

JULIE D. KOHLER

PLEASE REPLY TO: Bridgeport
WRITER'S DIRECT DIAL: (203) 337-4157
E-Mail Address: jkohler@cohenandwolf.com

March 17, 2014

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

**Re: Notice of Exempt Modification
Town of Weston/T-Mobile co-location
Site ID CT11121C
237 Godfrey Rd., Weston, Connecticut**

Dear Attorney Bachman:

This office represents T-Mobile Northeast LLC ("T-Mobile") and has been retained to file exempt modification filings with the Connecticut Siting Council on its behalf.

In this case, the Town of Weston owns the existing self supporting telecommunications tower and related facility located at 237 Godfrey Rd., Weston, Connecticut (Latitude: 41.2419194 Longitude: -73.36429722). T-Mobile intends to replace three antennas, add antennas and related equipment at this existing telecommunications facility in Weston ("Weston Facility"). Please accept this letter as notification, pursuant to R.C.S.A. § 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is also being sent to the First Selectwoman, Gayle Weinstein. The Town of Weston is also the property owner.

The existing Weston Facility consists of a 185 foot tall self supporting telecommunications tower.¹ T-Mobile plans to replace three antennas with six antennas and replace 3 TMAs (tower mounted amplifiers) at a centerline of 185 feet (See the plans revised to February 19, 2014 attached hereto as Exhibit A). T-Mobile will also install a new equipment cabinet on the existing concrete pad, install fiber cable and reuse existing coax cable. The existing Weston Facility is structurally capable of supporting T-Mobile's proposed modifications, as indicated in the structural analysis dated March 13, 2014 and attached hereto as Exhibit B.

¹ While the online docket for the Connecticut Siting Council does not provide a docket or petition number for the approval of this structure, it does reference this structure in connection with notices of intent captioned TS-NEXTEL-157-060516 and TS-T-MOBILE-157-060907.

March 17, 2014
Site ID CT11121C
Page 2

The planned modifications to the Weston Facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modification will not increase the height of the tower. T-Mobile's replacement antennas will be installed at a centerline of 185 feet, merely replacing existing antennas located at the same 185 foot elevation. The enclosed tower drawing confirms that the proposed modification will not increase the height of the tower.

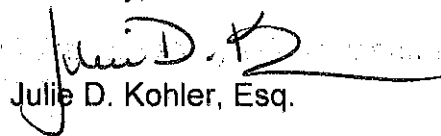
2. The proposed modifications will not require an extension of the site boundaries. T-Mobile's equipment will be located entirely within the existing compound and leased area as shown on Page 1 of Exhibit A.

3. The proposed modification to the Weston Facility will not increase the noise levels at the existing facility by six decibels or more.

4. The operation of the replacement antennas will not increase the total radio frequency (RF) power density, measured at the base of the tower, to a level at or above the applicable standard. According to a Radio Frequency Emissions Analysis Report prepared by EBI dated March 14, 2014, T-Mobile's operations would add 0.325% of the FCC Standard. Therefore, the calculated "worst case" power density for the planned combined operation at the site, including all of the proposed antennas, would be 28.815% of the FCC Standard as calculated for a mixed frequency site as evidenced by the engineering exhibit attached hereto as Exhibit C.

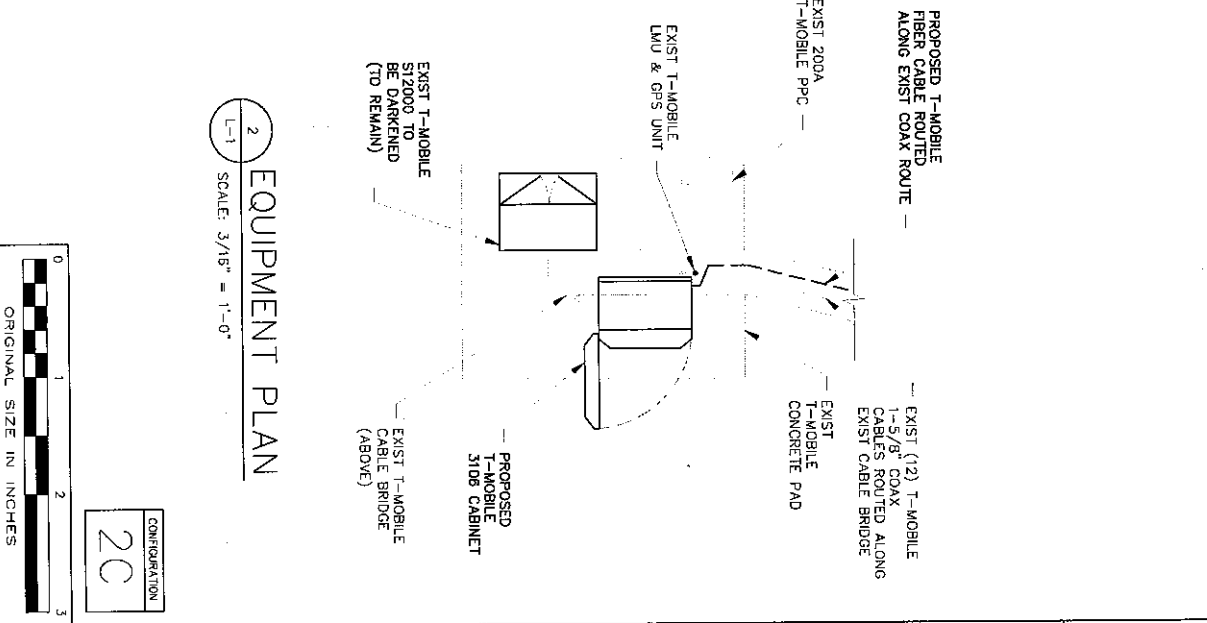
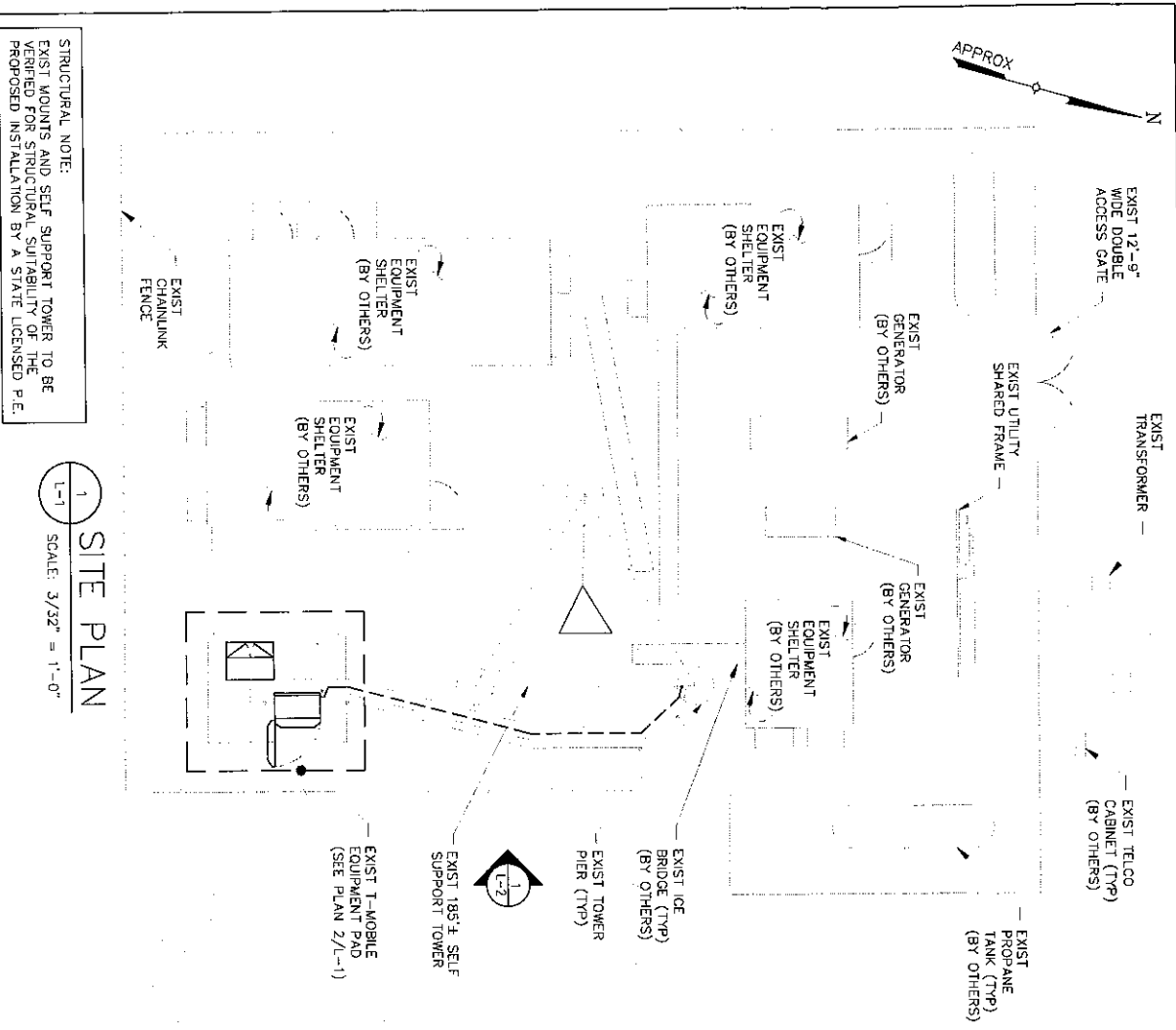
For the foregoing reasons, T-Mobile respectfully submits that the proposed replacement antennas and equipment at the Weston Facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Upon acknowledgement by the Council of this proposed exempt modification, T-Mobile shall commence construction approximately sixty days from the date of the Council's notice of acknowledgement.

Sincerely,


Julie D. Kohler, Esq.

cc: Town of Weston, First Selectwoman Gayle Weinstein
HPC Wireless Services, Halene Fujimoto

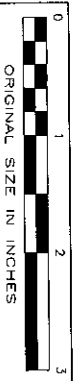
EXHIBIT A



STRUCTURAL NOTE:
 EXIST MOUNTS AND SELF SUPPORT TOWER TO BE VERIFIED FOR STRUCTURAL SUITABILITY OF THE PROPOSED INSTALLATION BY A STATE LICENSED P.E.

