01	0.00	-275.8	0.00	275.75	3,729.73	881.04	2,877.36	2,762.83	9.3	-0.95	0.105
100.00	-19.54	-7.97	0.00	-251.7	0.00	251.70	3,657.03	863.87	2,766.31	2,655.55	9.9	-0.97	0.100
100.63	-19.33	-7.95	0.00	-246.7	0.00	246.71	2,539.98	627.54	2,043.48	1,882.60	10.03	-0.98	0.139
102.00	-18.51	-7.53	0.00	-235.8	0.00	235.79	2,524.08	621.92	2,007.08	1,853.93	10.31	-0.99	0.135
105.00	-18.04	-7.48	0.00	-213.2	0.00	213.21	2,488.92	609.66	1,928.70	1,791.74	10.95	-1.03	0.126
107.00	-17.13	-7.04	0.00	-198.2	0.00	198.25	2,465.15	601.48	1,877.32	1,750.61	11.38	-1.05	0.120
110.00	-16.66	-7.00	0.00	-177.1	0.00	177.12	2,429.01	589.22	1,801.54	1,689.46	12.05	-1.08	0.112
112.00	-15.77	-6.56	0.00	-163.1	0.00	163.12	2,404.59	581.04	1,751.89	1,649.05	12.51	-1.1	0.106
115.00	-15.31	-6.51	0.00	-143.4	0.00	143.45	2,367.47	568.77	1,678.71	1,589.00	13.2	-1.13	0.097
117.00	-14.42	-6.06	0.00	-130.4	0.00	130.43	2,342.39	560.59	1,630.80	1,549.35	13.68	-1.14	0.090
120.00	-13.98	-6.02	0.00	-112.2	0.00	112.24	2,304.29	548.33	1,560.22	1,490.48	14.41	-1.17	0.081
122.00	-13.10	-5.56	0.00	-100.2	0.00	100.21	2,278.56	540.15	1,514.04	1,451.64	14.9	-1.18	0.075
125.00	-12.68	-5.52	0.00	-83.5	0.00	83.52	2,234.71	527.89	1,446.07	1,391.06	15.65	-1.21	0.066
127.00	-11.80	-5.06	0.00	-72.5	0.00	72.49	2,200.10	519.71	1,401.62	1,348.08	16.16	-1.22	0.059
130.00	-11.39	-5.01	0.00	-57.3	0.00	57.32	2,148.17	507.44	1,336.25	1,284.87	16.93	-1.23	0.050
132.00	-10.53	-4.55	0.00	-47.3	0.00	47.30	2,113.55	499.26	1,293.54	1,243.58	17.45	-1.24	0.043
135.00	-6.27	-3.13	0.00	-31.7	0.00	31.66	2,061.63	487.00	1,230.77	1,182.90	18.24	-1.26	0.030
137.00	-5.49	-2.67	0.00	-25.4	0.00	25.39	2,027.01	478.82	1,189.79	1,143.30	18.76	-1.26	0.025
140.00	-5.20	-2.62	0.00	-17.4	0.00	17.39	1,975.09	466.56	1,129.63	1,085.15	19.56	-1.27	0.019
142.00	-4.43	-2.16	0.00	-12.1	0.00	12.14	1,940.47	458.38	1,090.38	1,047.23	20.09	-1.27	0.014
145.00	-4.16	-2.12	0.00	-5.7	0.00	5.67	1,888.54	446.11	1,032.82	991.61	20.89	-1.28	0.008
146.00	-2.24	-1.09	0.00	-3.6	0.00	3.55	1,871.23	442.02	1,013.98	973.41	21.16	-1.28	0.005
147.00	-1.56	-0.64	0.00	-2.5	0.00	2.46	1,853.93	437.94	995.31	955.38	21.43	-1.28	0.003
148.00	-1.27	-0.58	0.00	-1.8	0.00	1.76	1,836.62	433.85	976.81	937.51	21.69	-1.28	0.003
149.00	0.00	-0.55	0.00	-1.2	0.00	1.18	1,819.31	429.76	958.49	919.82	21.96	-1.28	0.001

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

(Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period (S_S):	0.167
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.054
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.000
Site Coefficient F_a:	1.600
Site Coefficient F_v:	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.178
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.086
Seismic Response Coefficient (C_s):	0.030
Upper Limit C_S:	0.030
Lower Limit C_S:	0.030
Period based on Rayleigh Method (sec):	2.030
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	1.760
Total Unfactored Dead Load:	56.140 k
Seismic Base Shear (E):	1.680 k

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)
54	148.5	87	585	0.004	7	107
53	147.5	88	583	0.004	7	108
52	146.5	88	581	0.004	7	109
51	145.5	89	579	0.004	7	110
50	143.5	272	1,726	0.012	20	336
49	141	186	1,140	0.008	13	229
48	138.5	284	1,692	0.011	19	351
47	136	193	1,115	0.008	13	239
46	133.5	403	2,249	0.015	25	498
45	131	273	1,471	0.010	17	337
44	128.5	415	2,164	0.014	24	513
43	126	281	1,414	0.010	16	347
42	123.5	427	2,076	0.014	23	527
41	121	288	1,354	0.009	15	356
40	118.5	439	1,984	0.013	22	542
39	116	296	1,291	0.009	15	366
38	113.5	451	1,889	0.013	21	557
37	111	304	1,227	0.008	14	376
36	108.5	462	1,790	0.012	20	571
35	106	312	1,160	0.008	13	386
34	103.5	474	1,690	0.011	19	586
33	101.3133	219	753	0.005	9	271
32	100.3133	205	693	0.005	8	254
31	98.5	994	3,245	0.022	37	1,228
30	96.1883	545	1,706	0.012	19	673
29	95.1883	80	245	0.002	3	98
28	93.5	640	1,907	0.013	22	791
27	91	432	1,228	0.008	14	534
26	88.5	657	1,776	0.012	20	812
25	86	443	1,140	0.008	13	548
24	83.5	674	1,644	0.011	19	832
23	81	455	1,051	0.007	12	562
22	78.5	690	1,511	0.010	17	853
21	76	466	963	0.006	11	575

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
20	73.5	707	1,378	0.009	16	873
19	71	477	874	0.006	10	589
18	68.5	723	1,245	0.008	14	894
17	66	488	786	0.005	9	603
16	63.5	740	1,115	0.008	13	915
15	61	499	700	0.005	8	617
14	57.5	1,267	1,602	0.011	18	1,565
13	54.145	440	500	0.003	6	543
12	51.645	1,770	1,852	0.012	21	2,188
11	48.3533	1,800	1,677	0.011	19	2,224
10	45.8533	555	471	0.003	5	686
9	42.5	1,650	1,225	0.008	14	2,039
8	37.5	1,686	1,003	0.007	11	2,083
7	32.5	1,721	796	0.005	9	2,127
6	27.5	1,757	605	0.004	7	2,171
5	22.5	1,793	434	0.003	5	2,215
4	17.5	1,828	284	0.002	3	2,259
3	12.5	1,864	160	0.001	2	2,303
2	7.5	1,900	66	0.000	1	2,347
1	2.5	1,936	10	0.000	0	2,392
Samsung RF4440d-13A	149	211	1,428	0.010	16	261
Samsung RF4439d-25A	149	224	1,518	0.010	17	277
Raycap RVZDC-6627-PF-48	149	64	433	0.003	5	79
Samsung MT6407-77A	149	245	1,658	0.011	19	302
Commscope SBNHH-1D65B	149	456	3,091	0.021	35	564
Alcatel-Lucent B66A RRH 4x45	148	201	1,345	0.009	15	248
PINE BRANCH	147	600	3,968	0.027	45	741
PINE BRANCH	142	600	3,733	0.025	42	741
PINE BRANCH	137	600	3,505	0.024	40	741
PINE BRANCH	132	600	3,282	0.022	37	741
PINE BRANCH	127	600	3,066	0.021	35	741
PINE BRANCH	122	600	2,857	0.019	32	741
PINE BRANCH	117	600	2,654	0.018	30	741
PINE BRANCH	112	600	2,457	0.016	28	741
PINE BRANCH	107	600	2,267	0.015	26	741
PINE BRANCH	102	600	2,084	0.014	24	741
PINE BRANCH	97	600	1,907	0.013	22	741
PINE BRANCH	92	600	1,737	0.012	20	741
PINE BRANCH	87	600	1,574	0.011	18	741
PINE BRANCH	82	600	1,418	0.010	16	741
PINE BRANCH	77	600	1,269	0.008	14	741
PINE BRANCH	72	600	1,128	0.008	13	741
PINE BRANCH	67	600	993	0.007	11	741
PINE BRANCH	62	600	866	0.006	10	741
Flat T-Arm	146	750	4,901	0.033	55	927
VZW Unused Reserve (17107.24 sqin)	146	1,099	7,181	0.048	81	1,358
Raycap DC6-48-60-18-8F(32.8 lbs)	135	131	747	0.005	8	162
Ericsson RRUS 8843 B2, B66A	135	216	1,229	0.008	14	267
Ericsson RRUS 4478 B14	135	180	1,023	0.007	12	222
Ericsson RRUS 4449 B5, B12	135	213	1,212	0.008	14	263
Ericsson RRUS 12 w/ RRUS A2 (80 lb)	135	720	4,098	0.028	46	890
Ericsson RRUS-11	135	330	1,878	0.013	21	408
CCI HPA-65R-BUU-H8	135	204	1,161	0.008	13	252
Kathrein Scala 80010966	135	688	3,914	0.026	44	850
T-Arms with SIte Pro 1 Pipes and Plates	135	1,200	6,830	0.046	77	1,483
		56,145	148,819	1.000	1,684	69,374

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)
54	148.5	87	585	0.004	7	75
53	147.5	88	583	0.004	7	76

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
52	146.5	88	581	0.004	7	76
51	145.5	89	579	0.004	7	77
50	143.5	272	1,726	0.012	20	235
49	141	186	1,140	0.008	13	160
48	138.5	284	1,692	0.011	19	246
47	136	193	1,115	0.008	13	167
46	133.5	403	2,249	0.015	25	348
45	131	273	1,471	0.010	17	236
44	128.5	415	2,164	0.014	24	359
43	126	281	1,414	0.010	16	242
42	123.5	427	2,076	0.014	23	369
41	121	288	1,354	0.009	15	249
40	118.5	439	1,984	0.013	22	379
39	116	296	1,291	0.009	15	256
38	113.5	451	1,889	0.013	21	389
37	111	304	1,227	0.008	14	263
36	108.5	462	1,790	0.012	20	400
35	106	312	1,160	0.008	13	270
34	103.5	474	1,690	0.011	19	410
33	101.3133	219	753	0.005	9	190
32	100.3133	205	693	0.005	8	178
31	98.5	994	3,245	0.022	37	859
30	96.1883	545	1,706	0.012	19	471
29	95.1883	80	245	0.002	3	69
28	93.5	640	1,907	0.013	22	553
27	91	432	1,228	0.008	14	374
26	88.5	657	1,776	0.012	20	568
25	86	443	1,140	0.008	13	383
24	83.5	674	1,644	0.011	19	582
23	81	455	1,051	0.007	12	393
22	78.5	690	1,511	0.010	17	597
21	76	466	963	0.006	11	403
20	73.5	707	1,378	0.009	16	611
19	71	477	874	0.006	10	412
18	68.5	723	1,245	0.008	14	625
17	66	488	786	0.005	9	422
16	63.5	740	1,115	0.008	13	640
15	61	499	700	0.005	8	431
14	57.5	1,267	1,602	0.011	18	1,095
13	54.145	440	500	0.003	6	380
12	51.645	1,770	1,852	0.012	21	1,530
11	48.3533	1,800	1,677	0.011	19	1,556
10	45.8533	555	471	0.003	5	480
9	42.5	1,650	1,225	0.008	14	1,426
8	37.5	1,686	1,003	0.007	11	1,457
7	32.5	1,721	796	0.005	9	1,488
6	27.5	1,757	605	0.004	7	1,519
5	22.5	1,793	434	0.003	5	1,550
4	17.5	1,828	284	0.002	3	1,581
3	12.5	1,864	160	0.001	2	1,611
2	7.5	1,900	66	0.000	1	1,642
1	2.5	1,936	10	0.000	0	1,673
Samsung RF4440d-13A	149	211	1,428	0.010	16	182
Samsung RF4439d-25A	149	224	1,518	0.010	17	194
Raycap RVZDC-6627-PF-48	149	64	433	0.003	5	55
Samsung MT6407-77A	149	245	1,658	0.011	19	212
Commscope SBNHH-1D65B	149	456	3,091	0.021	35	394
Alcatel-Lucent B66A RRH 4x45	148	201	1,345	0.009	15	174
PINE BRANCH	147	600	3,968	0.027	45	519
PINE BRANCH	142	600	3,733	0.025	42	519
PINE BRANCH	137	600	3,505	0.024	40	519
PINE BRANCH	132	600	3,282	0.022	37	519
PINE BRANCH	127	600	3,066	0.021	35	519
PINE BRANCH	122	600	2,857	0.019	32	519
PINE BRANCH	117	600	2,654	0.018	30	519
PINE BRANCH	112	600	2,457	0.016	28	519
PINE BRANCH	107	600	2,267	0.015	26	519
PINE BRANCH	102	600	2,084	0.014	24	519
PINE BRANCH	97	600	1,907	0.013	22	519
PINE BRANCH	92	600	1,737	0.012	20	519

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
PINE BRANCH	87	600	1,574	0.011	18	519
PINE BRANCH	82	600	1,418	0.010	16	519
PINE BRANCH	77	600	1,269	0.008	14	519
PINE BRANCH	72	600	1,128	0.008	13	519
PINE BRANCH	67	600	993	0.007	11	519
PINE BRANCH	62	600	866	0.006	10	519
Flat T-Arm	146	750	4,901	0.033	55	648
VZW Unused Reserve (17107.24 sqin)	146	1,099	7,181	0.048	81	950
Raycap DC6-48-60-18-8F(32.8 lbs)	135	131	747	0.005	8	113
Ericsson RRUS 8843 B2, B66A	135	216	1,229	0.008	14	187
Ericsson RRUS 4478 B14	135	180	1,023	0.007	12	155
Ericsson RRUS 4449 B5, B12	135	213	1,212	0.008	14	184
Ericsson RRUS 12 w/ RRUS A2 (80 lb)	135	720	4,098	0.028	46	622
Ericsson RRUS-11	135	330	1,878	0.013	21	285
CCI HPA-65R-BUU-H8	135	204	1,161	0.008	13	176
Kathrein Scala 80010966	135	688	3,914	0.026	44	594
T-Arms with SIte Pro 1 Pipes and Plates	135	1,200	6,830	0.046	77	1,037
		56,145	148,819	1.000	1,684	48,530

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

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-66.98	-1.69	0.00	-199.13	0.00	199.13	7,586.22	1,815.31	9,500	9,026.97	0.00	0.00	0.03
5.00	-64.63	-1.69	0.00	-190.69	0.00	190.69	7,471.93	1,778.51	9,119	8,709.02	0.00	-0.01	0.03
10.00	-62.33	-1.70	0.00	-182.22	0.00	182.22	7,356.01	1,741.71	8,746	8,394.77	0.01	-0.01	0.03
15.00	-60.07	-1.70	0.00	-173.73	0.00	173.73	7,217.48	1,704.92	8,380	8,060.91	0.03	-0.02	0.03
20.00	-57.86	-1.70	0.00	-165.23	0.00	165.23	7,061.70	1,668.12	8,022	7,714.96	0.05	-0.03	0.03
25.00	-55.68	-1.70	0.00	-156.71	0.00	156.71	6,905.92	1,631.32	7,672	7,376.60	0.08	-0.03	0.03
30.00	-53.56	-1.70	0.00	-148.21	0.00	148.21	6,750.14	1,594.52	7,330	7,045.83	0.12	-0.04	0.03
35.00	-51.47	-1.69	0.00	-139.72	0.00	139.72	6,594.37	1,557.72	6,996	6,722.64	0.17	-0.05	0.03
40.00	-49.44	-1.68	0.00	-131.27	0.00	131.27	6,438.59	1,520.93	6,669	6,407.04	0.22	-0.05	0.03
45.00	-48.75	-1.68	0.00	-122.87	0.00	122.87	6,282.81	1,484.13	6,350	6,099.03	0.28	-0.06	0.03
46.71	-46.53	-1.66	0.00	-120.00	0.00	120.00	6,229.64	1,471.57	6,243	5,995.63	0.30	-0.06	0.03
50.00	-44.34	-1.64	0.00	-114.54	0.00	114.54	6,127.03	1,447.33	6,039	5,798.61	0.35	-0.07	0.03
53.29	-43.79	-1.64	0.00	-109.14	0.00	109.14	4,690.13	1,131.24	4,743	4,472.73	0.39	-0.07	0.03
55.00	-42.23	-1.62	0.00	-106.34	0.00	106.34	4,660.50	1,121.45	4,662	4,405.65	0.42	-0.07	0.03
60.00	-41.61	-1.62	0.00	-98.24	0.00	98.24	4,572.76	1,092.83	4,427	4,211.35	0.50	-0.08	0.03
62.00	-39.96	-1.59	0.00	-95.00	0.00	95.00	4,537.20	1,081.38	4,334	4,134.41	0.54	-0.09	0.03
65.00	-39.35	-1.59	0.00	-90.22	0.00	90.22	4,483.38	1,064.21	4,198	4,019.86	0.60	-0.09	0.03
67.00	-37.72	-1.56	0.00	-87.05	0.00	87.05	4,447.18	1,052.76	4,108	3,944.07	0.63	-0.10	0.03
70.00	-37.13	-1.55	0.00	-82.36	0.00	82.36	4,383.99	1,035.59	3,975	3,823.98	0.70	-0.10	0.03
72.00	-35.51	-1.53	0.00	-79.25	0.00	79.25	4,335.53	1,024.14	3,888	3,739.48	0.74	-0.10	0.03
75.00	-34.94	-1.52	0.00	-74.67	0.00	74.67	4,262.83	1,006.97	3,759	3,614.49	0.81	-0.11	0.03
77.00	-33.34	-1.48	0.00	-71.64	0.00	71.64	4,214.37	995.52	3,674	3,532.34	0.85	-0.11	0.03
80.00	-32.78	-1.47	0.00	-67.19	0.00	67.19	4,141.67	978.35	3,548	3,410.90	0.92	-0.12	0.03
82.00	-31.21	-1.44	0.00	-64.24	0.00	64.24	4,093.21	966.90	3,465	3,331.11	0.97	-0.12	0.03
85.00	-30.66	-1.43	0.00	-59.93	0.00	59.93	4,020.51	949.73	3,343	3,213.21	1.05	-0.13	0.03
87.00	-29.11	-1.39	0.00	-57.08	0.00	57.08	3,972.05	938.28	3,263	3,135.78	1.10	-0.13	0.03
90.00	-28.57	-1.37	0.00	-52.92	0.00	52.92	3,899.35	921.11	3,145	3,021.42	1.19	-0.13	0.03
92.00	-27.04	-1.33	0.00	-50.17	0.00	50.17	3,850.89	909.66	3,067	2,946.36	1.24	-0.14	0.02
95.00	-26.94	-1.33	0.00	-46.18	0.00	46.18	3,778.19	892.49	2,953	2,835.53	1.33	-0.14	0.02
95.38	-26.27	-1.31	0.00	-45.68	0.00	45.68	3,769.06	890.33	2,938	2,821.77	1.34	-0.14	0.02
97.00	-24.30	-1.25	0.00	-43.55	0.00	43.55	3,729.73	881.04	2,877	2,762.83	1.39	-0.14	0.02
100.00	-24.05	-1.24	0.00	-39.81	0.00	39.81	3,657.03	863.87	2,766	2,655.55	1.48	-0.15	0.02
100.63	-23.77	-1.23	0.00	-39.04	0.00	39.04	2,539.98	627.54	2,043	1,882.60	1.50	-0.15	0.03
102.00	-22.45	-1.19	0.00	-37.35	0.00	37.35	2,524.08	621.92	2,007	1,853.93	1.54	-0.15	0.03
105.00	-22.06	-1.17	0.00	-33.79	0.00	33.79	2,488.92	609.66	1,929	1,791.74	1.64	-0.16	0.03
107.00	-20.75	-1.13	0.00	-31.44	0.00	31.44	2,465.15	601.48	1,877	1,750.61	1.71	-0.16	0.03
110.00	-20.37	-1.11	0.00	-28.07	0.00	28.07	2,429.01	589.22	1,802	1,689.46	1.81	-0.16	0.03
112.00	-19.08	-1.06	0.00	-25.84	0.00	25.84	2,404.59	581.04	1,752	1,649.05	1.88	-0.17	0.02
115.00	-18.71	-1.05	0.00	-22.66	0.00	22.66	2,367.47	568.77	1,679	1,589.00	1.99	-0.17	0.02
117.00	-17.43	-0.99	0.00	-20.57	0.00	20.57	2,342.39	560.59	1,631	1,549.35	2.06	-0.17	0.02

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
120.00	-17.07	-0.97	0.00	-17.60	0.00	17.60	2,304.29	548.33	1,560	1,490.48	2.17	-0.18	0.02
122.00	-15.80	-0.92	0.00	-15.65	0.00	15.65	2,278.56	540.15	1,514	1,451.64	2.25	-0.18	0.02
125.00	-15.45	-0.90	0.00	-12.90	0.00	12.90	2,234.71	527.89	1,446	1,391.06	2.36	-0.18	0.02
127.00	-14.20	-0.84	0.00	-11.10	0.00	11.10	2,200.10	519.71	1,402	1,348.08	2.44	-0.19	0.02
130.00	-13.86	-0.82	0.00	-8.59	0.00	8.59	2,148.17	507.44	1,336	1,284.87	2.56	-0.19	0.01
132.00	-12.62	-0.75	0.00	-6.95	0.00	6.95	2,113.55	499.26	1,294	1,243.58	2.64	-0.19	0.01
135.00	-7.59	-0.47	0.00	-4.69	0.00	4.69	2,061.63	487.00	1,231	1,182.90	2.76	-0.19	0.01
137.00	-6.50	-0.41	0.00	-3.75	0.00	3.75	2,027.01	478.82	1,190	1,143.30	2.84	-0.19	0.01
140.00	-6.27	-0.40	0.00	-2.51	0.00	2.51	1,975.09	466.56	1,130	1,085.15	2.96	-0.19	0.01
142.00	-5.19	-0.33	0.00	-1.72	0.00	1.72	1,940.47	458.38	1,090	1,047.23	3.04	-0.19	0.00
145.00	-5.08	-0.33	0.00	-0.72	0.00	0.72	1,888.54	446.11	1,033	991.61	3.16	-0.19	0.00
146.00	-2.69	-0.17	0.00	-0.39	0.00	0.39	1,871.23	442.02	1,014	973.41	3.20	-0.20	0.00
147.00	-1.84	-0.12	0.00	-0.22	0.00	0.22	1,853.93	437.94	995	955.38	3.24	-0.20	0.00
148.00	-1.48	-0.10	0.00	-0.10	0.00	0.10	1,836.62	433.85	977	937.51	3.28	-0.20	0.00
149.00	0.00	-0.09	0.00	0.00	0.00	0.00	1,819.31	429.76	958	919.82	3.33	-0.20	0.00

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 (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-46.86	-1.69	0.00	-197.01	0.00	197.01	7,586.22	1,815.31	9,500	9,026.97	0.00	0.00	0.03
5.00	-45.21	-1.69	0.00	-188.58	0.00	188.58	7,471.93	1,778.51	9,119	8,709.02	0.00	-0.01	0.03
10.00	-43.60	-1.69	0.00	-180.13	0.00	180.13	7,356.01	1,741.71	8,746	8,394.77	0.01	-0.01	0.03
15.00	-42.02	-1.69	0.00	-171.66	0.00	171.66	7,217.48	1,704.92	8,380	8,060.91	0.03	-0.02	0.03
20.00	-40.47	-1.69	0.00	-163.19	0.00	163.19	7,061.70	1,668.12	8,022	7,714.96	0.05	-0.03	0.03
25.00	-38.95	-1.69	0.00	-154.73	0.00	154.73	6,905.92	1,631.32	7,672	7,376.60	0.08	-0.03	0.03
30.00	-37.47	-1.68	0.00	-146.28	0.00	146.28	6,750.14	1,594.52	7,330	7,045.83	0.12	-0.04	0.03
35.00	-36.01	-1.68	0.00	-137.85	0.00	137.85	6,594.37	1,557.72	6,996	6,722.64	0.17	-0.05	0.03
40.00	-34.58	-1.67	0.00	-129.47	0.00	129.47	6,438.59	1,520.93	6,669	6,407.04	0.22	-0.05	0.03
45.00	-34.10	-1.66	0.00	-121.14	0.00	121.14	6,282.81	1,484.13	6,350	6,099.03	0.28	-0.06	0.03
46.71	-32.55	-1.64	0.00	-118.31	0.00	118.31	6,229.64	1,471.57	6,243	5,995.63	0.30	-0.06	0.03
50.00	-31.02	-1.62	0.00	-112.89	0.00	112.89	6,127.03	1,447.33	6,039	5,798.61	0.34	-0.07	0.03
53.29	-30.64	-1.62	0.00	-107.55	0.00	107.55	4,690.13	1,131.24	4,743	4,472.73	0.39	-0.07	0.03
55.00	-29.54	-1.60	0.00	-104.78	0.00	104.78	4,660.50	1,121.45	4,662	4,405.65	0.42	-0.07	0.03
60.00	-29.11	-1.60	0.00	-96.77	0.00	96.77	4,572.76	1,092.83	4,427	4,211.35	0.50	-0.08	0.03
62.00	-27.95	-1.58	0.00	-93.57	0.00	93.57	4,537.20	1,081.38	4,334	4,134.41	0.53	-0.09	0.03
65.00	-27.53	-1.57	0.00	-88.85	0.00	88.85	4,483.38	1,064.21	4,198	4,019.86	0.59	-0.09	0.03
67.00	-26.38	-1.54	0.00	-85.71	0.00	85.71	4,447.18	1,052.76	4,108	3,944.07	0.63	-0.09	0.03
70.00	-25.97	-1.53	0.00	-81.08	0.00	81.08	4,383.99	1,035.59	3,975	3,823.98	0.69	-0.10	0.03
72.00	-24.84	-1.51	0.00	-78.02	0.00	78.02	4,335.53	1,024.14	3,888	3,739.48	0.73	-0.10	0.03
75.00	-24.44	-1.50	0.00	-73.50	0.00	73.50	4,262.83	1,006.97	3,759	3,614.49	0.80	-0.11	0.03
77.00	-23.32	-1.46	0.00	-70.51	0.00	70.51	4,214.37	995.52	3,674	3,532.34	0.84	-0.11	0.03
80.00	-22.93	-1.45	0.00	-66.12	0.00	66.12	4,141.67	978.35	3,548	3,410.90	0.91	-0.12	0.03
82.00	-21.83	-1.42	0.00	-63.21	0.00	63.21	4,093.21	966.90	3,465	3,331.11	0.96	-0.12	0.02
85.00	-21.45	-1.40	0.00	-58.96	0.00	58.96	4,020.51	949.73	3,343	3,213.21	1.04	-0.12	0.02
87.00	-20.36	-1.37	0.00	-56.15	0.00	56.15	3,972.05	938.28	3,263	3,135.78	1.09	-0.13	0.02
90.00	-19.99	-1.35	0.00	-52.05	0.00	52.05	3,899.35	921.11	3,145	3,021.42	1.17	-0.13	0.02
92.00	-18.92	-1.31	0.00	-49.35	0.00	49.35	3,850.89	909.66	3,067	2,946.36	1.23	-0.13	0.02
95.00	-18.85	-1.31	0.00	-45.42	0.00	45.42	3,778.19	892.49	2,953	2,835.53	1.31	-0.14	0.02
95.38	-18.38	-1.29	0.00	-44.93	0.00	44.93	3,769.06	890.33	2,938	2,821.77	1.32	-0.14	0.02
97.00	-17.00	-1.23	0.00	-42.83	0.00	42.83	3,729.73	881.04	2,877	2,762.83	1.37	-0.14	0.02
100.00	-16.82	-1.22	0.00	-39.15	0.00	39.15	3,657.03	863.87	2,766	2,655.55	1.46	-0.15	0.02
100.63	-16.63	-1.21	0.00	-38.39	0.00	38.39	2,539.98	627.54	2,043	1,882.60	1.48	-0.15	0.03
102.00	-15.70	-1.17	0.00	-36.72	0.00	36.72	2,524.08	621.92	2,007	1,853.93	1.52	-0.15	0.03
105.00	-15.43	-1.15	0.00	-33.22	0.00	33.22	2,488.92	609.66	1,929	1,791.74	1.62	-0.15	0.03
107.00	-14.51	-1.11	0.00	-30.91	0.00	30.91	2,465.15	601.48	1,877	1,750.61	1.68	-0.16	0.02
110.00	-14.25	-1.09	0.00	-27.59	0.00	27.59	2,429.01	589.22	1,802	1,689.46	1.79	-0.16	0.02
112.00	-13.34	-1.04	0.00	-25.41	0.00	25.41	2,404.59	581.04	1,752	1,649.05	1.85	-0.17	0.02
115.00	-13.09	-1.03	0.00	-22.28	0.00	22.28	2,367.47	568.77	1,679	1,589.00	1.96	-0.17	0.02
117.00	-12.19	-0.97	0.00	-20.22	0.00	20.22	2,342.39	560.59	1,631	1,549.35	2.03	-0.17	0.02
120.00	-11.94	-0.96	0.00	-17.30	0.00	17.30	2,304.29	548.33	1,560	1,490.48	2.14	-0.18	0.02
122.00	-11.05	-0.90	0.00	-15.38	0.00	15.38	2,278.56	540.15	1,514	1,451.64	2.21	-0.18	0.02
125.00	-10.81	-0.88	0.00	-12.68	0.00	12.68	2,234.71	527.89	1,446	1,391.06	2.33	-0.18	0.01
127.00	-9.93	-0.82	0.00	-10.91	0.00	10.91	2,200.10	519.71	1,402	1,348.08	2.40	-0.18	0.01
130.00	-9.70	-0.81	0.00	-8.45	0.00	8.45	2,148.17	507.44	1,336	1,284.87	2.52	-0.19	0.01
132.00	-8.83	-0.74	0.00	-6.84	0.00	6.84	2,113.55	499.26	1,294	1,243.58	2.60	-0.19	0.01
135.00	-5.31	-0.47	0.00	-4.62	0.00	4.62	2,061.63	487.00	1,231	1,182.90	2.72	-0.19	0.01

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
137.00	-4.55	-0.40	0.00	-3.68	0.00	3.68	2,027.01	478.82	1,190	1,143.30	2.80	-0.19	0.01
140.00	-4.38	-0.39	0.00	-2.47	0.00	2.47	1,975.09	466.56	1,130	1,085.15	2.92	-0.19	0.00
142.00	-3.63	-0.33	0.00	-1.69	0.00	1.69	1,940.47	458.38	1,090	1,047.23	3.00	-0.19	0.00
145.00	-3.55	-0.32	0.00	-0.71	0.00	0.71	1,888.54	446.11	1,033	991.61	3.12	-0.19	0.00
146.00	-1.88	-0.17	0.00	-0.39	0.00	0.39	1,871.23	442.02	1,014	973.41	3.16	-0.19	0.00
147.00	-1.29	-0.12	0.00	-0.21	0.00	0.21	1,853.93	437.94	995	955.38	3.20	-0.19	0.00
148.00	-1.04	-0.10	0.00	-0.10	0.00	0.10	1,836.62	433.85	977	937.51	3.24	-0.19	0.00
149.00	0.00	-0.09	0.00	0.00	0.00	0.00	1,819.31	429.76	958	919.82	3.28	-0.19	0.00

