



Northeast Site Solutions
Victoria Masse
420 Main Street #2, Sturbridge, MA 01566
860-306-2326
victoria@northeastsitesolutions.com

July 13, 2022

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

RE: Notice of Exempt Modification
38 Maple Street, Kent CT 06757
Latitude: 42.72190000
Longitude: -73.47496000
T-Mobile Site#: CTNH542A-L600

Dear Ms. Bachman:

T-Mobile currently maintains six (6) antenna at the 110-foot level of the existing 149-foot monopole tower located at 38 Maple Street, Kent CT 06757. The 149-foot monopole tower is owned by the American Tower and property is owned by the Town of Kent. T-Mobile now intends to replace three (3) existing antenna with three (3) new 600/700 MHz antenna. The new antennas would be installed at the 110-foot level of the tower. This modification includes B2, B5 hardware that is both 4G (LTE), and 5G capable.

T-Mobile Planned Modifications:

Remove:

- (1) Fiber line
- (1) Coax line

Remove and Replace:

- (3) LNX-6515DS-A1M Antenna (Remove) – (3) APXVAALL24 43-U-NA20 600/700 MHz Antenna (Replace)
- (3) RRUS 11 B12 (Remove) – (3) Radio 4480 B71 (Replace)

Install New:

- (1) Hybrid Line

Existing to Remain:

- (3) APX16DWV-16DWVS-E-A20 Antenna
- (3) RRUS 11 B4 Radios
- (3) RRUS 11 B2 Radios



This facility was approved by the Connecticut Siting Council on January 20, 2017 under TS-T-Mobile-068-161118. 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-SOj-73, a copy of this letter is being sent to First Selectman Jean C. Speck, and Donna Hayes, Land Use Administrator as well as the tower and property owner.

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,

Victoria Masse

Victoria Masse
Mobile: 860-306-2326
Fax: 413-521-0558
Office: 420 Main Street, Unit 2, Sturbridge MA 01566
Email: victoria@northeastssitesolutions.com



NSS **NORTHEAST**
SITE SOLUTIONS
Turnkey Wireless Development

Attachments:

cc: Jean C. Speck, First Selectman – as property owner
Town of Kent
41 Kent Green Boulevard
P.O. Box 678
Kent, CT 06757

Donna Hayes, Land Use Administrator
Town of Kent
41 Kent Green Boulevard
P.O. Box 678
Kent, CT 06757

American Tower – as tower owner

Exhibit A

Original Facility Approval



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

January 20, 2017

Denise Sabo
Northeast Site Solutions
199 Brickyard Road
Farmington, CT 06032

RE: **TS-T-MOBILE-068-161118** - T-Mobile request for an order to approve tower sharing at an existing telecommunications facility located at 38 Maple Street, Kent, Connecticut

Dear Ms. Sabo:

At a public meeting held on January 19, 2017, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures with the following conditions:

1. Any deviation from the proposed installation as specified in the original tower share request and supporting materials with the Council shall render this decision invalid;
2. Any material changes to the proposed installation as specified in the original tower share request and supporting materials filed with the Council shall require an explicit request for modification to the Council pursuant to Connecticut General Statutes § 16-50aa, including all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65;
3. Not less than 45 days after completion of the proposed installation, the Council shall be notified in writing that the installation has been completed;
4. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by T-Mobile shall be removed within 60 days of the date the antenna ceased to function;
5. The validity of this action shall expire one year from the date of this letter; and
6. The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

This decision is under the exclusive jurisdiction of the Council and applies only to this request for tower sharing dated November 15, 2016 and additional information received on December 19, 2016. This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower. Any deviation from the approved tower sharing request is enforceable under the provisions of Connecticut General Statutes § 16-50u.

The proposed shared use is to be implemented as specified in your letter dated November 15, 2016 and additional information received on December 19, 2016, including the placement of all necessary equipment and shelters within the tower compound.

Please be advised that the validity of this action shall expire one year from the date of this letter.

Thank you for your attention and cooperation.

Very truly yours,

Robert Stein
Chairman

RS/FOC/lm

c: The Honorable Bruce K. Adams, First Selectman, Town of Kent
John A. Johnson, Chairman, Planning & Zoning Commission, Town of Kent
American Tower Corporation



CONNECTICUT SITING COUNCIL

Affirmative Action / Equal Opportunity Employer

Exhibit B

Property Card

38 MAPLE ST

Location 38 MAPLE ST

Mblu 4/ 12/ 4/ /

Acct# 00129900

Owner KENT TOWN OF

Assessment \$667,600

Appraisal \$953,600

PID 246

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2018	\$617,900	\$335,700	\$953,600

Assessment			
Valuation Year	Improvements	Land	Total
2018	\$432,600	\$235,000	\$667,600

Owner of Record

Owner KENT TOWN OF
Co-Owner (TOWN GARAGE)

Sale Price \$0
Certificate
Book & Page 0061/0346
Sale Date 01/15/1973

Ownership History

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
KENT TOWN OF	\$0		0061/0346	01/15/1973

Building Information

Building 1 : Section 1

Year Built: 1974
Living Area: 6,400
Replacement Cost: \$274,564
**Replacement Cost
Less Depreciation:** \$214,200

Building Attributes	
Field	Description
STYLE	Warehouse
MODEL	Commercial

Grade	Average
Stories:	1
Occupancy	1.00
Exterior Wall 1	Pre-finsh Metl
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Forced Air-Duc
AC Type	None
Struct Class	
Bldg Use	Com/Res MDL96
Total Rooms	
Total Bedrms	00
Total Baths	0
Usrflid 218	
Usrflid 219	
1st Floor Use:	2-1I
Heat/AC	NONE
Frame Type	STEEL
Baths/Plumbing	AVERAGE
Ceiling/Wall	NONE
Rooms/Prtns	LIGHT
Wall Height	14.00
% Comn Wall	0.00

Building Layout



(http://images.vgsi.com/photos/KentCTPhotos//Sketches/246_24)

Building Sub-Areas (sq ft)		Legend	
Code	Description	Gross Area	Living Area
BAS	First Floor	6,400	6,400
UST	Utility, Storage, Unfinished	800	0
		7,200	6,400

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	920C
Description	Town MDL94
Alt Land Appr	No

Land Line Valuation

Size (Acres)	10.19
Frontage	0
Depth	0

Category

Assessed Value \$235,000

Appraised Value \$335,700

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
SHP5	WRK SHP W/IMP GD			3360.00 S.F.	\$65,500	1
TEN	TENNIS COURT			2.00 UNITS	\$45,000	1
IMP	IMPLEMENT SHED			800.00 S.F.	\$3,600	1
IMP	IMPLEMENT SHED			1650.00 S.F.	\$7,400	1
SHD1	SHED FRAME			192.00 S.F.	\$2,900	1
CB3	PreCastConcCel			240.00 S.F.	\$79,800	1
CB3	PreCastConcCel			240.00 S.F.	\$79,800	1
CB3	PreCastConcCel			360.00 S.F.	\$119,700	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2019	\$617,900	\$335,700	\$953,600

Assessment			
Valuation Year	Improvements	Land	Total
2019	\$432,600	\$235,000	\$667,600

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266
19 13 45

243
4 12 1

19 12 1

1925

4 13 5 267

244
4 12 2

4 13 6

268

4 12 3
245

4 12 4

246

4 44 1
291

4 42 4

289

4 12 22
100483

4 12 20

262

4 44 RAIL 4 44 2 292

4 42 5

290

4 12 21

100482

4 44 3 293

4 12 5

247

4 12 7 249

4 12 6

248

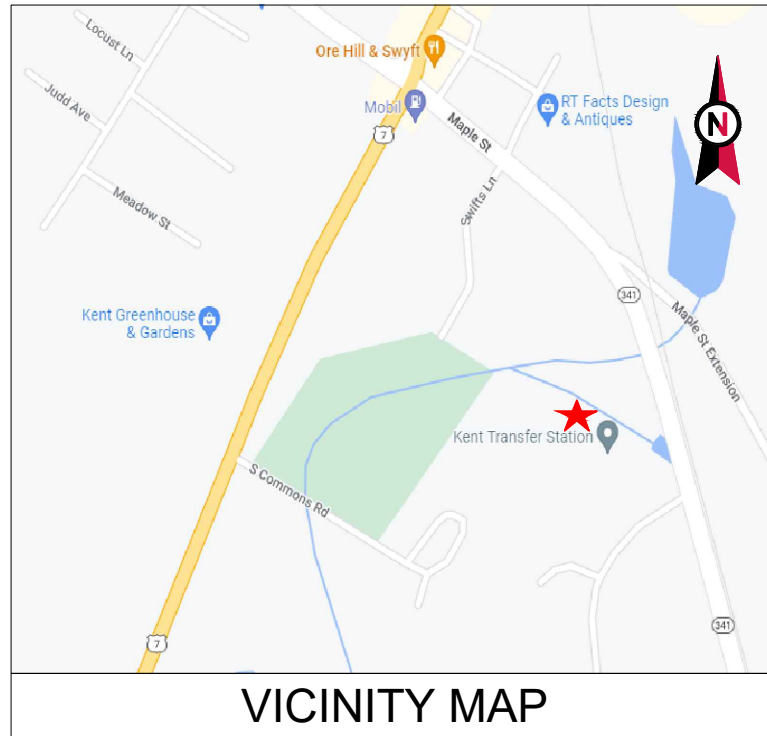
4 12 12

284

4 44 4 294

Exhibit C

Construction Drawings

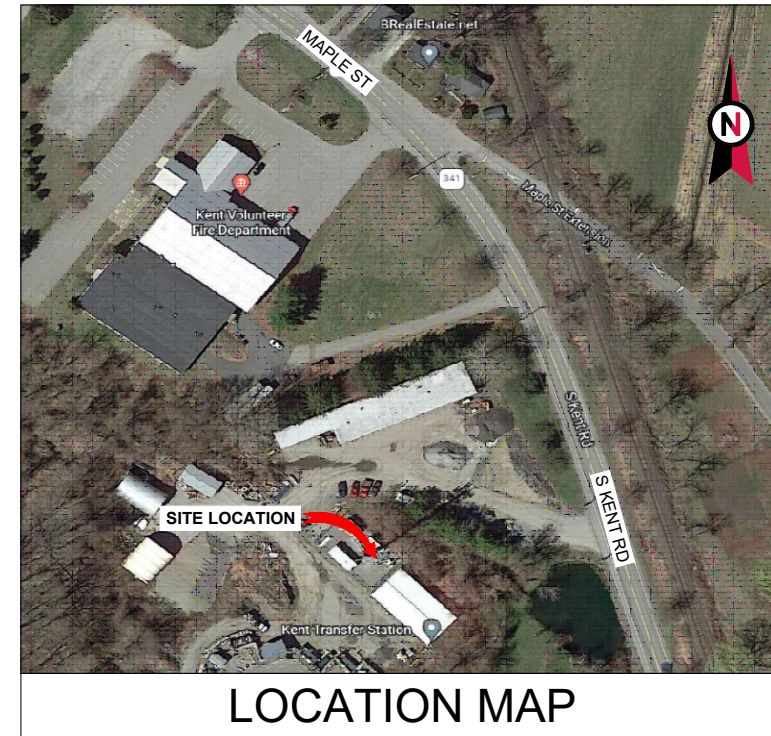


VICINITY MAP




AMERICAN TOWER®


ATC SITE NAME: KENT PCS CT
 ATC SITE NUMBER: 413783
 T-MOBILE SITE NAME: CTNH542A
 T-MOBILE SITE NUMBER: CTNH542A
 SITE ADDRESS: 38 MAPLE ST
 KENT, CT 06757-1709




LOCATION MAP

**T-MOBILE L600 AMENDMENT PLAN
 67E07C 6160 CONFIGURATION**

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX				
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. 1. INTERNATIONAL BUILDING CODE (IBC) 2. NATIONAL ELECTRIC CODE (NEC) 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> 38 MAPLE ST KENT, CT 06757-1709 COUNTY: LITCHFIELD <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41.72190816 LONGITUDE: -73.47495885 GROUND ELEVATION: 393' AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: <u>TOWER WORK:</u> REMOVE (3) ANTENNA(S) AND (3) RRU(S) INSTALL (3) ANTENNA(S), (3) RRU(S) AND 6X24 4AWG CABLE EXISTING (3) ANTENNA(S), (6) RRU(S) AND (1) 9X18 HCS TO REMAIN <u>GROUND WORK:</u> INSTALL (1) BB 6648 AND (1) PSU 4813 VR4A EXISTING (1) RBS 6102 CABINET AND (1) PURCELL CABINET TO REMAIN THE PROPOSED PROJECT DOES NOT INCLUDE ELECTRICAL SCOPE	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
	<u>PROJECT TEAM</u> <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 <u>ENGINEER:</u> HUDSON DESIGN GROUP, LLC. 45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845 <u>PROPERTY OWNER:</u> TOWN OF KENT CT S KENT RD KENT, CT 06757-1709	<u>PROJECT NOTES</u> 1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. 4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED. 6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).	G-001	TITLE SHEET	0	06/30/22	BB
	<u>UTILITY COMPANIES</u> POWER COMPANY: UTILITY COMPANY DIRECT PHONE: UNKNOWN TELEPHONE COMPANY: UNKNOWN PHONE: UNKNOWN	<u>PROJECT LOCATION DIRECTIONS</u> FROM TORRINGTON, CT. HEAD SOUTH ON LITCHFIELD ST/S MAIN ST TOWARDS DAYCOETON P (0.3 MI). TURN LEFT ONTO US-202 W/NEW LITCHFIELD ST. (12.6MI). TURN RIGTH ONTO CT-341 W (12.9MI)	G-002	GENERAL NOTES	0	06/30/22	BB
			C-101	DETAILED SITE PLAN	0	06/30/22	BB
			C-102	DETAILED EQUIPMENT PLAN	0	06/30/22	BB
			C-201	TOWER ELEVATION	0	06/30/22	BB
			C-401	ANTENNA INFORMATION & SCHEDULE	0	06/30/22	BB
			C-501	CONSTRUCTION DETAILS	0	06/30/22	BB
			E-501	GROUNDING DETAILS	0	06/30/22	BB
			R-601	SUPPLEMENTAL	0		
			R-602	SUPPLEMENTAL	0		
			R-603	SUPPLEMENTAL	0		
			R-604	SUPPLEMENTAL	0		
			R-605	SUPPLEMENTAL	0		



AMERICAN TOWER®



**HUDSON
Design Group LLC**

45 BEECHWOOD DRIVE TEL: (978) 557-5553
 N. ANDOVER, MA 01845 FAX: (978) 336-5586

REV.	DESCRIPTION	BY	DATE
A	PRELIM	MRK	06/03/22
0	FINALS	BB	06/30/22

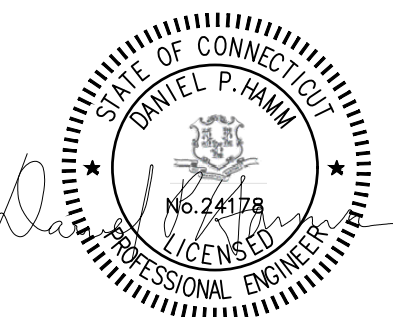
ATC SITE NUMBER:
413783


ATC SITE NAME:
KENT PCS CT

T-MOBILE SITE NAME:
CTNH542A

SITE ADDRESS:
**38 MAPLE ST
KENT, CT 06757-1709**

SEAL:





DATE DRAWN:	05/30/2022
ATC JOB NO:	14104626_D1
CUSTOMER ID:	CTNH542A
CUSTOMER #:	CTNH542A

TITLE SHEET

SHEET NUMBER: G-001	REVISION: 0
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GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, T-MOBILE "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
 - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
 - B. AC/TELCO INTERFACE BOX (PPC)
 - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
 - D. TOWERS, MONOPOLES
 - E. TOWER LIGHTING
 - F. GENERATORS & LIQUID PROPANE TANK
 - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
 - H. ANTENNAS (INSTALLED BY OTHERS)
 - I. TRANSMISSION LINE
 - J. TRANSMISSION LINE JUMPERS
 - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
 - L. TRANSMISSION LINE GROUND KITS
 - M. HANGERS
 - N. HOISTING GRIPS
 - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF T-MOBILE TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE T-MOBILE REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE T-MOBILE REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE T-MOBILE REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE T-MOBILE CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE T-MOBILE REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH T-MOBILE AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.

22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY T-MOBILE MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH T-MOBILE SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO T-MOBILE FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO T-MOBILE SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY T-MOBILE REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE T-MOBILE REP. ANY WORK FOUND BY THE T-MOBILE REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. T-MOBILE FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE T-MOBILE WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. T-MOBILE OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO T-MOBILE OR THEIR ARCHITECT/ENGINEER.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
 - A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
 - B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE.
 - C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
 - D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
 - E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
 - A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.

- B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
- C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
- D. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
- E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
- F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
- G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING 1/4" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.
- H. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE REQUIRED DURING CONSTRUCTION UNTIL ALL CONNECTIONS ARE COMPLETE.
- I. ANY FIELD CHANGES OR SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL FROM THE ENGINEER, AND T- MOBILE PROJECT MANAGER IN WRITING

SPECIAL CONSTRUCTION

ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
 - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY T-MOBILE UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL.
 - B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND T-MOBILE SPECIFICATIONS.
 - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
 - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE AND PROVIDE PRINTOUT OF THAT TEST.
 - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
 - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
 - G. ANTENNA AND COAXIAL CABLE GROUNDING:
 2. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
 3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS).

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.



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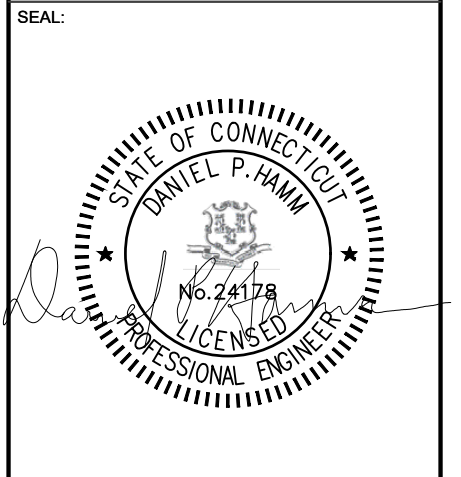
REV.	DESCRIPTION	BY	DATE
A	PRELIM	MRK	06/03/22
0	FINALSD	BB	06/30/22

ATC SITE NUMBER:
413783

ATC SITE NAME:
KENT PCS CT

T-MOBILE SITE NAME:
CTNH542A

SITE ADDRESS:
**38 MAPLE ST
KENT, CT 06757-1709**



DATE DRAWN:	05/30/2022
ATC JOB NO:	14104626_D1
CUSTOMER ID:	CTNH542A
CUSTOMER #:	CTNH542A

GENERAL NOTES	
SHEET NUMBER: G-002	REVISION: 0

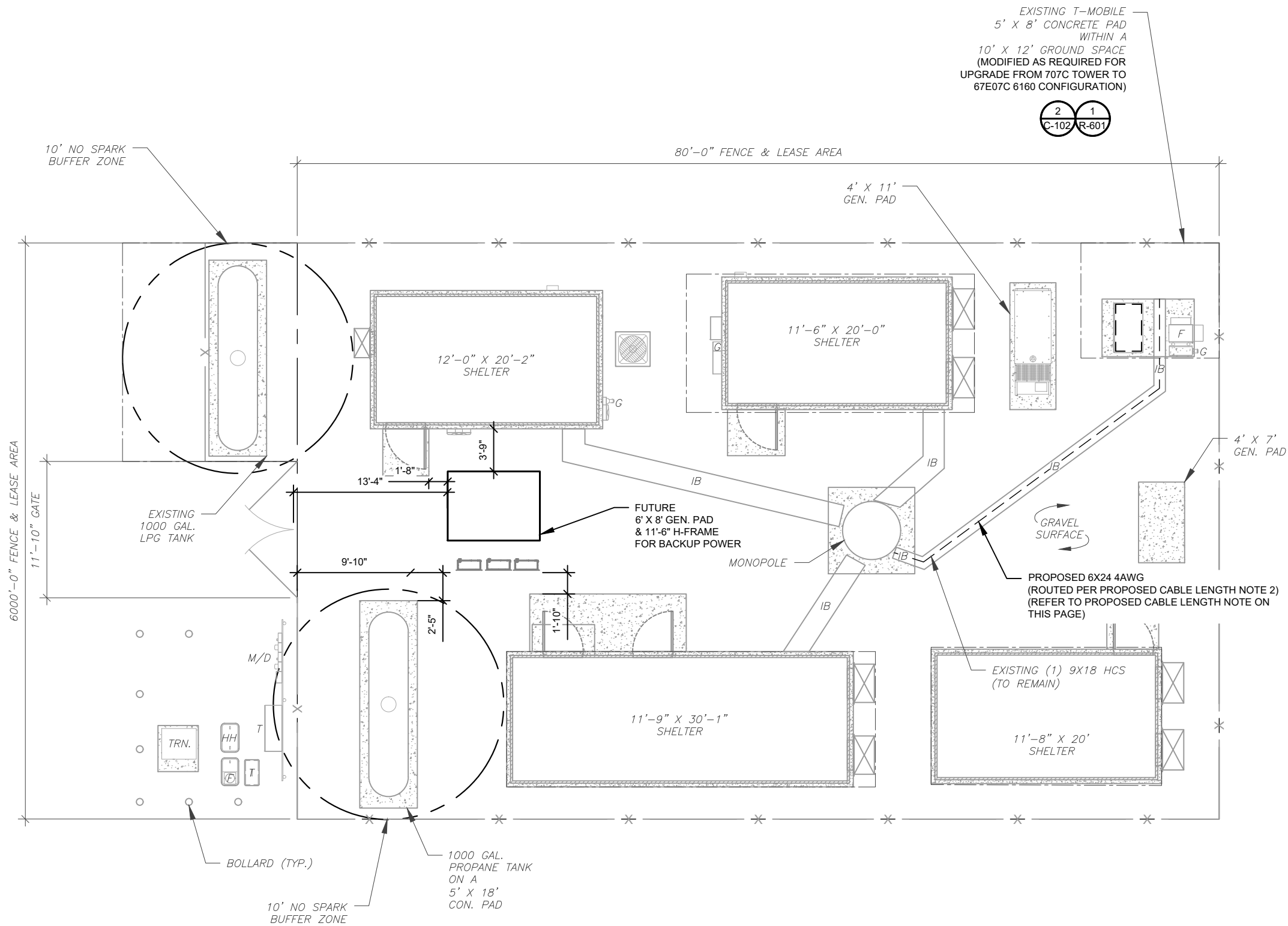
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SITE PLAN NOTES:

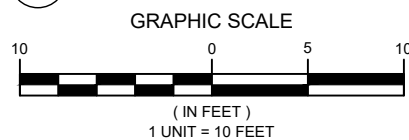
- THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
- ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
- THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.

LEGEND	
⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
—	CHAINLINK FENCE

- PROPOSED CABLE LENGTH:**
- ESTIMATED LENGTH OF PROPOSED CABLE IS 170'. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES). CDS DEFER TO GREATEST CABLE LENGTH.
 - ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.



1 DETAILED SITE PLAN



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0	FINALS	BB	06/30/22

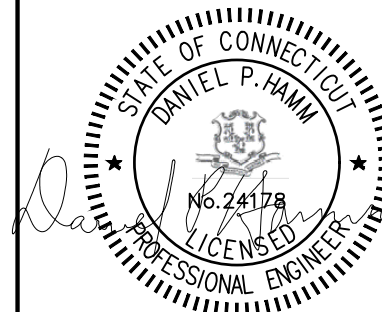
ATC SITE NUMBER:
413783

ATC SITE NAME:
KENT PCS CT

T-MOBILE SITE NAME:
CTNH542A

SITE ADDRESS:
38 MAPLE ST
KENT, CT 06757-1709

SEAL:



DATE DRAWN:	05/30/2022
ATC JOB NO:	14104626_D1
CUSTOMER ID:	CTNH542A
CUSTOMER #:	CTNH542A

DETAILED SITE PLAN

SHEET NUMBER: C-101	REVISION: 0
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SITE PLAN NOTES:

1. CONTRACTOR TO VERIFY THERE IS NO LIVE AAV FIBER RUNNING THROUGH EXISTING DEAD EQUIPMENT. IF SO, THIS WILL NEED TO BE RERUN THROUGH CONDUIT PRIOR TO REMOVING DEAD 2G (6201 CABS) EQUIPMENT.
2. ALL OPEN PORTS NEED TO BE SEALED / WEATHERPROOFED PROPERLY
3. ALL UNNEEDED / EXCESS EQUIPMENT AND GARBAGE TO BE REMOVED FROM EQUIPMENT AREA. DISPOSE OF MATERIALS PROPERLY OFF SITE.

