



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

August 31, 2021

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

**RE: Notice of Exempt Modification // Site: PLAINFIELD CT (ATC: 302498)  
45 Spaulding Rd, Plainfield, CT 06374  
N 41.6317 // W 72.7299**

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains 12 antennas at the 114-ft level on the existing 150-foot monopole tower, located at 45 Spaulding Rd, Plainfield, CT. The tower is owned by American Tower. The property is also owned by T6 Unison Site Management LLC. The Council approved Verizon Wireless use of the existing tower in 2000. Verizon Wireless now intends to remove 9 antennas and install 9 new ones for the LTE (3700 MHz) replacements for its 5G upgrade. Additionally, Verizon Wireless will remove 6 Remote Radio Heads (RRHs) and install with 6 new RRHs, remove 6 Diplexers and replace with 3 Diplexers, remove 1 OVP and replace with 2 OVPs, remove (6) 1-5/8" Coax Cables and replace with (1) 1-5/8" hybridflex cable; altogether updating leased equipment rights, as reflected by the final configuration outlined in the structural analysis and proposed hereby.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Kevin Cunningham, First Selectman, its Town Planner, Mary Ann Chinatti, the tower owner, American Tower, and the property owner, T6 Unison Site Management, LLC.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). Enclosed to accommodate this filing are construction drawings dated August 10, 2021, by CLS Engineering, PLLC., a structural analysis dated May 4, 2021, by A.T. Engineering, PLLC., and a structural mount analysis by Maser Consulting Connecticut date June 24, 2021, and radio frequency (RF) analysis table showing worst-case RF emission calculation by Verizon Wireless RF Design Engineering.

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the new antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis by A.T. Engineering, PLLC, dated May 4, 2021, and a structural mount analysis by Maser Consulting Connecticut, dated June 24, 2021, pursuant to certain conditions defined therein. Design and engineering is fully illustrated within final construction drawings, signed and stamped dated August 10, 2021.

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

Sincerely,

*MJ Umali*

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Attachments

cc: Kevin Cunningham, First Selectman – Chief Elected Official  
Mary Ann Chinatti, Town Planner of Plainfield - as P&Z official  
American Tower Corporation - as tower owner  
T6 Unison Site Management LLC – Property Owner

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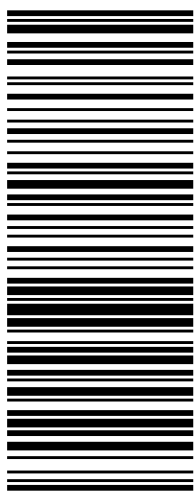

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<p><b>1 LBS</b></p> <p><b>1 OF 1</b></p> <p>MIJMAIL 9785687906 CENTERLINE COMMUNICATIONS, LLC 750 WEST CENTER STREET WEST BRIDGEWATER MA 02379</p> <p><b>SHIP TO:</b> KEVIN CUNNINGHAM &amp; MARY ANN CHINATTI PLAINFIELD TOWN HALL 8 COMMUNITY AVE <b>PLAINFIELD CT 06374-1238</b></p>	<p><b>CT 063 0-04</b></p> 	<p><b>UPS GROUND</b></p> <p>TRACKING #: 1Z 9Y4 503 03 1236 0638</p> 	<p><b>BILLING: P/P</b></p> <p>Reference # 1: 302498 Reference # 2: Plainfield CT 6 <small>CS2210.18 W/NTNV50 35.0A 08/2021*</small></p> 
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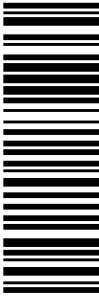
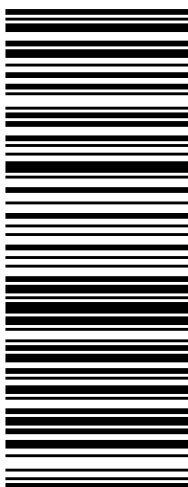

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<p style="text-align: right;"><b>1 OF 1</b></p> <p style="text-align: center;"><b>5 LBS</b></p> <p>SHIP TO:          LAND MANAGEMENT          7814287250          AMERICAN TOWER CORPORATION          10 PRESIDENTIAL WAY  <b>WOBURN MA 01801-1053</b></p> <p>MJ UMALT          9785667906          CENTERLINE COMMUNICATIONS, LLC          750 WEST CENTER STREET          WEST BRIDGEWATER MA 02379</p>	<p style="font-size: 2em; font-weight: bold;">MA 018 9-04</p> 	<p style="font-size: 1.5em; font-weight: bold;">UPS GROUND</p> <p>TRACKING #: 1Z 9Y4 503 03 3888 3267</p> 	<p style="text-align: center;">BILLING: P/P</p>  <p style="font-size: 0.8em;">CS 22.0.18. WNTNV50 33.0A 08/2021*</p>
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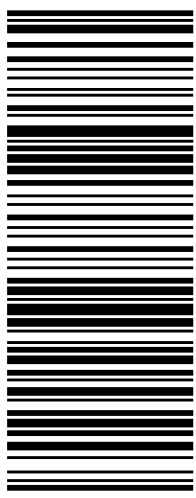
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**AMERICAN TOWER®**  
CORPORATION

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## Structural Analysis Report

**Structure** : 150 ft Monopole  
**ATC Site Name** : Plainfield CT 6, CT  
**ATC Asset Number** : 302498  
**Engineering Number** : 13668662\_C3\_01  
**Proposed Carrier** : VERIZON WIRELESS  
**Carrier Site Name** : PLAINFIELD CT  
**Carrier Site Number** : 468617  
**Site Location** : 45 Spaulding Road  
Plainfield, CT 06374-1824  
41.674800,-71.879100  
**County** : Windham  
**Date** : May 4, 2021  
**Max Usage** : 99%  
**Result** : Pass \*



Prepared By:  
Megan Engle  
Structural Engineer

Reviewed By:

*Megan Engle*

**COA: PEC.0001553**



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**Introduction**

The purpose of this report is to summarize results of a structural analysis performed on the 150 ft monopole to reflect the change in loading by VERIZON WIRELESS.

**Supporting Documents**

<b>Tower Drawings</b>	ITT Meyer 'Type B' Specification, ATT Spec AT-8935, dated April 13, 1984
<b>Foundation Drawing</b>	SNET Job #3C234, dated April 24, 1990
<b>Geotechnical Report</b>	GEOservices Project #21-07254, dated April 20, 2009
<b>Modifications</b>	ATC Project #48651233, dated May 8, 2012 Mount Mods by Infinigy Job #1009-Z003-B, dated July 15, 2020 ATC Job #13211930_C6_09, dated February 8, 2021*
<b>Inspection</b>	Infinigy Project #1009-Z003-B, dated July 1, 2020

\* The modifications by ATC Job #13211930\_C6\_09 are scheduled to be installed by June 6, 2021.

**Analysis**

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

<b>Basic Wind Speed:</b>	121 mph (3-Second Gust)
<b>Basic Wind Speed w/ Ice:</b>	49 mph (3-Second Gust) w/ 0.85" radial ice concurrent
<b>Code:</b>	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
<b>Exposure Category:</b>	B
<b>Risk Category:</b>	II
<b>Topographic Factor Procedure:</b>	Method 1
<b>Topographic Category:</b>	1
<b>Crest Height (H):</b>	0 ft
<b>Spectral Response:</b>	S <sub>s</sub> = 0.19, S <sub>1</sub> = 0.05
<b>Site Class:</b>	D - Stiff Soil

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

**Conclusion**

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report. If the pending modifications cited in the Supporting Documents table are not completed by the forecast date above, the results of this analysis are no longer valid, and VERIZON WIRELESS should contact American Tower’s Site Manager for further direction on how to proceed.

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





**Existing and Reserved Equipment**

Elev. <sup>1</sup> (ft)	Qty	Antenna	Mount Type	Lines	Carrier
154.0	6	Powerwave Allgon LGP21901	Platform with Handrails	(3) 0.39" (10mm) Fiber Trunk (6) 0.78" (19.7mm) 8 AWG 6 (6) 1 5/8" Coax (3) 2" conduit	AT&T MOBILITY
	6	Powerwave Allgon LGP21401			
	2	Raycap DC6-48-60-18-8F (23.5" Height)			
	3	Ericsson RRUS 8843 B2, B66A			
	3	Ericsson RRUS 4478 B14			
	3	Ericsson RRUS 4415 B30			
	3	Ericsson RRUS 4449 B5, B12			
	3	Powerwave Allgon 7770.00			
	3	CCI HPA65R-BU8A			
	3	CCI DMP65R-BU8D			
	3	CCI OPA65R-BU8D			
114.0	3	Amphenol Antel BXA-70080-4CF-EDIN-X	T-Arm	(6) 1 5/8" Coax (1) 1 5/8" Hybriflex	VERIZON WIRELESS

**Equipment to be Removed**

Elev. <sup>1</sup> (ft)	Qty	Antenna	Mount Type	Lines	Carrier
114.0	6	RFS FD9R6004/2C-3L (3.1 lbs)	-	(6) 1 5/8" Coax	VERIZON WIRELESS
	3	Alcatel-Lucent RRH2X60-1900			
	6	Commscope HBXX-6517DS-A2M			
	1	RFS DB-T1-6Z-8AB-OZ			
	3	Amphenol Antel BXA-70063-6CF-EDIN-X			
	3	Alcatel-Lucent RRH2X60-AWS Band 4			

**Proposed Equipment**

Elev. <sup>1</sup> (ft)	Qty	Antenna	Mount Type	Lines	Carrier
114.0	3	Commscope CBC1923Q-43	T-Arm	(1) 1 5/8" Hybriflex	VERIZON WIRELESS
	3	Samsung B5/B13 RRH-BR04C			
	3	Samsung B2/B66A RRH-BR049			
	2	Raycap RRFDC-3315-PF-48			
	3	Samsung MT6407-77A			
	6	Commscope JAHH-65B-R3B			

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

Install proposed lines inside the pole shaft.



**Structure Usages**

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	83%	Pass
Shaft	98%	Pass
Base Plate	56%	Pass
Flange Plate	99%	Pass
Reinforcement	76%	Pass

**Foundations**

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	2,407.3	93%
Axial (Kips)	38.8	46%
Shear (Kips)	24.1	27%

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

**Deflection and Sway\***

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
114.0	Commscope CBC1923Q-43	VERIZON WIRELESS	1.289	1.339
	Samsung B5/B13 RRH-BR04C			
	Samsung B2/B66A RRH-BR049			
	Raycap RRFDC-3315-PF-48			
	Samsung MT6407-77A			
	Commscope JAHH-65B-R3B			

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



## Standard Conditions

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

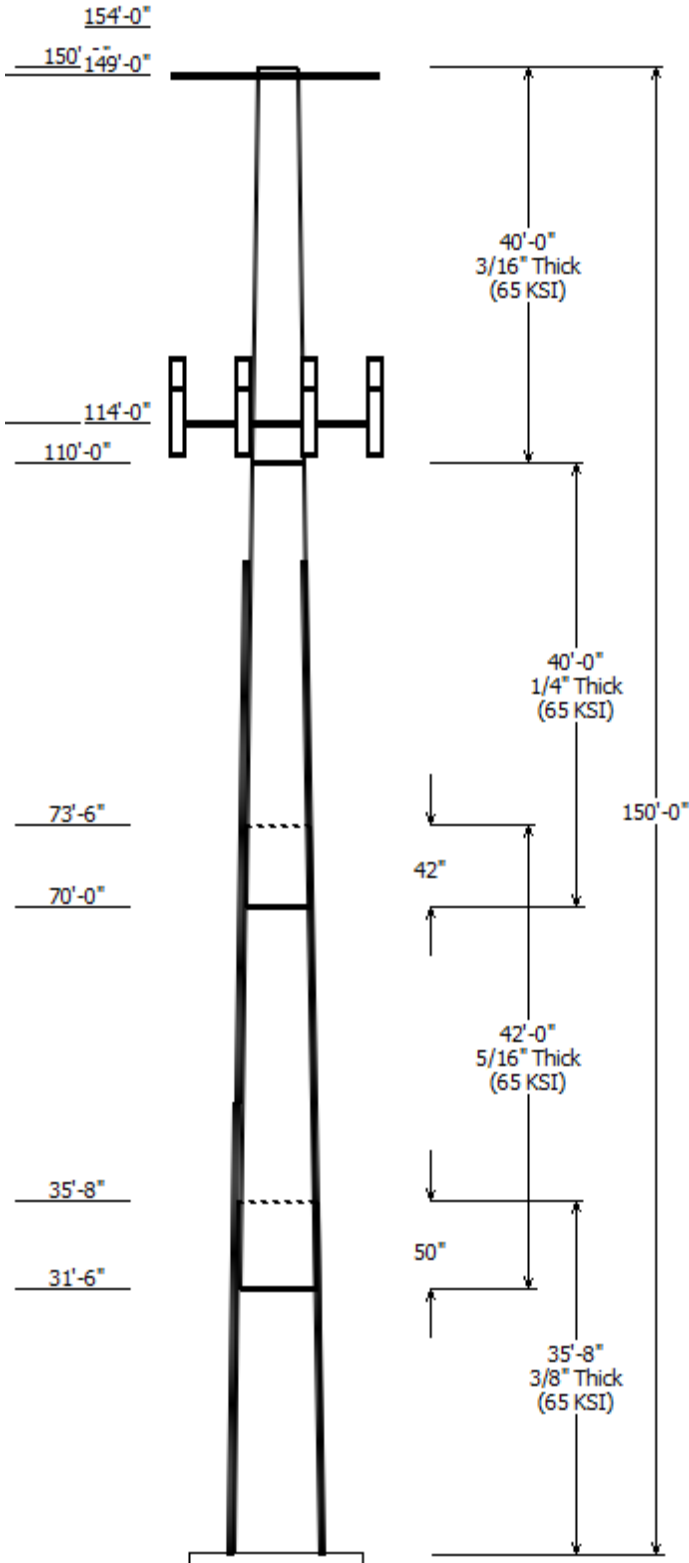
- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

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

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

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

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



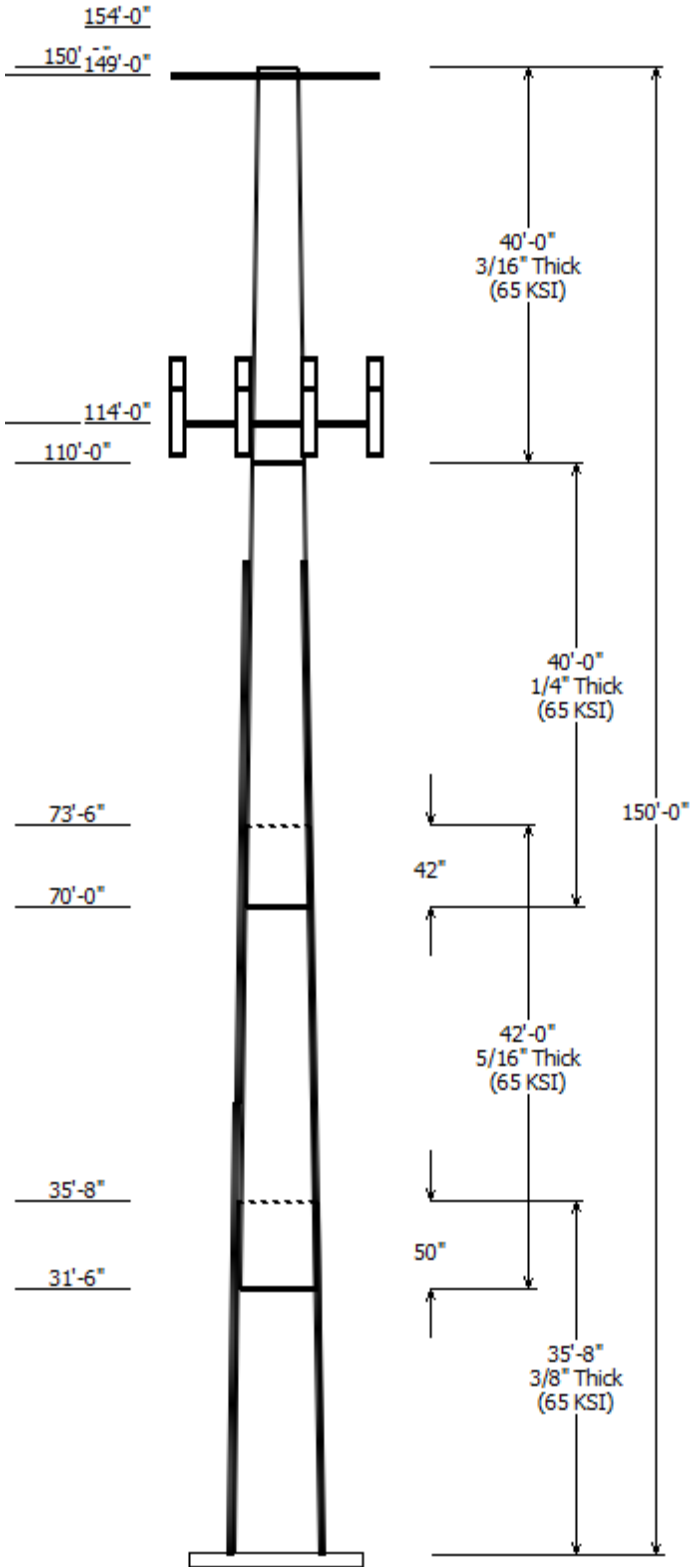
Job Information	
Client : VERIZON WIRELESS	Code: ANSI/TIA-222-H
Pole : 302498	
Location : Plainfield CT 6, CT	
Description : 150' ITT Meyer Type "B" Monopole	Risk Category : II
Shape : 12 Sides	Exposure : B
Height : 150.00 (ft)	Topo Method : Method 1
Base Elev (ft): 0.00	Topographic Category : 1
Taper: 0.156706(in/ft)	

Sections Properties							
Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Steel Grade (ksi)
		Top	Bottom				
1	35.667	31.79	37.38	0.375		0.000	12 Sides 65
2	42.000	26.48	33.06	0.313	Slip Joint	50.000	12 Sides 65
3	40.000	21.26	27.53	0.250	Slip Joint	42.000	12 Sides 65
4	40.000	14.99	21.26	0.188	Butt Joint	0.000	12 Sides 65

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
154.000	154.000	3	CCI OPA65R-BU8D
154.000	154.000	3	CCI DMP65R-BU8D
154.000	154.000	3	CCI HPA65R-BU8A
154.000	155.000	3	Powerwave Allgon 7770.00
154.000	154.000	3	Ericsson RRUS 4449 B5, B12
154.000	154.000	3	Ericsson RRUS 4415 B30
154.000	154.000	3	Ericsson RRUS 4478 B14
154.000	155.000	2	Raycap DC6-48-60-18-8F (23.5"
154.000	155.000	6	Powerwave Allgon LGP21401
154.000	155.000	6	Powerwave Allgon LGP21901
154.000	154.000	3	Ericsson RRUS 8843 B2, B66A
149.000	149.000	1	Platform w/ HRs w/ SitePro1
149.000	149.000	3	Flat Side Arm
114.000	114.000	3	Round T-Arms
114.000	114.000	6	Commscope JAHH-65B-R3B
114.000	114.000	3	Samsung MT6407-77A
114.000	117.000	3	Amphenol Antel BXA-70080-
114.000	114.000	2	Raycap RRFDC-3315-PF-48
114.000	114.000	3	Samsung B2/B66A RRH-BR049
114.000	114.000	3	Samsung B5/B13 RRH-BR04C
114.000	114.000	3	Commscope CBC1923Q-43

Linear Appurtenance			
From Elev (ft)	To Elev (ft)	Description	Exposed To Wind
5.000	114.0	1 5/8" Coax	No
5.000	114.0	1 5/8" Hybriflex	No
5.000	154.0	0.39" (10mm)	No
5.000	154.0	0.78" (19.7mm) 8	No
0.000	154.0	1 5/8" Coax	No
0.000	154.0	2" conduit	No
0.000	106.0	#20 w/ Angle	Yes
0.000	106.0	#20 w/ Angle	Yes
0.000	106.0	#20 w/ Angle	Yes
0.000	106.0	#20 w/ Angle	Yes
0.000	114.0	1 5/8" Hybriflex	No

Load Cases	
1.2D + 1.0W	121 mph with No Ice

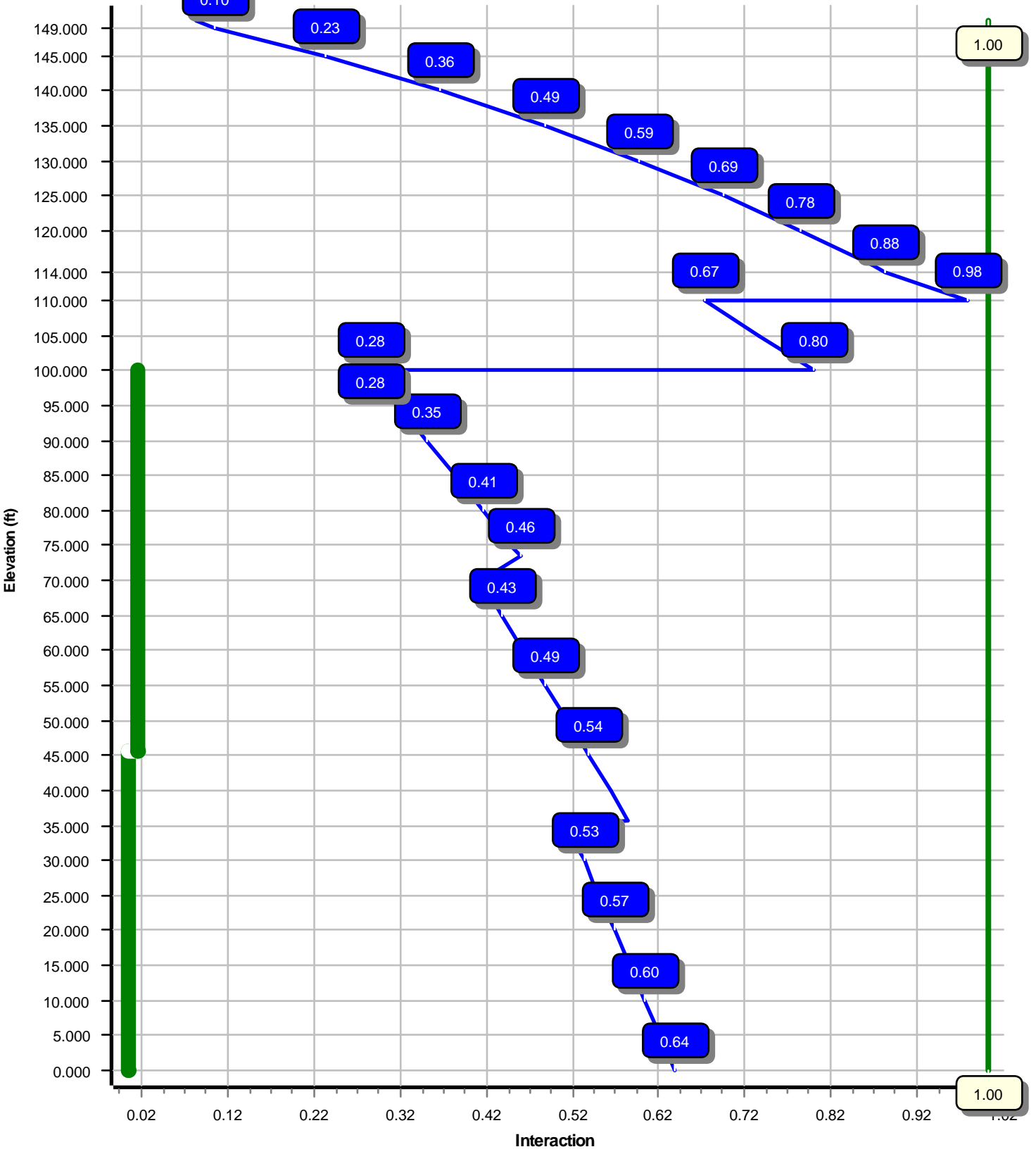


0.9D + 1.0W	121 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	49 mph with 0.85 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.0W	2407.26	24.13	38.77
0.9D + 1.0W	2369.78	24.11	29.07
1.2D + 1.0Di + 1.0Wi	485.36	4.43	48.28
1.2D + 1.0Ev + 1.0Eh	123.08	0.97	38.55
0.9D - 1.0Ev + 1.0Eh	120.61	0.97	26.74
1.0D + 1.0W	526.67	5.32	32.36

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

Load Case : 1.2D + 1.0W  
Max Ratio 97.62% at 110.0 ft



Site Number: 302498

Code: ANSI/TIA-222-H

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Site Name: Plainfield CT 6, CT

Engineering Number: 13668662\_C3\_01

5/4/2021 5:07:26 PM

Customer: VERIZON WIRELESS

Analysis Parameters

Location :	Windham County, CT	Height (ft) :	150
Code :	ANSI/TIA-222-H	Base Diameter (in) :	37.38
Shape :	12 Sides	Top Diameter (in) :	15.00
Pole Type :	Taper	Taper (in/ft) :	0.157
Pole Manufacturer :	ITT Meyer	Rotation (deg) :	0.00
Kd (non-service) :	0.95	Ke :	0.98

Ice & Wind Parameters

Exposure Category:	B	Design Wind Speed Without Ice:	121 mph
Risk Category:	II	Design Wind Speed With Ice:	49 mph
Topographic Factor Procedure:	Method 1	Operational Wind Speed:	60 mph
Topographic Category:	1	Design Ice Thickness:	0.85 in
Crest Height:	0 ft	HMSL:	560.00 ft

Seismic Parameters

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	2.75		
T <sub>L</sub> (sec):	6	p:	1
S <sub>s</sub> :	0.187	S <sub>1</sub> :	0.054
F <sub>a</sub> :	1.600	F <sub>v</sub> :	2.400
S <sub>ds</sub> :	0.199	S <sub>d1</sub> :	0.086
		C <sub>s</sub> :	0.030
		C <sub>s</sub> Max:	0.030
		C <sub>s</sub> Min:	0.030

Load Cases

1.2D + 1.0W	121 mph with No Ice
0.9D + 1.0W	121 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	49 mph with 0.85 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Site Number: 302498

Code: ANSI/TIA-222-H

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Site Name: Plainfield CT 6, CT

Engineering Number: 13668662\_C3\_01

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Customer: VERIZON WIRELESS

**Shaft Section Properties**

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Joint Len (in)	Weight (lb)	Bottom						Top						
							Dia (in)	Elev (ft)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Taper (in/ft)
1-12	35.667	0.3750	65		0.00	5,014	37.38	0.00	44.68	7810.1	24.03	99.68	31.79	35.67	37.93	4778.8	20.04	84.78	0.156706
2-12	42.000	0.3125	65	Slip	50.00	4,237	33.06	31.50	32.96	4514.1	25.67	105.82	26.48	73.50	26.34	2303.2	20.03	84.76	0.156706
3-12	40.000	0.2500	65	Slip	42.00	2,646	27.53	70.00	21.96	2087.3	26.83	110.14	21.26	110.00	16.92	953.9	20.11	85.07	0.156706
4-12	40.000	0.1875	65	Butt	0.00	1,475	21.26	110.00	12.73	721.8	27.71	113.43	14.99	150.00	8.94	250.4	18.76	79.99	0.156706
Shaft Weight						13,372													

**Discrete Appurtenance Properties**

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	Weight (lb)	No Ice EPAa (sf)	Orientation Factor	Weight (lb)	Ice EPAa (sf)	Orientation Factor
154.00	Powerwave Allgon LGP21901	6	0.75	1.000	5.50	0.200	0.50	9.86	0.381	0.50
154.00	Powerwave Allgon LGP21401	6	0.75	1.000	14.10	1.104	0.50	28.26	1.509	0.50
154.00	Raycap DC6-48-60-18-8F (23.5"	2	0.75	1.000	20.00	1.260	1.00	49.89	1.634	1.00
154.00	Ericsson RRUS 8843 B2, B66A	3	0.75	0.000	72.00	1.639	0.50	106.79	2.119	0.50
154.00	Ericsson RRUS 4478 B14	3	0.75	0.000	59.90	1.842	0.50	91.29	2.351	0.50
154.00	Ericsson RRUS 4415 B30	3	0.75	0.000	46.00	1.842	0.50	73.83	2.351	0.50
154.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	107.58	2.498	0.50
154.00	Powerwave Allgon 7770.00	3	0.75	1.000	35.00	5.508	0.65	104.16	6.087	0.65
154.00	CCI HPA65R-BU8A	3	0.75	0.000	54.00	11.230	0.71	185.86	13.060	0.71
154.00	CCI DMP65R-BU8D	3	0.75	0.000	95.70	17.871	0.63	288.63	19.963	0.63
154.00	CCI OPA65R-BU8D	3	0.75	0.000	76.50	18.089	0.63	272.23	20.185	0.63
149.00	Flat Side Arm	3	1.00	0.000	150.00	5.000	0.67	191.45	6.105	0.67
149.00	Platform w/ HRs w/ SitePro1 HRK	1	1.00	0.000	2,500.00	44.500	1.00	3,486.96	62.068	1.00
114.00	Commscope CBC1923Q-43	3	0.80	0.000	7.30	0.318	0.50	13.40	0.540	0.50
114.00	Samsung B5/B13 RRH-BR04C	3	0.80	0.000	70.30	1.875	0.50	101.85	2.373	0.50
114.00	Samsung B2/B66A RRH-BR049	3	0.80	0.000	84.40	1.875	0.50	119.58	2.373	0.50
114.00	Raycap RRFDC-3315-PF-48	2	0.80	0.000	26.90	2.512	0.67	70.83	3.086	0.67
114.00	Amphenol Antel BXA-70080-4CF-	3	0.80	3.000	12.00	3.570	0.72	59.92	4.589	0.72
114.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	137.81	5.547	0.61
114.00	Round T-Arms	3	0.75	0.000	250.00	8.000	0.67	365.26	11.750	0.67
114.00	Commscope JAHH-65B-R3B	6	0.80	0.000	60.60	9.113	0.69	172.17	10.643	0.69
Totals	Num Loadings:21	68			6,572.10			11,649.07		

**Linear Appurtenance Properties**

Load Case Azimuth (deg) : 0

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Max Coax / Flat Row	Dist Between Rows (in)	Dist Between Cols (in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind Carrier
0.00	154.00	6	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	N AT&T MOBILITY
0.00	154.00	3	2" conduit	2.38	3.65	N	0	0.00	0.00	0	N AT&T MOBILITY
5.00	154.00	3	0.39" (10mm) Fiber	0.39	0.06	N	0	0.00	0.00	0	N AT&T MOBILITY
5.00	154.00	6	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0.00	0.00	0	N AT&T MOBILITY
0.00	114.00	1	1 5/8" Hybriflex	1.98	1.30	N	0	0.00	0.00	0	N VERIZON WIRELESS
5.00	114.00	6	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	N VERIZON WIRELESS
5.00	114.00	1	1 5/8" Hybriflex	1.98	1.30	N	0	0.00	0.00	0	N VERIZON WIRELESS
0.00	106.00	1	#20 w/ Angle Brackets	4.00	4.68	N	1	0.00	0.00	180	Y
0.00	106.00	1	#20 w/ Angle Brackets	4.00	4.68	N	1	0.00	0.00	0	Y
0.00	106.00	1	#20 w/ Angle Brackets	4.00	4.68	N	1	0.00	0.00	90	Y
0.00	106.00	1	#20 w/ Angle Brackets	4.00	4.68	N	1	0.00	0.00	270	Y



Site Number: 302498

Code: ANSI/TIA-222-H

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Site Name: Plainfield CT 6, CT

Engineering Number: 13668662\_C3\_01

5/4/2021 5:07:26 PM

Customer: VERIZON WIRELESS

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	<del>Intermediate Connections</del>			Connectors	Continuation?
						Description	Spacing (in)	Len (in)		
0.00	45.50	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	No
45.50	100.0	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	Yes

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	F'y (ksi)	S (in <sup>3</sup> )	Z (in <sup>3</sup> )	Weight (lb)	Additional Reinforcing		
												Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	Weight (lb)
0.00		0.3750	37.380	44.684	7,810.1	24.03	99.68	78.5	403.6	0.0	0.0	19.64	4,816	0.0
5.00		0.3750	36.596	43.737	7,324.4	23.47	97.59	79.1	386.6	0.0	752.2	19.64	4,648	334.0
10.00		0.3750	35.813	42.791	6,859.3	22.91	95.50	79.7	370.0	0.0	736.1	19.64	4,482	334.0
15.00		0.3750	35.029	41.845	6,414.3	22.35	93.41	80.3	353.7	0.0	720.0	19.64	4,319	334.0
20.00		0.3750	34.246	40.899	5,989.0	21.79	91.32	80.9	337.8	0.0	703.9	19.64	4,159	334.0
25.00		0.3750	33.462	39.953	5,582.9	21.23	89.23	81.6	322.3	0.0	687.8	19.64	4,003	334.0
30.00		0.3750	32.679	39.007	5,195.6	20.67	87.14	81.9	307.1	0.0	671.7	19.64	3,849	334.0
31.50	Bot - Section 2	0.3750	32.444	38.723	5,083.0	20.50	86.52	81.9	302.7	0.0	198.4	19.64	3,804	100.2
35.00		0.3750	31.895	38.061	4,826.6	20.11	85.05	81.9	292.3	0.0	846.5	19.64	3,818	233.8
35.67	Top - Section 1	0.3125	32.416	32.304	4,249.5	25.12	103.73	77.3	253.3	0.0	159.6	19.64	3,798	44.5
40.00		0.3125	31.737	31.621	3,985.5	24.53	101.56	78.0	242.6	0.0	471.3	19.64	3,668	289.5
45.00		0.3125	30.953	30.832	3,694.8	23.86	99.05	78.7	230.6	0.0	531.3	19.64	3,521	334.0
45.50	Reinf. Top Reinf	0.3125	30.875	30.753	3,666.5	23.79	98.80	78.8	229.4	0.0	52.4	19.64	3,507	33.4
50.00		0.3125	30.170	30.044	3,418.5	23.19	96.54	79.4	218.9	0.0	465.5	19.64	3,377	300.6
55.00		0.3125	29.386	29.255	3,156.4	22.52	94.04	80.2	207.5	0.0	504.5	19.64	3,236	334.0
60.00		0.3125	28.603	28.467	2,908.0	21.85	91.53	80.9	196.4	0.0	491.0	19.64	3,098	334.0
65.00		0.3125	27.819	27.679	2,673.0	21.17	89.02	81.6	185.6	0.0	477.6	19.64	2,963	334.0
70.00	Bot - Section 3	0.3125	27.036	26.890	2,451.0	20.50	86.51	81.9	175.1	0.0	464.2	19.64	2,831	334.0
73.50	Top - Section 2	0.2500	26.987	21.523	1,963.9	26.25	107.95	76.1	140.6	0.0	575.9	19.64	2,823	233.8
75.00		0.2500	26.752	21.334	1,912.6	25.99	107.01	76.4	138.1	0.0	109.4	19.64	2,784	100.2
80.00		0.2500	25.968	20.703	1,747.9	25.15	103.87	77.3	130.0	0.0	357.6	19.64	2,656	334.0
85.00		0.2500	25.185	20.073	1,593.0	24.31	100.74	78.2	122.2	0.0	346.9	19.64	2,531	334.0
90.00		0.2500	24.401	19.442	1,447.5	23.47	97.61	79.1	114.6	0.0	336.1	19.64	2,410	334.0
95.00		0.2500	23.618	18.811	1,311.1	22.63	94.47	80.0	107.2	0.0	325.4	19.64	2,291	334.0
100.0		0.2500	22.834	18.180	1,183.6	21.79	91.34	80.9	100.1	0.0	314.7	19.64	2,175	334.0
100.0	Reinf. Top	0.2500	22.822	18.170	1,181.6	21.78	91.29	81.0	100.0	0.0	4.9	19.64	2,173	5.3
105.0		0.2500	22.051	17.550	1,064.6	20.95	88.20	81.9	93.3	0.0	299.0			
110.0	Top - Section 3	0.2500	21.267	16.919	953.9	20.11	85.07	81.9	86.7	0.0	293.2			
110.0	Bot - Section 4	0.1875	21.267	12.727	721.8	27.71	113.43	74.5	65.6	0.0				
114.0		0.1875	20.640	12.348	659.3	26.82	110.08	75.5	61.7	0.0	170.7			
115.0		0.1875	20.484	12.254	644.3	26.59	109.25	75.7	60.8	0.0	41.9			
120.0		0.1875	19.700	11.781	572.5	25.47	105.07	76.9	56.1	0.0	204.5			
125.0		0.1875	18.917	11.308	506.3	24.35	100.89	78.2	51.7	0.0	196.4			
130.0		0.1875	18.133	10.835	445.4	23.23	96.71	79.4	47.4	0.0	188.4			
135.0		0.1875	17.350	10.362	389.5	22.11	92.53	80.6	43.4	0.0	180.3			
140.0		0.1875	16.566	9.889	338.6	20.99	88.35	81.8	39.5	0.0	172.3			
145.0		0.1875	15.783	9.416	292.3	19.87	84.17	81.9	35.8	0.0	164.2			
149.0		0.1875	15.156	9.037	258.4	18.98	80.83	81.9	32.9	0.0	125.6			
150.0		0.1875	14.999	8.942	250.4	18.76	79.99	81.9	32.3	0.0	30.6			
											13,371.9			6,685.3

**Load Case:** 1.2D + 1.0W

121 mph with No Ice

27 Iterations

Gust Response Factor :1.10

Dead Load Factor :1.20

Wind Load Factor :1.00

**Applied Segment Forces Summary**

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		256.6	0.0					0.0	0.0	256.6	0.0	0.0	0.0
5.00		507.8	902.6					107.2	616.1	615.0	1,518.8	0.0	0.0
10.00		496.9	883.3					107.2	675.8	604.1	1,559.1	0.0	0.0
15.00		486.0	864.0					107.2	675.8	593.3	1,539.8	0.0	0.0
20.00		475.2	844.7					107.2	675.8	582.4	1,520.5	0.0	0.0
25.00		464.3	825.4					107.2	675.8	571.5	1,501.1	0.0	0.0
30.00		297.7	806.0					107.2	675.8	405.0	1,481.8	0.0	0.0
31.50	Bot - Section 2	232.5	238.0					32.4	202.7	264.9	440.8	0.0	0.0
35.00		195.6	1,015.8					77.4	473.0	273.0	1,488.8	0.0	0.0
35.67	Top - Section 1	237.8	191.5					15.0	90.1	252.7	281.6	0.0	0.0
40.00		446.7	565.6					99.4	585.7	546.0	1,151.2	0.0	0.0
45.00		264.6	637.5					118.5	675.8	383.1	1,313.3	0.0	0.0
45.50	Reinf. Top Reinf	242.0	62.9					12.1	67.6	254.0	130.4	0.0	0.0
50.00		460.4	558.6					110.3	608.2	570.7	1,166.8	0.0	0.0
55.00		485.1	605.3					125.9	675.8	611.0	1,281.1	0.0	0.0
60.00		484.0	589.2					129.2	675.8	613.3	1,265.0	0.0	0.0
65.00		481.7	573.2					132.3	675.8	614.0	1,248.9	0.0	0.0
70.00	Bot - Section 3	410.1	557.1					135.3	675.8	545.4	1,232.8	0.0	0.0
73.50	Top - Section 2	242.5	691.1					96.4	473.0	338.9	1,164.2	0.0	0.0
75.00		312.6	131.3					41.7	202.7	354.3	334.0	0.0	0.0
80.00		477.2	429.1					140.7	675.8	617.9	1,104.9	0.0	0.0
85.00		470.8	416.3					143.3	675.8	614.1	1,092.0	0.0	0.0
90.00		463.7	403.4					145.7	675.8	609.4	1,079.2	0.0	0.0
95.00		455.8	390.5					147.3	675.8	603.1	1,066.3	0.0	0.0
100.00		229.4	377.6					148.4	675.8	377.8	1,053.4	0.0	0.0
100.08	Reinf. Top	221.4	5.9					2.4	10.8	223.7	16.8	0.0	0.0
105.00		434.4	358.8					147.0	270.6	581.4	629.4	0.0	0.0
110.00	Top - Section 3	350.8	351.9					150.5	185.1	501.3	537.0	0.0	0.0
114.00	Appurtenance(s)	167.4	204.8	2,472.1	0.0	732.5	2,321.0	0.0	130.1	2,639.5	2,656.0	0.0	0.0
115.00		196.3	50.2					0.0	23.5	196.3	73.7	0.0	0.0
120.00		321.8	245.4					0.0	117.5	321.8	362.9	0.0	0.0
125.00		312.6	235.7					0.0	117.5	312.6	353.2	0.0	0.0
130.00		303.0	226.0					0.0	117.5	303.0	343.6	0.0	0.0
135.00		293.1	216.4					0.0	117.5	293.1	333.9	0.0	0.0
140.00		282.8	206.7					0.0	117.5	282.8	324.3	0.0	0.0
145.00		245.9	197.1					0.0	117.5	245.9	314.6	0.0	0.0
149.00	Appurtenance(s)	133.3	150.7	2,313.4	0.0	0.0	3,540.0	0.0	94.0	2,446.8	3,784.7	0.0	0.0
150.00		26.2	36.7					0.0	23.5	26.2	60.2	0.0	0.0
Totals:										20,445.8	36,806.1	0.00	0.00

**Load Case: 1.2D + 1.0W**

121 mph with No Ice

27 Iterations

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

**Calculated Forces**

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-38.77	-24.13	0.00	-2,407.26	0.00	2,407.26	3,157.17	784.20	2,737.77	2,376.61	0.00	0.00	0.636
5.00	-37.15	-23.69	0.00	-2,286.59	0.00	2,286.59	3,114.35	767.59	2,623.10	2,294.24	0.14	-0.26	0.619
10.00	-35.49	-23.24	0.00	-2,168.15	0.00	2,168.15	3,070.50	750.99	2,510.88	2,212.51	0.56	-0.53	0.602
15.00	-33.85	-22.78	0.00	-2,051.97	0.00	2,051.97	3,025.61	734.38	2,401.12	2,131.45	1.26	-0.79	0.584
20.00	-32.24	-22.32	0.00	-1,938.06	0.00	1,938.06	2,979.67	717.78	2,293.81	2,051.12	2.23	-1.06	0.566
25.00	-30.65	-21.86	0.00	-1,826.44	0.00	1,826.44	2,932.70	701.17	2,188.95	1,971.58	3.48	-1.32	0.548
30.00	-29.11	-21.51	0.00	-1,717.13	0.00	1,717.13	2,875.19	684.57	2,086.54	1,886.63	5.01	-1.58	0.531
31.50	-28.63	-21.30	0.00	-1,684.87	0.00	1,684.87	2,854.27	679.59	2,056.30	1,859.12	5.52	-1.67	0.526
35.00	-27.11	-21.03	0.00	-1,610.34	0.00	1,610.34	2,805.46	667.97	1,986.59	1,795.71	6.81	-1.85	0.508
35.67	-26.79	-20.83	0.00	-1,596.32	0.00	1,596.32	2,248.06	566.93	1,717.05	1,468.68	7.07	-1.88	0.583
40.00	-25.57	-20.35	0.00	-1,506.07	0.00	1,506.07	2,218.58	554.94	1,645.20	1,418.47	8.88	-2.11	0.561
45.00	-24.22	-19.98	0.00	-1,404.30	0.00	1,404.30	2,183.59	541.11	1,564.21	1,360.95	11.23	-2.38	0.536
45.50	-24.05	-19.78	0.00	-1,394.31	0.00	1,394.31	2,180.04	539.72	1,556.22	1,355.22	11.48	-2.41	0.534
45.50	-24.05	-19.78	0.00	-1,394.31	0.00	1,394.31	2,180.04	539.72	1,556.22	1,355.22	11.48	-2.41	0.534
50.00	-22.83	-19.26	0.00	-1,305.31	0.00	1,305.31	2,147.57	527.27	1,485.26	1,303.92	13.87	-2.65	0.511
55.00	-21.49	-18.68	0.00	-1,209.02	0.00	1,209.02	2,110.50	513.43	1,408.36	1,247.44	16.78	-2.91	0.486
60.00	-20.18	-18.09	0.00	-1,115.61	0.00	1,115.61	2,072.40	499.59	1,333.50	1,191.56	19.97	-3.17	0.460
65.00	-18.90	-17.49	0.00	-1,025.13	0.00	1,025.13	2,033.25	485.76	1,260.68	1,136.32	23.42	-3.42	0.435
70.00	-17.64	-16.94	0.00	-937.67	0.00	937.67	1,982.07	471.92	1,189.91	1,075.81	27.14	-3.67	0.411
73.50	-16.46	-16.56	0.00	-878.40	0.00	878.40	1,473.95	377.73	952.77	802.29	29.89	-3.84	0.457
75.00	-16.11	-16.23	0.00	-853.57	0.00	853.57	1,466.27	374.41	936.10	791.03	31.11	-3.91	0.447
80.00	-14.98	-15.59	0.00	-772.44	0.00	772.44	1,439.98	363.34	881.58	753.67	35.34	-4.16	0.414
85.00	-13.88	-14.96	0.00	-694.47	0.00	694.47	1,412.66	352.27	828.70	716.63	39.82	-4.40	0.381
90.00	-12.80	-14.31	0.00	-619.68	0.00	619.68	1,384.30	341.21	777.46	679.95	44.54	-4.62	0.348
95.00	-11.73	-13.67	0.00	-548.11	0.00	548.11	1,354.89	330.14	727.85	643.70	49.49	-4.84	0.316
100.00	-10.69	-13.22	0.00	-479.77	0.00	479.77	1,324.45	319.07	679.87	607.91	54.66	-5.04	0.284
100.08	-10.68	-13.01	0.00	-478.71	0.00	478.71	1,323.95	318.89	679.12	607.34	54.75	-5.04	0.283
100.08	-10.68	-13.01	0.00	-478.71	0.00	478.71	1,323.95	318.89	679.12	607.34	54.75	-5.04	0.798
105.00	-10.02	-12.44	0.00	-414.69	0.00	414.69	1,292.97	308.00	633.54	572.65	60.04	-5.23	0.734
110.00	-9.44	-11.96	0.00	-352.49	0.00	352.49	1,247.09	296.93	588.83	532.25	65.79	-5.74	0.671
110.00	-9.44	-11.96	0.00	-352.49	0.00	352.49	853.22	223.36	444.16	366.32	65.79	-5.74	0.976
114.00	-7.04	-9.10	0.00	-303.90	0.00	303.90	838.71	216.72	418.15	349.29	70.76	-6.14	0.880
115.00	-6.92	-8.94	0.00	-294.81	0.00	294.81	834.98	215.06	411.77	345.05	72.06	-6.26	0.864
120.00	-6.51	-8.64	0.00	-250.12	0.00	250.12	815.69	206.75	380.60	323.94	78.93	-6.87	0.782
125.00	-6.12	-8.35	0.00	-206.90	0.00	206.90	795.37	198.45	350.66	303.07	86.41	-7.43	0.692
130.00	-5.75	-8.05	0.00	-165.16	0.00	165.16	774.00	190.15	321.94	282.47	94.45	-7.96	0.594
135.00	-5.41	-7.75	0.00	-124.91	0.00	124.91	751.60	181.85	294.45	262.19	103.01	-8.42	0.485
140.00	-5.09	-7.46	0.00	-86.14	0.00	86.14	728.15	173.54	268.19	242.29	112.01	-8.80	0.364
145.00	-4.79	-7.18	0.00	-48.86	0.00	48.86	694.02	165.24	243.15	219.76	121.36	-9.09	0.231
149.00	-1.44	-4.16	0.00	-20.13	0.00	20.13	666.12	158.60	224.01	202.35	129.01	-9.22	0.102
150.00	0.00	-3.88	0.00	-15.97	0.00	15.97	659.15	156.94	219.34	198.11	130.93	-9.24	0.081

<b>Load Case:</b> 0.9D + 1.0W	121 mph with No Ice (Reduced DL)	26 Iterations
Gust Response Factor :1.10		
Dead Load Factor :0.90		
Wind Load Factor :1.00		

**Applied Segment Forces Summary**

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		256.6	0.0					0.0	0.0	256.6	0.0	0.0	0.0
5.00		507.8	677.0					107.2	462.1	615.0	1,139.1	0.0	0.0
10.00		496.9	662.5					107.2	506.8	604.1	1,169.3	0.0	0.0
15.00		486.0	648.0					107.2	506.8	593.3	1,154.8	0.0	0.0
20.00		475.2	633.5					107.2	506.8	582.4	1,140.3	0.0	0.0
25.00		464.3	619.0					107.2	506.8	571.5	1,125.9	0.0	0.0
30.00		297.7	604.5					107.2	506.8	405.0	1,111.4	0.0	0.0
31.50	Bot - Section 2	232.5	178.5					32.4	152.1	264.9	330.6	0.0	0.0
35.00		195.6	761.9					77.4	354.8	273.0	1,116.6	0.0	0.0
35.67	Top - Section 1	237.8	143.6					15.0	67.6	252.7	211.2	0.0	0.0
40.00		446.7	424.2					99.4	439.3	546.0	863.4	0.0	0.0
45.00		264.6	478.2					118.5	506.8	383.1	985.0	0.0	0.0
45.50	Reinf. Top Reinf	242.0	47.2					12.1	50.7	254.0	97.8	0.0	0.0
50.00		460.4	418.9					110.3	456.1	570.7	875.1	0.0	0.0
55.00		485.1	454.0					125.9	506.8	611.0	960.8	0.0	0.0
60.00		484.0	441.9					129.2	506.8	613.3	948.8	0.0	0.0
65.00		481.7	429.9					132.3	506.8	614.0	936.7	0.0	0.0
70.00	Bot - Section 3	410.1	417.8					135.3	506.8	545.4	924.6	0.0	0.0
73.50	Top - Section 2	242.5	518.3					96.4	354.8	338.9	873.1	0.0	0.0
75.00		312.6	98.4					41.7	152.0	354.3	250.5	0.0	0.0
80.00		477.2	321.8					140.7	506.8	617.9	828.7	0.0	0.0
85.00		470.8	312.2					143.3	506.8	614.1	819.0	0.0	0.0
90.00		463.7	302.5					145.7	506.8	609.4	809.4	0.0	0.0
95.00		455.8	292.9					147.3	506.8	603.1	799.7	0.0	0.0
100.00		229.4	283.2					148.4	506.8	377.8	790.0	0.0	0.0
100.08	Reinf. Top	221.4	4.5					2.4	8.1	223.7	12.6	0.0	0.0
105.00		434.4	269.1					147.0	202.9	581.4	472.0	0.0	0.0
110.00	Top - Section 3	350.8	263.9					150.5	138.8	501.3	402.7	0.0	0.0
114.00	Appurtenance(s)	167.4	153.6	2,472.1	0.0	732.5	1,740.8	0.0	97.6	2,639.5	1,992.0	0.0	0.0
115.00		196.3	37.7					0.0	17.6	196.3	55.3	0.0	0.0
120.00		321.8	184.0					0.0	88.2	321.8	272.2	0.0	0.0
125.00		312.6	176.8					0.0	88.2	312.6	264.9	0.0	0.0
130.00		303.0	169.5					0.0	88.2	303.0	257.7	0.0	0.0
135.00		293.1	162.3					0.0	88.2	293.1	250.4	0.0	0.0
140.00		282.8	155.0					0.0	88.2	282.8	243.2	0.0	0.0
145.00		245.9	147.8					0.0	88.2	245.9	236.0	0.0	0.0
149.00	Appurtenance(s)	133.3	113.0	2,313.4	0.0	0.0	2,655.0	0.0	70.5	2,446.8	2,838.5	0.0	0.0
150.00		26.2	27.5					0.0	17.6	26.2	45.2	0.0	0.0
<b>Totals:</b>										20,445.8	27,604.6	0.00	0.00

**Load Case: 0.9D + 1.0W**

121 mph with No Ice (Reduced DL)