1 SITE PLAN
 L-1 SCALE: 3/32" = 1'-0"

2 EQUIPMENT PLAN
 L-1 SCALE: 3/16" = 1'-0"



CONFIGURATION
2C

| | |
|---|---|
| | |
| <ul style="list-style-type: none"> PLANNING ENGINEERING CONSTRUCTION MANAGEMENT | <ul style="list-style-type: none"> SURVEYING ENVIRONMENTAL MANAGEMENT |
| TECTONIC Engineering & Surveying Consultants P.C. 1276 Route 200 Westford, MA 01886 Phone: (949) 587-8855 Fax: (949) 587-8733 | |
| ..p..Mobile.. NORTHEAST LLC 7-Mobile Northeast, LLC Phone: (773) 444-4800 2000 North Lincoln Road, Suite 200 Chicago, IL 60614 | |
| APPROVALS T-MOBILE LANDLORD: _____ BY: _____ PROJECT NUMBER: _____ 864-471210 | DESIGNED BY: _____ AD: _____ DRAWN BY: _____ DS |
| REV. DATE: _____ REVISION: _____ BY: _____ FOR: "COMMIT" | ISSUED BY: _____ DATE: _____ |
| SHEET TITLE SITE PLAN & EQUIPMENT PLAN | |
| SHEET NUMBER L-1 | |
| SITE INFORMATION CT11121C CT121/WESTON TRANSFER_FT 237 GODFREY ROAD EAST WESTON, CT 06883 | |

EXHIBIT B



Structural Analysis Report

Prepared for:

HPC Wireless
400 East 54th Street #4C
New York, NY 10022

ATTN: Mr. Alex Giannaras

Structure : 185 ft Sabre Self Supported Tower
Proposed Carrier : T-Mobile
Site ID : CT11121
Site Location : CT33XC522. Weston, CT
County : Fairfield
Date : March 13, 2014
Usage : 98.0% Legs, 99.0% Diagonals, 13.0%
Horizontals.

Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 185 ft Sabre Self Supported Tower located at CT33XC522, Weston, CT, Fairfield County (site # CT11121). The tower was originally designed and manufactured by Sabre (Drawing # 07-08272 dated September 27, 2006). Additional information of the tower from Salient Associates, LLC report dated October 22, 2012.

Analysis

The tower was analyzed using Semaan Engineering Solutions, Inc., Software. The analysis assumes that the tower is in good, undamaged, and non-corroded condition. The analysis was performed in conformance with **TIA/EIA-222 Rev F and local building codes for a basic wind speed of 85 mph no ice and 74 mph with 1/2" radial ice (fastest mile)**. This is in conformance with the IBC 2006: Section 1609.1.1, Exception (4) and Section 3108.4.

Basic Wind Speed: 85.0 mph
Radial Ice: 74 mph w/ 0.50" ice
Code: TIA/EIA-222 Rev F

Antenna Loads

The following antenna loads were used in the tower analysis.

Existing Antennas

| Elev. (ft) | Qty | Antennas | Mount | Coax (in) | Carrier |
|------------|-----|--------------------|-------------------|---|-----------|
| 185.0 | 6 | KRY 112 71 TMA | (3) Sector Mounts | (12) 1 5/8" (stacked 6 on 6) | T-Mobile |
| | 2 | 10' Dipole | | (3) 1 5/8" | Municipal |
| | 1 | 10' Omni | | | |
| 177.0 | 3 | DB950F85E-M | (3) Sector Mounts | (3) 1 1/4" (6) 1 5/8" | Sprint |
| | 3 | 800 MHz RRH | | | |
| | 3 | 1900 MHz RRH | | | |
| | 3 | APXVSP18-C | | | |
| 164.5 | 3 | BXA-70063/6CF | (3) Sector Frames | (18) 1 5/8" (stacked on 3 rows of 6 lines) | Verizon |
| | 6 | LPA 185063/8CF | | | |
| | 2 | DB846H80E-SX | | | |
| | 4 | DB846F65ZAXY | | | |
| 154.5 | 6 | LGP 13519 diplexer | (3) Sector Mounts | (12) 1 5/8" (stacked 6 on 6) | ATI |
| | 6 | LGP 21401 TMA | | | |
| | 6 | P90-14-XLH-MM | | | |
| 152.0 | 4 | 7' Whip | (2) 6 ft Sidearm | (2) 7/8" | Municipal |
| 141.5 | 4 | 10' Dipole | (2) 6 ft Sidearm | (2) 7/8" | |
| 138.0 | 1 | P3F-52 | 2 ft Standoff | (1) 1/2" | |

Proposed Antennas

| Elev. (ft) | Qty | Antennas | Mount | Coax (in) | Carrier |
|------------|-----|----------------|-------------------|------------------|----------|
| 185.0 | 4 | AIR 21 B2A/B4P | On existing | (1) Hybrid Cable | T-Mobile |
| | 2 | AIR 21 B4A/B2P | (3) Sector Mounts | | |

The transmission lines shall be distributed and/or stacked (as indicated above) over the tower faces, such that no more than (12) lines are exposed to the wind on any one face.

Results

The existing Self Supported Tower is structurally capable of supporting the existing and proposed antennas. The maximum structure usage is: 98.0% Legs, 99.0% Diagonals, and 13.0% Horizontals.

| Leg Forces | Original Design Reactions | Current Analysis Reactions |
|---------------|---------------------------|----------------------------|
| Uplift (Kips) | N/A | 227.86 |
| Axial (Kips) | N/A | 270.45 |
| Shear (Kips) | N/A | 25.17 |

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, the foundation will not require modification.

Conclusion

Based on the analysis results, the existing structure meets the requirements per the TIA/EIA-222 Rev F standards for a basic wind speed of 85 mph no ice and 74 mph with 1/2" radial ice.

If you have any questions or require additional information, please call 402-289-1888.

Standard Conditions

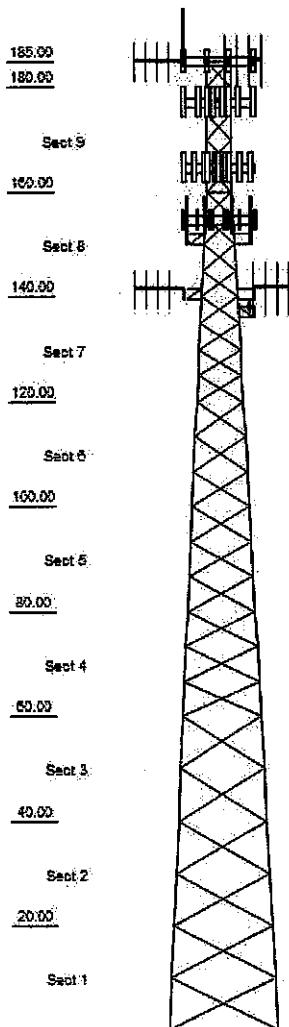
All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

- Information supplied by the client regarding the structure itself, the antenna and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of Semaan Engineering Solutions, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to Semaan Engineering Solutions and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and are in an un-corroded condition and have not deteriorated; and we, therefore, assume that their capacity has not significantly changed from the "as new" condition.

All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/EIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Semaan Engineering Solutions is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



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Loads: 85 mph no ice
74 mph w/ 1/2" radial ice

Uplift 227.55 k Moment: 4,865.88 ft-k
Vert 270.45 k Total Down 58.20 k
Horiz 25.17 k Total Shear 39.21 k

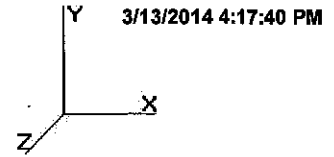
| Job Information | | | |
|-------------------------|----------------------------------|-----------------------|---------------------|
| Tower : CT11121 | Location : CT33XC622, Weston, CT | | |
| Code : TIA/BA-222 Rev F | Shape : Trangle | Base Width : 21.00 ft | |
| Client : HPC Wireless | | | Top Width : 5.00 ft |

| Sections Properties | | | |
|---------------------|----------------------------|---------------------------|----------------------|
| Section | Leg Members | Diagonal Members | Horizontal Members |
| 1 | PST 50 ksi 8" DIA PIPE | SAE 36 ksi 3.5X3.5X0.25 | |
| 2 | PST 50 ksi 8" DIA PIPE | SAU 36 ksi 3.5X3X0.25 | |
| 3 | PSP 50 ksi 5" SCH120 | SAE 36 ksi 3X3X0.25 | |
| 4 | PX 50 ksi 5" DIA PIPE | SAE 36 ksi 3X3X0.1875 | |
| 5 | PX 50 ksi 5" DIA PIPE | SAE 36 ksi 2.5X2.5X0.1875 | |
| 6 | PST 50 ksi 5" DIA PIPE | SAE 36 ksi 2.5X2.5X0.1875 | |
| 7 | PX 50 ksi 3-1/2" DIA PIPE | SAE 36 ksi 2X2X0.125 | |
| 8 | PSP 50 ksi 2.875 x 0.375 | SAE 36 ksi 2X2X0.125 | SAE 36 ksi 2X2X0.125 |
| 9 | PST 50 ksi 2-1/2" DIA PIPE | SAE 36 ksi 2X2X0.125 | SAE 36 ksi 2X2X0.125 |
| 10 | PST 50 ksi 2" DIA PIPE | SAE 36 ksi 2X2X0.125 | SAE 36 ksi 2X2X0.125 |

| Discrete Appurtenance | | | |
|-----------------------|----------------|-----|--------------------|
| Elev (ft) | Type | Qty | Description |
| 185.00 | | 6 | KRY 112 71 TMA |
| 185.00 | Panel | 4 | AIR 21 B2AB4P |
| 185.00 | Panel | 2 | AIR 21 B4AB2P |
| 185.00 | Mounting Frame | 3 | Sector Mounts |
| 185.00 | Yagi | 2 | 10' Dipole |
| 185.00 | Whip | 1 | 10' Omni |
| 177.00 | Panel | 3 | DB950F85E-M |
| 177.00 | Panel | 3 | 800 MHz RRH |
| 177.00 | Panel | 3 | 1800 MHz RRH |
| 177.00 | Panel | 3 | APXVSP18-C |
| 177.00 | Mounting Frame | 3 | Sector Mounts |
| 164.50 | Panel | 3 | BXA-70063/8CF |
| 164.50 | Panel | 6 | LPA 185063/8CF |
| 164.50 | Panel | 2 | DB46H80E-SX |
| 164.50 | Panel | 4 | DB46F8ZAXY |
| 164.50 | Mounting Frame | 3 | Sector Frames |
| 154.50 | Panel | 6 | LGP 13519 diplexer |
| 154.50 | Panel | 6 | LGP 21401 TMA |
| 154.50 | Panel | 6 | P90-14-XLH-MM |
| 154.50 | Mounting Frame | 3 | Sector Mounts |
| 152.00 | Whip | 4 | 7' Whip |
| 152.00 | Straight Arm | 2 | 8 ft Sidearm |
| 141.50 | Straight Arm | 2 | 6 ft Sidearm |
| 141.50 | Yagi | 4 | 10' Dipole |
| 138.00 | Dish | 1 | P3F-52 |
| 138.00 | Straight Arm | 1 | 2 ft Standoff |

| Linear Appurtenance | | | |
|---------------------|--------|-----|--------------|
| Elev (ft) | | Qty | Description |
| From | To | | |
| 0.000 | 185.00 | 1 | Hybrid Cable |
| 0.000 | 185.00 | 3 | 1 5/8" Coax |
| 0.000 | 185.00 | 12 | 1 5/8" Coax |
| 0.000 | 177.00 | 6 | 1 5/8" Coax |
| 0.000 | 177.00 | 3 | 1 1/4" Coax |
| 0.000 | 164.50 | 18 | 1 5/8" Coax |
| 0.000 | 154.50 | 12 | 1 5/8" Coax |
| 0.000 | 152.00 | 2 | 7/8" Coax |
| 0.000 | 141.50 | 2 | 7/8" Coax |
| 0.000 | 138.00 | 1 | 1/2" Coax |

