



NSS **NORTHEAST**
SITE SOLUTIONS
Turnkey Wireless Development

Northeast Site Solutions
Denise Sabo
199 Brickyard Rd Farmington, CT 06032
860-209-4690
denise@northeastsitesolutions.com

September 8, 2017

Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Notice of Exempt Modification
1555 Post Road East, Westport CT 06880
Latitude: 41.13877777
Longitude: -73.31013890
T-Mobile Site#: CT11878A_L700

Dear Ms. Bachman:

T-Mobile currently maintains six (6) antennas at the 40-foot and 45-foot level of the existing 30-foot rooftop mounted flag pole located at 1555 Post Road East, Westport CT. The flag pole is owned by BAO Partners LLC. The property is owned 1555 PRE LLC. T-Mobile now intends to install three (3) new 700MHz antenna and three (3) new 1900/2100MHz antenna. The new antennas would be installed at the 40-foot and 45-foot level of the 51-foot AGL flagpole. T-Mobile also intends to make the following modifications.

Planned Modifications:

Remove: NONE

Remove and Replace:

Remove existing (1) 18" diameter flagpole - Replace with (1) 30" diameter flagpole.

Remove (3) APX18 Antenna – Replace with (3) APX16DWV Antenna

Remove (3) APX18 Antenna – Replace with (3) LNX-6512DS Antenna

Install New:

(6) 1-5/8" Coax

(3) Smart Bias-T

Existing to Remain:

(12) 1-5/8" Coax

(6) TMA

This facility was approved by the Town of Westport. Approval was granted on February 14, 2008 to erect a 30-foot flagpole and communication facility. Please see attached.



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 First Selectman Jim Marpe, Elected Official and Mary Young, Planning and Zoning Director for the Town of Westport, as well as the property owner and the tower owner.

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

1. The proposed modifications will not result in an increase in the height of the existing 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.

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,

Denise Sabo

Mobile: 860-209-4690

Fax: 413-521-0558

Office: 199 Brickyard Rd, Farmington, CT 06032

Email: denise@northeastsitesolutions.com

Attachments

cc: Jim Marpe – First Selectman - as elected official

Mary Young- Planning Director

1555 PRE LLC - as tower owner

BAO Partners LLC – **Property Owner**

Exhibit A



TOWN OF WESTPORT, CONNECTICUT
 Planning & Zoning Commission
 110 Myrtle Avenue, Room 203
 Westport, CT 06880 (203) 341-1030

ZONING PERMIT

36294

Address: 1555 POST RD EAST

Tax Map # H09 Tax Lot # 118 Zoning District GBD

Lot Owner 1555 P&E, LLC c/o CONSOLIDATED MANAGEMENT

Address 1555 P&E WESTPORT, CT 06880 Phone #

Applicant KARINA FOURNIER

Address 35 GARFAN RD SOUTH BLOOMFIELD CT 06002 Phone # 860-796-3988

This permit is hereby applied for in accordance with the requirements of the Westport Zoning Regulations for:

Residential Projects: <input type="checkbox"/> New Principal Building <input type="checkbox"/> Addition to Principal Building <input type="checkbox"/> Interior Renovations <input type="checkbox"/> Accessory Structure <input type="checkbox"/> Swimming Pool <input type="checkbox"/> Tennis Court <input checked="" type="checkbox"/> Other <u>ANTENNA</u>	Commercial Projects: <input type="checkbox"/> Interior Renovations <input type="checkbox"/> Building Addition <input type="checkbox"/> Restaurant Patio Permit <input type="checkbox"/> Site Changes <input type="checkbox"/> Temporary Zoning Permit <input type="checkbox"/> Excavation & Fill Permit <input checked="" type="checkbox"/> Other <u>FLAGPOLE ANTENNAS</u>	Signage: <input type="checkbox"/> Wall sign <u>N/A</u> Allowed.....sf <input type="checkbox"/> Free Standing Proposed.....sf Parking Spaces: Required <u>NO CHANGE</u> Provided..... Property Conditions: # of Existing Structures <u>1</u> Present Uses <u>OFFICE</u>
--	--	--

Proposed Project & Dimensions of Structures:

30' tall Flagpole WITH SIX PANEL ANTENNAS TO BE CONSTRUCTED ON TOP OF THE BUILDING W/ ASSOCIATED EQUIPMENT ON LADE, NEW FENCING AND TREE RELOCATION

Lot Area Calculations: Gross Lot Area <u>30,764</u> Net Lot Area <u>29,863</u>	Subtract 80% for... <input checked="" type="checkbox"/> Steep Slopes <input type="checkbox"/> Wetlands	Substantial Improvement? <input type="checkbox"/> Yes <input type="checkbox"/> No 1/2 Market Value of Building:
---	---	--

Building Coverage: Allowed: <u>25%</u> Proposed: <u>26.8%</u>	Total Coverage: Allowed: Proposed:	Average Existing Grade: (ft)
--	---	------------------------------------

Setbacks: Setbacks allowed: front <u>30</u> side <u>15</u> rear <u>30 to Res A</u> Setbacks Proposed: front <u>230</u> side <u>0</u> rear <u>0</u>	Stories: Allowed <u>1.50</u> Proposed <u>4.8</u>	Height: Allowed <u>1.50</u> Proposed <u>4.8</u>
---	---	--

PRIOR APPROVALS: <input type="checkbox"/> Health Department <input type="checkbox"/> Conservation (WPLO/IWW) <input type="checkbox"/> Sewer Permit # <u>On Town</u> <input type="checkbox"/> Driveway <input type="checkbox"/> CT DOT Permit # <input type="checkbox"/> Drainage <input type="checkbox"/> Town Engineer <input type="checkbox"/> Aquifer Zone <input type="checkbox"/> Flood Zone <input type="checkbox"/> Floodway <u>C</u> <input type="checkbox"/> Sediment & Erosion Control Plan <input type="checkbox"/> Other	<input checked="" type="checkbox"/> ZBA Variance # <u>6261</u> for <u>coverage, setbacks</u> <input checked="" type="checkbox"/> P&Z <input type="checkbox"/> ARC Date <u>RES # 04-066</u> <input type="checkbox"/> Subdivision Date <input checked="" type="checkbox"/> Arch. Review Board <u>2-29-04</u> <input type="checkbox"/> DEP/ARMY COE Permit <input type="checkbox"/> CAM Site Plan Date <input type="checkbox"/> Flood & Erosion Board <input type="checkbox"/> Historic District Commission <input checked="" type="checkbox"/> Other <u>D.H. 2 1320 96</u> <u>RECEIVED 5/13/08</u>
--	---

Building Plans (Titled) ELEMENTS, DETAILS
(by) MAXTON (dated) _____ (Revised) 2/14/08 No. of Sheets 2

Survey or Site Plan Submitted:	
Titled <u>STREETS</u> <u>PLOT PLAN, PLAN NOTES A1, A2</u>	Dated <u>2/14/08</u>
Prepared by <u>MAXTON</u>	Revised _____

This Zoning Permit is hereby issued or denied _____ subject to the Zoning Regulations and the following conditions:

<input checked="" type="checkbox"/> Final Zoning Dept. Inspection <input checked="" type="checkbox"/> Zoning Certificate of Compliance ("ZCC") All checked items are REQUIRED for a ZCC; <input type="checkbox"/> Foundation As-Built Survey prior to framing <input checked="" type="checkbox"/> Final As-Built Survey, incl. but not limited, to: <input type="checkbox"/> Topography/grading <input type="checkbox"/> Elevation Certificate <input type="checkbox"/> Final Building Height <input type="checkbox"/> Floor elevations <input type="checkbox"/> Subsurface structures (drainage/septic) <input type="checkbox"/> Cellar/Basement Calculations <input checked="" type="checkbox"/> <u>PARKING</u> <input type="checkbox"/> Attic/Half-story confirmation by Architect <input type="checkbox"/> Final Health Dept. Inspection/ Approval <input type="checkbox"/> Final Conservation Dept. Inspection/Approval <input type="checkbox"/> Final Engineering Inspection/Approval - drainage/grading/sewer/driveway	<input checked="" type="checkbox"/> Excavated materials cannot be used to change the approved grading and drainage. <input checked="" type="checkbox"/> Sediment & Erosion Controls <u>must be installed & maintained</u> through construction until lot is <u>stabilized</u> <input checked="" type="checkbox"/> Lot to be stabilized prior to zoning inspection. <input checked="" type="checkbox"/> All Buildings, Structures, Patios, & all Mechanical Equipment incl. A/C Condensers, Pool Equipment & Generators <u>must meet all setbacks.</u> <input type="checkbox"/> Construction must meet <u>Flood Plain Regulations</u> <input checked="" type="checkbox"/> All conditions of P&Z and/or ZBA <u>must be adhered to</u> <input checked="" type="checkbox"/> Public Act 03-144 explained to applicant. <input type="checkbox"/> Lot to remain single family use w/one kitchen. <input checked="" type="checkbox"/> Work cannot exceed the scope of this permit & must be built to conform to the approved building plans, & survey/site plan above
--	---

Other Conditions of approval:

AS QUICK FOR FLAGPOLE + ANTENNAS ALSO TO BE INCLUDED AT END OF CONSTRUCTION

EMC EMISSIONS REVIEW AFTER SITE IS UP - NO LIGHTING IS PROPOSED OR APPROVED A STATE OR TOWN FLAG WILL BE USED.

Permit void if: 1. Work or activity not commenced within 1 year of the date of issuance, or 2. Construction authorized not completed within 2 years of date of issuance.

Failure to comply with the conditions of approval of this permit shall constitute a violation of the Westport Zoning Regulations.

Issued By: Mary Young
Zoning Enforcement Office
Signature of Agent or Owner

Construction Cost \$ 120,000.00

Permit Fee \$ 600.00

ZCC Fee \$ 25.00/\$50.00

State of CT Fee \$ 30.00

Paid Total \$ 680.00

DATE 5/15/08

PERMIT # 36294

Exhibit B

1555 POST RD E

Location 1555 POST RD E

Mblu H09/ / 118/000 /

Acct# 10647

Owner BAO PARTNERS LLC

Assessment \$1,903,400

Appraisal \$2,719,200

PID 6540

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2015	\$1,495,100	\$1,224,100	\$2,719,200

Assessment			
Valuation Year	Improvements	Land	Total
2015	\$1,046,500	\$856,900	\$1,903,400

Owner of Record

Owner BAO PARTNERS LLC

Sale Price \$2,200,000

Co-Owner

Certificate

Address 418 MEADOW STREET SUITE 201
FAIRFIELD, CT 06824

Book & Page 3774/283-

Sale Date 04/03/2017

Instrument 00

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
BAO PARTNERS LLC	\$2,200,000		3774/283-	00	04/03/2017
1555 POST RD E LLC	\$0	1	1739/ 10	29	11/15/1999
PETRUCCI DONALD A	\$0	2	319/ 177	29	07/28/1972

Building Information

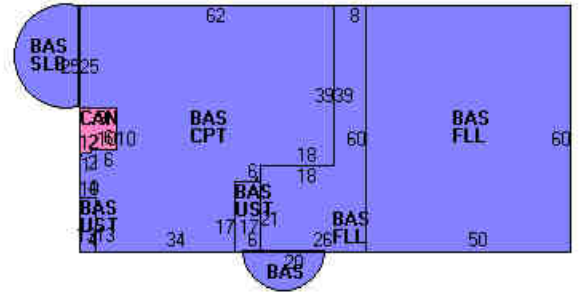
Building 1 : Section 1

Year Built: 1982
Living Area: 11,461
Replacement Cost: \$1,823,087
Building Percent 76
Good:
Replacement Cost
Less Depreciation: \$1,385,500

Building Attributes

Field	Description
STYLE	Office Bldg
MODEL	Commercial
Grade	Average +10
Stories:	1
Occupancy	4
Exterior Wall 1	Brick/Masonry
Exterior Wall 2	Stucco/Masonry
Roof Structure	Flat
Roof Cover	T&G/Rubber
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	
Heating Fuel	Gas
Heating Type	Forced Air
AC Type	Central
Bldg Use	Off Bldg
Income Adj	
1st Floor Use:	343
Heat/AC	Heat/AC Pkgs
Frame Type	Masonry
Baths/Plumbing	Average
Ceiling/Walls	Sus-Ceil & WL
Rooms/Prtns	Average
Wall Height	12
% Comn Wall	

Building Layout



(<http://images.vgsi.com/photos2/WestportCTPhotos//Sketches/6>)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	7,603	7,603
FLL	Finished Lower Level	3,858	3,858
CAN	Canopy	94	0
CPT	Covered Parking	3,094	0
SLB	Slab	340	0
UST	Utility, Storage	154	0
		15,143	11,461

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	340
Description	Off Bldg
Zone	GBD
Neighborhood	F

Land Line Valuation

Size (Acres)	0.61
Frontage	0
Depth	0
Assessed Value	\$856,900

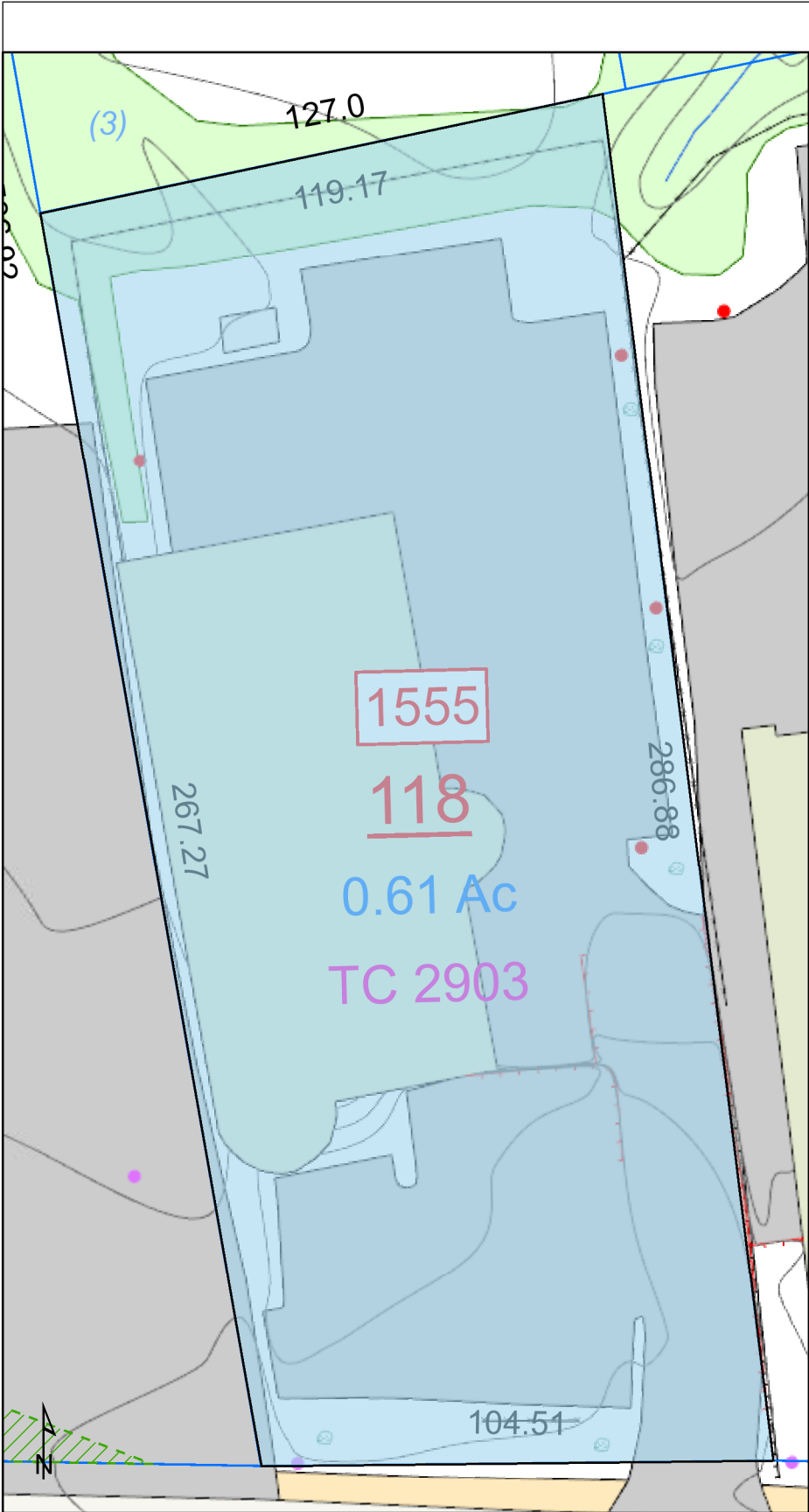
Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
PAT1	Patio	CR	Concrete	192 S.F.	\$1,400	1
PAV1	Paving Asph.			15000 S.F.	\$28,100	1
CELL	Cell on BLDG	SI		1 Sites	\$328,000	1
LT1	1Pole - 1 Lt			5 UNITS	\$5,900	1
PRKS	Parking Spaces			40 Units	\$0	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$1,495,100	\$1,224,100	\$2,719,200
2014	\$1,066,200	\$926,600	\$1,992,800
2012	\$1,066,200	\$926,600	\$1,992,800

Assessment			
Valuation Year	Improvements	Land	Total
2016	\$1,046,500	\$856,900	\$1,903,400
2014	\$746,300	\$648,600	\$1,394,900
2012	\$746,300	\$648,600	\$1,394,900



- ### Westport CT Web GIS Map Legend
- | | | |
|---------------------------------|-----------------------------|-------------------------------|
| - CAM_line | - Culvert | - Golf Path |
| - Deleted_Wetland | - Dam | - Paved Parking |
| - Amended_Wetland | - Ditch | - Unpaved Parking |
| - dot_line | - Rip Rap | - Paved Driveway |
| - Tide_Wetland | - Elevation Well | - Unpaved Driveway |
| - Waterbody_Watercourse | - Fence | - Public Sidewalk |
| - wet_text_line | - Guardrail | - Tree Line |
| - Wetland | - Hedge | - Wet Area |
| - 100 Year Flood Zone | - Retaining Wall | - Sound, Lake, Pond, or River |
| - 500 Year Flood Zone | - Stone Wall | - Pool |
| - Floodway in Zone AE | - Trails | - Golf Green |
| - Basins | - Abandoned Railroad Tracks | - Golf Bunker |
| - Spot Elevation | - Railroad Tracks | - Tennis Court |
| - Water Spot Elevation | - Paved Road Centerline | - Golf Tee |
| - bulkhead_polylines | - Unpaved Road Centerline | - Wharf, Dock, or Pier |
| - landmark_polylines | - Stream | - Park |
| - original_paved_polylines | - Coast Line | - Athletic Field |
| - Index | - Easement | - Golf Course |
| - Index Depression | - Utility Right of Way | - Index_polygon |
| - Index Obscured | - Private Right of Way | - HYDRIC SOILS |
| - Index Depression Obscured | - Proposed Right of Way | - NON-HYDRIC SOILS |
| - Intermediate | - Public Right of Way | - WATER |
| - Intermediate Depression | - Parcel | - A |
| - Intermediate Obscured | - Fuel Tank | - AA |
| - Intermediate Depression (Obs) | - Water Tank | - AAA |
| - Tree | - Quarry or Pit | - B |
| - Pipe | - Building | - BCD |
| - Outfall | - Building Construction | - BFD |
| - Catchbasin | - Cement Pad | - CPD |
| - Manhole | - Deck | - DDD4 |
| - Electrical Box | - Foundation | - GDD |
| - Hydrant | - Greenhouse | - GDD/S |
| - Light Pole | - Mobile Home | - HDD |
| - Utility Pole | - Ruins | - HSD |
| - Sign | - Slo | - MHP |
| - Unknown | - Skunkstack | - OSRD |
| - Billboard | - Substation | - PRD |
| - Pipeline Above Ground | - Bridge | - RBD |
| - Tower | - Paved Road | - RORD |
| - topline_polyline | - Runway | - RPDD |
| - Unknown Lines | - Unpaved Road | |

1 inch = 35 feet

Westport and its mapping contractors assume no legal responsibility for the information contained herein.

Exhibit C

Copyright © 2016 Foresite LLC all rights reserved. The details, templates, drawing formats or any portion of this document generated by Foresite LLC may not be duplicated, traced or used otherwise for any profit-driven enterprise.

ANTENNA UPGRADES
BY



T-MOBILE NORTHEAST LLC

SITE NUMBER: CT11878A
 SITE NAME: CT878/WESTPORT_RT
 SITE ADDRESS: 1555 POST ROAD EAST
 WESTPORT, CT 06880
 (704Bu CONFIGURATION REV 02/13/2017)

APPROVALS:

FSA CM	DATE
RF ENGINEER	DATE
FOPS	DATE
T-MOBILE ENGINEERING AND DEVELOPMENT	DATE
	DATE
	DATE

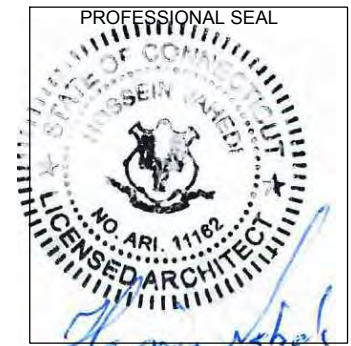
APPLICANT:
T-Mobile
T-MOBILE NORTHEAST LLC

35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002
 860-692-7100

PROJECT MANGER
NSS NORTHEAST
 SITE SOLUTIONS
Turnkey Wireless Development
 420 MAIN STREET, BLDG 4
 STURBRIDGE, MA 01566
 203-275-6669

CONSULTANT:

FORESITE LLC
 Architects . Engineers . Surveyors
 462 WALNUT STREET
 NEWTON, MA 02460
 617-212-3123



THIS DOCUMENT IS THE DESIGN PROPERTY AND COPYRIGHT OF FORESITE, LLC. AND FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. DUPLICATION OR USE WITHOUT THE EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED. DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY. ALL OTHER PRINTED SIZES ARE DEEMED "NOT TO SCALE".

