

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts
and New York

May 9, 2022

Melanie A. Bachman, Esq.
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Notice of Exempt Modification – Facility Modification
237 Godfrey Road, Weston, Connecticut**

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains an existing wireless telecommunications facility at the above-referenced property address (the “Property”). The facility consists of antennas and remote radio heads attached to a tower and associated equipment on the ground near the base of the tower. The tower was approved by the Town of Weston (“Town”) in October of 2006. Cellco’s use of the tower were approved by the Siting Council (“Council”) in March of 2009 (EM-VER-157-090206). A copy of the Town’s and the Council’s approvals are included in Attachment 1.

Cellco now intends to modify its facility by removing nine (9) existing antennas and installing three (3) new Samsung MT6407-77A antennas and six (6) MX06FIT665-02 antennas on its existing antenna mounting system. Cellco also intends to remove six (6) remote radio heads (“RRHs”) and install six (6) new RRHs behind its antennas. A set of project plans showing Cellco’s proposed facility modifications and new antennas and RRH specifications are included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Weston’s Chief Elected Official and Land Use Officer. Please note, the Town of Weston is the owner of the Property and the tower.

Melanie A. Bachman, Esq.
May 9, 2022
Page 2

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 tower. The replacement antennas will be installed on Cellco's existing antenna mounts.
2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, 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 installation of Cellco's new antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative General Power Density table for Cellco's modified facility is included in Attachment 3. The modified facility will be capable of providing Cellco's 5G wireless service.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. According to the attached Structural Analysis ("SA") and Mount Analysis ("MA"), the existing tower, tower foundation and antenna platform with certain modifications can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4.

A copy of the parcel map and Property owner information is included in Attachment 5. A Certificate of Mailing verifying that this filing was sent to municipal officials is included in Attachment 6.

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

Melanie A. Bachman, Esq.
May 9, 2022
Page 3

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth C. Baldwin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kenneth C. Baldwin

Enclosures

Copy to:

Samantha Nestor, Weston First Selectman
Tracy Kulikowski, Land Use Director
Alex Tyurin, Verizon Wireless

ATTACHMENT 1

Town of Weston

24 School Road
Weston, CT 06883
203-222-2658

BUILDING PERMIT

This is to certify that permission is hereby granted for:

Cell tower

Owner: Town of Weston

Located At: 237 Godfrey Road

Applicant Information

Town of Weston
56 Norfield Road
Weston, CT 6883

SBL #: Map 16 Block 1 Lot 35

Building Permit #: 6110

Permit Type: Building

Date: 10/24/2006

Cost of Construction: \$ 285000

<u>Fees:.</u>	<u>Check #</u>	<u>Amount</u>
---------------	----------------	---------------

Do not proceed beyond these points below until signed and dated by the inspector.

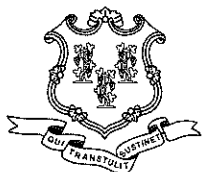
The undersigned owner or authorized agent hereby: (1) agrees to conform to all the requirements of the Laws of the State of Connecticut and the Ordinances of the Town of Weston; (2) agrees to notify the Building Inspector of any alterations in the plans or specifications of the building for which the permit is asked; (3) warrants that this building shall be located at the proper distance from all street lines, side yard lines and required distances from all other zones and is located in a zone in which this building and its use is allowed; (4) warrants that this application and all maps and location surveys submitted in connection herewith fully and accurately describe the premises and structures thereon and any conditions to approval of the same by Weston Planning and Zoning Commission; (5) applies for the issuance, upon satisfactory completion, of a Certificate of Occupancy for the use as herein stated; (6) requests of plans upon issuance of a Certificate of Occupancy.

The laws and building regulations of the State of Connecticut and Town of Weston shall at all times have precedence over drawings and specifications. Anything contrary to said laws and regulations that may at any time appear in the drawings and specifications, or in the work as executed, shall be corrected without delay upon the receipt of due notice from the Building Inspector.

The granting of a permit for the proposed work shall not be assumed or construed any right or permission to do anything contrary to the laws and regulations aforesaid, under any circumstances whatsoever.

Building Inspector:

E. Gleason/dl



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

Daniel F. Caruso
Chairman

March 11, 2009

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

RE: **EM-VER-157-090206** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 237 Godfrey Road, Weston, Connecticut.

Dear Attorney Baldwin:

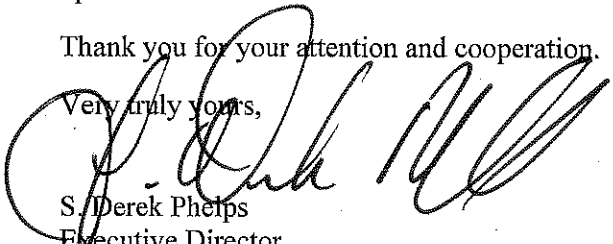
The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated February 6, 2009, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,


S. Derek Phelps
Executive Director

SDP/MP/laf

c: The Honorable Woody Bliss, First Selectman, Town of Weston
Tom Landry, Town Administrator, Town of Weston
Robert P. Turner, Zoning Enforcement Officer, Town of Weston



ATTACHMENT 2

The Verizon logo, consisting of the word "verizon" in a bold, black, sans-serif font, with a red checkmark above the "i".

**WESTON NORTH CT
237 GODFREY ROAD
WESTON, CT 06883**

PROJECT:

RADIO FREQUENCY (RF) DESIGN: 02/21/22
MOUNT MAPPING REPORT: 04/16/21 (BY RKS DESIGN AND ENGINEERING, LLC)
MOUNT ANALYSIS: 04/04/22 (BY GPD ENGINEERING AND ARCHITECTURE)
STRUCTURAL ANALYSIS: (SELF SUPPORT TOWER): 04/26/22 (BY CENTERLINE COMMUNICATIONS)
MOUNT MODIFICATION DRAWINGS: 04/04/22 (BY GPD ENGINEERING AND ARCHITECTURE)

PROJECT INFORMATION

SITE NAME:	WESTON NORTH CT
LOCATION CODE:	468022
SITE ADDRESS:	237 GODFREY ROAD WESTON, CT 06883
LATITUDE:	41° 14' 31.13" N
LONGITUDE:	73° 21' 51.52" W

BUILDING CODES

APPLICABLE BUILDING CODES; SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN

- BUILDING CODE: IBC 2015 & CONNECTICUT STATE BUILDING CODE 2018
- ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
- LIGHTNING CODE: NFPA 70-2017
- TELECOMMUNICATIONS INDUSTRY ASSOCIATION ANSI (TIA) 222-H, STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

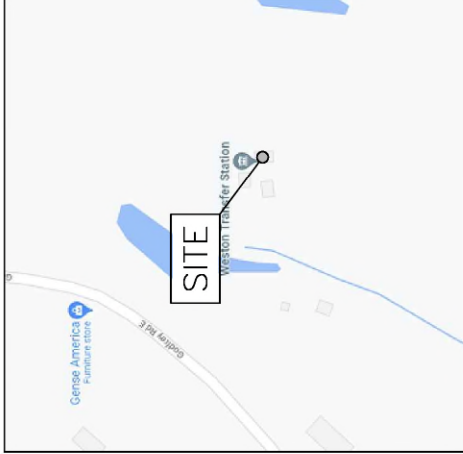
SUMMARY:

- ADDING 9, REMOVING 9, RETAINING 6 (FINAL ANTENNA COUNT: 15)
- ADDING 9 RRU'S, REMOVING 6, RETAINING 0 (FINAL RRU COUNT: 9)

SUMMARY:

- ADDING 9, REMOVING 9, RETAINING 6 (FINAL ANTENNA COUNT: 15)
- ADDING 9 RRU'S, REMOVING 6, RETAINING 0 (FINAL RRU COUNT: 9)

LOCATION MAP



DRAWING INDEX

NO.	DESCRIPTION
T-1	TITLE SHEET
A-1	TOWER ELEVATION & COMPOUND PLAN
A-2	ANTENNA CONFIGURATION & SCOPE OF WORK
A-3	EQUIPMENT SPECIFICATIONS, BILL OF MATERIALS & PLUMBING DIAGRAM
A-3	STRUCTURAL DETAILS
SN-1	STRUCTURAL NOTES

REPS SOW: 700/ 850/ PCS/ AWS/ -SUB6 CARRIER ADDS SAMSUNG DUAL BAND BRH SWAB ANTENNA CHANGE

1. RETAIN 850 CARRIERS AND ADD 700.850 PCS ANTENNA SUB8 CARRIERS
2. RETAIN 3 EXISTING ANTENNAS AT POSITION 4 WITH (3) SAMSUNG T19407-77A L SUB8 ALL-IN-ONE ANTENNA RHHS
3. REPLACE ANTENNAS IN POSITIONS 2 & 3 WITH NEW JMA B001065-02 ANTENNAS ON NEW JMA 2-EDGE MOUNTS
4. REMOVE (6) EXISTING NOKIA RHHS AND ADD (3) NEW SAMSUNG B50517 RHHS ORR (HW4400-13A) & (3) NEW SAMSUNG B2266A RHHS ORR
5. PLUMB 700.850 PCS ANTENNA SUB8S ACCORDING TO THE PLUMBING DIAGRAM
6. USE 8 PORTS ON DUAL BAND RAYS TO COMMUNICATE WITH RET'S VIA SMART BIAS-T BUILT INTO THE ANTENNA
7. CAP AND WEATHERPROOF WHEELS/CONNECTORS
8. REMOVE ANY UNUSED COAX. TOWERS/SHLETER

SUMMARY:

- ADDING 9, REMOVING 9, RETAINING 6 (FINAL ANTENNA COUNT: 15)
- ADDING 9 RRU'S, REMOVING 6, RETAINING 0 (FINAL RRU COUNT: 9)

REVISIONS

NO.	DATE	DESCRIPTION
3	04/26/22	ISSUED FOR CONSTRUCTION
2	04/13/22	REVISED FOR REVIEW
1	02/23/22	REVISED FOR REVIEW
0	02/16/22	ISSUED FOR REVIEW

DESIGNED BY: KL	APPROVED BY: DC
--------------------	--------------------



IT IS A VIOLATION OF LAW FOR ANY PERSON OTHER THAN AN ACTRESS UNDER THE PROTECTION OF A LICENSED PROFESSIONAL, GROOMER TO ALTER THIS DOCUMENT. UNLESS EXPLICITLY AGREED TO BY THE OWNER OF THE HAIR, THE GROOMER MUST HAVE ALL QUALITY APPROVALS WITH THE DOCUMENT. THE GROOMER MUST HAVE ALL QUALITY APPROVALS WITH THE DOCUMENT.

SITE NAME:
WESTON NORTH CT

SITE ADDRESS: 237 GODFREY ROAD
WESTON, CT 06883

LOCATION CODE: 468022

SHEET TITLE:

SHEET #	T-1	REVISION:	2
---------	-----	-----------	---

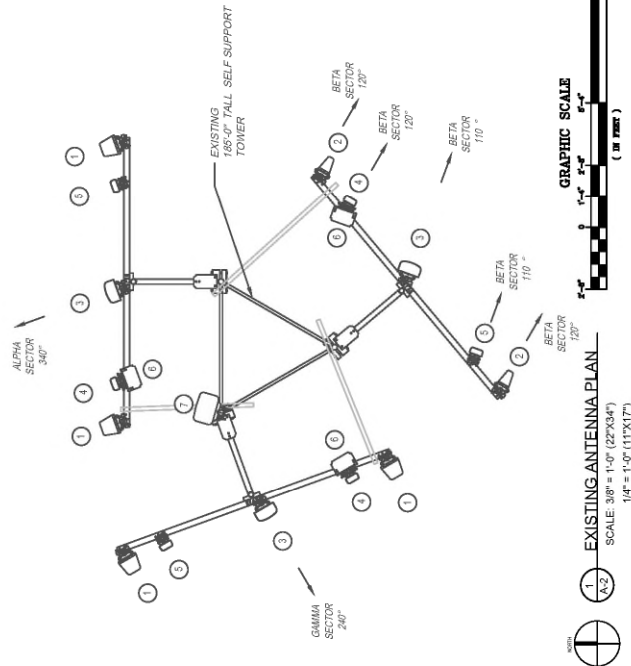
- NOTES**
- IF SHOWIN, ANTENNA SPACING DIMENSIONS ARE TO THE CENTER OF THE EXIST. ANTENNA AND PROP. ANTENNA FACE.
 - REFER TO THE FINAL RFD PROVIDED BY VERIZON FOR THE LATEST INFORMATION REGARDING EQUIPMENT MODELS, REQUIRED CABLING & DOWN-TILT INFORMATION.
 - REFER TO ASSEMBLY DRAWING AND MOUNT ANALYSIS BY GPD ENGINEERING AND ARCHITECTURE FOR ALL REQUIRED EQUIPMENT MODIFICATION INFORMATION.

- GENERAL ABBREVIATION LIST**
- ABP ABOVE BASE PLATE
 - ABL ABOVE GRADE LEVEL
 - ANSL ABOVE MEAN SEA LEVEL
 - AMS ADVANCED WIRELESS SERVICE
 - HOG HOT DIPPED GALVANIZED
 - RRH REMOTE RADIO HEAD
 - V.I.F. VERIFY IN FIELD
 - W.P. WORK POINT
 - A.F.R. ABOVE FINISH ROOF

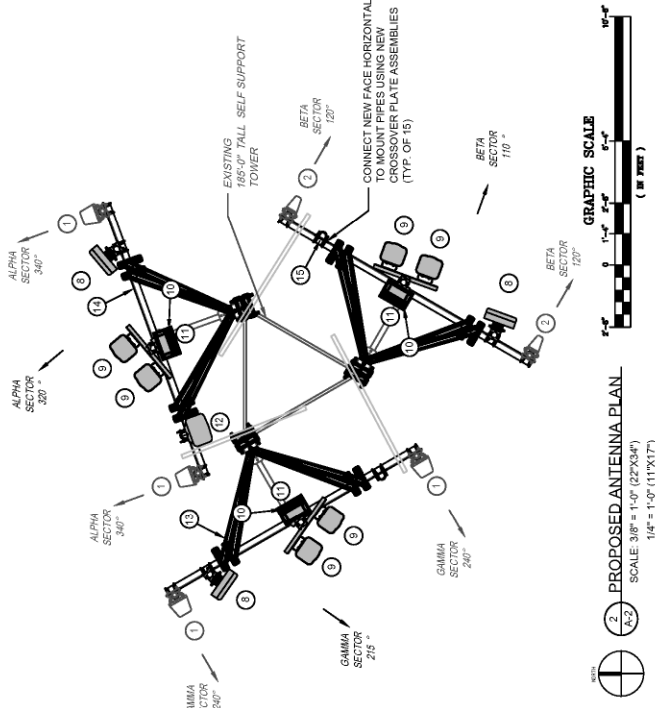
- SCOPE OF WORK (ALL 3 SECTORS)**
- EXIST. ANTENNA (TO REMAIN)
MODEL: ANDREW DB46P-62AXY
 - EXIST. ANTENNA (TO REMAIN)
MODEL: CUBESATEL PRODUCTS
DB46HIE-SK
 - EXIST. ANTENNA (TO BE REPLACED)
MODEL: ANTEL BXA-1000-6CF
 - EXIST. ANTENNA (TO BE REPLACED)
MODEL: KATHREIN 74213-2110

- EXIST. SPARE ANTENNA
(TO BE REMOVED)
 - EXIST. RRH (TO BE REPLACED)
MODEL: NOKIA 4100 B4 RHT 2000-4R
 - EXIST. OVP BOX (TO BE REPLACED)
MODEL: TBD
 - NEW ANTENNA
MODEL: SAMSUNG MT6407-77A
MOUNTED ON EXIST. PIPE MAST
- NEW ANTENNA MOUNTED VIA NEW DUAL-MOUNT
BRACKETS (JMA 2" SIDE-BY-SIDE)
MODEL: JMA M008H165-02
- NEW DUAL BAND RRH
(RF44000-13A)
- NEW DUAL BAND RRH
(RF44000-13A)
- NEW DUAL BAND RRH
MODEL: SAMSUNG B2/B66A RRH08AN
(RF44390-25A)
- NEW OVP BOX MOUNT TBD
MODEL: RFS DB-CL-12C-24AB-02

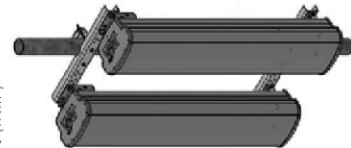
- PROPOSED V-STILE REINFORCEMENT KIT,
PART #VZMSMART-SFK3, REFER TO
DRAWING AND MOUNT ANALYSIS BY
GPD ENGINEERING AND ARCHITECTURE
- PROPOSED 150" LONG P3.5 STD FACE
HORIZONTAL PIPE, REFER TO ASSEMBLY
DRAWING AND MOUNT ANALYSIS BY
GPD ENGINEERING AND ARCHITECTURE
- NEW CROSSOVER PLATE ASSEMBLY,
PART #VZMSMART-MSK5



EXISTING ANTENNA PLAN
SCALE: 3/8" = 1'-0" (22"x34")
1/4" = 1'-0" (11"x17")



PROPOSED ANTENNA PLAN
SCALE: 3/8" = 1'-0" (22"x34")
1/4" = 1'-0" (11"x17")



3 **DUAL ANTENNA BRACKET DETAIL**
A-2 **N.T.S.**



REVISIONS			
NO.	DATE	DESCRIPTION	
3	04/28/22	ISSUED FOR CONSTRUCTION	
2	04/13/22	REVISED FOR REVIEW	
1	02/23/22	REVISED FOR REVIEW	
0	02/16/22	ISSUED FOR REVIEW	
DESIGNED BY:	KL	APPROVED BY:	DC



SITE NAME:	WESTON NORTH CT
SITE ADDRESS:	237 GODFREY ROAD WESTON, CT 06883 FAIRFIELD
LOCATION CODE:	468022
SHEET TITLE:	ANTENNA CONFIGURATION & SCOPE OF WORK
SHEET #	A-2
REVISION:	2

REVIEWS		
3	04/28/22	ISSUED FOR CONSTRUCTION
2	04/13/22	REVISED FOR REVIEW
1	02/23/22	REVISED FOR REVIEW
0	02/16/22	ISSUED FOR REVIEW
NO.	DATE	DESCRIPTION

DESIGNED BY: KL	APPROVED BY: DC
--------------------	--------------------



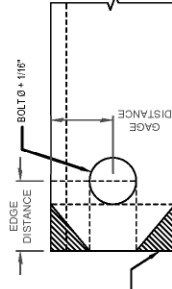
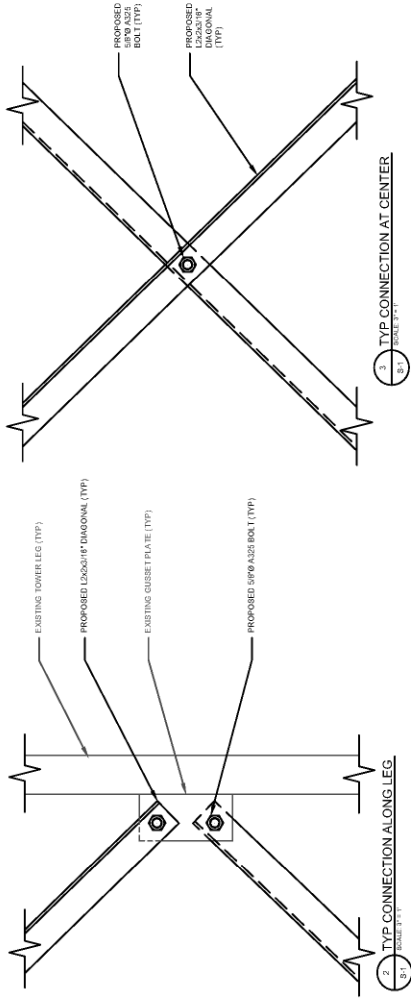
IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER TO ALTER THIS DOCUMENT. UNLESS EXPLICITLY AGREED TO BY THE ENGINEER IN WRITING, THE ENGINEER SHALL HAVE NO LIABILITY ASSOCIATED WITH THE

SITE NAME:
WESTON NORTH CT

SITE ADDRESS:
237 GODFREY ROAD
WESTON, CT 06883
FAIRFIELD

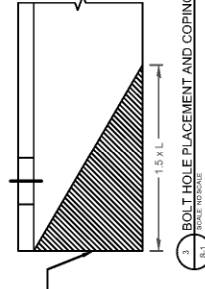
LOCATION CODE:	468022
----------------	--------

SHEET TITLE:	
STRUCTURAL DETAILS	
SHEET #	S-1
REVISIONS	

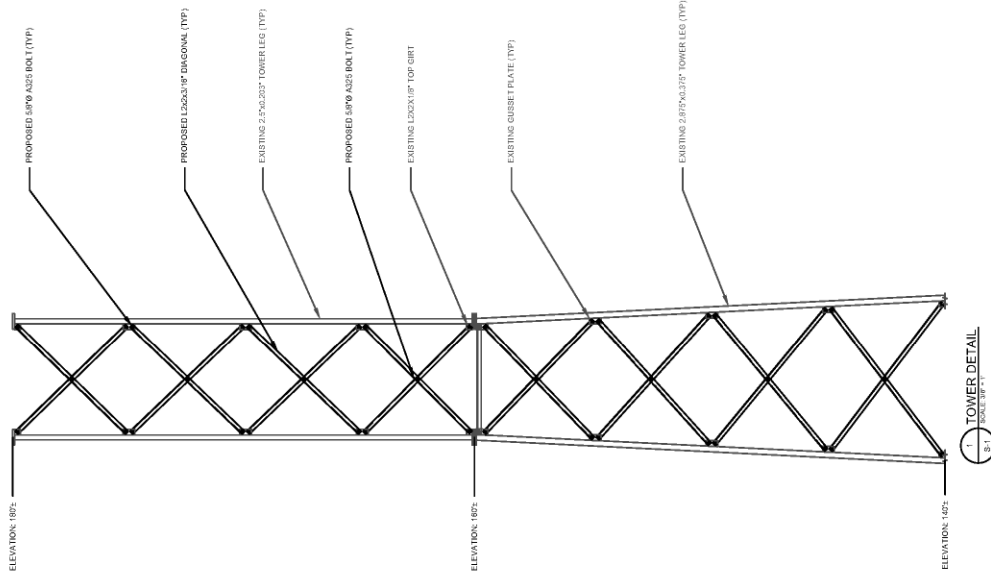


NOTE:
VERIFY FIT UP BEFORE
DRILLING HOLES. CONTACT
EOR IF COPING
INTERFERENCE EXISTS.

**LIMIT OF ALLOWABLE COPING
WITHOUT ENGINEER'S PRIOR
WRITTEN APPROVAL (TYP)**

LIMIT OF ALLOWABLE COPING
WITHOUT ENGINEER'S PRIOR
WRITTEN APPROVAL (TYP.)

- STRUCTURAL NOTES:
1. CONTRACTOR SHALL VERIFY ALL LENGTHS AND QUANTITIES PROVIDED PRIOR TO FABRICATION. LENGTHS AND QUANTITIES PROVIDED ARE FOR QUOTING PURPOSES ONLY.
2. ANTENNAS AND OTHER APPURTENANCES MAY NEED TO BE TEMPORARILY REMOVED OR RELOCATED DURING THE INSTALLATION OF THE MODIFICATIONS.
3. ALL HOLES AND PLATES ARE TO BE GRADE A36 UNLESS NOTED OTHERWISE.
4. ALL HOLES SHALL BE DRILLED OR PUNCHED.



DIAGONAL BRACE SCHEDULE											
ELEVATION (FT.)	DIAGONAL BRACE				BRACE BOLTS (A325)				STITCH BOLTS (A325)		
	EXISTING	PROPOSED (ASTM A36)	CUT LENGTH	QTY	BOLT X LENGTH	EDGE DISTANCE (IN)	GAGE DISTANCE (IN)	QTY	BOLT X LENGTH	GAGE DISTANCE (IN)	QTY
140 - 180	L2X2X1/8	L2X2X3/16	9' - 0"	48	5/8" DIA. X 1-3/4"	1	1 1/8	96	5/8" DIA. X 1-3/4"	1 1/8	24

1. DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES

- SPECIAL INSPECTIONS (REFERENCE IBC CHAPTER 17):**

GENERAL: WHERE APPLICATION IS MADE FOR CONSTRUCTION, THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPE LISTED IN THE INSPECTION CHECKLIST ABOVE.

STATEMENT OF SPECIAL INSPECTIONS: THE APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 107.1 AS A CONDITION FOR ISSUANCE. THIS STATEMENT SHALL BE IN ACCORDANCE WITH SECTION 1705.

SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR THE PROJECT. SPECIAL INSPECTOR SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE WITH APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE REPORTED TO THE BUILDING OFFICIAL. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS SHALL BE SUBMITTED.

