



October 21, 2021

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

Re: Notice of Exempt Modification – Antenna and RRU Add
Property Address: 331 Killingworth Road, Guilford, CT 06437
Applicant: AT&T Mobility, LLC

Dear Ms. Bachman:

On behalf of AT&T, please accept this application as notification pursuant to R.C.S.A. §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16- 50j-72(b) (2).

AT&T currently maintains a wireless telecommunications facility consisting of twelve (12) wireless telecommunication antennas at an antenna center line height of 152-feet on an existing 153'-foot Self-Support Tower, owned by Kathleen Bloomquist (f.k.a Kathleen Acampora) at 331 Route 80, Guilford, CT 06437. AT&T now intends to remove six (6) 6' CCI HPA-65R-BU6AA Panel Antennas, each currently installed in positions [1+2+3], and remove three (3) 4' Kathrein 7770 Panel Antenna, all currently installed in position [4+ 1]. AT&T then add three (3) 6' CCI OPA65R-BU6DA Panel Antennas, each to be installed in position [2+3, all sectors. In addition, AT&T intends to install three (3) RRUS-4478 B14 Remote Radio Units in positions [2+3], all sectors, for a total of three (3) new RRUs. AT&T is also proposing to install (6) Y-Cables to their equipment configuration. All of the changes will take place on the existing antenna mount. This modification/proposal includes B2, B5, and B12 hardware that is both 4G(LTE) and 5GNR capable through remote software configuration and either or both services may be turned on or off at various times

Attached is a summary of the planned modifications including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

Please accept this letter pursuant to Regulation 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., a copy of this letter is being sent to George Kral – Town Planner, Town of Guilford, CT at 31 Park Street, Guilford, CT 06437 and Matthew T. Hoey III – First Selectman, Town of Guilford, CT at 31 Park Street, Guilford, CT 06437. A copy of this letter is being sent to the property owner Kathleen Bloomquist (f.k.a Kathleen Acampora) at 331 Route 80, Guilford, CT 06437, and the Tower Owner, SBA Towers at 8051 Congress Ave, Boca Raton, FL 33487.

The following is a list of subsequent decisions by the Connecticut Siting Council:

- **EM-AT&T-060-021001** - AT&T Wireless PCS, LLC d/b/a AT&T Wireless notice of intent to modify an existing telecommunications facility located at 331 Killingworth Road (Route 80), Guilford, Connecticut.
- **EM-CING-060-080723** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 331 Killingworth Road, Guilford, Connecticut.
- **EM-CING-060-081024** - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 331 Killingworth Road, Guilford, Connecticut.
- **EM-AT&T-060-121228** – AT&T Mobility notice of intent to modify an existing telecommunications facility located at 331 Killingworth Road, Guilford, Connecticut.
- **EM-AT&T-060-170329** – AT&T notice of intent to modify an existing telecommunications facility located at 331 Killingworth Road, Guilford, Connecticut.
- **EM-AT&T-060-190312** - AT&T notice of intent to modify an existing telecommunications facility located at 331 Killingworth Road (a/k/a Route 80), Guilford, Connecticut.

The planned modifications to AT&T's facility fall squarely within those activities explicitly provided for in R.C.S.A. §16-50j-



72(b) (2).

1. The proposed modifications will not result in an increase in the height of the existing tower. AT&T's replacement antennas will be installed at the 152-foot level of the 153'-foot Self-Support Tower.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore, will not require an extension of the site boundary.
3. The proposed modifications will not increase the noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative worst-case RF emissions calculation for AT&T's modified facility is provided in the RF Emissions Compliance Report, included in [Tab 2](#).
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The tower and its foundation can support AT&T's proposed modifications. (See Structural Analysis Report included in [Tab 3](#)).

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

Sincerely,

Kristina Cottone

CC w/enclosures:
George Kral – Town Planner, Town of Guilford, CT
Matthew T. Hoey III – First Selectman, Town of Guilford, CT
Kathleen Bloomquist (f.k.a Kathleen Acampora) – Property Owner
SBA Towers – Tower Owner



10/21/2021

Memo: No Initial Zoning Decision Found

Upon consulting with the Building Inspector for the Town of Guilford, it was determined that no initial zoning decision for this tower could be found. The building department phone number is (203)-453-8029.

Kristina Cottone
Real Estate Project Manager | Smartlink
85 Rangeway Road, Building 3, Suite
102 North Billerica, MA 01862



**Smartlink on behalf of
AT&T Mobility, LLC
Site FA – 10071055
Site ID – CTL05641
USID – 26045
Site Name – GUILDFORD EAST
(MRCTB049447)**

**331 Killingworth Road
Guilford, CT 06437**

Latitude: N41-21-11.49
Longitude: W72-41-21.48
Structure Type: Self Support

Report generated date: October 11, 2021
Report by: Scott Broyles
Customer Contact: Kristina Cottone

AT&T Mobility, LLC will be compliant when the remediation recommended in Section 5.2 or other appropriate remediation is implemented.

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1 General Site Summary

1.1 Report Summary

AT&T Mobility, LLC	Summary
Max Cumulative Simulated RFE Level on the Ground	<1% General Public Limit
Compliant per FCC Rules and Regulations?	Will Be Compliant
Compliant per AT&T Mobility, LLC's Policy?	No

The following documents were provided by the client and were utilized to create this report:

RFDS: NEW-ENGLAND_CONNECTICUT_CTL05641_2021-LTE-MULTI-CARRIER_LTE_rx855w_2051A0X052_10071055_26045_10-19-2020_Final-Approved_v8.00

CD's: 10071055_AE203_210826_CTL05641_Rev7

RF Powers Used: Max RRU Powers










AT&T Mobility, LLC Duty Cycle: 75%

1.2 Fall Arrest Anchor Point Summary


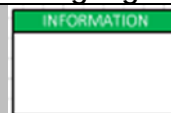







Fall Arrest Anchor & Parapet Info	Parapet Available (Y/N)	Parapet Height (inches)	Fall Arrest Anchor Available (Y/N)
Roof Safety Info	N	N/A	N

1.3 Signage Summary

a. Pre-Site Visit AT&T Signage (Existing Signage)

AT&T Signage Locations									
	Information 1	Information 2	Notice	Notice 2	Caution	Caution 2	Warning	Warning 2	Barriers
Self-Support									
Alpha									
Beta									
Gamma									
Delta									
Epsilon									

b. Proposed AT&T Signage

AT&T Signage Locations									
	Information 1	Information 2	Notice	Notice 2	Caution	Caution 2	Warning	Warning 2	Barriers
Self-Support						1			
Alpha									
Beta									
Gamma									
Delta									
Epsilon									

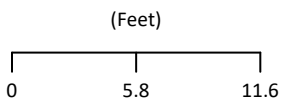
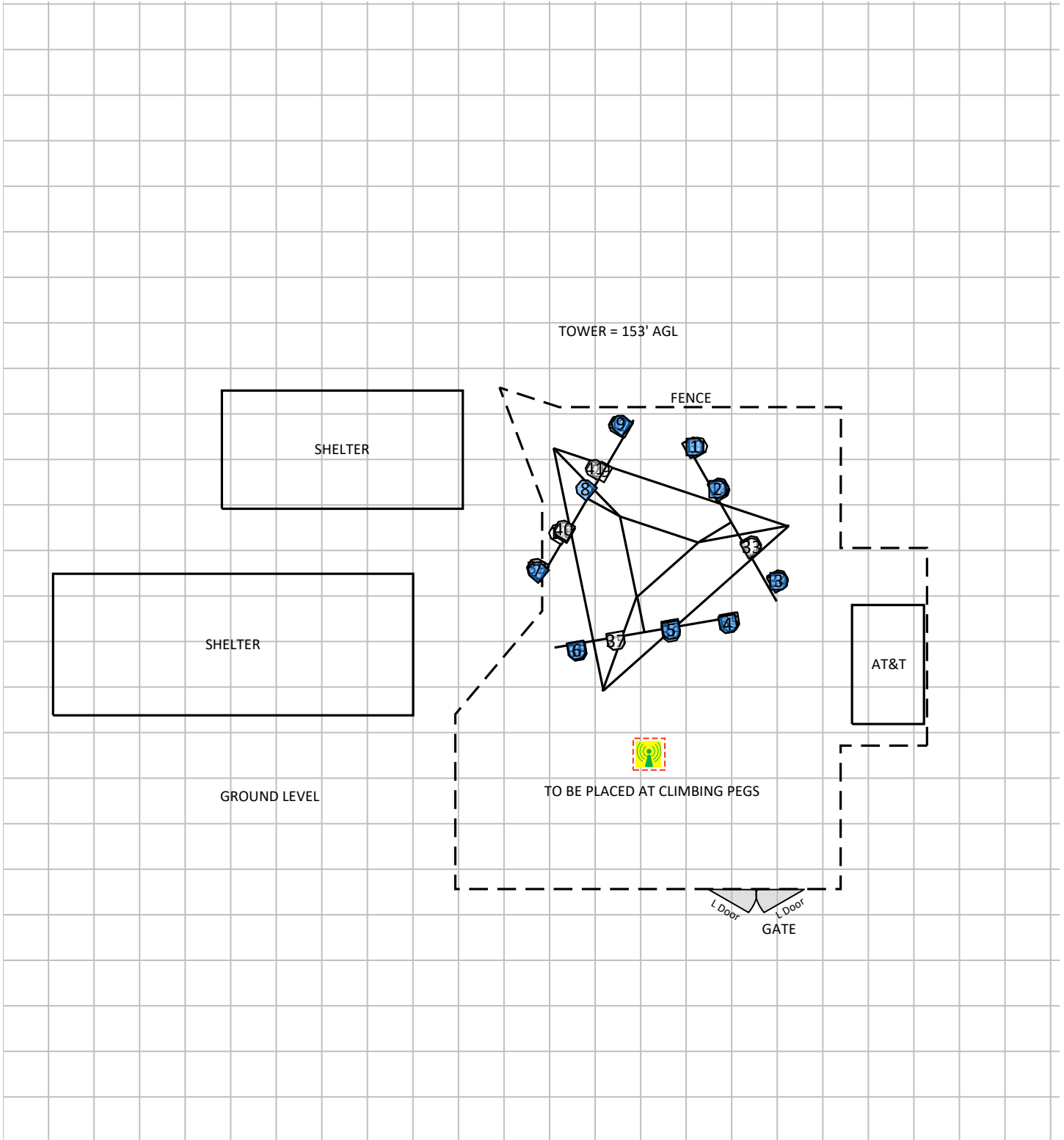
Note: Proposed Caution 2 sign at the Self-Support Base/Climbing Point is a Caution 2B sign.

2 Scale Maps of Site

The following diagrams are included:

- Site Scale Map
- RF Exposure Diagram
- RF Exposure Diagram – Detailed View
- RF Exposure Diagram – Elevation View
- AT&T Mobility, LLC Contribution

Site Scale Map For: GUILDFORD EAST



	AT&T MOBILITY LLC		VERIZON WIRELESS		T-MOBILE		SPRINT		UNKNOWN CARRIER
Sign Legend									
	Notice		Notice 2		Caution		Caution 2		Warning
	Warning 2		Info		Info 2		RFED	RF Emissions Diagram	
Barrier Signage Legend									
	No-sign		Notice 2		Caution 2		Warning 2		Notice v1
	Caution v1		Warning v1		Remove Barrier/Sign				
	Existing Barrier		Proposed Barrier/Sign		Remove Barrier/Sign				
	Locked Ladder								

3 Antenna Inventory

The following antenna inventory was obtained by the customer and was utilized to create the site model diagrams:

Ant ID	Operator	Antenna Make & Model	Type	TX Freq (MHz)	Technology	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Power	Power Type	Power Unit	Misc Loss	TX Count	Total ERP (Watts)	Ant Gain (dBd)	Z AGL	MDT	EDT
1	AT&T MOBILITY LLC	CCI Antennas HPA65R-BU6A	Panel	850	UMTS	90	68.0	5.9	40	TPO	Watt	0	1	673.1	12.26	149'	0°	0°
1	AT&T MOBILITY LLC	CCI Antennas HPA65R-BU6A	Panel	1900	LTE	90	61.7	5.9	80	TPO	Watt	0	1	3155.7	15.96	149'	0°	6°
1	AT&T MOBILITY LLC	CCI Antennas HPA65R-BU6A	Panel	1900	LTE	90	61.7	5.9	80	TPO	Watt	0	1	3155.7	15.96	149'	0°	6°
2	AT&T MOBILITY LLC (Proposed)	CCI Antennas OPA65R-BU6D	Panel	2100	LTE/AWS1	90	69.0	5.9	160	TPO	Watt	0	1	8205.8	17.10	149'	0°	6°
2	AT&T MOBILITY LLC (Proposed)	CCI Antennas OPA65R-BU6D	Panel	763	LTE	90	61.1	5.9	160	TPO	Watt	0	1	2455.4	11.86	149'	0°	6°
3	AT&T MOBILITY LLC	Kathrein-Scala 800-10965	Panel	737	LTE	90	63.9	6.6	160	TPO	Watt	0	1	2845.2	12.50	148.7'	0°	2°
3	AT&T MOBILITY LLC	Kathrein-Scala 800-10965	Panel	850	LTE	90	61.7	6.6	80	TPO	Watt	0	1	1841.2	13.62	148.7'	0°	2°
3	AT&T MOBILITY LLC	Kathrein-Scala 800-10965	Panel	850	5G	90	61.7	6.6	80	TPO	Watt	0	1	1841.2	13.62	148.7'	0°	2°
3	AT&T MOBILITY LLC	Kathrein-Scala 800-10965	Panel	2300	LTE	90	59.1	6.6	100	TPO	Watt	0	1	3655.9	15.63	148.7'	0°	3°
4	AT&T MOBILITY LLC	CCI Antennas HPA65R-BU6A	Panel	850	UMTS	170	68.0	5.9	40	TPO	Watt	0	1	673.1	12.26	149'	0°	0°
4	AT&T MOBILITY LLC	CCI Antennas HPA65R-BU6A	Panel	1900	LTE	170	61.7	5.9	80	TPO	Watt	0	1	3155.7	15.96	149'	0°	6°
4	AT&T MOBILITY LLC	CCI Antennas HPA65R-BU6A	Panel	1900	LTE	170	61.7	5.9	80	TPO	Watt	0	1	3155.7	15.96	149'	0°	6°
5	AT&T MOBILITY LLC (Proposed)	CCI Antennas OPA65R-BU6D	Panel	763	LTE	170	61.1	5.9	160	TPO	Watt	0	1	2455.4	11.86	149'	0°	6°
5	AT&T MOBILITY LLC (Proposed)	CCI Antennas OPA65R-BU6D	Panel	2100	LTE/AWS1	170	69.0	5.9	160	TPO	Watt	0	1	8205.8	17.10	149'	0°	6°
6	AT&T MOBILITY LLC	Kathrein-Scala 800-10965	Panel	850	5G	170	61.7	6.6	80	TPO	Watt	0	1	1841.2	13.62	148.7'	0°	2°
6	AT&T MOBILITY LLC	Kathrein-Scala 800-10965	Panel	850	LTE	170	61.7	6.6	80	TPO	Watt	0	1	1841.2	13.62	148.7'	0°	2°
6	AT&T MOBILITY LLC	Kathrein-Scala 800-10965	Panel	2300	LTE	170	59.1	6.6	100	TPO	Watt	0	1	3655.9	15.63	148.7'	0°	3°
6	AT&T MOBILITY LLC	Kathrein-Scala 800-10965	Panel	737	LTE	170	63.9	6.6	160	TPO	Watt	0	1	2845.2	12.50	148.7'	0°	2°

Ant ID	Operator	Antenna Make & Model	Type	TX Freq (MHz)	Technology	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Power	Power Type	Power Unit	Misc Loss	TX Count	Total ERP (Watts)	Ant Gain (dBd)	Z AGL	MDT	EDT
7	AT&T MOBILITY LLC	CCI Antennas HPA65R-BU6A	Panel	850	UMTS	310	68.0	5.9	40	TPO	Watt	0	1	673.1	12.26	149'	0°	0°
7	AT&T MOBILITY LLC	CCI Antennas HPA65R-BU6A	Panel	1900	LTE	310	61.7	5.9	80	TPO	Watt	0	1	3155.7	15.96	149'	0°	2°
7	AT&T MOBILITY LLC	CCI Antennas HPA65R-BU6A	Panel	1900	LTE	310	61.7	5.9	80	TPO	Watt	0	1	3155.7	15.96	149'	0°	2°
8	AT&T MOBILITY LLC (Proposed)	CCI Antennas OPA65R-BU6D	Panel	2100	LTE/AWS1	310	69.0	5.9	160	TPO	Watt	0	1	8205.8	17.10	149'	0°	3°
8	AT&T MOBILITY LLC (Proposed)	CCI Antennas OPA65R-BU6D	Panel	763	LTE	310	61.1	5.9	160	TPO	Watt	0	1	2455.4	11.86	149'	0°	3°
9	AT&T MOBILITY LLC	Kathrein-Scala 800-10965	Panel	737	LTE	310	63.9	6.6	160	TPO	Watt	0	1	2845.2	12.50	148.7'	0°	2°
9	AT&T MOBILITY LLC	Kathrein-Scala 800-10965	Panel	850	5G	310	61.7	6.6	80	TPO	Watt	0	1	1841.2	13.62	148.7'	0°	2°
9	AT&T MOBILITY LLC	Kathrein-Scala 800-10965	Panel	2300	LTE	310	59.1	6.6	100	TPO	Watt	0	1	3655.9	15.63	148.7'	0°	3°
9	AT&T MOBILITY LLC	Kathrein-Scala 800-10965	Panel	850	LTE	310	61.7	6.6	80	TPO	Watt	0	1	1841.2	13.62	148.7'	0°	2°
10	UNKNOWN CARRIER	Generic	Panel	850		60	65.0	6.3	160	TPO	Watt	0	1	3524.7	13.43	135.9'	0°	0°
11	UNKNOWN CARRIER	Generic	Panel	1900		60	65.0	6.3	160	TPO	Watt	0	1	6762.7	16.26	135.9'	0°	0°
12	UNKNOWN CARRIER	Generic	Panel	2100		60	65.0	6.3	160	TPO	Watt	0	1	5716.4	15.53	135.9'	0°	0°
13	UNKNOWN CARRIER	Generic	Panel	850		170	65.0	6.3	160	TPO	Watt	0	1	3524.7	13.43	135.9'	0°	0°
14	UNKNOWN CARRIER	Generic	Panel	1900		170	65.0	6.3	160	TPO	Watt	0	1	6762.7	16.26	135.9'	0°	0°
15	UNKNOWN CARRIER	Generic	Panel	2100		170	65.0	6.3	160	TPO	Watt	0	1	5716.4	15.53	135.9'	0°	0°
16	UNKNOWN CARRIER	Generic	Panel	850		300	65.0	6.3	160	TPO	Watt	0	1	3524.7	13.43	135.9'	0°	0°
17	UNKNOWN CARRIER	Generic	Panel	1900		300	65.0	6.3	160	TPO	Watt	0	1	6762.7	16.26	135.9'	0°	0°
18	UNKNOWN CARRIER	Generic	Panel	2100		300	65.0	6.3	160	TPO	Watt	0	1	5716.4	15.53	135.9'	0°	0°
19	UNKNOWN CARRIER	Generic	Panel	700		60	65.0	6.3	160	TPO	Watt	0	1	2884.8	12.56	135.9'	0°	0°
20	UNKNOWN CARRIER	Generic	Panel	850		60	65.0	6.3	160	TPO	Watt	0	1	3524.7	13.43	135.9'	0°	0°
21	UNKNOWN CARRIER	Generic	Panel	1900		60	65.0	6.3	160	TPO	Watt	0	1	6762.7	16.26	135.9'	0°	0°
22	UNKNOWN CARRIER	Generic	Panel	2100		60	65.0	6.3	160	TPO	Watt	0	1	5716.4	15.53	125.9'	0°	0°
23	UNKNOWN CARRIER	Generic	Panel	700		170	65.0	6.3	160	TPO	Watt	0	1	2884.8	12.56	125.9'	0°	0°
24	UNKNOWN CARRIER	Generic	Panel	850		170	65.0	6.3	160	TPO	Watt	0	1	3524.7	13.43	125.9'	0°	0°
25	UNKNOWN CARRIER	Generic	Panel	1900		170	65.0	6.3	160	TPO	Watt	0	1	6762.7	16.26	125.9'	0°	0°
26	UNKNOWN CARRIER	Generic	Panel	2100		170	65.0	6.3	160	TPO	Watt	0	1	5716.4	15.53	125.9'	0°	0°
27	UNKNOWN CARRIER	Generic	Panel	700		300	65.0	6.3	160	TPO	Watt	0	1	2884.8	12.56	125.9'	0°	0°
28	UNKNOWN CARRIER	Generic	Panel	850		300	65.0	6.3	160	TPO	Watt	0	1	3524.7	13.43	125.9'	0°	0°
29	UNKNOWN CARRIER	Generic	Panel	1900		300	65.0	6.3	160	TPO	Watt	0	1	6762.7	16.26	125.9'	0°	0°

Ant ID	Operator	Antenna Make & Model	Type	TX Freq (MHz)	Technology	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Power	Power Type	Power Unit	Misc Loss	TX Count	Total ERP (Watts)	Ant Gain (dBd)	Z AGL	MDT	EDT
30	UNKNOWN CARRIER	Generic	Panel	2100		300	65.0	6.3	160	TPO	Watt	0	1	5716.4	15.53	125.9'	0°	0°
31	UNKNOWN CARRIER	Generic	Panel	700		60	65.0	6.3	160	TPO	Watt	0	1	2884.8	12.56	115.9'	0°	0°
32	UNKNOWN CARRIER	Generic	Panel	850		60	65.0	6.3	160	TPO	Watt	0	1	3524.7	13.43	115.9'	0°	0°
33	UNKNOWN CARRIER	Generic	Panel	1900		60	65.0	6.3	160	TPO	Watt	0	1	6762.7	16.26	115.9'	0°	0°
34	UNKNOWN CARRIER	Generic	Panel	2100		60	65.0	6.3	160	TPO	Watt	0	1	5716.4	15.53	115.9'	0°	0°
35	UNKNOWN CARRIER	Generic	Panel	700		170	65.0	6.3	160	TPO	Watt	0	1	2884.8	12.56	115.9'	0°	0°
36	UNKNOWN CARRIER	Generic	Panel	850		170	65.0	6.3	160	TPO	Watt	0	1	3524.7	13.43	115.9'	0°	0°
37	UNKNOWN CARRIER	Generic	Panel	1900		170	65.0	6.3	160	TPO	Watt	0	1	6762.7	16.26	115.9'	0°	0°
38	UNKNOWN CARRIER	Generic	Panel	2100		170	65.0	6.3	160	TPO	Watt	0	1	5716.4	15.53	115.9'	0°	0°
39	UNKNOWN CARRIER	Generic	Panel	700		300	65.0	6.3	160	TPO	Watt	0	1	2884.8	12.56	115.9'	0°	0°
40	UNKNOWN CARRIER	Generic	Panel	850		300	65.0	6.3	160	TPO	Watt	0	1	3524.7	13.43	115.9'	0°	0°
41	UNKNOWN CARRIER	Generic	Panel	1900		300	65.0	6.3	160	TPO	Watt	0	1	6762.7	16.26	115.9'	0°	0°
42	UNKNOWN CARRIER	Generic	Panel	2100		300	65.0	6.3	160	TPO	Watt	0	1	5716.4	15.53	115.9'	0°	0°

Note: The Z reference indicates the bottom of the antenna height above ground level (AGL). Effective Radiated Power (ERP) is provided by the operator or based on Sitesafe experience. The values used in the modeling may be greater than are currently deployed. For other operators at this site the use of "Generic" as an antenna model or "Unknown" for a wireless operator means the information with regard to operator, their FCC license and/or antenna information was not available nor could it be secured while on site. Other operator's equipment, antenna models and powers used for modeling are based on obtained information or Sitesafe experience.

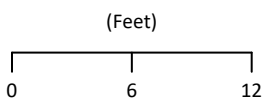
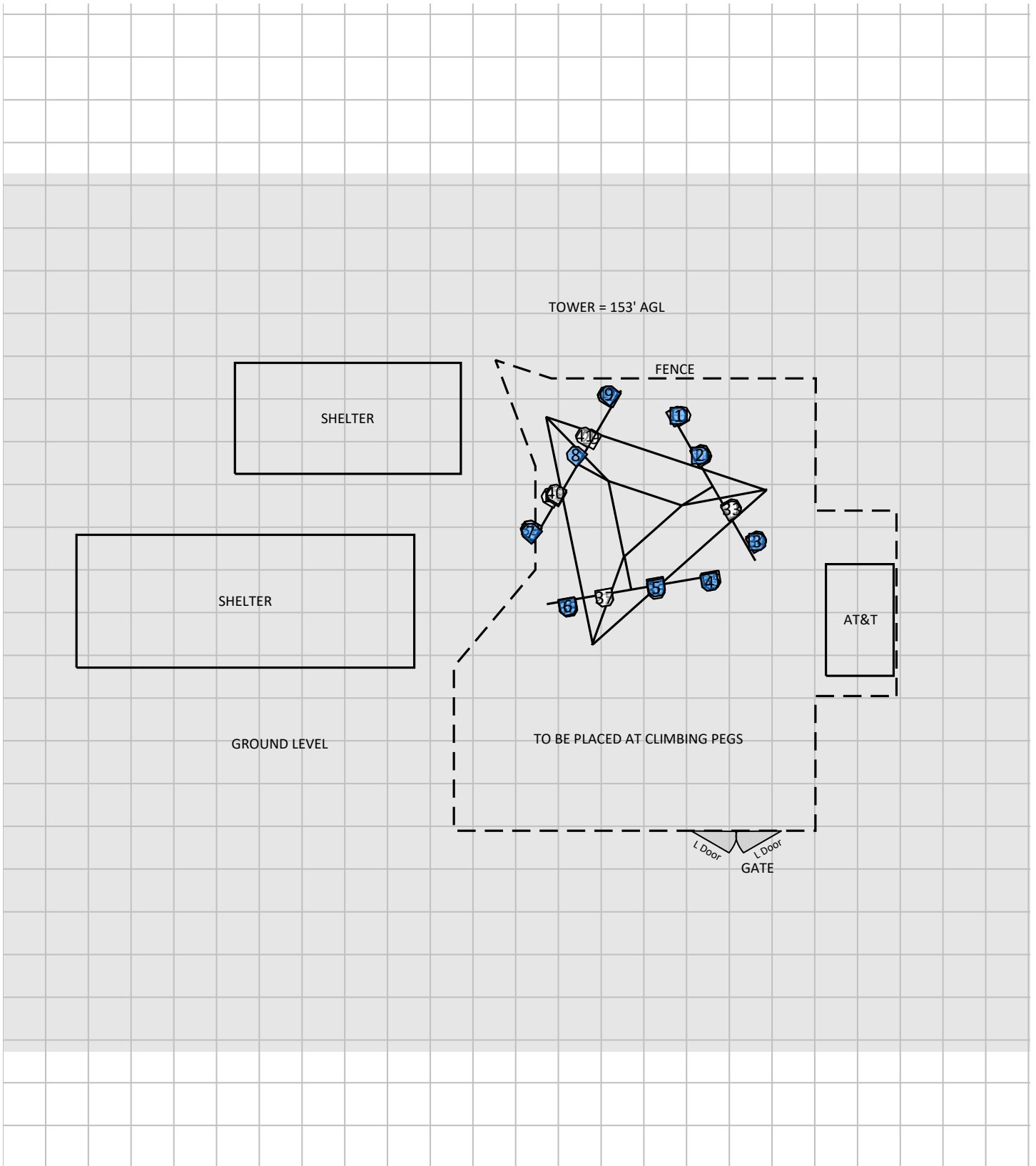
4 Emission Predictions

In the RF Exposure Simulations below, all heights are reflected with respect to ground level. Each different height area, rooftop, or platform level is labeled with its height relative to the main site level. Emissions are calculated appropriately based on the relative height and location of that area to all antennas. The total analyzed elevations in the below RF Exposure Simulations are listed below.

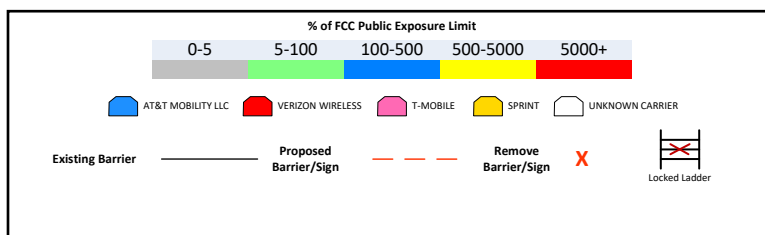
- GROUND LEVEL = 0'

The Antenna Inventory heights are referenced to the same level.

RF Exposure Simulation For: GUILDFORD EAST Composite View

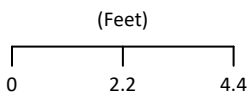
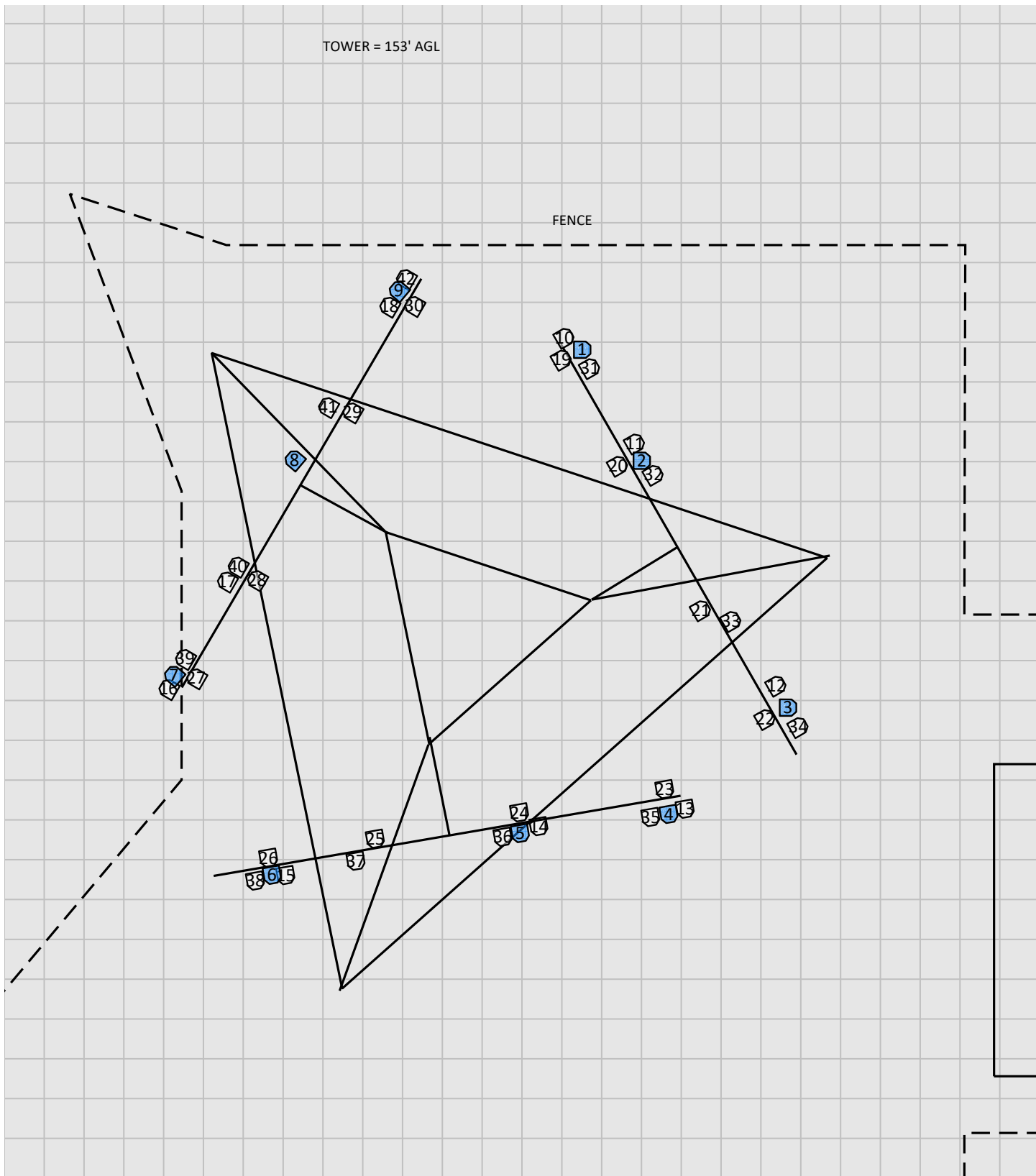


www.sitesafe.com
10/11/2021 11:58:49 AM

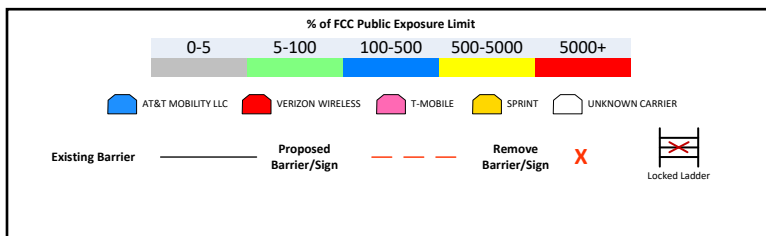


Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

RF Exposure Simulation For: GUILDFORD EAST Detailed View

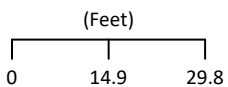
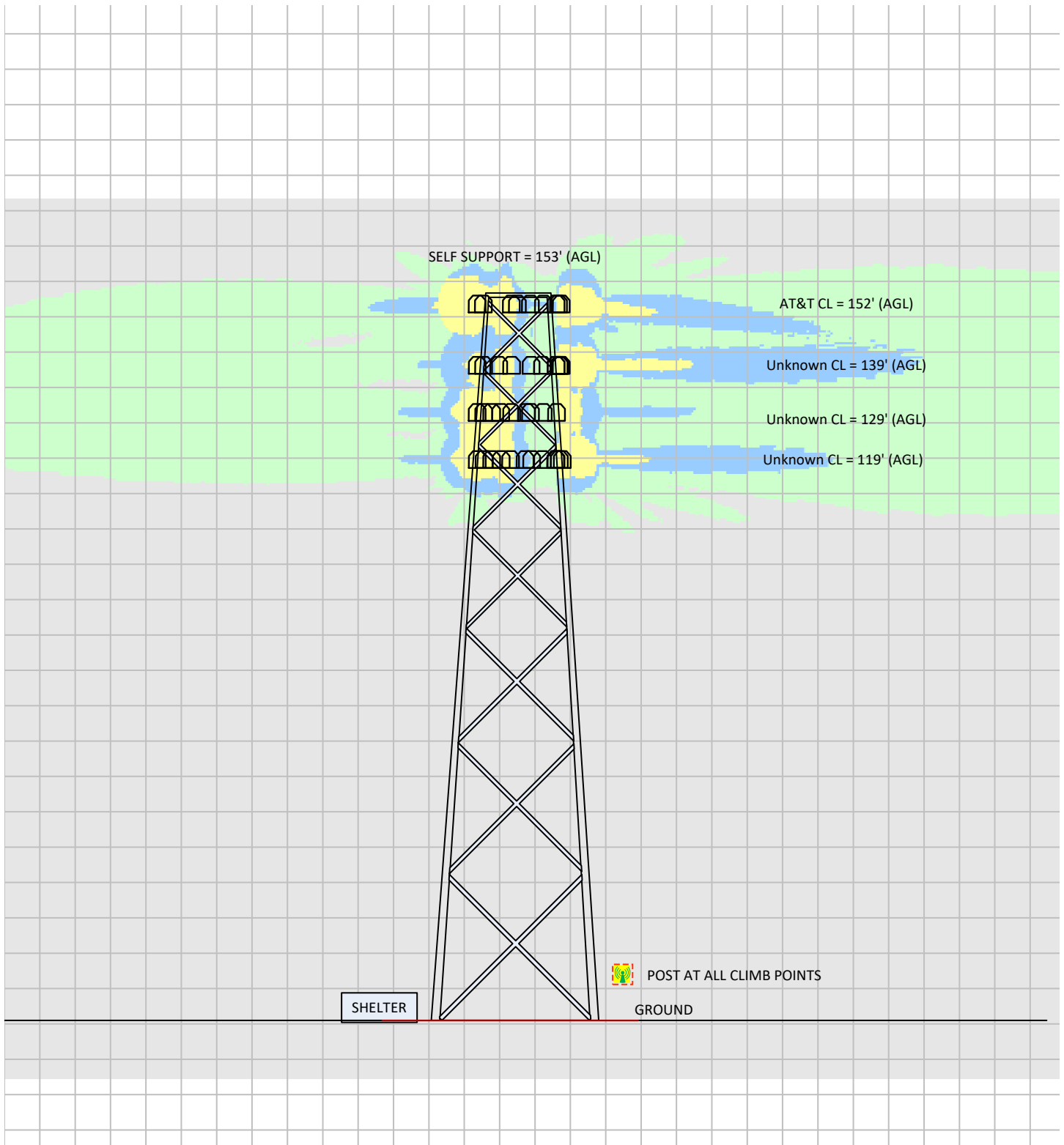


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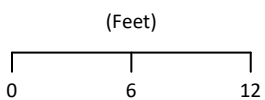
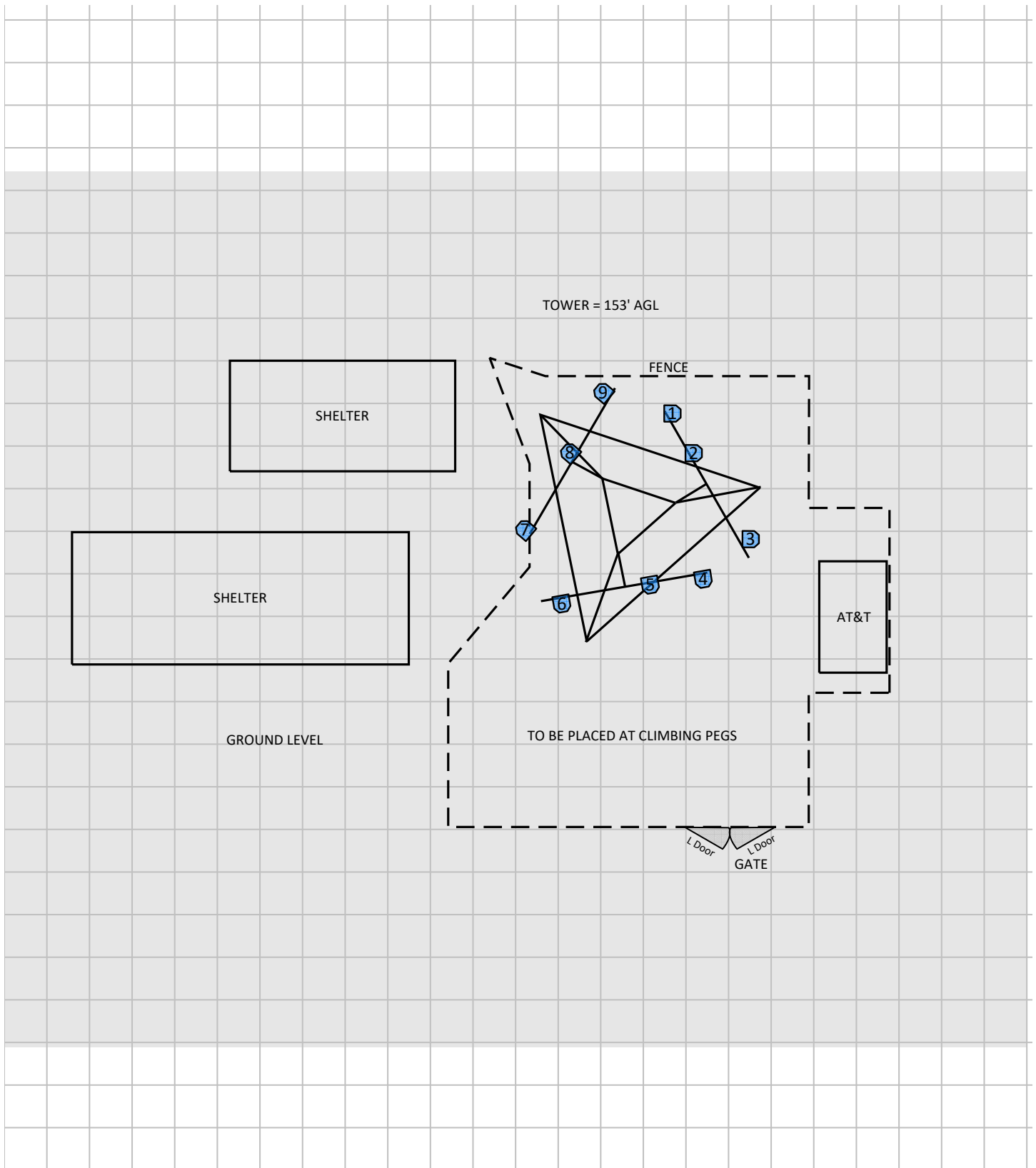
Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

RF Exposure Simulation For: GUILDFORD EAST Elevation View

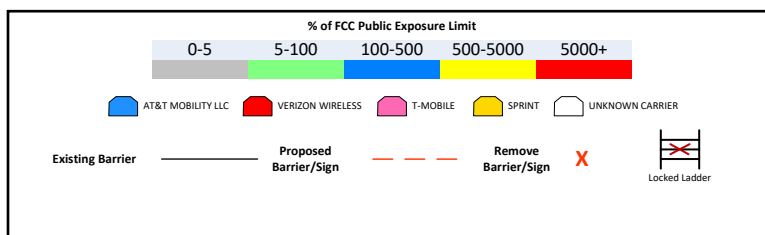


% of FCC Public Exposure Limit				
0-5	5-100	100-500	500-5000	5000+
AT&T MOBILITY LLC	VERIZON WIRELESS	T-MOBILE	SPRINT	UNKNOWN CARRIER
Sign Legend				
Notice	Notice 2	Caution	Caution 2	Warning
				Warning 2
				Info
				Info 2
				RF Emissions Diagram
Barrier Signage Legend				
No-sign	Notice 2	Caution 2	Warning 2	Notice v1
				Caution v1
				Warning v1
Existing Barrier	Proposed Barrier/Sign	Remove Barrier/Sign		
			Locked Ladder	

RF Exposure Simulation For: GUILDFORD EAST AT&T Contributions



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Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

5 Site Compliance

5.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, RF hazard signage and antenna locations, Sitesafe has determined that:

AT&T Mobility, LLC will be compliant when the remediation recommended in Section 5.2 or other appropriate remediation is implemented.

The compliance determination is based on General Public RFE levels derived from theoretical modeling, RF signage placement, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the proposed AT&T Mobility, LLC deployment plan could result in the site being rendered non-compliant upon further evaluation.

Modeling is used for determining compliance and the percentage of MPE contribution.

5.2 Actions for Site Compliance

Based on FCC regulations, common industry practice, and our understanding of AT&T Mobility, LLC's RF Safety Policy requirements, this section provides a statement of recommendations for site compliance. Recommendations have been proposed based on our understanding of existing access restrictions, signage, and an analysis of predicted RFE levels.

AT&T Mobility, LLC will be made compliant if the following changes are implemented:

Self-Support Access Location

- (1) Caution 2B sign(s) required at each climb point

Notes:

- Any existing signage that conflicts with the proposed signage in this report should be removed per AT&T Signage Posting Rules.
- Signage may already be in place. Sitesafe does not have record of any existing signage because there were no previous visits or data supplied regarding them. All remediation is based on a worst-case scenario.

6 Reviewer Certification

The reviewer whose signature appears below hereby certifies and affirms:

That I am an employee of Site Safe, LLC, in Vienna, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Scott Broyles.

October 11, 2021

Appendix A – Statement of Limiting Conditions

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, that Sitesafe became aware of during the normal research involved in creating this report. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data collected by Sitesafe provided by a second party and data collected by Sitesafe, the data will be used.

Appendix B – Regulatory Background Information

FCC Rules and Regulations

In 1996, the Federal Communications Commission (FCC) adopted regulations for the evaluating of the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 (“OET Bulletin 65”), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

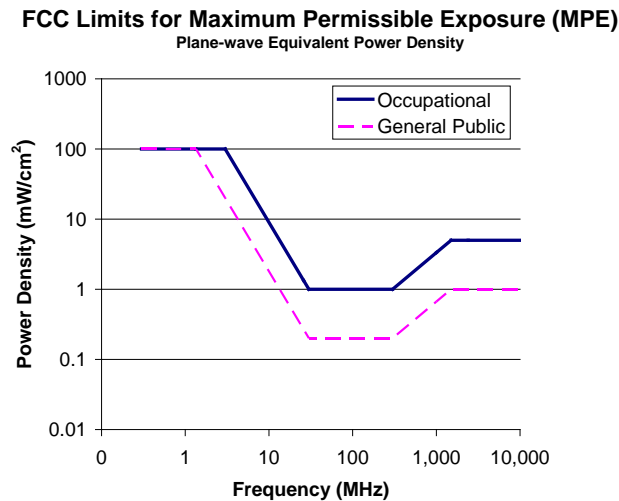
FCC regulations define two separate tiers of exposure limits: Occupational or “Controlled environment” and General Public or “Uncontrolled environment”. The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to *accessible* areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:



Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

OSHA Statement

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

- (a) Each employer –
 - (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
 - (2) shall comply with occupational safety and health standards promulgated under this Act.

- (b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic Lockout/Tagout procedure aimed to control the unexpected energization or startup of machines when maintenance or service is being performed.

Appendix C – Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

Training and Qualification Verification: All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a worker's understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet-based courses).

Physical Access Control: Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

- Locked door or gate
- Alarmed door
- Locked ladder access
- Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

RF Signage: Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

Assume all antennas are active: Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

Maintain a 3 foot clearance from all antennas: There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.

Site RF Emissions Diagram: Section 4 of this report contains an RF Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst-case scenario assuming a duty cycle of 100% for each transmitting antenna at full power, unless otherwise noted. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.

Appendix D – RF Emissions

The RF Emissions Simulation(s) in this report display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix E.

The key at the bottom of each RF Emissions Simulation indicates percentages displayed referenced to FCC General Public Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:

- Areas indicated as Gray are predicted to be below 5% of the MPE limits. Gray represents areas more than 20 times below the most conservative exposure limit. **Gray areas are accessible to anyone.**
- Green represents areas are predicted to be between 5% and 100% of the MPE limits. **Green areas are accessible to anyone.**
- Blue represents areas predicted to exceed the General Public MPE limits but are less than Occupational limits. **Blue areas should be accessible only to RF trained workers.**
- Yellow represents areas predicted to exceed Occupational MPE limits. **Yellow areas should be accessible only to RF trained workers able to assess current exposure levels.**
- Red represents areas predicted to have exposure more than 10 times the Occupational MPE limits. **Red indicates that the RF levels must be reduced prior to access.** An RF Safety Plan is required which outlines how to reduce the RF energy in these areas prior to access.

If trained occupational personnel require access to areas that are delineated as above 100% of the limit, Sitesafe recommends that they utilize the proper personal protection equipment (RF monitors), coordinate with the carriers to reduce or shutdown power, or make real-time power density measurements with the appropriate power density meter to determine real-time MPE levels. This will allow the personnel to ensure that their work area is within exposure limits.

Appendix E – Assumptions and Definitions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has assumed a 100% duty cycle or another duty cycle as noted in this report.

The modeling is based on recommendations from the FCC's OET-65 bulletin with the following variances per AT&T guidance. Reflection has not been considered in the modeling, i.e. the reflection factor is 1.0. The near / far field boundary has been set to 1.5 times the aperture height of the antenna and modeling beyond that point is the lesser of the near field cylindrical model and the far field model taking into account the gain of the antenna.

The site has been modeled with these assumptions to show the maximum RF energy density. Areas modeled with exposure greater than 100% of the General Public MPE level may not actually occur but are shown as a prediction that could be realized. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, Sitesafe recommends remodeling of the site utilizing the more complete and accurate data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, Sitesafe uses the closest frequency in the antenna's range that corresponds to the highest Maximum Permissible Exposure (MPE), resulting in a conservative analysis.

Appendix F – Definitions

5% Rule – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible for taking corrective actions to bring the site into compliance.

Compliance – The determination of whether a site complies with FCC standards with regards to Human Exposure to Radio Frequency Electromagnetic Fields from transmitting antennas.

Decibel (dB) – A unit for measuring power or strength of a signal.

Duty Cycle – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Effective Radiated Power (ERP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to a half-wave dipole antenna.

Gain (of an antenna) – The ratio of the maximum power in a given direction to the maximum power in the same direction from an isotropic radiator. Gain is a measure of the relative efficiency of a directional antenna as compared to an omnidirectional antenna.

General Population/Uncontrolled Environment – Defined by the FCC as an area where RF exposure may occur to persons who are **unaware** of the potential for exposure and who have no control over their exposure. General Population is also referenced as General Public.

Generic Antenna – For the purposes of this report, the use of “Generic” as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use its industry specific knowledge of antenna models to select a worst-case scenario antenna to model the site.

Isotropic Antenna – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

Maximum Measurement – This measurement represents the single largest measurement recorded when performing a spatial average measurement.

Maximum Permissible Exposure (MPE) – The rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with acceptable safety factor.

Occupational/Controlled Environment – Defined by the FCC as an area where RF exposure may occur to persons who are **aware** of the potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

OET Bulletin 65 – Technical guideline developed by the FCC’s Office of Engineering and Technology to determine the impact of RF exposure on humans. The guideline was published in August 1997.

OSHA (Occupational Safety and Health Administration) – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA’s role is to promote the safety and health of America’s working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

Radio Frequency Exposure or Electromagnetic Fields – Electromagnetic waves that are propagated from antennas through space.

Spatial Average Measurement – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy a 6-foot tall human body will absorb while present in an electromagnetic field of energy.

Transmitter Power Output (TPO) – The radio frequency output power of a transmitter’s final radio frequency stage as measured at the output terminal while connected to a load.

Appendix G – References

The following references can be followed for further information about RF Health and Safety.

Site Safe, LLC

<http://www.sitesafe.com>

FCC Radio Frequency Safety

<http://www.fcc.gov/encyclopedia/radio-frequency-safety>

National Council on Radiation Protection and Measurements (NCRP)

<http://www.ncrponline.org>

Institute of Electrical and Electronics Engineers, Inc., (IEEE)

<http://www.ieee.org>

American National Standards Institute (ANSI)

<http://www.ansi.org>

Environmental Protection Agency (EPA)

<http://www.epa.gov/radtown/wireless-tech.html>

National Institutes of Health (NIH)

<http://www.niehs.nih.gov/health/topics/agents/emf/>

Occupational Safety and Health Agency (OSHA)

<http://www.osha.gov/SLTC/radiofrequencyradiation/>

International Commission on Non-Ionizing Radiation Protection (ICNIRP)

<http://www.icnirp.org>

World Health Organization (WHO)

<http://www.who.int/peh-emf/en/>

National Cancer Institute

<http://www.cancer.gov/cancertopics/factsheet/Risk/cellphones>

American Cancer Society (ACS)

http://www.cancer.org/docroot/PED/content/PED_1_3X_Cellular_Phone_Towers.asp?sitearea=PED

European Commission Scientific Committee on Emerging and Newly Identified Health Risks

http://ec.europa.eu/health/ph_risk/committees/04_scenihr/docs/scenihr_o_022.pdf

Fairfax County, Virginia Public School Survey

<http://www.fcps.edu/fts/safety-security/RFEESurvey/>

UK Health Protection Agency Advisory Group on Non-Ionizing Radiation

http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317133826368

Norwegian Institute of Public Health

<http://www.fhi.no/dokumenter/545eea7147.pdf>

All information is for assessment purposes only. Assessments are calculated at 70% of the estimated October 1, 2017 market value which was the date of the last revaluation as completed by eQuality Valuation Services, LLC.



The Town of
Guilford
Connecticut, USA Founded 1639



Information on the Property Records for the Municipality of Guilford was last updated on 10/21/2021.



Parcel Information

Location:	331 ROUTE 80	Map and Parcel:	10701401	Census Tract:	1903
Zoning:	R-8	Developer's Map:	1489	Developer's Lot:	1
Total Acreage:	1.58	Farm, Forest, Open Space Acres:		Unique ID:	286

Value Information

	Appraised Value	Assessed Value
Land	281,500	197,050
Buildings	140,699	98,490
Detached Outbuildings	0	0
Total	422,199	295,540

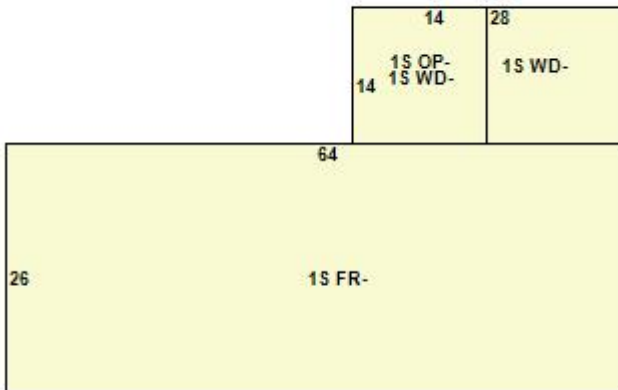
Owner's Information

Owner's Data

BLOOMQUIST KATHLEEN
331 ROUTE 80
GUILFORD CT 06437

Building 1

Photo Not Available



Occupancy:	SINGLE FAMILY	Construction:	WOOD FRAME	Design:	1.0 RANCH
Story Height:	1.00	Living Area Above Ground:	1,664	Year Built:	1972
Year Remodeled:		Condition:	GOOD	Foundation:	POURED CONC

Exterior Siding:	ALUMINUM	Roofing:	ASPHALT	Heating:	HWBB
Fuel:	OIL	A/C Percent:	90%	Total Rooms:	5
Total Bedrooms:	3	Kitchens:	1	Full Baths:	1
Half Baths:	1	Extra Fixtures:	0	Basement Finished Area:	0

Special Features

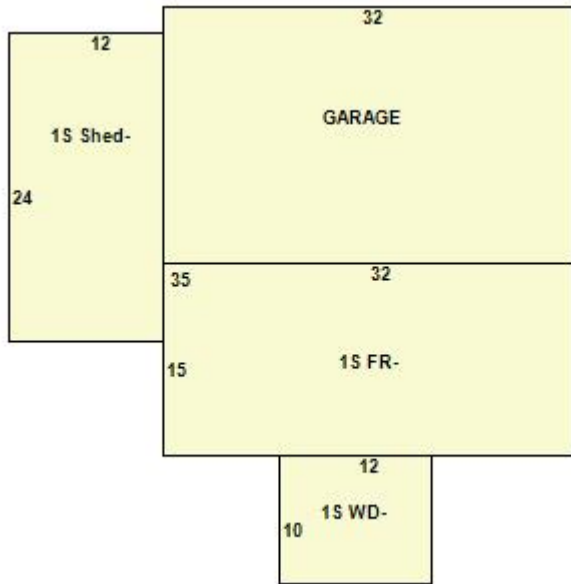
CHIMNEYS	1
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Attached Components

Type:	Year Built:	Area:
WOOD DECK	1972	392
OPEN PORCH	1972	196

Building 2

Photo Not Available



Occupancy:	SINGLE FAMILY	Construction:	WOOD FRAME	Design:	1.0 RANCH
Story Height:	1.00	Living Area Above Ground:	480	Year Built:	1970
Year Remodeled:		Condition:	AVERAGE	Foundation:	POURED CONC
Exterior Siding:	VINYL	Roofing:	ASPHALT	Heating:	BASEBOARD
Fuel:	ELECTRIC	A/C Percent:	0%	Total Rooms:	2
Total Bedrooms:	1	Kitchens:	1	Full Baths:	1
Half Baths:	0	Extra Fixtures:	0	Basement Finished Area:	0

Special Features

Attached Components

Type:	Year Built:	Area:
WOOD DECK	1970	120
ATT FRAME GARAGE	1970	1,120
AVERAGE SHED	1970	288

Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Sale Price
BLOOMQUIST KATHLEEN	0977	0256	06/01/2021	Name Change	\$0
ACAMPORA KATHLEEN	0907	0862	12/12/2016	Quit Claim	\$0
ACAMPORA DAVID & KATHLEEN L	0443	0612	11/23/1994		\$197,221

Information Published With Permission From The Assessor

INFINIGY

MOUNT MODIFICATION REPORT

May 20, 2021

AT&T Site Name	Guilford East
AT&T Site Number	CTL05641
Infinigy Job Number	1106-A0001
Client	Smartlink
Carrier	AT&T
Site Location	331 Killingworth Road Guilford, CT 06437 New Haven County 41° 21' 11.5" N NAD83 72° 41' 21.5" W NAD83
Mount Type	12.5 ft Sector Frame
Mount Elevation	149.0 ft AGL
Structural Usage Ratio	63.1 %
Overall Result	Pass

The enclosed mount modification analysis has been performed in accordance with the 2018 IBC based on an ultimate 3-second gust wind speed of 122 mph. The evaluation criteria and applicable codes are presented in the next section of this report.



CONTENTS

1. Introduction
2. Design/Analysis Parameters
3. Proposed Loading Configuration
4. Supporting Documentation
5. Results
6. Recommendations
7. Assumptions
8. Liability Waiver and Limitations
9. Calculations
10. Mount Modification Drawings

May 20, 2021

1. INTRODUCTION

Infinigy performed a structural analysis of the proposed mount modifications on the AT&T existing telecommunication equipment supporting Sector Frame mounted to the existing structure located at the aforementioned address. All referenced supporting documents have been obtained from the client and are assumed to be accurate and applicable to this site. The mount was analyzed using Risa 3D version 17.0.4 analysis software.

2. DESIGN/ANALYSIS PARAMETERS

Wind Speed	122 mph (3-Second Gust)
Wind Speed w/ ice	50 mph (3-Second Gust) w/ 1" ice
Code / Standard	TIA-222-H
Adopted Code	2018 IBC
Risk Category	II
Exposure Category	B
Topographic Category	1
Calculated Crest Height	0 ft.
Seismic Spectral Response	$S_s = 0.208 \text{ g} / S_1 = 0.054 \text{ g}$
Live Load Wind Speed	60 mph
Man Live Load at Mid/End Point	250 lbs
Man Live Load at Mount Pipes	500 lbs

3. PROPOSED LOADING CONFIGURATION - 149.0 ft. AGL Sector Frame

Antenna Centerline (ft)	Qty.	Appurtenance Manufacturers	Appurtenance Models
149.0	3	CCI	HPA-65R-BU6AA
	3	CCI	OPA65R-BU6DA
	3	KATHRIEN	800-10965
	3	ERICSSON	RRUS-8843 B2/B66A
	3	ERICSSON	RRUS-4478 B14
	3	ERICSSON	RRUS-4449 B5/B12
	3	ERICSSON	RRUS-4415 B30
	2	RAYCAP	DC6-48-60-18-8C
	1	RAYCAP	DC6-48-60-0-8F

4. SUPPORTING DOCUMENTATION

Construction Drawings	Infinigy Engineering, PLLC, Project No. CTL05641, dated February 22, 2019
Proposed Loading	AT&T RFDS Application ID No. 4201564 dated May 28, 2021
Mapping Report	Infinigy Engineering, PLLC, Project No. CTL05641, dated March 12, 2021

5. RESULTS

Components	Capacity	Pass/Fail
Standoff	63.1 %	Pass
Mount Pipe	39.6 %	Pass
Horizontal	55.3 %	Pass
Tieback	5.6%	Pass
MOUNT RATING =	63.1 %	Pass

Notes:

1. See additional documentation in Appendix for calculations supporting the capacity consumed and detailed mount connection calculations.
2. All sectors are typical.