26 Iterations

Gust Response Factor :1.10

Dead Load Factor :0.90

Wind Load Factor :1.00

**Calculated Forces**

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-29.07	-24.11	0.00	-2,369.78	0.00	2,369.78	3,157.17	784.20	2,737.77	2,376.61	0.00	0.00	0.624
5.00	-27.82	-23.62	0.00	-2,249.23	0.00	2,249.23	3,114.35	767.59	2,623.10	2,294.24	0.14	-0.26	0.607
10.00	-26.55	-23.13	0.00	-2,131.14	0.00	2,131.14	3,070.50	750.99	2,510.88	2,212.51	0.55	-0.52	0.589
15.00	-25.30	-22.64	0.00	-2,015.51	0.00	2,015.51	3,025.61	734.38	2,401.12	2,131.45	1.24	-0.78	0.572
20.00	-24.07	-22.14	0.00	-1,902.33	0.00	1,902.33	2,979.67	717.78	2,293.81	2,051.12	2.19	-1.04	0.554
25.00	-22.86	-21.65	0.00	-1,791.61	0.00	1,791.61	2,932.70	701.17	2,188.95	1,971.58	3.42	-1.30	0.535
30.00	-21.70	-21.28	0.00	-1,683.34	0.00	1,683.34	2,875.19	684.57	2,086.54	1,886.63	4.92	-1.56	0.519
31.50	-21.33	-21.06	0.00	-1,651.42	0.00	1,651.42	2,854.27	679.59	2,056.30	1,859.12	5.42	-1.64	0.514
35.00	-20.18	-20.79	0.00	-1,577.71	0.00	1,577.71	2,805.46	667.97	1,986.59	1,795.71	6.69	-1.82	0.496
35.67	-19.93	-20.57	0.00	-1,563.85	0.00	1,563.85	2,248.06	566.93	1,717.05	1,468.68	6.95	-1.85	0.569
40.00	-19.00	-20.08	0.00	-1,474.69	0.00	1,474.69	2,218.58	554.94	1,645.20	1,418.47	8.73	-2.07	0.548
45.00	-17.98	-19.70	0.00	-1,374.29	0.00	1,374.29	2,183.59	541.11	1,564.21	1,360.95	11.04	-2.33	0.523
45.50	-17.85	-19.49	0.00	-1,364.44	0.00	1,364.44	2,180.04	539.72	1,556.22	1,355.22	11.28	-2.36	0.521
45.50	-17.85	-19.49	0.00	-1,364.44	0.00	1,364.44	2,180.04	539.72	1,556.22	1,355.22	11.28	-2.36	0.521
50.00	-16.92	-18.95	0.00	-1,276.75	0.00	1,276.75	2,147.57	527.27	1,485.26	1,303.92	13.62	-2.60	0.499
55.00	-15.91	-18.37	0.00	-1,181.98	0.00	1,181.98	2,110.50	513.43	1,408.36	1,247.44	16.48	-2.85	0.474
60.00	-14.91	-17.77	0.00	-1,090.14	0.00	1,090.14	2,072.40	499.59	1,333.50	1,191.56	19.60	-3.11	0.448
65.00	-13.94	-17.17	0.00	-1,001.28	0.00	1,001.28	2,033.25	485.76	1,260.68	1,136.32	22.99	-3.35	0.423
70.00	-12.99	-16.61	0.00	-915.45	0.00	915.45	1,982.07	471.92	1,189.91	1,075.81	26.63	-3.60	0.400
73.50	-12.11	-16.24	0.00	-857.31	0.00	857.31	1,473.95	377.73	952.77	802.29	29.33	-3.76	0.445
75.00	-11.84	-15.90	0.00	-832.95	0.00	832.95	1,466.27	374.41	936.10	791.03	30.52	-3.83	0.435
80.00	-10.99	-15.28	0.00	-753.43	0.00	753.43	1,439.98	363.34	881.58	753.67	34.66	-4.07	0.402
85.00	-10.16	-14.64	0.00	-677.05	0.00	677.05	1,412.66	352.27	828.70	716.63	39.05	-4.30	0.370
90.00	-9.35	-14.01	0.00	-603.83	0.00	603.83	1,384.30	341.21	777.46	679.95	43.68	-4.53	0.338
95.00	-8.55	-13.37	0.00	-533.78	0.00	533.78	1,354.89	330.14	727.85	643.70	48.52	-4.74	0.307
100.00	-7.78	-12.94	0.00	-466.91	0.00	466.91	1,324.45	319.07	679.87	607.91	53.59	-4.93	0.275
100.08	-7.76	-12.73	0.00	-465.87	0.00	465.87	1,323.95	318.89	679.12	607.34	53.67	-4.94	0.275
100.08	-7.76	-12.73	0.00	-465.87	0.00	465.87	1,323.95	318.89	679.12	607.34	53.67	-4.94	0.775
105.00	-7.27	-12.16	0.00	-403.22	0.00	403.22	1,292.97	308.00	633.54	572.65	58.85	-5.12	0.711
110.00	-6.83	-11.67	0.00	-342.44	0.00	342.44	1,247.09	296.93	588.83	532.25	64.47	-5.62	0.650
110.00	-6.83	-11.67	0.00	-342.44	0.00	342.44	853.22	223.36	444.16	366.32	64.47	-5.62	0.946
114.00	-5.07	-8.87	0.00	-295.02	0.00	295.02	838.71	216.72	418.15	349.29	69.33	-6.00	0.852
115.00	-4.99	-8.70	0.00	-286.15	0.00	286.15	834.98	215.06	411.77	345.05	70.60	-6.12	0.837
120.00	-4.67	-8.39	0.00	-242.66	0.00	242.66	815.69	206.75	380.60	323.94	77.31	-6.71	0.756
125.00	-4.37	-8.09	0.00	-200.69	0.00	200.69	795.37	198.45	350.66	303.07	84.61	-7.26	0.669
130.00	-4.09	-7.79	0.00	-160.23	0.00	160.23	774.00	190.15	321.94	282.47	92.47	-7.76	0.574
135.00	-3.83	-7.50	0.00	-121.26	0.00	121.26	751.60	181.85	294.45	262.19	100.82	-8.21	0.469
140.00	-3.59	-7.20	0.00	-83.79	0.00	83.79	728.15	173.54	268.19	242.29	109.60	-8.59	0.352
145.00	-3.37	-6.93	0.00	-47.78	0.00	47.78	694.02	165.24	243.15	219.76	118.72	-8.86	0.224
149.00	-0.94	-4.08	0.00	-20.04	0.00	20.04	666.12	158.60	224.01	202.35	126.18	-9.00	0.101
150.00	0.00	-3.88	0.00	-15.97	0.00	15.97	659.15	156.94	219.34	198.11	128.06	-9.02	0.081

<b>Load Case:</b> 1.2D + 1.0Di + 1.0Wi	49 mph with 0.85 in Radial Ice	25 Iterations
Gust Response Factor :1.10	Ice Dead Load Factor :1.00	
Dead Load Factor :1.20		Ice Importance Factor :1.00
Wind Load Factor :1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		43.5	0.0					0.0	0.0	43.5	0.0	0.0	0.0
5.00		86.5	1,061.1					0.0	650.9	86.5	1,712.0	0.0	0.0
10.00		85.4	1,056.8					0.0	714.9	85.4	1,771.7	0.0	0.0
15.00		84.1	1,042.9					0.0	717.1	84.1	1,760.0	0.0	0.0
20.00		82.8	1,025.8					0.0	718.7	82.8	1,744.4	0.0	0.0
25.00		81.5	1,007.0					0.0	719.8	81.5	1,726.8	0.0	0.0
30.00		52.5	987.2					0.0	720.8	52.5	1,708.0	0.0	0.0
31.50	Bot - Section 2	41.2	292.6					0.0	216.4	41.2	509.1	0.0	0.0
35.00		34.8	1,144.5					0.0	505.2	34.8	1,649.7	0.0	0.0
35.67	Top - Section 1	42.3	216.1					0.0	96.3	42.3	312.4	0.0	0.0
40.00		79.8	723.2					0.0	626.1	79.8	1,349.3	0.0	0.0
45.00		47.4	817.2					0.0	723.0	47.4	1,540.2	0.0	0.0
45.50	Reinf. Top Reinf	43.7	80.9					0.0	72.3	43.7	153.2	0.0	0.0
50.00		83.6	718.2					0.0	651.3	83.6	1,369.5	0.0	0.0
55.00		88.8	779.9					0.0	724.1	88.8	1,504.0	0.0	0.0
60.00		89.3	760.9					0.0	724.6	89.3	1,485.5	0.0	0.0
65.00		89.7	741.7					7.5	725.1	97.2	1,466.7	0.0	0.0
70.00	Bot - Section 3	77.0	722.3					15.0	725.5	92.0	1,447.8	0.0	0.0
73.50	Top - Section 2	45.7	807.3					13.8	508.1	59.5	1,315.4	0.0	0.0
75.00		59.2	180.8					5.8	217.8	65.0	398.6	0.0	0.0
80.00		91.0	590.3					22.5	726.3	113.6	1,316.6	0.0	0.0
85.00		90.8	573.8					26.9	726.6	117.7	1,300.4	0.0	0.0
90.00		90.4	557.1					30.9	726.9	121.3	1,284.0	0.0	0.0
95.00		89.3	540.3					34.6	727.3	123.9	1,267.6	0.0	0.0
100.00		44.9	523.4					38.1	727.6	83.0	1,251.0	0.0	0.0
100.08	Reinf. Top	43.4	8.3					0.6	11.6	44.0	19.9	0.0	0.0
105.00		85.1	498.3					40.6	321.8	125.8	820.1	0.0	0.0
110.00	Top - Section 3	72.5	489.5					8.9	195.6	81.3	685.1	0.0	0.0
114.00	Appurtenance(s)	37.4	312.2	502.8	0.0	153.1	3,529.7	0.0	130.1	540.2	3,972.0	0.0	0.0
115.00		44.0	77.0					0.0	23.5	44.0	100.5	0.0	0.0
120.00		72.3	374.4					0.0	117.5	72.3	492.0	0.0	0.0
125.00		70.6	360.4					0.0	117.5	70.6	477.9	0.0	0.0
130.00		68.7	346.3					0.0	117.5	68.7	463.9	0.0	0.0
135.00		66.7	332.2					0.0	117.5	66.7	449.7	0.0	0.0
140.00		64.7	318.0					0.0	117.5	64.7	435.6	0.0	0.0
145.00		56.6	303.8					0.0	117.5	56.6	421.3	0.0	0.0
149.00	Appurtenance(s)	30.8	233.1	512.5	0.0	0.0	4,369.8	0.0	94.0	543.3	4,697.0	0.0	0.0
150.00		6.1	57.2					0.0	23.5	6.1	80.7	0.0	0.0
								Totals:		3,724.92	44,459.5	0.00	0.00

<b>Load Case:</b> 1.2D + 1.0Di + 1.0Wi	49 mph with 0.85 in Radial Ice	25 Iterations
Gust Response Factor :1.10	Ice Dead Load Factor :1.00	
Dead Load Factor :1.20		Ice Importance Factor :1.00
Wind Load Factor :1.00		

**Calculated Forces**

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-48.28	-4.43	0.00	-485.36	0.00	485.36	3,157.17	784.20	2,737.77	2,376.61	0.00	0.00	0.137
5.00	-46.56	-4.38	0.00	-463.23	0.00	463.23	3,114.35	767.59	2,623.10	2,294.24	0.03	-0.05	0.134
10.00	-44.79	-4.34	0.00	-441.32	0.00	441.32	3,070.50	750.99	2,510.88	2,212.51	0.11	-0.11	0.131
15.00	-43.02	-4.29	0.00	-419.63	0.00	419.63	3,025.61	734.38	2,401.12	2,131.45	0.25	-0.16	0.127
20.00	-41.27	-4.24	0.00	-398.19	0.00	398.19	2,979.67	717.78	2,293.81	2,051.12	0.45	-0.22	0.124
25.00	-39.54	-4.19	0.00	-376.99	0.00	376.99	2,932.70	701.17	2,188.95	1,971.58	0.71	-0.27	0.120
30.00	-37.83	-4.15	0.00	-356.05	0.00	356.05	2,875.19	684.57	2,086.54	1,886.63	1.02	-0.32	0.117
31.50	-37.32	-4.12	0.00	-349.82	0.00	349.82	2,854.27	679.59	2,056.30	1,859.12	1.12	-0.34	0.116
35.00	-35.67	-4.09	0.00	-335.39	0.00	335.39	2,805.46	667.97	1,986.59	1,795.71	1.39	-0.38	0.113
35.67	-35.36	-4.07	0.00	-332.66	0.00	332.66	2,248.06	566.93	1,717.05	1,468.68	1.44	-0.39	0.129
40.00	-34.00	-4.01	0.00	-315.04	0.00	315.04	2,218.58	554.94	1,645.20	1,418.47	1.81	-0.43	0.125
45.00	-32.46	-3.96	0.00	-295.01	0.00	295.01	2,183.59	541.11	1,564.21	1,360.95	2.30	-0.49	0.120
45.50	-32.31	-3.94	0.00	-293.03	0.00	293.03	2,180.04	539.72	1,556.22	1,355.22	2.35	-0.50	0.120
45.50	-32.31	-3.94	0.00	-293.03	0.00	293.03	2,180.04	539.72	1,556.22	1,355.22	2.35	-0.50	0.120
50.00	-30.94	-3.87	0.00	-275.32	0.00	275.32	2,147.57	527.27	1,485.26	1,303.92	2.84	-0.55	0.115
55.00	-29.43	-3.79	0.00	-255.98	0.00	255.98	2,110.50	513.43	1,408.36	1,247.44	3.44	-0.60	0.110
60.00	-27.94	-3.71	0.00	-237.01	0.00	237.01	2,072.40	499.59	1,333.50	1,191.56	4.10	-0.66	0.104
65.00	-26.47	-3.62	0.00	-218.44	0.00	218.44	2,033.25	485.76	1,260.68	1,136.32	4.82	-0.71	0.099
70.00	-25.02	-3.53	0.00	-200.33	0.00	200.33	1,982.07	471.92	1,189.91	1,075.81	5.59	-0.76	0.094
73.50	-23.71	-3.47	0.00	-187.96	0.00	187.96	1,473.95	377.73	952.77	802.29	6.17	-0.80	0.105
75.00	-23.31	-3.41	0.00	-182.76	0.00	182.76	1,466.27	374.41	936.10	791.03	6.42	-0.82	0.102
80.00	-21.99	-3.30	0.00	-165.72	0.00	165.72	1,439.98	363.34	881.58	753.67	7.30	-0.87	0.095
85.00	-20.69	-3.18	0.00	-149.24	0.00	149.24	1,412.66	352.27	828.70	716.63	8.24	-0.92	0.088
90.00	-19.40	-3.05	0.00	-133.36	0.00	133.36	1,384.30	341.21	777.46	679.95	9.23	-0.97	0.081
95.00	-18.14	-2.92	0.00	-118.11	0.00	118.11	1,354.89	330.14	727.85	643.70	10.27	-1.01	0.073
100.00	-16.89	-2.82	0.00	-103.52	0.00	103.52	1,324.45	319.07	679.87	607.91	11.35	-1.06	0.066
100.08	-16.87	-2.78	0.00	-103.29	0.00	103.29	1,323.95	318.89	679.12	607.34	11.37	-1.06	0.066
100.08	-16.87	-2.78	0.00	-103.29	0.00	103.29	1,323.95	318.89	679.12	607.34	11.37	-1.06	0.183
105.00	-16.05	-2.66	0.00	-89.61	0.00	89.61	1,292.97	308.00	633.54	572.65	12.48	-1.10	0.169
110.00	-15.36	-2.59	0.00	-76.30	0.00	76.30	1,247.09	296.93	588.83	532.25	13.69	-1.21	0.156
110.00	-15.36	-2.59	0.00	-76.30	0.00	76.30	853.22	223.36	444.16	366.32	13.69	-1.21	0.226
114.00	-11.40	-1.98	0.00	-65.78	0.00	65.78	838.71	216.72	418.15	349.29	14.74	-1.29	0.202
115.00	-11.29	-1.95	0.00	-63.80	0.00	63.80	834.98	215.06	411.77	345.05	15.02	-1.32	0.199
120.00	-10.80	-1.89	0.00	-54.07	0.00	54.07	815.69	206.75	380.60	323.94	16.47	-1.45	0.180
125.00	-10.32	-1.82	0.00	-44.65	0.00	44.65	795.37	198.45	350.66	303.07	18.06	-1.58	0.160
130.00	-9.86	-1.76	0.00	-35.53	0.00	35.53	774.00	190.15	321.94	282.47	19.77	-1.69	0.139
135.00	-9.41	-1.69	0.00	-26.73	0.00	26.73	751.60	181.85	294.45	262.19	21.59	-1.79	0.115
140.00	-8.97	-1.63	0.00	-18.25	0.00	18.25	728.15	173.54	268.19	242.29	23.51	-1.87	0.088
145.00	-8.55	-1.56	0.00	-10.12	0.00	10.12	694.02	165.24	243.15	219.76	25.50	-1.93	0.058
149.00	-3.87	-0.86	0.00	-3.86	0.00	3.86	666.12	158.60	224.01	202.35	27.13	-1.96	0.025
150.00	0.00	-0.73	0.00	-3.00	0.00	3.00	659.15	156.94	219.34	198.11	27.54	-1.96	0.015



<b>Load Case:</b> 1.0D + 1.0W	Serviceability 60 mph	25 Iterations
Gust Response Factor :1.10		
Dead Load Factor :1.00		
Wind Load Factor :1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		56.6	0.0					0.0	0.0	56.6	0.0	0.0	0.0
5.00		112.0	752.2					23.6	513.4	135.6	1,265.6	0.0	0.0
10.00		109.6	736.1					23.6	563.1	133.2	1,299.2	0.0	0.0
15.00		107.2	720.0					23.6	563.1	130.8	1,283.1	0.0	0.0
20.00		104.8	703.9					23.6	563.1	128.4	1,267.0	0.0	0.0
25.00		102.4	687.8					23.6	563.1	126.0	1,251.0	0.0	0.0
30.00		65.7	671.7					23.6	563.1	89.3	1,234.9	0.0	0.0
31.50	Bot - Section 2	51.3	198.4					7.1	168.9	58.4	367.3	0.0	0.0
35.00		43.1	846.5					17.1	394.2	60.2	1,240.7	0.0	0.0
35.67	Top - Section 1	52.4	159.6					3.3	75.1	55.7	234.7	0.0	0.0
40.00		98.5	471.3					21.9	488.1	120.4	959.4	0.0	0.0
45.00		58.3	531.3					26.1	563.1	84.5	1,094.4	0.0	0.0
45.50	Reinf. Top Reinf	53.4	52.4					2.7	56.3	56.0	108.7	0.0	0.0
50.00		101.5	465.5					24.3	506.8	125.9	972.3	0.0	0.0
55.00		107.0	504.5					27.8	563.1	134.7	1,067.6	0.0	0.0
60.00		106.7	491.0					28.5	563.1	135.2	1,054.2	0.0	0.0
65.00		106.2	477.6					29.2	563.1	135.4	1,040.8	0.0	0.0
70.00	Bot - Section 3	90.4	464.2					29.8	563.1	120.3	1,027.4	0.0	0.0
73.50	Top - Section 2	53.5	575.9					21.3	394.2	74.7	970.1	0.0	0.0
75.00		68.9	109.4					9.2	168.9	78.1	278.3	0.0	0.0
80.00		105.2	357.6					31.0	563.1	136.3	920.8	0.0	0.0
85.00		103.8	346.9					31.6	563.1	135.4	910.0	0.0	0.0
90.00		102.3	336.1					32.1	563.1	134.4	899.3	0.0	0.0
95.00		100.5	325.4					32.6	563.1	133.2	888.6	0.0	0.0
100.00		50.6	314.7					33.1	563.1	83.7	877.8	0.0	0.0
100.08	Reinf. Top	48.8	4.9					0.5	9.0	49.3	14.0	0.0	0.0
105.00		95.8	299.0					33.1	225.5	128.9	524.5	0.0	0.0
110.00	Top - Section 3	77.4	293.2					34.1	154.3	111.4	447.5	0.0	0.0
114.00	Appurtenance(s)	36.9	170.7	545.1	0.0	161.5	1,934.2	0.0	108.4	582.0	2,213.3	0.0	0.0
115.00		43.3	41.9					0.0	19.6	43.3	61.4	0.0	0.0
120.00		71.0	204.5					0.0	97.9	71.0	302.4	0.0	0.0
125.00		68.9	196.4					0.0	97.9	68.9	294.4	0.0	0.0
130.00		66.8	188.4					0.0	97.9	66.8	286.3	0.0	0.0
135.00		64.6	180.3					0.0	97.9	64.6	278.3	0.0	0.0
140.00		62.4	172.3					0.0	97.9	62.4	270.2	0.0	0.0
145.00		54.2	164.2					0.0	97.9	54.2	262.2	0.0	0.0
149.00	Appurtenance(s)	29.4	125.6	510.1	0.0	0.0	2,950.0	0.0	78.4	539.5	3,153.9	0.0	0.0
150.00		5.8	30.6					0.0	19.6	5.8	50.2	0.0	0.0
Totals:										4,510.72	30,671.8	0.00	0.00

Load Case: 1.0D + 1.0W

Serviceability 60 mph

25 Iterations

Gust Response Factor :1.10

Dead Load Factor :1.00

Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-32.36	-5.32	0.00	-526.67	0.00	526.67	3,157.17	784.20	2,737.77	2,376.61	0.00	0.00	0.144
5.00	-31.09	-5.22	0.00	-500.07	0.00	500.07	3,114.35	767.59	2,623.10	2,294.24	0.03	-0.06	0.140
10.00	-29.78	-5.11	0.00	-474.00	0.00	474.00	3,070.50	750.99	2,510.88	2,212.51	0.12	-0.12	0.136
15.00	-28.49	-5.00	0.00	-448.45	0.00	448.45	3,025.61	734.38	2,401.12	2,131.45	0.27	-0.17	0.132
20.00	-27.22	-4.90	0.00	-423.42	0.00	423.42	2,979.67	717.78	2,293.81	2,051.12	0.49	-0.23	0.128
25.00	-25.97	-4.79	0.00	-398.93	0.00	398.93	2,932.70	701.17	2,188.95	1,971.58	0.76	-0.29	0.124
30.00	-24.73	-4.71	0.00	-374.96	0.00	374.96	2,875.19	684.57	2,086.54	1,886.63	1.09	-0.35	0.120
31.50	-24.36	-4.67	0.00	-367.89	0.00	367.89	2,854.27	679.59	2,056.30	1,859.12	1.21	-0.36	0.119
35.00	-23.12	-4.61	0.00	-351.56	0.00	351.56	2,805.46	667.97	1,986.59	1,795.71	1.49	-0.40	0.115
35.67	-22.88	-4.56	0.00	-348.49	0.00	348.49	2,248.06	566.93	1,717.05	1,468.68	1.55	-0.41	0.132
40.00	-21.92	-4.45	0.00	-328.73	0.00	328.73	2,218.58	554.94	1,645.20	1,418.47	1.94	-0.46	0.127
45.00	-20.82	-4.37	0.00	-306.47	0.00	306.47	2,183.59	541.11	1,564.21	1,360.95	2.46	-0.52	0.121
45.50	-20.71	-4.32	0.00	-304.28	0.00	304.28	2,180.04	539.72	1,556.22	1,355.22	2.51	-0.53	0.121
50.00	-19.74	-4.21	0.00	-284.82	0.00	284.82	2,147.57	527.27	1,485.26	1,303.92	3.03	-0.58	0.115
55.00	-18.67	-4.08	0.00	-263.78	0.00	263.78	2,110.50	513.43	1,408.36	1,247.44	3.67	-0.64	0.110
60.00	-17.61	-3.95	0.00	-243.38	0.00	243.38	2,072.40	499.59	1,333.50	1,191.56	4.36	-0.69	0.104
65.00	-16.57	-3.82	0.00	-223.62	0.00	223.62	2,033.25	485.76	1,260.68	1,136.32	5.12	-0.75	0.098
70.00	-15.54	-3.70	0.00	-204.54	0.00	204.54	1,982.07	471.92	1,189.91	1,075.81	5.93	-0.80	0.093
73.50	-14.57	-3.61	0.00	-191.60	0.00	191.60	1,473.95	377.73	952.77	802.29	6.53	-0.84	0.103
75.00	-14.29	-3.54	0.00	-186.18	0.00	186.18	1,466.27	374.41	936.10	791.03	6.80	-0.85	0.101
80.00	-13.37	-3.40	0.00	-168.47	0.00	168.47	1,439.98	363.34	881.58	753.67	7.72	-0.91	0.094
85.00	-12.46	-3.26	0.00	-151.46	0.00	151.46	1,412.66	352.27	828.70	716.63	8.70	-0.96	0.086
90.00	-11.56	-3.12	0.00	-135.14	0.00	135.14	1,384.30	341.21	777.46	679.95	9.73	-1.01	0.079
95.00	-10.67	-2.98	0.00	-119.53	0.00	119.53	1,354.89	330.14	727.85	643.70	10.82	-1.06	0.072
100.00	-9.79	-2.89	0.00	-104.61	0.00	104.61	1,324.45	319.07	679.87	607.91	11.95	-1.10	0.064
100.08	-9.78	-2.84	0.00	-104.38	0.00	104.38	1,323.95	318.89	679.12	607.34	11.96	-1.10	0.064
100.08	-9.78	-2.84	0.00	-104.38	0.00	104.38	1,323.95	318.89	679.12	607.34	11.96	-1.10	0.179
105.00	-9.25	-2.71	0.00	-90.41	0.00	90.41	1,292.97	308.00	633.54	572.65	13.12	-1.14	0.165
110.00	-8.80	-2.61	0.00	-76.84	0.00	76.84	1,247.09	296.93	588.83	532.25	14.38	-1.25	0.152
110.00	-8.80	-2.61	0.00	-76.84	0.00	76.84	853.22	223.36	444.16	366.32	14.38	-1.25	0.220
114.00	-6.60	-1.98	0.00	-66.25	0.00	66.25	838.71	216.72	418.15	349.29	15.46	-1.34	0.198
115.00	-6.54	-1.95	0.00	-64.27	0.00	64.27	834.98	215.06	411.77	345.05	15.75	-1.37	0.194
120.00	-6.23	-1.88	0.00	-54.53	0.00	54.53	815.69	206.75	380.60	323.94	17.25	-1.50	0.176
125.00	-5.94	-1.82	0.00	-45.12	0.00	45.12	795.37	198.45	350.66	303.07	18.89	-1.62	0.156
130.00	-5.65	-1.75	0.00	-36.03	0.00	36.03	774.00	190.15	321.94	282.47	20.65	-1.74	0.135
135.00	-5.37	-1.69	0.00	-27.26	0.00	27.26	751.60	181.85	294.45	262.19	22.52	-1.84	0.111
140.00	-5.10	-1.62	0.00	-18.82	0.00	18.82	728.15	173.54	268.19	242.29	24.49	-1.92	0.085
145.00	-4.84	-1.56	0.00	-10.70	0.00	10.70	694.02	165.24	243.15	219.76	26.54	-1.98	0.056
149.00	-1.71	-0.92	0.00	-4.44	0.00	4.44	666.12	158.60	224.01	202.35	28.22	-2.01	0.025
150.00	0.00	-0.86	0.00	-3.52	0.00	3.52	659.15	156.94	219.34	198.11	28.64	-2.02	0.018

Equivalent Lateral Forces Method Analysis

Spectral Response Acceleration for Short Period ( $S_s$ ):	0.19
Spectral Response Acceleration at 1.0 Second Period ( $S_{d1}$ ):	0.05
Long-Period Transition Period ( $T_L$ ):	6
Importance Factor ( $I_E$ ):	1.00
Site Coefficient $F_a$ :	1.60
Site Coefficient $F_v$ :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period ( $S_{ds}$ ):	0.20
Design Spectral Response Acceleration at 1.0 Second Period ( $S_{d1}$ ):	0.09
Seismic Response Coefficient ( $C_s$ ):	0.03
Upper Limit $C_s$	0.03
Lower Limit $C_s$	0.03
Period based on Rayleigh Method (sec):	2.75
Redundancy Factor ( $\rho$ ):	1.00
Seismic Force Distribution Exponent (k):	2.00
Total Unfactored Dead Load:	32.36 k
Seismic Base Shear (E):	0.97 k

Load Case 1.2D + 1.0Ev + 1.0Eh

Seismic

Segment	Height Above Base (ft)	Weight (lb)	$W_z$ (lb-ft)	$C_{vx}$	Horizontal Force (lb)	Vertical Force (lb)
37	149.50	50	1,122	0.005	4	62
36	147.00	204	4,407	0.018	18	253
35	142.50	262	5,324	0.022	21	325
34	137.50	270	5,109	0.021	20	335
33	132.50	278	4,885	0.020	19	345
32	127.50	286	4,654	0.019	19	355
31	122.50	294	4,417	0.018	18	365
30	117.50	302	4,175	0.017	17	375
29	114.50	61	806	0.003	3	76
28	112.00	279	3,501	0.014	14	346
27	107.50	447	5,171	0.021	21	555
26	102.54	524	5,515	0.023	22	650
25	100.04	14	140	0.001	1	17
24	97.50	878	8,345	0.034	33	1,088
23	92.50	889	7,603	0.031	30	1,102
22	87.50	899	6,885	0.028	27	1,115
21	82.50	910	6,194	0.025	25	1,128
20	77.50	921	5,530	0.023	22	1,142
19	74.25	278	1,534	0.006	6	345
18	71.75	970	4,994	0.020	20	1,203
17	67.50	1,027	4,681	0.019	19	1,274
16	62.50	1,041	4,066	0.017	16	1,290
15	57.50	1,054	3,485	0.014	14	1,307
14	52.50	1,068	2,943	0.012	12	1,324
13	47.75	972	2,217	0.009	9	1,206

Site Number: 302498

Code: ANSI/TIA-222-H

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Site Name: Plainfield CT 6, CT

Engineering Number: 13668662\_C3\_01

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Customer: VERIZON WIRELESS

12	45.25	109	223	0.001	1	135
11	42.50	1,094	1,977	0.008	8	1,357
10	37.83	959	1,373	0.006	5	1,190
9	35.33	235	293	0.001	1	291
8	33.25	1,241	1,372	0.006	5	1,538
7	30.75	367	347	0.001	1	455
6	27.50	1,235	934	0.004	4	1,531
5	22.50	1,251	633	0.003	3	1,551
4	17.50	1,267	388	0.002	2	1,571
3	12.50	1,283	200	0.001	1	1,591
2	7.50	1,299	73	0.000	0	1,611
1	2.50	1,266	8	0.000	0	1,569
Powerwave Allgon LGP	150.00	33	743	0.003	3	41
Powerwave Allgon LGP	150.00	85	1,904	0.008	8	105
Raycap DC6-48-60-18-	150.00	40	900	0.004	4	50
Ericsson RRUS 8843 B	150.00	216	4,860	0.020	19	268
Ericsson RRUS 4478 B	150.00	180	4,043	0.017	16	223
Ericsson RRUS 4415 B	150.00	138	3,105	0.013	12	171
Ericsson RRUS 4449 B	150.00	213	4,793	0.020	19	264
Powerwave Allgon 777	150.00	105	2,363	0.010	9	130
CCI HPA65R-BU8A	150.00	162	3,645	0.015	14	201
CCI DMP65R-BU8D	150.00	287	6,460	0.026	26	356
CCI OPA65R-BU8D	150.00	229	5,164	0.021	21	285
Flat Side Arm	149.00	450	9,990	0.041	40	558
Platform w/ HRs w/ S	149.00	2,500	55,503	0.227	221	3,100
Commscope CBC1923Q-4	114.00	22	285	0.001	1	27
Samsung B5/B13 RRH-B	114.00	211	2,741	0.011	11	261
Samsung B2/B66A RRH-	114.00	253	3,291	0.013	13	314
Raycap RRFDC-3315-PF	114.00	54	699	0.003	3	67
Amphenol Antel BXA-7	114.00	36	468	0.002	2	45
Samsung MT6407-77A	114.00	245	3,181	0.013	13	304
Round T-Arms	114.00	750	9,747	0.040	39	930
Commscope JAHH-65B-R	114.00	364	4,725	0.019	19	451
		32,360	244,131	1.000	971	40,123

Load Case 0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
37	149.50	50	1,122	0.005	4	43
36	147.00	204	4,407	0.018	18	175
35	142.50	262	5,324	0.022	21	225
34	137.50	270	5,109	0.021	20	232
33	132.50	278	4,885	0.020	19	239
32	127.50	286	4,654	0.019	19	246
31	122.50	294	4,417	0.018	18	253
30	117.50	302	4,175	0.017	17	260
29	114.50	61	806	0.003	3	53
28	112.00	279	3,501	0.014	14	240
27	107.50	447	5,171	0.021	21	385
26	102.54	524	5,515	0.023	22	451
25	100.04	14	140	0.001	1	12
24	97.50	878	8,345	0.034	33	755
23	92.50	889	7,603	0.031	30	764
22	87.50	899	6,885	0.028	27	773
21	82.50	910	6,194	0.025	25	783
20	77.50	921	5,530	0.023	22	792
19	74.25	278	1,534	0.006	6	239
18	71.75	970	4,994	0.020	20	834
17	67.50	1,027	4,681	0.019	19	884
16	62.50	1,041	4,066	0.017	16	895

Site Number: 302498

Code: ANSI/TIA-222-H

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Site Name: Plainfield CT 6, CT

Engineering Number: 13668662\_C3\_01

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Customer: VERIZON WIRELESS

15	57.50	1,054	3,485	0.014	14	907
14	52.50	1,068	2,943	0.012	12	918
13	47.75	972	2,217	0.009	9	836
12	45.25	109	223	0.001	1	93
11	42.50	1,094	1,977	0.008	8	941
10	37.83	959	1,373	0.006	5	825
9	35.33	235	293	0.001	1	202
8	33.25	1,241	1,372	0.006	5	1,067
7	30.75	367	347	0.001	1	316
6	27.50	1,235	934	0.004	4	1,062
5	22.50	1,251	633	0.003	3	1,076
4	17.50	1,267	388	0.002	2	1,090
3	12.50	1,283	200	0.001	1	1,104
2	7.50	1,299	73	0.000	0	1,117
1	2.50	1,266	8	0.000	0	1,089
Powerwave Allgon LGP	150.00	33	743	0.003	3	28
Powerwave Allgon LGP	150.00	85	1,904	0.008	8	73
Raycap DC6-48-60-18-	150.00	40	900	0.004	4	34
Ericsson RRUS 8843 B	150.00	216	4,860	0.020	19	186
Ericsson RRUS 4478 B	150.00	180	4,043	0.017	16	155
Ericsson RRUS 4415 B	150.00	138	3,105	0.013	12	119
Ericsson RRUS 4449 B	150.00	213	4,793	0.020	19	183
Powerwave Allgon 777	150.00	105	2,363	0.010	9	90
CCI HPA65R-BU8A	150.00	162	3,645	0.015	14	139
CCI DMP65R-BU8D	150.00	287	6,460	0.026	26	247
CCI OPA65R-BU8D	150.00	229	5,164	0.021	21	197
Flat Side Arm	149.00	450	9,990	0.041	40	387
Platform w/ HRs w/ S	149.00	2,500	55,503	0.227	221	2,150
Commscope CBC1923Q-4	114.00	22	285	0.001	1	19
Samsung B5/B13 RRH-B	114.00	211	2,741	0.011	11	181
Samsung B2/B66A RRH-	114.00	253	3,291	0.013	13	218
Raycap RRFDC-3315-PF	114.00	54	699	0.003	3	46
Amphenol Antel BXA-7	114.00	36	468	0.002	2	31
Samsung MT6407-77A	114.00	245	3,181	0.013	13	211
Round T-Arms	114.00	750	9,747	0.040	39	645
Commscope JAHH-65B-R	114.00	364	4,725	0.019	19	313
		32,360	244,131	1.000	971	27,833

Load Case 1.2D + 1.0Ev + 1.0Eh

Seismic

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-38.55	-0.97	0.00	-123.08	0.00	123.08	3,157.17	784.20	2,737.77	2,376.61	0.00	0.00	0.041
5.00	-36.94	-0.98	0.00	-118.20	0.00	118.20	3,114.35	767.59	2,623.10	2,294.24	0.01	-0.01	0.040
10.00	-35.35	-0.99	0.00	-113.29	0.00	113.29	3,070.50	750.99	2,510.88	2,212.51	0.03	-0.03	0.039
15.00	-33.78	-1.00	0.00	-108.34	0.00	108.34	3,025.61	734.38	2,401.12	2,131.45	0.06	-0.04	0.038
20.00	-32.23	-1.00	0.00	-103.36	0.00	103.36	2,979.67	717.78	2,293.81	2,051.12	0.12	-0.06	0.037
25.00	-30.70	-1.00	0.00	-98.36	0.00	98.36	2,932.70	701.17	2,188.95	1,971.58	0.18	-0.07	0.036
30.00	-30.24	-1.01	0.00	-93.34	0.00	93.34	2,875.19	684.57	2,086.54	1,886.63	0.26	-0.08	0.035
31.50	-28.70	-1.00	0.00	-91.84	0.00	91.84	2,854.27	679.59	2,056.30	1,859.12	0.29	-0.09	0.035
35.00	-28.41	-1.00	0.00	-88.33	0.00	88.33	2,805.46	667.97	1,986.59	1,795.71	0.36	-0.10	0.034
35.67	-27.22	-1.00	0.00	-87.66	0.00	87.66	2,248.06	566.93	1,717.05	1,468.68	0.37	-0.10	0.039
40.00	-25.87	-0.99	0.00	-83.34	0.00	83.34	2,218.58	554.94	1,645.20	1,418.47	0.47	-0.11	0.038
45.00	-25.73	-1.00	0.00	-78.37	0.00	78.37	2,183.59	541.11	1,564.21	1,360.95	0.59	-0.13	0.037
45.50	-24.52	-0.99	0.00	-77.87	0.00	77.87	2,180.04	539.72	1,556.22	1,355.22	0.61	-0.13	0.036
45.50	-24.52	-0.99	0.00	-77.87	0.00	77.87	2,180.04	539.72	1,556.22	1,355.22	0.61	-0.13	0.036
50.00	-23.20	-0.98	0.00	-73.42	0.00	73.42	2,147.57	527.27	1,485.26	1,303.92	0.73	-0.14	0.035
55.00	-21.89	-0.97	0.00	-68.52	0.00	68.52	2,110.50	513.43	1,408.36	1,247.44	0.89	-0.16	0.033
60.00	-20.60	-0.95	0.00	-63.68	0.00	63.68	2,072.40	499.59	1,333.50	1,191.56	1.06	-0.17	0.032
65.00	-19.33	-0.94	0.00	-58.92	0.00	58.92	2,033.25	485.76	1,260.68	1,136.32	1.25	-0.19	0.030
70.00	-18.13	-0.92	0.00	-54.24	0.00	54.24	1,982.07	471.92	1,189.91	1,075.81	1.45	-0.20	0.029
73.50	-17.78	-0.91	0.00	-51.04	0.00	51.04	1,473.95	377.73	952.77	802.29	1.61	-0.21	0.032
75.00	-16.64	-0.89	0.00	-49.67	0.00	49.67	1,466.27	374.41	936.10	791.03	1.67	-0.21	0.031
80.00	-15.51	-0.86	0.00	-45.24	0.00	45.24	1,439.98	363.34	881.58	753.67	1.91	-0.23	0.029
85.00	-14.40	-0.83	0.00	-40.93	0.00	40.93	1,412.66	352.27	828.70	716.63	2.15	-0.24	0.027
90.00	-13.29	-0.80	0.00	-36.77	0.00	36.77	1,384.30	341.21	777.46	679.95	2.41	-0.26	0.025
95.00	-12.20	-0.77	0.00	-32.76	0.00	32.76	1,354.89	330.14	727.85	643.70	2.69	-0.27	0.023
100.00	-12.19	-0.77	0.00	-28.94	0.00	28.94	1,324.45	319.07	679.87	607.91	2.98	-0.28	0.021
100.08	-11.54	-0.74	0.00	-28.88	0.00	28.88	1,323.95	318.89	679.12	607.34	2.98	-0.28	0.021
100.08	-11.54	-0.74	0.00	-28.88	0.00	28.88	1,323.95	318.89	679.12	607.34	2.98	-0.28	0.056
105.00	-10.98	-0.72	0.00	-25.22	0.00	25.22	1,292.97	308.00	633.54	572.65	3.28	-0.29	0.053
110.00	-10.64	-0.71	0.00	-21.61	0.00	21.61	1,247.09	296.93	588.83	532.25	3.60	-0.32	0.049
110.00	-10.64	-0.71	0.00	-21.61	0.00	21.61	853.22	223.36	444.16	366.32	3.60	-0.32	0.071
114.00	-8.16	-0.60	0.00	-18.76	0.00	18.76	838.71	216.72	418.15	349.29	3.89	-0.35	0.063
115.00	-7.79	-0.58	0.00	-18.16	0.00	18.16	834.98	215.06	411.77	345.05	3.96	-0.36	0.062
120.00	-7.42	-0.57	0.00	-15.26	0.00	15.26	815.69	206.75	380.60	323.94	4.35	-0.39	0.056
125.00	-7.07	-0.55	0.00	-12.43	0.00	12.43	795.37	198.45	350.66	303.07	4.78	-0.43	0.050
130.00	-6.72	-0.53	0.00	-9.68	0.00	9.68	774.00	190.15	321.94	282.47	5.25	-0.46	0.043
135.00	-6.39	-0.51	0.00	-7.03	0.00	7.03	751.60	181.85	294.45	262.19	5.74	-0.49	0.035
140.00	-6.06	-0.49	0.00	-4.48	0.00	4.48	728.15	173.54	268.19	242.29	6.26	-0.51	0.027
145.00	-5.81	-0.47	0.00	-2.05	0.00	2.05	694.02	165.24	243.15	219.76	6.80	-0.52	0.018
149.00	-2.09	-0.17	0.00	-0.17	0.00	0.17	666.12	158.60	224.01	202.35	7.24	-0.52	0.004
150.00	0.00	-0.15	0.00	0.00	0.00	0.00	659.15	156.94	219.34	198.11	7.35	-0.52	0.000

Load Case 0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-26.74	-0.97	0.00	-120.61	0.00	120.61	3,157.17	784.20	2,737.77	2,376.61	0.00	0.00	0.037
5.00	-25.63	-0.98	0.00	-115.74	0.00	115.74	3,114.35	767.59	2,623.10	2,294.24	0.01	-0.01	0.037
10.00	-24.52	-0.98	0.00	-110.85	0.00	110.85	3,070.50	750.99	2,510.88	2,212.51	0.03	-0.03	0.036
15.00	-23.43	-0.99	0.00	-105.93	0.00	105.93	3,025.61	734.38	2,401.12	2,131.45	0.06	-0.04	0.035
20.00	-22.36	-0.99	0.00	-100.99	0.00	100.99	2,979.67	717.78	2,293.81	2,051.12	0.11	-0.05	0.034
25.00	-21.29	-0.99	0.00	-96.05	0.00	96.05	2,932.70	701.17	2,188.95	1,971.58	0.18	-0.07	0.033
30.00	-20.98	-0.99	0.00	-91.10	0.00	91.10	2,875.19	684.57	2,086.54	1,886.63	0.26	-0.08	0.033
31.50	-19.91	-0.99	0.00	-89.62	0.00	89.62	2,854.27	679.59	2,056.30	1,859.12	0.28	-0.09	0.032
35.00	-19.71	-0.99	0.00	-86.16	0.00	86.16	2,805.46	667.97	1,986.59	1,795.71	0.35	-0.10	0.031
35.67	-18.88	-0.98	0.00	-85.51	0.00	85.51	2,248.06	566.93	1,717.05	1,468.68	0.36	-0.10	0.036
40.00	-17.94	-0.98	0.00	-81.25	0.00	81.25	2,218.58	554.94	1,645.20	1,418.47	0.46	-0.11	0.035
45.00	-17.85	-0.98	0.00	-76.37	0.00	76.37	2,183.59	541.11	1,564.21	1,360.95	0.58	-0.12	0.034
45.50	-17.01	-0.97	0.00	-75.88	0.00	75.88	2,180.04	539.72	1,556.22	1,355.22	0.59	-0.13	0.033
45.50	-17.01	-0.97	0.00	-75.88	0.00	75.88	2,180.04	539.72	1,556.22	1,355.22	0.59	-0.13	0.033
50.00	-16.09	-0.96	0.00	-71.51	0.00	71.51	2,147.57	527.27	1,485.26	1,303.92	0.72	-0.14	0.032
55.00	-15.19	-0.95	0.00	-66.71	0.00	66.71	2,110.50	513.43	1,408.36	1,247.44	0.87	-0.15	0.031
60.00	-14.29	-0.93	0.00	-61.98	0.00	61.98	2,072.40	499.59	1,333.50	1,191.56	1.04	-0.17	0.029
65.00	-13.41	-0.91	0.00	-57.32	0.00	57.32	2,033.25	485.76	1,260.68	1,136.32	1.22	-0.18	0.028
70.00	-12.57	-0.89	0.00	-52.74	0.00	52.74	1,982.07	471.92	1,189.91	1,075.81	1.42	-0.20	0.026
73.50	-12.33	-0.89	0.00	-49.61	0.00	49.61	1,473.95	377.73	952.77	802.29	1.57	-0.21	0.030
75.00	-11.54	-0.87	0.00	-48.28	0.00	48.28	1,466.27	374.41	936.10	791.03	1.63	-0.21	0.029
80.00	-10.76	-0.84	0.00	-43.95	0.00	43.95	1,439.98	363.34	881.58	753.67	1.86	-0.22	0.027
85.00	-9.98	-0.81	0.00	-39.75	0.00	39.75	1,412.66	352.27	828.70	716.63	2.10	-0.24	0.025
90.00	-9.22	-0.78	0.00	-35.69	0.00	35.69	1,384.30	341.21	777.46	679.95	2.36	-0.25	0.023
95.00	-8.47	-0.75	0.00	-31.78	0.00	31.78	1,354.89	330.14	727.85	643.70	2.63	-0.26	0.021
100.00	-8.45	-0.75	0.00	-28.05	0.00	28.05	1,324.45	319.07	679.87	607.91	2.91	-0.27	0.019
100.08	-8.00	-0.72	0.00	-27.99	0.00	27.99	1,323.95	318.89	679.12	607.34	2.91	-0.27	0.019
100.08	-8.00	-0.72	0.00	-27.99	0.00	27.99	1,323.95	318.89	679.12	607.34	2.91	-0.27	0.052
105.00	-7.62	-0.70	0.00	-24.43	0.00	24.43	1,292.97	308.00	633.54	572.65	3.20	-0.29	0.049
110.00	-7.38	-0.69	0.00	-20.91	0.00	20.91	1,247.09	296.93	588.83	532.25	3.52	-0.32	0.045
110.00	-7.38	-0.69	0.00	-20.91	0.00	20.91	853.22	223.36	444.16	366.32	3.52	-0.32	0.066
114.00	-5.66	-0.58	0.00	-18.14	0.00	18.14	838.71	216.72	418.15	349.29	3.79	-0.34	0.059
115.00	-5.40	-0.56	0.00	-17.56	0.00	17.56	834.98	215.06	411.77	345.05	3.86	-0.35	0.057
120.00	-5.15	-0.55	0.00	-14.74	0.00	14.74	815.69	206.75	380.60	323.94	4.25	-0.38	0.052
125.00	-4.90	-0.53	0.00	-11.99	0.00	11.99	795.37	198.45	350.66	303.07	4.66	-0.42	0.046
130.00	-4.66	-0.51	0.00	-9.34	0.00	9.34	774.00	190.15	321.94	282.47	5.12	-0.45	0.039
135.00	-4.43	-0.49	0.00	-6.78	0.00	6.78	751.60	181.85	294.45	262.19	5.60	-0.47	0.032
140.00	-4.20	-0.47	0.00	-4.32	0.00	4.32	728.15	173.54	268.19	242.29	6.10	-0.49	0.024
145.00	-4.03	-0.45	0.00	-1.97	0.00	1.97	694.02	165.24	243.15	219.76	6.62	-0.50	0.015
149.00	-1.45	-0.16	0.00	-0.16	0.00	0.16	666.12	158.60	224.01	202.35	7.05	-0.51	0.003
150.00	0.00	-0.15	0.00	0.00	0.00	0.00	659.15	156.94	219.34	198.11	7.16	-0.51	0.000

Site Number: 302498

Code: ANSI/TIA-222-H

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Site Name: Plainfield CT 6, CT

Engineering Number: 13668662\_C3\_01

5/4/2021 5:07:37 PM

Customer: VERIZON WIRELESS

## Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W	24.13	0.00	38.77	0.00	0.00	2407.26	110.00	0.98
0.9D + 1.0W	24.11	0.00	29.07	0.00	0.00	2369.78	110.00	0.95
1.2D + 1.0Di + 1.0Wi	4.43	0.00	48.28	0.00	0.00	485.36	110.00	0.23
1.2D + 1.0Ev + 1.0Eh	0.97	0.00	38.55	0.00	0.00	123.08	110.00	0.07
0.9D - 1.0Ev + 1.0Eh	0.97	0.00	26.74	0.00	0.00	120.61	110.00	0.07
1.0D + 1.0W	5.32	0.00	32.36	0.00	0.00	526.67	110.00	0.22



Site Number: 302498

Code: ANSI/TIA-222-H

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Site Name: Plainfield CT 6, CT

Engineering Number: 13668662\_C3\_01

5/4/2021 5:07:37 PM

Customer: VERIZON WIRELESS

Additional Steel Summary

			Intermediate Connectors				Max Member		
Elev From (ft)	Elev To (ft)	Member	VQ/I (lb/in)	Shear Applied (kips)	Shear phiVn (kips)	Ratio	Pu (kip)	phiPn (kip)	Ratio
0.00	45.50	(4) SOL-#20 All Thread Bar	257.2	7.7	16.8	0.459	251.5	330.5	0.761
45.50	100.08	(4) SOL-#20 All Thread Bar	287.1	8.6	16.8	0.512	218.5	330.5	0.661

			Upper Termination Connectors				Lower Termination Connectors					
Elev From (ft)	Elev To (ft)	Member	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Ratio	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Ratio
0.00	45.50	(4) SOL-#20 All Thread Bar	0.0	12.0	0	20	0.000	0.0	12.0	0	0	0.000
45.50	100.08	(4) SOL-#20 All Thread Bar	124.8	12.0	11	16	0.650	0.0	12.0	0	0	0.000

**Site Name:** Plainfield CT 6, CT  
**Site Number:** 302498  
**Tower Type:** MP  
**Design Loads (Factored) - Analysis per TIA-222-H Standards**

## Monolithic Mat & Pier Foundation Analysis

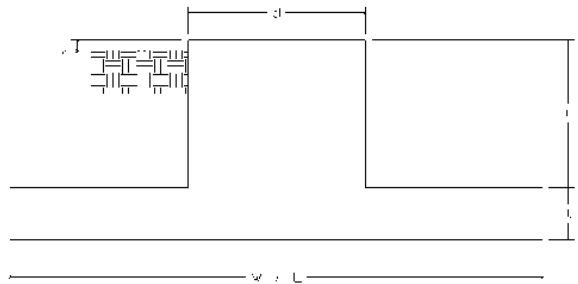
Foundation Analysis Parameters		
Design / Analysis / Mapping:	Analysis	-
Compression/Leg:	38.8	k
Uplift/Leg:	0.0	k
Total Shear:	24.1	k
Moment:	2,407.3	k-ft
Tower + Appurtenance Weight:	38.8	k
Depth to Base of Foundation (l + t - h):	8	ft
Diameter of Pier (d):	6	ft
Length of Pier (l):	5.5	ft
Height of Pier above Ground (h):	0.5	ft
Width of Pad (W):	18	ft
Length of Pad (L):	18	ft
Thickness of Pad (t):	3	ft
Tower Leg Center to Center:	0	ft
Number of Tower Legs:	1	-
Tower Center from Mat Center:	0	ft
Depth Below Ground Surface to Water Table:	3.5	ft
Unit Weight of Concrete:	150	pcf
Unit Weight of Soil Above Water Table:	136	pcf
Unit Weight of Water:	62.4	pcf
Unit Weight of Soil Below Water Table:	73.6	pcf
Friction Angle of Uplift:	15	°
Coefficient of Shear Friction:	0.30	-
Ultimate Compressive Bearing Pressure:	15,000	psf
Ultimate Passive Pressure on Pad Face:	1,000	psf
$f_{\text{Soil and Concrete Weight}}$ :	0.9	-
$f_{\text{Soil}}$ :	0.75	-

