



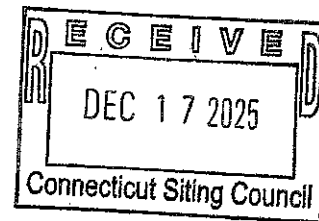
Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

December 15, 2025

TS-VER-167-251217

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

RE: **Tower Share Application-Verizon: 5000978813**
Crown Site ID#857526
1990 Litchfield Turnpike, Woodbridge, CT 06525
Latitude: 41° 22' 23.20" / Longitude: -72° 58' 50.10"



Dear Ms. Bachman:

Verizon Wireless proposes to install (9) antennas, (6) radios, and (2) cables at the 118-foot level on the existing 170-foot monopole tower located at 1990 Litchfield Turnpike, Woodbridge, CT. Verizon to install on the ground and inside the existing compound leased area, (1) ice bridge, (1) 11'x 20' concrete pad with canopy, (1) equipment cabinet, (1) battery cabinet, (1) Teco Cabinet, and ancillary equipment. The property is owned by Sarah Shepherd Russell and the tower is owned by Crown Castle. This modification/proposal includes hardware that is both 4G (LTE) and 5G capable through remote software configuration and either or both services may be turned on or off at various times.

Panned Modification:

Tower:

Installed New:

- (6) JMA Wireless – MX06FIT445-02 Antennas
- (3) Samsung – MT6413-77A Antennas
- (3) Samsung – RF4461D-13A Radios
- (3) Samsung – RF4801D-25A Radios
- (1) Cablcon – Hybriliteog36f0xxx Cable
- (1) RFS/Cellwave – HB158-21U6S12-XXXM-01 Cable
- (1) Raycap
- (1) Ngovp
- Antenna Mount

Ground:

Install New:

- (1) 11' x 20' concrete pad/w canopy
- (1) Telco Cabinet
- (1) Equipment Cabinet
- (1) Battery Cabinet
- (1) GPS antenna

The Foundation for a Wireless World.
CrownCastle.com

- (1.) 200amp ILC
- (2) Work Lights

The facility was approved by the Town of Woodbridge Zoning & Building Departments on January 10, 2011.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50aa of T-Mobile intent to share a telecommunication facility pursuant to R.C.S.A. § 16-50j-88. In accordance with R.C.S.A. § 16-50j-88, a copy of this letter is being sent to Mica Cardozo, First Selectman, Town of Woodbridge, CT, Kristine Sullivan, Acting ZEO, Town of Woodbridge, CT. Sarah Shepherd Russell, is the property owner, and Crown Castle is the tower owner.

1. The proposed modifications will not result in an increase in the height of the existing tower. The total Height of the tower is 170' and Verizon antennas will be placed at the 118' mount height of the tower.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

Connecticut General Statute 16-50aa indicates the Council must approve the share use of telecommunication facility provided it finds the shared use is technically, legally, environmentally and economically feasible and meets public safety concerns.

A. Technical Feasibility. The existing monopole has been deemed structurally capable of supporting the Verizon proposed loading. The structural analysis is included in the package.

B. Legal Feasibility. As referenced above, C.G.S. 16-50aa has been authorized to issue orders approving the shared use of an existing tower such as this support tower in Woodbridge. Under the authority granted to the Council, an order of the Council approving the requested shared use would permit Verizon to obtain a building permit for the proposed installation.

C. Environmental Feasibility. The proposed shared use of this facility would have a minimal environmental impact. The installation of Verizon equipment at the 118-foot level of the existing 170-foot tower would have an insignificant visual impact on the area around the tower. Verizon ground equipment would be installed within the existing facility compound. Verizon shared use would therefore not cause any significant alteration in the physical or environmental characteristics of the existing site. Additionally, as evidenced of the radio frequency emissions would not increase

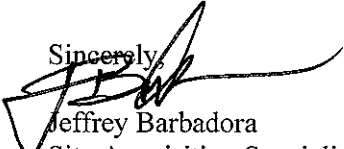
to a level at or above the Federal Communications Commission safety standard.

D. Economic Feasibility. Verizon has authorization to collocate their antennas on the cell tower.

E. Public Safety Concerns. As discussed above, the tower is structurally capable of supporting Verizon proposed loading. Verizon is not aware of any public safety concerns relative to the proposed sharing of the existing tower. Verizon intentions of providing new and improved wireless service through the shared use of this facility is expected to enhance the safety and welfare of residents and individuals traveling through Woodbridge.

For the foregoing reasons, Verizon respectfully submits the proposed Tower Share to the above-reference telecommunications facility. Please send approval/rejection letter to Attn: Jeffrey Barbadora.

Sincerely,



Jeffrey Barbadora
Site Acquisition Specialist
1800 W. Park Drive, Suite 250
Westborough, MA 01581
(781) 970-0053
Jeff.Barbadora@crowncastle.com

Attachments

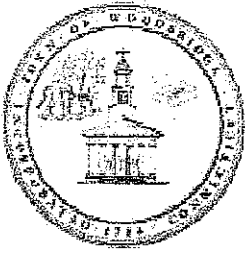
cc:

Mica Cardozo, First Selectman
Town of Woodbridge
11 Meetinghouse Lane
Woodbridge, CT 06525
203-389-3401

Kristine Sullivan, Acting ZEO
Town of Woodbridge
11 Meetinghouse Lane
Woodbridge, CT 06525
203-389-3406

Sarah Shepherd Russell, Property Owner
1990 Litchfield TPK
Woodbridge, CT 06525

Tower owner, Crown Castle



**TOWN OF WOODBRIDGE
BUILDING DEPARTMENT**

11 Meetinghouse Lane, Woodbridge, CT 06525
203.389.3419 Phone 203.389.3478 Fax

BUILDING PERMIT

Location: 1990 LITCHFIELD TPK

Permit #: B2011-000003

Issue Date: 1/10/2011

Fees: \$4,211.50

Estimated Value \$275,000.00

This permit is issued to SAI COMMUNICATIONS

Of: 22 KEEWAYDIN DRIVE, SALEM, NH 03079

To:

CONSTRUCT A 170' CELL TOWER AND A 12'X 20' PREFABRICATED EQUIPMENT
SHELTER; ISSUED WITH CONDITIONS

At the property owned by: SHEPHERD SARAH RUSSELL

As described in the application of 1/10/2011

Special Stipulation and/or Conditions:

Condition #1 Revise the proposed Riprap Outfall identified as being at station 6+50 per Paul Lusitani's email of 1/10/2011, including redirecting the outfall to the north.

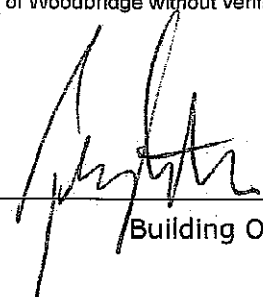
Condition # 2 As part of the DOT Enroachment Permit process, obtain, review and consent from the District 3 DOT, of the Proposed Riprap Outfall for swale #2.

Condition # 3 Provide a courtesy copy of the site development plans to the South Central Connecticut Regional Water Authority.

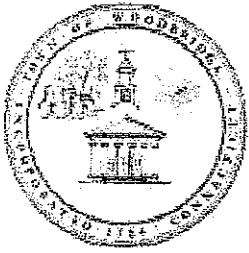
Notice to all Building and Land Use Permit Applicants: Requirements Regarding Storm Water Compliance

In accordance with the Phase II Storm Water Compliance guidelines implemented by the Town of Woodbridge and the Requirements of the Zoning and Subdivision Regulations regarding erosion and sediment control requirements, a soil and sediment control plan shall be submitted with any site plan, special permit, or zoning permit application for the development of land when the proposed area of disturbance is cumulatively more than one-half acre. All projects involving a total, cumulative disturbance of land area associated with construction activities that is greater or equal to five acres shall be registered with the Connecticut Department of Environmental Protection in accordance with the General Permit for the Discharge of Storm Water and De-Watering Wastewater Associated with Construction Activities (Phase I). Permits will not be issued for the initiation of work in the Town of Woodbridge without verification of this registration presented to the permitting agency.

By


Building Official

Fire Marshal (when required)



**TOWN OF WOODBRIDGE
BUILDING DEPARTMENT**

11 Meetinghouse Lane, Woodbridge, CT 06525
203.389.3419 Phone 203.389.3478 Fax

ZONING PERMIT

Location: 1990 LITCHFIELD TPK

Permit #: Z2011-000002

Issue Date: 1/10/2011

Fees: \$100.00

This permit is issued to SAI COMMUNICATIONS

Of: 22 KEEWAYDIN DRIVE, SALEM, NH 03079

To:

CONSTRUCT A 170' CELL TOWER AND A 12'X20' PRE-FABRICATED EQUIPEMNT
SHELTER.

At the property owned by: SHEPHERD SARAH RUSSELL

As described in the application of 1/10/2011

Special Stipulation and/or Conditions:

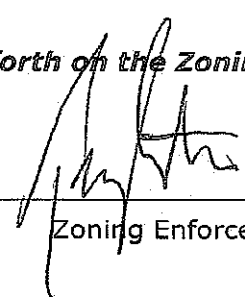
Condition #1 Revise the proposed Riprap Outfall identified as being at station 6+50 per Paul Lusitani's email of 1/10/2011, including redirecting the outfall to the north.

Condition #2 As part of the DOT Encroachment Permit process, obtain, review and consent from the District 3 DOT, of the Proposed Riprap Outfall for swale #2.

Condition # 3 Provide a courtesy copy of the site development plans to the South Central Connecticut Regional Water Authority.

Based on Land Use Approval as set forth on the Zoning Application.

By


Zoning Enforcement Officer

Location:		1990 LITCHFIELD TPK		Map Id:	1501 1000 1990	Zone:	A	Date Printed:	12/15/2025	
				Neighborhood:	1			Last Update:	12/12/2025	
Owner Of Record				Volume/Page	Date	Sales Type		Valid	Sale Price	
RUSSELL SHEPHERD SARAH				0914/0299	11/3/2023	Quit Claim		No	0	
1990 LITCHFIELD TPK, WOODBRIDGE, CT 06525						Exempt				
Prior Owner History										
SHEPHERD FREDERICK T JR EST OF				0366/0152	11/9/2001	Probate		No	0	
SHEPHERD FREDERICK T JR				0277/0021	12/12/1997	Certificate of Devise		No	0	
SHEPHERD EDYTHE H EST OF				0248/0061	4/18/1996	Probate		No	0	
SHEPHERD EDYTHE H				0043/0215	10/23/1951			No	0	
Permit Number	Date	Permit Description								
B-25-65	4/1/2025	AT&T Wireless to replace 9 antennas with 9 new models. remove 3 remote radio units (RRUs) and add 9								
E-22-203	10/28/2022	same as above								
E-22-203	10/24/2022	REPLACE 100 AMP METER RISER CONDUIT TO DISCONNECT ADD 2 GROUND RODS. SERVICE WAS DAMAGED FROM STORM.								
E2018-204	11/30/2018	WIRE COMMUNICATION EQUIP & 200AMP SERVICE								
B2018-238	10/24/2018	16 X 10 CONCRETE PAD FOR COMMUNICATION SYSTEM								
M2008-1004	11/17/2008	WOOD BURNING FURNACE								
Census/Tract				1602	Supplemental Data		Appraised Value			
Dev Map ID				SEE DEED	VisionPID		2398	Total Land Value 201,700		
GIS ID					Street Description		Paved	Total Building Value 179,700		
Route				A5-E5	TOPO		Level	Total Outbidg Value 55,900		
District								Total Market Value 437,300		
Utilities				Well, Septic						
Land Type				Acres		Total Value		State Item Codes		
				Acres	490			Quantity	Value	
Res Vac Excess				15.78	0.00			1.00	125,790	
Excess				3.50	0.00			1.50	96,600	
House Lot				1.50	0.00			10.00	39,130	
								3.50	24,010	
								15.78	20,580	
Total				201,700						
Assessment History (Prior Years as of Oct 4)										
2025				2024	2023	2022	2021	490 Appraised Totals		
Land				141,190	141,190	144,970	144,970	144,970		
Building				125,790	125,790	79,940	79,940	79,940		
Outbuilding				39,130	39,130	11,550	11,550	11,550		
Total				306,110	306,110	236,460	236,460	236,460		
Comments										
8/1/2024				KIT, DR W/FPL, LR W/FPL, HBTH, DEN W/FPL, FBTH NON WORKING TOILET, 4 BDRM, WALK UP ATTIC, CNG A TO F CONDITION, REMOVE CONCRETE SILO, 2 FRAME SHED, RI						

Unique ID: 102855

www.ijerph.com

Card No:

1011

Location: 1990 LITCHFIELD TPK

Map Id:	1501 1000 1990
---------	----------------

General Description				
Building Use	Single Family			
Units	Overall Condition			
Class	Fair			
Stories	C+			
Design (Style)	2.00			
Construction	Colonial			
Year Built	Wood Frame			
Percent Complete	1800			
Finished Area	100			
Foundation				
Basement Area	2420			
Finished Basement	644			
Garage Bays	0			
Outside Entry	0			
Sump Pump	No			
HVAC				
Heating Type	Hot Water			
Fuel	Oil			
Cooling Type	None			
Interior				
Floors	Softwood/Hardwood			
Attic Access	Stairs			
Walls	Plaster			
Bath Cond				
Kitchen Cond				
Exterior				
Exterior	Vinyl Siding			
Roof Cover	Asph/F Gls/Cmp			
Roof Type	Gable			
Special Features				
Type	Count/Area			
Fireplace	2			
Room Summary				
Total Bedroom	Kitchens	Full Baths	Half Baths	
9	4	1	1	1

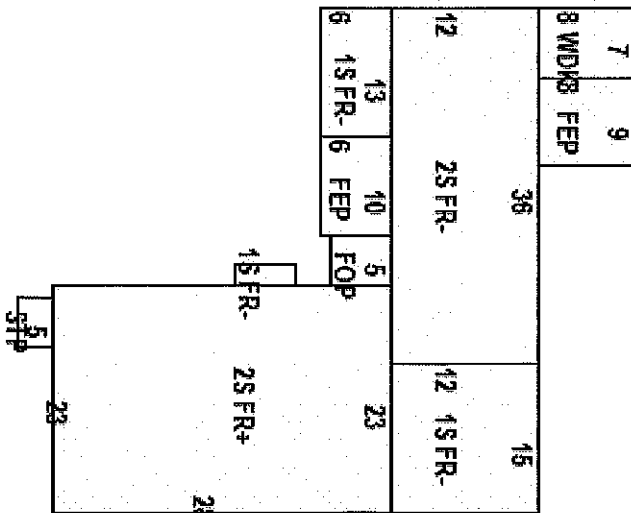
Description	Area Qty
Base Rate	2420
Basement	644
Fireplace	2
Full Baths	1
Half Baths	1

Attached Components		
Type	Year	Area
Wood Deck	1800	56
Open Porch	1800	25
Enclosed Porch	1800	60
Stoop	1800	15
Enclosed Porch	1800	72

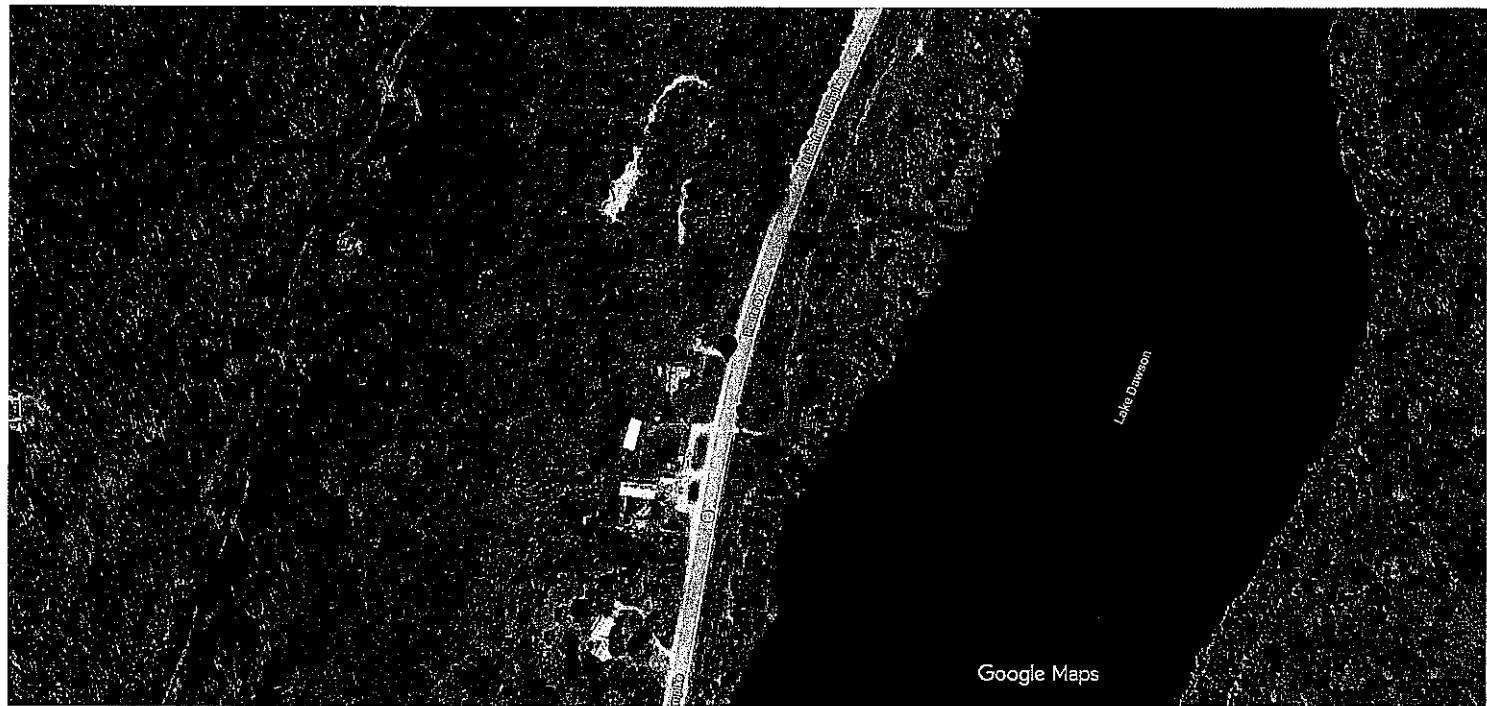
Type	Year	Condition
1 Story Poultry House	1991	Very Poor
1 Story Poultry House	1991	Very Poor
1 Story Poultry House	1991	Very Poor
Barn w/Loft	1991	Very Poor
Detached Garage with Loft	1991	Very Poor
Detached Garage with Loft	2010	Very Good
Farm Utility Storage	1991	Very Poor
Frame Milk House	1991	Very Poor
Lean To Shed	1991	Very Poor

Total Building Value: 179.700

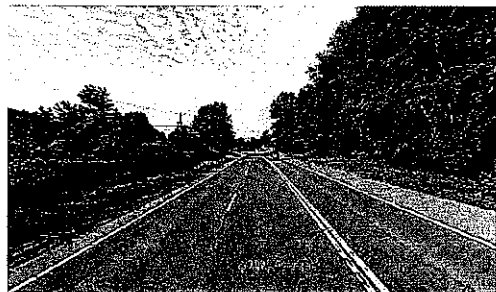
Area/City	Type	Year	Condition	Area/City
360	Lean To Shed	1991	Verv Poor	112
360				
200				
2220				
322				
240				
720				
900				
107				



1990 Litchfield Turnpike



Imagery ©2025 Airbus, Maxar Technologies, Map data ©2025 200 ft



1990 Litchfield Turnpike



Directions



Save



Nearby



Send to phone



Share

-  1990 Litchfield Turnpike, Woodbridge, CT 06525
-  92CC+V4 Woodbridge, Connecticut

Photos



Barbadora, Jeff

From: FedEx Tracking <TrackingUpdates@fedex.com>
Sent: Tuesday, December 16, 2025 11:35 AM
To: Barbadora, Jeff
Subject: Your shipment was delivered 887108240897

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.



Your shipment was delivered.

Delivery Date

**Tue, 12/16/2025
11:28am**

Delivered to

11 MEETINGHOUSE LN, WOODBRIDGE, CT 06525

Received by

H.Houser

Report missing package

How was your delivery?



Tracking details

Tracking ID

887108240897

From

Crown Castle
1800 W. Park Drive
WESTBOROUGH, MA, US
01581

To

Town of Woodbridge
11 Meetinghouse lane
WOODBIDGE, CT, US
06525

Ship date	Mon 12/15/2025 05:15 PM
Number of pieces	1
Total shipment weight	0.50 LB
Service	FedEx Standard Overnight®
Reference	799001.7680
Shipper reference	799001.7680

TRACK SHIPMENT



FedEx can ship for less than the Post Office

Two day shipping, one flat rate. FedEx One Rate®. See [fedex.com/onerate](https://www.fedex.com/onerate) for details.

EXPLORE FEDEX ONE RATE

Barbadora, Jeff

From: FedEx Tracking <TrackingUpdates@fedex.com>
Sent: Tuesday, December 16, 2025 11:35 AM
To: Barbadora, Jeff
Subject: Your shipment was delivered 887108204190

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.



Your shipment was delivered.

Delivery Date

**Tue, 12/16/2025
11:28am**

Delivered to

11 MEETINGHOUSE LN, WOODBRIDGE, CT 06525

Received by

H.Houser

[Report missing package](#)

How was your delivery?



Tracking details

Tracking ID

887108204190

From

Crown Castle
1800 W. Park Drive
WESTBOROUGH, MA, US
01581

To

Town of Woodbridge
11 Meetinghouse lane
WOODBIDGE, CT, US
06525

Ship date	Mon 12/15/2025 05:15 PM
Number of pieces	1
Total shipment weight	0.50 LB
Service	FedEx Standard Overnight®
Reference	799001.7680
Shipper reference	799001.7680

TRACK SHIPMENT



FedEx can ship for less than the Post Office

Two day shipping, one flat rate. FedEx One Rate®. See fedex.com/onerate for details.

EXPLORE FEDEX ONE RATE

Barbadora, Jeff

From: FedEx Tracking <TrackingUpdates@fedex.com>
Sent: Tuesday, December 16, 2025 10:53 AM
To: Barbadora, Jeff
Subject: Your shipment was delivered 887108351165
Attachments: DeliveryPicture.jpeg

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.



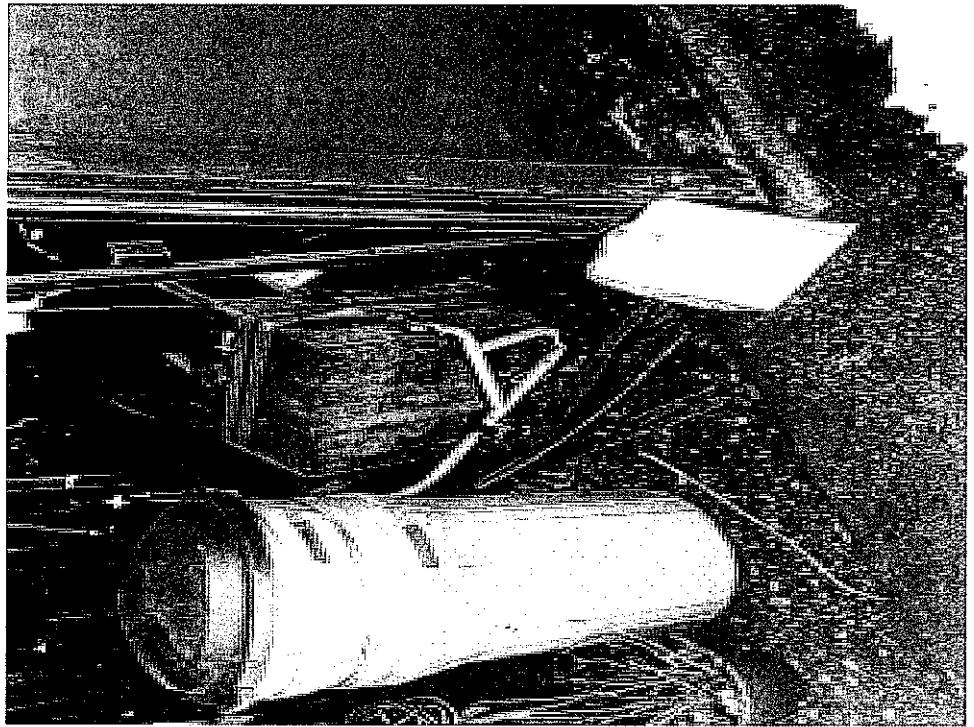
Your shipment was delivered.

Delivery Date

**Tue, 12/16/2025
10:45am**

Delivered to

1990 LITCHFIELD TPKE, WOODBRIDGE, CT 06525



Delivery picture not showing?

[View in browser](#)

GET PROOF OF DELIVERY

Report missing package

How was your delivery?



Tracking details

Tracking ID	887108351165
From	Crown Castle 1800 W. Park Drive WESTBOROUGH, MA, US 01581
To	Sarah Shepherd Russell 1990 Litchfield TPK WOODBIDGE, CT, US 06525
Ship date	Mon 12/15/2025 05:15 PM
Number of pieces	1
Total shipment weight	0.50 LB
Service	FedEx Standard Overnight®
Reference	799001.7680
Shipper reference	799001.7680

TRACK SHIPMENT

Date: **September 29, 2025**



Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317
(724) 416-2000

Subject: **Structural Analysis Report**

Carrier Designation: **Verizon Wireless Co-Locate**

Site Number:

5000978813

Site Name:

WOODBIDGE NORTH 3 CT

Crown Castle Designation:

BU Number:

857526

Site Name:

WOODBIDGE CT ROUTE 69

JDE Job Number:

2157531

Work Order Number:

2431051

Order Number:

714565 Rev. 0

Engineering Firm Designation: **Crown Castle Project Number** 2431051

Site Data:

1990 Litchfield Turnpike, Woodbridge, New Haven County, CT

Latitude: 41° 22' 23.2" Longitude: -72° 58' 50.1"

170.0 ft - Monopole Tower

Crown Castle is pleased to submit this "**Structural Analysis Report**" to determine the structural integrity of the above-mentioned tower.

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

LC7: Proposed Equipment Configuration

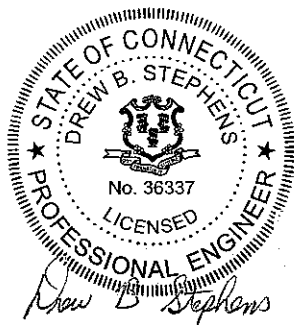
Sufficient Capacity - 89.6%

This analysis has been performed in accordance with the 2022 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 119 mph. Applicable Standard references and design criteria are listed in Section 2 – Analysis Criteria.

Structural analysis prepared by: Drew Stephens

Respectfully submitted by:

Drew B. Stephens, P.E.
Senior Project Engineer



Digitally signed by
Drew B Stephens
Date: 2025.09.29
11:03:15 -04'00'

TABLE OF CONTENTS

1) INTRODUCTION

2) ANALYSIS CRITERIA

Table 1 - Proposed Equipment Configuration

Table 2 - Other Considered Equipment

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

3.1) Analysis Method

3.2) Assumptions

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Table 5 - Tower Component Stresses vs. Capacity - LC7

4.1) Recommendations

5) APPENDIX A

tnxTower Output

6) APPENDIX B

Base Level Drawing

7) APPENDIX C

Additional Calculations

1) INTRODUCTION

This tower is a 170.0 ft Monopole Tower designed by Nello Corp.

2) ANALYSIS CRITERIA

TIA-222 Revision: TIA-222-H
 Risk Category: II
 Wind Speed: 119 mph
 Exposure Category: C
 Topographic Factor: 1
 Ice Thickness: 1.00 in
 Wind Speed with Ice: 50 mph
 Service Wind Speed: 60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
118	118	6	jma wireless	MX06FIT445-02	1 1	1-1/8 1-5/8
		1	raycap	RCMDC-3315-PF-48		
		1	raycap	RTH-0306-PFC_20250207		
		3	samsung telecommunications	MT6413-77A		
		3	samsung telecommunications	RF4461D-13A		
		3	samsung telecommunications	RF4801d-25A		
		1	sitepro 1	RMQP-496 W/ HRK12		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
170	180	1	dbspectra	DS4C06F36D-D	2	1-1/4
	170	1	tower mounts	Side Arm Mount [SO 901-3]		
163	167	3	cci antennas	TPA65R-BU6D_CCIV2 w/ Mount Pipe	6 2 2 1	1-5/8 7/8 3/8 conduit
	163	1	tower mounts	Side Arm Mount [SO 102-3]		
	157	1	raycap	DC9-48-60-24-8C-EV_220506		
153	157	3	ericsson	4890 B25 B66	2	3/4
		3	ericsson	AIR 6472 B77G B77M_20240625		
		3	ericsson	RADIO 4490HP B5/B12A		
		3	ericsson	RADIO 4494 44B14 20B29		
		1	raycap	DC6-48-60-18-8F		
	153	1	tower mounts	T-Arm Mount [TA 702-3]		
142	147	3	cci antennas	TPA65R-BU6D_CCIV2 w/ Mount Pipe	6	1-5/8
	142	1	tower mounts	Side Arm Mount [SO 102-3]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	4570938	CCISITES
4-TOWER MANUFACTURER DRAWINGS	5163862	CCISITES

3.1) Analysis Method

tnxTower (version 8.3.1.2), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

3.2) Assumptions

- 1) Tower and structures were maintained in accordance with the TIA-222 Standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass/Fail
L1	170 - 117	Pole	TP27.6754x18x0.1875	1	-5.70	981.48	49.6	Pass
L2	117 - 96.5	Pole	TP30.8552x26.6615x0.1875	2	-11.65	1095.53	81.0	Pass
L3	96.5 - 47.5	Pole	TP39.2379x29.7812x0.25	3	-19.39	1856.82	89.6	Pass
L4	47.5 - 0	Pole	TP47.2217x37.8458x0.3125	4	-31.68	2857.98	84.2	Pass
							Summary	
						Pole (L3)	89.6	Pass
						RATING =	89.6	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	53.7	Pass
1	Base Plate	0	52.8	Pass
1, 2	Base Foundation (Compared w/ Design Loads)	0	85.9	Pass

Structure Rating (max from all components) =	89.6%
---	--------------

Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed
- 2) Foundation capacity determined by comparing analysis reactions to original design reactions

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the considered equipment configuration.
No modifications are required at this time.

APPENDIX A
TNXTOWER OUTPUT

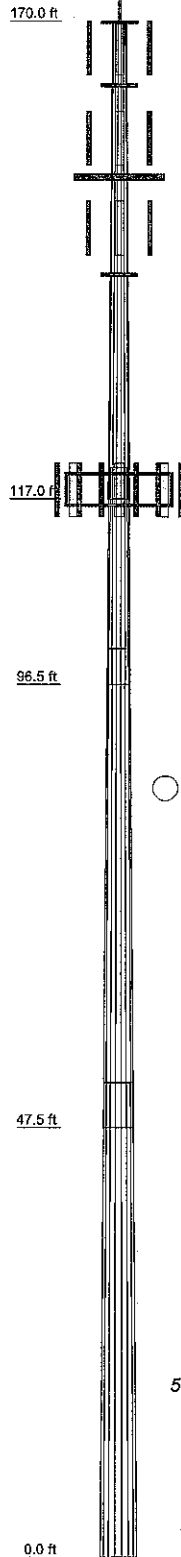
MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

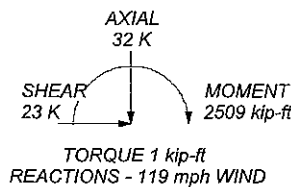
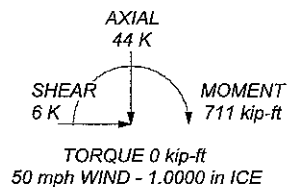
TOWER DESIGN NOTES

1. Tower is located in New Haven County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 119 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 89.6%

Section	1	2	3	4
Length (ft)	53.00	24.00	53.00	52.50
Number of Sides	18	18	18	18
Thickness (in)	0.1875	0.1875	0.2500	0.3125
Socket Length (ft)	3.50	4.00	5.00	37.8458
Top Dia (in)	18.0000	26.6615	29.7812	47.2217
Bot Dia (in)	27.6754	30.8552	39.2379	
Grade			A572-65	
Weight (K)	2.4	1.4	4.9	7.5



ALL REACTIONS
ARE FACTORED



Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317
The Pathway to Possible Phone: 724-416-2000 FAX:

Job: **BU# 857526**
Project:
Client: Crown Castle Drawn by: DStephens App'd:
Code: TIA-222-H Date: 09/29/25 Scale: N
Path: C:\SAP\ Work Area\857526\WO 2431051 - SAPProd\857526.dwg Dwg No.

Tower Input Data

The tower is a monopole.

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

The following design criteria apply:

Tower is located in New Haven County, Connecticut.

Tower base elevation above sea level: 289.00 ft.

Basic wind speed of 119 mph.

Risk Category II.

Exposure Category C.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height: 0.00 ft.

Nominal ice thickness of 1.0000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

A wind speed of 50 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

Non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in pole design is 1.

Tower analysis based on target reliabilities in accordance with Annex S.

Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.

Maximum demand-capacity ratio is: 1.05.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Assume Legs Pinned	Calculate Redundant Bracing Forces
Consider Moments - Horizontals	✓ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Consider Moments - Diagonals	✓ Use Clear Spans For Wind Area	SR Leg Bolts Resist Compression
Use Moment Magnification	Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
✓ Use Code Stress Ratios	Retension Guys To Initial Tension	Offset Girt At Foundation
✓ Use Code Safety Factors - Guys	✓ Bypass Mast Stability Checks	✓ Consider Feed Line Torque
Escalate Ice	✓ Use Azimuth Dish Coefficients	Include Angle Block Shear Check
Always Use Max Kz	✓ Project Wind Area of Appurtenances	Use TIA-222-H Bracing Resist. Exemption
Kz In Exposure D Hurricane Region	✓ Alternative Appurt. EPA Calculation	Use TIA-222-H Tension Splice Exemption
Include Bolts In Member Capacity	Autocalc Torque Arm Areas	Poles
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	✓ Include Shear-Torsion Interaction
Secondary Horizontal Braces Leg	✓ Sort Capacity Reports By Component	Always Use Sub-Critical Flow
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Use Top Mounted Sockets
SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	Pole Without Linear Attachments
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	Pole With Shroud Or No Appurtenances
Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules	Outside and Inside Corner Radii Are Known
Use Special Wind Profile		

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	170.00-117.00	53.00	3.50	18	18.0000	27.6754	0.1875	0.7500	A572-65 (65 ksi)
L2	117.00-96.50	24.00	4.00	18	26.6615	30.8552	0.1875	0.7500	A572-65 (65 ksi)
L3	96.50-47.50	53.00	5.00	18	29.7812	39.2379	0.2500	1.0000	A572-65 (65 ksi)
L4	47.50-0.00	52.50		18	37.8458	47.2217	0.3125	1.2500	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L1	18.2488	10.6007	424.9328	6.3234	9.1440	46.4712	850.4248	5.3013	2.8380	15.136
	28.0734	16.3587	1561.6019	9.7582	14.0591	111.0741	3125.2586	8.1809	4.5409	24.218
L2	27.6649	15.7553	1395.0901	9.3983	13.5440	103.0041	2792.0160	7.8792	4.3624	23.266
	31.3023	18.2511	2168.6490	10.8870	15.6744	138.3557	4340.1515	9.1273	5.1005	27.203
L3	30.9268	23.4330	2581.8414	10.4836	15.1289	170.6566	5167.0801	11.7187	4.8015	19.206
	39.8046	30.9369	5941.1964	13.8407	19.9329	298.0605	11890.2104	15.4714	6.4659	25.863
L4	39.2881	37.2283	6625.8769	13.3243	19.2256	344.6374	13260.4722	18.6177	6.1109	19.555
	47.9020	46.5281	12935.0608	16.6528	23.9886	539.2165	25887.1418	23.2685	7.7610	24.835

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontal in	Double Angle Stitch Bolt Spacing Redundants in
L1 170.00- 117.00				1	1	1			
L2 117.00- 96.50				1	1	1			
L3 96.50-47.50				1	1	1			
L4 47.50-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight klf
170									
LDF6-50A(1-1/4)	B	No	No	Inside Pole	170.00 - 0.00	2	No Ice	0.00	0.00
							1/2" Ice	0.00	0.00
							1" Ice	0.00	0.00

163									
RFFT-48SM-001- XXX(3/8)	B	No	No	Inside Pole	163.00 - 0.00	1	No Ice	0.00	0.00
							1/2" Ice	0.00	0.00
							1" Ice	0.00	0.00
FB-L98B-009- XXX(3/8)	B	No	No	Inside Pole	163.00 - 0.00	1	No Ice	0.00	0.00
							1/2" Ice	0.00	0.00
							1" Ice	0.00	0.00
WR-VG66ST- BRD_CCIV2(7/8)	B	No	No	Inside Pole	163.00 - 0.00	2	No Ice	0.00	0.00
							1/2" Ice	0.00	0.00
							1" Ice	0.00	0.00
LDF7-50A(1-5/8)	B	No	No	Inside Pole	163.00 - 0.00	6	No Ice	0.00	0.00
							1/2" Ice	0.00	0.00
							1" Ice	0.00	0.00
2" Rigid Conduit	C	No	No	Inside Pole	163.00 - 0.00	1	No Ice	0.00	0.00
							1/2" Ice	0.00	0.00
							1" Ice	0.00	0.00

153									
WR-VG86ST- BRD(3/4)	B	No	No	Inside Pole	153.00 - 0.00	2	No Ice	0.00	0.00
							1/2" Ice	0.00	0.00
							1" Ice	0.00	0.00

142									
LDF7-50A(1-5/8)	B	No	No	Inside Pole	142.00 - 0.00	6	No Ice	0.00	0.00
							1/2" Ice	0.00	0.00
							1" Ice	0.00	0.00

130									
HB158-21U6S24- xxM_TMO(1-5/8)	B	No	No	Inside Pole	130.00 - 0.00	3	No Ice	0.00	0.00
							1/2" Ice	0.00	0.00
							1" Ice	0.00	0.00

118									
HYBRILITEOG36F0xx x(1-1/8)	A	No	No	Inside Pole	118.00 - 0.00	1	No Ice	0.00	0.00
							1/2" Ice	0.00	0.00
							1" Ice	0.00	0.00
HB158-21U6S12- XXXM-01(1-5/8)	A	No	No	Inside Pole	118.00 - 0.00	1	No Ice	0.00	0.00
							1/2" Ice	0.00	0.00
							1" Ice	0.00	0.00

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L1	170.00-117.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.64
		C	0.000	0.000	0.000	0.000	0.13
L2	117.00-96.50	A	0.000	0.000	0.000	0.000	0.07
		B	0.000	0.000	0.000	0.000	0.44
		C	0.000	0.000	0.000	0.000	0.06

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L3	96.50-47.50	A	0.000	0.000	0.000	0.000	0.16
		B	0.000	0.000	0.000	0.000	1.06
		C	0.000	0.000	0.000	0.000	0.14
L4	47.50-0.00	A	0.000	0.000	0.000	0.000	0.15
		B	0.000	0.000	0.000	0.000	1.03
		C	0.000	0.000	0.000	0.000	0.13

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L1	170.00-117.00	A	0.983	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.64
		C		0.000	0.000	0.000	0.000	0.13
L2	117.00-96.50	A	0.956	0.000	0.000	0.000	0.000	0.07
		B		0.000	0.000	0.000	0.000	0.44
		C		0.000	0.000	0.000	0.000	0.06
L3	96.50-47.50	A	0.918	0.000	0.000	0.000	0.000	0.16
		B		0.000	0.000	0.000	0.000	1.06
		C		0.000	0.000	0.000	0.000	0.14
L4	47.50-0.00	A	0.823	0.000	0.000	0.000	0.000	0.15
		B		0.000	0.000	0.000	0.000	1.03
		C		0.000	0.000	0.000	0.000	0.13

Feed Line Center of Pressure

Section	Elevation ft	CP _X in	CP _Z in	CP _X Ice in	CP _Z Ice in
L1	170.00-117.00	0.0000	0.0000	0.0000	0.0000
L2	117.00-96.50	0.0000	0.0000	0.0000	0.0000
L3	96.50-47.50	0.0000	0.0000	0.0000	0.0000
L4	47.50-0.00	0.0000	0.0000	0.0000	0.0000

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

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
170					
DS4C06F36D-D	A	From Leg	2.00 0.00	0.0000	170.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment	Placement ft
Side Arm Mount [SO 901-3] ***	C	None	10.00	0.0000	170.00
***163**					
TPA65R-BU6D_CCIV2 w/ Mount Pipe	A	From Leg	3.00 0.00 4.00	0.0000	163.00
TPA65R-BU6D_CCIV2 w/ Mount Pipe	B	From Leg	3.00 0.00 4.00	0.0000	163.00
TPA65R-BU6D_CCIV2 w/ Mount Pipe	C	From Leg	3.00 0.00 4.00	0.0000	163.00
DC9-48-60-24-8C-EV_220506	B	From Leg	3.00 0.00 -6.00	0.0000	163.00
6' x 2" Mount Pipe	A	From Leg	1.00 0.00 0.00	0.0000	163.00
6' x 2" Mount Pipe	B	From Leg	1.00 0.00 0.00	0.0000	163.00
6' x 2" Mount Pipe	C	From Leg	1.00 0.00 0.00	0.0000	163.00
Side Arm Mount [SO 102-3] ***	C	None		0.0000	163.00
***153**					
AIR 6472 B77G B77M_20240625	A	From Leg	3.00 0.00 4.00	0.0000	153.00
AIR 6472 B77G B77M_20240625	B	From Leg	3.00 0.00 4.00	0.0000	153.00
AIR 6472 B77G B77M_20240625	C	From Leg	3.00 0.00 4.00	0.0000	153.00
4890 B25 B66	A	From Leg	3.00 0.00 4.00	0.0000	153.00
4890 B25 B66	B	From Leg	3.00 0.00 4.00	0.0000	153.00
4890 B25 B66	C	From Leg	3.00 0.00 4.00	0.0000	153.00
RADIO 4490HP B5/B12A	A	From Leg	3.00 0.00 4.00	0.0000	153.00
RADIO 4490HP B5/B12A	B	From Leg	3.00 0.00 4.00	0.0000	153.00
RADIO 4490HP B5/B12A	C	From Leg	3.00 0.00 4.00	0.0000	153.00
RADIO 4494 44B14 20B29	A	From Leg	3.00 0.00 4.00	0.0000	153.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
RADIO 4494 44B14 20B29	B	From Leg	3.00 0.00 4.00	0.0000	153.00
RADIO 4494 44B14 20B29	C	From Leg	3.00 0.00 4.00	0.0000	153.00
DC6-48-60-18-8F	B	From Leg	3.00 0.00 4.00	0.0000	153.00
10' x 3.5" Pipe Mount	A	From Leg	3.00 0.00 0.00	0.0000	153.00
10' x 3.5" Pipe Mount	B	From Leg	3.00 0.00 0.00	0.0000	153.00
10' x 3.5" Pipe Mount	C	From Leg	3.00 0.00 0.00	0.0000	153.00
10'6"x2-3/8" Pipe Mount	A	From Leg	3.00 0.00 0.00	0.0000	153.00
10'6"x2-3/8" Pipe Mount	B	From Leg	3.00 0.00 0.00	0.0000	153.00
10'6"x2-3/8" Pipe Mount	C	From Leg	3.00 0.00 0.00	0.0000	153.00
T-Arm Mount [TA 702-3] *** **142**	C	None		0.0000	153.00
TPA65R-BU6D_CCIV2 w/ Mount Pipe	A	From Leg	3.00 0.00 5.00	0.0000	142.00
TPA65R-BU6D_CCIV2 w/ Mount Pipe	B	From Leg	3.00 0.00 5.00	0.0000	142.00
TPA65R-BU6D_CCIV2 w/ Mount Pipe	C	From Leg	3.00 0.00 5.00	0.0000	142.00
6' x 2" Mount Pipe	A	From Leg	1.00 0.00 0.00	0.0000	142.00
6' x 2" Mount Pipe	B	From Leg	1.00 0.00 0.00	0.0000	142.00
6' x 2" Mount Pipe	C	From Leg	1.00 0.00 0.00	0.0000	142.00
Side Arm Mount [SO 102-3] *** **118**	C	None		0.0000	142.00
(2) MX06FIT445-02	A	From Leg	4.00 0.00 0.00	0.0000	118.00
(2) MX06FIT445-02	B	From Leg	4.00 0.00 0.00	0.0000	118.00
(2) MX06FIT445-02	C	From Leg	4.00	0.0000	118.00

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
			0.00		
MT6413-77A	A	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
MT6413-77A	B	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
MT6413-77A	C	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
RF4461D-13A	A	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
RF4461D-13A	B	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
RF4461D-13A	C	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
RF4801d-25A	A	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
RF4801d-25A	B	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
RF4801d-25A	C	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
RCMDC-3315-PF-48	A	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
RTH-0306-PFC_20250207	A	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
4' x 2" Pipe Mount	B	From Leg	0.00	0.0000	118.00
			2.00		
			0.00		
4' x 2" Pipe Mount	C	From Leg	0.00	0.0000	118.00
			2.00		
			0.00		
(4) 8' x 2" Mount Pipe	A	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
(4) 8' x 2" Mount Pipe	B	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
(4) 8' x 2" Mount Pipe	C	From Leg	0.00	0.0000	118.00
			4.00		
			0.00		
sitepro1 RMQP-4XXX-HK	C	None	0.00	0.0000	118.00

Load Combinations

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

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	170 - 117	Pole	Max Tension	39	0.00	0.00	-0.00
			Max. Compression	26	-11.49	-0.24	0.40

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L2	117 - 96.5	Pole	Max. Mx	8	-5.71	-295.32	0.44
			Max. My	2	-5.71	-0.52	295.73
			Max. Vy	8	9.38	-295.32	0.44
			Max. Vx	2	-9.40	-0.52	295.73
			Max. Torque	20			-0.83
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-20.49	-0.49	0.75
			Max. Mx	8	-11.66	-571.72	0.78
			Max. My	2	-11.65	-0.76	573.47
			Max. Vy	8	15.14	-571.72	0.78
L3	96.5 - 47.5	Pole	Max. Vx	2	-15.20	-0.76	573.47
			Max. Torque	22			-1.09
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-29.72	-0.49	0.75
			Max. Mx	8	-19.40	-1395.00	1.35
			Max. My	2	-19.39	-1.31	1400.00
			Max. Vy	8	19.11	-1395.00	1.35
			Max. Vx	2	-19.18	-1.31	1400.00
			Max. Torque	22			-1.08
			Max Tension	1	0.00	0.00	0.00
L4	47.5 - 0	Pole	Max. Compression	26	-43.61	-0.49	0.75
			Max. Mx	8	-31.68	-2500.70	1.90
			Max. My	2	-31.68	-1.86	2509.16
			Max. Vy	8	22.76	-2500.70	1.90
			Max. Vx	2	-22.82	-1.86	2509.16
			Max. Torque	22			-1.08

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	27	43.61	-0.00	6.40
	Max. H _x	20	31.71	22.72	-0.01
	Max. H _z	2	31.71	-0.01	22.78
	Max. M _x	2	2509.16	-0.01	22.78
	Max. M _z	8	2500.70	-22.72	0.01
	Max. Torsion	10	1.07	-19.67	-11.38
	Min. Vert	7	23.78	-19.68	11.40
	Min. H _x	8	31.71	-22.72	0.01
	Min. H _z	14	31.71	0.01	-22.78
	Min. M _x	14	-2508.70	0.01	-22.78
	Min. M _z	20	-2500.35	22.72	-0.01
	Min. Torsion	22	-1.07	19.67	11.38

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead Only	26.42	0.00	0.00	-0.17	-0.13	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	31.71	0.01	-22.78	-2509.16	-1.86	0.44
0.9 Dead+1.0 Wind 0 deg - No Ice	23.78	0.01	-22.78	-2468.81	-1.78	0.45

Load Combination	Vertical K	Shear _x K	Shear _y K	Overturning Moment, M _x kip-ft	Overturning Moment, M _y kip-ft	Torque kip-ft
1.2 Dead+1.0 Wind 30 deg - No Ice	31.71	11.37	-19.74	-2173.88	-1251.88	-0.11
0.9 Dead+1.0 Wind 30 deg - No Ice	23.78	11.37	-19.74	-2138.90	-1231.73	-0.10
1.2 Dead+1.0 Wind 60 deg - No Ice	31.71	19.68	-11.40	-1256.17	-2166.53	-0.64
0.9 Dead+1.0 Wind 60 deg - No Ice	23.78	19.68	-11.40	-1235.93	-2131.68	-0.63
1.2 Dead+1.0 Wind 90 deg - No Ice	31.71	22.72	-0.01	-1.90	-2500.70	-0.99
0.9 Dead+1.0 Wind 90 deg - No Ice	23.78	22.72	-0.01	-1.81	-2460.50	-0.98
1.2 Dead+1.0 Wind 120 deg - No Ice	31.71	19.67	11.38	1252.82	-2164.84	-1.07
0.9 Dead+1.0 Wind 120 deg - No Ice	23.78	19.67	11.38	1232.75	-2130.03	-1.07
1.2 Dead+1.0 Wind 150 deg - No Ice	31.71	11.35	19.73	2171.76	-1248.94	-0.87
0.9 Dead+1.0 Wind 150 deg - No Ice	23.78	11.35	19.73	2136.93	-1228.85	-0.87
1.2 Dead+1.0 Wind 180 deg - No Ice	31.71	-0.01	22.78	2508.70	1.53	-0.44
0.9 Dead+1.0 Wind 180 deg - No Ice	23.78	-0.01	22.78	2468.47	1.54	-0.44
1.2 Dead+1.0 Wind 210 deg - No Ice	31.71	-11.37	19.74	2173.42	1251.53	0.11
0.9 Dead+1.0 Wind 210 deg - No Ice	23.78	-11.37	19.74	2138.57	1231.47	0.10
1.2 Dead+1.0 Wind 240 deg - No Ice	31.71	-19.68	11.40	1255.73	2166.16	0.63
0.9 Dead+1.0 Wind 240 deg - No Ice	23.78	-19.68	11.40	1235.61	2131.42	0.62
1.2 Dead+1.0 Wind 270 deg - No Ice	31.71	-22.72	0.01	1.48	2500.35	0.98
0.9 Dead+1.0 Wind 270 deg - No Ice	23.78	-22.72	0.01	1.51	2460.24	0.98
1.2 Dead+1.0 Wind 300 deg - No Ice	31.71	-19.67	-11.38	-1253.24	2164.51	1.07
0.9 Dead+1.0 Wind 300 deg - No Ice	23.78	-19.67	-11.38	-1233.06	2129.79	1.07
1.2 Dead+1.0 Wind 330 deg - No Ice	31.71	-11.35	-19.73	-2172.20	1248.62	0.88
0.9 Dead+1.0 Wind 330 deg - No Ice	23.78	-11.35	-19.73	-2137.26	1228.61	0.88
1.2 Dead+1.0 Ice+1.0 Temp	43.61	0.00	-0.00	-0.75	-0.49	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	43.61	0.00	-6.40	-710.82	-0.88	0.10
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	43.61	3.20	-5.54	-615.87	-355.02	-0.06
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	43.61	5.53	-3.20	-356.12	-614.17	-0.20
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	43.61	6.39	-0.00	-1.17	-708.91	-0.29
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	43.61	5.53	3.20	353.86	-613.83	-0.30
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	43.61	3.19	5.54	613.86	-354.43	-0.23
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	43.61	-0.00	6.40	709.15	-0.20	-0.10
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	43.61	-3.20	5.54	614.20	353.93	0.06
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	43.61	-5.53	3.20	354.45	613.09	0.20

Load Combination	Vertical K	Shear _x K	Shear _y K	Overturning Moment, M _x kip-ft	Overturning Moment, M _y kip-ft	Torque kip-ft
Ice+1.0 Temp						
1.2 Dead+1.0 Wind 270 deg+1.0	43.61	-6.39	0.00	-0.50	707.82	0.29
Ice+1.0 Temp						
1.2 Dead+1.0 Wind 300 deg+1.0	43.61	-5.53	-3.20	-355.54	612.75	0.30
Ice+1.0 Temp						
1.2 Dead+1.0 Wind 330 deg+1.0	43.61	-3.19	-5.54	-615.54	353.35	0.23
Ice+1.0 Temp						
Dead+Wind 0 deg - Service	26.42	0.00	-5.47	-599.35	-0.55	0.11
Dead+Wind 30 deg - Service	26.42	2.73	-4.74	-519.29	-299.08	-0.02
Dead+Wind 60 deg - Service	26.42	4.73	-2.74	-300.12	-517.51	-0.15
Dead+Wind 90 deg - Service	26.42	5.46	-0.00	-0.59	-597.30	-0.24
Dead+Wind 120 deg - Service	26.42	4.73	2.74	299.05	-517.11	-0.26
Dead+Wind 150 deg - Service	26.42	2.73	4.74	518.51	-298.38	-0.22
Dead+Wind 180 deg - Service	26.42	-0.00	5.47	598.97	0.25	-0.11
Dead+Wind 210 deg - Service	26.42	-2.73	4.74	518.91	298.78	0.02
Dead+Wind 240 deg - Service	26.42	-4.73	2.74	299.74	517.21	0.15
Dead+Wind 270 deg - Service	26.42	-5.46	0.00	0.21	597.01	0.24
Dead+Wind 300 deg - Service	26.42	-4.73	-2.74	-299.43	516.81	0.26
Dead+Wind 330 deg - Service	26.42	-2.73	-4.74	-518.89	298.09	0.22

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-26.42	0.00	0.00	26.42	0.00	0.000%
2	0.01	-31.71	-22.78	-0.01	31.71	22.78	0.000%
3	0.01	-23.78	-22.78	-0.01	23.78	22.78	0.000%
4	11.37	-31.71	-19.74	-11.37	31.71	19.74	0.000%
5	11.37	-23.78	-19.74	-11.37	23.78	19.74	0.000%
6	19.68	-31.71	-11.40	-19.68	31.71	11.40	0.000%
7	19.68	-23.78	-11.40	-19.68	23.78	11.40	0.000%
8	22.72	-31.71	-0.01	-22.72	31.71	0.01	0.000%
9	22.72	-23.78	-0.01	-22.72	23.78	0.01	0.000%
10	19.67	-31.71	11.38	-19.67	31.71	-11.38	0.000%
11	19.67	-23.78	11.38	-19.67	23.78	-11.38	0.000%
12	11.35	-31.71	19.73	-11.35	31.71	-19.73	0.000%
13	11.35	-23.78	19.73	-11.35	23.78	-19.73	0.000%
14	-0.01	-31.71	22.78	0.01	31.71	-22.78	0.000%
15	-0.01	-23.78	22.78	0.01	23.78	-22.78	0.000%
16	-11.37	-31.71	19.74	11.37	31.71	-19.74	0.000%
17	-11.37	-23.78	19.74	11.37	23.78	-19.74	0.000%
18	-19.68	-31.71	11.40	19.68	31.71	-11.40	0.000%
19	-19.68	-23.78	11.40	19.68	23.78	-11.40	0.000%
20	-22.72	-31.71	0.01	22.72	31.71	-0.01	0.000%
21	-22.72	-23.78	0.01	22.72	23.78	-0.01	0.000%
22	-19.67	-31.71	-11.38	19.67	31.71	11.38	0.000%
23	-19.67	-23.78	-11.38	19.67	23.78	11.38	0.000%
24	-11.35	-31.71	-19.73	11.35	31.71	19.73	0.000%
25	-11.35	-23.78	-19.73	11.35	23.78	19.73	0.000%
26	0.00	-43.61	0.00	-0.00	43.61	0.00	0.000%
27	0.00	-43.61	-6.40	-0.00	43.61	6.40	0.000%
28	3.20	-43.61	-5.54	-3.20	43.61	5.54	0.000%
29	5.53	-43.61	-3.20	-5.53	43.61	3.20	0.000%
30	6.39	-43.61	-0.00	-6.39	43.61	0.00	0.000%
31	5.53	-43.61	3.20	-5.53	43.61	-3.20	0.000%
32	3.19	-43.61	5.54	-3.19	43.61	-5.54	0.000%
33	-0.00	-43.61	6.40	0.00	43.61	-6.40	0.000%
34	-3.20	-43.61	5.54	3.20	43.61	-5.54	0.000%
35	-5.53	-43.61	3.20	5.53	43.61	-3.20	0.000%

