



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

February 6, 2023

Domenica Tatasciore
Site Acquisition Specialist
Crown Castle
1800 W. Park Drive
Westborough, MA 01581
Domenica.Tatasciore@crowncastle.com

RE: **EM-AT&T-164-230113** - AT&T notice of intent to modify an existing telecommunications facility located at 340 Bloomfield Avenue, Windsor, Connecticut.

Dear Domenica Tatasciore:

The Connecticut Siting Council (Council) is in receipt of your correspondence of February 6, 2023 submitted in response to the Council's January 24, 2023 notification of an incomplete request for exempt modification with regard to the above-referenced matter.

The submission renders the request for exempt modification complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

Melanie Bachman
Executive Director

MAB/ANM/laf

From: Tatasciore, Domenica <Domenica.Tatasciore@crowncastle.com>
Sent: Monday, February 6, 2023 7:59 AM
To: Fontaine, Lisa <Lisa.Fontaine@ct.gov>
Cc: CSC-DL Siting Council <Siting.Council@ct.gov>; Chapman, Veronica <Veronica.Chapman@crowncastle.com>
Subject: RE: Council Incomplete letter for Em-AT&T-164-230113 (Bloomfield Ave)- Windsor

Good morning Lisa,

Per your attached letter citing incompleteness due to the MA citations, please see the attached updated Mount Analysis that you requested. I will not require an extension as this document has been submitted prior to the February 14 deadline. I will send 1 hardcopy via Fedex priority post, as requested, and you should receive it tomorrow morning.

Please advise if you need anything else.

Take care,

DOMENICA TATASCIORE
Site Acquisition Specialist
T: 508-621-9161

CROWN CASTLE
1800 West Park Drive, Westborough, MA 01581
CrownCastle.com

Date: **January 31, 2023**



Trylon
1825 W. Walnut Hill Lane,
Suite 302
Irving, TX 75038
214-930-1730

Subject: **Mount Modification Report**

Carrier Designation: **AT&T Mobility Equipment Change-Out**
Carrier Site Number: CTL05138
Carrier Site Name: Windsor Central
Carrier FA Number: 10092835

Crown Castle Designation: **BU Number:** 855662
Site Name: Windsorcentral
JDE Job Number: 732035
Order Number: 634432 Rev. 1

Engineering Firm Designation: **Trylon Report Designation:** 223271

Site Data: **340 Bloomfield Avenue, Windsor, Hartford County, CT, 06095**
Latitude 41°51'9.34" Longitude -72°39'37.79"

Structure Information: **Tower Height & Type:** **148.0 ft Monopole**
Mount Elevation: **148.0 ft**
Mount Width & Type: **14.0 ft Platform**

Trylon is pleased to submit this “**Mount Modification Report**” to determine the structural integrity of AT&T Mobility’s antenna mounting system with the proposed appurtenance and equipment addition on the above mentioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Platform

Sufficient*

***Sufficient upon completion of the changes listed in the ‘Recommendations’ section of this report.**

This analysis has been performed in accordance with the 2022 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 125 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Alexandra Chetreanu

Respectfully Submitted by:
Cliff Abernathy, P.E.

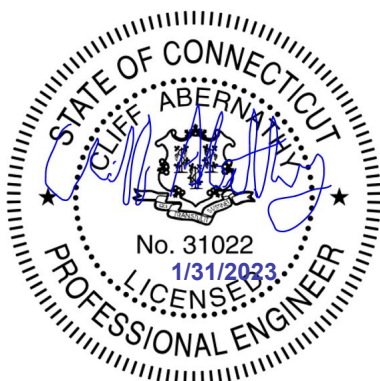


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1) INTRODUCTION

This is an existing 3 sector 14.0 ft Platform, designed by Summit.

2) ANALYSIS CRITERIA

Building Code:	2021 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	125 mph
Exposure Category:	C
Topographic Factor at Base:	1.00
Topographic Factor at Mount:	1.00
Ice Thickness:	1.50 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.179
Seismic S₁:	0.064
Live Loading Wind Speed:	30 mph
Man Live Load at Mid/End-Points:	250 lb
Man Live Load at Mount Pipes:	500 lb

Table 1 - Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
148.0	148.0	2	CCI Antennas	TPA65R-BU6DA-K	14.0 ft Platform
		1	CCI Antennas	TPA65R-BU8DA-K	
		2	Commscope	NNHHS4-65B-R5-V2	
		1	Commscope	NNHHS4-65C-R5-V2	
		12	Commscope	STX61742Q-43	
		3	Ericsson	8863 B77D	
		3	Ericsson	RRUS 4449 B5/B12	
		3	Ericsson	RRUS 4478 B14 CCIV2	
		3	Ericsson	RRUS 8843 B2/B66A	
		1	Raycap	DC6-48-60-18-8CEV	
		1	Raycap	DC6-48-60-18-8F	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Crown Application	AT&T Mobility Application	634432, Rev. 1	CCI Sites
Mount Manufacturer Drawings	Summit	140R Modular Platform	Trylon
Structural Analysis Report	Crown Castle	10647995	CCI Sites
Mount Modification Report	Trylon	10380303	CCI Sites
Exposure Category Determination	Crown Castle	5962154	CCI Sites
Mount Modification Drawings	Trylon	Appendix E	Trylon

3.1) Analysis Method

RISA-3D (Version 17.0.4), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

A tool internally developed, using Microsoft Excel, by Tylon was used to calculate wind loading on all appurtenances, dishes, and mount members for various load cases. Selected output from the analysis is included in Appendix B.

This analysis was performed in accordance with Crown Castle’s ENG-SOW-10208 *Tower Mount Analysis* (Revision E). In addition, this analysis is in accordance with AT&T’s Mount Technical Directive.

3.2) Assumptions

- 1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer’s specifications.
- 2) The configuration of antennas, mounts, and other appurtenances are as specified in Table 1 and the referenced drawings.
- 3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
- 4) The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.
- 5) Prior structural modifications to the tower mounting system are assumed to be installed as shown per available data.
- 6) Steel grades have been assumed as follows, unless noted otherwise:

Channel, Solid Round, Angle, Plate	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM A500 (GR B-46)
Pipe	ASTM A53 (GR 35)
Connection Bolts	ASTM A325

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

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (Platform, All Sectors)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
1, 2	Mount Pipe(s)	MP2	148.0	55.2	Pass
	Horizontal(s)	H1		65.6	Pass
	Standoff(s)	M1		40.0	Pass
	Bracing(s)	M7		26.2	Pass
	Stabilizer(s)	M77		23.1	Pass
	Handrail(s)	M46A		38.9	Pass
	Mount Connection(s)	-		20.9	Pass

Structure Rating (max from all components) =	65.6%
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Notes:

- 1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.
- 2) See additional documentation in "Appendix D – Additional Calculations" for detailed mount connection calculations.

4.1) Recommendations

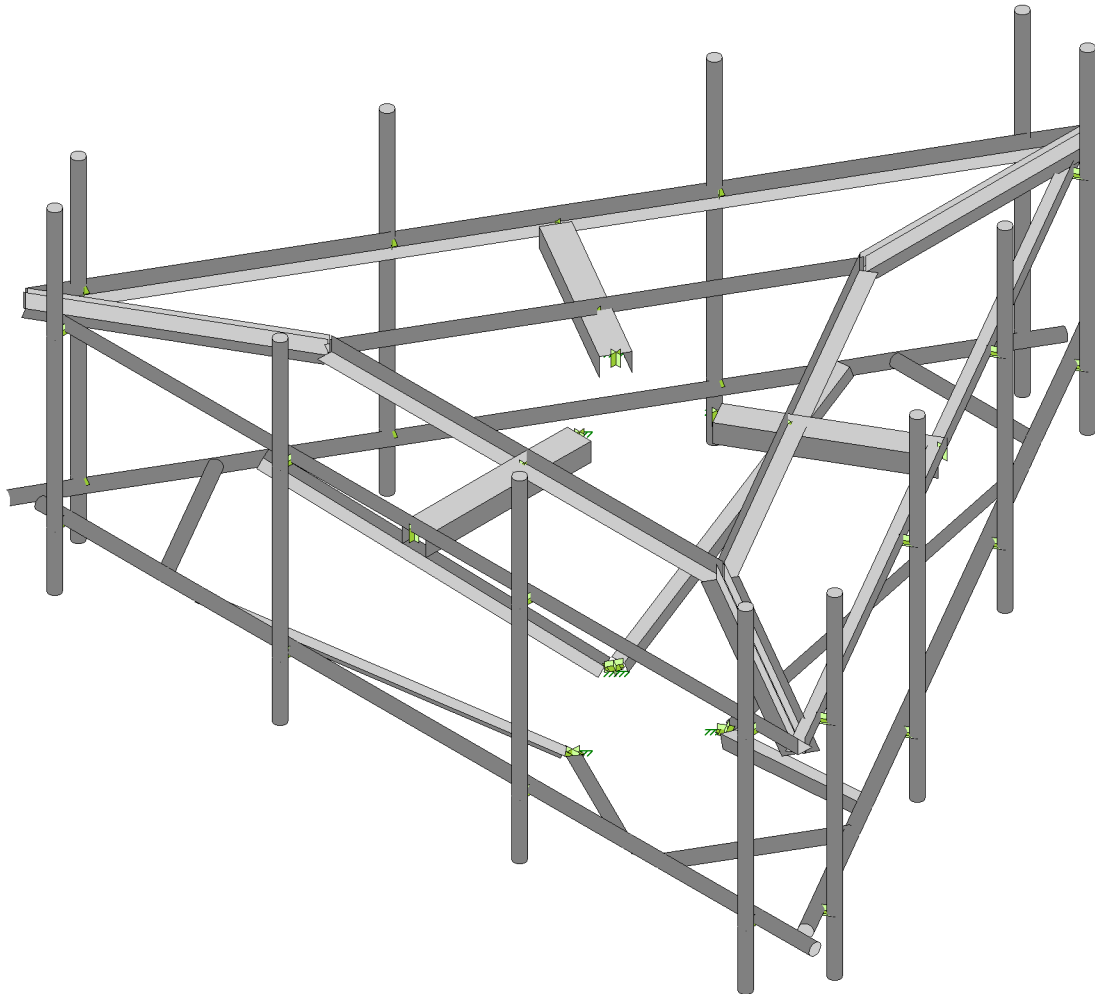
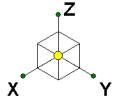
The mount has sufficient capacity to carry the proposed loading configuration. In order for the results of the analysis to be considered valid, the structural modifications listed below must be completed.

1. Site Pro 1, PRK-SFS-L.
2. Don't remove the unused pipe from position #1 and #4 on each sector.

Category	Classification
Mount Classification (w/ Ice, w/ Vertical Offset):	M1050R(600) - 2[0]

Engineering detail drawings have been provided in Appendix E – Mount Modification Design Drawings. Connection from the mount to the tower and local stresses on the tower are sufficient.

APPENDIX A
WIRE FRAME AND RENDERED MODELS

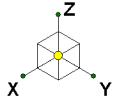


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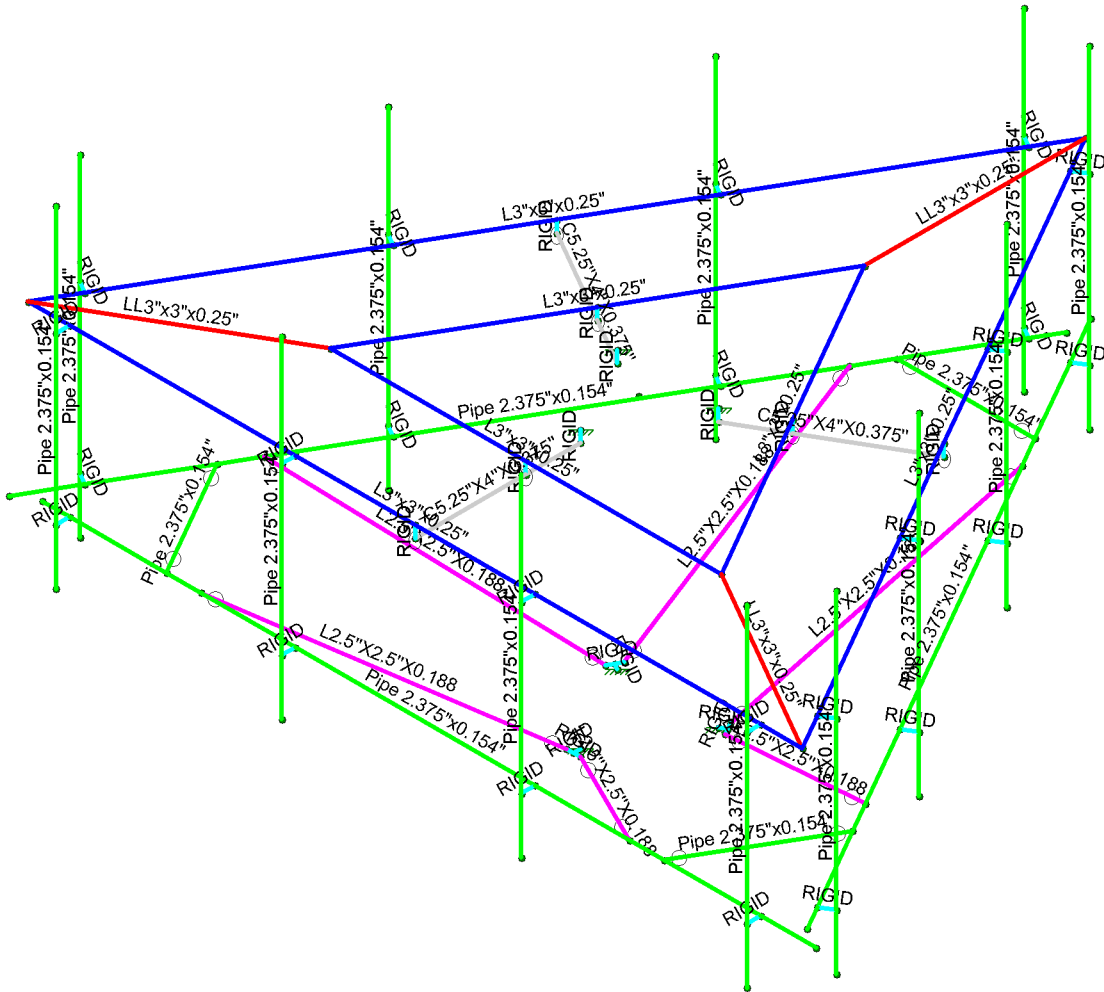
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Section Sets	
█	L3"x3"x0.25"
█	Pipe 2.375"x0.154"
█	LL3"x3"x0.25"
█	C5.25"x4"x0.375"
█	L2.5"x2.5"x0.188
█	RIGID

