Transcend Wireless

10 Industrial Ave,
Suite 3
Mahwah NJ 07430

Phone: 201.684.0055
Fax: 201.684.0066

November 6, 2020

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

RE: Notice of Exempt Modification
219 Nells Rock Road, Shelton, CT 06484 (AKA 161 Nells Rock Road)
Latitude: 41.30416500
Longitude: -73.11827700
T-Mobile Site#: CT11199A – Anchor

Dear Ms. Bachman:

T-Mobile currently maintains six (6) antennas at the 135-foot level of the existing 162-foot lattice tower at 219 Nells Rock Road, Shelton, CT. The 135-foot lattice tower and property are owned by New Cingular Wireless PCS LLC (AT&T). T-Mobile now intends to add three (3) new 2500 MHz antennas. The new antennas will be installed at the same 135-foot level of the tower. Mount modifications will be completed as detailed in the enclosed mount analysis.

Planned Modifications:
Tower:

Remove
(1) 1-5/8" hybrid

Remove and Replace:
N/A

Install New:
(3) AIR 6449 B41 2500 MHz
(3) Ericsson Radio 4415 B25
(3) Commscope SDX Diplexers
(3) 1-5/8" Hybrid

Existing to Remain:
(3) AIR 32 1900/2100 MHz
(3) APXVARR24_43 600/700 MHz
(3) Radio 4449 B71B85
(3) TMA

(6) 1-5/8” coax
(3) 7/8” Hybrid

Ground:
Install New: Battery Cabinet 160
Remove: S8000 Equipment Cabinet

This facility was originally approved by the Council in Docket No. 45 on September 14, 1984. The proposed modification complies with the original approval.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies§ 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.SA. § 16-SOj-73, a copy of this letter is being sent to Mayor – Mark Lauretti, Elected Official, and Alexander Rosetti, Planning and Zoning Administrator for the City of Shelton, as well as the owner.

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

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

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading.

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

Sincerely,

Kyle Richers
Transcend Wireless
Cell: 908-447-4716
Email: krichers@transcendwireless.com

Attachments
cc: Mark Lauretti – Mayor of City of Shelton
Alexander Rosetti– Planning and Zoning Administrator for City of Shelton
New Cingular Wireless PCS LLC– Owner

View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialogue box that appears. Note: If your browser does not support this function, select Print from the File menu to print the label.

2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. **GETTING YOUR SHIPMENT TO UPS**
   Customers with a scheduled Pickup
   - Your driver will pickup your shipment(s) as usual.

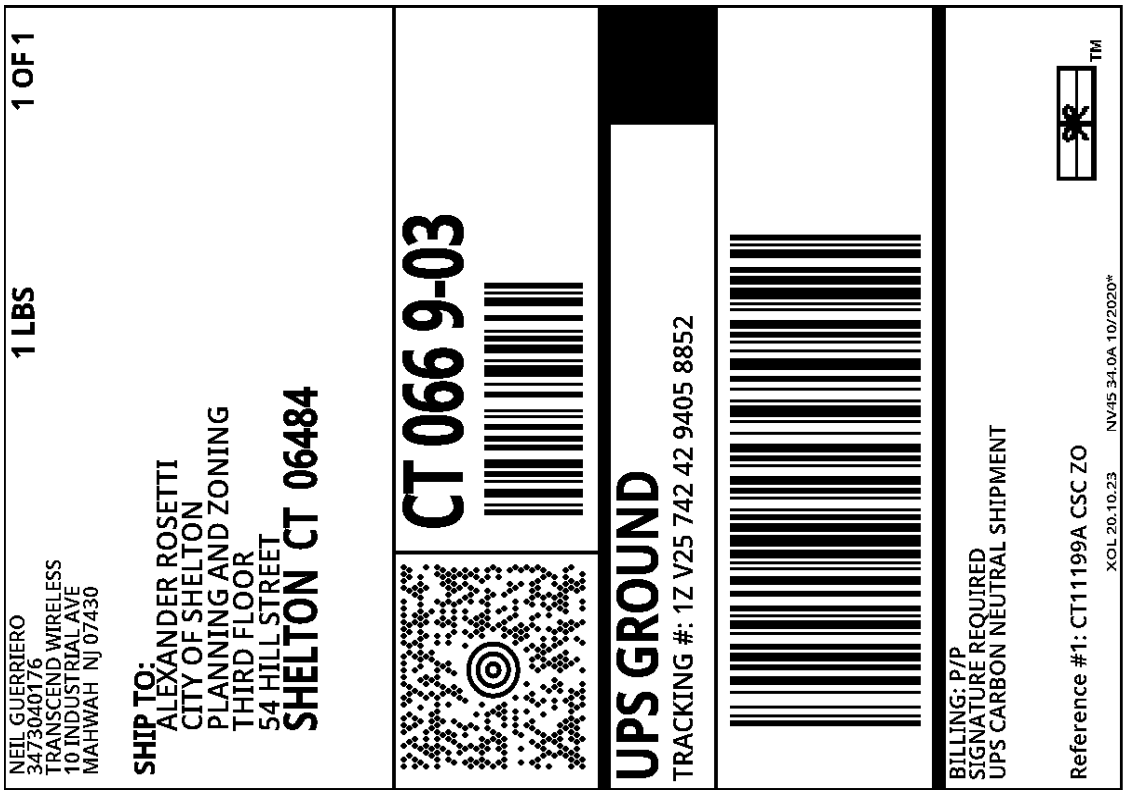
   Customers without a scheduled Pickup
   - Schedule a Pickup on ups.com to have a UPS driver pickup all of your packages.
   - Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. To find the location nearest you, please visit the 'Locations' Quick link at ups.com.

UPS Access Point™
MICHAELS STORE # 7773
75 INTERSTATE SHOP CTR
RAMSEY NJ 07446-1130

UPS Access Point™
THE UPS STORE
115 FRANKLIN TPKE
MAHWAH NJ 07430-1325

UPS Access Point™
THE UPS STORE
120 E MAIN ST
RAMSEY NJ 07446-1925

FOLD HERE



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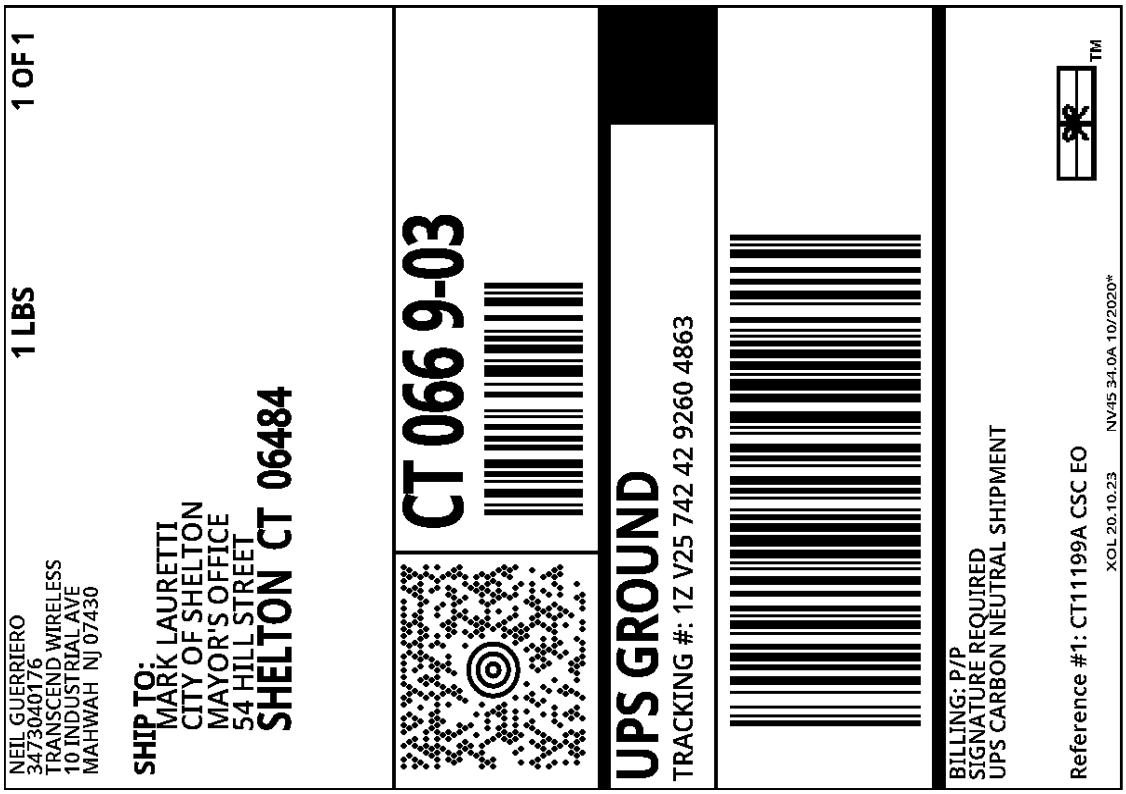

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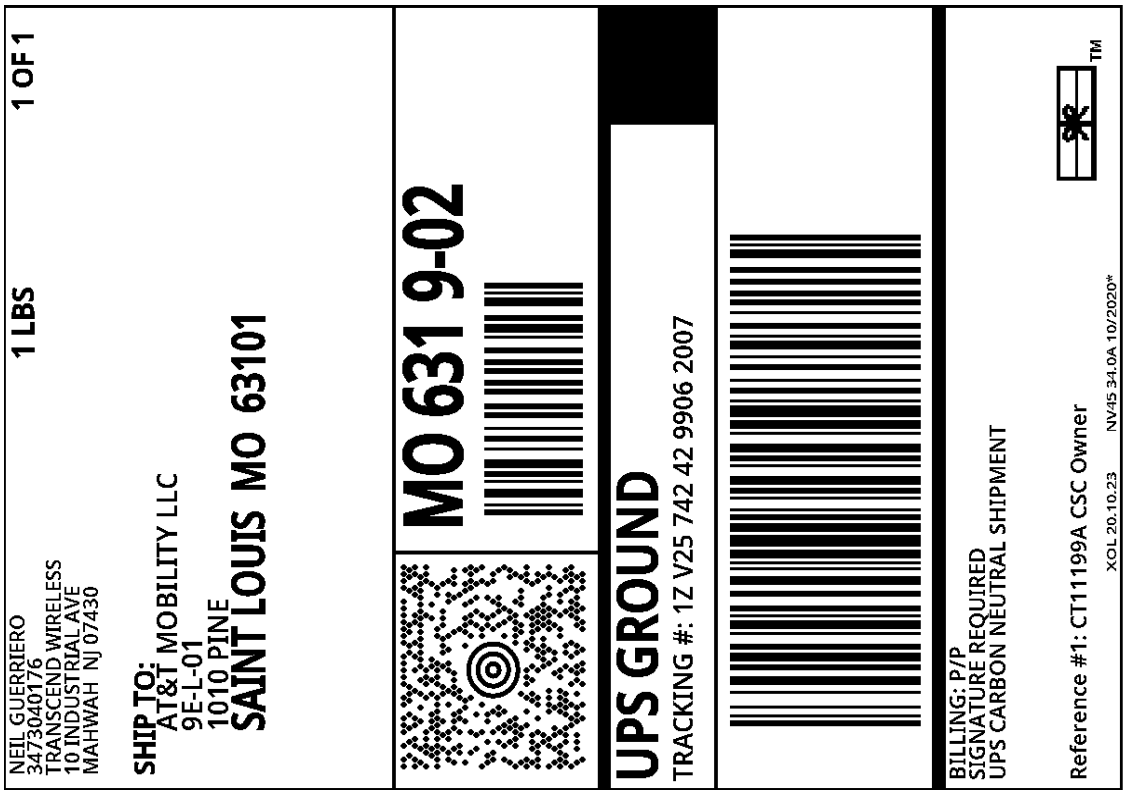


The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2016.

City of Shelton, Connecticut

Vision to See, Faith to Believe, Courage to Do...

Information on the Property Records for the Municipality of Shelton was last updated on 11/2/2020.

Parcel Information

Location:	161 NELLS ROCK RD	Property Use:	Industrial	Primary Use:	Radio/TV Trans
Unique ID:	90 2	Map Block Lot:	90 2	Acres:	1.30
490 Acres:	0.00	Zone:	R-1	Volume / Page:	3564/0303
Developers Map / Lot:		Census:			

Value Information

	Appraised Value	Assessed Value
Land	91,000	63,710
Buildings	94,060	65,840
Detached Outbuildings	16,320	11,420
Total	201,380	140,970

Owner's Information

Owner's Data
NEW CINGULAR WIRELESS PCS LLC C/O AT&T MOBILITY LLC, PROP TAX DEPT 1010 PINE 9E-L-01 ST LOUIS,, MO 63101

Building 1

Sketch Not Available

Category:	Industrial	Use:	Radio/TV Trans	GLA:	677
Stories:	1.00	Construction:	Masonry	Year Built:	1955
Heating:		Fuel:		Cooling Percent:	0
Siding:	Concrete Block	Roof Material:	Composite Built Up	Beds/Units:	0

Special Features

Attached Components

Detached Outbuildings

Type:	Year Built:	Length:	Width:	Area:
8 Ft Chain Fence	1965	400.00	8.00	3,200

Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Valid Sale	Sale Price
NEW CINGULAR WIRELESS PCS LLC	3564	0303	06/23/2015	Quit Claim	No	$0
AT & T CAPITAL SERVICES INC	3514	0208	10/28/2014	Quit Claim	No	$0
SOUTHERN NEW ENGLAND	0162	0385	06/30/1959		No	$0

Building Permits

Permit Number	Permit Type	Date Opened	Date Closed	Permit Status	Reason
18-472	Comm Renovations	04/27/2018		Closed	VERIZON WIRELESS TO REPLACE 6 ANTENNA PANRELS & REMOTE RADIO HEADS

City of Shelton

Geographic Information System (GIS)

Date Printed: 11/3/2020

MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The City of Shelton and its mapping contractors assume no legal responsibility for the information contained herein.

0 100 Feet

N W E S

DOCKET NO. 45

AN APPLICATION SUBMITTED BY THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF FACILITIES TO PROVIDE CELLULAR SERVICE IN FAIRFIELD COUNTY.	:	CONNECTICUT SITING COUNCIL
	:	September 14, 1984

DECISION AND ORDER

Pursuant to the foregoing opinion, the Council hereby directs that a certificate of environmental compatibility and public need as required by section 16-50k of the General Statutes of Connecticut, revisions of 1958, revised to 1983, as amended, be issued to the Southern New England Telephone Company for the construction, operation, and maintenance of a telecommunications tower and associated equipment to provide cellular service at each of the following sites:

Kaechele Place, Bridgeport, Connecticut;
Connecticut Avenue, Norwalk, Connecticut;
Nells Rock Road, Shelton, Connecticut;
Newfield Avenue, Stamford, Connecticut; and
Bayberry Lane, (former Nike site), Westport, Connecticut.

The facilities shall be constructed, operated, and maintained as specified in the Council's record on this matter, and subject to the following conditions:

1. The towers shall be no taller than necessary to provide the proposed service, and in no event shall exceed

   a) 167' at the Bridgeport site,
   b) 167' at the Norwalk site,
   c) 189.5' at the Shelton site,
   d) 167' at the Stamford site,
   e) 117' at the Westport site;

2. A fence not lower than eight feet shall surround each tower and its associated equipment;

3. The applicant or its successor shall notify the Council if and when directional antennas or any other equipment is added to any of these facilities;

4. The applicant or its successor shall permit, in accordance with representations made by it during the proceeding, public or private entities to share space on the facilities, for due consideration received, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing;
5. Unless necessary to comply with condition number six, below, no lights shall be installed on any of these towers;
6. The facilities shall be constructed in accordance with all applicable federal, state, and municipal laws and regulations;
7. The applicant shall submit a development and management plan (D&M) for the Bridgeport, Stamford, and Westport sites pursuant to sections 16-50j-85 through 16-50j-87 of the regulations of state agencies, except that irrelevant items in section 16-50j-86 need only be identified as such. The D&M plans shall include appropriate evergreen screening of the sites, erosion control measures, reseeding plans, and tree removal plans. The applicant shall consult with the Stamford Environmental Protection Board in the preparation of a drainage and erosion control plan for the Stamford tower. The applicant shall comply with the reporting requirements of section 16-50j-87 for all sites;
8. Construction activities shall take place during daylight working hours;
9. This decision and order shall be void and the towers and associated equipment approved herein shall be dismantled and

removed, or reapplication for any new use shall be made to the Connecticut Siting Council before any such new use is made, if the towers do not provide or permanently cease to provide cellular service following completion of construction;

10. This decision and order shall be void if all construction authorized is not completed within three years of the issuance of this decision.

Pursuant to section 16-50p of the General Statutes, we hereby direct that a copy of the opinion and decision and order be served on each person listed below. A notice of the issuance shall be published in the Bridgeport Post, the Norwalk Hour, the Stamford Advocate, and the Shelton Suburban News, and the Westport News.

The parties to this proceeding are

The Southern New England Telephone Company Room 314 227 Church Street New Haven, Connecticut 06506	(Applicant)
Attention: Mr. Peter J. Tyrrell Senior Attorney	(its attorney)
Rolnick Observatory 52 Sawyer Road Fairfield, Connecticut	represented by: Frederick H. Bump Director
Mr. Adam Norton 40 Highland Road Westport, Connecticut 06880	
Representative John Wayne Fox 13 Apple Tree Drive Stamford, Connecticut 06906	(service waived)
Mr. George C. Lenfest 4 Highland Road Westport, Connecticut	

Mr. William Seiden
First Selectman
Town of Westport
110 Myrtle Avenue
P.O. Box 549
Westport, Connecticut 06881

Mr. Arthur L. Schimel
174 Bayberry Lane
Westport, Connecticut

Mr. Seymour Bendremer
11 Apache Trail
Westport, Connecticut

Ms. Gladys Floch
32 Woody Lane
Westport, Connecticut

Ms. Helen S. Cohen (service waived)
15 Highland Road
Westport, Connecticut

Mr. Jack Braverman
226 Bayberry Lane
Westport, Connecticut

Mr. Kevin Gavin (service waived)
191 Bayberry Lane
Westport, Connecticut

Mr. A.B. Beiser
12 Highland Road
Westport, Connecticut

Mr. Edward V. Polusky (service waived)
4 Hooper Road
Westport, Connecticut

Ms. Lois Schine represented by:

Mary D. Mix, Esquire
830 Post Road - East
Suite 100
Westport, Connecticut 06880

Mr. Allen Witt
3 Apache Trail
Westport, Connecticut

Ms. Gayle Shiller (service waived)
5 Apache Trail
Westport, Connecticut

Mrs. Ronnie Hammer
3 Hooper Road
Westport, Connecticut

Mr. Paul Rosenblatt (service waived)
7 Apache Trail
Westport, Connecticut

Mr. Henry J. Wolfson (service waived)
179 Bayberry Lane
Westport, Connecticut

Mr. Melvin H. Barr (service waived)
Planning Director
Town of Westport
110 Myrtle Avenue
P.O. Box 549
Westport, Connecticut 06881

Mr. Mark Infeld (service waived)
6 Apache Trail
Westport, Connecticut

Ms. Barbara Saipe (service waived)
Representative Town
Meeting Member
District #8
Town Hall
P.O. Box 549
Westport, Connecticut 06881

Ms. Peggy Goldenberg (service waived)
201 Bayberry Lane
Westport, Connecticut

Ms. Martha Hauhuth (service waived)
Board of Selectman
Town Hall
P.O. Box 549
Westport, Connecticut 06881

Ms. Meg Coffee
32 Otter Trail
Westport, Connecticut (service waived)

CERTIFICATION

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case or read the record thereof, and that we voted as follows:

Dated at New Britain, Connecticut, this 14th day of September, 1984.

Council Members	Vote Cast
Gloria Dibble Pond Chairperson	Yes
Commissioner John Downey Designee: Commissioner Peter G. Boucher	Absent
Commissioner Stanley Pac	Absent
Owen L. Clark	Yes
Fred J. Doocy	Yes
Mortimer A. Gelston	Yes
James G. Horsfall	Yes
Janet Sitty	Yes
Colin C. Tait	Absent

STATE OF CONNECTICUT)
: ss. New Britain, September 14, 1984
COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the decision and order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:

Christopher S. Wood

Christopher S. Wood, Executive Director
Connecticut Siting Council

T-Mobile

WIRELESS COMMUNICATIONS FACILITY

SHELTON/BUDDINGTON RD_1
SITE ID: CT11199A
219 NELLS ROCK ROAD (S.N.E.T)
SHELTON, CT 06484

T-MOBILE RF CONFIGURATION

67D5997DB_2xAIR+1OP

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE TIA/EIA-222 REVISION "G" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES." 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
2. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
3. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
4. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
5. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTON, PLUMBING, ELECTRICAL, AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
6. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN 'AS-BUILT' SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
7. LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
8. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.
9. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
10. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
11. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
12. ANY AND ALL ERRORS, DISCREPANCIES, AND 'MISSED' ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE T-MOBILE CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
14. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
15. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
16. COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUITS AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
17. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
18. THE CONTRACTOR SHALL CONTACT 'CALL BEFORE YOU DIG' AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
19. CONTRACTOR SHALL COMPLY WITH THE OWNER'S ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.

SITE DIRECTIONS

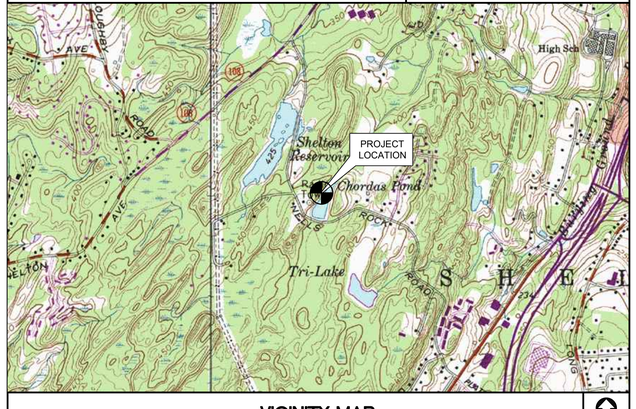
FROM: 35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

TO: 219 NELLS ROCK RD
SHELTON, CT 06484

1.	HEAD SOUTHEAST ON W NEWBERRY RD TOWARD GRIFFIN RD S.	0.10 MI.
2.	TURN LEFT ONTO GRIFFIN RD S.	0.60 MI.
3.	TURN RIGHT ONTO DAY HILL RD.	3.60 MI.
4.	USE THE RIGHT LANE TO MERGE ONTO I-91 S VIA THE RAMP TO HARTFORD.	0.40 MI.
5.	MERGE ONTO I-91 S.	26.00 MI.
6.	TAKE EXIT 17 TO MERGE ONTO CT-15 S/WILBUR CROSS PKWY.	21.80 MI.
7.	TAKE EXIT 58 TO MERGE ONTO CT-34 W/DERBY AVE/DERBY TURNPIKE TOWARD DERBY.	0.20 MI.
8.	MERGE ONTO CT-34 W/DERBY AVE/DERBY TURNPIKE.	3.00 MI.
9.	USE THE LEFT 2 LANES TO TURN LEFT ONTO MAIN ST.	0.20 MI.
10.	USE THE LEFT 2 LANES TO TURN LEFT ON MERGE ONTO CT-8 S TOWARD BRIDGEPORT.	0.20 MI.
11.	MERGE ONTO CT-8 S.	1.20 MI.
12.	TAKE EXIT 13 FOR BRIDGEPORT AVE.	0.20 MI.
13.	TURN LEFT ONTO BRIDGEPORT AVE.	0.60 MI.
14.	TURN RIGHT ONTO NELLS ROCK RD.	1.20 MI.

SITE COORDINATES: LATITUDE: 41°-18'-14.80" N
LONGITUDE: 73°-07'-05.87 W
GROUND ELEVATION: 458'± AMSL

COORDINATES AND GROUND ELEVATION ARE REFERENCED FROM GOOGLE EARTH



VICINITY MAP

NORTH

PROJECT SUMMARY

THE PROPOSED SCOPE OF WORK CONSISTS OF A MODIFICATION TO THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING THE FOLLOWING:

1. INSTALL (1) 200A PPC CABINET
2. INSTALL (1) BB6630
3. INSTALL (1) BB6648
4. INSTALL (1) BATTERY CABINET B160
5. INSTALL T-MOBILE EQUIPMENT RACK.
6. REMOVE DEAD NORTEL CABINET
7. INSTALL (3) 6x12 HYBRID CABLES
8. REMOVE (1) 9x18 HYBRID CABLES
9. INSTALL (1) AIR6449 B41 ANTENNA PER SECTOR. TOTAL OF (3)
10. INSTALL (1) 3.0 STD (x8' LONG) HORIZONTAL MEMBER PER SECTOR. TOTAL OF (3).
11. INSTALL (1) 2.0 STD (x8' LONG) VERTICAL MEMBER PER SECTOR. TOTAL OF (3).
12. INSTALL CROSSOVER PLATES FOR NEW VERTICAL MAST CONNECTION. SITEPRO: SCX2-K, SITEPRO: SCX45-K
13. INSTALL (1) RADIO 4415 B25 PER SECTOR. TOTAL OF (3)
14. INSTALL (1) DIPLEXER PER SECTOR. TOTAL OF (3)
15. INSTALL (1) 19" RACK

PROJECT SUMMARY (STRUCTURAL)

FOR REQUIRED STRUCTURAL MODIFICATIONS, SEE SHEET(S) C-3 FOR ADDITIONAL DETAILS. VERTICAL AND HORIZONTAL MEMBERS NEEDED FOR ANTENNA FRAME MODIFICATION.

PROJECT INFORMATION

SITE NAME:	SHELTON/BUDDINGTON RD_1
SITE ID:	CT11199A
SITE ADDRESS:	219 NELLS ROCK ROAD (S.N.E.T) SHELTON, CT 06484
APPLICANT:	T-MOBILE NORTHEAST, LLC 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002
CONTACT PERSON:	DAN REID (PROJECT MANAGER) TRANSCEND WIRELESS, LLC (203) 592-8291
ENGINEER OF RECORD:	CENTEK ENGINEERING, INC. 63-2 NORTH BRANFORD RD. BRANFORD, CT 06405 CARLO F. CENTORE, PE (203) 488-0580 EXT. 122
PROJECT COORDINATES:	LATITUDE: 41°-18'-14.80" N LONGITUDE: 73°-07'-05.87 W GROUND ELEVATION: 458'± AMSL SITE COORDINATES AND GROUND ELEVATION REFERENCED FROM GOOGLE EARTH.

SHEET INDEX

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	10/28/20	JLW	TJR	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER SEAL

T-Mobile

Transcend Wireless

CENTEK engineering
Centered on Solutions℠
(203) 488-0580
(203) 488-8587 Fax
63-2 North Branford Road
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T-MOBILE NORTHEAST LLC
WIRELESS COMMUNICATIONS FACILITY
SHELTON/BUDDINGTON RD_1
SITE ID: CT11199A
219 NELLS ROCK ROAD (S.N.E.T)
SHELTON, CT 06484

DATE: 07/06/20
SCALE: AS NOTED
JOB NO. 20074.53

TITLE SHEET

T-1

Sheet No. 1 of 8

NOTES AND SPECIFICATIONS

DESIGN BASIS:

GOVERNING CODE: 2015 INTERNATIONAL BUILDING (IBC) AS MODIFIED BY THE 2018 CONNECTICUT STATE BUILDING CODE.

1. DESIGN CRITERIA:

- RISK CATEGORY III (BASED ON IBC TABLE 1604.5)
- NOMINAL DESIGN SPEED (OTHER STRUCTURE): 97 MPH (Vasd) (EXPOSURE C/ IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-10).

SITE NOTES

1. THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
2. ACTIVE EXISTING UTILITIES, WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY, PRIOR TO PROCEEDING, SHOULD ANY UNCOVERED EXISTING UTILITY PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. THE AREAS OF THE COMPOUND DISTURBED BY THE WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
4. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
5. IF ANY FIELD CONDITIONS EXIST WHICH PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL PROCEED WITH AFFECTED WORK AFTER CONFLICT IS SATISFACTORILY RESOLVED.

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE TIA/EIA-222 REVISION "G" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES." 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
2. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
3. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
4. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
5. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
6. CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN 'AS-BUILT' SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
7. LOCATION OF EQUIPMENT AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS, SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
8. THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND IT'S COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.
9. DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
10. ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
11. ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MFR.'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
12. ANY AND ALL ERRORS, DISCREPANCIES, AND "MISSED" ITEMS, ARE TO BE BROUGHT TO THE ATTENTION OF THE SITE OWNER'S CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
14. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
15. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
16. COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUIT AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
17. ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
18. THE CONTRACTOR SHALL CONTACT "DIG SAFE" (DIAL 811) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
19. CONTRACTOR SHALL COMPLY WITH OWNER'S ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.
20. THE COUNTY/CITY/TOWN WILL MAKE PERIODIC FIELD OBSERVATION AND INSPECTIONS TO MONITOR THE INSTALLATION, MATERIALS, WORKMANSHIP AND EQUIPMENT INCORPORATED INTO THE PROJECT TO ENSURE COMPLIANCE WITH THE DESIGN PLANS, SPECIFICATIONS, CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.
21. THE COUNTY/CITY/TOWN MUST BE NOTIFIED (2) WORKING DAYS PRIOR TO CONCEALMENT/BURIAL OF ANY SYSTEM OR MATERIAL THAT WILL PREVENT THE DIRECT INSPECTION OF MATERIALS, METHODS OR WORKMANSHIP. EXAMPLES OF THESE PROCESSES ARE BACKFILLING A GROUND RING OR TOWER FOUNDATION, POURING TOWER FOUNDATIONS, BURYING GROUND RODS, PLATES OR GRIDS, ETC. THE CONTRACTOR MAY PROCEED WITH THE SCHEDULED PROCESS (2) WORKING DAYS AFTER PROVIDING NOTICE UNLESS NOTIFIED OTHERWISE BY THE COUNTY/CITY/TOWN.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL IS DESIGNED BY ALLOWABLE STRESS DESIGN (ASD)

   A. STRUCTURAL STEEL (W SHAPES)---ASTM A992 (FY = 50 KSI)
   B. STRUCTURAL STEEL (OTHER SHAPES)---ASTM A36 (FY = 36 KSI)
   C. STRUCTURAL HSS (RECTANGULAR SHAPES)---ASTM A500 GRADE B, (FY = 46 KSI)
   D. STRUCTURAL HSS (ROUND SHAPES)---ASTM A500 GRADE B, (FY = 42 KSI)
   E. PIPE---ASTM A53 (FY = 35 KSI)
   F. CONNECTION BOLTS---ASTM A325-N
   G. U-BOLTS---ASTM A36
   H. ANCHOR RODS---ASTM F 1554
   I. WELDING ELECTRODE---ASTM E 70XX

2. CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE ENGINEER FOR REVIEW. SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING: SECTION PROFILES, SIZES, CONNECTION ATTACHMENTS, REINFORCING, ANCHORAGE, SIZE AND TYPE OF FASTENERS AND ACCESSORIES. INCLUDE ERECTION DRAWINGS, ELEVATIONS AND DETAILS.
3. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST PROVISIONS OF AISC MANUAL OF STEEL CONSTRUCTION.
4. PROVIDE ALL PLATES, CLIP ANGLES, CLOSURE PIECES, STRAP ANCHORS, MISCELLANEOUS PIECES AND HOLES REQUIRED TO COMPLETE THE STRUCTURE.
5. FIT AND SHOP ASSEMBLE FABRICATIONS IN THE LARGEST PRACTICAL SECTIONS FOR DELIVERY TO SITE.
6. INSTALL FABRICATIONS PLUMB AND LEVEL, ACCURATELY FITTED, AND FREE FROM DISTORTIONS OR DEFECTS.
7. AFTER ERECTION OF STRUCTURES, TOUCHUP ALL WELDS, ABRASIONS AND NON-GALVANIZED SURFACES WITH A 95% ORGANIC ZINC RICH PAINT IN ACCORDANCE WITH ASTM 780.
8. ALL STEEL MATERIAL (EXPOSED TO WEATHER) SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT DIPPED GALVANIZED) COATINGS" ON IRONS AND STEEL PRODUCTS.
9. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE".
10. THE ENGINEER SHALL BE NOTIFIED OF ANY INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON CONFORMING MATERIALS OR CONDITIONS TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER REVIEW.
11. CONNECTION ANGLES SHALL HAVE A MINIMUM THICKNESS OF 1/4 INCHES.
12. STRUCTURAL CONNECTION BOLTS SHALL CONFORM TO ASTM A325. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM AND SHALL HAVE A MINIMUM OF TWO BOLTS, UNLESS OTHERWISE ON THE DRAWINGS.
13. LOCK WASHER ARE NOT PERMITTED FOR A325 STEEL ASSEMBLIES.
14. SHOP CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED.
15. MILL BEARING ENDS OF COLUMNS, STIFFENERS, AND OTHER BEARING SURFACES TO TRANSFER LOAD OVER ENTIRE CROSS SECTION.
16. FABRICATE BEAMS WITH MILL CAMBER UP.
17. LEVEL AND PLUMB INDIVIDUAL MEMBERS OF THE STRUCTURE TO AN ACCURACY OF 1:500, BUT NOT TO EXCEED 1/4" IN THE FULL HEIGHT OF THE COLUMN.
18. COMMENCEMENT OF STRUCTURAL STEEL WORK WITHOUT NOTIFYING THE ENGINEER OF ANY DISCREPANCIES WILL BE CONSIDERED ACCEPTANCE OF PRECEDING WORK.
19. INSPECTION AND TESTING OF ALL WELDING AND HIGH STRENGTH BOLTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY.
20. FOUR COPIES OF ALL INSPECTION TEST REPORTS SHALL BE SUBMITTED TO THE ENGINEER WITHIN TEN (10) WORKING DAYS OF THE DATE OF INSPECTION.