REV	DESCRIPTION	DATE
A	PRELIMINARY	03/17/17
0	ISSUED FOR CONSTRUCTION	08/31/17
1	REVISED ANTENNAS	09/07/17

SITE NUMBER: CT11878A
 SITE NAME: CT878/WESTPORT_RT
 SITE ADDRESS: 1555 POST ROAD EAST
 WESTPORT, CT 06880

SHEET TITLE:
 T-1: TITLE SHEET

PROJECT INFORMATION:

ADDRESS: 1555 Post Road East
 WESTPORT, CT 06880

STRUCTURE TYPE: FLAG POLE
 ZONING DISTRICT: GBD
 COORDINATES: N 41° 8' 19.6", W 73° 18' 36.5"
 TOP OF ANTENNA
 HIGHT: 48' (AGL)

PROJECT TEAM:

APPLICANT: T-MOBILE NORTHEAST, LLC.
 35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002
 860-692-7100

LANDLOARD: 1555 POST ROAD EAST LLC
 1555 POST ROAD EAST
 WESTPORT, CT 06880

PROJECT MANGER: NORTHEAST SITE SOLUTIONS
 420 MAIN STREET, BLDG 4
 STURBRIDGE, MA 01566
 SHELDON FREINCLE
 SHELDON@NORTHEASTSITE
 SOLUTIONS.COM
 201-776-8521

CONSULTANTS: FORESITE LLC
 462 WALNUT ST
 NEWTON, MA 02460
 SAEED MOSSAVAT
 SMOSSAVAT@FORESITELLC.COM
 617-212-3123

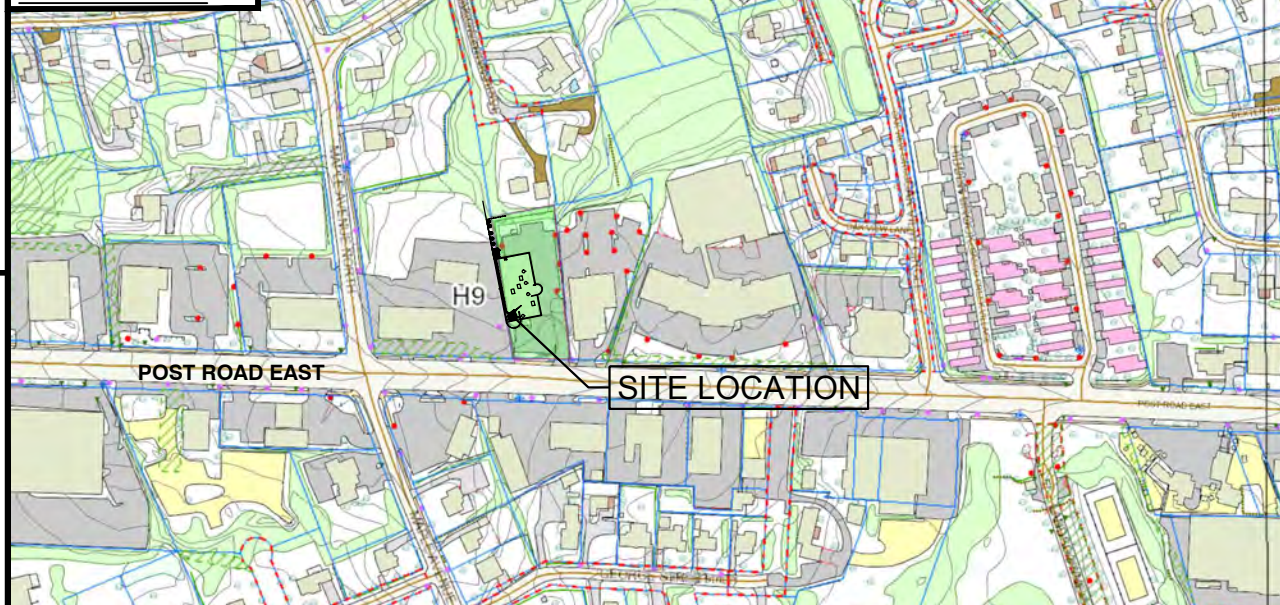
SHEET INDEX:

T-1: TITLE SHEET
 N-1: NOTES AND DISCLAIMERS
 A-1: PLANS AND ELEVATIONS
 A-2: ANTENNAS, EQUIPMENT AND INSTALLATION
 S-1: PLATFORM MODIFICATIONS DETAILS
 E-1: GROUNDING DETAILS
 END: CONCEALMENT DESIGN (BY OTHERS)

SITE IMAGE:



SITE VICINITY:



PROJECT SCOPE:

REPLACE EXISTING 18" DIAMETER 30' HIGH ANTENNA CONCEALED CANISTER WITH A NEW 30" DIAMETER, 30' HIGH CANISTER.
 REMOVE (6) EXISTING ANTENNAS.
 ADD (6) NEW ANTENNAS.
 ADD (3) TMAs ON THE GROUND.
 ADD (3) SMART BIAS TEE.
 ADD (6) 1-5/8" COAX CABLES TO (12) EXISTING FOR A TOTAL OF (18).

PROJECT NOTES:

- THIS IS AN UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION: HANDICAPPED ACCESS IS NOT REQUIRED. POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED. NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.
- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACES THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
- DEVELOPMENT AND USE OF THE SITE WILL CONFORM TO ALL APPLICABLE CODES, ORDINANCES AND SPECIFICATIONS.

APPLICABLE STATE ADOPTION CODES:

2016 CONNECTICUT STATE BUILDING CODE (CSBC).
 ANSI/TIA-222-G-2005 STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.
 2014 NATIONAL ELECTRICAL CODE (NFPA 70) FOR POWER AND GROUNDING REQUIREMENTS.

Copyright © 2016 Foresite LLC all rights reserved. The details, templates, drawing formats or any portion of this document generated by Foresite LLC may not be duplicated, traced or used otherwise for any profit-driven enterprise.

NOTES AND DISCLAIMERS:

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAS MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE CLIENT'S REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S / VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
7. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS DURING CONSTRUCTION.
8. THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT SECTIONS OF THE BASIC STATE BUILDING CODE, LATEST EDITION, AND ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJEC
9. THE CONTRACTOR SHALL NOTIFY THE CLIENT'S REPRESENTATIVE IN WRITING WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE CLIENT'S REPRESENTATIVE.
10. THE WORK SHALL CONFORM TO THE CODES AND STANDARDS OF THE FOLLOWING AGENCIES AS FURTHER CITED HEREIN:
 - A. ASTM: AMERICAN SOCIETY FOR TESTING AND MATERIALS, AS PUBLISHED IN "COMPILATION OF ASTM STANDARDS BUILDING CODES" OR LATEST EDITION.
 - B. AWS: AMERICAN WELDING SOCIETY INC. AS PUBLISHED IN "STANDARD D1.1-08, STRUCTURAL WELDING CODE" OR LATEST EDITION.
 - C. AISC: AMERICAN INSTITUTE FOR STEEL CONSTRUCTION AS PUBLISHED IN "CODE FOR STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES"; "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" (LATEST EDITION).
11. BOLTING:
 - A. BOLTS SHALL BE CONFORMING TO ASTM A325 HIGH STRENGTH, HOT DIP GALVANIZED WITH ASTM A153 HEAVY HEX TYPE NUTS.
 - B. BOLTS SHALL BE 3/4"Ø MINIMUM (UNLESS OTHERWISE NOTED)
 - C. ALL CONNECTIONS SHALL BE 2 BOLTS MINIMUM.
12. FABRICATION:
 - A. FABRICATION OF STEEL SHALL CONFORM TO THE AISC AND AWS STANDARDS AND CODES (LATEST EDITION).
 - B. ALL STRUCTURAL STEEL SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 (LATEST EDITION), UNLESS OTHERWISE NOTED.
13. ERECTION OF STEEL:
 - A. PROVIDE ALL ERECTION EQUIPMENT, BRACING, PLANKING, FIELD BOLTS, NUTS, WASHERS, DRIFT PINS, AND SIMILAR MATERIALS WHICH DO NOT FORM A PART OF THE COMPLETED CONSTRUCTION BUT ARE NECESSARY FOR ITS PROPER ERECTION.
 - B. ERECT AND ANCHOR ALL STRUCTURAL STEEL IN ACCORDANCE WITH AISC REFERENCE STANDARDS. ALL WORK SHALL BE ACCURATELY SET TO ESTABLISHED LINES AND ELEVATIONS AND RIGIDLY FASTENED IN PLACE WITH SUITABLE ATTACHMENTS TO THE CONSTRUCTION OF THE BUILDING.
 - C. TEMPORARY BRACING, GUYING AND SUPPORT SHALL BE PROVIDED TO KEEP THE STRUCTURE SAFE AND ALIGNED AT ALL TIMES DURING CONSTRUCTION, AND TO PREVENT DANGER TO PERSONS AND PROPERTY. CHECK ALL TEMPORARY LOADS AND STAY WITHIN SAFE CAPACITY OF ALL BUILDING COMPONENTS.

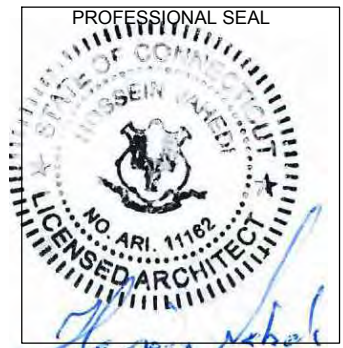
14. ANTENNA INSTALLATION:
 - A. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND CLIENT'S REPRESENTATIVE SPECIFICATIONS.
 - B. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
 - C. INSTALL COAXIAL / FIBER CABLES AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
15. ANTENNA AND COAXIAL / FIBER CABLE GROUNDING:
 - A. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH ANDREWS CONNECTOR/SPLICE WEATHERPROOFING KIT TYPE #221213 OR EQUAL.
 - B. ALL COAXIAL / FIBER CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL / FIBER CABLE (NOT WITHIN BENDS).
16. RELATED WORK, FURNISH THE FOLLOWING WORK AS SPECIFIED UNDER CONSTRUCTION DOCUMENTS, BUT COORDINATE WITH OTHER TRADES PRIOR TO BID:
 - A. FLASHING OF OPENING INTO OUTSIDE WALLS
 - B. SEALING AND CAULKING ALL OPENINGS
 - C. PAINTING
 - D. CUTTING AND PATCHING
17. REQUIREMENTS OF REGULATORY AGENCIES:
 - A. FURNISH U.L LISTED EQUIPMENT WHERE SUCH LABEL IS AVAILABLE. INSTALL IN CONFORMANCE WITH U.L. STANDARDS WHERE APPLICABLE.
 - B. INSTALL ANTENNA, ANTENNA CABLES, GROUNDING SYSTEM IN ACCORDANCE WITH DRAWINGS AND SPECIFICATION IN EFFECT AT PROJECT LOCATION AND RECOMMENDATIONS OF STATE AND LOCAL BUILDING CODES, AND SPECIAL CODES HAVING JURISDICTION OVER SPECIFIC PORTIONS OF WORK. THIS WORK INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:
 - C. TIA-EIA - 222 (LATEST EDITION). STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.
 - D. FAA - FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR AC 70/7460-IH, OBSTRUCTION MARKING AND LIGHTING.
 - E. FCC - FEDERAL COMMUNICATIONS COMMISSION RULES AND REGULATIONS FORM 715, OBSTRUCTION MARKING AND LIGHTING SPECIFICATION FOR ANTENNA STRUCTURES AND FORM 715A, HIGH INTENSITY OBSTRUCTION LIGHTING SPECIFICATIONS FOR ANTENNA STRUCTURES.
 - F. AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS (LATEST EDITION).
 - G. NEC - NATIONAL ELECTRICAL CODE - ON TOWER LIGHTING KITS.
 - H. UL - UNDERWRITER'S LABORATORIES APPROVED ELECTRICAL PRODUCTS.
 - I. IN ALL CASES, PART 77 OF THE FAA RULES AND PARTS 17 AND 22 OF THE FCC RULES ARE APPLICABLE AND IN THE EVENT OF CONFLICT, SUPERSEDE ANY OTHER STANDARDS OR SPECIFICATIONS.
 - J. 2009 LIFE SAFETY CODE NFPA - 101.

APPLICANT:
T-Mobile
T-MOBILE NORTHEAST LLC
 35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002
 860-692-7100

PROJECT MANGER

NSS NORTHEAST
 SITE SOLUTIONS
Turnkey Wireless Development
 420 MAIN STREET, BLDG 4
 STURBRIDGE, MA 01566
 203-275-6669

CONSULTANT:
FORESITE LLC
 Architects . Engineers . Surveyors
 462 WALNUT STREET
 NEWTON, MA 02460
 617-212-3123



THIS DOCUMENT IS THE DESIGN PROPERTY AND COPYRIGHT OF FORESITE, LLC. AND FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. DUPLICATION OR USE WITHOUT THE EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED. DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY. ALL OTHER PRINTED SIZES ARE DEEMED "NOT TO SCALE".

REV	DESCRIPTION	DATE
A	PRELIMINARY	03/17/17
0	ISSUED FOR CONSTRUCTION	08/31/17
1	REVISED ANTENNAS	09/07/17

SITE NUMBER: CT11878A
 SITE NAME: CT878/WESTPORT_RT
 SITE ADDRESS: 1555 POST ROAD EAST
 WESTPORT, CT 06880

SHEET TITLE:
 N-1: NOTES AND DISCLAIMERS

Copyright © 2016 Foresite LLC all rights reserved. The details, templates, drawing formats or any portion of this document generated by Foresite LLC may not be duplicated, traced or used otherwise for any profit-driven enterprise.



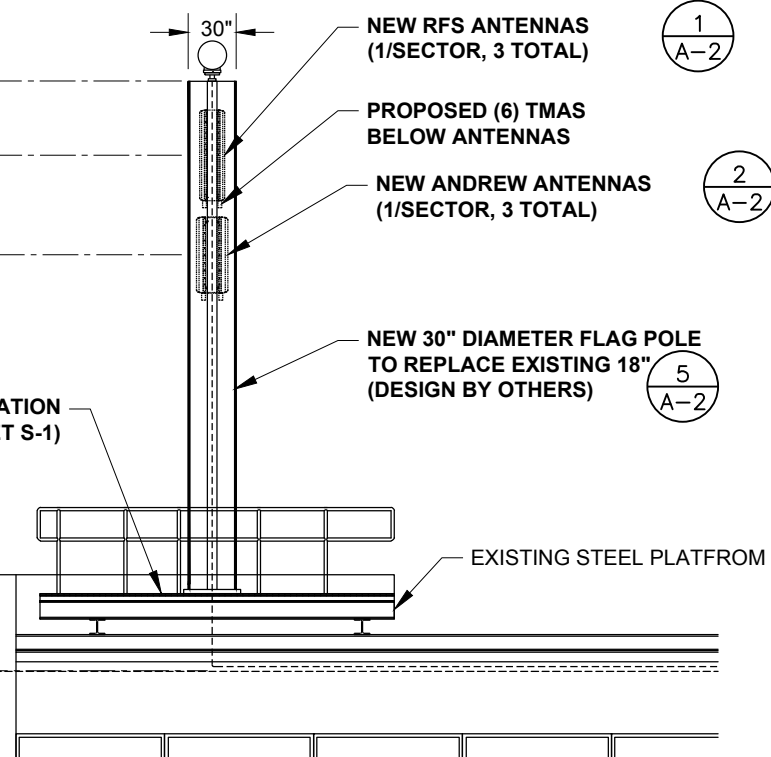
SITE PLAN
SCALE 1"=100'

1
A-1

- TOP OF NEW FLAG POLE
ELEV. = 51'± (AGL)
- CENTER OF PROPOSED ANTENNA
ELEV. = 45'± (AGL)
- CENTER OF PROPOSED ANTENNA
ELEV. = 40'± (AGL)

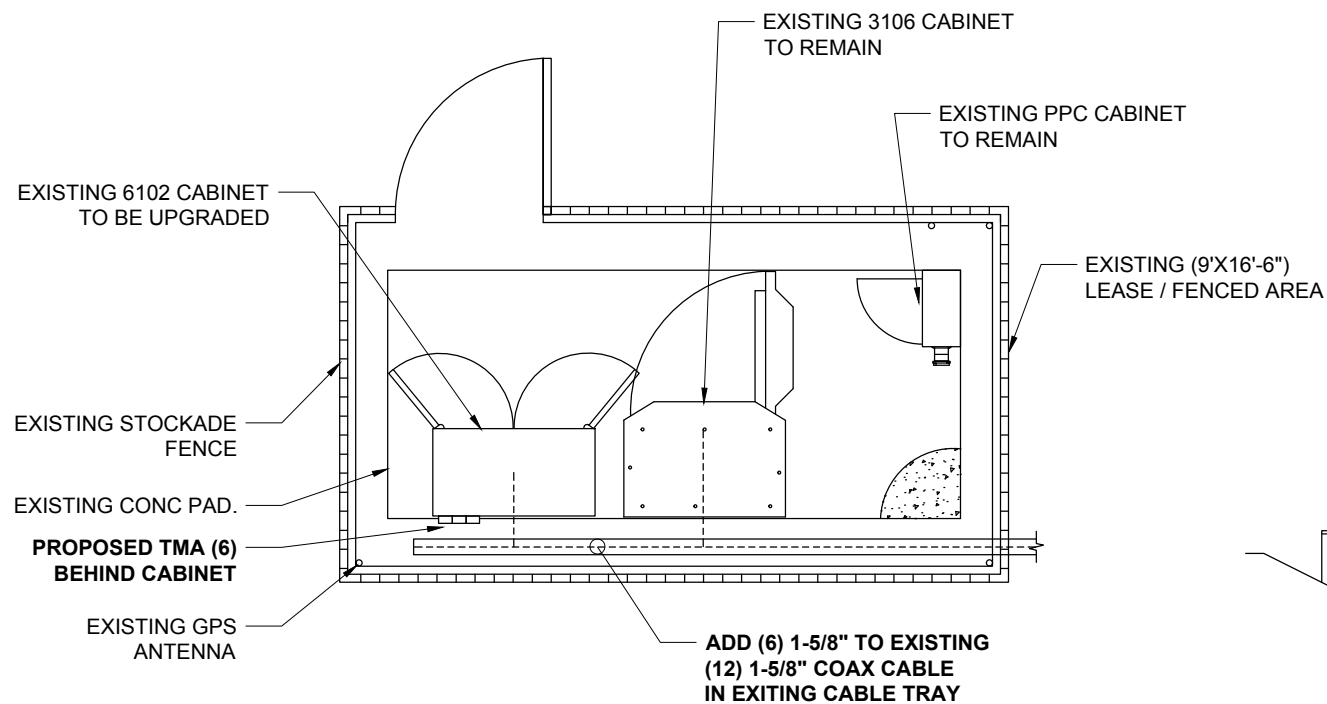
PLATFORM MODIFICATION
(SEE SHEET S-1)

- TOP OF
EXISTING PARAPET
ELEV. = 21'-8"± (AGL)
- TOP OF
ROOF LEVEL
ELEV. = 18'± (AGL)



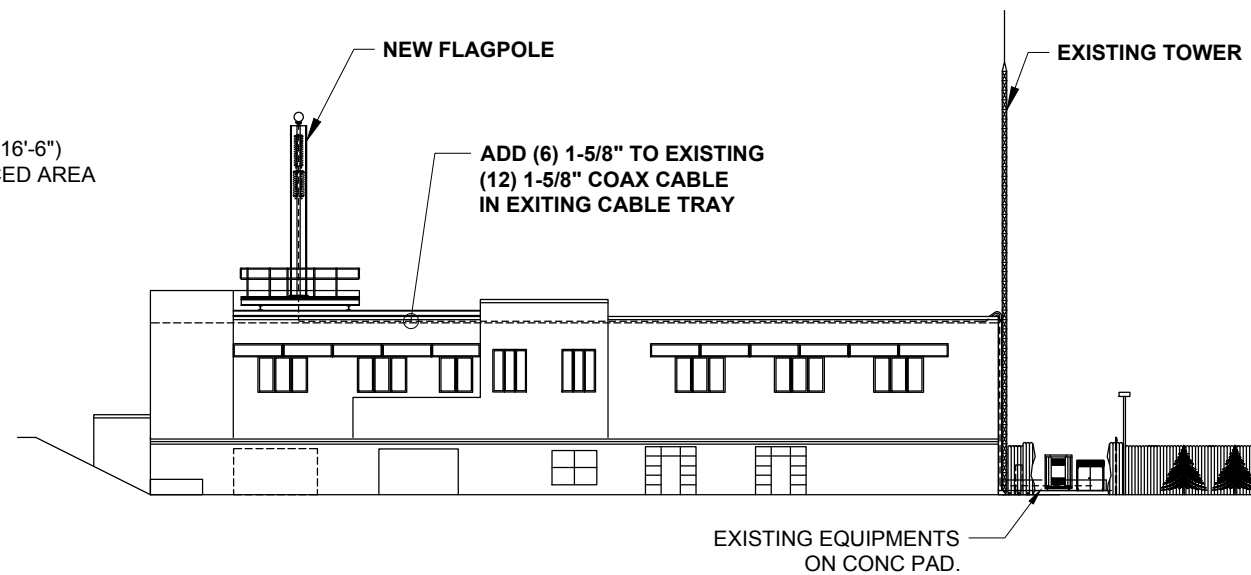
ENLARGED ELEVATION
SCALE 1"=10'

3
A-1



EQUIPMENT LAYOUT
SCALE 1"=5'

2
A-1



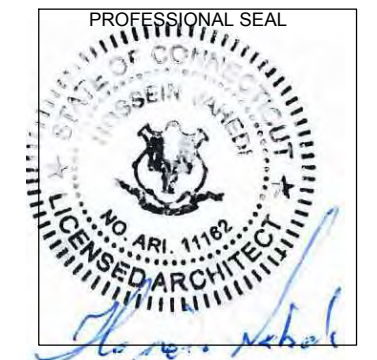
EAST ELEVATION
SCALE 1"=30'

4
A-1

APPLICANT:
T-Mobile
T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
860-692-7100

PROJECT MANGER
NSS NORTHEAST
SITE SOLUTIONS
Turnkey Wireless Development
420 MAIN STREET, BLDG 4
STURBRIDGE, MA 01566
203-275-6669

CONSULTANT:
FORESITE LLC
Architects . Engineers . Surveyors
462 WALNUT STREET
NEWTON, MA 02460
617-212-3123



THIS DOCUMENT IS THE DESIGN PROPERTY AND COPYRIGHT OF FORESITE, LLC. AND FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. DUPLICATION OR USE WITHOUT THE EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED. DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY. ALL OTHER PRINTED SIZES ARE DEEMED "NOT TO SCALE".

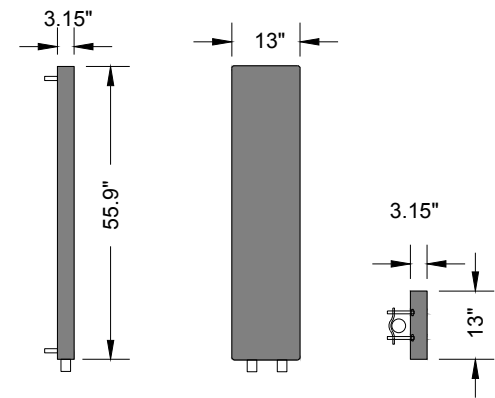
REV	DESCRIPTION	DATE
A	PRELIMINARY	03/17/17
0	ISSUED FOR CONSTRUCTION	08/31/17
1	REVISED ANTENNAS	09/07/17

SITE NUMBER: CT11878A
SITE NAME: CT878/WESTPORT_RT
SITE ADDRESS: 1555 POST ROAD EAST
WESTPORT, CT 06880

SHEET TITLE:
A-1: PLANS AND ELEVATIONS

Copyright © 2016 Foresite LLC all rights reserved. The details, templates, drawing formats or any portion of this document generated by Foresite LLC may not be duplicated, traced or used otherwise for any profit-driven enterprise.