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	49.96	0.00	67.30	0.00	0.00	5527.91	53.29	0.67
0.9D + 1.0W	49.94	0.00	50.45	0.00	0.00	5480.30	53.29	0.65
1.2D + 1.0Di + 1.0Wi	9.12	0.00	84.52	0.00	0.00	1005.21	53.29	0.13
1.2D + 1.0Ev + 1.0Eh	1.70	0.00	66.98	0.00	0.00	199.13	53.29	0.03
0.9D - 1.0Ev + 1.0Eh	1.69	0.00	46.86	0.00	0.00	197.01	53.29	0.03
1.0D + 1.0W	12.38	0.00	56.14	0.00	0.00	1363.53	53.29	0.17

Base Plate & Anchor Rod Analysis

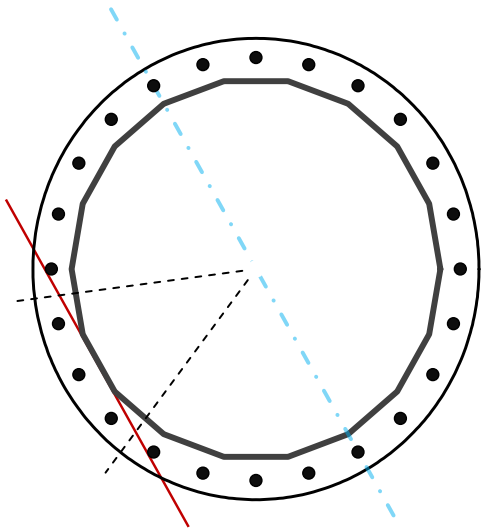
Pole Dimensions		
Number of Sides	18	-
Diameter	58.5	in
Thickness	0.5625	in
Orientation Offset	0	°

Base Reactions		
Moment, Mu	5527.9	k-ft
Axial, Pu	67.3	k
Shear, Vu	50.0	k
Neutral Axis	120	°

Report Capacities		
Component	Capacity	Result
Base Plate	51%	Pass
Anchor Rods	66%	Pass
Dwyidag	-	-

Base Plate		
Shape	Round	-
Diameter, ø	72	in
Thickness	3	in
Grade	A572-50	
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Clip	N/A	in
Orientation Offset	0	°
Anchor Rod Detail	d	η=0.5
Clear Distance	3	in
Applied Moment, Mu	1471.2	k
Bending Stress, ϕMn	2903.9	k

Original Anchor Rods		
Arrangement	Radial	-
Quantity	24	-
Diameter, ø	2 1/4	in
Bolt Circle	66	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	8.6	in
Orientation Offset	0	°
Applied Force, Pu	170.2	k
Anchor Rods, ϕPn	259.8	k



Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	50.0	5527.9	1.00
Anchor Rod Forces	50.0	5527.9	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	101.8650	5.6592	0.5998		42752.77
Bolt	3.9761	3.2477	0.8393	4.5	42460.95
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	72	in
Thickness, t	3	in
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Base Plate Chord	41.973	in
Detail Type	d	-
Detail Factor	0.50	-
Clear Distance	3	-

Anchor Rods		
Anchor Rod Quantity, N	24	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	66	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	170.2	k
Applied Shear, Vu	0.9	k
Compressive Capacity, ϕPn	259.8	k
Tensile Capacity, ϕRnt	0.655	OK
Interaction Capacity	0.662	OK

External Base Plate		
Chord Length AA	35.431	in
Additional AA	6.000	in
Section Modulus, Z	93.220	in^3
Applied Moment, Mu	1471.2	k-ft
Bending Capacity, ϕMn	4194.9	k-ft
Capacity, Mu/ϕMn	0.351	OK
Chord Length AB	33.890	in
Additional AB	6.000	in
Section Modulus, Z	89.752	in^3
Applied Moment, Mu	1245.4	k-ft
Bending Capacity, ϕMn	4038.8	k-ft
Capacity, Mu/ϕMn	0.308	OK
Bend Line Length	28.680	in
Additional Bend Line	0.000	in
Section Modulus, Z	64.531	in^3
Applied Moment, Mu	1471.2	k-ft
Bending Capacity, ϕMn	2903.9	k-ft
Capacity, Mu/ϕMn	0.507	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		

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

Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10112826
Maser Consulting Connecticut Project #: 21777475A

November 16, 2021

Site Information	*Site ID:*	*468318-VZW / FALLS VILLAGE CT*
	Site Name:	*FALLS VILLAGE CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*Route 7* *Falls Village, Connecticut 06031* *Litchfield County*
	Latitude:	*41.944556°*
	Longitude:	*-73.360481°*
Structure Information	*Tower Type:*	*151-Ft Monopole*
	Mount Type:	*10.00-Ft T-Arm*

FUZE ID # 16272090

Analysis Results

T-arm: **60.2% 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
For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

11/16/21

Report Prepared By: Carol Luengas

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: 1582860, dated October 7, 2021
Mount Mapping Report	Hudson Design Group, LLC. Site ID: 468318, dated April 12, 2021
Previous Mount Analysis	Maser Consulting Connecticut Project #: 21777475A, dated October 21, 2021
Mount Modification Drawing	Maser Consulting Connecticut Project #: 21777475A, dated November 16, 2021

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	114 mph
	Ice Wind Speed (3-sec. Gust):	40 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	C
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.977
Seismic Parameters:	S_S:	0.167
	S_1:	0.054
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
148.00	150.00	3	Samsung	RF4440d-13A	Added
		3	Samsung	MT6407-77A	
		3	Samsung	RF4439d-25A	
		1	Raycap	RVZDC-6627-PF-48	
		9	Andrew	SBNHH-1D65B	Retained

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

Model Number	Ports	AKA
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 in accordance with the NSTD-446 Standard, 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
Antenna Pipe	36.2	Pass
Standoff Arm	28.6	Pass
Face Horizontal	20.3	Pass
Mount Connection	60.2	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**60.2%**

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

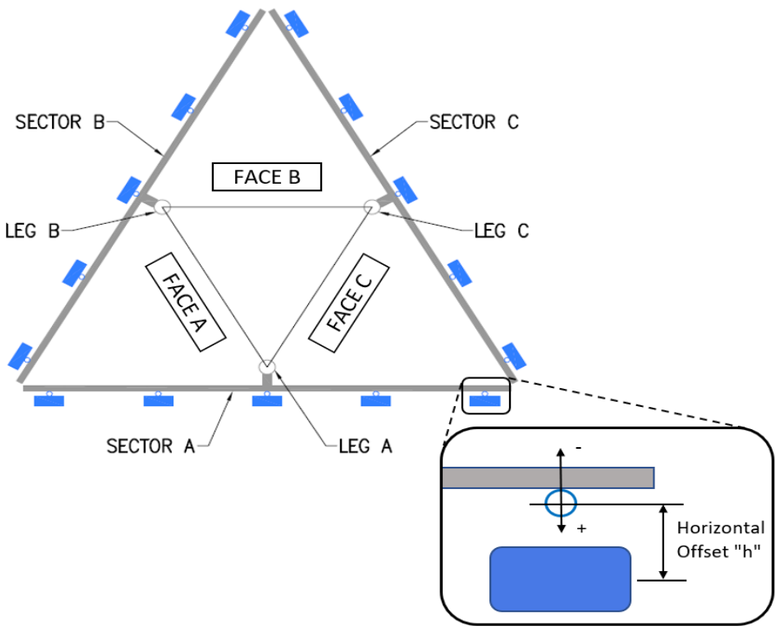
V4.0 Updated on 3-31-2021

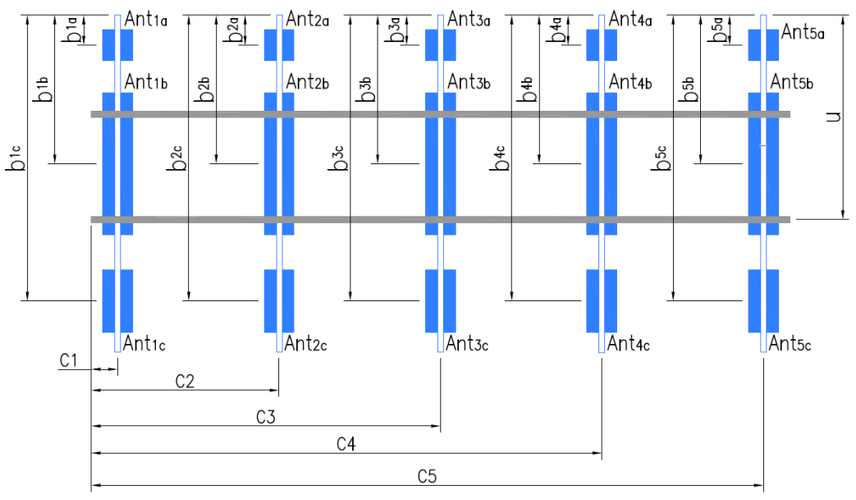
Antenna Mount Mapping Form (PATENT PENDING)

FCC #	

Tower Owner:	OTHER	**Mapping Date:**	4.12.21
Site Name:	FALLS VILLAGE CT	**Tower Type:**	Monopole
Site Number or ID:	468318	**Tower Height (Ft.):**	150.66
Mapping Contractor:	HUDSON DESIGN GROUP,LLC.	**Mount Elevation (Ft.):**	147.16

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





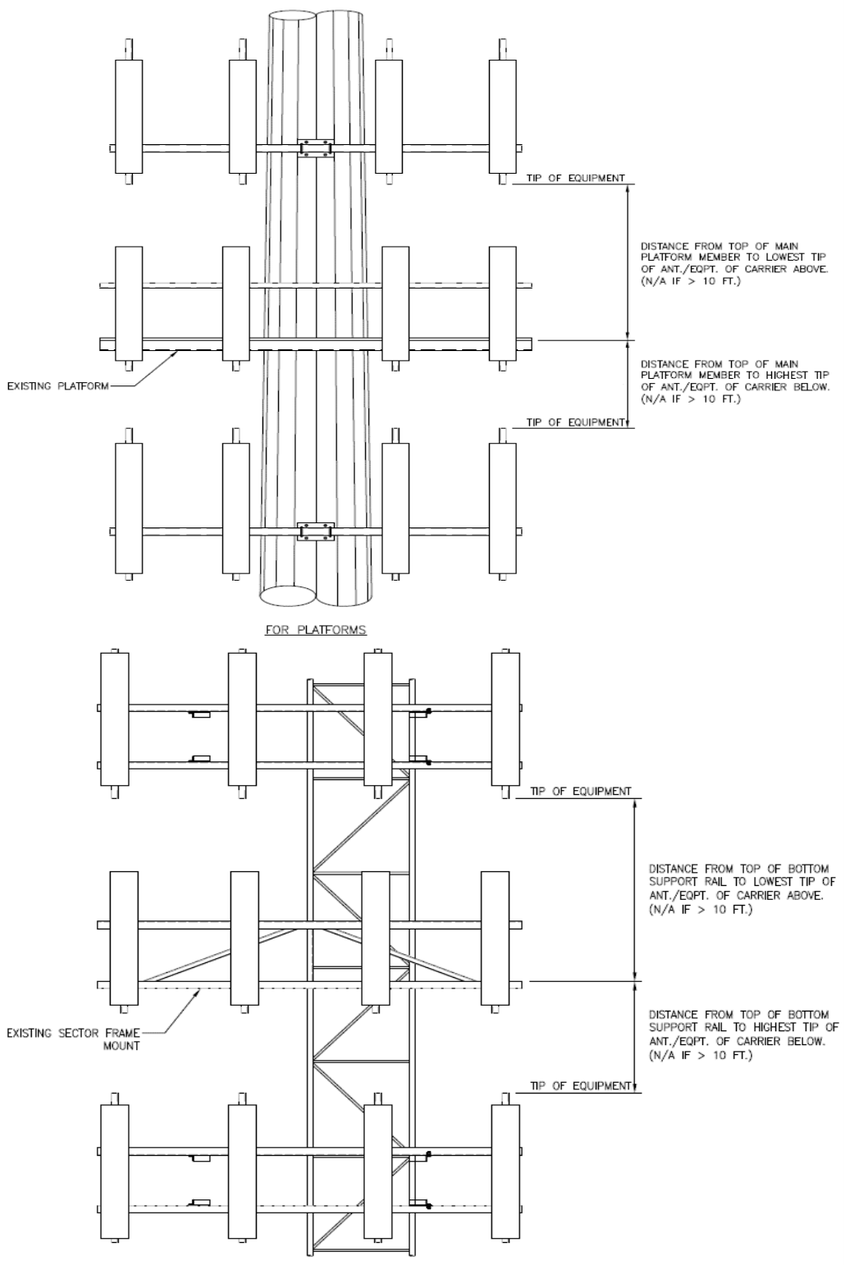
Antenna Layout (Looking Out From Tower)

Mount Pipe Configuration and Geometries [Unit = Inches]							
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	2" STD PIPE X 75" LONG	48.00	5.00	C1	2" STD PIPE X 75" LONG	48.00	5.00
A2	2" STD PIPE X 75" LONG	48.00	30.00	C2	2" STD PIPE X 75" LONG	48.00	30.00
A3	2" STD PIPE X 75" LONG	48.00	48.00	C3	2" STD PIPE X 75" LONG	48.00	48.00
A4	2" STD PIPE X 75" LONG	48.00	71.00	C4	2" STD PIPE X 75" LONG	48.00	71.00
A5	2" STD PIPE X 75" LONG	48.00	93.00	C5	2" STD PIPE X 75" LONG	48.00	93.00
A6	2" STD PIPE X 75" LONG	48.00	115.00	C6	2" STD PIPE X 75" LONG	48.00	115.00
B1	2" STD PIPE X 75" LONG	48.00	5.00	D1			
B2	2" STD PIPE X 75" LONG	48.00	30.00	D2			
B3	2" STD PIPE X 75" LONG	48.00	48.00	D3			
B4	2" STD PIPE X 75" LONG	48.00	71.00	D4			
B5	2" STD PIPE X 75" LONG	48.00	93.00	D5			
B6	2" STD PIPE X 75" LONG	48.00	115.00	D6			
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :							42.00
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.) :							10
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.):				26
For T-Arms/Platforms on monopoles, report the weld size from the main standoff to the plate bolting into the collar mount.							

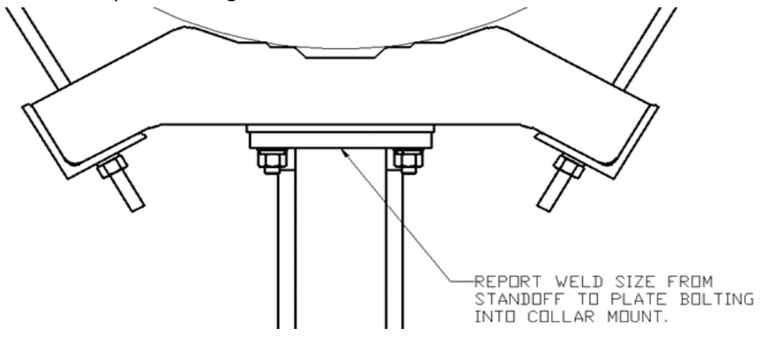
	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}	B66a RRH 4X45	12.00	7.00	25.50		145.41	27.00	-7.00		63
Ant_{2b}	SBNHH-1D65B (2)	12.00	7.00	73.00		145.41	27.00	9.00	30.00	63
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}	B13 RRH 4X30	12.00	7.00	20.50		145.41	27.00	-7.00		65
Ant_{5b}	SBNHH-1D65B (2)	12.00	7.00	73.00		145.41	27.00	9.00	30.00	65
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:	0.00	Deg			
Climbing Facility	Corrosion Type:		Minor corrosion observed.		
	Access:		Climbing path was obstructed.		
	Condition:		Good condition.		

Please insert a photo of the mount centerline measurement here.



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



Sector B										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}	B66a RRH 4X45	12.00	7.00	25.50		145.41	27.00	-7.00		68
Ant_{2b}	SBNHH-1D65B (2)	12.00	7.00	73.00		145.41	27.00	9.00	150.00	68
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}	B13 RRH 4X30	12.00	7.00	20.50		145.41	27.00	-7.00		71,72
Ant_{5b}	SBNHH-1D65B (2)	12.00	7.00	73.00		145.41	27.00	9.00	150.00	71,72
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}	B66a RRH 4X45	12.00	7.00	25.50		145.41	27.00	-7.00		74
Ant_{2b}	SBNHH-1D65B (2)	12.00	7.00	73.00		145.41	27.00	9.00	260.00	74
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}	B13 RRH 4X30	12.00	7.00	20.50		145.41	27.00	-7.00		77
Ant_{5b}	SBNHH-1D65B (2)	12.00	7.00	73.00		145.41	27.00	9.00	260.00	77
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		
2		
3		
4		
5		
6		
7		
8		

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

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

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

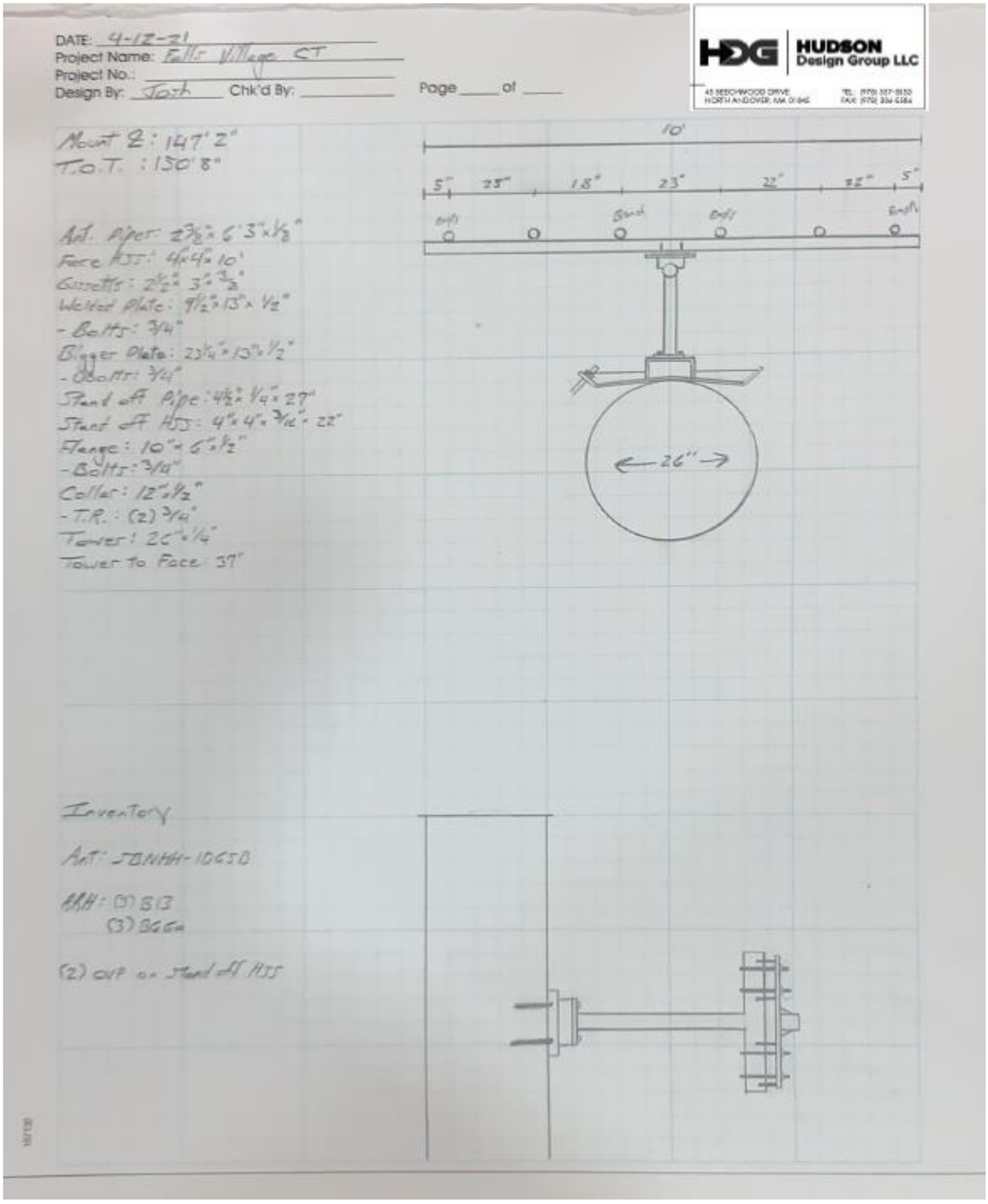
V4.0 Updated on 3-31-2021

Antenna Mount Mapping Form (PATENT PENDING)

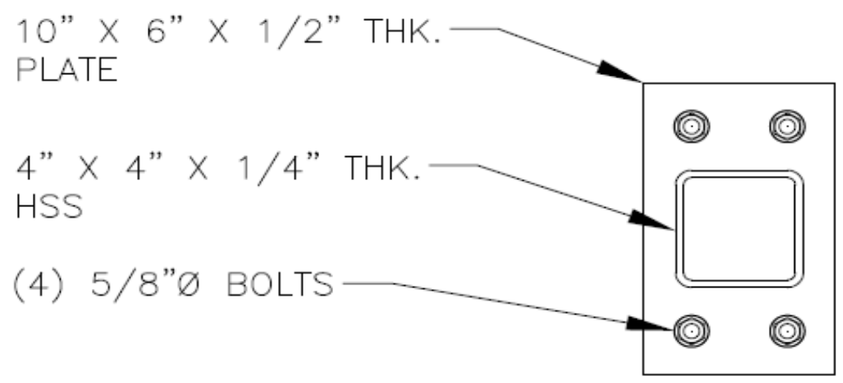
Tower Owner:	OTHER	**Mapping Date:**	4.12.21
Site Name:	FALLS VILLAGE CT	**Tower Type:**	Monopole
Site Number or ID:	468318	**Tower Height (Ft.):**	150.66
Mapping Contractor:	HUDSON DESIGN GROUP,LLC.	**Mount Elevation (Ft.):**	147.16

FCC #

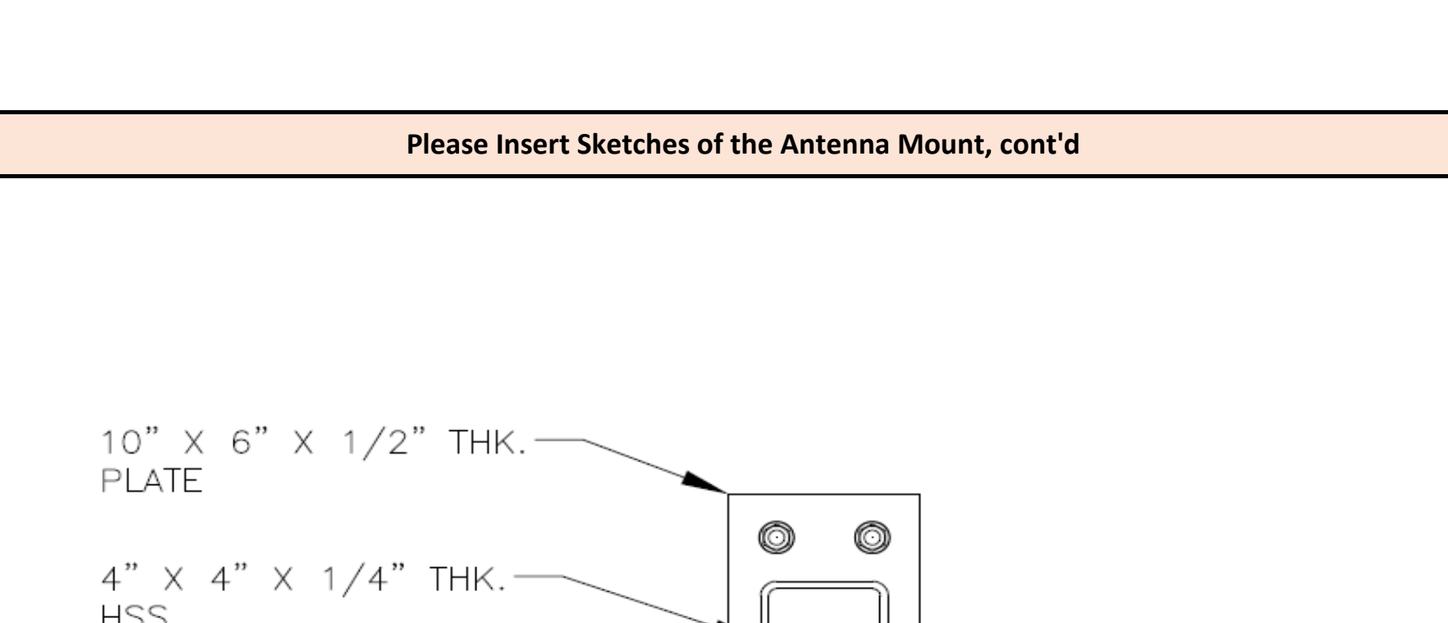
Please Insert Sketches of the Antenna Mount



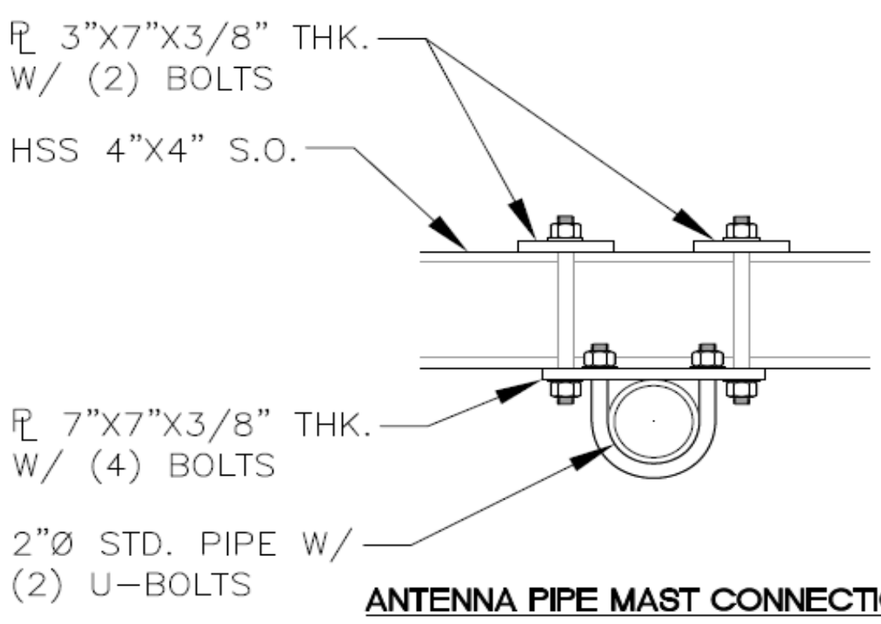
Please Insert Sketches of the Antenna Mount, cont'd



