



Alex Murshteyn, Site Acquisition
c/o T-Mobile Northeast LLC ("T-Mobile")
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767
Mobile: (508) 821-0159
AMurshteyn@centerlinecommunications.com

March 31, 2017

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

**RE: Notice of Exempt Modification // Site Number: CT11041D (ATC: 411183)
53 Dayton Road, Waterford, CT 06385
N 41.37784 // W 72.13936**

Dear Ms. Bachman:

T-Mobile Northeast LLC ("T-Mobile") currently maintains 9 antennas at the 164-foot level of the existing 180-foot self-supporting lattice tower at 53 Dayton Road, Waterford, CT. The tower is owned by American Tower Corporation. The property is owned by Cohanzie Volunteer Fire Service Benefit Association, Inc. T-Mobile now intends to replace 3 of its existing antennas with 3 new PCS/AWS (L2100/1900 dual-band) antennas for its PCS/AWS upgrade. These antennas would be installed at the 164-foot level of the tower. T-Mobile will also remove 3 existing tower mounted amplifiers (TTAs) and install 1 new hybrid fiber (HCS) cable. However, the structural analysis enclosed herewith also denotes 6 extra coax cables, but this coax loading is reserved and being apportioned to allow the installation of the 1 additional hybrid fiber.

The current proposal involves an antenna swap only (three for three); no antennas will be added.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Daniel M. Steward, First Selectman for the Town of Waterford, the Town's Planning & Development Department, American Tower, the tower owner and the ground owner, Cohanzie Volunteer Fire Department.

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

Enclosed to accommodate this filing are construction drawings dated March 16, 2017 by ATC Tower Services, a structural analysis dated March 1, 2017 by A.T. Engineering Service, PLLC and an RF Emissions Analysis Report dated March 7, 2017 by EBI Consulting.

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis by A.T. Engineering Service, PLLC, dated March 1, 2017.

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

Sincerely,



Alex Murshteyn, Site Acquisition
c/o T-Mobile Northeast LLC
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767
Mobile: (508) 821-0159
AMurshteyn@centerlinecommunications.com

Attachments

cc: Daniel M. Steward, First Selectman, Town of Waterford - as elected official
Town of Waterford Planning and Development Department - as P&Z officials
American Tower Corporation - as tower owner
Cohanzie Volunteer Fire Service Benefit Association, Inc. - as property owner



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 180 ft Self Supported Tower
ATC Site Name : WATERFORD CT, CT
ATC Site Number : 411183
Engineering Number : OAA697208_C3_01
Proposed Carrier : T-Mobile
Carrier Site Name : Waterford I95 X82
Carrier Site Number : CT11041D
Site Location : 53 Dayton Rd.
Waterford, CT 06385-4274
41.377800,-72.141400
County : NEW LONDON
Date : March 1, 2017
Max Usage : 55%
Result : Pass

Prepared By:
Brendan M. Smith, E.I.
Structural Engineer II

Reviewed By:



Mar 2 2017 10:53 AM **cosign**

COA: PEC.0001553



Table of Contents

Introduction	1
Supporting Documents	1
Analysis	1
Conclusion.....	1
Existing and Reserved Equipment.....	2
Equipment to be Removed.....	3
Proposed Equipment	3
Structure Usages	4
Foundations	4
Deflection, Twist, and Sway.....	4
Standard Conditions	5
Calculations	Attached



Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 180 ft self supported tower to reflect the change in loading by T-Mobile.

Supporting Documents

Tower Drawings	Rohn Drawing #A982166, dated August 20, 1998
Foundation Drawing	Rohn Drawing #A982167-1, dated August 20, 1998
Geotechnical Report	Clarence Welti Site Name Cohenzie Fire Station; Waterford, CT, dated March 24, 1997

Analysis

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

Basic Wind Speed:	105 mph (3-Second Gust, V_{asd}) / 135 mph (3-Second Gust, V_{ult})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Spectral Response:	$S_s = 0.16$, $S_1 = 0.06$
Site Class:	D - Stiff Soil

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. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



Existing and Reserved Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
177.0	187.0	1	15' Omni	Sector Frame	(7) 7/8" Coax	Town Of Waterford Police Dept
	184.0	2	10' Omni			
	182.0	2	8' Omni			
	181.0	2	5' Omni			
	170.0	1	13' Omni			
164.0	164.0	3	Andrew LNX-6515DS-VTM (50.3 lbs)	Sector Frames	(18) 1 5/8" Coax (1) 1 5/8" Hybriflex	T-Mobile
		3	Ericsson RRUS 11 B12			
		3	Ericsson AIR 21			
157.0	160.0	3	CCI HPA-65R-BUU-H8	Sector Frames	(12) 1 5/8" Coax (6) 0.78" 8 AWG 6 (3) 0.39" Fiber Trunk (1) 2" Conduit	AT&T Mobility
		3	CCI TPA-65R-LCUUUU-H8			
		3	Powerwave 7770.00			
	157.0	3	Ericsson RRUS-32 (77 lbs)			
		3	Ericsson RRUS 11 w/ RRUS A2			
		3	Raycap DC6-48-60-0-8F			
		3	Ericsson RRUS 32 B2			
		3	Kathrein 782 10253			
		3	Ericsson RRUS-11 (50 lbs.)			
		6	Powerwave LGP21401			
6	Powerwave LGP13519					
143.0	156.0	1	20' Omni	Side Arm	(1) 1 5/8" Coax	Town Of Waterford Police Dept
132.0	134.0	3	Raycap RRFDC-1064-PF-48	Sector Frames	(18) 1 5/8" Coax (3) 1 1/4" Hybriflex	Verizon
	133.0	1	Antel BXA-70063-6CF-EDIN-2			
		1	Swedcom SACP 2x5516			
		1	VZW Unused Reserve: 18,557 sq in			
	132.0	2	Swedcom SLCP 2x6015			
		2	Antel LPA-80063-4CF-EDIN-X			
		6	48" x 12" x 7" Panel			
		3	Antel BXA-171063-8CF-EDIN-X			
		3	RRH			
3	Alcatel-Lucent RRH2x40-AWS					
125.0	125.0	6	Kathrein 800 10504	Sector Frames	(6) 1 5/8" Coax	Metro PCS
		1	MicroPulse GPS-QBW-26N			
51.0	51.0	1	GPS	Stand-Off	(1) 1/2" Coax	Verizon



Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
167.0	167.0	3	Ericsson AIR 21	-	-	T-Mobile
		3	RFS ATMAA1412D-1A20			

Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
164.0	164.0	3	Ericsson AIR 32 B4A-B2P	Sector Frames	-	T-Mobile

¹Mount 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).



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	44%	Pass
Diagonals	55%	Pass
Horizontals	46%	Pass
Anchor Bolts	24%	Pass
Leg Bolts	30%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Uplift (Kips)	621.3	838.8	283.8	34%
Axial (Kips)	732.9	989.4	378.4	38%
Shear (Kips)	141.8	191.4	42.2	22%

* The design reactions are factored by 1.35 per ANSI/TIA-222-G, Sec. 15.5.1

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, 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) (°)
164.0	Ericsson AIR 32 B4A-B2P	T-Mobile	0.138	0.012	0.093

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



Standard Conditions

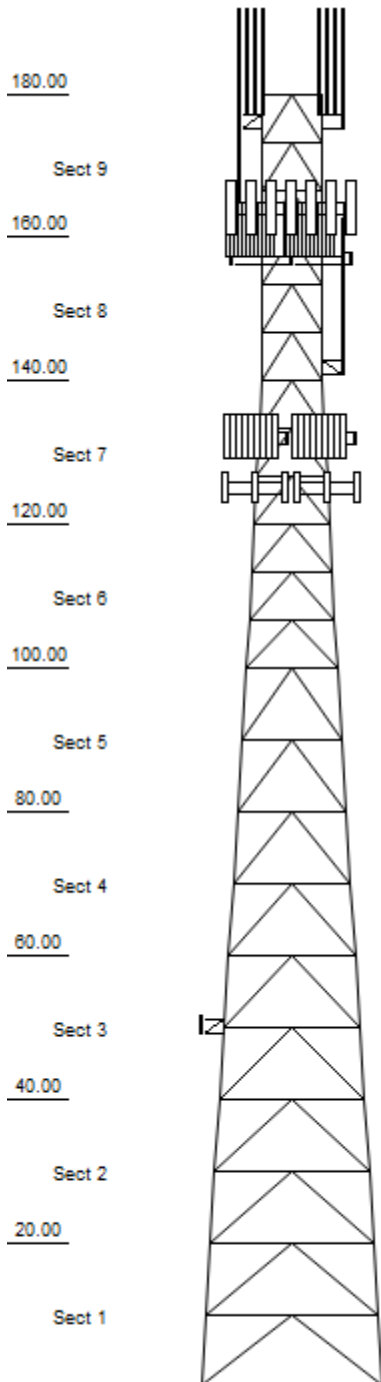
All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

- 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.



© 2007 - 2017 by ATC IP LLC. All rights reserved.

Loads: 105 mph no ice
 50 mph w/ 3/4" radial ice
 Site Class: D Ss: 0.16 S1: 0.06
 60 mph Serviceability

Job Information

Tower : 411183 Location : WATERFORD CT, CT
 Code : ANSI/TIA-222-G Shape : Triangle Base Width : 25.55 ft
 Client : T-MOBILE Top Width : 8.50 ft

Sections Properties

Section	Leg Members	Diagonal Members	Horizontal Members
1 - 2	PX 50 ksi 12" DIA PIPE	PST 50 ksi 3-1/2" DIA PIPE	PST 50 ksi 3" DIA PIPE
3 - 4	PX 50 ksi 10" DIA PIPE	PX 50 ksi 3" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE
5	PX 50 ksi 8" DIA PIPE	PX 50 ksi 3" DIA PIPE	PX 50 ksi 2" DIA PIPE
6	PX 50 ksi 6" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE	PST 50 ksi 2" DIA PIPE
7	PX 50 ksi 5" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE	PST 50 ksi 1-1/2" DIA PIPE
8	PST 50 ksi 4" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE	PST 50 ksi 2" DIA PIPE
9	PST 50 ksi 3" DIA PIPE	PST 50 ksi 2" DIA PIPE	PST 50 ksi 1-1/2" DIA PIPE

Discrete Appurtenance

Elev (ft)	Type	Qty	Description
177.00	Straight Arm	2	Round Side Arm
177.00	Whip	1	15' Omni
177.00	Whip	1	13' Omni
177.00	Whip	2	8' Omni
177.00	Whip	2	5' Omni
177.00	Mounting Frame	1	Round Sector Frame
177.00	Whip	2	10' Omni
164.00	Panel	3	Ericsson AIR 32 B4A-B2P
164.00	Panel	3	Andrew LNX-6515DS-VTM (50.3 lb)
164.00	Panel	3	Ericsson RRUS 11 B12
164.00	Mounting Frame	3	Round Sector Frame
164.00	Panel	3	Ericsson AIR 21
157.00	Panel	3	Ericsson RRUS-32 (77 lbs)
157.00	Panel	3	Ericsson RRUS 11 w/ RRUS A2
157.00	Panel	1	Raycap DC6-48-60-0-8F
157.00	Panel	3	CCI HPA-65R-BUU-H8
157.00	Panel	3	CCI TPA-65R-LCUUUU-H8
157.00	Panel	3	Ericsson RRUS 32 B2
157.00	Mounting Frame	3	Round Sector Frame
157.00	Panel	3	Kathrein Scala 782 10253
157.00	Panel	3	Powerwave Allgon 7770.00
157.00	Panel	3	Ericsson RRUS-11 (50 lbs.)
157.00	Panel	2	Raycap DC6-48-60-0-8F
157.00	Panel	6	Powerwave Allgon LGP21401
157.00	Panel	6	Powerwave Allgon LGP13519
143.00	Whip	1	20' Omni
143.00	Straight Arm	1	Round Side Arm
132.00	Panel	1	VZW Unused Reserve: 18,557 sq
132.00	Mounting Frame	3	Round Sector Frame
132.00	Panel	2	Swedcom SLCP 2x6015
132.00	Panel	1	Amphenol Antel BXA-70063-6CF-E
132.00	Panel	2	Amphenol Antel LPA-80063-4CF-E
132.00	Panel	1	Swedcom SACP 2x5516
132.00	Panel	6	48" x 12" x 7" Panel
132.00	Panel	3	Amphenol Antel BXA-171063-8CF-
132.00	Panel	3	RRH
132.00	Panel	3	Alcatel-Lucent RRH2x40-AWS
132.00	Panel	3	Raycap RRFDC-1064-PF-48
125.00	Mounting Frame	3	Flat Light Sector Frame
125.00	Panel	6	Kathrein Scala 800 10504
125.00	Panel	1	MicroPulse GPS-QBW-26N
51.00	Straight Arm	1	Stand-Off
51.00	Whip	1	GPS

Linear Appurtenance

Elev (ft)	From	To	Qty	Description
	0.00	180.00	1	Empty Waveguide
	30.00	177.00	1	Waveguide

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Job Information		
Tower : 411183	Location : WATERFORD CT, CT	
Code : ANSI/TIA-222-G	Shape : Triangle	Base Width : 25.55 ft
Client : T-MOBILE	Top Width : 8.50 ft	

30.00	177.00	7	7/8" Coax
30.00	164.00	1	1 5/8" Hybriflex Cab
30.00	164.00	18	1 5/8" Coax
0.00	164.00	1	Waveguide
30.00	157.00	1	Waveguide
30.00	157.00	1	2" Conduit
30.00	157.00	12	1 5/8" Coax
30.00	157.00	2	0.78" 8 AWG 6
30.00	157.00	4	0.78" 8 AWG 6
30.00	157.00	1	0.39" Fiber Trunk
30.00	157.00	2	0.39" Fiber Trunk
30.00	143.00	1	1 5/8" Coax
30.00	132.00	18	1 5/8" Coax
30.00	132.00	3	1 1/4" Hybriflex Cab
30.00	125.00	6	1 5/8" Coax
30.00	51.00	1	1/2" Coax

Global Base Foundation Design Loads			
Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL + WL	7,181.91	161.34	65.76
DL + WL + IL	2,286.36	278.49	21.38

Individual Base Foundation Design Loads		
Vertical (kip)	Uplift (kip)	Horizontal (kip)
378.35	283.80	42.16

Site Number: 411183

Code: ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:31 AM

Customer: T-MOBILE

Analysis Parameters

Location:	NEW LONDON County, CT	Height (ft):	180
Code:	ANSI/TIA-222-G	Base Elevation (ft):	0.00
Shape:	Triangle	Bottom Face Width (ft):	25.55
Tower Manufacturer:	Rohn	Top Face Width (ft):	8.50
Tower Type:	Self Support	Anchor Bolt Detail Type	c

Ice & Wind Parameters

Structure Class:	II	Design Windspeed Without Ice:	105 mph
Exposure Category:	B	Design Windspeed With Ice:	50 mph
Topographic Category:	1	Operational Windspeed:	60 mph
Crest Height:	0.0 ft	Design Ice Thickness:	0.75 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods				
Site Class:	D - Stiff Soil				
Period Based on Rayleigh Method (sec):	0.83				
T_L (sec):	6	p:	1.3	C_S :	0.038
S_S :	0.163	S_1 :	0.059	C_S , Max:	0.038
F_a :	1.600	F_V :	2.400	C_S , Min:	0.030
S_{ds} :	0.174	S_{d1} :	0.094		

Load Cases

1.2D + 1.6W Normal	105 mph Normal to Face with No Ice
1.2D + 1.6W 60 deg	105 mph 60 degree with No Ice
1.2D + 1.6W 90 deg	105 mph 90 degree with No Ice
1.2D + 1.6W 120 deg	105 mph 120 degree with No Ice
1.2D + 1.6W 180 deg	105 mph 180 degree with No Ice
1.2D + 1.6W 210 deg	105 mph 210 degree with No Ice
1.2D + 1.6W 240 deg	105 mph 240 degree with No Ice
1.2D + 1.6W 300 deg	105 mph 300 degree with No Ice
1.2D + 1.6W 330 deg	105 mph 330 degree with No Ice
0.9D + 1.6W Normal	105 mph Normal to Face with No Ice (Reduced DL)
0.9D + 1.6W 60 deg	105 mph 60 deg with No Ice (Reduced DL)
0.9D + 1.6W 90 deg	105 mph 90 deg with No Ice (Reduced DL)
0.9D + 1.6W 120 deg	105 mph 120 deg with No Ice (Reduced DL)
0.9D + 1.6W 180 deg	105 mph 180 deg with No Ice (Reduced DL)
0.9D + 1.6W 210 deg	105 mph 210 deg with No Ice (Reduced DL)
0.9D + 1.6W 240 deg	105 mph 240 deg with No Ice (Reduced DL)
0.9D + 1.6W 300 deg	105 mph 300 deg with No Ice (Reduced DL)
0.9D + 1.6W 330 deg	105 mph 330 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	50 mph Normal with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 60 deg	50 mph 60 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	50 mph 90 deg with 0.75 in Radial Ice

Analysis Parameters

1.2D + 1.0Di + 1.0Wi 120 deg	50 mph 120 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 180 deg	50 mph 180 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 210 deg	50 mph 210 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 240 deg	50 mph 240 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 300 deg	50 mph 300 deg with 0.75 in Radial Ice
1.2D + 1.0Di + 1.0Wi 330 deg	50 mph 330 deg with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E Normal	Seismic Normal
(1.2 + 0.2Sds) * DL + E 60 deg	Seismic 60 deg
(1.2 + 0.2Sds) * DL + E 90 deg	Seismic 90 deg
(1.2 + 0.2Sds) * DL + E 120 deg	Seismic 120 deg
(1.2 + 0.2Sds) * DL + E 180 deg	Seismic 180 deg
(1.2 + 0.2Sds) * DL + E 210 deg	Seismic 210 deg
(1.2 + 0.2Sds) * DL + E 240 deg	Seismic 240 deg
(1.2 + 0.2Sds) * DL + E 300 deg	Seismic 300 deg
(1.2 + 0.2Sds) * DL + E 330 deg	Seismic 330 deg
(0.9 - 0.2Sds) * DL + E Normal	Seismic (Reduced DL) Normal
(0.9 - 0.2Sds) * DL + E 60 deg	Seismic (Reduced DL) 60 deg
(0.9 - 0.2Sds) * DL + E 90 deg	Seismic (Reduced DL) 90 deg
(0.9 - 0.2Sds) * DL + E 120 deg	Seismic (Reduced DL) 120 deg
(0.9 - 0.2Sds) * DL + E 180 deg	Seismic (Reduced DL) 180 deg
(0.9 - 0.2Sds) * DL + E 210 deg	Seismic (Reduced DL) 210 deg
(0.9 - 0.2Sds) * DL + E 240 deg	Seismic (Reduced DL) 240 deg
(0.9 - 0.2Sds) * DL + E 300 deg	Seismic (Reduced DL) 300 deg
(0.9 - 0.2Sds) * DL + E 330 deg	Seismic (Reduced DL) 330 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 60 deg	Serviceability - 60 mph Wind 60 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg
1.0D + 1.0W Service 120 deg	Serviceability - 60 mph Wind 120 deg
1.0D + 1.0W Service 180 deg	Serviceability - 60 mph Wind 180 deg
1.0D + 1.0W Service 210 deg	Serviceability - 60 mph Wind 210 deg
1.0D + 1.0W Service 240 deg	Serviceability - 60 mph Wind 240 deg
1.0D + 1.0W Service 300 deg	Serviceability - 60 mph Wind 300 deg
1.0D + 1.0W Service 330 deg	Serviceability - 60 mph Wind 330 deg

Tower Loading

Discrete Appurtenance Properties 1.2D + 1.6W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
177.0	5' Omni	2	10	1.0	5.0	2.0	2.0	1.00	1.00	4.0	305.6	28.09	76	29
177.0	8' Omni	2	25	2.4	8.0	3.0	3.0	1.00	1.00	5.0	918.2	28.13	184	72
177.0	10' Omni	2	25	3.0	10.0	3.0	3.0	1.00	1.00	7.0	1611.9	28.22	230	72
177.0	13' Omni	1	40	3.9	13.0	3.0	3.0	1.00	1.00	-7.0	1024.3	27.59	146	58
177.0	15' Omni	1	40	4.5	15.0	3.0	3.0	1.00	1.00	10.0	1735.1	28.35	174	58
177.0	Round Side Arm	2	150	5.2	0.0	0.0	0.0	0.90	0.90	0.0	0.0	27.91	320	432
177.0	Round Sector Frame	1	300	14.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	27.91	547	432
164.0	Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	0.80	0.67	0.0	0.0	27.31	167	219
164.0	Ericsson AIR 21	3	91	6.1	4.7	12.0	7.9	0.80	0.69	0.0	0.0	27.31	372	393
164.0	Andrew LNX-	3	50	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	27.31	712	217
164.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	27.31	806	1296
157.0	Kathrein Scala 782	3	3	0.1	0.2	4.2	1.8	0.80	0.50	0.0	0.0	26.97	5	13
157.0	Powerwave Allgon	6	5	0.3	0.4	7.9	2.7	0.80	0.50	0.0	0.0	26.97	30	46
157.0	Powerwave Allgon	6	14	1.1	1.2	9.2	2.6	0.80	0.50	0.0	0.0	26.97	97	122
157.0	Raycap DC6-48-60-0-	2	33	1.2	1.9	11.0	11.0	0.80	1.00	0.0	0.0	26.97	70	94
157.0	Raycap DC6-48-60-0-	1	33	1.2	1.9	11.0	11.0	0.80	1.00	0.0	0.0	26.97	35	47
157.0	Ericsson RRUS-11	3	50	2.6	1.5	17.3	7.2	0.80	0.67	0.0	0.0	26.97	152	216
157.0	Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.67	0.0	0.0	26.97	162	229
157.0	Ericsson RRUS 11 w/	3	72	2.8	1.6	17.0	10.6	0.80	0.67	0.0	0.0	26.97	165	311
157.0	Ericsson RRUS-32	3	77	3.3	2.5	13.3	9.5	0.80	0.67	0.0	0.0	26.97	195	333
157.0	Powerwave Allgon	3	35	5.5	4.6	11.0	5.0	0.80	0.65	3.0	950.9	27.12	317	151
157.0	CCI HPA-65R-BUU-H8	3	68	13.0	7.7	14.8	7.4	0.80	0.67	3.0	2309.1	27.12	770	294
157.0	CCI TPA-65R-	3	82	13.3	8.0	14.4	8.6	0.80	0.69	3.0	2436.6	27.12	812	355
157.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	26.97	891	1296
143.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	26.26	186	216
143.0	20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	13.0	2855.7	26.92	220	79
132.0	Raycap RRFDC-1064-	3	14	1.2	1.1	10.2	8.2	0.80	0.50	2.0	97.6	25.78	49	60
132.0	Alcatel-Lucent	3	44	2.2	2.0	10.6	6.7	0.80	0.67	0.0	0.0	25.67	121	190
132.0	RRH	3	45	2.4	2.0	12.0	12.0	0.80	0.67	0.0	0.0	25.67	135	194
132.0	Amphenol Antel BXA-	3	11	2.9	4.0	6.1	4.1	0.80	0.87	0.0	0.0	25.67	214	45
132.0	48" x 12" x 7" Panel	6	35	5.1	4.0	12.0	7.0	0.80	0.79	0.0	0.0	25.67	671	302
132.0	Swedcom SACP	1	16	5.1	4.7	9.7	6.5	0.80	0.86	1.0	122.3	25.72	122	23
132.0	Amphenol Antel LPA-	2	20	6.1	4.0	15.2	13.1	0.80	0.75	0.0	0.0	25.67	257	58
132.0	Amphenol Antel BXA-	1	17	7.6	5.9	11.2	5.2	0.80	0.66	1.0	139.8	25.72	140	24
132.0	Swedcom SLCP	2	30	10.0	6.4	14.0	11.0	0.80	0.91	0.0	0.0	25.67	507	86
132.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	25.67	848	1296
132.0	VZW Unused	1	1807	129.0	2.2	26.5	26.5	1.00	1.00	0.0	0.0	25.67	4502	2601
125.0	MicroPulse GPS-	1	1	0.1	0.4	3.2	3.2	0.80	1.00	0.0	0.0	25.27	2	1
125.0	Kathrein Scala 800	6	18	3.3	4.5	6.1	2.7	0.80	0.78	0.0	0.0	25.27	431	152
125.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	25.27	1038	1728
51.00	GPS	1	10	1.0	1.0	9.0	6.0	1.00	1.00	0.0	0.0	19.56	27	14
51.00	Stand-Off	1	40	1.6	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.56	43	58
164.0	Ericsson AIR 32 B4A-	3	106	6.5	4.7	12.9	8.7	0.80	0.71	0.0	0.0	27.31	413	457
Totals		110	9979	716.1										