(3) 1900-2100 MHZ

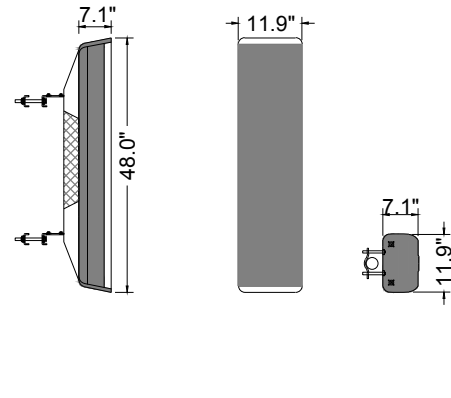


MANUFACTURER: RFS
 MODEL: APX16DWV-16DWV-S-E-A20
 FOOTPRINT: 55.9"HX13.0"WX3.15"D
 WEIGHT: 40.7 LBS

RFS ANTENNA
 N.T.S



(3) 700 MHZ

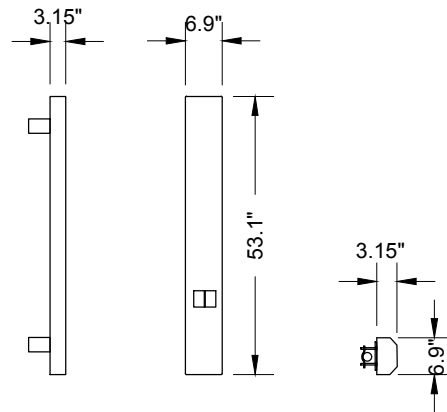


MANUFACTURER: COMMSCOPE
 MODEL: LNX-6512DS-A1M
 FOOTPRINT: 48.5"HX11.9"WX7.1"D
 WEIGHT: 28.7 LBS

ANDREW ANTENNA
 N.T.S



**(6) 1900-2100 MHZ
 ANTENNAS TO BE REMOVED**

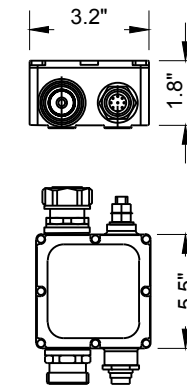


MANUFACTURER: RFS
 MODEL: APXV18-206516-S-A20
 FOOTPRINT: 53.1"HX6.9"WX3.15"D
 WEIGHT: 31.9 LBS

RFS ANTENNA
 N.T.S



(3) SMART BIAS TEES

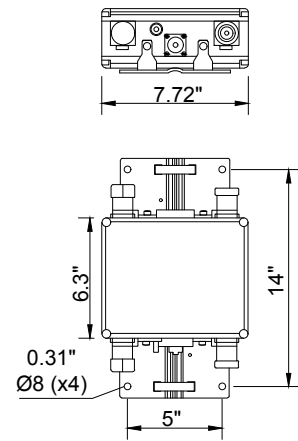


FOOTPRINT: 5.5"HX3.2"WX1.8"D

ANDREW SMART TEES
 N.T.S



(6) TMA

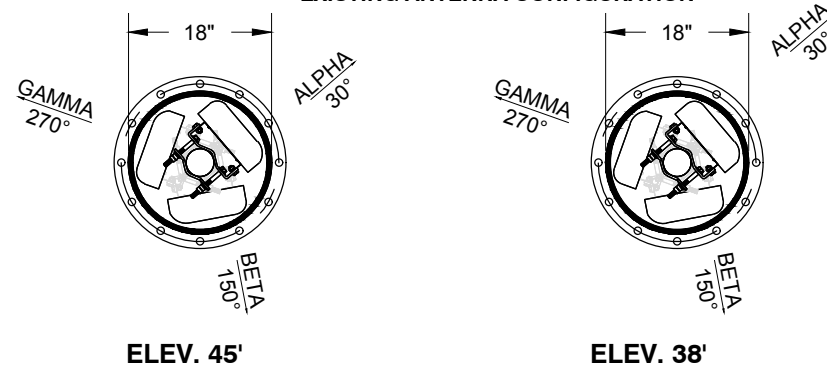


MANUFACTURER: RFS
 MODEL: GENERIC STYLE 1A AND 1B-TWIN PCS
 FOOTPRINT: 14"HX7.7"WX3.15"D
 WEIGHT: 20.7 LBS

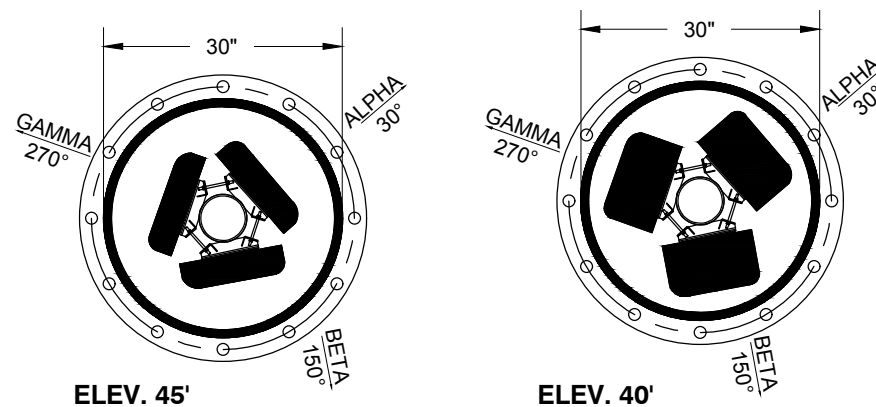
TMA
 N.T.S



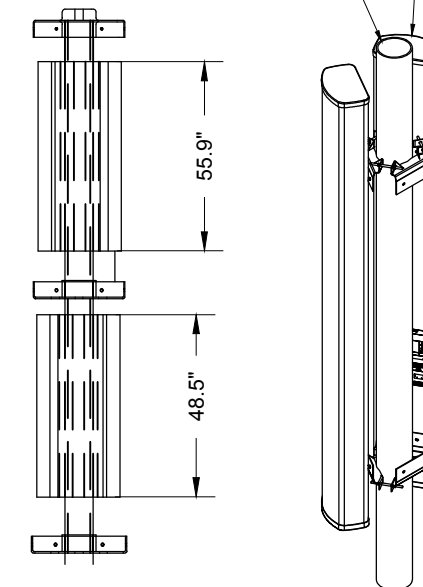
EXISTING ANTENNA CONFIGURATION



PROPOSED ANTENNA CONFIGURATION



**PROPOSED ANTENNA
 CENTRAL SPINE**



ANTENNA MOUNTING DETAILS
 N.T.S



APPLICANT:
T-Mobile
T-MOBILE NORTHEAST LLC
 35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002
 860-692-7100

PROJECT MANGER
NSS NORTHEAST
 SITE SOLUTIONS
Turnkey Wireless Development
 420 MAIN STREET, BLDG 4
 STURBRIDGE, MA 01566
 203-275-6669

CONSULTANT:
FORESITE LLC
 Architects . Engineers . Surveyors
 462 WALNUT STREET
 NEWTON, MA 02460
 617-212-3123



THIS DOCUMENT IS THE DESIGN PROPERTY AND COPYRIGHT OF FORESITE, LLC. AND FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. DUPLICATION OR USE WITHOUT THE EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED. DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY. ALL OTHER PRINTED SIZES ARE DEEMED "NOT TO SCALE".

REV	DESCRIPTION	DATE
A	PRELIMINARY	03/17/17
0	ISSUED FOR CONSTRUCTION	08/31/17
1	REVISED ANTENNAS	09/07/17

SITE NUMBER: CT11878A
 SITE NAME: CT878/WESTPORT_RT
 SITE ADDRESS: 1555 POST ROAD EAST
 WESTPORT, CT 06880

SHEET TITLE:
 A-2: ANTENNAS AND DETAILS

Copyright © 2016 Foresite LLC all rights reserved. The details, templates, drawing formats or any portion of this document generated by Foresite LLC may not be duplicated, traced or used otherwise for any profit-driven enterprise.

1.0 DESIGN INFORMATION AND GENERAL REQUIREMENTS

1.0 GENERAL
 ALL DIMENSIONS ARE APPROXIMATE, CONTRACTOR SHOULD VERIFY ALL DIMENSIONS BEFORE FABRICATION OF STEEL AND COMMENCEMENT OF WORK.

1.1 CODES
 a. 2016 CONNECTICUT STATE BUILDING CODE
 b. MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE/SEI 7-10, AMERICAN SOCIETY OF CIVIL ENGINEERS
 c. STEEL CONSTRUCTION MANUAL, 14TH EDITION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION

1.2 LOADS AND DESIGN CRITERIA
 a. WIND LOADING: V: 120 MPH (ULTIMATE) / 93 MPH (NOMINAL), EXPOSURE B CATEGORY II
 b. EQUIPMENT AS LISTED IN STRUCTURAL ANALYSIS REPORT PREPARED BY DESTEK ENGINEERING, LLC, DATED 08/04/2017.

1.3 NOTES
 a. PRIOR TO PURCHASE OR FABRICATION OF MATERIAL, THE CONTRACTOR SHALL PERFORM AN INSPECTION VERIFYING THE BUILDING CONSTRUCTION, THE PERIMETER WALL CONDITION AND THE AWNING DIMENSIONS AND STRUCTURE. SHOULD THE CONTRACTOR DISCOVER ANY DAMAGES OR CONDITIONS DIFFERENT FROM THOSE SHOWN HEREIN, DESTEK SHALL BE NOTIFIED IMMEDIATELY.

2.0 STRUCTURAL STEEL

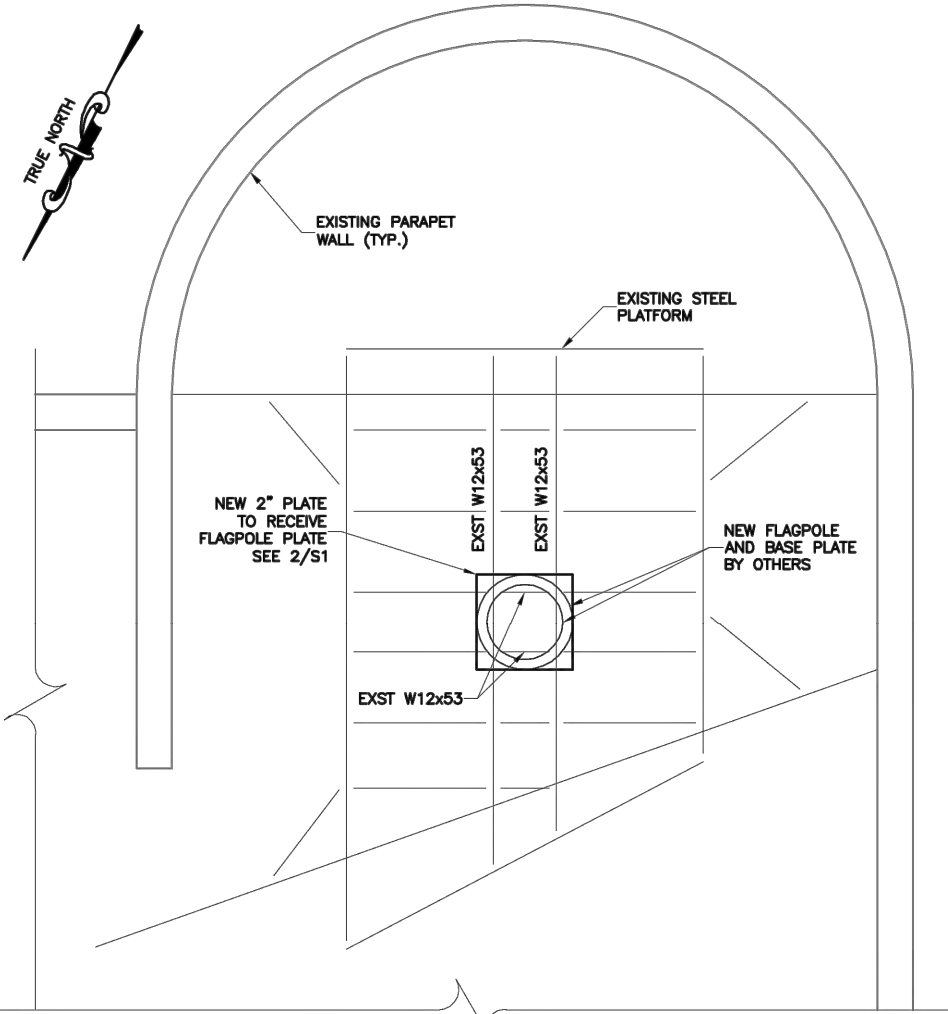
2.1 MATERIALS
 a. STRUCTURAL STEEL ASTM A992
 MISC ANGLE & PLATE ASTM A36
 PIPE ASTM A53 GR. B
 RODS ASTM A572-50 (MINIMUM)
 HSS ASTM A500, GRADE B,
 Fy=46 KSI

b. BOLTS ASTM A325 U.N.O.
 c. WELDING ELECTRODES AWS A5.1 (E70XX)
 d. STEEL CONSTRUCTION SHALL CONFORM TO "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ANSI/AISC 360-10"
 e. WELDING SHALL CONFORM TO AWS D1.1/D1.3/D1.7 AS APPLICABLE.
 f. THE FABRICATOR SHALL FURNISH CHECKED SHOP AND ERECTION DRAWINGS TO THE ENGINEER, AND OBTAIN APPROVAL PRIOR TO FABRICATING ANY STRUCTURAL STEEL. SHOP DRAWINGS SHALL CONFORM TO "DETAILING FOR STEEL CONSTRUCTION, 2ND EDITION"
 g. POOR MATCHING OF HOLES SHALL BE CORRECTED BY DRILLING TO THE NEXT LARGER SIZE. WELDING FOR REDRILLING WILL NOT BE PERMITTED.

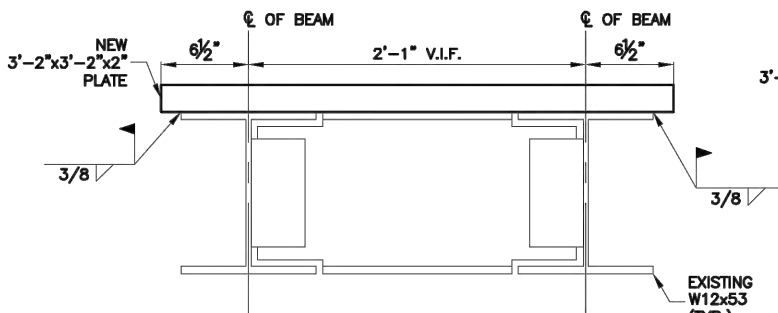
2.2 CONNECTIONS
 a. SHOP CONNECTIONS MAY BE BOLTED OR WELDED
 b. CONNECTIONS WHERE THE BEAM SHEAR (V) IS NOT NOTED ON THE DRAWINGS, SIMPLE SHEAR CONNECTIONS SHALL BE DESIGNED TO DEVELOP 1/2 OF THE MAXIMUM TOTAL UNIFORM LOAD CAPACITY OF THE BEAM.
 c. FIELD CONNECTIONS SHALL BE MADE WITH A325 BOLTS AND HARDENED WASHERS EXCEPT AS INDICATED ON THE DESIGN DRAWINGS
 d. CONNECTIONS NOT SHOWN ON DRAWINGS SHALL BE DESIGNED BY THE STEEL FABRICATOR. CONNECTIONS SHALL BE DESIGNED IN ACCORDANCE WITH AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS" AND "AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES"
 e. DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT PRIOR WRITTEN APPROVAL OF ENGINEER.
 f. BOLT HOLES SHALL BE CUT, DRILLED OR PUNCHED AT RIGHT ANGLES TO THE SURFACE OF THE METAL AND SHALL NOT BE MADE OR ENLARGED BY BURNING. HOLES SHALL BE CLEAN CUT WITHOUT TORN OR RAGGED EDGES. OUTSIDE BURRS RESULTING FROM DRILLING OR REAMING OPERATION SHALL BE REMOVED WITH A TOOL MAKING A 1/16 INCH BEVEL. BOLT HOLES SHALL BE 1/16 INCH OVERSIZE.

2.3 FINISHES
 a. STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION PER ASTM A123
 b. BOLTS AND NUTS SHALL BE HOT DIP GALVANIZED PER ASTM A153.
 c. ALL SURFACES DAMAGED BY FIELD WELDING OR CUTTING SHALL BE PAINTED WITH COLD GALVANIZING COMPOUND TWICE. THE PAINT SHOULD BE AT LEAST 93% PURE ZINC. RUST-OLEUM PROFESSIONAL, (MODEL# 7585838) OR SIMILAR.

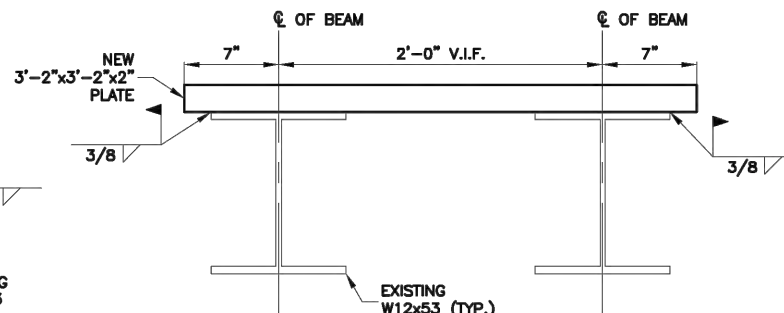
2.4 WELDING
 a. CONTRACTOR TO TAKE ALL NECESSARY PRECAUTIONS FOR FIRE PREVENTION DURING WELDING, SUCH AS: INSTALLING 3000 (NFPA 701) FIRE BLANKET AROUND COAX. MORE SPLATTER AND SPARKS SHOULD BE ANTICIPATED WHILE WELDING ON GALVANIZED SURFACE. COAX IS FLAMMABLE AND SHALL CATCH FIRE IF NOT PROTECTED. WATER SHALL BE ON SITE OF ADEQUATE AMOUNT AND AVAILABLE AT SHORT NOTICE AT ALL TIMES DURING WELDING ACTIVITY. CONTRACTOR SHOULD BE ABLE TO TRANSPORT THE WATER TO THE HEIGHT WELDING BEING PERFORMED.
 b. WELDING ON GALVANIZED SURFACE SHOULD BE DONE WITH EXTREME CAUTION. IF THE WELD MATERIAL IS CONTAMINATED WITH ZINC, IT DOES NOT PROVIDE A STRUCTURAL WELD. GROUND GALVANIZING BEFORE WELDING.
 c. WELDING CERTIFICATE MUST BE PROVIDED PRIOR TO WELDING. ALL WELDING SHALL BE PERFORMED BY AWS QUALIFIED WELDER WHO HAS EXPERIENCE WITH GALVANIZED SURFACES.



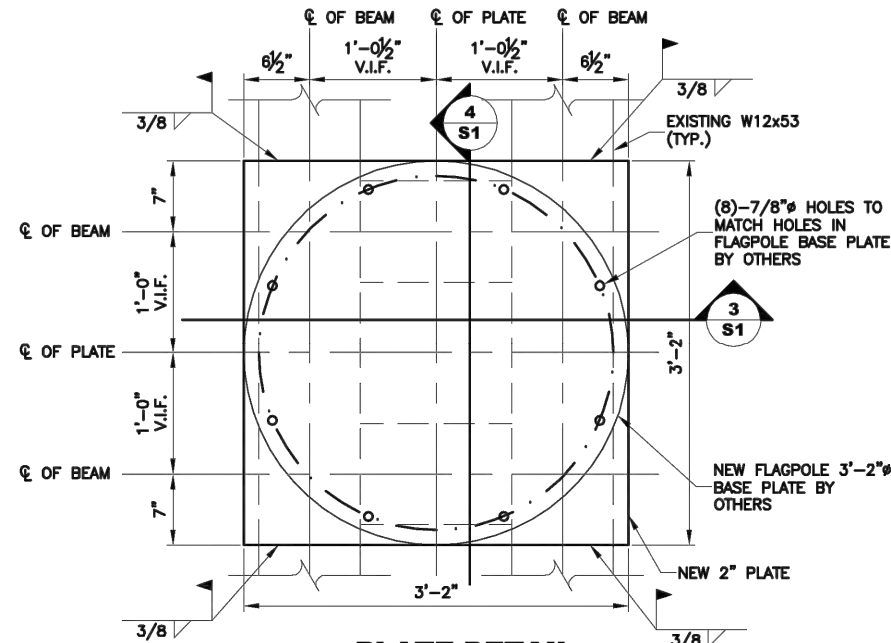
1 PLATFORM PLAN
 S1 3/16" = 1'-0"



3 SECTION
 S1 1" = 1'-0"



3 SECTION
 S1 1" = 1'-0"



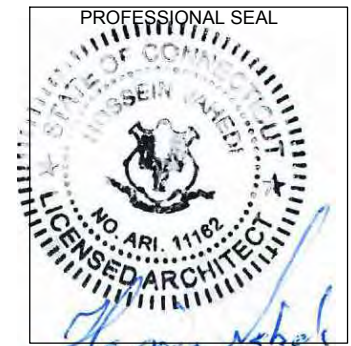
2 PLATE DETAIL
 S1 3/4" = 1'-0"
 NOTE:
 - ADDITIONAL PLATFORM FRAMING NOT SHOWN FOR CLARITY

APPLICANT:
T-Mobile
T-MOBILE NORTHEAST LLC

35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002
 860-692-7100

PROJECT MANGER
NSS NORTHEAST
 SITE SOLUTIONS
 Turnkey Wireless Development
 420 MAIN STREET, BLDG 4
 STURBRIDGE, MA 01566
 203-275-6669

CONSULTANT:
FORESITE LLC
 Architects . Engineers . Surveyors
 462 WALNUT STREET
 NEWTON, MA 02460
 617-212-3123



THIS DOCUMENT IS THE DESIGN PROPERTY AND COPYRIGHT OF FORESITE, LLC. AND FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. DUPLICATION OR USE WITHOUT THE EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED. DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY. ALL OTHER PRINTED SIZES ARE DEEMED "NOT TO SCALE".