STANDOFF TO RING MOUNT CONNECTION

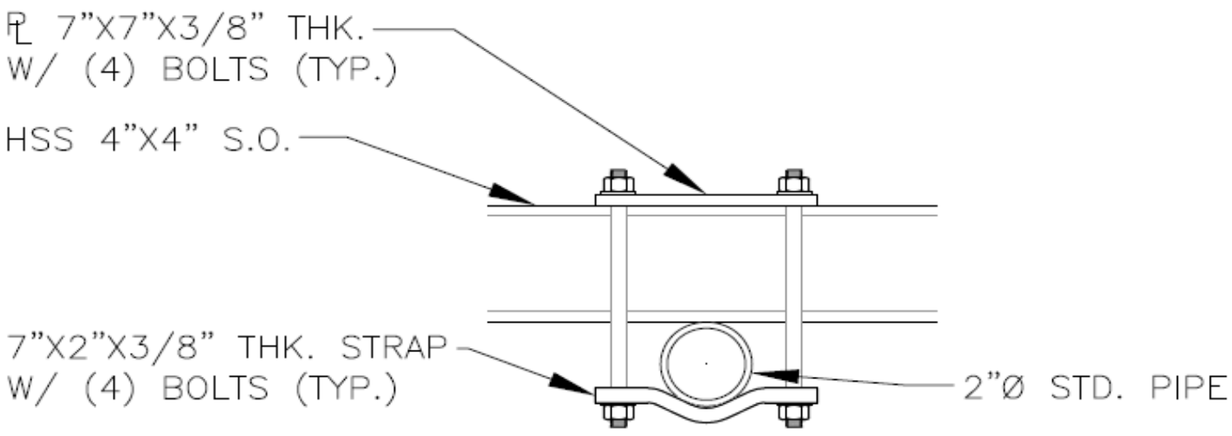


STANDOFF FACE MOUNT DETAIL

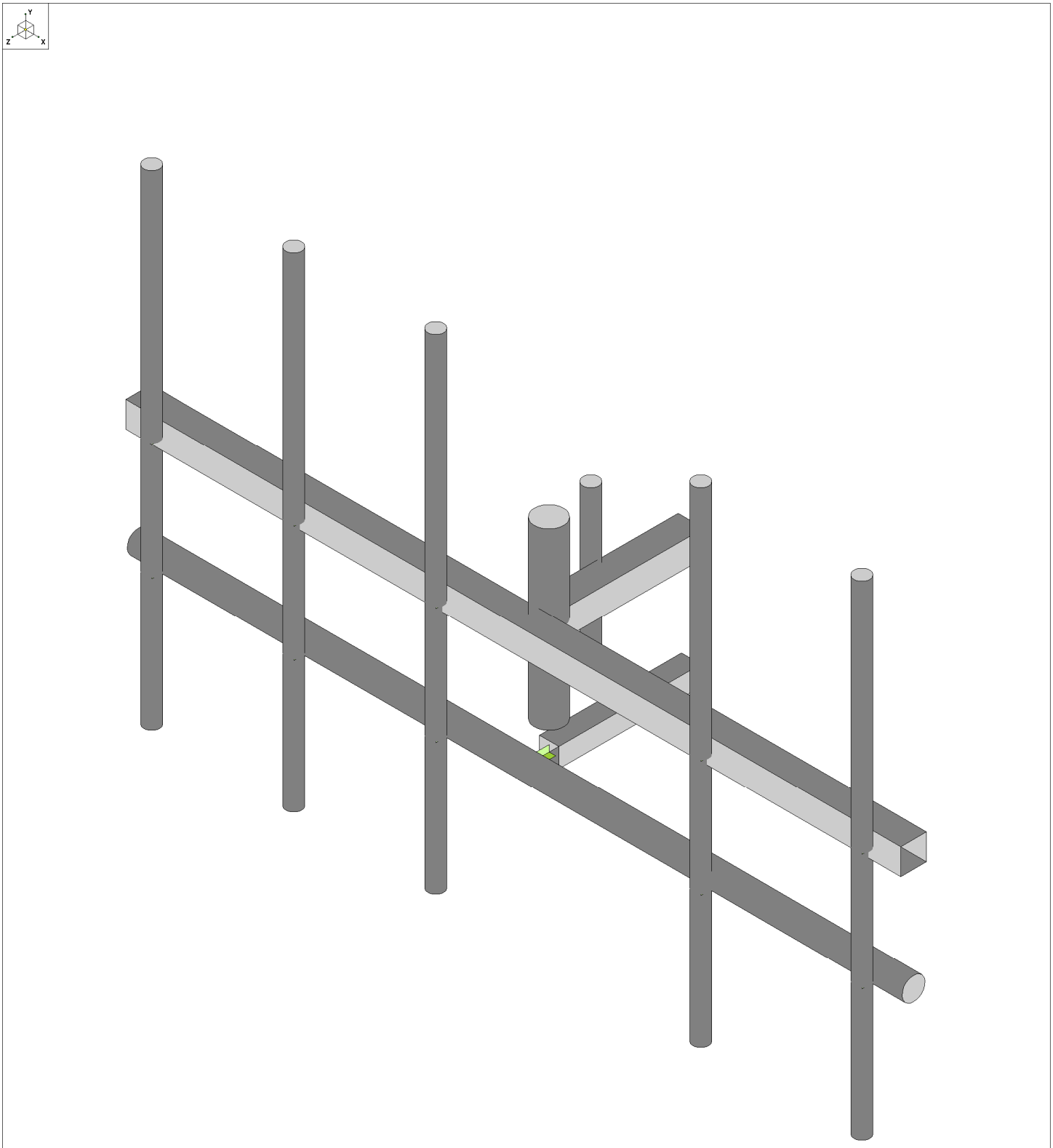


ANTENNA PIPE MAST CONNECTION

Please Insert Sketches of the Antenna Mount, cont'd

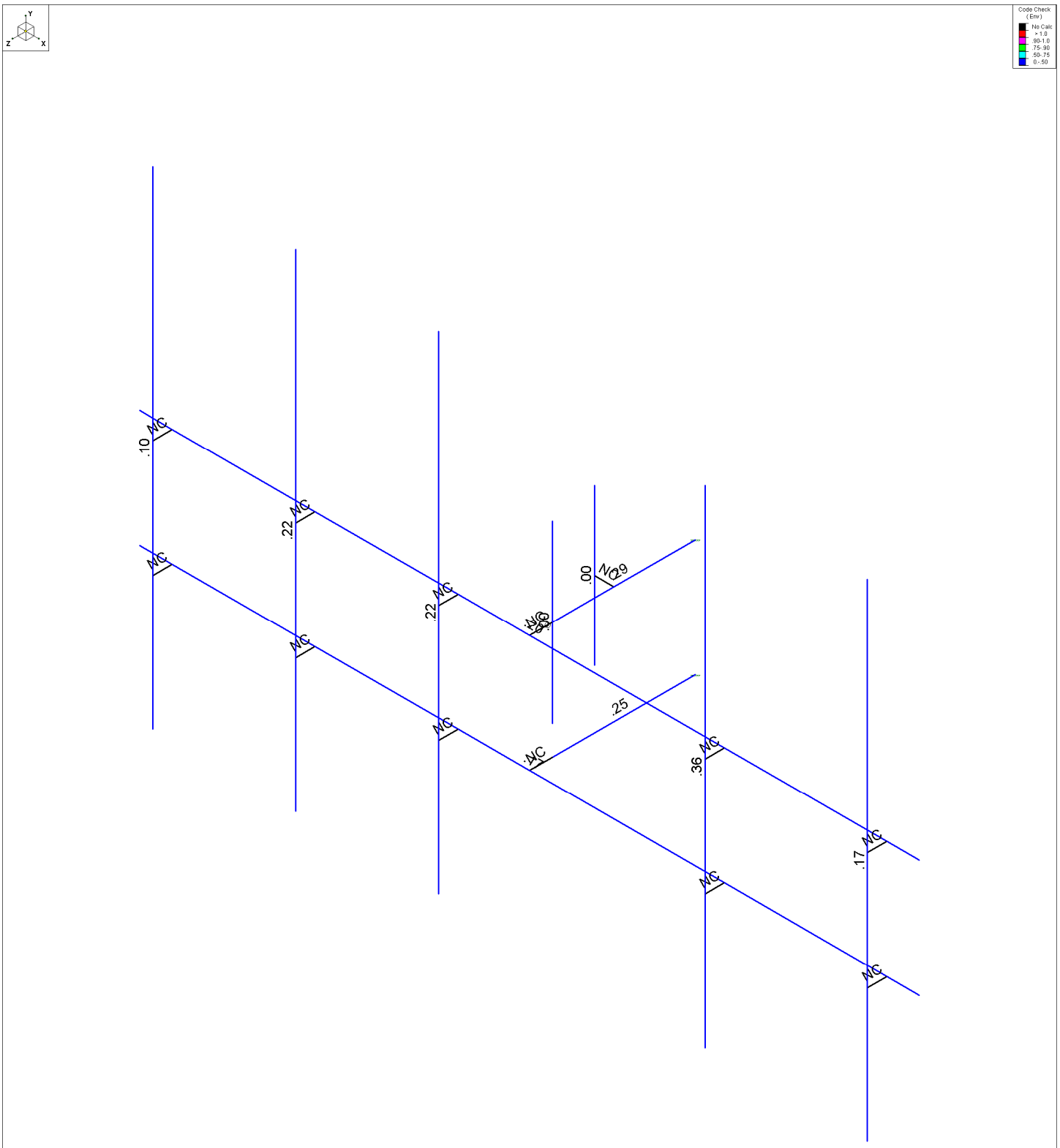


OVP MOUNT DETAIL



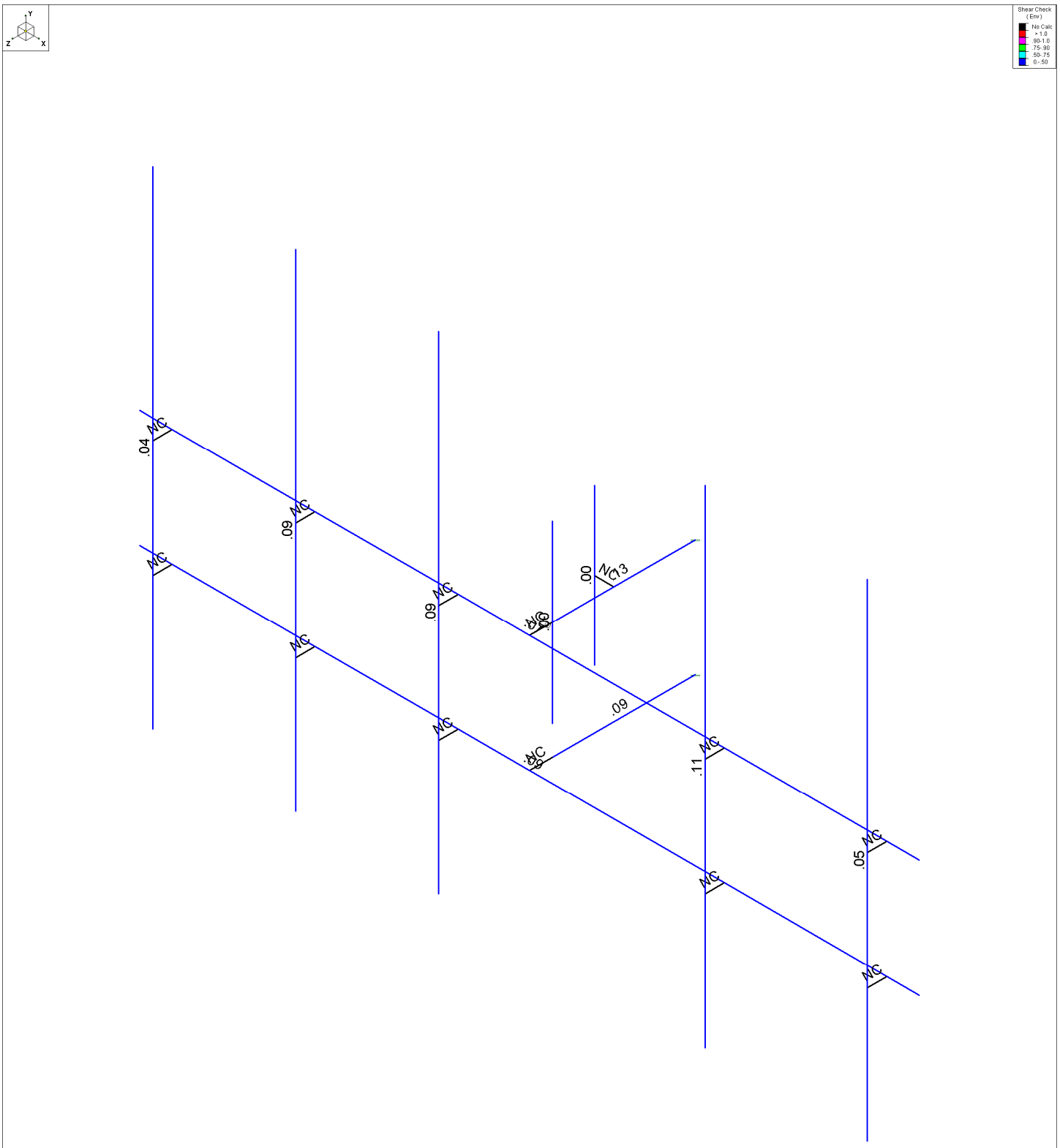
Envelope Only Solution

		SK - 1
		Nov 12, 2021 at 11:08 AM
		468318-VZW_MT_LOT_A_H.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

		SK - 2
		Nov 12, 2021 at 11:09 AM
		468318-VZW_MT_LOT_A_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

		SK - 3
		Nov 12, 2021 at 11:09 AM
		468318-VZW_MT_LOT_A_H.r3d

Basic Load Cases

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

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(...
54	Structure Wi (30 Deg)	None						22		
55	Structure Wi (60 Deg)	None						22		
56	Structure Wi (90 Deg)	None						22		
57	Structure Wi (120 Deg)	None						22		
58	Structure Wi (150 Deg)	None						22		
59	Structure Wi (180 Deg)	None						22		
60	Structure Wi (210 Deg)	None						22		
61	Structure Wi (240 Deg)	None						22		
62	Structure Wi (270 Deg)	None						22		
63	Structure Wi (300 Deg)	None						22		
64	Structure Wi (330 Deg)	None						22		
65	Structure Wm (0 Deg)	None						22		
66	Structure Wm (30 Deg)	None						22		
67	Structure Wm (60 Deg)	None						22		
68	Structure Wm (90 Deg)	None						22		
69	Structure Wm (120 Deg)	None						22		
70	Structure Wm (150 Deg)	None						22		
71	Structure Wm (180 Deg)	None						22		
72	Structure Wm (210 Deg)	None						22		
73	Structure Wm (240 Deg)	None						22		
74	Structure Wm (270 Deg)	None						22		
75	Structure Wm (300 Deg)	None						22		
76	Structure Wm (330 Deg)	None						22		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					33			
82	Antenna Eh (0 Deg)	None					22			
83	Antenna Eh (90 Deg)	None					22			
84	Structure Ev	ELY								
85	Structure Eh (0 Deg)	ELZ	-.03							
86	Structure Eh (90 Deg)	ELX			.03					

Load Combinations

	Description	Sol..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
1	1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (30 Deg)	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (60 Deg)	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (90 Deg)	Yes	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0Wo (120 Deg)	Yes	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0Wo (150 Deg)	Yes	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0Wo (180 Deg)	Yes	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0Wo (210 Deg)	Yes	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0Wo (240 Deg)	Yes	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0Wo (270 Deg)	Yes	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0Wo (300 Deg)	Yes	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0Wo (330 Deg)	Yes	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								

Load Combinations (Continued)

	Description	Sol..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
20	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								
22	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5														
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5														
51	1.4D	Yes	Y		1	1.4	39	1.4																
52	1.2D + 1.0Ev + 1.0Eh (...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	1	83		ELZ	1	ELX					
53	1.2D + 1.0Ev + 1.0Eh (...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5	ELZ	.866	ELX	.5				
54	1.2D + 1.0Ev + 1.0Eh (...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866	ELZ	.5	ELX	.866				
55	1.2D + 1.0Ev + 1.0Eh (...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX	1				
56	1.2D + 1.0Ev + 1.0Eh (...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866	ELZ	-.5	ELX	.866				
57	1.2D + 1.0Ev + 1.0Eh (...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	.5	ELZ	-.866	ELX	.5				
58	1.2D + 1.0Ev + 1.0Eh (...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX					
59	1.2D + 1.0Ev + 1.0Eh (...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5				
60	1.2D + 1.0Ev + 1.0Eh (...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866				
61	1.2D + 1.0Ev + 1.0Eh (...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX	-1				
62	1.2D + 1.0Ev + 1.0Eh (...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.866	ELZ	.5	ELX	-.866				
63	1.2D + 1.0Ev + 1.0Eh (...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5	ELZ	.866	ELX	-.5				
64	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX					
65	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	ELZ	.866	ELX	.5				
66	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	ELZ	.5	ELX	.866				
67	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1				
68	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866	ELZ	-.5	ELX	.866				
69	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	.5	ELZ	-.866	ELX	.5				
70	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX					
71	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	-.5	ELZ	-.866	ELX	-.5				
72	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.866	ELZ	-.5	ELX	-.866				
73	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1				
74	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.866	ELZ	.5	ELX	-.866				
75	0.9D - 1.0Ev + 1.0Eh (...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5	ELZ	.866	ELX	-.5				

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	0	0	0.708333	0	
2	N2	0	0	2.541667	0	
3	N3	0	-1.125	2.541667	0	
4	N4	0	1.125	2.541667	0	
5	N5	0	0	2.833333	0	
6	N6	5	0	2.833333	0	
7	N7	-5	0	2.833333	0	
8	N11	4.583333	0	2.833333	0	
9	N12	4.583333	0	3.083333	0	
10	N13	4.583333	3.041667	3.083333	0	
11	N14	4.583333	-3.208333	3.083333	0	
12	N15	-4.583333	0	2.833333	0	
13	N16	-4.583333	0	3.083333	0	
14	N17	-4.583333	3.041667	3.083333	0	
15	N18	-4.583333	-3.208333	3.083333	0	
16	N24	0	0	1.75	0	
17	N25	-.25	0	1.75	0	
18	N26	-.25	-1	1.75	0	
19	N27	-.25	1	1.75	0	
20	N28	2.5	0	2.833333	0	
21	N29	2.5	0	3.083333	0	
22	N30	2.5	3.041667	3.083333	0	
23	N31	2.5	-3.208333	3.083333	0	
24	N28A	-0.916667	0	2.833333	0	
25	N29A	-0.916667	0	3.083333	0	
26	N30A	-0.916667	3.041667	3.083333	0	
27	N31A	-0.916667	-3.208333	3.083333	0	
28	N32A	-2.75	0	2.833333	0	
29	N33A	-2.75	0	3.083333	0	
30	N34A	-2.75	3.041667	3.083333	0	
31	N35A	-2.75	-3.208333	3.083333	0	
32	N32	0	-1.5	0.708333	0	
33	N33	0	-1.5	2.541667	0	
34	N34	0	-1.5	2.833333	0	
35	N35	5	-1.5	2.833333	0	
36	N36	-5	-1.5	2.833333	0	
37	N37	4.583333	-1.5	2.833333	0	
38	N38	4.583333	-1.5	3.083333	0	
39	N39	-4.583333	-1.5	2.833333	0	
40	N40	-4.583333	-1.5	3.083333	0	
41	N41	2.5	-1.5	2.833333	0	
42	N42	2.5	-1.5	3.083333	0	
43	N43	-0.916667	-1.5	2.833333	0	
44	N44	-0.916667	-1.5	3.083333	0	
45	N45	-2.75	-1.5	2.833333	0	
46	N46	-2.75	-1.5	3.083333	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	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	Standoff Arm	HSS4X4X3	Beam	Tube	A500 Gr.46	Typical	2.58	6.21	6.21	10
3	Standoff Pipe	PIPE_4.0	Beam	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
4	Face Horizontal	HSS4X4X3	Beam	Tube	A500 Gr.46	Typical	2.58	6.21	6.21	10
5	Proposed Face Horiz...	PIPE_3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
6	Proposed Standoff	HSS3X3X4	Beam	Tube	A500 Gr.46	Typical	2.44	3.02	3.02	5.08

Hot Rolled Steel Properties

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

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Rul...
1	M1	N1	N2			Standoff Arm	Beam	Tube	A500 Gr...	Typical
2	M2	N4	N3			Standoff Pipe	Beam	Pipe	A53 Gr. B	Typical
3	M4	N7	N6			Face Horizontal	Beam	Tube	A500 Gr...	Typical
4	MP1A	N13	N14			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
5	M8	N11	N12			RIGID	None	None	RIGID	Typical
6	MP5A	N17	N18			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
7	M10	N15	N16			RIGID	None	None	RIGID	Typical
8	M10A	N2	N5			RIGID	None	None	RIGID	Typical
9	M13	N24	N25			RIGID	None	None	RIGID	Typical
10	M14	N27	N26			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
11	MP2A	N30	N31			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
12	M16	N28	N29			RIGID	None	None	RIGID	Typical
13	MP3A	N30A	N31A			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
14	M16A	N28A	N29A			RIGID	None	None	RIGID	Typical
15	MP4A	N34A	N35A			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
16	M18A	N32A	N33A			RIGID	None	None	RIGID	Typical
17	M17	N32	N33			Proposed Standoff	Beam	Tube	A500 Gr...	Typical
18	M18	N36	N35			Proposed Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
19	M19	N37	N38			RIGID	None	None	RIGID	Typical
20	M20	N39	N40			RIGID	None	None	RIGID	Typical
21	M21	N33	N34			RIGID	None	None	RIGID	Typical
22	M22	N41	N42			RIGID	None	None	RIGID	Typical
23	M23	N43	N44			RIGID	None	None	RIGID	Typical
24	M24	N45	N46			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes	Default			None
2	M2						Yes				None
3	M4						Yes				None
4	MP1A						Yes				None
5	M8						Yes	** NA **			None
6	MP5A						Yes				None
7	M10						Yes	** NA **			None
8	M10A	OOOOXO					Yes	** NA **			None
9	M13						Yes	** NA **			None
10	M14						Yes				None
11	MP2A						Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
12	M16						Yes	** NA **			None
13	MP3A						Yes				None
14	M16A						Yes	** NA **			None
15	MP4A						Yes				None
16	M18A						Yes	** NA **			None
17	M17						Yes	Default			None
18	M18						Yes				None
19	M19						Yes	** NA **			None
20	M20						Yes	** NA **			None
21	M21						Yes	** NA **			None
22	M22						Yes	** NA **			None
23	M23						Yes	** NA **			None
24	M24						Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-70.3	2
2	MP4A	My	.035	2
3	MP4A	Mz	0	2
4	MP5A	Y	-43.55	2
5	MP5A	My	-.022	2
6	MP5A	Mz	0	2
7	MP5A	Y	-43.55	3.5
8	MP5A	My	-.022	3.5
9	MP5A	Mz	0	3.5
10	MP2A	Y	-74.7	2
11	MP2A	My	.037	2
12	MP2A	Mz	0	2
13	MP2A	Y	-20	1.25
14	MP2A	My	-.013	1.25
15	MP2A	Mz	.012	1.25
16	MP2A	Y	-20	4.25
17	MP2A	My	-.013	4.25
18	MP2A	Mz	.012	4.25
19	MP2A	Y	-20	1.25
20	MP2A	My	-.013	1.25
21	MP2A	Mz	-.012	1.25
22	MP2A	Y	-20	4.25
23	MP2A	My	-.013	4.25
24	MP2A	Mz	-.012	4.25
25	MP4A	Y	-20	1.25
26	MP4A	My	-.013	1.25
27	MP4A	Mz	.012	1.25
28	MP4A	Y	-20	4.25
29	MP4A	My	-.013	4.25
30	MP4A	Mz	.012	4.25
31	M14	Y	-32	1
32	M14	My	-.016	1
33	M14	Mz	0	1