Discrete Appurtenance Properties 0.9D + 1.6W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
177.0	5' Omni	2	10	1.0	5.0	2.0	2.0	1.00	1.00	4.0	305.6	28.09	76	16
177.0	8' Omni	2	25	2.4	8.0	3.0	3.0	1.00	1.00	5.0	918.2	28.13	184	41
177.0	10' Omni	2	25	3.0	10.0	3.0	3.0	1.00	1.00	7.0	1611.9	28.22	230	41

Tower Loading

177.0	13' Omni	1	40	3.9	13.0	3.0	3.0	1.00	1.00	-7.0	1024.3	27.59	146	32
177.0	15' Omni	1	40	4.5	15.0	3.0	3.0	1.00	1.00	10.0	1735.1	28.35	174	32
177.0	Round Side Arm	2	150	5.2	0.0	0.0	0.0	0.90	0.90	0.0	0.0	27.91	320	243
177.0	Round Sector Frame	1	300	14.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	27.91	547	243
164.0	Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	0.80	0.67	0.0	0.0	27.31	167	123
164.0	Ericsson AIR 21	3	91	6.1	4.7	12.0	7.9	0.80	0.69	0.0	0.0	27.31	372	221
164.0	Andrew LNX-	3	50	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	27.31	712	122
164.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	27.31	806	729
157.0	Kathrein Scala 782	3	3	0.1	0.2	4.2	1.8	0.80	0.50	0.0	0.0	26.97	5	7
157.0	Powerwave Allgon	6	5	0.3	0.4	7.9	2.7	0.80	0.50	0.0	0.0	26.97	30	26
157.0	Powerwave Allgon	6	14	1.1	1.2	9.2	2.6	0.80	0.50	0.0	0.0	26.97	97	69
157.0	Raycap DC6-48-60-0-	2	33	1.2	1.9	11.0	11.0	0.80	1.00	0.0	0.0	26.97	70	53
157.0	Raycap DC6-48-60-0-	1	33	1.2	1.9	11.0	11.0	0.80	1.00	0.0	0.0	26.97	35	27
157.0	Ericsson RRUS-11	3	50	2.6	1.5	17.3	7.2	0.80	0.67	0.0	0.0	26.97	152	122
157.0	Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.67	0.0	0.0	26.97	162	129
157.0	Ericsson RRUS 11 w/	3	72	2.8	1.6	17.0	10.6	0.80	0.67	0.0	0.0	26.97	165	175
157.0	Ericsson RRUS-32	3	77	3.3	2.5	13.3	9.5	0.80	0.67	0.0	0.0	26.97	195	187
157.0	Powerwave Allgon	3	35	5.5	4.6	11.0	5.0	0.80	0.65	3.0	950.9	27.12	317	85
157.0	CCI HPA-65R-BUU-H8	3	68	13.0	7.7	14.8	7.4	0.80	0.67	3.0	2309.1	27.12	770	165
157.0	CCI TPA-65R-	3	82	13.3	8.0	14.4	8.6	0.80	0.69	3.0	2436.6	27.12	812	200
157.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	26.97	891	729
143.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	26.26	186	122
143.0	20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	13.0	2855.7	26.92	220	45
132.0	Raycap RRFDC-1064-	3	14	1.2	1.1	10.2	8.2	0.80	0.50	2.0	97.6	25.78	49	34
132.0	Alcatel-Lucent	3	44	2.2	2.0	10.6	6.7	0.80	0.67	0.0	0.0	25.67	121	107
132.0	RRH	3	45	2.4	2.0	12.0	12.0	0.80	0.67	0.0	0.0	25.67	135	109
132.0	Amphenol Antel BXA-	3	11	2.9	4.0	6.1	4.1	0.80	0.87	0.0	0.0	25.67	214	26
132.0	48" x 12" x 7" Panel	6	35	5.1	4.0	12.0	7.0	0.80	0.79	0.0	0.0	25.67	671	170
132.0	Swedcom SACP	1	16	5.1	4.7	9.7	6.5	0.80	0.86	1.0	122.3	25.72	122	13
132.0	Amphenol Antel LPA-	2	20	6.1	4.0	15.2	13.1	0.80	0.75	0.0	0.0	25.67	257	32
132.0	Amphenol Antel BXA-	1	17	7.6	5.9	11.2	5.2	0.80	0.66	1.0	139.8	25.72	140	14
132.0	Swedcom SLCP	2	30	10.0	6.4	14.0	11.0	0.80	0.91	0.0	0.0	25.67	507	49
132.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	25.67	848	729
132.0	VZW Unused	1	1807	129.0	2.2	26.5	26.5	1.00	1.00	0.0	0.0	25.67	4502	1463
125.0	MicroPulse GPS-	1	1	0.1	0.4	3.2	3.2	0.80	1.00	0.0	0.0	25.27	2	0
125.0	Kathrein Scala 800	6	18	3.3	4.5	6.1	2.7	0.80	0.78	0.0	0.0	25.27	431	86
125.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	25.27	1038	972
51.00	GPS	1	10	1.0	1.0	9.0	6.0	1.00	1.00	0.0	0.0	19.56	27	8
51.00	Stand-Off	1	40	1.6	0.0	0.0	0.0	1.00	1.00	0.0	0.0	19.56	43	32
164.0	Ericsson AIR 32 B4A-	3	106	6.5	4.7	12.9	8.7	0.80	0.71	0.0	0.0	27.31	413	257
Totals		110	9979	716.1										

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
177.0	5' Omni	2	65	2.2	5.0	2.0	2.0	1.00	1.00	4.0	95.1	6.37	24	161
177.0	8' Omni	2	135	4.4	8.0	3.0	3.0	1.00	1.00	5.0	240.7	6.38	48	335
177.0	10' Omni	2	161	6.0	10.0	3.0	3.0	1.00	1.00	7.0	454.4	6.40	65	398
177.0	13' Omni	1	162	9.2	13.0	3.0	3.0	1.00	1.00	-7.0	343.3	6.26	49	204
177.0	15' Omni	1	241	10.0	15.0	3.0	3.0	1.00	1.00	10.0	546.1	6.43	55	299
177.0	Round Side Arm	2	224	8.0	0.0	0.0	0.0	0.90	0.90	0.0	0.0	6.33	69	610
177.0	Round Sector Frame	1	673	31.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.33	168	880
164.0	Ericsson RRUS 11	3	138	3.5	1.6	17.0	7.2	0.80	0.67	0.0	0.0	6.19	29	535
164.0	Ericsson AIR 21	3	262	7.2	4.7	12.0	7.9	0.80	0.69	0.0	0.0	6.19	62	1008
164.0	Andrew LNX-	3	318	13.1	8.0	11.9	7.1	0.80	0.70	0.0	0.0	6.19	116	1180

Tower Loading

164.0	Round Sector Frame	3	673	31.2	0.0	0.0	0.0	0.75	0.67	0.0	0.0	6.19	248	2640
157.0	Kathrein Scala 782	3	11	0.3	0.2	4.2	1.8	0.80	0.50	0.0	0.0	6.12	2	40
157.0	Powerwave Allgon	6	9	0.6	0.4	7.9	2.7	0.80	0.50	0.0	0.0	6.12	7	72
157.0	Powerwave Allgon	6	24	1.9	1.2	9.2	2.6	0.80	0.50	0.0	0.0	6.12	23	193
157.0	Raycap DC6-48-60-0-	2	121	2.7	1.9	11.0	11.0	0.80	1.00	0.0	0.0	6.12	22	306
157.0	Raycap DC6-48-60-0-	1	121	2.7	1.9	11.0	11.0	0.80	1.00	0.0	0.0	6.12	11	153
157.0	Ericsson RRUS-11	3	131	3.2	1.5	17.3	7.2	0.80	0.67	0.0	0.0	6.12	27	509
157.0	Ericsson RRUS 32 B2	3	141	3.5	2.3	12.1	7.0	0.80	0.67	0.0	0.0	6.12	29	546
157.0	Ericsson RRUS 11 w/	3	174	3.5	1.6	17.0	10.6	0.80	0.67	0.0	0.0	6.12	29	678
157.0	Ericsson RRUS-32	3	174	4.6	2.5	13.3	9.5	0.80	0.67	0.0	0.0	6.12	38	683
157.0	Powerwave Allgon	3	170	6.6	4.6	11.0	5.0	0.80	0.65	3.0	160.6	6.15	54	638
157.0	CCI HPA-65R-BUU-H8	3	359	14.6	7.7	14.8	7.4	0.80	0.67	3.0	368.0	6.15	123	1342
157.0	CCI TPA-65R-	3	394	14.9	8.0	14.4	8.6	0.80	0.69	3.0	388.1	6.15	129	1478
157.0	Round Sector Frame	3	669	31.0	0.0	0.0	0.0	0.75	0.75	0.0	0.0	6.12	272	2623
143.0	Round Side Arm	1	222	7.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	5.95	40	303
143.0	20' Omni	1	312	13.1	20.0	3.0	3.0	1.00	1.00	13.0	881.4	6.10	68	388
132.0	Raycap RRFDC-1064-	3	65	1.6	1.1	10.2	8.2	0.80	0.50	2.0	19.2	5.84	10	243
132.0	Alcatel-Lucent	3	116	2.8	2.0	10.6	6.7	0.80	0.67	0.0	0.0	5.82	22	450
132.0	RRH	3	145	3.1	2.0	12.0	12.0	0.80	0.67	0.0	0.0	5.82	24	554
132.0	Amphenol Antel BXA-	3	92	3.8	4.0	6.1	4.1	0.80	0.87	0.0	0.0	5.82	39	340
132.0	48" x 12" x 7" Panel	6	173	6.0	4.0	12.0	7.0	0.80	0.79	0.0	0.0	5.82	113	1297
132.0	Swedcom SACP	1	153	6.1	4.7	9.7	6.5	0.80	0.86	1.0	20.8	5.83	21	188
132.0	Amphenol Antel LPA-	2	222	7.2	4.0	15.2	13.1	0.80	0.75	0.0	0.0	5.82	43	543
132.0	Amphenol Antel BXA-	1	188	8.8	5.9	11.2	5.2	0.80	0.66	1.0	23.1	5.83	23	230
132.0	Swedcom SLCP	2	302	11.4	6.4	14.0	11.0	0.80	0.91	0.0	0.0	5.82	82	740
132.0	Round Sector Frame	3	663	30.8	0.0	0.0	0.0	0.75	0.75	0.0	0.0	5.82	257	2604
132.0	VZW Unused	1	3050	217.7	2.2	26.5	26.5	1.00	1.00	0.0	0.0	5.82	1077	4093
125.0	MicroPulse GPS-	1	11	0.3	0.4	3.2	3.2	0.80	1.00	0.0	0.0	5.73	1	13
125.0	Kathrein Scala 800	6	98	4.3	4.5	6.1	2.7	0.80	0.78	0.0	0.0	5.73	78	730
125.0	Flat Light Sector	3	697	32.8	0.0	0.0	0.0	0.75	0.75	0.0	0.0	5.73	270	2798
51.00	GPS	1	43	0.9	1.0	9.0	6.0	1.00	1.00	0.0	0.0	4.44	3	54
51.00	Stand-Off	1	82	2.6	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.44	10	108
164.0	Ericsson AIR 32 B4A-	3	292	7.7	4.7	12.9	8.7	0.80	0.71	0.0	0.0	6.19	69	1128
Totals		110	26602	1129.4										

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
177.0	5' Omni	2	10	1.0	5.0	2.0	2.0	1.00	1.00	4.0	62.4	9.17	16	20
177.0	8' Omni	2	25	2.4	8.0	3.0	3.0	1.00	1.00	5.0	187.4	9.19	37	50
177.0	10' Omni	2	25	3.0	10.0	3.0	3.0	1.00	1.00	7.0	329.0	9.21	47	50
177.0	13' Omni	1	40	3.9	13.0	3.0	3.0	1.00	1.00	-7.0	209.0	9.01	30	40
177.0	15' Omni	1	40	4.5	15.0	3.0	3.0	1.00	1.00	10.0	354.1	9.26	35	40
177.0	Round Side Arm	2	150	5.2	0.0	0.0	0.0	0.90	0.90	0.0	0.0	9.11	65	300
177.0	Round Sector Frame	1	300	14.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	9.11	112	300
164.0	Ericsson RRUS 11	3	51	2.8	1.6	17.0	7.2	0.80	0.67	0.0	0.0	8.92	34	152
164.0	Ericsson AIR 21	3	91	6.1	4.7	12.0	7.9	0.80	0.69	0.0	0.0	8.92	76	273
164.0	Andrew LNX-	3	50	11.4	8.0	11.9	7.1	0.80	0.70	0.0	0.0	8.92	145	151
164.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	8.92	165	900
157.0	Kathrein Scala 782	3	3	0.1	0.2	4.2	1.8	0.80	0.50	0.0	0.0	8.81	1	9
157.0	Powerwave Allgon	6	5	0.3	0.4	7.9	2.7	0.80	0.50	0.0	0.0	8.81	6	32
157.0	Powerwave Allgon	6	14	1.1	1.2	9.2	2.6	0.80	0.50	0.0	0.0	8.81	20	85
157.0	Raycap DC6-48-60-0-	2	33	1.2	1.9	11.0	11.0	0.80	1.00	0.0	0.0	8.81	14	66
157.0	Raycap DC6-48-60-0-	1	33	1.2	1.9	11.0	11.0	0.80	1.00	0.0	0.0	8.81	7	33
157.0	Ericsson RRUS-11	3	50	2.6	1.5	17.3	7.2	0.80	0.67	0.0	0.0	8.81	31	150

Site Number: 411183

Code:

ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:31 AM

Customer: T-MOBILE

Tower Loading

157.0	Ericsson RRUS 32 B2	3	53	2.7	2.3	12.1	7.0	0.80	0.67	0.0	0.0	8.81	33	159
157.0	Ericsson RRUS 11 w/	3	72	2.8	1.6	17.0	10.6	0.80	0.67	0.0	0.0	8.81	34	216
157.0	Ericsson RRUS-32	3	77	3.3	2.5	13.3	9.5	0.80	0.67	0.0	0.0	8.81	40	231
157.0	Powerwave Allgon	3	35	5.5	4.6	11.0	5.0	0.80	0.65	3.0	194.1	8.85	65	105
157.0	CCI HPA-65R-BUU-H8	3	68	13.0	7.7	14.8	7.4	0.80	0.67	3.0	471.2	8.85	157	204
157.0	CCI TPA-65R-	3	82	13.3	8.0	14.4	8.6	0.80	0.69	3.0	497.3	8.85	166	246
157.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.81	182	900
143.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	8.57	38	150
143.0	20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	13.0	582.8	8.79	45	55
132.0	Raycap RRFDC-1064-	3	14	1.2	1.1	10.2	8.2	0.80	0.50	2.0	19.9	8.42	10	42
132.0	Alcatel-Lucent	3	44	2.2	2.0	10.6	6.7	0.80	0.67	0.0	0.0	8.38	25	132
132.0	RRH	3	45	2.4	2.0	12.0	12.0	0.80	0.67	0.0	0.0	8.38	27	135
132.0	Amphenol Antel BXA-	3	11	2.9	4.0	6.1	4.1	0.80	0.87	0.0	0.0	8.38	44	32
132.0	48" x 12" x 7" Panel	6	35	5.1	4.0	12.0	7.0	0.80	0.79	0.0	0.0	8.38	137	210
132.0	Swedcom SACP	1	16	5.1	4.7	9.7	6.5	0.80	0.86	1.0	25.0	8.40	25	16
132.0	Amphenol Antel LPA-	2	20	6.1	4.0	15.2	13.1	0.80	0.75	0.0	0.0	8.38	52	40
132.0	Amphenol Antel BXA-	1	17	7.6	5.9	11.2	5.2	0.80	0.66	1.0	28.5	8.40	29	17
132.0	Swedcom SLCP	2	30	10.0	6.4	14.0	11.0	0.80	0.91	0.0	0.0	8.38	104	60
132.0	Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.38	173	900
132.0	VZW Unused	1	1807	129.0	2.2	26.5	26.5	1.00	1.00	0.0	0.0	8.38	919	1807
125.0	MicroPulse GPS-	1	1	0.1	0.4	3.2	3.2	0.80	1.00	0.0	0.0	8.25	1	1
125.0	Kathrein Scala 800	6	18	3.3	4.5	6.1	2.7	0.80	0.78	0.0	0.0	8.25	88	106
125.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	8.25	212	1200
51.00	GPS	1	10	1.0	1.0	9.0	6.0	1.00	1.00	0.0	0.0	6.39	5	10
51.00	Stand-Off	1	40	1.6	0.0	0.0	0.0	1.00	1.00	0.0	0.0	6.39	9	40
164.0	Ericsson AIR 32 B4A-	3	106	6.5	4.7	12.9	8.7	0.80	0.71	0.0	0.0	8.92	84	317
	Totals	110	9979	716.1										

Site Number: 411183

Code:

ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:31 AM

Customer: T-MOBILE

Tower Loading

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	180.0	Empty Waveguide	1	2.00	6.00	0	3	Individual	0.00	N	1.00	1.00	0.00
30.00	177.0	7/8" Coax	7	1.09	0.33	0	1	Individual	0.00	N	1.00	1.00	0.00
30.00	177.0	Waveguide	1	2.00	6.00	0	1	Individual	0.00	N	1.00	1.00	0.00
0.00	164.0	Waveguide	1	2.00	6.00	0	1	Individual	0.00	N	1.00	1.00	0.00
30.00	164.0	1 5/8" Coax	18	1.98	14.7	67	1	Individual	0.00	N	1.00	1.00	0.00
30.00	164.0	1 5/8" Hybriflex	1	1.98	1.30	0	1	Individual	0.00	N	1.00	1.00	0.00
30.00	157.0	0.39" Fiber Trunk	2	0.39	0.06	0	2	Individual	0.00	N	1.00	1.00	0.01
30.00	157.0	0.39" Fiber Trunk	1	0.39	0.06	0	2	Individual	0.00	N	1.00	1.00	0.01
30.00	157.0	0.78" 8 AWG 6	4	0.78	1.18	0	2	Individual	0.00	N	1.00	1.00	0.00
30.00	157.0	0.78" 8 AWG 6	2	0.78	1.18	0	2	Individual	0.00	N	1.00	1.00	0.01
30.00	157.0	1 5/8" Coax	12	1.98	9.84	0	2	Individual	0.00	N	1.00	1.00	0.00
30.00	157.0	2" Conduit	1	2.38	3.65	0	2	Individual	0.00	N	1.00	1.00	0.00
30.00	157.0	Waveguide	1	2.00	6.00	0	2	Individual	0.00	N	1.00	1.00	0.00
30.00	143.0	1 5/8" Coax	1	1.98	0.82	0	1	Individual	0.00	N	1.00	1.00	0.01
30.00	132.0	1 1/4" Hybriflex	3	1.54	3.00	0	1	Individual	0.00	N	1.00	1.00	0.01
30.00	132.0	1 5/8" Coax	18	1.98	14.7	50	1	Individual	0.00	N	1.00	1.00	0.00
30.00	125.0	1 5/8" Coax	6	1.98	0.82	50	3	Block	0.00	N	1.00	1.00	0.00
30.00	51.00	1/2" Coax	1	0.63	0.15	0	1	Individual	0.00	N	1.00	1.00	0.01

Site Number: 411183

Code: ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:31 AM

Customer: T-MOBILE

Equivalent Lateral Force Method

(Based on ASCE7-10 Chapters 11, 12 & 15)

Spectral Response Acceleration for Short Period (S_s):	0.16
Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.06
Long-Period Transition Period (T_L - Seconds):	6
Importance Factor (I_p):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.17
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Seismic Response Coefficient (C_s):	0.04
Upper Limit C_s :	0.04
Lower Limit C_s :	0.03
Period based on Rayleigh Method (sec):	0.83
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.17
Total Unfactored Dead Load:	134.45 k
Seismic Base Shear (E):	6.59 k

LoadCase (1.2 + 0.2Sds) * DL + E

Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
9	170.00	2,643	1,059,99	0.042	275	3,264
8	150.00	9,945	3,446,11	0.136	894	12,279
7	130.00	14,247	4,177,58	0.164	1,084	17,592
6	110.00	17,277	4,168,74	0.164	1,081	21,333
5	90.00	18,799	3,588,78	0.141	931	23,212
4	70.00	19,804	2,819,53	0.111	731	24,453
3	50.00	20,043	1,926,90	0.076	500	24,749
2	30.00	14,168	750,381	0.030	195	17,495
1	10.00	7,543	110,825	0.004	29	9,313
5' Omni	177.00	20	8,407	0.000	2	25
8' Omni	177.00	50	21,019	0.001	5	62
10' Omni	177.00	50	21,019	0.001	5	62
13' Omni	177.00	40	16,815	0.001	4	49
15' Omni	177.00	40	16,815	0.001	4	49
Round Side Arm	177.00	300	126,112	0.005	33	370
Round Sector Frame	177.00	300	126,112	0.005	33	370
Ericsson RRUS 11 B12	164.00	152	58,492	0.002	15	188
Ericsson AIR 21	164.00	273	104,986	0.004	27	337
Andrew LNX-6515DS-VTM (50.3 lbs)	164.00	151	58,031	0.002	15	186
Round Sector Frame	164.00	900	346,108	0.014	90	1,111
Kathrein Scala 782 10253	157.00	9	3,180	0.000	1	11
Powerwave Allgon LGP13519	157.00	32	11,622	0.000	3	39
Powerwave Allgon LGP21401	157.00	85	30,919	0.001	8	104