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
36	-6.39	-43.61	0.00	6.39	43.61	-0.00	0.000%
37	-5.53	-43.61	-3.20	5.53	43.61	3.20	0.000%
38	-3.19	-43.61	-5.54	3.19	43.61	5.54	0.000%
39	0.00	-26.42	-5.47	-0.00	26.42	5.47	0.000%
40	2.73	-26.42	-4.74	-2.73	26.42	4.74	0.000%
41	4.73	-26.42	-2.74	-4.73	26.42	2.74	0.000%
42	5.46	-26.42	-0.00	-5.46	26.42	0.00	0.000%
43	4.73	-26.42	2.74	-4.73	26.42	-2.74	0.000%
44	2.73	-26.42	4.74	-2.73	26.42	-4.74	0.000%
45	-0.00	-26.42	5.47	0.00	26.42	-5.47	0.000%
46	-2.73	-26.42	4.74	2.73	26.42	-4.74	0.000%
47	-4.73	-26.42	2.74	4.73	26.42	-2.74	0.000%
48	-5.46	-26.42	0.00	5.46	26.42	-0.00	0.000%
49	-4.73	-26.42	-2.74	4.73	26.42	2.74	0.000%
50	-2.73	-26.42	-4.74	2.73	26.42	4.74	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	5	0.00000001	0.00028363
3	Yes	5	0.00000001	0.00012520
4	Yes	7	0.00000001	0.00008860
5	Yes	6	0.00000001	0.00037583
6	Yes	7	0.00000001	0.00008991
7	Yes	6	0.00000001	0.00038186
8	Yes	5	0.00000001	0.00055816
9	Yes	5	0.00000001	0.00024771
10	Yes	7	0.00000001	0.00008672
11	Yes	6	0.00000001	0.00036750
12	Yes	7	0.00000001	0.00009021
13	Yes	6	0.00000001	0.00038344
14	Yes	5	0.00000001	0.00020487
15	Yes	5	0.00000001	0.00009066
16	Yes	7	0.00000001	0.00008892
17	Yes	6	0.00000001	0.00037729
18	Yes	7	0.00000001	0.00008763
19	Yes	6	0.00000001	0.00037154
20	Yes	5	0.00000001	0.00047696
21	Yes	5	0.00000001	0.00021260
22	Yes	7	0.00000001	0.00009062
23	Yes	6	0.00000001	0.00038532
24	Yes	7	0.00000001	0.00008710
25	Yes	6	0.00000001	0.00036908
26	Yes	4	0.00000001	0.00002833
27	Yes	6	0.00000001	0.00019535
28	Yes	6	0.00000001	0.00043233
29	Yes	6	0.00000001	0.00043804
30	Yes	6	0.00000001	0.00019597
31	Yes	6	0.00000001	0.00042229
32	Yes	6	0.00000001	0.00043463
33	Yes	6	0.00000001	0.00019437
34	Yes	6	0.00000001	0.00042907
35	Yes	6	0.00000001	0.00042337
36	Yes	6	0.00000001	0.00019522
37	Yes	6	0.00000001	0.00043720
38	Yes	6	0.00000001	0.00042490

39	Yes	4	0.00000001	0.00043757
40	Yes	5	0.00000001	0.00037036
41	Yes	5	0.00000001	0.00038270
42	Yes	4	0.00000001	0.00063642
43	Yes	5	0.00000001	0.00035140
44	Yes	5	0.00000001	0.00038555
45	Yes	4	0.00000001	0.00042564
46	Yes	5	0.00000001	0.00037154
47	Yes	5	0.00000001	0.00035930
48	Yes	4	0.00000001	0.00061953
49	Yes	5	0.00000001	0.00038892
50	Yes	5	0.00000001	0.00035466

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	170 - 117	42.807	40	2.1337	0.0067
L2	120.5 - 96.5	21.870	39	1.7808	0.0027
L3	100.5 - 47.5	14.989	39	1.4665	0.0017
L4	52.5 - 0	3.926	39	0.6948	0.0005

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
170.00	DS4C06F36D-D	40	42.807	2.1337	0.0067	40386
163.00	TPA65R-BU6D_CCIV2 w/ Mount Pipe	40	39.679	2.1048	0.0061	28847
153.00	AIR 6472 B77G B77M_20240625	40	35.251	2.0585	0.0052	11877
142.00	TPA65R-BU6D_CCIV2 w/ Mount Pipe	39	30.500	1.9925	0.0043	7210
118.00	(2) MX06FIT445-02	39	20.943	1.7465	0.0025	4039

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	170 - 117	178.750	2	8.9182	0.0280
L2	120.5 - 96.5	91.484	2	7.4529	0.0111
L3	100.5 - 47.5	62.739	2	6.1426	0.0069
L4	52.5 - 0	16.442	2	2.9111	0.0021

Critical Deflections and Radius of Curvature - Design Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
170.00	DS4C06F36D-D	2	178.750	8.9182	0.0280	10139
163.00	TPA65R-BU6D_CCIIV2 w/ Mount Pipe	2	165.723	8.7990	0.0253	7241
153.00	AIR 6472 B77G B77M_20240625	2	147.278	8.6074	0.0216	2978
142.00	TPA65R-BU6D_CCIIV2 w/ Mount Pipe	2	127.480	8.3337	0.0176	1804
118.00	(2) MX06FIT445-02	2	87.616	7.3101	0.0105	1002

Compression Checks

Pole Design Data

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in ²	K	K	
L1	170 - 117 (1)	TP27.6754x18x0.1875	53.00	0.00	0.0	15.9785	-5.70	934.74	0.006
L2	117 - 96.5 (2)	TP30.8552x26.6615x0.1875	24.00	0.00	0.0	17.8351	-11.65	1043.36	0.011
L3	96.5 - 47.5 (3)	TP39.2379x29.7812x0.25	53.00	0.00	0.0	30.2290	-19.39	1768.40	0.011
L4	47.5 - 0 (4)	TP47.2217x37.8458x0.3125	52.50	0.00	0.0	46.5281	-31.68	2721.89	0.012

Pole Bending Design Data

Section No.	Elevation	Size	M_{ux}	ϕM_{rx}	Ratio $\frac{M_{ux}}{\phi M_{rx}}$	M_{uy}	ϕM_{ry}	Ratio $\frac{M_{uy}}{\phi M_{ry}}$
	ft		kip-ft	kip-ft		kip-ft	kip-ft	
L1	170 - 117 (1)	TP27.6754x18x0.1875	296.01	576.81	0.513	0.00	576.81	0.000
L2	117 - 96.5 (2)	TP30.8552x26.6615x0.1875	573.63	685.04	0.837	0.00	685.04	0.000
L3	96.5 - 47.5 (3)	TP39.2379x29.7812x0.25	1400.00	1508.41	0.928	0.00	1508.41	0.000
L4	47.5 - 0 (4)	TP47.2217x37.8458x0.3125	2509.16	2877.60	0.872	0.00	2877.60	0.000

Pole Shear Design Data

Section No.	Elevation	Size	Actual V_u	ϕV_n	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u	ϕT_n	Ratio $\frac{T_u}{\phi T_n}$
	ft		K	K		kip-ft	kip-ft	
L1	170 - 117 (1)	TP27.6754x18x0.1875	9.40	280.42	0.034	0.10	659.36	0.000
L2	117 - 96.5 (2)	TP30.8552x26.6615x0.1875	15.20	313.01	0.049	0.11	821.49	0.000
L3	96.5 - 47.5 (3)	TP39.2379x29.7812x0.25	19.18	530.52	0.036	0.45	1769.93	0.000
L4	47.5 - 0 (4)	TP47.2217x37.8458x0.3125	22.82	816.57	0.028	0.44	3354.52	0.000

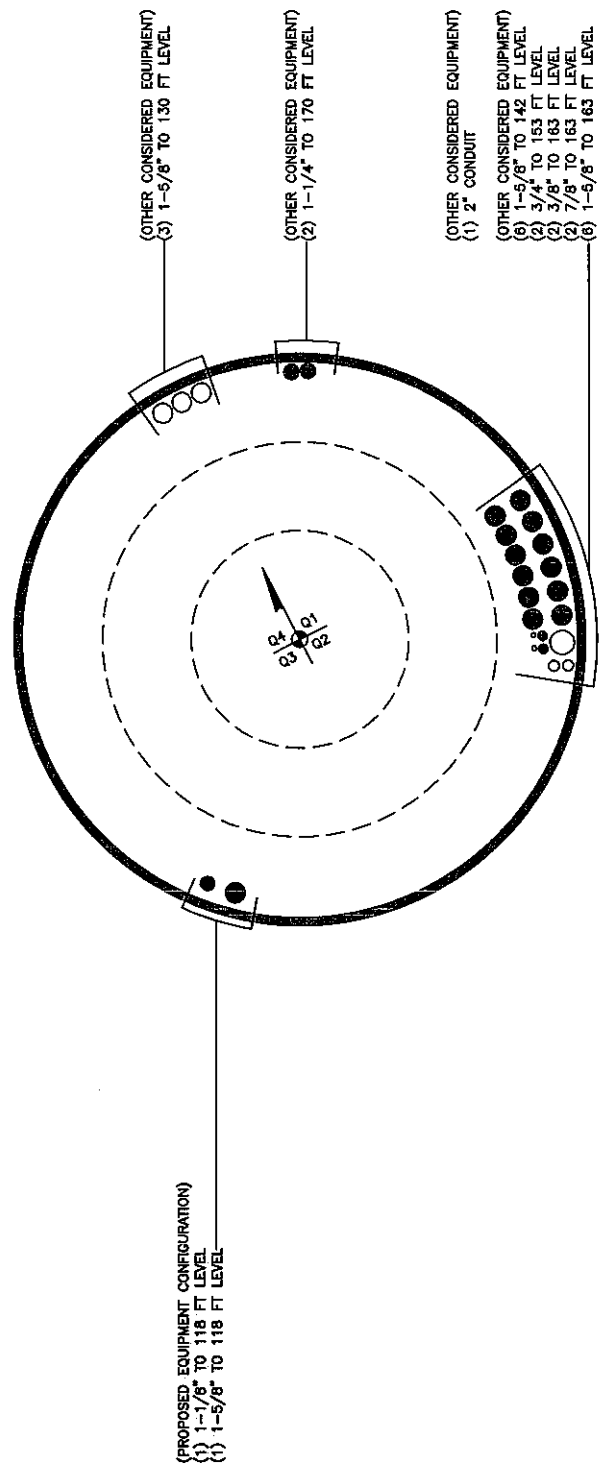
Pole Interaction Design Data

Section No.	Elevation ft	Ratio P_u	Ratio M_{ux}	Ratio M_{uy}	Ratio V_u	Ratio T_u	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	170 - 117 (1)	0.006	0.513	0.000	0.034	0.000	0.520	1.050	
L2	117 - 96.5 (2)	0.011	0.837	0.000	0.049	0.000	0.851	1.050	
L3	96.5 - 47.5 (3)	0.011	0.928	0.000	0.036	0.000	0.940	1.050	
L4	47.5 - 0 (4)	0.012	0.872	0.000	0.028	0.000	0.884	1.050	

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	170 - 117	Pole	TP27.6754x18x0.1875	1	-5.70	981.48	49.6	Pass
L2	117 - 96.5	Pole	TP30.8552x26.6615x0.1875	2	-11.65	1095.53	81.0	Pass
L3	96.5 - 47.5	Pole	TP39.2379x29.7812x0.25	3	-19.39	1856.82	89.6	Pass
L4	47.5 - 0	Pole	TP47.2217x37.8458x0.3125	4	-31.68	2857.98	84.2	Pass
							Summary	
							Pole (L3)	89.6 Pass
							RATING =	89.6 Pass

APPENDIX B
BASE LEVEL DRAWING



APPENDIX C
ADDITIONAL CALCULATIONS

Monopole Base Plate Connection

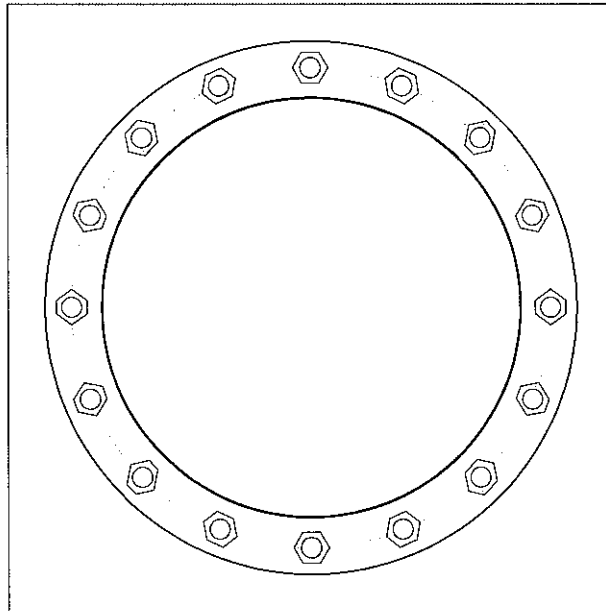


Site Info	
BU #	857526
Site Name	DODBRIDGE CT ROUTE
Order #	714565 REV. 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
I_{er} (in)	1.5

Applied Loads	
Moment (kip-ft)	2509.16
Axial Force (kips)	31.68
Shear Force (kips)	22.82

*TIA-222-H Section 15.5 Applied



Connection Properties		Analysis Results	
Anchor Rod Data		Anchor Rod Summary	
(16) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 54" BC		<i>(units of kips, kip-in)</i>	
Base Plate Data		$Pu_t = 137.32$	$\phi Pn_t = 243.75$ Stress Rating
60" OD x 2.25" Plate (A572-50; $F_y=50$ ksi, $F_u=65$ ksi)		$Vu = 1.43$	$\phi Vn = 149.1$ 53.7%
Stiffener Data		$Mu = n/a$	$\phi Mn = n/a$ Pass
N/A		Base Plate Summary	
Pole Data		Max Stress (ksi):	24.96 (Flexural)
47.2217" x 0.3125" 18-sided pole (A572-65; $F_y=65$ ksi, $F_u=80$ ksi)		Allowable Stress (ksi):	45
		Stress Rating:	52.8% Pass

Monopole Base Reaction Comparison Test (4.0.3)



BU #:	857526
Site Name:	WOODBIDGE CT ROUTE 69
Order Number:	714565 - Rev. 0
TIA-222 Design:	G
TIA-222 Current:	H
Component Type:	Monopole Base
Reference Doc ID:	4570938

☒ Apply H Section 15.5

TIA-222-G Compared To TIA-222-H

MONOPOLE BASE FOUNDATION REACTION COMPARISON

REACTIONS	DESIGN REACTIONS	CURRENT REACTIONS	% CAPACITY
MOMENT (kip-ft)	2781.1	2509.2	85.9%
SHEAR (kips)	26.6	22.8	81.6%

Design loads from: CCI sites Doc #4570938

% Capacity per TIA-222-H Section 15.5

ASCE Hazards Report

Address:

No Address at This Location

Standard:

ASCE/SEI 7-16

Risk Category: II

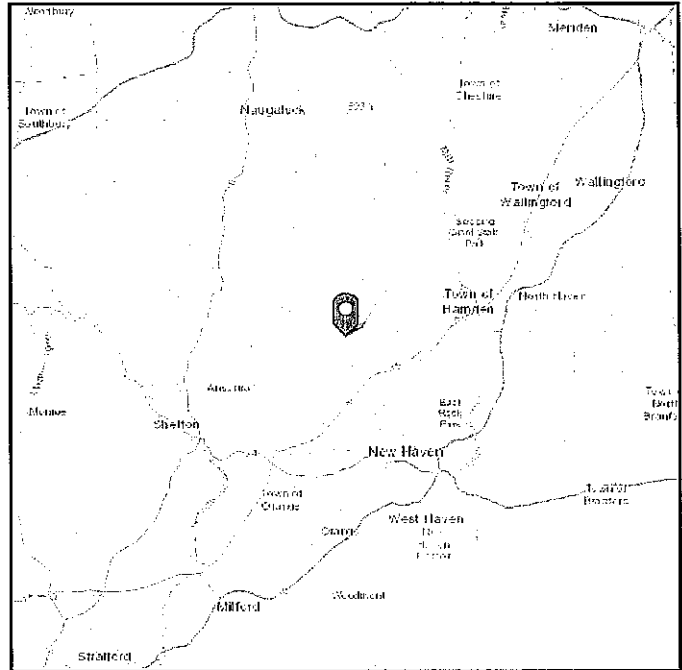
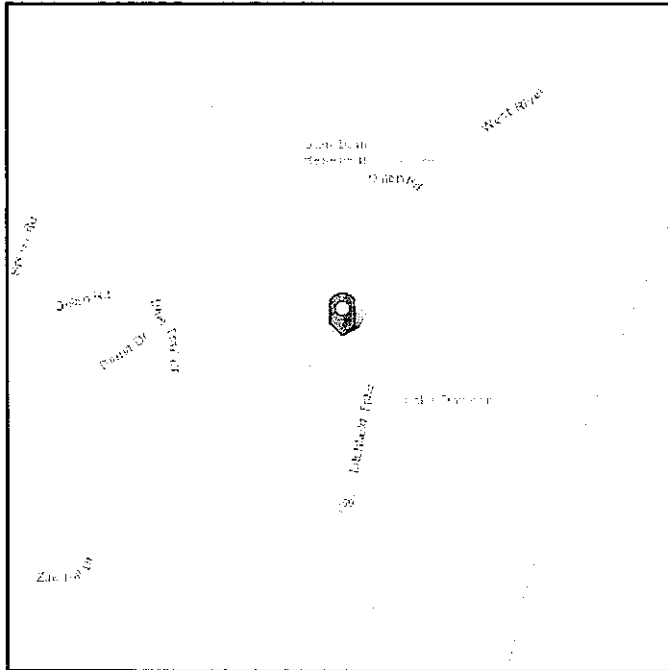
Soil Class:

D - Default (see
Section 11.4.3)

Latitude: 41.373111

Longitude: -72.980583

Elevation: 289.4151334673207 ft
(NAVD 88)



Wind

Results:

Wind Speed	119 Vmph
10-year MRI	75 Vmph
25-year MRI	85 Vmph
50-year MRI	90 Vmph
100-year MRI	98 Vmph

Data Source:

ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed:

Mon Sep 29 2025

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

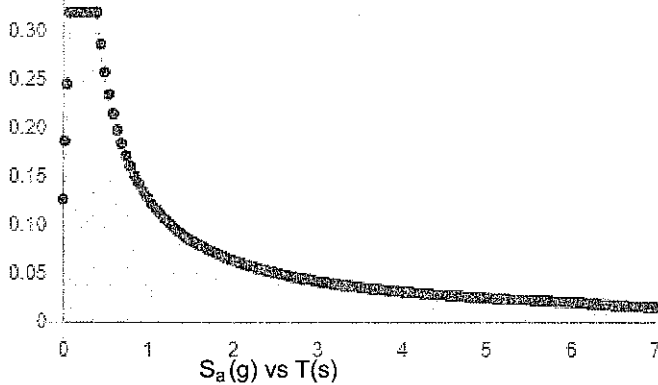
Seismic

Site Soil Class: D - Default (see Section 11.4.3)

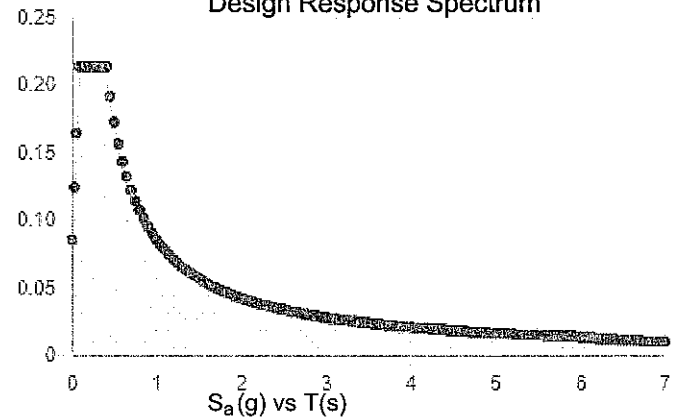
Results:

S_s :	0.201	S_{D1} :	0.086
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.112
F_v :	2.4	PGA _M :	0.177
S_{MS} :	0.321	F_{PGA} :	1.576
S_{M1} :	0.13	I_e :	1
S_{DS} :	0.214	C_v :	0.701

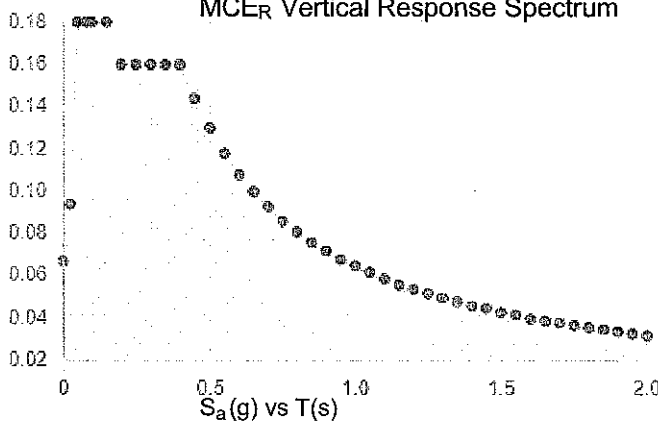
Seismic Design Category: B **MCE_R Response Spectrum**



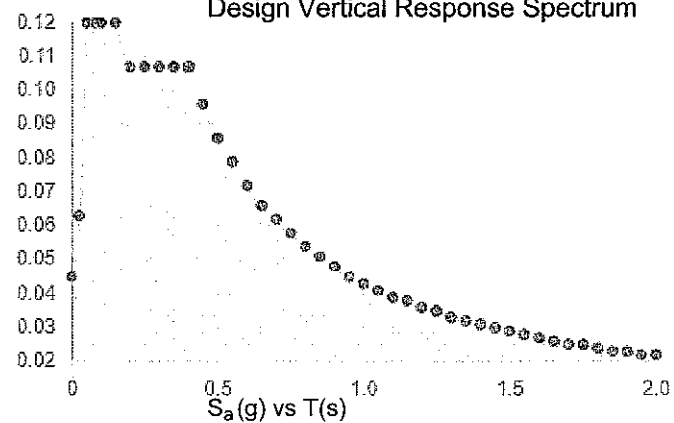
Design Response Spectrum



MCE_R Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed: Mon Sep 29 2025

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 1.00 in.

Concurrent Temperature: 15 F

Gust Speed 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Mon Sep 29 2025

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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

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

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



Colliers Engineering & Design,
Architecture, Landscape Architecture,
Surveying, CT P.C.
2000 Midlantic Drive Suite 100
Mt. Laurel, NJ 08054
856.797.0412
sean.osullivan@collierseng.com

New Antenna Mount Analysis Report and PII Requirements

Mount Analysis-N
SMART Tool Project #: 10320141
Colliers Engineering & Design Project #: 25777715

September 10, 2025

Site Information

Site ID: 5000978813-VZW / WOODBRIDGE NORTH 3 CT
Site Name: WOODBRIDGE NORTH 3 CT
Carrier Name: Verizon Wireless
Address: 1990 Litchfield Turnpike
Woodbridge, Connecticut 06525
New Haven County
Latitude: 41.373111°
Longitude: -72.980583°

Structure Information

Tower Type: Monopole
Mount Type: 12.50-Ft Platform

FUZE ID # 17483379

Analysis Results

Platform: 45.7% **Pass w/ New Mount Install***
(1) SitePro1 RMQP-496 with HRK12

***Antennas and equipment to be installed in compliance with PII Requirements of this mount analysis.**

*****Contractor PII Requirements:**

Included at the end of this MA report
Available & Submitted via portal at <https://pmi.vzwsmart.com>
For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: Taylor Freels

Digitally signed by Sean O'Sullivan
Date: 2025.09.10 16:24:59-05'00'

Executive Summary:

The objective of this report is to determine the capacity of the proposed antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. The proposed mount was assumed to be installed properly to the existing tower per the manufacturer's instructions. Colliers Engineering & Design cannot verify that the proposed mount will fit properly and is not liable for any fit-up issues during installation.

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: 617498679, dated August 25, 2025
Mount Specifications	SitePro1, Part #: RMQP-496 with HRK12

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code, Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 120 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: C Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.990
Seismic Parameters:	S_s : 0.200 g S_1 : 0.054 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Load, L_v : 250 lbs. Maintenance Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V22)

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
118.00	118.00	3	Samsung	MT6413-77A	Added
		6	JMA Wireless	MX06FIT445-02	
		1	Raycap	3x6 Hybrid/NGOVP	
		1	Raycap	OVP-6 (12 CPRI)	
		3	Samsung	RF4461d-13A	
		3	Samsung	RF4801d-25A	

Any proposed antennas not currently installed should be mounted such that the centerline of the antennas does not exceed 6 inches vertically from the center of the antenna mounts.

It is acceptable to install up to three (3) OVPs with dimensions not to exceed 30" x 17" x 13" and 40 lbs. at any location, other than the mount face, without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Colliers Engineering & Design and used in this analysis is current and correct. Any deviation from the loading locations specified in this report shall be communicated to Colliers Engineering & Design 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.
3. 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.
4. 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.
5. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Colliers Engineering & Design is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
6. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Colliers Engineering & Design.

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff Horizontal	31.7%	Pass
Platform Crossmember	15.0%	Pass
Corner Plate	10.2%	Pass
Grating Support	12.3%	Pass
Cross Arm Plate	33.6%	Pass
Face Horizontal	12.5%	Pass
Mount Pipe	27.8%	Pass
Support Rail	16.1%	Pass
Corner Angle	12.6%	Pass
Connection Check	45.7%	Pass

Structure Rating – (Controlling Utilization of all Components)	45.7%
---	--------------

Mount Connection Envelope Reactions:

Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector C Standoff	118	N30	1283	1767	3.532	1.259	2179	623	5.024	0.406
Sector B Standoff	118	N194	1242	1673	3.273	1.086	2087	610	4.826	0.352
Sector A Standoff	118	N195	1215	1538	3.148	1.239	2014	548	4.732	0.399

Notes:

- Axial loads act along the axis of the tower
- Lateral reactions act perpendicular to the tower
- Moment loads introduce bending moment to the tower
- Torsion loads introduce twisting moment to the tower
- Batch solutions by individual load cases are included at the end of this document

Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	24.5	24.5	41.6	41.6
0.5	32.3	32.3	56.6	56.6
1	39.7	39.7	71.2	71.2

Notes:

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 3 sector(s).
- Ka factors included in (EPA)a calculations

Requirements:

The proposed antenna mount is **SUFFICIENT** for the final loading configuration (attachment 2) upon completion of the mount installation (attachment 3) and requirements below.

Refer to document at the end of this form for special instructions. Contact EOR if special instructions are not available.

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. **Contractor Required Post Installation Inspection (PII) Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Manufacturer Drawings
4. Analysis Calculations

Mount Desktop – Post Modification Inspection (PII) Report Requirements

Documents & Photos Required from Contractor – New Mount Passing MA

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

MDG #: 5000978813

SMART Project #: 10320141

Fuze Project ID: 17483379

Purpose – to provide SMART Tool structural vendor the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

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

Base Requirements:

- If installation 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 mount drawings” showing contractor’s name, contact information, 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 passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped.
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. 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.
 - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- *Photos taken at Mount Elevation*
 - Photos showing the safety climb wire rope above and below the mount prior to installation.
 - Photos showing the climbing facility and safety climb if present.
 - Photos showing each individual sector after installation of mounts. Each entire sector shall 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 mount; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
- Photos showing the installed mount elevation.

Antenna & Equipment Placement and Geometry Confirmation:

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.
- ☐ 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.

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

Issue:

Refer to document at the end of this form for special instructions. Contact EOR if special instructions are not available.

Response:

Special Instruction Confirmation:

- ☐ The contractor has read and acknowledges the above special instructions.

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

- ☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

- ☐ Yes ☐ No

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

☐ Safety Climb in Good Condition

☐ Safety Climb Damaged

Comments:

New Mount Certification:

- ☐ The contractor certifies that the New Mount installed is as specified in the Passing Mount Analysis.
- ☐ The contractor notes that the New Mount installed is not as specified and engineering approval was received for the New Mount installed.

Contractor to provide measurement from top of the highest equipment/steel to the bottom of the lowest equipment/steel by documenting it using the most appropriate illustration below along with supporting photos (highest and lowest measurement across all sectors):

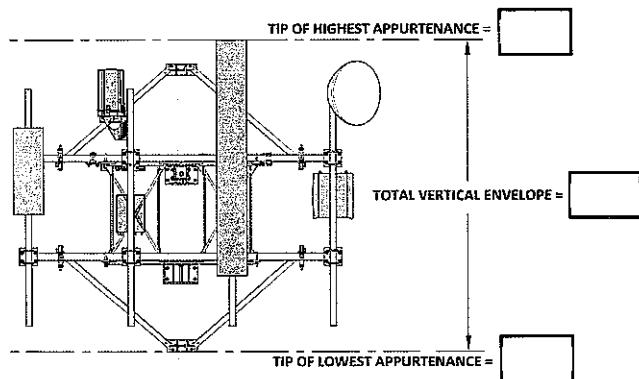


Illustration #1

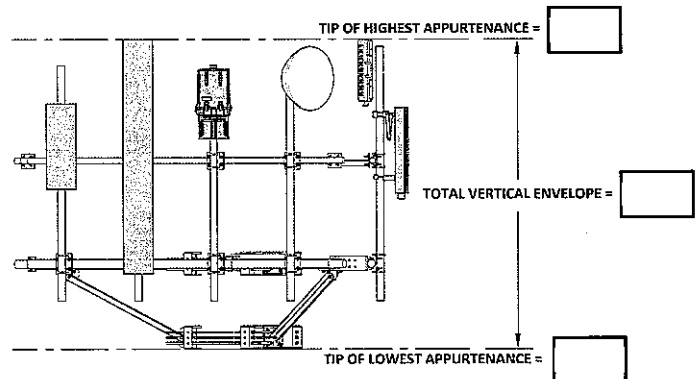


Illustration #2

Certifying Individual:

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



MDG #: 5000978813

Site Name: **WOODBIDGE NORTH 3 CT**

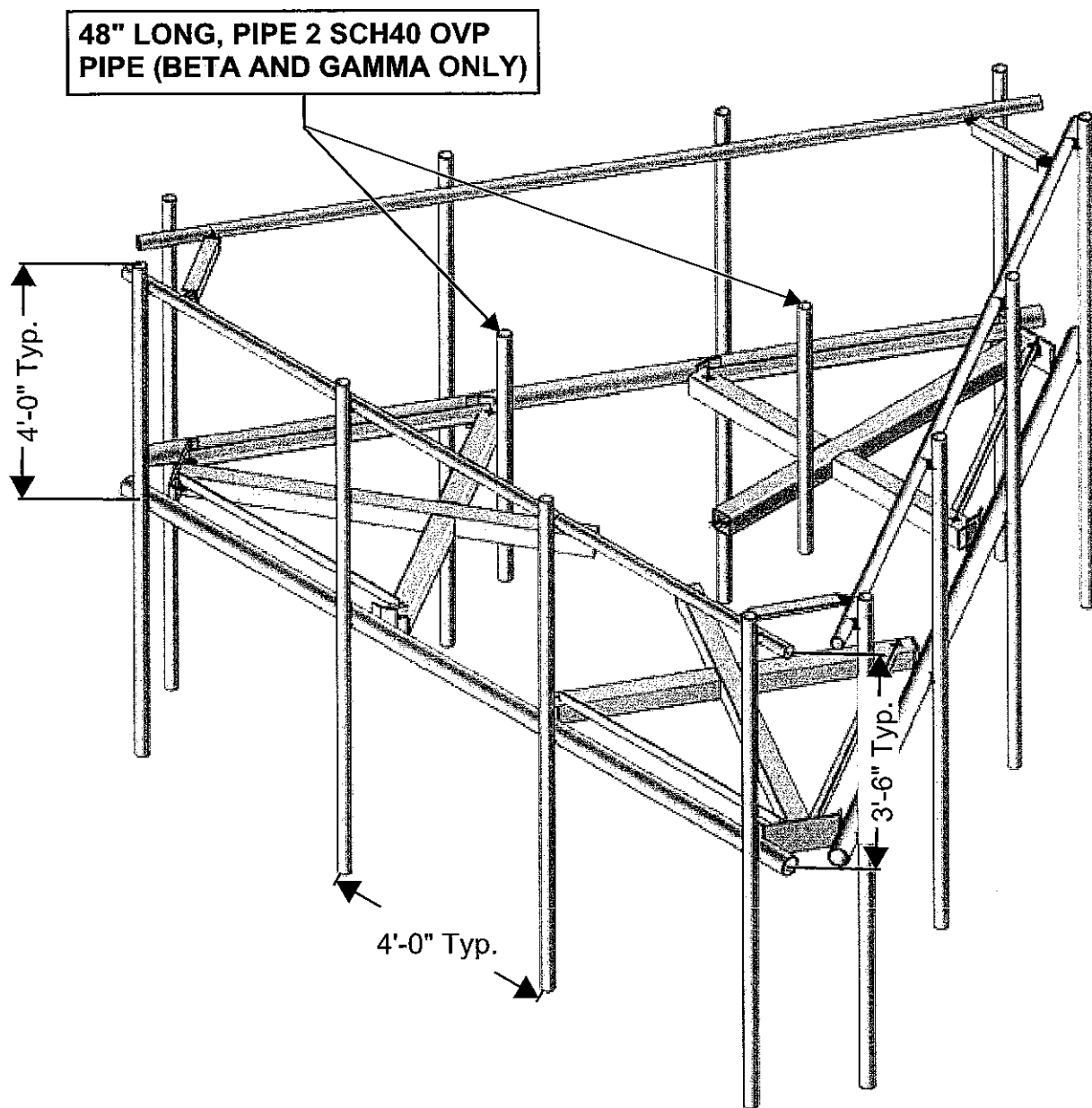
Fuze ID #: 17483379

Colliers Engineering & Design Project #: 25777715

PMI INSTRUCTIONS:

1. Contractor shall verify existing monopole diameter to be 24". **Escalate any discrepancies to EOR immediately as it may render the results of this analysis invalid and require additional modifications.**
2. Contractor shall install the proposed platform mount (Site Pro 1 RMQP-496 w/ HRK-12) in accordance with manufacturer specifications and the Mount Installation Sketch. Contact EOR if these documents are not available.
3. Contractor shall install mount pipes with vertical offsets as shown in the Mount Installation Sketch.
4. Contractor shall install proposed support rail (Site Pro 1 HRK-12) 42" above face horizontal. Refer to Mount Installation Sketch.
5. Contractor shall install a new 48" long PIPE 2 SCH 40 OVP pipe on the beta and gamma sector standoff horizontals.
6. Threaded rod from proposed kits shall be trimmed to extend no more than 3" beyond the lock nut. Treat all cut ends with (2) coats of Zinga or Zinc Kote.
7. Contractor shall inspect climbing facilities and safety climb and ensure they are in good condition. Contractor shall install safety climb wire rope guides in locations where wire rope is contacting the mount or mount-to-tower connection steel. Wire brush clean any observed corrosion and protect with two (2) coats of Zinga or Zinc Kote. Contractor shall provide photos of wire rope guide installation as part of PMI documents. Contact EOR if additional guidance is required.

Mount Installation Sketch



MOUNT ISOMETRIC VIEW
N.T.S

Sector: A

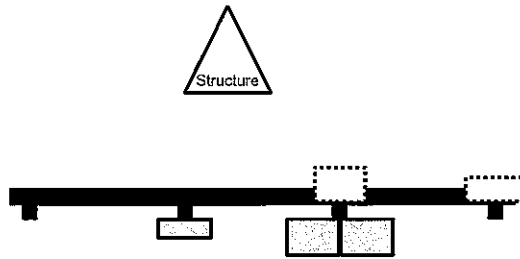
9/8/2025

Structure Type: Monopole

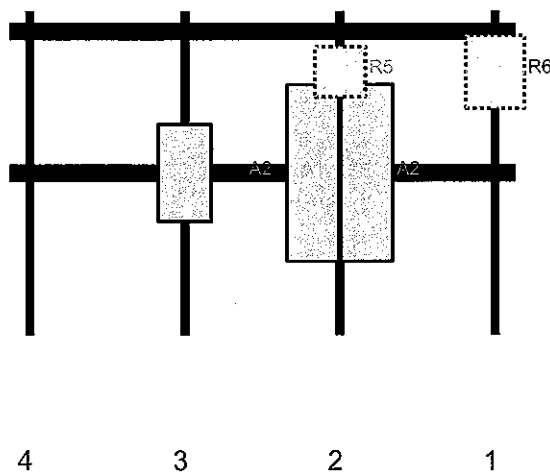
Mount Elev: 118.00

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
OVP1	3x6 Hybrid/NGOVP	20.4	9.7		Member					Added	
OVP2	OVP-6 (12 CPRI)	29.5	16.5		Member					Added	
R6	RF4801d-25A	21.8	17.3	144	1	a	Behind	18	0	Added	
A2	MX06FIT445-02	52.5	15.4	98	2	a	Front	48	8	Added	
A2	MX06FIT445-02	52.5	15.4	98	2	b	Front	48	-8	Added	
R5	RF4461d-13A	15	15	98	2	a	Behind	18	0	Added	
A1	MT6413-77A	28.9	15.8	52	3	a	Front	48	0	Added	

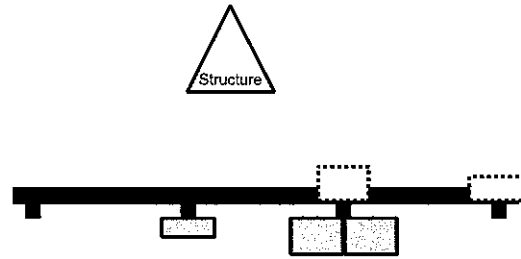
Sector: **B**
 Structure Type: Monopole
 Mount Elev: 118.00

9/8/2025

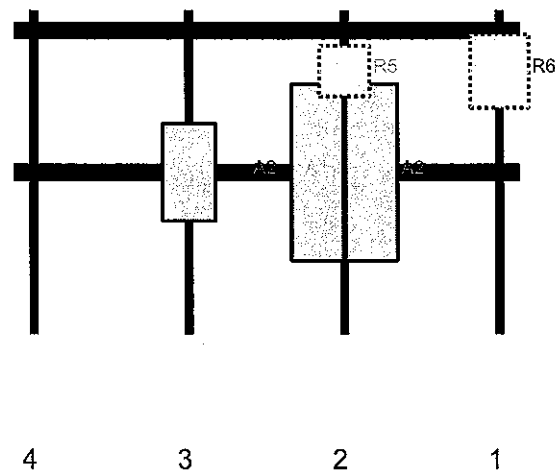
Colliers Engineering
 & Design

Page: 2

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
R6	RF4801d-25A	21.8	17.3	144	1	a	Behind	18	0	Added	
A2	MX06FIT445-02	52.5	15.4	98	2	a	Front	48	8	Added	
A2	MX06FIT445-02	52.5	15.4	98	2	b	Front	48	-8	Added	
R5	RF4461d-13A	15	15	98	2	a	Behind	18	0	Added	
A1	MT6413-77A	28.9	15.8	52	3	a	Front	48	0	Added	

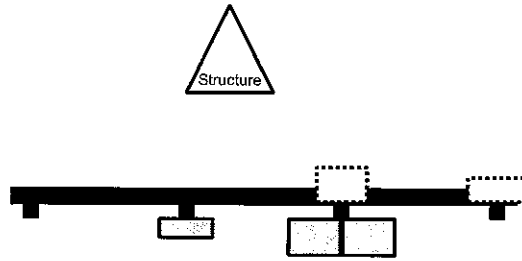
Sector: C
 Structure Type: Monopole
 Mount Elev: 118.00

9/8/2025

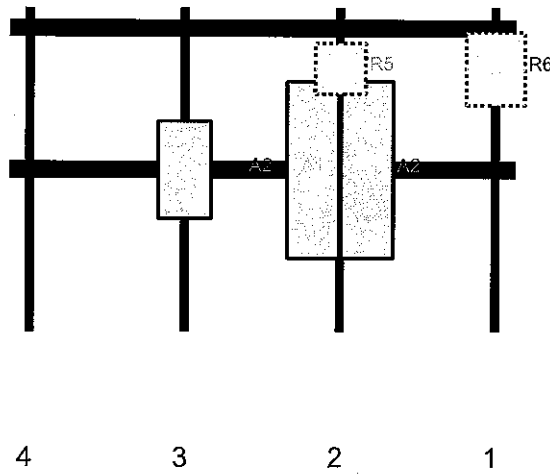
Colliers Engineering
 & Design

Page: 3

Plan View



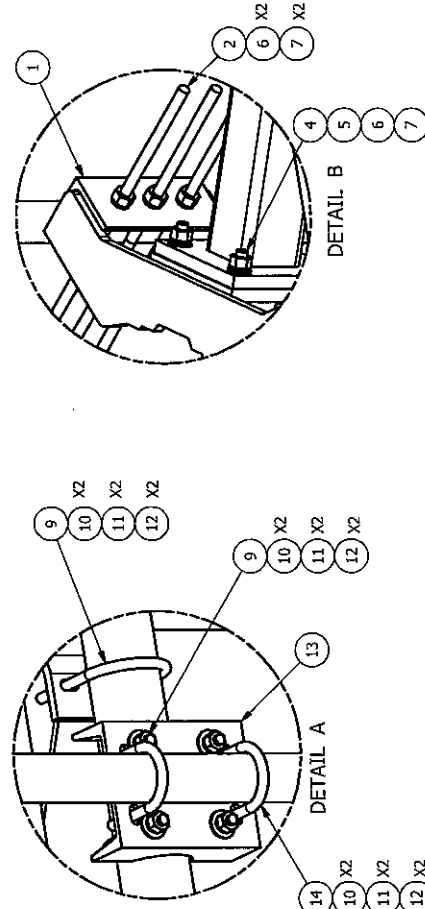
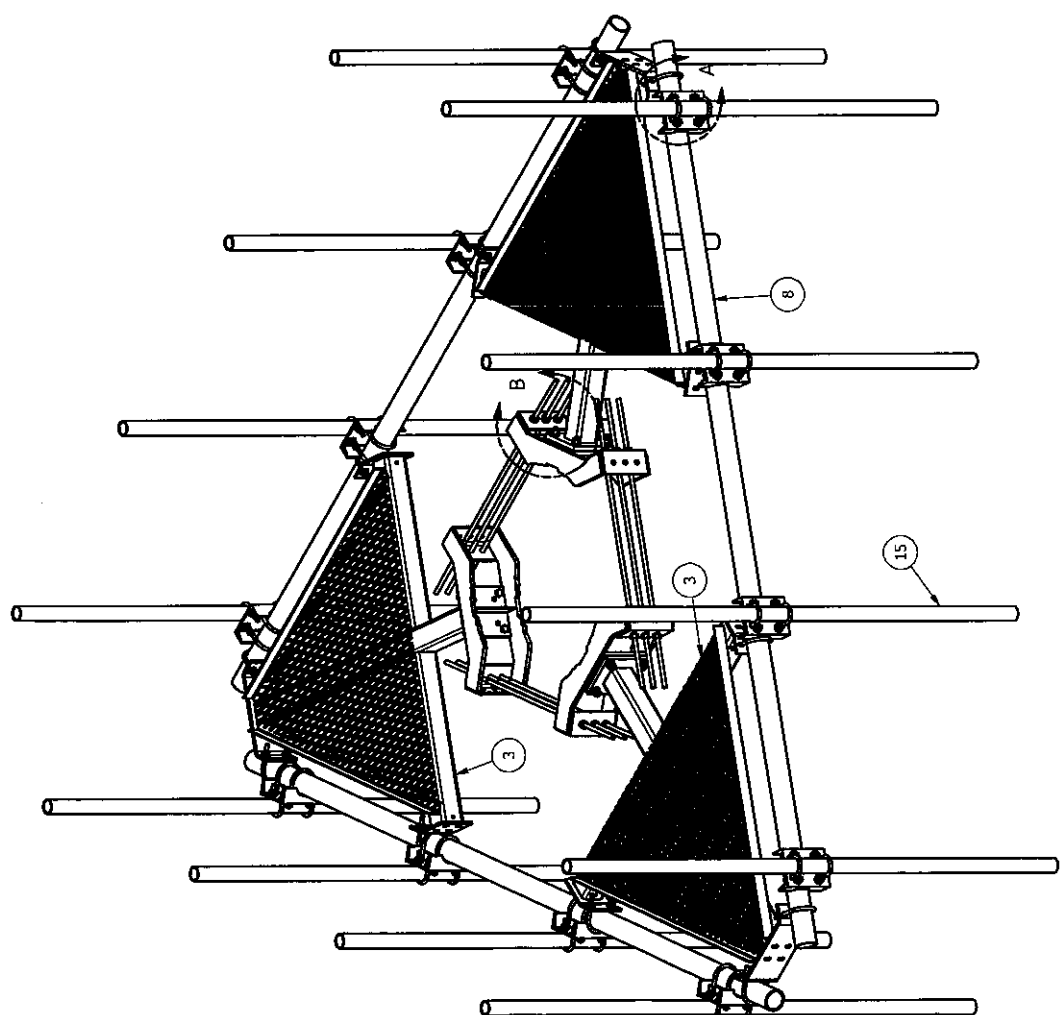
Front View - Looking at Structure



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
R6	RF4801d-25A	21.8	17.3	144	1	a	Behind	18	0	Added	
A2	MX06FIT445-02	52.5	15.4	98	2	a	Front	48	8	Added	
A2	MX06FIT445-02	52.5	15.4	98	2	b	Front	48	-8	Added	
R5	RF4461d-13A	15	15	98	2	a	Behind	18	0	Added	
A1	MT6413-77A	28.9	15.8	52	3	a	Front	48	0	Added	

PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	X-LWRM	RING MOUNT WELDMENT		68.81	206.42
2	9	G58R-48	5/8" x 48" THREADED ROD (HDG.)		0.40	3.59
3	9	G58R-24	5/8" x 24" THREADED ROD (HDG.)		0.40	3.59
4	12	X-SV196	LOW PROFILE PLATFORM CORNER	212.10		636.31
5	12	A58234	5/8" x 2-3/4" HDG A325 HEX BOLT	2.75	0.36	4.27
6	30	A58FW	5/8" HDG A325 FLATWASHER		0.03	0.41
7	30	G58LW	5/8" HDG LOCKWASHER		0.03	0.78
8	3	P3150	5/8" HDG A325 HEX NUT		0.13	3.90
9	36	X-UB1306	3-1/2" x 150" SCH 40 GALVANIZED PIPE	150.000 in	94.80	284.40
10	120	G12FW	1/2" x 3-5/8" x 6" x 3" U-BOLT (HDG.)		0.26	9.25
11	120	G12LW	1/2" HDG USS FLATWASHER		0.03	4.09
12	120	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.01	1.67
13	12	X-SP219	SMALL SUPPORT CROSS PLATE	8.250 in	8.61	103.33
14	24	X-UB1212	1/2" x 2-1/2" x 4-1/2" x 2" U-BOLT (HDG.)		0.26	6.17
15	12		ANTENNA MOUNTING PIPE	C	D	E



ASSEMBLY NO. "A"	PART NO. "B"	LENGTH, "C"	UNIT WEIGHT, "D"	NET WEIGHT, "E"	TOTAL WEIGHT
RMQP-463	P263	63"	20.18	242.16	1591.11
RMQP-472	P272	72"	23.07	276.84	1625.79
RMQP-484	P284	84"	26.91	322.92	1671.87
RMQP-496	P296	96"	30.76	369.12	1718.07
RMQP-4126	P2126	126"	40.75	489.00	1837.95

2-3/8" O.D. VERTICAL MOUNTING PIPES

FOR REFERENCE ONLY

ADDED 10' 6" ANTENNA MOUNTING PIPES
 DESCRIPTION OF REVISIONS
 REVISION HISTORY

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

PROPRIETARY NOTE
 THE DATA AND TECHNIQUES CONTAINED HEREIN ARE PROPRIETARY INFORMATION OF VALMONT INDUSTRIES AND CONSIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.

DRAWN BY
CEK

1/20/2012

semb

7/9/2015

CHECKED BY
BMC

7/9/2015

DESCRIPTION
 LOW PROFILE CO-LOCATION PLATFORM
 FOR 12 ANTENNAS WITH 12' 6" FACE WIDTH
 FOR 12" - 38" DIAMETER POLES

DRAWING USAGE
 CUSTOMER
7/9/2015

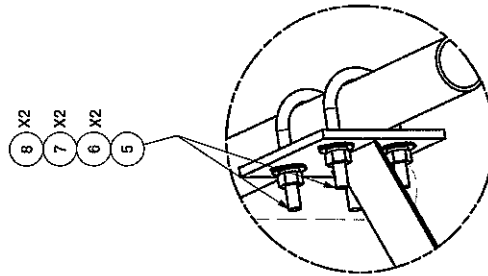
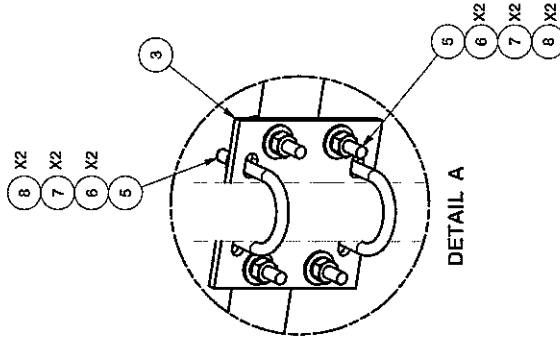
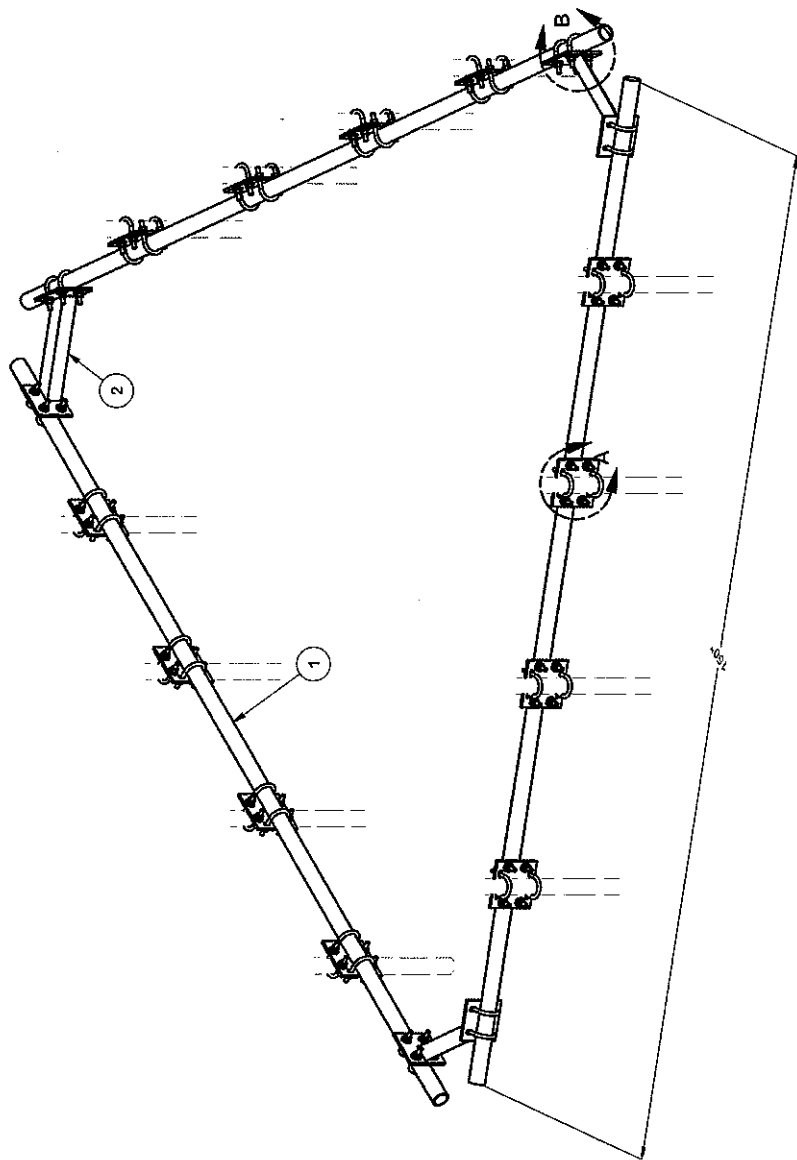
PART NO.
SEE ASSEMBLY NO. "A"

DWG. NO.
RMQP-4XX

Engineering Support Team:
 1-888-753-7446
 Los Angeles, CA
 Phoenix, AZ
 Dallas, TX

Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Phoenix, AZ
 Dallas, TX

PARTS LIST					
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.
1	3	P2150	2-3/8" OD X 150" SCH 40 GALVANIZED PIPE	150 in	45.77
2	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE	12.92	38.76
3	12	SCX2	CROSSOVER PLATE	7 in	4.80
4	24	X-UB1300	1/2" X 3" X 5" X 2" U-BOLT (HDG.)		17.56
5	60	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.73
6	120	G12FW	1/2" HDG USS FLATWASHER		4.09
7	120	G12LW	1/2" HDG LOCKWASHER		0.01
8	120	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07
TOTAL WT. #					302.21



DETAIL B

TOLERANCE NOTES

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

FOR REFERENCE ONLY

DESCRIPTION
 UNIVERSAL HANDRAIL KIT
 FOR 12" PLATFORM
 2-3/8" & 2-7/8" ANTENNA PIPES

CPD NO.	DRAWN BY	ENG. APPROVAL
81	CEK	3/9/2015
CLASS	SUB	CHECKED BY
81	01	BMC
	CUSTOMER	3/10/2015

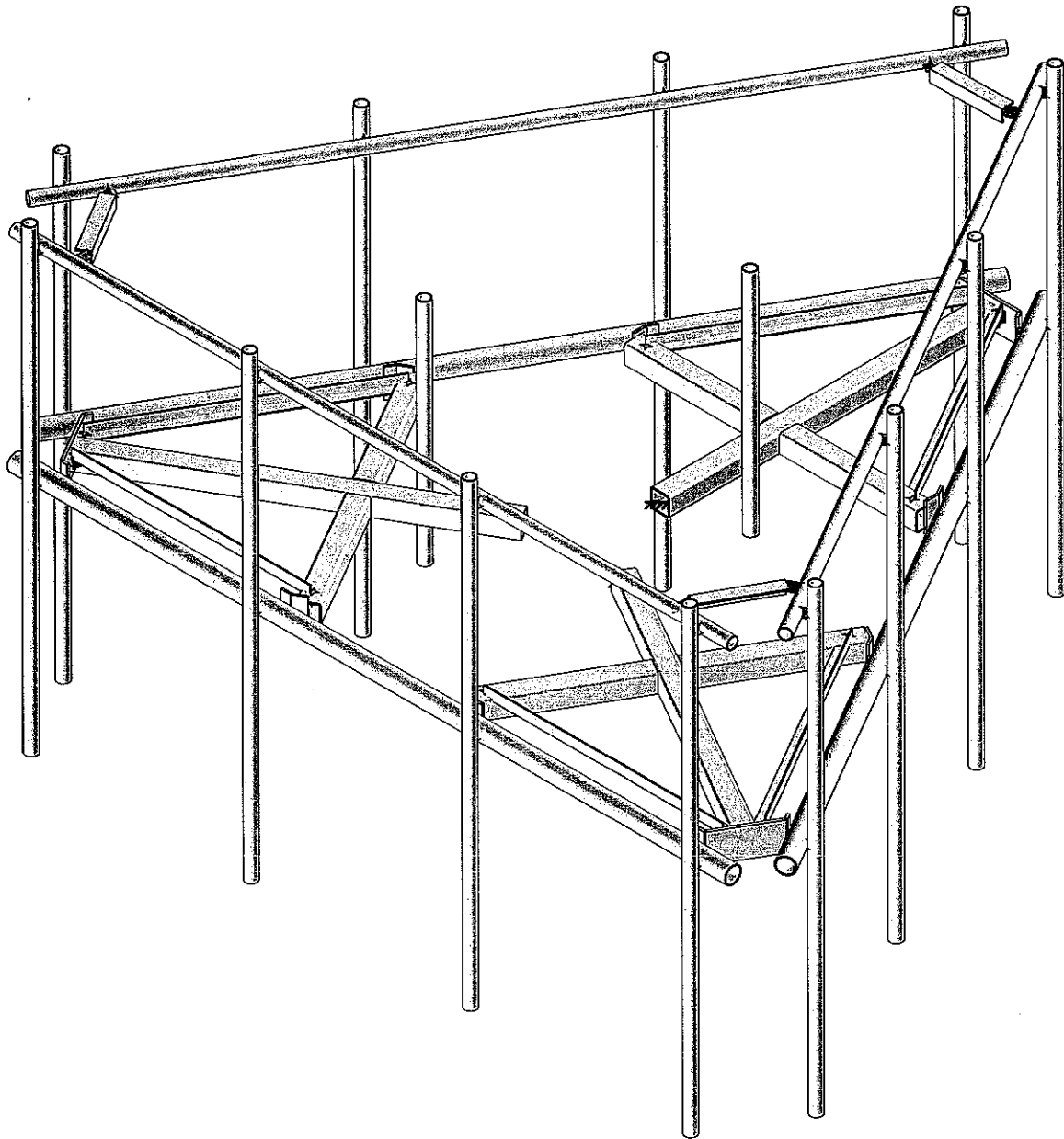
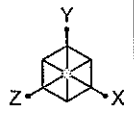
Locations:
 New York, NY
 Atlanta, GA
 Los Angeles, CA
 Plymouth, IN
 Salem, OR
 Dallas, TX

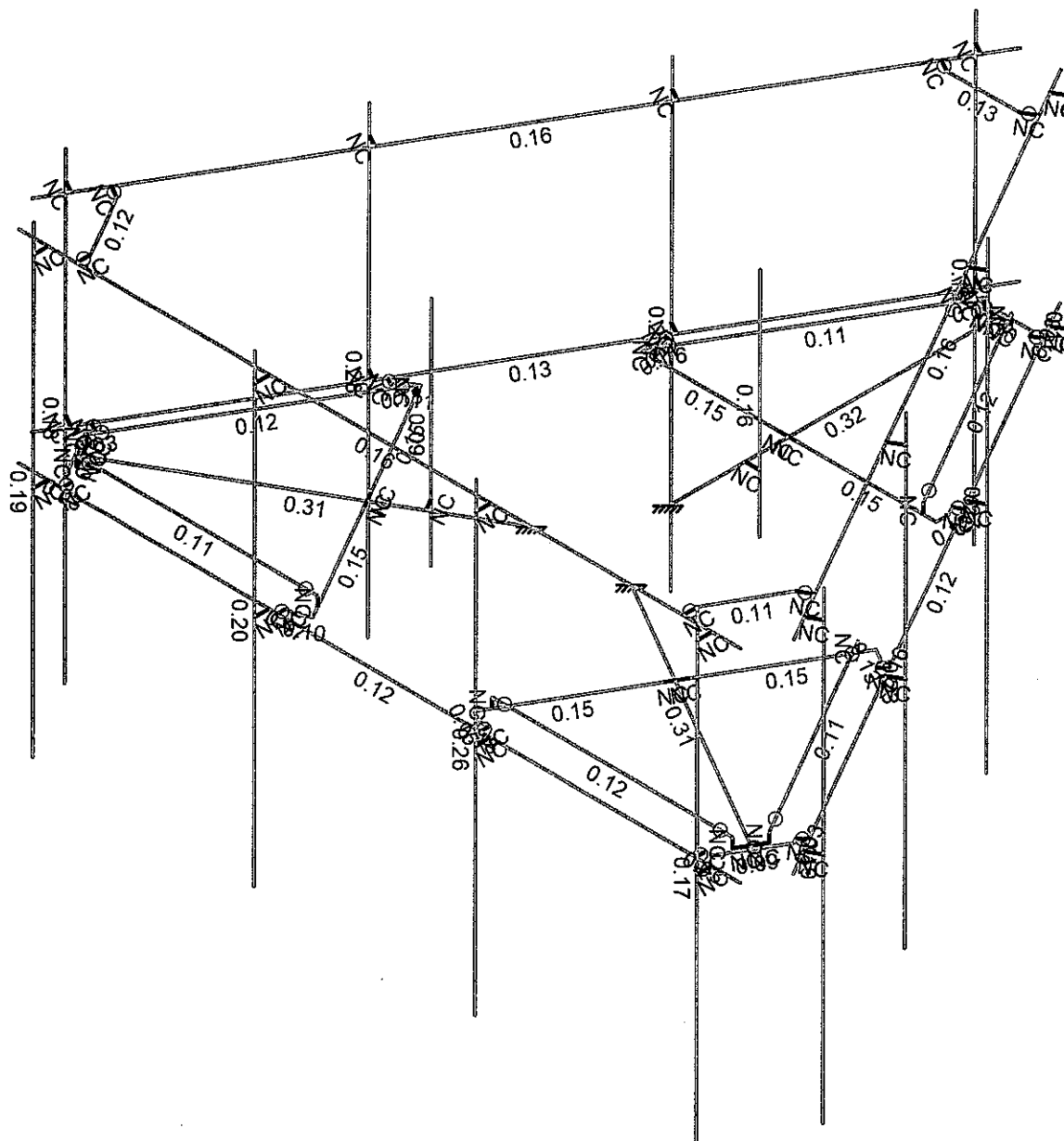
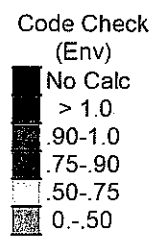
Engineering
 Support Team:
 1-888-753-7446

SITE PRO 1
 A Valmont COMPANY

PART NO.	HRK12-U
DWG. NO.	HRK12-U

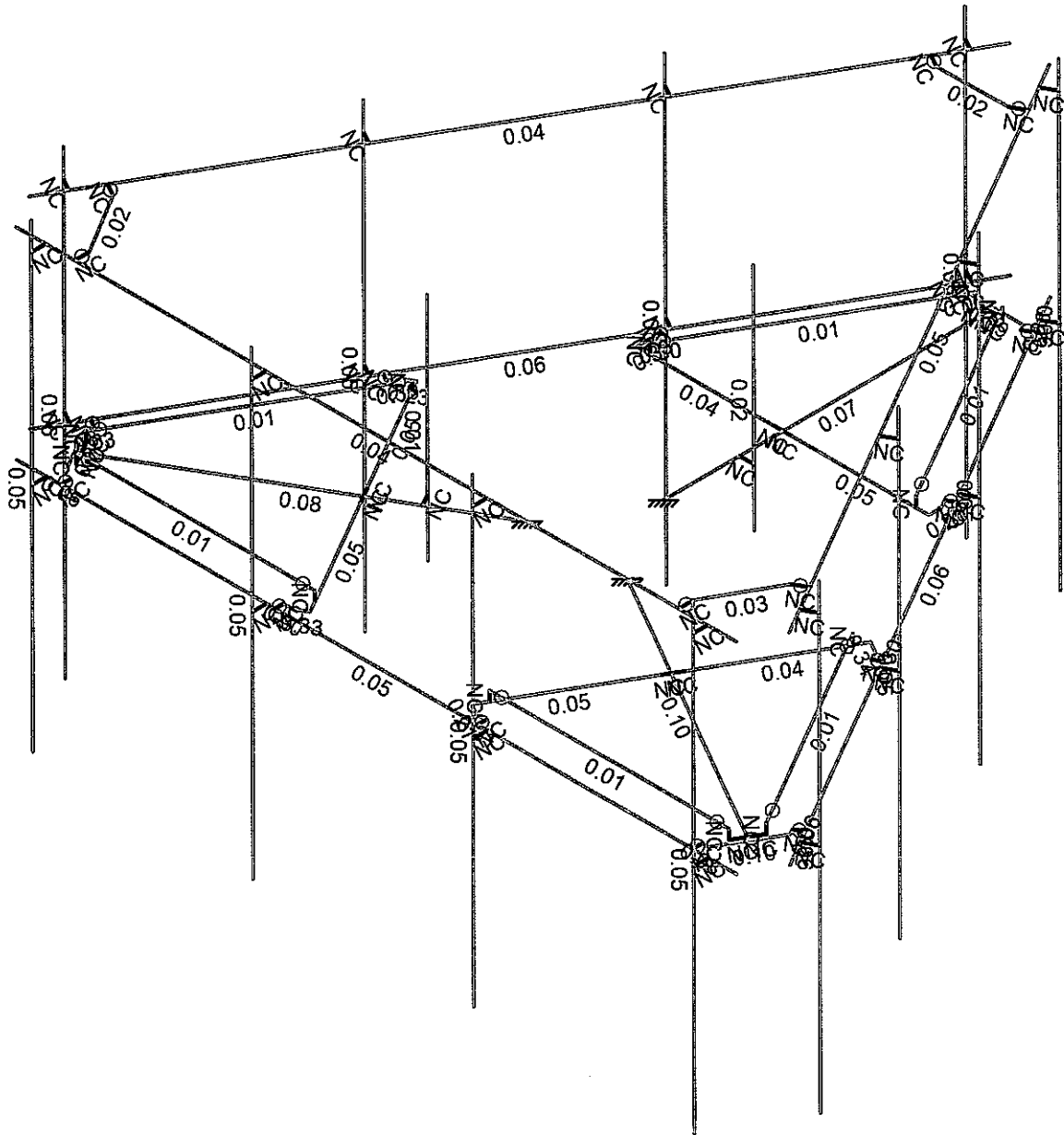
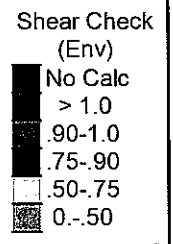
PROPRIETARY NOTE: DIMENSIONS SHOWN IN THIS DRAWING ARE FOR INFORMATION ONLY. VALMONT INDUSTRIES IS NOT RESPONSIBLE FOR ANY REPRODUCTION OF THIS DRAWING WITHOUT THE WRITTEN PERMISSION OF VALMONT INDUSTRIES. ANY USE OR REPRODUCTION WITHOUT THE WRITTEN PERMISSION OF VALMONT INDUSTRIES IS STRICTLY PROHIBITED.