Site Number: CT11121
 Location: CT33XC522, Weston, CT
 Code: TIA/EIA-222 Rev F



Gh : 1.12

Section Forces

LoadCase Normal No Ice 85.00 mph Wind Normal To Face with No Ice

Allow Stress Inc: 1.333
 Dead LF: 1.000
 Wind LF: 1.000

| Sect Seq | Height (ft) | Wind qz (psf) | Total Flat Area (sqft) | Total Round Area (sqft) | Ice Round Area (sqft) | Sol Ratio | Cf | Df | Dr | Rr | Eff Area (sqft) | Linear Area (sqft) | Ice Linear Area (sqft) | Total Weight (lb) | Ice Weight (lb) | Struct Force (lb) | Linear Force (lb) | Total Force (lb) | Eff Face |
|----------|-------------|---------------|------------------------|-------------------------|-----------------------|-----------|------|------|------|------|-----------------|--------------------|------------------------|-------------------|-----------------|-------------------|-------------------|------------------|----------|
| | | | | | | | | | | | | | | | | | | | |
| 10 | 182.5 | 30.15 | 3.19 | 9.92 | 0.00 | 0.52 | 1.87 | 1.00 | 1.00 | 0.71 | 10.24 | 0.00 | 0.00 | 232.3 | 0.0 | 646.13 | 0.00 | 646.13 | 2 |
| 9 | 170.0 | 29.55 | 10.26 | 41.37 | 0.00 | 0.52 | 1.88 | 1.00 | 1.00 | 0.71 | 39.46 | 0.00 | 0.00 | 1,207.2 | 0.0 | 2,452.59 | 0.00 | 2,452.59 | 2 |
| 8 | 150.0 | 28.51 | 11.26 | 43.75 | 0.00 | 0.46 | 1.96 | 1.00 | 1.00 | 0.68 | 40.89 | 0.00 | 0.00 | 2,000.3 | 0.0 | 2,556.49 | 0.00 | 2,556.49 | 1 |
| 7 | 130.0 | 27.37 | 12.59 | 52.96 | 0.00 | 0.41 | 2.05 | 1.00 | 1.00 | 0.66 | 47.30 | 0.00 | 0.00 | 2,289.0 | 0.0 | 2,962.60 | 0.00 | 2,962.60 | 1 |
| 6 | 110.0 | 26.09 | 15.03 | 58.17 | 0.00 | 0.37 | 2.14 | 1.00 | 1.00 | 0.64 | 52.16 | 0.00 | 0.00 | 2,707.4 | 0.0 | 3,251.79 | 0.00 | 3,251.79 | 1 |
| 5 | 90.00 | 24.64 | 17.16 | 58.17 | 0.00 | 0.31 | 2.26 | 1.00 | 1.00 | 0.62 | 53.25 | 0.00 | 0.00 | 3,172.0 | 0.0 | 3,317.05 | 0.00 | 3,317.05 | 1 |
| 4 | 70.00 | 22.93 | 23.26 | 58.17 | 0.00 | 0.29 | 2.32 | 1.00 | 1.00 | 0.61 | 58.93 | 0.00 | 0.00 | 3,448.9 | 0.0 | 3,509.07 | 0.00 | 3,509.07 | 1 |
| 3 | 50.00 | 20.83 | 18.87 | 58.17 | 0.00 | 0.24 | 2.47 | 1.00 | 1.00 | 0.60 | 53.75 | 0.00 | 0.00 | 3,902.7 | 0.0 | 3,088.61 | 0.00 | 3,088.61 | 1 |
| 2 | 30.00 | 18.50 | 24.03 | 68.40 | 0.00 | 0.26 | 2.42 | 1.00 | 1.00 | 0.60 | 65.31 | 0.00 | 0.00 | 4,214.7 | 0.0 | 3,267.96 | 0.00 | 3,267.96 | 1 |
| 1 | 10.00 | 18.50 | 26.09 | 68.40 | 0.00 | 0.24 | 2.48 | 1.00 | 1.00 | 0.60 | 67.02 | 0.00 | 0.00 | 4,436.6 | 0.0 | 3,439.63 | 0.00 | 3,439.63 | 1 |
| | | | | | | | | | | | | | | 27,611.0 | 0.0 | | | 28,491.91 | |

LoadCase 60 deg No Ice 85.00 mph Wind at 60 deg From Face with No Ice

Allow Stress Inc: 1.333
 Dead LF: 1.000
 Wind LF: 1.000

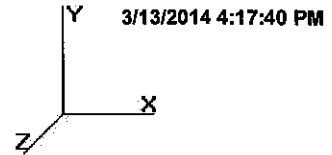
| Sect Seq | Height (ft) | Wind qz (psf) | Total Flat Area (sqft) | Total Round Area (sqft) | Ice Round Area (sqft) | Sol Ratio | Cf | Df | Dr | Rr | Eff Area (sqft) | Linear Area (sqft) | Ice Linear Area (sqft) | Total Weight (lb) | Ice Weight (lb) | Struct Force (lb) | Linear Force (lb) | Total Force (lb) | Eff Face |
|----------|-------------|---------------|------------------------|-------------------------|-----------------------|-----------|------|------|------|------|-----------------|--------------------|------------------------|-------------------|-----------------|-------------------|-------------------|------------------|----------|
| | | | | | | | | | | | | | | | | | | | |
| 10 | 182.5 | 30.15 | 3.19 | 9.92 | 0.00 | 0.52 | 1.87 | 0.80 | 1.00 | 0.71 | 9.60 | 0.00 | 0.00 | 232.3 | 0.0 | 605.87 | 0.00 | 605.87 | 2 |
| 9 | 170.0 | 29.55 | 10.26 | 41.37 | 0.00 | 0.52 | 1.88 | 0.80 | 1.00 | 0.71 | 37.41 | 0.00 | 0.00 | 1,207.2 | 0.0 | 2,325.04 | 0.00 | 2,325.04 | 2 |
| 8 | 150.0 | 28.51 | 11.26 | 43.75 | 0.00 | 0.46 | 1.96 | 0.80 | 1.00 | 0.68 | 38.64 | 0.00 | 0.00 | 2,000.3 | 0.0 | 2,415.69 | 0.00 | 2,415.69 | 1 |
| 7 | 130.0 | 27.37 | 12.59 | 52.96 | 0.00 | 0.41 | 2.05 | 0.80 | 1.00 | 0.66 | 44.79 | 0.00 | 0.00 | 2,289.0 | 0.0 | 2,804.94 | 0.00 | 2,804.94 | 1 |
| 6 | 110.0 | 26.09 | 15.03 | 58.17 | 0.00 | 0.37 | 2.14 | 0.80 | 1.00 | 0.64 | 49.16 | 0.00 | 0.00 | 2,707.4 | 0.0 | 3,064.41 | 0.00 | 3,064.41 | 1 |
| 5 | 90.00 | 24.64 | 17.16 | 58.17 | 0.00 | 0.31 | 2.26 | 0.80 | 1.00 | 0.62 | 49.81 | 0.00 | 0.00 | 3,172.0 | 0.0 | 3,103.20 | 0.00 | 3,103.20 | 1 |
| 4 | 70.00 | 22.93 | 23.26 | 58.17 | 0.00 | 0.29 | 2.32 | 0.80 | 1.00 | 0.61 | 54.28 | 0.00 | 0.00 | 3,448.9 | 0.0 | 3,232.03 | 0.00 | 3,232.03 | 1 |
| 3 | 50.00 | 20.83 | 18.87 | 58.17 | 0.00 | 0.24 | 2.47 | 0.80 | 1.00 | 0.60 | 49.98 | 0.00 | 0.00 | 3,902.7 | 0.0 | 2,871.72 | 0.00 | 2,871.72 | 1 |
| 2 | 30.00 | 18.50 | 24.03 | 68.40 | 0.00 | 0.26 | 2.42 | 0.80 | 1.00 | 0.60 | 60.51 | 0.00 | 0.00 | 4,214.7 | 0.0 | 3,027.52 | 0.00 | 3,027.52 | 1 |
| 1 | 10.00 | 18.50 | 26.09 | 68.40 | 0.00 | 0.24 | 2.48 | 0.80 | 1.00 | 0.60 | 61.81 | 0.00 | 0.00 | 4,436.6 | 0.0 | 3,171.84 | 0.00 | 3,171.84 | 1 |
| | | | | | | | | | | | | | | 27,611.0 | 0.0 | | | 26,622.25 | |

LoadCase 90 deg No Ice 85.00 mph Wind at 90 deg From Face with No Ice

Allow Stress Inc: 1.333
 Dead LF: 1.000
 Wind LF: 1.000

| Sect Seq | Height (ft) | Wind qz (psf) | Total Flat Area (sqft) | Total Round Area (sqft) | Ice Round Area (sqft) | Sol Ratio | Cf | Df | Dr | Rr | Eff Area (sqft) | Linear Area (sqft) | Ice Linear Area (sqft) | Total Weight (lb) | Ice Weight (lb) | Struct Force (lb) | Linear Force (lb) | Total Force (lb) | Eff Face |
|----------|-------------|---------------|------------------------|-------------------------|-----------------------|-----------|------|------|------|------|-----------------|--------------------|------------------------|-------------------|-----------------|-------------------|-------------------|------------------|----------|
| | | | | | | | | | | | | | | | | | | | |
| 10 | 182.5 | 30.15 | 3.19 | 9.92 | 0.00 | 0.52 | 1.87 | 0.85 | 1.00 | 0.71 | 9.76 | 0.00 | 0.00 | 232.3 | 0.0 | 615.93 | 0.00 | 615.93 | 2 |