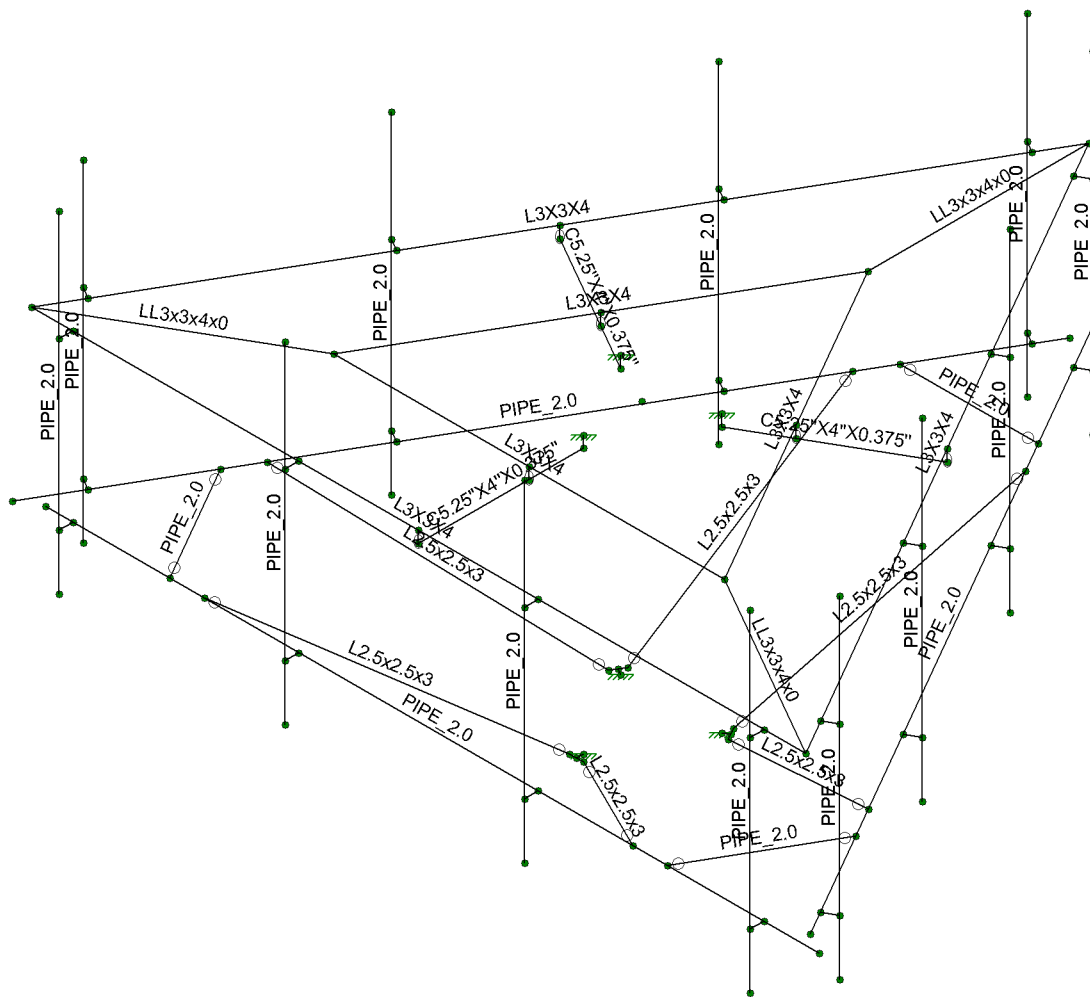
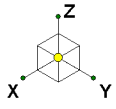


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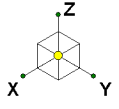


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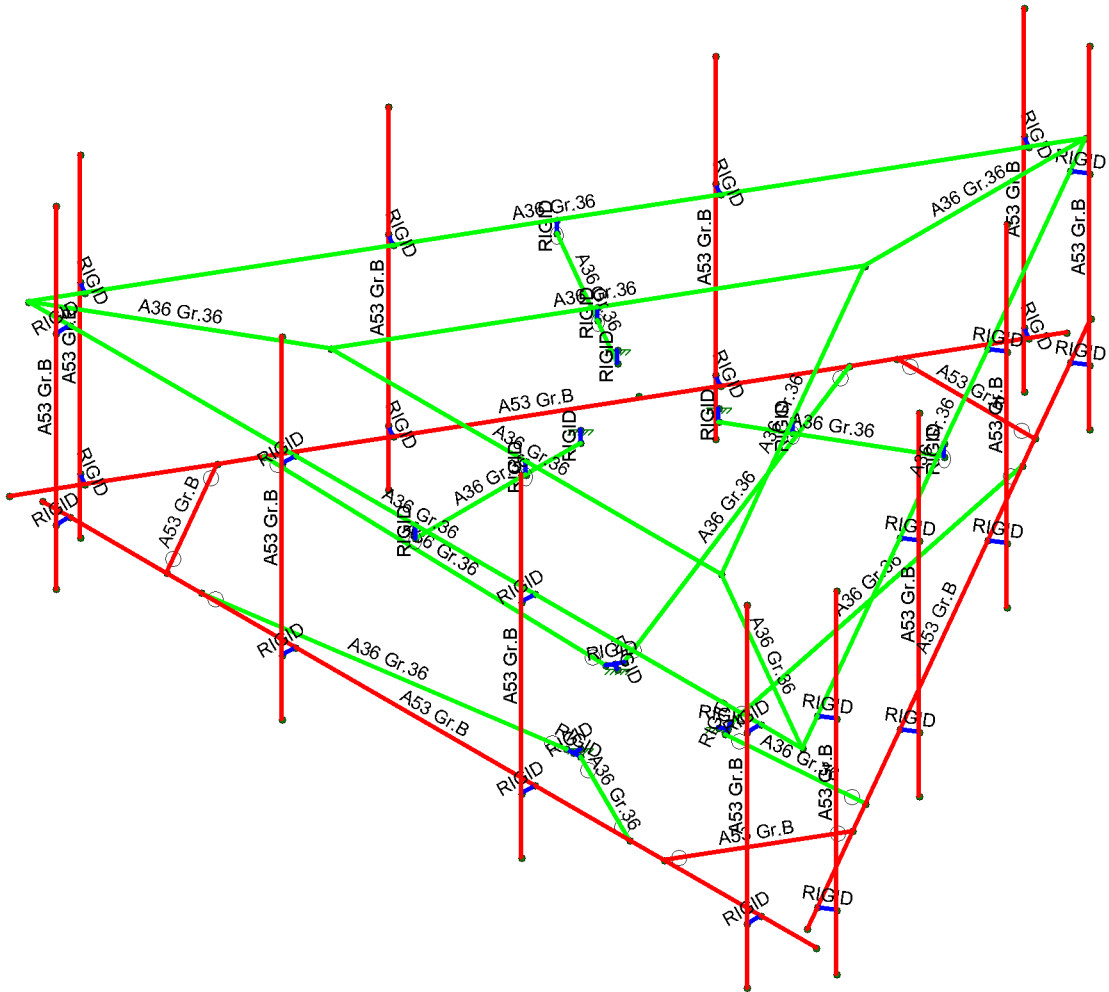
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Material Sets	
■	RIGID
■	A36 Gr.36
■	A53 Gr.B



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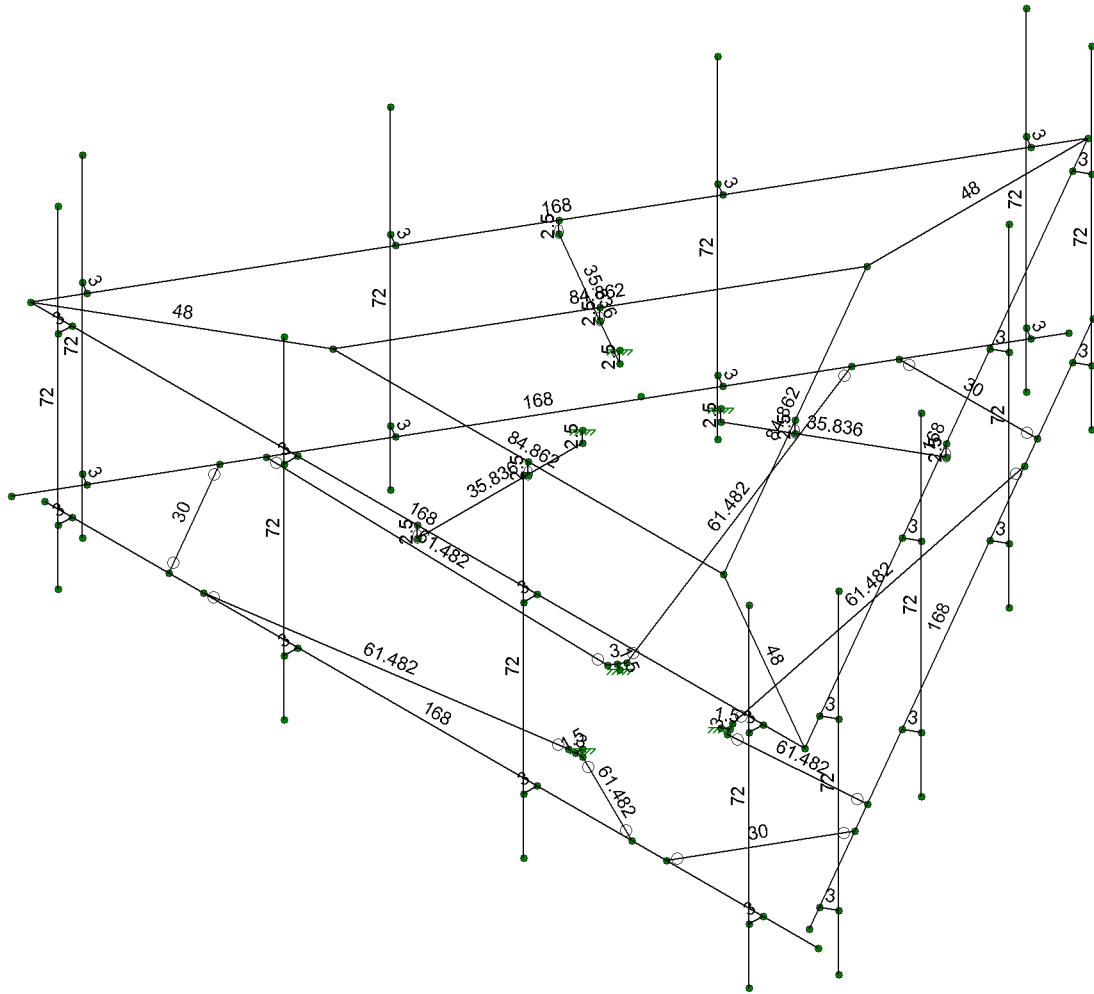
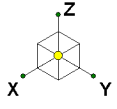
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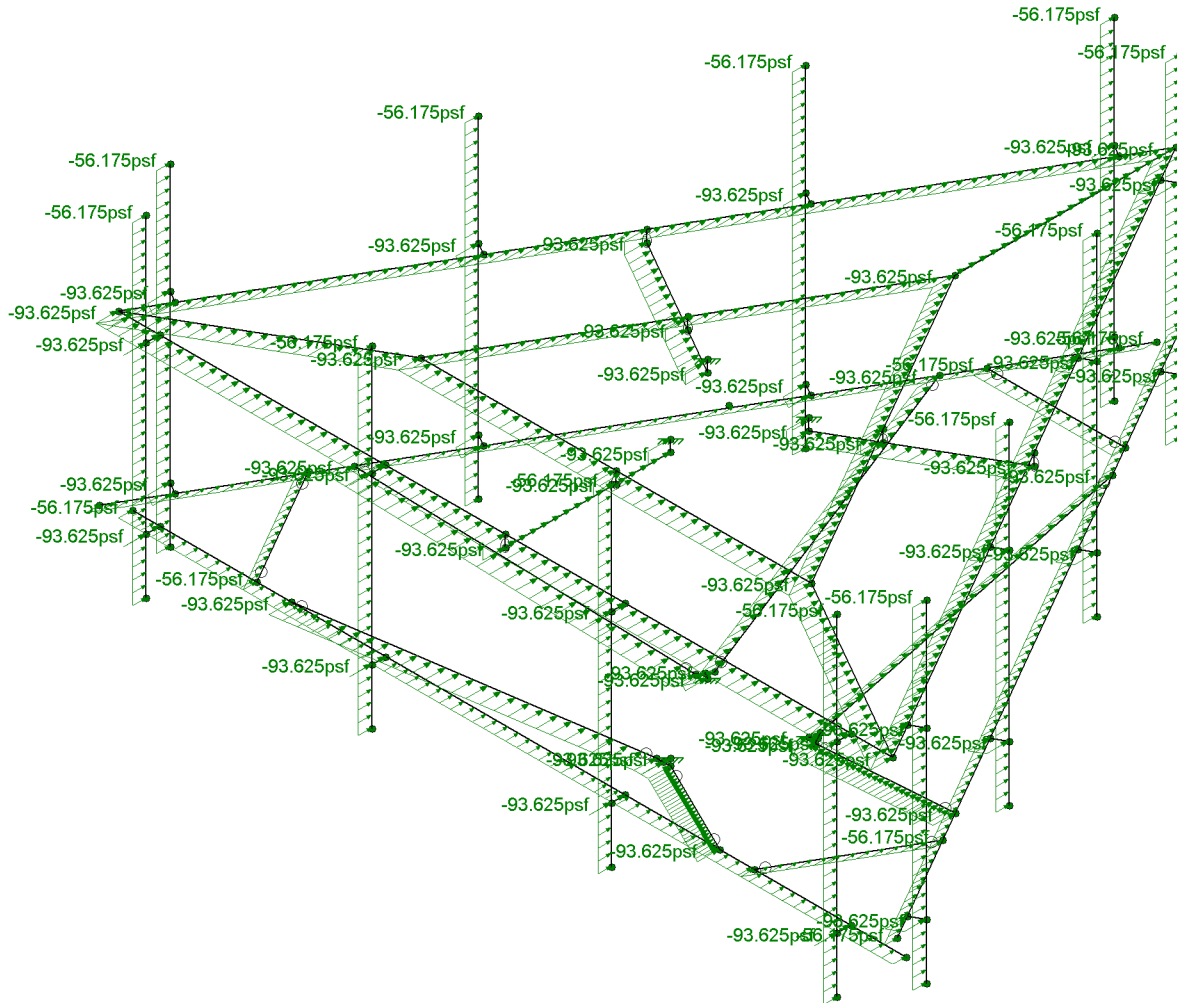
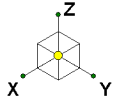