IRISA

5000978813-VZW_MT_LO_...



ERISA



Company :
 Designer :
 Job Number :
 Model Name :

9/8/2025
 7:33:02 PM
 Checked By : _____

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
1	Antenna D	None				78		
2	Antenna Di	None				78		
3	Antenna Wo (0 Deg)	None				78		
4	Antenna Wo (30 Deg)	None				78		
5	Antenna Wo (60 Deg)	None				78		
6	Antenna Wo (90 Deg)	None				78		
7	Antenna Wo (120 Deg)	None				78		
8	Antenna Wo (150 Deg)	None				78		
9	Antenna Wo (180 Deg)	None				78		
10	Antenna Wo (210 Deg)	None				78		
11	Antenna Wo (240 Deg)	None				78		
12	Antenna Wo (270 Deg)	None				78		
13	Antenna Wo (300 Deg)	None				78		
14	Antenna Wo (330 Deg)	None				78		
15	Antenna Wi (0 Deg)	None				78		
16	Antenna Wi (30 Deg)	None				78		
17	Antenna Wi (60 Deg)	None				78		
18	Antenna Wi (90 Deg)	None				78		
19	Antenna Wi (120 Deg)	None				78		
20	Antenna Wi (150 Deg)	None				78		
21	Antenna Wi (180 Deg)	None				78		
22	Antenna Wi (210 Deg)	None				78		
23	Antenna Wi (240 Deg)	None				78		
24	Antenna Wi (270 Deg)	None				78		
25	Antenna Wi (300 Deg)	None				78		
26	Antenna Wi (330 Deg)	None				78		
27	Antenna Wm (0 Deg)	None				78		
28	Antenna Wm (30 Deg)	None				78		
29	Antenna Wm (60 Deg)	None				78		
30	Antenna Wm (90 Deg)	None				78		
31	Antenna Wm (120 Deg)	None				78		
32	Antenna Wm (150 Deg)	None				78		
33	Antenna Wm (180 Deg)	None				78		
34	Antenna Wm (210 Deg)	None				78		
35	Antenna Wm (240 Deg)	None				78		
36	Antenna Wm (270 Deg)	None				78		
37	Antenna Wm (300 Deg)	None				78		
38	Antenna Wm (330 Deg)	None				78		
39	Structure D	None		-1				3
40	Structure Di	None					59	3
41	Structure Wo (0 Deg)	None					118	
42	Structure Wo (30 Deg)	None					118	
43	Structure Wo (60 Deg)	None					118	
44	Structure Wo (90 Deg)	None					118	
45	Structure Wo (120 Deg)	None					118	
46	Structure Wo (150 Deg)	None					118	
47	Structure Wo (180 Deg)	None					118	
48	Structure Wo (210 Deg)	None					118	
49	Structure Wo (240 Deg)	None					118	
50	Structure Wo (270 Deg)	None					118	
51	Structure Wo (300 Deg)	None					118	
52	Structure Wo (330 Deg)	None					118	
53	Structure Wi (0 Deg)	None					118	
54	Structure Wi (30 Deg)	None					118	
55	Structure Wi (60 Deg)	None					118	

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
56	Structure Wi (90 Deg)	None					118	
57	Structure Wi (120 Deg)	None					118	
58	Structure Wi (150 Deg)	None					118	
59	Structure Wi (180 Deg)	None					118	
60	Structure Wi (210 Deg)	None					118	
61	Structure Wi (240 Deg)	None					118	
62	Structure Wi (270 Deg)	None					118	
63	Structure Wi (300 Deg)	None					118	
64	Structure Wi (330 Deg)	None					118	
65	Structure Wm (0 Deg)	None					118	
66	Structure Wm (30 Deg)	None					118	
67	Structure Wm (60 Deg)	None					118	
68	Structure Wm (90 Deg)	None					118	
69	Structure Wm (120 Deg)	None					118	
70	Structure Wm (150 Deg)	None					118	
71	Structure Wm (180 Deg)	None					118	
72	Structure Wm (210 Deg)	None					118	
73	Structure Wm (240 Deg)	None					118	
74	Structure Wm (270 Deg)	None					118	
75	Structure Wm (300 Deg)	None					118	
76	Structure Wm (330 Deg)	None					118	
77	Lm1	None				1		
78	Lm2	None				1		
79	Lv1	None				1		
80	Lv2	None				1		
81	Antenna Ev	None				78		
82	Antenna Eh (0 Deg)	None				52		
83	Antenna Eh (90 Deg)	None				52		
84	Structure Ev	ELY		-0.043				3
85	Structure Eh (0 Deg)	ELZ			-0.107			3
86	Structure Eh (90 Deg)	ELX	0.107					3
87	BLC 39 Transient Area Loads	None					30	
88	BLC 40 Transient Area Loads	None					30	
89	BLC 84 Transient Area Loads	None					30	
90	BLC 85 Transient Area Loads	None					30	
91	BLC 86 Transient Area Loads	None					30	

Load Combinations

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

Load Combinations (Continued)

Description	Solve	P-Delta	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor
17 1.2D + 1.0Di + 1.0Wi (120 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	19	1	57	1					
18 1.2D + 1.0Di + 1.0Wi (150 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	20	1	58	1					
19 1.2D + 1.0Di + 1.0Wi (180 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	21	1	59	1					
20 1.2D + 1.0Di + 1.0Wi (210 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	22	1	60	1					
21 1.2D + 1.0Di + 1.0Wi (240 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	23	1	61	1					
22 1.2D + 1.0Di + 1.0Wi (270 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	24	1	62	1					
23 1.2D + 1.0Di + 1.0Wi (300 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	25	1	63	1					
24 1.2D + 1.0Di + 1.0Wi (330 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	26	1	64	1					
25 1.2D + 1.5Lm1 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	27	1	65	1							
26 1.2D + 1.5Lm1 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	28	1	66	1							
27 1.2D + 1.5Lm1 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	29	1	67	1							
28 1.2D + 1.5Lm1 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	30	1	68	1							
29 1.2D + 1.5Lm1 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	31	1	69	1							
30 1.2D + 1.5Lm1 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	32	1	70	1							
31 1.2D + 1.5Lm1 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	33	1	71	1							
32 1.2D + 1.5Lm1 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	34	1	72	1							
33 1.2D + 1.5Lm1 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	35	1	73	1							
34 1.2D + 1.5Lm1 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	36	1	74	1							
35 1.2D + 1.5Lm1 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	37	1	75	1							
36 1.2D + 1.5Lm1 + 1.0Wm (330 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	38	1	76	1							
37 1.2D + 1.5Lm2 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	27	1	65	1							
38 1.2D + 1.5Lm2 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	28	1	66	1							
39 1.2D + 1.5Lm2 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	29	1	67	1							
40 1.2D + 1.5Lm2 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	30	1	68	1							
41 1.2D + 1.5Lm2 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	31	1	69	1							
42 1.2D + 1.5Lm2 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	32	1	70	1							
43 1.2D + 1.5Lm2 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	33	1	71	1							
44 1.2D + 1.5Lm2 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	34	1	72	1							
45 1.2D + 1.5Lm2 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	35	1	73	1							
46 1.2D + 1.5Lm2 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	36	1	74	1							
47 1.2D + 1.5Lm2 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	37	1	75	1							
48 1.2D + 1.5Lm2 + 1.0Wm (330 Deg)	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 (0 Deg)	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 (30 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.866	83	0.5	ELZ	0.866	ELX	0.5	
54 1.2D + 1.0Ev + 1.0Eh (60 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.5	83	0.866	ELZ	0.5	ELX	0.866	
55 1.2D + 1.0Ev + 1.0Eh (90 Deg)	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 (120 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.5	83	0.866	ELZ	-0.5	ELX	0.866	
57 1.2D + 1.0Ev + 1.0Eh (150 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.866	83	0.5	ELZ	-0.866	ELX	0.5	
58 1.2D + 1.0Ev + 1.0Eh (180 Deg)	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 (210 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.866	83	-0.5	ELZ	-0.866	ELX	-0.5	
60 1.2D + 1.0Ev + 1.0Eh (240 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.5	83	-0.866	ELZ	-0.5	ELX	-0.866	
61 1.2D + 1.0Ev + 1.0Eh (270 Deg)	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 (300 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.5	83	-0.866	ELZ	0.5	ELX	-0.866	
63 1.2D + 1.0Ev + 1.0Eh (330 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.866	83	-0.5	ELZ	0.866	ELX	-0.5	
64 0.9D - 1.0Ev + 1.0Eh (0 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX		
65 0.9D - 1.0Ev + 1.0Eh (30 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.866	83	0.5	ELZ	0.866	ELX	0.5	
66 0.9D - 1.0Ev + 1.0Eh (60 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.5	83	0.866	ELZ	0.5	ELX	0.866	
67 0.9D - 1.0Ev + 1.0Eh (90 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1	
68 0.9D - 1.0Ev + 1.0Eh (120 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.5	83	0.866	ELZ	-0.5	ELX	0.866	
69 0.9D - 1.0Ev + 1.0Eh (150 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.866	83	0.5	ELZ	-0.866	ELX	0.5	
70 0.9D - 1.0Ev + 1.0Eh (180 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX		
71 0.9D - 1.0Ev + 1.0Eh (210 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.866	83	-0.5	ELZ	-0.866	ELX	-0.5	

Load Combinations (Continued)

Description		Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
72	0.9D - 1.0Ev + 1.0Eh (240 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.5	83	-0.866	ELZ	-0.5	ELX	-0.866
73	0.9D - 1.0Ev + 1.0Eh (270 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1
74	0.9D - 1.0Ev + 1.0Eh (300 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.5	83	-0.866	ELZ	0.5	ELX	-0.866
75	0.9D - 1.0Ev + 1.0Eh (330 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.866	83	-0.5	ELZ	0.866	ELX	-0.5

Load Combination Design

	Description	Service	Hot Rolled	Cold Formed	Wood	Concrete	Masonry	Aluminum	Stainless	Connection
1	1.2D+1.0Wo (0 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	1.2D+1.0Wo (30 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	1.2D+1.0Wo (60 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	1.2D+1.0Wo (90 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	1.2D+1.0Wo (120 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	1.2D+1.0Wo (150 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	1.2D+1.0Wo (180 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	1.2D+1.0Wo (210 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	1.2D+1.0Wo (240 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10	1.2D+1.0Wo (270 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	1.2D+1.0Wo (300 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12	1.2D+1.0Wo (330 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13	1.2D + 1.0Di + 1.0Wi (0 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14	1.2D + 1.0Di + 1.0Wi (30 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
15	1.2D + 1.0Di + 1.0Wi (60 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
16	1.2D + 1.0Di + 1.0Wi (90 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
17	1.2D + 1.0Di + 1.0Wi (120 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18	1.2D + 1.0Di + 1.0Wi (150 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
19	1.2D + 1.0Di + 1.0Wi (180 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
20	1.2D + 1.0Di + 1.0Wi (210 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
21	1.2D + 1.0Di + 1.0Wi (240 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
22	1.2D + 1.0Di + 1.0Wi (270 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
23	1.2D + 1.0Di + 1.0Wi (300 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24	1.2D + 1.0Di + 1.0Wi (330 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
25	1.2D + 1.5Lm1 + 1.0Wm (0 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
26	1.2D + 1.5Lm1 + 1.0Wm (30 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
27	1.2D + 1.5Lm1 + 1.0Wm (60 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
28	1.2D + 1.5Lm1 + 1.0Wm (90 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
29	1.2D + 1.5Lm1 + 1.0Wm (120 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
30	1.2D + 1.5Lm1 + 1.0Wm (150 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
31	1.2D + 1.5Lm1 + 1.0Wm (180 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
32	1.2D + 1.5Lm1 + 1.0Wm (210 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
33	1.2D + 1.5Lm1 + 1.0Wm (240 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
34	1.2D + 1.5Lm1 + 1.0Wm (270 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
35	1.2D + 1.5Lm1 + 1.0Wm (300 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
36	1.2D + 1.5Lm1 + 1.0Wm (330 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
37	1.2D + 1.5Lm2 + 1.0Wm (0 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
38	1.2D + 1.5Lm2 + 1.0Wm (30 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
39	1.2D + 1.5Lm2 + 1.0Wm (60 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
40	1.2D + 1.5Lm2 + 1.0Wm (90 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
41	1.2D + 1.5Lm2 + 1.0Wm (120 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
42	1.2D + 1.5Lm2 + 1.0Wm (150 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
43	1.2D + 1.5Lm2 + 1.0Wm (180 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
44	1.2D + 1.5Lm2 + 1.0Wm (210 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
45	1.2D + 1.5Lm2 + 1.0Wm (240 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
46	1.2D + 1.5Lm2 + 1.0Wm (270 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
47	1.2D + 1.5Lm2 + 1.0Wm (300 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
48	1.2D + 1.5Lm2 + 1.0Wm (330 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Load Combination Design (Continued)

	Description	Service	Hot Rolled	Cold Formed	Wood	Concrete	Masonry	Aluminum	Stainless	Connection
49	1.2D + 1.5Lv1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
50	1.2D + 1.5Lv2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
51	1.4D		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
52	1.2D + 1.0Ev + 1.0Eh (0 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
53	1.2D + 1.0Ev + 1.0Eh (30 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
54	1.2D + 1.0Ev + 1.0Eh (60 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
55	1.2D + 1.0Ev + 1.0Eh (90 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
56	1.2D + 1.0Ev + 1.0Eh (120 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
57	1.2D + 1.0Ev + 1.0Eh (150 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
58	1.2D + 1.0Ev + 1.0Eh (180 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
59	1.2D + 1.0Ev + 1.0Eh (210 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
60	1.2D + 1.0Ev + 1.0Eh (240 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
61	1.2D + 1.0Ev + 1.0Eh (270 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
62	1.2D + 1.0Ev + 1.0Eh (300 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
63	1.2D + 1.0Ev + 1.0Eh (330 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
64	0.9D - 1.0Ev + 1.0Eh (0 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
65	0.9D - 1.0Ev + 1.0Eh (30 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
66	0.9D - 1.0Ev + 1.0Eh (60 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
67	0.9D - 1.0Ev + 1.0Eh (90 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
68	0.9D - 1.0Ev + 1.0Eh (120 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
69	0.9D - 1.0Ev + 1.0Eh (150 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
70	0.9D - 1.0Ev + 1.0Eh (180 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
71	0.9D - 1.0Ev + 1.0Eh (210 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
72	0.9D - 1.0Ev + 1.0Eh (240 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
73	0.9D - 1.0Ev + 1.0Eh (270 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
74	0.9D - 1.0Ev + 1.0Eh (300 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
75	0.9D - 1.0Ev + 1.0Eh (330 Deg)		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	I _{yy} [in ⁴]	I _{zz} [in ⁴]	J [in ⁴]
1	Face Horizontal	PIPE 3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	Standoff Horizontal	HSS4X4X4	Beam	SquareTube	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
3	Corner Plate	PL1/2X6	Beam	BAR	A36 Gr.36	Typical	3	0.062	9	0.237
4	Platform Crossmember	HSS4X4X4	Beam	SquareTube	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
5	Grating Support	L2X2X3	Beam	Single Angle	A36 Gr.36	Typical	0.722	0.271	0.271	0.009
6	Mount Pipe	PIPE 2.0	Column	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
7	Cross Arm Plate	PL3/8X6	Column	RECT	A36 Gr.36	Typical	2.25	0.026	6.75	0.101
8	Support Rail	PIPE 2.0	Column	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
9	Corner Angle	L2.5X2.5X4	Column	Single Angle	A36 Gr.36	Typical	1.19	0.692	0.692	0.026

Node Coordinates

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1	N2	3.941078	0	16.007185	
2	N3	1.512693	0.166667	20.213272	
3	N4	3.827797	0.166667	16.203394	
4	N5	2.670245	0	18.208333	
5	N6	5.863714	0	20.052083	
6	N7	0	0	16.666667	
7	N8	1.512693	0	20.213272	
8	N9	3.827797	0	16.203394	
9	N10	1.399412	0	20.409481	
10	N11	2.753578	0	18.063996	
11	N12	2.586912	0	18.352671	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
12	N13	4.130521	0	16.11656	
13	N14	1.588855	0	20.518856	
14	N15	1.755521	0	20.518856	
15	N16	5.493922	0	20.498628	
16	N17	4.213855	0	16.260898	
17	N18	6.065537	0	19.508562	
18	N19	1.755521	0	20.66469	
19	N20	4.34015	0	16.187981	
20	N21	6.121526	0	19.605539	
21	N22	5.605901	0	20.498628	
22	N23	5.493922	0	20.66469	
23	N24	6.209351	0	19.425531	
24	N25	5.791545	0	20.010417	
25	N26	5.674426	0.166667	20.213272	
26	N27	5.674426	0	20.213272	
27	N28	5.908664	0.166667	19.807561	
28	N29	5.908664	0	19.807561	
29	N30	0	0	15.666333	
30	N31	-2.541667	0	13.583333	
31	N32	2.315104	0.166667	13.583333	
32	N33	-2.315104	0.166667	13.583333	
33	N34	0	0	13.583333	
34	N35	0	0	9.895833	
35	N36	2.315104	0	13.583333	
36	N37	-2.315104	0	13.583333	
37	N38	2.541667	0	13.583333	
38	N39	-0.166667	0	13.583333	
39	N40	0.166667	0	13.583333	
40	N41	-2.541667	0	13.364583	
41	N42	2.541667	0	13.364583	
42	N43	2.458333	0	13.220246	
43	N44	0.571615	0	9.99281	
44	N45	-2.458333	0	13.220246	
45	N46	-0.571615	0	9.99281	
46	N47	2.584629	0	13.147329	
47	N48	-2.584629	0	13.147329	
48	N49	-0.515625	0	9.895833	
49	N50	0.515625	0	9.895833	
50	N51	0.715429	0	9.909779	
51	N52	-0.715429	0	9.909779	
52	N53	0	0	9.979167	
53	N54	0.234238	0.166667	9.979167	
54	N55	0.234238	0	9.979167	
55	N56	-0.234238	0.166667	9.979167	
56	N57	-0.234238	0	9.979167	
57	N59	-1.399412	0	20.409481	
58	N60	-3.827797	0.166667	16.203394	
59	N61	-1.512693	0.166667	20.213272	
60	N62	-2.670245	0	18.208333	
61	N63	-5.863714	0	20.052083	
62	N64	-3.827797	0	16.203394	
63	N65	-1.512693	0	20.213272	
64	N66	-3.941078	0	16.007185	
65	N67	-2.586912	0	18.352671	
66	N68	-2.753578	0	18.063996	



Company :
Designer :
Job Number :
Model Name :

9/8/2025
7:33:02 PM
Checked By : _____

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
67	N69	-1.588855	0	20.518856	
68	N70	-4.130521	0	16.11656	
69	N71	-4.213855	0	16.260898	
70	N72	-6.065537	0	19.508562	
71	N73	-1.755521	0	20.518856	
72	N74	-5.493922	0	20.498628	
73	N75	-4.34015	0	16.187981	
74	N76	-1.755521	0	20.66469	
75	N77	-5.605901	0	20.498628	
76	N78	-6.121526	0	19.605539	
77	N79	-6.209351	0	19.425531	
78	N80	-5.493922	0	20.66469	
79	N81	-5.791545	0	20.010417	
80	N82	-5.908664	0.166667	19.807561	
81	N83	-5.908664	0	19.807561	
82	N84	-5.674426	0.166667	20.213272	
83	N85	-5.674426	0	20.213272	
84	N86	6.261255	0	20.66469	
85	N87	-6.238745	0	20.66469	
86	N88	0.331762	0	9.245249	
87	N89	6.581762	0	20.070566	
88	N90	-6.593017	0	20.090061	
89	N91	-0.343017	0	9.264744	
90	N92	5.761255	0	20.66469	
91	N93	5.761255	0	20.91469	
92	N94	5.761255	3.979167	20.91469	
93	N95	5.761255	-4.020833	20.91469	
94	N96	1.927922	0	20.66469	
95	N97	1.927922	0	20.91469	
96	N98	1.927922	3.979167	20.91469	
97	N99	1.927922	-4.020833	20.91469	
98	N100	-1.905411	0	20.66469	
99	N101	-1.905411	0	20.91469	
100	N102	-1.905411	3.979167	20.91469	
101	N103	-1.905411	-4.020833	20.91469	
102	N104	-5.738745	0	20.66469	
103	N105	-5.738745	0	20.91469	
104	N106	-5.738745	3.979167	20.91469	
105	N107	-5.738745	-4.020833	20.91469	
106	N142	0	0	14.333333	
107	N143	0.25	0	14.333333	
108	N144	0.25	3	14.333333	
109	N145	0.25	-1	14.333333	
110	N114	6.261255	3.5	20.66469	
111	N115	-6.238745	3.5	20.66469	
112	N116	5.761255	3.5	20.66469	
113	N117	5.761255	3.5	20.91469	
114	N118	1.927922	3.5	20.66469	
115	N119	1.927922	3.5	20.91469	
116	N120	-1.905411	3.5	20.66469	
117	N121	-1.905411	3.5	20.91469	
118	N122	-5.738745	3.5	20.66469	
119	N123	-5.738745	3.5	20.91469	
120	N124	-5.238745	3.5	20.66469	
121	N125	5.261255	3.5	20.66469	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
122	N126	-5.238745	3.5	20.41469	
123	N127	5.261255	3.5	20.41469	
124	N128	6.548268	-4.020833	19.512554	
125	N129	0.581762	3.5	9.678262	
126	N130	4.631602	0	16.19279	
127	N131	0.615256	3.5	10.236274	
128	N132	0.581762	0	9.678262	
129	N133	0.798268	0	9.553262	
130	N134	0.798268	3.979167	9.553262	
131	N135	0.798268	-4.020833	9.553262	
132	N136	6.331762	0	19.637554	
133	N137	6.548268	0	19.512554	
134	N138	6.548268	3.979167	19.512554	
135	N139	4.415095	0	16.31779	
136	N146	4.631602	3.979167	16.19279	
137	N147	4.631602	-4.020833	16.19279	
138	N148	2.498429	0	12.998026	
139	N149	2.714935	0	12.873026	
140	N150	2.714935	3.979167	12.873026	
141	N151	2.714935	-4.020833	12.873026	
142	N152	0.331762	3.5	9.245249	
143	N153	6.581762	3.5	20.070566	
144	N154	5.865256	3.5	19.329541	
145	N155	0.798268	3.5	9.553262	
146	N156	2.498429	3.5	12.998026	
147	N157	2.714935	3.5	12.873026	
148	N158	4.415095	3.5	16.31779	
149	N159	4.631602	3.5	16.19279	
150	N160	6.331762	3.5	19.637554	
151	N161	6.548268	3.5	19.512554	
152	N162	6.081762	3.5	19.204541	
153	N163	0.831762	3.5	10.111274	
154	N164	-0.809524	-4.020833	9.572756	
155	N165	-6.343017	3.5	19.657049	
156	N166	-2.72619	0	12.89252	
157	N167	-5.876511	3.5	19.349036	
158	N168	-6.343017	0	19.657049	
159	N169	-6.559524	0	19.532049	
160	N170	-6.559524	3.979167	19.532049	
161	N171	-6.559524	-4.020833	19.532049	
162	N172	-0.593017	0	9.697756	
163	N173	-0.809524	0	9.572756	
164	N174	-0.809524	3.979167	9.572756	
165	N175	-2.509684	0	13.01752	
166	N176	-2.72619	3.979167	12.89252	
167	N177	-2.72619	-4.020833	12.89252	
168	N178	-4.426351	0	16.337284	
169	N179	-4.642857	0	16.212284	
170	N180	-4.642857	3.979167	16.212284	
171	N181	-4.642857	-4.020833	16.212284	
172	N182	-6.593017	3.5	20.090061	
173	N183	-0.343017	3.5	9.264744	
174	N184	-0.626511	3.5	10.255769	
175	N185	-6.559524	3.5	19.532049	
176	N186	-4.426351	3.5	16.337284	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
177	N187	-4.642857	3.5	16.212284	
178	N188	-2.509684	3.5	13.01752	
179	N189	-2.72619	3.5	12.89252	
180	N190	-0.593017	3.5	9.697756	
181	N191	-0.809524	3.5	9.572756	
182	N192	-0.843017	3.5	10.130769	
183	N193	-6.093017	3.5	19.224036	
184	N194	-0.866314	0	17.166833	
185	N195	0.866314	0	17.166833	
186	N196	-2.145726	0	17.616827	
187	N197	-2.020726	0	17.833333	
188	N198	-2.145726	3	17.616827	
189	N199	-2.145726	-1	17.616827	

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	N30	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N194	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N195	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [$10^{-6}/^{\circ}\text{F}$]	Density [k/ft ³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
8	Q235	29000	11154	0.3	0.65	0.49	35	1.5	58	1.2

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	M1	N195	N6		Standoff Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
2	M2	N10	N12		Platform Crossmember	Beam	SquareTube	A500 Gr.B Rect	Typical
3	M3	N11	N2		Platform Crossmember	Beam	SquareTube	A500 Gr.B Rect	Typical
4	M4	N21	N22		Corner Plate	Beam	BAR	A36 Gr.36	Typical
5	M5	N4	N9	240	RIGID	None	None	RIGID	Typical
6	M6	N3	N8	240	RIGID	None	None	RIGID	Typical
7	M7	N26	N3		Grating Support	Beam	Single Angle	A36 Gr.36	Typical
8	M8	N4	N28		Grating Support	Beam	Single Angle	A36 Gr.36	Typical
9	M9	N28	N29	240	RIGID	None	None	RIGID	Typical
10	M10	N11	N5		RIGID	None	None	RIGID	Typical
11	M11	N5	N12		RIGID	None	None	RIGID	Typical
12	M12	N10	N14		Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
13	M13	N14	N15		Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
14	M14	N15	N19		RIGID	None	None	RIGID	Typical
15	M15	N22	N16		Corner Plate	Beam	BAR	A36 Gr.36	Typical
16	M16	N16	N23		RIGID	None	None	RIGID	Typical
17	M17	N2	N13		Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
18	M18	N13	N17		Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
19	M19	N17	N20		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
20	M20	N21	N18		Corner Plate	Beam	BAR	A36 Gr.36	Typical
21	M21	N18	N24		RIGID	None	None	RIGID	Typical
22	M22	N29	N25		RIGID	None	None	RIGID	Typical
23	M23	N25	N27		RIGID	None	None	RIGID	Typical
24	M24	N26	N27	240	RIGID	None	None	RIGID	Typical
25	M25	N30	N35		Standoff Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
26	M26	N38	N40		Platform Crossmember	Beam	SquareTube	A500 Gr.B Rect	Typical
27	M27	N39	N31		Platform Crossmember	Beam	SquareTube	A500 Gr.B Rect	Typical
28	M28	N49	N50		Corner Plate	Beam	BAR	A36 Gr.36	Typical
29	M29	N33	N37	240	RIGID	None	None	RIGID	Typical
30	M30	N32	N36	240	RIGID	None	None	RIGID	Typical
31	M31	N54	N32		Grating Support	Beam	Single Angle	A36 Gr.36	Typical
32	M32	N33	N56		Grating Support	Beam	Single Angle	A36 Gr.36	Typical
33	M33	N56	N57	240	RIGID	None	None	RIGID	Typical
34	M34	N39	N34		RIGID	None	None	RIGID	Typical
35	M35	N34	N40		RIGID	None	None	RIGID	Typical
36	M36	N38	N42		Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
37	M37	N42	N43		Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
38	M38	N43	N47		RIGID	None	None	RIGID	Typical
39	M39	N50	N44		Corner Plate	Beam	BAR	A36 Gr.36	Typical
40	M40	N44	N51		RIGID	None	None	RIGID	Typical
41	M41	N31	N41		Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
42	M42	N41	N45		Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
43	M43	N45	N48		RIGID	None	None	RIGID	Typical
44	M44	N49	N46		Corner Plate	Beam	BAR	A36 Gr.36	Typical
45	M45	N46	N52		RIGID	None	None	RIGID	Typical
46	M46	N57	N53		RIGID	None	None	RIGID	Typical
47	M47	N53	N55		RIGID	None	None	RIGID	Typical
48	M48	N54	N55	240	RIGID	None	None	RIGID	Typical
49	M49	N194	N63		Standoff Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
50	M50	N66	N68		Platform Crossmember	Beam	SquareTube	A500 Gr.B Rect	Typical
51	M51	N67	N59		Platform Crossmember	Beam	SquareTube	A500 Gr.B Rect	Typical
52	M52	N77	N78		Corner Plate	Beam	BAR	A36 Gr.36	Typical
53	M53	N61	N65	240	RIGID	None	None	RIGID	Typical
54	M54	N60	N64	240	RIGID	None	None	RIGID	Typical
55	M55	N82	N60		Grating Support	Beam	Single Angle	A36 Gr.36	Typical
56	M56	N61	N84		Grating Support	Beam	Single Angle	A36 Gr.36	Typical
57	M57	N84	N85	240	RIGID	None	None	RIGID	Typical
58	M58	N67	N62		RIGID	None	None	RIGID	Typical
59	M59	N62	N68		RIGID	None	None	RIGID	Typical
60	M60	N66	N70		Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
61	M61	N70	N71		Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
62	M62	N71	N75		RIGID	None	None	RIGID	Typical
63	M63	N78	N72		Corner Plate	Beam	BAR	A36 Gr.36	Typical
64	M64	N72	N79		RIGID	None	None	RIGID	Typical
65	M65	N59	N69		Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
66	M66	N69	N73		Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
67	M67	N73	N76		RIGID	None	None	RIGID	Typical
68	M68	N77	N74		Corner Plate	Beam	BAR	A36 Gr.36	Typical
69	M69	N74	N80		RIGID	None	None	RIGID	Typical
70	M70	N85	N81		RIGID	None	None	RIGID	Typical
71	M71	N81	N83		RIGID	None	None	RIGID	Typical
72	M72	N82	N83	240	RIGID	None	None	RIGID	Typical
73	M73	N86	N87		Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
74	M74	N88	N89		Face Horizontal	Beam	Pipe	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
75	M75	N90	N91		Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
76	M76	N92	N93		RIGID	None	None	RIGID	Typical
77	MP1A	N94	N95		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
78	M78	N96	N97		RIGID	None	None	RIGID	Typical
79	MP2A	N98	N99		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
80	M80	N100	N101		RIGID	None	None	RIGID	Typical
81	MP3A	N102	N103		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
82	M82	N104	N105		RIGID	None	None	RIGID	Typical
83	MP4A	N106	N107		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
84	M101	N142	N143		RIGID	None	None	RIGID	Typical
85	OVP2	N144	N145		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
86	M87	N116	N117		RIGID	None	None	RIGID	Typical
87	M88	N118	N119		RIGID	None	None	RIGID	Typical
88	M89	N120	N121		RIGID	None	None	RIGID	Typical
89	M90	N122	N123		RIGID	None	None	RIGID	Typical
90	M91	N115	N114		Support Rail	Column	Pipe	A53 Gr.B	Typical
91	M92	N124	N126		RIGID	None	None	RIGID	Typical
92	M93	N125	N127		RIGID	None	None	RIGID	Typical
93	MP4C	N138	N128	240	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
94	MP3C	N146	N147	240	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
95	M96	N160	N161		RIGID	None	None	RIGID	Typical
96	M97	N156	N157		RIGID	None	None	RIGID	Typical
97	M98	N132	N133		RIGID	None	None	RIGID	Typical
98	MP1C	N134	N135	240	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
99	M103	N136	N137		RIGID	None	None	RIGID	Typical
100	M104	N139	N130		RIGID	None	None	RIGID	Typical
101	M105	N148	N149		RIGID	None	None	RIGID	Typical
102	MP2C	N150	N151	240	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
103	M107	N129	N155		RIGID	None	None	RIGID	Typical
104	M108	N158	N159		RIGID	None	None	RIGID	Typical
105	M109	N153	N152		Support Rail	Column	Pipe	A53 Gr.B	Typical
106	M110	N162	N154		RIGID	None	None	RIGID	Typical
107	M111	N163	N131		RIGID	None	None	RIGID	Typical
108	MP4B	N174	N164	120	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
109	MP3B	N176	N177	120	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
110	M114	N190	N191		RIGID	None	None	RIGID	Typical
111	M115	N186	N187		RIGID	None	None	RIGID	Typical
112	M116	N168	N169		RIGID	None	None	RIGID	Typical
113	MP1B	N170	N171	120	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
114	M118	N172	N173		RIGID	None	None	RIGID	Typical
115	M119	N175	N166		RIGID	None	None	RIGID	Typical
116	M120	N178	N179		RIGID	None	None	RIGID	Typical
117	MP2B	N180	N181	120	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
118	M122	N165	N185		RIGID	None	None	RIGID	Typical
119	M123	N188	N189		RIGID	None	None	RIGID	Typical
120	M124	N183	N182		Support Rail	Column	Pipe	A53 Gr.B	Typical
121	M125	N192	N184		RIGID	None	None	RIGID	Typical
122	M126	N193	N167		RIGID	None	None	RIGID	Typical
123	M127	N126	N167	180	Corner Angle	Column	Single Angle	A36 Gr.36	Typical
124	M128	N184	N131	180	Corner Angle	Column	Single Angle	A36 Gr.36	Typical
125	M129	N154	N127	180	Corner Angle	Column	Single Angle	A36 Gr.36	Typical
126	M130	N197	N196		RIGID	None	None	RIGID	Typical
127	OVP1	N198	N199		Mount Pipe	Column	Pipe	A53 Gr.B	Typical

Member Advanced Data

	Label	I Release	J Release	Col-Wall Vert Release	Physical	Deflection Ratio Options	Seismic DR
1	M1				Yes	Default	None
2	M2				Yes	Default	None
3	M3				Yes	Default	None
4	M4				Yes	Default	None
5	M5				Yes	** NA **	None
6	M6				Yes	** NA **	None
7	M7	OOOOOX	OOOOOX		Yes	Default	None
8	M8	OOOOOX	OOOOOX		Yes	Default	None
9	M9				Yes	** NA **	None
10	M10				Yes	** NA **	None
11	M11				Yes	** NA **	None
12	M12				Yes	** NA **	None
13	M13				Yes	** NA **	None
14	M14		BenPIN		Yes	** NA **	None
15	M15				Yes	N/A	None
16	M16		BenPIN		Yes	** NA **	None
17	M17				Yes	** NA **	None
18	M18				Yes	** NA **	None
19	M19		BenPIN		Yes	** NA **	None
20	M20				Yes	N/A	None
21	M21		BenPIN		Yes	** NA **	None
22	M22				Yes	** NA **	None
23	M23				Yes	** NA **	None
24	M24				Yes	** NA **	None
25	M25				Yes	N/A	None
26	M26				Yes	Default	None
27	M27				Yes	Default	None
28	M28				Yes	Default	None
29	M29				Yes	** NA **	None
30	M30				Yes	** NA **	None
31	M31	OOOOOX	OOOOOX		Yes	Default	None
32	M32	OOOOOX	OOOOOX		Yes	Default	None
33	M33				Yes	** NA **	None
34	M34				Yes	** NA **	None
35	M35				Yes	** NA **	None
36	M36				Yes	** NA **	None
37	M37				Yes	** NA **	None
38	M38		BenPIN		Yes	** NA **	None
39	M39				Yes	N/A	None
40	M40		BenPIN		Yes	** NA **	None
41	M41				Yes	** NA **	None
42	M42				Yes	** NA **	None
43	M43		BenPIN		Yes	** NA **	None
44	M44				Yes	N/A	None
45	M45		BenPIN		Yes	** NA **	None
46	M46				Yes	** NA **	None
47	M47				Yes	** NA **	None
48	M48				Yes	** NA **	None
49	M49				Yes	Default	None
50	M50				Yes	Default	None
51	M51				Yes	Default	None
52	M52				Yes	Default	None
53	M53				Yes	** NA **	None
54	M54				Yes	** NA **	None
55	M55	OOOOOX	OOOOOX		Yes	Default	None



Company :
 Designer :
 Job Number :
 Model Name :

9/8/2025
 7:33:02 PM
 Checked By : _____

Member Advanced Data (Continued)

	Label	I Release	J Release	Col-Wall Vert Release	Physical	Deflection Ratio Options	Seismic DR
56	M56	OOOOOX	OOOOOX		Yes	Default	None
57	M57				Yes	** NA **	None
58	M58				Yes	** NA **	None
59	M59				Yes	** NA **	None
60	M60				Yes	** NA **	None
61	M61				Yes	** NA **	None
62	M62		BenPIN		Yes	** NA **	None
63	M63				Yes	N/A	None
64	M64		BenPIN		Yes	** NA **	None
65	M65				Yes	** NA **	None
66	M66				Yes	** NA **	None
67	M67		BenPIN		Yes	** NA **	None
68	M68				Yes	N/A	None
69	M69		BenPIN		Yes	** NA **	None
70	M70				Yes	** NA **	None
71	M71				Yes	** NA **	None
72	M72				Yes	** NA **	None
73	M73				Yes	N/A	None
74	M74				Yes	N/A	None
75	M75				Yes	N/A	None
76	M76				Yes	** NA **	None
77	MP1A				Yes	** NA **	None
78	M78				Yes	** NA **	None
79	MP2A				Yes	** NA **	None
80	M80				Yes	** NA **	None
81	MP3A				Yes	** NA **	None
82	M82				Yes	** NA **	None
83	MP4A				Yes	** NA **	None
84	M101				Yes	** NA **	None
85	OVP2				Yes	** NA **	None
86	M87				Yes	** NA **	None
87	M88				Yes	** NA **	None
88	M89				Yes	** NA **	None
89	M90				Yes	** NA **	None
90	M91				Yes	** NA **	None
91	M92	OOOOOX			Yes	** NA **	None
92	M93	OOOOOX			Yes	** NA **	None
93	MP4C				Yes	** NA **	None
94	MP3C				Yes	** NA **	None
95	M96				Yes	** NA **	None
96	M97				Yes	** NA **	None
97	M98				Yes	** NA **	None
98	MP1C				Yes	** NA **	None
99	M103				Yes	** NA **	None
100	M104				Yes	** NA **	None
101	M105				Yes	** NA **	None
102	MP2C				Yes	** NA **	None
103	M107				Yes	** NA **	None
104	M108				Yes	** NA **	None
105	M109				Yes	** NA **	None
106	M110	OOOOOX			Yes	** NA **	None
107	M111	OOOOOX			Yes	** NA **	None
108	MP4B				Yes	** NA **	None
109	MP3B				Yes	** NA **	None
110	M114				Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Col-Wall Vert Release	Physical	Deflection Ratio Options	Seismic DR
111	M115				Yes	** NA **	None
112	M116				Yes	** NA **	None
113	MP1B				Yes	** NA **	None
114	M118				Yes	** NA **	None
115	M119				Yes	** NA **	None
116	M120				Yes	** NA **	None
117	MP2B				Yes	** NA **	None
118	M122				Yes	** NA **	None
119	M123				Yes	** NA **	None
120	M124				Yes	** NA **	None
121	M125	OOOOOX			Yes	** NA **	None
122	M126	OOOOOX			Yes	** NA **	None
123	M127				Yes	** NA **	None
124	M128				Yes	** NA **	None
125	M129				Yes	** NA **	None
126	M130				Yes	** NA **	None
127	OVP1				Yes	** NA **	None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	Y	-28.65	3
2	MP3A	My	-0.014	3
3	MP3A	Mz	0	3
4	MP3A	Y	-28.65	5
5	MP3A	My	-0.014	5
6	MP3A	Mz	0	5
7	MP3B	Y	-28.65	3
8	MP3B	My	0	3
9	MP3B	Mz	-0.014	3
10	MP3B	Y	-28.65	5
11	MP3B	My	0	5
12	MP3B	Mz	-0.014	5
13	MP3C	Y	-28.65	3
14	MP3C	My	0.014	3
15	MP3C	Mz	0.002	3
16	MP3C	Y	-28.65	5
17	MP3C	My	0.014	5
18	MP3C	Mz	0.002	5
19	MP2A	Y	-32	2.5
20	MP2A	My	-0.027	2.5
21	MP2A	Mz	0.021	2.5
22	MP2A	Y	-32	5.5
23	MP2A	My	-0.027	5.5
24	MP2A	Mz	0.021	5.5
25	MP2B	Y	-32	2.5
26	MP2B	My	-0.021	2.5
27	MP2B	Mz	-0.027	2.5
28	MP2B	Y	-32	5.5
29	MP2B	My	-0.021	5.5
30	MP2B	Mz	-0.027	5.5
31	MP2C	Y	-32	2.5
32	MP2C	My	0.03	2.5
33	MP2C	Mz	-0.016	2.5
34	MP2C	Y	-32	5.5
35	MP2C	My	0.03	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
36	MP2C	Mz	-0.016	5.5
37	MP2A	Y	-32	2.5
38	MP2A	My	0.027	2.5
39	MP2A	Mz	-0.021	2.5
40	MP2A	Y	-32	5.5
41	MP2A	My	0.027	5.5
42	MP2A	Mz	-0.021	5.5
43	MP2B	Y	-32	2.5
44	MP2B	My	0.021	2.5
45	MP2B	Mz	0.027	2.5
46	MP2B	Y	-32	5.5
47	MP2B	My	0.021	5.5
48	MP2B	Mz	0.027	5.5
49	MP2C	Y	-32	2.5
50	MP2C	My	-0.03	2.5
51	MP2C	Mz	0.016	2.5
52	MP2C	Y	-32	5.5
53	MP2C	My	-0.03	5.5
54	MP2C	Mz	0.016	5.5
55	OVP1	Y	-15.9	1
56	OVP1	My	0	1
57	OVP1	Mz	0	1
58	OVP2	Y	-32	1
59	OVP2	My	0	1
60	OVP2	Mz	0	1
61	MP2A	Y	-79.1	1.5
62	MP2A	My	0.04	1.5
63	MP2A	Mz	0	1.5
64	MP2B	Y	-79.1	1.5
65	MP2B	My	0	1.5
66	MP2B	Mz	0.04	1.5
67	MP2C	Y	-79.1	1.5
68	MP2C	My	-0.039	1.5
69	MP2C	Mz	-0.007	1.5
70	MP1A	Y	-87.9	1.5
71	MP1A	My	0.044	1.5
72	MP1A	Mz	0	1.5
73	MP1B	Y	-87.9	1.5
74	MP1B	My	0	1.5
75	MP1B	Mz	0.044	1.5
76	MP1C	Y	-87.9	1.5
77	MP1C	My	-0.043	1.5
78	MP1C	Mz	-0.008	1.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	Y	-29.255	3
2	MP3A	My	-0.015	3
3	MP3A	Mz	0	3
4	MP3A	Y	-29.255	5
5	MP3A	My	-0.015	5
6	MP3A	Mz	0	5
7	MP3B	Y	-29.255	3
8	MP3B	My	0	3
9	MP3B	Mz	-0.015	3

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
10	MP3B	Y	-29.255	5
11	MP3B	My	0	5
12	MP3B	Mz	-0.015	5
13	MP3C	Y	-29.255	3
14	MP3C	My	0.014	3
15	MP3C	Mz	0.003	3
16	MP3C	Y	-29.255	5
17	MP3C	My	0.014	5
18	MP3C	Mz	0.003	5
19	MP2A	Y	-61.768	2.5
20	MP2A	My	-0.051	2.5
21	MP2A	Mz	0.041	2.5
22	MP2A	Y	-61.768	5.5
23	MP2A	My	-0.051	5.5
24	MP2A	Mz	0.041	5.5
25	MP2B	Y	-61.768	2.5
26	MP2B	My	-0.041	2.5
27	MP2B	Mz	-0.051	2.5
28	MP2B	Y	-61.768	5.5
29	MP2B	My	-0.041	5.5
30	MP2B	Mz	-0.051	5.5
31	MP2C	Y	-61.768	2.5
32	MP2C	My	0.058	2.5
33	MP2C	Mz	-0.032	2.5
34	MP2C	Y	-61.768	5.5
35	MP2C	My	0.058	5.5
36	MP2C	Mz	-0.032	5.5
37	MP2A	Y	-61.768	2.5
38	MP2A	My	0.051	2.5
39	MP2A	Mz	-0.041	2.5
40	MP2A	Y	-61.768	5.5
41	MP2A	My	0.051	5.5
42	MP2A	Mz	-0.041	5.5
43	MP2B	Y	-61.768	2.5
44	MP2B	My	0.041	2.5
45	MP2B	Mz	0.051	2.5
46	MP2B	Y	-61.768	5.5
47	MP2B	My	0.041	5.5
48	MP2B	Mz	0.051	5.5
49	MP2C	Y	-61.768	2.5
50	MP2C	My	-0.058	2.5
51	MP2C	Mz	0.032	2.5
52	MP2C	Y	-61.768	5.5
53	MP2C	My	-0.058	5.5
54	MP2C	Mz	0.032	5.5
55	OVP1	Y	-31.397	1
56	OVP1	My	0	1
57	OVP1	Mz	0	1
58	OVP2	Y	-86.404	1
59	OVP2	My	0	1
60	OVP2	Mz	0	1
61	MP2A	Y	-44.573	1.5
62	MP2A	My	0.022	1.5
63	MP2A	Mz	0	1.5
64	MP2B	Y	-44.573	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
65	MP2B	My	0	1.5
66	MP2B	Mz	0.022	1.5
67	MP2C	Y	-44.573	1.5
68	MP2C	My	-0.022	1.5
69	MP2C	Mz	-0.004	1.5
70	MP1A	Y	-54.773	1.5
71	MP1A	My	0.027	1.5
72	MP1A	Mz	0	1.5
73	MP1B	Y	-54.773	1.5
74	MP1B	My	0	1.5
75	MP1B	Mz	0.027	1.5
76	MP1C	Y	-54.773	1.5
77	MP1C	My	-0.027	1.5
78	MP1C	Mz	-0.005	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	0	3
2	MP3A	Z	-64.582	3
3	MP3A	Mx	0	3
4	MP3A	X	0	5
5	MP3A	Z	-64.582	5
6	MP3A	Mx	0	5
7	MP3B	X	0	3
8	MP3B	Z	-22.685	3
9	MP3B	Mx	0.011	3
10	MP3B	X	0	5
11	MP3B	Z	-22.685	5
12	MP3B	Mx	0.011	5
13	MP3C	X	0	3
14	MP3C	Z	-63.319	3
15	MP3C	Mx	-0.005	3
16	MP3C	X	0	5
17	MP3C	Z	-63.319	5
18	MP3C	Mx	-0.005	5
19	MP2A	X	0	2.5
20	MP2A	Z	-71.939	2.5
21	MP2A	Mx	-0.048	2.5
22	MP2A	X	0	5.5
23	MP2A	Z	-71.939	5.5
24	MP2A	Mx	-0.048	5.5
25	MP2B	X	0	2.5
26	MP2B	Z	-53.955	2.5
27	MP2B	Mx	0.045	2.5
28	MP2B	X	0	5.5
29	MP2B	Z	-53.955	5.5
30	MP2B	Mx	0.045	5.5
31	MP2C	X	0	2.5
32	MP2C	Z	-71.397	2.5
33	MP2C	Mx	0.037	2.5
34	MP2C	X	0	5.5
35	MP2C	Z	-71.397	5.5
36	MP2C	Mx	0.037	5.5
37	MP2A	X	0	2.5
38	MP2A	Z	-71.939	2.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
39	MP2A	Mx	0.048	2.5
40	MP2A	X	0	5.5
41	MP2A	Z	-71.939	5.5
42	MP2A	Mx	0.048	5.5
43	MP2B	X	0	2.5
44	MP2B	Z	-53.955	2.5
45	MP2B	Mx	-0.045	2.5
46	MP2B	X	0	5.5
47	MP2B	Z	-53.955	5.5
48	MP2B	Mx	-0.045	5.5
49	MP2C	X	0	2.5
50	MP2C	Z	-71.397	2.5
51	MP2C	Mx	-0.037	2.5
52	MP2C	X	0	5.5
53	MP2C	Z	-71.397	5.5
54	MP2C	Mx	-0.037	5.5
55	OVP1	X	0	1
56	OVP1	Z	-66.198	1
57	OVP1	Mx	0	1
58	OVP2	X	0	1
59	OVP2	Z	-128.636	1
60	OVP2	Mx	0	1
61	MP2A	X	0	1.5
62	MP2A	Z	-76.436	1.5
63	MP2A	Mx	0	1.5
64	MP2B	X	0	1.5
65	MP2B	Z	-52.115	1.5
66	MP2B	Mx	-0.026	1.5
67	MP2C	X	0	1.5
68	MP2C	Z	-75.702	1.5
69	MP2C	Mx	0.007	1.5
70	MP1A	X	0	1.5
71	MP1A	Z	-106.274	1.5
72	MP1A	Mx	0	1.5
73	MP1B	X	0	1.5
74	MP1B	Z	-44.553	1.5
75	MP1B	Mx	-0.022	1.5
76	MP1C	X	0	1.5
77	MP1C	Z	-104.413	1.5
78	MP1C	Mx	0.009	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	27.054	3
2	MP3A	Z	-46.859	3
3	MP3A	Mx	-0.014	3
4	MP3A	X	27.054	5
5	MP3A	Z	-46.859	5
6	MP3A	Mx	-0.014	5
7	MP3B	X	16.58	3
8	MP3B	Z	-28.717	3
9	MP3B	Mx	0.014	3
10	MP3B	X	16.58	5
11	MP3B	Z	-28.717	5
12	MP3B	Mx	0.014	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
13	MP3C	X	29.841	3
14	MP3C	Z	-51.685	3
15	MP3C	Mx	0.01	3
16	MP3C	X	29.841	5
17	MP3C	Z	-51.685	5
18	MP3C	Mx	0.01	5
19	MP2A	X	33.722	2.5
20	MP2A	Z	-58.408	2.5
21	MP2A	Mx	-0.067	2.5
22	MP2A	X	33.722	5.5
23	MP2A	Z	-58.408	5.5
24	MP2A	Mx	-0.067	5.5
25	MP2B	X	29.225	2.5
26	MP2B	Z	-50.62	2.5
27	MP2B	Mx	0.023	2.5
28	MP2B	X	29.225	5.5
29	MP2B	Z	-50.62	5.5
30	MP2B	Mx	0.023	5.5
31	MP2C	X	34.918	2.5
32	MP2C	Z	-60.479	2.5
33	MP2C	Mx	0.064	2.5
34	MP2C	X	34.918	5.5
35	MP2C	Z	-60.479	5.5
36	MP2C	Mx	0.064	5.5
37	MP2A	X	33.722	2.5
38	MP2A	Z	-58.408	2.5
39	MP2A	Mx	0.067	2.5
40	MP2A	X	33.722	5.5
41	MP2A	Z	-58.408	5.5
42	MP2A	Mx	0.067	5.5
43	MP2B	X	29.225	2.5
44	MP2B	Z	-50.62	2.5
45	MP2B	Mx	-0.023	2.5
46	MP2B	X	29.225	5.5
47	MP2B	Z	-50.62	5.5
48	MP2B	Mx	-0.023	5.5
49	MP2C	X	34.918	2.5
50	MP2C	Z	-60.479	2.5
51	MP2C	Mx	-0.064	2.5
52	MP2C	X	34.918	5.5
53	MP2C	Z	-60.479	5.5
54	MP2C	Mx	-0.064	5.5
55	OVP1	X	27.787	1
56	OVP1	Z	-48.129	1
57	OVP1	Mx	0	1
58	OVP2	X	58.369	1
59	OVP2	Z	-101.098	1
60	OVP2	Mx	0	1
61	MP2A	X	35.178	1.5
62	MP2A	Z	-60.93	1.5
63	MP2A	Mx	0.018	1.5
64	MP2B	X	29.098	1.5
65	MP2B	Z	-50.399	1.5
66	MP2B	Mx	-0.025	1.5
67	MP2C	X	36.795	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
68	MP2C	Z	-63.731	1.5
69	MP2C	Mx	-0.013	1.5
70	MP1A	X	45.422	1.5
71	MP1A	Z	-78.673	1.5
72	MP1A	Mx	0.023	1.5
73	MP1B	X	29.992	1.5
74	MP1B	Z	-51.947	1.5
75	MP1B	Mx	-0.026	1.5
76	MP1C	X	49.527	1.5
77	MP1C	Z	-85.784	1.5
78	MP1C	Mx	-0.017	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	28.717	3
2	MP3A	Z	-16.58	3
3	MP3A	Mx	-0.014	3
4	MP3A	X	28.717	5
5	MP3A	Z	-16.58	5
6	MP3A	Mx	-0.014	5
7	MP3B	X	46.859	3
8	MP3B	Z	-27.054	3
9	MP3B	Mx	0.014	3
10	MP3B	X	46.859	5
11	MP3B	Z	-27.054	5
12	MP3B	Mx	0.014	5
13	MP3C	X	34.638	3
14	MP3C	Z	-19.998	3
15	MP3C	Mx	0.015	3
16	MP3C	X	34.638	5
17	MP3C	Z	-19.998	5
18	MP3C	Mx	0.015	5
19	MP2A	X	50.62	2.5
20	MP2A	Z	-29.225	2.5
21	MP2A	Mx	-0.062	2.5
22	MP2A	X	50.62	5.5
23	MP2A	Z	-29.225	5.5
24	MP2A	Mx	-0.062	5.5
25	MP2B	X	58.408	2.5
26	MP2B	Z	-33.722	2.5
27	MP2B	Mx	-0.011	2.5
28	MP2B	X	58.408	5.5
29	MP2B	Z	-33.722	5.5
30	MP2B	Mx	-0.011	5.5
31	MP2C	X	53.161	2.5
32	MP2C	Z	-30.693	2.5
33	MP2C	Mx	0.065	2.5
34	MP2C	X	53.161	5.5
35	MP2C	Z	-30.693	5.5
36	MP2C	Mx	0.065	5.5
37	MP2A	X	50.62	2.5
38	MP2A	Z	-29.225	2.5
39	MP2A	Mx	0.062	2.5
40	MP2A	X	50.62	5.5
41	MP2A	Z	-29.225	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
42	MP2A	Mx	0.062	5.5
43	MP2B	X	58.408	2.5
44	MP2B	Z	-33.722	2.5
45	MP2B	Mx	0.011	2.5
46	MP2B	X	58.408	5.5
47	MP2B	Z	-33.722	5.5
48	MP2B	Mx	0.011	5.5
49	MP2C	X	53.161	2.5
50	MP2C	Z	-30.693	2.5
51	MP2C	Mx	-0.065	2.5
52	MP2C	X	53.161	5.5
53	MP2C	Z	-30.693	5.5
54	MP2C	Mx	-0.065	5.5
55	OVP1	X	36.844	1
56	OVP1	Z	-21.272	1
57	OVP1	Mx	0	1
58	OVP2	X	88.458	1
59	OVP2	Z	-51.071	1
60	OVP2	Mx	0	1
61	MP2A	X	50.399	1.5
62	MP2A	Z	-29.098	1.5
63	MP2A	Mx	0.025	1.5
64	MP2B	X	60.93	1.5
65	MP2B	Z	-35.178	1.5
66	MP2B	Mx	-0.018	1.5
67	MP2C	X	53.836	1.5
68	MP2C	Z	-31.082	1.5
69	MP2C	Mx	-0.024	1.5
70	MP1A	X	51.947	1.5
71	MP1A	Z	-29.992	1.5
72	MP1A	Mx	0.026	1.5
73	MP1B	X	78.673	1.5
74	MP1B	Z	-45.422	1.5
75	MP1B	Mx	-0.023	1.5
76	MP1C	X	60.669	1.5
77	MP1C	Z	-35.027	1.5
78	MP1C	Mx	-0.027	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	22.685	3
2	MP3A	Z	0	3
3	MP3A	Mx	-0.011	3
4	MP3A	X	22.685	5
5	MP3A	Z	0	5
6	MP3A	Mx	-0.011	5
7	MP3B	X	64.582	3
8	MP3B	Z	0	3
9	MP3B	Mx	0	3
10	MP3B	X	64.582	5
11	MP3B	Z	0	5
12	MP3B	Mx	0	5
13	MP3C	X	23.949	3
14	MP3C	Z	0	3
15	MP3C	Mx	0.012	3