EXISTING T-MOBILE
5' X 8' CONCRETE PAD
WITHIN A
10' X 12' GROUND SPACE

EXISTING RBS 6102 CABINET
(TO REMAIN)

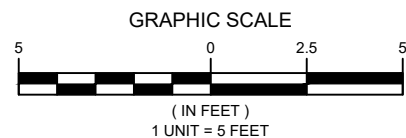
EXISTING PURCELL CABINET
(TO REMAIN)

EXISTING PPC CABINET
(TO REMAIN)

EXISTING T-MOBILE ICE BRIDGE
(TO REMAIN)

EXISTING (1) 9X18 HCS
(TO REMAIN)

1 EXISTING GROUND EQUIPMENT LAYOUT



EXISTING T-MOBILE
5' X 8' CONCRETE PAD
WITHIN A
10' X 12' GROUND SPACE

EXISTING RBS 6102 CABINET
(TO REMAIN)

EXISTING PURCELL CABINET
(TO REMAIN)

EXISTING PPC CABINET
(TO REMAIN)

PROPOSED (1) BB 6648 AND
(1) PSU 4813
INSIDE EXISTING
RBS 6102 CABINET

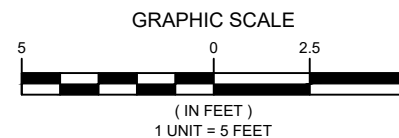
EXISTING T-MOBILE ICE BRIDGE
(TO REMAIN)

PROPOSED
6X24 4AWG

EXISTING (1) 9X18 HCS
(TO REMAIN)

UPGRADE BREAKER TO 125A

2 PROPOSED GROUND EQUIPMENT LAYOUT



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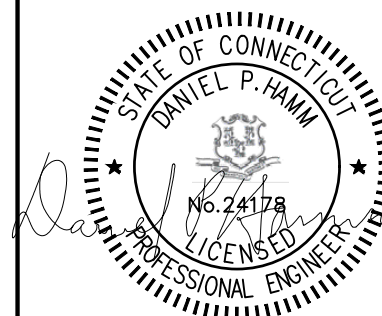
ATC SITE NUMBER:
413783

ATC SITE NAME:
KENT PCS CT

T-MOBILE SITE NAME:
CTNH542A

SITE ADDRESS:
38 MAPLE ST
KENT, CT 06757-1709

SEAL:

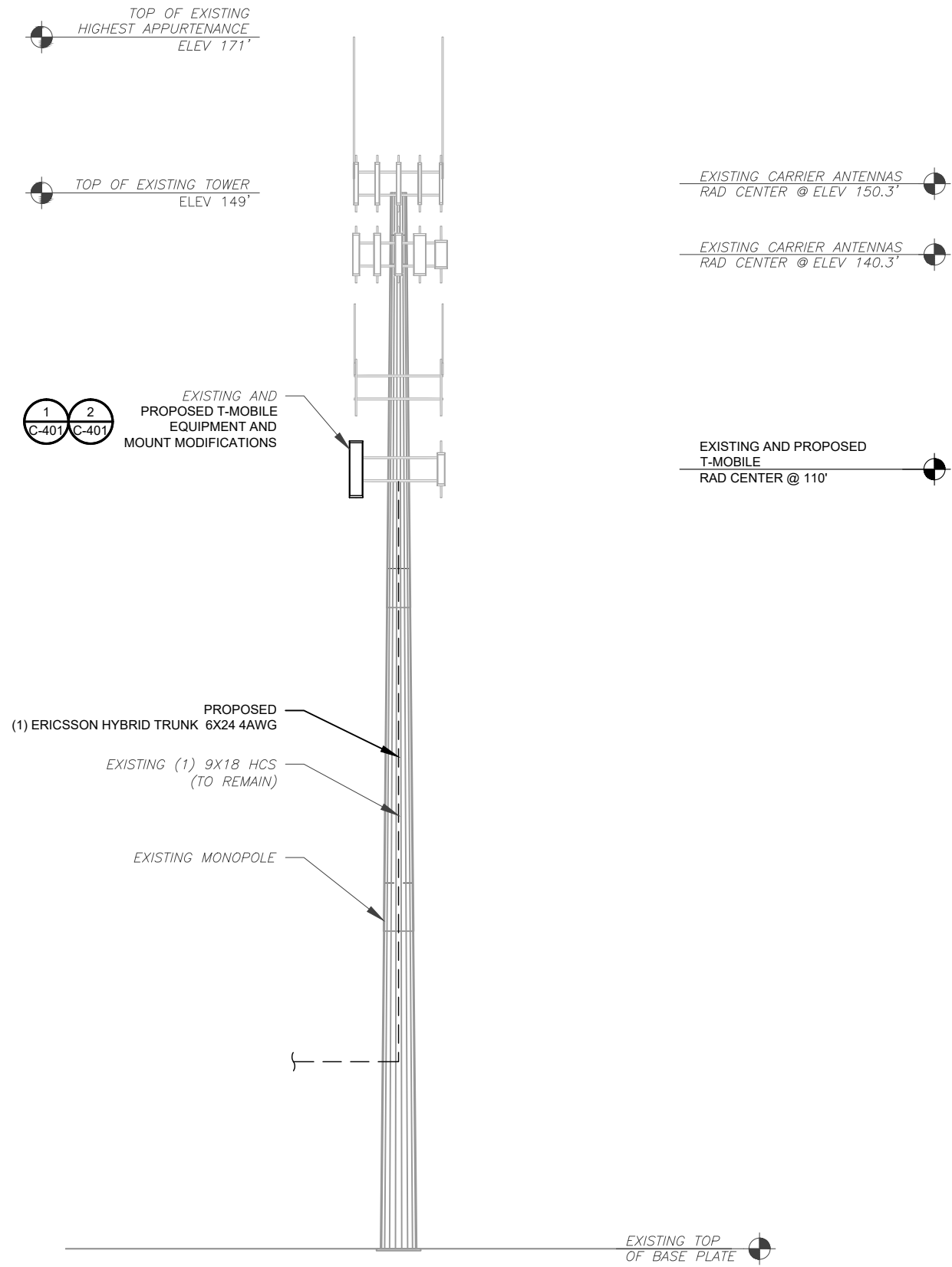


DATE DRAWN:	05/30/2022
ATC JOB NO:	14104626_D1
CUSTOMER ID:	CTNH542A
CUSTOMER #:	CTNH542A

DETAILED EQUIPMENT PLAN

SHEET NUMBER: C-102	REVISION: 0
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1 TOWER ELEVATION
SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY ATC, DATED 05/20/2022, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.

TOWER NOTE:

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
- WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
- ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
- TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
- TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.



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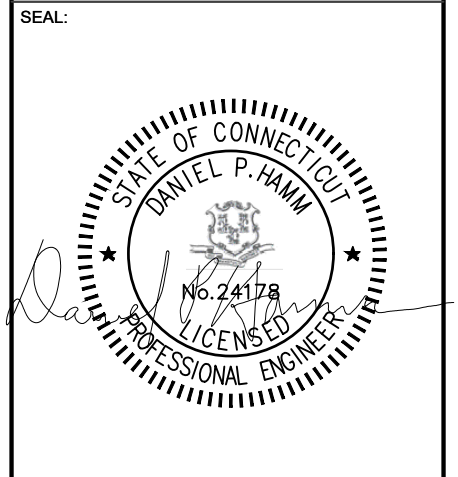
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ATC SITE NUMBER:
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DATE DRAWN:	05/30/2022
ATC JOB NO:	14104626_D1
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CUSTOMER #:	CTNH542A

TOWER ELEVATION	
SHEET NUMBER: C-201	REVISION: 0

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0	FINALS	BB	06/30/22

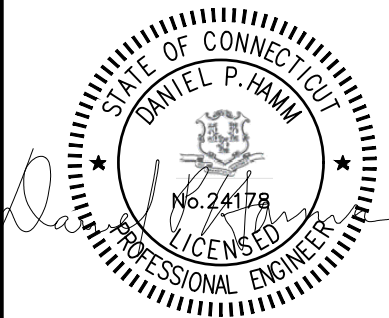
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413783

ATC SITE NAME:
KENT PCS CT

T-MOBILE SITE NAME:
CTNH542A

SITE ADDRESS:
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KENT, CT 06757-1709

SEAL:



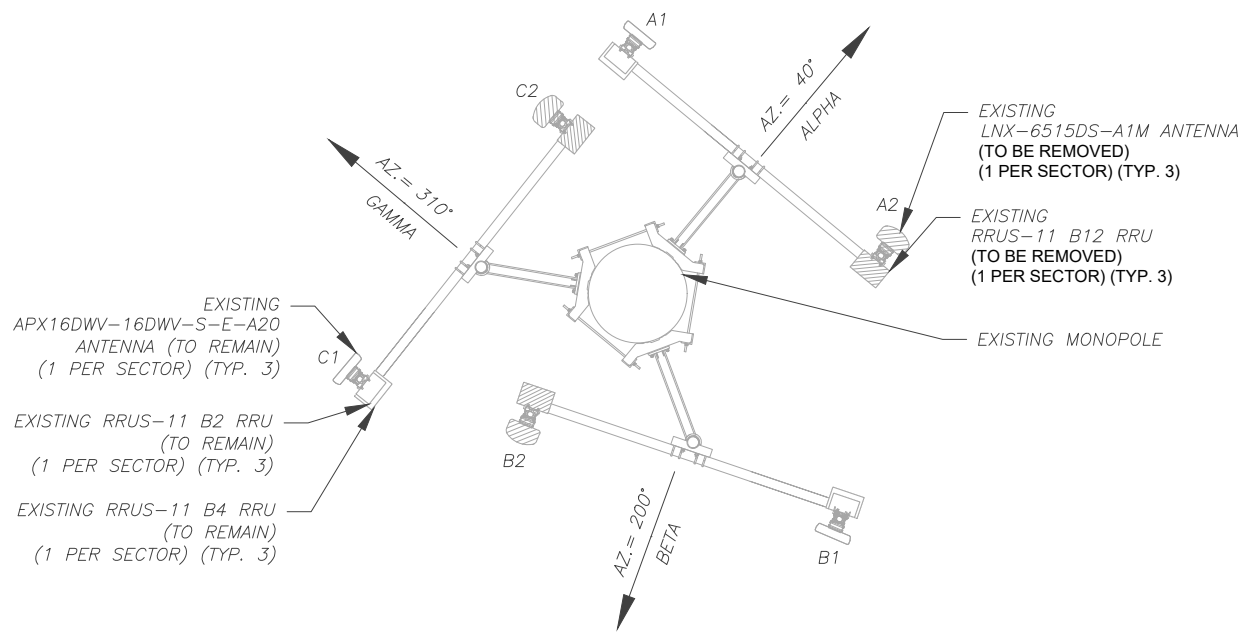
DATE DRAWN:	05/30/2022
ATC JOB NO:	14104626_D1
CUSTOMER ID:	CTNH542A
CUSTOMER #:	CTNH542A

ANTENNA INFORMATION & SCHEDULE

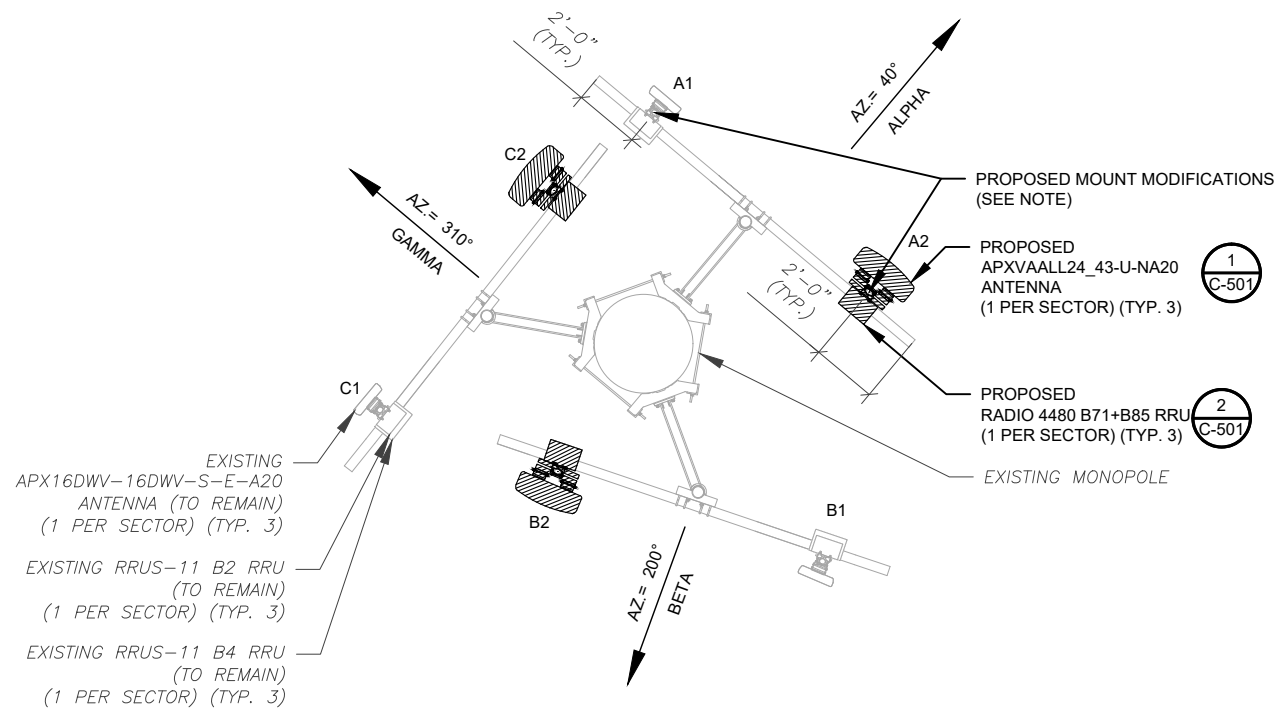
SHEET NUMBER: C-401	REVISION: 0
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CONTRACTOR SHALL RE-ORIENT ANTENNA MOUNT(S) AS NECESSARY TO ACHIEVE PROPOSED ANTENNA AZIMUTHS

PER MOUNT ANALYSIS COMPLETED BY ATC, DATED 05/20/2022, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT.



1 EXISTING ANTENNA PLAN
SCALE: N.T.S.



2 FINAL ANTENNA PLAN
SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE									
LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	110'	40°	A1	APX16DWV-16DWV-S-E-A20	U1900, L2100	0/2	RMN	RRUS-11 B2 RRUS-11 B4	RMN RMN
			A2	LNX-6515DS-A1M	L700	0/2	RMV	RRUS-11 B12	RMV
BETA	110'	200°	B1	APX16DWV-16DWV-S-E-A20	U1900, L2100	0/2	RMN	RRUS-11 B2 RRUS-11 B4	RMN RMN
			B2	LNX-6515DS-A1M	L700	0/2	RMV	RRUS-11 B12	RMV
GAMMA	110'	310°	C1	APX16DWV-16DWV-S-E-A20	U1900, L2100	0/2	RMN	RRUS-11 B2 RRUS-11 B4	RMN RMN
			C2	LNX-6515DS-A1M	L700	0/2	RMV	RRUS-11 B12	RMV

NOTES

- CONFIRM WITH T-MOBILE REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
- CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

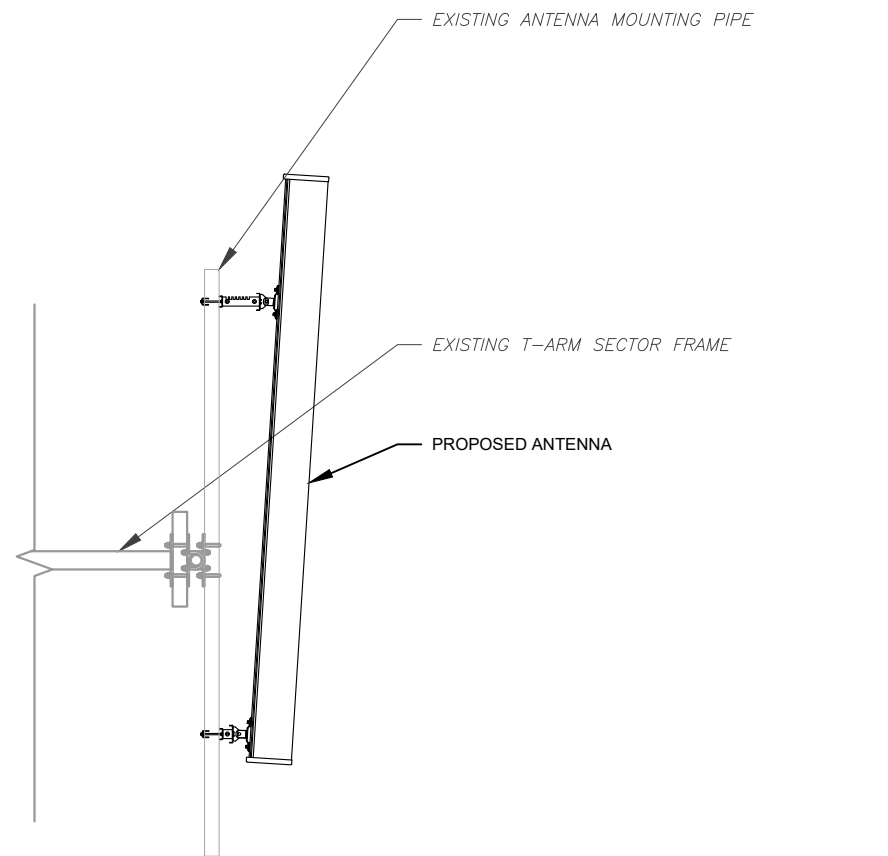
FINAL ANTENNA SCHEDULE									
LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY		
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	110'	40°	A1	APX16DWV-16DWV-S-E-A20	U1900, L2100	-/-	RMN	RRUS-11 B2 RRUS-11 B4	RMN RMN
			A2	APXVAALL24_43-U-NA20	L700, L600, N600	-/-	ADD	RADIO 4480 B71+B85	ADD
BETA	110'	200°	B1	APX16DWV-16DWV-S-E-A20	U1900, L2100	-/-	RMN	RRUS-11 B2 RRUS-11 B4	RMN RMN
			B2	APXVAALL24_43-U-NA20	L700, L600, N600	-/-	ADD	RADIO 4480 B71+B85	ADD
GAMMA	110'	310°	C1	APX16DWV-16DWV-S-E-A20	U1900, L2100	-/-	RMN	RRUS-11 B2 RRUS-11 B4	RMN RMN
			C2	APXVAALL24_43-U-NA20	L700, L600, N600	-/-	ADD	RADIO 4480 B71+B85	ADD

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
-	-	(1) 9X18 HCS	RMN

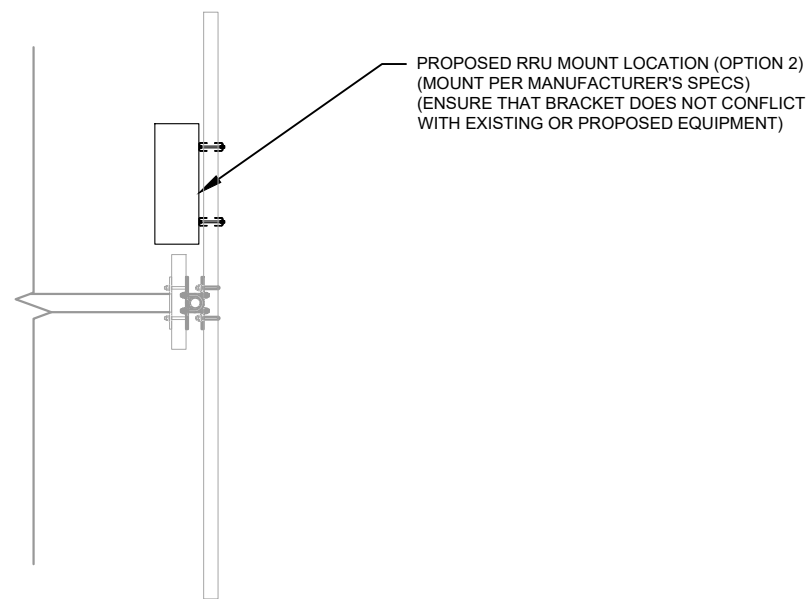
3 EQUIPMENT SCHEDULES

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
-	-	(1) 9X18 HCS	RMN
-	-	6X24 4AWG	ADD

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1 PROPOSED ANTENNA MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



2 PROPOSED RRU MOUNTING DETAIL - TYPICAL
SCALE: N.T.S.



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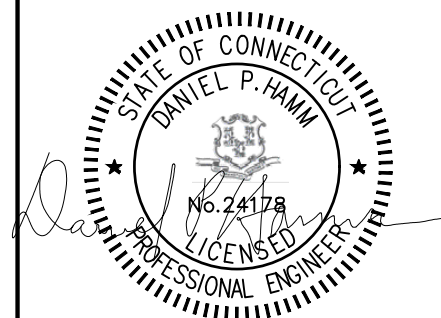
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413783

ATC SITE NAME:
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T-MOBILE SITE NAME:
CTNH542A

SITE ADDRESS:
38 MAPLE ST
KENT, CT 06757-1709

SEAL:

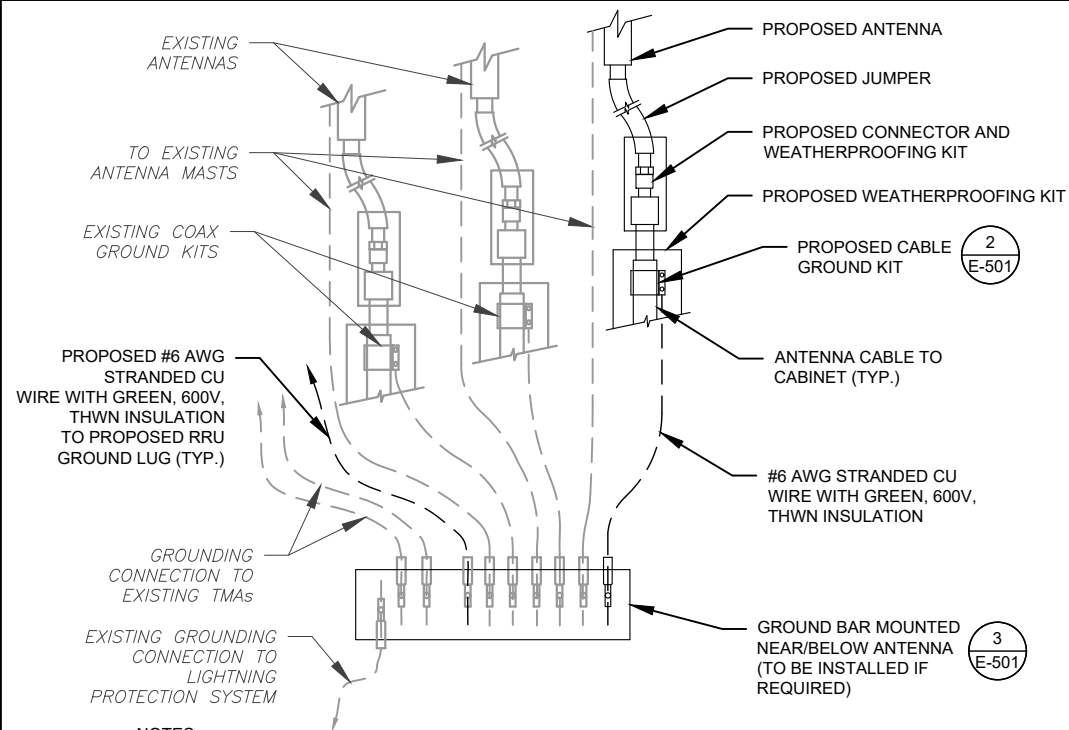


DATE DRAWN:	05/30/2022
ATC JOB NO:	14104626_D1
CUSTOMER ID:	CTNH542A
CUSTOMER #:	CTNH542A

CONSTRUCTION
DETAILS

SHEET NUMBER:	REVISION:
C-501	0

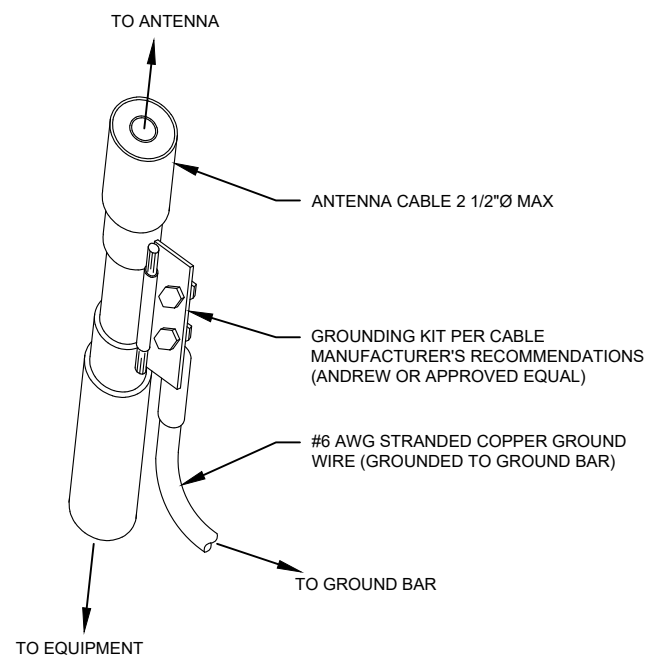
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NOTES:

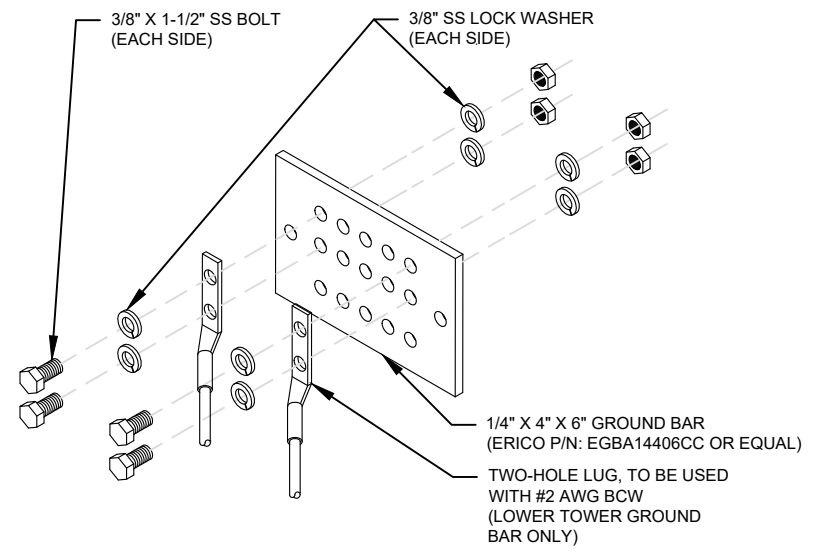
1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
2. SITE GROUNDING SHALL COMPLY WITH T-MOBILE GROUNDING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