Site Number: CT11121
 Location: CT33XC522, Weston, CT
 Code: TIA/EIA-222 Rev F



Gh : 1.12

Section Forces

| | | | | | | | | | | | | | | | | | | | | |
|---|-------|-------|-------|-------|------|------|------|------|------|------|-------|------|------|----------|-----|----------|------|-----------|---|--|
| 9 | 170.0 | 29.55 | 10.26 | 41.37 | 0.00 | 0.52 | 1.88 | 0.85 | 1.00 | 0.71 | 37.92 | 0.00 | 0.00 | 1,207.2 | 0.0 | 2,356.93 | 0.00 | 2,356.93 | 2 | |
| 8 | 150.0 | 28.51 | 11.26 | 43.75 | 0.00 | 0.46 | 1.96 | 0.85 | 1.00 | 0.68 | 39.20 | 0.00 | 0.00 | 2,000.3 | 0.0 | 2,450.89 | 0.00 | 2,450.89 | 1 | |
| 7 | 130.0 | 27.37 | 12.59 | 52.96 | 0.00 | 0.41 | 2.05 | 0.85 | 1.00 | 0.66 | 45.41 | 0.00 | 0.00 | 2,289.0 | 0.0 | 2,844.36 | 0.00 | 2,844.36 | 1 | |
| 6 | 110.0 | 26.09 | 15.03 | 58.17 | 0.00 | 0.37 | 2.14 | 0.85 | 1.00 | 0.64 | 49.91 | 0.00 | 0.00 | 2,707.4 | 0.0 | 3,111.25 | 0.00 | 3,111.25 | 1 | |
| 5 | 90.00 | 24.64 | 17.16 | 58.17 | 0.00 | 0.31 | 2.26 | 0.85 | 1.00 | 0.62 | 50.67 | 0.00 | 0.00 | 3,172.0 | 0.0 | 3,156.66 | 0.00 | 3,156.66 | 1 | |
| 4 | 70.00 | 22.93 | 23.26 | 58.17 | 0.00 | 0.29 | 2.32 | 0.85 | 1.00 | 0.61 | 55.44 | 0.00 | 0.00 | 3,448.9 | 0.0 | 3,301.29 | 0.00 | 3,301.29 | 1 | |
| 3 | 50.00 | 20.83 | 18.87 | 58.17 | 0.00 | 0.24 | 2.47 | 0.85 | 1.00 | 0.60 | 50.92 | 0.00 | 0.00 | 3,902.7 | 0.0 | 2,925.94 | 0.00 | 2,925.94 | 1 | |
| 2 | 30.00 | 18.50 | 24.03 | 68.40 | 0.00 | 0.26 | 2.42 | 0.85 | 1.00 | 0.60 | 61.71 | 0.00 | 0.00 | 4,214.7 | 0.0 | 3,087.63 | 0.00 | 3,087.63 | 1 | |
| 1 | 10.00 | 18.50 | 26.09 | 68.40 | 0.00 | 0.24 | 2.48 | 0.85 | 1.00 | 0.60 | 63.11 | 0.00 | 0.00 | 4,436.6 | 0.0 | 3,238.78 | 0.00 | 3,238.78 | 1 | |
| | | | | | | | | | | | | | | 27,611.0 | 0.0 | | | 27,089.67 | | |

LoadCase Normal Ice

73.61 mph Wind Normal To Face with Ice

Allow Stress Inc: 1.333
 Dead LF: 1.000
 Wind LF: 1.000

| Sect Seq | Wind Height (ft) | qz (psf) | Total Flat Area (sqft) | Total Round Area (sqft) | Ice Round Area (sqft) | Sol Ratio | Cf | Df | Dr | Rr | Eff Area (sqft) | Linear Area (sqft) | Ice | | Struct Force (lb) | Linear Force (lb) | Total Force (lb) | Eff Face | | |
|----------|------------------|----------|------------------------|-------------------------|-----------------------|-----------|------|------|------|------|-----------------|--------------------|-------------------|-----------------|-------------------|-------------------|------------------|-----------|---|--|
| | | | | | | | | | | | | | Total Weight (lb) | Weight Ice (lb) | | | | | | |
| 10 | 182.5 | 22.61 | 3.19 | 16.52 | 6.60 | 0.79 | 1.81 | 1.00 | 1.00 | 0.89 | 17.84 | 0.00 | 0.00 | 478.1 | 245.8 | 816.27 | 0.00 | 816.27 | 2 | |
| 9 | 170.0 | 22.16 | 10.26 | 66.50 | 25.13 | 0.77 | 1.80 | 1.00 | 1.00 | 0.87 | 68.15 | 0.00 | 0.00 | 2,471.1 | 1,263.9 | 3,034.00 | 0.00 | 3,034.00 | 2 | |
| 8 | 150.0 | 21.38 | 11.26 | 71.24 | 27.64 | 0.69 | 1.78 | 1.00 | 1.00 | 0.81 | 69.04 | 0.00 | 0.00 | 4,047.2 | 2,046.9 | 2,932.95 | 0.00 | 2,932.95 | 2 | |
| 7 | 130.0 | 20.52 | 12.59 | 82.59 | 29.63 | 0.59 | 1.81 | 1.00 | 1.00 | 0.75 | 74.56 | 0.00 | 0.00 | 4,583.8 | 2,294.8 | 3,094.84 | 0.00 | 3,094.84 | 1 | |
| 6 | 110.0 | 19.57 | 15.03 | 87.53 | 29.35 | 0.51 | 1.88 | 1.00 | 1.00 | 0.70 | 76.66 | 0.00 | 0.00 | 5,127.4 | 2,420.0 | 3,162.02 | 0.00 | 3,162.02 | 1 | |
| 5 | 90.00 | 18.48 | 17.16 | 88.38 | 30.20 | 0.44 | 1.99 | 1.00 | 1.00 | 0.67 | 76.26 | 0.00 | 0.00 | 5,657.7 | 2,485.7 | 3,138.50 | 0.00 | 3,138.50 | 1 | |
| 4 | 70.00 | 17.20 | 23.26 | 89.27 | 31.09 | 0.40 | 2.06 | 1.00 | 1.00 | 0.65 | 81.50 | 0.00 | 0.00 | 6,111.6 | 2,662.8 | 3,231.05 | 0.00 | 3,231.05 | 1 | |
| 3 | 50.00 | 15.62 | 18.87 | 87.80 | 29.63 | 0.33 | 2.21 | 1.00 | 1.00 | 0.63 | 73.90 | 0.00 | 0.00 | 6,432.2 | 2,529.5 | 2,855.82 | 0.00 | 2,855.82 | 1 | |
| 2 | 30.00 | 13.87 | 24.03 | 98.60 | 30.20 | 0.34 | 2.19 | 1.00 | 1.00 | 0.63 | 86.07 | 0.00 | 0.00 | 6,956.9 | 2,742.3 | 2,930.38 | 0.00 | 2,930.38 | 1 | |
| 1 | 10.00 | 13.87 | 26.09 | 99.19 | 30.79 | 0.31 | 2.26 | 1.00 | 1.00 | 0.62 | 87.59 | 0.00 | 0.00 | 7,288.9 | 2,852.2 | 3,074.77 | 0.00 | 3,074.77 | 1 | |
| | | | | | | | | | | | | | | 49,154.9 | 21,543.9 | | | 28,270.60 | | |

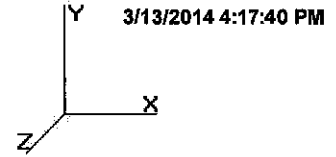
LoadCase 60 deg Ice

73.61 mph Wind at 60 deg From Face with Ice

Allow Stress Inc: 1.333
 Dead LF: 1.000
 Wind LF: 1.000

| Sect Seq | Wind Height (ft) | qz (psf) | Total Flat Area (sqft) | Total Round Area (sqft) | Ice Round Area (sqft) | Sol Ratio | Cf | Df | Dr | Rr | Eff Area (sqft) | Linear Area (sqft) | Ice | | Struct Force (lb) | Linear Force (lb) | Total Force (lb) | Eff Face | | |
|----------|------------------|----------|------------------------|-------------------------|-----------------------|-----------|------|------|------|------|-----------------|--------------------|-------------------|-----------------|-------------------|-------------------|------------------|-----------|---|--|
| | | | | | | | | | | | | | Total Weight (lb) | Weight Ice (lb) | | | | | | |
| 10 | 182.5 | 22.61 | 3.19 | 16.52 | 6.60 | 0.79 | 1.81 | 0.80 | 1.00 | 0.89 | 17.21 | 0.00 | 0.00 | 478.1 | 245.8 | 787.08 | 0.00 | 787.08 | 2 | |
| 9 | 170.0 | 22.16 | 10.26 | 66.50 | 25.13 | 0.77 | 1.80 | 0.80 | 1.00 | 0.87 | 66.09 | 0.00 | 0.00 | 2,471.1 | 1,263.9 | 2,942.63 | 0.00 | 2,942.63 | 2 | |
| 8 | 150.0 | 21.38 | 11.26 | 71.24 | 27.64 | 0.69 | 1.78 | 0.80 | 1.00 | 0.81 | 66.78 | 0.00 | 0.00 | 4,047.2 | 2,046.9 | 2,837.28 | 0.00 | 2,837.28 | 2 | |
| 7 | 130.0 | 20.52 | 12.59 | 82.59 | 29.63 | 0.59 | 1.81 | 0.80 | 1.00 | 0.75 | 72.05 | 0.00 | 0.00 | 4,583.8 | 2,294.8 | 2,990.36 | 0.00 | 2,990.36 | 1 | |
| 6 | 110.0 | 19.57 | 15.03 | 87.53 | 29.35 | 0.51 | 1.88 | 0.80 | 1.00 | 0.70 | 73.65 | 0.00 | 0.00 | 5,127.4 | 2,420.0 | 3,038.02 | 0.00 | 3,038.02 | 1 | |
| 5 | 90.00 | 18.48 | 17.16 | 88.38 | 30.20 | 0.44 | 1.99 | 0.80 | 1.00 | 0.67 | 72.82 | 0.00 | 0.00 | 5,657.7 | 2,485.7 | 2,997.22 | 0.00 | 2,997.22 | 1 | |
| 4 | 70.00 | 17.20 | 23.26 | 89.27 | 31.09 | 0.40 | 2.06 | 0.80 | 1.00 | 0.65 | 76.85 | 0.00 | 0.00 | 6,111.6 | 2,662.8 | 3,046.59 | 0.00 | 3,046.59 | 1 | |
| 3 | 50.00 | 15.62 | 18.87 | 87.80 | 29.63 | 0.33 | 2.21 | 0.80 | 1.00 | 0.63 | 70.12 | 0.00 | 0.00 | 6,432.2 | 2,529.5 | 2,709.95 | 0.00 | 2,709.95 | 1 | |
| 2 | 30.00 | 13.87 | 24.03 | 98.60 | 30.20 | 0.34 | 2.19 | 0.80 | 1.00 | 0.63 | 81.26 | 0.00 | 0.00 | 6,956.9 | 2,742.3 | 2,766.76 | 0.00 | 2,766.76 | 1 | |
| 1 | 10.00 | 13.87 | 26.09 | 99.19 | 30.79 | 0.31 | 2.26 | 0.80 | 1.00 | 0.62 | 82.37 | 0.00 | 0.00 | 7,288.9 | 2,852.2 | 2,891.59 | 0.00 | 2,891.59 | 1 | |
| | | | | | | | | | | | | | | 49,154.9 | 21,543.9 | | | 27,007.49 | | |