Member Length (in) Displayed
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Loads: BLC 2, Structure Wind X
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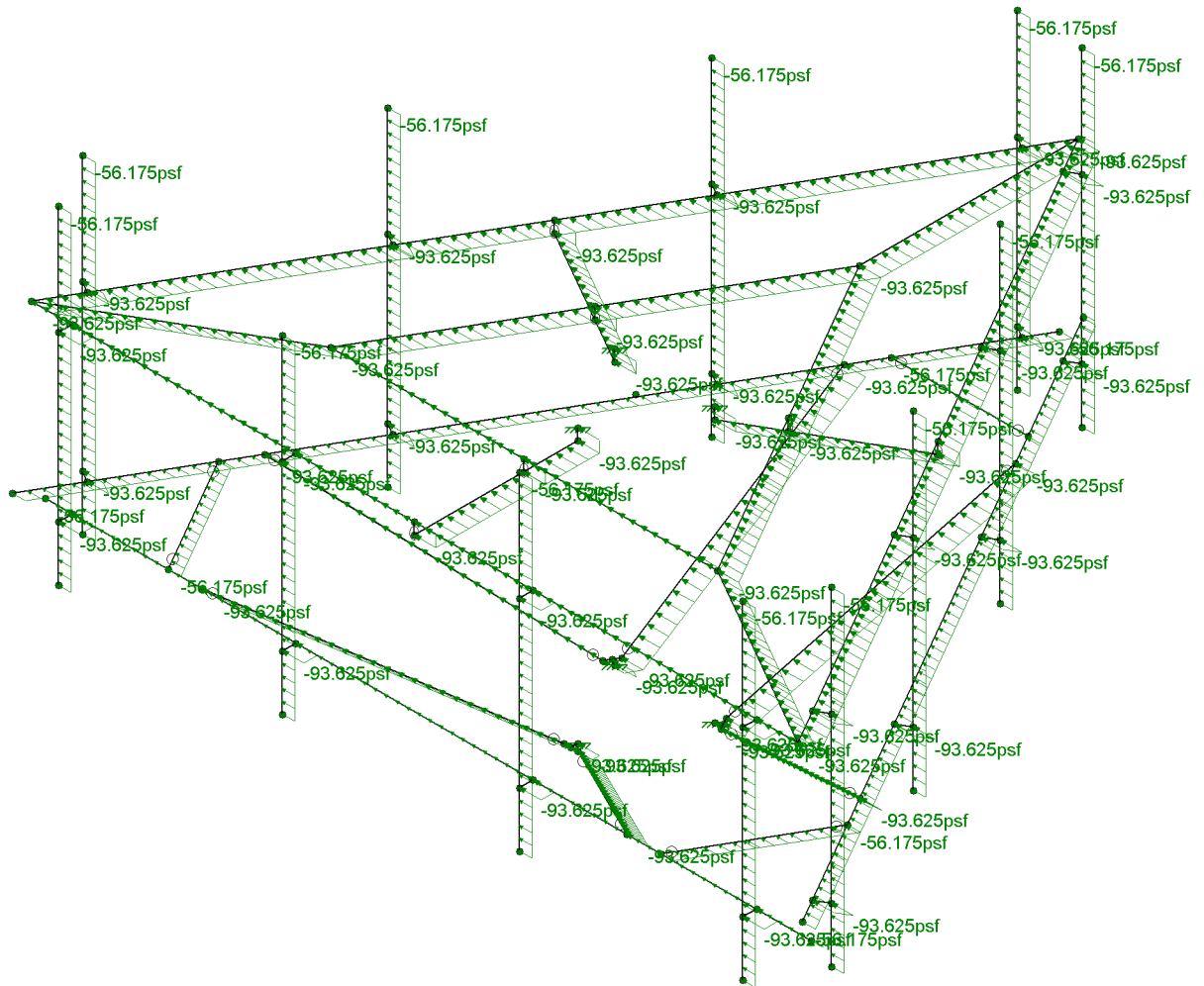
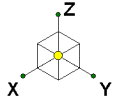
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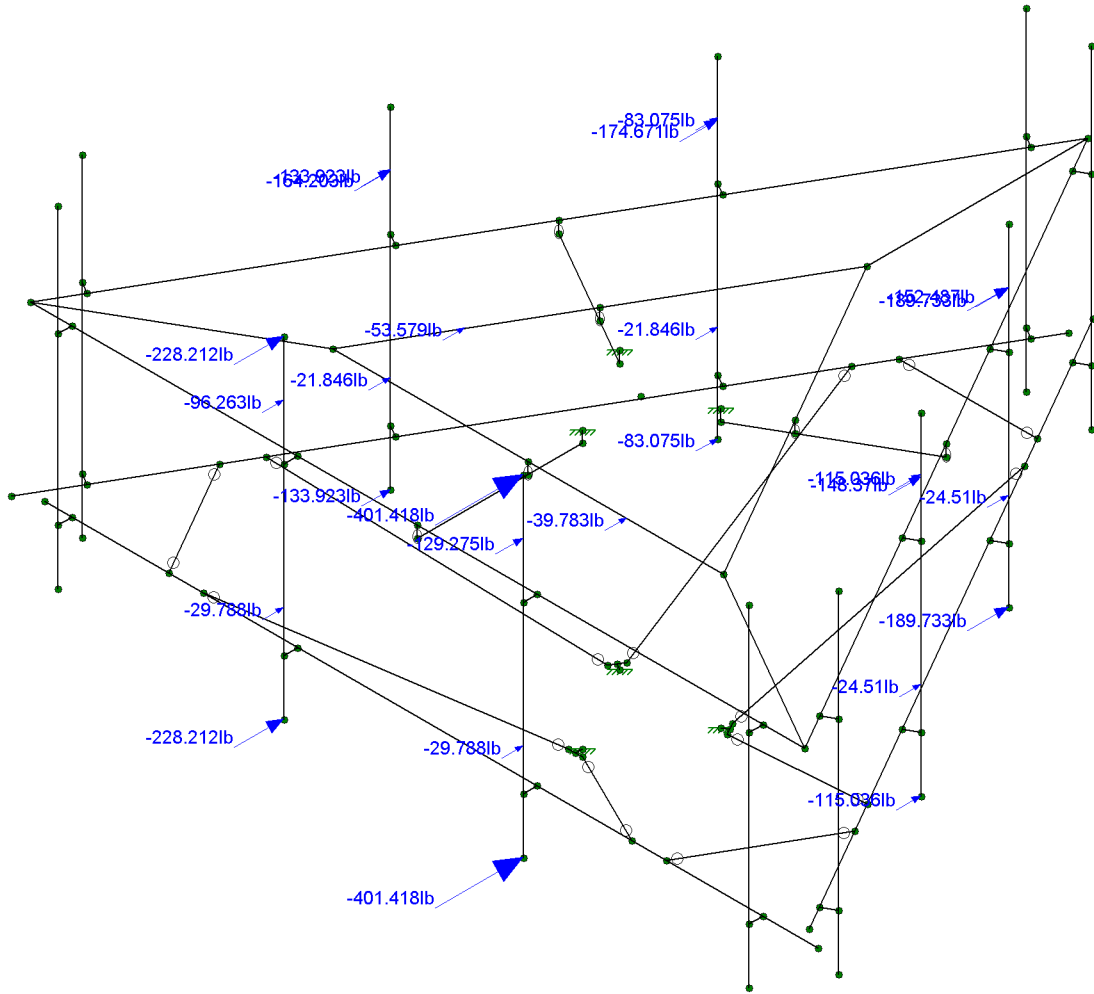
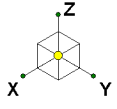


Loads: BLC 3, Structure Wind Y
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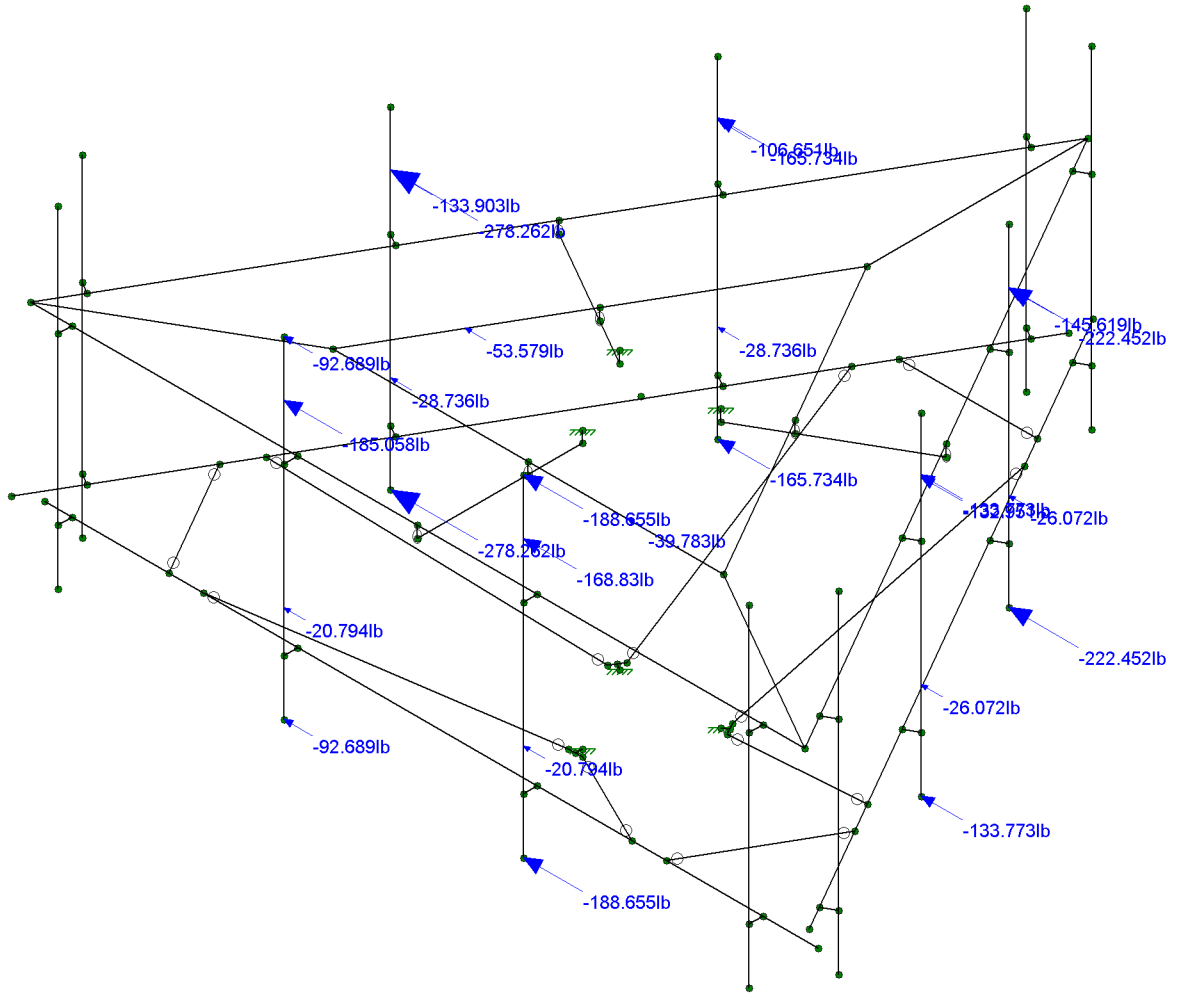
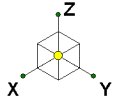