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-43.157	2
2	MP4A	My	.022	2
3	MP4A	Mz	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP5A	Y	-35.94	2
5	MP5A	My	-.018	2
6	MP5A	Mz	0	2
7	MP5A	Y	-35.94	3.5
8	MP5A	My	-.018	3.5
9	MP5A	Mz	0	3.5
10	MP2A	Y	-45.317	2
11	MP2A	My	.023	2
12	MP2A	Mz	0	2
13	MP2A	Y	-61.524	1.25
14	MP2A	My	-.041	1.25
15	MP2A	Mz	.036	1.25
16	MP2A	Y	-61.524	4.25
17	MP2A	My	-.041	4.25
18	MP2A	Mz	.036	4.25
19	MP2A	Y	-61.524	1.25
20	MP2A	My	-.041	1.25
21	MP2A	Mz	-.036	1.25
22	MP2A	Y	-61.524	4.25
23	MP2A	My	-.041	4.25
24	MP2A	Mz	-.036	4.25
25	MP4A	Y	-61.524	1.25
26	MP4A	My	-.041	1.25
27	MP4A	Mz	.036	1.25
28	MP4A	Y	-61.524	4.25
29	MP4A	My	-.041	4.25
30	MP4A	Mz	.036	4.25
31	M14	Y	-88.574	1
32	M14	My	-.044	1
33	M14	Mz	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	-71.616	2
3	MP4A	Mx	0	2
4	MP5A	X	0	2
5	MP5A	Z	-89.998	2
6	MP5A	Mx	0	2
7	MP5A	X	0	3.5
8	MP5A	Z	-89.998	3.5
9	MP5A	Mx	0	3.5
10	MP2A	X	0	2
11	MP2A	Z	-71.616	2
12	MP2A	Mx	0	2
13	MP2A	X	0	1.25
14	MP2A	Z	-155.812	1.25
15	MP2A	Mx	-.091	1.25
16	MP2A	X	0	4.25
17	MP2A	Z	-155.812	4.25
18	MP2A	Mx	-.091	4.25
19	MP2A	X	0	1.25
20	MP2A	Z	-155.812	1.25
21	MP2A	Mx	.091	1.25
22	MP2A	X	0	4.25
23	MP2A	Z	-155.812	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP2A	Mx	.091	4.25
25	MP4A	X	0	1.25
26	MP4A	Z	-155.812	1.25
27	MP4A	Mx	-.091	1.25
28	MP4A	X	0	4.25
29	MP4A	Z	-155.812	4.25
30	MP4A	Mx	-.091	4.25
31	M14	X	0	1
32	M14	Z	-155.048	1
33	M14	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	32.301	2
2	MP4A	Z	-55.948	2
3	MP4A	Mx	.016	2
4	MP5A	X	38.154	2
5	MP5A	Z	-66.084	2
6	MP5A	Mx	-.019	2
7	MP5A	X	38.154	3.5
8	MP5A	Z	-66.084	3.5
9	MP5A	Mx	-.019	3.5
10	MP2A	X	32.84	2
11	MP2A	Z	-56.88	2
12	MP2A	Mx	.016	2
13	MP2A	X	71.309	1.25
14	MP2A	Z	-123.511	1.25
15	MP2A	Mx	-.12	1.25
16	MP2A	X	71.309	4.25
17	MP2A	Z	-123.511	4.25
18	MP2A	Mx	-.12	4.25
19	MP2A	X	71.309	1.25
20	MP2A	Z	-123.511	1.25
21	MP2A	Mx	.025	1.25
22	MP2A	X	71.309	4.25
23	MP2A	Z	-123.511	4.25
24	MP2A	Mx	.025	4.25
25	MP4A	X	71.309	1.25
26	MP4A	Z	-123.511	1.25
27	MP4A	Mx	-.12	1.25
28	MP4A	X	71.309	4.25
29	MP4A	Z	-123.511	4.25
30	MP4A	Mx	-.12	4.25
31	M14	X	72.929	1
32	M14	Z	-126.317	1
33	M14	Mx	-.036	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	43.8	2
2	MP4A	Z	-25.288	2
3	MP4A	Mx	.022	2
4	MP5A	X	42.371	2
5	MP5A	Z	-24.463	2
6	MP5A	Mx	-.021	2
7	MP5A	X	42.371	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP5A	Z	-24.463	3.5
9	MP5A	Mx	-.021	3.5
10	MP2A	X	46.599	2
11	MP2A	Z	-26.904	2
12	MP2A	Mx	.023	2
13	MP2A	X	100.66	1.25
14	MP2A	Z	-58.116	1.25
15	MP2A	Mx	-.101	1.25
16	MP2A	X	100.66	4.25
17	MP2A	Z	-58.116	4.25
18	MP2A	Mx	-.101	4.25
19	MP2A	X	100.66	1.25
20	MP2A	Z	-58.116	1.25
21	MP2A	Mx	-.033	1.25
22	MP2A	X	100.66	4.25
23	MP2A	Z	-58.116	4.25
24	MP2A	Mx	-.033	4.25
25	MP4A	X	100.66	1.25
26	MP4A	Z	-58.116	1.25
27	MP4A	Mx	-.101	1.25
28	MP4A	X	100.66	4.25
29	MP4A	Z	-58.116	4.25
30	MP4A	Mx	-.101	4.25
31	M14	X	110.401	1
32	M14	Z	-63.74	1
33	M14	Mx	-.055	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	43.563	2
2	MP4A	Z	0	2
3	MP4A	Mx	.022	2
4	MP5A	X	35.234	2
5	MP5A	Z	0	2
6	MP5A	Mx	-.018	2
7	MP5A	X	35.234	3.5
8	MP5A	Z	0	3.5
9	MP5A	Mx	-.018	3.5
10	MP2A	X	47.872	2
11	MP2A	Z	0	2
12	MP2A	Mx	.024	2
13	MP2A	X	103.039	1.25
14	MP2A	Z	0	1.25
15	MP2A	Mx	-.069	1.25
16	MP2A	X	103.039	4.25
17	MP2A	Z	0	4.25
18	MP2A	Mx	-.069	4.25
19	MP2A	X	103.039	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	-.069	1.25
22	MP2A	X	103.039	4.25
23	MP2A	Z	0	4.25
24	MP2A	Mx	-.069	4.25
25	MP4A	X	103.039	1.25
26	MP4A	Z	0	1.25
27	MP4A	Mx	-.069	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP4A	X	103.039	4.25
29	MP4A	Z	0	4.25
30	MP4A	Mx	-.069	4.25
31	M14	X	118.291	1
32	M14	Z	0	1
33	M14	Mx	-.059	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	43.8	2
2	MP4A	Z	25.288	2
3	MP4A	Mx	.022	2
4	MP5A	X	42.371	2
5	MP5A	Z	24.463	2
6	MP5A	Mx	-.021	2
7	MP5A	X	42.371	3.5
8	MP5A	Z	24.463	3.5
9	MP5A	Mx	-.021	3.5
10	MP2A	X	46.599	2
11	MP2A	Z	26.904	2
12	MP2A	Mx	.023	2
13	MP2A	X	100.66	1.25
14	MP2A	Z	58.116	1.25
15	MP2A	Mx	-.033	1.25
16	MP2A	X	100.66	4.25
17	MP2A	Z	58.116	4.25
18	MP2A	Mx	-.033	4.25
19	MP2A	X	100.66	1.25
20	MP2A	Z	58.116	1.25
21	MP2A	Mx	-.101	1.25
22	MP2A	X	100.66	4.25
23	MP2A	Z	58.116	4.25
24	MP2A	Mx	-.101	4.25
25	MP4A	X	100.66	1.25
26	MP4A	Z	58.116	1.25
27	MP4A	Mx	-.033	1.25
28	MP4A	X	100.66	4.25
29	MP4A	Z	58.116	4.25
30	MP4A	Mx	-.033	4.25
31	M14	X	110.401	1
32	M14	Z	63.74	1
33	M14	Mx	-.055	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	32.301	2
2	MP4A	Z	55.948	2
3	MP4A	Mx	.016	2
4	MP5A	X	38.154	2
5	MP5A	Z	66.084	2
6	MP5A	Mx	-.019	2
7	MP5A	X	38.154	3.5
8	MP5A	Z	66.084	3.5
9	MP5A	Mx	-.019	3.5
10	MP2A	X	32.84	2
11	MP2A	Z	56.88	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2A	Mx	.016	2
13	MP2A	X	71.309	1.25
14	MP2A	Z	123.511	1.25
15	MP2A	Mx	.025	1.25
16	MP2A	X	71.309	4.25
17	MP2A	Z	123.511	4.25
18	MP2A	Mx	.025	4.25
19	MP2A	X	71.309	1.25
20	MP2A	Z	123.511	1.25
21	MP2A	Mx	-.12	1.25
22	MP2A	X	71.309	4.25
23	MP2A	Z	123.511	4.25
24	MP2A	Mx	-.12	4.25
25	MP4A	X	71.309	1.25
26	MP4A	Z	123.511	1.25
27	MP4A	Mx	.025	1.25
28	MP4A	X	71.309	4.25
29	MP4A	Z	123.511	4.25
30	MP4A	Mx	.025	4.25
31	M14	X	72.929	1
32	M14	Z	126.317	1
33	M14	Mx	-.036	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	71.616	2
3	MP4A	Mx	0	2
4	MP5A	X	0	2
5	MP5A	Z	89.998	2
6	MP5A	Mx	0	2
7	MP5A	X	0	3.5
8	MP5A	Z	89.998	3.5
9	MP5A	Mx	0	3.5
10	MP2A	X	0	2
11	MP2A	Z	71.616	2
12	MP2A	Mx	0	2
13	MP2A	X	0	1.25
14	MP2A	Z	155.812	1.25
15	MP2A	Mx	.091	1.25
16	MP2A	X	0	4.25
17	MP2A	Z	155.812	4.25
18	MP2A	Mx	.091	4.25
19	MP2A	X	0	1.25
20	MP2A	Z	155.812	1.25
21	MP2A	Mx	-.091	1.25
22	MP2A	X	0	4.25
23	MP2A	Z	155.812	4.25
24	MP2A	Mx	-.091	4.25
25	MP4A	X	0	1.25
26	MP4A	Z	155.812	1.25
27	MP4A	Mx	.091	1.25
28	MP4A	X	0	4.25
29	MP4A	Z	155.812	4.25
30	MP4A	Mx	.091	4.25
31	M14	X	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
32	M14	Z	155.048	1
33	M14	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-32.301	2
2	MP4A	Z	55.948	2
3	MP4A	Mx	-.016	2
4	MP5A	X	-38.154	2
5	MP5A	Z	66.084	2
6	MP5A	Mx	.019	2
7	MP5A	X	-38.154	3.5
8	MP5A	Z	66.084	3.5
9	MP5A	Mx	.019	3.5
10	MP2A	X	-32.84	2
11	MP2A	Z	56.88	2
12	MP2A	Mx	-.016	2
13	MP2A	X	-71.309	1.25
14	MP2A	Z	123.511	1.25
15	MP2A	Mx	.12	1.25
16	MP2A	X	-71.309	4.25
17	MP2A	Z	123.511	4.25
18	MP2A	Mx	.12	4.25
19	MP2A	X	-71.309	1.25
20	MP2A	Z	123.511	1.25
21	MP2A	Mx	-.025	1.25
22	MP2A	X	-71.309	4.25
23	MP2A	Z	123.511	4.25
24	MP2A	Mx	-.025	4.25
25	MP4A	X	-71.309	1.25
26	MP4A	Z	123.511	1.25
27	MP4A	Mx	.12	1.25
28	MP4A	X	-71.309	4.25
29	MP4A	Z	123.511	4.25
30	MP4A	Mx	.12	4.25
31	M14	X	-72.929	1
32	M14	Z	126.317	1
33	M14	Mx	.036	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-43.8	2
2	MP4A	Z	25.288	2
3	MP4A	Mx	-.022	2
4	MP5A	X	-42.371	2
5	MP5A	Z	24.463	2
6	MP5A	Mx	.021	2
7	MP5A	X	-42.371	3.5
8	MP5A	Z	24.463	3.5
9	MP5A	Mx	.021	3.5
10	MP2A	X	-46.599	2
11	MP2A	Z	26.904	2
12	MP2A	Mx	-.023	2
13	MP2A	X	-100.66	1.25
14	MP2A	Z	58.116	1.25
15	MP2A	Mx	.101	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	MP2A	X	-100.66	4.25
17	MP2A	Z	58.116	4.25
18	MP2A	Mx	.101	4.25
19	MP2A	X	-100.66	1.25
20	MP2A	Z	58.116	1.25
21	MP2A	Mx	.033	1.25
22	MP2A	X	-100.66	4.25
23	MP2A	Z	58.116	4.25
24	MP2A	Mx	.033	4.25
25	MP4A	X	-100.66	1.25
26	MP4A	Z	58.116	1.25
27	MP4A	Mx	.101	1.25
28	MP4A	X	-100.66	4.25
29	MP4A	Z	58.116	4.25
30	MP4A	Mx	.101	4.25
31	M14	X	-110.401	1
32	M14	Z	63.74	1
33	M14	Mx	.055	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-43.563	2
2	MP4A	Z	0	2
3	MP4A	Mx	-.022	2
4	MP5A	X	-35.234	2
5	MP5A	Z	0	2
6	MP5A	Mx	.018	2
7	MP5A	X	-35.234	3.5
8	MP5A	Z	0	3.5
9	MP5A	Mx	.018	3.5
10	MP2A	X	-47.872	2
11	MP2A	Z	0	2
12	MP2A	Mx	-.024	2
13	MP2A	X	-103.039	1.25
14	MP2A	Z	0	1.25
15	MP2A	Mx	.069	1.25
16	MP2A	X	-103.039	4.25
17	MP2A	Z	0	4.25
18	MP2A	Mx	.069	4.25
19	MP2A	X	-103.039	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	.069	1.25
22	MP2A	X	-103.039	4.25
23	MP2A	Z	0	4.25
24	MP2A	Mx	.069	4.25
25	MP4A	X	-103.039	1.25
26	MP4A	Z	0	1.25
27	MP4A	Mx	.069	1.25
28	MP4A	X	-103.039	4.25
29	MP4A	Z	0	4.25
30	MP4A	Mx	.069	4.25
31	M14	X	-118.291	1
32	M14	Z	0	1
33	M14	Mx	.059	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-43.8	2
2	MP4A	Z	-25.288	2
3	MP4A	Mx	-.022	2
4	MP5A	X	-42.371	2
5	MP5A	Z	-24.463	2
6	MP5A	Mx	.021	2
7	MP5A	X	-42.371	3.5
8	MP5A	Z	-24.463	3.5
9	MP5A	Mx	.021	3.5
10	MP2A	X	-46.599	2
11	MP2A	Z	-26.904	2
12	MP2A	Mx	-.023	2
13	MP2A	X	-100.66	1.25
14	MP2A	Z	-58.116	1.25
15	MP2A	Mx	.033	1.25
16	MP2A	X	-100.66	4.25
17	MP2A	Z	-58.116	4.25
18	MP2A	Mx	.033	4.25
19	MP2A	X	-100.66	1.25
20	MP2A	Z	-58.116	1.25
21	MP2A	Mx	.101	1.25
22	MP2A	X	-100.66	4.25
23	MP2A	Z	-58.116	4.25
24	MP2A	Mx	.101	4.25
25	MP4A	X	-100.66	1.25
26	MP4A	Z	-58.116	1.25
27	MP4A	Mx	.033	1.25
28	MP4A	X	-100.66	4.25
29	MP4A	Z	-58.116	4.25
30	MP4A	Mx	.033	4.25
31	M14	X	-110.401	1
32	M14	Z	-63.74	1
33	M14	Mx	.055	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-32.301	2
2	MP4A	Z	-55.948	2
3	MP4A	Mx	-.016	2
4	MP5A	X	-38.154	2
5	MP5A	Z	-66.084	2
6	MP5A	Mx	.019	2
7	MP5A	X	-38.154	3.5
8	MP5A	Z	-66.084	3.5
9	MP5A	Mx	.019	3.5
10	MP2A	X	-32.84	2
11	MP2A	Z	-56.88	2
12	MP2A	Mx	-.016	2
13	MP2A	X	-71.309	1.25
14	MP2A	Z	-123.511	1.25
15	MP2A	Mx	-.025	1.25
16	MP2A	X	-71.309	4.25
17	MP2A	Z	-123.511	4.25
18	MP2A	Mx	-.025	4.25
19	MP2A	X	-71.309	1.25
20	MP2A	Z	-123.511	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	.12	1.25
22	MP2A	X	-71.309	4.25
23	MP2A	Z	-123.511	4.25
24	MP2A	Mx	.12	4.25
25	MP4A	X	-71.309	1.25
26	MP4A	Z	-123.511	1.25
27	MP4A	Mx	-.025	1.25
28	MP4A	X	-71.309	4.25
29	MP4A	Z	-123.511	4.25
30	MP4A	Mx	-.025	4.25
31	M14	X	-72.929	1
32	M14	Z	-126.317	1
33	M14	Mx	.036	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	-10.565	2
3	MP4A	Mx	0	2
4	MP5A	X	0	2
5	MP5A	Z	-12.529	2
6	MP5A	Mx	0	2
7	MP5A	X	0	3.5
8	MP5A	Z	-12.529	3.5
9	MP5A	Mx	0	3.5
10	MP2A	X	0	2
11	MP2A	Z	-10.565	2
12	MP2A	Mx	0	2
13	MP2A	X	0	1.25
14	MP2A	Z	-21.168	1.25
15	MP2A	Mx	-.012	1.25
16	MP2A	X	0	4.25
17	MP2A	Z	-21.168	4.25
18	MP2A	Mx	-.012	4.25
19	MP2A	X	0	1.25
20	MP2A	Z	-21.168	1.25
21	MP2A	Mx	.012	1.25
22	MP2A	X	0	4.25
23	MP2A	Z	-21.168	4.25
24	MP2A	Mx	.012	4.25
25	MP4A	X	0	1.25
26	MP4A	Z	-21.168	1.25
27	MP4A	Mx	-.012	1.25
28	MP4A	X	0	4.25
29	MP4A	Z	-21.168	4.25
30	MP4A	Mx	-.012	4.25
31	M14	X	0	1
32	M14	Z	-21.638	1
33	M14	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	4.808	2
2	MP4A	Z	-8.328	2
3	MP4A	Mx	.002	2
4	MP5A	X	5.366	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP5A	Z	-9.294	2
6	MP5A	Mx	-.003	2
7	MP5A	X	5.366	3.5
8	MP5A	Z	-9.294	3.5
9	MP5A	Mx	-.003	3.5
10	MP2A	X	4.881	2
11	MP2A	Z	-8.454	2
12	MP2A	Mx	.002	2
13	MP2A	X	9.763	1.25
14	MP2A	Z	-16.91	1.25
15	MP2A	Mx	-.016	1.25
16	MP2A	X	9.763	4.25
17	MP2A	Z	-16.91	4.25
18	MP2A	Mx	-.016	4.25
19	MP2A	X	9.763	1.25
20	MP2A	Z	-16.91	1.25
21	MP2A	Mx	.003	1.25
22	MP2A	X	9.763	4.25
23	MP2A	Z	-16.91	4.25
24	MP2A	Mx	.003	4.25
25	MP4A	X	9.763	1.25
26	MP4A	Z	-16.91	1.25
27	MP4A	Mx	-.016	1.25
28	MP4A	X	9.763	4.25
29	MP4A	Z	-16.91	4.25
30	MP4A	Mx	-.016	4.25
31	M14	X	10.229	1
32	M14	Z	-17.718	1
33	M14	Mx	-.005	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6.686	2
2	MP4A	Z	-3.86	2
3	MP4A	Mx	.003	2
4	MP5A	X	6.182	2
5	MP5A	Z	-3.569	2
6	MP5A	Mx	-.003	2
7	MP5A	X	6.182	3.5
8	MP5A	Z	-3.569	3.5
9	MP5A	Mx	-.003	3.5
10	MP2A	X	7.062	2
11	MP2A	Z	-4.077	2
12	MP2A	Mx	.004	2
13	MP2A	X	14.068	1.25
14	MP2A	Z	-8.122	1.25
15	MP2A	Mx	-.014	1.25
16	MP2A	X	14.068	4.25
17	MP2A	Z	-8.122	4.25
18	MP2A	Mx	-.014	4.25
19	MP2A	X	14.068	1.25
20	MP2A	Z	-8.122	1.25
21	MP2A	Mx	-.005	1.25
22	MP2A	X	14.068	4.25
23	MP2A	Z	-8.122	4.25
24	MP2A	Mx	-.005	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	MP4A	X	14.068	1.25
26	MP4A	Z	-8.122	1.25
27	MP4A	Mx	-.014	1.25
28	MP4A	X	14.068	4.25
29	MP4A	Z	-8.122	4.25
30	MP4A	Mx	-.014	4.25
31	M14	X	15.676	1
32	M14	Z	-9.051	1
33	M14	Mx	-.008	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6.773	2
2	MP4A	Z	0	2
3	MP4A	Mx	.003	2
4	MP5A	X	5.341	2
5	MP5A	Z	0	2
6	MP5A	Mx	-.003	2
7	MP5A	X	5.341	3.5
8	MP5A	Z	0	3.5
9	MP5A	Mx	-.003	3.5
10	MP2A	X	7.351	2
11	MP2A	Z	0	2
12	MP2A	Mx	.004	2
13	MP2A	X	14.603	1.25
14	MP2A	Z	0	1.25
15	MP2A	Mx	-.01	1.25
16	MP2A	X	14.603	4.25
17	MP2A	Z	0	4.25
18	MP2A	Mx	-.01	4.25
19	MP2A	X	14.603	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	-.01	1.25
22	MP2A	X	14.603	4.25
23	MP2A	Z	0	4.25
24	MP2A	Mx	-.01	4.25
25	MP4A	X	14.603	1.25
26	MP4A	Z	0	1.25
27	MP4A	Mx	-.01	1.25
28	MP4A	X	14.603	4.25
29	MP4A	Z	0	4.25
30	MP4A	Mx	-.01	4.25
31	M14	X	16.923	1
32	M14	Z	0	1
33	M14	Mx	-.008	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	6.686	2
2	MP4A	Z	3.86	2
3	MP4A	Mx	.003	2
4	MP5A	X	6.182	2
5	MP5A	Z	3.569	2
6	MP5A	Mx	-.003	2
7	MP5A	X	6.182	3.5
8	MP5A	Z	3.569	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP5A	Mx	-.003	3.5
10	MP2A	X	7.062	2
11	MP2A	Z	4.077	2
12	MP2A	Mx	.004	2
13	MP2A	X	14.068	1.25
14	MP2A	Z	8.122	1.25
15	MP2A	Mx	-.005	1.25
16	MP2A	X	14.068	4.25
17	MP2A	Z	8.122	4.25
18	MP2A	Mx	-.005	4.25
19	MP2A	X	14.068	1.25
20	MP2A	Z	8.122	1.25
21	MP2A	Mx	-.014	1.25
22	MP2A	X	14.068	4.25
23	MP2A	Z	8.122	4.25
24	MP2A	Mx	-.014	4.25
25	MP4A	X	14.068	1.25
26	MP4A	Z	8.122	1.25
27	MP4A	Mx	-.005	1.25
28	MP4A	X	14.068	4.25
29	MP4A	Z	8.122	4.25
30	MP4A	Mx	-.005	4.25
31	M14	X	15.676	1
32	M14	Z	9.051	1
33	M14	Mx	-.008	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	4.808	2
2	MP4A	Z	8.328	2
3	MP4A	Mx	.002	2
4	MP5A	X	5.366	2
5	MP5A	Z	9.294	2
6	MP5A	Mx	-.003	2
7	MP5A	X	5.366	3.5
8	MP5A	Z	9.294	3.5
9	MP5A	Mx	-.003	3.5
10	MP2A	X	4.881	2
11	MP2A	Z	8.454	2
12	MP2A	Mx	.002	2
13	MP2A	X	9.763	1.25
14	MP2A	Z	16.91	1.25
15	MP2A	Mx	.003	1.25
16	MP2A	X	9.763	4.25
17	MP2A	Z	16.91	4.25
18	MP2A	Mx	.003	4.25
19	MP2A	X	9.763	1.25
20	MP2A	Z	16.91	1.25
21	MP2A	Mx	-.016	1.25
22	MP2A	X	9.763	4.25
23	MP2A	Z	16.91	4.25
24	MP2A	Mx	-.016	4.25
25	MP4A	X	9.763	1.25
26	MP4A	Z	16.91	1.25
27	MP4A	Mx	.003	1.25
28	MP4A	X	9.763	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP4A	Z	16.91	4.25
30	MP4A	Mx	.003	4.25
31	M14	X	10.229	1
32	M14	Z	17.718	1
33	M14	Mx	-.005	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	10.565	2
3	MP4A	Mx	0	2
4	MP5A	X	0	2
5	MP5A	Z	12.529	2
6	MP5A	Mx	0	2
7	MP5A	X	0	3.5
8	MP5A	Z	12.529	3.5
9	MP5A	Mx	0	3.5
10	MP2A	X	0	2
11	MP2A	Z	10.565	2
12	MP2A	Mx	0	2
13	MP2A	X	0	1.25
14	MP2A	Z	21.168	1.25
15	MP2A	Mx	.012	1.25
16	MP2A	X	0	4.25
17	MP2A	Z	21.168	4.25
18	MP2A	Mx	.012	4.25
19	MP2A	X	0	1.25
20	MP2A	Z	21.168	1.25
21	MP2A	Mx	-.012	1.25
22	MP2A	X	0	4.25
23	MP2A	Z	21.168	4.25
24	MP2A	Mx	-.012	4.25
25	MP4A	X	0	1.25
26	MP4A	Z	21.168	1.25
27	MP4A	Mx	.012	1.25
28	MP4A	X	0	4.25
29	MP4A	Z	21.168	4.25
30	MP4A	Mx	.012	4.25
31	M14	X	0	1
32	M14	Z	21.638	1
33	M14	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-4.808	2
2	MP4A	Z	8.328	2
3	MP4A	Mx	-.002	2
4	MP5A	X	-5.366	2
5	MP5A	Z	9.294	2
6	MP5A	Mx	.003	2
7	MP5A	X	-5.366	3.5
8	MP5A	Z	9.294	3.5
9	MP5A	Mx	.003	3.5
10	MP2A	X	-4.881	2
11	MP2A	Z	8.454	2
12	MP2A	Mx	-.002	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP2A	X	-9.763	1.25
14	MP2A	Z	16.91	1.25
15	MP2A	Mx	.016	1.25
16	MP2A	X	-9.763	4.25
17	MP2A	Z	16.91	4.25
18	MP2A	Mx	.016	4.25
19	MP2A	X	-9.763	1.25
20	MP2A	Z	16.91	1.25
21	MP2A	Mx	-.003	1.25
22	MP2A	X	-9.763	4.25
23	MP2A	Z	16.91	4.25
24	MP2A	Mx	-.003	4.25
25	MP4A	X	-9.763	1.25
26	MP4A	Z	16.91	1.25
27	MP4A	Mx	.016	1.25
28	MP4A	X	-9.763	4.25
29	MP4A	Z	16.91	4.25
30	MP4A	Mx	.016	4.25
31	M14	X	-10.229	1
32	M14	Z	17.718	1
33	M14	Mx	.005	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-6.686	2
2	MP4A	Z	3.86	2
3	MP4A	Mx	-.003	2
4	MP5A	X	-6.182	2
5	MP5A	Z	3.569	2
6	MP5A	Mx	.003	2
7	MP5A	X	-6.182	3.5
8	MP5A	Z	3.569	3.5
9	MP5A	Mx	.003	3.5
10	MP2A	X	-7.062	2
11	MP2A	Z	4.077	2
12	MP2A	Mx	-.004	2
13	MP2A	X	-14.068	1.25
14	MP2A	Z	8.122	1.25
15	MP2A	Mx	.014	1.25
16	MP2A	X	-14.068	4.25
17	MP2A	Z	8.122	4.25
18	MP2A	Mx	.014	4.25
19	MP2A	X	-14.068	1.25
20	MP2A	Z	8.122	1.25
21	MP2A	Mx	.005	1.25
22	MP2A	X	-14.068	4.25
23	MP2A	Z	8.122	4.25
24	MP2A	Mx	.005	4.25
25	MP4A	X	-14.068	1.25
26	MP4A	Z	8.122	1.25
27	MP4A	Mx	.014	1.25
28	MP4A	X	-14.068	4.25
29	MP4A	Z	8.122	4.25
30	MP4A	Mx	.014	4.25
31	M14	X	-15.676	1
32	M14	Z	9.051	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
33	M14	Mx	.008	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-6.773	2
2	MP4A	Z	0	2
3	MP4A	Mx	-.003	2
4	MP5A	X	-5.341	2
5	MP5A	Z	0	2
6	MP5A	Mx	.003	2
7	MP5A	X	-5.341	3.5
8	MP5A	Z	0	3.5
9	MP5A	Mx	.003	3.5
10	MP2A	X	-7.351	2
11	MP2A	Z	0	2
12	MP2A	Mx	-.004	2
13	MP2A	X	-14.603	1.25
14	MP2A	Z	0	1.25
15	MP2A	Mx	.01	1.25
16	MP2A	X	-14.603	4.25
17	MP2A	Z	0	4.25
18	MP2A	Mx	.01	4.25
19	MP2A	X	-14.603	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	.01	1.25
22	MP2A	X	-14.603	4.25
23	MP2A	Z	0	4.25
24	MP2A	Mx	.01	4.25
25	MP4A	X	-14.603	1.25
26	MP4A	Z	0	1.25
27	MP4A	Mx	.01	1.25
28	MP4A	X	-14.603	4.25
29	MP4A	Z	0	4.25
30	MP4A	Mx	.01	4.25
31	M14	X	-16.923	1
32	M14	Z	0	1
33	M14	Mx	.008	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-6.686	2
2	MP4A	Z	-3.86	2
3	MP4A	Mx	-.003	2
4	MP5A	X	-6.182	2
5	MP5A	Z	-3.569	2
6	MP5A	Mx	.003	2
7	MP5A	X	-6.182	3.5
8	MP5A	Z	-3.569	3.5
9	MP5A	Mx	.003	3.5
10	MP2A	X	-7.062	2
11	MP2A	Z	-4.077	2
12	MP2A	Mx	-.004	2
13	MP2A	X	-14.068	1.25
14	MP2A	Z	-8.122	1.25
15	MP2A	Mx	.005	1.25
16	MP2A	X	-14.068	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP2A	Z	-8.122	4.25
18	MP2A	Mx	.005	4.25
19	MP2A	X	-14.068	1.25
20	MP2A	Z	-8.122	1.25
21	MP2A	Mx	.014	1.25
22	MP2A	X	-14.068	4.25
23	MP2A	Z	-8.122	4.25
24	MP2A	Mx	.014	4.25
25	MP4A	X	-14.068	1.25
26	MP4A	Z	-8.122	1.25
27	MP4A	Mx	.005	1.25
28	MP4A	X	-14.068	4.25
29	MP4A	Z	-8.122	4.25
30	MP4A	Mx	.005	4.25
31	M14	X	-15.676	1
32	M14	Z	-9.051	1
33	M14	Mx	.008	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-4.808	2
2	MP4A	Z	-8.328	2
3	MP4A	Mx	-.002	2
4	MP5A	X	-5.366	2
5	MP5A	Z	-9.294	2
6	MP5A	Mx	.003	2
7	MP5A	X	-5.366	3.5
8	MP5A	Z	-9.294	3.5
9	MP5A	Mx	.003	3.5
10	MP2A	X	-4.881	2
11	MP2A	Z	-8.454	2
12	MP2A	Mx	-.002	2
13	MP2A	X	-9.763	1.25
14	MP2A	Z	-16.91	1.25
15	MP2A	Mx	-.003	1.25
16	MP2A	X	-9.763	4.25
17	MP2A	Z	-16.91	4.25
18	MP2A	Mx	-.003	4.25
19	MP2A	X	-9.763	1.25
20	MP2A	Z	-16.91	1.25
21	MP2A	Mx	.016	1.25
22	MP2A	X	-9.763	4.25
23	MP2A	Z	-16.91	4.25
24	MP2A	Mx	.016	4.25
25	MP4A	X	-9.763	1.25
26	MP4A	Z	-16.91	1.25
27	MP4A	Mx	-.003	1.25
28	MP4A	X	-9.763	4.25
29	MP4A	Z	-16.91	4.25
30	MP4A	Mx	-.003	4.25
31	M14	X	-10.229	1
32	M14	Z	-17.718	1
33	M14	Mx	.005	1

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

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	-4.96	2
3	MP4A	Mx	0	2
4	MP5A	X	0	2
5	MP5A	Z	-6.233	2
6	MP5A	Mx	0	2
7	MP5A	X	0	3.5
8	MP5A	Z	-6.233	3.5
9	MP5A	Mx	0	3.5
10	MP2A	X	0	2
11	MP2A	Z	-4.96	2
12	MP2A	Mx	0	2
13	MP2A	X	0	1.25
14	MP2A	Z	-10.79	1.25
15	MP2A	Mx	-.006	1.25
16	MP2A	X	0	4.25
17	MP2A	Z	-10.79	4.25
18	MP2A	Mx	-.006	4.25
19	MP2A	X	0	1.25
20	MP2A	Z	-10.79	1.25
21	MP2A	Mx	.006	1.25
22	MP2A	X	0	4.25
23	MP2A	Z	-10.79	4.25
24	MP2A	Mx	.006	4.25
25	MP4A	X	0	1.25
26	MP4A	Z	-10.79	1.25
27	MP4A	Mx	-.006	1.25
28	MP4A	X	0	4.25
29	MP4A	Z	-10.79	4.25
30	MP4A	Mx	-.006	4.25
31	M14	X	0	1
32	M14	Z	-10.737	1
33	M14	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.237	2
2	MP4A	Z	-3.874	2
3	MP4A	Mx	.001	2
4	MP5A	X	2.642	2
5	MP5A	Z	-4.576	2
6	MP5A	Mx	-.001	2
7	MP5A	X	2.642	3.5
8	MP5A	Z	-4.576	3.5
9	MP5A	Mx	-.001	3.5
10	MP2A	X	2.274	2
11	MP2A	Z	-3.939	2
12	MP2A	Mx	.001	2
13	MP2A	X	4.938	1.25
14	MP2A	Z	-8.553	1.25
15	MP2A	Mx	-.008	1.25
16	MP2A	X	4.938	4.25
17	MP2A	Z	-8.553	4.25
18	MP2A	Mx	-.008	4.25
19	MP2A	X	4.938	1.25
20	MP2A	Z	-8.553	1.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	.002	1.25
22	MP2A	X	4.938	4.25
23	MP2A	Z	-8.553	4.25
24	MP2A	Mx	.002	4.25
25	MP4A	X	4.938	1.25
26	MP4A	Z	-8.553	1.25
27	MP4A	Mx	-.008	1.25
28	MP4A	X	4.938	4.25
29	MP4A	Z	-8.553	4.25
30	MP4A	Mx	-.008	4.25
31	M14	X	5.051	1
32	M14	Z	-8.748	1
33	M14	Mx	-.003	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	3.033	2
2	MP4A	Z	-1.751	2
3	MP4A	Mx	.002	2
4	MP5A	X	2.934	2
5	MP5A	Z	-1.694	2
6	MP5A	Mx	-.001	2
7	MP5A	X	2.934	3.5
8	MP5A	Z	-1.694	3.5
9	MP5A	Mx	-.001	3.5
10	MP2A	X	3.227	2
11	MP2A	Z	-1.863	2
12	MP2A	Mx	.002	2
13	MP2A	X	6.971	1.25
14	MP2A	Z	-4.025	1.25
15	MP2A	Mx	-.007	1.25
16	MP2A	X	6.971	4.25
17	MP2A	Z	-4.025	4.25
18	MP2A	Mx	-.007	4.25
19	MP2A	X	6.971	1.25
20	MP2A	Z	-4.025	1.25
21	MP2A	Mx	-.002	1.25
22	MP2A	X	6.971	4.25
23	MP2A	Z	-4.025	4.25
24	MP2A	Mx	-.002	4.25
25	MP4A	X	6.971	1.25
26	MP4A	Z	-4.025	1.25
27	MP4A	Mx	-.007	1.25
28	MP4A	X	6.971	4.25
29	MP4A	Z	-4.025	4.25
30	MP4A	Mx	-.007	4.25
31	M14	X	7.646	1
32	M14	Z	-4.414	1
33	M14	Mx	-.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	3.017	2
2	MP4A	Z	0	2
3	MP4A	Mx	.002	2
4	MP5A	X	2.44	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP5A	Z	0	2
6	MP5A	Mx	-.001	2
7	MP5A	X	2.44	3.5
8	MP5A	Z	0	3.5
9	MP5A	Mx	-.001	3.5
10	MP2A	X	3.315	2
11	MP2A	Z	0	2
12	MP2A	Mx	.002	2
13	MP2A	X	7.136	1.25
14	MP2A	Z	0	1.25
15	MP2A	Mx	-.005	1.25
16	MP2A	X	7.136	4.25
17	MP2A	Z	0	4.25
18	MP2A	Mx	-.005	4.25
19	MP2A	X	7.136	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	-.005	1.25
22	MP2A	X	7.136	4.25
23	MP2A	Z	0	4.25
24	MP2A	Mx	-.005	4.25
25	MP4A	X	7.136	1.25
26	MP4A	Z	0	1.25
27	MP4A	Mx	-.005	1.25
28	MP4A	X	7.136	4.25
29	MP4A	Z	0	4.25
30	MP4A	Mx	-.005	4.25
31	M14	X	8.192	1
32	M14	Z	0	1
33	M14	Mx	-.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	3.033	2
2	MP4A	Z	1.751	2
3	MP4A	Mx	.002	2
4	MP5A	X	2.934	2
5	MP5A	Z	1.694	2
6	MP5A	Mx	-.001	2
7	MP5A	X	2.934	3.5
8	MP5A	Z	1.694	3.5
9	MP5A	Mx	-.001	3.5
10	MP2A	X	3.227	2
11	MP2A	Z	1.863	2
12	MP2A	Mx	.002	2
13	MP2A	X	6.971	1.25
14	MP2A	Z	4.025	1.25
15	MP2A	Mx	-.002	1.25
16	MP2A	X	6.971	4.25
17	MP2A	Z	4.025	4.25
18	MP2A	Mx	-.002	4.25
19	MP2A	X	6.971	1.25
20	MP2A	Z	4.025	1.25
21	MP2A	Mx	-.007	1.25
22	MP2A	X	6.971	4.25
23	MP2A	Z	4.025	4.25
24	MP2A	Mx	-.007	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	MP4A	X	6.971	1.25
26	MP4A	Z	4.025	1.25
27	MP4A	Mx	-.002	1.25
28	MP4A	X	6.971	4.25
29	MP4A	Z	4.025	4.25
30	MP4A	Mx	-.002	4.25
31	M14	X	7.646	1
32	M14	Z	4.414	1
33	M14	Mx	-.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.237	2
2	MP4A	Z	3.874	2
3	MP4A	Mx	.001	2
4	MP5A	X	2.642	2
5	MP5A	Z	4.576	2
6	MP5A	Mx	-.001	2
7	MP5A	X	2.642	3.5
8	MP5A	Z	4.576	3.5
9	MP5A	Mx	-.001	3.5
10	MP2A	X	2.274	2
11	MP2A	Z	3.939	2
12	MP2A	Mx	.001	2
13	MP2A	X	4.938	1.25
14	MP2A	Z	8.553	1.25
15	MP2A	Mx	.002	1.25
16	MP2A	X	4.938	4.25
17	MP2A	Z	8.553	4.25
18	MP2A	Mx	.002	4.25
19	MP2A	X	4.938	1.25
20	MP2A	Z	8.553	1.25
21	MP2A	Mx	-.008	1.25
22	MP2A	X	4.938	4.25
23	MP2A	Z	8.553	4.25
24	MP2A	Mx	-.008	4.25
25	MP4A	X	4.938	1.25
26	MP4A	Z	8.553	1.25
27	MP4A	Mx	.002	1.25
28	MP4A	X	4.938	4.25
29	MP4A	Z	8.553	4.25
30	MP4A	Mx	.002	4.25
31	M14	X	5.051	1
32	M14	Z	8.748	1
33	M14	Mx	-.003	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	4.96	2
3	MP4A	Mx	0	2
4	MP5A	X	0	2
5	MP5A	Z	6.233	2
6	MP5A	Mx	0	2
7	MP5A	X	0	3.5
8	MP5A	Z	6.233	3.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP5A	Mx	0	3.5
10	MP2A	X	0	2
11	MP2A	Z	4.96	2
12	MP2A	Mx	0	2
13	MP2A	X	0	1.25
14	MP2A	Z	10.79	1.25
15	MP2A	Mx	.006	1.25
16	MP2A	X	0	4.25
17	MP2A	Z	10.79	4.25
18	MP2A	Mx	.006	4.25
19	MP2A	X	0	1.25
20	MP2A	Z	10.79	1.25
21	MP2A	Mx	-.006	1.25
22	MP2A	X	0	4.25
23	MP2A	Z	10.79	4.25
24	MP2A	Mx	-.006	4.25
25	MP4A	X	0	1.25
26	MP4A	Z	10.79	1.25
27	MP4A	Mx	.006	1.25
28	MP4A	X	0	4.25
29	MP4A	Z	10.79	4.25
30	MP4A	Mx	.006	4.25
31	M14	X	0	1
32	M14	Z	10.737	1
33	M14	Mx	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.237	2
2	MP4A	Z	3.874	2
3	MP4A	Mx	-.001	2
4	MP5A	X	-2.642	2
5	MP5A	Z	4.576	2
6	MP5A	Mx	.001	2
7	MP5A	X	-2.642	3.5
8	MP5A	Z	4.576	3.5
9	MP5A	Mx	.001	3.5
10	MP2A	X	-2.274	2
11	MP2A	Z	3.939	2
12	MP2A	Mx	-.001	2
13	MP2A	X	-4.938	1.25
14	MP2A	Z	8.553	1.25
15	MP2A	Mx	.008	1.25
16	MP2A	X	-4.938	4.25
17	MP2A	Z	8.553	4.25
18	MP2A	Mx	.008	4.25
19	MP2A	X	-4.938	1.25
20	MP2A	Z	8.553	1.25
21	MP2A	Mx	-.002	1.25
22	MP2A	X	-4.938	4.25
23	MP2A	Z	8.553	4.25
24	MP2A	Mx	-.002	4.25
25	MP4A	X	-4.938	1.25
26	MP4A	Z	8.553	1.25
27	MP4A	Mx	.008	1.25
28	MP4A	X	-4.938	4.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP4A	Z	8.553	4.25
30	MP4A	Mx	.008	4.25
31	M14	X	-5.051	1
32	M14	Z	8.748	1
33	M14	Mx	.003	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-3.033	2
2	MP4A	Z	1.751	2
3	MP4A	Mx	-.002	2
4	MP5A	X	-2.934	2
5	MP5A	Z	1.694	2
6	MP5A	Mx	.001	2
7	MP5A	X	-2.934	3.5
8	MP5A	Z	1.694	3.5
9	MP5A	Mx	.001	3.5
10	MP2A	X	-3.227	2
11	MP2A	Z	1.863	2
12	MP2A	Mx	-.002	2
13	MP2A	X	-6.971	1.25
14	MP2A	Z	4.025	1.25
15	MP2A	Mx	.007	1.25
16	MP2A	X	-6.971	4.25
17	MP2A	Z	4.025	4.25
18	MP2A	Mx	.007	4.25
19	MP2A	X	-6.971	1.25
20	MP2A	Z	4.025	1.25
21	MP2A	Mx	.002	1.25
22	MP2A	X	-6.971	4.25
23	MP2A	Z	4.025	4.25
24	MP2A	Mx	.002	4.25
25	MP4A	X	-6.971	1.25
26	MP4A	Z	4.025	1.25
27	MP4A	Mx	.007	1.25
28	MP4A	X	-6.971	4.25
29	MP4A	Z	4.025	4.25
30	MP4A	Mx	.007	4.25
31	M14	X	-7.646	1
32	M14	Z	4.414	1
33	M14	Mx	.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-3.017	2
2	MP4A	Z	0	2
3	MP4A	Mx	-.002	2
4	MP5A	X	-2.44	2
5	MP5A	Z	0	2
6	MP5A	Mx	.001	2
7	MP5A	X	-2.44	3.5
8	MP5A	Z	0	3.5
9	MP5A	Mx	.001	3.5
10	MP2A	X	-3.315	2
11	MP2A	Z	0	2
12	MP2A	Mx	-.002	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP2A	X	-7.136	1.25
14	MP2A	Z	0	1.25
15	MP2A	Mx	.005	1.25
16	MP2A	X	-7.136	4.25
17	MP2A	Z	0	4.25
18	MP2A	Mx	.005	4.25
19	MP2A	X	-7.136	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	.005	1.25
22	MP2A	X	-7.136	4.25
23	MP2A	Z	0	4.25
24	MP2A	Mx	.005	4.25
25	MP4A	X	-7.136	1.25
26	MP4A	Z	0	1.25
27	MP4A	Mx	.005	1.25
28	MP4A	X	-7.136	4.25
29	MP4A	Z	0	4.25
30	MP4A	Mx	.005	4.25
31	M14	X	-8.192	1
32	M14	Z	0	1
33	M14	Mx	.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-3.033	2
2	MP4A	Z	-1.751	2
3	MP4A	Mx	-.002	2
4	MP5A	X	-2.934	2
5	MP5A	Z	-1.694	2
6	MP5A	Mx	.001	2
7	MP5A	X	-2.934	3.5
8	MP5A	Z	-1.694	3.5
9	MP5A	Mx	.001	3.5
10	MP2A	X	-3.227	2
11	MP2A	Z	-1.863	2
12	MP2A	Mx	-.002	2
13	MP2A	X	-6.971	1.25
14	MP2A	Z	-4.025	1.25
15	MP2A	Mx	.002	1.25
16	MP2A	X	-6.971	4.25
17	MP2A	Z	-4.025	4.25
18	MP2A	Mx	.002	4.25
19	MP2A	X	-6.971	1.25
20	MP2A	Z	-4.025	1.25
21	MP2A	Mx	.007	1.25
22	MP2A	X	-6.971	4.25
23	MP2A	Z	-4.025	4.25
24	MP2A	Mx	.007	4.25
25	MP4A	X	-6.971	1.25
26	MP4A	Z	-4.025	1.25
27	MP4A	Mx	.002	1.25
28	MP4A	X	-6.971	4.25
29	MP4A	Z	-4.025	4.25
30	MP4A	Mx	.002	4.25
31	M14	X	-7.646	1
32	M14	Z	-4.414	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
33	M14	Mx	.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-2.237	2
2	MP4A	Z	-3.874	2
3	MP4A	Mx	-.001	2
4	MP5A	X	-2.642	2
5	MP5A	Z	-4.576	2
6	MP5A	Mx	.001	2
7	MP5A	X	-2.642	3.5
8	MP5A	Z	-4.576	3.5
9	MP5A	Mx	.001	3.5
10	MP2A	X	-2.274	2
11	MP2A	Z	-3.939	2
12	MP2A	Mx	-.001	2
13	MP2A	X	-4.938	1.25
14	MP2A	Z	-8.553	1.25
15	MP2A	Mx	-.002	1.25
16	MP2A	X	-4.938	4.25
17	MP2A	Z	-8.553	4.25
18	MP2A	Mx	-.002	4.25
19	MP2A	X	-4.938	1.25
20	MP2A	Z	-8.553	1.25
21	MP2A	Mx	.008	1.25
22	MP2A	X	-4.938	4.25
23	MP2A	Z	-8.553	4.25
24	MP2A	Mx	.008	4.25
25	MP4A	X	-4.938	1.25
26	MP4A	Z	-8.553	1.25
27	MP4A	Mx	-.002	1.25
28	MP4A	X	-4.938	4.25
29	MP4A	Z	-8.553	4.25
30	MP4A	Mx	-.002	4.25
31	M14	X	-5.051	1
32	M14	Z	-8.748	1
33	M14	Mx	.003	1