Site Number: CT11121
 Location: CT33XC522, Weston, CT
 Code: TIA/EIA-222 Rev F



Gh : 1.12

Section Forces

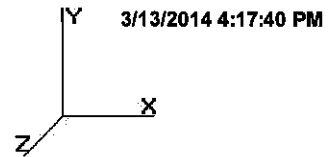
LoadCase 90 deg Ice

73.61 mph Wind at 90 deg From Face with Ice

Allow Stress Inc: 1.333
 Dead LF: 1.000
 Wind LF: 1.000

| Sect Seq | Wind Height (ft) | qz (psf) | Total Flat Area (sqft) | Total Ice | | Sol Ratio | Cf | Df | Dr | Rr | Eff Area (sqft) | Linear Area (sqft) | Ice | | Struct Force (lb) | Linear Force (lb) | Total Force (lb) | Eff Face | |
|----------|------------------|----------|------------------------|-------------------|-------------------|-----------|------|------|------|------|-----------------|--------------------|-------------------|-----------------|-------------------|-------------------|------------------|----------|---|
| | | | | Round Area (sqft) | Round Area (sqft) | | | | | | | | Total Weight (lb) | Ice Weight (lb) | | | | | |
| 10 | 182.5 | 22.61 | 3.19 | 16.52 | 6.60 | 0.79 | 1.81 | 0.85 | 1.00 | 0.89 | 17.37 | 0.00 | 0.00 | 478.1 | 245.8 | 794.38 | 0.00 | 794.38 | 2 |
| 9 | 170.0 | 22.16 | 10.26 | 66.50 | 25.13 | 0.77 | 1.80 | 0.85 | 1.00 | 0.87 | 66.61 | 0.00 | 0.00 | 2,471.1 | 1,263.9 | 2,965.47 | 0.00 | 2,965.47 | 2 |
| 8 | 150.0 | 21.38 | 11.26 | 71.24 | 27.64 | 0.69 | 1.78 | 0.85 | 1.00 | 0.81 | 67.35 | 0.00 | 0.00 | 4,047.2 | 2,046.9 | 2,861.20 | 0.00 | 2,861.20 | 2 |
| 7 | 130.0 | 20.52 | 12.59 | 82.59 | 29.63 | 0.59 | 1.81 | 0.85 | 1.00 | 0.75 | 72.68 | 0.00 | 0.00 | 4,583.8 | 2,294.8 | 3,016.48 | 0.00 | 3,016.48 | 1 |
| 6 | 110.0 | 19.57 | 15.03 | 87.53 | 29.35 | 0.51 | 1.88 | 0.85 | 1.00 | 0.70 | 74.40 | 0.00 | 0.00 | 5,127.4 | 2,420.0 | 3,069.02 | 0.00 | 3,069.02 | 1 |
| 5 | 90.00 | 18.48 | 17.16 | 88.38 | 30.20 | 0.44 | 1.99 | 0.85 | 1.00 | 0.67 | 73.68 | 0.00 | 0.00 | 5,657.7 | 2,485.7 | 3,032.54 | 0.00 | 3,032.54 | 1 |
| 4 | 70.00 | 17.20 | 23.26 | 89.27 | 31.09 | 0.40 | 2.06 | 0.85 | 1.00 | 0.65 | 78.01 | 0.00 | 0.00 | 6,111.6 | 2,662.8 | 3,092.70 | 0.00 | 3,092.70 | 1 |
| 3 | 50.00 | 15.62 | 18.87 | 87.80 | 29.63 | 0.33 | 2.21 | 0.85 | 1.00 | 0.63 | 71.06 | 0.00 | 0.00 | 6,432.2 | 2,529.5 | 2,746.42 | 0.00 | 2,746.42 | 1 |
| 2 | 30.00 | 13.87 | 24.03 | 98.60 | 30.20 | 0.34 | 2.19 | 0.85 | 1.00 | 0.63 | 82.46 | 0.00 | 0.00 | 6,956.9 | 2,742.3 | 2,807.67 | 0.00 | 2,807.67 | 1 |
| 1 | 10.00 | 13.87 | 26.09 | 99.19 | 30.79 | 0.31 | 2.26 | 0.85 | 1.00 | 0.62 | 83.68 | 0.00 | 0.00 | 7,288.9 | 2,852.2 | 2,937.39 | 0.00 | 2,937.39 | 1 |
| | | | | | | | | | | | | | 49,154.9 | 21,543.9 | | | 27,323.26 | | |

Site Number: CT11121
 Location: CT33XC522, Weston, CT
 Code: TIA/EIA-222 Rev F



Tower Loading

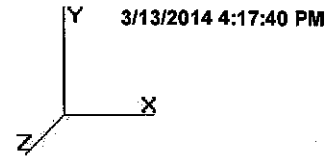
Discrete Appurtenance Properties

| Attach Elev (ft) | Description | Qty | Weight (lb) | No Ice CaAa (sf) | CaAa Factor | Weight (lb) | Ice CaAa (sf) | CaAa Factor | Distance From Face (ft) | X Angle (deg) | Vert Ecc (ft) |
|------------------|--------------------|-----------|----------------|------------------|-------------|----------------|---------------|-------------|-------------------------------------|---------------|---------------|
| 185.0 | KRY 112 71 TMA | 6 | 13.20 | 0.690 | 0.80 | 18.25 | 0.870 | 0.80 | 0.000 | 0.00 | 0.000 |
| 185.0 | AIR 21 B2A/B4P | 4 | 92.00 | 6.530 | 0.88 | 136.14 | 7.200 | 0.88 | 0.000 | 0.00 | 0.000 |
| 185.0 | AIR 21 B4A/B2P | 2 | 90.39 | 6.580 | 0.83 | 132.18 | 7.250 | 0.83 | 0.000 | 0.00 | 0.000 |
| 185.0 | Sector Mounts | 3 | 233.00 | 10.600 | 0.75 | 332.00 | 15.540 | 0.75 | 0.000 | 0.00 | 0.000 |
| 185.0 | 10' Dipole | 2 | 15.00 | 3.000 | 1.00 | 40.00 | 5.000 | 1.00 | 0.000 | 0.00 | 4.000 |
| 185.0 | 10' Omni | 1 | 20.00 | 3.000 | 1.00 | 41.79 | 4.030 | 1.00 | 0.000 | 0.00 | 5.000 |
| 177.0 | DB950F85E-M | 3 | 11.50 | 4.236 | 0.79 | 30.00 | 4.815 | 0.79 | 0.000 | 0.00 | 0.000 |
| 177.0 | 800 MHz RRH | 3 | 50.00 | 2.400 | 0.93 | 63.10 | 2.870 | 0.93 | 0.000 | 0.00 | 0.000 |
| 177.0 | 1900 MHz RRH | 3 | 60.00 | 2.890 | 0.99 | 86.47 | 3.390 | 0.99 | 0.000 | 0.00 | 0.000 |
| 177.0 | APXVSPP18-C | 3 | 57.00 | 8.260 | 0.80 | 99.52 | 9.080 | 0.80 | 0.000 | 0.00 | 0.000 |
| 177.0 | Sector Mounts | 3 | 233.00 | 10.600 | 0.75 | 332.00 | 15.540 | 0.75 | 0.000 | 0.00 | 0.000 |
| 164.5 | BXA-70063/6CF | 3 | 17.00 | 7.731 | 0.70 | 57.60 | 8.540 | 0.70 | 0.000 | 0.00 | 0.000 |
| 164.5 | LPA 185063/8CF | 6 | 9.00 | 2.970 | 0.95 | 30.93 | 3.480 | 0.95 | 0.000 | 0.00 | 0.000 |
| 164.5 | DB846H80E-SX | 2 | 21.00 | 5.870 | 0.91 | 59.40 | 6.560 | 0.91 | 0.000 | 0.00 | 0.000 |
| 164.5 | DB846F65ZAXY | 4 | 21.00 | 7.033 | 0.93 | 70.00 | 7.807 | 0.93 | 0.000 | 0.00 | 0.000 |
| 164.5 | Sector Frames | 3 | 500.00 | 15.000 | 0.75 | 650.00 | 20.600 | 0.75 | 0.000 | 0.00 | 0.000 |
| 154.5 | LGP 13519 diplexer | 6 | 1.00 | 0.270 | 0.84 | 3.40 | 0.383 | 0.84 | 0.000 | 0.00 | 0.000 |
| 154.5 | LGP 21401 TMA | 6 | 19.00 | 1.260 | 0.65 | 26.13 | 1.500 | 0.65 | 0.000 | 0.00 | 0.000 |
| 154.5 | P90-14-XLH-MM | 6 | 30.00 | 5.600 | 0.75 | 62.50 | 6.193 | 0.75 | 0.000 | 0.00 | 0.000 |
| 154.5 | Sector Mounts | 3 | 233.00 | 10.600 | 0.75 | 332.00 | 15.540 | 0.75 | 0.000 | 0.00 | 0.000 |
| 152.0 | 7' Whip | 4 | 19.90 | 1.740 | 1.00 | 33.79 | 2.565 | 1.00 | 0.000 | 0.00 | 3.579 |
| 152.0 | 6 ft Sidearm | 2 | 70.00 | 5.150 | 1.00 | 100.00 | 7.100 | 1.00 | 0.000 | 0.00 | 0.000 |
| 141.5 | 6 ft Sidearm | 2 | 70.00 | 5.150 | 1.00 | 100.00 | 7.100 | 1.00 | 0.000 | 0.00 | 0.000 |
| 141.5 | 10' Dipole | 4 | 15.00 | 3.000 | 1.00 | 40.00 | 5.000 | 1.00 | 0.000 | 0.00 | 4.000 |
| 138.0 | P3F-52 | 1 | 110.00 | 8.920 | 1.00 | 159.48 | 9.420 | 1.00 | 0.000 | 0.00 | 0.000 |
| 138.0 | 2 ft Standoff | 1 | 40.00 | 2.630 | 1.00 | 63.00 | 4.340 | 1.00 | 0.000 | 0.00 | 0.000 |
| Totals | | 86 | 5911.08 | | | 9042.48 | | | Number of Appurtenances : 26 | | |

Linear Appurtenance Properties

| Elev From (ft) | Elev To (ft) | Description | Qty | Width (in) | Weight (lb/ft) | Pct In Wind | Spread On Faces | Bundling Arrangement |
|----------------|--------------|--------------|-----|------------|----------------|-------------|-----------------|----------------------|
| 0.00 | 185.0 | 1 5/8" Coax | 12 | 1.98 | 1.04 | 50.00 | 2 | Separate |
| 0.00 | 185.0 | 1 5/8" Coax | 3 | 1.98 | 1.04 | 100.00 | 2 | Separate |
| 0.00 | 185.0 | Hybrid Cable | 1 | 1.25 | 0.95 | 100.00 | 2 | Separate |
| 0.00 | 177.0 | 1 1/4" Coax | 3 | 1.55 | 0.66 | 100.00 | 3 | Separate |
| 0.00 | 177.0 | 1 5/8" Coax | 6 | 1.98 | 1.04 | 100.00 | 3 | Separate |
| 0.00 | 164.5 | 1 5/8" Coax | 18 | 1.98 | 1.04 | 33.30 | 1 | Separate |
| 0.00 | 154.5 | 1 5/8" Coax | 12 | 1.98 | 1.04 | 50.00 | 1 | Separate |
| 0.00 | 152.0 | 7/8" Coax | 2 | 1.11 | 0.52 | 100.00 | 2 | Separate |
| 0.00 | 141.5 | 7/8" Coax | 2 | 1.11 | 0.52 | 100.00 | 3 | Separate |
| 0.00 | 138.0 | 1/2" Coax | 1 | 0.65 | 0.16 | 100.00 | 3 | Separate |