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	10/28/20	JLW	TJR	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

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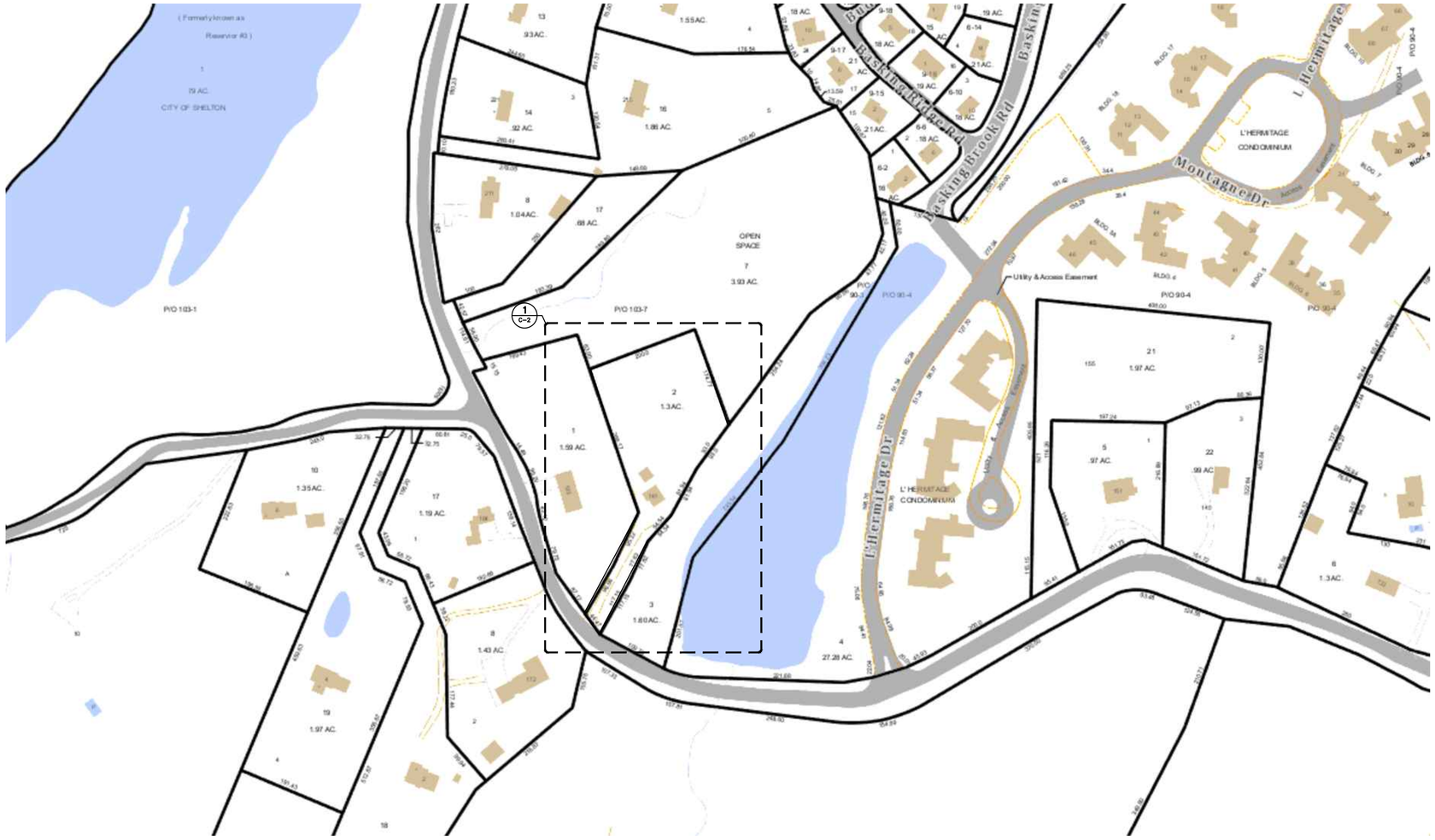
GENERAL NOTES AND SPECIFICATIONS

N-1

NOTE:
ALL COAX LENGTHS TO BE MEASURED
AND VERIFIED IN FIELD BEFORE ORDERING

ANTENNA SCHEDULE

SECTOR	EXISTING/PROPOSED	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA ℄ HEIGHT	AZIMUTH	(E/P) RRU (QTY)	(E/P) TMA/DIPLEXER (QTY)	(QTY) PROPOSED COAX (LENGTH)
A1	EXISTING	ERICCSON (AIR32 KRD901146-1_B66A_B2A)	56.6 x 12.9 x 8.7	135'	60°			(1) 6x12 HYBRID CABLE (±280')
A2	EXISTING	RFS (APXVAARR24_43-U_NA20)	95.9 x 24 x 8.7	135'	60°	(E) RADIO 4449 B71 (1), (P) RADIO 4415 B25 (1)	(E) GENERIC TWIN STYLE 1B (1), (P) COMMSCOPE SDX1926Q-43 (1)	
A3	PROPOSED	ERICSSON (AIR6449 B41)	33.1 x 20.6 x 8.6	135'	60°			
B1	EXISTING	ERICCSON (AIR32 KRD901146-1_B66A_B2A)	56.6 x 12.9 x 8.7	135'	180°			(1) 6x12 HYBRID CABLE (±280')
B2	EXISTING	RFS (APXVAARR24_43-U_NA20)	95.9 x 24 x 8.7	135'	180°	(E) RADIO 4449 B71 (1), (P) RADIO 4415 B25 (1)	(E) GENERIC TWIN STYLE 1B (1), (P) COMMSCOPE SDX1926Q-43 (1)	
B3	PROPOSED	ERICSSON (AIR6449 B41)	33.1 x 20.6 x 8.6	135'	180°			
C1	EXISTING	ERICCSON (AIR32 KRD901146-1_B66A_B2A)	56.6 x 12.9 x 8.7	135'	300°			(1) 6x12 HYBRID CABLE (±280')
C2	EXISTING	RFS (APXVAARR24_43-U_NA20)	95.9 x 24 x 8.7	135'	300°	(E) RADIO 4449 B71 (1), (P) RADIO 4415 B25 (1)	(E) GENERIC TWIN STYLE 1B (1), (P) COMMSCOPE SDX1926Q-43 (1)	
C3	PROPOSED	ERICSSON (AIR6449 B41)	33.1 x 20.6 x 8.6	135'	300°			



1 C-1 SITE LOCATION PLAN
SCALE: NOT TO SCALE

TRUE NORTH

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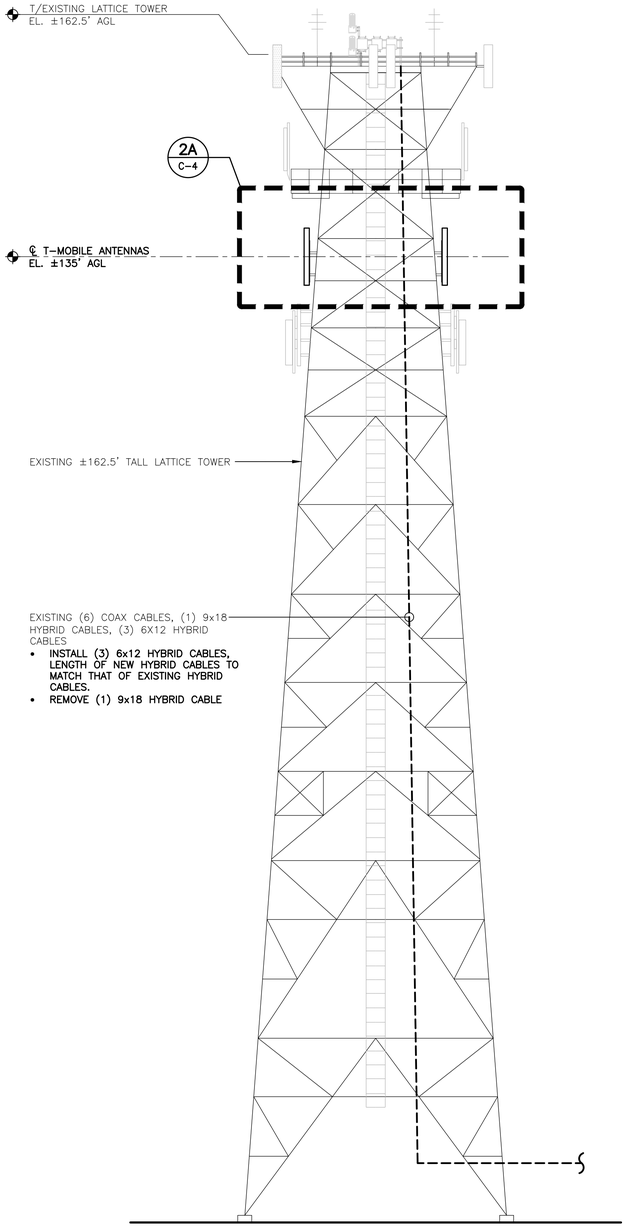
SITE LOCATION PLAN

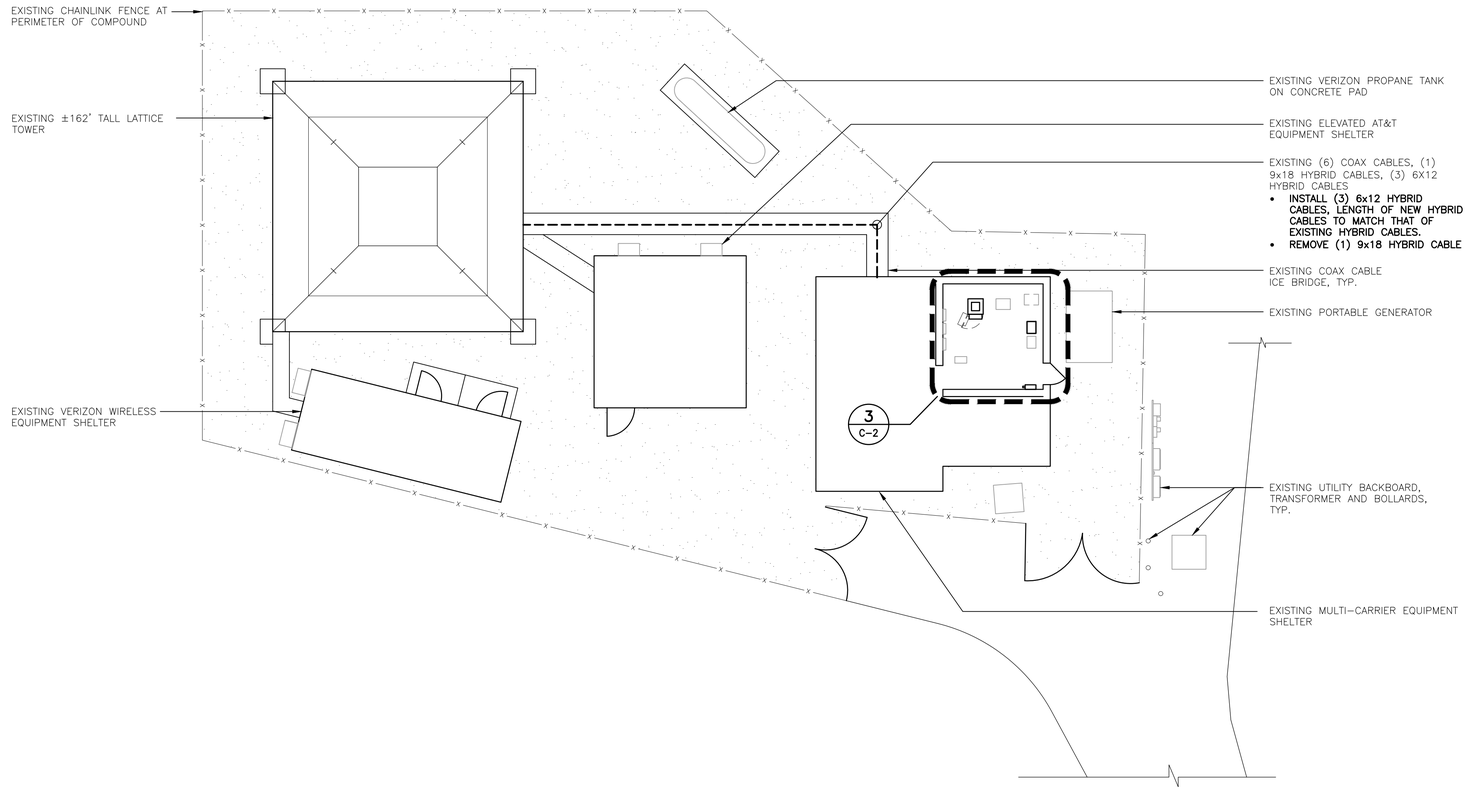
C-1

Sheet No. 3 of 8



2 C-2 **TOWER ELEVATION**
SCALE: 1" = 10'

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.



1 C-2 **COMPOUND PLAN**
SCALE: 1" = 10'

TRUE NORTH

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

STRUCTURAL COMPLIANCE

ANTENNA MOUNTS

A STRUCTURAL ANALYSIS OF THE ANTENNA MOUNTS WAS PERFORMED FOR THE PROPOSED EQUIPMENT INSTALLATION AND THEY WERE FOUND TO BE STRUCTURALLY DEFICIENT AND WARRANTING MODIFICATION PRIOR TO INSTALLATION OF THE PROPOSED EQUIPMENT. FOR REQUIRED STRUCTURAL MODIFICATIONS, SEE SHEET(S) C-4 FOR ADDITIONAL DETAILS.

REFER TO THE ANTENNA MOUNT ANALYSIS REPORT PREPARED BY CENTEK ENGINEERING (PROJECT # 20074.53) DATED 07/08/20 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

TOWER AND TOWER FOUNDATION

A STRUCTURAL ANALYSIS OF THE TOWER AND TOWER FOUNDATION WAS PERFORMED FOR THE PROPOSED EQUIPMENT INSTALLATION AND THEY WERE FOUND TO BE STRUCTURALLY SUFFICIENT TO ACCOMMODATE THE PROPOSED LOADING.

REFER TO THE STRUCTURAL ANALYSIS REPORT PREPARED BY "KIMLEY-HORN" (PROJECT # KHCLE-4156) DATED 10/26/20 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

NOTE: NO EQUIPMENT SHALL BE INSTALLED ON THE HOSTING STRUCTURE WITHOUT A PASSING STRUCTURAL ANALYSIS REPORT AND CONTRACTOR PRIOR CONFIRMATION THAT ANY AND ALL REQUISITE MODIFICATIONS HAVE BEEN COMPLETED.

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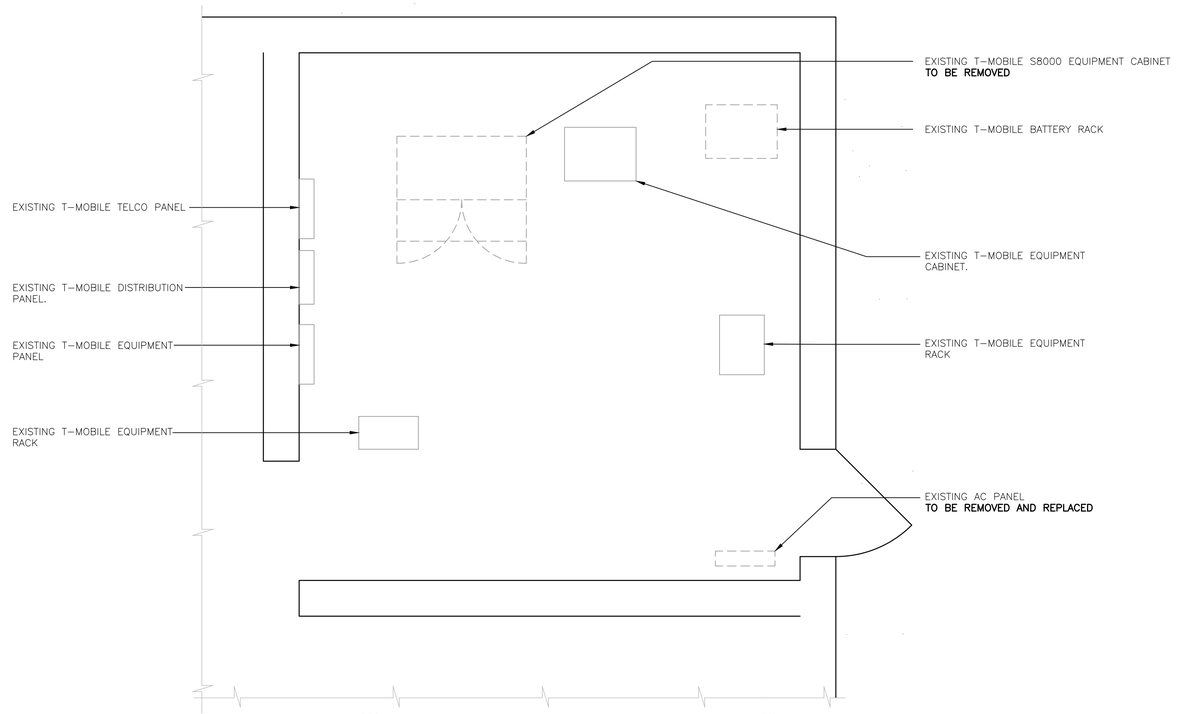
COMPOUND PLAN AND ELEVATION

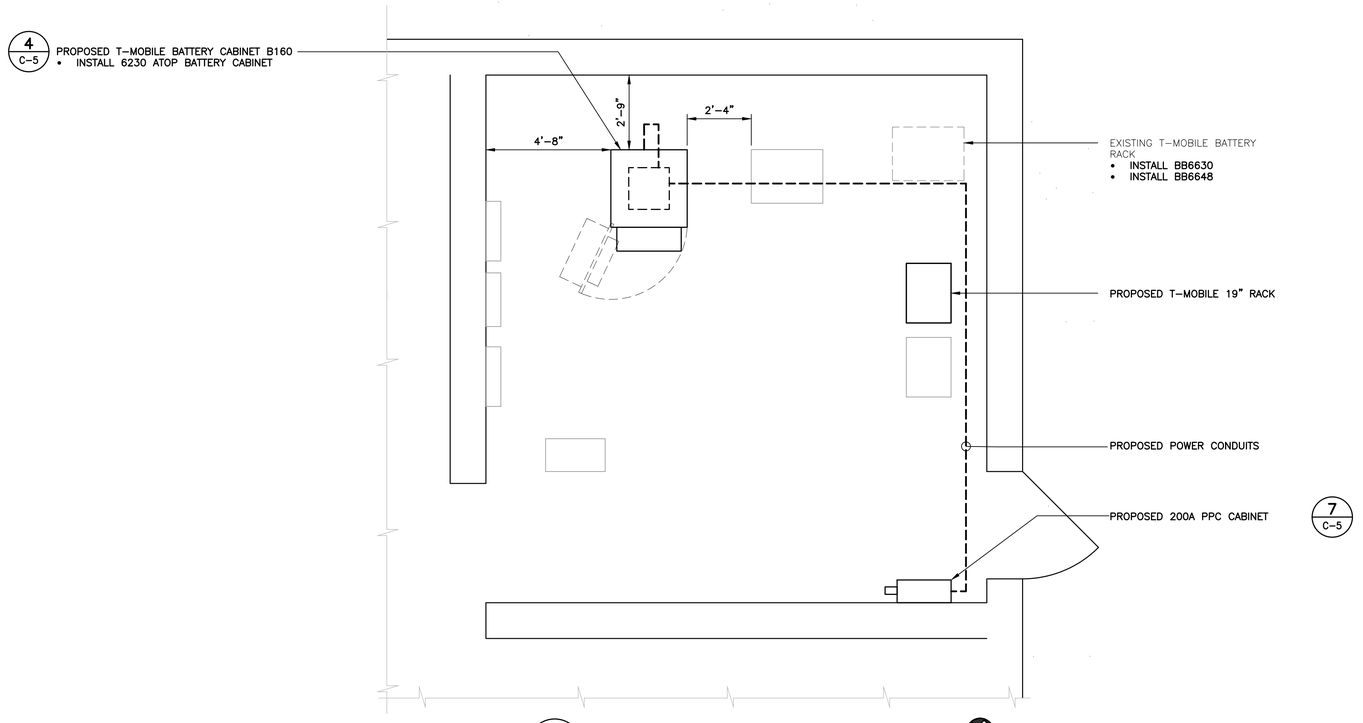
C-2

Sheet No. 4 of 8



1 / C-3 **EQUIPMENT ROOM PLAN - EXISTING**
SCALE: 1/2" = 1'

TRUE NORTH



2 / C-3 **EQUIPMENT ROOM PLAN - PROPOSED**
SCALE: 1/2" = 1'

TRUE NORTH

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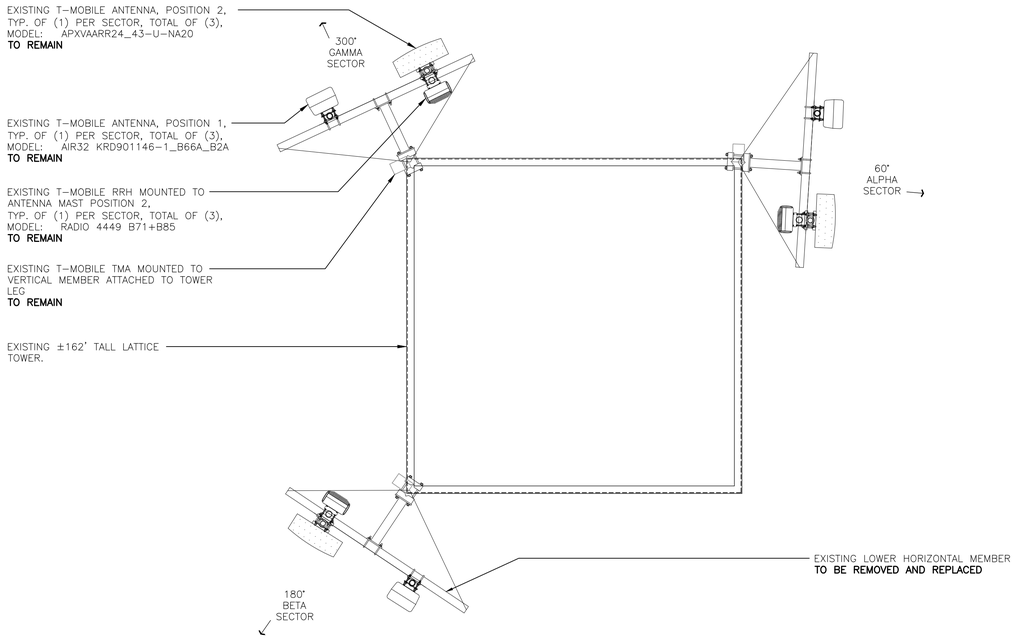
EQUIPMENT PLAN

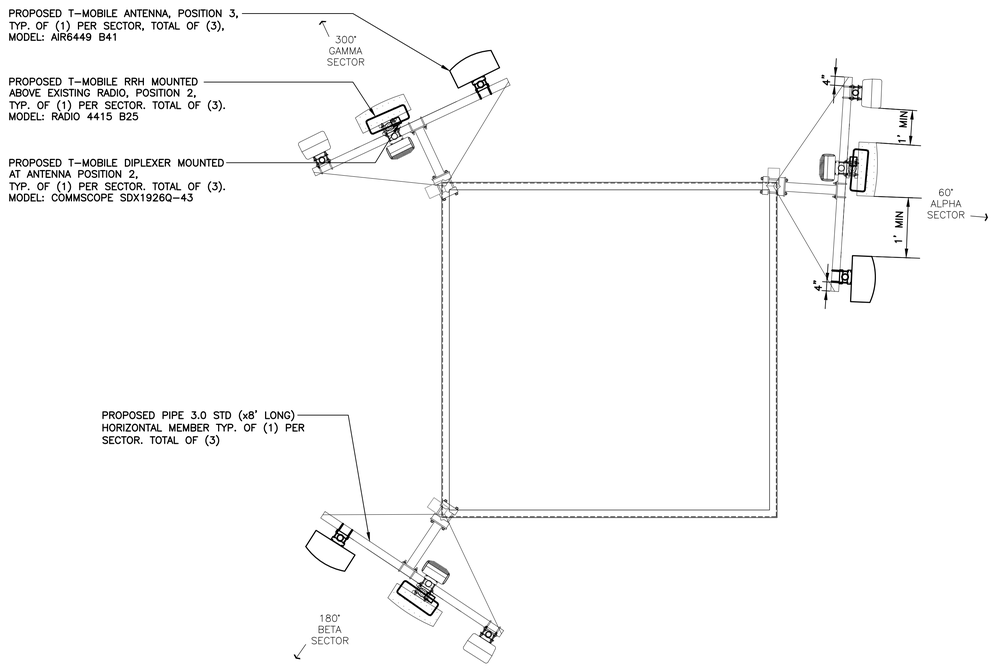
C-3

Sheet No. 4 of 8



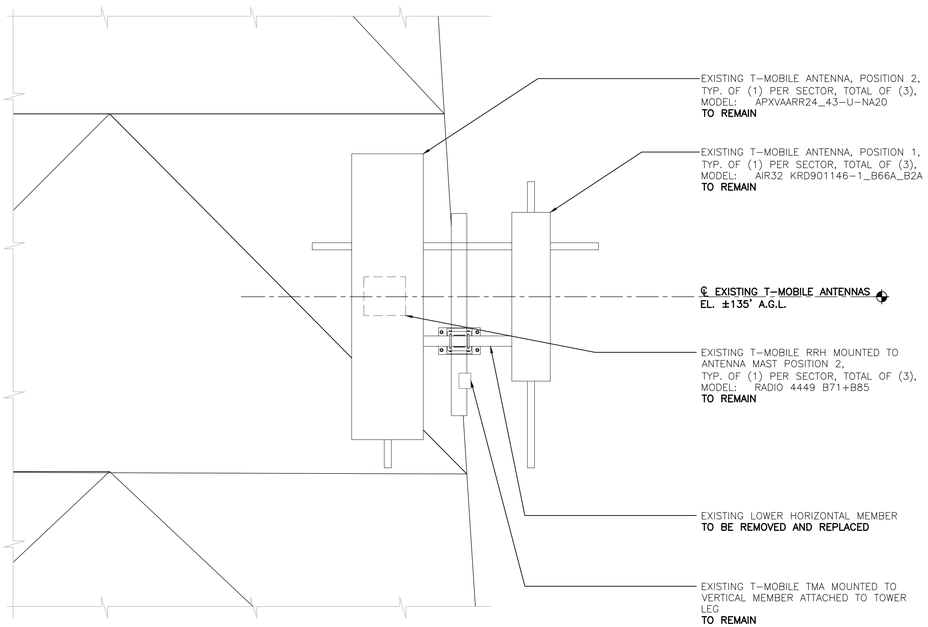
1 / C-4 **EXISTING ANTENNA MOUNTING CONFIGURATION**
SCALE: 3/8" = 1'

TRUE NORTH



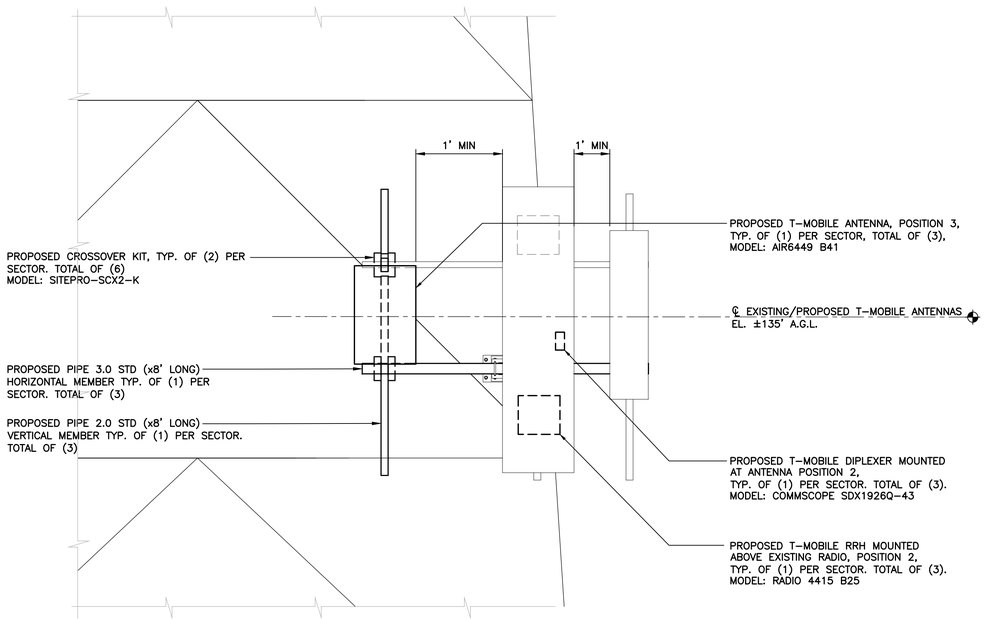
2 / C-4 **PROPOSED ANTENNA MOUNTING CONFIGURATION**
SCALE: 3/8" = 1'

TRUE NORTH



1A / C-4 **EXISTING ANTENNA ELEVATION**
SCALE: 1/2" = 1'

TRUE NORTH



2A / C-4 **PROPOSED ANTENNA ELEVATION**
SCALE: 1/2" = 1'

TRUE NORTH

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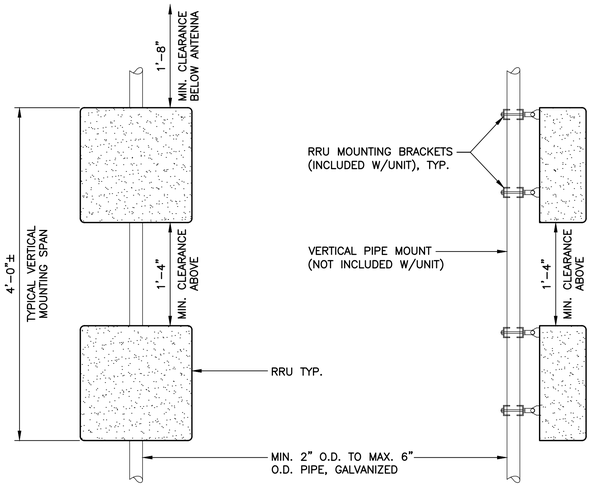
ANTENNA PLANS

C-3

Sheet No. 5 of 8



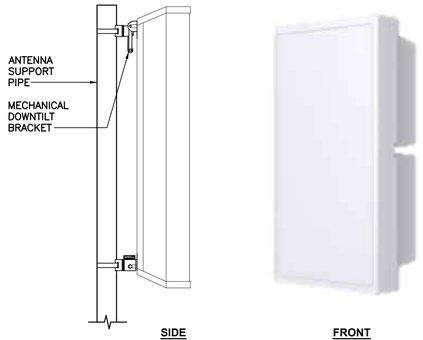
FRONT ELEVATION SIDE ELEVATION

NOTES:

1. T–MOBILE SHALL SUPPLY RRU, AND RRU POLE–MOUNTING BRACKET. CONTRACTOR SHALL SUPPLY POLE/PIPE AND INSTALL ALL MOUNTING HARDWARE INCLUDING ERICSSON RRU POLE–MOUNTING BRACKET. CONTRACTOR SHALL INSTALLS RRU AND MAKES CABLE TERMINATIONS.
2. NO PAINTING OF THE RRU OR SOLAR SHIELD IS ALLOWED.

1 C–5 TYPICAL RRUS MOUNTING DETAILS

SCALE: NOT TO SCALE



SIDE

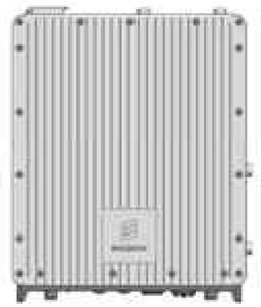
FRONT

ALPHA/BETA/GAMMA ANTENNA		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: ERICSSON MODEL: AIR6449 B41	33.1"L x 20.6"W x 8.6"D	±104 LBS.

NOTES:
1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH T–MOBILE CONSTRUCTION MANAGER PRIOR TO ORDERING.

2 C–5 PROPOSED ANTENNA DETAIL

SCALE: NOT TO SCALE



FRONT VIEW

RRU (REMOTE RADIO UNIT)			
EQUIPMENT	DIMENSIONS	WEIGHT	CLEARANCES
MAKE: ERICSSON MODEL: RADIO 4415 B25	14.9"L x 13.2"W x 5.4"D	±46 LBS.	BEHIND ANT.: 8" MIN. BELOW ANT.: 20" MIN. BELOW RRU: 16" MIN.

NOTES:
1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH T–MOBILE CONSTRUCTION MANAGER PRIOR TO ORDERING.

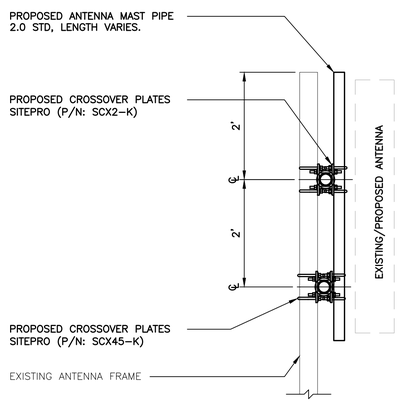
3 C–5 PROPOSED RRU DETAIL

SCALE: NOT TO SCALE

EQUIPMENT CABINET		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: ERICSSON MODEL: BATTERY CABINET B160	62.0"H x 26.0"W x 26.0"D	±1883 LBS

4 C–5 BATTERY CABINET DETAIL

NOT TO SCALE



5 C–5 TYPICAL ANTENNA MAST CONNECTION DETAIL

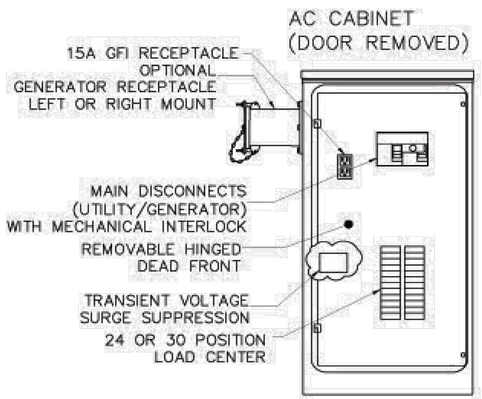
SCALE: 3/4" = 1'–0"

DIPLEXER		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: COMMSCOPE MODEL: SDX1926Q–43(E14F05P86)	4.2"L x 7.0"W x 3.0"D	–

NOTES:
1. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION WITH T–MOBILE CONSTRUCTION MANAGER PRIOR TO ORDERING.

6 C–5 PROPOSED DIPLEXER DETAIL

SCALE: NOT TO SCALE



PPC CABINET		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: EMERSON MODEL: CAC–A75201090	40.0"H x 20.0"W x 10.0"D	±80 LBS

7 C–5 PPC CABINET DETAIL

NOT TO SCALE

EQUIPMENT CABINET		
EQUIPMENT	DIMENSIONS	WEIGHT
MAKE: ERICSSON MODEL: POWER 6230	12.0"H x 19.0"W x 15.5"D	–

8 C–5 6230 POWER CABINET DETAIL

SCALE: NOT TO SCALE

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	10/28/20	JLW	TJR	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION

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Transcend Wireless

CENTEK engineering
Centered on Solutions℠
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(203) 488-8587 Fax
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Branford, CT 06405
www.CentekEng.com

T-MOBILE NORTHEAST LLC

WIRELESS COMMUNICATIONS FACILITY

SHELTON/BUDDINGTON RD_1

SITE ID: CT11199A

219 NELLS ROCK ROAD (S.N.E.T)

SHELTON, CT 06484

DATE: 07/06/20

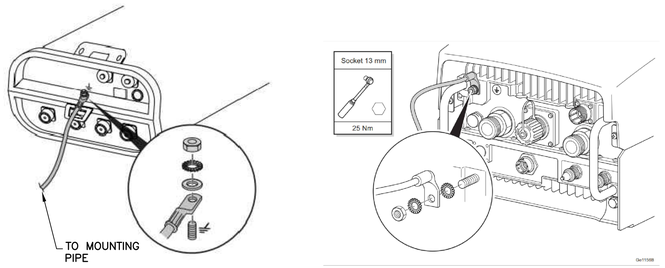
SCALE: AS NOTED

JOB NO. 20074.53

TYPICAL EQUIPMENT DETAILS

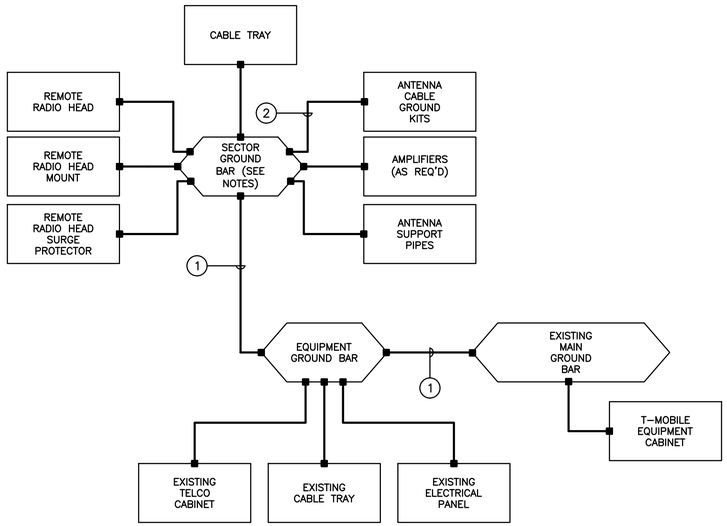
C-5

Sheet No. 6 of 8



1 E-1 TYPICAL ANTENNA/RRU GROUNDING DETAILS

SCALE: NOT TO SCALE



GROUNDING SCHEMATIC NOTES

(1) #2 AWG

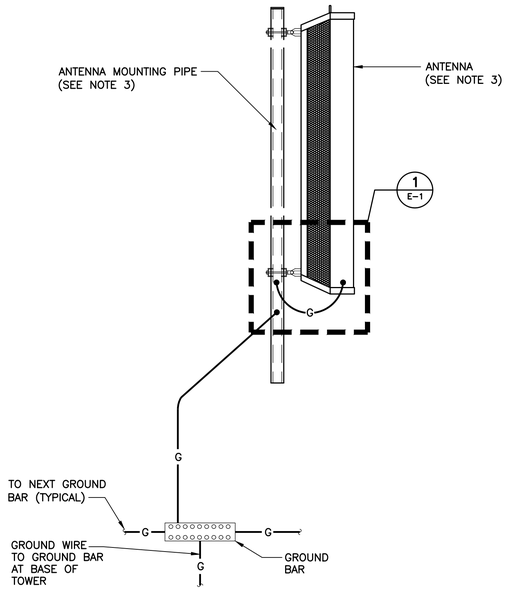
(2) #6 AWG

GENERAL NOTES:

1. ALL SURGE SUPPRESSION EQUIPMENT SHALL BE BONDED TO GROUND PER MANUFACTURER'S SPECIFICATIONS
2. UNLESS OTHERWISE NOTED OR REQUIRED BY CODE, GROUND CONDUCTORS SHOWN SHALL BE #2 AWG (SOLID TINNED BCW – EXTERIOR; STRANDED GREEN INSULATED – INTERIOR).
3. ALL SECTOR GROUND BARS SHALL BE BONDED TOGETHER WITH #2 AWG SOLID TINNED BCW.
4. BOND ALL EQUIPMENT CABINETS AND BATTERY CABINETS TO GROUND PER MANUFACTURER'S SPECIFICATIONS.
5. COORDINATE ALL TOWER MOUNTED EQUIPMENT WITH OWNER.
6. ALL TOWER MOUNTED AMPLIFIERS AND ASSOCIATED EQUIPMENT SHALL BE BONDED TO THE SECTOR GROUND BAR PER MANUFACTURER'S SPECIFICATIONS.
7. ALL GROUNDING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC AND OWNER'S REQUIREMENTS.