1 TYPICAL ANTENNA GROUNDING DIAGRAM
SCALE: N.T.S.



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

2 CABLE GROUND KIT CONNECTION DETAIL
SCALE: N.T.S.



GROUND BAR NOTES:

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

3 TOWER GROUND BAR DETAIL
SCALE: N.T.S.



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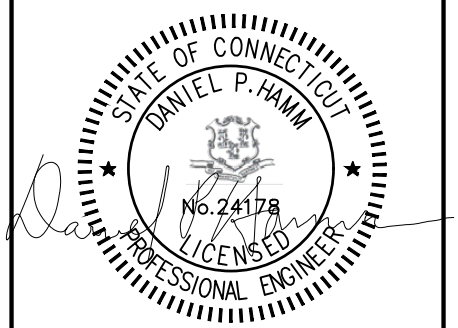
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SEAL:



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CUSTOMER ID:	CTNH542A
CUSTOMER #:	CTNH542A

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

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4/1/22, 8:40 AM CTNH542A_L600_3_draft_2022-04-01

RAN Template: 67E07C 6160 A&L Template: 67E07C_V2_1QP+1QP

CTNH542A_L600_3_draft Print Name: Standard
POR: L600_L600 Coverage

Section 1 - Site Information

Site ID: CTNH542A Latitude: 41.72190000
 Status: Draft Site Class: Monopole Longitude: -73.47490000
 Version: 3 Site Type: Structure New Building Address: 38 Maple St
 Project Name: L600 Plan Year: 2022 City: Berlin, Conn, CT
 Approved: Not Approved Market: CONNECTICUT CT
 Approved By: Not Approved Vendor: Ericsson Region: NORTH-EAST
 Last Modified: 3/8/2022 3:16:18 PM Landlord: ATC
 Last Modified By: jstin.darrow@mobile.com

RAN Template: 67E07C 6160 A&L Template: 67E07C_V2_1QP+1QP

Sector Count: 3 Antenna Count: 0 Coax Line Count: 0 TMA Count: 0 RRU Count: 5

Section 2 - Existing Template Images

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4/1/22, 8:40 AM CTNH542A_L600_3_draft_2022-04-01

Section 3 - Proposed Template Images

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4/1/22, 8:40 AM CTNH542A_L600_3_draft_2022-04-01

Section 4 - Siteplan Images

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4/1/22, 8:40 AM CTNH542A_L600_3_draft_2022-04-01

RAN Template: 67E07C 6160 A&L Template: 67E07C_V2_1QP+1QP

CTNH542A_L600_3_draft Print Name: Standard
POR: L600_L600 Coverage

Section 5 - RAN Equipment

Existing RAN Equipment

Template: 787C Tower

Enclosure	1	2
Enclosure Type	RBS 6102 MU AC	Purolit SFM7 2824
Baseband	DUAN730 (BB 5216) L1920 L3108 L700	
Hybrid Cable System	Ericsson Bx10 HCS "Select Length"	

Proposed RAN Equipment

Template: 67E07C 6160

Enclosure	1	2
Enclosure Type	RBS 6102 MU AC	Purolit SFM7 2824
Baseband	DUAN730 (BB 6948) L1920 L700 L2102 L600 N600	
Hybrid Cable System	PSU 4813 v4NA (R4) Ericsson Hybrid Trunk 624 44WQ 50m	
Functionality Groups	Ericsson Bx10 HCS "Select Length"	

RAN Scope of Work:
 CTNH542A
 Add PSU 4813
 Add Radio 4480
 Add BB 6948 for L600 / N600 / L700
 Antenna Swap from Andrew - LNK-6515DS-A1M to RFS - APXWALL24_43-U-NA20
 Existing BB 5216 with L2100 remains
 Add 50 meter Hybrid
 Add additional mounting or stand-off as needed
 @ taller supports to 120A.

4/1/22, 8:40 AM CTNH542A_L600_3_draft_2022-04-01

RAN Template: 67E07C 6160 A&L Template: 67E07C_V2_1QP+1QP

CTNH542A_L600_3_draft Print Name: Standard
POR: L600_L600 Coverage

Section 6 - A&L Equipment

Existing Template: 707C Tower 1QP 1QP
 Proposed Template: 67E07C_V2_1QP+1QP

Sector 1 (Existing) view from behind

Coverage Type	Sector 1		
Antenna	1	2	
Antenna Model	RFS - APX160WV-160WV-S-E-A20 (Quad)	Andrew - LNK-6515DS-A1M (Dual)	
Azimuth	40	40	
M. TH	0	0	
Height	110	110	
Ports	P1	P2	P3
Active Tech.	L1900	L2100	L700
Dark Tech.			
Restricted Tech.			
Disconn. Tech.			
E. TH	0	0	0
Cables	Coax Jumper	Coax Jumper	Coax Jumper
TMA			
Diplexers / Combiners			
Radio	RRUS11 B2 (A1 Antenna)	RRUS11 B4 (A1 Antenna)	RRUS11 B12 (A1 Antenna)

Unconnected Equipment:

Scope of Work:

4/1/22, 8:40 AM CTNH542A_L600_3_draft_2022-04-01

RAN Template: 67E07C 6160 A&L Template: 67E07C_V2_1QP+1QP

CTNH542A_L600_3_draft Print Name: Standard
POR: L600_L600 Coverage

Section 1 (Proposed) view from behind

Coverage Type	Sector 1					
Antenna	1		2			
Antenna Model	RFS - APX160WV-160WV-S-E-A20 (Quad)		RFS - APXWALL24_43-U-NA20 (Octo)			
Azimuth	40		40			
M. TH	0		0			
Height	110		110			
Ports	P1	P2	P3	P4	P5	P6
Active Tech.	L1900	L2100	L700 (L600) (N600)	L700 (L600) (N600)		
Dark Tech.						
Restricted Tech.						
Disconn. Tech.						
E. TH						
Cables	Coax Jumper	Coax Jumper	Coax Jumper (42)	Coax Jumper (42)		
TMA						
Diplexers / Combiners						
Radio	RRUS11 B2 (A1 Antenna)	RRUS11 B4 (A1 Antenna)	Radio 4480 B714B5 (A1 Antenna)	Radio 4480 B714B5 (A1 Antenna)		

Unconnected Equipment:

Scope of Work:
 Add PSU 4813
 Add Radio 4480
 Add BB 6948 for L600 / N600 / L700
 Antenna Swap from Andrew - LNK-6515DS-A1M to RFS - APXWALL24_43-U-NA20
 Existing BB 5216 with L2100 remains
 Add 40 meter (125) Hybrid

*A dashed border indicates shared equipment. Any connected equipment is denoted with the SHARED keyword.

SUPPLEMENTAL

SHEET NUMBER: R-601
 REVISION: 0

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

4/1/22, 8:40 AM
 RAN Template: 67E07C 6160 A&L Template: 67E07C_V2_1QP+10P
 CTNH542A_L600_3_draft_2022-04-01
 CTNH542A_L600_3_draft
 Print Name: Standard
 PORs: L600_L600 Coverage

Sector 2 (Existing) view from behind			
Coverage Type	A - Outdoor Macro		
Antenna	1	2	
Antenna Model	RFS - APX16D1V-16D1V-S-E-A20 (Quad)	Andrew - LNX-65150S-A1M (Dual)	
Azimuth	200	200	
M. Tilt	0	0	
Height	110	110	
Parts	P1	P2	P3
Active Tech.	U1900	L2100	L700
Dark Tech.			
Restricted Tech.			
Decomm. Tech.			
E. Tilt	0	0	0
Cables	Coax Jumper	Coax Jumper	Coax Jumper
TMA's			
Diplexers / Combiners			
Radio	RRUS11 B2 (A1 Antenna)	RRUS11 B4 (A1 Antenna)	RRUS11 B12 (A1 Antenna)
Sector Equipment			
Unconnected Equipment:			
Scope of Work:			

4/1/22, 8:40 AM
 RAN Template: 67E07C 6160 A&L Template: 67E07C_V2_1QP+10P
 CTNH542A_L600_3_draft_2022-04-01
 CTNH542A_L600_3_draft
 Print Name: Standard
 PORs: L600_L600 Coverage

Sector 2 (Proposed) view from behind						
Coverage Type	A - Outdoor Macro					
Antenna	1		2			
Antenna Model	RFS - APX16D1V-16D1V-S-E-A20 (Quad)		RFS - APX16D1V-16D1V-S-E-A20 (Quad)			
Azimuth	200		200			
M. Tilt	0		0			
Height	110		110			
Parts	P1	P2	P3	P4	P5	P6
Active Tech.	U1900	L2100	L700 (L600) N600	L700 (L600) N600		
Dark Tech.						
Restricted Tech.						
Decomm. Tech.						
E. Tilt						
Cables	Coax Jumper	Coax Jumper	Coax Jumper (x2)	Coax Jumper (x2)		
TMA's						
Diplexers / Combiners						
Radio	RRUS11 B2 (A1 Antenna)	RRUS11 B4 (A1 Antenna)	Radio 4480 B71-BB5 (A1 Antenna)	Radio 4480 B71-BB5 (A1 Antenna)		
Sector Equipment						
Unconnected Equipment:						
Scope of Work:	Add PSU 4813 Add Radio 4480 Add BB 6548 for L600 / N600 / L700 Antenna Swap from Andrew - LNX-65150S-A1M to RFS - APX16D1V-16D1V-S-E-A20 Existing BB 6216 with L2100 remains Add 40 meter (122) Hydris					

*A dashed border indicates shared equipment. Any connected equipment is denoted with the SHARED keyword.

4/1/22, 8:40 AM
 RAN Template: 67E07C 6160 A&L Template: 67E07C_V2_1QP+10P
 CTNH542A_L600_3_draft_2022-04-01
 CTNH542A_L600_3_draft
 Print Name: Standard
 PORs: L600_L600 Coverage

Sector 3 (Existing) view from behind			
Coverage Type	A - Outdoor Macro		
Antenna	1	2	
Antenna Model	RFS - APX16D1V-16D1V-S-E-A20 (Quad)	Andrew - LNX-65150S-A1M (Dual)	
Azimuth	310	310	
M. Tilt	0	0	
Height	110	110	
Parts	P1	P2	P3
Active Tech.	U1900	L2100	L700
Dark Tech.			
Restricted Tech.			
Decomm. Tech.			
E. Tilt	0	0	0
Cables	Coax Jumper	Coax Jumper	Coax Jumper
TMA's			
Diplexers / Combiners			
Radio	RRUS11 B2 (A1 Antenna)	RRUS11 B4 (A1 Antenna)	RRUS11 B12 (A1 Antenna)
Sector Equipment			
Unconnected Equipment:			
Scope of Work:			

4/1/22, 8:40 AM
 RAN Template: 67E07C 6160 A&L Template: 67E07C_V2_1QP+10P
 CTNH542A_L600_3_draft_2022-04-01
 CTNH542A_L600_3_draft
 Print Name: Standard
 PORs: L600_L600 Coverage

Sector 3 (Proposed) view from behind						
Coverage Type	A - Outdoor Macro					
Antenna	1		2			
Antenna Model	RFS - APX16D1V-16D1V-S-E-A20 (Quad)		RFS - APX16D1V-16D1V-S-E-A20 (Quad)			
Azimuth	310		310			
M. Tilt	0		0			
Height	110		110			
Parts	P1	P2	P3	P4	P5	P6
Active Tech.	U1900	L2100	L700 (L600) N600	L700 (L600) N600		
Dark Tech.						
Restricted Tech.						
Decomm. Tech.						
E. Tilt						
Cables	Coax Jumper	Coax Jumper	Coax Jumper (x2)	Coax Jumper (x2)		
TMA's						
Diplexers / Combiners						
Radio	RRUS11 B2 (A1 Antenna)	RRUS11 B4 (A1 Antenna)	Radio 4480 B71-BB5 (A1 Antenna)	Radio 4480 B71-BB5 (A1 Antenna)		
Sector Equipment						
Unconnected Equipment:						
Scope of Work:	Add PSU 4813 Add Radio 4480 Add BB 6548 for L600 / N600 / L700 Antenna Swap from Andrew - LNX-65150S-A1M to RFS - APX16D1V-16D1V-S-E-A20 Existing BB 6216 with L2100 remains Add 40 meter (122) Hydris					

*A dashed border indicates shared equipment. Any connected equipment is denoted with the SHARED keyword.

4/1/22, 8:40 AM
 RAN Template: 67E07C 6160 A&L Template: 67E07C_V2_1QP+10P
 CTNH542A_L600_3_draft_2022-04-01
 CTNH542A_L600_3_draft
 Print Name: Standard
 PORs: L600_L600 Coverage

Section 7 - Power Systems Equipment	
Existing Power Systems Equipment	
--- This section is intentionally blank. ---	
Proposed Power Systems Equipment	

SUPPLEMENTAL

SHEET NUMBER:

R-602

REVISION:

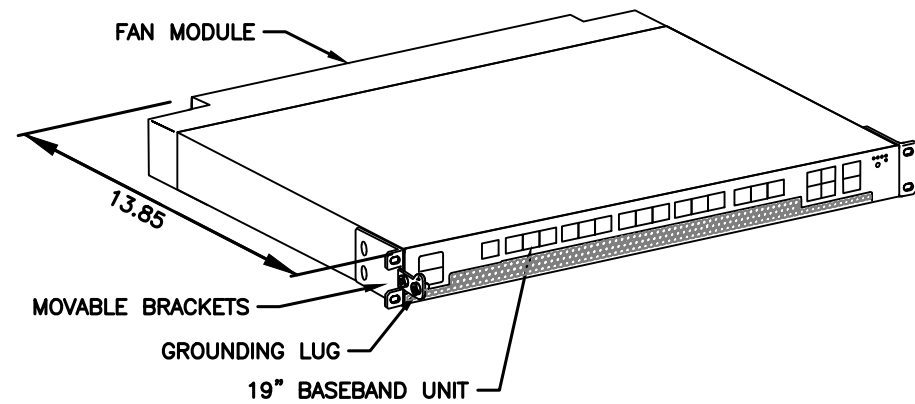
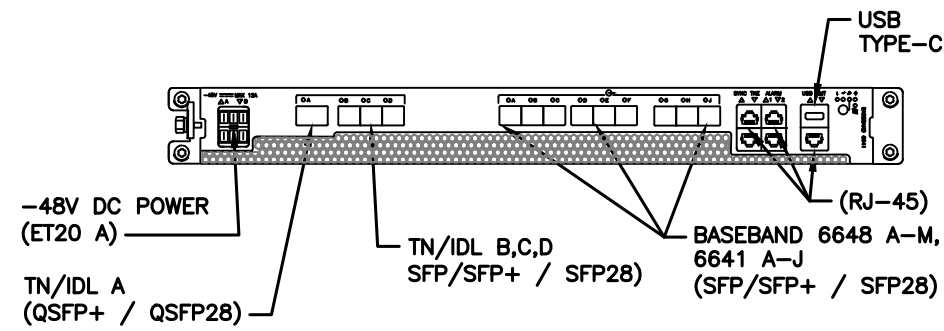
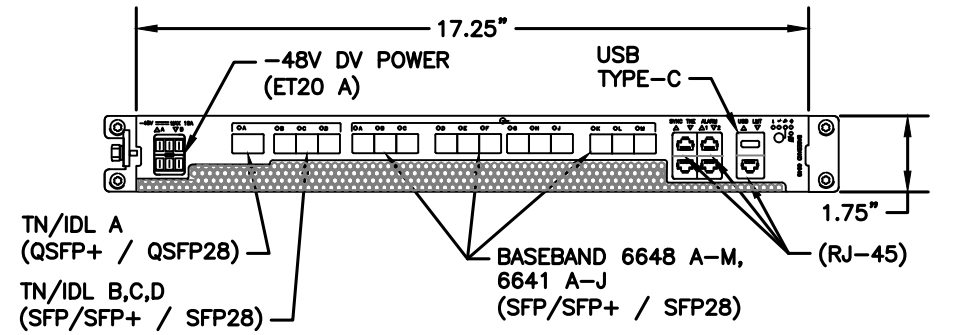
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NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

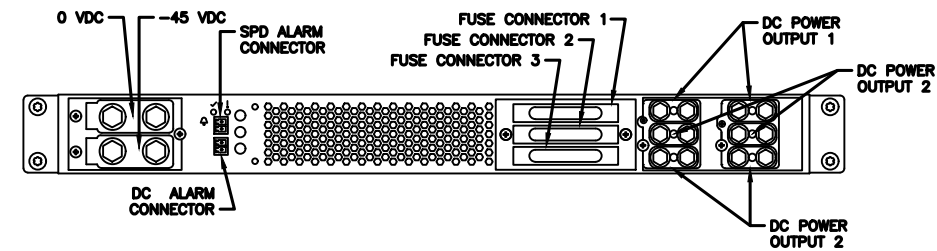
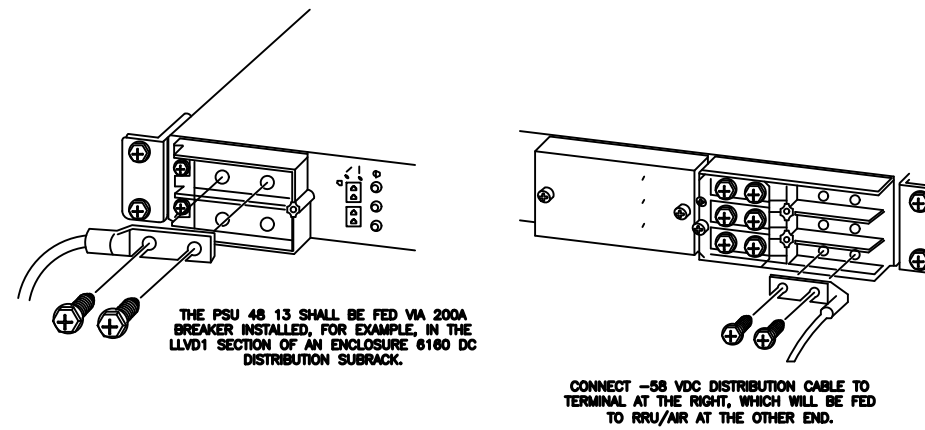
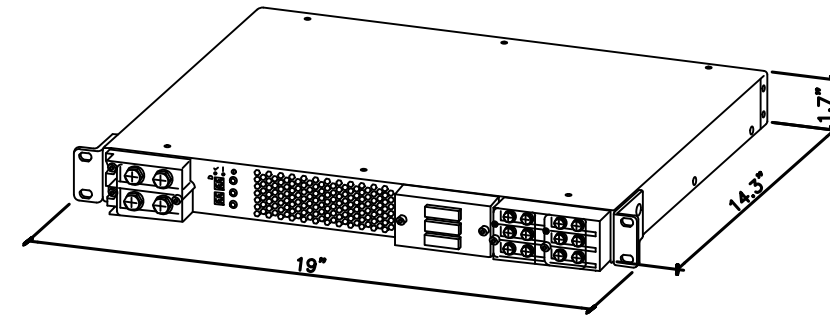
MANUFACTURER:	ERICSSON
MODEL:	BASEBAND 6648
DIMENSIONS:	1.75" x 17.25" x 13.85" (H" x W" x D")
WEIGHT:	16.54 LBS

MANUFACTURER:	ERICSSON
MODEL:	PSU 48 13
WEIGHT:	17.1 LBS
DIMENSIONS:	19"x 1.7"x 14.3"

NEEDED INSTALL KIT (PICK 1)
34133 PSU4813 INSTALL KIT FOR RBS61XX
34134 PSU4813 INSTALL KIT FOR PBC6200
34135 PSU4813 INSTALL KIT FOR 6X60/RBS6230



1 34111 - ERICSSON BASEBAND 6648 (WITH FAN)
SCALE: N.T.S.



2 SKU# 34132 - PSU 48 13
SCALE: N.T.S.

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

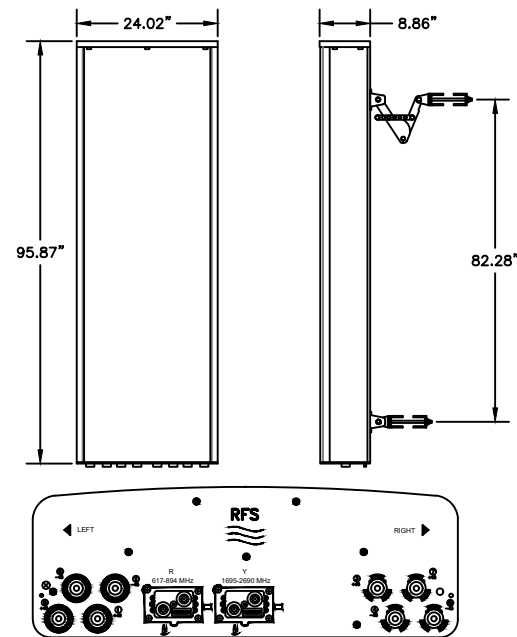
SUPPLEMENTAL

SHEET NUMBER: REVISION:

R-603

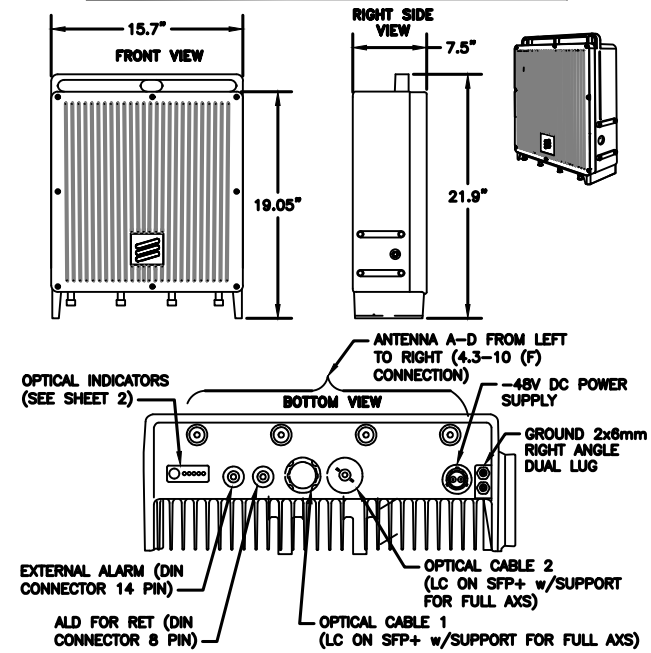
0

MANUFACTURER:	RFS
MODEL:	APXVAALL24_43-U-NA20
DIMENSIONS:	95.87" x 24.02" x 8.86"
WEIGHT:	119 LB
BAND:	QUAD BAND (8 PORT)
MOUNTING KIT & WEIGHT:	APM40-10E BEAM TILT KIT (INCLUDED) (18.53 LBS)



1 34087 - RFS APXVAALL24_43-U-NA20
SCALE: N.T.S.

MANUFACTURER:	ERICSSON
MODEL:	4480 RADIO (KRC 161 922/1)
DIMENSIONS:	21.9" x 15.7" x 7.5" (H x W x D)
MODEL BAND:	B71, B85 FOR NR AND LTE
WEIGHT:	81 LBS
BRACKET WEIGHT:	3.75 LBS (MULTI ERS #109 1973/2)



2 34372 - ERICSSON 4480 RADIO
SCALE: N.T.S.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-604	0

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



Mount Analysis Report

ATC Site Name : Kent Pcs CT, CT
ATC Site Number : 413783
Engineering Number : 14104626_C8_01
Mount Elevation : 108.5 ft
Carrier : T-Mobile
Carrier Site Name : CTNH542A
Carrier Site Number : CTNH542A
Site Location : S KENT RD
 Kent, CT 06757-1709
 41.72190816, -73.47495885
County : Litchfield
Date : May 20, 2022
Max Usage : 98%
Result : Contingent Pass

Prepared By:
 Molly Li
 Structural Engineer

Reviewed By:



Authorized by "EOR"
 20 May 2022 04:46:36

COA: PEC.0001553

Introduction

The purpose of this report is to summarize results of the mount analysis performed for T-Mobile at 108.5 ft.

Supporting Documents

Specifications Sheet	Site Pro 1 RMV12-396, dated July 1, 2015
Radio Frequency Data Sheet	RFDS ID #CTNH542A, dated April 1, 2022
Reference Photos	Site photos from 2022

Analysis

This mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

Basic Wind Speed:	114 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	40 mph (3-Second Gust) w/ 1.00" radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.184, S1 = 0.054
Site Class:	D - Stiff Soil
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above provided the modifications listed below are completed:

- Move existing Mount Pipe A 24" to the right and existing Mount Pipe B 24" to the left (viewing from tower towards the sector frame).

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

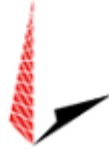
Exhibit D

Structural Analysis Report



AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by



**TOWER
ENGINEERING
PROFESSIONALS**

Structural Analysis Report

Structure : 149 ft Monopole
ATC Site Name : Kent Pcs CT,CT
ATC Site Number : 413783
Engineering Number : 14104626_C3_02
Proposed Carrier : T-MOBILE
Carrier Site Name : CTNH542A
Carrier Site Number : CTNH542A
Site Location : S KENT RD
Kent, CT 06757-1709
41.7219, -73.475
County : Litchfield
Date : May 26, 2022
Max Usage : 81%
Result : Pass

Prepared By:
Chris Tahara, E.I.
TEP

Reviewed By:



05/27/2022

COA : PEC.0001553



Table of Contents

Introduction.....3
Supporting Documents3
Analysis3
Conclusion3
Existing and Reserved Equipment.....4
Equipment to be Removed4
Proposed Equipment4
Structure Usages.....5
Foundations5
Deflection, Twist and Sway*5
Standard Conditions6
CalculationsAttached



Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 149 ft Monopole to reflect the change in loading by T-MOBILE.