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
16	MP3C	X	23.949	5
17	MP3C	Z	0	5
18	MP3C	Mx	0.012	5
19	MP2A	X	53.955	2.5
20	MP2A	Z	0	2.5
21	MP2A	Mx	-0.045	2.5
22	MP2A	X	53.955	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-0.045	5.5
25	MP2B	X	71.939	2.5
26	MP2B	Z	0	2.5
27	MP2B	Mx	-0.048	2.5
28	MP2B	X	71.939	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	-0.048	5.5
31	MP2C	X	54.497	2.5
32	MP2C	Z	0	2.5
33	MP2C	Mx	0.051	2.5
34	MP2C	X	54.497	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	0.051	5.5
37	MP2A	X	53.955	2.5
38	MP2A	Z	0	2.5
39	MP2A	Mx	0.045	2.5
40	MP2A	X	53.955	5.5
41	MP2A	Z	0	5.5
42	MP2A	Mx	0.045	5.5
43	MP2B	X	71.939	2.5
44	MP2B	Z	0	2.5
45	MP2B	Mx	0.048	2.5
46	MP2B	X	71.939	5.5
47	MP2B	Z	0	5.5
48	MP2B	Mx	0.048	5.5
49	MP2C	X	54.497	2.5
50	MP2C	Z	0	2.5
51	MP2C	Mx	-0.051	2.5
52	MP2C	X	54.497	5.5
53	MP2C	Z	0	5.5
54	MP2C	Mx	-0.051	5.5
55	OVP1	X	40.135	1
56	OVP1	Z	0	1
57	OVP1	Mx	0	1
58	OVP2	X	99.445	1
59	OVP2	Z	0	1
60	OVP2	Mx	0	1
61	MP2A	X	52.115	1.5
62	MP2A	Z	0	1.5
63	MP2A	Mx	0.026	1.5
64	MP2B	X	76.436	1.5
65	MP2B	Z	0	1.5
66	MP2B	Mx	0	1.5
67	MP2C	X	52.849	1.5
68	MP2C	Z	0	1.5
69	MP2C	Mx	-0.026	1.5
70	MP1A	X	44.553	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
71	MP1A	Z	0	1.5
72	MP1A	Mx	0.022	1.5
73	MP1B	X	106.274	1.5
74	MP1B	Z	0	1.5
75	MP1B	Mx	0	1.5
76	MP1C	X	46.415	1.5
77	MP1C	Z	0	1.5
78	MP1C	Mx	-0.023	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	28.717	3
2	MP3A	Z	16.58	3
3	MP3A	Mx	-0.014	3
4	MP3A	X	28.717	5
5	MP3A	Z	16.58	5
6	MP3A	Mx	-0.014	5
7	MP3B	X	46.859	3
8	MP3B	Z	27.054	3
9	MP3B	Mx	-0.014	3
10	MP3B	X	46.859	5
11	MP3B	Z	27.054	5
12	MP3B	Mx	-0.014	5
13	MP3C	X	23.891	3
14	MP3C	Z	13.793	3
15	MP3C	Mx	0.013	3
16	MP3C	X	23.891	5
17	MP3C	Z	13.793	5
18	MP3C	Mx	0.013	5
19	MP2A	X	50.62	2.5
20	MP2A	Z	29.225	2.5
21	MP2A	Mx	-0.023	2.5
22	MP2A	X	50.62	5.5
23	MP2A	Z	29.225	5.5
24	MP2A	Mx	-0.023	5.5
25	MP2B	X	58.408	2.5
26	MP2B	Z	33.722	2.5
27	MP2B	Mx	-0.067	2.5
28	MP2B	X	58.408	5.5
29	MP2B	Z	33.722	5.5
30	MP2B	Mx	-0.067	5.5
31	MP2C	X	48.548	2.5
32	MP2C	Z	28.029	2.5
33	MP2C	Mx	0.031	2.5
34	MP2C	X	48.548	5.5
35	MP2C	Z	28.029	5.5
36	MP2C	Mx	0.031	5.5
37	MP2A	X	50.62	2.5
38	MP2A	Z	29.225	2.5
39	MP2A	Mx	0.023	2.5
40	MP2A	X	50.62	5.5
41	MP2A	Z	29.225	5.5
42	MP2A	Mx	0.023	5.5
43	MP2B	X	58.408	2.5
44	MP2B	Z	33.722	2.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
45	MP2B	Mx	0.067	2.5
46	MP2B	X	58.408	5.5
47	MP2B	Z	33.722	5.5
48	MP2B	Mx	0.067	5.5
49	MP2C	X	48.548	2.5
50	MP2C	Z	28.029	2.5
51	MP2C	Mx	-0.031	2.5
52	MP2C	X	48.548	5.5
53	MP2C	Z	28.029	5.5
54	MP2C	Mx	-0.031	5.5
55	OVP1	X	43.958	1
56	OVP1	Z	25.379	1
57	OVP1	Mx	0	1
58	OVP2	X	96.426	1
59	OVP2	Z	55.672	1
60	OVP2	Mx	0	1
61	MP2A	X	50.399	1.5
62	MP2A	Z	29.098	1.5
63	MP2A	Mx	0.025	1.5
64	MP2B	X	60.93	1.5
65	MP2B	Z	35.178	1.5
66	MP2B	Mx	0.018	1.5
67	MP2C	X	47.597	1.5
68	MP2C	Z	27.48	1.5
69	MP2C	Mx	-0.026	1.5
70	MP1A	X	51.947	1.5
71	MP1A	Z	29.992	1.5
72	MP1A	Mx	0.026	1.5
73	MP1B	X	78.673	1.5
74	MP1B	Z	45.422	1.5
75	MP1B	Mx	0.023	1.5
76	MP1C	X	44.837	1.5
77	MP1C	Z	25.887	1.5
78	MP1C	Mx	-0.024	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	27.054	3
2	MP3A	Z	46.859	3
3	MP3A	Mx	-0.014	3
4	MP3A	X	27.054	5
5	MP3A	Z	46.859	5
6	MP3A	Mx	-0.014	5
7	MP3B	X	16.58	3
8	MP3B	Z	28.717	3
9	MP3B	Mx	-0.014	3
10	MP3B	X	16.58	5
11	MP3B	Z	28.717	5
12	MP3B	Mx	-0.014	5
13	MP3C	X	23.636	3
14	MP3C	Z	40.938	3
15	MP3C	Mx	0.015	3
16	MP3C	X	23.636	5
17	MP3C	Z	40.938	5
18	MP3C	Mx	0.015	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
19	MP2A	X	33.722	2.5
20	MP2A	Z	58.408	2.5
21	MP2A	Mx	0.011	2.5
22	MP2A	X	33.722	5.5
23	MP2A	Z	58.408	5.5
24	MP2A	Mx	0.011	5.5
25	MP2B	X	29.225	2.5
26	MP2B	Z	50.62	2.5
27	MP2B	Mx	-0.062	2.5
28	MP2B	X	29.225	5.5
29	MP2B	Z	50.62	5.5
30	MP2B	Mx	-0.062	5.5
31	MP2C	X	32.254	2.5
32	MP2C	Z	55.866	2.5
33	MP2C	Mx	0.002	2.5
34	MP2C	X	32.254	5.5
35	MP2C	Z	55.866	5.5
36	MP2C	Mx	0.002	5.5
37	MP2A	X	33.722	2.5
38	MP2A	Z	58.408	2.5
39	MP2A	Mx	-0.011	2.5
40	MP2A	X	33.722	5.5
41	MP2A	Z	58.408	5.5
42	MP2A	Mx	-0.011	5.5
43	MP2B	X	29.225	2.5
44	MP2B	Z	50.62	2.5
45	MP2B	Mx	0.062	2.5
46	MP2B	X	29.225	5.5
47	MP2B	Z	50.62	5.5
48	MP2B	Mx	0.062	5.5
49	MP2C	X	32.254	2.5
50	MP2C	Z	55.866	2.5
51	MP2C	Mx	-0.002	2.5
52	MP2C	X	32.254	5.5
53	MP2C	Z	55.866	5.5
54	MP2C	Mx	-0.002	5.5
55	OVP1	X	31.895	1
56	OVP1	Z	55.244	1
57	OVP1	Mx	0	1
58	OVP2	X	62.969	1
59	OVP2	Z	109.066	1
60	OVP2	Mx	0	1
61	MP2A	X	35.178	1.5
62	MP2A	Z	60.93	1.5
63	MP2A	Mx	0.018	1.5
64	MP2B	X	29.098	1.5
65	MP2B	Z	50.399	1.5
66	MP2B	Mx	0.025	1.5
67	MP2C	X	33.194	1.5
68	MP2C	Z	57.493	1.5
69	MP2C	Mx	-0.021	1.5
70	MP1A	X	45.422	1.5
71	MP1A	Z	78.673	1.5
72	MP1A	Mx	0.023	1.5
73	MP1B	X	29.992	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
74	MP1B	Z	51.947	1.5
75	MP1B	Mx	0.026	1.5
76	MP1C	X	40.386	1.5
77	MP1C	Z	69.951	1.5
78	MP1C	Mx	-0.026	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	0	3
2	MP3A	Z	64.582	3
3	MP3A	Mx	0	3
4	MP3A	X	0	5
5	MP3A	Z	64.582	5
6	MP3A	Mx	0	5
7	MP3B	X	0	3
8	MP3B	Z	22.685	3
9	MP3B	Mx	-0.011	3
10	MP3B	X	0	5
11	MP3B	Z	22.685	5
12	MP3B	Mx	-0.011	5
13	MP3C	X	0	3
14	MP3C	Z	63.319	3
15	MP3C	Mx	0.005	3
16	MP3C	X	0	5
17	MP3C	Z	63.319	5
18	MP3C	Mx	0.005	5
19	MP2A	X	0	2.5
20	MP2A	Z	71.939	2.5
21	MP2A	Mx	0.048	2.5
22	MP2A	X	0	5.5
23	MP2A	Z	71.939	5.5
24	MP2A	Mx	0.048	5.5
25	MP2B	X	0	2.5
26	MP2B	Z	53.955	2.5
27	MP2B	Mx	-0.045	2.5
28	MP2B	X	0	5.5
29	MP2B	Z	53.955	5.5
30	MP2B	Mx	-0.045	5.5
31	MP2C	X	0	2.5
32	MP2C	Z	71.397	2.5
33	MP2C	Mx	-0.037	2.5
34	MP2C	X	0	5.5
35	MP2C	Z	71.397	5.5
36	MP2C	Mx	-0.037	5.5
37	MP2A	X	0	2.5
38	MP2A	Z	71.939	2.5
39	MP2A	Mx	-0.048	2.5
40	MP2A	X	0	5.5
41	MP2A	Z	71.939	5.5
42	MP2A	Mx	-0.048	5.5
43	MP2B	X	0	2.5
44	MP2B	Z	53.955	2.5
45	MP2B	Mx	0.045	2.5
46	MP2B	X	0	5.5
47	MP2B	Z	53.955	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
48	MP2B	Mx	0.045	5.5
49	MP2C	X	0	2.5
50	MP2C	Z	71.397	2.5
51	MP2C	Mx	0.037	2.5
52	MP2C	X	0	5.5
53	MP2C	Z	71.397	5.5
54	MP2C	Mx	0.037	5.5
55	OVP1	X	0	1
56	OVP1	Z	66.198	1
57	OVP1	Mx	0	1
58	OVP2	X	0	1
59	OVP2	Z	128.636	1
60	OVP2	Mx	0	1
61	MP2A	X	0	1.5
62	MP2A	Z	76.436	1.5
63	MP2A	Mx	0	1.5
64	MP2B	X	0	1.5
65	MP2B	Z	52.115	1.5
66	MP2B	Mx	0.026	1.5
67	MP2C	X	0	1.5
68	MP2C	Z	75.702	1.5
69	MP2C	Mx	-0.007	1.5
70	MP1A	X	0	1.5
71	MP1A	Z	106.274	1.5
72	MP1A	Mx	0	1.5
73	MP1B	X	0	1.5
74	MP1B	Z	44.553	1.5
75	MP1B	Mx	0.022	1.5
76	MP1C	X	0	1.5
77	MP1C	Z	104.413	1.5
78	MP1C	Mx	-0.009	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-27.054	3
2	MP3A	Z	46.859	3
3	MP3A	Mx	0.014	3
4	MP3A	X	-27.054	5
5	MP3A	Z	46.859	5
6	MP3A	Mx	0.014	5
7	MP3B	X	-16.58	3
8	MP3B	Z	28.717	3
9	MP3B	Mx	-0.014	3
10	MP3B	X	-16.58	5
11	MP3B	Z	28.717	5
12	MP3B	Mx	-0.014	5
13	MP3C	X	-29.841	3
14	MP3C	Z	51.685	3
15	MP3C	Mx	-0.01	3
16	MP3C	X	-29.841	5
17	MP3C	Z	51.685	5
18	MP3C	Mx	-0.01	5
19	MP2A	X	-33.722	2.5
20	MP2A	Z	58.408	2.5
21	MP2A	Mx	0.067	2.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
22	MP2A	X	-33.722	5.5
23	MP2A	Z	58.408	5.5
24	MP2A	Mx	0.067	5.5
25	MP2B	X	-29.225	2.5
26	MP2B	Z	50.62	2.5
27	MP2B	Mx	-0.023	2.5
28	MP2B	X	-29.225	5.5
29	MP2B	Z	50.62	5.5
30	MP2B	Mx	-0.023	5.5
31	MP2C	X	-34.918	2.5
32	MP2C	Z	60.479	2.5
33	MP2C	Mx	-0.064	2.5
34	MP2C	X	-34.918	5.5
35	MP2C	Z	60.479	5.5
36	MP2C	Mx	-0.064	5.5
37	MP2A	X	-33.722	2.5
38	MP2A	Z	58.408	2.5
39	MP2A	Mx	-0.067	2.5
40	MP2A	X	-33.722	5.5
41	MP2A	Z	58.408	5.5
42	MP2A	Mx	-0.067	5.5
43	MP2B	X	-29.225	2.5
44	MP2B	Z	50.62	2.5
45	MP2B	Mx	0.023	2.5
46	MP2B	X	-29.225	5.5
47	MP2B	Z	50.62	5.5
48	MP2B	Mx	0.023	5.5
49	MP2C	X	-34.918	2.5
50	MP2C	Z	60.479	2.5
51	MP2C	Mx	0.064	2.5
52	MP2C	X	-34.918	5.5
53	MP2C	Z	60.479	5.5
54	MP2C	Mx	0.064	5.5
55	OVP1	X	-27.787	1
56	OVP1	Z	48.129	1
57	OVP1	Mx	0	1
58	OVP2	X	-58.369	1
59	OVP2	Z	101.098	1
60	OVP2	Mx	0	1
61	MP2A	X	-35.178	1.5
62	MP2A	Z	60.93	1.5
63	MP2A	Mx	-0.018	1.5
64	MP2B	X	-29.098	1.5
65	MP2B	Z	50.399	1.5
66	MP2B	Mx	0.025	1.5
67	MP2C	X	-36.795	1.5
68	MP2C	Z	63.731	1.5
69	MP2C	Mx	0.013	1.5
70	MP1A	X	-45.422	1.5
71	MP1A	Z	78.673	1.5
72	MP1A	Mx	-0.023	1.5
73	MP1B	X	-29.992	1.5
74	MP1B	Z	51.947	1.5
75	MP1B	Mx	0.026	1.5
76	MP1C	X	-49.527	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
77	MP1C	Z	85.784	1.5
78	MP1C	Mx	0.017	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-28.717	3
2	MP3A	Z	16.58	3
3	MP3A	Mx	0.014	3
4	MP3A	X	-28.717	5
5	MP3A	Z	16.58	5
6	MP3A	Mx	0.014	5
7	MP3B	X	-46.859	3
8	MP3B	Z	27.054	3
9	MP3B	Mx	-0.014	3
10	MP3B	X	-46.859	5
11	MP3B	Z	27.054	5
12	MP3B	Mx	-0.014	5
13	MP3C	X	-34.638	3
14	MP3C	Z	19.998	3
15	MP3C	Mx	-0.015	3
16	MP3C	X	-34.638	5
17	MP3C	Z	19.998	5
18	MP3C	Mx	-0.015	5
19	MP2A	X	-50.62	2.5
20	MP2A	Z	29.225	2.5
21	MP2A	Mx	0.062	2.5
22	MP2A	X	-50.62	5.5
23	MP2A	Z	29.225	5.5
24	MP2A	Mx	0.062	5.5
25	MP2B	X	-58.408	2.5
26	MP2B	Z	33.722	2.5
27	MP2B	Mx	0.011	2.5
28	MP2B	X	-58.408	5.5
29	MP2B	Z	33.722	5.5
30	MP2B	Mx	0.011	5.5
31	MP2C	X	-53.161	2.5
32	MP2C	Z	30.693	2.5
33	MP2C	Mx	-0.065	2.5
34	MP2C	X	-53.161	5.5
35	MP2C	Z	30.693	5.5
36	MP2C	Mx	-0.065	5.5
37	MP2A	X	-50.62	2.5
38	MP2A	Z	29.225	2.5
39	MP2A	Mx	-0.062	2.5
40	MP2A	X	-50.62	5.5
41	MP2A	Z	29.225	5.5
42	MP2A	Mx	-0.062	5.5
43	MP2B	X	-58.408	2.5
44	MP2B	Z	33.722	2.5
45	MP2B	Mx	-0.011	2.5
46	MP2B	X	-58.408	5.5
47	MP2B	Z	33.722	5.5
48	MP2B	Mx	-0.011	5.5
49	MP2C	X	-53.161	2.5
50	MP2C	Z	30.693	2.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
51	MP2C	Mx	0.065	2.5
52	MP2C	X	-53.161	5.5
53	MP2C	Z	30.693	5.5
54	MP2C	Mx	0.065	5.5
55	OVP1	X	-36.844	1
56	OVP1	Z	21.272	1
57	OVP1	Mx	0	1
58	OVP2	X	-88.458	1
59	OVP2	Z	51.071	1
60	OVP2	Mx	0	1
61	MP2A	X	-50.399	1.5
62	MP2A	Z	29.098	1.5
63	MP2A	Mx	-0.025	1.5
64	MP2B	X	-60.93	1.5
65	MP2B	Z	35.178	1.5
66	MP2B	Mx	0.018	1.5
67	MP2C	X	-53.836	1.5
68	MP2C	Z	31.082	1.5
69	MP2C	Mx	0.024	1.5
70	MP1A	X	-51.947	1.5
71	MP1A	Z	29.992	1.5
72	MP1A	Mx	-0.026	1.5
73	MP1B	X	-78.673	1.5
74	MP1B	Z	45.422	1.5
75	MP1B	Mx	0.023	1.5
76	MP1C	X	-60.669	1.5
77	MP1C	Z	35.027	1.5
78	MP1C	Mx	0.027	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-22.685	3
2	MP3A	Z	0	3
3	MP3A	Mx	0.011	3
4	MP3A	X	-22.685	5
5	MP3A	Z	0	5
6	MP3A	Mx	0.011	5
7	MP3B	X	-64.582	3
8	MP3B	Z	0	3
9	MP3B	Mx	0	3
10	MP3B	X	-64.582	5
11	MP3B	Z	0	5
12	MP3B	Mx	0	5
13	MP3C	X	-23.949	3
14	MP3C	Z	0	3
15	MP3C	Mx	-0.012	3
16	MP3C	X	-23.949	5
17	MP3C	Z	0	5
18	MP3C	Mx	-0.012	5
19	MP2A	X	-53.955	2.5
20	MP2A	Z	0	2.5
21	MP2A	Mx	0.045	2.5
22	MP2A	X	-53.955	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	0.045	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
25	MP2B	X	-71.939	2.5
26	MP2B	Z	0	2.5
27	MP2B	Mx	0.048	2.5
28	MP2B	X	-71.939	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	0.048	5.5
31	MP2C	X	-54.497	2.5
32	MP2C	Z	0	2.5
33	MP2C	Mx	-0.051	2.5
34	MP2C	X	-54.497	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	-0.051	5.5
37	MP2A	X	-53.955	2.5
38	MP2A	Z	0	2.5
39	MP2A	Mx	-0.045	2.5
40	MP2A	X	-53.955	5.5
41	MP2A	Z	0	5.5
42	MP2A	Mx	-0.045	5.5
43	MP2B	X	-71.939	2.5
44	MP2B	Z	0	2.5
45	MP2B	Mx	-0.048	2.5
46	MP2B	X	-71.939	5.5
47	MP2B	Z	0	5.5
48	MP2B	Mx	-0.048	5.5
49	MP2C	X	-54.497	2.5
50	MP2C	Z	0	2.5
51	MP2C	Mx	0.051	2.5
52	MP2C	X	-54.497	5.5
53	MP2C	Z	0	5.5
54	MP2C	Mx	0.051	5.5
55	OVP1	X	-40.135	1
56	OVP1	Z	0	1
57	OVP1	Mx	0	1
58	OVP2	X	-99.445	1
59	OVP2	Z	0	1
60	OVP2	Mx	0	1
61	MP2A	X	-52.115	1.5
62	MP2A	Z	0	1.5
63	MP2A	Mx	-0.026	1.5
64	MP2B	X	-76.436	1.5
65	MP2B	Z	0	1.5
66	MP2B	Mx	0	1.5
67	MP2C	X	-52.849	1.5
68	MP2C	Z	0	1.5
69	MP2C	Mx	0.026	1.5
70	MP1A	X	-44.553	1.5
71	MP1A	Z	0	1.5
72	MP1A	Mx	-0.022	1.5
73	MP1B	X	-106.274	1.5
74	MP1B	Z	0	1.5
75	MP1B	Mx	0	1.5
76	MP1C	X	-46.415	1.5
77	MP1C	Z	0	1.5
78	MP1C	Mx	0.023	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-28.717	3
2	MP3A	Z	-16.58	3
3	MP3A	Mx	0.014	3
4	MP3A	X	-28.717	5
5	MP3A	Z	-16.58	5
6	MP3A	Mx	0.014	5
7	MP3B	X	-46.859	3
8	MP3B	Z	-27.054	3
9	MP3B	Mx	0.014	3
10	MP3B	X	-46.859	5
11	MP3B	Z	-27.054	5
12	MP3B	Mx	0.014	5
13	MP3C	X	-23.891	3
14	MP3C	Z	-13.793	3
15	MP3C	Mx	-0.013	3
16	MP3C	X	-23.891	5
17	MP3C	Z	-13.793	5
18	MP3C	Mx	-0.013	5
19	MP2A	X	-50.62	2.5
20	MP2A	Z	-29.225	2.5
21	MP2A	Mx	0.023	2.5
22	MP2A	X	-50.62	5.5
23	MP2A	Z	-29.225	5.5
24	MP2A	Mx	0.023	5.5
25	MP2B	X	-58.408	2.5
26	MP2B	Z	-33.722	2.5
27	MP2B	Mx	0.067	2.5
28	MP2B	X	-58.408	5.5
29	MP2B	Z	-33.722	5.5
30	MP2B	Mx	0.067	5.5
31	MP2C	X	-48.548	2.5
32	MP2C	Z	-28.029	2.5
33	MP2C	Mx	-0.031	2.5
34	MP2C	X	-48.548	5.5
35	MP2C	Z	-28.029	5.5
36	MP2C	Mx	-0.031	5.5
37	MP2A	X	-50.62	2.5
38	MP2A	Z	-29.225	2.5
39	MP2A	Mx	-0.023	2.5
40	MP2A	X	-50.62	5.5
41	MP2A	Z	-29.225	5.5
42	MP2A	Mx	-0.023	5.5
43	MP2B	X	-58.408	2.5
44	MP2B	Z	-33.722	2.5
45	MP2B	Mx	-0.067	2.5
46	MP2B	X	-58.408	5.5
47	MP2B	Z	-33.722	5.5
48	MP2B	Mx	-0.067	5.5
49	MP2C	X	-48.548	2.5
50	MP2C	Z	-28.029	2.5
51	MP2C	Mx	0.031	2.5
52	MP2C	X	-48.548	5.5
53	MP2C	Z	-28.029	5.5
54	MP2C	Mx	0.031	5.5
55	OVP1	X	-43.958	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	OVP1	Z	-25.379	1
57	OVP1	Mx	0	1
58	OVP2	X	-96.426	1
59	OVP2	Z	-55.672	1
60	OVP2	Mx	0	1
61	MP2A	X	-50.399	1.5
62	MP2A	Z	-29.098	1.5
63	MP2A	Mx	-0.025	1.5
64	MP2B	X	-60.93	1.5
65	MP2B	Z	-35.178	1.5
66	MP2B	Mx	-0.018	1.5
67	MP2C	X	-47.597	1.5
68	MP2C	Z	-27.48	1.5
69	MP2C	Mx	0.026	1.5
70	MP1A	X	-51.947	1.5
71	MP1A	Z	-29.992	1.5
72	MP1A	Mx	-0.026	1.5
73	MP1B	X	-78.673	1.5
74	MP1B	Z	-45.422	1.5
75	MP1B	Mx	-0.023	1.5
76	MP1C	X	-44.837	1.5
77	MP1C	Z	-25.887	1.5
78	MP1C	Mx	0.024	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-27.054	3
2	MP3A	Z	-46.859	3
3	MP3A	Mx	0.014	3
4	MP3A	X	-27.054	5
5	MP3A	Z	-46.859	5
6	MP3A	Mx	0.014	5
7	MP3B	X	-16.58	3
8	MP3B	Z	-28.717	3
9	MP3B	Mx	0.014	3
10	MP3B	X	-16.58	5
11	MP3B	Z	-28.717	5
12	MP3B	Mx	0.014	5
13	MP3C	X	-23.636	3
14	MP3C	Z	-40.938	3
15	MP3C	Mx	-0.015	3
16	MP3C	X	-23.636	5
17	MP3C	Z	-40.938	5
18	MP3C	Mx	-0.015	5
19	MP2A	X	-33.722	2.5
20	MP2A	Z	-58.408	2.5
21	MP2A	Mx	-0.011	2.5
22	MP2A	X	-33.722	5.5
23	MP2A	Z	-58.408	5.5
24	MP2A	Mx	-0.011	5.5
25	MP2B	X	-29.225	2.5
26	MP2B	Z	-50.62	2.5
27	MP2B	Mx	0.062	2.5
28	MP2B	X	-29.225	5.5
29	MP2B	Z	-50.62	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
30	MP2B	Mx	0.062	5.5
31	MP2C	X	-32.254	2.5
32	MP2C	Z	-55.866	2.5
33	MP2C	Mx	-0.002	2.5
34	MP2C	X	-32.254	5.5
35	MP2C	Z	-55.866	5.5
36	MP2C	Mx	-0.002	5.5
37	MP2A	X	-33.722	2.5
38	MP2A	Z	-58.408	2.5
39	MP2A	Mx	0.011	2.5
40	MP2A	X	-33.722	5.5
41	MP2A	Z	-58.408	5.5
42	MP2A	Mx	0.011	5.5
43	MP2B	X	-29.225	2.5
44	MP2B	Z	-50.62	2.5
45	MP2B	Mx	-0.062	2.5
46	MP2B	X	-29.225	5.5
47	MP2B	Z	-50.62	5.5
48	MP2B	Mx	-0.062	5.5
49	MP2C	X	-32.254	2.5
50	MP2C	Z	-55.866	2.5
51	MP2C	Mx	0.002	2.5
52	MP2C	X	-32.254	5.5
53	MP2C	Z	-55.866	5.5
54	MP2C	Mx	0.002	5.5
55	OVP1	X	-31.895	1
56	OVP1	Z	-55.244	1
57	OVP1	Mx	0	1
58	OVP2	X	-62.969	1
59	OVP2	Z	-109.066	1
60	OVP2	Mx	0	1
61	MP2A	X	-35.178	1.5
62	MP2A	Z	-60.93	1.5
63	MP2A	Mx	-0.018	1.5
64	MP2B	X	-29.098	1.5
65	MP2B	Z	-50.399	1.5
66	MP2B	Mx	-0.025	1.5
67	MP2C	X	-33.194	1.5
68	MP2C	Z	-57.493	1.5
69	MP2C	Mx	0.021	1.5
70	MP1A	X	-45.422	1.5
71	MP1A	Z	-78.673	1.5
72	MP1A	Mx	-0.023	1.5
73	MP1B	X	-29.992	1.5
74	MP1B	Z	-51.947	1.5
75	MP1B	Mx	-0.026	1.5
76	MP1C	X	-40.386	1.5
77	MP1C	Z	-69.951	1.5
78	MP1C	Mx	0.026	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	0	3
2	MP3A	Z	-15.342	3
3	MP3A	Mx	0	3

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
4	MP3A	X	0	5
5	MP3A	Z	-15.342	5
6	MP3A	Mx	0	5
7	MP3B	X	0	3
8	MP3B	Z	-6.469	3
9	MP3B	Mx	0.003	3
10	MP3B	X	0	5
11	MP3B	Z	-6.469	5
12	MP3B	Mx	0.003	5
13	MP3C	X	0	3
14	MP3C	Z	-15.074	3
15	MP3C	Mx	-0.001	3
16	MP3C	X	0	5
17	MP3C	Z	-15.074	5
18	MP3C	Mx	-0.001	5
19	MP2A	X	0	2.5
20	MP2A	Z	-27.238	2.5
21	MP2A	Mx	-0.018	2.5
22	MP2A	X	0	5.5
23	MP2A	Z	-27.238	5.5
24	MP2A	Mx	-0.018	5.5
25	MP2B	X	0	2.5
26	MP2B	Z	-20.375	2.5
27	MP2B	Mx	0.017	2.5
28	MP2B	X	0	5.5
29	MP2B	Z	-20.375	5.5
30	MP2B	Mx	0.017	5.5
31	MP2C	X	0	2.5
32	MP2C	Z	-27.031	2.5
33	MP2C	Mx	0.014	2.5
34	MP2C	X	0	5.5
35	MP2C	Z	-27.031	5.5
36	MP2C	Mx	0.014	5.5
37	MP2A	X	0	2.5
38	MP2A	Z	-27.238	2.5
39	MP2A	Mx	0.018	2.5
40	MP2A	X	0	5.5
41	MP2A	Z	-27.238	5.5
42	MP2A	Mx	0.018	5.5
43	MP2B	X	0	2.5
44	MP2B	Z	-20.375	2.5
45	MP2B	Mx	-0.017	2.5
46	MP2B	X	0	5.5
47	MP2B	Z	-20.375	5.5
48	MP2B	Mx	-0.017	5.5
49	MP2C	X	0	2.5
50	MP2C	Z	-27.031	2.5
51	MP2C	Mx	-0.014	2.5
52	MP2C	X	0	5.5
53	MP2C	Z	-27.031	5.5
54	MP2C	Mx	-0.014	5.5
55	OVP1	X	0	1
56	OVP1	Z	-14.076	1
57	OVP1	Mx	0	1
58	OVP2	X	0	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
59	OVP2	Z	-32.353	1
60	OVP2	Mx	0	1
61	MP2A	X	0	1.5
62	MP2A	Z	-15.835	1.5
63	MP2A	Mx	0	1.5
64	MP2B	X	0	1.5
65	MP2B	Z	-11.201	1.5
66	MP2B	Mx	-0.006	1.5
67	MP2C	X	0	1.5
68	MP2C	Z	-15.695	1.5
69	MP2C	Mx	0.001	1.5
70	MP1A	X	0	1.5
71	MP1A	Z	-25.545	1.5
72	MP1A	Mx	0	1.5
73	MP1B	X	0	1.5
74	MP1B	Z	-11.75	1.5
75	MP1B	Mx	-0.006	1.5
76	MP1C	X	0	1.5
77	MP1C	Z	-25.129	1.5
78	MP1C	Mx	0.002	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	6.562	3
2	MP3A	Z	-11.365	3
3	MP3A	Mx	-0.003	3
4	MP3A	X	6.562	5
5	MP3A	Z	-11.365	5
6	MP3A	Mx	-0.003	5
7	MP3B	X	4.343	3
8	MP3B	Z	-7.523	3
9	MP3B	Mx	0.004	3
10	MP3B	X	4.343	5
11	MP3B	Z	-7.523	5
12	MP3B	Mx	0.004	5
13	MP3C	X	7.152	3
14	MP3C	Z	-12.388	3
15	MP3C	Mx	0.002	3
16	MP3C	X	7.152	5
17	MP3C	Z	-12.388	5
18	MP3C	Mx	0.002	5
19	MP2A	X	12.761	2.5
20	MP2A	Z	-22.103	2.5
21	MP2A	Mx	-0.025	2.5
22	MP2A	X	12.761	5.5
23	MP2A	Z	-22.103	5.5
24	MP2A	Mx	-0.025	5.5
25	MP2B	X	11.045	2.5
26	MP2B	Z	-19.131	2.5
27	MP2B	Mx	0.009	2.5
28	MP2B	X	11.045	5.5
29	MP2B	Z	-19.131	5.5
30	MP2B	Mx	0.009	5.5
31	MP2C	X	13.218	2.5
32	MP2C	Z	-22.894	2.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
33	MP2C	Mx	0.024	2.5
34	MP2C	X	13.218	5.5
35	MP2C	Z	-22.894	5.5
36	MP2C	Mx	0.024	5.5
37	MP2A	X	12.761	2.5
38	MP2A	Z	-22.103	2.5
39	MP2A	Mx	0.025	2.5
40	MP2A	X	12.761	5.5
41	MP2A	Z	-22.103	5.5
42	MP2A	Mx	0.025	5.5
43	MP2B	X	11.045	2.5
44	MP2B	Z	-19.131	2.5
45	MP2B	Mx	-0.009	2.5
46	MP2B	X	11.045	5.5
47	MP2B	Z	-19.131	5.5
48	MP2B	Mx	-0.009	5.5
49	MP2C	X	13.218	2.5
50	MP2C	Z	-22.894	2.5
51	MP2C	Mx	-0.024	2.5
52	MP2C	X	13.218	5.5
53	MP2C	Z	-22.894	5.5
54	MP2C	Mx	-0.024	5.5
55	OVP1	X	6.007	1
56	OVP1	Z	-10.405	1
57	OVP1	Mx	0	1
58	OVP2	X	14.815	1
59	OVP2	Z	-25.66	1
60	OVP2	Mx	0	1
61	MP2A	X	7.338	1.5
62	MP2A	Z	-12.71	1.5
63	MP2A	Mx	0.004	1.5
64	MP2B	X	6.18	1.5
65	MP2B	Z	-10.703	1.5
66	MP2B	Mx	-0.005	1.5
67	MP2C	X	7.646	1.5
68	MP2C	Z	-13.244	1.5
69	MP2C	Mx	-0.003	1.5
70	MP1A	X	11.048	1.5
71	MP1A	Z	-19.136	1.5
72	MP1A	Mx	0.006	1.5
73	MP1B	X	7.599	1.5
74	MP1B	Z	-13.163	1.5
75	MP1B	Mx	-0.007	1.5
76	MP1C	X	11.966	1.5
77	MP1C	Z	-20.725	1.5
78	MP1C	Mx	-0.004	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	7.523	3
2	MP3A	Z	-4.343	3
3	MP3A	Mx	-0.004	3
4	MP3A	X	7.523	5
5	MP3A	Z	-4.343	5
6	MP3A	Mx	-0.004	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
7	MP3B	X	11.365	3
8	MP3B	Z	-6.562	3
9	MP3B	Mx	0.003	3
10	MP3B	X	11.365	5
11	MP3B	Z	-6.562	5
12	MP3B	Mx	0.003	5
13	MP3C	X	8.777	3
14	MP3C	Z	-5.067	3
15	MP3C	Mx	0.004	3
16	MP3C	X	8.777	5
17	MP3C	Z	-5.067	5
18	MP3C	Mx	0.004	5
19	MP2A	X	19.131	2.5
20	MP2A	Z	-11.045	2.5
21	MP2A	Mx	-0.023	2.5
22	MP2A	X	19.131	5.5
23	MP2A	Z	-11.045	5.5
24	MP2A	Mx	-0.023	5.5
25	MP2B	X	22.103	2.5
26	MP2B	Z	-12.761	2.5
27	MP2B	Mx	-0.004	2.5
28	MP2B	X	22.103	5.5
29	MP2B	Z	-12.761	5.5
30	MP2B	Mx	-0.004	5.5
31	MP2C	X	20.101	2.5
32	MP2C	Z	-11.605	2.5
33	MP2C	Mx	0.025	2.5
34	MP2C	X	20.101	5.5
35	MP2C	Z	-11.605	5.5
36	MP2C	Mx	0.025	5.5
37	MP2A	X	19.131	2.5
38	MP2A	Z	-11.045	2.5
39	MP2A	Mx	0.023	2.5
40	MP2A	X	19.131	5.5
41	MP2A	Z	-11.045	5.5
42	MP2A	Mx	0.023	5.5
43	MP2B	X	22.103	2.5
44	MP2B	Z	-12.761	2.5
45	MP2B	Mx	0.004	2.5
46	MP2B	X	22.103	5.5
47	MP2B	Z	-12.761	5.5
48	MP2B	Mx	0.004	5.5
49	MP2C	X	20.101	2.5
50	MP2C	Z	-11.605	2.5
51	MP2C	Mx	-0.025	2.5
52	MP2C	X	20.101	5.5
53	MP2C	Z	-11.605	5.5
54	MP2C	Mx	-0.025	5.5
55	OVP1	X	8.215	1
56	OVP1	Z	-4.743	1
57	OVP1	Mx	0	1
58	OVP2	X	22.768	1
59	OVP2	Z	-13.145	1
60	OVP2	Mx	0	1
61	MP2A	X	10.703	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
62	MP2A	Z	-6.18	1.5
63	MP2A	Mx	0.005	1.5
64	MP2B	X	12.71	1.5
65	MP2B	Z	-7.338	1.5
66	MP2B	Mx	-0.004	1.5
67	MP2C	X	11.358	1.5
68	MP2C	Z	-6.558	1.5
69	MP2C	Mx	-0.005	1.5
70	MP1A	X	13.163	1.5
71	MP1A	Z	-7.599	1.5
72	MP1A	Mx	0.007	1.5
73	MP1B	X	19.136	1.5
74	MP1B	Z	-11.048	1.5
75	MP1B	Mx	-0.006	1.5
76	MP1C	X	15.112	1.5
77	MP1C	Z	-8.725	1.5
78	MP1C	Mx	-0.007	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	6.469	3
2	MP3A	Z	0	3
3	MP3A	Mx	-0.003	3
4	MP3A	X	6.469	5
5	MP3A	Z	0	5
6	MP3A	Mx	-0.003	5
7	MP3B	X	15.342	3
8	MP3B	Z	0	3
9	MP3B	Mx	0	3
10	MP3B	X	15.342	5
11	MP3B	Z	0	5
12	MP3B	Mx	0	5
13	MP3C	X	6.736	3
14	MP3C	Z	0	3
15	MP3C	Mx	0.003	3
16	MP3C	X	6.736	5
17	MP3C	Z	0	5
18	MP3C	Mx	0.003	5
19	MP2A	X	20.375	2.5
20	MP2A	Z	0	2.5
21	MP2A	Mx	-0.017	2.5
22	MP2A	X	20.375	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-0.017	5.5
25	MP2B	X	27.238	2.5
26	MP2B	Z	0	2.5
27	MP2B	Mx	-0.018	2.5
28	MP2B	X	27.238	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	-0.018	5.5
31	MP2C	X	20.582	2.5
32	MP2C	Z	0	2.5
33	MP2C	Mx	0.019	2.5
34	MP2C	X	20.582	5.5
35	MP2C	Z	0	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
36	MP2C	Mx	0.019	5.5
37	MP2A	X	20.375	2.5
38	MP2A	Z	0	2.5
39	MP2A	Mx	0.017	2.5
40	MP2A	X	20.375	5.5
41	MP2A	Z	0	5.5
42	MP2A	Mx	0.017	5.5
43	MP2B	X	27.238	2.5
44	MP2B	Z	0	2.5
45	MP2B	Mx	0.018	2.5
46	MP2B	X	27.238	5.5
47	MP2B	Z	0	5.5
48	MP2B	Mx	0.018	5.5
49	MP2C	X	20.582	2.5
50	MP2C	Z	0	2.5
51	MP2C	Mx	-0.019	2.5
52	MP2C	X	20.582	5.5
53	MP2C	Z	0	5.5
54	MP2C	Mx	-0.019	5.5
55	OVP1	X	9.018	1
56	OVP1	Z	0	1
57	OVP1	Mx	0	1
58	OVP2	X	25.672	1
59	OVP2	Z	0	1
60	OVP2	Mx	0	1
61	MP2A	X	11.201	1.5
62	MP2A	Z	0	1.5
63	MP2A	Mx	0.006	1.5
64	MP2B	X	15.835	1.5
65	MP2B	Z	0	1.5
66	MP2B	Mx	0	1.5
67	MP2C	X	11.34	1.5
68	MP2C	Z	0	1.5
69	MP2C	Mx	-0.006	1.5
70	MP1A	X	11.75	1.5
71	MP1A	Z	0	1.5
72	MP1A	Mx	0.006	1.5
73	MP1B	X	25.545	1.5
74	MP1B	Z	0	1.5
75	MP1B	Mx	0	1.5
76	MP1C	X	12.166	1.5
77	MP1C	Z	0	1.5
78	MP1C	Mx	-0.006	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	7.523	3
2	MP3A	Z	4.343	3
3	MP3A	Mx	-0.004	3
4	MP3A	X	7.523	5
5	MP3A	Z	4.343	5
6	MP3A	Mx	-0.004	5
7	MP3B	X	11.365	3
8	MP3B	Z	6.562	3
9	MP3B	Mx	-0.003	3

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
10	MP3B	X	11.365	5
11	MP3B	Z	6.562	5
12	MP3B	Mx	-0.003	5
13	MP3C	X	6.501	3
14	MP3C	Z	3.753	3
15	MP3C	Mx	0.004	3
16	MP3C	X	6.501	5
17	MP3C	Z	3.753	5
18	MP3C	Mx	0.004	5
19	MP2A	X	19.131	2.5
20	MP2A	Z	11.045	2.5
21	MP2A	Mx	-0.009	2.5
22	MP2A	X	19.131	5.5
23	MP2A	Z	11.045	5.5
24	MP2A	Mx	-0.009	5.5
25	MP2B	X	22.103	2.5
26	MP2B	Z	12.761	2.5
27	MP2B	Mx	-0.025	2.5
28	MP2B	X	22.103	5.5
29	MP2B	Z	12.761	5.5
30	MP2B	Mx	-0.025	5.5
31	MP2C	X	18.341	2.5
32	MP2C	Z	10.589	2.5
33	MP2C	Mx	0.012	2.5
34	MP2C	X	18.341	5.5
35	MP2C	Z	10.589	5.5
36	MP2C	Mx	0.012	5.5
37	MP2A	X	19.131	2.5
38	MP2A	Z	11.045	2.5
39	MP2A	Mx	0.009	2.5
40	MP2A	X	19.131	5.5
41	MP2A	Z	11.045	5.5
42	MP2A	Mx	0.009	5.5
43	MP2B	X	22.103	2.5
44	MP2B	Z	12.761	2.5
45	MP2B	Mx	0.025	2.5
46	MP2B	X	22.103	5.5
47	MP2B	Z	12.761	5.5
48	MP2B	Mx	0.025	5.5
49	MP2C	X	18.341	2.5
50	MP2C	Z	10.589	2.5
51	MP2C	Mx	-0.012	2.5
52	MP2C	X	18.341	5.5
53	MP2C	Z	10.589	5.5
54	MP2C	Mx	-0.012	5.5
55	OVP1	X	9.596	1
56	OVP1	Z	5.54	1
57	OVP1	Mx	0	1
58	OVP2	X	24.591	1
59	OVP2	Z	14.198	1
60	OVP2	Mx	0	1
61	MP2A	X	10.703	1.5
62	MP2A	Z	6.18	1.5
63	MP2A	Mx	0.005	1.5
64	MP2B	X	12.71	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
65	MP2B	Z	7.338	1.5
66	MP2B	Mx	0.004	1.5
67	MP2C	X	10.17	1.5
68	MP2C	Z	5.871	1.5
69	MP2C	Mx	-0.006	1.5
70	MP1A	X	13.163	1.5
71	MP1A	Z	7.599	1.5
72	MP1A	Mx	0.007	1.5
73	MP1B	X	19.136	1.5
74	MP1B	Z	11.048	1.5
75	MP1B	Mx	0.006	1.5
76	MP1C	X	11.573	1.5
77	MP1C	Z	6.682	1.5
78	MP1C	Mx	-0.006	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	6.562	3
2	MP3A	Z	11.365	3
3	MP3A	Mx	-0.003	3
4	MP3A	X	6.562	5
5	MP3A	Z	11.365	5
6	MP3A	Mx	-0.003	5
7	MP3B	X	4.343	3
8	MP3B	Z	7.523	3
9	MP3B	Mx	-0.004	3
10	MP3B	X	4.343	5
11	MP3B	Z	7.523	5
12	MP3B	Mx	-0.004	5
13	MP3C	X	5.838	3
14	MP3C	Z	10.111	3
15	MP3C	Mx	0.004	3
16	MP3C	X	5.838	5
17	MP3C	Z	10.111	5
18	MP3C	Mx	0.004	5
19	MP2A	X	12.761	2.5
20	MP2A	Z	22.103	2.5
21	MP2A	Mx	0.004	2.5
22	MP2A	X	12.761	5.5
23	MP2A	Z	22.103	5.5
24	MP2A	Mx	0.004	5.5
25	MP2B	X	11.045	2.5
26	MP2B	Z	19.131	2.5
27	MP2B	Mx	-0.023	2.5
28	MP2B	X	11.045	5.5
29	MP2B	Z	19.131	5.5
30	MP2B	Mx	-0.023	5.5
31	MP2C	X	12.201	2.5
32	MP2C	Z	21.133	2.5
33	MP2C	Mx	0.000609	2.5
34	MP2C	X	12.201	5.5
35	MP2C	Z	21.133	5.5
36	MP2C	Mx	0.000609	5.5
37	MP2A	X	12.761	2.5
38	MP2A	Z	22.103	2.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
39	MP2A	Mx	-0.004	2.5
40	MP2A	X	12.761	5.5
41	MP2A	Z	22.103	5.5
42	MP2A	Mx	-0.004	5.5
43	MP2B	X	11.045	2.5
44	MP2B	Z	19.131	2.5
45	MP2B	Mx	0.023	2.5
46	MP2B	X	11.045	5.5
47	MP2B	Z	19.131	5.5
48	MP2B	Mx	0.023	5.5
49	MP2C	X	12.201	2.5
50	MP2C	Z	21.133	2.5
51	MP2C	Mx	-0.000609	2.5
52	MP2C	X	12.201	5.5
53	MP2C	Z	21.133	5.5
54	MP2C	Mx	-0.000609	5.5
55	OVP1	X	6.805	1
56	OVP1	Z	11.786	1
57	OVP1	Mx	0	1
58	OVP2	X	15.868	1
59	OVP2	Z	27.484	1
60	OVP2	Mx	0	1
61	MP2A	X	7.338	1.5
62	MP2A	Z	12.71	1.5
63	MP2A	Mx	0.004	1.5
64	MP2B	X	6.18	1.5
65	MP2B	Z	10.703	1.5
66	MP2B	Mx	0.005	1.5
67	MP2C	X	6.96	1.5
68	MP2C	Z	12.055	1.5
69	MP2C	Mx	-0.004	1.5
70	MP1A	X	11.048	1.5
71	MP1A	Z	19.136	1.5
72	MP1A	Mx	0.006	1.5
73	MP1B	X	7.599	1.5
74	MP1B	Z	13.163	1.5
75	MP1B	Mx	0.007	1.5
76	MP1C	X	9.923	1.5
77	MP1C	Z	17.186	1.5
78	MP1C	Mx	-0.006	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	0	3
2	MP3A	Z	15.342	3
3	MP3A	Mx	0	3
4	MP3A	X	0	5
5	MP3A	Z	15.342	5
6	MP3A	Mx	0	5
7	MP3B	X	0	3
8	MP3B	Z	6.469	3
9	MP3B	Mx	-0.003	3
10	MP3B	X	0	5
11	MP3B	Z	6.469	5
12	MP3B	Mx	-0.003	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
13	MP3C	X	0	3
14	MP3C	Z	15.074	3
15	MP3C	Mx	0.001	3
16	MP3C	X	0	5
17	MP3C	Z	15.074	5
18	MP3C	Mx	0.001	5
19	MP2A	X	0	2.5
20	MP2A	Z	27.238	2.5
21	MP2A	Mx	0.018	2.5
22	MP2A	X	0	5.5
23	MP2A	Z	27.238	5.5
24	MP2A	Mx	0.018	5.5
25	MP2B	X	0	2.5
26	MP2B	Z	20.375	2.5
27	MP2B	Mx	-0.017	2.5
28	MP2B	X	0	5.5
29	MP2B	Z	20.375	5.5
30	MP2B	Mx	-0.017	5.5
31	MP2C	X	0	2.5
32	MP2C	Z	27.031	2.5
33	MP2C	Mx	-0.014	2.5
34	MP2C	X	0	5.5
35	MP2C	Z	27.031	5.5
36	MP2C	Mx	-0.014	5.5
37	MP2A	X	0	2.5
38	MP2A	Z	27.238	2.5
39	MP2A	Mx	-0.018	2.5
40	MP2A	X	0	5.5
41	MP2A	Z	27.238	5.5
42	MP2A	Mx	-0.018	5.5
43	MP2B	X	0	2.5
44	MP2B	Z	20.375	2.5
45	MP2B	Mx	0.017	2.5
46	MP2B	X	0	5.5
47	MP2B	Z	20.375	5.5
48	MP2B	Mx	0.017	5.5
49	MP2C	X	0	2.5
50	MP2C	Z	27.031	2.5
51	MP2C	Mx	0.014	2.5
52	MP2C	X	0	5.5
53	MP2C	Z	27.031	5.5
54	MP2C	Mx	0.014	5.5
55	OVP1	X	0	1
56	OVP1	Z	14.076	1
57	OVP1	Mx	0	1
58	OVP2	X	0	1
59	OVP2	Z	32.353	1
60	OVP2	Mx	0	1
61	MP2A	X	0	1.5
62	MP2A	Z	15.835	1.5
63	MP2A	Mx	0	1.5
64	MP2B	X	0	1.5
65	MP2B	Z	11.201	1.5
66	MP2B	Mx	0.006	1.5
67	MP2C	X	0	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
68	MP2C	Z	15.695	1.5
69	MP2C	Mx	-0.001	1.5
70	MP1A	X	0	1.5
71	MP1A	Z	25.545	1.5
72	MP1A	Mx	0	1.5
73	MP1B	X	0	1.5
74	MP1B	Z	11.75	1.5
75	MP1B	Mx	0.006	1.5
76	MP1C	X	0	1.5
77	MP1C	Z	25.129	1.5
78	MP1C	Mx	-0.002	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-6.562	3
2	MP3A	Z	11.365	3
3	MP3A	Mx	0.003	3
4	MP3A	X	-6.562	5
5	MP3A	Z	11.365	5
6	MP3A	Mx	0.003	5
7	MP3B	X	-4.343	3
8	MP3B	Z	7.523	3
9	MP3B	Mx	-0.004	3
10	MP3B	X	-4.343	5
11	MP3B	Z	7.523	5
12	MP3B	Mx	-0.004	5
13	MP3C	X	-7.152	3
14	MP3C	Z	12.388	3
15	MP3C	Mx	-0.002	3
16	MP3C	X	-7.152	5
17	MP3C	Z	12.388	5
18	MP3C	Mx	-0.002	5
19	MP2A	X	-12.761	2.5
20	MP2A	Z	22.103	2.5
21	MP2A	Mx	0.025	2.5
22	MP2A	X	-12.761	5.5
23	MP2A	Z	22.103	5.5
24	MP2A	Mx	0.025	5.5
25	MP2B	X	-11.045	2.5
26	MP2B	Z	19.131	2.5
27	MP2B	Mx	-0.009	2.5
28	MP2B	X	-11.045	5.5
29	MP2B	Z	19.131	5.5
30	MP2B	Mx	-0.009	5.5
31	MP2C	X	-13.218	2.5
32	MP2C	Z	22.894	2.5
33	MP2C	Mx	-0.024	2.5
34	MP2C	X	-13.218	5.5
35	MP2C	Z	22.894	5.5
36	MP2C	Mx	-0.024	5.5
37	MP2A	X	-12.761	2.5
38	MP2A	Z	22.103	2.5
39	MP2A	Mx	-0.025	2.5
40	MP2A	X	-12.761	5.5
41	MP2A	Z	22.103	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
42	MP2A	Mx	-0.025	5.5
43	MP2B	X	-11.045	2.5
44	MP2B	Z	19.131	2.5
45	MP2B	Mx	0.009	2.5
46	MP2B	X	-11.045	5.5
47	MP2B	Z	19.131	5.5
48	MP2B	Mx	0.009	5.5
49	MP2C	X	-13.218	2.5
50	MP2C	Z	22.894	2.5
51	MP2C	Mx	0.024	2.5
52	MP2C	X	-13.218	5.5
53	MP2C	Z	22.894	5.5
54	MP2C	Mx	0.024	5.5
55	OVP1	X	-6.007	1
56	OVP1	Z	10.405	1
57	OVP1	Mx	0	1
58	OVP2	X	-14.815	1
59	OVP2	Z	25.66	1
60	OVP2	Mx	0	1
61	MP2A	X	-7.338	1.5
62	MP2A	Z	12.71	1.5
63	MP2A	Mx	-0.004	1.5
64	MP2B	X	-6.18	1.5
65	MP2B	Z	10.703	1.5
66	MP2B	Mx	0.005	1.5
67	MP2C	X	-7.646	1.5
68	MP2C	Z	13.244	1.5
69	MP2C	Mx	0.003	1.5
70	MP1A	X	-11.048	1.5
71	MP1A	Z	19.136	1.5
72	MP1A	Mx	-0.006	1.5
73	MP1B	X	-7.599	1.5
74	MP1B	Z	13.163	1.5
75	MP1B	Mx	0.007	1.5
76	MP1C	X	-11.966	1.5
77	MP1C	Z	20.725	1.5
78	MP1C	Mx	0.004	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-7.523	3
2	MP3A	Z	4.343	3
3	MP3A	Mx	0.004	3
4	MP3A	X	-7.523	5
5	MP3A	Z	4.343	5
6	MP3A	Mx	0.004	5
7	MP3B	X	-11.365	3
8	MP3B	Z	6.562	3
9	MP3B	Mx	-0.003	3
10	MP3B	X	-11.365	5
11	MP3B	Z	6.562	5
12	MP3B	Mx	-0.003	5
13	MP3C	X	-8.777	3
14	MP3C	Z	5.067	3
15	MP3C	Mx	-0.004	3