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M18A	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M16	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M4	Y	-250	%50

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M4	Y	-250	%100

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	0	2
2	MP4A	My	0	2
3	MP4A	Mz	0	2
4	MP5A	Y	0	2
5	MP5A	My	0	2
6	MP5A	Mz	0	2
7	MP5A	Y	0	3.5
8	MP5A	My	0	3.5
9	MP5A	Mz	0	3.5
10	MP2A	Y	0	2
11	MP2A	My	0	2
12	MP2A	Mz	0	2
13	MP2A	Y	0	1.25
14	MP2A	My	0	1.25
15	MP2A	Mz	0	1.25
16	MP2A	Y	0	4.25
17	MP2A	My	0	4.25
18	MP2A	Mz	0	4.25
19	MP2A	Y	0	1.25
20	MP2A	My	0	1.25
21	MP2A	Mz	0	1.25
22	MP2A	Y	0	4.25
23	MP2A	My	0	4.25
24	MP2A	Mz	0	4.25
25	MP4A	Y	0	1.25
26	MP4A	My	0	1.25
27	MP4A	Mz	0	1.25
28	MP4A	Y	0	4.25
29	MP4A	My	0	4.25
30	MP4A	Mz	0	4.25
31	MP4A	Y	0	1
32	MP4A	My	0	1
33	MP4A	Mz	0	1

Member Point Loads (BLC 82 : Antenna Eh (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Z	-2.109	2
2	MP4A	Mx	0	2
3	MP5A	Z	-1.306	2
4	MP5A	Mx	0	2
5	MP5A	Z	-1.306	3.5
6	MP5A	Mx	0	3.5
7	MP2A	Z	-2.241	2
8	MP2A	Mx	0	2
9	MP2A	Z	-.6	1.25
10	MP2A	Mx	-.00035	1.25
11	MP2A	Z	-.6	4.25
12	MP2A	Mx	-.00035	4.25
13	MP2A	Z	-.6	1.25
14	MP2A	Mx	.00035	1.25
15	MP2A	Z	-.6	4.25
16	MP2A	Mx	.00035	4.25
17	MP4A	Z	-.6	1.25
18	MP4A	Mx	-.00035	1.25
19	MP4A	Z	-.6	4.25
20	MP4A	Mx	-.00035	4.25

Member Point Loads (BLC 82 : Antenna Eh (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP4A	Z	-.96	1
22	MP4A	Mx	0	1

Member Point Loads (BLC 83 : Antenna Eh (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	2.109	2
2	MP4A	Mx	.001	2
3	MP5A	X	1.306	2
4	MP5A	Mx	-.000653	2
5	MP5A	X	1.306	3.5
6	MP5A	Mx	-.000653	3.5
7	MP2A	X	2.241	2
8	MP2A	Mx	.001	2
9	MP2A	X	.6	1.25
10	MP2A	Mx	-.0004	1.25
11	MP2A	X	.6	4.25
12	MP2A	Mx	-.0004	4.25
13	MP2A	X	.6	1.25
14	MP2A	Mx	-.0004	1.25
15	MP2A	X	.6	4.25
16	MP2A	Mx	-.0004	4.25
17	MP4A	X	.6	1.25
18	MP4A	Mx	-.0004	1.25
19	MP4A	X	.6	4.25
20	MP4A	Mx	-.0004	4.25
21	MP4A	X	.96	1
22	MP4A	Mx	-.00048	1

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-9.68	-9.68	0	%100
2	M2	Y	-8.037	-8.037	0	%100
3	M4	Y	-9.68	-9.68	0	%100
4	MP1A	Y	-5.021	-5.021	0	%100
5	MP5A	Y	-5.021	-5.021	0	%100
6	M14	Y	-5.021	-5.021	0	%100
7	MP2A	Y	-5.021	-5.021	0	%100
8	MP3A	Y	-5.021	-5.021	0	%100
9	MP4A	Y	-5.021	-5.021	0	%100
10	M17	Y	-7.672	-7.672	0	%100
11	M18	Y	-6.618	-6.618	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-10.056	-10.056	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	-15.912	-15.912	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-9.07	-9.07	0	%100
9	MP5A	X	0	0	0	%100
10	MP5A	Z	-9.07	-9.07	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
11	M14	X	0	0	0	%100
12	M14	Z	-6.568	-6.568	0	%100
13	MP2A	X	0	0	0	%100
14	MP2A	Z	-9.07	-9.07	0	%100
15	MP3A	X	0	0	0	%100
16	MP3A	Z	-9.07	-9.07	0	%100
17	MP4A	X	0	0	0	%100
18	MP4A	Z	-9.07	-9.07	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	-13.366	-13.366	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.517	1.517	0	%100
2	M1	Z	-2.628	-2.628	0	%100
3	M2	X	5.028	5.028	0	%100
4	M2	Z	-8.709	-8.709	0	%100
5	M4	X	5.967	5.967	0	%100
6	M4	Z	-10.335	-10.335	0	%100
7	MP1A	X	4.535	4.535	0	%100
8	MP1A	Z	-7.855	-7.855	0	%100
9	MP5A	X	4.535	4.535	0	%100
10	MP5A	Z	-7.855	-7.855	0	%100
11	M14	X	3.284	3.284	0	%100
12	M14	Z	-5.688	-5.688	0	%100
13	MP2A	X	4.535	4.535	0	%100
14	MP2A	Z	-7.855	-7.855	0	%100
15	MP3A	X	4.535	4.535	0	%100
16	MP3A	Z	-7.855	-7.855	0	%100
17	MP4A	X	4.535	4.535	0	%100
18	MP4A	Z	-7.855	-7.855	0	%100
19	M17	X	1.082	1.082	0	%100
20	M17	Z	-1.874	-1.874	0	%100
21	M18	X	5.012	5.012	0	%100
22	M18	Z	-8.682	-8.682	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	7.885	7.885	0	%100
2	M1	Z	-4.552	-4.552	0	%100
3	M2	X	8.709	8.709	0	%100
4	M2	Z	-5.028	-5.028	0	%100
5	M4	X	3.445	3.445	0	%100
6	M4	Z	-1.989	-1.989	0	%100
7	MP1A	X	7.855	7.855	0	%100
8	MP1A	Z	-4.535	-4.535	0	%100
9	MP5A	X	7.855	7.855	0	%100
10	MP5A	Z	-4.535	-4.535	0	%100
11	M14	X	5.688	5.688	0	%100
12	M14	Z	-3.284	-3.284	0	%100
13	MP2A	X	7.855	7.855	0	%100
14	MP2A	Z	-4.535	-4.535	0	%100
15	MP3A	X	7.855	7.855	0	%100
16	MP3A	Z	-4.535	-4.535	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
17	MP4A	X	7.855	7.855	0	%100
18	MP4A	Z	-4.535	-4.535	0	%100
19	M17	X	5.621	5.621	0	%100
20	M17	Z	-3.245	-3.245	0	%100
21	M18	X	2.894	2.894	0	%100
22	M18	Z	-1.671	-1.671	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	12.14	12.14	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	10.056	10.056	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP1A	X	9.07	9.07	0	%100
8	MP1A	Z	0	0	0	%100
9	MP5A	X	9.07	9.07	0	%100
10	MP5A	Z	0	0	0	%100
11	M14	X	6.568	6.568	0	%100
12	M14	Z	0	0	0	%100
13	MP2A	X	9.07	9.07	0	%100
14	MP2A	Z	0	0	0	%100
15	MP3A	X	9.07	9.07	0	%100
16	MP3A	Z	0	0	0	%100
17	MP4A	X	9.07	9.07	0	%100
18	MP4A	Z	0	0	0	%100
19	M17	X	8.654	8.654	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	7.885	7.885	0	%100
2	M1	Z	4.552	4.552	0	%100
3	M2	X	8.709	8.709	0	%100
4	M2	Z	5.028	5.028	0	%100
5	M4	X	3.445	3.445	0	%100
6	M4	Z	1.989	1.989	0	%100
7	MP1A	X	7.855	7.855	0	%100
8	MP1A	Z	4.535	4.535	0	%100
9	MP5A	X	7.855	7.855	0	%100
10	MP5A	Z	4.535	4.535	0	%100
11	M14	X	5.688	5.688	0	%100
12	M14	Z	3.284	3.284	0	%100
13	MP2A	X	7.855	7.855	0	%100
14	MP2A	Z	4.535	4.535	0	%100
15	MP3A	X	7.855	7.855	0	%100
16	MP3A	Z	4.535	4.535	0	%100
17	MP4A	X	7.855	7.855	0	%100
18	MP4A	Z	4.535	4.535	0	%100
19	M17	X	5.621	5.621	0	%100
20	M17	Z	3.245	3.245	0	%100
21	M18	X	2.894	2.894	0	%100
22	M18	Z	1.671	1.671	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.517	1.517	0	%100
2	M1	Z	2.628	2.628	0	%100
3	M2	X	5.028	5.028	0	%100
4	M2	Z	8.709	8.709	0	%100
5	M4	X	5.967	5.967	0	%100
6	M4	Z	10.335	10.335	0	%100
7	MP1A	X	4.535	4.535	0	%100
8	MP1A	Z	7.855	7.855	0	%100
9	MP5A	X	4.535	4.535	0	%100
10	MP5A	Z	7.855	7.855	0	%100
11	M14	X	3.284	3.284	0	%100
12	M14	Z	5.688	5.688	0	%100
13	MP2A	X	4.535	4.535	0	%100
14	MP2A	Z	7.855	7.855	0	%100
15	MP3A	X	4.535	4.535	0	%100
16	MP3A	Z	7.855	7.855	0	%100
17	MP4A	X	4.535	4.535	0	%100
18	MP4A	Z	7.855	7.855	0	%100
19	M17	X	1.082	1.082	0	%100
20	M17	Z	1.874	1.874	0	%100
21	M18	X	5.012	5.012	0	%100
22	M18	Z	8.682	8.682	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	10.056	10.056	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	15.912	15.912	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	9.07	9.07	0	%100
9	MP5A	X	0	0	0	%100
10	MP5A	Z	9.07	9.07	0	%100
11	M14	X	0	0	0	%100
12	M14	Z	6.568	6.568	0	%100
13	MP2A	X	0	0	0	%100
14	MP2A	Z	9.07	9.07	0	%100
15	MP3A	X	0	0	0	%100
16	MP3A	Z	9.07	9.07	0	%100
17	MP4A	X	0	0	0	%100
18	MP4A	Z	9.07	9.07	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	13.366	13.366	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.517	-1.517	0	%100
2	M1	Z	2.628	2.628	0	%100
3	M2	X	-5.028	-5.028	0	%100
4	M2	Z	8.709	8.709	0	%100
5	M4	X	-5.967	-5.967	0	%100
6	M4	Z	10.335	10.335	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
7	MP1A	X	-4.535	-4.535	0	%100
8	MP1A	Z	7.855	7.855	0	%100
9	MP5A	X	-4.535	-4.535	0	%100
10	MP5A	Z	7.855	7.855	0	%100
11	M14	X	-3.284	-3.284	0	%100
12	M14	Z	5.688	5.688	0	%100
13	MP2A	X	-4.535	-4.535	0	%100
14	MP2A	Z	7.855	7.855	0	%100
15	MP3A	X	-4.535	-4.535	0	%100
16	MP3A	Z	7.855	7.855	0	%100
17	MP4A	X	-4.535	-4.535	0	%100
18	MP4A	Z	7.855	7.855	0	%100
19	M17	X	-1.082	-1.082	0	%100
20	M17	Z	1.874	1.874	0	%100
21	M18	X	-5.012	-5.012	0	%100
22	M18	Z	8.682	8.682	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-7.885	-7.885	0	%100
2	M1	Z	4.552	4.552	0	%100
3	M2	X	-8.709	-8.709	0	%100
4	M2	Z	5.028	5.028	0	%100
5	M4	X	-3.445	-3.445	0	%100
6	M4	Z	1.989	1.989	0	%100
7	MP1A	X	-7.855	-7.855	0	%100
8	MP1A	Z	4.535	4.535	0	%100
9	MP5A	X	-7.855	-7.855	0	%100
10	MP5A	Z	4.535	4.535	0	%100
11	M14	X	-5.688	-5.688	0	%100
12	M14	Z	3.284	3.284	0	%100
13	MP2A	X	-7.855	-7.855	0	%100
14	MP2A	Z	4.535	4.535	0	%100
15	MP3A	X	-7.855	-7.855	0	%100
16	MP3A	Z	4.535	4.535	0	%100
17	MP4A	X	-7.855	-7.855	0	%100
18	MP4A	Z	4.535	4.535	0	%100
19	M17	X	-5.621	-5.621	0	%100
20	M17	Z	3.245	3.245	0	%100
21	M18	X	-2.894	-2.894	0	%100
22	M18	Z	1.671	1.671	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-12.14	-12.14	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-10.056	-10.056	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP1A	X	-9.07	-9.07	0	%100
8	MP1A	Z	0	0	0	%100
9	MP5A	X	-9.07	-9.07	0	%100
10	MP5A	Z	0	0	0	%100
11	M14	X	-6.568	-6.568	0	%100
12	M14	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
13	MP2A	X	-9.07	-9.07	0	%100
14	MP2A	Z	0	0	0	%100
15	MP3A	X	-9.07	-9.07	0	%100
16	MP3A	Z	0	0	0	%100
17	MP4A	X	-9.07	-9.07	0	%100
18	MP4A	Z	0	0	0	%100
19	M17	X	-8.654	-8.654	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-7.885	-7.885	0	%100
2	M1	Z	-4.552	-4.552	0	%100
3	M2	X	-8.709	-8.709	0	%100
4	M2	Z	-5.028	-5.028	0	%100
5	M4	X	-3.445	-3.445	0	%100
6	M4	Z	-1.989	-1.989	0	%100
7	MP1A	X	-7.855	-7.855	0	%100
8	MP1A	Z	-4.535	-4.535	0	%100
9	MP5A	X	-7.855	-7.855	0	%100
10	MP5A	Z	-4.535	-4.535	0	%100
11	M14	X	-5.688	-5.688	0	%100
12	M14	Z	-3.284	-3.284	0	%100
13	MP2A	X	-7.855	-7.855	0	%100
14	MP2A	Z	-4.535	-4.535	0	%100
15	MP3A	X	-7.855	-7.855	0	%100
16	MP3A	Z	-4.535	-4.535	0	%100
17	MP4A	X	-7.855	-7.855	0	%100
18	MP4A	Z	-4.535	-4.535	0	%100
19	M17	X	-5.621	-5.621	0	%100
20	M17	Z	-3.245	-3.245	0	%100
21	M18	X	-2.894	-2.894	0	%100
22	M18	Z	-1.671	-1.671	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.517	-1.517	0	%100
2	M1	Z	-2.628	-2.628	0	%100
3	M2	X	-5.028	-5.028	0	%100
4	M2	Z	-8.709	-8.709	0	%100
5	M4	X	-5.967	-5.967	0	%100
6	M4	Z	-10.335	-10.335	0	%100
7	MP1A	X	-4.535	-4.535	0	%100
8	MP1A	Z	-7.855	-7.855	0	%100
9	MP5A	X	-4.535	-4.535	0	%100
10	MP5A	Z	-7.855	-7.855	0	%100
11	M14	X	-3.284	-3.284	0	%100
12	M14	Z	-5.688	-5.688	0	%100
13	MP2A	X	-4.535	-4.535	0	%100
14	MP2A	Z	-7.855	-7.855	0	%100
15	MP3A	X	-4.535	-4.535	0	%100
16	MP3A	Z	-7.855	-7.855	0	%100
17	MP4A	X	-4.535	-4.535	0	%100
18	MP4A	Z	-7.855	-7.855	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
19	M17	X	-1.082	-1.082	0	%100
20	M17	Z	-1.874	-1.874	0	%100
21	M18	X	-5.012	-5.012	0	%100
22	M18	Z	-8.682	-8.682	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-2.193	-2.193	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	-3.052	-3.052	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-2.209	-2.209	0	%100
9	MP5A	X	0	0	0	%100
10	MP5A	Z	-2.209	-2.209	0	%100
11	M14	X	0	0	0	%100
12	M14	Z	-1.604	-1.604	0	%100
13	MP2A	X	0	0	0	%100
14	MP2A	Z	-2.209	-2.209	0	%100
15	MP3A	X	0	0	0	%100
16	MP3A	Z	-2.209	-2.209	0	%100
17	MP4A	X	0	0	0	%100
18	MP4A	Z	-2.209	-2.209	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	-2.738	-2.738	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.284	.284	0	%100
2	M1	Z	-.492	-.492	0	%100
3	M2	X	1.097	1.097	0	%100
4	M2	Z	-1.899	-1.899	0	%100
5	M4	X	1.144	1.144	0	%100
6	M4	Z	-1.982	-1.982	0	%100
7	MP1A	X	1.105	1.105	0	%100
8	MP1A	Z	-1.913	-1.913	0	%100
9	MP5A	X	1.105	1.105	0	%100
10	MP5A	Z	-1.913	-1.913	0	%100
11	M14	X	.802	.802	0	%100
12	M14	Z	-1.389	-1.389	0	%100
13	MP2A	X	1.105	1.105	0	%100
14	MP2A	Z	-1.913	-1.913	0	%100
15	MP3A	X	1.105	1.105	0	%100
16	MP3A	Z	-1.913	-1.913	0	%100
17	MP4A	X	1.105	1.105	0	%100
18	MP4A	Z	-1.913	-1.913	0	%100
19	M17	X	.23	.23	0	%100
20	M17	Z	-.399	-.399	0	%100
21	M18	X	1.027	1.027	0	%100
22	M18	Z	-1.778	-1.778	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.476	1.476	0	%100
2	M1	Z	-.852	-.852	0	%100
3	M2	X	1.899	1.899	0	%100
4	M2	Z	-1.097	-1.097	0	%100
5	M4	X	.661	.661	0	%100
6	M4	Z	-.381	-.381	0	%100
7	MP1A	X	1.913	1.913	0	%100
8	MP1A	Z	-1.105	-1.105	0	%100
9	MP5A	X	1.913	1.913	0	%100
10	MP5A	Z	-1.105	-1.105	0	%100
11	M14	X	1.389	1.389	0	%100
12	M14	Z	-.802	-.802	0	%100
13	MP2A	X	1.913	1.913	0	%100
14	MP2A	Z	-1.105	-1.105	0	%100
15	MP3A	X	1.913	1.913	0	%100
16	MP3A	Z	-1.105	-1.105	0	%100
17	MP4A	X	1.913	1.913	0	%100
18	MP4A	Z	-1.105	-1.105	0	%100
19	M17	X	1.198	1.198	0	%100
20	M17	Z	-.691	-.691	0	%100
21	M18	X	.593	.593	0	%100
22	M18	Z	-.342	-.342	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	2.273	2.273	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	2.193	2.193	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP1A	X	2.209	2.209	0	%100
8	MP1A	Z	0	0	0	%100
9	MP5A	X	2.209	2.209	0	%100
10	MP5A	Z	0	0	0	%100
11	M14	X	1.604	1.604	0	%100
12	M14	Z	0	0	0	%100
13	MP2A	X	2.209	2.209	0	%100
14	MP2A	Z	0	0	0	%100
15	MP3A	X	2.209	2.209	0	%100
16	MP3A	Z	0	0	0	%100
17	MP4A	X	2.209	2.209	0	%100
18	MP4A	Z	0	0	0	%100
19	M17	X	1.844	1.844	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.476	1.476	0	%100
2	M1	Z	.852	.852	0	%100
3	M2	X	1.899	1.899	0	%100
4	M2	Z	1.097	1.097	0	%100
5	M4	X	.661	.661	0	%100
6	M4	Z	.381	.381	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
7	MP1A	X	1.913	1.913	0	%100
8	MP1A	Z	1.105	1.105	0	%100
9	MP5A	X	1.913	1.913	0	%100
10	MP5A	Z	1.105	1.105	0	%100
11	M14	X	1.389	1.389	0	%100
12	M14	Z	.802	.802	0	%100
13	MP2A	X	1.913	1.913	0	%100
14	MP2A	Z	1.105	1.105	0	%100
15	MP3A	X	1.913	1.913	0	%100
16	MP3A	Z	1.105	1.105	0	%100
17	MP4A	X	1.913	1.913	0	%100
18	MP4A	Z	1.105	1.105	0	%100
19	M17	X	1.198	1.198	0	%100
20	M17	Z	.691	.691	0	%100
21	M18	X	.593	.593	0	%100
22	M18	Z	.342	.342	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.284	.284	0	%100
2	M1	Z	.492	.492	0	%100
3	M2	X	1.097	1.097	0	%100
4	M2	Z	1.899	1.899	0	%100
5	M4	X	1.144	1.144	0	%100
6	M4	Z	1.982	1.982	0	%100
7	MP1A	X	1.105	1.105	0	%100
8	MP1A	Z	1.913	1.913	0	%100
9	MP5A	X	1.105	1.105	0	%100
10	MP5A	Z	1.913	1.913	0	%100
11	M14	X	.802	.802	0	%100
12	M14	Z	1.389	1.389	0	%100
13	MP2A	X	1.105	1.105	0	%100
14	MP2A	Z	1.913	1.913	0	%100
15	MP3A	X	1.105	1.105	0	%100
16	MP3A	Z	1.913	1.913	0	%100
17	MP4A	X	1.105	1.105	0	%100
18	MP4A	Z	1.913	1.913	0	%100
19	M17	X	.23	.23	0	%100
20	M17	Z	.399	.399	0	%100
21	M18	X	1.027	1.027	0	%100
22	M18	Z	1.778	1.778	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	2.193	2.193	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	3.052	3.052	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	2.209	2.209	0	%100
9	MP5A	X	0	0	0	%100
10	MP5A	Z	2.209	2.209	0	%100
11	M14	X	0	0	0	%100
12	M14	Z	1.604	1.604	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
13	MP2A	X	0	0	0	%100
14	MP2A	Z	2.209	2.209	0	%100
15	MP3A	X	0	0	0	%100
16	MP3A	Z	2.209	2.209	0	%100
17	MP4A	X	0	0	0	%100
18	MP4A	Z	2.209	2.209	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	2.738	2.738	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.284	-.284	0	%100
2	M1	Z	.492	.492	0	%100
3	M2	X	-1.097	-1.097	0	%100
4	M2	Z	1.899	1.899	0	%100
5	M4	X	-1.144	-1.144	0	%100
6	M4	Z	1.982	1.982	0	%100
7	MP1A	X	-1.105	-1.105	0	%100
8	MP1A	Z	1.913	1.913	0	%100
9	MP5A	X	-1.105	-1.105	0	%100
10	MP5A	Z	1.913	1.913	0	%100
11	M14	X	-.802	-.802	0	%100
12	M14	Z	1.389	1.389	0	%100
13	MP2A	X	-1.105	-1.105	0	%100
14	MP2A	Z	1.913	1.913	0	%100
15	MP3A	X	-1.105	-1.105	0	%100
16	MP3A	Z	1.913	1.913	0	%100
17	MP4A	X	-1.105	-1.105	0	%100
18	MP4A	Z	1.913	1.913	0	%100
19	M17	X	-.23	-.23	0	%100
20	M17	Z	.399	.399	0	%100
21	M18	X	-1.027	-1.027	0	%100
22	M18	Z	1.778	1.778	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.476	-1.476	0	%100
2	M1	Z	.852	.852	0	%100
3	M2	X	-1.899	-1.899	0	%100
4	M2	Z	1.097	1.097	0	%100
5	M4	X	-.661	-.661	0	%100
6	M4	Z	.381	.381	0	%100
7	MP1A	X	-1.913	-1.913	0	%100
8	MP1A	Z	1.105	1.105	0	%100
9	MP5A	X	-1.913	-1.913	0	%100
10	MP5A	Z	1.105	1.105	0	%100
11	M14	X	-1.389	-1.389	0	%100
12	M14	Z	.802	.802	0	%100
13	MP2A	X	-1.913	-1.913	0	%100
14	MP2A	Z	1.105	1.105	0	%100
15	MP3A	X	-1.913	-1.913	0	%100
16	MP3A	Z	1.105	1.105	0	%100
17	MP4A	X	-1.913	-1.913	0	%100
18	MP4A	Z	1.105	1.105	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
19	M17	X	-1.198	-1.198	0	%100
20	M17	Z	.691	.691	0	%100
21	M18	X	-.593	-.593	0	%100
22	M18	Z	.342	.342	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-2.273	-2.273	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-2.193	-2.193	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP1A	X	-2.209	-2.209	0	%100
8	MP1A	Z	0	0	0	%100
9	MP5A	X	-2.209	-2.209	0	%100
10	MP5A	Z	0	0	0	%100
11	M14	X	-1.604	-1.604	0	%100
12	M14	Z	0	0	0	%100
13	MP2A	X	-2.209	-2.209	0	%100
14	MP2A	Z	0	0	0	%100
15	MP3A	X	-2.209	-2.209	0	%100
16	MP3A	Z	0	0	0	%100
17	MP4A	X	-2.209	-2.209	0	%100
18	MP4A	Z	0	0	0	%100
19	M17	X	-1.844	-1.844	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.476	-1.476	0	%100
2	M1	Z	-.852	-.852	0	%100
3	M2	X	-1.899	-1.899	0	%100
4	M2	Z	-1.097	-1.097	0	%100
5	M4	X	-.661	-.661	0	%100
6	M4	Z	-.381	-.381	0	%100
7	MP1A	X	-1.913	-1.913	0	%100
8	MP1A	Z	-1.105	-1.105	0	%100
9	MP5A	X	-1.913	-1.913	0	%100
10	MP5A	Z	-1.105	-1.105	0	%100
11	M14	X	-1.389	-1.389	0	%100
12	M14	Z	-.802	-.802	0	%100
13	MP2A	X	-1.913	-1.913	0	%100
14	MP2A	Z	-1.105	-1.105	0	%100
15	MP3A	X	-1.913	-1.913	0	%100
16	MP3A	Z	-1.105	-1.105	0	%100
17	MP4A	X	-1.913	-1.913	0	%100
18	MP4A	Z	-1.105	-1.105	0	%100
19	M17	X	-1.198	-1.198	0	%100
20	M17	Z	-.691	-.691	0	%100
21	M18	X	-.593	-.593	0	%100
22	M18	Z	-.342	-.342	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.284	-.284	0	%100
2	M1	Z	-.492	-.492	0	%100
3	M2	X	-1.097	-1.097	0	%100
4	M2	Z	-1.899	-1.899	0	%100
5	M4	X	-1.144	-1.144	0	%100
6	M4	Z	-1.982	-1.982	0	%100
7	MP1A	X	-1.105	-1.105	0	%100
8	MP1A	Z	-1.913	-1.913	0	%100
9	MP5A	X	-1.105	-1.105	0	%100
10	MP5A	Z	-1.913	-1.913	0	%100
11	M14	X	-.802	-.802	0	%100
12	M14	Z	-1.389	-1.389	0	%100
13	MP2A	X	-1.105	-1.105	0	%100
14	MP2A	Z	-1.913	-1.913	0	%100
15	MP3A	X	-1.105	-1.105	0	%100
16	MP3A	Z	-1.913	-1.913	0	%100
17	MP4A	X	-1.105	-1.105	0	%100
18	MP4A	Z	-1.913	-1.913	0	%100
19	M17	X	-.23	-.23	0	%100
20	M17	Z	-.399	-.399	0	%100
21	M18	X	-1.027	-1.027	0	%100
22	M18	Z	-1.778	-1.778	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-.696	-.696	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	-1.102	-1.102	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-.628	-.628	0	%100
9	MP5A	X	0	0	0	%100
10	MP5A	Z	-.628	-.628	0	%100
11	M14	X	0	0	0	%100
12	M14	Z	-.455	-.455	0	%100
13	MP2A	X	0	0	0	%100
14	MP2A	Z	-.628	-.628	0	%100
15	MP3A	X	0	0	0	%100
16	MP3A	Z	-.628	-.628	0	%100
17	MP4A	X	0	0	0	%100
18	MP4A	Z	-.628	-.628	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	-.926	-.926	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.105	.105	0	%100
2	M1	Z	-.182	-.182	0	%100
3	M2	X	.348	.348	0	%100
4	M2	Z	-.603	-.603	0	%100
5	M4	X	.413	.413	0	%100
6	M4	Z	-.716	-.716	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
7	MP1A	X	.314	.314	0	%100
8	MP1A	Z	-.544	-.544	0	%100
9	MP5A	X	.314	.314	0	%100
10	MP5A	Z	-.544	-.544	0	%100
11	M14	X	.227	.227	0	%100
12	M14	Z	-.394	-.394	0	%100
13	MP2A	X	.314	.314	0	%100
14	MP2A	Z	-.544	-.544	0	%100
15	MP3A	X	.314	.314	0	%100
16	MP3A	Z	-.544	-.544	0	%100
17	MP4A	X	.314	.314	0	%100
18	MP4A	Z	-.544	-.544	0	%100
19	M17	X	.075	.075	0	%100
20	M17	Z	-.13	-.13	0	%100
21	M18	X	.347	.347	0	%100
22	M18	Z	-.601	-.601	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.546	.546	0	%100
2	M1	Z	-.315	-.315	0	%100
3	M2	X	.603	.603	0	%100
4	M2	Z	-.348	-.348	0	%100
5	M4	X	.239	.239	0	%100
6	M4	Z	-.138	-.138	0	%100
7	MP1A	X	.544	.544	0	%100
8	MP1A	Z	-.314	-.314	0	%100
9	MP5A	X	.544	.544	0	%100
10	MP5A	Z	-.314	-.314	0	%100
11	M14	X	.394	.394	0	%100
12	M14	Z	-.227	-.227	0	%100
13	MP2A	X	.544	.544	0	%100
14	MP2A	Z	-.314	-.314	0	%100
15	MP3A	X	.544	.544	0	%100
16	MP3A	Z	-.314	-.314	0	%100
17	MP4A	X	.544	.544	0	%100
18	MP4A	Z	-.314	-.314	0	%100
19	M17	X	.389	.389	0	%100
20	M17	Z	-.225	-.225	0	%100
21	M18	X	.2	.2	0	%100
22	M18	Z	-.116	-.116	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.841	.841	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	.696	.696	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP1A	X	.628	.628	0	%100
8	MP1A	Z	0	0	0	%100
9	MP5A	X	.628	.628	0	%100
10	MP5A	Z	0	0	0	%100
11	M14	X	.455	.455	0	%100
12	M14	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
13	MP2A	X	.628	.628	0	%100
14	MP2A	Z	0	0	0	%100
15	MP3A	X	.628	.628	0	%100
16	MP3A	Z	0	0	0	%100
17	MP4A	X	.628	.628	0	%100
18	MP4A	Z	0	0	0	%100
19	M17	X	.599	.599	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.546	.546	0	%100
2	M1	Z	.315	.315	0	%100
3	M2	X	.603	.603	0	%100
4	M2	Z	.348	.348	0	%100
5	M4	X	.239	.239	0	%100
6	M4	Z	.138	.138	0	%100
7	MP1A	X	.544	.544	0	%100
8	MP1A	Z	.314	.314	0	%100
9	MP5A	X	.544	.544	0	%100
10	MP5A	Z	.314	.314	0	%100
11	M14	X	.394	.394	0	%100
12	M14	Z	.227	.227	0	%100
13	MP2A	X	.544	.544	0	%100
14	MP2A	Z	.314	.314	0	%100
15	MP3A	X	.544	.544	0	%100
16	MP3A	Z	.314	.314	0	%100
17	MP4A	X	.544	.544	0	%100
18	MP4A	Z	.314	.314	0	%100
19	M17	X	.389	.389	0	%100
20	M17	Z	.225	.225	0	%100
21	M18	X	.2	.2	0	%100
22	M18	Z	.116	.116	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.105	.105	0	%100
2	M1	Z	.182	.182	0	%100
3	M2	X	.348	.348	0	%100
4	M2	Z	.603	.603	0	%100
5	M4	X	.413	.413	0	%100
6	M4	Z	.716	.716	0	%100
7	MP1A	X	.314	.314	0	%100
8	MP1A	Z	.544	.544	0	%100
9	MP5A	X	.314	.314	0	%100
10	MP5A	Z	.544	.544	0	%100
11	M14	X	.227	.227	0	%100
12	M14	Z	.394	.394	0	%100
13	MP2A	X	.314	.314	0	%100
14	MP2A	Z	.544	.544	0	%100
15	MP3A	X	.314	.314	0	%100
16	MP3A	Z	.544	.544	0	%100
17	MP4A	X	.314	.314	0	%100
18	MP4A	Z	.544	.544	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
19	M17	X	.075	.075	0	%100
20	M17	Z	.13	.13	0	%100
21	M18	X	.347	.347	0	%100
22	M18	Z	.601	.601	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.696	.696	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	1.102	1.102	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	.628	.628	0	%100
9	MP5A	X	0	0	0	%100
10	MP5A	Z	.628	.628	0	%100
11	M14	X	0	0	0	%100
12	M14	Z	.455	.455	0	%100
13	MP2A	X	0	0	0	%100
14	MP2A	Z	.628	.628	0	%100
15	MP3A	X	0	0	0	%100
16	MP3A	Z	.628	.628	0	%100
17	MP4A	X	0	0	0	%100
18	MP4A	Z	.628	.628	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	.926	.926	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.105	-.105	0	%100
2	M1	Z	.182	.182	0	%100
3	M2	X	-.348	-.348	0	%100
4	M2	Z	.603	.603	0	%100
5	M4	X	-.413	-.413	0	%100
6	M4	Z	.716	.716	0	%100
7	MP1A	X	-.314	-.314	0	%100
8	MP1A	Z	.544	.544	0	%100
9	MP5A	X	-.314	-.314	0	%100
10	MP5A	Z	.544	.544	0	%100
11	M14	X	-.227	-.227	0	%100
12	M14	Z	.394	.394	0	%100
13	MP2A	X	-.314	-.314	0	%100
14	MP2A	Z	.544	.544	0	%100
15	MP3A	X	-.314	-.314	0	%100
16	MP3A	Z	.544	.544	0	%100
17	MP4A	X	-.314	-.314	0	%100
18	MP4A	Z	.544	.544	0	%100
19	M17	X	-.075	-.075	0	%100
20	M17	Z	.13	.13	0	%100
21	M18	X	-.347	-.347	0	%100
22	M18	Z	.601	.601	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.546	-.546	0	%100
2	M1	Z	.315	.315	0	%100
3	M2	X	-.603	-.603	0	%100
4	M2	Z	.348	.348	0	%100
5	M4	X	-.239	-.239	0	%100
6	M4	Z	.138	.138	0	%100
7	MP1A	X	-.544	-.544	0	%100
8	MP1A	Z	.314	.314	0	%100
9	MP5A	X	-.544	-.544	0	%100
10	MP5A	Z	.314	.314	0	%100
11	M14	X	-.394	-.394	0	%100
12	M14	Z	.227	.227	0	%100
13	MP2A	X	-.544	-.544	0	%100
14	MP2A	Z	.314	.314	0	%100
15	MP3A	X	-.544	-.544	0	%100
16	MP3A	Z	.314	.314	0	%100
17	MP4A	X	-.544	-.544	0	%100
18	MP4A	Z	.314	.314	0	%100
19	M17	X	-.389	-.389	0	%100
20	M17	Z	.225	.225	0	%100
21	M18	X	-.2	-.2	0	%100
22	M18	Z	.116	.116	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.841	-.841	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-.696	-.696	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP1A	X	-.628	-.628	0	%100
8	MP1A	Z	0	0	0	%100
9	MP5A	X	-.628	-.628	0	%100
10	MP5A	Z	0	0	0	%100
11	M14	X	-.455	-.455	0	%100
12	M14	Z	0	0	0	%100
13	MP2A	X	-.628	-.628	0	%100
14	MP2A	Z	0	0	0	%100
15	MP3A	X	-.628	-.628	0	%100
16	MP3A	Z	0	0	0	%100
17	MP4A	X	-.628	-.628	0	%100
18	MP4A	Z	0	0	0	%100
19	M17	X	-.599	-.599	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.546	-.546	0	%100
2	M1	Z	-.315	-.315	0	%100
3	M2	X	-.603	-.603	0	%100
4	M2	Z	-.348	-.348	0	%100
5	M4	X	-.239	-.239	0	%100
6	M4	Z	-.138	-.138	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
7	MP1A	X	-.544	-.544	0	%100
8	MP1A	Z	-.314	-.314	0	%100
9	MP5A	X	-.544	-.544	0	%100
10	MP5A	Z	-.314	-.314	0	%100
11	M14	X	-.394	-.394	0	%100
12	M14	Z	-.227	-.227	0	%100
13	MP2A	X	-.544	-.544	0	%100
14	MP2A	Z	-.314	-.314	0	%100
15	MP3A	X	-.544	-.544	0	%100
16	MP3A	Z	-.314	-.314	0	%100
17	MP4A	X	-.544	-.544	0	%100
18	MP4A	Z	-.314	-.314	0	%100
19	M17	X	-.389	-.389	0	%100
20	M17	Z	-.225	-.225	0	%100
21	M18	X	-.2	-.2	0	%100
22	M18	Z	-.116	-.116	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitu...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.105	-.105	0	%100
2	M1	Z	-.182	-.182	0	%100
3	M2	X	-.348	-.348	0	%100
4	M2	Z	-.603	-.603	0	%100
5	M4	X	-.413	-.413	0	%100
6	M4	Z	-.716	-.716	0	%100
7	MP1A	X	-.314	-.314	0	%100
8	MP1A	Z	-.544	-.544	0	%100
9	MP5A	X	-.314	-.314	0	%100
10	MP5A	Z	-.544	-.544	0	%100
11	M14	X	-.227	-.227	0	%100
12	M14	Z	-.394	-.394	0	%100
13	MP2A	X	-.314	-.314	0	%100
14	MP2A	Z	-.544	-.544	0	%100
15	MP3A	X	-.314	-.314	0	%100
16	MP3A	Z	-.544	-.544	0	%100
17	MP4A	X	-.314	-.314	0	%100
18	MP4A	Z	-.544	-.544	0	%100
19	M17	X	-.075	-.075	0	%100
20	M17	Z	-.13	-.13	0	%100
21	M18	X	-.347	-.347	0	%100
22	M18	Z	-.601	-.601	0	%100