REV	DESCRIPTION	DATE
A	PRELIMINARY	03/17/17
0	ISSUED FOR CONSTRUCTION	08/31/17
1	REVISED ANTENNAS	09/07/17

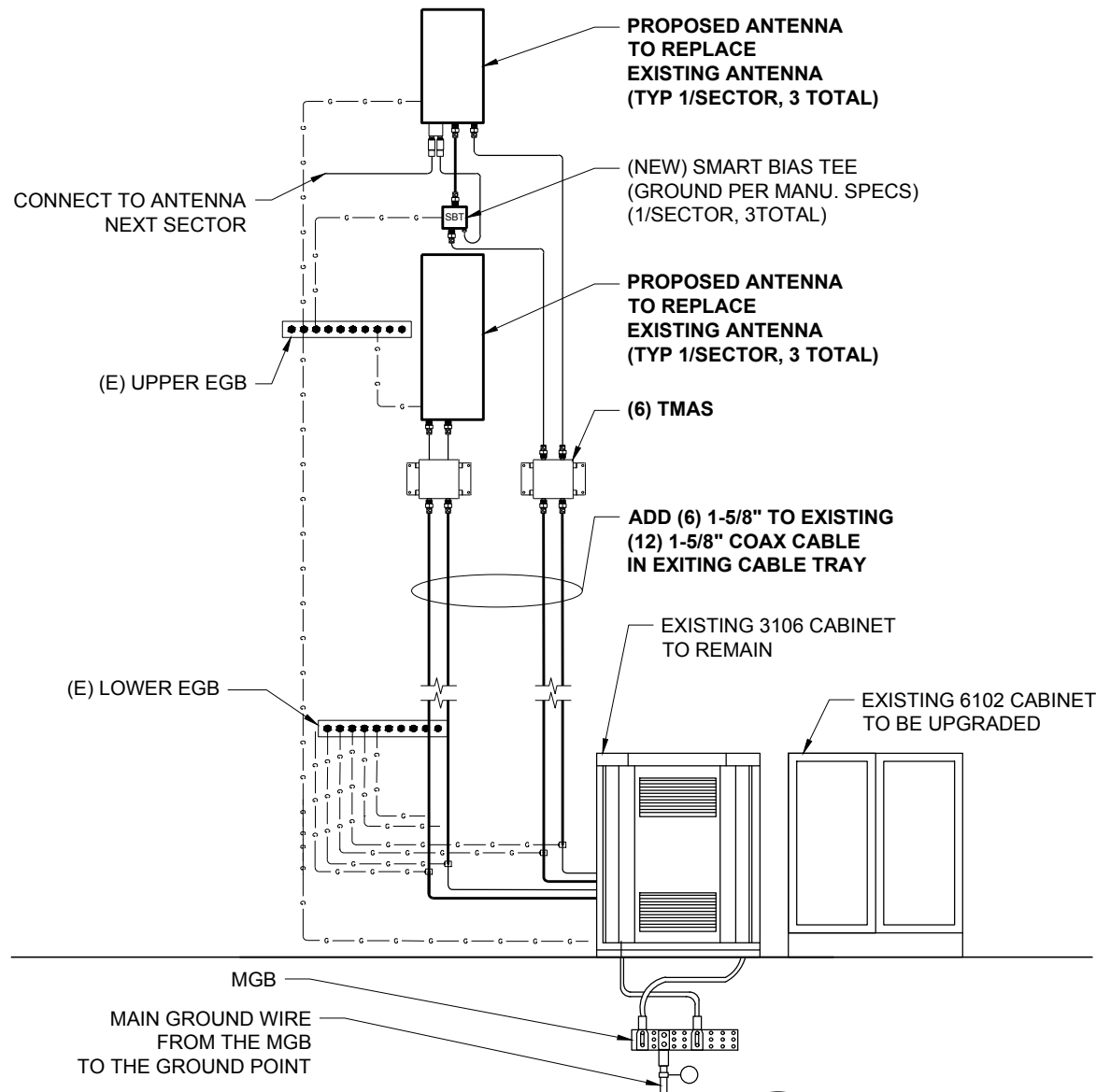
SITE NUMBER: CT11878A
 SITE NAME: CT878/WESTPORT_RT
 SITE ADDRESS: 1555 POST ROAD EAST
 WESTPORT, CT 06880

SHEET TITLE:
 S-1: PLATFORM MODIFICATIONS

Copyright © 2016 Foresite LLC all rights reserved. The details, templates, drawing formats or any portion of this document generated by Foresite LLC may not be duplicated, traced or used otherwise for any profit-driven enterprise.

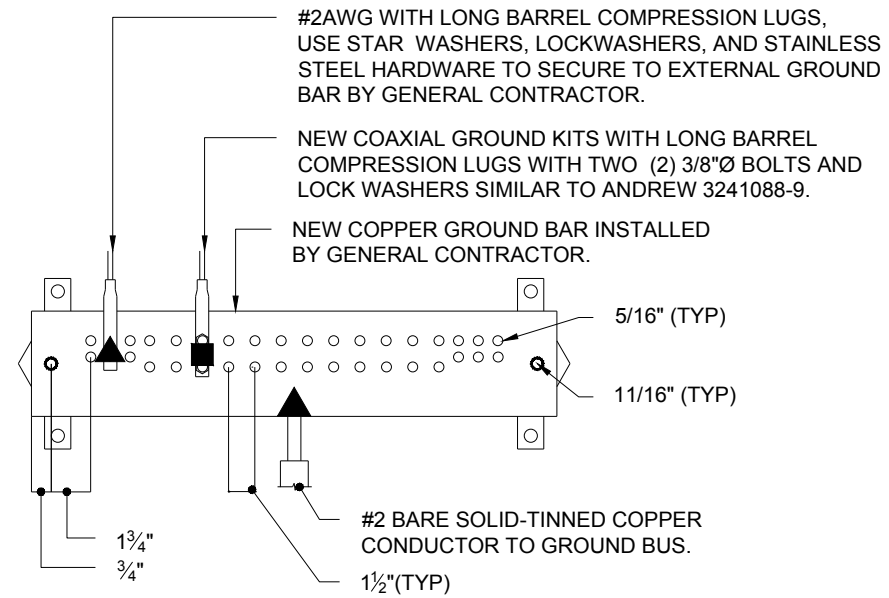
NOTES TO CONTRACTOR

1. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES.
2. ALL GROUNDING WORK SHALL BE IN ACCORDANCE WITH T-MOBILE STANDARD PRACTICE.
3. ALL BUS CONNECTORS SHALL BE TWO-HOLE, LONG-BARREL TYPE COMPRESSION LUGS, T&B OR EQUAL, UNLESS OTHERWISE NOTED ON DRAWINGS. ALL LUGS SHALL BE ATTACHED TO BUSSES USING BOLTS, NUTS, AND LOCK WASHERS. NO WASHERS ARE ALLOWED BETWEEN THE ITEMS BEING GROUNDED.
4. ALL CONNECTORS SHALL BE CRIMPED USING HYDRAULIC CRIMPING TOOLS, T&B #TBM 8 OR EQUIVALENT.
5. ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FILED TO ENSURE PROPER CONTACT. NO WASHERS ARE ALLOWED BETWEEN THE ITEMS BEING GROUNDED. ALL CONNECTIONS ARE TO HAVE A NON-OXIDIZING AGENT APPLIED PRIOR TO INSTALLATION.
6. ALL COPPER BUSSES SHALL BE CLEANED, POLISHED, AND A NON-OXIDIZING AGENT APPLIED. NO FINGERPRINTS OR DISCOLORED COPPER WILL BE PERMITTED.
7. ALL BENDS SHALL BE AS SHALLOW AS POSSIBLE, WITH NO TURN SHORTER THAN AN 8-INCH NOMINAL
8. GROUNDING CONDUCTORS SHALL BE SOLID TINNED COPPER AND ANNEALED #2. ALL GROUNDING CONDUCTORS SHALL RUN THROUGH PVC SLEEVES WHEREVER CONDUCTORS RUN THROUGH WALLS, FLOORS, OR CEILINGS. IF CONDUCTORS MUST RUN THROUGH EMT, BOTH ENDS OF CONDUIT SHALL BE GROUNDED. SEAL BOTH ENDS OF CONDUIT WITH SILICONE CAULK.
9. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 10 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE PROJECT MANAGER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE
10. ALL ROOF TOP ANTENNA MOUNTS SHALL BE GROUNDED WITH A #2 GROUND WIRE CONNECTED TO THE NEAREST GROUND BUS. ALL CONNECTIONS ARE TO BE CAD-WELDED IF POSSIBLE.
11. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO THE PROJECT MANAGER.
12. GROUNDING CONNECTION TO TRAVEL IN A DOWNWARD DIRECTION.
13. ALL EXPOSED #2 WIRE MUST BE TINNED NOT BTW.



GROUNDING DIAGRAM
SCALE: N.T.S

1
E-1

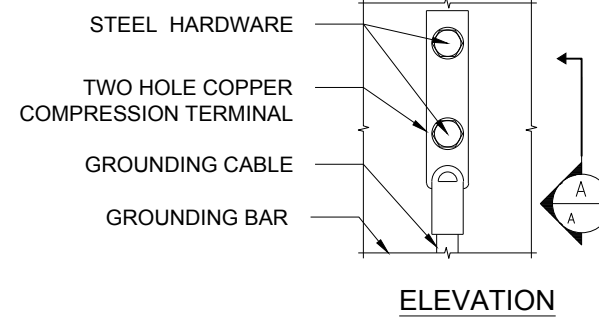


NOTES:

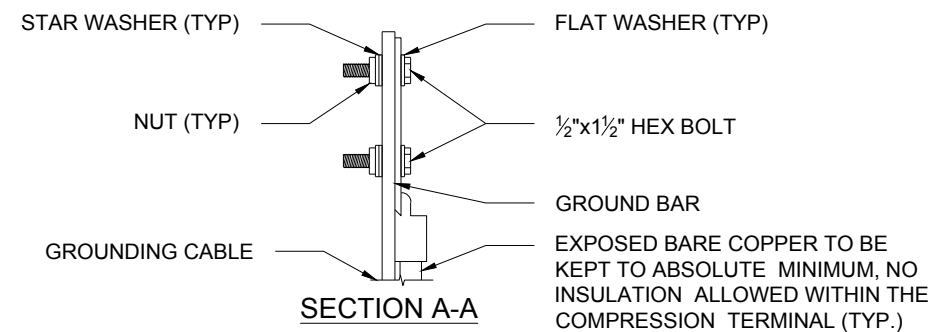
1. ALL HARDWARE STAINLESS STEEL COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING.
2. FOR GROUND BOND TO STEEL ONLY: INSERT A TOOTH WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH KOPR-SHIELD.
3. ALL HOLES ARE COUNTERSUNK 1/16\".

GROUND BAR DETAILS
SCALE: N.T.S

2
E-1



ELEVATION



SECTION A-A

NOTES:

1. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

TYPICAL GROUND BAR CONNECTIONS DETAIL
SCALE: N.T.S

3
E-1

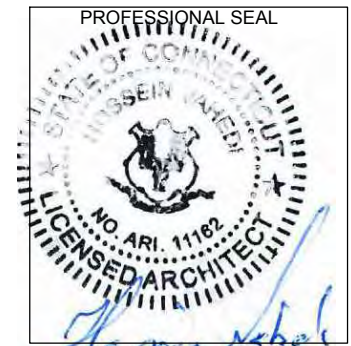
APPLICANT:
T-Mobile
T-MOBILE NORTHEAST LLC

35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
860-692-7100

PROJECT MANGER
NSS NORTHEAST
SITE SOLUTIONS
Turnkey Wireless Development
420 MAIN STREET, BLDG 4
STURBRIDGE, MA 01566
203-275-6669

CONSULTANT:

FORESITE LLC
Architects . Engineers . Surveyors
462 WALNUT STREET
NEWTON, MA 02460
617-212-3123



THIS DOCUMENT IS THE DESIGN PROPERTY AND COPYRIGHT OF FORESITE, LLC. AND FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. DUPLICATION OR USE WITHOUT THE EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED. DRAWING SCALES ARE INTENDED FOR 11"x17" SIZE PRINTED MEDIA ONLY. ALL OTHER PRINTED SIZES ARE DEEMED "NOT TO SCALE".

REV	DESCRIPTION	DATE
A	PRELIMINARY	03/17/17
0	ISSUED FOR CONSTRUCTION	08/31/17
1	REVISED ANTENNAS	09/07/17

SITE NUMBER: CT11878A
SITE NAME: CT878/WESTPORT_RT
SITE ADDRESS: 1555 POST ROAD EAST
WESTPORT, CT 06880

SHEET TITLE:
E-1: GROUNDING DETAILS



Customer: NORTHEAST SITE SOLUTIONS

Site Type: FLAGPOLE W/ FIBERSCREEN™ SHROUD

Site Name: CT878/WESTPORT_RT

Site Number: CT11878A

Site Address: 1555 POST ROAD EAST
WESTPORT, CT 06880

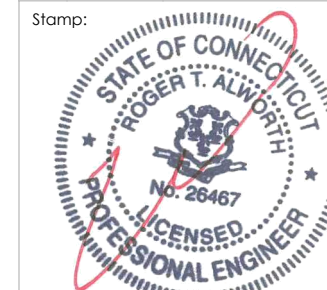


Customer: **NORTHEAST SITE SOLUTIONS**

Carrier / Site #
T-MOBILE CT11878A
Project Name:
CT878/WESTPORT_RT

Material: **FIBERSCREEN™ STEEL**
Finish: **SMOOTH TEXTURE HOT DIPPED GALVANIZED**

REV.	DATE	DESCRIPTION
A	07/27/17	INITIAL RELEASE - MHS



7-27-2017



Sheet Title / Description:
TITLE SHEET
Scale: **1:2** Sheet # **1 OF 8**
Drawn By: **MHS** Drawn Date: **07/27/17**
Tolerance:
Fractions ± 1/4" Angles ± 1°
Last Saved:
Thursday, July 27, 2017 9:17:32 AM

PROPRIETARY AND CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PEABODY ENGINEERING. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PEABODY ENGINEERING IS PROHIBITED.

GENERAL NOTES:

- Structural Design is based on the 2016 Connecticut Building Code, (2012 IBC) & TIA/EIA - 222G.
- The contractor shall verify dimensions, conditions and elevations before starting work. The engineer shall be notified immediately if any discrepancies are found.
- The typical notes and details shall apply in all cases unless specifically detailed elsewhere. Where no detail is shown, the construction shall be shown for other similar work and as required by the building code.
- These calculations are limited to the structural members shown in these calculations only. The connection of the members shown in these calculations to the existing structure shall be by others.
- The contractor shall be responsible for compliance with local construction safety orders. Approval of shop drawings by the architect or structural engineer shall not be construed as accepting this responsibility.
- All structural members shall be adequately shored and braced during erection and until full lateral and vertical support is provided by adjoining members.
- Any modifications to Peabody Engineering's products must be made with the express written consent of an authorized Peabody Engineering representative and in accordance to Peabody Engineering's guidelines. Unauthorized modifications will result in the warranty of our products being void.

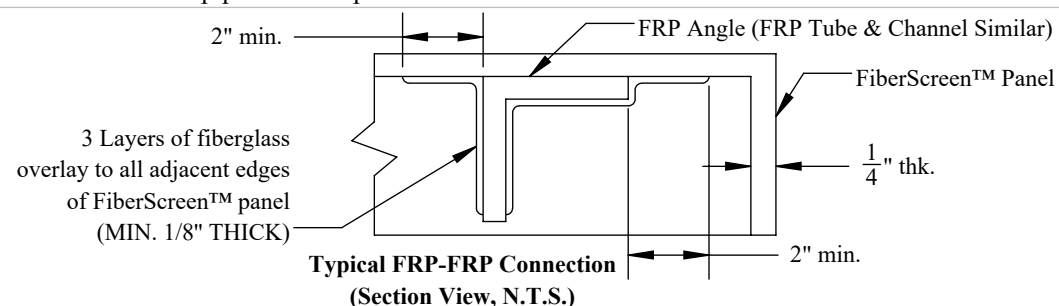
8. ANY PAINT USED ON OUR PRODUCTS MUST BE OF A NON-METALLIC, 100% ACRYLIC, WATER BASED PAINT.

FIBERGLASS REINFORCED PLASTIC (FRP):

- All structural shapes shall be Strongwell series 500 or 525 or equivalent, unless noted otherwise in plans, produced using the pultrusion process.
- All cut edges and holes shall be sealed with a resin compatible with the resin matrix used in the structural shape.
- The fabricator and contractor shall exercise precautions necessary to protect the fiberglass pultruded structural shapes from abuse to prevent breakage, nicks, gouges, etc. during fabrication, handling and installation.
- Structural shapes shall be fabricated and assembled as indicated on the design drawings.
- FRP STUDS AND NUTS SHALL BE TIGHTENED TO SNUG TIGHT AND TURNED AN ADDITIONAL 1/2 TURN AND LOCKED WITH EPOXY.**

STRUCTURAL STEEL:

- All structural steel angles and plates shall be per ASTM A36.
- All structural steel tubes shall be per ASTM A500 grade B.
- All anchor bolts shall be per ASTM A307, u.n.o. Steel to steel connection bolts shall be per ASTM F3125GR A325N, u.n.o.
- All welding shall be performed with E70XX low hydrogen electrodes in an approved fabrication shop.
- All steel surfaces shall be galvanized per ASTM A123 & F2329.
- All structural steel pipes shall be per ASTM A53-B GR35.



Project Team:

Mark Peabody Chief Executive Officer Mark.P@4Peabody.com	Karen Pittman Telecom Department Manager Karen.P@4Peabody.com
Cameron Malchow Telecom Project Manager Cameron.M@4Peabody.com	Michael Serena CAD Designer Michael.S@4Peabody.com

Signature Page

The following pages contain important information about the project Peabody Engineering will fabricate. Peabody Engineering produces custom-made products and our fabrication details may vary from traditional methods and the drawings that were originally provided to us for this project.

Please carefully review the details on the following pages and confirm they are what you require. We strongly suggest, you field verify all of the dimensions and details on these drawings as presented. Confirm that all relevant details are accurately presented. These drawings supersede any and all previous drawings.

By signing below, I take full responsibility that all the dimensions and details provided on each page has been confirmed as presented herein. There are NO EXCEPTIONS taken. I certify that this set of drawings can be used to fabricate the project. If changes are required, check the box below, mark the changes required on each page and return for review.

Redlines - Please revise per redlines as noted and return for review.

Printed Name	Company & Title	Date	Signature
--------------	-----------------	------	-----------

Design Notes:

- PRIMER S.A. (ALL) - 280 SQ. FT.
- PAINTED S.A. (VIEWABLE) - 134 SQ. FT.
- APPROXIMATE WEIGHT: 3000 LBS.
- QTY: (1) UNITS
- TEXTURE: SMOOTH
- FINISH:
 - FRP RADOME: PAINT (TBD)
 - STEEL MAST: HOT DIPPED GALVANIZED



13435 Estelle St.
Corona, Ca. 92879
P: (951) 734.7711 F: (951) 734.4111

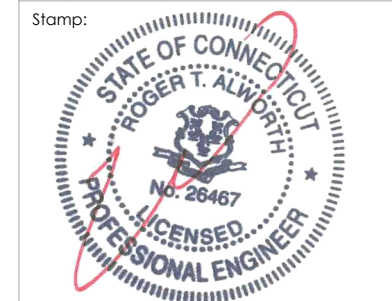
Customer:
NORTHEAST SITE SOLUTIONS

Carrier / Site #
T-MOBILE CT11878A
Project Name:
CT878/WESTPORT_RT

Material: **FIBERSCREEN™
STEEL**
Finish: **SMOOTH TEXTURE
HOT DIPPED GALVANIZED**

REV.	DATE	DESCRIPTION
A	07/27/17	INITIAL RELEASE - MHS

REV.	DATE	DESCRIPTION
A	07/27/17	INITIAL RELEASE - MHS



7-27-2017

VECTOR ENGINEERS
651 W. Galena Park Blvd. Draper UT 84020
CT Certificate of Authorization:
PEC 0001229

Sheet Title / Description:
DESIGN CRITERIA

Scale: **1:2** Sheet # **2 OF 8**
Drawn By: **MHS** Drawn Date: **07/27/17**

Tolerance:
Fractions ± 1/4" Angles ± 1°

Last Saved:
Thursday, July 27, 2017 9:17:32 AM

PROPRIETARY AND CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PEABODY ENGINEERING. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PEABODY ENGINEERING IS PROHIBITED.

8

7

6

5

4

2

1

DESIGN CRITERIA:

Wind:

Basic Wind Speed: 120 mph (3-second gust) per ASCE 7-10

Risk Category: II

Exposure: C

DESIGN REACTIONS:

R = 5.1 kips (1.2 DEAD + 1.0 ICE) (See note 2, below)

V = 3.1 kips (1.0 WIND) (See note 1, below)

M = 34.6 K-FT (1.0 wind) (See note 1, below)

NOTES:

1. The design load "V" and "M" is considered to act in any horizontal direction.
2. The design Load "R" is considered to act down.
3. Steel fabrication shall be performed on the premises of a fabricator registered and approved as required by the 2016 Connecticut State Building Code (2012 IBC) to perform such work without special inspection.
4. No field welding shall be permitted unless noted otherwise.
5. Attachment to the supporting existing structure and capacity of the existing structure to support the new proposed flag pole is to be by others for the design reactions listed above.
6. All framing not shown is the responsibility of others.
7. Periodic Special Insection of High-Strength Bolting.

8

7

6

5

4

3

2

1

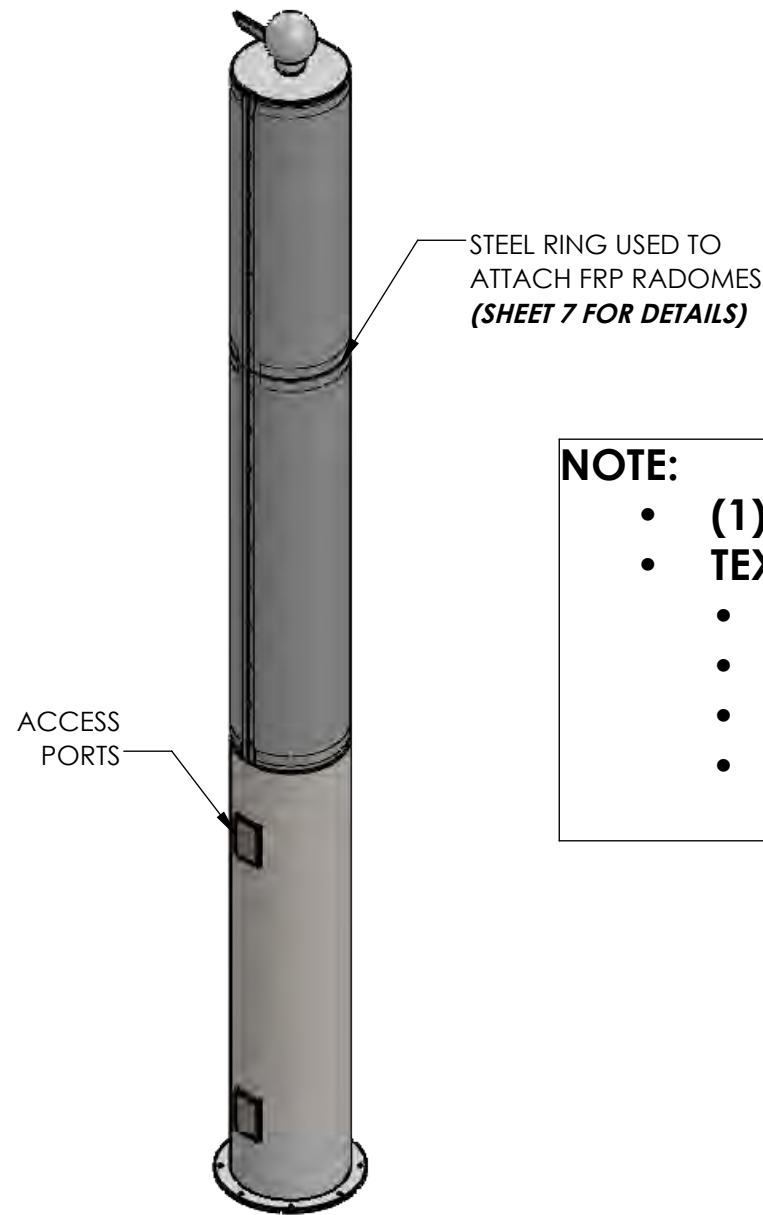
CT878/WESTPORT_RT - SCOPE OF WORK			
ITEM NO.	DESCRIPTION	QTY.	LENGTH
1	FIBERSCREEN™ RADOME	1	120"
2	FIBERSCREEN™ RADOME	1	84"
3	STEEL MAST	1	
4	STEEL RING (HALF)	2	
6	Ø 3/8" x 1" FRP FLAT HEAD SCREW	34	1"
7	BALL/TRUCK	1	
8	Ø1/2" STEEL BOLT	2.	
9	Ø5/8" STEEL BOLT	6.	
10	Ø3/4" STEEL BOLT	8.	