Foundation Steel Parameters		
Shear/Leg (Compression):	24.1	k
Shear/Leg (Uplift):	24.1	k
Concrete Strength ( $f'_c$ ):	3,000	psi
Pad Tension Steel Depth:	32.38	in
Dead Load Factor:	0.9	-
$f_{\text{Shear}}$ :	0.75	-
$f_{\text{Flexure / Tension}}$ :	0.9	-
$f_{\text{Compression}}$ :	0.65	-
b:	0.85	-
Bottom Pad Rebar Size #:	10	-
# of Bottom Pad Rebar:	36	-
Pad Bottom Steel Area:	45.72	in <sup>2</sup>
Pad Steel $F_y$ :	60,000	psi
Top Pad Rebar Size #:	5	-
# of Top Pad Rebar:	36	-
Pad Top Steel Area:	11.16	in <sup>2</sup>
Pier Rebar Size #:	11	-
Pier Steel Area (Single Bar):	1.56	in <sup>2</sup>
# of Pier Rebar:	52	-
Pier Steel $F_y$ :	60,000	psi
Pier Cage Diameter:	63.6	in
Rebar Strain Limit:	0.008	-
Steel Elastic Modulus:	29,000	ksi
Tie Rebar Size #:	4	-
Tie Steel Area (Single Bar):	0.20	in <sup>2</sup>
Tie Spacing:	12	in
Tie Steel $F_y$ :	60,000	psi
Clear Cover:	3	in

Overturning Moment Usage		
Design OTM:	2612.4	k-ft
Weight of Soil and Concrete OTM Resistance:	279.2	k
OTM Resistance from Soil and Concrete:	2513.2	k-ft
OTM Resistance from Tower:	261.7	k-ft
OTM Resistance from Soil Facture:	335.8	k-ft
OTM Resistance from Passive Pressure on Pad Face:	60.8	k-ft
OTM Resistance:	2794.8	k-ft
Design OTM / OTM Resistance:	93%	Pass

Soil Bearing Pressure Usage		
Net Bearing Pressure:	5180	psf
Factored Nominal Bearing Pressure:	11250	psf
Factored Nominal (Net) Bearing Pressure:	46%	Pass
Load Direction Controlling Design Bearing Pressure:	Diagonal to Pad Edge	

Sliding Factor of Safety		
Ultimate Friction Resistance:	93.5	k
Ultimate Passive Pressure Resistance:	40.5	k
Total Factored Sliding Resistance:	100.5	k
Sliding Design / Sliding Resistance:	24%	Pass



### Pad Strength Capacity

#### One Way Shear, Flexural Capacity, and Punching Shear

Factored One Way Shear ( $V_u$ ):	153.9	k	
One Way Shear Capacity ( $fV_n$ ):	574.5	k	ACI 318-14 25.5.5.1
$V_u / fV_c$ :	27%	Pass	
Load Direction Controlling Shear Capacity:	Parallel to Pad Edge		
Lower Steel Pad Factored Moment ( $M_u$ ):	690.7	k-ft	
Lower Steel Pad Moment Capacity ( $fM_n$ ):	6640.2	k-ft	ACI 318-14 22.3.1.1
$M_u / fM_n$ :	10%	Pass	
Load Direction Controlling Flexural Capacity:	Diagonal to Pad Edge		
Upper Steel Pad Factored Moment ( $M_u$ ):	275.1	k-ft	
Upper Steel Pad Moment Capacity ( $fM_n$ ):	1599.9	k-ft	
$M_u / fM_n$ :	17%	Pass	
Lower Pad Flexural Reinforcement Ratio:	0.0065		OK - ACI 318-14 7.6.1.1 & 8.6.1.1
Upper Pad Flexural Reinforcement Ratio:	0.0016		OK - ACI 318-14 7.6.1.1 & 8.6.1.1
Lower Pad Reinforcement Spacing:	6.0	in	OK - ACI 318-14 7.7.2.3, 8.7.2.2, & 24.4.3.3
Upper Pad Reinforcement Spacing:	6.0	in	OK - ACI 318-14 7.7.2.3, 8.7.2.2, & 24.4.3.3
Ultimate Punching Shear Stress, $v_u$ :	37.00	psi	ACI 318-14 R8.4.4.2.3
Nominal Punching Shear Capacity ( $f_c v_c$ ):	164.3	psi	ACI 318-14 22.6.5.2
$v_u / f_c v_c$ :	23%	Pass	
Pier Moment Pad Flexure Transfer Ratio, $\gamma_f$ :	0.60		TIA-222-H 9.4.2
Moment Transfer Effective Flexural Width, $B_{eff}$ :	15.00	ft	TIA-222-H 9.4.2
Moment Transfer Through Pad Flexure:	18287.82	k-in	TIA-222-H 9.4.2
Moment Transfer Flexural Capacity ( $fM_{sc,f}$ ):	64350.54	k-in	
$g_r M_{sc} / fM_{sc,f}$ :	0%	Pass	

### Pier Strength Capacity

Factored Moment in Pier ( $M_u$ ):	2540.0	k-ft	
Pier Moment Capacity ( $fM_n$ ):	11356.3	k-ft	
$M_u / fM_n$ :	22%	Pass	
Factored Shear in Pier ( $V_u$ ):	24.1	k	
Pier Shear Capacity ( $fV_n$ ):	422.5	k	ACI 318-14 22.5.1.1
$V_u / fV_c$ :	6%	Pass	
Pier Shear Reinforcement Ratio:	0.0005		OK - No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier ( $T_u$ ):	0.0	k	
Pier Tension Capacity ( $fT_n$ ):	4380.5	k	
$T_u / fT_n$ :	0%	Pass	
Factored Compression in Pier ( $P_u$ ):	38.8	k	
Pier Compression Capacity ( $fP_n$ ):	5339.9	k	ACI 318-14 22.4.2.1
$P_u / fP_n$ :	1%	Pass	
Minimum Depth to Develop Vertical Rebar:	63	in	ACI 318-14 25.4.2.3
Minimum Hook Development Length:	31	in	ACI 318-14 25.4.3.1
Minimum Mat Thickness / Edge Distance from Pier:	34.0	in	
Minimum Foundation Depth:	8.35	ft	
$M_u / f_B M_n + T_u / f_T T_n$ :	22%	Pass	



## Base Plate & Anchor Rod Analysis

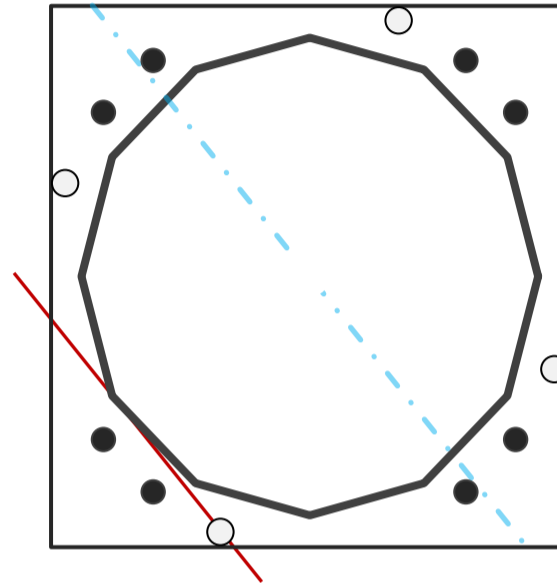
Pole Dimensions		
Number of Sides	12	-
Diameter	37.38	in
Thickness	3/8	in
Orientation Offset	0	°

Base Reactions		
Moment, Mu	2407.3	k-ft
Axial, Pu	38.8	k
Shear, Vu	24.1	k
Neutral Axis	130	°

Report Capacities		
Component	Capacity	Result
Base Plate	56%	Pass
Anchor Rods	83%	Pass
Dwyidag	62%	Pass

Base Plate		
Shape	Square	-
Width	44	in
Thickness	2 1/2	in
Grade	A633 Gr. E	
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	80	ksi
Clip	0	in
Orientation Offset	0	°
Anchor Rod Detail	c	$\eta=0.55$
Clear Distance	N/A	in
Applied Moment, Mu	1178.1	k
Bending Stress, $\phi Mn$	2085.8	k

Dwyidag Reinforcement		
Quantity	4	-
Bar Size	#20	in
Diameter, $\phi$	2.5	in
Bracket Type	Angle	-
Circle	44.26	in
Orientation Offset	70	°
Applied Force, Pu	226.7	k
Dwyidag Bar, $\phi Pn$	368.2	k



Original Anchor Rods		
Arrangement	Cluster	-
Quantity	8	-
Diameter, $\phi$	2 1/4	in
Bolt Circle	44	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	6.0	in
Orientation Offset	0	°
Applied Force, Pu	201.1	k
Anchor Rods, $\phi Pn$	243.6	k

# Calculations for Monopole Base Plate & Anchor Rod Analysis

## Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	24.1	1456.7	0.61
Anchor Rod Forces	24.1	1456.7	0.61
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	950.6	0.39
Stiffener Forces	0.0	0.0	0.00

## Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in <sup>2</sup>	in <sup>2</sup>	in <sup>4</sup>	#	in <sup>4</sup>
Pole	43.0992	3.5916	0.1692		7379.37
Bolt	3.9761	3.2477	0.8393	4.5	6294.24
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	4.9087	4.9087	1.9175		4815.65
Stiffener	0.0000	0.0000	0.0000		0.00

### Base Plate

Shape	Square	-
Width, W	44	in
Thickness, t	2.5	in
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	80	ksi
Base Plate Chord	23.211	in
Detail Type	c	-
Detail Factor	0.55	-
Clear Distance	N/A	-

### Anchor Rods

Anchor Rod Quantity, N	8	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	44	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	201.1	k
Applied Shear, Vu	0.3	k
Compressive Capacity, $\phi P_n$	243.6	k
Tensile Capacity, $\phi R_n$	0.826	OK
Interaction Capacity	0.828	OK

### External Base Plate

Chord Length AA	24.720	in
Additional AA	0.000	in
Section Modulus, Z	38.626	in <sup>3</sup>
Applied Moment, Mu	1178.1	k-ft
Bending Capacity, $\phi M_n$	2085.8	k-ft
Capacity, Mu/ $\phi M_n$	0.565	OK
Chord Length AB	23.397	in
Additional AB	0.000	in
Section Modulus, Z	36.558	in <sup>3</sup>
Applied Moment, Mu	915.1	k-ft
Bending Capacity, $\phi M_n$	1974.2	k-ft
Capacity, Mu/ $\phi M_n$	0.464	OK
Bend Line Length	0.000	in
Additional Bend Line	0.000	in
Section Modulus, Z	0.000	in <sup>3</sup>
Applied Moment, Mu	0.0	k-ft
Bending Capacity, $\phi M_n$	0.0	k-ft
Capacity, Mu/ $\phi M_n$		

### Internal Base Plate

Arc Length	0.000	in
Section Modulus, Z	0.000	in <sup>3</sup>
Moment Arm	0.000	in
Applied Moment, Mu	0.0	k-ft
Bending Capacity, $\phi M_n$	0.0	k-ft
Capacity, Mu/ $\phi M_n$		

### Dywidag Reinforcement

Dywidag Quantity, N	4	-
Dywidag Diameter, d	2.5	in
Bolt Circle, BC	44.26	in
Yield Strength, Fy	80	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	226.7	k
Compressive Capacity, $\phi P_n$	368.2	k
Capacity, Pu/ $\phi P_n$	0.616	OK

# Flange Plate Analysis

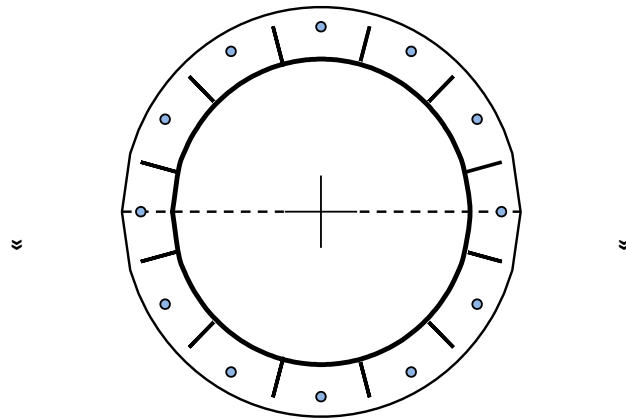
Flange Plate	Plate Type	<b>Flange</b>	<b>@ 110 ft</b>
	Pole Diameter	21.25	in
	Pole Thickness	0.1875	in
	Plate Diameter	28.5	in
	Plate Thickness	1	in
	Plate Fy	60	ksi
	Weld Length	3/16	in
	f <sub>s</sub> Resistance	670.59	k-in
	Applied	80.91	k-in

Code Rev.	<b>H</b>
Moment	352.5 k-ft
Axial	9.4 k

Date	5/4/2021
Engineer	Megan Engle
Site #	302498
Carrier	AT&T MOBILITY

Stiffeners	#	<b>12</b>	<b>Show</b>
	Thickness	5/8	in
	Length	3 1/2	in
	Height	9	in
	Chamfer	1/4	in
	Offset Angle	0	°
	Fy	50	ksi

Bolts	#	<b>12</b>	
	Bolt Circle (R)adial / (S)quare	25.75	in
	Diameter	1	in
	Hole Diameter	1 1/8	in
	Type	A325	
	Fy	92	ksi
	Fu	120	ksi
	f <sub>s</sub> Resistance	54.52	k
	Applied	53.94	k



Reinforcement	#		
---------------	---	--	--

**Plate Stress Ratio:**  
12% Pass

**Bolt Stress Ratio:**  
99% Pass

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



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## Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10072168  
Maser Consulting Connecticut Project #: 21777483A

June 24, 2021

### Site Information

Site ID: 468617-VZW / PLAINFIELD CT  
Site Name: PLAINFIELD CT  
Carrier Name: Verizon Wireless  
Address: 45 Spaulding Rd.  
Plainfield, Connecticut 06374  
Windham County  
Latitude: 41.674544°  
Longitude: -71.878683°

### Structure Information

Tower Type: Monopole  
Mount Type: 13.50-Ft T-Arm

FUZE ID # 16272035

### Analysis Results

T-Arm: 81.3% Pass

### **\*\*\*Contractor PMI Requirements:**

***Included at the end of this MA report***

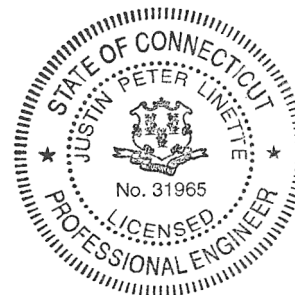
***Available & Submitted via portal at <https://pmi.vzwsmart.com>***

***Contractor - Please Review Specific Site PMI Requirements Upon Award***

***Requirements also Noted on Mount Modification Drawings***

***Requirements may also be Noted on A & E drawings***

Report Prepared By: Zachary Bandilla



**Executive Summary:**

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

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

**Sources of Information:**

Document Type	Remarks
<i>Radio Frequency Data Sheet (RFDS)</i>	<i>Verizon RFDS Site ID: 324674, dated March 23, 2021</i>
<i>Mount Mapping Report</i>	<i>Hudson Design Group, LLC., Site ID: 468617, dated March 30, 2021</i>
<i>Previous Mount Analysis</i>	<i>Maser Consulting Connecticut, Project #: 21777483A, Dated May 21, 2021</i>
<i>Mount Modification Drawings</i>	<i>Maser Consulting Connecticut, Project #: 21777483A, Dated June 24, 2021</i>

**Analysis Criteria:**

Codes and Standards:	ANSI/TIA-222-H
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), $V_{ULT}$ : 124 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: B Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, $K_e$ : 0.980
Seismic Parameters:	$S_s$ : 0.187 $S_1$ : 0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, $L_v$ : 250 lbs. Maintenance Live Load, $L_m$ : 500 lbs.
Analysis Software:	RISA-3D (V17)



**Final Loading Configuration:**

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
112.75	114.00	6	Commscope	JAHH-65B-R3B	Added
		3	Samsung	MT6407-77A	
		3	Commscope	CBC1923Q-43	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		2	RFS	DB-B1-6C-12AB-0Z	
		3	Amphenol Antel	BXA-70080-4BF-EDIN-0	Retained

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

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

**Standard Conditions:**

1. All engineering services are performed on the basis that the information provided to Maser Consulting Connecticut and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Maser Consulting Connecticut to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer’s specifications.

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

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

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped by Maser Consulting Connecticut, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer’s specifications.
4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Maser Consulting Connecticut is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
  - o Channel, Solid Round, Angle, Plate      ASTM A36 (Gr. 36)
  - o HSS (Rectangular)                              ASTM 500 (Gr. B-46)
  - o Pipe    ASTM A53 (Gr. B-35)
  - o Threaded Rod                                      F1554 (Gr. 36)
  - o Bolts     ASTM A325
8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

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

**Analysis Results:**

Component	Utilization %	Pass/Fail
<i>Standoff Arm</i>	<i>56.6 %</i>	<i>Pass</i>
<i>Horizontal</i>	<i>81.3 %</i>	<i>Pass</i>
<i>Antenna Pipe</i>	<i>43.2 %</i>	<i>Pass</i>
<i>Dual Mount Pipe</i>	<i>42.6 %</i>	<i>Pass</i>
<i>Mod Face Horizontal</i>	<i>25.1 %</i>	<i>Pass</i>
<i>Mod V-Bracing</i>	<i>11.3 %</i>	<i>Pass</i>
<i>Connection Check</i>	<i>68.7 %</i>	<i>Pass</i>

<b>Structure Rating – (Controlling Utilization of all Components)</b>	<b>81.3%</b>
---	--------------

**Recommendation:**

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

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

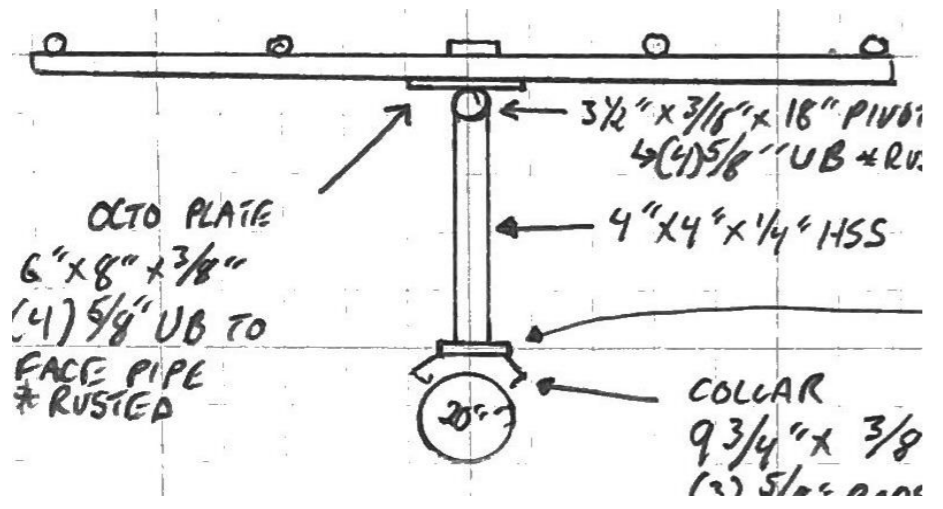
**Attachments:**

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



	<b>Antenna Mount Mapping Form (PATENT PENDING)</b>		<b>FCC #</b>
			302498
<b>Tower Owner:</b>	AMERICAN TOWER	<b>Mapping Date:</b>	3/30/2021
<b>Site Name:</b>	PLAINFIELD CT	<b>Tower Type:</b>	Monopole
<b>Site Number or ID:</b>	468617	<b>Tower Height (Ft.):</b>	
<b>Mapping Contractor:</b>	HUDSON DESIGN GROUP, LLC.	<b>Mount Elevation (Ft.):</b>	111

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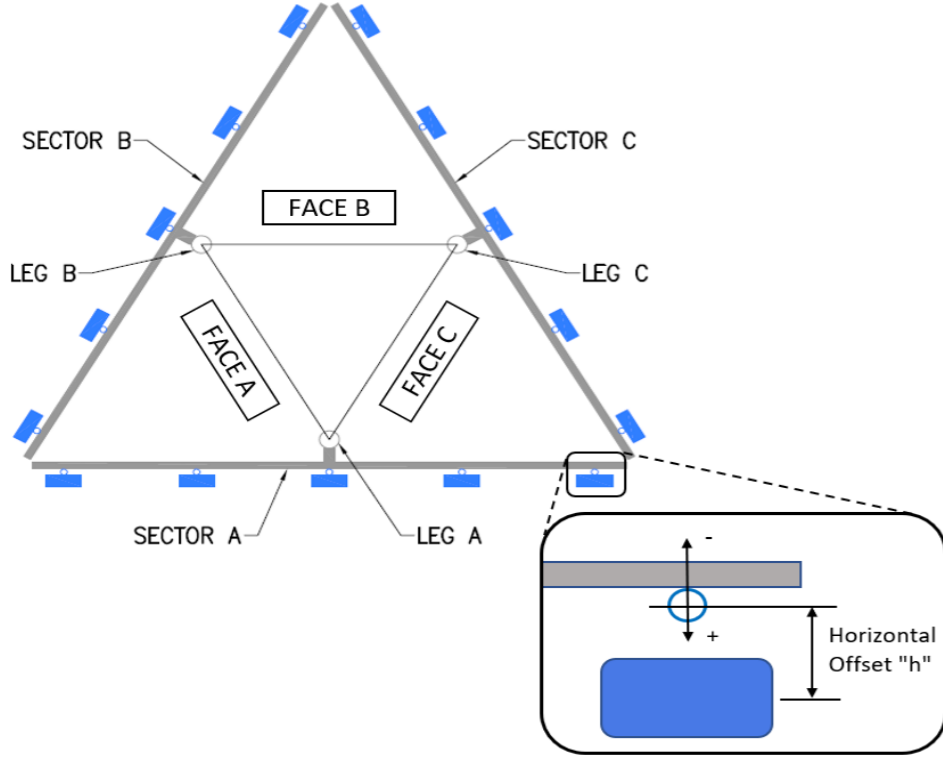


Mount Pipe Configuration and Geometries [Unit = Inches]							
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	2" STD. PIPE X 72" LONG	51.00	3.00	C1	2" STD. PIPE X 72" LONG	51.00	3.00
A2	2" STD. PIPE X 84" LONG	48.00	51.00	C2	2" STD. PIPE X 84" LONG	48.00	51.00
A3	2" STD. PIPE X 72" LONG	51.00	111.00	C3	2" STD. PIPE X 72" LONG	51.00	111.00
A4	2" STD. PIPE X 48" LONG	38.00	159.00	C4	2" STD. PIPE X 48" LONG	38.00	159.00
A5				C5			
A6				C6			
B1	2" STD. PIPE X 72" LONG	51.00	3.00	D1			
B2	2" STD. PIPE X 84" LONG	48.00	51.00	D2			
B3	2" STD. PIPE X 72" LONG	51.00	111.00	D3			
B4	2" STD. PIPE X 48" LONG	38.00	159.00	D4			
B5				D5			
B6				D6			

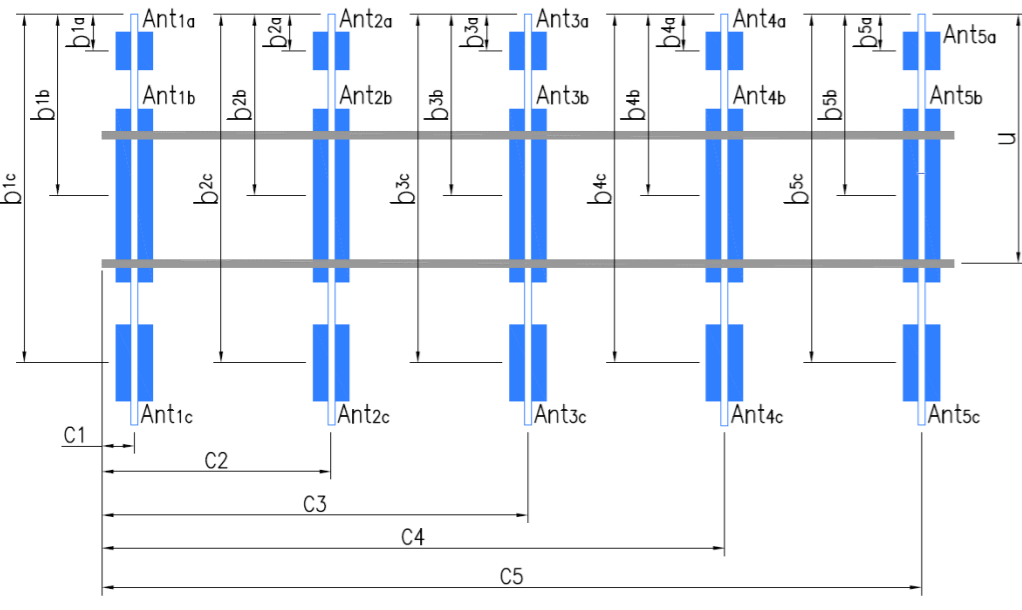
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :  
 Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :  
 Distance from top of bottom support rail to highest tip of ant./eqpt. of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

MONOPOLE WALL THICKNESS: 0.219"

Tower Face Width at Mount Elev. (ft.):	Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	20
--	---	----

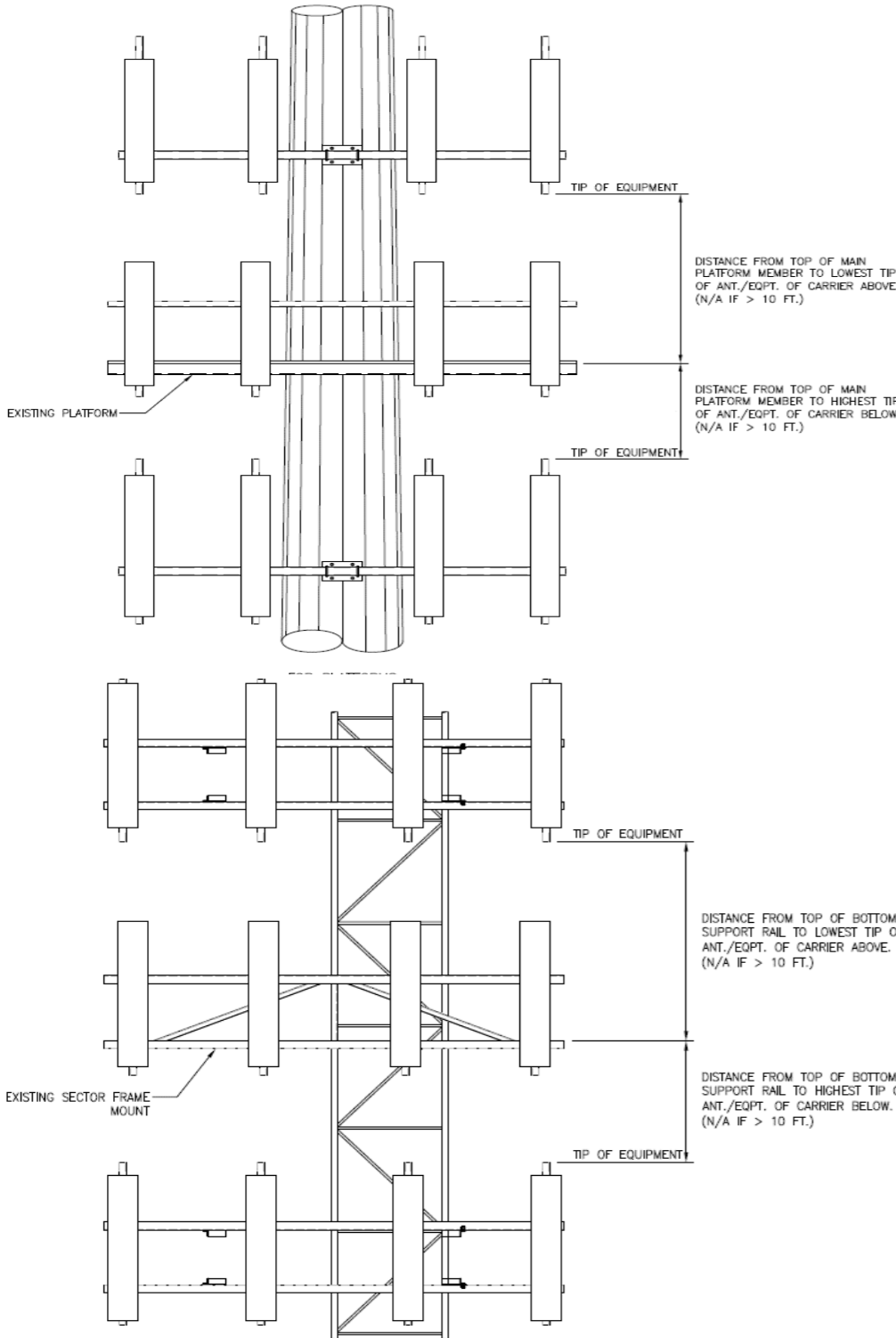


Ants. Items	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances "b <sub>1a</sub> , b <sub>2a</sub> , b <sub>3a</sub> , b <sub>1b</sub> ..." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	
<b>Sector A</b>										
Ant <sub>1a</sub>	B4 RRH	11.00	6.00	36.00		112.75	30.00	-6.50		78
Ant <sub>1b</sub>	HBXX-6517DS-A2M	12.00	6.00	75.00		113.125	25.50	9.50	5.00	75,78
Ant <sub>1c</sub>										
Ant <sub>2a</sub>	TMA					115				78
Ant <sub>2b</sub>	BXA-70063-6CF-EDIN	11.00	5.00	71.00		112.167	34.00	9.00	5.00	62,78
Ant <sub>2c</sub>										
Ant <sub>3a</sub>	TMA					115.25				80
Ant <sub>3b</sub>	HBXX-6517DS-A2M	12.00	6.00	75.00		113.125	25.50	9.50	5.00	75,80
Ant <sub>3c</sub>										
Ant <sub>4a</sub>										
Ant <sub>4b</sub>	BXA-70080-48F-EDIN	8.00	6.00	48.00		112.167	24.00	8.50	5.00	63,80
Ant <sub>4c</sub>										
Ant <sub>5a</sub>										
Ant <sub>5b</sub>										
Ant <sub>5c</sub>										
Ant on Standoff										
Ant on Standoff										
Ant on Tower	RRFDC-4415-PF	15.00	10.00	28.00						103
Ant on Tower										



**Antenna Layout (Looking Out From Tower)**

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector				Sector B									
Sector A:	5.00	Deg	Leg A:		Deg	Ant <sub>1a</sub>	B4 RRH	11.00	6.00	36.00		112.75	30.00	-6.50		81	
Sector B:	120.00	Deg	Leg B:		Deg	Ant <sub>1b</sub>	HBXX-6517DS-A2M	12.00	6.00	75.00		113.125	25.50	9.50	120.00	75,81	
Sector C:	245.00	Deg	Leg C:		Deg	Ant <sub>1c</sub>											
Sector D:		Deg	Leg D:		Deg	Ant <sub>2a</sub>	TMA					115				81	
<b>Climbing Facility Information</b>							Ant <sub>2b</sub>	BXA-70063-6CF-EDIN	11.00	5.00	71.00		112.167	34.00	9.00	120.00	62,81
Location:	100.00	Deg	N/A				Ant <sub>2c</sub>										
Climbing Facility	Corrosion Type:		Good condition.				Ant <sub>3a</sub>	TMA					115.25				82
	Access:		Climbing path was unobstructed.				Ant <sub>3b</sub>	HBXX-6517DS-A2M	12.00	6.00	75.00		113.125	25.50	9.50	120.00	75,82
	Condition:		Good condition.				Ant <sub>3c</sub>										
							Ant <sub>4a</sub>										
							Ant <sub>4b</sub>	BXA-70080-48F-EDIN	8.00	6.00	48.00		112.167	24.00	8.50	120.00	63,82
							Ant <sub>4c</sub>										
							Ant <sub>5a</sub>										
							Ant <sub>5b</sub>										
							Ant <sub>5c</sub>										
							Ant on Standoff										
							Ant on Standoff										
							Ant on Tower										
							Ant on Tower										
							<b>Sector C</b>										
							Ant <sub>1a</sub>	B4 RRH	11.00	6.00	36.00		112.75	30.00	-6.50		39
							Ant <sub>1b</sub>	HBXX-6517DS-A2M	12.00	6.00	75.00		113.125	25.50	9.50	245.00	39,75
							Ant <sub>1c</sub>										
							Ant <sub>2a</sub>	TMA					115				83
							Ant <sub>2b</sub>	BXA-70063-6CF-EDIN	11.00	5.00	71.00		112.167	34.00	9.00	245.00	62,83
							Ant <sub>2c</sub>										
							Ant <sub>3a</sub>	TMA					115.25				84
							Ant <sub>3b</sub>	HBXX-6517DS-A2M	12.00	6.00	75.00		113.125	25.50	9.50	245.00	75,84
							Ant <sub>3c</sub>										
							Ant <sub>4a</sub>										
							Ant <sub>4b</sub>	BXA-70080-48F-EDIN	8.00	6.00	48.00		112.167	24.00	8.50	245.00	63,84
							Ant <sub>4c</sub>										
							Ant <sub>5a</sub>										
							Ant <sub>5b</sub>										
							Ant <sub>5c</sub>										
							Ant on Standoff										
							Ant on Standoff										
							Ant on Tower										
							Ant on Tower										
							<b>Sector D</b>										
							Ant <sub>1a</sub>										
							Ant <sub>1b</sub>										
							Ant <sub>1c</sub>										
							Ant <sub>2a</sub>										
							Ant <sub>2b</sub>										
							Ant <sub>2c</sub>										
							Ant <sub>3a</sub>										
							Ant <sub>3b</sub>										
							Ant <sub>3c</sub>										
							Ant <sub>4a</sub>										
							Ant <sub>4b</sub>										
							Ant <sub>4c</sub>										
							Ant <sub>5a</sub>										
							Ant <sub>5b</sub>										
							Ant <sub>5c</sub>										
							Ant on Standoff										
							Ant on Standoff										
							Ant on Tower										
							Ant on Tower										



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

1		
2	(3) 1-5/8"Ø COAX, (9) 1-1/4"Ø COAX, (1) 1-1/4"Ø HYBRID	46-53
3	wall thickness .221 .219 .217	76
4		
5		
6		
7		
8		

**Mapping Notes**

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

**Standard Conditions**

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



### Antenna Mount Mapping Form (PATENT PENDING)

FCC #  
302498

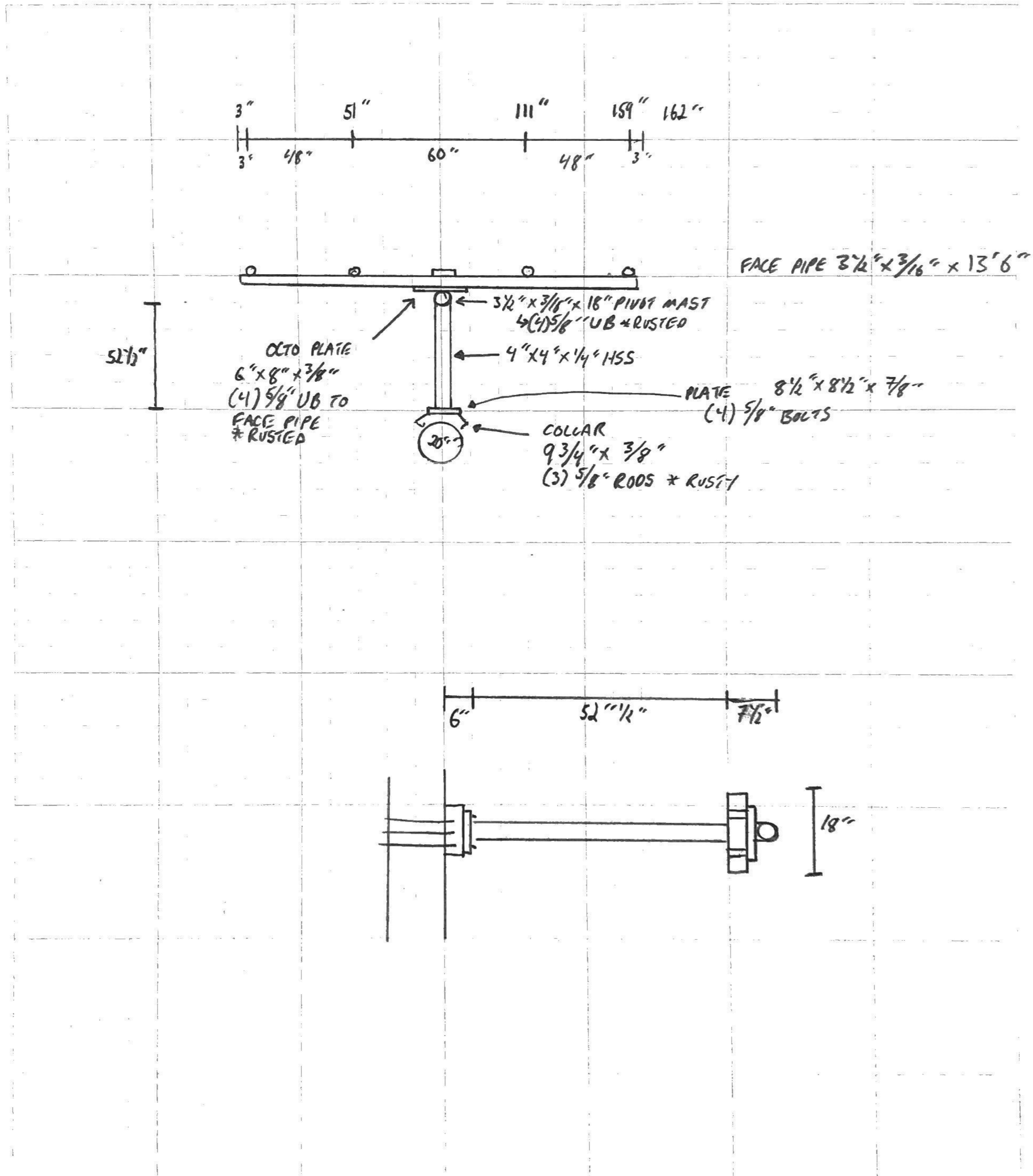
Tower Owner:	AMERICAN TOWER	Mapping Date:	3/30/2021
Site Name:	PLAINFIELD CT	Tower Type:	Monopole
Site Number or ID:	468617	Tower Height (Ft.):	
Mapping Contractor:	HUDSON DESIGN GROUP, LLC.	Mount Elevation (Ft.):	111

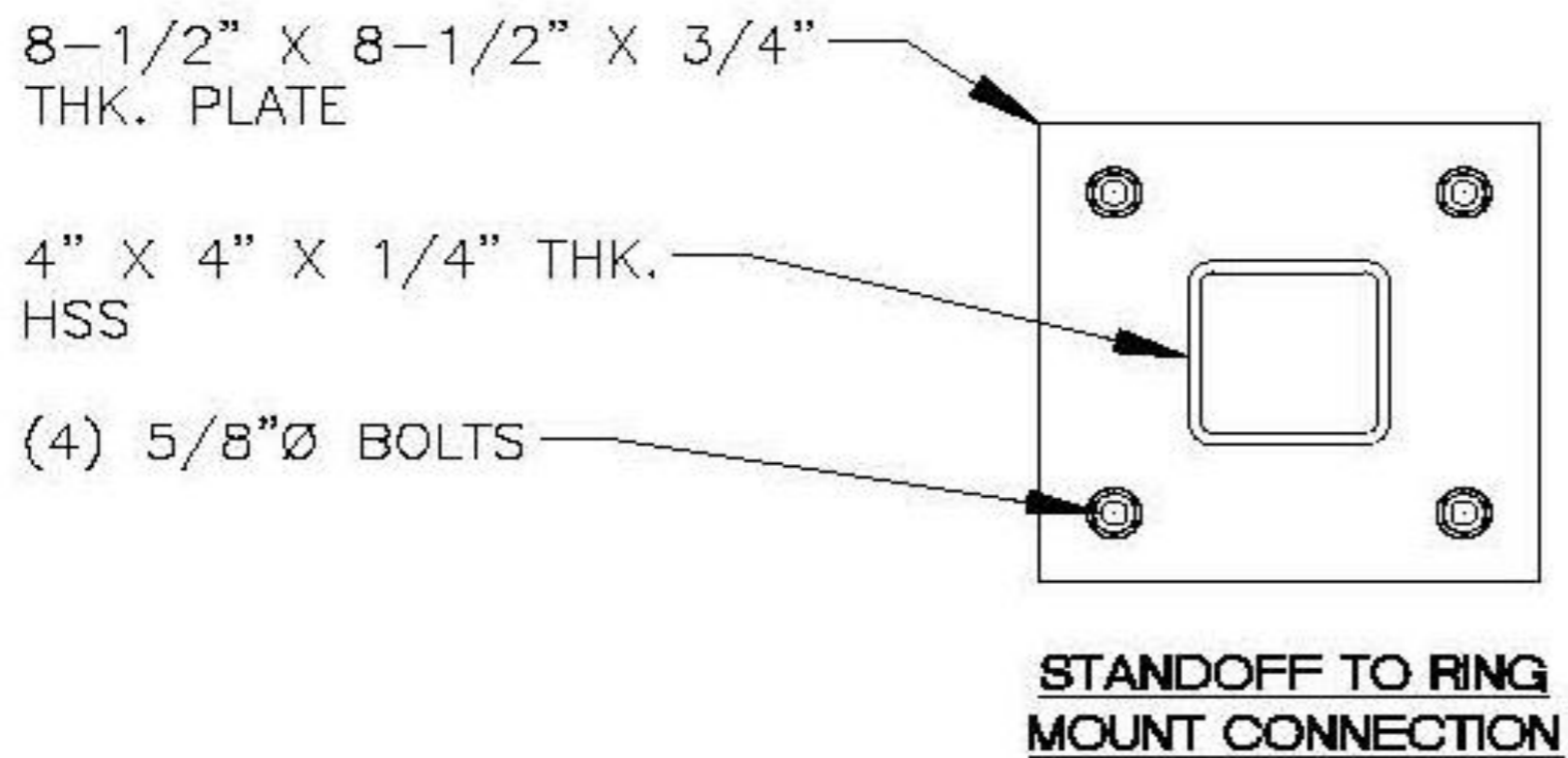
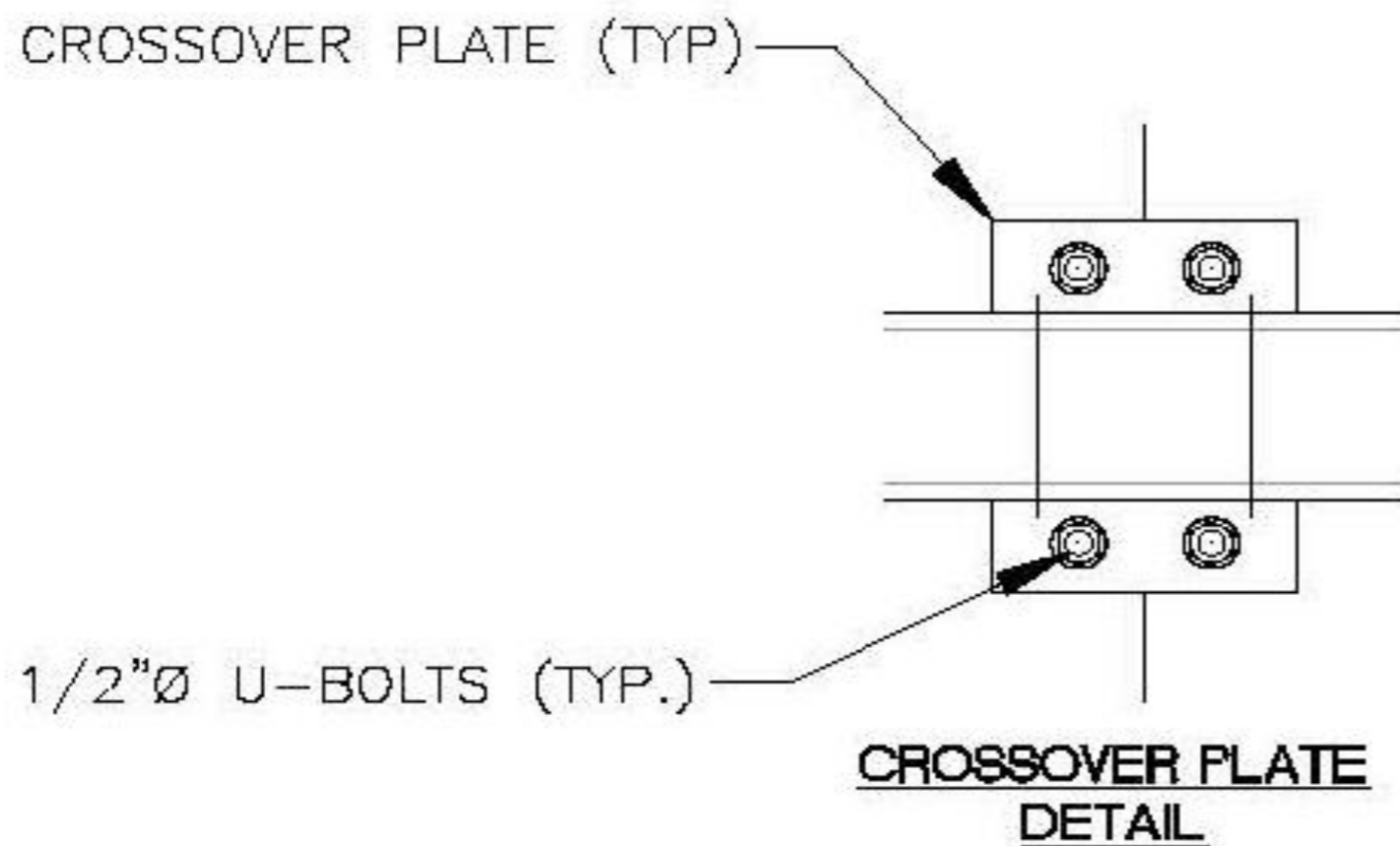
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Please Insert Sketches of the Antenna Mount

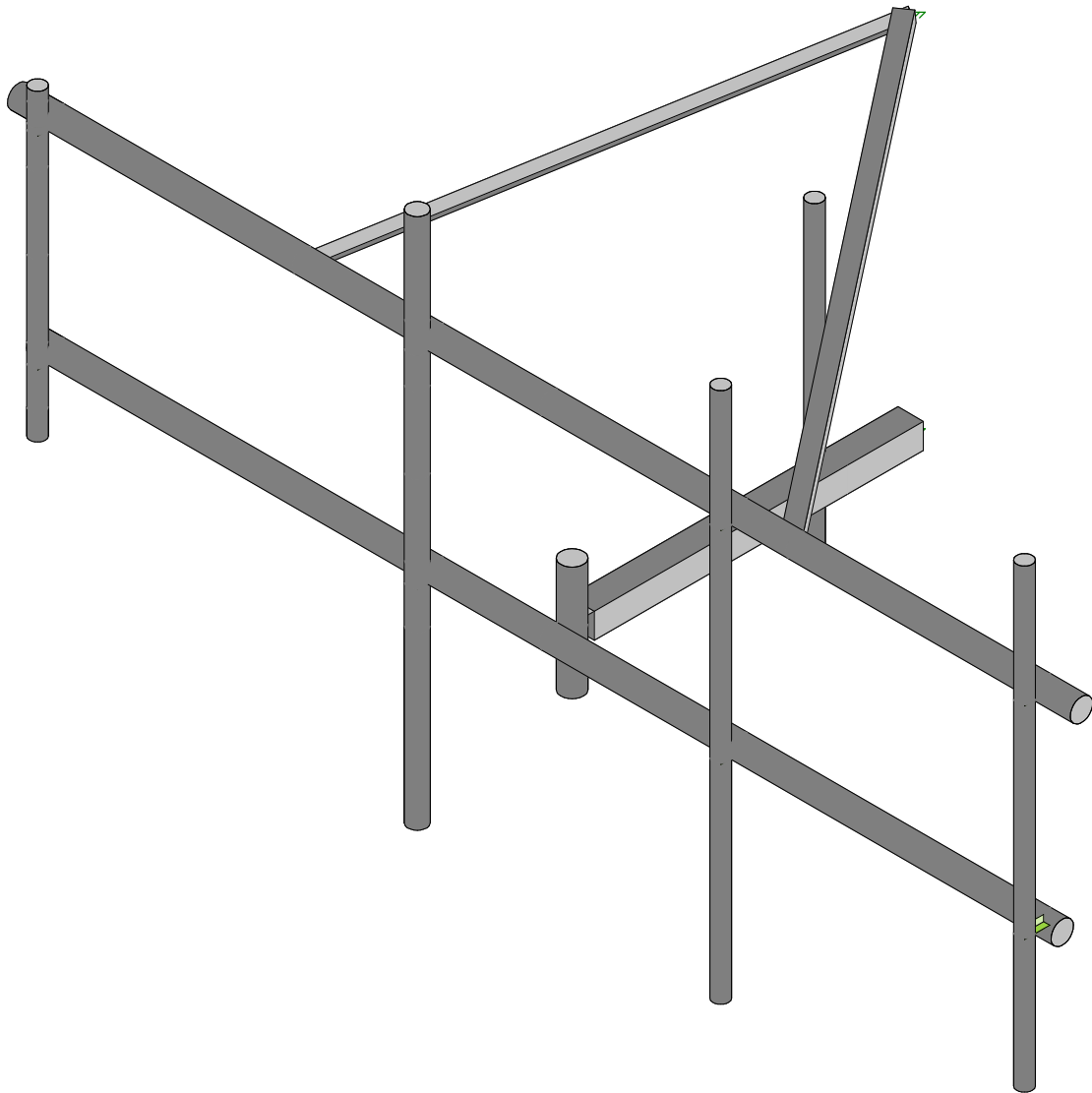
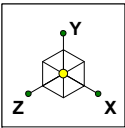
DATE: \_\_\_\_\_  
 Project Name: \_\_\_\_\_  
 Project No.: PLAINFIELD CT  
 Design By: CR Chk'd By: \_\_\_\_\_

Page 2 of 2



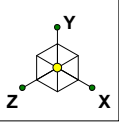




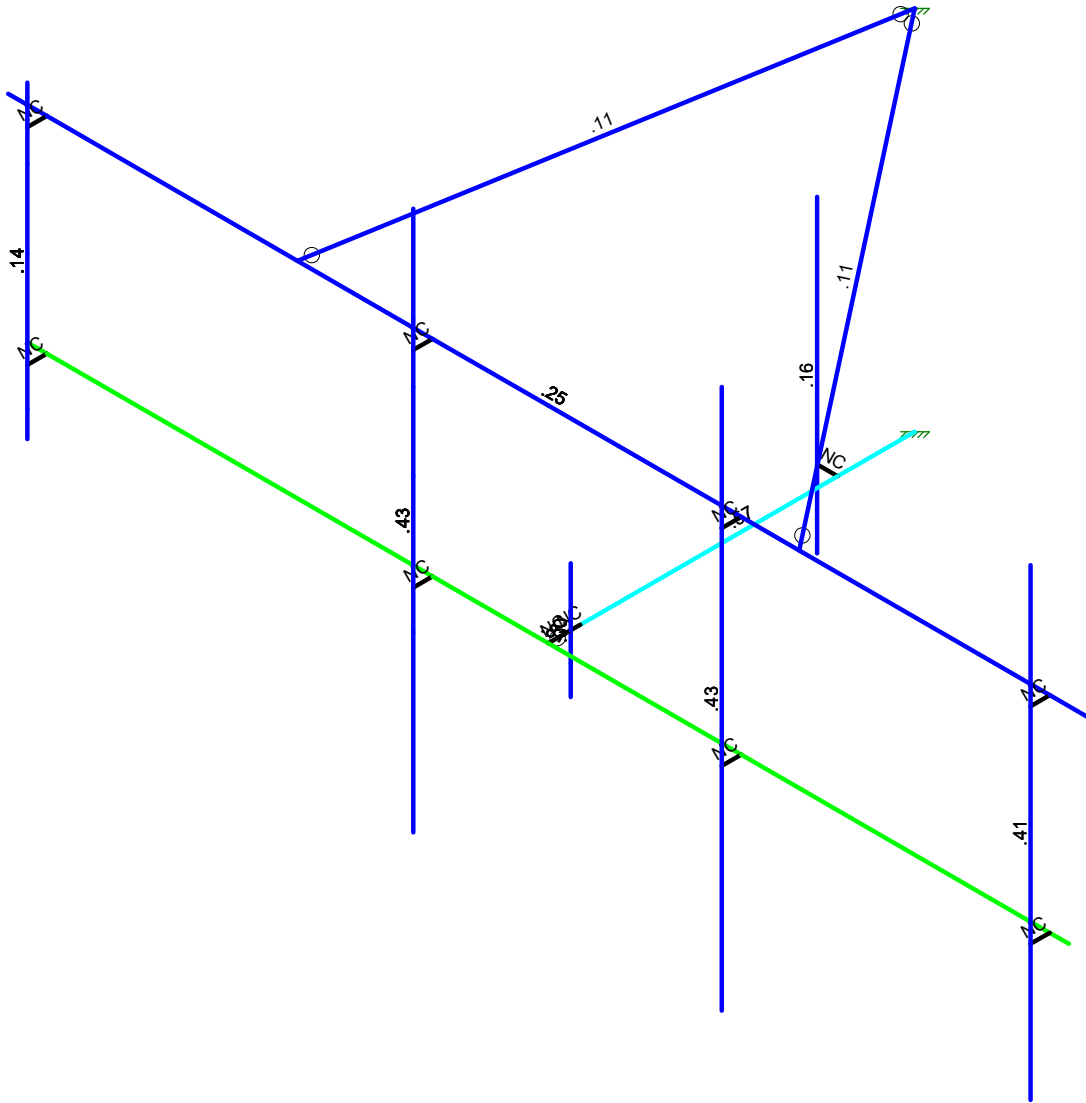
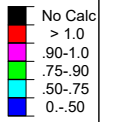


Envelope Only Solution

Maser Consulting	468617-VZW_MT_LOT_SectorA_H	SK - 1
AE		June 21, 2021 at 11:23 AM
Project No. 10050473		468617-VZW_MT_LOT_A_H_LOA...