Loads: BLC 4, Wind Load 0 AZI
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Loads: BLC 8, Wind Load 90 AZI
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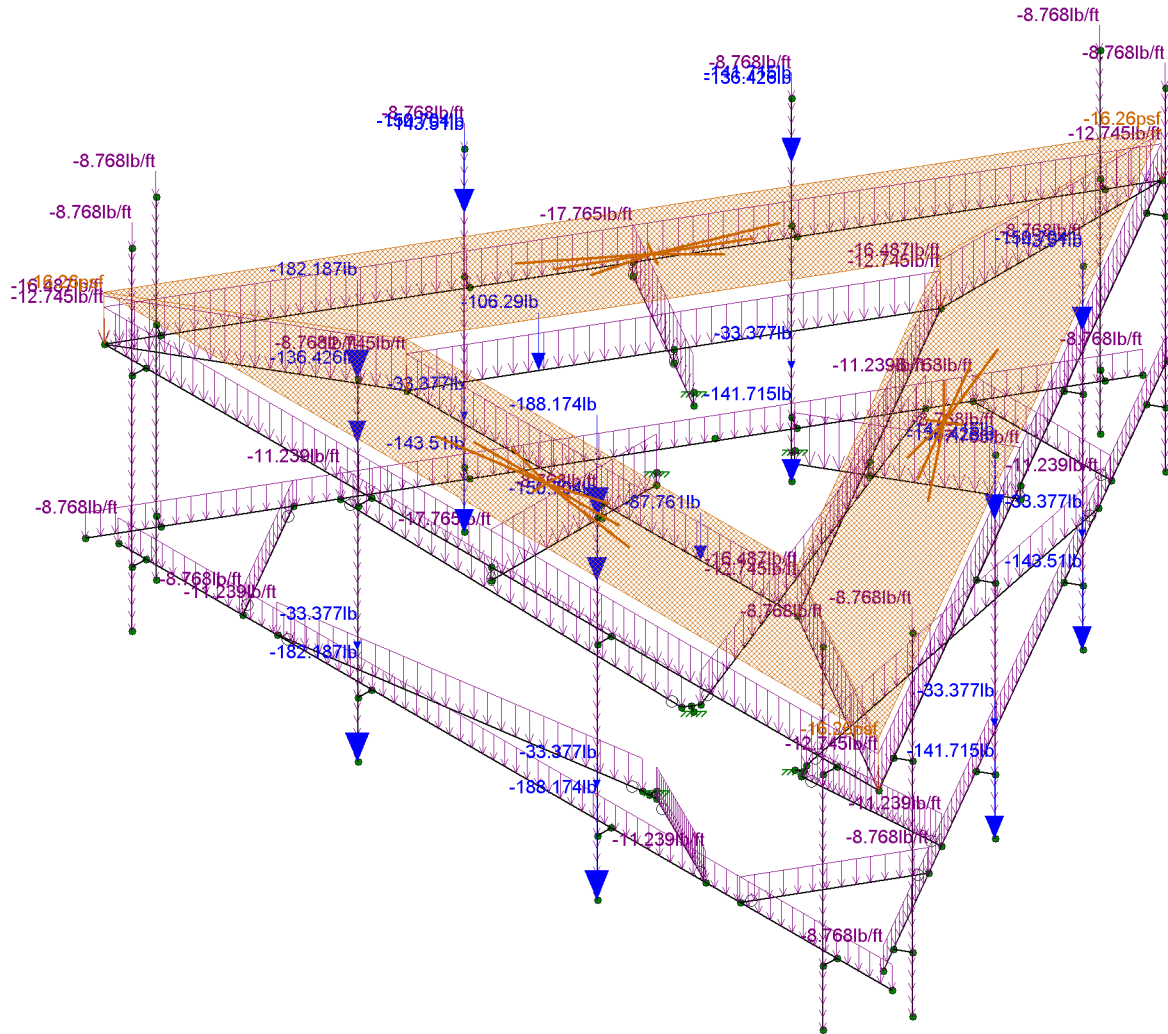
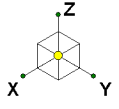
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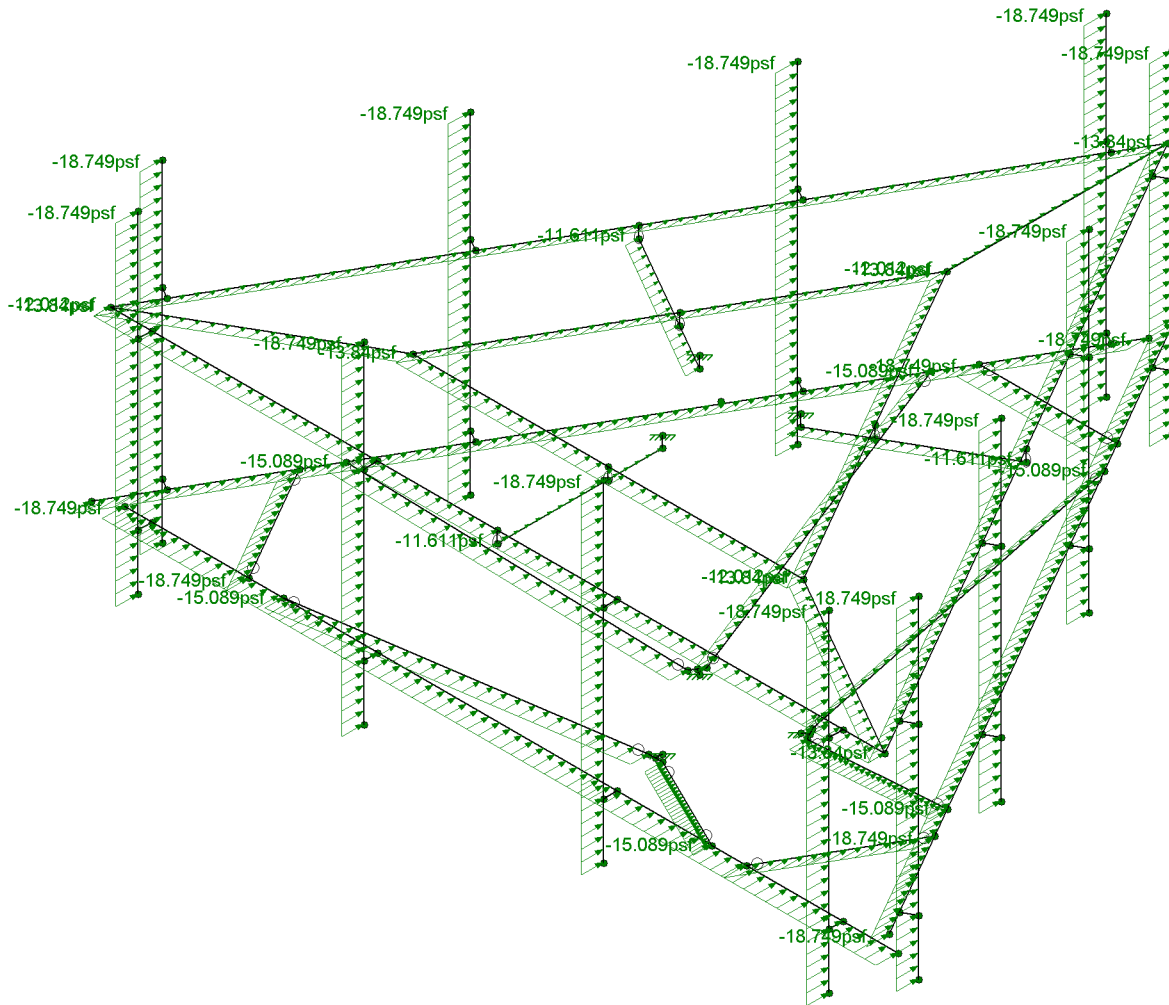
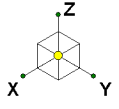


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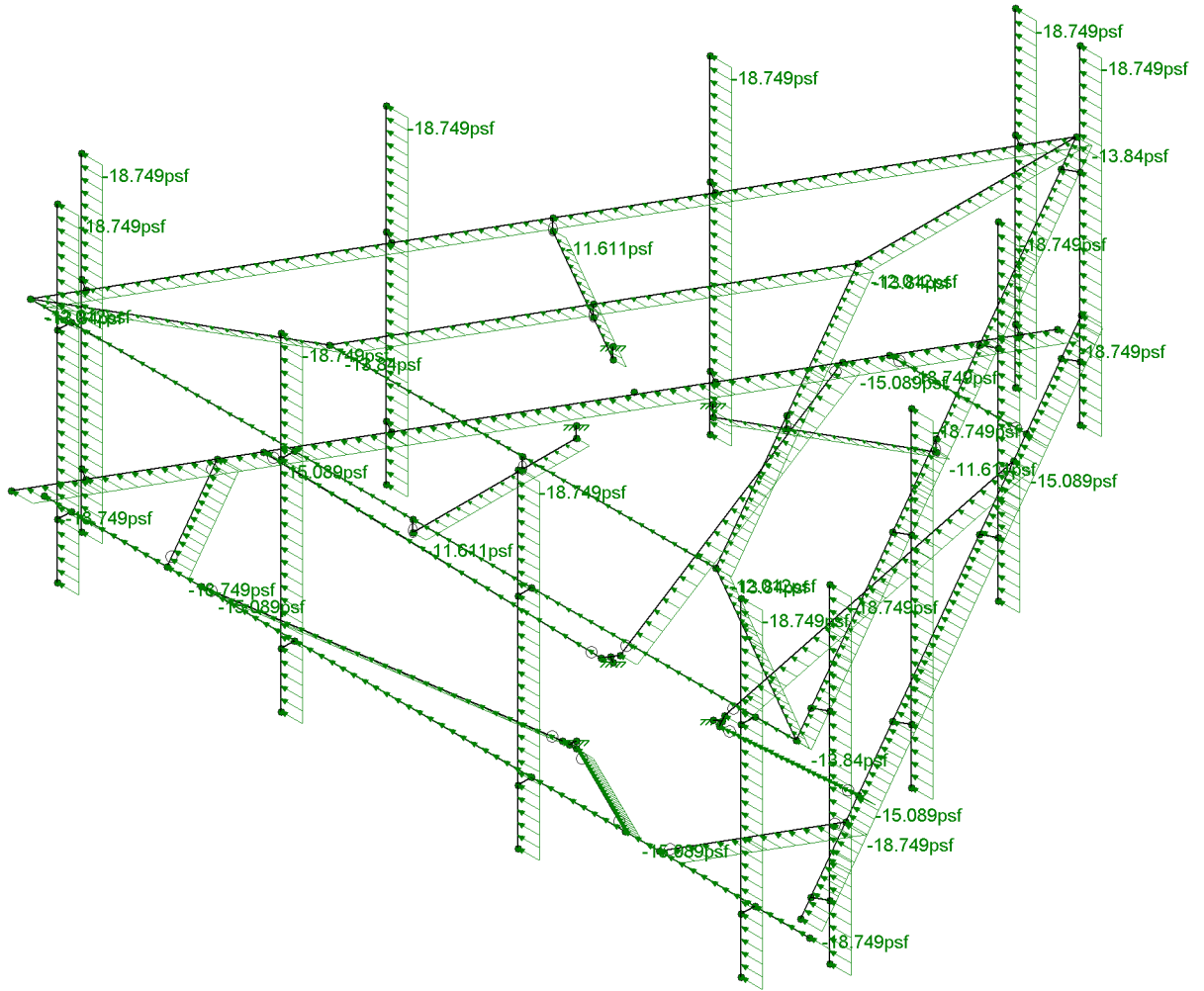
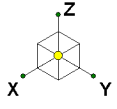


Loads: BLC 13, Ice Structure Wind X
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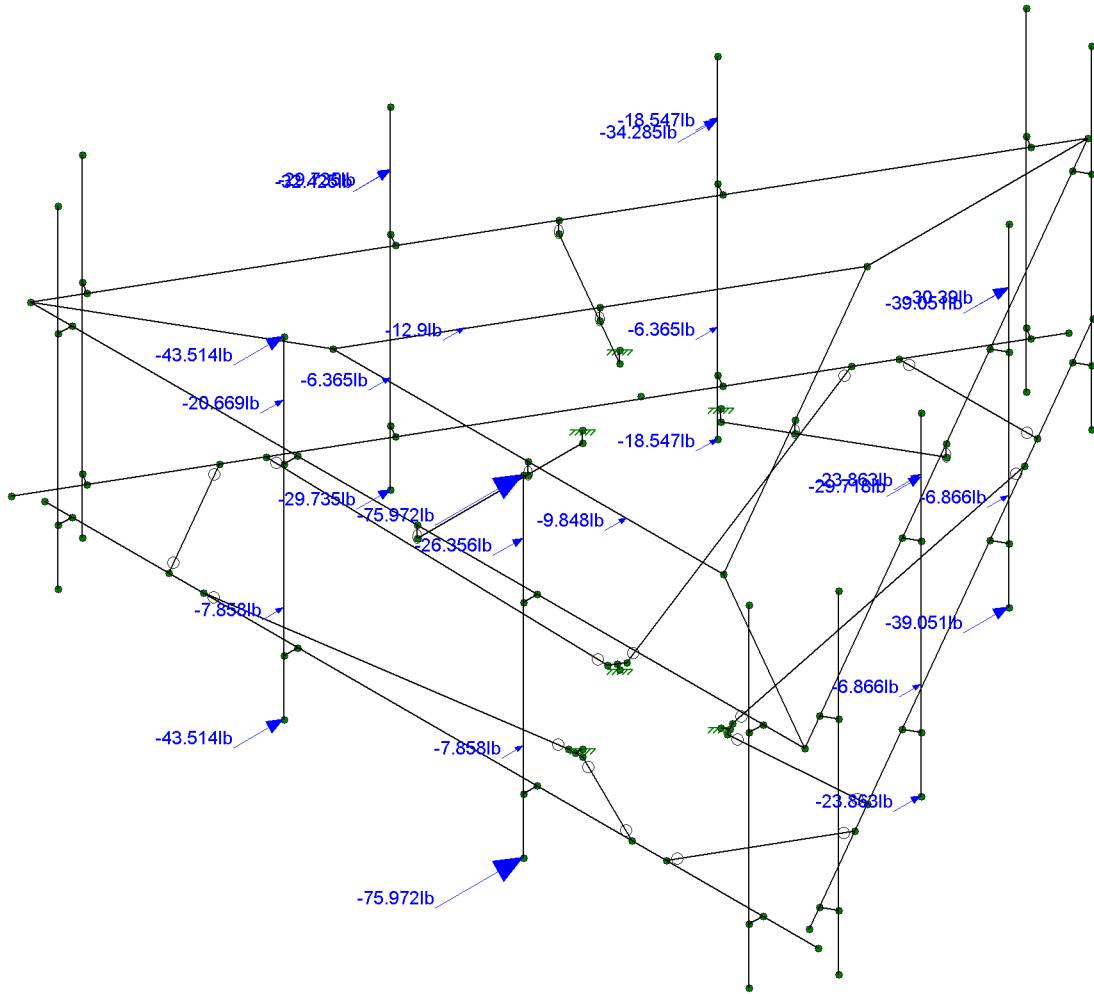
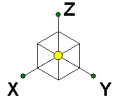


Loads: BLC 14, Ice Structure Wind Y
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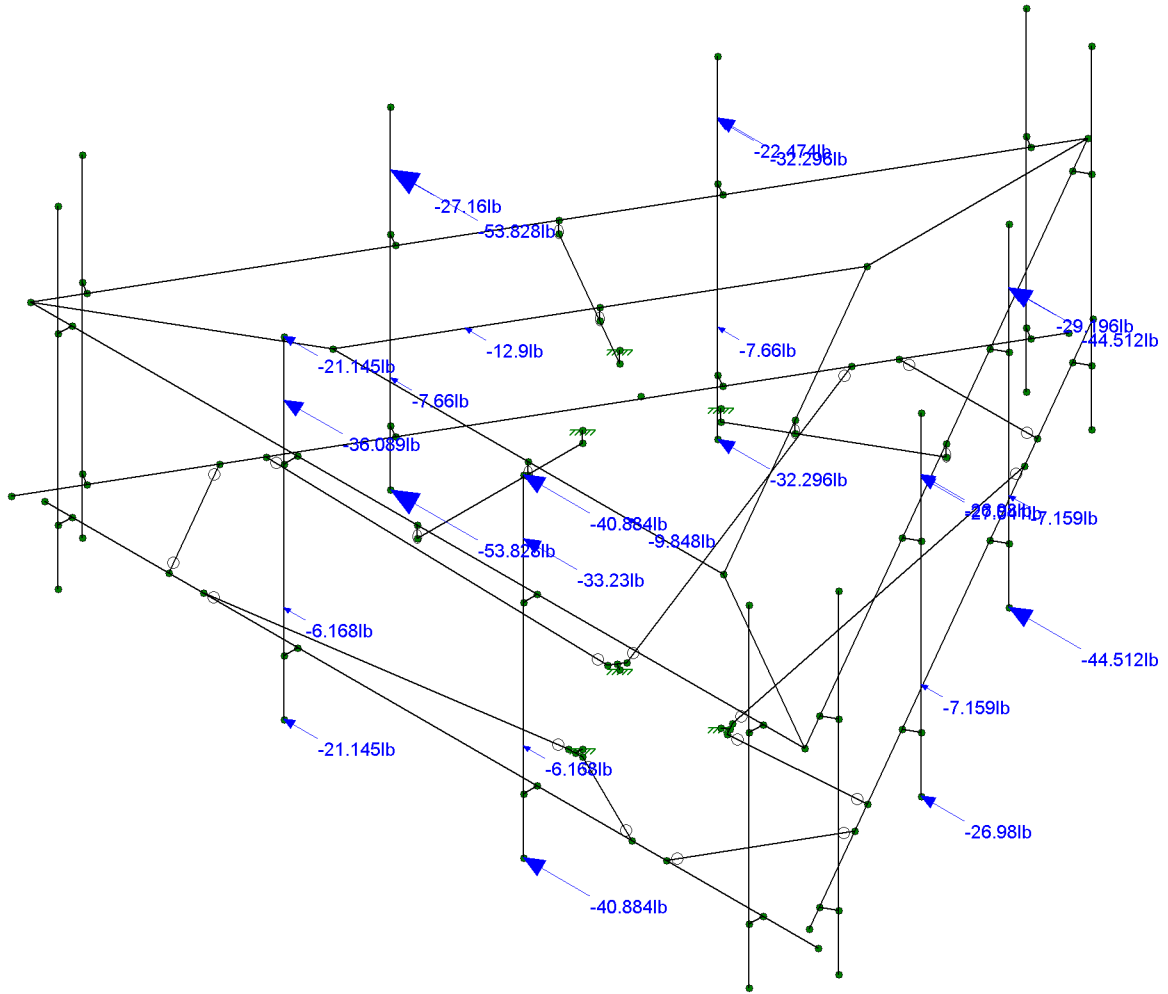
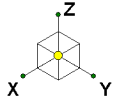