Member Area Loads

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

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

	Member	Shape	Code Check	Loc[ft]	LC	Sh..	Loc[ft]	...	LC	phi*...	phi*...	phi*...	phi*...	...	Eqn
1	M1	HSS4X...	.286	0	9	.131	0	y	35	1053...	1068...	12.6...	12.6...	...	H1-...
2	M2	PIPE_...	.001	1.125	7	.000	1.125		7	9174...	93240	10.6...	10.6...	1	H1-...
3	M4	HSS4X...	.203	5	7	.069	5	z	8	7142...	1068...	12.6...	12.6...	...	H1-...
4	MP1A	PIPE_...	.171	3.06	50	.047	3.06		50	2011...	32130	1.872	1.872	...	H1-...
5	MP5A	PIPE_...	.103	3.06	33	.044	3.06		8	2011...	32130	1.872	1.872	...	H1-...

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

	Member	Shape	Code Check	Loc[ft]	LC	Sh..	Loc[ft]	...	LC	phi*...	phi*...	phi*...	phi*...	...	Eqn
6	M14	PIPE_...	.002	1	7	.001	1		7	3062..	32130	1.872	1.872	1	H1-..
7	MP2A	PIPE_...	.362	2.995	1	.107	1.953		9	2011..	32130	1.872	1.872	...	H1-..
8	MP3A	PIPE_...	.215	3.06	20	.087	3.06		19	2011..	32130	1.872	1.872	...	H1-..
9	MP4A	PIPE_...	.223	2.995	1	.089	1.953		8	2011..	32130	1.872	1.872	...	H1-..
10	M17	HSS3X...	.250	0	29	.093	1.833	z	34	9839..	1010..	8.556	8.556	...	H1-..
11	M18	PIPE_...	.174	5	12	.090	5		21	3817..	65205	5.749	5.749	...	H1-..

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	1448.199	9	1210.053	13	1487.028	1	-.65	1	2.58	9	.69	41
2		min	-1211.078	3	409.025	69	-2179.937	7	-2.094	19	-2.149	3	-1.023	35
3	N32	max	351.073	50	683.309	19	859.469	13	-.221	1	.679	9	.349	41
4		min	-628.109	33	178.68	1	154.817	7	-1.113	19	-1.205	27	-.513	35
5	Totals:	max	1255.746	10	1851.942	18	2025.128	1						
6		min	-1255.746	4	640.544	75	-2025.12	7						

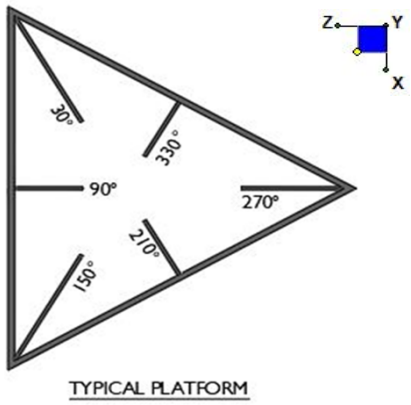
Client:	Verizon	Date:	11/16/2021
Site Name:	FALLS VILLAGE CT		
Project No.	21777475A		
Title:	Antenna Mount Analysis	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check - Proposed

RISA Model Data

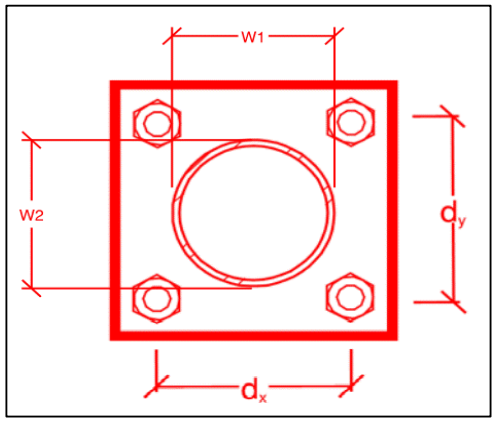
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N32	90



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):	6.6
Required Shear Strength (kips):	2.9
Tensile Strength / bolt (kips):	20.7
Shear Strength / bolt (kips):	12.4
Tensile Capacity Overall:	**8.0%***
Shear Capacity Overall:	**5.8%**



**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):	1.62
Plate Bending Capacity:	**13.0%**
Weld Capacity:	**23.2%**

Max Plate Bending Strengths

Mu_{xx} *(kip-in)* :	2.9
Phi*Mn_{xx} *(kip-in)* :	52.2
Mu_{yy} *(kip-in)* :	3.9
Phi*Mn_{yy} *(kip-in)* :	52.2

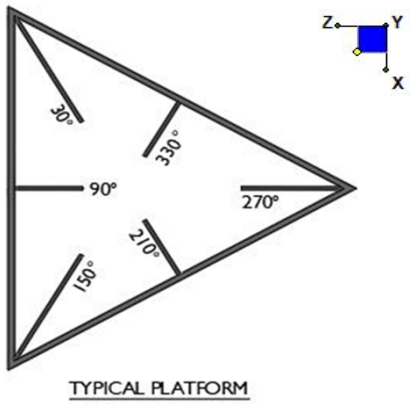
Client:	Verizon	Date:	11/12/2021
Site Name:	FALLS VILLAGE CT		
Project No.	21777475A		
Title:	Antenna Mount Analysis	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check

RISA Model Data

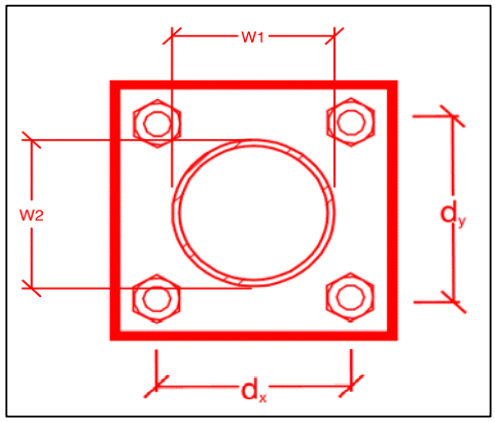
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N1	90



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):	21.9
Required Shear Strength (kips):	9.4
Tensile Strength / bolt (kips):	20.7
Shear Strength / bolt (kips):	12.4
Tensile Capacity Overall:	**26.5%***
Shear Capacity Overall:	**19.0%**



**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):	1.63
Plate Bending Capacity:	**60.2%**
Weld Capacity:	**39.0%**

Max Plate Bending Strengths

Mu_{xx} *(kip-in)* :	7.3
Phi*Mn_{xx} *(kip-in)* :	12.2
Mu_{yy} *(kip-in)* :	0.0
Phi*Mn_{yy} *(kip-in)* :	20.3

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

Electronic pdf version of this can be downloaded at https://pmi.vzwsmart.com
For additional questions and support, please reach out to pmisupport@colliersengineering.com

---

Purpose – to upload the proper documentation to the SMART Tool in order to allow the SMART Tool engineering vendor 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:

- If installation of the modification will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. 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) shall be shown. NOTE: If loading is different than what is conveyed in the post-modification passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo shall be time and date stamped.
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is 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. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: **https://pmi.vzwsmart.com**

Photo Requirements:

- *Photos taken at ground level*
  - Photo of Gate Signs showing the tower owner, site name, and number.
  - Overall tower structure after installation of the modifications.
  - Photos of the mount 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 the safety climb wire rope above and below the mount prior to modification.
  - Photos showing the climbing facility and safety climb if present.
  - Photos showing each individual sector after installation of modifications. Each entire sector must be in one photo to show the interconnection of members.

        - These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
    - Photos that show the model number of each antenna and piece of equipment installed per sector.
    - Photos of each installed modification per the modification drawings; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
    - Photos showing the distances (relative distance between collars) of the installed modifications from the appropriate reference locations shown in the modification drawings.
    - Photos showing the installed modifications onto the tower (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, an elevation measurement shall be provided before the elevation change.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by the SMART Tool vendor.
    - If the materials are as specified on the drawings
        - The contractor shall provide the packing list, or the materials certifications for the materials utilized to perform the mount modification
        - Commscope, Metrosite, Perfect Vision, Sabre, and Site Pro have all agreed to support Verizon vendors with the necessary material certifications
    - If seeking permission to use an equivalent
        - It is required that the SMART Tool engineering vendor approval of such is included in the contractor submission package. There may be an additional charge for approval if the equivalent submission doesn't meet specifications as prescribed in the drawings.

☐ All hardware has been properly installed, and the existing hardware was inspected.

☐ The material utilized was as specified on the SMART Tool engineering vendor Mount Modification Drawings and included in the material certification folder is a packing list or invoice for these materials.

OR

☐ The material utilized was approved by a SMART Tool as an "equivalent" and this approval is included as part of the contractor submission.

Antenna & equipment placement and Geometry Confirmation:

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

☐ The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

Comments:

Certifying Individual:

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

Was the mount modification completed in conjunction with the equipment change / installation?

☐ Yes ☐ No

Special Instructions / Validation as required from the MA or Mod Drawings:

Issue:

Install proposed OVP on existing OVP pipe in Beta sector.

Response:

Contractor certifies that the climbing facility / safety climb was not damaged or obstructed prior to starting work:

☐ Yes ☐ No

Contractor certifies no new damage/obstructions created during the current installation:

☐ Yes ☐ No

Contractor to certify the condition of the safety climb and verify no obstructions when leaving the site:

☐ Safety climb in good condition with no obstructions ☐ Safety Climb Damaged
☐ Safety Climb Obstructed

Comments:

Structure: 468318-VZW - FALLS VILLAGE CT

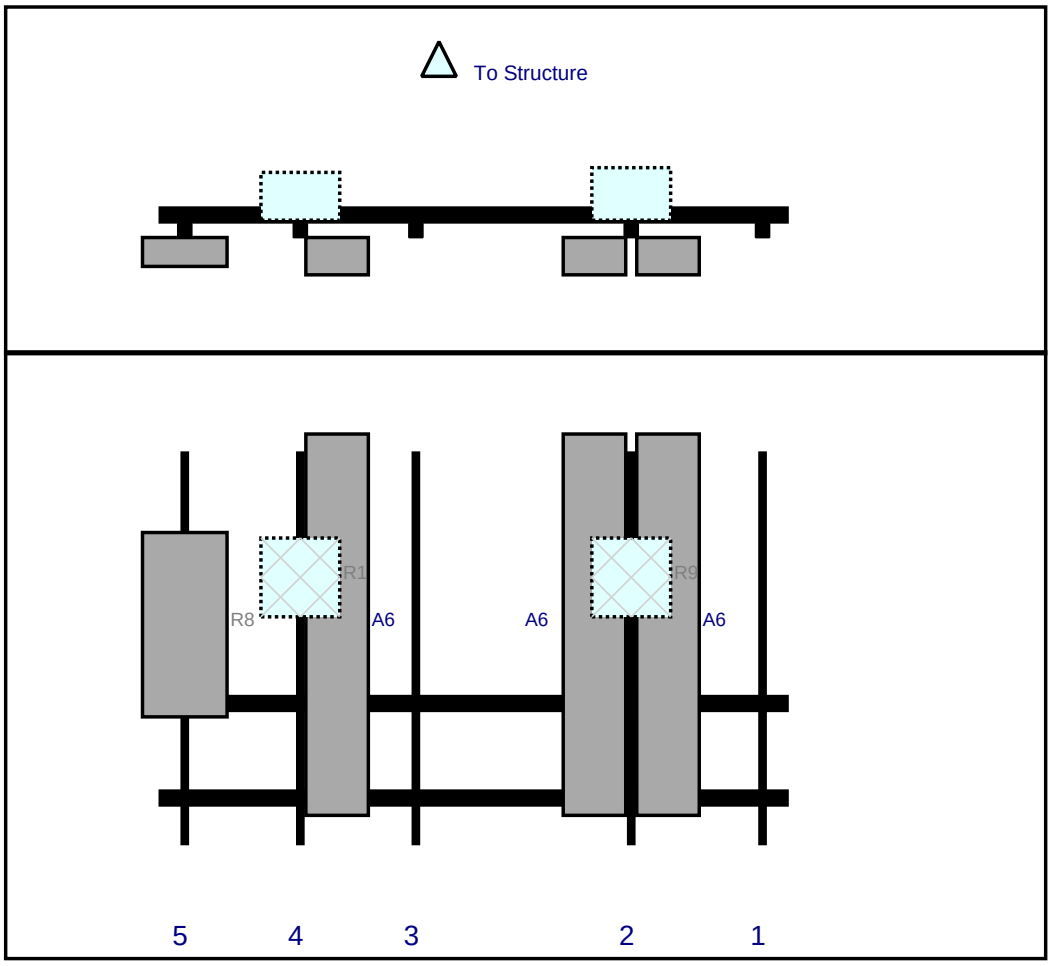
Sector: **A** 11/12/2021

Structure Type: Monopole 10112826

Mount Elev: 148.00 Page: 1

Plan View

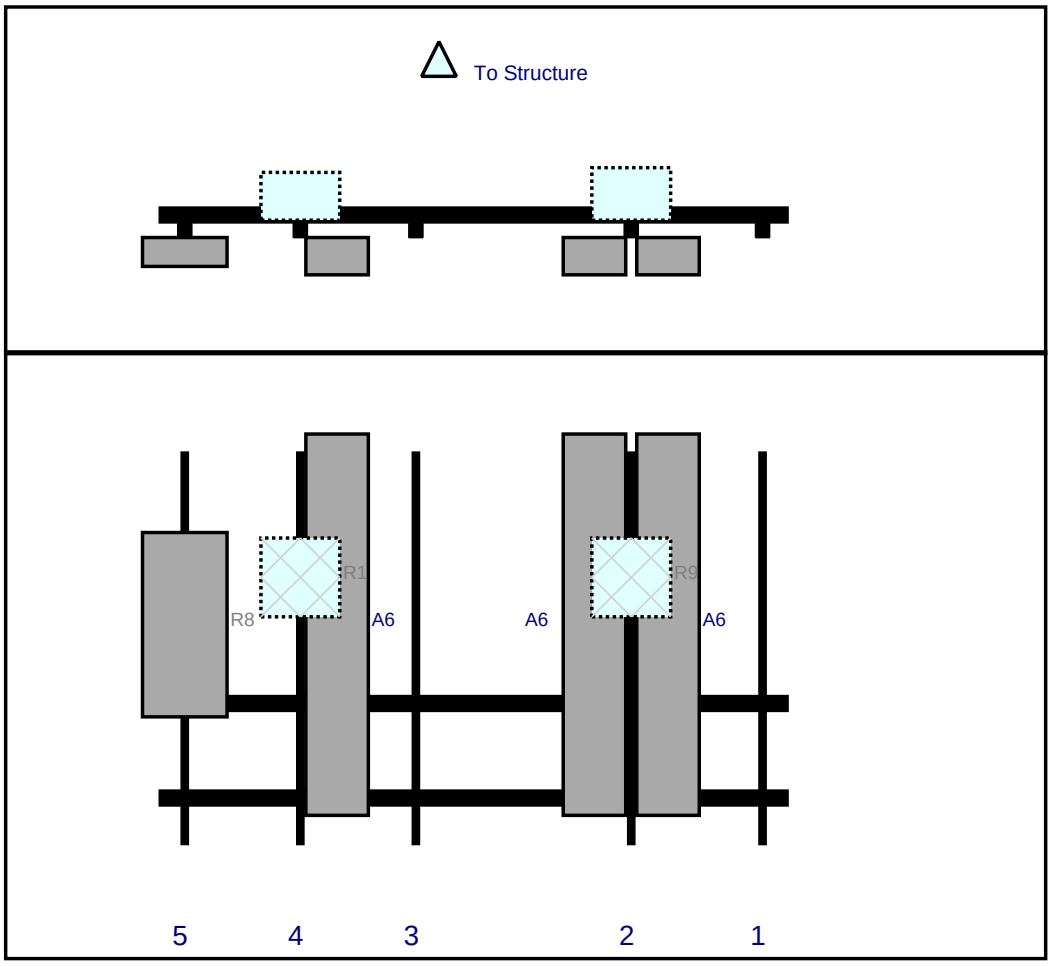
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	SBNHH-1D65B	72.6	11.9	90	2	a	Front	33	7	Retained	
A6	SBNHH-1D65B	72.6	11.9	90	2	b	Front	33	-7	Retained	
R9	RF4439d-25A	15	15	90	2	a	Behind	24	0	Added	
A6	SBNHH-1D65B	72.6	11.9	27	4	a	Front	33	7	Retained	
R1	RF4440d-13A	15	15	27	4	a	Behind	24	0	Added	
R8	MT6407-77A	35.1	16.1	5	5	a	Front	33	0	Added	

Plan View

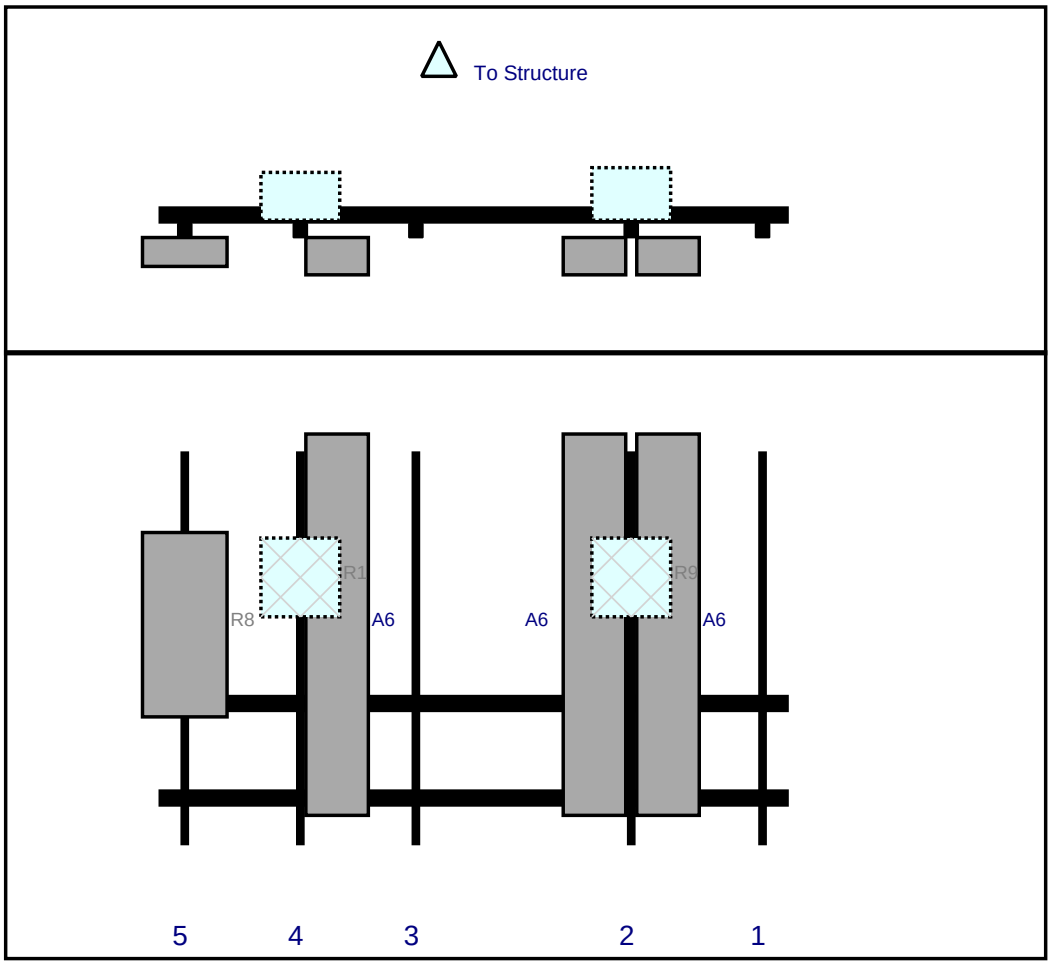
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	SBNHH-1D65B	72.6	11.9	90	2	a	Front	33	7	Retained	
A6	SBNHH-1D65B	72.6	11.9	90	2	b	Front	33	-7	Retained	
R9	RF4439d-25A	15	15	90	2	a	Behind	24	0	Added	
A6	SBNHH-1D65B	72.6	11.9	27	4	a	Front	33	7	Retained	
R1	RF4440d-13A	15	15	27	4	a	Behind	24	0	Added	
R8	MT6407-77A	35.1	16.1	5	5	a	Front	33	0	Added	

Plan View

Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A6	SBNHH-1D65B	72.6	11.9	90	2	a	Front	33	7	Retained	
A6	SBNHH-1D65B	72.6	11.9	90	2	b	Front	33	-7	Retained	
R9	RF4439d-25A	15	15	90	2	a	Behind	24	0	Added	
A6	SBNHH-1D65B	72.6	11.9	27	4	a	Front	33	7	Retained	
R1	RF4440d-13A	15	15	27	4	a	Behind	24	0	Added	
R8	MT6407-77A	35.1	16.1	5	5	a	Front	33	0	Added	

Maser Consulting Connecticut

Subject	TIA-222-H Usage
Site Information	Site ID: 468318-VZW Site Name: FALLS VILLAGE CT Carrier Name: Verizon Wireless Address: Route 7 Falls Village, CT 06031 Litchfield County Latitude: 41.944556° Longitude: -73.360481°
Structure Information	Tower Type: 151-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. The 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 tower site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,

Derek Hartzell, PE
Technical Specialist

Site Name: ***FALLS VILLAGE CT***
Cumulative Power Density

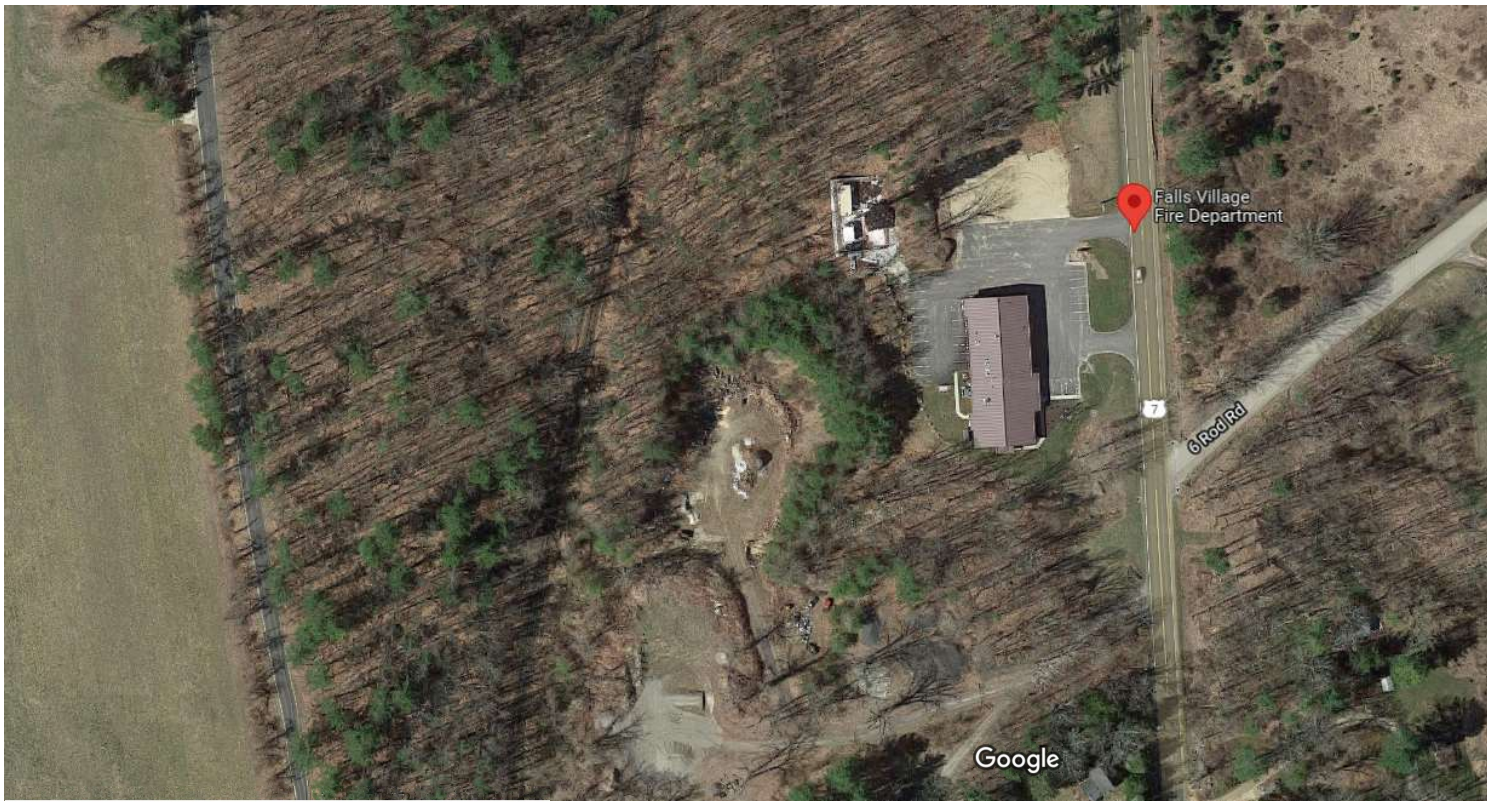
Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW 700	751	4	697	2788	150	0.0045	0.5007	0.89%
VZW Cellular	874	4	687	2748	150	0.0044	0.5827	0.75%
VZW PCS	1975	4	986	3942	150	0.0063	1.0000	0.63%
VZW AWS	2120	4	2104	8416	150	0.0135	1.0000	1.35%
VZW CBAND	3730.08	2	22131	44262	150	0.0707	1.0000	7.07%
Total Percentage of Maximum Permissible Exposure								10.69%

*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.