SPECIAL INSPECTION CHECKLIST	
BEFORE CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
N/A	ENGINEER OF RECORD APPROVED SHOP DRAWINGS ¹
N/A	MATERIAL SPECIFICATIONS REPORT ²
N/A	FABRICATOR NDE INSPECTION
N/A	PACKING SLIPS ³
ADDITIONAL TESTING AND INSPECTIONS:	
DURING CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS ⁴
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH INSPECTIONS
N/A	POST INSTALLATION ELEMENT VERIFICATION ⁵
N/A	GROUT VERIFICATION
N/A	CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
N/A	ON SITE COLD GALVANIZING VERIFICATION
N/A	CUT WIRE TENSION REPORT
ADDITIONAL TESTING AND INSPECTIONS:	
AFTER CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	MODIFICATION INSPECTOR REDUCE OVERCLOSING DIMENSIONS
N/A	INSPECTION OF ANCHOR PULL-OUT TESTING
ADDITIONAL TESTING AND INSPECTIONS:	
REQUIRED	PHOTOGRAPHS

[illegible]

1. ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED TO EXISTING STRUCTURE. ALL WELDING TO BE APPROVED.
2. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
3. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
4. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
5. ALL EXISTING CONSTRUCTION OF THE ROOF REQUIRED PRIOR TO THE INSTALLATION OF THE ROOF PLATFORM. ENGINEER OF RECORD IS TO APPROVE EXISTING CONDITIONS IN ORDER TO MOVE FORWARD.
6. EXISTING BRICK WALLS TO PROVIDE SUPPORT FOR COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
7. EXISTING BRICK WALLS/COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

verizon



750 W CENTER ST, SUITE 301
WEST BRIDGEWATER, MA 02379
PHONE: 781.713.4725

[illegible]

DESIGNED BY: KL	APPROVED BY: DC
--------------------	--------------------



IT IS A VIOLATION OF LAW FOR ANY PERSON WHOSE NAME APPEARS ON THE LIST OF THE DIRECTOR OF A LICENSED PROFESSIONAL BUSINESS TO ALLOW THE BUSINESS TO BE LICENSED OR TO RE-NEW THE LICENSE OF THE BUSINESS. THE BUSINESS SHALL HAVE ALL LIABILITY ASSOCIATED WITH THE BUSINESS.

SITE NAME: WESTON NORTH CT

WEBSITE ADDRESS:

237 GODFREY ROAD
WESTON, CT 06883
FAIRFIELD

LOCATION CODE:

SHEET TITLE:

SHEET # SN-1 REVISION: 2
 STRUCTURAL NOTES

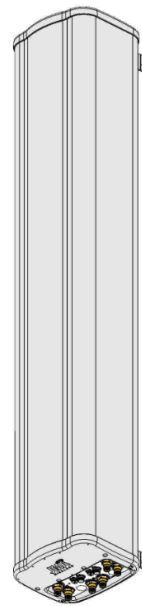
MX06FIT665-02

NWA^W™ X-Pol Antenna | Hex-Port | 6 ft | 65°

X-Pol, Hex-Port 6 ft 65° Form In Tighter with Smart Bias T

(2) 698–894 MHz & (4) 1695–2180 MHz

- Excellent Passive Intermodulation (PIM) performance reduces harmful interference
- Fully integrated (iRETs) with *independent* RET control for low and high bands for ease of network optimization
- SON-Ready array spacing supports beamforming capabilities
- Suitable for LTE/CDMA/PCS/UMTS/GSM Air interface technologies
- Integrated Smart BIAS-Ts reduces leasing costs
- Optimized width for reduced wind loading




Electrical Specification (Minimum/ Maximum)	Ports 1,2		Ports 3,4,5,6		
Frequency bands, MHz	698–798	824–894	1695–1880	1850–1990	1920–2180
Polarization	± 45 ⁰		± 45 ⁰		
Average gain over all tilts, dBi	14.4	14.8	17.8	18.1	18.2
Horizontal beamwidth (HBW), degrees ¹	66.0	57.0	63.0	63.0	58.0
Front-to-back ratio, co-polar power @180 ⁰ ± 30 ⁰ , dB	>22	>22.0	>25.0	>25.0	>25.0
X-Pol discrimination (CPR) at boresight, dB	>17.0	>15.6	>23	>18	>18
Sector power ratio, percent ¹	<5.0	<3.0	<4.6	<3.8	<5.0
Vertical beamwidth, (VBW), degrees ¹	13.5	12.0	6.0	5.5	5.4
Electrical downtilt (EDT) range, degrees	2-14	2-14	0-9		
First upper side lobe (USLS) suppression, dB ¹	≤ -17.0	≤ -16.0	≤ -17.0	≤ -16.0	≤ -16.0
Minimum cross-polar isolation, port-to-port, dB	25	25	25	25	25
Maximum VSWR/ return loss, dB	1.5/ -14.0	1.5/ -14.0	1.5/ -14.0	1.5/ -14.0	1.5/ -14.0
Maximum passive Intermodulation (PIM), 2x 20W carrier, dBc	-153	-153	-153		
Maximum input power per any port, watts	300		250		
Total composite power all ports, watts	1500				

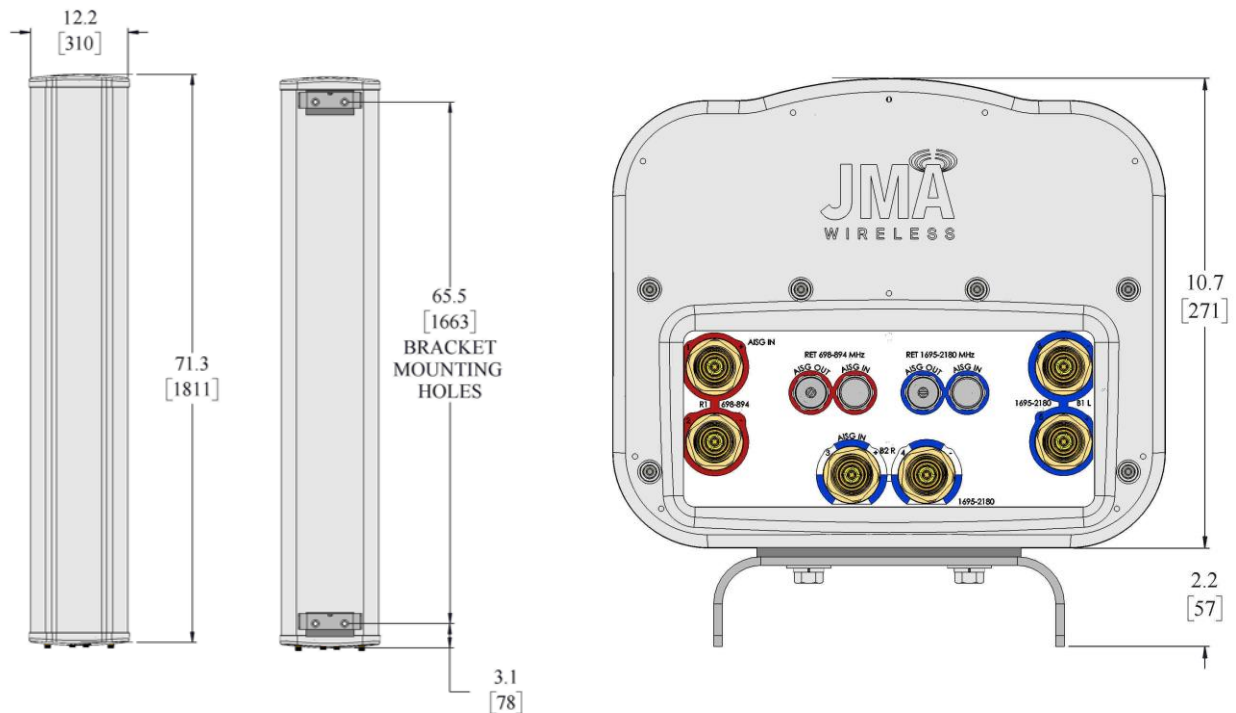
¹ Typical value over frequency and tilt

MX06FIT665-02

NWATM X-Pol Antenna | Hex-Port | 6 ft | 65°

Mechanical Specifications

Dimensions height/ width/ depth, inches (mm)	71.3/ 12.2/ 10.7 (1811/ 310/ 271)
Shipping dimensions length/ width/ height, inches (mm)	82/ 20/ 15 (2083/ 508/ 381)
No. of RF input ports, connector type & location	6 x 4.3-10 female, bottom
RF connector torque	96 in- lb (10.85 N-M or 8 ft-lbs)
Net antenna weight, lb (kg)	51 (23.18)
Shipping weight, lb (kg)	91 (41.36)
Antenna mounting and downtilt kit included with antenna	91900318
Net weight of the mounting and downtilt kit, lb (kg)	18 (8.18)
Range of mechanical up/ down tilt	-2° to 12°
Rated wind survival speed, mph (km/h)	150 (241)
Frontal, lateral & rear wind loading @ 150 km/h, lbf (N)	87 (386), 68 (301), 109 (485)
Equivalent flat plate @100 mph and Cd=2, sq. ft.	1.42



Ordering Information

Antenna Model	Description
MX06FIT665-02	6F X- Pol HEX FIT 65° 2-14°/ 0-9° RET, 4.3-10 & SBT
Optional Accessories	
992100-CA030-SC	Optional AISG jumper cable, M/F, 3.0 meters
PCU-1000	Primary control unit, USB

MX06FIT665-02

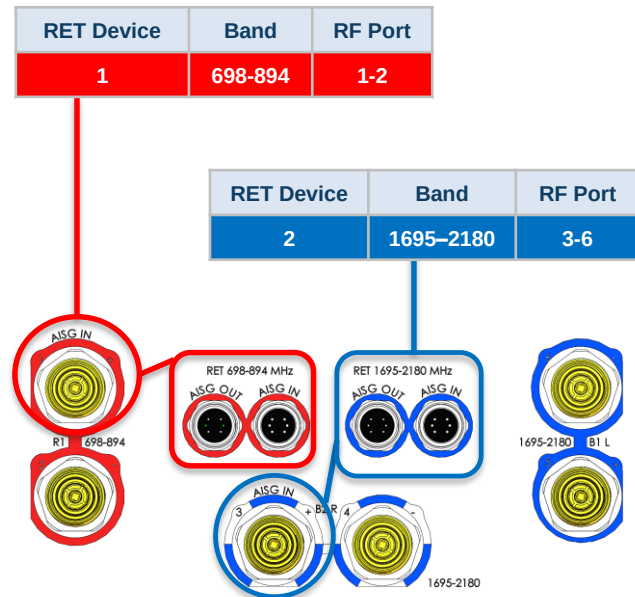
NWATM X-Pol Antenna | Hex-Port | 6 ft | 65°

Remote Electrical Tilt (RET 1000) Information

RET location	Integrated into antenna
RET interface connector type	8 Pin AISG connector per IEC 60130-9
RET interface connector quantity	2 pairs of AISG male/ female connectors
RET interface connector location	Bottom of the antenna
Total No. of internal RETs low bands	1
Total No. of internal RETs high bands	1
RET input operating voltage, vdc	10-30
RET max. power consumption, idle state, W	≤ 2.0
RET max. power consumption, normal operating conditions, W	≤ 13.0
RET communication protocol	AISG 2.0/ 3GPP

RET & RF Connector Topology

Each RET device can be controlled either via the designated external AISG connector or RF port as shown below



Array Topology

3 sets of radiating arrays

R1 – 698–894MHz
 B1 – 1695–2180MHz
 B2 – 1695–2180MHz

Band	RF Port
1695–2180	3-4
698–894	1-2
1695–2180	5-6



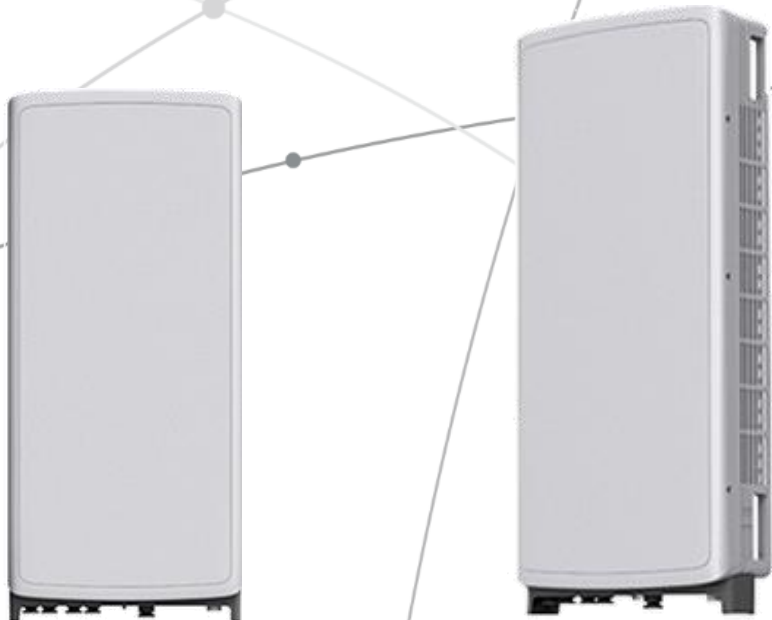
SAMSUNG

SAMSUNG C-Band 64T64R Massive MIMO Radio

for High Capacity and Wide Coverage

Samsung C-Band 64T64R Massive MIMO Radio enables mobile operators to increase coverage range, boost data speeds and ultimately offer enriched 5G experiences to users in the U.S..

Model Code : MT6407-77A



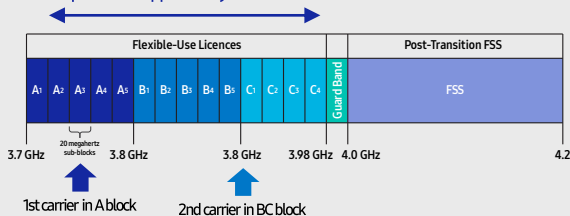
Points of Differentiation

Wide Bandwidth

With capability to support up to 2 CC carrier configuration, Samsung C-Band massive MIMO Radio supports 200 MHz bandwidth in the C-Band spectrum.

Samsung C-Band massive MIMO Radio covers the entire C-Band 280 MHz spectrum, so it can meet the operator's needs in current A block and future B/C blocks

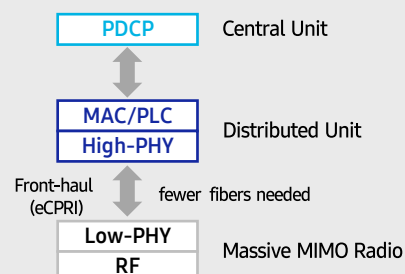
C-Band spectrum supported by Massive MIMO Radio



Future Proof Product

Samsung C-Band 64T64R Massive MIMO radio supports not only CPRI but also eCPRI as front-haul interface.

It enables operators can cut down on OPEX/CAPEX by reducing front-haul bandwidth through low layer split and using ethernet based higher efficient line.



Enhanced Performance

C-Band massive MIMO Radio creates sharp beams and extends networks' coverage on the critical mid-band spectrum using a large number of antenna elements and high output power to boost data speeds.

This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

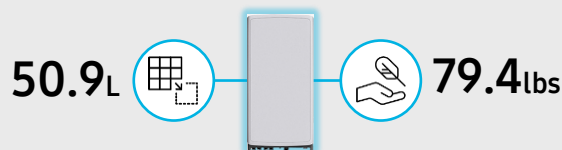
Furthermore, as C-Band massive MIMO Radio supports MU-MIMO (Multi-user MIMO), it enables to increase user throughput by minimizing interference.



Well Matched Design

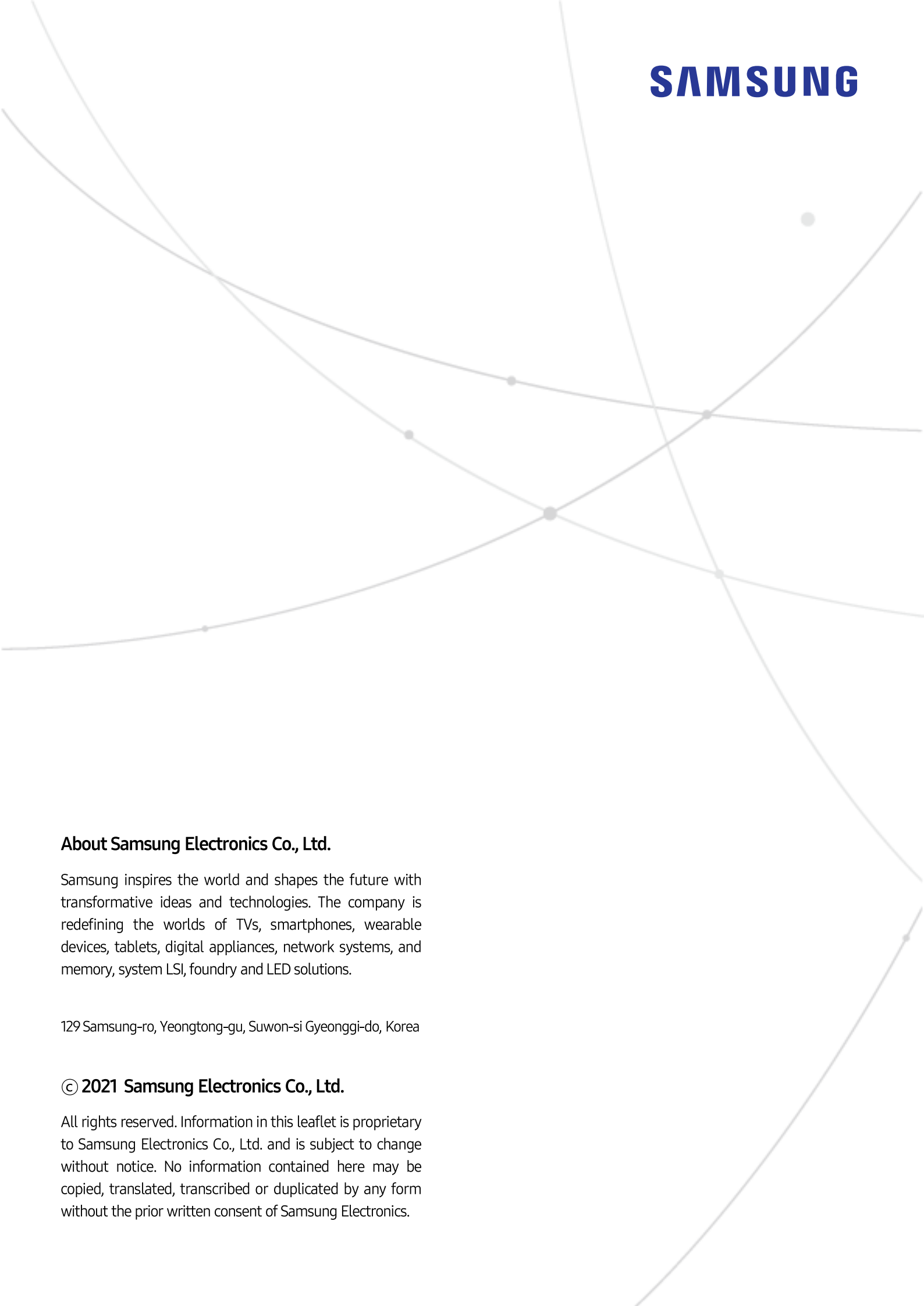
Samsung C-Band Massive MIMO radio utilizes 64 antennas, supports up to 280MHz bandwidth, and delivers a 200W output power. Despite the above advanced performance, the Radio has a compact size of 50.9L and 79.4lbs. This makes it easy to install the Radio.

It is designed to look solid and compact, with a low profile appearance so that, when installed, harmonizes well with the surrounding environment.



Technical Specifications

Item	Specification
Tech	NR
Band	n77
Frequency Band	3700 - 3980 MHz
EIRP	78.5dBm (53.0 dBm+25.5 dBi)
IBW/OBW	280 MHz / 200 MHz
Installation	Pole/Wall
Size/Weight	16.06 x 35.06 x 5.51 inch (50.86L)/ 79.4 lbs



SAMSUNG

About Samsung Electronics Co., Ltd.

Samsung inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and memory, system LSI, foundry and LED solutions.

129 Samsung-ro, Yeongtong-gu, Suwon-si Gyeonggi-do, Korea

© 2021 Samsung Electronics Co., Ltd.

All rights reserved. Information in this leaflet is proprietary to Samsung Electronics Co., Ltd. and is subject to change without notice. No information contained here may be copied, translated, transcribed or duplicated by any form without the prior written consent of Samsung Electronics.

SAMSUNG

Dual-Band Radio Unit AWS/PCS (B66/B2)

RFV01U-D1A

Samsung's RFV01U-D1A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.



The RFV01U-D1A RU targets dual-band support across Band 66 (AWS) and Band 2 (PCS), making it an ideal product for broad coverage footprints across multiple common mid-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation
- Built-in Broadcast Auxiliary Services (BAS) filter ensures compliant AWS operation without impacting footprint

Key Technical Specifications

Duplex Type: FDD

Operating Frequencies:

B66: DL(2,110-2,180MHz)/UL(1,710-1,780MHz)

B2: DL(1,930-1,990MHz)/UL(1,850-1,910MHz)

Instantaneous Bandwidth:

70MHz(B66) + 60MHz(B2)

RF Chain: 4T4R/2T4R/2T2R

Output Power: Total 320W

DU-RU Interface: CPRI (10Gbps)

Dimensions: 380 x 380 x 255mm (36.8L)

Weight: 38.3kg

Input Power: -48V DC

Operating Temp.: -40 - 55°(w/o solar load)

Cooling: Natural convection

SAMSUNG

Dual-Band Radio Unit 700/850MHz (B13/B5) RFV01U-D2A

Samsung's RFV01U-D2A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.



The RFV01U-D2A RU targets dual-band support across Band 13 (700MHz) and Band 5 (850MHz), making it an ideal product for broad coverage footprints across multiple common low-end, long-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation

Key Technical Specifications

Duplex Type: FDD
Operating Frequencies:
 B13: DL(746-756MHz)/UL(777-787MHz)
 B5: DL(869-894MHz)/UL(824-849MHz)
Instantaneous Bandwidth: 10MHz(B13) + 25MHz(B5)
RF Chain: 4T4R/2T4R/2T2R
Output Power: Total 320W
DU-RU Interface: CPRI (10Gbps)
Dimensions: 380 x 380 x 207mm (29.9L)
Weight: 31.9kg
Input Power: -48V DC
Operating Temp.: -40 - 55°(w/o solar load)
Cooling: Natural convection

ATTACHMENT 3

	General	Power	Density					
Site Name: Weston N								
Tower Height: Verizon @ 162ft								
CARRIER	# OF CHAN.	WATTS ERP	HEIGHT	FREQ.	CALC. POWER DENS	MAX. PERMISS.EXP.	FRACTION MPE	Total
*Weston Police			145	465.2125	0.0007	0.3101	0.02%	
*Weston FD			145	453.85	0.0007	0.3026	0.02%	
*Weston EMS			145	453.5125	0.0007	0.3023	0.02%	
*Weston Public Works			145	460.0375	0.0007	0.3067	0.02%	
*Sprint	1	438	174	850	0.0056	0.5667	0.10%	
*Sprint	2	438	174	850	0.0112	0.5667	0.20%	
*Sprint	5	622	174	1900	0.0396	1.0000	0.40%	
*Sprint	2	1556	174	1900	0.0397	1.0000	0.40%	
*Sprint	8	778	174	2500	0.0793	1.0000	0.79%	
*AT&T	2	414	152	850	0.0140	0.5667	0.25%	
*AT&T	2	612	152	850	0.0206	0.5667	0.36%	
*AT&T	4	1309	152	1900	0.088336045	1	0.88%	
*AT&T	2	745	152	700	0.025137645	0.466666667	0.54%	
*T-Mobile	4	1028	185	1900	0.046152058	1	0.46%	
*T-Mobile	2	2057	185	1900	0.046174505	1	0.46%	
*T-Mobile	2	2308	185	2100	0.051808827	1	0.52%	
*T-Mobile	2	592	185	600	0.0133	0.4000	0.33%	
*T-Mobile	1	1578	185	600	0.0177	0.4000	0.44%	
*T-Mobile	2	649	185	700	0.0146	0.4667	0.31%	
*T-Mobile	2	2204	185	1900	0.0495	1.0000	0.49%	
*T-Mobile	2	1295	185	2100	0.0291	1.0000	0.29%	
*T-Mobile	2	6413	185	2500	0.1440	1.0000	1.44%	
*T-Mobile	2	6413	185	2500	0.1440	1.0000	1.44%	
VZW 700	4	407	162	751	0.0022	0.5007	0.45%	
VZW CDMA	2	499	162	876.03	0.0014	0.5840	0.23%	
VZW Cellular	4	468	162	874	0.0026	0.5827	0.44%	
VZW PCS	4	871	162	1980	0.0048	1.0000	0.48%	
VZW AWS	4	1259	162	2120	0.0069	1.0000	0.69%	
VZW CBRS	4	0	162	3625	0.0000	1.0000	0.00%	
VZW CBAND	2	13335	162	3730.08	0.0365	1.0000	3.65%	
								16.14%
* Source: Siting Council								

ATTACHMENT 4

Revised Passing With Modification Structural Analysis Report

Location Code: 468022
Site Name: Weston North CT
Project Name: L-SUB6-CARRIER ADD
Address: 237 Godfrey Road
Weston, CT 06883

Client:

verizon ✓
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

Date: 4/26/2022 Rev. 2

3/14/2022 Rev. 1

1/25/2022 Rev. 0



Digitally signed by: Derek J.
Creaser, P.E.
DN: CN = Derek J. Creaser, P.E.
email = dcreaser@clinellc.com C
= US O = Centerline
Communications OU = Director -
A&E Services
Date: 2022.04.26 16:59:28 -04'00'

Scope of Work:

Centerline Communications was authorized by Verizon Wireless to perform an analysis of the existing 185 ft. self-support tower to determine its capacity to support the proposed and existing equipment listed in this report.