Loads: BLC 15, Ice Wind Load 0 AZI
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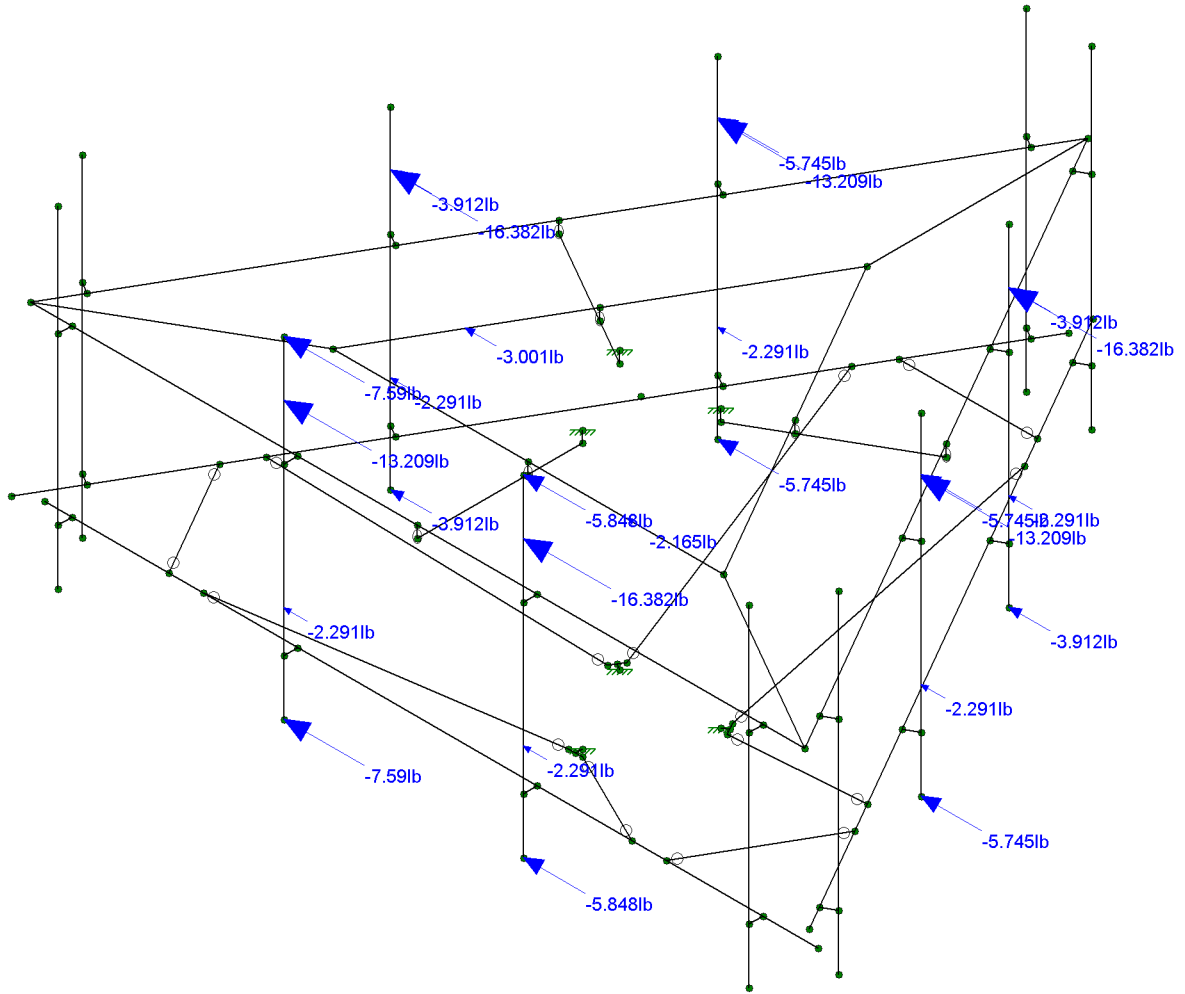
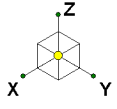


Loads: BLC 19, Ice Wind Load 90 AZI
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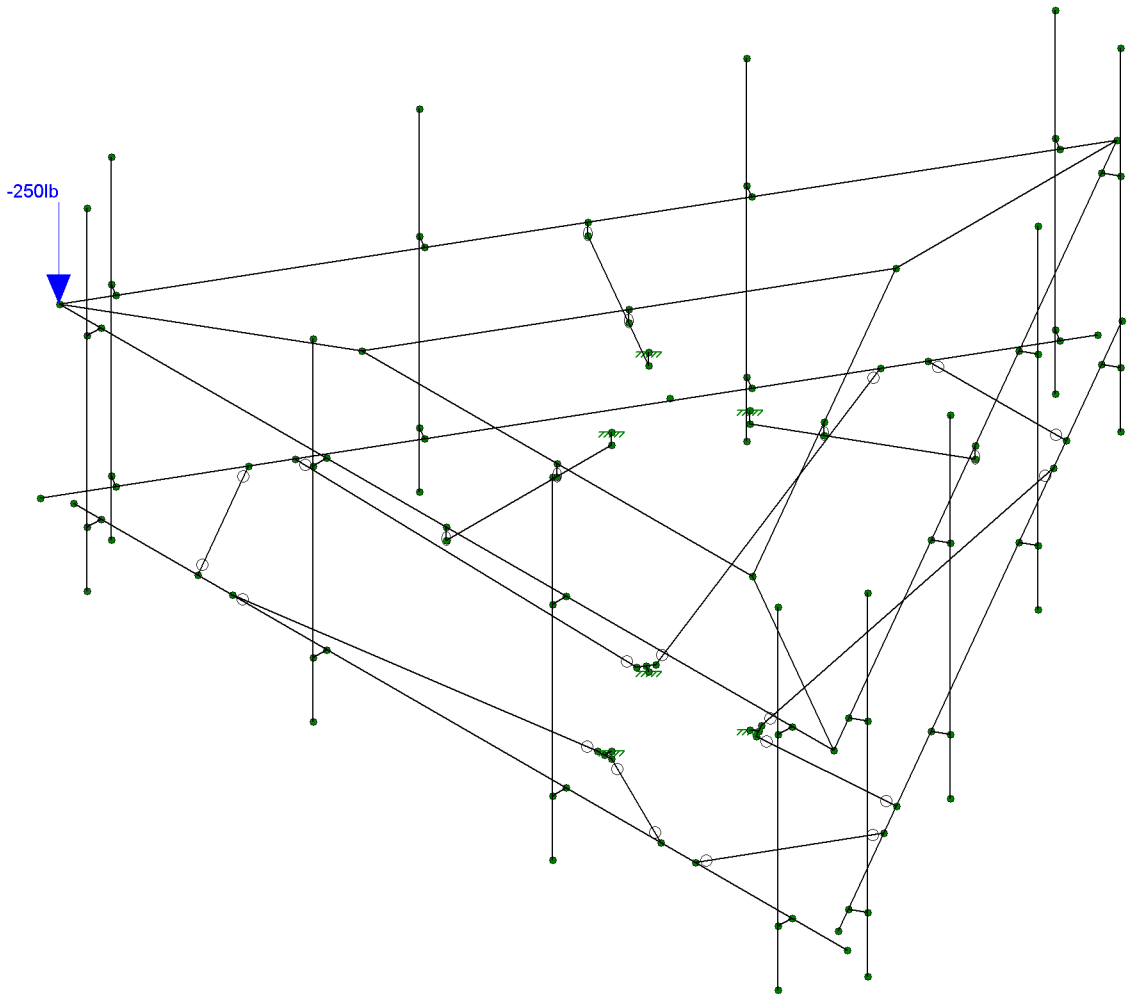
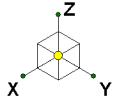


Loads: BLC 24, Seismic Load Y
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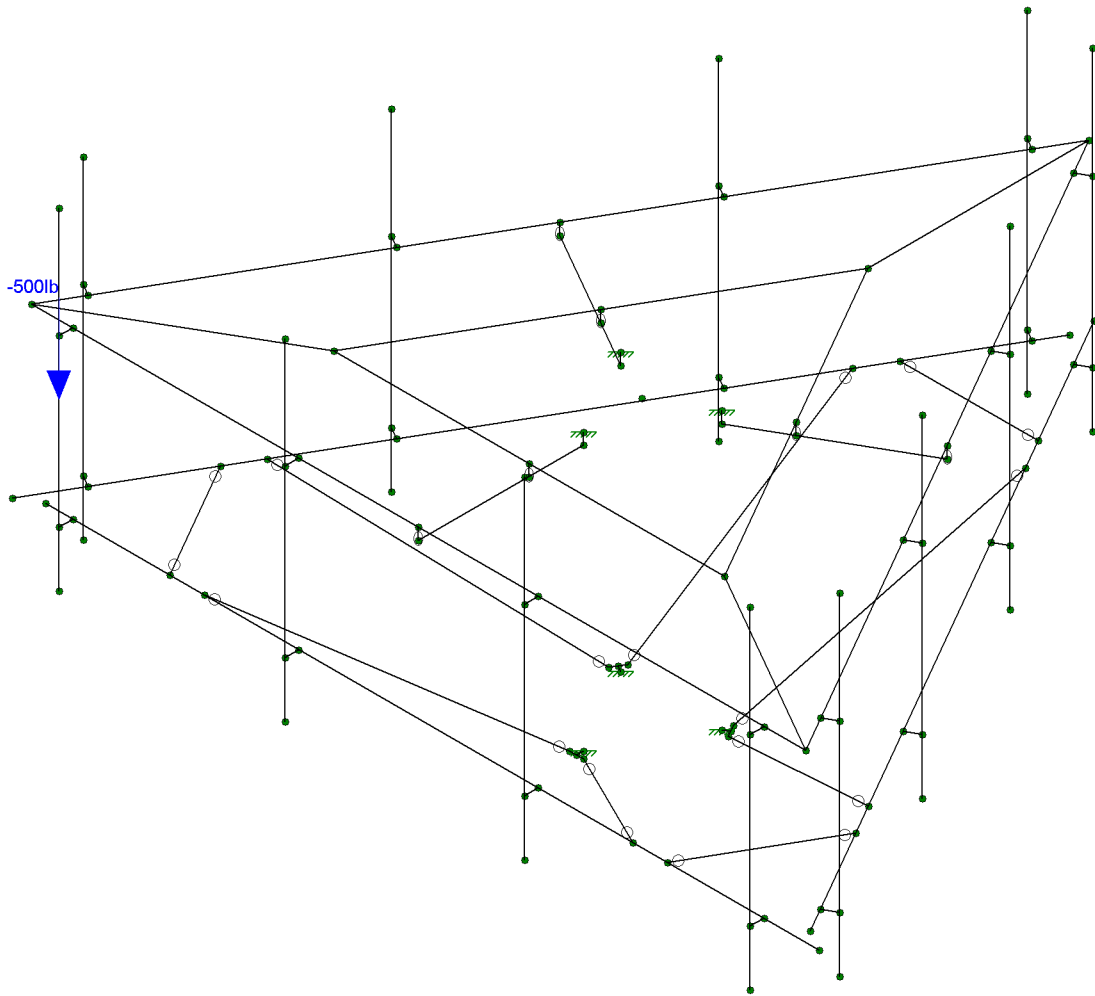
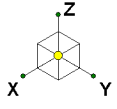


Loads: BLC 25, Live Load 1 (Lv)
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Loads: BLC 34, Maintenance Load 1 (Lm)
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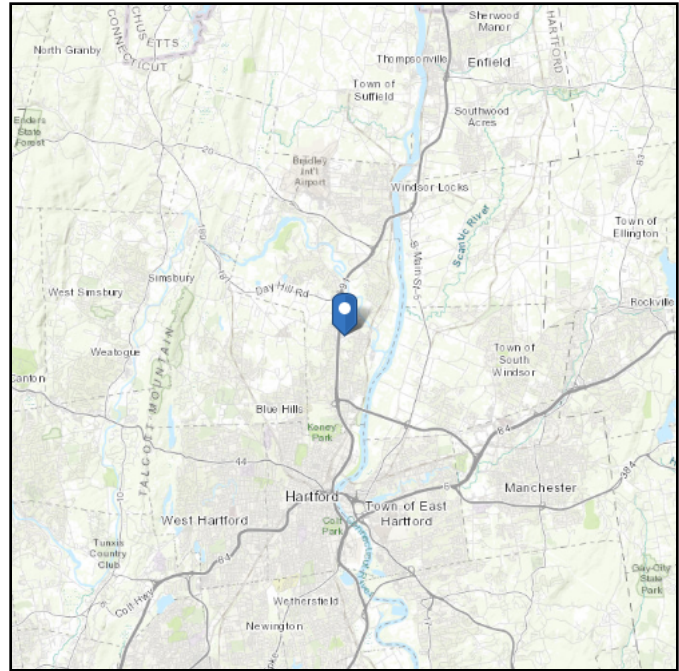
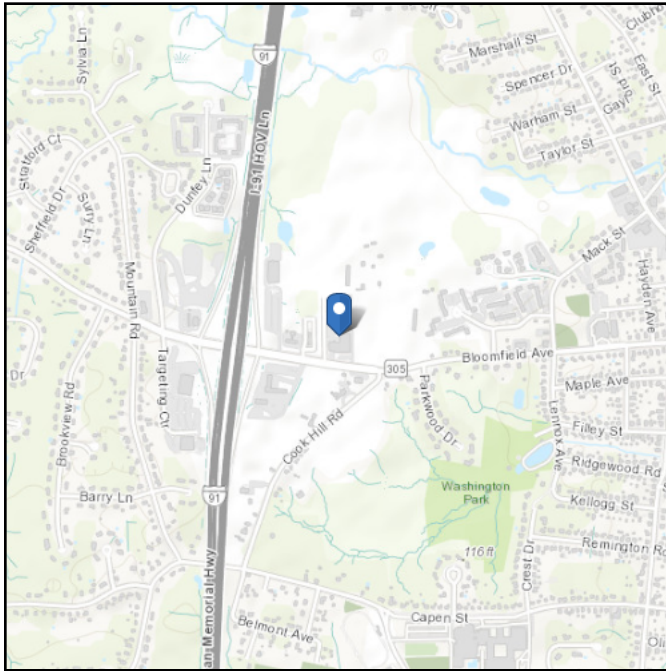
APPENDIX B
SOFTWARE INPUT CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)

Latitude: 41.852594
Longitude: -72.660497
Elevation: 115.16 ft (NAVD 88)



Ice

Results:

Ice Thickness: 1.50 in.
Concurrent Temperature: 5 F
Gust Speed: 50 mph

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

Date Accessed: Tue Jan 31 2023

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

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

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.