Equivalent Lateral Force Method

Raycap DC6-48-60-0-8F	157.00	66	23,975	0.001	6	81
Raycap DC6-48-60-0-8F	157.00	33	11,988	0.000	3	41
Ericsson RRUS-11 (50 lbs.)	157.00	150	54,822	0.002	14	185
Ericsson RRUS 32 B2	157.00	159	58,111	0.002	15	196
Ericsson RRUS 11 w/ RRUS A2	157.00	216	78,943	0.003	20	267
Ericsson RRUS-32 (77 lbs)	157.00	231	84,425	0.003	22	285
Powerwave Allgon 7770.00	157.00	105	38,375	0.002	10	130
CCI HPA-65R-BUU-H8	157.00	204	74,557	0.003	19	252
CCI TPA-65R-LCUUUU-H8	157.00	246	90,017	0.004	23	304
Round Sector Frame	157.00	900	328,929	0.013	85	1,111
Round Side Arm	143.00	150	49,160	0.002	13	185
20' Omni	143.00	55	18,025	0.001	5	68
Raycap RRFDC-1064-PF-48	132.00	42	12,537	0.000	3	52
Alcatel-Lucent RRH2x40-AWS	132.00	132	39,402	0.002	10	163
RRH	132.00	135	40,298	0.002	10	167
Amphenol Antel BXA-171063-8CF-EDIN-X	132.00	32	9,403	0.000	2	39
48" x 12" x 7" Panel	132.00	210	62,685	0.002	16	259
Swedcom SACP 2x5516	132.00	16	4,776	0.000	1	20
Amphenol Antel LPA-80063-4CF-EDIN-X	132.00	40	11,940	0.000	3	49
Amphenol Antel BXA-70063-6CF-EDIN-2	132.00	17	5,075	0.000	1	21
Swedcom SLCP 2x6015	132.00	60	17,910	0.001	5	74
Round Sector Frame	132.00	900	268,651	0.011	70	1,111
VZW Unused Reserve: 18,557 sq in	132.00	1,806	539,243	0.021	140	2,231
MicroPulse GPS-QBW-26N	125.00	1	168	0.000	0	1
Kathrein Scala 800 10504	125.00	106	29,580	0.001	8	130
Flat Light Sector Frame	125.00	1,200	336,131	0.013	87	1,482
GPS	51.00	10	984	0.000	0	12
Stand-Off	51.00	40	3,935	0.000	1	49
Ericsson AIR 32 B4A-B2P	164.00	317	122,061	0.005	32	392
		134,448	25,414,603	1.000	6,593	166,013

LoadCase (0.9 - 0.2Sds) * DL + E

Seismic (Reduced DL)

Section	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
9	170.00	2,643	1,059,99	0.042	275	2,287
8	150.00	9,945	3,446,11	0.136	894	8,604
7	130.00	14,247	4,177,58	0.164	1,084	12,327
6	110.00	17,277	4,168,74	0.164	1,081	14,949
5	90.00	18,799	3,588,78	0.141	931	16,265
4	70.00	19,804	2,819,53	0.111	731	17,135
3	50.00	20,043	1,926,90	0.076	500	17,342
2	30.00	14,168	750,381	0.030	195	12,259
1	10.00	7,543	110,825	0.004	29	6,526
5' Omni	177.00	20	8,407	0.000	2	17
8' Omni	177.00	50	21,019	0.001	5	43
10' Omni	177.00	50	21,019	0.001	5	43
13' Omni	177.00	40	16,815	0.001	4	35
15' Omni	177.00	40	16,815	0.001	4	35
Round Side Arm	177.00	300	126,112	0.005	33	260
Round Sector Frame	177.00	300	126,112	0.005	33	260
Ericsson RRUS 11 B12	164.00	152	58,492	0.002	15	132
Ericsson AIR 21	164.00	273	104,986	0.004	27	236
Andrew LNX-6515DS-VTM (50.3 lbs)	164.00	151	58,031	0.002	15	131

Site Number: 411183

Code:

ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:31 AM

Customer: T-MOBILE

Equivalent Lateral Force Method

Round Sector Frame	164.00	900	346,108	0.014	90	779
Kathrein Scala 782 10253	157.00	9	3,180	0.000	1	8
Powerwave Allgon LGP13519	157.00	32	11,622	0.000	3	28
Powerwave Allgon LGP21401	157.00	85	30,919	0.001	8	73
Raycap DC6-48-60-0-8F	157.00	66	23,975	0.001	6	57
Raycap DC6-48-60-0-8F	157.00	33	11,988	0.000	3	28
Ericsson RRUS-11 (50 lbs.)	157.00	150	54,822	0.002	14	130
Ericsson RRUS 32 B2	157.00	159	58,111	0.002	15	138
Ericsson RRUS 11 w/ RRUS A2	157.00	216	78,943	0.003	20	187
Ericsson RRUS-32 (77 lbs)	157.00	231	84,425	0.003	22	200
Powerwave Allgon 7770.00	157.00	105	38,375	0.002	10	91
CCI HPA-65R-BUU-H8	157.00	204	74,557	0.003	19	177
CCI TPA-65R-LCUUUU-H8	157.00	246	90,017	0.004	23	213
Round Sector Frame	157.00	900	328,929	0.013	85	779
Round Side Arm	143.00	150	49,160	0.002	13	130
20' Omni	143.00	55	18,025	0.001	5	48
Raycap RRFDC-1064-PF-48	132.00	42	12,537	0.000	3	36
Alcatel-Lucent RRH2x40-AWS	132.00	132	39,402	0.002	10	114
RRH	132.00	135	40,298	0.002	10	117
Amphenol Antel BXA-171063-8CF-EDIN-X	132.00	32	9,403	0.000	2	27
48" x 12" x 7" Panel	132.00	210	62,685	0.002	16	182
Swedcom SACP 2x5516	132.00	16	4,776	0.000	1	14
Amphenol Antel LPA-80063-4CF-EDIN-X	132.00	40	11,940	0.000	3	35
Amphenol Antel BXA-70063-6CF-EDIN-2	132.00	17	5,075	0.000	1	15
Swedcom SLCP 2x6015	132.00	60	17,910	0.001	5	52
Round Sector Frame	132.00	900	268,651	0.011	70	779
VZW Unused Reserve: 18,557 sq in	132.00	1,806	539,243	0.021	140	1,563
MicroPulse GPS-QBW-26N	125.00	1	168	0.000	0	1
Kathrein Scala 800 10504	125.00	106	29,580	0.001	8	91
Flat Light Sector Frame	125.00	1,200	336,131	0.013	87	1,038
GPS	51.00	10	984	0.000	0	9
Stand-Off	51.00	40	3,935	0.000	1	35
Ericsson AIR 32 B4A-B2P	164.00	317	122,061	0.005	32	275
		134,448	25,414,604	1.000	6,593	116,328

Site Number: 411183

Code:

ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:31 AM

Customer: T-MOBILE

Equivalent Modal Analysis Method

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Spectral Response Acceleration for Short Period (S_{s1}):	0.16
Spectral Response Acceleration at 1.0 Second Period (S_{s1}):	0.06
Importance Factor (I_p):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.17
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Period Based on Rayleigh Method (sec):	0.83
Redundancy Factor (ρ):	1.30

LoadCase (1.2 + 0.2Sds) * DL + E

Seismic

Section	Height Above Base (ft)	Weight (lb)	a	b	c	S_{az}	Horizontal Force (lb)	Vertical Force (lb)
9	170.00	2,643	1.686	1.069	0.793	0.281	322	3,264
8	150.00	9,945	1.312	0.138	0.347	0.137	592	12,279
7	130.00	14,247	0.986	-0.113	0.124	0.072	441	17,592
6	110.00	17,277	0.706	-0.089	0.031	0.054	406	21,333
5	90.00	18,799	0.472	-0.006	0.006	0.051	419	23,212
4	70.00	19,804	0.286	0.048	0.013	0.045	382	24,453
3	50.00	20,043	0.146	0.068	0.031	0.034	291	24,749
2	30.00	14,168	0.053	0.071	0.042	0.024	146	17,495
1	10.00	7,543	0.006	0.047	0.027	0.013	42	9,313
5' Omni	177.00	20	1.828	1.667	1.025	0.353	3	25
8' Omni	177.00	50	1.828	1.667	1.025	0.353	8	62
10' Omni	177.00	50	1.828	1.667	1.025	0.353	8	62
13' Omni	177.00	40	1.828	1.667	1.025	0.353	6	49
15' Omni	177.00	40	1.828	1.667	1.025	0.353	6	49
Round Side Arm	177.00	300	1.828	1.667	1.025	0.353	46	370
Round Sector Frame	177.00	300	1.828	1.667	1.025	0.353	46	370
Ericsson RRUS 11 B12	164.00	152	1.569	0.685	0.629	0.229	15	188
Ericsson AIR 21	164.00	273	1.569	0.685	0.629	0.229	27	337
Andrew LNX-6515DS-VTM (50.3	164.00	151	1.569	0.685	0.629	0.229	15	186
Round Sector Frame	164.00	900	1.569	0.685	0.629	0.229	89	1,111
Kathrein Scala 782 10253	157.00	9	1.438	0.359	0.472	0.178	1	11
Powerwave Allgon LGP13519	157.00	32	1.438	0.359	0.472	0.178	2	39
Powerwave Allgon LGP21401	157.00	85	1.438	0.359	0.472	0.178	7	104
Raycap DC6-48-60-0-8F	157.00	66	1.438	0.359	0.472	0.178	5	81
Raycap DC6-48-60-0-8F	157.00	33	1.438	0.359	0.472	0.178	3	41
Ericsson RRUS-11 (50 lbs.)	157.00	150	1.438	0.359	0.472	0.178	12	185
Ericsson RRUS 32 B2	157.00	159	1.438	0.359	0.472	0.178	12	196
Ericsson RRUS 11 w/ RRUS A2	157.00	216	1.438	0.359	0.472	0.178	17	267
Ericsson RRUS-32 (77 lbs)	157.00	231	1.438	0.359	0.472	0.178	18	285
Powerwave Allgon 7770.00	157.00	105	1.438	0.359	0.472	0.178	8	130
CCI HPA-65R-BUU-H8	157.00	204	1.438	0.359	0.472	0.178	16	252
CCI TPA-65R-LCUUUU-H8	157.00	246	1.438	0.359	0.472	0.178	19	304
Round Sector Frame	157.00	900	1.438	0.359	0.472	0.178	69	1,111
Round Side Arm	143.00	150	1.193	-0.002	0.249	0.107	7	185
20' Omni	143.00	55	1.193	-0.002	0.249	0.107	3	68
Raycap RRFDC-1064-PF-48	132.00	42	1.016	-0.105	0.140	0.075	1	52
Alcatel-Lucent RRH2x40-AWS	132.00	132	1.016	-0.105	0.140	0.075	4	163
RRH	132.00	135	1.016	-0.105	0.140	0.075	4	167

Site Number: 411183

Code: ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:32 AM

Customer: T-MOBILE

Equivalent Modal Analysis Method

Amphenol Antel BXA-171063-48" x 12" x 7" Panel	132.00	32	1.016	-0.105	0.140	0.075	1	39
Swedcom SACP 2x5516	132.00	16	1.016	-0.105	0.140	0.075	1	20
Amphenol Antel LPA-80063-4CF-	132.00	40	1.016	-0.105	0.140	0.075	1	49
Amphenol Antel BXA-70063-6CF-	132.00	17	1.016	-0.105	0.140	0.075	1	21
Swedcom SLCP 2x6015	132.00	60	1.016	-0.105	0.140	0.075	2	74
Round Sector Frame	132.00	900	1.016	-0.105	0.140	0.075	29	1,111
VZW Unused Reserve: 18,557	132.00	1,806	1.016	-0.105	0.140	0.075	59	2,231
MicroPulse GPS-QBW-26N	125.00	1	0.911	-0.122	0.092	0.064	0	1
Kathrein Scala 800 10504	125.00	106	0.911	-0.122	0.092	0.064	3	130
Flat Light Sector Frame	125.00	1,200	0.911	-0.122	0.092	0.064	33	1,482
GPS	51.00	10	0.152	0.068	0.030	0.034	0	12
Stand-Off	51.00	40	0.152	0.068	0.030	0.034	1	49
Ericsson AIR 32 B4A-B2P	164.00	317	1.569	0.685	0.629	0.229	31	392
		134,448	61.586	19.607	20.241	7.938	3,687	166,013

LoadCase (0.9 - 0.2Sds) * DL + E

Seismic (Reduced DL)

Section	Height		Seismic (Reduced DL)				Horizontal Force (lb)	Vertical Force (lb)
	Above Base (ft)	Weight (lb)	a	b	c	S _{az}		
9	170.00	2,643	1.686	1.069	0.793	0.281	322	2,287
8	150.00	9,945	1.312	0.138	0.347	0.137	592	8,604
7	130.00	14,247	0.986	-0.113	0.124	0.072	441	12,327
6	110.00	17,277	0.706	-0.089	0.031	0.054	406	14,949
5	90.00	18,799	0.472	-0.006	0.006	0.051	419	16,265
4	70.00	19,804	0.286	0.048	0.013	0.045	382	17,135
3	50.00	20,043	0.146	0.068	0.031	0.034	291	17,342
2	30.00	14,168	0.053	0.071	0.042	0.024	146	12,259
1	10.00	7,543	0.006	0.047	0.027	0.013	42	6,526
5' Omni	177.00	20	1.828	1.667	1.025	0.353	3	17
8' Omni	177.00	50	1.828	1.667	1.025	0.353	8	43
10' Omni	177.00	50	1.828	1.667	1.025	0.353	8	43
13' Omni	177.00	40	1.828	1.667	1.025	0.353	6	35
15' Omni	177.00	40	1.828	1.667	1.025	0.353	6	35
Round Side Arm	177.00	300	1.828	1.667	1.025	0.353	46	260
Round Sector Frame	177.00	300	1.828	1.667	1.025	0.353	46	260
Ericsson RRUS 11 B12	164.00	152	1.569	0.685	0.629	0.229	15	132
Ericsson AIR 21	164.00	273	1.569	0.685	0.629	0.229	27	236
Andrew LNX-6515DS-VTM (50.3	164.00	151	1.569	0.685	0.629	0.229	15	131
Round Sector Frame	164.00	900	1.569	0.685	0.629	0.229	89	779
Kathrein Scala 782 10253	157.00	9	1.438	0.359	0.472	0.178	1	8
Powerwave Allgon LGP13519	157.00	32	1.438	0.359	0.472	0.178	2	28
Powerwave Allgon LGP21401	157.00	85	1.438	0.359	0.472	0.178	7	73
Raycap DC6-48-60-0-8F	157.00	66	1.438	0.359	0.472	0.178	5	57
Raycap DC6-48-60-0-8F	157.00	33	1.438	0.359	0.472	0.178	3	28
Ericsson RRUS-11 (50 lbs.)	157.00	150	1.438	0.359	0.472	0.178	12	130
Ericsson RRUS 32 B2	157.00	159	1.438	0.359	0.472	0.178	12	138
Ericsson RRUS 11 w/ RRUS A2	157.00	216	1.438	0.359	0.472	0.178	17	187
Ericsson RRUS-32 (77 lbs)	157.00	231	1.438	0.359	0.472	0.178	18	200
Powerwave Allgon 7770.00	157.00	105	1.438	0.359	0.472	0.178	8	91
CCI HPA-65R-BUU-H8	157.00	204	1.438	0.359	0.472	0.178	16	177
CCI TPA-65R-LCUUUU-H8	157.00	246	1.438	0.359	0.472	0.178	19	213
Round Sector Frame	157.00	900	1.438	0.359	0.472	0.178	69	779
Round Side Arm	143.00	150	1.193	-0.002	0.249	0.107	7	130
20' Omni	143.00	55	1.193	-0.002	0.249	0.107	3	48
Raycap RRFDC-1064-PF-48	132.00	42	1.016	-0.105	0.140	0.075	1	36
Alcatel-Lucent RRH2x40-AWS	132.00	132	1.016	-0.105	0.140	0.075	4	114
RRH	132.00	135	1.016	-0.105	0.140	0.075	4	117
Amphenol Antel BXA-171063-48" x 12" x 7" Panel	132.00	32	1.016	-0.105	0.140	0.075	1	27
Swedcom SACP 2x5516	132.00	210	1.016	-0.105	0.140	0.075	7	182
Swedcom SACP 2x5516	132.00	16	1.016	-0.105	0.140	0.075	1	14
Amphenol Antel LPA-80063-4CF-	132.00	40	1.016	-0.105	0.140	0.075	1	35
Amphenol Antel BXA-70063-6CF-	132.00	17	1.016	-0.105	0.140	0.075	1	15

Site Number: 411183

Code:

ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:32 AM

Customer: T-MOBILE

Equivalent Modal Analysis Method

Swedcom SLCP 2x6015	132.00	60	1.016	-0.105	0.140	0.075	2	52
Round Sector Frame	132.00	900	1.016	-0.105	0.140	0.075	29	779
VZW Unused Reserve: 18,557	132.00	1,806	1.016	-0.105	0.140	0.075	59	1,563
MicroPulse GPS-QBW-26N	125.00	1	0.911	-0.122	0.092	0.064	0	1
Kathrein Scala 800 10504	125.00	106	0.911	-0.122	0.092	0.064	3	91
Flat Light Sector Frame	125.00	1,200	0.911	-0.122	0.092	0.064	33	1,038
GPS	51.00	10	0.152	0.068	0.030	0.034	0	9
Stand-Off	51.00	40	0.152	0.068	0.030	0.034	1	35
Ericsson AIR 32 B4A-B2P	164.00	317	1.569	0.685	0.629	0.229	31	275
		134,448	61.586	19.607	20.241	7.938	3,687	116,328

Site Number: 411183

Code: ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:32 AM

Customer: T-MOBILE

Force/Stress Summary

Section: 1		1		Bot Elev (ft): 0.00				Height (ft): 20.000								
		Pu	Len	Bracing %			F'y	Phic Pn	Num	Shear	Bear			Use		
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	%	Controls
LEG	PX - 12" DIA PIPE	-364.33	1.2D + 1.6W	10.02	100	100	100	27.8	50.0	816.60	0	0	0.00	0.00	44	Member X
HORIZ	PST - 3" DIA PIPE	-9.72	1.2D + 1.6W 90	12.17	100	100	100	125.9	50.0	31.77	2	0	0.00	40.44	30	Member X
DIAG	PST - 3-1/2" DIA PIP	-15.11	1.2D + 1.6W 90	15.75	100	100	100	141.1	50.0	30.41	3	0	0.00	63.46	49	Member X

Max Tension Member		Pu	Load Case	Fy	Fu	Phit Pn	Num	Num	Shear	Bear	Blk Shear	Use	Controls
		(kip)		(ksi)	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	phi Pn	%	
LEG	PX - 12" DIA PIPE	270.80	0.9D + 1.6W 60	50	65	864.00	0	0	0.00	0.00		31	Member
HORIZ	PST - 3" DIA PIPE	12.03	1.2D + 1.6W 90	50	65	100.35	2	0	0.00	32.43	0.00	37	Bolt Bear
DIAG	PST - 3-1/2" DIA PIP	14.15	1.2D + 1.6W 90	50	65	120.60	3	0	0.00	55.09	0.00	25	Bolt Bear

Max Splice Forces		Pu	Load Case	phiRnt	Use	Num		
		(kip)		(kip)	%	Bolts	Bolt Type	
Top Tension		255.38	0.9D + 1.6W 180	0.00	0	0		
Top Compression		345.70	1.2D + 1.6W	0.00	0			
Bot Tension		285.99	0.9D + 1.6W 180	1453.68	24	24	1" A354-BC	
Bot Compression		379.75	1.2D + 1.6W	0.00	0			

Section: 2		1		Bot Elev (ft): 20.00				Height (ft): 20.000								
		Pu	Len	Bracing %			F'y	Phic Pn	Num	Shear	Bear			Use		
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	%	Controls
LEG	PX - 12" DIA PIPE	-330.10	1.2D + 1.6W	10.03	100	100	100	27.8	50.0	816.53	0	0	0.00	0.00	40	Member X
HORIZ	PST - 3" DIA PIPE	-9.16	1.2D + 1.6W 90	10.88	100	100	100	112.6	50.0	39.73	2	0	0.00	40.44	23	Member X
DIAG	PST - 3-1/2" DIA PIP	-14.47	1.2D + 1.6W 90	15.29	100	100	100	137.0	50.0	32.26	3	0	0.00	63.46	44	Member X

Max Tension Member		Pu	Load Case	Fy	Fu	Phit Pn	Num	Num	Shear	Bear	Blk Shear	Use	Controls
		(kip)		(ksi)	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	phi Pn	%	
LEG	PX - 12" DIA PIPE	242.07	0.9D + 1.6W 60	50	65	864.00	0	0	0.00	0.00		28	Member
HORIZ	PST - 3" DIA PIPE	10.38	1.2D + 1.6W 90	50	65	100.35	2	0	0.00	32.43	0.00	31	Bolt Bear
DIAG	PST - 3-1/2" DIA PIP	12.75	0.9D + 1.6W 90	50	65	120.60	3	0	0.00	55.09	0.00	23	Bolt Bear

Max Splice Forces		Pu	Load Case	phiRnt	Use	Num		
		(kip)		(kip)	%	Bolts	Bolt Type	
Top Tension		228.37	0.9D + 1.6W 180	0.00	0	0		
Top Compression		310.27	1.2D + 1.6W	0.00	0			
Bot Tension		255.38	0.9D + 1.6W 180	872.32	29	16	1 A325	
Bot Compression		345.70	1.2D + 1.6W	0.00	0			

Force/Stress Summary

Section: 3		1		Bot Elev (ft): 40.00				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 10" DIA PIPE	-289.38	1.2D + 1.6W	10.03	100	100	100	33.1	50.0	668.58	0	0	0.00	0.00	43 Member X
HORIZ	PST - 2-1/2" DIA PIP	-9.83	0.9D + 1.6W 90	9.570	100	100	100	121.3	50.0	26.18	2	0	0.00	38.00	37 Member X
DIAG	PX - 3" DIA PIPE	-16.70	1.2D + 1.6W 90	14.28	100	100	100	150.4	50.0	30.17	3	0	0.00	84.24	55 Member X