Supporting Documents

Tower Drawings	EI Project #15320, dated March 18, 2008
Foundation Drawing	EI Project #15320, dated March 14, 2008
Geotechnical Report	Dr. Clarence Welti Report #15320, dated January 22, 2007
Mount Analysis	ATC #14104626_C8_01, dated May 20, 2022

Analysis

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

Basic Wind Speed:	114 mph (3-second gust)
Basic Wind Speed w/ Ice:	40 mph (3-second gust) w/ 1.00" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	$S_s = 0.18, S_i = 0.05$
Site Class:	D - Stiff Soil - Default

Conclusion

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

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



Existing and Reserved Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
161.0	2	RFS Celwave PD220	Triangular Low Profile Platform	(3) 7/8" Coax	OTHER
152.0	1	Raycap RVZDC-6627-PF-48		(12) 1 5/8" Coax (2) 1 5/8" Hybriflex	VERIZON WIRELESS
	1	VZW Unused Reserve (15712.19 sqin)			
	3	Samsung 700+850MHZ Dual Band RRH			
	3	Samsung PCS/AWS Dual Band RRH			
	6	Antel LPA-80080/6CF			
6	Commscope NHH-65B-R2B				
150.3	3	Generic 72" x 8" Panel			
149.7	1	Generic 3' Yagi		-	OTHER
140.0	1	CCI DMP65R-BU6DA	Triangular Platform w/ Handrails	(2) 0.39" (10mm) Fiber Trunk (4) 0.78" (19.7mm) 8 AWG 6 (12) 1 5/8" Coax (1) 2" conduit	AT&T MOBILITY
	1	CCI HPA-65R-BUU-H6			
	2	CCI DMP65R-BU4D			
	3	Powerwave Allgon P90-15-XLH-RR			
	2	Andrew SBNHH-1D65A (33.5 lbs)			
	3	Ericsson RRUS 32 B2			
	1	Raycap DC6-48-60-18-8C			
	3	Ericsson RRUS 4478 B14			
	3	Ericsson RRUS 4449 B5, B12			
	3	Ericsson RRUS A2 Module			
	1	Andrew ABT-DFDM-ADB			
	6	Powerwave Allgon TT19-08BP111-001			
	3	Powerwave Allgon TT08-19DB111-001			
1	Raycap DC6-48-60-0-8C-EV				
125.3	2	Decibel DB222	Stand-Off	(3) 7/8" Coax	OTHER
119.5	1	Generic 3' Yagi	Stand-Off		
110.0	3	Ericsson RRUS 11 B4	T-Arms	(1) 1 5/8" (1.63"- 41.3mm) Fiber	T-MOBILE
	3	Ericsson RRUS 11 B2			
	3	RFS APX16DWV-16DWVS-E-A20			
90.0	1	dbSpectra DS2C00F36D	Side Arm	(2) 7/8" Coax	EVERSOURCE ENERGY

Equipment to be Removed

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
110.0	1	Symmetricon 58532A	-	(1) 1 5/8" (1.63"- 41.3mm) Fiber (1) 1/2" Coax	T-MOBILE
	3	Commscope LNX-6515DS-A1M (50.3 lb)			
	3	Ericsson RRUS 11 B12			

Proposed Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
110.0	3	Ericsson 4480 BAND 71	T-Arms	(1) 1.99" (50.7mm) Hybrid	T-MOBILE
	3	RFS APXVAALL24 43-U-NA20			

¹ Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed lines inside the pole shaft.



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	38%	Pass
Shaft	65%	Pass
Base Plate	18%	Pass

Foundations

Reaction Component	Original Design Reactions	Analysis Reactions	% of Design
Moment (Kips-Ft)	4897.9	3557.0	73%
Shear (Kips)	39.5	32.0	81%

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
110.0	RFS APXVAALL24 43-U-NA20	T-MOBILE	0.835	0.870
	Ericsson 4480 BAND 71			

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



Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

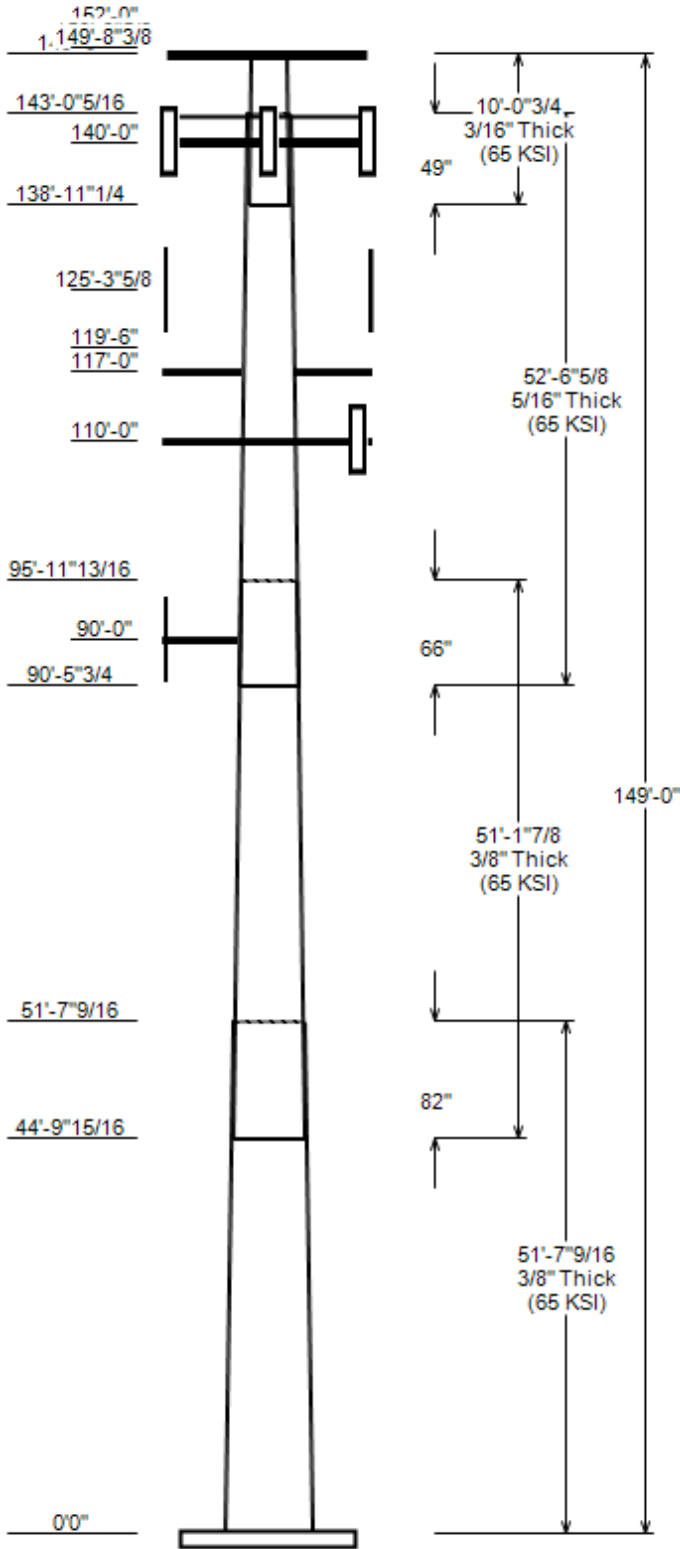
All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

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

Asset : 413783, Kent Pcs CT
 Client : T-MOBILE
 Code : ANSI/TIA-222-H

Height : 149 ft
 Base Width : 60.5
 Shape : 18 Sides



SITE PARAMETERS

Nominal Wind: 114 mph wind with no ice **Topo Category:** 1
Ice Wind: 40 mph wind with 1" radial **Topo Method:** Method 1
Base Elev (ft): 0.00 **Taper :** 0.24100(ln/ft) **Topo Feature:**
Structure Class: II **Exposure :** C **S_s :** 0.184 **S₁ :** 0.054

SECTION PROPERTIES

Shaft Section	Length (ft)	Diameter (in)		Thick Joint (in)	Overlap Length (in)	Steel Grade (ksi)
		Across Flats Top	Across Flats Bottom			
1	51.633	48.05	60.50	0.375	0.000	18 Sides
2	51.156	38.11	50.44	0.375	81.660	18 Sides
3	52.550	27.39	40.06	0.312	66.090	18 Sides
4	10.065	26.32	28.75	0.188	49.090	18 Sides

DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
161.0	161.0	2	RFS Celwave PD220
152.0	152.0	3	Samsung 700+850MHZ Dual Band R
152.0	152.0	3	Samsung PCS/AWS Dual Band RRR
152.0	152.0	1	Raycap RVZDC-6627-PF-48
152.0	152.0	6	Commscope NHH-65B-R2B
152.0	152.0	6	Antel LPA-80080/6CF
152.0	152.0	1	VZW Unused Reserve (15712.19 s
150.3	150.3	3	Generic 72" x 8" Panel
149.7	149.7	1	Generic 3' Yagi
149.0	149.0	1	Flat Low Profile Platform
140.0	142.0	1	Andrew ABT-DFDM-ADB
140.0	142.0	6	Powerwave Allgon TT19-08BP111-
140.0	142.0	3	Powerwave Allgon TT08-19DB111-
140.0	140.0	1	Raycap DC6-48-60-0-8C-EV
140.0	142.0	3	Ericsson RRUS A2 Module
140.0	140.0	3	Ericsson RRUS 4449 B5, B12
140.0	140.0	3	Ericsson RRUS 4478 B14
140.0	140.0	1	Raycap DC6-48-60-18-8C
140.0	140.0	3	Ericsson RRUS 32 B2
140.0	140.0	2	Andrew SBNHH-1D65A (33.5 lbs)
140.0	140.0	3	Powerwave Allgon P90-15-XLH-RR
140.0	140.0	2	CCI DMP65R-BU4D
140.0	140.0	1	CCI HPA-65R-BUU-H6
140.0	140.0	1	CCI DMP65R-BU6DA
140.0	140.0	1	Round Platform w/ Handrails
125.3	125.3	2	Decibel DB222
119.5	119.5	1	Generic 3' Yagi
117.0	117.0	2	Stand Off
110.0	110.0	3	Ericsson RRUS 11 B4
110.0	110.0	3	Ericsson RRUS 11 B2
110.0	110.0	3	Ericsson 4480 BAND 71
110.0	110.0	3	RFS APX16DWV-16DWVS-E-A20
110.0	110.0	3	Generic Round T-Arm
110.0	110.0	3	RFS APXVAALL24 43-U-NA20
90.0	90.0	1	dbSpectra DS2C00F36D
90.0	90.0	1	Generic Flat Side Arm

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	154.0	7/8" Coax	No
0.0	152.0	1 5/8" Hybriflex	No

JOB INFORMATION

Asset : 413783, Kent Pcs CT
 Client : T-MOBILE
 Code : ANSI/TIA-222-H

Height : 149 ft
 Base Width : 60.5
 Shape : 18 Sides

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	152.0	1 5/8" Coax	No
0.0	140.0	2" conduit	No
0.0	140.0	1 5/8" Coax	No
0.0	140.0	0.78" (19.7mm) 8 AWG 6	No
0.0	140.0	0.39" (10mm) Fiber Trunk	No
0.0	124.0	7/8" Coax	No
0.0	122.0	7/8" Coax	No
0.0	110.0	1.99" (50.7mm) Hybrid	No
0.0	110.0	1 5/8" (1.63"-41.3mm) Fiber	No
0.0	90.0	7/8" Coax	No

LOAD CASES

1.2D + 1.0W Normal	114 mph wind with no ice
0.9D + 1.0W Normal	114 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Nor	40 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh Nor	Seismic
0.9D - 1.0Ev + 1.0Eh Nor	Seismic (Reduced DL)
1.0D + 1.0W Service Norm	60 mph Wind with No Ice

REACTIONS

Load Case	Moment (kip-ft)	Shear (Kip)	Axial (Kip)
1.2D + 1.0W Normal	3557.01	31.98	49.65
0.9D + 1.0W Normal	3525.24	31.96	37.23
1.2D + 1.0Di + 1.0Wi Normal	655.81	6.02	64.76
1.2D + 1.0Ev + 1.0Eh Normal	152.11	1.24	49.61
0.9D - 1.0Ev + 1.0Eh Normal	150.48	1.24	34.46
1.0D + 1.0W Service Normal	876.94	7.92	41.41

DISH DEFLECTIONS

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
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ASSET: 413783, Kent Pcs CT
CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
ENG NO: 14104626_C3_02

ANALYSIS PARAMETERS

Location:	Litchfield County,CT	Height:	149 ft
Type and Shape:	Taper, 18 Sides	Base Diameter:	60.50 in
Manufacturer:	EEI	Top Diameter:	26.32 in
K_d (non-service):	0.95	Taper:	0.2410 in/ft
K_e:	0.99	Rotation:	0.000°

ICE & WIND PARAMETERS

Exposure Category:	C	Design Wind Speed w/o Ice:	114 mph
Risk Category:	II	Design Wind Speed w/Ice:	40 mph
Topo Factor Procedure:	Method 1	Operational Wind Speed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.00 in
Crest Height:	0 ft	HMSL:	393.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil	Period Based on Rayleigh Method (sec):	2.07
T_L (sec):	6	P:	1
S_s:	0.184	S₁:	0.054
F_a:	1.600	F_v:	2.400
S_{ds}:	0.196	S_{dt}:	0.086
		C_s:	0.030
		C_s Max:	0.030
		C_s Min:	0.030

LOAD CASES

1.2D + 1.0W Normal	114 mph wind with no ice
0.9D + 1.0W Normal	114 mph wind with no ice
1.2D + 1.0Di + 1.0Wi Normal	40 mph wind with 1" radial ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL)
1.0D + 1.0W Service Normal	60 mph Wind with No Ice

ASSET: 413783, Kent Pcs CT
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 ENG NO: 14104626_C3_02

SHAFT SECTION PROPERTIES

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint len (in)	Weight (lb)	Bottom						Top							
							Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)	
1-18	51.63	0.3750	65		0.00	11,271	60.50	-0.003	71.56	32,684.4	27.04	161.33	48.05	51.63	56.74	16,294.8	21.18	128.13	0.2411	
2-18	51.16	0.3750	65	Slip	81.66	9,095	50.44	44.824	59.59	18,871.2	22.31	134.51	38.11	95.98	44.91	8,077.3	16.51	101.62	0.2411	
3-18	52.55	0.3125	65	Slip	66.09	5,926	40.06	90.480	39.42	7,868.4	21.19	128.19	27.39	143.03	26.85	2,487.3	14.04	87.64	0.2411	
4-18	10.06	0.1875	65	Slip	49.09	557	28.75	5	17.00	1,751.9	25.63	153.33	26.32	149.00	15.55	1,342.2	23.34	140.39	0.2411	
Shaft Weight						26,849														

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice			Ice		
					Weight (lb)	EPAA (sf)	Orientation Factor	Weight (lb)	EPAA (sf)	Orientation Factor
161.00	RFS Celwave PD220	2	1.00	0.000	25.00	5.400	1.00	118.04	10.032	1.00
152.00	VZW Unused Reserve (15712.19 s	1	0.80	0.000	1460.60	109.11	0.90	2138.98	159.789	0.90
152.00	Antel LPA-80080/6CF	6	0.80	0.000	21.00	8.628	0.62	142.31	5.087	0.62
152.00	CommScope NHH-65B-R2B	6	0.80	0.000	43.70	8.079	0.69	159.94	9.936	0.69
152.00	Raycap RVZDC-6627-PF-48	1	0.80	0.000	32.00	3.781	1.00	105.11	4.663	1.00
152.00	Samsung PCS/AWS Dual Band RRH	3	0.80	0.000	84.40	1.875	0.50	127.01	2.475	0.50
152.00	Samsung 700+850MHZ Dual Band R	3	0.80	0.000	82.00	1.875	0.50	120.16	2.475	0.50
150.30	Generic 72" x 8" Panel	3	0.80	0.000	40.00	5.860	0.68	113.83	7.460	0.68
149.70	Generic 3' Yagi	1	1.00	0.000	10.00	2.980	1.00	69.89	7.157	1.00
149.00	Flat Low Profile Platform	1	1.00	0.000	1500.00	26.100	1.00	1931.94	38.828	1.00
140.00	Raycap DC6-48-60-0-8C-EV	1	0.75	0.000	16.00	1.020	1.00	46.03	1.395	1.00
140.00	Ericsson RRUS A2 Module	3	0.75	2.000	21.20	1.600	0.50	45.10	2.154	0.50
140.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	113.74	2.588	0.50
140.00	Ericsson RRUS 4478 B14	3	0.75	0.000	59.40	2.021	0.67	100.10	2.647	0.67
140.00	Raycap DC6-48-60-18-8C	1	0.75	0.000	16.00	2.030	1.00	54.61	2.534	1.00
140.00	Ericsson RRUS 32 B2	3	0.75	0.000	53.00	2.743	0.67	101.78	3.519	0.67
140.00	Andrew SBNHH-1D65A (33.5 lbs)	2	0.75	0.000	33.50	5.883	0.77	123.27	7.294	0.77
140.00	Powerwave Allgon P90-15-XLH-RR	3	0.75	0.000	53.00	8.133	0.67	162.24	9.982	0.67
140.00	CCI DMP65R-BU4D	2	0.75	0.000	67.90	8.280	0.62	187.67	9.623	0.62
140.00	CCI HPA-65R-BUU-H6	1	0.75	0.000	51.00	9.658	1.00	196.50	11.496	1.00
140.00	CCI DMP65R-BU6DA	1	0.75	0.000	79.40	12.709	1.00	250.24	14.559	1.00
140.00	Round Platform w/ Handrails	1	1.00	0.000	2000.00	27.200	1.00	2859.35	43.411	1.00
140.00	Powerwave Allgon TT08-19DB111-	3	0.75	2.000	22.00	0.793	0.50	39.61	1.215	0.50
140.00	Powerwave Allgon TT19-08BP111-	6	0.75	2.000	16.00	0.553	0.50	29.39	0.892	0.50
140.00	Andrew ABT-DFDM-ADB	1	0.75	2.000	1.10	0.045	1.00	2.58	0.160	1.00
125.30	Decibel DB222	2	1.00	0.000	16.00	2.250	1.00	61.37	6.218	1.00
119.50	Generic 3' Yagi	1	1.00	0.000	10.00	2.980	1.00	68.60	7.067	1.00
117.00	Stand Off	2	1.00	0.000	75.00	2.500	0.90	109.02	3.634	0.90
110.00	RFS APXVAALL24 43-U-NA20	3	0.80	0.000	122.80	20.243	0.63	374.48	22.640	0.63
110.00	Generic Round T-Arm	3	0.75	0.000	312.50	9.700	0.67	481.30	15.027	0.67
110.00	RFS APX16DWV-16DWVS-E-A20	3	0.80	0.000	40.70	6.586	0.60	116.18	7.985	0.60
110.00	Ericsson 4480 BAND 71	3	0.80	0.000	81.00	2.878	0.67	130.19	3.603	0.67
110.00	Ericsson RRUS 11 B4	3	0.80	0.000	50.70	2.791	0.67	97.49	3.500	0.67
110.00	Ericsson RRUS 11 B2	3	0.80	0.000	50.70	2.791	0.67	97.49	3.500	0.67
90.00	dbSpectra DS2C00F36D	1	1.00	0.000	40.00	4.080	1.00	105.02	7.153	1.00
90.00	Generic Flat Side Arm	1	1.00	0.000	187.50	6.300	1.00	271.84	8.272	1.00
Totals	Num Loadings: 36				86	9,755.80		17,951.37		

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg) : _

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Max Flat	Dist Between Rows (in)	Dist Between Cols (in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	154.00	3	7/8" Coax	1.09	0.33	N	0	0	0	0	N	OTHER
0.00	152.00	12	1 5/8" Coax	1.98	0.82	N	0	0	0	0	N	VERIZON WIREL
0.00	152.00	2	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	N	VERIZON WIREL
0.00	140.00	12	1 5/8" Coax	1.98	0.82	N	0	0	0	0	N	AT&T MOBILITY
0.00	140.00	4	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	N	AT&T MOBILITY
0.00	140.00	2	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	N	AT&T MOBILITY
0.00	140.00	1	2" conduit	2.38	3.65	N	0	0	0	0	N	AT&T MOBILITY

ASSET: 413783, Kent Pcs CT
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 ENG NO: 14104626_C3_02

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax/ Row	Dist Between Rows(in)	Dist Between Cols(in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	124.00	2	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	OTHER
0.00	122.00	1	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	OTHER
0.00	110.00	1	1 5/8" (1.63"-41.3mm)	1.63	1.61	N	0	0	0	0	0	N	T-MOBILE
0.00	110.00	1	1.99" (50.7mm) Hybrid	1.99	1.9	N	0	0	0	0	0	N	T-MOBILE
0.00	90.00	2	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	EVERSOURCE EN

SEGMENT PROPERTIES

(Max Len: 5.ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Fy (ksi)	S (in ³)	Z (in ³)	Weight (lb)
0.00		0.3750	60.500	71.561	32,684.40	27.04	161.33	69.6	1064.1	0.0	0.0
5.00		0.3750	59.294	70.126	30,757.40	26.47	158.12	70.3	1021.7	0.0	1,205.3
10.00		0.3750	58.089	68.691	28,907.70	25.90	154.90	70.9	980.2	0.0	1,180.9
15.00		0.3750	56.883	67.256	27,133.70	25.34	151.69	71.6	939.5	0.0	1,156.5
20.00		0.3750	55.678	65.821	25,433.70	24.77	148.47	72.3	899.7	0.0	1,132.1
25.00		0.3750	54.472	64.387	23,806.30	24.20	145.26	72.9	860.8	0.0	1,107.7
30.00		0.3750	53.266	62.952	22,249.90	23.64	142.04	73.6	822.7	0.0	1,083.3
35.00		0.3750	52.061	61.517	20,762.80	23.07	138.83	74.3	785.5	0.0	1,058.8
40.00		0.3750	50.855	60.082	19,343.50	22.50	135.61	74.9	749.2	0.0	1,034.4
44.83	Bot - Section 2	0.3750	49.691	58.696	18,035.80	21.95	132.51	75.6	714.9	0.0	975.7
45.00		0.3750	49.649	58.647	17,990.40	21.93	132.40	75.6	713.7	0.0	69.2
50.00		0.3750	48.444	57.212	16,701.90	21.37	129.18	76.3	679.1	0.0	1,986.4
51.63	Top - Section 1	0.3750	48.800	57.636	17,076.00	21.54	130.13	76.1	689.2	0.0	638.1
55.00		0.3750	47.988	56.670	16,231.40	21.15	127.97	76.5	666.2	0.0	654.8
60.00		0.3750	46.783	55.235	15,029.40	20.59	124.75	77.2	632.8	0.0	952.0
65.00		0.3750	45.577	53.800	13,888.20	20.02	121.54	77.9	600.2	0.0	927.5
70.00		0.3750	44.371	52.365	12,806.30	19.45	118.32	78.5	568.5	0.0	903.1
75.00		0.3750	43.166	50.930	11,782.10	18.89	115.11	79.2	537.6	0.0	878.7
80.00		0.3750	41.960	49.495	10,814.00	18.32	111.89	79.9	507.6	0.0	854.3
85.00		0.3750	40.754	48.060	9,900.50	17.75	108.68	80.5	478.5	0.0	829.9
90.00		0.3750	39.549	46.625	9,039.90	17.19	105.46	81.2	450.2	0.0	805.5
90.48	Bot - Section 3	0.3750	39.434	46.488	8,960.60	17.13	105.16	81.3	447.6	0.0	75.5
95.00		0.3750	38.343	45.190	8,230.70	16.62	102.25	81.9	422.8	0.0	1,304.0
95.98	Top - Section 2	0.3125	38.731	38.105	7,105.80	20.44	123.94	77.4	361.4	0.0	278.9
100.00		0.3125	37.763	37.144	6,581.90	19.90	120.84	78	343.3	0.0	514.1
105.00		0.3125	36.557	35.949	5,966.50	19.22	116.98	78.8	321.5	0.0	621.8
110.00		0.3125	35.351	34.753	5,390.70	18.54	113.12	79.6	300.3	0.0	601.5
115.00		0.3125	34.146	33.557	4,853.20	17.86	109.27	80.4	279.9	0.0	581.1
117.00		0.3125	33.663	33.079	4,648.60	17.58	107.72	80.7	272.0	0.0	226.7
119.50		0.3125	33.061	32.481	4,401.00	17.24	105.79	81.1	262.2	0.0	278.9
120.00		0.3125	32.940	32.361	4,352.60	17.18	105.41	81.2	260.3	0.0	55.2
125.00		0.3125	31.734	31.166	3,887.70	16.50	101.55	82	241.3	0.0	540.4
125.30		0.3125	31.662	31.094	3,860.90	16.45	101.32	82	240.2	0.0	31.8
130.00		0.3125	30.529	29.970	3,457.20	15.82	97.69	82.6	223.0	0.0	488.3
135.00		0.3125	29.323	28.774	3,059.60	15.13	93.83	82.6	205.5	0.0	499.7
138.93	Bot - Section 4	0.3125	28.374	27.833	2,769.10	14.60	90.80	82.6	192.2	0.0	379.0
140.00		0.3125	28.118	27.578	2,693.80	14.45	89.98	82.6	188.7	0.0	161.7
143.03	Top - Section 3	0.1875	27.763	16.410	1,576.60	24.70	148.07	72.4	111.8	0.0	451.5
145.00		0.1875	27.287	16.127	1,496.30	24.25	145.53	72.9	108.0	0.0	109.3
149.00		0.1875	26.322	15.553	1,342.20	23.34	140.39	73.9	100.4	0.0	215.6