Trylon

1825 W. Walnut Hill Lane, Suite 120
Irving, Texas 75038

TIA LOAD CALCULATOR 2.2

PROJECT DATA	
Job Code:	223271
Carrier Site ID:	CTL05138
Carrier Site Name:	Windsor Central

CODES AND STANDARDS	
Building Code:	2021 IBC
Local Building Code:	2022 CT State Building Code
Design Standard:	TIA-222-H

STRUCTURE DETAILS		
Mount Type:	Platform	--
Mount Elevation:	148.0	ft.
Number of Sectors:	3	--
Structure Type:	Monopole	--
Structure Height:	148.0	ft.

ANALYSIS CRITERIA		
Structure Risk Category:	II	--
Exposure Category:	C	--
Site Class:	D - Default	--
Ground Elevation:	115.16	ft.

TOPOGRAPHIC DATA		
Topographic Category:	1.00	--
Topographic Feature:	N/A	--
Crest Point Elevation:	0.00	ft.
Base Point Elevation:	0.00	ft.
Crest to Mid-Height (L/2):	0.00	ft.
Distance from Crest (x):	0.00	ft.
Base Topo Factor (K_{zt}):	1.00	--
Mount Topo Factor (K_{zt}):	1.00	--

WIND PARAMETERS		
Design Wind Speed:	125	mph
Wind Escalation Factor (K_s):	1.00	--
Velocity Coefficient (K_z):	1.37	--
Directionality Factor (K_d):	0.95	--
Gust Effect Factor (G _h):	1.00	--
Shielding Factor (K_a):	0.90	--
Velocity Pressure (q_z):	52.01	psf
Ground Elevation Factor (K_e):	1.00	--

ICE PARAMETERS		
Design Ice Wind Speed:	50	mph
Design Ice Thickness (t_i):	1.50	in
Importance Factor (I_i):	1.00	--
Ice Velocity Pressure (q_{zi}):	7.04	psf
Mount Ice Thickness (t_{iz}):	1.74	in

WIND STRUCTURE CALCULATIONS		
Flat Member Pressure:	93.63	psf
Round Member Pressure:	56.18	psf
Ice Wind Pressure:	7.60	psf

SEISMIC PARAMETERS		
Importance Factor (I_e):	1.00	--
Short Period Accel. (S_s):	0.179	g
1 Second Accel. (S_1):	0.064	g
Short Period Des. (S_{DS}):	0.19	g
1 Second Des. (S_{D1}):	0.10	g
Short Period Coeff. (F_a):	1.60	--
1 Second Coeff. (F_v):	2.40	--
Response Coefficient (C_s):	0.10	--
Amplification Factor (A_S):	1.20	--

LOAD COMBINATIONS [LRFD]

#	Description
1	1.4DL
2	1.2DL + 1WL 0 AZI
3	1.2DL + 1WL 30 AZI
4	1.2DL + 1WL 45 AZI
5	1.2DL + 1WL 60 AZI
6	1.2DL + 1WL 90 AZI
7	1.2DL + 1WL 120 AZI
8	1.2DL + 1WL 135 AZI
9	1.2DL + 1WL 150 AZI
10	1.2DL + 1WL 180 AZI
11	1.2DL + 1WL 210 AZI
12	1.2DL + 1WL 225 AZI
13	1.2DL + 1WL 240 AZI
14	1.2DL + 1WL 270 AZI
15	1.2DL + 1WL 300 AZI
16	1.2DL + 1WL 315 AZI
17	1.2DL + 1WL 330 AZI
18	0.9DL + 1WL 0 AZI
19	0.9DL + 1WL 30 AZI
20	0.9DL + 1WL 45 AZI
21	0.9DL + 1WL 60 AZI
22	0.9DL + 1WL 90 AZI
23	0.9DL + 1WL 120 AZI
24	0.9DL + 1WL 135 AZI
25	0.9DL + 1WL 150 AZI
26	0.9DL + 1WL 180 AZI
27	0.9DL + 1WL 210 AZI
28	0.9DL + 1WL 225 AZI
29	0.9DL + 1WL 240 AZI
30	0.9DL + 1WL 270 AZI
31	0.9DL + 1WL 300 AZI
32	0.9DL + 1WL 315 AZI
33	0.9DL + 1WL 330 AZI
34	1.2DL + 1DLi + 1WLi 0 AZI
35	1.2DL + 1DLi + 1WLi 30 AZI
36	1.2DL + 1DLi + 1WLi 45 AZI
37	1.2DL + 1DLi + 1WLi 60 AZI
38	1.2DL + 1DLi + 1WLi 90 AZI
39	1.2DL + 1DLi + 1WLi 120 AZI
40	1.2DL + 1DLi + 1WLi 135 AZI
41	1.2DL + 1DLi + 1WLi 150 AZI

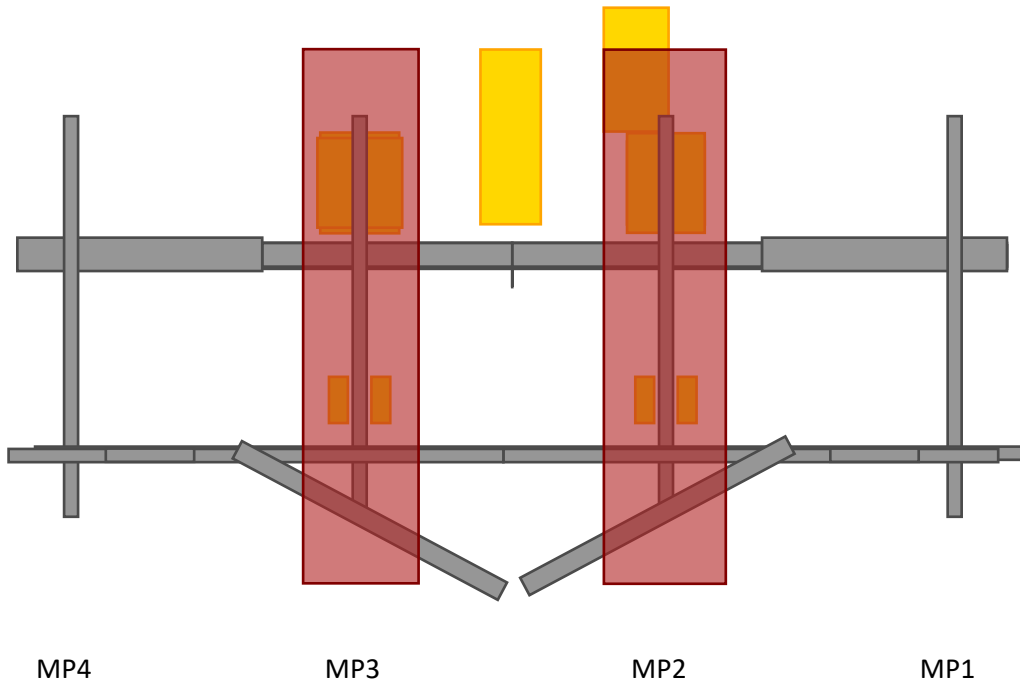
#	Description
42	1.2DL + 1DLi + 1WLi 180 AZI
43	1.2DL + 1DLi + 1WLi 210 AZI
44	1.2DL + 1DLi + 1WLi 225 AZI
45	1.2DL + 1DLi + 1WLi 240 AZI
46	1.2DL + 1DLi + 1WLi 270 AZI
47	1.2DL + 1DLi + 1WLi 300 AZI
48	1.2DL + 1DLi + 1WLi 315 AZI
49	1.2DL + 1DLi + 1WLi 330 AZI
50	(1.2+0.2Sds) + 1.0E 0 AZI
51	(1.2+0.2Sds) + 1.0E 30 AZI
52	(1.2+0.2Sds) + 1.0E 45 AZI
53	(1.2+0.2Sds) + 1.0E 60 AZI
54	(1.2+0.2Sds) + 1.0E 90 AZI
55	(1.2+0.2Sds) + 1.0E 120 AZI
56	(1.2+0.2Sds) + 1.0E 135 AZI
57	(1.2+0.2Sds) + 1.0E 150 AZI
58	(1.2+0.2Sds) + 1.0E 180 AZI
59	(1.2+0.2Sds) + 1.0E 210 AZI
60	(1.2+0.2Sds) + 1.0E 225 AZI
61	(1.2+0.2Sds) + 1.0E 240 AZI
62	(1.2+0.2Sds) + 1.0E 270 AZI
63	(1.2+0.2Sds) + 1.0E 300 AZI
64	(1.2+0.2Sds) + 1.0E 315 AZI
65	(1.2+0.2Sds) + 1.0E 330 AZI
66	(0.9-0.2Sds) + 1.0E 0 AZI
67	(0.9-0.2Sds) + 1.0E 30 AZI
68	(0.9-0.2Sds) + 1.0E 45 AZI
69	(0.9-0.2Sds) + 1.0E 60 AZI
70	(0.9-0.2Sds) + 1.0E 90 AZI
71	(0.9-0.2Sds) + 1.0E 120 AZI
72	(0.9-0.2Sds) + 1.0E 135 AZI
73	(0.9-0.2Sds) + 1.0E 150 AZI
74	(0.9-0.2Sds) + 1.0E 180 AZI
75	(0.9-0.2Sds) + 1.0E 210 AZI
76	(0.9-0.2Sds) + 1.0E 225 AZI
77	(0.9-0.2Sds) + 1.0E 240 AZI
78	(0.9-0.2Sds) + 1.0E 270 AZI
79	(0.9-0.2Sds) + 1.0E 300 AZI
80	(0.9-0.2Sds) + 1.0E 315 AZI
81	(0.9-0.2Sds) + 1.0E 330 AZI
82-88	1.2D + 1.5 Lv1

#	Description
89	1.2D + 1.5Lm + 1.0Wm 0 AZI - MP1
90	1.2D + 1.5Lm + 1.0Wm 30 AZI - MP1
91	1.2D + 1.5Lm + 1.0Wm 45 AZI - MP1
92	1.2D + 1.5Lm + 1.0Wm 60 AZI - MP1
93	1.2D + 1.5Lm + 1.0Wm 90 AZI - MP1
94	1.2D + 1.5Lm + 1.0Wm 120 AZI - MP1
95	1.2D + 1.5Lm + 1.0Wm 135 AZI - MP1
96	1.2D + 1.5Lm + 1.0Wm 150 AZI - MP1
97	1.2D + 1.5Lm + 1.0Wm 180 AZI - MP1
98	1.2D + 1.5Lm + 1.0Wm 210 AZI - MP1
99	1.2D + 1.5Lm + 1.0Wm 225 AZI - MP1
100	1.2D + 1.5Lm + 1.0Wm 240 AZI - MP1
101	1.2D + 1.5Lm + 1.0Wm 270 AZI - MP1
102	1.2D + 1.5Lm + 1.0Wm 300 AZI - MP1
103	1.2D + 1.5Lm + 1.0Wm 315 AZI - MP1
104	1.2D + 1.5Lm + 1.0Wm 330 AZI - MP1
105	1.2D + 1.5Lm + 1.0Wm 0 AZI - MP2
106	1.2D + 1.5Lm + 1.0Wm 30 AZI - MP2
107	1.2D + 1.5Lm + 1.0Wm 45 AZI - MP2
108	1.2D + 1.5Lm + 1.0Wm 60 AZI - MP2
109	1.2D + 1.5Lm + 1.0Wm 90 AZI - MP2
110	1.2D + 1.5Lm + 1.0Wm 120 AZI - MP2
111	1.2D + 1.5Lm + 1.0Wm 135 AZI - MP2
112	1.2D + 1.5Lm + 1.0Wm 150 AZI - MP2
113	1.2D + 1.5Lm + 1.0Wm 180 AZI - MP2
114	1.2D + 1.5Lm + 1.0Wm 210 AZI - MP2
115	1.2D + 1.5Lm + 1.0Wm 225 AZI - MP2
116	1.2D + 1.5Lm + 1.0Wm 240 AZI - MP2
117	1.2D + 1.5Lm + 1.0Wm 270 AZI - MP2
118	1.2D + 1.5Lm + 1.0Wm 300 AZI - MP2
119	1.2D + 1.5Lm + 1.0Wm 315 AZI - MP2
120	1.2D + 1.5Lm + 1.0Wm 330 AZI - MP2

#	Description
121	1.2D + 1.5Lm + 1.0Wm 0 AZI - MP3
122	1.2D + 1.5Lm + 1.0Wm 30 AZI - MP3
123	1.2D + 1.5Lm + 1.0Wm 45 AZI - MP3
124	1.2D + 1.5Lm + 1.0Wm 60 AZI - MP3
125	1.2D + 1.5Lm + 1.0Wm 90 AZI - MP3
126	1.2D + 1.5Lm + 1.0Wm 120 AZI - MP3
127	1.2D + 1.5Lm + 1.0Wm 135 AZI - MP3
128	1.2D + 1.5Lm + 1.0Wm 150 AZI - MP3
129	1.2D + 1.5Lm + 1.0Wm 180 AZI - MP3
130	1.2D + 1.5Lm + 1.0Wm 210 AZI - MP3
131	1.2D + 1.5Lm + 1.0Wm 225 AZI - MP3
132	1.2D + 1.5Lm + 1.0Wm 240 AZI - MP3
133	1.2D + 1.5Lm + 1.0Wm 270 AZI - MP3
134	1.2D + 1.5Lm + 1.0Wm 300 AZI - MP3
135	1.2D + 1.5Lm + 1.0Wm 315 AZI - MP3
136	1.2D + 1.5Lm + 1.0Wm 330 AZI - MP3
137	1.2D + 1.5Lm + 1.0Wm 0 AZI - MP4
138	1.2D + 1.5Lm + 1.0Wm 30 AZI - MP4
139	1.2D + 1.5Lm + 1.0Wm 45 AZI - MP4
140	1.2D + 1.5Lm + 1.0Wm 60 AZI - MP4
141	1.2D + 1.5Lm + 1.0Wm 90 AZI - MP4
142	1.2D + 1.5Lm + 1.0Wm 120 AZI - MP4
143	1.2D + 1.5Lm + 1.0Wm 135 AZI - MP4
144	1.2D + 1.5Lm + 1.0Wm 150 AZI - MP4
145	1.2D + 1.5Lm + 1.0Wm 180 AZI - MP4
146	1.2D + 1.5Lm + 1.0Wm 210 AZI - MP4
147	1.2D + 1.5Lm + 1.0Wm 225 AZI - MP4
148	1.2D + 1.5Lm + 1.0Wm 240 AZI - MP4
149	1.2D + 1.5Lm + 1.0Wm 270 AZI - MP4
150	1.2D + 1.5Lm + 1.0Wm 300 AZI - MP4
151	1.2D + 1.5Lm + 1.0Wm 315 AZI - MP4
152	1.2D + 1.5Lm + 1.0Wm 330 AZI - MP4