6. RECOMMENDATIONS

Infinigy recommends installing AT&T's proposed equipment loading configuration on the mount at 149.0 ft once the proposed mount modifications have been installed. The installation shall be performed in accordance with the construction documents issued for this site.

If you have any questions, require additional information, or believe the actual conditions differ from those detailed in this report, please contact us immediately.

Robert Baltar, PE
Program Manager | **INFINIGY**

7. ASSUMPTIONS

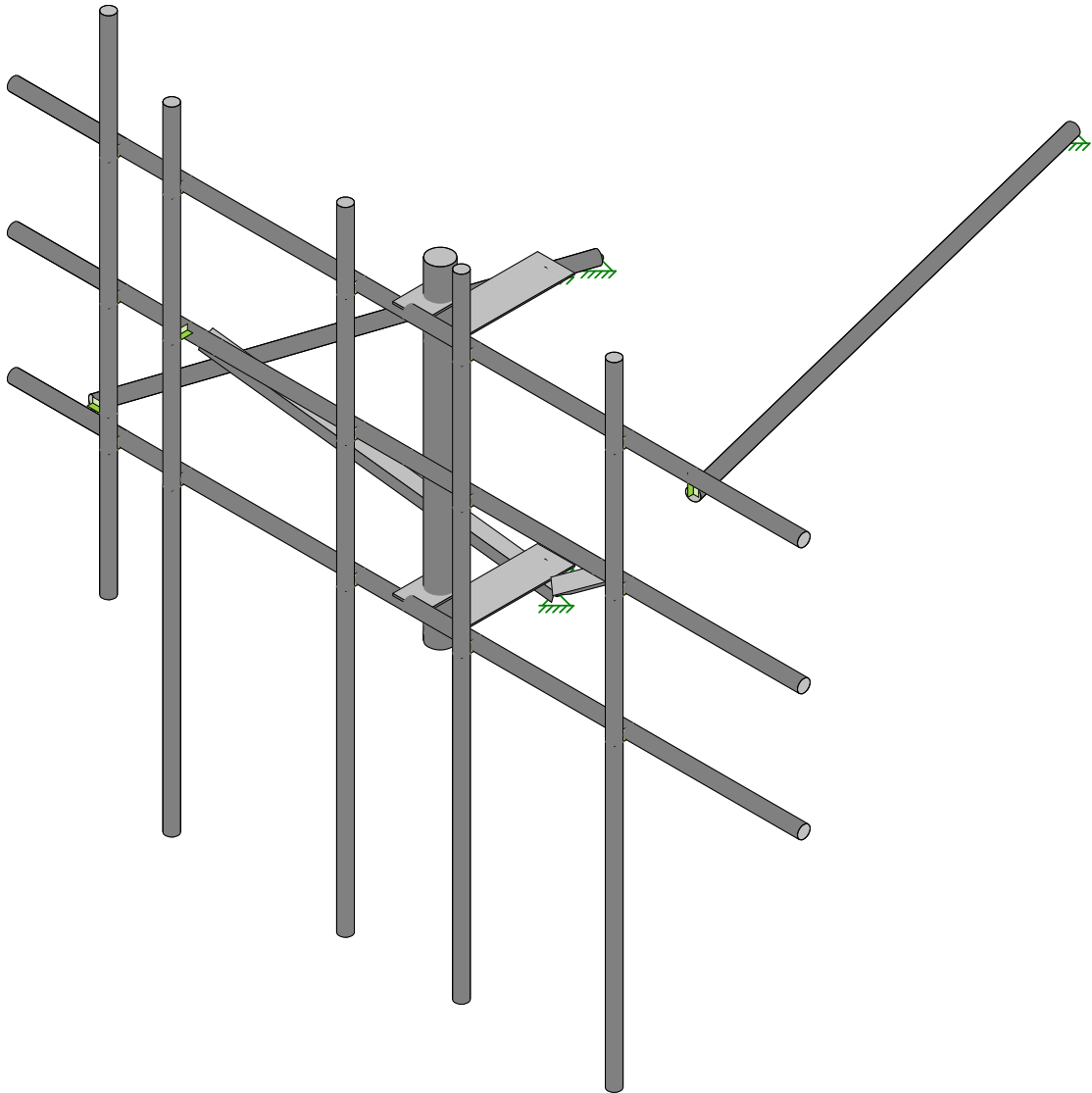
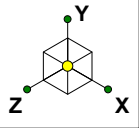
The antenna mounting system was properly fabricated, installed and maintained in accordance with its original design and manufacturer's specifications.	
The configuration of antennas, mounts, and other appurtenances are as specified in the proposed loading configuration table.	
All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.	
The analysis will require revisions 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.	
Steel grades have been assumed as follows, unless noted otherwise:	
Channel, Solid Round, Angle, Plate	ASTM A36
HSS (Rectangular)	ASTM A500-B GR 46
HSS (Circular)	ASTM A500-B GR 42
Pipe	ASTM A53-B GR 35
Connection Bolts	ASTM A325
U-Bolts	ASTM A307
All bolted connections are pretensioned in accordance with Table 8.2 of the RCSC 2014 Standard	

8. LIABILITY WAIVER AND LIMITATIONS

Our structural calculations are completed assuming all information provided to Infinigy is accurate and applicable to this site. For the purposes of calculations, we assume an overall structure condition as erected and all members and connections to be free of corrosion and/or structural defects. The structure owner and/or contractor shall verify the structure's condition prior to installation of any proposed equipment. If actual conditions differ from those described in this report, Infinigy should be notified immediately to assess the impact on the results of this report.

Our evaluation is completed using industry standard methods and procedures. The structural results, conclusions and recommendations contained in this report are proprietary and should not be used by others as their own. Infinigy is not responsible for decisions made by others that are or are not based on the stated assumptions and conclusions in this report.

This report is an evaluation of the mount structure only and does not determine the adequacy of the supporting structure, other carrier mounts or cable mounting attachments. The analysis of these elements is outside the scope of this analysis, are assumed to be adequate for the purpose of this report and to have been installed per their manufacturer requirements. This document is not for construction purposes.



Infinigy Engineering

BB

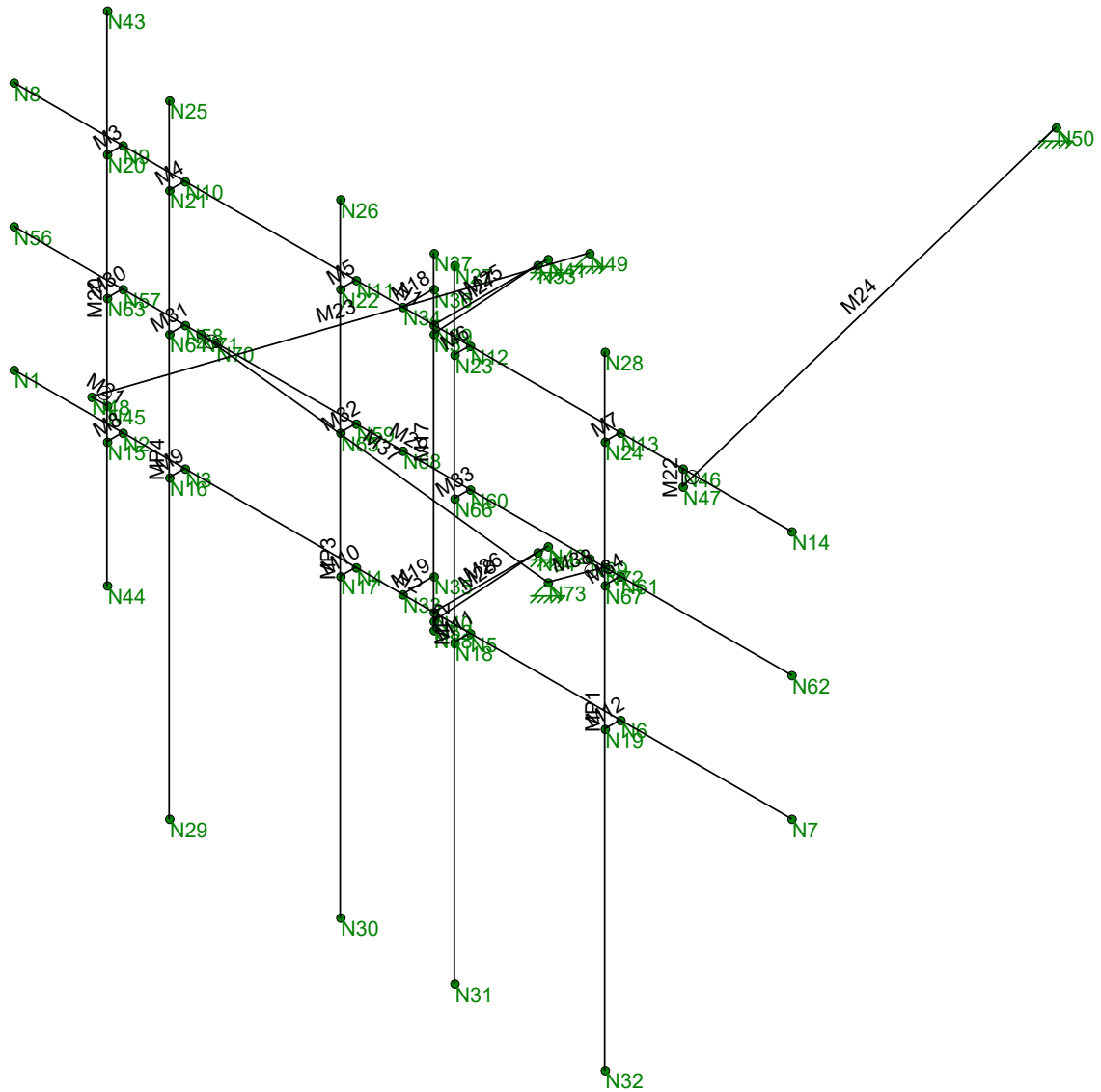
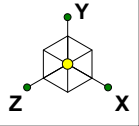
1106-A0001

CTL05641

SK - 1

May 20, 2021 at 11:57 AM

CTL05641_Modified Frame_loade...



Infinigy Engineering

BB

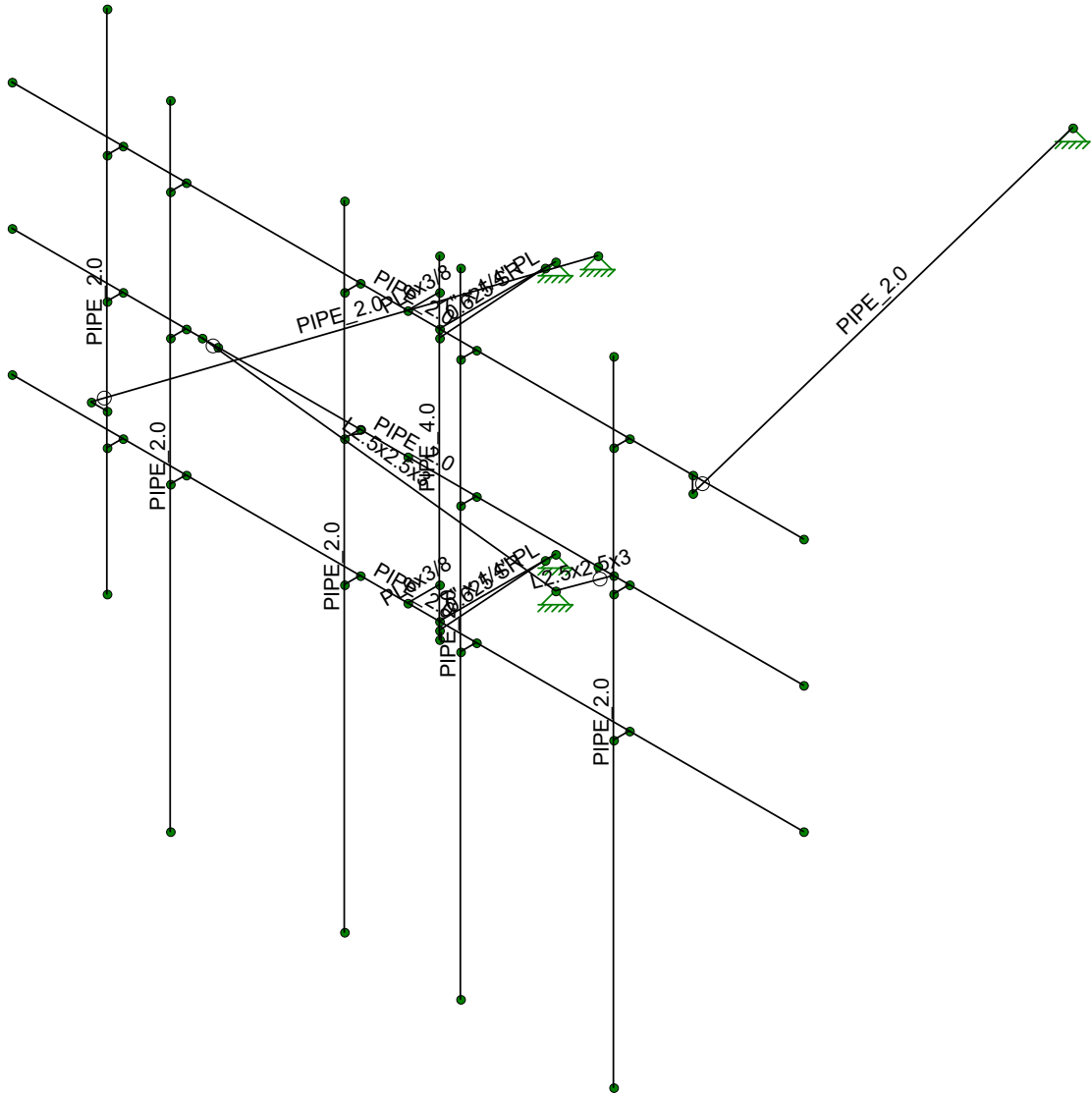
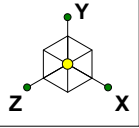
1106-A0001

CTL05641

SK - 2

May 20, 2021 at 11:57 AM

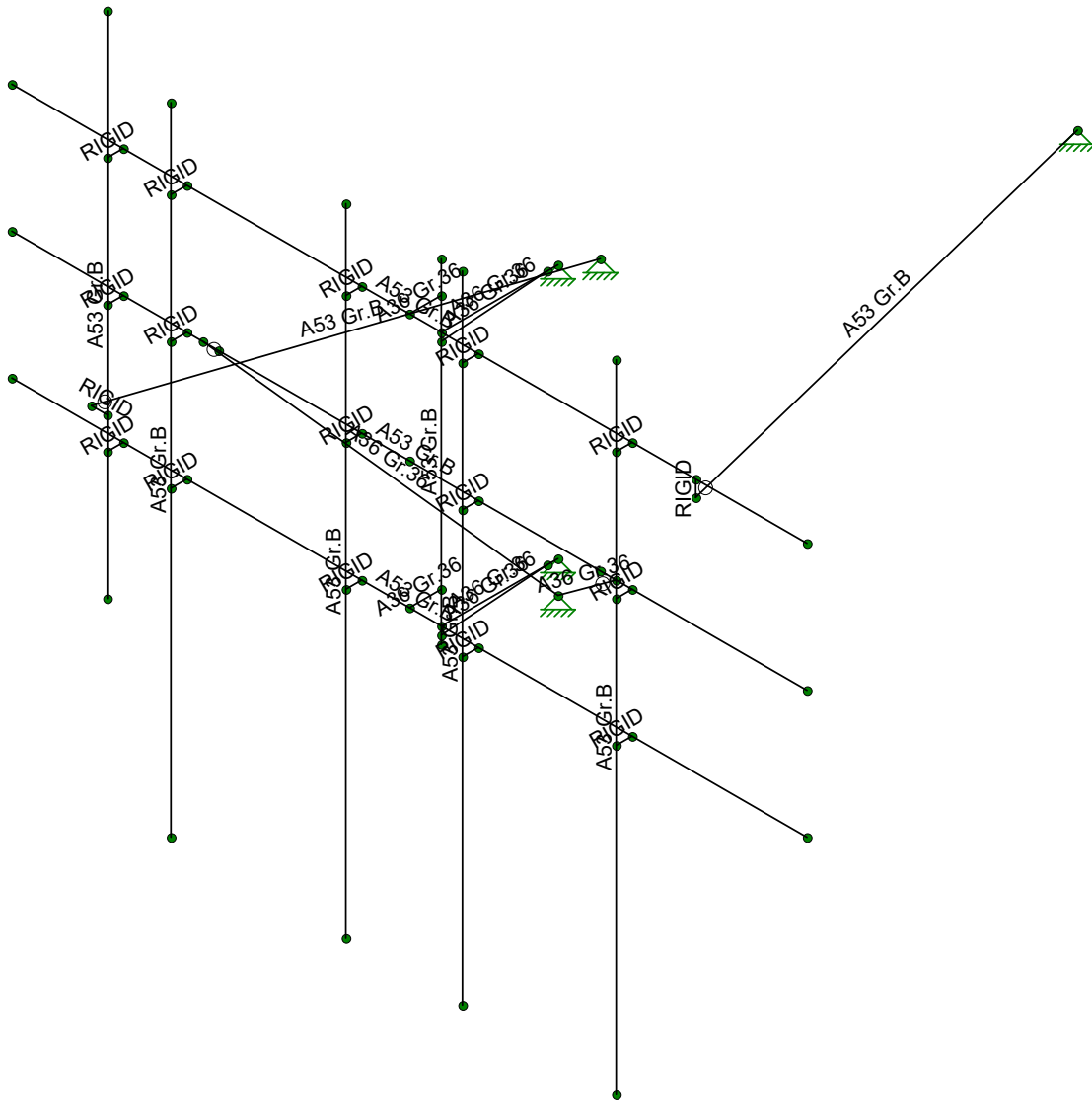
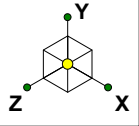
CTL05641_Modified Frame_loade...



Infinigy Engineering
BB
1106-A0001

CTL05641

SK - 3
May 20, 2021 at 11:57 AM
CTL05641_Modified Frame_loade...



Infinigy Engineering

BB

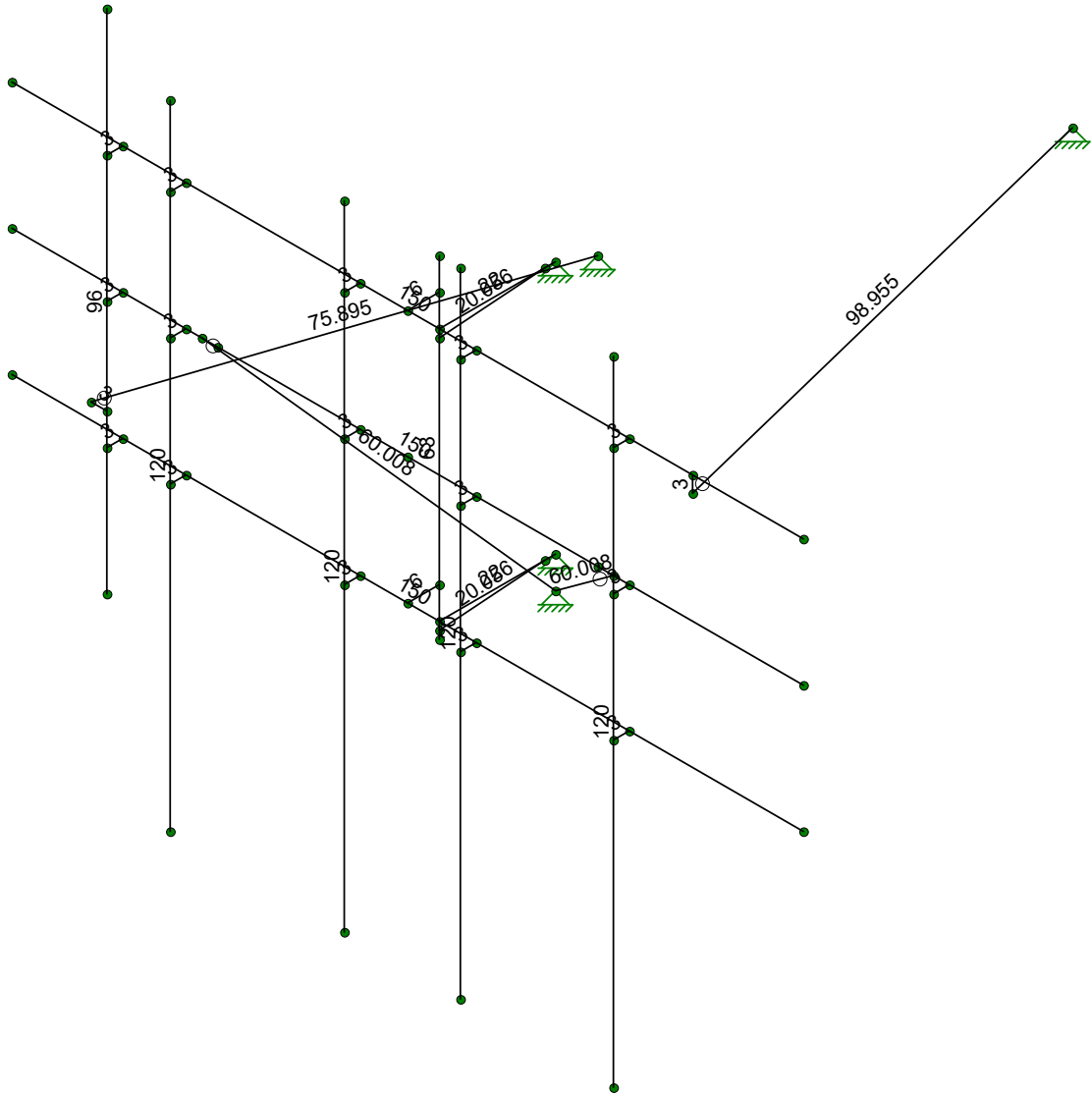
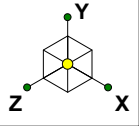
1106-A0001

CTL05641

SK - 4

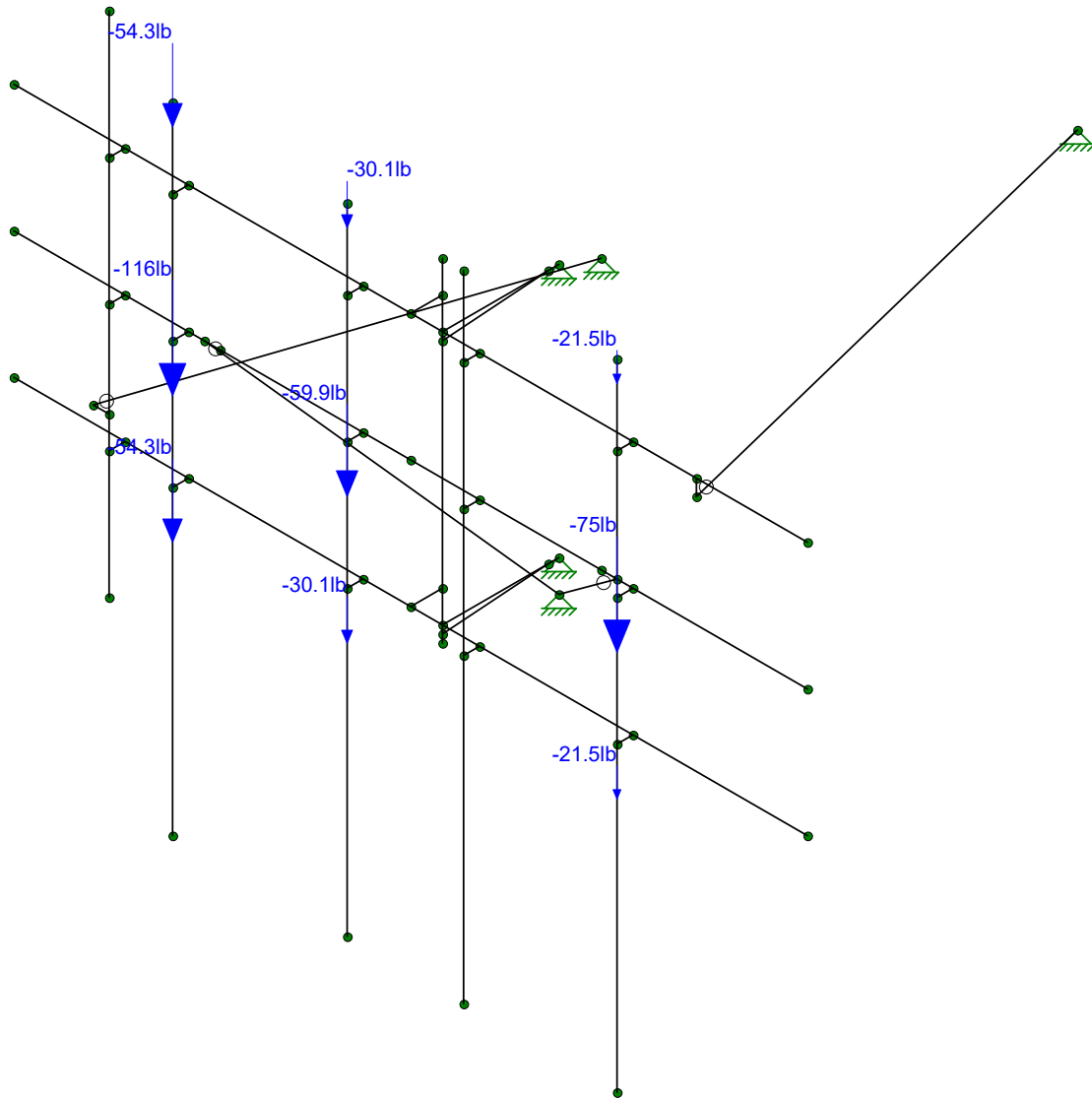
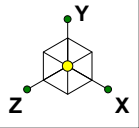
May 20, 2021 at 11:58 AM

CTL05641_Modified Frame_loade...



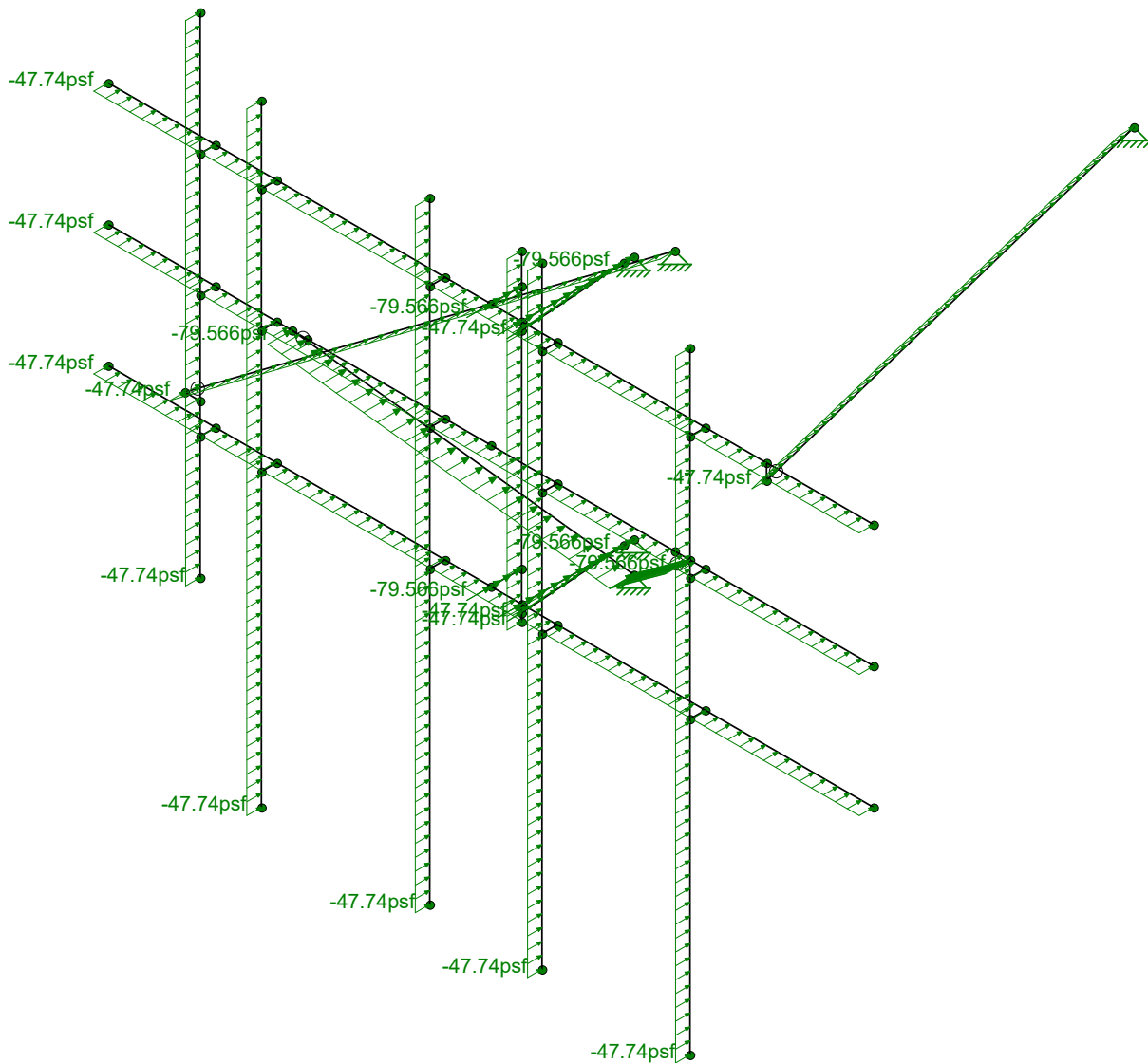
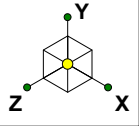
Member Length (in) Displayed

Infinigy Engineering	CTL05641	SK - 5
BB		May 20, 2021 at 11:58 AM
1106-A0001		CTL05641_Modified Frame_loade...



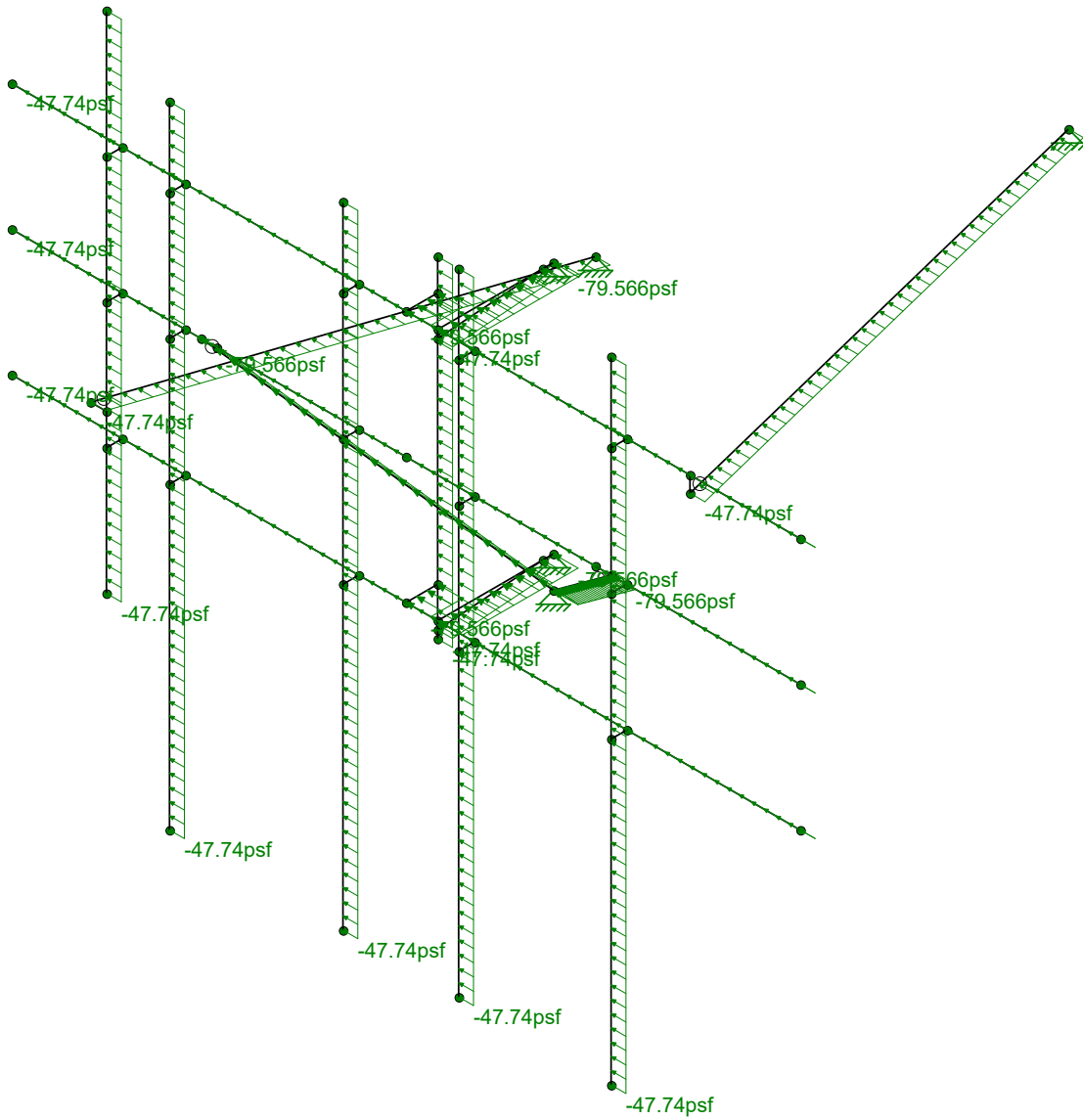
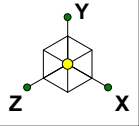
Loads: BLC 1, Self Weight

Infinigy Engineering	CTL05641	SK - 6
BB		May 20, 2021 at 11:58 AM
1106-A0001		CTL05641_Modified Frame_loade...



Loads: BLC 14, Distr. Wind Load Z

Infinigy Engineering	CTL05641	SK - 9
BB		May 20, 2021 at 11:59 AM
1106-A0001		CTL05641_Modified Frame_loade...



Loads: BLC 15, Distr. Wind Load X

Infinigy Engineering

BB

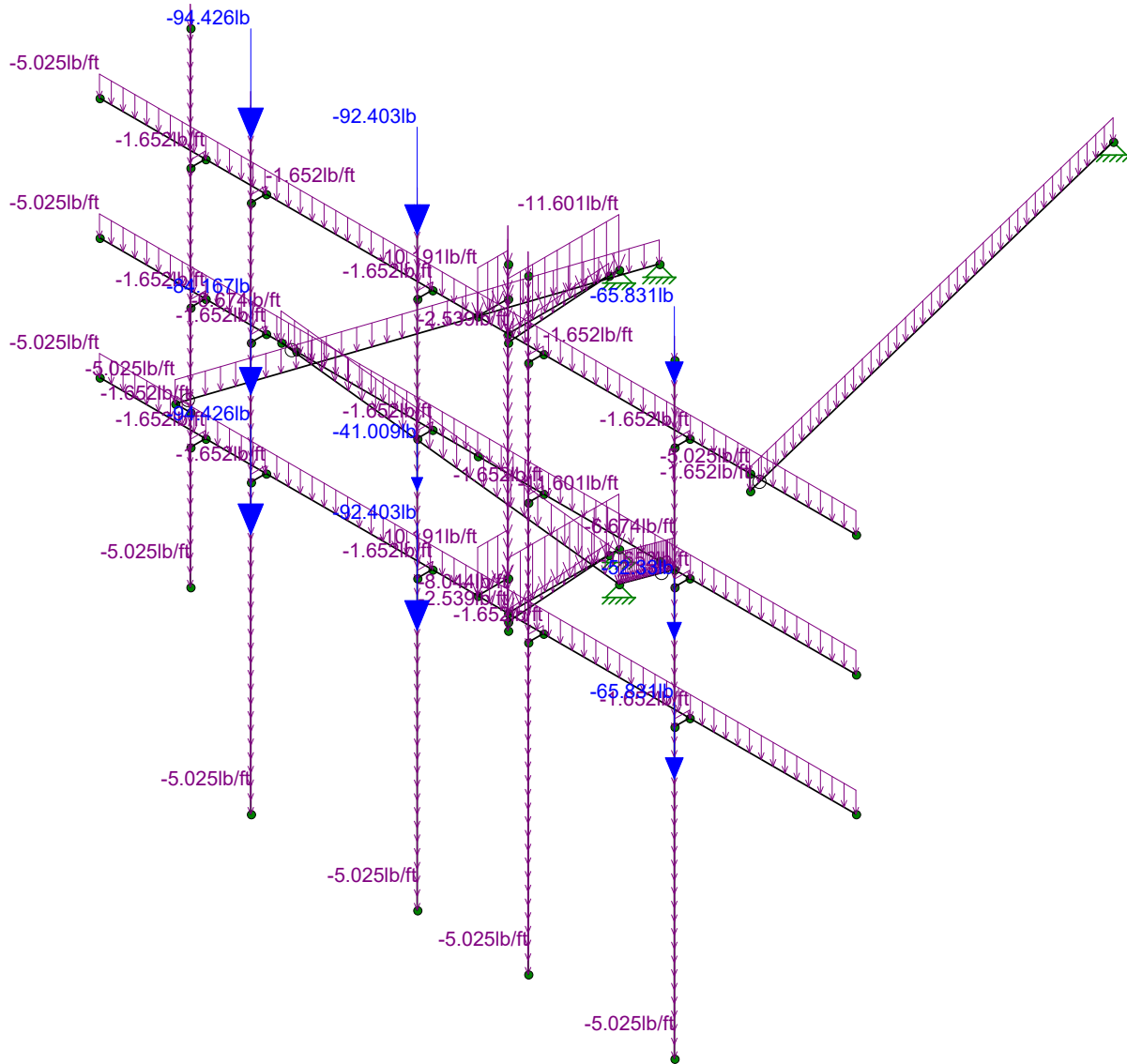
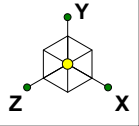
1106-A0001

CTL05641

SK - 10

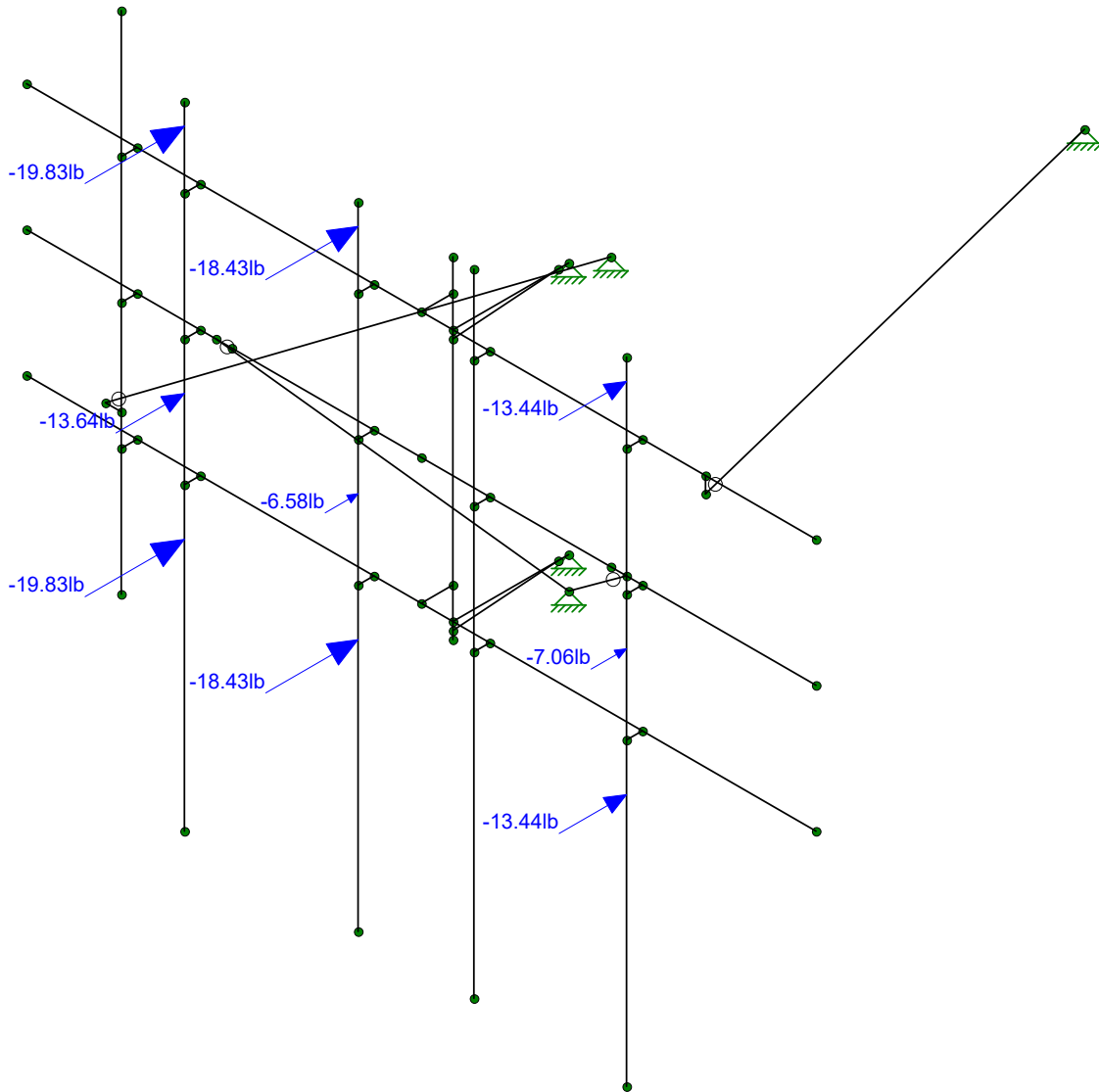
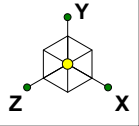
May 20, 2021 at 11:59 AM

CTL05641_Modified Frame_loade...



Loads: BLC 16, Ice Weight

Infinigy Engineering	CTL05641	SK - 11
BB		May 20, 2021 at 11:59 AM
1106-A0001		CTL05641_Modified Frame_loade...



Loads: BLC 17, Ice Wind Load AZI 0

Infinigy Engineering

BB

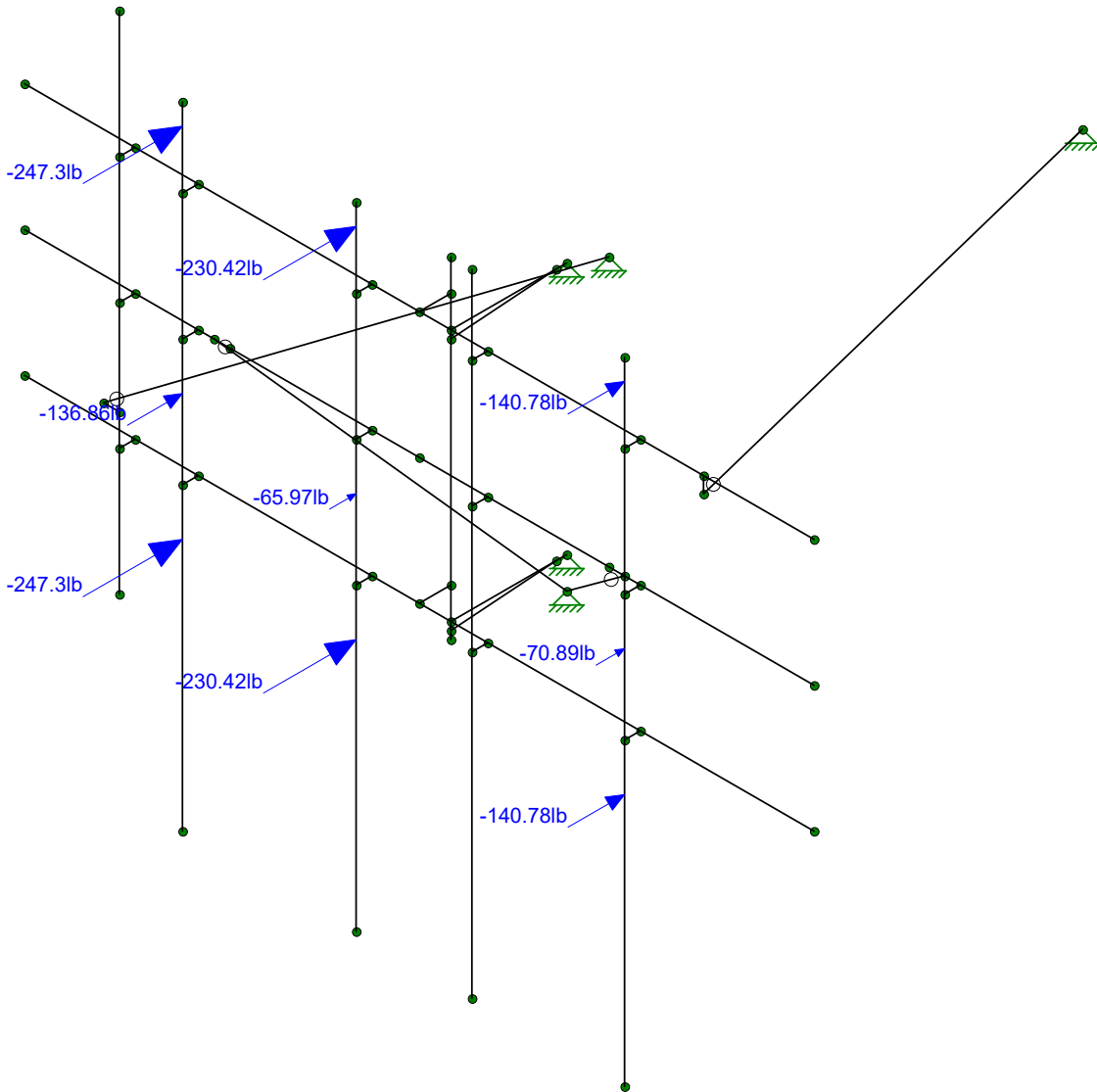
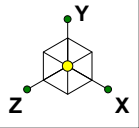
1106-A0001

CTL05641

SK - 12

May 20, 2021 at 11:59 AM

CTL05641_Modified Frame_loade...

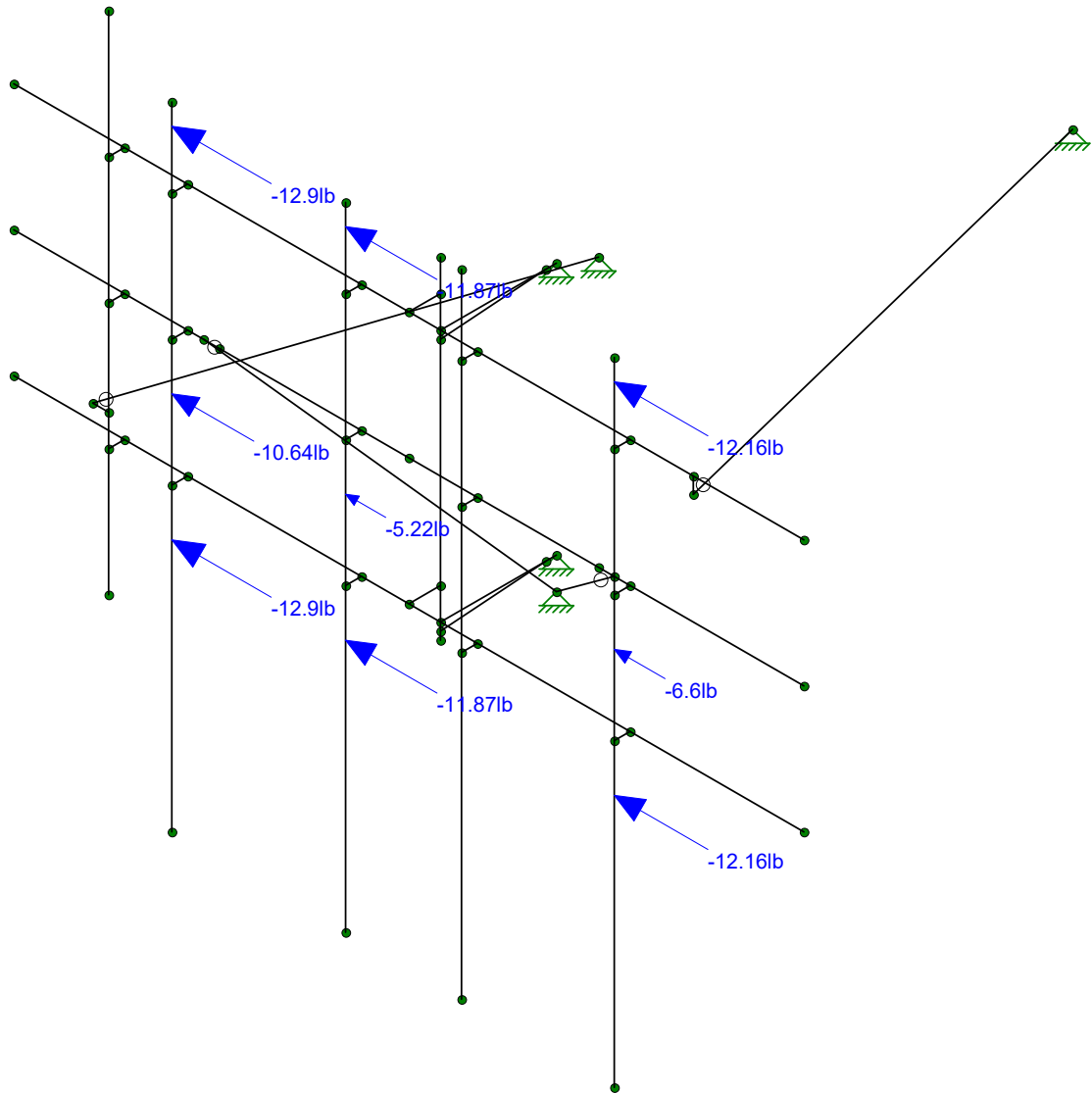
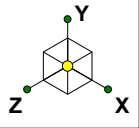


Loads: BLC 2, Wind Load AZI 0

Infinigy Engineering
BB
1106-A0001

CTL05641

SK - 7
May 20, 2021 at 11:58 AM
CTL05641_Modified Frame_loade...



Loads: BLC 20, Ice Wind Load AZI 90

Infinigy Engineering

BB

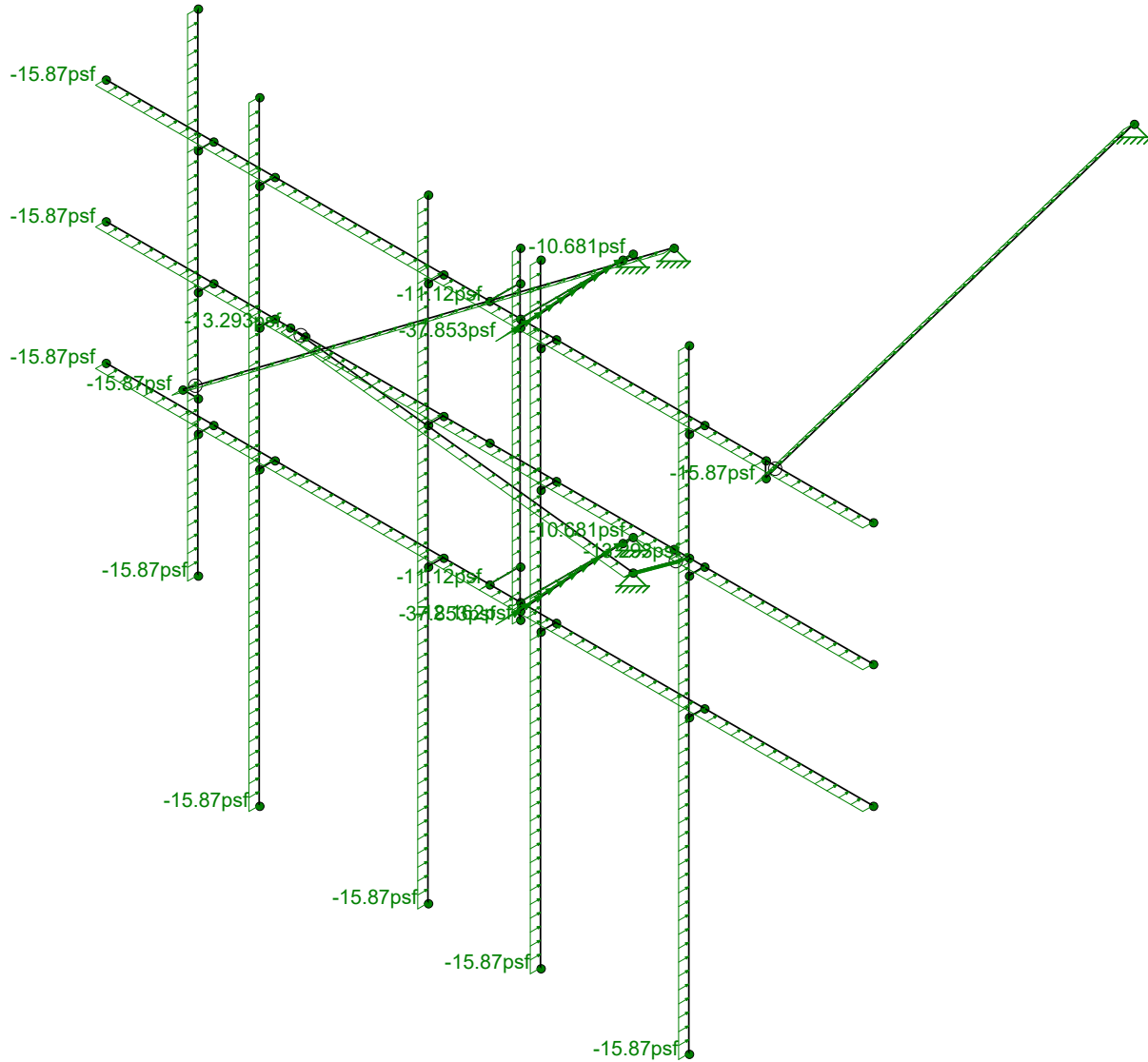
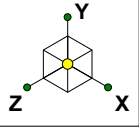
1106-A0001

CTL05641

SK - 13

May 20, 2021 at 11:59 AM

CTL05641_Modified Frame_loade...

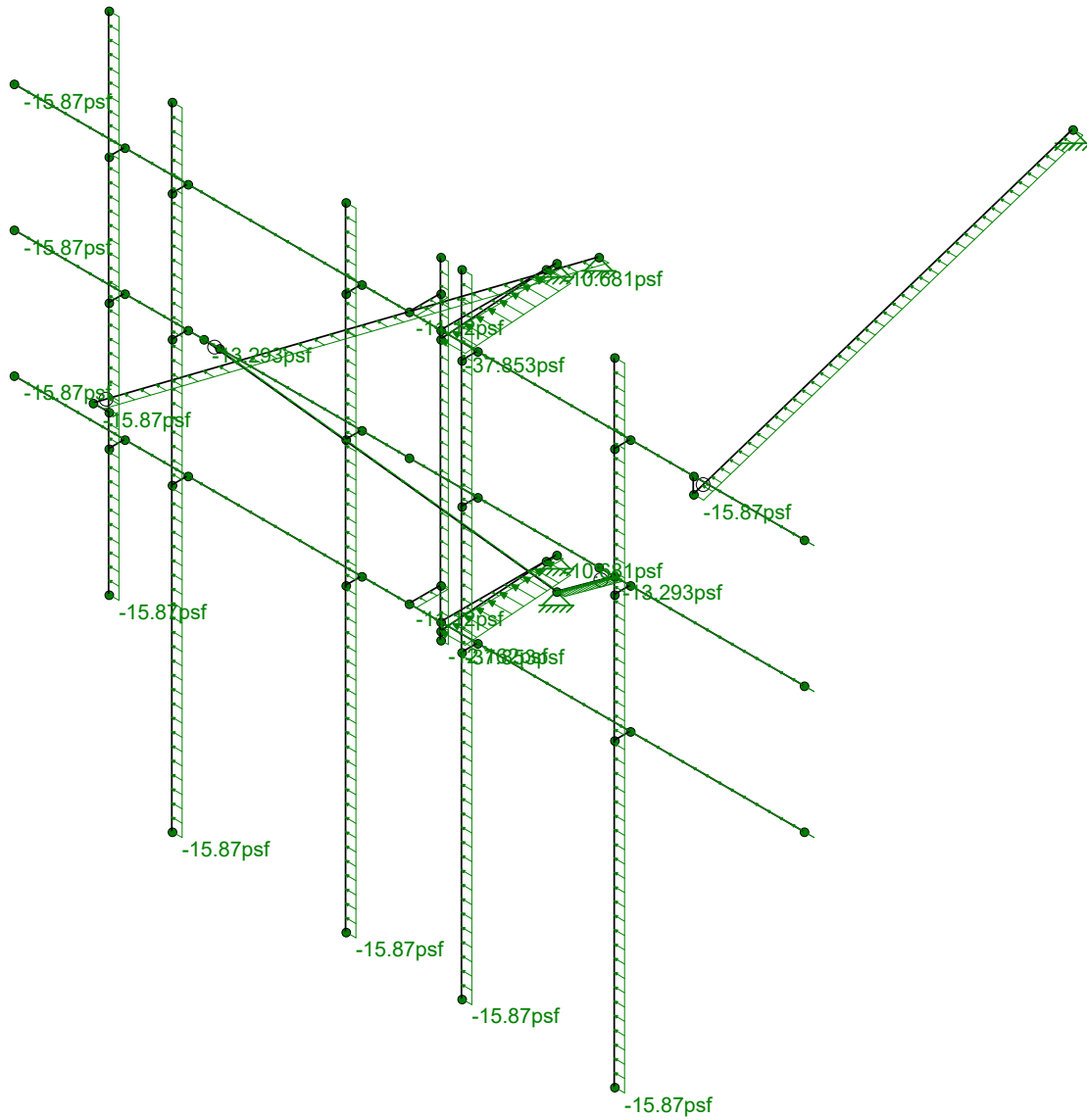
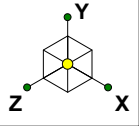


Loads: BLC 29, Distr. Ice Wind Load Z

Infinigy Engineering
BB
1106-A0001

CTL05641

SK - 14
May 20, 2021 at 11:59 AM
CTL05641_Modified Frame_loade...