Existing & Proposed Equipment:

Carrier	Mounting Level (ft)	Center Line Elevation (ft)	Number of Appurtenances	Antenna Manufacturer	Appurtenance Model	Feed Lines (in)
Municipal	185.0	185.0	1	-	DB636-A Antenna	(1) 7/8" Coax
			2	-	DB222 Antenna	(2) 7/8" Coax
T-Mobile	185.0	185.0	3	Ericsson	AIR 6449 Antenna	(10) 1-5/8 Coax (3) 1-5/8 Hybrid
			3	Ericsson	AIR 32 Antenna	
			3	RFS	APXVAARR24_43 Antenna	
			6	-	RRU	
			3	-	TMA	
			3	-	Diplexer	
			3	-	T-Frame Mounts	
Sprint	174.0	174.0	3	RFS	APXV9TH14-ALU-120 Antenna	(4) 1-1/4 Hybrid
			3	RFS	APXVSP18-C-A-20 Antenna	
			3	-	800 MHz RRH	
			3	-	1900 MHz RRH	
			3	Alcatel-Lucent	TD-RRH8x20 RRH	
			3	-	T-Frame Mounts	
Verizon Wireless	162.0	162.0	6	JMA	MX06FIT665-02	(6) 1-5/8 Coax (1) RFS HB158 Hybrid
			3	Samsung	MT6407-77A	
			4	Andrew	DB846F65ZAXY	
			2	Decibel	DB846H80E-SX	
			3	Samsung	B2/B66A RRH ORAN RRH	
			3	Samsung	B5/B13 RRH-ORAN RRH	
			3	JMA	2" Edge-to-edge	
			1	RFS	DB-C1-12C-24AB-0Z	
			3	-	15' T-Frame Mounts (To Be Modified)	

Note: Proposed equipment shown in **bold**.

Existing & Proposed Equipment (Continued):

Carrier	Mounting Level (ft)	Center Line Elevation (ft)	Number of Appurtenances	Antenna Manufacturer	Appurtenance Model	Feed Lines (in)
AT&T	151.0	151.0	3	Powerwave	7770 Antenna	(12) 1-5/8" Coax (1) 3" Flex Conduit
			3	CCI	HPA65R-BU6A Antenna	
			3	Powerwave	P65-16-XLH-RR Antenna	
			1	Raycap	DC6-48-60-18-8F	
			6	-	RRH	
			6	Powerwave	LGP21401 TMAs	
			3	Powerwave	TT19-08BP111 TMA	
			3	-	T-Frame Mounts	
Municipal	145.0	145.0	4	-	6' Omni Antenna	(4) 7/8" Coax
			4	-	8' Dipole Antenna	
			4	-	6' Standoff Mount	
Sprint / Nextel	138.0	138.0	1	-	3' Dish	(1) 1/2" Coax
			1	-	2' Standoff Mount	

*Note: Proposed equipment shown in **bold**.*

Design Criteria:**Design Codes:**

2018 Connecticut State Building Code

2015 International Building Code

ASCE 7-10

TIA-222-H Standards

Ultimate Design Wind Speed (V_{ult})	120 mph
Nominal Design Wind Speed (V_{asd})	93 mph
Wind Speed with Ice	50 mph
Ice Thickness	1.00 in.
Exposure Category	B
Topographic Category	1
Risk Category	II
Site Soil Class (Assumed)	D – Stiff Soil
Seismic Design Category	B
Spectral Response Acceleration Parameter at a Short Periods, S_s	0.224 g
Spectral Response Acceleration Parameter at a Period of 1 Second, S_1	0.067 g
Short Period Site Coefficient, F_a	1.60
Long Period Site Coefficient, F_v	2.40

***Refer to calculations for additional design criteria.**

Conclusion:

Tower Section Capacity (Summary)

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T1	185 - 180	Leg	P2x.154	2	-2555	33198	7.7	Pass
T2	180 - 160	Leg	P2.5x.203	13	-32803	60052	54.6	Pass
T3	160 - 140	Leg	2.875"x0.375"	43	-77353	99986	77.4	Pass
T4	140 - 120	Leg	P3.5x.318	73	-116782	166838	70.0	Pass
T5	120 - 100	Leg	P5x.258	112	-150064	196102	76.5	Pass
T6	100 - 80	Leg	P5x.375	143	-183817	251357	73.1	Pass
T7	80 - 60	Leg	P5x.375	164	-216925	286296	75.8	Pass
T8	60 - 40	Leg	HSS5x.5	284	-247120	281005	87.9	Pass
T9	40 - 20	Leg	P8x.322	305	-277516	384260	72.2	Pass
T10	20 - 0	Leg	P8x.322	326	-308900	393840	78.4	Pass
T1	185 - 180	Diagonal	L2x2x1/8	7	-1718	11859	14.5 30.8 (b)	Pass
T2	180 - 160	Diagonal	L2x2x3/16	19	-5395	17808	30.3 71.1 (b)	Pass
T3	160 - 140	Diagonal	L2x2x3/16	54	-5377	13856	38.8 74.1 (b)	Pass
T4	140 - 120	Diagonal	L2x2x3/16	78	-5450	9760	55.8 73.6 (b)	Pass
T5	120 - 100	Diagonal	L2 1/2x2 1/2x3/16	117	-6653	12422	53.6 74.9 (b)	Pass
T6	100 - 80	Diagonal	L2 1/2x2 1/2x3/16	147	-6437	9510	67.7 74.5 (b)	Pass
T7	80 - 60	Diagonal	L3x3x3/16	213	-9259	25921	35.7 82.6 (b)	Pass
T8	60 - 40	Diagonal	L3x3x1/4	288	-8828	11521	76.6	Pass
T9	40 - 20	Diagonal	L3 1/2x3 1/2x1/4	309	-10803	16150	66.9 71.5 (b)	Pass
T10	20 - 0	Diagonal	L3 1/2x3 1/2x1/4	375	-12576	35976	35.0 81.3 (b)	Pass
T7	80 - 60	Horizontal	L3x3x3/8	166	-3762	18196	20.7	Pass
T10	20 - 0	Horizontal	L3 1/2x3 1/2x1/2	328	-5357	19477	27.5	Pass
T4	140 - 120	Secondary Horizontal	L2x2x1/4	84	-2026	10266	19.7	Pass
T5	120 - 100	Secondary Horizontal	L2 1/2x2 1/2x3/8	123	-2603	19705	13.2	Pass
T8	60 - 40	Secondary Horizontal	L3x3x7/16	292	-4286	16088	26.6	Pass
T9	40 - 20	Secondary Horizontal	L3x3x1/2	313	-4814	14660	32.8	Pass
T1	185 - 180	Top Girt	L2x2x1/8	5	-401	7675	5.2 11.9 (b)	Pass
T2	180 - 160	Top Girt	L2x2x1/8	18	-568	7817	7.3 11.9 (b)	Pass
T3	160 - 140	Top Girt	L2x2x1/8	48	-1341	7817	17.2 28.1 (b)	Pass
T7	80 - 60	Redund Horz 1 Bracing	L3x3x1/2	194	-5011	74270	6.7	Pass
T10	20 - 0	Redund Horz 1 Bracing	L3x3x1/2	356	-6934	65142	10.6	Pass
T7	80 - 60	Redund Diag 1 Bracing	L3x3x1/2	234	-3307	72571	4.6	Pass
T10	20 - 0	Redund Diag 1 Bracing	L3x3x1/2	357	-4812	60256	8.0	Pass
							Summary	
							Leg (T8)	87.9 Pass
							Diagonal (T7)	82.6 Pass
							Horizontal (T10)	27.5 Pass
							Secondary Horizontal (T9)	32.8 Pass
							Top Girt (T3)	28.1 Pass
							Redund Horz 1 Bracing (T10)	10.6 Pass
							Redund Diag 1 Bracing (T10)	8.0 Pass
							Bolt Checks	82.6 Pass
							RATING =	87.9 Pass

Structure Rating (Max From All Components After Modifications) =

87.9%

Foundation Capacity (Summary)

Component	% Capacity	Pass/Fail
Anchor Rods	46.8	Pass
Foundation - Soil Rating	49.3	Pass
Foundation - Structural Rating	75.4	Pass

Foundation Rating (Max From All Components) =	75.4%
--	--------------

Recommendations:

The existing tower and its foundation have sufficient capacity to support the existing and proposed loading for the final loading configuration upon completion of modifications. Centerline Communications recommends the following:

- Replace the existing diagonals 140-180ft with new L2x2x3/16 diagonals with new 5/8" A325 hardware.

Please reference the Construction Drawings by Centerline Communications dated April 26, 2022 for additional details.

Reference Documents:

- Construction Drawings by Centerline Communications, dated April 26, 2022
- Verizon RFDS, dated February 21, 2022
- Site Notes and Photos by Centerline Communications, dated January 19, 2022
- Structural Analysis Report by AECOM, dated April 22, 2021
- Mount Analysis Report by GPD Engineering and Architecture, dated April 4, 2022
- Mount Modification Drawings by GPD Engineering and Architecture, dated April 4, 2022

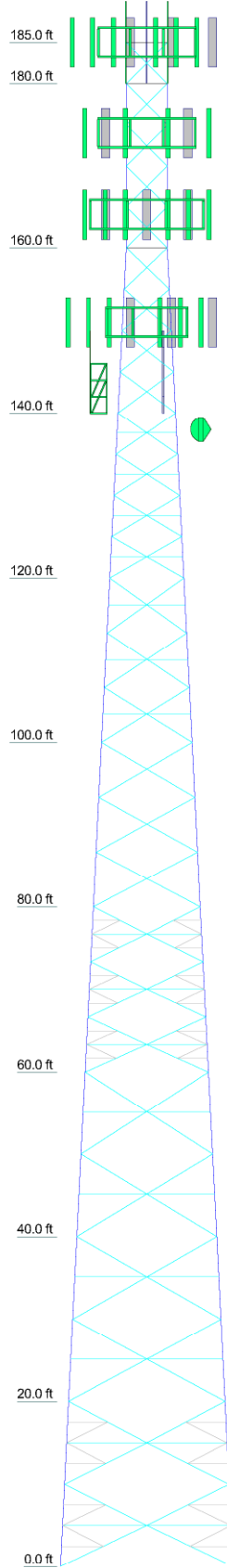
Assumptions and Limitations:

- The tower and structures were built and maintained with the manufacturer's specifications.
- The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in this report and the referenced drawings.
- Existing appurtenance information obtained from the previous Structural Analysis by AECOM, dated April 22, 2021.

Design Calculations



Section	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	P8x 322	HSS5x.5	P5x.375	P5x.268	P3.5x3/8	2.875"x0.375"	P2.5x.203	A		
Leg Grade	L3 1/2x3 1/2x1/4	L3 1/2x3 1/2x1/4	L3x3x1/4	L3x3x3/8	L2 1/2x2 1/2x3/8	L2 1/2x2 1/2x3/16	L2x2x3/16	B		
Diagonals	L3 1/2x3 1/2x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2			
Diagonal Grade	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.			
Top Girts	L3 1/2x3 1/2x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2			
Horizontal	L3 1/2x3 1/2x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2			
Sec. Horizontal	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2			
Red. Horizontal	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2			
Red. Diagonal	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2	L3x3x1/2			
Face Width (ft)	21	19	17	15	13	11	9	7	5	
# Panels @ (ft)	4 @ 5	4 @ 5	4 @ 10	6 @ 5.66667	6 @ 5.66667	6 @ 5.66667	6 @ 5.66667	6 @ 5.66667	6 @ 5.66667	6 @ 5.66667
Weight (lb) 29146.0	7315.1	4356.2	3420.4	5569.1	5569.1	2109.0	2176.5	1117.8	824.8	157.0



ALL REACTIONS
ARE FACTORED

MAX. CORNER REACTIONS AT BASE:

DOWN: 318341 lb
SHEAR: 33981 lb

UPLIFT: -271115 lb
SHEAR: 28969 lb



TORQUE 9220 lb-ft
50 mph WIND - 1.000 in ICE



TORQUE 35317 lb-ft
REACTIONS - 120 mph WIND

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	P2x.154	B	L2x2x1/8

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 87.9%

Centerline Communications
750 West Center Street, Suite 301
West Bridgewater, MA 02379
Phone: 781-713-4725
FAX:

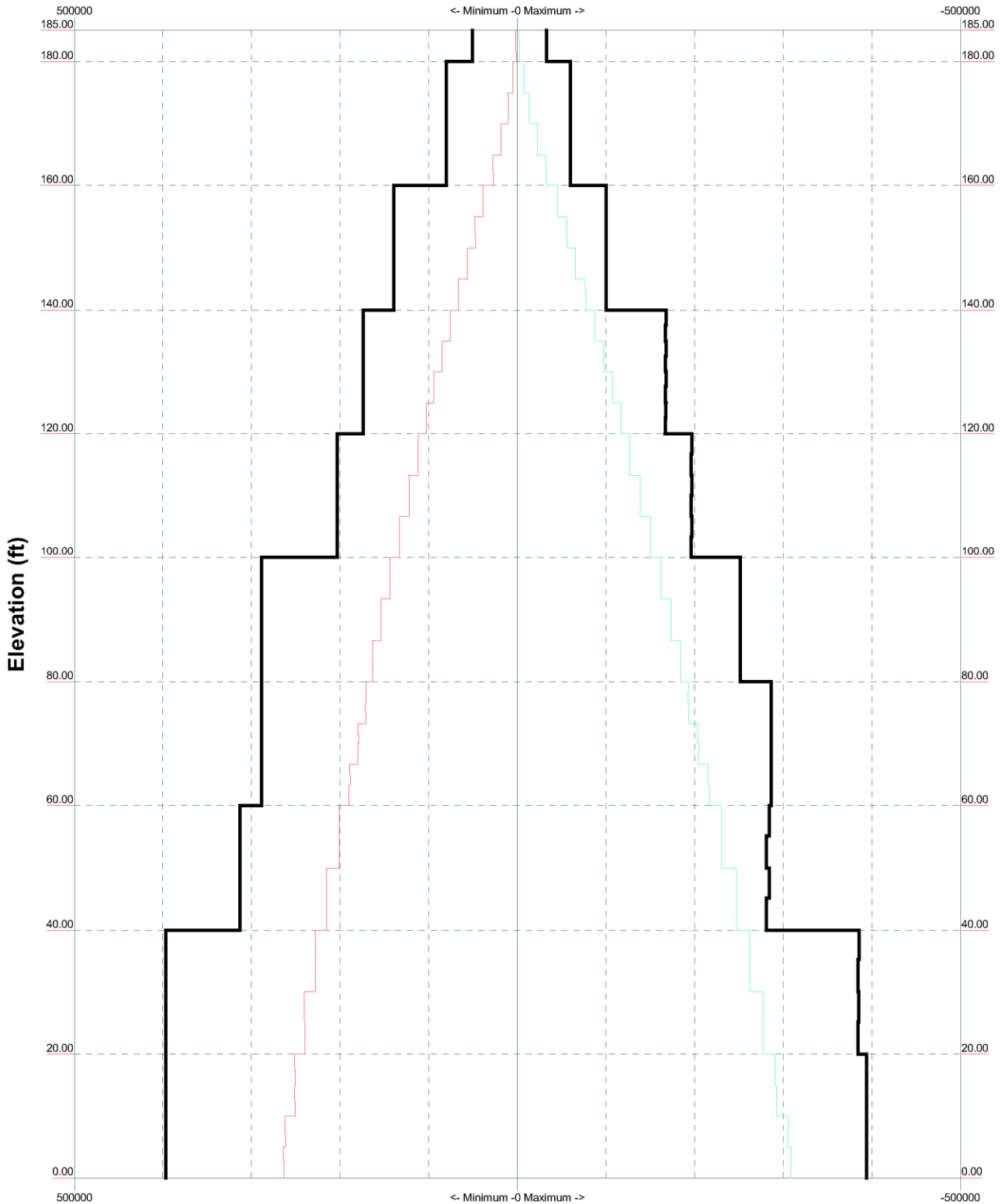
Job: **Weston North CT**
Project: **5G L-Sub6 - Carrier Add**
Client: Verizon Wireless
Code: TIA-222-H
Path:

Drawn by: Arielle Novak
Date: 03/14/22
App'd:
Scale: NTS
Dwg No. E-1

TIA-222-H - 120 mph/50 mph 1.000 in Ice Exposure B

Leg Capacity ———

Leg Compression (lb)



Centerline Communications
 750 West Center Street, Suite 301
 West Bridgewater, MA 02379
 Phone: 781-713-4725
 FAX:

Job: **Weston North CT**
 Project: **5G L-Sub6 - Carrier Add**
 Client: Verizon Wireless
 Code: TIA-222-H
 Path:
 Drawn by: Arielle Novak
 Date: 03/14/22
 App'd:
 Scale: NTS
 Dwg No. E-3

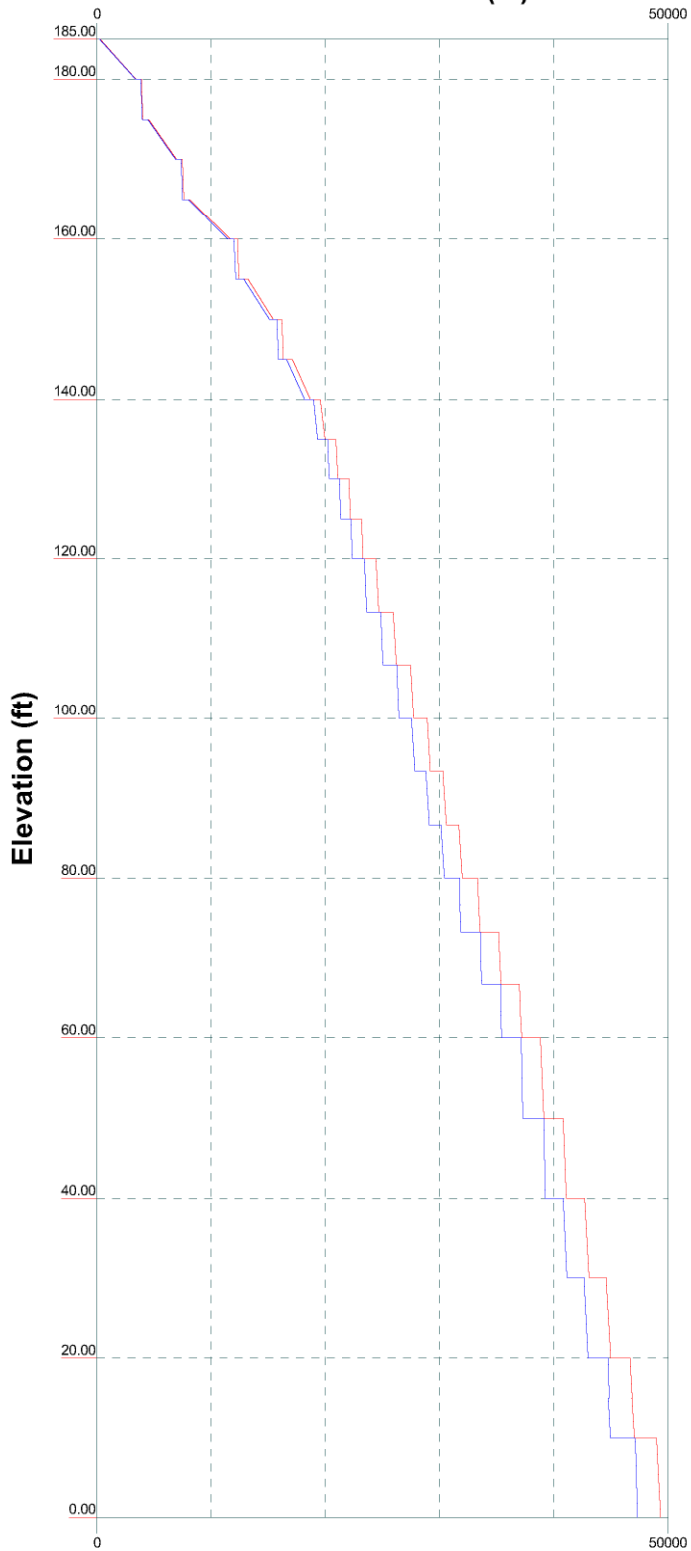
Vx

Vz

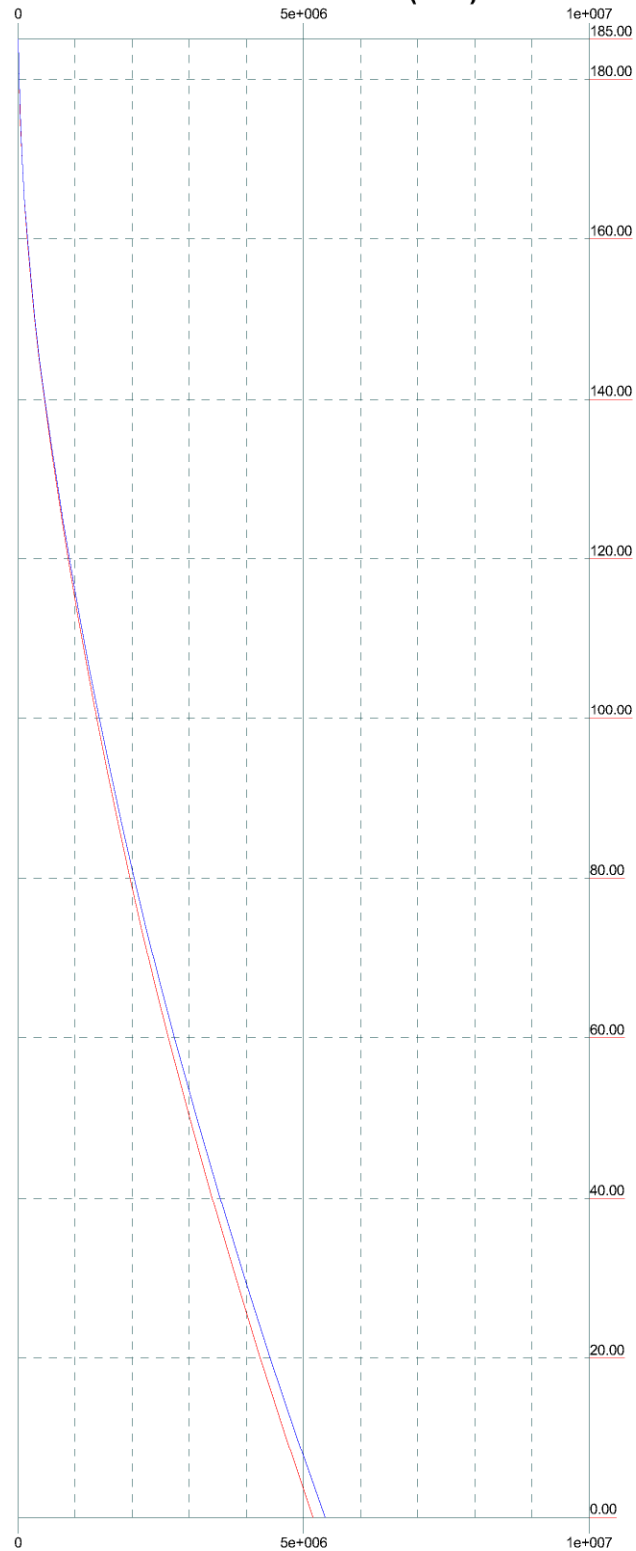
Mx

Mz

Global Mast Shear (lb)