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PX - 10" DIA PIPE	212.27	0.9D + 1.6W 60	50	65	724.50	0	0	0.00	0.00			29 Member
HORIZ	PST - 2-1/2" DIA PIP	11.08	1.2D + 1.6W 90	50	65	76.68	2	0	0.00	30.48	0.00		36 Bolt Bear
DIAG	PX - 3" DIA PIPE	14.17	0.9D + 1.6W 90	50	65	135.90	3	0	0.00	73.13	0.00		19 Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		196.42	0.9D + 1.6W 180	0.00	0	0	
Top Compression		265.13	1.2D + 1.6W	0.00	0		
Bot Tension		228.37	0.9D + 1.6W 180	872.32	26	16	1 A325
Bot Compression		310.27	1.2D + 1.6W	0.00	0		

Section: 4		1		Bot Elev (ft): 60.00				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 10" DIA PIPE	-243.18	1.2D + 1.6W	10.03	100	100	100	33.2	50.0	668.56	0	0	0.00	0.00	36 Member X
HORIZ	PST - 2-1/2" DIA PIP	-8.91	0.9D + 1.6W 90	8.297	100	100	100	105.1	50.0	34.17	2	0	0.00	38.00	26 Member X
DIAG	PX - 3" DIA PIPE	-16.24	1.2D + 1.6W 90	13.42	100	100	100	141.3	50.0	34.18	3	0	0.00	84.24	47 Member X

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PX - 10" DIA PIPE	181.31	0.9D + 1.6W 180	50	65	724.50	0	0	0.00	0.00			25 Member
HORIZ	PST - 2-1/2" DIA PIP	9.95	1.2D + 1.6W 90	50	65	76.68	2	0	0.00	30.48	0.00		32 Bolt Bear
DIAG	PX - 3" DIA PIPE	13.57	1.2D + 1.6W 90	50	65	135.90	3	0	0.00	73.13	0.00		18 Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		163.80	0.9D + 1.6W 180	0.00	0	0	
Top Compression		218.58	1.2D + 1.6W	0.00	0		
Bot Tension		196.42	0.9D + 1.6W 180	654.24	30	12	1 A325
Bot Compression		265.13	1.2D + 1.6W	0.00	0		

Site Number: 411183

Code: ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:32 AM

Customer: T-MOBILE

Force/Stress Summary

Section: 5		1		Bot Elev (ft): 80.00				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 8" DIA PIPE	-194.41	1.2D + 1.6W	10.03	100	100	100	41.8	50.0	507.01	0	0	0.00	0.00	38 Member X
HORIZ	PX - 2" DIA PIPE	-8.51	0.9D + 1.6W 90	7.035	100	100	100	110.2	50.0	27.40	2	0	0.00	40.81	31 Member X
DIAG	PX - 3" DIA PIPE	-16.72	1.2D + 1.6W 90	12.59	100	100	100	132.6	50.0	38.81	3	0	0.00	84.24	43 Member X

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PX - 8" DIA PIPE	144.80	0.9D + 1.6W 60	50	65	576.00	0	0	0.00	0.00			25 Member
HORIZ	PX - 2" DIA PIPE	9.29	1.2D + 1.6W 90	50	65	66.60	2	0	0.00	32.73	0.00		28 Bolt Bear
DIAG	PX - 3" DIA PIPE	14.72	1.2D + 1.6W 90	50	65	135.90	3	0	0.00	73.13	0.00		20 Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		126.06	0.9D + 1.6W 180	0.00	0	0	
Top Compression		167.42	1.2D + 1.6W	0.00	0		
Bot Tension		163.80	0.9D + 1.6W 180	654.24	25	12	1 A325
Bot Compression		218.58	1.2D + 1.6W	0.00	0		

Section: 6		1		Bot Elev (ft): 100.0				Height (ft): 20.000							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	PX - 6" DIA PIPE	-149.05	1.2D + 1.6W	6.68	100	100	100	36.5	50.0	342.89	0	0	0.00	0.00	43 Member X
HORIZ	PST - 2" DIA PIPE	-8.29	0.9D + 1.6W 90	6.072	100	100	100	92.6	50.0	25.73	2	0	0.00	24.02	32 Member X
DIAG	PST - 2-1/2" DIA PIP	-13.79	1.2D + 1.6W 90	9.257	100	100	100	117.3	50.0	27.97	3	0	0.00	47.50	49 Member X

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	PX - 6" DIA PIPE	111.23	0.9D + 1.6W 60	50	65	378.00	0	0	0.00	0.00			29 Member
HORIZ	PST - 2" DIA PIPE	8.99	1.2D + 1.6W 90	50	65	48.15	2	0	0.00	19.22	0.00		46 Bolt Bear
DIAG	PST - 2-1/2" DIA PIP	12.40	1.2D + 1.6W 90	50	65	76.68	3	0	0.00	41.17	0.00		30 Bolt Bear

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		82.06	0.9D + 1.6W 180	0.00	0	0	
Top Compression		109.89	1.2D + 1.6W	0.00	0		
Bot Tension		126.06	0.9D + 1.6W 180	436.16	29	8	1 A325
Bot Compression		167.42	1.2D + 1.6W	0.00	0		

Force/Stress Summary

Section: 7		1	Bot Elev (ft): 120.0				Height (ft): 20.000								
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
Max Compression Member															
LEG	PX - 5" DIA PIPE	-90.92	1.2D + 1.6W	6.68	100	100	100	43.6	50.0	239.34	0	0	0.00	0.00	37 Member X
HORIZ	PST - 1-1/2" DIA PIP	-7.63	1.2D + 1.6W 90	5.030	100	100	100	96.9	50.0	18.10	2	0	0.00	22.62	42 Member X
DIAG	PST - 2-1/2" DIA PIP	-13.76	1.2D + 1.6W 90	8.566	100	100	100	108.5	50.0	32.40	3	0	0.00	47.50	42 Member X
Max Tension Member															
LEG	PX - 5" DIA PIPE	66.75	0.9D + 1.6W 180	50	65	274.95	0	0	0.00	0.00				24 Member	
HORIZ	PST - 1-1/2" DIA PIP	8.15	1.2D + 1.6W 90	50	65	35.96	2	0	0.00	18.10			0.00	45 Bolt Bear	
DIAG	PST - 2-1/2" DIA PIP	12.54	1.2D + 1.6W 90	50	65	76.68	3	0	0.00	41.17			0.00	30 Bolt Bear	
Max Splice Forces															
		Pu (kip)	Load Case		phiRnt (kip)	Use %	Num Bolts	Bolt Type							
	Top Tension	42.03	0.9D + 1.6W 180		0.00	0	0								
	Top Compression	56.23	1.2D + 1.6W		0.00	0									
	Bot Tension	82.06	0.9D + 1.6W 180		327.12	25	6	1 A325							
	Bot Compression	109.89	1.2D + 1.6W		0.00	0									

Section: 8		1	Bot Elev (ft): 140.0				Height (ft): 20.000								
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
Max Compression Member															
LEG	PST - 4" DIA PIPE	-41.04	1.2D + 1.6W	6.67	100	100	100	53.0	50.0	116.18	0	0	0.00	0.00	35 Member X
HORIZ	PST - 2" DIA PIPE	-4.56	1.2D + 1.6W	4.325	100	100	100	65.9	50.0	35.03	2	0	0.00	24.02	13 Member X
DIAG	PST - 2-1/2" DIA PIP	-9.62	1.2D + 1.6W 90	7.955	100	100	100	100.8	50.0	36.48	3	0	0.00	47.50	26 Member X
Max Tension Member															
LEG	PST - 4" DIA PIPE	29.86	0.9D + 1.6W 180	50	65	142.65	0	0	0.00	0.00				20 Member	
HORIZ	PST - 2" DIA PIPE	5.10	1.2D + 1.6W 210	50	65	48.15	2	0	0.00	19.22			0.00	26 Bolt Bear	
DIAG	PST - 2-1/2" DIA PIP	9.08	0.9D + 1.6W 210	50	65	76.68	3	0	0.00	41.17			0.00	22 Bolt Bear	
Max Splice Forces															
		Pu (kip)	Load Case		phiRnt (kip)	Use %	Num Bolts	Bolt Type							
	Top Tension	8.73	0.9D + 1.6W 180		0.00	0	0								
	Top Compression	15.22	1.2D + 1.6W		0.00	0									
	Bot Tension	42.03	0.9D + 1.6W 180		218.08	19	4	1 A325							
	Bot Compression	56.23	1.2D + 1.6W		0.00	0									

Site Number: 411183

Code: ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:32 AM

Customer: T-MOBILE

Force/Stress Summary

Section: 9		1		Bot Elev (ft): 160.0				Height (ft): 20.000												
													Shear	Bear						
		Pu			Len	Bracing %			F'y	Phic Pn	Num	Num	phiRnv	phiRn	Use					
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls				
LEG	PST - 3" DIA PIPE	-7.37	1.2D + 1.6W	6.67	100	100	100	69.0	50.0	70.87	0	0	0.00	0.00	10	Member X				
HORIZ	PST - 1-1/2" DIA PIP	-2.12	1.2D + 1.6W	4.280	100	100	100	82.4	50.0	21.87	2	0	0.00	22.62	9	Member X				
DIAG	PST - 2" DIA PIPE	-4.16	1.2D + 1.6W	7.930	100	100	100	120.9	50.0	16.53	3	0	0.00	36.04	25	Member X				
													Shear	Bear	Blk Shear					
		Pu			Fy	Fu	Phit Pn	Num	Num	phiRnv	phiRn	phiRn	(kip)	(kip)	(kip)	Use				
Max Tension Member		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	(kip)	(kip)	(kip)	%	Controls				
LEG	PST - 3" DIA PIPE	4.03	0.9D + 1.6W 180	50	65	100.35	0	0	0.00	0.00					4	Member				
HORIZ	PST - 1-1/2" DIA PIP	2.23	1.2D + 1.6W 180	50	65	35.96	2	0	0.00	18.10	0.00				12	Bolt Bear				
DIAG	PST - 2" DIA PIPE	3.95	1.2D + 1.6W 210	50	65	48.15	3	0	0.00	31.23	0.00				12	Bolt Bear				
													Pu			phiRnt	Use	Num		
Max Splice Forces		(kip)	Load Case			(kip)	%	Bolts	Bolt Type											
Top Tension		0.00			0.00		0	0												
Top Compression		1.23	1.2D + 1.0Di +		0.00		0													
Bot Tension		8.73	0.9D + 1.6W 180		166.24		5	4	7/8 A325											
Bot Compression		15.22	1.2D + 1.6W		0.00		0													

Force/Stress Summary

Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
105 mph Normal to Face with No Ice	50.00	0.064	0.0041	0.1283	0.1283
105 mph Normal to Face with No Ice	126.67	0.379	0.0067	0.3746	0.3747
105 mph Normal to Face with No Ice	133.33	0.424	0.0128	0.3829	0.3831
105 mph Normal to Face with No Ice	140.00	0.469	0.0175	0.4083	0.4083
105 mph Normal to Face with No Ice	160.00	0.619	0.0240	0.5555	0.5560
105 mph Normal to Face with No Ice	166.67	0.672	0.0263	0.4418	0.4418
105 mph Normal to Face with No Ice	180.00	0.777	0.0300	0.6706	0.6713
105 mph 60 degree with No Ice	50.00	0.064	0.0082	0.1275	0.1278
105 mph 60 degree with No Ice	126.67	0.378	0.0346	0.3690	0.3700
105 mph 60 degree with No Ice	133.33	0.422	0.0434	0.3807	0.3832
105 mph 60 degree with No Ice	140.00	0.466	0.0500	0.3779	0.3812
105 mph 60 degree with No Ice	160.00	0.613	0.0761	0.4048	0.4112
105 mph 60 degree with No Ice	166.67	0.665	0.0850	0.4501	0.4581
105 mph 60 degree with No Ice	180.00	0.768	0.0995	0.3873	0.3996
105 mph 90 degree with No Ice	50.00	0.064	-0.0110	0.1275	0.1280
105 mph 90 degree with No Ice	126.67	0.377	-0.0443	0.3678	0.3705
105 mph 90 degree with No Ice	133.33	0.421	-0.0504	0.3805	0.3826
105 mph 90 degree with No Ice	140.00	0.465	-0.0538	0.3649	0.3659
105 mph 90 degree with No Ice	160.00	0.612	-0.0612	0.3395	0.3450
105 mph 90 degree with No Ice	166.67	0.663	-0.0636	0.4528	0.4562
105 mph 90 degree with No Ice	180.00	0.764	-0.0676	0.2219	0.2319
105 mph 120 degree with No Ice	50.00	0.064	-0.0110	0.1279	0.1280
105 mph 120 degree with No Ice	126.67	0.378	-0.0504	0.3701	0.3714
105 mph 120 degree with No Ice	133.33	0.422	-0.0587	0.3822	0.3835
105 mph 120 degree with No Ice	140.00	0.466	-0.0645	0.3768	0.3776
105 mph 120 degree with No Ice	160.00	0.613	-0.0905	0.4050	0.4141
105 mph 120 degree with No Ice	166.67	0.665	-0.0992	0.4503	0.4599
105 mph 120 degree with No Ice	180.00	0.768	-0.1135	0.3875	0.4024
105 mph 180 degree with No Ice	50.00	0.064	0.0040	0.1281	0.1281
105 mph 180 degree with No Ice	126.67	0.379	0.0068	0.3745	0.3746
105 mph 180 degree with No Ice	133.33	0.424	0.0130	0.3823	0.3825
105 mph 180 degree with No Ice	140.00	0.469	0.0177	0.4092	0.4092
105 mph 180 degree with No Ice	160.00	0.619	0.0243	0.5554	0.5559
105 mph 180 degree with No Ice	166.67	0.672	0.0267	0.4416	0.4416
105 mph 180 degree with No Ice	180.00	0.777	0.0305	0.6705	0.6712
105 mph 210 degree with No Ice	50.00	0.064	0.0070	0.1283	0.1283
105 mph 210 degree with No Ice	126.67	0.379	0.0342	0.3746	0.3747
105 mph 210 degree with No Ice	133.33	0.423	0.0403	0.3834	0.3836
105 mph 210 degree with No Ice	140.00	0.468	0.0448	0.3978	0.3996
105 mph 210 degree with No Ice	160.00	0.617	0.0681	0.5107	0.5133
105 mph 210 degree with No Ice	166.67	0.670	0.0760	0.4441	0.4505
105 mph 210 degree with No Ice	180.00	0.774	0.0888	0.5920	0.5960
105 mph 240 degree with No Ice	50.00	0.064	0.0110	0.1279	0.1280
105 mph 240 degree with No Ice	126.67	0.378	0.0504	0.3701	0.3714
105 mph 240 degree with No Ice	133.33	0.422	0.0587	0.3822	0.3835
105 mph 240 degree with No Ice	140.00	0.466	0.0645	0.3768	0.3776
105 mph 240 degree with No Ice	160.00	0.613	0.0905	0.4050	0.4141
105 mph 240 degree with No Ice	166.67	0.665	0.0992	0.4503	0.4599
105 mph 240 degree with No Ice	180.00	0.768	0.1135	0.3875	0.4024
105 mph 300 degree with No Ice	50.00	0.064	0.0081	0.1275	0.1278
105 mph 300 degree with No Ice	126.67	0.378	0.0264	0.3690	0.3700
105 mph 300 degree with No Ice	133.33	0.422	0.0287	0.3807	0.3832

Force/Stress Summary

105 mph 300 degree with No Ice	140.00	0.466	0.0288	0.3779	0.3812
105 mph 300 degree with No Ice	160.00	0.613	0.0156	0.4048	0.4112
105 mph 300 degree with No Ice	166.67	0.665	0.0110	0.4501	0.4581
105 mph 300 degree with No Ice	180.00	0.768	0.0036	0.3873	0.3996
105 mph 330 degree with No Ice	50.00	0.064	0.0041	0.1280	0.1283
105 mph 330 degree with No Ice	126.67	0.379	0.0102	0.3732	0.3736
105 mph 330 degree with No Ice	133.33	0.423	0.0102	0.3825	0.3844
105 mph 330 degree with No Ice	140.00	0.468	0.0091	0.3995	0.4022
105 mph 330 degree with No Ice	160.00	0.617	-0.0068	0.5105	0.5153
105 mph 330 degree with No Ice	166.67	0.670	-0.0123	0.4443	0.4514
105 mph 330 degree with No Ice	180.00	0.774	-0.0211	0.5917	0.5998
105 mph Normal to Face with No Ice (Reduced DL)	50.00	0.064	0.0040	0.1280	0.1281
105 mph Normal to Face with No Ice (Reduced DL)	126.67	0.379	0.0067	0.3738	0.3739
105 mph Normal to Face with No Ice (Reduced DL)	133.33	0.423	0.0129	0.3820	0.3822
105 mph Normal to Face with No Ice (Reduced DL)	140.00	0.468	0.0175	0.4076	0.4076
105 mph Normal to Face with No Ice (Reduced DL)	160.00	0.618	0.0240	0.5546	0.5551
105 mph Normal to Face with No Ice (Reduced DL)	166.67	0.671	0.0263	0.4408	0.4408
105 mph Normal to Face with No Ice (Reduced DL)	180.00	0.776	0.0300	0.6697	0.6704
105 mph 60 deg with No Ice (Reduced DL)	50.00	0.064	0.0082	0.1274	0.1276
105 mph 60 deg with No Ice (Reduced DL)	126.67	0.377	0.0346	0.3683	0.3693
105 mph 60 deg with No Ice (Reduced DL)	133.33	0.421	0.0433	0.3798	0.3823
105 mph 60 deg with No Ice (Reduced DL)	140.00	0.465	0.0500	0.3770	0.3803
105 mph 60 deg with No Ice (Reduced DL)	160.00	0.612	0.0760	0.4040	0.4103
105 mph 60 deg with No Ice (Reduced DL)	166.67	0.664	0.0849	0.4492	0.4572
105 mph 60 deg with No Ice (Reduced DL)	180.00	0.766	0.0993	0.3865	0.3988
105 mph 90 deg with No Ice (Reduced DL)	50.00	0.064	-0.0110	0.1273	0.1278
105 mph 90 deg with No Ice (Reduced DL)	126.67	0.377	-0.0443	0.3671	0.3697
105 mph 90 deg with No Ice (Reduced DL)	133.33	0.421	-0.0504	0.3796	0.3819
105 mph 90 deg with No Ice (Reduced DL)	140.00	0.464	-0.0537	0.3640	0.3650
105 mph 90 deg with No Ice (Reduced DL)	160.00	0.611	-0.0611	0.3386	0.3441
105 mph 90 deg with No Ice (Reduced DL)	166.67	0.662	-0.0635	0.4518	0.4553
105 mph 90 deg with No Ice (Reduced DL)	180.00	0.763	-0.0675	0.2210	0.2310
105 mph 120 deg with No Ice (Reduced DL)	50.00	0.064	-0.0110	0.1277	0.1278
105 mph 120 deg with No Ice (Reduced DL)	126.67	0.377	-0.0504	0.3694	0.3706
105 mph 120 deg with No Ice (Reduced DL)	133.33	0.421	-0.0587	0.3814	0.3826
105 mph 120 deg with No Ice (Reduced DL)	140.00	0.465	-0.0644	0.3762	0.3768
105 mph 120 deg with No Ice (Reduced DL)	160.00	0.612	-0.0904	0.4041	0.4132
105 mph 120 deg with No Ice (Reduced DL)	166.67	0.664	-0.0991	0.4494	0.4590
105 mph 120 deg with No Ice (Reduced DL)	180.00	0.766	-0.1134	0.3867	0.4016
105 mph 180 deg with No Ice (Reduced DL)	50.00	0.064	0.0040	0.1279	0.1280
105 mph 180 deg with No Ice (Reduced DL)	126.67	0.379	0.0069	0.3738	0.3738
105 mph 180 deg with No Ice (Reduced DL)	133.33	0.423	0.0131	0.3816	0.3818
105 mph 180 deg with No Ice (Reduced DL)	140.00	0.468	0.0177	0.4083	0.4083
105 mph 180 deg with No Ice (Reduced DL)	160.00	0.618	0.0243	0.5545	0.5550
105 mph 180 deg with No Ice (Reduced DL)	166.67	0.671	0.0267	0.4407	0.4407
105 mph 180 deg with No Ice (Reduced DL)	180.00	0.776	0.0305	0.6696	0.6703
105 mph 210 deg with No Ice (Reduced DL)	50.00	0.064	0.0070	0.1281	0.1282
105 mph 210 deg with No Ice (Reduced DL)	126.67	0.378	0.0342	0.3738	0.3739
105 mph 210 deg with No Ice (Reduced DL)	133.33	0.423	0.0403	0.3826	0.3828
105 mph 210 deg with No Ice (Reduced DL)	140.00	0.467	0.0448	0.3971	0.3987
105 mph 210 deg with No Ice (Reduced DL)	160.00	0.616	0.0680	0.5098	0.5124
105 mph 210 deg with No Ice (Reduced DL)	166.67	0.668	0.0759	0.4432	0.4496
105 mph 210 deg with No Ice (Reduced DL)	180.00	0.773	0.0887	0.5912	0.5951
105 mph 240 deg with No Ice (Reduced DL)	50.00	0.064	0.0110	0.1277	0.1278
105 mph 240 deg with No Ice (Reduced DL)	126.67	0.377	0.0504	0.3694	0.3706
105 mph 240 deg with No Ice (Reduced DL)	133.33	0.421	0.0587	0.3814	0.3826
105 mph 240 deg with No Ice (Reduced DL)	140.00	0.465	0.0644	0.3762	0.3768
105 mph 240 deg with No Ice (Reduced DL)	160.00	0.612	0.0904	0.4041	0.4132
105 mph 240 deg with No Ice (Reduced DL)	166.67	0.664	0.0991	0.4494	0.4590