Loads: BLC 30, Distr. Ice Wind Load X

Infinigy Engineering

BB

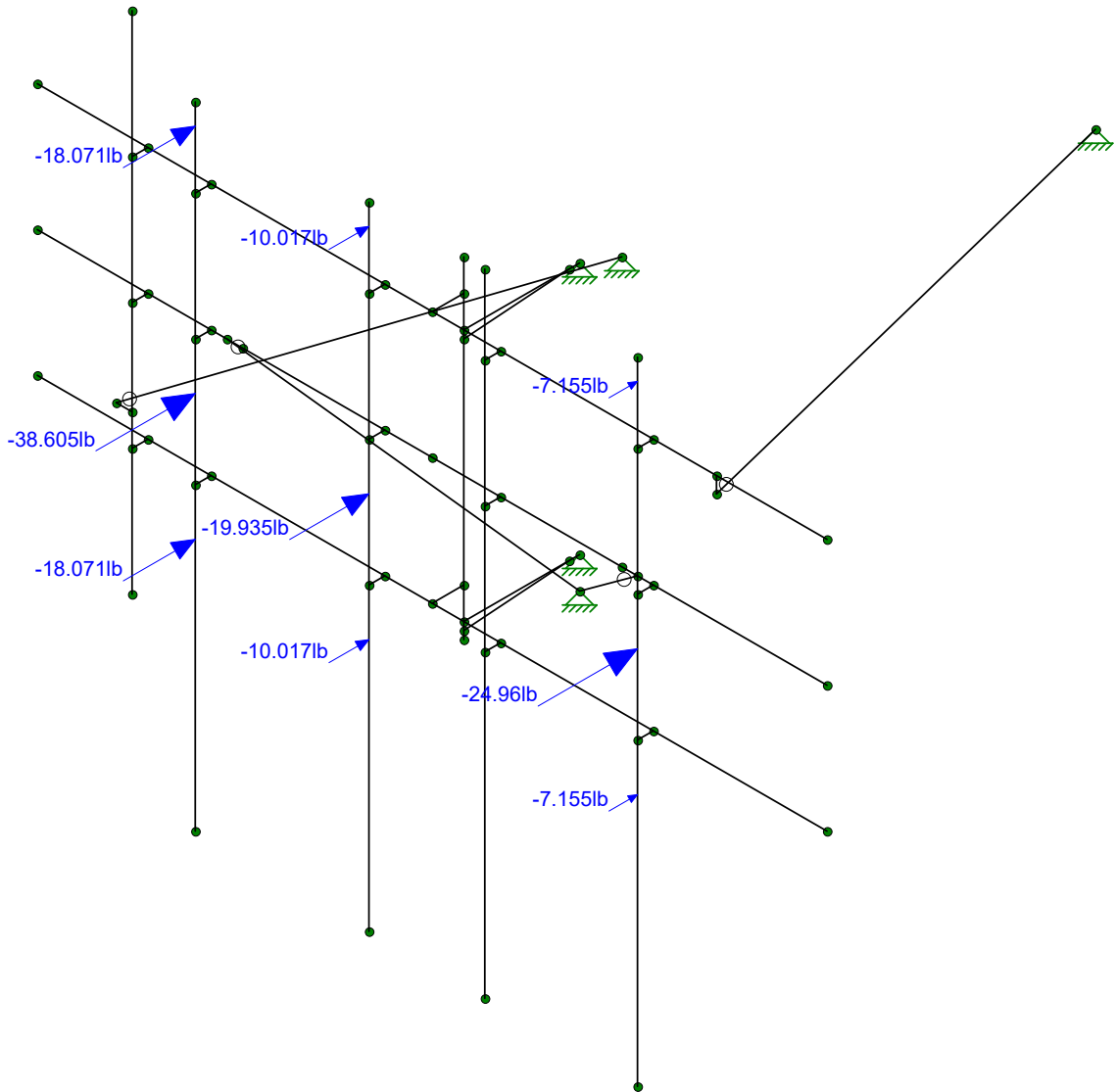
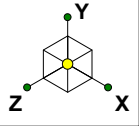
1106-A0001

CTL05641

SK - 15

May 20, 2021 at 11:59 AM

CTL05641_Modified Frame_loade...



Loads: BLC 31, Seismic Load Z

Infinigy Engineering

BB

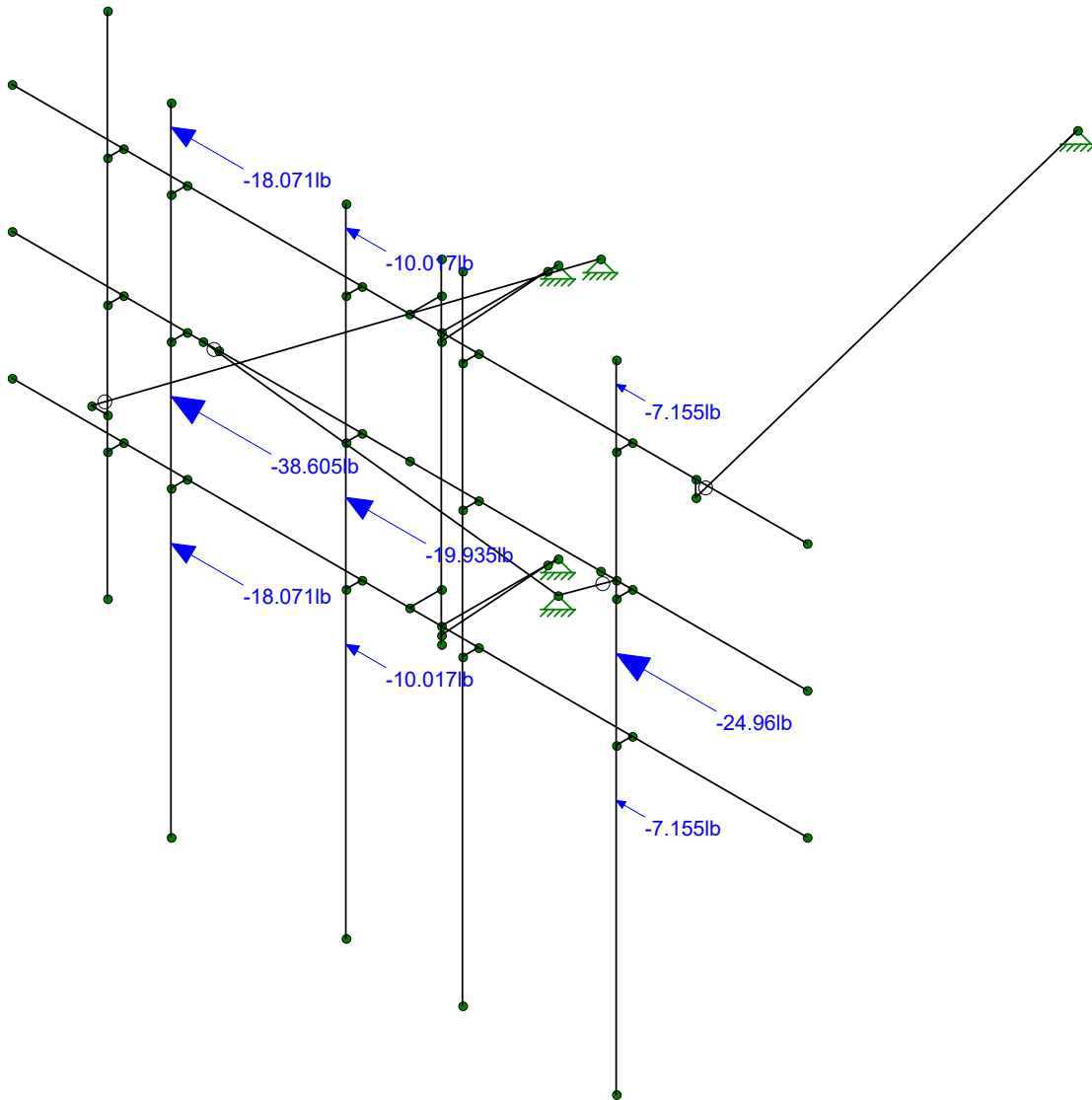
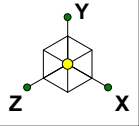
1106-A0001

CTL05641

SK - 16

May 20, 2021 at 11:59 AM

CTL05641_Modified Frame_loade...



Loads: BLC 32, Seismic Load X

Infinigy Engineering

BB

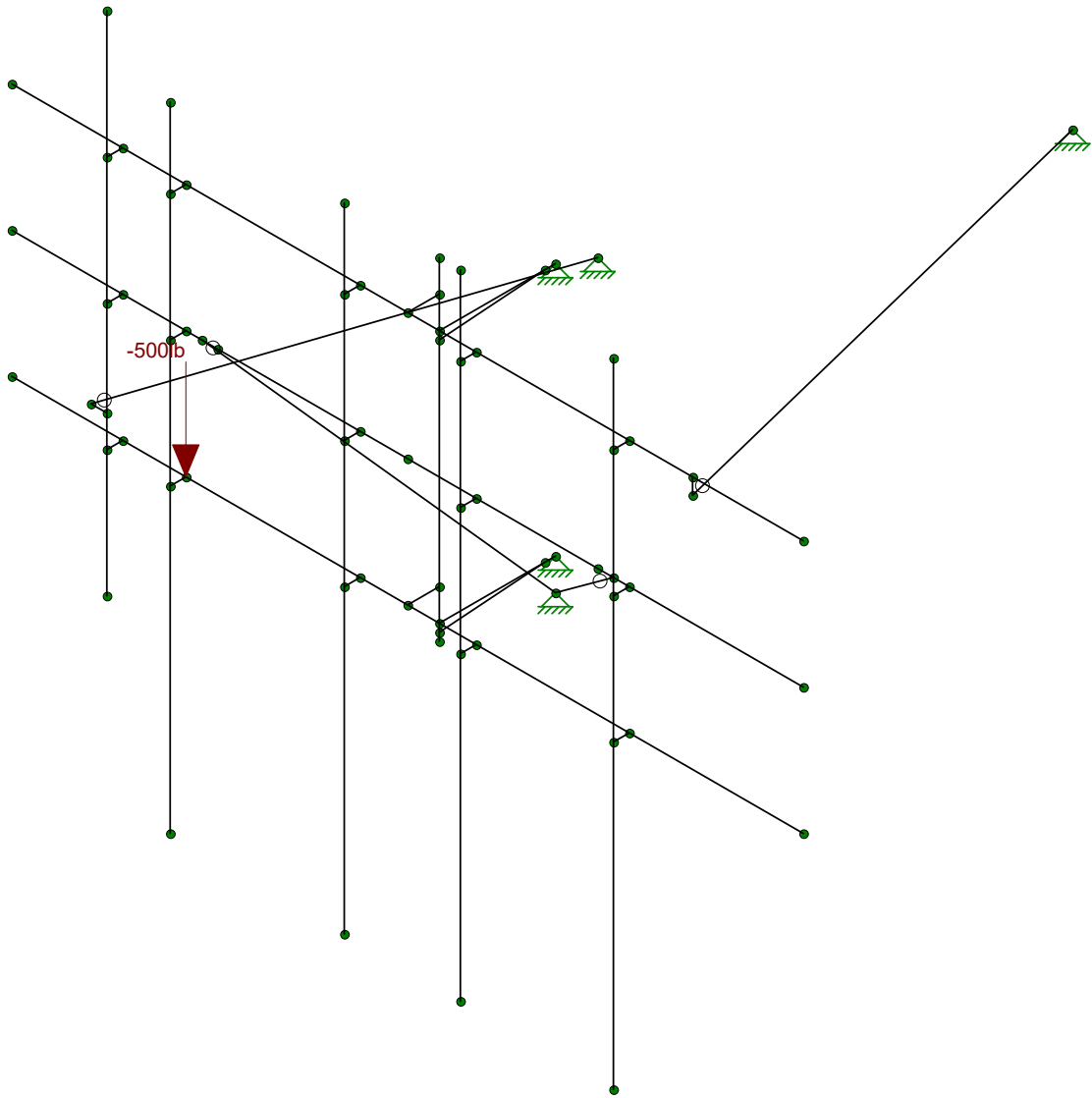
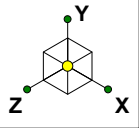
1106-A0001

CTL05641

SK - 17

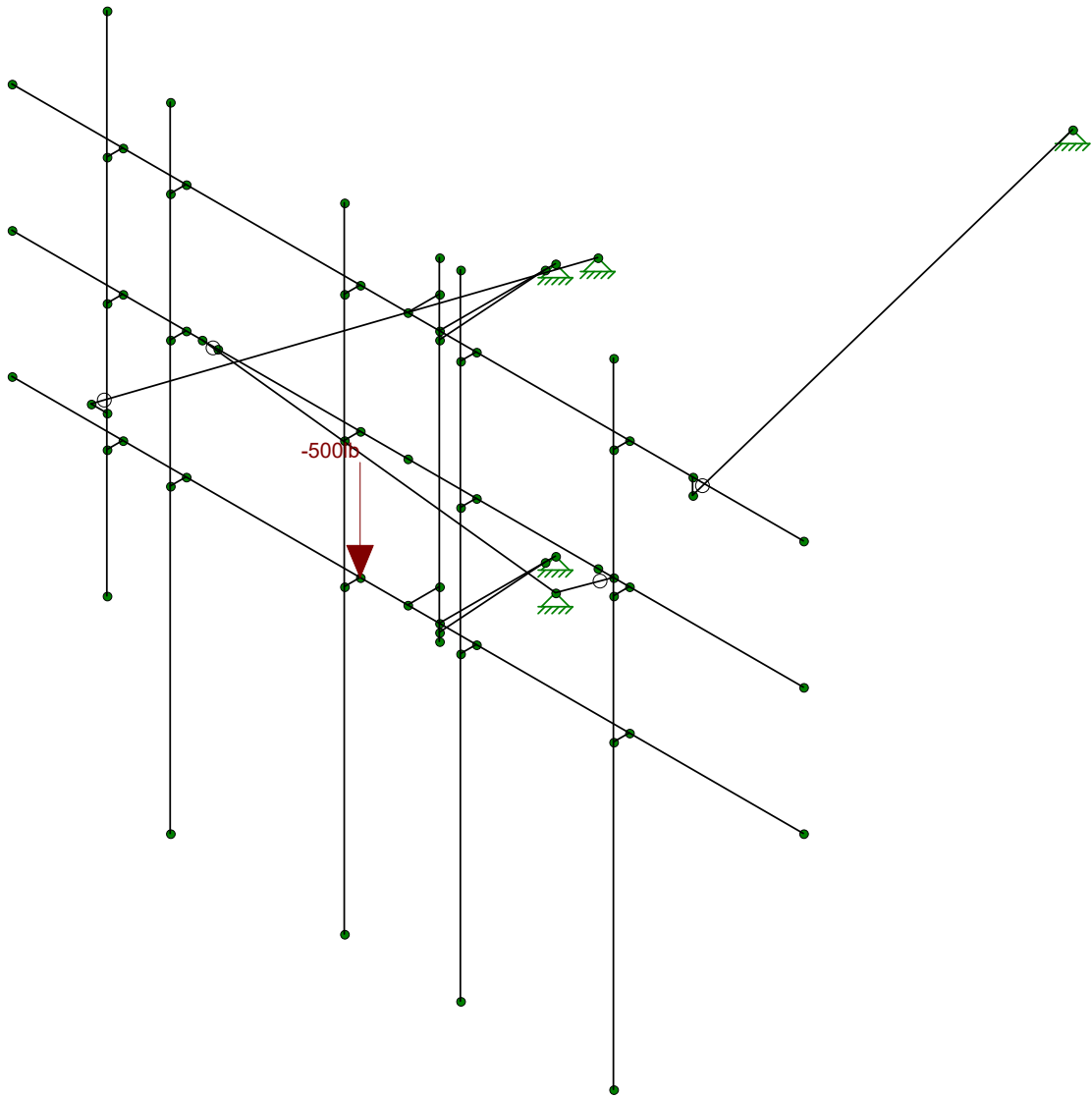
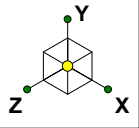
May 20, 2021 at 12:00 PM

CTL05641_Modified Frame_loade...



Loads: BLC 34, Maintenance Load 1

Infinigy Engineering	CTL05641	SK - 18
BB		May 20, 2021 at 12:00 PM
1106-A0001		CTL05641_Modified Frame_loade...



Loads: BLC 35, Maintenance Load 2

Infinigy Engineering

BB

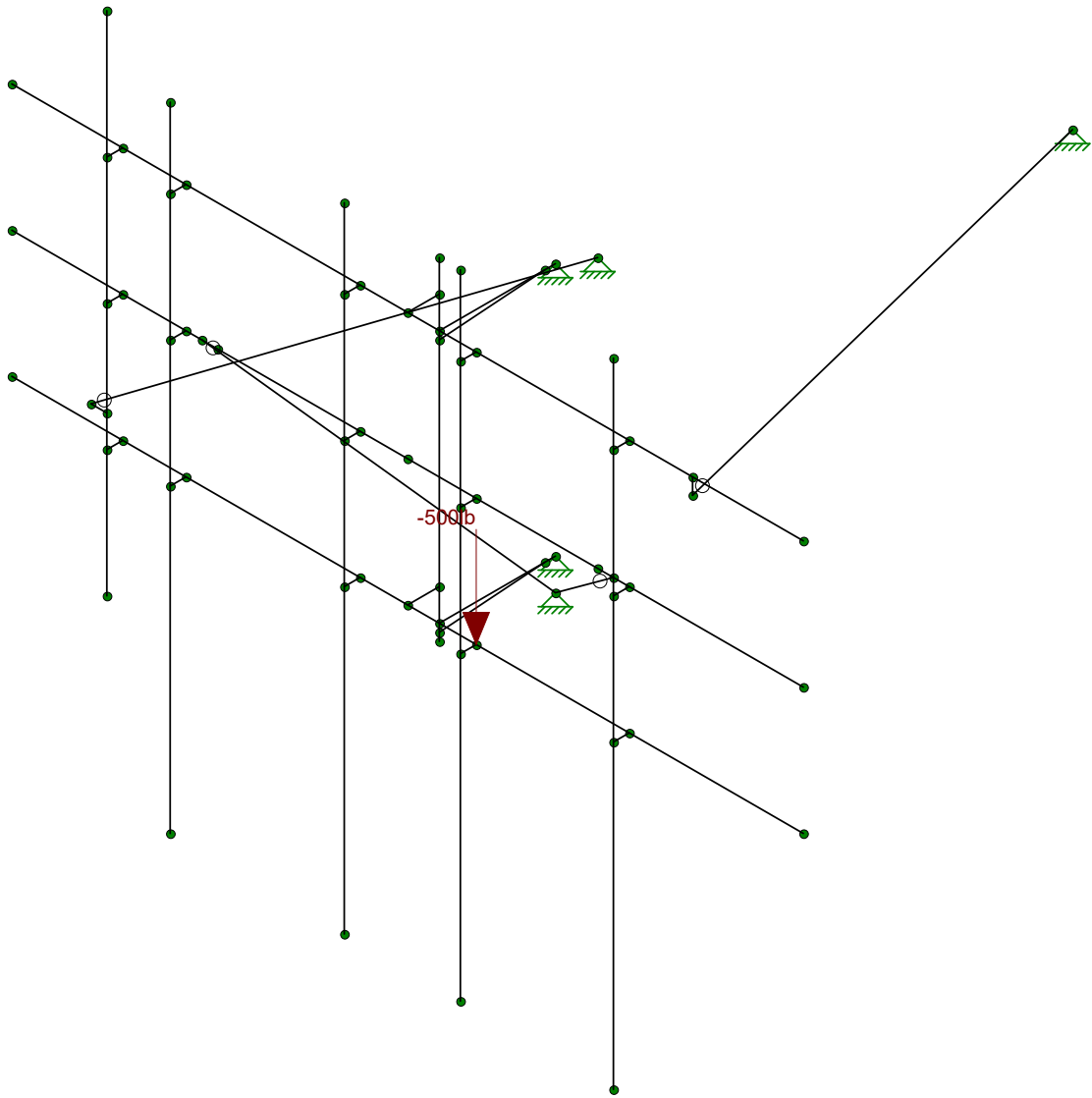
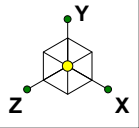
1106-A0001

CTL05641

SK - 19

May 20, 2021 at 12:00 PM

CTL05641_Modified Frame_loade...



Loads: BLC 36, Maintenance Load 3

Infinigy Engineering

BB

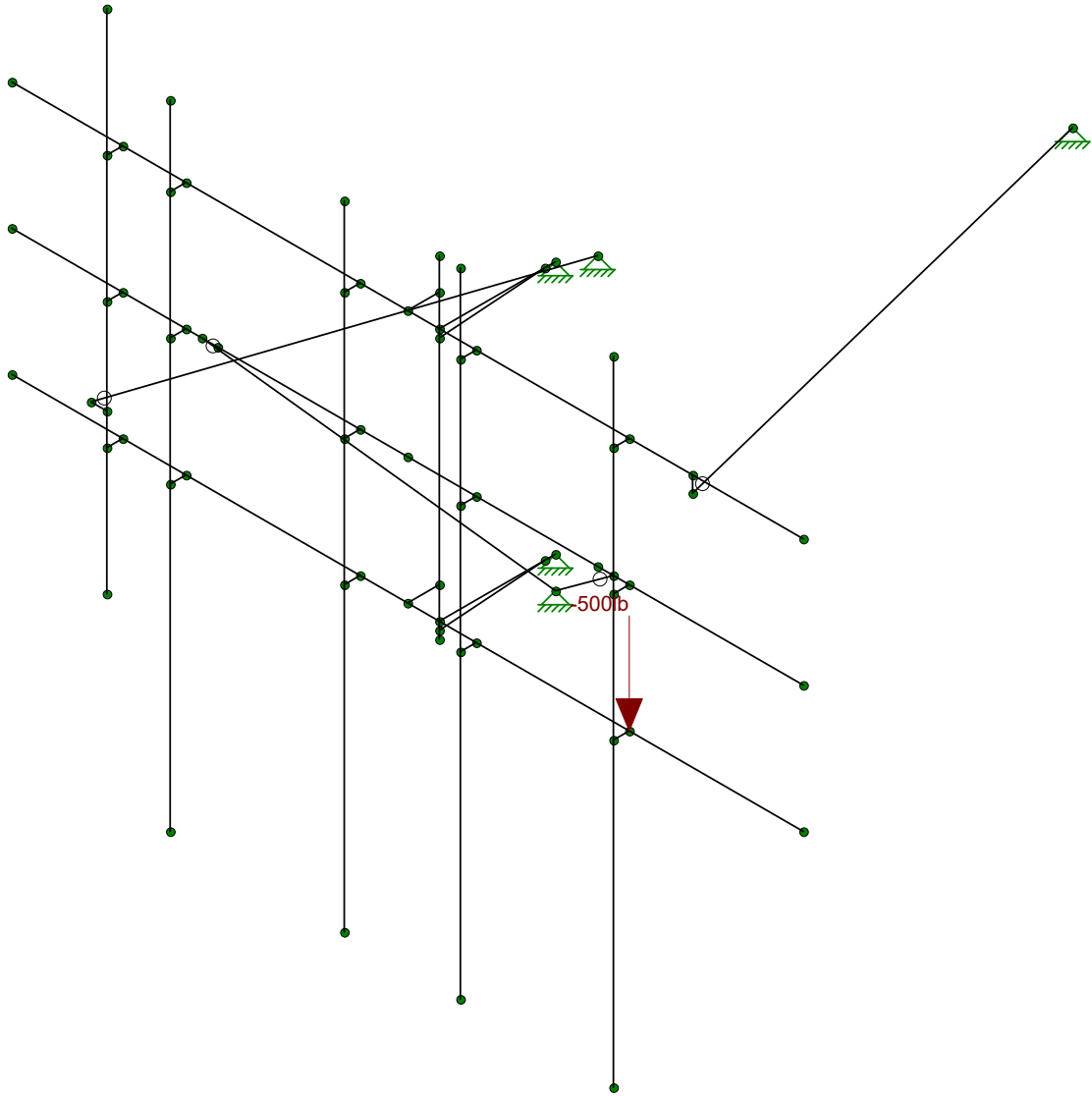
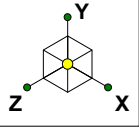
1106-A0001

CTL05641

SK - 20

May 20, 2021 at 12:00 PM

CTL05641_Modified Frame_loade...



Loads: BLC 37, Maintenance Load 4

Infinigy Engineering

BB

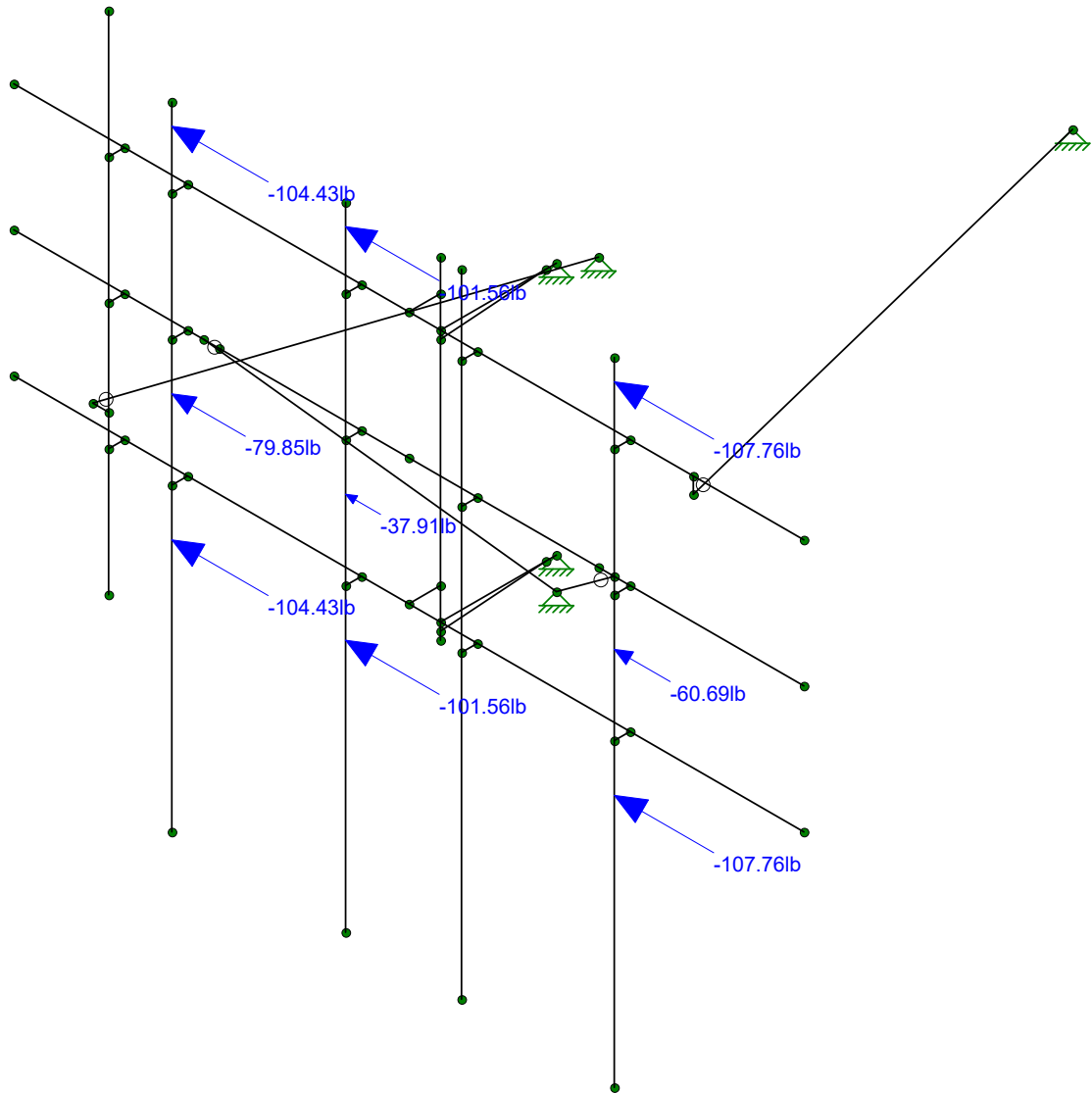
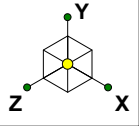
1106-A0001

CTL05641

SK - 21

May 20, 2021 at 12:00 PM

CTL05641_Modified Frame_loade...



Loads: BLC 5, Wind Load AZI 90

Infinigy Engineering	CTL05641	SK - 8
BB		May 20, 2021 at 11:58 AM
1106-A0001		CTL05641_Modified Frame_loade...

Program Inputs

PROJECT INFORMATION		
Client:	Smartlink	
Carrier:	AT&T	
Engineer:	Brenden Archer	

SITE INFORMATION		
Risk Category:	II	
Exposure Category:	B	
Topo Factor Procedure:	Method 1, Category 1	
Site Class:	D - Stiff Soil (Assumed)	
Ground Elevation:	211.50	ft *Rev H

MOUNT INFORMATION		
Mount Type:	Sector Frame	
Num Sectors:	3	
Centerline AGL:	149.00	ft
Tower Height AGL:	153.00	ft

TOPOGRAPHIC DATA		
Topo Feature:	N/A	
Slope Distance:	N/A	ft
Crest Distance:	N/A	ft
Crest Height:	N/A	ft

FACTORS		
Directionality Fact. (K_d):	0.950	
Ground Ele. Factor (K_e):	0.992	*Rev H Only
Rooftop Speed-Up (K_s):	1.000	*Rev H Only
Topographic Factor (K_{zt}):	1.000	
Gust Effect Factor (G_h):	1.000	

CODE STANDARDS		
Building Code:	2018 IBC	
TIA Standard:	TIA-222-H	
ASCE Standard:	ASCE 7-16	

WIND AND ICE DATA		
Ultimate Wind (V_{ult}):	122	mph
Design Wind (V):	N/A	mph
Ice Wind (V_{ice}):	50	mph
Base Ice Thickness (t_i):	1	in
Flat Pressure:	79.566	psf
Round Pressure:	47.740	psf
Ice Wind Pressure:	8.019	psf

SEISMIC DATA		
Short-Period Accel. (S_s):	0.208	g
1-Second Accel. (S_1):	0.054	g
Short-Period Design (S_{DS}):	0.222	
1-Second Design (S_{D1}):	0.086	
Short-Period Coeff. (F_a):	1.600	
1-Second Coeff. (F_v):	2.400	
Amplification Factor (A_s):	3.000	
Response Mod. Coeff. (R):	2.000	

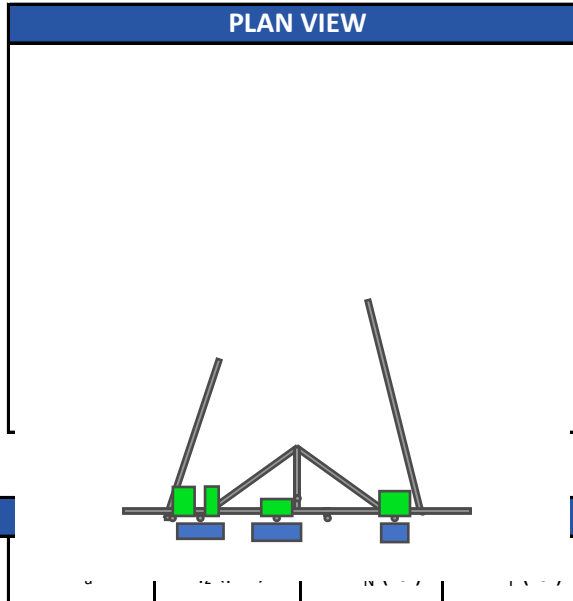
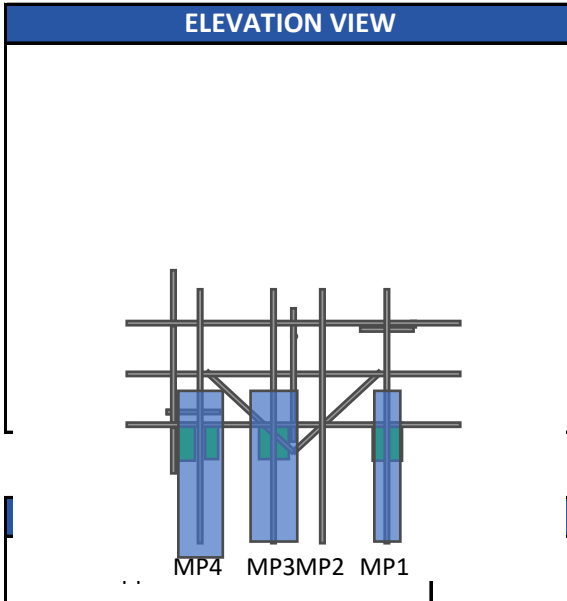


Infinigy Load Calculator V2.1.6

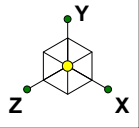
Program Inputs



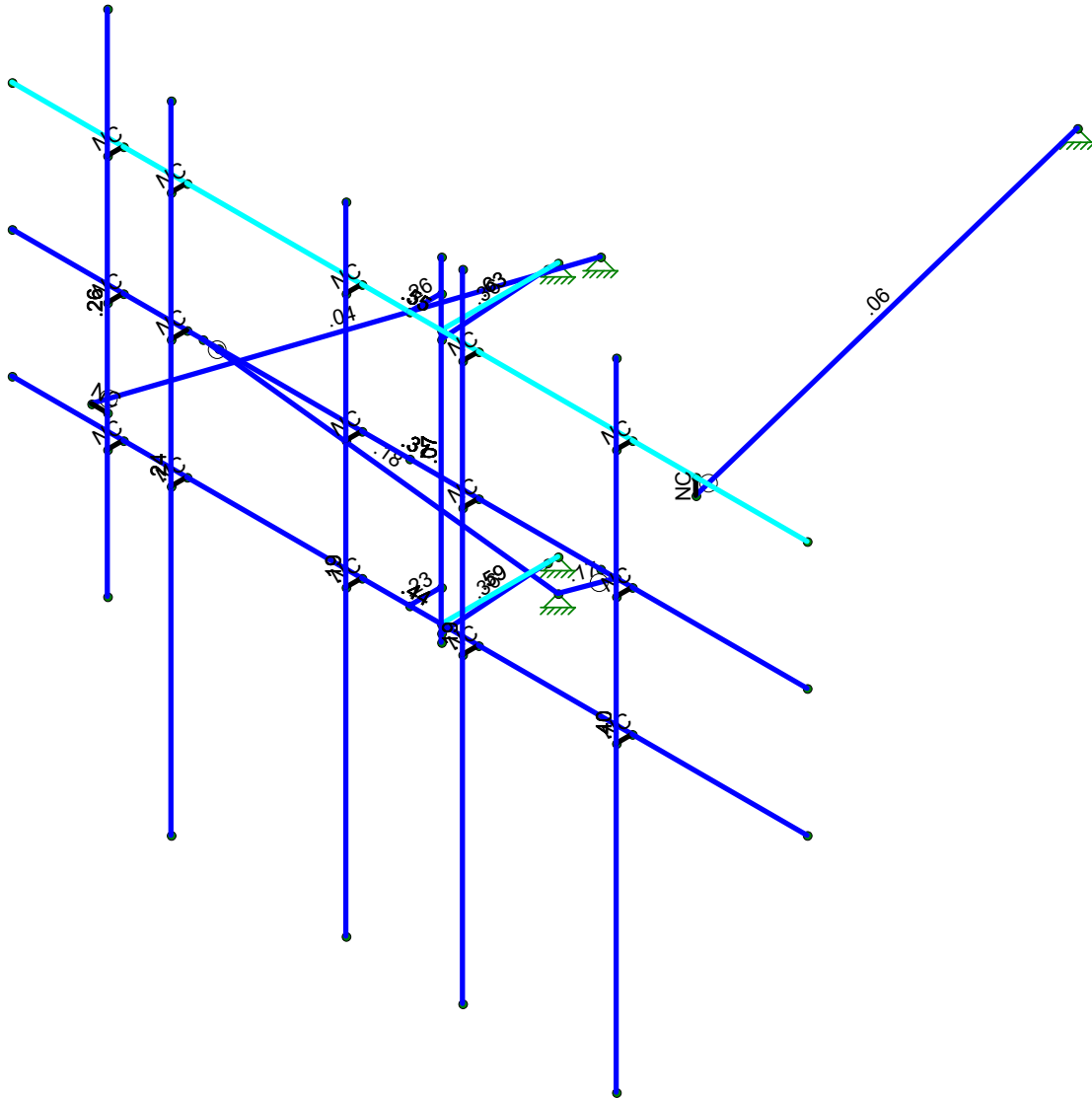
Infinigy Load Calculator V2.1.6



	Qty.										
		Wind F _z (lbs)	Wind F _x (lbs)	Weight (lbs)	Seismic F (lbs)	Member (α sector)					
CCI ANTENNAS HPA-65R-BU6AA	3	0.90	39.78	7.86	6.02	281.56	215.51	43.00	14.31	MP1	
CCI ANTENNAS OPA65R-BU6DA	3	0.90	39.78	12.87	5.67	460.84	203.12	60.20	20.03	MP3	
KATHREIN 800-10965	3	0.90	39.78	13.81	5.83	494.60	208.86	108.60	36.14	MP4	
ERICSSON TME-RADIO 8843	3	0.90	39.78	1.98	1.70	70.89	60.69	75.00	24.96	MP1	
ERICSSON TME-RRUS 4478 B14	3	0.90	39.78	1.84	1.06	65.97	37.91	59.90	19.93	MP3	
ERICSSON TME-RADIO 4449	3	0.90	39.78	1.98	1.41	70.89	50.48	70.00	23.30	MP4	
ERICSSON TME-RRUS 4415 B30	3	0.90	39.78	1.84	0.82	65.97	29.37	46.00	15.31	MP4	
RAYCAP TME-DC6-48-60-18-8C	2	0.90	39.78	2.74	2.74	97.98	97.98	26.20	8.72	Leg/Flush	
RAYCAP TME-DC6-48-60-18-8F	1	0.90	39.78	2.90	2.90	103.86	103.86	32.80	10.92	Leg/Flush	

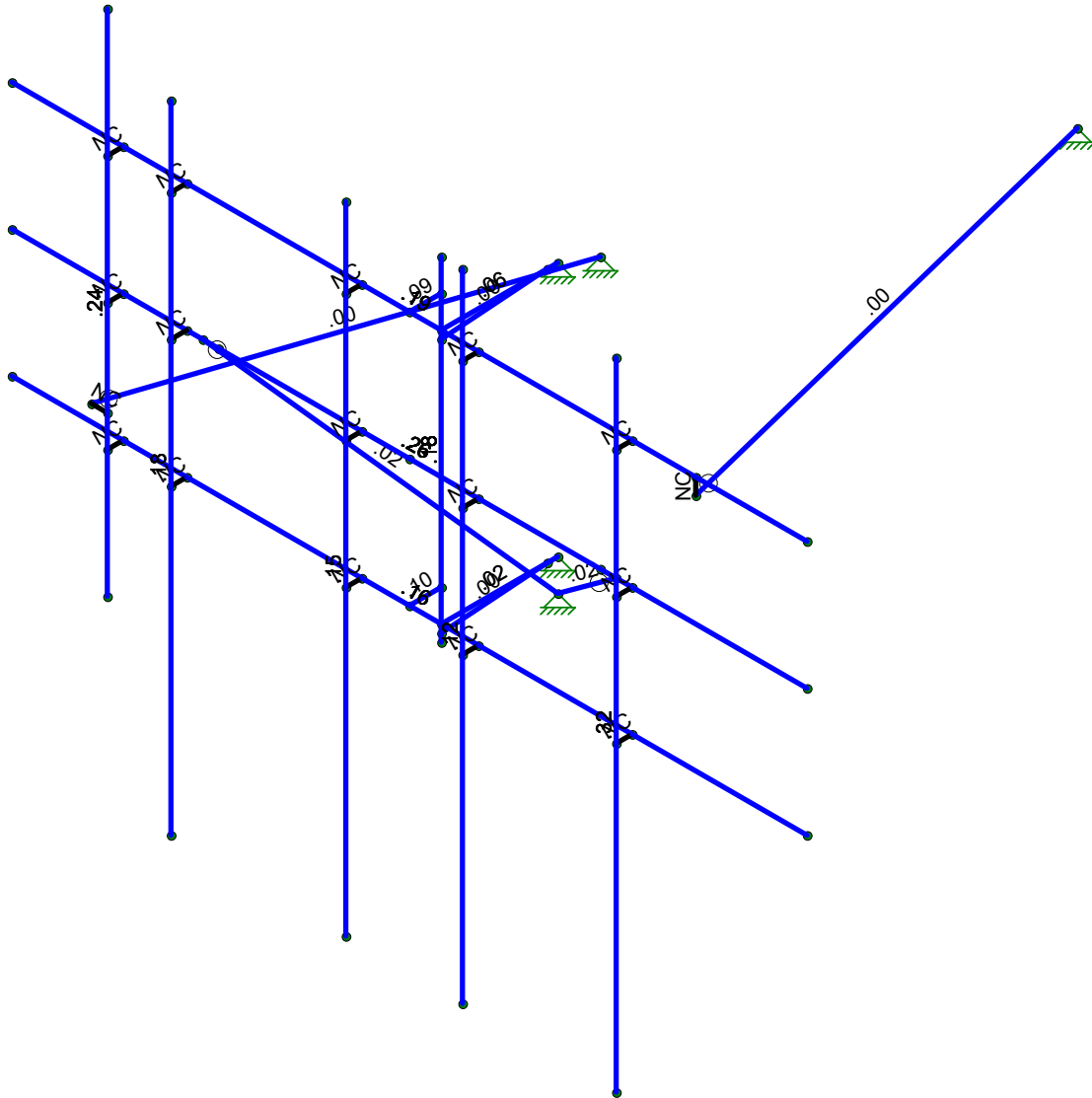
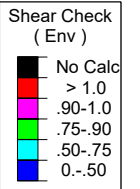
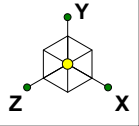


Code Check (Env)	
Black	No Calc
Red	> 1.0
Magenta	.90-1.0
Green	.75-.90
Cyan	.50-.75
Blue	0-.50



Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.4DL

Infinigy Engineering	CTL05641	SK - 22
BB		May 20, 2021 at 12:01 PM
1106-A0001		CTL05641_Modified Frame_loade...



Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.4DL

Infinigy Engineering	CTL05641	SK - 23
BB		May 20, 2021 at 12:01 PM
1106-A0001		CTL05641_Modified Frame_loade...



Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	H2	N1	N7			Horizontal	Beam	Pipe	A53 Gr.B	Typical
2	H1	N8	N14			Horizontal	Beam	Pipe	A53 Gr.B	Typical
3	M3	N9	N20			RIGID	None	None	RIGID	Typical
4	M4	N10	N21			RIGID	None	None	RIGID	Typical
5	M5	N11	N22			RIGID	None	None	RIGID	Typical
6	M6	N12	N23			RIGID	None	None	RIGID	Typical
7	M7	N13	N24			RIGID	None	None	RIGID	Typical
8	M8	N2	N15			RIGID	None	None	RIGID	Typical
9	M9	N3	N16			RIGID	None	None	RIGID	Typical
10	M10	N4	N17			RIGID	None	None	RIGID	Typical
11	M11	N5	N18			RIGID	None	None	RIGID	Typical
12	M12	N6	N19			RIGID	None	None	RIGID	Typical
13	MP4	N29	N25			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
14	MP3	N30	N26			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
15	MP2	N31	N27			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
16	MP1	N32	N28			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
17	M17	N38	N37			Support Pipe	Column	Pipe	A53 Gr.B	Typical
18	M18	N34	N36		90	Plate	Beam	None	A36 Gr.36	Typical
19	M19	N33	N35		90	Plate	Beam	None	A36 Gr.36	Typical
20	M20	N44	N43			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
21	M21	N45	N48			RIGID	None	None	RIGID	Typical
22	M22	N47	N46			RIGID	None	None	RIGID	Typical
23	M23	N48	N49			Tiebacks	Beam	Pipe	A53 Gr.B	Typical
24	M24	N47	N50			Tiebacks	Beam	Pipe	A53 Gr.B	Typical
25	M25	N41	N39		90	Standoff	Beam	None	A36 Gr.36	Typical
26	M26	N42	N40		90	Standoff	Beam	None	A36 Gr.36	Typical
27	M27	N51	N53			Solid Rod	Beam	None	A36 Gr.36	Typical
28	M28	N52	N54			Solid Rod	Beam	None	A36 Gr.36	Typical
29	M29	N56	N62			Horizontal	Beam	Pipe	A53 Gr.B	Typical
30	M30	N57	N63			RIGID	None	None	RIGID	Typical
31	M31	N58	N64			RIGID	None	None	RIGID	Typical
32	M32	N59	N65			RIGID	None	None	RIGID	Typical
33	M33	N60	N66			RIGID	None	None	RIGID	Typical
34	M34	N61	N67			RIGID	None	None	RIGID	Typical
35	M37	N71	N73			SFS Kit	Beam	Single Angle	A36 Gr.36	Typical
36	M38	N72	N73			SFS Kit	Beam	Single Angle	A36 Gr.36	Typical

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[LB]
1	Hot Rolled Steel				
2	A36 Gr.36	7" x 1/4" PL	2	44	21.835
3	Total HR Steel		2	44	21.835

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(M...Surface...
1	Self Weight	DL		-1			10		
2	Wind Load AZI 0	WLZ					20		
3	Wind Load AZI 30	None					20		
4	Wind Load AZI 60	None					20		
5	Wind Load AZI 90	WLX					20		
6	Wind Load AZI 120	None					20		
7	Wind Load AZI 150	None					20		
8	Wind Load AZI 180	None					20		



Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(M...Surface...
9 Wind Load AZI 210	None					20		
10 Wind Load AZI 240	None					20		
11 Wind Load AZI 270	None					20		
12 Wind Load AZI 300	None					20		
13 Wind Load AZI 330	None					20		
14 Distr. Wind Load Z	WLZ						36	
15 Distr. Wind Load X	WLX						36	
16 Ice Weight	OL1					10	36	
17 Ice Wind Load AZI 0	OL2					20		
18 Ice Wind Load AZI 30	None					20		
19 Ice Wind Load AZI 60	None					20		
20 Ice Wind Load AZI 90	OL3					20		
21 Ice Wind Load AZI 120	None					20		
22 Ice Wind Load AZI 150	None					20		
23 Ice Wind Load AZI 180	None					20		
24 Ice Wind Load AZI 210	None					20		
25 Ice Wind Load AZI 240	None					20		
26 Ice Wind Load AZI 270	None					20		
27 Ice Wind Load AZI 300	None					20		
28 Ice Wind Load AZI 330	None					20		
29 Distr. Ice Wind Load Z	OL2						36	
30 Distr. Ice Wind Load X	OL3						36	
31 Seismic Load Z	ELZ			-0.333		10		
32 Seismic Load X	ELX	-0.333				10		
33 Service Live Loads	LL							
34 Maintenance Load 1	LL				1			
35 Maintenance Load 2	LL				1			
36 Maintenance Load 3	LL				1			
37 Maintenance Load 4	LL				1			

Load Combinations

Description	S...	PDe...	SRSS	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
1 1.4DL	Yes	Y		1	1.4															
2 1.2DL + 1WL AZI 0	Yes	Y		1	1.2	2	1	14	1	15										
3 1.2DL + 1WL AZI 30	Yes	Y		1	1.2	3	1	14	.866	15	.5									
4 1.2DL + 1WL AZI 60	Yes	Y		1	1.2	4	1	14	.5	15	.866									
5 1.2DL + 1WL AZI 90	Yes	Y		1	1.2	5	1	14		15	1									
6 1.2DL + 1WL AZI 120	Yes	Y		1	1.2	6	1	14	-.5	15	.866									
7 1.2DL + 1WL AZI 150	Yes	Y		1	1.2	7	1	14	-.8...	15	.5									
8 1.2DL + 1WL AZI 180	Yes	Y		1	1.2	8	1	14	-1	15										
9 1.2DL + 1WL AZI 210	Yes	Y		1	1.2	9	1	14	-.8...	15	-.5									
10 1.2DL + 1WL AZI 240	Yes	Y		1	1.2	10	1	14	-.5	15	-.8...									
11 1.2DL + 1WL AZI 270	Yes	Y		1	1.2	11	1	14		15	-1									
12 1.2DL + 1WL AZI 300	Yes	Y		1	1.2	12	1	14	.5	15	-.8...									
13 1.2DL + 1WL AZI 330	Yes	Y		1	1.2	13	1	14	.866	15	-.5									
14 0.9DL + 1WL AZI 0	Yes	Y		1	.9	2	1	14	1	15										
15 0.9DL + 1WL AZI 30	Yes	Y		1	.9	3	1	14	.866	15	.5									
16 0.9DL + 1WL AZI 60	Yes	Y		1	.9	4	1	14	.5	15	.866									
17 0.9DL + 1WL AZI 90	Yes	Y		1	.9	5	1	14		15	1									
18 0.9DL + 1WL AZI 120	Yes	Y		1	.9	6	1	14	-.5	15	.866									
19 0.9DL + 1WL AZI 150	Yes	Y		1	.9	7	1	14	-.8...	15	.5									
20 0.9DL + 1WL AZI 180	Yes	Y		1	.9	8	1	14	-1	15										
21 0.9DL + 1WL AZI 210	Yes	Y		1	.9	9	1	14	-.8...	15	-.5									
22 0.9DL + 1WL AZI 240	Yes	Y		1	.9	10	1	14	-.5	15	-.8...									
23 0.9DL + 1WL AZI 270	Yes	Y		1	.9	11	1	14		15	-1									



Company : Infinigy Engineering
 Designer : BB
 Job Number : 1106-A0001
 Model Name : CTL05641

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Load Combinations (Continued)

	Description	S...	PDe...	SRSS	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
24	0.9DL + 1WL AZI 300	Yes	Y		1	.9	12	1	14	.5	15	-8...											
25	0.9DL + 1WL AZI 330	Yes	Y		1	.9	13	1	14	.866	15	-5											
26	1.2D + 1.0Di	Yes	Y		1	1.2	16	1															
27	1.2D + 1.0Di + 1.0Wi AZI 0	Yes	Y		1	1.2	16	1	17	1	29	1	30										
28	1.2D + 1.0Di + 1.0Wi AZI 30	Yes	Y		1	1.2	16	1	18	1	29	.866	30	.5									
29	1.2D + 1.0Di + 1.0Wi AZI 60	Yes	Y		1	1.2	16	1	19	1	29	.5	30	.866									
30	1.2D + 1.0Di + 1.0Wi AZI 90	Yes	Y		1	1.2	16	1	20	1	29		30	1									
31	1.2D + 1.0Di + 1.0Wi AZI 1...	Yes	Y		1	1.2	16	1	21	1	29	-.5	30	.866									
32	1.2D + 1.0Di + 1.0Wi AZI 1...	Yes	Y		1	1.2	16	1	22	1	29	-.8...	30	.5									
33	1.2D + 1.0Di + 1.0Wi AZI 1...	Yes	Y		1	1.2	16	1	23	1	29	-1	30										
34	1.2D + 1.0Di + 1.0Wi AZI 2...	Yes	Y		1	1.2	16	1	24	1	29	-.8...	30	-.5									
35	1.2D + 1.0Di + 1.0Wi AZI 2...	Yes	Y		1	1.2	16	1	25	1	29	-.5	30	-.8...									
36	1.2D + 1.0Di + 1.0Wi AZI 2...	Yes	Y		1	1.2	16	1	26	1	29		30	-1									
37	1.2D + 1.0Di + 1.0Wi AZI 3...	Yes	Y		1	1.2	16	1	27	1	29	.5	30	-.8...									
38	1.2D + 1.0Di + 1.0Wi AZI 3...	Yes	Y		1	1.2	16	1	28	1	29	.866	30	-.5									
39	(1.2 + 0.2Sds)DL + 1.0E A...	Yes	Y		1	1.2	.31	1	32														
40	(1.2 + 0.2Sds)DL + 1.0E A...	Yes	Y		1	1.2	.31	.866	32	.5													
41	(1.2 + 0.2Sds)DL + 1.0E A...	Yes	Y		1	1.2	.31	.5	32	.866													
42	(1.2 + 0.2Sds)DL + 1.0E A...	Yes	Y		1	1.2	.31		32	1													
43	(1.2 + 0.2Sds)DL + 1.0E A...	Yes	Y		1	1.2	.31	-.5	32	.866													
44	(1.2 + 0.2Sds)DL + 1.0E A...	Yes	Y		1	1.2	.31	-.8...	32	.5													
45	(1.2 + 0.2Sds)DL + 1.0E A...	Yes	Y		1	1.2	.31	-1	32														
46	(1.2 + 0.2Sds)DL + 1.0E A...	Yes	Y		1	1.2	.31	-.8...	32	-.5													
47	(1.2 + 0.2Sds)DL + 1.0E A...	Yes	Y		1	1.2	.31	-.5	32	-.8...													
48	(1.2 + 0.2Sds)DL + 1.0E A...	Yes	Y		1	1.2	.31		32	-1													
49	(1.2 + 0.2Sds)DL + 1.0E A...	Yes	Y		1	1.2	.31	.5	32	-.8...													
50	(1.2 + 0.2Sds)DL + 1.0E A...	Yes	Y		1	1.2	.31	.866	32	-.5													
51	(0.9 - 0.2Sds)DL + 1.0E A...	Yes	Y		1	.856	.31	1	32														
52	(0.9 - 0.2Sds)DL + 1.0E A...	Yes	Y		1	.856	.31	.866	32	.5													
53	(0.9 - 0.2Sds)DL + 1.0E A...	Yes	Y		1	.856	.31	.5	32	.866													
54	(0.9 - 0.2Sds)DL + 1.0E A...	Yes	Y		1	.856	.31		32	1													
55	(0.9 - 0.2Sds)DL + 1.0E A...	Yes	Y		1	.856	.31	-.5	32	.866													
56	(0.9 - 0.2Sds)DL + 1.0E A...	Yes	Y		1	.856	.31	-.8...	32	.5													
57	(0.9 - 0.2Sds)DL + 1.0E A...	Yes	Y		1	.856	.31	-1	32														
58	(0.9 - 0.2Sds)DL + 1.0E A...	Yes	Y		1	.856	.31	-.8...	32	-.5													
59	(0.9 - 0.2Sds)DL + 1.0E A...	Yes	Y		1	.856	.31	-.5	32	-.8...													
60	(0.9 - 0.2Sds)DL + 1.0E A...	Yes	Y		1	.856	.31		32	-1													
61	(0.9 - 0.2Sds)DL + 1.0E A...	Yes	Y		1	.856	.31	.5	32	-.8...													
62	(0.9 - 0.2Sds)DL + 1.0E A...	Yes	Y		1	.856	.31	.866	32	-.5													
63	1.0DL + 1.5LL + 1.0SWL (...)	Yes	Y		1	1	2	.242	14	.242	15		33	1.5									
64	1.0DL + 1.5LL + 1.0SWL (...)	Yes	Y		1	1	3	.242	14	.209	15	.121	33	1.5									
65	1.0DL + 1.5LL + 1.0SWL (...)	Yes	Y		1	1	4	.242	14	.121	15	.209	33	1.5									
66	1.0DL + 1.5LL + 1.0SWL (...)	Yes	Y		1	1	5	.242	14		15	.242	33	1.5									
67	1.0DL + 1.5LL + 1.0SWL (...)	Yes	Y		1	1	6	.242	14	-.1...	15	.209	33	1.5									
68	1.0DL + 1.5LL + 1.0SWL (...)	Yes	Y		1	1	7	.242	14	-.2...	15	.121	33	1.5									
69	1.0DL + 1.5LL + 1.0SWL (...)	Yes	Y		1	1	8	.242	14	-.2...	15		33	1.5									
70	1.0DL + 1.5LL + 1.0SWL (...)	Yes	Y		1	1	9	.242	14	-.2...	15	-.1...	33	1.5									
71	1.0DL + 1.5LL + 1.0SWL (...)	Yes	Y		1	1	10	.242	14	-.1...	15	-.2...	33	1.5									
72	1.0DL + 1.5LL + 1.0SWL (...)	Yes	Y		1	1	11	.242	14		15	-.2...	33	1.5									
73	1.0DL + 1.5LL + 1.0SWL (...)	Yes	Y		1	1	12	.242	14	.121	15	-.2...	33	1.5									
74	1.0DL + 1.5LL + 1.0SWL (...)	Yes	Y		1	1	13	.242	14	.209	15	-.1...	33	1.5									
75	1.2DL + 1.5LL	Yes	Y		1	1.2	33	1.5															
76	1.2DL + 1.5LM-MP1 + 1S...	Yes	Y		1	1.2	34	1.5	2	.06	14	.06	15										
77	1.2DL + 1.5LM-MP1 + 1S...	Yes	Y		1	1.2	34	1.5	3	.06	14	.052	15	.03									
78	1.2DL + 1.5LM-MP1 + 1S...	Yes	Y		1	1.2	34	1.5	4	.06	14	.03	15	.052									
79	1.2DL + 1.5LM-MP1 + 1S...	Yes	Y		1	1.2	34	1.5	5	.06	14		15	.06									
80	1.2DL + 1.5LM-MP1 + 1S...	Yes	Y		1	1.2	34	1.5	6	.06	14	-.03	15	.052									



Company : Infinigy Engineering
 Designer : BB
 Job Number : 1106-A0001
 Model Name : CTL05641

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Load Combinations (Continued)

	Description	S...	PDe...	SRSS	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...
81	1.2DL + 1.5LM-MP1 + 1S...	Yes	Y		1	1.2	34	1.5	7	.06	14	-0...	15	.03									
82	1.2DL + 1.5LM-MP1 + 1S...	Yes	Y		1	1.2	34	1.5	8	.06	14	-06	15										
83	1.2DL + 1.5LM-MP1 + 1S...	Yes	Y		1	1.2	34	1.5	9	.06	14	-0...	15	-.03									
84	1.2DL + 1.5LM-MP1 + 1S...	Yes	Y		1	1.2	34	1.5	10	.06	14	-.03	15	-.0...									
85	1.2DL + 1.5LM-MP1 + 1S...	Yes	Y		1	1.2	34	1.5	11	.06	14		15	-.06									
86	1.2DL + 1.5LM-MP1 + 1S...	Yes	Y		1	1.2	34	1.5	12	.06	14	.03	15	-.0...									
87	1.2DL + 1.5LM-MP1 + 1S...	Yes	Y		1	1.2	34	1.5	13	.06	14	.052	15	-.03									
88	1.2DL + 1.5LM-MP2 + 1S...	Yes	Y		1	1.2	35	1.5	2	.06	14	.06	15										
89	1.2DL + 1.5LM-MP2 + 1S...	Yes	Y		1	1.2	35	1.5	3	.06	14	.052	15	.03									
90	1.2DL + 1.5LM-MP2 + 1S...	Yes	Y		1	1.2	35	1.5	4	.06	14	.03	15	.052									
91	1.2DL + 1.5LM-MP2 + 1S...	Yes	Y		1	1.2	35	1.5	5	.06	14		15	.06									
92	1.2DL + 1.5LM-MP2 + 1S...	Yes	Y		1	1.2	35	1.5	6	.06	14	-.03	15	.052									
93	1.2DL + 1.5LM-MP2 + 1S...	Yes	Y		1	1.2	35	1.5	7	.06	14	-0...	15	.03									
94	1.2DL + 1.5LM-MP2 + 1S...	Yes	Y		1	1.2	35	1.5	8	.06	14	-.06	15										
95	1.2DL + 1.5LM-MP2 + 1S...	Yes	Y		1	1.2	35	1.5	9	.06	14	-0...	15	-.03									
96	1.2DL + 1.5LM-MP2 + 1S...	Yes	Y		1	1.2	35	1.5	10	.06	14	-.03	15	-.0...									
97	1.2DL + 1.5LM-MP2 + 1S...	Yes	Y		1	1.2	35	1.5	11	.06	14		15	-.06									
98	1.2DL + 1.5LM-MP2 + 1S...	Yes	Y		1	1.2	35	1.5	12	.06	14	.03	15	-.0...									
99	1.2DL + 1.5LM-MP2 + 1S...	Yes	Y		1	1.2	35	1.5	13	.06	14	.052	15	-.03									
100	1.2DL + 1.5LM-MP3 + 1S...	Yes	Y		1	1.2	36	1.5	2	.06	14	.06	15										
101	1.2DL + 1.5LM-MP3 + 1S...	Yes	Y		1	1.2	36	1.5	3	.06	14	.052	15	.03									
102	1.2DL + 1.5LM-MP3 + 1S...	Yes	Y		1	1.2	36	1.5	4	.06	14	.03	15	.052									
103	1.2DL + 1.5LM-MP3 + 1S...	Yes	Y		1	1.2	36	1.5	5	.06	14		15	.06									
104	1.2DL + 1.5LM-MP3 + 1S...	Yes	Y		1	1.2	36	1.5	6	.06	14	-.03	15	.052									
105	1.2DL + 1.5LM-MP3 + 1S...	Yes	Y		1	1.2	36	1.5	7	.06	14	-0...	15	.03									
106	1.2DL + 1.5LM-MP3 + 1S...	Yes	Y		1	1.2	36	1.5	8	.06	14	-.06	15										
107	1.2DL + 1.5LM-MP3 + 1S...	Yes	Y		1	1.2	36	1.5	9	.06	14	-0...	15	-.03									
108	1.2DL + 1.5LM-MP3 + 1S...	Yes	Y		1	1.2	36	1.5	10	.06	14	-.03	15	-.0...									
109	1.2DL + 1.5LM-MP3 + 1S...	Yes	Y		1	1.2	36	1.5	11	.06	14		15	-.06									
110	1.2DL + 1.5LM-MP3 + 1S...	Yes	Y		1	1.2	36	1.5	12	.06	14	.03	15	-.0...									
111	1.2DL + 1.5LM-MP3 + 1S...	Yes	Y		1	1.2	36	1.5	13	.06	14	.052	15	-.03									
112	1.2DL + 1.5LM-MP4 + 1S...	Yes	Y		1	1.2	37	1.5	2	.06	14	.06	15										
113	1.2DL + 1.5LM-MP4 + 1S...	Yes	Y		1	1.2	37	1.5	3	.06	14	.052	15	.03									
114	1.2DL + 1.5LM-MP4 + 1S...	Yes	Y		1	1.2	37	1.5	4	.06	14	.03	15	.052									
115	1.2DL + 1.5LM-MP4 + 1S...	Yes	Y		1	1.2	37	1.5	5	.06	14		15	.06									
116	1.2DL + 1.5LM-MP4 + 1S...	Yes	Y		1	1.2	37	1.5	6	.06	14	-.03	15	.052									
117	1.2DL + 1.5LM-MP4 + 1S...	Yes	Y		1	1.2	37	1.5	7	.06	14	-0...	15	.03									
118	1.2DL + 1.5LM-MP4 + 1S...	Yes	Y		1	1.2	37	1.5	8	.06	14	-.06	15										
119	1.2DL + 1.5LM-MP4 + 1S...	Yes	Y		1	1.2	37	1.5	9	.06	14	-0...	15	-.03									
120	1.2DL + 1.5LM-MP4 + 1S...	Yes	Y		1	1.2	37	1.5	10	.06	14	-.03	15	-.0...									
121	1.2DL + 1.5LM-MP4 + 1S...	Yes	Y		1	1.2	37	1.5	11	.06	14		15	-.06									
122	1.2DL + 1.5LM-MP4 + 1S...	Yes	Y		1	1.2	37	1.5	12	.06	14	.03	15	-.0...									

