

**T-Mobile Northeast, LLC NOTICE OF INTENT TO MODIFY  
AN EXISTING TELECOMMUNICATIONS FACILITY AT  
118 WINTECHOG HILL ROAD, NORTH STONINGTON, CT**

Pursuant to the Public Utility Environmental Standards Act, Connecticut General Statutes § 16-50g et. Seq. (“PUESA”), and Sections 16-50j-72(b) and 16-50j-73 of the Regulations of Connecticut State Agencies (“R.C.S.A”) adopted pursuant to the PUESA, by and through T-Mobile Northeast, LLC (“T-Mobile”) and as successor in interest to Omnipoint Communications, Inc., hereby notifies the Connecticut Siting Council of its intent to modify an existing facility located at 118 Wintechog Hill Road, North Stonington, CT.

**T-Mobile Northeast LLC’s Proposed Wireless Modifications**

T-Mobile as successor in interest to Omnipoint Communications achieved an initial exempt modification approval from the Siting Council to install antennas and related ground equipment. The facility consists of a One-Hundred and fifty (150’) foot high Monopole telecommunications tower (the “Tower”) within a fenced compound. T-Mobile now intends to modify the facility as shown on the enclosed plans prepared by Infinigy Engineering group and annexed hereto as Exhibit 1. The modifications will consist of adding three (3) new antennas with RRUS at the existing AGL of 225’. A structural analysis has been completed for the site. Please see report attached in exhibit 3.

**T-Mobile’s Proposed Wireless Modifications Constitutes An “Exempt Modification”**

The proposed modification to the 118 Wintechog Hill Road, North Stonington, CT Facility constitutes an exempt modification of an existing facility provided for in R.C.S.A Section 16-50j-72(b)(2) and Council regulations promulgated pursuant thereto.

- 1) The proposed modifications will be to add three (3) antennas at the same AGL of 225’ along with RRUS
- 2) The proposed modifications will not require expansion of the site boundaries.
- 3) The proposed modifications will not increase noise levels at the facility by six decibels or more.
- 4) T-Mobile Northeast LLC’s proposed facility will not increase the cumulative radio frequency electromagnetic radiation power density at the Tower site’s boundary to or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and MPE limits established by the Federal Communications Commission. A cumulative General Power Density table for T-Mobile’s proposed modified facility is included as Exhibit 2.

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

Respectfully submitted,

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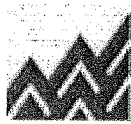
**Amber Debole (781) 424-9253**

On behalf of T-Mobile Northeast, LLC

c/o Tower Resource Management, Inc.

16 Chestnut Street, Suite 220

Foxboro, MA 02035



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

T-Mobile Existing Facility

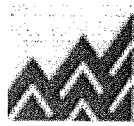
Site ID: CT11266A

North Stonington-3\_1  
118 Wintechog Hill Road  
North Stonington, CT 06359

**March 19, 2015**

**EBI Project Number: 6215001661**

Site Compliance Summary	
Compliance Status:	<b>COMPLIANT</b>
Site total MPE% of FCC general public allowable limit:	<b>92.40 %</b>



March 19, 2015

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

## Emissions Analysis for Site: CT11266A – North Stonington-3\_1

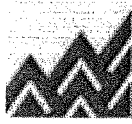
EBI Consulting was directed to analyze the proposed T-Mobile facility located at **118 Wintechog Hill Road, North Stonington, CT**, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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 700 MHz Band is  $467 \mu\text{W}/\text{cm}^2$ , and the general population exposure limit for the PCS and AWS bands is  $1000 \mu\text{W}/\text{cm}^2$ . Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report 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 **118 Wintechog Hill Road, North Stonington, 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, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was focused at the base of the tower. For this report the sample point is the top of 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 (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel
- 2) 2 UMTS channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 3) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 4) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.
- 5) 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.



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- 6) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 7) The antennas used in this modeling are the **Ericsson AIR21 (B4A/B2P& B2A/B4P)** for 1900 MHz (PCS) and 2100 MHz (AWS) channels and the **Commscope LNX-6515DS-VTM** for 700 MHz channels. This is based on feedback from the carrier with regards to anticipated antenna selection. The **Ericsson AIR21 (B4A/B2P& B2A/B4P)** have a maximum gain of **15.9 dBd** at their main lobe. The **Commscope LNX-6515DS-VTM** has a maximum gain of **14.6 dBd** at its main lobe. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 8) The antenna mounting height centerline of the proposed antennas is **222 feet** above ground level (AGL).
- 9) 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 calculations were done with respect to uncontrolled / general public threshold limits.



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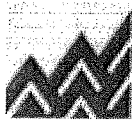
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## T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR21 B4A/B2P	Make / Model:	Ericsson AIR21 B4A/B2P	Make / Model:	Ericsson AIR21 B4A/B2P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	222	Height (AGL):	222	Height (AGL):	222
Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)
Channel Count	2	Channel Count	2	# RCS Channels:	2
Total TX Power:	120	Total TX Power:	120	# AWS Channels:	120
ERP (W):	4,668.54	ERP (W):	4,668.54	ERP (W):	4,668.54
Antenna A1 MPE%	0.36	Antenna B1 MPE%	0.36	Antenna C1 MPE%	0.36
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	222	Height (AGL):	222	Height (AGL):	222
Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)
Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power:	120	Total TX Power:	120	Total TX Power:	120
ERP (W):	4,668.54	ERP (W):	4,668.54	ERP (W):	4,668.54
Antenna A2 MPE%	0.36	Antenna B2 MPE%	0.36	Antenna C2 MPE%	0.36
Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	Commscope LNX-6515DS-VTM	Make / Model:	Commscope LNX-6515DS-VTM	Make / Model:	Commscope LNX-6515DS-VTM
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	222	Height (AGL):	222	Height (AGL):	222
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power:	30	Total TX Power:	30	Total TX Power:	30
ERP (W):	865.21	ERP (W):	865.21	ERP (W):	865.21
Antenna A3 MPE%	0.14	Antenna B3 MPE%	0.14	Antenna C3 MPE%	0.14

Site Composite MPE%	
Carrier	MPE%
T-Mobile	2.59
AT&T	11.22 %
MetroPCS	1.99 %
Sprint	0.78 %
State Police	0.12 %
State Police Microwave	5.62 %
Mobile Comm	2.98 %
PageNet	1.02 %
Destineer	0.83 %
TSR Paging	0.90 %
AirTouch	29.49 %
Nextel	1.29 %
FM Broadcast	19.70 %
PageMart	3.75 %
Verizon Wireless	10.12 %
<b>Site Total MPE %:</b>	<b>92.40 %</b>

T-Mobile Sector 1 Total:	0.86 %
T-Mobile Sector 2 Total:	0.86 %
T-Mobile Sector 3 Total:	0.86 %
<b>Site Total:</b>	<b>92.40 %</b>



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## Summary

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

The anticipated maximum composite contributions from the T-Mobile facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general public exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector 1:	0.86 %
Sector 2:	0.86 %
Sector 3 :	0.86 %
T-Mobile Total:	2.59 %
Site Total:	92.40 %
Site Compliance Status:	<b>COMPLIANT</b>

The anticipated composite MPE value for this site assuming all carriers present is **92.40%** of the allowable FCC established general public limit sampled at the ground level. 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 well within the allowable 100% threshold standard per the federal government.

Scott Heffernan  
RF Engineering Director

**EBI Consulting**  
21 B Street  
Burlington, MA 01803





Fax: 207.581.1474

\*\*\*STATEMENT\*\*\*  
03/31/15

CUSTOMER NO.: LLCTMOB

REMIT TO:

T-Mobile North East LLC  
16 Chestnut St Ste 220  
T-Mobile AAV Project Tower Res  
  
Foxboro MA 02035

University of Maine  
Accounts Receivable  
5703 Alumni Hall - 100  
Orono, Maine 04469-5703

DATE	REFERENCE	DESCRIPTION	CHARGE	CREDIT	BALANCE
03/24/15	0279705-IN		141.17		141.17

TOTAL: 141.17

CURRENT	60 DAYS	90 DAYS	120 DAYS	180 DAYS	BALANCE DUE
141.17	.00	.00	.00	.00	141.17

PLEASE INCLUDE CUSTOMER NO. WITH YOUR REMITTANCE  
IF YOU HAVE ANY QUESTIONS PLEASE CALL 207-5814569



**INVOICE**  
 The University of Maine  
 Orono, Me 04469

**279705**

INVOICE NO.

T-MOBILE NORTH EAST LLC  
 16 CHESTNUT ST. STE. 220  
 T-MOBILE AAV PROJECT, TOWER RES  
 FOXBOROUGH, MA 02035

DATE 3/24/2015  
 PURCHASE ORDER NO. \_\_\_\_\_  
 CONTACT NAME: JONATHAN RITTER  
 PHONE NO. \_\_\_\_\_

*Unit	*Dept Id	*Account	Class	*Fund	Program	Project	*Credit (FAST) Account Number	Amount
UMS05	5751105	45303		00			5-1-79010-030	141.17

DATE	QTY	DESCRIPTION	UNIT PRICE	AMOUNT
3/24/2015		0000207787 T-MOBILE UPGRADE @ CLASS OF 1944 HALL		141.17

Invoice Total: \$141.17

Approved By *Nancy Hayden*  
 Name (print) Nancy Hayden

Dept. Address 5765 Service Bldg. A  
 Dept. Phone No (207) 581-3412

PLEASE SHOW INVOICE NO. ON REMITTANCE AND MAKE CHECK PAYABLE TO THE UNIVERSITY OF MAINE MAIL TO: ACCOUNTS RECEIVABLE.  
 5783 ALUMNI HALL, ROOM 100, ORONO, ME 04469 FOR PAYMENT INQUIRIES CALL (207) 581-4569 PLEASE CONTACT THE DEPARTMENT FOR  
 QUESTIONS CONCERNING THE CHARGES.



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CORPORATION

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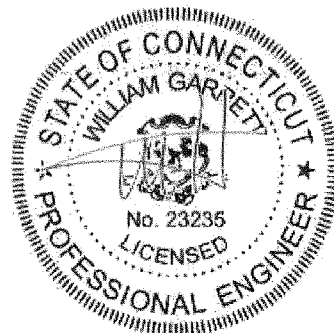
## Structural Analysis Report

**Structure** : 250 ft Self Supported Tower  
**ATC Site Name** : North Stonington CT, CT  
**ATC Site Number** : 6260  
**Engineering Number** : 61355221  
**Proposed Carrier** : T-Mobile  
**Carrier Site Name** : North Stonington  
**Carrier Site Number** : CT11266A  
**Site Location** : 118C Wintechog Hill Rd., off of Rt. 2  
North Stonington, CT 06359-1228  
41.459839,-71.927338  
**County** : New London  
**Date** : March 5, 2015  
**Max Usage** : 66%  
**Result** : Pass

Reviewed by:  
William Garrett, PE  
Chief Engineer

Prepared By:  
Carlos E. Hoyos, E.I.  
Structural Engineer I

*Carlos Hoyos*



Mar 11 2015 10:54 AM



**Table of Contents**

Introduction .....	1
Supporting Documents .....	1
Analysis .....	1
Conclusion.....	1
Existing and Reserved Equipment.....	2
Equipment to be Removed.....	2
Proposed Equipment .....	3
Structure Usages .....	3
Foundations .....	3
Deflection, Twist, and Sway.....	3
Standard Conditions .....	4
Calculations .....	Attached



## Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 250 ft self supported tower to reflect the change in loading by T-Mobile.

## Supporting Documents

<b>Tower Drawings</b>	FWT Job #19240001, dated September 13, 1999
<b>Foundation Drawing</b>	FWT Job #19240001, dated September 13, 1999
<b>Geotechnical Report</b>	Clarence Welti Associates, dated August 31, 1999

## Analysis

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

<b>Basic Wind Speed:</b>	85 mph (Fastest Mile)
<b>Basic Wind Speed w/ Ice:</b>	74 mph (Fastest Mile)w/ 1/2" radial ice concurrent
<b>Code:</b>	ANSI/TIA/EIA-222-F / 2003 IBC , Sec. 1609.1.1, Exception (5) & Sec. 3108.4 w/ 2005 CT Supplement & 2009 CT Amendment

## Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

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



**Existing and Reserved Equipment**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
250.0	250.0	2	Decibel DB806-A	Sector Frames	(22) 1 5/8" Coax (1) 1/2" Coax	CT State Police Dept. Sprint Nextel
		9	Decibel DB980H90E-KL			
232.0	238.5	1	15' x 3' x 3' FM	Leg	(1) 1 5/8" Coax	Red Wolf Broadcasting
225.0	222.0	3	Ericsson AIR 21, 1.3M, B4A B2P	Sector Frames	(12) 1 5/8" Coax (1) 1 5/8" Hybriflex	T-Mobile
		3	Ericsson AIR 21, 1.3M, B2A B4P			
		3	Ericsson KRY 112 144/1			
210.0	210.0	12	Andrew SMR08-09012-0D	Sector Frames	(12) 7/8" Coax	Sprint Nextel
192.0	193.0	1	Scala OGB6-928D	Side Arm	(3) 1/2" Coax (1) 7/8" Coax	Weblink Wireless
169.0	175.0	1	Raycap DC6-48-60-18-8F	Sector Frames	(2) 0.78" 8 AWG 6 (12) 1 5/8" Coax (1) 3" Conduit (1) 0.39" Cable	AT&T Mobility
		1	Andrew SBNH-1D6565C			
		1	Powerwave P65-17-XLH-RR			
		1	KMW AM-X-CD-14-65-00T-RET			
		6	Ericsson RRUS-11 1900 MHz			
		6	Allgon 7770.00			
		6	LGP Allgon LGP21903			
6	Powerwave LGP17201					
162.0	162.0	1	Scala PR-850	Leg	(1) 1/2" Coax	Red Wolf Broadcasting
155.0	155.0	6	Kathrein 800 10504	Sector Frames	(12) 1 5/8" Coax (6) 3/8" Coax	Metro PCS
		6	Kathrein 860 10025			
123.0	123.0	1	8' Omni	Side Arm	(1) 0.28" RG-6 (1) 7/8" Coax	Weblink Wireless
90.0	90.0	1	24" x 24" Ice Shield	Leg	-	CT State Police Dept.
82.0	82.0	1	4' Dish w/ Radome	Leg	(1) 1/2" Coax (1) EW52	
75.0	75.0	1	2' x 4' Rectangular Grid Dish	Leg	(1) 7/8" Coax	Unknown
61.0	61.0	1	4' Std. Dish	Leg	-	

**Equipment to be Removed**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
No loading considered as to be removed						



**Proposed Equipment**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
225.0	222.0	3	Andrew LNX-6515DS-VTM	Sector Frames	(1) 1 5/8" Hybriflex	T-Mobile
		3	Ericsson RRUS 11 (Band 12)			

<sup>1</sup>Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax on top of existing T-Mobile coax.