Force/Stress Summary

105 mph 240 deg with No Ice (Reduced DL)	180.00	0.766	0.1134	0.3867	0.4016
105 mph 300 deg with No Ice (Reduced DL)	50.00	0.064	0.0081	0.1274	0.1276
105 mph 300 deg with No Ice (Reduced DL)	126.67	0.377	0.0264	0.3683	0.3693
105 mph 300 deg with No Ice (Reduced DL)	133.33	0.421	0.0286	0.3798	0.3823
105 mph 300 deg with No Ice (Reduced DL)	140.00	0.465	0.0288	0.3770	0.3803
105 mph 300 deg with No Ice (Reduced DL)	160.00	0.612	0.0156	0.4040	0.4103
105 mph 300 deg with No Ice (Reduced DL)	166.67	0.664	0.0110	0.4492	0.4572
105 mph 300 deg with No Ice (Reduced DL)	180.00	0.766	0.0036	0.3865	0.3988
105 mph 330 deg with No Ice (Reduced DL)	50.00	0.064	0.0041	0.1279	0.1281
105 mph 330 deg with No Ice (Reduced DL)	126.67	0.378	0.0102	0.3724	0.3728
105 mph 330 deg with No Ice (Reduced DL)	133.33	0.423	0.0102	0.3815	0.3835
105 mph 330 deg with No Ice (Reduced DL)	140.00	0.467	0.0091	0.3986	0.4013
105 mph 330 deg with No Ice (Reduced DL)	160.00	0.616	-0.0067	0.5096	0.5144
105 mph 330 deg with No Ice (Reduced DL)	166.67	0.668	-0.0122	0.4434	0.4505
105 mph 330 deg with No Ice (Reduced DL)	180.00	0.773	-0.0211	0.5908	0.5989
50 mph Normal with 0.75 in Radial Ice	50.00	0.022	0.0015	0.0413	0.0413
50 mph Normal with 0.75 in Radial Ice	126.67	0.118	0.0013	0.1128	0.1128
50 mph Normal with 0.75 in Radial Ice	133.33	0.132	0.0030	0.1160	0.1161
50 mph Normal with 0.75 in Radial Ice	140.00	0.145	0.0043	0.1247	0.1248
50 mph Normal with 0.75 in Radial Ice	160.00	0.191	0.0056	0.1526	0.1527
50 mph Normal with 0.75 in Radial Ice	166.67	0.207	0.0062	0.1373	0.1373
50 mph Normal with 0.75 in Radial Ice	180.00	0.239	0.0072	0.1986	0.1987
50 mph 60 deg with 0.75 in Radial Ice	50.00	0.023	-0.0029	0.0412	0.0412
50 mph 60 deg with 0.75 in Radial Ice	126.67	0.118	-0.0104	0.1109	0.1112
50 mph 60 deg with 0.75 in Radial Ice	133.33	0.132	-0.0118	0.1167	0.1170
50 mph 60 deg with 0.75 in Radial Ice	140.00	0.145	-0.0125	0.1157	0.1161
50 mph 60 deg with 0.75 in Radial Ice	160.00	0.190	0.0125	0.1273	0.1280
50 mph 60 deg with 0.75 in Radial Ice	166.67	0.206	0.0136	0.1352	0.1359
50 mph 60 deg with 0.75 in Radial Ice	180.00	0.237	0.0155	0.1177	0.1187
50 mph 90 deg with 0.75 in Radial Ice	50.00	0.022	-0.0035	0.0411	0.0412
50 mph 90 deg with 0.75 in Radial Ice	126.67	0.118	-0.0129	0.1107	0.1114
50 mph 90 deg with 0.75 in Radial Ice	133.33	0.131	-0.0147	0.1167	0.1169
50 mph 90 deg with 0.75 in Radial Ice	140.00	0.145	-0.0158	0.1117	0.1120
50 mph 90 deg with 0.75 in Radial Ice	160.00	0.189	-0.0171	0.1178	0.1189
50 mph 90 deg with 0.75 in Radial Ice	166.67	0.205	-0.0176	0.1347	0.1355
50 mph 90 deg with 0.75 in Radial Ice	180.00	0.236	-0.0186	0.0729	0.0750
50 mph 120 deg with 0.75 in Radial Ice	50.00	0.022	-0.0031	0.0412	0.0412
50 mph 120 deg with 0.75 in Radial Ice	126.67	0.118	-0.0120	0.1114	0.1117
50 mph 120 deg with 0.75 in Radial Ice	133.33	0.131	-0.0137	0.1164	0.1166
50 mph 120 deg with 0.75 in Radial Ice	140.00	0.145	-0.0148	0.1146	0.1151
50 mph 120 deg with 0.75 in Radial Ice	160.00	0.189	-0.0171	0.1274	0.1284
50 mph 120 deg with 0.75 in Radial Ice	166.67	0.205	-0.0181	0.1354	0.1362
50 mph 120 deg with 0.75 in Radial Ice	180.00	0.236	-0.0199	0.1176	0.1191
50 mph 180 deg with 0.75 in Radial Ice	50.00	0.023	0.0015	0.0412	0.0412
50 mph 180 deg with 0.75 in Radial Ice	126.67	0.119	0.0013	0.1124	0.1124
50 mph 180 deg with 0.75 in Radial Ice	133.33	0.132	0.0030	0.1159	0.1159
50 mph 180 deg with 0.75 in Radial Ice	140.00	0.146	0.0043	0.1253	0.1253
50 mph 180 deg with 0.75 in Radial Ice	160.00	0.191	0.0056	0.1524	0.1525
50 mph 180 deg with 0.75 in Radial Ice	166.67	0.207	0.0062	0.1371	0.1371
50 mph 180 deg with 0.75 in Radial Ice	180.00	0.239	0.0072	0.1983	0.1984
50 mph 210 deg with 0.75 in Radial Ice	50.00	0.022	0.0018	0.0412	0.0412
50 mph 210 deg with 0.75 in Radial Ice	126.67	0.119	0.0073	0.1124	0.1124
50 mph 210 deg with 0.75 in Radial Ice	133.33	0.132	0.0083	0.1159	0.1162
50 mph 210 deg with 0.75 in Radial Ice	140.00	0.145	0.0090	0.1217	0.1221
50 mph 210 deg with 0.75 in Radial Ice	160.00	0.191	0.0109	0.1446	0.1449
50 mph 210 deg with 0.75 in Radial Ice	166.67	0.206	0.0117	0.1365	0.1369
50 mph 210 deg with 0.75 in Radial Ice	180.00	0.238	0.0131	0.1756	0.1758
50 mph 240 deg with 0.75 in Radial Ice	50.00	0.022	0.0031	0.0412	0.0412
50 mph 240 deg with 0.75 in Radial Ice	126.67	0.118	0.0120	0.1114	0.1117

Site Number: 411183

Code:

ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:32 AM

Customer: T-MOBILE

Force/Stress Summary

50 mph 240 deg with 0.75 in Radial Ice	133.33	0.131	0.0137	0.1164	0.1166
50 mph 240 deg with 0.75 in Radial Ice	140.00	0.145	0.0148	0.1146	0.1151
50 mph 240 deg with 0.75 in Radial Ice	160.00	0.189	0.0171	0.1274	0.1284
50 mph 240 deg with 0.75 in Radial Ice	166.67	0.205	0.0181	0.1354	0.1362
50 mph 240 deg with 0.75 in Radial Ice	180.00	0.236	0.0199	0.1176	0.1191
50 mph 300 deg with 0.75 in Radial Ice	50.00	0.023	0.0029	0.0412	0.0412
50 mph 300 deg with 0.75 in Radial Ice	126.67	0.118	0.0104	0.1109	0.1112
50 mph 300 deg with 0.75 in Radial Ice	133.33	0.132	0.0118	0.1167	0.1170
50 mph 300 deg with 0.75 in Radial Ice	140.00	0.145	0.0125	0.1157	0.1161
50 mph 300 deg with 0.75 in Radial Ice	160.00	0.190	0.0124	0.1273	0.1280
50 mph 300 deg with 0.75 in Radial Ice	166.67	0.206	0.0124	0.1352	0.1359
50 mph 300 deg with 0.75 in Radial Ice	180.00	0.237	0.0124	0.1177	0.1187
50 mph 330 deg with 0.75 in Radial Ice	50.00	0.022	0.0016	0.0413	0.0413
50 mph 330 deg with 0.75 in Radial Ice	126.67	0.119	0.0057	0.1123	0.1123
50 mph 330 deg with 0.75 in Radial Ice	133.33	0.132	0.0064	0.1164	0.1167
50 mph 330 deg with 0.75 in Radial Ice	140.00	0.145	0.0067	0.1222	0.1225
50 mph 330 deg with 0.75 in Radial Ice	160.00	0.191	0.0062	0.1447	0.1451
50 mph 330 deg with 0.75 in Radial Ice	166.67	0.206	0.0059	0.1366	0.1369
50 mph 330 deg with 0.75 in Radial Ice	180.00	0.238	0.0055	0.1758	0.1764
Seismic Normal M1	50.00	0.007	0.0008	0.0139	0.0140
Seismic Normal M1	126.67	0.040	0.0019	0.0379	0.0380
Seismic Normal M1	133.33	0.045	0.0019	0.0400	0.0400
Seismic Normal M1	140.00	0.049	0.0020	0.0411	0.0412
Seismic Normal M1	160.00	0.065	0.0019	0.0446	0.0446
Seismic Normal M1	166.67	0.070	0.0018	0.0452	0.0452
Seismic Normal M1	180.00	0.080	0.0018	0.0446	0.0447
Seismic Normal M2	50.00	0.004	0.0004	0.0080	0.0080
Seismic Normal M2	126.67	0.024	0.0011	0.0250	0.0250
Seismic Normal M2	133.33	0.027	0.0011	0.0273	0.0273
Seismic Normal M2	140.00	0.030	0.0012	0.0287	0.0287
Seismic Normal M2	160.00	0.041	0.0011	0.0330	0.0330
Seismic Normal M2	166.67	0.045	0.0011	0.0339	0.0339
Seismic Normal M2	180.00	0.053	0.0010	0.0332	0.0333
Seismic 60 deg M1	50.00	0.007	-0.0008	0.0139	0.0139
Seismic 60 deg M1	126.67	0.040	-0.0018	0.0377	0.0377
Seismic 60 deg M1	133.33	0.045	-0.0019	0.0400	0.0400
Seismic 60 deg M1	140.00	0.049	-0.0019	0.0411	0.0411
Seismic 60 deg M1	160.00	0.064	-0.0018	0.0442	0.0442
Seismic 60 deg M1	166.67	0.069	-0.0017	0.0447	0.0447
Seismic 60 deg M1	180.00	0.080	-0.0016	0.0443	0.0443
Seismic 60 deg M2	50.00	0.004	-0.0004	0.0081	0.0081
Seismic 60 deg M2	126.67	0.024	-0.0011	0.0250	0.0250
Seismic 60 deg M2	133.33	0.027	-0.0011	0.0275	0.0275
Seismic 60 deg M2	140.00	0.030	-0.0012	0.0289	0.0289
Seismic 60 deg M2	160.00	0.041	-0.0011	0.0331	0.0331
Seismic 60 deg M2	166.67	0.045	-0.0011	0.0339	0.0339
Seismic 60 deg M2	180.00	0.053	-0.0010	0.0334	0.0334
Seismic 90 deg M1	50.00	0.007	-0.0009	0.0140	0.0140
Seismic 90 deg M1	126.67	0.040	-0.0022	0.0380	0.0380
Seismic 90 deg M1	133.33	0.045	-0.0022	0.0402	0.0402
Seismic 90 deg M1	140.00	0.049	-0.0023	0.0413	0.0413
Seismic 90 deg M1	160.00	0.065	-0.0022	0.0446	0.0446
Seismic 90 deg M1	166.67	0.070	-0.0021	0.0452	0.0452
Seismic 90 deg M1	180.00	0.080	-0.0021	0.0447	0.0447
Seismic 90 deg M2	50.00	0.004	-0.0005	0.0081	0.0081
Seismic 90 deg M2	126.67	0.024	-0.0013	0.0250	0.0250
Seismic 90 deg M2	133.33	0.027	-0.0013	0.0275	0.0275
Seismic 90 deg M2	140.00	0.030	-0.0013	0.0288	0.0288
Seismic 90 deg M2	160.00	0.041	-0.0013	0.0331	0.0331

Site Number: 411183

Code:

ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:32 AM

Customer: T-MOBILE

Force/Stress Summary

Seismic 90 deg M2	166.67	0.045	-0.0012	0.0339	0.0339
Seismic 90 deg M2	180.00	0.053	-0.0012	0.0333	0.0333
Seismic 120 deg M1	50.00	0.007	0.0008	0.0139	0.0139
Seismic 120 deg M1	126.67	0.040	-0.0018	0.0376	0.0377
Seismic 120 deg M1	133.33	0.045	-0.0019	0.0397	0.0397
Seismic 120 deg M1	140.00	0.049	-0.0019	0.0408	0.0408
Seismic 120 deg M1	160.00	0.064	-0.0018	0.0441	0.0442
Seismic 120 deg M1	166.67	0.069	-0.0017	0.0447	0.0447
Seismic 120 deg M1	180.00	0.080	-0.0016	0.0442	0.0442
Seismic 120 deg M2	50.00	0.004	0.0004	0.0080	0.0080
Seismic 120 deg M2	126.67	0.024	-0.0011	0.0250	0.0250
Seismic 120 deg M2	133.33	0.027	-0.0011	0.0273	0.0273
Seismic 120 deg M2	140.00	0.030	-0.0012	0.0287	0.0287
Seismic 120 deg M2	160.00	0.041	-0.0011	0.0330	0.0330
Seismic 120 deg M2	166.67	0.045	-0.0011	0.0339	0.0339
Seismic 120 deg M2	180.00	0.053	-0.0010	0.0332	0.0333
Seismic 180 deg M1	50.00	0.007	0.0008	0.0140	0.0140
Seismic 180 deg M1	126.67	0.040	0.0019	0.0380	0.0380
Seismic 180 deg M1	133.33	0.045	0.0019	0.0403	0.0403
Seismic 180 deg M1	140.00	0.049	0.0020	0.0414	0.0414
Seismic 180 deg M1	160.00	0.065	0.0019	0.0447	0.0447
Seismic 180 deg M1	166.67	0.070	0.0018	0.0451	0.0451
Seismic 180 deg M1	180.00	0.080	0.0018	0.0448	0.0448
Seismic 180 deg M2	50.00	0.004	0.0004	0.0081	0.0081
Seismic 180 deg M2	126.67	0.024	0.0011	0.0250	0.0250
Seismic 180 deg M2	133.33	0.027	0.0011	0.0275	0.0275
Seismic 180 deg M2	140.00	0.030	0.0012	0.0289	0.0289
Seismic 180 deg M2	160.00	0.041	0.0011	0.0331	0.0331
Seismic 180 deg M2	166.67	0.045	0.0011	0.0339	0.0339
Seismic 180 deg M2	180.00	0.053	0.0010	0.0334	0.0334
Seismic 210 deg M1	50.00	0.007	0.0004	0.0139	0.0139
Seismic 210 deg M1	126.67	0.040	0.0011	0.0377	0.0377
Seismic 210 deg M1	133.33	0.045	0.0011	0.0399	0.0399
Seismic 210 deg M1	140.00	0.049	0.0011	0.0410	0.0410
Seismic 210 deg M1	160.00	0.064	0.0010	0.0442	0.0442
Seismic 210 deg M1	166.67	0.069	0.0010	0.0447	0.0447
Seismic 210 deg M1	180.00	0.080	0.0009	0.0443	0.0443
Seismic 210 deg M2	50.00	0.004	0.0002	0.0081	0.0081
Seismic 210 deg M2	126.67	0.024	0.0006	0.0250	0.0250
Seismic 210 deg M2	133.33	0.027	0.0007	0.0274	0.0275
Seismic 210 deg M2	140.00	0.030	0.0007	0.0288	0.0288
Seismic 210 deg M2	160.00	0.041	0.0006	0.0331	0.0331
Seismic 210 deg M2	166.67	0.045	0.0006	0.0339	0.0339
Seismic 210 deg M2	180.00	0.053	0.0006	0.0333	0.0333
Seismic 240 deg M1	50.00	0.007	0.0008	0.0139	0.0139
Seismic 240 deg M1	126.67	0.040	0.0018	0.0376	0.0377
Seismic 240 deg M1	133.33	0.045	0.0019	0.0397	0.0397
Seismic 240 deg M1	140.00	0.049	0.0019	0.0408	0.0408
Seismic 240 deg M1	160.00	0.064	0.0018	0.0441	0.0442
Seismic 240 deg M1	166.67	0.069	0.0017	0.0447	0.0447
Seismic 240 deg M1	180.00	0.080	0.0016	0.0442	0.0442
Seismic 240 deg M2	50.00	0.004	0.0004	0.0080	0.0080
Seismic 240 deg M2	126.67	0.024	0.0011	0.0250	0.0250
Seismic 240 deg M2	133.33	0.027	0.0011	0.0273	0.0273
Seismic 240 deg M2	140.00	0.030	0.0012	0.0287	0.0287
Seismic 240 deg M2	160.00	0.041	0.0011	0.0330	0.0330
Seismic 240 deg M2	166.67	0.045	0.0011	0.0339	0.0339
Seismic 240 deg M2	180.00	0.053	0.0010	0.0332	0.0333
Seismic 300 deg M1	50.00	0.007	0.0008	0.0139	0.0139

Site Number: 411183

Code:

ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:32 AM

Customer: T-MOBILE

Force/Stress Summary

Seismic 300 deg M1	126.67	0.040	0.0018	0.0377	0.0377
Seismic 300 deg M1	133.33	0.045	0.0019	0.0400	0.0400
Seismic 300 deg M1	140.00	0.049	0.0019	0.0411	0.0411
Seismic 300 deg M1	160.00	0.064	0.0018	0.0442	0.0442
Seismic 300 deg M1	166.67	0.069	0.0017	0.0447	0.0447
Seismic 300 deg M1	180.00	0.080	0.0016	0.0443	0.0443
Seismic 300 deg M2	50.00	0.004	0.0004	0.0081	0.0081
Seismic 300 deg M2	126.67	0.024	0.0011	0.0250	0.0250
Seismic 300 deg M2	133.33	0.027	0.0011	0.0275	0.0275
Seismic 300 deg M2	140.00	0.030	0.0012	0.0289	0.0289
Seismic 300 deg M2	160.00	0.041	0.0011	0.0331	0.0331
Seismic 300 deg M2	166.67	0.045	0.0011	0.0339	0.0339
Seismic 300 deg M2	180.00	0.053	0.0010	0.0334	0.0334
Seismic 330 deg M1	50.00	0.007	0.0004	0.0139	0.0139
Seismic 330 deg M1	126.67	0.040	0.0011	0.0377	0.0377
Seismic 330 deg M1	133.33	0.045	0.0011	0.0399	0.0399
Seismic 330 deg M1	140.00	0.049	0.0011	0.0410	0.0410
Seismic 330 deg M1	160.00	0.064	0.0010	0.0442	0.0442
Seismic 330 deg M1	166.67	0.069	0.0010	0.0447	0.0447
Seismic 330 deg M1	180.00	0.080	0.0009	0.0443	0.0443
Seismic 330 deg M2	50.00	0.004	0.0002	0.0081	0.0081
Seismic 330 deg M2	126.67	0.024	0.0006	0.0250	0.0250
Seismic 330 deg M2	133.33	0.027	0.0007	0.0275	0.0275
Seismic 330 deg M2	140.00	0.030	0.0007	0.0288	0.0288
Seismic 330 deg M2	160.00	0.041	0.0006	0.0331	0.0331
Seismic 330 deg M2	166.67	0.045	0.0006	0.0339	0.0339
Seismic 330 deg M2	180.00	0.053	0.0006	0.0333	0.0333
Seismic (Reduced DL) Normal M1	50.00	0.007	0.0008	0.0139	0.0139
Seismic (Reduced DL) Normal M1	126.67	0.040	0.0019	0.0378	0.0378
Seismic (Reduced DL) Normal M1	133.33	0.045	0.0019	0.0398	0.0398
Seismic (Reduced DL) Normal M1	140.00	0.049	0.0019	0.0409	0.0410
Seismic (Reduced DL) Normal M1	160.00	0.064	0.0019	0.0444	0.0445
Seismic (Reduced DL) Normal M1	166.67	0.070	0.0018	0.0450	0.0450
Seismic (Reduced DL) Normal M1	180.00	0.080	0.0018	0.0445	0.0445
Seismic (Reduced DL) Normal M2	50.00	0.004	0.0004	0.0080	0.0080
Seismic (Reduced DL) Normal M2	126.67	0.024	0.0011	0.0249	0.0249
Seismic (Reduced DL) Normal M2	133.33	0.027	0.0011	0.0271	0.0271
Seismic (Reduced DL) Normal M2	140.00	0.030	0.0012	0.0285	0.0285
Seismic (Reduced DL) Normal M2	160.00	0.041	0.0011	0.0329	0.0329
Seismic (Reduced DL) Normal M2	166.67	0.045	0.0010	0.0338	0.0338
Seismic (Reduced DL) Normal M2	180.00	0.053	0.0010	0.0331	0.0332
Seismic (Reduced DL) 60 deg M1	50.00	0.007	-0.0008	0.0138	0.0138
Seismic (Reduced DL) 60 deg M1	126.67	0.040	-0.0018	0.0375	0.0375
Seismic (Reduced DL) 60 deg M1	133.33	0.044	-0.0019	0.0396	0.0396
Seismic (Reduced DL) 60 deg M1	140.00	0.049	-0.0019	0.0408	0.0408
Seismic (Reduced DL) 60 deg M1	160.00	0.064	-0.0018	0.0441	0.0441
Seismic (Reduced DL) 60 deg M1	166.67	0.069	-0.0017	0.0445	0.0446
Seismic (Reduced DL) 60 deg M1	180.00	0.079	-0.0016	0.0441	0.0441
Seismic (Reduced DL) 60 deg M2	50.00	0.004	-0.0004	0.0080	0.0080
Seismic (Reduced DL) 60 deg M2	126.67	0.024	-0.0011	0.0249	0.0249
Seismic (Reduced DL) 60 deg M2	133.33	0.027	-0.0011	0.0272	0.0272
Seismic (Reduced DL) 60 deg M2	140.00	0.030	-0.0012	0.0286	0.0286
Seismic (Reduced DL) 60 deg M2	160.00	0.041	-0.0011	0.0330	0.0330
Seismic (Reduced DL) 60 deg M2	166.67	0.045	-0.0010	0.0338	0.0338
Seismic (Reduced DL) 60 deg M2	180.00	0.053	-0.0010	0.0332	0.0332
Seismic (Reduced DL) 90 deg M1	50.00	0.007	-0.0009	0.0139	0.0139
Seismic (Reduced DL) 90 deg M1	126.67	0.040	-0.0022	0.0378	0.0378
Seismic (Reduced DL) 90 deg M1	133.33	0.045	-0.0022	0.0399	0.0399
Seismic (Reduced DL) 90 deg M1	140.00	0.049	-0.0022	0.0410	0.0411

Site Number: 411183

Code:

ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:32 AM

Customer: T-MOBILE

Force/Stress Summary

Seismic (Reduced DL) 90 deg M1	160.00	0.064	-0.0022	0.0445	0.0445
Seismic (Reduced DL) 90 deg M1	166.67	0.070	-0.0021	0.0450	0.0450
Seismic (Reduced DL) 90 deg M1	180.00	0.080	-0.0020	0.0445	0.0446
Seismic (Reduced DL) 90 deg M2	50.00	0.004	-0.0005	0.0080	0.0080
Seismic (Reduced DL) 90 deg M2	126.67	0.024	-0.0013	0.0249	0.0249
Seismic (Reduced DL) 90 deg M2	133.33	0.027	-0.0013	0.0272	0.0272
Seismic (Reduced DL) 90 deg M2	140.00	0.030	-0.0013	0.0286	0.0286
Seismic (Reduced DL) 90 deg M2	160.00	0.041	-0.0013	0.0330	0.0330
Seismic (Reduced DL) 90 deg M2	166.67	0.045	-0.0012	0.0338	0.0338
Seismic (Reduced DL) 90 deg M2	180.00	0.053	-0.0012	0.0332	0.0332
Seismic (Reduced DL) 120 deg M1	50.00	0.007	0.0008	0.0138	0.0138
Seismic (Reduced DL) 120 deg M1	126.67	0.040	-0.0018	0.0375	0.0376
Seismic (Reduced DL) 120 deg M1	133.33	0.044	-0.0019	0.0395	0.0395
Seismic (Reduced DL) 120 deg M1	140.00	0.049	-0.0019	0.0406	0.0406
Seismic (Reduced DL) 120 deg M1	160.00	0.064	-0.0018	0.0440	0.0440
Seismic (Reduced DL) 120 deg M1	166.67	0.069	-0.0017	0.0446	0.0446
Seismic (Reduced DL) 120 deg M1	180.00	0.079	-0.0016	0.0440	0.0441
Seismic (Reduced DL) 120 deg M2	50.00	0.004	0.0004	0.0080	0.0080
Seismic (Reduced DL) 120 deg M2	126.67	0.024	-0.0011	0.0249	0.0249
Seismic (Reduced DL) 120 deg M2	133.33	0.027	-0.0011	0.0271	0.0271
Seismic (Reduced DL) 120 deg M2	140.00	0.030	-0.0012	0.0285	0.0285
Seismic (Reduced DL) 120 deg M2	160.00	0.041	-0.0011	0.0329	0.0329
Seismic (Reduced DL) 120 deg M2	166.67	0.045	-0.0010	0.0338	0.0338
Seismic (Reduced DL) 120 deg M2	180.00	0.053	-0.0010	0.0331	0.0332
Seismic (Reduced DL) 180 deg M1	50.00	0.007	0.0008	0.0139	0.0139
Seismic (Reduced DL) 180 deg M1	126.67	0.040	0.0019	0.0378	0.0378
Seismic (Reduced DL) 180 deg M1	133.33	0.045	0.0019	0.0400	0.0400
Seismic (Reduced DL) 180 deg M1	140.00	0.049	0.0019	0.0411	0.0411
Seismic (Reduced DL) 180 deg M1	160.00	0.064	0.0019	0.0445	0.0445
Seismic (Reduced DL) 180 deg M1	166.67	0.070	0.0018	0.0450	0.0450
Seismic (Reduced DL) 180 deg M1	180.00	0.080	0.0018	0.0446	0.0446
Seismic (Reduced DL) 180 deg M2	50.00	0.004	0.0004	0.0080	0.0080
Seismic (Reduced DL) 180 deg M2	126.67	0.024	0.0011	0.0249	0.0249
Seismic (Reduced DL) 180 deg M2	133.33	0.027	0.0011	0.0272	0.0272
Seismic (Reduced DL) 180 deg M2	140.00	0.030	0.0012	0.0286	0.0286
Seismic (Reduced DL) 180 deg M2	160.00	0.041	0.0011	0.0330	0.0330
Seismic (Reduced DL) 180 deg M2	166.67	0.045	0.0010	0.0338	0.0338
Seismic (Reduced DL) 180 deg M2	180.00	0.053	0.0010	0.0332	0.0332
Seismic (Reduced DL) 210 deg M1	50.00	0.007	0.0004	0.0138	0.0138
Seismic (Reduced DL) 210 deg M1	126.67	0.040	0.0011	0.0375	0.0376
Seismic (Reduced DL) 210 deg M1	133.33	0.044	0.0011	0.0396	0.0396
Seismic (Reduced DL) 210 deg M1	140.00	0.049	0.0011	0.0407	0.0407
Seismic (Reduced DL) 210 deg M1	160.00	0.064	0.0010	0.0441	0.0441
Seismic (Reduced DL) 210 deg M1	166.67	0.069	0.0010	0.0446	0.0446
Seismic (Reduced DL) 210 deg M1	180.00	0.079	0.0009	0.0441	0.0441
Seismic (Reduced DL) 210 deg M2	50.00	0.004	0.0002	0.0080	0.0080
Seismic (Reduced DL) 210 deg M2	126.67	0.024	0.0006	0.0249	0.0249
Seismic (Reduced DL) 210 deg M2	133.33	0.027	0.0007	0.0272	0.0272
Seismic (Reduced DL) 210 deg M2	140.00	0.030	0.0007	0.0286	0.0286
Seismic (Reduced DL) 210 deg M2	160.00	0.041	0.0006	0.0330	0.0330
Seismic (Reduced DL) 210 deg M2	166.67	0.045	0.0006	0.0338	0.0338
Seismic (Reduced DL) 210 deg M2	180.00	0.053	0.0006	0.0332	0.0332
Seismic (Reduced DL) 240 deg M1	50.00	0.007	0.0008	0.0138	0.0138
Seismic (Reduced DL) 240 deg M1	126.67	0.040	0.0018	0.0375	0.0376
Seismic (Reduced DL) 240 deg M1	133.33	0.044	0.0019	0.0395	0.0395
Seismic (Reduced DL) 240 deg M1	140.00	0.049	0.0019	0.0406	0.0406
Seismic (Reduced DL) 240 deg M1	160.00	0.064	0.0018	0.0440	0.0440
Seismic (Reduced DL) 240 deg M1	166.67	0.069	0.0017	0.0446	0.0446
Seismic (Reduced DL) 240 deg M1	180.00	0.079	0.0016	0.0440	0.0441

Site Number: 411183

Code:

ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:32 AM

Customer: T-MOBILE

Force/Stress Summary

Seismic (Reduced DL) 240 deg M2	50.00	0.004	0.0004	0.0080	0.0080
Seismic (Reduced DL) 240 deg M2	126.67	0.024	0.0011	0.0249	0.0249
Seismic (Reduced DL) 240 deg M2	133.33	0.027	0.0011	0.0271	0.0271
Seismic (Reduced DL) 240 deg M2	140.00	0.030	0.0012	0.0285	0.0285
Seismic (Reduced DL) 240 deg M2	160.00	0.041	0.0011	0.0329	0.0329
Seismic (Reduced DL) 240 deg M2	166.67	0.045	0.0010	0.0338	0.0338
Seismic (Reduced DL) 240 deg M2	180.00	0.053	0.0010	0.0331	0.0332
Seismic (Reduced DL) 300 deg M1	50.00	0.007	0.0008	0.0138	0.0138
Seismic (Reduced DL) 300 deg M1	126.67	0.040	0.0018	0.0375	0.0375
Seismic (Reduced DL) 300 deg M1	133.33	0.044	0.0019	0.0396	0.0396
Seismic (Reduced DL) 300 deg M1	140.00	0.049	0.0019	0.0408	0.0408
Seismic (Reduced DL) 300 deg M1	160.00	0.064	0.0018	0.0441	0.0441
Seismic (Reduced DL) 300 deg M1	166.67	0.069	0.0017	0.0445	0.0446
Seismic (Reduced DL) 300 deg M1	180.00	0.079	0.0016	0.0441	0.0441
Seismic (Reduced DL) 300 deg M2	50.00	0.004	0.0004	0.0080	0.0080
Seismic (Reduced DL) 300 deg M2	126.67	0.024	0.0011	0.0249	0.0249
Seismic (Reduced DL) 300 deg M2	133.33	0.027	0.0011	0.0272	0.0272
Seismic (Reduced DL) 300 deg M2	140.00	0.030	0.0012	0.0286	0.0286
Seismic (Reduced DL) 300 deg M2	160.00	0.041	0.0011	0.0330	0.0330
Seismic (Reduced DL) 300 deg M2	166.67	0.045	0.0010	0.0338	0.0338
Seismic (Reduced DL) 300 deg M2	180.00	0.053	0.0010	0.0332	0.0332
Seismic (Reduced DL) 330 deg M1	50.00	0.007	0.0004	0.0138	0.0138
Seismic (Reduced DL) 330 deg M1	126.67	0.040	0.0011	0.0375	0.0376
Seismic (Reduced DL) 330 deg M1	133.33	0.044	0.0011	0.0396	0.0396
Seismic (Reduced DL) 330 deg M1	140.00	0.049	0.0011	0.0407	0.0407
Seismic (Reduced DL) 330 deg M1	160.00	0.064	0.0010	0.0441	0.0441
Seismic (Reduced DL) 330 deg M1	166.67	0.069	0.0010	0.0446	0.0446
Seismic (Reduced DL) 330 deg M1	180.00	0.079	0.0009	0.0441	0.0441
Seismic (Reduced DL) 330 deg M2	50.00	0.004	0.0002	0.0080	0.0080
Seismic (Reduced DL) 330 deg M2	126.67	0.024	0.0006	0.0249	0.0249
Seismic (Reduced DL) 330 deg M2	133.33	0.027	0.0007	0.0272	0.0272
Seismic (Reduced DL) 330 deg M2	140.00	0.030	0.0007	0.0286	0.0286
Seismic (Reduced DL) 330 deg M2	160.00	0.041	0.0006	0.0330	0.0330
Seismic (Reduced DL) 330 deg M2	166.67	0.045	0.0006	0.0338	0.0338
Seismic (Reduced DL) 330 deg M2	180.00	0.053	0.0006	0.0332	0.0332
Serviceability - 60 mph Wind Normal	50.00	0.013	0.0008	0.0264	0.0264
Serviceability - 60 mph Wind Normal	126.67	0.078	0.0013	0.0770	0.0771
Serviceability - 60 mph Wind Normal	133.33	0.087	0.0025	0.0789	0.0790
Serviceability - 60 mph Wind Normal	140.00	0.096	0.0035	0.0839	0.0840
Serviceability - 60 mph Wind Normal	160.00	0.127	0.0047	0.1142	0.1143
Serviceability - 60 mph Wind Normal	166.67	0.138	0.0051	0.0910	0.0910
Serviceability - 60 mph Wind Normal	180.00	0.160	0.0059	0.1377	0.1378
Serviceability - 60 mph Wind 60 deg	50.00	0.013	-0.0019	0.0263	0.0263
Serviceability - 60 mph Wind 60 deg	126.67	0.078	-0.0072	0.0759	0.0760
Serviceability - 60 mph Wind 60 deg	133.33	0.087	-0.0082	0.0787	0.0790
Serviceability - 60 mph Wind 60 deg	140.00	0.096	-0.0086	0.0780	0.0784
Serviceability - 60 mph Wind 60 deg	160.00	0.126	0.0089	0.0834	0.0838
Serviceability - 60 mph Wind 60 deg	166.67	0.137	0.0095	0.0927	0.0932
Serviceability - 60 mph Wind 60 deg	180.00	0.158	0.0106	0.0797	0.0803
Serviceability - 60 mph Wind 90 deg	50.00	0.013	-0.0022	0.0263	0.0263
Serviceability - 60 mph Wind 90 deg	126.67	0.078	-0.0089	0.0756	0.0761
Serviceability - 60 mph Wind 90 deg	133.33	0.087	-0.0101	0.0786	0.0788
Serviceability - 60 mph Wind 90 deg	140.00	0.096	-0.0107	0.0754	0.0756
Serviceability - 60 mph Wind 90 deg	160.00	0.126	-0.0119	0.0701	0.0711
Serviceability - 60 mph Wind 90 deg	166.67	0.136	-0.0122	0.0933	0.0939
Serviceability - 60 mph Wind 90 deg	180.00	0.157	-0.0129	0.0462	0.0479
Serviceability - 60 mph Wind 120 deg	50.00	0.013	-0.0020	0.0263	0.0264
Serviceability - 60 mph Wind 120 deg	126.67	0.078	-0.0081	0.0760	0.0762
Serviceability - 60 mph Wind 120 deg	133.33	0.087	-0.0093	0.0787	0.0788

Site Number: 411183

Code:

ANSI/TIA-222-G

© 2007 - 2017 by ATC IP LLC. All rights reserved.

Site Name: WATERFORD CT, CT

Engineering Number: OAA697208_C3_01

3/1/2017 11:02:32 AM

Customer: T-MOBILE

Force/Stress Summary

Serviceability - 60 mph Wind 120 deg	140.00	0.096	-0.0100	0.0773	0.0775
Serviceability - 60 mph Wind 120 deg	160.00	0.126	-0.0118	0.0834	0.0841
Serviceability - 60 mph Wind 120 deg	166.67	0.137	-0.0123	0.0928	0.0933
Serviceability - 60 mph Wind 120 deg	180.00	0.158	-0.0132	0.0797	0.0805
Serviceability - 60 mph Wind 180 deg	50.00	0.013	0.0008	0.0264	0.0264
Serviceability - 60 mph Wind 180 deg	126.67	0.078	0.0013	0.0769	0.0769
Serviceability - 60 mph Wind 180 deg	133.33	0.087	0.0025	0.0787	0.0787
Serviceability - 60 mph Wind 180 deg	140.00	0.096	0.0035	0.0844	0.0844
Serviceability - 60 mph Wind 180 deg	160.00	0.127	0.0047	0.1141	0.1142
Serviceability - 60 mph Wind 180 deg	166.67	0.138	0.0052	0.0909	0.0909
Serviceability - 60 mph Wind 180 deg	180.00	0.160	0.0059	0.1376	0.1377
Serviceability - 60 mph Wind 210 deg	50.00	0.013	0.0012	0.0264	0.0264
Serviceability - 60 mph Wind 210 deg	126.67	0.078	0.0049	0.0769	0.0769
Serviceability - 60 mph Wind 210 deg	133.33	0.087	0.0056	0.0787	0.0788
Serviceability - 60 mph Wind 210 deg	140.00	0.096	0.0060	0.0820	0.0822
Serviceability - 60 mph Wind 210 deg	160.00	0.127	0.0074	0.1050	0.1050
Serviceability - 60 mph Wind 210 deg	166.67	0.138	0.0078	0.0915	0.0918
Serviceability - 60 mph Wind 210 deg	180.00	0.159	0.0085	0.1215	0.1215
Serviceability - 60 mph Wind 240 deg	50.00	0.013	0.0020	0.0263	0.0264
Serviceability - 60 mph Wind 240 deg	126.67	0.078	0.0081	0.0760	0.0762
Serviceability - 60 mph Wind 240 deg	133.33	0.087	0.0093	0.0787	0.0788
Serviceability - 60 mph Wind 240 deg	140.00	0.096	0.0100	0.0773	0.0775
Serviceability - 60 mph Wind 240 deg	160.00	0.126	0.0118	0.0834	0.0841
Serviceability - 60 mph Wind 240 deg	166.67	0.137	0.0123	0.0928	0.0933
Serviceability - 60 mph Wind 240 deg	180.00	0.158	0.0132	0.0797	0.0805
Serviceability - 60 mph Wind 300 deg	50.00	0.013	0.0019	0.0263	0.0263
Serviceability - 60 mph Wind 300 deg	126.67	0.078	0.0072	0.0759	0.0760
Serviceability - 60 mph Wind 300 deg	133.33	0.087	0.0082	0.0787	0.0790
Serviceability - 60 mph Wind 300 deg	140.00	0.096	0.0086	0.0780	0.0784
Serviceability - 60 mph Wind 300 deg	160.00	0.126	0.0089	0.0834	0.0838
Serviceability - 60 mph Wind 300 deg	166.67	0.137	0.0090	0.0927	0.0932
Serviceability - 60 mph Wind 300 deg	180.00	0.158	0.0091	0.0797	0.0803
Serviceability - 60 mph Wind 330 deg	50.00	0.013	0.0011	0.0264	0.0264
Serviceability - 60 mph Wind 330 deg	126.67	0.078	0.0040	0.0768	0.0768
Serviceability - 60 mph Wind 330 deg	133.33	0.087	0.0045	0.0789	0.0791
Serviceability - 60 mph Wind 330 deg	140.00	0.096	0.0047	0.0823	0.0826
Serviceability - 60 mph Wind 330 deg	160.00	0.127	0.0046	0.1050	0.1053
Serviceability - 60 mph Wind 330 deg	166.67	0.138	0.0045	0.0916	0.0918
Serviceability - 60 mph Wind 330 deg	180.00	0.159	0.0044	0.1215	0.1219

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

T-Mobile Existing Facility

Site ID: CT11041D

Waterford/ I-95/ X82
53 Dayton Road
Waterford, CT 06385

March 7, 2017

EBI Project Number: 6217000851

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	10.24 %

March 7, 2017

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

Emissions Analysis for Site: **CT11041D – Waterford/ I-95/ X82**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **53 Dayton Road, Waterford, 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 population 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 population 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.

Population 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 approximately 467 $\mu\text{W}/\text{cm}^2$, and the general population exposure limit for the 1900 MHz (PCS) and 2100 MHz (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 **53 Dayton Road, Waterford, 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 (PCS Band - 1900 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 (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 4) 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
- 5) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.

- 6) 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.
- 7) For the following calculations, the sample point was the top of a 6-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.
- 8) The antennas used in this modeling are the **Ericsson AIR32 B66A/B2A** & **Ericsson AIR21 B2A/B4P** for 1900 MHz (PCS) and 2100 MHz (AWS) channels and the **Commscope LNX-6515DS-A1M** for 700 MHz channels. This is based on feedback from the carrier with regards to anticipated antenna selection. The **Ericsson AIR32 B66A/B2A** has a maximum gain of **15.9 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Ericsson AIR21 B2A/B4P** has a maximum gain of **15.9 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Commscope LNX-6515DS-A1M** has a maximum gain of **14.6 dBd** at its main lobe at 700 MHz. 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.
- 9) The antenna mounting height centerline of the proposed antennas is **164 feet** above ground level (AGL).
- 10) 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.
- 11) All calculations were done with respect to uncontrolled / general population threshold limits.

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR32 B66A/B2A	Make / Model:	Ericsson AIR32 B66A/B2A	Make / Model:	Ericsson AIR32 B66A/B2A
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	164	Height (AGL):	164	Height (AGL):	164
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(W):	240	Total TX Power(W):	240	Total TX Power(W):	240
ERP (W):	9,337.08	ERP (W):	9,337.08	ERP (W):	9,337.08
Antenna A1 MPE%	1.34	Antenna B1 MPE%	1.34	Antenna C1 MPE%	1.34
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):	164	Height (AGL):	164	Height (AGL):	164
Frequency Bands	1900 MHz (PCS)	Frequency Bands	1900 MHz (PCS)	Frequency Bands	1900 MHz (PCS)
Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power(W):	120	Total TX Power(W):	120	Total TX Power(W):	120
ERP (W):	4,668.54	ERP (W):	4,668.54	ERP (W):	4,668.54
Antenna A2 MPE%	0.67	Antenna B2 MPE%	0.67	Antenna C2 MPE%	0.67
Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	164	Height (AGL):	164	Height (AGL):	164
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power(W):	30	Total TX Power(W):	30	Total TX Power(W):	30
ERP (W):	865.21	ERP (W):	865.21	ERP (W):	865.21
Antenna A3 MPE%	0.27	Antenna B3 MPE%	0.27	Antenna C3 MPE%	0.27

Site Composite MPE%	
Carrier	MPE%
T-Mobile (Per Sector Max)	2.28 %
AT&T	3.43 %
Verizon Wireless	3.76 %
MetroPCS	0.55 %
Population Safety	0.22 %
Site Total MPE %:	10.24 %

T-Mobile Sector A Total:	2.28 %
T-Mobile Sector B Total:	2.28 %
T-Mobile Sector C Total:	2.28 %
Site Total:	10.24 %

T-Mobile_Max Values per sector	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
T-Mobile AWS - 2100 MHz LTE	2	2,334.27	164	6.72	AWS - 2100 MHz	1000	0.67%
T-Mobile PCS - 1900 MHz LTE	2	2,334.27	164	6.72	PCS - 1900 MHz	1000	0.67%
T-Mobile PCS - 1950 MHz UMTS	2	1,167.14	164	3.36	PCS - 1950 MHz	1000	0.34%
T-Mobile PCS - 1950 MHz GSM	2	1,167.14	164	3.36	PCS - 1950 MHz	1000	0.34%
T-Mobile 700 MHz LTE	1	865.21	164	1.25	700 MHz	467	0.27%
						Total:	2.28%

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population 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 population exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector A:	2.28 %
Sector B:	2.28 %
Sector C:	2.28 %
T-Mobile Per Sector Maximum:	2.28 %
Site Total:	10.24 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **10.24%** of the allowable FCC established general population 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.

Property Viewer (Public)

Click the About icon below the search bar for more information.