Envelope Joint Reactions

Joint	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
No Data to Print ...												

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

Member	Shape	Code	Che...	Loc...	LC	She...	Loc....	LC	phi*Pnc...	phi*Pnt [l...	phi*Mn y...	phi*Mn z-z... Cb	Eqn		
1	M25	7" x 1/4" PL	.631	22	6	.056	2.0...	y	5	4254.526	56700	295.313	5703.002	1.6...	H1-1a
2	M26	7" x 1/4" PL	.586	12...	35	.016	22	y	6	4254.526	56700	295.313	5697.578	1.6...	H1-1a



Company : Infinigy Engineering
 Designer : BB
 Job Number : 1106-A0001
 Model Name : CTL05641

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Envelope AISI S100-12: LRFD Cold Formed Steel Code Checks

Mem...	Shape	Code Check	Loc.....	Sh....	Lo.....	phi*	phi*	phi*	phi*	Cb	C...	C...	Eqn
No Data to Print ...													

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Horizontal	PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
2	Mount Pipe	PIPE 2.0	Column	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
3	Support Pipe	PIPE 4.0	Column	Pipe	A53 Gr.B	Typical	2.96	6.82	6.82	13.6
4	Tiebacks	PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
5	Plate	PL6x3/8	Beam	None	A36 Gr.36	Typical	2.25	.026	6.75	.101
6	Standoff	7" x 1/4" PL	Beam	None	A36 Gr.36	Typical	1.75	.009	7.146	.036
7	Solid Rod	0.625 SR	Beam	None	A36 Gr.36	Typical	.307	.007	.007	.015
8	Mod Horizontal	PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
9	SFS Kit	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical	.901	.535	.535	.011

Cold Formed Steel Section Sets

	Label	Shape	Type	Design L...	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF1A	8CU1.25X057	Beam	None	A653 SS Gr33	Typical	.581	.057	4.41	.00063

Member Advanced Data

	Label	I Release	J Release	Offset[in]	J Offset[j...]	T/C Only	Physi...	Defl Ratio	Optio...	Analysis Offs...	Inactive	Seismic Design Ru...
1	H2						Yes					None
2	H1						Yes					None
3	M3						Yes	** NA **				None
4	M4						Yes	** NA **				None
5	M5						Yes	** NA **				None
6	M6						Yes	** NA **				None
7	M7						Yes	** NA **				None
8	M8						Yes	** NA **				None
9	M9						Yes	** NA **				None
10	M10						Yes	** NA **				None
11	M11						Yes	** NA **				None
12	M12						Yes	** NA **				None
13	MP4						Yes	** NA **				None
14	MP3						Yes	** NA **				None
15	MP2						Yes	** NA **				None
16	MP1						Yes	** NA **				None
17	M17						Yes	** NA **				None
18	M18						Yes					None
19	M19						Yes					None
20	M20						Yes	** NA **				None
21	M21						Yes	** NA **				None
22	M22						Yes	** NA **				None
23	M23	BenPIN					Yes	Default				None
24	M24	BenPIN					Yes	Default				None
25	M25						Yes					None
26	M26						Yes	Default				None
27	M27						Yes					None
28	M28						Yes					None
29	M29						Yes					None
30	M30						Yes	** NA **				None
31	M31						Yes	** NA **				None



Member Advanced Data (Continued)

Label	I Release	J Release	Offset[in]	J Offset[i...]	T/C Only	Physi...	Defl Ratio	Optio...	Analysis Offs...	Inactive	Seismic Design Ru...
32	M32					Yes	** NA **				None
33	M33					Yes	** NA **				None
34	M34					Yes	** NA **				None
35	M37	BenPIN				Yes	Default				None
36	M38	BenPIN				Yes	Default				None

Hot Rolled Steel Design Parameters

Label	Shape	Length[...]	Lbyy[in]	Lbzz[in]	Lcomp top[...]	Lcomp bot[...]	L-torq...	Kyy	Kzz	Cb	Function
1	H2	Horizontal	150				Lbyy				Lateral
2	H1	Horizontal	150				Lbyy				Lateral
3	MP4	Mount Pipe	120								Lateral
4	MP3	Mount Pipe	120								Lateral
5	MP2	Mount Pipe	120								Lateral
6	MP1	Mount Pipe	120								Lateral
7	M17	Support Pi...	63								Lateral
8	M18	Plate	6				Lbyy				Lateral
9	M19	Plate	6				Lbyy				Lateral
10	M20	Mount Pipe	96								Lateral
11	M23	Tiebacks	75.895				Lbyy				Lateral
12	M24	Tiebacks	98.955				Lbyy				Lateral
13	M25	Standoff	22				Lbyy				Lateral
14	M26	Standoff	22				Lbyy				Lateral
15	M27	Solid Rod	20.056				Lbyy				Lateral
16	M28	Solid Rod	20.056				Lbyy				Lateral
17	M29	Horizontal	150				Lbyy				Lateral
18	M37	SFS Kit	60.008				Lbyy				Lateral
19	M38	SFS Kit	60.008				Lbyy				Lateral

Cold Formed Steel Design Parameters

Label	Shape	Lengt...	Lbyy[in]	Lbzz[in]	Lcomp t...	Lcomp ...	L-torque...	Kyy	Kzz	Cm-...Cm-...	Cb	R	a[in]	y sw...	z sw...
No Data to Print ...															

Joint Loads and Enforced Displacements (BLC 34 : Maintenance Load 1)

Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*in)]
1	N3	L	Y -500

Joint Loads and Enforced Displacements (BLC 35 : Maintenance Load 2)

Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*in)]
1	N4	L	Y -500

Joint Loads and Enforced Displacements (BLC 36 : Maintenance Load 3)

Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*in)]
1	N5	L	Y -500

Joint Loads and Enforced Displacements (BLC 37 : Maintenance Load 4)

Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2/in, lb*s^2*in)]
1	N6	L	Y -500



Member Point Loads (BLC 1 : Self Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	Y	-21.5	48
2	MP1	Y	-21.5	116
3	MP3	Y	-30.1	48
4	MP3	Y	-30.1	116
5	MP4	Y	-54.3	48
6	MP4	Y	-54.3	116
7	MP1	Y	-75	72
8	MP3	Y	-59.9	72
9	MP4	Y	-70	72
10	MP4	Y	-46	72

Member Point Loads (BLC 2 : Wind Load AZI 0)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	0	48
2	MP1	Z	-140.78	48
3	MP1	X	0	116
4	MP1	Z	-140.78	116
5	MP3	X	0	48
6	MP3	Z	-230.42	48
7	MP3	X	0	116
8	MP3	Z	-230.42	116
9	MP4	X	0	48
10	MP4	Z	-247.3	48
11	MP4	X	0	116
12	MP4	Z	-247.3	116
13	MP1	X	0	72
14	MP1	Z	-70.89	72
15	MP3	X	0	72
16	MP3	Z	-65.97	72
17	MP4	X	0	72
18	MP4	Z	-70.89	72
19	MP4	X	0	72
20	MP4	Z	-65.97	72

Member Point Loads (BLC 3 : Wind Load AZI 30)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	-66.26	48
2	MP1	Z	-114.77	48
3	MP1	X	-66.26	116
4	MP1	Z	-114.77	116
5	MP3	X	-99.1	48
6	MP3	Z	-171.65	48
7	MP3	X	-99.1	116
8	MP3	Z	-171.65	116
9	MP4	X	-105.79	48
10	MP4	Z	-183.24	48
11	MP4	X	-105.79	116
12	MP4	Z	-183.24	116
13	MP1	X	-34.17	72
14	MP1	Z	-59.19	72
15	MP3	X	-29.48	72
16	MP3	Z	-51.06	72
17	MP4	X	-32.9	72
18	MP4	Z	-56.98	72
19	MP4	X	-28.41	72



Member Point Loads (BLC 3 : Wind Load AZI 30) (Continued)

	Member Label	Direction	Magnitude[lb.-lb-ft]	Location[in.-%]
20	MP4	Z	-49.21	72

Member Point Loads (BLC 4 : Wind Load AZI 60)

	Member Label	Direction	Magnitude[lb.-lb-ft]	Location[in.-%]
1	MP1	X	-100.47	48
2	MP1	Z	-58.01	48
3	MP1	X	-100.47	116
4	MP1	Z	-58.01	116
5	MP3	X	-115.85	48
6	MP3	Z	-66.89	48
7	MP3	X	-115.85	116
8	MP3	Z	-66.89	116
9	MP4	X	-121.37	48
10	MP4	Z	-70.07	48
11	MP4	X	-121.37	116
12	MP4	Z	-70.07	116
13	MP1	X	-54.77	72
14	MP1	Z	-31.62	72
15	MP3	X	-38.91	72
16	MP3	Z	-22.46	72
17	MP4	X	-48.14	72
18	MP4	Z	-27.79	72
19	MP4	X	-33.36	72
20	MP4	Z	-19.26	72

Member Point Loads (BLC 5 : Wind Load AZI 90)

	Member Label	Direction	Magnitude[lb.-lb-ft]	Location[in.-%]
1	MP1	X	-107.76	48
2	MP1	Z	0	48
3	MP1	X	-107.76	116
4	MP1	Z	0	116
5	MP3	X	-101.56	48
6	MP3	Z	0	48
7	MP3	X	-101.56	116
8	MP3	Z	0	116
9	MP4	X	-104.43	48
10	MP4	Z	0	48
11	MP4	X	-104.43	116
12	MP4	Z	0	116
13	MP1	X	-60.69	72
14	MP1	Z	0	72
15	MP3	X	-37.91	72
16	MP3	Z	0	72
17	MP4	X	-50.48	72
18	MP4	Z	0	72
19	MP4	X	-29.37	72
20	MP4	Z	0	72

Member Point Loads (BLC 6 : Wind Load AZI 120)

	Member Label	Direction	Magnitude[lb.-lb-ft]	Location[in.-%]
1	MP1	X	-100.47	48
2	MP1	Z	58.01	48
3	MP1	X	-100.47	116
4	MP1	Z	58.01	116
5	MP3	X	-115.85	48



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 Designer : BB
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Member Point Loads (BLC 6 : Wind Load AZI 120) (Continued)

	Member Label	Direction	Magnitude[lb.-ft]	Location[in.-%]
6	MP3	Z	66.89	48
7	MP3	X	-115.85	116
8	MP3	Z	66.89	116
9	MP4	X	-121.37	48
10	MP4	Z	70.07	48
11	MP4	X	-121.37	116
12	MP4	Z	70.07	116
13	MP1	X	-54.77	72
14	MP1	Z	31.62	72
15	MP3	X	-38.91	72
16	MP3	Z	22.46	72
17	MP4	X	-48.14	72
18	MP4	Z	27.79	72
19	MP4	X	-33.36	72
20	MP4	Z	19.26	72

Member Point Loads (BLC 7 : Wind Load AZI 150)

	Member Label	Direction	Magnitude[lb.-ft]	Location[in.-%]
1	MP1	X	-66.26	48
2	MP1	Z	114.77	48
3	MP1	X	-66.26	116
4	MP1	Z	114.77	116
5	MP3	X	-99.1	48
6	MP3	Z	171.65	48
7	MP3	X	-99.1	116
8	MP3	Z	171.65	116
9	MP4	X	-105.79	48
10	MP4	Z	183.24	48
11	MP4	X	-105.79	116
12	MP4	Z	183.24	116
13	MP1	X	-34.17	72
14	MP1	Z	59.19	72
15	MP3	X	-29.48	72
16	MP3	Z	51.06	72
17	MP4	X	-32.9	72
18	MP4	Z	56.98	72
19	MP4	X	-28.41	72
20	MP4	Z	49.21	72

Member Point Loads (BLC 8 : Wind Load AZI 180)

	Member Label	Direction	Magnitude[lb.-ft]	Location[in.-%]
1	MP1	X	0	48
2	MP1	Z	140.78	48
3	MP1	X	0	116
4	MP1	Z	140.78	116
5	MP3	X	0	48
6	MP3	Z	230.42	48
7	MP3	X	0	116
8	MP3	Z	230.42	116
9	MP4	X	0	48
10	MP4	Z	247.3	48
11	MP4	X	0	116
12	MP4	Z	247.3	116
13	MP1	X	0	72
14	MP1	Z	70.89	72
15	MP3	X	0	72



Member Point Loads (BLC 8 : Wind Load AZI 180) (Continued)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
16	MP3	Z	65.97	72
17	MP4	X	0	72
18	MP4	Z	70.89	72
19	MP4	X	0	72
20	MP4	Z	65.97	72

Member Point Loads (BLC 9 : Wind Load AZI 210)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
1	MP1	X	66.26	48
2	MP1	Z	114.77	48
3	MP1	X	66.26	116
4	MP1	Z	114.77	116
5	MP3	X	99.1	48
6	MP3	Z	171.65	48
7	MP3	X	99.1	116
8	MP3	Z	171.65	116
9	MP4	X	105.79	48
10	MP4	Z	183.24	48
11	MP4	X	105.79	116
12	MP4	Z	183.24	116
13	MP1	X	34.17	72
14	MP1	Z	59.19	72
15	MP3	X	29.48	72
16	MP3	Z	51.06	72
17	MP4	X	32.9	72
18	MP4	Z	56.98	72
19	MP4	X	28.41	72
20	MP4	Z	49.21	72

Member Point Loads (BLC 10 : Wind Load AZI 240)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
1	MP1	X	100.47	48
2	MP1	Z	58.01	48
3	MP1	X	100.47	116
4	MP1	Z	58.01	116
5	MP3	X	115.85	48
6	MP3	Z	66.89	48
7	MP3	X	115.85	116
8	MP3	Z	66.89	116
9	MP4	X	121.37	48
10	MP4	Z	70.07	48
11	MP4	X	121.37	116
12	MP4	Z	70.07	116
13	MP1	X	54.77	72
14	MP1	Z	31.62	72
15	MP3	X	38.91	72
16	MP3	Z	22.46	72
17	MP4	X	48.14	72
18	MP4	Z	27.79	72
19	MP4	X	33.36	72
20	MP4	Z	19.26	72

Member Point Loads (BLC 11 : Wind Load AZI 270)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
1	MP1	X	107.76	48



Member Point Loads (BLC 11 : Wind Load AZI 270) (Continued)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
2	MP1	Z	0	48
3	MP1	X	107.76	116
4	MP1	Z	0	116
5	MP3	X	101.56	48
6	MP3	Z	0	48
7	MP3	X	101.56	116
8	MP3	Z	0	116
9	MP4	X	104.43	48
10	MP4	Z	0	48
11	MP4	X	104.43	116
12	MP4	Z	0	116
13	MP1	X	60.69	72
14	MP1	Z	0	72
15	MP3	X	37.91	72
16	MP3	Z	0	72
17	MP4	X	50.48	72
18	MP4	Z	0	72
19	MP4	X	29.37	72
20	MP4	Z	0	72

Member Point Loads (BLC 12 : Wind Load AZI 300)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	100.47	48
2	MP1	Z	-58.01	48
3	MP1	X	100.47	116
4	MP1	Z	-58.01	116
5	MP3	X	115.85	48
6	MP3	Z	-66.89	48
7	MP3	X	115.85	116
8	MP3	Z	-66.89	116
9	MP4	X	121.37	48
10	MP4	Z	-70.07	48
11	MP4	X	121.37	116
12	MP4	Z	-70.07	116
13	MP1	X	54.77	72
14	MP1	Z	-31.62	72
15	MP3	X	38.91	72
16	MP3	Z	-22.46	72
17	MP4	X	48.14	72
18	MP4	Z	-27.79	72
19	MP4	X	33.36	72
20	MP4	Z	-19.26	72

Member Point Loads (BLC 13 : Wind Load AZI 330)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in, %]
1	MP1	X	66.26	48
2	MP1	Z	-114.77	48
3	MP1	X	66.26	116
4	MP1	Z	-114.77	116
5	MP3	X	99.1	48
6	MP3	Z	-171.65	48
7	MP3	X	99.1	116
8	MP3	Z	-171.65	116
9	MP4	X	105.79	48
10	MP4	Z	-183.24	48
11	MP4	X	105.79	116



Member Point Loads (BLC 13 : Wind Load AZI 330) (Continued)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in.,%]
12	MP4	Z	-183.24	116
13	MP1	X	34.17	72
14	MP1	Z	-59.19	72
15	MP3	X	29.48	72
16	MP3	Z	-51.06	72
17	MP4	X	32.9	72
18	MP4	Z	-56.98	72
19	MP4	X	28.41	72
20	MP4	Z	-49.21	72

Member Point Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in.,%]
1	MP1	Y	-65.831	48
2	MP1	Y	-65.831	116
3	MP3	Y	-92.403	48
4	MP3	Y	-92.403	116
5	MP4	Y	-94.426	48
6	MP4	Y	-94.426	116
7	MP1	Y	-52.33	72
8	MP3	Y	-41.009	72
9	MP4	Y	-47.53	72
10	MP4	Y	-36.638	72

Member Point Loads (BLC 17 : Ice Wind Load AZI 0)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in.,%]
1	MP1	X	0	48
2	MP1	Z	-13.44	48
3	MP1	X	0	116
4	MP1	Z	-13.44	116
5	MP3	X	0	48
6	MP3	Z	-18.43	48
7	MP3	X	0	116
8	MP3	Z	-18.43	116
9	MP4	X	0	48
10	MP4	Z	-19.83	48
11	MP4	X	0	116
12	MP4	Z	-19.83	116
13	MP1	X	0	72
14	MP1	Z	-7.06	72
15	MP3	X	0	72
16	MP3	Z	-6.58	72
17	MP4	X	0	72
18	MP4	Z	-7.06	72
19	MP4	X	0	72
20	MP4	Z	-6.58	72

Member Point Loads (BLC 18 : Ice Wind Load AZI 30)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in.,%]
1	MP1	X	-6.56	48
2	MP1	Z	-11.36	48
3	MP1	X	-6.56	116
4	MP1	Z	-11.36	116
5	MP3	X	-8.39	48
6	MP3	Z	-14.54	48
7	MP3	X	-8.39	116



Member Point Loads (BLC 18 : Ice Wind Load AZI 30) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
8	MP3	Z	-14.54	116
9	MP4	X	-9.05	48
10	MP4	Z	-15.68	48
11	MP4	X	-9.05	116
12	MP4	Z	-15.68	116
13	MP1	X	-3.47	72
14	MP1	Z	-6.01	72
15	MP3	X	-3.12	72
16	MP3	Z	-5.4	72
17	MP4	X	-3.41	72
18	MP4	Z	-5.91	72
19	MP4	X	-3.03	72
20	MP4	Z	-5.25	72

Member Point Loads (BLC 19 : Ice Wind Load AZI 60)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	-10.81	48
2	MP1	Z	-6.24	48
3	MP1	X	-10.81	116
4	MP1	Z	-6.24	116
5	MP3	X	-11.7	48
6	MP3	Z	-6.76	48
7	MP3	X	-11.7	116
8	MP3	Z	-6.76	116
9	MP4	X	-12.67	48
10	MP4	Z	-7.32	48
11	MP4	X	-12.67	116
12	MP4	Z	-7.32	116
13	MP1	X	-5.81	72
14	MP1	Z	-3.36	72
15	MP3	X	-4.81	72
16	MP3	Z	-2.78	72
17	MP4	X	-5.5	72
18	MP4	Z	-3.17	72
19	MP4	X	-4.36	72
20	MP4	Z	-2.52	72

Member Point Loads (BLC 20 : Ice Wind Load AZI 90)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	-12.16	48
2	MP1	Z	0	48
3	MP1	X	-12.16	116
4	MP1	Z	0	116
5	MP3	X	-11.87	48
6	MP3	Z	0	48
7	MP3	X	-11.87	116
8	MP3	Z	0	116
9	MP4	X	-12.9	48
10	MP4	Z	0	48
11	MP4	X	-12.9	116
12	MP4	Z	0	116
13	MP1	X	-6.6	72
14	MP1	Z	0	72
15	MP3	X	-5.22	72
16	MP3	Z	0	72
17	MP4	X	-6.11	72



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Member Point Loads (BLC 20 : Ice Wind Load AZI 90) (Continued)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
18	MP4	Z	0	72
19	MP4	X	-4.53	72
20	MP4	Z	0	72

Member Point Loads (BLC 21 : Ice Wind Load AZI 120)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
1	MP1	X	-10.81	48
2	MP1	Z	6.24	48
3	MP1	X	-10.81	116
4	MP1	Z	6.24	116
5	MP3	X	-11.7	48
6	MP3	Z	6.76	48
7	MP3	X	-11.7	116
8	MP3	Z	6.76	116
9	MP4	X	-12.67	48
10	MP4	Z	7.32	48
11	MP4	X	-12.67	116
12	MP4	Z	7.32	116
13	MP1	X	-5.81	72
14	MP1	Z	3.36	72
15	MP3	X	-4.81	72
16	MP3	Z	2.78	72
17	MP4	X	-5.5	72
18	MP4	Z	3.17	72
19	MP4	X	-4.36	72
20	MP4	Z	2.52	72

Member Point Loads (BLC 22 : Ice Wind Load AZI 150)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
1	MP1	X	-6.56	48
2	MP1	Z	11.36	48
3	MP1	X	-6.56	116
4	MP1	Z	11.36	116
5	MP3	X	-8.39	48
6	MP3	Z	14.54	48
7	MP3	X	-8.39	116
8	MP3	Z	14.54	116
9	MP4	X	-9.05	48
10	MP4	Z	15.68	48
11	MP4	X	-9.05	116
12	MP4	Z	15.68	116
13	MP1	X	-3.47	72
14	MP1	Z	6.01	72
15	MP3	X	-3.12	72
16	MP3	Z	5.4	72
17	MP4	X	-3.41	72
18	MP4	Z	5.91	72
19	MP4	X	-3.03	72
20	MP4	Z	5.25	72

Member Point Loads (BLC 23 : Ice Wind Load AZI 180)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
1	MP1	X	0	48
2	MP1	Z	13.44	48
3	MP1	X	0	116



Member Point Loads (BLC 23 : Ice Wind Load AZI 180) (Continued)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
4	MP1	Z	13.44	116
5	MP3	X	0	48
6	MP3	Z	18.43	48
7	MP3	X	0	116
8	MP3	Z	18.43	116
9	MP4	X	0	48
10	MP4	Z	19.83	48
11	MP4	X	0	116
12	MP4	Z	19.83	116
13	MP1	X	0	72
14	MP1	Z	7.06	72
15	MP3	X	0	72
16	MP3	Z	6.58	72
17	MP4	X	0	72
18	MP4	Z	7.06	72
19	MP4	X	0	72
20	MP4	Z	6.58	72

Member Point Loads (BLC 24 : Ice Wind Load AZI 210)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
1	MP1	X	6.56	48
2	MP1	Z	11.36	48
3	MP1	X	6.56	116
4	MP1	Z	11.36	116
5	MP3	X	8.39	48
6	MP3	Z	14.54	48
7	MP3	X	8.39	116
8	MP3	Z	14.54	116
9	MP4	X	9.05	48
10	MP4	Z	15.68	48
11	MP4	X	9.05	116
12	MP4	Z	15.68	116
13	MP1	X	3.47	72
14	MP1	Z	6.01	72
15	MP3	X	3.12	72
16	MP3	Z	5.4	72
17	MP4	X	3.41	72
18	MP4	Z	5.91	72
19	MP4	X	3.03	72
20	MP4	Z	5.25	72

Member Point Loads (BLC 25 : Ice Wind Load AZI 240)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
1	MP1	X	10.81	48
2	MP1	Z	6.24	48
3	MP1	X	10.81	116
4	MP1	Z	6.24	116
5	MP3	X	11.7	48
6	MP3	Z	6.76	48
7	MP3	X	11.7	116
8	MP3	Z	6.76	116
9	MP4	X	12.67	48
10	MP4	Z	7.32	48
11	MP4	X	12.67	116
12	MP4	Z	7.32	116
13	MP1	X	5.81	72



Member Point Loads (BLC 25 : Ice Wind Load AZI 240) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
14	MP1	Z	3.36	72
15	MP3	X	4.81	72
16	MP3	Z	2.78	72
17	MP4	X	5.5	72
18	MP4	Z	3.17	72
19	MP4	X	4.36	72
20	MP4	Z	2.52	72

Member Point Loads (BLC 26 : Ice Wind Load AZI 270)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	12.16	48
2	MP1	Z	0	48
3	MP1	X	12.16	116
4	MP1	Z	0	116
5	MP3	X	11.87	48
6	MP3	Z	0	48
7	MP3	X	11.87	116
8	MP3	Z	0	116
9	MP4	X	12.9	48
10	MP4	Z	0	48
11	MP4	X	12.9	116
12	MP4	Z	0	116
13	MP1	X	6.6	72
14	MP1	Z	0	72
15	MP3	X	5.22	72
16	MP3	Z	0	72
17	MP4	X	6.11	72
18	MP4	Z	0	72
19	MP4	X	4.53	72
20	MP4	Z	0	72

Member Point Loads (BLC 27 : Ice Wind Load AZI 300)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP1	X	10.81	48
2	MP1	Z	-6.24	48
3	MP1	X	10.81	116
4	MP1	Z	-6.24	116
5	MP3	X	11.7	48
6	MP3	Z	-6.76	48
7	MP3	X	11.7	116
8	MP3	Z	-6.76	116
9	MP4	X	12.67	48
10	MP4	Z	-7.32	48
11	MP4	X	12.67	116
12	MP4	Z	-7.32	116
13	MP1	X	5.81	72
14	MP1	Z	-3.36	72
15	MP3	X	4.81	72
16	MP3	Z	-2.78	72
17	MP4	X	5.5	72
18	MP4	Z	-3.17	72
19	MP4	X	4.36	72
20	MP4	Z	-2.52	72

Member Point Loads (BLC 28 : Ice Wind Load AZI 330)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
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Member Point Loads (BLC 28 : Ice Wind Load AZI 330) (Continued)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
1	MP1	X	6.56	48
2	MP1	Z	-11.36	48
3	MP1	X	6.56	116
4	MP1	Z	-11.36	116
5	MP3	X	8.39	48
6	MP3	Z	-14.54	48
7	MP3	X	8.39	116
8	MP3	Z	-14.54	116
9	MP4	X	9.05	48
10	MP4	Z	-15.68	48
11	MP4	X	9.05	116
12	MP4	Z	-15.68	116
13	MP1	X	3.47	72
14	MP1	Z	-6.01	72
15	MP3	X	3.12	72
16	MP3	Z	-5.4	72
17	MP4	X	3.41	72
18	MP4	Z	-5.91	72
19	MP4	X	3.03	72
20	MP4	Z	-5.25	72

Member Point Loads (BLC 31 : Seismic Load Z)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
1	MP1	Z	-7.155	48
2	MP1	Z	-7.155	116
3	MP3	Z	-10.017	48
4	MP3	Z	-10.017	116
5	MP4	Z	-18.071	48
6	MP4	Z	-18.071	116
7	MP1	Z	-24.96	72
8	MP3	Z	-19.935	72
9	MP4	Z	-23.296	72
10	MP4	Z	-15.309	72

Member Point Loads (BLC 32 : Seismic Load X)

	Member Label	Direction	Magnitude[lb.,lb-ft]	Location[in, %]
1	MP1	X	-7.155	48
2	MP1	X	-7.155	116
3	MP3	X	-10.017	48
4	MP3	X	-10.017	116
5	MP4	X	-18.071	48
6	MP4	X	-18.071	116
7	MP1	X	-24.96	72
8	MP3	X	-19.935	72
9	MP4	X	-23.296	72
10	MP4	X	-15.309	72

Member Distributed Loads (BLC 14 : Distr. Wind Load Z)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[...]	End Location[in, %]
1	H2	SZ	-47.74	-47.74	0	%100
2	H1	SZ	-47.74	-47.74	0	%100
3	M3	SZ	0	0	0	%100
4	M4	SZ	0	0	0	%100
5	M5	SZ	0	0	0	%100



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 Designer : BB
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Member Distributed Loads (BLC 14 : Distr. Wind Load Z) (Continued)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[j...]	End Location[in...]
6	M6	SZ	0	0	%100
7	M7	SZ	0	0	%100
8	M8	SZ	0	0	%100
9	M9	SZ	0	0	%100
10	M10	SZ	0	0	%100
11	M11	SZ	0	0	%100
12	M12	SZ	0	0	%100
13	MP4	SZ	-47.74	-47.74	0
14	MP3	SZ	-47.74	-47.74	0
15	MP2	SZ	-47.74	-47.74	0
16	MP1	SZ	-47.74	-47.74	0
17	M17	SZ	-47.74	-47.74	0
18	M18	SZ	-79.566	-79.566	0
19	M19	SZ	-79.566	-79.566	0
20	M20	SZ	-47.74	-47.74	0
21	M21	SZ	0	0	%100
22	M22	SZ	0	0	%100
23	M23	SZ	-47.74	-47.74	0
24	M24	SZ	-47.74	-47.74	0
25	M25	SZ	-79.566	-79.566	0
26	M26	SZ	-79.566	-79.566	0
27	M27	SZ	-47.74	-47.74	0
28	M28	SZ	-47.74	-47.74	0
29	M29	SZ	-47.74	-47.74	0
30	M30	SZ	0	0	%100
31	M31	SZ	0	0	%100
32	M32	SZ	0	0	%100
33	M33	SZ	0	0	%100
34	M34	SZ	0	0	%100
35	M37	SZ	-79.566	-79.566	0
36	M38	SZ	-79.566	-79.566	0

Member Distributed Loads (BLC 15 : Distr. Wind Load X)

Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[j...]	End Location[in...]
1	H2	SX	-47.74	-47.74	0
2	H1	SX	-47.74	-47.74	0
3	M3	SX	0	0	%100
4	M4	SX	0	0	%100
5	M5	SX	0	0	%100
6	M6	SX	0	0	%100
7	M7	SX	0	0	%100
8	M8	SX	0	0	%100
9	M9	SX	0	0	%100
10	M10	SX	0	0	%100
11	M11	SX	0	0	%100
12	M12	SX	0	0	%100
13	MP4	SX	-47.74	-47.74	0
14	MP3	SX	-47.74	-47.74	0
15	MP2	SX	-47.74	-47.74	0
16	MP1	SX	-47.74	-47.74	0
17	M17	SX	-47.74	-47.74	0
18	M18	SX	-79.566	-79.566	0
19	M19	SX	-79.566	-79.566	0
20	M20	SX	-47.74	-47.74	0
21	M21	SX	0	0	%100
22	M22	SX	0	0	%100



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Member Distributed Loads (BLC 15 : Distr. Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[j...]	End Location[in...]
23	M23	SX	-47.74	-47.74	0	%100
24	M24	SX	-47.74	-47.74	0	%100
25	M25	SX	-79.566	-79.566	0	%100
26	M26	SX	-79.566	-79.566	0	%100
27	M27	SX	-47.74	-47.74	0	%100
28	M28	SX	-47.74	-47.74	0	%100
29	M29	SX	-47.74	-47.74	0	%100
30	M30	SX	0	0	0	%100
31	M31	SX	0	0	0	%100
32	M32	SX	0	0	0	%100
33	M33	SX	0	0	0	%100
34	M34	SX	0	0	0	%100
35	M37	SX	-79.566	-79.566	0	%100
36	M38	SX	-79.566	-79.566	0	%100

Member Distributed Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[j...]	End Location[in...]
1	H2	Y	-5.025	-5.025	0	%100
2	H1	Y	-5.025	-5.025	0	%100
3	M3	Y	-1.652	-1.652	0	%100
4	M4	Y	-1.652	-1.652	0	%100
5	M5	Y	-1.652	-1.652	0	%100
6	M6	Y	-1.652	-1.652	0	%100
7	M7	Y	-1.652	-1.652	0	%100
8	M8	Y	-1.652	-1.652	0	%100
9	M9	Y	-1.652	-1.652	0	%100
10	M10	Y	-1.652	-1.652	0	%100
11	M11	Y	-1.652	-1.652	0	%100
12	M12	Y	-1.652	-1.652	0	%100
13	MP4	Y	-5.025	-5.025	0	%100
14	MP3	Y	-5.025	-5.025	0	%100
15	MP2	Y	-5.025	-5.025	0	%100
16	MP1	Y	-5.025	-5.025	0	%100
17	M17	Y	-8.044	-8.044	0	%100
18	M18	Y	-10.191	-10.191	0	%100
19	M19	Y	-10.191	-10.191	0	%100
20	M20	Y	-5.025	-5.025	0	%100
21	M21	Y	-1.652	-1.652	0	%100
22	M22	Y	-1.652	-1.652	0	%100
23	M23	Y	-5.025	-5.025	0	%100
24	M24	Y	-5.025	-5.025	0	%100
25	M25	Y	-11.601	-11.601	0	%100
26	M26	Y	-11.601	-11.601	0	%100
27	M27	Y	-2.539	-2.539	0	%100
28	M28	Y	-2.539	-2.539	0	%100
29	M29	Y	-5.025	-5.025	0	%100
30	M30	Y	-1.652	-1.652	0	%100
31	M31	Y	-1.652	-1.652	0	%100
32	M32	Y	-1.652	-1.652	0	%100
33	M33	Y	-1.652	-1.652	0	%100
34	M34	Y	-1.652	-1.652	0	%100
35	M37	Y	-6.674	-6.674	0	%100
36	M38	Y	-6.674	-6.674	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/ft,F,psf]	Start Location[j...]	End Location[in...]
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Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[i...	End Location[in...
1	H2	SZ	-15.87	-15.87	0	%100
2	H1	SZ	-15.87	-15.87	0	%100
3	M3	SZ	0	0	0	%100
4	M4	SZ	0	0	0	%100
5	M5	SZ	0	0	0	%100
6	M6	SZ	0	0	0	%100
7	M7	SZ	0	0	0	%100
8	M8	SZ	0	0	0	%100
9	M9	SZ	0	0	0	%100
10	M10	SZ	0	0	0	%100
11	M11	SZ	0	0	0	%100
12	M12	SZ	0	0	0	%100
13	MP4	SZ	-15.87	-15.87	0	%100
14	MP3	SZ	-15.87	-15.87	0	%100
15	MP2	SZ	-15.87	-15.87	0	%100
16	MP1	SZ	-15.87	-15.87	0	%100
17	M17	SZ	-12.162	-12.162	0	%100
18	M18	SZ	-11.12	-11.12	0	%100
19	M19	SZ	-11.12	-11.12	0	%100
20	M20	SZ	-15.87	-15.87	0	%100
21	M21	SZ	0	0	0	%100
22	M22	SZ	0	0	0	%100
23	M23	SZ	-15.87	-15.87	0	%100
24	M24	SZ	-15.87	-15.87	0	%100
25	M25	SZ	-10.681	-10.681	0	%100
26	M26	SZ	-10.681	-10.681	0	%100
27	M27	SZ	-37.853	-37.853	0	%100
28	M28	SZ	-37.853	-37.853	0	%100
29	M29	SZ	-15.87	-15.87	0	%100
30	M30	SZ	0	0	0	%100
31	M31	SZ	0	0	0	%100
32	M32	SZ	0	0	0	%100
33	M33	SZ	0	0	0	%100
34	M34	SZ	0	0	0	%100
35	M37	SZ	-13.293	-13.293	0	%100
36	M38	SZ	-13.293	-13.293	0	%100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X)

	Member Label	Direction	Start Magnitude[lb/ft.F.psf]	End Magnitude[lb/ft.F.psf]	Start Location[i...	End Location[in...
1	H2	SX	-15.87	-15.87	0	%100
2	H1	SX	-15.87	-15.87	0	%100
3	M3	SX	0	0	0	%100
4	M4	SX	0	0	0	%100
5	M5	SX	0	0	0	%100
6	M6	SX	0	0	0	%100
7	M7	SX	0	0	0	%100
8	M8	SX	0	0	0	%100
9	M9	SX	0	0	0	%100
10	M10	SX	0	0	0	%100
11	M11	SX	0	0	0	%100
12	M12	SX	0	0	0	%100
13	MP4	SX	-15.87	-15.87	0	%100
14	MP3	SX	-15.87	-15.87	0	%100
15	MP2	SX	-15.87	-15.87	0	%100
16	MP1	SX	-15.87	-15.87	0	%100
17	M17	SX	-12.162	-12.162	0	%100



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Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F,psf]	End Magnitude[lb/ft.F,psf]	Start Location[j...]	End Location[jin...]
18	M18	SX	-11.12	-11.12	0	%100
19	M19	SX	-11.12	-11.12	0	%100
20	M20	SX	-15.87	-15.87	0	%100
21	M21	SX	0	0	0	%100
22	M22	SX	0	0	0	%100
23	M23	SX	-15.87	-15.87	0	%100
24	M24	SX	-15.87	-15.87	0	%100
25	M25	SX	-10.681	-10.681	0	%100
26	M26	SX	-10.681	-10.681	0	%100
27	M27	SX	-37.853	-37.853	0	%100
28	M28	SX	-37.853	-37.853	0	%100
29	M29	SX	-15.87	-15.87	0	%100
30	M30	SX	0	0	0	%100
31	M31	SX	0	0	0	%100
32	M32	SX	0	0	0	%100
33	M33	SX	0	0	0	%100
34	M34	SX	0	0	0	%100
35	M37	SX	-13.293	-13.293	0	%100
36	M38	SX	-13.293	-13.293	0	%100

Member Area Loads

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

Bolt Calculation Tool, V1.4

PROJECT DATA	
Site Name:	Guilford East
Site Number:	CTL05641
Job Code:	1106-A0001
Connection Description:	Mount to Tower

APPLIED LOADS		
Bolt Tension:	0.00	lbs
Bolt Shear:	626.01	lbs

BOLT PROPERTIES		
Bolt Type:	Threaded Rod	-
Bolt Diameter:	0.75	in
Bolt Grade:	A307	-
# of Threaded Rods:	2	-
Threads Excluded?	No	-

BOLT CHECK		
Tensile Strength	15050.70	
Shear Strength	9940.20	
Tensile Usage	0.0%	
Shear Usage	6.3%	
Interaction Check	0.00	≤1.05
Result	Pass	



GENERAL NOTES:

1. THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE LATEST VERSION OF APPLICABLE LOCAL/STATE/COUNTY/CITY BUILDING CODES, AS WELL AS ANSI/TIA-222 STANDARD, AWWA-D100 STANDARD, NDS, NEC, MSJC, AND/OR THE LATEST VERSION OF THE INTERNATIONAL BUILDING CODE, UNLESS NOTED OTHERWISE IN THE CORRESPONDING STRUCTURAL REPORT.
2. ALL CONSTRUCTION METHODS SHOULD FOLLOW STANDARDS OF GOOD CONSTRUCTION PRACTICE.
3. ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN SIMILAR CONSTRUCTION.
4. ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. IF OBSTRUCTIONS ARE FOUND, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO CONTINUING WORK.
5. ANY CHANGES OR ADDITIONS MUST CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL CHANGES OR ADDITIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND/OR CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY TO PROVIDE A COMPLETE AND STABLE STRUCTURE DURING CONSTRUCTION. TIA-1019-A-2011 IS AN APPROPRIATE REFERENCE FOR THOSE DESIGNS MEETING TIA STANDARDS. THE ENGINEER OF RECORD MAY PROVIDE FORMAL RIGGING PLANS AT THE REQUEST AND EXPENSE OF THE CONTRACTOR.
7. INSTALLATION SHALL NOT INTERFERE NOR DENY ADEQUATE ACCESS TO OR FROM ANY EXISTING OR PROPOSED OPERATIONAL AND SAFETY EQUIPMENT.
8. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION. CONTACT INFINIGY ENGINEERING IF ANY DISCREPANCIES EXIST.

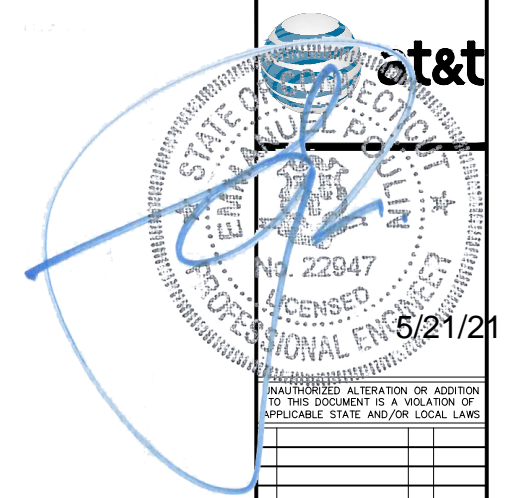
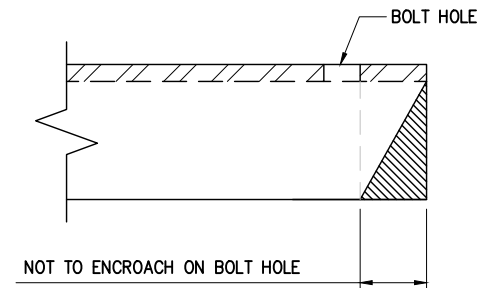
STEEL CONSTRUCTION NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION 14TH EDITION, FOR THE DESIGN AND FABRICATION OF STEEL COMPONENTS.
2. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES, AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS' RECOMMENDATIONS.
3. ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.
4. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.
5. ALL STEEL MEMBERS AND CONNECTIONS SHALL MEET THE FOLLOWING GRADES:
 - ANGLES, CHANNELS, PLATES AND BARS TO BE A36. Fy=36 KSI, U.N.O.
 - W SHAPES TO BE A992. Fy=50 KSI, U.N.O.
 - RECTANGULAR HSS TO BE A500, GRADE B. Fy=46 KSI, U.N.O.
 - ROUND HSS TO BE A500, GRADE B. Fy=42 KSI, U.N.O.
 - STEEL PIPE TO BE A53, GRADE B. Fy=35 KSI, U.N.O.
 - BOLTS TO BE A325-X. Fu=120 KSI, U.N.O.
 - U-BOLTS AND LAG SCREWS TO BE A307 GR A. Fu=60 KSI, U.N.O.
6. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES, U.N.O.
7. ALL WELDING SHALL CONFORM TO AISC AND AWS D1.1 LATEST EDITION.
8. ALL HILTI ANCHORS TO BE CARBON STEEL, U.N.O.
 - MECHANICAL ANCHORS: KWIK BOLT-TZ, U.N.O.
 - CMU BLOCK ANCHORS: ADHESIVE - HY120, U.N.O.
 - CONCRETE ANCHORS: ADHESIVE - HY200, U.N.O.
 - CONCRETE REBAR: ADHESIVE - RE500, U.N.O.
9. ALL STUDS TO BE NELSON CAPACITOR DISCHARGE 1/4"-20 LOW CARBON STEEL COPPER-FLASH AT 55 KSI ULT/50 KSI YIELD, U.N.O.
10. BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC.
11. MINIMUM EDGE DISTANCES SHALL CONFORM TO AISC TABLE J3.4.
12. REMOVAL/REPLACEMENT OF STRUCTURAL MEMBERS SHALL BE DONE ONE MEMBER AT A TIME. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

SPECIAL INSPECTIONS NOTES:

1. A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER AND APPROVED BY THE JURISDICTION, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH THE THE GOVERNING BUILDING CODE, APPLICABLE SECTION(S) AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
 - a. STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELDS ONLY).
 - b. HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 AND/OR A490 BOLTS) TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD.
 - c. MECHANICAL AND EPOXIED ANCHORAGES.
 - d. FIBER REINFORCED POLYMER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE FRP MATERIAL SPECIFIED ON THE APPROVED DESIGN DOCUMENTS IS BEING INSTALLED.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT ALL CUT EDGES AND DRILLED HOLES ARE PROPERLY SEALED USING A VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE STRUCTURE IS BUILT IN ACCORDANCE WITH THE APPROVED DESIGN DOCUMENTS.
2. THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM WORK WITHOUT THE SPECIAL INSPECTIONS.

MAXIMUM ALLOWABLE ANGLE CLIP



UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS

No.	FOR CONSTRUCTION	RB	05/21/21
	Submittal / Revision	App'd	Date

Drawn: BE Date: 05/21/21
 Designed: RB Date: 05/21/21
 Checked: RB Date: 05/21/21

Project Number: 1106-A0001-B

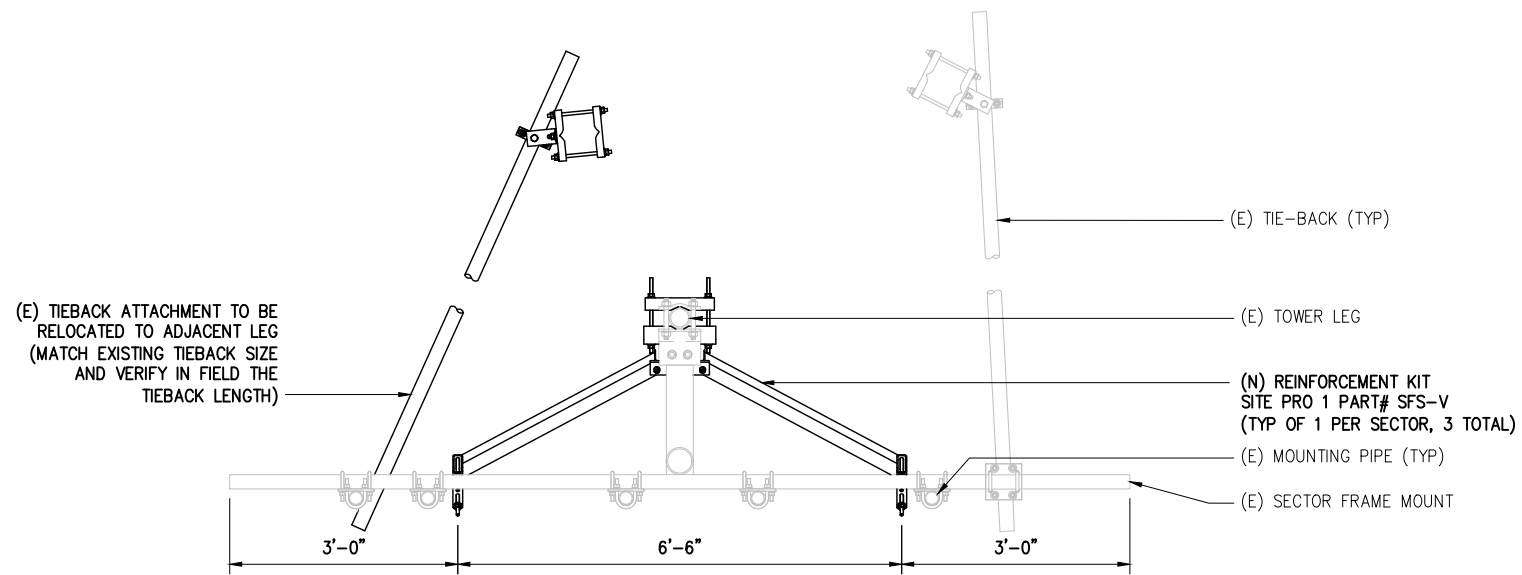
Project Title:
GUILDFORD EAST
 CTL05641
 FA# 10071055
 331 KILLINGWORTH ROAD
 GUILDFORD, CT 06437



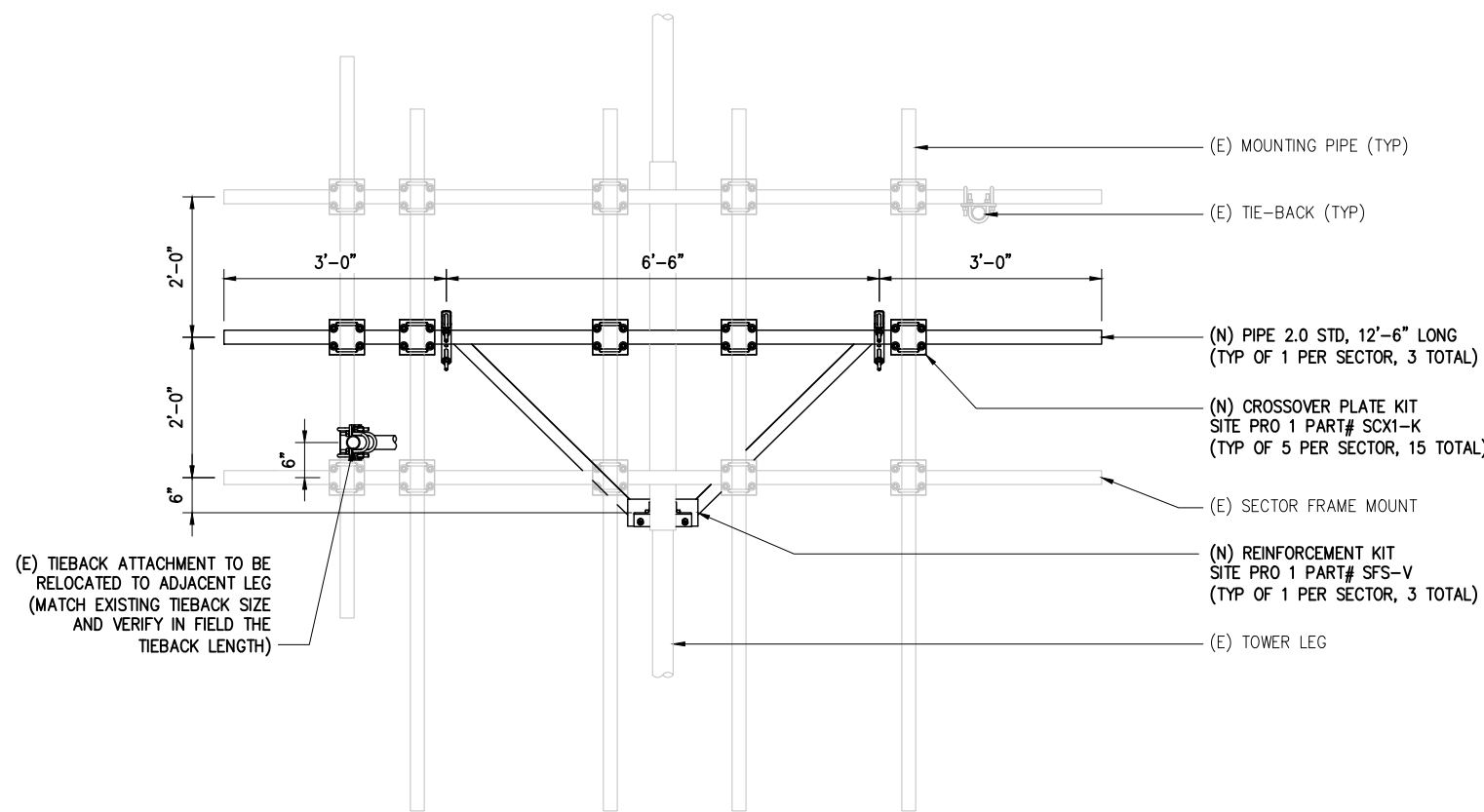
Drawing Scale: AS NOTED
 Date: 05/21/21
CD

Drawing Title:
GENERAL NOTES

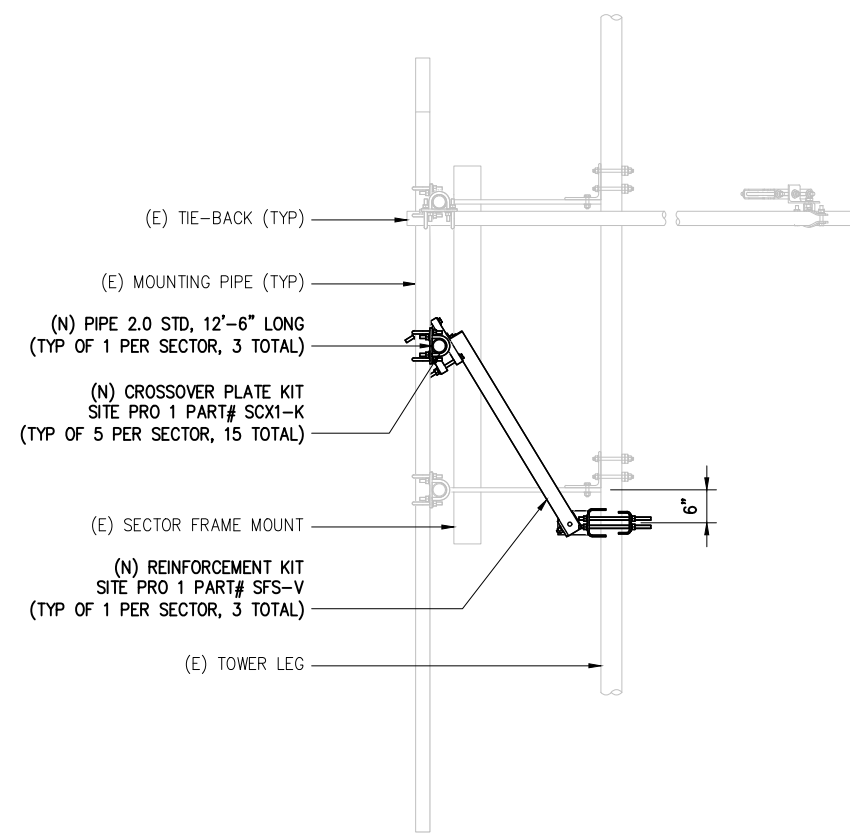
Drawing Number:
S1



1 PLAN VIEW
SCALE: NOT TO SCALE

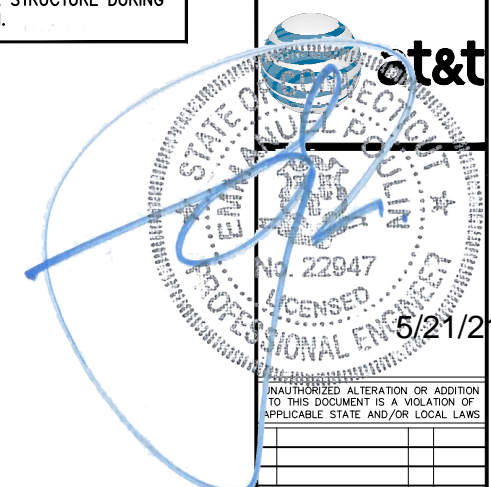


2 ELEVATION VIEW
SCALE: NOT TO SCALE



3 SIDE VIEW
SCALE: NOT TO SCALE

- NOTES:
1. MODIFICATIONS SHOWN ARE TYPICAL FOR ALL SECTORS.
 2. ALL DESIGNATED PARTS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE NOTED.
 3. CONTRACTOR TO FIELD VERIFY REQUIRED LENGTHS OF PROPOSED ANGLES, PIPES & PLATES, AND CUT & DRILL ON SITE AS NECESSARY.
 4. REMOVAL/REPLACEMENT OF STRUCTURAL MEMBERS SHALL BE DONE ONE MEMBER AT A TIME. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.