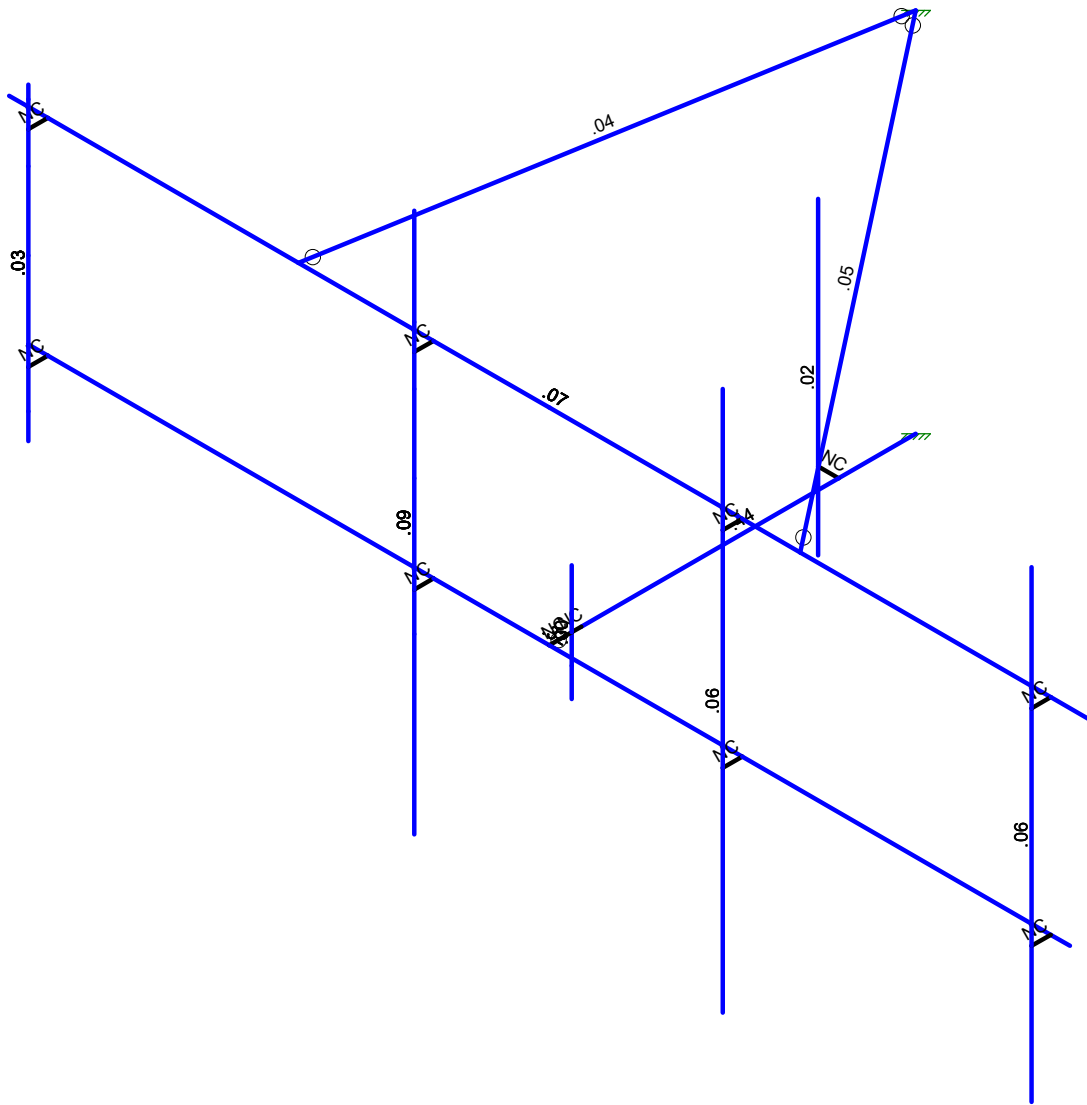
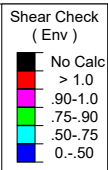
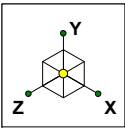


Code Check  
( Env )



Member Code Checks Displayed (Enveloped)  
Envelope Only Solution

Maser Consulting	468617-VZW_MT_LOT_SectorA_H	SK - 2
AE		June 21, 2021 at 11:23 AM
Project No. 10050473		468617-VZW_MT_LOT_A_H_LOA...



Member Shear Checks Displayed (Enveloped)  
Envelope Only Solution

Maser Consulting	468617-VZW_MT_LOT_SectorA_H	SK - 3
AE		June 21, 2021 at 11:23 AM
Project No. 10050473		468617-VZW_MT_LOT_A_H_LOA...



**Basic Load Cases**

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



**Basic Load Cases (Continued)**

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

**Load Combinations**

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



**Load Combinations (Continued)**

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

**Joint Coordinates and Temperatures**

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	-0.	0	-2.552083	0	
2	N2	-0.	0	1.90625	0	
3	N3	-0.	-.75	1.90625	0	
4	N4	-0.	.75	1.90625	0	
5	N5	0	0	2.197917	0	
6	N6	6.75	0	2.197917	0	
7	N7	-6.75	0	2.197917	0	
8	N11	6.5	0	2.197917	0	
9	N12	6.5	0	2.447917	0	
10	N13	6.5	4.25	2.447917	0	
11	N14	6.5	-1.75	2.447917	0	
12	N21	-0.	-.375	1.90625	0	
13	N13A	2.5	0	2.197917	0	
14	N14A	2.5	0	2.447917	0	
15	N15	2.5	4.25	2.447917	0	
16	N16	2.5	-2.75	2.447917	0	



**Joint Coordinates and Temperatures (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
17	N17	-1.5	0	2.197917	0	
18	N18	-1.5	0	2.447917	0	
19	N19	-1.5	4.25	2.447917	0	
20	N20	-1.5	-2.75	2.447917	0	
21	N21A	-6.5	0	2.197917	0	
22	N22	-6.5	0	2.447917	0	
23	N23	-6.5	3.166667	2.447917	0	
24	N24	-6.5	-0.833333	2.447917	0	
25	N25	0.	0	1.78125	0	
26	N26	-6.5	-.5	2.447917	0	
27	N27	-6.5	3	2.447917	0	
28	N28	-6.5	1.25	2.447917	0	
29	N29	-0.	0	-1.552083	0	
30	N30	-0.266667	0	-1.552083	0	
31	N31	-0.266667	-1	-1.552083	0	
32	N32	-0.266667	3	-1.552083	0	
33	N33	-1.5	1.25	2.447917	0	
34	N34	-6.5	2.25	2.447917	0	
35	N35	-6.5	.25	2.447917	0	
36	N36	-1.5	3	2.447917	0	
37	N37	-1.5	-.5	2.447917	0	
38	N39	-1.5	2.25	2.447917	0	
39	N40	-1.5	.25	2.447917	0	
40	N41	0	2.666667	2.197917	0	
41	N42	7	2.666667	2.197917	0	
42	N43	-7	2.666667	2.197917	0	
43	N44	6.5	2.666667	2.197917	0	
44	N45	6.5	2.666667	2.447917	0	
45	N46	2.5	2.666667	2.197917	0	
46	N47	2.5	2.666667	2.447917	0	
47	N48	-1.5	2.666667	2.197917	0	
48	N49	-1.5	2.666667	2.447917	0	
49	N50	-6.5	2.666667	2.197917	0	
50	N51	-6.5	2.666667	2.447917	0	
51	N52	-6.5	2.75	2.447917	0	
52	N53	-3.25	2.666667	2.197917	0	
53	N54	3.25	2.666667	2.197917	0	
54	N55	-0.	4.75	-2.552083	0	

**Hot Rolled Steel Section Sets**

	Label	Shape	Type	Design L...	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE 2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Mod Face Horizontal	PIPE 3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
3	Dual Mount Pipe	PIPE 2.5	Column	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
4	Standoff Arm	HSS4X4X4	Beam	Tube	A500 Gr.46	Typical	3.37	7.8	7.8	12.8
5	Mod Standoff Arm	HSS3X3X4	Beam	Tube	A500 Gr.46	Typical	2.44	3.02	3.02	5.08
6	Mod SFS	L2.5x2.5x3	Beam	Single A...	A36 Gr.36	Typical	.901	.535	.535	.011
7	Standoff Pipe	PIPE 3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
8	Horizontal	PIPE 3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69



### Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
1	M1	Standoff Arm	4.333			Lbyy						Lateral
2	M2	Standoff Pipe	1.5									Lateral
3	M4	Horizontal	13.5									Lateral
4	MP1A	Antenna Pipe	6									Lateral
5	MP2A	Antenna Pipe	7									Lateral
6	MP3A	Dual Mount ...	7									Lateral
7	MP4A	Antenna Pipe	4									Lateral
8	OVP	Antenna Pipe	4									Lateral
9	M16	Mod Face H...	14									Lateral
10	M22	Mod SFS	6.121			Lbyy						Lateral
11	M23	Mod SFS	6.121			Lbyy						Lateral

### Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N1	N25			Standoff Arm	Beam	Tube	A500 Gr.46	Typical
2	M2	N4	N3			Standoff Pipe	Column	Pipe	A53 Gr. B	Typical
3	M4	N7	N6			Horizontal	Column	Pipe	A53 Gr. B	Typical
4	MP1A	N13	N14			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
5	M8	N11	N12			RIGID	None	None	RIGID	Typical
6	M10A	N2	N5			RIGID	None	None	RIGID	Typical
7	MP2A	N15	N16			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
8	M8A	N13A	N14A			RIGID	None	None	RIGID	Typical
9	MP3A	N19	N20			Dual Mount Pipe	Column	Pipe	A53 Gr. B	Typical
10	M10	N17	N18			RIGID	None	None	RIGID	Typical
11	MP4A	N23	N24			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
12	M12	N21A	N22			RIGID	None	None	RIGID	Typical
13	M13	N2	N25			RIGID	None	None	RIGID	Typical
14	M14	N29	N30			RIGID	None	None	RIGID	Typical
15	OVP	N32	N31			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
16	M16	N43	N42			Mod Face Hori...	Column	Pipe	A53 Gr. B	Typical
17	M17	N44	N45			RIGID	None	None	RIGID	Typical
18	M18	N46	N47			RIGID	None	None	RIGID	Typical
19	M19	N48	N49			RIGID	None	None	RIGID	Typical
20	M20	N50	N51			RIGID	None	None	RIGID	Typical
21	M22	N53	N55		90	Mod SFS	Beam	Single Angle	A36 Gr.36	Typical
22	M23	N54	N55		180	Mod SFS	Beam	Single Angle	A36 Gr.36	Typical

### Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes	Default			None
2	M2						Yes	** NA **			None
3	M4						Yes	** NA **			None
4	MP1A						Yes	** NA **			None
5	M8						Yes	** NA **			None
6	M10A	OOOOXO					Yes	** NA **			None
7	MP2A						Yes	** NA **			None
8	M8A						Yes	** NA **			None
9	MP3A						Yes	** NA **			None
10	M10						Yes	** NA **			None
11	MP4A						Yes	** NA **			None
12	M12						Yes	** NA **			None
13	M13						Yes	** NA **			None
14	M14						Yes	** NA **			None
15	OVP						Yes	** NA **			None





**Member Advanced Data (Continued)**

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat..	Analysis ...	Inactive	Seismic..
16	M16						Yes	** NA **			None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M19						Yes	** NA **			None
20	M20						Yes	** NA **			None
21	M22	BenPIN	BenPIN				Yes				None
22	M23	BenPIN	BenPIN				Yes				None

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	Y	-31.65	1.25
2	MP3A	My	-.017	1.25
3	MP3A	Mz	.029	1.25
4	MP3A	Y	-31.65	4.75
5	MP3A	My	-.017	4.75
6	MP3A	Mz	.029	4.75
7	MP3A	Y	-31.65	1.25
8	MP3A	My	-.029	1.25
9	MP3A	Mz	-.017	1.25
10	MP3A	Y	-31.65	4.75
11	MP3A	My	-.029	4.75
12	MP3A	Mz	-.017	4.75
13	MP1A	Y	-43.55	2
14	MP1A	My	-.021	2
15	MP1A	Mz	.006	2
16	MP1A	Y	-43.55	4
17	MP1A	My	-.021	4
18	MP1A	Mz	.006	4
19	MP4A	Y	-6	.17
20	MP4A	My	-.004	.17
21	MP4A	Mz	0	.17
22	MP4A	Y	-6	3.67
23	MP4A	My	-.004	3.67
24	MP4A	Mz	0	3.67
25	MP3A	Y	-7.9	1.5
26	MP3A	My	.003	1.5
27	MP3A	Mz	0	1.5
28	MP2A	Y	-84.4	2.75
29	MP2A	My	.042	2.75
30	MP2A	Mz	0	2.75
31	MP3A	Y	-70.3	2.75
32	MP3A	My	.035	2.75
33	MP3A	Mz	0	2.75
34	OVP	Y	-32	1
35	OVP	My	0	1
36	OVP	Mz	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP3A	Y	-68.407	1.25
2	MP3A	My	-.036	1.25
3	MP3A	Mz	.063	1.25
4	MP3A	Y	-68.407	4.75
5	MP3A	My	-.036	4.75
6	MP3A	Mz	.063	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
7	MP3A	Y	-68.407	1.25
8	MP3A	My	-.063	1.25
9	MP3A	Mz	-.036	1.25
10	MP3A	Y	-68.407	4.75
11	MP3A	My	-.063	4.75
12	MP3A	Mz	-.036	4.75
13	MP1A	Y	-34.815	2
14	MP1A	My	-.017	2
15	MP1A	Mz	.005	2
16	MP1A	Y	-34.815	4
17	MP1A	My	-.017	4
18	MP1A	Mz	.005	4
19	MP4A	Y	-30.018	.17
20	MP4A	My	-.021	.17
21	MP4A	Mz	0	.17
22	MP4A	Y	-30.018	3.67
23	MP4A	My	-.021	3.67
24	MP4A	Mz	0	3.67
25	MP3A	Y	-8.223	1.5
26	MP3A	My	.003	1.5
27	MP3A	Mz	0	1.5
28	MP2A	Y	-43.879	2.75
29	MP2A	My	.022	2.75
30	MP2A	Mz	0	2.75
31	MP3A	Y	-39.455	2.75
32	MP3A	My	.02	2.75
33	MP3A	Mz	0	2.75
34	OVP	Y	-74.263	1
35	OVP	My	0	1
36	OVP	Mz	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1.25
2	MP3A	Z	-150.114	1.25
3	MP3A	Mx	-.138	1.25
4	MP3A	X	0	4.75
5	MP3A	Z	-150.114	4.75
6	MP3A	Mx	-.138	4.75
7	MP3A	X	0	1.25
8	MP3A	Z	-150.114	1.25
9	MP3A	Mx	.08	1.25
10	MP3A	X	0	4.75
11	MP3A	Z	-150.114	4.75
12	MP3A	Mx	.08	4.75
13	MP1A	X	0	2
14	MP1A	Z	-76.037	2
15	MP1A	Mx	-.01	2
16	MP1A	X	0	4
17	MP1A	Z	-76.037	4
18	MP1A	Mx	-.01	4
19	MP4A	X	0	.17
20	MP4A	Z	-60.042	.17
21	MP4A	Mx	0	.17
22	MP4A	X	0	3.67
23	MP4A	Z	-60.042	3.67



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
24	MP4A	Mx	0	3.67
25	MP3A	X	0	1.5
26	MP3A	Z	-10.794	1.5
27	MP3A	Mx	0	1.5
28	MP2A	X	0	2.75
29	MP2A	Z	-63.078	2.75
30	MP2A	Mx	0	2.75
31	MP3A	X	0	2.75
32	MP3A	Z	-63.078	2.75
33	MP3A	Mx	0	2.75
34	OVP	X	0	1
35	OVP	Z	-117.037	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	63.64	1.25
2	MP3A	Z	-110.227	1.25
3	MP3A	Mx	-.135	1.25
4	MP3A	X	63.64	4.75
5	MP3A	Z	-110.227	4.75
6	MP3A	Mx	-.135	4.75
7	MP3A	X	63.64	1.25
8	MP3A	Z	-110.227	1.25
9	MP3A	Mx	0	1.25
10	MP3A	X	63.64	4.75
11	MP3A	Z	-110.227	4.75
12	MP3A	Mx	0	4.75
13	MP1A	X	27.576	2
14	MP1A	Z	-47.762	2
15	MP1A	Mx	-.019	2
16	MP1A	X	27.576	4
17	MP1A	Z	-47.762	4
18	MP1A	Mx	-.019	4
19	MP4A	X	28.404	.17
20	MP4A	Z	-49.196	.17
21	MP4A	Mx	-.02	.17
22	MP4A	X	28.404	3.67
23	MP4A	Z	-49.196	3.67
24	MP4A	Mx	-.02	3.67
25	MP3A	X	4.581	1.5
26	MP3A	Z	-7.935	1.5
27	MP3A	Mx	.002	1.5
28	MP2A	X	28.925	2.75
29	MP2A	Z	-50.099	2.75
30	MP2A	Mx	.014	2.75
31	MP3A	X	27.923	2.75
32	MP3A	Z	-48.364	2.75
33	MP3A	Mx	.014	2.75
34	OVP	X	63.921	1
35	OVP	Z	-110.714	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	90.452	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
2	MP3A	Z	-52.223	1.25
3	MP3A	Mx	-.096	1.25
4	MP3A	X	90.452	4.75
5	MP3A	Z	-52.223	4.75
6	MP3A	Mx	-.096	4.75
7	MP3A	X	90.452	1.25
8	MP3A	Z	-52.223	1.25
9	MP3A	Mx	-.055	1.25
10	MP3A	X	90.452	4.75
11	MP3A	Z	-52.223	4.75
12	MP3A	Mx	-.055	4.75
13	MP1A	X	29.674	2
14	MP1A	Z	-17.132	2
15	MP1A	Mx	-.017	2
16	MP1A	X	29.674	4
17	MP1A	Z	-17.132	4
18	MP1A	Mx	-.017	4
19	MP4A	X	43.594	.17
20	MP4A	Z	-25.169	.17
21	MP4A	Mx	-.031	.17
22	MP4A	X	43.594	3.67
23	MP4A	Z	-25.169	3.67
24	MP4A	Mx	-.031	3.67
25	MP3A	X	5.108	1.5
26	MP3A	Z	-2.949	1.5
27	MP3A	Mx	.002	1.5
28	MP2A	X	41.043	2.75
29	MP2A	Z	-23.696	2.75
30	MP2A	Mx	.021	2.75
31	MP3A	X	35.84	2.75
32	MP3A	Z	-20.692	2.75
33	MP3A	Mx	.018	2.75
34	OVP	X	101.357	1
35	OVP	Z	-58.518	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	104.445	1.25
2	MP3A	Z	0	1.25
3	MP3A	Mx	-.055	1.25
4	MP3A	X	104.445	4.75
5	MP3A	Z	0	4.75
6	MP3A	Mx	-.055	4.75
7	MP3A	X	104.445	1.25
8	MP3A	Z	0	1.25
9	MP3A	Mx	-.096	1.25
10	MP3A	X	104.445	4.75
11	MP3A	Z	0	4.75
12	MP3A	Mx	-.096	4.75
13	MP1A	X	34.265	2
14	MP1A	Z	0	2
15	MP1A	Mx	-.017	2
16	MP1A	X	34.265	4
17	MP1A	Z	0	4
18	MP1A	Mx	-.017	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
19	MP4A	X	47.103	.17
20	MP4A	Z	0	.17
21	MP4A	Mx	-.033	.17
22	MP4A	X	47.103	3.67
23	MP4A	Z	0	3.67
24	MP4A	Mx	-.033	3.67
25	MP3A	X	4.267	1.5
26	MP3A	Z	0	1.5
27	MP3A	Mx	.002	1.5
28	MP2A	X	42.164	2.75
29	MP2A	Z	0	2.75
30	MP2A	Mx	.021	2.75
31	MP3A	X	34.153	2.75
32	MP3A	Z	0	2.75
33	MP3A	Mx	.017	2.75
34	OVP	X	95.426	1
35	OVP	Z	0	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	110.227	1.25
2	MP3A	Z	63.64	1.25
3	MP3A	Mx	0	1.25
4	MP3A	X	110.227	4.75
5	MP3A	Z	63.64	4.75
6	MP3A	Mx	0	4.75
7	MP3A	X	110.227	1.25
8	MP3A	Z	63.64	1.25
9	MP3A	Mx	-.135	1.25
10	MP3A	X	110.227	4.75
11	MP3A	Z	63.64	4.75
12	MP3A	Mx	-.135	4.75
13	MP1A	X	47.762	2
14	MP1A	Z	27.576	2
15	MP1A	Mx	-.019	2
16	MP1A	X	47.762	4
17	MP1A	Z	27.576	4
18	MP1A	Mx	-.019	4
19	MP4A	X	43.594	.17
20	MP4A	Z	25.169	.17
21	MP4A	Mx	-.031	.17
22	MP4A	X	43.594	3.67
23	MP4A	Z	25.169	3.67
24	MP4A	Mx	-.031	3.67
25	MP3A	X	5.108	1.5
26	MP3A	Z	2.949	1.5
27	MP3A	Mx	.002	1.5
28	MP2A	X	41.043	2.75
29	MP2A	Z	23.696	2.75
30	MP2A	Mx	.021	2.75
31	MP3A	X	35.84	2.75
32	MP3A	Z	20.692	2.75
33	MP3A	Mx	.018	2.75
34	OVP	X	73.284	1
35	OVP	Z	42.311	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	75.057	1.25
2	MP3A	Z	130.002	1.25
3	MP3A	Mx	.08	1.25
4	MP3A	X	75.057	4.75
5	MP3A	Z	130.002	4.75
6	MP3A	Mx	.08	4.75
7	MP3A	X	75.057	1.25
8	MP3A	Z	130.002	1.25
9	MP3A	Mx	-.138	1.25
10	MP3A	X	75.057	4.75
11	MP3A	Z	130.002	4.75
12	MP3A	Mx	-.138	4.75
13	MP1A	X	38.019	2
14	MP1A	Z	65.85	2
15	MP1A	Mx	-.01	2
16	MP1A	X	38.019	4
17	MP1A	Z	65.85	4
18	MP1A	Mx	-.01	4
19	MP4A	X	28.404	.17
20	MP4A	Z	49.196	.17
21	MP4A	Mx	-.02	.17
22	MP4A	X	28.404	3.67
23	MP4A	Z	49.196	3.67
24	MP4A	Mx	-.02	3.67
25	MP3A	X	4.581	1.5
26	MP3A	Z	7.935	1.5
27	MP3A	Mx	.002	1.5
28	MP2A	X	28.925	2.75
29	MP2A	Z	50.099	2.75
30	MP2A	Mx	.014	2.75
31	MP3A	X	27.923	2.75
32	MP3A	Z	48.364	2.75
33	MP3A	Mx	.014	2.75
34	OVP	X	47.713	1
35	OVP	Z	82.642	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1.25
2	MP3A	Z	150.114	1.25
3	MP3A	Mx	.138	1.25
4	MP3A	X	0	4.75
5	MP3A	Z	150.114	4.75
6	MP3A	Mx	.138	4.75
7	MP3A	X	0	1.25
8	MP3A	Z	150.114	1.25
9	MP3A	Mx	-.08	1.25
10	MP3A	X	0	4.75
11	MP3A	Z	150.114	4.75
12	MP3A	Mx	-.08	4.75
13	MP1A	X	0	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
14	MP1A	Z	76.037	2
15	MP1A	Mx	.01	2
16	MP1A	X	0	4
17	MP1A	Z	76.037	4
18	MP1A	Mx	.01	4
19	MP4A	X	0	.17
20	MP4A	Z	60.042	.17
21	MP4A	Mx	0	.17
22	MP4A	X	0	3.67
23	MP4A	Z	60.042	3.67
24	MP4A	Mx	0	3.67
25	MP3A	X	0	1.5
26	MP3A	Z	10.794	1.5
27	MP3A	Mx	0	1.5
28	MP2A	X	0	2.75
29	MP2A	Z	63.078	2.75
30	MP2A	Mx	0	2.75
31	MP3A	X	0	2.75
32	MP3A	Z	63.078	2.75
33	MP3A	Mx	0	2.75
34	OVP	X	0	1
35	OVP	Z	117.037	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	-63.64	1.25
2	MP3A	Z	110.227	1.25
3	MP3A	Mx	.135	1.25
4	MP3A	X	-63.64	4.75
5	MP3A	Z	110.227	4.75
6	MP3A	Mx	.135	4.75
7	MP3A	X	-63.64	1.25
8	MP3A	Z	110.227	1.25
9	MP3A	Mx	0	1.25
10	MP3A	X	-63.64	4.75
11	MP3A	Z	110.227	4.75
12	MP3A	Mx	0	4.75
13	MP1A	X	-27.576	2
14	MP1A	Z	47.762	2
15	MP1A	Mx	.019	2
16	MP1A	X	-27.576	4
17	MP1A	Z	47.762	4
18	MP1A	Mx	.019	4
19	MP4A	X	-28.404	.17
20	MP4A	Z	49.196	.17
21	MP4A	Mx	.02	.17
22	MP4A	X	-28.404	3.67
23	MP4A	Z	49.196	3.67
24	MP4A	Mx	.02	3.67
25	MP3A	X	-4.581	1.5
26	MP3A	Z	7.935	1.5
27	MP3A	Mx	-.002	1.5
28	MP2A	X	-28.925	2.75
29	MP2A	Z	50.099	2.75
30	MP2A	Mx	-.014	2.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
31	MP3A	X	-27.923	2.75
32	MP3A	Z	48.364	2.75
33	MP3A	Mx	-.014	2.75
34	OVP	X	-63.921	1
35	OVP	Z	110.714	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-90.452	1.25
2	MP3A	Z	52.223	1.25
3	MP3A	Mx	.096	1.25
4	MP3A	X	-90.452	4.75
5	MP3A	Z	52.223	4.75
6	MP3A	Mx	.096	4.75
7	MP3A	X	-90.452	1.25
8	MP3A	Z	52.223	1.25
9	MP3A	Mx	.055	1.25
10	MP3A	X	-90.452	4.75
11	MP3A	Z	52.223	4.75
12	MP3A	Mx	.055	4.75
13	MP1A	X	-29.674	2
14	MP1A	Z	17.132	2
15	MP1A	Mx	.017	2
16	MP1A	X	-29.674	4
17	MP1A	Z	17.132	4
18	MP1A	Mx	.017	4
19	MP4A	X	-43.594	.17
20	MP4A	Z	25.169	.17
21	MP4A	Mx	.031	.17
22	MP4A	X	-43.594	3.67
23	MP4A	Z	25.169	3.67
24	MP4A	Mx	.031	3.67
25	MP3A	X	-5.108	1.5
26	MP3A	Z	2.949	1.5
27	MP3A	Mx	-.002	1.5
28	MP2A	X	-41.043	2.75
29	MP2A	Z	23.696	2.75
30	MP2A	Mx	-.021	2.75
31	MP3A	X	-35.84	2.75
32	MP3A	Z	20.692	2.75
33	MP3A	Mx	-.018	2.75
34	OVP	X	-101.357	1
35	OVP	Z	58.518	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-104.445	1.25
2	MP3A	Z	0	1.25
3	MP3A	Mx	.055	1.25
4	MP3A	X	-104.445	4.75
5	MP3A	Z	0	4.75
6	MP3A	Mx	.055	4.75
7	MP3A	X	-104.445	1.25
8	MP3A	Z	0	1.25





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
9	MP3A	Mx	.096	1.25
10	MP3A	X	-104.445	4.75
11	MP3A	Z	0	4.75
12	MP3A	Mx	.096	4.75
13	MP1A	X	-34.265	2
14	MP1A	Z	0	2
15	MP1A	Mx	.017	2
16	MP1A	X	-34.265	4
17	MP1A	Z	0	4
18	MP1A	Mx	.017	4
19	MP4A	X	-47.103	.17
20	MP4A	Z	0	.17
21	MP4A	Mx	.033	.17
22	MP4A	X	-47.103	3.67
23	MP4A	Z	0	3.67
24	MP4A	Mx	.033	3.67
25	MP3A	X	-4.267	1.5
26	MP3A	Z	0	1.5
27	MP3A	Mx	-.002	1.5
28	MP2A	X	-42.164	2.75
29	MP2A	Z	0	2.75
30	MP2A	Mx	-.021	2.75
31	MP3A	X	-34.153	2.75
32	MP3A	Z	0	2.75
33	MP3A	Mx	-.017	2.75
34	OVP	X	-95.426	1
35	OVP	Z	0	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-110.227	1.25
2	MP3A	Z	-63.64	1.25
3	MP3A	Mx	0	1.25
4	MP3A	X	-110.227	4.75
5	MP3A	Z	-63.64	4.75
6	MP3A	Mx	0	4.75
7	MP3A	X	-110.227	1.25
8	MP3A	Z	-63.64	1.25
9	MP3A	Mx	.135	1.25
10	MP3A	X	-110.227	4.75
11	MP3A	Z	-63.64	4.75
12	MP3A	Mx	.135	4.75
13	MP1A	X	-47.762	2
14	MP1A	Z	-27.576	2
15	MP1A	Mx	.019	2
16	MP1A	X	-47.762	4
17	MP1A	Z	-27.576	4
18	MP1A	Mx	.019	4
19	MP4A	X	-43.594	.17
20	MP4A	Z	-25.169	.17
21	MP4A	Mx	.031	.17
22	MP4A	X	-43.594	3.67
23	MP4A	Z	-25.169	3.67
24	MP4A	Mx	.031	3.67
25	MP3A	X	-5.108	1.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
26	MP3A	Z	-2.949	1.5
27	MP3A	Mx	-.002	1.5
28	MP2A	X	-41.043	2.75
29	MP2A	Z	-23.696	2.75
30	MP2A	Mx	-.021	2.75
31	MP3A	X	-35.84	2.75
32	MP3A	Z	-20.692	2.75
33	MP3A	Mx	-.018	2.75
34	OVP	X	-73.284	1
35	OVP	Z	-42.311	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
1	MP3A	X	-75.057	1.25
2	MP3A	Z	-130.002	1.25
3	MP3A	Mx	-.08	1.25
4	MP3A	X	-75.057	4.75
5	MP3A	Z	-130.002	4.75
6	MP3A	Mx	-.08	4.75
7	MP3A	X	-75.057	1.25
8	MP3A	Z	-130.002	1.25
9	MP3A	Mx	.138	1.25
10	MP3A	X	-75.057	4.75
11	MP3A	Z	-130.002	4.75
12	MP3A	Mx	.138	4.75
13	MP1A	X	-38.019	2
14	MP1A	Z	-65.85	2
15	MP1A	Mx	.01	2
16	MP1A	X	-38.019	4
17	MP1A	Z	-65.85	4
18	MP1A	Mx	.01	4
19	MP4A	X	-28.404	.17
20	MP4A	Z	-49.196	.17
21	MP4A	Mx	.02	.17
22	MP4A	X	-28.404	3.67
23	MP4A	Z	-49.196	3.67
24	MP4A	Mx	.02	3.67
25	MP3A	X	-4.581	1.5
26	MP3A	Z	-7.935	1.5
27	MP3A	Mx	-.002	1.5
28	MP2A	X	-28.925	2.75
29	MP2A	Z	-50.099	2.75
30	MP2A	Mx	-.014	2.75
31	MP3A	X	-27.923	2.75
32	MP3A	Z	-48.364	2.75
33	MP3A	Mx	-.014	2.75
34	OVP	X	-47.713	1
35	OVP	Z	-82.642	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
1	MP3A	X	0	1.25
2	MP3A	Z	-26.742	1.25
3	MP3A	Mx	-.025	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
4	MP3A	X	0	4.75
5	MP3A	Z	-26.742	4.75
6	MP3A	Mx	-.025	4.75
7	MP3A	X	0	1.25
8	MP3A	Z	-26.742	1.25
9	MP3A	Mx	.014	1.25
10	MP3A	X	0	4.75
11	MP3A	Z	-26.742	4.75
12	MP3A	Mx	.014	4.75
13	MP1A	X	0	2
14	MP1A	Z	-13.966	2
15	MP1A	Mx	-.002	2
16	MP1A	X	0	4
17	MP1A	Z	-13.966	4
18	MP1A	Mx	-.002	4
19	MP4A	X	0	.17
20	MP4A	Z	-11.31	.17
21	MP4A	Mx	0	.17
22	MP4A	X	0	3.67
23	MP4A	Z	-11.31	3.67
24	MP4A	Mx	0	3.67
25	MP3A	X	0	1.5
26	MP3A	Z	-2.659	1.5
27	MP3A	Mx	0	1.5
28	MP2A	X	0	2.75
29	MP2A	Z	-12.228	2.75
30	MP2A	Mx	0	2.75
31	MP3A	X	0	2.75
32	MP3A	Z	-12.228	2.75
33	MP3A	Mx	0	2.75
34	OVP	X	0	1
35	OVP	Z	-21.698	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	11.488	1.25
2	MP3A	Z	-19.897	1.25
3	MP3A	Mx	-.024	1.25
4	MP3A	X	11.488	4.75
5	MP3A	Z	-19.897	4.75
6	MP3A	Mx	-.024	4.75
7	MP3A	X	11.488	1.25
8	MP3A	Z	-19.897	1.25
9	MP3A	Mx	0	1.25
10	MP3A	X	11.488	4.75
11	MP3A	Z	-19.897	4.75
12	MP3A	Mx	0	4.75
13	MP1A	X	5.175	2
14	MP1A	Z	-8.964	2
15	MP1A	Mx	-.004	2
16	MP1A	X	5.175	4
17	MP1A	Z	-8.964	4
18	MP1A	Mx	-.004	4
19	MP4A	X	5.382	.17
20	MP4A	Z	-9.322	.17



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
21	MP4A	Mx	-.004	.17
22	MP4A	X	5.382	3.67
23	MP4A	Z	-9.322	3.67
24	MP4A	Mx	-.004	3.67
25	MP3A	X	1.16	1.5
26	MP3A	Z	-2.01	1.5
27	MP3A	Mx	.000483	1.5
28	MP2A	X	5.648	2.75
29	MP2A	Z	-9.783	2.75
30	MP2A	Mx	.003	2.75
31	MP3A	X	5.471	2.75
32	MP3A	Z	-9.476	2.75
33	MP3A	Mx	.003	2.75
34	OVP	X	11.781	1
35	OVP	Z	-20.406	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	16.635	1.25
2	MP3A	Z	-9.604	1.25
3	MP3A	Mx	-.018	1.25
4	MP3A	X	16.635	4.75
5	MP3A	Z	-9.604	4.75
6	MP3A	Mx	-.018	4.75
7	MP3A	X	16.635	1.25
8	MP3A	Z	-9.604	1.25
9	MP3A	Mx	-.01	1.25
10	MP3A	X	16.635	4.75
11	MP3A	Z	-9.604	4.75
12	MP3A	Mx	-.01	4.75
13	MP1A	X	5.833	2
14	MP1A	Z	-3.368	2
15	MP1A	Mx	-.003	2
16	MP1A	X	5.833	4
17	MP1A	Z	-3.368	4
18	MP1A	Mx	-.003	4
19	MP4A	X	8.377	.17
20	MP4A	Z	-4.836	.17
21	MP4A	Mx	-.006	.17
22	MP4A	X	8.377	3.67
23	MP4A	Z	-4.836	3.67
24	MP4A	Mx	-.006	3.67
25	MP3A	X	1.424	1.5
26	MP3A	Z	-.822	1.5
27	MP3A	Mx	.000593	1.5
28	MP2A	X	8.168	2.75
29	MP2A	Z	-4.716	2.75
30	MP2A	Mx	.004	2.75
31	MP3A	X	7.247	2.75
32	MP3A	Z	-4.184	2.75
33	MP3A	Mx	.004	2.75
34	OVP	X	18.791	1
35	OVP	Z	-10.849	1
36	OVP	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	19.209	1.25
2	MP3A	Z	0	1.25
3	MP3A	Mx	-.01	1.25
4	MP3A	X	19.209	4.75
5	MP3A	Z	0	4.75
6	MP3A	Mx	-.01	4.75
7	MP3A	X	19.209	1.25
8	MP3A	Z	0	1.25
9	MP3A	Mx	-.018	1.25
10	MP3A	X	19.209	4.75
11	MP3A	Z	0	4.75
12	MP3A	Mx	-.018	4.75
13	MP1A	X	6.736	2
14	MP1A	Z	0	2
15	MP1A	Mx	-.003	2
16	MP1A	X	6.736	4
17	MP1A	Z	0	4
18	MP1A	Mx	-.003	4
19	MP4A	X	9.127	.17
20	MP4A	Z	0	.17
21	MP4A	Mx	-.006	.17
22	MP4A	X	9.127	3.67
23	MP4A	Z	0	3.67
24	MP4A	Mx	-.006	3.67
25	MP3A	X	1.306	1.5
26	MP3A	Z	0	1.5
27	MP3A	Mx	.000544	1.5
28	MP2A	X	8.499	2.75
29	MP2A	Z	0	2.75
30	MP2A	Mx	.004	2.75
31	MP3A	X	7.082	2.75
32	MP3A	Z	0	2.75
33	MP3A	Mx	.004	2.75
34	OVP	X	17.969	1
35	OVP	Z	0	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	19.897	1.25
2	MP3A	Z	11.488	1.25
3	MP3A	Mx	0	1.25
4	MP3A	X	19.897	4.75
5	MP3A	Z	11.488	4.75
6	MP3A	Mx	0	4.75
7	MP3A	X	19.897	1.25
8	MP3A	Z	11.488	1.25
9	MP3A	Mx	-.024	1.25
10	MP3A	X	19.897	4.75
11	MP3A	Z	11.488	4.75
12	MP3A	Mx	-.024	4.75
13	MP1A	X	8.964	2
14	MP1A	Z	5.175	2
15	MP1A	Mx	-.004	2
16	MP1A	X	8.964	4
17	MP1A	Z	5.175	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
18	MP1A	Mx	-.004	4
19	MP4A	X	8.377	.17
20	MP4A	Z	4.836	.17
21	MP4A	Mx	-.006	.17
22	MP4A	X	8.377	3.67
23	MP4A	Z	4.836	3.67
24	MP4A	Mx	-.006	3.67
25	MP3A	X	1.424	1.5
26	MP3A	Z	.822	1.5
27	MP3A	Mx	.000593	1.5
28	MP2A	X	8.168	2.75
29	MP2A	Z	4.716	2.75
30	MP2A	Mx	.004	2.75
31	MP3A	X	7.247	2.75
32	MP3A	Z	4.184	2.75
33	MP3A	Mx	.004	2.75
34	OVP	X	13.947	1
35	OVP	Z	8.052	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	13.371	1.25
2	MP3A	Z	23.159	1.25
3	MP3A	Mx	.014	1.25
4	MP3A	X	13.371	4.75
5	MP3A	Z	23.159	4.75
6	MP3A	Mx	.014	4.75
7	MP3A	X	13.371	1.25
8	MP3A	Z	23.159	1.25
9	MP3A	Mx	-.025	1.25
10	MP3A	X	13.371	4.75
11	MP3A	Z	23.159	4.75
12	MP3A	Mx	-.025	4.75
13	MP1A	X	6.983	2
14	MP1A	Z	12.095	2
15	MP1A	Mx	-.002	2
16	MP1A	X	6.983	4
17	MP1A	Z	12.095	4
18	MP1A	Mx	-.002	4
19	MP4A	X	5.382	.17
20	MP4A	Z	9.322	.17
21	MP4A	Mx	-.004	.17
22	MP4A	X	5.382	3.67
23	MP4A	Z	9.322	3.67
24	MP4A	Mx	-.004	3.67
25	MP3A	X	1.16	1.5
26	MP3A	Z	2.01	1.5
27	MP3A	Mx	.000483	1.5
28	MP2A	X	5.648	2.75
29	MP2A	Z	9.783	2.75
30	MP2A	Mx	.003	2.75
31	MP3A	X	5.471	2.75
32	MP3A	Z	9.476	2.75
33	MP3A	Mx	.003	2.75
34	OVP	X	8.984	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
35	OVP	Z	15.561	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	0	1.25
2	MP3A	Z	26.742	1.25
3	MP3A	Mx	.025	1.25
4	MP3A	X	0	4.75
5	MP3A	Z	26.742	4.75
6	MP3A	Mx	.025	4.75
7	MP3A	X	0	1.25
8	MP3A	Z	26.742	1.25
9	MP3A	Mx	-.014	1.25
10	MP3A	X	0	4.75
11	MP3A	Z	26.742	4.75
12	MP3A	Mx	-.014	4.75
13	MP1A	X	0	2
14	MP1A	Z	13.966	2
15	MP1A	Mx	.002	2
16	MP1A	X	0	4
17	MP1A	Z	13.966	4
18	MP1A	Mx	.002	4
19	MP4A	X	0	.17
20	MP4A	Z	11.31	.17
21	MP4A	Mx	0	.17
22	MP4A	X	0	3.67
23	MP4A	Z	11.31	3.67
24	MP4A	Mx	0	3.67
25	MP3A	X	0	1.5
26	MP3A	Z	2.659	1.5
27	MP3A	Mx	0	1.5
28	MP2A	X	0	2.75
29	MP2A	Z	12.228	2.75
30	MP2A	Mx	0	2.75
31	MP3A	X	0	2.75
32	MP3A	Z	12.228	2.75
33	MP3A	Mx	0	2.75
34	OVP	X	0	1
35	OVP	Z	21.698	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	-11.488	1.25
2	MP3A	Z	19.897	1.25
3	MP3A	Mx	.024	1.25
4	MP3A	X	-11.488	4.75
5	MP3A	Z	19.897	4.75
6	MP3A	Mx	.024	4.75
7	MP3A	X	-11.488	1.25
8	MP3A	Z	19.897	1.25
9	MP3A	Mx	0	1.25
10	MP3A	X	-11.488	4.75
11	MP3A	Z	19.897	4.75
12	MP3A	Mx	0	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
13	MP1A	X	-5.175	2
14	MP1A	Z	8.964	2
15	MP1A	Mx	.004	2
16	MP1A	X	-5.175	4
17	MP1A	Z	8.964	4
18	MP1A	Mx	.004	4
19	MP4A	X	-5.382	.17
20	MP4A	Z	9.322	.17
21	MP4A	Mx	.004	.17
22	MP4A	X	-5.382	3.67
23	MP4A	Z	9.322	3.67
24	MP4A	Mx	.004	3.67
25	MP3A	X	-1.16	1.5
26	MP3A	Z	2.01	1.5
27	MP3A	Mx	-.000483	1.5
28	MP2A	X	-5.648	2.75
29	MP2A	Z	9.783	2.75
30	MP2A	Mx	-.003	2.75
31	MP3A	X	-5.471	2.75
32	MP3A	Z	9.476	2.75
33	MP3A	Mx	-.003	2.75
34	OVP	X	-11.781	1
35	OVP	Z	20.406	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-16.635	1.25
2	MP3A	Z	9.604	1.25
3	MP3A	Mx	.018	1.25
4	MP3A	X	-16.635	4.75
5	MP3A	Z	9.604	4.75
6	MP3A	Mx	.018	4.75
7	MP3A	X	-16.635	1.25
8	MP3A	Z	9.604	1.25
9	MP3A	Mx	.01	1.25
10	MP3A	X	-16.635	4.75
11	MP3A	Z	9.604	4.75
12	MP3A	Mx	.01	4.75
13	MP1A	X	-5.833	2
14	MP1A	Z	3.368	2
15	MP1A	Mx	.003	2
16	MP1A	X	-5.833	4
17	MP1A	Z	3.368	4
18	MP1A	Mx	.003	4
19	MP4A	X	-8.377	.17
20	MP4A	Z	4.836	.17
21	MP4A	Mx	.006	.17
22	MP4A	X	-8.377	3.67
23	MP4A	Z	4.836	3.67
24	MP4A	Mx	.006	3.67
25	MP3A	X	-1.424	1.5
26	MP3A	Z	.822	1.5
27	MP3A	Mx	-.000593	1.5
28	MP2A	X	-8.168	2.75
29	MP2A	Z	4.716	2.75





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
30	MP2A	Mx	-0.004	2.75
31	MP3A	X	-7.247	2.75
32	MP3A	Z	4.184	2.75
33	MP3A	Mx	-0.004	2.75
34	OVP	X	-18.791	1
35	OVP	Z	10.849	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	-19.209	1.25
2	MP3A	Z	0	1.25
3	MP3A	Mx	.01	1.25
4	MP3A	X	-19.209	4.75
5	MP3A	Z	0	4.75
6	MP3A	Mx	.01	4.75
7	MP3A	X	-19.209	1.25
8	MP3A	Z	0	1.25
9	MP3A	Mx	.018	1.25
10	MP3A	X	-19.209	4.75
11	MP3A	Z	0	4.75
12	MP3A	Mx	.018	4.75
13	MP1A	X	-6.736	2
14	MP1A	Z	0	2
15	MP1A	Mx	.003	2
16	MP1A	X	-6.736	4
17	MP1A	Z	0	4
18	MP1A	Mx	.003	4
19	MP4A	X	-9.127	.17
20	MP4A	Z	0	.17
21	MP4A	Mx	.006	.17
22	MP4A	X	-9.127	3.67
23	MP4A	Z	0	3.67
24	MP4A	Mx	.006	3.67
25	MP3A	X	-1.306	1.5
26	MP3A	Z	0	1.5
27	MP3A	Mx	-.000544	1.5
28	MP2A	X	-8.499	2.75
29	MP2A	Z	0	2.75
30	MP2A	Mx	-0.004	2.75
31	MP3A	X	-7.082	2.75
32	MP3A	Z	0	2.75
33	MP3A	Mx	-0.004	2.75
34	OVP	X	-17.969	1
35	OVP	Z	0	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	-19.897	1.25
2	MP3A	Z	-11.488	1.25
3	MP3A	Mx	0	1.25
4	MP3A	X	-19.897	4.75
5	MP3A	Z	-11.488	4.75
6	MP3A	Mx	0	4.75
7	MP3A	X	-19.897	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
8	MP3A	Z	-11.488	1.25
9	MP3A	Mx	.024	1.25
10	MP3A	X	-19.897	4.75
11	MP3A	Z	-11.488	4.75
12	MP3A	Mx	.024	4.75
13	MP1A	X	-8.964	2
14	MP1A	Z	-5.175	2
15	MP1A	Mx	.004	2
16	MP1A	X	-8.964	4
17	MP1A	Z	-5.175	4
18	MP1A	Mx	.004	4
19	MP4A	X	-8.377	.17
20	MP4A	Z	-4.836	.17
21	MP4A	Mx	.006	.17
22	MP4A	X	-8.377	3.67
23	MP4A	Z	-4.836	3.67
24	MP4A	Mx	.006	3.67
25	MP3A	X	-1.424	1.5
26	MP3A	Z	-.822	1.5
27	MP3A	Mx	-.000593	1.5
28	MP2A	X	-8.168	2.75
29	MP2A	Z	-4.716	2.75
30	MP2A	Mx	-.004	2.75
31	MP3A	X	-7.247	2.75
32	MP3A	Z	-4.184	2.75
33	MP3A	Mx	-.004	2.75
34	OVP	X	-13.947	1
35	OVP	Z	-8.052	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-13.371	1.25
2	MP3A	Z	-23.159	1.25
3	MP3A	Mx	-.014	1.25
4	MP3A	X	-13.371	4.75
5	MP3A	Z	-23.159	4.75
6	MP3A	Mx	-.014	4.75
7	MP3A	X	-13.371	1.25
8	MP3A	Z	-23.159	1.25
9	MP3A	Mx	.025	1.25
10	MP3A	X	-13.371	4.75
11	MP3A	Z	-23.159	4.75
12	MP3A	Mx	.025	4.75
13	MP1A	X	-6.983	2
14	MP1A	Z	-12.095	2
15	MP1A	Mx	.002	2
16	MP1A	X	-6.983	4
17	MP1A	Z	-12.095	4
18	MP1A	Mx	.002	4
19	MP4A	X	-5.382	.17
20	MP4A	Z	-9.322	.17
21	MP4A	Mx	.004	.17
22	MP4A	X	-5.382	3.67
23	MP4A	Z	-9.322	3.67
24	MP4A	Mx	.004	3.67



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
25	MP3A	X	-1.16	1.5
26	MP3A	Z	-2.01	1.5
27	MP3A	Mx	-.000483	1.5
28	MP2A	X	-5.648	2.75
29	MP2A	Z	-9.783	2.75
30	MP2A	Mx	-.003	2.75
31	MP3A	X	-5.471	2.75
32	MP3A	Z	-9.476	2.75
33	MP3A	Mx	-.003	2.75
34	OVP	X	-8.984	1
35	OVP	Z	-15.561	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	0	1.25
2	MP3A	Z	-8.787	1.25
3	MP3A	Mx	-.008	1.25
4	MP3A	X	0	4.75
5	MP3A	Z	-8.787	4.75
6	MP3A	Mx	-.008	4.75
7	MP3A	X	0	1.25
8	MP3A	Z	-8.787	1.25
9	MP3A	Mx	.005	1.25
10	MP3A	X	0	4.75
11	MP3A	Z	-8.787	4.75
12	MP3A	Mx	.005	4.75
13	MP1A	X	0	2
14	MP1A	Z	-4.451	2
15	MP1A	Mx	-.000576	2
16	MP1A	X	0	4
17	MP1A	Z	-4.451	4
18	MP1A	Mx	-.000576	4
19	MP4A	X	0	.17
20	MP4A	Z	-3.514	.17
21	MP4A	Mx	0	.17
22	MP4A	X	0	3.67
23	MP4A	Z	-3.514	3.67
24	MP4A	Mx	0	3.67
25	MP3A	X	0	1.5
26	MP3A	Z	-.632	1.5
27	MP3A	Mx	0	1.5
28	MP2A	X	0	2.75
29	MP2A	Z	-3.692	2.75
30	MP2A	Mx	0	2.75
31	MP3A	X	0	2.75
32	MP3A	Z	-3.692	2.75
33	MP3A	Mx	0	2.75
34	OVP	X	0	1
35	OVP	Z	-6.85	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	3.725	1.25
2	MP3A	Z	-6.452	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
3	MP3A	Mx	-0.008	1.25
4	MP3A	X	3.725	4.75
5	MP3A	Z	-6.452	4.75
6	MP3A	Mx	-0.008	4.75
7	MP3A	X	3.725	1.25
8	MP3A	Z	-6.452	1.25
9	MP3A	Mx	0	1.25
10	MP3A	X	3.725	4.75
11	MP3A	Z	-6.452	4.75
12	MP3A	Mx	0	4.75
13	MP1A	X	1.614	2
14	MP1A	Z	-2.796	2
15	MP1A	Mx	-0.001	2
16	MP1A	X	1.614	4
17	MP1A	Z	-2.796	4
18	MP1A	Mx	-0.001	4
19	MP4A	X	1.663	.17
20	MP4A	Z	-2.88	.17
21	MP4A	Mx	-0.001	.17
22	MP4A	X	1.663	3.67
23	MP4A	Z	-2.88	3.67
24	MP4A	Mx	-0.001	3.67
25	MP3A	X	.268	1.5
26	MP3A	Z	-.464	1.5
27	MP3A	Mx	.000112	1.5
28	MP2A	X	1.693	2.75
29	MP2A	Z	-2.932	2.75
30	MP2A	Mx	.000847	2.75
31	MP3A	X	1.634	2.75
32	MP3A	Z	-2.831	2.75
33	MP3A	Mx	.000817	2.75
34	OVP	X	3.741	1
35	OVP	Z	-6.48	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	5.294	1.25
2	MP3A	Z	-3.057	1.25
3	MP3A	Mx	-0.006	1.25
4	MP3A	X	5.294	4.75
5	MP3A	Z	-3.057	4.75
6	MP3A	Mx	-0.006	4.75
7	MP3A	X	5.294	1.25
8	MP3A	Z	-3.057	1.25
9	MP3A	Mx	-0.003	1.25
10	MP3A	X	5.294	4.75
11	MP3A	Z	-3.057	4.75
12	MP3A	Mx	-0.003	4.75
13	MP1A	X	1.737	2
14	MP1A	Z	-1.003	2
15	MP1A	Mx	-.000969	2
16	MP1A	X	1.737	4
17	MP1A	Z	-1.003	4
18	MP1A	Mx	-.000969	4
19	MP4A	X	2.552	.17