Site Number: CT11121
 Location: CT33XC522, Weston, CT
 Code: TIA/EIA-222 Rev F



Force/Stress Summary

Section: 1 S3TL-2BAY Bot Elev (ft): 0.00 Height (ft): 20.000

| | | Force | Len | Bracing % | | | | Fa | Member | | | Shear Bear | | Use | |
|-------------------------------|--------------------|---------|-------|-----------|--------|-----|-------|-------|-----------|-----------|-----------|------------|-----------|-----|-----------|
| | | (kip) | (ft) | X | Y | Z | KL/R | (ksi) | Cap (kip) | Num Bolts | Num Holes | Cap (kip) | Cap (kip) | % | Controls |
| Max Compression Member | | | | | | | | | | | | | | | |
| LEG | PST - 8" DIA PIPE | -265.79 | 10.02 | 100 | 100 | 100 | 40.9 | 34.3 | 287.92 | 0 | 0 | 0.00 | 0.00 | 92 | Member X |
| HORIZ | | 0.00 | 0.000 | 0 | 0 | 0 | 0.0 | 0.0 | 0.00 | 0 | 0 | 0.00 | 0.00 | 0 | |
| DIAG | SAE - 3.5X3.5X0.25 | -6.41 | 22.81 | 50 | 75 | 50 | 197.2 | 5.1 | 8.65 | 1 | 1 | 17.67 | 17.40 | 74 | Member Z |
| Max Tension Member | | | | | | | | | | | | | | | |
| LEG | PST - 8" DIA PIPE | 223.69 | | 50 | 335.99 | 0 | 0 | 0.00 | 0.00 | | | 66 | | | Member |
| HORIZ | | 0.00 | | 0 | 0.00 | 0 | 0 | 0.00 | 0.00 | | | 0 | | | |
| DIAG | SAE - 3.5X3.5X0.25 | 7.06 | | 36 | 43.12 | 1 | 1 | 17.67 | 17.40 | | | 40 | | | Bolt Bear |

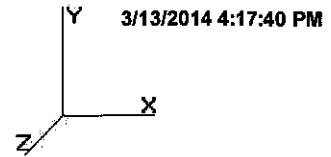
Section: 2 S3TL-2BAY Bot Elev (ft): 20.00 Height (ft): 20.000

| | | Force | Len | Bracing % | | | | Fa | Member | | | Shear Bear | | Use | |
|-------------------------------|-------------------|---------|-------|-----------|--------|-----|-------|-------|-----------|-----------|-----------|------------|-----------|-----|-----------|
| | | (kip) | (ft) | X | Y | Z | KL/R | (ksi) | Cap (kip) | Num Bolts | Num Holes | Cap (kip) | Cap (kip) | % | Controls |
| Max Compression Member | | | | | | | | | | | | | | | |
| LEG | PST - 8" DIA PIPE | -244.03 | 10.02 | 100 | 100 | 100 | 40.9 | 34.3 | 287.92 | 0 | 0 | 0.00 | 0.00 | 84 | Member X |
| HORIZ | | 0.00 | 0.000 | 0 | 0 | 0 | 0.0 | 0.0 | 0.00 | 0 | 0 | 0.00 | 0.00 | 0 | |
| DIAG | SAU - 3.5X3X0.25 | -6.46 | 21.03 | 75 | 50 | 50 | 200.0 | 5.0 | 7.77 | 1 | 1 | 17.67 | 17.40 | 83 | Member Z |
| Max Tension Member | | | | | | | | | | | | | | | |
| LEG | PST - 8" DIA PIPE | 205.38 | | 50 | 335.99 | 0 | 0 | 0.00 | 0.00 | | | 61 | | | Member |
| HORIZ | | 0.00 | | 0 | 0.00 | 0 | 0 | 0.00 | 0.00 | | | 0 | | | |
| DIAG | SAU - 3.5X3X0.25 | 6.48 | | 36 | 39.35 | 1 | 1 | 17.67 | 17.40 | | | 37 | | | Bolt Bear |

Section: 3 S3TL-2BAY Bot Elev (ft): 40.00 Height (ft): 20.000

| | | Force | Len | Bracing % | | | | Fa | Member | | | Shear Bear | | Use | |
|-------------------------------|-----------------|---------|-------|-----------|--------|-----|-------|-------|-----------|-----------|-----------|------------|-----------|-----|-----------|
| | | (kip) | (ft) | X | Y | Z | KL/R | (ksi) | Cap (kip) | Num Bolts | Num Holes | Cap (kip) | Cap (kip) | % | Controls |
| Max Compression Member | | | | | | | | | | | | | | | |
| LEG | PSP - 5" SCH120 | -220.47 | 10.02 | 100 | 100 | 100 | 66.9 | 28.7 | 228.04 | 0 | 0 | 0.00 | 0.00 | 96 | Member X |
| HORIZ | | 0.00 | 0.000 | 0 | 0 | 0 | 0.0 | 0.0 | 0.00 | 0 | 0 | 0.00 | 0.00 | 0 | |
| DIAG | SAE - 3X3X0.25 | -6.08 | 19.29 | 50 | 75 | 50 | 195.6 | 5.2 | 7.50 | 1 | 1 | 17.67 | 17.40 | 81 | Member Z |
| Max Tension Member | | | | | | | | | | | | | | | |
| LEG | PSP - 5" SCH120 | 186.24 | | 50 | 317.99 | 0 | 0 | 0.00 | 0.00 | | | 58 | | | Member |
| HORIZ | | 0.00 | | 0 | 0.00 | 0 | 0 | 0.00 | 0.00 | | | 0 | | | |
| DIAG | SAE - 3X3X0.25 | 5.95 | | 36 | 35.87 | 1 | 1 | 17.67 | 17.40 | | | 34 | | | Bolt Bear |

Site Number: CT11121
 Location: CT33XC522, Weston, CT
 Code: TIA/EIA-222 Rev F



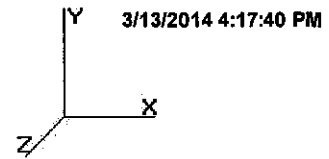
Force/Stress Summary

| Section: 4 | | S3TL-3BAY | | Bot Elev (ft): 60.00 | | | | Height (ft): 20.000 | | | | | | | | |
|-------------------------------|------------------|-----------|---------------|----------------------|--------|-----------|-----|---------------------|----------|------------|-----------|-----------|-----------|-----------|----|-----------|
| | | Force | | Len | | Bracing % | | Member | | Shear Bear | | Use | | | | |
| | | (kip) | Load Case | (ft) | X | Y | Z | KL/R | Fa (ksi) | Cap (kip) | Num Bolts | Num Holes | Cap (kip) | Cap (kip) | % | Controls |
| Max Compression Member | | | | | | | | | | | | | | | | |
| LEG | PX - 5" DIA PIPE | -197.66 | Normal Ice | 6.68 | 100 | 100 | 100 | 43.6 | 33.8 | 206.30 | 0 | 0 | 0.00 | 0.00 | 95 | Member X |
| HORIZ | | 0.00 | | 0.000 | 0 | 0 | 0 | 0.0 | 0.0 | 0.00 | 0 | 0 | 0.00 | 0.00 | 0 | |
| DIAG | SAE - 3X3X0.1875 | -5.26 | 90 deg No Ice | 16.11 | 50 | 75 | 50 | 162.2 | 7.6 | 8.25 | 1 | 1 | 17.67 | 13.05 | 63 | Member Z |
| Max Tension Member | | | | | | | | | | | | | | | | |
| LEG | PX - 5" DIA PIPE | 169.04 | 60 deg Ice | 50 | 244.39 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0 | 0 | 69 | | | Member |
| HORIZ | | 0.00 | | 0 | 0.00 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 | | | |
| DIAG | SAE - 3X3X0.1875 | 5.12 | 90 deg No Ice | 36 | 27.19 | 1 | 1 | 17.67 | 13.05 | 39 | | | | | | Bolt Bear |

| Section: 5 | | S3TL-3BAY | | Bot Elev (ft): 80.00 | | | | Height (ft): 20.000 | | | | | | | | |
|-------------------------------|----------------------|-----------|---------------|----------------------|--------|-----------|-----|---------------------|----------|------------|-----------|-----------|-----------|-----------|----|-----------|
| | | Force | | Len | | Bracing % | | Member | | Shear Bear | | Use | | | | |
| | | (kip) | Load Case | (ft) | X | Y | Z | KL/R | Fa (ksi) | Cap (kip) | Num Bolts | Num Holes | Cap (kip) | Cap (kip) | % | Controls |
| Max Compression Member | | | | | | | | | | | | | | | | |
| LEG | PX - 5" DIA PIPE | -171.77 | Normal Ice | 6.68 | 100 | 100 | 100 | 43.6 | 33.8 | 206.30 | 0 | 0 | 0.00 | 0.00 | 83 | Member X |
| HORIZ | | 0.00 | | 0.000 | 0 | 0 | 0 | 0.0 | 0.0 | 0.00 | 0 | 0 | 0.00 | 0.00 | 0 | |
| DIAG | SAE - 2.5X2.5X0.1875 | -5.06 | 90 deg Ice | 14.31 | 50 | 75 | 50 | 173.5 | 6.6 | 5.96 | 1 | 1 | 12.27 | 10.87 | 84 | Member Z |
| Max Tension Member | | | | | | | | | | | | | | | | |
| LEG | PX - 5" DIA PIPE | 148.02 | 60 deg Ice | 50 | 244.39 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0 | 0 | 60 | | | Member |
| HORIZ | | 0.00 | | 0 | 0.00 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 | | | |
| DIAG | SAE - 2.5X2.5X0.1875 | 4.82 | 90 deg No Ice | 36 | 22.42 | 1 | 1 | 12.27 | 10.87 | 44 | | | | | | Bolt Bear |

| Section: 6 | | S3TL-3BAY | | Bot Elev (ft): 100.0 | | | | Height (ft): 20.000 | | | | | | | | |
|-------------------------------|----------------------|-----------|------------|----------------------|--------|-----------|-----|---------------------|----------|------------|-----------|-----------|-----------|-----------|----|-----------|
| | | Force | | Len | | Bracing % | | Member | | Shear Bear | | Use | | | | |
| | | (kip) | Load Case | (ft) | X | Y | Z | KL/R | Fa (ksi) | Cap (kip) | Num Bolts | Num Holes | Cap (kip) | Cap (kip) | % | Controls |
| Max Compression Member | | | | | | | | | | | | | | | | |
| LEG | PST - 5" DIA PIPE | -143.97 | Normal Ice | 6.68 | 100 | 100 | 100 | 42.6 | 33.9 | 145.96 | 0 | 0 | 0.00 | 0.00 | 98 | Member X |
| HORIZ | | 0.00 | | 0.000 | 0 | 0 | 0 | 0.0 | 0.0 | 0.00 | 0 | 0 | 0.00 | 0.00 | 0 | |
| DIAG | SAE - 2.5X2.5X0.1875 | -4.99 | 90 deg Ice | 12.58 | 50 | 75 | 50 | 152.5 | 8.6 | 7.72 | 1 | 1 | 12.27 | 10.87 | 64 | Member Z |
| Max Tension Member | | | | | | | | | | | | | | | | |
| LEG | PST - 5" DIA PIPE | 124.61 | 60 deg Ice | 50 | 172.00 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0 | 0 | 72 | | | Member |
| HORIZ | | 0.00 | | 0 | 0.00 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 | | | |
| DIAG | SAE - 2.5X2.5X0.1875 | 4.83 | 90 deg Ice | 36 | 22.42 | 1 | 1 | 12.27 | 10.87 | 44 | | | | | | Bolt Bear |