4 E-1 TYPICAL GROUNDING SCHEMATIC DETAIL

SCALE: NOT TO SCALE

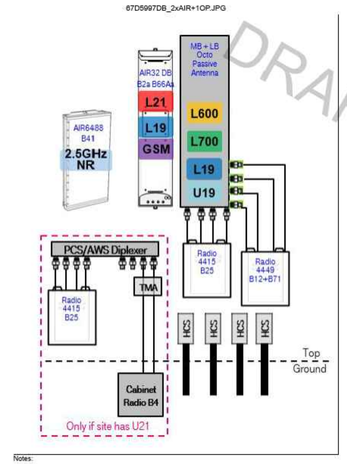


NOTES:

1. BOND COAXIAL CABLE GROUND KITS TO EACH OWNER'S GROUND BAR ALONG ENTIRE COAX RUN FROM ANTENNA TO SHELTER.
2. BOND ALL EQUIPMENT TO GROUND PER NEC AND MANUFACTURERS SPECIFICATIONS.
3. DETAIL IS TYPICAL FOR ALL ANTENNA SECTORS, INCLUDING GPS ANTENNA.

2 E-1 TYPICAL ANTENNA GROUNDING DETAIL

SCALE: NOT TO SCALE



3 E-1 PROPOSED PLUMBING DIAGRAM

SCALE: NOT TO SCALE

RISER DIAGRAM NOTES

(1) EXISTING MULTI METER CENTER TO REMAIN.

(2) EXISTING 100A METER AND CIRCUIT BREAKER TO BE REMOVED AND REPLACED WITH NEW 200A METER AND CIRCUIT BREAKER.

(3) EXISTING 100A ELECTRICAL PANEL TO BE REMOVED AND REPLACED. RELOCATE ALL EXISTING TO REMAIN CIRCUIT BREAKERS TO NEW PPC CABINET.

(4) EXISTING CONDUITS AND CONDUCTORS TO BE REMOVED

(5) NEW 100A/2P CIRCUIT BREAKER TO SERVE NEW EQUIPMENT CABINET.

(6) (3) #1 AWG, (1) #8 AWG GROUND, 1–1/2" CONDUIT.

(7) JUNCTION BOX SIZED PER N.E.C. AS REQUIRED.

(8) NEW CONDUITS AND CONDUCTORS TO NEW PPC CABINET.

(9) EXISTING CABINET TO REMAIN.

(10) EXISTING CABINET AND ASSOCIATED CONDUCTORS TO BE REMOVED

(11) NEW 200A PPC CABINET.

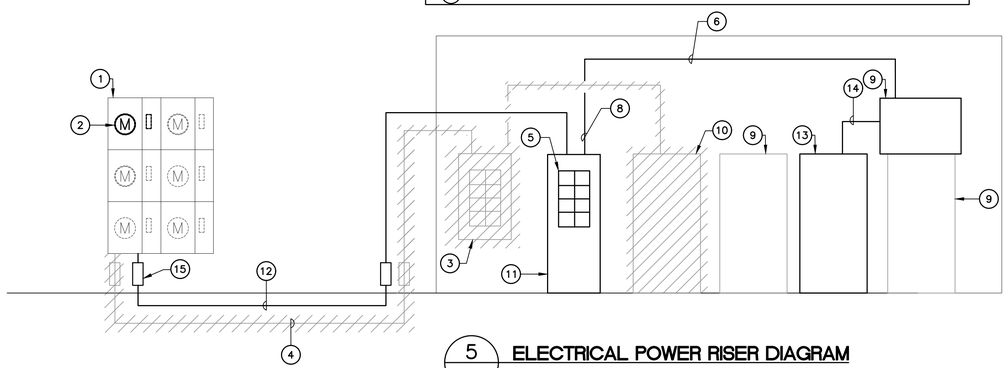
(12) (3) 3/0 AWG, (1) #6 AWG GROUND, 2–1/2" CONDUIT.

(13) NEW T–MOBILE BATTERY CABINET

(14) DC CONDUIT AND CONDUCTORS FOR BATTERY CABINET CONNECTION PER MANUFACTURERS SPECIFICATIONS.

(15) EXPANSION COUPLING TYP.

(16) NEW T–MOBILE POWER ENCLOSURE



5 E-1 ELECTRICAL POWER RISER DIAGRAM

SCALE: NOT TO SCALE

REV.	DATE	DRAWN BY	CHK'D BY	DESCRIPTION
0	10/28/20	JLW	TJR	CONSTRUCTION DRAWINGS – ISSUED FOR CONSTRUCTION

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219 NELLS ROCK ROAD (S.N.E.T)

SHELTON, CT 06484

DATE:	07/06/20
SCALE:	AS NOTED
JOB NO.	20074.53

TYPICAL ELECTRICAL DETAILS

E-1

Sheet No. 8 of 8

Alison Skipper
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Kevin Fraleigh, P.E.
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Akron, OH 44333
(216) 505-8256

Date: **October 26, 2020 Rev. 1**
K-H Project Number: KHCLE-4156

Rigorous Structural Analysis Report

Carrier Designation:	**AT&T USID:**	27016
	TAG Number:	SNET025
	FA Number:	10034975
	Site Name:	Shelton East Central
Analysis Criteria:	**Code Requirements:**	ANSI/TIA-222-G, 2018 Connecticut State Building Code, 2015 IBC 125 mph (V_{ult}) / 97 mph (V_{asd}) w/o Ice 50 mph w/ 3/4" Radial Ice (Escalated)
Site Data:		**219 Nells Rock Road, Shelton** **CT 06484, Fairfield County** **Latitude *41° 18' 15.070"*, Longitude *-73° 7' 5.898"*** **AT&T Market: NEW ENGLAND** **162.5' – AT&T TAG Self-Supported Tower**

Alison Skipper,

Kimley-Horn and Associates, Inc. is pleased to submit this **"Rigorous Structural Analysis Report"** to determine the structural integrity of the above mentioned tower.

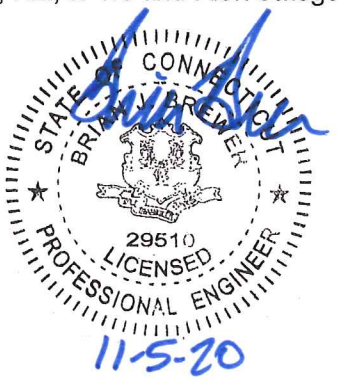
The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

Existing+Proposed+Future:

Proposed Tower Rating:	96.5%	**Pass**
Proposed Foundation Rating:	44.7%	**Pass**

This analysis has been performed in accordance with the 2018 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 125 mph converted to a nominal 3-second gust wind speed of 97 mph per Section 1609.3 and Appendix N as required for use in the TIA-222-G Standard per Exception #5 of Section 1609.1.1. Exposure Category B with a maximum topographic factor, Kzt, of 1.0 and Risk Category II were used in this analysis.

Structural analysis prepared by: Michael Oglesby, P.E.



Respectfully submitted by:

Brian Brewer, P.E.
Lic.#29510, Exp. 01/31/2021
Kimley-Horn and Associates, Inc. COA #738

▪ INTRODUCTION

At the request of AT&T Mobility, Kimley-Horn and Associates, Inc. performed a rigorous structural analysis of the existing self-supported tower structure located in Fairfield County, CT. The purpose of the analysis is to determine the adequacy of the tower to support the loading configuration outlined in Appendix A (Tower Analysis Summary Form), pursuant to the referenced standards.

▪ ANALYSIS CRITERIA

The analysis utilizes RISA-3D (v17.0.2) and tnxTower (v8.0.4.0), commcercially available analysis programs were used to create an elastic three-dimensional model considering second-order effects per ANSI/TIA-222 requirements. The program calculates member stresses for various loading cases and selected output from the analysis is included in the appendices.

ANSI/TIA-222 Revision:	ANSI/TIA-222-G
Risk Category:	II
Wind Speed:	125 mph (V_{ult}) / 97 mph (V_{asd})
Exposure Category:	B
Topographic Factor at Base:	1.00
Ice Thickness:	0.75 in (Escalated)
Wind Speed with Ice:	50 mph

▪ SUPPORTING DOCUMENTATION

Information on the current tower geometry, member sizes, foundation dimensions, soil properties, and antenna loading was obtained from the sources listed below. It is assumed that all information provided to Kimley-Horn & Associates, Inc. is accurate. In the absence of information to the contrary, we assume the structure has been properly erected and maintained per the original design drawings and the capacity has not significantly changed from the "as new" condition.

Tower Mapping	GPD Project #2016713.69, dated October 14, 2016
Foundation Mapping	GPD Project #2016713.69, dated September 28, 2016
Geotechnical Report	GPD Project #2016713.69, dated September 28, 2016
Previous Tower Analyses	GPD Project #2018723.01.SNET025.11, dated July 12, 2018
Previous Mount Modifications	GPD Project #2013723.01.SNET025.01, dated March 1, 2013 GPD Project #2014701.02, dated 2/10/2014 Centek Project #: 20074.53, dated 7/8/2020
Previous Mount Analysis	Centek Project #: 20074.53, dated 7/8/2020
Tower Loading Data	T-Mobile Co-location Application, dated July 14, 2020

▪ RESULTS

The tables below show a maximum usage summary for each group of components in the structure. The usage of a component is the ratio of force in the member compared to its calculated capacity. A more detailed report of member usages can be found in the appendix at the end of this report. Usages greater than 100% indicate where the force in the member exceeds its capacity. Usages up to 105% are considered acceptable per industry standard practice.

Structure Usages:

Structure Component	Controlling Usage	Result
Legs	51.8%	Pass
Diagonals	96.5%	Pass
Horizontals/Girts	84.1%	Pass
Redundant/Inner Bracing Members	81.6%	Pass
Bolts	51.0%	Pass
Anchor Rods	53.0%	Pass

Foundation Usages:

Foundation	Component	Controlling Usage	Result
Base Foundation[1]	Soil	44.7%	Pass
	Structure	30.9%	Pass

1 – Minimum steel reinforcement assumed per ACI 318, Chapter 10.9.1.

▪ CONCLUSIONS AND RECOMMENDATIONS

Per our structural analysis, the structure has been found to pass. The tower and foundation **can** support the referenced loading in accordance with the structural strength requirements of ANSI/TIA-222-G and 2015 International Building Code.

▪ ASSUMPTIONS AND LIMITATIONS

This report is not a condition assessment of the tower and foundation; It is an engineering analysis based upon the theoretical capacity of the structure. Unless told otherwise, we assume the tower and foundation to be in "like new" condition. It is the responsibility of our client and the tower owner to verify that the tower modeled and loading considered is accurate. Kimley-Horn has not performed a recent site visit to the tower to verify member sizes or antenna/coax loading. If these assumptions are not accurate, Kimley-Horn & Associates, Inc. should be notified immediately to perform a revised analysis. This analysis assumes all antenna mounts are adequate to support the existing and proposed loads and are properly connected to the tower. It is the carrier's responsibility to ensure antenna mount meets the structural requirements of ANSI/TIA-222. Kimley-Horn & Associates, Inc. did not analyze antenna supporting mounts as part of this structural analysis report.

All services are performed, results obtained, and recommendation made in accordance with generally accepted engineering principles and practices. Kimley-Horn & Associates, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information in this report.

All existing loading was obtained from the previous analysis provided by AT&T (GPD #2018723.01.SNET025.11. dated July 12, 2018).

Kimley-Horn makes no warranties, expressed or implied in connection with this report and disclaims any liability arising from original design, material, fabrication, and section deficiencies or corrosion of the tower. The maximum liability of Kimley-horn pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Tower Analysis Summary Form

Tower Analysis Summary Form

General Info

Site Name	Shelton East Central
Site Number	27016
FA Number	10034975
Date of Analysis	9/29/2020
Company Performing Analysis	Kimley-Horn and Associates, Inc.

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

Tower Info	Description	Date
Tower Type (G, SST, MP)	SST	
Tower Height (top of steel AGL)	163'	
Tower Manufacturer	Unknown	
Tower Model	Type 'H'	
Tower Design	N/A	
Foundation Design	N/A	
Geotech Report	GPD Project #2016713.69	9/28/2016
Tower Mapping	GPD Project #2016713.69	10/14/2016
Previous Structural Analysis	GPD Project #2018723.01.SNET025.11	7/12/2018
Foundation Mapping	GPD Project #2013723.103531.01	9/28/2016

Design Parameters

Design Code Used	TIA-222-G, 2015 IBC & ASCE 7-10
Location of Tower (County, State)	Fairfield County
Nominal Wind Speed (mph)	97 (3-Second Gust)
Ice Thickness (in)	0.75
Structure Classification (I, II, III)	II
Exposure Category (B, C, D)	B
Topographic Category (1 to 5)	1

Analysis Results (% Maximum Usage)

Existing/Reserved + Future + Proposed Condition	
Tower (%)	96.5%
Tower Base (%)	53.0%
Foundation (%)	44.7%
Foundation Adequate?	YES

Note: Capacities below 105% are within customary engineering tolerances and are therefore considered acceptable.

Steel Yield Strength (ksi)

Legs	36
Member Bracing	36
Member Bolts	A307/A325
Anchor Rods	C1015

Note: Grades have been assumed based on experience with similar structures.

Existing / Reserved Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Internal / External
Unknown	162.5	170	1	Dipole	Unknown	10' Dipole		1	Unknown	28' Sq Platform w/Rails	1	Unknown	1/2"	Face D
Unknown	162.5	156	1	Dipole	Unknown	15' Dipole				on the same mount	1	Conduit	1-1/2"	Face D
Misc.	162.5	175	1	Light	Unknown	Beacon		1	Unknown	13' W5x13' Post	2	Unknown	7/8"	Face D
Unknown	162.5	184	1	Dipole	Unknown	15' Dipole		2	Unknown	14' Post w/ (2) 2' Side Arms	1	Unknown	3/4"	Face D
Unknown	162.5	183	1	Omni	Unknown	10' Omni				on the same mount	1	Unknown	7/8"	Face D
AT&T Mobility	162.5	163	3	Panel	Quintel	QS66512-2	90/210/340	2	Unknown	W8x19' Beams	12	Unknown	1-5/8"	Face D
AT&T Mobility	162.5	163	3	Panel	CCI	HPA-65R-BUU-H6	90/210/340			on the same mount				
AT&T Mobility	162.5	163	3	Panel	Powerwave	RA21.7770.00	25/143/265			on the same mount				
AT&T Mobility	162.5	163	3	Panel	Kathrein	80010965	90/210/340			on the same mount				
AT&T Mobility	162.5	163	6	RET	Powerwave	7020				on the same mount				
AT&T Mobility	162.5	163	6	Triplexer	CCI	TPX-070821				on the same mount				
AT&T Mobility	162.5	163	3	Kaelus	Bias-T	Smart Bias-T				on the same mount				
AT&T Mobility	162.5	163	6	TMA	Powerwave	LGP 21401				on the same mount				
AT&T Mobility	162.5	163	2	Filter	Commscope	WCS-IMFQ-AMT				on the same mount				
AT&T Mobility	162.5	165	3	RRU	Ericsson	RRUS 11		1	Unknown	RRU Mount	6	DC Power	7/8"	Face D
AT&T Mobility	162.5	165	3	RRU	Ericsson	RRUS 12				on the same mount	3	Fiber Line	1/2"	Face D
AT&T Mobility	162.5	165	3	RRU	Ericsson	RRUS B14 4478				on the same mount				
AT&T Mobility	162.5	165	3	RRU	Ericsson	RRUS 32				on the same mount				
AT&T Mobility	162.5	165	3	RRU	Ericsson	RRUS 32 B2				on the same mount				
AT&T Mobility	162.5	165	3	RRU	Ericsson	RRUS 32 B66				on the same mount				
AT&T Mobility	162.5	167	3	Surge	Raycap	DC6-48-60-18-8F				on the same mount				
Sprint	153	152	3	RRH	Alcatel Lucent	RRH2X50-800		3	Unknown	Dual Standoff Mounts	3	Hybriflex	1-1/4"	Face B
Sprint	153	152	3	RRH	Alcatel Lucent	RRH1900-4X40				on the same mount				
Sprint	153	152	3	RRH	Alcatel Lucent	TD-RRH8X20-25				on the same mount				
Sprint	153	152	3	RRH	Alcatel Lucent	RRH-2x50-800				on the same mount				
Sprint	148	149	3	Panel	RFS	APXVSPP18	50/270/250	3	Unknown	14' Sector Frames	3	Hybrid	1/2"	Face B
Sprint	148	149	3	Panel	Nokia	AAHC	50/270/250			on the same mount	3	RET Cable	3/8"	Face B
Misc	144							1	Unknown	30'x30 Cross Catwalk w/ Rails				
T-Mobile	135	135	3	Panel	Ericsson	Air32	60/180/300	3	Unknown	2' Standoffs	6	Unknown	1-5/8"	Face D
T-Mobile	135	135	3	Panel	RFS	APXVAARR24_43-U-NA20	60/180/300			on the same mount	3	Hybrid	7/8"	Face D
T-Mobile	135	135	3	RRU	Ericsson	RRU4449 B71+B12				on the same mount				
T-Mobile	135	135	3	RRU	Ericsson	RRUS 11 B12				on the same mount				
T-Mobile	135	135	3	TMA	Ericsson	KRY 112 144				on the same mount				
Verizon	124	125	6	Panel	Andrew	DB846F65ZAXY	20/190/270	3	Unknown	12' Sector Frames	17	Unknown	1-5/8"	Face C
Verizon	124	125	4	Panel	Andrew	SBNHH-1D65B	20/270			on the same mount	2	Hybrid	1-5/8"	Face C
Verizon	124	125	2	Panel	Andrew	SBNHH-1D45B	190			on the same mount				
Verizon	124	125	2	Panel	Antel	BXA 185063/12CF (Reserved)	190/270			on the same mount				
Verizon	124	125	1	Panel	Antel	BXA 185085/12CF (Reserved)	20			on the same mount				
Verizon	124	125	3	RRU	Alcatel Lucent	B13 RRH 4X30				on the same mount				
Verizon	124	125	3	RRU	Alcatel Lucent	B25 RRH 4X30				on the same mount				
Verizon	124	125	3	RRU	Alcatel Lucent	B66 RRH 4x45				on the same mount				
Verizon	124	125	1	DC Box	RFS	DB-T1-6Z-8AB-OZ				on the same mount				
Verizon	124	125	1	DC Box	RFS	DB-T1-6Z-8AB-OZ (Reserved)				on the same mount				
Misc.	112.5							1	Unknown	4.25' x 7' Catwalk				
Misc.	87.5							2	Unknown	23' x 3' Catwalk				
Sprint	65	65	1	GPS	PCTEL	GPS-TMG-HR-26NCM				Leg Mounted	1	Unknown	1/2"	Face D
Misc.	62.5							1	Unknown	13' x 4.25' Catwalk				
Misc.	25							1	Unknown	13' x 4.25' Catwalk				

Note: (3) RRUS 11 B2, (3) RRUS 11 B12, and (3) 7/8" Hybrid at 135' shall be removed prior to the installation of the proposed equipment and have not been considered in this analysis. All other existing/reserved loading shall be reused.

Proposed Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Internal / External
T-Mobile	135	135	3	Panel	Ericsson	AIR6449B41	60/180/300			on the modified mounts	6	Hybrid	1-3/8"	Face D
T-Mobile	135	135	3	RRU	Ericsson	Radio 4415				on the modified mounts				
T-Mobile	135	135	3	RRU	Ericsson	SDX				on the modified mounts				
										on the modified mounts				

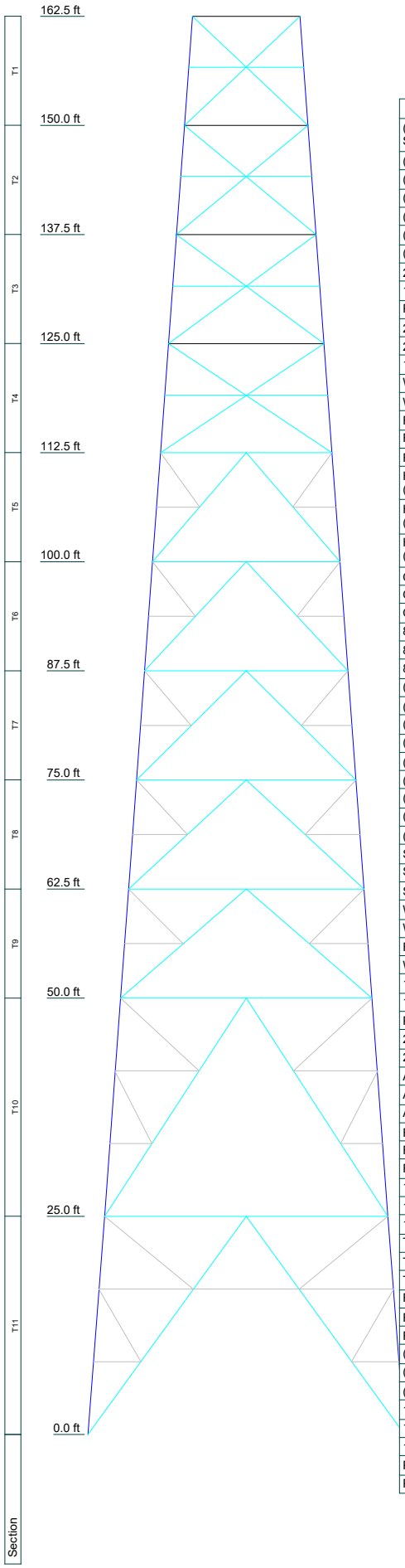
Note: The proposed loading shall be installed in addition to the remaining existing/reserved equipment at the same elevation.

Future Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Internal / External

APPENDIX B

Output File



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION
(3) DC6-48-60-18-8F Surge Suppression Unit (ATI)	167
(3) RRUS 11 (ATI)	165
(3) RRUS 32 (ATI)	165
(3) RRUS 32 B2 (ATI)	165
(3) RRUS 12 (ATI)	165
(3) RRUS B14 4478 (ATI)	165
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W8 x 19' Beams	162.5
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QS66512-2 w/ Mount Pipe (ATI)	162.5
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80010965 w/ Mount Pipe (ATI)	162.5
80010965 w/ Mount Pipe (ATI)	162.5
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(2) 7020.00 RET (ATI)	162.5
(2) 7020.00 RET (ATI)	162.5
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Side Light	92
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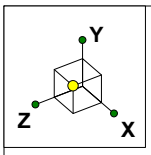
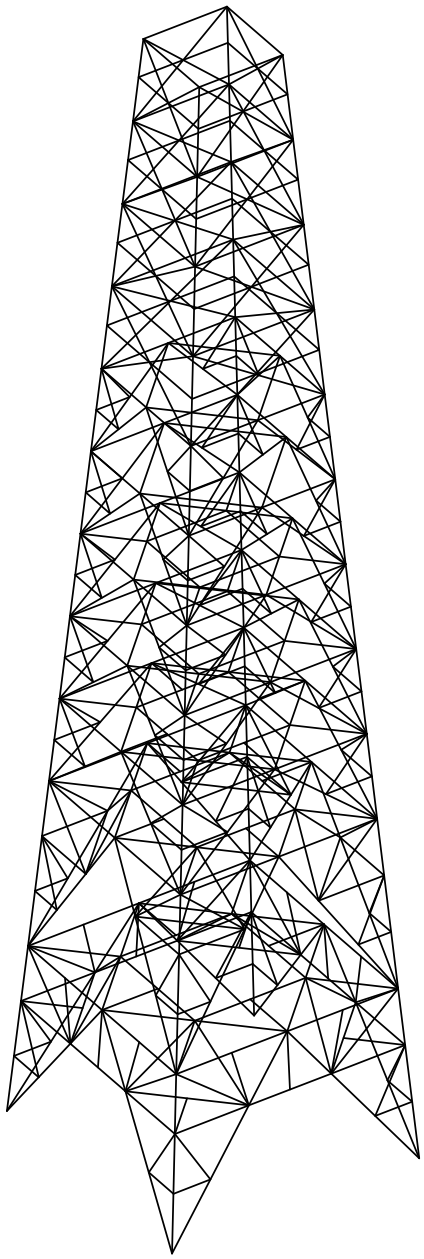
Kimley-Horn
421 Fayetteville Street
Raleigh, NC
Phone: (919) 677-2000
FAX:

Job: ***CT1119A - Shelton Buddington Rd (10034975***		
Project: ***180005001.1.101***		
Client: AT&T Towers	Drawn by: Michael.Oglesby	App'd:
Code: TIA-222-G	Date: 09/29/20	Scale: NTS
Path: C:\Users\michael.oglesby\Desktop\Work\Projects\10034975 - 27016\Model\10034975.er		Dwg No. E-1





Kimley-Horn	CT1119A - Shelton Buddington Rd (10034975)	SK - 1
Michael.Oglesby		Sept 29, 2020 at 10:28 AM
180005001.1.101		10034975.rt3

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravi...	Z Gravity	Joint	Point	Distrib...	Area(M...	Surfac...
1	Dead	None		-1		91	522	44		
2	No Ice Wind 0 deg	None				91	1254	132		
3	No Ice Wind 45 deg	None				182	1220	176		
4	No Ice Wind 90 deg	None				91	1244	132		
5	No Ice Wind 135 deg	None				182	1216	176		
6	No Ice Wind 180 deg	None				91	1254	132		
7	No Ice Wind 225 deg	None				182	1220	176		
8	No Ice Wind 270 deg	None				91	1244	132		
9	No Ice Wind 315 deg	None				182	1216	176		
10	Ice	None				91	518	420		
11	Temperature Drop	None						376		
12	Ice Wind 0 deg	None				91	1236	124		
13	Ice Wind 45 deg	None				182	1172	176		
14	Ice Wind 90 deg	None				91	1234	132		
15	Ice Wind 135 deg	None				182	1154	176		
16	Ice Wind 180 deg	None				91	1236	124		
17	Ice Wind 225 deg	None				182	1172	176		
18	Ice Wind 270 deg	None				91	1234	132		
19	Ice Wind 315 deg	None				182	1154	176		
20	Service Wind 0 deg	None				91	1210	132		
21	Service Wind 45 deg	None				182	1164	176		
22	Service Wind 90 deg	None				91	1218	132		
23	Service Wind 135 deg	None				182	1156	176		
24	Service Wind 180 deg	None				91	1210	132		
25	Service Wind 225 deg	None				182	1164	176		
26	Service Wind 270 deg	None				91	1218	132		
27	Service Wind 315 deg	None				182	1156	176		

Load Combinations

	Description	S...	PDelta	SRSS	B...	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fact...	BLC	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	Dead Only	Y...			1	1	28	1	29	1	0		0		0		0		0					
2	1.2 Dead+1.6 Win...	Y...			1	1.2	2	1.6	28	1.2	29	1	0		0		0		0					
3	0.9 Dead+1.6 Win...	Y...			1	.9	2	1.6	28	.9	29	1	0		0		0		0					
4	1.2 Dead+1.6 Win...	Y...			1	1.2	3	1.6	28	1.2	29	1	0		0		0		0					
5	0.9 Dead+1.6 Win...	Y...			1	.9	3	1.6	28	.9	29	1	0		0		0		0					
6	1.2 Dead+1.6 Win...	Y...			1	1.2	4	1.6	28	1.2	29	1	0		0		0		0					
7	0.9 Dead+1.6 Win...	Y...			1	.9	4	1.6	28	.9	29	1	0		0		0		0					
8	1.2 Dead+1.6 Win...	Y...			1	1.2	5	1.6	28	1.2	29	1	0		0		0		0					
9	0.9 Dead+1.6 Win...	Y...			1	.9	5	1.6	28	.9	29	1	0		0		0		0					
10	1.2 Dead+1.6 Win...	Y...			1	1.2	6	1.6	28	1.2	29	1	0		0		0		0					
11	0.9 Dead+1.6 Win...	Y...			1	.9	6	1.6	28	.9	29	1	0		0		0		0					
12	1.2 Dead+1.6 Win...	Y...			1	1.2	7	1.6	28	1.2	29	1	0		0		0		0					
13	0.9 Dead+1.6 Win...	Y...			1	.9	7	1.6	28	.9	29	1	0		0		0		0					
14	1.2 Dead+1.6 Win...	Y...			1	1.2	8	1.6	28	1.2	29	1	0		0		0		0					
15	0.9 Dead+1.6 Win...	Y...			1	.9	8	1.6	28	.9	29	1	0		0		0		0					
16	1.2 Dead+1.6 Win...	Y...			1	1.2	9	1.6	28	1.2	29	1	0		0		0		0					
17	0.9 Dead+1.6 Win...	Y...			1	.9	9	1.6	28	.9	29	1	0		0		0		0					
18	1.2 Dead+1.0 Ice+...	Y...			1	1.2	10	1	11	1	28	1.2	29	1	0		0		0					
19	1.2 Dead+1.0 Win...	Y...			1	1.2	12	1	10	1	11	1	28	1.2	29	1	0		0					
20	1.2 Dead+1.0 Win...	Y...			1	1.2	13	1	10	1	11	1	28	1.2	29	1	0		0					
21	1.2 Dead+1.0 Win...	Y...			1	1.2	14	1	10	1	11	1	28	1.2	29	1	0		0					
22	1.2 Dead+1.0 Win...	Y...			1	1.2	15	1	10	1	11	1	28	1.2	29	1	0		0					
23	1.2 Dead+1.0 Win...	Y...			1	1.2	16	1	10	1	11	1	28	1.2	29	1	0		0					
24	1.2 Dead+1.0 Win...	Y...			1	1.2	17	1	10	1	11	1	28	1.2	29	1	0		0					

Company : Kimley-Horn
Designer : Michael.Oglesby
Job Number : 180005001.1.101
Model Name : CT1119A - Shelton Buddington Rd (10034975)

Checked By:_____

Load Combinations (Continued)

	Description	S...	PDelta	SRSS	B...	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fact...	BLC	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
25	1.2 Dead+1.0 Win...	Y...			1	1.2	18	1	10	1	11	1	28	1.2	29	1	0		0		0			
26	1.2 Dead+1.0 Win...	Y...			1	1.2	19	1	10	1	11	1	28	1.2	29	1	0		0		0			
27	Dead+Wind 0 deg ...	Y...			1	1	20	1	28	1	29	1	0		0		0		0		0			
28	Dead+Wind 45 de...	Y...			1	1	21	1	28	1	29	1	0		0		0		0		0			
29	Dead+Wind 90 de...	Y...			1	1	22	1	28	1	29	1	0		0		0		0		0			
30	Dead+Wind 135 d...	Y...			1	1	23	1	28	1	29	1	0		0		0		0		0			
31	Dead+Wind 180 d...	Y...			1	1	24	1	28	1	29	1	0		0		0		0		0			
32	Dead+Wind 225 d...	Y...			1	1	25	1	28	1	29	1	0		0		0		0		0			
33	Dead+Wind 270 d...	Y...			1	1	26	1	28	1	29	1	0		0		0		0		0			
34	Dead+Wind 315 d...	Y...			1	1	27	1	28	1	29	1	0		0		0		0		0			

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E5 F)	Density[k/...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36	29000	11200	.295	.65	.49	36	1.5	58	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	TWR_LEG_T1	L6x6x1/2	Column	Single Angle	A36	Typical	5.75	19.9	19.9	.501
2	TWR_TOP_GIRT_T1	2L3 1/2x3x1/4x...	Beam	None	A36	Typical	3.13	5.561	3.83	.065
3	TWR_DIAG_T1	L3 1/2x3 1/2x1/4	Column	Single Angle	A36	Typical	1.69	2.01	2.01	.039
4	TWR_STEP_T1	L3x2 1/2x1/4	Beam	Single Angle	A36	Typical	1.31	.74	1.17	.03
5	TWR_LEG_T2	L6x6x1/2	Column	Single Angle	A36	Typical	5.75	19.9	19.9	.501
6	TWR_TOP_GIRT_T2	2L3 1/2x3x5/16...	Beam	None	A36	Typical	3.87	6.995	4.66	.126
7	TWR_DIAG_T2	L3 1/2x3x1/4	Column	Single Angle	A36	Typical	1.56	1.3	1.91	.036
8	TWR_STEP_T2	C6X8.2	Beam	Channel	A36	Typical	2.39	.687	13.1	.074
9	TWR_LEG_T3	L6x6x5/8	Column	Single Angle	A36	Typical	7.11	24.2	24.2	.954
10	TWR_TOP_GIRT_T3	2L3x2 1/2x1/4x...	Beam	None	A36	Typical	2.63	3.373	2.35	.055
11	TWR_DIAG_T3	L4x3x1/4	Column	Single Angle	A36	Typical	1.69	1.36	2.77	.039
12	TWR_STEP_T3	L3x2 1/2x1/4	Beam	Single Angle	A36	Typical	1.31	.74	1.17	.03
13	TWR_LEG_T4	L6x6x5/8	Column	Single Angle	A36	Typical	7.11	24.2	24.2	.954
14	TWR_TOP_GIRT_T4	2L3x2 1/2x1/4x...	Beam	None	A36	Typical	2.63	3.373	2.35	.055
15	TWR_DIAG_T4	2L3x2x1/4x3/8	Column	None	A36	Typical	2.38	1.884	2.17	.049
16	TWR_STEP_T4	L3x2 1/2x1/4	Beam	Single Angle	A36	Typical	1.31	.74	1.17	.03
17	TWR_LEG_T5	L6x6x3/4	Column	Single Angle	A36	Typical	8.44	28.2	28.2	1.61
18	TWR_HORZ_T5	2L3x2 1/2x1/4x...	Beam	None	A36	Typical	2.63	3.373	2.35	.055
19	TWR_DIAG_T5	2L2 1/2x2 1/2x...	Column	None	A36	Typical	2.38	3.347	1.41	.049
20	TWR_RED_HORZ_T5	L2 1/2x2x3/16	Beam	Single Angle	A36	Typical	.809	.291	.509	.01
21	TWR_RED_DIAG_T5	L2 1/2x2 1/2x3/...	Column	Single Angle	A36	Typical	.902	.547	.547	.011
22	TWR_INNER_SUPP_T5	2L2 1/2x2x3/16...	Beam	None	A36	Typical	1.62	1.378	1.02	.019
23	TWR_LEG_T6	L6x6x3/4	Column	Single Angle	A36	Typical	8.44	28.2	28.2	1.61
24	TWR_HORZ_T6	2L2 1/2x2 1/2x...	Beam	None	A36	Typical	2.38	3.347	1.41	.049
25	TWR_DIAG_T6	2L2 1/2x2 1/2x...	Column	None	A36	Typical	2.38	3.347	1.41	.049
26	TWR_RED_HORZ_T6	L2 1/2x2x3/16	Beam	Single Angle	A36	Typical	.809	.291	.509	.01
27	TWR_RED_DIAG_T6	L2 1/2x2 1/2x3/...	Column	Single Angle	A36	Typical	.902	.547	.547	.011
28	TWR_INNER_SUPP_T6	2L2 1/2x2 1/2x...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
29	TWR_LEG_T7	L6x6x7/8	Column	Single Angle	A36	Typical	9.73	31.9	31.9	2.51
30	TWR_HORZ_T7	2L2 1/2x2 1/2x...	Beam	None	A36	Typical	2.38	3.347	1.41	.049
31	TWR_DIAG_T7	2L2 1/2x2 1/2x...	Column	None	A36	Typical	2.38	3.347	1.41	.049
32	TWR_RED_HORZ_T7	L2 1/2x2x3/16	Beam	Single Angle	A36	Typical	.809	.291	.509	.01
33	TWR_RED_DIAG_T7	L2 1/2x2 1/2x3/...	Column	Single Angle	A36	Typical	.902	.547	.547	.011
34	TWR_INNER_SUPP_T7	2L3x2 1/2x1/4x...	Beam	None	A36	Typical	2.63	3.373	2.35	.055
35	TWR_LEG_T8	L6x6x7/8	Column	Single Angle	A36	Typical	9.73	31.9	31.9	2.51
36	TWR_HORZ_T8	2L2 1/2x2 1/2x...	Beam	None	A36	Typical	2.38	3.347	1.41	.049
37	TWR_DIAG_T8	2L2 1/2x2 1/2x...	Column	None	A36	Typical	2.38	3.347	1.41	.049