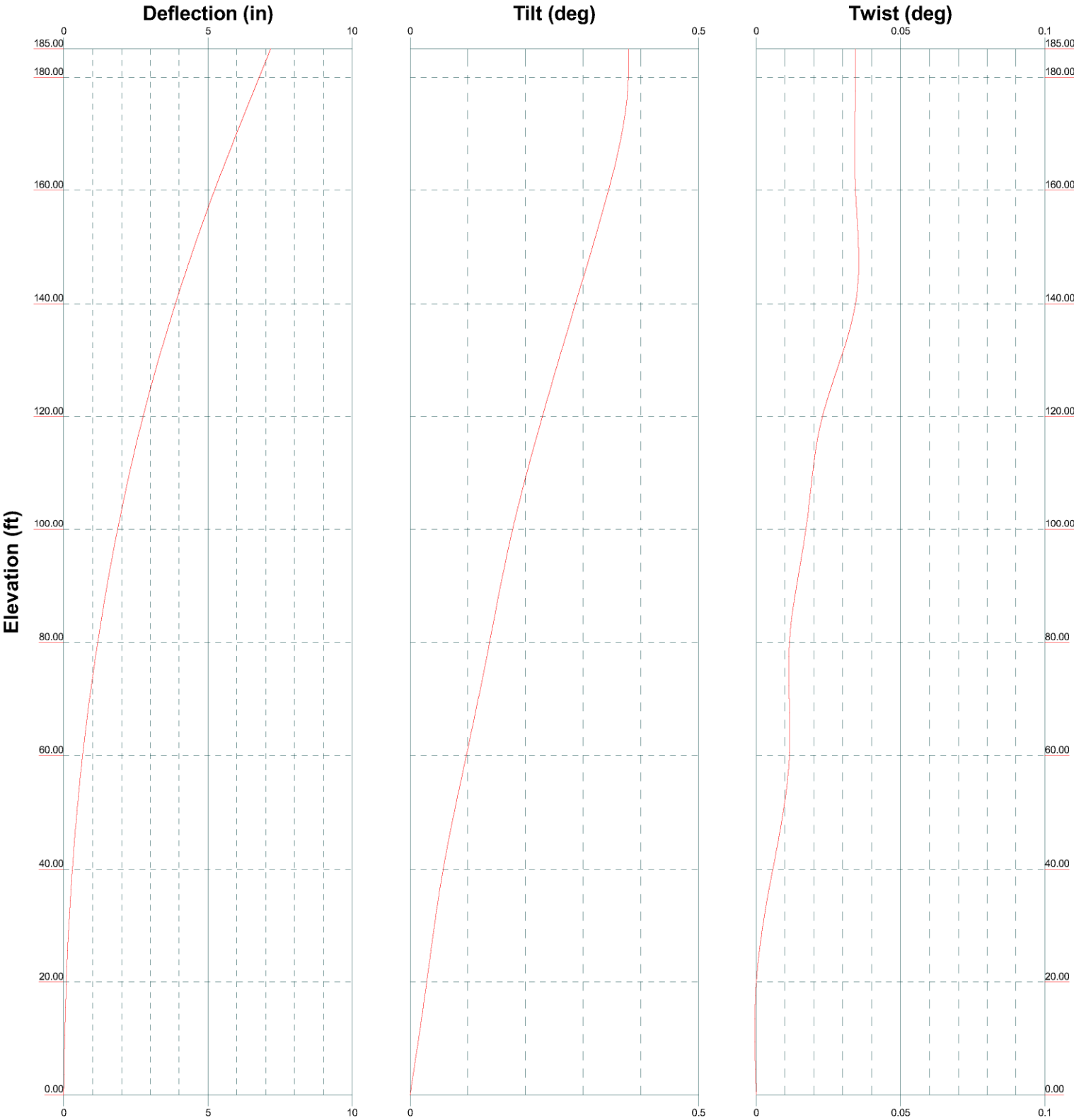


Global Mast Moment (lb-ft)



Centerline Communications
 750 West Center Street, Suite 301
 West Bridgewater, MA 02379
 Phone: 781-713-4725
 FAX:

Job: **Weston North CT**
 Project: **5G L-Sub6 - Carrier Add**
 Client: Verizon Wireless
 Code: TIA-222-H
 Path:
 Drawn by: Arielle Novak
 Date: 03/14/22
 App'd:
 Scale: NTS
 Dwg No. E-4



Feed Line Plan
20'

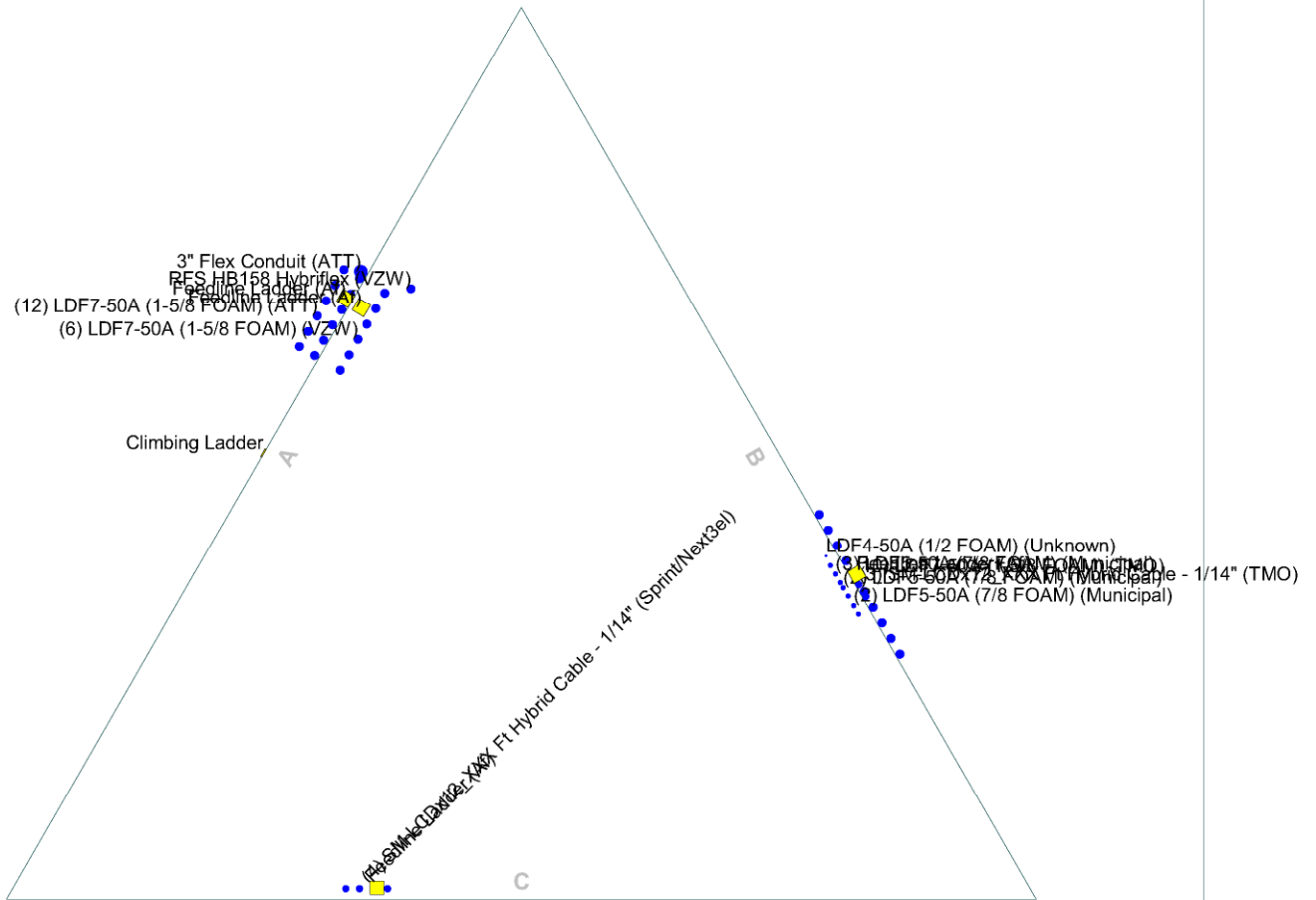
Round

Flat

App In Face

App Out Face

Section @ 20'



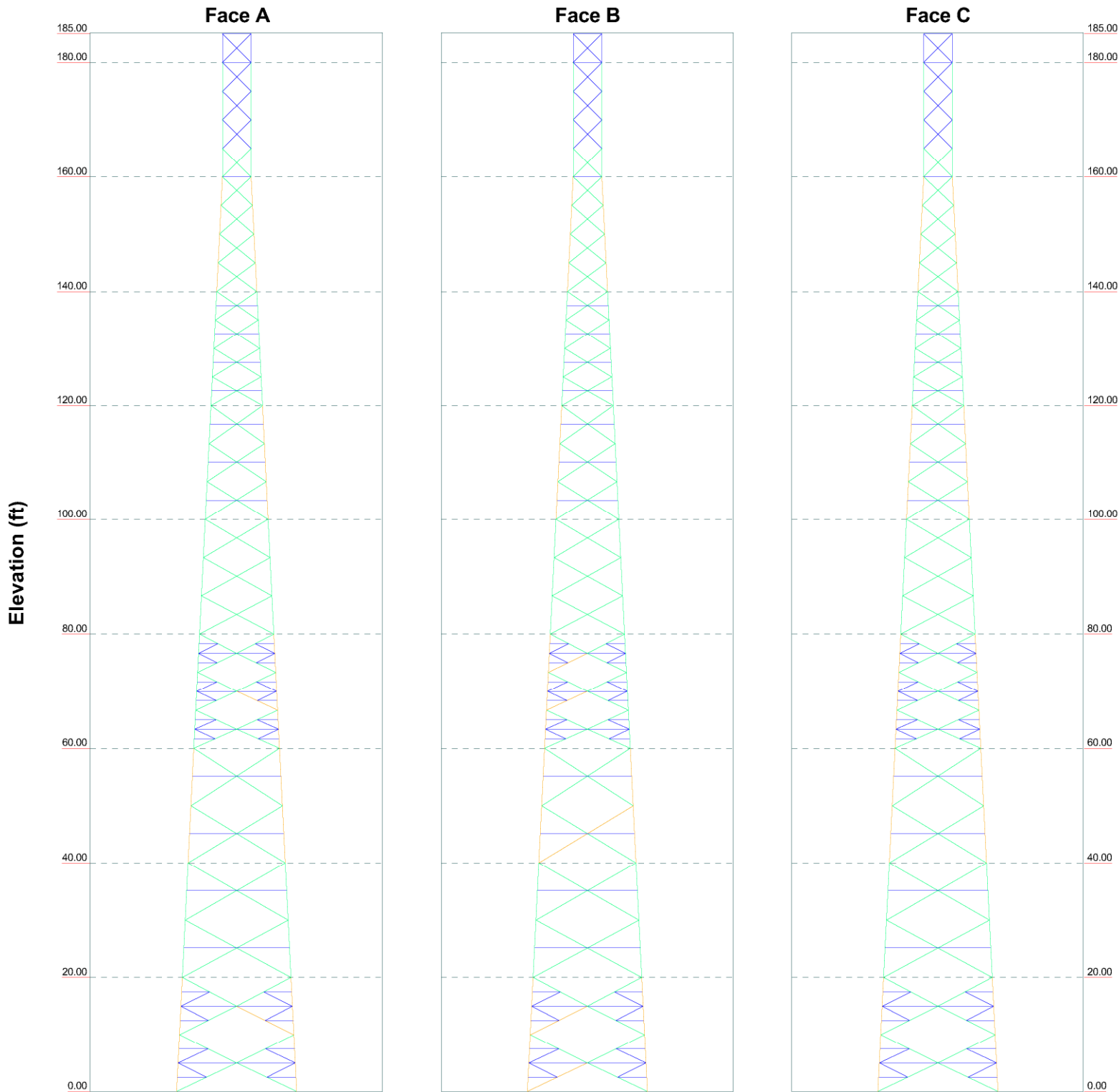
Centerline Communications
750 West Center Street, Suite 301
West Bridgewater, MA 02379
Phone: 781-713-4725
FAX:

Job: **Weston North CT**
Project: **5G L-Sub6 - Carrier Add**
Client: Verizon Wireless
Code: TIA-222-H
Path:
Drawn by: Arielle Novak
Date: 03/14/22
Scale: NTS
App'd:
Dwg No. E-7

Stress Distribution Chart

0' - 185'

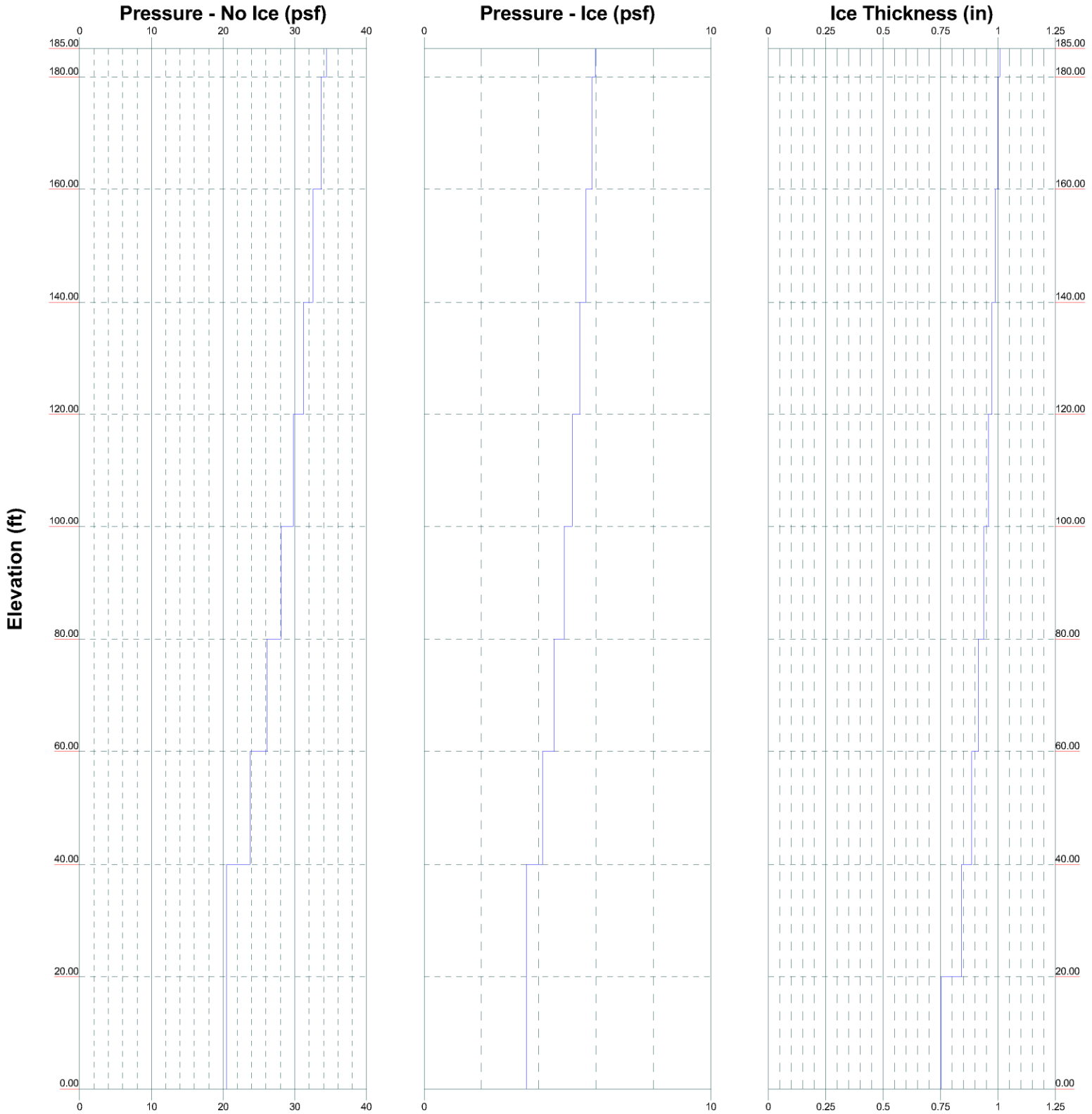
■ > 100%
 ■ 90%-100%
 ■ 75%-90%
 ■ 50%-75%
 ■ < 50% Overstress



Centerline Communications
 750 West Center Street, Suite 301
 West Bridgewater, MA 02379
 Phone: 781-713-4725
 FAX:

Job: **Weston North CT**
 Project: **5G L-Sub6 - Carrier Add**
 Client: Verizon Wireless
 Code: TIA-222-H
 Path:
 Drawn by: Arielle Novak
 Date: 03/14/22
 App'd:
 Scale: NTS
 Dwg No. E-8

Wind Pressures and Ice Thickness
TIA-222-H - 120 mph/50 mph 1.000 in Ice Exposure B



Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:			Job: Weston North CT Project: 5G L-Sub6 - Carrier Add Client: Verizon Wireless Code: TIA-222-H Path:			Drawn by: Arielle Novak Date: 03/14/22 App'd: Scale: NTS Dwg No. E-9		
--	--	--	--	--	--	--	--	--

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	1 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Tower Input Data

The main tower is a 3x free standing tower with an overall height of 185.00 ft above the ground line.

The base of the tower is set at an elevation of 0.00 ft above the ground line.

The face width of the tower is 5.000 ft at the top and 21.000 ft at the base.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

Tower is located in Fairfield County, Connecticut.

Tower base elevation above sea level: 426.00 ft.

Basic wind speed of 120 mph.

Risk Category II.

Exposure Category B.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height: 0.00 ft.

Nominal ice thickness of 1.000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

A wind speed of 50 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in tower member design is 1.05.

Tower analysis based on target reliabilities in accordance with Annex S.

Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.

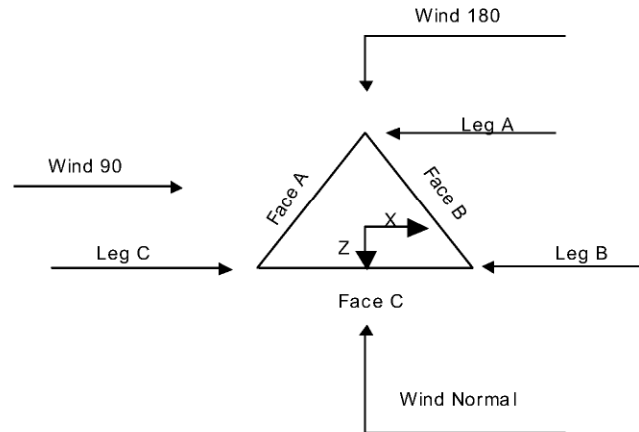
Maximum demand-capacity ratio is: 1.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Horizontals	Assume Legs Pinned	√ Calculate Redundant Bracing Forces
Consider Moments - Diagonals	√ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Use Moment Magnification	√ Use Clear Spans For Wind Area	√ SR Leg Bolts Resist Compression
Use Code Stress Ratios	√ Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
Use Code Safety Factors - Guys	Retension Guys To Initial Tension	Offset Girt At Foundation
Escalate Ice	√ Bypass Mast Stability Checks	√ Consider Feed Line Torque
Always Use Max Kz	√ Use Azimuth Dish Coefficients	√ Include Angle Block Shear Check
Use Special Wind Profile	√ Project Wind Area of Appurt.	Use TIA-222-H Bracing Resist. Exemption
√ Include Bolts In Member Capacity	Autocalc Torque Arm Areas	Use TIA-222-H Tension Splice Exemption
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	Poles
√ Secondary Horizontal Braces Leg	√ Sort Capacity Reports By Component	Include Shear-Torsion Interaction
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Always Use Sub-Critical Flow
√ SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	Use Top Mounted Sockets
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	Pole Without Linear Attachments
		Pole With Shroud Or No Appurtenances
		Outside and Inside Corner Radii Are
		Known

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	2 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	<i>ft</i>			<i>ft</i>		<i>ft</i>
T1	185.00-180.00			5.000	1	5.00
T2	180.00-160.00			5.000	1	20.00
T3	160.00-140.00			5.000	1	20.00
T4	140.00-120.00			7.000	1	20.00
T5	120.00-100.00			9.000	1	20.00
T6	100.00-80.00			11.000	1	20.00
T7	80.00-60.00			13.000	1	20.00
T8	60.00-40.00			15.000	1	20.00
T9	40.00-20.00			17.000	1	20.00
T10	20.00-0.00			19.000	1	20.00

Tower Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	<i>ft</i>	<i>ft</i>				<i>in</i>	<i>in</i>
T1	185.00-180.00	5.000	X Brace	No	No	0.000	0.000
T2	180.00-160.00	5.000	X Brace	No	No	0.000	0.000
T3	160.00-140.00	5.000	X Brace	No	No	0.000	0.000

<i>tnxTower</i> Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	3 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

<i>Tower Section</i>	<i>Tower Elevation</i>	<i>Diagonal Spacing</i>	<i>Bracing Type</i>	<i>Has K Brace End Panels</i>	<i>Has Horizontals</i>	<i>Top Girt Offset</i>	<i>Bottom Girt Offset</i>
	<i>ft</i>	<i>ft</i>				<i>in</i>	<i>in</i>
T4	140.00-120.00	5.000	X Brace	No	Yes	0.000	0.000
T5	120.00-100.00	6.667	X Brace	No	Yes	0.000	0.000
T6	100.00-80.00	6.667	X Brace	No	No	0.000	0.000
T7	80.00-60.00	3.333	Double K1	No	Yes	0.000	0.000
T8	60.00-40.00	10.000	X Brace	No	Yes	0.000	0.000
T9	40.00-20.00	10.000	X Brace	No	Yes	0.000	0.000
T10	20.00-0.00	5.000	Double K1	No	Yes	0.000	0.000

Tower Section Geometry (cont'd)

<i>Tower Elevation</i>	<i>Leg Type</i>	<i>Leg Size</i>	<i>Leg Grade</i>	<i>Diagonal Type</i>	<i>Diagonal Size</i>	<i>Diagonal Grade</i>
<i>ft</i>						
T1 185.00-180.00	Pipe	P2x.154	A572-50 (50 ksi)	Single Angle	L2x2x1/8	A36 (36 ksi)
T2 180.00-160.00	Pipe	P2.5x.203	A572-50 (50 ksi)	Single Angle	L2x2x3/16	A36 (36 ksi)
T3 160.00-140.00	Pipe	2.875"x0.375"	A572-50 (50 ksi)	Single Angle	L2x2x3/16	A36 (36 ksi)
T4 140.00-120.00	Pipe	P3.5x.318	A572-50 (50 ksi)	Single Angle	L2x2x3/16	A36 (36 ksi)
T5 120.00-100.00	Pipe	P5x.258	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T6 100.00-80.00	Pipe	P5x.375	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T7 80.00-60.00	Pipe	P5x.375	A572-50 (50 ksi)	Single Angle	L3x3x3/16	A36 (36 ksi)
T8 60.00-40.00	Pipe	HSS5x.5	A572-50 (50 ksi)	Single Angle	L3x3x1/4	A36 (36 ksi)
T9 40.00-20.00	Pipe	P8x.322	A572-50 (50 ksi)	Single Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)
T10 20.00-0.00	Pipe	P8x.322	A572-50 (50 ksi)	Single Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)

Tower Section Geometry (cont'd)

<i>Tower Elevation</i>	<i>Top Girt Type</i>	<i>Top Girt Size</i>	<i>Top Girt Grade</i>	<i>Bottom Girt Type</i>	<i>Bottom Girt Size</i>	<i>Bottom Girt Grade</i>
<i>ft</i>						
T1 185.00-180.00	Single Angle	L2x2x1/8	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T2 180.00-160.00	Single Angle	L2x2x1/8	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T3 160.00-140.00	Single Angle	L2x2x1/8	A36 (36 ksi)	Solid Round		A36 (36 ksi)

Tower Section Geometry (cont'd)

<i>tnxTower</i> Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	4 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

<i>Tower Elevation</i> <i>ft</i>	<i>No. of Mid Girts</i>	<i>Mid Girt Type</i>	<i>Mid Girt Size</i>	<i>Mid Girt Grade</i>	<i>Horizontal Type</i>	<i>Horizontal Size</i>	<i>Horizontal Grade</i>
T7 80.00-60.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L3x3x3/8	A36 (36 ksi)
T10 20.00-0.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L3 1/2x3 1/2x1/2	A36 (36 ksi)

Tower Section Geometry (cont'd)

<i>Tower Elevation</i> <i>ft</i>	<i>Secondary Horizontal Type</i>	<i>Secondary Horizontal Size</i>	<i>Secondary Horizontal Grade</i>	<i>Inner Bracing Type</i>	<i>Inner Bracing Size</i>	<i>Inner Bracing Grade</i>
T4 140.00-120.00	Equal Angle	L2x2x1/4	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T5 120.00-100.00	Equal Angle	L2 1/2x2 1/2x3/8	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T8 60.00-40.00	Equal Angle	L3x3x7/16	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T9 40.00-20.00	Equal Angle	L3x3x1/2	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)

Tower Section Geometry (cont'd)

<i>Tower Elevation</i> <i>ft</i>	<i>Redundant Bracing Grade</i>	<i>Redundant Type</i>	<i>Redundant Size</i>	<i>K Factor</i>
T7 80.00-60.00	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Equal Angle L3x3x1/2	1 1
T10 20.00-0.00	A36 (36 ksi)	Horizontal (1) Diagonal (1)	Equal Angle L3x3x1/2	1 1

Tower Section Geometry (cont'd)

<i>Tower Elevation</i> <i>ft</i>	<i>Gusset Area (per face)</i> <i>ft²</i>	<i>Gusset Thickness</i> <i>in</i>	<i>Gusset Grade</i>	<i>Adjust. Factor A_f</i>	<i>Adjust. Factor A_r</i>	<i>Weight Mult.</i>	<i>Double Angle Stitch Bolt Spacing Diagonals</i> <i>in</i>	<i>Double Angle Stitch Bolt Spacing Horizontals</i> <i>in</i>	<i>Double Angle Stitch Bolt Spacing Redundants</i> <i>in</i>
T1 185.00-180.00	0.00	0.000	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000
T2 180.00-160.00	0.00	0.000	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000
T3 160.00-140.00	0.00	0.000	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000
T4 140.00-120.00	0.00	0.000	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000
T5 120.00-100.00	0.00	0.000	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	5 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft ²	in							
T6 100.00-80.00	0.00	0.000	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000
T7 80.00-60.00	0.00	0.000	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000
T8 60.00-40.00	0.00	0.000	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000
T9 40.00-20.00	0.00	0.000	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000
T10 20.00-0.00	0.00	0.000	A36 (36 ksi)	1.03	1	1.05	36.000	36.000	36.000

Tower Section Geometry (cont'd)

Tower Elevation	Calc K Single Angles	Calc K Solid Rounds	Legs	K Factors ¹						
				X Brace Diags	K Brace Diags	Single Diags	Girts	Horiz.	Sec. Horiz.	Inner Brace
				X Y	X Y	X Y	X Y	X Y	X Y	X Y
T1 185.00-180.00	Yes	Yes	1	1	1	1	1	1	1	1
T2 180.00-160.00	Yes	Yes	1	1	1	1	1	1	1	1
T3 160.00-140.00	Yes	Yes	1	1	1	1	1	1	1	1
T4 140.00-120.00	Yes	Yes	1	1	1	1	1	1	1	1
T5 120.00-100.00	Yes	Yes	1	1	1	1	1	1	1	1
T6 100.00-80.00	Yes	Yes	1	1	1	1	1	1	1	1
T7 80.00-60.00	Yes	Yes	1	1	1	1	1	1	1	1
T8 60.00-40.00	Yes	Yes	1	1	1	1	1	1	1	1
T9 40.00-20.00	Yes	Yes	1	1	1	1	1	1	1	1
T10 20.00-0.00	Yes	Yes	1	1	1	1	1	1	1	1

¹Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.