INFINIGY
INFINIGY ENGINEERING, PLLC
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Drawn: BE Date: 05/21/21
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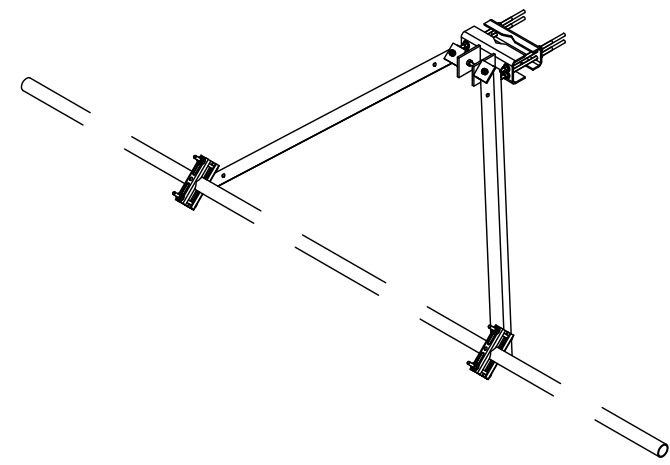
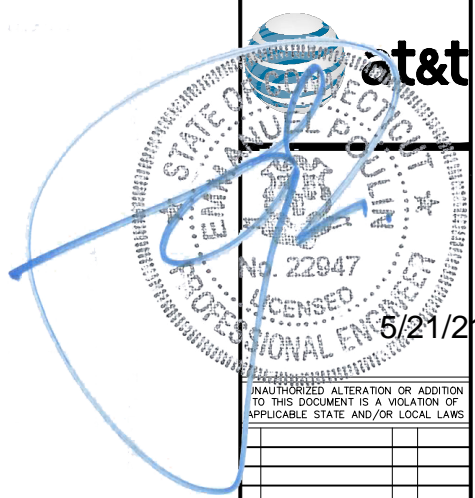
Project Title:
GUILDFORD EAST
CTL05641
FA# 10071055
331 KILLINGWORTH ROAD
GUILDFORD, CT 06437



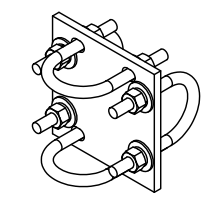
Drawing Scale: AS NOTED
Date: 05/21/21
CD

Drawing Title:
MOUNT MODIFICATION

Drawing Number:
S2



1 SITE PRO 1 P/N SFS-V
 -- SCALE: NOT TO SCALE



2 SITE PRO 1 P/N SCX1-K
 -- SCALE: NOT TO SCALE

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No.	Submittal / Revision	App'd	Date
0	FOR CONSTRUCTION	RB	05/21/21

Drawn: RB Date: 05/21/21
 Designed: RB Date: 05/21/21
 Checked: RB Date: 05/21/21

Project Number: 1106-A0001-B

Project Title:
GUILDFORD EAST
CTL05641
FA# 10071055
 331 KILLINGWORTH ROAD
 GUILDFORD, CT 06437



Drawing Scale: AS NOTED
 Date: 05/21/21

CD

Drawing Title
REQUIRED PARTS

Drawing Number
S3



Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Post-Mod Structural Analysis Report

Existing 152 ft Rohn Self Supporting Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT13065-A

Customer Site Name: Guilford

Carrier Name: AT&T (App#: 156290-3)

Carrier Site ID / Name: CTL05641 / Guilford-Killingworth Road

Site Location: 331 Killingworth Road (Rt 80)

Guilford, Connecticut

New Haven County

Latitude: 41.353164

Longitude: -72.688252

Analysis Result:

Max Structural Usage: 96.7% [Pass]

Max Foundation Usage: 71.0% [Pass]

Report Prepared By: Mohammed Al Rubaye





Tower Engineering Solutions

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Analysis Result:

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Report Prepared By: Mohammed Al Rubaye

Introduction

The purpose of this report is to summarize the analysis results on the 152 ft Rohn Self Supporting Tower to support the proposed antennas and transmission lines in addition to those currently installed. Any existing modification listed under Sources of Information was assumed completed and was included in this analysis.

The proposed modification by **TES** listed under Sources of Information was considered completed and was included in this analysis.

Sources of Information

Tower Drawings	Rohn, Dwg # C851129, dated 8/6/1985
Foundation Drawing	FDH, Project # 09-03151E N1, dated 6/10/2009
Geotechnical Report	FDH, Project # 09-03151EG1, dated 5/5/2009
Existing Modification	All-Points Technology Corp., Job # CT2001D1, dated 4/28/05 FDH, Project # 09-03151E S2, dated 9/4/09 FDH, Project # 11-10199E S2, dated 4/19/12 FDH, Project # 12-04638E S3, dated 2/6/13 FDH, Project # 15BEQG1400, dated 2/27/15 FDH, Project # 14664X1400, dated 5/29/14
Proposed Modification	TES Job # 121728

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA-222-G-2. In accordance with this standard, the structure was analyzed using **TESTowers**, a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed $V_{ult} = 130.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 101.0$ mph (3-Sec. Gust)
Basic Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	157.0	1	Phillips Dodge 201-7 Omni	Leg	(1) 7/8"	TCI Cablevision
-	149.0	3	Powerwave Allgon 7770 - Panel	(3) Sector Frames	(12) 1 5/8" (1) 1/2" Fiber & (2) 3/4" DC in (1) 3" Innerduct	AT&T
-		6	HPA-65R-BU6AA - Panel			
-		3	Kathrein 800 10965 - Panel			
-		6	Powerwave LGP21401 TMA			
-		6	Powerwave 7020.00 RET			
-		3	Powerwave 7070			
-		3	Ericsson Radio 4449 B5/B12			
-		3	Ericsson RRUS 4415 B30			
-		3	Ericsson RRUS 8843 B2 B66A			
-		2	Raycap DC6-48-60-18-8F			
-		1	Raycap DC6-48-60-0-8C			
16		139.0	3			
17	3		Alcatel Lucent 800 MHz			
18	3		Alcatel Lucent TD-RRH8x20-25			
19	3		Alcatel Lucent 800 MHz Filters			
20	4		RFS ACU-A20-N RET			
21	138.0	3	RFS APXVSP18-C-A20 - Panel	(3) Sector Frames	(13) 1 5/8"	Verizon
22		3	RFS APXVTM14-C-I20 - Panel			
23	128.0	4	Andrew HBXX-6516DS-A2M - Panel	(3) Sector Frames	(13) 1 5/8"	Verizon
24		2	Andrew HBXX-6517DS-A2M - Panel			
25		4	Andrew LNX-6513DS-A1M - Panel			
26		2	Andrew LNX-6514DS-A1M - Panel			
27		6	RFS FD9R6004/2C-3L			
28		3	Alcatel Lucent RRH2x60-AWS			
29		3	Alcatel Lucent RRH2X60-PCS			
30		1	RFS DB-T1-6Z-8AB-OZ			
31	83.5	1	DB26 GPS	Leg	(1) 1/2"	Sprint

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
2	149.0	3	Powerwave - 7770 - Panel	(3) Sector Frames w/ Mods	(12) 1 5/8" (1) 3" Conduit (Housing (1) 1/2" Fiber & (2) 3/4" DC) (1) 1/2" Fiber (2) 3/4" DC	AT&T
3		3	CCI - HPA-65R-BU6AA - Panel			
4		3	Kathrein - 800-10965 - Panel			
5		3	CCI - OPA65R-BU6DA - Panel			
6		6	Powerwave - LGP21401 TMA			
7		6	Powerwave - LGP21901 Diplexer			
8		6	Powerwave - 7020.00 RET			
9		3	Powerwave - 7070 RET			
10		3	Ericsson - 4449 B5/B12 RRU			
11		3	Ericsson - 4415 B30 RRU			
12		3	Ericsson - RRUS 8843 B2 B66A RRU			
13		3	Ericsson - RRUS-4478 B14 RRU			
14		2	Raycap - DC6-48-60-18-8F ("Squid") - OVP			
15		1	Raycap - DC6-48-60-18-8C-EV - OVP			

See the attached coax layout for the line placement considered in the analysis.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

Tower Component	Legs	Diagonals	Horizontals
Max. Usage:	96.7%	94.7%	23.7%
Pass/Fail	Pass	Pass	Pass

Foundations

	Compression (Kips)	Uplift (Kips)	Shear (Kips)
Analysis Reactions	216.4	187.1	23.5

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.2223 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the structure and its foundation will be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222-G-2 Standard after the following proposed modification is successfully completed.

- Proposed modification design drawing by TES Job # 121728

Pre-Mod Installation Determination

We have also checked this tower to determine if the proposed AT&T equipment loading can be installed prior to the completion of the required modifications. We ran a reduced wind loading case as required by TIA-322 considering a construction period of no more than 6 months.

The tower and foundations passed, so the Carrier can proceed and install their proposed loading prior to the mods completion. Please be aware that this approval is being provided and is based on the method outlined in TIA-322. This approval is not a blanket approval and there is still a risk that the tower will experience a wind event that cannot be predicted by TIA-322 or our Engineers. In the event of an unforeseen wind event, Tower Engineering Solutions will not be liable nor responsible for damage to the tower or the Carriers equipment. Additionally, the tower cannot go beyond the 6 month construction period without the modifications being completed. If the modifications cannot be completed within 6 months from the completed installation of the Carrier's proposed equipment, TES must be notified immediately for further review.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC**. Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.
2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.
3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the EIA/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.
4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.
5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.
6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Structure: CT13065-A-SBA

Site Name: Guilford	Code: TIA-222-G	1/26/2022
Type: Self Support	Base Shape: Triangle	Basic WS: 101.00
Height: 152.00 (ft)	Base Width: 20.78	Basic Ice WS: 50.00
Base Elev: 0.00 (ft)	Top Width: 6.52	Operational WS: 60.00



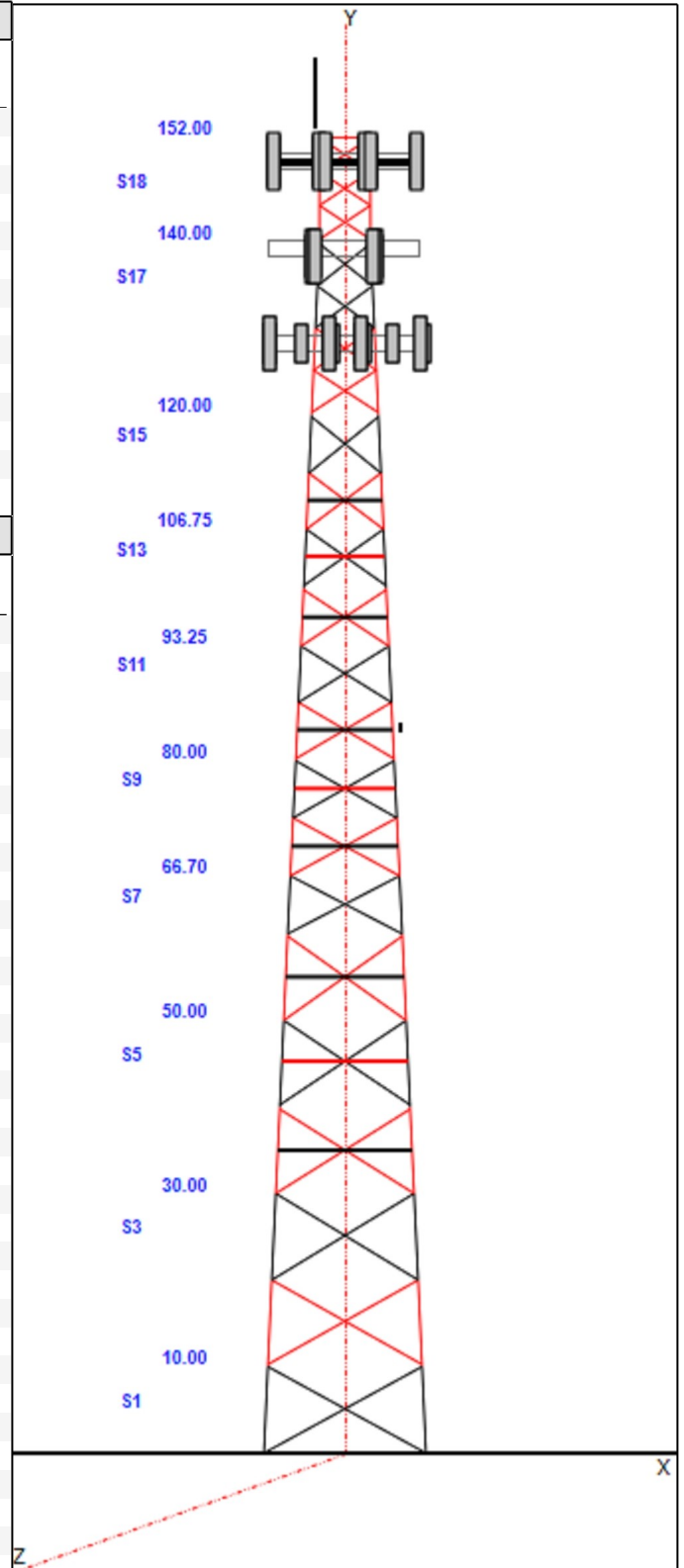
Page: 1

Section Properties

Sect	Leg Members	Diagonal Members	Horizontal Members
1-2	MOD 5"PST+6"PX1/2P	SAE 3.5X3.5X0.25	
3	MOD 4"PX+5"PX1/2P	SAE 3X3X0.375	
4	PX 4" DIA PIPE	SAE 3X3X0.375	
5-6	PX 4" DIA PIPE	SAE 3X3X0.25	
7	MOD 3"PX+4"PX1/2P	SAE 2.5X2.5X0.25	
8	PX 3" DIA PIPE	SAE 2.5X2.5X0.25	
9	PX 3" DIA PIPE	SAE 2.5X2.5X0.1875	
10	MOD 2.5"PX+3"PX1/2P	SAE 2X2X0.375	
11	MOD 2.5"PX+3.5"PX1/2	SAE 2X2X0.375	
12	PX 2-1/2" DIA PIPE	SAE 2X2X0.375	
13-15	PX 2-1/2" DIA PIPE	MOD 2L2x2x1/8_Specia	
16	PST 2-1/2" DIA PIPE	SAE 1.75X1.75X0.25	
17	PST 2-1/2" DIA PIPE	SAE 1.75X1.75X0.125	
18	PST 2" DIA PIPE	SAE 1.5X1.5X0.125	SAE 2x2x0.125

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description
150.00	157.00	1	Phillips Dodge 201-7 Omni
149.00	149.00	3	Sector Frames
149.00	149.00	3	7770
149.00	149.00	3	HPA-65R-BU6AA
149.00	149.00	3	800-10965
149.00	149.00	3	OPA65R-BU6DA
149.00	149.00	6	LGP21401
149.00	149.00	6	LGP21901
149.00	149.00	6	7020.00 RET
149.00	149.00	3	7070
149.00	149.00	3	4449 B5/B12
149.00	149.00	3	4415 B30
149.00	149.00	3	RRUS 8843 B2 B66A
149.00	149.00	3	RRUS-4478 B14
149.00	149.00	2	DC6-48-60-18-8F ("Squid")
149.00	149.00	1	DC6-48-60-18-8C-EV
149.00	149.00	1	(3) SFS-H (V-Braces)
149.00	149.00	1	(3) 12.5' - 2" Horizontal Pipe
139.00	139.00	1	(3) Sector Frames
139.00	139.00	3	1900MHz RRH
139.00	139.00	3	800 MHz RRH
139.00	139.00	3	TD-RRH8x20-25
139.00	139.00	3	ALU 800MHz External Notch Filt
139.00	139.00	4	ACU-A20-N
138.00	138.00	3	APXVSP18-C-A20
138.00	138.00	3	APXVTM14-C-I20
128.00	128.00	1	(3) Sector Frames
128.00	128.00	4	Andrew HBXX-6516DS-A2M
128.00	128.00	2	Andrew HBXX-6517DS-A2M
128.00	128.00	4	Andrew LNX-6513DS-A1M
128.00	128.00	3	Alcatel Lucent RRH2x60-AWS
128.00	128.00	3	Alcatel Lucent RRH2X60-PCS
128.00	128.00	6	RFS FD9R6004/2C-3L
128.00	128.00	2	Andrew LNX-6514DS-A1M
128.00	128.00	1	RFS DB-T1-6Z-8AB-0Z



Structure: CT13065-A-SBA

Site Name: Guilford	Code: TIA-222-G	1/26/2022
Type: Self Support	Base Shape: Triangle	Basic WS: 101.00
Height: 152.00 (ft)	Base Width: 20.78	Basic Ice WS: 50.00
Base Elev: 0.00 (ft)	Top Width: 6.52	Operational WS: 60.00



83.50	83.50	1	DB26 GPS
83.50	83.50	1	Pipe Mount

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Qty	Description
0.00	152.00	1	Climbing Ladder
8.00	150.00	1	7/8" Coax
0.00	149.00	1	W/G Ladder
10.00	149.00	12	1 5/8" Coax
10.00	149.00	1	1/2" Fiber
10.00	149.00	1	1/2" Fiber
10.00	149.00	1	3" Innerduct
10.00	149.00	2	3/4" DC
10.00	149.00	2	3/4" DC
0.00	140.00	1	W/G Ladder
8.00	139.00	4	1-1/4" Fiber
8.00	128.00	1	1 5/8" Coax
8.00	128.00	12	1 5/8" Coax
0.00	120.00	1	Empty W/G Ladder
8.00	83.50	1	1/2" Coax

Base Reactions

Leg	Overturning
Max Uplift: -187.07 (kips)	Moment: 3672.58 (ft-kips)
Max Down: 216.36 (kips)	Total Down: 36.88 (kips)
Max Shear: 23.49 (kips)	Total Shear: 38.94 (kips)

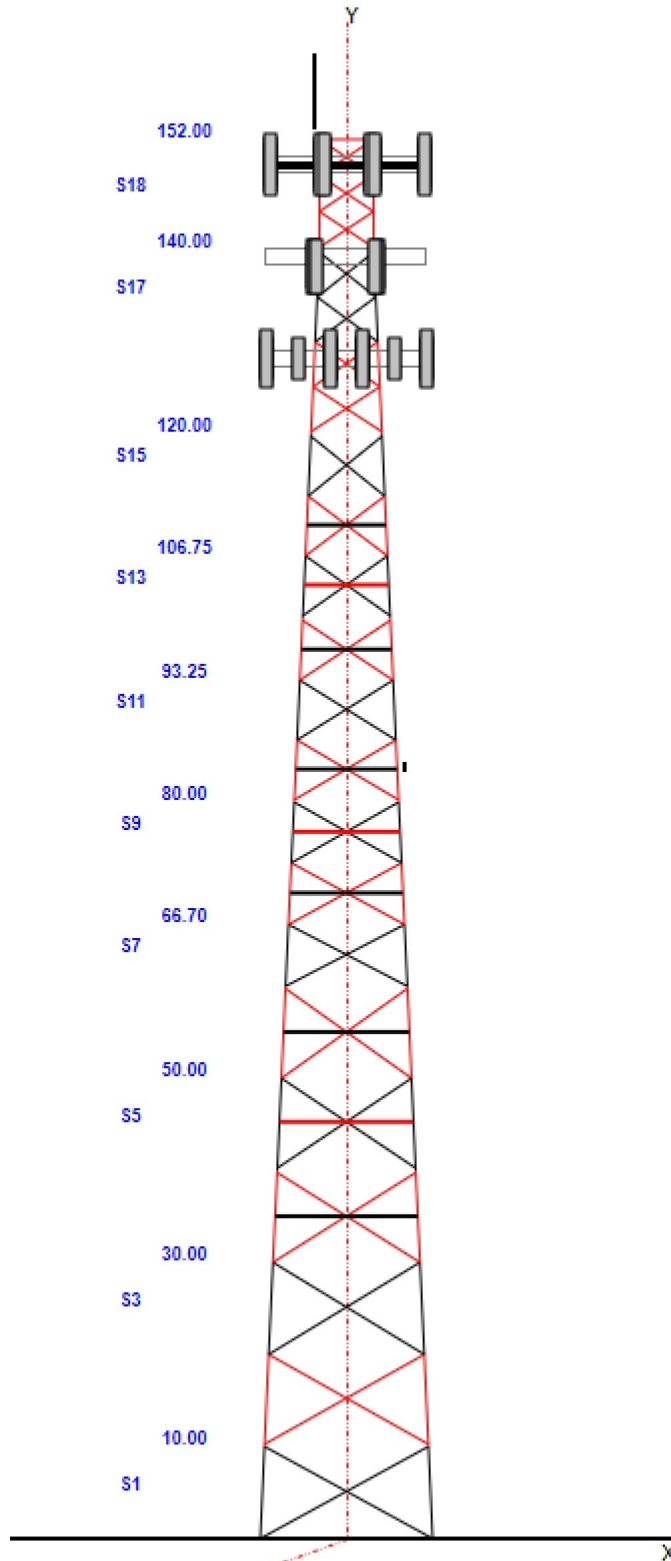
Structure: CT13065-A-SBA

Site Name: Guilford
Type: Self Support
Height: 152.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: Triangle
Base Width: 20.78
Top Width: 6.52

Code: TIA-222-G
Basic WS: 101.00
Basic Ice WS: 50.00
Operational WS: 60.00

1/26/2022
Page: 3



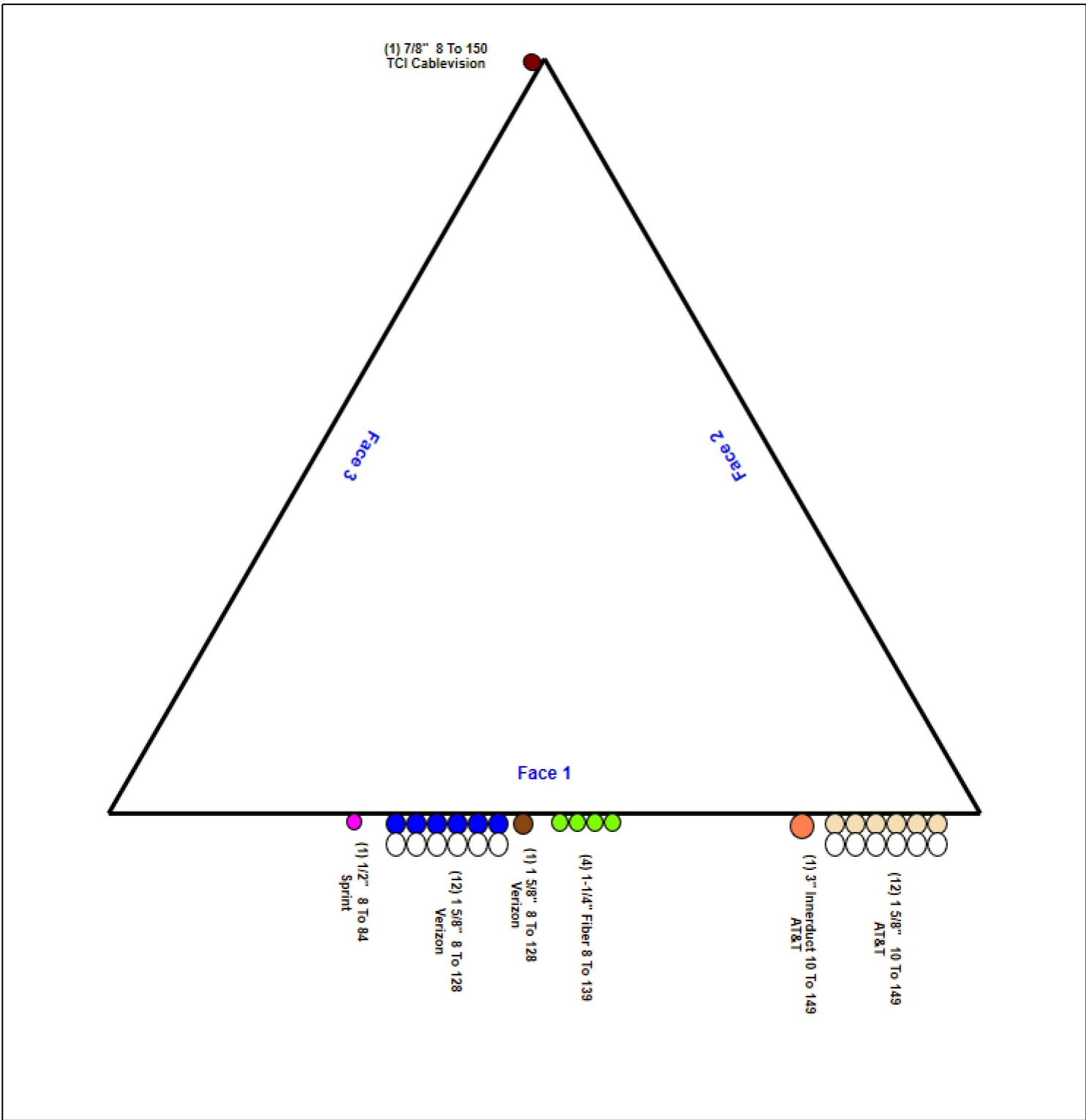
Structure: CT13065-A-SBA - Coax Line Placement

Type: Self Support
Site Name: Guilford
Height: 152.00 (ft)

1/26/2022



Page: 4



Loading Summary

Structure: CT13065-A-SBA	Code: TIA-222-G	1/26/2022
Site Name: Guilford	Exposure: B	
Height: 152.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II



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Discrete Appurtenances Properties

Attach Elev (ft)	Description	Qty	No Ice		Ice		Len (in)	Width (in)	Depth (in)	Ka	Orientation Factor	Vert Ecc (ft)
			Weight (lb)	CaAa (sf)	Weight (lb)	CaAa (sf)						
150.00	Phillips Dodge 201-7 Omni	1	4.00	1.070	74.90	3.845	99.600	1.300	1.300	1.00	1.00	7.000
149.00	Sector Frames	3	350.00	14.000	622.91	21.018	0.000	0.000	0.000	0.75	0.75	0.000
149.00	7770	3	35.00	5.500	169.73	6.562	55.000	11.000	5.000	0.80	0.73	0.000
149.00	HPA-65R-BU6AA	3	51.00	9.660	298.33	11.022	72.000	14.800	9.000	0.80	0.85	0.000
149.00	800-10965	3	108.60	13.810	405.83	15.386	78.700	20.000	6.900	0.80	0.71	0.000
149.00	OPA65R-BU6DA	3	79.40	12.710	373.15	14.170	71.200	20.700	7.700	0.80	0.72	0.000
149.00	LGP21401	6	14.10	1.290	39.03	2.123	14.400	9.200	2.600	0.80	0.67	0.000
149.00	LGP21901	6	5.50	0.230	13.17	0.597	4.000	6.000	3.000	0.80	0.67	0.000
149.00	7020.00 RET	6	2.20	0.400	12.41	0.883	4.900	8.300	2.400	0.80	0.67	0.000
149.00	7070	3	5.50	0.150	10.69	0.538	8.300	1.800	0.000	0.80	0.67	0.000
149.00	4449 B5/B12	3	71.00	1.970	124.24	2.516	17.900	13.200	9.400	0.80	0.67	0.000
149.00	4415 B30	3	44.10	1.860	91.41	2.431	13.500	16.500	4.800	0.80	0.67	0.000
149.00	RRUS 8843 B2 B66A	3	72.00	1.640	118.72	2.135	14.900	13.200	10.900	0.80	0.67	0.000
149.00	RRUS-4478 B14	3	59.90	1.840	106.77	2.365	16.500	13.400	7.700	0.80	0.67	0.000
149.00	DC6-48-60-18-8F ("Squid")	2	31.80	0.920	93.46	1.357	24.000	11.000	11.000	0.80	1.00	0.000
149.00	DC6-48-60-18-8C-EV	1	16.00	4.780	139.40	5.662	31.400	18.300	10.200	1.00	1.00	0.000
149.00	(3) SFS-H (V-Braces)	1	197.00	6.300	471.30	12.879	0.000	0.000	0.000	0.75	1.00	0.000
149.00	(3) 12.5' - 2" Horizontal Pipe	1	137.25	5.938	271.03	13.378	0.000	0.000	0.000	0.75	1.00	0.000
139.00	(3) Sector Frames	1	1470.0	52.000	3500.86	105.88	0.000	0.000	0.000	0.75	1.00	0.000
139.00	1900MHz RRH	3	44.00	3.800	152.02	5.176	23.000	13.000	17.000	0.80	0.67	0.000
139.00	800 MHz RRH	3	53.00	2.490	126.19	3.622	19.700	13.000	10.800	0.80	0.67	0.000
139.00	TD-RRH8x20-25	3	70.00	4.050	179.07	4.854	26.100	18.600	6.700	0.80	0.67	0.000
139.00	ALU 800MHz External Notch Filt	3	8.80	0.780	26.26	1.420	10.000	8.000	3.000	0.80	0.67	0.000
139.00	ACU-A20-N	4	1.00	0.140	5.25	0.434	4.000	2.000	3.500	0.80	0.67	0.000
138.00	APXVSP18-C-A20	3	57.00	8.020	228.04	10.784	72.000	11.800	7.000	0.80	0.83	0.000
138.00	APXVTM14-C-I20	3	56.20	6.340	214.59	7.441	56.300	12.600	6.300	0.80	0.77	0.000
128.00	(3) Sector Frames	1	1611.0	47.000	3819.60	95.326	0.000	0.000	0.000	0.75	1.00	0.000
128.00	Andrew HBXX-6516DS-A2M	4	30.60	5.430	171.58	6.423	50.900	12.000	6.500	0.80	0.77	0.000
128.00	Andrew HBXX-6517DS-A2M	2	40.70	8.550	240.13	9.833	74.900	12.000	6.500	0.80	0.77	0.000
128.00	Andrew LNX-6513DS-A1M	4	30.40	5.830	184.58	6.899	54.700	11.900	7.100	0.80	0.83	0.000
128.00	Alcatel Lucent RRH2x60-AWS	3	55.00	3.500	154.06	4.295	37.000	11.000	6.000	0.80	0.67	0.000
128.00	Alcatel Lucent RRH2X60-PCS	3	55.00	2.200	137.65	2.824	22.000	12.000	9.400	0.80	0.67	0.000
128.00	RFS FD9R6004/2C-3L	6	3.10	0.360	15.89	0.576	5.800	6.500	1.500	0.80	0.67	0.000
128.00	Andrew LNX-6514DS-A1M	2	33.10	8.090	230.38	9.347	72.000	11.900	7.100	0.80	0.80	0.000
128.00	RFS DB-T1-6Z-8AB-OZ	1	18.90	4.800	159.58	5.657	24.000	24.000	10.000	1.00	1.00	0.000
83.50	DB26 GPS	1	10.00	1.000	37.65	1.671	12.000	9.000	6.000	1.00	1.00	0.000
83.50	Pipe Mount	1	45.00	2.000	80.55	3.317	0.000	0.000	0.000	1.00	1.00	0.000
Totals:		105	7,944.25		22,230.41						Number of Appurtenances :	37

Loading Summary

Structure: CT13065-A-SBA	Code: TIA-222-G	1/26/2022
Site Name: Guilford	Exposure: B	
Height: 152.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II



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Linear Appurtenances Properties

Elev. From (ft)	Elev. To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	152.00	Climbing Ladder	1	2.00	6.90	100.00	2	Individual NR		N	1.00	1.00	
8.00	150.00	7/8" Coax	1	1.11	0.52	100.00	3	Individual NR		N	1.00	1.00	
0.00	149.00	W/G Ladder	1	2.00	6.00	100.00	1	Individual NR		N	1.00	1.00	
10.00	149.00	1 5/8" Coax	12	1.98	1.04	50.00	1	Block		N	0.50	1.00	
10.00	149.00	1/2" Fiber	1	0.50	0.16	100.00	1	Individual NR		N	1.00	1.00	0
10.00	149.00	1/2" Fiber	1	0.50	0.16	100.00	1	Individual NR		N	1.00	1.00	
10.00	149.00	3" Innerduct	1	3.00	0.25	100.00	1	Individual NR		N	1.00	1.00	
10.00	149.00	3/4" DC	2	0.75	0.40	100.00	1	Individual IR		N	1.00	1.00	
10.00	149.00	3/4" DC	2	0.75	0.40	100.00	1	Individual IR		N	1.00	1.00	0
0.00	140.00	W/G Ladder	1	2.00	6.00	100.00	1	Individual NR		N	1.00	1.00	
8.00	139.00	1-1/4" Fiber	4	1.25	0.95	100.00	1	Individual IR		N	1.00	1.00	
8.00	128.00	1 5/8" Coax	1	1.98	1.04	100.00	1	Individual NR		N	1.00	1.00	
8.00	128.00	1 5/8" Coax	12	1.98	1.04	50.00	1	Block		N	0.50	1.00	
0.00	120.00	Empty W/G Ladder	1	2.00	6.00	100.00	3	Individual NR		N	1.00	1.00	
8.00	83.50	1/2" Coax	1	0.65	0.16	100.00	1	Individual NR		N	1.00	1.00	

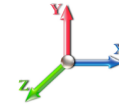
Section Forces

Structure: CT13065-A-SBA
Site Name: Guilford
Height: 152.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: TIA-222-G
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

1/26/2022



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Load Case: 1.2D + 1.6W Normal Wind

1.2D + 1.6W 101 mph Wind at Normal To Face

Wind Load Factor: 1.60

Wind Importance Factor: 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

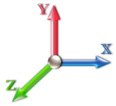
Sect Seq	Wind Height (ft)	Total Flat Area (psf) (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
											Linear Area (sqft)	Linear Area (sqft)						
1	5.0	15.54	12.899	10.01	0.00	0.11	2.92	1.00	1.00	0.00	18.02	10.52	0.00	2,306.8	0.0	1113.32	236.80	1,350.12
2	15.0	15.54	12.303	10.01	0.00	0.11	2.91	1.00	1.00	0.00	17.43	43.75	0.00	2,612.9	0.0	1073.03	799.50	1,872.54
3	25.0	15.54	10.180	8.14	0.00	0.10	2.97	1.00	1.00	0.00	14.67	43.75	0.00	2,662.9	0.0	921.29	799.50	1,720.79
4	35.0	16.25	14.003	7.51	0.00	0.12	2.88	1.00	1.00	0.00	18.24	43.75	0.00	2,464.2	0.0	1159.07	836.21	1,995.28
5	45.0	17.46	12.625	7.51	0.00	0.12	2.88	1.00	1.00	0.00	16.81	43.75	0.00	2,053.3	0.0	1149.34	898.46	2,047.80
6	55.0	18.49	12.008	7.51	0.00	0.13	2.86	1.00	1.00	0.00	16.16	43.75	0.00	2,013.3	0.0	1163.97	951.48	2,115.45
7	63.4	19.25	6.441	5.03	0.00	0.12	2.90	1.00	1.00	0.00	9.20	29.31	0.00	1,344.1	0.0	698.53	663.76	1,362.29
8	70.0	19.81	9.039	3.92	0.00	0.14	2.81	1.00	1.00	0.00	11.26	29.31	0.00	1,294.9	0.0	853.53	683.10	1,536.64
9	76.7	20.34	8.631	3.86	0.00	0.14	2.80	1.00	1.00	0.00	10.82	28.87	0.00	1,149.2	0.0	837.02	690.57	1,527.60
10	83.4	20.83	6.572	3.58	0.00	0.12	2.88	1.00	1.00	0.00	8.59	29.36	0.00	1,371.4	0.0	702.11	719.72	1,421.83
11	90.0	21.29	4.327	4.34	0.00	0.11	2.92	1.00	1.00	0.00	6.76	28.09	0.00	1,208.7	0.0	570.49	704.57	1,275.06
12	96.6	21.72	6.412	3.24	0.00	0.13	2.85	1.00	1.00	0.00	8.25	29.17	0.00	1,262.4	0.0	694.89	746.66	1,441.56
13	103.4	22.15	2.125	10.79	0.00	0.18	2.65	1.00	1.00	0.00	8.38	29.17	0.00	1,039.6	0.0	669.56	761.21	1,430.77
14	110.0	22.54	1.591	10.32	0.00	0.19	2.64	1.00	1.00	0.00	7.57	28.09	0.00	1,000.0	0.0	612.99	746.14	1,359.13
15	116.6	22.92	0.000	10.10	0.00	0.16	2.72	1.00	1.00	0.00	5.82	29.17	0.00	901.1	0.0	493.39	787.90	1,281.28
16	125.0	23.38	5.350	4.80	0.00	0.12	2.88	1.00	1.00	0.00	8.06	38.81	0.00	1,145.8	0.0	737.38	1050.88	1,788.26
17	135.0	23.90	4.872	4.80	0.00	0.13	2.84	1.00	1.00	0.00	7.59	27.49	0.00	814.2	0.0	699.79	753.15	1,452.94
18	146.0	24.44	6.622	4.75	0.00	0.14	2.81	1.00	1.00	0.00	9.31	20.46	0.00	700.2	0.0	868.78	574.73	1,443.51
												27,344.8	0.0			28,422.84		

Section Forces

Structure: CT13065-A-SBA
Site Name: Guilford
Height: 152.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: TIA-222-G
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

1/26/2022

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Load Case: 1.2D + 1.6W 60° Wind

1.2D + 1.6W 101 mph Wind at 60° From Face

Wind Load Factor: 1.60

Wind Importance Factor: 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	Total		Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
		Flat Area (sqft)	Round Area (sqft)								Linear Area (sqft)	Linear Area (sqft)						
1	5.0	15.54	12.899	10.01	0.00	0.11	2.92	0.80	1.00	0.00	15.44	10.52	0.00	2,306.8	0.0	953.96	236.80	1,190.76
2	15.0	15.54	12.303	10.01	0.00	0.11	2.91	0.80	1.00	0.00	14.97	43.75	0.00	2,612.9	0.0	921.56	799.50	1,721.06
3	25.0	15.54	10.180	8.14	0.00	0.10	2.97	0.80	1.00	0.00	12.64	43.75	0.00	2,662.9	0.0	793.45	799.50	1,592.95
4	35.0	16.25	14.003	7.51	0.00	0.12	2.88	0.80	1.00	0.00	15.43	43.75	0.00	2,464.2	0.0	981.06	836.21	1,817.27
5	45.0	17.46	12.625	7.51	0.00	0.12	2.88	0.80	1.00	0.00	14.29	43.75	0.00	2,053.3	0.0	976.72	898.46	1,875.18
6	55.0	18.49	12.008	7.51	0.00	0.13	2.86	0.80	1.00	0.00	13.76	43.75	0.00	2,013.3	0.0	991.00	951.48	1,942.47
7	63.4	19.25	6.441	5.03	0.00	0.12	2.90	0.80	1.00	0.00	7.91	29.31	0.00	1,344.1	0.0	600.73	663.76	1,264.50
8	70.0	19.81	9.039	3.92	0.00	0.14	2.81	0.80	1.00	0.00	9.45	29.31	0.00	1,294.9	0.0	716.46	683.10	1,399.57
9	76.7	20.34	8.631	3.86	0.00	0.14	2.80	0.80	1.00	0.00	9.09	28.87	0.00	1,149.2	0.0	703.45	690.57	1,394.03
10	83.4	20.83	6.572	3.58	0.00	0.12	2.88	0.80	1.00	0.00	7.28	29.36	0.00	1,371.4	0.0	594.73	719.72	1,314.45
11	90.0	21.29	4.327	4.34	0.00	0.11	2.92	0.80	1.00	0.00	5.89	28.09	0.00	1,208.7	0.0	497.42	704.57	1,201.99
12	96.6	21.72	6.412	3.24	0.00	0.13	2.85	0.80	1.00	0.00	6.96	29.17	0.00	1,262.4	0.0	586.81	746.66	1,333.47
13	103.4	22.15	2.125	10.79	0.00	0.18	2.65	0.80	1.00	0.00	7.95	29.17	0.00	1,039.6	0.0	635.58	761.21	1,396.79
14	110.0	22.54	1.591	10.32	0.00	0.19	2.64	0.80	1.00	0.00	7.26	28.09	0.00	1,000.0	0.0	587.23	746.14	1,333.37
15	116.6	22.92	0.000	10.10	0.00	0.16	2.72	0.80	1.00	0.00	5.82	29.17	0.00	901.1	0.0	493.39	787.90	1,281.28
16	125.0	23.38	5.350	4.80	0.00	0.12	2.88	0.80	1.00	0.00	6.99	38.81	0.00	1,145.8	0.0	639.53	1050.88	1,690.41
17	135.0	23.90	4.872	4.80	0.00	0.13	2.84	0.80	1.00	0.00	6.61	27.49	0.00	814.2	0.0	609.93	753.15	1,363.08
18	146.0	24.44	6.622	4.75	0.00	0.14	2.81	0.80	1.00	0.00	7.99	20.46	0.00	700.2	0.0	745.24	574.73	1,319.97
														27,344.8	0.0			26,432.60

Section Forces

Structure: CT13065-A-SBA

Code: TIA-222-G

1/26/2022

Site Name: Guilford

Exposure: B



Height: 152.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II

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Load Case: 1.2D + 1.6W 90° Wind

1.2D + 1.6W 101 mph Wind at 90° From Face

Wind Load Factor: 1.60

Wind Importance Factor: 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

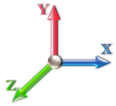
Sect Seq	Wind Height (ft)	Total		Ice		Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
		Flat Area (sqft)	Round Area (sqft)	Round Area (sqft)	Linear Area (sqft)							Linear Area (sqft)						
1	5.0	15.54	12.899	10.01	0.00	0.11	2.92	0.85	1.00	0.00	16.09	10.52	0.00	2,306.8	0.0	993.80	236.80	1,230.60
2	15.0	15.54	12.303	10.01	0.00	0.11	2.91	0.85	1.00	0.00	15.59	43.75	0.00	2,612.9	0.0	959.43	799.50	1,758.93
3	25.0	15.54	10.180	8.14	0.00	0.10	2.97	0.85	1.00	0.00	13.15	43.75	0.00	2,662.9	0.0	825.41	799.50	1,624.91
4	35.0	16.25	14.003	7.51	0.00	0.12	2.88	0.85	1.00	0.00	16.13	43.75	0.00	2,464.2	0.0	1025.56	836.21	1,861.77
5	45.0	17.46	12.625	7.51	0.00	0.12	2.88	0.85	1.00	0.00	14.92	43.75	0.00	2,053.3	0.0	1019.87	898.46	1,918.33
6	55.0	18.49	12.008	7.51	0.00	0.13	2.86	0.85	1.00	0.00	14.36	43.75	0.00	2,013.3	0.0	1034.24	951.48	1,985.72
7	63.4	19.25	6.441	5.03	0.00	0.12	2.90	0.85	1.00	0.00	8.24	29.31	0.00	1,344.1	0.0	625.18	663.76	1,288.94
8	70.0	19.81	9.039	3.92	0.00	0.14	2.81	0.85	1.00	0.00	9.90	29.31	0.00	1,294.9	0.0	750.73	683.10	1,433.83
9	76.7	20.34	8.631	3.86	0.00	0.14	2.80	0.85	1.00	0.00	9.52	28.87	0.00	1,149.2	0.0	736.85	690.57	1,427.42
10	83.4	20.83	6.572	3.58	0.00	0.12	2.88	0.85	1.00	0.00	7.61	29.36	0.00	1,371.4	0.0	621.58	719.72	1,341.30
11	90.0	21.29	4.327	4.34	0.00	0.11	2.92	0.85	1.00	0.00	6.11	28.09	0.00	1,208.7	0.0	515.69	704.57	1,220.26
12	96.6	21.72	6.412	3.24	0.00	0.13	2.85	0.85	1.00	0.00	7.28	29.17	0.00	1,262.4	0.0	613.83	746.66	1,360.49
13	103.4	22.15	2.125	10.79	0.00	0.18	2.65	0.85	1.00	0.00	8.06	29.17	0.00	1,039.6	0.0	644.08	761.21	1,405.29
14	110.0	22.54	1.591	10.32	0.00	0.19	2.64	0.85	1.00	0.00	7.34	28.09	0.00	1,000.0	0.0	593.67	746.14	1,339.81
15	116.6	22.92	0.000	10.10	0.00	0.16	2.72	0.85	1.00	0.00	5.82	29.17	0.00	901.1	0.0	493.39	787.90	1,281.28
16	125.0	23.38	5.350	4.80	0.00	0.12	2.88	0.85	1.00	0.00	7.26	38.81	0.00	1,145.8	0.0	664.00	1050.88	1,714.87
17	135.0	23.90	4.872	4.80	0.00	0.13	2.84	0.85	1.00	0.00	6.86	27.49	0.00	814.2	0.0	632.39	753.15	1,385.54
18	146.0	24.44	6.622	4.75	0.00	0.14	2.81	0.85	1.00	0.00	8.32	20.46	0.00	700.2	0.0	776.12	574.73	1,350.85
														27,344.8	0.0			26,930.16

Section Forces

Structure: CT13065-A-SBA
Site Name: Guilford
Height: 152.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: TIA-222-G
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Load Case: 0.9D + 1.6W Normal Wind

0.9D + 1.6W 101 mph Wind at Normal To Face

Wind Load Factor: 1.60
Dead Load Factor: 0.90
Ice Dead Load Factor: 0.00

Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

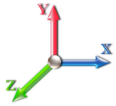
Sect Seq	Wind Height (ft)	Total		Ice		Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
		Flat Area (sqft)	Round Area (sqft)	Round Area (sqft)	Linear Area (sqft)													
1	5.0	15.54	12.899	10.01	0.00	0.11	2.92	1.00	1.00	0.00	18.02	10.52	0.00	1,730.1	0.0	1113.32	236.80	1,350.12
2	15.0	15.54	12.303	10.01	0.00	0.11	2.91	1.00	1.00	0.00	17.43	43.75	0.00	1,959.6	0.0	1073.03	799.50	1,872.54
3	25.0	15.54	10.180	8.14	0.00	0.10	2.97	1.00	1.00	0.00	14.67	43.75	0.00	1,997.2	0.0	921.29	799.50	1,720.79
4	35.0	16.25	14.003	7.51	0.00	0.12	2.88	1.00	1.00	0.00	18.24	43.75	0.00	1,848.1	0.0	1159.07	836.21	1,995.28
5	45.0	17.46	12.625	7.51	0.00	0.12	2.88	1.00	1.00	0.00	16.81	43.75	0.00	1,539.9	0.0	1149.34	898.46	2,047.80
6	55.0	18.49	12.008	7.51	0.00	0.13	2.86	1.00	1.00	0.00	16.16	43.75	0.00	1,509.9	0.0	1163.97	951.48	2,115.45
7	63.4	19.25	6.441	5.03	0.00	0.12	2.90	1.00	1.00	0.00	9.20	29.31	0.00	1,008.1	0.0	698.53	663.76	1,362.29
8	70.0	19.81	9.039	3.92	0.00	0.14	2.81	1.00	1.00	0.00	11.26	29.31	0.00	971.2	0.0	853.53	683.10	1,536.64
9	76.7	20.34	8.631	3.86	0.00	0.14	2.80	1.00	1.00	0.00	10.82	28.87	0.00	861.9	0.0	837.02	690.57	1,527.60
10	83.4	20.83	6.572	3.58	0.00	0.12	2.88	1.00	1.00	0.00	8.59	29.36	0.00	1,028.6	0.0	702.11	719.72	1,421.83
11	90.0	21.29	4.327	4.34	0.00	0.11	2.92	1.00	1.00	0.00	6.76	28.09	0.00	906.5	0.0	570.49	704.57	1,275.06
12	96.6	21.72	6.412	3.24	0.00	0.13	2.85	1.00	1.00	0.00	8.25	29.17	0.00	946.8	0.0	694.89	746.66	1,441.56
13	103.4	22.15	2.125	10.79	0.00	0.18	2.65	1.00	1.00	0.00	8.38	29.17	0.00	779.7	0.0	669.56	761.21	1,430.77
14	110.0	22.54	1.591	10.32	0.00	0.19	2.64	1.00	1.00	0.00	7.57	28.09	0.00	750.0	0.0	612.99	746.14	1,359.13
15	116.6	22.92	0.000	10.10	0.00	0.16	2.72	1.00	1.00	0.00	5.82	29.17	0.00	675.8	0.0	493.39	787.90	1,281.28
16	125.0	23.38	5.350	4.80	0.00	0.12	2.88	1.00	1.00	0.00	8.06	38.81	0.00	859.3	0.0	737.38	1050.88	1,788.26
17	135.0	23.90	4.872	4.80	0.00	0.13	2.84	1.00	1.00	0.00	7.59	27.49	0.00	610.7	0.0	699.79	753.15	1,452.94
18	146.0	24.44	6.622	4.75	0.00	0.14	2.81	1.00	1.00	0.00	9.31	20.46	0.00	525.1	0.0	868.78	574.73	1,443.51
														20,508.6	0.0			28,422.84

Section Forces

Structure: CT13065-A-SBA
Site Name: Guilford
Height: 152.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: TIA-222-G
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Load Case: 0.9D + 1.6W 60° Wind

0.9D + 1.6W 101 mph Wind at 60° From Face

Wind Load Factor: 1.60

Wind Importance Factor: 1.00

Dead Load Factor: 0.90

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

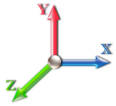
Sect Seq	Wind Height (ft)	Total		Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
		Flat Area (sqft)	Round Area (sqft)								Linear Area (sqft)	Linear Area (sqft)						
1	5.0	15.54	12.899	10.01	0.00	0.11	2.92	0.80	1.00	0.00	15.44	10.52	0.00	1,730.1	0.0	953.96	236.80	1,190.76
2	15.0	15.54	12.303	10.01	0.00	0.11	2.91	0.80	1.00	0.00	14.97	43.75	0.00	1,959.6	0.0	921.56	799.50	1,721.06
3	25.0	15.54	10.180	8.14	0.00	0.10	2.97	0.80	1.00	0.00	12.64	43.75	0.00	1,997.2	0.0	793.45	799.50	1,592.95
4	35.0	16.25	14.003	7.51	0.00	0.12	2.88	0.80	1.00	0.00	15.43	43.75	0.00	1,848.1	0.0	981.06	836.21	1,817.27
5	45.0	17.46	12.625	7.51	0.00	0.12	2.88	0.80	1.00	0.00	14.29	43.75	0.00	1,539.9	0.0	976.72	898.46	1,875.18
6	55.0	18.49	12.008	7.51	0.00	0.13	2.86	0.80	1.00	0.00	13.76	43.75	0.00	1,509.9	0.0	991.00	951.48	1,942.47
7	63.4	19.25	6.441	5.03	0.00	0.12	2.90	0.80	1.00	0.00	7.91	29.31	0.00	1,008.1	0.0	600.73	663.76	1,264.50
8	70.0	19.81	9.039	3.92	0.00	0.14	2.81	0.80	1.00	0.00	9.45	29.31	0.00	971.2	0.0	716.46	683.10	1,399.57
9	76.7	20.34	8.631	3.86	0.00	0.14	2.80	0.80	1.00	0.00	9.09	28.87	0.00	861.9	0.0	703.45	690.57	1,394.03
10	83.4	20.83	6.572	3.58	0.00	0.12	2.88	0.80	1.00	0.00	7.28	29.36	0.00	1,028.6	0.0	594.73	719.72	1,314.45
11	90.0	21.29	4.327	4.34	0.00	0.11	2.92	0.80	1.00	0.00	5.89	28.09	0.00	906.5	0.0	497.42	704.57	1,201.99
12	96.6	21.72	6.412	3.24	0.00	0.13	2.85	0.80	1.00	0.00	6.96	29.17	0.00	946.8	0.0	586.81	746.66	1,333.47
13	103.4	22.15	2.125	10.79	0.00	0.18	2.65	0.80	1.00	0.00	7.95	29.17	0.00	779.7	0.0	635.58	761.21	1,396.79
14	110.0	22.54	1.591	10.32	0.00	0.19	2.64	0.80	1.00	0.00	7.26	28.09	0.00	750.0	0.0	587.23	746.14	1,333.37
15	116.6	22.92	0.000	10.10	0.00	0.16	2.72	0.80	1.00	0.00	5.82	29.17	0.00	675.8	0.0	493.39	787.90	1,281.28
16	125.0	23.38	5.350	4.80	0.00	0.12	2.88	0.80	1.00	0.00	6.99	38.81	0.00	859.3	0.0	639.53	1050.88	1,690.41
17	135.0	23.90	4.872	4.80	0.00	0.13	2.84	0.80	1.00	0.00	6.61	27.49	0.00	610.7	0.0	609.93	753.15	1,363.08
18	146.0	24.44	6.622	4.75	0.00	0.14	2.81	0.80	1.00	0.00	7.99	20.46	0.00	525.1	0.0	745.24	574.73	1,319.97
														20,508.6	0.0			26,432.60

Section Forces

Structure: CT13065-A-SBA
Site Name: Guilford
Height: 152.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: TIA-222-G
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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Load Case: 0.9D + 1.6W 90° Wind

0.9D + 1.6W 101 mph Wind at 90° From Face

Wind Load Factor: 1.60

Wind Importance Factor: 1.00

Dead Load Factor: 0.90

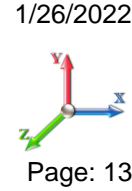
Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	Total Flat Area (psf) (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
											Linear Area (sqft)	Linear Area (sqft)						
1	5.0	15.54	12.899	10.01	0.00	0.11	2.92	0.85	1.00	0.00	16.09	10.52	0.00	1,730.1	0.0	993.80	236.80	1,230.60
2	15.0	15.54	12.303	10.01	0.00	0.11	2.91	0.85	1.00	0.00	15.59	43.75	0.00	1,959.6	0.0	959.43	799.50	1,758.93
3	25.0	15.54	10.180	8.14	0.00	0.10	2.97	0.85	1.00	0.00	13.15	43.75	0.00	1,997.2	0.0	825.41	799.50	1,624.91
4	35.0	16.25	14.003	7.51	0.00	0.12	2.88	0.85	1.00	0.00	16.13	43.75	0.00	1,848.1	0.0	1025.56	836.21	1,861.77
5	45.0	17.46	12.625	7.51	0.00	0.12	2.88	0.85	1.00	0.00	14.92	43.75	0.00	1,539.9	0.0	1019.87	898.46	1,918.33
6	55.0	18.49	12.008	7.51	0.00	0.13	2.86	0.85	1.00	0.00	14.36	43.75	0.00	1,509.9	0.0	1034.24	951.48	1,985.72
7	63.4	19.25	6.441	5.03	0.00	0.12	2.90	0.85	1.00	0.00	8.24	29.31	0.00	1,008.1	0.0	625.18	663.76	1,288.94
8	70.0	19.81	9.039	3.92	0.00	0.14	2.81	0.85	1.00	0.00	9.90	29.31	0.00	971.2	0.0	750.73	683.10	1,433.83
9	76.7	20.34	8.631	3.86	0.00	0.14	2.80	0.85	1.00	0.00	9.52	28.87	0.00	861.9	0.0	736.85	690.57	1,427.42
10	83.4	20.83	6.572	3.58	0.00	0.12	2.88	0.85	1.00	0.00	7.61	29.36	0.00	1,028.6	0.0	621.58	719.72	1,341.30
11	90.0	21.29	4.327	4.34	0.00	0.11	2.92	0.85	1.00	0.00	6.11	28.09	0.00	906.5	0.0	515.69	704.57	1,220.26
12	96.6	21.72	6.412	3.24	0.00	0.13	2.85	0.85	1.00	0.00	7.28	29.17	0.00	946.8	0.0	613.83	746.66	1,360.49
13	103.4	22.15	2.125	10.79	0.00	0.18	2.65	0.85	1.00	0.00	8.06	29.17	0.00	779.7	0.0	644.08	761.21	1,405.29
14	110.0	22.54	1.591	10.32	0.00	0.19	2.64	0.85	1.00	0.00	7.34	28.09	0.00	750.0	0.0	593.67	746.14	1,339.81
15	116.6	22.92	0.000	10.10	0.00	0.16	2.72	0.85	1.00	0.00	5.82	29.17	0.00	675.8	0.0	493.39	787.90	1,281.28
16	125.0	23.38	5.350	4.80	0.00	0.12	2.88	0.85	1.00	0.00	7.26	38.81	0.00	859.3	0.0	664.00	1050.88	1,714.87
17	135.0	23.90	4.872	4.80	0.00	0.13	2.84	0.85	1.00	0.00	6.86	27.49	0.00	610.7	0.0	632.39	753.15	1,385.54
18	146.0	24.44	6.622	4.75	0.00	0.14	2.81	0.85	1.00	0.00	8.32	20.46	0.00	525.1	0.0	776.12	574.73	1,350.85
													20,508.6	0.0				26,930.16

Section Forces

Structure: CT13065-A-SBA	Code: TIA-222-G	1/26/2022
Site Name: Guilford	Exposure: B	
Height: 152.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0Di + 1.0Wi Normal Wind	1.2D + 1.0Di + 1.0Wi 50 mph Wind at Normal From Face
Wind Load Factor: 1.00	Wind Importance Factor: 1.00
Dead Load Factor: 1.20	
Ice Dead Load Factor: 1.00	Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
												Linear Area (sqft)	Linear Area (sqft)					
1	5.0	3.81	12.899	23.52	13.51	0.17	2.69	1.00	1.00	1.24	26.31	20.13	1.24	4,018.9	1712.1	228.82	77.32	306.14
2	15.0	3.81	12.303	24.61	14.61	0.18	2.65	1.00	1.00	1.39	26.38	68.71	13.86	5,559.1	2946.2	226.15	240.04	466.19
3	25.0	3.81	10.180	23.13	14.99	0.18	2.68	1.00	1.00	1.46	23.38	69.80	14.59	5,543.2	2880.4	202.63	245.85	448.47
4	35.0	3.98	14.003	22.51	14.99	0.20	2.58	1.00	1.00	1.51	26.95	70.55	15.09	5,842.2	3378.0	235.45	258.75	494.19
5	45.0	4.28	12.625	22.42	14.91	0.21	2.57	1.00	1.00	1.55	25.54	71.13	15.47	5,398.5	3345.2	238.60	280.79	519.39
6	55.0	4.53	12.008	22.29	14.78	0.22	2.54	1.00	1.00	1.58	24.88	71.60	15.79	5,370.6	3357.4	243.56	299.27	542.83
7	63.4	4.72	6.441	17.07	12.03	0.23	2.49	1.00	1.00	1.60	16.36	48.20	10.73	3,475.1	2131.0	163.14	209.00	372.14
8	70.0	4.86	9.039	15.73	11.82	0.26	2.41	1.00	1.00	1.62	18.28	48.36	10.84	3,721.9	2427.0	181.67	214.38	396.05
9	76.7	4.98	8.631	15.36	11.50	0.27	2.38	1.00	1.00	1.63	17.69	47.78	10.77	3,531.9	2382.7	178.51	217.02	395.53
10	83.4	5.10	6.572	14.89	11.31	0.25	2.44	1.00	1.00	1.65	15.28	48.83	10.22	3,575.0	2203.5	161.85	225.41	387.26
11	90.0	5.22	4.327	15.28	10.94	0.25	2.45	1.00	1.00	1.66	13.26	46.96	8.98	3,107.0	1898.3	143.73	218.22	361.95
12	96.6	5.32	6.412	14.08	10.84	0.27	2.39	1.00	1.00	1.67	14.70	48.89	9.39	3,440.1	2177.7	159.10	230.87	389.97
13	103.4	5.43	2.125	21.36	10.57	0.32	2.23	1.00	1.00	1.68	15.18	49.00	9.46	3,471.1	2431.4	156.44	232.44	388.88
14	110.0	5.52	1.591	20.51	10.19	0.34	2.20	1.00	1.00	1.69	14.23	47.29	9.16	3,308.3	2308.4	147.07	227.64	374.70
15	116.6	5.62	0.000	20.20	10.09	0.32	2.25	1.00	1.00	1.70	12.30	49.21	9.57	3,024.3	2123.2	132.18	242.28	374.46
16	125.0	5.73	5.350	21.27	16.47	0.31	2.27	1.00	1.00	1.71	18.16	65.26	13.71	3,801.6	2655.8	200.72	324.90	525.62
17	135.0	5.86	4.872	20.46	15.66	0.33	2.21	1.00	1.00	1.73	17.36	51.27	11.51	3,049.0	2234.8	190.95	259.00	449.94
18	146.0	5.99	6.622	26.87	22.12	0.40	2.07	1.00	1.00	1.74	23.69	35.88	10.73	2,958.7	2258.5	249.59	184.06	433.64
														72,196.3	44851.5			7,627.36