Site Number: CT11121
 Location: CT33XC522, Weston, CT
 Code: TIA/EIA-222 Rev F



Force/Stress Summary

Section: 7 S3TL-4BAY Bot Elev (ft): 120.0 Height (ft): 20.000

| | Force (kip) | Load Case | Len (ft) | Bracing % | | | Fa (ksi) | Member | | Shear Bear | | Use % | Controls | |
|-------------------------------|-------------|------------|----------|-----------|-----|-----|----------|--------|-----------|------------|-----------|-------|----------|-------------|
| | | | | X | Y | Z | | KL/R | Cap (kip) | Num Bolts | Num Holes | | | Cap (kip) |
| Max Compression Member | | | | | | | | | | | | | | |
| LEG PX - 3-1/2" DIA PIPE | -114.70 | Normal Ice | 5.01 | 100 | 100 | 100 | 45.9 | 33.3 | 122.57 | 0 | 0 | 0.00 | 0.00 | 93 Member X |
| HORIZ | 0.00 | | 0.000 | 0 | 0 | 0 | 0.0 | 0.0 | 0.00 | 0 | 0 | 0.00 | 0.00 | 0 |
| DIAG SAE - 2X2X0.125 | -4.47 | 90 deg Ice | 10.07 | 48 | 72 | 48 | 145.9 | 9.4 | 4.49 | 1 | 1 | 12.27 | 7.25 | 99 Member Z |

| | Force (kip) | Load Case | Fy (ksi) | Cap (kip) | Num Bolts | Num Holes | Shear Cap (kip) | Bear Cap (kip) | Use % | Controls |
|---------------------------|-------------|------------|----------|-----------|-----------|-----------|-----------------|----------------|-------|-----------|
| Max Tension Member | | | | | | | | | | |
| LEG PX - 3-1/2" DIA PIPE | 99.04 | 60 deg Ice | 50 | 147.20 | 0 | 0 | 0.00 | 0.00 | 67 | Member |
| HORIZ | 0.00 | | 0 | 0.00 | 0 | 0 | 0.00 | 0.00 | 0 | |
| DIAG SAE - 2X2X0.125 | 4.61 | 90 deg Ice | 36 | 11.43 | 1 | 1 | 12.27 | 7.25 | 63 | Bolt Bear |

Section: 8 S3TL-4BAY Bot Elev (ft): 140.0 Height (ft): 20.000

| | Force (kip) | Load Case | Len (ft) | Bracing % | | | Fa (ksi) | Member | | Shear Bear | | Use % | Controls | |
|-------------------------------|-------------|---------------|----------|-----------|-----|-----|----------|--------|-----------|------------|-----------|-------|----------|-------------|
| | | | | X | Y | Z | | KL/R | Cap (kip) | Num Bolts | Num Holes | | | Cap (kip) |
| Max Compression Member | | | | | | | | | | | | | | |
| LEG PSP - 2.875 x 0.375 | -78.00 | Normal Ice | 5.01 | 100 | 100 | 100 | 68.0 | 28.4 | 83.67 | 0 | 0 | 0.00 | 0.00 | 93 Member X |
| HORIZ SAE - 2X2X0.125 | -0.59 | Normal No Ice | 5.000 | 100 | 100 | 100 | 150.8 | 8.8 | 4.21 | 1 | 1 | 12.27 | 7.25 | 13 Member Z |
| DIAG SAE - 2X2X0.125 | -4.38 | 90 deg Ice | 8.401 | 50 | 75 | 50 | 126.7 | 12.4 | 5.96 | 1 | 1 | 12.27 | 7.25 | 73 Member Z |

| | Force (kip) | Load Case | Fy (ksi) | Cap (kip) | Num Bolts | Num Holes | Shear Cap (kip) | Bear Cap (kip) | Use % | Controls |
|---------------------------|-------------|---------------|----------|-----------|-----------|-----------|-----------------|----------------|-------|-----------|
| Max Tension Member | | | | | | | | | | |
| LEG PSP - 2.875 x 0.375 | 66.52 | 60 deg Ice | 50 | 117.80 | 0 | 0 | 0.00 | 0.00 | 56 | Member |
| HORIZ SAE - 2X2X0.125 | 0.51 | 60 deg No Ice | 36 | 11.43 | 1 | 1 | 12.27 | 7.25 | 6 | Bolt Bear |
| DIAG SAE - 2X2X0.125 | 4.44 | 90 deg Ice | 36 | 11.43 | 1 | 1 | 12.27 | 7.25 | 61 | Bolt Bear |

Section: 9 S3TL-4BAY Bot Elev (ft): 160.0 Height (ft): 20.000

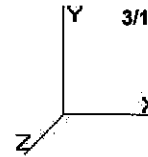
| | Force (kip) | Load Case | Len (ft) | Bracing % | | | Fa (ksi) | Member | | Shear Bear | | Use % | Controls | |
|-------------------------------|-------------|---------------|----------|-----------|-----|-----|----------|--------|-----------|------------|-----------|-------|----------|--------------|
| | | | | X | Y | Z | | KL/R | Cap (kip) | Num Bolts | Num Holes | | | Cap (kip) |
| Max Compression Member | | | | | | | | | | | | | | |
| LEG PST - 2-1/2" DIA PIP | -34.23 | Normal Ice | 5.00 | 100 | 100 | 100 | 63.4 | 29.5 | 50.29 | 0 | 0 | 0.00 | 0.00 | 68 Member X |
| HORIZ SAE - 2X2X0.125 | -0.44 | Normal No Ice | 5.000 | 100 | 100 | 100 | 150.8 | 8.8 | 4.21 | 1 | 1 | 12.27 | 7.25 | 10 Member Z |
| DIAG SAE - 2X2X0.125 | -5.48 | 90 deg Ice | 7.071 | 50 | 75 | 50 | 106.6 | 16.2 | 7.76 | 1 | 1 | 12.27 | 7.25 | 75 Bolt Bear |

| | Force (kip) | Load Case | Fy (ksi) | Cap (kip) | Num Bolts | Num Holes | Shear Cap (kip) | Bear Cap (kip) | Use % | Controls |
|---------------------------|-------------|---------------|----------|-----------|-----------|-----------|-----------------|----------------|-------|-----------|
| Max Tension Member | | | | | | | | | | |
| LEG PST - 2-1/2" DIA PIP | 27.42 | 60 deg Ice | 50 | 68.16 | 0 | 0 | 0.00 | 0.00 | 40 | Member |
| HORIZ SAE - 2X2X0.125 | 0.33 | 60 deg No Ice | 36 | 11.43 | 1 | 1 | 12.27 | 7.25 | 4 | Bolt Bear |
| DIAG SAE - 2X2X0.125 | 5.32 | 90 deg Ice | 36 | 11.43 | 1 | 1 | 12.27 | 7.25 | 73 | Bolt Bear |

Site Number: CT11121
 Location: CT33XC522, Weston, CT

3/13/2014 4:17:40 PM

Code: TIA/EIA-222 Rev F



Force/Stress Summary

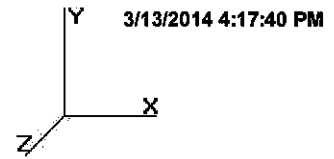
Section: 10 S3R-5FT-STR Bot Elev (ft): 180.0 Height (ft): 5.000

| Max Compression Member | Force (kip) | Load Case | Len (ft) | Bracing % | | | Fa (ksi) | Member | | Num | Num | Shear Bear | | Use % | Controls |
|------------------------|-------------|---------------|----------|-----------|-----|-----|----------|--------|-----------|-----|-----|------------|-------|-------|----------|
| | | | | X | Y | Z | | KL/R | Cap (kip) | | | Num Bolts | Holes | | |
| LEG PST - 2" DIA PIPE | -2.56 | Normal Ice | 5.00 | 100 | 100 | 100 | 76.2 | 26.3 | 28.18 | 0 | 0 | 0.00 | 0.00 | 9 | Member X |
| HORIZ SAE - 2X2X0.125 | -0.35 | 60 deg No Ice | 5.000 | 100 | 100 | 100 | 150.8 | 8.8 | 4.21 | 0 | 0 | 0.00 | 0.00 | 8 | Member Z |
| DIAG SAE - 2X2X0.125 | -1.69 | Normal Ice | 7.071 | 50 | 75 | 50 | 106.6 | 16.2 | 7.76 | 0 | 0 | 0.00 | 0.00 | 21 | Member Z |

| Max Tension Member | Force (kip) | Load Case | Fy (ksi) | Cap (kip) | Num Bolts | Num Holes | Shear Cap (kip) | Bear Cap (kip) | Use % | Controls |
|-----------------------|-------------|---------------|----------|-----------|-----------|-----------|-----------------|----------------|-------|----------|
| | | | | | | | | | | |
| HORIZ SAE - 2X2X0.125 | 0.55 | Normal No Ice | 36 | 13.82 | 0 | 0 | 0.00 | 0.00 | 4 | Member |
| DIAG SAE - 2X2X0.125 | 1.25 | 60 deg No Ice | 36 | 13.82 | 0 | 0 | 0.00 | 0.00 | 9 | Member |

Site Number: CT11121
 Location: CT33XC522, Weston, CT

Code: TIA/EIA-222 Rev F



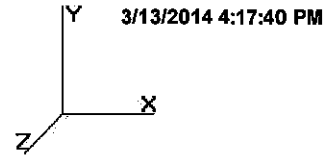
Support Forces Summary

| Load Case | Node | FX (kip) | FY (kip) | FZ (kip) | (-) = Uplift (+) = Down |
|---------------|------|-------------|-------------|-------------|-------------------------|
| 90 deg Ice | 1b | -19.28 | -193.91 | -10.07 | |
| | 1a | -17.18 | 232.70 | 8.89 | |
| | 1 | -1.82 | 19.40 | 1.18 | |
| 60 deg Ice | 1b | -21.43 | -225.58 | -12.37 | |
| | 1a | -9.92 | 141.71 | 3.96 | |
| | 1 | -1.54 | 142.07 | -10.58 | |
| Normal Ice | 1b | -10.71 | -106.12 | -8.09 | |
| | 1a | 10.71 | -106.12 | -8.09 | |
| | 1 | 0.00 | 270.45 | -23.04 | |
| 90 deg No Ice | 1b | -17.69 | -197.58 | -9.03 | |
| | 1a | -18.85 | 219.93 | 9.73 | |
| | 1 | -2.02 | 11.18 | -0.71 | |
| 60 deg No Ice | 1b | -19.70 | -227.86 | -11.37 | |
| | 1a | -11.59 | 130.54 | 4.73 | |
| | 1 | -1.70 | 130.84 | -12.41 | |
| Normal No Ice | 1b | -9.07 | -112.74 | -7.39 | |
| | 1a | 9.07 | -112.74 | -7.39 | |
| | 1 | 0.00 | 259.00 | -25.17 | |

| | | | | |
|-------------|--------------|--------------|-------------------|------------|
| Max Uplift: | 227.86 (kip) | Moment: | 4,565.68 (ft-kip) | Normal Ice |
| Max Down: | 270.45 (kip) | Total Down: | 58.20 (kip) | |
| Max Shear: | 25.17 (kip) | Total Shear: | 39.21 (kip) | |