Falls Village Fire Department



Falls Village Fire Department

Fire station

Directions | Save | Nearby | Send to your phone | Share

188 US-7S, Falls Village, CT 06031

Open now: Open 24 hours

(860) 824-5298

WJVR+R5 Falls Village, Canaan, CT

Claim this business

Add missing information

Photos

188 RT 7 S

Location	188 RT 7 S	**Mblu**	15/ / 11/1T /
Acct#	14105233	**Owner**	CELLCO PARTNERSHIP
Assessment	$22,600	**Appraisal**	$32,200
PID	100810	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$32,200	$0	$32,200
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$22,600	$0	$22,600

Owner of Record

Owner	CELLCO PARTNERSHIP	**Sale Price**	$0
Co-Owner	DBA VERIZON WIRELESS	**Certificate**	
Address	PO BOX 2549 ADDISON, TX 75001	**Book & Page**	0071/0600
		Sale Date	07/28/2008
		Instrument	25

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
CELLCO PARTNERSHIP	$0		0071/0600	25	07/28/2008

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0
Replacement Cost: $0
Building Percent Good:
Replacement Cost Less Depreciation: $0

Building Attributes

Field	Description
Style	Outbuildings
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Num Kitchens	
Cndtn	
Fin Bsmt	
Fin Bsmt Qual	
Num Park	
Fireplaces	

Building Photo

(http://images.vgsi.com/photos/CanaanCTPhotos//\00\00\11\34.jpg)

Building Layout

Building Layout

(http://images.vgsi.com/photos/CanaanCTPhotos//Sketches/100810_1176.

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code 300

Land Line Valuation

Size (Acres) 0

Description	Industrial Vacant	**Frontage**	
Zone	R80	**Depth**	
Neighborhood	6	**Assessed Value**	$0
Alt Land Appr	No	**Appraised Value**	$0
Category			

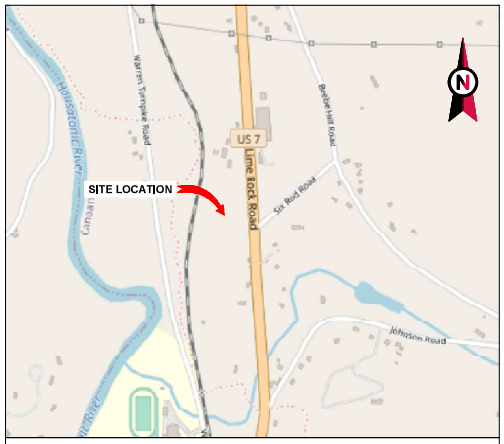
Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
TAB	Telecomm Accessory Bldg			360.00 Units	$19,400	1
TAB	Telecomm Accessory Bldg			192.00 Units	$10,400	1
FN4	Fence 8' Chain			248.00 L.F.	$2,000	1
PAT2	Patio - Good			96.00 S.F.	$400	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$32,200	$0	$32,200
2016	$38,900	$0	$38,900
2015	$38,900	$0	$38,900

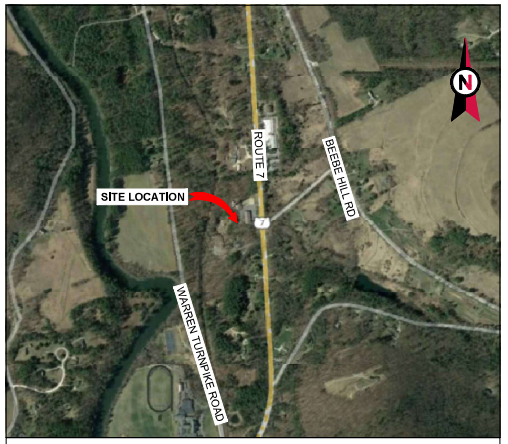
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$22,600	$0	$22,600
2016	$27,200	$0	$27,200
2015	$27,200	$0	$27,200



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: FALLS VILLAGE CT PCS CT
ATC SITE NUMBER: 415121
VERIZON SITE NAME: FALLS VILLAGE CT
VERIZON SITE NUMBER:468318
SITE ADDRESS: 188 ROUTE 7
FALLS VILLAGE, CT 06031



LOCATION MAP

VERIZON
5G L-SUB6 - CARRIER ADD AMENDMENT DRAWINGS

COMPLIANCE CODE

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

1. 2018 CONNECTICUT STATE BUILDING CODE-AMENDMENTS TO IBC 2015
2. INTERNATIONAL BUILDING CODE 2015, INTERNATIONAL CODE COUNCIL
3. TIA-222-G-4, STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS
4. ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, AMERICAN SOCIETY OF CIVIL ENGINEERS
5. STEEL CONSTRUCTION MANUAL 14TH EDITION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION
6. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: ----
PHONE: ----

TELEPHONE COMPANY: ----
PHONE: ----

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

PROJECT SUMMARY

SITE ADDRESS:

188 ROUTE 7
FALLS VILLAGE, CT 06031
COUNTY: LITCHFIELD

GEOGRAPHIC COORDINATES:

LATITUDE: 41.94459921
LONGITUDE: -73.36053901
GROUND ELEVATION: 647' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

VERIZON WIRELESS
118 FLANDERS ROAD
WESTBOROUGH, MA 01581

ENGINEER:

DEWBERRY ENGINEERS INC.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

PROPERTY OWNER:

FALLS VILLAGE VOLUNTEER FIRE DEPARTMENT
188 ROUTE 7
FALLS VILLAGE,CT 06031-1608

PROJECT DESCRIPTION

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

TOWER WORK:

REMOVE (3) ANTENNA(s), (6) RRH(s), (1) OVP(s) AND 2 HYBRID CABLE(s)

INSTALL (1) MOUNT MODIFICATIONS, (3) ANTENNA(s), (6) RRH(s), (1) OVP12(s) AND 1 HYBRID CABLE(s)

EXISTING (9) ANTENNA(s) TO REMAIN.

GROUND WORK:

REMOVE (2) OVP6(s)

INSTALL (1) OVP12(s)

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

COMING FROM WATERBURY TAKE ROUTE 8 NORTH TOWARDS TORRINGTON TAKE EXIT 44 END OF EXIT GO STRAIGHT TO THE NEXT TRAFFIC LIGHT AND MAKE A LEFT ON ROUTE 4 WEST. FOLLOW ROUTE 4 FOR ABOUT 6 MILES INTO GOSHEN AND MAKE A RIGHT ONTO ROUTE 63 NORTH AT ROTARY CONTINUE ABOUT 10 MILES AND MAKE A LEFT ONTO ROUTE 126 NORTH AFTER 2 MILES MAKE A LEFT ONTO ROUTE 7 SOUTH SITE IS ABOUT 1.7 MILES ON YOUR RIGHT. LOOK FOR MONOPINE, GATE COMBO IS 4667

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	01/20/22	BR
G-002	GENERAL NOTES	0	01/20/22	BR
C-101	DETAILED SITE PLAN	0	01/20/22	BR
C-201	TOWER ELEVATION	0	01/20/22	BR
C-401	ANTENNA INFORMATION & SCHEDULE	0	01/20/22	BR
C-501	CONSTRUCTION DETAILS	0	01/20/22	BR
E-501	GROUNDING DETAILS	0	01/20/22	BR
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
	MOUNT MODIFICATION DRAWINGS (10 PAGES)			

AMERICAN TOWER®

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	JIM	12/13/21
0	FINAL	BR	01/20/22

ATC SITE NUMBER:
415121

ATC SITE NAME:
FALLS VILLAGE CT PCS CT

VERIZON SITE NAME:
FALLS VILLAGE CT

SITE ADDRESS:
188 ROUTE 7
FALLS VILLAGE, CT 06031

SEAL:

verizon

DATE DRAWN:	12/13/21
ATC JOB NO:	13734056_D1
CUSTOMER ID:	FALLS VILLAGE CT
CUSTOMER #:	468318

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

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
   - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY VERIZON UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.
   - B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND VERIZON SPECIFICATIONS.
   - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
   - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
   - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
   - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
   - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREEN 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®

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	JIM	12/13/21
0	FINAL	BR	01/20/22

ATC SITE NUMBER:
415121

ATC SITE NAME:
FALLS VILLAGE CT PCS CT

VERIZON SITE NAME:
FALLS VILLAGE CT

SITE ADDRESS:
188 ROUTE 7
FALLS VILLAGE, CT 06031

SEAL:

verizon

DATE DRAWN:	12/13/21
ATC JOB NO:	13734056_D1
CUSTOMER ID:	FALLS VILLAGE CT
CUSTOMER #:	468318

GENERAL NOTES

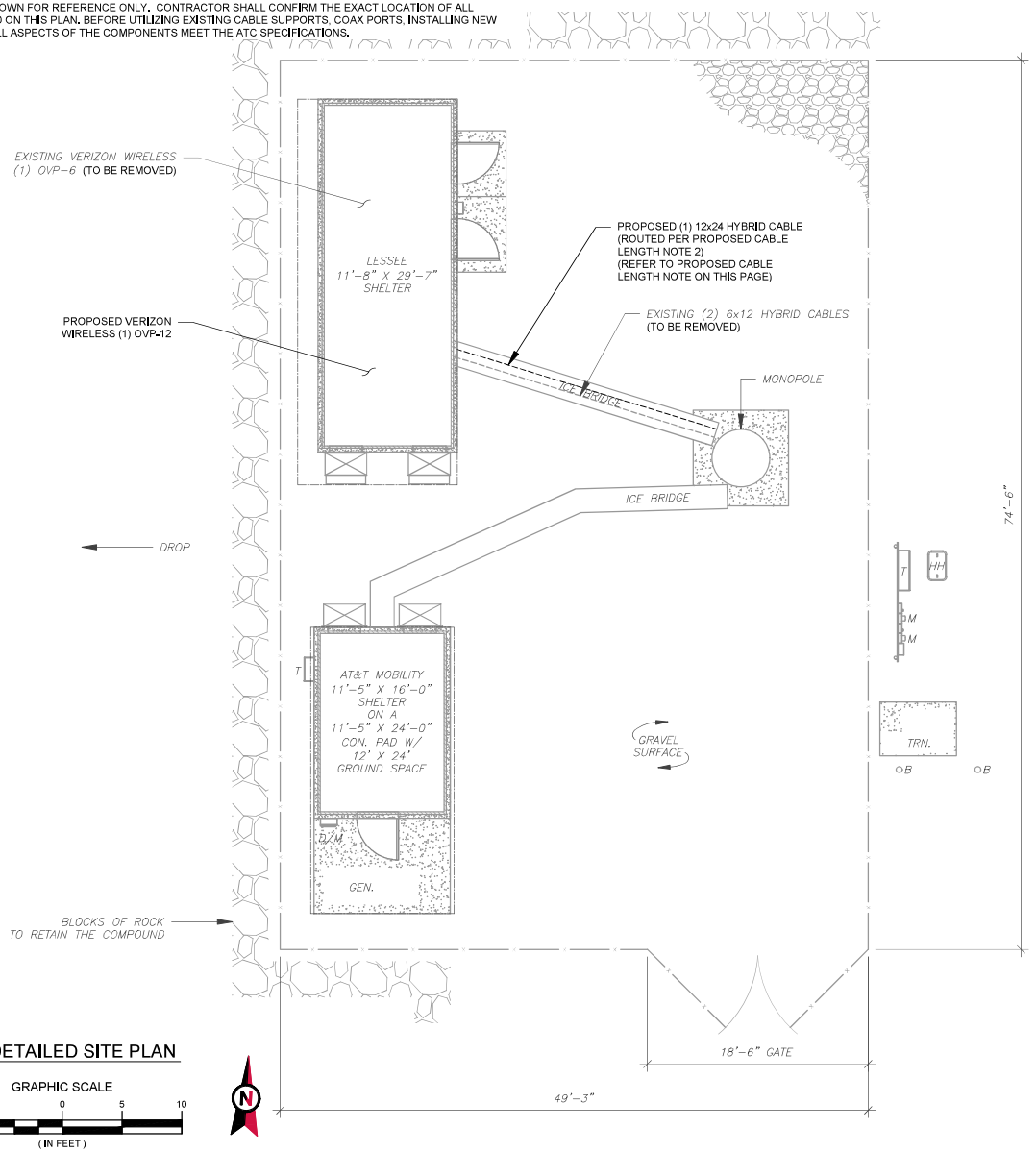
SHEET NUMBER:	REVISION:
G-002	0

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 **199'**. 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.

AMERICAN TOWER®

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	JIM	12/13/21
0	FINAL	BR	01/20/22

ATC SITE NUMBER:
415121

ATC SITE NAME:
FALLS VILLAGE CT PCS CT

VERIZON SITE NAME:
FALLS VILLAGE CT

SITE ADDRESS:
188 ROUTE 7
FALLS VILLAGE, CT 06031

SEAL:

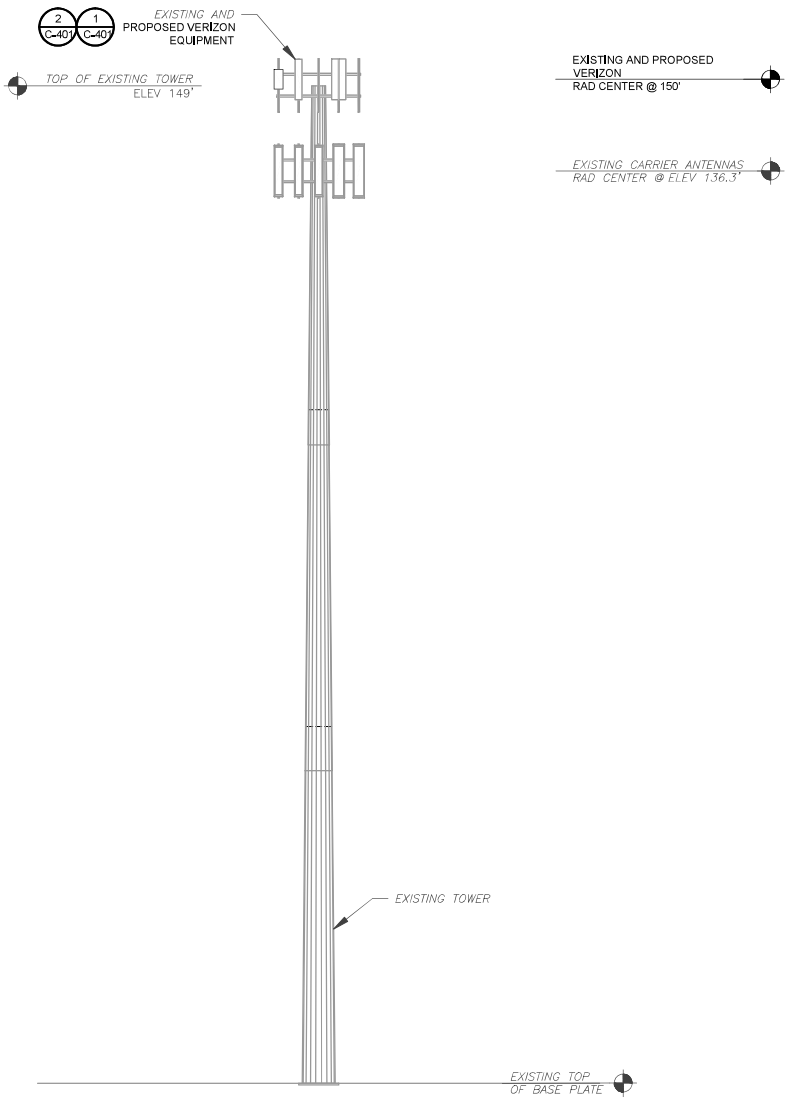
verizon

DATE DRAWN:	12/13/21
ATC JOB NO:	13734056_D1
CUSTOMER ID:	FALLS VILLAGE CT
CUSTOMER #:	468318

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING CONNECTICUT, DATED 11/16/21, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION DETAILED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



1 TOWER ELEVATION
SCALE: N.T.S.

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

AMERICAN TOWER®

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	JIM	12/13/21
0	FINAL	BR	01/20/22

ATC SITE NUMBER:
415121

ATC SITE NAME:
FALLS VILLAGE CT PCS CT

VERIZON SITE NAME:
FALLS VILLAGE CT

SITE ADDRESS:
188 ROUTE 7
FALLS VILLAGE, CT 06031

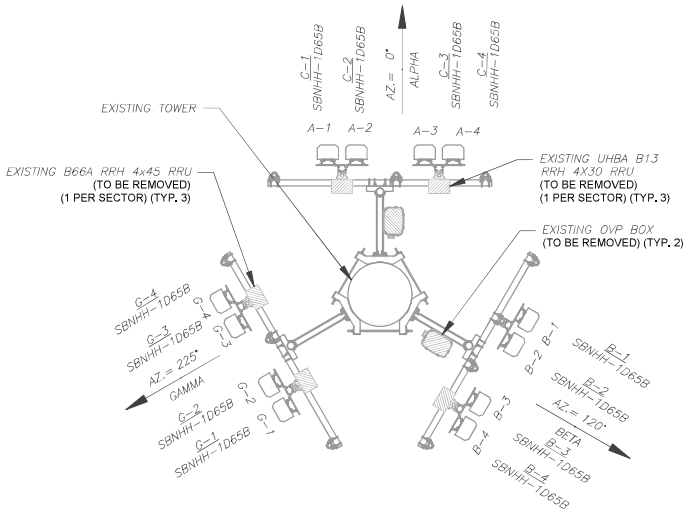
SEAL:

verizon

DATE DRAWN:	12/13/21
ATC JOB NO:	13734056_D1
CUSTOMER ID:	FALLS VILLAGE CT
CUSTOMER #:	468318

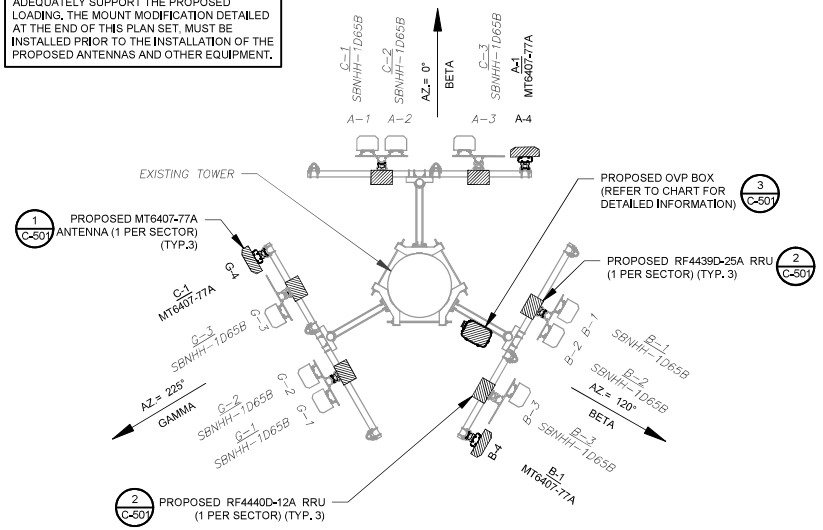
TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0



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

PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING CONNECTICUT, DATED 11/16/21, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION DETAILED 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	150'	0°	A1	SBNHH-1D65B	700,850,1900,AWS	–	RMN	–	–
			A2	SBNHH-1D65B	700,850,1900,AWS	–	RMN	B66A-RRH 4X45	RMV
			A3	SBNHH-1D65B	700,850,1900,AWS	–	RMN	UHBA B13 RRH 4X30	RMV
			A4	SBNHH-1D65B	–	–	RMV	–	–
BETA	150'	153°	B1	SBNHH-1D65B	700,850,1900,AWS	–	RMN	–	–
			B2	SBNHH-1D65B	700,850,1900,AWS	–	RMN	B66A-RRH 4X45	RMV
			B3	SBNHH-1D65B	700,850,1900,AWS	–	RMN	UHBA B13 RRH 4X30	RMV
			B4	SBNHH-1D65B	–	–	RMV	–	–
GAMMA	150'	225°	C1	SBNHH-1D65B	700,850,1900,AWS	–	RMN	–	–
			C2	SBNHH-1D65B	700,850,1900,AWS	–	RMN	B66A-RRH 4X45	RMV
			C3	SBNHH-1D65B	700,850,1900,AWS	–	RMN	UHBA B13 RRH 4X30	RMV
			C4	SBNHH-1D65B	–	–	RMV	–	–

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	150'	0°	A1	SBNHH-1D65B	700,850,1900,AWS	–	RMN	-	-
			A2	SBNHH-1D65B	700,850,1900,AWS	–	RMN	RF4439D-25A	ADD
			A3	SBNHH-1D65B	700,850,1900,AWS	–	RMN	RF4440D-13A	ADD
			A4	MT6407-77A	L-SUB6	0,6	ADD	-	-
BETA	150'	120°	B1	SBNHH-1D65B	700,850,1900,AWS	–	RMN	-	-
			B2	SBNHH-1D65B	700,850,1900,AWS	–	RMN	RF4439D-25A	ADD
			B3	SBNHH-1D65B	700,850,1900,AWS	–	RMN	RF4440D-13A	ADD
			B4	MT6407-77A	L-SUB6	0,6	ADD	-	-
GAMMA	150'	225°	C1	SBNHH-1D65B	700,850,1900,AWS	–	RMN	-	-
			C2	SBNHH-1D65B	700,850,1900,AWS	–	RMN	RF4439D-25A	ADD
			C3	SBNHH-1D65B	700,850,1900,AWS	–	RMN	RF4440D-13A	ADD
			C4	MT6407-77A	L-SUB6	0,6	ADD	-	-

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
(1) DB-T1-6Z-8AB-0Z	RMV	----	(2) 6X12	RMV

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
(1) OVP12	ADD		(1) 12X24	ADD

3 EQUIPMENT SCHEDULES

AMERICAN TOWER®

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	JIM	12/13/21
0	FINAL	BR	01/20/22

ATC SITE NUMBER:
415121

ATC SITE NAME:
FALLS VILLAGE CT PCS CT

VERIZON SITE NAME:
FALLS VILLAGE CT

SITE ADDRESS:
188 ROUTE 7
FALLS VILLAGE, CT 06031

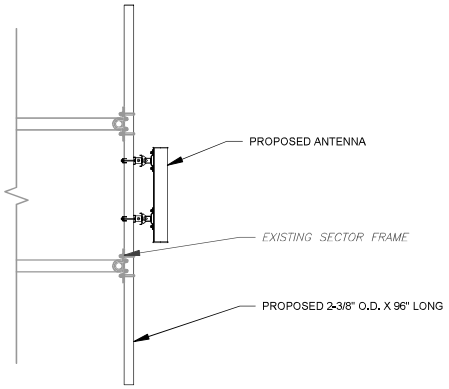
SEAL:

verizon

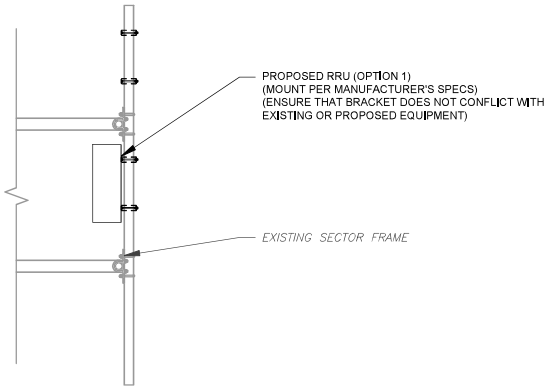
DATE DRAWN:	12/13/21
ATC JOB NO:	13734056_D1
CUSTOMER ID:	FALLS VILLAGE CT
CUSTOMER #:	468318

ANTENNA INFORMATION & SCHEDULE

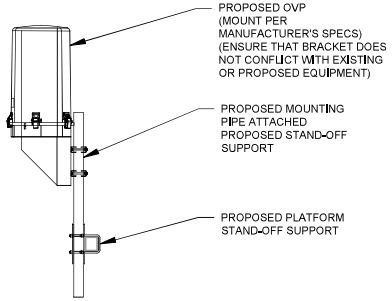
SHEET NUMBER:	REVISION:
C-401	0



1 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



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



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

AMERICAN TOWER®

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	JIM	12/13/21
0	FINAL	BR	01/20/22
1			
2			
3			

ATC SITE NUMBER:
415121

ATC SITE NAME:
FALLS VILLAGE CT PCS CT

VERIZON SITE NAME:
FALLS VILLAGE CT

SITE ADDRESS:
188 ROUTE 7
FALLS VILLAGE, CT 06031

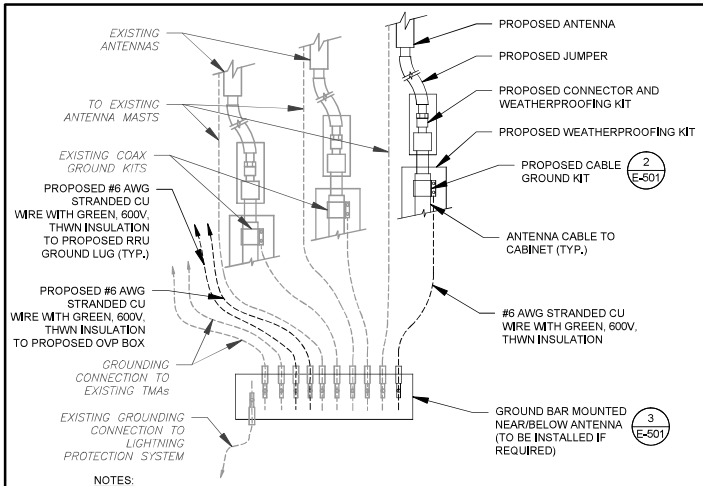
SEAL:

verizon

DATE DRAWN:	12/13/21
ATC JOB NO:	13734056_D1
CUSTOMER ID:	FALLS VILLAGE CT
CUSTOMER #:	468318

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

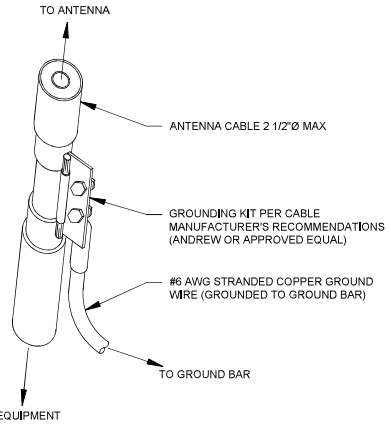


NOTES:

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.

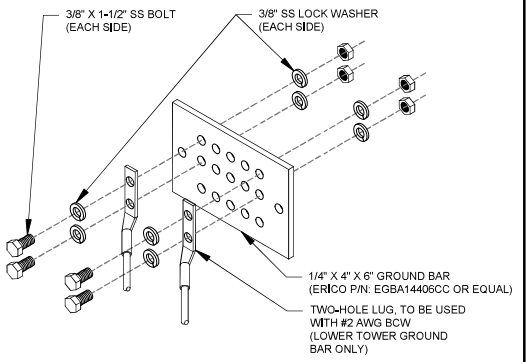


GROUND KIT NOTES:

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®

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	JIM	12/13/21
0	FINAL	BR	01/20/22

ATC SITE NUMBER:
415121

ATC SITE NAME:
FALLS VILLAGE CT PCS CT

VERIZON SITE NAME:
FALLS VILLAGE CT

SITE ADDRESS:
188 ROUTE 7
FALLS VILLAGE, CT 06031

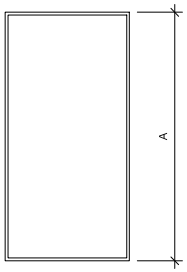
SEAL:

verizon

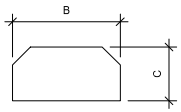
DATE DRAWN:	12/13/21
ATC JOB NO:	13734056_D1
CUSTOMER ID:	FALLS VILLAGE CT
CUSTOMER #:	468318

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0



FRONT VIEW

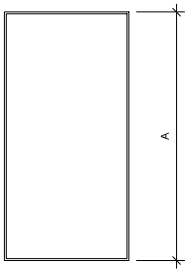


TOP VIEW

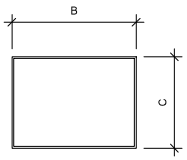
1 ANTENNA SPECIFICATIONS

FOR ILLUSTRATIVE PURPOSES ONLY - NOT TO SCALE

ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
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)
RF4440D-13A	15.0"	15.0"	9.1"	70.3
RF4439D-25A	20.0"	15.0"	10.4"	74.0

1 MOUNT ANALYSIS

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

AMERICAN TOWER®

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

ATC SITE NUMBER:
415121

ATC SITE NAME:
FALLS VILLAGE CT PCS CT

VERIZON SITE NAME:
FALLS VILLAGE CT

SITE ADDRESS:
188 ROUTE 7
FALLS VILLAGE, CT 06031

SEAL:

verizon

DATE DRAWN:	12/13/21
ATC JOB NO:	13734056_D1
CUSTOMER ID:	FALLS VILLAGE CT
CUSTOMER #:	468318

SUPPLEMENTAL

SHEET NUMBER:
R-601

Maser Consulting Connecticut
2000 Midlantic Drive Suite 100
Mt. Laurel, NJ 08054
(866) 707-0412
peter.albano@colliersengineering.com

Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10112826
Maser Consulting Connecticut Project #: 21777475A

November 16, 2021

Site Information

Site ID:	*468318-VZW / FALLS VILLAGE CT*
Site Name:	*FALLS VILLAGE CT*
Carrier Name:	*Verizon Wireless*
Address:	*Route 7*
	Falls Village, Connecticut 06031
	Litchfield County
Latitude:	*41.944556°*
Longitude:	*-73.360481°*

Structure Information

Tower Type:	*151-Ft Monopole*
Mount Type:	*10.00-Ft T-Arm*

FUZE ID # 16272090

Analysis Results

T-arm: **60.2% 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
For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: Carol Luengas

11/16/21
STATE OF CONNECTICUT
DEREK R. HARTZEL
32710
LICENSED
PROFESSIONAL ENGINEER

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
Antenna Pipe	36.2	Pass
Standoff Arm	28.6	Pass
Face Horizontal	20.3	Pass
Mount Connection	60.2	Pass
Structure Rating – *(Controlling Utilization of all Components)*		**60.2%**

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

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.