**Structure Usages**

Structural Component	Controlling Usage	Pass/Fail
Legs	58%	Pass
Diagonals	66%	Pass
Horizontals	9%	Pass
Anchor Bolts	46%	Pass
Leg Bolts	51%	Pass

**Foundations**

Reaction Component	Analysis Reactions	% of Design
Moment (Kips-Ft)	10,520.1	56%
Axial (Kips)	519.9	29%
Total Shear (Kips)	76.4	39%

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

**Deflection, Twist and Sway\***

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
225.0	Andrew LNX-6515DS-VTM	T-Mobile	0.407	0.011	0.351
	Ericsson RRUS 11 (Band 12)				

\*Deflection, Twist and Sway was evaluated considering a design wind speed of 50 mph (Fastest Mile) per ANSI/TIA/EIA-222-F.



## 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, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. 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.

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



Job Information	
Tower : 6260	Location : North Stonington CT, CT
Code : TIA/EIA-222-F	Shape : Triangle
Client : T- Mobile	Base Width : 28.00 ft
	Top Width : 4.00 ft

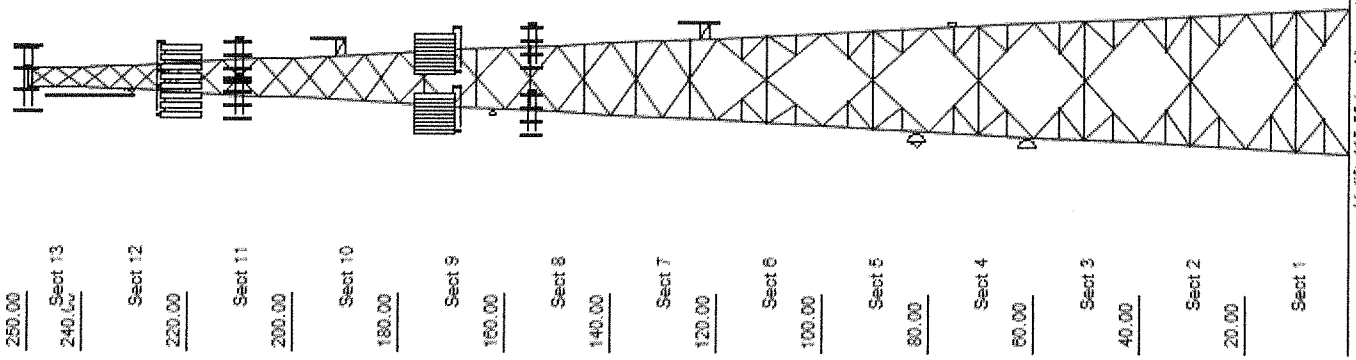
Sections Properties		
Section	Leg Members	Diagonal Members
1	SOL 50 ksi 5 3/4" SOLID	DAE 36 ksi 3X3X0.25
2	SOL 50 ksi 5 1/2" SOLID	DAE 36 ksi 3X3X0.25
3	SOL 50 ksi 5 1/4" SOLID	DAE 36 ksi 3X3X0.25
4	SOL 50 ksi 5" SOLID	DAE 36 ksi 3X3X0.1875
5	SOL 50 ksi 4 3/4" SOLID	DAE 36 ksi 3X3X0.1875
6	SOL 50 ksi 4 1/2" SOLID	DAE 36 ksi 3X3X0.1875
7	SOL 50 ksi 4 1/4" SOLID	DAE 36 ksi 2.5X2.5X0.1875
8	SOL 50 ksi 4" SOLID	DAE 36 ksi 2.5X2.5X0.1875
9	SOL 50 ksi 3 3/4" SOLID	SAE 36 ksi 3.5X3.5X0.25
10	SOL 50 ksi 3 3/4" SOLID	SAE 36 ksi 3X3X0.1875
11	SOL 50 ksi 3 1/4" SOLID	SAE 36 ksi 2.5X2.5X0.1875
12	SOL 50 ksi 2 1/4" SOLID	SAE 36 ksi 1.75X1.75X0.1875
13	SOL 50 ksi 2" SOLID	SAE 36 ksi 1.75X1.75X0.1875

Discrete Appurtenance		
Elev (ft)	Type	Qty Description
250.00	Panel	9 Decibel DB980H90E-KL
250.00	Mounting Frame	3 Round Sector Frames
250.00	Whip	2 Decibel DB806-A
232.00	Whip	1 15' FM Antenna
225.00	Panel	3 Andrew LNX-6515DS-VTM
225.00	Panel	3 Ericsson RRU 11 (Band 12)
225.00	Panel	3 Ericsson AIR 21, 1.3M, B4AB2P
225.00	Panel	3 Ericsson AIR 21, 1.3M, B2AB4P
225.00	Panel	3 Ericsson KRY112 144/1
225.00	Mounting Frame	3 Round Sector Frames
210.00	Mounting Frame	3 Round Sector Frames
210.00	Mounting Frame	12 Andrew SMR08-09012-0D
192.00	Panel	1 Side Arm
192.00	Straight Arm	1 Scala OGB6-928D
169.00	Whip	1 Raycap DC6-48-60-18-8F
169.00	Panel	1 Andrew SBNH-1D6585C
169.00	Panel	1 Powerwave P65-17-XLH-RR
169.00	Panel	1 KMMV AMPX-CD-14-65-00T-RET
169.00	Panel	6 Ericsson RRU-11 1900 MHz
169.00	Mounting Frame	3 Round Sector Frames
169.00	Panel	6 Allgon 7770.00
169.00	Panel	6 Powerwave LGP21903
169.00	Panel	6 Powerwave LGP17201
162.00	Dish	1 Scala PR-850
155.00	Mounting Frame	3 Sector Frames
155.00	Panel	6 Kathrein 800 10504
155.00	Panel	6 Kathrein 860 10025
123.00	Whip	1 8' Omni
123.00	Straight Arm	1 Side Arm
90.00	Dish	1 Ice Shield
82.00	Dish	1 4' Dish w/ Radome
75.00	Dish	1 2' x 4' Rectangular Grid Dish
61.00	Dish	1 4' Std. Dish

Linear Appurtenance				
Elev (ft)	From	To	Qty	Description
0.000	250.01		1	Climbing Ladder
0.000	250.00		2	Wave Guide
0.000	250.00		1	1/2" Coax
0.000	250.00		18	1 5/8" Coax
0.000	250.00		4	1 5/8" Coax
0.000	232.00		1	1 5/8" Coax
0.000	225.00		1	Wave Guide

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



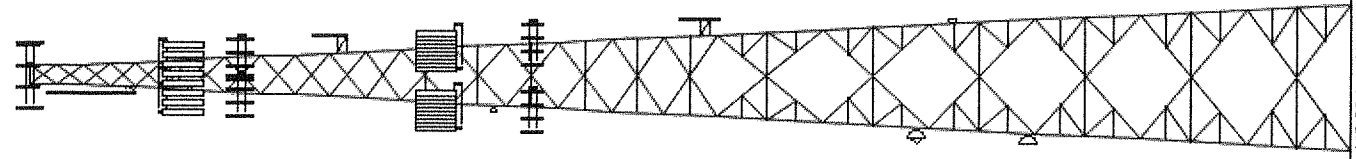
Uplift 410.85 k  
Moment 10,520.10 k-ft  
Vert 519.86 k  
Horiz 45.78 k  
Tot Down Ice 139.86 k  
Tot Moment Ice 11,475.46 k-ft  
Tot Down Ice 139.86 k  
Tot Shear Ice 79.89 k

**Job Information**

Tower : 6260  
 Code: TIA/EIA-222-F  
 Client : T- Mobile

Location : North Stonington CT, CT  
 Shape : Triangle  
 Base Width : 28.00 ft  
 Top Width : 4.00 ft

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250.00			
<u>240.00</u>	Sect 13		
<u>220.00</u>	Sect 12		
<u>200.00</u>	Sect 11		
<u>180.00</u>	Sect 10		
<u>160.00</u>	Sect 9		
<u>140.00</u>	Sect 8		
<u>120.00</u>	Sect 7		
<u>100.00</u>	Sect 6		
<u>80.00</u>	Sect 5		
<u>60.00</u>	Sect 4		
<u>40.00</u>	Sect 3		
<u>20.00</u>	Sect 2		
	Sect 1		

0.000	0.000	225.00	1	1 5/8" Hybriflex
0.000	0.000	225.00	1	1 5/8" Hybriflex
0.000	0.000	225.00	12	1 5/8" Coax
0.000	0.000	210.00	1	Wave Guide
0.000	0.000	210.00	12	7/8" Coax
0.000	0.000	192.00	1	7/8" Coax
0.000	0.000	192.00	3	1/2" Coax
0.000	0.000	169.00	1	Wave Guide
0.000	0.000	169.00	1	3" Conduit
0.000	0.000	169.00	12	1 5/8" Coax
0.000	0.000	169.00	2	0.78" 8 AWG 6
0.000	0.000	169.00	1	0.39" Cable
0.000	0.000	162.00	1	1/2" Coax
0.000	0.000	165.00	1	Wave Guide
0.000	0.000	165.00	6	3/8" Coax
0.000	0.000	165.00	12	1 5/8" Coax
0.000	0.000	123.00	1	7/8" Coax
0.000	0.000	123.00	1	0.28" RG-6
0.000	0.000	82.000	1	EW52
0.000	0.000	82.000	1	1/2" Coax
0.000	0.000	75.000	1	7/8" Coax

Uplift 410.86 k Moment 10,520.10 Moment Ice 11,475.46 k-ft  
 Vert Down 91.77 k Tot Down Ice 139.86 k  
 Horiz 48.78 k Tot Shear 75.41 k Tot Shear Ice 79.89 k

Site Number: 6260

Code:

TIA/EIA-222-F

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Site Name: North Stonington CT, CT

Engineering Number: 61355221

3/6/2015 2:33:20 PM

Customer: T-Mobile

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## Analysis Parameters

### Tower Loading

Location:	New London County, CT	Height:	250
Code:	TIA/EIA-222-F	Base Elevation:	0.00 ft
Shape:	Triangle	Base Face Width:	28.00 ft
Tower Manufacturer:	FWT	Top Face Width:	4.00 ft
Tower Type:	Self Support		

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### Ice & Wind Parameters

Exposure Category:	C	Design Windspeed Without Ice:	85 mph
Design Ice Thickness:	0.50 in	Design Windspeed With Ice:	74 mph

---

### Load Cases

Normal No Ice	85 mph Wind Normal To Face with No Ice
60 deg No Ice	85 mph Wind at 60 degree From Face with No Ice
90 deg No Ice	85 mph Wind at 90 degree From Face with No Ice
Normal Ice	74 mph Wind Normal To Face with Ice
60 deg Ice	74 mph Wind at 60 degree From Face with Ice
90 deg Ice	74 mph Wind at 90 degree From Face with Ice
Normal Twist/Sway	50 mph Wind Normal To Face with No Ice
60 deg Twist/Sway	50 mph Wind at 60 degree From Face with No Ice
90 deg Twist/Sway	50 mph Wind at 90 degree From Face with No Ice

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Site Number: 6260

Code:

TIA/EIA-222-F

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Site Name: North Stonington CT, CT

Engineering Number: 61355221

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Customer: T- Mobile

### Tower Loading

#### Discrete Appurtenance Properties Normal No Ice

Elevation (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Dist. From Face (ft)	X Angle (deg)	Vert Ecc (ft)	Mom (lb-ft)	Qz (psf)	Total Force (lb)	Pu (lb)
250.00	Decibel DB806-A	2	16	1.0	1.00	0.0	0.00	0.0	0.0	32.99	75	32
250.00	Decibel DB980H90E-KL	9	9	3.8	0.79	0.0	0.00	0.0	0.0	32.99	980	81
250.00	Round Sector Frames	3	300	14.4	0.75	0.0	0.00	0.0	0.0	32.99	1175	900
232.00	15' FM Antenna	1	250	12.8	1.00	0.0	0.00	6.5	2967.4	32.55	457	250
225.00	Andrew LNX-6515DS-	3	51	11.4	0.84	0.0	0.00	-3.0	3028.9	31.89	1010	154
225.00	Ericsson AIR 21, 1.3M,	3	83	6.5	0.83	0.0	0.00	-3.0	1709.8	31.89	570	249
225.00	Ericsson AIR 21, 1.3M,	3	82	6.6	0.83	0.0	0.00	-3.0	1722.9	31.89	574	245
225.00	Ericsson KRY 112	3	11	0.4	0.50	0.0	0.00	-3.0	64.7	31.89	22	33
225.00	Ericsson RRUS 11	3	50	3.0	0.67	0.0	0.00	-3.0	632.0	31.89	211	150
225.00	Round Sector Frames	3	300	14.4	0.75	0.0	0.00	0.0	0.0	32.01	1140	900
210.00	Andrew SMR08-09012-	12	26	7.0	0.78	0.0	0.00	0.0	0.0	31.38	2254	312
210.00	Round Sector Frames	3	300	14.4	0.75	0.0	0.00	0.0	0.0	31.38	1118	900
192.00	Scala OGB6-928D	1	9	1.0	1.00	0.0	0.00	1.0	32.7	30.64	33	9
192.00	Side Arm	1	150	5.2	1.00	0.0	0.00	0.0	0.0	30.59	175	150
169.00	Allgon 7770.00	6	35	5.9	0.75	0.0	0.00	6.0	5199.2	29.79	867	210
169.00	Andrew SBNH-	1	61	11.4	0.84	0.0	0.00	6.0	1888.2	29.79	315	61
169.00	Ericsson RRUS-11	6	44	2.9	0.50	0.0	0.00	6.0	1733.1	29.79	289	264
169.00	KMW AM-X-CD-14-65-	1	36	5.5	0.76	0.0	0.00	6.0	821.3	29.79	137	36
169.00	Powerwave LGP17201	6	31	2.0	0.50	0.0	0.00	6.0	1149.5	29.79	192	186
169.00	Powerwave LGP21903	6	6	0.3	0.50	0.0	0.00	6.0	159.2	29.79	27	33
169.00	Powerwave P65-17-	1	59	11.5	0.80	0.0	0.00	6.0	1801.4	29.79	300	59
169.00	Raycap DC6-48-60-18-	1	20	1.3	0.50	0.0	0.00	6.0	123.8	29.79	21	20
169.00	Round Sector Frames	3	300	14.4	0.75	0.0	0.00	0.0	0.0	29.50	1051	900
162.00	Scala PR-850	1	38	10.1	1.00	0.0	0.00	0.0	0.0	29.14	323	38
155.00	Kathrein 800 10504	6	18	3.3	0.78	0.0	0.00	0.0	0.0	28.78	496	106
155.00	Kathrein 860 10025	6	1	0.2	0.50	0.0	0.00	0.0	0.0	28.78	17	7
155.00	Sector Frames	3	400	17.9	0.75	0.0	0.00	0.0	0.0	28.78	1274	1200
123.00	8' Omni	1	25	2.4	1.00	0.0	0.00	0.0	0.0	26.94	71	25
123.00	Side Arm	1	150	5.2	1.00	0.0	0.00	0.0	0.0	26.94	154	150
90.00	Ice Shield	1	50	0.9	1.00	0.0	0.00	0.0	0.0	24.64	25	50
82.00	4' Dish w/ Radome	1	120	10.9	1.00	0.0	0.00	0.0	0.0	23.99	286	120
75.00	2' x 4' Rectangular	1	40	4.8	1.00	0.0	0.00	0.0	0.0	23.39	122	40
61.00	4' Std. Dish	1	188	20.9	1.00	0.0	0.00	0.0	0.0	22.05	507	188
	Totals	103	8057	621.5								