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
16	MP3C	X	-8.777	5
17	MP3C	Z	5.067	5
18	MP3C	Mx	-0.004	5
19	MP2A	X	-19.131	2.5
20	MP2A	Z	11.045	2.5
21	MP2A	Mx	0.023	2.5
22	MP2A	X	-19.131	5.5
23	MP2A	Z	11.045	5.5
24	MP2A	Mx	0.023	5.5
25	MP2B	X	-22.103	2.5
26	MP2B	Z	12.761	2.5
27	MP2B	Mx	0.004	2.5
28	MP2B	X	-22.103	5.5
29	MP2B	Z	12.761	5.5
30	MP2B	Mx	0.004	5.5
31	MP2C	X	-20.101	2.5
32	MP2C	Z	11.605	2.5
33	MP2C	Mx	-0.025	2.5
34	MP2C	X	-20.101	5.5
35	MP2C	Z	11.605	5.5
36	MP2C	Mx	-0.025	5.5
37	MP2A	X	-19.131	2.5
38	MP2A	Z	11.045	2.5
39	MP2A	Mx	-0.023	2.5
40	MP2A	X	-19.131	5.5
41	MP2A	Z	11.045	5.5
42	MP2A	Mx	-0.023	5.5
43	MP2B	X	-22.103	2.5
44	MP2B	Z	12.761	2.5
45	MP2B	Mx	-0.004	2.5
46	MP2B	X	-22.103	5.5
47	MP2B	Z	12.761	5.5
48	MP2B	Mx	-0.004	5.5
49	MP2C	X	-20.101	2.5
50	MP2C	Z	11.605	2.5
51	MP2C	Mx	0.025	2.5
52	MP2C	X	-20.101	5.5
53	MP2C	Z	11.605	5.5
54	MP2C	Mx	0.025	5.5
55	OVP1	X	-8.215	1
56	OVP1	Z	4.743	1
57	OVP1	Mx	0	1
58	OVP2	X	-22.768	1
59	OVP2	Z	13.145	1
60	OVP2	Mx	0	1
61	MP2A	X	-10.703	1.5
62	MP2A	Z	6.18	1.5
63	MP2A	Mx	-0.005	1.5
64	MP2B	X	-12.71	1.5
65	MP2B	Z	7.338	1.5
66	MP2B	Mx	0.004	1.5
67	MP2C	X	-11.358	1.5
68	MP2C	Z	6.558	1.5
69	MP2C	Mx	0.005	1.5
70	MP1A	X	-13.163	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
71	MP1A	Z	7.599	1.5
72	MP1A	Mx	-0.007	1.5
73	MP1B	X	-19.136	1.5
74	MP1B	Z	11.048	1.5
75	MP1B	Mx	0.006	1.5
76	MP1C	X	-15.112	1.5
77	MP1C	Z	8.725	1.5
78	MP1C	Mx	0.007	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-6.469	3
2	MP3A	Z	0	3
3	MP3A	Mx	0.003	3
4	MP3A	X	-6.469	5
5	MP3A	Z	0	5
6	MP3A	Mx	0.003	5
7	MP3B	X	-15.342	3
8	MP3B	Z	0	3
9	MP3B	Mx	0	3
10	MP3B	X	-15.342	5
11	MP3B	Z	0	5
12	MP3B	Mx	0	5
13	MP3C	X	-6.736	3
14	MP3C	Z	0	3
15	MP3C	Mx	-0.003	3
16	MP3C	X	-6.736	5
17	MP3C	Z	0	5
18	MP3C	Mx	-0.003	5
19	MP2A	X	-20.375	2.5
20	MP2A	Z	0	2.5
21	MP2A	Mx	0.017	2.5
22	MP2A	X	-20.375	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	0.017	5.5
25	MP2B	X	-27.238	2.5
26	MP2B	Z	0	2.5
27	MP2B	Mx	0.018	2.5
28	MP2B	X	-27.238	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	0.018	5.5
31	MP2C	X	-20.582	2.5
32	MP2C	Z	0	2.5
33	MP2C	Mx	-0.019	2.5
34	MP2C	X	-20.582	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	-0.019	5.5
37	MP2A	X	-20.375	2.5
38	MP2A	Z	0	2.5
39	MP2A	Mx	-0.017	2.5
40	MP2A	X	-20.375	5.5
41	MP2A	Z	0	5.5
42	MP2A	Mx	-0.017	5.5
43	MP2B	X	-27.238	2.5
44	MP2B	Z	0	2.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
45	MP2B	Mx	-0.018	2.5
46	MP2B	X	-27.238	5.5
47	MP2B	Z	0	5.5
48	MP2B	Mx	-0.018	5.5
49	MP2C	X	-20.582	2.5
50	MP2C	Z	0	2.5
51	MP2C	Mx	0.019	2.5
52	MP2C	X	-20.582	5.5
53	MP2C	Z	0	5.5
54	MP2C	Mx	0.019	5.5
55	OVP1	X	-9.018	1
56	OVP1	Z	0	1
57	OVP1	Mx	0	1
58	OVP2	X	-25.672	1
59	OVP2	Z	0	1
60	OVP2	Mx	0	1
61	MP2A	X	-11.201	1.5
62	MP2A	Z	0	1.5
63	MP2A	Mx	-0.006	1.5
64	MP2B	X	-15.835	1.5
65	MP2B	Z	0	1.5
66	MP2B	Mx	0	1.5
67	MP2C	X	-11.34	1.5
68	MP2C	Z	0	1.5
69	MP2C	Mx	0.006	1.5
70	MP1A	X	-11.75	1.5
71	MP1A	Z	0	1.5
72	MP1A	Mx	-0.006	1.5
73	MP1B	X	-25.545	1.5
74	MP1B	Z	0	1.5
75	MP1B	Mx	0	1.5
76	MP1C	X	-12.166	1.5
77	MP1C	Z	0	1.5
78	MP1C	Mx	0.006	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-7.523	3
2	MP3A	Z	-4.343	3
3	MP3A	Mx	0.004	3
4	MP3A	X	-7.523	5
5	MP3A	Z	-4.343	5
6	MP3A	Mx	0.004	5
7	MP3B	X	-11.365	3
8	MP3B	Z	-6.562	3
9	MP3B	Mx	0.003	3
10	MP3B	X	-11.365	5
11	MP3B	Z	-6.562	5
12	MP3B	Mx	0.003	5
13	MP3C	X	-6.501	3
14	MP3C	Z	-3.753	3
15	MP3C	Mx	-0.004	3
16	MP3C	X	-6.501	5
17	MP3C	Z	-3.753	5
18	MP3C	Mx	-0.004	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
19	MP2A	X	-19.131	2.5
20	MP2A	Z	-11.045	2.5
21	MP2A	Mx	0.009	2.5
22	MP2A	X	-19.131	5.5
23	MP2A	Z	-11.045	5.5
24	MP2A	Mx	0.009	5.5
25	MP2B	X	-22.103	2.5
26	MP2B	Z	-12.761	2.5
27	MP2B	Mx	0.025	2.5
28	MP2B	X	-22.103	5.5
29	MP2B	Z	-12.761	5.5
30	MP2B	Mx	0.025	5.5
31	MP2C	X	-18.341	2.5
32	MP2C	Z	-10.589	2.5
33	MP2C	Mx	-0.012	2.5
34	MP2C	X	-18.341	5.5
35	MP2C	Z	-10.589	5.5
36	MP2C	Mx	-0.012	5.5
37	MP2A	X	-19.131	2.5
38	MP2A	Z	-11.045	2.5
39	MP2A	Mx	-0.009	2.5
40	MP2A	X	-19.131	5.5
41	MP2A	Z	-11.045	5.5
42	MP2A	Mx	-0.009	5.5
43	MP2B	X	-22.103	2.5
44	MP2B	Z	-12.761	2.5
45	MP2B	Mx	-0.025	2.5
46	MP2B	X	-22.103	5.5
47	MP2B	Z	-12.761	5.5
48	MP2B	Mx	-0.025	5.5
49	MP2C	X	-18.341	2.5
50	MP2C	Z	-10.589	2.5
51	MP2C	Mx	0.012	2.5
52	MP2C	X	-18.341	5.5
53	MP2C	Z	-10.589	5.5
54	MP2C	Mx	0.012	5.5
55	OVP1	X	-9.596	1
56	OVP1	Z	-5.54	1
57	OVP1	Mx	0	1
58	OVP2	X	-24.591	1
59	OVP2	Z	-14.198	1
60	OVP2	Mx	0	1
61	MP2A	X	-10.703	1.5
62	MP2A	Z	-6.18	1.5
63	MP2A	Mx	-0.005	1.5
64	MP2B	X	-12.71	1.5
65	MP2B	Z	-7.338	1.5
66	MP2B	Mx	-0.004	1.5
67	MP2C	X	-10.17	1.5
68	MP2C	Z	-5.871	1.5
69	MP2C	Mx	0.006	1.5
70	MP1A	X	-13.163	1.5
71	MP1A	Z	-7.599	1.5
72	MP1A	Mx	-0.007	1.5
73	MP1B	X	-19.136	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
74	MP1B	Z	-11.048	1.5
75	MP1B	Mx	-0.006	1.5
76	MP1C	X	-11.573	1.5
77	MP1C	Z	-6.682	1.5
78	MP1C	Mx	0.006	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-6.562	3
2	MP3A	Z	-11.365	3
3	MP3A	Mx	0.003	3
4	MP3A	X	-6.562	5
5	MP3A	Z	-11.365	5
6	MP3A	Mx	0.003	5
7	MP3B	X	-4.343	3
8	MP3B	Z	-7.523	3
9	MP3B	Mx	0.004	3
10	MP3B	X	-4.343	5
11	MP3B	Z	-7.523	5
12	MP3B	Mx	0.004	5
13	MP3C	X	-5.838	3
14	MP3C	Z	-10.111	3
15	MP3C	Mx	-0.004	3
16	MP3C	X	-5.838	5
17	MP3C	Z	-10.111	5
18	MP3C	Mx	-0.004	5
19	MP2A	X	-12.761	2.5
20	MP2A	Z	-22.103	2.5
21	MP2A	Mx	-0.004	2.5
22	MP2A	X	-12.761	5.5
23	MP2A	Z	-22.103	5.5
24	MP2A	Mx	-0.004	5.5
25	MP2B	X	-11.045	2.5
26	MP2B	Z	-19.131	2.5
27	MP2B	Mx	0.023	2.5
28	MP2B	X	-11.045	5.5
29	MP2B	Z	-19.131	5.5
30	MP2B	Mx	0.023	5.5
31	MP2C	X	-12.201	2.5
32	MP2C	Z	-21.133	2.5
33	MP2C	Mx	-0.000609	2.5
34	MP2C	X	-12.201	5.5
35	MP2C	Z	-21.133	5.5
36	MP2C	Mx	-0.000609	5.5
37	MP2A	X	-12.761	2.5
38	MP2A	Z	-22.103	2.5
39	MP2A	Mx	0.004	2.5
40	MP2A	X	-12.761	5.5
41	MP2A	Z	-22.103	5.5
42	MP2A	Mx	0.004	5.5
43	MP2B	X	-11.045	2.5
44	MP2B	Z	-19.131	2.5
45	MP2B	Mx	-0.023	2.5
46	MP2B	X	-11.045	5.5
47	MP2B	Z	-19.131	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
48	MP2B	Mx	-0.023	5.5
49	MP2C	X	-12.201	2.5
50	MP2C	Z	-21.133	2.5
51	MP2C	Mx	0.000609	2.5
52	MP2C	X	-12.201	5.5
53	MP2C	Z	-21.133	5.5
54	MP2C	Mx	0.000609	5.5
55	OVP1	X	-6.805	1
56	OVP1	Z	-11.786	1
57	OVP1	Mx	0	1
58	OVP2	X	-15.868	1
59	OVP2	Z	-27.484	1
60	OVP2	Mx	0	1
61	MP2A	X	-7.338	1.5
62	MP2A	Z	-12.71	1.5
63	MP2A	Mx	-0.004	1.5
64	MP2B	X	-6.18	1.5
65	MP2B	Z	-10.703	1.5
66	MP2B	Mx	-0.005	1.5
67	MP2C	X	-6.96	1.5
68	MP2C	Z	-12.055	1.5
69	MP2C	Mx	0.004	1.5
70	MP1A	X	-11.048	1.5
71	MP1A	Z	-19.136	1.5
72	MP1A	Mx	-0.006	1.5
73	MP1B	X	-7.599	1.5
74	MP1B	Z	-13.163	1.5
75	MP1B	Mx	-0.007	1.5
76	MP1C	X	-9.923	1.5
77	MP1C	Z	-17.186	1.5
78	MP1C	Mx	0.006	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	0	3
2	MP3A	Z	-4.036	3
3	MP3A	Mx	0	3
4	MP3A	X	0	5
5	MP3A	Z	-4.036	5
6	MP3A	Mx	0	5
7	MP3B	X	0	3
8	MP3B	Z	-1.418	3
9	MP3B	Mx	0.000709	3
10	MP3B	X	0	5
11	MP3B	Z	-1.418	5
12	MP3B	Mx	0.000709	5
13	MP3C	X	0	3
14	MP3C	Z	-3.957	3
15	MP3C	Mx	-0.000344	3
16	MP3C	X	0	5
17	MP3C	Z	-3.957	5
18	MP3C	Mx	-0.000344	5
19	MP2A	X	0	2.5
20	MP2A	Z	-4.496	2.5
21	MP2A	Mx	-0.003	2.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
22	MP2A	X	0	5.5
23	MP2A	Z	-4.496	5.5
24	MP2A	Mx	-0.003	5.5
25	MP2B	X	0	2.5
26	MP2B	Z	-3.372	2.5
27	MP2B	Mx	0.003	2.5
28	MP2B	X	0	5.5
29	MP2B	Z	-3.372	5.5
30	MP2B	Mx	0.003	5.5
31	MP2C	X	0	2.5
32	MP2C	Z	-4.462	2.5
33	MP2C	Mx	0.002	2.5
34	MP2C	X	0	5.5
35	MP2C	Z	-4.462	5.5
36	MP2C	Mx	0.002	5.5
37	MP2A	X	0	2.5
38	MP2A	Z	-4.496	2.5
39	MP2A	Mx	0.003	2.5
40	MP2A	X	0	5.5
41	MP2A	Z	-4.496	5.5
42	MP2A	Mx	0.003	5.5
43	MP2B	X	0	2.5
44	MP2B	Z	-3.372	2.5
45	MP2B	Mx	-0.003	2.5
46	MP2B	X	0	5.5
47	MP2B	Z	-3.372	5.5
48	MP2B	Mx	-0.003	5.5
49	MP2C	X	0	2.5
50	MP2C	Z	-4.462	2.5
51	MP2C	Mx	-0.002	2.5
52	MP2C	X	0	5.5
53	MP2C	Z	-4.462	5.5
54	MP2C	Mx	-0.002	5.5
55	OVP1	X	0	1
56	OVP1	Z	-4.137	1
57	OVP1	Mx	0	1
58	OVP2	X	0	1
59	OVP2	Z	-8.04	1
60	OVP2	Mx	0	1
61	MP2A	X	0	1.5
62	MP2A	Z	-4.777	1.5
63	MP2A	Mx	0	1.5
64	MP2B	X	0	1.5
65	MP2B	Z	-3.257	1.5
66	MP2B	Mx	-0.002	1.5
67	MP2C	X	0	1.5
68	MP2C	Z	-4.731	1.5
69	MP2C	Mx	0.000411	1.5
70	MP1A	X	0	1.5
71	MP1A	Z	-6.642	1.5
72	MP1A	Mx	0	1.5
73	MP1B	X	0	1.5
74	MP1B	Z	-2.785	1.5
75	MP1B	Mx	-0.001	1.5
76	MP1C	X	0	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
77	MP1C	Z	-6.526	1.5
78	MP1C	Mx	0.000567	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	1.691	3
2	MP3A	Z	-2.929	3
3	MP3A	Mx	-0.000846	3
4	MP3A	X	1.691	5
5	MP3A	Z	-2.929	5
6	MP3A	Mx	-0.000846	5
7	MP3B	X	1.036	3
8	MP3B	Z	-1.795	3
9	MP3B	Mx	0.000898	3
10	MP3B	X	1.036	5
11	MP3B	Z	-1.795	5
12	MP3B	Mx	0.000898	5
13	MP3C	X	1.865	3
14	MP3C	Z	-3.23	3
15	MP3C	Mx	0.000638	3
16	MP3C	X	1.865	5
17	MP3C	Z	-3.23	5
18	MP3C	Mx	0.000638	5
19	MP2A	X	2.108	2.5
20	MP2A	Z	-3.65	2.5
21	MP2A	Mx	-0.004	2.5
22	MP2A	X	2.108	5.5
23	MP2A	Z	-3.65	5.5
24	MP2A	Mx	-0.004	5.5
25	MP2B	X	1.827	2.5
26	MP2B	Z	-3.164	2.5
27	MP2B	Mx	0.001	2.5
28	MP2B	X	1.827	5.5
29	MP2B	Z	-3.164	5.5
30	MP2B	Mx	0.001	5.5
31	MP2C	X	2.182	2.5
32	MP2C	Z	-3.78	2.5
33	MP2C	Mx	0.004	2.5
34	MP2C	X	2.182	5.5
35	MP2C	Z	-3.78	5.5
36	MP2C	Mx	0.004	5.5
37	MP2A	X	2.108	2.5
38	MP2A	Z	-3.65	2.5
39	MP2A	Mx	0.004	2.5
40	MP2A	X	2.108	5.5
41	MP2A	Z	-3.65	5.5
42	MP2A	Mx	0.004	5.5
43	MP2B	X	1.827	2.5
44	MP2B	Z	-3.164	2.5
45	MP2B	Mx	-0.001	2.5
46	MP2B	X	1.827	5.5
47	MP2B	Z	-3.164	5.5
48	MP2B	Mx	-0.001	5.5
49	MP2C	X	2.182	2.5
50	MP2C	Z	-3.78	2.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
51	MP2C	Mx	-0.004	2.5
52	MP2C	X	2.182	5.5
53	MP2C	Z	-3.78	5.5
54	MP2C	Mx	-0.004	5.5
55	OVP1	X	1.737	1
56	OVP1	Z	-3.008	1
57	OVP1	Mx	0	1
58	OVP2	X	3.648	1
59	OVP2	Z	-6.319	1
60	OVP2	Mx	0	1
61	MP2A	X	2.199	1.5
62	MP2A	Z	-3.808	1.5
63	MP2A	Mx	0.001	1.5
64	MP2B	X	1.819	1.5
65	MP2B	Z	-3.15	1.5
66	MP2B	Mx	-0.002	1.5
67	MP2C	X	2.3	1.5
68	MP2C	Z	-3.983	1.5
69	MP2C	Mx	-0.000787	1.5
70	MP1A	X	2.839	1.5
71	MP1A	Z	-4.917	1.5
72	MP1A	Mx	0.001	1.5
73	MP1B	X	1.874	1.5
74	MP1B	Z	-3.247	1.5
75	MP1B	Mx	-0.002	1.5
76	MP1C	X	3.095	1.5
77	MP1C	Z	-5.361	1.5
78	MP1C	Mx	-0.001	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	1.795	3
2	MP3A	Z	-1.036	3
3	MP3A	Mx	-0.000898	3
4	MP3A	X	1.795	5
5	MP3A	Z	-1.036	5
6	MP3A	Mx	-0.000898	5
7	MP3B	X	2.929	3
8	MP3B	Z	-1.691	3
9	MP3B	Mx	0.000846	3
10	MP3B	X	2.929	5
11	MP3B	Z	-1.691	5
12	MP3B	Mx	0.000846	5
13	MP3C	X	2.165	3
14	MP3C	Z	-1.25	3
15	MP3C	Mx	0.000958	3
16	MP3C	X	2.165	5
17	MP3C	Z	-1.25	5
18	MP3C	Mx	0.000958	5
19	MP2A	X	3.164	2.5
20	MP2A	Z	-1.827	2.5
21	MP2A	Mx	-0.004	2.5
22	MP2A	X	3.164	5.5
23	MP2A	Z	-1.827	5.5
24	MP2A	Mx	-0.004	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
25	MP2B	X	3.65	2.5
26	MP2B	Z	-2.108	2.5
27	MP2B	Mx	-0.000677	2.5
28	MP2B	X	3.65	5.5
29	MP2B	Z	-2.108	5.5
30	MP2B	Mx	-0.000677	5.5
31	MP2C	X	3.323	2.5
32	MP2C	Z	-1.918	2.5
33	MP2C	Mx	0.004	2.5
34	MP2C	X	3.323	5.5
35	MP2C	Z	-1.918	5.5
36	MP2C	Mx	0.004	5.5
37	MP2A	X	3.164	2.5
38	MP2A	Z	-1.827	2.5
39	MP2A	Mx	0.004	2.5
40	MP2A	X	3.164	5.5
41	MP2A	Z	-1.827	5.5
42	MP2A	Mx	0.004	5.5
43	MP2B	X	3.65	2.5
44	MP2B	Z	-2.108	2.5
45	MP2B	Mx	0.000677	2.5
46	MP2B	X	3.65	5.5
47	MP2B	Z	-2.108	5.5
48	MP2B	Mx	0.000677	5.5
49	MP2C	X	3.323	2.5
50	MP2C	Z	-1.918	2.5
51	MP2C	Mx	-0.004	2.5
52	MP2C	X	3.323	5.5
53	MP2C	Z	-1.918	5.5
54	MP2C	Mx	-0.004	5.5
55	OVP1	X	2.303	1
56	OVP1	Z	-1.329	1
57	OVP1	Mx	0	1
58	OVP2	X	5.529	1
59	OVP2	Z	-3.192	1
60	OVP2	Mx	0	1
61	MP2A	X	3.15	1.5
62	MP2A	Z	-1.819	1.5
63	MP2A	Mx	0.002	1.5
64	MP2B	X	3.808	1.5
65	MP2B	Z	-2.199	1.5
66	MP2B	Mx	-0.001	1.5
67	MP2C	X	3.365	1.5
68	MP2C	Z	-1.943	1.5
69	MP2C	Mx	-0.001	1.5
70	MP1A	X	3.247	1.5
71	MP1A	Z	-1.874	1.5
72	MP1A	Mx	0.002	1.5
73	MP1B	X	4.917	1.5
74	MP1B	Z	-2.839	1.5
75	MP1B	Mx	-0.001	1.5
76	MP1C	X	3.792	1.5
77	MP1C	Z	-2.189	1.5
78	MP1C	Mx	-0.002	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	1.418	3
2	MP3A	Z	0	3
3	MP3A	Mx	-0.000709	3
4	MP3A	X	1.418	5
5	MP3A	Z	0	5
6	MP3A	Mx	-0.000709	5
7	MP3B	X	4.036	3
8	MP3B	Z	0	3
9	MP3B	Mx	0	3
10	MP3B	X	4.036	5
11	MP3B	Z	0	5
12	MP3B	Mx	0	5
13	MP3C	X	1.497	3
14	MP3C	Z	0	3
15	MP3C	Mx	0.000737	3
16	MP3C	X	1.497	5
17	MP3C	Z	0	5
18	MP3C	Mx	0.000737	5
19	MP2A	X	3.372	2.5
20	MP2A	Z	0	2.5
21	MP2A	Mx	-0.003	2.5
22	MP2A	X	3.372	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-0.003	5.5
25	MP2B	X	4.496	2.5
26	MP2B	Z	0	2.5
27	MP2B	Mx	-0.003	2.5
28	MP2B	X	4.496	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	-0.003	5.5
31	MP2C	X	3.406	2.5
32	MP2C	Z	0	2.5
33	MP2C	Mx	0.003	2.5
34	MP2C	X	3.406	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	0.003	5.5
37	MP2A	X	3.372	2.5
38	MP2A	Z	0	2.5
39	MP2A	Mx	0.003	2.5
40	MP2A	X	3.372	5.5
41	MP2A	Z	0	5.5
42	MP2A	Mx	0.003	5.5
43	MP2B	X	4.496	2.5
44	MP2B	Z	0	2.5
45	MP2B	Mx	0.003	2.5
46	MP2B	X	4.496	5.5
47	MP2B	Z	0	5.5
48	MP2B	Mx	0.003	5.5
49	MP2C	X	3.406	2.5
50	MP2C	Z	0	2.5
51	MP2C	Mx	-0.003	2.5
52	MP2C	X	3.406	5.5
53	MP2C	Z	0	5.5
54	MP2C	Mx	-0.003	5.5
55	OVP1	X	2.508	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	OVP1	Z	0	1
57	OVP1	Mx	0	1
58	OVP2	X	6.215	1
59	OVP2	Z	0	1
60	OVP2	Mx	0	1
61	MP2A	X	3.257	1.5
62	MP2A	Z	0	1.5
63	MP2A	Mx	0.002	1.5
64	MP2B	X	4.777	1.5
65	MP2B	Z	0	1.5
66	MP2B	Mx	0	1.5
67	MP2C	X	3.303	1.5
68	MP2C	Z	0	1.5
69	MP2C	Mx	-0.002	1.5
70	MP1A	X	2.785	1.5
71	MP1A	Z	0	1.5
72	MP1A	Mx	0.001	1.5
73	MP1B	X	6.642	1.5
74	MP1B	Z	0	1.5
75	MP1B	Mx	0	1.5
76	MP1C	X	2.901	1.5
77	MP1C	Z	0	1.5
78	MP1C	Mx	-0.001	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	1.795	3
2	MP3A	Z	1.036	3
3	MP3A	Mx	-0.000898	3
4	MP3A	X	1.795	5
5	MP3A	Z	1.036	5
6	MP3A	Mx	-0.000898	5
7	MP3B	X	2.929	3
8	MP3B	Z	1.691	3
9	MP3B	Mx	-0.000846	3
10	MP3B	X	2.929	5
11	MP3B	Z	1.691	5
12	MP3B	Mx	-0.000846	5
13	MP3C	X	1.493	3
14	MP3C	Z	0.862	3
15	MP3C	Mx	0.00081	3
16	MP3C	X	1.493	5
17	MP3C	Z	0.862	5
18	MP3C	Mx	0.00081	5
19	MP2A	X	3.164	2.5
20	MP2A	Z	1.827	2.5
21	MP2A	Mx	-0.001	2.5
22	MP2A	X	3.164	5.5
23	MP2A	Z	1.827	5.5
24	MP2A	Mx	-0.001	5.5
25	MP2B	X	3.65	2.5
26	MP2B	Z	2.108	2.5
27	MP2B	Mx	-0.004	2.5
28	MP2B	X	3.65	5.5
29	MP2B	Z	2.108	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
30	MP2B	Mx	-0.004	5.5
31	MP2C	X	3.034	2.5
32	MP2C	Z	1.752	2.5
33	MP2C	Mx	0.002	2.5
34	MP2C	X	3.034	5.5
35	MP2C	Z	1.752	5.5
36	MP2C	Mx	0.002	5.5
37	MP2A	X	3.164	2.5
38	MP2A	Z	1.827	2.5
39	MP2A	Mx	0.001	2.5
40	MP2A	X	3.164	5.5
41	MP2A	Z	1.827	5.5
42	MP2A	Mx	0.001	5.5
43	MP2B	X	3.65	2.5
44	MP2B	Z	2.108	2.5
45	MP2B	Mx	0.004	2.5
46	MP2B	X	3.65	5.5
47	MP2B	Z	2.108	5.5
48	MP2B	Mx	0.004	5.5
49	MP2C	X	3.034	2.5
50	MP2C	Z	1.752	2.5
51	MP2C	Mx	-0.002	2.5
52	MP2C	X	3.034	5.5
53	MP2C	Z	1.752	5.5
54	MP2C	Mx	-0.002	5.5
55	OVP1	X	2.747	1
56	OVP1	Z	1.586	1
57	OVP1	Mx	0	1
58	OVP2	X	6.027	1
59	OVP2	Z	3.479	1
60	OVP2	Mx	0	1
61	MP2A	X	3.15	1.5
62	MP2A	Z	1.819	1.5
63	MP2A	Mx	0.002	1.5
64	MP2B	X	3.808	1.5
65	MP2B	Z	2.199	1.5
66	MP2B	Mx	0.001	1.5
67	MP2C	X	2.975	1.5
68	MP2C	Z	1.718	1.5
69	MP2C	Mx	-0.002	1.5
70	MP1A	X	3.247	1.5
71	MP1A	Z	1.874	1.5
72	MP1A	Mx	0.002	1.5
73	MP1B	X	4.917	1.5
74	MP1B	Z	2.839	1.5
75	MP1B	Mx	0.001	1.5
76	MP1C	X	2.802	1.5
77	MP1C	Z	1.618	1.5
78	MP1C	Mx	-0.002	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	1.691	3
2	MP3A	Z	2.929	3
3	MP3A	Mx	-0.000846	3

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
4	MP3A	X	1.691	5
5	MP3A	Z	2.929	5
6	MP3A	Mx	-0.000846	5
7	MP3B	X	1.036	3
8	MP3B	Z	1.795	3
9	MP3B	Mx	-0.000898	3
10	MP3B	X	1.036	5
11	MP3B	Z	1.795	5
12	MP3B	Mx	-0.000898	5
13	MP3C	X	1.477	3
14	MP3C	Z	2.559	3
15	MP3C	Mx	0.000949	3
16	MP3C	X	1.477	5
17	MP3C	Z	2.559	5
18	MP3C	Mx	0.000949	5
19	MP2A	X	2.108	2.5
20	MP2A	Z	3.65	2.5
21	MP2A	Mx	0.000677	2.5
22	MP2A	X	2.108	5.5
23	MP2A	Z	3.65	5.5
24	MP2A	Mx	0.000677	5.5
25	MP2B	X	1.827	2.5
26	MP2B	Z	3.164	2.5
27	MP2B	Mx	-0.004	2.5
28	MP2B	X	1.827	5.5
29	MP2B	Z	3.164	5.5
30	MP2B	Mx	-0.004	5.5
31	MP2C	X	2.016	2.5
32	MP2C	Z	3.492	2.5
33	MP2C	Mx	0.000101	2.5
34	MP2C	X	2.016	5.5
35	MP2C	Z	3.492	5.5
36	MP2C	Mx	0.000101	5.5
37	MP2A	X	2.108	2.5
38	MP2A	Z	3.65	2.5
39	MP2A	Mx	-0.000677	2.5
40	MP2A	X	2.108	5.5
41	MP2A	Z	3.65	5.5
42	MP2A	Mx	-0.000677	5.5
43	MP2B	X	1.827	2.5
44	MP2B	Z	3.164	2.5
45	MP2B	Mx	0.004	2.5
46	MP2B	X	1.827	5.5
47	MP2B	Z	3.164	5.5
48	MP2B	Mx	0.004	5.5
49	MP2C	X	2.016	2.5
50	MP2C	Z	3.492	2.5
51	MP2C	Mx	-0.000101	2.5
52	MP2C	X	2.016	5.5
53	MP2C	Z	3.492	5.5
54	MP2C	Mx	-0.000101	5.5
55	OVP1	X	1.993	1
56	OVP1	Z	3.453	1
57	OVP1	Mx	0	1
58	OVP2	X	3.936	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
59	OVP2	Z	6.817	1
60	OVP2	Mx	0	1
61	MP2A	X	2.199	1.5
62	MP2A	Z	3.808	1.5
63	MP2A	Mx	0.001	1.5
64	MP2B	X	1.819	1.5
65	MP2B	Z	3.15	1.5
66	MP2B	Mx	0.002	1.5
67	MP2C	X	2.075	1.5
68	MP2C	Z	3.593	1.5
69	MP2C	Mx	-0.001	1.5
70	MP1A	X	2.839	1.5
71	MP1A	Z	4.917	1.5
72	MP1A	Mx	0.001	1.5
73	MP1B	X	1.874	1.5
74	MP1B	Z	3.247	1.5
75	MP1B	Mx	0.002	1.5
76	MP1C	X	2.524	1.5
77	MP1C	Z	4.372	1.5
78	MP1C	Mx	-0.002	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	0	3
2	MP3A	Z	4.036	3
3	MP3A	Mx	0	3
4	MP3A	X	0	5
5	MP3A	Z	4.036	5
6	MP3A	Mx	0	5
7	MP3B	X	0	3
8	MP3B	Z	1.418	3
9	MP3B	Mx	-0.000709	3
10	MP3B	X	0	5
11	MP3B	Z	1.418	5
12	MP3B	Mx	-0.000709	5
13	MP3C	X	0	3
14	MP3C	Z	3.957	3
15	MP3C	Mx	0.000344	3
16	MP3C	X	0	5
17	MP3C	Z	3.957	5
18	MP3C	Mx	0.000344	5
19	MP2A	X	0	2.5
20	MP2A	Z	4.496	2.5
21	MP2A	Mx	0.003	2.5
22	MP2A	X	0	5.5
23	MP2A	Z	4.496	5.5
24	MP2A	Mx	0.003	5.5
25	MP2B	X	0	2.5
26	MP2B	Z	3.372	2.5
27	MP2B	Mx	-0.003	2.5
28	MP2B	X	0	5.5
29	MP2B	Z	3.372	5.5
30	MP2B	Mx	-0.003	5.5
31	MP2C	X	0	2.5
32	MP2C	Z	4.462	2.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
33	MP2C	Mx	-0.002	2.5
34	MP2C	X	0	5.5
35	MP2C	Z	4.462	5.5
36	MP2C	Mx	-0.002	5.5
37	MP2A	X	0	2.5
38	MP2A	Z	4.496	2.5
39	MP2A	Mx	-0.003	2.5
40	MP2A	X	0	5.5
41	MP2A	Z	4.496	5.5
42	MP2A	Mx	-0.003	5.5
43	MP2B	X	0	2.5
44	MP2B	Z	3.372	2.5
45	MP2B	Mx	0.003	2.5
46	MP2B	X	0	5.5
47	MP2B	Z	3.372	5.5
48	MP2B	Mx	0.003	5.5
49	MP2C	X	0	2.5
50	MP2C	Z	4.462	2.5
51	MP2C	Mx	0.002	2.5
52	MP2C	X	0	5.5
53	MP2C	Z	4.462	5.5
54	MP2C	Mx	0.002	5.5
55	OVP1	X	0	1
56	OVP1	Z	4.137	1
57	OVP1	Mx	0	1
58	OVP2	X	0	1
59	OVP2	Z	8.04	1
60	OVP2	Mx	0	1
61	MP2A	X	0	1.5
62	MP2A	Z	4.777	1.5
63	MP2A	Mx	0	1.5
64	MP2B	X	0	1.5
65	MP2B	Z	3.257	1.5
66	MP2B	Mx	0.002	1.5
67	MP2C	X	0	1.5
68	MP2C	Z	4.731	1.5
69	MP2C	Mx	-0.000411	1.5
70	MP1A	X	0	1.5
71	MP1A	Z	6.642	1.5
72	MP1A	Mx	0	1.5
73	MP1B	X	0	1.5
74	MP1B	Z	2.785	1.5
75	MP1B	Mx	0.001	1.5
76	MP1C	X	0	1.5
77	MP1C	Z	6.526	1.5
78	MP1C	Mx	-0.000567	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-1.691	3
2	MP3A	Z	2.929	3
3	MP3A	Mx	0.000846	3
4	MP3A	X	-1.691	5
5	MP3A	Z	2.929	5
6	MP3A	Mx	0.000846	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
7	MP3B	X	-1.036	3
8	MP3B	Z	1.795	3
9	MP3B	Mx	-0.000898	3
10	MP3B	X	-1.036	5
11	MP3B	Z	1.795	5
12	MP3B	Mx	-0.000898	5
13	MP3C	X	-1.865	3
14	MP3C	Z	3.23	3
15	MP3C	Mx	-0.000638	3
16	MP3C	X	-1.865	5
17	MP3C	Z	3.23	5
18	MP3C	Mx	-0.000638	5
19	MP2A	X	-2.108	2.5
20	MP2A	Z	3.65	2.5
21	MP2A	Mx	0.004	2.5
22	MP2A	X	-2.108	5.5
23	MP2A	Z	3.65	5.5
24	MP2A	Mx	0.004	5.5
25	MP2B	X	-1.827	2.5
26	MP2B	Z	3.164	2.5
27	MP2B	Mx	-0.001	2.5
28	MP2B	X	-1.827	5.5
29	MP2B	Z	3.164	5.5
30	MP2B	Mx	-0.001	5.5
31	MP2C	X	-2.182	2.5
32	MP2C	Z	3.78	2.5
33	MP2C	Mx	-0.004	2.5
34	MP2C	X	-2.182	5.5
35	MP2C	Z	3.78	5.5
36	MP2C	Mx	-0.004	5.5
37	MP2A	X	-2.108	2.5
38	MP2A	Z	3.65	2.5
39	MP2A	Mx	-0.004	2.5
40	MP2A	X	-2.108	5.5
41	MP2A	Z	3.65	5.5
42	MP2A	Mx	-0.004	5.5
43	MP2B	X	-1.827	2.5
44	MP2B	Z	3.164	2.5
45	MP2B	Mx	0.001	2.5
46	MP2B	X	-1.827	5.5
47	MP2B	Z	3.164	5.5
48	MP2B	Mx	0.001	5.5
49	MP2C	X	-2.182	2.5
50	MP2C	Z	3.78	2.5
51	MP2C	Mx	0.004	2.5
52	MP2C	X	-2.182	5.5
53	MP2C	Z	3.78	5.5
54	MP2C	Mx	0.004	5.5
55	OVP1	X	-1.737	1
56	OVP1	Z	3.008	1
57	OVP1	Mx	0	1
58	OVP2	X	-3.648	1
59	OVP2	Z	6.319	1
60	OVP2	Mx	0	1
61	MP2A	X	-2.199	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
62	MP2A	Z	3.808	1.5
63	MP2A	Mx	-0.001	1.5
64	MP2B	X	-1.819	1.5
65	MP2B	Z	3.15	1.5
66	MP2B	Mx	0.002	1.5
67	MP2C	X	-2.3	1.5
68	MP2C	Z	3.983	1.5
69	MP2C	Mx	0.000787	1.5
70	MP1A	X	-2.839	1.5
71	MP1A	Z	4.917	1.5
72	MP1A	Mx	-0.001	1.5
73	MP1B	X	-1.874	1.5
74	MP1B	Z	3.247	1.5
75	MP1B	Mx	0.002	1.5
76	MP1C	X	-3.095	1.5
77	MP1C	Z	5.361	1.5
78	MP1C	Mx	0.001	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-1.795	3
2	MP3A	Z	1.036	3
3	MP3A	Mx	0.000898	3
4	MP3A	X	-1.795	5
5	MP3A	Z	1.036	5
6	MP3A	Mx	0.000898	5
7	MP3B	X	-2.929	3
8	MP3B	Z	1.691	3
9	MP3B	Mx	-0.000846	3
10	MP3B	X	-2.929	5
11	MP3B	Z	1.691	5
12	MP3B	Mx	-0.000846	5
13	MP3C	X	-2.165	3
14	MP3C	Z	1.25	3
15	MP3C	Mx	-0.000958	3
16	MP3C	X	-2.165	5
17	MP3C	Z	1.25	5
18	MP3C	Mx	-0.000958	5
19	MP2A	X	-3.164	2.5
20	MP2A	Z	1.827	2.5
21	MP2A	Mx	0.004	2.5
22	MP2A	X	-3.164	5.5
23	MP2A	Z	1.827	5.5
24	MP2A	Mx	0.004	5.5
25	MP2B	X	-3.65	2.5
26	MP2B	Z	2.108	2.5
27	MP2B	Mx	0.000677	2.5
28	MP2B	X	-3.65	5.5
29	MP2B	Z	2.108	5.5
30	MP2B	Mx	0.000677	5.5
31	MP2C	X	-3.323	2.5
32	MP2C	Z	1.918	2.5
33	MP2C	Mx	-0.004	2.5
34	MP2C	X	-3.323	5.5
35	MP2C	Z	1.918	5.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
36	MP2C	Mx	-0.004	5.5
37	MP2A	X	-3.164	2.5
38	MP2A	Z	1.827	2.5
39	MP2A	Mx	-0.004	2.5
40	MP2A	X	-3.164	5.5
41	MP2A	Z	1.827	5.5
42	MP2A	Mx	-0.004	5.5
43	MP2B	X	-3.65	2.5
44	MP2B	Z	2.108	2.5
45	MP2B	Mx	-0.000677	2.5
46	MP2B	X	-3.65	5.5
47	MP2B	Z	2.108	5.5
48	MP2B	Mx	-0.000677	5.5
49	MP2C	X	-3.323	2.5
50	MP2C	Z	1.918	2.5
51	MP2C	Mx	0.004	2.5
52	MP2C	X	-3.323	5.5
53	MP2C	Z	1.918	5.5
54	MP2C	Mx	0.004	5.5
55	OVP1	X	-2.303	1
56	OVP1	Z	1.329	1
57	OVP1	Mx	0	1
58	OVP2	X	-5.529	1
59	OVP2	Z	3.192	1
60	OVP2	Mx	0	1
61	MP2A	X	-3.15	1.5
62	MP2A	Z	1.819	1.5
63	MP2A	Mx	-0.002	1.5
64	MP2B	X	-3.808	1.5
65	MP2B	Z	2.199	1.5
66	MP2B	Mx	0.001	1.5
67	MP2C	X	-3.365	1.5
68	MP2C	Z	1.943	1.5
69	MP2C	Mx	0.001	1.5
70	MP1A	X	-3.247	1.5
71	MP1A	Z	1.874	1.5
72	MP1A	Mx	-0.002	1.5
73	MP1B	X	-4.917	1.5
74	MP1B	Z	2.839	1.5
75	MP1B	Mx	0.001	1.5
76	MP1C	X	-3.792	1.5
77	MP1C	Z	2.189	1.5
78	MP1C	Mx	0.002	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-1.418	3
2	MP3A	Z	0	3
3	MP3A	Mx	0.000709	3
4	MP3A	X	-1.418	5
5	MP3A	Z	0	5
6	MP3A	Mx	0.000709	5
7	MP3B	X	-4.036	3
8	MP3B	Z	0	3
9	MP3B	Mx	0	3

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
10	MP3B	X	-4.036	5
11	MP3B	Z	0	5
12	MP3B	Mx	0	5
13	MP3C	X	-1.497	3
14	MP3C	Z	0	3
15	MP3C	Mx	-0.000737	3
16	MP3C	X	-1.497	5
17	MP3C	Z	0	5
18	MP3C	Mx	-0.000737	5
19	MP2A	X	-3.372	2.5
20	MP2A	Z	0	2.5
21	MP2A	Mx	0.003	2.5
22	MP2A	X	-3.372	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	0.003	5.5
25	MP2B	X	-4.496	2.5
26	MP2B	Z	0	2.5
27	MP2B	Mx	0.003	2.5
28	MP2B	X	-4.496	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	0.003	5.5
31	MP2C	X	-3.406	2.5
32	MP2C	Z	0	2.5
33	MP2C	Mx	-0.003	2.5
34	MP2C	X	-3.406	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	-0.003	5.5
37	MP2A	X	-3.372	2.5
38	MP2A	Z	0	2.5
39	MP2A	Mx	-0.003	2.5
40	MP2A	X	-3.372	5.5
41	MP2A	Z	0	5.5
42	MP2A	Mx	-0.003	5.5
43	MP2B	X	-4.496	2.5
44	MP2B	Z	0	2.5
45	MP2B	Mx	-0.003	2.5
46	MP2B	X	-4.496	5.5
47	MP2B	Z	0	5.5
48	MP2B	Mx	-0.003	5.5
49	MP2C	X	-3.406	2.5
50	MP2C	Z	0	2.5
51	MP2C	Mx	0.003	2.5
52	MP2C	X	-3.406	5.5
53	MP2C	Z	0	5.5
54	MP2C	Mx	0.003	5.5
55	OVP1	X	-2.508	1
56	OVP1	Z	0	1
57	OVP1	Mx	0	1
58	OVP2	X	-6.215	1
59	OVP2	Z	0	1
60	OVP2	Mx	0	1
61	MP2A	X	-3.257	1.5
62	MP2A	Z	0	1.5
63	MP2A	Mx	-0.002	1.5
64	MP2B	X	-4.777	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
65	MP2B	Z	0	1.5
66	MP2B	Mx	0	1.5
67	MP2C	X	-3.303	1.5
68	MP2C	Z	0	1.5
69	MP2C	Mx	0.002	1.5
70	MP1A	X	-2.785	1.5
71	MP1A	Z	0	1.5
72	MP1A	Mx	-0.001	1.5
73	MP1B	X	-6.642	1.5
74	MP1B	Z	0	1.5
75	MP1B	Mx	0	1.5
76	MP1C	X	-2.901	1.5
77	MP1C	Z	0	1.5
78	MP1C	Mx	0.001	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-1.795	3
2	MP3A	Z	-1.036	3
3	MP3A	Mx	0.000898	3
4	MP3A	X	-1.795	5
5	MP3A	Z	-1.036	5
6	MP3A	Mx	0.000898	5
7	MP3B	X	-2.929	3
8	MP3B	Z	-1.691	3
9	MP3B	Mx	0.000846	3
10	MP3B	X	-2.929	5
11	MP3B	Z	-1.691	5
12	MP3B	Mx	0.000846	5
13	MP3C	X	-1.493	3
14	MP3C	Z	-0.862	3
15	MP3C	Mx	-0.00081	3
16	MP3C	X	-1.493	5
17	MP3C	Z	-0.862	5
18	MP3C	Mx	-0.00081	5
19	MP2A	X	-3.164	2.5
20	MP2A	Z	-1.827	2.5
21	MP2A	Mx	0.001	2.5
22	MP2A	X	-3.164	5.5
23	MP2A	Z	-1.827	5.5
24	MP2A	Mx	0.001	5.5
25	MP2B	X	-3.65	2.5
26	MP2B	Z	-2.108	2.5
27	MP2B	Mx	0.004	2.5
28	MP2B	X	-3.65	5.5
29	MP2B	Z	-2.108	5.5
30	MP2B	Mx	0.004	5.5
31	MP2C	X	-3.034	2.5
32	MP2C	Z	-1.752	2.5
33	MP2C	Mx	-0.002	2.5
34	MP2C	X	-3.034	5.5
35	MP2C	Z	-1.752	5.5
36	MP2C	Mx	-0.002	5.5
37	MP2A	X	-3.164	2.5
38	MP2A	Z	-1.827	2.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
39	MP2A	Mx	-0.001	2.5
40	MP2A	X	-3.164	5.5
41	MP2A	Z	-1.827	5.5
42	MP2A	Mx	-0.001	5.5
43	MP2B	X	-3.65	2.5
44	MP2B	Z	-2.108	2.5
45	MP2B	Mx	-0.004	2.5
46	MP2B	X	-3.65	5.5
47	MP2B	Z	-2.108	5.5
48	MP2B	Mx	-0.004	5.5
49	MP2C	X	-3.034	2.5
50	MP2C	Z	-1.752	2.5
51	MP2C	Mx	0.002	2.5
52	MP2C	X	-3.034	5.5
53	MP2C	Z	-1.752	5.5
54	MP2C	Mx	0.002	5.5
55	OVP1	X	-2.747	1
56	OVP1	Z	-1.586	1
57	OVP1	Mx	0	1
58	OVP2	X	-6.027	1
59	OVP2	Z	-3.479	1
60	OVP2	Mx	0	1
61	MP2A	X	-3.15	1.5
62	MP2A	Z	-1.819	1.5
63	MP2A	Mx	-0.002	1.5
64	MP2B	X	-3.808	1.5
65	MP2B	Z	-2.199	1.5
66	MP2B	Mx	-0.001	1.5
67	MP2C	X	-2.975	1.5
68	MP2C	Z	-1.718	1.5
69	MP2C	Mx	0.002	1.5
70	MP1A	X	-3.247	1.5
71	MP1A	Z	-1.874	1.5
72	MP1A	Mx	-0.002	1.5
73	MP1B	X	-4.917	1.5
74	MP1B	Z	-2.839	1.5
75	MP1B	Mx	-0.001	1.5
76	MP1C	X	-2.802	1.5
77	MP1C	Z	-1.618	1.5
78	MP1C	Mx	0.002	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	-1.691	3
2	MP3A	Z	-2.929	3
3	MP3A	Mx	0.000846	3
4	MP3A	X	-1.691	5
5	MP3A	Z	-2.929	5
6	MP3A	Mx	0.000846	5
7	MP3B	X	-1.036	3
8	MP3B	Z	-1.795	3
9	MP3B	Mx	0.000898	3
10	MP3B	X	-1.036	5
11	MP3B	Z	-1.795	5
12	MP3B	Mx	0.000898	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
13	MP3C	X	-1.477	3
14	MP3C	Z	-2.559	3
15	MP3C	Mx	-0.000949	3
16	MP3C	X	-1.477	5
17	MP3C	Z	-2.559	5
18	MP3C	Mx	-0.000949	5
19	MP2A	X	-2.108	2.5
20	MP2A	Z	-3.65	2.5
21	MP2A	Mx	-0.000677	2.5
22	MP2A	X	-2.108	5.5
23	MP2A	Z	-3.65	5.5
24	MP2A	Mx	-0.000677	5.5
25	MP2B	X	-1.827	2.5
26	MP2B	Z	-3.164	2.5
27	MP2B	Mx	0.004	2.5
28	MP2B	X	-1.827	5.5
29	MP2B	Z	-3.164	5.5
30	MP2B	Mx	0.004	5.5
31	MP2C	X	-2.016	2.5
32	MP2C	Z	-3.492	2.5
33	MP2C	Mx	-0.000101	2.5
34	MP2C	X	-2.016	5.5
35	MP2C	Z	-3.492	5.5
36	MP2C	Mx	-0.000101	5.5
37	MP2A	X	-2.108	2.5
38	MP2A	Z	-3.65	2.5
39	MP2A	Mx	0.000677	2.5
40	MP2A	X	-2.108	5.5
41	MP2A	Z	-3.65	5.5
42	MP2A	Mx	0.000677	5.5
43	MP2B	X	-1.827	2.5
44	MP2B	Z	-3.164	2.5
45	MP2B	Mx	-0.004	2.5
46	MP2B	X	-1.827	5.5
47	MP2B	Z	-3.164	5.5
48	MP2B	Mx	-0.004	5.5
49	MP2C	X	-2.016	2.5
50	MP2C	Z	-3.492	2.5
51	MP2C	Mx	0.000101	2.5
52	MP2C	X	-2.016	5.5
53	MP2C	Z	-3.492	5.5
54	MP2C	Mx	0.000101	5.5
55	OVP1	X	-1.993	1
56	OVP1	Z	-3.453	1
57	OVP1	Mx	0	1
58	OVP2	X	-3.936	1
59	OVP2	Z	-6.817	1
60	OVP2	Mx	0	1
61	MP2A	X	-2.199	1.5
62	MP2A	Z	-3.808	1.5
63	MP2A	Mx	-0.001	1.5
64	MP2B	X	-1.819	1.5
65	MP2B	Z	-3.15	1.5
66	MP2B	Mx	-0.002	1.5
67	MP2C	X	-2.075	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
68	MP2C	Z	-3.593	1.5
69	MP2C	Mx	0.001	1.5
70	MP1A	X	-2.839	1.5
71	MP1A	Z	-4.917	1.5
72	MP1A	Mx	-0.001	1.5
73	MP1B	X	-1.874	1.5
74	MP1B	Z	-3.247	1.5
75	MP1B	Mx	-0.002	1.5
76	MP1C	X	-2.524	1.5
77	MP1C	Z	-4.372	1.5
78	MP1C	Mx	0.002	1.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M78	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M80	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M73	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M73	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	Y	-1.222	3
2	MP3A	My	-0.000611	3
3	MP3A	Mz	0	3
4	MP3A	Y	-1.222	5
5	MP3A	My	-0.000611	5
6	MP3A	Mz	0	5
7	MP3B	Y	-1.222	3
8	MP3B	My	0	3
9	MP3B	Mz	-0.000611	3
10	MP3B	Y	-1.222	5
11	MP3B	My	0	5
12	MP3B	Mz	-0.000611	5
13	MP3C	Y	-1.222	3
14	MP3C	My	0.000602	3
15	MP3C	Mz	0.000106	3
16	MP3C	Y	-1.222	5
17	MP3C	My	0.000602	5
18	MP3C	Mz	0.000106	5
19	MP2A	Y	-1.365	2.5

Member Point Loads (BLC 81 : Antenna Ev) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
20	MP2A	My	-0.001	2.5
21	MP2A	Mz	0.00091	2.5
22	MP2A	Y	-1.365	5.5
23	MP2A	My	-0.001	5.5
24	MP2A	Mz	0.00091	5.5
25	MP2B	Y	-1.365	2.5
26	MP2B	My	-0.00091	2.5
27	MP2B	Mz	-0.001	2.5
28	MP2B	Y	-1.365	5.5
29	MP2B	My	-0.00091	5.5
30	MP2B	Mz	-0.001	5.5
31	MP2C	Y	-1.365	2.5
32	MP2C	My	0.001	2.5
33	MP2C	Mz	-0.000699	2.5
34	MP2C	Y	-1.365	5.5
35	MP2C	My	0.001	5.5
36	MP2C	Mz	-0.000699	5.5
37	MP2A	Y	-1.365	2.5
38	MP2A	My	0.001	2.5
39	MP2A	Mz	-0.00091	2.5
40	MP2A	Y	-1.365	5.5
41	MP2A	My	0.001	5.5
42	MP2A	Mz	-0.00091	5.5
43	MP2B	Y	-1.365	2.5
44	MP2B	My	0.00091	2.5
45	MP2B	Mz	0.001	2.5
46	MP2B	Y	-1.365	5.5
47	MP2B	My	0.00091	5.5
48	MP2B	Mz	0.001	5.5
49	MP2C	Y	-1.365	2.5
50	MP2C	My	-0.001	2.5
51	MP2C	Mz	0.000699	2.5
52	MP2C	Y	-1.365	5.5
53	MP2C	My	-0.001	5.5
54	MP2C	Mz	0.000699	5.5
55	OVP1	Y	-0.678	1
56	OVP1	My	0	1
57	OVP1	Mz	0	1
58	OVP2	Y	-1.365	1
59	OVP2	My	0	1
60	OVP2	Mz	0	1
61	MP2A	Y	-3.375	1.5
62	MP2A	My	0.002	1.5
63	MP2A	Mz	0	1.5
64	MP2B	Y	-3.375	1.5
65	MP2B	My	0	1.5
66	MP2B	Mz	0.002	1.5
67	MP2C	Y	-3.375	1.5
68	MP2C	My	-0.002	1.5
69	MP2C	Mz	-0.000293	1.5
70	MP1A	Y	-3.75	1.5
71	MP1A	My	0.002	1.5
72	MP1A	Mz	0	1.5
73	MP1B	Y	-3.75	1.5
74	MP1B	My	0	1.5