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Ivy [in4]	Izz [in4]	J [in4]
38	TWR_RED_HORZ_T8	L2 1/2x2x3/16	Beam	Single Angle	A36	Typical	.809	.291	.509	.01
39	TWR_RED_DIAG_T8	L2 1/2x2 1/2x3/...	Column	Single Angle	A36	Typical	.902	.547	.547	.011
40	TWR_INNER_SUPP_T8	2L2 1/2x2 1/2x...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
41	TWR_INNER_1_T8	L2.5x2x3	Beam	None	A36	Typical	.818	.292	.511	.01
42	TWR_INNER_2_T8	LL2.5x2x3x3	Beam	None	A36	Typical	1.64	1.38	1.02	.021
43	TWR_LEG_T9	L8x8x3/4	Column	Single Angle	A36	Typical	11.4	69.7	69.7	2.21
44	TWR_HORZ_T9	2L3x2 1/2x1/4x...	Beam	None	A36	Typical	2.63	3.373	2.35	.055
45	TWR_DIAG_T9	2L2 1/2x2 1/2x...	Column	None	A36	Typical	2.38	3.347	1.41	.049
46	TWR_RED_HORZ_T9	L2 1/2x2 1/2x1/4	Beam	Single Angle	A36	Typical	1.19	.703	.703	.025
47	TWR_RED_DIAG_T9	L2 1/2x2 1/2x3/...	Column	Single Angle	A36	Typical	.902	.547	.547	.011
48	TWR_INNER_SUPP_T9	2L2 1/2x2 1/2x...	Beam	None	A36	Typical	2.38	3.347	1.41	.049
49	TWR_INNER_1_T9	L3X3X4	Beam	None	A36	Typical	1.44	1.23	1.23	.031
50	TWR_INNER_2_T9	LL2.5x2x3x3	Beam	None	A36	Typical	1.64	1.38	1.02	.021
51	TWR_INNER_3_T9	L3X3X4	Beam	None	A36	Typical	1.44	1.23	1.23	.031
52	TWR_INNER_4_T9	L2.5x2x3	Beam	None	A36	Typical	.818	.292	.511	.01
53	TWR_INNER_5_T9	LL2.5x2x3x3	Beam	None	A36	Typical	1.64	1.38	1.02	.021
54	TWR_LEG_T10	L8x8x7/8	Column	Single Angle	A36	Typical	13.2	79.6	79.6	3.46
55	TWR_HORZ_T10	2L3x2 1/2x1/4x...	Beam	None	A36	Typical	2.63	3.373	2.35	.055
56	TWR_DIAG_T10	2L3x3x3/8x3/8	Column	None	A36	Typical	4.22	8.394	3.52	.198
57	TWR_RED_HORZ_T10	L2 1/2x2x3/16	Beam	Single Angle	A36	Typical	.809	.291	.509	.01
58	TWR_RED_HORZ_2_T10	L2 1/2x2 1/2x1/4	Beam	Single Angle	A36	Typical	1.19	.703	.703	.025
59	TWR_RED_DIAG_T10	L 2.5 x 2.5 x 3/...	Column	Single Angle	A36	Typical	.902	.547	.547	.011
60	TWR_RED_DIAG_2_T10	L3x3 1/2x1/4	Column	Single Angle	A36	Typical	1.56	1.91	1.3	.036
61	TWR_RED_HIP_T10	L4x4x3/8	Beam	Single Angle	A36	Typical	2.86	4.36	4.36	.141
62	TWR_RED_HIPDIA_2_T10	2L2 1/2x2 1/2x...	Column	None	A36	Typical	2.38	3.347	1.41	.049
63	TWR_INNER_1_T10	L3X3X4	Column	None	A36	Typical	1.44	1.23	1.23	.031
64	TWR_INNER_2_T10	LL3x2.5x4x3	Column	None	A36	Typical	2.64	3.31	2.32	.059
65	TWR_INNER_3_T10	L2.5x2.5x3	Column	None	A36	Typical	.901	.535	.535	.011
66	TWR_INNER_SUPP_T10	L3x3x1/4	Beam	Single Angle	A36	Typical	1.44	1.24	1.24	.032
67	TWR_LEG_T11	L8X8X1_HRA	Column	Single Angle	A36	Typical	15	89	89	5.08
68	TWR_HORZ_T11	2L3x3x3/8x3/8	Beam	None	A36	Typical	4.22	8.394	3.52	.198
69	TWR_DIAG_T11	2L3x3 1/2x3/8x...	Column	None	A36	Typical	4.59	12.838	3.69	.215
70	TWR_RED_HORZ_T11	L2 1/2x2 1/2x3/...	Beam	Single Angle	A36	Typical	.902	.547	.547	.011
71	TWR_RED_HORZ_2_T11	L2 1/2x2 1/2x1/4	Beam	Single Angle	A36	Typical	1.19	.703	.703	.025
72	TWR_RED_DIAG_T11	L 2.5 x 2.5 x 3/...	Column	Single Angle	A36	Typical	.902	.547	.547	.011
73	TWR_RED_DIAG_2_T11	LL2.5x2x4x3	Column	Single Angle	A36	Typical	2.14	1.85	1.31	.047
74	TWR_RED_SUBHOR_T11	2L2 1/2x3 1/2x...	Beam	None	A36	Typical	2.88	8.466	1.55	.06
75	TWR_RED_HIP_T11	L4x4x3/8	Beam	Single Angle	A36	Typical	2.86	4.36	4.36	.141
76	TWR_RED_HIP_2_T11	L4x4x3/8	Beam	Single Angle	A36	Typical	2.86	4.36	4.36	.141
77	TWR_RED_HIPDIA_T11	2L2 1/2x2 1/2x...	Column	None	A36	Typical	2.38	3.347	1.41	.049
78	TWR_RED_HIPDIA_2_T11	2L2 1/2x2 1/2x...	Column	None	A36	Typical	2.38	3.347	1.41	.049
79	TWR_INNER_SUPP_T11	2L3x2 1/2x1/4x...	Beam	None	A36	Typical	2.63	3.373	2.35	.055
80	TWR_RED_VERT_T11	L3X3X4	Beam	None	A36	Typical	1.44	1.23	1.23	.031
81	TWR_RED_VERT_2_T11	L3X3X4	Beam	None	A36	Typical	1.44	1.23	1.23	.031
82	TWR_INNER_2_T11	L3.5X3.5X5	Beam	None	A36	Typical	2.1	2.44	2.44	.073
83	TWR_INNER_3_T11	L2.5x2.5x3	Beam	None	A36	Typical	.901	.535	.535	.011
84	TWR_INNER_4_T11	LL2.5x2.5x4x3	Beam	None	A36	Typical	2.38	3.31	1.38	.052
85	TWR_INNER_5_T11	L2x2x3	Beam	None	A36	Typical	.722	.271	.271	.009

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N185	max	34.312	12	212.574	12	25.687	5	0	34	0	8	0	34
2		min	-27.062	5	-148.063	5	-33.037	12	0	1	0	17	0	1
3	N186	max	26.678	17	214.012	8	26.716	17	0	34	0	4	0	34
4		min	-33.929	8	-150.283	17	-33.993	8	0	1	0	13	0	1

Company : Kimley-Horn
Designer : Michael.Oglesby
Job Number : 180005001.1.101
Model Name : CT1119A - Shelton Buddington Rd (10034975)

Checked By:_____

Envelope Joint Reactions (Continued)

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
5	N187	max	25.563	13	212.67	4	34.411	4	0	34	0	16	0	34
6		min	-32.937	4	-147.88	13	-27.136	13	0	1	0	9	0	1
7	N188	max	33.849	16	214.882	16	33.987	16	0	34	0	12	0	34
8		min	-26.479	9	-149.419	9	-26.642	9	0	1	0	5	0	1
9	Totals:	max	110.38	15	349.483	26	110.766	3						
10		min	-110.38	6	110.78	3	-110.766	10						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che...	Loc....		LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn....		Eqn
1	M248	2L2 1/2x2 1/2x...	.965	9.558	6	.004	9.558	y	22	17.186	77.112	5.381	2.948	1	H1-1a
2	M241	2L2 1/2x2 1/2x...	.965	9.558	10	.004	9.558	y	24	17.186	77.112	5.381	2.947	1	H1-1a
3	M251	2L2 1/2x2 1/2x...	.961	9.558	14	.004	9.558	y	24	17.186	77.112	5.381	2.948	1	H1-1a
4	M244	2L2 1/2x2 1/2x...	.961	9.558	2	.004	9.558	y	26	17.186	77.112	5.381	2.948	1	H1-1a
5	M258	2L2 1/2x2 1/2x...	.958	9.558	10	.004	9.558	y	22	17.186	77.112	5.381	2.948	1	H1-1a
6	M237	2L2 1/2x2 1/2x...	.948	9.558	6	.004	9.558	y	20	17.186	77.112	5.381	2.948	1	H1-1a
7	M255	2L2 1/2x2 1/2x...	.946	9.558	2	.004	9.558	y	20	17.186	77.112	5.381	2.948	1	H1-1a
8	M234	2L2 1/2x2 1/2x...	.941	9.558	14	.004	9.558	y	26	17.186	77.112	5.381	2.948	1	H1-1a
9	M221	2L2 1/2x2 1/2x...	.908	9.214	10	.004	9.214	y	22	17.089	77.112	5.381	2.96	1	H1-1a
10	M211	2L2 1/2x2 1/2x...	.908	9.214	6	.004	9.214	y	22	17.089	77.112	5.381	2.96	1	H1-1a
11	M200	2L2 1/2x2 1/2x...	.906	9.214	6	.004	9.214	y	20	17.089	77.112	5.381	2.96	1	H1-1a
12	M218	2L2 1/2x2 1/2x...	.903	9.214	2	.004	9.214	y	20	17.089	77.112	5.381	2.96	1	H1-1a
13	M197	2L2 1/2x2 1/2x...	.903	9.214	14	.004	9.214	y	26	17.089	77.112	5.381	2.96	1	H1-1a
14	M184	2L2 1/2x2 1/2x...	.903	8.881	10	.004	8.881	y	22	16.341	77.112	5.381	2.973	1	H1-1a
15	M163	2L2 1/2x2 1/2x...	.898	8.881	6	.004	8.881	y	20	16.341	77.112	5.381	2.973	1	H1-1a
16	M204	2L2 1/2x2 1/2x...	.898	9.214	10	.004	9.214	y	24	17.089	77.112	5.381	2.96	1	H1-1a
17	M214	2L2 1/2x2 1/2x...	.898	9.214	14	.004	9.214	y	24	17.089	77.112	5.381	2.96	1	H1-1a
18	M181	2L2 1/2x2 1/2x...	.896	8.881	2	.004	8.881	y	20	16.341	77.112	5.381	2.973	1	H1-1a
19	M207	2L2 1/2x2 1/2x...	.895	9.214	2	.004	9.214	y	26	17.089	77.112	5.381	2.96	1	H1-1a
20	M160	2L2 1/2x2 1/2x...	.894	8.881	14	.004	8.881	y	26	16.341	77.112	5.381	2.973	1	H1-1a
21	M174	2L2 1/2x2 1/2x...	.889	8.881	6	.004	8.881	y	22	16.341	77.112	5.381	2.973	1	H1-1a
22	M177	2L2 1/2x2 1/2x...	.875	8.881	14	.004	8.881	y	24	16.341	77.112	5.381	2.973	1	H1-1a
23	M167	2L2 1/2x2 1/2x...	.874	8.881	10	.004	8.881	y	24	16.341	77.112	5.381	2.973	1	H1-1a
24	M170	2L2 1/2x2 1/2x...	.870	8.881	2	.004	8.881	y	26	16.341	77.112	5.381	2.973	1	H1-1a
25	M31	L3 1/2x3x1/4	.859	10.189	10	.006	10....	z	23	9.04	50.544	1.022	2.922	1	H2-1
26	M33	L3 1/2x3x1/4	.852	10.189	6	.006	10....	z	22	9.04	50.544	1.022	2.922	1	H2-1
27	M34	L3 1/2x3x1/4	.852	10.189	14	.006	10....	z	25	9.04	50.544	1.022	3.232	1	H2-1
28	M32	L3 1/2x3x1/4	.851	10.189	2	.006	10....	z	26	9.04	50.544	1.022	3.232	1	H2-1
29	M217	2L2 1/2x2 1/2x...	.841	12.586	10	.008	12....	y	25	13.963	77.112	5.381	2.838	1	H1-1a
30	M196	2L2 1/2x2 1/2x...	.836	12.586	14	.008	12....	y	23	13.963	77.112	5.381	2.838	1	H1-1a
31	M36	L3 1/2x3x1/4	.824	10.189	10	.006	10....	z	22	9.04	50.544	1.022	3.232	1	H2-1
32	M35	L3 1/2x3x1/4	.823	10.189	2	.006	10....	z	20	9.04	50.544	1.022	2.922	1	H2-1
33	M210	2L2 1/2x2 1/2x...	.823	12.586	6	.008	12....	y	19	13.963	77.112	5.381	2.838	1	H1-1a
34	M29	L3 1/2x3x1/4	.820	10.189	14	.006	10....	z	26	9.04	50.544	1.022	2.922	1	H2-1
35	M380	LL2.5x2x4x3	.816	6.332	14	.004	0	z	26	11.769	69.336	3.653	2.572	1	H1-1a
36	M364	LL2.5x2x4x3	.816	6.332	2	.004	0	z	26	11.769	69.336	3.653	2.572	1	H1-1a
37	M30	L3 1/2x3x1/4	.815	10.189	6	.006	10....	z	20	9.04	50.544	1.022	3.232	1	H2-1
38	M203	2L2 1/2x2 1/2x...	.814	12.586	10	.008	12....	y	21	13.963	77.112	5.381	2.838	1	H1-1a
39	M336	LL2.5x2x4x3	.812	6.332	10	.004	13....	z	26	11.769	69.336	3.653	2.572	1	H1-1a
40	M348	LL2.5x2x4x3	.812	6.332	6	.004	0	z	26	11.769	69.336	3.653	2.572	1	H1-1a
41	M307	2L3x2 1/2x1/4x...	.812	14.432	10	.008	14....	y	20	17.7	85.212	5.423	3.602	1	H1-1a
42	M281	2L3x2 1/2x1/4x...	.812	14.432	2	.008	14....	y	24	17.7	85.212	5.423	3.602	1	H1-1a
43	M53	L4x3x1/4	.810	10.944	6	.006	10....	z	23	11.236	54.756	1.047	3.347	1	H2-1
44	M270	2L3x2 1/2x1/4x...	.808	14.432	6	.008	14....	y	26	17.7	85.212	5.423	3.602	1	H1-1a
45	M54	L4x3x1/4	.807	10.944	14	.006	10....	z	23	11.236	54.756	1.047	3.725	1	H2-1
46	M294	2L3x2 1/2x1/4x...	.807	14.432	6	.008	14....	y	22	17.7	85.212	5.423	3.602	1	H1-1a

Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che..	Loc....		LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn....		Eqn
47	M353	LL2.5x2x4x3	.792	6.332	6	.004	0	z	26	11.769	69.336	3.653	3.057	1	H1-1a
48	M369	LL2.5x2x4x3	.792	6.332	2	.004	0	z	26	11.769	69.336	3.653	3.057	1	H1-1a
49	M341	LL2.5x2x4x3	.789	6.332	10	.004	0	z	26	11.769	69.336	3.653	3.057	1	H1-1a
50	M385	LL2.5x2x4x3	.789	6.332	14	.004	0	z	26	11.769	69.336	3.653	3.057	1	H1-1a
51	M51	L4x3x1/4	.787	10.944	10	.006	10....	z	25	11.236	54.756	1.047	3.347	1	H2-1
52	M323	L3x3x1/4	.787	10.205	14	.007	10....	z	26	1.901	46.656	.951	1.696	1	H2-1
53	M52	L4x3x1/4	.778	10.944	2	.006	10....	z	25	11.236	54.756	1.047	3.725	1	H2-1
54	M56	L4x3x1/4	.774	10.944	10	.006	10....	z	21	11.236	54.756	1.047	3.725	1	H2-1
55	M55	L4x3x1/4	.771	10.944	2	.006	10....	z	21	11.236	54.756	1.047	3.347	1	H2-1
56	M49	L4x3x1/4	.763	10.944	14	.006	10....	z	19	11.236	54.756	1.047	3.347	1	H2-1
57	M50	L4x3x1/4	.761	10.944	6	.006	10....	z	19	11.236	54.756	1.047	3.725	1	H2-1
58	M324	L3x3x1/4	.758	10.205	6	.007	10....	z	24	1.901	46.656	.951	1.696	1	H2-1
59	M123	2L2 1/2x2 1/2x...	.749	8.561	14	.004	8.561	y	26	17.684	77.112	5.381	2.985	1	H1-1a
60	M126	2L2 1/2x2 1/2x...	.747	8.561	6	.004	8.561	y	20	17.684	77.112	5.381	2.985	1	H1-1a
61	M144	2L2 1/2x2 1/2x...	.747	8.561	2	.004	8.561	y	20	17.684	77.112	5.381	2.985	1	H1-1a
62	M147	2L2 1/2x2 1/2x...	.747	8.561	10	.004	8.561	y	22	17.684	77.112	5.381	2.985	1	H1-1a
63	M325	L3x3x1/4	.732	10.205	2	.007	10....	z	19	1.901	46.656	.951	1.696	1	H2-1
64	M137	2L2 1/2x2 1/2x...	.724	8.561	6	.004	8.561	y	22	17.684	77.112	5.381	2.985	1	H1-1a
65	M322	L3x3x1/4	.722	10.205	2	.007	10....	z	25	1.901	46.656	.951	1.696	1	H2-1
66	M140	2L2 1/2x2 1/2x...	.715	8.561	14	.004	8.561	y	24	17.684	77.112	5.381	2.985	1	H1-1a
67	M133	2L2 1/2x2 1/2x...	.714	8.561	2	.004	8.561	y	26	17.684	77.112	5.381	2.985	1	H1-1a
68	M130	2L2 1/2x2 1/2x...	.713	8.561	10	.004	8.561	y	24	17.684	77.112	5.381	2.985	1	H1-1a
69	M419A	2L2 1/2x3 1/2x...	.712	6.042	2	.005	6.042	y	19	16.655	93.312	9.918	3.195	1	H1-1a
70	M421A	2L2 1/2x3 1/2x...	.712	6.042	14	.005	6.042	y	25	16.655	93.312	9.918	3.195	1	H1-1a
71	M417A	2L2 1/2x3 1/2x...	.711	6.042	6	.005	6.042	y	21	16.655	93.312	9.918	3.195	1	H1-1a
72	M400	2L2 1/2x3 1/2x...	.710	6.042	10	.005	6.042	y	23	16.655	93.312	9.918	3.195	1	H1-1a
73	M86	2L2 1/2x2 1/2x...	.682	8.253	14	.003	8.253	y	26	18.97	77.112	5.381	2.997	1	H1-1a
74	M110	2L2 1/2x2 1/2x...	.682	8.253	10	.003	8.253	y	22	18.97	77.112	5.381	2.997	1	H1-1a
75	M107	2L2 1/2x2 1/2x...	.682	8.253	2	.003	8.253	y	20	18.97	77.112	5.381	2.997	1	H1-1a
76	M89	2L2 1/2x2 1/2x...	.680	8.253	6	.003	8.253	y	20	18.97	77.112	5.381	2.997	1	H1-1a
77	M180	2L2 1/2x2 1/2x...	.680	11.663	10	.007	11....	y	25	16.261	77.112	5.381	2.871	1	H1-1a
78	M100	2L2 1/2x2 1/2x...	.671	8.253	6	.003	8.253	y	22	18.97	77.112	5.381	2.997	1	H1-1a
79	M159	2L2 1/2x2 1/2x...	.668	11.663	14	.007	11....	y	23	16.261	77.112	5.381	2.871	1	H1-1a
80	M103	2L2 1/2x2 1/2x...	.662	8.253	14	.003	8.253	y	24	18.97	77.112	5.381	2.997	1	H1-1a
81	M173	2L2 1/2x2 1/2x...	.658	11.663	6	.007	11....	y	19	16.261	77.112	5.381	2.871	1	H1-1a
82	M93	2L2 1/2x2 1/2x...	.658	8.253	10	.003	8.253	y	24	18.97	77.112	5.381	2.997	1	H1-1a
83	M96	2L2 1/2x2 1/2x...	.656	8.253	2	.003	8.253	y	26	18.97	77.112	5.381	2.997	1	H1-1a
84	M254	2L3x2 1/2x1/4x...	.646	13.509	10	.008	13....	y	25	20.201	85.212	5.423	3.652	1	H1-1a
85	M247	2L3x2 1/2x1/4x...	.644	13.509	6	.008	13....	y	19	20.201	85.212	5.423	3.652	1	H1-1a
86	M166	2L2 1/2x2 1/2x...	.642	11.663	10	.007	11....	y	21	16.261	77.112	5.381	2.871	1	H1-1a
87	M240	2L3x2 1/2x1/4x...	.642	13.509	10	.008	13....	y	21	20.201	85.212	5.423	3.652	1	H1-1a
88	M233	2L3x2 1/2x1/4x...	.642	13.509	14	.008	13....	y	23	20.201	85.212	5.423	3.652	1	H1-1a
89	M332	2L3x3 1/2x3/8x...	.635	4.511	14	.003	20....	y	24	46.929	148.716	15.04	6.89	1	H1-1a
90	M337	2L3x3 1/2x3/8x...	.633	4.511	6	.003	20....	y	22	46.929	148.716	15.04	6.89	1	H1-1a
91	M344	2L3x3 1/2x3/8x...	.630	4.511	10	.003	20....	y	22	46.929	148.716	15.04	6.89	1	H1-1a
92	M376	2L3x3 1/2x3/8x...	.626	4.511	2	.003	20....	y	26	46.929	148.716	15.04	6.89	1	H1-1a
93	M349	2L3x3 1/2x3/8x...	.621	4.833	2	.003	20....	y	20	46.929	148.716	15.04	6.89	1	H1-1a
94	M381	2L3x3 1/2x3/8x...	.616	4.833	10	.003	20....	y	24	46.929	148.716	15.04	6.89	1	H1-1a
95	M360	2L3x3 1/2x3/8x...	.606	4.833	6	.003	20....	y	20	46.929	148.716	15.04	6.89	1	H1-1a
96	M365	2L3x3 1/2x3/8x...	.605	4.833	14	.003	20....	y	26	46.929	148.716	15.04	6.89	1	H1-1a
97	M264	2L2 1/2x2 1/2x...	.572	9.553	20	.012	19....	y	26	6.06	77.112	5.381	3.14	1	H1-1b
98	M262	2L2 1/2x2 1/2x...	.572	9.553	20	.012	19....	y	22	6.06	77.112	5.381	3.14	1	H1-1b
99	M227	2L2 1/2x2 1/2x...	.571	8.9	20	.013	0	y	21	5.397	58.32	4.017	2.357	1	H1-1b
100	M225	2L2 1/2x2 1/2x...	.571	8.9	20	.013	0	y	25	5.397	58.32	4.017	2.357	1	H1-1b
101	M224	2L2 1/2x2 1/2x...	.563	8.9	24	.013	17.8	y	21	5.397	58.32	4.017	2.357	1	H1-1b
102	M226	2L2 1/2x2 1/2x...	.563	8.9	24	.013	17.8	y	25	5.397	58.32	4.017	2.357	1	H1-1b
103	M261	2L2 1/2x2 1/2x...	.562	9.553	24	.012	0	y	24	6.06	77.112	5.381	3.14	1	H1-1b

Company : Kimley-Horn
Designer : Michael.Oglesby
Job Number : 180005001.1.101
Model Name : CT1119A - Shelton Buddington Rd (10034975)
Checked By:_____

Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che..	Loc....		LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn....		Eqn
104	M263	2L2 1/2x2 1/2x...	.562	9.553	24	.012	19....	y	24	6.06	77.112	5.381	3.14	1	H1-1b
105	M75	2L3x2x1/4x3/8	.533	11.73	2	.005	11.73	y	22	20.364	77.112	3.72	3.364	1	H1-1a
106	M70	2L3x2x1/4x3/8	.530	11.73	6	.005	11.73	y	26	20.364	77.112	3.72	3.364	1	H1-1a
107	M69	2L3x2x1/4x3/8	.530	11.73	14	.005	11.73	y	20	20.364	77.112	3.72	3.364	1	H1-1a
108	M76	2L3x2x1/4x3/8	.529	11.73	10	.005	11.73	y	20	20.364	77.112	3.72	3.364	1	H1-1a
109	M73	2L3x2x1/4x3/8	.524	11.73	6	.005	11.73	y	24	20.364	77.112	3.72	3.364	1	H1-1a
110	M74	2L3x2x1/4x3/8	.520	11.73	14	.005	11.73	y	22	20.364	77.112	3.72	3.364	1	H1-1a
111	M269	L8x8x7/8	.518	8.379	16	.008	8.379	y	14	344.629	427.68	23.176	89.505	1	H2-1
112	M71	2L3x2x1/4x3/8	.514	11.73	10	.005	11.73	y	26	20.364	77.112	3.72	3.364	1	H1-1a
113	M267	L8x8x7/8	.513	8.379	8	.008	0	y	6	344.629	427.68	23.176	89.505	1	H2-1
114	M72	2L3x2x1/4x3/8	.511	11.73	2	.005	11.73	y	24	20.364	77.112	3.72	3.364	1	H1-1a
115	M330	L8X8X1_HRA	.510	8.379	16	.004	25....	y	24	390.538	486	26.246	101.734	1	H2-1
116	M268	L8x8x7/8	.510	8.379	4	.008	0	y	2	344.629	427.68	23.176	89.505	1	H2-1
117	M266	L8x8x7/8	.508	8.379	12	.008	0	y	10	344.629	427.68	23.176	89.505	1	H2-1
118	M328	L8X8X1_HRA	.506	8.379	8	.005	25....	y	20	390.538	486	26.246	101.734	1	H2-1
119	M329	L8X8X1_HRA	.504	8.379	4	.004	25....	y	26	390.538	486	26.246	101.734	1	H2-1
120	M327	L8X8X1_HRA	.502	8.379	12	.004	25....	y	22	390.538	486	26.246	101.734	1	H2-1
121	M195	L6x6x7/8	.492	6.284	16	.006	0	y	12	253.329	315.252	12.902	48.901	1	H2-1
122	M122	2L2 1/2x2 1/2x...	.485	10.74	6	.007	10.74	y	23	19.176	77.112	5.381	2.904	1	H1-1a
123	M143	2L2 1/2x2 1/2x...	.484	10.74	10	.007	10.74	y	25	19.176	77.112	5.381	2.904	1	H1-1a
124	M193	L6x6x7/8	.484	6.284	8	.007	0	y	4	253.329	315.252	12.902	48.901	1	H2-1
125	M192	L6x6x7/8	.482	6.284	12	.007	0	y	8	253.329	315.252	12.902	48.901	1	H2-1
126	M194	L6x6x7/8	.482	6.284	4	.007	0	y	16	253.329	315.252	12.902	48.901	1	H2-1
127	M308	2L3x3x3/8x3/8	.469	4.982	2	.002	19....	y	20	56.106	136.728	11.376	6.652	1	H1-1a
128	M129	2L2 1/2x2 1/2x...	.467	10.74	2	.007	10.74	y	21	19.176	77.112	5.381	2.904	1	H1-1a
129	M271	2L3x3x3/8x3/8	.466	4.982	14	.002	19....	y	26	56.106	136.728	11.376	6.652	1	H1-1a
130	M136	2L2 1/2x2 1/2x...	.465	10.964	6	.007	10.74	y	19	19.176	77.112	5.381	2.904	1	H1-1a
131	M313	2L3x3x3/8x3/8	.465	4.982	10	.002	19....	y	23	56.106	136.728	11.376	6.652	1	H1-1a
132	M276	2L3x3x3/8x3/8	.463	4.982	6	.002	19....	y	21	56.106	136.728	11.376	6.652	1	H1-1a
133	M295	2L3x3x3/8x3/8	.460	4.982	6	.002	19....	y	22	56.106	136.728	11.376	6.652	1	H1-1a
134	M282	2L3x3x3/8x3/8	.459	4.982	10	.002	19....	y	24	56.106	136.728	11.376	6.652	1	H1-1a
135	M287	2L3x3x3/8x3/8	.453	4.982	2	.002	19....	y	19	56.106	136.728	11.376	6.652	1	H1-1a
136	M300	2L3x3x3/8x3/8	.452	4.982	14	.002	19....	y	25	56.106	136.728	11.376	6.652	1	H1-1a
137	M232	L8x8x3/4	.439	6.284	16	.010	0	y	12	327.621	369.36	20.174	78.646	1	H2-1
138	M230	L8x8x3/4	.431	6.284	8	.011	0	y	4	327.621	369.36	20.174	78.646	1	H2-1
139	M231	L8x8x3/4	.429	6.284	4	.010	0	y	16	327.621	369.36	20.174	78.646	1	H2-1
140	M229	L8x8x3/4	.429	6.284	12	.010	0	y	8	327.621	369.36	20.174	78.646	1	H2-1
141	M158	L6x6x7/8	.422	6.284	16	.005	0	y	12	253.329	315.252	12.902	48.901	1	H2-1
142	M155	L6x6x7/8	.412	6.284	12	.006	0	y	8	253.329	315.252	12.902	48.901	1	H2-1
143	M157	L6x6x7/8	.412	6.284	4	.006	0	y	16	253.329	315.252	12.902	48.901	1	H2-1
144	M156	L6x6x7/8	.411	6.284	8	.006	0	y	4	253.329	315.252	12.902	48.901	1	H2-1
145	M121	L6x6x3/4	.406	6.284	16	.006	6.284	y	14	219.743	273.456	11.051	42.895	1	H2-1
146	M119	L6x6x3/4	.405	6.284	8	.006	0	y	4	219.743	273.456	11.051	42.895	1	H2-1
147	M118	L6x6x3/4	.402	6.284	12	.006	0	y	8	219.743	273.456	11.051	42.895	1	H2-1
148	M120	L6x6x3/4	.402	6.284	4	.006	0	y	16	219.743	273.456	11.051	42.895	1	H2-1
149	M15	L3 1/2x3 1/2x1/4	.401	9.66	2	.005	9.66	z	20	13.492	54.756	1.302	3.581	1	H2-1
150	M16	L3 1/2x3 1/2x1/4	.400	9.66	10	.005	9.66	z	22	13.492	54.756	1.302	3.581	1	H2-1
151	M10	L3 1/2x3 1/2x1/4	.379	9.66	6	.005	9.66	z	20	13.492	54.756	1.302	3.581	1	H2-1
152	M9	L3 1/2x3 1/2x1/4	.377	9.66	14	.005	9.66	z	26	13.492	54.756	1.302	3.581	1	H2-1
153	M13	L3 1/2x3 1/2x1/4	.374	9.66	6	.005	9.66	z	22	13.492	54.756	1.302	3.581	1	H2-1
154	M14	L3 1/2x3 1/2x1/4	.370	9.66	14	.005	9.66	z	24	13.492	54.756	1.302	3.581	1	H2-1
155	M11	L3 1/2x3 1/2x1/4	.368	9.66	10	.005	9.66	z	24	13.492	54.756	1.302	3.581	1	H2-1
156	M12	L3 1/2x3 1/2x1/4	.367	9.66	2	.005	9.66	z	26	13.492	54.756	1.302	3.581	1	H2-1
157	M311	L 2.5 x 2.5 x 3/...	.360	4.48	16	.003	9.35	z	26	3.966	29.225	.496	1.215	1	H2-1
158	M274	L 2.5 x 2.5 x 3/...	.355	4.48	12	.003	9.35	z	26	3.966	29.225	.496	1.215	1	H2-1
159	M397	2L3x2 1/2x1/4x...	.352	11.511	6	.006	11....	y	25	6.956	85.212	5.423	3.171	1	H1-1a
160	M285	L 2.5 x 2.5 x 3/...	.351	4.48	21	.003	9.35	z	26	3.966	29.225	.496	1.215	1	H2-1

Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che..	Loc....		LC	phi*Pn..	phi*Pn..	phi*Mn..	phi*Mn....		Eqn
161	M250	L2 1/2x2 1/2x3/...	.351	4.348	26	.005	8.881	z	26	4.396	29.225	.496	1.248	1	H2-1
162	M298	L 2.5 x 2.5 x 3/...	.350	4.48	4	.003	0	z	26	3.966	29.225	.496	1.215	1	H2-1
163	M257	L2 1/2x2 1/2x3/...	.348	4.348	24	.005	0	z	26	4.396	29.225	.496	1.248	1	H2-1
164	M243	L2 1/2x2 1/2x3/...	.347	4.348	20	.005	8.881	z	26	4.396	29.225	.496	1.248	1	H2-1
165	M396	2L3x2 1/2x1/4x...	.344	11.511	14	.006	11....	y	26	6.956	85.212	5.423	3.171	1	H1-1a
166	M236	L2 1/2x2 1/2x3/...	.339	4.348	22	.005	8.881	z	26	4.396	29.225	.496	1.248	1	H2-1
167	M398	2L3x2 1/2x1/4x...	.337	11.271	2	.006	11....	y	26	6.956	85.212	5.423	3.171	1	H1-1a
168	M62	L6x6x5/8	.336	11.521	8	.017	12....	z	14	181.805	230.364	9.378	35.665	1	H2-1
169	M339	L2 1/2x2 1/2x1/4	.329	5.426	26	.006	0	z	26	3.821	38.556	.651	1.695	1	H2-1
170	M84	L6x6x3/4	.326	6.284	16	.005	0	y	12	219.743	273.456	11.051	42.895	1	H2-1
171	M383	L2 1/2x2 1/2x1/4	.324	5.426	20	.006	0	z	26	3.821	38.556	.651	1.695	1	H2-1
172	M82	L6x6x3/4	.323	6.284	8	.006	0	y	4	219.743	273.456	11.051	42.895	1	H2-1
173	M351	L2 1/2x2 1/2x1/4	.323	5.426	24	.006	0	z	26	3.821	38.556	.651	1.695	1	H2-1
174	M83	L6x6x3/4	.323	6.284	4	.006	0	y	16	219.743	273.456	11.051	42.895	1	H2-1
175	M80	L3x2 1/2x1/4	.322	9.333	26	.007	9.333	z	22	6.578	42.444	.709	2.234	1	H2-1
176	M81	L6x6x3/4	.322	6.284	12	.006	0	y	8	219.743	273.456	11.051	42.895	1	H2-1
177	M79	L3x2 1/2x1/4	.322	9.333	20	.007	9.333	z	24	6.578	42.444	.709	2.234	1	H2-1
178	M356	L4x4x3/8	.321	7.674	25	.006	15....	z	26	11.828	92.664	2.507	6.715	1	H2-1
179	M392	L4x4x3/8	.321	7.674	19	.006	0	z	26	11.828	92.664	2.507	6.715	1	H2-1
180	M372	L4x4x3/8	.321	7.674	24	.006	15....	z	26	11.828	92.664	2.507	6.715	1	H2-1
181	M77	L3x2 1/2x1/4	.321	9.333	25	.007	9.333	z	20	6.578	42.444	.709	2.234	1	H2-1
182	M388	L4x4x3/8	.321	7.674	21	.006	15....	z	26	11.828	92.664	2.507	6.715	1	H2-1
183	M78	L3x2 1/2x1/4	.321	9.333	23	.007	9.333	z	26	6.578	42.444	.709	2.234	1	H2-1
184	M63	L6x6x5/8	.320	11.521	4	.012	12....	z	10	181.805	230.364	9.378	35.665	1	H2-1
185	M61	L6x6x5/8	.320	11.521	12	.018	12....	z	2	181.805	230.364	9.378	35.665	1	H2-1
186	M64	L6x6x5/8	.319	11.521	16	.017	12....	y	10	181.805	230.364	9.378	35.665	1	H2-1
187	M367	L2 1/2x2 1/2x1/4	.316	5.426	22	.006	0	z	26	3.821	38.556	.651	1.695	1	H2-1
188	M378	L2 1/2x2 1/2x1/4	.315	5.426	25	.006	0	z	26	3.821	38.556	.651	1.695	1	H2-1
189	M362	L2 1/2x2 1/2x1/4	.315	5.426	19	.006	0	z	26	3.821	38.556	.651	1.695	1	H2-1
190	M346	L2 1/2x2 1/2x1/4	.315	5.426	21	.006	0	z	26	3.821	38.556	.651	1.695	1	H2-1
191	M334	L2 1/2x2 1/2x1/4	.314	5.426	23	.006	0	z	26	3.821	38.556	.651	1.695	1	H2-1
192	M343	2L3x3x3/8x3/8	.313	28.488	13	.004	24....	y	19	48.953	136.728	11.376	6.271	1	H1-1a
193	M190	2L3x2 1/2x1/4x...	.312	8.247	20	.009	16....	y	26	13.551	85.212	5.423	4.423	1	H1-1b
194	M188	2L3x2 1/2x1/4x...	.312	8.247	20	.009	0	y	26	13.551	85.212	5.423	4.423	1	H1-1b
195	M331	2L3x3x3/8x3/8	.311	4.07	5	.004	24....	y	21	48.951	136.728	11.376	6.271	1	H1-1a
196	M189	2L3x2 1/2x1/4x...	.310	8.247	24	.009	0	y	20	13.551	85.212	5.423	4.423	1	H1-1b
197	M187	2L3x2 1/2x1/4x...	.310	8.247	24	.009	16....	y	20	13.551	85.212	5.423	4.423	1	H1-1b
198	M395	2L3x2 1/2x1/4x...	.306	11.511	2	.006	11....	y	20	6.956	85.212	5.423	3.171	1	H1-1a
199	M278	L2 1/2x2 1/2x1/4	.292	4.811	26	.006	0	z	26	4.862	38.556	.651	1.786	1	H2-1
200	M375	2L3x3x3/8x3/8	.291	28.827	3	.004	24....	y	23	48.951	136.728	11.376	6.271	1	H1-1a
201	M359	2L3x3x3/8x3/8	.288	4.07	13	.004	24....	y	25	48.953	136.728	11.376	6.271	1	H1-1a
202	M315	L2 1/2x2 1/2x1/4	.284	4.811	21	.006	0	z	26	4.862	38.556	.651	1.786	1	H2-1
203	M289	L2 1/2x2 1/2x1/4	.281	4.811	24	.006	0	z	26	4.862	38.556	.651	1.786	1	H2-1
204	M67	2L3x2 1/2x1/4x...	.278	8.894	19	.008	0	y	26	11.651	85.212	5.423	4.376	1	H1-1b
205	M66	2L3x2 1/2x1/4x...	.278	8.894	21	.008	0	y	26	11.651	85.212	5.423	4.376	1	H1-1b
206	M68	2L3x2 1/2x1/4x...	.277	8.894	25	.008	0	y	26	11.651	85.212	5.423	4.376	1	H1-1b
207	M65	2L3x2 1/2x1/4x...	.277	8.894	23	.008	0	y	26	11.651	85.212	5.423	4.376	1	H1-1b
208	M310	L2 1/2x2 1/2x1/4	.274	4.811	25	.006	0	z	26	4.862	38.556	.651	1.786	1	H2-1
209	M297	L2 1/2x2 1/2x1/4	.273	4.811	26	.006	0	z	26	4.862	38.556	.651	1.786	1	H2-1
210	M302	L2 1/2x2 1/2x1/4	.272	4.811	23	.006	0	z	26	4.862	38.556	.651	1.786	1	H2-1
211	M273	L2 1/2x2 1/2x1/4	.271	4.811	23	.006	0	z	26	4.862	38.556	.651	1.786	1	H2-1
212	M284	L2 1/2x2 1/2x1/4	.271	4.811	21	.006	0	z	26	4.862	38.556	.651	1.786	1	H2-1
213	M150	2L2 1/2x2 1/2x...	.266	7.595	24	.009	15....	y	24	7.412	58.32	4.017	2.409	1	H1-1b
214	M152	2L2 1/2x2 1/2x...	.266	7.595	24	.009	15....	y	20	7.412	58.32	4.017	2.409	1	H1-1b
215	M220	L2 1/2x2 1/2x3/...	.264	4.191	25	.004	8.561	z	26	4.731	29.225	.496	1.271	1	H2-1
216	M153	2L2 1/2x2 1/2x...	.263	7.595	20	.009	15....	y	26	7.412	58.32	4.017	2.409	1	H1-1b
217	M151	2L2 1/2x2 1/2x...	.263	7.595	20	.009	15....	y	26	7.412	58.32	4.017	2.409	1	H1-1b

Company : Kimley-Horn
Designer : Michael.Oglesby
Job Number : 180005001.1.101
Model Name : CT1119A - Shelton Buddington Rd (10034975)

Checked By:_____

Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che..	Loc....		LC	phi*Pn..	phi*Pn..	phi*Mn..	phi*Mn....		Eqn
218	M213	L2 1/2x2 1/2x3/...	.259	4.191	19	.004	0	z	26	4.731	29.225	.496	1.271	1	H2-1
219	M206	L2 1/2x2 1/2x3/...	.258	4.191	21	.004	8.561	z	26	4.731	29.225	.496	1.271	1	H2-1
220	M59	L3x2 1/2x1/4	.258	8.407	21	.006	8.407	z	24	8.106	42.444	.709	2.335	1	H2-1
221	M199	L2 1/2x2 1/2x3/...	.257	4.191	23	.004	0	z	26	4.731	29.225	.496	1.271	1	H2-1
222	M379	L 2.5 x 2.5 x 3/...	.255	4.62	16	.003	0	z	26	3.73	29.225	.496	1.195	1	H2-1
223	M58	L3x2 1/2x1/4	.253	8.407	24	.006	8.407	z	25	8.106	42.444	.709	2.335	1	H2-1
224	M335	L 2.5 x 2.5 x 3/...	.251	4.62	12	.003	9.642	z	26	3.73	29.225	.496	1.195	1	H2-1
225	M41	L6x6x5/8	.251	9.95	12	.007	12....	z	2	181.361	230.364	9.378	35.637	1	H2-1
226	M60	L3x2 1/2x1/4	.250	8.407	20	.006	8.407	z	22	8.106	42.444	.709	2.335	1	H2-1
227	M363	L 2.5 x 2.5 x 3/...	.245	4.62	4	.003	0	z	26	3.73	29.225	.496	1.195	1	H2-1
228	M347	L 2.5 x 2.5 x 3/...	.244	4.62	8	.003	0	z	26	3.73	29.225	.496	1.195	1	H2-1
229	M42	L6x6x5/8	.243	10.081	8	.006	12....	y	2	181.361	230.364	9.378	35.637	1	H2-1
230	M44	L6x6x5/8	.242	9.95	16	.007	12....	y	10	181.361	230.364	9.378	35.637	1	H2-1
231	M57	L3x2 1/2x1/4	.242	8.407	25	.006	8.407	z	19	8.106	42.444	.709	2.335	1	H2-1
232	M280	L3x3 1/2x1/4	.236	6.143	26	.005	0	z	26	6.456	50.544	1.14	2.551	1	H2-1
233	M183	L2 1/2x2 1/2x3/...	.236	4.041	25	.004	0	z	26	5.09	29.225	.496	1.293	1	H2-1
234	M317	L3x3 1/2x1/4	.235	6.143	21	.005	12....	z	26	6.456	50.544	1.14	2.551	1	H2-1
235	M291	L3x3 1/2x1/4	.235	6.143	24	.005	0	z	26	6.456	50.544	1.14	2.551	1	H2-1
236	M304	L3x3 1/2x1/4	.234	6.143	23	.005	12....	z	26	6.456	50.544	1.14	2.551	1	H2-1
237	M113	2L2 1/2x2x3/16...	.234	6.942	19	.008	13....	y	24	8.302	52.488	2.722	2.272	1	H1-1b
238	M115	2L2 1/2x2x3/16...	.234	6.942	20	.008	13....	y	20	8.302	52.488	2.722	2.272	1	H1-1b
239	M43	L6x6x5/8	.232	9.95	4	.007	12....	y	14	181.361	230.364	9.378	35.637	1	H2-1
240	M176	L2 1/2x2 1/2x3/...	.231	4.041	19	.004	0	z	26	5.09	29.225	.496	1.293	1	H2-1
241	M162	L2 1/2x2 1/2x3/...	.230	4.041	23	.004	0	z	26	5.09	29.225	.496	1.293	1	H2-1
242	M169	L2 1/2x2 1/2x3/...	.230	4.041	21	.004	8.253	z	26	5.09	29.225	.496	1.293	1	H2-1
243	M275	L3x3 1/2x1/4	.230	6.143	19	.005	12....	z	26	6.456	50.544	1.14	2.807	1	H2-1
244	M286	L3x3 1/2x1/4	.230	6.143	25	.005	0	z	26	6.456	50.544	1.14	2.807	1	H2-1
245	M312	L3x3 1/2x1/4	.230	6.015	25	.005	0	z	26	6.456	50.544	1.14	2.807	1	H2-1
246	M299	L3x3 1/2x1/4	.229	6.143	22	.005	0	z	26	6.456	50.544	1.14	2.807	1	H2-1
247	M114	2L2 1/2x2x3/16...	.225	6.942	19	.008	13....	y	26	8.302	52.488	2.722	2.272	1	H1-1b
248	M116	2L2 1/2x2x3/16...	.225	6.942	26	.008	13....	y	22	8.302	52.488	2.722	2.272	1	H1-1b
249	M219	L2 1/2x2x3/16	.225	3.147	25	.004	6.293	z	26	5.843	26.212	.344	1.187	1	H2-1
250	M212	L2 1/2x2x3/16	.223	3.147	19	.004	6.293	z	26	5.843	26.212	.344	1.187	1	H2-1
251	M205	L2 1/2x2x3/16	.223	3.147	21	.004	6.293	z	26	5.843	26.212	.344	1.187	1	H2-1
252	M198	L2 1/2x2x3/16	.223	3.147	23	.004	6.293	z	26	5.843	26.212	.344	1.187	1	H2-1
253	M46	2L3x2 1/2x1/4x...	.221	7.971	21	.008	0	y	26	14.506	85.212	5.423	4.443	1	H1-1b
254	M47	2L3x2 1/2x1/4x...	.221	7.971	19	.008	0	y	26	14.506	85.212	5.423	4.443	1	H1-1b
255	M45	2L3x2 1/2x1/4x...	.221	7.971	23	.008	0	y	26	14.506	85.212	5.423	4.443	1	H1-1b
256	M48	2L3x2 1/2x1/4x...	.220	7.971	25	.008	0	y	26	14.506	85.212	5.423	4.443	1	H1-1b
257	M146	L2 1/2x2 1/2x3/...	.213	3.897	25	.004	0	z	26	5.472	29.225	.496	1.315	1	H2-1
258	M132	L2 1/2x2 1/2x3/...	.213	3.897	21	.004	0	z	26	5.472	29.225	.496	1.315	1	H2-1
259	M139	L2 1/2x2 1/2x3/...	.212	3.897	19	.004	0	z	26	5.472	29.225	.496	1.315	1	H2-1
260	M125	L2 1/2x2 1/2x3/...	.212	3.897	23	.004	7.961	z	26	5.472	29.225	.496	1.315	1	H2-1
261	M24	L6x6x1/2	.212	10.473	16	.013	12....	z	6	146.222	186.3	7.512	27.993	1	H2-1
262	M253	L2 1/2x2 1/2x3/...	.210	4.348	20	.005	8.881	z	26	4.396	29.225	.496	1.248	1	H2-1
263	M246	L2 1/2x2 1/2x3/...	.209	4.348	21	.005	8.881	z	26	4.396	29.225	.496	1.248	1	H2-1
264	M239	L2 1/2x2 1/2x3/...	.204	4.348	23	.005	0	z	26	4.396	29.225	.496	1.248	1	H2-1
265	M260	L2 1/2x2 1/2x3/...	.204	4.441	21	.005	0	z	26	4.396	29.225	.496	1.248	1	H2-1
266	M215	L2 1/2x2x3/16	.201	3.147	19	.004	6.293	z	26	5.843	26.212	.344	1.187	1	H2-1
267	M208	L2 1/2x2x3/16	.201	3.147	21	.004	6.293	z	26	5.843	26.212	.344	1.187	1	H2-1
268	M201	L2 1/2x2x3/16	.199	3.147	23	.004	6.293	z	26	5.843	26.212	.344	1.187	1	H2-1
269	M222	L2 1/2x2x3/16	.199	3.147	25	.004	6.293	z	26	5.843	26.212	.344	1.187	1	H2-1
270	M23	L6x6x1/2	.199	10.473	2	.013	12....	z	10	146.222	186.3	7.512	27.993	1	H2-1
271	M21	L6x6x1/2	.198	10.473	12	.009	12....	y	6	146.222	186.3	7.512	27.993	1	H2-1
272	M106	2L3x2 1/2x1/4x...	.197	10.022	3	.006	9.817	y	25	37.617	85.212	5.423	3.861	1	H1-1b*
273	M182	L2 1/2x2x3/16	.197	2.916	25	.004	5.832	z	26	6.804	26.212	.344	1.224	1	H2-1
274	M85	2L3x2 1/2x1/4x...	.197	10.022	15	.006	9.817	y	23	37.617	85.212	5.423	3.861	1	H1-1b*

Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che..	Loc....		LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn....		Eqn
275	M175	L2 1/2x2x3/16	.196	2.916	19	.004	5.832	z	26	6.804	26.212	.344	1.224	1	H2-1
276	M161	L2 1/2x2x3/16	.196	2.916	23	.004	5.832	z	26	6.804	26.212	.344	1.224	1	H2-1
277	M168	L2 1/2x2x3/16	.196	2.916	21	.004	5.832	z	26	6.804	26.212	.344	1.224	1	H2-1
278	M99	2L3x2 1/2x1/4x...	.194	10.022	7	.006	9.817	y	19	37.617	85.212	5.423	3.861	1	H1-1b*
279	M92	2L3x2 1/2x1/4x...	.190	10.022	11	.006	9.817	y	21	37.617	85.212	5.423	3.861	1	H1-1b*
280	M202	L2 1/2x2 1/2x3/...	.187	4.28	19	.004	8.561	z	26	4.731	29.225	.496	1.271	1	H2-1
281	M223	L2 1/2x2 1/2x3/...	.187	4.28	21	.004	8.561	z	26	4.731	29.225	.496	1.271	1	H2-1
282	M209	L2 1/2x2 1/2x3/...	.187	4.28	25	.004	0	z	26	4.731	29.225	.496	1.271	1	H2-1
283	M216	L2 1/2x2 1/2x3/...	.186	4.28	23	.004	0	z	26	4.731	29.225	.496	1.271	1	H2-1
284	M109	L2 1/2x2 1/2x3/...	.183	3.762	25	.004	0	z	26	5.872	29.225	.496	1.336	1	H2-1
285	M22	L6x6x1/2	.182	10.473	8	.013	12....	y	2	146.222	186.3	7.512	27.993	1	H2-1
286	M102	L2 1/2x2 1/2x3/...	.180	3.762	19	.004	0	z	26	5.872	29.225	.496	1.336	1	H2-1
287	M88	L2 1/2x2 1/2x3/...	.180	3.762	23	.004	0	z	26	5.872	29.225	.496	1.336	1	H2-1
288	M95	L2 1/2x2 1/2x3/...	.179	3.762	21	.004	0	z	26	5.872	29.225	.496	1.336	1	H2-1
289	M178	L2 1/2x2x3/16	.175	2.916	19	.004	5.832	z	26	6.804	26.212	.344	1.224	1	H2-1
290	M171	L2 1/2x2x3/16	.175	2.916	21	.004	5.832	z	26	6.804	26.212	.344	1.224	1	H2-1
291	M185	L2 1/2x2x3/16	.174	2.916	25	.004	5.832	z	26	6.804	26.212	.344	1.224	1	H2-1
292	M164	L2 1/2x2x3/16	.174	2.916	23	.004	5.832	z	26	6.804	26.212	.344	1.224	1	H2-1
293	M145	L2 1/2x2x3/16	.172	2.685	25	.004	0	z	26	8.024	26.212	.344	1.263	1	H2-1
294	M131	L2 1/2x2x3/16	.172	2.685	21	.004	0	z	26	8.024	26.212	.344	1.263	1	H2-1
295	M138	L2 1/2x2x3/16	.171	2.685	19	.004	0	z	26	8.024	26.212	.344	1.263	1	H2-1
296	M124	L2 1/2x2x3/16	.171	2.685	23	.004	0	z	26	8.024	26.212	.344	1.263	1	H2-1
297	M249	L2 1/2x2 1/2x1/4	.170	3.377	26	.004	0	z	26	9.864	38.556	.651	2.024	1	H2-1
298	M165	L2 1/2x2 1/2x3/...	.169	4.127	19	.004	8.253	z	26	5.09	29.225	.496	1.293	1	H2-1
299	M256	L2 1/2x2 1/2x1/4	.169	3.377	24	.004	0	z	26	9.864	38.556	.651	2.024	1	H2-1
300	M242	L2 1/2x2 1/2x1/4	.169	3.377	20	.004	0	z	26	9.864	38.556	.651	2.024	1	H2-1
301	M172	L2 1/2x2 1/2x3/...	.169	4.127	25	.004	0	z	26	5.09	29.225	.496	1.293	1	H2-1
302	M186	L2 1/2x2 1/2x3/...	.169	4.127	21	.004	0	z	26	5.09	29.225	.496	1.293	1	H2-1
303	M179	L2 1/2x2 1/2x3/...	.168	4.127	23	.004	0	z	26	5.09	29.225	.496	1.293	1	H2-1
304	M235	L2 1/2x2 1/2x1/4	.168	3.377	22	.004	0	z	26	9.864	38.556	.651	2.024	1	H2-1
305	M303	L 2.5 x 2.5 x 3/...	.166	4.48	26	.003	9.35	z	26	3.966	29.225	.496	1.215	1	H2-1
306	M290	L 2.5 x 2.5 x 3/...	.165	4.48	20	.003	0	z	26	3.966	29.225	.496	1.215	1	H2-1
307	M18	L3x2 1/2x1/4	.163	6.554	23	.005	6.554	z	22	13.338	42.444	.709	2.555	1	H2-1
308	M17	L3x2 1/2x1/4	.161	6.554	25	.005	6.554	z	22	13.338	42.444	.709	2.555	1	H2-1
309	M19	L3x2 1/2x1/4	.160	6.554	26	.005	6.554	z	25	13.338	42.444	.709	2.555	1	H2-1
310	M340	L 2.5 x 2.5 x 3/...	.158	4.821	26	.003	0	z	26	3.73	29.225	.496	1.195	1	H2-1
311	M384	L 2.5 x 2.5 x 3/...	.157	4.821	20	.003	9.642	z	26	3.73	29.225	.496	1.195	1	H2-1
312	M279	L 2.5 x 2.5 x 3/...	.157	4.48	22	.003	9.35	z	26	3.966	29.225	.496	1.215	1	H2-1
313	M352	L 2.5 x 2.5 x 3/...	.157	4.821	24	.003	0	z	26	3.73	29.225	.496	1.195	1	H2-1
314	M368	L 2.5 x 2.5 x 3/...	.157	4.821	22	.003	0	z	26	3.73	29.225	.496	1.195	1	H2-1
315	M20	L3x2 1/2x1/4	.155	6.554	19	.005	6.554	z	24	13.338	42.444	.709	2.555	1	H2-1
316	M316	L 2.5 x 2.5 x 3/...	.154	4.48	24	.003	9.35	z	26	3.966	29.225	.496	1.215	1	H2-1
317	M128	L2 1/2x2 1/2x3/...	.152	3.98	19	.004	0	z	26	5.472	29.225	.496	1.315	1	H2-1
318	M135	L2 1/2x2 1/2x3/...	.151	3.98	25	.004	7.961	z	26	5.472	29.225	.496	1.315	1	H2-1
319	M149	L2 1/2x2 1/2x3/...	.151	3.98	21	.004	7.961	z	26	5.472	29.225	.496	1.315	1	H2-1
320	M141	L2 1/2x2x3/16	.151	2.685	19	.004	0	z	26	8.024	26.212	.344	1.263	1	H2-1
321	M134	L2 1/2x2x3/16	.151	2.685	21	.004	0	z	26	8.024	26.212	.344	1.263	1	H2-1
322	M142	L2 1/2x2 1/2x3/...	.151	3.98	23	.004	0	z	26	5.472	29.225	.496	1.315	1	H2-1
323	M127	L2 1/2x2x3/16	.150	2.685	23	.004	0	z	26	8.024	26.212	.344	1.263	1	H2-1
324	M148	L2 1/2x2x3/16	.150	2.685	25	.004	0	z	26	8.024	26.212	.344	1.263	1	H2-1
325	M309	L2 1/2x2x3/16	.147	2.405	25	.003	0	z	26	9.999	26.212	.344	1.311	1	H2-1
326	M283	L2 1/2x2x3/16	.147	2.405	21	.003	0	z	26	9.999	26.212	.344	1.311	1	H2-1
327	M296	L2 1/2x2x3/16	.146	2.405	19	.003	0	z	26	9.999	26.212	.344	1.311	1	H2-1
328	M272	L2 1/2x2x3/16	.145	2.405	24	.003	0	z	26	9.999	26.212	.344	1.311	1	H2-1
329	M252	L2 1/2x2 1/2x1/4	.145	3.377	20	.004	0	z	26	9.864	38.556	.651	2.024	1	H2-1
330	M245	L2 1/2x2 1/2x1/4	.145	3.377	21	.004	0	z	26	9.864	38.556	.651	2.024	1	H2-1
331	M108	L2 1/2x2x3/16	.145	2.454	25	.004	4.909	z	26	9.604	26.212	.344	1.303	1	H2-1

Company : Kimley-Horn
Designer : Michael.Oglesby
Job Number : 180005001.1.101
Model Name : CT1119A - Shelton Buddington Rd (10034975)

Checked By:_____

Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che..	Loc....		LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn....		Eqn
332	M101	L2 1/2x2x3/16	.144	2.454	19	.004	4.909	z	26	9.604	26.212	.344	1.303	1	H2-1
333	M238	L2 1/2x2 1/2x1/4	.144	3.377	23	.004	0	z	26	9.864	38.556	.651	2.024	1	H2-1
334	M87	L2 1/2x2x3/16	.144	2.454	23	.004	4.909	z	26	9.604	26.212	.344	1.303	1	H2-1
335	M259	L2 1/2x2 1/2x1/4	.144	3.377	25	.004	0	z	26	9.864	38.556	.651	2.024	1	H2-1
336	M94	L2 1/2x2x3/16	.144	2.454	21	.004	4.909	z	26	9.604	26.212	.344	1.303	1	H2-1
337	M3	L6x6x1/2	.141	0	2	.006	0	z	10	145.646	186.3	7.512	27.952	1	H2-1
338	M447	LL2.5x2x3x3	.141	6.755	6	.003	0	y	2	8.768	53.136	2.725	2.28	...	H1-1b
339	M438	LL2.5x2x3x3	.141	6.755	2	.003	13....	y	6	8.768	53.136	2.725	2.28	...	H1-1b
340	M444	LL2.5x2x3x3	.140	6.755	10	.003	13....	y	14	8.768	53.136	2.725	2.28	...	H1-1b
341	M4	L6x6x1/2	.140	0	14	.006	0	z	6	145.646	186.3	7.512	27.952	1	H2-1
342	M441	LL2.5x2x3x3	.139	6.755	14	.003	0	y	10	8.768	53.136	2.725	2.28	...	H1-1b
343	M91	L2 1/2x2 1/2x3/...	.135	3.842	26	.004	0	z	26	5.872	29.225	.496	1.336	1	H2-1
344	M98	L2 1/2x2 1/2x3/...	.135	3.842	24	.004	0	z	26	5.872	29.225	.496	1.336	1	H2-1
345	M112	L2 1/2x2 1/2x3/...	.135	3.842	21	.004	7.685	z	26	5.872	29.225	.496	1.336	1	H2-1
346	M105	L2 1/2x2 1/2x3/...	.134	3.842	23	.004	7.685	z	26	5.872	29.225	.496	1.336	1	H2-1
347	M97	L2 1/2x2x3/16	.128	2.454	20	.004	4.909	z	26	9.604	26.212	.344	1.303	1	H2-1
348	M104	L2 1/2x2x3/16	.127	2.454	19	.004	4.909	z	26	9.604	26.212	.344	1.303	1	H2-1
349	M90	L2 1/2x2x3/16	.126	2.454	22	.004	4.909	z	26	9.604	26.212	.344	1.303	1	H2-1
350	M111	L2 1/2x2x3/16	.126	2.454	24	.004	4.909	z	26	9.604	26.212	.344	1.303	1	H2-1
351	M28	2L3 1/2x3x5/16...	.125	7.048	25	.006	0	y	26	36.793	125.388	9.481	7.828	1	H1-1b
352	M25	2L3 1/2x3x5/16...	.125	7.048	23	.006	0	y	26	36.793	125.388	9.481	7.828	1	H1-1b
353	M27	2L3 1/2x3x5/16...	.125	7.048	19	.006	0	y	26	36.793	125.388	9.481	7.828	1	H1-1b
354	M26	2L3 1/2x3x5/16...	.125	7.048	21	.006	0	y	26	36.793	125.388	9.481	7.828	1	H1-1b
355	M1	L6x6x1/2	.120	0	12	.005	0	y	6	145.646	186.3	7.512	27.952	1	H2-1
356	M301	L2 1/2x2x3/16	.118	2.405	26	.003	0	z	26	9.999	26.212	.344	1.311	1	H2-1
357	M288	L2 1/2x2x3/16	.118	2.405	20	.003	0	z	26	9.999	26.212	.344	1.311	1	H2-1
358	M277	L2 1/2x2x3/16	.116	2.405	22	.003	0	z	26	9.999	26.212	.344	1.311	1	H2-1
359	M314	L2 1/2x2x3/16	.116	2.405	24	.003	0	z	26	9.999	26.212	.344	1.311	1	H2-1
360	M419	LL2.5x2.5x4x3	.114	8.139	10	.004	0	z	14	19.289	77.112	5.321	3.127	...	H1-1b
361	M421	LL2.5x2.5x4x3	.113	8.139	6	.004	0	z	10	19.289	77.112	5.321	3.127	...	H1-1b
362	M415A	LL2.5x2.5x4x3	.113	8.139	2	.004	16....	z	14	19.289	77.112	5.321	3.127	...	H1-1b
363	M417	LL2.5x2.5x4x3	.113	8.139	14	.004	0	z	2	19.289	77.112	5.321	3.127	...	H1-1b
364	M2	L6x6x1/2	.112	0	6	.006	0	y	2	145.646	186.3	7.512	27.952	1	H2-1
365	M361	L2 1/2x2 1/2x3/...	.109	2.713	20	.004	0	z	26	11.752	29.225	.496	1.523	1	H2-1
366	M377	L2 1/2x2 1/2x3/...	.109	2.713	26	.004	0	z	26	11.752	29.225	.496	1.523	1	H2-1
367	M345	L2 1/2x2 1/2x3/...	.109	2.713	22	.004	0	z	26	11.752	29.225	.496	1.523	1	H2-1
368	M333	L2 1/2x2 1/2x3/...	.109	2.713	24	.004	0	z	26	11.752	29.225	.496	1.523	1	H2-1
369	M8	2L3 1/2x3x1/4x...	.102	6.125	21	.006	0	y	26	40.025	101.412	7.536	6.377	1	H1-1b
370	M5	2L3 1/2x3x1/4x...	.102	6.125	19	.006	0	y	26	40.025	101.412	7.536	6.377	1	H1-1b
371	M7	2L3 1/2x3x1/4x...	.102	6.125	23	.006	0	y	26	40.025	101.412	7.536	6.377	1	H1-1b
372	M6	2L3 1/2x3x1/4x...	.102	6.125	25	.006	0	y	26	40.025	101.412	7.536	6.377	1	H1-1b
373	M433	LL3x2.5x4x3	.096	7.216	22	.004	0	z	14	17.474	85.536	5.321	4.436	...	H1-1b
374	M430	LL3x2.5x4x3	.096	7.216	26	.004	0	z	2	17.474	85.536	5.321	4.436	...	H1-1b
375	M436	LL3x2.5x4x3	.096	7.216	20	.004	0	z	10	17.474	85.536	5.321	4.436	...	H1-1b
376	M427	LL3x2.5x4x3	.096	7.216	20	.004	14....	z	14	17.474	85.536	5.321	4.436	...	H1-1b
377	M350	L2 1/2x2 1/2x3/...	.095	2.713	20	.004	5.426	z	26	11.752	29.225	.496	1.523	1	H2-1
378	M366	L2 1/2x2 1/2x3/...	.095	2.713	26	.004	5.426	z	26	11.752	29.225	.496	1.523	1	H2-1
379	M338	L2 1/2x2 1/2x3/...	.094	2.713	26	.004	5.426	z	26	11.752	29.225	.496	1.523	1	H2-1
380	M382	L2 1/2x2 1/2x3/...	.094	2.713	24	.004	5.426	z	26	11.752	29.225	.496	1.523	1	H2-1
381	M455	LL2.5x2x3x3	.087	6.293	6	.003	12....	y	2	10.101	53.136	2.725	2.304	1	H1-1b
382	M449	LL2.5x2x3x3	.087	6.293	2	.003	12....	y	6	10.101	53.136	2.725	2.304	1	H1-1b
383	M453	LL2.5x2x3x3	.086	6.293	10	.003	12....	y	14	10.101	53.136	2.725	2.304	1	H1-1b
384	M451	LL2.5x2x3x3	.086	6.293	14	.003	12....	y	10	10.101	53.136	2.725	2.304	1	H1-1b
385	M462	LL2.5x2x3x3	.072	5.832	6	.002	11....	y	2	11.763	53.136	2.725	2.327	1	H1-1b
386	M456	LL2.5x2x3x3	.072	5.832	2	.002	11....	y	14	11.763	53.136	2.725	2.327	1	H1-1b
387	M460	LL2.5x2x3x3	.071	5.832	10	.002	11....	y	14	11.763	53.136	2.725	2.327	1	H1-1b
388	M458	LL2.5x2x3x3	.071	5.832	14	.002	11....	y	2	11.763	53.136	2.725	2.327	1	H1-1b

Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che..	Loc....		LC	phi*Pn..	phi*Pn..	phi*Mn..	phi*Mn..	....	Eqn
389	M450	L2.5x2x3	.069	0	8	.002	0	y	4	2.94	26.503	.626	1.066	...	H2-1*
390	M454	L2.5x2x3	.069	0	16	.002	0	y	4	2.94	26.503	.626	1.066	...	H2-1*
391	M452	L2.5x2x3	.068	0	4	.002	0	y	8	2.94	26.503	.626	1.066	...	H2-1*
392	M414	L3.5X3.5X5	.066	0	8	.003	0	y	12	11.667	68.04	2.882	4.754	...	H2-1*
393	M413	L3.5X3.5X5	.066	0	12	.003	11....	y	16	11.667	68.04	2.882	4.754	...	H2-1*
394	M415	L3.5X3.5X5	.066	0	4	.003	0	y	8	11.667	68.04	2.882	4.754	...	H2-1*
395	M412	L3.5X3.5X5	.063	0	16	.003	0	y	4	11.667	68.04	2.882	4.754	...	H2-1*
396	M448A	L2.5x2x3	.063	0	12	.002	0	y	8	2.94	26.503	.626	1.066	...	H2-1*
397	M457	L2.5x2x3	.062	0	9	.002	0	y	4	3.424	26.503	.626	1.101	...	H2-1*
398	M461	L2.5x2x3	.061	0	17	.002	0	y	12	3.424	26.503	.626	1.101	...	H2-1*
399	M459	L2.5x2x3	.061	0	5	.002	0	y	16	3.424	26.503	.626	1.101	...	H2-1*
400	M420B	L2x2x3	.060	3.837	25	.002	7.674	y	6	2.911	23.393	.558	.89	...	H2-1
401	M419B	L2x2x3	.060	3.837	19	.002	7.674	y	10	2.911	23.393	.558	.89	...	H2-1
402	M421B	L2x2x3	.060	3.837	24	.002	7.674	y	2	2.911	23.393	.558	.89	...	H2-1
403	M422B	L2x2x3	.060	3.837	21	.002	7.674	y	14	2.911	23.393	.558	.89	...	H2-1
404	M435	L3X3X4	.060	0	8	.003	10....	y	12	7.423	46.656	1.688	2.688	...	H2-1*
405	M429	L3X3X4	.060	0	16	.003	10....	y	4	7.423	46.656	1.688	2.688	...	H2-1*
406	M432	L3X3X4	.059	0	12	.003	0	y	16	7.423	46.656	1.688	2.688	...	H2-1*
407	M38	C6X8.2	.059	7.481	10	.006	7.481	y	25	19.257	77.436	2.108	10.166	1	H1-1b*
408	M412A	2L2 1/2x2 1/2x...	.059	6.261	20	.002	12....	y	8	14.699	77.112	5.381	3.272	1	H1-1b
409	M418B	2L2 1/2x2 1/2x...	.059	6.262	22	.002	0	y	12	14.699	77.112	5.381	3.272	1	H1-1b
410	M416A	2L2 1/2x2 1/2x...	.059	6.262	24	.002	12....	y	16	14.699	77.112	5.381	3.272	1	H1-1b
411	M414A	2L2 1/2x2 1/2x...	.059	6.262	26	.002	0	y	4	14.699	77.112	5.381	3.272	1	H1-1b
412	M411A	2L2 1/2x2 1/2x...	.059	6.006	24	.002	12....	y	6	14.699	77.112	5.381	3.272	1	H1-1b
413	M413A	2L2 1/2x2 1/2x...	.059	6.006	22	.002	12....	y	2	14.699	77.112	5.381	3.272	1	H1-1b
414	M415B	2L2 1/2x2 1/2x...	.059	6.006	20	.002	0	y	14	14.699	77.112	5.381	3.272	1	H1-1b
415	M417B	2L2 1/2x2 1/2x...	.059	6.006	26	.002	12....	y	10	14.699	77.112	5.381	3.272	1	H1-1b
416	M426	L3X3X4	.056	0	4	.003	0	y	8	7.423	46.656	1.688	2.688	...	H2-1*
417	M455A	L2.5x2x3	.056	0	11	.002	0	y	8	3.424	26.503	.626	1.101	...	H2-1*
418	M39	C6X8.2	.055	7.481	6	.006	7.481	y	24	19.257	77.436	2.108	10.166	1	H1-1b*
419	M37	C6X8.2	.054	7.481	14	.006	7.481	y	19	19.257	77.436	2.108	10.166	1	H1-1b*
420	M440	L3X3X4	.051	0	8	.003	0	y	4	8.472	46.656	1.688	2.756	...	H2-1*
421	M446	L3X3X4	.051	0	16	.003	0	y	12	8.472	46.656	1.688	2.756	...	H2-1*
422	M443	L3X3X4	.050	0	4	.003	0	y	16	8.472	46.656	1.688	2.756	...	H2-1*
423	M40	C6X8.2	.050	7.481	2	.006	7.481	y	21	19.257	77.436	2.108	10.166	1	H1-1b*
424	M437A	L3X3X4	.047	0	12	.003	0	y	8	8.472	46.656	1.688	2.756	...	H2-1*
425	M422C	2L2 1/2x2 1/2x...	.045	5.667	26	.002	0	y	4	16.51	77.112	5.381	3.285	1	H1-1b
426	M419C	2L2 1/2x2 1/2x...	.045	5.667	20	.002	11....	y	8	16.51	77.112	5.381	3.285	1	H1-1b
427	M421C	2L2 1/2x2 1/2x...	.045	5.667	22	.002	11....	y	4	16.51	77.112	5.381	3.285	1	H1-1b
428	M416B	2L2 1/2x2 1/2x...	.045	5.667	22	.002	0	y	12	16.51	77.112	5.381	3.285	1	H1-1b
429	M415C	2L2 1/2x2 1/2x...	.045	5.667	26	.002	11....	y	12	16.51	77.112	5.381	3.285	1	H1-1b
430	M425	2L2 1/2x2 1/2x...	.045	5.667	24	.002	11....	y	16	16.51	77.112	5.381	3.285	1	H1-1b
431	M418C	2L2 1/2x2 1/2x...	.045	5.667	24	.002	11....	y	8	16.51	77.112	5.381	3.285	1	H1-1b
432	M424	2L2 1/2x2 1/2x...	.045	5.667	20	.002	0	y	16	16.51	77.112	5.381	3.285	1	H1-1b
433	M416	L2.5x2.5x3	.044	4.07	19	.002	8.139	y	8	4.957	29.192	.873	1.367	...	H2-1
434	M418	L2.5x2.5x3	.044	4.07	25	.002	0	y	8	4.957	29.192	.873	1.367	...	H2-1
435	M420	L2.5x2.5x3	.044	4.07	23	.002	8.139	y	4	4.957	29.192	.873	1.367	...	H2-1
436	M422	L2.5x2.5x3	.044	4.07	21	.002	0	y	12	4.957	29.192	.873	1.367	...	H2-1
437	M404	L3X3X4	.043	3.769	24	.001	0	y	6	10.416	46.656	1.688	2.86	...	H2-1
438	M406	L3X3X4	.043	3.769	22	.001	8.615	y	4	10.416	46.656	1.688	2.86	...	H2-1
439	M407	L3X3X4	.043	3.769	20	.001	0	y	19	10.416	46.656	1.688	2.86	...	H2-1
440	M410	L3X3X4	.043	3.769	26	.001	8.615	y	10	10.416	46.656	1.688	2.86	...	H2-1
441	M405	L3X3X4	.043	3.769	22	.001	8.615	y	21	10.416	46.656	1.688	2.86	...	H2-1
442	M409	L3X3X4	.043	3.769	26	.001	8.615	y	25	10.416	46.656	1.688	2.86	...	H2-1
443	M408	L3X3X4	.043	3.769	20	.001	8.615	y	14	10.416	46.656	1.688	2.86	...	H2-1
444	M411	L3X3X4	.043	3.769	24	.001	8.615	y	23	10.416	46.656	1.688	2.86	...	H2-1
445	M417C	L4x4x3/8	.039	6.804	22	.003	13....	y	4	15.048	92.664	2.507	7.396	...	H2-1

Company : Kimley-Horn
Designer : Michael.Oglesby
Job Number : 180005001.1.101
Model Name : CT1119A - Shelton Buddington Rd (10034975)
Checked By:_____

Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear Che..	Loc....		LC	phi*Pn..	phi*Pn..	phi*Mn..	phi*Mn..	....	Eqn
446	M423	L4x4x3/8	.039	6.804	26	.003	13....	y	12	15.048	92.664	2.507	7.396	...	H2-1
447	M420C	L4x4x3/8	.039	6.804	20	.003	13....	y	16	15.048	92.664	2.507	7.396	...	H2-1
448	M414B	L4x4x3/8	.039	6.804	24	.003	13....	y	8	15.048	92.664	2.507	7.396	...	H2-1
449	M434	L2.5x2.5x3	.037	3.608	26	.002	0	y	6	6.306	29.192	.873	1.435	...	H2-1
450	M437	L2.5x2.5x3	.037	3.608	25	.002	0	y	10	6.306	29.192	.873	1.435	...	H2-1
451	M431	L2.5x2.5x3	.037	3.608	21	.002	0	y	2	6.306	29.192	.873	1.435	...	H2-1
452	M428	L2.5x2.5x3	.037	3.608	22	.002	0	y	14	6.306	29.192	.873	1.435	...	H2-1
453	M442	L3X3X4	.023	3.377	25	.002	0	y	2	16.945	46.656	1.688	3.083	...	H2-1
454	M448	L3X3X4	.023	3.377	21	.002	0	y	2	16.945	46.656	1.688	3.083	...	H2-1
455	M445	L3X3X4	.023	3.377	24	.002	0	y	14	16.945	46.656	1.688	3.083	...	H2-1
456	M439	L3X3X4	.023	3.377	26	.002	0	y	14	16.945	46.656	1.688	3.083	...	H2-1
457	M418A	L3X3X4	.008	4.613	21	.000	0	y	2	11.073	46.656	1.688	2.889	...	H2-1
458	M400A	L3X3X4	.008	4.613	23	.000	8.356	y	14	11.073	46.656	1.688	2.889	...	H2-1
459	M422A	L3X3X4	.008	4.613	25	.000	8.356	y	2	11.073	46.656	1.688	2.889	...	H2-1
460	M420A	L3X3X4	.008	4.613	19	.000	0	y	14	11.073	46.656	1.688	2.889	...	H2-1

Section	Elevation	Component Type	Bolt Grade	Bolt Size (in)	Number of Bolts	Maximum Load per bolt (k)	Allowable Load per bolt (k)	Ratio	Allowable Ratio	% Capacity	Criteria
T1	162.5	Diagonal	A307	0.75	5	0.96	8.95	0.107	1	11%	Bolt Shear
		Secondary Horizontal	A307	0.75	2	0.15	8.95	0.016	1	2%	Bolt Shear
T2	150	Leg	A307	0.75	16	2.82	17.89	0.157	1	16%	Bolt DS
		Diagonal	A307	0.75	4	1.78	8.95	0.2	1	20%	Bolt Shear
		Secondary Horizontal	A307	0.75	3	0.37	8.95	0.042	1	4%	Bolt Shear
T3	137.5	Diagonal	A307	0.75	5	1.63	8.95	0.183	1	18%	Bolt Shear
		Secondary Horizontal	A307	0.75	2	0.26	8.95	0.029	1	3%	Bolt Shear
T4	125	Leg	A307	0.75	16	6.2	17.89	0.346	1	35%	Bolt DS
		Diagonal	A307	0.75	4	2.5	17.89	0.14	1	14%	Bolt Shear
		Secondary Horizontal	A307	0.75	2	0.37	8.95	0.042	1	4%	Bolt Shear
T5	112.5	Diagonal	A307	0.75	2	6.18	17.89	0.346	1	35%	Bolt Shear
		Horizontal	A307	0.75	2	4.23	17.89	0.237	1	24%	Bolt Shear
T6	100	Leg	A307	0.75	20	7.53	17.89	0.421	1	42%	Bolt DS
		Diagonal	A307	0.75	2	6.33	17.89	0.354	1	35%	Bolt Shear
		Horizontal	A307	0.75	2	4.22	17.89	0.236	1	24%	Bolt Shear
T7	87.5	Diagonal	A307	0.75	2	6.7	17.89	0.374	1	37%	Bolt Shear
		Horizontal	A307	0.75	2	4.65	17.89	0.26	1	26%	Bolt Shear
T8	75	Leg	A307	0.75	28	7.68	17.89	0.429	1	43%	Bolt DS
		Diagonal	A307	0.75	2	6.78	17.89	0.379	1	38%	Bolt Shear
		Horizontal	A307	0.75	2	4.9	17.89	0.274	1	27%	Bolt Shear
T9	62.5	Leg	A307	0.75	28	8.79	17.89	0.491	1	49%	Bolt DS
		Diagonal	A307	0.75	3	4.62	17.89	0.258	1	26%	Bolt Shear
		Horizontal	A307	0.75	2	5.11	17.89	0.286	1	29%	Bolt Shear
T10	50	Leg	A307	0.75	32	8.63	17.89	0.483	1	48%	Bolt DS
		Diagonal	A325N	0.75	3	6.97	35.78	0.195	1	20%	Bolt Shear
		Horizontal	A307	0.75	3	3.67	17.89	0.205	1	21%	Bolt Shear
T11	25	Leg	A307	0.75	36	9.03	17.89	0.505	1	51%	Bolt DS
		Diagonal	A307	0.75	5	4.6	17.89	0.257	1	26%	Bolt Shear
		Horizontal	A307	0.75	3	4.31	17.89	0.241	1	24%	Bolt Shear

APPENDIX C

Base Plate & Anchor Rod Calculations

Kimley»Horn

Site ID: Shelton East
Date: 9/29/20
Calculated by: MLO

ANCHOR ROD DESIGN, DEFORMATION METHOD, TIA-222-G [SSLT]

CONSTANTS:

$\phi := 0.8$

$\phi_c := 0.85$

$\phi_f := 0.9$

Input - Factored Reactions:

$M_u := 0 \cdot kip \cdot ft$ = factored moment reaction at bottom of leg

$P_u := 214.9 \cdot kip$ = factored axial reaction at bottom of leg

$V_{u\_P} := 47.9 \cdot kip$ = factored shear reaction at bottom of leg

$U_u := 150.283 \cdot kip$ = factored uplift reaction at bottom of leg

$V_{u\_U} := 37.8 \cdot kip$ = factored shear reaction at bottom of leg

Input - Anchor Rods:

$\eta := 0.50$ = coefficient per Figure 4.4

Grout := Y / N = Is the base plate grouted?

$f'_c := 3000 \cdot psi$ = Compressive strength of grout (assumed)

$n_b := 4$ = number of anchor bolts

$d_b := 2.25 \cdot in$ = diameter of anchor bolts

$F_{yb} := 36 \cdot ksi$ = ultimate yield strength of anchor bolts

$F_{ub} := 56 \cdot ksi$ = ultimate tensile strength of anchor bolts

$c := 1.0 \cdot in$ = clear distance from bottom of leveling nut to top of concrete

Output - Anchor Rod Results:

$\phi R_{nt} := \phi \cdot (F_{ub} \cdot A_n)$ = nominal tension strength (4.9.6.1)

$\phi R_{nt} = 145.5 \cdot kip$

$\phi R_{nv} := \phi \cdot (0.45 \cdot F_{ub} \cdot A_b)$ = nominal shear strength (4.9.6.3)

$\phi R_{nv} = 80.158 \cdot kip$

$\phi R_{nm} := \phi \cdot (F_{yb} \cdot Z_b)$ = nominal flexural strength (4.7.1)

$\phi R_{nm} = 4.556 \cdot kip \cdot ft$

$P_{ut} := \begin{cases} P_u & \text{if Grout = "N"} \\ U_u & \text{if Grout = "Y"} \end{cases}$

$V_{ut} := \begin{cases} V_{u\_P} & \text{if Grout = "N"} \\ V_{u\_U} & \text{if Grout = "Y"} \end{cases}$

$M_{ut} := M_u + 0.65 \cdot c \cdot V_{ut}$

$P_{ub} := \frac{P_{ut}}{n_b} = 53.725 \cdot kip$

$V_{ub} := \frac{V_{ut}}{n_b} = 11.975 \cdot kip$

$M_{ub} := \frac{M_{ut}}{n_b} = 7.784 \cdot kip \cdot in$

$$r_b := \begin{cases} \left[\left(\frac{V_{ub}}{\phi R_{nv}} \right)^2 + \left(\left| \frac{P_{ub}}{\phi R_{nt}} \right| + \left| \frac{M_{ub}}{\phi R_{nm}} \right| \right)^2 \right] & \text{if } c > d_b \\ \left(\frac{P_{ub} + \frac{V_{ub}}{\eta}}{\phi R_{nt}} \right) & \text{otherwise} \end{cases}$$

$r_b = 53 \cdot \%$

APPENDIX D

Foundation Calculations

Pier and Pad Foundation

Site # :	10034975
Site Name:	Shelton East
App. Number:	TMO

TIA-222 Revision:	G
Tower Type:	Self Support

Top & Bot. Pad Rein. Different?:	☐
Block Foundation?:	☐

Superstructure Analysis Reactions

Compression, P_{comp}:	214.9	kips
Compression Shear, Vu_comp:	47.9	kips
Uplift, P_{uplift}:	150.283	kips
Uplift Shear, V_{u_uplift}:	37.8	kips
Tower Height, **H**:	162.5	ft
Base Face Width, **BW**:	36.25	ft
BP Dist. Above Fdn, bp_{dist}:	1	in

Foundation Analysis Checks

	Capacity	Demand	Rating	Check
Uplift (kips)	335.86	150.28	**44.7%**	**Pass**
Lateral (Sliding) (kips)	135.64	37.80	**27.9%**	**Pass**
Bearing Pressure (ksf)	14.25	2.27	**15.9%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	1603.67	335.30	**20.9%**	**Pass**
*Pier Flexure (Tension) (kip*ft)*	856.22	264.60	**30.9%**	**Pass**
Pier Compression (kip)	15077.13	254.70	**1.7%**	**Pass**
*Pad Flexure (kip*ft)*	998.54	165.90	**16.6%**	**Pass**
Pad Shear - 1-way (kips)	288.38	46.23	**16.0%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.164	0.036	**22.1%**	**Pass**

Pier Properties

Pier Shape:	Square	
Pier Diameter, **dpier**:	5.62	ft
Ext. Above Grade, **E**:	1	ft
Pier Rebar Size, **Sc**:	10	
Pier Rebar Quantity, **mc**:	7	
Pier Tie/Spiral Size, **St**:	4	
Pier Tie/Spiral Quantity, **mt**:	8	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	3	in

Soil Rating:	**44.7%**
Structural Rating:	**30.9%**

Pad Properties

Depth, **D**:	8	ft
Pad Width, **W**:	15	ft
Pad Thickness, **T**:	2	ft
Pad Rebar Size (Bottom), **Sp**:	8	
Pad Rebar Quantity (Bottom), **mp**:	15	
Pad Clear Cover, cc_{pad}:	3	in

Material Properties

Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	3	ksi
Dry Concrete Density, δ**c**:	150	pcf

Soil Properties

Total Soil Unit Weight, γ:	125	pcf
Ultimate Net Bearing, Qnet:	18.000	ksf
Cohesion, **Cu**:		ksf
Friction Angle, φ:	38	degrees
SPT Blow Count, N_{blows}:		
Base Friction, μ:	0.5	
Neglected Depth, **N**:	3.50	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, **gw**:	N/A	ft

<--Toggle between Gross and Net

APPENDIX E

RF Data Sheet/Proposed Scoping Document

AT&T Site Lease Application

rev 11.2

Please e-mail completed application to corresponding Account Manager (see below)

	Primary Contact	States / Areas Covered	Email Address
Select One	Alison Skipper	AL, AR, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, NE, NH, NJ, NY, OH, OK, PA, PR, RI, SC, TN, TX, VA, VT, WV, Puerto Rico, US Virgin Islands (USVI), &	as317b@att.com
Select one	Chantal Scantlebury	AK, AZ, CA, CO, HI, ID, MN, MT, NM, ND, NV, OR, SD, UT, WA, WI, WY	as680m@att.com
Select One	Alan Campbell	*ALL ROOFTOP SITES NATIONWIDE*	ac5154@att.com

NOTE: Upon review/approval of your Site Lease Application, your AT&T Towers / Rooftop representative will send a Preliminary Approval Letter with detailed instructions regarding the next steps in the process. AT&T Towers requires a structural analysis of it's tower foundations and all the expenses in connection therewith are paid by the applicant.

>>>>Please Select Lease Type>>>> Lease Amendment ***>>>> NOTE: Revised Applications May Require Additional Processing Time <<<***

APPLICANT INFORMATION

Application Date:	7/14/2020	**Applicant Site Name:**	CT1119A_Shelton_BuddingtonRd	**Applicant Site Number:**	CT11199A
Company Name:	T-Mobile	**Legal Entity Name:**	T-Mobile Northeast LLC		
State of Incorporation:	DE	**Type of Corporation - [Corp, Part, LLC, Non-Prof]:**	LLC		

Applicant Address for Legal Notices - Billing - Other

	NOTICE ADDRESS FOR LEASE:	BILLING (A/P) ADDRESS:	COPY TO:
COMPANY NAME	T-Mobile Northeast LLC	T-Mobile Northeast LLC	
ADDRESS	12920 SE 38th Street	12920 SE 38th Street	
CITY, STATE, ZIP	Bellevue, WA 98006	Bellevue, WA 98006	
Attention:			
Telephone:			

Applicant Contacts

	Name & Title	Phone	E-mail Address
Site Acquisition Contractor:	Kyle Richers, Real Estate Specialist	908-447-4716	krichers@transcendwireless.com
Carrier Site Development Manager:	Mark Richard	860-648-1116	mark.richard64@t-mobile.com
RF Engineer Contact:	Mike Lucey	860-849-1616	michael.lucey@t-mobile.com
Lessee Signatory:	TBD		
24 Hour Emergency Contact (NOC):	T-Mobile NOC	1-888-218-6664	

Email Address for Invoices/PO requests associated with Pre-Construction Services (i.e. Structural Analysis) >>>>

Commencement & Terms

Desired Construction Commencement Date:					
Initial Term (in years):		**Number of Extended Terms (#):**		**Duration of Each Extended Term (yrs):**	

AT&T Towers Site Identification Information (from AT&T Towers Web Site: www.att.com/towers)

AT&T Towers Site Name:	SNET025-A	**Coordinates (NAD 83)**	**LAT**	41	18	15.1000	**Existing Tower Height:**	
AT&T Towers Site ID #:	10034975		**LON**	73	7	6.0000	**Tower Type:**	Self Support
Site Address:	219 Nells Rock Road							
City:	Shelton	**State:**	CT	**Zip Code:**	06484	**County:**		

ANTENNA EQUIPMENT DETAIL **(All equipment attached to the structure MUST be listed in this application).**

AT&T Towers requires a structural analysis of the structure and its foundation and all the expenses in connection therewith are paid to AT&T by the applicant.

>>> Does your equipment installation require a Tower Extension or Tower Replacement? Select One

If you need additional space to list all equipment attached to the structure, please use row 82 below.

FINAL INSTALL CONFIGURATION (ALL EQUIPMENT)					EXISTING EQUIPMENT CONFIGURATION (IF ANY)				
ANTENNA DESCRIPTION	**SECTOR 1**	**SECTOR 2**	**SECTOR 3**	**SECTOR 4**	**ANTENNA DESCRIPTION**	**SECTOR 1**	**SECTOR 2**	**SECTOR 3**	**SECTOR 4**
Manufacturer	(2) Ericsson, (1) RFS	(2) Ericsson, (1) RFS	(2) Ericsson, (1) RFS		**Manufacturer**	Ericcson, RFS	Ericcson, RFS	Ericcson, RFS	
Model Number	(1) AIR 32 , (1) APXVAARR24_43-U-NA20, (1) AIR 6449B41	(1) AIR 32 , (1) APXVAARR24_43-U-NA20, (1) AIR 6449B41	(1) AIR 32 , (1) APXVAARR24_43-U-NA20, (1) AIR 6449B41		**Model Number**	(1) AIR 32 KRD901146-1_B66A_B2A, (1) APXVAARR24_43-U-NA20	(1) AIR 32 KRD901146-1_B66A_B2A, (1) APXVAARR24_43-U-NA20	(1) AIR 32 KRD901146-1_B66A_B2A, (1) APXVAARR24_43-U-NA20	
Antenna Quantity Per Sector	3	3	3		**Antenna Quantity Per Sector**	2	2	2	
Antenna Type	Panel	Panel	Panel		**Antenna Type**	Panel	Panel	Panel	
Antenna Dimensions (HxWxD) show dimensions in "inches"	(56.6" X 12.9" X 8.7") AIR 32, (95.9" X 24" X 8.7") APX (33.1" X 20.55 X 8.3" AIR 64	(56.6" X 12.9" X 8.7") AIR 32, (95.9" X 24" X 8.7") APX (33.1" X 20.55 X 8.3" AIR 64	(56.6" X 12.9" X 8.7") AIR 32, (95.9" X 24" X 8.7") APX (33.1" X 20.55 X 8.3" AIR 64		**Antenna Dimensions** (HxWxD) show dimensions in "inches"	(56.6" X 12.9" X 8.7") AIR 32, (95.9" X 24" X 8.7") APX	(56.6" X 12.9" X 8.7") AIR 32, (95.9" X 24" X 8.7") APX	(56.6" X 12.9" X 8.7") AIR 32, (95.9" X 24" X 8.7") APX	
Weight (lbs)	132.2 (AIR 32), 128 (APX) 112 (AIR 64)	132.2 (AIR 32), 128 (APX) 112 (AIR 64)	132.2 (AIR 32), 128 (APX) 112 (AIR 64)		**Weight** (lbs)	132.2 (AIR 32), 128 (APX)	132.2 (AIR 32), 128 (APX)	132.2 (AIR 32), 128 (APX)	
Number of Coax Feed Lines per Sector and Diameter	(2) 1-5/8"	(2) 1-5/8"	(2) 1-5/8"		**Number of Coax Feed Lines per Sector and Diameter**	(2) 1-5/8"	(2) 1-5/8"	(2) 1-5/8"	
Number of Fiber Lines per Sector and Diameter					**Number of Fiber Lines per Sector and Diameter**				
Number of Hybrid Lines per Sector and Diameter (include DC and RET cables in any)	(2) 1-3/8"	(2) 1-3/8"	(2) 1-3/8"		**Number of Hybrid Lines per Sector and Diameter** (include DC and RET cables if any)	(1) 1-1/4"	(1) 1-1/4"	(1) 1-1/4"	
Number of OTHER Lines per Sector and Diameter					**Number of OTHER Lines per Sector and Diameter**				
Antenna Center Line - (in feet AGL)	135.00	135.00	135.00		**Antenna Center Line** (in feet AGL)	135.00	135.00	135.00	
Mount Height (in feet AGL)	135.00	135	135		**Mount Height** (in feet AGL)	135	135	135	
Mount Type & Model	Stand-off	Stand-off	Stand-off		**Mount Type & Model**				
Mount Face/Leg (If Rooftop, then indicate Parapet, Penthouse, Platform, or attachment)	Select One	Select One	Select One	Select One	**Mount Face/Leg (If Rooftop, then indicate Parapet, Penthouse, Platform, or attachment)**	Select One	Select One	Select One	Select One
Orientation or Azimuth (in degrees)	60	180	300		**Orientation or Azimuth** (in degrees)	60	180	300	

ALL Other Structure Mounted Equipment Detail (BTS, TMA, TTA, MHA, GPS, NEMA, ODU, RRU, Diplexers, etc., use row 83 if you need additional space)

OTHER EQUIPMENT DESCRIPTION	**SECTOR 1**	**SECTOR 2**	**SECTOR 3**	**SECTOR 4**	**OTHER EQUIPMENT DESCRIPTION**	**SECTOR 1**	**SECTOR 2**	**SECTOR 3**	**SECTOR 4**
Type (Amplifiers, Diplexers, BTS, GPS, ODU, RRU, etc)	(2) RRU, (1) TMA, (1) Diplexer	(2) RRU, (1) TMA, (1) Diplexer	(2) RRU, (1) TMA, (1) Diplexer		**Type** (Amplifiers, Diplexers, BTS, GPS, ODU, RRU, etc)	(2) RRU, (1) TMA	(2) RRU, (1) TMA	(2) RRU, (1) TMA	
Manufacturer	(3) Ericsson, (1) Commscope	(3) Ericsson, (1) Commscope	(3) Ericsson, (1) Commscope		**Manufacturer**	Ericsson	Ericsson	Ericsson	
Model Number	(1) Radio 4449, (1) Radio 4415, (1) KRY112, (1) SDX	(1) Radio 4449, (1) Radio 4415, (1) KRY112, (1) SDX	(1) Radio 4449, (1) Radio 4415, (1) KRY112, (1) SDX		**Model Number**	(1) RRU S11 B2, (1) RRUS11 B12, (1) KRY 112 144	(1) RRU S11 B2, (1) RRUS11 B12, (1) KRY 112 144	(1) RRU S11 B2, (1) RRUS11 B12, (1) KRY 112 144	
Quantity	4	4	4		**Quantity**	3		3	
Dimensions (HxWxD) show dimensions in "inches"	15" 13" X 10", 16.5" X 13" X 6", 6.9" X 6.1" X 2.8", 4" X 7" X 3"	15" 13" X 10", 16.5" X 13" X 6", 6.9" X 6.1" X 2.8", 4" X 7" X 3"	15" 13" X 10", 16.5" X 13" X 6", 6.9" X 6.1" X 2.8", 4" X 7" X 3"		**Dimensions (HxWxD)** show dimensions in "inches"	(14.9" X 13.1" X 9.2"), (20" X 17" X 7"), (6.9" X 6.1" X 2.8")	(14.9" X 13.1" X 9.2"), (20" X 17" X 7"), (6.9" X 6.1" X 2.8")	(14.9" X 13.1" X 9.2"), (20" X 17" X 7"), (6.9" X 6.1" X 2.8")	
Weight (lbs)	74, 46, 11, 6	74, 46, 11, 6	74, 46, 11, 6		**Weight (lbs)**	74, 50.7, 11	74, 50.7, 11	74, 50.7, 11	
Mount Height and Mount Location	135	135	135		**Mount Height and Mount Location**				

Microwave (MW) Equipment

FINAL INSTALL CONFIGURATION (ALL EQUIPMENT)					EXISTING EQUIPMENT CONFIGURATION (IF ANY)				
MICROWAVE DESCRIPTION	**SECTOR 1**	**SECTOR 2**	**SECTOR 3**	**SECTOR 4**	**MICROWAVE DESCRIPTION**	**SECTOR 1**	**SECTOR 2**	**SECTOR 3**	**SECTOR 4**
Manufacturer					**Manufacturer**				
Model Number					**Model Number**				
Antenna Quantity Per Sector					**Antenna Quantity Per Sector**				
Antenna Dimensions (HxWxD) show dimensions in "inches"					**Antenna Dimensions** (HxWxD) show dimensions in "inches"				
Weight (lbs)					**Weight** (lbs)				
Feed Line Diameter					**Feed Line Diameter**				
Number of Feed Lines per MW					**Number of Feed Lines per MW**				
MW Center Line - (in feet AGL)					**Rad Center Line** (in feet AGL)				
Mount Height (in feet AGL)					**Mount Height** (in feet AGL)				
Mount Face/Leg (If Rooftop, then indicate Parapet, Penthouse, Platform, or	Select One	Select One	Select One	Select One	**Mount Face/Leg (If Rooftop, then indicate Parapet, Penthouse, Platform, or attachment)**	Select One	Select One	Select One	Select One
Orientation or Azimuth (in degrees)					**Orientation or Azimuth** (in degrees)				

EQUIPMENT NOTES: Use space below for notes or to detail other structure mounted equipment. If you intend to install any type of tower CONDUIT or INNERDUCT for your transmission cables you MUST indicate the quantity, diameter, and type in the below space.

Additional Information and Comments (Include any equipment information that did not fit in the cells above**)**	Addition of (3) new antennas. Addition of (3) new RRUs and (3) diplexers. Addition of (3) new hybrid cables.
Applicant Project Type: (examples: 2.5, L700, AWS, UMTS 3C, LTE 2C, Modernization, etc.)	Anchor

Transmitter Equipment - Final Install (ALL EQUIPMENT)

Frequency Filings (Notice of Change or Alteration to the FAA) : AT&T Towers will arrange for any frequency filing using the "Acceptable FAA Blanket Frequency Bands" in addition to Applicants indicated microwave frequencies and power levels, if any.

DESCRIPTION	Transmitter 1	Transmitter 2	Transmitter 3	Transmitter 4	Transmitter 5 /OTHER
Call Sign(s) (if applicable): **(REQUIRED)**	Voice & Date	Voice & Data			
Tx Frequency (MHz): (REQUIRED)	1940-1949, 2140-2145, 2110-2120, 728-734, 2496-2690	1940-1949, 2140-2145, 2110-2120, 728-734, 2496-2690			
Rx Frequency (MHz): (REQUIRED)	1850-1870, 1740-1745, 1710-1720, 698-704, 2496-2690	1850-1870, 1740-1745, 1710-1720, 698-704, 2496-2690			
Max Tx Output Power: (in watts)	60	60			
Max Power Output / Radio: (in watts) **(REQUIRED)**	60	60			
Max ERP: (in watts) **(REQUIRED)**	60	60			

Ground or Equipment Space - Power & Telco Requirements (you must complete row 99)

Equipment/Ground Space Requirements:	Existing Tower Site - No Additional Ground Space	**Adding Generator?**	No	**Equipment Detail**	Cabinets	**Inside Lessor Building?:**	Select One

	Building or Equipment Dimensions (HxWxL):	Equipment Pad Dimensions (WxL):	Leased Area Total Width	Leased Area Total Length	Subtotal Square Feet	Total Square Feet
Equipment Space 1:			14.00	14.60	204.4	**204.4**
Generator Space 2:					0	
Other Space 3:					0	

Power (Volts/Amps) (Only if provided by AT&T)		**Telco Requirements:** (Only if provided by AT&T)	Select One	**Number of *New* Exterior Cabinet(s) (REQUIRED)**	

Notes for All Equipment Above (Rows 96-99)

Notes	
Equipment To Be Removed (if any)	

Do you require an LOA (Letter of Authorization)?	**Yes**	

End of Application

CENTEK engineering

Centered on Solutions℠

Structural Analysis Report

Antenna Mount Analysis

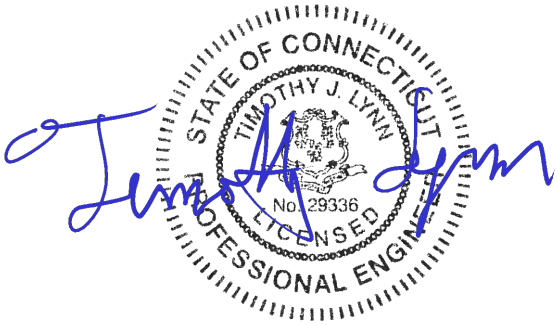
T-Mobile Site #: CT11199A

219 Nells Rock Road
Shelton, CT

Centek Project No. 20074.53

Date: July 8, 2020

Max Stress Ratio = 82.7%



Prepared for:

T-Mobile USA
35 Griffin Road
Bloomfield, CT 06002

Table of Contents

CENTEK engineering

Centered on Solutions℠

July 8, 2020

Mr. Dan Reid
Transcend Wireless
10 Industrial Ave
Mahwah, NJ 07430

Re: Structural Letter ~ Antenna Mount
T-Mobile – Site Ref: CT11199A
219 Nells Rock Road
Shelton, CT 06484

Centek Project No. 20074.53

Dear Mr. Reid,

Centek Engineering, Inc. has reviewed the T-Mobile antenna installation at the above referenced site. The purpose of the review is to determine the structural adequacy of the existing mount, consisting of three (3) modified T-Arms SitePro XLD WiMAX Tower Mount (P/N: CWT-02) to support the proposed/existing equipment configuration. The review considered the effects of wind load, dead load and ice load in accordance with the 2015 International Building Code as modified by the 2018 Connecticut State Building Code (CTBC) including ASCE 7-10 and ANSI/TIA-222-G *Structural Standards for Steel Antenna Towers and Supporting Structures*.

The loads considered in this analysis consist of the following:

- T-Mobile:
  T-Arms: Three (3) Ericsson AIR32 panel antennas, three (3) RFS APXVAARR24-43-NA20 panel antennas, three (3) Ericsson AIR 6449 B41 panel antennas, three (3) Ericsson 4449 B71_B85 remote radio units, three (3) Ericsson 4415 B25 remote radio units, three (3) TMAs and three (3) Commscope SDX1926Q-43 diplexers mounted on three (3) existing T-Arms with a RAD center elevation of 135-ft +/- AGL.

The antenna mount was analyzed per the requirements of the 2015 International Building Code as modified by the 2018 Connecticut State Building Code considering a nominal design wind speed of 97 mph for Shelton as required in Appendix N of the 2018 Connecticut State Building Code.

A structural analysis of tower and foundation needs to be completed prior to any work.

Based on our review of the installation, it is our opinion that the existing mounts with the replacement of the bottom horizontal pipe for Pipe 3.0 STD X 8'-0" long (Typ. of 3) and the installation of vertical antenna pipe mast Pipe 2.0 STD X 8'-0" long (Typ. of 3) have sufficient capacity to support the aforementioned antenna configuration. If there are any questions regarding this matter, please feel free to call.