#### Discrete Appurtenance Properties Normal Ice

Elevation (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Dist. From Face (ft)	X Angle (deg)	Vert Ecc (ft)	Mom (lb-ft)	Qz (psf)	Total Force (lb)	Pu (lb)
250.00	Decibel DB806-A	2	24	1.5	1.00	0.0	0.00	0.0	0.0	24.74	79	48
250.00	Decibel DB980H90E-KL	9	29	4.5	0.79	0.0	0.00	0.0	0.0	24.74	870	261
250.00	Round Sector Frames	3	415	19.2	0.67	0.0	0.00	0.0	0.0	24.74	1049	1245
232.00	15' FM Antenna	1	524	55.0	1.00	0.0	0.00	6.5	9592.2	24.41	1476	524
225.00	Andrew LNX-6515DS-	3	117	12.4	0.84	0.0	0.00	-3.0	2456.3	23.91	819	351
225.00	Ericsson AIR 21, 1.3M,	3	133	7.2	0.83	0.0	0.00	-3.0	1413.8	23.91	471	398
225.00	Ericsson AIR 21, 1.3M,	3	133	7.2	0.83	0.0	0.00	-3.0	1413.8	23.91	471	398
225.00	Ericsson KRY 112	3	14	0.6	0.50	0.0	0.00	-3.0	65.1	23.91	22	42

Site Number: 6260

Code:

TIA/EIA-222-F

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Site Name: North Stonington CT, CT

Engineering Number: 61355221

3/6/2015 2:33:20 PM

Customer: T-Mobile

### Tower Loading

225.00	Ericsson RRUS 11	3	70	3.3	0.67	0.0	0.00	-3.0	529.4	23.91	176	210
225.00	Round Sector Frames	3	415	19.2	0.75	0.0	0.00	0.0	0.0	24.01	1140	1245
210.00	Andrew SMR08-09012-	12	65	7.8	0.78	0.0	0.00	0.0	0.0	23.54	1879	778
210.00	Round Sector Frames	3	415	19.2	0.75	0.0	0.00	0.0	0.0	23.54	1118	1245
192.00	Scala OGB6-928D	1	30	2.9	1.00	0.0	0.00	1.0	74.3	22.98	74	30
192.00	Side Arm	1	175	5.9	1.00	0.0	0.00	0.0	0.0	22.94	149	175
169.00	Allgon 7770.00	6	68	6.4	0.75	0.0	0.00	6.0	4263.9	22.34	711	408
169.00	Andrew SBNH-	1	127	12.4	0.84	0.0	0.00	6.0	1531.2	22.34	255	127
169.00	Ericsson RRUS-11	6	63	3.3	0.50	0.0	0.00	6.0	1454.4	22.34	242	380
169.00	KMW AM-X-CD-14-65-	1	68	6.1	0.76	0.0	0.00	6.0	683.2	22.34	114	68
169.00	Powerwave LGP17201	6	50	2.2	0.50	0.0	0.00	6.0	963.7	22.34	161	300
169.00	Powerwave LGP21903	6	8	0.4	0.50	0.0	0.00	6.0	168.0	22.34	28	47
169.00	Powerwave P65-17-	1	121	12.4	0.80	0.0	0.00	6.0	1460.6	22.34	243	121
169.00	Raycap DC6-48-60-18-	1	35	1.5	0.50	0.0	0.00	6.0	107.6	22.34	18	35
169.00	Round Sector Frames	3	415	19.2	0.75	0.0	0.00	0.0	0.0	22.12	1050	1245
162.00	Scala PR-850	1	108	21.8	1.00	0.0	0.00	0.0	0.0	21.85	524	108
155.00	Kathrein 800 10504	6	36	3.9	0.78	0.0	0.00	0.0	0.0	21.58	430	214
155.00	Kathrein 860 10025	6	3	0.3	0.50	0.0	0.00	0.0	0.0	21.58	19	16
155.00	Sector Frames	3	510	22.2	0.75	0.0	0.00	0.0	0.0	21.58	1185	1530
123.00	8' Omni	1	62	3.2	1.00	0.0	0.00	0.0	0.0	20.20	72	62
123.00	Side Arm	1	175	5.9	1.00	0.0	0.00	0.0	0.0	20.20	131	175
90.00	Ice Shield	1	150	7.0	1.00	0.0	0.00	0.0	0.0	18.48	142	150
82.00	4' Dish w/ Radome	1	212	11.3	1.00	0.0	0.00	0.0	0.0	17.99	224	212
75.00	2' x 4' Rectangular	1	83	14.0	1.00	0.0	0.00	0.0	0.0	17.54	270	83
61.00	4' Std. Dish	1	249	21.8	1.00	0.0	0.00	0.0	0.0	16.53	396	249
	<b>Totals</b>	<b>103</b>	<b>12480</b>	<b>805.2</b>								

### Discrete Appurtenance Properties Normal Twist/Sway

Elevation (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Dist. From Face (ft)	X Angle (deg)	Vert Ecc (ft)	Mom (lb-ft)	Qz (psf)	Total Force (lb)	Pu (lb)
250.00	Decibel DB806-A	2	16	1.0	1.00	0.0	0.00	0.0	0.0	11.41	26	32
250.00	Decibel DB980H90E-KL	9	9	3.8	0.79	0.0	0.00	0.0	0.0	11.41	339	81
250.00	Round Sector Frames	3	300	14.4	0.75	0.0	0.00	0.0	0.0	11.41	407	900
232.00	15' FM Antenna	1	250	12.8	1.00	0.0	0.00	6.5	1026.8	11.26	158	250
225.00	Andrew LNX-6515DS-	3	51	11.4	0.84	0.0	0.00	-3.0	1048.1	11.03	349	154
225.00	Ericsson AIR 21, 1.3M,	3	83	6.5	0.83	0.0	0.00	-3.0	591.6	11.03	197	249
225.00	Ericsson AIR 21, 1.3M,	3	82	6.6	0.83	0.0	0.00	-3.0	596.2	11.03	199	245
225.00	Ericsson KRY 112	3	11	0.4	0.50	0.0	0.00	-3.0	22.4	11.03	7	33
225.00	Ericsson RRUS 11	3	50	3.0	0.67	0.0	0.00	-3.0	218.7	11.03	73	150
225.00	Round Sector Frames	3	300	14.4	0.75	0.0	0.00	0.0	0.0	11.08	394	900
210.00	Andrew SMR08-09012-	12	26	7.0	0.78	0.0	0.00	0.0	0.0	10.86	780	312
210.00	Round Sector Frames	3	300	14.4	0.75	0.0	0.00	0.0	0.0	10.86	387	900
192.00	Scala OGB6-928D	1	9	1.0	1.00	0.0	0.00	1.0	11.3	10.60	11	9
192.00	Side Arm	1	150	5.2	1.00	0.0	0.00	0.0	0.0	10.58	61	150
169.00	Allgon 7770.00	6	35	5.9	0.75	0.0	0.00	6.0	1799.0	10.31	300	210
169.00	Andrew SBNH-	1	61	11.4	0.84	0.0	0.00	6.0	653.4	10.31	109	61
169.00	Ericsson RRUS-11	6	44	2.9	0.50	0.0	0.00	6.0	599.7	10.31	100	264
169.00	KMW AM-X-CD-14-65-	1	36	5.5	0.76	0.0	0.00	6.0	284.2	10.31	47	36
169.00	Powerwave LGP17201	6	31	2.0	0.50	0.0	0.00	6.0	397.7	10.31	66	186
169.00	Powerwave LGP21903	6	6	0.3	0.50	0.0	0.00	6.0	55.1	10.31	9	33
169.00	Powerwave P65-17-	1	59	11.5	0.80	0.0	0.00	6.0	623.3	10.31	104	59
169.00	Raycap DC6-48-60-18-	1	20	1.3	0.50	0.0	0.00	6.0	42.8	10.31	7	20
169.00	Round Sector Frames	3	300	14.4	0.75	0.0	0.00	0.0	0.0	10.21	364	900

Site Number: 6260

Code:

TIA/EIA-222-F

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Site Name: North Stonington CT, CT

Engineering Number: 61355221

3/6/2015 2:33:20 PM

Customer: T- Mobile

### Tower Loading

162.00	Scala PR-850	1	38	10.1	1.00	0.0	0.00	0.0	0.0	10.08	112	38
155.00	Kathrein 800 10504	6	18	3.3	0.78	0.0	0.00	0.0	0.0	9.96	172	106
155.00	Kathrein 860 10025	6	1	0.2	0.50	0.0	0.00	0.0	0.0	9.96	6	7
155.00	Sector Frames	3	400	17.9	0.75	0.0	0.00	0.0	0.0	9.96	441	1200
123.00	8' Omni	1	25	2.4	1.00	0.0	0.00	0.0	0.0	9.32	25	25
123.00	Side Arm	1	150	5.2	1.00	0.0	0.00	0.0	0.0	9.32	53	150
90.00	Ice Shield	1	50	0.9	1.00	0.0	0.00	0.0	0.0	8.52	9	50
82.00	4' Dish w/ Radome	1	120	10.9	1.00	0.0	0.00	0.0	0.0	8.30	99	120
75.00	2' x 4' Rectangular	1	40	4.8	1.00	0.0	0.00	0.0	0.0	8.09	42	40
61.00	4' Std. Dish	1	188	20.9	1.00	0.0	0.00	0.0	0.0	7.63	175	188
	Totals	103	8057	621.5								

Site Number: 6260

Code: TIA/EIA-222-F

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Site Name: North Stonington CT, CT

Engineering Number: 61355221

3/6/2015 2:33:20 PM

Customer: T-Mobile

### Tower Loading

#### 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	250.0	Climbing Ladder	1	2.00	6.90	100.00	2	Separate
0.00	250.0	1 5/8" Coax	4	1.98	0.82	100.00	3	Separate
0.00	250.0	1 5/8" Coax	18	1.98	0.82	50.00	2	Separate
0.00	250.0	1/2" Coax	1	0.63	0.15	100.00	3	Separate
0.00	250.0	Wave Guide	2	2.00	6.00	100.00	2,3	Separate
0.00	232.0	1 5/8" Coax	1	1.98	0.82	100.00	1	Separate
0.00	225.0	1 5/8" Coax	12	1.98	0.82	50.00	1	Separate
0.00	225.0	1 5/8" Hybriflex	1	1.98	1.30	100.00	1	Separate
0.00	225.0	1 5/8" Hybriflex	1	1.98	1.30	0.00	1	Separate
0.00	225.0	Wave Guide	1	2.00	6.00	100.00	1	Separate
0.00	210.0	7/8" Coax	12	1.09	0.33	100.00	2	Separate
0.00	210.0	Wave Guide	1	2.00	6.00	100.00	2	Separate
0.00	192.0	1/2" Coax	3	0.63	0.15	100.00	2	Separate
0.00	192.0	7/8" Coax	1	1.09	0.33	100.00	1	Separate
0.00	169.0	0.39" Cable	1	0.39	0.07	100.00	1	Separate
0.00	169.0	0.78" 8 AWG 6	2	0.78	0.59	100.00	1	Separate
0.00	169.0	1 5/8" Coax	12	1.98	0.82	100.00	1	Separate
0.00	169.0	3" Conduit	1	3.50	7.58	100.00	1	Separate
0.00	169.0	Wave Guide	1	2.00	6.00	100.00	1	Separate
0.00	162.0	1/2" Coax	1	0.65	0.16	100.00	1	Separate
0.00	155.0	1 5/8" Coax	12	1.98	0.82	50.00	3	Separate
0.00	155.0	3/8" Coax	6	0.44	0.08	100.00	3	Separate
0.00	155.0	Wave Guide	1	2.00	6.00	100.00	3	Separate
0.00	123.0	0.28" RG-6	1	0.28	0.08	100.00	3	Separate
0.00	123.0	7/8" Coax	1	1.09	0.33	100.00	1	Separate
0.00	82.00	1/2" Coax	1	0.63	0.15	100.00	3	Separate
0.00	82.00	EW52	1	2.25	0.59	100.00	3	Separate
0.00	75.00	7/8" Coax	1	1.09	0.33	100.00	1	Separate

Site Number: 6260

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Site Name: North Stonington CT, CT

Engineering Number: 61355221

3/6/2015 2:33:20 PM

Customer: T-Mobile

### Force/Stress Summary

Section: 1		Base	Bot Elev (ft): 0.00					Height (ft): 20.000							
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG SOL - 5 3/4" SOLID		-501.62	Normal Ice	20.03	25	25	25	41.8	34.1	885.48	0	0	0.00	0.00	56 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG DAE - 3X3X0.25		-15.30	90 deg No Ice	33.60	25	50	13	145.1	9.5	27.25	4	2	39.25	58.00	56 Member Y
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG SOL - 5 3/4" SOLID		398.37	60 deg Ice	50	1,038.6	0	0	0.00	0.00	38	Member				
HORIZ		0.00		0	0.00	0	0	0.00	0.00	0					
DIAG DAE - 3X3X0.25		15.15	90 deg Ice	36	73.55	4	2	39.25	47.12	38	Bolt Shear				
Max Splice Forces		Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type								
Top Tension		382.26	60 deg Ice	0.00	0										
Top Compression		484.45	Normal Ice	0.00	0										
Bot Tension		415.29	60 deg Ice	907.58	46	6	2 3/4" A36								
Bot Compression		519.09	Normal Ice	0.00	0										

Section: 2		1	Bot Elev (ft): 20.00					Height (ft): 20.000							
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG SOL - 5 1/2" SOLID		-464.06	Normal Ice	20.03	25	25	25	43.7	33.7	801.44	0	0	0.00	0.00	57 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG DAE - 3X3X0.25		-16.54	90 deg Ice	32.02	25	50	13	138.2	10.4	30.01	4	2	39.25	58.00	55 Member Y
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG SOL - 5 1/2" SOLID		368.94	60 deg Ice	50	950.30	0	0	0.00	0.00	38	Member				
HORIZ		0.00		0	0.00	0	0	0.00	0.00	0					
DIAG DAE - 3X3X0.25		15.74	90 deg Ice	36	73.55	4	2	39.25	47.12	40	Bolt Shear				
Max Splice Forces		Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type								
Top Tension		350.19	60 deg Ice	0.00	0										
Top Compression		445.92	Normal Ice	0.00	0										
Bot Tension		382.26	60 deg Ice	1105.81	35	6	2" A325								
Bot Compression		484.45	Normal Ice	0.00	0										



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### Force/Stress Summary

Section: 3		2		Bot Elev (ft): 40.00				Height (ft): 20.000							
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG	SOL - 5 1/4" SOLID	-422.56	Normal Ice	20.03	25	25	25	45.8	33.3	721.39	0	0	0.00	0.00	58 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	DAE - 3X3X0.25	-16.28	90 deg Ice	30.48	25	50	13	131.6	11.5	33.12	4	2	39.25	58.00	49 Member Y

Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG	SOL - 5 1/4" SOLID	337.81	60 deg Ice	50	865.90	0	0	0.00	0.00	39	Member
HORIZ		0.00		0	0.00	0	0	0.00	0.00	0	
DIAG	DAE - 3X3X0.25	15.97	90 deg Ice	36	73.55	4	2	39.25	47.12	40	Bolt Shear

Max Splice Forces		Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension		319.07	60 deg Ice	0.00	0		
Top Compression		403.10	Normal Ice	0.00	0		
Bot Tension		350.19	60 deg Ice	1105.81	32	6	2" A325
Bot Compression		445.92	Normal Ice	0.00	0		

Section: 4		3		Bot Elev (ft): 60.00				Height (ft): 20.000							
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG	SOL - 5" SOLID	-377.93	Normal Ice	20.03	25	25	25	48.1	32.9	645.24	0	0	0.00	0.00	58 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	DAE - 3X3X0.1875	-16.55	90 deg Ice	29.00	25	50	13	126.1	12.5	27.29	4	2	39.25	43.50	60 Member Y

Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG	SOL - 5" SOLID	306.31	60 deg Ice	50	785.38	0	0	0.00	0.00	39	Member
HORIZ		0.00		0	0.00	0	0	0.00	0.00	0	
DIAG	DAE - 3X3X0.1875	15.45	90 deg Ice	36	55.74	4	2	39.25	35.34	43	Bolt Bear

Max Splice Forces		Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension		286.35	60 deg Ice	0.00	0		
Top Compression		358.88	Normal Ice	0.00	0		
Bot Tension		319.07	60 deg Ice	621.98	51	6	1 1/2 A325
Bot Compression		403.10	Normal Ice	0.00	0		

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### Force/Stress Summary

**Section: 5 4 Bot Elev (ft): 80.00 Height (ft): 20.000**

Max Compression Member	Force		Len (ft)	Bracing %				Fa (ksi)	Member		Num	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
	(kip)	Load Case		X	Y	Z	KL/R		Cap Num (kip)	Bolts Holes					
LEG SOL - 4 3/4" SOLID	-334.95	Normal Ice	20.03	25	25	25	50.6	32.3	573.09	0	0	0.00	0.00	58	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG DAE - 3X3X0.1875	-15.59	90 deg Ice	27.59	25	50	13	120.0	13.7	29.90	4	2	39.25	43.50	52	Member Y

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap Num (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG SOL - 4 3/4" SOLID	271.82	60 deg Ice	50	708.82	0	0	0.00	0.00	38	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG DAE - 3X3X0.1875	15.68	90 deg Ice	36	55.74	4	2	39.25	35.34	44	Bolt Bear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	252.00	60 deg Ice	0.00	0		
Top Compression	314.16	Normal Ice	0.00	0		
Bot Tension	286.35	60 deg Ice	621.98	46	6	1 1/2 A325
Bot Compression	358.88	Normal Ice	0.00	0		

**Section: 6 5 Bot Elev (ft): 100.0 Height (ft): 20.000**

Max Compression Member	Force		Len (ft)	Bracing %				Fa (ksi)	Member		Num	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
	(kip)	Load Case		X	Y	Z	KL/R		Cap Num (kip)	Bolts Holes					
LEG SOL - 4 1/2" SOLID	-287.99	Normal Ice	20.03	25	25	25	53.4	31.7	504.85	0	0	0.00	0.00	57	Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG DAE - 3X3X0.1875	-16.49	90 deg Ice	26.25	25	50	13	114.2	14.8	32.28	4	2	39.25	43.50	51	Member Y

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap Num (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG SOL - 4 1/2" SOLID	236.13	60 deg Ice	50	636.14	0	0	0.00	0.00	37	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG DAE - 3X3X0.1875	15.05	90 deg Ice	36	55.74	4	2	39.25	35.34	42	Bolt Bear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	214.65	60 deg Ice	0.00	0		
Top Compression	267.90	Normal Ice	0.00	0		
Bot Tension	252.00	60 deg Ice	621.98	41	6	1 1/2 A325
Bot Compression	314.16	Normal Ice	0.00	0		

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### Force/Stress Summary

**Section: 7      6                      Bot Elev (ft): 120.0                      Height (ft): 20.000**

Max Compression Member	Force		Len (ft)	Bracing %				Fa (ksi)	Member		Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
	(kip)	Load Case		X	Y	Z	KL/R		Cap Num (kip)	Num Holes				
LEG SOL - 4 1/4" SOLID	-254.38	Normal Ice	10.02	50	50	50	56.6	31.1	440.61	0	0	0.00	0.00	57 Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG DAE - 2.5X2.5X0.1875	-10.74	90 deg Ice	18.44	50	50	25	142.3	9.8	17.71	4	2	39.25	43.50	60 Member X

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG SOL - 4 1/4" SOLID	208.70	60 deg Ice	50	567.43	0	0	0.00	0.00	36	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG DAE - 2.5X2.5X0.1875	11.16	90 deg Ice	36	44.72	4	2	39.25	35.34	31	Bolt Bear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	178.69	60 deg Ice	0.00	0		
Top Compression	219.72	Normal Ice	0.00	0		
Bot Tension	214.65	60 deg Ice	522.71	41	6	1 3/8 A325
Bot Compression	267.90	Normal Ice	0.00	0		

**Section: 8      7                      Bot Elev (ft): 140.0                      Height (ft): 20.000**

Max Compression Member	Force		Len (ft)	Bracing %				Fa (ksi)	Member		Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
	(kip)	Load Case		X	Y	Z	KL/R		Cap Num (kip)	Num Holes				
LEG SOL - 4" SOLID	-207.24	Normal Ice	10.02	50	50	50	60.1	30.3	380.33	0	0	0.00	0.00	54 Member X
HORIZ	0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG DAE - 2.5X2.5X0.1875	-10.58	90 deg Ice	16.80	50	50	25	129.6	11.9	21.34	4	2	39.25	43.50	49 Member X

Max Tension Member	Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG SOL - 4" SOLID	169.92	60 deg Ice	50	502.63	0	0	0.00	0.00	33	Member
HORIZ	0.00		0	0.00	0	0	0.00	0.00	0	
DIAG DAE - 2.5X2.5X0.1875	10.74	90 deg Ice	36	44.72	4	2	39.25	35.34	30	Bolt Bear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	139.59	60 deg Ice	0.00	0		
Top Compression	171.93	Normal Ice	0.00	0		
Bot Tension	178.69	60 deg Ice	431.99	41	6	1 1/4 A325
Bot Compression	219.72	Normal Ice	0.00	0		

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### Force/Stress Summary

Section: 9		8		Bot Elev (ft): 160.0				Height (ft): 20.000							
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG	SOL - 3 3/4" SOLID	-159.50	Normal Ice	10.02	50	50	50	64.1	29.3	324.04	0	0	0.00	0.00	49 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	SAE - 3.5X3.5X0.25	-9.16	90 deg Ice	15.24	50	50	50	131.8	11.5	19.38	2	1	19.63	29.00	47 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
LEG	SOL - 3 3/4" SOLID	130.94	60 deg Ice	50	441.79	0	0	0.00	0.00	29	Member
HORIZ		0.00		0	0.00	0	0	0.00	0.00	0	
DIAG	SAE - 3.5X3.5X0.25	9.25	90 deg Ice	36	44.02	2	1	19.63	23.56	47	Bolt Shear

Max Splice Forces		Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension		103.48	60 deg Ice	0.00	0		
Top Compression		124.92	Normal Ice	0.00	0		
Bot Tension		139.59	60 deg Ice	349.91	40	6	1 1/8 A325
Bot Compression		171.93	Normal Ice	0.00	0		

Section: 10		10		Bot Elev (ft): 180.0				Height (ft): 20.000							
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG	SOL - 3 3/4" SOLID	-117.78	Normal Ice	6.68	100	100	100	85.5	23.9	263.53	0	0	0.00	0.00	44 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	SAE - 3X3X0.1875	-6.69	90 deg Ice	11.74	50	75	50	118.7	14.0	15.22	2	1	19.63	21.75	43 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
LEG	SOL - 3 3/4" SOLID	98.73	60 deg Ice	50	441.79	0	0	0.00	0.00	22	Member
HORIZ		0.00		0	0.00	0	0	0.00	0.00	0	
DIAG	SAE - 3X3X0.1875	6.80	90 deg Ice	36	27.87	2	1	19.63	17.67	38	Bolt Bear

Max Splice Forces		Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension		66.60	60 deg Ice	0.00	0		
Top Compression		81.74	Normal Ice	0.00	0		
Bot Tension		103.48	60 deg Ice	349.91	30	6	1 1/8 A325
Bot Compression		124.92	Normal Ice	0.00	0		

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Engineering Number: 61355221

3/6/2015 2:33:20 PM

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### Force/Stress Summary

Section: 11 11		Bot Elev (ft): 200.0		Height (ft): 20.000												
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %				Fa (ksi)	Member Cap Num		Shear Cap		Bear Cap	Use %	Controls
LEG SOL - 3 1/4" SOLID		-73.80	Normal Ice	6.68	100	100	100	98.6	20.0	166.17	0	0	0.00	0.00	44	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		-6.16	90 deg Ice	10.16	50	75	50	123.2	13.1	11.81	2	1	19.63	21.75	52	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					
LEG SOL - 3 1/4" SOLID		60.56	60 deg Ice	50	331.83	0	0	0.00	0.00	18	Member					
HORIZ		0.00		0	0.00	0	0	0.00	0.00	0						
DIAG SAE - 2.5X2.5X0.1875		6.01	90 deg Ice	36	22.42	2	1	19.63	17.67	34	Bolt Bear					
Max Splice Forces		Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type									
Top Tension		32.38	60 deg Ice	0.00	0											
Top Compression		41.27	Normal Ice	0.00	0											
Bot Tension		66.60	60 deg Ice	276.47	24	6	1 A325									
Bot Compression		81.74	Normal Ice	0.00	0											

Section: 12 12		Bot Elev (ft): 220.0		Height (ft): 20.000												
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %				Fa (ksi)	Member Cap Num		Shear Cap		Bear Cap	Use %	Controls
LEG SOL - 2 1/4" SOLID		-36.46	Normal Ice	5.01	100	100	100	106.8	17.4	69.35	0	0	0.00	0.00	52	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 - 1.75X1.75X0.18		-4.66	90 deg Ice	7.621	50	75	50	133.3	11.2	6.96	2	1	10.99	17.40	66	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					
LEG SOL - 2 1/4" SOLID		28.03	60 deg Ice	50	159.04	0	0	0.00	0.00	17	Member					
HORIZ		0.00		0	0.00	0	0	0.00	0.00	0						
DIAG SAE - 1.75X1.75X0.18		4.67	90 deg Ice	36	14.95	2	1	10.99	14.14	42	Bolt Shear					
Max Splice Forces		Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type									
Top Tension		8.95	60 deg Ice	0.00	0											
Top Compression		11.88	Normal Ice	0.00	0											
Bot Tension		32.38	60 deg Ice	110.48	29	6	5/8 A325									
Bot Compression		41.27	Normal Ice	0.00	0											

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Code:

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Engineering Number: 61355221

3/6/2015 2:33:20 PM

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### Force/Stress Summary

Section: 13 13 Bot Elev (ft): 240.0 Height (ft): 10.000

Max Compression Member	Force		Len (ft)	Bracing %				Fa (ksi)	Member		Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
	(kip)	Load Case		X	Y	Z	KL/R		Cap (kip)	Num Bolts				
LEG SOL - 2" SOLID	-8.44	Normal Ice	5.00	100	100	100	120.0	13.8	43.44	0	0	0.00	0.00	19 Member X
HORIZ SAE - 2X2X0.1875	-0.63	60 deg Ice	4.000	100	100	100	121.8	13.4	9.55	1	1	9.81	10.87	6 Member Z
DIAG SAE - 1.75X1.75X0.18	-2.19	90 deg Ice	6.403	50	75	50	114.0	14.8	9.21	2	1	10.99	17.40	23 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
LEG SOL - 2" SOLID	5.99	60 deg No Ice	50	125.66	0	0	0.00	0.00	4	Member
HORIZ SAE - 2X2X0.1875	0.63	90 deg Ice	36	17.00	1	1	9.81	6.80	9	Bolt Bear
DIAG SAE - 1.75X1.75X0.18	2.26	60 deg Ice	36	14.95	2	1	10.99	14.14	20	Bolt Shear

Max Splice Forces	Force (kip)	Load Case	Capacity (kip)	Use %	Num Bolts	Bolt Type
Top Tension	0.00		0.00	0		
Top Compression	0.76	60 deg Ice	0.00	0		
Bot Tension	8.95	60 deg Ice	73.65	12	4	5/8 A325
Bot Compression	11.88	Normal Ice	0.00	0		

Site Number: 6260

Code: TIA/EIA-222-F

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Site Name: North Stonington CT, CT

Engineering Number: 61355221

3/6/2015 2:33:20 PM

Customer: T- Mobile

### Force/Stress Summary

### Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
50 mph Wind at 60 degree From Face with No Ice	60.00	0.0288	0.0214	0.0496
	80.00	0.0493	0.0318	0.0676
	120.00	0.1084	0.0603	0.1058
	150.00	0.1696	0.0931	0.1295
	160.00	0.1934	0.1071	0.1479
	170.00	0.2188	0.1200	0.1348
	193.33	0.2852	0.0947	0.1746
	206.67	0.3271	0.0728	0.1851
	225.00	0.3889	0.0103	0.3033
	230.00	0.4064	0.0191	0.1794
50 mph Wind at 90 degree From Face with No Ice	250.00	0.4803	0.0127	0.2165
	60.00	0.0296	0.0132	0.0501
	80.00	0.0501	0.0195	0.0674
	120.00	0.1098	0.0365	0.1059
	150.00	0.1715	0.0552	0.1273
	160.00	0.1956	0.0632	0.1548
	170.00	0.2213	0.0707	0.0883
	193.33	0.2882	0.0573	0.1747
	206.67	0.3305	0.0455	0.1852
	225.00	0.3930	0.0113	0.3514
50 mph Wind Normal To Face with No Ice	230.00	0.4107	0.0158	0.1145
	250.00	0.4854	0.0116	0.2192
	60.00	0.0316	0.0182	0.0531
	80.00	0.0523	0.0271	0.0732
	120.00	0.1144	0.0526	0.1158
	150.00	0.1782	0.0832	0.1463
	160.00	0.2034	0.0963	0.1366
	170.00	0.2300	0.1082	0.2269
	193.33	0.2995	0.0834	0.1841
	206.67	0.3432	0.0621	0.1985
74 mph Wind at 60 degree From Face with Ice	225.00	0.4074	0.0027	0.0643
	230.00	0.4257	0.0113	0.3038
	250.00	0.5026	0.0054	0.2258
	60.00	0.0969	0.1350	0.1667
	80.00	0.1591	0.1999	0.2218
	120.00	0.3528	0.3786	0.3466
	150.00	0.5557	0.5819	0.4350
	160.00	0.6342	0.6637	0.4839
	170.00	0.7195	0.7558	0.4681
	193.33	0.9409	0.8236	0.5862
74 mph Wind at 90 degree From Face with Ice	206.67	1.0811	0.8691	0.6241
	225.00	1.2881	1.0488	0.9681
	230.00	1.3476	1.2558	0.7700
	250.00	1.5952	1.2679	0.7252
	60.00	0.0952	0.0715	0.1636
	80.00	0.1594	0.1056	0.2194
	120.00	0.3541	0.1982	0.3390
	150.00	0.5585	0.3013	0.4224