Tower Section Geometry (cont'd)

<i>tnxTower</i> Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	6 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
185.00-180.00														
T2	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
180.00-160.00														
T3	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
160.00-140.00														
T4	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
140.00-120.00														
T5	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
120.00-100.00														
T6	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
100.00-80.00														
T7 80.00-60.00	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T8 60.00-40.00	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T9 40.00-20.00	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T10 20.00-0.00	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
185.00-180.00														
T2	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
180.00-160.00														
T3	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
160.00-140.00														
T4	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
140.00-120.00														
T5	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
120.00-100.00														
T6	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
100.00-80.00														
T7 80.00-60.00	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T8 60.00-40.00	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T9 40.00-20.00	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T10 20.00-0.00	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 185.00-180.00	Flange	0.625 A325N	4	0.625 A325N	1	0.625 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0

<i>tnxTower</i> Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	7 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T2 180.00-160.00	Flange	0.750 A325N	6	0.625 A325N	1	0.625 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T3 160.00-140.00	Flange	0.750 A325N	6	0.625 A325N	1	0.625 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T4 140.00-120.00	Flange	1.000 A325N	6	0.625 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T5 120.00-100.00	Flange	1.000 A325N	6	0.625 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T6 100.00-80.00	Flange	1.000 A325N	6	0.625 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T7 80.00-60.00	Flange	1.000 A325N	6	0.750 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T8 60.00-40.00	Flange	1.000 A325N	6	0.750 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T9 40.00-20.00	Flange	1.250 A325N	6	0.750 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T10 20.00-0.00	Flange	1.250 A325N	6	0.750 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
LDF7-50A (1-5/8 FOAM) (TMO)	B	No	No	Ar (CaAa)	185.00 - 0.00	0.000	0.15	10	10	1.980	1.980		0.820
LDF7-50A (1-5/8 FOAM) (VZW)	A	No	No	Ar (CaAa)	164.00 - 0.00	-4.500	0.15	6	6	1.980	1.980		0.820
LDF7-50A (1-5/8 FOAM) (ATT)	A	No	No	Ar (CaAa)	151.00 - 0.00	0.000	0.15	12	6	1.980	1.980		0.820
LDF5-50A (7/8 FOAM) (Municipal)	B	No	No	Ar (CaAa)	145.00 - 0.00	-2.000	0.17	2	2	1.090	1.090		0.330
LDF5-50A (7/8 FOAM) (Municipal)	B	No	No	Ar (CaAa)	145.00 - 0.00	-2.000	0.15	2	2	1.090	1.090		0.330
LDF5-50A (7/8 FOAM) (Municipal)	B	No	No	Ar (CaAa)	185.00 - 0.00	-2.000	0.13	3	3	1.090	1.090		0.330
LDF4-50A (1/2 FOAM) (Unknown)	B	No	No	Ar (CaAa)	138.00 - 0.00	-2.000	0.11	1	1	0.630	0.630		0.150
3" Flex Conduit (ATT)	A	No	No	Ar (CaAa)	151.00 - 0.00	0.000	0.2	1	1	0.000	3.000		3.000
SM-LCDx12_ XXX Ft Hybrid Cable - 1/14" (TMO)	B	No	No	Ar (CaAa)	185.00 - 0.00	0.000	0.15	3	3	1.550	1.550		1.300

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	8 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
SM-LCDx12_XXX Ft Hybrid Cable - 1/14" (Sprint/Next3e l)	C	No	No	Ar (CaAa)	174.00 - 0.00	-1.500	0.15	4	4	1.550	1.550		1.300
RFS HB158 Hybriflex (VZW)	A	No	No	Ar (CaAa)	164.00 - 0.00	-9.000	0.21	1	1	1.976	1.976		3.200
Feedline Ladder (Af)	A	No	No	Af (CaAa)	165.00 - 0.00	0.000	0.17	1	1	3.000	3.000		8.400
Feedline Ladder (Af)	B	No	No	Af (CaAa)	185.00 - 0.00	0.000	0.14	1	1	3.000	3.000		8.400
Climbing Ladder	A	No	No	Af (CaAa)	185.00 - 0.00	0.000	0	1	1	0.250	2.000		7.900
Feedline Ladder (Af)	C	No	No	Af (CaAa)	174.00 - 0.00	-1.000	0.14	1	1	3.000	3.000		8.400
Feedline Ladder (Af)	A	No	No	Af (CaAa)	165.00 - 0.00	-1.000	0.17	1	1	3.000	3.000		8.400

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight lb
T1	185.00-180.00	A	0.000	0.000	1.667	0.000	39.50
		B	0.000	0.000	16.360	0.000	107.45
		C	0.000	0.000	0.000	0.000	0.00
T2	180.00-160.00	A	0.000	0.000	17.209	0.000	274.48
		B	0.000	0.000	65.440	0.000	429.80
		C	0.000	0.000	15.680	0.000	190.40
T3	160.00-140.00	A	0.000	0.000	83.815	0.000	797.64
		B	0.000	0.000	67.620	0.000	436.40
		C	0.000	0.000	22.400	0.000	272.00
T4	140.00-120.00	A	0.000	0.000	107.899	0.000	913.20
		B	0.000	0.000	75.294	0.000	458.90
		C	0.000	0.000	22.400	0.000	272.00
T5	120.00-100.00	A	0.000	0.000	107.899	0.000	913.20
		B	0.000	0.000	75.420	0.000	459.20
		C	0.000	0.000	22.400	0.000	272.00
T6	100.00-80.00	A	0.000	0.000	107.899	0.000	913.20
		B	0.000	0.000	75.420	0.000	459.20
		C	0.000	0.000	22.400	0.000	272.00
T7	80.00-60.00	A	0.000	0.000	107.899	0.000	913.20
		B	0.000	0.000	75.420	0.000	459.20
		C	0.000	0.000	22.400	0.000	272.00
T8	60.00-40.00	A	0.000	0.000	107.899	0.000	913.20
		B	0.000	0.000	75.420	0.000	459.20
		C	0.000	0.000	22.400	0.000	272.00
T9	40.00-20.00	A	0.000	0.000	107.899	0.000	913.20
		B	0.000	0.000	75.420	0.000	459.20
		C	0.000	0.000	22.400	0.000	272.00
T10	20.00-0.00	A	0.000	0.000	107.899	0.000	913.20
		B	0.000	0.000	75.420	0.000	459.20
		C	0.000	0.000	22.400	0.000	272.00

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	9 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Feed Line/Linear Appurtenances Section Areas - With Ice

<i>Tower Section</i>	<i>Tower Elevation ft</i>	<i>Face or Leg</i>	<i>Ice Thickness in</i>	<i>A_R ft²</i>	<i>A_F ft²</i>	<i>C_AA_A In Face ft²</i>	<i>C_AA_A Out Face ft²</i>	<i>Weight lb</i>
T1	185.00-180.00	A	1.009	0.000	0.000	2.675	0.000	55.81
		B		0.000	0.000	39.961	0.000	467.06
		C		0.000	0.000	0.000	0.000	0.00
T2	180.00-160.00	A	1.001	0.000	0.000	31.324	0.000	528.43
		B		0.000	0.000	159.684	0.000	1860.19
		C		0.000	0.000	33.140	0.000	469.27
T3	160.00-140.00	A	0.989	0.000	0.000	151.657	0.000	2131.88
		B		0.000	0.000	146.674	0.000	1664.32
		C		0.000	0.000	47.216	0.000	665.61
T4	140.00-120.00	A	0.975	0.000	0.000	197.590	0.000	2645.25
		B		0.000	0.000	173.121	0.000	1840.45
		C		0.000	0.000	47.074	0.000	660.25
T5	120.00-100.00	A	0.959	0.000	0.000	196.104	0.000	2607.62
		B		0.000	0.000	172.432	0.000	1816.98
		C		0.000	0.000	46.910	0.000	654.11
T6	100.00-80.00	A	0.940	0.000	0.000	194.352	0.000	2563.63
		B		0.000	0.000	171.012	0.000	1784.71
		C		0.000	0.000	46.717	0.000	646.90
T7	80.00-60.00	A	0.916	0.000	0.000	192.206	0.000	2510.34
		B		0.000	0.000	169.273	0.000	1745.60
		C		0.000	0.000	46.481	0.000	638.14
T8	60.00-40.00	A	0.886	0.000	0.000	189.416	0.000	2441.99
		B		0.000	0.000	167.014	0.000	1695.38
		C		0.000	0.000	46.174	0.000	626.83
T9	40.00-20.00	A	0.842	0.000	0.000	185.357	0.000	2344.42
		B		0.000	0.000	163.728	0.000	1623.61
		C		0.000	0.000	45.729	0.000	610.55
T10	20.00-0.00	A	0.754	0.000	0.000	177.298	0.000	2157.39
		B		0.000	0.000	151.189	0.000	1452.49
		C		0.000	0.000	37.487	0.000	529.05

Feed Line Center of Pressure

<i>Section</i>	<i>Elevation ft</i>	<i>CP_X in</i>	<i>CP_Z in</i>	<i>CP_X Ice in</i>	<i>CP_Z Ice in</i>
T1	185.00-180.00	7.485	-0.900	6.942	-1.054
T2	180.00-160.00	5.371	-0.977	4.125	-1.096
T3	160.00-140.00	1.871	-6.214	1.025	-5.668
T4	140.00-120.00	1.673	-8.534	1.479	-7.627
T5	120.00-100.00	1.883	-9.921	1.711	-9.085
T6	100.00-80.00	2.305	-12.244	2.055	-11.121
T7	80.00-60.00	1.747	-10.162	1.682	-10.039
T8	60.00-40.00	2.558	-14.359	2.320	-13.572
T9	40.00-20.00	2.559	-14.674	2.277	-13.961
T10	20.00-0.00	2.209	-13.270	2.385	-13.171

<i>tnxTower</i> Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	10 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Shielding Factor Ka

<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T1	1	LDF7-50A (1-5/8 FOAM)	180.00 - 185.00	0.6000	0.6000
T1	6	LDF5-50A (7/8 FOAM)	180.00 - 185.00	0.6000	0.6000
T1	9	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	180.00 - 185.00	0.6000	0.6000
T1	13	Feedline Ladder (Af)	180.00 - 185.00	0.6000	0.6000
T1	14	Climbing Ladder	180.00 - 185.00	0.6000	0.6000
T2	1	LDF7-50A (1-5/8 FOAM)	160.00 - 180.00	0.6000	0.6000
T2	2	LDF7-50A (1-5/8 FOAM)	160.00 - 164.00	0.6000	0.6000
T2	6	LDF5-50A (7/8 FOAM)	160.00 - 180.00	0.6000	0.6000
T2	9	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	160.00 - 180.00	0.6000	0.6000
T2	10	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	160.00 - 174.00	0.6000	0.6000
T2	11	RFS HB158 Hybriflex	160.00 - 164.00	0.6000	0.6000
T2	12	Feedline Ladder (Af)	160.00 - 165.00	0.6000	0.6000
T2	13	Feedline Ladder (Af)	160.00 - 180.00	0.6000	0.6000
T2	14	Climbing Ladder	160.00 - 180.00	0.6000	0.6000
T2	15	Feedline Ladder (Af)	160.00 - 174.00	0.6000	0.6000
T2	16	Feedline Ladder (Af)	160.00 - 165.00	0.6000	0.6000
T3	1	LDF7-50A (1-5/8 FOAM)	140.00 - 160.00	0.6000	0.6000
T3	2	LDF7-50A (1-5/8 FOAM)	140.00 - 160.00	0.6000	0.6000
T3	3	LDF7-50A (1-5/8 FOAM)	140.00 - 151.00	0.6000	0.6000
T3	4	LDF5-50A (7/8 FOAM)	140.00 - 145.00	0.6000	0.6000
T3	5	LDF5-50A (7/8 FOAM)	140.00 - 145.00	0.6000	0.6000
T3	6	LDF5-50A (7/8 FOAM)	140.00 - 160.00	0.6000	0.6000
T3	8	3" Flex Conduit	140.00 - 151.00	0.6000	0.6000
T3	9	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	140.00 - 160.00	0.6000	0.6000
T3	10	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	140.00 - 160.00	0.6000	0.6000
T3	11	RFS HB158 Hybriflex	140.00 - 160.00	0.6000	0.6000
T3	12	Feedline Ladder (Af)	140.00 - 160.00	0.6000	0.6000
T3	13	Feedline Ladder (Af)	140.00 - 160.00	0.6000	0.6000
T3	14	Climbing Ladder	140.00 - 160.00	0.6000	0.6000
T3	15	Feedline Ladder (Af)	140.00 -	0.6000	0.6000

<i>tnxTower</i> Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	11 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
			160.00		
T3	16	Feedline Ladder (Af)	140.00 -	0.6000	0.6000
			160.00		
T4	1	LDF7-50A (1-5/8 FOAM)	120.00 -	0.6000	0.6000
			140.00		
T4	2	LDF7-50A (1-5/8 FOAM)	120.00 -	0.6000	0.6000
			140.00		
T4	3	LDF7-50A (1-5/8 FOAM)	120.00 -	0.6000	0.6000
			140.00		
T4	4	LDF5-50A (7/8 FOAM)	120.00 -	0.6000	0.6000
			140.00		
T4	5	LDF5-50A (7/8 FOAM)	120.00 -	0.6000	0.6000
			140.00		
T4	6	LDF5-50A (7/8 FOAM)	120.00 -	0.6000	0.6000
			140.00		
T4	7	LDF4-50A (1/2 FOAM)	120.00 -	0.6000	0.6000
			138.00		
T4	8	3" Flex Conduit	120.00 -	0.6000	0.6000
			140.00		
T4	9	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	120.00 -	0.6000	0.6000
			140.00		
T4	10	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	120.00 -	0.6000	0.6000
			140.00		
T4	11	RFS HB158 Hybriflex	120.00 -	0.6000	0.6000
			140.00		
T4	12	Feedline Ladder (Af)	120.00 -	0.6000	0.6000
			140.00		
T4	13	Feedline Ladder (Af)	120.00 -	0.6000	0.6000
			140.00		
T4	14	Climbing Ladder	120.00 -	0.6000	0.6000
			140.00		
T4	15	Feedline Ladder (Af)	120.00 -	0.6000	0.6000
			140.00		
T4	16	Feedline Ladder (Af)	120.00 -	0.6000	0.6000
			140.00		
T5	1	LDF7-50A (1-5/8 FOAM)	100.00 -	0.6000	0.6000
			120.00		
T5	2	LDF7-50A (1-5/8 FOAM)	100.00 -	0.6000	0.6000
			120.00		
T5	3	LDF7-50A (1-5/8 FOAM)	100.00 -	0.6000	0.6000
			120.00		
T5	4	LDF5-50A (7/8 FOAM)	100.00 -	0.6000	0.6000
			120.00		
T5	5	LDF5-50A (7/8 FOAM)	100.00 -	0.6000	0.6000
			120.00		
T5	6	LDF5-50A (7/8 FOAM)	100.00 -	0.6000	0.6000
			120.00		
T5	7	LDF4-50A (1/2 FOAM)	100.00 -	0.6000	0.6000
			120.00		
T5	8	3" Flex Conduit	100.00 -	0.6000	0.6000
			120.00		
T5	9	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	100.00 -	0.6000	0.6000
			120.00		
T5	10	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	100.00 -	0.6000	0.6000
			120.00		
T5	11	RFS HB158 Hybriflex	100.00 -	0.6000	0.6000
			120.00		
T5	12	Feedline Ladder (Af)	100.00 -	0.6000	0.6000
			120.00		
T5	13	Feedline Ladder (Af)	100.00 -	0.6000	0.6000
			120.00		
T5	14	Climbing Ladder	100.00 -	0.6000	0.6000

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	12 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
			120.00		
T5	15	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
			120.00		
T5	16	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
			120.00		
T6	1	LDF7-50A (1-5/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T6	2	LDF7-50A (1-5/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T6	3	LDF7-50A (1-5/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T6	4	LDF5-50A (7/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T6	5	LDF5-50A (7/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T6	6	LDF5-50A (7/8 FOAM)	80.00 - 100.00	0.6000	0.6000
T6	7	LDF4-50A (1/2 FOAM)	80.00 - 100.00	0.6000	0.6000
T6	8	3" Flex Conduit	80.00 - 100.00	0.6000	0.6000
T6	9	SM-LCDx12_XXX Ft Hybrid	80.00 - 100.00	0.6000	0.6000
		Cable - 1/14"			
T6	10	SM-LCDx12_XXX Ft Hybrid	80.00 - 100.00	0.6000	0.6000
		Cable - 1/14"			
T6	11	RFS HB158 Hybriflex	80.00 - 100.00	0.6000	0.6000
T6	12	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T6	13	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T6	14	Climbing Ladder	80.00 - 100.00	0.6000	0.6000
T6	15	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T6	16	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	1	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T7	2	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T7	3	LDF7-50A (1-5/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T7	4	LDF5-50A (7/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T7	5	LDF5-50A (7/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T7	6	LDF5-50A (7/8 FOAM)	60.00 - 80.00	0.6000	0.6000
T7	7	LDF4-50A (1/2 FOAM)	60.00 - 80.00	0.6000	0.6000
T7	8	3" Flex Conduit	60.00 - 80.00	0.6000	0.6000
T7	9	SM-LCDx12_XXX Ft Hybrid	60.00 - 80.00	0.6000	0.6000
		Cable - 1/14"			
T7	10	SM-LCDx12_XXX Ft Hybrid	60.00 - 80.00	0.6000	0.6000
		Cable - 1/14"			
T7	11	RFS HB158 Hybriflex	60.00 - 80.00	0.6000	0.6000
T7	12	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T7	13	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T7	14	Climbing Ladder	60.00 - 80.00	0.6000	0.6000
T7	15	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T7	16	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T8	1	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T8	2	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T8	3	LDF7-50A (1-5/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T8	4	LDF5-50A (7/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T8	5	LDF5-50A (7/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T8	6	LDF5-50A (7/8 FOAM)	40.00 - 60.00	0.6000	0.6000
T8	7	LDF4-50A (1/2 FOAM)	40.00 - 60.00	0.6000	0.6000
T8	8	3" Flex Conduit	40.00 - 60.00	0.6000	0.6000
T8	9	SM-LCDx12_XXX Ft Hybrid	40.00 - 60.00	0.6000	0.6000
		Cable - 1/14"			
T8	10	SM-LCDx12_XXX Ft Hybrid	40.00 - 60.00	0.6000	0.6000
		Cable - 1/14"			
T8	11	RFS HB158 Hybriflex	40.00 - 60.00	0.6000	0.6000
T8	12	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T8	13	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T8	14	Climbing Ladder	40.00 - 60.00	0.6000	0.6000
T8	15	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T8	16	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T9	1	LDF7-50A (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T9	2	LDF7-50A (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T9	3	LDF7-50A (1-5/8 FOAM)	20.00 - 40.00	0.6000	0.6000

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	13 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

<i>Tower Section</i>	<i>Feed Line Record No.</i>	<i>Description</i>	<i>Feed Line Segment Elev.</i>	<i>K_a No Ice</i>	<i>K_a Ice</i>
T9	4	LDF5-50A (7/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T9	5	LDF5-50A (7/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T9	6	LDF5-50A (7/8 FOAM)	20.00 - 40.00	0.6000	0.6000
T9	7	LDF4-50A (1/2 FOAM)	20.00 - 40.00	0.6000	0.6000
T9	8	3" Flex Conduit	20.00 - 40.00	0.6000	0.6000
T9	9	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	20.00 - 40.00	0.6000	0.6000
T9	10	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	20.00 - 40.00	0.6000	0.6000
T9	11	RFS HB158 Hybriflex	20.00 - 40.00	0.6000	0.6000
T9	12	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T9	13	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T9	14	Climbing Ladder	20.00 - 40.00	0.6000	0.6000
T9	15	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T9	16	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T10	1	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T10	2	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T10	3	LDF7-50A (1-5/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T10	4	LDF5-50A (7/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T10	5	LDF5-50A (7/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T10	6	LDF5-50A (7/8 FOAM)	0.00 - 20.00	0.6000	0.6000
T10	7	LDF4-50A (1/2 FOAM)	0.00 - 20.00	0.6000	0.6000
T10	8	3" Flex Conduit	0.00 - 20.00	0.6000	0.6000
T10	9	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	0.00 - 20.00	0.6000	0.6000
T10	10	SM-LCDx12_XXX Ft Hybrid Cable - 1/14"	0.00 - 20.00	0.6000	0.6000
T10	11	RFS HB158 Hybriflex	0.00 - 20.00	0.6000	0.6000
T10	12	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T10	13	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T10	14	Climbing Ladder	0.00 - 20.00	0.6000	0.6000
T10	15	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T10	16	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000

Discrete Tower Loads

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert</i> <i>ft ft ft</i>	<i>Azimuth Adjustment</i> <i>°</i>	<i>Placement</i> <i>ft</i>	<i>C_{AA} Front</i> <i>ft²</i>	<i>C_{AA} Side</i> <i>ft²</i>	<i>Weight</i> <i>lb</i>
DB636-A (Municipal)	B	From Leg	0.00 0.000 0.000	0.000	185.00	No Ice 1/2" Ice 1" Ice	2.78 3.96 5.16	30.00 50.00 80.00

DB222 (Municipal)	A	From Leg	0.00 0.000 0.000	0.000	185.00	No Ice 1/2" Ice 1" Ice	1.60 2.88 4.16	20.00 25.00 30.00
DB222 (Municipal)	C	From Leg	0.00 0.000 0.000	0.000	185.00	No Ice 1/2" Ice 1" Ice	1.60 2.88 4.16	20.00 25.00 30.00