AMERICAN TOWER®

Dewberry®
Dewberry Engineers Inc.
99 SUMMER STREET
SUITE 700
BOSTON, MA 02110
PHONE: 617.695.3400
FAX: 617.695.3310

ATC SITE NUMBER:
415121

ATC SITE NAME:
FALLS VILLAGE CT PCS CT

VERIZON SITE NAME:
FALLS VILLAGE CT

SITE ADDRESS:
188 ROUTE 7
FALLS VILLAGE, CT 06031

SEAL:

verizon

DATE DRAWN:	12/13/21
ATC JOB NO:	13734056_D1
CUSTOMER ID:	FALLS VILLAGE CT
CUSTOMER #:	468318

SUPPLEMENTAL

SHEET NUMBER:
R-602

verizon

MOUNT MODIFICATION DRAWINGS
EXISTING 10.00' T-ARM

TOWER OWNER: AMERICAN TOWER CORPORATION
TOWER OWNER SITE NUMBER: 415121

CARRIER SITE NAME: FALLS VILLAGE CT
CARRIER SITE NUMBER: 468318
FUZE ID: 16272090

ROUTE 7
FALLS VILLAGE, CT 06031
LITCHFIELD COUNTY

LATITUDE: 41.944556° N
LONGITUDE: 73.360481° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 114 MPH
EXPOSURE CATEGORY C
TOPOGRAPHIC CATEGORY 1
MEAN BASE ELEVATION (AMSL) = 650.27'

ICE LOADS

ICE WIND SPEED (3 SECOND GUST), V = 40 MPH
ICE THICKNESS = 1.00 IN

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_s = .167
LONG TERM MCER GROUND MOTION, S_1 = .054

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS

PROJECT MANAGER

COMPANY: COLLIERS ENGINEERING & DESIGN
CONTACT: PETER ALBANO
PHONE: 856.797.0412
E-MAIL: PETER.ALBANO@COLLIERSENGINEERING.COM

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10112826
VZW LOCATION CODE (PSLC): 468318
ANALYSIS DATE: 11/16/2021

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

SHEET	DESCRIPTION
ST-1	TITLE SHEET
SBOM-1	BILL OF MATERIALS
SGN-1	GENERAL NOTES
SCF-1	CLIMBING FACILITY DETAIL
SS-1	MODIFICATION DETAILS
SS-2	MOUNT PHOTOS
	SPECIFICATION SHEETS

Colliers Engineering & Design
www.colliersengineering.com

Doing Business as MASER CONSULTING

verizon

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

SCALE:	JOB NUMBER:
AS SHOWN	21777475A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	11/16/21	ISSUED FOR CONSTRUCTION	DEH	DRH

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

Digitally signed by Derek R. Hartzell
Date: 2021.11.16 16:20:37-04'00'

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:
FALLS VILLAGE CT
468318
ROUTE 7
FALLS VILLAGE, CT 06031
LITCHFIELD COUNTY

Colliers Engineering & Design
STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

SECTION 1 - VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
15	VZWSMART	VZWSMART-MSK2	CROSSOVER PLATE		15	225
1		VZWSMART-PLK7	MONOPOLE COLLAR MOUNT ASSEMBLY		150	150
3		VZWSMART-SFK4	T-ARM KIT	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1.	106	318

SECTION 2 - OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	-	-	120" LONG, P3 STD	GALVANIZED	93	280
					TOTAL:	973

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

NOTES:

1. THE MANUFACTURERS LISTED ARE THE APPROVED VENDORS FOR THE VZW MOUNT KITS. EACH MANUFACTURER WILL BE AWARE OF WHICH KITS HAVE BEEN THROUGH THE VZW APPROVAL PROCESS AND THEY ARE IN TURN APPROVED TO SELL. PLEASE NOTE THAT THE MATERIAL UTILIZED ON THE MOUNT MODIFICATIONS WILL BE REVIEWED AS A PART OF THE DESKTOP PMI COMPLETED BY THE SMART TOOL VENDOR. IT WILL BE REQUIRED THAT THE VZW KITS SPECIFIED ARE UTILIZED IN THE MODIFICATIONS.
2. ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

verizon

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

811 Know what's below. Call before you dig

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE:	JOB NUMBER:
AS SHOWN	21777475A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	11/16/21	ISSUED FOR CONSTRUCTION	DEH	DRH

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

Colliers Engineering & Design, P.C.
Date: 2021.11.16 16:21:00-04'00'

SITE NAME:

FALLS VILLAGE CT
468318

ROUTE 7
FALLS VILLAGE, CT 06031
LITCHFIELD COUNTY

Colliers Engineering & Design
STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

SHEET TITLE:

BILL OF MATERIALS

SHEET NUMBER:

SBOM-1

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).

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.

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
      PETER.ALBANO@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. CONTRACTOR SHALL PROTECT CUT ENDS OF ALL FIELD-CUT STEEL WITH TWO (2) COATS OF COLD GALVANIZATION (ZINGA OR ZINC COTE).
9. 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.
10. 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.
11. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
12. 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.
13. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
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.

WELDING NOTES

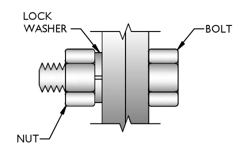
1. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AWS D1.0 (LATEST EDITION). THIS SHALL INCLUDE A CERTIFIED WELD INSPECTION (CWI) FOR ACCEPTANCE OR REJECTION OF ALL WELDING OPERATIONS, PRE, DURING, AND POST INSTALLATION, USING THE ACCEPTANCE CRITERIA OF AWS D1.1.
2. CONTRACTOR IS RESPONSIBLE FOR COMMISSIONING A THIRD PARTY CERTIFIED WELD INSPECTOR (CWI) THROUGHOUT THE ENTIRETY OF THE PROJECT. A PASSING CWI REPORT SHALL BE PROVIDED TO THE ENGINEER UPON COMPLETION OF THE PROJECT.
3. THE CERTIFIED WELD INSPECTOR SHALL INDICATE, IN A WRITTEN CWI REPORT, THAT ALL WELDING OPERATIONS PRE, DURING, AND POST INSTALLATION WERE CONDUCTED IN ACCORDANCE WITH AWS D1.1 WITH PHOTOGRAPHS AND DOCUMENTATION SUPPORTING THE ACCEPTANCE OR REJECTION OF ALL WELDING. ALL CWI WELD INSPECTION DOCUMENTATION AND PHOTOS SHALL BE SUBMITTED DURING THE PMI.
4. IN CASES WHERE A WELD IS SPECIFIED BETWEEN TWO MEMBERS IN WHICH THERE IS A GAP IN BETWEEN, THE WELD IS TO BE BUILT-UP SUCH THAT THE SIZE OF WELD ON THE MEMBER IS EQUAL TO THAT SHOWN IN THE DRAWINGS.
5. OXY FUEL GAS WELDING OR BRAZING IS STRICTLY PROHIBITED. SPECIFICALLY, NO TORCH CUTTING IS PERMITTED ON SITE. ALL HOLES SHALL BE CUT WITH A GRINDER.
6. CONTRACTOR SHALL EXERCISE CAUTION WHEN WELDING A GALVANIZED SURFACE.
7. CONTRACTOR SHALL HAVE A FIRE PROTECTION PLAN IN PLACE THAT CONFORMS WITH ALL OSHA, ANSI/ASSP A10.48, ANSI Z49.1, AND LOCAL JURISDICTIONAL REQUIREMENTS.

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

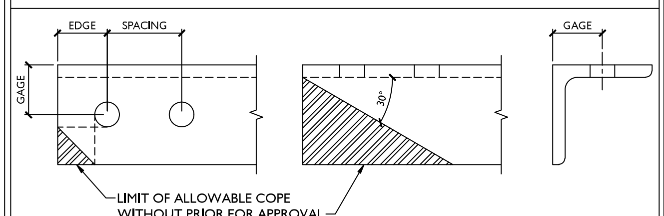


TYP. BOLT ASSEMBLY

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.

ALLOWABLE COPING



Colliers Engineering & Design
www.colliersengineering.com

Doing Business as MASER CONSULTING

verizon

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

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE:	JOB NUMBER:
AS SHOWN	21777475A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
0	11/16/21	ISSUED FOR CONSTRUCTION	DEH	DRH

STATE OF CONNECTICUT DEREK R. HARTZELL 32710 LICENSED PROFESSIONAL ENGINEER

COLLIERS ENGINEERING & DESIGN CT, P.C.

Digitally signed by Derek R. Hartzell
Date: 2021.11.16 16:21:00-04'00'

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:

FALLS VILLAGE CT
468318

ROUTE 7
FALLS VILLAGE, CT 06031
LITCHFIELD COUNTY

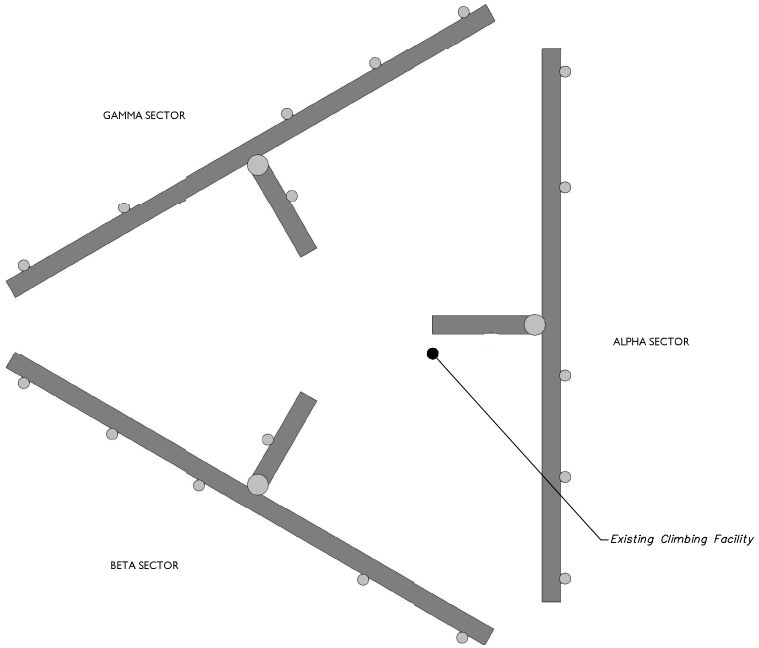
Colliers Engineering & Design

STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

SHEET TITLE: MODIFICATION NOTES

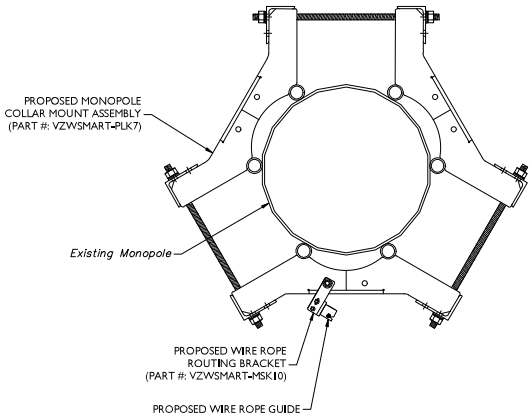
SHEET NUMBER: SGN-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



1 CLIMBING FACILITY LOCATION

SCALE : N.T.S.



2 PROPOSED WIRE ROPE GUIDE ATTACHMENT - PLAN VIEW

SCALE : N.T.S.

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY HUDSON DESIGN GROUP, LLC ON 4/12/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (148'-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 SHALL GRIND OFF BRANCH RECEPTACLES AS NEEDED TO INSTALL PROPOSED MODIFICATION COLLARS. CONTRACTOR SHALL MINIMIZE THE QUANTITY OF RECEPTACLES BEING REMOVED, ONLY REMOVE RECEPTACLES DIRECTLY INTERFERING WITH PROPOSED COLLAR LOCATION.
4. COAX IS FLAMMABLE AND CAN CATCH FIRE IF PROPER PRECAUTIONS ARE NOT MADE TO SHIELD COAX FROM GRINDING PROCEDURES. ALL COAX SHALL BE SHIELDED AT AND BELOW EACH GRINDING PROCEDURE AND ELEVATION. IN ADDITION, COAX SHALL BE PUSHED AWAY FROM TOWER FACE WHERE WELDING OR GRINDING IS BEING PREFORMED. INSTALL 3000° (NFPA701) FIRE BLANKET AROUND ALL COAX.

CLIMBING FACILITY PHOTO

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

verizon

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

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALLB1.COM

SCALE:	JOB NUMBER:
AS SHOWN	21777475A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	11/16/21	ISSUED FOR CONSTRUCTION	DEH	DRH

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

Digitally signed by Derek R. Hartzell
Date: 2021.11.16 16:21:01-04'00'

SITE NAME:

FALLS VILLAGE CT
468318

ROUTE 7
FALLS VILLAGE, CT 06031
LITCHFIELD COUNTY

Colliers Engineering & Design

STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

SHEET TITLE:

CLIMBING FACILITY DETAIL

SHEET NUMBER:

SCF-1

LEGEND:

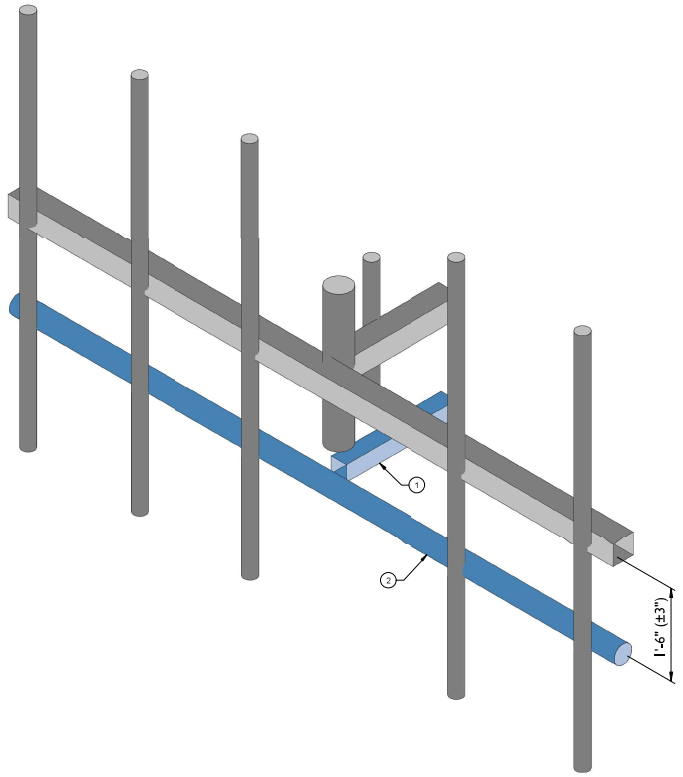
- PROPOSED
- RELOCATED
- EXISTING

MOUNT MODIFICATION SCHEDULE				
NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	148'-0"	3	PROPOSED T-ARM KIT (PART #: VZWSMART-SFK4)	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1. CONNECT OTHER END OF T-ARM KIT TO MONOPOLE COLLAR MOUNT ASSEMBLY (PART #: VZWSMART-PLK7).
2		3	PROPOSED 120" LONG, P3 STD	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. CONNECT NEW HORIZONTAL TO ALL EXISTING VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).

NOTES.

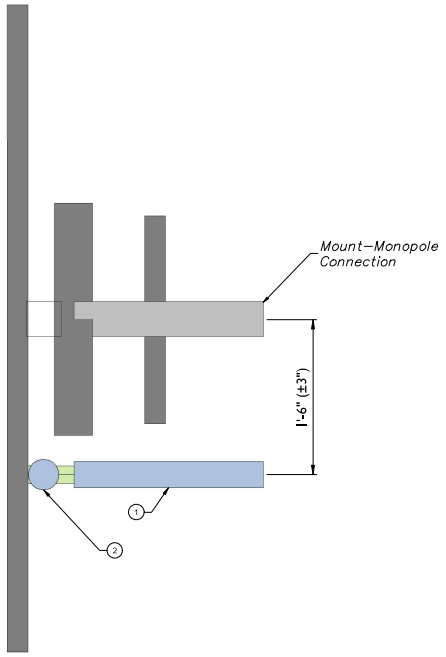
MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.

CONTRACTOR TO CLEAR PORT HOLE BELOW EXISTING COLLAR MOUNT



1 PROPOSED ISOMETRIC VIEW (TYP. ALL SECTORS)

SCALE : N.T.S.



2 PROPOSED SIDE ELEVATION VIEW (TYP. ALL SECTORS)

SCALE : N.T.S.

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

verizon

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

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

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE:	JOB NUMBER:
AS SHOWN	21777475A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	11/16/21	ISSUED FOR CONSTRUCTION	DEH	DRH

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

Digitally signed by Derek R. Hartzell
Date: 2021.11.16 16:21:02-04'00'

SITE NAME:

FALLS VILLAGE CT
468318

ROUTE 7
FALLS VILLAGE, CT 06031
LITCHFIELD COUNTY

Colliers Engineering & Design

STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

SHEET TITLE:

MODIFICATION DETAILS

SHEET NUMBER:

SS-1

MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3

MOUNT PHOTO 4

Colliers Engineering & Design

www.colliersengineering.com

Doing Business as MASER CONSULTING

verizon

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

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALLB1.COM

SCALE:	JOB NUMBER:
AS SHOWN	21777475A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	11/16/21	ISSUED FOR CONSTRUCTION	DEH	DRH

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

Digitally signed by Derek R. Hartzell
Date: 2021.11.16 16:21:02-04'00'

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:

FALLS VILLAGE CT
468318

ROUTE 7
FALLS VILLAGE, CT 06031
LITCHFIELD COUNTY

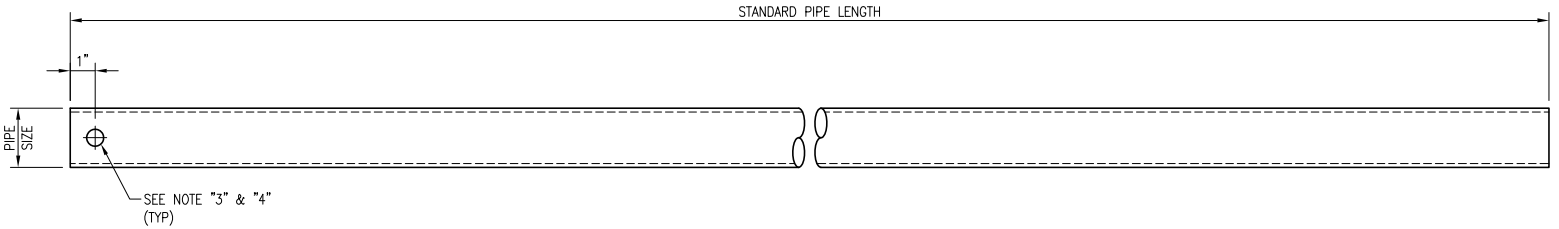
Colliers Engineering & Design
STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

SHEET TITLE:

MOUNT PHOTOS

SHEET NUMBER:

SS-2



VZWSMART Standard Pipe		
VZWSMART Number	Size	Length
P40-238X048	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	48"
P40-238X072	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	72"
P40-238X096	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	96"
P40-238X120	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	120"
P40-238X126	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	126"
P40-238X150	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	150"
P40-238X174	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	174"
P40-278X048	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	48"
P40-278X072	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	72"
P40-278X096	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	96"
P40-278X120	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	120"
P40-278X126	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	126"
P40-278X150	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	150"
P40-278X174	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	174"
P40-312X048	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	48"
P40-312X072	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	72"
P40-312X126	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	126"
P40-312X150	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	150"
P40-312X174	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	174"

NOTE:
APPROVED SMART KIT VENDORS ARE ALLOWED TO SUBSTITUTE AT THEIR DISCRETION PIPES LISTED ON THIS PAGE FOR CUSTOM LENGTH COMPONENTS OF MATCHING SIZE. SUBSTITUTIONS SHALL MEET THE ORIGINAL STRUCTURAL INTENT.

NOTES:
1. ALL PIPE GRADE A53-B OR BETTER.
2. HOT-DIPPED GALVANIZED PER ASTM A123.
3. ALL HOLES ARE 11/16" DIA. U.N.O
4. HOLES MAY OR MAY NOT BE PRESENT, DEPEND UPON MANUFACTURE DISCRETION.
5. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA OR ZINC COTE PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

VzW SMART Tool© Vendor

verizon

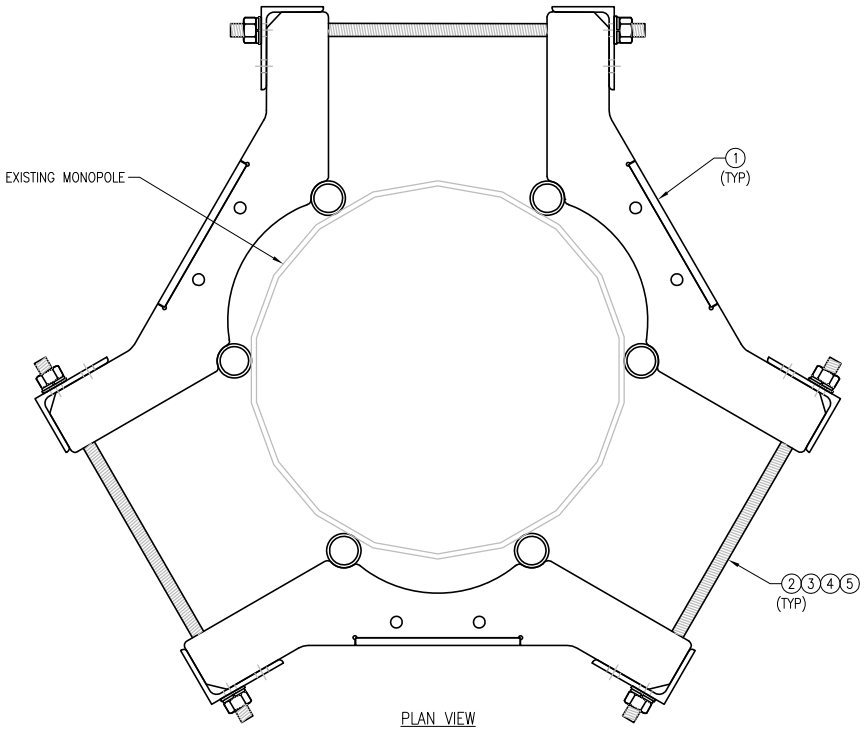
DRAWN BY: BT | CHECKED BY: HMA/KW

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	08/04/21

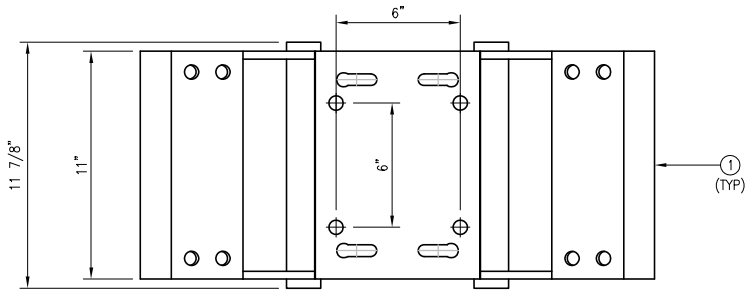
SHEET TITLE:
VZWSMART STANDARD PIPE

SHEET NUMBER: VZWSMART-PIPE

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

VzW SMART Tool© Vendor

verizon

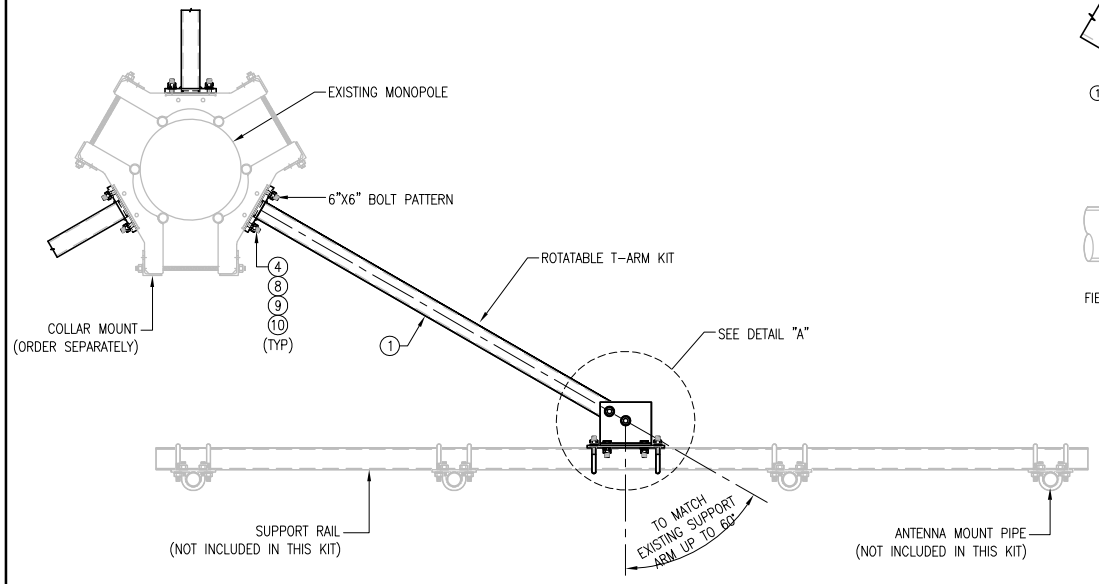
DRAWN BY: BT | CHECKED BY: HMA/KW

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

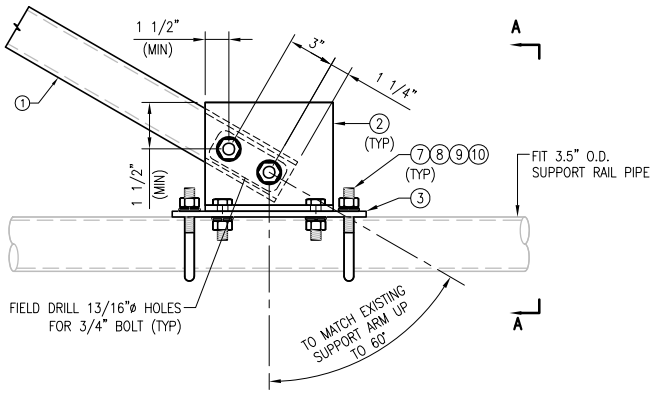
SHEET TITLE:
VZWSMART-PLK7
MONOPOLE COLLAR
MOUNT ASSEMBLY

SHEET NUMBER: VZWSMART-PLK7

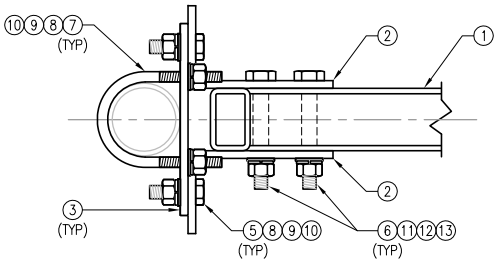
REV #: 0



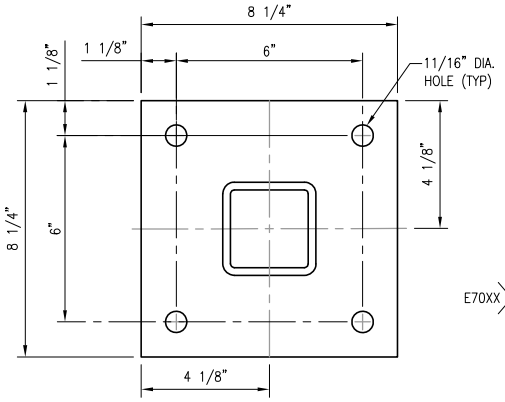
PLAN VIEW
T-ARM KIT



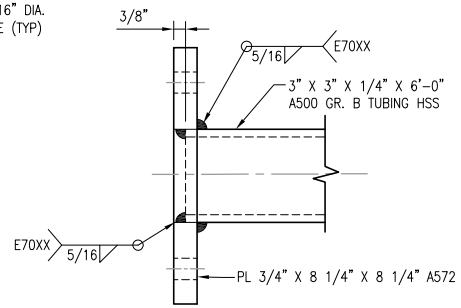
DETAIL "A"



SECTION "A-A"



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.

VzW SMART Tool© Vendor

verizon

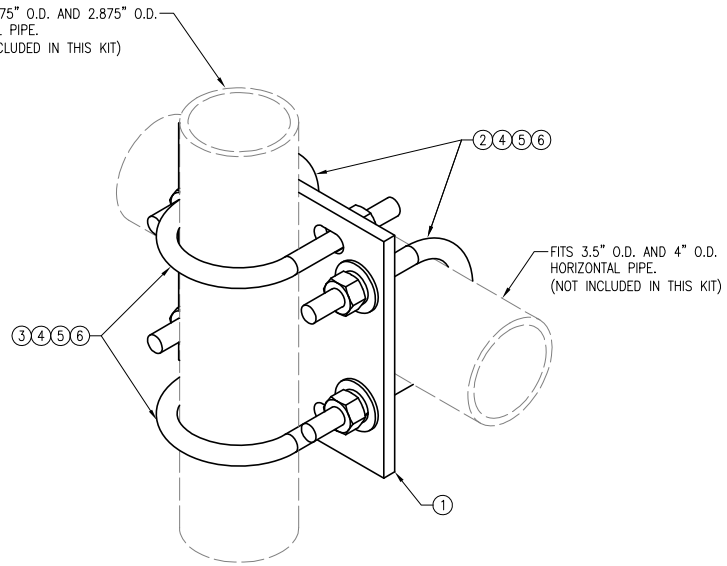
DRAWN BY: BT	CHECKED BY: HMA/KW

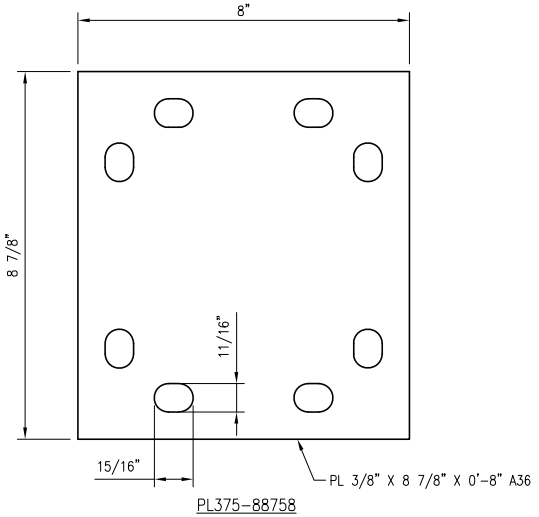
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	05/08/20

SHEET TITLE:
VZWSMART-SFK4
T-ARM KIT

SHEET NUMBER: VZWSMART-SFK4

REV #: 0





PL375-88758

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

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

VzW SMART Tool© Vendor

verizon

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