Site Number: 6260

Code:

TIA/EIA-222-F

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Site Name: North Stonington CT, CT

Engineering Number: 61355221

3/6/2015 2:33:20 PM

Customer: T- Mobile

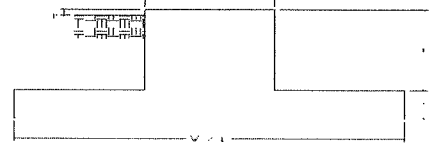
### Force/Stress Summary

	160.00	0.6371	0.3426	0.4972
	170.00	0.7229	0.3895	0.3478
	193.33	0.9454	0.4243	0.5747
	206.67	1.0863	0.4475	0.6100
	225.00	1.2943	0.5354	1.1136
	230.00	1.3538	0.6341	0.0896
	250.00	1.6019	0.6405	0.7244
74 mph Wind Normal To Face with Ice	60.00	0.0933	0.1068	0.1698
	80.00	0.1636	0.1587	0.2335
	120.00	0.3626	0.3038	0.3818
	150.00	0.5717	0.4729	0.4865
	160.00	0.6523	0.5414	0.4715
	170.00	0.7405	0.6176	0.7030
	193.33	0.9700	0.6690	0.6300
	206.67	1.1151	0.7032	0.6819
	225.00	1.3282	0.8467	0.3041
	230.00	1.3898	1.0155	1.3777
	250.00	1.6472	1.0203	0.7574
85 mph Wind at 60 degree From Face with No Ice	60.00	0.0846	0.0753	0.1445
	80.00	0.1431	0.1116	0.1963
	120.00	0.3141	0.2115	0.3071
	150.00	0.4910	0.3251	0.3750
	160.00	0.5601	0.3727	0.4283
	170.00	0.6337	0.4180	0.3931
	193.33	0.8258	0.3486	0.5061
	206.67	0.9471	0.2857	0.5358
	225.00	1.1258	0.1025	0.8761
	230.00	1.1769	0.1375	0.5278
	250.00	1.3907	0.1347	0.6280
85 mph Wind at 90 degree From Face with No Ice	60.00	0.0844	0.0441	0.1439
	80.00	0.1447	0.0650	0.1936
	120.00	0.3173	0.1215	0.3044
	150.00	0.4962	0.1836	0.3675
	160.00	0.5656	0.2093	0.4469
	170.00	0.6402	0.2346	0.2548
	193.33	0.8341	0.2034	0.5044
	206.67	0.9566	0.1742	0.5351
	225.00	1.1376	0.0866	1.0109
	230.00	1.1888	0.1040	0.3304
	250.00	1.4048	0.1047	0.6342
85 mph Wind Normal To Face with No Ice	60.00	0.0901	0.0614	0.1526
	80.00	0.1509	0.0914	0.2114
	120.00	0.3304	0.1763	0.3342
	150.00	0.5152	0.2764	0.4249
	160.00	0.5878	0.3186	0.3977
	170.00	0.6650	0.3583	0.6585
	193.33	0.8660	0.2976	0.5360
	206.67	0.9929	0.2426	0.5778
	225.00	1.1786	0.0863	0.1876
	230.00	1.2315	0.1175	0.8832
	250.00	1.4542	0.1165	0.6527



Site Name: North Stonington CT  
 Site Number: 6260  
 Engineering Number: 61355221  
 Engineer: CEH  
 Date: 03/06/15  
 Tower Type: SST w/3 Legs

Program Last Updated: 11/15/2012



**Design Loads (Unfactored)**

Design / Analysis / Mapping:	Analysis	Concrete Strength ( $f'_c$ ):	3000 psi
Compression/Leg:	519.9 k	Pad Tension Steel Depth:	44.00 in
Uplift/Leg:	410.9 k	Wind Load Factor:	1.3
Total Shear:	76.4 k	$\phi_{\text{Shear}}$ :	0.75
Moment:	10520.1 k-ft	$\phi_{\text{Flexure / Tension}}$ :	0.90
Tower + Appurtenance Weight:	91.8 k	$\phi_{\text{Compression}}$ :	0.65
Depth to Base of Foundation:	7.00 ft	$\beta$ :	0.85
Diameter of Pier (d):	4.50 ft	Bottom Pad Rebar Size #:	11
Height of Pier above Ground (h):	1.00	# of Bottom Pad Rebar:	51
Width of Pad (W):	42.00 ft	Pad Bottom Steel Area:	79.56 in <sup>2</sup>
Length of Pad (L):	42.00 ft	Pad Steel $F_y$ :	60000 psi
Thickness of Pad (t):	4.00 ft	Top Pad Rebar Size #:	11
Tower Leg Center to Center:	0.00 ft	# of Top Pad Rebar:	51
Number of Tower Legs:	3.0 (1 if MP or GT)	Pad Top Steel Area:	79.56 in <sup>2</sup>
Tower Center from Mat Center:	0.00 ft	Pier Rebar Size #:	11
Depth Below Ground Surface to Water Table:	1.00 ft	Pier Steel Area (Single Bar):	1.56 in <sup>2</sup>
Unit Weight of Concrete:	150.0 pcf	# of Pier Rebar:	20
Unit Weight of Soil Above Water Table:	100.0 pcf	Pier Steel $F_y$ :	60000 psi
Unit Weight of Water:	62.4 pcf	Pier Cage Diameter:	46.0 in
Unit Weight of Soil Below Water Table:	50.0 pcf	Rebar Strain Limit:	0.008
Friction Angle of Uplift:	15.00 Degrees	Steel Elastic Modulus:	29000 ksi
Ultimate Coefficient of Shear Friction:	0.35	Tie Rebar Size #:	5
Allowable Compressive Bearing Pressure:	12000.0 psf	Tie Steel Area (Single Bar):	0.31 in <sup>2</sup>
Ultimate Passive Pressure on Pad Face:	0.0 psf	Tie Spacing:	6 in
Allowable Capacity Increase:	1.00	Tie Steel $F_y$ :	60000 psi

**Overturning Factor of Safety**

Design OTM:	11131.5 k-ft
OTM Resistance:	23228.4 k-ft
OTM Resistance / Design OTM Factor of Safety:	2.09 Result: OK

**Soil Bearing Pressure Usage:**

Net Bearing Pressure:	1655 psf
Allowable Bearing Pressure:	12000 psf
Net Bearing Pressure/Allowable Bearing Pressure:	0.14 Result: OK
Load Direction Controlling Design Bearing Pressure:	Diagonal to Pad Edge

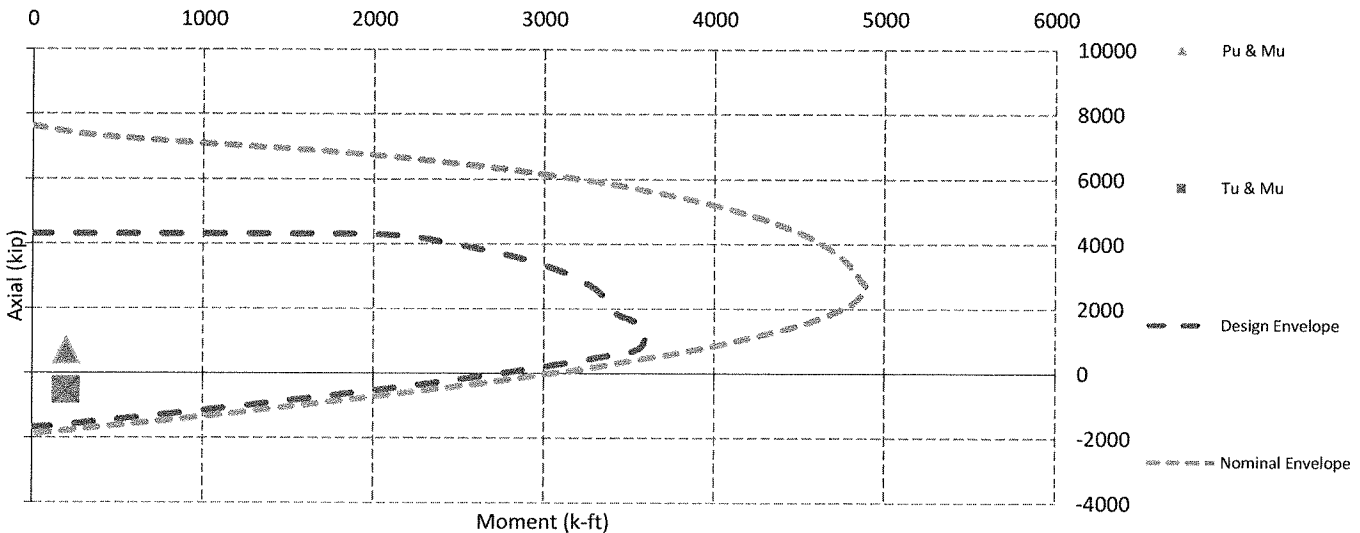
**Sliding Factor of Safety**

Total Ultimate Sliding Resistance:	376.5 k
Sliding Resistance/Sliding Design Factor of Safety:	4.93 Result: OK

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

Factored One Way Shear ( $V_u$ ):	676.5 k
One Way Shear Capacity ( $\phi V_c$ ):	1821.9 k - ACI11.3.1.1
$V_u / \phi V_c$ :	0.37 Result: OK
Load Direction Controlling Shear Capacity:	Parallel to Pad Edge
Lower Pad Steel Factored Moment ( $M_u$ ):	8501.3 k-ft
Lower Steel Pad Moment Capacity ( $\phi M_n$ ):	15187.7 k-ft - ACI10.3
$M_u / \phi M_n$ :	0.56 Result: OK
Load Direction Controlling Flexural Capacity:	Parallel to Pad Edge
Upper Steel Pad Factored Moment ( $M_u$ ):	4418.6 k-ft
Upper Steel Pad Moment Capacity ( $\phi M_n$ ):	15187.7 k-ft
$M_u / \phi M_n$ :	0.29 Result: OK
Lower Pad Flexural Reinforcement Ratio:	0.0036 OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Upper Pad Flexural Reinforcement Ratio:	0.0036 OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Lower Pad Reinforcement Spacing:	10 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Upper Pad Reinforcement Spacing:	10 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Factored Punching Shear ( $V_u$ ):	645.5 k
Nominal Punching Shear Capacity ( $\phi_c V_n$ ):	2225.9 k - ACI11.12.2.1
$V_u / \phi V_c$ :	0.29 Result: OK
Factored Moment in Pier ( $M_u$ ):	198.7 k-ft
Pier Moment Capacity ( $\phi M_n$ ):	3160.3 k-ft
$M_u / \phi M_n$ :	0.06 Result: OK
Factored Shear in Pier ( $V_u$ ):	66.2 k
Pier Shear Capacity ( $\phi V_n$ ):	171.3 k
$V_u / \phi V_c$ :	0.39 Result: OK
Pier Shear Reinforcement Ratio:	0.0017 No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier ( $T_u$ ):	534.1 k
Pier Tension Capacity ( $\phi T_n$ ):	1684.8 k
$T_u / \phi T_n$ :	0.32 Result: OK
Factored Compression in Pier ( $P_u$ ):	675.9 k
Pier Compression Capacity ( $\phi P_n$ ):	2995.5 k - ACI10.3.6.2
$P_u / \phi P_n$ :	0.23 Result: OK
Pier Compression Reinforcement Ratio:	0.014 OK - Reinforcement Ratio Met - ACI10.9.1 & 10.8.4
$M_u / \phi_B M_n + T_u / \phi_T T_n$ :	0.38 Result: OK

Nominal and Design Moment Capacity and Factored Design Loads

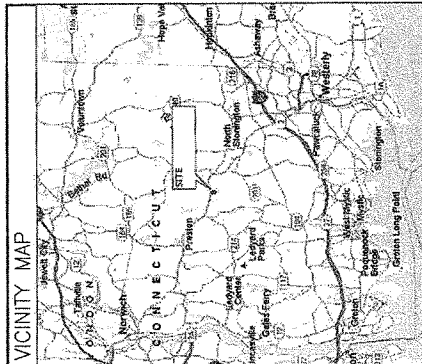


# T-MOBILE NORTHEAST LLC

## CT11266A

## NORTH STONINGTON-3\_1

118 WINTECHOG HILL ROAD  
NORTH STONINGTON, CT 06359



**DO NOT SCALE DRAWINGS**  
CONTRACTOR SHALL VERIFY PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES OR DISCREPANCY WITH THE WORK. HE OR SHE SHALL BE RESPONSIBLE FOR SAME.

**CALL:**  
**'CALL BEFORE YOU DIG'**  
WWW.CBDIG.COM  
CALL 611 OR 1-800-922-4465  
**CALL THREE WORKING DAYS PRIOR TO DIGGING**  
**UNLESS IT IS AN EMERGENCY**  
COLOR CODE FOR UTILITY LOCATIONS  
SEWER - GREEN  
ELECTRIC - RED  
GAS/OIL - YELLOW  
RELF/CATV - ORANGE  
WATER - PURPLE  
RECLAIMED WATER - BLUE

**GENERAL NOTES**

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL CITY, STATE, FEDERAL, AND LOCAL ORDINANCES, RULES, REGULATIONS, AND LOCAL AND STATE COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK, AND THE WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAS MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT WORK DIMENSIONS SHALL NOT EXCEED SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE T-MOBILE REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR DISCREPANCIES IN PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES, THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXPENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING OF ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND SERVICES NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH THE CONSTRUCTION FROM THE CITY OF NORTH STONINGTON, CT. THIS AUTHORIZATION SHALL NOT CLEARLY DEFINE BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

**PROJECT SUMMARY**

<b>SITE NUMBER:</b>	CT11266A
<b>SITE NAME:</b>	NORTH STONINGTON-3_1
<b>SITE ADDRESS:</b>	118 WINTECHOG HILL ROAD NORTH STONINGTON, CT 06359
<b>PROPERTY OWNER:</b>	TBD
<b>PARCEL:</b>	TBD
<b>CURRENT ZONING:</b>	TBD
<b>JURISDICTION:</b>	TBD
<b>ATC SITE NUMBER:</b>	6260
<b>LAT./LONG.:</b>	N 41.45894388° / W -71.9272335°
<b>CONSTRUCTION TYPE:</b>	-
<b>USE GROUP:</b>	-

**APPLICANT:** T-MOBILE NORTHEAST LLC  
400 STREET ROAD  
BENSALEN, PA 19020

**PROJECT MANAGER:** BRICE HOFFMASTER  
508 CEDARY ROAD  
SPRING CRT, PA 19475  
484-942-6339

**CONTACT:** ALEX WELLS  
1033 WATERLEY SHAWER ROAD  
ALBANY, NY 12206  
518-690-0780

**PROJECT DESCRIPTION**

EXISTING MONOPOLE  EXISTING CABINETS (S)  
 EXISTING LATTICE TOWER  EXISTING RIS 2109  
 EXISTING TRANSMISSION TOWER  EXISTING RIS 3106  
 EXISTING WATER TANK  PROPOSED RIS 6102  
 EXISTING BUILDING  SITE SUPPORT KIT  
 EXISTING FLAGPOLE  SITE SUPPORT CABINET  EXISTING FCC  
 EXISTING FORT WALL  GPS  PANELBOARD

T-MOBILE NORTHEAST LLC PROPOSES THE MODIFICATION OF AN EXISTING 700 PANE ANTENNAS & RIS, REUSE EXISTING FIBER CABLE, GPS ANTENNA AND EXISTING EQUIPMENT CABINETS.