Section Forces

Structure: CT13065-A-SBA	Code: TIA-222-G	1/26/2022
Site Name: Guilford	Exposure: B	
Height: 152.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II
		Page: 14

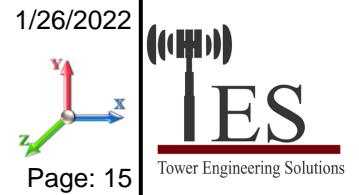


Load Case: 1.2D + 1.0Di + 1.0Wi 60° Wind	1.2D + 1.0Di + 1.0Wi 50 mph Wind at 60° From Face
Wind Load Factor: 1.00	Wind Importance Factor: 1.00
Dead Load Factor: 1.20	
Ice Dead Load Factor: 1.00	Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	Total		Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
		Flat Area (sqft)	Round Area (sqft)								Linear Area (sqft)	Linear Area (sqft)						
1	5.0	3.81	12.899	23.52	13.51	0.17	2.69	0.80	1.00	1.24	23.73	20.13	1.24	4,018.9	1712.1	206.38	77.32	283.71
2	15.0	3.81	12.303	24.61	14.61	0.18	2.65	0.80	1.00	1.39	23.92	68.71	13.86	5,559.1	2946.2	205.05	240.04	445.09
3	25.0	3.81	10.180	23.13	14.99	0.18	2.68	0.80	1.00	1.46	21.35	69.80	14.59	5,543.2	2880.4	184.98	245.85	430.83
4	35.0	3.98	14.003	22.51	14.99	0.20	2.58	0.80	1.00	1.51	24.15	70.55	15.09	5,842.2	3378.0	210.98	258.75	469.73
5	45.0	4.28	12.625	22.42	14.91	0.21	2.57	0.80	1.00	1.55	23.01	71.13	15.47	5,398.5	3345.2	215.01	280.79	495.80
6	55.0	4.53	12.008	22.29	14.78	0.22	2.54	0.80	1.00	1.58	22.48	71.60	15.79	5,370.6	3357.4	220.06	299.27	519.32
7	63.4	4.72	6.441	17.07	12.03	0.23	2.49	0.80	1.00	1.60	15.07	48.20	10.73	3,475.1	2131.0	150.30	209.00	359.30
8	70.0	4.86	9.039	15.73	11.82	0.26	2.41	0.80	1.00	1.62	16.47	48.36	10.84	3,721.9	2427.0	163.71	214.38	378.09
9	76.7	4.98	8.631	15.36	11.50	0.27	2.38	0.80	1.00	1.63	15.97	47.78	10.77	3,531.9	2382.7	161.09	217.02	378.11
10	83.4	5.10	6.572	14.89	11.31	0.25	2.44	0.80	1.00	1.65	13.96	48.83	10.22	3,575.0	2203.5	147.93	225.41	373.34
11	90.0	5.22	4.327	15.28	10.94	0.25	2.45	0.80	1.00	1.66	12.39	46.96	8.98	3,107.0	1898.3	134.35	218.22	352.57
12	96.6	5.32	6.412	14.08	10.84	0.27	2.39	0.80	1.00	1.67	13.42	48.89	9.39	3,440.1	2177.7	145.22	230.87	376.09
13	103.4	5.43	2.125	21.36	10.57	0.32	2.23	0.80	1.00	1.68	14.75	49.00	9.46	3,471.1	2431.4	152.06	232.44	384.50
14	110.0	5.52	1.591	20.51	10.19	0.34	2.20	0.80	1.00	1.69	13.91	47.29	9.16	3,308.3	2308.4	143.78	227.64	371.41
15	116.6	5.62	0.000	20.20	10.09	0.32	2.25	0.80	1.00	1.70	12.30	49.21	9.57	3,024.3	2123.2	132.18	242.28	374.46
16	125.0	5.73	5.350	21.27	16.47	0.31	2.27	0.80	1.00	1.71	17.09	65.26	13.71	3,801.6	2655.8	188.89	324.90	513.79
17	135.0	5.86	4.872	20.46	15.66	0.33	2.21	0.80	1.00	1.73	16.38	51.27	11.51	3,049.0	2234.8	180.22	259.00	439.22
18	146.0	5.99	6.622	26.87	22.12	0.40	2.07	0.80	1.00	1.74	22.36	35.88	10.73	2,958.7	2258.5	235.63	184.06	419.69
														72,196.3	44851.5			7,365.04

Section Forces

Structure: CT13065-A-SBA	Code: TIA-222-G	1/26/2022
Site Name: Guilford	Exposure: B	
Height: 152.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0Di + 1.0Wi 90° Wind	1.2D + 1.0Di + 1.0Wi 50 mph Wind at 90° From Face
Wind Load Factor: 1.00	Wind Importance Factor: 1.00
Dead Load Factor: 1.20	
Ice Dead Load Factor: 1.00	Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Area		Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice Area		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
			Flat (sqft)	Round (sqft)								Linear Area (sqft)	Linear Area (sqft)					
1	5.0	3.81	12.899	23.52	13.51	0.17	2.69	0.85	1.00	1.24	24.38	20.13	1.24	4,018.9	1712.1	211.99	77.32	289.32
2	15.0	3.81	12.303	24.61	14.61	0.18	2.65	0.85	1.00	1.39	24.53	68.71	13.86	5,559.1	2946.2	210.32	240.04	450.37
3	25.0	3.81	10.180	23.13	14.99	0.18	2.68	0.85	1.00	1.46	21.86	69.80	14.59	5,543.2	2880.4	189.39	245.85	435.24
4	35.0	3.98	14.003	22.51	14.99	0.20	2.58	0.85	1.00	1.51	24.85	70.55	15.09	5,842.2	3378.0	217.10	258.75	475.85
5	45.0	4.28	12.625	22.42	14.91	0.21	2.57	0.85	1.00	1.55	23.65	71.13	15.47	5,398.5	3345.2	220.91	280.79	501.69
6	55.0	4.53	12.008	22.29	14.78	0.22	2.54	0.85	1.00	1.58	23.08	71.60	15.79	5,370.6	3357.4	225.93	299.27	525.20
7	63.4	4.72	6.441	17.07	12.03	0.23	2.49	0.85	1.00	1.60	15.40	48.20	10.73	3,475.1	2131.0	153.51	209.00	362.51
8	70.0	4.86	9.039	15.73	11.82	0.26	2.41	0.85	1.00	1.62	16.93	48.36	10.84	3,721.9	2427.0	168.20	214.38	382.58
9	76.7	4.98	8.631	15.36	11.50	0.27	2.38	0.85	1.00	1.63	16.40	47.78	10.77	3,531.9	2382.7	165.45	217.02	382.47
10	83.4	5.10	6.572	14.89	11.31	0.25	2.44	0.85	1.00	1.65	14.29	48.83	10.22	3,575.0	2203.5	151.41	225.41	376.82
11	90.0	5.22	4.327	15.28	10.94	0.25	2.45	0.85	1.00	1.66	12.61	46.96	8.98	3,107.0	1898.3	136.69	218.22	354.91
12	96.6	5.32	6.412	14.08	10.84	0.27	2.39	0.85	1.00	1.67	13.74	48.89	9.39	3,440.1	2177.7	148.69	230.87	379.56
13	103.4	5.43	2.125	21.36	10.57	0.32	2.23	0.85	1.00	1.68	14.86	49.00	9.46	3,471.1	2431.4	153.15	232.44	385.59
14	110.0	5.52	1.591	20.51	10.19	0.34	2.20	0.85	1.00	1.69	13.99	47.29	9.16	3,308.3	2308.4	144.60	227.64	372.24
15	116.6	5.62	0.000	20.20	10.09	0.32	2.25	0.85	1.00	1.70	12.30	49.21	9.57	3,024.3	2123.2	132.18	242.28	374.46
16	125.0	5.73	5.350	21.27	16.47	0.31	2.27	0.85	1.00	1.71	17.36	65.26	13.71	3,801.6	2655.8	191.85	324.90	516.75
17	135.0	5.86	4.872	20.46	15.66	0.33	2.21	0.85	1.00	1.73	16.62	51.27	11.51	3,049.0	2234.8	182.90	259.00	441.90
18	146.0	5.99	6.622	26.87	22.12	0.40	2.07	0.85	1.00	1.74	22.69	35.88	10.73	2,958.7	2258.5	239.12	184.06	423.18
															72,196.3	44851.5	7,430.62	

Section Forces

Structure: CT13065-A-SBA

Code: TIA-222-G

1/26/2022

Site Name: Guilford

Exposure: B



Height: 152.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 0.85

Topography: 1

Struct Class: II

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Load Case: 1.0D + 1.0W Normal Wind

1.0D + 1.0W 60 mph Wind at Normal To Face

Wind Load Factor: 1.00

Wind Importance Factor: 1.00

Dead Load Factor: 1.00

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

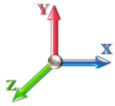
Sect Seq	Wind Height (ft)	qz (psf)	Total	Total	Ice	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear	Linear	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
			Flat Area (sqft)	Round Area (sqft)	Round Area (sqft)							Area (sqft)	Area (sqft)					
1	5.0	5.48	12.899	10.01	0.00	0.11	2.92	1.00	1.00	0.00	18.55	10.52	0.00	1,922.3	0.0	252.74	52.23	304.97
2	15.0	5.48	12.303	10.01	0.00	0.11	2.91	1.00	1.00	0.00	17.96	43.75	0.00	2,177.4	0.0	243.78	176.34	420.13
3	25.0	5.48	10.180	8.14	0.00	0.10	2.97	1.00	1.00	0.00	14.77	43.75	0.00	2,219.1	0.0	204.60	176.34	380.94
4	35.0	5.74	14.003	7.51	0.00	0.12	2.88	1.00	1.00	0.00	18.25	43.75	0.00	2,053.5	0.0	255.87	184.44	440.31
5	45.0	6.16	12.625	7.51	0.00	0.12	2.88	1.00	1.00	0.00	16.87	43.75	0.00	1,711.1	0.0	254.41	198.17	452.58
6	55.0	6.53	12.008	7.51	0.00	0.13	2.86	1.00	1.00	0.00	16.26	43.75	0.00	1,677.7	0.0	258.26	209.86	468.12
7	63.4	6.79	6.441	5.03	0.00	0.12	2.90	1.00	1.00	0.00	9.29	29.31	0.00	1,120.1	0.0	155.47	146.40	301.88
8	70.0	6.99	9.039	3.92	0.00	0.14	2.81	1.00	1.00	0.00	11.26	29.31	0.00	1,079.1	0.0	188.26	150.67	338.93
9	76.7	7.18	8.631	3.86	0.00	0.14	2.80	1.00	1.00	0.00	10.82	28.87	0.00	957.7	0.0	184.62	152.32	336.94
10	83.4	7.35	6.572	3.58	0.00	0.12	2.88	1.00	1.00	0.00	8.59	29.36	0.00	1,142.9	0.0	154.86	158.75	313.61
11	90.0	7.51	4.327	4.34	0.00	0.11	2.92	1.00	1.00	0.00	6.78	28.09	0.00	1,007.3	0.0	126.23	155.40	281.64
12	96.6	7.67	6.412	3.24	0.00	0.13	2.85	1.00	1.00	0.00	8.25	29.17	0.00	1,052.0	0.0	153.27	164.69	317.96
13	103.4	7.82	2.125	10.79	0.00	0.18	2.65	1.00	1.00	0.00	8.38	29.17	0.00	866.4	0.0	147.73	167.90	315.63
14	110.0	7.96	1.591	10.32	0.00	0.19	2.64	1.00	1.00	0.00	7.59	28.09	0.00	833.3	0.0	135.41	164.57	299.98
15	116.6	8.09	0.000	10.10	0.00	0.16	2.72	1.00	1.00	0.00	5.84	29.17	0.00	750.9	0.0	109.20	173.78	282.98
16	125.0	8.25	5.350	4.80	0.00	0.12	2.88	1.00	1.00	0.00	8.06	38.81	0.00	954.8	0.0	162.64	231.79	394.43
17	135.0	8.43	4.872	4.80	0.00	0.13	2.84	1.00	1.00	0.00	7.59	27.49	0.00	678.5	0.0	154.35	166.12	320.47
18	146.0	8.63	6.622	4.75	0.00	0.14	2.81	1.00	1.00	0.00	9.31	20.46	0.00	583.5	0.0	191.62	126.77	318.39
														22,787.4	0.0			6,289.88

Section Forces

Structure: CT13065-A-SBA
Site Name: Guilford
Height: 152.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: TIA-222-G
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

1/26/2022

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Load Case: 1.0D + 1.0W 60° Wind

1.0D + 1.0W 60 mph Wind at 60° From Face

Wind Load Factor: 1.00

Wind Importance Factor: 1.00

Dead Load Factor: 1.00

Ice Dead Load Factor: 0.00

Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	Total Flat Area (psf) (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	
											Linear Area (sqft)	Linear Area (sqft)						
1	5.0	5.48	12.899	10.01	0.00	0.11	2.92	0.80	1.00	0.00	15.97	10.52	0.00	1,922.3	0.0	217.59	52.23	269.82
2	15.0	5.48	12.303	10.01	0.00	0.11	2.91	0.80	1.00	0.00	15.49	43.75	0.00	2,177.4	0.0	210.38	176.34	386.72
3	25.0	5.48	10.180	8.14	0.00	0.10	2.97	0.80	1.00	0.00	12.74	43.75	0.00	2,219.1	0.0	176.40	176.34	352.75
4	35.0	5.74	14.003	7.51	0.00	0.12	2.88	0.80	1.00	0.00	15.45	43.75	0.00	2,053.5	0.0	216.60	184.44	401.04
5	45.0	6.16	12.625	7.51	0.00	0.12	2.88	0.80	1.00	0.00	14.35	43.75	0.00	1,711.1	0.0	216.34	198.17	414.51
6	55.0	6.53	12.008	7.51	0.00	0.13	2.86	0.80	1.00	0.00	13.85	43.75	0.00	1,677.7	0.0	220.10	209.86	429.97
7	63.4	6.79	6.441	5.03	0.00	0.12	2.90	0.80	1.00	0.00	8.00	29.31	0.00	1,120.1	0.0	133.90	146.40	280.31
8	70.0	6.99	9.039	3.92	0.00	0.14	2.81	0.80	1.00	0.00	9.45	29.31	0.00	1,079.1	0.0	158.03	150.67	308.70
9	76.7	7.18	8.631	3.86	0.00	0.14	2.80	0.80	1.00	0.00	9.09	28.87	0.00	957.7	0.0	155.16	152.32	307.48
10	83.4	7.35	6.572	3.58	0.00	0.12	2.88	0.80	1.00	0.00	7.28	29.36	0.00	1,142.9	0.0	131.18	158.75	289.92
11	90.0	7.51	4.327	4.34	0.00	0.11	2.92	0.80	1.00	0.00	5.91	28.09	0.00	1,007.3	0.0	110.12	155.40	265.52
12	96.6	7.67	6.412	3.24	0.00	0.13	2.85	0.80	1.00	0.00	6.96	29.17	0.00	1,052.0	0.0	129.43	164.69	294.12
13	103.4	7.82	2.125	10.79	0.00	0.18	2.65	0.80	1.00	0.00	7.95	29.17	0.00	866.4	0.0	140.23	167.90	308.13
14	110.0	7.96	1.591	10.32	0.00	0.19	2.64	0.80	1.00	0.00	7.27	28.09	0.00	833.3	0.0	129.72	164.57	294.30
15	116.6	8.09	0.000	10.10	0.00	0.16	2.72	0.80	1.00	0.00	5.84	29.17	0.00	750.9	0.0	109.20	173.78	282.98
16	125.0	8.25	5.350	4.80	0.00	0.12	2.88	0.80	1.00	0.00	6.99	38.81	0.00	954.8	0.0	141.06	231.79	372.85
17	135.0	8.43	4.872	4.80	0.00	0.13	2.84	0.80	1.00	0.00	6.61	27.49	0.00	678.5	0.0	134.53	166.12	300.65
18	146.0	8.63	6.622	4.75	0.00	0.14	2.81	0.80	1.00	0.00	7.99	20.46	0.00	583.5	0.0	164.37	126.77	291.14
22,787.4														0.0	5,850.90			

Section Forces

Structure: CT13065-A-SBA	Code: TIA-222-G	1/26/2022
Site Name: Guilford	Exposure: B	
Height: 152.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II
		Page: 18



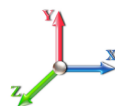
Load Case: 1.0D + 1.0W 90° Wind	1.0D + 1.0W 60 mph Wind at 90° From Face
Wind Load Factor: 1.00	Wind Importance Factor: 1.00
Dead Load Factor: 1.00	
Ice Dead Load Factor: 0.00	Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	Wind qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Ice		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
												Linear Area (sqft)	Linear Area (sqft)					
1	5.0	5.48	12.899	10.01	0.00	0.11	2.92	0.85	1.00	0.00	16.62	10.52	0.00	1,922.3	0.0	226.38	52.23	278.61
2	15.0	5.48	12.303	10.01	0.00	0.11	2.91	0.85	1.00	0.00	16.11	43.75	0.00	2,177.4	0.0	218.73	176.34	395.07
3	25.0	5.48	10.180	8.14	0.00	0.10	2.97	0.85	1.00	0.00	13.25	43.75	0.00	2,219.1	0.0	183.45	176.34	359.80
4	35.0	5.74	14.003	7.51	0.00	0.12	2.88	0.85	1.00	0.00	16.15	43.75	0.00	2,053.5	0.0	226.42	184.44	410.86
5	45.0	6.16	12.625	7.51	0.00	0.12	2.88	0.85	1.00	0.00	14.98	43.75	0.00	1,711.1	0.0	225.85	198.17	424.02
6	55.0	6.53	12.008	7.51	0.00	0.13	2.86	0.85	1.00	0.00	14.45	43.75	0.00	1,677.7	0.0	229.64	209.86	439.51
7	63.4	6.79	6.441	5.03	0.00	0.12	2.90	0.85	1.00	0.00	8.32	29.31	0.00	1,120.1	0.0	139.30	146.40	285.70
8	70.0	6.99	9.039	3.92	0.00	0.14	2.81	0.85	1.00	0.00	9.90	29.31	0.00	1,079.1	0.0	165.59	150.67	316.26
9	76.7	7.18	8.631	3.86	0.00	0.14	2.80	0.85	1.00	0.00	9.52	28.87	0.00	957.7	0.0	162.52	152.32	314.84
10	83.4	7.35	6.572	3.58	0.00	0.12	2.88	0.85	1.00	0.00	7.61	29.36	0.00	1,142.9	0.0	137.10	158.75	295.85
11	90.0	7.51	4.327	4.34	0.00	0.11	2.92	0.85	1.00	0.00	6.13	28.09	0.00	1,007.3	0.0	114.15	155.40	269.55
12	96.6	7.67	6.412	3.24	0.00	0.13	2.85	0.85	1.00	0.00	7.28	29.17	0.00	1,052.0	0.0	135.39	164.69	300.08
13	103.4	7.82	2.125	10.79	0.00	0.18	2.65	0.85	1.00	0.00	8.06	29.17	0.00	866.4	0.0	142.11	167.90	310.01
14	110.0	7.96	1.591	10.32	0.00	0.19	2.64	0.85	1.00	0.00	7.35	28.09	0.00	833.3	0.0	131.14	164.57	295.72
15	116.6	8.09	0.000	10.10	0.00	0.16	2.72	0.85	1.00	0.00	5.84	29.17	0.00	750.9	0.0	109.20	173.78	282.98
16	125.0	8.25	5.350	4.80	0.00	0.12	2.88	0.85	1.00	0.00	7.26	38.81	0.00	954.8	0.0	146.46	231.79	378.24
17	135.0	8.43	4.872	4.80	0.00	0.13	2.84	0.85	1.00	0.00	6.86	27.49	0.00	678.5	0.0	139.48	166.12	305.60
18	146.0	8.63	6.622	4.75	0.00	0.14	2.81	0.85	1.00	0.00	8.32	20.46	0.00	583.5	0.0	171.19	126.77	297.95
														22,787.4	0.0			5,960.65

Force/Stress Compression Summary

Structure: CT13065-A-SBA
Site Name: Guilford
Height: 152.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Code: TIA-222-G
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II
Topography: 1

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LEG MEMBERS

Sect	Top Elev	Member	Force		Load Case	Len (ft)	Bracing %			Fy (ksi)	Mem Cap (kips)	Leg Use %	Controls	
			(kips)				X	Y	Z					KL/R
1	10	MOD - 5"PST+6"PX1/2P	-209.91	1.2D + 1.6W	Normal Wind	10.02	100	100	100	68.10	50.00	272.55	77.0	Member X
2	20	MOD - 5"PST+6"PX1/2P	-197.10	1.2D + 1.6W	Normal Wind	9.77	100	100	100	66.40	50.00	277.15	71.1	Member X
3	30	MOD - 4"PX+5"PX1/2P	-184.53	1.2D + 1.6W	Normal Wind	10.02	100	100	100	76.37	50.00	219.25	84.2	Member X
4	40	PX - 4" DIA PIPE	-169.89	1.2D + 1.6W	Normal Wind	9.77	50	50	50	39.60	50.00	176.95	96.0	Member X
5	50	PX - 4" DIA PIPE	-156.17	1.2D + 1.6W	Normal Wind	9.77	50	50	50	39.59	50.00	176.96	88.3	Member X
6	60	PX - 4" DIA PIPE	-141.83	1.2D + 1.6W	Normal Wind	9.77	50	50	50	39.59	50.00	176.96	80.1	Member X
7	66.7	MOD - 3"PX+4"PX1/2P	-130.02	1.2D + 1.6W	Normal Wind	6.71	100	100	100	71.98	50.00	160.76	80.9	Member X
8	73.4	PX - 3" DIA PIPE	-119.97	1.2D + 1.6W	Normal Wind	6.71	50	50	50	35.33	50.00	124.05	96.7	Member X
9	80	PX - 3" DIA PIPE	-110.32	1.2D + 1.6W	Normal Wind	6.61	50	50	50	34.80	50.00	124.38	88.7	Member X
10	86.75	MOD - 2.5"PX+3"PX1/2P	-100.30	1.2D + 1.6W	Normal Wind	6.51	50	50	50	39.86	50.00	150.70	66.6	Member X
11	93.25	MOD - 2.5"PX+3.5"PX1/2P	-91.24	1.2D + 1.6W	Normal Wind	6.51	100	100	100	85.72	50.00	107.59	84.8	Member X
12	100	PX - 2-1/2" DIA PIPE	-80.63	1.2D + 1.6W	Normal Wind	6.51	50	50	50	42.28	50.00	88.84	90.8	Member X
13	106.7	PX - 2-1/2" DIA PIPE	-70.10	1.2D + 1.6W	Normal Wind	6.51	50	50	50	42.28	50.00	88.85	78.9	Member X
14	113.2	PX - 2-1/2" DIA PIPE	-60.06	1.2D + 1.6W	Normal Wind	6.51	50	50	50	42.28	50.00	88.85	67.6	Member X
15	120	PX - 2-1/2" DIA PIPE	-48.48	1.2D + 1.6W	Normal Wind	6.51	100	100	100	84.56	50.00	60.03	80.8	Member X
16	130	PST - 2-1/2" DIA PIPE	-38.89	1.2D + 1.6W	Normal Wind	4.88	100	100	100	61.88	50.00	57.96	67.1	Member X
17	140	PST - 2-1/2" DIA PIPE	-21.71	1.2D + 1.6W	Normal Wind	4.88	100	100	100	61.88	50.00	57.96	37.5	Member X
18	152	PST - 2" DIA PIPE	-9.46	1.2D + 1.6W	Normal Wind	0.25	100	100	100	3.81	50.00	48.10	19.7	Member X

Splices

Sect	Top Elev	Load Case	Top Splice				Bottom Splice					
			Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts
1	10	1.2D + 1.6W Normal Wind	203.53	0.00	0.0			1.2D + 1.6W Normal Wind	216.96	0.00		
2	20	1.2D + 1.6W Normal Wind	190.55	0.00	0.0			1.2D + 1.6W Normal Wind	203.53	0.00		
3	30	1.2D + 1.6W Normal Wind	177.47	0.00	0.0			1.2D + 1.6W Normal Wind	190.55	0.00	1 A325-X	4
4	40	1.2D + 1.6W Normal Wind	163.95	0.00	0.0			1.2D + 1.6W Normal Wind	177.47	0.00		
5	50	1.2D + 1.6W Normal Wind	148.96	0.00	0.0			1.2D + 1.6W Normal Wind	163.95	0.00	7/8 A325	4
6	60	1.2D + 1.6W Normal Wind	135.49	0.00	0.0			1.2D + 1.6W Normal Wind	148.96	0.00		
7	66.7	1.2D + 1.6W Normal Wind	124.74	0.00	0.0			1.2D + 1.6W Normal Wind	135.49	0.00	/8 A325-X	4
8	73.4	1.2D + 1.6W Normal Wind	115.08	0.00	0.0			1.2D + 1.6W Normal Wind	124.74	0.00		
9	80	1.2D + 1.6W Normal Wind	105.28	0.00	0.0			1.2D + 1.6W Normal Wind	115.08	0.00		
10	86.75	1.2D + 1.6W Normal Wind	95.56	0.00	0.0			1.2D + 1.6W Normal Wind	105.28	0.00	/4 A325-X	4
11	93.25	1.2D + 1.6W Normal Wind	86.12	0.00	0.0			1.2D + 1.6W Normal Wind	95.56	0.00		
12	100	1.2D + 1.6W Normal Wind	75.94	0.00	0.0			1.2D + 1.6W Normal Wind	86.12	0.00		
13	106.7	1.2D + 1.6W Normal Wind	64.84	0.00	0.0			1.2D + 1.6W Normal Wind	75.94	0.00	/8 A325-X	4
14	113.2	1.2D + 1.6W Normal Wind	54.54	0.00	0.0			1.2D + 1.6W Normal Wind	64.84	0.00		
15	120	1.2D + 1.6W Normal Wind	43.51	0.00	0.0			1.2D + 1.6W Normal Wind	54.54	0.00		
16	130	1.2D + 1.6W Normal Wind	25.66	0.00	0.0			1.2D + 1.6W Normal Wind	43.51	0.00	/8 A325-X	4
17	140	1.2D + 1.6W Normal Wind	9.72	0.00	0.0			1.2D + 1.6W Normal Wind	25.66	0.00		
18	152	1.2D + 1.0Di + 1.0Wi 60° Wind	0.25	0.00	0.0			1.2D + 1.6W Normal Wind	9.72	0.00	/8 A325-X	4

HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing %	Fy (ksi)	Mem Cap (kips)	Shear Bear			Use %	Controls
									Num Bolts	Num Holes	Cap (kips)		
1	10							0.00	0	0			
2	20							0.00	0	0			
3	30							0.00	0	0			
4	40							0.00	0	0			
5	50							0.00	0	0			

Force/Stress Compression Summary

Structure: CT13065-A-SBA	Code: TIA-222-G	1/26/2022
Site Name: Guilford	Exposure: B	
Height: 152.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II



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HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing %			KL/R	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	Use %	Controls
						X	Y	Z									
6	60									0.00	0	0					
7	66.7									0.00	0	0					
8	73.4									0.00	0	0					
9	80									0.00	0	0					
10	86.7									0.00	0	0					
11	93.2									0.00	0	0					
12	100									0.00	0	0					
13	106.									0.00	0	0					
14	113.									0.00	0	0					
15	120									0.00	0	0					
16	130									0.00	0	0					
17	140									0.00	0	0					
18	152	SAE - 2x2x0.125	-0.67	0.9D + 1.6W Normal Wind	6.52	100	100	100	196.58	36.00	2.81	10	10	972.00	696.0	24	Member Z

DIAGONAL MEMBERS

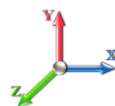
Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing %			KL/R	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	Use %	Controls
						X	Y	Z									
1	10	SAE - 3.5X3.5X0.25	-7.73	1.2D + 1.6W 90° Wind	22.61	49	49	49	191.59	50.00	10.40	1	1	15.19	11.6	74	Member Z
2	20	SAE - 3.5X3.5X0.25	-7.48	0.9D + 1.6W 90° Wind	21.59	49	49	49	182.93	50.00	11.41	1	1	15.19	11.6	66	Member Z
3	30	SAE - 3X3X0.375	-7.28	0.9D + 1.6W 90° Wind	20.81	49	49	49	208.49	36.00	10.97	1	1	15.19	26.1	66	Member Z
4	40	SAE - 3X3X0.375	-7.67	1.2D + 1.6W 90° Wind	19.79	49	49	49	198.27	36.00	12.13	1	1	15.19	26.1	63	Member Z
5	50	SAE - 3X3X0.25	-7.09	1.2D + 1.6W 90° Wind	18.89	49	49	49	187.63	36.00	9.24	1	1	15.19	17.4	77	Member Z
6	60	SAE - 3X3X0.25	-7.29	1.2D + 1.6W 90° Wind	18.06	49	49	49	179.41	36.00	10.11	1	1	15.19	14.7	72	Member Z
7	66.7	SAE - 2.5X2.5X0.25	-6.18	1.2D + 1.6W 90° Wind	15.83	49	49	49	189.62	36.00	7.48	1	1	9.72	13.9	83	Member Z
8	73.4	SAE - 2.5X2.5X0.25	-6.01	1.2D + 1.6W 90° Wind	15.21	49	49	49	182.11	36.00	8.11	1	1	9.72	13.9	74	Member Z
9	80	SAE - 2.5X2.5X0.1875	-5.80	1.2D + 1.6W 90° Wind	14.54	49	49	49	172.67	36.00	6.83	1	1	9.72	6.20	93	Bolt Bear
10	86.7	SAE - 2X2X0.375	-5.53	1.2D + 1.6W 90° Wind	13.86	49	49	49	209.54	36.00	7.00	1	1	9.72	20.8	79	Member Z
11	93.2	SAE - 2X2X0.375	-5.31	1.2D + 1.6W 90° Wind	13.28	49	49	49	200.74	36.00	7.62	1	1	9.72	20.8	70	Member Z
12	100	SAE - 2X2X0.375	-5.79	1.2D + 1.6W 90° Wind	12.71	49	49	49	192.07	36.00	8.33	1	1	9.72	20.8	70	Member Z
13	106.	MOD - 2L2x2x1/8_Speci	5.30	1.2D + 1.6W 90° Wind	12.10	49	49	49	117.93	36.00	15.28	1	1	9.72		54	Bolt Shear
14	113.	MOD - 2L2x2x1/8_Speci	5.13	1.2D + 1.6W 90° Wind	11.56	49	49	49	113.99	36.00	16.03	1	1	9.72		53	Bolt Shear
15	120	MOD - 2L2x2x1/8_Speci	5.48	1.2D + 1.6W 90° Wind	11.03	49	49	49	110.13	36.00	16.78	1	1	9.72		56	Bolt Shear
16	130	SAE - 1.75X1.75X0.25	-4.72	1.2D + 1.6W 90° Wind	9.62	50	50	50	169.25	36.00	6.39	1	1	9.72	13.9	74	Member Z
17	140	SAE - 1.75X1.75X0.125	-3.73	1.2D + 1.6W 90° Wind	8.39	50	50	50	145.10	36.00	4.51	1	1	9.72	4.13	90	Bolt Bear
18	152	SAE - 1.5X1.5X0.125	-2.32	1.2D + 1.6W 90° Wind	7.63	50	50	50	154.74	36.00	3.40	1	1	9.72	4.13	68	Member Z

Force/Stress Tension Summary

Structure: CT13065-A-SBA
Site Name: Guilford
Height: 152.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: TIA-222-G
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

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LEG MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Leg Use %	Controls
1	10	MOD - 5"PST+6"PX1/2P	181.81	0.9D + 1.6W 60° Wind	50	382.59	47.5	Member
2	20	MOD - 5"PST+6"PX1/2P	177.10	0.9D + 1.6W 60° Wind	50	382.59	46.3	Member
3	30	MOD - 4"PX+5"PX1/2P	159.94	0.9D + 1.6W 60° Wind	50	335.85	47.6	Member
4	40	PX - 4" DIA PIPE	147.96	0.9D + 1.6W 60° Wind	50	198.45	74.6	Member
5	50	PX - 4" DIA PIPE	143.10	0.9D + 1.6W 60° Wind	50	198.45	72.1	Member
6	60	PX - 4" DIA PIPE	123.85	0.9D + 1.6W 60° Wind	50	198.45	62.4	Member
7	66.7	MOD - 3"PX+4"PX1/2P	113.51	0.9D + 1.6W 60° Wind	50	234.80	48.3	Member
8	73.4	PX - 3" DIA PIPE	104.80	0.9D + 1.6W 60° Wind	50	135.90	77.1	Member
9	80	PX - 3" DIA PIPE	96.25	0.9D + 1.6W 60° Wind	50	135.90	70.8	Member
10	86.75	MOD - 2.5"PX+3"PX1/2P	92.50	0.9D + 1.6W 60° Wind	50	169.27	54.6	Member
11	93.25	MOD - 2.5"PX+3.5"PX1/2P	79.16	0.9D + 1.6W 60° Wind	50	184.12	43.0	Member
12	100	PX - 2-1/2" DIA PIPE	69.74	0.9D + 1.6W 60° Wind	50	101.25	68.9	Member
13	106.75	PX - 2-1/2" DIA PIPE	65.63	0.9D + 1.6W 60° Wind	50	101.25	64.8	Member
14	113.25	PX - 2-1/2" DIA PIPE	50.80	0.9D + 1.6W 60° Wind	50	101.25	50.2	Member
15	120	PX - 2-1/2" DIA PIPE	40.15	0.9D + 1.6W 60° Wind	50	101.25	39.7	Member
16	130	PST - 2-1/2" DIA PIPE	35.57	0.9D + 1.6W 60° Wind	50	76.68	46.4	Member
17	140	PST - 2-1/2" DIA PIPE	16.53	0.9D + 1.6W 60° Wind	50	76.68	21.6	Member
18	152	PST - 2" DIA PIPE	6.69	0.9D + 1.6W 60° Wind	50	48.15	13.9	Member

Splices

Sect	Top Elev	Top Splice					Bottom Splice						
		Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts
1	10	0.9D + 1.6W 60° Wind	175.68	0.00	0.0			0.9D + 1.6W 60° Wind	188.2	0.00			
2	20	0.9D + 1.6W 60° Wind	164.81	0.00	0.0			0.9D + 1.6W 60° Wind	175.6	0.00			
3	30	0.9D + 1.6W 60° Wind	153.30	0.00	0.0			0.9D + 1.6W 60° Wind	164.8	212.04	77.7	1 A325-X	4
4	40	0.9D + 1.6W 60° Wind	142.84	0.00	0.0			0.9D + 1.6W 60° Wind	153.3	0.00			
5	50	0.9D + 1.6W 60° Wind	129.83	0.00	0.0			0.9D + 1.6W 60° Wind	142.8	166.24	85.9	7/8 A325	4
6	60	0.9D + 1.6W 60° Wind	118.22	0.00	0.0			0.9D + 1.6W 60° Wind	129.8	0.00			
7	66.7	0.9D + 1.6W 60° Wind	108.45	0.00	0.0			0.9D + 1.6W 60° Wind	118.2	166.24	71.1	7/8 A325-X	4
8	73.4	0.9D + 1.6W 60° Wind	100.00	0.00	0.0			0.9D + 1.6W 60° Wind	108.4	0.00			
9	80	0.9D + 1.6W 60° Wind	91.31	0.00	0.0			0.9D + 1.6W 60° Wind	100.0	0.00			
10	86.75	0.9D + 1.6W 60° Wind	82.95	0.00	0.0			0.9D + 1.6W 60° Wind	91.31	120.40	75.8	3/4 A325-X	4
11	93.25	0.9D + 1.6W 60° Wind	74.18	0.00	0.0			0.9D + 1.6W 60° Wind	82.95	0.00			
12	100	0.9D + 1.6W 60° Wind	65.50	0.00	0.0			0.9D + 1.6W 60° Wind	74.18	0.00			
13	106.75	0.9D + 1.6W 60° Wind	55.12	0.00	0.0			0.9D + 1.6W 60° Wind	65.50	82.84	79.1	5/8 A325-X	4
14	113.25	0.9D + 1.6W 60° Wind	45.38	0.00	0.0			0.9D + 1.6W 60° Wind	55.12	0.00			
15	120	0.9D + 1.6W 60° Wind	35.48	0.00	0.0			0.9D + 1.6W 60° Wind	45.38	0.00			
16	130	0.9D + 1.6W 60° Wind	18.59	0.00	0.0			0.9D + 1.6W 60° Wind	35.48	82.84	42.8	5/8 A325-X	4
17	140	0.9D + 1.6W 60° Wind	6.79	0.00	0.0			0.9D + 1.6W 60° Wind	18.59	0.00			
18	152	0.9D + 1.6W 60° Wind	0.00	0.00	0.0			0.9D + 1.6W 60° Wind	6.79	82.84	8.2	5/8 A325-X	4

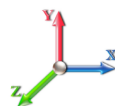
HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
1	10	-			50	0.00	0	0					
2	20	-			50	0.00	0	0					
3	30	-			36	0.00	0	0					
4	40	-			36	0.00	0	0					
5	50	-			36	0.00	0	0					
6	60	-			36	0.00	0	0					

Force/Stress Tension Summary

Structure: CT13065-A-SBA
Site Name: Guilford
Height: 152.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Code: TIA-222-G
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II
Topography: 1

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HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
7	66.7	-			36	0.00	0	0					
8	73.4	-			36	0.00	0	0					
9	80	-			36	0.00	0	0					
10	86.75	-			36	0.00	0	0					
11	93.25	-			36	0.00	0	0					
12	100	-			36	0.00	0	0					
13	106.75	-			36	0.00	0	0					
14	113.25	-			36	0.00	0	0					
15	120	-			36	0.00	0	0					
16	130	-			36	0.00	0	0					
17	140	-			36	0.00	0	0					
18	152	SAE - 2x2x0.125	0.74	1.2D + 1.6W 60° Wind	36	-318.96	100	100	972.00	696.00	287.78	0.2	Member

DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
1	10	SAE - 3.5X3.5X0.25	7.48	0.9D + 1.6W 90° Wind	50	54.94	1	1	15.19	11.69	23.91	63.9	Bolt Bear
2	20	SAE - 3.5X3.5X0.25	7.39	0.9D + 1.6W 90° Wind	50	54.94	1	1	15.19	11.69	23.91	63.2	Bolt Bear
3	30	SAE - 3X3X0.375	7.25	0.9D + 1.6W 90° Wind	36	59.66	1	1	15.19	26.10	23.39	47.7	Bolt Shear
4	40	SAE - 3X3X0.375	7.24	0.9D + 1.6W 90° Wind	36	59.66	1	1	15.19	26.10	23.39	47.7	Bolt Shear
5	50	SAE - 3X3X0.25	7.07	1.2D + 1.6W 90° Wind	36	40.86	1	1	15.19	17.40	15.59	46.5	Bolt Shear
6	60	SAE - 3X3X0.25	6.94	0.9D + 1.6W 90° Wind	36	40.86	1	1	15.19	14.79	14.58	47.6	Blck Shear
7	66.7	SAE - 2.5X2.5X0.25	6.27	1.2D + 1.6W 90° Wind	36	33.73	1	1	9.72	13.92	14.91	64.5	Bolt Shear
8	73.4	SAE - 2.5X2.5X0.25	5.74	1.2D + 1.6W 90° Wind	36	33.73	1	1	9.72	13.92	14.91	59.1	Bolt Shear
9	80	SAE - 2.5X2.5X0.1875	5.78	1.2D + 1.6W 90° Wind	36	25.60	1	1	9.72	6.20	9.79	93.2	Bolt Bear
10	86.75	SAE - 2X2X0.375	5.43	1.2D + 1.6W 90° Wind	36	36.72	1	1	9.72	20.88	18.29	55.9	Bolt Shear
11	93.25	SAE - 2X2X0.375	5.32	1.2D + 1.6W 90° Wind	36	36.72	1	1	9.72	20.88	18.29	54.8	Bolt Shear
12	100	SAE - 2X2X0.375	5.54	1.2D + 1.6W 90° Wind	36	36.72	1	1	9.72	20.88	18.29	57.0	Bolt Shear
13	106.75	MOD - 2L2x2x1/8_Special	5.30	1.2D + 1.6W 90° Wind	36	31.78	1	1	9.72			54.5	Bolt Shear
14	113.25	MOD - 2L2x2x1/8_Special	5.10	1.2D + 1.6W 90° Wind	36	31.78	1	1	9.72			52.5	Bolt Shear
15	120	MOD - 2L2x2x1/8_Special	5.31	1.2D + 1.6W 90° Wind	36	31.78	1	1	9.72			54.6	Bolt Shear
16	130	SAE - 1.75X1.75X0.25	4.83	1.2D + 1.6W 90° Wind	36	21.33	1	1	9.72	13.92	10.83	49.7	Bolt Shear
17	140	SAE - 1.75X1.75X0.125	3.60	0.9D + 1.6W 90° Wind	36	11.15	1	1	9.72	4.13	3.81	94.7	Blck Shear
18	152	SAE - 1.5X1.5X0.125	2.27	0.9D + 1.6W 90° Wind	36	9.20	1	1	9.72	4.13	3.81	59.7	Blck Shear

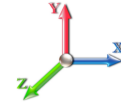
Support Forces Summary

Structure: CT13065-A-SBA
Site Name: Guilford
Height: 152.00 (ft)
Base Elev: 0.000 (ft)
Gh: 0.85

Topography: 1

Code: TIA-222-G
Exposure: B
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

1/26/2022



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Load Case	Node	FX (kips)	FY (kips)	FZ (kips)	(-) = Uplift (+) = Down
<hr/>					
1.2D + 1.6W Normal Wind	1	0.02	216.36	-23.49	
	1a	7.91	-89.72	-7.74	
	1b	-7.93	-89.76	-7.72	
<hr/>					
1.2D + 1.6W 60° Wind	1	-2.57	110.55	-11.52	
	1a	-11.27	110.57	3.52	
	1b	-18.17	-184.25	-10.48	
<hr/>					
1.2D + 1.6W 90° Wind	1	-3.01	12.28	-0.67	
	1a	-17.83	184.14	8.53	
	1b	-16.61	-159.54	-7.86	
<hr/>					
0.9D + 1.6W Normal Wind	1	0.02	213.03	-23.30	
	1a	8.07	-92.67	-7.84	
	1b	-8.09	-92.70	-7.81	
<hr/>					
0.9D + 1.6W 60° Wind	1	-2.57	107.36	-11.32	
	1a	-11.10	107.37	3.42	
	1b	-18.33	-187.07	-10.57	
<hr/>					
0.9D + 1.6W 90° Wind	1	-3.01	9.21	-0.47	
	1a	-17.66	180.84	8.43	
	1b	-16.78	-162.39	-7.96	
<hr/>					
1.2D + 1.0Di + 1.0Wi Normal Wind	1	0.00	83.80	-6.57	
	1a	1.59	4.68	-1.72	
	1b	-1.60	4.61	-1.71	
<hr/>					
1.2D + 1.0Di + 1.0Wi 60° Wind	1	-0.66	56.93	-3.56	
	1a	-3.41	56.96	1.20	
	1b	-4.36	-20.80	-2.51	
<hr/>					
1.2D + 1.0Di + 1.0Wi 90° Wind	1	-0.77	31.03	-0.70	
	1a	-5.12	76.13	2.51	
	1b	-3.91	-14.06	-1.81	
<hr/>					
1.0D + 1.0W Normal Wind	1	0.00	55.23	-5.68	
	1a	1.32	-12.23	-1.47	
	1b	-1.33	-12.27	-1.46	
<hr/>					
1.0D + 1.0W 60° Wind	1	-0.57	31.90	-3.03	
	1a	-2.91	31.92	1.02	
	1b	-3.60	-33.09	-2.07	
<hr/>					
1.0D + 1.0W 90° Wind	1	-0.67	10.23	-0.64	
	1a	-4.36	48.16	2.13	
	1b	-3.25	-27.66	-1.49	
<hr/>					

Max Reactions

Leg	Overturning
Max Uplift: -187.07 (kips)	Moment: 3672.58 (ft-kips)
Max Down: 216.36 (kips)	Total Down: 36.88 (kips)
Max Shear: 23.49 (kips)	Total Shear: 38.94 (kips)

Analysis Summary

Structure: CT13065-A-SBA	Code: TIA-222-G	1/26/2022
Site Name: Guilford	Exposure: B	
Height: 152.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 0.85	Topography: 1	Struct Class: II
		Page: 24



Max Reactions

	Leg	Overturning
Max Uplift:	-187.07 (kips)	Moment: 3672.58 (ft-kips)
Max Down:	216.36 (kips)	Total Down: 36.88 (kips)
Max Shear:	23.49 (kips)	Total Shear: 38.94 (kips)

Anchor Bolts

Bolt Size (in.): 1.00	Number Bolts: 4
Yield Strength (Ksi): 92.00	Tensile Strength (Ksi): 120.00
Detail Type: B	

Interaction Ratio: 0.95

Max Usages

Max Leg: 96.7% (1.2D + 1.6W Normal Wind - Sect 8)
 Max Diag: 94.7% (0.9D + 1.6W 90° Wind - Sect 17)
 Max Horiz: 23.7% (0.9D + 1.6W Normal Wind - Sect 18)

Max Deflection, Twist and Sway

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
0.9D + 1.6W 101 mph Wind at 60° From Face	80.25	0.3106	0.0520	0.5585
	130.00	0.9118	0.1351	0.9265
	139.75	1.0676	0.1610	1.1568
	148.08	1.2037	0.1607	0.9498
0.9D + 1.6W 101 mph Wind at 90° From Face	80.25	0.3136	0.0327	0.6004
	130.00	0.9187	-0.1578	0.9220
	139.75	1.0758	-0.1878	1.1348
	148.08	1.2124	-0.1901	0.9416
0.9D + 1.6W 101 mph Wind at Normal To Face	80.25	0.3211	0.0463	0.5739
	130.00	0.9380	0.1209	0.9506
	139.75	1.0976	0.1433	1.1884
	148.08	1.2369	0.1440	1.0156
1.0D + 1.0W 60 mph Wind at 60° From Face	80.25	0.0686	0.0072	0.1232
	130.00	0.2012	0.0168	0.2049
	139.75	0.2356	-0.0209	0.2570
	148.08	0.2656	0.0198	0.2086
1.0D + 1.0W 60 mph Wind at 90° From Face	80.25	0.0693	0.0053	0.1320
	130.00	0.2029	-0.0258	0.2038
	139.75	0.2376	-0.0315	0.2521
	148.08	0.2678	-0.0313	0.2097
1.0D + 1.0W 60 mph Wind at Normal To Face	80.25	0.0709	0.0072	0.1271
	130.00	0.2070	0.0175	0.2094
	139.75	0.2423	0.0218	0.2606
	148.08	0.2730	0.0209	0.2223

1.2D + 1.0Di + 1.0Wi 50 mph Wind at 60° From Face	80.25	0.0812	0.0104	0.1470
	130.00	0.2394	0.0260	0.2413
	139.75	0.2793	0.0314	0.3001
	148.08	0.3144	0.0307	0.2457

1.2D + 1.0Di + 1.0Wi 50 mph Wind at 90° From Face	80.25	0.0811	0.0075	0.1571
	130.00	0.2401	-0.0403	0.2388
	139.75	0.2802	-0.0482	0.2928
	148.08	0.3152	-0.0491	0.2468

1.2D + 1.0Di + 1.0Wi 50 mph Wind at Normal From Face	80.25	0.0840	0.0106	0.1497
	130.00	0.2425	0.0271	0.2412
	139.75	0.2832	0.0328	0.2959
	148.08	0.3185	0.0324	0.2721

1.2D + 1.6W 101 mph Wind at 60° From Face	80.25	0.3112	0.0523	0.5596
	130.00	0.9137	0.1361	0.9290
	139.75	1.0698	0.1621	1.1605
	148.08	1.2063	0.1619	0.9519

1.2D + 1.6W 101 mph Wind at 90° From Face	80.25	0.3141	0.0328	0.6015
	130.00	0.9206	-0.1588	0.9242
	139.75	1.0781	-0.1890	1.1375
	148.08	1.2150	-0.1914	0.9446

1.2D + 1.6W 101 mph Wind at Normal To Face	80.25	0.3216	0.0465	0.5750
	130.00	0.9399	0.1216	0.9528
	139.75	1.0998	0.1442	1.1912
	148.08	1.2396	0.1450	1.0172



Self Supporting Tower Footing Design

Date
1/26/2022

Customer Name:	SBA Communications Corp	EIA/TIA Standard:	TIA-222-G
Site Name:		Structure Height (Ft.):	152
Site Number:	CT13065-A-SBA	Engineer Name:	J. Tibbetts
Engr. Number:	121728	Engineer Login ID:	

Foundation Info Obtained from:

Mapping Operation

Structure Type:

Self Supporting Tower

Analysis or Design?

Analysis

Base Reactions (Factored):

Axial Load (Kips):	216.4	Shear Force (Kips):	23.5
Uplift Force (Kips):	187.1	Moment (Kips-ft):	

Allowable overstress %: 5.0%

Foundation Geometries:

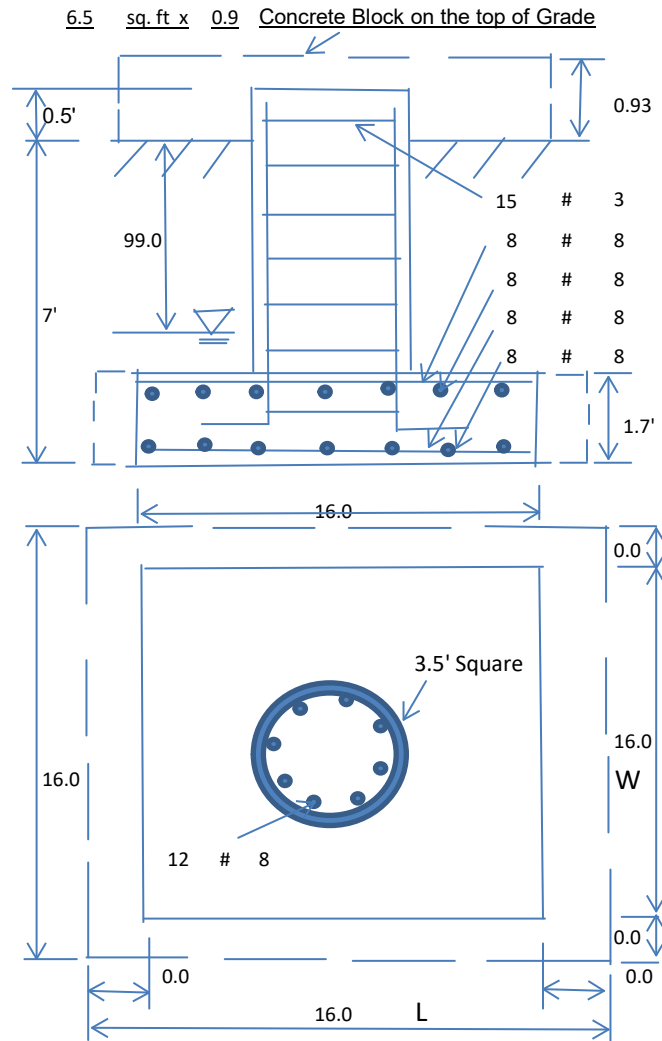
Pad Base w/ toe or in Rock-Yes/No ?	No	Mods required -Yes/No ?:	Yes
Diameter of Pier (ft.):	Square 3.500	Depth of Base BG (ft.):	7.0
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft.):	1.70
Length of Pad (ft.):	16	Width of Pad (ft.):	16
Add Concrete Width & Length (ft.)	6.5	Add Concrete Thick. (ft)	0.926
Final Length of pad (ft)	16.0	Final width of pad (ft):	16.0

Consider ties in concrete shear strength ?:

Yes

Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	36	
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	3	
Qty. of Vertical Rebars:	12	Tie Spacing (in):	6.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	8	Qty. of Rebar in Pad (W):	8	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	8	Qty. of Rebar in Pad (W):	8	



Soil Design Parameters:

Soil Unit Weight (pcf):	120.0	Soil Buoyant Weight:	55.0	Pcf	
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad: 30
Ultimate Bearing Pressure (psf):	10000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad: 25

Foundation Analysis and Design:

Uplift Strength Reduction Factor A:	0.75
Compression Strength Reduction Factor:	0.75

Total Dry Soil Volume (cu. Ft.):	1860.47	Total Dry Soil Weight (Kips):	223.26
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	223.26	Weight from the Concrete Block at Top (K):	4.95
Total Dry Concrete Volume (cu. Ft.):	539.25	Total Dry Concrete Weight (Kips):	80.89
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	80.89	Total Vertical Load on Base (Kips):	520.50

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	1160.87	<	Allowable Factored Soil Bearing (psf):	7500	0.15	OK!
Calculated Foundation Allowable Axail Capacity (Kips):	1920.0	>	Design Factored Axial Load (Kips):	235	0.12	OK!
Calculated Foundation Uplift Capacity (Kips):	263.49	>	Design Factored Uplift Load (Kips):	187	0.71	OK!

Load/
Capacity
Ratio

Check the capacities of Reinforcing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):	0.75
Strength reduction factor (Axial compression):	0.65	Wind Load Factor on Concrete Design:	1.00

Load/
Capacity
Ratio

(1) Concrete Pier:

Vertical Steel Rebar Area (sq. in./each):	0.79	Tie / Stirrup Area (sq. in./each):	0.11		
Calculated Moment Capacity (Mn,Kips-Ft):	578.3	>	Design Factored Moment (Mu, Kips-Ft)	136.2	0.24 OK!
Calculated Shear Capacity (Kips):	142.8	>	Design Factored Shear (Kips):	23.5	0.16 OK!
Calculated Tension Capacity (Tn, Kips):	511.9	>	Design Factored Tension (Tu Kips):	187.1	0.37 OK!
Calculated Compression Capacity (Pn, Kips):	2326.5	>	Design Factored Axial Load (Pu Kips):	216.4	0.09 OK!
Moment & Axial Strength Combination:	0.24	OK!	Check Tie Spacing (Design/Required):	0.5	OK!
Pier Reinforcement Ratio:	0.005				

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Dir. Kips);	266.6	>	One-Way Factored Shear (L-Dir Kips):	68.5	0.26 OK!
One-Way Design Shear Capacity (W-Dir. Kips):	266.6	>	One-Way Factored Shear (W-Dir Kips)	68.5	0.26 OK!
Two-Way Design Shear Capacity (Kips):	560.9	>	Two-Way Factored Shear (Kips):	195.8	0.35 OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0019		Lower Steel Pad Reinf. Ratio (W-Direc	0.0019	OK!
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	469.6	>	Moment at Bottom (L-Direct. K-Ft):	269.1	0.57 OK!
Lower Steel Pad Moment Capacity (W-Dir. Kips-ft):	469.6	>	Moment at Bottom (W-Dir. Kips-Ft):	269.1	0.57 OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0019		Upper Steel Reinf. Ratio (W-Direct.):	0.0019	OK!
Upper Steel Pad Moment Capacity (L-Direction. Kips-ft):	469.6	>	Moment at the top (L-Dir Kips-Ft):	212.4	0.45 OK!
Upper Steel Pad Moment Capacity (W-Dir. Kips-ft):	469.6	>	Moment at the top (W-Dir Kips-Ft):	212.4	0.45 OK!

Rebar Info Assumption per ACI when Foundation info was obtained from an mapping operation:

Concrete Strength (Psi):	3000	Vertical bar yield (ksi)	60	Pad Rebar Yield (Ksi):	60
Vertical Rebar Size #:	8	Vertical Rebar Area (sq. in./each):	0.8	Min. Qty. of Vertical Rebars:	12
Pad Steel Rebar Size (#):	8	Vertical Rebar Area (sq. in./each):	0.79		
Min. Qty. of Rebars in L-Direction:	12	Min. Qty. of Rebars in W-Direction:	12		

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Subject: FedEx Shipment 775025102956: Your package has been delivered



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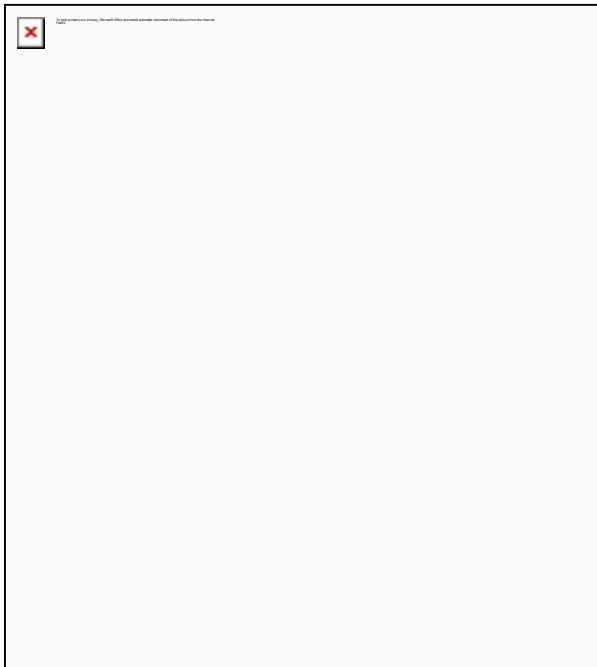
Delivered to 8051 CONGRESS AVE, BOCA RATON, FL 33487
Received by J.HAWKINW

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TRACKING NUMBER	775025102956
FROM	Smartlink LLC 85 Rangeway Road Building 3 Suite 102 NORTH BILLERICA, MA, US, 01862
TO	SBA Towers ATTN: George O'Neil

8051 Congress Ave
BOCA RATON, FL, US, 33487

REFERENCE	CTL05641 - Guilford
SHIPPER REFERENCE	CTL05641 - Guilford
SHIP DATE	Wed 10/27/2021 04:58 PM
DELIVERED TO	Mailroom
PACKAGING TYPE	FedEx Envelope
ORIGIN	NORTH BILLERICA, MA, US, 01862
DESTINATION	BOCA RATON, FL, US, 33487
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	2.00 LB
SERVICE TYPE	FedEx 2Day



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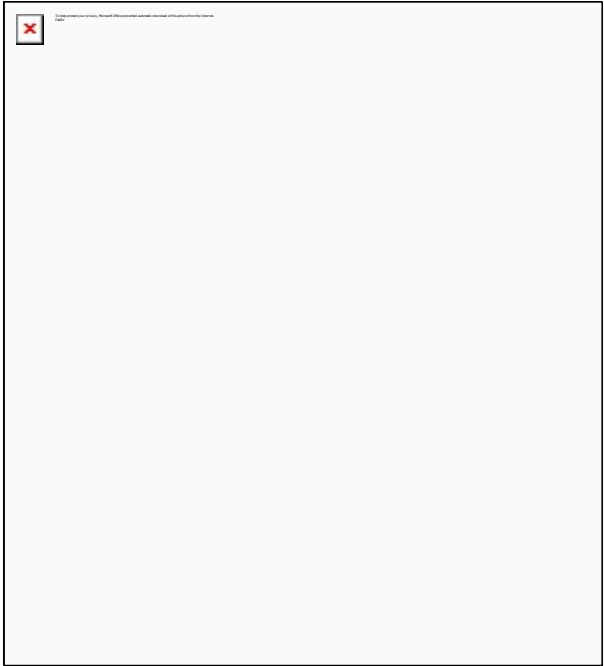
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TRACKING NUMBER [775025073474](#)

FROM Smartlink LLC
85 Rangeway Road
Building 3 Suite 102
NORTH BILLERICA, MA, US, 01862

TO ATTN:Kathleen Bloomquist
331 Route 80
GUILFORD, CT, US, 06437

REFERENCE CTL05641 - Guilford
SHIPPER REFERENCE CTL05641 - Guilford
SHIP DATE Wed 10/27/2021 04:58 PM
DELIVERED TO Shipping/Receiving
PACKAGING TYPE FedEx Envelope
ORIGIN NORTH BILLERICA, MA, US, 01862
DESTINATION GUILFORD, CT, US, 06437
SPECIAL HANDLING Deliver Weekday
NUMBER OF PIECES 1
SERVICE TYPE FedEx 2Day




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To: Kristina Cottone
Subject: FedEx Shipment 775025028850: Your package has been delivered



Hi. Your package was delivered Fri, 10/29/2021 at 2:50pm.