*This page shows an example of maintenance loads for (4) pipes, the number of mount pipe LCs may vary per site

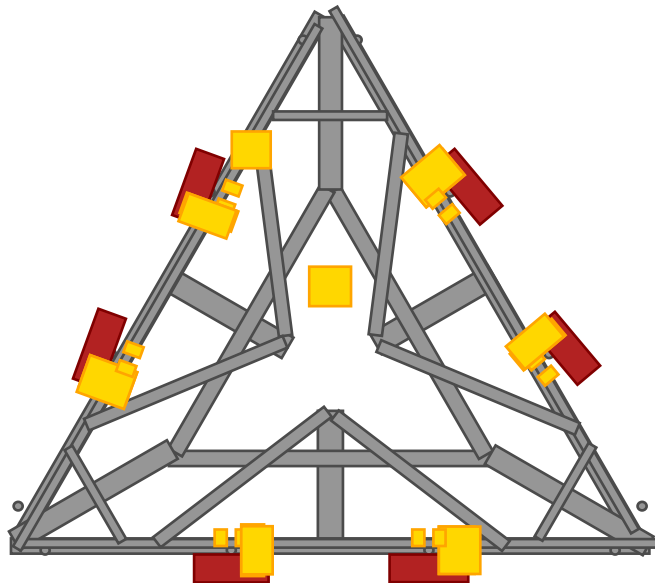
ELEVATION VIEW



*these drawings are intended to show approximate locations of equipment on the mount and should not be used to determine exact placement of equipment or additional hardware

**Elevation View Shows Only One Sector

PLAN VIEW



APPENDIX C
SOFTWARE ANALYSIS OUTPUT

A Ya Vyf'8]g]f]Vi hYX' @ UXg'f6 @ ' ' : 'Gfi Wi fY'K]bX'ML'f7 cb]bi YXL

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G	T H I	Ü Y	Ë H É G	Ë H É G	€	À F E E
H E	T H I	Ü Y	Ë H É G	Ë H É G	€	À F E E
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H G	T H U	Ü Y	Ë H É G	Ë H É G	€	À F E E
H H	T I €	Ü Y	Ë H É G	Ë H É G	€	À F E E
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H I	T I I	Ü Y	Ë H É G	Ë H É G	€	À F E E
H I	T I I	Ü Y	Ë H É G	Ë H É G	€	À F E E
H I	T I I	Ü Y	Ë H É G	Ë H É G	€	À F E E
H I	T I I	Ü Y	Ë H É G	Ë H É G	€	À F E E
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I F	T I I	Ü Y	Ë H É G	Ë H É G	€	À F E E
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I I	T I O E	Ü Y	Ë I É I	Ë I É I	€	À F E E
I J	T I I	Ü Y	Ë I É I	Ë I É I	€	À F E E
I €	T I O E	Ü Y	Ë I É I	Ë I É I	€	À F E E
I F	T I I	Ü Y	Ë I É I	Ë I É I	€	À F E E
I G	T I O E	Ü Y	Ë H É G	Ë H É G	€	À F E E
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I J	T I I	Ü Y	Ë H É G	Ë H É G	€	À F E E
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I F	T I J	Ü Y	Ë H É G	Ë H É G	€	À F E E
I G	T I €	Ü Y	Ë H É G	Ë H É G	€	À F E E
I H	T I F	Ü Y	Ë H É G	Ë H É G	€	À F E E
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A Ya Vyf'8]g]f]Vi hYX' @ UXg'f6 @ '% : =W'Gfi Wi fY'K jX'ML

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H	TH	ÜY	ËËË FF	ËËË FF	€	Ã FEE
I	PF	ÜY	ËËË I	ËËË I	€	Ã FEE
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FH	T ÚI	ÜY	ËËË I J	ËËË I J	€	Ã FEE
FI	T ÚH	ÜY	ËËË I J	ËËË I J	€	Ã FEE
FÍ	T ÚG	ÜY	ËËË I J	ËËË I J	€	Ã FEE
FĪ	T ÚF	ÜY	ËËË I J	ËËË I J	€	Ã FEE
Fİ	T ÚFG	ÜY	ËËË I J	ËËË I J	€	Ã FEE
FÌ	T ÚFF	ÜY	ËËË I J	ËËË I J	€	Ã FEE
FJ	T ÚF€	ÜY	ËËË I J	ËËË I J	€	Ã FEE
Q€	T ÚJ	ÜY	ËËË I J	ËËË I J	€	Ã FEE
QF	T ÚI	ÜY	ËËË I J	ËËË I J	€	Ã FEE
QG	T ÚÍ	ÜY	ËËË I J	ËËË I J	€	Ã FEE
QH	T ÚĪ	ÜY	ËËË I J	ËËË I J	€	Ã FEE
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Q̈	T HF	ÜY	€	€	€	Ã FEE
Q̉	T HH	ÜY	€	€	€	Ã FEE
Q̊	T HÍ	ÜY	€	€	€	Ã FEE
GJ	T HĪ	ÜY	€	€	€	Ã FEE
H€	T HÌ	ÜY	€	€	€	Ã FEE
HF	T H	ÜY	€	€	€	Ã FEE
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APPENDIX D
ADDITIONAL CALCULATIONS

BOLT TOOL 1.5.2

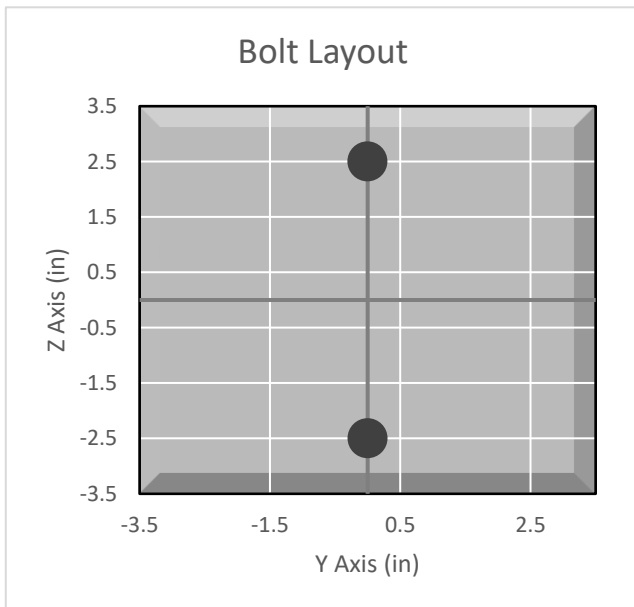
Project Data	
Job Code:	223271
Carrier Site ID:	CTL05138
Carrier Site Name:	Windsor Central

Code	
Design Standard:	TIA-222-H
Slip Check:	No
Pretension Standard:	AISC

Bolt Properties		
Connection Type:	Bolt	
Diameter:	1	in
Grade:	A325	--
Yield Strength (Fy):	92	ksi
Ultimate Strength (Fu):	120	ksi
Number of Bolts:	2	--
Threads Included:	Yes	--
Double Shear:	No	--
Connection Pipe Size:	-	in

Connection Description
Mount to Tower Plate

Bolt Check		
Tensile Capacity (ϕT_n):	54517.0	lbs
Shear Capacity (ϕV_n):	35342.9	lbs
Tension Force (T_u):	11383.2	lbs
Shear Force (V_u):	332.3	lbs
Tension Usage:	20.9%	--
Shear Usage:	0.9%	--
Interaction:	20.9%	Pass
Controlling Member:	M38	--
Controlling LC:	42	--



BOLT TOOL 1.5.2

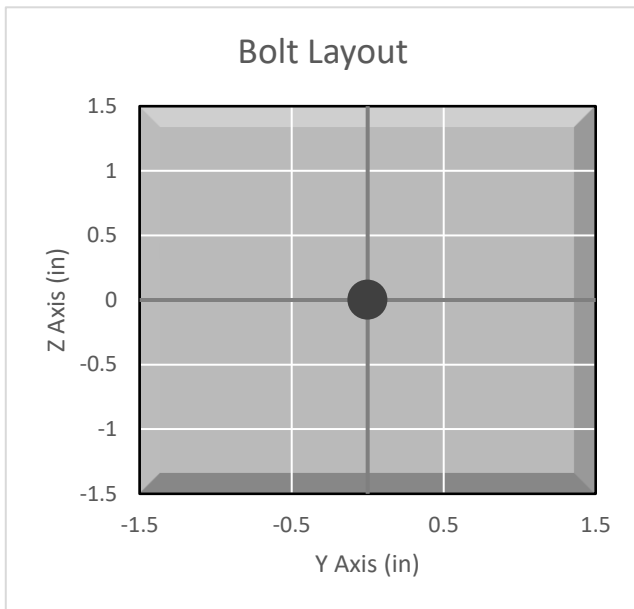
Project Data	
Job Code:	223271
Carrier Site ID:	CTL05138
Carrier Site Name:	Windsor Central

Code	
Design Standard:	TIA-222-H
Slip Check:	No
Pretension Standard:	AISC

Bolt Properties		
Connection Type:	Bolt	
Diameter:	0.5	in
Grade:	A325	--
Yield Strength (Fy):	92	ksi
Ultimate Strength (Fu):	120	ksi
Number of Bolts:	1	--
Threads Included:	Yes	--
Double Shear:	Yes	--
Connection Pipe Size:	-	in

Connection Description
Stabilizer 1 Bolt

Bolt Check		
Tensile Capacity (ϕT_n):	12770.9	lbs
Shear Capacity (ϕV_n):	8835.7	lbs
Tension Force (T_u):	0.0	lbs
Shear Force (V_u):	1544.7	lbs
Tension Usage:	0.0%	--
Shear Usage:	17.5%	--
Interaction:	17.5%	Pass
Controlling Member:	M79	--
Controlling LC:	34	--



APPENDIX E
MOUNT MODIFICATION DESIGN DRAWINGS (MDD)



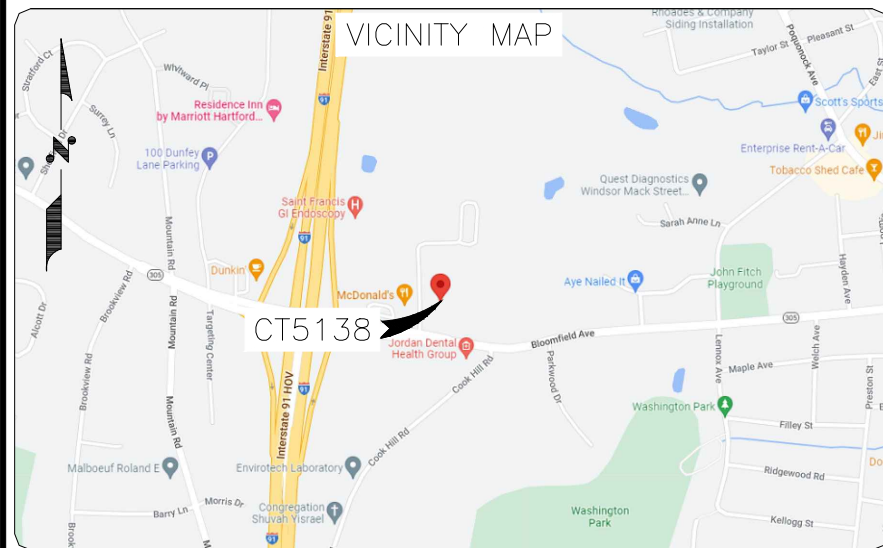
UPGRADE:
MOUNT REINFORCEMENT



1220 AUGUSTA DRIVE SUIT 500
HOUSTON, TX 77057



1825 W. WALNUT HILL LANE, SUITE 120
IRVING, TEXAS 75038
1-855-669-5421



SITE NAME:
WINDSORCENTRAL

SITE NUMBER:
CT5138

FA NUMBER:
10092835

CROWN CASTLE BU#:
855662

SITE ADDRESS:

340 BLOOMFIELD AVENUE,
WINDSOR, CT 06095

PROJECT INFORMATION

SCOPE OF WORK:

REINFORCE AS FOLLOWS:

- INSTALL NEW SITE PRO 1, PRK-SFS-L STABILIZER KIT CONNECTED TO THE HANDRAIL. THE COLLAR STABILIZER MUST BE INSTALLED AT APPROX. 60" BELOW THE PLATFORM CONNECTION. FIELD CUT THE STABILIZER MEMBERS IF IT'S NEEDED.

JURISDICTION:

HARTFORD COUNTY

SITE NAME:

WINDSORCENTRAL

SITE ADDRESS:

340 BLOOMFIELD AVENUE, WINDSOR, CT 06095

LATITUDE:

41° 51' 09.34"

LONGITUDE:

-72° 39' 37.79"

TOWER TYPE:

MONOPOLE

OVERALL TOWER HEIGHT:

148'

ELEVATION OF WORK ON TOWER:

148'

DRAWING SCALES ARE INTENDED FOR 24"x36" SIZE PRINTED MEDIA ONLY. ALL OTHER PRINTED SIZES ARE DEEMED "NOT TO SCALE".

SUBMITTALS

REV	DATE	DESCRIPTION	BY
0	05/25/22	FOR REVIEW	RC
1	01/31/23	REVISED	RC

GENERAL NOTES

PRIOR TO ACCESSING/ ENTERING THE SITE, YOU MUST CONTACT THE CROWN NOC AT 800-788-7011 AND CROWN CM CHAD STEINHOFF- 214-287-3756, CHAD.STEINHOFF@CROWNCastle.COM

THE HEIGHT OF THE TOWER WILL NOT BE INCREASED, NOR AN EXPANSION OF THE GROUND/ LEASE AREA WHEN AND WHERE APPLICABLE

BUILDING CODES

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL AUTHORITIES HAVING JURISDICTION

- 2022 CONNECTICUT STATE BUILDING CODE
- UNIFORM BUILDING CODE
- CITY/COUNTY ORDINANCES
- TIA-222-H



IF YOU DIG IN ANY STATE DIAL 811 FOR THE LOCAL "ONE CALL CENTER" IT'S THE LAW

THE UTILITIES SHOWN HEREIN ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER/SURVEYOR ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL THE UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO THE EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

APPROVALS

AT&T CONSTRUCTION MANAGER	AT&T RF ENGINEER
LAND USE PLANNER	NETWORK OPERATION
PROPERTY OWNER	CONTRACTOR

DRIVING DIRECTION

FROM BRADLEY INTERNATIONAL AIRPORT:
HEAD NORTH TOWARD BRADLEY INTERNATIONAL AIRPORT (351 FT). SLIGHT LEFT ONTO BRADLEY INTERNATIONAL AIRPORT (0.4 MI). CONTINUE STRAIGHT (0.3 MI). KEEP RIGHT TO CONTINUE TOWARD BRADLEY INTERNATIONAL AIRPORT CON (0.1 MI). CONTINUE ONTO BRADLEY INTERNATIONAL AIRPORT CON (1.2 MI). CONTINUE ONTO CT-20 E/BRADLEY INTERNATIONAL AIRPORT CON (2.6 MI). USE THE RIGHT 2 LANES TO MERGE WITH I-91 S TOWARD HARTFORD (3.5 MI). TAKE EXIT 37 FOR CT-305/BLOOMFIELD AVE TOWARD WINDSOR CTR (0.3 MI). TURN LEFT ONTO CT-305 E/BLOOMFIELD AVE (0.2 MI). TURN LEFT ONTO WILLIAM ST (272 FT). TURN RIGHT (95 FT).