Member Point Loads (BLC 81 : Antenna Ev) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
75	MP1B	Mz	0.002	1.5
76	MP1C	Y	-3.75	1.5
77	MP1C	My	-0.002	1.5
78	MP1C	Mz	-0.000326	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	Z	-3.056	3
2	MP3A	Mx	0	3
3	MP3A	Z	-3.056	5
4	MP3A	Mx	0	5
5	MP3B	Z	-3.056	3
6	MP3B	Mx	0.002	3
7	MP3B	Z	-3.056	5
8	MP3B	Mx	0.002	5
9	MP3C	Z	-3.056	3
10	MP3C	Mx	-0.000265	3
11	MP3C	Z	-3.056	5
12	MP3C	Mx	-0.000265	5
13	MP2A	Z	-3.413	2.5
14	MP2A	Mx	-0.002	2.5
15	MP2A	Z	-3.413	5.5
16	MP2A	Mx	-0.002	5.5
17	MP2B	Z	-3.413	2.5
18	MP2B	Mx	0.003	2.5
19	MP2B	Z	-3.413	5.5
20	MP2B	Mx	0.003	5.5
21	MP2C	Z	-3.413	2.5
22	MP2C	Mx	0.002	2.5
23	MP2C	Z	-3.413	5.5
24	MP2C	Mx	0.002	5.5
25	MP2A	Z	-3.413	2.5
26	MP2A	Mx	0.002	2.5
27	MP2A	Z	-3.413	5.5
28	MP2A	Mx	0.002	5.5
29	MP2B	Z	-3.413	2.5
30	MP2B	Mx	-0.003	2.5
31	MP2B	Z	-3.413	5.5
32	MP2B	Mx	-0.003	5.5
33	MP2C	Z	-3.413	2.5
34	MP2C	Mx	-0.002	2.5
35	MP2C	Z	-3.413	5.5
36	MP2C	Mx	-0.002	5.5
37	OVP1	Z	-1.696	1
38	OVP1	Mx	0	1
39	OVP2	Z	-3.413	1
40	OVP2	Mx	0	1
41	MP2A	Z	-8.437	1.5
42	MP2A	Mx	0	1.5
43	MP2B	Z	-8.437	1.5
44	MP2B	Mx	-0.004	1.5
45	MP2C	Z	-8.437	1.5
46	MP2C	Mx	0.000733	1.5
47	MP1A	Z	-9.376	1.5
48	MP1A	Mx	0	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
49	MP1B	Z	-9.376	1.5
50	MP1B	Mx	-0.005	1.5
51	MP1C	Z	-9.376	1.5
52	MP1C	Mx	0.000814	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP3A	X	3.056	3
2	MP3A	Mx	-0.002	3
3	MP3A	X	3.056	5
4	MP3A	Mx	-0.002	5
5	MP3B	X	3.056	3
6	MP3B	Mx	0	3
7	MP3B	X	3.056	5
8	MP3B	Mx	0	5
9	MP3C	X	3.056	3
10	MP3C	Mx	0.002	3
11	MP3C	X	3.056	5
12	MP3C	Mx	0.002	5
13	MP2A	X	3.413	2.5
14	MP2A	Mx	-0.003	2.5
15	MP2A	X	3.413	5.5
16	MP2A	Mx	-0.003	5.5
17	MP2B	X	3.413	2.5
18	MP2B	Mx	-0.002	2.5
19	MP2B	X	3.413	5.5
20	MP2B	Mx	-0.002	5.5
21	MP2C	X	3.413	2.5
22	MP2C	Mx	0.003	2.5
23	MP2C	X	3.413	5.5
24	MP2C	Mx	0.003	5.5
25	MP2A	X	3.413	2.5
26	MP2A	Mx	0.003	2.5
27	MP2A	X	3.413	5.5
28	MP2A	Mx	0.003	5.5
29	MP2B	X	3.413	2.5
30	MP2B	Mx	0.002	2.5
31	MP2B	X	3.413	5.5
32	MP2B	Mx	0.002	5.5
33	MP2C	X	3.413	2.5
34	MP2C	Mx	-0.003	2.5
35	MP2C	X	3.413	5.5
36	MP2C	Mx	-0.003	5.5
37	OVP1	X	1.696	1
38	OVP1	Mx	0	1
39	OVP2	X	3.413	1
40	OVP2	Mx	0	1
41	MP2A	X	8.437	1.5
42	MP2A	Mx	0.004	1.5
43	MP2B	X	8.437	1.5
44	MP2B	Mx	0	1.5
45	MP2C	X	8.437	1.5
46	MP2C	Mx	-0.004	1.5
47	MP1A	X	9.376	1.5
48	MP1A	Mx	0.005	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
49	MP1B	X	9.376	1.5
50	MP1B	Mx	0	1.5
51	MP1C	X	9.376	1.5
52	MP1C	Mx	-0.005	1.5

Member Area Loads (BLC 39 : Structure D)

	Node A	Node B	Node C	Node D	Direction	Load Direction	A Magnitude [ksf]	B Magnitude [ksf]	C Magnitude [ksf]	D Magnitude [ksf]	Exclude Braces
1	N61	N60	N82	N84	Y	Two Way	-0.005	-0.005	-0.005	-0.005	Yes
2	N33	N32	N54	N56	Y	Two Way	-0.005	-0.005	-0.005	-0.005	Yes
3	N4	N3	N26	N28	Y	Two Way	-0.005	-0.005	-0.005	-0.005	Yes

Member Area Loads (BLC 40 : Structure Di)

	Node A	Node B	Node C	Node D	Direction	Load Direction	A Magnitude [ksf]	B Magnitude [ksf]	C Magnitude [ksf]	D Magnitude [ksf]	Exclude Braces
1	N61	N60	N82	N84	Y	Two Way	-0.01	-0.01	-0.01	-0.01	Yes
2	N33	N32	N54	N56	Y	Two Way	-0.01	-0.01	-0.01	-0.01	Yes
3	N4	N3	N26	N28	Y	Two Way	-0.01	-0.01	-0.01	-0.01	Yes

Member Area Loads (BLC 84 : Structure Ev)

	Node A	Node B	Node C	Node D	Direction	Load Direction	A Magnitude [ksf]	B Magnitude [ksf]	C Magnitude [ksf]	D Magnitude [ksf]	Exclude Braces
1	N61	N60	N82	N84	Y	Two Way	-0.000222	-0.000222	-0.000222	-0.000222	Yes
2	N33	N32	N54	N56	Y	Two Way	-0.000222	-0.000222	-0.000222	-0.000222	Yes
3	N4	N3	N26	N28	Y	Two Way	-0.000222	-0.000222	-0.000222	-0.000222	Yes

Member Area Loads (BLC 85 : Structure Eh (0 Deg))

	Node A	Node B	Node C	Node D	Direction	Load Direction	A Magnitude [ksf]	B Magnitude [ksf]	C Magnitude [ksf]	D Magnitude [ksf]	Exclude Braces
1	N61	N60	N82	N84	Z	Two Way	-0.000555	-0.000555	-0.000555	-0.000555	Yes
2	N33	N32	N54	N56	Z	Two Way	-0.000555	-0.000555	-0.000555	-0.000555	Yes
3	N4	N3	N26	N28	Z	Two Way	-0.000555	-0.000555	-0.000555	-0.000555	Yes

Member Area Loads (BLC 86 : Structure Eh (90 Deg))

	Node A	Node B	Node C	Node D	Direction	Load Direction	A Magnitude [ksf]	B Magnitude [ksf]	C Magnitude [ksf]	D Magnitude [ksf]	Exclude Braces
1	N61	N60	N82	N84	X	Two Way	0.000555	0.000555	0.000555	0.000555	Yes
2	N33	N32	N54	N56	X	Two Way	0.000555	0.000555	0.000555	0.000555	Yes
3	N4	N3	N26	N28	X	Two Way	0.000555	0.000555	0.000555	0.000555	Yes

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N30	max	848.468	10	2178.974	13	1678.339	1	5.02	13	1.225	4	0.309	4
2		min	-822.43	4	718.5	70	-1766.403	7	1.158	7	-1.259	10	-0.126	10
3	N194	max	1400.121	10	2086.872	21	890.747	1	-0.533	2	1.086	12	-1.157	3
4		min	-1496.788	4	696.995	66	-832.558	7	-2.485	44	-1.067	6	-4.277	21
5	N195	max	1257.187	11	2014.291	17	1107.112	1	-0.746	12	1.239	8	4.011	17
6		min	-1187.932	5	676.827	74	-1077.234	7	-2.628	30	-1.205	2	1.163	11
7	Totals:	max	3393.621	10	6087.537	17	3676.198	1						
8		min	-3393.62	4	2164.912	74	-3676.195	7						

Node Reactions

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	1	N30	-11.477	1283.318	1678.339	3.531	-0.208	0.097
2	1	N194	-552.734	889.905	890.747	-0.65	0.466	-1.639
3	1	N195	564.21	856.982	1107.112	-0.874	-0.989	1.538
4	1	Totals:	0	3030.204	3676.198			
5	1	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
6	2	N30	-309.91	1244.178	1546.487	3.349	0.071	0.221
7	2	N194	-1211.813	799.383	888.737	-0.533	-0.038	-1.265
8	2	N195	-294.56	986.651	710.773	-1.112	-1.205	1.961
9	2	Totals:	-1816.283	3030.211	3145.998			
10	2	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
11	3	N30	-687.04	1146.955	955.111	2.894	0.894	0.29
12	3	N194	-1471.977	777.528	794.301	-0.575	0.055	-1.157
13	3	N195	-864.567	1105.733	-3.684	-1.361	-0.478	2.344
14	3	Totals:	-3023.584	3030.217	1745.727			
15	3	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
16	4	N30	-822.43	1032.977	4.45	2.358	1.225	0.309
17	4	N194	-1496.788	814.457	505.763	-0.721	-0.103	-1.266
18	4	N195	-1074.401	1182.787	-510.219	-1.545	0.091	2.587
19	4	Totals:	-3393.62	3030.22	-0.006			
20	4	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
21	5	N30	-569.793	923.985	-925.687	1.823	0.655	0.29
22	5	N194	-1218.928	890.84	-49.765	-0.939	-0.815	-1.514
23	5	N195	-1187.932	1215.398	-743.181	-1.65	0.022	2.681
24	5	Totals:	-2976.653	3030.223	-1718.633			
25	5	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
26	6	N30	-214.613	834.269	-1527.674	1.361	0.155	0.215
27	6	N194	-481.419	1002.022	-594.986	-1.217	-1.067	-1.913
28	6	N195	-1093.153	1193.931	-976.402	-1.658	0.244	2.599
29	6	Totals:	-1789.185	3030.222	-3099.062			
30	6	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
31	7	N30	38.602	796.389	-1766.403	1.158	0.173	0.086
32	7	N194	457.951	1128.18	-832.558	-1.469	-0.446	-2.405
33	7	N195	-496.552	1105.648	-1077.234	-1.531	1.022	2.306
34	7	Totals:	0.001	3030.217	-3676.195			
35	7	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
36	8	N30	338.054	835.035	-1634.991	1.34	-0.107	-0.039
37	8	N194	1116.498	1219.861	-829.381	-1.585	0.058	-2.779
38	8	N195	361.731	975.314	-681.622	-1.293	1.239	1.883
39	8	Totals:	1816.284	3030.21	-3145.994			
40	8	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
41	9	N30	713.572	931.251	-1041.688	1.797	-0.93	-0.108
42	9	N194	1376.311	1242.237	-737.41	-1.543	-0.037	-2.886
43	9	N195	933.702	856.716	33.374	-1.045	0.512	1.5
44	9	Totals:	3023.585	3030.205	-1745.724			
45	9	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
46	10	N30	848.468	1044.703	-90.339	2.334	-1.259	-0.126
47	10	N194	1400.121	1204.778	-449.624	-1.398	0.121	-2.778
48	10	N195	1145.032	780.72	539.972	-0.861	-0.056	1.257
49	10	Totals:	3393.621	3030.201	0.009			
50	10	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
51	11	N30	595.293	1153.972	837.99	2.868	-0.689	-0.107
52	11	N194	1124.174	1127.497	106.315	-1.18	0.833	-2.531
53	11	N195	1257.187	748.729	774.332	-0.755	0.011	1.163
54	11	Totals:	2976.654	3030.198	1718.637			
55	11	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
56	12	N30	239.54	1244.702	1439.601	3.328	-0.188	-0.032
57	12	N194	388.185	1015.699	651.244	-0.903	1.086	-2.132
58	12	N195	1161.461	769.798	1008.22	-0.746	-0.212	1.245
59	12	Totals:	1789.186	3030.199	3099.065			
60	12	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
61	13	N30	5.059	2178.974	441.654	5.02	-0.066	0.2
62	13	N194	-242.293	1991.258	315.805	-2.004	0.164	-3.945
63	13	N195	237.234	1917.3	376.777	-2.301	-0.28	3.704
64	13	Totals:	0	6087.532	1134.236			
65	13	COG (ft):	X: -0.024	Y: 0.664	Z: 16.618			
66	14	N30	-85.033	2168.658	403.299	4.975	0.014	0.232
67	14	N194	-450.285	1966.803	315.553	-1.972	0.002	-3.846
68	14	N195	-26.626	1952.074	254.498	-2.365	-0.351	3.815
69	14	Totals:	-561.944	6087.534	973.351			
70	14	COG (ft):	X: -0.024	Y: 0.664	Z: 16.618			
71	15	N30	-196.169	2142.924	222.759	4.857	0.255	0.25
72	15	N194	-538.109	1960.194	288.071	-1.98	0.021	-3.814
73	15	N195	-208.063	1984.418	33.247	-2.432	-0.136	3.918
74	15	Totals:	-942.341	6087.535	544.077			
75	15	COG (ft):	X: -0.024	Y: 0.664	Z: 16.618			
76	16	N30	-235.089	2111.941	-70.119	4.713	0.356	0.255
77	16	N194	-547.554	1969.821	200.263	-2.017	-0.027	-3.841
78	16	N195	-280.024	2005.774	-130.143	-2.483	0.045	3.986
79	16	Totals:	-1062.667	6087.536	0.001			
80	16	COG (ft):	X: -0.024	Y: 0.664	Z: 16.618			
81	17	N30	-156.326	2082.106	-358.38	4.568	0.183	0.248
82	17	N194	-458.108	1991.14	30.282	-2.074	-0.24	-3.909
83	17	N195	-314.793	2014.291	-208.403	-2.511	0.033	4.011
84	17	Totals:	-929.227	6087.537	-536.502			
85	17	COG (ft):	X: -0.024	Y: 0.664	Z: 16.618			
86	18	N30	-44.313	2058.17	-546.218	4.447	0.019	0.227
87	18	N194	-228.595	2021.824	-135.745	-2.146	-0.319	-4.016
88	18	N195	-281.462	2007.542	-278.262	-2.512	0.097	3.987
89	18	Totals:	-554.37	6087.537	-960.224			
90	18	COG (ft):	X: -0.024	Y: 0.664	Z: 16.618			
91	19	N30	35.96	2048.431	-621.886	4.395	0.016	0.193
92	19	N194	61.548	2055.661	-207.851	-2.211	-0.132	-4.146
93	19	N195	-97.508	1983.444	-304.494	-2.477	0.327	3.909
94	19	Totals:	0	6087.535	-1134.23			
95	19	COG (ft):	X: -0.024	Y: 0.664	Z: 16.618			
96	20	N30	126.156	2058.708	-583.562	4.441	-0.064	0.161
97	20	N194	269.482	2080.214	-207.488	-2.244	0.031	-4.245
98	20	N195	166.305	1948.612	-182.295	-2.413	0.399	3.798
99	20	Totals:	561.943	6087.534	-973.345			
100	20	COG (ft):	X: -0.024	Y: 0.664	Z: 16.618			
101	21	N30	237.137	2084.355	-402.846	4.559	-0.305	0.142
102	21	N194	357.28	2086.872	-180.237	-2.235	0.012	-4.277
103	21	N195	347.923	1916.305	39.012	-2.346	0.183	3.695
104	21	Totals:	942.341	6087.532	-544.071			
105	21	COG (ft):	X: -0.024	Y: 0.664	Z: 16.618			
106	22	N30	276.002	2115.29	-109.898	4.703	-0.406	0.138
107	22	N194	366.637	2077.202	-92.51	-2.199	0.059	-4.25
108	22	N195	420.028	1895.039	202.413	-2.296	0.002	3.628
109	22	Totals:	1062.667	6087.531	0.005			
110	22	COG (ft):	X: -0.024	Y: 0.664	Z: 16.618			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
111	23	N30	197.19	2145.148	178.187	4.847	-0.233	0.145
112	23	N194	277.372	2055.805	77.515	-2.141	0.272	-4.183
113	23	N195	454.665	1886.578	280.806	-2.267	0.014	3.602
114	23	Totals:	929.227	6087.53	536.507			
115	23	COG (ft):	X: -0.024	Y: 0.664	Z: 16.618			
116	24	N30	85.125	2169.17	365.976	4.968	-0.069	0.166
117	24	N194	48.004	2025.066	243.522	-2.069	0.352	-4.075
118	24	N195	421.241	1893.294	350.732	-2.266	-0.049	3.626
119	24	Totals:	554.37	6087.531	960.23			
120	24	COG (ft):	X: -0.024	Y: 0.664	Z: 16.618			
121	25	N30	10.674	878.399	65.027	1.951	-0.027	0.097
122	25	N194	-78.355	1244.453	80.665	-1.529	0.035	-2.107
123	25	N195	67.689	1657.349	84.056	-2.579	-0.046	3.066
124	25	Totals:	0.008	3780.201	229.748			
125	25	COG (ft):	X: 0.366	Y: 0.6	Z: 17.435			
126	26	N30	-8.005	875.964	56.8	1.94	-0.009	0.105
127	26	N194	-119.538	1238.755	80.509	-1.522	0.004	-2.084
128	26	N195	14.032	1665.483	59.306	-2.594	-0.06	3.093
129	26	Totals:	-113.511	3780.202	196.615			
130	26	COG (ft):	X: 0.366	Y: 0.6	Z: 17.435			
131	27	N30	-31.529	869.926	19.784	1.912	0.042	0.109
132	27	N194	-135.784	1237.35	74.68	-1.525	0.01	-2.077
133	27	N195	-21.655	1672.927	14.637	-2.609	-0.014	3.116
134	27	Totals:	-188.969	3780.202	109.1			
135	27	COG (ft):	X: 0.366	Y: 0.6	Z: 17.435			
136	28	N30	-39.973	862.827	-39.65	1.878	0.063	0.111
137	28	N194	-137.3	1239.65	56.666	-1.534	0	-2.084
138	28	N195	-34.817	1677.725	-17.026	-2.621	0.021	3.131
139	28	Totals:	-212.09	3780.202	-0.01			
140	28	COG (ft):	X: 0.366	Y: 0.6	Z: 17.435			
141	29	N30	-24.166	856.019	-97.728	1.845	0.027	0.109
142	29	N194	-119.986	1244.434	21.931	-1.547	-0.045	-2.099
143	29	N195	-41.88	1679.75	-31.631	-2.627	0.017	3.137
144	29	Totals:	-186.031	3780.203	-107.428			
145	29	COG (ft):	X: 0.366	Y: 0.6	Z: 17.435			
146	30	N30	-1.951	850.402	-135.337	1.816	-0.004	0.105
147	30	N194	-73.935	1251.382	-12.137	-1.564	-0.06	-2.124
148	30	N195	-35.933	1678.419	-46.229	-2.628	0.031	3.132
149	30	Totals:	-111.819	3780.202	-193.704			
150	30	COG (ft):	X: 0.366	Y: 0.6	Z: 17.435			
151	31	N30	13.81	848.031	-150.248	1.803	-0.003	0.097
152	31	N194	-15.172	1259.241	-27.043	-1.58	-0.022	-2.155
153	31	N195	1.37	1672.93	-52.477	-2.62	0.079	3.114
154	31	Totals:	0.008	3780.202	-229.767			
155	31	COG (ft):	X: 0.366	Y: 0.6	Z: 17.435			
156	32	N30	32.493	850.464	-142.022	1.815	-0.02	0.089
157	32	N194	26.009	1264.943	-26.881	-1.587	0.01	-2.178
158	32	N195	55.026	1664.794	-27.73	-2.605	0.093	3.088
159	32	Totals:	113.528	3780.202	-196.634			
160	32	COG (ft):	X: 0.366	Y: 0.6	Z: 17.435			
161	33	N30	56.011	856.499	-104.999	1.843	-0.072	0.085
162	33	N194	42.254	1266.351	-21.062	-1.585	0.004	-2.185
163	33	N195	90.721	1657.352	16.942	-2.59	0.048	3.064
164	33	Totals:	188.986	3780.201	-109.12			
165	33	COG (ft):	X: 0.366	Y: 0.6	Z: 17.435			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
166	34	N30	64.452	863.595	-45.563	1.877	-0.092	0.083
167	34	N194	43.766	1264.048	-3.051	-1.576	0.014	-2.178
168	34	N195	103.889	1652.558	48.604	-2.578	0.012	3.049
169	34	Totals:	212.107	3780.201	-0.009			
170	34	COG (ft):	X: 0.366	Y: 0.6	Z: 17.435			
171	35	N30	48.644	870.405	12.509	1.91	-0.057	0.085
172	35	N194	26.459	1259.261	31.685	-1.562	0.058	-2.163
173	35	N195	110.945	1650.535	63.215	-2.572	0.016	3.043
174	35	Totals:	186.048	3780.201	107.409			
175	35	COG (ft):	X: 0.366	Y: 0.6	Z: 17.435			
176	36	N30	26.426	876.026	50.116	1.939	-0.026	0.089
177	36	N194	-19.586	1252.311	65.753	-1.545	0.074	-2.138
178	36	N195	104.995	1651.865	77.816	-2.571	0.002	3.048
179	36	Totals:	111.836	3780.201	193.685			
180	36	COG (ft):	X: 0.366	Y: 0.6	Z: 17.435			
181	37	N30	12.582	878.128	65.103	1.952	-0.032	0.086
182	37	N194	-79.293	1683.614	82.693	-2.427	0.038	-3.158
183	37	N195	66.703	1218.45	81.954	-1.682	-0.044	2.011
184	37	Totals:	-0.009	3780.192	229.75			
185	37	COG (ft):	X: -0.395	Y: 0.6	Z: 17.435			
186	38	N30	-6.099	875.71	56.882	1.94	-0.014	0.094
187	38	N194	-120.469	1677.912	82.532	-2.419	0.006	-3.135
188	38	N195	13.039	1226.57	57.202	-1.696	-0.058	2.038
189	38	Totals:	-113.528	3780.192	196.616			
190	38	COG (ft):	X: -0.395	Y: 0.6	Z: 17.435			
191	39	N30	-29.627	869.679	19.868	1.912	0.037	0.098
192	39	N194	-136.71	1676.525	76.7	-2.422	0.012	-3.128
193	39	N195	-22.649	1233.988	12.534	-1.712	-0.012	2.062
194	39	Totals:	-188.986	3780.192	109.102			
195	39	COG (ft):	X: -0.395	Y: 0.6	Z: 17.435			
196	40	N30	-38.072	862.583	-39.565	1.878	0.058	0.1
197	40	N194	-138.225	1678.85	58.684	-2.431	0.002	-3.135
198	40	N195	-35.81	1238.76	-19.127	-1.723	0.023	2.077
199	40	Totals:	-212.107	3780.193	-0.008			
200	40	COG (ft):	X: -0.395	Y: 0.6	Z: 17.435			
201	41	N30	-22.267	855.774	-97.645	1.845	0.022	0.098
202	41	N194	-120.912	1683.66	23.948	-2.445	-0.043	-3.15
203	41	N195	-42.87	1240.759	-33.729	-1.73	0.019	2.083
204	41	Totals:	-186.048	3780.193	-107.427			
205	41	COG (ft):	X: -0.395	Y: 0.6	Z: 17.435			
206	42	N30	-0.054	850.146	-135.259	1.816	-0.009	0.094
207	42	N194	-74.865	1690.64	-10.121	-2.462	-0.058	-3.175
208	42	N195	-36.917	1239.407	-48.322	-1.73	0.033	2.077
209	42	Totals:	-111.837	3780.193	-193.702			
210	42	COG (ft):	X: -0.395	Y: 0.6	Z: 17.435			
211	43	N30	15.705	847.755	-150.178	1.803	-0.008	0.086
212	43	N194	-16.109	1698.526	-25.024	-2.478	-0.019	-3.206
213	43	N195	0.395	1233.912	-54.564	-1.722	0.082	2.059
214	43	Totals:	-0.009	3780.192	-229.766			
215	43	COG (ft):	X: -0.395	Y: 0.6	Z: 17.435			
216	44	N30	34.39	850.17	-141.958	1.815	-0.025	0.078
217	44	N194	25.064	1704.231	-24.858	-2.485	0.012	-3.229
218	44	N195	54.057	1225.79	-29.815	-1.707	0.095	2.033
219	44	Totals:	113.511	3780.192	-196.632			
220	44	COG (ft):	X: -0.395	Y: 0.6	Z: 17.435			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
221	45	N30	57.912	856.197	-104.938	1.843	-0.077	0.074
222	45	N194	41.304	1705.621	-19.035	-2.482	0.006	-3.236
223	45	N195	89.753	1218.374	14.855	-1.692	0.05	2.009
224	45	Totals:	188.968	3780.192	-109.118			
225	45	COG (ft):	X: -0.395	Y: 0.6	Z: 17.435			
226	46	N30	66.355	863.291	-45.501	1.877	-0.097	0.072
227	46	N194	42.815	1703.294	-1.022	-2.473	0.016	-3.229
228	46	N195	102.92	1213.606	46.516	-1.681	0.014	1.994
229	46	Totals:	212.09	3780.191	-0.007			
230	46	COG (ft):	X: -0.395	Y: 0.6	Z: 17.435			
231	47	N30	50.548	870.102	12.572	1.91	-0.062	0.074
232	47	N194	25.509	1698.48	33.715	-2.46	0.061	-3.213
233	47	N195	109.974	1211.609	61.124	-1.674	0.018	1.988
234	47	Totals:	186.031	3780.191	107.411			
235	47	COG (ft):	X: -0.395	Y: 0.6	Z: 17.435			
236	48	N30	28.333	875.734	50.184	1.939	-0.03	0.078
237	48	N194	-20.531	1691.498	67.783	-2.442	0.076	-3.189
238	48	N195	104.017	1212.96	75.719	-1.673	0.005	1.993
239	48	Totals:	111.819	3780.191	193.686			
240	48	COG (ft):	X: -0.395	Y: 0.6	Z: 17.435			
241	49	N30	8.696	977.22	-62.163	2.057	-0.004	0.188
242	49	N194	-65.203	966.153	32.302	-1.02	-0.003	-1.702
243	49	N195	56.524	1461.836	29.849	-2.173	0.018	3.403
244	49	Totals:	0.017	3405.208	-0.012			
245	49	COG (ft):	X: 0.671	Y: 0.666	Z: 17.079			
246	50	N30	13.199	946.033	-43.616	2.118	-0.017	0.091
247	50	N194	-47.724	1242.786	28.36	-1.53	0.009	-2.297
248	50	N195	34.525	1216.386	15.253	-1.676	0.017	2.2
249	50	Totals:	0	3405.205	-0.003			
250	50	COG (ft):	X: -0.017	Y: 0.666	Z: 17.079			
251	51	N30	15.409	1212.486	-52.485	2.738	-0.02	0.106
252	51	N194	-56.688	1177.604	33.904	-1.237	0.011	-2.361
253	51	N195	41.279	1145.156	18.584	-1.404	0.019	2.244
254	51	Totals:	0	3535.246	0.002			
255	51	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
256	52	N30	9.36	1100.237	89.317	2.532	-0.015	0.095
257	52	N194	-85.082	1033.305	94.184	-1.065	0.058	-2.058
258	52	N195	75.723	1004.413	85.875	-1.216	-0.036	1.954
259	52	Totals:	0.001	3137.955	269.377			
260	52	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
261	53	N30	-14.545	1096.885	73.218	2.519	0.016	0.101
262	53	N194	-138.165	1024.402	103.233	-1.051	0.035	-2.024
263	53	N195	18.029	1016.669	56.829	-1.239	-0.041	1.995
264	53	Totals:	-134.681	3137.955	233.28			
265	53	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
266	54	N30	-30.89	1087.995	25.026	2.482	0.037	0.106
267	54	N194	-167.704	1021.09	92.682	-1.049	0.005	-2.009
268	54	N195	-34.675	1028.871	16.981	-1.264	-0.03	2.036
269	54	Totals:	-233.268	3137.956	134.689			
270	54	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
271	55	N30	-35.298	1075.951	-42.357	2.431	0.044	0.107
272	55	N194	-165.787	1024.255	65.358	-1.06	-0.024	-2.018
273	55	N195	-68.278	1037.75	-22.999	-1.284	-0.007	2.065
274	55	Totals:	-269.363	3137.956	0.001			
275	55	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
276	56	N30	-26.582	1063.983	-110.874	2.38	0.034	0.105
277	56	N194	-132.92	1033.05	28.583	-1.081	-0.044	-2.047
278	56	N195	-73.766	1040.924	-52.395	-1.295	0.023	2.075
279	56	Totals:	-233.268	3137.957	-134.686			
280	56	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
281	57	N30	-7.081	1055.296	-162.16	2.342	0.01	0.101
282	57	N194	-77.922	1045.12	-7.784	-1.107	-0.049	-2.09
283	57	N195	-49.679	1037.54	-63.332	-1.292	0.051	2.062
284	57	Totals:	-134.681	3137.956	-233.277			
285	57	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
286	58	N30	17.983	1052.214	-182.482	2.328	-0.021	0.094
287	58	N194	-15.521	1057.235	-34.007	-1.13	-0.039	-2.134
288	58	N195	-2.462	1028.507	-52.884	-1.277	0.07	2.03
289	58	Totals:	0	3137.956	-269.373			
290	58	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
291	59	N30	41.891	1055.564	-166.38	2.342	-0.052	0.088
292	59	N194	37.558	1066.145	-43.054	-1.145	-0.016	-2.167
293	59	N195	55.233	1016.246	-23.842	-1.254	0.075	1.988
294	59	Totals:	134.682	3137.955	-233.276			
295	59	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
296	60	N30	58.235	1064.446	-118.184	2.379	-0.073	0.083
297	60	N194	67.092	1069.462	-32.506	-1.147	0.014	-2.182
298	60	N195	107.941	1004.047	16.005	-1.228	0.064	1.947
299	60	Totals:	233.269	3137.955	-134.685			
300	60	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
301	61	N30	62.639	1076.485	-50.799	2.43	-0.08	0.082
302	61	N194	65.177	1066.295	-5.187	-1.136	0.043	-2.174
303	61	N195	141.548	995.175	55.988	-1.208	0.041	1.918
304	61	Totals:	269.363	3137.954	0.002			
305	61	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
306	62	N30	53.92	1088.456	17.715	2.481	-0.07	0.084
307	62	N194	32.314	1057.492	31.587	-1.115	0.063	-2.144
308	62	N195	147.035	992.006	85.388	-1.198	0.011	1.909
309	62	Totals:	233.269	3137.954	134.69			
310	62	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
311	63	N30	34.42	1097.151	68.997	2.518	-0.046	0.088
312	63	N194	-22.68	1045.417	67.957	-1.089	0.068	-2.102
313	63	N195	122.943	995.387	96.327	-1.201	-0.017	1.922
314	63	Totals:	134.682	3137.954	233.281			
315	63	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
316	64	N30	5.108	766.487	103.749	1.779	-0.009	0.066
317	64	N194	-69.455	709.197	84.852	-0.725	0.055	-1.408
318	64	N195	64.347	689.228	80.775	-0.829	-0.041	1.336
319	64	Totals:	0	2164.912	269.376			
320	64	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
321	65	N30	-18.804	763.135	87.653	1.765	0.021	0.072
322	65	N194	-122.538	700.302	93.892	-0.71	0.032	-1.374
323	65	N195	6.66	701.475	51.734	-0.852	-0.046	1.378
324	65	Totals:	-134.681	2164.913	233.279			
325	65	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
326	66	N30	-35.153	754.251	39.467	1.728	0.043	0.076
327	66	N194	-152.08	696.995	83.334	-0.708	0.002	-1.359
328	66	N195	-46.035	713.668	11.886	-0.878	-0.035	1.419
329	66	Totals:	-233.268	2164.914	134.688			
330	66	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
331	67	N30	-39.562	742.216	-27.908	1.677	0.05	0.078
332	67	N194	-150.171	700.159	56.007	-0.719	-0.027	-1.368
333	67	N195	-79.63	722.539	-28.098	-0.898	-0.012	1.448
334	67	Totals:	-269.363	2164.914	0.001			
335	67	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
336	68	N30	-30.843	730.257	-96.418	1.626	0.04	0.076
337	68	N194	-117.312	708.949	19.231	-0.741	-0.047	-1.397
338	68	N195	-85.113	725.708	-57.5	-0.908	0.018	1.457
339	68	Totals:	-233.268	2164.914	-134.687			
340	68	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
341	69	N30	-11.336	721.578	-147.701	1.589	0.016	0.071
342	69	N194	-62.321	721.011	-17.132	-0.767	-0.052	-1.44
343	69	N195	-61.025	722.325	-68.445	-0.905	0.046	1.444
344	69	Totals:	-134.681	2164.914	-233.277			
345	69	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
346	70	N30	13.736	718.5	-168.022	1.575	-0.015	0.065
347	70	N194	0.077	733.116	-43.347	-0.79	-0.042	-1.484
348	70	N195	-13.813	713.297	-58.004	-0.89	0.065	1.412
349	70	Totals:	0	2164.913	-269.373			
350	70	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
351	71	N30	37.652	721.849	-151.925	1.588	-0.046	0.058
352	71	N194	53.155	742.018	-52.386	-0.805	-0.019	-1.518
353	71	N195	43.875	701.045	-28.967	-0.867	0.07	1.37
354	71	Totals:	134.682	2164.913	-233.277			
355	71	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
356	72	N30	54	730.726	-103.734	1.625	-0.068	0.054
357	72	N194	82.694	745.331	-41.831	-0.807	0.011	-1.532
358	72	N195	96.574	688.855	10.88	-0.842	0.059	1.329
359	72	Totals:	233.269	2164.912	-134.685			
360	72	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
361	73	N30	58.405	742.757	-36.357	1.676	-0.074	0.052
362	73	N194	80.785	742.164	-14.508	-0.796	0.04	-1.524
363	73	N195	130.173	679.991	50.866	-0.822	0.036	1.3
364	73	Totals:	269.363	2164.912	0.002			
365	73	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
366	74	N30	49.683	754.719	32.151	1.727	-0.064	0.054
367	74	N194	47.931	733.366	22.266	-0.774	0.06	-1.494
368	74	N195	135.655	676.827	80.272	-0.811	0.006	1.291
369	74	Totals:	233.269	2164.912	134.689			
370	74	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			
371	75	N30	30.176	763.405	83.429	1.765	-0.041	0.059
372	75	N194	-7.057	721.3	58.632	-0.748	0.065	-1.452
373	75	N195	111.563	680.207	91.219	-0.814	-0.022	1.304
374	75	Totals:	134.682	2164.912	233.28			
375	75	COG (ft):	X: -0.021	Y: 0.748	Z: 16.635			

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

Member	Shape	Code Check	Loc [ft]	LC	Shear	Check	Loc [ft]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	M1	HSS4X4X4	0.307	0	19	0.096	0	y	31	121368.994	139518	16.181	16.181	3	H1-1b
2	M2	HSS4X4X4	0.149	2.375	18	0.051	2.375	y	26	136263.03	139518	16.181	16.181	1.643	H1-1b
3	M3	HSS4X4X4	0.149	0	16	0.038	0	y	20	136263.03	139518	16.181	16.181	1.621	H1-1b
4	M4	PL1/2X6	0.092	0.516	4	0.099	0.516	y	49	66009.234	97200	1.012	12.15	1.337	H1-1b
5	M7	L2X2X3	0.123	4.162	6	0.011	4.162	y	20	9823.122	23392.8	0.558	1.095	1.236	H2-1
6	M8	L2X2X3	0.106	4.162	3	0.013	4.162	y	13	9823.122	23392.8	0.558	1.069	1.113	H2-1
7	M12	PL3/8X6	0.147	0	8	0.211	0	y	46	70677.939	72900	0.57	9.113	1.367	H1-1b

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

Member	Shape	Code	Check	Loc[ft]	LC	Shear	Check	Loc[ft]	Dir	LC	phi*	Pnc [lb]	phi*	Pnt [lb]	phi*	Mn y-y [k-ft]	phi*	Mn z-z [k-ft]	Cb	Eqn
8	M13	PL3/8X6	0.18	0.167	12	0.307	0	y	30	71601.728	72900	0.57	9.113	1.395	H1-1b					
9	M15	PL1/2X6	0.026	0.112	9	0.083	0	y	49	96757.507	97200	1.012	12.15	1.058	H1-1b					
10	M17	PL3/8X6	0.13	0	1	0.336	0	y	24	70677.939	72900	0.57	9.113	2.224	H1-1b					
11	M18	PL3/8X6	0.157	0.167	10	0.295	0	y	16	71601.728	72900	0.57	9.113	1.211	H1-1b					
12	M20	PL1/2X6	0.029	0.112	12	0.059	0.112	y	13	96757.507	97200	1.012	12.15	1.221	H1-1b					
13	M25	HSS4X4X4	0.317	0	15	0.074	0	y	15	121368.994	139518	16.181	16.181	3	H1-1b					
14	M26	HSS4X4X4	0.148	2.375	14	0.046	2.375	y	21	136263.03	139518	16.181	16.181	1.644	H1-1b					
15	M27	HSS4X4X4	0.15	0	24	0.038	0	y	16	136263.03	139518	16.181	16.181	1.62	H1-1b					
16	M28	PL1/2X6	0.102	0.516	7	0.091	0	y	22	66009.234	97200	1.012	12.15	1.436	H1-1b					
17	M31	L2X2X3	0.119	4.162	2	0.011	4.162	y	17	9823.122	23392.8	0.558	1.093	1.226	H2-1					
18	M32	L2X2X3	0.113	4.162	12	0.013	4.162	y	21	9823.122	23392.8	0.558	1.095	1.236	H2-1					
19	M36	PL3/8X6	0.122	0	4	0.212	0	y	20	70677.939	72900	0.57	9.113	1.359	H1-1b					
20	M37	PL3/8X6	0.19	0.167	8	0.301	0	y	13	71601.728	72900	0.57	9.113	1.403	H1-1b					
21	M39	PL1/2X6	0.029	0.112	1	0.031	0	y	10	96757.507	97200	1.012	12.15	1.199	H1-1b					
22	M41	PL3/8X6	0.106	0	12	0.33	0	y	20	70677.939	72900	0.57	9.113	1.389	H1-1b					
23	M42	PL3/8X6	0.162	0.167	6	0.297	0	y	13	71601.728	72900	0.57	9.113	1.217	H1-1b					
24	M44	PL1/2X6	0.032	0.112	1	0.057	0.112	y	21	96757.507	97200	1.012	12.15	1.084	H1-1b					
25	M49	HSS4X4X4	0.308	0	23	0.084	0	y	43	121368.994	139518	16.181	16.181	3	H1-1b					
26	M50	HSS4X4X4	0.148	2.375	22	0.045	2.375	y	17	136263.03	139518	16.181	16.181	1.643	H1-1b					
27	M51	HSS4X4X4	0.148	0	20	0.047	0	y	48	136263.03	139518	16.181	16.181	1.621	H1-1b					
28	M52	PL1/2X6	0.1	0.516	8	0.089	0	y	18	66009.234	97200	1.012	12.15	1.342	H1-1b					
29	M55	L2X2X3	0.12	4.162	10	0.011	4.162	y	13	9823.122	23392.8	0.558	1.093	1.226	H2-1					
30	M56	L2X2X3	0.111	4.162	8	0.013	4.162	y	17	9823.122	23392.8	0.558	1.095	1.236	H2-1					
31	M60	PL3/8X6	0.107	0	12	0.227	0	y	38	70677.939	72900	0.57	9.113	1.377	H1-1b					
32	M61	PL3/8X6	0.184	0.167	4	0.3	0	y	21	71601.728	72900	0.57	9.113	1.409	H1-1b					
33	M63	PL1/2X6	0.026	0.112	2	0.034	0	y	7	96757.507	97200	1.012	12.15	1.05	H1-1b					
34	M65	PL3/8X6	0.104	0	8	0.332	0	y	16	70677.939	72900	0.57	9.113	1.392	H1-1b					
35	M66	PL3/8X6	0.174	0.167	2	0.305	0	y	44	71601.728	72900	0.57	9.113	1.202	H1-1b					
36	M68	PL1/2X6	0.032	0.112	9	0.057	0.112	y	18	96757.507	97200	1.012	12.15	1.087	H1-1b					
37	M73	PIPE 3.0	0.12	7.943	21	0.052	4.427		32	28250.554	65205	5.749	5.749	1	H1-1b					
38	M74	PIPE 3.0	0.12	7.943	16	0.055	4.427		20	28250.554	65205	5.749	5.749	1	H1-1b					
39	M75	PIPE 3.0	0.125	7.943	13	0.055	4.427		16	28250.554	65205	5.749	5.749	1	H1-1b					
40	MP1A	PIPE 2.0	0.174	3.917	9	0.055	3.917		8	14916.096	32130	1.872	1.872	1	H1-1b					
41	MP2A	PIPE 2.0	0.256	3.917	10	0.047	3.917		8	14916.096	32130	1.872	1.872	1	H1-1b					
42	MP3A	PIPE 2.0	0.201	3.917	5	0.048	3.917		2	14916.096	32130	1.872	1.872	1	H1-1b					
43	MP4A	PIPE 2.0	0.191	3.917	17	0.05	3.917		6	14916.096	32130	1.872	1.872	1	H1-1b					
44	OVP2	PIPE 2.0	0.16	3	1	0.016	3		1	26521.424	32130	1.872	1.872	1	H1-1b					
45	M91	PIPE 2.0	0.157	4.297	17	0.042	11.589		7	6295.422	32130	1.872	1.872	1	H1-1b					
46	MP4C	PIPE 2.0	0.194	3.917	13	0.056	3.917		2	14916.096	32130	1.872	1.872	1	H1-1b					
47	MP3C	PIPE 2.0	0.229	3.917	1	0.05	3.917		3	14916.096	32130	1.872	1.872	1	H1-1b					
48	MP1C	PIPE 2.0	0.175	3.917	18	0.056	1.5		3	14916.096	32130	1.872	1.872	1	H1-1b					
49	MP2C	PIPE 2.0	0.273	3.917	6	0.05	3.917		8	14916.096	32130	1.872	1.872	1	H1-1b					
50	M109	PIPE 2.0	0.16	4.297	13	0.051	11.589		2	6295.422	32130	1.872	1.872	1	H1-1b					
51	MP4B	PIPE 2.0	0.193	3.917	21	0.046	3.917		10	14916.096	32130	1.872	1.872	1	H1-1b					
52	MP3B	PIPE 2.0	0.208	3.917	9	0.05	3.917		11	14916.096	32130	1.872	1.872	1	H1-1b					
53	MP1B	PIPE 2.0	0.184	3.917	14	0.056	3.917		12	14916.096	32130	1.872	1.872	1	H1-1b					
54	MP2B	PIPE 2.0	0.278	3.917	2	0.049	3.917		11	14916.096	32130	1.872	1.872	1	H1-1b					
55	M124	PIPE 2.0	0.161	4.297	21	0.044	11.589		11	6295.422	32130	1.872	1.872	1	H1-1b					
56	M127	L2.5X2.5X4	0.118	0	11	0.024	1.242	z	6	36663.581	38556	1.114	2.537	1.5	H2-1					
57	M128	L2.5X2.5X4	0.126	0	2	0.02	0	z	9	36663.581	38556	1.114	2.537	1.5	H2-1					
58	M129	L2.5X2.5X4	0.109	0	7	0.028	1.242	z	2	36663.581	38556	1.114	2.537	1.5	H2-1					
59	OVP1	PIPE 2.0	0.093	3	7	0.01	3		7	26521.424	32130	1.872	1.872	1	H1-1b					

I. Mount-to-Tower Connection Check

Custom Orientation Required

No

Tower Connection Bolt Checks

Yes

Bolt Orientation

Parallel

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 / bolt (kips):

2.5

Required Shear Strength / bolt (kips):

3.4

Tensile Capacity / bolt (kips):

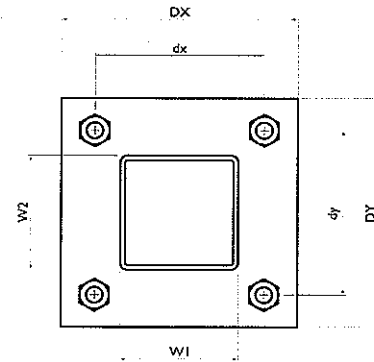
20.7

Shear Capacity / bolt (kips):

12.4

Bolt Overall Utilization:

27.2%



Tower Connection Baseplate Checks

Yes

Connecting Standoff Member Shape:

Rect Tube

Weld Stiffener Configuration:

No Stiffeners

Plate Width, D_x (in):

8

Plate Height, D_y (in):

8

$W1$ (in):

4

$W2$ (in):

4

Member Thickness (in):

0.25

Stiffener location a_1 (in):

Stiffener location b_1 (in):

Stiffener location a_2 (in):

Stiffener location b_2 (in):

F_y (ksi, plate):

36

Plate Thickness (in):

0.625

Length of Yield Line, L_y (in):

5.85

Bolt Eccentricity, e (in):

1.65

M_u (kip-in):

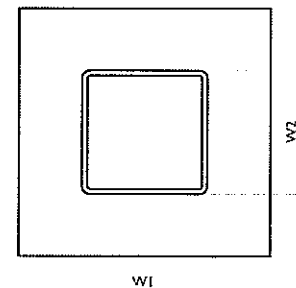
8.46

$\Phi * M_n$ (kip-in):

18.51

Plate Bending Utilization:

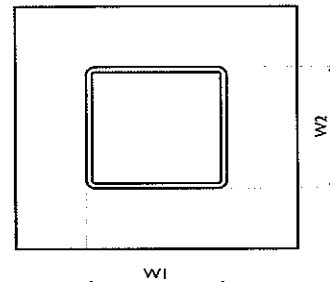
45.7%



Tower Connection Weld Checks

Weld Shape:
Weld Stiffener Configuration:
Stiffener Notch Length, n (in):
Weld Size (1/16 in):
W1 (in):
W2 (in):
Weld Total Length (in):
 Z_x (in³/in):
 Z_y (in³/in):
 J_p (in⁴/in):
 c_x (in):
 c_y (in):
Required combined strength (kip/in):
Weld Capacity (kip/in):
Weld Utilization:

Yes
Rectangle
None
None
4
4
4
16.00
21.33
21.33
85.33
2.25
2.25
1.93
5.57
34.7%





FOX HILL TELECOM

Radio Frequency Emissions Analysis Report

Prepared for:



Crown Site ID: 857526_Woodbridge CT Route 69

Verizon Wireless Site Name: Woodbridge North 3 CT

Verizon Wireless ID: 17483379

Site Address:

1990 Litchfield Turnpike

Woodbridge, CT 06525

October 20, 2025

Fox Hill Telecom Project Number: 250357

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit at ground level:	4.83 %



FOX HILL TELECOM

October 20, 2025

Crown Castle
1800 W. Park Drive
Westborough, MA 01581

Emissions Analysis for:

Crown Castle Site: 857526 – Woodbridge CT Route 69

Verizon Wireless Site: Woodbridge North 3 CT

Fox Hill Telecom, Inc (“Fox Hill”) was directed to analyze the proposed upgrades for Verizon Wireless to the Crown Castle facility located at **1990 Litchfield Turnpike, Woodbridge, CT**, for the purpose of determining whether the emissions from the Proposed Verizon Wireless Antenna Installation, in addition to all existing radio systems located on this property, are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The number of $\mu\text{W}/\text{cm}^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which people who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes people in a nearby residential area.



FOX HILL TELECOM

General population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 700 MHz band & the 850 MHz cellular band are approximately $497 \mu\text{W}/\text{cm}^2$ and $586 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 3700 MHz (C band) frequency bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report the percentage of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which people are exposed as a consequence of their employment and in which those people who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.



CALCULATIONS

Calculations were performed for the proposed upgrades to the Crown Castle facility for Verizon Wireless located at **1990 Litchfield Turnpike, Woodbridge, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65 for far field modeling calculations.

In OET-65, power density values in the Far Field of an antenna are calculated by considering the transmit power in each band specified and multiplied by the antenna gain values per the antenna manufacturer specifications.

Since the radiation pattern of an antenna has developed in the **Far Field** region, the power gain in specific directions needs to be considered in exposure predictions to yield an Effective Radiated Power (ERP) in each specific direction from the antenna. Also, since the vertical radiation pattern of the antenna is considered, the exposure calculations would most likely be reduced at ground level, when compared to an isotropic model, resulting in a more realistic estimate of the actual exposure levels.

A worst-case **Far Field** prediction is described in OET-65 where field strength may double due to 100% reflection of the incoming radiation. Considering an EPA recommendation that a multiplier of 1.6 is a more realistically representation of this effect is rewritten as follows:

$$S_{FF} = \frac{33.4 \cdot P_{in} \cdot G_{dBd}}{R^2} \quad (\mu W/cm^2)$$

- S_{FF} = Power Density (in $\mu W/cm^2$)
- P_{in} is Watts
- R is meters to study point
- G is gain to study point as specified in manufacturer horizontal and vertical patterns

This model calculates the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0 to 6 feet) must be conducted. Seven power density values, between 0 and 6 feet above the specified study plane at each point, were calculated and a linear spatial average of these values was used to create the spatially averaged result for that point on the plane.



FOX HILL TELECOM

For each Verizon Wireless sector, the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
LTE	700 MHz	4	40
LTE / 5G	850 MHz	4	40
LTE / 5G	1900 MHz (PCS)	4	80
LTE	2100 MHz (AWS)	4	80
5G	3700 MHz (C Band)	2	160

Table 1: Channel Data Table



FOX HILL TELECOM

The following **Verizon Wireless** antennas listed in *Table 2 – Antenna Data* were used in the modeling for transmission in the 700 MHz, 850 MHz, 1900 MHz (PCS), 2100 MHz (AWS) and 3700 MHz (C Band) frequency bands. This is based on feedback from Verizon Wireless regarding anticipated antenna selection. Maximum gain values for all antennas are listed in *Table 3 – Verizon Wireless Inventory and Power Data* below.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	JMA MX06FIT445-02	118
A	2	JMA MX06FIT445-02	118
A	3	Samsung MT6413-77A	118
B	1	JMA MX06FIT445-02	118
B	2	JMA MX06FIT445-02	118
B	3	Samsung MT6413-77A	118
C	1	JMA MX06FIT445-02	118
C	2	JMA MX06FIT445-02	118
C	3	Samsung MT6413-77A	118

Table 2: Antenna Data

All calculations were made with respect to uncontrolled / general population threshold limits.



FOX HILL TELECOM

RESULTS

Per the calculations completed for the proposed Verizon Wireless configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	JMA MX06FIT445-02	700 MHz / 850 MHz	12.7 / 13.55	8	320	6,602.77	0.46
Antenna A2	JMA MX06FIT445-02	1900 MHz (PCS) / 2100 MHz (AWS)	15.45 / 15.55	8	640	22,709.56	1.10
Antenna A3	Samsung MT6413-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	1.85
Sector A Composite MPE%							3.41
Antenna B1	JMA MX06FIT445-02	700 MHz / 850 MHz	12.7 / 13.55	8	320	6,602.77	0.46
Antenna B2	JMA MX06FIT445-02	1900 MHz (PCS) / 2100 MHz (AWS)	15.45 / 15.55	8	640	22,709.56	1.10
Antenna B3	Samsung MT6413-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	1.85
Sector B Composite MPE%							3.41
Antenna C1	JMA MX06FIT445-02	700 MHz / 850 MHz	12.7 / 13.55	8	320	6,602.77	0.46
Antenna C2	JMA MX06FIT445-02	1900 MHz (PCS) / 2100 MHz (AWS)	15.45 / 15.55	8	640	22,709.56	1.10
Antenna C3	Samsung MT6413-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	1.85
Sector C Composite MPE%							3.41

Table 3: Verizon Wireless Inventory and Power Data table



FOX HILL TELECOM

Table 4: All Carrier MPE Contributions shows all additional identified carriers on site and their emissions contribution estimates, along with the newly calculated maximum Verizon Wireless far field emissions contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas the highest recorded sector value be used for composite site emissions values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three Verizon Wireless sectors have the same configuration, yielding the same results for all three sectors. *Table 5* below shows a summary for each Verizon Wireless Sector as well as the composite estimated emissions value for the site.

Site Composite MPE%	
Carrier	MPE%
Verizon Wireless – Max Per Sector Value	3.41 %
AT&T	1.32 %
Omni Antenna (UHF)	0.10 %
Site Total MPE %:	4.83 %

Table 4: All Carrier MPE Contributions

Verizon Wireless Sector A Total:	3.41 %
Verizon Wireless Sector B Total:	3.41 %
Verizon Wireless Sector C Total:	3.41 %
Site Total:	4.83 %

Table 5: Site MPE Summary



FOX HILL TELECOM

Table 6 below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated Verizon sector(s). For this site, all three Verizon Wireless sectors have the same configuration, yielding the same results for all three sectors.

Verizon Wireless _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
Verizon Wireless 700 MHz LTE	4	744.83	118	1.19	700 MHz	497	0.24%
Verizon Wireless 850 MHz LTE / 5G	4	905.86	118	1.29	850 MHz	586	0.22%
Verizon Wireless 1900 MHz (PCS) LTE	4	2,806.01	118	3.00	1900 MHz (PCS)	1000	0.30%
Verizon Wireless 2100 MHz (AWS) LTE	4	2,871.38	118	8.00	2100 MHz (AWS)	1000	0.80%
Verizon Wireless 3700 MHz (C Band) 5G	2	33,046.08	118	18.50	3700 MHz (C Band)	1000	1.85%
						Total:	3.41 %

Table 6: Verizon Wireless Maximum Sector MPE Power Values



FOX HILL TELECOM

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the Verizon Wireless facility as well as the site composite emissions estimates value with regard to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

Verizon Wireless Sector	Power Density Value (%)
Sector A:	3.41 %
Sector B:	3.41 %
Sector C:	3.41 %
Verizon Wireless Maximum Total (per sector):	3.41 %
Site Total:	4.83 %
Site Compliance Status:	COMPLIANT

The estimated composite emissions value for this site, assuming all carriers present, is **4.83 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon the far field calculations performed for all carriers identified in this report.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite estimated values calculated were well within the allowable 100% threshold standard per the federal government.

Scott Heffernan
Principal RF Engineer
Fox Hill Telecom, Inc
Worcester, MA 01609
(978)660-3998



VERIZON SITE NUMBER: 5000978813
VERIZON SITE NAME: WOODBRIDGE NORTH 3 CT
VERIZON PROJECT: 5G_L-SUB6
SITE TYPE: MONOPOLE
TOWER HEIGHT: 170'-0"

BUSINESS UNIT #: 857526
SITE ADDRESS: 1990 LITCHFIELD TURNPIKE
WOODBRIDGE, CT 06525
COUNTY: NEW HAVEN
JURISDICTION: TOWN OF WOODBRIDGE



VERIZON SITE NUMBER:
5000978813

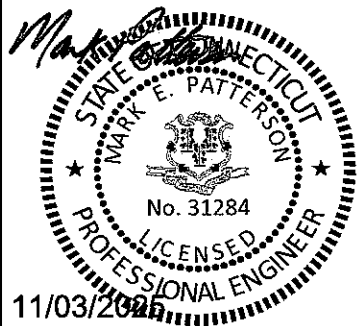
BU #: 857526

CROWN CASTLE SITE NAME
WOODBRIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBRIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

SHEET NUMBER:

T-1

REVISION:

0

SITE INFORMATION

CROWN CASTLE USA INC.
SITE NAME: WOODBRIDGE CT ROUTE 69
BU NUMBER: 857526
TOWER OWNER: CROWN CASTLE
2000 CORPORATE DRIVE
CANONSBURG, PA 15317
CARRIER/APPLICANT: VERIZON WIRELESS
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492
SITE ADDRESS: 1990 LITCHFIELD TURNPIKE
WOODBRIDGE, CT 06525
COUNTY: NEW HAVEN
LATITUDE: 41° 22' 23.20" / 41.373111°
LONGITUDE: -72° 58' 50.10" / -72.980583°
LAT/LONG TYPE: NAD83
GROUND ELEVATION: 290' SE
AREA OF CONSTRUCTION: *NO FAA AVAILABLE
CURRENT ZONING: NEW
MAP/PARCEL #: RESIDENTIAL
102855
OCCUPANCY CLASSIFICATION: U
TYPE OF CONSTRUCTION: IIB
A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND
NOT FOR HUMAN HABITATION
PROPERTY OWNER: RUSSELL SHEPHERD SARAH
1990 LITCHFIELD TPKE,
WOODBRIDGE, CT 06525-1200
JURISDICTION: TOWN OF WOODBRIDGE
11 MEETINGHOUSE LANE
WOODBRIDGE, CT 06525
ELECTRIC PROVIDER: UNITED ILLUMINATING CO
(800) 722-5584

PROJECT TEAM

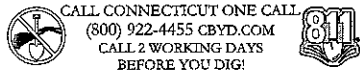
A&B FIRM: POWER OF DESIGN
11490 BLUEGRASS PARKWAY
LOUISVILLE, KY 40299
(502) 437-5252
CROWN CASTLE: 2000 CORPORATE DRIVE
CANONSBURG, PA 15317
CONTACTS: WILLIAM GATES - PROJECT MANAGER
WILLIAM.GATES@CROWNCASTLE.COM
DANIEL ANDERSON - AES
DANIEL.ANDERSON@CROWNCASTLE.COM

NOTE:
PRIOR TO ACCESSION/ENTERING THE SITE YOU MUST CONTACT THE
CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	OVERALL SITE PLAN
C-1.2	FINAL SITE PLAN
C-1.3	EQUIPMENT PLAN
C-2	TOWER ELEVATION
C-3	ANTENNA PLAN
C-4	FINAL EQUIPMENT SCHEDULE
C-5.1 - C-5.2	TOWER EQUIPMENT DETAILS & SPECIFICATIONS
C-5.3	GROUND EQUIPMENT DETAILS & SPECIFICATIONS
C-5.4	GROUND EQUIPMENT DETAILS & SPECIFICATIONS
C-6	COLOR CODE MATRIX
C-7	CANOPY DETAILS
C-8	SITE PHOTOS
E-1	ELECTRICAL PLAN
E-2	ELECTRICAL DETAILS
E-3	CONDUIT DETAILS
G-1	GROUNDING DETAILS
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
ATTACHED	UTILITY GUIDANCE & MOUNT SPECS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17.
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS
AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY
THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE
PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.



CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT <https://pmi.vzwsmart.com>
SMART TOOL VENDOR
PROJECT NUMBER 10320141
VzW LOCATION CODE 0

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

MOUNT MODIFICATION REQUIRED

N

VzW APPROVED SMART KIT VENDORS

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

APPROVALS

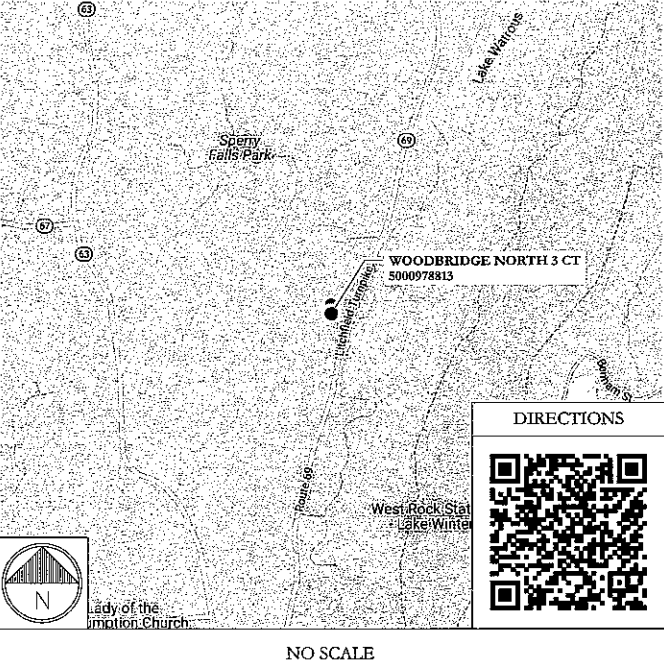
VERIZON SIGNATURE BLOCK		
APPROVAL	SIGNATURE	DATE
SITE ACQUISITION		
CONSTRUCTION		
RADIO		
MICROWAVE		
TELCO		
EQUIPMENT		
PROJECT ADMINISTRATOR		
WO ADMINISTRATOR		
CROWN CASTLE USA INC. SIGNATURE BLOCK		
APPROVAL	SIGNATURE	DATE
SITE ACQUISITION		
PLANNER		
CONSTRUCTION		
PROJECT MANAGER		
UTILITY MANAGER		
LANDLORD		

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND
CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE
WIRELESS FACILITY.
TOWER SCOPE OF WORK:
• INSTALL SITE PRO 1 - RMQP-496-HK PLATFORM MOUNT PER MOUNT
ANALYSIS BY COLLIERS ENGINEERING & DESIGN, DATED SEPTEMBER
10, 2025
• INSTALL (6) JMA WIRELESS - MX06FIT445-02 ANTENNAS
• INSTALL (3) SAMSUNG - MT6413-77A ANTENNAS
• INSTALL (3) SAMSUNG - RF4461D-13A RADIOS
• INSTALL (3) SAMSUNG - RF4801D-25A RADIOS
• INSTALL (1) RAYCAP - RCMD-3315-PF-48 OVP
• INSTALL (1) NGOV
• INSTALL (1) CABLCON - HYBRILITEOG36F0XXX CABLE
• INSTALL (1) RFS/CELWAVE - HB158-21U6S12-XXXM-01 CABLE

GROUND SCOPE OF WORK
• INSTALL (1) 11'-0"X20'-0" CONCRETE PAD W/ WEATHER CANOPY IN A
15'-0"X24'-0" LEASE AREA
• INSTALL (1) EQUIPMENT CABINET
• INSTALL (1) BATTERY CABINET
• INSTALL (1) ICE BRIDGE (± 17'-5")
• INSTALL (1) GPS UNIT
• INSTALL (2) SITE LIGHTS
• INSTALL (1) 200A ILC
• INSTALL (1) TELCO CABINET
• INSTALL (1) TELCO JUNCTION BOX

LOCATION MAP



APPLICABLE CODES &
REFERENCE DOCUMENTS

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

CODE TYPE	CODE
BUILDING	2022 2021 IBC PORTION OF THE CT STATE BUILDING CODE/2021 IBC W/ AMENDMENTS
MECHANICAL	2022 2021 IMC PORTION OF THE CT STATE BUILDING CODE/2021 IMC W/ AMENDMENTS
ELECTRICAL	2022 2020 NFPA 70 PORTION OF THE CT STATE BUILDING CODE/2020 NEC W/ AMENDMENTS

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	CROWN CASTLE
DATED:	SEPTEMBER 29, 2025
MOUNT ANALYSIS:	COLLIERS ENGINEERING & DESIGN,
DATED:	SEPTEMBER 10, 2025
RFDS REVISION:	1
DATED:	08/25/2025
ORDER ID:	714565
REVISION:	0

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED-- NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
2. "LOCK UP" -- CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT:
THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. 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/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED--STD--10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA--322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH QAS--STD--10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED--STD--10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA--1019--A--2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GREENFIELD GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 FT OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAP-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
CARRIER: VERIZON
TOWER OWNER: CROWN CASTLE USA INC.
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90° AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
#4 BARS AND SMALLER.....40 ksi
#5 BARS AND LARGER.....60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.....3"
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 BARS AND LARGER.....2"
#5 BARS AND SMALLER.....1-1/2"
SLAB AND WALLS.....3/4"
BEAMS AND COLUMNS.....1-1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SECREATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.

4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
- 4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. ALL THE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC ON STRAIGHTS AND SCHEDULE 80 PVC UNDER ALL TRAFFIC EASEMENTS AND ALL ELBOWS/90s. ABOVE GRADE CONDUIT TO BE SCH 80 PVC OR IMC/RMC CONDUIT. EMT IS ALLOWED AT STUB UP LOCATIONS AND INDOORS ONLY.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
21. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECIMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FINISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE TIGHTLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKWIT ON OUTSIDE. ON INSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "VERIZON".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE		
SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208V, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
277/480V, 3Ø	GROUND	GREEN
	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
DC VOLTAGE	NEUTRAL	GREY
	GROUND	GREEN
	POS (+)	RED**
	NEG (-)	BLACK**

** SEE NEC 210.5(C)(1) AND (2)
** POLARITY MARKED AT TERMINATION

ABBREVIATIONS:

ANT	ANTENNA
(E)	EXISTING
FIF	FACILITY INTERFACE FRAME
GEN	GENERATOR
GPS	GLOBAL POSITIONING SYSTEM
GSM	GLOBAL SYSTEM FOR MOBILE
LTE	LONG TERM EVOLUTION
MGB	MASTER GROUND BAR
MW	MICROWAVE
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
(P)	PROPOSED
PP	POWER PLANT
QTY	QUANTITY
RECT	RECTIFIER
RBS	RADIO BASE STATION
RET	REMOTE ELECTRIC TILT
RFDS	RADIO FREQUENCY DATA SHEET
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
SHD	SMART INTEGRATED DEVICE
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
WCD	WCDMA

APWA UNIFORM COLOR CODE:

WHITE	PROPOSED EXCAVATION
ORANGE	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

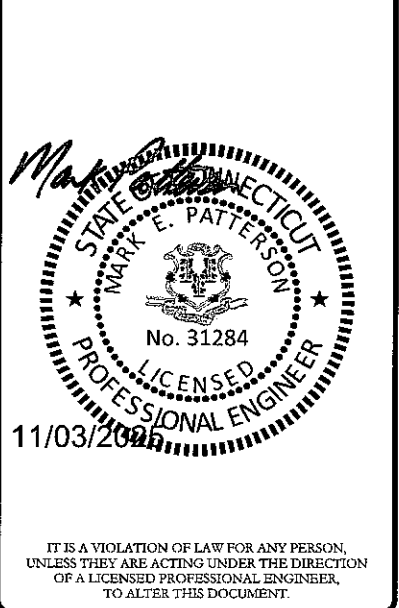


VERIZON SITE NUMBER:
5000978813

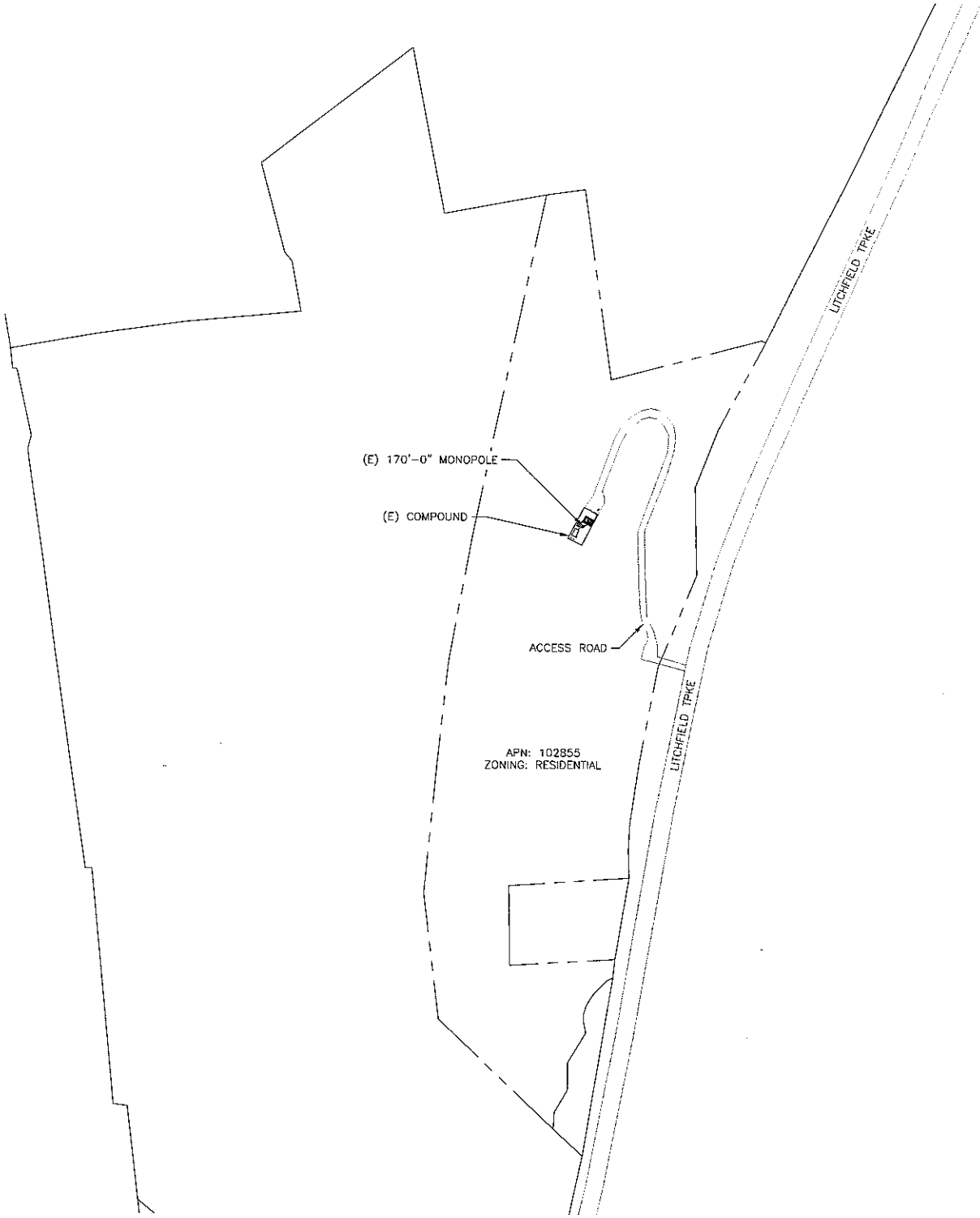
BU #: 857526
CROWN CASTLE SITE NAME
WOODBRIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBRIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	NBP



SHEET NUMBER:
T-2
REVISION:
0



verizon

CROWN
CASTLE

POD
POWER OF DESIGN

11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
**WOODBIDGE CT ROUTE
69**
1990 LITCHFIELD
TURNPIKE
WOODBIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



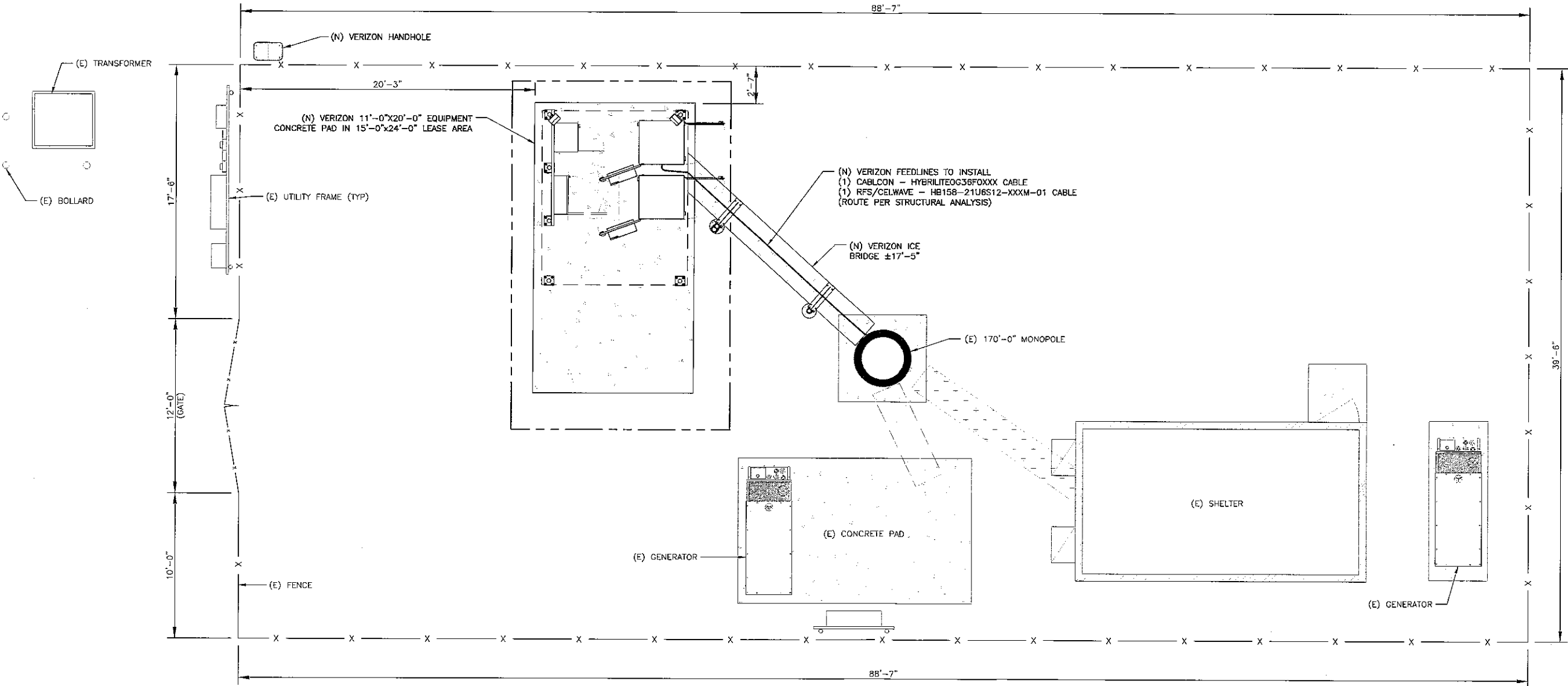
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER:

C-1.1

REVISION:

0



verizon

CROWN
CASTLE

POD
POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBRIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBRIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

SHEET NUMBER:

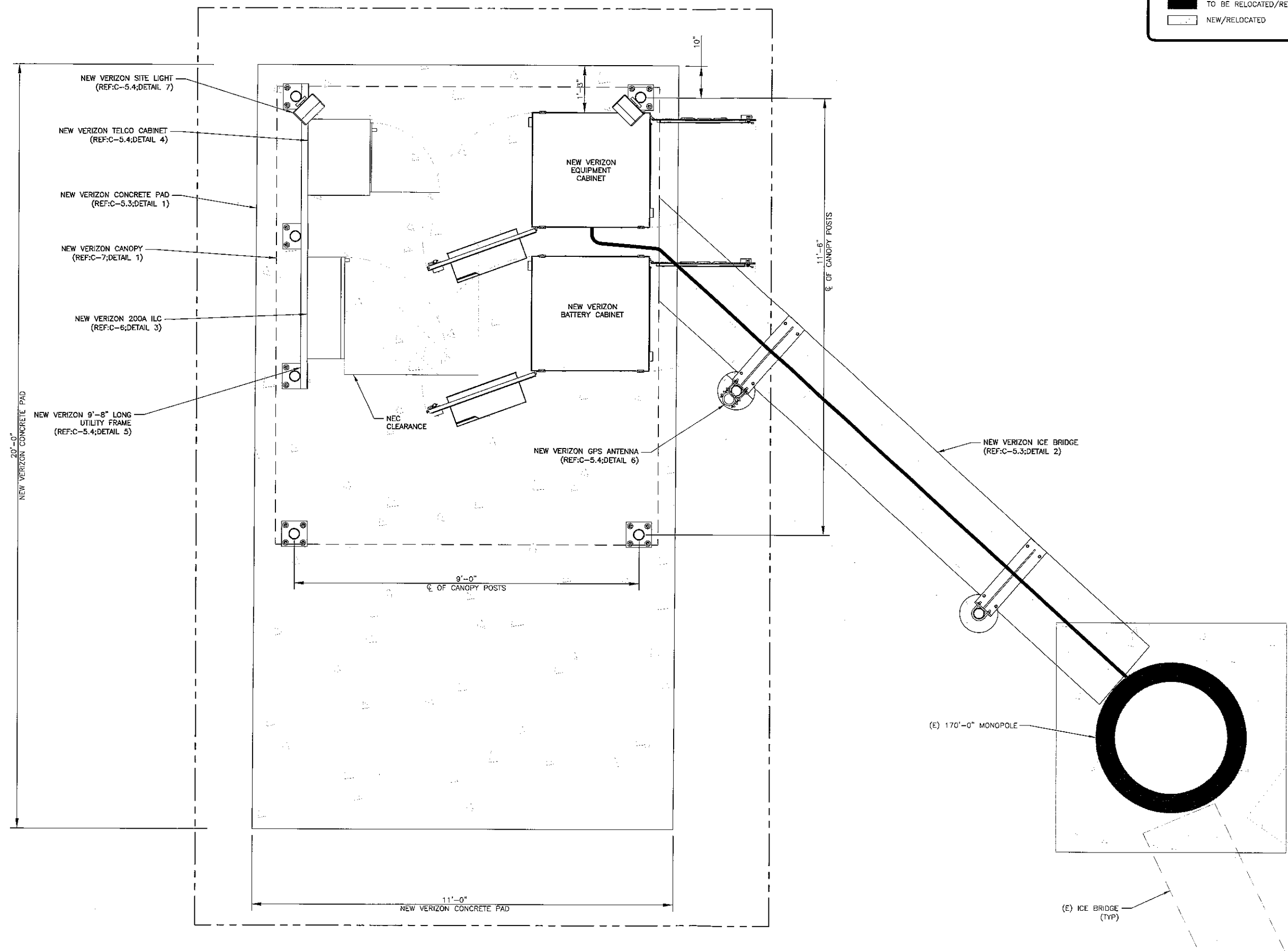
C-1.2

REVISION:

0

1 FINAL SITE PLAN

SCALE: 1/4"=1'-0" (FULL SIZE)
1/8"=1'-0" (11x17)



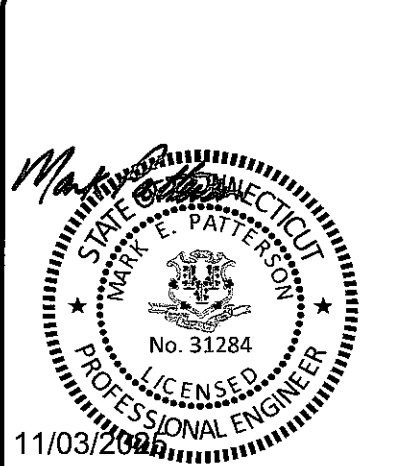
VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBIDGE CT ROUTE 69
1990 LITCHFIELD TURNPIKE
WOODBIDGE, CT 06525

EXISTING 170'-0" MONOPOLE

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

SHEET NUMBER: **C-1.3** REVISION: **0**

VERIZON EQUIPMENT
ANTENNA CL: 118'-0"
MOUNT CL: 118'-0"

TOP OF STRUCTURE WITH APPURTENANCE
ELEV. = 189'-8"

TOP OF TOWER
ELEV. = 170'-0"

VERIZON MOUNT CENTERLINE
ELEV. = 118'-0"

VERIZON ANTENNA CENTERLINE
ELEV. = 118'-0"

- (N) VERIZON EQUIPMENT TO INSTALL
- (6) JMA WIRELESS - MX06FIT445-02 ANTENNAS
 - (3) SAMSUNG - MT6413-77A ANTENNAS
 - (3) SAMSUNG - RF4801D-25A RADIOS
 - (3) SAMSUNG - RF4461D-13A RADIOS
 - (1) RAYCAP - RCMDC-3315-PF-48 OVP
 - (1) NGOVP

(E) 170'-0" MONOPOLE

- (N) VERIZON FEEDLINES TO INSTALL
- (1) CABLCON - HYBRILITEOG36FOXXX CABLE
 - (1) RFS/CELWAVE - HB158-21U6S12-XXXM-01 CABLE
 - (ROUTE PER STRUCTURAL ANALYSIS)

BOTTOM OF TOWER
ELEV. = 0

EXISTING EQUIPMENT BY OTHERS
MCL = 170'-0"

EXISTING EQUIPMENT BY OTHERS
MCL = 163'-0"

EXISTING EQUIPMENT BY OTHERS
MCL = 153'-0"

EXISTING EQUIPMENT BY OTHERS
MCL = 142'-0"

EQUIPMENT LEGEND:

- EXISTING
- TO BE RELOCATED/REMOVED
- NEW/RELOCATED

POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBRIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBRIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP

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

SHEET NUMBER:
C-2

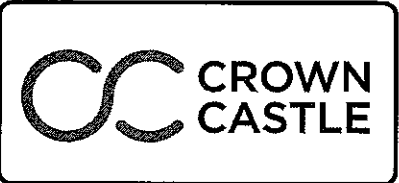
REVISION:
0

EQUIPMENT LEGEND:

EXISTING

TO BE RELOCATED/REMOVED

NEW/RELOCATED



VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

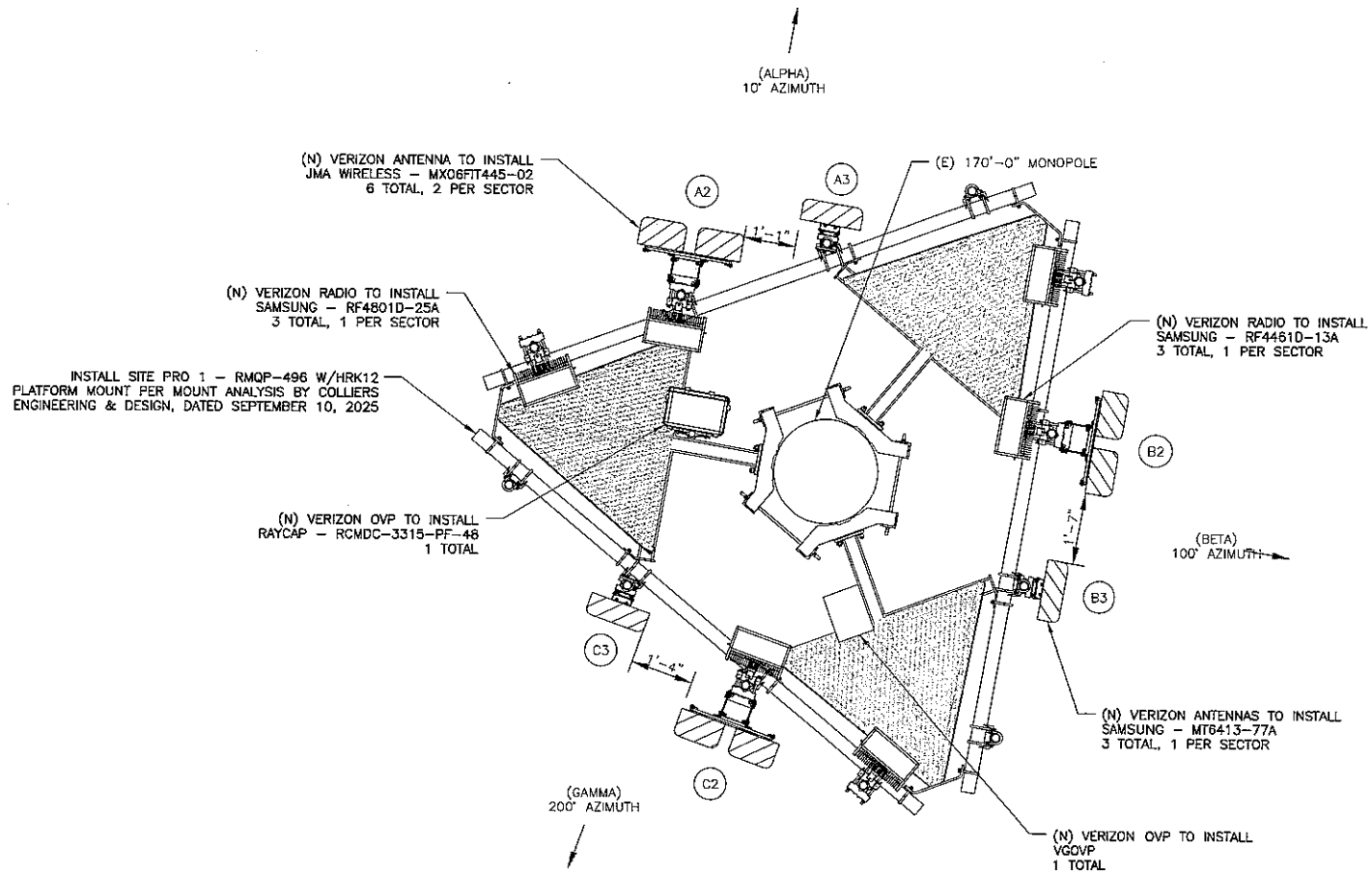
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP

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

SHEET NUMBER:
C-3

REVISION:
0



FINAL EQUIPMENT SCHEDULE
(GC TO VERIFY WITH CURRENT RFDS)

POSITION	ANTENNA				RADIO			DIPLEXER			TMA		SURGE PROTECTION		CABLES			
	TECH	STATUS/MANUFACTURER MODEL	AZIMUTH	RAD. CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS	QTY.	STATUS/MODEL	QTY.	STATUS/TYPE	SIZE	LENGTH
A1	-	-	-	-	1	(N) SAMSUNG - RF4801D-25A	TOWER	-	-	-	-	-	1	(N) RCMDC-3315-PF-48	1	(N) HYBRID	1-5/8"	168'-0"
A2	LTE 700 LTE 850 LTE 1900 LTE AWS 5G 850 5G 1900	(N) JMA WIRELESS - MX06FIT445-02	10°	118'-0"	1	(N) SAMSUNG - RF4461D-13A	TOWER	-	-	-	-	-	-	-	-	-	-	-
		(N) JMA WIRELESS - MX06FIT445-02	10°	118'-0"														
A3	5G L-SUB6	(N) SAMSUNG - MT6413-77A	10°	118'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1	-	-	-	-	1	(N) SAMSUNG - RF4801D-25A	TOWER	-	-	-	-	-	-	-	-	-	-	-
B2	LTE 700 LTE 850 LTE 1900 LTE AWS 5G 850 5G 1900	(N) JMA WIRELESS - MX06FIT445-02	100°	118'-0"	1	(N) SAMSUNG - RF4461D-13A	TOWER	-	-	-	-	-	-	-	-	-	-	-
		(N) JMA WIRELESS - MX06FIT445-02	100°	118'-0"														
B3	5G L-SUB6	(N) SAMSUNG - MT6413-77A	100°	118'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C1	-	-	-	-	1	(N) SAMSUNG - RF4801D-25A	TOWER	-	-	-	-	-	1	(N) NGOVP	1	(N) HYBRID	1-1/8"	168'-0"
C2	LTE 700 LTE 850 LTE 1900 LTE AWS 5G 850 5G 1900	(N) JMA WIRELESS - MX06FIT445-02	200°	118'-0"	1	(N) SAMSUNG - RF4461D-13A	TOWER	-	-	-	-	-	-	-	-	-	-	-
		(N) JMA WIRELESS - MX06FIT445-02	200°	118'-0"														
C3	5G L-SUB6	(N) SAMSUNG - MT6413-77A	200°	118'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* REFER TO THE RFDS FOR MECHANICAL AND DOWNTILT INFORMATION

UNUSED FEEDLINES

-	-	-	-
-	-	-	-



VERIZON SITE NUMBER:
5000978813

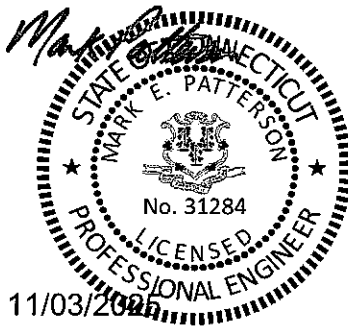
BU #: 857526

CROWN CASTLE SITE NAME
WOODBRIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBRIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



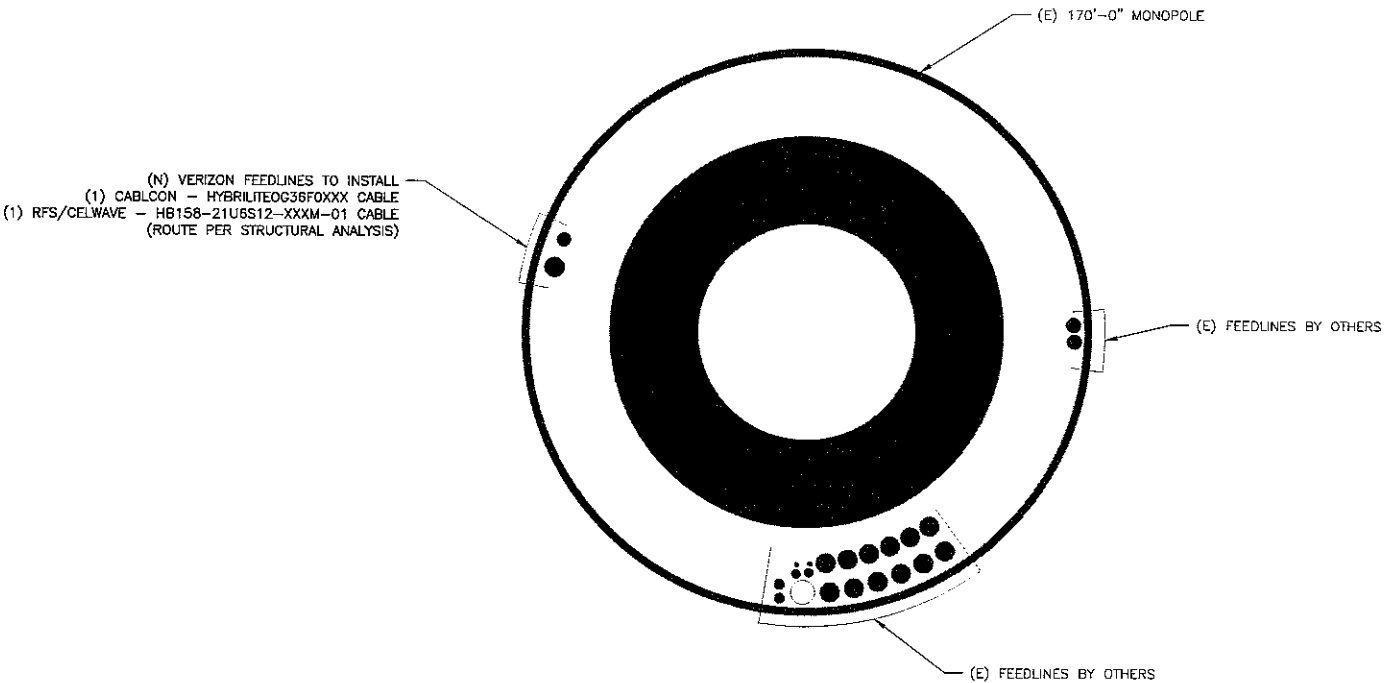
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER:

C-4

REVISION:

0

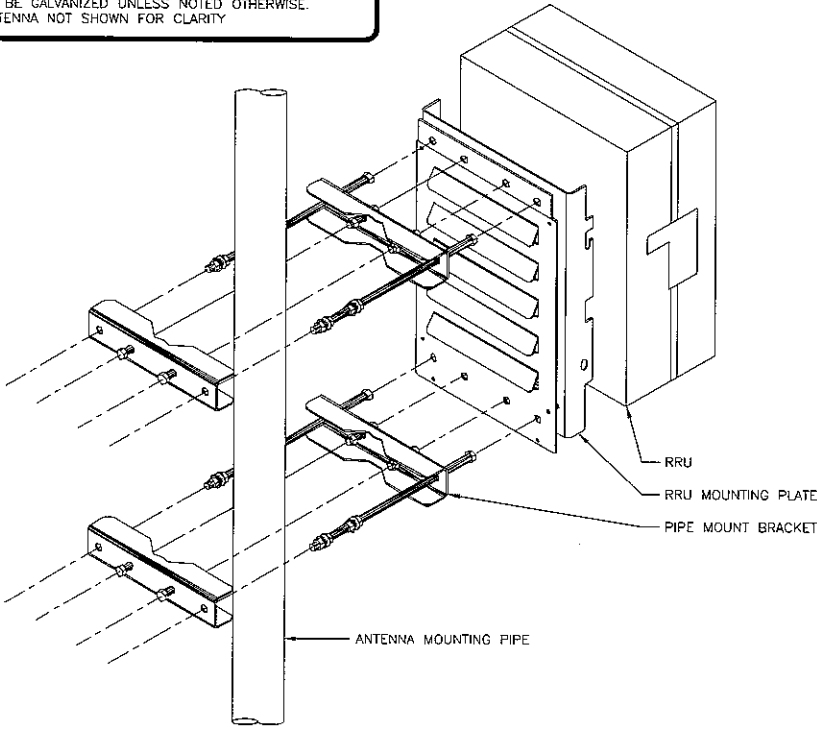


1 BASE LEVEL DETAIL
SCALE: NOT TO SCALE



INSTALLER NOTES:

1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRUs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRU PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.
4. ANTENNA NOT SHOWN FOR CLARITY



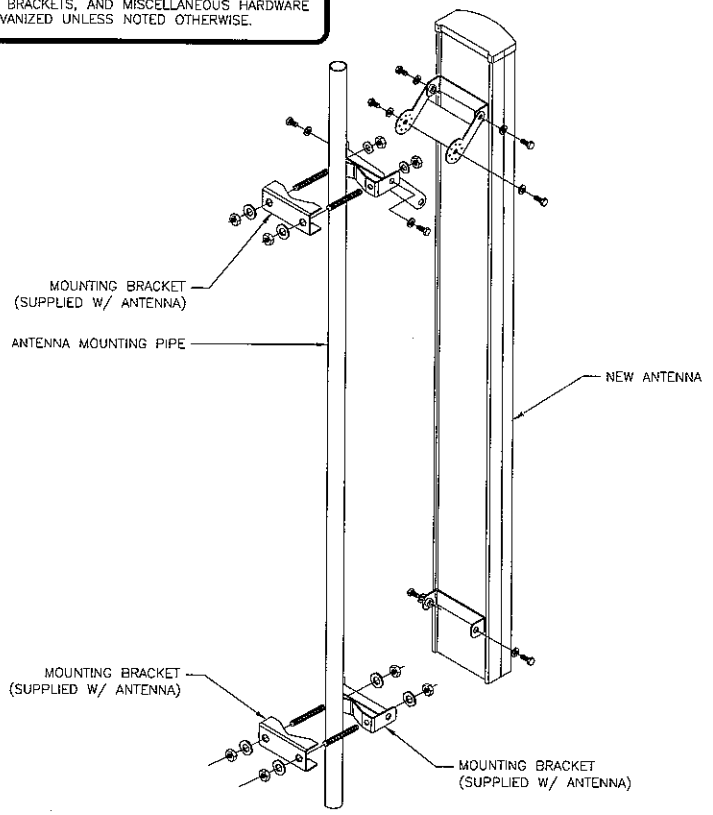
3 RRU MOUNTING DETAIL
SCALE: NOT TO SCALE

JMA WIRELESS - MX06FIT445-02
WEIGHT (WITHOUT MOUNTING HARDWARE): 15.0 LBS
SIZE (HxWxD): 52.5x15.4x10.7 IN.
RATED WIND VELOCITY: 150.0 MPH

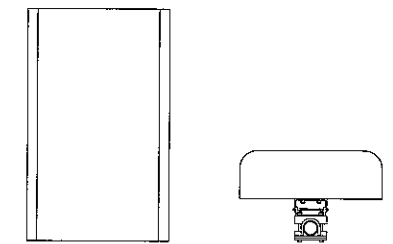
4 JMA WIRELESS - MX06FIT445-02
SCALE: NOT TO SCALE

INSTALLER NOTE:

1. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



2 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE



6 SAMSUNG - MT6413-77A
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

POD
POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBIDGE CT ROUTE 69
1990 LITCHFIELD TURNPIKE
WOODBIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



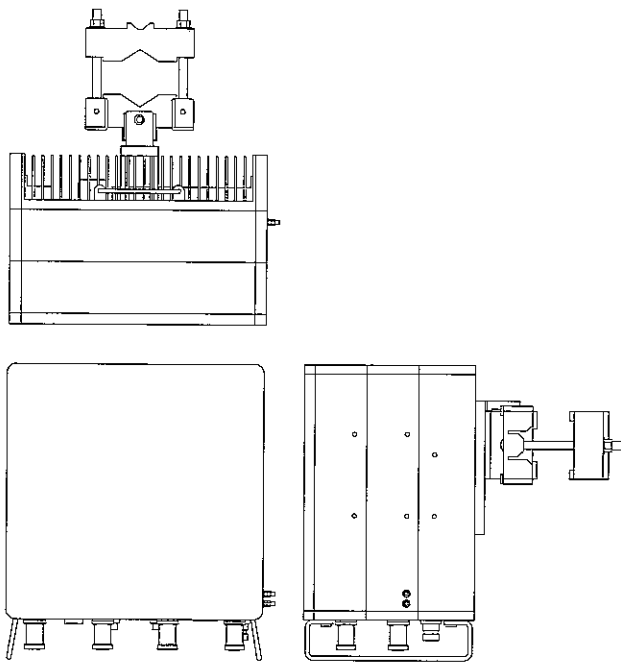
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER:

C-5.1

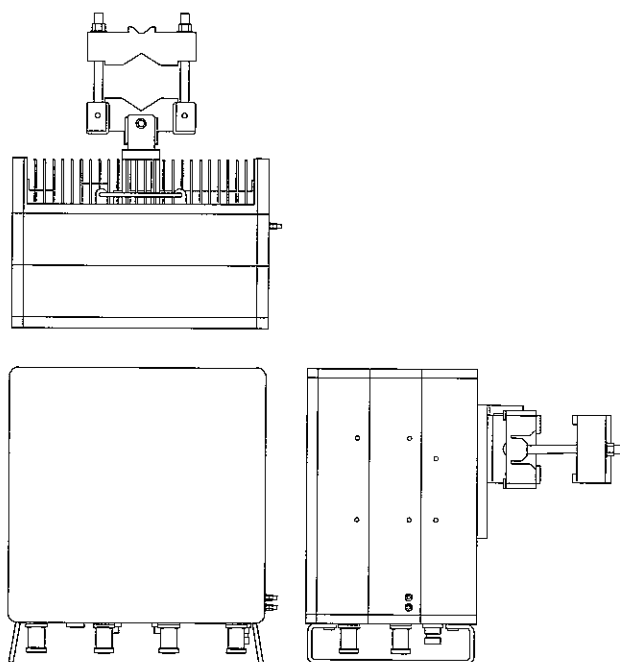
REVISION:

0



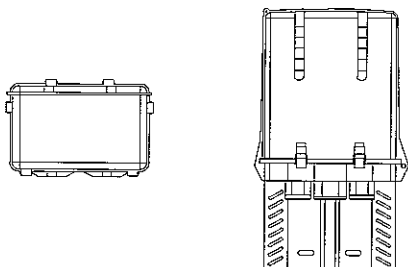
SAMSUNG — RF4461D-13A
WEIGHT: 79.1 LBS.
SIZE (HxWxD): 14.96x14.96x10.23 IN.

1 SAMSUNG — RF4461D-13A
SCALE: NOT TO SCALE



SAMSUNG — RF4801D-25A
WEIGHT: 87.9 LBS.
SIZE (HxWxD): 21.8x17.3x7.2 IN.

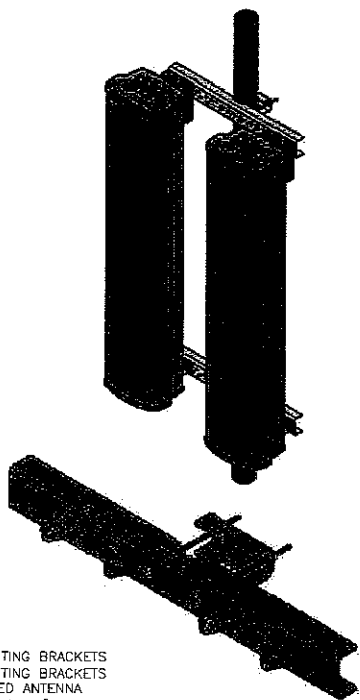
2 SAMSUNG — RF4801D-25A
SCALE: NOT TO SCALE



RAYCAP — RCMDC-3315-PF-48
WEIGHT (WITHOUT MOUNTING HARDWARE): 32.0 LBS
SIZE (HxWxD): 25.66x15.73x10.25 IN.

RATED WIND VELOCITY: 150 MPH (SUSTAINED)
OPERATING TEMPERATURE: -60° C TO +80° C
NOMINAL OPERATING DC VOLTAGE: 48 VDC
VOLTAGE PROTECTION RATING (VRP): 400V

3 RAYCAP — RCMDC-3315-PF-48
SCALE: NOT TO SCALE



NOTES:

- 91900314-03 KIT CONTAINS (3) MOUNTING BRACKETS
- 91900314-02 KIT CONTAINS (2) MOUNTING BRACKETS
- MECHANICAL TILT IN LINE WITH SPECIFIED ANTENNA
- SPACING ACHIEVED CAN BE 3/4", 2", OR 12" (EDGE-TO-EDGE) DEPENDENT ON ANTENNA MODEL

4 JMA WIRELESS — 91900314
SCALE: NOT TO SCALE

5 NOT USED
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

POD
POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBRIDGE CT ROUTE
69

1990 LITCHFIELD
TURNPIKE
WOODBRIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

SHEET NUMBER:

C-5.2

REVISION:

0

INSTALLER NOTE:

REINFORCING SHALL HAVE MINIMUM 3" CONCRETE COVER WHEN CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.

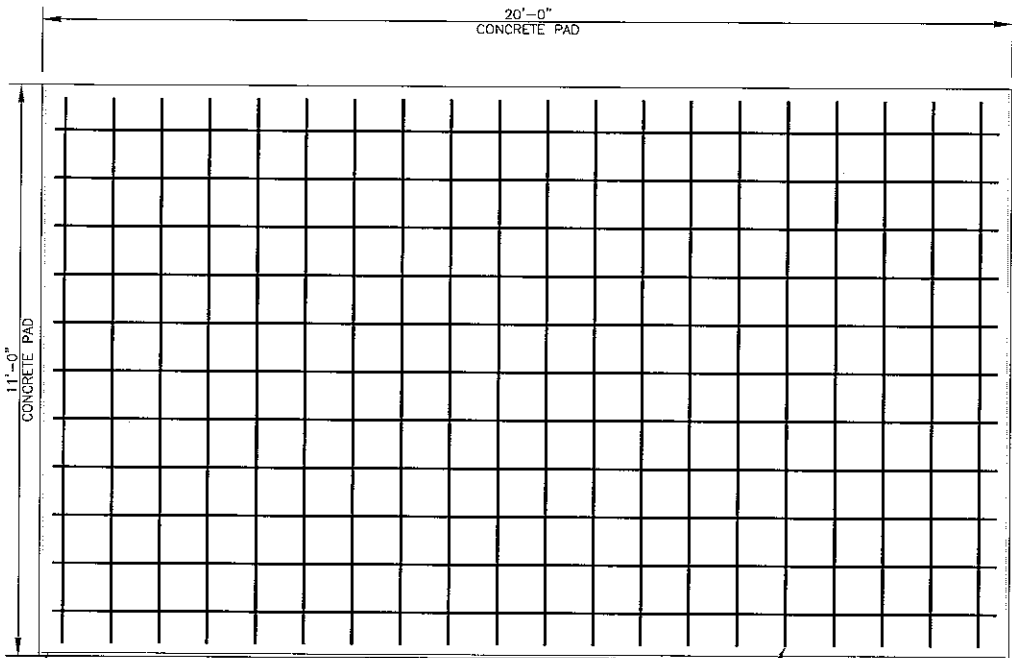
NOTE:

THE INFORMATION OF THE 3RD PARTY ENTITY THAT WILL BE PERFORMING THE INSPECTIONS WILL BE PROVIDED UPON PERMIT-ISSUANCE

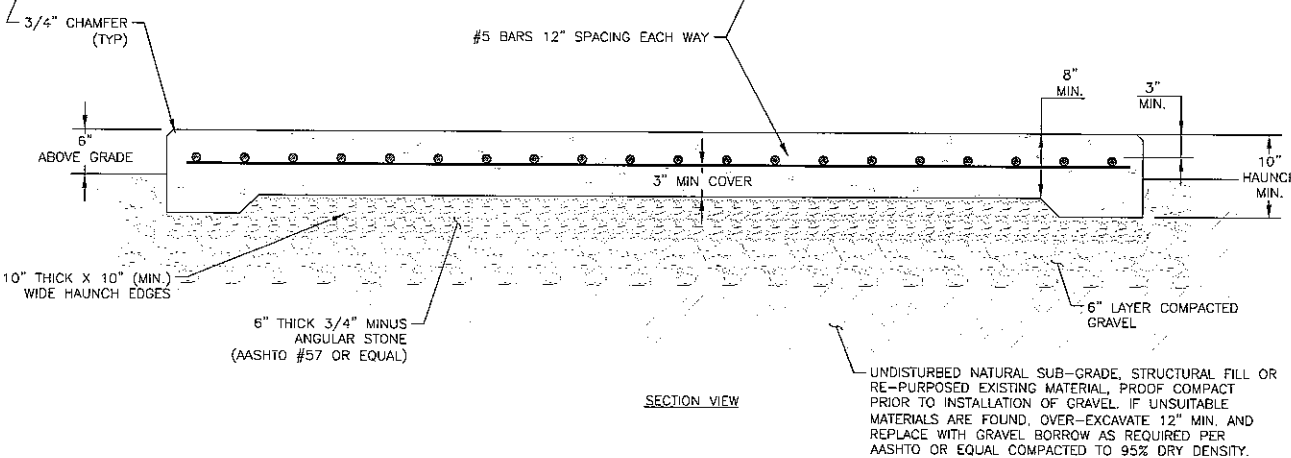
INSTALLER NOTE:

CONCRETE MIXES SHALL BE DESIGNED BY A CERTIFIED LABORATORY AND APPROVED BY THE ENGINEER. CONCRETE EXPOSED TO FREEZE-THAW CYCLES TO CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH WATER-TO-CEMENT RATIO (W/C) AS SHOWN BELOW. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY ENGINEER. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°F AT TIME OF PLACEMENT. MINIMUM CONCRETE STRENGTH (f'c) TO BE NOTED BELOW.

SLAB ON GRADE (W/C=0.45).....3,000 psi

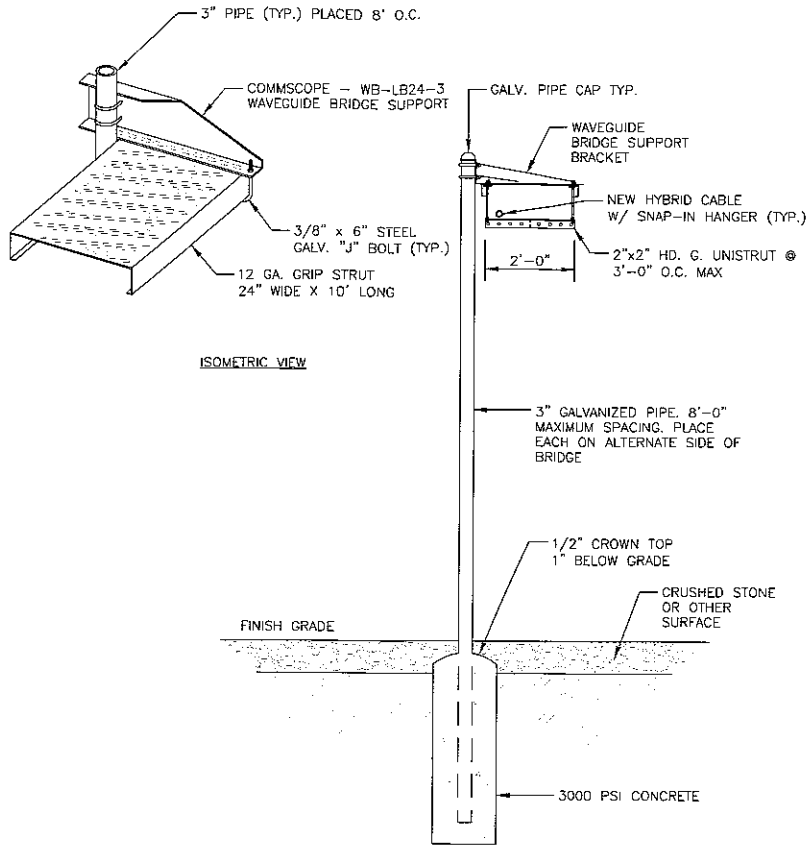


PLAN VIEW



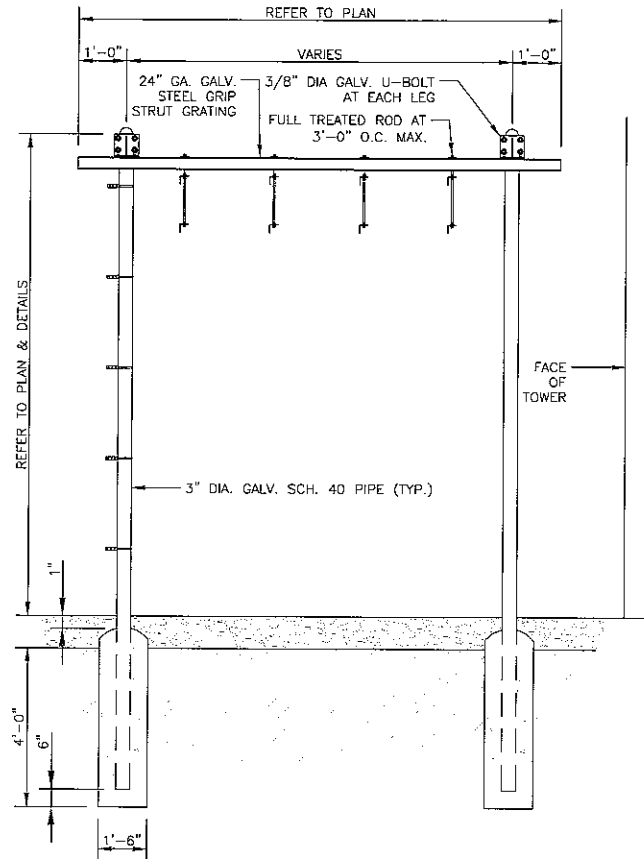
SECTION VIEW

1 CONCRETE PAD DETAIL
SCALE: NOT TO SCALE



ISOMETRIC VIEW

2 ICE BRIDGE DETAIL
SCALE: NOT TO SCALE



3 NOT USED
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

POD
POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

SHEET NUMBER: C-5.3
REVISION: 0

verizon

CROWN
CASTLE

POD
POWER OF DESIGN

11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBRIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBRIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

SHEET NUMBER:

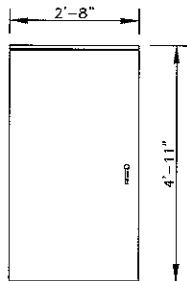
C-5.4

REVISION:

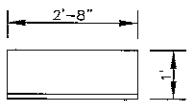
0

1 NOT USED
SCALE: NOT TO SCALE

2 NOT USED
SCALE: NOT TO SCALE



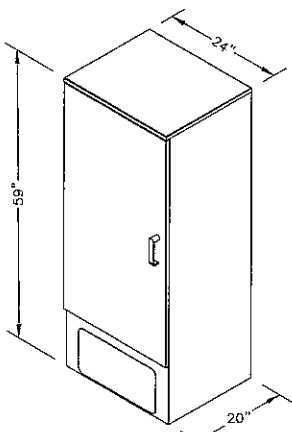
FRONT VIEW



PLAN VIEW

INTERSECT (*) - AA300G-1PH-3R 240V 200A
SIZE (HxWxD): 59.0x32.0x12.3 IN.

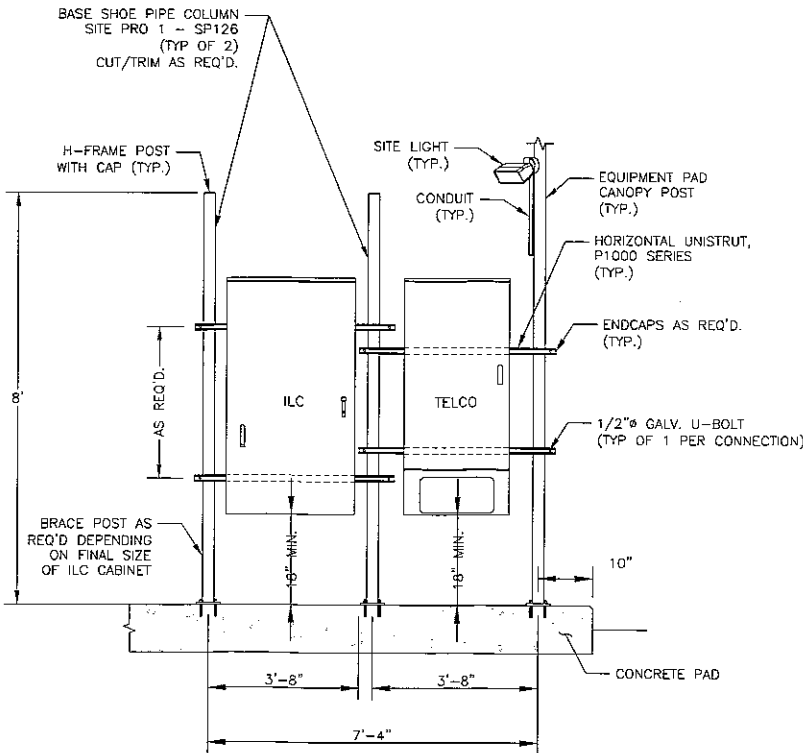
(*) NOTE: GC TO VERIFY ILC MODEL, LOCATION, AND
MOUNTING WITH CM AND ADJUST ILC MOUNTING
FRAME AS REQUIRED.



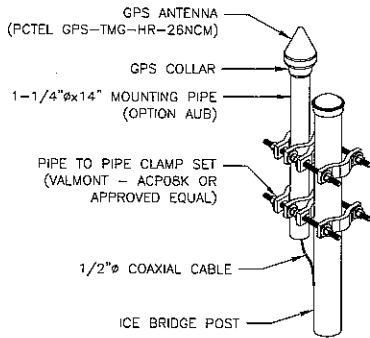
FRONT VIEW

INTERSECT (*) - T313589-DC48HE
SIZE (HxWxD): 59.0x24.0x20.0 IN.

(*) NOTE: GC TO VERIFY ILC MODEL, LOCATION, AND
MOUNTING WITH CM AND ADJUST ILC MOUNTING
FRAME AS REQUIRED.