Delivered to 31 Park Street, GUILFORD, CT 06437
Received by M.MAILROOM

OBTAIN PROOF OF DELIVERY

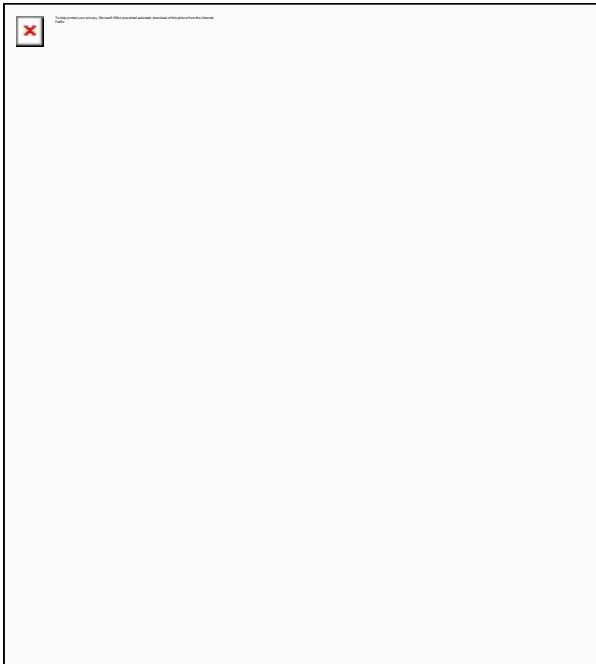
TRACKING NUMBER [775025028850](#)

FROM Smartlink LLC
85 Rangeway Road
Building 3 Suite 102
NORTH BILLERICA, MA, US, 01862

TO Town of Guilford
ATTN: Town Planner George Kral

31 Park Street
GUILFORD, CT, US, 06437

REFERENCE	CTL05641 - Guilford
SHIPPER REFERENCE	CTL05641 - Guilford
SHIP DATE	Wed 10/27/2021 04:58 PM
DELIVERED TO	Shipping/Receiving
PACKAGING TYPE	FedEx Envelope
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DESTINATION	GUILFORD, CT, US, 06437
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85 Rangeway Road
Building 3 Suite 102
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TO Town of Guilford
ATTN: First Selectman Matthew Hoey

31 Park Street
GUILFORD, CT, US, 06437

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SHIPPER REFERENCE	CTL05641 - Guilford
SHIP DATE	Wed 10/27/2021 04:58 PM
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PACKAGING TYPE	FedEx Envelope
ORIGIN	NORTH BILLERICA, MA, US, 01862
DESTINATION	GUILFORD, CT, US, 06437
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SHEET INDEX

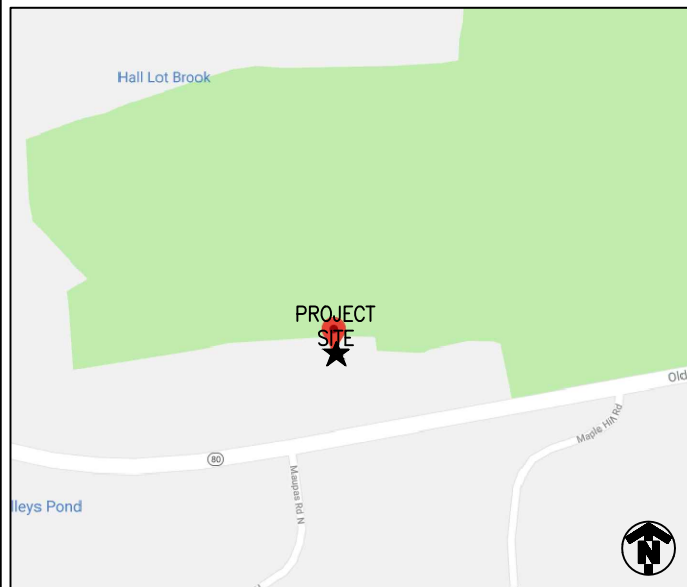
NO.	DESCRIPTION
T1	TITLE SHEET
C1	GENERAL NOTES
C2	OVERALL & ENLARGED SITE PLAN
C3	ELEVATION VIEW
C4	ANTENNA ORIENTATION PLAN
C5	EQUIPMENT DETAILS
C5A	EQUIPMENT DETAILS
C6	PLUMBING DIAGRAM
C7	GROUNDING DETAILS
S1-S3	MOUNT MODIFICATION DRAWINGS
ADDL.	TOWER MODIFICATION DRAWINGS

DRIVING DIRECTIONS

FROM 550 COCHITUATE RD.:

HEAD NORTHEAST TOWARD LEGGATT MCCALL CONN. TURN LEFT ONTO LEGGATT MCCALL CONN. CONTINUE ONTO BURR STREET. TURN LEFT ONTO COCHITUATE ROAD. USE THE RIGHT LANE TO TAKE THE RAMP TO I-90 EAST/MASSPIKE WEST/SPRINGFIELD/BOSTON. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR I-90 WEST/MASSACHUSETTS TURNPIKE/WORCESTER/SPRINGFIELD AND MERGE ONTO I-90 WEST/MASSACHUSETTS TURNPIKE. MERGE ONTO I-90 WEST/MASSACHUSETTS TURNPIKE. USE THE RIGHT 2 LANES TO TAKE EXIT 11A TO MERGE ONTO I-495 NORTH. TAKE EXIT 23B TO MERGE ONTO MA-9 WEST TOWARD WORCESTER. MERGE ONTO MA-9 WEST. USE THE RIGHT LANE TO MERGE ONTO US-20 WEST/HWY 20 WEST VIA THE RAMP TO AUBURN. TAKE THE MA-122 EXIT. TURN RIGHT ONTO MA-122 SOUTH/GRAFTON STREET. TURN RIGHT. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR I-90 WEST/SPRINGFIELD/ALBANY AND MERGE ONTO I-90 WEST. MERGE ONTO I-90 WEST. USE THE RIGHT 2 LANES TO TAKE EXIT 9 FOR I-84 TOWARD US-20/HARTFORD/NEW YORK CITY. CONTINUE ONTO I-84. USE THE LEFT 2 LANES TO TAKE EXIT 57 FOR CT-15 SOUTH TOWARD I-91 SOUTH/CHARTER OAK BRIDGE/N.Y. CITY. CONTINUE ONTO CT-15 SOUTH. CONTINUE ONTO CT-15 SOUTH/US-5 SOUTH. TAKE EXIT 86 TO MERGE ONTO I-91 SOUTH TOWARD NEW HAVEN/NEW YORK CITY. USE THE LEFT LANE TO TAKE EXIT 22S TO MERGE ONTO CT-9 SOUTH TOWARD MIDDLETOWN/OLD SAYBROOK. TAKE EXIT 13 FOR STATE ROUT 17 TOWARD NEW HAVEN. CONTINUE ONTO CT-17 SOUTH. TURN LEFT ONTO CT-79 SOUTH/MADISON ROAD. AT THE TRAFFIC CIRCLE, TAKE THE 1ST EXIT ONTO CT-80 WEST.

LOCATION MAP



PROJECT
LTE 6C
 SITE NAME
GUILDFORD EAST
 CELL SITE ID
CTL05641
 FA SITE NUMBER
10071055
 PACE ID
MRCTB049447
 SITE ADDRESS
331 KILLINGWORTH ROAD
GUILFORD, CT 06437
 STRUCTURE TYPE
SELF SUPPORT

PROJECT TEAM



PROJECT MANAGER



1033 Watervliet Shaker Rd
 Albany, NY 12205
 Office # (518) 690-0790
 Fax # (518) 690-0793

ENGINEER

SCOPE OF WORK (PER LTE RFDS, DATED: 08/24/2021, V8.00):

- HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED.
 - FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
 - FACILITY HAS NO PLUMBING OR REFRIGERANTS.
 - THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.
 - ALL NEW MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. EQUIPMENT, ANTENNAS/RRU AND CABLES FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.
- TOWER SCOPE**
- REMOVE (6) PANEL ANTENNAS
 - INSTALL (3) PANEL ANTENNAS
 - INSTALL (3) 4478 B14
 - REMOVE (1) DC/FIBER "SQUID" DC6-48-60-08F
 - INSTALL (6) Y-CABLES
 - INSTALL MOUNT MODIFICATIONS
 - INSTALL TOWER MODIFICATIONS (DONE BY OTHERS)
- GROUND SCOPE**
- ADD IDLE CABLE

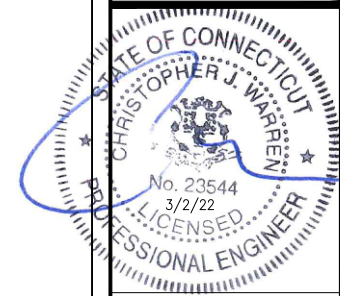
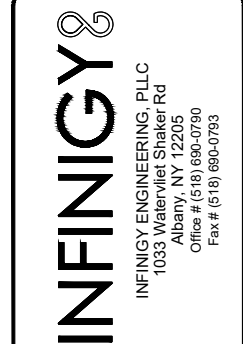
PROJECT SUMMARY

SITE NAME: GUILDFORD EAST
 CELL SITE ID: CTL05641
 FA SITE #: 10071055
 SITE ADDRESS: 331 KILLINGWORTH ROAD
 GUILDFORD, CT 06437
 COUNTY: NEW HAVEN
 SITE COORDINATES:
 LATITUDE: 41.3531919° N (NAD 83)
 LONGITUDE: 72.689289° W (NAD 83)
 ELEVATION: ±284' (AMSL)
 RAD CENTER: ±152' (AGL)
 LANDLORD: SBA COMMUNICATIONS CORP.
 8051 CONGRESS AVENUE
 BOCA RATON, FL 33487
 APPLICANT: AT&T MOBILITY
 550 COCHITUATE RD.
 FRAMINGHAM, MA 01701
 CLIENT REPRESENTATIVE: SMARTLINK, LLC
 85 RANGEWAY RD. SUITE 102
 NORTH BILLERICA, MA 01862
 CONTACT: SHARON KEEFE
 (978) 930-3918
 ENGINEER: INFINIGY
 1033 WATERVLIET SHAKER ROAD
 ALBANY, NY 12205
 CONTACT: JASON MARGELOT
 (518) 690-0790
 BUILDING CODE: CT BUILDING CODE
 UNIFORM BUILDING CODE
 BUILDING OFFICIALS & CODE ADMINISTRATORS
 UNIFORM MECHANICAL CODE
 UNIFORM PLUMBING CODE
 LOCAL BUILDING CODE
 CITY/COUNTY ORDINANCES
 ELECTRICAL CODE: NATIONAL ELECTRICAL CODE (LATEST EDITION)

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN CONNECTICUT, CONTACT CALL BEFORE YOU DIG TOLL FREE: 1-800-922-4455 OR www.cbyd.com

CONNECTICUT STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

Know what's below. Call before you dig.



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1	REVISED PER COMMENTS	PEG	04/06/21

Drawn: BMM Date: 04/05/21
 Designed: ASW Date: 04/05/21
 Checked: AID Date: 04/05/21

Project Number: 1106-A0001-C

Project Title: GUILDFORD EAST
 CTL05641
 FA# 10071055
 331 KILLINGWORTH ROAD
 GUILDFORD, CT 06437



Drawing Scale: AS NOTED
 Date: 08/28/21
CD

Drawing Title: **TITLE PAGE**

Drawing Number: **T1**

GENERAL NOTES

PART 1 – GENERAL REQUIREMENTS

- 1.1 THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:
- A. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
 - B. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
 - C. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE – "NEC").
 - D. AND NFPA 101 (LIFE SAFETY CODE).
 - E. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM).
 - F. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE).
- 1.2 DEFINITIONS:
- A: WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.
 - B: COMPANY: AT&T CORPORATION
 - C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.
 - D: CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.
 - E: THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.
- 1.3 POINT OF CONTACT: COMMUNICATION BETWEEN THE COMPANY AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE COMPANY SITE DEVELOPMENT SPECIALIST OR OTHER PROJECT COORDINATOR APPOINTED TO MANAGE THE PROJECT FOR THE COMPANY.
- 1.4 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.
- 1.5 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES, AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.
- A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.
- 1.6 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.
- 1.7 NOTICE TO PROCEED:
- A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED.
 - B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE AT&T WITH AN OPERATIONAL WIRELESS FACILITY.

PART 2 – EXECUTION

- 2.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE, POTABLE WATER, HEAT, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSORS OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.
- 2.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.
- 2.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HERewith, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST AGENCY.

- 2.4 COMPANY FURNISHED MATERIAL AND EQUIPMENT: ALL HANDLING, STORAGE AND INSTALLATION OF COMPANY FURNISHED MATERIAL AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- A. CONTRACTOR SHALL PROCURE ALL OTHER REQUIRED WORK RELATED MATERIALS NOT PROVIDED BY AT&T TO SUCCESSFULLY CONSTRUCT A WIRELESS FACILITY.
- 2.5 DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.
- 2.6 EXISTING CONDITIONS: NOTIFY THE COMPANY REPRESENTATIVE OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND ENGINEER.

PART 3 – RECEIPT OF MATERIAL & EQUIPMENT

- 3.1 RECEIPT OF MATERIAL AND EQUIPMENT: CONTRACTOR IS RESPONSIBLE FOR AT&T PROVIDED MATERIAL AND EQUIPMENT AND UPON RECEIPT SHALL:
- A. ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.
 - B. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.
 - C. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION AS REQUIRED IN AGREEMENT.
 - D. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER RECEIPT, REPORT TO AT&T OR ITS DESIGNATED PROJECT REPRESENTATIVE OF SUCH.
 - E. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.
 - F. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE TO SITE.

PART 4 – GENERAL REQUIREMENTS FOR CONSTRUCTION

- 4.1 CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.
- 4.2 EQUIPMENT ROOMS SHALL AT ALL TIMES BE MAINTAINED "BROOM CLEAN" AND CLEAR OF DEBRIS.
- 4.3 CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO DISCOVER AND LOCATE ANY HAZARDOUS CONDITION.
- A. IN THE EVENT CONTRACTOR ENCOUNTERS ANY HAZARDOUS CONDITION WHICH HAS NOT BEEN ABATED OR OTHERWISE MITIGATED, CONTRACTOR AND ALL OTHER PERSONS SHALL IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND NOTIFY COMPANY IN WRITING. THE WORK IN THE AFFECTED AREA SHALL NOT BE RESUMED EXCEPT BY WRITTEN NOTIFICATION BY COMPANY.
 - B. CONTRACTOR AGREES TO USE CARE WHILE ON THE SITE AND SHALL NOT TAKE ANY ACTION THAT WILL OR MAY RESULT IN OR CAUSE THE HAZARDOUS CONDITION TO BE FURTHER RELEASED IN THE ENVIRONMENT, OR TO FURTHER EXPOSE INDIVIDUALS TO THE HAZARD.
- 4.4 CONTRACTOR'S ACTIVITIES SHALL BE RESTRICTED TO THE PROJECT LIMITS. SHOULD AREAS OUTSIDE THE PROJECT LIMITS BE AFFECTED BY CONTRACTOR'S ACTIVITIES, CONTRACTOR SHALL IMMEDIATELY RETURN THEM TO ORIGINAL CONDITION.
- 4.5 CONDUCT TESTING AS REQUIRED HEREIN.

PART 5 – TESTS AND INSPECTIONS

- 5.1 TESTS AND INSPECTIONS:
- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.
 - B. CONTRACTOR SHALL COORDINATE TEST AND INSPECTION SCHEDULES WITH COMPANY'S REPRESENTATIVE WHO MUST BE ON SITE TO WITNESS SUCH TESTS AND INSPECTIONS.
 - C. WHEN THE USE OF A THIRD PARTY INDEPENDENT TESTING AGENCY IS REQUIRED, THE AGENCY THAT IS SELECTED MUST PERFORM SUCH WORK ON A REGULAR BASIS IN THE STATE WHERE THE PROJECT IS LOCATED AND HAVE A THOROUGH UNDERSTANDING OF LOCAL AVAILABLE MATERIALS, INCLUDING THE SOIL, ROCK, AND GROUNDWATER CONDITIONS.
 - D. THE THIRD PARTY TESTING AGENCY IS TO BE FAMILIAR WITH THE APPLICABLE REQUIREMENTS FOR THE TESTS TO BE DONE, EQUIPMENT TO BE USED, AND ASSOCIATED HEALTH AND SAFETY ISSUES.
 - E. SITE RESISTANCE TO EARTH TESTING PER EXHIBIT: CELL SITE GROUNDING SYSTEM DESIGN.

- F. ANTENNA AND COAX SWEEP TESTS PER EXHIBIT: ANTENNA TRANSMISSION LINE ACCEPTANCE STANDARDS.
- G. ALL OTHER TESTS REQUIRED BY COMPANY OR JURISDICTION.

PART 6 – TRENCHING AND BACKFILLING

- 6.1 TRENCHING AND BACKFILLING: THE CONTRACTOR SHALL PERFORM ALL EXCAVATION OF EVERY DESCRIPTION AND OF WHATEVER SUBSTANCES ENCOUNTERED, TO THE DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS OTHERWISE SPECIFIED.
- A. PROTECTION OF EXISTING UTILITIES: THE CONTRACTOR SHALL CHECK WITH THE LOCAL UTILITIES AND THE RESPECTIVE UTILITY LOCATOR COMPANIES PRIOR TO STARTING EXCAVATION OPERATIONS IN EACH RESPECTIVE AREA TO ASCERTAIN THE LOCATIONS OF KNOWN UTILITY LINES. THE LOCATIONS, NUMBER AND TYPES OF EXISTING UTILITY LINES DETAILED ON THE CONSTRUCTION DRAWINGS ARE APPROXIMATE AND DO NOT REPRESENT EXACT INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL LINES DAMAGED DURING EXCAVATION AND ALL ASSOCIATED OPERATIONS. ALL UTILITY LINES UNCOVERED DURING THE EXCAVATION OPERATIONS, SHALL BE PROTECTED FROM DAMAGE DURING EXCAVATION AND ASSOCIATED OPERATIONS. ALL REPAIRS SHALL BE APPROVED BY THE UTILITY COMPANY.
 - B. HAND DIGGING: UNLESS APPROVED IN WRITING OTHERWISE, ALL DIGGING WITHIN AN EXISTING CELL SITE COMPOUND IS TO BE DONE BY HAND.
 - C. DURING EXCAVATION, MATERIAL SUITABLE FOR BACKFILLING SHALL BE STOCKPILED IN AN ORDERLY MANNER A SUFFICIENT DISTANCE FROM THE BANKS OF THE TRENCH TO AVOID OVERLOADING AND TO PREVENT SLIDES OR CAVE-INS. ALL EXCAVATED MATERIALS NOT REQUIRED OR SUITABLE FOR BACKFILL SHALL BE REMOVED AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
 - D. GRADING SHALL BE DONE AS MAY BE NECESSARY TO PREVENT SURFACE WATER FROM FLOWING INTO TRENCHES OR OTHER EXCAVATIONS, AND ANY WATER ACCUMULATING THEREIN SHALL BE REMOVED BY PUMPING OR BY OTHER APPROVED METHOD.
 - E. SHEETING AND SHORING SHALL BE DONE AS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR THE SAFETY OF PERSONNEL. UNLESS OTHERWISE INDICATED, EXCAVATION SHALL BE BY OPEN CUT, EXCEPT THAT SHORT SECTIONS OF A TRENCH MAY BE TUNNELED IF, THE CONDUIT CAN BE SAFELY AND PROPERLY INSTALLED AND BACKFILL CAN BE PROPERLY TAMPED IN SUCH TUNNEL SECTIONS. EARTH EXCAVATION SHALL COMPRISE ALL MATERIALS AND SHALL INCLUDE CLAY, SILT, SAND, MUCK, GRAVEL, HARDPAN, LOOSE SHALE, AND LOOSE STONE.
 - F. TRENCHES SHALL BE OF NECESSARY WIDTH FOR THE PROPER LAYING OF THE CONDUIT OR CABLE, AND THE BANKS SHALL BE AS NEARLY VERTICAL AS PRACTICABLE. THE BOTTOM OF THE TRENCHES SHALL BE ACCURATELY GRADED TO PROVIDE UNIFORM BEARING AND SUPPORT FOR EACH SECTION OF THE CONDUIT OR CABLE ON UNDISTURBED SOIL AT EVERY POINT ALONG ITS ENTIRE LENGTH. EXCEPT WHERE ROCK IS ENCOUNTERED, CARE SHALL BE TAKEN NOT TO EXCAVATE BELOW THE DEPTHS INDICATED. WHERE ROCK EXCAVATIONS ARE NECESSARY, THE ROCK SHALL BE EXCAVATED TO A MINIMUM OVER DEPTH OF 6 INCHES BELOW THE TRENCH DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR SPECIFIED. OVER DEPTHS IN THE ROCK EXCAVATION AND UNAUTHORIZED OVER DEPTHS SHALL BE THOROUGHLY BACK FILLED AND TAMPED TO THE APPROPRIATE GRADE. WHENEVER WET OR OTHERWISE UNSTABLE SOIL THAT IS INCAPABLE OF PROPERLY SUPPORTING THE CONDUIT OR CABLE IS ENCOUNTERED IN THE BOTTOM OF THE TRENCH, SUCH SOLID SHALL BE REMOVED TO A MINIMUM OVER DEPTH OF 6 INCHES AND THE TRENCH BACKFILLED TO THE PROPER GRADE WITH EARTH OF OTHER SUITABLE MATERIAL, AS HEREINAFTER SPECIFIED.
 - G. BACKFILLING OF TRENCHES. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL SPECIFIED TESTS HAVE BEEN PERFORMED AND ACCEPTED. WHERE COMPACTED BACKFILL IS NOT INDICATED THE TRENCHES SHALL BE CAREFULLY BACKFILLED WITH SELECT MATERIAL SUCH AS EXCAVATED SOILS THAT ARE FREE OF ROOTS, SOD, RUBBISH OR STONES, DEPOSITED IN 6 INCH LAYERS AND THOROUGHLY AND CAREFULLY RAMMED UNTIL THE CONDUIT OR CABLE HAS A COVER OF NOT LESS THAN 1 FOOT. THE REMAINDER OF THE BACKFILL MATERIAL SHALL BE GRANULAR IN NATURE AND SHALL NOT CONTAIN ROOTS, SOD, RUBBING, OR STONES OF 2-1/2 INCH MAXIMUM DIMENSION. BACKFILL SHALL BE CAREFULLY PLACED IN THE TRENCH AND IN 1 FOOT LAYERS AND EACH LAYER TAMPED. SETTLING THE BACKFILL WITH WATER WILL BE PERMITTED. THE SURFACE SHALL BE GRADED TO A REASONABLE UNIFORMITY AND THE MOUNDING OVER THE TRENCHES LEFT IN A UNIFORM AND NEAT CONDITION.

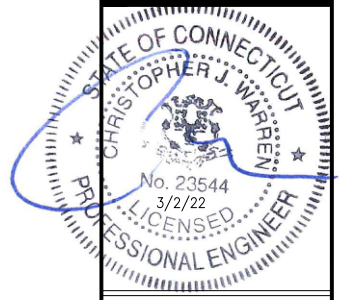
SYMBOL	DESCRIPTION
	CIRCUIT BREAKER
	NON-FUSIBLE DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	SURFACE MOUNTED PANEL BOARD
	TRANSFORMER
	KILOWATT HOUR METER
	JUNCTION BOX
	PULL BOX TO NEC/TELCO STANDARDS
-----	UNDERGROUND UTILITIES
	EXOTHERMIC WELD CONNECTION
	MECHANICAL CONNECTION
	GROUND ROD
	GROUND ROD WITH INSPECTION SLEEVE
	GROUND BAR
	120AC DUPLEX RECEPTACLE
	GROUND CONDUCTOR
	DC POWER AND FIBER OPTIC TRUNK CABLES
	DC POWER CABLES

REPRESENTS DETAIL NUMBER
 REF. DRAWING NUMBER

ABBREVIATIONS

CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
MIGB	MASTER ISOLATED GROUND BAR
SST	SELF SUPPORTING TOWER
GPS	GLOBAL POSITIONING SYSTEM
TYP.	TYPICAL
DWG	DRAWING
BCW	BARE COPPER WIRE
BFG	BELOW FINISH GRADE
PVC	POLYVINYL CHLORIDE
CAB	CABINET
C	CONDUIT
SS	STAINLESS STEEL
G	GROUND
AWG	AMERICAN WIRE GAUGE
RGS	RIGID GALVANIZED STEEL
AHJ	AUTHORITY HAVING JURISDICTION
TTLNA	TOWER TOP LOW NOISE AMPLIFIER
UNO	UNLESS NOTED OTHERWISE
EMT	ELECTRICAL METALLIC TUBING
AGL	ABOVE GROUND LEVEL

INFINIGY
 INFINIGY ENGINEERING, PLLC
 1033 Waterliet Shaker Rd
 Albany, NY 12205
 Office # (518) 690-0790
 Fax # (518) 690-0793



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Checked: AJD Date: 04/05/21

Project Number:

1106-A0001-C

Project Title:

GUILDFORD EAST

CTL05641

FA# 10071055

331 KILLINGWORTH ROAD
 GUILDFORD, CT 06437

Prepared For:



Drawing Scale:

AS NOTED

Date:

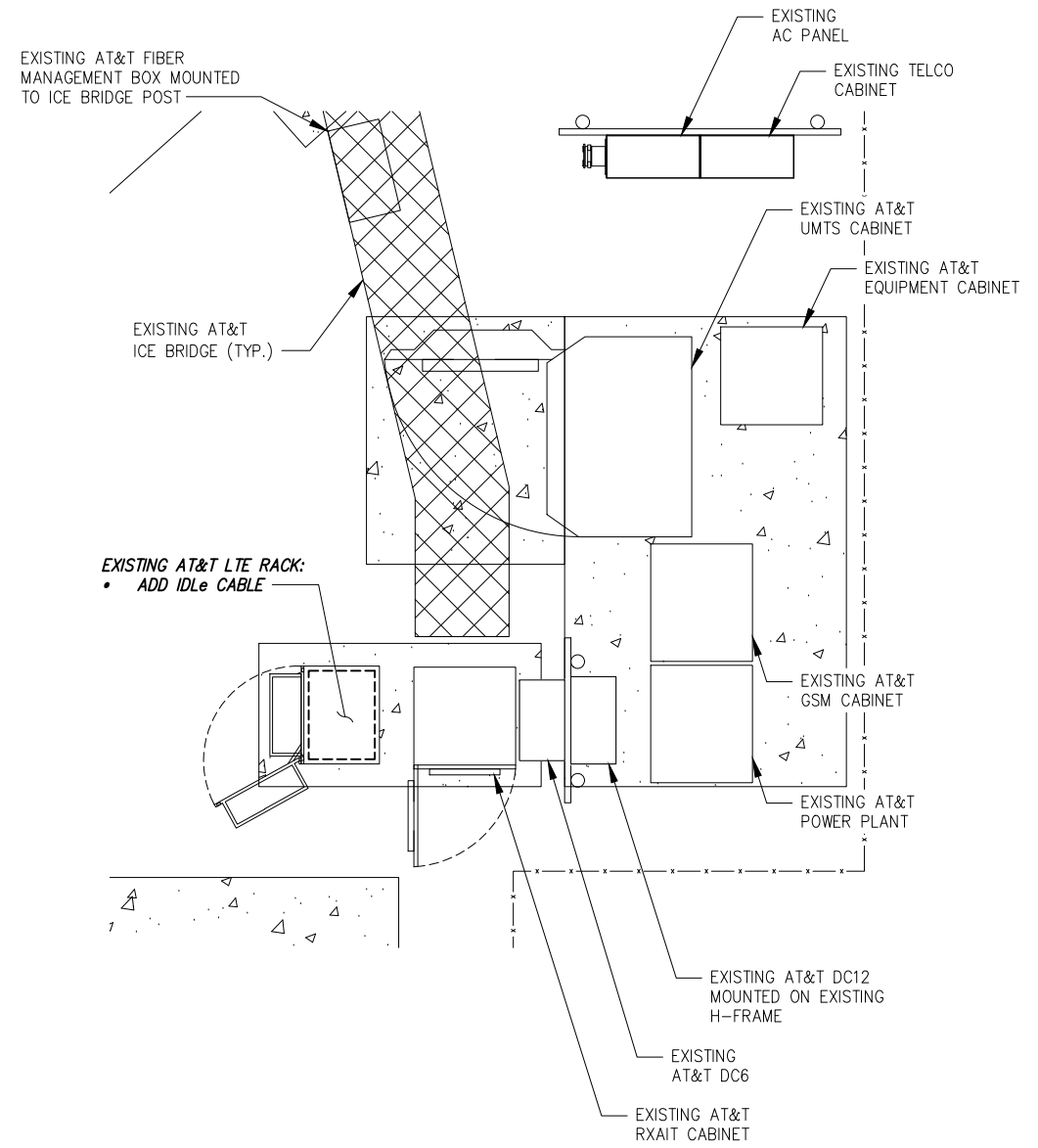
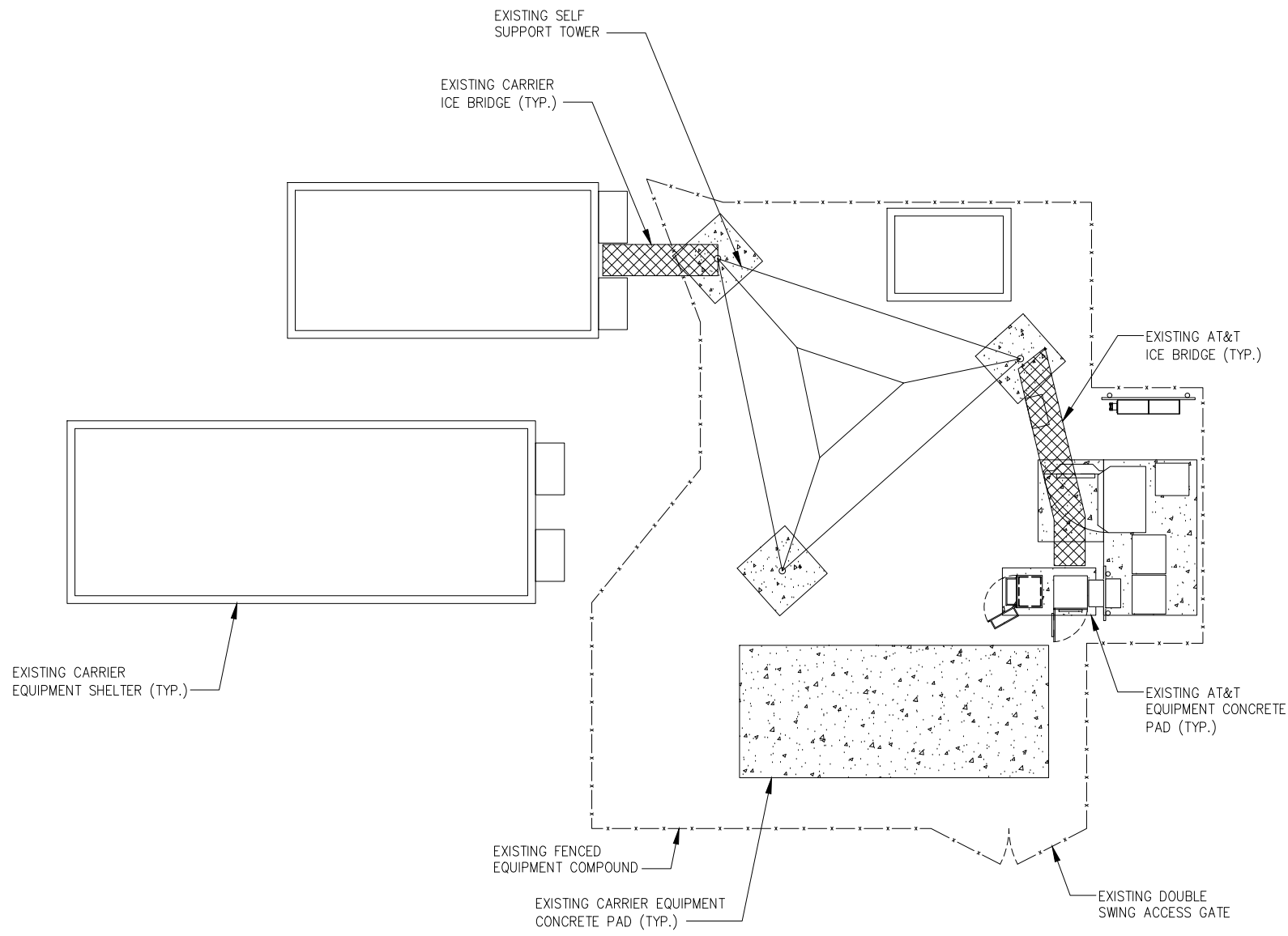
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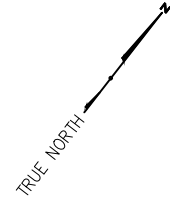
GENERAL NOTES

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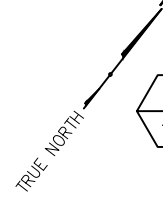
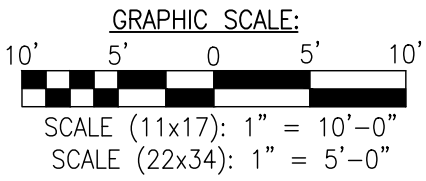
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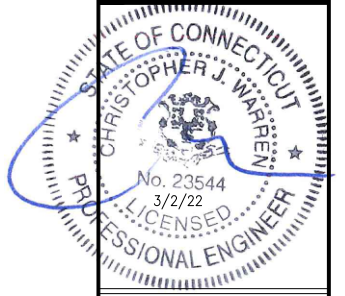
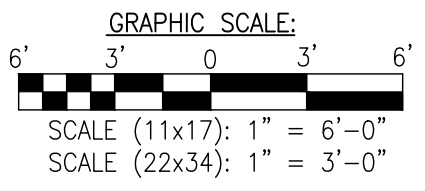
BASEMAPPING PREPARED FROM A SITE WALK PERFORMED BY INFINIGY ENGINEERING ON 06/22/18 AND PROVIDED INFORMATION, AND DOES NOT REPRESENT AN ACTUAL FIELD SURVEY.



1 SITE PLAN
SCALE: AS NOTED



2 ENLARGED EQUIPMENT PLAN
SCALE: AS NOTED



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7	ISSUED FOR CONSTRUCTION	PEG	08/26/21
6	ISSUED FOR CONSTRUCTION	PEG	08/20/21
5	ISSUED FOR CONSTRUCTION	JLM	08/05/21
4	ISSUED FOR CONSTRUCTION	PEG	07/09/21
3	ISSUED FOR CONSTRUCTION	JLM	06/30/21
2	ISSUED FOR CONSTRUCTION	JLM	05/24/21
1	REVISED PER COMMENTS	PEG	04/06/21

No.	Submittal / Revision	App'd	Date
Drawn:	BMM	Date:	04/05/21
Designed:	ASW	Date:	04/05/21
Checked:	AJD	Date:	04/05/21

Project Number: 1106-A0001-C

Project Title:
GUILDFORD EAST
CTL05641
FA# 10071055
331 KILLINGWORTH ROAD
GUILDFORD, CT 06437



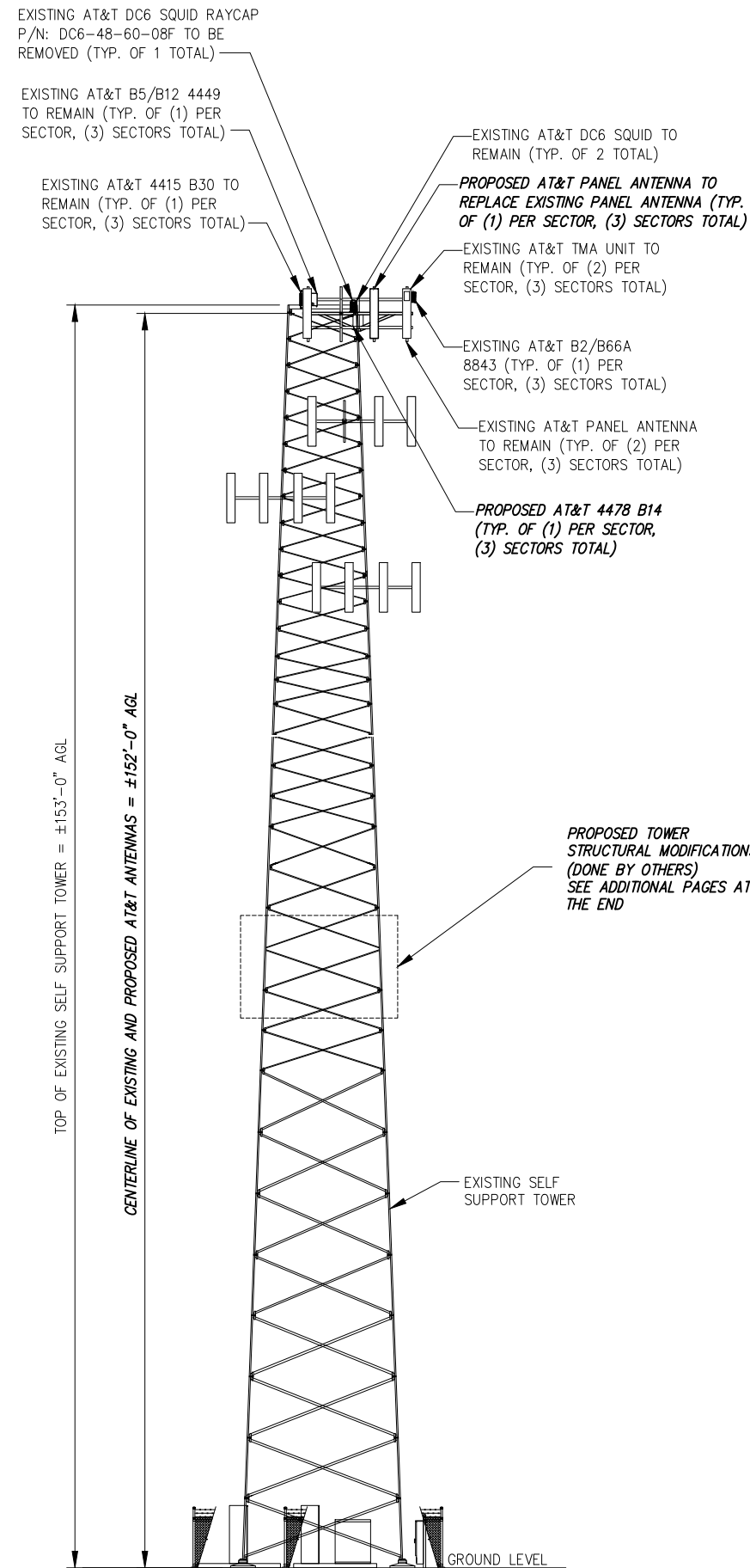
Drawing Scale: AS NOTED

Date: 08/28/21

CD

Drawing Title:
OVERALL & ENLARGED SITE PLAN

Drawing Number:
C2



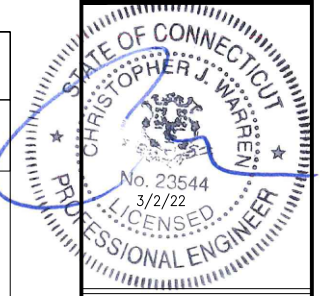
NOTE:
FOR ADDITIONAL MOUNT INFORMATION SEE:
• 'MOUNT MODIFICATION REPORT' COMPLETED BY INFINIGY, DATED 5/20/21. SEE SHEETS S1-S3 FOR MODIFICATION DETAILS

NOTE:
INFINIGY ENGINEERING HAS NOT EVALUATED THE TOWER FOR THIS SITE, AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY REGARDING ITS EXISTING OR PROPOSED LOADING. FINAL INSTALLATION TO COMPLY STRUCTURAL ANALYSIS.

SEPARATION NOTE:
• 3 FEET MINIMUM SEPARATION BETWEEN LTE ANTENNA
• 6 FEET MINIMUM SEPARATION BETWEEN 700BC & 700 DE

FINAL ANTENNA CONFIGURATION & CABLE SCHEDULE BASED ON LTE RFDS DATED 08/24/21, V 8.00

SECTOR	ANTENNA POSITION	ANTENNA STATUS & TECHNOLOGY	ANTENNA MANF/MODEL	TMA/DIPLEXER	RRUS	AZIMUTH	ANTENNA CL HEIGHT	CABLE FEEDER		RAYCAP UNIT
								TYPE	LENGTH	
ALPHA	A-1	(E) LTE PCS /UMTS	CCI HPA-65R-BU6AA	(2) (E) LGP21903	(1) (E) B2/B66A 8843	90°	±152'	(2) (E) 1-5/8" COAX	±175'	(2) (E) DC6 'SQUID'
	A-2	(P) LTE 700/AWS	CCI OPA65R-BU6DA	--	(1) (P) 4478 B14	90°	±152'	(1) (E) FIBER CABLE (2) (E) DC CABLES	--	
	A-3	--	--	--	--	--	--	--	--	
	A-4	(E) LTE 700/850/WCS /5G 850	KATHREIN 800-10965	--	(1) (E) B5/B12 4449 (1) (E) 4415 B30	90°	±152'	SEE A-2 FOR CABLE INFORMATION	--	
BETA	B-1	(E) LTE PCS /UMTS	CCI HPA-65R-BU6AA	(2) (E) LGP21903	(1) (E) B2/B66A 8843	170°	±152'	(2) (E) 1-5/8" COAX	±175'	(2) (E) DC6 'SQUID'
	B-2	(P) LTE 700/AWS	CCI OPA65R-BU6DA	--	(1) (P) 4478 B14	170°	±152'	(1) (E) FIBER CABLE (4) (E) DC CABLES	--	
	B-3	--	--	--	--	--	--	--	--	
	B-4	(E) LTE 700/850/WCS /5G 850	KATHREIN 800-10965	--	(1) (E) B5/B12 4449 (1) (E) 4415 B30	170°	±152'	SEE B-2 FOR CABLE INFORMATION	--	
GAMMA	G-1	(E) LTE PCS /UMTS	CCI HPA-65R-BU6AA	(2) (E) LGP21903	(1) (E) B2/B66A 8843	310°	±152'	(2) (E) 1-5/8" COAX	--	(2) (E) DC6 'SQUID'
	G-2	--	--	--	--	--	--	--	--	
	G-3	(P) LTE 700/AWS	CCI OPA65R-BU6DA	--	(1) (P) 4478 B14	310°	±152'	SEE B-2 FOR CABLE INFORMATION	--	
	G-4	(E) LTE 700/850/WCS /5G 850	KATHREIN 800-10965	--	(1) (E) B5/B12 4449 (1) (E) 4415 B30	310°	±152'	SEE B-2 FOR CABLE INFORMATION	--	



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1	REVISED PER COMMENTS PEG 04/06/21
No.	Submittal / Revision App'd Date
Drawn:	BMM Date: 04/05/21
Designed:	ASW Date: 04/05/21
Checked:	AJD Date: 04/05/21
Project Number: 1106-A0001-C	

Project Title:
GUILDFORD EAST
CTL05641
FA# 10071055
331 KILLINGWORTH ROAD
GUILDFORD, CT 06437



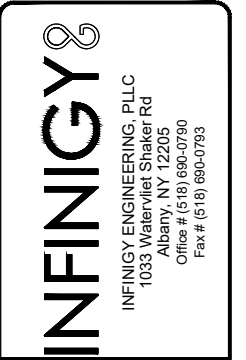
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Date: 08/28/21
CD

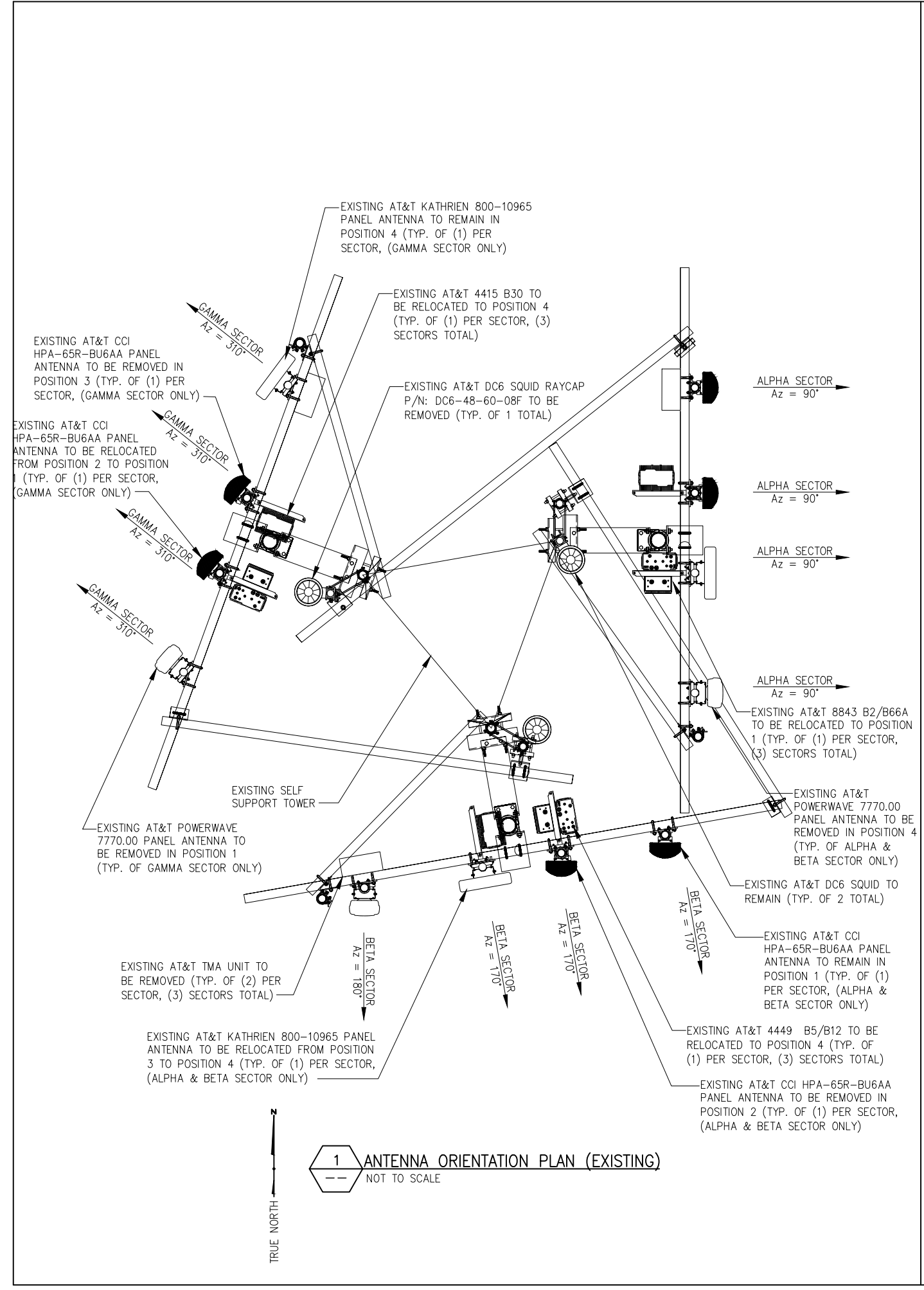
Drawing Title:
ELEVATION VIEW

Drawing Number:
C3

2 AT&T ANTENNA SCHEDULE
-- NOT TO SCALE

1 ELEVATION VIEW
-- NOT TO SCALE



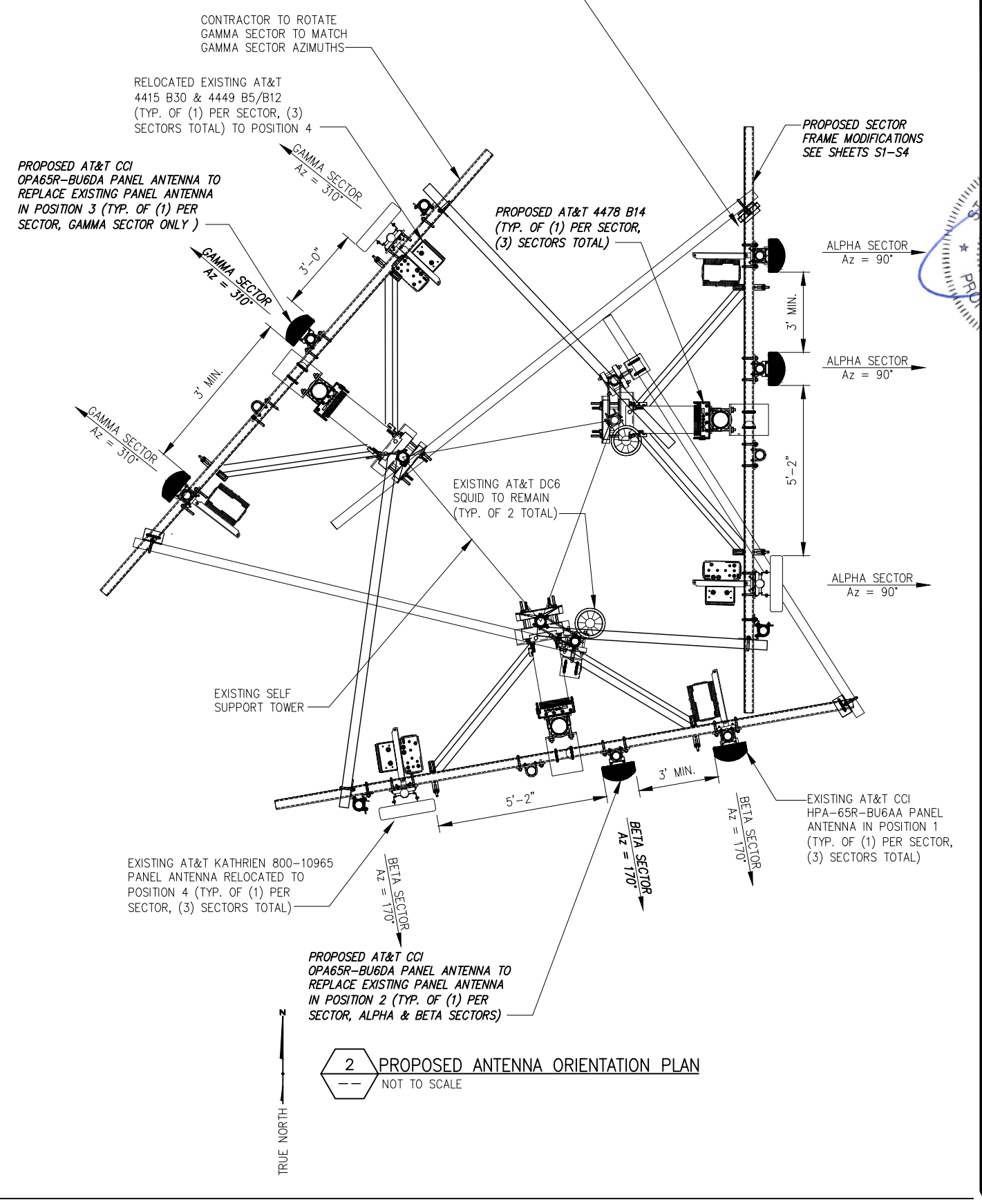


1 ANTENNA ORIENTATION PLAN (EXISTING)
NOT TO SCALE

SEPARATION NOTE:
 • 3 FEET MINIMUM SEPARATION BETWEEN LTE ANTENNA
 • 6 FEET MINIMUM SEPARATION BETWEEN 700BC & 700 DE

NOTE:
 INFINGY ENGINEERING HAS NOT EVALUATED THE TOWER FOR THIS SITE, AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY REGARDING ITS EXISTING OR PROPOSED LOADING. FINAL INSTALLATION TO COMPLY STRUCTURAL ANALYSIS.