D

C

B

A



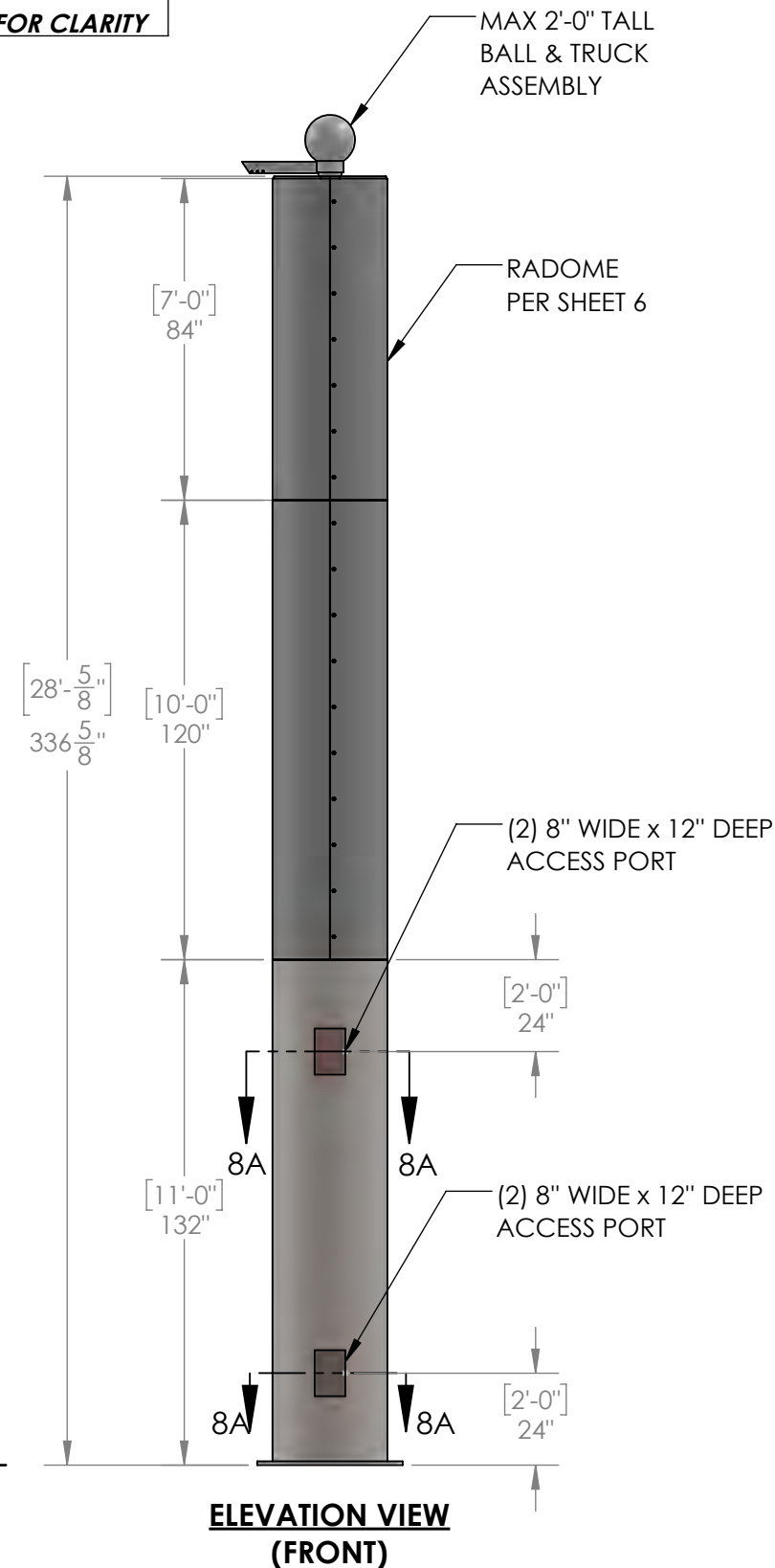
**ISOMETRIC VIEW
(RIGHT)**

NOTE:

- (1) UNIT TOTAL
- TEXTURE:
 - FIBERSCREEN™: SMOOTH
 - STEEL MAST: HOT DIPPED GALVANIZED
 - PAINT (TBD)
 - ALL ITEMS TO BE SHIPPED LOOSE, DRILLED AND INSTALLED ON-SITE BY OTHERS

NOTE: FLAG CONNECTION WILL BE SCREWED INTO TOP CAPLATE POLE DESIGNED FOR 12'x18' FLAG (MAX) NOT SHOWN FOR CLARITY

⊕
BOTTOM OF
BASE PLATE
20'-3" AGL.



**ELEVATION VIEW
(FRONT)**

PEABODY
ENGINEERING
The Call Site Diagnostic Guys™
No Boundaries.™

13435 Estelle St.
Corona, Ca. 92879
P: (951) 734.7711 F: (951) 734.4111

Customer:
NORTHEAST SITE SOLUTIONS

Carrier / Site #
T-MOBILE CT11878A

Project Name:
CT878/WESTPORT_RT

Material: **FIBERSCREEN™**
STEEL

Finish: **SMOOTH TEXTURE**
HOT DIPPED GALVANIZED

REV.	DATE	DESCRIPTION
A	07/27/17	INITIAL RELEASE - MHS

Stamp:

7-27-2017

VECTOR
ENGINEERS

651 W. Galena Park Blvd. Draper UT 84020
CT Certificate of Authorization:
PEC 0001229

Sheet Title / Description:
SCOPE OF WORK

Scale: **1:48** Sheet # **3 OF 8**

Drawn By: **MHS** Drawn Date: **07/27/17**

Tolerance:
Fractions ± 1/4" Angles ± 1°

Last Saved:
Thursday, July 27, 2017 9:17:32 AM

PROPRIETARY AND CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PEABODY ENGINEERING. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PEABODY ENGINEERING IS PROHIBITED.



13435 Estelle St.
Corona, Ca. 92879
P: (951) 734.7711 F: (951) 734.4111

Customer:
NORTHEAST SITE SOLUTIONS

Carrier / Site #
T-MOBILE CT11878A

Project Name:
CT878/WESTPORT_RT

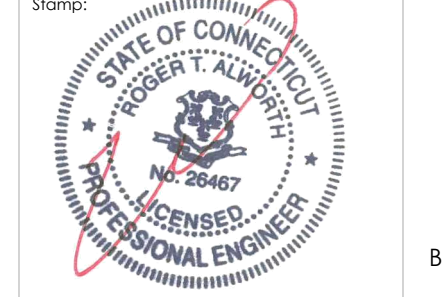
Material: **FIBERSCREEN™ STEEL**

Finish: **SMOOTH TEXTURE HOT DIPPED GALVANIZED**

Rev:

A	07/27/17	INITIAL RELEASE - MHS
---	----------	-----------------------

REV. DATE DESCRIPTION



7-27-2017

VECTOR ENGINEERS
651 W. Galena Park Blvd. Draper UT 84020
CT Certificate of Authorization:
PEC 0001229

Sheet Title / Description:
STEEL MAST DETAILS

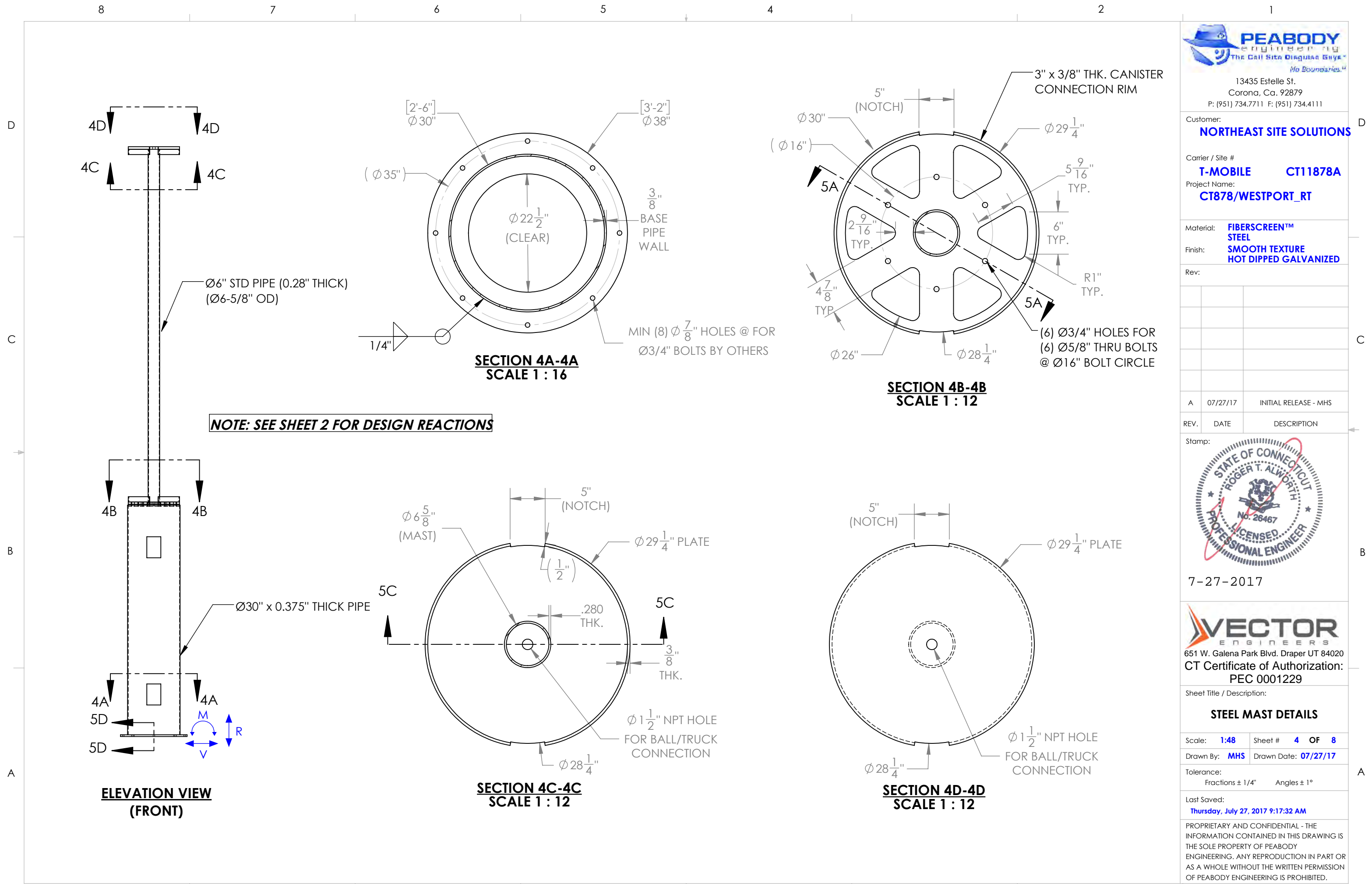
Scale: **1:48** Sheet # **4 OF 8**

Drawn By: **MHS** Drawn Date: **07/27/17**

Tolerance:
Fractions ± 1/4" Angles ± 1°

Last Saved:
Thursday, July 27, 2017 9:17:32 AM

PROPRIETARY AND CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PEABODY ENGINEERING. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PEABODY ENGINEERING IS PROHIBITED.





13435 Estelle St.
Corona, Ca. 92879
P: (951) 734.7711 F: (951) 734.4111

Customer:
NORTHEAST SITE SOLUTIONS

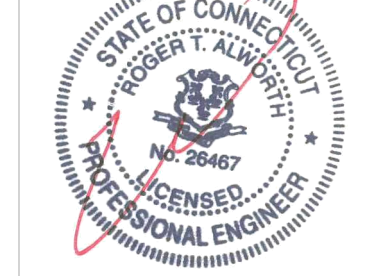
Carrier / Site #
T-MOBILE CT11878A
Project Name:
CT878/WESTPORT_RT

Material: **FIBERSCREEN™ STEEL**
Finish: **SMOOTH TEXTURE HOT DIPPED GALVANIZED**

Rev:

A	07/27/17	INITIAL RELEASE - MHS
---	----------	-----------------------

REV.	DATE	DESCRIPTION
------	------	-------------



7-27-2017

VECTOR ENGINEERS
651 W. Galena Park Blvd. Draper UT 84020
CT Certificate of Authorization:
PEC 0001229

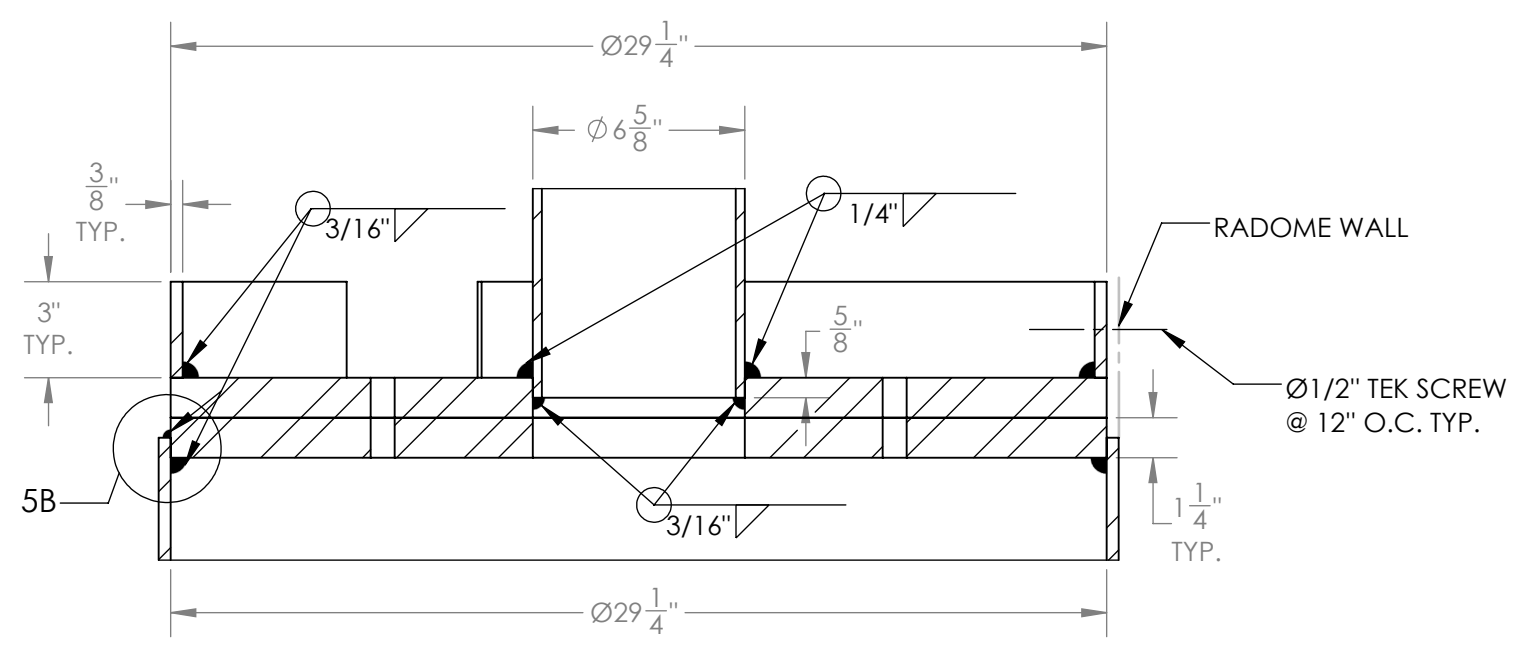
Sheet Title / Description:
STEEL MAST DETAILS CONT.

Scale: **1:48** Sheet # **5 OF 8**
Drawn By: **MHS** Drawn Date: **07/27/17**

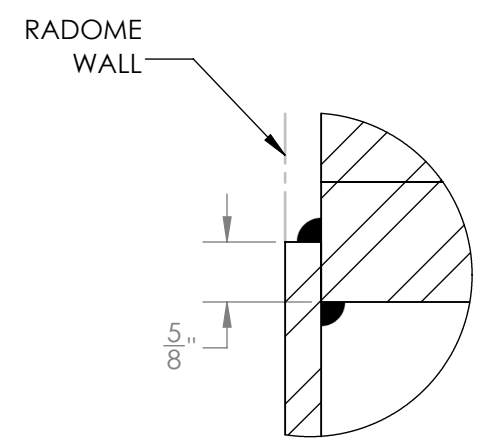
Tolerance:
Fractions ± 1/4" Angles ± 1°

Last Saved:
Thursday, July 27, 2017 9:17:32 AM

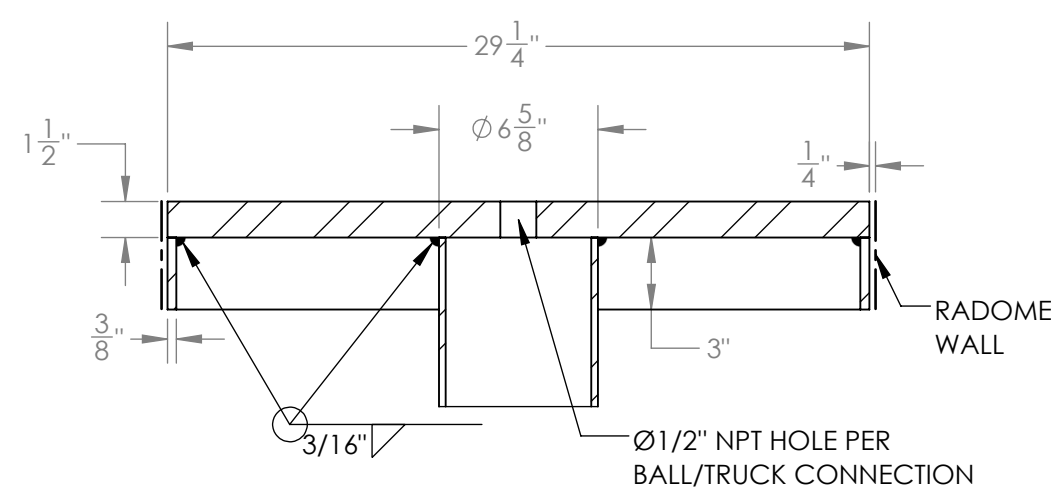
PROPRIETARY AND CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PEABODY ENGINEERING. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PEABODY ENGINEERING IS PROHIBITED.



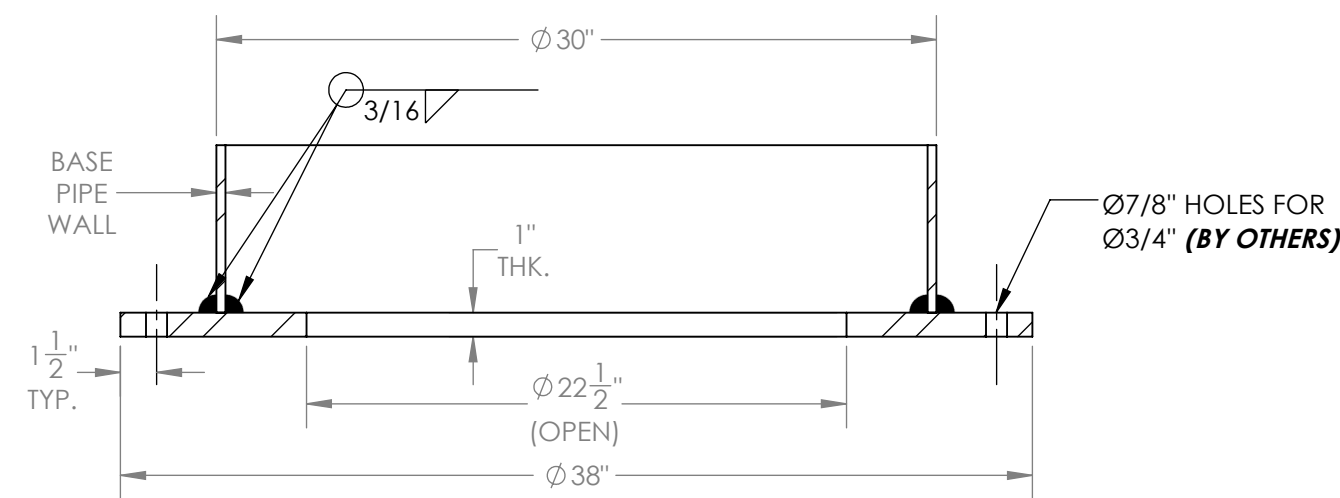
SECTION 5A-5A
SCALE 1 : 6



DETAIL 5B
SCALE 1 : 2



SECTION 5C-5C
SCALE 1 : 8



SECTION 5D-5D
SCALE 1 : 8



13435 Estelle St.
 Corona, Ca. 92879
 P: (951) 734.7711 F: (951) 734.4111

Customer: **NORTHEAST SITE SOLUTIONS**

Carrier / Site # **T-MOBILE CT11878A**

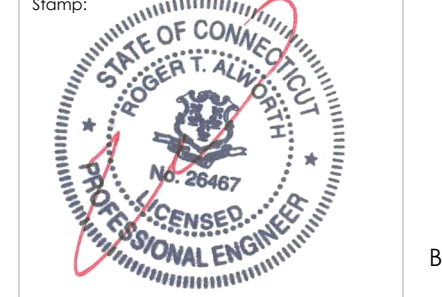
Project Name: **CT878/WESTPORT_RT**

Material: **FIBERSCREEN™ STEEL**
 Finish: **SMOOTH TEXTURE HOT DIPPED GALVANIZED**

Rev:

A	07/27/17	INITIAL RELEASE - MHS
---	----------	-----------------------

REV. DATE DESCRIPTION



7-27-2017

VECTOR ENGINEERS
 651 W. Galena Park Blvd. Draper UT 84020
 CT Certificate of Authorization:
 PEC 0001229

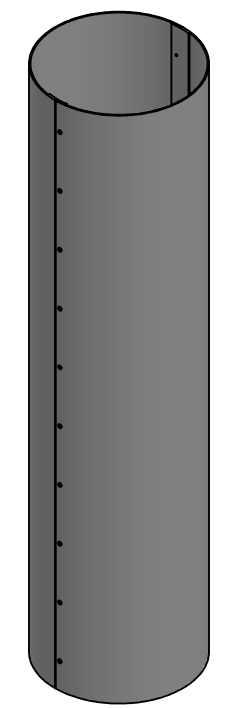
Sheet Title / Description:
RADOME DETAILS

Scale: **1:32** Sheet # **6 OF 8**
 Drawn By: **MHS** Drawn Date: **07/27/17**

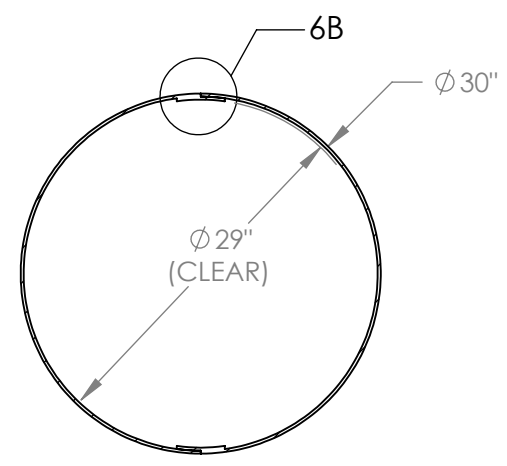
Tolerance:
 Fractions ± 1/4" Angles ± 1°

Last Saved:
Thursday, July 27, 2017 9:17:32 AM

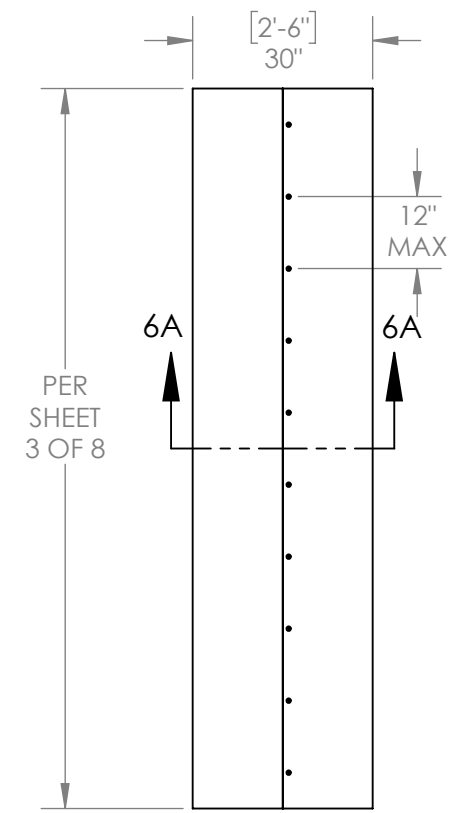
PROPRIETARY AND CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PEABODY ENGINEERING. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PEABODY ENGINEERING IS PROHIBITED.