Respectfully Submitted by:

Timothy J. Lynn, PE
Structural Engineer

STATE OF CONNECTICUT
TIMOTHY J. LYNN
No. 29336
LICENSED
PROFESSIONAL ENGINEER

Prepared by:

Fernando J. Palacios
Engineer

Section 2 - Calculations

CENTEK engineering
Centered on Solutions℠ www.centekeng.com
63-2 North Branford Road P: (203) 488-0580
Branford, CT 06405 F: (203) 488-8587

Subject: TIA-222-G Loads

Location: Shelton, CT

Rev. 0: 07/07/2020

Prepared by: F.J.P. Checked by: T.J.L.
Job No. 20074.53

Development of Design Heights, Exposure Coefficients, and Velocity Pressures Per TIA-222-G

Wind Speeds

Basic Wind Speed	$V := 97$	mph	(User Input - 2018 CSBC Appendix N)
Basic Wind Speed with Ice	$V_i := 50$	mph	(User Input per Annex B of TIA-222-G)

Input

Structure Type =	$Structure\_Type := Lattice$		(User Input)
Structure Category =	$SC := II$		(User Input)
Exposure Category =	$Exp := C$		(User Input)
Structure Height =	$h := 162.5$	ft	(User Input)
Height to Center of Antennas =	$z := 135$	ft	(User Input)
Radial Ice Thickness =	$t_i := 0.75$	in	(User Input per Annex B of TIA-222-G)
Radial Ice Density =	$Id := 56.00$	pcf	(User Input)
Topographic Factor =	$K_{zt} := 1.0$		(User Input)
	$K_a := 1.0$		(User Input)
Gust Response Factor =	$G_H = 1.138$		(User Input)

Output

Wind Direction Probability Factor =

$$K_d := \begin{cases} 0.95 & \text{if } Structure\_Type = Pole \\ 0.85 & \text{if } Structure\_Type = Lattice \end{cases} = 0.85$$

(Per Table 2-2 of TIA-222-G)

(Per Table 3-3 of TIA-222-G)

Importance Factors =

$$I_{Wind} := \begin{cases} 0.87 & \text{if } SC = 1 \\ 1.00 & \text{if } SC = 2 \\ 1.15 & \text{if } SC = 3 \end{cases} = 1$$

$$I_{Wind\_w\_Ice} := \begin{cases} 0 & \text{if } SC = 1 \\ 1.00 & \text{if } SC = 2 \\ 1.00 & \text{if } SC = 3 \end{cases} = 1$$

$$I_{ice} := \begin{cases} 0 & \text{if } SC = 1 \\ 1.00 & \text{if } SC = 2 \\ 1.25 & \text{if } SC = 3 \end{cases} = 1$$

$$K_{iz} := \left(\frac{z}{33}\right)^{0.1} = 1.151$$

Velocity Pressure Coefficient Antennas =

$$t_{iz} := 2.0 \cdot t_i \cdot I_{ice} \cdot K_{iz} \cdot K_{zt}^{0.35} = 1.727$$

$$Kz := 2.01 \cdot \left(\left(\frac{z}{zg}\right)\right)^{\frac{2}{\alpha}} = 1.348$$

Velocity Pressure w/o Ice Antennas = $qz := 0.00256 \cdot K_d \cdot Kz \cdot V^2 \cdot I_{Wind} = 28$ psf

Velocity Pressure with Ice Antennas = $qz_{ice} := 0.00256 \cdot K_d \cdot Kz \cdot V_i^2 \cdot I_{Wind} = 7$ psf

CENTEK engineering
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63-2 North Branford Road P: (203) 488-0580
Branford, CT 06405 F: (203) 488-8587

Development of Wind & Ice Load on Antennas

Antenna Data:

Antenna Model =	RFS APXVAARR24_43-U-NA20		
Antenna Shape =	Flat		(User Input)
Antenna Height =	$L_{ant} := 95.9$	in	(User Input)
Antenna Width =	$W_{ant} := 24$	in	(User Input)
Antenna Thickness =	$T_{ant} := 8.7$	in	(User Input)
Antenna Weight =	$WT_{ant} := 153$	lbs	(User Input)
Number of Antennas =	$N_{ant} := 1$		(User Input)
Antenna Aspect Ratio =	$Ar_{ant} := \frac{L_{ant}}{W_{ant}} = 4.0$		
Antenna Force Coefficient =	$Ca_{ant} = 1.27$		

Wind Load (without ice)

Surface Area for One Antenna =	$SA_{antF} := \frac{L_{ant} \cdot W_{ant}}{144} = 16$	sf
Total Antenna Wind Force Front =	$F_{ant} := qz \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{antF} = 636$	lbs
Surface Area for One Antenna =	$SA_{antS} := \frac{L_{ant} \cdot T_{ant}}{144} = 5.8$	sf
Total Antenna Wind Force Side =	$F_{ant} := qz \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{antS} = 230$	lbs

Wind Load (with ice)

Surface Area for One Antenna w/ Ice =	$SA_{ICEantF} := \frac{(L_{ant} + 2 \cdot t_{iz}) \cdot (W_{ant} + 2 \cdot t_{iz})}{144} = 18.9$	sf
Total Antenna Wind Force w/ Ice Front =	$Fi_{ant} := qz_{ice} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{ICEantF} = 200$	lbs
Surface Area for One Antenna w/ Ice =	$SA_{ICEantS} := \frac{(L_{ant} + 2 \cdot t_{iz}) \cdot (T_{ant} + 2 \cdot t_{iz})}{144} = 8.4$	sf
Total Antenna Wind Force w/ Ice Side =	$Fi_{ant} := qz_{ice} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{ICEantS} = 89$	lbs

Gravity Load (without ice)

Weight of All Antennas =	$WT_{ant} \cdot N_{ant} = 153$	lbs

Gravity Loads (ice only)

Volume of Each Antenna =	$V_{ant} := L_{ant} \cdot W_{ant} \cdot T_{ant} = 2 \cdot 10^4$	cu in
Volume of Ice on Each Antenna =	$V_{ice} := (L_{ant} + 2 \cdot t_{iz}) \cdot (W_{ant} + 2 \cdot t_{iz}) \cdot (T_{ant} + 2 \cdot t_{iz}) - V_{ant} = 1 \cdot 10^4$	cu in
Weight of Ice on Each Antenna =	$W_{ICEant} := \frac{V_{ice}}{1728} \cdot Id = 425$	lbs
Weight of Ice on All Antennas =	$W_{ICEant} \cdot N_{ant} = 425$	lbs

Development of Wind & Ice Load on Antennas

Antenna Data:

Antenna Model =	Ericsson AIR32 KRD901146-1_B66A_B2A		
Antenna Shape =	Flat		(User Input)
Antenna Height =	$L_{ant} := 56.6$	in	(User Input)
Antenna Width =	$W_{ant} := 12.9$	in	(User Input)
Antenna Thickness =	$T_{ant} := 8.7$	in	(User Input)
Antenna Weight =	$WT_{ant} := 133$	lbs	(User Input)
Number of Antennas =	$N_{ant} := 1$		(User Input)
Antenna Aspect Ratio =	$Ar_{ant} := \frac{L_{ant}}{W_{ant}} = 4.4$		
Antenna Force Coefficient =	$Ca_{ant} = 1.28$		

Wind Load (without ice)

Surface Area for One Antenna =	$SA_{antF} := \frac{L_{ant} \cdot W_{ant}}{144} = 5.1$	sf
Total Antenna Wind Force Front =	$F_{ant} := qz \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{antF} = 204$	lbs
Surface Area for One Antenna =	$SA_{antS} := \frac{L_{ant} \cdot T_{ant}}{144} = 3.4$	sf
Total Antenna Wind Force Side =	$F_{ant} := qz \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{antS} = 138$	lbs

Wind Load (with ice)

Surface Area for One Antenna w/ Ice =	$SA_{ICEantF} := \frac{(L_{ant} + 2 \cdot t_{iz}) \cdot (W_{ant} + 2 \cdot t_{iz})}{144} = 6.8$	sf
Total Antenna Wind Force w/ Ice Front =	$Fi_{ant} := qz_{ice} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{ICEantF} = 73$	lbs
Surface Area for One Antenna w/ Ice =	$SA_{ICEantS} := \frac{(L_{ant} + 2 \cdot t_{iz}) \cdot (T_{ant} + 2 \cdot t_{iz})}{144} = 5.1$	sf
Total Antenna Wind Force w/ Ice Side =	$Fi_{ant} := qz_{ice} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{ICEantS} = 54$	lbs

Gravity Load (without ice)

Weight of All Antennas =	$WT_{ant} \cdot N_{ant} = 133$	lbs

Gravity Loads (ice only)

Volume of Each Antenna =	$V_{ant} := L_{ant} \cdot W_{ant} \cdot T_{ant} = 6352$	cu in
Volume of Ice on Each Antenna =	$V_{ice} := (L_{ant} + 2 \cdot t_{iz}) \cdot (W_{ant} + 2 \cdot t_{iz}) \cdot (T_{ant} + 2 \cdot t_{iz}) - V_{ant} = 5584$	cu in
Weight of Ice on Each Antenna =	$W_{ICEant} := \frac{V_{ice}}{1728} \cdot Id = 181$	lbs
Weight of Ice on All Antennas =	$W_{ICEant} \cdot N_{ant} = 181$	lbs

Development of Wind & Ice Load on Antennas

Antenna Data:

Antenna Model =	Ericsson AIR6449 B41		
Antenna Shape =	Flat		(User Input)
Antenna Height =	$L_{ant} := 33.1$	in	(User Input)
Antenna Width =	$W_{ant} := 20.5$	in	(User Input)
Antenna Thickness =	$T_{ant} := 8.3$	in	(User Input)
Antenna Weight =	$WT_{ant} := 103$	lbs	(User Input)
Number of Antennas =	$N_{ant} := 1$		(User Input)
Antenna Aspect Ratio =	$Ar_{ant} := \frac{L_{ant}}{W_{ant}} = 1.6$		
Antenna Force Coefficient =	$Ca_{ant} = 1.2$		

Wind Load (without ice)

Surface Area for One Antenna =	$SA_{antF} := \frac{L_{ant} \cdot W_{ant}}{144} = 4.7$	sf
Total Antenna Wind Force Front =	$F_{ant} := qz \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{antF} = 178$	lbs
Surface Area for One Antenna =	$SA_{antS} := \frac{L_{ant} \cdot T_{ant}}{144} = 1.9$	sf
Total Antenna Wind Force Side =	$F_{ant} := qz \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{antS} = 72$	lbs

Wind Load (with ice)

Surface Area for One Antenna w/ Ice =	$SA_{ICEantF} := \frac{(L_{ant} + 2 \cdot t_{iz}) \cdot (W_{ant} + 2 \cdot t_{iz})}{144} = 6.1$	sf
Total Antenna Wind Force w/ Ice Front =	$Fi_{ant} := qz_{ice} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{ICEantF} = 61$	lbs
Surface Area for One Antenna w/ Ice =	$SA_{ICEantS} := \frac{(L_{ant} + 2 \cdot t_{iz}) \cdot (T_{ant} + 2 \cdot t_{iz})}{144} = 3$	sf
Total Antenna Wind Force w/ Ice Side =	$Fi_{ant} := qz_{ice} \cdot G_H \cdot Ca_{ant} \cdot K_a \cdot SA_{ICEantS} = 30$	lbs

Gravity Load (without ice)

Weight of All Antennas =	$WT_{ant} \cdot N_{ant} = 103$	lbs

Gravity Loads (ice only)

Volume of Each Antenna =	$V_{ant} := L_{ant} \cdot W_{ant} \cdot T_{ant} = 5632$	cu in
Volume of Ice on Each Antenna =	$V_{ice} := (L_{ant} + 2 \cdot t_{iz}) \cdot (W_{ant} + 2 \cdot t_{iz}) \cdot (T_{ant} + 2 \cdot t_{iz}) - V_{ant} = 4660$	cu in
Weight of Ice on Each Antenna =	$W_{ICEant} := \frac{V_{ice}}{1728} \cdot Id = 151$	lbs
Weight of Ice on All Antennas =	$W_{ICEant} \cdot N_{ant} = 151$	lbs

Development of Wind & Ice Load on RRUS's

RRUS Data:

RRUS Model =	Ericsson 4449 B71+B85		
RRUS Shape =	Flat		(User Input)
RRUS Height =	$L_{RRUS} := 17.9$	in	(User Input)
RRUS Width =	$W_{RRUS} := 13.2$	in	(User Input)
RRUS Thickness =	$T_{RRUS} := 9.5$	in	(User Input)
RRUS Weight =	$WT_{RRUS} := 75$	lbs	(User Input)
Number of RRUS's =	$N_{RRUS} := 1$		
RRUS Aspect Ratio =	$Ar_{RRUS} := \frac{L_{RRUS}}{W_{RRUS}} = 1.4$		
RRUS Force Coefficient =	$Ca_{RRUS} = 1.2$		

Wind Load (without ice)

Surface Area for One RRUS =	$SA_{RRUSF} := \frac{L_{RRUS} \cdot W_{RRUS}}{144} = 1.6$	sf
Total RRUS Wind Force =	$F_{RRUS} := qz \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{RRUSF} = 62$	lbs
Surface Area for One RRUS =	$SA_{RRUSS} := \frac{L_{RRUS} \cdot T_{RRUS}}{144} = 1.2$	sf
Total RRUS Wind Force =	$F_{RRUS} := qz \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{RRUSS} = 44$	lbs

Wind Load (with ice)

Surface Area for One RRUS w/ Ice =	$SA_{ICERRUSF} := \frac{(L_{RRUS} + 2 \cdot t_{iz}) \cdot (W_{RRUS} + 2 \cdot t_{iz})}{144} = 2.5$	sf
Total RRUS Wind Force w/ Ice =	$Fi_{RRUS} := qz_{ice} \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{ICERRUSF} = 25$	lbs
Surface Area for One RRUS w/ Ice =	$SA_{ICERRUSS} := \frac{(L_{RRUS} + 2 \cdot t_{iz}) \cdot (T_{RRUS} + 2 \cdot t_{iz})}{144} = 1.9$	sf
Total RRUS Wind Force w/ Ice =	$Fi_{RRUS} := qz_{ice} \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{ICERRUSS} = 19$	lbs

Gravity Load (without ice)

Weight of All RRUSs =	$WT_{RRUS} \cdot N_{RRUS} = 75$	lbs

Gravity Loads (ice only)

Volume of Each RRUS =	$V_{RRUS} := L_{RRUS} \cdot W_{RRUS} \cdot T_{RRUS} = 2245$	cu in
Volume of Ice on Each RRUS =	$V_{ice} := (L_{RRUS} + 2 \cdot t_{iz}) \cdot (W_{RRUS} + 2 \cdot t_{iz}) \cdot (T_{RRUS} + 2 \cdot t_{iz}) - V_{RRUS} = 2362$	cu in
Weight of Ice on Each RRUS =	$W_{ICERRUS} := \frac{V_{ice}}{1728} \cdot Id = 77$	lbs
Weight of Ice on All RRUSs =	$W_{ICERRUS} \cdot N_{RRUS} = 77$	lbs

Development of Wind & Ice Load on RRUS's

RRUS Data:

RRUS Model =	Ericsson 4415 B25		
RRUS Shape =	Flat		(User Input)
RRUS Height =	$L_{RRUS} := 14.9$	in	(User Input)
RRUS Width =	$W_{RRUS} := 13.2$	in	(User Input)
RRUS Thickness =	$T_{RRUS} := 5.4$	in	(User Input)
RRUS Weight =	$WT_{RRUS} := 46.3$	lbs	(User Input)
Number of RRUS's =	$N_{RRUS} := 1$		
RRUS Aspect Ratio =	$Ar_{RRUS} := \frac{L_{RRUS}}{W_{RRUS}} = 1.1$		
RRUS Force Coefficient =	$Ca_{RRUS} = 1.2$		

Wind Load (without ice)

Surface Area for One RRUS =	$SA_{RRUSF} := \frac{L_{RRUS} \cdot W_{RRUS}}{144} = 1.4$	sf
Total RRUS Wind Force =	$F_{RRUS} := qz \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{RRUSF} = 51$	lbs
Surface Area for One RRUS =	$SA_{RRUSS} := \frac{L_{RRUS} \cdot T_{RRUS}}{144} = 0.6$	sf
Total RRUS Wind Force =	$F_{RRUS} := qz \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{RRUSS} = 21$	lbs

Wind Load (with ice)

Surface Area for One RRUS w/ Ice =	$SA_{ICERRUSF} := \frac{(L_{RRUS} + 2 \cdot t_{iz}) \cdot (W_{RRUS} + 2 \cdot t_{iz})}{144} = 2.1$	sf
Total RRUS Wind Force w/ Ice =	$Fi_{RRUS} := qz_{ice} \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{ICERRUSF} = 21$	lbs
Surface Area for One RRUS w/ Ice =	$SA_{ICERRUSS} := \frac{(L_{RRUS} + 2 \cdot t_{iz}) \cdot (T_{RRUS} + 2 \cdot t_{iz})}{144} = 1.1$	sf
Total RRUS Wind Force w/ Ice =	$Fi_{RRUS} := qz_{ice} \cdot G_H \cdot Ca_{RRUS} \cdot K_a \cdot SA_{ICERRUSS} = 11$	lbs

Gravity Load (without ice)

Weight of All RRUSs =	$WT_{RRUS} \cdot N_{RRUS} = 46$	lbs

Gravity Loads (ice only)

Volume of Each RRUS =	$V_{RRUS} := L_{RRUS} \cdot W_{RRUS} \cdot T_{RRUS} = 1062$	cu in
Volume of Ice on Each RRUS =	$V_{ice} := (L_{RRUS} + 2 \cdot t_{iz}) \cdot (W_{RRUS} + 2 \cdot t_{iz}) \cdot (T_{RRUS} + 2 \cdot t_{iz}) - V_{RRUS} = 1644$	cu in
Weight of Ice on Each RRUS =	$W_{ICERRUS} := \frac{V_{ice}}{1728} \cdot Id = 53$	lbs
Weight of Ice on All RRUSs =	$W_{ICERRUS} \cdot N_{RRUS} = 53$	lbs

Development of Wind & Ice Load on TMA's

TMA Data:

TMA Model =	Ericsson KRY112 TMA		
TMA Shape =	Flat	in	(User Input)
TMA Height =	$L_{TMA} := 7.7$	in	(User Input)
TMA Width =	$W_{TMA} := 7.5$	in	(User Input)
TMA Thickness =	$T_{TMA} := 3.4$	lbs	(User Input)
TMA Weight =	$WT_{TMA} := 11$		(User Input)
Number of TMA's =	$N_{TMA} := 1$		(User Input)
TMA Aspect Ratio =	$Ar_{TMA} := \frac{L_{TMA}}{W_{TMA}} = 1$		
TMA Force Coefficient =	$Ca_{TMA} = 1.2$		

Wind Load (without ice)

Surface Area for One TMA =	$SA_{TMAF} := \frac{L_{TMA} \cdot W_{TMA}}{144} = 0.4$	sf
Total TMA Wind Force =	$F_{TMA} := qz \cdot G_H \cdot Ca_{TMA} \cdot K_a \cdot SA_{TMAF} = 15$	lbs
Surface Area for One TMA =	$SA_{TMAS} := \frac{L_{TMA} \cdot T_{TMA}}{144} = 0.2$	sf
Total TMA Wind Force =	$F_{TMA} := qz \cdot G_H \cdot Ca_{TMA} \cdot K_a \cdot SA_{TMAS} = 7$	lbs

Wind Load (with ice)

Surface Area for One TMA w/ Ice =	$SA_{ICETMAF} := \frac{(L_{TMA} + 2 \cdot t_{iz}) \cdot (W_{TMA} + 2 \cdot t_{iz})}{144} = 0.8$	sf
Total TMA Wind Force w/ Ice =	$Fi_{TMA} := qz_{ice} \cdot G_H \cdot Ca_{TMA} \cdot K_a \cdot SA_{ICETMAF} = 8$	lbs
Surface Area for One TMA w/ Ice =	$SA_{ICETMAS} := \frac{(L_{TMA} + 2 \cdot t_{iz}) \cdot (T_{TMA} + 2 \cdot t_{iz})}{144} = 0.5$	sf
Total TMA Wind Force w/ Ice =	$Fi_{TMA} := qz_{ice} \cdot G_H \cdot Ca_{TMA} \cdot K_a \cdot SA_{ICETMAS} = 5$	lbs

Gravity Load (without ice)

Weight of All TMAs =	$WT_{TMA} \cdot N_{TMA} = 11$	lbs

Gravity Loads (ice only)

Volume of Each TMA =	$V_{TMA} := L_{TMA} \cdot W_{TMA} \cdot T_{TMA} = 196$	cu in
Volume of Ice on Each TMA =	$V_{ice} := (L_{TMA} + 2 \cdot t_{iz}) \cdot (W_{TMA} + 2 \cdot t_{iz}) \cdot (T_{TMA} + 2 \cdot t_{iz}) - V_{TMA} = 641$	cu in
Weight of Ice on Each TMA =	$W_{ICETMA} := \frac{V_{ice}}{1728} \cdot Id = 21$	lbs
Weight of Ice on All TMAs =	$W_{ICETMA} \cdot N_{TMA} = 21$	lbs

Development of Wind & Ice Load on Dipl's

Dipl Data:

Dipl Model =	Commscope SDX1926Q-43 Diplexer		
Dipl Shape =	Flat		(User Input)
Dipl Height =	$L_{Dipl} := 8$	in	(User Input)
Dipl Width =	$W_{Dipl} := 6.45$	in	(User Input)
Dipl Thickness =	$T_{Dipl} := 6.2$	in	(User Input)
Dipl Weight =	$WT_{Dipl} := 18.3$	lbs	(User Input)
Number of Dipl's =	$N_{Dipl} := 2$		(User Input)
Dipl Aspect Ratio =	$Ar_{Dipl} := \frac{L_{Dipl}}{W_{Dipl}} = 1.2$		
Dipl Force Coefficient =	$Ca_{Dipl} = 1.2$		

Wind Load (without ice)

Surface Area for One Dipl = $SA_{DiplF} := \frac{L_{Dipl} \cdot W_{Dipl}}{144} = 0.4$ sf

Total Dipl Wind Force = $F_{Dipl} := qz \cdot G_H \cdot Ca_{Dipl} \cdot K_a \cdot SA_{DiplF} = 14$ lbs

Surface Area for One Dipl = $SA_{DiplS} := \frac{L_{Dipl} \cdot T_{Dipl}}{144} = 0.3$ sf

Total Dipl Wind Force = $F_{Dipl} := qz \cdot G_H \cdot Ca_{Dipl} \cdot K_a \cdot SA_{DiplS} = 13$ lbs

Wind Load (with ice)

Surface Area for One Dipl w/ Ice = $SA_{ICEDiplF} := \frac{(L_{Dipl} + 2 \cdot t_{iz}) \cdot (W_{Dipl} + 2 \cdot t_{iz})}{144} = 0.8$ sf

Total Dipl Wind Force w/ Ice = $Fi_{Dipl} := qz_{ice} \cdot G_H \cdot Ca_{Dipl} \cdot K_a \cdot SA_{ICEDiplF} = 8$ lbs

Surface Area for One Dipl w/ Ice = $SA_{ICEDiplS} := \frac{(L_{Dipl} + 2 \cdot t_{iz}) \cdot (T_{Dipl} + 2 \cdot t_{iz})}{144} = 0.8$ sf

Total Dipl Wind Force w/ Ice = $Fi_{Dipl} := qz_{ice} \cdot G_H \cdot Ca_{Dipl} \cdot K_a \cdot SA_{ICEDiplS} = 8$ lbs

Gravity Load (without ice)

Weight of All Dipls = $WT_{Dipl} \cdot N_{Dipl} = 37$ lbs

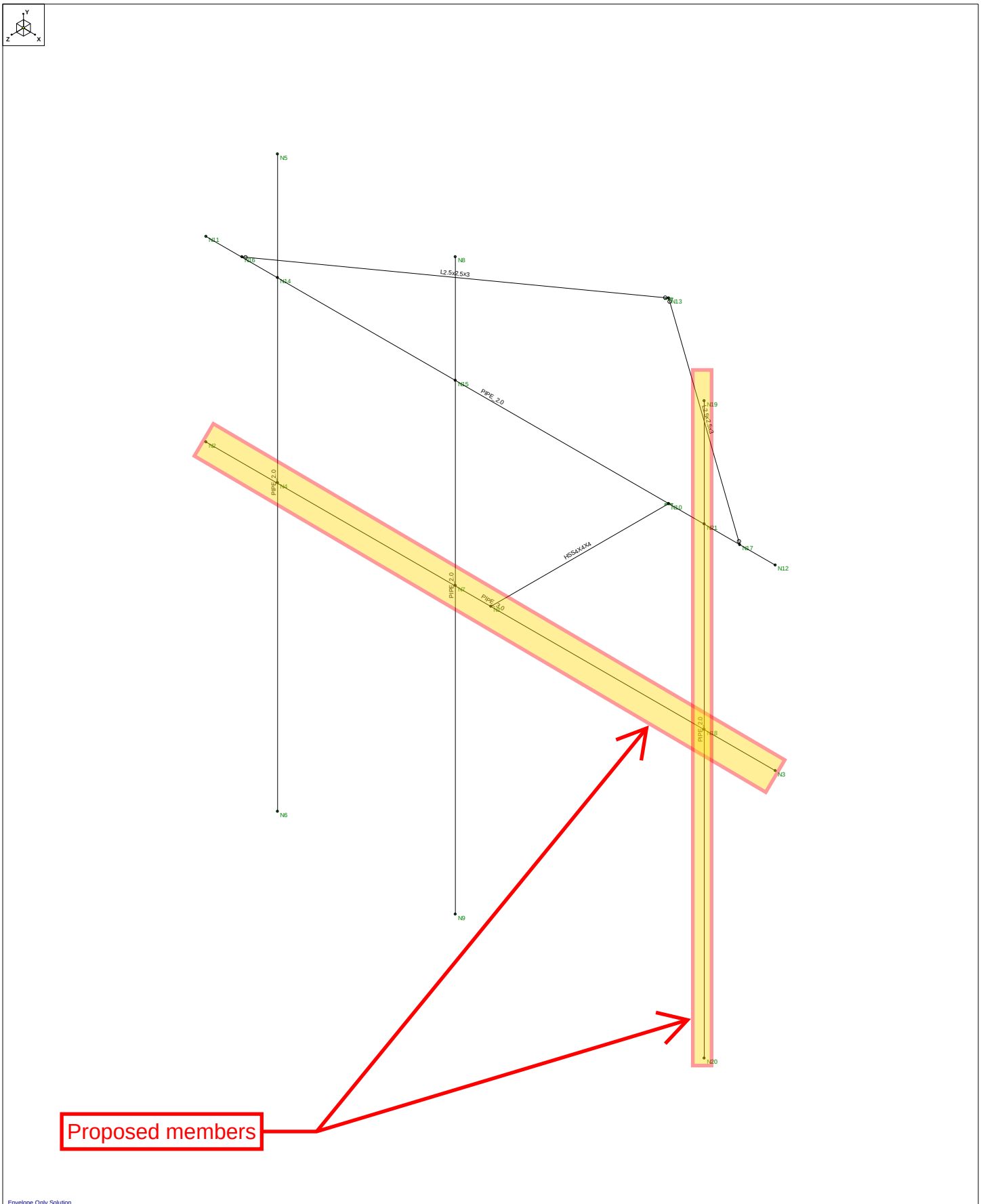
Gravity Loads (ice only)

Volume of Each Dipl = $V_{Dipl} := L_{Dipl} \cdot W_{Dipl} \cdot T_{Dipl} = 320$ cu in

Volume of Ice on Each Dipl = $V_{ice} := (L_{Dipl} + 2 \cdot t_{iz}) \cdot (W_{Dipl} + 2 \cdot t_{iz}) \cdot (T_{Dipl} + 2 \cdot t_{iz}) - V_{Dipl} = 775$

Weight of Ice on Each Dipl = $W_{ICEDipl} := \frac{V_{ice}}{1728} \cdot Id = 25$ lbs cu in

Weight of Ice on All Dipls = $W_{ICEDipl} \cdot N_{Dipl} = 50$ lbs



Envelope Only Solution

Centek		
FJP	CT11199A - Mount	July 7, 2020 at 4:58 PM
20074.53	Member Framing	CT11199A_Mount.r3d

(Global) Model Settings

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Increase Nailing Capacity for Wind?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automatically Iterate Stiffness for Walls?	Yes
Max Iterations for Wall Stiffness	3
Gravity Acceleration (ft/sec^2)	32.2
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

Hot Rolled Steel Code	AISC 14th(360-10): LRFD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 14th(360-10): ASD
Cold Formed Steel Code	AISI S100-10: ASD
Wood Code	AWC NDS-12: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-11
Masonry Code	ACI 530-11: ASD
Aluminum Code	AA ADM1-10: ASD - Building
Stainless Steel Code	AISC 14th(360-10): ASD
Adjust Stiffness?	Yes(Iterative)

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	Exact Integration
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Use Cracked Sections Slab?	No
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR_SET_ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

(Global) Model Settings, Continued

Seismic Code	ASCE 7-10
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	Yes
Ct X	.02
Ct Z	.02
T X (sec)	Not Entered
T Z (sec)	Not Entered
R X	3
R Z	3
Ct Exp. X	.75
Ct Exp. Z	.75
SD1	1
SDS	1
S1	1
TL (sec)	5
Risk Cat	I or II
Drift Cat	Other
Om Z	1
Om X	1
Cd Z	4
Cd X	4
Rho Z	1
Rho X	1

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	58	1.2
3	A992	29000	11154	.3	.65	.49	50	1.1	58	1.2
4	A500 Gr.42	29000	11154	.3	.65	.49	42	1.3	58	1.1
5	A500 Gr.46	29000	11154	.3	.65	.49	46	1.2	58	1.1
6	A53 Grade B	29000	11154	.3	.65	.49	35	1.5	58	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Outrigger	HSS4X4X4	Beam	Wide Flange	A500 Gr.46	Typical	3.37	7.8	7.8	12.8
2	Horz	PIPE_3.0	Beam	Pipe	A53 Grade B	Typical	2.07	2.85	2.85	5.69
3	Antenna Mast	PIPE_2.0	Column	Pipe	A53 Grade B	Typical	1.02	.627	.627	1.25
4	Brace	L2.5x2.5x3	Column	Pipe	A36 Gr.36	Typical	.901	.535	.535	.011
5	Horz Brace	PIPE_2.0	Column	Pipe	A53 Grade B	Typical	1.02	.627	.627	1.25

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
1	M1	Horz	8			Lbyy						Lateral
2	PS.1	Antenna Mast	8			Lbyy						Lateral
3	PS.2	Antenna Mast	8			Lbyy						Lateral
4	M4	Outrigger	2.5			Lbyy						Lateral
5	M5	Horz Brace	8			Lbyy						Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
6	M6	Brace	4.301									Lateral
7	M7	Brace	4.301									Lateral
8	PS.3	Antenna Mast	8			Lbyy						Lateral

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(de...	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N3			Horz	Beam	Pipe	A53 Grad...	Typical
2	PS.1	N6	N5			Antenna Mast	Column	Pipe	A53 Grad...	Typical
3	PS.2	N9	N8			Antenna Mast	Column	Pipe	A53 Grad...	Typical
4	M4	N10	N1			Outrigger	Beam	Wide Flange	A500 Gr.46	Typical
5	M5	N11	N12			Horz Brace	Column	Pipe	A53 Grad...	Typical
6	M6	N16	N13			Brace	Column	Pipe	A36 Gr.36	Typical
7	M7	N13	N17			Brace	Column	Pipe	A36 Gr.36	Typical
8	PS.3	N20	N19			Antenna Mast	Column	Pipe	A53 Grad...	Typical

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diaphragm
1	N1	0	0	3	0	
2	N2	-4	0	3	0	
3	N3	4	0	3	0	
4	N4	-3	0	3	0	
5	N5	-3	4	3	0	
6	N6	-3	-4	3	0	
7	N7	-.5	0	3	0	
8	N8	-.5	4	3	0	
9	N9	-.5	-4	3	0	
10	N10	0	0	.5	0	
11	N11	-4	2.5	3	0	
12	N12	4	2.5	3	0	
13	N13	0	2.5	.5	0	
14	N14	-3	2.5	3	0	
15	N15	-.5	2.5	3	0	
16	N16	-3.5	2.5	3	0	
17	N17	3.5	2.5	3	0	
18	N18	3	0	3	0	
19	N19	3	4	3	0	
20	N20	3	-4	3	0	
21	N21	3	2.5	3	0	

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N10	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N13	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Member Point Loads (BLC 2 : Equipment Weight)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	PS.1	Y	-.067	2
2	PS.1	Y	-.067	6
3	PS.2	Y	-.077	1
4	PS.2	Y	-.077	7
5	PS.2	Y	-.011	3
6	PS.2	Y	-.075	5.5
7	PS.3	Y	-.052	2.625
8	PS.3	Y	-.052	5.375
9	PS.2	Y	-.037	5
10	PS.2	Y	-.046	.5

Member Point Loads (BLC 3 : Ice Weight)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	PS.1	Y	-.091	2
2	PS.1	Y	-.091	6
3	PS.2	Y	-.213	1
4	PS.2	Y	-.213	7
5	PS.2	Y	-.021	3
6	PS.2	Y	-.077	5.5
7	PS.3	Y	-.076	2.625
8	PS.3	Y	-.076	5.375
9	PS.2	Y	-.05	5
10	PS.2	Y	-.053	.5

Member Point Loads (BLC 4 : Wind w/ Ice X (7psf))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	PS.1	X	.028	2
2	PS.1	X	.028	6
3	PS.2	X	.045	1
4	PS.2	X	.045	7
5	PS.2	X	.005	3
6	PS.2	X	.019	5.5
7	PS.3	X	.015	2.625
8	PS.3	X	.015	5.375
9	PS.2	X	.008	5
10	PS.2	X	.011	.5

Member Point Loads (BLC 5 : Wind X (28psf))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	PS.1	X	.069	2
2	PS.1	X	.069	6
3	PS.2	X	.115	1
4	PS.2	X	.115	7
5	PS.2	X	.007	3
6	PS.2	X	.044	5.5
7	PS.3	X	.036	2.625
8	PS.3	X	.036	5.375
9	PS.2	X	.013	5
10	PS.2	X	.021	.5

Member Point Loads (BLC 6 : Wind w/ Ice Z(7psf))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	PS.1	Z	.037	2
2	PS.1	Z	.037	6
3	PS.2	Z	.1	1
4	PS.2	Z	.1	7
5	PS.3	Z	.031	2.625
6	PS.3	Z	.031	5.375

Member Point Loads (BLC 7 : Wind Z(28psf))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	PS.1	Z	.102	2
2	PS.1	Z	.102	6
3	PS.2	Z	.318	1
4	PS.2	Z	.318	7
5	PS.3	Z	.089	2.625
6	PS.3	Z	.089	5.375

Member Distributed Loads (BLC 4 : Wind w/ Ice X (7psf))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,%]	End Location[ft,...
1	PS.1	X	.003	.003	0	0
2	PS.2	X	.003	.003	0	0
3	PS.3	X	.003	.003	0	0

Member Distributed Loads (BLC 5 : Wind X (28psf))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,%]	End Location[ft,...
1	PS.1	X	.009	.009	0	0
2	PS.2	X	.009	.009	0	0
3	PS.3	X	.009	.009	0	0

Member Distributed Loads (BLC 6 : Wind w/ Ice Z(7psf))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,%]	End Location[ft,...
1	M1	Z	.003	.003	0	0
2	M5	Z	.003	.003	0	0
3	PS.1	Z	.003	.003	0	2
4	PS.1	Z	.003	.003	6	0
5	PS.3	Z	.003	.003	0	2.625
6	PS.3	Z	.003	.003	5.375	0

Member Distributed Loads (BLC 7 : Wind Z(28psf))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,%]	End Location[ft,...
1	M1	Z	.009	.009	0	0
2	M5	Z	.009	.009	0	0
3	PS.1	Z	.009	.009	0	2
4	PS.1	Z	.009	.009	6	0
5	PS.3	Z	.009	.009	0	2.625
6	PS.3	Z	.009	.009	5.375	0

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribu...	Area(M...	Surface...
1	Self Weight	DL		-1						
2	Equipment Weight	None					10			
3	Ice Weight	None					10			
4	Wind w/ Ice X (7psf)	None					10	3		
5	Wind X (28psf)	None					10	3		
6	Wind w/ Ice Z(7psf)	None					6	6		
7	Wind Z(28psf)	None					6	6		

Load Combinations

	Description	Solve	PDelta	SR...	B...	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D + 1.6W (X-directi...	Yes	Y		1	1.2	2	1.2	5	1.6																
2	0.9D + 1.6W (X-directi...	Yes	Y		1	.9	2	.9	5	1.6																
3	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	2	1.2	3	1	4	1														
4	1.2D + 1.6W (Z-directi...	Yes	Y		1	1.2	2	1.2	7	1.6																
5	0.9D + 1.6W (Z-directi...	Yes	Y		1	.9	2	.9	7	1.6																
6	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	2	1.2	3	1	6	1														

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N10	max	-.1	5	1.884	3	.202	3	-.535	5	-.125	6	.011	5
2		min	-1.213	1	.693	5	-1.408	5	-4.163	3	-2.965	2	-.46	3
3	N13	max	.125	6	.017	6	-.073	2	0	2	0	6	0	5
4		min	.015	2	.012	2	-.609	4	0	4	0	1	0	3
5	Totals:	max	0	6	1.901	6	0	3						
6		min	-1.186	1	.705	2	-1.992	4						