(2) 6' Omni	A	From Leg	6.00	0.000	145.00	No Ice	2.78	30.00

<i>tnxTower</i> Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	14 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>	<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight lb</i>	
(Municipal)			0.000			1/2" Ice	3.96	3.96	50.00
			0.000			1" Ice	5.16	5.16	80.00
(2) 6' Omni	C	From Leg	6.00	0.000	145.00	No Ice	2.78	2.78	30.00
(Municipal)			0.000			1/2" Ice	3.96	3.96	50.00
			0.000			1" Ice	5.16	5.16	80.00
6' Side Arm Mount	A	From Leg	3.00	0.000	145.00	No Ice	10.60	10.60	140.00
(Municipal)			0.000			1/2" Ice	15.40	15.40	210.00
			0.000			1" Ice	20.20	20.20	280.00
6' Side Arm Mount	C	From Leg	3.00	0.000	145.00	No Ice	10.60	10.60	140.00
(Municipal)			0.000			1/2" Ice	15.40	15.40	210.00
			0.000			1" Ice	20.20	20.20	280.00
(2) 8' Diple (inverted)	A	From Leg	6.00	0.000	145.00	No Ice	2.78	2.78	30.00
(Municipal)			0.000			1/2" Ice	3.96	3.96	50.00
			0.000			1" Ice	5.16	5.16	80.00
(2) 8' Diple (inverted)	C	From Leg	6.00	0.000	145.00	No Ice	2.78	2.78	30.00
(Municipal)			0.000			1/2" Ice	3.96	3.96	50.00
			0.000			1" Ice	5.16	5.16	80.00
6' Side Arm Mount	A	From Leg	3.00	0.000	145.00	No Ice	10.60	10.60	140.00
(Municipal)			0.000			1/2" Ice	15.40	15.40	210.00
			0.000			1" Ice	20.20	20.20	280.00
6' Side Arm Mount	C	From Leg	3.00	0.000	145.00	No Ice	10.60	10.60	140.00
(Municipal)			0.000			1/2" Ice	15.40	15.40	210.00
			0.000			1" Ice	20.20	20.20	280.00

12' Lightweight T-Frame	A	None		0.000	174.00	No Ice	10.20	10.20	250.00
(Sprint)						1/2" Ice	16.20	16.20	350.00
						1" Ice	22.20	22.20	460.00
12' Lightweight T-Frame	B	None		0.000	174.00	No Ice	10.20	10.20	250.00
(Sprint)						1/2" Ice	16.20	16.20	350.00
						1" Ice	22.20	22.20	460.00
12' Lightweight T-Frame	C	None		0.000	174.00	No Ice	10.20	10.20	250.00
(Sprint)						1/2" Ice	16.20	16.20	350.00
						1" Ice	22.20	22.20	460.00
APXVSPP18-C-A20 w/ MP	A	From Leg	3.00	0.000	174.00	No Ice	8.26	5.81	90.00
(Sprint)			0.000			1/2" Ice	8.81	6.27	140.00
			0.000			1" Ice	9.36	6.73	200.00
APXVSPP18-C-A20 w/ MP	B	From Leg	3.00	0.000	174.00	No Ice	8.26	5.81	90.00
(Sprint)			0.000			1/2" Ice	8.81	6.27	140.00
			0.000			1" Ice	9.36	6.73	200.00
APXVSPP18-C-A20 w/ MP	C	From Leg	3.00	0.000	174.00	No Ice	8.26	5.81	90.00
(Sprint)			0.000			1/2" Ice	8.81	6.27	140.00
			0.000			1" Ice	9.36	6.73	200.00
APXVTM14	A	From Leg	3.00	0.000	174.00	No Ice	6.34	3.61	60.00
(Sprint)			0.000			1/2" Ice	6.72	3.97	100.00
			0.000			1" Ice	7.10	4.33	140.00
APXVTM14	B	From Leg	3.00	0.000	174.00	No Ice	6.34	3.61	60.00
(Sprint)			0.000			1/2" Ice	6.72	3.97	100.00
			0.000			1" Ice	7.10	4.33	140.00
APXVTM14	C	From Leg	3.00	0.000	174.00	No Ice	6.34	3.61	60.00
(Sprint)			0.000			1/2" Ice	6.72	3.97	100.00
			0.000			1" Ice	7.10	4.33	140.00
1900 RRH	A	From Leg	3.00	0.000	174.00	No Ice	3.01	2.97	60.00
(Sprint)			0.000			1/2" Ice	3.26	3.21	90.00
			0.000			1" Ice	3.52	3.46	120.00
1900 RRH	B	From Leg	3.00	0.000	174.00	No Ice	3.01	2.97	60.00
(Sprint)			0.000			1/2" Ice	3.26	3.21	90.00
			0.000			1" Ice	3.52	3.46	120.00

<i>tnxTower</i> Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	15 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight lb</i>
1900 RRH (Sprint)	C	From Leg	3.00 0.000 0.000	0.000	174.00	No Ice 1/2" Ice 1" Ice	3.01 3.26 3.52	2.97 3.21 3.46	60.00 90.00 120.00
800 RRH (Sprint)	A	From Leg	3.00 0.000 0.000	0.000	174.00	No Ice 1/2" Ice 1" Ice	6.90 7.35 7.81	5.91 6.35 6.80	60.00 110.00 160.00
800 RRH (Sprint)	B	From Leg	3.00 0.000 0.000	0.000	174.00	No Ice 1/2" Ice 1" Ice	6.90 7.35 7.81	5.91 6.35 6.80	60.00 110.00 160.00
800 RRH (Sprint)	C	From Leg	3.00 0.000 0.000	0.000	174.00	No Ice 1/2" Ice 1" Ice	6.90 7.35 7.81	5.91 6.35 6.80	60.00 110.00 160.00
RRU (Sprint)	A	From Leg	3.00 0.000 0.000	0.000	174.00	No Ice 1/2" Ice 1" Ice	1.40 1.56 1.73	0.70 0.82 0.95	10.00 20.00 30.00
RRU (Sprint)	B	From Leg	3.00 0.000 0.000	0.000	174.00	No Ice 1/2" Ice 1" Ice	1.40 1.56 1.73	0.70 0.82 0.95	10.00 20.00 30.00
RRU (Sprint)	C	From Leg	3.00 0.000 0.000	0.000	174.00	No Ice 1/2" Ice 1" Ice	1.40 1.56 1.73	0.70 0.82 0.95	10.00 20.00 30.00

10' Sector Frame (ATT)	A	None		0.000	151.00	No Ice 1/2" Ice 1" Ice	9.00 13.20 17.40	9.00 13.20 17.40	250.00 350.00 450.00
10' Sector Frame (ATT)	B	None		0.000	151.00	No Ice 1/2" Ice 1" Ice	9.00 13.20 17.40	9.00 13.20 17.40	250.00 350.00 450.00
10' Sector Frame (ATT)	C	None		0.000	151.00	No Ice 1/2" Ice 1" Ice	9.00 13.20 17.40	9.00 13.20 17.40	250.00 350.00 450.00
(2) LGP214nn TMA (ATT)	A	From Leg	3.00 0.000 0.000	0.000	151.00	No Ice 1/2" Ice 1" Ice	1.29 1.45 1.61	0.23 0.31 0.40	5.00 10.00 20.00
(2) LGP214nn TMA (ATT)	B	From Leg	3.00 0.000 0.000	0.000	151.00	No Ice 1/2" Ice 1" Ice	1.29 1.45 1.61	0.23 0.31 0.40	5.00 10.00 20.00
(2) LGP214nn TMA (ATT)	C	From Leg	3.00 0.000 0.000	0.000	151.00	No Ice 1/2" Ice 1" Ice	1.29 1.45 1.61	0.23 0.31 0.40	5.00 10.00 20.00
7770 (ATT)	A	From Leg	3.00 3.000 0.000	0.000	151.00	No Ice 1/2" Ice 1" Ice	5.88 6.31 6.75	2.93 3.27 3.63	350.00 380.00 420.00
7770 (ATT)	B	From Leg	3.00 3.000 0.000	0.000	151.00	No Ice 1/2" Ice 1" Ice	5.88 6.31 6.75	2.93 3.27 3.63	350.00 380.00 420.00
7770 (ATT)	C	From Leg	3.00 3.000 0.000	0.000	151.00	No Ice 1/2" Ice 1" Ice	5.88 6.31 6.75	2.93 3.27 3.63	350.00 380.00 420.00
P65-16-XLH-RR (ATT)	A	From Leg	3.00 -3.000 0.000	0.000	151.00	No Ice 1/2" Ice 1" Ice	8.40 8.95 9.51	4.70 5.15 5.60	50.00 100.00 150.00
P65-16-XLH-RR (ATT)	B	From Leg	3.00 -3.000 0.000	0.000	151.00	No Ice 1/2" Ice 1" Ice	8.40 8.95 9.51	4.70 5.15 5.60	50.00 100.00 150.00
P65-16-XLH-RR (ATT)	C	From Leg	3.00 -3.000	0.000	151.00	No Ice 1/2" Ice	8.40 8.95	4.70 5.15	50.00 100.00

<i>tnxTower</i> Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	16 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>	<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight lb</i>
CCI HPA65R-BU6A (ATT)	A	From Leg	0.000 0.00 3.000 0.000	0.000	151.00	1" Ice 9.51 No Ice 7.85 1/2" Ice 8.30 1" Ice 8.76	5.60 5.61 6.06 6.52	150.00 50.00 100.00 160.00
CCI HPA65R-BU6A (ATT)	B	From Leg	0.00 3.000 0.000	0.000	151.00	No Ice 7.85 1/2" Ice 8.30 1" Ice 8.76	5.61 6.06 6.52	50.00 100.00 160.00
CCI HPA65R-BU6A (ATT)	C	From Leg	0.00 3.000 0.000	0.000	151.00	No Ice 7.85 1/2" Ice 8.30 1" Ice 8.76	5.61 6.06 6.52	50.00 100.00 160.00
Surge Suppressor (ATT)	A	From Leg	3.00 0.000 0.000	0.000	151.00	No Ice 0.53 1/2" Ice 0.65 1" Ice 0.78	0.53 0.65 0.78	50.00 60.00 70.00
(2) RRU (ATT)	A	From Leg	3.00 0.000 0.000	0.000	151.00	No Ice 1.40 1/2" Ice 1.56 1" Ice 1.73	0.70 0.82 0.95	10.00 20.00 30.00
(2) RRU (ATT)	B	From Leg	3.00 0.000 0.000	0.000	151.00	No Ice 1.40 1/2" Ice 1.56 1" Ice 1.73	0.70 0.82 0.95	10.00 20.00 30.00
(2) RRU (ATT)	C	From Leg	3.00 0.000 0.000	0.000	151.00	No Ice 1.40 1/2" Ice 1.56 1" Ice 1.73	0.70 0.82 0.95	10.00 20.00 30.00

12' Lightweight T-Frame (TMO)	A	None		0.000	185.00	No Ice 10.20 1/2" Ice 16.20 1" Ice 22.20	10.20 16.20 22.20	250.00 350.00 460.00
12' Lightweight T-Frame (TMO)	B	None		0.000	185.00	No Ice 10.20 1/2" Ice 16.20 1" Ice 22.20	10.20 16.20 22.20	250.00 350.00 460.00
12' Lightweight T-Frame (TMO)	C	None		0.000	185.00	No Ice 10.20 1/2" Ice 16.20 1" Ice 22.20	10.20 16.20 22.20	250.00 350.00 460.00
AIR 6449 (TMO)	A	From Leg	3.00 3.000 0.000	0.000	185.00	No Ice 5.68 1/2" Ice 5.98 1" Ice 6.29	2.42 2.64 2.87	100.00 140.00 180.00
AIR 6449 (TMO)	B	From Leg	3.00 3.000 0.000	0.000	185.00	No Ice 5.68 1/2" Ice 5.98 1" Ice 6.29	2.42 2.64 2.87	100.00 140.00 180.00
AIR 6449 (TMO)	C	From Leg	3.00 3.000 0.000	0.000	185.00	No Ice 5.68 1/2" Ice 5.98 1" Ice 6.29	2.42 2.64 2.87	100.00 140.00 180.00
AIR 32 (TMO)	A	From Leg	3.00 -3.000 0.000	0.000	185.00	No Ice 6.51 1/2" Ice 6.89 1" Ice 7.27	4.71 5.07 5.43	130.00 180.00 230.00
AIR 32 (TMO)	B	From Leg	3.00 -3.000 0.000	0.000	185.00	No Ice 6.51 1/2" Ice 6.89 1" Ice 7.27	4.71 5.07 5.43	130.00 180.00 230.00
AIR 32 (TMO)	C	From Leg	3.00 -3.000 0.000	0.000	185.00	No Ice 6.51 1/2" Ice 6.89 1" Ice 7.27	4.71 5.07 5.43	130.00 180.00 230.00
RFS APXVAARR24_43 (TMO)	A	From Leg	3.00 0.000 0.000	0.000	185.00	No Ice 20.24 1/2" Ice 20.89 1" Ice 21.54	8.89 9.49 10.09	130.00 240.00 360.00
RFS APXVAARR24_43 (TMO)	B	From Leg	3.00 0.000 0.000	0.000	185.00	No Ice 20.24 1/2" Ice 20.89 1" Ice 21.54	8.89 9.49 10.09	130.00 240.00 360.00
RFS APXVAARR24_43	C	From Leg	3.00	0.000	185.00	No Ice 20.24	8.89	130.00

<i>tnxTower</i> Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	17 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>	<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight lb</i>
(TMO)			0.000			1/2" Ice	20.89	240.00
			0.000			1" Ice	21.54	360.00
(2) RRUS-11	A	From Leg	3.00	0.000	185.00	No Ice	2.99	50.00
(TMO)			0.000			1/2" Ice	3.23	70.00
			0.000			1" Ice	3.47	90.00
(2) RRUS-11	B	From Leg	3.00	0.000	185.00	No Ice	2.99	50.00
(TMO)			0.000			1/2" Ice	3.23	70.00
			0.000			1" Ice	3.47	90.00
(2) RRUS-11	C	From Leg	3.00	0.000	185.00	No Ice	2.99	50.00
(TMO)			0.000			1/2" Ice	3.23	70.00
			0.000			1" Ice	3.47	90.00
Ericsson TMA Unit	A	From Leg	3.00	0.000	185.00	No Ice	0.69	20.00
(TMO)			0.000			1/2" Ice	0.81	30.00
			0.000			1" Ice	0.95	40.00
Ericsson TMA Unit	B	From Leg	3.00	0.000	185.00	No Ice	0.69	20.00
(TMO)			0.000			1/2" Ice	0.81	30.00
			0.000			1" Ice	0.95	40.00
Ericsson TMA Unit	C	From Leg	3.00	0.000	185.00	No Ice	0.69	20.00
(TMO)			0.000			1/2" Ice	0.81	30.00
			0.000			1" Ice	0.95	40.00
SDX1926Q-43 Diplexer	A	From Leg	3.00	0.000	185.00	No Ice	0.24	10.00
(TMO)			0.000			1/2" Ice	0.31	10.00
			0.000			1" Ice	0.38	20.00
SDX1926Q-43 Diplexer	B	From Leg	3.00	0.000	185.00	No Ice	0.24	10.00
(TMO)			0.000			1/2" Ice	0.31	10.00
			0.000			1" Ice	0.38	20.00
SDX1926Q-43 Diplexer	C	From Leg	3.00	0.000	185.00	No Ice	0.24	10.00
(TMO)			0.000			1/2" Ice	0.31	10.00
			0.000			1" Ice	0.38	20.00

2' T-Arm (5' Face Width)	B	From Leg	2.00	0.000	138.00	No Ice	3.50	90.00
(Unknown)			0.000			1/2" Ice	4.20	120.00
			0.000			1" Ice	4.90	150.00

DB846F65ZAXY	A	From Leg	3.00	-60.000	164.00	No Ice	1.60	20.00
(VZW)			0.000			1/2" Ice	2.50	70.00
			0.000			1" Ice	3.40	120.00
DB846H80E-SX	B	From Leg	3.00	-30.000	164.00	No Ice	5.09	20.00
(VZW)			0.000			1/2" Ice	5.55	50.00
			0.000			1" Ice	6.01	100.00
DB846F65ZAXY	C	From Leg	3.00	-40.000	164.00	No Ice	7.03	20.00
(VZW)			0.000			1/2" Ice	7.49	70.00
			0.000			1" Ice	7.95	120.00
DB846F65ZAXY	A	From Leg	3.00	-60.000	164.00	No Ice	7.03	20.00
(VZW)			0.000			1/2" Ice	7.49	70.00
			0.000			1" Ice	7.95	120.00
DB846H80E-SX	B	From Leg	3.00	-30.000	164.00	No Ice	5.09	20.00
(VZW)			0.000			1/2" Ice	5.55	50.00
			0.000			1" Ice	6.01	100.00
DB846F65ZAXY	C	From Leg	3.00	-40.000	164.00	No Ice	7.03	20.00
(VZW)			0.000			1/2" Ice	7.49	70.00
			0.000			1" Ice	7.95	120.00
15' T-Frame 860109	A	None		0.000	164.00	No Ice	13.90	390.00
(VZW)						1/2" Ice	20.00	530.00
						1" Ice	26.10	670.00
15' T-Frame 860109	B	None		0.000	164.00	No Ice	13.90	390.00
(VZW)						1/2" Ice	20.00	530.00

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	18 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _{AA} Front ft ²	C _{AA} Side ft ²	Weight lb
15' T-Frame 860109 (VZW)	C	None		0.000	164.00	1" Ice No Ice 1/2" Ice 1" Ice	26.10 13.90 20.00 26.10	26.10 13.90 20.00 26.10	670.00 390.00 530.00 670.00

(2) JMA MX06FIT665-02 (VZW)	A	From Leg	3.00 0.000 0.000	-60.000	164.00	No Ice 1/2" Ice 1" Ice	8.15 8.60 9.06	7.34 7.78 8.24	51.00 111.23 177.76
(2) JMA MX06FIT665-02 (VZW)	B	From Leg	3.00 0.000 0.000	-30.000	164.00	No Ice 1/2" Ice 1" Ice	8.15 8.60 9.06	7.34 7.78 8.24	51.00 111.23 177.76
(2) JMA MX06FIT665-02 (VZW)	C	From Leg	3.00 0.000 0.000	-40.000	164.00	No Ice 1/2" Ice 1" Ice	8.15 8.60 9.06	7.34 7.78 8.24	51.00 111.23 177.76
Samsung MT6407-77A (VZW)	A	From Leg	3.00 0.000 0.000	-60.000	164.00	No Ice 1/2" Ice 1" Ice	4.69 4.98 5.28	0.75 0.87 0.99	81.57 110.81 143.92
Samsung MT6407-77A (VZW)	B	From Leg	3.00 0.000 0.000	-30.000	164.00	No Ice 1/2" Ice 1" Ice	4.69 4.98 5.28	0.75 0.87 0.99	81.57 110.81 143.92
Samsung MT6407-77A (VZW)	C	From Leg	3.00 0.000 0.000	-40.000	164.00	No Ice 1/2" Ice 1" Ice	4.69 4.98 5.28	0.75 0.87 0.99	81.57 110.81 143.92
JMA 2" Edge to Edge (VZW)	A	From Leg	3.00 0.000 0.000	-60.000	164.00	No Ice 1/2" Ice 1" Ice	2.30 2.54 2.79	0.15 0.21 0.28	20.00 40.00 50.00
JMA 2" Edge to Edge (VZW)	B	From Leg	3.00 0.000 0.000	-30.000	164.00	No Ice 1/2" Ice 1" Ice	2.30 2.54 2.79	0.15 0.21 0.28	20.00 40.00 50.00
JMA 2" Edge to Edge (VZW)	C	From Leg	3.00 0.000 0.000	-40.000	164.00	No Ice 1/2" Ice 1" Ice	2.30 2.54 2.79	0.15 0.21 0.28	20.00 40.00 50.00
B2/B66A RRH ORAN (VZW)	A	From Leg	3.00 0.000 0.000	-60.000	164.00	No Ice 1/2" Ice 1" Ice	1.87 2.03 2.21	1.25 1.39 1.54	74.70 93.02 114.12
B2/B66A RRH ORAN (VZW)	B	From Leg	3.00 0.000 0.000	-30.000	164.00	No Ice 1/2" Ice 1" Ice	1.87 2.03 2.21	1.25 1.39 1.54	74.70 93.02 114.12
B2/B66A RRH ORAN (VZW)	C	From Leg	3.00 0.000 0.000	-40.000	164.00	No Ice 1/2" Ice 1" Ice	1.87 2.03 2.21	1.25 1.39 1.54	74.70 93.02 114.12
B5 B13 RRH ORAN (VZW)	A	From Leg	3.00 0.000 0.000	-60.000	164.00	No Ice 1/2" Ice 1" Ice	1.87 2.03 2.21	1.13 1.27 1.41	70.33 87.65 107.70
B5 B13 RRH ORAN (VZW)	B	From Leg	3.00 0.000 0.000	-30.000	164.00	No Ice 1/2" Ice 1" Ice	1.87 2.03 2.21	1.13 1.27 1.41	70.33 87.65 107.70
B5 B13 RRH ORAN (VZW)	C	From Leg	3.00 0.000 0.000	-40.000	164.00	No Ice 1/2" Ice 1" Ice	1.87 2.03 2.21	1.13 1.27 1.41	70.33 87.65 107.70
RFS DB-C1-12C-24AB-0Z (VZW)	A	None		0.000	164.00	No Ice 1/2" Ice 1" Ice	3.10 3.34 3.58	4.06 4.32 4.58	30.00 70.00 110.00

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	19 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft	Aperture Area ft ²	Weight lb
3' DISH (Unknown)	B	Paraboloid w/Radome	From Leg	2.00 0.000 0.000	0.000		138.00	3.00	No Ice 7.07 1/2" Ice 7.47 1" Ice 7.86	50.00 88.35 126.69

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	20 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

<i>Comb. No.</i>	<i>Description</i>
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Reactions

<i>Location</i>	<i>Condition</i>	<i>Gov. Load Comb.</i>	<i>Vertical lb</i>	<i>Horizontal, X lb</i>	<i>Horizontal, Z lb</i>
Leg C	Max. Vert	18	313428.73	28486.69	-16931.77
	Max. H _x	18	313428.73	28486.69	-16931.77
	Max. H _z	7	-264258.31	-24077.81	14351.58
	Min. Vert	7	-264258.31	-24077.81	14351.58
	Min. H _x	7	-264258.31	-24077.81	14351.58
	Min. H _z	18	313428.73	28486.69	-16931.77
Leg B	Max. Vert	10	318341.07	-29044.64	-17638.22
	Max. H _x	23	-271114.73	24702.04	15132.32
	Max. H _z	23	-271114.73	24702.04	15132.32
	Min. Vert	23	-271114.73	24702.04	15132.32
	Min. H _x	10	318341.07	-29044.64	-17638.22
	Min. H _z	10	318341.07	-29044.64	-17638.22
Leg A	Max. Vert	2	305077.23	76.06	32103.36
	Max. H _x	21	16977.06	3131.67	1500.63
	Max. H _z	2	305077.23	76.06	32103.36
	Min. Vert	15	-253183.35	-94.18	-26926.07
	Min. H _x	9	16565.34	-3147.30	1468.72
	Min. H _z	15	-253183.35	-94.18	-26926.07

Tower Mast Reaction Summary

<i>Load Combination</i>	<i>Vertical lb</i>	<i>Shear_x lb</i>	<i>Shear_z lb</i>	<i>Overturning Moment, M_x lb-ft</i>	<i>Overturning Moment, M_z lb-ft</i>	<i>Torque lb-ft</i>
Dead Only	52630.02	0.06	0.15	-19520.42	6564.28	-0.09
1.2 Dead+1.0 Wind 0 deg - No Ice	63156.00	-40.17	-48313.21	-5165434.40	14026.11	3190.36
0.9 Dead+1.0 Wind 0 deg - No Ice	47367.00	-40.17	-48313.79	-5149229.08	12013.16	3208.96
1.2 Dead+1.0 Wind 30 deg - No Ice	63156.00	22809.83	-39502.45	-4314552.58	-2470747.52	6468.07
0.9 Dead+1.0 Wind 30 deg - No Ice	47367.00	22810.11	-39502.95	-4299935.87	-2467729.14	6507.38
1.2 Dead+1.0 Wind 60 deg - No Ice	63156.00	40845.53	-23535.06	-2567511.65	-4411923.90	-14649.08
0.9 Dead+1.0 Wind 60 deg - No Ice	47367.00	40846.04	-23535.36	-2556455.09	-4405023.33	-14596.05
1.2 Dead+1.0 Wind 90 deg - No Ice	63155.99	50232.89	23.25	-20050.46	-5350609.08	-35317.41
0.9 Dead+1.0 Wind 90 deg - No Ice	47367.00	50233.49	23.24	-14118.96	-5341934.74	-35267.22

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	21 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