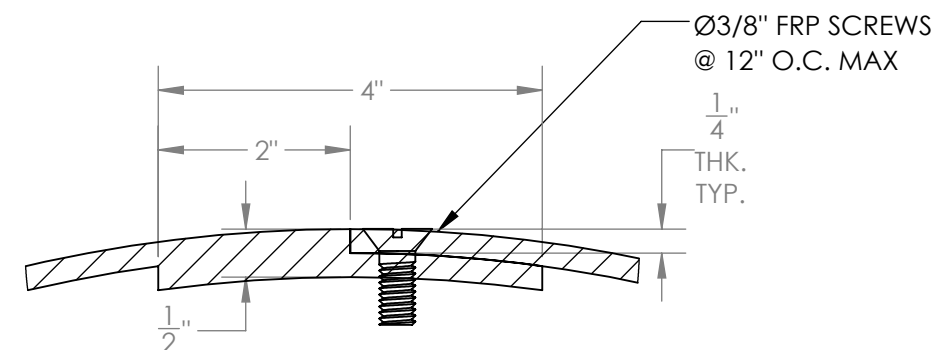
ISOMETRIC VIEW



SECTION 6A-6A
SCALE 1 : 16



ELEVATION VIEW
(FRONT)



DETAIL 6B
SCALE 1 : 2



13435 Estelle St.
 Corona, Ca. 92879
 P: (951) 734.7711 F: (951) 734.4111

Customer:
NORTHEAST SITE SOLUTIONS

Carrier / Site #
T-MOBILE CT11878A
 Project Name:
CT878/WESTPORT_RT

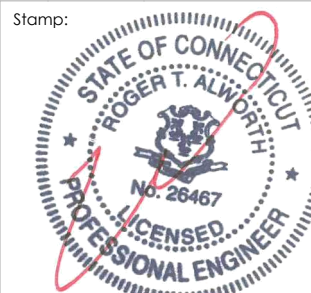
Material: **FIBERSCREEN™ STEEL**
 Finish: **SMOOTH TEXTURE HOT DIPPED GALVANIZED**

Rev:

A	07/27/17	INITIAL RELEASE - MHS
---	----------	-----------------------

REV. DATE DESCRIPTION

Stamp:



7-27-2017



651 W. Galena Park Blvd. Draper UT 84020
 CT Certificate of Authorization:
 PEC 0001229

Sheet Title / Description:

STEEL RING DETAIL

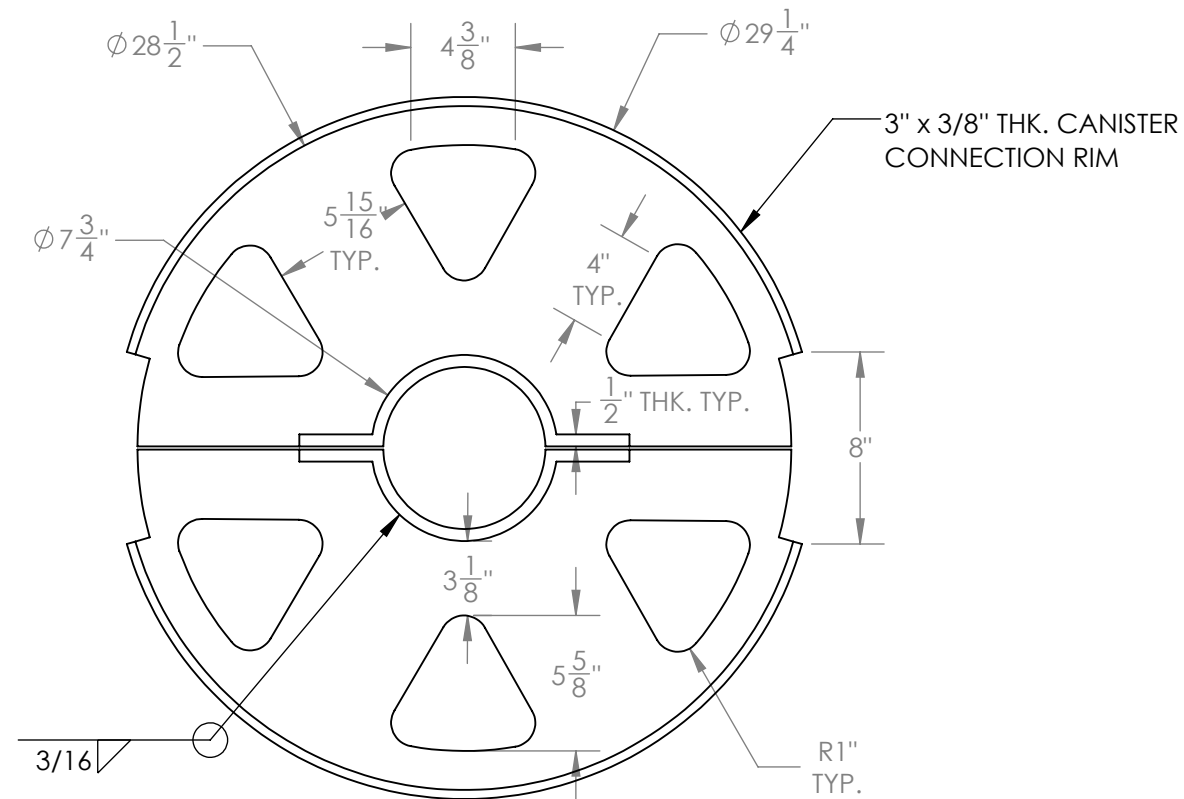
Scale: **1:8** Sheet # **7 OF 8**

Drawn By: **MHS** Drawn Date: **07/27/17**

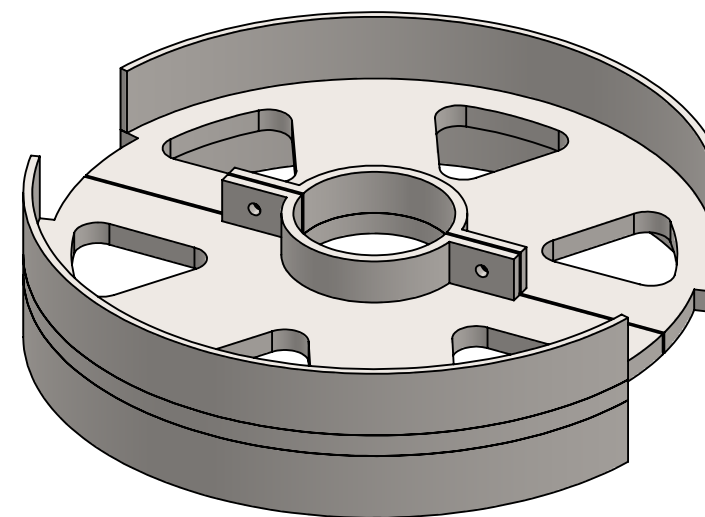
Tolerance:
 Fractions ± 1/4" Angles ± 1°

Last Saved:
Thursday, July 27, 2017 9:17:32 AM

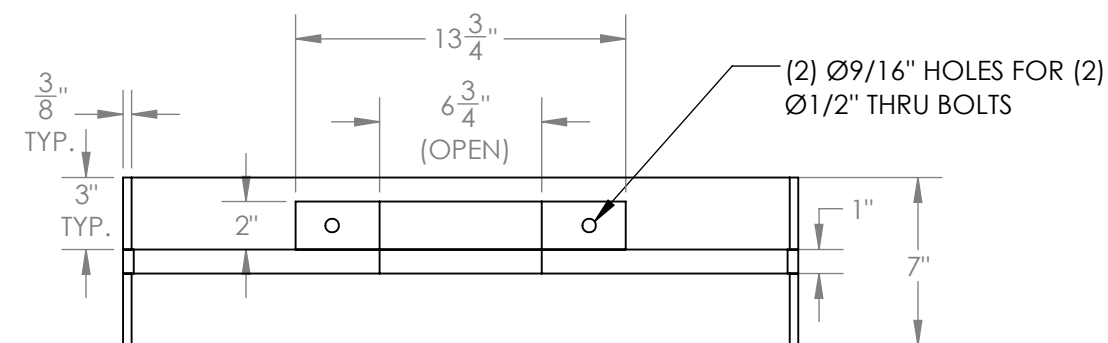
PROPRIETARY AND CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PEABODY ENGINEERING. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PEABODY ENGINEERING IS PROHIBITED.



PLAN VIEW



ISOMETRIC VIEW (FULL ASSEMBLY)



ELEVATION VIEW (HALF)



13435 Estelle St.
 Corona, Ca. 92879
 P: (951) 734.7711 F: (951) 734.4111

Customer:
NORTHEAST SITE SOLUTIONS

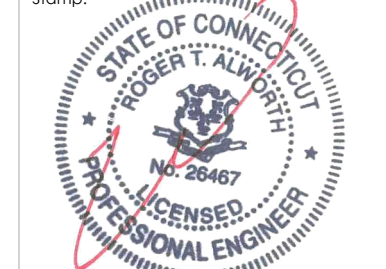
Carrier / Site #
T-MOBILE CT11878A
 Project Name:
CT878/WESTPORT_RT

Material: **FIBERSCREEN™ STEEL**
 Finish: **SMOOTH TEXTURE HOT DIPPED GALVANIZED**

Rev:

A	07/27/17	INITIAL RELEASE - MHS
---	----------	-----------------------

Stamp:



7-27-2017

VECTOR ENGINEERS
 651 W. Galena Park Blvd. Draper UT 84020
 CT Certificate of Authorization:
 PEC 0001229

Sheet Title / Description:

ADDITIONAL DETAILS

Scale: **1:8** Sheet # **8 OF 8**

Drawn By: **MHS** Drawn Date: **07/27/17**

Tolerance:
 Fractions ± 1/4" Angles ± 1°

Last Saved:
Thursday, July 27, 2017 9:17:32 AM

PROPRIETARY AND CONFIDENTIAL - THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PEABODY ENGINEERING. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PEABODY ENGINEERING IS PROHIBITED.

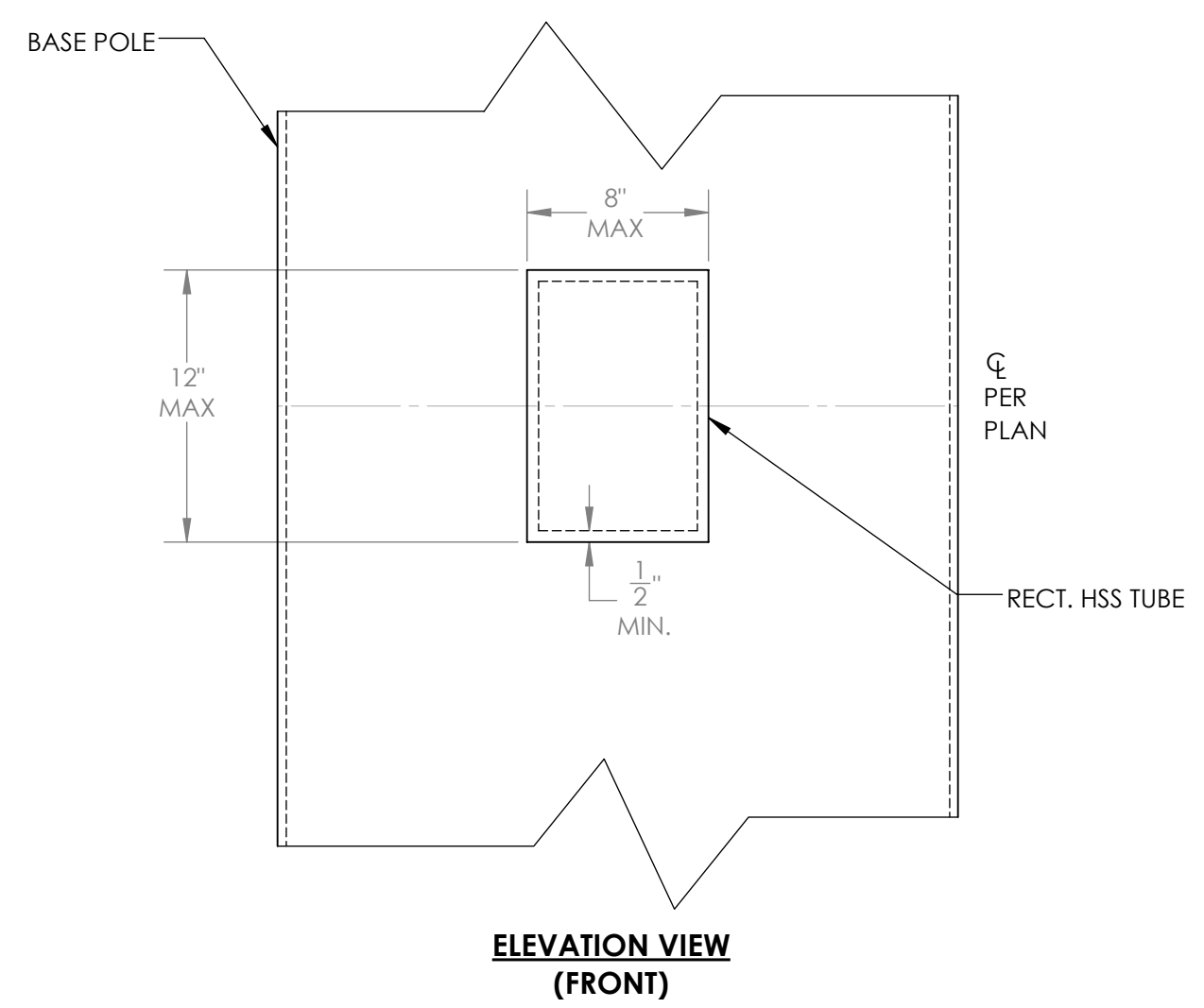
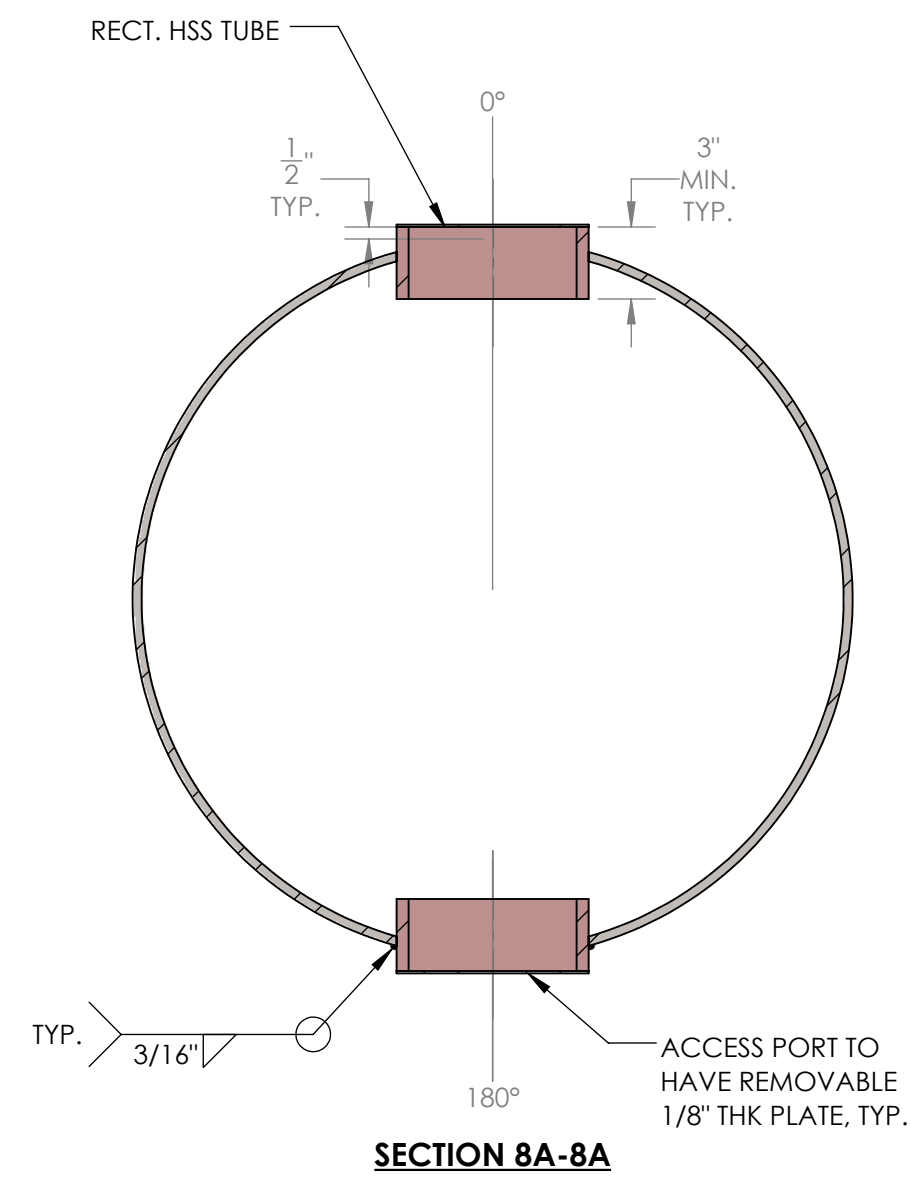


Exhibit D

Structural Evaluation report

Date: August 4, 2017

Site Number: CT11878A
Site Name: CT878/Westport RT

Site Address:
1555 Post Road East
Westport, CT 06880

PREPARED FOR:

T-Mobile

T-MOBILE NORTHEAST LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
860-692-7100

CONSULTANT:

FORESITE LLC
Architects . Engineers . Surveyors

462 Walnut street
Newton, MA 02460
Contact: Saeed Mossavat
email:smossavat@Foresitelc.com
617-527-3031

PROJECT MANAGER:


NSS **NORTHEAST**
SITE SOLUTIONS
Turnkey Wireless Development

420 Main Street, Bldg 4
Sturbridge MA 01566
Contact: Sheldon Freinle
sheldon@northeastsitesolutions.com
(201) 776-8521

**STRUCTURAL ANALYSIS REPORT
ROOFTOP**



Prepared For:

· · T · · Mobile ·
T-Mobile Northeast, LLC
35 Griffin Road South
Bloomfield, CT 06002



Structure Rating:

Platform:	Pass
Parapet Wall:	Pass

Sincerely,
Destek Engineering, LLC
License No: PEC0001429

08-04-2017



Ahmet Colakoglu, PE
Connecticut Professional Engineer
License No: 27057

T-Mobile Site ID: CT11878A
Site Name: CT878/Westport RT
1555 Post Road East
Westport, CT 06880

CONTENTS

1.0 – SUBJECT AND REFERENCES

1.1 – STRUCTURE AND EXISTING EQUIPMENT

2.0 – EXISTING AND PROPOSED APPURTENANCES

3.0 - CODES AND LOADING

4.0 - STANDARD CONDITIONS FOR ENGINEERING SERVICES ON EXISTING STRUCTURES

5.0 - ANALYSIS AND ASSUMPTIONS

6.0 – RESULTS AND CONCLUSION

APPENDIX

A – PICTURES AND CALCULATIONS

1.0 SUBJECT AND REFERENCES

The purpose of this analysis is to evaluate the structural capacity of the existing telecommunication installation on the building at 1555 Post Road East, Westport, CT 06880 for the additions and alterations proposed by T-Mobile.

The structural analysis is based on a site inspection performed by Destek Engineering, LLC (Destek) personnel on 04/19/2017, and the following documentation provided to Destek:

- Construction Drawings prepared by Omnipoint Communications Inc., dated 09/19/2007.
- Structural Assessment Letter prepared by Armor Tower Engineering, dated 05/28/2010.
- Construction Drawings prepared by Tectonic, dated 04/10/2012.
- Structural Letter prepared by Tectonic 04/26/2012.
- RFDS provided by T-Mobile, dated 02/13/2017.
- Structural Analysis Report prepared by Vector Engineers, dated 07/27/2017.
- Construction Drawings prepared by Vector Engineers, dated 07/27/2017.