Envelope Joint Displacements

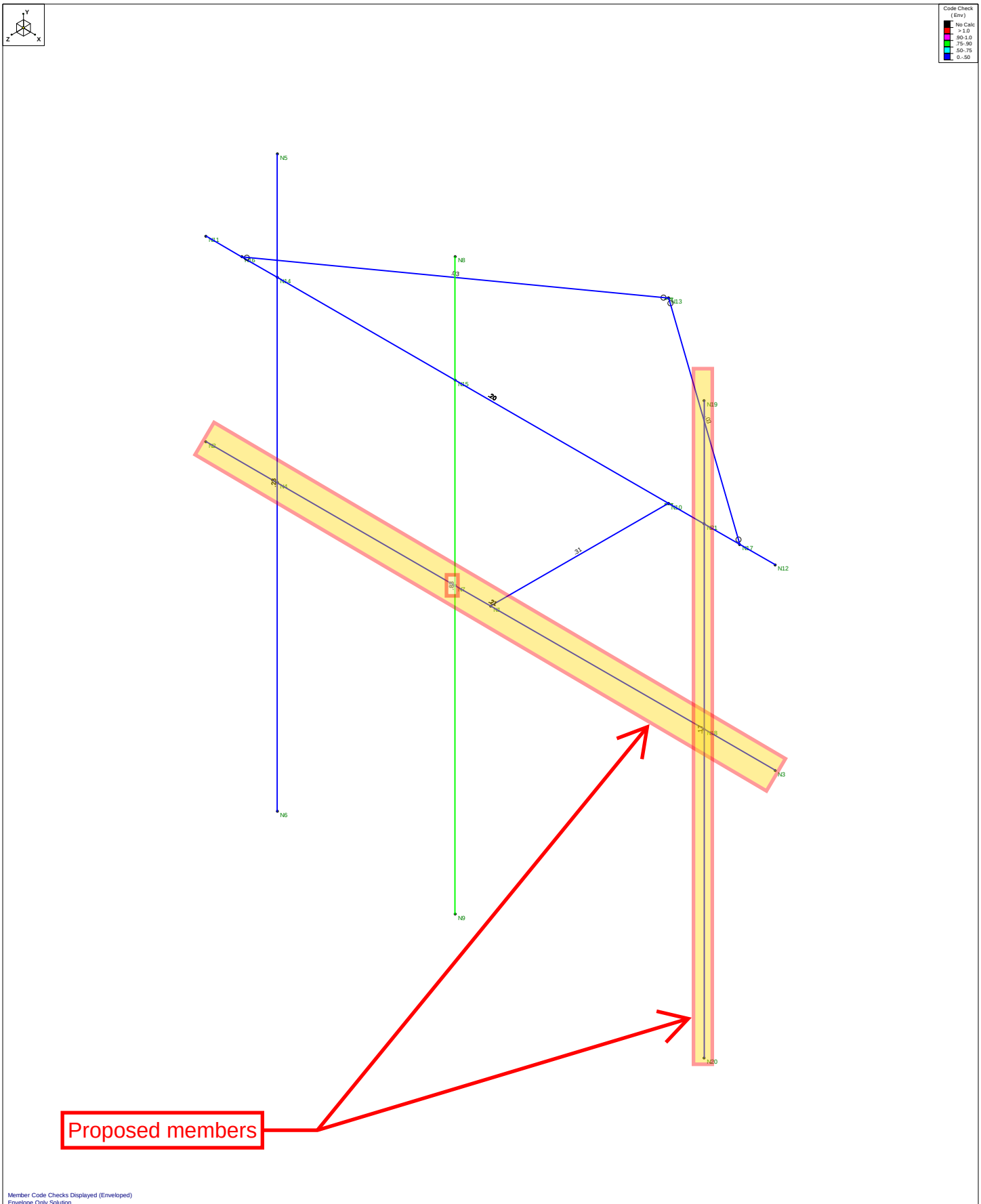
	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [...	LC	Y Rotation [...	LC	Z Rotation [...	LC
1	N1	max	.061	2	0	5	0	5	3.623e-3	3	2.913e-3	2	1.16e-3	3
2		min	0	6	-.081	3	0	3	-6.368e-4	5	-6.089e-5	6	-2.774e-5	5
3	N2	max	.061	2	-.012	5	.127	2	2.01e-3	3	2.534e-3	2	2.291e-3	3
4		min	0	6	-.19	3	-.033	6	-2.88e-3	5	-9.947e-4	6	1.895e-4	5
5	N3	max	.061	2	-.032	5	.017	5	2.826e-3	3	3.217e-3	1	-2.397e-4	3
6		min	0	6	-.085	3	-.15	1	-1.77e-3	5	-5.345e-4	5	-8.476e-4	4
7	N4	max	.061	2	-.009	5	.096	2	2.01e-3	3	2.534e-3	2	2.288e-3	3
8		min	0	6	-.163	3	-.021	6	-2.88e-3	5	-9.958e-4	6	1.872e-4	5
9	N5	max	.084	2	-.009	5	.107	2	1.509e-3	5	2.126e-3	2	1.571e-3	3
10		min	-.055	6	-.163	3	-.013	6	-1.278e-4	3	-3.493e-3	4	-5.227e-5	5
11	N6	max	.259	1	-.01	5	.392	5	1.995e-3	3	2.534e-3	2	4.86e-3	1
12		min	.024	5	-.163	3	-.11	3	-7.423e-3	5	-9.958e-4	6	1.867e-4	5
13	N7	max	.061	2	0	5	.017	2	3.182e-3	3	2.804e-3	2	1.948e-3	3
14		min	0	6	-.091	3	0	6	-1.769e-3	5	-2.667e-4	6	1.558e-4	5
15	N8	max	.094	2	-.001	5	.254	4	6.884e-3	4	2.692e-3	2	1.087e-3	6
16		min	-.047	6	-.092	3	.041	2	2.914e-4	2	-1.226e-3	6	-5.765e-4	2
17	N9	max	.542	1	-.001	5	.91	5	3.124e-3	3	2.804e-3	2	1.301e-2	1
18		min	.022	5	-.092	3	-.15	3	-2.434e-2	5	-2.667e-4	6	1.55e-4	5

Envelope Joint Displacements (Continued)

	Joint		X [in]	LC	Y [in]	LC	Z [in]	LC	X Rotation [...	LC	Y Rotation [...	LC	Z Rotation [...	LC
19	N10	max	0	6	0	6	0	6	0	6	0	6	0	6
20		min	0	1	0	1	0	1	0	1	0	1	0	1
21	N11	max	.084	2	-.009	5	.13	2	1.428e-3	5	2.074e-3	2	1.603e-3	3
22		min	-.027	6	-.182	3	-.059	6	-1.269e-4	3	-3.899e-3	4	-3.922e-5	5
23	N12	max	.084	2	-.027	5	.031	6	1.258e-3	6	4.559e-3	4	7.45e-4	6
24		min	-.027	6	-.073	3	-.138	2	2.645e-4	2	1.392e-3	3	-5.292e-4	2
25	N13	max	0	6	0	6	0	6	0	6	0	6	0	6
26		min	0	1	0	1	0	1	0	1	0	1	0	1
27	N14	max	.084	2	-.009	5	.106	2	1.429e-3	5	2.126e-3	2	1.588e-3	3
28		min	-.027	6	-.163	3	-.015	6	-1.278e-4	3	-3.493e-3	4	-5.226e-5	5
29	N15	max	.084	2	-.001	5	.131	4	6.25e-3	4	2.692e-3	2	1.085e-3	6
30		min	-.027	6	-.092	3	.035	2	2.913e-4	2	-1.226e-3	6	-2.684e-4	2
31	N16	max	.084	2	-.009	5	.118	2	1.428e-3	5	2.074e-3	2	1.602e-3	3
32		min	-.027	6	-.172	3	-.037	6	-1.269e-4	3	-3.902e-3	4	-3.986e-5	5
33	N17	max	.084	2	-.025	5	.039	6	1.258e-3	6	4.562e-3	4	7.459e-4	6
34		min	-.027	6	-.078	3	-.117	2	2.645e-4	2	1.392e-3	3	-5.285e-4	2
35	N18	max	.061	2	-.023	5	.011	5	2.826e-3	3	3.217e-3	1	-2.366e-4	3
36		min	0	6	-.082	3	-.111	1	-1.77e-3	5	-5.293e-4	5	-8.445e-4	4
37	N19	max	.094	2	-.023	5	.071	6	1.276e-3	6	4.254e-3	4	7.621e-4	6
38		min	-.041	6	-.082	3	-.092	2	2.644e-4	2	1.314e-3	3	-5.969e-4	2
39	N20	max	.115	2	-.023	5	.204	5	2.809e-3	3	3.217e-3	1	1.559e-3	2
40		min	-.026	4	-.082	3	-.173	1	-4.552e-3	5	-5.293e-4	5	-8.419e-4	4
41	N21	max	.084	2	-.023	5	.048	6	1.259e-3	6	4.254e-3	4	7.621e-4	6
42		min	-.027	6	-.082	3	-.097	2	2.644e-4	2	1.314e-3	3	-5.167e-4	2

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Check	Loc...	LC	Shea...	Loc.....	L..	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn.....	Eqn
1	M1	PIPE_3.0	.211	4	3	.271	4	4	46.291	65.205	5.749	5.749	1...H1-1b
2	PS.1	PIPE_2.0	.235	4	4	.150	4	4	14.916	32.13	1.872	1.872	1...H1-1b
3	PS.2	PIPE_2.0	.827	4	4	.087	6.5	4	14.916	32.13	1.872	1.872	1...H1-1b
4	M4	HSS4X4X4	.309	0	1	.083	0	y 3	135.916	139.518	16.181	16.181	1...H1-1b
5	M5	PIPE_2.0	.201	3.5	4	.147	1	4	14.916	32.13	1.872	1.872	2...H1-1b
6	M6	L2.5x2.5x3	.031	2.151	4	.003	0	y 5	15.859	29.192	.873	1.725	1...H2-1
7	M7	L2.5x2.5x3	.026	2.151	4	.003	4.301	y 6	15.859	29.192	.873	1.725	1...H2-1
8	PS.3	PIPE_2.0	.169	4	4	.129	4	4	14.916	32.13	1.872	1.872	1...H1-1b



Centek		
FJP	CT11199A - Mount	July 7, 2020 at 4:58 PM
20074.53	Member Unity Check	CT11199A_Mount.r3d

RAN Template:	A&L Template:
67D5A997DB Indoor	67D5997DB_2xAIR+1OP (U21 Market)

CT11199A_Anchor_8_draft

Print Name: Standard (RFDS_for_Scoping)
PORs: Anchor_Phase 3

Section 1 - Site Information

Site ID: CT11199A
Status: Draft
Version: 8
Project Type: Anchor
Approved: Not Approved
Approved By: Not Approved
Last Modified: 7/1/2020 11:37:40 AM
Last Modified By: Hansraj.Rana4@T-Mobile.com

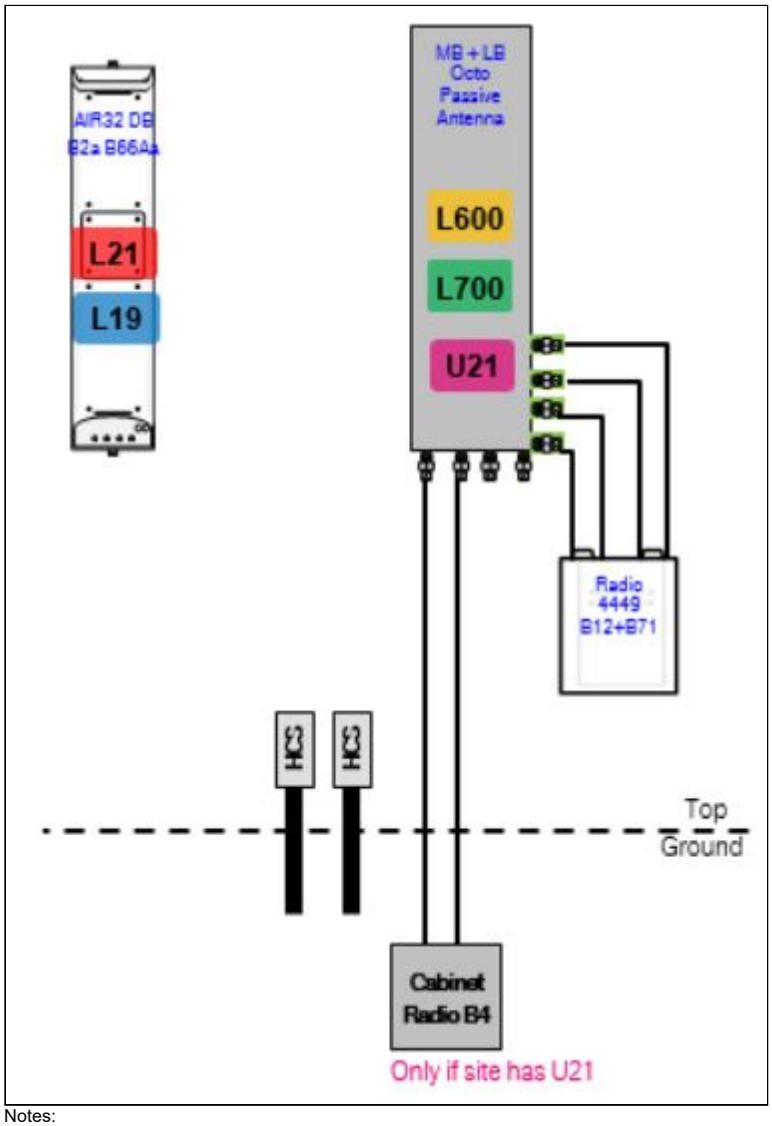
Site Name: Shelton/ Buddington Rd_1
Site Class: Self Support Tower
Site Type: Structure Non Building
Plan Year: 2020
Market: CONNECTICUT CT
Vendor: Ericsson
Landlord: AT&T CORP

Latitude: 41.30416500
Longitude: -73.11827700
Address: 219 Nells Rock Road (S.N.E.T)
City, State: Shelton, CT
Region: NORTHEAST

RAN Template: 67D5A997DB Indoor			AL Template: 67D5997DB_2xAIR+1OP (U21 Market)	
Sector Count: 3	**Antenna Count:** 9	**Coax Line Count:** 6	**TMA Count:** 3	**RRU Count:** 6

Section 2 - Existing Template Images

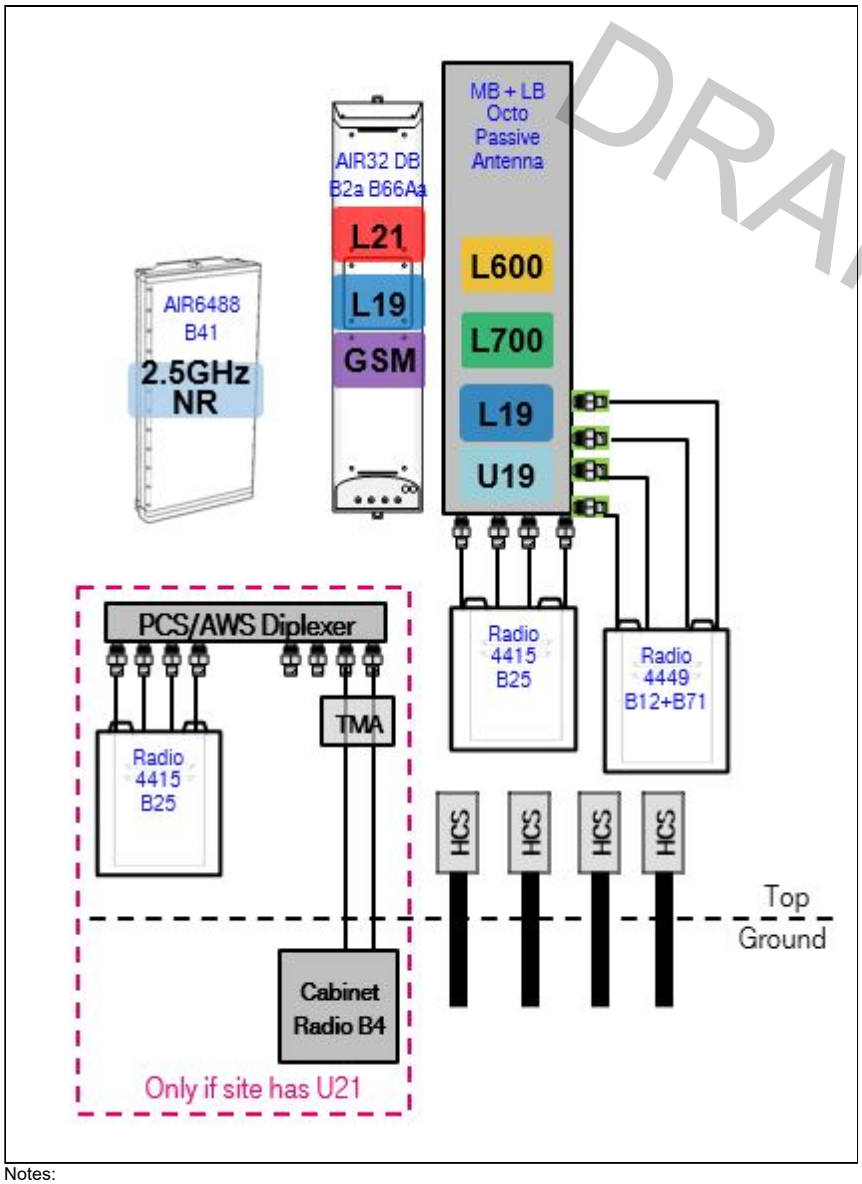
Capture.JPG



Notes:

Section 3 - Proposed Template Images

67D5997DB_2xAIR+1OP.JPG



Notes:

Section 4 - Siteplan Images

----- This section is intentionally blank. -----

RAN Template:	A&L Template:
67D5A997DB Indoor	67D5997DB_2xAIR+1OP (U21 Market)

CT11199A_Anchor_8_draft

Print Name: Standard (RFDS_for_Scoping)
PORs: Anchor_Phase 3

Section 5 - RAN Equipment

Existing RAN Equipment

Template: 67D91DB

Enclosure	1	2
Enclosure Type	RBS 3206	19 Inch Rack (Ericsson)
Baseband	DUW30 (U2100), DUW30	RBS6601 **(x 2)**, BB 6630 (L2100, L1900, L700, L600), BB 6630 (N600)
Hybrid Cable System		Ericsson 9x18 HCS 100m, Ericsson 6x12 HCS 4AWG 100m **(x 3)**
Radio	RU22 **(x 6)** (U2100)	

Proposed RAN Equipment

Template: 67D5A997DB Indoor

Enclosure	1	2	3
Enclosure Type	RBS 3206	19 Inch Rack (Ericsson)	Power 6230
Baseband	DUW30 (U2100)	RBS6601 **(x 2)**, BB 6630 (L2100, L1900, L700, L600), BB 6630 (N600), BB 6630 (L2500), BB 6648 (N2500)	
Hybrid Cable System		Ericsson 6x12 HCS 4AWG 100m **(x 3)** Ericsson 6x12 HCS *Select AWG & Length* **(x 3)**	
Radio	RU22 **(x 6)** (U2100)		

RAN Scope of Work:

Remove Nortel cabinet.

Upgrade AC Service to 200A.

Add (1) Power 6230.

Add (1) BB6630 for L2500 on 19" Rack

Add (1) BB6648 for N2500 on 19" Rack.

Existing: (6) Coaxial Lines; (1)-9X18 & (3)-6X12 HCS

Add (3) 6X12 HCS for new Anchor A&L Equipment. Length of new HCS to match that of existing HCS.

Keep (6) Coax lines for U2100.

Remove (1) 9x18.

RAN Template:	A&L Template:
67D5A997DB Indoor	67D5997DB_2xAIR+1OP (U21 Market)

CT11199A_Anchor_8_draft

Print Name: Standard (RFDS_for_Scoping)
PORs: Anchor_Phase 3

Section 6 - A&L Equipment

Existing Template: 67D91DB_1xAIR+1OP (U21 Market)
Proposed Template: 67D5997DB_2xAIR+1OP (U21 Market)

Sector 1 (Existing) view from behind

Coverage Type	A - Outdoor Macro							
Antenna	1				2			
Antenna Model	Ericsson - AIR32 KRD901146-1_B66A_B2A (Octo)				RFS - APXVAARR24_43-U-NA20 (Octo)			
Azimuth	60				60			
M. Tilt								
Height	135				135			
Ports	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**
Active Tech.	L2100	L2100	L1900	L1900	L700 L600 N600	L700 L600 N600	U2100	
Dark Tech.								
Restricted Tech.								
Decomm. Tech.								
E. Tilt								
Cables	Fiber Jumper		Fiber Jumper		JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)**	SHARED JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)**	1-5/8" Coax - 280 ft. **(x2)**	
TMAs							Ericsson Twin Style 1B - KRY 112 144/1 (AtAntenna)	
Diplexers / Combiners								
Radio					Radio 4449 B71+B85 (At Antenna)	SHARED Radio 4449 B71+B85 (At Antenna)		
Sector Equipment								

Unconnected Equipment:

Scope of Work:

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

RAN Template:	A&L Template:
67D5A997DB Indoor	67D5997DB_2xAIR+1OP (U21 Market)

CT11199A_Anchor_8_draft

Print Name: Standard (RFDS_for_Scoping)
PORs: Anchor_Phase 3

Sector 1 (Proposed) view from behind

Coverage Type	A - Outdoor Macro									
Antenna	1				2				3	
Antenna Model	Ericsson - AIR32 KRD901146-1_B66A_B2A (Octo)				RFS - APXVAARR24_43-U-NA20 (Octo)				Ericsson - AIR6449 B41 (Active Antenna - Massive MIMO)	
Azimuth	60				60				60	
M. Tilt	0				0				0	
Height	135				135				135	
Ports	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Active Tech.	L2100	L2100	L1900	L1900	L700 L600 N600	L700 L600 N600	L1900 U2100	L1900	L2500 N2500	L2500 N2500
Dark Tech.										
Restricted Tech.										
Decomm. Tech.										
E. Tilt										
Cables	Fiber Jumper		Fiber Jumper		JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)** Fiber Jumper	JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)**	JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)** 1-5/8" Coax - 280 ft. **(x2)**	JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)** Fiber Jumper	Fiber Jumper	Fiber Jumper
TMAs							Ericsson Twin Style 1B - KRY 112 144/1 (AtAntenna)			
Diplexers / Combiners							Commscope - SDX1926Q-43 (E14F05P86) (AtAntenna)	SHARED Commscope - SDX1926Q-43 (E14F05P86) (AtAntenna)		
Radio					Radio 4449 B71+B85 (At Antenna)	SHARED Radio 4449 B71+B85 (At Antenna)	Radio 4415 B25 (At Antenna)	SHARED Radio 4415 B25 (At Antenna)		
Sector Equipment										

Unconnected Equipment:

Scope of Work:

Add (1) PCS/AWS 8:4 diplexer to Position 2 at antenna, and connect its four output ports to the Mid-Band ports of the Octo antenna.

Add (1) Radio 4415 B25 for L1900 2nd Carrier to Position 2 near antenna, and connect its ports to the four PCS input ports of the diplexer.

Connect coaxial lines and AWS TMA for U2100 to two AWS input ports of the diplexer.

Make sure to install metal caps on all empty ports of AWS/PCS diplexer for load balancing.

Add new mount as New Position 3.

Install AIR6449 B41 for L2500 and N2500 in new Position 3.

Ensure RET control is enabled for all technology layers according to the Design Documents.

** Upgrade antenna mount to accommodate 3 antenna per sector. ***

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

RAN Template:	A&L Template:
67D5A997DB Indoor	67D5997DB_2xAIR+1OP (U21 Market)

CT11199A_Anchor_8_draft

Print Name: Standard (RFDS_for_Scoping)
PORs: Anchor_Phase 3

Sector 2 (Existing) view from behind

Coverage Type	A - Outdoor Macro							
Antenna	1				2			
Antenna Model	Ericsson - AIR32 KRD901146-1_B66A_B2A (Octo)				RFS - APXVAARR24_43-U-NA20 (Octo)			
Azimuth	180				180			
M. Tilt								
Height	135				135			
Ports	P1	P2	P3	P4	P5	P6	P7	P8
Active Tech.	L2100	L2100	L1900	L1900	L700 L600 N600	L700 L600 N600	U2100	
Dark Tech.								
Restricted Tech.								
Decomm. Tech.								
E. Tilt								
Cables	Fiber Jumper		Fiber Jumper		JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)**	SHARED JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)**	1-5/8" Coax - 280 ft. **(x2)**	
TMAs							Ericsson Twin Style 1B - KRY 112 144/1 (AtAntenna)	
Diplexers / Combiners								
Radio					Radio 4449 B71+B85 (At Antenna)	SHARED Radio 4449 B71+B85 (At Antenna)		
Sector Equipment								

Unconnected Equipment:

Scope of Work:

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

RAN Template:	A&L Template:
67D5A997DB Indoor	67D5997DB_2xAIR+1OP (U21 Market)

CT11199A_Anchor_8_draft

Print Name: Standard (RFDS_for_Scoping)
PORs: Anchor_Phase 3

Sector 2 (Proposed) view from behind

Coverage Type	A - Outdoor Macro									
Antenna	1				2				3	
Antenna Model	Ericsson - AIR32 KRD901146-1_B66A_B2A (Octo)				RFS - APXVAARR24_43-U-NA20 (Octo)				Ericsson - AIR6449 B41 (Active Antenna - Massive MIMO)	
Azimuth	180				180				180	
M. Tilt	0				0				0	
Height	135				135				135	
Ports	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Active Tech.	L2100	L2100	L1900	L1900	L700 L600 N600	L700 L600 N600	L1900 U2100	L1900	L2500 N2500	L2500 N2500
Dark Tech.										
Restricted Tech.										
Decomm. Tech.										
E. Tilt										
Cables	Fiber Jumper		Fiber Jumper		JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)** Fiber Jumper	JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)**	JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)** 1-5/8" Coax - 280 ft. **(x2)**	JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)** Fiber Jumper	Fiber Jumper	Fiber Jumper
TMAs							Ericsson Twin Style 1B - KRY 112 144/1 (AtAntenna)			
Diplexers / Combiners							Commscope - SDX1926Q-43 (E14F05P86) (AtAntenna)	SHARED Commscope - SDX1926Q-43 (E14F05P86) (AtAntenna)		
Radio					Radio 4449 B71+B85 (At Antenna)	SHARED Radio 4449 B71+B85 (At Antenna)	Radio 4415 B25 (At Antenna)	SHARED Radio 4415 B25 (At Antenna)		
Sector Equipment										

Unconnected Equipment:

Scope of Work:

Add (1) PCS/AWS 8:4 diplexer to Position 2 at antenna, and connect its four output ports to the Mid-Band ports of the Octo antenna.

Add (1) Radio 4415 B25 for L1900 2nd Carrier to Position 2 near antenna, and connect its ports to the four PCS input ports of the diplexer.

Connect coaxial lines and AWS TMA for U2100 to two AWS input ports of the diplexer.

Make sure to install metal caps on all empty ports of AWS/PCS diplexer for load balancing.

Add new mount as New Position 3.

Install AIR6449 B41 for L2500 and N2500 in new Position 3.

Ensure RET control is enabled for all technology layers according to the Design Documents.

** Upgrade antenna mount to accommodate 3 antenna per sector. ***

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

RAN Template:	A&L Template:
67D5A997DB Indoor	67D5997DB_2xAIR+1OP (U21 Market)

CT11199A_Anchor_8_draft

Print Name: Standard (RFDS_for_Scoping)
PORs: Anchor_Phase 3

Sector 3 (Existing) view from behind

Coverage Type	A - Outdoor Macro							
Antenna	1				2			
Antenna Model	Ericsson - AIR32 KRD901146-1_B66A_B2A (Octo)				RFS - APXVAARR24_43-U-NA20 (Octo)			
Azimuth	300				300			
M. Tilt								
Height	135				135			
Ports	**P1**	**P2**	**P3**	**P4**	**P5**	**P6**	**P7**	**P8**
Active Tech.	L2100	L2100	L1900	L1900	L700 L600 N600	L700 L600 N600	U2100	
Dark Tech.								
Restricted Tech.								
Decomm. Tech.								
E. Tilt								
Cables	Fiber Jumper		Fiber Jumper		JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)**	SHARED JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)**	1-5/8" Coax - 280 ft. **(x2)**	
TMAs							Ericsson Twin Style 1B - KRY 112 144/1 (AtAntenna)	
Diplexers / Combiners								
Radio					Radio 4449 B71+B85 (At Antenna)	SHARED Radio 4449 B71+B85 (At Antenna)		
Sector Equipment								

Unconnected Equipment:

Scope of Work:

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

RAN Template:	A&L Template:
67D5A997DB Indoor	67D5997DB_2xAIR+1OP (U21 Market)

CT11199A_Anchor_8_draft

Print Name: Standard (RFDS_for_Scoping)
PORs: Anchor_Phase 3

Sector 3 (Proposed) view from behind

Coverage Type	A - Outdoor Macro									
Antenna	1				2				3	
Antenna Model	Ericsson - AIR32 KRD901146-1_B66A_B2A (Octo)				RFS - APXVAARR24_43-U-NA20 (Octo)				Ericsson - AIR6449 B41 (Active Antenna - Massive MIMO)	
Azimuth	300				300				300	
M. Tilt	0				0				0	
Height	135				135				135	
Ports	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Active Tech.	L2100	L2100	L1900	L1900	L700 L600 N600	L700 L600 N600	L1900 U2100	L1900	L2500 N2500	L2500 N2500
Dark Tech.										
Restricted Tech.										
Decomm. Tech.										
E. Tilt										
Cables	Fiber Jumper		Fiber Jumper		JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)** Fiber Jumper	JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)**	JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)** 1-5/8" Coax - 280 ft. **(x2)**	JUMPER 6' SUREFLEX DIN MALE-DIN MALE **(x2)** Fiber Jumper	Fiber Jumper	Fiber Jumper
TMAs							Ericsson Twin Style 1B - KRY 112 144/1 (AtAntenna)			
Diplexers / Combiners							Commscope - SDX1926Q-43 (E14F05P86) (AtAntenna)	SHARED Commscope - SDX1926Q-43 (E14F05P86) (AtAntenna)		
Radio					Radio 4449 B71+B85 (At Antenna)	SHARED Radio 4449 B71+B85 (At Antenna)	Radio 4415 B25 (At Antenna)	SHARED Radio 4415 B25 (At Antenna)		
Sector Equipment										

Unconnected Equipment:

Scope of Work:

Add (1) PCS/AWS 8:4 diplexer to Position 2 at antenna, and connect its four output ports to the Mid-Band ports of the Octo antenna.

Add (1) Radio 4415 B25 for L1900 2nd Carrier to Position 2 near antenna, and connect its ports to the four PCS input ports of the diplexer.

Connect coaxial lines and AWS TMA for U2100 to two AWS input ports of the diplexer.

Make sure to install metal caps on all empty ports of AWS/PCS diplexer for load balancing.

Add new mount as New Position 3.

Install AIR6449 B41 for L2500 and N2500 in new Position 3.

Ensure RET control is enabled for all technology layers according to the Design Documents.

** Upgrade antenna mount to accommodate 3 antenna per sector. ***

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

RAN Template:	A&L Template:
67D5A997DB Indoor	67D5997DB_2xAIR+1OP (U21 Market)

CT11199A_Anchor_8_draft

Print Name: Standard (RFDS_for_Scoping)
PORs: Anchor_Phase 3

Section 7 - Power Systems Equipment

Existing Power Systems Equipment

----- This section is intentionally blank. -----

Proposed Power Systems Equipment

EBI Consulting

environmental | engineering | due diligence

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

T-Mobile Existing Facility

Site ID: CT11199A

Shelton/ Buddington Rd_1
219 Nells Rock Road (S.N.E.T.)
Shelton, Connecticut 06484

October 15, 2020

EBI Project Number: 6220005418

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**21.30%**

October 15, 2020

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

Emissions Analysis for Site: CT11199A - Shelton/ Buddington Rd_1

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **219 Nells Rock Road (S.N.E.T.)** in **Shelton, Connecticut** 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 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ($\mu W/cm^2$). The number of $\mu W/cm^2$ 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.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately 400 $\mu W/cm^2$ and 467 $\mu W/cm^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 219 Nells Rock Road (S.N.E.T.) in Shelton, Connecticut 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 manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

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

1) 2 LTE channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

2) 1 NR channel (600 MHz Band) was considered for each sector of the proposed installation. This Channel has a transmit power of 80 Watts.

3) 2 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

4) 4 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

5) 2 UMTS channels (AWS Band - 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

6) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

7) 2 LTE channels (BRS Band - 2500 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

8) 2 NR channels (BRS Band - 2500 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

9) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.

10) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

11) The antennas used in this modeling are the Ericsson AIR 32 for the 1900 MHz / 2100 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector A, the Ericsson AIR 32 for the 1900 MHz / 2100 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector B, the Ericsson AIR 32 for the 1900 MHz / 2100 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, 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.

12) The antenna mounting height centerline of the proposed antennas is 135 feet above ground level (AGL).

13) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32
Frequency Bands:	1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 2100 MHz
Gain:	15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.85 dBd
Height (AGL):	135 feet	Height (AGL):	135 feet	Height (AGL):	135 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts
ERP (W):	8,728.31	ERP (W):	8,728.31	ERP (W):	8,728.31
Antenna A1 MPE %:	**1.72%**	Antenna B1 MPE %:	**1.72%**	Antenna C1 MPE %:	**1.72%**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20
Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 2100 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd / 16.35 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd / 16.35 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd / 16.35 dBd
Height (AGL):	135 feet	Height (AGL):	135 feet	Height (AGL):	135 feet
Channel Count:	9	Channel Count:	9	Channel Count:	9
Total TX Power (W):	380 Watts	Total TX Power (W):	380 Watts	Total TX Power (W):	380 Watts
ERP (W):	11,055.53	ERP (W):	11,055.53	ERP (W):	11,055.53
Antenna A2 MPE %:	**3.29%**	Antenna B2 MPE %:	**3.29%**	Antenna C2 MPE %:	**3.29%**
Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449
Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz
Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd
Height (AGL):	135 feet	Height (AGL):	135 feet	Height (AGL):	135 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	160 Watts	Total TX Power (W):	160 Watts	Total TX Power (W):	160 Watts
ERP (W):	25,651.93	ERP (W):	25,651.93	ERP (W):	25,651.93
Antenna A3 MPE %:	**5.06%**	Antenna B3 MPE %:	**5.06%**	Antenna C3 MPE %:	**5.06%**

Site Composite MPE %	
Carrier	**MPE %**
T-Mobile (Max at Sector A):	10.07%
AT&T	3.37%
Verizon	4.74%
Sprint	2.81%
PageNet	0.27%
Arrow Bus	0.04%
Metricom	0%
Site Total MPE % :	21.30%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	10.07%
T-Mobile Sector B Total:	10.07%
T-Mobile Sector C Total:	10.07%
Site Total MPE % :	21.30%

T-Mobile Maximum MPE Power Values (Sector A)

T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 1900 MHz LTE	2	2056.61	135.0	8.11	1900 MHz LTE	1000	0.81%
T-Mobile 2100 MHz LTE	2	2307.55	135.0	9.10	2100 MHz LTE	1000	0.91%
T-Mobile 600 MHz LTE	2	591.73	135.0	2.33	600 MHz LTE	400	0.58%
T-Mobile 600 MHz NR	1	1577.94	135.0	3.11	600 MHz NR	400	0.78%
T-Mobile 700 MHz LTE	2	648.82	135.0	2.56	700 MHz LTE	467	0.55%
T-Mobile 1900 MHz LTE	2	2203.69	135.0	8.69	1900 MHz LTE	1000	0.87%
T-Mobile 2100 MHz UMTS	2	1294.56	135.0	5.11	2100 MHz UMTS	1000	0.51%
T-Mobile 2500 MHz LTE	2	6412.98	135.0	25.30	2500 MHz LTE	1000	2.53%
T-Mobile 2500 MHz NR	2	6412.98	135.0	25.30	2500 MHz NR	1000	2.53%
						Total:	**10.07%**

• NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.

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:	10.07%
Sector B:	10.07%
Sector C:	10.07%
T-Mobile Maximum MPE % (Sector A):	10.07%
Site Total:	21.30%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **21.30%** 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.