Totals: 26,849.2

Load Case: 1.2D + 1.0W Normal	114 mph wind with no ice	22 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 1.20		
Wind Load Factor: 1.00		

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-49.65	-31.98	0.00	-3,557.0	0.00	3,557.01	4,482.64	1,255.90	6,820.01	5,554.46	0	0	0.652
5.00	-47.91	-31.57	0.00	-3,397.1	0.00	3,397.14	4,434.84	1,230.72	6,549.27	5,384.36	0.08	-0.15	0.642
10.00	-46.20	-31.16	0.00	-3,239.3	0.00	3,239.30	4,385.31	1,205.53	6,284.01	5,214.59	0.32	-0.3	0.632
15.00	-44.53	-30.75	0.00	-3,083.5	0.00	3,083.49	4,334.06	1,180.35	6,024.24	5,045.30	0.73	-0.46	0.622
20.00	-42.88	-30.33	0.00	-2,929.7	0.00	2,929.72	4,281.09	1,155.17	5,769.94	4,876.60	1.29	-0.62	0.611
25.00	-41.27	-29.88	0.00	-2,778.1	0.00	2,778.09	4,226.40	1,129.98	5,521.14	4,708.64	2.03	-0.78	0.600
30.00	-39.69	-29.42	0.00	-2,628.7	0.00	2,628.69	4,169.98	1,104.80	5,277.81	4,541.54	2.93	-0.94	0.589
35.00	-38.14	-28.94	0.00	-2,481.6	0.00	2,481.61	4,111.84	1,079.62	5,039.97	4,375.42	4	-1.1	0.577
40.00	-36.62	-28.46	0.00	-2,336.9	0.00	2,336.91	4,051.98	1,054.43	4,807.61	4,210.43	5.24	-1.27	0.565
44.83	-35.22	-28.20	0.00	-2,199.5	0.00	2,199.49	3,992.55	1,030.12	4,588.45	4,052.29	6.61	-1.43	0.552
45.00	-35.09	-27.96	0.00	-2,194.6	0.00	2,194.64	3,990.40	1,029.25	4,580.74	4,046.68	6.66	-1.43	0.552
50.00	-32.46	-27.57	0.00	-2,054.8	0.00	2,054.85	3,927.10	1,004.07	4,359.35	3,884.30	8.25	-1.6	0.538
51.63	-31.59	-27.31	0.00	-2,009.8	0.00	2,009.83	3,945.98	1,011.51	4,424.21	3,932.14	8.81	-1.66	0.520
55.00	-30.61	-26.89	0.00	-1,917.9	0.00	1,917.86	3,902.73	994.55	4,277.11	3,823.33	10.02	-1.77	0.510
60.00	-29.21	-26.36	0.00	-1,783.4	0.00	1,783.43	3,837.05	969.37	4,063.28	3,663.06	11.97	-1.94	0.495
65.00	-27.84	-25.84	0.00	-1,651.6	0.00	1,651.61	3,769.65	944.18	3,854.92	3,504.48	14.09	-2.1	0.479
70.00	-26.50	-25.31	0.00	-1,522.4	0.00	1,522.42	3,700.53	919.00	3,652.05	3,347.71	16.37	-2.26	0.463
75.00	-25.19	-24.79	0.00	-1,395.8	0.00	1,395.85	3,629.69	893.82	3,454.67	3,192.88	18.83	-2.42	0.445
80.00	-23.91	-24.27	0.00	-1,271.9	0.00	1,271.90	3,557.12	868.63	3,262.77	3,040.12	21.45	-2.59	0.426
85.00	-22.67	-23.75	0.00	-1,150.6	0.00	1,150.57	3,482.83	843.45	3,076.35	2,889.56	24.25	-2.74	0.405
90.00	-21.23	-22.98	0.00	-1,031.8	0.00	1,031.84	3,406.82	818.27	2,895.41	2,741.33	27.2	-2.9	0.383
90.48	-21.10	-22.74	0.00	-1,020.9	0.00	1,020.89	3,399.49	815.87	2,878.45	2,727.33	27.5	-2.92	0.381
95.00	-19.33	-22.40	0.00	-918.0	0.00	918.01	3,329.09	793.08	2,719.96	2,595.56	30.33	-3.06	0.360
95.98	-18.94	-22.15	0.00	-896.0	0.00	895.96	2,652.87	668.74	2,320.57	2,096.47	30.96	-3.09	0.436
100.00	-18.13	-21.69	0.00	-807.0	0.00	807.03	2,607.49	651.89	2,205.09	2,008.26	33.61	-3.21	0.410
105.00	-17.16	-21.19	0.00	-698.6	0.00	698.57	2,549.43	630.90	2,065.42	1,899.81	37.05	-3.37	0.376
110.00	-14.03	-17.53	0.00	-592.6	0.00	592.60	2,489.65	609.91	1,930.31	1,793.02	40.66	-3.52	0.337
115.00	-13.15	-17.17	0.00	-505.0	0.00	504.95	2,428.15	588.93	1,799.78	1,688.03	44.43	-3.67	0.305
117.00	-12.63	-16.74	0.00	-470.6	0.00	470.62	2,403.07	580.53	1,748.85	1,646.56	45.98	-3.73	0.292
119.50	-12.20	-16.44	0.00	-428.8	0.00	428.78	2,371.33	570.04	1,686.21	1,595.17	47.95	-3.79	0.275
120.00	-12.11	-16.20	0.00	-420.6	0.00	420.56	2,364.93	567.94	1,673.82	1,584.96	48.35	-3.81	0.271
125.00	-11.28	-15.92	0.00	-339.5	0.00	339.54	2,299.99	546.96	1,552.42	1,483.93	52.4	-3.93	0.235
125.30	-11.21	-15.50	0.00	-334.8	0.00	334.76	2,296.04	545.70	1,545.28	1,477.94	52.65	-3.94	0.232
130.00	-10.46	-15.05	0.00	-261.9	0.00	261.89	2,226.60	525.97	1,435.59	1,380.92	56.58	-4.04	0.195
135.00	-9.70	-14.64	0.00	-186.6	0.00	186.63	2,137.76	504.98	1,323.34	1,272.38	60.86	-4.14	0.152
138.93	-9.11	-14.39	0.00	-129.0	0.00	129.04	2,067.85	488.47	1,238.21	1,190.09	64.29	-4.19	0.114
140.00	-5.23	-9.91	0.00	-113.3	0.00	113.34	2,048.92	484.00	1,215.65	1,168.29	65.23	-4.21	0.100
143.03	-4.65	-9.67	0.00	-83.4	0.00	83.36	1,068.58	288.00	717.29	606.93	67.91	-4.24	0.143
145.00	-4.51	-9.42	0.00	-64.3	0.00	64.28	1,057.77	283.03	692.75	590.35	69.66	-4.25	0.114
149.00	0.00	-9.06	0.00	-26.6	0.00	26.59	1,035.06	272.96	644.32	556.98	73.24	-4.29	0.049

ASSET: 413783, Kent Pcs CT
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 ENG NO: 14104626_C3_02

Load Case: 0.9D + 1.0W Normal	114 mph wind with no ice	22 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 0.90		
Wind Load Factor: 1.00		

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-37.23	-31.96	0.00	-3,525.2	0.00	3,525.24	4,482.64	1,255.90	6,820.01	5,554.46	0	0	0.644
5.00	-35.90	-31.52	0.00	-3,365.4	0.00	3,365.45	4,434.84	1,230.72	6,549.27	5,384.36	0.08	-0.15	0.634
10.00	-34.60	-31.08	0.00	-3,207.9	0.00	3,207.86	4,385.31	1,205.53	6,284.01	5,214.59	0.32	-0.3	0.624
15.00	-33.33	-30.65	0.00	-3,052.4	0.00	3,052.45	4,334.06	1,180.35	6,024.24	5,045.30	0.72	-0.46	0.613
20.00	-32.08	-30.19	0.00	-2,899.2	0.00	2,899.23	4,281.09	1,155.17	5,769.94	4,876.60	1.28	-0.61	0.603
25.00	-30.85	-29.72	0.00	-2,748.3	0.00	2,748.27	4,226.40	1,129.98	5,521.14	4,708.64	2.01	-0.77	0.592
30.00	-29.64	-29.23	0.00	-2,599.7	0.00	2,599.68	4,169.98	1,104.80	5,277.81	4,541.54	2.9	-0.93	0.580
35.00	-28.46	-28.73	0.00	-2,453.5	0.00	2,453.52	4,111.84	1,079.62	5,039.97	4,375.42	3.96	-1.09	0.568
40.00	-27.31	-28.24	0.00	-2,309.8	0.00	2,309.85	4,051.98	1,054.43	4,807.61	4,210.43	5.19	-1.25	0.556
44.83	-26.25	-27.97	0.00	-2,173.5	0.00	2,173.52	3,992.55	1,030.12	4,588.45	4,052.29	6.54	-1.41	0.544
45.00	-26.15	-27.71	0.00	-2,168.7	0.00	2,168.71	3,990.40	1,029.25	4,580.74	4,046.68	6.59	-1.42	0.543
50.00	-24.16	-27.33	0.00	-2,030.2	0.00	2,030.15	3,927.10	1,004.07	4,359.35	3,884.30	8.17	-1.59	0.530
51.63	-23.50	-27.06	0.00	-1,985.5	0.00	1,985.53	3,945.98	1,011.51	4,424.21	3,932.14	8.72	-1.64	0.512
55.00	-22.76	-26.62	0.00	-1,894.4	0.00	1,894.40	3,902.73	994.55	4,277.11	3,823.33	9.92	-1.76	0.502
60.00	-21.69	-26.09	0.00	-1,761.3	0.00	1,761.28	3,837.05	969.37	4,063.28	3,663.06	11.85	-1.92	0.487
65.00	-20.65	-25.56	0.00	-1,630.8	0.00	1,630.84	3,769.65	944.18	3,854.92	3,504.48	13.94	-2.08	0.472
70.00	-19.64	-25.02	0.00	-1,503.1	0.00	1,503.06	3,700.53	919.00	3,652.05	3,347.71	16.2	-2.24	0.455
75.00	-18.64	-24.49	0.00	-1,377.9	0.00	1,377.94	3,629.69	893.82	3,454.67	3,192.88	18.63	-2.4	0.437
80.00	-17.68	-23.97	0.00	-1,255.5	0.00	1,255.47	3,557.12	868.63	3,262.77	3,040.12	21.22	-2.56	0.419
85.00	-16.74	-23.44	0.00	-1,135.6	0.00	1,135.64	3,482.83	843.45	3,076.35	2,889.56	23.98	-2.71	0.399
90.00	-15.65	-22.69	0.00	-1,018.4	0.00	1,018.42	3,406.82	818.27	2,895.41	2,741.33	26.91	-2.87	0.377
90.48	-15.55	-22.45	0.00	-1,007.6	0.00	1,007.61	3,399.49	815.87	2,878.45	2,727.33	27.2	-2.88	0.375
95.00	-14.23	-22.11	0.00	-906.1	0.00	906.08	3,329.09	793.08	2,719.96	2,595.56	29.99	-3.02	0.354
95.98	-13.93	-21.86	0.00	-884.3	0.00	884.32	2,652.87	668.74	2,320.57	2,096.47	30.62	-3.05	0.428
100.00	-13.32	-21.41	0.00	-796.5	0.00	796.54	2,607.49	651.89	2,205.09	2,008.26	33.24	-3.17	0.403
105.00	-12.58	-20.91	0.00	-689.5	0.00	689.50	2,549.43	630.90	2,065.42	1,899.81	36.64	-3.33	0.369
110.00	-10.28	-17.29	0.00	-585.0	0.00	584.97	2,489.65	609.91	1,930.31	1,793.02	40.21	-3.48	0.331
115.00	-9.61	-16.93	0.00	-498.5	0.00	498.54	2,428.15	588.93	1,799.78	1,688.03	43.93	-3.63	0.300
117.00	-9.23	-16.50	0.00	-464.7	0.00	464.68	2,403.07	580.53	1,748.85	1,646.56	45.46	-3.68	0.287
119.50	-8.90	-16.22	0.00	-423.4	0.00	423.42	2,371.33	570.04	1,686.21	1,595.17	47.41	-3.75	0.270
120.00	-8.84	-15.98	0.00	-415.3	0.00	415.32	2,364.93	567.94	1,673.82	1,584.96	47.8	-3.76	0.267
125.00	-8.22	-15.70	0.00	-335.4	0.00	335.44	2,299.99	546.96	1,552.42	1,483.93	51.81	-3.89	0.230
125.30	-8.16	-15.28	0.00	-330.7	0.00	330.73	2,296.04	545.70	1,545.28	1,477.94	52.05	-3.89	0.228
130.00	-7.61	-14.84	0.00	-258.9	0.00	258.90	2,226.60	525.97	1,435.59	1,380.92	55.94	-4	0.192
135.00	-7.03	-14.43	0.00	-184.7	0.00	184.69	2,137.76	504.98	1,323.34	1,272.38	60.17	-4.09	0.149
138.93	-6.60	-14.20	0.00	-127.9	0.00	127.90	2,067.85	488.47	1,238.21	1,190.09	63.56	-4.14	0.112
140.00	-3.76	-9.80	0.00	-112.4	0.00	112.40	2,048.92	484.00	1,215.65	1,168.29	64.49	-4.16	0.098
143.03	-3.33	-9.56	0.00	-82.8	0.00	82.76	1,068.58	288.00	717.29	606.93	67.13	-4.19	0.141
145.00	-3.22	-9.32	0.00	-63.9	0.00	63.88	1,057.77	283.03	692.75	590.35	68.86	-4.2	0.112
149.00	0.00	-9.06	0.00	-26.6	0.00	26.59	1,035.06	272.96	644.32	556.98	72.4	-4.24	0.049

ASSET: 413783, Kent Pcs CT
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 ENG NO: 14104626_C3_02

Load Case: 1.2D + 1.0Di + 1.0Wi Normal		40 mph wind with 1" radial ice		21 Iterations
Gust Response Factor:	1.10	Ice Dead Load Factor	1.00	
Dead load Factor:	1.20			Ice Importance Factor 1.00
Wind Load Factor:	1.00			

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-64.76	-6.02	0.00	-655.8	0.00	655.81	4,482.64	1,255.90	6,820.01	5,554.46	0	0	0.133
5.00	-62.81	-5.94	0.00	-625.7	0.00	625.69	4,434.84	1,230.72	6,549.27	5,384.36	0.02	-0.03	0.130
10.00	-60.87	-5.86	0.00	-596.0	0.00	595.98	4,385.31	1,205.53	6,284.01	5,214.59	0.06	-0.06	0.128
15.00	-58.94	-5.78	0.00	-566.7	0.00	566.67	4,334.06	1,180.35	6,024.24	5,045.30	0.13	-0.08	0.126
20.00	-57.04	-5.70	0.00	-537.8	0.00	537.77	4,281.09	1,155.17	5,769.94	4,876.60	0.24	-0.11	0.124
25.00	-55.17	-5.61	0.00	-509.3	0.00	509.29	4,226.40	1,129.98	5,521.14	4,708.64	0.37	-0.14	0.121
30.00	-53.32	-5.51	0.00	-481.3	0.00	481.27	4,169.98	1,104.80	5,277.81	4,541.54	0.54	-0.17	0.119
35.00	-51.51	-5.42	0.00	-453.7	0.00	453.71	4,111.84	1,079.62	5,039.97	4,375.42	0.74	-0.2	0.116
40.00	-49.73	-5.32	0.00	-426.6	0.00	426.63	4,051.98	1,054.43	4,807.61	4,210.43	0.96	-0.23	0.114
44.83	-48.04	-5.26	0.00	-401.0	0.00	400.95	3,992.55	1,030.12	4,588.45	4,052.29	1.21	-0.26	0.111
45.00	-47.94	-5.22	0.00	-400.0	0.00	400.05	3,990.40	1,029.25	4,580.74	4,046.68	1.22	-0.26	0.111
50.00	-45.02	-5.14	0.00	-374.0	0.00	373.97	3,927.10	1,004.07	4,359.35	3,884.30	1.52	-0.29	0.108
51.63	-44.08	-5.08	0.00	-365.6	0.00	365.58	3,945.98	1,011.51	4,424.21	3,932.14	1.62	-0.3	0.104
55.00	-42.94	-5.00	0.00	-348.5	0.00	348.46	3,902.73	994.55	4,277.11	3,823.33	1.84	-0.32	0.102
60.00	-41.27	-4.89	0.00	-323.5	0.00	323.48	3,837.05	969.37	4,063.28	3,663.06	2.2	-0.35	0.099
65.00	-39.64	-4.78	0.00	-299.0	0.00	299.03	3,769.65	944.18	3,854.92	3,504.48	2.58	-0.38	0.096
70.00	-38.04	-4.67	0.00	-275.1	0.00	275.12	3,700.53	919.00	3,652.05	3,347.71	3	-0.41	0.092
75.00	-36.47	-4.56	0.00	-251.8	0.00	251.75	3,629.69	893.82	3,454.67	3,192.88	3.45	-0.44	0.089
80.00	-34.95	-4.46	0.00	-228.9	0.00	228.93	3,557.12	868.63	3,262.77	3,040.12	3.93	-0.47	0.085
85.00	-33.45	-4.35	0.00	-206.7	0.00	206.66	3,482.83	843.45	3,076.35	2,889.56	4.44	-0.5	0.081
90.00	-31.61	-4.20	0.00	-184.9	0.00	184.92	3,406.82	818.27	2,895.41	2,741.33	4.98	-0.53	0.077
90.48	-31.47	-4.15	0.00	-182.9	0.00	182.92	3,399.49	815.87	2,878.45	2,727.33	5.03	-0.53	0.076
95.00	-29.47	-4.08	0.00	-164.2	0.00	164.16	3,329.09	793.08	2,719.96	2,595.56	5.55	-0.56	0.072
95.98	-29.04	-4.02	0.00	-160.1	0.00	160.14	2,652.87	668.74	2,320.57	2,096.47	5.66	-0.56	0.087
100.00	-28.04	-3.93	0.00	-144.0	0.00	143.99	2,607.49	651.89	2,205.09	2,008.26	6.14	-0.58	0.082
105.00	-26.83	-3.82	0.00	-124.3	0.00	124.34	2,549.43	630.90	2,065.42	1,899.81	6.77	-0.61	0.076
110.00	-21.79	-3.21	0.00	-105.2	0.00	105.23	2,489.65	609.91	1,930.31	1,793.02	7.43	-0.64	0.067
115.00	-20.66	-3.13	0.00	-89.2	0.00	89.18	2,428.15	588.93	1,799.78	1,688.03	8.11	-0.67	0.061
117.00	-19.99	-3.05	0.00	-82.9	0.00	82.92	2,403.07	580.53	1,748.85	1,646.56	8.39	-0.68	0.059
119.50	-19.38	-2.97	0.00	-75.3	0.00	75.31	2,371.33	570.04	1,686.21	1,595.17	8.75	-0.69	0.055
120.00	-19.27	-2.92	0.00	-73.8	0.00	73.82	2,364.93	567.94	1,673.82	1,584.96	8.82	-0.69	0.055
125.00	-18.21	-2.86	0.00	-59.2	0.00	59.22	2,299.99	546.96	1,552.42	1,483.93	9.55	-0.71	0.048
125.30	-18.04	-2.74	0.00	-58.4	0.00	58.36	2,296.04	545.70	1,545.28	1,477.94	9.6	-0.71	0.047
130.00	-17.07	-2.65	0.00	-45.5	0.00	45.47	2,226.60	525.97	1,435.59	1,380.92	10.31	-0.73	0.041
135.00	-16.08	-2.55	0.00	-32.2	0.00	32.24	2,137.76	504.98	1,323.34	1,272.38	11.08	-0.75	0.033
138.93	-15.32	-2.50	0.00	-22.2	0.00	22.19	2,067.85	488.47	1,238.21	1,190.09	11.7	-0.76	0.026
140.00	-9.06	-1.71	0.00	-19.5	0.00	19.46	2,048.92	484.00	1,215.65	1,168.29	11.87	-0.76	0.021
143.03	-8.34	-1.66	0.00	-14.3	0.00	14.27	1,068.58	288.00	717.29	606.93	12.36	-0.76	0.031
145.00	-8.09	-1.61	0.00	-11.0	0.00	11.00	1,057.77	283.03	692.75	590.35	12.67	-0.77	0.026
149.00	0.00	-1.50	0.00	-4.6	0.00	4.57	1,035.06	272.96	644.32	556.98	13.32	-0.77	0.008

ASSET: 413783, Kent Pcs CT
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 ENG NO: 14104626_C3_02

Load Case: 1.0D + 1.0W Service Normal	60 mph Wind with No Ice	21 Iterations
Gust Response Factor: 1.10		
Dead load Factor: 1.00		
Wind Load Factor: 1.00		

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-41.41	-7.92	0.00	-876.9	0.00	876.94	4,482.64	1,255.90	6,820.01	5,554.46	0	0	0.167
5.00	-40.02	-7.82	0.00	-837.3	0.00	837.33	4,434.84	1,230.72	6,549.27	5,384.36	0.02	-0.04	0.165
10.00	-38.66	-7.71	0.00	-798.2	0.00	798.25	4,385.31	1,205.53	6,284.01	5,214.59	0.08	-0.08	0.162
15.00	-37.33	-7.60	0.00	-759.7	0.00	759.71	4,334.06	1,180.35	6,024.24	5,045.30	0.18	-0.11	0.159
20.00	-36.02	-7.49	0.00	-721.7	0.00	721.69	4,281.09	1,155.17	5,769.94	4,876.60	0.32	-0.15	0.156
25.00	-34.74	-7.38	0.00	-684.2	0.00	684.22	4,226.40	1,129.98	5,521.14	4,708.64	0.5	-0.19	0.154
30.00	-33.48	-7.26	0.00	-647.3	0.00	647.32	4,169.98	1,104.80	5,277.81	4,541.54	0.72	-0.23	0.151
35.00	-32.24	-7.14	0.00	-611.0	0.00	611.02	4,111.84	1,079.62	5,039.97	4,375.42	0.99	-0.27	0.148
40.00	-31.03	-7.02	0.00	-575.3	0.00	575.32	4,051.98	1,054.43	4,807.61	4,210.43	1.29	-0.31	0.144
44.83	-29.88	-6.95	0.00	-541.4	0.00	541.44	3,992.55	1,030.12	4,588.45	4,052.29	1.63	-0.35	0.141
45.00	-29.81	-6.89	0.00	-540.2	0.00	540.24	3,990.40	1,029.25	4,580.74	4,046.68	1.64	-0.35	0.141
50.00	-27.64	-6.80	0.00	-505.8	0.00	505.79	3,927.10	1,004.07	4,359.35	3,884.30	2.03	-0.39	0.137
51.63	-26.95	-6.73	0.00	-494.7	0.00	494.70	3,945.98	1,011.51	4,424.21	3,932.14	2.17	-0.41	0.133
55.00	-26.17	-6.62	0.00	-472.0	0.00	472.04	3,902.73	994.55	4,277.11	3,823.33	2.47	-0.44	0.130
60.00	-25.05	-6.49	0.00	-438.9	0.00	438.92	3,837.05	969.37	4,063.28	3,663.06	2.95	-0.48	0.126
65.00	-23.94	-6.36	0.00	-406.5	0.00	406.46	3,769.65	944.18	3,854.92	3,504.48	3.47	-0.52	0.122
70.00	-22.86	-6.23	0.00	-374.7	0.00	374.66	3,700.53	919.00	3,652.05	3,347.71	4.03	-0.56	0.118
75.00	-21.81	-6.10	0.00	-343.5	0.00	343.51	3,629.69	893.82	3,454.67	3,192.88	4.64	-0.6	0.114
80.00	-20.78	-5.97	0.00	-313.0	0.00	313.01	3,557.12	868.63	3,262.77	3,040.12	5.28	-0.64	0.109
85.00	-19.77	-5.84	0.00	-283.2	0.00	283.16	3,482.83	843.45	3,076.35	2,889.56	5.97	-0.68	0.104
90.00	-18.57	-5.65	0.00	-254.0	0.00	253.95	3,406.82	818.27	2,895.41	2,741.33	6.7	-0.71	0.098
90.48	-18.48	-5.59	0.00	-251.3	0.00	251.26	3,399.49	815.87	2,878.45	2,727.33	6.77	-0.72	0.098
95.00	-17.02	-5.51	0.00	-226.0	0.00	225.96	3,329.09	793.08	2,719.96	2,595.56	7.47	-0.75	0.092
95.98	-16.70	-5.45	0.00	-220.5	0.00	220.53	2,652.87	668.74	2,320.57	2,096.47	7.63	-0.76	0.112
100.00	-16.05	-5.34	0.00	-198.6	0.00	198.65	2,607.49	651.89	2,205.09	2,008.26	8.28	-0.79	0.105
105.00	-15.26	-5.21	0.00	-172.0	0.00	171.97	2,549.43	630.90	2,065.42	1,899.81	9.13	-0.83	0.097
110.00	-12.52	-4.31	0.00	-145.9	0.00	145.90	2,489.65	609.91	1,930.31	1,793.02	10.02	-0.87	0.086
115.00	-11.79	-4.22	0.00	-124.4	0.00	124.35	2,428.15	588.93	1,799.78	1,688.03	10.95	-0.9	0.079
117.00	-11.35	-4.12	0.00	-115.9	0.00	115.90	2,403.07	580.53	1,748.85	1,646.56	11.33	-0.92	0.075
119.50	-10.99	-4.05	0.00	-105.6	0.00	105.61	2,371.33	570.04	1,686.21	1,595.17	11.81	-0.93	0.071
120.00	-10.92	-3.99	0.00	-103.6	0.00	103.58	2,364.93	567.94	1,673.82	1,584.96	11.91	-0.94	0.070
125.00	-10.23	-3.92	0.00	-83.6	0.00	83.65	2,299.99	546.96	1,552.42	1,483.93	12.91	-0.97	0.061
125.30	-10.16	-3.81	0.00	-82.5	0.00	82.48	2,296.04	545.70	1,545.28	1,477.94	12.97	-0.97	0.060
130.00	-9.53	-3.70	0.00	-64.6	0.00	64.55	2,226.60	525.97	1,435.59	1,380.92	13.94	-1	0.051
135.00	-8.88	-3.60	0.00	-46.0	0.00	46.03	2,137.76	504.98	1,323.34	1,272.38	14.99	-1.02	0.040
138.93	-8.39	-3.54	0.00	-31.9	0.00	31.86	2,067.85	488.47	1,238.21	1,190.09	15.84	-1.03	0.031
140.00	-4.91	-2.44	0.00	-28.0	0.00	27.99	2,048.92	484.00	1,215.65	1,168.29	16.07	-1.04	0.026
143.03	-4.42	-2.38	0.00	-20.6	0.00	20.60	1,068.58	288.00	717.29	606.93	16.73	-1.04	0.038
145.00	-4.29	-2.32	0.00	-15.9	0.00	15.89	1,057.77	283.03	692.75	590.35	17.16	-1.05	0.031
149.00	0.00	-2.25	0.00	-6.6	0.00	6.59	1,035.06	272.96	644.32	556.98	18.04	-1.06	0.012