SHEET INDEX

SHEET #	DESCRIPTION	REVISION #
T-1	TITLE SHEET	0
S-1	MOUNT REINFORCEMENT	0
S-2	MOUNT REINFORCEMENT DETAIL	0

SITE INFORMATION

SITE NAME:
WINDSORCENTRAL
SITE NUMBER:
CT5138
FA NUMBER:
10092835
SITE ADDRESS:
340 BLOOMFIELD AVENUE,
WINDSOR, CT 06095

SHEET DESCRIPTION

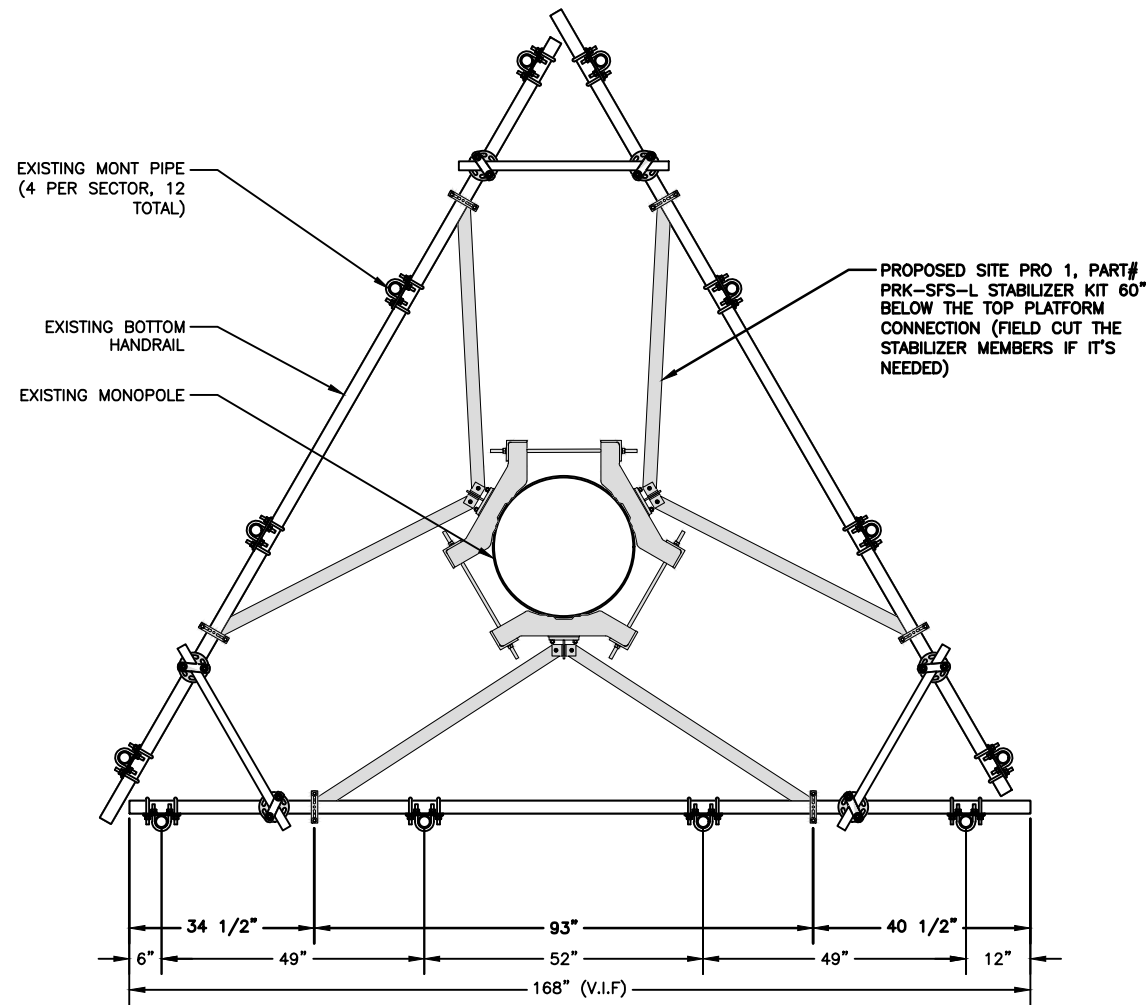
TITLE SHEET

SHEET No.

T-1

INSTALLATION NOTES:

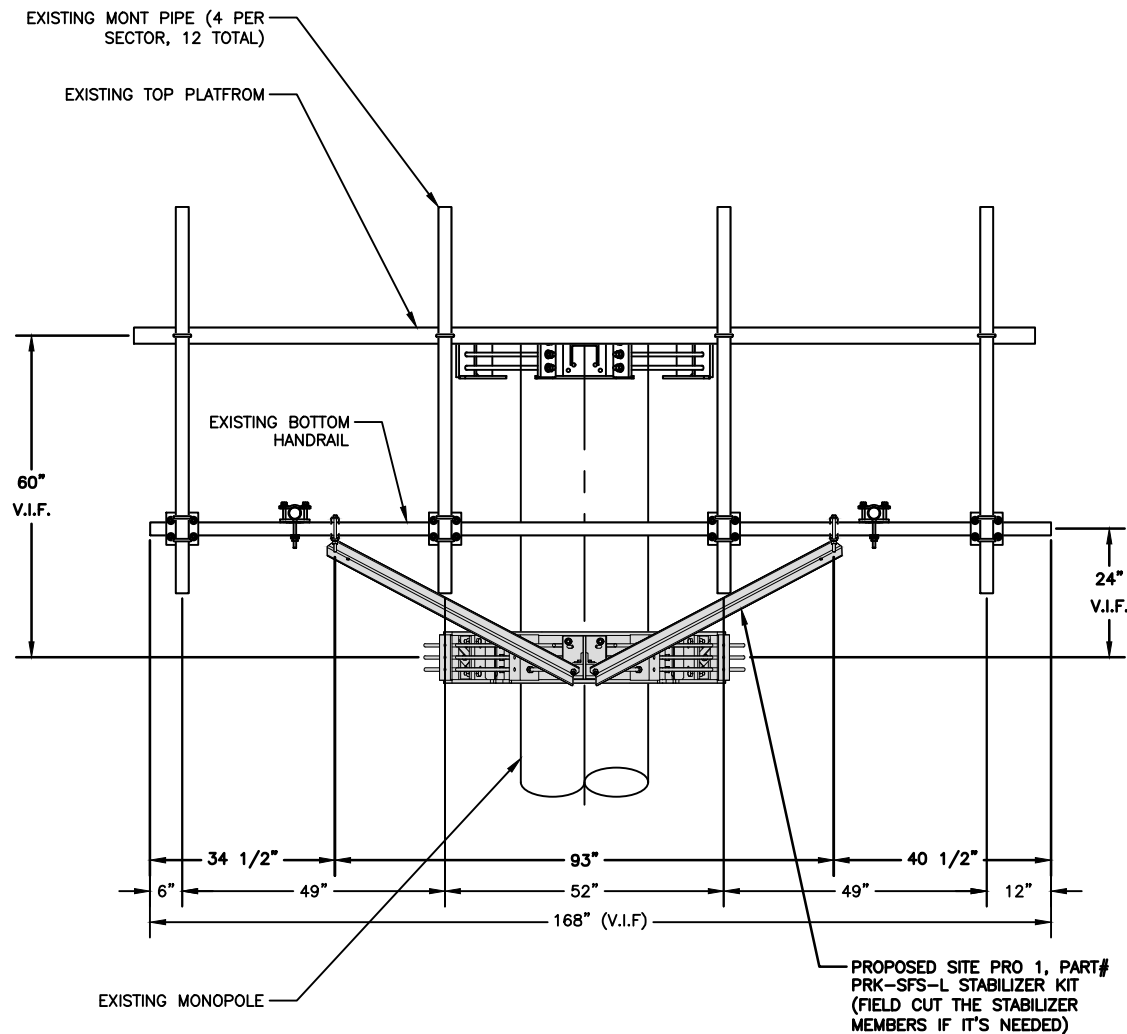
- INSTALL NEW SITE PRO 1, PRK-SFS-L STABILIZER KIT CONNECTED TO THE HANDRAIL. THE COLLAR STABILIZER MUST BE INSTALLED AT APPROX. 60" BELOW THE PLATFORM CONNECTION. FIELD CUT THE STABILIZER MEMBERS IF IT'S NEEDED.



EQUIPMENT NOT SHOWN FOR CLARITY.

1 PROPOSED BOTTOM PLAN VIEW (ALL SECTORS)
S-1 SCALE: 3/4" = 1'-0"

BILL OF MATERIALS		
QTY.	KIT NO./PART NO.	DESCRIPTION
1 TOTAL	PRK-SFS-L	STABILIZER KIT



EQUIPMENT NOT SHOWN FOR CLARITY.

2 PROPOSED ELEVATION VIEW (ALL SECTORS)
S-1 SCALE: 3/4" = 1'-0"

GENERAL NOTES:

1. ALL STEEL ANGLE TO BE ASTM A36 (GR 36) OR BETTER.
2. ALL STEEL PLATE TO BE ASTM A36 (GR 36) OR BETTER.
3. ALL PIPES TO BE ASTM A53 (GR 35) OR BETTER.
4. HOT DIP GALVANIZE LEVEL 3 PARTS.
5. APPLY TWO COATS OF GALVICON TO ALL FIELD CUT OR DRILL EDGES.
6. ALL BOLTS TO MAINTAIN 1" EDGE DISTANCE.



1220 AUGUSTA DRIVE SUIT 500
HOUSTON, TX 77057



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1-855-669-5421

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SUBMITTALS

REV	DATE	DESCRIPTION	BY
0	05/25/22	FOR REVIEW	RC
1	01/31/23	REVISED	RC

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340 BLOOMFIELD AVENUE,
WINDSOR, CT 06095

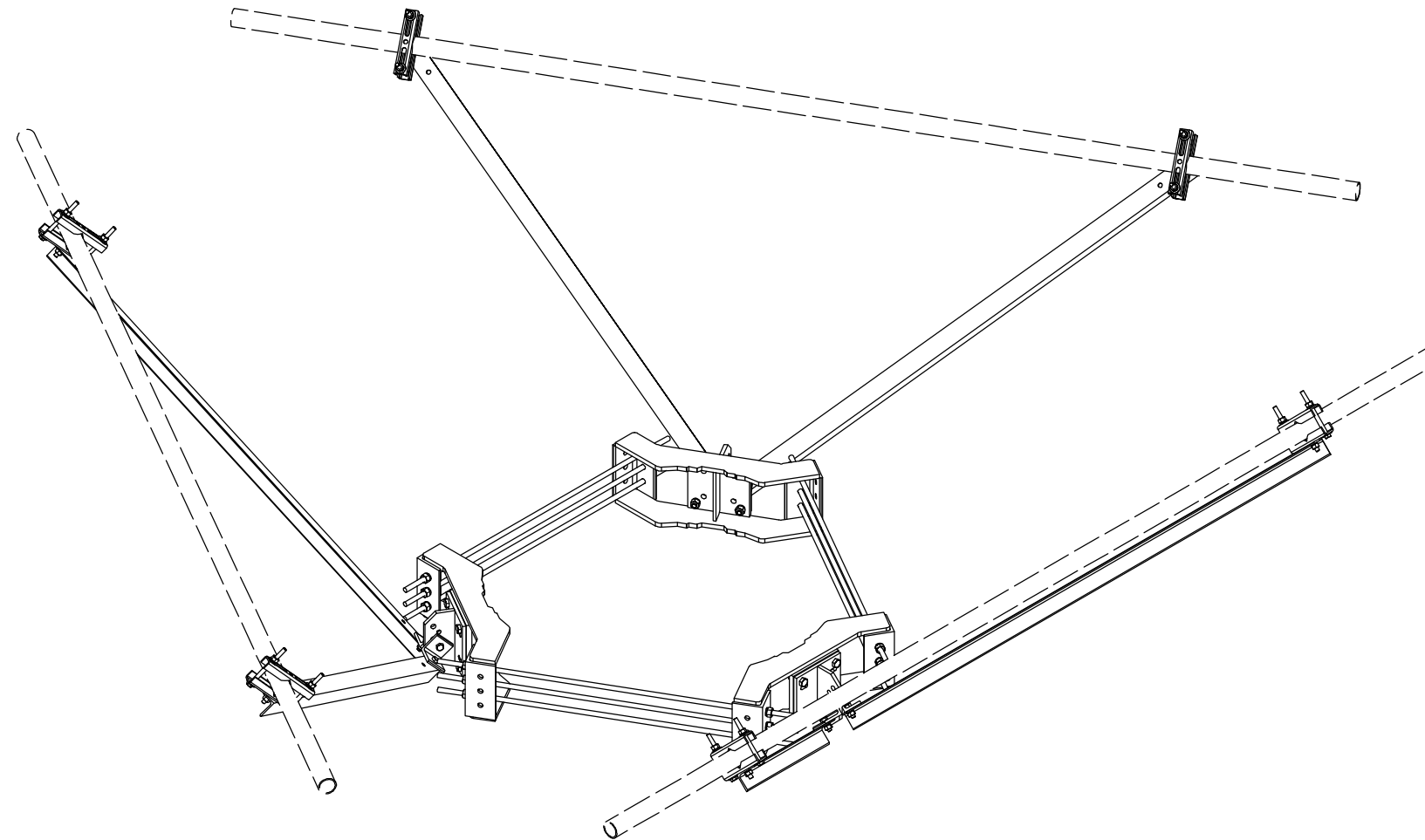
SHEET DESCRIPTION

MOUNT REINFORCEMENT

SHEET No.

S-1

MOUNT KIT	
PART NUMBER	DESCRIPTION
PRK-SFS-L	REINFORCEMENT ASSEMBLY KIT



1220 AUGUSTA DRIVE SUIT 500
HOUSTON, TX 77057



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SITE ADDRESS:
340 BLOOMFIELD AVENUE,
WINDSOR, CT 06095

SHEET DESCRIPTION

MOUNT REINFORCEMENT
DETAIL

SHEET No.

S-2