<i>Load Combination</i>	<i>Vertical lb</i>	<i>Shear_x lb</i>	<i>Shear_z lb</i>	<i>Overturning Moment, M_x lb-ft</i>	<i>Overturning Moment, M_z lb-ft</i>	<i>Torque lb-ft</i>
1.2 Dead+1.0 Wind 120 deg - No Ice	63155.99	44633.64	25736.86	2684931.33	-4692924.56	-27339.92
0.9 Dead+1.0 Wind 120 deg - No Ice	47367.00	44634.16	25737.16	2685513.80	-4685623.83	-27304.81
1.2 Dead+1.0 Wind 150 deg - No Ice	63156.00	22640.26	39111.53	4164443.22	-2419667.46	481.30
0.9 Dead+1.0 Wind 150 deg - No Ice	47367.00	22640.53	39112.00	4161993.16	-2416805.46	488.88
1.2 Dead+1.0 Wind 180 deg - No Ice	63156.00	12.75	45414.73	4895660.24	5674.63	-3103.12
0.9 Dead+1.0 Wind 180 deg - No Ice	47367.00	12.75	45415.30	4891674.58	3680.67	-3121.14
1.2 Dead+1.0 Wind 210 deg - No Ice	63156.00	-22853.79	39477.07	4263841.62	2492714.48	-6471.00
0.9 Dead+1.0 Wind 210 deg - No Ice	47367.00	-22854.09	39477.57	4261099.38	2485686.63	-6507.68
1.2 Dead+1.0 Wind 240 deg - No Ice	63155.99	-43369.41	24960.58	2628159.76	4622542.54	14564.55
0.9 Dead+1.0 Wind 240 deg - No Ice	47367.00	-43369.94	24960.87	2628808.18	4611336.15	14511.85
1.2 Dead+1.0 Wind 270 deg - No Ice	63155.99	-50285.96	-23.64	-27551.35	5373879.60	35248.14
0.9 Dead+1.0 Wind 270 deg - No Ice	47367.00	-50286.56	-23.65	-21606.80	5361191.68	35197.96
1.2 Dead+1.0 Wind 300 deg - No Ice	63155.99	-42194.65	-24328.70	-2626773.47	4525849.86	27335.77
0.9 Dead+1.0 Wind 300 deg - No Ice	47367.00	-42195.16	-24329.00	-2615648.04	4514833.23	27305.14
1.2 Dead+1.0 Wind 330 deg - No Ice	63156.00	-22667.16	-39157.26	-4217993.12	2439335.17	-413.26
0.9 Dead+1.0 Wind 330 deg - No Ice	47367.00	-22667.44	-39157.74	-4203660.22	2432462.11	-418.86
1.2 Dead+1.0 Ice+1.0 Temp	121182.22	-0.01	0.43	-61441.45	-1021.15	0.40
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	121182.22	-7.75	-12009.77	-1379521.20	160.55	200.33
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	121182.22	6249.66	-10823.05	-1259073.83	-692687.48	3430.55
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	121182.22	11159.43	-6433.43	-774112.02	-1237889.67	-2027.74
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	121182.22	13454.71	4.50	-60903.81	-1468507.30	-9219.96
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	121182.22	11037.20	6365.76	628349.66	-1198017.76	-7284.53
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	121182.22	5877.24	10159.31	1053934.19	-647028.20	-436.74
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	121182.22	2.47	11561.17	1222151.66	-1465.90	-182.58
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	121182.22	-6258.12	10818.21	1135157.75	691820.85	-3430.72
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	121182.22	-11550.61	6653.22	667293.30	1265777.02	2012.95
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	121182.22	-13464.93	-4.56	-62370.70	1467892.51	9206.75
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	121182.22	-10662.38	-6149.31	-735645.04	1168318.28	7282.29
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	121182.22	-5882.44	-10168.08	-1178402.77	645708.94	450.35
Dead+Wind 0 deg - Service	52630.02	-10.57	-12847.31	-1377622.30	8210.49	842.97
Dead+Wind 30 deg - Service	52630.02	6069.26	-10510.83	-1153100.97	-648117.81	1706.89
Dead+Wind 60 deg - Service	52630.02	10864.30	-6260.10	-691517.47	-1160733.53	-3844.12
Dead+Wind 90 deg - Service	52630.02	13352.51	6.11	-18677.95	-1408340.73	-9284.32

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	22 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Load Combination	Vertical lb	Shear _x lb	Shear _z lb	Overturning Moment, M _x lb-ft	Overturning Moment, M _z lb-ft	Torque lb-ft
Dead+Wind 120 deg - Service	52630.02	11861.15	6839.52	695536.45	-1234594.63	-7189.62
Dead+Wind 150 deg - Service	52630.02	6024.62	10407.97	1086761.65	-634719.74	126.18
Dead+Wind 180 deg - Service	52630.02	3.36	12084.58	1279829.87	6015.31	-818.80
Dead+Wind 210 deg - Service	52630.02	-6080.81	10504.18	1112874.31	662960.57	-1706.89
Dead+Wind 240 deg - Service	52630.02	-11528.46	6635.24	680603.20	1225135.30	3824.84
Dead+Wind 270 deg - Service	52630.02	-13366.47	-6.23	-20650.77	1423503.63	9265.24
Dead+Wind 300 deg - Service	52630.02	-11219.33	-6468.95	-707095.49	1199742.24	7187.07
Dead+Wind 330 deg - Service	52630.02	-6031.71	-10419.99	-1127733.65	648915.54	-107.72

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	
1	0.00	-52630.02	-0.00	-0.06	52630.02	-0.15	0.000%
2	-40.18	-63156.02	-48315.37	40.17	63156.00	48313.21	0.003%
3	-40.18	-47367.02	-48315.37	40.17	47367.00	48313.79	0.002%
4	22810.94	-63156.02	-39504.31	-22809.83	63156.00	39502.45	0.003%
5	22810.94	-47367.02	-39504.31	-22810.11	47367.00	39502.95	0.002%
6	40847.48	-63156.02	-23536.20	-40845.53	63156.00	23535.06	0.003%
7	40847.48	-47367.02	-23536.20	-40846.04	47367.00	23535.36	0.002%
8	50235.17	-63156.02	23.19	-50232.89	63155.99	-23.25	0.003%
9	50235.17	-47367.02	23.19	-50233.49	47367.00	-23.24	0.002%
10	44635.57	-63156.02	25737.97	-44633.64	63155.99	-25736.86	0.003%
11	44635.57	-47367.02	25737.97	-44634.16	47367.00	-25737.16	0.002%
12	22641.26	-63156.02	39113.34	-22640.26	63156.00	-39111.53	0.003%
13	22641.26	-47367.02	39113.34	-22640.53	47367.00	-39112.00	0.002%
14	12.75	-63156.02	45416.90	-12.75	63156.00	-45414.73	0.003%
15	12.75	-47367.02	45416.90	-12.75	47367.00	-45415.30	0.002%
16	-22854.85	-63156.02	39478.96	22853.79	63156.00	-39477.07	0.003%
17	-22854.85	-47367.02	39478.96	22854.09	47367.00	-39477.57	0.002%
18	-43371.34	-63156.02	24961.67	43369.41	63155.99	-24960.58	0.003%
19	-43371.34	-47367.02	24961.67	43369.94	47367.00	-24960.87	0.002%
20	-50288.25	-63156.02	-23.70	50285.96	63155.99	23.64	0.003%
21	-50288.25	-47367.02	-23.70	50286.56	47367.00	23.65	0.002%
22	-42196.63	-63156.02	-24329.84	42194.65	63155.99	24328.70	0.003%
23	-42196.63	-47367.02	-24329.84	42195.16	47367.00	24329.00	0.002%
24	-22668.25	-63156.02	-39159.05	22667.16	63156.00	39157.26	0.003%
25	-22668.25	-47367.02	-39159.05	22667.44	47367.00	39157.74	0.002%
26	0.00	-121182.22	0.00	0.01	121182.22	-0.43	0.000%
27	-7.75	-121182.22	-12010.20	7.75	121182.22	12009.77	0.000%
28	6249.88	-121182.22	-10823.45	-6249.66	121182.22	10823.05	0.000%
29	11159.82	-121182.22	-6433.68	-11159.43	121182.22	6433.43	0.000%
30	13455.16	-121182.22	4.48	-13454.71	121182.22	-4.50	0.000%
31	11037.57	-121182.22	6365.95	-11037.20	121182.22	-6365.76	0.000%
32	5877.44	-121182.22	10159.64	-5877.24	121182.22	-10159.31	0.000%
33	2.47	-121182.22	11561.55	-2.47	121182.22	-11561.17	0.000%
34	-6258.33	-121182.22	10818.56	6258.12	121182.22	-10818.21	0.000%
35	-11551.00	-121182.22	6653.43	11550.61	121182.22	-6653.22	0.000%
36	-13465.39	-121182.22	-4.58	13464.93	121182.22	4.56	0.000%
37	-10662.74	-121182.22	-6149.54	10662.38	121182.22	6149.31	0.000%
38	-5882.64	-121182.22	-10168.45	5882.44	121182.22	10168.08	0.000%
39	-10.57	-52630.02	-12847.80	10.57	52630.02	12847.31	0.001%
40	6069.49	-52630.02	-10511.25	-6069.26	52630.02	10510.83	0.001%
41	10864.72	-52630.02	-6260.35	-10864.30	52630.02	6260.10	0.001%
42	13353.01	-52630.02	6.10	-13352.51	52630.02	-6.11	0.001%
43	11861.58	-52630.02	6839.76	-11861.15	52630.02	-6839.52	0.001%
44	6024.84	-52630.02	10408.36	-6024.62	52630.02	-10407.97	0.001%

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	23 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	
45	3.35	-52630.02	12085.04	-3.36	52630.02	-12084.58	0.001%
46	-6081.05	-52630.02	10504.58	6080.81	52630.02	-10504.18	0.001%
47	-11528.89	-52630.02	6635.47	11528.46	52630.02	-6635.24	0.001%
48	-13366.98	-52630.02	-6.24	13366.47	52630.02	6.23	0.001%
49	-11219.75	-52630.02	-6469.20	11219.33	52630.02	6468.95	0.001%
50	-6031.94	-52630.02	-10420.39	6031.71	52630.02	10419.99	0.001%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	6	0.00000001	0.00003451
2	Yes	11	0.00000001	0.00012327
3	Yes	11	0.00000001	0.00009046
4	Yes	11	0.00000001	0.00012647
5	Yes	11	0.00000001	0.00009340
6	Yes	11	0.00000001	0.00012856
7	Yes	11	0.00000001	0.00009548
8	Yes	11	0.00000001	0.00012547
9	Yes	11	0.00000001	0.00009264
10	Yes	11	0.00000001	0.00012249
11	Yes	11	0.00000001	0.00008986
12	Yes	11	0.00000001	0.00012577
13	Yes	11	0.00000001	0.00009291
14	Yes	11	0.00000001	0.00012855
15	Yes	11	0.00000001	0.00009550
16	Yes	11	0.00000001	0.00012647
17	Yes	11	0.00000001	0.00009339
18	Yes	11	0.00000001	0.00012310
19	Yes	11	0.00000001	0.00009031
20	Yes	11	0.00000001	0.00012550
21	Yes	11	0.00000001	0.00009265
22	Yes	11	0.00000001	0.00012797
23	Yes	11	0.00000001	0.00009503
24	Yes	11	0.00000001	0.00012582
25	Yes	11	0.00000001	0.00009294
26	Yes	9	0.00000001	0.00009553
27	Yes	12	0.00000001	0.00008248
28	Yes	12	0.00000001	0.00008394
29	Yes	12	0.00000001	0.00008460
30	Yes	12	0.00000001	0.00008376
31	Yes	12	0.00000001	0.00008124
32	Yes	12	0.00000001	0.00007931
33	Yes	12	0.00000001	0.00007971
34	Yes	12	0.00000001	0.00008173
35	Yes	12	0.00000001	0.00008316
36	Yes	12	0.00000001	0.00008368
37	Yes	12	0.00000001	0.00008258
38	Yes	12	0.00000001	0.00008178
39	Yes	11	0.00000001	0.00009971
40	Yes	11	0.00000001	0.00010065
41	Yes	11	0.00000001	0.00010108
42	Yes	11	0.00000001	0.00010018
43	Yes	11	0.00000001	0.00009921
44	Yes	11	0.00000001	0.00009953
45	Yes	11	0.00000001	0.00010070

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	24 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

46	Yes	11	0.00000001	0.00010048
47	Yes	11	0.00000001	0.00009974
48	Yes	11	0.00000001	0.00010034
49	Yes	11	0.00000001	0.00010083
50	Yes	11	0.00000001	0.00009992

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	185 - 180	7.173	48	0.378	0.037
T2	180 - 160	6.774	48	0.377	0.037
T3	160 - 140	5.225	48	0.342	0.036
T4	140 - 120	3.871	48	0.287	0.032
T5	120 - 100	2.749	48	0.230	0.025
T6	100 - 80	1.866	48	0.176	0.019
T7	80 - 60	1.176	48	0.137	0.013
T8	60 - 40	0.652	48	0.097	0.009
T9	40 - 20	0.298	43	0.059	0.005
T10	20 - 0	0.088	43	0.030	0.003

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
185.00	DB636-A	48	7.173	0.378	0.037	150169
174.00	12' Lightweight T-Frame	48	6.297	0.371	0.037	53235
164.00	DB846F65ZAXY	48	5.523	0.352	0.037	24779
151.00	10' Sector Frame	48	4.588	0.318	0.035	20930
145.00	(2) 6' Omni	48	4.188	0.302	0.034	21050
138.00	3' DISH	48	3.748	0.282	0.032	20770

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	185 - 180	27.156	20	1.436	0.140
T2	180 - 160	25.641	20	1.430	0.140
T3	160 - 140	19.770	20	1.296	0.138
T4	140 - 120	14.645	20	1.088	0.123
T5	120 - 100	10.406	10	0.872	0.095
T6	100 - 80	7.075	10	0.667	0.073
T7	80 - 60	4.463	10	0.518	0.051
T8	60 - 40	2.479	10	0.367	0.034
T9	40 - 20	1.135	10	0.225	0.021
T10	20 - 0	0.333	10	0.112	0.010

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	25 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Critical Deflections and Radius of Curvature - Design Wind

<i>Elevation</i>	<i>Appurtenance</i>	<i>Gov. Load</i>	<i>Deflection</i>	<i>Tilt</i>	<i>Twist</i>	<i>Radius of Curvature</i>
<i>ft</i>		<i>Comb.</i>	<i>in</i>	<i>°</i>	<i>°</i>	<i>ft</i>
185.00	DB636-A	20	27.156	1.436	0.140	39917
174.00	12' Lightweight T-Frame	20	23.834	1.407	0.140	14192
164.00	DB846F65ZAXY	20	20.899	1.333	0.139	6578
151.00	10' Sector Frame	20	17.356	1.205	0.134	5483
145.00	(2) 6' Omni	20	15.845	1.141	0.129	5536
138.00	3' DISH	20	14.180	1.066	0.121	5504

Bolt Design Data

<i>Section No.</i>	<i>Elevation</i>	<i>Component Type</i>	<i>Bolt Grade</i>	<i>Bolt Size</i>	<i>Number Of Bolts</i>	<i>Maximum Load per Bolt lb</i>	<i>Allowable Load per Bolt lb</i>	<i>Ratio Load Allowable</i>	<i>Allowable Ratio</i>	<i>Criteria</i>
	<i>ft</i>			<i>in</i>						
T1	185	Leg	A325N	0.625	4	471.34	20340.10	0.023 ✓	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	1472.25	4553.91	0.323 ✓	1.05	Member Block Shear
		Top Girt	A325N	0.625	1	567.64	4553.91	0.125 ✓	1.05	Member Block Shear
T2	180	Leg	A325N	0.750	6	4636.75	30101.40	0.154 ✓	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	5102.80	6830.86	0.747 ✓	1.05	Member Block Shear
		Top Girt	A325N	0.625	1	568.17	4553.91	0.125 ✓	1.05	Member Block Shear
T3	160	Leg	A325N	0.750	6	11037.50	30101.40	0.367 ✓	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	5311.53	6830.86	0.778 ✓	1.05	Member Block Shear
		Top Girt	A325N	0.625	1	1341.47	4553.91	0.295 ✓	1.05	Member Block Shear
T4	140	Leg	A325N	1.000	6	17068.00	54517.00	0.313 ✓	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	5276.71	6830.86	0.772 ✓	1.05	Member Block Shear
T5	120	Leg	A325N	1.000	6	22139.50	54517.00	0.406 ✓	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	6158.36	7830.00	0.787 ✓	1.05	Member Bearing
T6	100	Leg	A325N	1.000	6	27212.40	54517.00	0.499 ✓	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	6128.89	7830.00	0.783 ✓	1.05	Member Bearing
T7	80	Leg	A325N	1.000	6	31612.60	54517.00	0.580 ✓	1.05	Bolt Tension
		Diagonal	A325N	0.750	1	8206.13	9461.25	0.867 ✓	1.05	Member Bearing
T8	60	Leg	A325N	1.000	6	35860.40	54517.00	0.658 ✓	1.05	Bolt Tension
		Diagonal	A325N	0.750	1	8118.37	12615.00	0.644 ✓	1.05	Member Bearing
T9	40	Leg	A325N	1.250	6	40006.60	87219.80	0.459 ✓	1.05	Bolt Tension
		Diagonal	A325N	0.750	1	9470.88	12615.00	0.751 ✓	1.05	Member Bearing
T10	20	Leg	A325N	1.250	6	43901.80	87219.80	0.503 ✓	1.05	Bolt Tension
		Diagonal	A325N	0.750	1	10774.30	12615.00	0.854 ✓	1.05	Member Bearing

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	26 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	185 - 180	P2x.154	5.00	5.00	76.2 K=1.00	1.075	-2555.32	31617.20	0.081 ¹ ✓
T2	180 - 160	P2.5x.203	20.00	5.00	63.3 K=1.00	1.704	-32803.20	57192.30	0.574 ¹ ✓
T3	160 - 140	2.875"x0.375"	20.03	5.01	67.2 K=1.00	2.945	-77353.40	95225.20	0.812 ¹ ✓
T4	140 - 120	P3.5x.318	20.03	2.58	23.7 K=1.00	3.678	-116782.00	158893.00	0.735 ¹ ✓
T5	120 - 100	P5x.258	20.03	3.44	22.0 K=1.00	4.300	-150064.00	186764.00	0.803 ¹ ✓
T6	100 - 80	P5x.375	20.03	6.68	43.6 K=1.00	6.112	-183817.00	239388.00	0.768 ¹ ✓
T7	80 - 60	P5x.375	20.03	1.67	10.9 K=1.00	6.112	-216925.00	272663.00	0.796 ¹ ✓
T8	60 - 40	HSS5x.5	20.03	5.16	38.4 K=1.00	6.625	-247120.00	267624.00	0.923 ¹ ✓
T9	40 - 20	P8x.322	20.03	5.14	21.0 K=1.00	8.399	-277516.00	365962.00	0.758 ¹ ✓
T10	20 - 0	P8x.322	20.03	2.50	10.2 K=1.00	8.399	-308900.00	375086.00	0.824 ¹ ✓

¹ P_u / φP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	185 - 180	L2x2x1/8	7.07	3.28	104.2 K=1.05	0.484	-1718.09	11294.20	0.152 ¹ ✓
T2	180 - 160	L2x2x3/16	7.07	3.25	104.2 K=1.05	0.715	-5394.90	16959.70	0.318 ¹ ✓
T3	160 - 140	L2x2x3/16	8.40	4.09	124.5 K=1.00	0.715	-5377.05	13196.40	0.407 ¹ ✓
T4	140 - 120	L2x2x3/16	10.08	4.87	148.4 K=1.00	0.715	-5450.31	9295.62	0.586 ¹ ✓
T5	120 - 100	L2 1/2x2 1/2x3/16	12.58	6.09	147.7 K=1.00	0.902	-6652.89	11830.90	0.562 ¹ ✓
T6	100 - 80	L2 1/2x2 1/2x3/16	14.32	6.96	168.8 K=1.00	0.902	-6436.65	9057.39	0.711 ¹ ✓

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	27 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T7	80 - 60	L3x3x3/16	7.90	7.38	107.2 K=1.14	1.090	-9259.00	24686.50	0.375 ¹ ✓
T8	60 - 40	L3x3x1/4	19.30	9.56	193.8 K=1.00	1.440	-8828.18	10972.50	0.805 ¹ ✓
T9	40 - 20	L3 1/2x3 1/2x1/4	21.03	10.26	177.3 K=1.00	1.690	-10803.10	15380.60	0.702 ¹ ✓
T10	20 - 0	L3 1/2x3 1/2x1/4	11.18	10.51	117.9 K=1.02	1.690	-12575.60	34262.50	0.367 ¹ ✓

¹ P_u / φP_n controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T7	80 - 60	L3x3x3/8	14.67	10.65	186.7 K=1.00	2.110	-3761.94	17329.80	0.217 ¹ ✓
T10	20 - 0	L3 1/2x3 1/2x1/2	20.50	14.84	223.9 K=1.00	3.250	-5356.98	18549.10	0.289 ¹ ✓

¹ P_u / φP_n controls

Secondary Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T4	140 - 120	L2x2x1/4	8.74	8.41	165.7 K=1.00	0.938	-2025.96	9777.55	0.207 ¹ ✓
T5	120 - 100	L2 1/2x2 1/2x3/8	10.66	10.19	162.4 K=1.00	1.730	-2602.86	18767.00	0.139 ¹ ✓
T8	60 - 40	L3x3x7/16	16.48	16.07	213.1 K=1.00	2.430	-4285.58	15321.60	0.280 ¹ ✓
T9	40 - 20	L3x3x1/2	18.49	17.77	237.4 K=1.00	2.750	-4813.74	13962.30	0.345 ¹ ✓

¹ P_u / φP_n controls

Top Girt Design Data (Compression)

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	28 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	185 - 180	L2x2x1/8	5.00	4.56	137.7 K=1.00	0.484	-401.08	7309.33	0.055 ¹ ✓
T2	180 - 160	L2x2x1/8	5.00	4.52	136.5 K=1.00	0.484	-568.17	7444.69	0.076 ¹ ✓
T3	160 - 140	L2x2x1/8	5.00	4.52	136.5 K=1.00	0.484	-1341.47	7444.69	0.180 ¹ ✓

¹ P_u / φP_n controls

Redundant Horizontal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T7	80 - 60	L3x3x1/2	3.67	3.43	95.3 K=1.35	2.750	-5011.07	70733.40	0.071 ¹ ✓
T10	20 - 0	L3x3x1/2	5.13	4.77	109.0 K=1.11	2.750	-6933.54	62040.20	0.112 ¹ ✓

¹ P_u / φP_n controls

Redundant Diagonal (1) Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T7	80 - 60	L3x3x1/2	3.95	3.70	98.0 K=1.29	2.750	-3306.95	69115.50	0.048 ¹ ✓
T10	20 - 0	L3x3x1/2	5.82	5.41	115.6 K=1.04	2.750	-4811.94	57386.60	0.084 ¹ ✓

¹ P_u / φP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	185 - 180	P2x.154	5.00	5.00	76.2	1.075	1885.37	48353.90	0.039 ¹ ✓

<i>tnxTower</i> Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	29 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>lb</i>	ϕP_n <i>lb</i>	Ratio $\frac{P_u}{\phi P_n}$
T2	180 - 160	P2.5x.203	20.00	5.00	63.3	1.704	27820.50	76682.30	0.363 ¹
T3	160 - 140	2.875"x0.375"	20.03	5.01	67.2	2.945	66225.00	132536.00	0.500 ¹
T4	140 - 120	P3.5x.318	20.03	2.43	22.3	3.678	102522.00	165529.00	0.619 ¹
T5	120 - 100	P5x.258	20.03	3.23	20.7	4.300	132990.00	193494.00	0.687 ¹
T6	100 - 80	P5x.375	20.03	6.68	43.6	6.112	163275.00	275039.00	0.594 ¹
T7	80 - 60	P5x.375	20.03	1.67	10.9	6.112	189910.00	275039.00	0.690 ¹
T8	60 - 40	HSS5x.5	20.03	4.86	36.2	6.625	215384.00	298121.00	0.722 ¹
T9	40 - 20	P8x.322	20.03	4.87	19.9	8.399	240454.00	377967.00	0.636 ¹
T10	20 - 0	P8x.322	20.03	2.50	10.2	8.399	263739.00	377967.00	0.698 ¹

¹ $P_u / \phi P_n$ controls

Diagonal Design Data (Tension)

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L_u</i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in²</i>	<i>P_u</i> <i>lb</i>	ϕP_n <i>lb</i>	Ratio $\frac{P_u}{\phi P_n}$
T1	185 - 180	L2x2x1/8	7.07	3.28	65.1	0.293	1472.25	12744.10	0.116 ¹
T2	180 - 160	L2x2x3/16	7.07	3.25	65.5	0.431	5102.80	18739.00	0.272 ¹
T3	160 - 140	L2x2x3/16	8.40	4.09	81.8	0.431	5311.53	18739.00	0.283 ¹
T4	140 - 120	L2x2x3/16	8.81	4.24	84.9	0.431	5276.71	18739.00	0.282 ¹
T5	120 - 100	L2 1/2x2 1/2x3/16	12.58	6.09	95.8	0.571	6158.36	24839.90	0.248 ¹
T6	100 - 80	L2 1/2x2 1/2x3/16	14.32	6.96	109.3	0.571	6128.89	24839.90	0.247 ¹
T7	80 - 60	L3x3x3/16	7.90	7.38	97.8	0.694	8206.13	30208.70	0.272 ¹
T8	60 - 40	L3x3x1/4	18.45	9.14	119.7	0.916	8118.37	39843.30	0.204 ¹
T9	40 - 20	L3 1/2x3 1/2x1/4	21.03	10.26	114.4	1.103	9470.88	47999.50	0.197 ¹
T10	20 - 0	L3 1/2x3 1/2x1/4	11.18	10.51	118.7	1.103	10774.30	47999.50	0.224 ¹