5 UTILITY CABINET MOUTING DETAIL
SCALE: NOT TO SCALE

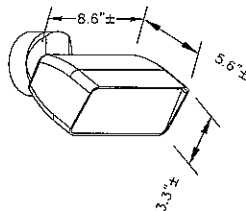


6 GPS ANTENNA DETAIL
SCALE: NOT TO SCALE



INTERMATIC - FF2H
20A/125 VAC
TIME CYCLE: 2 HRS
SWITCH: SPST
HOLD: NO

NOTE: *OR APPROVED EQUIVALENT



RAB LIGHTING -FFLED18N
18W/125 VAC
BRONZE

NOTE: MOUNT PER
MANUFACTURER'S SPECIFICATIONS

7 SITE LIGHT/TIMER DETAIL
SCALE: NOT TO SCALE

Azimuth (1) Alpha					
Cell (850 CDMA)	Red				
PCS2 (1900 LTE)	Pink	Red	Pink		
700 LTE		Red			
850 LTE		Red			
2100 LTE	Orange	Red	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Red	Pink	Orange
Low Band Dual Band (Shared Lines)			Red		
5G 28GHz		Red			
5G 39GHz	Blue	Red	Blue		
LAA	Gray	Red	Gray		
CBRS	White	Red	White		
L-Sub6 (C-Band)	Red	Red	Red		

Azimuth (2) Beta					
Cell (850 CDMA)	Blue				
PCS2 (1900 LTE)	Pink	Blue	Pink		
700 LTE		Blue			
850 LTE		Blue			
2100 LTE	Orange	Blue	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Blue	Pink	Orange
Low Band Dual Band (Shared Lines)			Blue		
5G 28GHz	Brown	Blue			
5G 39GHz	Blue	Blue	Blue		
LAA	Gray	Blue	Gray		
CBRS	White	Blue	White		
L-Sub6 (C-Band)	Red	Blue	Red		

Azimuth (3) Gamma					
Cell (850 CDMA)	Yellow				
PCS2 (1900 LTE)	Pink	Yellow	Pink		
700 LTE		Yellow			
850 LTE		Yellow			
2100 LTE	Orange	Yellow	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Yellow	Pink	Orange
Low Band Dual Band (Shared Lines)			Yellow		
5G 28GHz		Yellow			
5G 39GHz	Blue	Yellow	Blue		
LAA	Gray	Yellow	Gray		
CBRS	White	Yellow	White		
L-Sub6 (C-Band)	Red	Yellow	Red		

Azimuth (4) Delta					
Cell (850 CDMA)	Orange				
PCS2 (1900 LTE)	Pink	Orange	Pink		
700 LTE		Orange			
850 LTE		Orange			
2100 LTE	Orange	Orange	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Orange	Pink	Orange
Low Band Dual Band (Shared Lines)			Orange		
5G 28GHz		Orange			
5G 39GHz	Blue	Orange	Blue		
LAA	Gray	Orange	Gray		
CBRS	White	Orange	White		
L-Sub6 (C-Band)	Red	Orange	Red		

Azimuth (5) Epsilon					
Cell (850 CDMA)	White				
PCS2 (1900 LTE)	Pink	White	Pink		
700 LTE		White			
850 LTE		White			
2100 LTE	Orange	White	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	White	Pink	Orange
Low Band Dual Band (Shared Lines)			White		
5G 28GHz		White			
5G 39GHz	Blue	White	Blue		
LAA	Gray	White	Gray		
CBRS	White	White	White		
L-Sub6 (C-Band)	Red	White	Red		

Azimuth (6) Zeta					
Cell (850 CDMA)	Gray				
PCS2 (1900 LTE)	Pink	Gray	Pink		
700 LTE		Gray			
850 LTE		Gray			
2100 LTE	Orange	Gray	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Gray	Pink	Orange
Low Band Dual Band (Shared Lines)			Gray		
5G 28GHz		Gray			
5G 39GHz	Blue	Gray	Blue		
LAA	Gray	Gray	Gray		
CBRS	White	Gray	White		
L-Sub6 (C-Band)	Red	Gray	Red		

verizon



POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBIDGE CT ROUTE
69

1990 LITCHFIELD
TURNPIKE
WOODBIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

SHEET NUMBER:

C-6

REVISION:

0

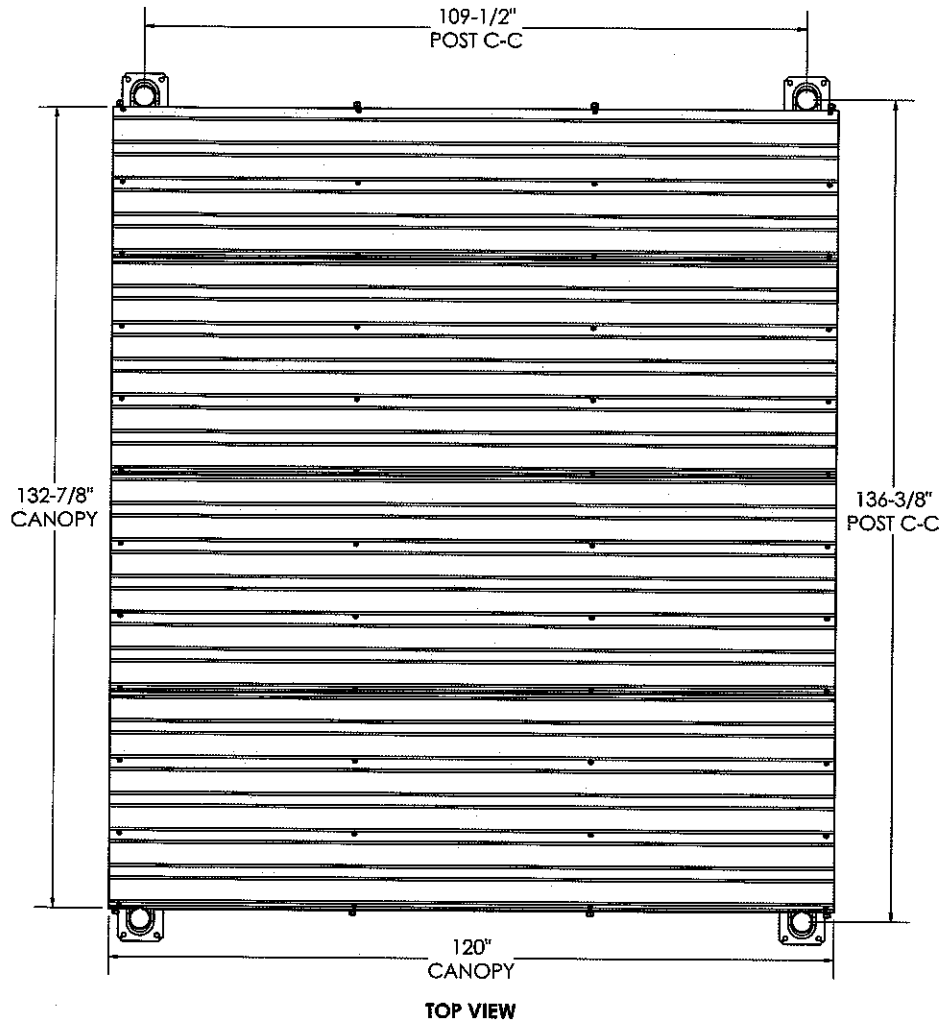
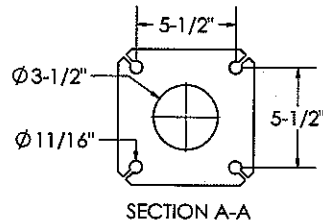
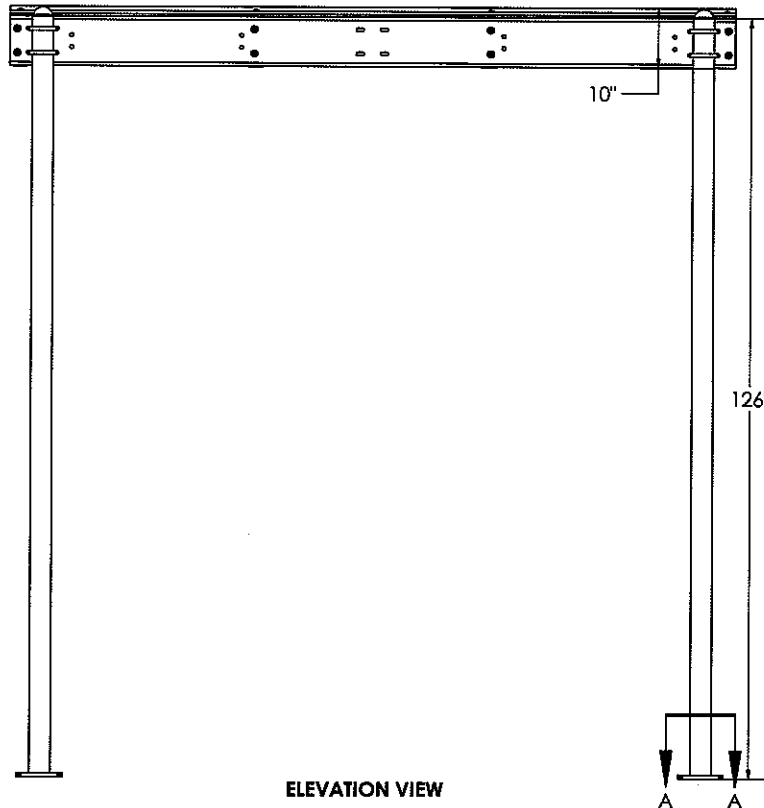
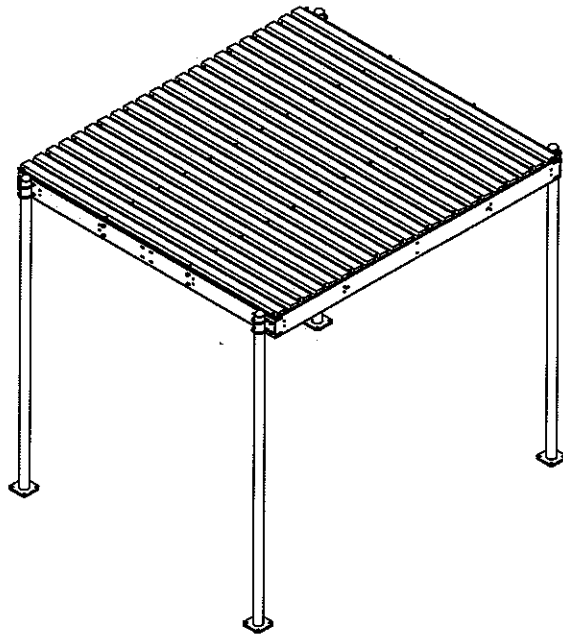
PV-WC1012-B

4-POST WEATHER CANOPY BASE KIT

WEIGHT: 1248 LBS

BASE ANCHORS AND FOUNDATION NOT INCLUDED

SEE DRAWING WCEQ-ENG-01 FOR ADDITIONAL DETAILS



SHEET		1 OF 1		12/6/2021		SCALE 1:24		DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4", BEND ±2" ALL OTHERS: ±1/16"	
CATEGORY		07_Platforms & Canopies		4		SERIES		01_Canopies	
TYPE		PV-WC		2		BY		DJN	
CHECKED		SJS		0		INITIAL RELEASE		12/2/21	
STATUS		APPROVED		REV		DESCRIPTION		DATE	
WEATHER CANOPY		DOCUMENT NUMBER		WC1012-ENG-R0		REV		0	

PERFECT VISION

WEATHER CANOPY
DOCUMENT NUMBER
WC1012-ENG-R0

REV
0

CA:\PM\Steel\Canopies\SW Working Files\Engineering Details

PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PERFECTVISION. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PERFECTVISION IS PROHIBITED.

NOTE: THE RF DESIGN OR ANY ASSOCIATED INFORMATION ON THIS SHEET HAS BEEN PREPARED AND DESIGNED BY OTHERS. POWER OF DESIGN GROUP DID NOT DESIGN OR PREPARE ANY RF.

1 CANOPY DETAILS
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

POD
POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

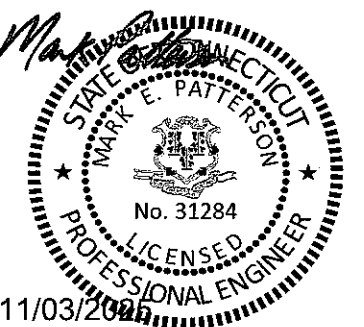
BU #: 857526

CROWN CASTLE SITE NAME
WOODBIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES/QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

SHEET NUMBER:

C-7

REVISION:

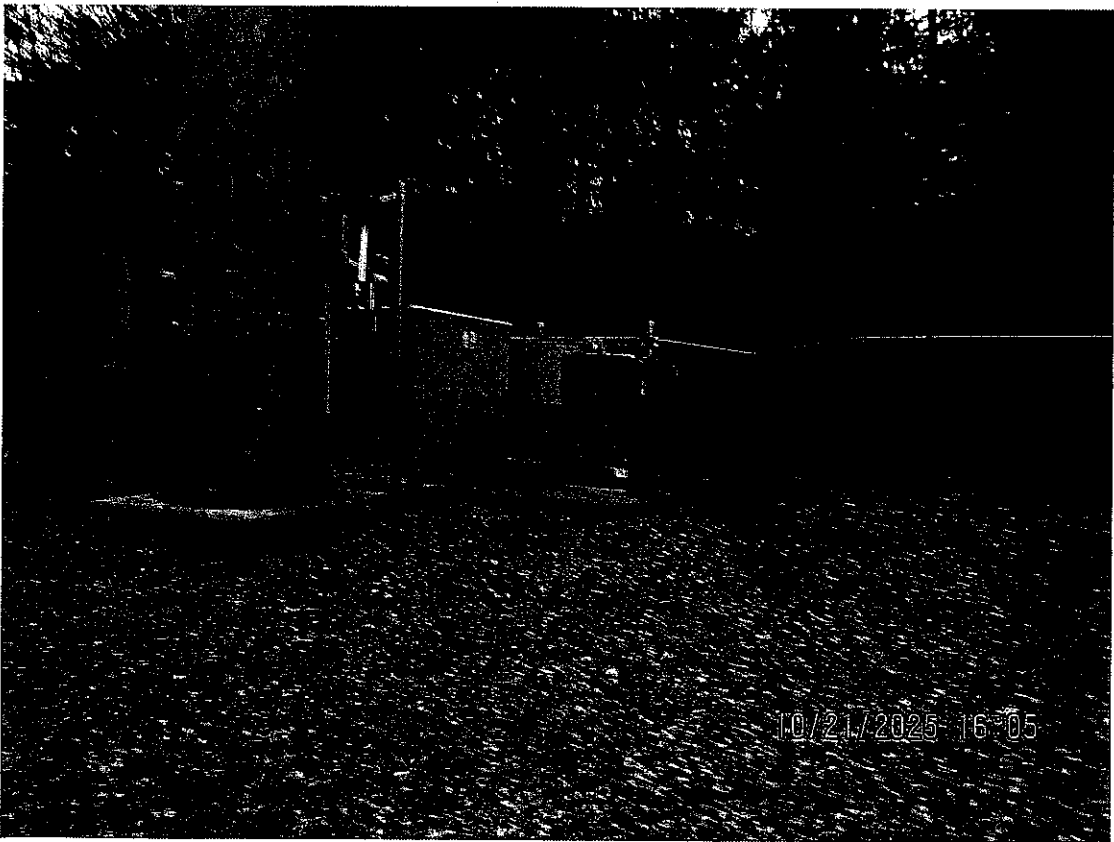
0



1 VIEW FROM ABOVE
SCALE: NOT TO SCALE



2 VIEW FROM SOUTH
SCALE: NOT TO SCALE



4 VIEW FROM WEST
SCALE: NOT TO SCALE

3 NOT USED
SCALE: NOT TO SCALE

verizon

CROWN
CASTLE

POD
POWER OF DESIGN

11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBIDGE CT ROUTE
69

1990 LITCHFIELD
TURNPIKE
WOODBIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

SHEET NUMBER:

C-8

REVISION:

0

NEW UTILITY SERVICE NOTE:

NEW METER LOCATION TO BE
DETERMINED BY THE UTILITY COMPANY.
PENDING UTILITY COORDINATION FOR
FINAL POWER DESIGN.

verizon

CROWN
CASTLE

POD
POWER OF DESIGN

11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

SHEET NUMBER:

E-1

REVISION:

0

(N) VERIZON (3) 3/0 AWG W/ (1) #2
AWG EGC IN 2" CONDUIT FROM METER
TO ILC
(TBD)

(E) TRANSFORMER

(N) VERIZON HANDHOLE

(N) VERIZON 4" FIBER CONDUIT FROM TELCO
JUNCTION BOX TO FIBER HANDHOLE

(N) VERIZON 11'-0"x20'-0" EQUIPMENT
CONCRETE PAD IN 15'-0"x24'-0" LEASE AREA

(E) UTILITY FRAME (TYP)

(E) BOLLARD

(N) VERIZON FEEDLINES TO INSTALL
(1) CABLCON - HYBRILTEOG36FOXXX CABLE
(1) RFS/CELWAVE - HB158-21U6S12-XXXM-01 CABLE
(ROUTE PER STRUCTURAL ANALYSIS)

(N) VERIZON ICE
BRIDGE ±17'-5"

(E) 170'-0" MONOPOLE

(E) SHELTER

(E) GENERATOR

(E) CONCRETE PAD

(E) GENERATOR

(E) FENCE

1 CONDUIT ROUTING PLAN

SCALE: 1/4"=1'-0" (FULL SIZE)
1/8"=1'-0" (11x17)

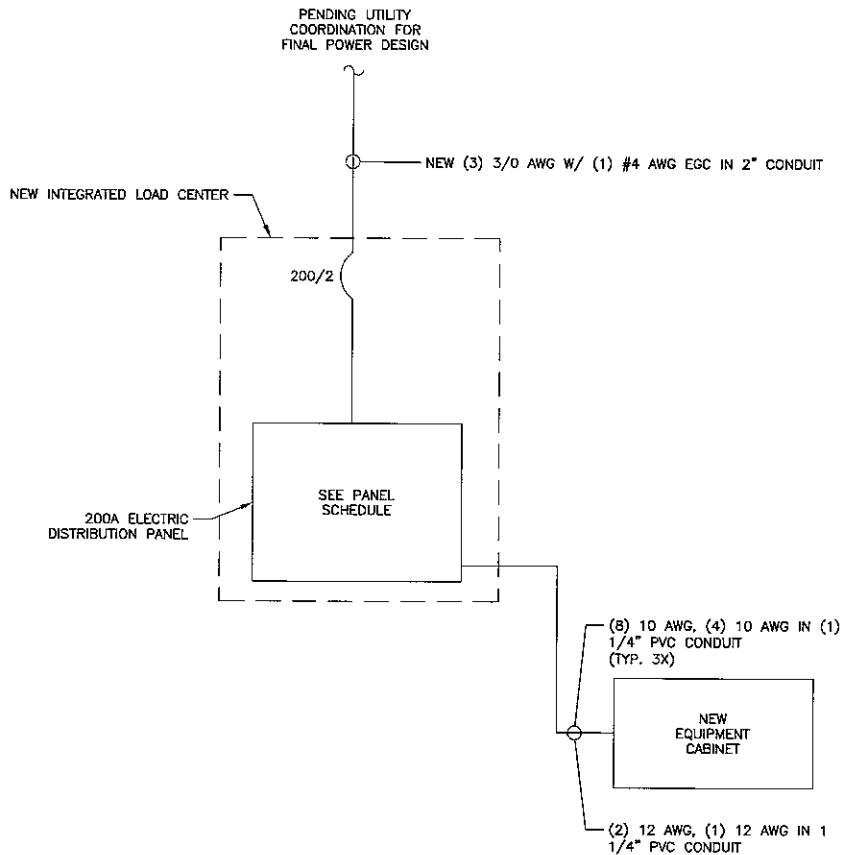


NOTES:

1. ALL NEW CONDUCTOR WIRE TO BE INSTALLED SHALL BE COPPER. ALL WIRE LARGER THAN #10 SHALL BE XHHW-2, THWN-2, THW-2, OR RHW-2 UNLESS NOTED OTHERWISE.
2. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. ALL GROUNDING AND BONDING PER THE NEC.

NEW UTILITY SERVICE NOTE:

NEW METER LOCATION TO BE DETERMINED BY THE UTILITY COMPANY. PENDING UTILITY COORDINATION FOR FINAL POWER DESIGN.



1 ONE LINE DIAGRAM
SCALE: NOT TO SCALE

VERIZON PANEL SCHEDULE

MAIN: 200 AMP MAIN BREAKER				VOLTAGE/PHASE: 120/240V, 1-PHASE, 3-WIRE				SHORT CIRCUIT CURRENT RATING: N/A			
MOUNTING: INSIDE ILC ENCLOSURE				ENCLOSURE: NEMA 3R				SURGE PROTECTION DEVICE: YES			
DESCRIPTION	LOAD (VA)	C or NC	C/B	CIR No.	LOAD (VA)		CIR No.	C/B	C or NC	LOAD (VA)	DESCRIPTION
					A-PHASE	B-PHASE					
RECTIFIER #1	1800	C	20	1	3600		2	20	C	1800	RECTIFIER #2
	1800	C		3		3600	4		C	1800	
RECTIFIER #3	1800	C	20	5	3600		6	20	C	1800	RECTIFIER #4
	1800	C		7		3600	8		C	1800	
RECTIFIER #5	1800	C	20	15	3600		10	20	C	1800	RECTIFIER #6
	1800	C		17		3600	12		C	1800	
RECTIFIER #7	1800	C	20	19	3600		14	20	C	1800	RECTIFIER #8
	1800	C		15		3600	16		C	1800	
SPACE				17	0		18				SPACE
SPACE				19		0	20				SPACE
SPACE				21	0		22				SPACE
SPACE				23		0	24				SPACE
SPACE				25	0		26				SPACE
SPACE				27		0	28				SPACE
SPACE				29	0		30				SPACE
GFCI W/ TIMER SWITCH	180	C	15	31		180	32				SPACE
SITE LIGHTS	125	NC	20	33	305		34	15	C	180	GFCI IN TELCO CAB
GENERATOR BLOCK HEATER	1500	NC	20	35		1750	36	20	NC	250	GENERATOR BATTERY CHARGER
BASE LOAD (VA) =					14705	16330	C = CONTINUOUS LOAD; NC = NON-CONTINUOUS LOAD				
25% OF CONTINUOUS LOAD (VA) =					3645	3645					
TOTAL LOAD (VA) =					18350	19975					
TOTAL LOAD (A) =					153	167					

2 PANEL SCHEDULE
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

POD

POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBRIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBRIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



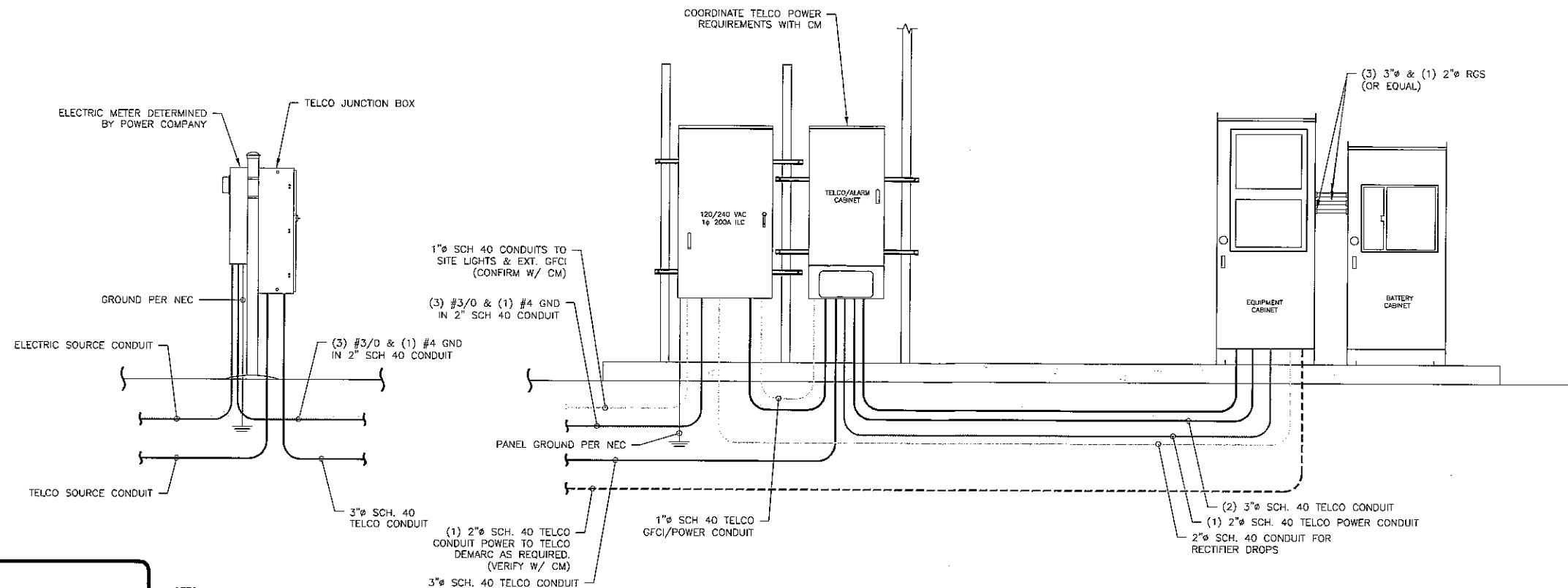
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER:

E-2

REVISION:

0



CONDUIT LEGEND:

DC POWER	_____
ALARM	_____
TELCO	_____
AC BRANCH	_____
AC FEED/SUPPLY	_____

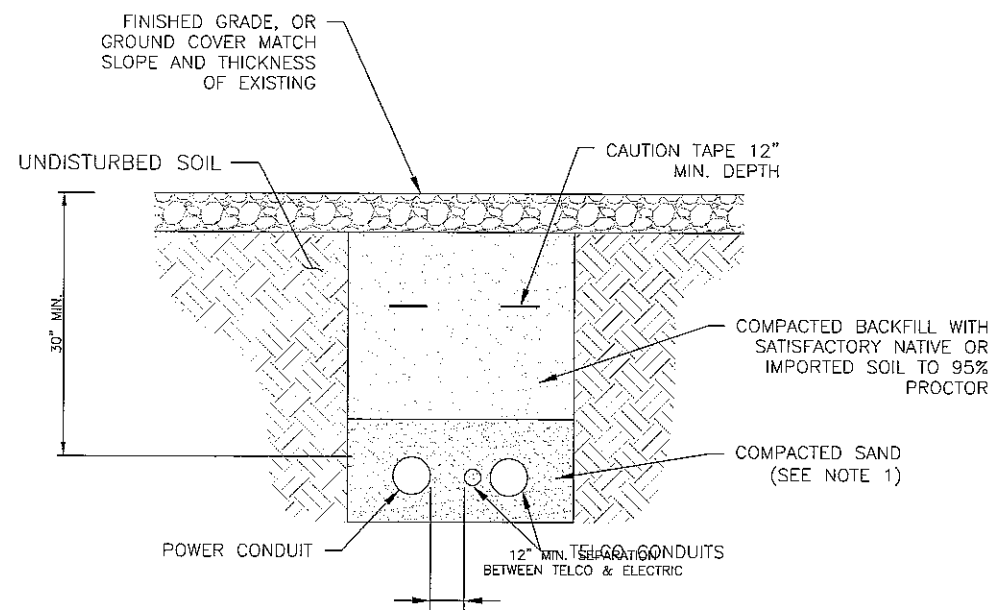
NOTES:

1. VERIFY WITH CM WHETHER BELOW GRADE OR AT GRADE CONDUIT ROUTING. PAINT ALL CONDUIT ON PAD SURFACE YELLOW.
2. CONTRACTOR SHALL VERIFY W/ CM ON TYPE OF ILC TO BE PROVIDED.
3. VERIFY ALL CONDUCTOR AND CONDUIT SIZES WITH FINAL EQUIPMENT.

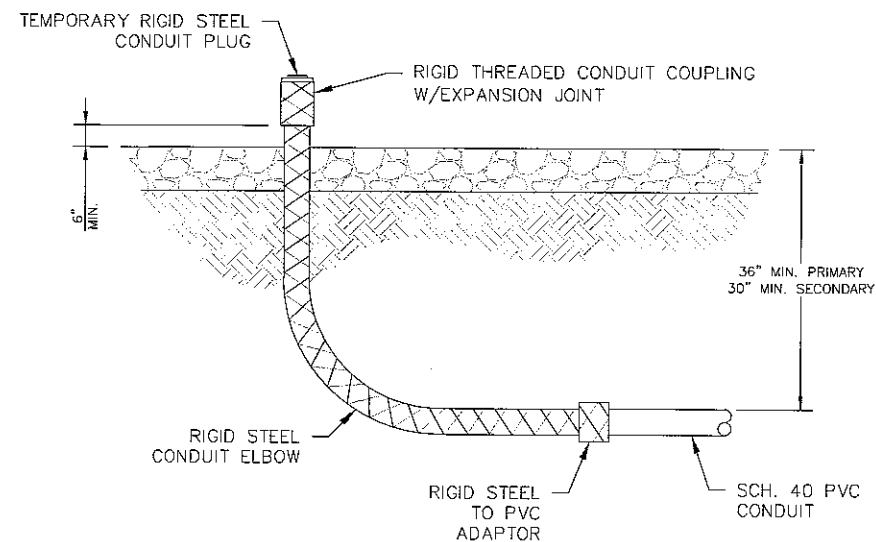
1 TYPICAL POWER RISER SCHEMATIC
SCALE: NOT TO SCALE

NOTE:

1. LEAN CONCRETE, RED-COLORED TOP, MAY BE USED IN PLACE OF COMPACTED SAND



2 SECONDARY TRENCH DETAIL
SCALE: NOT TO SCALE



3 CONDUIT STUB UP DETAIL
SCALE: NOT TO SCALE

verizon

CROWN
CASTLE

POD
POWER OF DESIGN

11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

BU #: 857526

CROWN CASTLE SITE NAME
WOODBRIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBRIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

SHEET NUMBER:

E-3

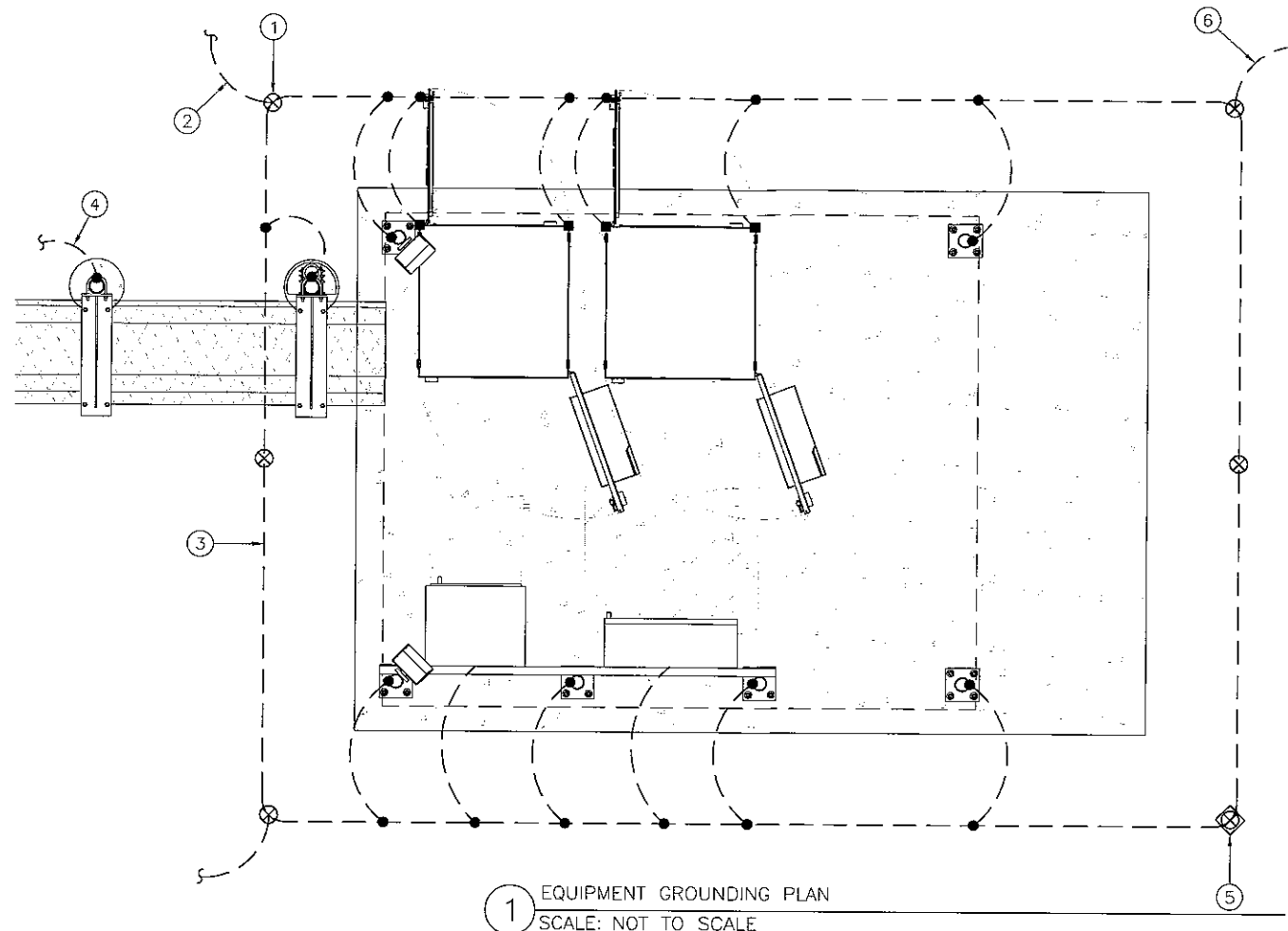
REVISION:

0

- ① 5/8"x8'-0" COPPER GROUND ROD (TYP)
- ② CAD WELD #2 BARE TINNED COPPER CONDUCTOR FROM EQUIPMENT PAD GROUND RING TO TOWER GROUND RING. TOWER GROUND RING TO BE FIELD LOCATED.
- ③ NEW EQUIPMENT PAD GROUND RING #2 COPPER CONDUCTOR—BARE TINNED BURIED.
- ④ CAD WELD #2 BARE TINNED COPPER CONDUCTOR FROM ICE BRIDGE TO EXISTING TOWER GROUND RING. TOWER GROUND RING TO BE FIELD LOCATED.
- ⑤ NEW INSPECTION WELL
RE: 3/G-2
- ⑥ CAD WELD #2 BARE TINNED COPPER CONDUCTOR TO NEAREST FENCE GROUND ROD. FENCE GROUND ROD TO BE FIELD LOCATED

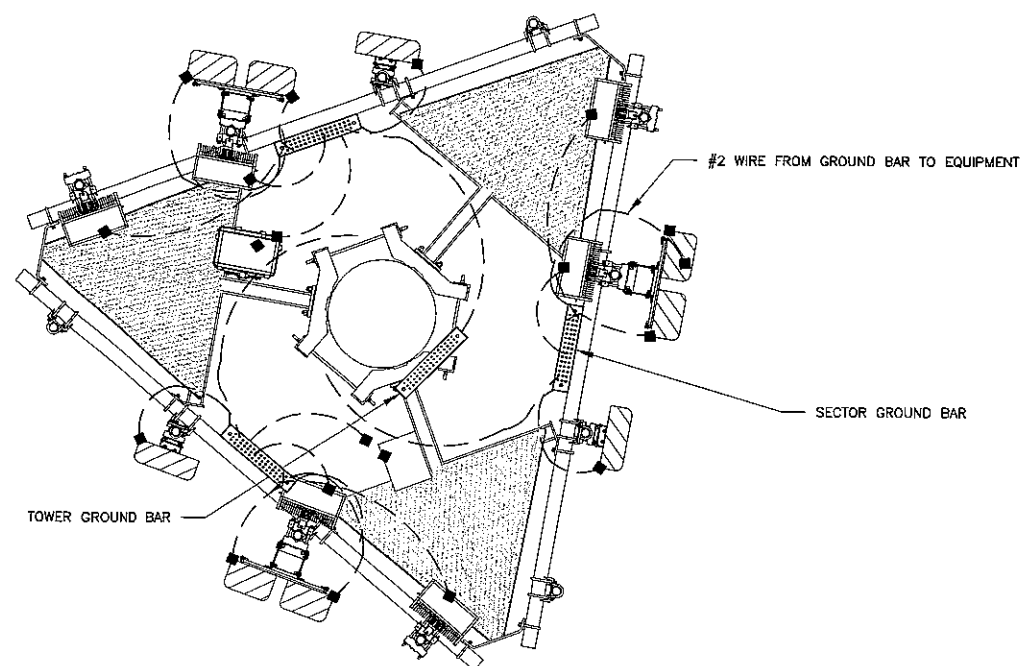
GROUNDING LEGEND SYMBOLS

- | | |
|---|--|
|  | INSPECTION WELL VERIFY LOCATION
WITH CONSTRUCTION MANAGER |
|  | 5/8"X10'-0" COPPER CLAD
GROUND ROD, 10' O.C. {TYP} |
|  | #6 AWG STRANDED & INSULATED |
|  | #2 AWG SOLID COPPER TINNED |
|  | GROUND BUS BAR |
|  | EXOTHERMIC WELD (CADWELD)
(UNLESS OTHERWISE NOTED) |
|  | MECHANICAL CONNECTION |



GROUNDING NOTES:

1. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE LATEST NATIONAL ELECTRIC CODE
2. ALL GROUNDING SERVICES SHALL BE UL APPROVED OR LISTED FOR THEIR INTENDED USE
3. ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE
4. GROUNDING CONNECTION TO GROUND RODS, GROUND RING WIRE, TOWER BASE, AND FENCE POSTS SHALL BE EXOTHERMIC (CADWELDS) UNLESS NOTED OTHERWISE CLEAN SURFACES TO SHINY METAL WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZING PAINT
5. GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO-HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET) CLEAN GROUND BAR TO SHINY METAL AFTER MECHANICAL CONNECTION, TREAT WITH PROTECTIVE ANTIOXIDANT COATING
6. GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS
7. ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS
8. INSTALL #2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND #2 BARE TINNED COPPER INSTALL WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED
9. REFER TO GROUNDING PLAN FOR GROUND BAR LOCATIONS GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE (CADWELDS) TO ANTENNA MOUNTS AND GROUND TRAIN, REMAINING GROUNDING CONNECTIONS SHALL BE COMPRESSION FITTINGS CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO-HOLE LUGS
10. THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS POSITION ACCORDING TO GROUND PLAN THE GROUND RODS SHALL BE 5/8"x10'-0" COPPER CLAD STEEL INTERCONNECTION WITH #2 BARE TINNED COPPER WIRE BURIED 36" BELOW GRADE BURY GROUND RODS A MAXIMUM OF 15' APART, AND A MINIMUM OF 8' APART
11. IF ROCK IS ENCOUNTERED GROUND RODS SHALL BE PLACED AT AN OBLIQUE ANGLE NOT TO EXCEED 45 DEG
12. EXOTHERMIC WELDS SHALL BE MADE IN ACCORDANCE WITH ERICO PRODUCTS BULLETIN A-AT
13. CONSTRUCTION OF GROUND RING AND CONNECTIONS TO EXISTING GROUND RING SYSTEM SHALL BE DOCUMENTED WITH PHOTOGRAPHS PRIOR TO BACKFILLING SITE, PROVIDE PHOTOS TO THE CONSTRUCTION MANAGER
14. ALL GROUND LUGS EXCEPT THOSE TO THE EQUIPMENT ARE TO BE #2 BARE TINNED COPPER WIRE ALL EXTERIOR GROUND BARS WILL BE TINNED COPPER
15. PRIOR TO INSTALLING LUGS ON GROUND WIRE, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUBE INC) PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR KOPR
16. ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT IMPEDANCE DOES NOT EXCEED FIVE OHMS TO GROUND BY MEANS OF "FALL OF POTENTIAL TEST" TEST SHALL BE WITNESSED BY AN AT&T REPRESENTATIVE AND RECORDED ON THE "GROUND RESISTANCE TEST" FORM
17. WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, WIRE IN 3/4" PVC SLEEVE, FROM 1" BELOW GRADE AND SEAL TOP WITH SILICONE MATERIAL
18. PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN SHINY METAL FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDATION PAINT
19. ANY SITE WHERE THE EQUIPMENT (BTS, CABLE BRIDGE, PPC, GENERATOR, ETC) IS LOCATED WITHIN 6 FEET OF METAL FENCING, THE GROUND RING SHALL BE BONDED TO THE NEAREST FENCE POST USING (3) RUNS OF #2 BARE TINNED COPPER WIRE
20. GROUNDING ELECTRODES SHALL BE CONNECTED IN A RING USING #2 SOLID CONDUCTOR. THE TOP OF THE GROUNDING RODS AND THE RING CONDUCTOR SHALL BE 6" (MIN) BELOW FINISHED GRADE. GROUNDING ELECTRODES SHALL BE DRIVEN ON 10'-0" CENTERS. (6'-0" MINIMUM; 16'-0" MAXIMUM).
21. BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER NATIONAL ELECTRIC CODE, ARTICLE 250.30.
22. INTERIOR GROUND BARS ARE TO BE BARE COPPER. EXTERIOR GROUND BARS ARE TO BE TINNED OR GALVANIZED COPPER.



3 ANTENNA GROUNDING PLAN
SCALE: NOT TO SCALE



VERIZON SITE NUMBER:
5000978813

BU #: 857526

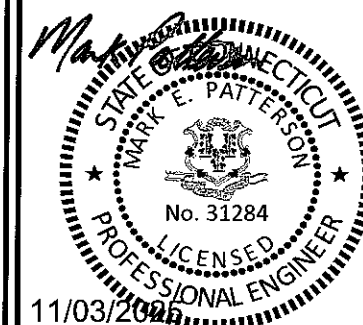
CROWN CASTLE SITE NAME
WOODBIDGE CT ROUTE
69

1990 LITCHFIELD
TURNPIKE
WOODBIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./Q
0	10/31/2025	AS	CONSTRUCTION	MEP



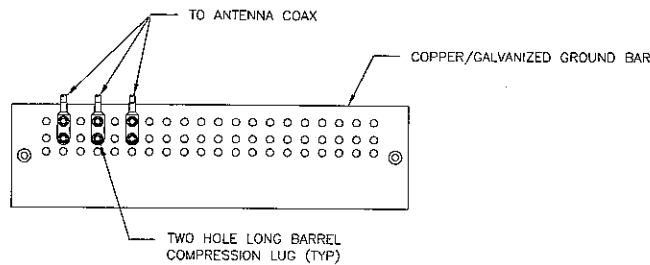
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER:

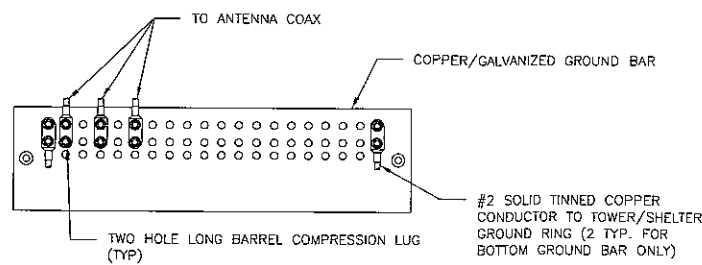
G-1

REVISION:

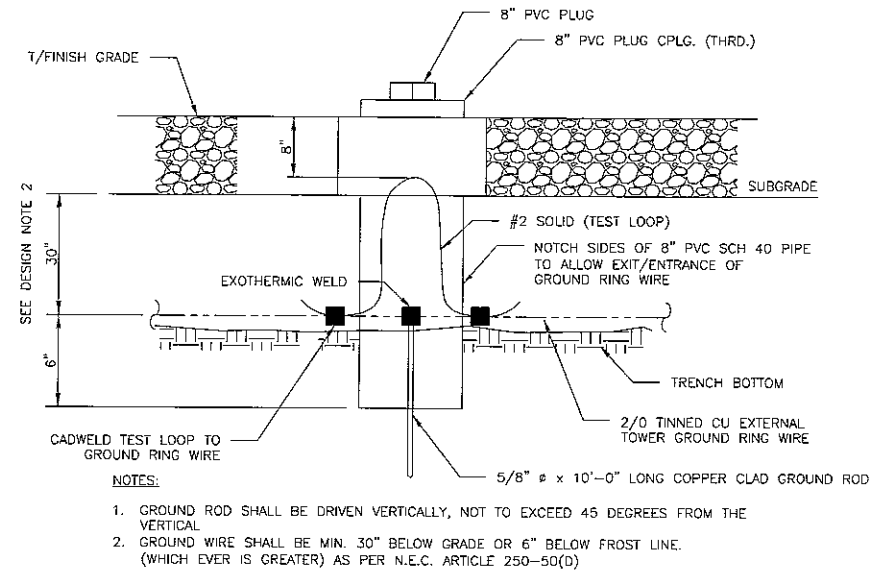
(



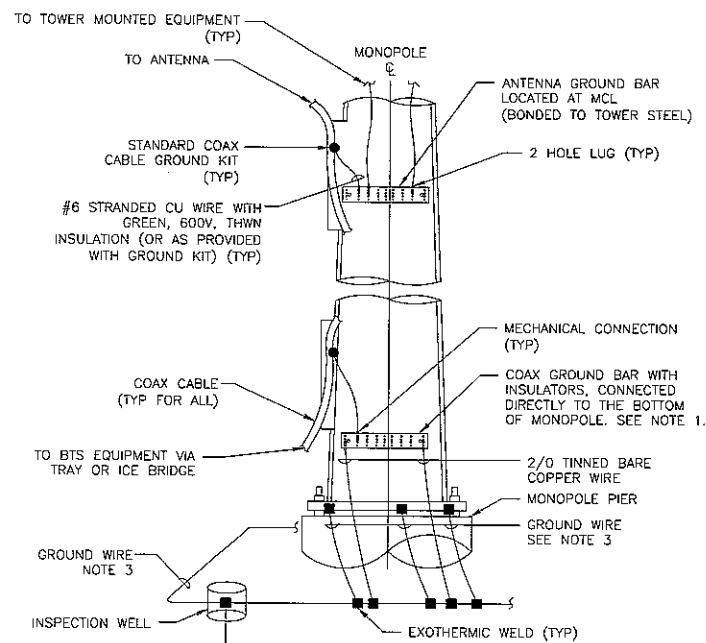
1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



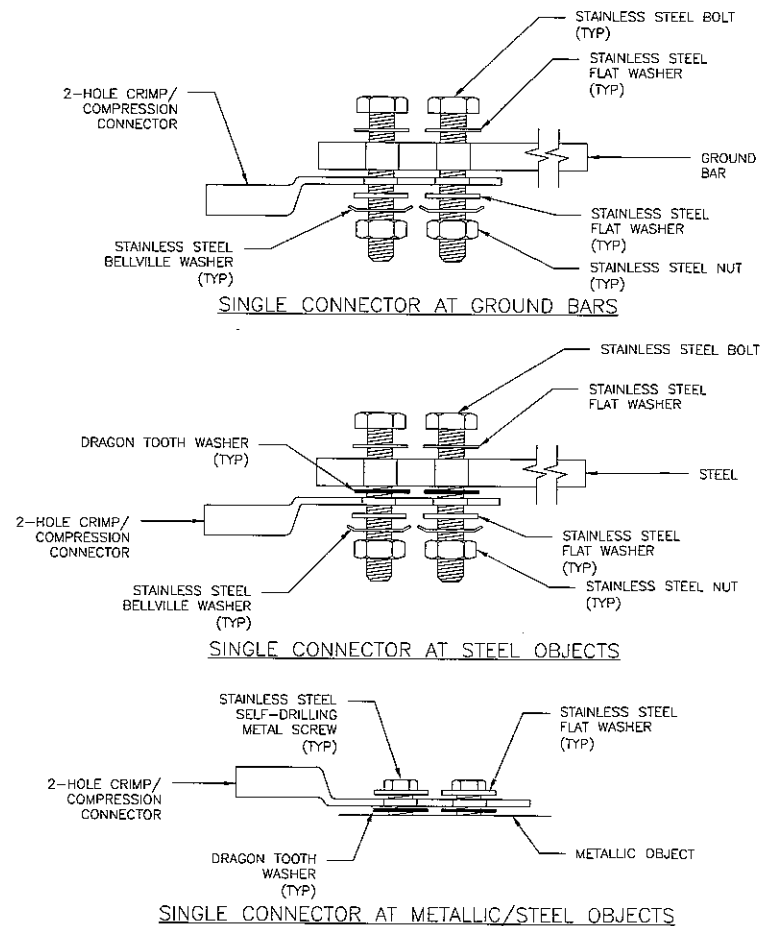
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



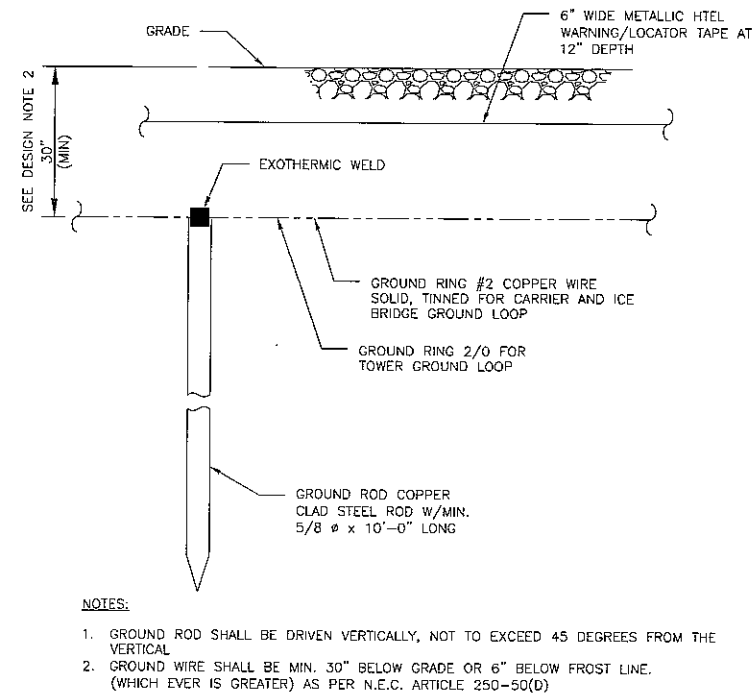
3 INSPECTION WELL DETAIL
SCALE: NOT TO SCALE



4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



6 GROUND ROD DETAIL
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

POD
POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

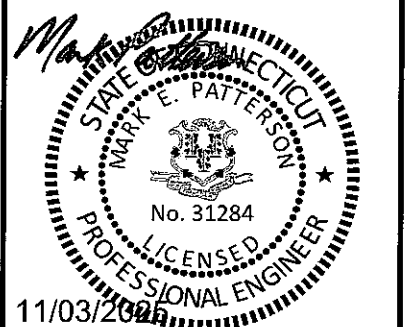
BU #: 857526

CROWN CASTLE SITE NAME
WOODBRIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBRIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

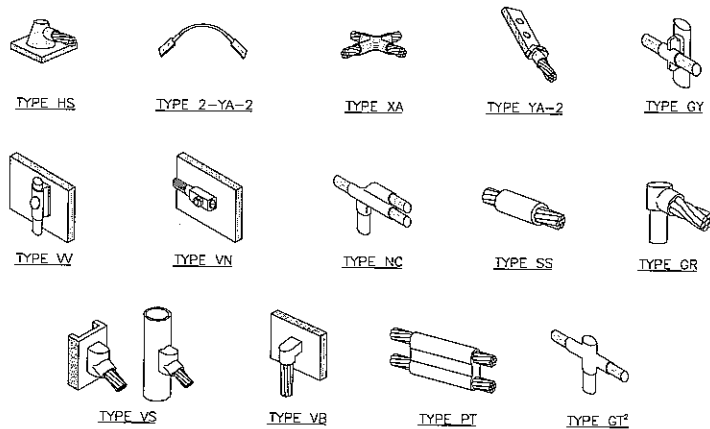
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

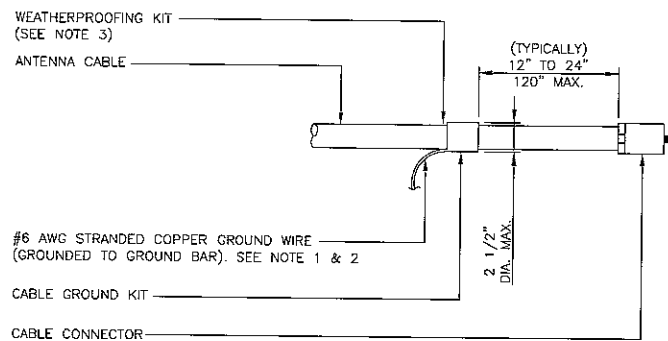
SHEET NUMBER:
G-2
REVISION:
0



NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

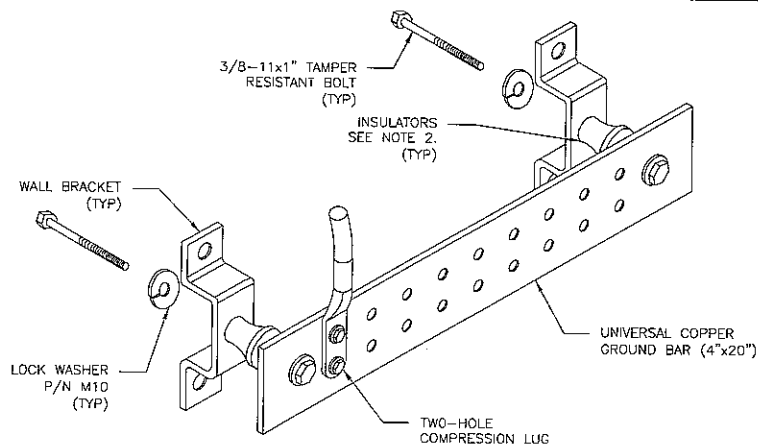
1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

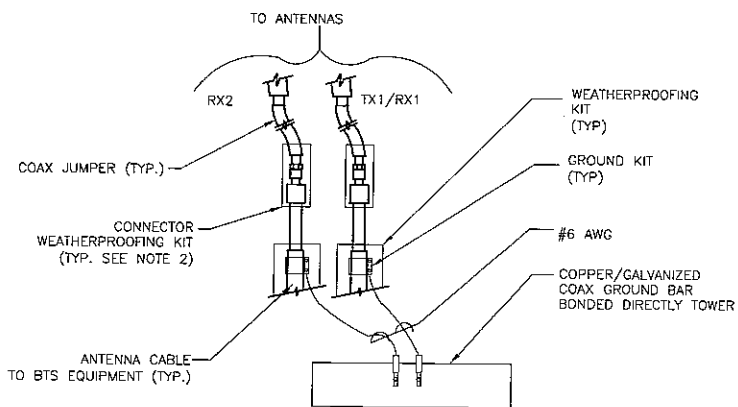
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STO-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

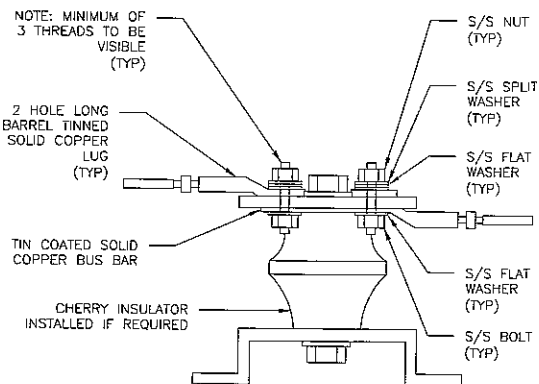
6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

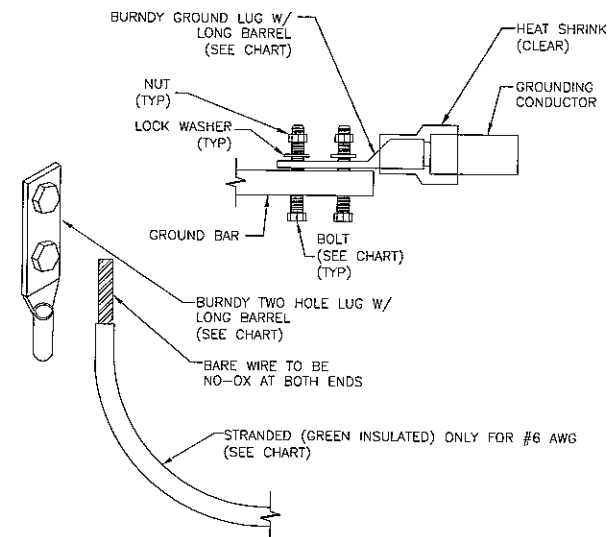
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

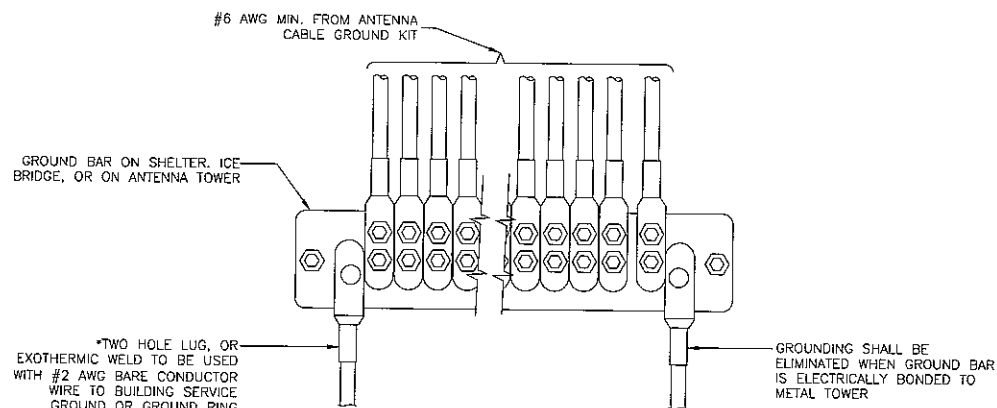
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



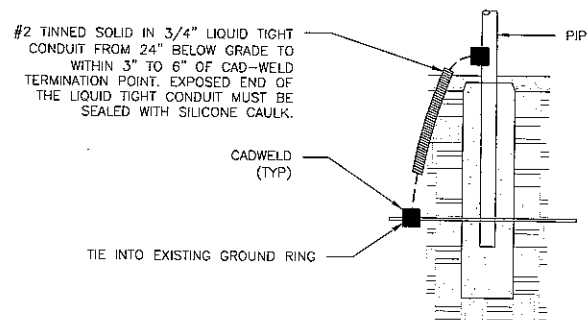
NOTES:

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

POD
POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

VERIZON SITE NUMBER:
5000978813

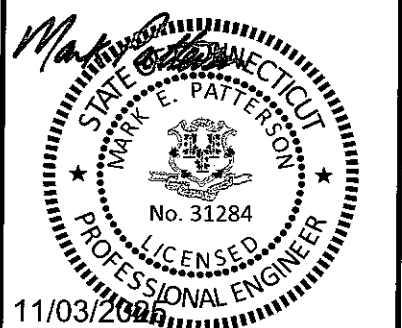
BU #: 857526

CROWN CASTLE SITE NAME
WOODBRIDGE CT ROUTE
69
1990 LITCHFIELD
TURNPIKE
WOODBRIDGE, CT 06525

EXISTING 170'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	10/31/2025	AS	CONSTRUCTION	MEP



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

SHEET NUMBER: G-3
REVISION: 0