Site Number: CT11121
 Location: CT33XC522, Weston, CT

Code: TIA/EIA-222 Rev F



Deflections and Rotations

| Load Case | Elevation (ft) | Deflection (ft) | Twist (deg) | Sway (deg) |
|--|----------------|-----------------|-------------|------------|
| 73.61 mph Wind at 60 deg From Face with Ice | 140.00 | 1.0452 | 0.1859 | 0.9851 |
| | 150.00 | 1.2307 | 0.2273 | 1.1037 |
| | 155.00 | 1.3305 | 0.2348 | 1.1660 |
| | 165.00 | 1.5430 | 0.2503 | 1.2782 |
| | 175.00 | 1.7700 | 0.2717 | 1.3200 |
| | 185.00 | 2.0013 | 0.3048 | 1.2179 |
| 73.61 mph Wind at 90 deg From Face with Ice | 140.00 | 1.0482 | 0.0943 | 0.9668 |
| | 150.00 | 1.2340 | 0.1063 | 1.0886 |
| | 155.00 | 1.3338 | 0.1061 | 1.1696 |
| | 165.00 | 1.5467 | 0.1042 | 1.2772 |
| | 175.00 | 1.7742 | 0.1026 | 1.3147 |
| | 185.00 | 2.0055 | 0.1017 | 1.0311 |
| 73.61 mph Wind Normal To Face with Ice | 140.00 | 1.0655 | 0.0736 | 1.0584 |
| | 150.00 | 1.2546 | 0.0893 | 1.1771 |
| | 155.00 | 1.3561 | 0.0880 | 1.1867 |
| | 165.00 | 1.5730 | 0.0826 | 1.3054 |
| | 175.00 | 1.8059 | 0.0794 | 1.3667 |
| | 185.00 | 2.0424 | 0.0775 | 1.6679 |
| 85.00 mph Wind at 60 deg From Face with No Ice | 140.00 | 1.0073 | 0.1503 | 0.9471 |
| | 150.00 | 1.1854 | 0.1851 | 1.0598 |
| | 155.00 | 1.2813 | 0.1908 | 1.1182 |
| | 165.00 | 1.4852 | 0.2023 | 1.2254 |
| | 175.00 | 1.7026 | 0.2189 | 1.2653 |
| | 185.00 | 1.9241 | 0.2456 | 1.1747 |
| 85.00 mph Wind at 90 deg From Face with No Ice | 140.00 | 1.0129 | 0.0795 | 0.9349 |
| | 150.00 | 1.1916 | 0.0895 | 1.0491 |
| | 155.00 | 1.2877 | 0.0889 | 1.1242 |
| | 165.00 | 1.4924 | 0.0866 | 1.2264 |
| | 175.00 | 1.7108 | 0.0847 | 1.2640 |
| | 185.00 | 1.9328 | 0.0837 | 1.0198 |
| 85.00 mph Wind Normal To Face with No Ice | 140.00 | 1.0369 | 0.0568 | 1.0167 |
| | 150.00 | 1.2198 | 0.0718 | 1.1352 |
| | 155.00 | 1.3183 | 0.0712 | 1.1462 |
| | 165.00 | 1.5278 | 0.0669 | 1.2596 |
| | 175.00 | 1.7521 | 0.0643 | 1.3170 |
| | 185.00 | 1.9800 | 0.0626 | 1.5785 |
| | | 0.0000 | 0.0000 | 0.0000 |



EXHIBIT C



EBI Consulting

environmental | engineering | due diligence

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CT11121C

CT121 / Weston Transfer
237 Godfrey Road
East Weston, CT 06883

March 14, 2014

EBI Project Number: 62141309



EBI Consulting

environmental | engineering | due diligence

March 14, 2014

T-Mobile USA
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, CT 06002

Re: Emissions Values for Site: **CT11121C - CT121 / Weston Transfer**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at 237 Godfrey Road, East Weston, CT, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the cellular band is $567 \mu\text{W}/\text{cm}^2$, and the general population exposure limit for the PCS band is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 237 Godfrey Road, East Weston, CT, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, the actual antenna pattern gain value in the direction of the sample area was used. For this report the sample point is a 6 foot person standing at the base of the tower

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 GSM channels (1940.000 MHz—to 1950.000 MHz) were considered for each sector of the proposed installation.
- 2) 2 UMTS channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation
- 3) 2 LTE channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation
- 4) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 5) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
- 6) The antenna used in this modeling is the Ericsson AIR21 for LTE, UMTS and GSM. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.6 dBd gain value at its main lobe. Actual antenna gain values were used for all calculations as per the manufacturers specifications



EBI Consulting

environmental | engineering | due diligence

- 7) The antenna mounting height centerline of the proposed antennas is **185 feet** above ground level (AGL)
- 8) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

All calculation were done with respect to uncontrolled / general public threshold limits

| | |
|--------------|---|
| Site ID | CT11121C - CT121, Weston Transfer |
| Site Address | 237 Godfrey Road, East Weston, CT 06883 |
| Site Type | Self Support Tower |

| Sector 1 | | | | | | | | | | | | | | | | | |
|--|--------------|-----------------|----------|----------------|------------|-------------------------------|--------------------|-----------------|---|---------------------|-------------------------|------------|-----------------|-----------------|-----------|---------------------|--------------------------|
| Antenna Number | Antenna Make | Antenna Model | Status | Frequency Band | Technology | Power Out Per Channel (Watts) | Number of Channels | Composite Power | Antenna Gain In direction of sample point (dBd) | Antenna Height (ft) | Antenna analysis height | Cable Size | Cable Loss (dB) | Additional Loss | ERP | Power Density Value | Power Density Percentage |
| 1a | Ericsson | AIR21 B4A/B2P | Active | AWS - 2100 MHz | LTE | 60 | 2 | 120 | -3.95 | 185 | 179 | None | 0 | 0 | 48.326044 | 0.542227 | 0.05422% |
| 1b | Ericsson | AIR21 B4A/B2P | Not Used | - | - | 0 | 0 | 0 | -3.95 | 185 | 179 | None | 0 | 0 | 0 | 0 | 0.00000% |
| 2a | Ericsson | AIR21 B2A / B4P | Active | PCS - 1950 MHz | GSM / UMTS | 30 | 2 | 60 | -3.95 | 185 | 179 | 1-5/8" | 0 | 0 | 24.163022 | 0.271114 | 0.02711% |
| 2b | Ericsson | AIR21 B2A / B4P | Passive | AWS - 2100 MHz | UMTS | 30 | 2 | 60 | -3.95 | 185 | 179 | 1-5/8" | 0 | 0 | 24.163022 | 0.271114 | 0.02711% |
| Sector total Power Density Value: 0.108% | | | | | | | | | | | | | | | | | |

| Sector 2 | | | | | | | | | | | | | | | | | |
|--|--------------|-----------------|----------|----------------|------------|-------------------------------|--------------------|-----------------|---|---------------------|-------------------------|------------|-----------------|-----------------|-----------|---------------------|--------------------------|
| Antenna Number | Antenna Make | Antenna Model | Status | Frequency Band | Technology | Power Out Per Channel (Watts) | Number of Channels | Composite Power | Antenna Gain In direction of sample point (dBd) | Antenna Height (ft) | Antenna analysis height | Cable Size | Cable Loss (dB) | Additional Loss | ERP | Power Density Value | Power Density Percentage |
| 1a | Ericsson | AIR21 B4A/B2P | Active | AWS - 2100 MHz | LTE | 60 | 2 | 120 | -3.95 | 185 | 179 | None | 0 | 0 | 48.326044 | 0.542227 | 0.05422% |
| 1b | Ericsson | AIR21 B4A/B2P | Not Used | - | - | 0 | 0 | 0 | -3.95 | 185 | 179 | None | 0 | 0 | 0 | 0 | 0.00000% |
| 2a | Ericsson | AIR21 B2A / B4P | Active | PCS - 1950 MHz | GSM / UMTS | 30 | 2 | 60 | -3.95 | 185 | 179 | 1-5/8" | 0 | 0 | 24.163022 | 0.271114 | 0.02711% |
| 2b | Ericsson | AIR21 B2A / B4P | Passive | AWS - 2100 MHz | UMTS | 30 | 2 | 60 | -3.95 | 185 | 179 | 1-5/8" | 0 | 0 | 24.163022 | 0.271114 | 0.02711% |
| Sector total Power Density Value: 0.108% | | | | | | | | | | | | | | | | | |

| Sector 3 | | | | | | | | | | | | | | | | | |
|--|--------------|-----------------|----------|----------------|------------|-------------------------------|--------------------|-----------------|---|---------------------|-------------------------|------------|-----------------|-----------------|-----------|---------------------|--------------------------|
| Antenna Number | Antenna Make | Antenna Model | Status | Frequency Band | Technology | Power Out Per Channel (Watts) | Number of Channels | Composite Power | Antenna Gain In direction of sample point (dBd) | Antenna Height (ft) | Antenna analysis height | Cable Size | Cable Loss (dB) | Additional Loss | ERP | Power Density Value | Power Density Percentage |
| 1a | Ericsson | AIR21 B4A/B2P | Active | AWS - 2100 MHz | LTE | 60 | 2 | 120 | -3.95 | 185 | 179 | None | 0 | 0 | 48.326044 | 0.542227 | 0.05422% |
| 1b | Ericsson | AIR21 B4A/B2P | Not Used | - | - | 0 | 0 | 0 | -3.95 | 185 | 179 | None | 0 | 0 | 0 | 0 | 0.00000% |
| 2a | Ericsson | AIR21 B2A / B4P | Active | PCS - 1950 MHz | GSM / UMTS | 30 | 2 | 60 | -3.95 | 185 | 179 | 1-5/8" | 0 | 0 | 24.163022 | 0.271114 | 0.02711% |
| 2b | Ericsson | AIR21 B2A / B4P | Passive | AWS - 2100 MHz | UMTS | 30 | 2 | 60 | -3.95 | 185 | 179 | 1-5/8" | 0 | 0 | 24.163022 | 0.271114 | 0.02711% |
| Sector total Power Density Value: 0.108% | | | | | | | | | | | | | | | | | |

| Site Composite MPE % | |
|-------------------------|----------------|
| Carrier | MPE % |
| T-Mobile | 0.325% |
| Weston Police | 0.270% |
| Weston Fire | 0.230% |
| Weston EMS | 0.230% |
| Weston Public Works | 0.270% |
| Sprint | 2.380% |
| Verizon Wireless | 16.280% |
| AT&T | 8.930% |
| Total Site MPE % | 28.815% |



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Summary

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

The anticipated Maximum Composite contributions from the T-Mobile facility are **0.325% (0.108% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously.

The anticipated composite MPE value for this site assuming all carriers present is **28.815%** of the allowable FCC established general public limit. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

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