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

(Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period (S_S):	0.184
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.054
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_a):	1.000
Site Coefficient F_a :	1.600
Site Coefficient F_v :	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.196
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.086
Seismic Response Coefficient (C_s):	0.030
Upper Limit C_s :	0.030
Lower Limit C_s :	0.030
Period based on Rayleigh Method (sec):	2.070
Redundancy Factor (ρ):	1.000
Seismic Force Distribution Exponent (k):	1.790
Total Unfactored Dead Load:	41.410 k
Seismic Base Shear (E):	1.240 k

1.2D + 1.0Ev + 1.0Eh Normal Seismic

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
39	147	269	2,009	0.015	19	334
38	144.013	136	976	0.007	9	168
37	141.513	492	3,429	0.026	32	610
36	139.4675	193	1,311	0.010	12	239
35	136.9675	495	3,252	0.025	31	613
34	132.5	647	4,007	0.030	38	801
33	127.65	626	3,631	0.028	34	776
32	125.15	41	227	0.002	2	50
31	122.5	691	3,720	0.028	35	856
30	119.75	70	364	0.003	3	87
29	118.25	355	1,794	0.014	17	440
28	116	288	1,405	0.011	13	356
27	112.5	733	3,390	0.026	32	908
26	107.5	771	3,287	0.025	31	955
25	102.5	791	3,099	0.024	29	981
24	97.9922	650	2,350	0.018	22	806
23	95.4922	312	1,078	0.008	10	387
22	92.7383	1,457	4,773	0.036	45	1,806
21	90.2383	92	286	0.002	3	114
20	87.5	978	2,888	0.022	27	1,212
19	82.5	1,003	2,664	0.020	25	1,243
18	77.5	1,027	2,441	0.019	23	1,273
17	72.5	1,052	2,218	0.017	21	1,303
16	67.5	1,076	1,997	0.015	19	1,333
15	62.5	1,100	1,780	0.014	17	1,364
14	57.5	1,125	1,568	0.012	15	1,394
13	53.3164	771	939	0.007	9	956
12	50.8164	695	776	0.006	7	861
11	47.5	2,159	2,139	0.016	20	2,676
10	44.9141	75	67	0.000	1	93
9	42.4141	1,143	925	0.007	9	1,416
8	37.5	1,207	784	0.006	7	1,496
7	32.5	1,232	619	0.005	6	1,526
6	27.5	1,256	469	0.004	4	1,557

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
5	22.5	1,280	334	0.002	3	1,587
4	17.5	1,305	217	0.002	2	1,617
3	12.5	1,329	121	0.001	1	1,647
2	7.5	1,354	50	0.000	0	1,678
1	2.5	1,378	7	0.000	0	1,708
RFS Celwave PD220	149	50	382	0.003	4	62
Samsung 700+850MHZ Dual Band RRH	149	246	1,880	0.014	18	305
Samsung PCS/AWS Dual Band RRH	149	253	1,935	0.015	18	314
Raycap RVZDC-6627-PF-48	149	32	245	0.002	2	40
Commscope NHH-65B-R2B	149	262	2,003	0.015	19	325
Antel LPA-80080/6CF	149	126	963	0.007	9	156
VZW Unused Reserve (15712.19 sqin)	149	1,461	11,161	0.085	105	1,810
Generic 72" x 8" Panel	149	120	917	0.007	9	149
Generic 3' Yagi	149	10	76	0.001	1	12
Generic 3' Yagi	119.5	10	52	0.000	0	12
Flat Low Profile Platform	149	1,500	11,462	0.087	108	1,859
Andrew ABT-DFDM-ADB	140	1	8	0.000	0	1
Powerwave Allgon TT19-08BP111-001	140	96	656	0.005	6	119
Powerwave Allgon TT08-19DB111-001	140	66	451	0.003	4	82
Raycap DC6-48-60-0-8C-EV	140	16	109	0.001	1	20
Ericsson RRUS A2 Module	140	64	435	0.003	4	79
Ericsson RRUS 4449 B5, B12	140	213	1,456	0.011	14	264
Ericsson RRUS 4478 B14	140	178	1,218	0.009	12	221
Raycap DC6-48-60-18-8C	140	16	109	0.001	1	20
Ericsson RRUS 32 B2	140	159	1,087	0.008	10	197
Andrew SBNHH-1D65A (33.5 lbs)	140	67	458	0.004	4	83
Powerwave Allgon P90-15-XLH-RR	140	159	1,087	0.008	10	197
CCI DMP65R-BU4D	140	136	928	0.007	9	168
CCI HPA-65R-BUU-H6	140	51	349	0.003	3	63
CCI DMP65R-BU6DA	140	79	543	0.004	5	98
Round Platform w/ Handrails	140	2,000	13,672	0.104	129	2,479
Decibel DB222	125.3	32	179	0.001	2	40
Stand Off	117	150	744	0.006	7	186
Ericsson RRUS 11 B4	110	152	676	0.005	6	188
Ericsson RRUS 11 B2	110	152	676	0.005	6	188
Ericsson 4480 BAND 71	110	243	1,080	0.008	10	301
RFS APX16DWV-16DWVS-E-A20	110	122	542	0.004	5	151
Generic Round T-Arm	110	938	4,165	0.032	39	1,162
RFS APXVAALL24 43-U-NA20	110	368	1,637	0.012	15	457
dbSpectra DS2C00F36D	90	40	124	0.001	1	50
Generic Flat Side Arm	90	188	582	0.004	6	232
		41,410	131,437	1.000	1,242	51,317

0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
39	147	269	2,009	0.015	19	232
38	144.013	136	976	0.007	9	117
37	141.513	492	3,429	0.026	32	424
36	139.4675	193	1,311	0.010	12	166
35	136.9675	495	3,252	0.025	31	426
34	132.5	647	4,007	0.030	38	557
33	127.65	626	3,631	0.028	34	539
32	125.15	41	227	0.002	2	35
31	122.5	691	3,720	0.028	35	595
30	119.75	70	364	0.003	3	61
29	118.25	355	1,794	0.014	17	305
28	116	288	1,405	0.011	13	247
27	112.5	733	3,390	0.026	32	631
26	107.5	771	3,287	0.025	31	664
25	102.5	791	3,099	0.024	29	681
24	97.9922	650	2,350	0.018	22	560

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
23	95.4922	312	1,078	0.008	10	269
22	92.7383	1,457	4,773	0.036	45	1,254
21	90.2383	92	286	0.002	3	79
20	87.5	978	2,888	0.022	27	842
19	82.5	1,003	2,664	0.020	25	863
18	77.5	1,027	2,441	0.019	23	884
17	72.5	1,052	2,218	0.017	21	905
16	67.5	1,076	1,997	0.015	19	926
15	62.5	1,100	1,780	0.014	17	947
14	57.5	1,125	1,568	0.012	15	968
13	53.3164	771	939	0.007	9	664
12	50.8164	695	776	0.006	7	598
11	47.5	2,159	2,139	0.016	20	1,859
10	44.9141	75	67	0.000	1	65
9	42.4141	1,143	925	0.007	9	983
8	37.5	1,207	784	0.006	7	1,039
7	32.5	1,232	619	0.005	6	1,060
6	27.5	1,256	469	0.004	4	1,081
5	22.5	1,280	334	0.002	3	1,102
4	17.5	1,305	217	0.002	2	1,123
3	12.5	1,329	121	0.001	1	1,144
2	7.5	1,354	50	0.000	0	1,165
1	2.5	1,378	7	0.000	0	1,186
RFS Celwave PD220	149	50	382	0.003	4	43
Samsung 700+850MHZ Dual Band RRH	149	246	1,880	0.014	18	212
Samsung PCS/AWS Dual Band RRH	149	253	1,935	0.015	18	218
Raycap RVZDC-6627-PF-48	149	32	245	0.002	2	28
Commscope NHH-65B-R2B	149	262	2,003	0.015	19	226
Antel LPA-80080/6CF	149	126	963	0.007	9	108
VZW Unused Reserve (15712.19 sqin)	149	1,461	11,161	0.085	105	1,257
Generic 72" x 8" Panel	149	120	917	0.007	9	103
Generic 3' Yagi	149	10	76	0.001	1	9
Generic 3' Yagi	119.5	10	52	0.000	0	9
Flat Low Profile Platform	149	1,500	11,462	0.087	108	1,291
Andrew ABT-DFDM-ADB	140	1	8	0.000	0	1
Powerwave Allgon TT19-08BP111-001	140	96	656	0.005	6	83
Powerwave Allgon TT08-19DB111-001	140	66	451	0.003	4	57
Raycap DC6-48-60-0-8C-EV	140	16	109	0.001	1	14
Ericsson RRUS A2 Module	140	64	435	0.003	4	55
Ericsson RRUS 4449 B5, B12	140	213	1,456	0.011	14	183
Ericsson RRUS 4478 B14	140	178	1,218	0.009	12	153
Raycap DC6-48-60-18-8C	140	16	109	0.001	1	14
Ericsson RRUS 32 B2	140	159	1,087	0.008	10	137
Andrew SBNHH-1D65A (33.5 lbs)	140	67	458	0.004	4	58
Powerwave Allgon P90-15-XLH-RR	140	159	1,087	0.008	10	137
CCI DMP65R-BU4D	140	136	928	0.007	9	117
CCI HPA-65R-BUU-H6	140	51	349	0.003	3	44
CCI DMP65R-BU6DA	140	79	543	0.004	5	68
Round Platform w/ Handrails	140	2,000	13,672	0.104	129	1,721
Decibel DB222	125.3	32	179	0.001	2	28
Stand Off	117	150	744	0.006	7	129
Ericsson RRUS 11 B4	110	152	676	0.005	6	131
Ericsson RRUS 11 B2	110	152	676	0.005	6	131
Ericsson 4480 BAND 71	110	243	1,080	0.008	10	209
RFS APX16DWV-16DWVS-E-A20	110	122	542	0.004	5	105
Generic Round T-Arm	110	938	4,165	0.032	39	807
RFS APXVAALL24 43-U-NA20	110	368	1,637	0.012	15	317
dbSpectra DS2C00F36D	90	40	124	0.001	1	34
Generic Flat Side Arm	90	188	582	0.004	6	161
		41,410	131,437	1.000	1,242	35,643

1.2D + 1.0Ev + 1.0Eh Normal Seismic

CALCULATED FORCES

Seg Elev	Pu FY (-)	Vu FX (-)	Tu MY	Mu MZ	Mu Mx	Resultant Moment	Phi Pn	Phi Vn	Phi Tn	Phi Mn	Total Deflect	Rotation (deg)	Ratio
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(ft)	(kips)	(kips)	(ft-kips)	(fr-kips)	(ft-kips)	(ft-kips)	(kips)	(kips)	(kips)	(kips)	(in)		
0.00	-49.61	-1.24	0.00	-152.11	0.00	152.11	4,482.64	1,255.90	6,820	5,554.46	0.00	0.00	0.04
5.00	-47.93	-1.25	0.00	-145.89	0.00	145.89	4,434.84	1,230.72	6,549	5,384.36	0.00	-0.01	0.04
10.00	-46.28	-1.25	0.00	-139.64	0.00	139.64	4,385.31	1,205.53	6,284	5,214.59	0.01	-0.01	0.04
15.00	-44.67	-1.26	0.00	-133.38	0.00	133.38	4,334.06	1,180.35	6,024	5,045.30	0.03	-0.02	0.04
20.00	-43.08	-1.26	0.00	-127.10	0.00	127.10	4,281.09	1,155.17	5,770	4,876.60	0.06	-0.03	0.04
25.00	-41.52	-1.26	0.00	-120.81	0.00	120.81	4,226.40	1,129.98	5,521	4,708.64	0.09	-0.03	0.04
30.00	-40.00	-1.26	0.00	-114.53	0.00	114.53	4,169.98	1,104.80	5,278	4,541.54	0.13	-0.04	0.04
35.00	-38.50	-1.25	0.00	-108.25	0.00	108.25	4,111.84	1,079.62	5,040	4,375.42	0.17	-0.05	0.03
40.00	-37.08	-1.25	0.00	-101.99	0.00	101.99	4,051.98	1,054.43	4,808	4,210.43	0.23	-0.05	0.03
44.83	-36.99	-1.25	0.00	-95.97	0.00	95.97	3,992.55	1,030.12	4,588	4,052.29	0.29	-0.06	0.03
45.00	-34.32	-1.23	0.00	-95.76	0.00	95.76	3,990.40	1,029.25	4,581	4,046.68	0.29	-0.06	0.03
50.00	-33.45	-1.22	0.00	-89.63	0.00	89.63	3,927.10	1,004.07	4,359	3,884.30	0.36	-0.07	0.03
51.63	-32.50	-1.21	0.00	-87.63	0.00	87.63	3,945.98	1,011.51	4,424	3,932.14	0.38	-0.07	0.03
55.00	-31.10	-1.20	0.00	-83.55	0.00	83.55	3,902.73	994.55	4,277	3,823.33	0.43	-0.08	0.03
60.00	-29.74	-1.19	0.00	-77.54	0.00	77.54	3,837.05	969.37	4,063	3,663.06	0.52	-0.08	0.03
65.00	-28.41	-1.17	0.00	-71.62	0.00	71.62	3,769.65	944.18	3,855	3,504.48	0.61	-0.09	0.03
70.00	-27.10	-1.15	0.00	-65.78	0.00	65.78	3,700.53	919.00	3,652	3,347.71	0.71	-0.10	0.03
75.00	-25.83	-1.13	0.00	-60.04	0.00	60.04	3,629.69	893.82	3,455	3,192.88	0.82	-0.11	0.03
80.00	-24.59	-1.10	0.00	-54.41	0.00	54.41	3,557.12	868.63	3,263	3,040.12	0.93	-0.11	0.03
85.00	-23.38	-1.07	0.00	-48.91	0.00	48.91	3,482.83	843.45	3,076	2,889.56	1.05	-0.12	0.02
90.00	-22.98	-1.07	0.00	-43.54	0.00	43.54	3,406.82	818.27	2,895	2,741.33	1.18	-0.13	0.02
90.48	-21.17	-1.02	0.00	-43.03	0.00	43.03	3,399.49	815.87	2,878	2,727.33	1.19	-0.13	0.02
95.00	-20.79	-1.01	0.00	-38.42	0.00	38.42	3,329.09	793.08	2,720	2,595.56	1.31	-0.13	0.02
95.98	-19.98	-0.98	0.00	-37.43	0.00	37.43	2,652.87	668.74	2,321	2,096.47	1.34	-0.13	0.03
100.00	-19.00	-0.96	0.00	-33.48	0.00	33.48	2,607.49	651.89	2,205	2,008.26	1.46	-0.14	0.02
105.00	-18.05	-0.92	0.00	-28.70	0.00	28.70	2,549.43	630.90	2,065	1,899.81	1.60	-0.15	0.02
110.00	-14.69	-0.80	0.00	-24.08	0.00	24.08	2,489.65	609.91	1,930	1,793.02	1.76	-0.15	0.02
115.00	-14.33	-0.79	0.00	-20.07	0.00	20.07	2,428.15	588.93	1,800	1,688.03	1.92	-0.16	0.02
117.00	-13.71	-0.76	0.00	-18.50	0.00	18.50	2,403.07	580.53	1,749	1,646.56	1.99	-0.16	0.02
119.50	-13.61	-0.76	0.00	-16.59	0.00	16.59	2,371.33	570.04	1,686	1,595.17	2.07	-0.16	0.02
120.00	-12.75	-0.72	0.00	-16.21	0.00	16.21	2,364.93	567.94	1,674	1,584.96	2.09	-0.16	0.02
125.00	-12.70	-0.72	0.00	-12.60	0.00	12.60	2,299.99	546.96	1,552	1,483.93	2.26	-0.17	0.01
125.30	-11.89	-0.68	0.00	-12.38	0.00	12.38	2,296.04	545.70	1,545	1,477.94	2.27	-0.17	0.01
130.00	-11.08	-0.64	0.00	-9.17	0.00	9.17	2,226.60	525.97	1,436	1,380.92	2.44	-0.17	0.01
135.00	-10.47	-0.61	0.00	-5.95	0.00	5.95	2,137.76	504.98	1,323	1,272.38	2.62	-0.17	0.01
138.93	-10.23	-0.60	0.00	-3.55	0.00	3.55	2,067.85	488.47	1,238	1,190.09	2.77	-0.18	0.01
140.00	-5.53	-0.34	0.00	-2.91	0.00	2.91	2,048.92	484.00	1,216	1,168.29	2.80	-0.18	0.01
143.03	-5.36	-0.33	0.00	-1.88	0.00	1.88	1,068.58	288.00	717	606.93	2.92	-0.18	0.01
145.00	-5.03	-0.31	0.00	-1.24	0.00	1.24	1,057.77	283.03	693	590.35	2.99	-0.18	0.01
149.00	0.00	-0.29	0.00	0.00	0.00	0.00	1,035.06	272.96	644	556.98	3.14	-0.18	0.00

0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-34.46	-1.24	0.00	-150.48	0.00	150.48	4,482.64	1,255.90	6,820	5,554.46	0.00	0.00	0.04
5.00	-33.29	-1.25	0.00	-144.26	0.00	144.26	4,434.84	1,230.72	6,549	5,384.36	0.00	-0.01	0.03
10.00	-32.15	-1.25	0.00	-138.02	0.00	138.02	4,385.31	1,205.53	6,284	5,214.59	0.01	-0.01	0.03
15.00	-31.02	-1.25	0.00	-131.78	0.00	131.78	4,334.06	1,180.35	6,024	5,045.30	0.03	-0.02	0.03
20.00	-29.92	-1.25	0.00	-125.53	0.00	125.53	4,281.09	1,155.17	5,770	4,876.60	0.05	-0.03	0.03
25.00	-28.84	-1.25	0.00	-119.27	0.00	119.27	4,226.40	1,129.98	5,521	4,708.64	0.09	-0.03	0.03
30.00	-27.78	-1.25	0.00	-113.03	0.00	113.03	4,169.98	1,104.80	5,278	4,541.54	0.12	-0.04	0.03
35.00	-26.74	-1.24	0.00	-106.80	0.00	106.80	4,111.84	1,079.62	5,040	4,375.42	0.17	-0.05	0.03
40.00	-25.76	-1.23	0.00	-100.60	0.00	100.60	4,051.98	1,054.43	4,808	4,210.43	0.22	-0.05	0.03
44.83	-25.69	-1.24	0.00	-94.64	0.00	94.64	3,992.55	1,030.12	4,588	4,052.29	0.28	-0.06	0.03
45.00	-23.83	-1.21	0.00	-94.43	0.00	94.43	3,990.40	1,029.25	4,581	4,046.68	0.28	-0.06	0.03
50.00	-23.24	-1.21	0.00	-88.35	0.00	88.35	3,927.10	1,004.07	4,359	3,884.30	0.35	-0.07	0.03
51.63	-22.57	-1.20	0.00	-86.38	0.00	86.38	3,945.98	1,011.51	4,424	3,932.14	0.38	-0.07	0.03
55.00	-21.60	-1.19	0.00	-82.34	0.00	82.34	3,902.73	994.55	4,277	3,823.33	0.43	-0.08	0.03
60.00	-20.66	-1.17	0.00	-76.41	0.00	76.41	3,837.05	969.37	4,063	3,663.06	0.51	-0.08	0.03
65.00	-19.73	-1.15	0.00	-70.55	0.00	70.55	3,769.65	944.18	3,855	3,504.48	0.60	-0.09	0.03
70.00	-18.83	-1.13	0.00	-64.79	0.00	64.79	3,700.53	919.00	3,652	3,347.71	0.70	-0.10	0.02
75.00	-17.94	-1.11	0.00	-59.12	0.00	59.12	3,629.69	893.82	3,455	3,192.88	0.81	-0.10	0.02
80.00	-17.08	-1.09	0.00	-53.57	0.00	53.57	3,557.12	868.63	3,263	3,040.12	0.92	-0.11	0.02
85.00	-16.24	-1.06	0.00	-48.14	0.00	48.14	3,482.83	843.45	3,076	2,889.56	1.04	-0.12	0.02
90.00	-15.96	-1.05	0.00	-42.85	0.00	42.85	3,406.82	818.27	2,895	2,741.33	1.16	-0.12	0.02
90.48	-14.71	-1.00	0.00	-42.35	0.00	42.35	3,399.49	815.87	2,878	2,727.33	1.18	-0.12	0.02
95.00	-14.44	-0.99	0.00	-37.82	0.00	37.82	3,329.09	793.08	2,720	2,595.56	1.30	-0.13	0.02

ASSET: 413783, Kent Pcs CT
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 ENG NO: 14104626_C3_02

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
95.98	-13.88	-0.97	0.00	-36.84	0.00	36.84	2,652.87	668.74	2,321	2,096.47	1.32	-0.13	0.02
100.00	-13.20	-0.94	0.00	-32.94	0.00	32.94	2,607.49	651.89	2,205	2,008.26	1.44	-0.14	0.02
105.00	-12.53	-0.91	0.00	-28.24	0.00	28.24	2,549.43	630.90	2,065	1,899.81	1.58	-0.14	0.02
110.00	-10.20	-0.79	0.00	-23.70	0.00	23.70	2,489.65	609.91	1,930	1,793.02	1.74	-0.15	0.02
115.00	-9.95	-0.78	0.00	-19.75	0.00	19.75	2,428.15	588.93	1,800	1,688.03	1.90	-0.15	0.02
117.00	-9.52	-0.75	0.00	-18.20	0.00	18.20	2,403.07	580.53	1,749	1,646.56	1.96	-0.16	0.02
119.50	-9.45	-0.75	0.00	-16.32	0.00	16.32	2,371.33	570.04	1,686	1,595.17	2.04	-0.16	0.01
120.00	-8.86	-0.71	0.00	-15.95	0.00	15.95	2,364.93	567.94	1,674	1,584.96	2.06	-0.16	0.01
125.00	-8.82	-0.71	0.00	-12.39	0.00	12.39	2,299.99	546.96	1,552	1,483.93	2.23	-0.16	0.01
125.30	-8.25	-0.67	0.00	-12.18	0.00	12.18	2,296.04	545.70	1,545	1,477.94	2.24	-0.17	0.01
130.00	-7.70	-0.63	0.00	-9.02	0.00	9.02	2,226.60	525.97	1,436	1,380.92	2.41	-0.17	0.01
135.00	-7.27	-0.60	0.00	-5.85	0.00	5.85	2,137.76	504.98	1,323	1,272.38	2.59	-0.17	0.01
138.93	-7.11	-0.59	0.00	-3.49	0.00	3.49	2,067.85	488.47	1,238	1,190.09	2.73	-0.17	0.01
140.00	-3.84	-0.33	0.00	-2.86	0.00	2.86	2,048.92	484.00	1,216	1,168.29	2.77	-0.17	0.00
143.03	-3.73	-0.32	0.00	-1.85	0.00	1.85	1,068.58	288.00	717	606.93	2.88	-0.17	0.01
145.00	-3.49	-0.30	0.00	-1.22	0.00	1.22	1,057.77	283.03	693	590.35	2.95	-0.18	0.01
149.00	0.00	-0.29	0.00	0.00	0.00	0.00	1,035.06	272.96	644	556.98	3.10	-0.18	0.00

ASSET: 413783, Kent Pcs CT
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 ENG NO: 14104626_C3_02

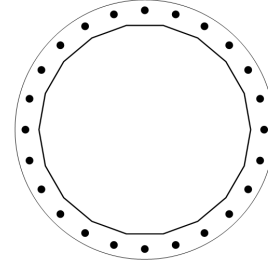
ANALYSIS SUMMARY

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W Normal	31.98	0.00	49.65	0.00	0.00	3557.01	0.00	0.65
0.9D + 1.0W Normal	31.96	0.00	37.23	0.00	0.00	3525.24	0.00	0.64
1.2D + 1.0Di + 1.0Wi Normal	6.02	0.00	64.76	0.00	0.00	655.81	0.00	0.13
1.2D + 1.0Ev + 1.0Eh Normal	1.26	0.00	49.61	0.00	0.00	152.11	0.00	0.04
0.9D - 1.0Ev + 1.0Eh Normal	1.25	0.00	34.46	0.00	0.00	150.48	0.00	0.03
1.0D + 1.0W Service Normal	7.92	0.00	41.41	0.00	0.00	876.94	0.00	0.17