53 Dayton Rd, Waterford, Town X



Parcel Location	53 DAYTON ROAD
Parcel Street Number	53
Parcel Unit Number	
Parcel Street Name	DAYTON ROAD
Parcel City	WATERFORD
Parcel Zip Code	
Mailing Address Line 1	53 DAYTON RD
Mailing Address Line 2	
Mailing Address City	WATERFORD
Mailing Address State	CT
Mailing Address Zip Code (Leading 0 omitted)	6385
Mailing Address County	
Zoom to

DAYTON ROAD

-72.139 41.379 Degrees

53 DAYTON ROAD

Location 53 DAYTON ROAD

Assessment \$1,294,780

Mblu 92/ / 1844/ /

Appraisal \$1,849,680

Acct# 00158300

PID 1844

Building Count 2

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2013	\$923,090	\$926,590	\$1,849,680
Assessment			
Valuation Year	Improvements	Land	Total
2013	\$646,170	\$648,610	\$1,294,780

Building Information

Building 1 : Section 1

Year Built: 1950
Living Area: 8615
Replacement Cost: \$755,799
Building Percent Good: 68

Building Attributes	
Field	Description
STYLE	Fire Station
MODEL	Comm/Ind
Grade	Above Ave
Stories:	1.00
Occupancy	1
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	Brick Veneer
Roof Structure	Gambrel
Roof Cover	Asphalt
Interior Wall 1	Plaster
Interior Wall 2	Drywall
Interior Floor 1	Concrete
Interior Floor 2	Comp Tile
Heating Fuel	Oil

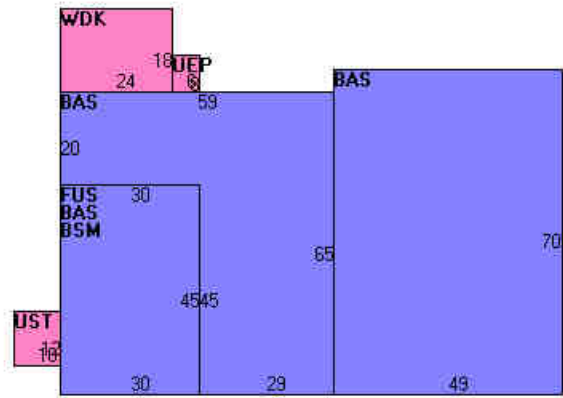
Building Photo



(<http://images.vgsi.com/photos/WaterfordCTPhotos/\00\00\88>)

Heating Type	Hot Water
% Central Air	0
Foundation	Poured Conc
Bldg Use	Exempt Comm
Total Rooms	0
Total Bedrms	0
Total Fixtures	22
% Wet Sprinkler	100
% Dry Sprinkler	
1st Floor Use	
Heat/AC	Typical
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
% Finished	60
Class	C
Wall Height	11

Building Layout



Building Sub-Areas			Legend	
Code	Description	Gross Area	Living Area	
BAS	First Floor	7265	7265	
FUS	Finished Upper Story	1350	1350	
BSM	Basement	1350	0	
UEP	Unfin. Enclosed Porch	48	0	
UST	Unfinished Utility Area	120	0	
WDK	Deck	432	0	
		10565	8615	

Building 2 : Section 1

Year Built: 1950
Living Area: 3360
Replacement Cost: \$347,072
Building Percent Good: 62

Building Attributes : Bldg 2 of 2	
Field	Description
STYLE	Fire Station
MODEL	Comm/Ind
Grade	Above Ave
Stories:	2.00
Occupancy	1
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	Brick Veneer
Roof Structure	Gambrel
Roof Cover	Asphalt
Interior Wall 1	Plaster
Interior Wall 2	Drywall
Interior Floor 1	Concrete

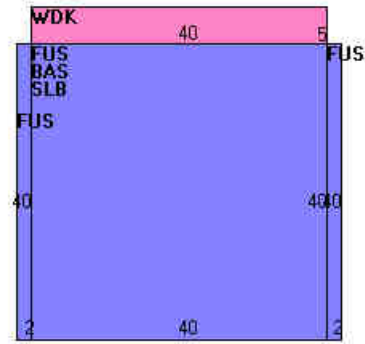
Building Photo



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

Interior Floor 2	Comp Tile
Heating Fuel	Oil
Heating Type	Forced Hot Air
% Central Air	0
Foundation	Poured Conc
Bldg Use	Exempt Comm
Total Rooms	0
Total Bedrms	0
Total Fixtures	0
% Wet Sprinkler	
% Dry Sprinkler	
1st Floor Use	
Heat/AC	Typical
Frame Type	MASONRY
Baths/Plumbing	LIGHT
% Finished	0
Class	C
Wall Height	11

Building Layout



Building Sub-Areas			Legend
Code	Description	Gross Area	Living Area
FUS	Finished Upper Story	1760	1760
BAS	First Floor	1600	1600
SLB	Slab	1600	0
WDK	Deck	200	0
		5160	3360

Extra Features

Extra Features				Legend
Code	Description	Size	Value	Bldg #
FBM	Finished Bsmt	475 S.F.	\$3,230	1

Land

Land Use

Use Code 920
Description Exempt Comm
Zone R-40
Neighborhood 200
Alt Land Appr Category No

Land Line Valuation

Size (Acres) 9.91
Frontage 0
Depth 0
Assessed Value \$648,610
Appraised Value \$926,590

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
FN1	Fence			928 L.F.	\$7,660	2
FGR1	Garage	MS	Masonry	220 S.F.	\$3,300	1
LSUM	Lump Sum			120000 UNITS	\$90,000	2

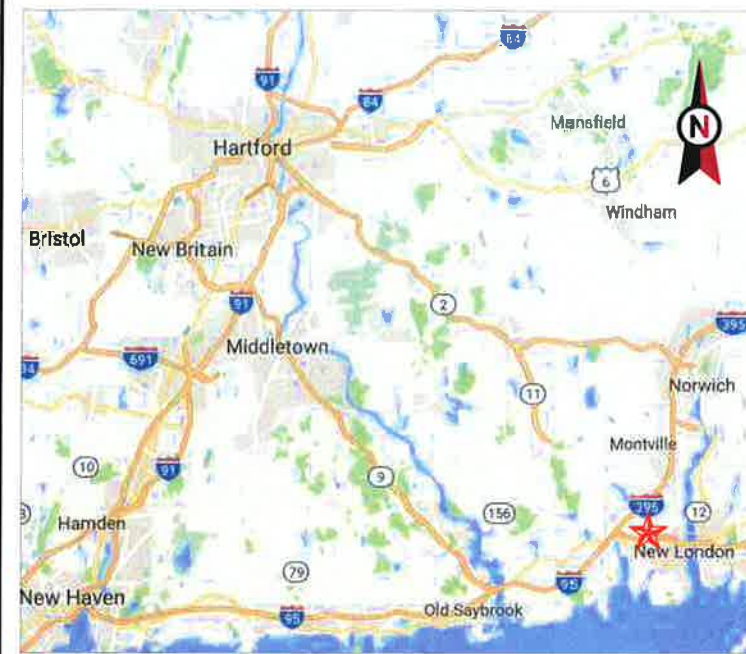
PAV1	Paving	AS	Asphalt	39900 S.F.	\$49,880	1
SHD1	Shed	FR	Frame	800 S.F.	\$6,000	1
FN1	Fence			1408 L.F.	\$7,740	1
FOP	Porch			1600 S.F.	\$24,000	1
LSUM	Lump Sum			4320 UNITS	\$2,160	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2010	\$0	\$0	\$3,234,857
2009	\$0	\$0	\$3,234,857
2008	\$0	\$0	\$3,234,857

Assessment			
Valuation Year	Improvements	Land	Total
2010	\$0	\$0	\$2,264,400
2009	\$0	\$0	\$2,264,400
2008	\$0	\$0	\$2,264,400

(c) 2014 Vision Government Solutions, Inc. All rights reserved.



VICINITY MAP



AMERICAN TOWER®

ATC SITE NAME: WATERFORD CT
 ATC SITE NUMBER: 411183
 T-MOBILE SITE ID: CT11041D
 SITE ADDRESS: 53 DAYTON RD.
 WATERFORD, CT 06385



LOCATION MAP

AMERICAN TOWER®
 ATC TOWER SERVICES
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: 6260F

THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OF SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. TITLE TO THESE DOCUMENTS SHALL REMAIN THE PROPERTY OF AMERICAN TOWER WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION ON FILE WITH AMERICAN TOWER.

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JDC	03/16/17

**T-MOBILE ANTENNA AMENDMENT
 792DB CONFIGURATION**

ATC SITE NUMBER:
 411183

ATC SITE NAME:
 WATERFORD CT

SITE ADDRESS:
 53 DAYTON RD.
 WATERFORD, CT 06385

SEAL:



Mar 17 2017 3:13 PM cosign



DRAWN BY: JDC
 APPROVED BY: PPB
 DATE DRAWN: 03/16/17
 ATC JOB NO: 12042326

TITLE SHEET

SHEET NUMBER:
G-001
 REVISION:
0

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX				
<p>ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.</p> <p>1. INTERNATIONAL BUILDING CODE (IBC) 2. NATIONAL ELECTRIC CODE (NEC) 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES</p>	<p><u>SITE ADDRESS:</u> 53 DAYTON RD. WATERFORD, CT 06385 COUNTY: NEW LONDON</p> <p><u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41.37777 LONGITUDE: -72.14138 GROUND ELEVATION: 186' AMSL</p>	<p>THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:</p> <p>REMOVE (3) PANELS, AND (3) TTAS</p> <p>INSTALL (3) NEW PANELS</p> <p>EXISTING (6) PANELS, AND (3) RRU's TO REMAIN</p> <p>PROJECT NOTES</p> <p>1. THE FACILITY IS UNMANNED.</p> <p>2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.</p> <p>3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.</p> <p>4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.</p> <p>5. HANDICAP ACCESS IS NOT REQUIRED.</p>	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
	<p>UTILITY COMPANIES</p> <p>POWER COMPANY: EVERSOURCE PHONE: (888) 793-6617</p> <p>TELEPHONE COMPANY: UNKNOWN PHONE: N/A</p>	<p>PROJECT TEAM</p> <p><u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801</p> <p><u>ENGINEER:</u> ATC TOWER SERVICES 3500 REGENCY PKWY STE 100 CARY, NC 27518</p> <p><u>PROPERTY OWNER:</u> COHANZIE VOLUNTEER FIRE SERVICE BENEFIT ASSOC 53 DAYTON RD WATERFORD, CT 06385</p>	<p>PROJECT LOCATION DIRECTIONS</p> <p>FROM HARTFORD, CT:</p> <p>TAKE I-91 S TO EXIT 22S AND MERGE ONTO CT-9S. MERGE ONTO I-95 N/US-1N. TAKE EXIT 82 FOR CT-85. TURN RIGHT ONTO DAYTON RD. FOLLOW TO FIRE HOUSE (COHANZIE FIRE CO. #5). GO IN PARKING LOT OF FIREHOUSE. TOWER AROUND BACK.</p>	G-001	TITLE SHEET	0	03/16/17
			G-002	GENERAL NOTES	0	03/16/17	JDC
			C-101	DETAILED SITE PLAN & TOWER ELEVATION	0	03/16/17	JDC
			C-501	ANTENNA INFORMATION & SCHEDULE	0	03/16/17	JDC
			E-501	GROUNDING DETAILS	0	03/16/17	JDC
			R-601	SUPPLEMENTAL			



Know what's below.
 Call before you dig.

Copyright © 2017 AT&T Intellectual Property. All Rights Reserved.

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC MASTER SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE T-MOBILE WIRELESS REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE T-MOBILE WIRELESS REP PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE T-MOBILE WIRELESS REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE T-MOBILE WIRELESS CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE T-MOBILE WIRELESS REP IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
17. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
18. CONTRACTOR SHALL FURNISH T-MOBILE WIRELESS WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
19. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE WIRELESS REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
20. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE WIRELESS REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY T-MOBILE WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
21. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH T-MOBILE WIRELESS SPECIFICATIONS AND REQUIREMENTS.
22. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO T-MOBILE WIRELESS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
23. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO T-MOBILE WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
24. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
25. CONTRACTOR SHALL NOTIFY T-MOBILE WIRELESS REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.

27. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
28. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE T-MOBILE WIRELESS REP. ANY WORK FOUND BY THE T-MOBILE WIRELESS REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
29. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
 - A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
 - B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
 - C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
 - D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
 - E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
 - A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
 - B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
 - C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
 - D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
 - E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
 - F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
 - G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING 1/2" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.



THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OR SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. TITLE TO THESE DOCUMENTS SHALL REMAIN THE PROPERTY OF AMERICAN TOWER WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION ON FILE WITH AMERICAN TOWER.

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JDC	03/16/17

ATC SITE NUMBER:
411183

ATC SITE NAME:
WATERFORD CT

SITE ADDRESS:
53 DAYTON RD.
WATERFORD, CT 06385



Mar 17 2017 3:13 PM cosign



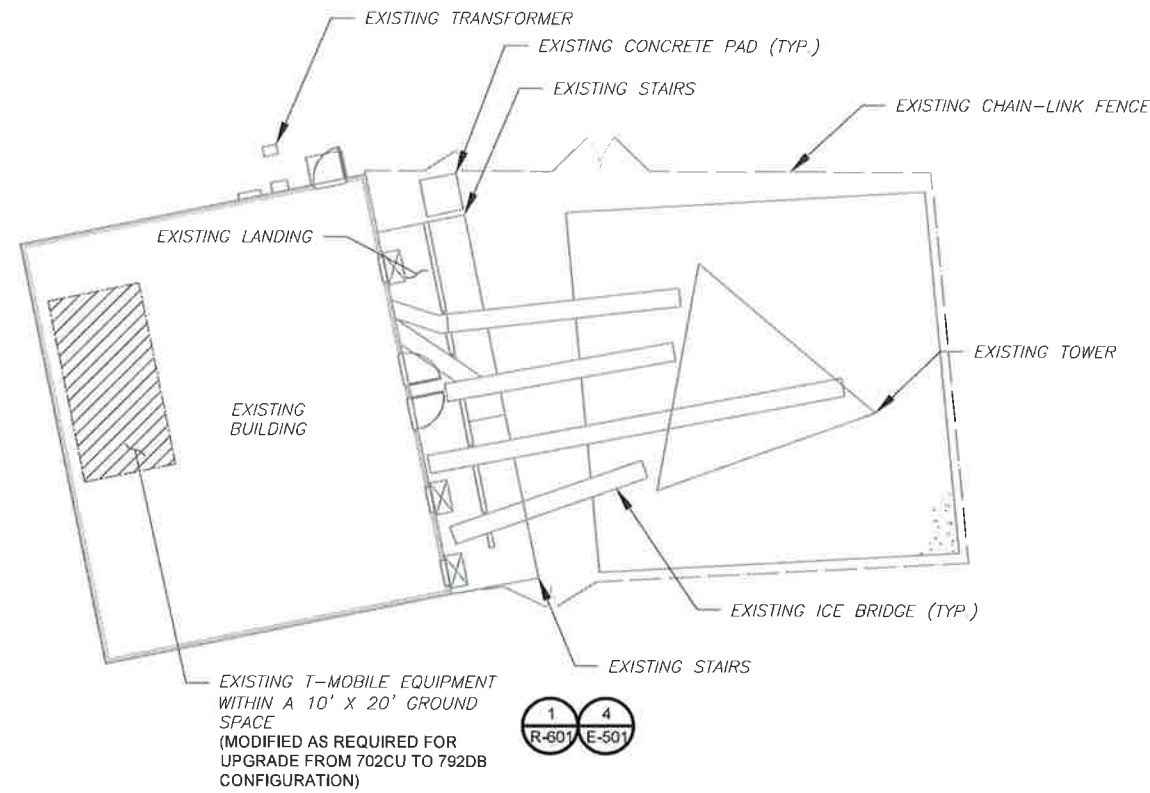
DRAWN BY:	JDC
APPROVED BY:	PPB
DATE DRAWN:	03/16/17
ATC JOB NO:	12042326

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

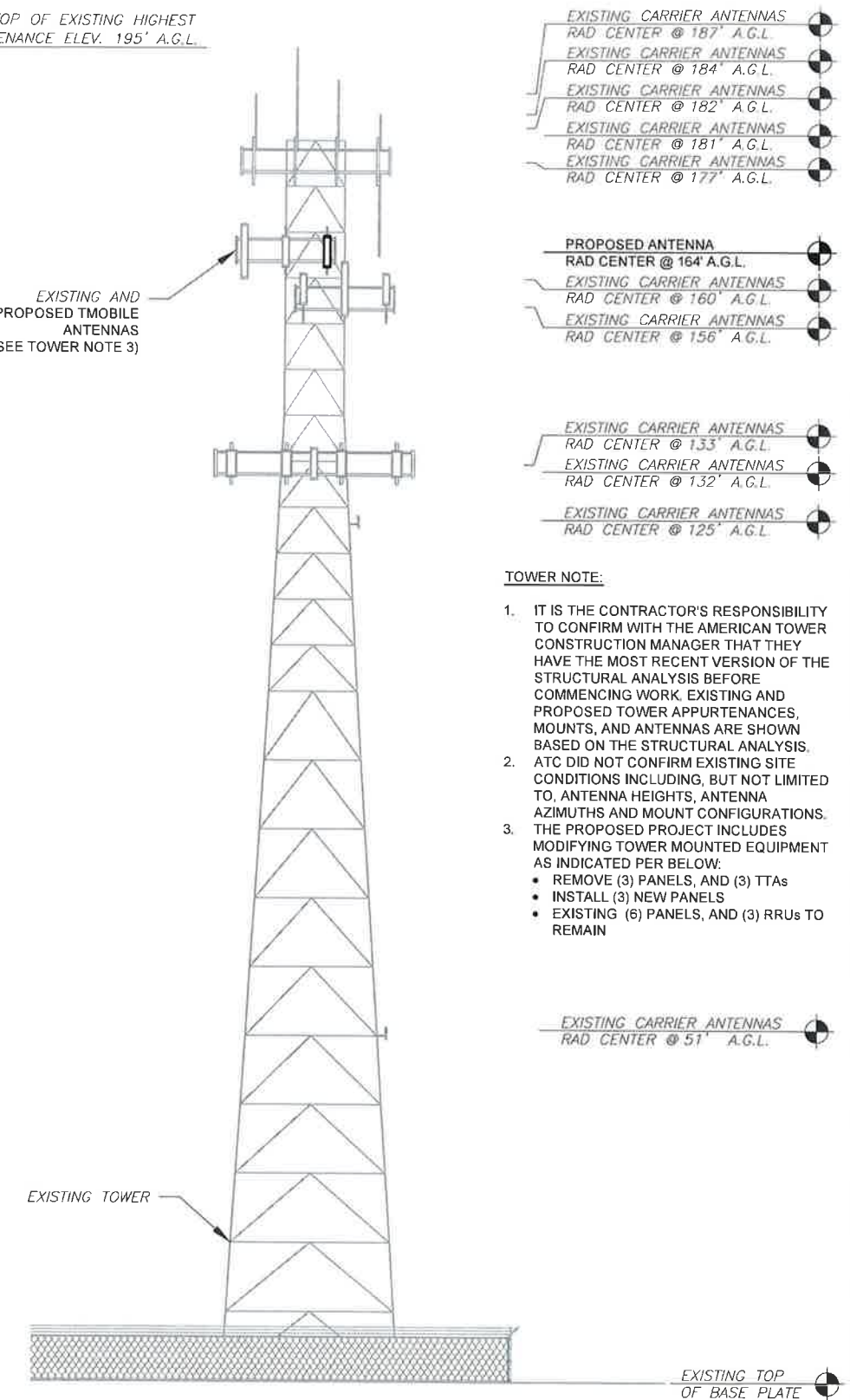
1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE T-MOBILE REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.



1 4
R-601 E-501

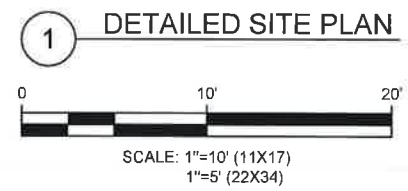
TOP OF EXISTING HIGHEST APPURTENANCE ELEV. 195' A.G.L.

1 2
C-501 C-501
EXISTING AND PROPOSED TMOBILE ANTENNAS (SEE TOWER NOTE 3)



TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA HEIGHTS, ANTENNA AZIMUTHS AND MOUNT CONFIGURATIONS.
3. THE PROPOSED PROJECT INCLUDES MODIFYING TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:
 - REMOVE (3) PANELS, AND (3) TTAs
 - INSTALL (3) NEW PANELS
 - EXISTING (6) PANELS, AND (3) RRUs TO REMAIN



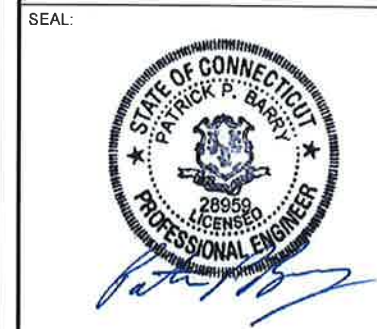
2 TOWER ELEVATION
SCALE: NOT TO SCALE

AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OF SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. TITLE TO THESE DOCUMENTS SHALL REMAIN THE PROPERTY OF AMERICAN TOWER WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION ON FILE WITH AMERICAN TOWER.