**PROJEC T SUMMARY**

<b>SITE NUMBER:</b>	CT11266A
<b>SITE NAME:</b>	NORTH STONINGTON-3_1
<b>SITE ADDRESS:</b>	118 WINTECHOG HILL ROAD NORTH STONINGTON, CT 06359
<b>PROPERTY OWNER:</b>	TBD
<b>PARCEL:</b>	TBD
<b>CURRENT ZONING:</b>	TBD
<b>JURISDICTION:</b>	TBD
<b>ATC SITE NUMBER:</b>	6260
<b>LAT./LONG.:</b>	N 41.45894388° / W -71.9272335°
<b>CONSTRUCTION TYPE:</b>	-
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**APPLICANT:** T-MOBILE NORTHEAST LLC  
400 STREET ROAD  
BENSALEN, PA 19020

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1033 WATERLEY SHAWER ROAD  
ALBANY, NY 12206  
518-690-0780

SHEET	DESCRIPTION	REVISION
T-1	TITLE SHEET	0
C-1	SITE PLAN	0
C-2	COMPOUND PLAN & ELEVATION	0
C-3	ANTENNA DETAIL & RF SCHEDULE	0
C-4	EQUIPMENT SPECIFICATIONS	0
E-1	GROUNDING AND POWER DIAGRAMS	0
E-2	COAX/FIBER PLUMBING DIAGRAM	0
N-1	GENERAL AND ELECTRICAL NOTES	0

SHEET	DESCRIPTION	REVISION
T-1	TITLE SHEET	0
C-1	SITE PLAN	0
C-2	COMPOUND PLAN & ELEVATION	0
C-3	ANTENNA DETAIL & RF SCHEDULE	0
C-4	EQUIPMENT SPECIFICATIONS	0
E-1	GROUNDING AND POWER DIAGRAMS	0
E-2	COAX/FIBER PLUMBING DIAGRAM	0
N-1	GENERAL AND ELECTRICAL NOTES	0

**TITLE SHEET**

**SHEET NUMBER**

T-1

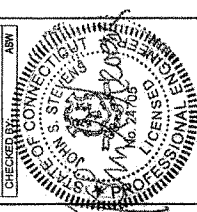
**SHEET 1 OF 8 SHEETS**

**SHEET INDEX**

**PROJECT DESCRIPTION**

**PROJECT SUMMARY**

(702Cu CONFIGURATION)



**T-Mobile**  
VERIZON PARTNERSHIP LLC  
118 WINTECHOG HILL ROAD  
NORTH STONINGTON, CT 06359  
Fax # (810) 880-0780

**INFINIGY8**  
DESIGN ENGINEERING  
3700 JIM AHN  
ALBANY, NY 12206  
PHONE # (518) 880-0780

DATE	DESCRIPTION	REVISION
10/27/13	15% START	1

REF.	DATE	BY	REVISION

**PROJECT NO.:** 317-000  
**DRAWN BY:** JIM AHN  
**CHECKED BY:** ASH

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**NOTE: IF DRAWINGS ARE 24" X 36" USE GRAPHICAL SCALE AND/OR 1/2 TIMES OF THE NOTED SCALE.**

T-Mobile  
PROFESSIONAL LAND SURVEYING  
 ENGINEERING

**INFINIGY8**  
 Digital Land Design  
 1033 WATERHOLE SPRING RD  
 SUITE 101  
 CHESTER, CT 06438  
 (860) 424-3800  
 FAX (860) 424-3801  
 www.infinigy.com

DATE	DESCRIPTION	REVISED

NO.	DATE	REVISION

PROJECT NO: 317400  
 DRAWN BY: JLM  
 CHECKED BY: ASW  


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 OF THE NOTED SCALE.

SITE NUMBER:  
 C111266A  
 SITE NAME:  
 NORTH STONINGTON-1,  
 119 WINTERHOG HILL ROAD  
 NORTH STONINGTON, CT 06359

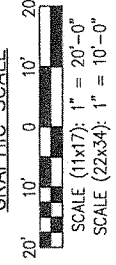
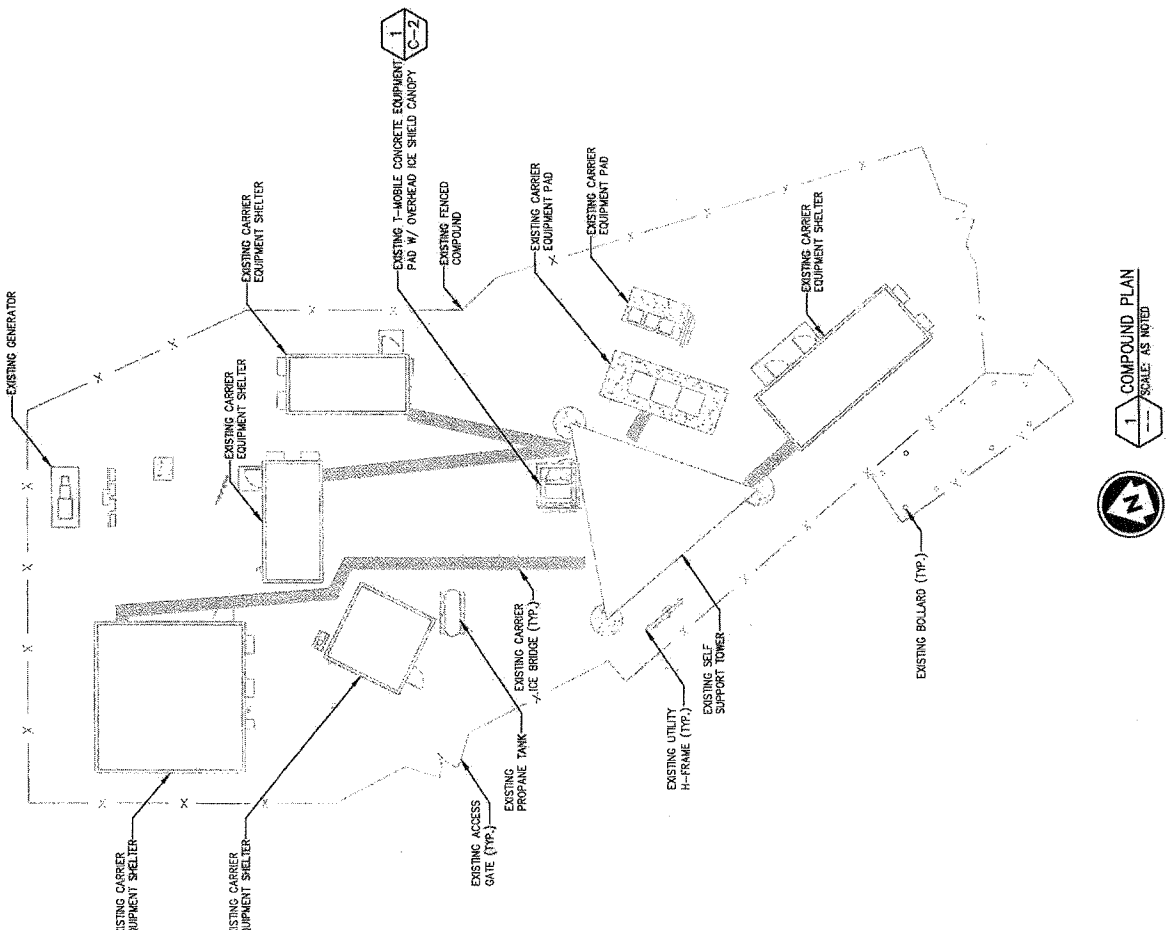
SHEET TITLE  
**SITE PLAN**

SHEET NUMBER  
**C-1**  
 SHEET 2 OF 8 SHEETS

- GENERAL SITE NOTES:**
- A COMPLETE BOUNDARY SURVEY OF THE HOST PARCEL HAS NOT BEEN PERFORMED BY INFINIGY. BOUNDARY INFORMATION IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
  - BOUNDING INFORMATION BASED ON PROVIDED INFORMATION.
  - CONTRACTOR TO FIELD VERIFY DIMENSIONS AS NECESSARY BEFORE CONSTRUCTION.
  - THE PROPOSED DEVELOPMENT DOES NOT INCLUDE SIGNS OF ADVERTISING.
  - THE PROPOSED DEVELOPMENT IS UNIMPAVED AND THEREFORE DOES NOT REQUIRE A PERMIT FOR SIGNAGE OR OBSTRUCTION.
  - NO LANDSCAPING WORK IS PROPOSED IN CONJUNCTION WITH THIS DEVELOPMENT OTHER THAN THAT WHICH IS SHOWN.
  - THE PROPOSED DEVELOPMENT DOES NOT INCLUDE:
  - UTILITIES SHOWN ON PLAN ARE TAKEN FROM FACILITY OWNERS RECORDS AND ARE SHOWN FOR INFORMATION ONLY. EXISTING UTILITIES AND EXISTING FOUNDATIONAL AND VERTICAL LOCATIONS OF UTILITIES HAS NOT BEEN VERIFIED. ANY CONTRACTOR MUST VERIFY ALL UTILITIES BEFORE CONSTRUCTION. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
  - ALL OBSTACLES OR HAZARD AREAS SHALL BE REMOVED WITHIN 12 MONTHS OF COMMENCEMENT OF CONSTRUCTION.

**SITE LEGEND**

---	SITE PROPERTY LINE
- - - - -	STREET OR ROAD
- X - X -	CHAIN LINK FENCE
-   -   -	OPAQUE WOODEN FENCE
○	TREES/SHRUBS
⊗	TREE LINE
X	UTILITY POLE
(E)	EXISTING
(N)	NEW
(P)	PROPOSED
(F)	FUTURE



1 COMPOUND PLAN  
 SCALE: AS NOTED  
 CALLED NORTH

DATE	DESCRIPTION	REVISION
02/17/23	FOR PERMITS	6
		5
		4
		3
		2
		1

NO.	DATE	APPROVED
1		
2		
3		
4		
5		
6		

PROJECT NO: 317-000  
 DRAWN BY: JLM  
 CHECKED BY: ASW

**STATE OF CONNECTICUT**  
**REGISTERED PROFESSIONAL ENGINEER**  
**NO. 24705**  
**CONSTRUCTION**

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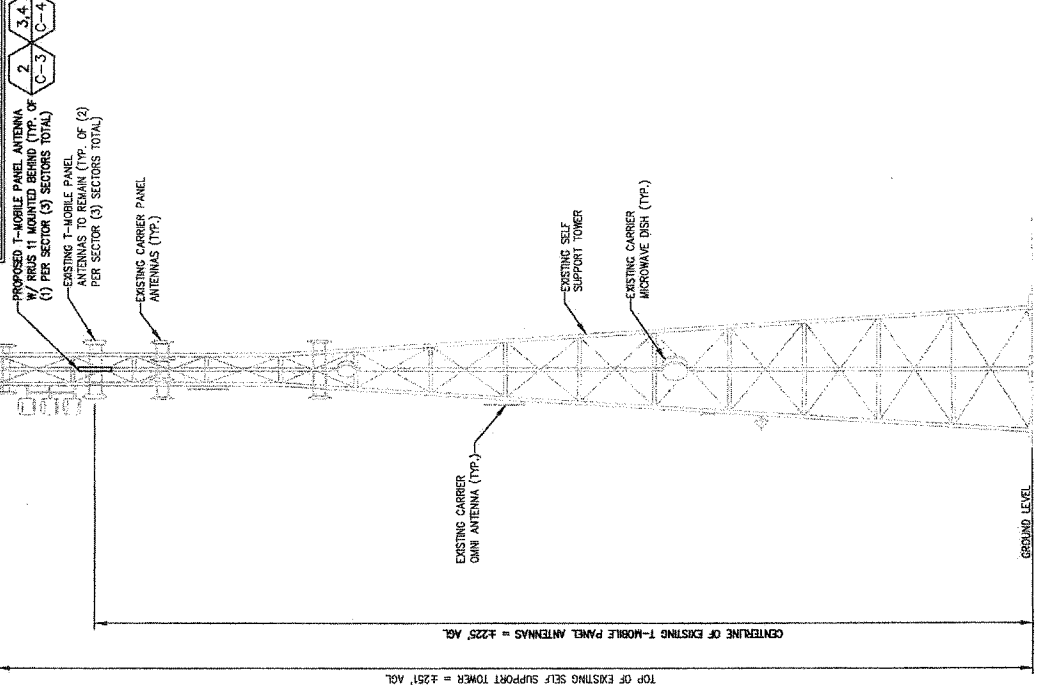
NOTE: IF DRAWINGS ARE ZOOMED, USE  
 GRAPHICAL SCALE AND/OR 1/2 TIMES  
 OF THE NOTED SCALE.