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
20	MP4A	Z	-1.473	.17
21	MP4A	Mx	-.002	.17
22	MP4A	X	2.552	3.67
23	MP4A	Z	-1.473	3.67
24	MP4A	Mx	-.002	3.67
25	MP3A	X	.299	1.5
26	MP3A	Z	-.173	1.5
27	MP3A	Mx	.000125	1.5
28	MP2A	X	2.402	2.75
29	MP2A	Z	-1.387	2.75
30	MP2A	Mx	.001	2.75
31	MP3A	X	2.098	2.75
32	MP3A	Z	-1.211	2.75
33	MP3A	Mx	.001	2.75
34	OVP	X	5.933	1
35	OVP	Z	-3.425	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	6.113	1.25
2	MP3A	Z	0	1.25
3	MP3A	Mx	-.003	1.25
4	MP3A	X	6.113	4.75
5	MP3A	Z	0	4.75
6	MP3A	Mx	-.003	4.75
7	MP3A	X	6.113	1.25
8	MP3A	Z	0	1.25
9	MP3A	Mx	-.006	1.25
10	MP3A	X	6.113	4.75
11	MP3A	Z	0	4.75
12	MP3A	Mx	-.006	4.75
13	MP1A	X	2.006	2
14	MP1A	Z	0	2
15	MP1A	Mx	-.000969	2
16	MP1A	X	2.006	4
17	MP1A	Z	0	4
18	MP1A	Mx	-.000969	4
19	MP4A	X	2.757	.17
20	MP4A	Z	0	.17
21	MP4A	Mx	-.002	.17
22	MP4A	X	2.757	3.67
23	MP4A	Z	0	3.67
24	MP4A	Mx	-.002	3.67
25	MP3A	X	.25	1.5
26	MP3A	Z	0	1.5
27	MP3A	Mx	.000104	1.5
28	MP2A	X	2.468	2.75
29	MP2A	Z	0	2.75
30	MP2A	Mx	.001	2.75
31	MP3A	X	1.999	2.75
32	MP3A	Z	0	2.75
33	MP3A	Mx	.001	2.75
34	OVP	X	5.586	1
35	OVP	Z	0	1
36	OVP	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	6.452	1.25
2	MP3A	Z	3.725	1.25
3	MP3A	Mx	0	1.25
4	MP3A	X	6.452	4.75
5	MP3A	Z	3.725	4.75
6	MP3A	Mx	0	4.75
7	MP3A	X	6.452	1.25
8	MP3A	Z	3.725	1.25
9	MP3A	Mx	-0.008	1.25
10	MP3A	X	6.452	4.75
11	MP3A	Z	3.725	4.75
12	MP3A	Mx	-0.008	4.75
13	MP1A	X	2.796	2
14	MP1A	Z	1.614	2
15	MP1A	Mx	-0.001	2
16	MP1A	X	2.796	4
17	MP1A	Z	1.614	4
18	MP1A	Mx	-0.001	4
19	MP4A	X	2.552	.17
20	MP4A	Z	1.473	.17
21	MP4A	Mx	-0.002	.17
22	MP4A	X	2.552	3.67
23	MP4A	Z	1.473	3.67
24	MP4A	Mx	-0.002	3.67
25	MP3A	X	.299	1.5
26	MP3A	Z	.173	1.5
27	MP3A	Mx	.000125	1.5
28	MP2A	X	2.402	2.75
29	MP2A	Z	1.387	2.75
30	MP2A	Mx	.001	2.75
31	MP3A	X	2.098	2.75
32	MP3A	Z	1.211	2.75
33	MP3A	Mx	.001	2.75
34	OVP	X	4.29	1
35	OVP	Z	2.477	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	4.393	1.25
2	MP3A	Z	7.609	1.25
3	MP3A	Mx	.005	1.25
4	MP3A	X	4.393	4.75
5	MP3A	Z	7.609	4.75
6	MP3A	Mx	.005	4.75
7	MP3A	X	4.393	1.25
8	MP3A	Z	7.609	1.25
9	MP3A	Mx	-0.008	1.25
10	MP3A	X	4.393	4.75
11	MP3A	Z	7.609	4.75
12	MP3A	Mx	-0.008	4.75
13	MP1A	X	2.225	2
14	MP1A	Z	3.854	2
15	MP1A	Mx	-0.000576	2
16	MP1A	X	2.225	4
17	MP1A	Z	3.854	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
18	MP1A	Mx	-.000576	4
19	MP4A	X	1.663	.17
20	MP4A	Z	2.88	.17
21	MP4A	Mx	-.001	.17
22	MP4A	X	1.663	3.67
23	MP4A	Z	2.88	3.67
24	MP4A	Mx	-.001	3.67
25	MP3A	X	.268	1.5
26	MP3A	Z	.464	1.5
27	MP3A	Mx	.000112	1.5
28	MP2A	X	1.693	2.75
29	MP2A	Z	2.932	2.75
30	MP2A	Mx	.000847	2.75
31	MP3A	X	1.634	2.75
32	MP3A	Z	2.831	2.75
33	MP3A	Mx	.000817	2.75
34	OVP	X	2.793	1
35	OVP	Z	4.837	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1.25
2	MP3A	Z	8.787	1.25
3	MP3A	Mx	.008	1.25
4	MP3A	X	0	4.75
5	MP3A	Z	8.787	4.75
6	MP3A	Mx	.008	4.75
7	MP3A	X	0	1.25
8	MP3A	Z	8.787	1.25
9	MP3A	Mx	-.005	1.25
10	MP3A	X	0	4.75
11	MP3A	Z	8.787	4.75
12	MP3A	Mx	-.005	4.75
13	MP1A	X	0	2
14	MP1A	Z	4.451	2
15	MP1A	Mx	.000576	2
16	MP1A	X	0	4
17	MP1A	Z	4.451	4
18	MP1A	Mx	.000576	4
19	MP4A	X	0	.17
20	MP4A	Z	3.514	.17
21	MP4A	Mx	0	.17
22	MP4A	X	0	3.67
23	MP4A	Z	3.514	3.67
24	MP4A	Mx	0	3.67
25	MP3A	X	0	1.5
26	MP3A	Z	.632	1.5
27	MP3A	Mx	0	1.5
28	MP2A	X	0	2.75
29	MP2A	Z	3.692	2.75
30	MP2A	Mx	0	2.75
31	MP3A	X	0	2.75
32	MP3A	Z	3.692	2.75
33	MP3A	Mx	0	2.75
34	OVP	X	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
35	OVP	Z	6.85	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	-3.725	1.25
2	MP3A	Z	6.452	1.25
3	MP3A	Mx	.008	1.25
4	MP3A	X	-3.725	4.75
5	MP3A	Z	6.452	4.75
6	MP3A	Mx	.008	4.75
7	MP3A	X	-3.725	1.25
8	MP3A	Z	6.452	1.25
9	MP3A	Mx	0	1.25
10	MP3A	X	-3.725	4.75
11	MP3A	Z	6.452	4.75
12	MP3A	Mx	0	4.75
13	MP1A	X	-1.614	2
14	MP1A	Z	2.796	2
15	MP1A	Mx	.001	2
16	MP1A	X	-1.614	4
17	MP1A	Z	2.796	4
18	MP1A	Mx	.001	4
19	MP4A	X	-1.663	.17
20	MP4A	Z	2.88	.17
21	MP4A	Mx	.001	.17
22	MP4A	X	-1.663	3.67
23	MP4A	Z	2.88	3.67
24	MP4A	Mx	.001	3.67
25	MP3A	X	-.268	1.5
26	MP3A	Z	.464	1.5
27	MP3A	Mx	-.000112	1.5
28	MP2A	X	-1.693	2.75
29	MP2A	Z	2.932	2.75
30	MP2A	Mx	-.000847	2.75
31	MP3A	X	-1.634	2.75
32	MP3A	Z	2.831	2.75
33	MP3A	Mx	-.000817	2.75
34	OVP	X	-3.741	1
35	OVP	Z	6.48	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	-5.294	1.25
2	MP3A	Z	3.057	1.25
3	MP3A	Mx	.006	1.25
4	MP3A	X	-5.294	4.75
5	MP3A	Z	3.057	4.75
6	MP3A	Mx	.006	4.75
7	MP3A	X	-5.294	1.25
8	MP3A	Z	3.057	1.25
9	MP3A	Mx	.003	1.25
10	MP3A	X	-5.294	4.75
11	MP3A	Z	3.057	4.75
12	MP3A	Mx	.003	4.75





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
13	MP1A	X	-1.737	2
14	MP1A	Z	1.003	2
15	MP1A	Mx	.000969	2
16	MP1A	X	-1.737	4
17	MP1A	Z	1.003	4
18	MP1A	Mx	.000969	4
19	MP4A	X	-2.552	.17
20	MP4A	Z	1.473	.17
21	MP4A	Mx	.002	.17
22	MP4A	X	-2.552	3.67
23	MP4A	Z	1.473	3.67
24	MP4A	Mx	.002	3.67
25	MP3A	X	-.299	1.5
26	MP3A	Z	.173	1.5
27	MP3A	Mx	-.000125	1.5
28	MP2A	X	-2.402	2.75
29	MP2A	Z	1.387	2.75
30	MP2A	Mx	-.001	2.75
31	MP3A	X	-2.098	2.75
32	MP3A	Z	1.211	2.75
33	MP3A	Mx	-.001	2.75
34	OVP	X	-5.933	1
35	OVP	Z	3.425	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-6.113	1.25
2	MP3A	Z	0	1.25
3	MP3A	Mx	.003	1.25
4	MP3A	X	-6.113	4.75
5	MP3A	Z	0	4.75
6	MP3A	Mx	.003	4.75
7	MP3A	X	-6.113	1.25
8	MP3A	Z	0	1.25
9	MP3A	Mx	.006	1.25
10	MP3A	X	-6.113	4.75
11	MP3A	Z	0	4.75
12	MP3A	Mx	.006	4.75
13	MP1A	X	-2.006	2
14	MP1A	Z	0	2
15	MP1A	Mx	.000969	2
16	MP1A	X	-2.006	4
17	MP1A	Z	0	4
18	MP1A	Mx	.000969	4
19	MP4A	X	-2.757	.17
20	MP4A	Z	0	.17
21	MP4A	Mx	.002	.17
22	MP4A	X	-2.757	3.67
23	MP4A	Z	0	3.67
24	MP4A	Mx	.002	3.67
25	MP3A	X	-.25	1.5
26	MP3A	Z	0	1.5
27	MP3A	Mx	-.000104	1.5
28	MP2A	X	-2.468	2.75
29	MP2A	Z	0	2.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
30	MP2A	Mx	-0.001	2.75
31	MP3A	X	-1.999	2.75
32	MP3A	Z	0	2.75
33	MP3A	Mx	-0.001	2.75
34	OVP	X	-5.586	1
35	OVP	Z	0	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	-6.452	1.25
2	MP3A	Z	-3.725	1.25
3	MP3A	Mx	0	1.25
4	MP3A	X	-6.452	4.75
5	MP3A	Z	-3.725	4.75
6	MP3A	Mx	0	4.75
7	MP3A	X	-6.452	1.25
8	MP3A	Z	-3.725	1.25
9	MP3A	Mx	.008	1.25
10	MP3A	X	-6.452	4.75
11	MP3A	Z	-3.725	4.75
12	MP3A	Mx	.008	4.75
13	MP1A	X	-2.796	2
14	MP1A	Z	-1.614	2
15	MP1A	Mx	.001	2
16	MP1A	X	-2.796	4
17	MP1A	Z	-1.614	4
18	MP1A	Mx	.001	4
19	MP4A	X	-2.552	.17
20	MP4A	Z	-1.473	.17
21	MP4A	Mx	.002	.17
22	MP4A	X	-2.552	3.67
23	MP4A	Z	-1.473	3.67
24	MP4A	Mx	.002	3.67
25	MP3A	X	-.299	1.5
26	MP3A	Z	-.173	1.5
27	MP3A	Mx	-.000125	1.5
28	MP2A	X	-2.402	2.75
29	MP2A	Z	-1.387	2.75
30	MP2A	Mx	-.001	2.75
31	MP3A	X	-2.098	2.75
32	MP3A	Z	-1.211	2.75
33	MP3A	Mx	-.001	2.75
34	OVP	X	-4.29	1
35	OVP	Z	-2.477	1
36	OVP	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	X	-4.393	1.25
2	MP3A	Z	-7.609	1.25
3	MP3A	Mx	-.005	1.25
4	MP3A	X	-4.393	4.75
5	MP3A	Z	-7.609	4.75
6	MP3A	Mx	-.005	4.75
7	MP3A	X	-4.393	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
8	MP3A	Z	-7.609	1.25
9	MP3A	Mx	.008	1.25
10	MP3A	X	-4.393	4.75
11	MP3A	Z	-7.609	4.75
12	MP3A	Mx	.008	4.75
13	MP1A	X	-2.225	2
14	MP1A	Z	-3.854	2
15	MP1A	Mx	.000576	2
16	MP1A	X	-2.225	4
17	MP1A	Z	-3.854	4
18	MP1A	Mx	.000576	4
19	MP4A	X	-1.663	.17
20	MP4A	Z	-2.88	.17
21	MP4A	Mx	.001	.17
22	MP4A	X	-1.663	3.67
23	MP4A	Z	-2.88	3.67
24	MP4A	Mx	.001	3.67
25	MP3A	X	-2.268	1.5
26	MP3A	Z	-.464	1.5
27	MP3A	Mx	-.000112	1.5
28	MP2A	X	-1.693	2.75
29	MP2A	Z	-2.932	2.75
30	MP2A	Mx	-.000847	2.75
31	MP3A	X	-1.634	2.75
32	MP3A	Z	-2.831	2.75
33	MP3A	Mx	-.000817	2.75
34	OVP	X	-2.793	1
35	OVP	Z	-4.837	1
36	OVP	Mx	0	1

**Member Point Loads (BLC 77 : Lm1)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M4	Y	-500	%98.148

**Member Point Loads (BLC 78 : Lm2)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M4	Y	-500	%38.889

**Member Point Loads (BLC 79 : Lv1)**

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

**Member Point Loads (BLC 80 : Lv2)**

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

**Member Distributed Loads (BLC 40 : Structure Di)**

	Member Label	Direction	Start Magnitude[lb/ft...]	End Magnitude[lb/ft...]	Start Location[ft.%]	End Location[ft.%]
1	M1	Y	-9.377	-9.377	0	%100
2	M2	Y	-6.397	-6.397	0	%100
3	M4	Y	-6.397	-6.397	0	%100
4	MP1A	Y	-4.843	-4.843	0	%100
5	MP2A	Y	-4.843	-4.843	0	%100



**Member Distributed Loads (BLC 40 : Structure Di) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%,]	End Location[ft.%,]
6	MP3A	Y	-5.534	-5.534	0	%100
7	MP4A	Y	-4.843	-4.843	0	%100
8	OVP	Y	-4.843	-4.843	0	%100
9	M16	Y	-6.397	-6.397	0	%100
10	M22	Y	-6.446	-6.446	0	%100
11	M23	Y	-6.446	-6.446	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%,]	End Location[ft.%,]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-7.465	-7.465	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	-11.806	-11.806	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-8.011	-8.011	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-8.011	-8.011	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-9.698	-9.698	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-7.301	-7.301	0	%100
15	OVP	X	0	0	0	%100
16	OVP	Z	-7.301	-7.301	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	-11.806	-11.806	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	-5.591	-5.591	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	-5.591	-5.591	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%,]	End Location[ft.%,]
1	M1	X	1.429	1.429	0	%100
2	M1	Z	-2.475	-2.475	0	%100
3	M2	X	3.732	3.732	0	%100
4	M2	Z	-6.465	-6.465	0	%100
5	M4	X	4.427	4.427	0	%100
6	M4	Z	-7.668	-7.668	0	%100
7	MP1A	X	4.006	4.006	0	%100
8	MP1A	Z	-6.938	-6.938	0	%100
9	MP2A	X	4.006	4.006	0	%100
10	MP2A	Z	-6.938	-6.938	0	%100
11	MP3A	X	4.849	4.849	0	%100
12	MP3A	Z	-8.399	-8.399	0	%100
13	MP4A	X	3.65	3.65	0	%100
14	MP4A	Z	-6.323	-6.323	0	%100
15	OVP	X	3.65	3.65	0	%100
16	OVP	Z	-6.323	-6.323	0	%100
17	M16	X	4.427	4.427	0	%100
18	M16	Z	-7.668	-7.668	0	%100
19	M22	X	.85	.85	0	%100
20	M22	Z	-1.473	-1.473	0	%100
21	M23	X	5.866	5.866	0	%100
22	M23	Z	-10.16	-10.16	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	7.425	7.425	0	%100
2	M1	Z	-4.287	-4.287	0	%100
3	M2	X	6.465	6.465	0	%100
4	M2	Z	-3.732	-3.732	0	%100
5	M4	X	2.556	2.556	0	%100
6	M4	Z	-1.476	-1.476	0	%100
7	MP1A	X	6.938	6.938	0	%100
8	MP1A	Z	-4.006	-4.006	0	%100
9	MP2A	X	6.938	6.938	0	%100
10	MP2A	Z	-4.006	-4.006	0	%100
11	MP3A	X	8.399	8.399	0	%100
12	MP3A	Z	-4.849	-4.849	0	%100
13	MP4A	X	6.323	6.323	0	%100
14	MP4A	Z	-3.65	-3.65	0	%100
15	OVP	X	6.323	6.323	0	%100
16	OVP	Z	-3.65	-3.65	0	%100
17	M16	X	2.556	2.556	0	%100
18	M16	Z	-1.476	-1.476	0	%100
19	M22	X	3.422	3.422	0	%100
20	M22	Z	-1.976	-1.976	0	%100
21	M23	X	12.109	12.109	0	%100
22	M23	Z	-6.991	-6.991	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	11.431	11.431	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	7.465	7.465	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP1A	X	8.011	8.011	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	8.011	8.011	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	9.698	9.698	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	7.301	7.301	0	%100
14	MP4A	Z	0	0	0	%100
15	OVP	X	7.301	7.301	0	%100
16	OVP	Z	0	0	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	0	0	0	%100
19	M22	X	10.092	10.092	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	10.092	10.092	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	7.425	7.425	0	%100
2	M1	Z	4.287	4.287	0	%100
3	M2	X	6.465	6.465	0	%100
4	M2	Z	3.732	3.732	0	%100
5	M4	X	2.556	2.556	0	%100
6	M4	Z	1.476	1.476	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[ft.%,]	End Location[ft.%,]
7	MP1A	X	6.938	6.938	0	%100
8	MP1A	Z	4.006	4.006	0	%100
9	MP2A	X	6.938	6.938	0	%100
10	MP2A	Z	4.006	4.006	0	%100
11	MP3A	X	8.399	8.399	0	%100
12	MP3A	Z	4.849	4.849	0	%100
13	MP4A	X	6.323	6.323	0	%100
14	MP4A	Z	3.65	3.65	0	%100
15	OVP	X	6.323	6.323	0	%100
16	OVP	Z	3.65	3.65	0	%100
17	M16	X	2.556	2.556	0	%100
18	M16	Z	1.476	1.476	0	%100
19	M22	X	12.109	12.109	0	%100
20	M22	Z	6.991	6.991	0	%100
21	M23	X	3.422	3.422	0	%100
22	M23	Z	1.976	1.976	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[ft.%,]	End Location[ft.%,]
1	M1	X	1.429	1.429	0	%100
2	M1	Z	2.475	2.475	0	%100
3	M2	X	3.732	3.732	0	%100
4	M2	Z	6.465	6.465	0	%100
5	M4	X	4.427	4.427	0	%100
6	M4	Z	7.668	7.668	0	%100
7	MP1A	X	4.006	4.006	0	%100
8	MP1A	Z	6.938	6.938	0	%100
9	MP2A	X	4.006	4.006	0	%100
10	MP2A	Z	6.938	6.938	0	%100
11	MP3A	X	4.849	4.849	0	%100
12	MP3A	Z	8.399	8.399	0	%100
13	MP4A	X	3.65	3.65	0	%100
14	MP4A	Z	6.323	6.323	0	%100
15	OVP	X	3.65	3.65	0	%100
16	OVP	Z	6.323	6.323	0	%100
17	M16	X	4.427	4.427	0	%100
18	M16	Z	7.668	7.668	0	%100
19	M22	X	5.866	5.866	0	%100
20	M22	Z	10.16	10.16	0	%100
21	M23	X	.85	.85	0	%100
22	M23	Z	1.473	1.473	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[ft.%,]	End Location[ft.%,]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	7.465	7.465	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	11.806	11.806	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	8.011	8.011	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	8.011	8.011	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	9.698	9.698	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%,]	End Location[ft.%,]
13	MP4A	X	0	0	0	%100
14	MP4A	Z	7.301	7.301	0	%100
15	OVP	X	0	0	0	%100
16	OVP	Z	7.301	7.301	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	11.806	11.806	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	5.591	5.591	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	5.591	5.591	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%,]	End Location[ft.%,]
1	M1	X	-1.429	-1.429	0	%100
2	M1	Z	2.475	2.475	0	%100
3	M2	X	-3.732	-3.732	0	%100
4	M2	Z	6.465	6.465	0	%100
5	M4	X	-4.427	-4.427	0	%100
6	M4	Z	7.668	7.668	0	%100
7	MP1A	X	-4.006	-4.006	0	%100
8	MP1A	Z	6.938	6.938	0	%100
9	MP2A	X	-4.006	-4.006	0	%100
10	MP2A	Z	6.938	6.938	0	%100
11	MP3A	X	-4.849	-4.849	0	%100
12	MP3A	Z	8.399	8.399	0	%100
13	MP4A	X	-3.65	-3.65	0	%100
14	MP4A	Z	6.323	6.323	0	%100
15	OVP	X	-3.65	-3.65	0	%100
16	OVP	Z	6.323	6.323	0	%100
17	M16	X	-4.427	-4.427	0	%100
18	M16	Z	7.668	7.668	0	%100
19	M22	X	-85	-85	0	%100
20	M22	Z	1.473	1.473	0	%100
21	M23	X	-5.866	-5.866	0	%100
22	M23	Z	10.16	10.16	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%,]	End Location[ft.%,]
1	M1	X	-7.425	-7.425	0	%100
2	M1	Z	4.287	4.287	0	%100
3	M2	X	-6.465	-6.465	0	%100
4	M2	Z	3.732	3.732	0	%100
5	M4	X	-2.556	-2.556	0	%100
6	M4	Z	1.476	1.476	0	%100
7	MP1A	X	-6.938	-6.938	0	%100
8	MP1A	Z	4.006	4.006	0	%100
9	MP2A	X	-6.938	-6.938	0	%100
10	MP2A	Z	4.006	4.006	0	%100
11	MP3A	X	-8.399	-8.399	0	%100
12	MP3A	Z	4.849	4.849	0	%100
13	MP4A	X	-6.323	-6.323	0	%100
14	MP4A	Z	3.65	3.65	0	%100
15	OVP	X	-6.323	-6.323	0	%100
16	OVP	Z	3.65	3.65	0	%100
17	M16	X	-2.556	-2.556	0	%100
18	M16	Z	1.476	1.476	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%,]	End Location[ft.%,]
19	M22	X	-3.422	-3.422	0	%100
20	M22	Z	1.976	1.976	0	%100
21	M23	X	-12.109	-12.109	0	%100
22	M23	Z	6.991	6.991	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%,]	End Location[ft.%,]
1	M1	X	-11.431	-11.431	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-7.465	-7.465	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP1A	X	-8.011	-8.011	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	-8.011	-8.011	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-9.698	-9.698	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-7.301	-7.301	0	%100
14	MP4A	Z	0	0	0	%100
15	OVP	X	-7.301	-7.301	0	%100
16	OVP	Z	0	0	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	0	0	0	%100
19	M22	X	-10.092	-10.092	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	-10.092	-10.092	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%,]	End Location[ft.%,]
1	M1	X	-7.425	-7.425	0	%100
2	M1	Z	-4.287	-4.287	0	%100
3	M2	X	-6.465	-6.465	0	%100
4	M2	Z	-3.732	-3.732	0	%100
5	M4	X	-2.556	-2.556	0	%100
6	M4	Z	-1.476	-1.476	0	%100
7	MP1A	X	-6.938	-6.938	0	%100
8	MP1A	Z	-4.006	-4.006	0	%100
9	MP2A	X	-6.938	-6.938	0	%100
10	MP2A	Z	-4.006	-4.006	0	%100
11	MP3A	X	-8.399	-8.399	0	%100
12	MP3A	Z	-4.849	-4.849	0	%100
13	MP4A	X	-6.323	-6.323	0	%100
14	MP4A	Z	-3.65	-3.65	0	%100
15	OVP	X	-6.323	-6.323	0	%100
16	OVP	Z	-3.65	-3.65	0	%100
17	M16	X	-2.556	-2.556	0	%100
18	M16	Z	-1.476	-1.476	0	%100
19	M22	X	-12.109	-12.109	0	%100
20	M22	Z	-6.991	-6.991	0	%100
21	M23	X	-3.422	-3.422	0	%100
22	M23	Z	-1.976	-1.976	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-1.429	-1.429	0	%100
2	M1	Z	-2.475	-2.475	0	%100
3	M2	X	-3.732	-3.732	0	%100
4	M2	Z	-6.465	-6.465	0	%100
5	M4	X	-4.427	-4.427	0	%100
6	M4	Z	-7.668	-7.668	0	%100
7	MP1A	X	-4.006	-4.006	0	%100
8	MP1A	Z	-6.938	-6.938	0	%100
9	MP2A	X	-4.006	-4.006	0	%100
10	MP2A	Z	-6.938	-6.938	0	%100
11	MP3A	X	-4.849	-4.849	0	%100
12	MP3A	Z	-8.399	-8.399	0	%100
13	MP4A	X	-3.65	-3.65	0	%100
14	MP4A	Z	-6.323	-6.323	0	%100
15	OVP	X	-3.65	-3.65	0	%100
16	OVP	Z	-6.323	-6.323	0	%100
17	M16	X	-4.427	-4.427	0	%100
18	M16	Z	-7.668	-7.668	0	%100
19	M22	X	-5.866	-5.866	0	%100
20	M22	Z	-10.16	-10.16	0	%100
21	M23	X	-.85	-.85	0	%100
22	M23	Z	-1.473	-1.473	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-2.063	-2.063	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	-3.16	-3.16	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-2.543	-2.543	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-2.543	-2.543	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-2.817	-2.817	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-2.341	-2.341	0	%100
15	OVP	X	0	0	0	%100
16	OVP	Z	-2.341	-2.341	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	-3.16	-3.16	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	-1.402	-1.402	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	-1.402	-1.402	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	.382	.382	0	%100
2	M1	Z	-.661	-.661	0	%100
3	M2	X	1.031	1.031	0	%100
4	M2	Z	-1.786	-1.786	0	%100
5	M4	X	1.185	1.185	0	%100
6	M4	Z	-2.052	-2.052	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
7	MP1A	X	1.271	1.271	0	%100
8	MP1A	Z	-2.202	-2.202	0	%100
9	MP2A	X	1.271	1.271	0	%100
10	MP2A	Z	-2.202	-2.202	0	%100
11	MP3A	X	1.409	1.409	0	%100
12	MP3A	Z	-2.44	-2.44	0	%100
13	MP4A	X	1.17	1.17	0	%100
14	MP4A	Z	-2.027	-2.027	0	%100
15	OVP	X	1.17	1.17	0	%100
16	OVP	Z	-2.027	-2.027	0	%100
17	M16	X	1.185	1.185	0	%100
18	M16	Z	-2.052	-2.052	0	%100
19	M22	X	.213	.213	0	%100
20	M22	Z	-.369	-.369	0	%100
21	M23	X	1.471	1.471	0	%100
22	M23	Z	-2.548	-2.548	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	1.983	1.983	0	%100
2	M1	Z	-1.145	-1.145	0	%100
3	M2	X	1.786	1.786	0	%100
4	M2	Z	-1.031	-1.031	0	%100
5	M4	X	.684	.684	0	%100
6	M4	Z	-.395	-.395	0	%100
7	MP1A	X	2.202	2.202	0	%100
8	MP1A	Z	-1.271	-1.271	0	%100
9	MP2A	X	2.202	2.202	0	%100
10	MP2A	Z	-1.271	-1.271	0	%100
11	MP3A	X	2.44	2.44	0	%100
12	MP3A	Z	-1.409	-1.409	0	%100
13	MP4A	X	2.027	2.027	0	%100
14	MP4A	Z	-1.17	-1.17	0	%100
15	OVP	X	2.027	2.027	0	%100
16	OVP	Z	-1.17	-1.17	0	%100
17	M16	X	.684	.684	0	%100
18	M16	Z	-.395	-.395	0	%100
19	M22	X	.858	.858	0	%100
20	M22	Z	-.496	-.496	0	%100
21	M23	X	3.037	3.037	0	%100
22	M23	Z	-1.754	-1.754	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	3.053	3.053	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	2.063	2.063	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP1A	X	2.543	2.543	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	2.543	2.543	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	2.817	2.817	0	%100
12	MP3A	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
13	MP4A	X	2.341	2.341	0	%100
14	MP4A	Z	0	0	0	%100
15	OVP	X	2.341	2.341	0	%100
16	OVP	Z	0	0	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	0	0	0	%100
19	M22	X	2.532	2.532	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	2.532	2.532	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.983	1.983	0	%100
2	M1	Z	1.145	1.145	0	%100
3	M2	X	1.786	1.786	0	%100
4	M2	Z	1.031	1.031	0	%100
5	M4	X	.684	.684	0	%100
6	M4	Z	.395	.395	0	%100
7	MP1A	X	2.202	2.202	0	%100
8	MP1A	Z	1.271	1.271	0	%100
9	MP2A	X	2.202	2.202	0	%100
10	MP2A	Z	1.271	1.271	0	%100
11	MP3A	X	2.44	2.44	0	%100
12	MP3A	Z	1.409	1.409	0	%100
13	MP4A	X	2.027	2.027	0	%100
14	MP4A	Z	1.17	1.17	0	%100
15	OVP	X	2.027	2.027	0	%100
16	OVP	Z	1.17	1.17	0	%100
17	M16	X	.684	.684	0	%100
18	M16	Z	.395	.395	0	%100
19	M22	X	3.037	3.037	0	%100
20	M22	Z	1.754	1.754	0	%100
21	M23	X	.858	.858	0	%100
22	M23	Z	.496	.496	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.382	.382	0	%100
2	M1	Z	.661	.661	0	%100
3	M2	X	1.031	1.031	0	%100
4	M2	Z	1.786	1.786	0	%100
5	M4	X	1.185	1.185	0	%100
6	M4	Z	2.052	2.052	0	%100
7	MP1A	X	1.271	1.271	0	%100
8	MP1A	Z	2.202	2.202	0	%100
9	MP2A	X	1.271	1.271	0	%100
10	MP2A	Z	2.202	2.202	0	%100
11	MP3A	X	1.409	1.409	0	%100
12	MP3A	Z	2.44	2.44	0	%100
13	MP4A	X	1.17	1.17	0	%100
14	MP4A	Z	2.027	2.027	0	%100
15	OVP	X	1.17	1.17	0	%100
16	OVP	Z	2.027	2.027	0	%100
17	M16	X	1.185	1.185	0	%100
18	M16	Z	2.052	2.052	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
19	M22	X	1.471	1.471	0	%100
20	M22	Z	2.548	2.548	0	%100
21	M23	X	.213	.213	0	%100
22	M23	Z	.369	.369	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	2.063	2.063	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	3.16	3.16	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	2.543	2.543	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	2.543	2.543	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	2.817	2.817	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	2.341	2.341	0	%100
15	OVP	X	0	0	0	%100
16	OVP	Z	2.341	2.341	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	3.16	3.16	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	1.402	1.402	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	1.402	1.402	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.382	-.382	0	%100
2	M1	Z	.661	.661	0	%100
3	M2	X	-1.031	-1.031	0	%100
4	M2	Z	1.786	1.786	0	%100
5	M4	X	-1.185	-1.185	0	%100
6	M4	Z	2.052	2.052	0	%100
7	MP1A	X	-1.271	-1.271	0	%100
8	MP1A	Z	2.202	2.202	0	%100
9	MP2A	X	-1.271	-1.271	0	%100
10	MP2A	Z	2.202	2.202	0	%100
11	MP3A	X	-1.409	-1.409	0	%100
12	MP3A	Z	2.44	2.44	0	%100
13	MP4A	X	-1.17	-1.17	0	%100
14	MP4A	Z	2.027	2.027	0	%100
15	OVP	X	-1.17	-1.17	0	%100
16	OVP	Z	2.027	2.027	0	%100
17	M16	X	-1.185	-1.185	0	%100
18	M16	Z	2.052	2.052	0	%100
19	M22	X	-.213	-.213	0	%100
20	M22	Z	.369	.369	0	%100
21	M23	X	-1.471	-1.471	0	%100
22	M23	Z	2.548	2.548	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-1.983	-1.983	0	%100
2	M1	Z	1.145	1.145	0	%100
3	M2	X	-1.786	-1.786	0	%100
4	M2	Z	1.031	1.031	0	%100
5	M4	X	-.684	-.684	0	%100
6	M4	Z	.395	.395	0	%100
7	MP1A	X	-2.202	-2.202	0	%100
8	MP1A	Z	1.271	1.271	0	%100
9	MP2A	X	-2.202	-2.202	0	%100
10	MP2A	Z	1.271	1.271	0	%100
11	MP3A	X	-2.44	-2.44	0	%100
12	MP3A	Z	1.409	1.409	0	%100
13	MP4A	X	-2.027	-2.027	0	%100
14	MP4A	Z	1.17	1.17	0	%100
15	OVP	X	-2.027	-2.027	0	%100
16	OVP	Z	1.17	1.17	0	%100
17	M16	X	-.684	-.684	0	%100
18	M16	Z	.395	.395	0	%100
19	M22	X	-.858	-.858	0	%100
20	M22	Z	.496	.496	0	%100
21	M23	X	-3.037	-3.037	0	%100
22	M23	Z	1.754	1.754	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-3.053	-3.053	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-2.063	-2.063	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP1A	X	-2.543	-2.543	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	-2.543	-2.543	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-2.817	-2.817	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-2.341	-2.341	0	%100
14	MP4A	Z	0	0	0	%100
15	OVP	X	-2.341	-2.341	0	%100
16	OVP	Z	0	0	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	0	0	0	%100
19	M22	X	-2.532	-2.532	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	-2.532	-2.532	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-1.983	-1.983	0	%100
2	M1	Z	-1.145	-1.145	0	%100
3	M2	X	-1.786	-1.786	0	%100
4	M2	Z	-1.031	-1.031	0	%100
5	M4	X	-.684	-.684	0	%100
6	M4	Z	-.395	-.395	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[ft.%,]	End Location[ft.%,]
7	MP1A	X	-2.202	-2.202	0	%100
8	MP1A	Z	-1.271	-1.271	0	%100
9	MP2A	X	-2.202	-2.202	0	%100
10	MP2A	Z	-1.271	-1.271	0	%100
11	MP3A	X	-2.44	-2.44	0	%100
12	MP3A	Z	-1.409	-1.409	0	%100
13	MP4A	X	-2.027	-2.027	0	%100
14	MP4A	Z	-1.17	-1.17	0	%100
15	OVP	X	-2.027	-2.027	0	%100
16	OVP	Z	-1.17	-1.17	0	%100
17	M16	X	-.684	-.684	0	%100
18	M16	Z	-.395	-.395	0	%100
19	M22	X	-3.037	-3.037	0	%100
20	M22	Z	-1.754	-1.754	0	%100
21	M23	X	-.858	-.858	0	%100
22	M23	Z	-.496	-.496	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[ft.%,]	End Location[ft.%,]
1	M1	X	-.382	-.382	0	%100
2	M1	Z	-.661	-.661	0	%100
3	M2	X	-1.031	-1.031	0	%100
4	M2	Z	-1.786	-1.786	0	%100
5	M4	X	-1.185	-1.185	0	%100
6	M4	Z	-2.052	-2.052	0	%100
7	MP1A	X	-1.271	-1.271	0	%100
8	MP1A	Z	-2.202	-2.202	0	%100
9	MP2A	X	-1.271	-1.271	0	%100
10	MP2A	Z	-2.202	-2.202	0	%100
11	MP3A	X	-1.409	-1.409	0	%100
12	MP3A	Z	-2.44	-2.44	0	%100
13	MP4A	X	-1.17	-1.17	0	%100
14	MP4A	Z	-2.027	-2.027	0	%100
15	OVP	X	-1.17	-1.17	0	%100
16	OVP	Z	-2.027	-2.027	0	%100
17	M16	X	-1.185	-1.185	0	%100
18	M16	Z	-2.052	-2.052	0	%100
19	M22	X	-1.471	-1.471	0	%100
20	M22	Z	-2.548	-2.548	0	%100
21	M23	X	-.213	-.213	0	%100
22	M23	Z	-.369	-.369	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[ft.%,]	End Location[ft.%,]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-.437	-.437	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	-.691	-.691	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-.469	-.469	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-.469	-.469	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-.568	-.568	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-.427	-.427	0	%100
15	OVP	X	0	0	0	%100
16	OVP	Z	-.427	-.427	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	-.691	-.691	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	-.327	-.327	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	-.327	-.327	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.084	.084	0	%100
2	M1	Z	-.145	-.145	0	%100
3	M2	X	.218	.218	0	%100
4	M2	Z	-.378	-.378	0	%100
5	M4	X	.259	.259	0	%100
6	M4	Z	-.449	-.449	0	%100
7	MP1A	X	.234	.234	0	%100
8	MP1A	Z	-.406	-.406	0	%100
9	MP2A	X	.234	.234	0	%100
10	MP2A	Z	-.406	-.406	0	%100
11	MP3A	X	.284	.284	0	%100
12	MP3A	Z	-.492	-.492	0	%100
13	MP4A	X	.214	.214	0	%100
14	MP4A	Z	-.37	-.37	0	%100
15	OVP	X	.214	.214	0	%100
16	OVP	Z	-.37	-.37	0	%100
17	M16	X	.259	.259	0	%100
18	M16	Z	-.449	-.449	0	%100
19	M22	X	.05	.05	0	%100
20	M22	Z	-.086	-.086	0	%100
21	M23	X	.343	.343	0	%100
22	M23	Z	-.595	-.595	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.435	.435	0	%100
2	M1	Z	-.251	-.251	0	%100
3	M2	X	.378	.378	0	%100
4	M2	Z	-.218	-.218	0	%100
5	M4	X	.15	.15	0	%100
6	M4	Z	-.086	-.086	0	%100
7	MP1A	X	.406	.406	0	%100
8	MP1A	Z	-.234	-.234	0	%100
9	MP2A	X	.406	.406	0	%100
10	MP2A	Z	-.234	-.234	0	%100
11	MP3A	X	.492	.492	0	%100
12	MP3A	Z	-.284	-.284	0	%100
13	MP4A	X	.37	.37	0	%100
14	MP4A	Z	-.214	-.214	0	%100
15	OVP	X	.37	.37	0	%100
16	OVP	Z	-.214	-.214	0	%100
17	M16	X	.15	.15	0	%100
18	M16	Z	-.086	-.086	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
19	M22	X	.2	.2	0	%100
20	M22	Z	-.116	-.116	0	%100
21	M23	X	.709	.709	0	%100
22	M23	Z	-.409	-.409	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.669	.669	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	.437	.437	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP1A	X	.469	.469	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	.469	.469	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	.568	.568	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	.427	.427	0	%100
14	MP4A	Z	0	0	0	%100
15	OVP	X	.427	.427	0	%100
16	OVP	Z	0	0	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	0	0	0	%100
19	M22	X	.591	.591	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	.591	.591	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.435	.435	0	%100
2	M1	Z	.251	.251	0	%100
3	M2	X	.378	.378	0	%100
4	M2	Z	.218	.218	0	%100
5	M4	X	.15	.15	0	%100
6	M4	Z	.086	.086	0	%100
7	MP1A	X	.406	.406	0	%100
8	MP1A	Z	.234	.234	0	%100
9	MP2A	X	.406	.406	0	%100
10	MP2A	Z	.234	.234	0	%100
11	MP3A	X	.492	.492	0	%100
12	MP3A	Z	.284	.284	0	%100
13	MP4A	X	.37	.37	0	%100
14	MP4A	Z	.214	.214	0	%100
15	OVP	X	.37	.37	0	%100
16	OVP	Z	.214	.214	0	%100
17	M16	X	.15	.15	0	%100
18	M16	Z	.086	.086	0	%100
19	M22	X	.709	.709	0	%100
20	M22	Z	.409	.409	0	%100
21	M23	X	.2	.2	0	%100
22	M23	Z	.116	.116	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	.084	.084	0	%100
2	M1	Z	.145	.145	0	%100
3	M2	X	.218	.218	0	%100
4	M2	Z	.378	.378	0	%100
5	M4	X	.259	.259	0	%100
6	M4	Z	.449	.449	0	%100
7	MP1A	X	.234	.234	0	%100
8	MP1A	Z	.406	.406	0	%100
9	MP2A	X	.234	.234	0	%100
10	MP2A	Z	.406	.406	0	%100
11	MP3A	X	.284	.284	0	%100
12	MP3A	Z	.492	.492	0	%100
13	MP4A	X	.214	.214	0	%100
14	MP4A	Z	.37	.37	0	%100
15	OVP	X	.214	.214	0	%100
16	OVP	Z	.37	.37	0	%100
17	M16	X	.259	.259	0	%100
18	M16	Z	.449	.449	0	%100
19	M22	X	.343	.343	0	%100
20	M22	Z	.595	.595	0	%100
21	M23	X	.05	.05	0	%100
22	M23	Z	.086	.086	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.437	.437	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	.691	.691	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	.469	.469	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	.469	.469	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	.568	.568	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	.427	.427	0	%100
15	OVP	X	0	0	0	%100
16	OVP	Z	.427	.427	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	.691	.691	0	%100
19	M22	X	0	0	0	%100
20	M22	Z	.327	.327	0	%100
21	M23	X	0	0	0	%100
22	M23	Z	.327	.327	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-.084	-.084	0	%100
2	M1	Z	.145	.145	0	%100
3	M2	X	-.218	-.218	0	%100
4	M2	Z	.378	.378	0	%100
5	M4	X	-.259	-.259	0	%100
6	M4	Z	.449	.449	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
7	MP1A	X	-.234	-.234	0	%100
8	MP1A	Z	.406	.406	0	%100
9	MP2A	X	-.234	-.234	0	%100
10	MP2A	Z	.406	.406	0	%100
11	MP3A	X	-.284	-.284	0	%100
12	MP3A	Z	.492	.492	0	%100
13	MP4A	X	-.214	-.214	0	%100
14	MP4A	Z	.37	.37	0	%100
15	OVP	X	-.214	-.214	0	%100
16	OVP	Z	.37	.37	0	%100
17	M16	X	-.259	-.259	0	%100
18	M16	Z	.449	.449	0	%100
19	M22	X	-.05	-.05	0	%100
20	M22	Z	.086	.086	0	%100
21	M23	X	-.343	-.343	0	%100
22	M23	Z	.595	.595	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.435	-.435	0	%100
2	M1	Z	.251	.251	0	%100
3	M2	X	-.378	-.378	0	%100
4	M2	Z	.218	.218	0	%100
5	M4	X	-.15	-.15	0	%100
6	M4	Z	.086	.086	0	%100
7	MP1A	X	-.406	-.406	0	%100
8	MP1A	Z	.234	.234	0	%100
9	MP2A	X	-.406	-.406	0	%100
10	MP2A	Z	.234	.234	0	%100
11	MP3A	X	-.492	-.492	0	%100
12	MP3A	Z	.284	.284	0	%100
13	MP4A	X	-.37	-.37	0	%100
14	MP4A	Z	.214	.214	0	%100
15	OVP	X	-.37	-.37	0	%100
16	OVP	Z	.214	.214	0	%100
17	M16	X	-.15	-.15	0	%100
18	M16	Z	.086	.086	0	%100
19	M22	X	-.2	-.2	0	%100
20	M22	Z	.116	.116	0	%100
21	M23	X	-.709	-.709	0	%100
22	M23	Z	.409	.409	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.669	-.669	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-.437	-.437	0	%100
4	M2	Z	0	0	0	%100
5	M4	X	0	0	0	%100
6	M4	Z	0	0	0	%100
7	MP1A	X	-.469	-.469	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	-.469	-.469	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-.568	-.568	0	%100
12	MP3A	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
13	MP4A	X	-427	-427	0	%100
14	MP4A	Z	0	0	0	%100
15	OVP	X	-427	-427	0	%100
16	OVP	Z	0	0	0	%100
17	M16	X	0	0	0	%100
18	M16	Z	0	0	0	%100
19	M22	X	-591	-591	0	%100
20	M22	Z	0	0	0	%100
21	M23	X	-591	-591	0	%100
22	M23	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-435	-435	0	%100
2	M1	Z	-251	-251	0	%100
3	M2	X	-378	-378	0	%100
4	M2	Z	-218	-218	0	%100
5	M4	X	-15	-15	0	%100
6	M4	Z	-086	-086	0	%100
7	MP1A	X	-406	-406	0	%100
8	MP1A	Z	-234	-234	0	%100
9	MP2A	X	-406	-406	0	%100
10	MP2A	Z	-234	-234	0	%100
11	MP3A	X	-492	-492	0	%100
12	MP3A	Z	-284	-284	0	%100
13	MP4A	X	-37	-37	0	%100
14	MP4A	Z	-214	-214	0	%100
15	OVP	X	-37	-37	0	%100
16	OVP	Z	-214	-214	0	%100
17	M16	X	-15	-15	0	%100
18	M16	Z	-086	-086	0	%100
19	M22	X	-709	-709	0	%100
20	M22	Z	-409	-409	0	%100
21	M23	X	-2	-2	0	%100
22	M23	Z	-116	-116	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-084	-084	0	%100
2	M1	Z	-145	-145	0	%100
3	M2	X	-218	-218	0	%100
4	M2	Z	-378	-378	0	%100
5	M4	X	-259	-259	0	%100
6	M4	Z	-449	-449	0	%100
7	MP1A	X	-234	-234	0	%100
8	MP1A	Z	-406	-406	0	%100
9	MP2A	X	-234	-234	0	%100
10	MP2A	Z	-406	-406	0	%100
11	MP3A	X	-284	-284	0	%100
12	MP3A	Z	-492	-492	0	%100
13	MP4A	X	-214	-214	0	%100
14	MP4A	Z	-37	-37	0	%100
15	OVP	X	-214	-214	0	%100
16	OVP	Z	-37	-37	0	%100
17	M16	X	-259	-259	0	%100
18	M16	Z	-449	-449	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
19	M22	X	-.343	-.343	0	%100
20	M22	Z	-.595	-.595	0	%100
21	M23	X	-.05	-.05	0	%100
22	M23	Z	-.086	-.086	0	%100

**Member Area Loads**

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

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

Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc.....	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn.....	Eqn		
1	M1	HSS4X4X4	.566	0	5	.442	0	y	29	12897...	139518	16.181	16.181	2...H3-6
2	M2	PIPE_3.0	.000	.75	5	.000	.75		5	64424...	65205	5.749	5.749	1...H1-1b
3	M4	PIPE_3.0	.813	6.75	29	.321	6.75		28	24533...	65205	5.749	5.749	1...H3-6
4	MP1A	PIPE_2.0	.405	1.625	35	.063	4.25		35	20866...	32130	1.872	1.872	4...H1-1b
5	MP2A	PIPE_2.0	.432	4.229	36	.057	4.229		1	17855...	32130	1.872	1.872	2...H1-1b
6	MP3A	PIPE_2.5	.426	4.229	26	.087	4.229		5	33961...	50715	3.596	3.596	1...H1-1b
7	MP4A	PIPE_2.0	.139	3.167	16	.034	3.167		4	26521...	32130	1.872	1.872	1...H1-1b
8	OVP	PIPE_2.0	.155	3	8	.016	3		8	26521...	32130	1.872	1.872	1...H1-1b
9	M16	PIPE_3.0	.251	9.625	29	.071	10....		26	22812...	65205	5.749	5.749	2...H1-1b
10	M22	L2.5x2.5x3	.113	3.06	5	.041	0	z	29	8765.31	29192.4	.873	1.521	1...H2-1
11	M23	L2.5x2.5x3	.107	3.06	9	.051	6.121	y	29	8765.31	29192.4	.873	1.521	1...H2-1

**Envelope Joint Reactions**

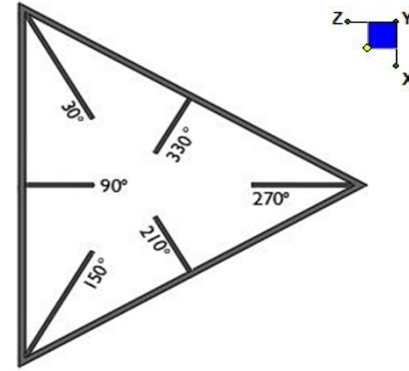
Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
1	N1	max	1389.126	11	1618.822	13	1443.248	1	-1.391	7	5.816	11	5.551	29
2		min	-1382.503	5	471.48	7	-604.129	7	-5.08	13	-5.767	5	-2.11	11
3	N55	max	196.818	5	519.018	19	318.137	1	0	25	.001	11	.008	29
4		min	-203.448	11	-103.48	1	-1157.191	7	0	7	-.004	29	-.003	11
5	Totals:	max	1185.677	11	2002.226	23	1761.386	1						
6		min	-1185.685	5	987.568	5	-1761.32	7						



## I. Mount-to-Tower Connection Check

### RISA Model Data

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

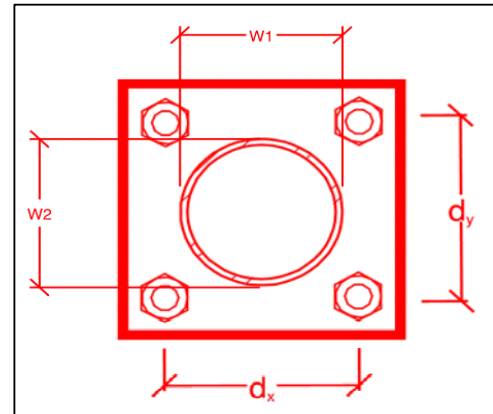


TYPICAL PLATFORM

### Tower Connection Bolt Checks

Any moment resistance?:  
 Bolt Quantity per Reaction:  
 $d_x$  (in) (Delta X of typ. bolt config. sketch) :  
 $d_y$  (in) (Delta Y of typ. bolt config. sketch) :  
 Bolt Type:  
 Bolt Diameter (in):  
 Required Tensile Strength (kips):  
 Required Shear Strength (kips):  
 Tensile Strength / bolt (kips):  
 Shear Strength / bolt (kips):  
 Tensile Capacity Overall:  
 Shear Capacity Overall:

yes
4
6
6
A325N
0.625
26.8
23.6
20.7
12.4
<b>32.4%*</b>
<b>47.4%</b>



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

### Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:  
 Plate Width (in):  
 Plate Height (in):  
 $W_1$  (in):  
 $W_2$  (in):  
 $F_y$  (ksi, plate):  
 $t_{plate}$  (in):  
 Weld Size (1/16 in):  
 $\Phi * R_n$  (kip/in):  
 Required Weld Strength (kip/in):  
 Plate Bending Capacity:  
 Weld Capacity:

Rect
8.5
8.5
4
4
36
0.75
4
5.57
3.82
<b>46.0%</b>
<b>68.7%</b>

### Max Plate Bending Strengths

$M_{u_{xx}}$ (kip-in) :	5.9
$\Phi * M_{n_{xx}}$ (kip-in) :	38.7
$M_{u_{yy}}$ (kip-in) :	11.9
$\Phi * M_{n_{yy}}$ (kip-in) :	38.7

# Mount Desktop – Post Modification Inspection (PMI) Report Requirements

## Documents & Photos Required from Contractor – Mount Modification

---

**Purpose** – to provide Maser Consulting Connecticut the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

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

### **Base Requirements:**

- Any special photos outside of the standard requirements will be indicated on the drawings
- Provide “as built drawings” showing contractor’s name, preparer’s signature, and date. Any deviations from the drawings (proposed modification) must be shown.
- Notation that all hardware was properly installed, and the existing hardware was inspected for any issues.
- Verification that loading is as communicated in the modification drawings. NOTE If loading is different than what is conveyed in the modification drawing contact Maser Consulting Connecticut immediately.
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope.
- The photos in the file structure should be uploaded to <https://pmi.vzwsmart.com> as depicted on the drawings

### **Photo Requirements:**

- **Base and “During Installation Photos”**
  - Base pictures include
    - Photo of Gate Signs showing the tower owner, site name, and number
    - Photo of carrier shelter showing the carrier site name and number if available
    - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name
  - “During Installation Photos if provided - must be placed only in this folder
- **Photos taken at ground level**
  - Overall tower structure before and after installation of the modifications
  - Photos of the appropriate mount before and after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed

- Photos taken at Mount Elevation
  - Photos showing each individual sector before and also after installation of modifications. Each entire sector must be in one photo to show in the inter-connection of members.
    - These photos should also certify that the placement and geometry of the equipment on the mount is as depicted on the sketch and table in the mount analysis
  - Close-up photos of each installed modification per the modification drawings; pictures should also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
  - Photos showing the measurements of the installed modification member sizes (i.e. lengths, widths, depths, diameters, thicknesses)
  - Photos showing the elevation or distances of the installed modifications from the appropriate reference locations shown in the modification drawings
  - Photos showing the installed modifications onto the tower with tape drop measurements (if applicable) (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, a tape drop measurement shall be provided before the elevation change
  - Photos showing the safety climb wire rope above and below the mount prior to modification.
  - Photos showing the climbing facility and safety climb if present.