NOTE:
 FOR ADDITIONAL MOUNT INFORMATION SEE:
 • "MOUNT MODIFICATION REPORT" COMPLETED BY INFINGY, DATED 5/20/21. SEE SHEETS S1-S3 FOR MODIFICATION DETAILS



2 PROPOSED ANTENNA ORIENTATION PLAN
NOT TO SCALE

INFINGY
 INFINGY ENGINEERING, PLLC
 1033 Watervliet Shaker Rd
 Albany, NY 12205
 Office # (518) 690-0790
 Fax # (518) 690-0793

at&t

STATE OF CONNECTICUT
 CHRISTOPHER J. WARBEN
 No. 23544
 3/2/22
 LICENSED PROFESSIONAL ENGINEER

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1	REVISED PER COMMENTS	PEG	04/06/21

No. Submittal / Revision App'd Date

Drawn: BMM Date: 04/05/21
 Designed: ASW Date: 04/05/21
 Checked: AID Date: 04/05/21

Project Number: 1106-A0001-C

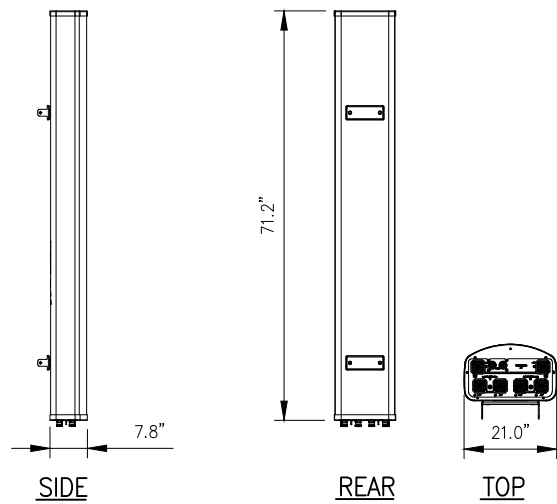
Project Title: GUILDFORD EAST
 CTL05641
 FA# 10071055
 331 KILLINGWORTH ROAD
 GUILDFORD, CT 06437

Prepared For: smartlink

Drawing Scale: AS NOTED
 Date: 08/28/21
CD

Drawing Title: **ANTENNA ORIENTATION PLAN**

Drawing Number: **C4**

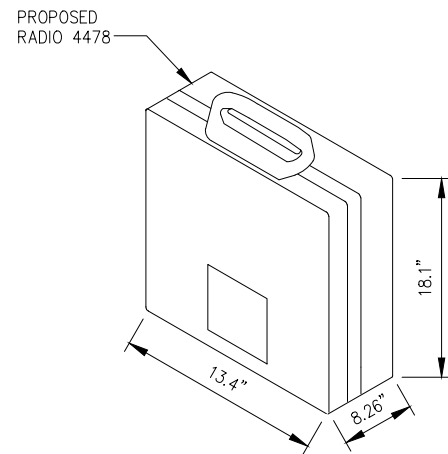


CCI MODEL NO.:

OPA65R-BU6DA

RADOME MATERIAL:	FIBERGLASS,
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD:	71.2"x21.0"x7.8"
WEIGHT, W/	
PRE-MOUNTED BRACKETS:	60.2 LBS
CONNECTOR:	7-16 DIN FEMALE

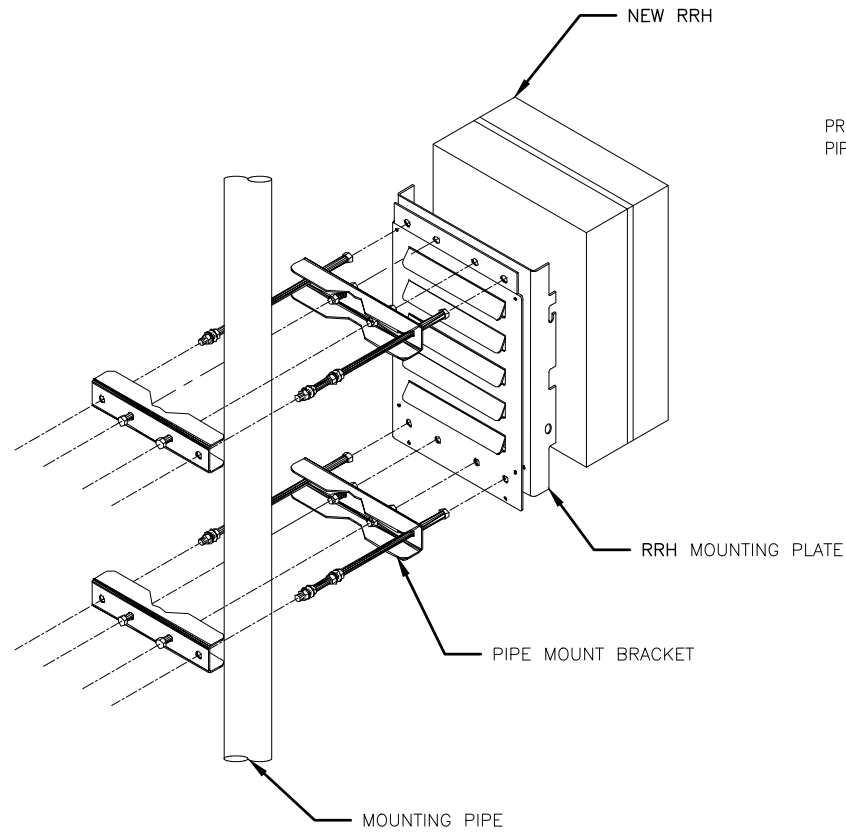
1 ANTENNA DETAIL
-- NOT TO SCALE



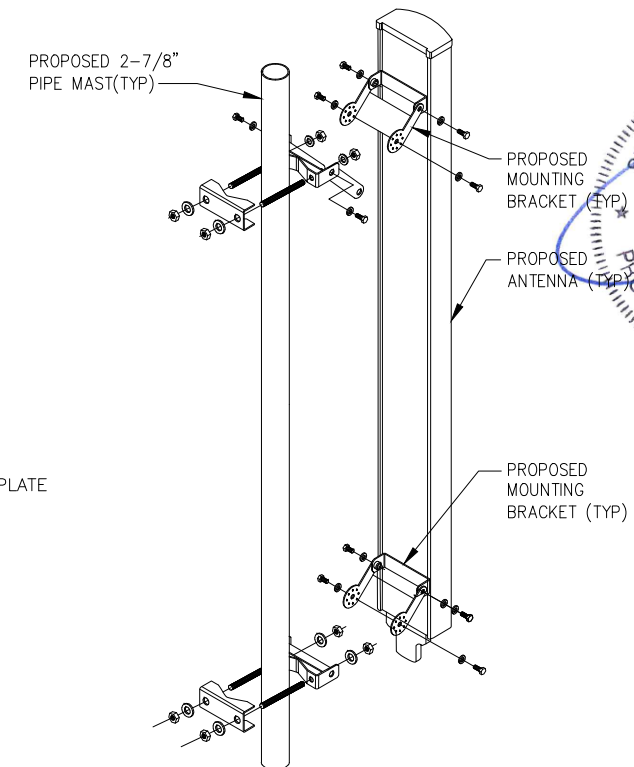
RADIO 4478-B14 SPECIFICATIONS

- HxWxD, (INCHES) : 18.1"x13.4"x8.26"
- WEIGHT (LBS) : 59.5
- COLOR : GRAY
- MOUNTING BRACKET: SXX1250244/1

2 ERICSSON RADIO 4478-B14 DETAIL
-- NOT TO SCALE



3 RRH MOUNTING DETAIL
-- NOT TO SCALE



4 MOUNTING DETAIL
-- NOT TO SCALE

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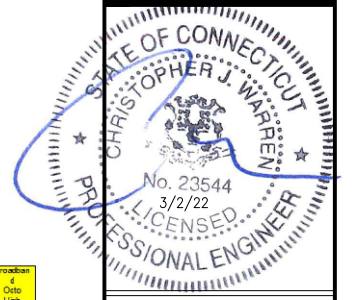


Drawing Scale:
AS NOTED
Date:
08/26/21

CD

Drawing Title:
**EQUIPMENT
DETAILS**

Drawing Number:
C5



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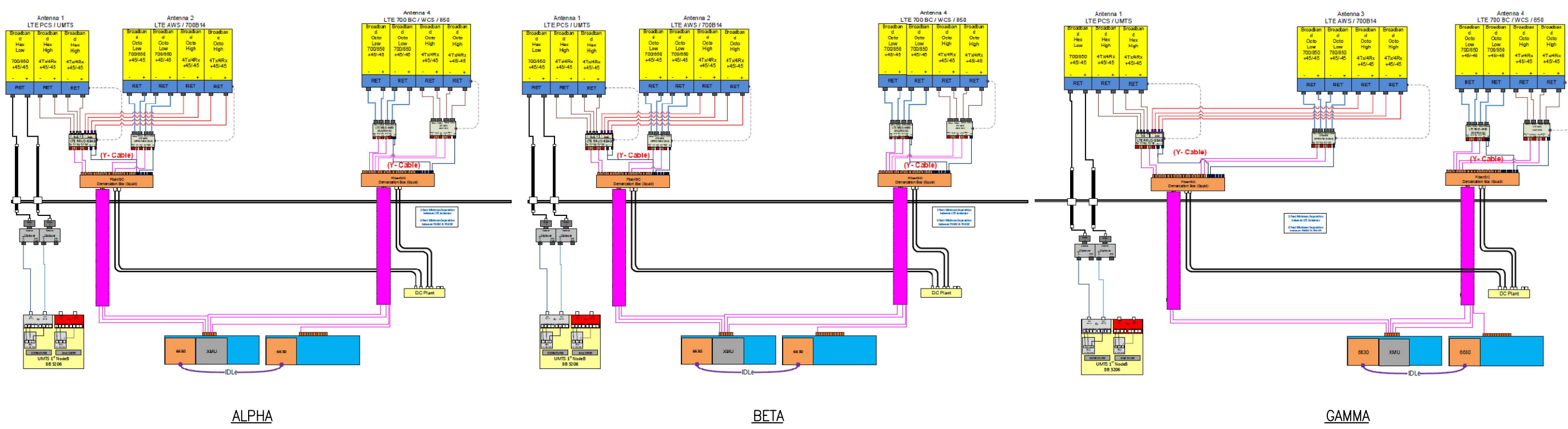
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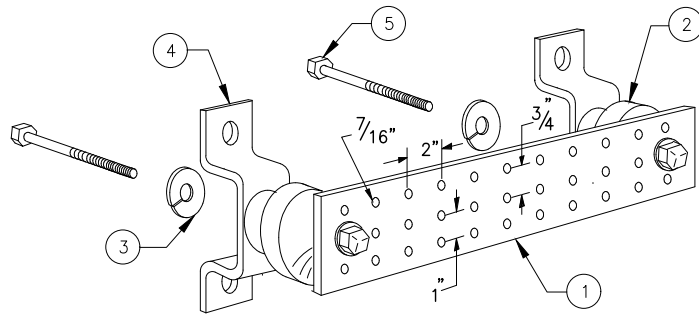
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PLUMBING DIAGRAM

Drawing Number:
C6



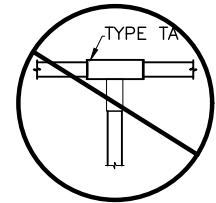
1 PLUMBING DIAGRAM (FINAL CONFIGURATION)
 NOT TO SCALE

*BASED ON LTE RFDS, V. 8.0, DATED 08/24/21

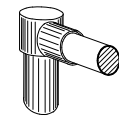


LEGEND

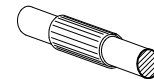
- 1 - SOLID TINNED COPPER GROUND BAR, 1/4"x 4"x 20" MIN., NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
- 2 - INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4
- 3 - 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8
- 4 - WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-6056
- 5 - 5/8-11 X 1" H.H.C.S. BOLTS, NEWTON INSTRUMENT CO. CAT NO. 3012-1
- 6 - GROUND BAR SHALL BE SIZED TO ACCOMMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY
- 7 - GROUND BARS SHALL NEITHER BE FIELD FABRICATED NOR NEW HOLES DRILLED
- 8 - GROUND LUGS SHALL MATCH THE HOLE SPACING ON THE BAR
- 9 - HARDWARE DIAMETER SHALL BE MINIMUM 3/8"



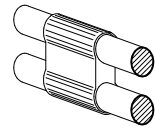
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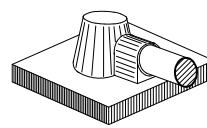
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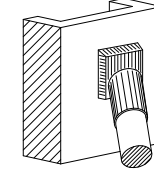
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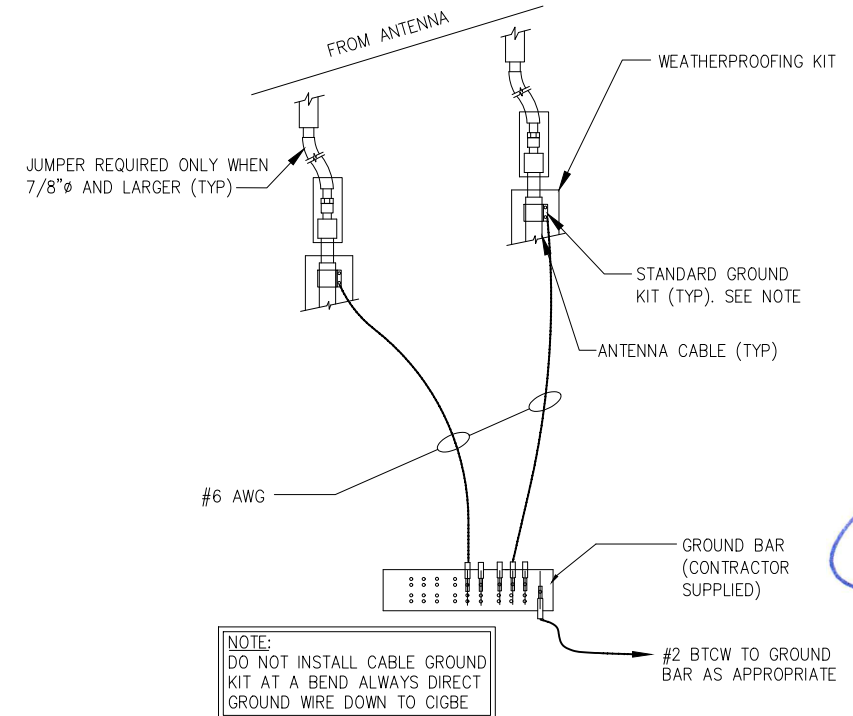
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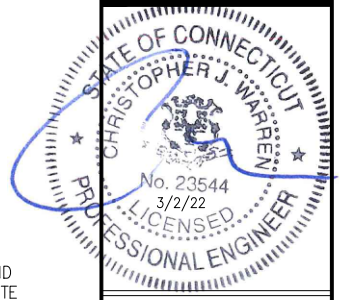
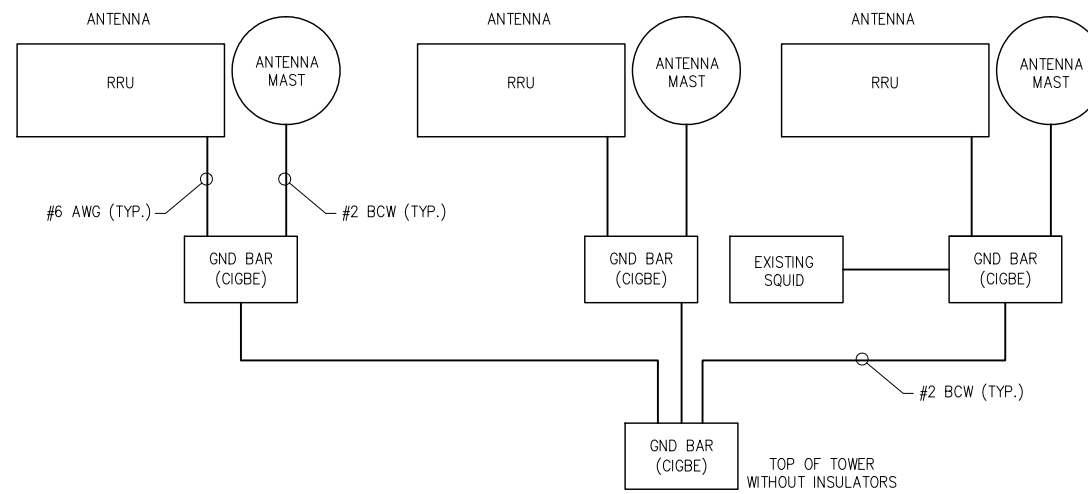
TYPE KA



TYPE VS



NOTE:
DO NOT INSTALL CABLE GROUND KIT AT A BEND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE



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Drawn: BMM Date: 04/05/21
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GUILDFORD EAST
CTL05641
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331 KILLINGWORTH ROAD
GUILDFORD, CT 06437



Drawing Scale: AS NOTED
Date: 08/28/21
CD

Drawing Title:
GROUNDING DETAILS

Drawing Number:
C7

GENERAL NOTES:

1. THESE DOCUMENTS WERE DESIGNED IN ACCORDANCE WITH THE LATEST VERSION OF APPLICABLE LOCAL/STATE/COUNTY/CITY BUILDING CODES, AS WELL AS ANSI/TIA-222 STANDARD, AWWA-D100 STANDARD, NDS, NEC, MSJC, AND/OR THE LATEST VERSION OF THE INTERNATIONAL BUILDING CODE, UNLESS NOTED OTHERWISE IN THE CORRESPONDING STRUCTURAL REPORT.
2. ALL CONSTRUCTION METHODS SHOULD FOLLOW STANDARDS OF GOOD CONSTRUCTION PRACTICE.
3. ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN SIMILAR CONSTRUCTION.
4. ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. IF OBSTRUCTIONS ARE FOUND, CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD PRIOR TO CONTINUING WORK.
5. ANY CHANGES OR ADDITIONS MUST CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL CHANGES OR ADDITIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND/OR CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY TO PROVIDE A COMPLETE AND STABLE STRUCTURE DURING CONSTRUCTION. TIA-1019-A-2011 IS AN APPROPRIATE REFERENCE FOR THOSE DESIGNS MEETING TIA STANDARDS. THE ENGINEER OF RECORD MAY PROVIDE FORMAL RIGGING PLANS AT THE REQUEST AND EXPENSE OF THE CONTRACTOR.
7. INSTALLATION SHALL NOT INTERFERE NOR DENY ADEQUATE ACCESS TO OR FROM ANY EXISTING OR PROPOSED OPERATIONAL AND SAFETY EQUIPMENT.
8. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION. CONTACT INFINIGY ENGINEERING IF ANY DISCREPANCIES EXIST.

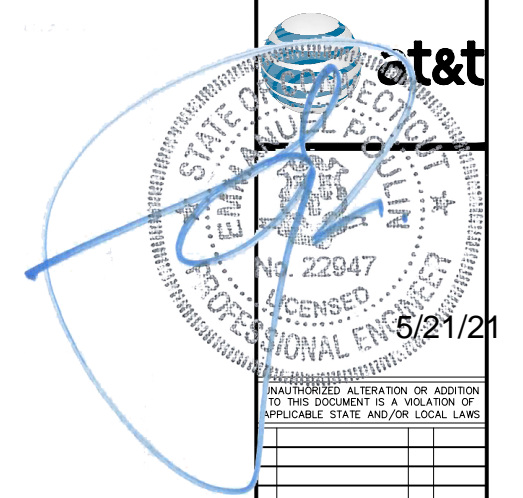
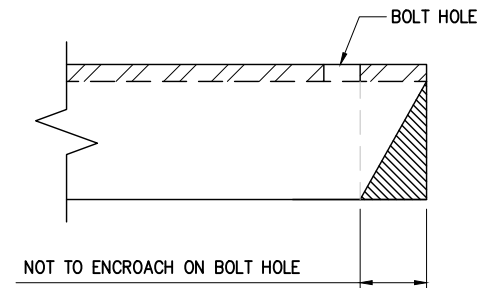
STEEL CONSTRUCTION NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION 14TH EDITION, FOR THE DESIGN AND FABRICATION OF STEEL COMPONENTS.
2. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES, AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS' RECOMMENDATIONS.
3. ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.
4. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123.
5. ALL STEEL MEMBERS AND CONNECTIONS SHALL MEET THE FOLLOWING GRADES:
 - ANGLES, CHANNELS, PLATES AND BARS TO BE A36. Fy=36 KSI, U.N.O.
 - W SHAPES TO BE A992. Fy=50 KSI, U.N.O.
 - RECTANGULAR HSS TO BE A500, GRADE B. Fy=46 KSI, U.N.O.
 - ROUND HSS TO BE A500, GRADE B. Fy=42 KSI, U.N.O.
 - STEEL PIPE TO BE A53, GRADE B. Fy=35 KSI, U.N.O.
 - BOLTS TO BE A325-X. Fu=120 KSI, U.N.O.
 - U-BOLTS AND LAG SCREWS TO BE A307 GR A. Fu=60 KSI, U.N.O.
6. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES, U.N.O.
7. ALL WELDING SHALL CONFORM TO AISC AND AWS D1.1 LATEST EDITION.
8. ALL HILTI ANCHORS TO BE CARBON STEEL, U.N.O.
 - MECHANICAL ANCHORS: KWIK BOLT-TZ, U.N.O.
 - CMU BLOCK ANCHORS: ADHESIVE - HY120, U.N.O.
 - CONCRETE ANCHORS: ADHESIVE - HY200, U.N.O.
 - CONCRETE REBAR: ADHESIVE - RE500, U.N.O.
9. ALL STUDS TO BE NELSON CAPACITOR DISCHARGE 1/4"-20 LOW CARBON STEEL COPPER-FLASH AT 55 KSI ULT/50 KSI YIELD, U.N.O.
10. BOLTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC.
11. MINIMUM EDGE DISTANCES SHALL CONFORM TO AISC TABLE J3.4.
12. REMOVAL/REPLACEMENT OF STRUCTURAL MEMBERS SHALL BE DONE ONE MEMBER AT A TIME. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.

SPECIAL INSPECTIONS NOTES:

1. A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER AND APPROVED BY THE JURISDICTION, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH THE THE GOVERNING BUILDING CODE, APPLICABLE SECTION(S) AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
 - a. STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELDS ONLY).
 - b. HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 AND/OR A490 BOLTS) TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD.
 - c. MECHANICAL AND EPOXIED ANCHORAGES.
 - d. FIBER REINFORCED POLYMER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE FRP MATERIAL SPECIFIED ON THE APPROVED DESIGN DOCUMENTS IS BEING INSTALLED.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT ALL CUT EDGES AND DRILLED HOLES ARE PROPERLY SEALED USING A VINYL ESTER SEALING KIT SUPPLIED BY THE MANUFACTURER.
 - THE SPECIAL INSPECTOR MUST VERIFY THAT THE STRUCTURE IS BUILT IN ACCORDANCE WITH THE APPROVED DESIGN DOCUMENTS.
2. THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM WORK WITHOUT THE SPECIAL INSPECTIONS.

MAXIMUM ALLOWABLE ANGLE CLIP



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No.	FOR CONSTRUCTION	RB	05/21/21
	Submittal / Revision	App'd	Date

Drawn: BE Date: 05/21/21
 Designed: RB Date: 05/21/21
 Checked: RB Date: 05/21/21

Project Number: 1106-A0001-B

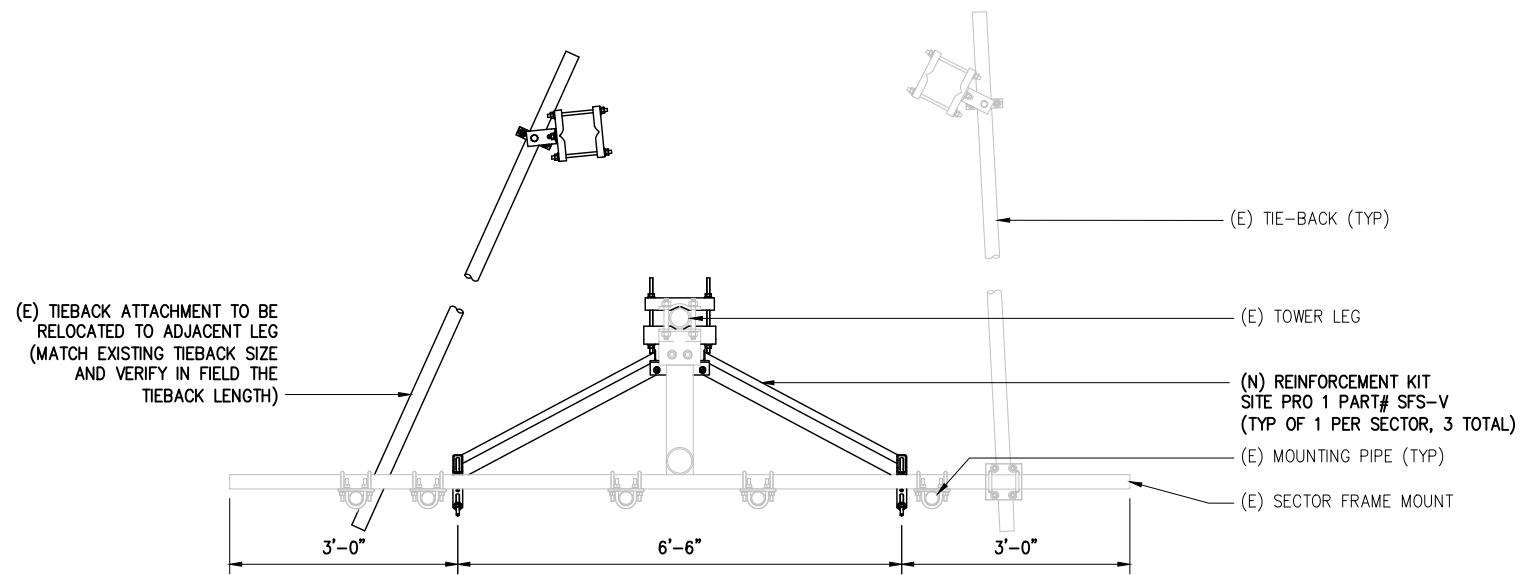
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GUILDFORD EAST
 CTL05641
 FA# 10071055
 331 KILLINGWORTH ROAD
 GUILDFORD, CT 06437



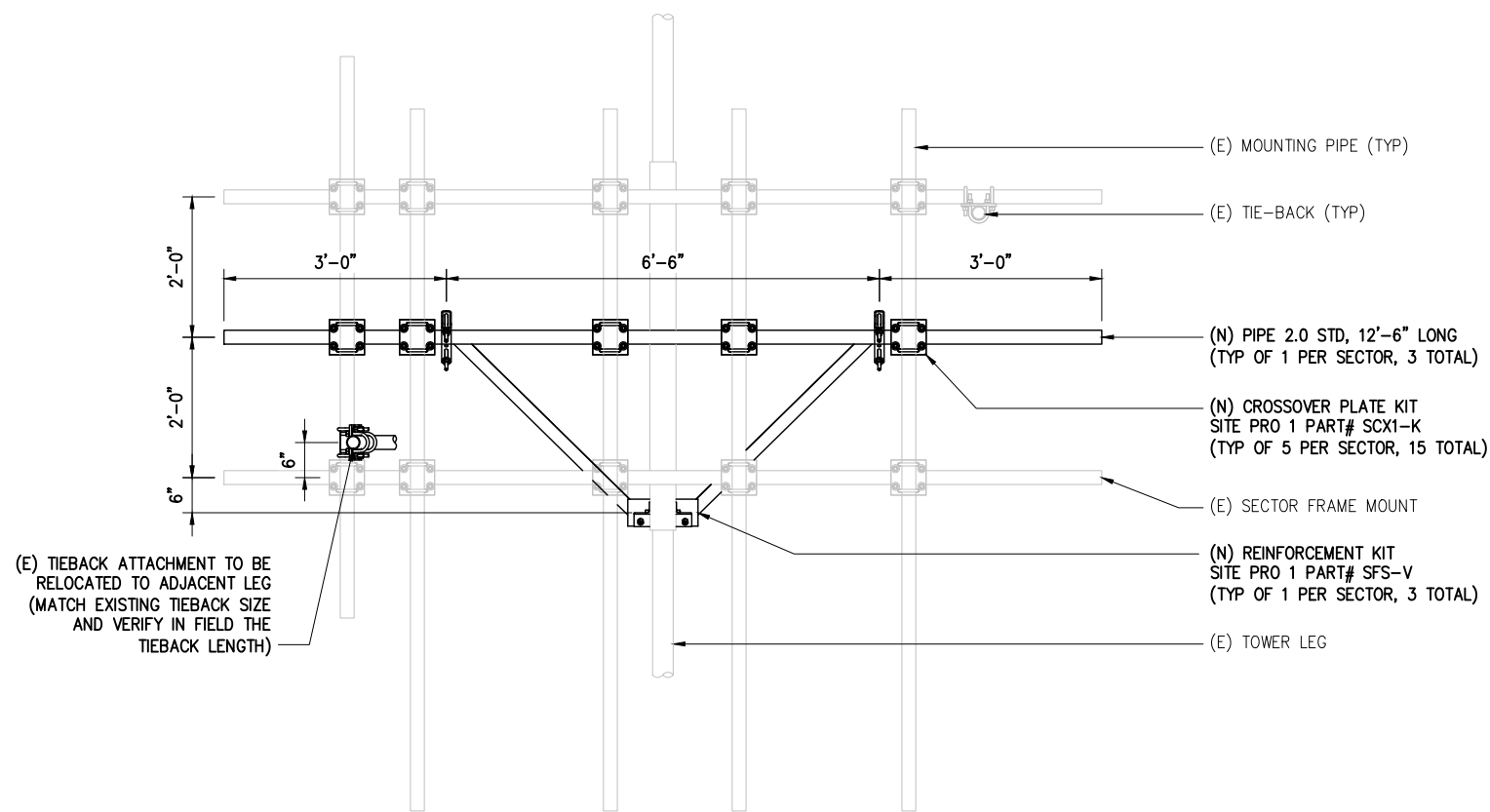
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 Date: 05/21/21
CD

Drawing Title:
GENERAL NOTES

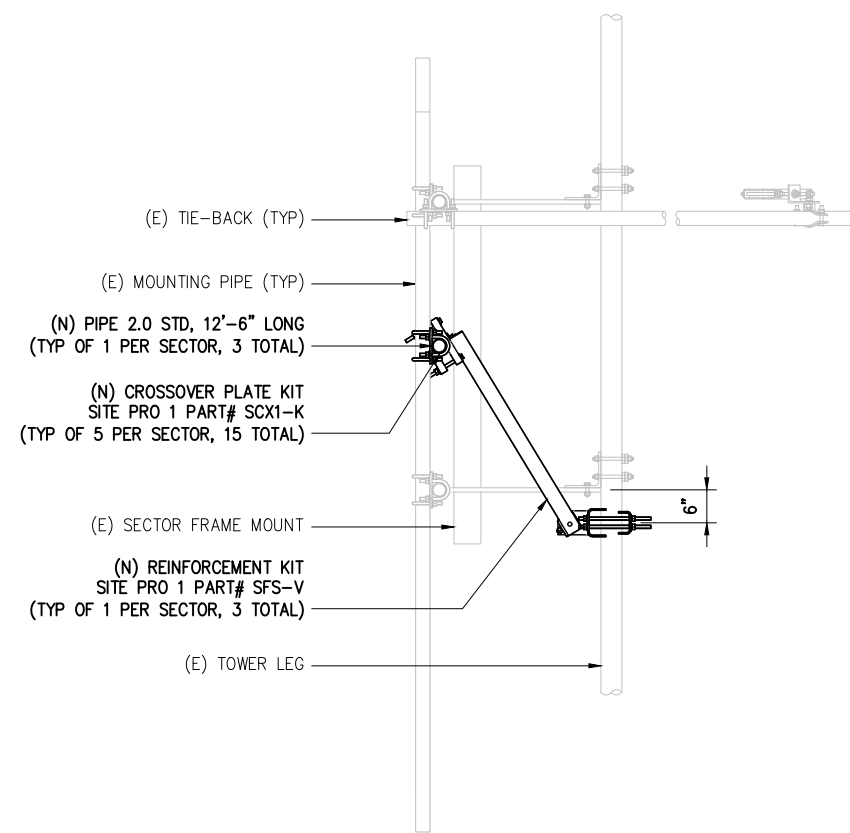
Drawing Number:
S1



1 PLAN VIEW
SCALE: NOT TO SCALE



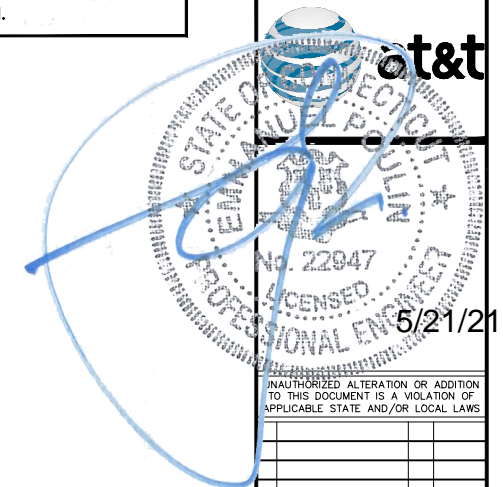
2 ELEVATION VIEW
SCALE: NOT TO SCALE



3 SIDE VIEW
SCALE: NOT TO SCALE

NOTES:

1. MODIFICATIONS SHOWN ARE TYPICAL FOR ALL SECTORS.
2. ALL DESIGNATED PARTS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE NOTED.
3. CONTRACTOR TO FIELD VERIFY REQUIRED LENGTHS OF PROPOSED ANGLES, PIPES & PLATES, AND CUT & DRILL ON SITE AS NECESSARY.
4. REMOVAL/REPLACEMENT OF STRUCTURAL MEMBERS SHALL BE DONE ONE MEMBER AT A TIME. CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STRUCTURAL INTEGRITY OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION.



INFINIGY
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Albany, NY 12205
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No.	FOR CONSTRUCTION	RB	05/21/21
	Submittal / Revision	App'd	Date

Drawn: BE Date: 05/21/21
Designed: RB Date: 05/21/21
Checked: RB Date: 05/21/21

Project Number: 1106-A0001-B

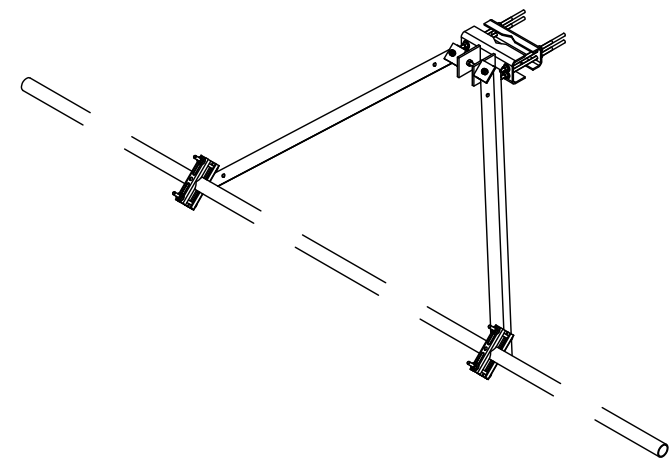
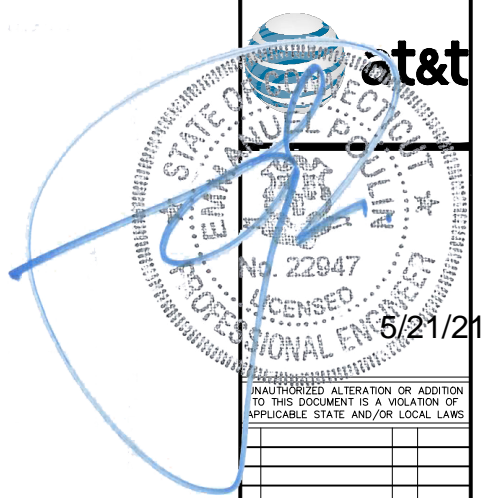
Project Title:
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FA# 10071055
331 KILLINGWORTH ROAD
GUILDFORD, CT 06437



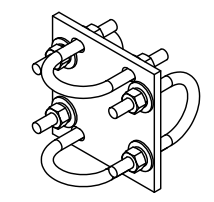
Drawing Scale: AS NOTED
Date: 05/21/21
CD

Drawing Title:
MOUNT MODIFICATION

Drawing Number:
S2



1 SITE PRO 1 P/N SFS-V
 -- SCALE: NOT TO SCALE



2 SITE PRO 1 P/N SCX1-K
 -- SCALE: NOT TO SCALE

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No.	Submittal / Revision	App'd	Date
0	FOR CONSTRUCTION	RB	05/21/21

Drawn: RB Date: 05/21/21
 Designed: RB Date: 05/21/21
 Checked: RB Date: 05/21/21

Project Number: 1106-A0001-B

Project Title:
 GUILDFORD EAST
 CTL05641
 FA# 10071055
 331 KILLINGWORTH ROAD
 GUILDFORD, CT 06437



Drawing Scale: AS NOTED
 Date: 05/21/21

CD

Drawing Title
REQUIRED PARTS

Drawing Number
S3

PER THE INTERNATIONAL BUILDING CODE THIS STRUCTURE IS CLASSIFIED AS:

1. CONSTRUCTION TYPE II-B (TABLE 601)
2. GROUP U OCCUPANCY (SECTION 312.1 UNOCCUPIED TOWER SITE)

MODIFICATION AND DESIGN DRAWINGS FOR AN EXISTING 152' ROHN SELF SUPPORTING TOWER

PROPOSED CARRIER: AT&T

SITE: CT13065-A-SBA / GUILFORD

COORDINATES (LATITUDE: 41.353164°, LONGITUDE: -72.688252°)

CONSTRUCTION CLASS

THE RIGGING PLAN FOR THIS SITE WOULD BE A
MINIMUM OF A CLASS I AND THE CONTRACTOR
SHALL MAKE FINAL DETERMINATION

PLEASE NOTE THIS SET OF DRAWINGS IS FOR INSTALLATION AND ASSEMBLY ONLY. FABRICATION DETAIL DRAWINGS ARE NOT PROVIDED AND MUST BE COMPLETED BY THE STEEL FABRICATOR SELECTED. TES CAN PROVIDE THE FABRICATION DETAIL DRAWINGS FOR AN ADDITIONAL FEE.

SHEET	SHEET TITLE	REV
T-1	TITLE SHEET	0
BOM	BILL OF MATERIALS	0
GN-1	GENERAL NOTES	0
A-1	TOWER PROFILE	0
A-2	PIPE LEG REINFORCEMENT DETAILS	0

NOTE:

1. THE MODIFICATION DRAWINGS ARE BASED ON THE
TES PROJECT NO. 121369-R1, DATED 01/21/2022.



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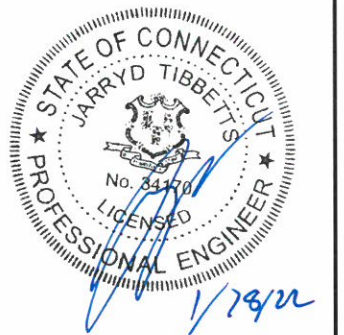
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800)-487-SITE

TES JOB NO:
121728

CUSTOMER SITE NO:
CT13065-A-SBA

CUSTOMER SITE NAME:
GUILFORD

331 KILLINGWORTH ROAD (RT 80)
GUILFORD, CT 06437



DRAWN BY: MN CHECKED BY: MA/AD

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	MN	01/28/22

SHEET TITLE:

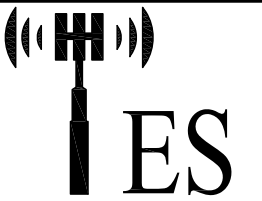
TITLE SHEET

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SHEET NUMBER: REV #:
T-1 0

BILL OF MATERIALS

QUANTITY REQUIRED	QUANTITY PROVIDED	PART NUMBER	DESCRIPTION	LENGTH	SHEET LIST	PIECE WEIGHT	WEIGHT (lb)	NOTES	
MATERIAL & HARDWARE									
6	6	STP-1	PL 1/2" X 1 3/8" X 6" A572-50	---	A-2,F-1	1.19	7.2	GALVANIZED	
COATING									
7	7	---	LANCO /HENRY 287 WHITE ACRYLIC ELASTOMERIC COATING AND SEALER OR EQUIV (GALLON)	---	A-1	---	---	PROVIDED BY CONTRACTOR	
Note:: Please note this set of drawings is for installation and assembly only. Fabrication Detail Drawings are not provided and must be completed by the steel fabricator selected. TES can provide the Fabrication Detail Drawings for an additional fee									
NOTE: ALL MATERIALS, WHICH WEREN'T LISTED IN THE BOM, ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.									
TOTAL WEIGHT (lb) =							7.2		



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 121728
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REV.	DESCRIPTION	BY	DATE
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BILL OF MATERIALS

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GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE ANSI/TIA-222-G, ANSI/ASSP A10.48, 2018 CONNECTICUT STATE BUILDING CODE AND ANY OTHER GOVERNING BUILDING CODES AND OSHA SAFETY REGULATIONS.
2. ALL WORK INDICATED ON THE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TELECOMMUNICATIONS TOWER, POLE AND FOUNDATION CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND FABRICATION OF ALL MISCELLANEOUS PARTS (SUCH AS SHIMS), TEMPORARY SUPPORTS, AND GUYINGS, ETC., PER ANSI/ASSP A10.48, TO COMPLETE THE ASSEMBLY AS SHOWN IN THE DRAWINGS.
4. CONTRACTOR SHALL PROCEED WITH THE INSTALLATION WORK CAREFULLY SO THE WORK WILL NOT DAMAGE ANY EXISTING CABLE, EQUIPMENT OR THE STRUCTURE.
5. THE USE OF GAS TORCH OR WELDER, ARE NOT ALLOWED ON ANY TOWER STRUCTURE WITHOUT THE CONSENT OF THE TOWER OWNER.
6. GENERALLY THE CONTRACTOR IS RESPONSIBLE TO CONDUCT AN ONSITE VISIT SURVEY OF THE JOB SITE AFTER AWARD, AND REPORT ANY ISSUES WITH THE SITE TO **TES** BEFORE PROCEEDING CONSTRUCTION.

FABRICATION

1. ALL STEEL SHALL MEET OR EXCEED THE MINIMUM STRENGTH AS SPECIFIED IN THE DRAWINGS. IF YIELD STRENGTH WAS NOT NOTED IN THE DRAWINGS, CONTRACTORS SHALL CONTACT TES FOR DIRECTION.
2. ALL FIELD CUT EDGES SHALL BE GROUND SMOOTH. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

WELDING

1. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNO. (E70XX UNLESS NOTED OTHERWISE).
2. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING APPROX. 0.5" BEYOND THE PROPOSED FIELD WELD SURFACES.
3. ALL WELDS SHALL BE INSPECTED VISUALLY. A MINIMUM OF 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. 100% OF WELDS SHALL BE INSPECTED IF DEFECTS ARE FOUND.
4. WELD INSPECTIONS SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
5. AFTER INSPECTION, ALL FIELD WELDED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

BOLTED ASSEMBLIES AND TIGHTENING OF CONNECTIONS

1. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS AS APPROVED BY THE RCSC.
2. FLANGE BOLTS SHALL BE TIGHTENED BY THE AISC "TURN-OF-THE-NUT" METHOD. THE FOLLOWING TABLE SHOULD BE USED FOR THE "TURN-OF-THE-NUT" TIGHTENING.
3. SPLICE BOLTS AND ALL OTHER BOLTS IN BEARING TYPE CONNECTIONS SHALL BE TIGHTENED TO A SNUG-TIGHT CONDITION.
4. THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER WITH AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
5. HB HOLLO-BOLT SHALL BE INSTALLED PER ICC ESR-3330 INSTRUCTIONS.

VERIFICATION AND INSPECTION

1. IF APPLICABLE, VERIFICATION INSPECTION TO BE PERFORMED SHALL BE IN ACCORDANCE TO IBC-2015 SECTION 1705 - FOR STEEL CONSTRUCTION & TABLE 1705.3 FOR CONCRETE CONSTRUCTION.

POST INSTALLED EPOXY INJECTED ANCHOR BOLTS:

1. CONCRETE MUST BE A MINIMUM OF 28 DAYS OLD.
2. FOLLOW MANUFACTURER'S REQUIREMENTS FOR CURE TIME VS. AMBIENT TEMPERATURE.
3. DRILL HOLE TO REQUIRED DIAMETER AND DEPTH. ALL WATER, DIRT, OIL, DEBRIS, GREASE OR DUST MUST BE REMOVED FROM EACH CORE HOLE. FOLLOW MANUFACTURER'S RECOMMENDATION FOR CORRECT TYPE OF CORE BIT. AVOID DAMAGING EXISTING REINFORCING STEEL OR OTHER EMBEDDED ITEMS. NOTIFY TES ENGINEERING IF VOIDS IN THE CONCRETE, REINFORCING STEEL OR OTHER EMBEDDED ITEMS ARE ENCOUNTERED. STOP CORING IMMEDIATELY IF THIS OCCURS.
4. A HOLE ROUGHENING DEVICE FROM EITHER HILTI OR ALLFASTENERS SHALL BE USED WITH ALL HOLES. FOLLOW ALL MANUFACTURER'S RECOMMENDED CORING AND INSTALLATION INSTRUCTIONS.
5. AFTER CORING AND ROUGHENING, FLUSH EACH HOLE WITH RUNNING WATER TO REMOVE ANY SLURRY OR DEBRIS. REMOVE ALL WATER FROM THE HOLE BY MECHANICAL PUMPING.
6. BRUSH EACH HOLE WITH AN APPROPRIATE SIZED NYLON BRUSH AND FLUSH WITH RUNNING WATER A SECOND TIME. REMOVE ALL WATER FROM THE HOLE.
7. AFTER THE SECOND WATER FLUSH BRUSH THE HOLE AGAIN WITH THE APPROPRIATE SIZED NYLON BRUSH.
8. BLOW EACH HOLE WITH COMPRESSED AIR TWO TIMES MINIMUM.
9. CONFIRM THAT EACH HOLE IS PROPERLY ROUGHED AND DRY.
10. NO EPOXY INJECTION SHALL TAKE PLACE IN RAINY CONDITIONS.
11. EPOXY SHOULD BE VISIBLE AT THE TOP OF THE CORE HOLE AFTER INSTALLATION.
12. CONTRACTOR TO SUPPLY ONE PHOTO OF EACH ROUGHED AND CLEANED HOLE IN CLOSEOUT PHOTO PACKAGE.

TABLE 8.2 NUT ROTATION FROM SNUG-TIGHT CONDITION FOR TURN-OF-NUT PRETENSIONING^{a,b}

BOLT LENGTH ^f	DISPOSITION OF OUTER FACE OF BOLTED PARTS		
	BOTH FACES NORMAL TO BOLT AXIS	ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20 ^d	BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS ^d
NOT MORE THAN 4d _b	1/3 TURN	1/2 TURN	2/3 TURN
MORE THAN 4d _b BUT NOT MORE THAN 8d _b	1/2 TURN	2/3 TURN	5/6 TURN
MORE THAN 8d _b BUT NOT MORE THAN 12d _b	2/3 TURN	5/6 TURN	1 TURN

^a NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR REQUIRED NUT ROTATIONS OF 1/2 TURN AND LESS, THE TOLERANCE IS PLUS OR MINUS 30 DEGREES; FOR REQUIRED NUT ROTATIONS OF 2/3 TURN AND MORE, THE TOLERANCE IS PLUS OR MINUS 45 DEGREES.

^b APPLICABLE ONLY TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

^c WHEN THE BOLT LENGTH EXCEEDS 12d_b, THE REQUIRED NUT ROTATION SHALL BE DETERMINED BY ACTUAL TESTING IN A SUITABLE TENSION CALIBRATOR THAT SIMULATES THE CONDITIONS OF SOLIDLY FITTING STEEL.

^d BEVELED WASHER NOT USED.

SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004 RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS

INSTALLATION TORQUE REQUIRED FOR HOLLO BOLTS AND AJAX BOLTS:

1. HB12 HOLLO BOLT: 59 FT-LBS
2. HB16 HOLLO BOLT: 140 FT-LBS
3. HB20 HOLLO BOLT: 221 FT-LBS
4. M20 AJAX BOLT: 280 FT-LBS.

FIELD HOT WORK PLAN NOTES:

FOLLOWING GUIDELINES SHALL BE COMPLIED WITH:

1. CONTRACTOR'S RESPONSIBILITY TO COMPLETE A HOT WORK PLAN IF AWARDED PER CUSTOMER SPECIFICATIONS GUIDELINES FOR WELDING, CUTTING & SPARK PRODUCING WORK.
2. HAVE A FIRE PLAN APPROVED BY THE CUSTOMER AND THEIR SAFETY MANAGEMENT DEPT.
3. CONTRACTOR MUST OBTAIN THE CONTACT INFO OF THE LOCAL FIRE DEPARTMENT AND THE 911 ADDRESS OF THE TOWER SITE BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL MAKE SURE THAT CELL PHONE COVERAGE IS AVAILABLE IN THE TOWER SITE. IF CELL COVERAGE IS NOT AVAILABLE, AN IMMEDIATE AVAILABLE MEANS OF DIRECT COMMUNICATION WITH THE FIRE DEPARTMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION START.
5. ALL CONSTRUCTION SHALL BE PERFORMED UNDER WIND SPEED LESS THAN 10 MPH ON THE GROUND LEVEL. IF WIND SPEED INCREASE, CONTRACTOR MUST DETERMINE IF CONSTRUCTION SHALL BE DISCONTINUED.
6. FIRE SUPPRESSION EQUIPMENT MUST BE MADE AVAILABLE ON SITE AND READY TO USE.
7. CONTRACTOR SHALL ASSIGN A FIRE WATCHER TO PERFORM FIRE-FIGHTING DUTIES.
8. ALL WELDERS SHALL BE AWS OR STATE CERTIFIED. THEY MUST ALSO BE EXPERIENCED IN WELDING ON GALVANIZED MATERIALS.
9. IF IT IS POSSIBLE, ALL EXISTING COAX NEAR WELDING AREA SHALL BE TEMPORARILY MOVED AWAY FROM THE WELDING AREA BEFORE WELDING THE PLATES.
10. PLEASE REPORT ANY FIELD ISSUE TO TES @ 972-483-0607.



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TES JOB NO:
121728

CUSTOMER SITE NO:
CT13065-A-SBA
CUSTOMER SITE NAME:
GUILFORD

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GN-1 | 0

NOTE:

TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE TOWER AND ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.

SCOPE OF WORK

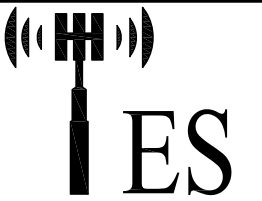
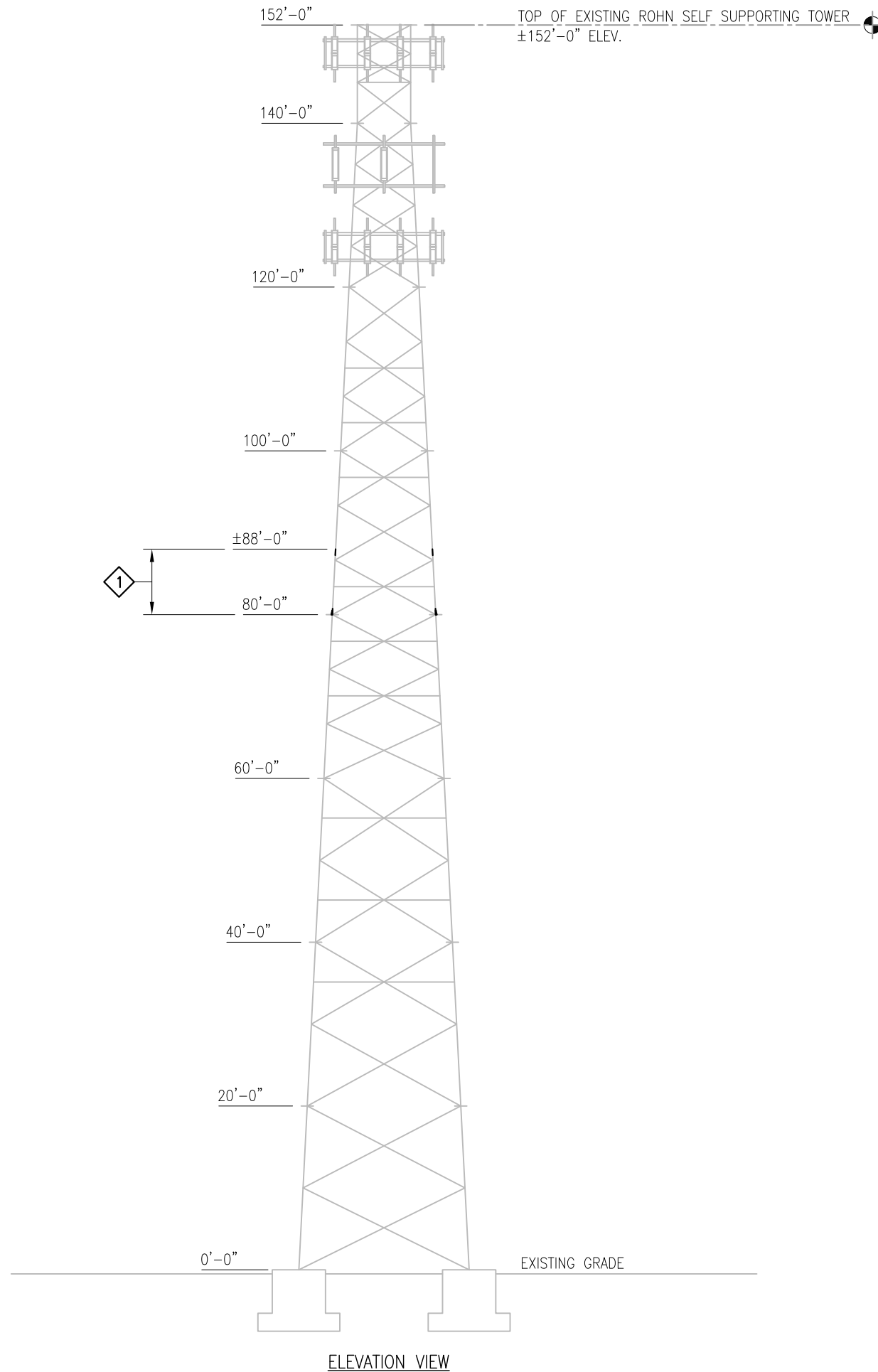
- 1 A. ADD NEW TERMINATION WELD ON TOP AND BOTTOM OF EXISTING HALF PIPE LEG REINFORCEMENTS FROM $\pm 80'-0"$ TO $\pm 88'-0"$ ELEV. (TYP ON 3 LEGS). SEE SHEET A-2 FOR DETAILS.
- B. INSTALL NEW STIFFENER PLATES ON EXISTING HALF PIPE LEG REINFORCEMENTS AT $\pm 80'-0"$ ELEV. (TYP ON 3 LEGS). SEE SHEET A-2 FOR DETAILS.
- 2 APPLY FOUNDATION COATING.
- 3 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP, REMOVAL AND DISPOSAL OF EXCESS MATERIALS USED AND REMOVED FROM THE STRUCTURE AT THE COMPLETION OF THE PROJECT.



TOWER BASE/FOUNDATION PHOTO

FOUNDATION COATING NOTES:

1. THE COATING MATERIALS SHALL BE LANCO WHITE ACRYLIC ELASTOMERIC COATING AND SEALER, OR HYDRO ARMOR COATING.
2. THE COATING CAN BE PLACED AT LEAST (2) DAYS AFTER THE PLACEMENT OF THE CONCRETE FOR FOUNDATION REINFORCEMENT, AND MINIMUM (4) DAYS FOR NEW FOUNDATION CONSTRUCTION.
3. THE CONCRETE SURFACE SHALL BE CLEAN AND DRY PRIOR TO THE APPLICATION OF THE COATING.
4. THE COATING SHALL BE APPLIED TO ALL THE SURFACES OF THE CONCRETE ABOVE THE GROUND AND 6" BELOW THE GRADE SURFACE IF APPLICABLE.
5. MINIMUM 30 MILS COATING IS REQUIRED.



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 (800)-487-SITE

TES JOB NO:
 121728

CUSTOMER SITE NO:
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CUSTOMER SITE NAME:
 GUILFORD

331 KILLINGWORTH ROAD (RT 80)
 GUILFORD, CT 06437

DRAWN BY: MN | CHECKED BY: MA/AD

REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	MN	01/28/22

SHEET TITLE:

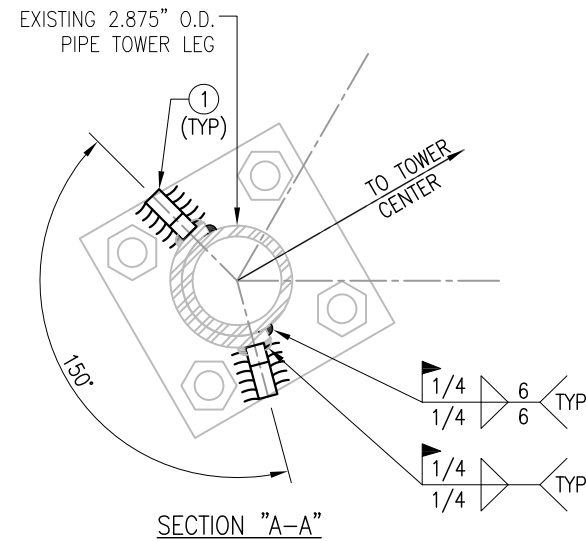
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SHEET NUMBER: **A-1** | REV #: **0**

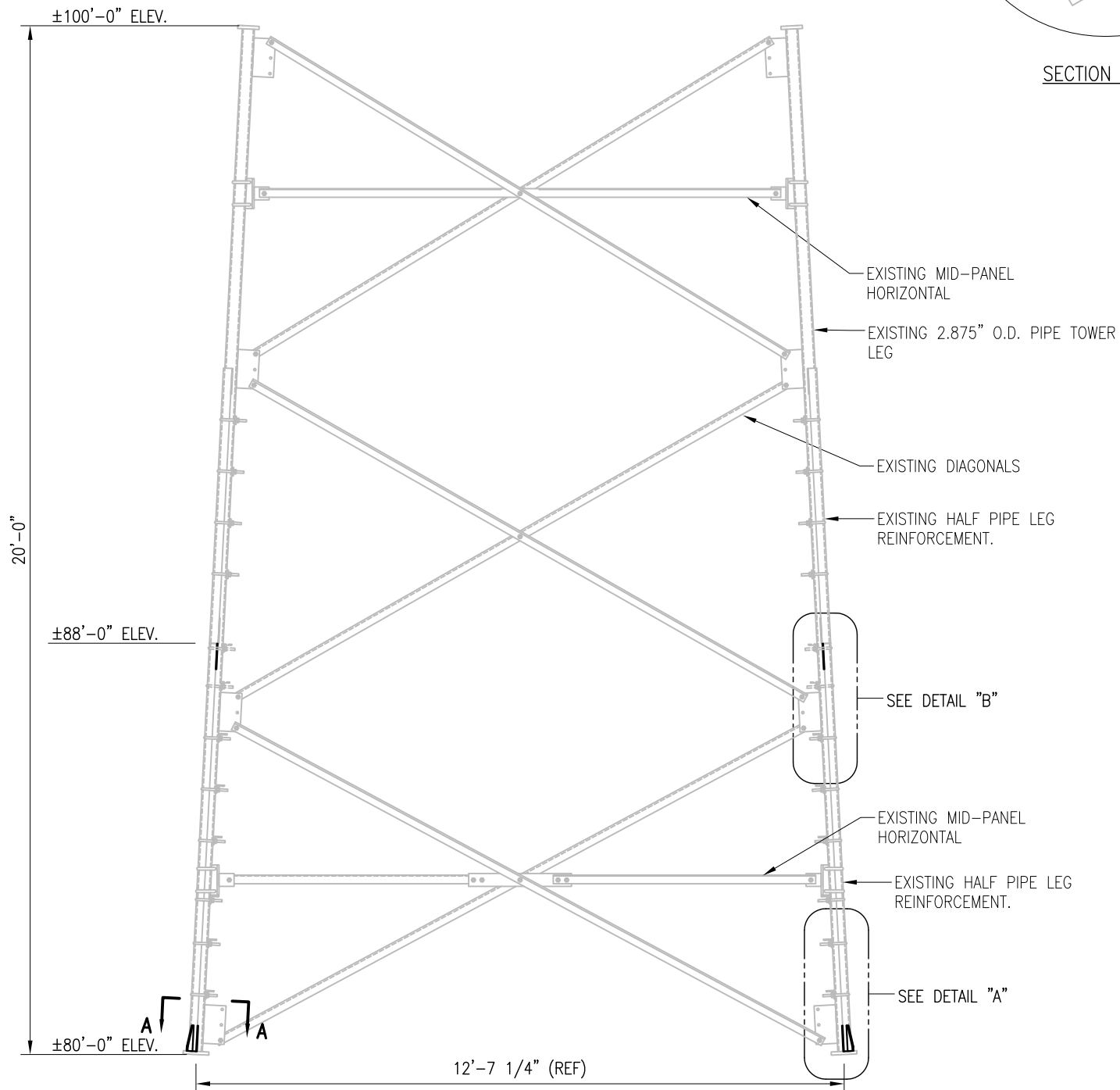
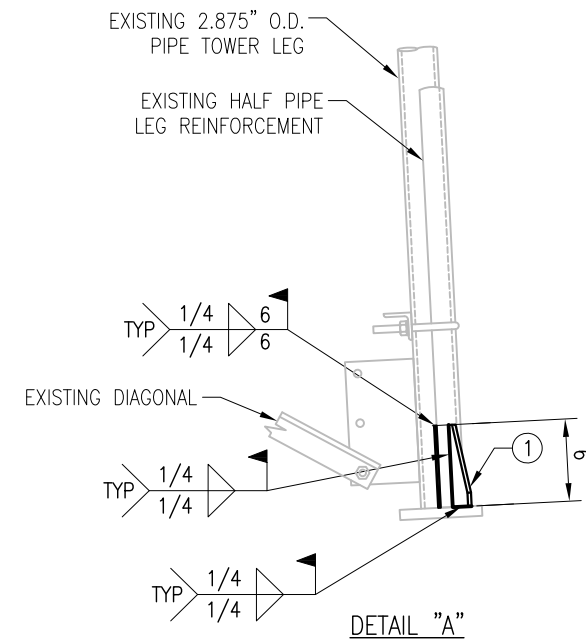
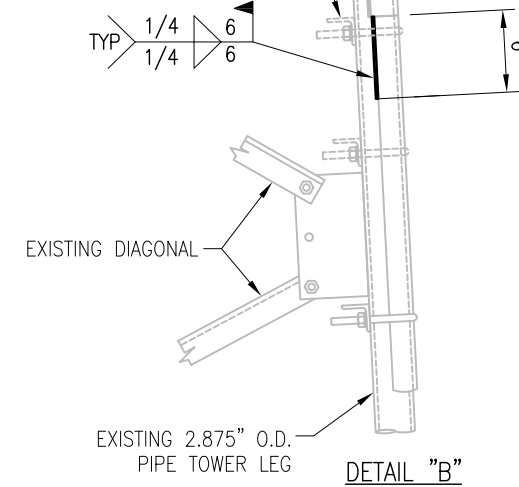
NOTES:

1. SEE SHEET A-1 FOR LOCATION OF REQUIRED SECTION MODIFICATIONS.
2. TEMPORARY RELOCATION OF ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
3. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS TO ALL FIELD CUT AND WELDED AREAS.
4. WELD TYPE: E70XX.



EXISTING HALF PIPE LEG REINFORCEMENT

CONTRACTOR TO FIELD VERIFY AND REMOVE EXISTING U-BOLT AND ANGLE CONNECTION PLATE AT THE NEW WELD LOCATION IF NEEDED (TYP)



ELEVATION VIEW
(±80'-0" TO ±100'-0" ELEV.)

NOTE:
TOWER SHOWN IS ONLY REPRESENTATIVE.

ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	6	STP-1	PL 1/2" X 1 3/8" X 6" A572-50



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PIPE LEG REINFORCEMENT DETAILS

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SHEET NUMBER: REV #:

A-2 0