SITE NUMBER:  
 CT11266A  
 SITE NAME:  
 NORTH STONINGTON-3.1  
 118 WINTERHOLE SHORLICK RD  
 NORTH STONINGTON, CT 06899

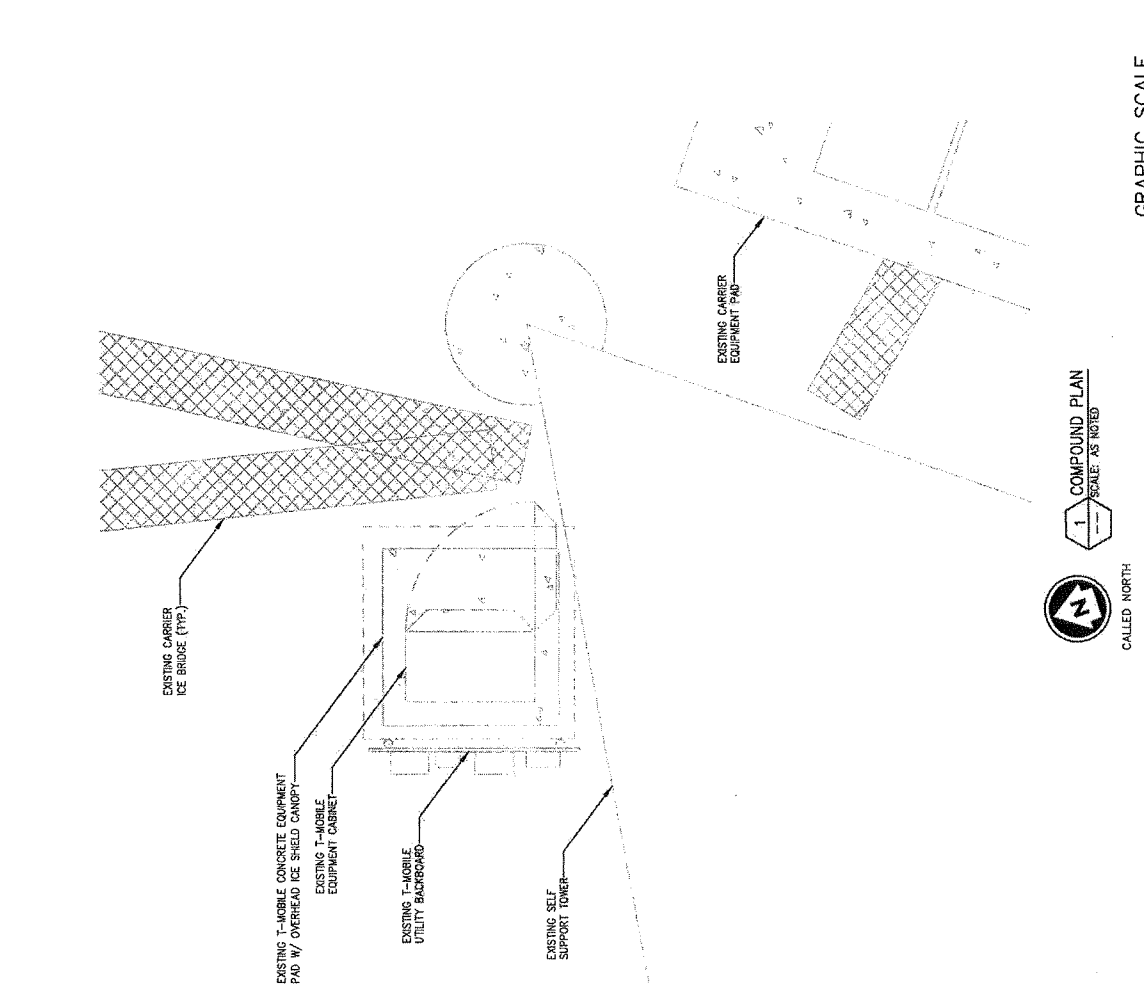
**COMPOUND PLAN  
 & ELEVATION**

SHEET NUMBER  
**C-2**  
 SHEET 3 OF 8 SHEETS

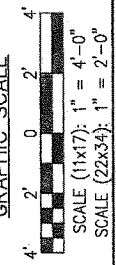
NOTE:  
 INFINIGY ENGINEERING HAS NOT EVALUATED THE  
 STRUCTURAL INTEGRITY OF THE EXISTING TOWER AND ASSUMES  
 NO RESPONSIBILITY FOR ITS STRUCTURAL  
 INTEGRITY REGARDING ITS EXISTING OR PROPOSED  
 LOADING. FINAL INSTALLATION TO COMPLY WITH  
 RESULTS OF PASSING STRUCTURAL ANALYSIS.



**2 TOWER ELEVATION**  
 NOT TO SCALE



**1 COMPOUND PLAN**  
 SCALE: AS NOTED  
 CALLED NORTH



DATE	DESCRIPTION	REVISION
02/07/21	ON RFP	1
02/07/21	FOR PERMIT	2

DATE	DESCRIPTION	REVISION

PROJECT NO: 317-000  
 DRAWN BY: ALM  
 CHECKED BY: ASH  
 LICENSE NO. 24705  
 PROFESSIONAL SEAL  
 STATE OF CONNECTICUT  
 PROFESSIONAL ENGINEER

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NOTE: IF DRAWINGS ARE ZOOMED, USE GRAPHICAL SCALE AND/OR 12 TIMES OF THE NOTED SCALE.

SITE NUMBER: CT11266A  
 SITE NAME: NORTH STONINGTON 3.1  
 118 WHITECHOC HILL ROAD  
 NORTH STONINGTON, CT 06389

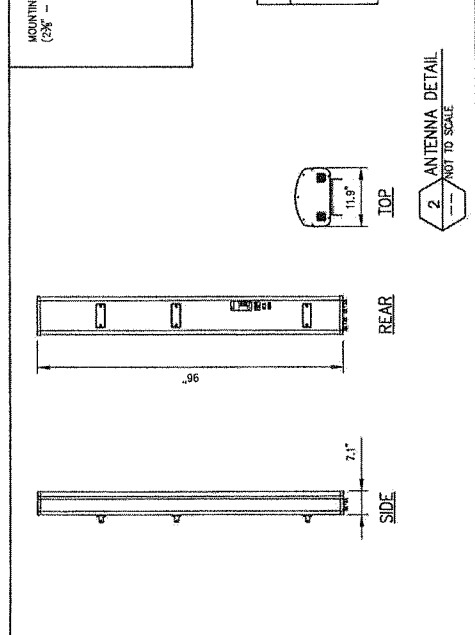
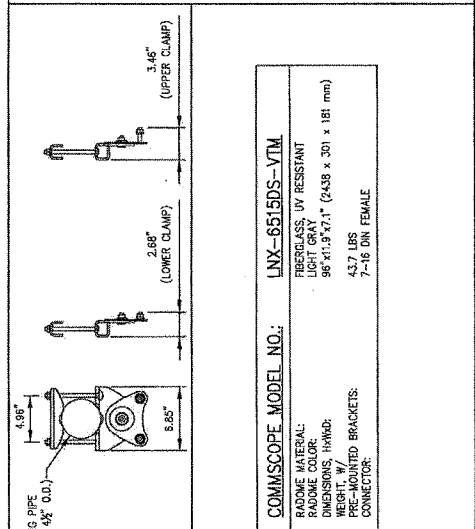
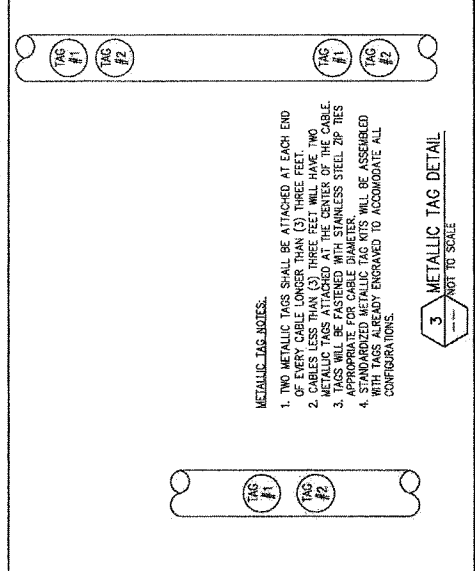
SHEET TITLE: ANTENNA DETAIL & RF SCHEDULE  
 SHEET NUMBER: C-3  
 SHEET 4 OF 8 SHEETS

**RF SYSTEM SCHEDULE (702CU CONFIGURATION)**

SECTOR	TECHNOLOGY	ANTENNA PORT	BAND	ANTENNA MODEL #	VENDOR	QTY (REQUIRED)	QTY (REMOVED)	AZIMUTH (DEG)	E-TILT (DEG)	A-TILT (DEG)	ANTENNA CENTERLINE	TMA MODEL #	VENDOR	RRU MODEL #	VENDOR	CABLE LENGTH (FEET)	CABLE DIAMETER	CABLE TYPE	CABLE MODEL #	VENDOR	CABLE TAGGING	COLOR CODING	JUMPER TYPE	JUMPER TAGGING	COLOR CODING
A	UMTS AWS	RF #1	BAP		ERICSSON	0	0	0°	2°	225-0°		KRY 112 144/1	ERICSSON			EXISTING	1 1/2"	COAX	EXISTING	N/A	UMTS AWS A1	B	COAX	UMTS AWS A1	B
		RF #2														EXISTING	1 1/2"	COAX	EXISTING	N/A	UMTS AWS A2	B	COAX	UMTS AWS A2	B
	LWU	LWU #1		AR21		0	0	0°	2°	225-0°						EXISTING	1 1/2"	COAX	EXISTING	N/A	LWU A1	-	COAX	LWU A1	-
		LWU #2														EXISTING	1 1/2"	COAX	EXISTING	N/A	LWU A2	-	COAX	LWU A2	-
	GSM	OPTICAL #1	B2A													EXISTING	1 1/2"	COAX	EXISTING	N/A	GSM 1900 A1	R	FIBER	GSM 1900 A1	R
		OPTICAL #2														EXISTING	1 1/2"	COAX	EXISTING	N/A	GSM 1900 A2	G	FIBER	GSM 1900 A2	G
B	LTE 700	TBD	B12P	LWX-6515DS-VTM	COMMSCOPE	0	0	0°	2°	225-0°						(PROPOSED)	ERXSS11	HYBRID	MASTERLINE EXTREME HYBRID (3x6)	ERICSSON	FIBER 1		FIBER	UMTS 1900 A2	
	LTE AWS	OPTICAL #1	B4A	AR21	ERICSSON	0	0	0°	2°	225-0°						EXISTING	1 1/2"	COAX	EXISTING	N/A	UMTS AWS A1	B	COAX	UMTS AWS A1	B
		RF #2	B4P													EXISTING	1 1/2"	COAX	EXISTING	N/A	UMTS AWS A2	B	COAX	UMTS AWS A2	B
	LWU	LWU #1		AR21		0	0	120°	2°	225-0°						EXISTING	1 1/2"	COAX	EXISTING	N/A	LWU A1	-	COAX	LWU A1	-
		LWU #2														EXISTING	1 1/2"	COAX	EXISTING	N/A	LWU A2	-	COAX	LWU A2	-
	GSM	OPTICAL #2	B2A													EXISTING	1 1/2"	COAX	EXISTING	N/A	GSM 1900 A1	RR	FIBER	GSM 1900 A1	RR
C	LTE 700	TBD	B12P	LWX-6515DS-VTM	COMMSCOPE	0	0	120°	2°	225-0°						(PROPOSED)	ERXSS11	HYBRID	MASTERLINE EXTREME HYBRID (3x6)	ERICSSON	FIBER 1		FIBER	UMTS 1900 A2	GG
	LTE AWS	OPTICAL #1	B4A	AR21	ERICSSON	0	0	120°	2°	225-0°						EXISTING	1 1/2"	COAX	EXISTING	N/A	UMTS AWS A1	BBB	COAX	UMTS AWS A1	BBB
		RF #2	B4P													EXISTING	1 1/2"	COAX	EXISTING	N/A	UMTS AWS A2	BBB	COAX	UMTS AWS A2	BBB
	LWU	LWU #1		AR21		0	0	240°	2°	225-0°						EXISTING	1 1/2"	COAX	EXISTING	N/A	LWU A1	-	COAX	LWU A1	-
		LWU #2														EXISTING	1 1/2"	COAX	EXISTING	N/A	LWU A2	-	COAX	LWU A2	-
	GSM	OPTICAL #2	B2A													EXISTING	1 1/2"	COAX	EXISTING	N/A	GSM 1900 A1	RRR	FIBER	GSM 1900 A1	RRR

**KEY**

EXISTING	R - RED - GSM
PROPOSED	G - GREEN - UMS 1900
FIBER CONNECTION	B - BLUE - UMS AWS
	O - ORANGE - FIBER CABLE

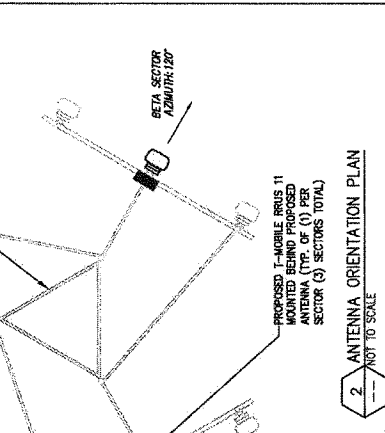
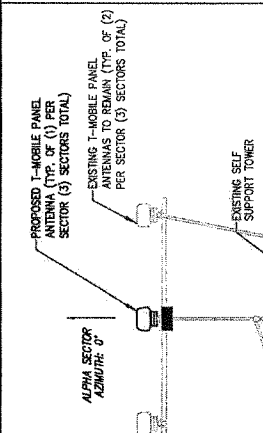
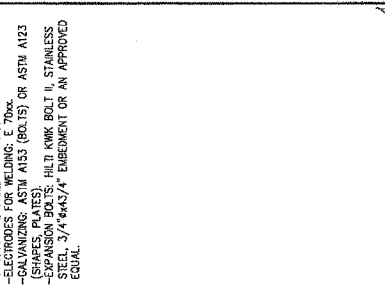


DATE	DESCRIPTION	REVISION
02/17/13	FOR PERMIT	0
02/17/13	FOR PERMIT	0

DATE	DESCRIPTION	REVISION
02/17/13	FOR PERMIT	0
02/17/13	FOR PERMIT	0

PROJECT NO:	317-000
DRAWN BY:	JAM
CHECKED BY:	JSS
DATE:	02/17/13

STRUCTURAL NOTES:  
1. CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE ACI CODE. STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC SPECIFICATION FOR STRUCTURAL STEEL CONSTRUCTION MANUAL.  
2. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1-92 "STRUCTURAL WELDING CODE-STEEL". ALL WELDING SHALL BE PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC SPECIFICATION FOR STRUCTURAL STEEL CONSTRUCTION MANUAL OR THE AMERICAN WELDING SOCIETY (AWS) D1.1-92 "STRUCTURAL WELDING CODE-STEEL".  
3. MATERIALS:  
-CONCRETE: f'<sub>c</sub> = 3000psi. (MIN. U.N.C.)  
-REINFORCING STEEL: ASTM A615, GRADE 60.  
-WELDING: E 70xx  
-STRUCTURAL STEEL: ASTM A36  
-ELECTRODES FOR WELDING: E 70xx  
-GALVANIZING: ASTM A153 (90.1%) OR ASTM A153 (92.5%)  
-FASTENERS: 1/4" DIA. X 3" LONG. (MIN. U.N.C.)  
-GALVANIZING: 0.010 IN. MIN. THICKNESS  
-STEEL: 3/4" DIA. X 1/4" EMBEDMENT OR AN APPROVED EQUAL



EXISTING T-MOBILE CONCRETE EQUIPMENT PAD W/ OVERHEAD ICE SHIELD CANOPY  
EXISTING UTILITY BACKBOARD  
EXISTING ERICSSON 3106 CABINET TO BE REPLACED WITH PROPOSED RACK AND REPLACE WITH PROPOSED RACK

ERICSSON MODEL NO.:	RRUS11
COLOR:	GRAY
DIMENSIONS, HxWxD:	19.68' x 16.97' x 31.7' (500 x 431 x 182 mm)
WEIGHT:	50.71 LBS (23 kg)



EXISTING PIPE MOUNT (CONTRACTOR TO VERIFY)  
PROPOSED MOUNTING BRACKET (TYP.)  
PROPOSED ANTENNA (TYP.)  
PROPOSED MOUNTING BRACKET (TYP.)