1.1 STRUCTURE AND EXISTING EQUIPMENT

The subject structure is a (1) story office building with roof level approximately 18'-0" above grade level (AGL). The top of building parapet is approximately at 21'-8" above ground level (AGL). T-Mobile currently has (6) antennas, (2) antennas at each sector of Alpha, Beta and Gamma. The antennas are attached inside a 30 feet tall flagpole at two different RAD centers of 40' and 45' AGL. The flagpole is attached to a steel platform which frames into the building columns and parapet wall. Please refer to the calculations in Appendix A for details.

2.0 EXISTING AND PROPOSED APPURTENANCES

Existing Configuration of T-Mobile Appurtenances:

Sector	Rad Center (Feet) AGL	Antenna	Cables	Mount
Alpha, Beta & Gamma	45.0	(3) APXV18-206516S-A20 - Antennas (3) Generic Style 1A-Twin PCS – TMAs	(12) 1-5/8" Coax	(2) Flagpole Mounts
	40.0	(3) APXV18-206516S-A20 - Antennas (3) Generic Style 1B-Twin AWS – TMAs		

Proposed and Final Configuration of T-Mobile Appurtenances:

Sector	Rad Center (Feet) AGL	Antenna	Cables	Mount
Alpha, Beta & Gamma	45.0	(3) APX16DWV-16DWV-S-E-A20 – Antennas (3) Generic Style 1A-Twin PCS – TMAs (3) Generic Style 1B-Twin AWS – TMAs	(12) 1-5/8" Coax +	(2) New Flagpole Mounts
	40.0	(3) LNX-6512DS-A1M – Antennas (3) Andrew Smart Bias T	(6) New 1-5/8" Coax	

3.0 CODES AND LOADING

The analysis is in accordance with the following codes and loading as adopted in Connecticut:

- *2016 Connecticut State Building Code*
- *Minimum Design Loads for Building and Other Structures ASCE/SEI 7-10*, American Society of Civil Engineers
- *Specifications for Structural Steel Buildings – LRFD ANSI/AISC 360-10*, American National Standards Institute/American Institute for Steel Construction

The following load parameters were used:

- Basic Wind Speed: $V_{asd}=93$ mph
- Exposure: B
- Topographic Factor: $K_{zt}=1.0$
- Risk Category: II

4.0 STANDARD CONDITIONS FOR ENGINEERING SERVICES ON EXISTING STRUCTURES

The analysis is based on the information provided to Destek and is assumed to be current and correct. Unless noted otherwise, the structure and the foundation system are assumed to be in good condition, free of defects and can achieve theoretical strength.

It is assumed that the structure has been maintained and shall be maintained during its service. The superstructure and the foundation system are assumed to be designed with proper engineering practice and fabricated, constructed and erected in accordance with the design documents. Destek will accept no liability which may arise due to any existing deficiency in design, material, fabrication, erection, construction, etc. or lack of maintenance.

The analysis results presented in this report are only applicable for the previously mentioned existing and proposed additions and alterations. Any deviation of the proposed equipment and placement, etc., will require Destek to generate an additional structural analysis.

5.0 ANALYSIS AND ASSUMPTIONS

This structural analysis and qualification of the subject structure is based on either a load comparison or a strength check as following:

Pursuant to 2012 International Existing Building Code Sections 706 and 807, any existing gravity load-carrying structural element for which additions and/or alterations cause an increase in design gravity load of no more than 5 percent, shall be permitted to remain unaltered, and thus considered to be Code-compliant and adequate. Any existing gravity load-carrying structural element for which additions and/or alterations cause an increase in design gravity loads exceeding 5 percent is checked against the applicable Code criteria for new structures.

Pursuant to 2012 International Existing Building Code Sections 706 and 807, any existing lateral load-carrying structural element whose demand-capacity ratio with the addition and/or alteration considered is no more than 10 percent greater than its demand-capacity ratio with the addition and/or alteration ignored shall be permitted to remain unaltered, and thus considered to be Code-compliant and adequate. If the demand-capacity ratio increase is more than 10 percent, the subject structural element is checked against the applicable Code criteria for new structures.

This analysis was performed by utilizing Risa 3-D, a commercially available structural engineering software package by Risa Technologies, as applicable.

6.0 RESULTS AND CONCLUSION

Platform: The existing steel platform has **adequate** capacity for the proposed changes by T-Mobile. For the code specified load combinations and as a maximum, the steel beams are stressed to **65.3%** of their structural capacity.

Parapet Wall: The existing parapet wall has **adequate** capacity for the proposed changes by T-Mobile. For the code specified load combinations and as a maximum, the parapet wall is stressed to **83.3%** of their structural capacity.

Therefore, the proposed additions and alterations by T-Mobile **can** be implemented as intended with the conditions outlined in this report.

Should you have any questions about this report, please contact Ahmet Colakoglu at (770) 693-0835 or acolakoglu@destekengineering.com.

**APPENDIX A
PICTURES AND CALCULATIONS**



Existing Platform & Flagpole

PURPOSE

The purpose of these calculations is to determine whether the building located at 1555 Post Road East, Westport, CT 06880 has adequate structural capacity for the proposed changes by T-Mobile.

1.1. Antenna Mounts

Wind Loads

(Reference 2016 Connecticut State Building Code)

[Reference, ASCE 7-10](#)

Input:	Location:	Westport, CT 06880	
	Classification:	II	
	RAD Center:	z := 24ft	
	Exposure category:	Exp := "B"	Section 26.7.3, pg 251

$$z_g := \begin{cases} 1200\text{ft} & \text{if Exp} = \text{"B"} \\ 900\text{ft} & \text{if Exp} = \text{"C"} \\ 700\text{ft} & \text{if Exp} = \text{"D"} \end{cases} = 1200\text{ft} \quad \alpha := \begin{cases} 7.0 & \text{if Exp} = \text{"B"} \\ 9.5 & \text{if Exp} = \text{"C"} \\ 11.5 & \text{if Exp} = \text{"D"} \end{cases} = 7$$

Velocity pressure exposure coefficient:

$$K_z := 2.01 \cdot \left(\frac{z}{z_g}\right)^{\frac{2}{\alpha}} = 0.66$$

Table 29.3-1, pg 310

Topographic factor: $K_{zt} := 1.0$ Section 26.8.2, pg 254

Wind directionality factor: $K_d := 0.95$ Table 26.6-1, pg 250

Basic wind speed: $V := 93$ mph Figure 26.5-1A, pg 247

Gust response factor: $G := 0.85$ Section 26.9.1, pg 254

Velocity pressure: $q_z := 0.00256 \cdot K_z \cdot K_{zt} \cdot K_d \cdot V^2 \cdot \text{psf}$ Equation 29.3-1, pg 307
 $q_z = 13.8 \cdot \text{psf}$

Force Coefficients: Figure 29.5-1, pg 312

for Flat surface	for $D \cdot \text{sqrt}(q_z) > 2.5$	for $D \cdot \text{sqrt}(q_z) < 2.5$
$C_{F_flat} := \begin{pmatrix} 1 & 1.3 \\ 7 & 1.4 \\ 25 & 2 \end{pmatrix}$	$C_{F_round_1} := \begin{pmatrix} 1 & 0.5 \\ 7 & 0.6 \\ 25 & 0.7 \end{pmatrix}$	$C_{F_round_2} := \begin{pmatrix} 1 & 0.7 \\ 7 & 0.8 \\ 25 & 1.2 \end{pmatrix}$

Loads on APX16DWV-16DWV-S-E-A20:

Dimensions: $H := 59.9\text{in}$ $W := 13\text{in}$ $D := 3.15\text{in}$ $W_{\text{ant1}} := 41.8\text{lbf}$

Front:

$$\text{Area} := H \cdot W = 5.41 \text{ ft}^2$$

$$C_f := \text{linterp}\left(C_{F_flat}^{\langle 0 \rangle}, C_{F_flat}^{\langle 1 \rangle}, \frac{H}{W}\right) = 1.4$$

$$F_{\text{ant_front1}} := q_z \cdot G \cdot C_f \cdot \text{Area} = 86.44 \text{ lbf}$$

Side:

$$\text{Area} := H \cdot D = 1.31 \text{ ft}^2$$

$$C_f := \text{linterp}\left(C_{F_flat}^{\langle 0 \rangle}, C_{F_flat}^{\langle 1 \rangle}, \frac{H}{D}\right) = 1.8$$

$$F_{\text{ant_side1}} := q_z \cdot G \cdot C_f \cdot \text{Area} = 27.73 \text{ lbf}$$

Loads on LNX-6512Ds-A1M:

Dimensions: $H := 48.5\text{in}$ $W := 11.9\text{in}$ $D := 7.1\text{in}$ $W_{\text{ant1}} := 28.7\text{lbf}$

Front:

$$\text{Area} := H \cdot W = 4.01 \text{ ft}^2$$

$$C_f := \text{linterp}\left(C_{F_flat}^{\langle 0 \rangle}, C_{F_flat}^{\langle 1 \rangle}, \frac{H}{W}\right) = 1.4$$

$$F_{\text{ant_front1}} := q_z \cdot G \cdot C_f \cdot \text{Area} = 63.65 \text{ lbf}$$

Side:

$$\text{Area} := H \cdot D = 2.39 \text{ ft}^2$$

$$C_f := \text{linterp}\left(C_{F_flat}^{\langle 0 \rangle}, C_{F_flat}^{\langle 1 \rangle}, \frac{H}{D}\right) = 1.4$$

$$F_{\text{ant_side1}} := q_z \cdot G \cdot C_f \cdot \text{Area} = 39.27 \text{ lbf}$$

Loads on W12x53:

Dimensions: $D := 12.2\text{in}$

$$C_f := 2.0$$

$$F_{W12x58} := q_z \cdot G \cdot C_f \cdot D = 23.9 \cdot \text{plf}$$

Figure 29.5-1, pg 312

Equation 29.5-1, pg 308

Loads on W12x35:

Dimensions: $D := 12.5\text{in}$

$$C_f := 2.0$$

$$F_{W12x35} := q_z \cdot G \cdot C_f \cdot D = 24.48 \cdot \text{plf}$$

Figure 29.5-1, pg 312

Equation 29.5-1, pg 308

Loads on W8x15:

Dimensions: $D := 8.125\text{in}$

$$C_f := 2.0$$

$$F_{W12x35} := q_z \cdot G \cdot C_f \cdot D = 15.91 \cdot \text{plf}$$

Figure 29.5-1, pg 312

Equation 29.5-1, pg 308

Loads on L4x4x4:

Dimensions: **D := 4.0in**

$$C_f := 2.0$$

Figure 29.5-1, pg 312

$$F_{L6} := q_z \cdot G \cdot C_f \cdot D = 7.83 \cdot \text{plf}$$

Equation 29.5-1, pg 308

Loads on L5x3.5x4:

Dimensions: **D := 5.0in**

$$C_f := 2.0$$

Figure 29.5-1, pg 312

$$F_{L6} := q_z \cdot G \cdot C_f \cdot D = 9.79 \cdot \text{plf}$$

Equation 29.5-1, pg 308

Loads on HSS4x4x3:

Dimensions: **D := 4.0in**

$$C_f := 2.0$$

Figure 29.5-1, pg 312

$$F_{HSS6} := q_z \cdot G \cdot C_f \cdot D = 7.83 \cdot \text{plf}$$

Equation 29.5-1, pg 308

Loads on 1.5STD HR Pipe:

Dimensions: **H := 60in** **D := 1.875in**

$$C_f := \text{linterp}\left(C_{F_round_2}^{(0)}, C_{F_round_2}^{(1)}, \frac{H}{D}\right) = 1.36$$

Figure 29.5-1, pg 312

$$C_f := \begin{cases} C_f & \text{if } C_f \leq 1.2 \\ 1.2 & \text{otherwise} \end{cases} = 1.2$$

$$F_{\text{Pipe}} := q_z \cdot G \cdot C_f \cdot D = 2.2 \cdot \text{plf}$$

Equation 29.5-1, pg 308

Platform Loads:

GRATING LOAD

Grating: $w_{Grating} := 10\text{psf}$

SNOW LOAD

Reference, ASCE-7-10

Ground Snow Loads:

$$p_g := 30\text{psf}$$

Figure 7-1

Thermal factor

$$C_t := 1.2$$

Table 7-3

Exposure Factor

$$C_e := 0.9$$

Table 7-2

Upper Level, Fully exposed

Importance factor:

$$I_s := 1.0$$

Table 7-4

Occupancy Category II

Flat Roof Snow Loads:

$$P_f := 0.7 \cdot C_e \cdot C_t \cdot I_s \cdot p_g$$

Eq 7-1

$$P_f = 22.68 \cdot \text{psf}$$

Rain on Snow Surcharge:

$$P_{fr} := P_f + 0\text{psf}$$

Section 7.10

$$P_f = 22.68 \cdot \text{psf}$$

Minimum Roof Snow Load:

$$P_{f_min} := 30\text{psf}$$

Section 1608.1.1/2016

CT-BC

$$P_f := \max(P_f, P_{f_min})$$

$$P_f = 30 \cdot \text{psf}$$

$$SL_{\text{roof}} := P_f = 30 \cdot \text{psf}$$

LIVE LOAD

$$LL_{\text{roof}} := 60\text{psf}$$

Flag Pole Loads: By Others

Load Combination	Vertical	Shear _x	Shear _y
	lb	lb	lb
Dead Only	2848.92	0.00	0.00

Section	Size	Length (ft)	Grade	Height (ft)
1	FD30x36 12ft	11.00	203.8	1216.0

Page 15 of 25

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Bull and Truck	40	Bullhead	41.25
Top Plate	48.25	(2) Generic Panel 100W (enclosed)	36.25
12' x 18' Flag Top	48	12' x 18' Flag Bottom	36
(3) Generic Panel 100W (enclosed)	45.50	Bottom Plate	31.25

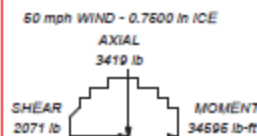
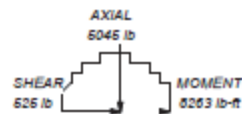
MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A53-B-35	35 ksi	60 ksi			

TOWER DESIGN NOTES

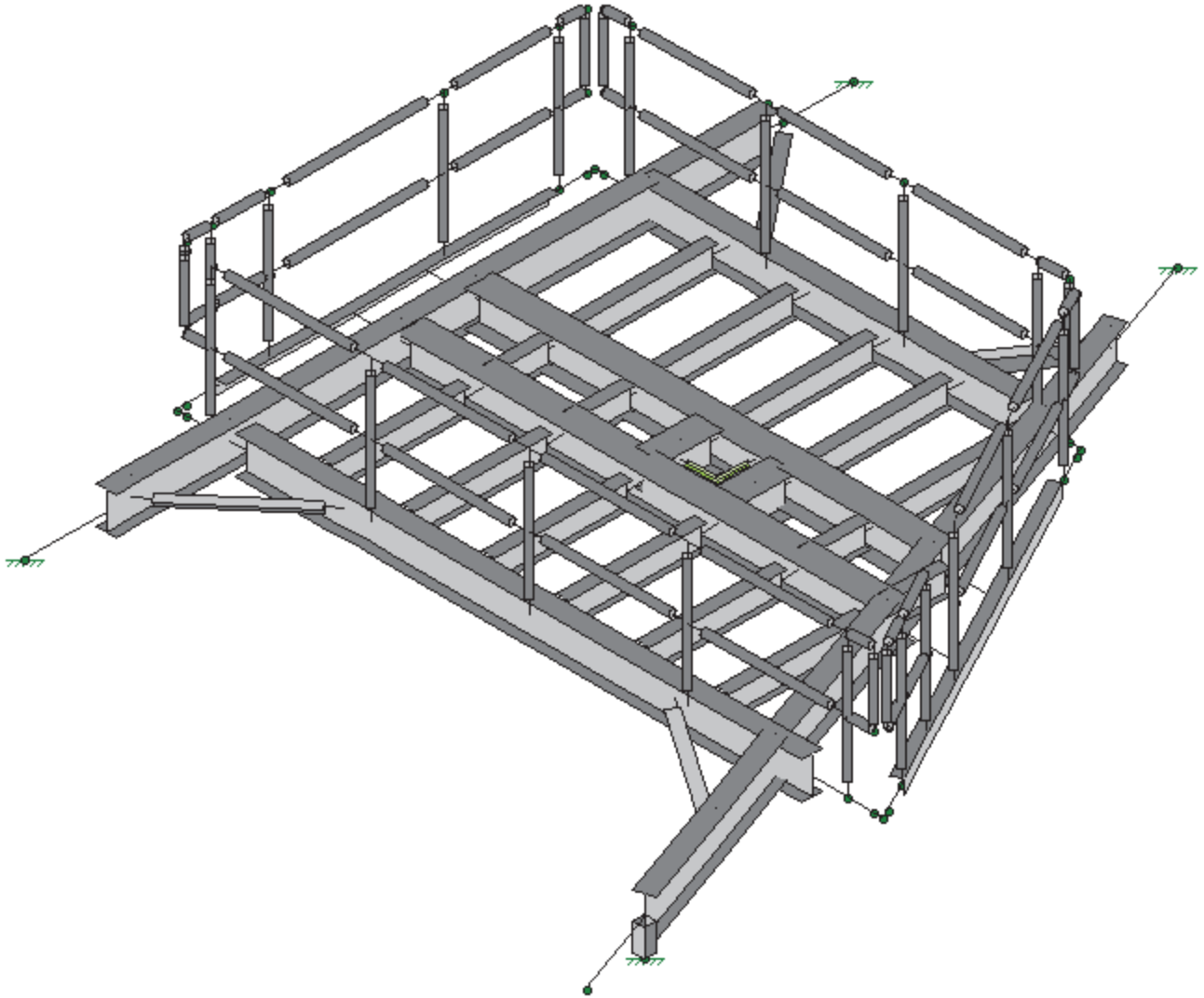
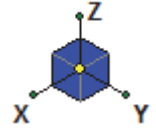
1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 50 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft.
8. Weld together tower sections have flange connections.
9. Connections use galvanized A325 bolts, nuts and locking devices. Installation per TIA/EIA-222 and AISC Specifications.
10. Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
11. Welds are fabricated with ER-70S-6 electrodes.
12. TOWER RATING: 5%

ALL REACTIONS ARE FACTORED



RISA-3D Analysis Results:

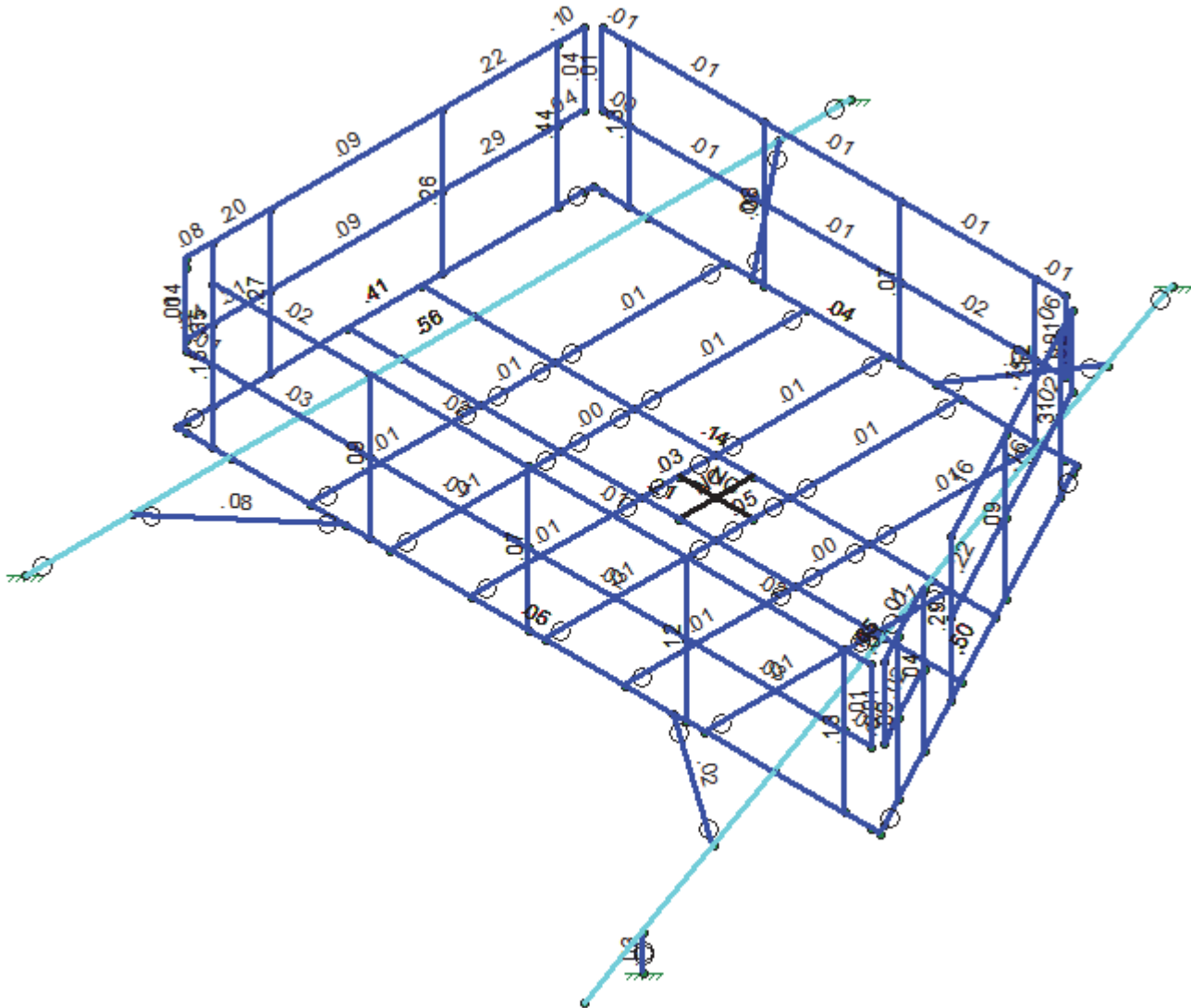
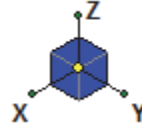
Platform Rendering:



Unity Check: (Bending+Axial)