BASE PLATE ANALYSIS @ 0 FT

PLATE PARAMETERS (ID# 18753)

Diameter:	75	in
Shape:	Round	
Thickness:	3.25	in
Grade:	A572-50	
Yield Strength:	50	ksi
Tensile Strength:	65	ksi
Rod Detail Type:	d	
Clear Distance	3.5	in
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Plastic	
Neutral Axis:	8	°



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 19229]	Radial	24	2.25	69	A615-75	75	100	-	-

ANCHOR ROD GEOMETRY AND APPLIED LOADS --- ORIGINAL (24) 2.25"Ø [ID 19229]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in ⁴)	Axial Load (k)	Shear Load (k)
1	0.262	33.32	8.93	4.045	53.966	88.08	2.07
2	0.524	29.88	17.25	12.432	502.805	88.08	1.94
3	0.785	24.40	24.40	19.973	1296.376	88.08	1.67
4	1.047	17.25	29.88	26.152	2222.040	88.08	1.28
5	1.309	8.93	33.32	30.549	3031.768	88.08	0.82
6	1.571	0.00	34.50	32.865	3508.593	88.08	0.29
7	1.833	-8.93	33.32	32.940	3524.751	88.08	0.25
8	2.094	-17.25	29.88	30.771	3075.911	88.08	0.78
9	2.356	-24.40	24.40	26.505	2282.341	88.08	1.26
10	2.618	-29.88	17.25	20.432	1356.677	88.08	1.64
11	2.880	-33.32	8.93	12.967	546.949	88.08	1.92
12	3.142	-34.50	0.00	4.619	70.124	88.08	2.07
13	3.403	-33.32	-8.93	-4.045	53.966	-79.80	2.07
14	3.665	-29.88	-17.25	-12.432	502.805	-79.80	1.94
15	3.927	-24.40	-24.40	-19.973	1296.376	-79.80	1.67
16	4.189	-17.25	-29.88	-26.152	2222.040	-79.80	1.28
17	4.451	-8.93	-33.32	-30.549	3031.768	-79.80	0.82
18	4.712	0.00	-34.50	-32.865	3508.593	-79.80	0.29
19	4.974	8.93	-33.32	-32.940	3524.751	-79.80	0.25
20	5.236	17.25	-29.88	-30.771	3075.911	-79.80	0.78
21	5.498	24.40	-24.40	-26.505	2282.341	-79.80	1.26
22	5.760	29.88	-17.25	-20.432	1356.677	-79.80	1.64
23	6.021	33.32	-8.93	-12.967	546.949	-79.80	1.92
24	6.283	34.50	0.00	-4.619	70.124	-79.80	2.07

ASSET: 413783, Kent Pcs CT
 CUSTOMER: T-MOBILE

CODE: ANSI/TIA-222-H
 ENG NO: 14104626

REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	60.5"Ø x 0.375" (18 Sides)	3557.0	49.65	31.98	1.000
Bolt Group	Original (24) 2.25"Ø	3557.0	-	31.98	1.000
TOTALS		3557.01	49.65	31.98	

COMPONENT PROPERTIES

Component	ID	Gross Area (in ²)	Net Area (in ²)	Individual Inertia (in ⁴)	Moment of Inertia (in ⁴)	Threads/in
Pole	60.5"Ø x 0.375" (18 Sides)	70.4740	-	-	31848.90	-
Bolt Group	Original (24) 2.25"Ø	3.9761	3.2477	0.8393	42944.60	4.5

EXTERNAL BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES

Flat-to-Flat Diameter: 60.62 in
 Point-to-Point Diameter: 61.56 in
 Flat Width: 10.690 in
 Flat Radians: 0.349 rad

PLATE PROPERTIES

Neutral Axis: 8 °
 Bend Line Lower Limit: 1.189 rad
 Bend Line Upper Limit: 2.215 rad

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in ³)	Applied Moment Mu (k-in)	Moment Capacity φMn (k-in)	Ratio
Flat	39.559	0.00	104.461	631.2	4700.7	0.134
Corner	38.087	0.00	100.575	459.6	4525.9	0.102
Circumferential	48.240	0.00	127.383	1007.8	5732.2	0.176

PLASTIC ANCHOR ROD ANALYSIS

Class	Group Quantity	Rod Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity φPn (k)	Ratio
Original	24	2.25	88.2	2.1	243.6	0.379

Exhibit E

Mount Analysis



AMERICAN TOWER®
CORPORATION

Mount Analysis Report

ATC Site Name : Kent Pcs CT, CT
ATC Site Number : 413783
Engineering Number : 14104626_C8_01
Mount Elevation : 108.5 ft
Carrier : T-Mobile
Carrier Site Name : CTNH542A
Carrier Site Number : CTNH542A
Site Location : S KENT RD
Kent, CT 06757-1709
41.72190816 , -73.47495885
County : Litchfield
Date : May 20, 2022
Max Usage : 98%
Result : Contingent Pass

Prepared By:
Molly Li
Structural Engineer

Reviewed By:



COA: PEC.0001553



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Calculations Attached



Introduction

The purpose of this report is to summarize results of the mount analysis performed for T-Mobile at 108.5 ft.

Supporting Documents

Specifications Sheet	Site Pro 1 RMV12-396, dated July 1, 2015
Radio Frequency Data Sheet	RFDS ID #CTNH542A, dated April 1, 2022
Reference Photos	Site photos from 2022

Analysis

This mount was analyzed using American Tower Corporation's Mount Analysis Program and RISA-3D

Basic Wind Speed:	114 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	40 mph (3-Second Gust) w/ 1.00" radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	$S_s = 0.184$, $S_1 = 0.054$
Site Class:	D - Stiff Soil
Live Loads:	$L_m = 500$ lbs, $L_v = 250$ lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above provided the modifications listed below are completed:

- Move existing Mount Pipe A 24" to the right and existing Mount Pipe B 24" to the left (viewing from tower towards the sector frame).

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



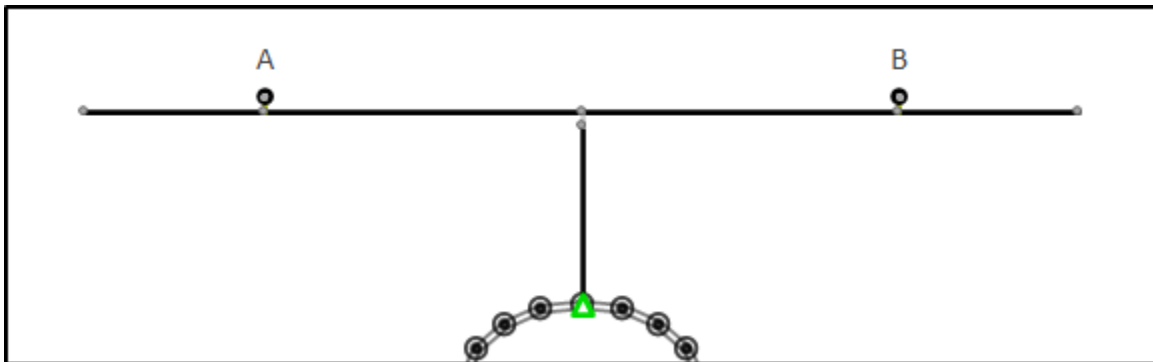
Application Loading

Mount Centerline (ft)	Equipment Centerline (ft)	Qty	Equipment Manufacturer & Model
108.5	110.0	3	RFS APX16DWV-16DWVS-E-A20
		3	RFS APXVAALL24 43-U-NA20
		3	Ericsson RRUS 11 B2
		3	Ericsson RRUS 11 B4
		3	Ericsson 4480 BAND 71

Structure Usages

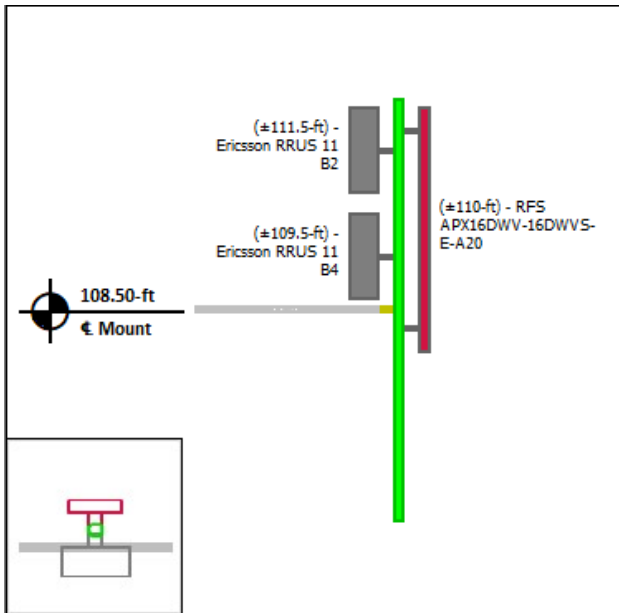
Structural Component	Controlling Usage	Pass/Fail
Horizontals	77%	Pass
Verticals	22%	Pass
Mount Pipes	98%	Pass

Mount Layout

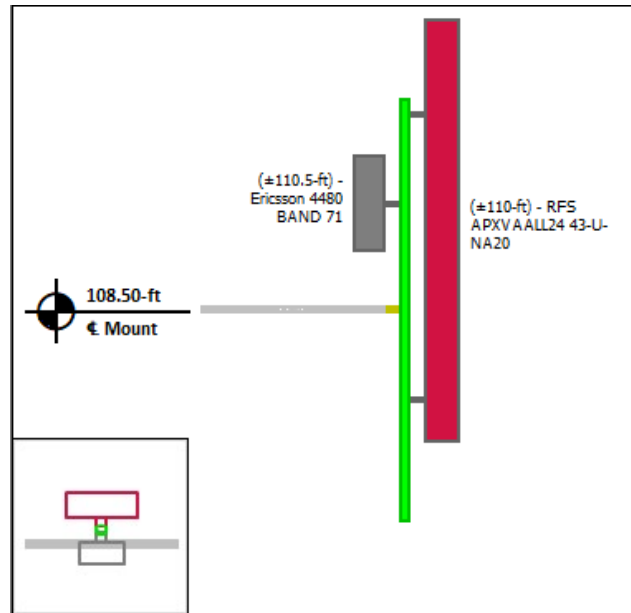


Equipment Layout

Mount Pipe A



Mount Pipe B





Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding equipment, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

All connections are to be verified for condition and tightness by the installation contractor preceding any changes to the appurtenance mounting system and/or equipment attached to it.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

Installation of all equipment and steel should be confirmed not to cause tower conflicts nor impede the tower climbing pegs.

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



Site Number: 413783
Project Number: 14104626_C8_01
Carrier: T-Mobile
Mount Elevation: 108.5 ft
Date: 5/20/2022

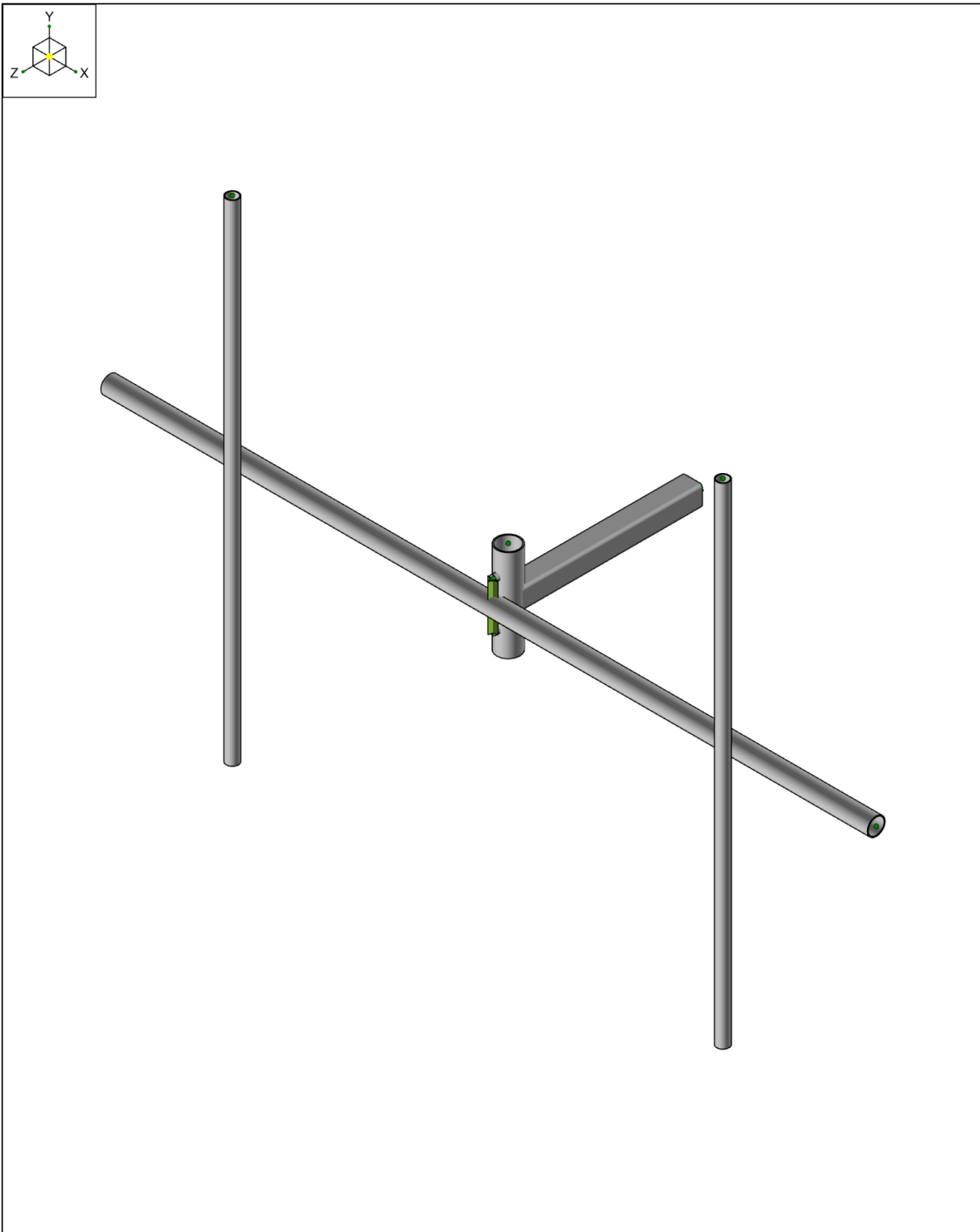
Mount Analysis Force Calculations

Wind & Ice Load Calculations			
Velocity Pressure Coefficient	K_z	1.29	
Topographic Factor	K_{zt}	1.00	
Rooftop Wind Speed-up Factor	K_s	1.00	
Shielding Factor	K_a	0.90	
Ground Elevation Factor	K_e	0.99	
Wind Direction Probability Factor	K_d	0.95	
Basic Wind Speed	V	114	mph
Velocity Pressure	q_z	40.1	psf
Height Escalation Factor	K_{iz}	1.13	
Thickness of Radial Glaze Ice	T_{iz}	1.13	in

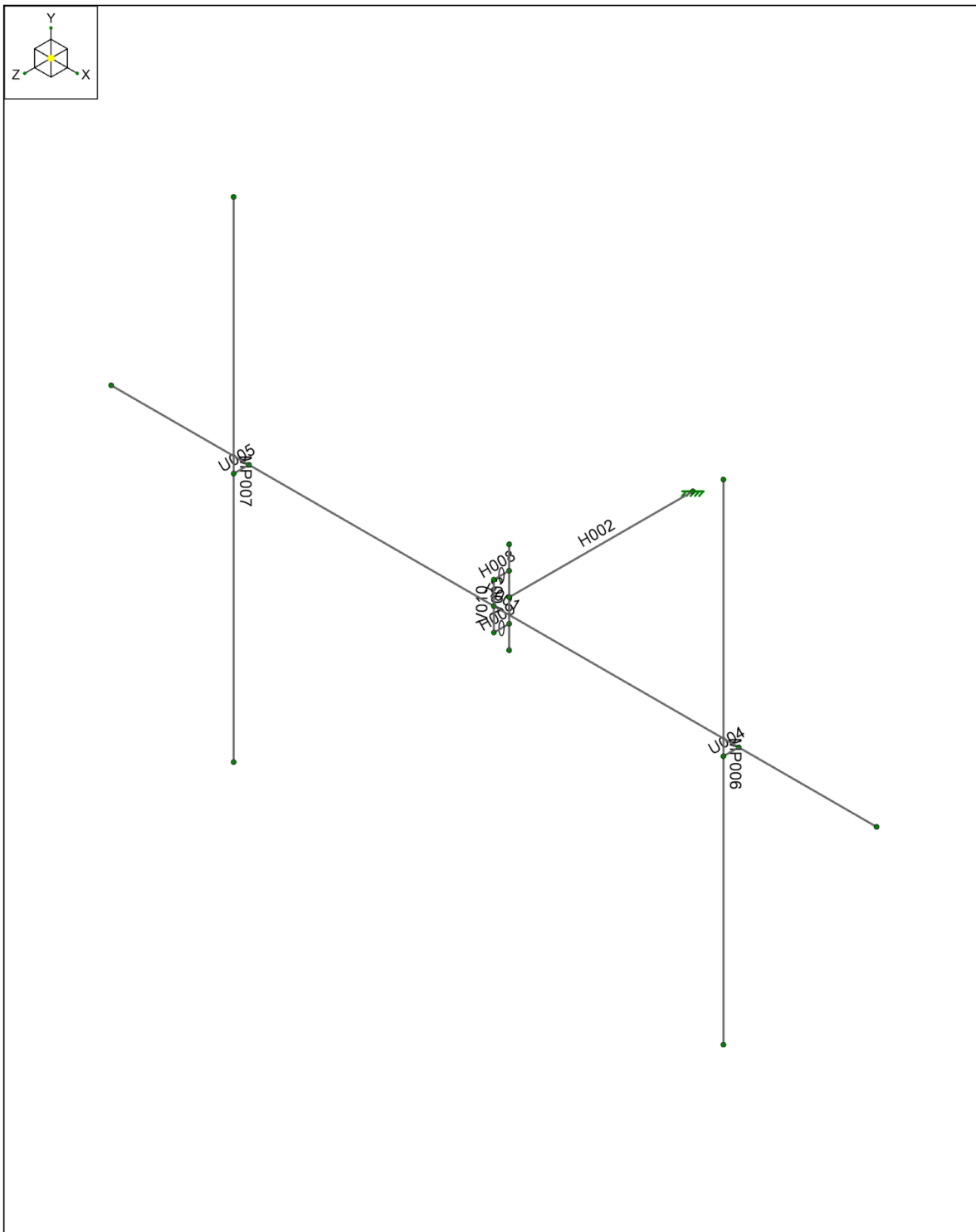
Seismic Load Calculations			
Short Period DSRAP	S_{Ds}	0.196	
1 Second DSRAP	S_{D1}	0.086	
Importance Factor	I	1.0	
Response Modification Coefficient	R	2.0	
Seismic Response Coefficient	C_s	0.098	
Amplification Factor	A	1.0	
Total Weight	W	641.6	lbs
Total Shear Force	V_s	63.0	lbs
Horizontal Seismic Load	E_h	63.0	lbs
Vertical Seismic Load	E_v	25.2	lbs

Antenna Calculations (Elevations per Application/RFDS)*									
Equipment	Height	Width	Depth	Weight	EPA_N	EPA_T	EPA_{Ni}	EPA_{Ti}	
Model #	in	in	in	lbs	sqft	sqft	sqft	sqft	
RFS APX16DWV-16DWVS-E-A20	55.9	13.3	3.1	40.7	6.59	1.26	8.01	2.26	
RFS APXVAALL24 43-U-NA20	95.9	24.0	8.5	122.8	20.24	3.40	22.66	4.40	
Ericsson RRUS 11 B2	19.7	17.0	7.2	50.7	2.79	1.19	3.52	1.74	
Ericsson RRUS 11 B4	19.7	17.0	7.2	50.7	2.79	1.19	3.52	1.74	
Ericsson 4480 BAND 71	22.0	15.7	7.5	81.0	2.88	1.40	3.63	2.00	

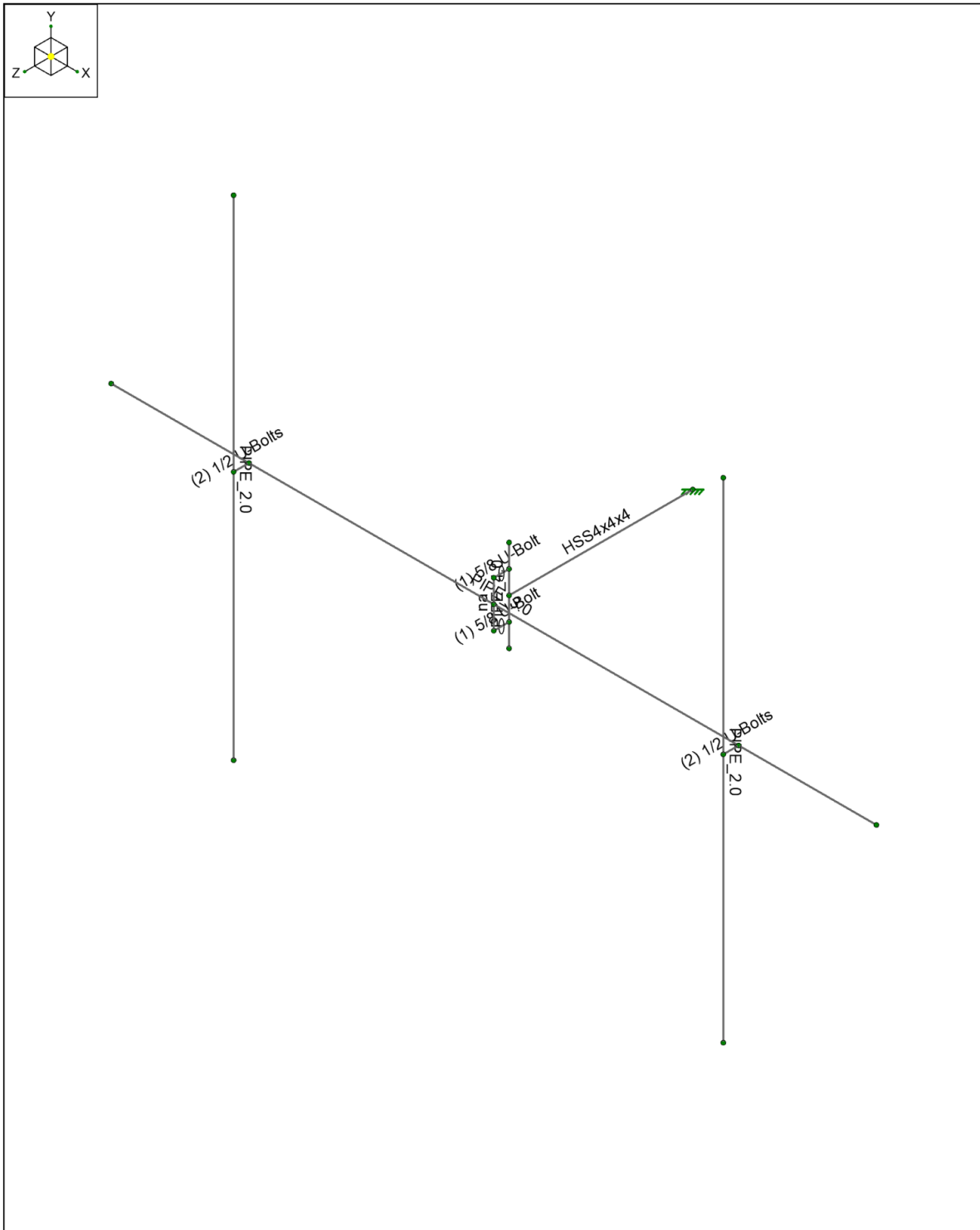
* Equipment with EPA values N/A were not considered in the mount analysis



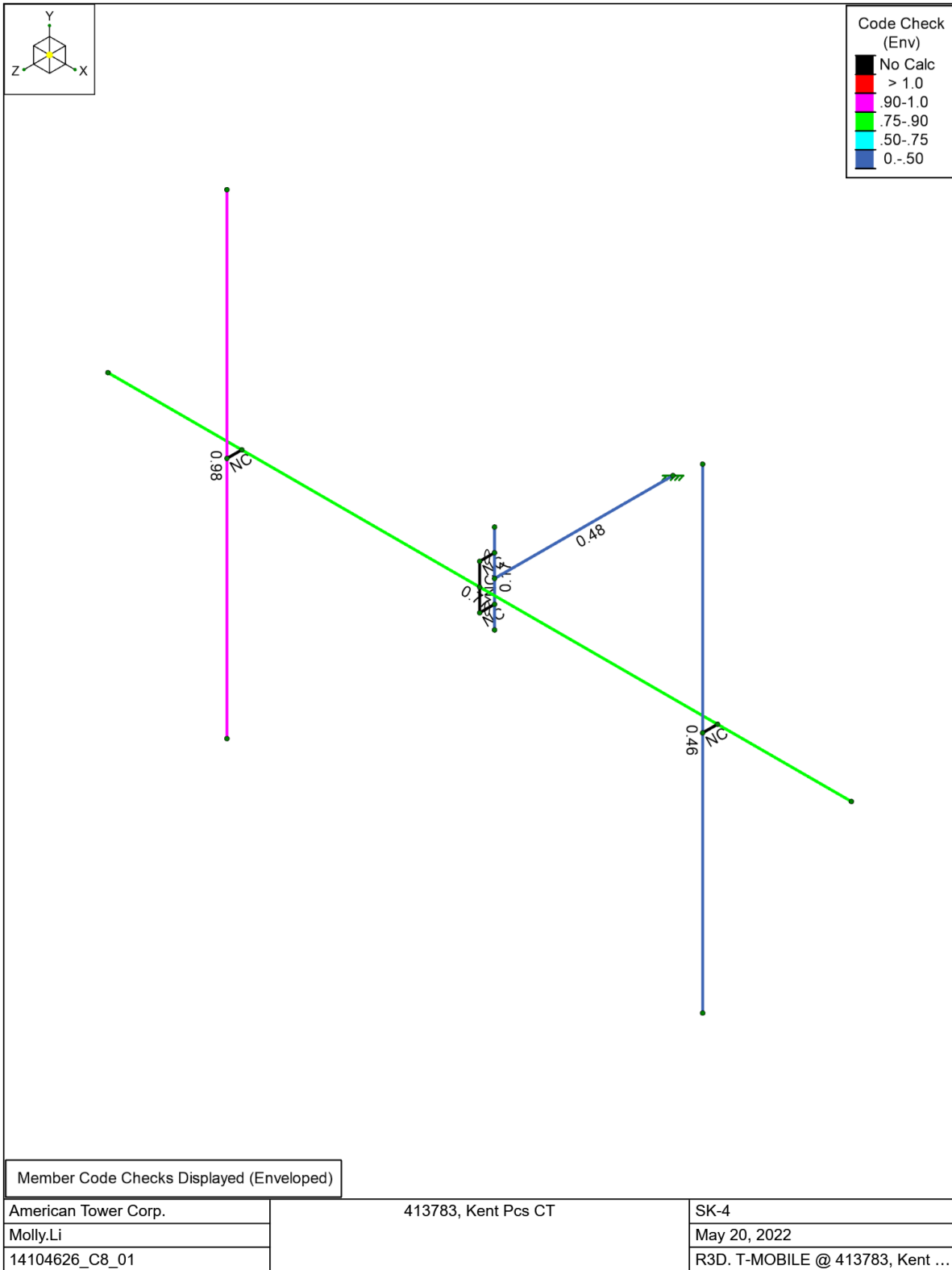
American Tower Corp.	413783, Kent Pcs CT	SK-1
Molly.Li		May 20, 2022
14104626_C8_01		R3D. T-MOBILE @ 413783, Kent ...