PROPOSED T-MOBILE PANEL ANTENNAS TO REMAIN (TYP. OF (2) PER SECTOR (3) SECTORS TOTAL)  
EXISTING T-MOBILE PANEL ANTENNAS TO REMAIN (TYP. OF (2) PER SECTOR (3) SECTORS TOTAL)  
ALPHA SECTOR AZIMUTH: 0°  
BETA SECTOR AZIMUTH: 120°  
GAMMA SECTOR AZIMUTH: 240°  
EXISTING SELF-SUPPORT TOWER  
PROPOSED T-MOBILE RRUS 11 MOUNTED BEAM ANTENNA SECTOR (3) SECTORS TOTAL

PROFESSIONAL SEAL  
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NOTE: IF DRAWINGS ARE 2-DIMENSIONAL, USE GRAPHICAL SCALE AND/OR 1/2" = 1'-0".  
SITE NUMBER: CT11266A  
SITE NAME: NORTH STONINGTON-3,1  
118 WINDSOR HILL ROAD  
NORTH STONINGTON, CT 06889

SHEET TITLE	EQUIPMENT SPECIFICATIONS
SHEET NUMBER	C-4
SHEET 5 OF 8 SHEETS	

DATE	DESCRIPTION	BY	REVISION
02/27/13	PER PLAN		1
	PER PRINT		2

NO.	DATE	BY	REVISION
1			
2			
3			
4			
5			
6			
7			

PROJECT NO: 312489  
 DRAWN BY: J.L.M.  
 CHECKED BY: A.W.V.  
 LICENSE NO: 24705  
 STATE OF CONNECTICUT  
 PROFESSIONAL ENGINEER

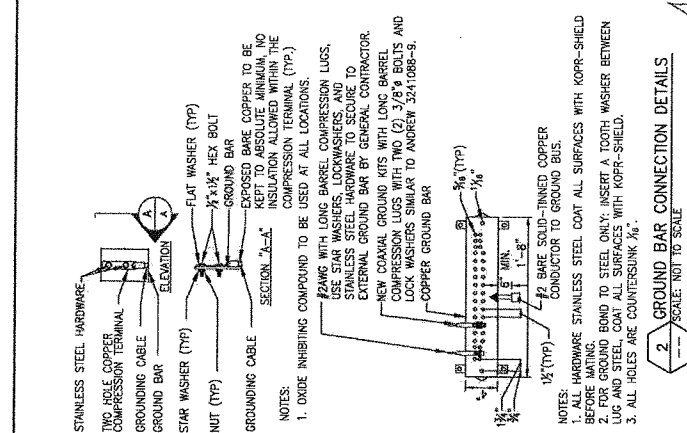
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 GRAPHICAL SCALE AND/OR 10 TIMES  
 OF THE NOTED SCALE.

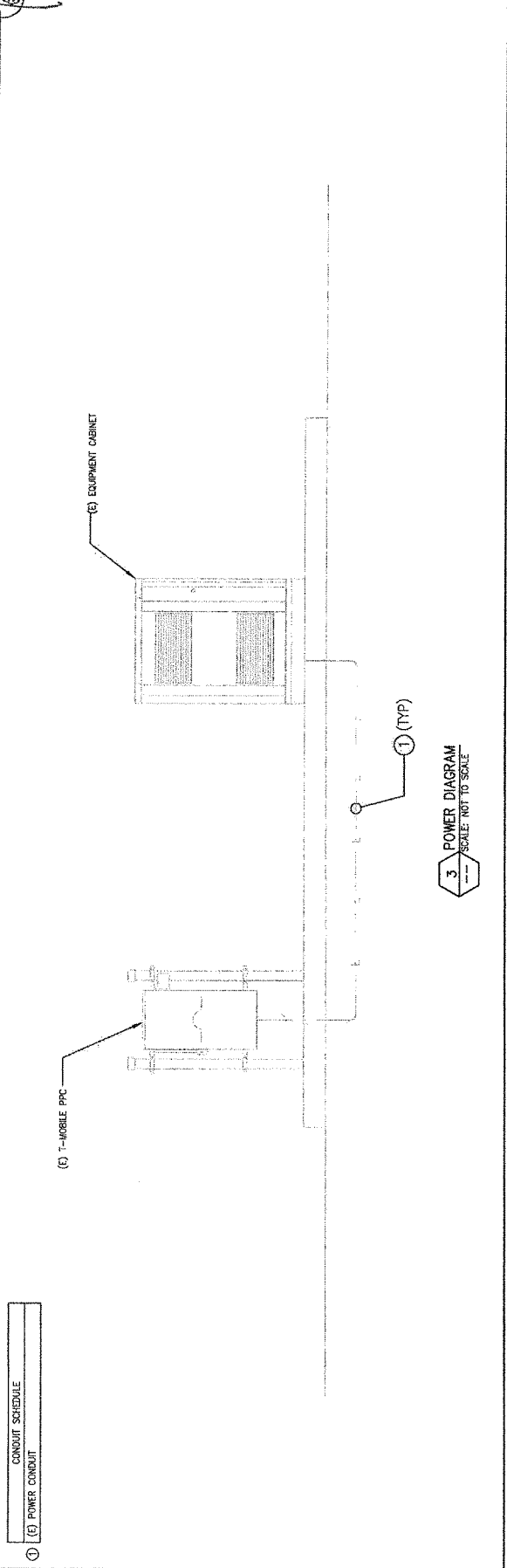
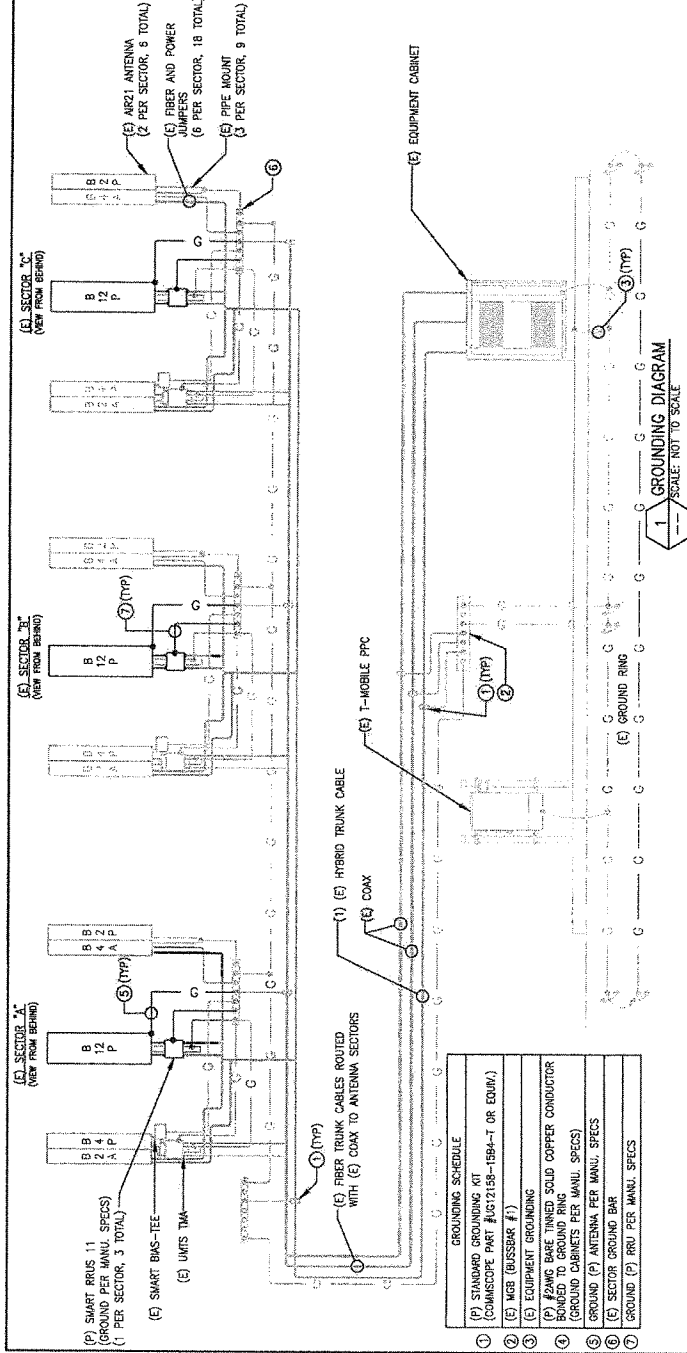
SITE NUMBER:  
 CT111266A  
 SITE NAME:  
 NORTH STATION #3.1  
 148 WINTERGALL ROAD  
 NORTH STATION, CT 06268

SHEET TITLE  
**GROUNDING &  
 POWER  
 DIAGRAMS**

SHEET NUMBER  
**E-1**  
 SHEET 6 OF 8 SHEETS



2 GROUND BAR CONNECTION DETAILS  
 SCALE: NOT TO SCALE

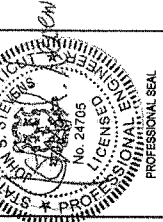




DATE	DESCRIPTION	BY
04/27/17	ISSUED FOR PERMIT	A
04/27/17	ISSUED FOR PERMIT	A

REV	DATE	DESCRIPTION

PROJECT NO: 317200  
 DRAWN BY: JLM  
 CHECKED BY: ASW



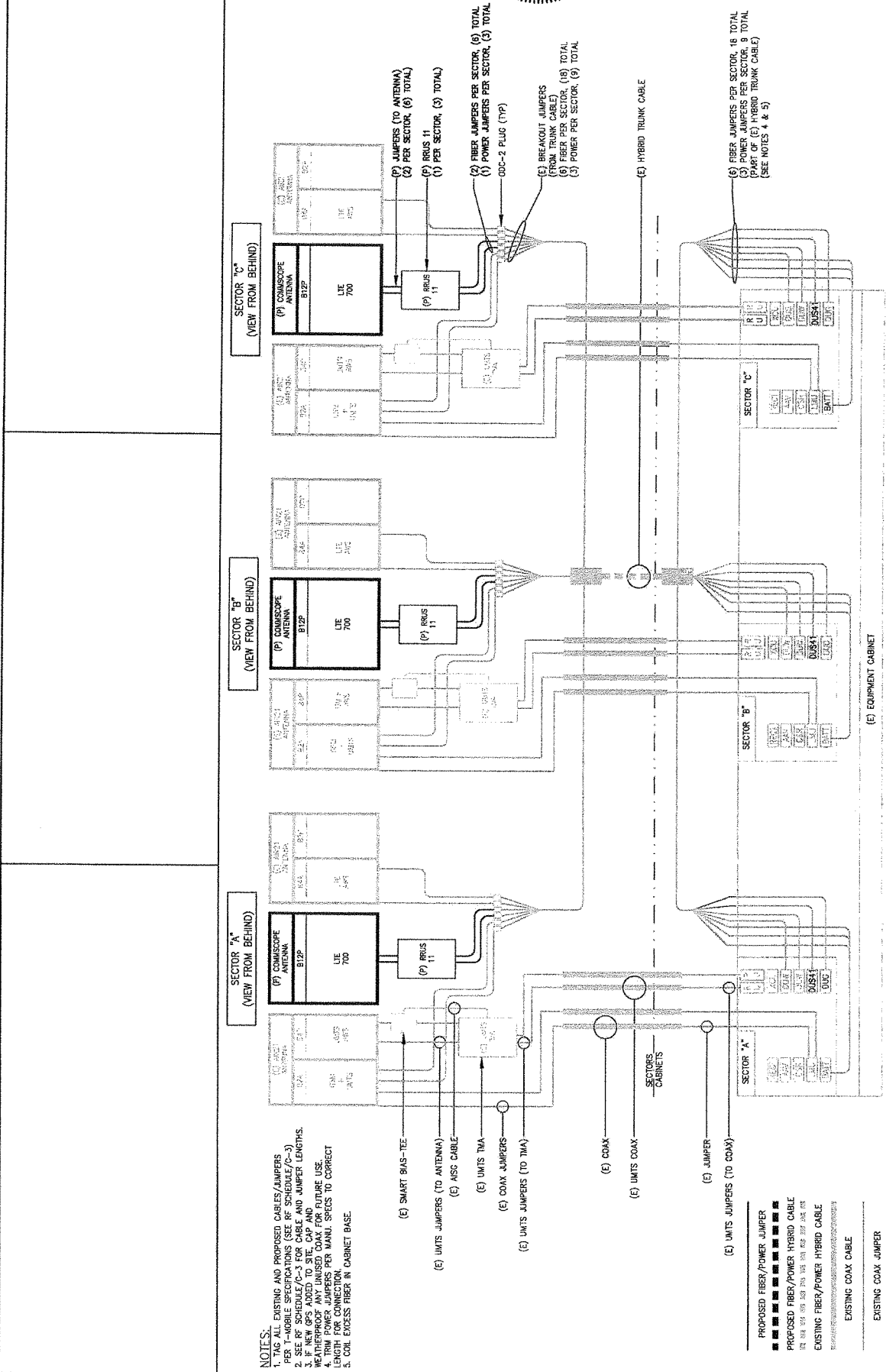
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USE OF DRAWINGS FOR ANY USE  
 OTHER THAN THAT SPECIFIED IN THE  
 GRAPHICAL SCALE AND/OR NOTES  
 OF THE NOTED SCALE.

SITE NUMBER:  
 CT 11266A  
 SITE NAME:  
 NORTH FORT WORTH-3.1  
 NORTH FORT WORTH, TEXAS  
 NORTH FORT WORTH, TX 76109

**COAX/FIBER  
 PLUMBING  
 DIAGRAM**

SHEET NUMBER:  
**E-2**  
 SHEET 7 OF 8 SHEETS



SECTOR "A"  
 (VIEW FROM BEHIND)

SECTOR "B"  
 (VIEW FROM BEHIND)

SECTOR "C"  
 (VIEW FROM BEHIND)

- NOTES:**
1. TAG ALL EXISTING AND PROPOSED CABLES/JUMPERS PER T-MOBILE SPECIFICATIONS (SEE RF SCHEDULE/C-3)
  2. ALL NEW CABLES AND JUMPER LENGTHS.
  3. IF NEW GPS ADDED TO SITE, CAP AND WEATHERPROOF ANY UNUSED COAX FOR FUTURE USE.
  4. TRIM POWER JUMPERS PER MANU. SPECS TO CORRECT LENGTH FOR CONNECTION.
  5. COIL EXCESS FIBER IN CABINET BASE.

- (E) SMART BIAS-TEE
- (E) UNITS JUMPERS (TO ANTENNA)
- (E) ASC CABLE
- (E) UNITS TMA
- (E) COAX JUMPERS
- (E) UNITS JUMPERS (TO TMA)
- (E) COAX
- (E) UNITS COAX
- (E) JUMPER
- (E) UNITS JUMPERS (TO COAX)

- PROPOSED FIBER/POWER JUMPER
- PROPOSED FIBER/POWER HYBRID CABLE
- EXISTING FIBER/POWER HYBRID CABLE
- EXISTING COAX CABLE
- EXISTING COAX JUMPER

1 702Cu CONFIGURATION COAX/FIBER PLUMBING DIAGRAM  
 NOT TO SCALE