**Material Certification:**

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

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

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

Certifying Individual: Company \_\_\_\_\_  
Name \_\_\_\_\_  
Signature \_\_\_\_\_

**Antenna & equipment placement and Geometry Confirmation:**

- The contractor must certify that the antenna & equipment placement and geometry is in accordance with the antenna placement diagrams as included in this mount analysis.
- ☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the antenna placement diagrams as included in this mount analysis.
- ☐ The contractor notes that the equipment on the mount is not in accordance with the antenna placement diagrams and has accordingly marked up the diagrams or provided a diagram outlining the differences.

Certifying Individual:      Company \_\_\_\_\_  
    Name \_\_\_\_\_  
    Signature \_\_\_\_\_

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

**Issue:**


















Contractor to install proposed OVP to (2) new 4' Long P2.0 STD pipe connected to the Alpha and Beta Sectors. Contractor to connect the proposed pipes to standoff arms using crossover pipes (Part # SQCX4-K or EOR approved Equal).  
  
Contractor to verify the weld size of the mount's connection. If the connection weld is less than 1/4", contractor to contact EOR immediately.

**Response:**

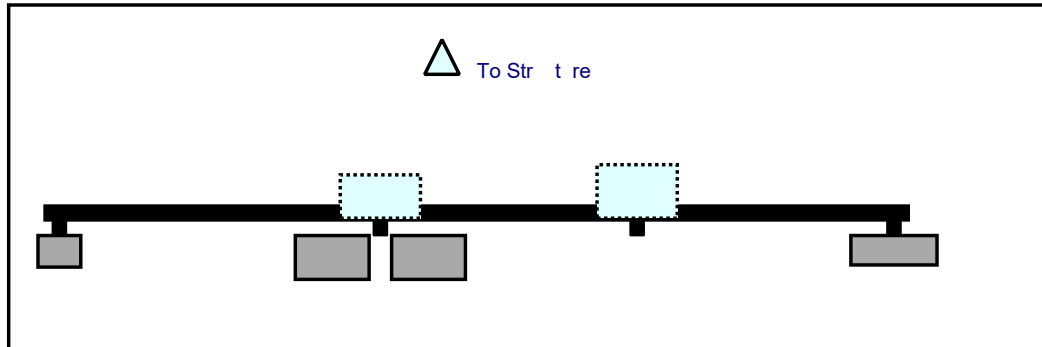
\_\_\_\_\_



## **Schedule A – Photo & Document File Structure**

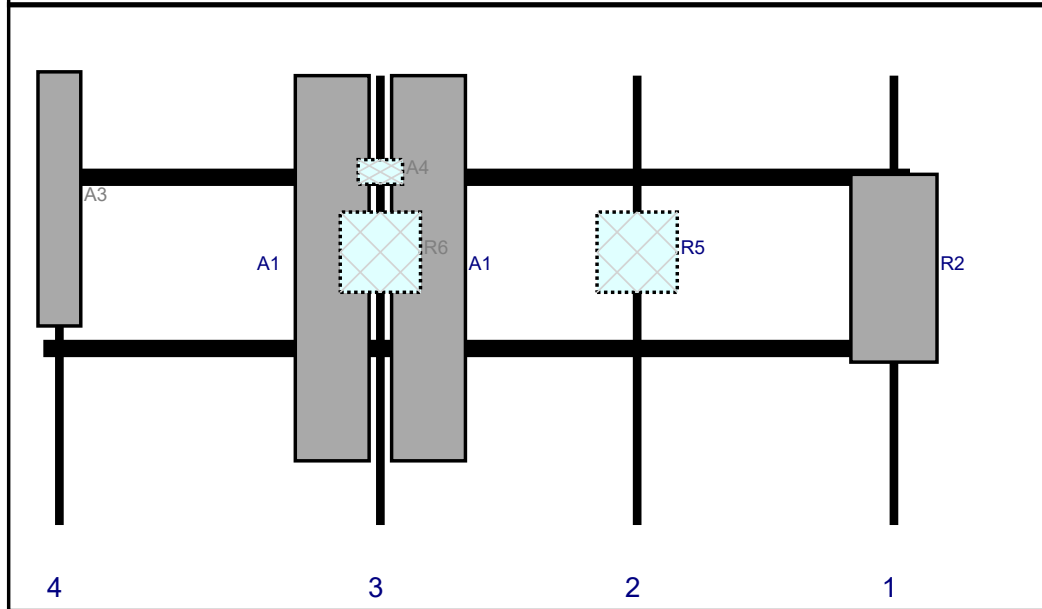
-  VzW Site Number / Name
  -  Base & “During Installation” Photos
  -  Pre-Installation Photos
    -  Alpha
    -  Beta
    -  Gamma
    -  Ground Level
    -  Tape Drop
  -  Post-Installation Photos
    -  Alpha
    -  Beta
    -  Gamma
    -  Ground Level
    -  Tape Drop
    -  Photos of climbing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

Plan View



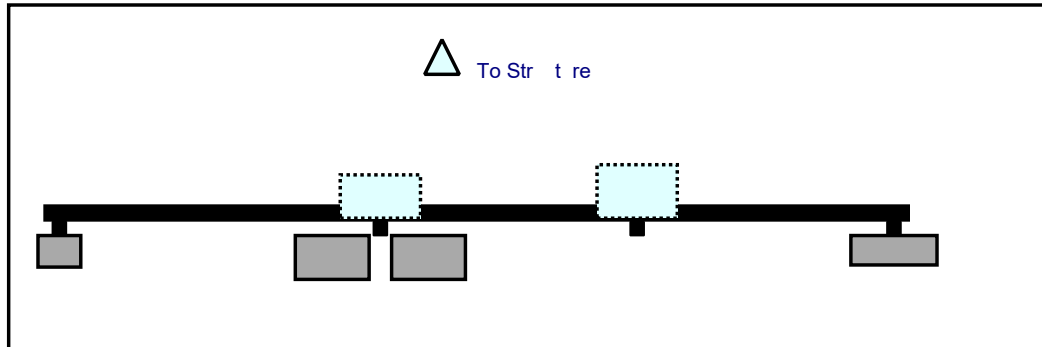
Front View

Lo o i g t Str t re



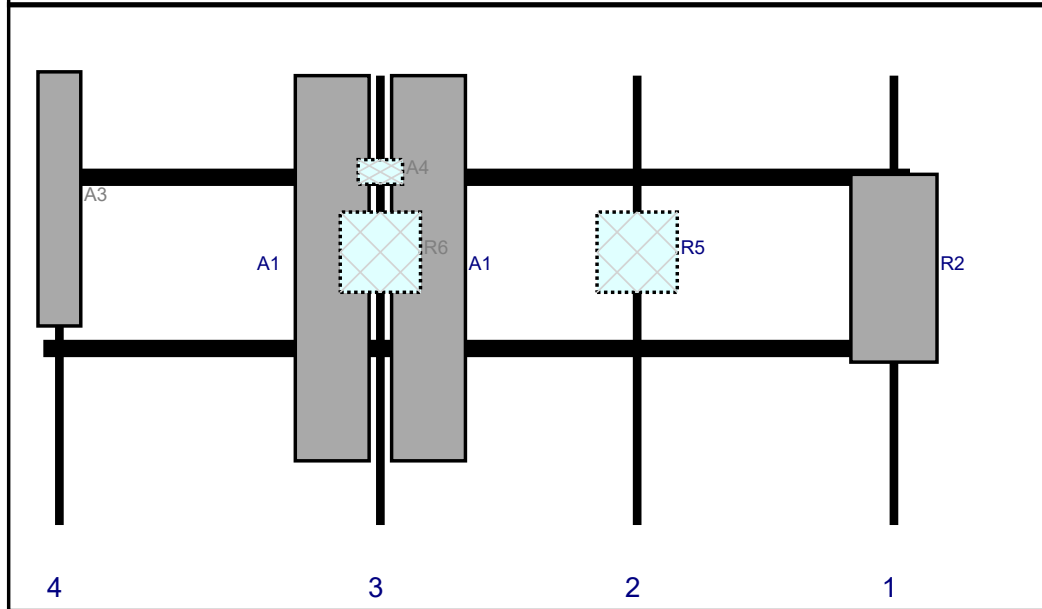
Re #	Model	Height i	Width i	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
R2	MT6407-77A	35.1	16.1	159	1		Fro t	36	0	Added	
R5	B2/B66A RRH-BR049	15	15	111	2		Behi d	33	0	Added	
A1	JAHH-65B-R3B	72	13.8	63	3		Fro t	36	9	Added	
A1	JAHH-65B-R3B	72	13.8	63	3		Fro t	36	-9	Added	
A4	CBC1923Q-43	4.6	8.3	63	3		Behi d	18	0	Added	
R6	B5/B13 RRH-BR04C	15	15	63	3		Behi d	33	0	Added	
A3	B A-70080-4BF-EDIN-0	47.5	8	3	4		Fro t	23.04	0	Ret i ed	03/30/2021

Plan View



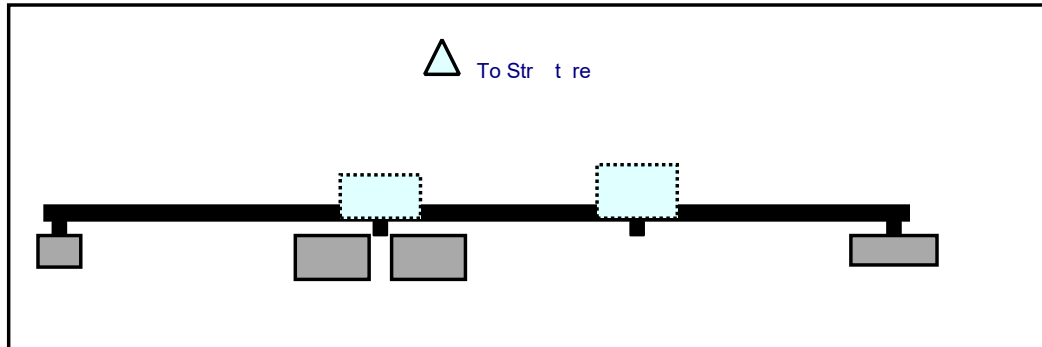
Front View

Lo o i g t Str t re



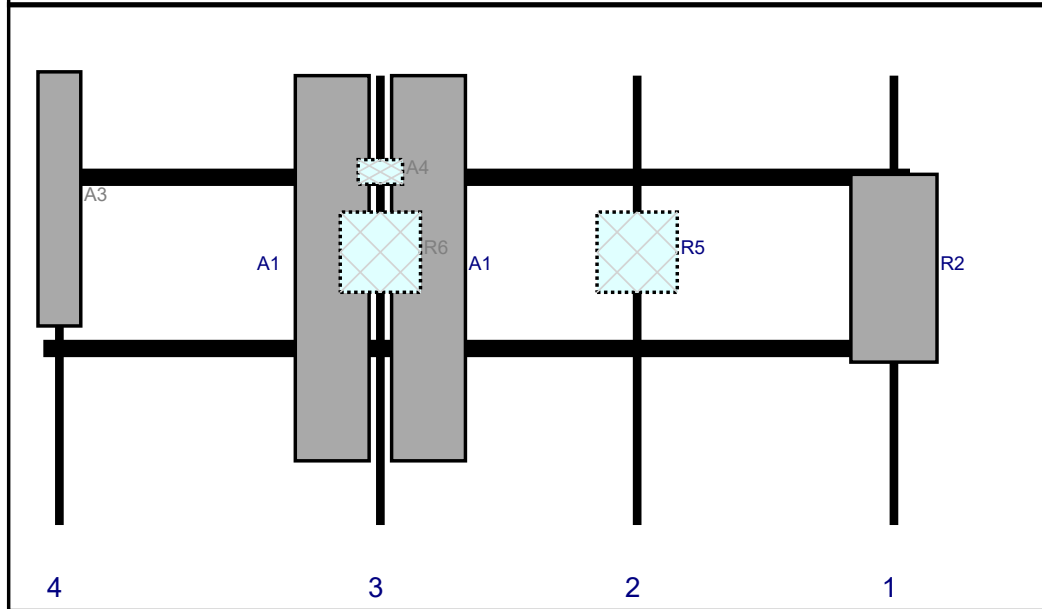
Re #	Model	Height	Width	H Dist	Pipe	Pipe	A t	C. A t	A t	St t s	V lid tio
		i	i	Fr L.	#	Pos V	Pos	Fr T.	H O		
R2	MT6407-77A	35.1	16.1	159	1		Fro t	36	0	Added	
R5	B2/B66A RRH-BR049	15	15	111	2		Behi d	33	0	Added	
A1	JAHH-65B-R3B	72	13.8	63	3		Fro t	36	9	Added	
A1	JAHH-65B-R3B	72	13.8	63	3		Fro t	36	-9	Added	
A4	CBC1923Q-43	4.6	8.3	63	3		Behi d	18	0	Added	
R6	B5/B13 RRH-BR04C	15	15	63	3		Behi d	33	0	Added	
A3	B A-70080-4BF-EDIN-0	47.5	8	3	4		Fro t	23.04	0	Ret i ed	03/30/2021

Plan View



Front View

Lo o i g t Str t re



Re #	Model	Height	Width	H Dist	Pipe	Pipe	A t	C. A t	A t	St t s	V lid tio
		i	i	Fr L.	#	Pos V	Pos	Fr T.	H O		
R2	MT6407-77A	35.1	16.1	159	1		Fro t	36	0	Added	
R5	B2/B66A RRH-BR049	15	15	111	2		Behi d	33	0	Added	
A1	JAHH-65B-R3B	72	13.8	63	3		Fro t	36	9	Added	
A1	JAHH-65B-R3B	72	13.8	63	3		Fro t	36	-9	Added	
A4	CBC1923Q-43	4.6	8.3	63	3		Behi d	18	0	Added	
R6	B5/B13 RRH-BR04C	15	15	63	3		Behi d	33	0	Added	
A3	B A-70080-4BF-EDIN-0	47.5	8	3	4		Fro t	23.04	0	Ret i ed	03/30/2021

<b><u>Subject</u></b>		TIA-222-H Usage
<b><u>Site Information</u></b>	Site ID:	468617-VZW / PLAINFIELD CT
	Site Name:	PLAINFIELD CT
	Carrier Name:	Verizon Wireless
	Address:	45 Spaulding Rd. Plainfield, Connecticut 06374 Windham County
	Latitude:	41.674544°
	Longitude:	-71.878683°
<b><u>Structure Information</u></b>	Tower Type:	Monopole
	Mount Type:	13.50-Ft T-Arm

To Whom It May Concern,

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

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

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

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

Sincerely,

Justin Linette, PE  
Sr. Technical Manager

**PROJECT NOTES**

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



**MOUNT MODIFICATION DRAWINGS  
EXISTING 13.50' T-ARM**

**SITE NAME: PLAINFIELD CT  
SITE NUMBER: 468617**

**45 SPAULDING RD  
PLAINFIELD, CT 06374  
WINDHAM COUNTY**

PROJECT INFORMATION	
<b>SITE INFORMATION</b>	
LATITUDE:	41.674544° N
LONGITUDE:	71.878683° W
JURISDICTION:	WINDHAM COUNTY
<b>APPLICANT/LESSEE</b>	
COMPANY:	VERIZON WIRELESS
<b>CLIENT REPRESENTATIVE</b>	
COMPANY:	VERIZON WIRELESS
ADDRESS:	118 FLANDERS ROAD, THIRD FLOOR
CITY, STATE, ZIP:	WESTBOROUGH, MA 01581
CONTACT:	ANDREW CANDIELLO
EMAIL:	ANDREW.CANDIELLO@VERIZONWIRELESS.COM
<b>PROJECT MANAGER</b>	
COMPANY:	MASER CONSULTING CONNECTICUT
CONTACT:	PETER ALBANO
PHONE:	856-797-0412
E-MAIL:	PETER.ALBANO@COLLIERSENGINEERING.COM

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

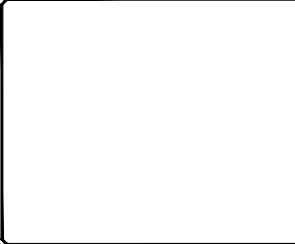
CONTRACTOR PMI REQUIREMENTS	
PMI LOCATION:	HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #:	10072168
VZW LOCATION CODE (PSLC):	468617
FUZE ID:	16272035
PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT	

REFERENCED DOCUMENTS	
FAILING MOUNT ANALYSIS REPORT	
SMART TOOL PROJECT #:	10050473
MASER CONSULTING PROJECT #:	21777483A
ANALYSIS DATE:	5/21/2021

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SCALE:	JOB NUMBER:
AS SHOWN	21777483A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
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Justin Linette  
CONNECTICUT PROFESSIONAL ENGINEER  
LICENSE NUMBER: 31965  
MASER CONSULTING CONNECTICUT  
C.T. C.O.A.#: JPC0000131  
Digitally signed by Justin Peter Linette  
Date: 2021.06.24 14:31:54 -0400'

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WINDHAM COUNTY**

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

SHEET TITLE:  
**TITLE SHEET**  
SHEET NUMBER:  
**T-1**

# BILL OF MATERIALS

VZWSMART KITS					
QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	
15	VZWSMART	VZWSMART-MSK2	CROSSOVER PLATE		
OTHER REQUIRED PARTS					
QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	
3	-	-	168" LONG, P3.0 STD	GALVANIZED	
3	-	-	84" LONG, P2.5 STD	GALVANIZED	
2	-	-	48" LONG, P2.0 STD	GALVANIZED	
2	SITE PRO I	SQCX4-K	CROSSOVER PLATE KIT W/ SQUARE U-BOLTS AND STD. U-BOLTS	OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING CONNECTICUT FOR APPROVAL OF SUBSTITUTION	
1	SITE PRO I	PRK-SFS-L	SUPPORT RAIL REINFORCEMENT KIT	OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING CONNECTICUT FOR APPROVAL OF SUBSTITUTION	

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

VZWSMART KITS - APPROVED VENDORS	
<b>COMMSCOPE</b>	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM
<b>METROSITE FABRICATORS, LLC</b>	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM
<b>PERFECTVISION</b>	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM
<b>SABRE INDUSTRIES, INC.</b>	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM
<b>SITE PRO 1</b>	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

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

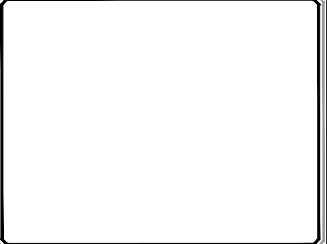


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2000 Highlands Drive  
Suite 100  
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SHEET NUMBER:  
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M:\Projects\1628146817\_PLAINFIELD CT\_HighwayRamp\_PAS\_20210622.dwg:1 By: NGRIHAN

**GENERAL NOTES**

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

**DESIGN LOADS**

- WIND LOADS
- a. BASIC WIND SPEED (3 SECOND GUST), V = 124 MPH
  - b. EXPOSURE CATEGORY B
  - c. TOPOGRAPHIC CATEGORY I
  - d. MEAN BASE ELEVATION (AMSL) = 557.58'

- ICE LOADS
- a. ICE WIND SPEED (3 SECOND GUST), V = 50 MPH
  - b. ICE THICKNESS = 1.00 IN

- SEISMIC LOADS
- a. SEISMIC DESIGN CATEGORY B
  - b. SHORT TERM MCER GROUND MOTION, S<sub>s</sub> = .187
  - c. LONG TERM MCER GROUND MOTION, S<sub>l</sub> = .054

**STRUCTURAL STEEL**

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

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

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

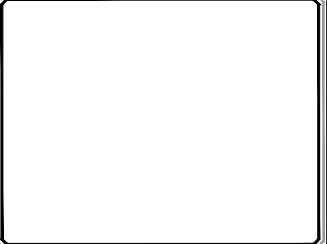
13. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINGA OR ZINC COTE), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.



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Suite 100  
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SHEET TITLE:  
**MODIFICATION NOTES**

SHEET NUMBER:  
**S-2**

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MODIFICATION INSPECTION NOTES

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

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

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

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

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

MI INSPECTOR

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

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

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

GENERAL CONTRACTOR

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

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

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

RECOMMENDATIONS

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

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

CORRECTION OF FAILING MI'S

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

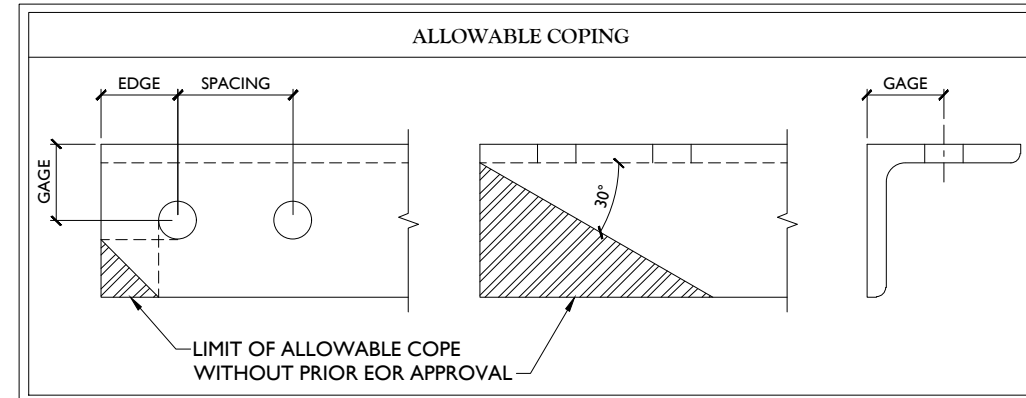
- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MI.

REQUIRED PHOTOS

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

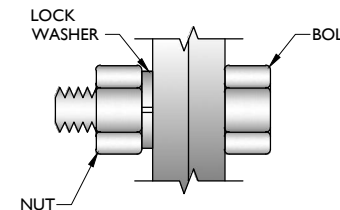
- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
  - RAW MATERIALS
  - PHOTOS OF ALL CRITICAL DETAILS
  - FOUNDATION MODIFICATIONS
  - WELD PREPARATION
  - BOLT INSTALLATION
  - FINAL INSTALLED CONDITION
  - SURFACE COATING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

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



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

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



TYP. BOLT ASSEMBLY

NOTES:

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



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SCALE: AS SHOWN	JOB NUMBER: 21777483A			
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	6/24/2021	ISSUED FOR CONSTRUCTION	HSG	JPL

Justin Linette  
 CONNECTICUT PROFESSIONAL ENGINEER  
 LICENSE NUMBER: 31965  
 MASER CONSULTING CONNECTICUT  
 C.T. C.O.A.#: JPC0000131  
 Digitally signed by Justin Linette  
 Date: 2021.06.24 14:32:04-00'

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

SITE NAME:  
 PLAINFIELD CT  
 468617  
 45 SPAULDING RD  
 PLAINFIELD, CT 06374  
 WINDHAM COUNTY

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

SHEET TITLE:  
 MODIFICATION NOTES

SHEET NUMBER:  
 S-3



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

SCALE:	AS SHOWN	JOB NUMBER:	21777483A
REV	DATE	DESCRIPTION	DRAWN BY / CHECKED BY
0	6/24/2021	ISSUED FOR CONSTRUCTION	MSG / JPL

*Justin Linette*  
Justin Linette  
CONNECTICUT PROFESSIONAL ENGINEER  
LICENSE NUMBER: 31965  
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C.T. C.O.A.#: JPC0000131  
Digitally signed by Justin Linette  
Date: 2021.06.24 14:32:11-04'00'

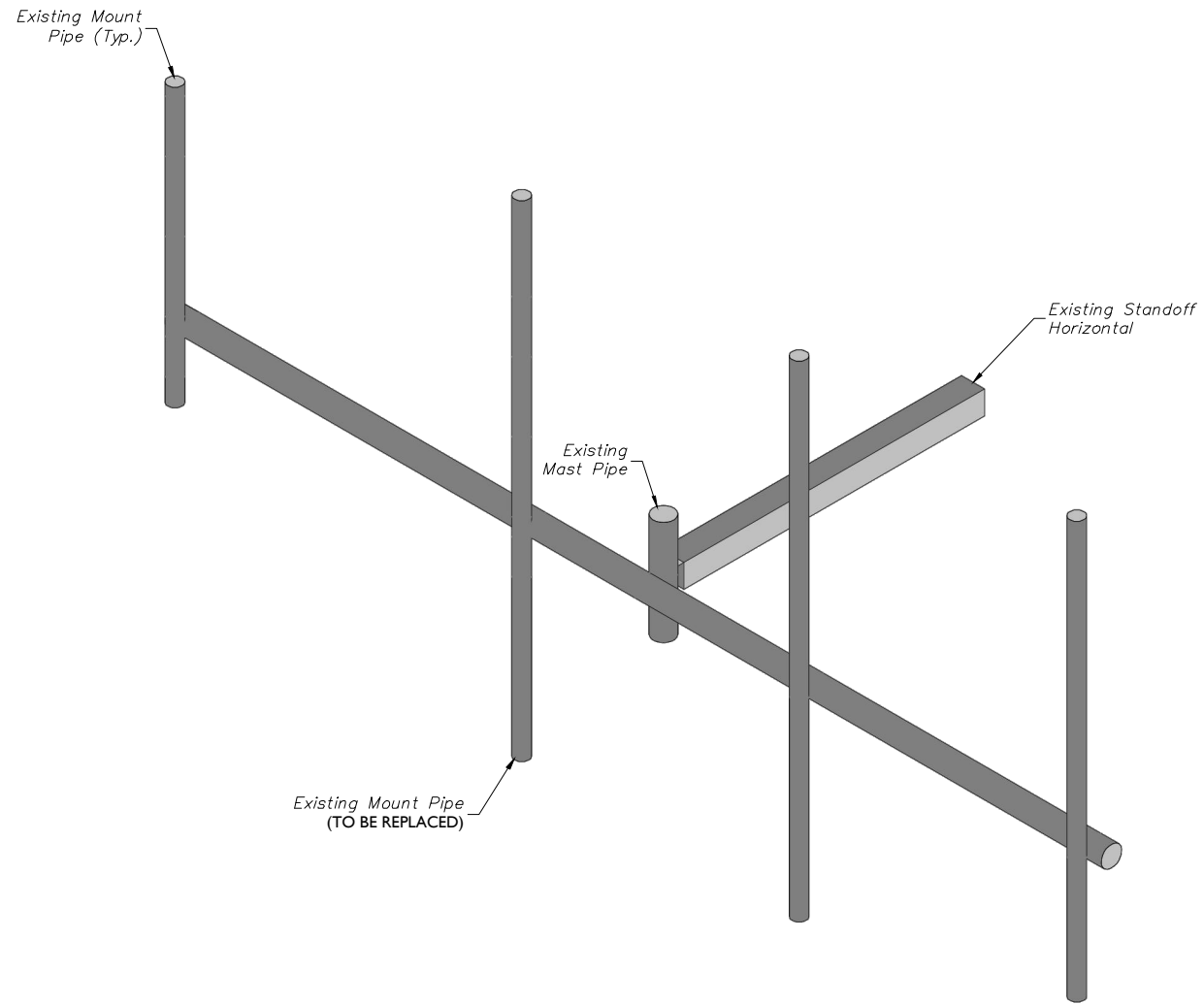
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**SITE NAME:**  
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468617  
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PLAINFIELD, CT 06374  
WINDHAM COUNTY

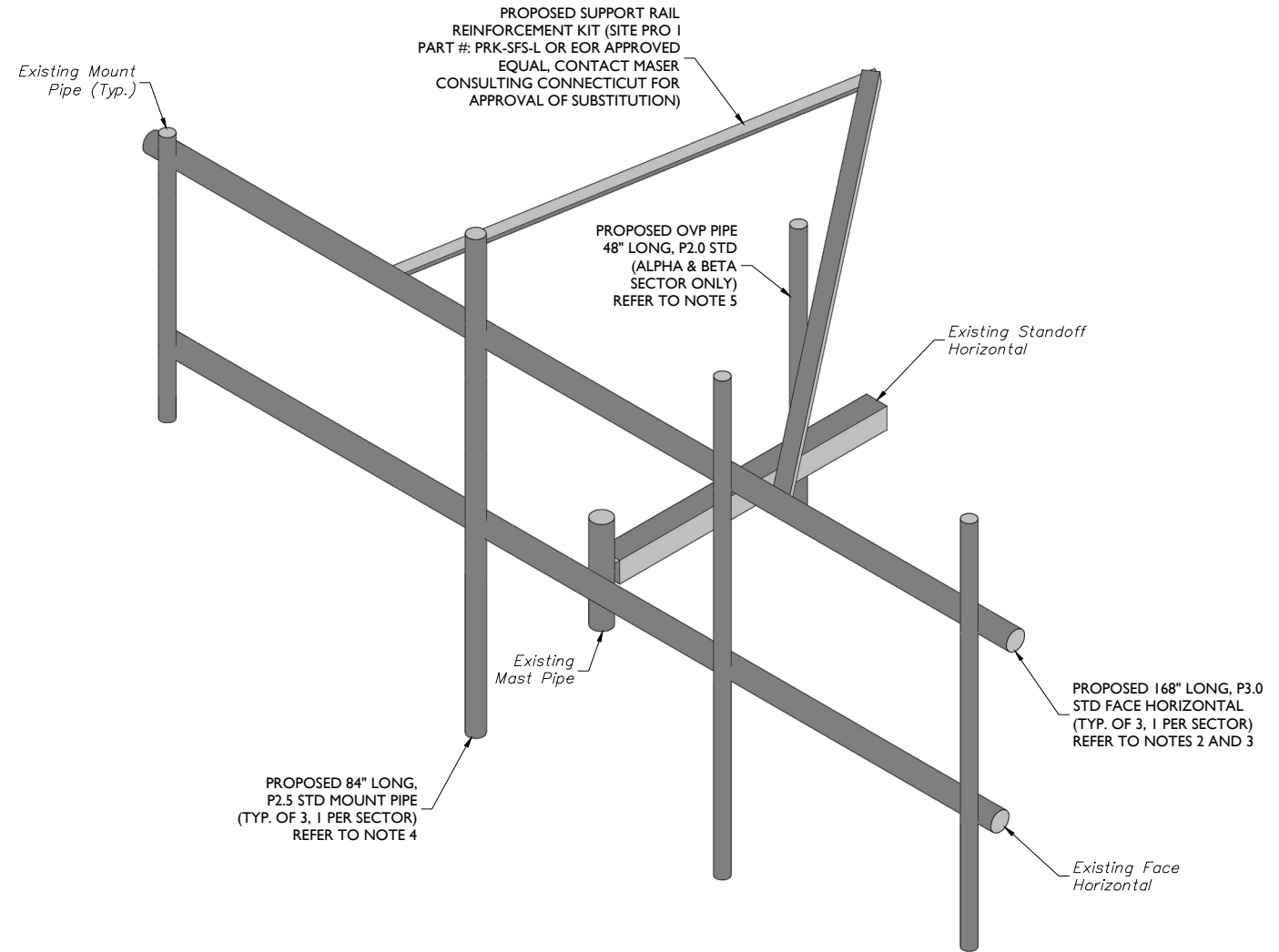
**MT. LAUREL OFFICE**  
2000 Highlands Drive  
Suite 100  
Mount Laurel, NJ 08054  
Phone: 856.797.0412  
Fax: 856.722.1120

SHEET TITLE:  
MODIFICATION DETAILS

SHEET NUMBER:  
S-4



**1** EXISTING T-ARM ISOMETRIC VIEW (TYP. ALL SECTORS)  
SCALE : N.T.S.



**2** PROPOSED T-ARM ISOMETRIC VIEW (TYP. ALL SECTORS)  
SCALE : N.T.S.

**STRUCTURAL NOTES:**

- PER THE MOUNT MAPPING COMPLETED BY HUDSON DESIGN GROUP, LLC ON 3/30/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (112'-9") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.
- INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.

**MODIFICATION NOTES:**

- MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
- RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
- CONNECT NEW HORIZONTAL TO ALL EXISTING AND PROPOSED VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
- CONNECT NEW MOUNT PIPE TO EXISTING HORIZONTAL WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
- CONNECT NEW OVP PIPE TO EXISTING STANDOFF HORIZONTAL WITH CROSSOVER PLATES (SITE PRO 1 PART #: SQCX4-K, OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING CONNECTICUT FOR APPROVAL OF SUBSTITUTION).



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SCALE:	AS SHOWN	JOB NUMBER:	21777483A
REV	DATE	DESCRIPTION	DRAWN BY / CHECKED BY
0	6/24/2021	ISSUED FOR CONSTRUCTION	HSG / JPL

**Justin Linette**  
CONNECTICUT PROFESSIONAL ENGINEER  
LICENSE NUMBER: 31965  
MASER CONSULTING CONNECTICUT  
C.T. C.O.A.#: JPC0000131  
Digitally signed by Justin Linette  
Date: 2021.06.24 14:32:04-04'00'

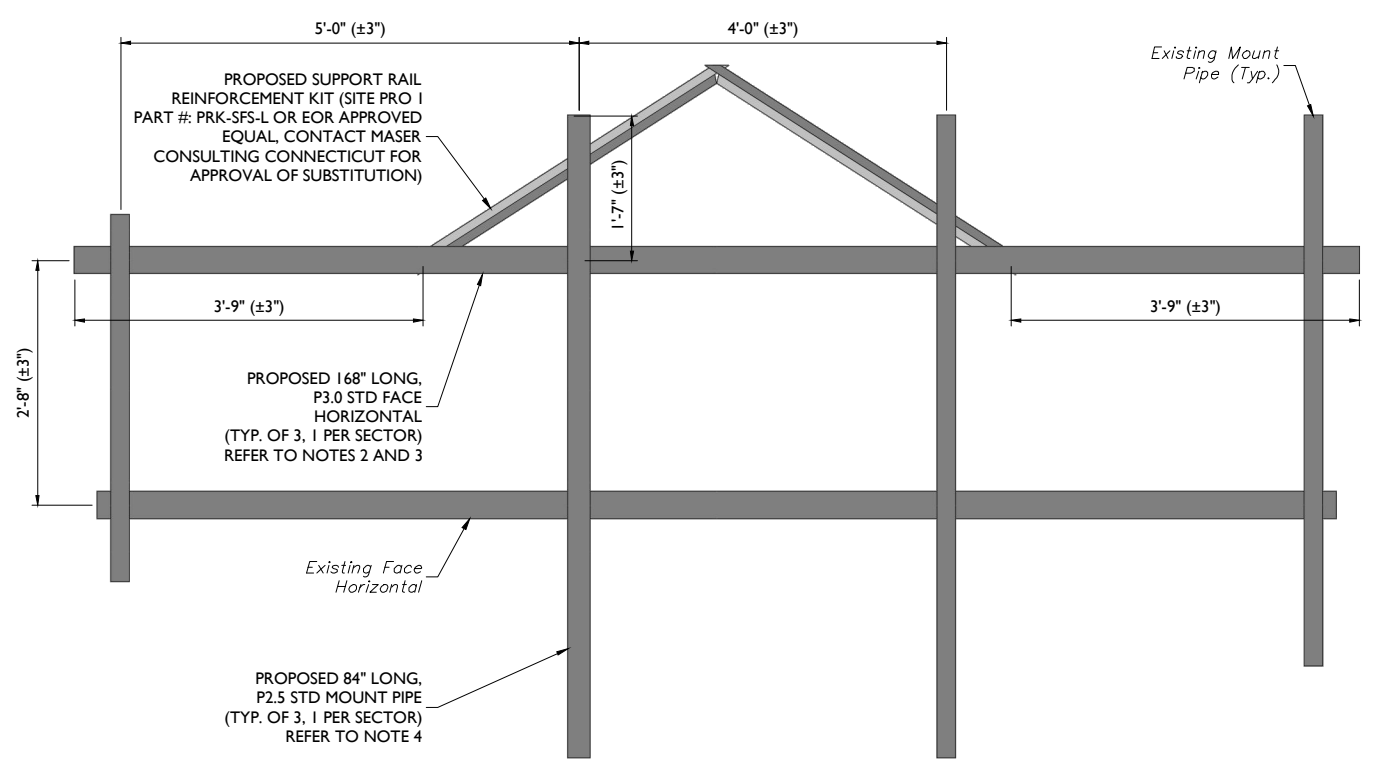
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**SITE NAME:**  
**PLAINFIELD CT**  
**468617**  
**45 SPAULDING RD**  
**PLAINFIELD, CT 06374**  
**WINDHAM COUNTY**

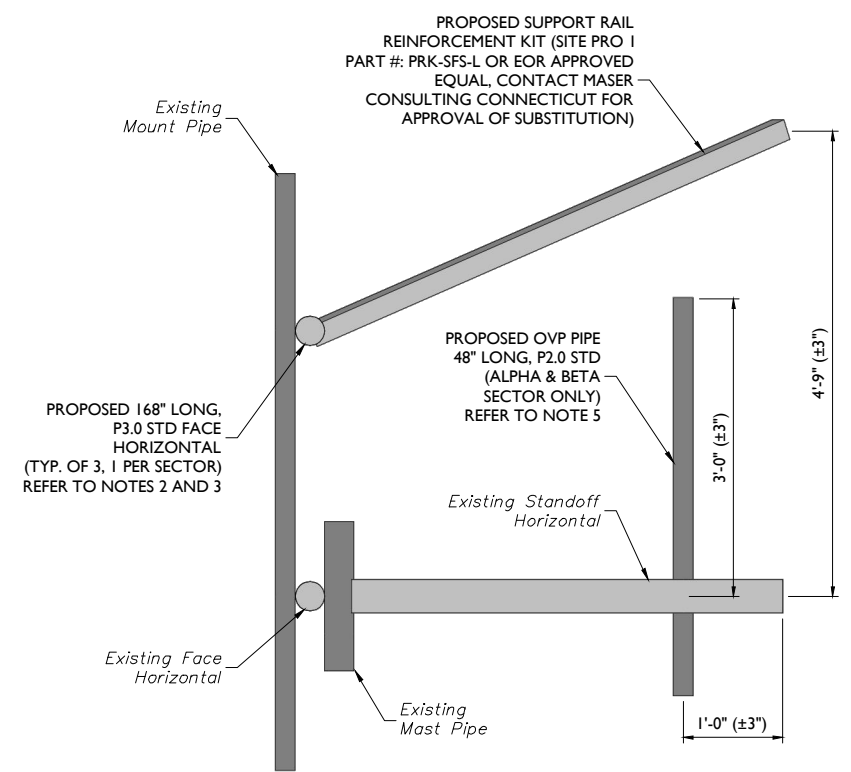
**MT. LAUREL OFFICE**  
2000 Highlands Drive  
Suite 100  
Mount Laurel, NJ 08054  
Phone: 856.797.0412  
Fax: 856.722.1120

SHEET TITLE:  
**MODIFICATION DETAILS**

SHEET NUMBER:  
**S-5**



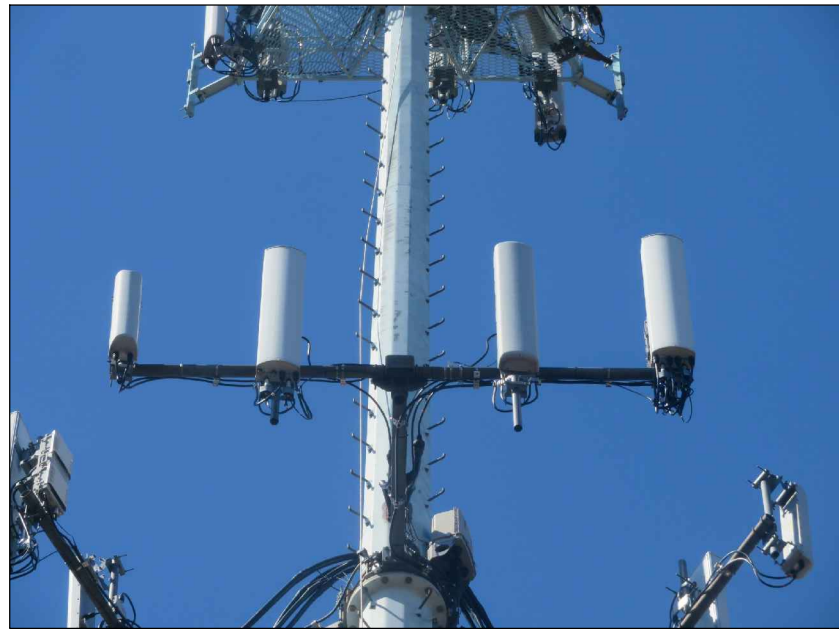
**1** PROPOSED FRONT ELEVATION (TYP. ALL SECTORS)  
SCALE : N.T.S.



**2** PROPOSED SIDE ELEVATION (TYP. ALL SECTORS)  
SCALE : N.T.S.

**MODIFICATION NOTES:**

- MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
- RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
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MOUNT PHOTO 1



MOUNT PHOTO 2



MOUNT PHOTO 3



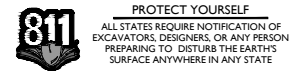
MOUNT PHOTO 4



WILL BE KNOWN AS COLLIER ENGINEERING & DESIGN IN 2021  
 Customer Loyalty through Client Satisfaction  
 www.maserconsulting.com

- Office Locations:
- NEW JERSEY
  - NEW MEXICO
  - NEW YORK
  - MARYLAND
  - PENNSYLVANIA
  - GEORGIA
  - VIRGINIA
  - TEXAS
  - FLORIDA
  - TENNESSEE
  - NORTH CAROLINA
  - COLORADO

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SCALE: AS SHOWN      JOB NUMBER: 21777483A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	6/24/2021	ISSUED FOR CONSTRUCTION	MSG	JPL

*Justin Linette*  
 Justin Linette  
 PROFESSIONAL ENGINEER  
 CONNECTICUT  
 LICENSE NUMBER: 31965  
 MASER CONSULTING CONNECTICUT  
 C.T. C.O.A.#: JPC0000131  
 Digitally signed by Justin Linette  
 Date: 2021.06.24 14:32:04-04'00'

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**SITE NAME:**  
  
 PLAINFIELD CT  
 468617  
 45 SPAULDING RD  
 PLAINFIELD, CT 06374  
 WINDHAM COUNTY

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

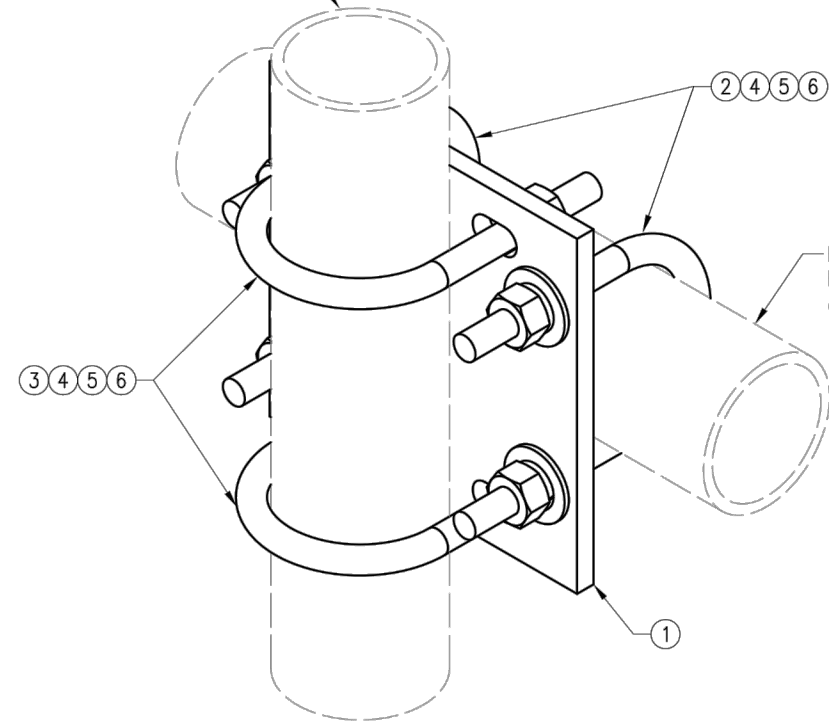
SHEET TITLE:  
 MOUNT PHOTOS

SHEET NUMBER:  
 S-6

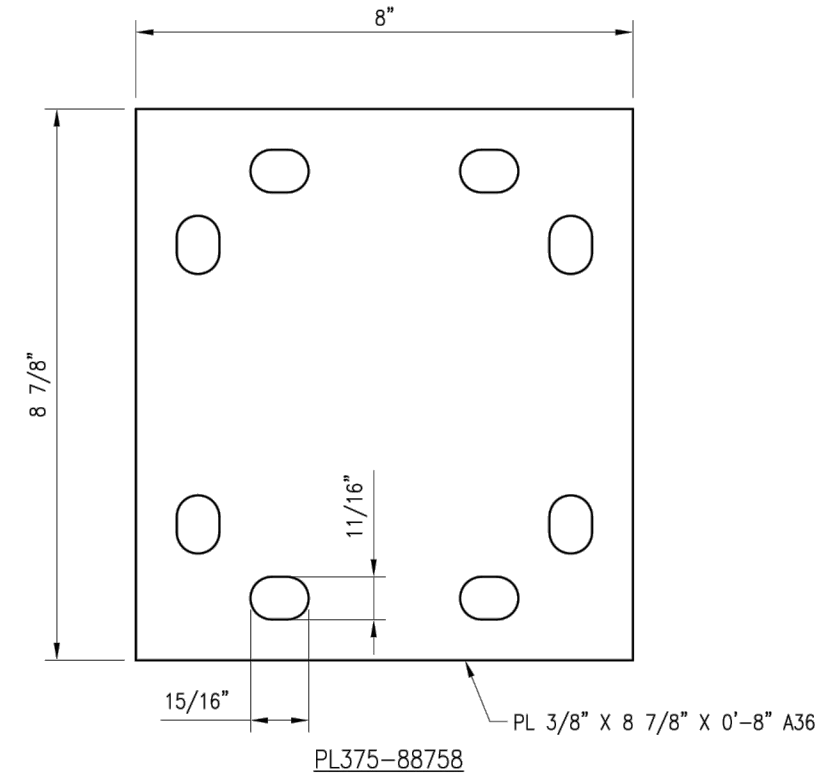
NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

M:\Projects\162844817\_PLAINFIELD CT\_HoumPhoto.dwg PLS\_20210622.dwg 6/24/21 By: JGR/HAN

FITS 2.375" O.D. AND 2.875" O.D.  
 VERTICAL PIPE.  
 (NOT INCLUDED IN THIS KIT)



FITS 3.5" O.D. AND 4" O.D.  
 HORIZONTAL PIPE.  
 (NOT INCLUDED IN THIS KIT)