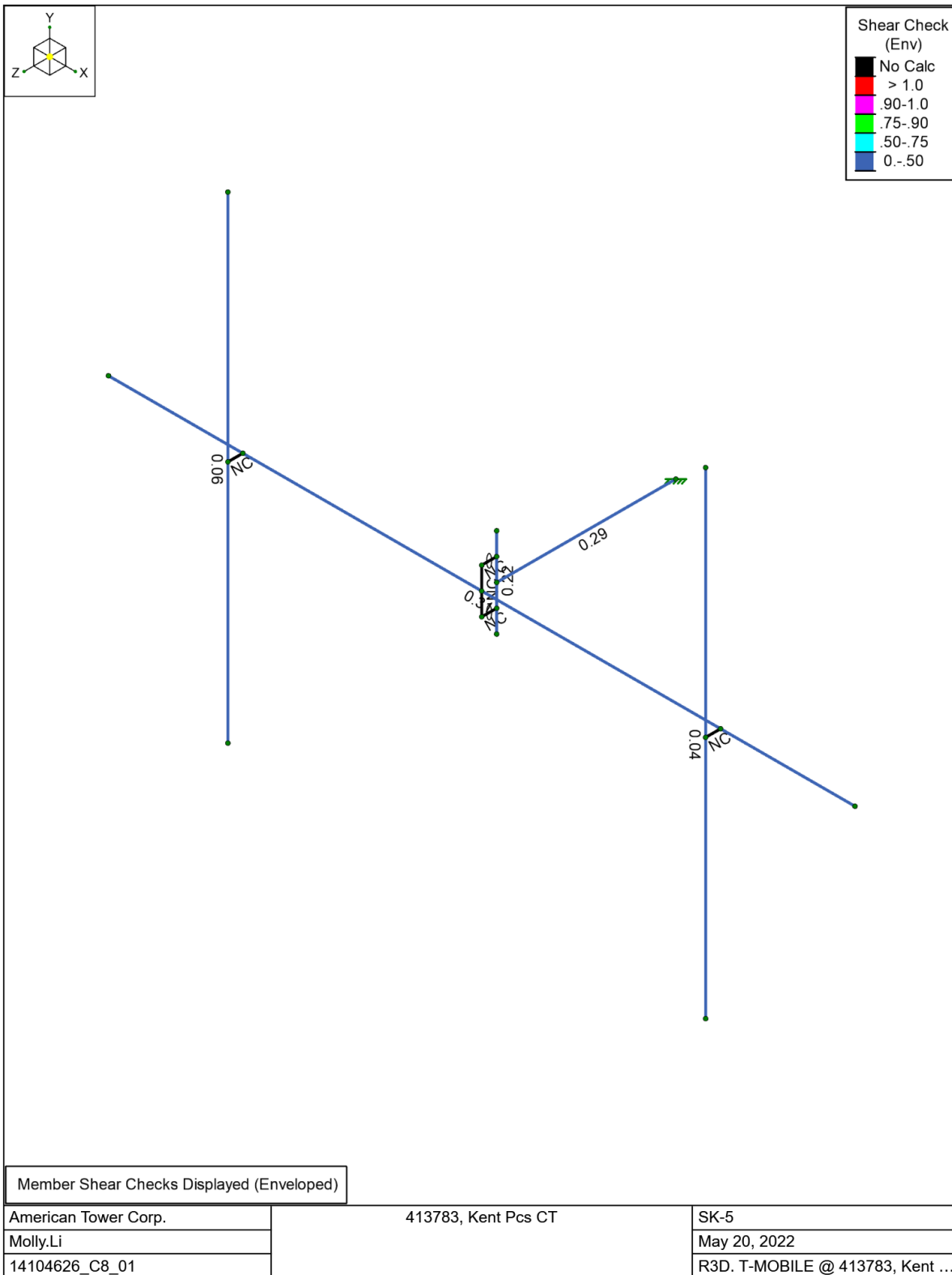


American Tower Corp.	413783, Kent Pcs CT	SK-2
Molly.Li		May 20, 2022
14104626_C8_01		R3D. T-MOBILE @ 413783, Kent ...



American Tower Corp.	413783, Kent Pcs CT	SK-3
Molly.Li		May 20, 2022
14104626_C8_01		R3D. T-MOBILE @ 413783, Kent ...





Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed
1	D	DL	-1		7	
2	Di	IL			7	5
3	W 0	WL			7	10
4	W 30	WL			14	19
5	W 60	WL			14	19
6	W 90	WL			7	9
7	W 120	WL			14	19
8	W 150	WL			14	19
9	W 180	WL			7	10
10	W 210	WL			14	19
11	W 240	WL			14	19
12	W 270	WL			7	9
13	W 300	WL			14	19
14	W 330	WL			14	19
15	Wi 0	WL			7	10
16	Wi 30	WL			14	19
17	Wi 60	WL			14	19
18	Wi 90	WL			7	9
19	Wi 120	WL			14	19
20	Wi 150	WL			14	19
21	Wi 180	WL			7	10
22	Wi 210	WL			14	19
23	Wi 240	WL			14	19
24	Wi 270	WL			7	9
25	Wi 300	WL			14	19
26	Wi 330	WL			14	19
27	Ws 0	WL			7	10
28	Ws 30	WL			14	19
29	Ws 60	WL			14	19
30	Ws 90	WL			7	9
31	Ws 120	WL			14	19
32	Ws 150	WL			14	19
33	Ws 180	WL			7	10
34	Ws 210	WL			14	19
35	Ws 240	WL			14	19
36	Ws 270	WL			7	9
37	Ws 300	WL			14	19
38	Ws 330	WL			14	19
39	Ev -Y	ELY				5
40	Eh -Z	ELZ				5
41	Eh -X	ELX				5
42	Lv (1)	LL			1	
43	Lv (2)	LL			1	
44	Lv (3)	LL		1		
45	Lm (1)	LL		1		
46	Lm (2)	LL		1		

Node Boundary Conditions

	Node Label	X [lb/in]	Y [lb/in]	Z [lb/in]	X Rot [k-in/rad]	Y Rot [k-in/rad]	Z Rot [k-in/rad]
1	N001	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Member Primary Data

	Label	I Node	J Node	Section/Shape	Type	Design List	Material	Design Rule
1	H001	N003	N004	PIPE 3.0	Beam	None	A53 Gr. B	Typical
2	H002	N001	N002	HSS4x4x4	Beam	None	A500 Gr. B [SQR]	Typical
3	V003	N006	N005	PIPE 4.0	Column	None	A53 Gr. B	Typical
4	U004	N007	N009	(2) 1/2 U-Bolts	Beam	None	SAE J429 Gr. 2	Typical
5	U005	N008	N010	(2) 1/2 U-Bolts	Beam	None	SAE J429 Gr. 2	Typical
6	MP006	N011	N012	PIPE 2.0	Column	None	A53 Gr. B	Typical
7	MP007	N013	N014	PIPE 2.0	Column	None	A53 Gr. B	Typical
8	H008	N015	N016	(1) 5/8 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
9	H009	N017	N018	(1) 5/8 U-Bolt	Beam	None	SAE J429 Gr. 2	Typical
10	V010	N018	N016	RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	Physical	Deflection Ratio Options	Activation	Seismic DR
1	H001		Yes	N/A		None
2	H002		Yes	N/A		None
3	V003		Yes	** NA **		None
4	U004		Yes	N/A	Exclude	None
5	U005		Yes	N/A	Exclude	None
6	MP006		Yes	** NA **		None
7	MP007		Yes	** NA **		None
8	H008	OOOXOO	Yes	Default	Exclude	None
9	H009	OOOXOO	Yes	Default	Exclude	None
10	V010		Yes	** NA **		None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	L-Torque [in]	K y-y	K z-z	Function
1	H001	PIPE 3.0	150			Lbyy		2.1	2.1	Lateral
2	H002	HSS4x4x4	36			Lbyy		2.1	2.1	Lateral
3	V003	PIPE 4.0	18			Lbyy		2.1	2.1	Lateral
4	U004	(2) 1/2 U-Bolts	3			Lbyy		0.5	0.5	Lateral
5	U005	(2) 1/2 U-Bolts	3			Lbyy		0.5	0.5	Lateral
6	MP006	PIPE 2.0	96	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
7	MP007	PIPE 2.0	96	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
8	H008	(1) 5/8 U-Bolt	3			Lbyy		2.1	2.1	Lateral
9	H009	(1) 5/8 U-Bolt	3			Lbyy		2.1	2.1	Lateral

Hot Rolled Steel Properties

	Label	E [psi]	G [psi]	Nu	Therm. Coeff. [1e ⁵ F ⁻¹]	Density [lb/ft ³]	Yield [psi]	Ry	Fu [psi]	Rt
1	A53 Gr. B	2.9e+07	1.115e+07	0.3	0.65	490	35000	1.6	60000	1.2
2	A500 Gr. B [SQR]	2.9e+07	1.115e+07	0.3	0.65	527	46000	1.4	58000	1.3
3	SAE J429 Gr. 2	2.9e+07	1.115e+07	0.3	0.65	490	57000	1.1	74000	1.1
4	A36	2.9e+07	1.115e+07	0.3	0.65	490	36000	1.5	58000	1.2

Envelope Node Reactions

Node	Label	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC	
1	N001	max	1044.306	16	1402.757	83	1501.793	2	340.351	14	3947.4	16	2882.741	73
2		min	-1044.306	10	489.552	14	-1501.793	20	-4944.364	83	-3967.631	10	-3487.29	81
3	Totals:	max	1044.306	16	1402.757	83	1501.793	2						
4		min	-1044.306	10	489.552	14	-1501.793	20						

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

Member	Shape	Code	Check	Loc[in]	LC	Shear	Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-ft]	phi*Mn z-z [lb-ft]	Cb	Eqn
1	H001	PIPE 3.0	0.772	75	79	0.309	75		8		6488.788	65205	5748.75	5748.75	1.696	H1-1b
2	H002	HSS4x4x4	0.484	0	9	0.291	0	y	79		118165.609	139518	16180.5	16180.5	1.249	H1-1b
3	V003	PIPE 4.0	0.173	9	81	0.222	9		78		90327.022	93240	10631.25	10631.25	1.923	H1-1b
4	MP006	PIPE 2.0	0.457	47	9	0.036	47		9		14277.295	32130	1871.625	1871.625	3	H1-1b
5	MP007	PIPE 2.0	0.978	47	8	0.056	47		8		14277.295	32130	1871.625	1871.625	1.691	H1-1b

Exhibit F

Power Density/RF Emissions Report



Radio Frequency Emissions Analysis Report



Site ID: CTNH542A

ATC - Kent PCS CT
38 Maple Street
Kent, CT 06757

July 15, 2022

Fox Hill Telecom Project Number: 221458

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	12.94 %

July 15, 2022

T-MOBILE
Attn: RF Manager
35 Griffin Road South
Bloomfield, CT 06009

Emissions Analysis for Site: **CTNH542A – ATC - Kent PCS CT**

Fox Hill Telecom, Inc (“Fox Hill”) was directed to analyze the proposed upgrades to the T-MOBILE facility located at **38 Maple Street, Kent, CT**, for the purpose of determining whether the emissions from the Proposed T-MOBILE Antenna Installation located on this property are within specified federal limits.

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

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

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

General population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 600 MHz & 700 MHz bands are approximately $400 \mu\text{W}/\text{cm}^2$ and $467 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 2500 MHz (BRS) 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 performed for the proposed upgrades to the T-MOBILE antenna facility located at **38 Maple Street, Kent, 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 for directional panel antennas, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

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. All power values expressed and analyzed are maximum power levels expected to be used on all radios.

All emissions values for additional carriers were taken from the Connecticut Siting Council (CSC) active MPE database. Values in this database are provided by the individual carriers themselves

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
LTE / 5G NR	600 MHz	2	40
LTE	700 MHz	2	20
UMTS	1900 MHz (PCS)	1	40
LTE	2100 MHz (AWS)	4	40

Table 1: Channel Data Table



The following antennas listed in *Table 2* were used in the modeling for transmission in the 600 MHz, 700 MHz, 1900 MHz (PCS) and 2100 MHz (AWS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, 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.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	RFS APXVAALL24 43-U-NA20	110
A	2	RFS APX16DWV-16DWV-S-E-A20	110
B	1	RFS APXVAALL24 43-U-NA20	110
B	2	RFS APX16DWV-16DWV-S-E-A20	110
C	1	RFS APXVAALL24 43-U-NA20	110
C	2	RFS APX16DWV-16DWV-S-E-A20	110

Table 2: Antenna Data

All calculations were done with respect to uncontrolled / general population threshold limits.



RESULTS

Per the calculations completed for the proposed T-MOBILE configurations *Table 3* shows resulting emissions power levels and percentages of the FCC’s allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	RFS APXVAALL24 43-U-NA20	600 MHz / 700 MHz	13.65 / 13.85	4	120	2,824.56	2.23
Antenna A2	RFS APX16DWV-16DWV-S-E-A20	1900 MHz (PCS) / 2100 MHz (AWS)	15.9 / 15.9	5	200	7,780.90	2.59
Sector A Composite MPE%							4.82
Antenna B1	RFS APXVAALL24 43-U-NA20	600 MHz / 700 MHz	13.65 / 13.85	4	120	2,824.56	2.23
Antenna B2	RFS APX16DWV-16DWV-S-E-A20	1900 MHz (PCS) / 2100 MHz (AWS)	15.9 / 15.9	5	200	7,780.90	2.59
Sector B Composite MPE%							4.82
Antenna C1	RFS APXVAALL24 43-U-NA20	600 MHz / 700 MHz	13.65 / 13.85	4	120	2,824.56	2.23
Antenna C2	RFS APX16DWV-16DWV-S-E-A20	1900 MHz (PCS) / 2100 MHz (AWS)	15.9 / 15.9	5	200	7,780.90	2.59
Sector C Composite MPE%							4.82

Table 3: T-MOBILE Emissions Levels

The Following table (*table 4*) shows all additional carriers on site and their MPE% as recorded in the CSC active MPE database for this facility along with the newly calculated maximum T-MOBILE MPE contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three sectors have the same configuration yielding the same results on all three sectors. *Table 5* below shows a summary for each T-MOBILE Sector as well as the composite MPE value for the site.

Site Composite MPE%	
Carrier	MPE%
T-MOBILE – Max Per Sector Value	4.82 %
Eversource	1.39 %
Verizon Wireless	2.07 %
AT&T	4.66 %
Site Total MPE %:	12.94 %

Table 4: All Carrier MPE Contributions

T-MOBILE Sector A Total:	4.82 %
T-MOBILE Sector B Total:	4.82 %
T-MOBILE Sector C Total:	4.82 %
Site Total:	12.94 %

Table 5: Site MPE Summary

FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated T-MOBILE sector(s). For this site, all three sectors have the same configuration yielding the same results on all three sectors.

T-MOBILE _ Frequency Band / Technology Max Power 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 600 MHz LTE / 5G NR	2	926.96	110	6.16	600 MHz	400	1.54%
T-Mobile 700 MHz LTE	2	485.32	110	3.23	700 MHz	467	0.69%
T-Mobile 1900 MHz (PCS) UMTS	1	1,556.18	110	5.17	1900 MHz (PCS)	1000	0.52%
T-Mobile 2100 MHz (AWS) LTE	4	1,556.18	110	20.69	2100 MHz (AWS)	1000	2.07%
						Total:	4.82%

Table 6: T-MOBILE Maximum Sector MPE Power Values



Summary

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

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

T-MOBILE Sector	Power Density Value (%)
Sector A:	4.82 %
Sector B:	4.82 %
Sector C:	4.82 %
T-MOBILE Maximum Total (per sector):	4.82 %
Site Total:	12.94 %
Site Compliance Status:	COMPLIANT

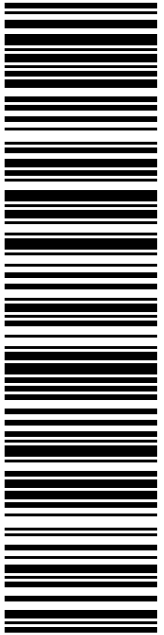
The anticipated composite MPE value for this site assuming all carriers present is **12.94 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

Scott Heffernan
Principal RF Engineer
Fox Hill Telecom, Inc
Holden, MA 01520
(978)660-3998

Exhibit G


Recipient Mailings



USPS TRACKING #

9405 5036 9930 0295 5361 08

Electronic Rate Approved #038555749



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PRIORITY MAIL®

DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
STE 1
420 MAIN ST
STURBRIDGE MA 01566-1359

Expected Delivery Date: 07/15/22
Ref#: CTNH542A
0000

B006

✂ ————— Cut on dotted line. —————

Instructions

1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
2. Place your label so it does not wrap around the edge of the package.
3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record


USPS TRACKING # :
9405 5036 9930 0295 5361 08

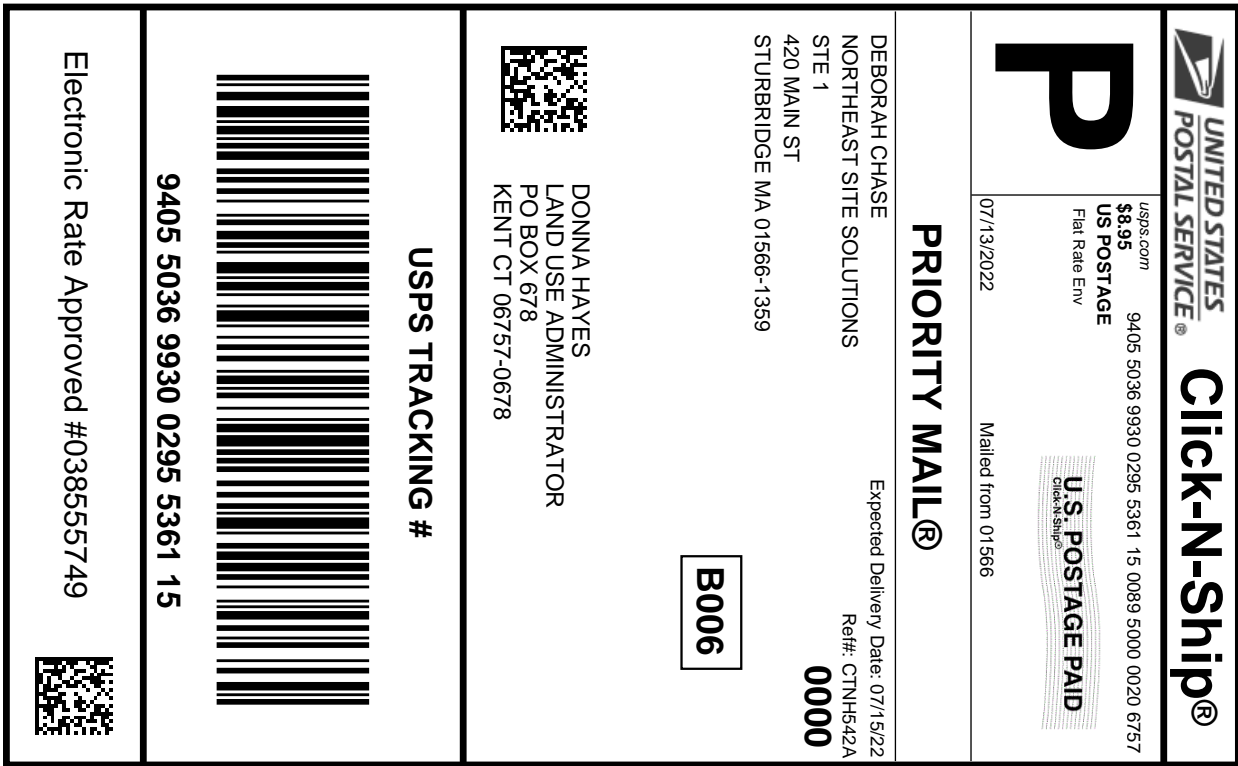
Trans. #: 567508875	Priority Mail® Postage: \$8.95
Print Date: 07/13/2022	Total: \$8.95
Ship Date: 07/13/2022	
Expected Delivery Date: 07/15/2022	

From: DEBORAH CHASE Ref#: CTNH542A
 NORTHEAST SITE SOLUTIONS
 STE 1
 420 MAIN ST
 STURBRIDGE MA 01566-1359

To: JEAN SPECK
 FIRST SELECTMAN
 PO BOX 678
 KENT CT 06757-0678

* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.


Thank you for shipping with the United States Postal Service!
 Check the status of your shipment on the USPS Tracking® page at usps.com



Cut on dotted line.

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USPS TRACKING # :
9405 5036 9930 0295 5361 15

Trans. #:	567508875	Priority Mail® Postage:	\$8.95
Print Date:	07/13/2022	Total:	\$8.95
Ship Date:	07/13/2022		
Expected			
Delivery Date:	07/15/2022		

From: DEBORAH CHASE
 NORTHEAST SITE SOLUTIONS
 STE 1
 420 MAIN ST
 STURBRIDGE MA 01566-1359

To: DONNA HAYES
 LAND USE ADMINISTRATOR
 PO BOX 678
 KENT CT 06757-0678


Ref#: CTNH542A

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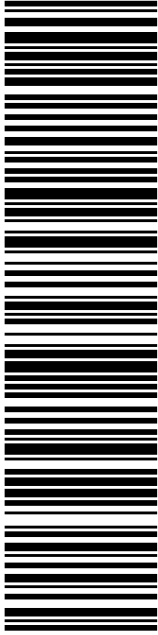
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Check the status of your shipment on the USPS Tracking® page at usps.com



AMERICAN TOWER COMPANY- ATC
10 PRESIDENTIAL WAY
WOBURN MA 01801-1053

USPS TRACKING #



9405 5036 9930 0295 5361 22

P

07/13/2022

PRIORITY MAIL®

DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
STE 1
420 MAIN ST
STURBRIDGE MA 01566-1359

Expected Delivery Date: 07/15/22
Ref#: CTNH542A
0000

C046


UNITED STATES POSTAL SERVICE®

Click-N-Ship®

usps.com
9405 5036 9930 0295 5361 22 0089 5000 0010 1801
\$8.95
US POSTAGE
Flat Rate Env
U.S. POSTAGE PAID
click-n-ship®

Mailed from 01566

Electronic Rate Approved #038555749




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9405 5036 9930 0295 5361 22	
Trans. #:	567508875
Print Date:	07/13/2022
Ship Date:	07/13/2022
Expected Delivery Date:	07/15/2022
Priority Mail® Postage:	\$8.95
Total:	\$8.95
From:	DEBORAH CHASE NORTHEAST SITE SOLUTIONS STE 1 420 MAIN ST STURBRIDGE MA 01566-1359
To:	AMERICAN TOWER COMPANY- ATC 10 PRESIDENTIAL WAY WOBURN MA 01801-1053
	Ref#: CTNH542A
<p>* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.</p>	



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CTNH542A - TMO

LINCOLN MALL
560 LINCOLN ST STE 8
WORCESTER, MA 01605-1925
(800)275-8777

07/20/2022

03:22 PM

Product Qty Unit Price
Price

Prepaid Mail 1 \$0.00

Woburn, MA 01801

Weight: 0 lb 2.00 oz

Acceptance Date:

Wed 07/20/2022

Tracking #:

9405 5036 9930 0295 5361 22

Prepaid Mail 1 \$0.00

Kent, CT 06757

Weight: 0 lb 15.00 oz

Acceptance Date:

Wed 07/20/2022

Tracking #:

9405 5036 9930 0295 5361 15

Prepaid Mail 1 \$0.00

Kent, CT 06757

Weight: 0 lb 15.00 oz

Acceptance Date:

Wed 07/20/2022

Tracking #:

9405 5036 9930 0295 5361 08

\$0.00