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JDC	03/16/17

ATC SITE NUMBER:
411183
ATC SITE NAME:
WATERFORD CT
SITE ADDRESS:
53 DAYTON RD.
WATERFORD, CT 06385



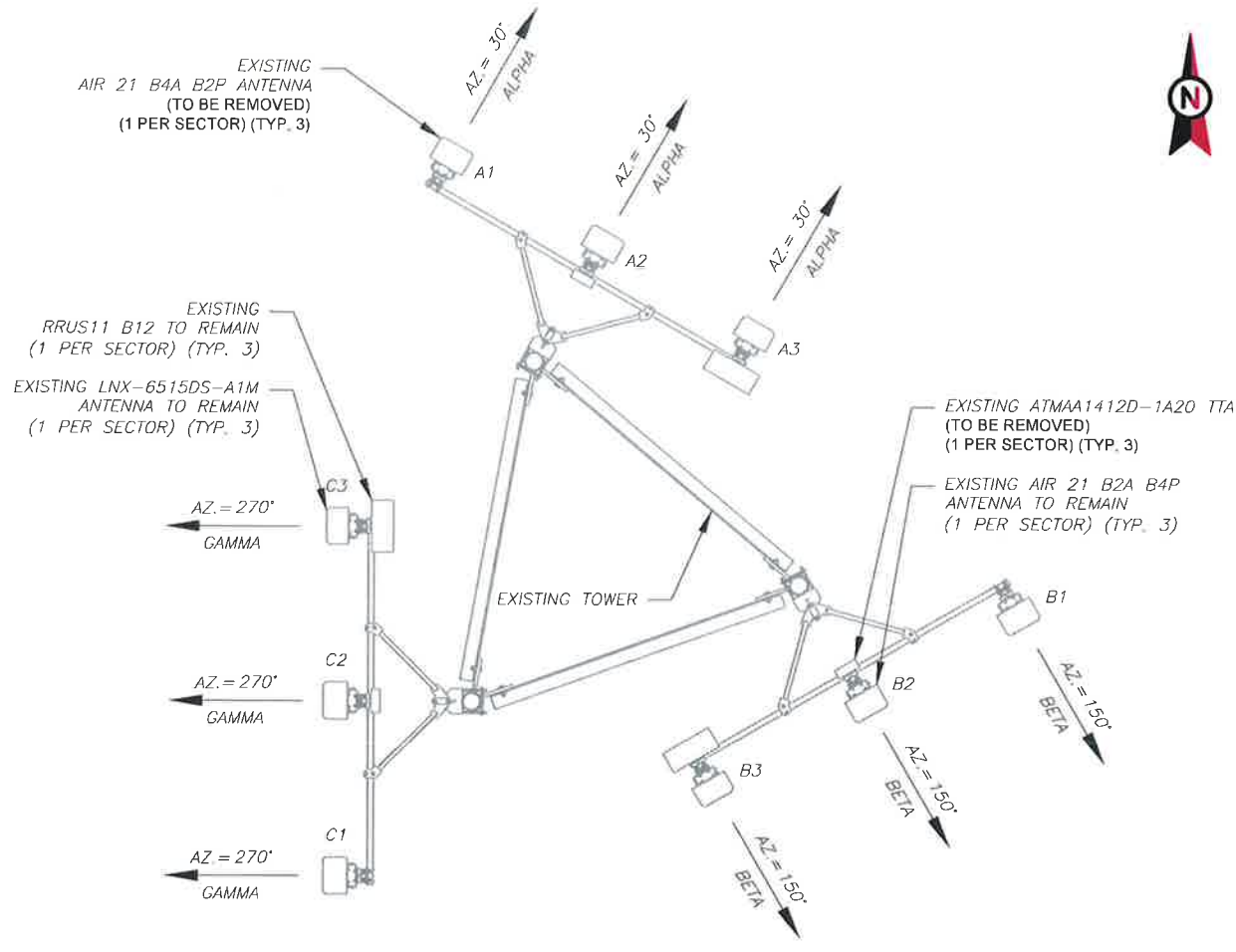
Mar 17 2017 3:13 PM cosign



DRAWN BY:	JDC
APPROVED BY:	PPB
DATE DRAWN:	03/16/17
ATC JOB NO:	12042326

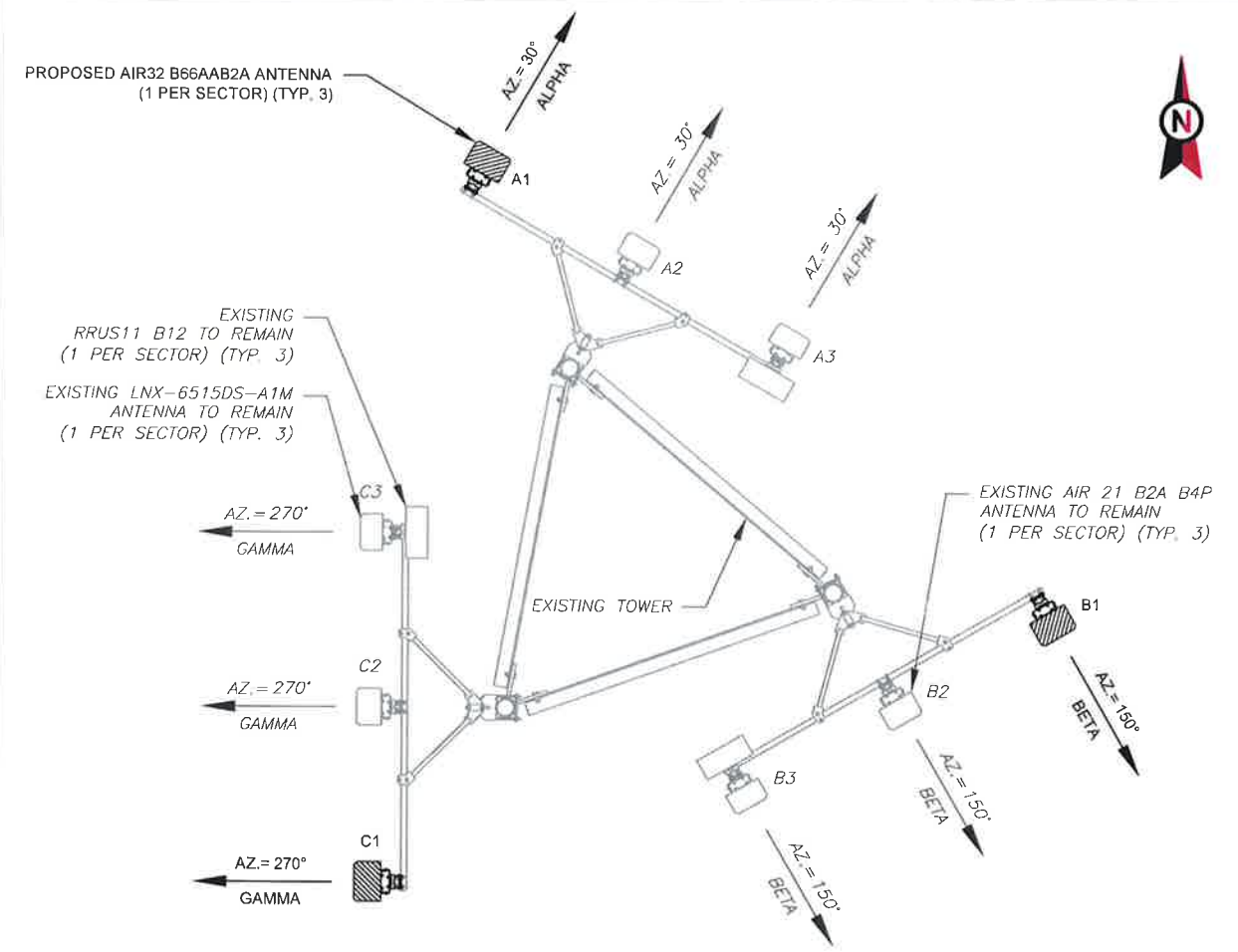
DETAILED SITE PLAN & TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-101	0



1 EXISTING ANTENNA PLAN

NOTES:
 1. ATC HAS NOT YET VERIFIED ANY EXISTING ANTENNA CONFIGURATION OR MOUNT CONFIGURATION. CONTRACTOR TO VERIFY MOUNT CONFIGURATION HAS SUFFICIENT SPACE FOR PROPOSED LESSEE EQUIPMENT (I.E. CLEARANCES, MOUNT PIPE OR SUFFICIENT LENGTH, ETC.) ATC DID NOT ANALYZE ANTENNA MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY LESSEE LOADING.



2 FINAL ANTENNA PLAN

NOTES:
 1. ALL PROPOSED EQUIPMENT INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS ON FILE WITH THE ATC CM.
 2. SPACING OF PROPOSED EQUIPMENT SHALL BE CONFIRMED FOR TOWER CONFLICTS AND PROPOSED MOUNTS SHALL NOT IMPEDE TOWER CLIMBING PEGS.

EXISTING ANTENNA/ COAX SCHEDULE

SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT	ANTENNA COAX DESCRIPTION
ALPHA	A1	AIR 21 B4A B2P	164'-0"	30°	0	3	-	-
ALPHA	A2	AIR 21 B2A B4P	164'-0"	30°	0	2	ATMAA1412D-1A20	(4) 1-5/8"
ALPHA	A3	LNx-6515DS-A1M	164'-0"	30°	0	2	RRUS11 B12	-
BETA	B1	AIR 21 B4A B2P	164'-0"	150°	0	3	-	-
BETA	B2	AIR 21 B2A B4P	164'-0"	150°	0	2	ATMAA1412D-1A20	(4) 1-5/8"
BETA	B3	LNx-6515DS-A1M	164'-0"	150°	0	2	RRUS11 B12	-
GAMMA	C1	AIR 21 B4A B2P	164'-0"	270°	0	3	-	-
GAMMA	C2	AIR 21 B2A B4P	164'-0"	270°	0	2	ATMAA1412D-1A20	(4) 1-5/8"
GAMMA	C3	LNx-6515DS-A1M	164'-0"	270°	0	2	RRUS11 B12	-

1. (1) EXISTING 6X12 HCS (TO REMAIN)
 2. (6) EXISTING 1-5/8" COAX (TO REMAIN)

FINAL ANTENNA/ COAX SCHEDULE

SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT	ANTENNA COAX DESCRIPTION
ALPHA	A1	AIR32 B66AAB2A	164'-0"	30°	0	3	-	-
ALPHA	A2	AIR 21 B2A B4P	164'-0"	30°	0	2	-	(2) 1-5/8"
ALPHA	A3	LNx-6515DS-A1M	164'-0"	30°	0	2	RRUS11 B12	-
BETA	B1	AIR32 B66AAB2A	164'-0"	150°	0	3	-	-
BETA	B2	AIR 21 B2A B4P	164'-0"	150°	0	2	-	(2) 1-5/8"
BETA	B3	LNx-6515DS-A1M	164'-0"	150°	0	2	RRUS11 B12	-
GAMMA	C1	AIR32 B66AAB2A	164'-0"	270°	0	3	-	-
GAMMA	C2	AIR 21 B2A B4P	164'-0"	270°	0	2	-	(2) 1-5/8"
GAMMA	C3	LNx-6515DS-A1M	164'-0"	270°	0	2	RRUS11 B12	-

1. BASED ON APPROVED ATC APPLICATION OAA697208, DATED 02-10-2017. CONFIRM WITH T-MOBILE REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS.
 2. (1) PROPOSED 6X12 HCS
 3. (1) EXISTING 6X12 HCS (TO REMAIN)
 4. (12) EXISTING 1-5/8" COAX (TO REMAIN)

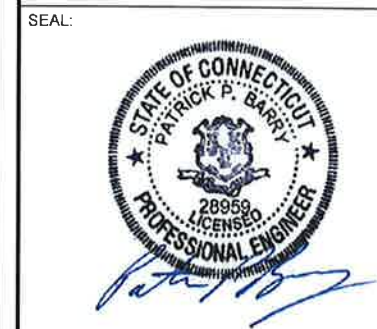
3 ANTENNA SCHEDULE

AMERICAN TOWER®
 ATC TOWER SERVICES
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: 6260F

THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OF SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. TITLE TO THESE DOCUMENTS SHALL REMAIN THE PROPERTY OF AMERICAN TOWER WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OF ANY DISCREPANCIES. ANY PRIORITY OF THIS DRAWING IS SUPERSEDED BY THE LATEST REVISION ON FILE WITH AMERICAN TOWER.

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JDC	03/16/17

ATC SITE NUMBER:
411183
 ATC SITE NAME:
WATERFORD CT
 SITE ADDRESS:
 53 DAYTON RD.
 WATERFORD, CT 06385



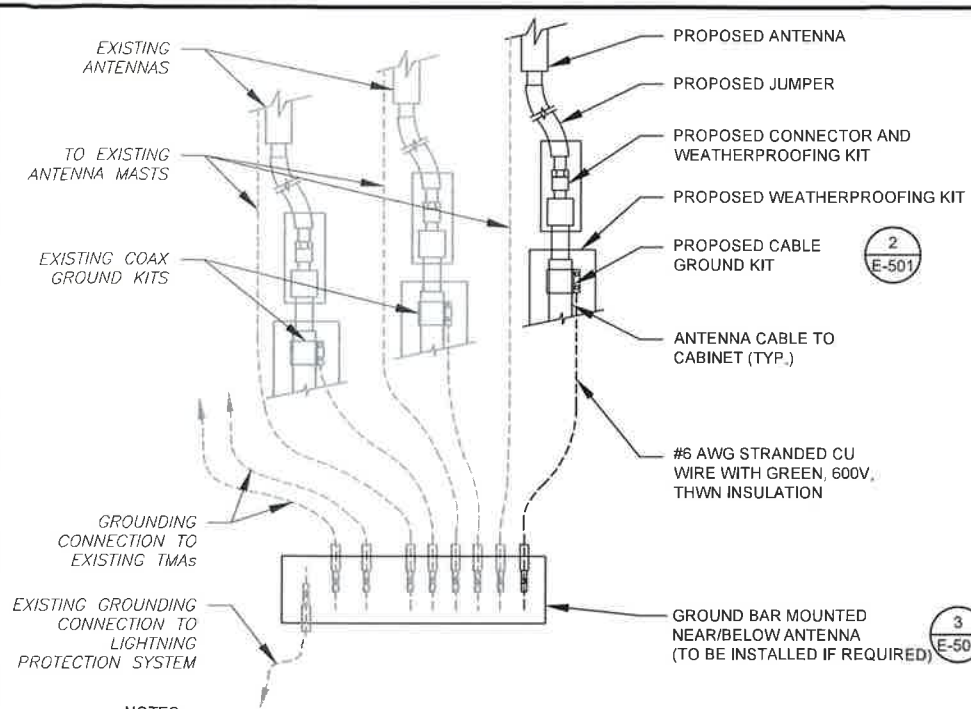
Mar 17 2017 3:13 PM cosign



DRAWN BY:	JDC
APPROVED BY:	PPB
DATE DRAWN:	03/16/17
ATC JOB NO:	12042326

ANTENNA INFORMATION & SCHEDULE

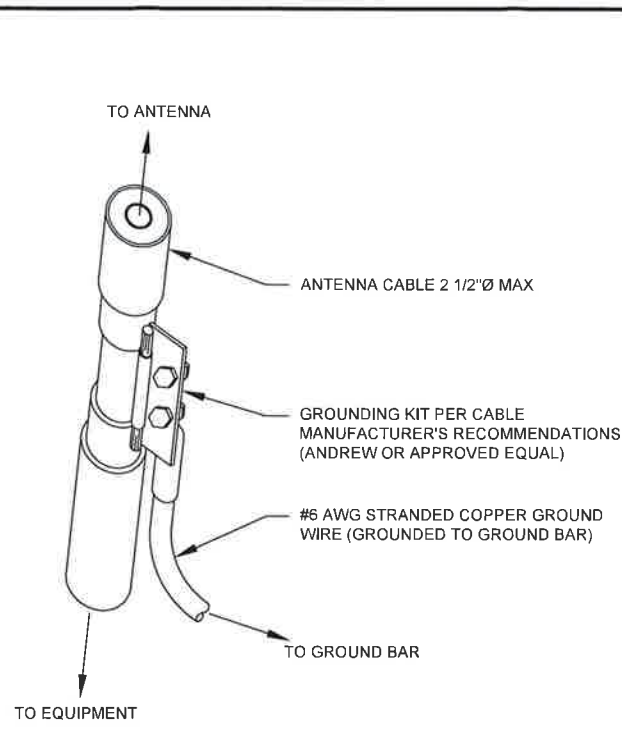
SHEET NUMBER:	REVISION:
C-501	0



NOTES:

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

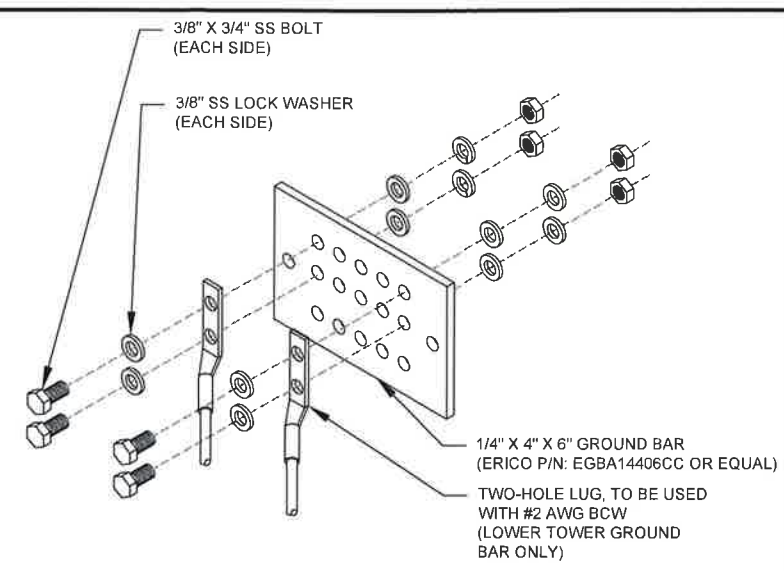
1 TYPICAL ANTENNA GROUNDING DIAGRAM
SCALE: NOT TO SCALE



GROUND KIT NOTES:

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

2 CABLE GROUND KIT CONNECTION DETAIL
SCALE: NOT TO SCALE



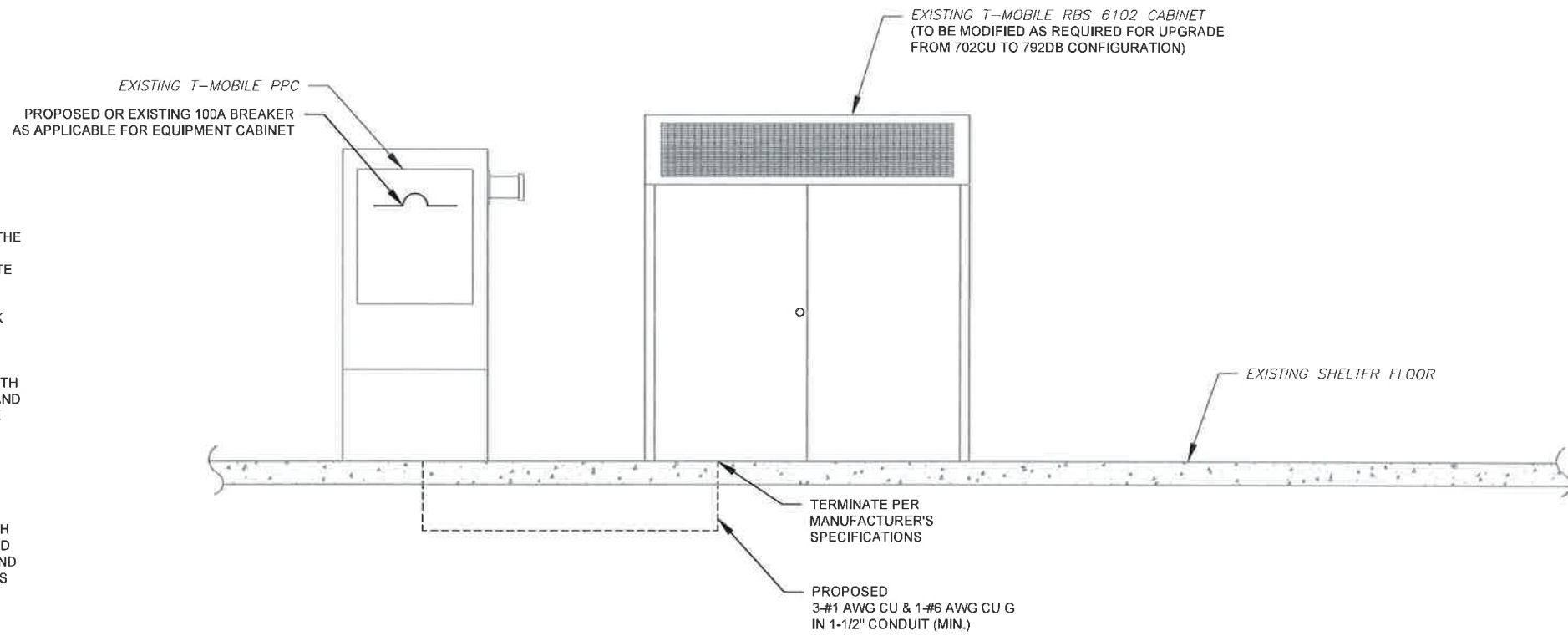
GROUND BAR NOTES:

1. GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

3 TOWER GROUND BAR DETAIL
SCALE: NOT TO SCALE

ELECTRICAL NOTES:

1. THIS DIAGRAM REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE T-MOBILE REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.
3. ATC HAS NOT YET VERIFIED ANY EXISTING T-MOBILE GROUND EQUIPMENT OR ELECTRICAL LOADING. PROPOSED WORK BASED ON INSTALLATION CONFIGURATION PROVIDED BY T-MOBILE. CONTRACTOR TO VERIFY EXISTING T-MOBILE PANEL HAS SUFFICIENT SPACE FOR PROPOSED BREAKER.



4 ELECTRICAL UPGRADE DIAGRAM
SCALE: NOT TO SCALE

AMERICAN TOWER®
ATC TOWER SERVICES
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: 6260F

THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OF SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. TITLE TO THESE DOCUMENTS SHALL REMAIN THE PROPERTY OF AMERICAN TOWER WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION ON FILE WITH AMERICAN TOWER.

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JDC	03/16/17

ATC SITE NUMBER:
411183
 ATC SITE NAME:
WATERFORD CT
 SITE ADDRESS:
 53 DAYTON RD.
 WATERFORD, CT 06385



Mar 17 2017 3:13 PM cosign



DRAWN BY:	JDC
APPROVED BY:	PPB
DATE DRAWN:	03/16/17
ATC JOB NO:	12042326

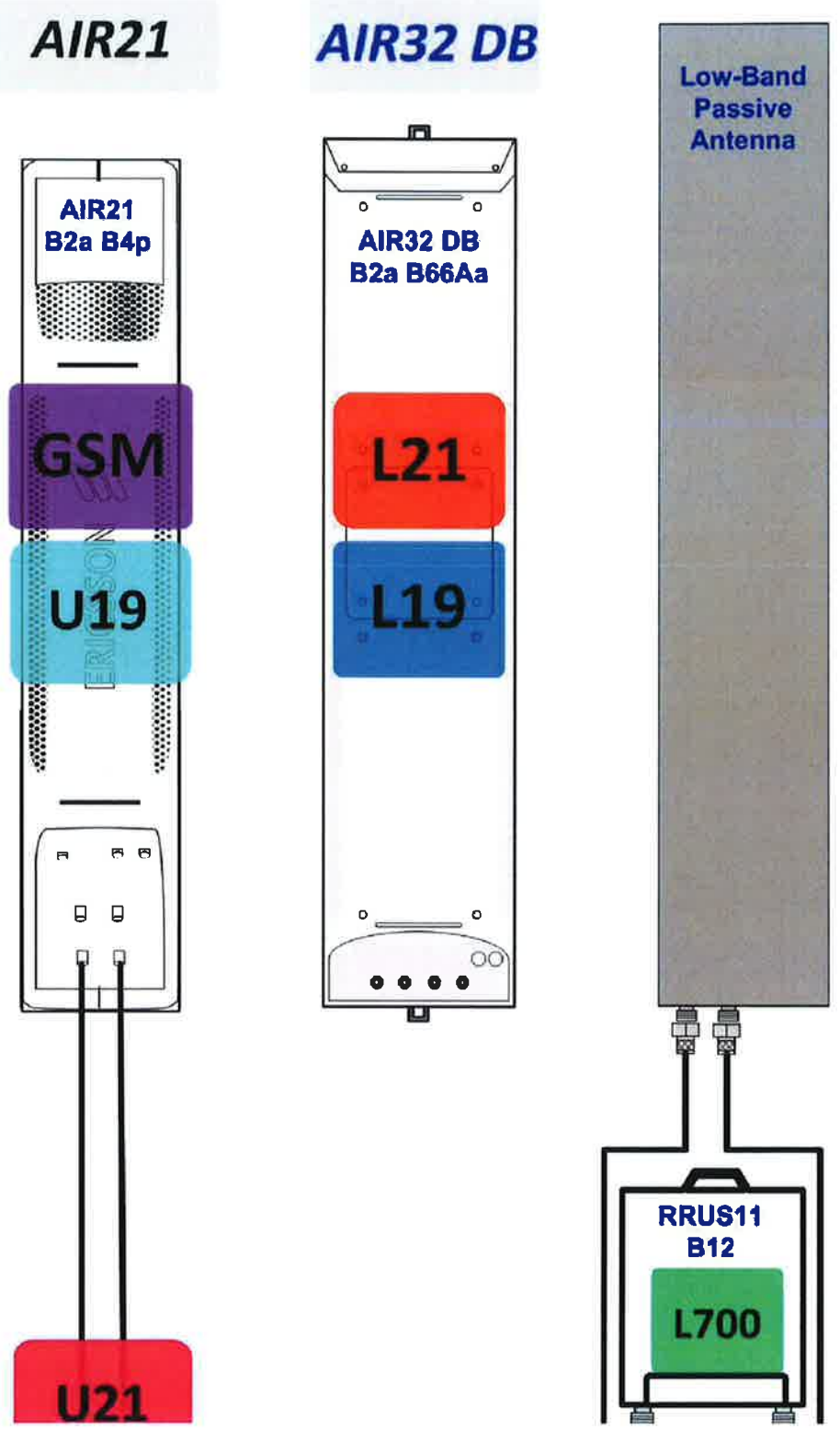
GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

Proposed RAN Equipment	
Template: 792DB Hybrid	
Enclosure	1
Enclosure Type	RBS 6102
Bandwidth	DUS41 (x2) DUM30 (x2) DUG20
Hybrid Cable System	Ericsson 6x12 HCS *Select AWG & Length* (x2) Ericsson 6x12 HCS *Select Length & AWG*
Multiplexer	XMU
Radio	RUS01 B4 (x6)

RAN Scope of Work:

1 CABINET CONFIGURATION
SCALE: NOT TO SCALE



2 ANTENNA CONFIGURATION
SCALE: NOT TO SCALE

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

SUPPLEMENTAL

SHEET NUMBER:
R-601

REVISION:
0