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

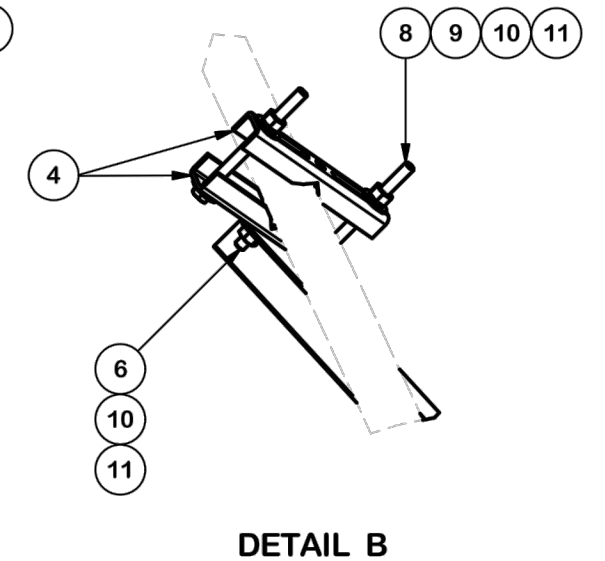
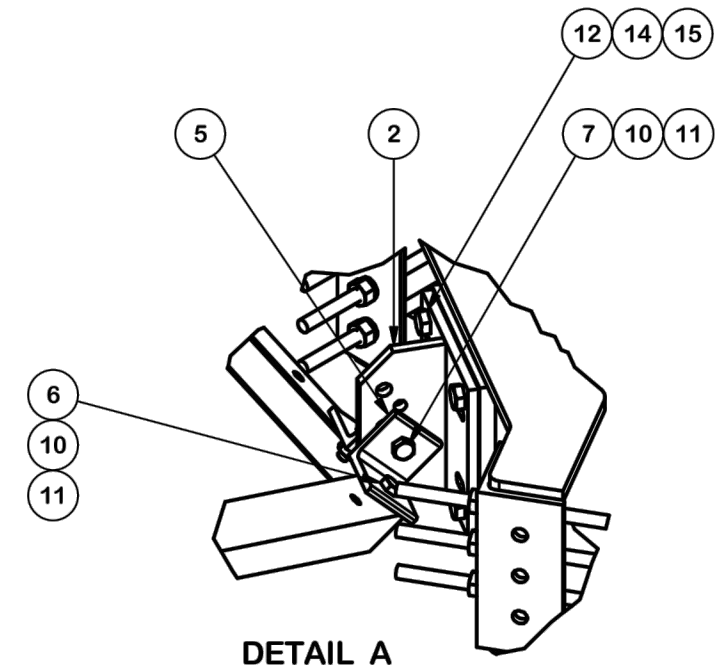
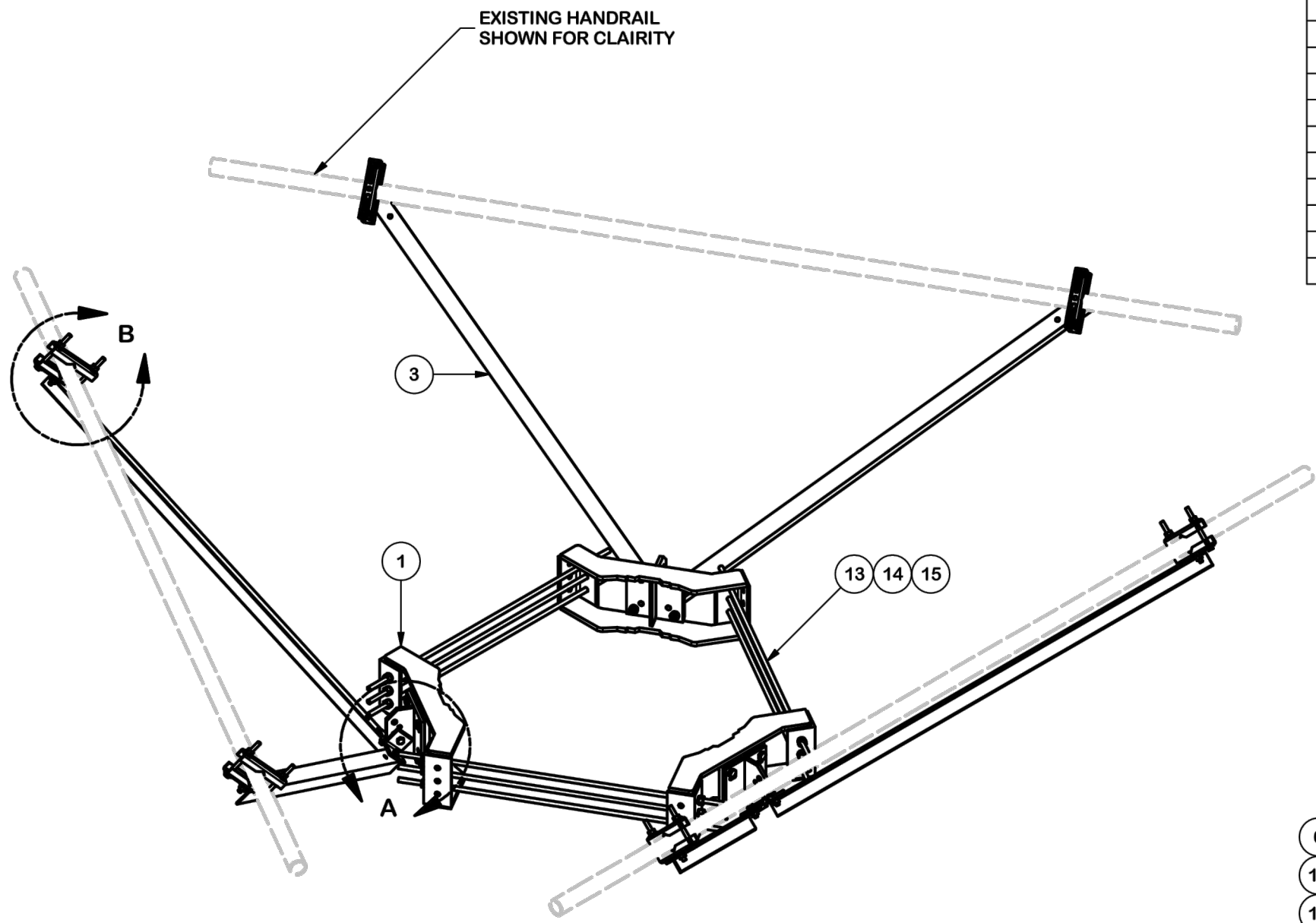
VZWSMART-MSK2 (CROSSOVER PLATE)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-88758	PL 3/8" X 8 3/4" X 0'-8" A36	MSK2-F1	8
2	2	MS02-625-4125-600	RU-BOLT 5/8" X 4 1/8" I.W. X 6" I.L. A36 (OR EQUIV.)	RBC-1	3
3	2	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	3
4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

DRAWN BY: H.R		CHECKED BY: HMA	
REV.	DESCRIPTION	BY	DATE
△	FIRST ISSUE	H.R	05/08/20
△			
△			
△			

SHEET TITLE:  
 VZWSMART-MSK2  
 CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK2  
 REV #: 0

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	3	X-TBW	T-BRACKET WELDMENT		13.60	40.80
3	6	X-254924	DIAGONAL ANGLE - SITE PRO 1	72 in	19.71	118.24
4	12	X-STU	STIFF ARM CHANNEL BRACKET	8 1/2 in	1.37	16.46
5	6	SHCM-T	CHAIN MOUNT TIGHTENER BRACKET	3 in	1.86	11.15
6	12	G12112	1/2" x 1-1/2" HDG HEX BOLT GR5	1/2 in	0.15	1.77
7	3	G12212	1/2" x 2-1/2" HDG HEX BOLT GR5	2 1/2 in	0.20	0.61
8	12	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	4.91
9	24	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.82
10	27	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.38
11	27	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.93
12	12	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	3.75
13	9	G58R-24	5/8" x 24" THREADED ROD (HDG.)	24 in	0.40	3.59
13	9	G58R-48	5/8" x 48" THREADED ROD (HDG.)	48 in	0.40	3.59
14	30	G58LW	5/8" HDG LOCKWASHER		0.03	0.78
15	30	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	3.90
					TOTAL WT. #	642.04




REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED MAX. DIA. FOR HANDRAIL CONNECTION	SP1	BC	10/25/2017
REVISION HISTORY				

**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 ( $\pm 0.060$ "")

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

DESCRIPTION			
HANDRAIL REINFORCEMENT KIT (LONG)			
CPD NO.	DRAWN BY	ENG. APPROVAL	
SP1	CSL3 2/23/2017	3RD PARTY	
CLASS	SUB	DRAWING USAGE	CHECKED BY
81	02	SHOP	BMC 9/8/2017



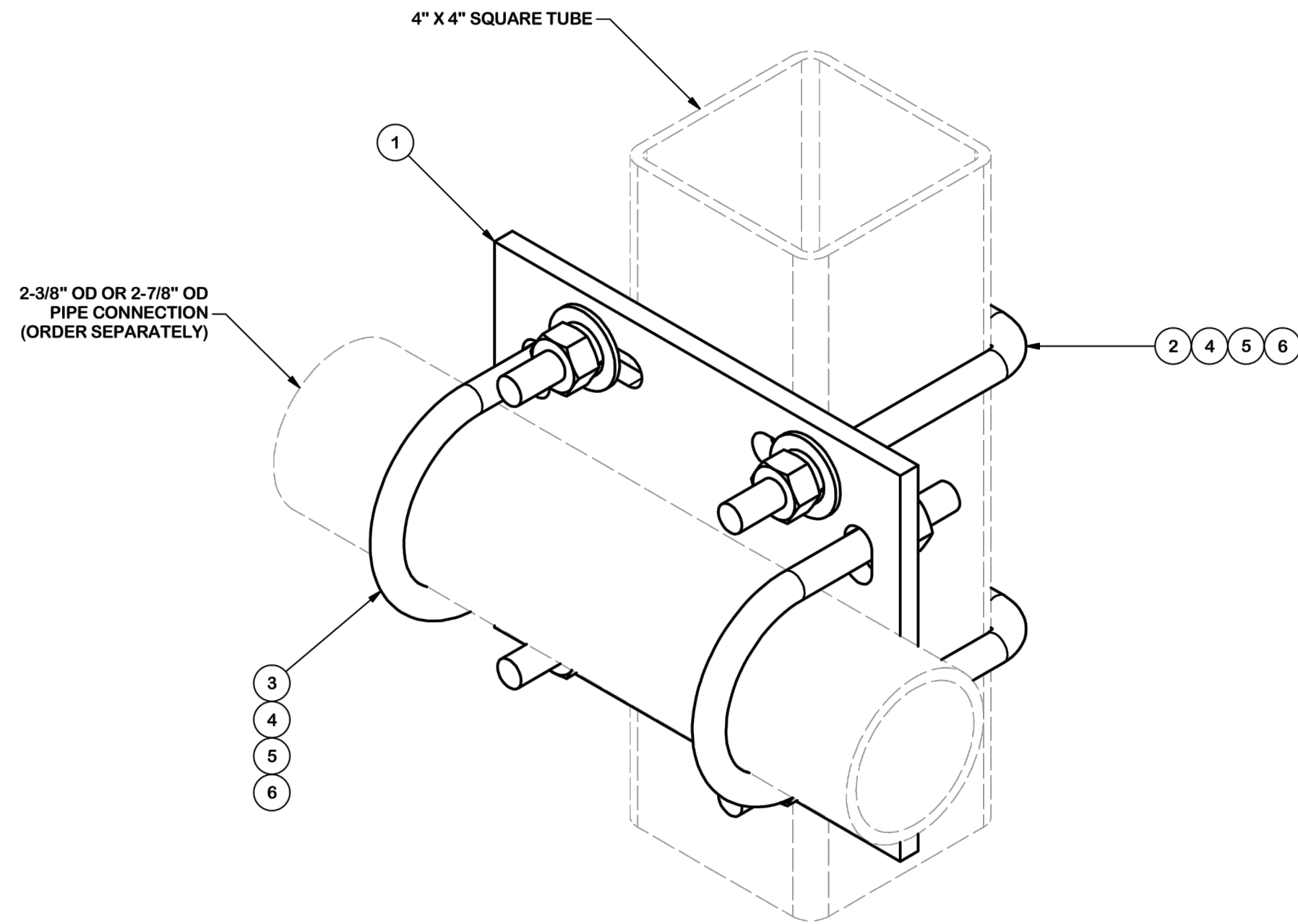
**A valmont COMPANY**

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

Engineering Support Team:  
 1-888-753-7446

PART NO.	<b>PRK-SFS-L</b>	1 OF 3 PAGE
DWG. NO.	<b>PRK-SFS-L</b>	

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



**TOLERANCE NOTES**

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

**SITE PRO 1**  
 Engineering Support Team:  
 1-888-753-7446

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

A valmont COMPANY

CPD NO.	DRAWN BY	ENG. APPROVAL
	CSL 9/18/2018	3RD PARTY
CLASS	SUB	DRAWING USAGE
87	02	CUSTOMER
	CHECKED BY	
	BMC 11/12/2018	

PART NO.	<b>SQCX4-K</b>
DWG. NO.	<b>SQCX4-K</b>

Site Name: **PLAINFIELD CT**  
 Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )	(%)
VZW 700	751	4	504	2018	114	0.0056	0.5007	1.12%
VZW CDMA	877.26	2	446	891	114	0.0025	0.5848	0.42%
VZW Cellular	874	4	285	1140	114	0.0032	0.5827	0.54%
VZW PCS	1970	4	1592	6369	114	0.0176	1.0000	1.76%
VZW AWS	2120	4	1493	5973	114	0.0165	1.0000	1.65%
VZW CBAND	3730.08	4	6531	26125	114	0.0723	1.0000	7.23%
<b>Total Percentage of Maximum Permissible Exposure</b>								<b>12.72%</b>

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

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

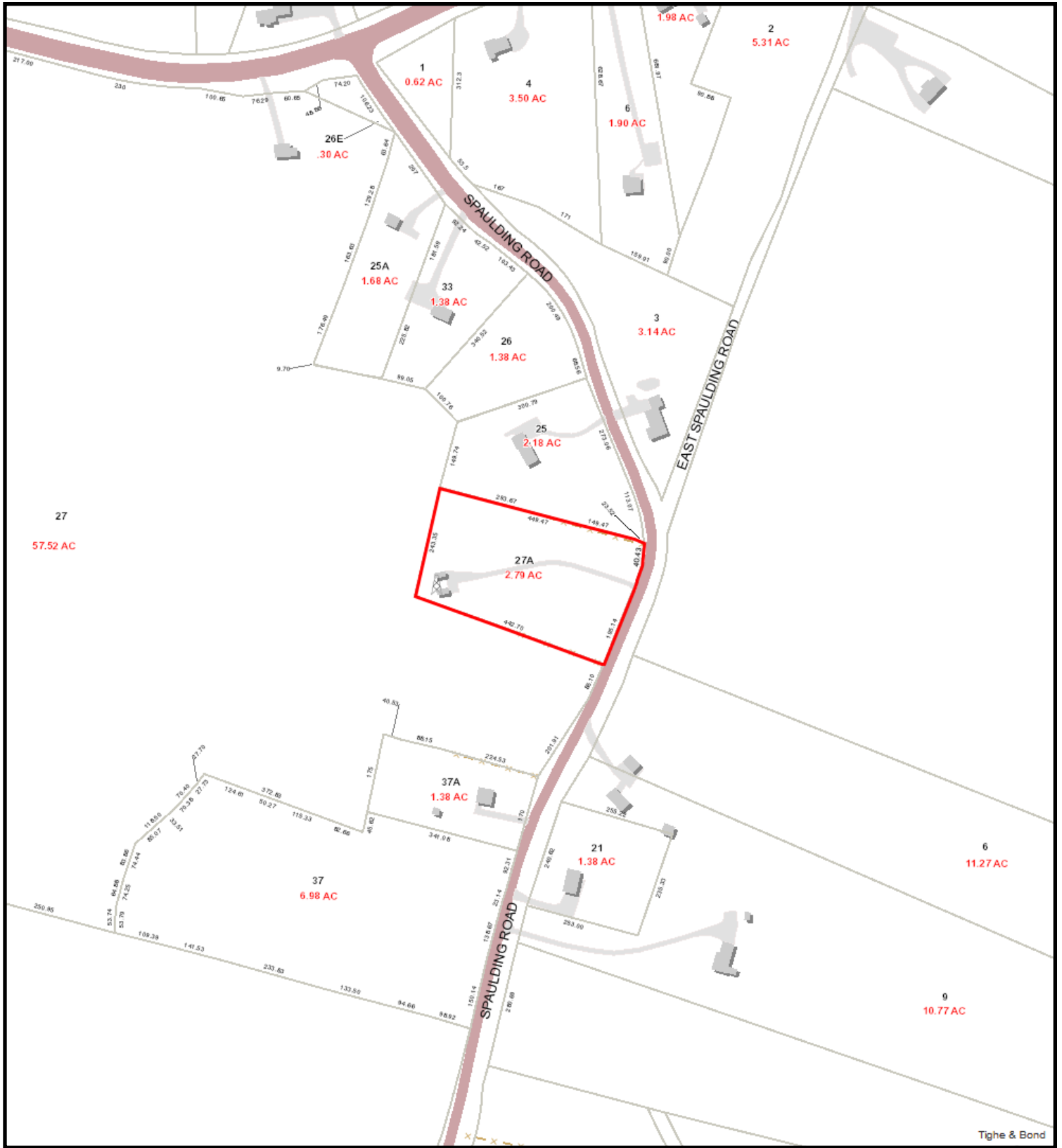
MHz = Megahertz

mW/cm<sup>2</sup> = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used.





8/31/2021 8:38:46 AM

Scale: 1"=300'

Scale is approximate

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.



# 45 SPAULDING RD

**Location** 45 SPAULDING RD

**Mblu** 025/ 0036/ 027A/ /

**Acct#** 00325300

**Owner** SANCHEZ ROBERT DOMINEZ &  
NICOLE (JT)

**Assessment** \$117,920

**Appraisal** \$168,450

**PID** 3562

**Building Count** 1

## Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2020	\$128,360	\$40,090	\$168,450

Assessment			
Valuation Year	Improvements	Land	Total
2020	\$89,860	\$28,060	\$117,920

## Owner of Record

**Owner** SANCHEZ ROBERT DOMINEZ & NICOLE (JT)  
**Co-Owner**  
**Address** 161 PICKETT RD  
PLAINFIELD , CT 06374

**Sale Price** \$39,000  
**Certificate**  
**Book & Page** 0560/0654  
**Sale Date** 11/16/2020  
**Instrument** 00

## Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
SANCHEZ ROBERT DOMINEZ & NICOLE (JT)	\$39,000		0560/0654	00	11/16/2020
ROYS SCOTT	\$10,000		0548/0710	25	01/28/2020
THEROUX BEATRICE L - C/O SPECTRASITE COM	\$0		0253/0587		09/01/1998
CREDIE MARGARET M + FLORINDA L	\$0		0161/0916		03/04/1986

## Building Information

### Building 1 : Section 1

**Year Built:**

**Living Area:** 0

Replacement Cost: \$0

Building Percent Good:

Replacement Cost

Less Depreciation: \$0

**Building Attributes**

Field	Description
Style:	Outbuildings
Model	
Grade:	
Stories:	
Occupancy:	
Exterior Wall 1:	
Exterior Wall 2:	
Roof Structure:	
Roof Cover:	
Interior Wall 1:	
Interior Wall 2:	
Interior Flr 1:	
Interior Flr 2:	
Heat Fuel:	
Heat Type:	
AC Type:	
Total Bedrooms:	
Full Baths:	
Half Baths:	
Extra Fixtures:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Fireplaces:	
Xtra Openings:	
Gas Fireplaces:	
Woodstove/Pellet	
Bsmt Gar:	
Num Park	
Fireplaces	
Color	
Basement:	
Fndtn Cndtn	
Basement	

**Building Photo**



(<http://images.vgsi.com/photos/PlainfieldCTPhotos//default.jpg>)

**Building Layout**

Building Layout (ParcelSketch.ashx?pid=3562&bid=3562)

Building Sub-Areas (sq ft)	<u>Legend</u>
No Data for Building Sub-Areas	

**Extra Features**

Extra Features	<u>Legend</u>
No Data for Extra Features	

**Land**

**Land Use**

**Use Code** 5040  
**Description** PUB UTIL  
**Zone** RA60  
**Neighborhood** 1000  
**Alt Land Appr** No  
**Category**

**Land Line Valuation**

**Size (Acres)** 2.79  
**Frontage**  
**Depth**  
**Assessed Value** \$28,060  
**Appraised Value** \$40,090

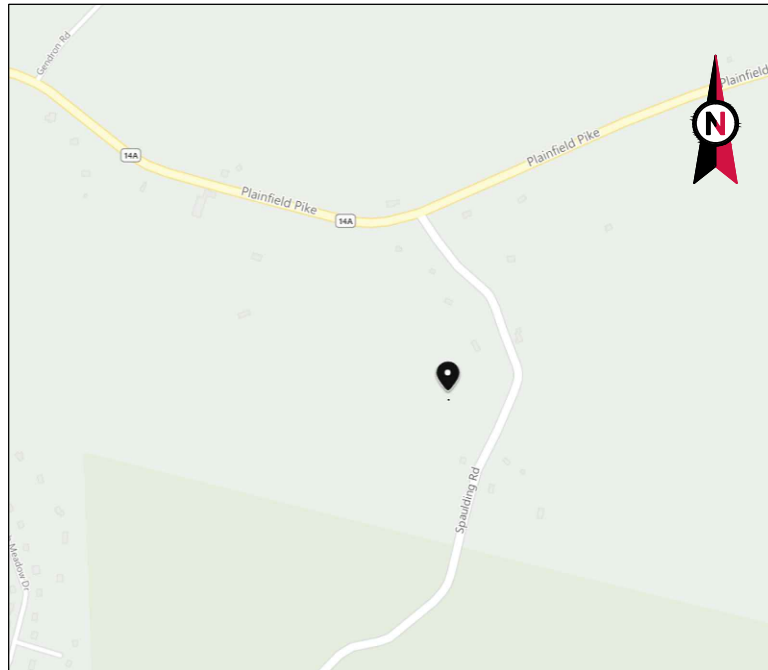
**Outbuildings**

Outbuildings						<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
RS5	Cell Tower Building			312.00 UNITS	\$23,400	1
TT4	Cell Tower			150.00 HEIGHT	\$101,250	1
FN4	Fence 8' Chain			256.00 L.F.	\$3,710	1

**Valuation History**

Appraisal			
Valuation Year	Improvements	Land	Total
2020	\$128,360	\$40,090	\$168,450
2019	\$128,360	\$40,090	\$168,450

Assessment			
Valuation Year	Improvements	Land	Total
2020	\$89,860	\$28,060	\$117,920
2019	\$89,860	\$28,060	\$117,920

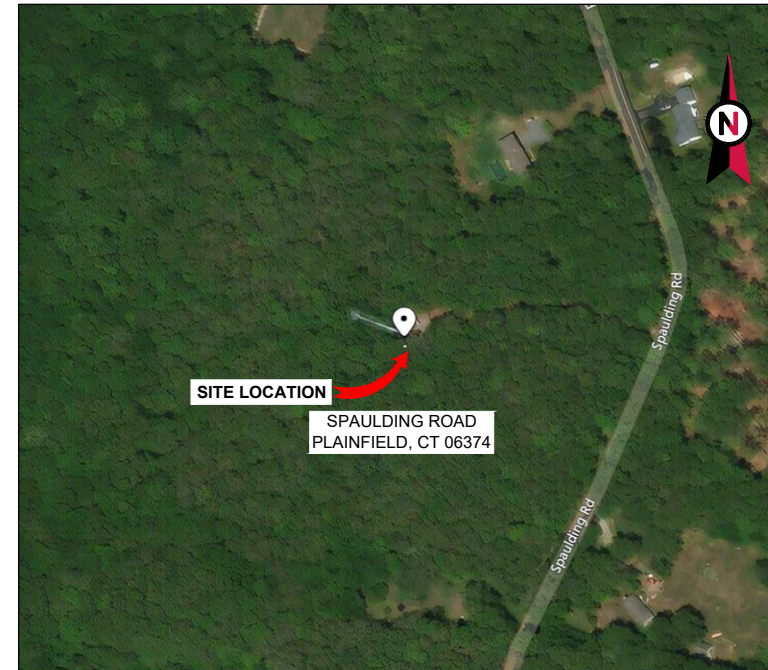


VICINITY MAP



**AMERICAN TOWER®**

ATC SITE NAME: PLAINFIELD CT 6  
 ATC SITE NUMBER: 302498  
 VERIZON SITE NAME: PLAINFIELD CT  
 VERIZON SITE NUMBER: 468617  
 SITE ADDRESS: SPAULDING ROAD  
 PLAINFIELD, CT 06374



LOCATION MAP

VERIZON ANTENNA AMENDMENT PLAN



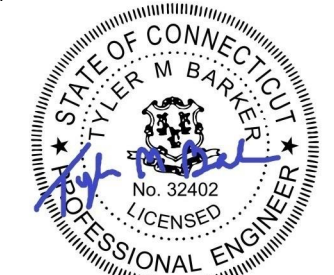
**CLS ENGINEERING PLLC**  
 319 CHAPANOKE ROAD, SUITE 118, RALEIGH, NC 27603  
 PH: (405)348-5460 FAX: (405)341-4625

COA# PEC.001833 EXP: 08/14/2022

REV.	DESCRIPTION	BY	DATE
A	PRELIM	JRL	05/20/21
0	FOR CONSTRUCTION	OBA	08/10/21

ATC SITE NUMBER:  
302498  
 ATC SITE NAME:  
PLAINFIELD CT 6  
 VERIZON SITE NAME:  
PLAINFIELD CT  
 SITE ADDRESS:  
SPAULDING ROAD  
PLAINFIELD, CT 06374

SEAL:



Tyler M. Barker  
 CLS Engineering PLLC  
 PE # 32402 Exp. 1/31/2022  
 COA # PEC.001833 Exp. 8/14/2022  
 08/10/2021

PE# 32402 EXP: 01/31/2022



DATE DRAWN:	08/10/21
ATC JOB NO:	13668662_D1
CUSTOMER ID:	PLAINFIELD CT
CUSTOMER #:	468617

TITLE SHEET

SHEET NUMBER:  
**G-001**  
 REVISION:  
**A**

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDE				
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.  1. 2015 INTERNATIONAL BUILDING CODE IBC 2. 2017 NATIONAL ELECTRIC CODE NEC 3. 2018 CONNECTICUT STATE BUILDING CODE 4. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> SPAULDING ROAD PLAINFIELD, CT 06374 COUNTY: WINDHAM  <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41.67480556 LONGITUDE: -71.8791 GROUND ELEVATION: 560 AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:  REINFORCE/MODIFY EXISTING MOUNT PER MASER CONSULTING CONNECTICUT MOUNT MODIFICATION DRAWINGS DATED JUNE 24, 2021  REMOVE 9 ANTENNA S, 6 RRH S, 6 DIPOLES, 1 OVP S AND 6 1-5/8" COAXIAL CABLES  INSTALL 9 ANTENNA S, 6 RRH S, 3 DIPOLES, 2 OVP S AND 1 1-5/8" HYBRID FIBER OPTIC CABLES  EXISTING 3 ANTENNA S, 6 1-5/8" COAXIAL CABLES AND 1 1-5/8" HYBRID FIBER OPTIC CABLES TO REMAIN  AC ELECTRICAL POWER DESIGN TO BE PERFORMED BY OTHERS	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
	<u>PROJECT TEAM</u>  <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801  <u>ENGINEER:</u> CLS ENGINEERING PLLC 319 CHAPANOKE RD, SUITE 118 RALEIGH, NC 27603 PH: 405 348-5460 FAX: 405 341-4625  <u>PROPERTY OWNER:</u> T6 UNISON SITE MANAGEMENT LLC 45 SPAULDING ROAD PLAINFIELD, CT 06374	PROJECT NOTES 1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. 4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED. 6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. 1455 A AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR 1.61000 B 7.	G-001	TITLE SHEET	0	08/10/21	OBA
<u>UTILITY COMPANIES</u>  POWER COMPANY: C. L. P. PHONE: 800 288-2000  TELEPHONE COMPANY: AT T PHONE: 800 288-2020		<u>PROJECT LOCATION DIRECTIONS</u>  FROM BOSTON - I 90 WEST TO I 395 SOUTH TO EXIT 88 AND TURN LEFT ON TO RT 14A EAST. FOLLOW AND THEN TURN RIGHT ONTO SPAULDING RD. SITE WILL BE UP ON THE RIGHT.	G-002	GENERAL NOTES	0	08/10/21	OBA
			C-101	DETAILED SITE PLAN	0	08/10/21	OBA
			C-201	TOWER ELEVATION	0	08/10/21	OBA
			C-401	ANTENNA INFORMATION SCHEDULE	0	08/10/21	OBA
			C-501	CONSTRUCTION DETAILS	0	08/10/21	OBA
			E-501	GROUNDING DETAILS	0	08/10/21	OBA
			R-601	SUPPLEMENTAL			
			R-602	SUPPLEMENTAL			
			R-603	SUPPLEMENTAL			
			R-604	SUPPLEMENTAL			
			R-605	SUPPLEMENTAL			
			R-606	SUPPLEMENTAL			
			R-607	SUPPLEMENTAL			

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**GENERAL CONSTRUCTION NOTES:**

1. OWNER FURNISHED MATERIALS, VERIZON "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
  - A. BTS EQUIPMENT FRAME PLATFORM AND ICEBRIDGE SHELTER GROUND BUILD/CO-LOCATE ONLY
  - B. AC/TELCO INTERFACE BOX PPC
  - C. ICE BRIDGE CABLE TRAY WITH COVER GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION
  - D. TOWERS, MONOPOLES
  - E. TOWER LIGHTING
  - F. GENERATORS LIQUID PROPANE TANK
  - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
  - H. ANTENNAS INSTALLED BY OTHERS
  - I. TRANSMISSION LINE
  - J. TRANSMISSION LINE JUMPERS
  - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING FITS
  - L. TRANSMISSION LINE GROUND FITS
  - M. HANGERS
  - N. HOISTING GRIPS
  - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR TITANIUM CHEMICAL GROUND RODS, BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF VERIZON TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON ERECTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL. SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE ERECT LOCATION OF ERECTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH ERECTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE ERECTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION ATC AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH VERIZON AND AMERICAN TOWER CORPORATION ATC WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.

22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY VERIZON REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACK FILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL ERECTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE ERECTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON REP. ANY WORK FOUND BY THE VERIZON REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR'S EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. VERIZON FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE VERIZON WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. VERIZON OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO VERIZON OR THEIR ARCHITECT/ENGINEER.

**SPECIAL CONSTRUCTION**

**ANTENNA INSTALLATION NOTES:**

1. WORK INCLUDED:
  - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY VERIZON UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
  - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND VERIZON SPECIFICATIONS.
  - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
  - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
  - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER (FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
  - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
  - G. ANTENNA AND COAXIAL CABLE GROUNDING:
    2. ALL EXTERIOR #6 GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPICE WEATHERPROOFING KIT #21213 OR EQUAL.
    3. ALL COAXIAL CABLE GROUNDING FITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE NOT WITHIN BENDS

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



**CLS ENGINEERING PLLC**  
 319 CHAPANOKE ROAD, SUITE 118, RALEIGH, NC 27603  
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COA# PEC.001833 EXP: 08/14/2022

REV.	DESCRIPTION	BY	DATE
A	PRELIM	JRL	05/20/21
0	FOR CONSTRUCTION	OBA	08/10/21

ATC SITE NUMBER:  
**302498**

ATC SITE NAME:  
**PLAINFIELD CT 6**

VERIZON SITE NAME:  
**PLAINFIELD CT**

SITE ADDRESS:  
SPAULDING ROAD  
PLAINFIELD, CT 06374



Tyler M. Barker  
 CLS Engineering PLLC  
 PE # 32402 Exp. 1/31/2022  
 COA # PEC.001833 Exp. 8/14/2022

PE# 32402 EXP: 01/31/2022



DATE DRAWN:	08/10/21
ATC JOB NO:	13668662_D1
CUSTOMER ID:	PLAINFIELD CT
CUSTOMER #:	468617

**GENERAL NOTES**

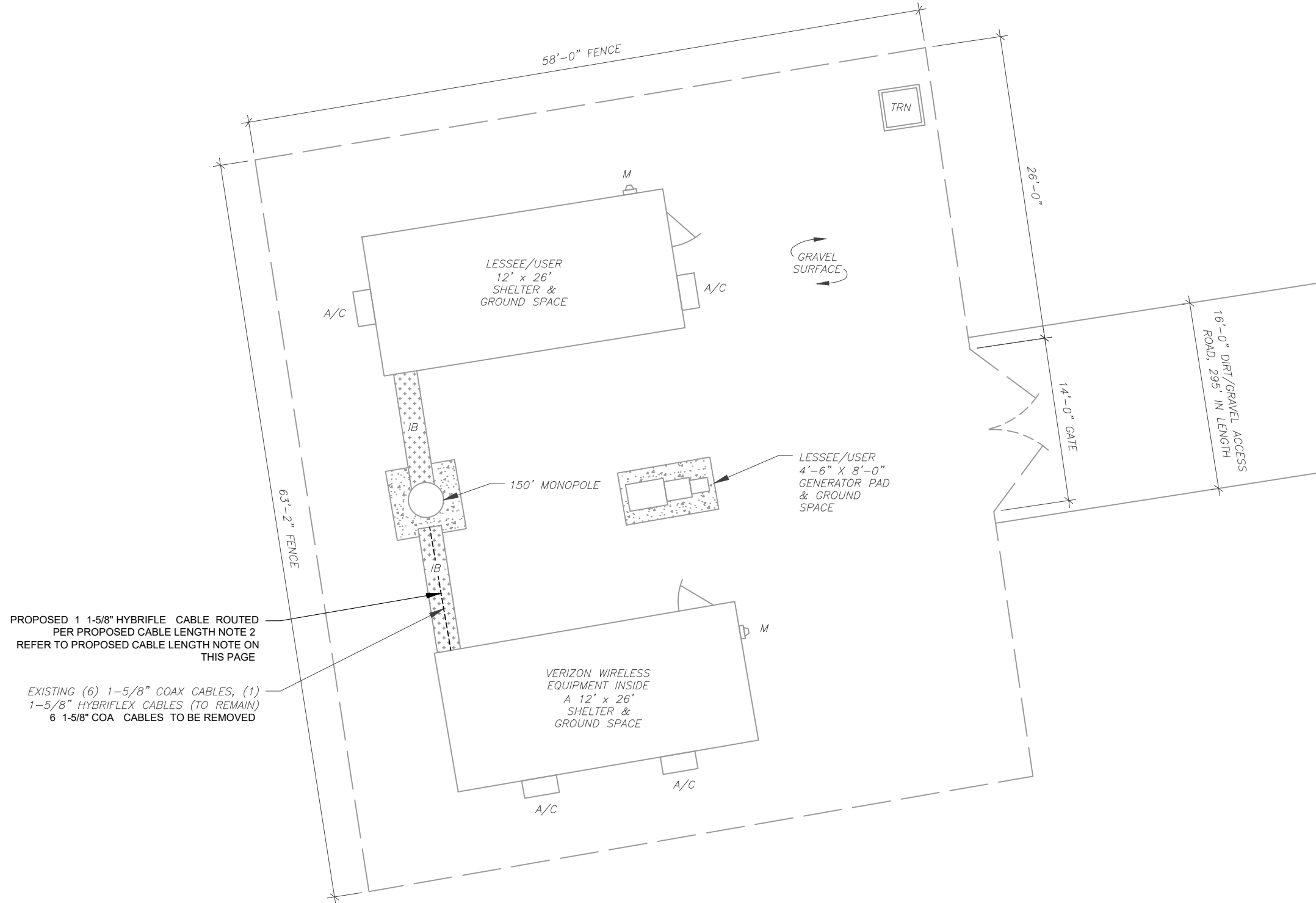
SHEET NUMBER: <b>G-002</b>	REVISION: <b>A</b>
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**SITE PLAN NOTES:**

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.

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



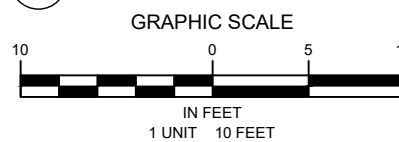
PROPOSED 1 1-5/8" HYBRIFLEX CABLE ROUTED PER PROPOSED CABLE LENGTH NOTE 2 REFER TO PROPOSED CABLE LENGTH NOTE ON THIS PAGE

EXISTING (6) 1-5/8" COAX CABLES, (1) 1-5/8" HYBRIFLEX CABLES (TO REMAIN) 6 1-5/8" COAX CABLES TO BE REMOVED

**PROPOSED CABLE LENGTH:**

1. ESTIMATED LENGTH OF PROPOSED CABLE IS 155'. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER ALONG THE ICE BRIDGE AND A SAFETY FACTOR MEASUREMENT OF 15% OF THE TWO PREVIOUS VALUES. CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH ENTRY PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.

**1 DETAILED SITE PLAN**



**CLS ENGINEERING PLLC**  
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COA# PEC.001833 EXP: 08/14/2022

REV.	DESCRIPTION	BY	DATE
A	PRELIM	JRL	05/20/21
B	FOR CONSTRUCTION	OBA	08/10/21

ATC SITE NUMBER:  
**302498**

ATC SITE NAME:  
**PLAINFIELD CT 6**

VERIZON SITE NAME:  
**PLAINFIELD CT**

SITE ADDRESS:  
SPAULDING ROAD  
PLAINFIELD, CT 06374

SEAL:



Tyler M. Barker  
CLS Engineering PLLC  
PE # 32402 Exp. 1/31/2022  
COA # PEC.001833 Exp. 8/14/2022  
08/10/2021

PE# 32402 EXP: 01/31/2022



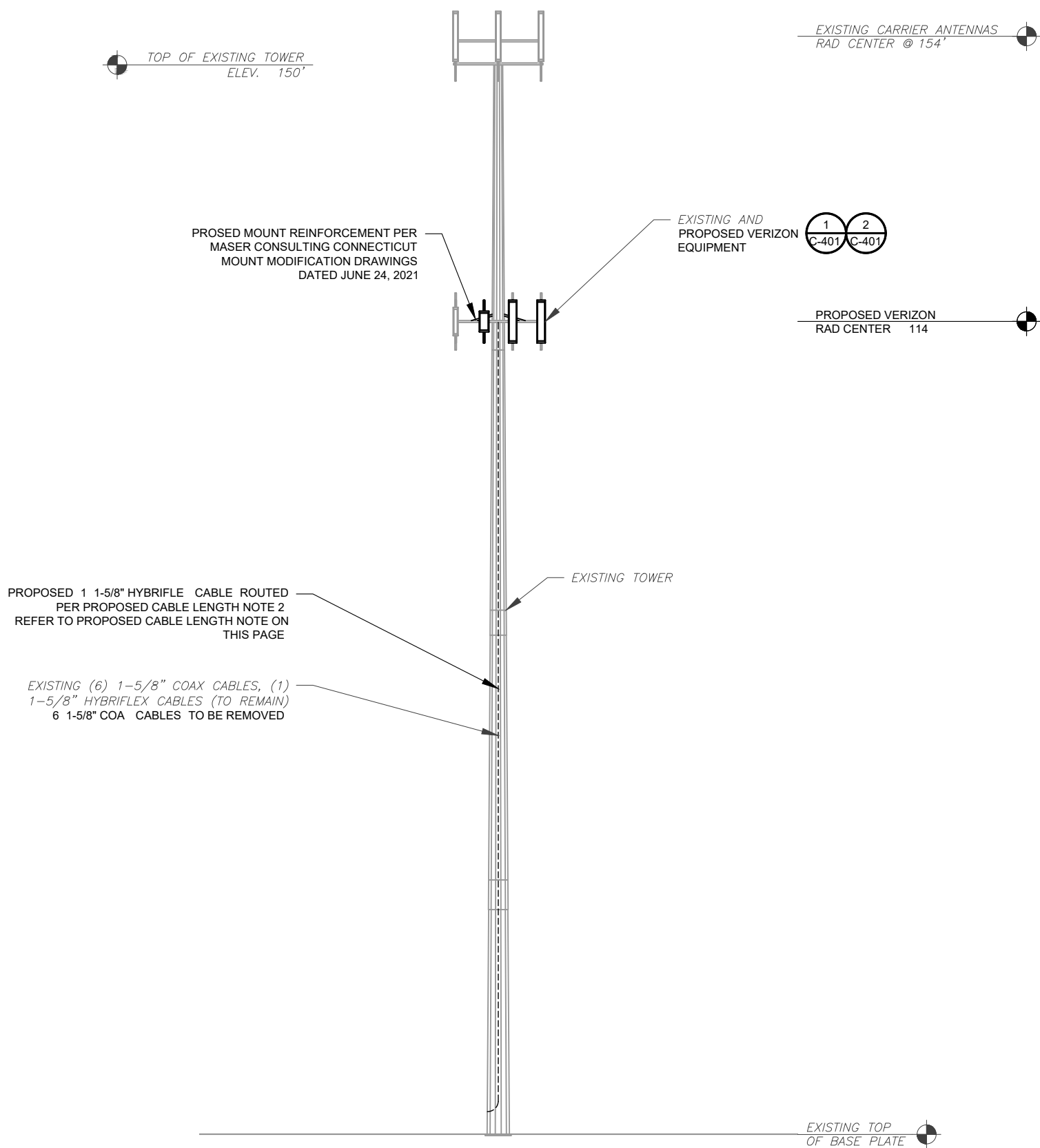
DATE DRAWN:	08/10/21
ATC JOB NO:	13668662_D1
CUSTOMER ID:	PLAINFIELD CT
CUSTOMER #:	468617

**DETAILED SITE PLAN**

SHEET NUMBER:  
**C-101**

REVISION:  
**A**

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PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING CONNECTICUT, DATED JUNE 24 2021, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION DETAILED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.

PROPOSED 1 1-5/8" HYBRIFLEX CABLE ROUTED PER PROPOSED CABLE LENGTH NOTE 2 REFER TO PROPOSED CABLE LENGTH NOTE ON THIS PAGE

EXISTING (6) 1-5/8" COAX CABLES, (1) 1-5/8" HYBRIFLEX CABLES (TO REMAIN) 6 1-5/8" COAX CABLES TO BE REMOVED

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

**1 TOWER ELEVATION**  
SCALE: N.T.S.



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SITE ADDRESS:  
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PLAINFIELD, CT 06374



PE# 32402 EXP: 01/31/2022



DATE DRAWN:	08/10/21
ATC JOB NO:	13668662_D1
CUSTOMER ID:	PLAINFIELD CT
CUSTOMER #:	468617

**TOWER ELEVATION**

SHEET NUMBER: <b>C-201</b>	REVISION: <b>A</b>
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**CLS ENGINEERING** PLLC  
 319 CHAPANKE ROAD, SUITE 118, RALEIGH, NC 27603  
 PH: (405)348-5460 FAX: (405)341-4625

COA# PEC.001833 EXP: 08/14/2022

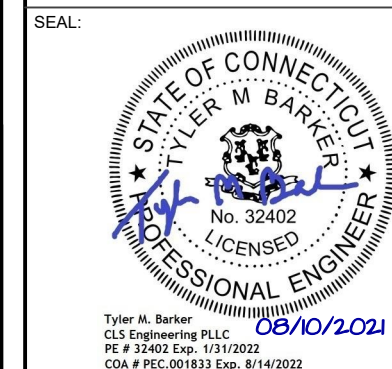
REV.	DESCRIPTION	BY	DATE
A	PRELIM	JRL	05/20/21
0	FOR CONSTRUCTION	OBA	08/10/21

ATC SITE NUMBER:  
302498

ATC SITE NAME:  
**PLAINFIELD CT 6**

VERIZON SITE NAME:  
**PLAINFIELD CT**

SITE ADDRESS:  
SPAULDING ROAD  
PLAINFIELD, CT 06374



PE# 32402 EXP: 01/31/2022



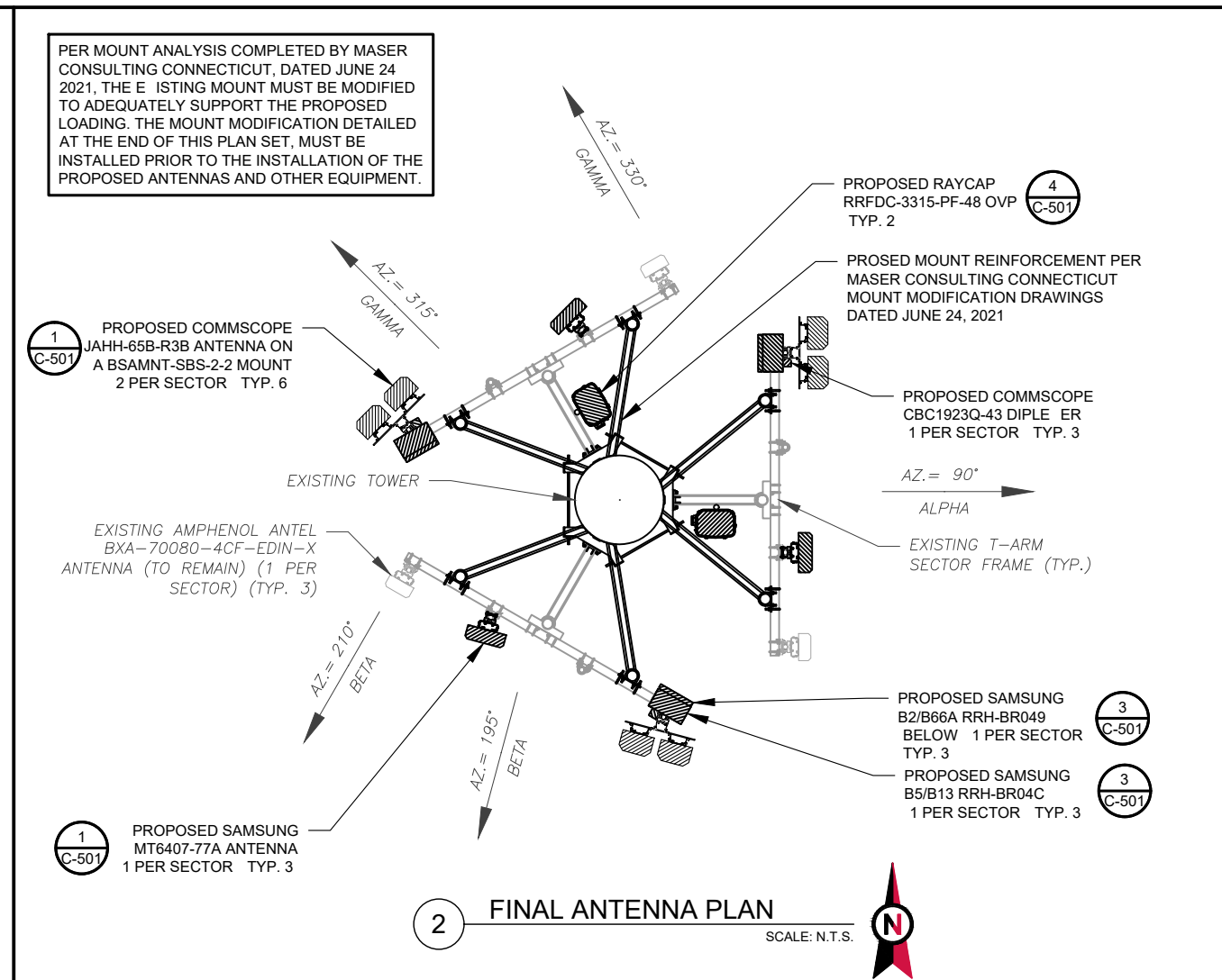
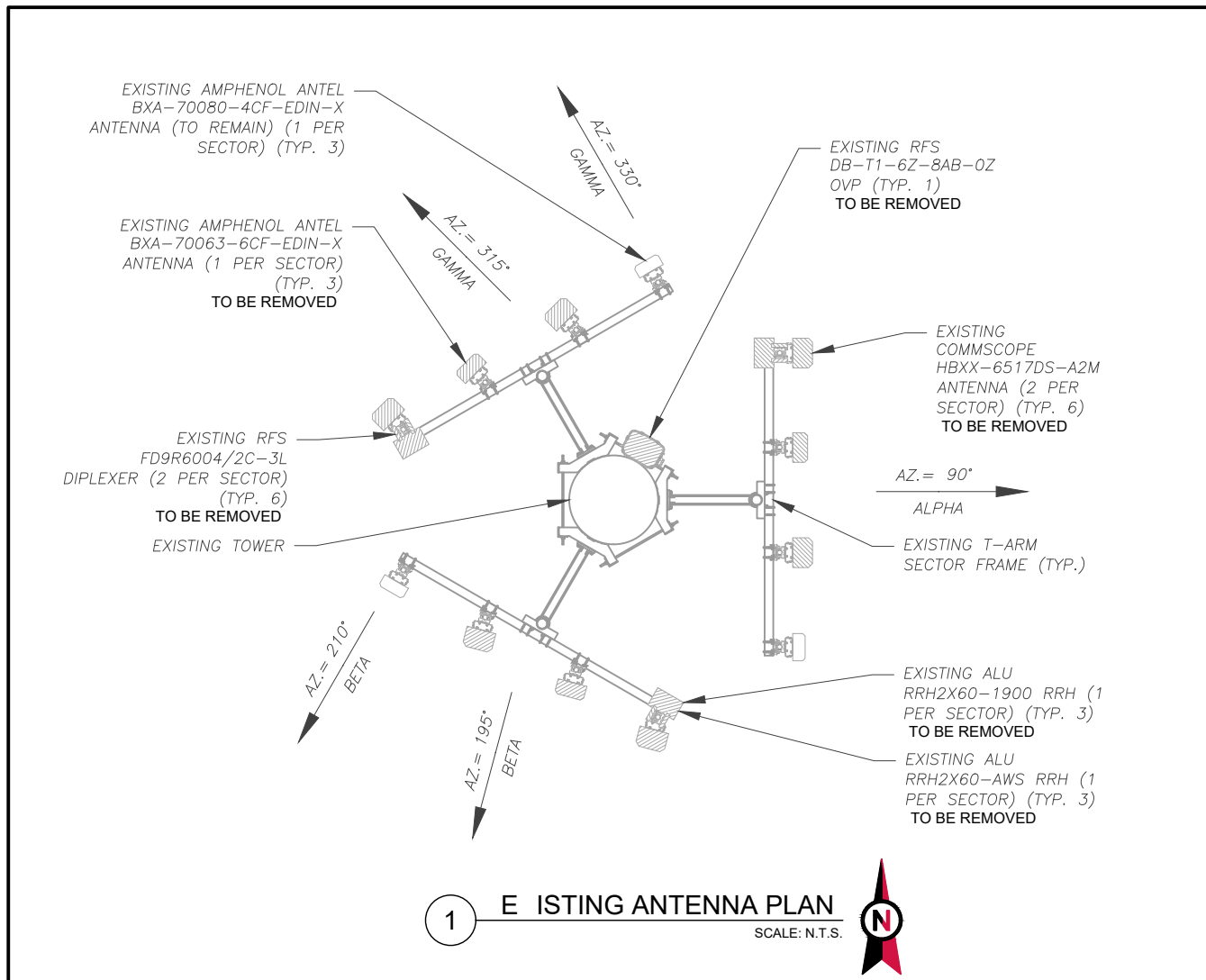
DATE DRAWN:	08/10/21
ATC JOB NO:	13668662_D1
CUSTOMER ID:	PLAINFIELD CT
CUSTOMER #:	468617

**ANTENNA INFORMATION SCHEDULE**

SHEET NUMBER:  
**C-401**

REVISION:  
**A**

PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING CONNECTICUT, DATED JUNE 24 2021, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION DETAILED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



EXISTING ANTENNA SCHEDULE									
LOCATION		ANTENNA SUMMARY					NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/LEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	114'	90°	A1	COMMSCOPE HB -6517DS-A2M	LTE 2100	0/2	RMV	2 RFS FD9R6004/2C-3L ALU RRH2 60-1900 ALU RRH2 60-AWS	RMV
			A2	AMPHENOL ANTEL B A-70063-6CF-EDIN-	LTE 700	6/2	RMV	-	-
			A3	COMMSCOPE HB -6517DS-A2M	LTE 2100	0/2	RMV	-	-
			A4	AMPHENOL ANTEL BXA-70080-4CF-EDIN-X	CDMA 850	2/0	RMN	-	-
BETA	114'	195°	B1	COMMSCOPE HB -6517DS-A2M	LTE 2100	0/4	RMV	2 RFS FD9R6004/2C-3L ALU RRH2 60-1900 ALU RRH2 60-AWS	RMV
			B2	AMPHENOL ANTEL B A-70063-6CF-EDIN-	LTE 700	0/2	RMV	-	-
			B3	COMMSCOPE HB -6517DS-A2M	LTE 2100	0/4	RMV	-	-
		210°	B4	AMPHENOL ANTEL BXA-70080-4CF-EDIN-X	CDMA 850	0/0	RMN	-	-
GAMMA	114'	315°	C1	COMMSCOPE HB -6517DS-A2M	LTE 2100	0/2	RMV	2 RFS FD9R6004/2C-3L ALU RRH2 60-1900 ALU RRH2 60-AWS	RMV
			C2	AMPHENOL ANTEL B A-70063-6CF-EDIN-	LTE 700	0/2	RMV	-	-
			C3	COMMSCOPE HB -6517DS-A2M	LTE 2100	0/2	RMV	-	-
		330°	C4	AMPHENOL ANTEL BXA-70080-4CF-EDIN-X	CDMA 850	2/0	RMN	-	-

**NOTES**

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

**STATUS ABBREVIATIONS**

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

**CABLE LENGTHS FOR JUMPERS**

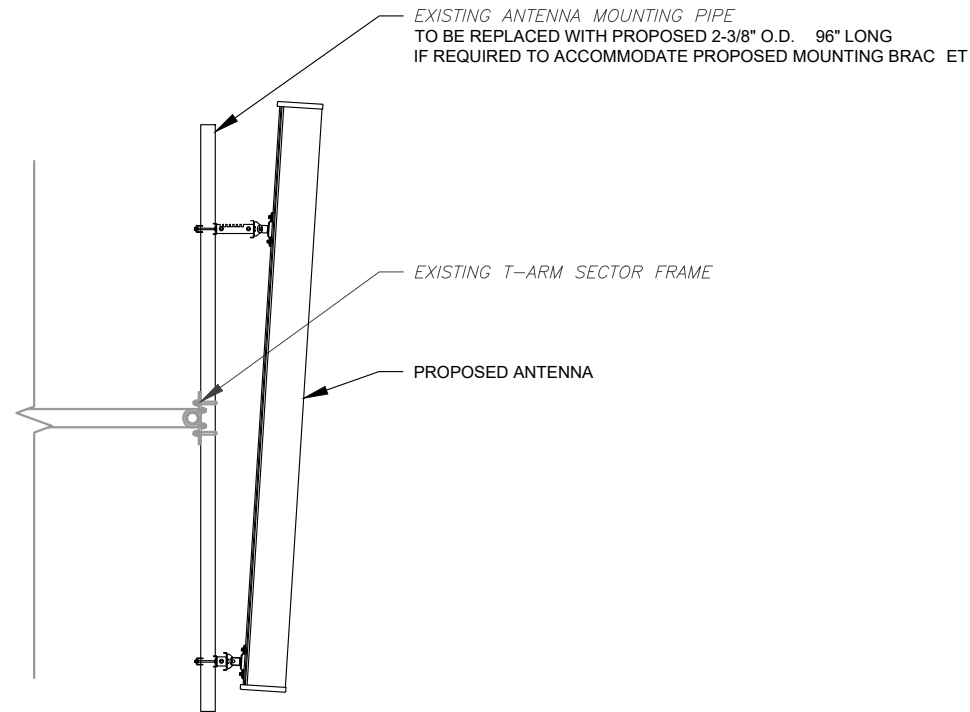
JUNCTION BO TO RRU: 15  
 RRU TO ANTENNA: 10