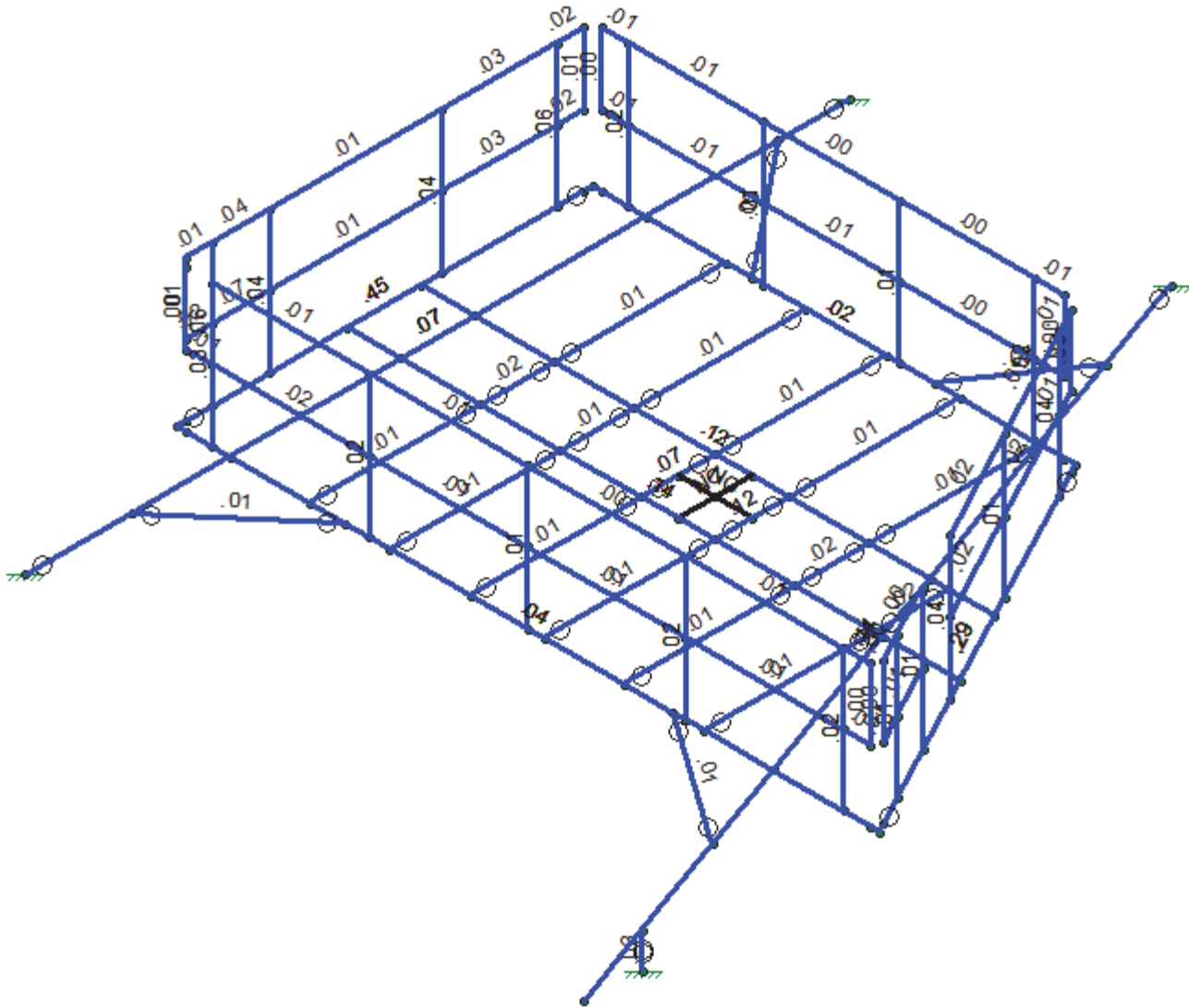
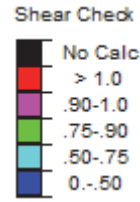
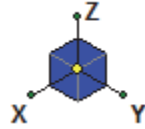
Code Check

Black	No Calc
Red	> 1.0
Purple	.90-1.0
Green	.75-.90
Cyan	.50-.75
Blue	0.-.50



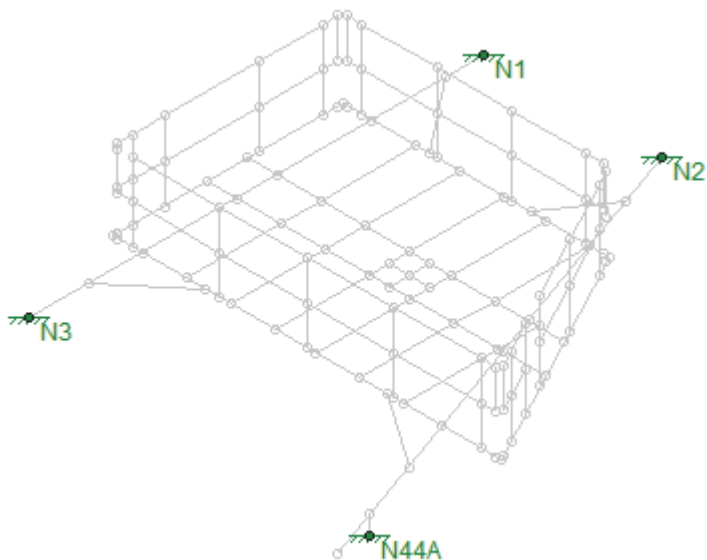
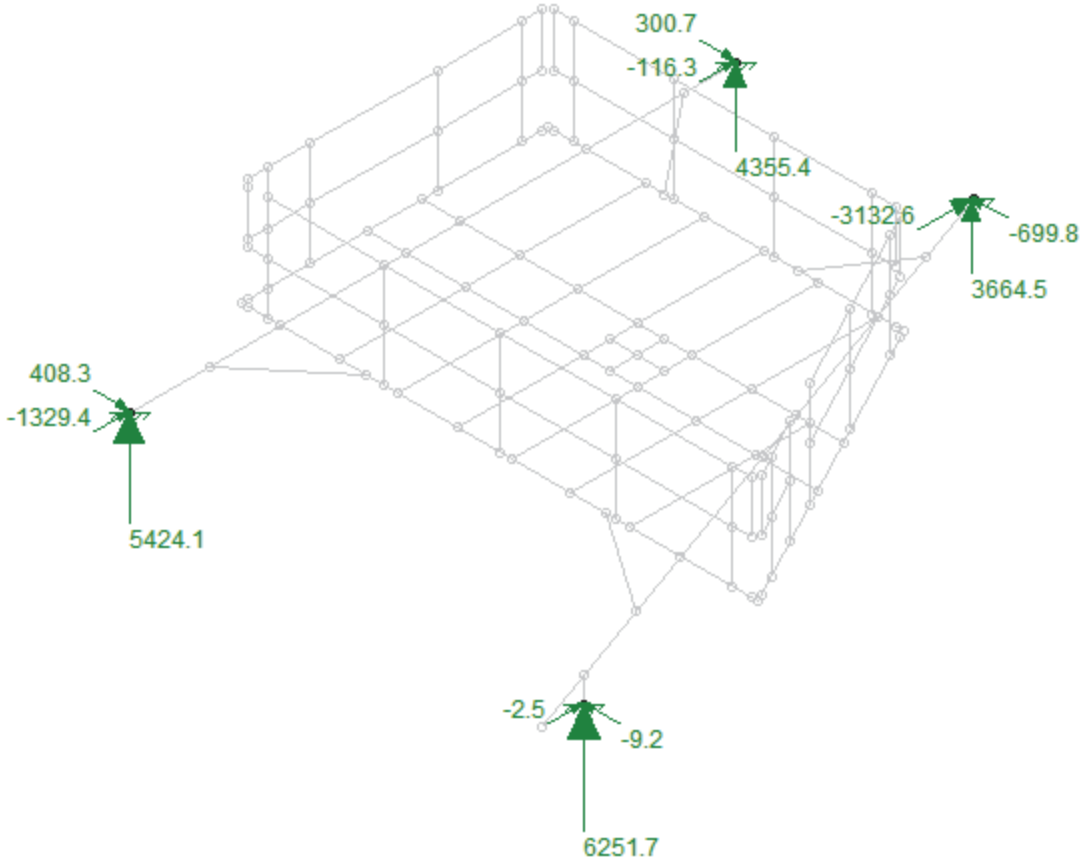
Maximum Stress in post: 65.3% of capacity

Shear Check:



Reaction Forces:

Dead+Side Wind: Govern Node N2 for horizontal shear

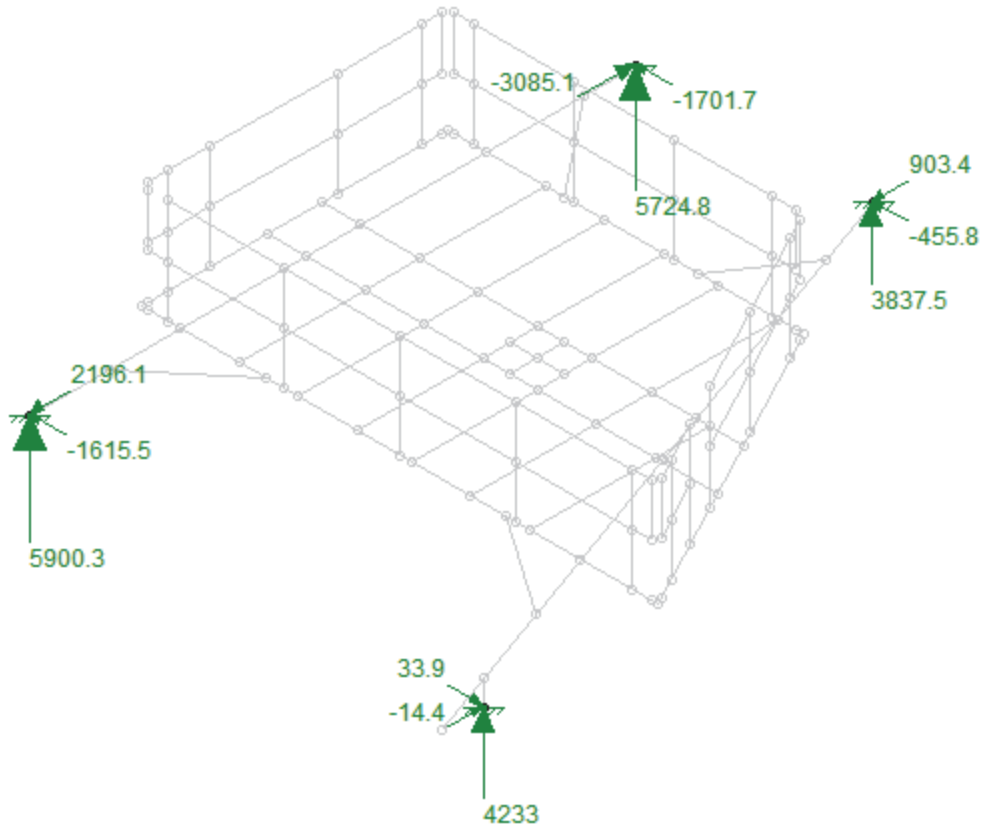


Unfactored Reactions

$$V_x := \frac{3132.6\text{ lbf}}{1.4} = 2237.57 \text{ lbf} \quad \text{Horizontal}$$

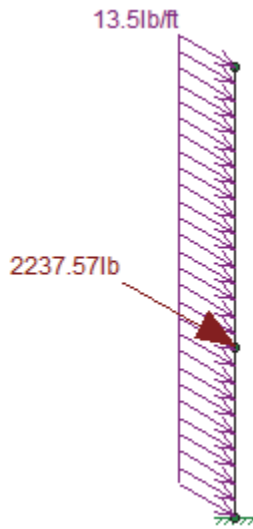
$$F_x := \frac{3664.5\text{ lbf}}{1.4} = 2617.5 \text{ lbf} \quad \text{Vertical}$$

Dead+Front Wind:



CHECK PARAPETS

Reactions from platform:



Wind Loads on the wall

Parapet Height (at Top):

$z := 22\text{ft}$

parapet of the building

$$K_z := 2.01 \cdot \left(\frac{z}{z_g} \right)^{\frac{2}{\alpha}} = 0.64$$

Velocity pressure:

$q_p := 0.00256 \cdot K_z \cdot K_{zt} \cdot K_d \cdot V^2 \cdot \text{psf}$

$q_p = 13.5 \cdot \text{psf}$

$b := 3\text{ft}$

Length of masonry at top of roof

$GC_{pn} := 1.5$

Combined net pressure coefficient

$w_p := b \cdot q_p \cdot GC_{pn} = 60.69 \cdot \text{plf}$

Wind load on wall

Masonry Check

$H_{\text{wall}} := 33\text{in}$

Height of Parapet

$L_{\text{support}} := 10\text{in}$

Width of support

$d := 14\text{in}$

Masonry depth(as per Site Visit Notes)

$b = 3\text{ft}$

Length of masonry at top of roof

$M_{\text{max}} := 2.4\text{kip} \cdot \text{ft}$

Maximum moment due to platform horizontal reaction

$P_{\text{platform}} := 2617.57\text{lb}$

$S := \frac{b \cdot d^2}{6} = 1176 \cdot \text{in}^3$

$$f_b := \frac{M_{\max}}{S} = 24.49 \text{ psi}$$

$$\rho_{\text{masonry}} := 120 \text{ pcf}$$

$$P_{\text{masonry}} := \rho_{\text{masonry}} \cdot d \cdot b \cdot H_{\text{wall}} = 1155 \text{ lbf} \quad \text{Weight of masonry}$$

$$A_{\text{masonry}} := b \cdot d = 3.5 \text{ ft}^2 \quad \text{Area of masonry}$$

$$f_a := \frac{P_{\text{masonry}} + P_{\text{platform}}}{A_{\text{masonry}}} = 7.49 \text{ psi}$$

$$f_{\text{masonry}} := f_b - 0.6f_a = 20 \text{ psi}$$

Compare the stress calculated from service loads to allowable stress as defined by ACI 530-05, Table 2.2.3.2. Assuming masonry cement and that the stress is normal to the bed joints.

$$f_{\text{allow}} := 24 \text{ psi}$$

$$f_{\text{masonry}} > f_{\text{allow}}$$

Masonry wall is **adequate**.

$$\text{Usage} := \frac{f_{\text{masonry}}}{f_{\text{allow}}} = 83.33\%$$

Exhibit E

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

T-Mobile Existing Facility

Site ID: CT11878A

CT878/Westport_RT
1555 Post Road East
Westport, CT 06880

April 18, 2017

EBI Project Number: 6217001372

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general public allowable limit:	22.43 %

April 18, 2017

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

Emissions Analysis for Site: **CT11878A – CT878/Westport_RT**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **1555 Post Road East, Westport, CT**, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limit for the 700 MHz Band is 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 **1555 Post Road East, Westport, 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 building. For this report the sample point is the top of a 6-foot person standing at the base of the building.

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 UMTS channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 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) Since all radios are ground mounted there are additional cabling losses accounted for. For each ground mounted RF path the following losses were calculated. 1.01 dB of additional cable loss for all ground mounted 700 MHz Channels, 1.85 dB of additional cable loss for all ground mounted 1900 MHz channels and 1.91 dB of additional cable loss for all ground mounted 2100 MHz channels were factored into the calculations used for this analysis. This is based on manufacturers Specifications for 180 feet of 1-5/8" coax cable on each path.
- 7) 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.
- 8) For the following calculations the sample point was the top of a 6-foot person standing at the base of the building. 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.
- 9) The antennas used in this modeling are the **RFS APX16DWV-16DWV-S-E-A20** for 1900 MHz (PCS) and 2100 MHz (AWS) channels and the **Commscope LNX-6512DS-A1M** for 700 MHz channels. This is based on feedback from the carrier with regards to anticipated antenna selection. The **RFS APX16DWV-16DWV-S-E-A20** has a maximum gain of **16.3 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Commscope LNX-6512DS-A1M** has a maximum gain of **12 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.
- 10) The antenna mounting height centerlines of the proposed antennas are **38 & 45 feet** above ground level (AGL).
- 11) 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.
- 12) All calculations were done with respect to uncontrolled / general public threshold limits.

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	RFS APX16DWV- 16DWV-S-E-A20	Make / Model:	RFS APX16DWV- 16DWV-S-E-A20	Make / Model:	RFS APX16DWV- 16DWV-S-E-A20
Gain:	16.3 dBd	Gain:	16.3 dBd	Gain:	16.3 dBd
Height (AGL):	45	Height (AGL):	45	Height (AGL):	45
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	8	Channel Count	8	Channel Count	8
Total TX Power(W):	300	Total TX Power(W):	300	Total TX Power(W):	300
ERP (W):	8,289.55	ERP (W):	8,289.55	ERP (W):	8,289.55
Antenna A1 MPE%	19.59	Antenna B1 MPE%	19.59	Antenna C1 MPE%	19.59
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Commscope LNX-6512DS-A1M	Make / Model:	Commscope LNX-6512DS-A1M	Make / Model:	Commscope LNX-6512DS-A1M
Gain:	12 dBd	Gain:	12 dBd	Gain:	12 dBd
Height (AGL):	38	Height (AGL):	38	Height (AGL):	38
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):	376.81	ERP (W):	376.81	ERP (W):	376.81
Antenna A2 MPE%	2.83	Antenna B2 MPE%	2.83	Antenna C2 MPE%	2.83

Site Composite MPE%	
Carrier	MPE%
T-Mobile (Per Sector Max)	22.43 %
No Additional Carriers Present On Site	NA
Site Total MPE %:	22.43 %

T-Mobile Sector A Total:	22.43 %
T-Mobile Sector B Total:	22.43 %
T-Mobile Sector C Total:	22.43 %
Site Total:	22.43 %

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	1,648.74	45	77.94	AWS - 2100 MHz	1000	7.79%
T-Mobile AWS - 2100 MHz UMTS	2	824.37	45	38.97	AWS - 2100 MHz	1000	3.90%
T-Mobile PCS - 1950 MHz UMTS	2	835.84	45	39.51	PCS - 1950 MHz	1000	3.95%
T-Mobile PCS - 1950 MHz GSM	2	835.84	45	39.51	PCS - 1950 MHz	1000	3.95%
T-Mobile 700 MHz LTE	1	376.81	38	13.23	700 MHz	467	2.83%
Total:						22.43%	

Summary

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

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

T-Mobile Sector	Power Density Value (%)
Sector A:	22.43 %
Sector B:	22.43 %
Sector C:	22.43 %
T-Mobile Per Sector Maximum:	22.43 %
Site Total:	22.43 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **22.43%** of the allowable FCC established general public limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

Per T-Mobile Signage policies, it is recommended that a yellow RF guideline sign and a blue RF notice sign be installed at each access point to the rooftop since the antennas are less than 30 feet above the rooftop walking surface. Additionally, a blue RF notice sign should be installed at the base of the flag pole, 48 inches above the walking surface on all sides approachable by a person walking on the rooftop walking surface in a manner that ensures that anyone approaching the flag pole is made aware of the presence of antennas within the flag pole structure. The following table illustrates the signs described above.



Sign	Description	Posting Guidelines
	<p>RF Guideline Sign</p> <p>Gives guidelines on how to proceed in areas that may exceed either the FCC's General Population or Occupational emissions limits.</p>	<p>Should be posted adjacent to the RF Notice sign at the access point and adjacent to any alerting sign 48" above the walking surface.</p>
	<p>Blue Notice Sign</p> <p>Used to inform individuals that they are entering an area that may exceed either the FCC's General Population or Occupational emissions limits. Must be placed anywhere the public can get within 30 feet vertically or horizontally of an antenna.</p>	<p>Should be posted at all facility access points. Not required if antennas are greater than 30 feet from general public access areas.</p> <p>Site ID number should be clearly written on the sign in permanent marker.</p>

Exhibit F

UNIONVILLE
 24 MILL ST
 UNIONVILLE
 CT
 06085-9998
 0883640185
 09/08/2017 (800)275-8777 3:33 PM

Product Description	Sale Qty	Final Price
PM 2-Day Flat Rate Env (Domestic) (FAIRFIELD, CT 06824) (Flat Rate) (Expected Delivery Day) (Monday 09/11/2017) (USPS Tracking #) (9505 5119 1368 7251 1500 13)	1	\$6.65
Insurance (Up to \$50.00 included)	1	\$0.00
PM 2-Day Flat Rate Env (Domestic) (WESTPORT, CT 06880) (Flat Rate) (Expected Delivery Day) (Monday 09/11/2017) (USPS Tracking #) (9505 5119 1368 7251 1500 20)	1	\$6.65
Insurance (Up to \$50.00 included)	1	\$0.00
PM 2-Day Flat Rate Env (Domestic) (WESTPORT, CT 06880) (Flat Rate) (Expected Delivery Day) (Monday 09/11/2017) (USPS Tracking #) (9505 5119 1368 7251 1500 37)	1	\$6.65
Insurance (Up to \$50.00 included)	1	\$0.00
PM 2-Day Flat Rate Env (Domestic) (WESTPORT, CT 06880) (Flat Rate) (Expected Delivery Day) (Monday 09/11/2017) (USPS Tracking #) (9505 5119 1368 7251 1500 44)	1	\$6.65
Insurance (Up to \$50.00 included)	1	\$0.00

Total \$26.60

Credit Card Remitd \$26.60
 (Card Name:VISA)
 (Account #:XXXXXXXXXXXX0717)
 (Approval #:00430G)
 (Transaction #:333)

Includes up to \$50 insurance

 BRIGHTEN SOMEONE'S MAILBOX. Greeting cards available for purchase at select Post Offices.

Text your tracking number to 28777 (2USPS) to get the latest status. Standard Message and Data rates may apply. You may also visit USPS.com

UNIONVILLE
 24 MILL ST
 UNIONVILLE
 CT
 06085-9998
 0883640185
 09/08/2017 (800)275-8777 3:33 PM

Product Description	Sale Qty	Final Price
PM 2-Day Flat Rate Env (Domestic) (FAIRFIELD, CT 06824) (Flat Rate) (Expected Delivery Day) (Monday 09/11/2017) (USPS Tracking #) (9505 5119 1368 7251 1500 13)	1	\$6.65
Insurance (Up to \$50.00 included)	1	\$0.00
PM 2-Day Flat Rate Env (Domestic) (WESTPORT, CT 06880) (Flat Rate) (Expected Delivery Day) (Monday 09/11/2017) (USPS Tracking #) (9505 5119 1368 7251 1500 20)	1	\$6.65
Insurance (Up to \$50.00 included)	1	\$0.00
PM 2-Day Flat Rate Env (Domestic) (WESTPORT, CT 06880) (Flat Rate) (Expected Delivery Day) (Monday 09/11/2017) (USPS Tracking #) (9505 5119 1368 7251 1500 37)	1	\$6.65
Insurance (Up to \$50.00 included)	1	\$0.00
PM 2-Day Flat Rate Env (Domestic) (WESTPORT, CT 06880) (Flat Rate) (Expected Delivery Day) (Monday 09/11/2017) (USPS Tracking #) (9505 5119 1368 7251 1500 44)	1	\$6.65
Insurance (Up to \$50.00 included)	1	\$0.00

Total \$26.60

Credit Card Remitd \$26.60
 (Card Name:VISA)
 (Account #:XXXXXXXXXXXX0717)
 (Approval #:00430G)
 (Transaction #:333)

Includes up to \$50 insurance

 BRIGHTEN SOMEONE'S MAILBOX. Greeting cards available for purchase at select Post Offices.

Text your tracking number to 28777 (2USPS) to get the latest status. Standard Message and Data rates may apply. You may also visit USPS.com