EXISTING ANTENNA SCHEDULE									
LOCATION		ANTENNA SUMMARY					NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/LEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	114'	90°	A1	2 COMMSCOPE JAHH-65B-R3B	LTE 700/LTE 850/LTE 1900/LTE 2100	0/6 0/8	ADD	COMMSCOPE CBC1923Q-43 SAMSUNG B2/B66A RRH-BR049 SAMSUNG B5/B13 RRH-BR04C	ADD
			A2	-	-	-	-	-	-
			A3	SAMSUNG MT6407-77A	5G L-SUB6	0/6	ADD	-	-
			A4	AMPHENOL ANTEL BXA-70080-4CF-EDIN-X	CDMA 850	2/0	RMN	-	-
BETA	114'	195°	B1	2 COMMSCOPE JAHH-65B-R3B	LTE 700/LTE 850/LTE 1900/LTE 2100	0/2 0/8	ADD	COMMSCOPE CBC1923Q-43 SAMSUNG B2/B66A RRH-BR049 SAMSUNG B5/B13 RRH-BR04C	ADD
			B2	-	-	-	-	-	
			B3	SAMSUNG MT6407-77A	5G L-SUB6	0/6	ADD	-	-
		210°	B4	AMPHENOL ANTEL BXA-70080-4CF-EDIN-X	CDMA 850	0/0	RMN	-	-
GAMMA	114'	315°	C1	2 COMMSCOPE JAHH-65B-R3B	LTE 700/LTE 850/LTE 1900/LTE 2100	0/2 0/8	ADD	COMMSCOPE CBC1923Q-43 SAMSUNG B2/B66A RRH-BR049 SAMSUNG B5/B13 RRH-BR04C	ADD
			C2	-	-	-	-	-	
			C3	SAMSUNG MT6407-77A	5G L-SUB6	0/6	ADD	-	-
		330°	C4	AMPHENOL ANTEL BXA-70080-4CF-EDIN-X	CDMA 850	2/0	RMN	-	-

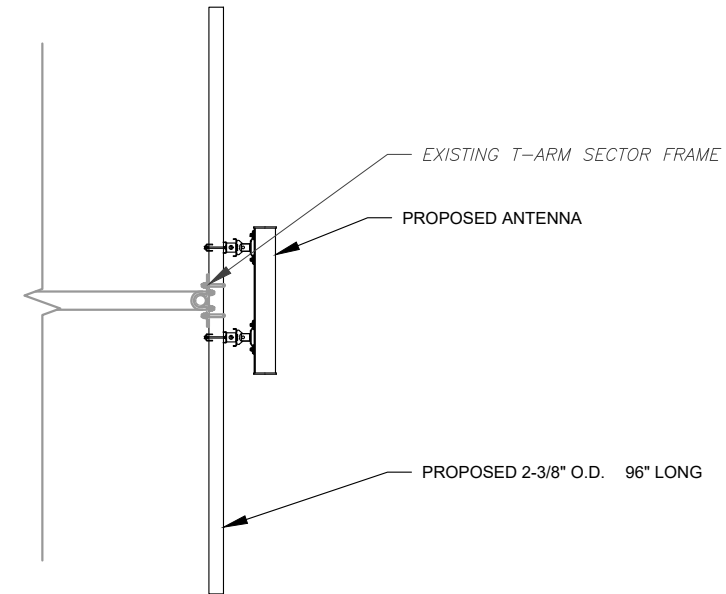
EXISTING FIBER DISTRIBUTION/OVP BO		EXISTING CABLING SUMMARY		
MODEL NUMBER	STATUS	COA	HYBRID	STATUS
RFS DB-T1-6Z-8AB-0Z OVP	RMV	6 1-5/8"	-	RMV
-	-	(6) 1-5/8"	(1) 1-5/8" HYBRIFLEX	RMN

FINAL FIBER DISTRIBUTION / OVP BO		FINAL CABLING SUMMARY		
MODEL NUMBER	STATUS	COA	HYBRID	STATUS
-	-	(6) 1-5/8"	(1) 1-5/8" HYBRIFLEX	RMN
2 RAYCAP RRFDC-3315-PF-48 OVP	ADD	-	1 1-5/8" HYBRIFLE	ADD

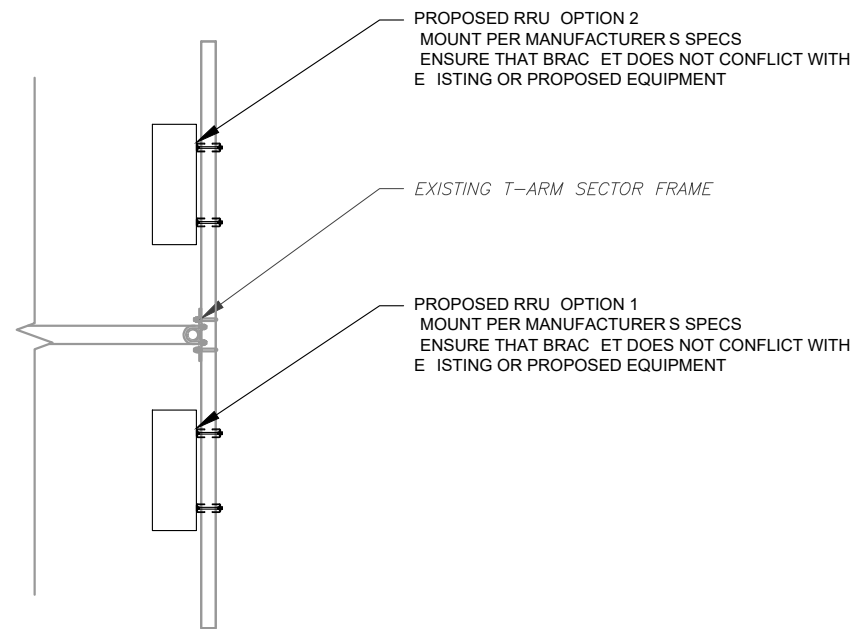
**3 EQUIPMENT SCHEDULES**



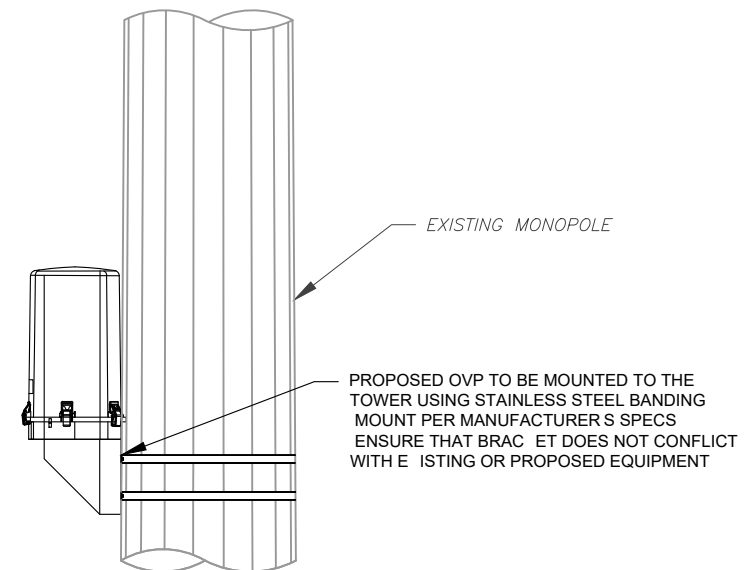
1 PROPOSED ANTENNA MOUNTING DETAIL - TYPICAL  
SCALE: N.T.S.



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



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



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



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COA# PEC.001833 EXP: 08/14/2022

REV.	DESCRIPTION	BY	DATE
A	PRELIM	JRL	05/20/21
0	FOR CONSTRUCTION	OBA	08/10/21

ATC SITE NUMBER:  
302498

ATC SITE NAME:  
PLAINFIELD CT 6

VERIZON SITE NAME:  
PLAINFIELD CT

SITE ADDRESS:  
SPAULDING ROAD  
PLAINFIELD, CT 06374

SEAL:



Tyler M. Barker  
CLS Engineering PLLC  
PE # 32402 Exp. 1/31/2022  
COA # PEC.001833 Exp. 8/14/2022

PE# 32402 EXP: 01/31/2022



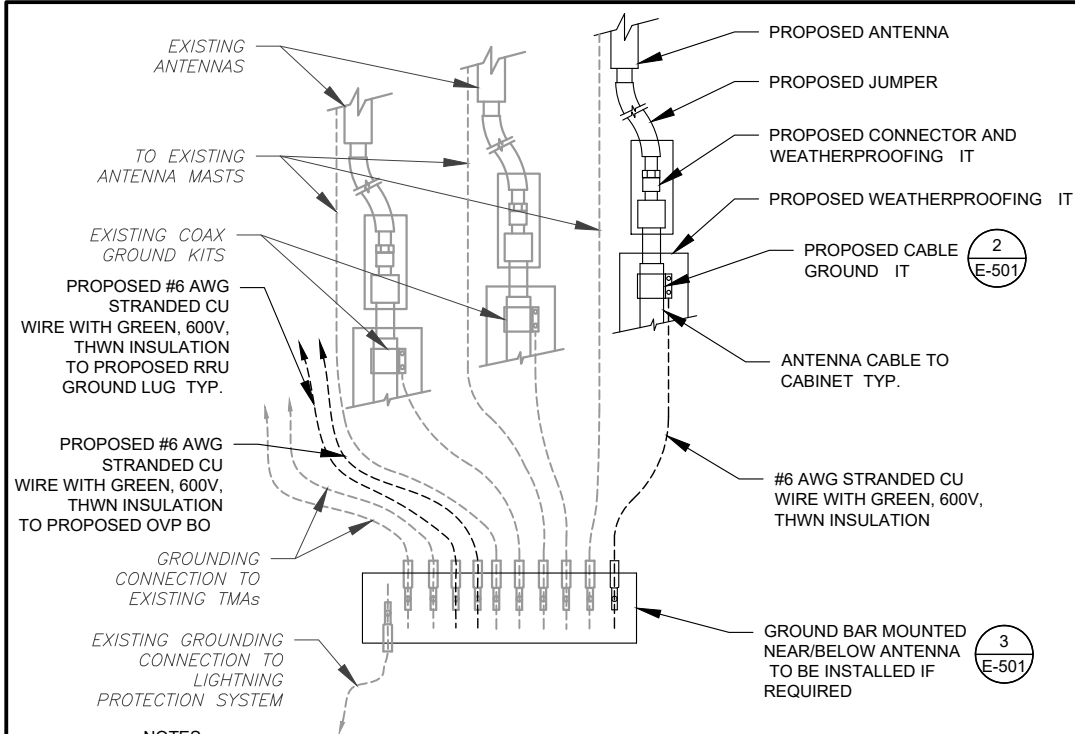
DATE DRAWN:	08/10/21
ATC JOB NO:	13668662_D1
CUSTOMER ID:	PLAINFIELD CT
CUSTOMER #:	468617

CONSTRUCTION  
DETAILS

SHEET NUMBER:  
**C-501**

REVISION:  
**A**

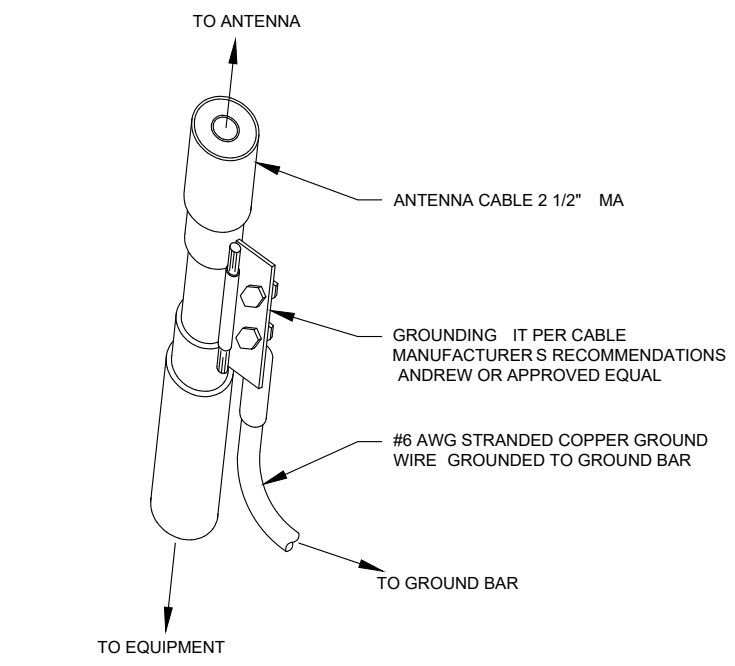
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**NOTES:**

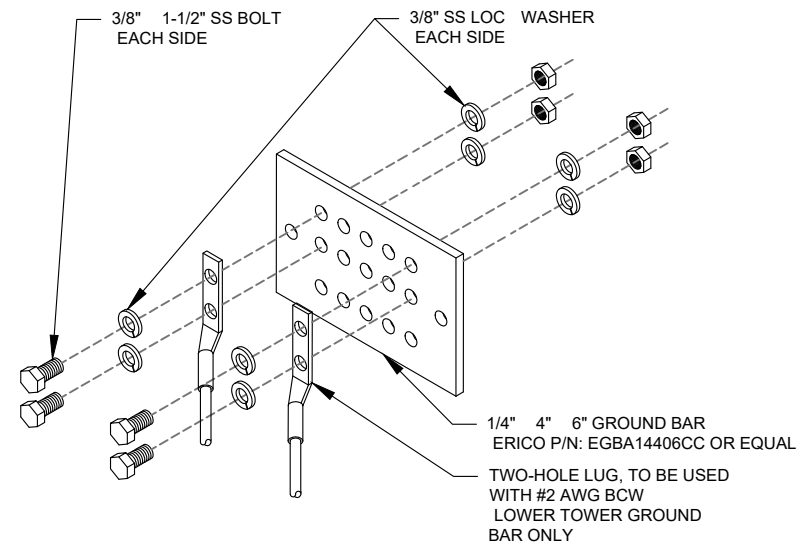
1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH VERIZON GROUNDING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

**1 TYPICAL ANTENNA GROUNDING DIAGRAM**  
SCALE: N.T.S.



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

**2 CABLE GROUND WIRE CONNECTION DETAIL**  
SCALE: N.T.S.



**GROUND BAR NOTES:**

1. GROUND BARS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBERS.
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

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

**ELECTRICAL NOTES:**

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE T-MOBILE REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.
2. ATC HAS NOT VERIFIED ANY EXISTING T-MOBILE GROUND EQUIPMENT OR ELECTRICAL LOADING. PROPOSED WORK BASED ON INSTALLATION CONFIGURATION PROVIDED BY T-MOBILE. CONTRACTOR TO VERIFY EXISTING T-MOBILE PANEL HAS SUFFICIENT SPACE FOR PROPOSED BREAKER. PROPOSED CABLE AND CONDUIT SHALL BE MINIMUM SIZE PER BELOW IN CHART.
3. FOR SPECIFIC CABINET / ANCILLARY EQUIPMENT WIRING REQUIREMENTS, THE T-MOBILE CONTRACTOR SHOULD REFERENCE DESIGN DOCUMENTS PROVIDED BY T-MOBILE FOR THIS CURRENT PROJECT CONFIGURATION, IN ACCORDANCE WITH LOCAL JURISDICTION REQUIREMENTS, NEC STANDARDS PRACTICES.

OCPD SIZE	WIRE SIZE	GROUND SIZE	CONDUIT SIZE
80A/2P	2#3 AWG	#8 AWG	1-1/4"
100/2P	2#2 AWG	#8 AWG	1-1/4"
125A/2P	2#1 AWG	#8 AWG	1-1/2"
150A/2P	2#1/0 AWG	#8 AWG	1-1/2"

**4 ELECTRICAL NOTES**  
SCALE: N.T.S.



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COA# PEC.001833 EXP: 08/14/2022

REV.	DESCRIPTION	BY	DATE
A	PRELIM	JRL	05/20/21
0	FOR CONSTRUCTION	OBA	08/10/21

ATC SITE NUMBER:  
**302498**

ATC SITE NAME:  
**PLAINFIELD CT 6**

VERIZON SITE NAME:  
**PLAINFIELD CT**

SITE ADDRESS:  
SPAULDING ROAD  
PLAINFIELD, CT 06374

SEAL:

Tyler M. Barker  
CLS Engineering PLLC  
PE # 32402 Exp. 1/31/2022  
COA # PEC.001833 Exp. 8/14/2022  
08/10/2021

PE# 32402 EXP: 01/31/2022



DATE DRAWN:	08/10/21
ATC JOB NO:	13668662_D1
CUSTOMER ID:	PLAINFIELD CT
CUSTOMER #:	468617

**GROUNDING DETAILS**

SHEET NUMBER:  
**E-501**

REVISION:  
**A**

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**Equipment Summary**

Added												
Equipment Type	Location	700	850	1900	AWS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity
Mount	Tower						Commscope	BSAMNT-SBS-2-2			PHYSICAL	3
Diplexer	Tower			LTE	LTE		Commscope	CBC1923Q-43			PHYSICAL	3
RRU	Tower			LTE	LTE		Samsung	B2/B66A RRH-BR049 (RFV01U-D1A)			PHYSICAL	3
RRU	Tower	LTE	LTE				Samsung	B5/B13 RRH-BR04C (RFV01U-D2A)			PHYSICAL	3
RRU	Tower					5G	Samsung	MT6407-77A			PHYSICAL	3
OVP Box	Tower							6 circuit			PHYSICAL	2
Hybrid Cable	Tower							6x12			PHYSICAL	2
Removed												
Equipment Type	Location	700	850	1900	AWS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity
RRU	Tower	LTE					Nokia	UHBC B13 TRDU 2x40			PHYSICAL	3
RRU	Tower				LTE		Nokia	UHIC B4 RRH 2x60-4R			PHYSICAL	3
Hybrid Cable	Tower										PHYSICAL	0
OVP Box	Tower										PHYSICAL	0
Retained												
Equipment Type	Location	700	850	1900	AWS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity
Coaxial Cables	Tower										PHYSICAL	6

1 CABINET CONFIGURATION  
SCALE: NOT TO SCALE

**Antenna Summary**

Added														
700	850	1900	AWS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	
LTE	LTE	LTE	LTE		ANDREW	JAHH-65B-R3B	114	117	90(02) 195(03) 315(01)	true	true	PHYSICAL	6	
				5G	Samsung	MT6407-77A	114	115.5	90(0002) 195(0003) 315(0001)	false	false	PHYSICAL	3	
Removed														
700	850	1900	AWS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	
			LTE		ANDREW	HBXX-6517DS-A2M	114	117.1	90(D2) 195(D3) 315(D1)	false	false	PHYSICAL	3	
			LTE		ANDREW	HBXX-6517DS-A2M	114	117.1	90(D2) 195(D3) 315(D1)	false	false	PHYSICAL	3	
			LTE		ANDREW	HBXX-6517DS-A2M	114	117.1	90(D2) 195(D3) 315(D1)	false	false	PHYSICAL	3	
			LTE		ANDREW	HBXX-6517DS-A2M	114	117.1	90(D2) 195(D3) 315(D1)	false	false	PHYSICAL	3	
LTE					ANTEL	BXA-70063-6CF	114	117	90(D2) 195(D3) 315(D1)	false	false	PHYSICAL	3	
Retained														
700	850	1900	AWS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	
	CDMA				AMPHENOL	BXA-70080-4BF-EDIN-0 (317586)	114	115.8	90(D2) 210(D3) 330(D1)	false	false	PHYSICAL	3	

Added: 9      Removed: 15      Retained: 3

2 ANTENNA CONFIGURATION  
SCALE: NOT TO SCALE

SUPPLEMENTAL

SHEET NUMBER: **R-601**      REVISION: -

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

**PROJECT NOTES**

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



**MOUNT MODIFICATION DRAWINGS  
EXISTING 13.50' T-ARM**

**SITE NAME: PLAINFIELD CT  
SITE NUMBER: 468617**

**45 SPAULDING RD  
PLAINFIELD, CT 06374  
WINDHAM COUNTY**

PROJECT INFORMATION	
<b>SITE INFORMATION</b>	
LATITUDE:	41.674544° N
LONGITUDE:	71.878683° W
JURISDICTION:	WINDHAM COUNTY
<b>APPLICANT/LESSEE</b>	
COMPANY:	VERIZON WIRELESS
<b>CLIENT REPRESENTATIVE</b>	
COMPANY:	VERIZON WIRELESS
ADDRESS:	118 FLANDERS ROAD, THIRD FLOOR
CITY, STATE, ZIP:	WESTBOROUGH, MA 01581
CONTACT:	ANDREW CANDIELLO
EMAIL:	ANDREW.CANDIELLO@VERIZONWIRELESS.COM
<b>PROJECT MANAGER</b>	
COMPANY:	MASER CONSULTING CONNECTICUT
CONTACT:	PETER ALBANO
PHONE:	856-797-0412
E-MAIL:	PETER.ALBANO@COLLIERSENGINEERING.COM

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

CONTRACTOR PMI REQUIREMENTS	
PMI LOCATION:	HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #:	10072168
VZW LOCATION CODE (PSLC):	468617
FUZE ID:	16272035
PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT	

REFERENCED DOCUMENTS	
	FAILING MOUNT ANALYSIS REPORT
SMART TOOL PROJECT #:	10059473
MASER CONSULTING PROJECT #:	21777483A
ANALYSIS DATE:	5/21/2021

WE'VE HELPED YOU GET THROUGH THE MOST DIFFICULT CUSTOMER LOYALTY THROUGH CLIENT SATISFACTION  
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- NORTH CAROLINA
- SOUTH CAROLINA
- NEW MEXICO
- MARYLAND
- GEORGIA
- TEXAS
- TENNESSEE
- COLORADO



NO.	AS SHOWN	DESCRIPTION
1		21777483A

Justin Perlinetto  
Professional Engineer  
Maser Consulting Connecticut  
CT, C.O.A.# PC0806131  
Digitally signed by Justin Perlinetto  
Date: 2021.05.24 14:31:54 -0400

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

**SITE NAME:**  
**PLAINFIELD CT  
468617  
45 SPAULDING RD  
PLAINFIELD, CT 06374  
WINDHAM COUNTY**

MT LAUREL OFFICE  
3000 Parkway Drive  
Suite 100  
Mount Laurel, NJ 08054  
Phone: 856.797.0412  
Fax: 856.722.1120

**TITLE SHEET**

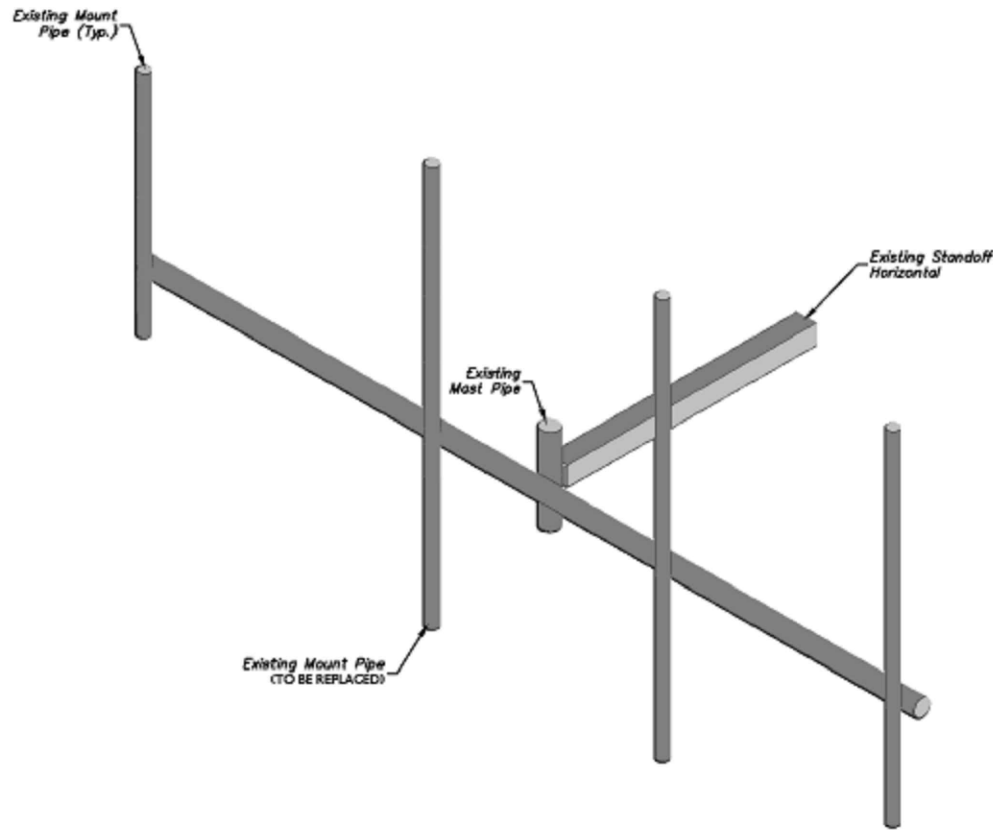
SHEET NUMBER: T-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

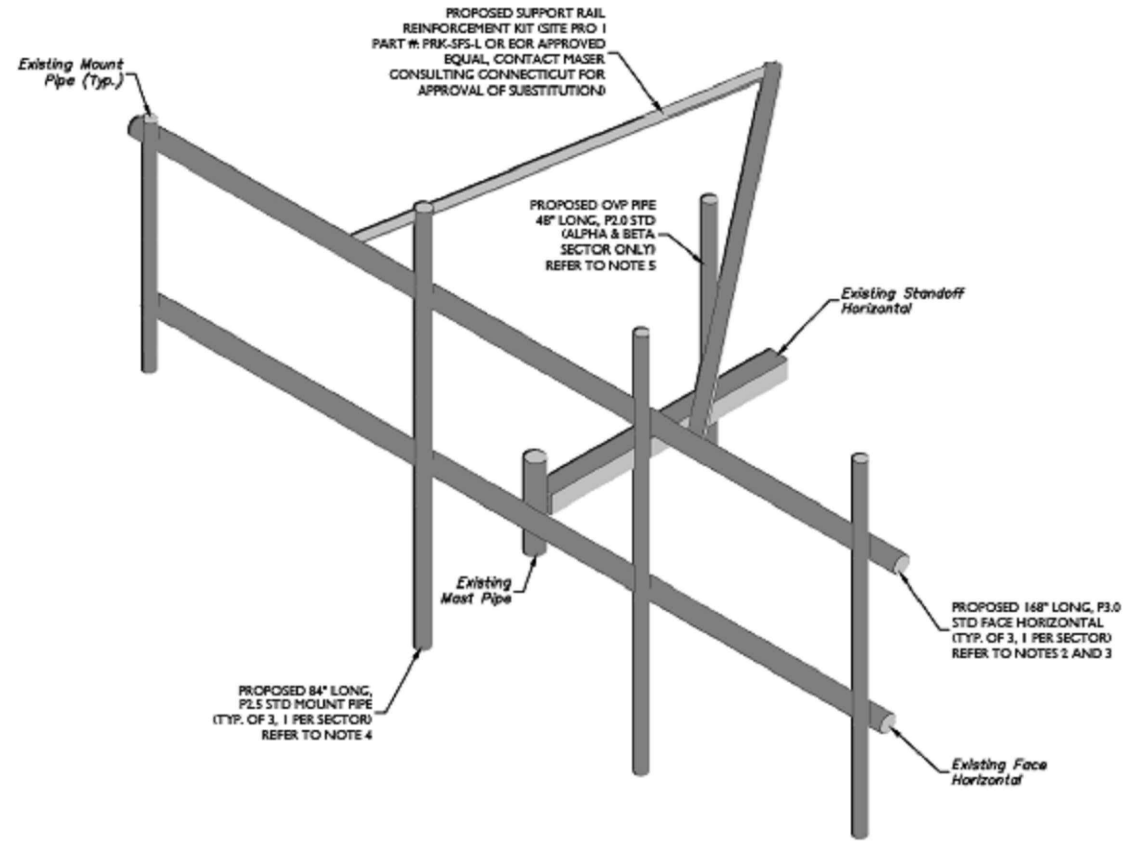
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NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS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

<b>SUPPLEMENTAL</b>	
SHEET NUMBER: <b>R-602</b>	REVISION: -



1 EXISTING T-ARM ISOMETRIC VIEW (TYP. ALL SECTORS)  
SCALE: N.T.S.



2 PROPOSED T-ARM ISOMETRIC VIEW (TYP. ALL SECTORS)  
SCALE: N.T.S.

**STRUCTURAL NOTES:**

- PER THE MOUNT MAPPING COMPLETED BY HUDSON DESIGN GROUP, LLC ON 3/30/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (112'-9") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.
- INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.

**MODIFICATION NOTES:**

- MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
- RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
- CONNECT NEW HORIZONTAL TO ALL EXISTING AND PROPOSED VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
- CONNECT NEW MOUNT PIPE TO EXISTING HORIZONTAL WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
- CONNECT NEW OVP PIPE TO EXISTING STANDOFF HORIZONTAL WITH CROSSOVER PLATES (SITE PRO I PART #: SQCX4-K, OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING CONNECTICUT FOR APPROVAL OF SUBSTITUTION).

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ALL STATES REQUIRE CERTIFICATION OF OCCUPATIONAL EMPLOYERS ON ANY PERSON PREPARED TO CLIMB THE BATTLE SURFACE ANYWHERE IN ANY STATE.  
Call before you fly.  
FOR STATE SPECIFIC CONTACT VISIT: www.flybeforeyoufly.com

SCALE:	AS SHOWN	PROJECT:	21777402A
DATE:		ISSUE:	
BY:		DATE:	

**Justin Linette**  
REGISTERED PROFESSIONAL ENGINEER  
CONNECTIONS, INCORPORATED  
SOUTH BRITAIN, CONNECTICUT  
CT, C.O.A. #PC581821  
Digitally signed by Justin Paul Linette  
Date: 2021.06.24 14:32:50 -0400

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

**SITE NAME:**  
PLAINFIELD CT  
468617  
45 SPAULDING RD  
PLAINFIELD, CT 06374  
WINDHAM COUNTY

**MT. LAUREL OFFICE**  
13877 Route 150  
Mount Laurel, NJ 08054  
Phone: 856.777.0033  
Fax: 856.772.1139

MODIFICATION DETAILS  
S-4

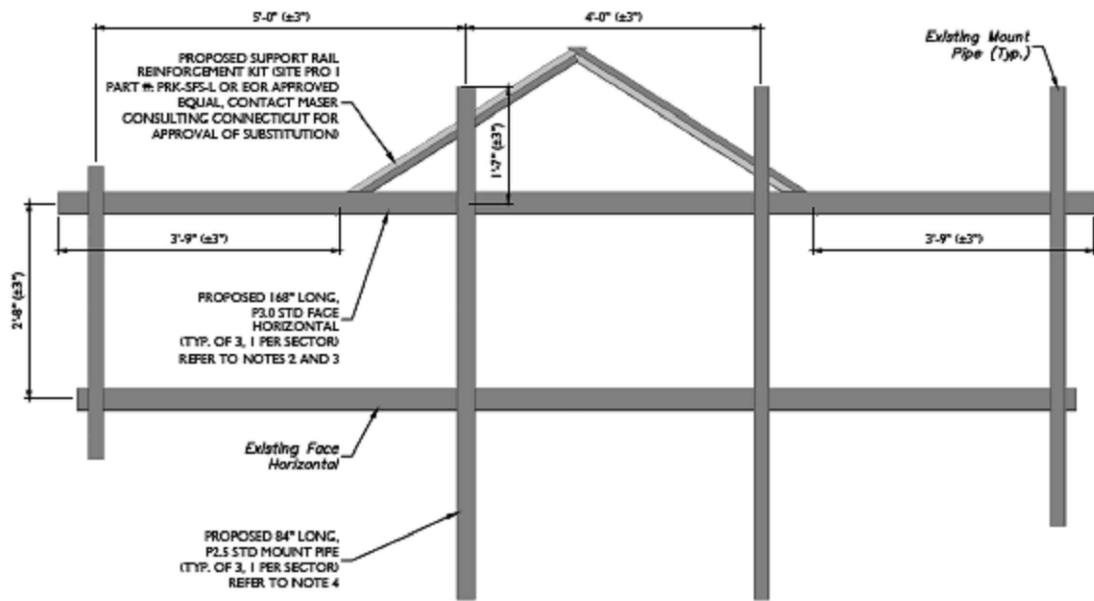
NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

1 MOUNT ANALYSIS

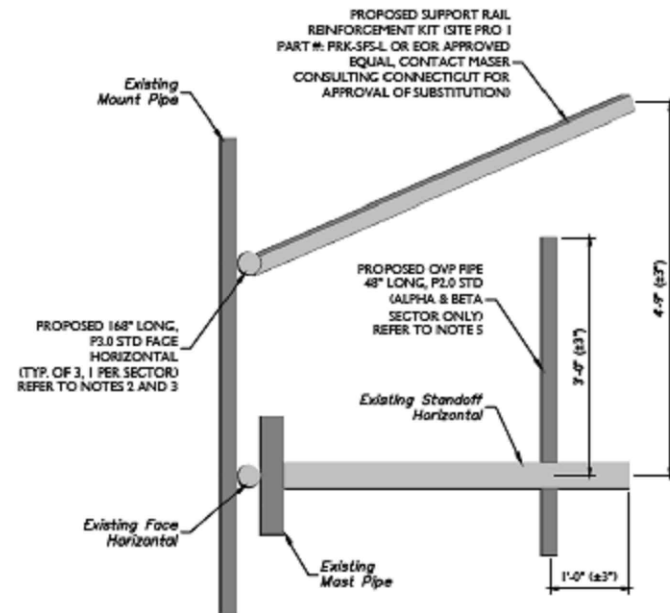
NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERIFY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

SUPPLEMENTAL

SHEET NUMBER: <b>R-603</b>	REVISION: -
-------------------------------	----------------



1 PROPOSED FRONT ELEVATION (TYP. ALL SECTORS)  
SCALE: N.T.S.



2 PROPOSED SIDE ELEVATION (TYP. ALL SECTORS)  
SCALE: N.T.S.

**MODIFICATION NOTES:**

- MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
- RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE.
- CONNECT NEW HORIZONTAL TO ALL EXISTING AND PROPOSED VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
- CONNECT NEW MOUNT PIPE TO EXISTING HORIZONTAL WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
- CONNECT NEW OVP PIPE TO EXISTING STANDOFF HORIZONTAL WITH CROSSOVER PLATES (SITE PRO I PART #: SQCX4-K, OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING CONNECTICUT FOR APPROVAL OF SUBSTITUTION).

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Customer Location Through Client Satisfaction  
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FLORIDA	TENNESSEE
NORTH CAROLINA	COLORADO
SOUTH CAROLINA	



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ALL STATES REQUIRE REGISTRATION OF  
MISCELLANEOUS ENGINEERS AND ARCHITECTS  
BEFORE THEY CAN PERFORM ANY SERVICE  
OR CONTRACT WORK IN THIS STATE.  
Call before you dig.  
FOR STATE SPECIFIC CONTACT NUMBERS VISIT:  
WWW.CALL811.COM

REV	DATE	DESCRIPTION	CHANGED BY	CHK'D BY
AS SHOWN				

**Justin Linette**  
REGISTERED PROFESSIONAL ENGINEER  
LICENSE NUMBER: 3158  
MASER CONSULTING CONNECTICUT  
C.T. CDA-410616121  
Digitally signed by Justin Linette  
Date: 2021.06.24 14:32:40

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

**SITE NAME:**  
**PLAINFIELD CT**  
468617  
45 SPAULDING RD  
PLAINFIELD, CT 06374  
WINDHAM COUNTY

**M T LAUREL OFFICE**  
150 TOWN CENTER  
SUITE 100  
HARTFORD, CT 06103  
PHONE 860.725.1139  
FAX 860.725.1139

04/11/21  
MODIFICATION DETAILS  
04/11/21  
S-5

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

1 MOUNT ANALYSIS

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

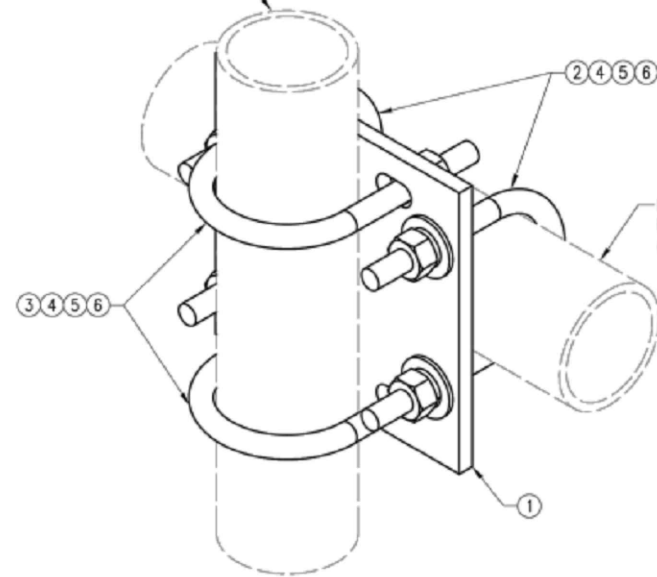
SUPPLEMENTAL

SHEET NUMBER: <b>R-604</b>	REVISION: -
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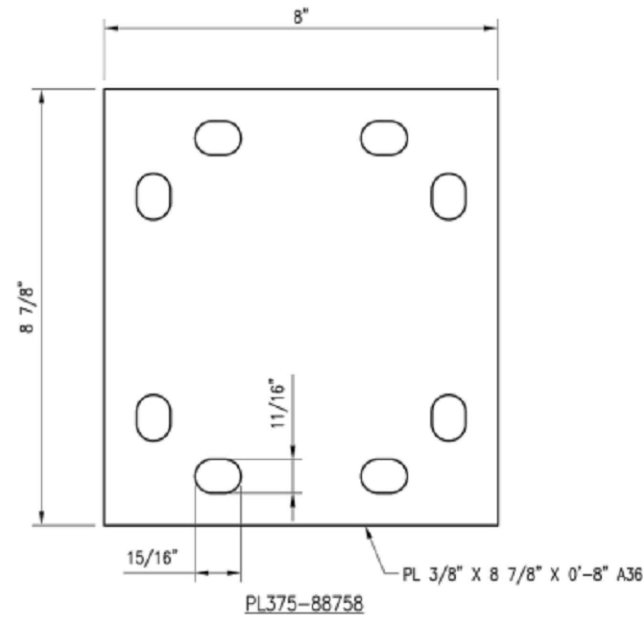
VzW  
**SMART Tool**<sup>®</sup>  
 Vendor



FITS 2.375" O.D. AND 2.875" O.D.  
 VERTICAL PIPE.  
 (NOT INCLUDED IN THIS KIT)



FITS 3.5" O.D. AND 4" O.D.  
 HORIZONTAL PIPE.  
 (NOT INCLUDED IN THIS KIT)



DRAWN BY: HJR CHECKED BY: HMA

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	HJR	05/08/20

SHEET TITLE:  
**VZWSMART-MSK2  
 CROSSOVER PLATE**

SHEET NUMBER: **VZWSMART-MSK2** REV #: **0**

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

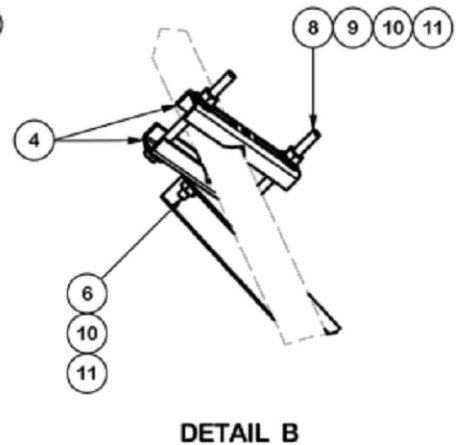
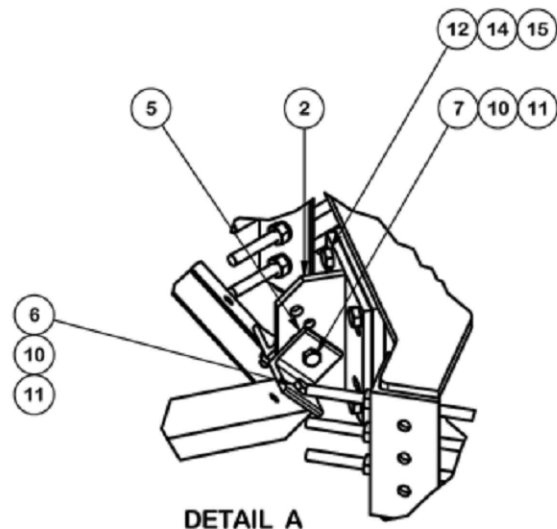
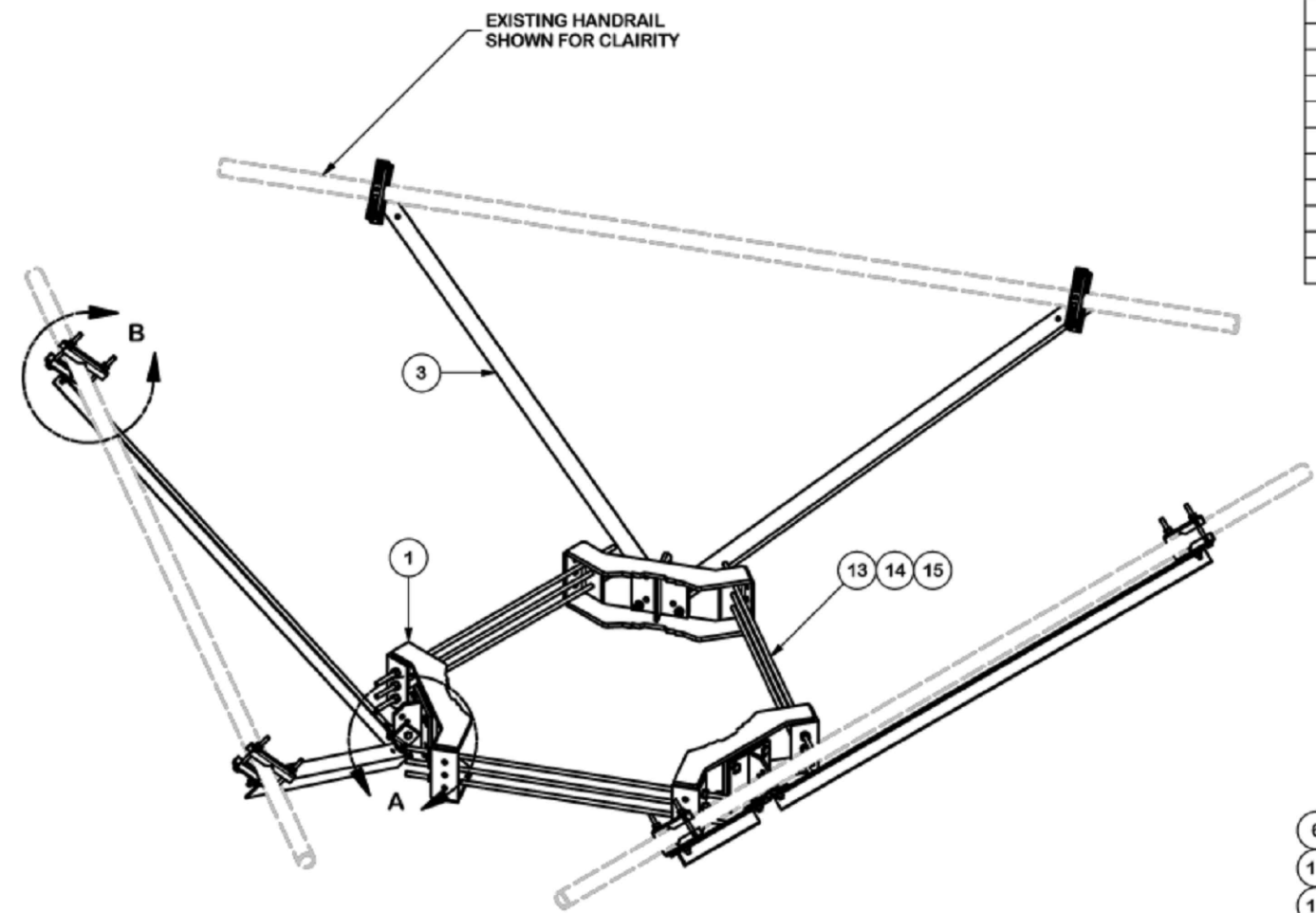
NOTES:  
 1. HOT-DIPPED GALVANIZED PER ASTM A123.

SUPPLEMENTAL

SHEET NUMBER: **R-605** REVISION: **-**



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	3	X-TBW	T-BRACKET WELDMENT		13.60	40.80
3	6	X-254924	DIAGONAL ANGLE - SITE PRO 1	72 in	19.71	118.24
4	12	X-STU	STIFF ARM CHANNEL BRACKET	8 1/2 in	1.37	16.46
5	6	SHCM-T	CHAIN MOUNT TIGHTENER BRACKET	3 in	1.86	11.15
6	12	G12112	1/2" x 1-1/2" HDG HEX BOLT GR5	1/2 in	0.15	1.77
7	3	G12212	1/2" x 2-1/2" HDG HEX BOLT GR5	2 1/2 in	0.20	0.61
8	12	G12065	1/2" x 6-1/2" HDG HEX BOLT GR5 FULL THREAD	6 1/2 in	0.41	4.91
9	24	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.82
10	27	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.38
11	27	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	1.93
12	12	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	3.75
13	9	G58R-24	5/8" x 24" THREADED ROD (HDG.)	24 in	0.40	3.59
13	9	G58R-48	5/8" x 48" THREADED ROD (HDG.)	48 in	0.40	3.59
14	30	G58LW	5/8" HDG LOCKWASHER		0.03	0.78
15	30	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	3.90
<b>TOTAL WT. #</b>					<b>642.04</b>	



REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	CHANGED MAX. DIA. FOR HANDRAIL CONNECTION	SP1	BC	10/25/2017

**REVISION HISTORY**

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

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

DESCRIPTION <b>HANDRAIL REINFORCEMENT KIT (LONG)</b>			
CPD NO. SP1	DRAWN BY CSL3	2/23/2017	ENG. APPROVAL 3RD PARTY
CLASS 81	SUB 02	DRAWING USAGE SHOP	CHECKED BY BMC 9/8/2017

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

Engineering Support Team:  
1-888-753-7446

PART NO. <b>PRK-SFS-L</b>	PAGE 1 OF 3
DWG. NO. <b>PRK-SFS-L</b>	

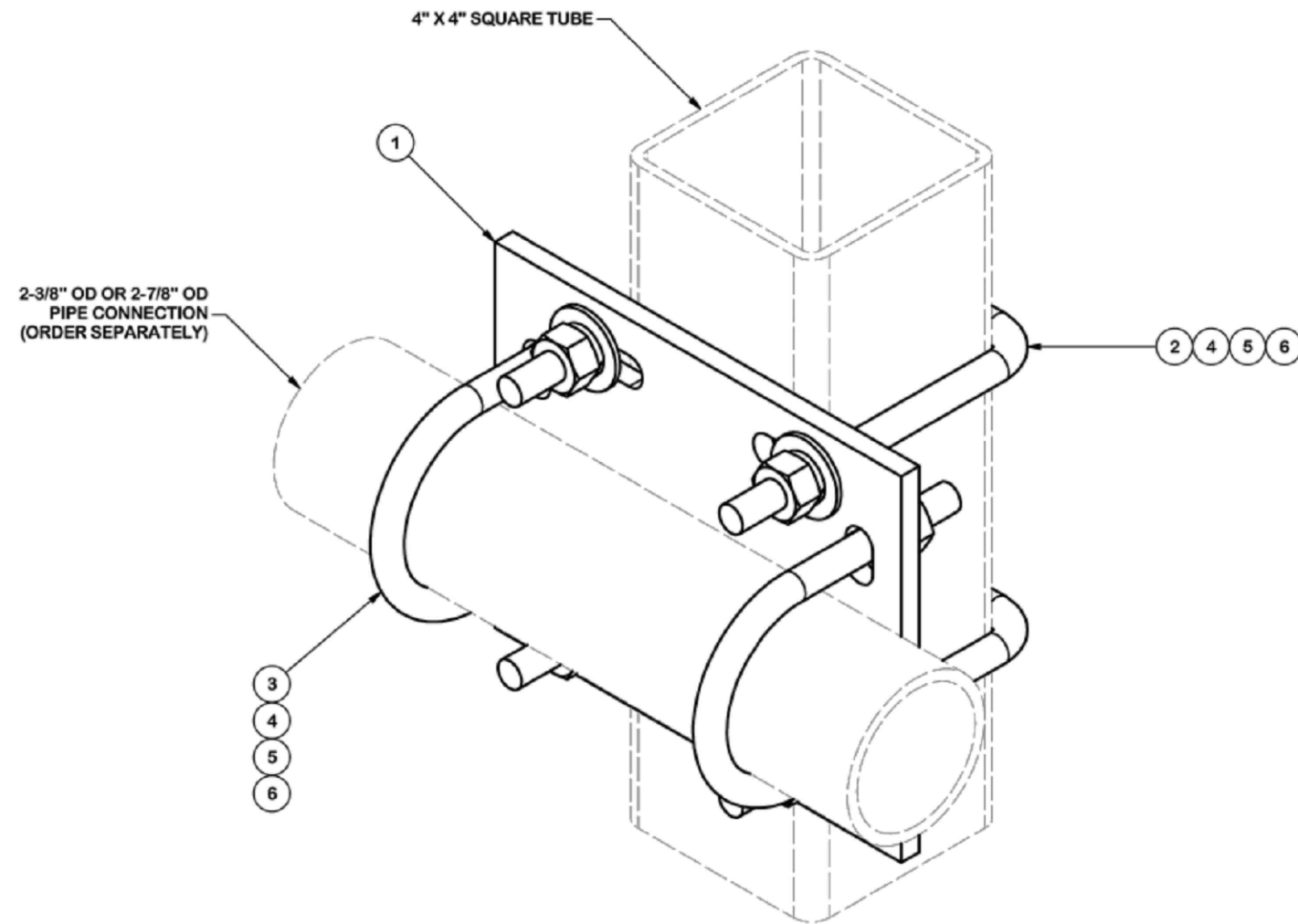
1 MOUNT ANALYSIS

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SUPPLEMENTAL

SHEET NUMBER: <b>R-606</b>	REVISION: -
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PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	6.02
2	2	X-SUB1418	SQUARE U-BOLT 0.5" DIA. X 4.125" IW X 6" IL X 3" TR		0.98	1.95
3	2	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.60	1.19
3	2	X-UB1300	1/2" X 3" X 5" X 2" U-BOLT (HDG.)		0.67	1.34
4	8	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.27
5	8	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.11
6	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
TOTAL WT. #						11.35



**TOLERANCE NOTES**

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:  
 SAWED, SHEARED AND GAS CUT EDGES ( $\pm 0.030$ "")  
 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 ( $\pm 0.060$ "")

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

**SITE PRO 1**  
 A valmont COMPANY

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

Engineering Support Team:  
 1-888-753-7446

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE 1 OF 1
	CSL 9/18/2018	3RD PARTY	SQCX4-K	
CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
87	02	CUSTOMER	BMC 11/12/2018	SQCX4-K

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SUPPLEMENTAL

SHEET NUMBER: <b>R-607</b>	REVISION: -
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