¹ $P_u / \phi P_n$ controls

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	30 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T7	80 - 60	L3x3x3/8	14.00	6.77	133.4	2.110	3761.94	68364.00	0.055 ¹
T10	20 - 0	L3 1/2x3 1/2x1/2	20.50	14.84	168.0	3.250	5356.98	105300.00	0.051 ¹

¹ P_u / φP_n controls

Secondary Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T4	140 - 120	L2x2x1/4	8.74	8.41	165.7	0.938	2025.96	30391.20	0.067 ¹
T5	120 - 100	L2 1/2x2 1/2x3/8	9.99	9.53	151.8	1.730	2602.86	56052.00	0.046 ¹
T8	60 - 40	L3x3x7/16	15.48	15.07	199.8	2.430	4285.58	78732.00	0.054 ¹
T9	40 - 20	L3x3x1/2	18.49	17.77	237.4	2.750	4813.74	89100.00	0.054 ¹

¹ P_u / φP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	185 - 180	L2x2x1/8	5.00	4.56	92.0	0.293	567.64	12744.10	0.045 ¹
T2	180 - 160	L2x2x1/8	5.00	4.52	91.2	0.293	568.17	12744.10	0.045 ¹
T3	160 - 140	L2x2x1/8	5.00	4.52	91.2	0.293	1341.47	12744.10	0.105 ¹

¹ P_u / φP_n controls

Redundant Horizontal (1) Design Data (Tension)

tnxTower Centerline Communications 750 West Center Street, Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX:	Job	Weston North CT	Page	32 of 32
	Project	5G L-Sub6 - Carrier Add	Date	14:37:27 03/14/22
	Client	Verizon Wireless	Designed by	Arielle Novak

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T10	20 - 0	Diagonal	L3 1/2x3 1/2x1/4	375	-12575.60	35975.62	35.0	Pass
							81.3 (b)	
T7	80 - 60	Horizontal	L3x3x3/8	166	-3761.94	18196.29	20.7	Pass
T10	20 - 0	Horizontal	L3 1/2x3 1/2x1/2	328	-5356.98	19476.55	27.5	Pass
T4	140 - 120	Secondary Horizontal	L2x2x1/4	84	-2025.96	10266.43	19.7	Pass
T5	120 - 100	Secondary Horizontal	L2 1/2x2 1/2x3/8	123	-2602.86	19705.35	13.2	Pass
T8	60 - 40	Secondary Horizontal	L3x3x7/16	292	-4285.58	16087.68	26.6	Pass
T9	40 - 20	Secondary Horizontal	L3x3x1/2	313	-4813.74	14660.41	32.8	Pass
T1	185 - 180	Top Girt	L2x2x1/8	5	-401.08	7674.80	5.2	Pass
							11.9 (b)	
T2	180 - 160	Top Girt	L2x2x1/8	18	-568.17	7816.92	7.3	Pass
							11.9 (b)	
T3	160 - 140	Top Girt	L2x2x1/8	48	-1341.47	7816.92	17.2	Pass
							28.1 (b)	
T7	80 - 60	Redund Horz 1 Bracing	L3x3x1/2	194	-5011.07	74270.06	6.7	Pass
T10	20 - 0	Redund Horz 1 Bracing	L3x3x1/2	356	-6933.54	65142.21	10.6	Pass
T7	80 - 60	Redund Diag 1 Bracing	L3x3x1/2	234	-3306.95	72571.27	4.6	Pass
T10	20 - 0	Redund Diag 1 Bracing	L3x3x1/2	357	-4811.94	60255.93	8.0	Pass
							Summary	
							Leg (T8)	87.9 Pass
							Diagonal (T7)	82.6 Pass
							Horizontal (T10)	27.5 Pass
							Secondary Horizontal (T9)	32.8 Pass
							Top Girt (T3)	28.1 Pass
							Redund Horz 1 Bracing (T10)	10.6 Pass
							Redund Diag 1 Bracing (T10)	8.0 Pass
							Bolt Checks	82.6 Pass
							RATING =	87.9 Pass

Project Information

BU #	
Site Name	468022 - Weston North CT
Order #	

Tower Information

Tower Type	Self Support
TIA-222 Rev	H

☒ Apply TIA-222-H Section 15.5

Applied Loads

	Comp.	Uplift
Axial (k)	318.34	271.12
Shear (k)	33.98	28.97

Anchor Rod Data

Quantity:	6
Diameter (in):	1.5
Material Grade:	A449
Grout Considered:	
l_{ar} (in):	1
Eta Factor, η :	
Thread Type:	N-Included
Configuration:	Symmetrical

Fy=81 ksi Fu=105 ksi
Not Considered, $l_{ar} \leq 1(d)$

Anchor Rod Results

Axial, Pu_c (kips)	53.06
Shear, Vu (kips)	5.66
Moment, Mu (kip-in)	-
Axial Cap., ϕPn_c (kips)	114.21
Shear Cap., ϕVn (kips)	34.26
Moment Cap., ϕMn (kip-in)	-
Stress Rating	46.8%

Pass

SST Unit Base Foundation



BU #:
 Site Name:
 App. Number:
 TIA-222 Revision:

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

Superstructure Analysis Reactions		
Global Moment, M :	5406.699	ft-kips
Global Axial, P :	63.156	kips
Global Shear, V :	51.523	kips
Leg Compression, P_{comp} :	318.341	kips
Leg Comp. Shear, V_{u,comp} :	33.981	kips
Leg Uplift, P_{uplift} :	271.115	kips
Leg Uplift. Shear, V_{u,uplift} :	28.969	kips
Tower Height, H :	185	ft
Base Face Width, BW :	21	ft
BP Dist. Above Fdn, bp_{dist} :	2	in

Pier Properties		
Pier Shape:	Circular	
Pier Diameter, dpier :	3.5	ft
Ext. Above Grade, E :	0	ft
Pier Rebar Size, Sc :	7	
Pier Rebar Quantity, mc :	14	
Pier Tie/Spiral Size, St :	4	
Pier Tie/Spiral Quantity, mt :	7	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

Pad Properties		
Depth, D :	6.5	ft
Pad Width, W :	30.5	ft
Pad Thickness, T :	1.5	ft
Pad Rebar Size (Bottom), Sp :	10	
Pad Rebar Quantity (Bottom), mp :	29	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, Fy :	60	ksi
Concrete Compressive Strength, F'c :	4	ksi
Dry Concrete Density, δc :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	120	pcf
Ultimate Gross Bearing, Qult :	12.000	ksf
Cohesion, Cu :	0.000	ksf
Friction Angle, φ :	32	degrees
SPT Blow Count, N_{blows} :	0	
Base Friction, μ :	0.45	
Neglected Depth, N :	0.0	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, gw :	N/A	ft

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
Lateral (Sliding) (kips)	365.92	51.52	13.4%	Pass
Bearing Pressure (ksf)	9.00	1.93	21.5%	Pass
Overtuning (kip*ft)	11673.18	5750.19	49.3%	Pass
Pier Flexure (Comp.) (kip*ft)	981.27	169.91	16.5%	Pass
Pier Flexure (Tension) (kip*ft)	320.19	144.85	43.1%	Pass
Pier Compression (kip)	5468.68	327.00	5.7%	Pass
Pad Flexure (kip*ft)	2023.14	1154.08	54.3%	Pass
Pad Shear - 1-way (kips)	454.68	218.99	45.9%	Pass
Pad Shear - Comp 2-way (ksi)	0.190	0.150	75.4%	Pass
Flexural 2-way (Comp) (kip*ft)	1046.63	101.94	9.3%	Pass
Pad Shear - Tension 2-way (ksi)	0.190	0.149	74.5%	Pass
Flexural 2-way (Tension) (kip*ft)	1046.63	86.91	7.9%	Pass

*Rating per TIA-222-H Section 15.5

Soil Rating*:	49.3%
Structural Rating*:	75.4%

<-- Toggle between Gross and Net



GPD Engineering And Architecture Professional Corporation
520 South Main Street, Suite 2531
Akron, OH 44311

Maser Consulting Contact:
Peter.albano@colliersengineering.com
(856) 371-9457

Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10141945
GPD Project #: 2022740.468022.03
Maser Consulting Project #: 468022

April 4, 2022

Site Information

Site ID: 468022-VZW / WESTON NORTH CT
Site Name: WESTON NORTH CT
Carrier Name: Verizon Wireless
Address: 237 Godfrey Road
Weston, Connecticut 6883, Fairfield County
Latitude: 41.241997°
Longitude: -73.364311°

Structure Information

Tower Type: 185-Ft Self Support
Mount Type: 12.50-Ft T-Frame

FUZE ID # 16272233

Analysis Results

T-Frame: 88.1% Pass w/ Modifications

***Contractor PMI Requirements:

Included at the end of this MA report
Available & Submitted via portal at <https://pmi.vzwsmart.com>
For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: Eric Nieto

Respectfully Submitted:

Christopher J. Scheks, P.E.
Connecticut #: 30026



4/4/2022

Executive Summary:

The objective of this report is to summarize the analysis results of the antenna support mount including the proposed modifications at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	Verizon FUZE Project ID : 16272233, Rev. 3 dated 2/21/2022
Mount Mapping	RKS Design & Engineering, LLC Site Name: Weston North CT, dated 4/16/2021
Previous Mount Analysis	GPD Project #: 2021740.468022.02, dated 6/24/2021
Proposed Mount Modification Design Drawings	GPD Project #: 2022740.468022.03 Rev. 0, dated 4/4/2022

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 117 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: B Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.985
Seismic Parameters:	S_s : 0.228 g S_1 : 0.056 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, L_v : 250 lbs. Maintenance Live Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V17.0.4)

Final Loading Configuration:

The following equipment has been considered for the analysis of the mounts:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
162.0	162.0	4	Andrew	DB846F65ZAXY	Retained
		2	Andrew	DB846H80E-SX	
		1	Raycap	RRFDC-3315-PF-48*	
		6	JMA Wireless	MX06FIT665-02	Added
		1	RFS	DB-C1-12C-24AB-0Z	
		3	Samsung	MT6407-77A	
		3	Samsung	B2/B66A RRH ORAN	
		3	Samsung	B5/B13 RRH ORAN	

* Equipment to be flush mounted directly to the Self Support. They are not mounted on mounts and are not included in this mount analysis.

The previous mount mapping reported existing OVP units. It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
RHSDC-1064-PF-48	2	OVP-2
RC3DC-3315-PF-48	6	OVP-6
RC3DC-3300-PF-48	6	OVP-6
RC3DC-4750-PF-48	6	OVP-6
RHSDC-6627-PF-48	12	OVP-12
RHSDC-6600-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to GPD and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to GPD to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.
6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. GPD is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - HSS (Rectangular) ASTM 500 (Gr. B-46)
 - Pipe ASTM A53 (Gr. B-35)
 - Threaded Rod F1554 (Gr. 36)
 - Bolts ASTM A325
8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by GPD.

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff Vertical Bracing	4.3 %	Pass
Face Horizontal	88.1 %	Pass
Standoff Horizontal	12.7 %	Pass
Standoff Connection Plate	7.8 %	Pass
Face Vertical Bracing	70.0 %	Pass
Standoff Diagonal Bracing	5.1 %	Pass
Pipe Mount	63.1 %	Pass
Proposed Pipe Mount	43.1 %	Pass
Tie Back	5.9 %	Pass
Reinforcement Pipe	49.5 %	Pass
Reinforcement Angle	23.5 %	Pass

Structure Rating – (Controlling Utilization of all Components)	88.1%
--	-------

Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	17.1	8.4	24.3	15.6
0.5	22.7	11.6	32.8	21.7
1	28.3	14.8	41.2	27.8

Notes:

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 1 sector(s).
- Ka factors included in (EPA)a calculations

Requirements:

The existing mounts will be **SUFFICIENT** for the final loading configuration (attachment 2) after the modifications detailed in attachment 3 are successfully completed.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

1. Contractor Required PMI Report Deliverables
2. Antenna Placement Diagrams
3. Mount Modification Drawings
4. Mount Photos
5. Mount Mapping Report (for reference only)
6. Analysis Calculations
7. TIA Adoption Wind Speed Letter

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

Electronic pdf version of this can be downloaded at <https://pmi.vzwsmart.com>

For additional questions and support, please reach out to pmisupport@colliersengineering.com

PSLC #: 468022

SMART Project #: 10141945

Fuze Project ID: 16272233

Purpose – to upload the proper documentation to the SMART Tool in order to allow the SMART Tool engineering vendor to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the modification was completed in accordance with the modification drawings.
- Contractor shall relay any data that can impact the performance of the mount or the mount modification, this includes safety issues.

Base Requirements:

- If installation of the modification will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide “as built drawings” showing contractor’s name, preparer’s signature, and date. Any deviations from the drawings (proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the post-modification passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo shall be time and date stamped.
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: <https://pmi.vzwsmart.com>

Photo Requirements:

- *Photos taken at ground level*
 - Photo of Gate Signs showing the tower owner, site name, and number.
 - Overall tower structure after installation of the modifications.
 - Photos of the mount after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed
- *Photos taken at Mount Elevation*
 - Photos showing the safety climb wire rope above and below the mount prior to modification.
 - Photos showing the climbing facility and safety climb if present.

- Photos showing each individual sector after installation of modifications. Each entire sector must be in one photo to show the interconnection of members.
 - These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.
- Photos of each installed modification per the modification drawings; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
- Photos showing the distances (relative distance between collars) of the installed modifications from the appropriate reference locations shown in the modification drawings.
- Photos showing the installed modifications onto the tower (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, an elevation measurement shall be provided before the elevation change.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by the SMART Tool vendor.
 - If the materials are as specified on the drawings
 - The contractor shall provide the packing list, or the materials certifications for the materials utilized to perform the mount modification
 - Commscope, Metrosite, Perfect Vision, Sabre, and Site Pro have all agreed to support Verizon vendors with the necessary material certifications
 - If seeking permission to use an equivalent
 - It is required that the SMART Tool engineering vendor approval of such is included in the contractor submission package. There may be an additional charge for approval if the equivalent submission doesn't meet specifications as prescribed in the drawings.

☐ All hardware has been properly installed, and the existing hardware was inspected.

☐ The material utilized was as specified on the SMART Tool engineering vendor Mount Modification Drawings and included in the material certification folder is a packing list or invoice for these materials.

OR

☐ The material utilized was approved by a SMART Tool engineering vendor as an "equivalent" and this approval is included as part of the contractor submission.

Antenna & Equipment Placement and Geometry Confirmation:

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

☐ The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

Comments:

Was the mount modification completed in conjunction with the equipment change / installation?

☐ Yes ☐ No

Special Instructions / Validation as required from the MA or Mod Drawings:

Issue:

Response:

Special Instruction Confirmation:

☐ The contractor has read and acknowledges the above special instructions.

Comments:

Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

☐ Safety Climb in Good Condition

☐ Safety Climb Damaged

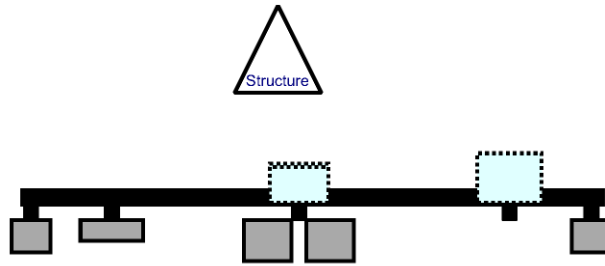
Comments:

--

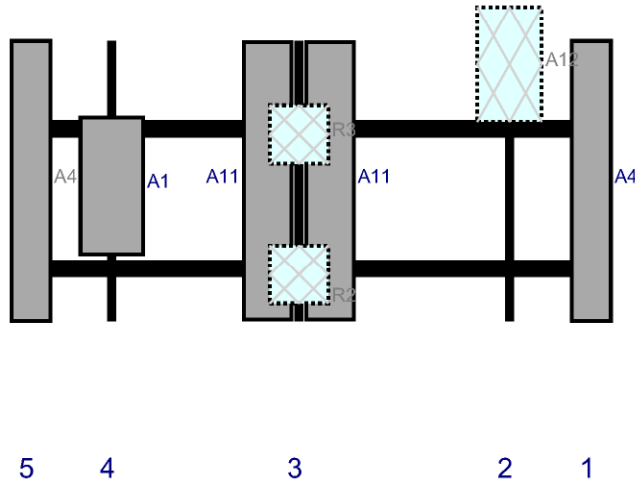
Certifying Individual:

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

Plan View

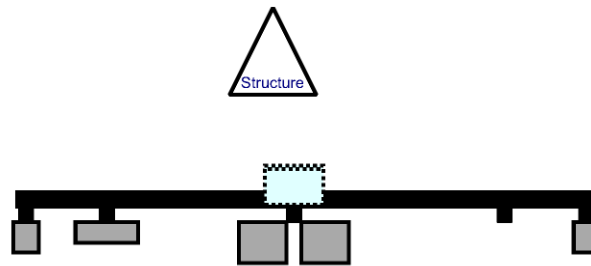


Front View - Looking at Structure

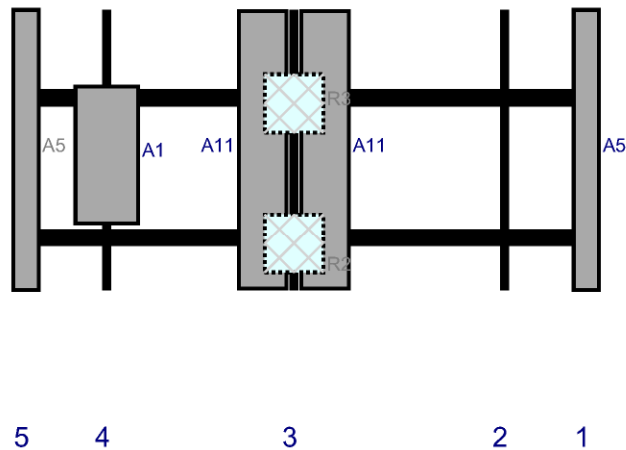


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A4	DB846F65ZAXY	72	10	146.5	1	a	Front	36	0	Retained	
A12	DB-C1-12C-24AB-0Z	29.5	16.5	125.5	2	a	Behind	6	0	Added	
A11	MX06FIT665-02	71.3	12.2	71.5	3	a	Front	36	-8	Added	
A11	MX06FIT665-02	71.3	12.2	71.5	3	b	Front	36	8	Added	
R2	B2/B66A RRH ORAN	15	15	71.5	3	a	Behind	60	0	None	
R3	B5/B13 RRH ORAN	15	15	71.5	3	a	Behind	24	0	None	
A1	MT6407-77A	35.1	16.1	23.5	4	a	Front	37.2	0	Added	
A4	DB846F65ZAXY	72	10	2.75	5	a	Front	36	0	Retained	

Plan View

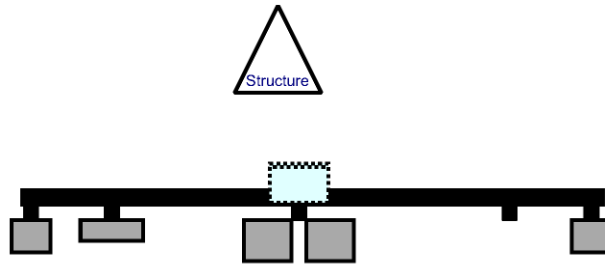


Front View - Looking at Structure

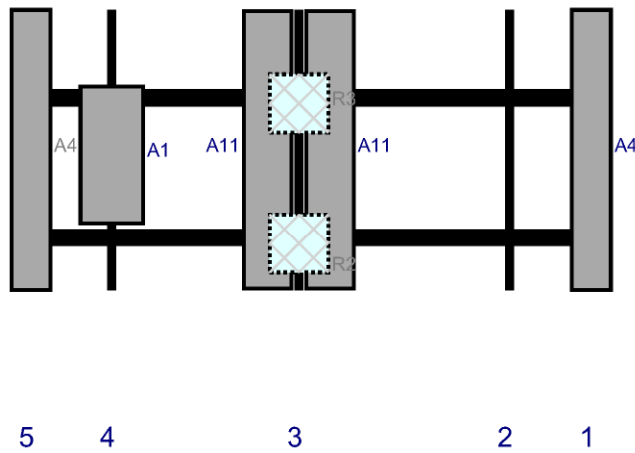


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A5	DB846H80E-SX	72	6.5	146.5	1	a	Front	36	0	Retained	
A11	MX06FIT665-02	71.3	12.2	71.5	3	a	Front	36	-8	Added	
A11	MX06FIT665-02	71.3	12.2	71.5	3	b	Front	36	8	Added	
R2	B2/B66A RRH ORAN	15	15	71.5	3	a	Behind	60	0	None	
R3	B5/B13 RRH ORAN	15	15	71.5	3	a	Behind	24	0	None	
A1	MT6407-77A	35.1	16.1	23.5	4	a	Front	37.2	0	Added	
A5	DB846H80E-SX	72	6.5	2.75	5	a	Front	36	0	Retained	

Plan View



Front View - Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A4	DB846F65ZAXY	72	10	146.5	1	a	Front	36	0	Retained	
A11	MX06FIT665-02	71.3	12.2	71.5	3	a	Front	36	-8	Added	
A11	MX06FIT665-02	71.3	12.2	71.5	3	b	Front	36	8	Added	
R2	B2/B66A RRH ORAN	15	15	71.5	3	a	Behind	60	0	None	
R3	B5/B13 RRH ORAN	15	15	71.5	3	a	Behind	24	0	None	
A1	MT6407-77A	35.1	16.1	23.5	4	a	Front	37.2	0	Added	
A4	DB846F65ZAXY	72	10	2.75	5	a	Front	36	0	Retained	

WESTON NORTH CT

SITE #: 468022

SMART TOOL PROJECT #: 10141945



PROJECT CONTACTS:

MASER CONSULTING CONTACT:

PETER ALBANO
PETER.ALBANO@COLLIERSENGINEERING.COM
(856) 371-9457
PROJECT #: 468022

ENGINEER CONTACT:

GPD ENGINEERING AND ARCHITECTURE
PROFESSIONAL CORPORATION
520 SOUTH MAIN STREET, SUITE 2531
AKRON, OH 44311
(330)572-2100
FOR QUESTIONS PLEASE EMAIL:
GPD@GPDGROUP.COM

SHEET INDEX:

T-01: TITLE SHEET
N-01: PROJECT NOTES & INSPECTION CHECKLIST
S-01: BILL OF MATERIALS
S-02: CLIMBING FACILITY DETAIL
S-03: MODIFICATION SCHEDULE & DETAILS
S-04 - S-05: DETAILS/PARTS
P-01: MOUNT PHOTOS

CONTRACTOR PMI REQUIREMENTS:

PMI LOCATION: [HTTPS://PMI.VZWSMART.COM](https://pmi.vzwsmart.com)
SMART TOOL PROJECT #: 10141945
VZW LOCATION CODE (PSLC): 468022
FUZE ID: 16272233

REFERENCED DOCUMENTS:

PASSING MOUNT ANALYSIS REPORT
SMART TOOL PROJECT #: 10141945
GPD PROJECT #: 2022740.468022.03
ANALYSIS DATE: 4/4/2022

MOUNT INFORMATION:

MOUNT TYPE: 12'-6" SECTOR MOUNT
SITE LOCATION:
LAT.: 41.241997°
LONG.: -73.364311°
STREET ADDRESS: 237 GODFREY RD
CITY, STATE ZIP: WESTON, CT 06883
COUNTY: FAIRFIELD
TOWER OWNER: UNKNOWN
TOWER SITE NUMBER: N/A

CODE COMPLIANCE:

GOVERNING CODES: TIA-222-H
WIND SPEEDS: 117 MPH 3-SECOND GUST
50 MPH 3-SECOND GUST (W/ ICE)
ICE THICKNESS: 1"
RISK CATEGORY: II
EXPOSURE CATEGORY: B
TOPO CATEGORY: 1
SEISMIC CRITERIA:
SITE CLASS: D
RESPONSE COEFFICIENT (R): 2
1-SECOND SPECTRAL RESPONSE ACCELERATION (S₁): 0.056
SHORT PERIOD SPECTRAL RESPONSE ACCELERATION (S_s): 0.228

WESTON NORTH CT
237 GODFREY RD
WESTON, CT 06883

TITLE SHEET

DESIGNED FOR	4/6/22
PERMIT	22022
BID	
CONSTRUCTION	
RECORD	

NUMBER	DESIGNER
DATE	DATE
PROJECT MANAGER	APPROVED BY
DATE	C.S.

JOB NO.
2022740.468022.03

T-01



REV	DATE	DESCRIPTION
0	4/6/22	INITIAL RELEASE

REQUIRED	REPORT ITEM	PRE-CONSTRUCTION	BRIEF DESCRIPTION
X	PACKING SUPS	ANY RECEIPT OR PURCHASE FOR THE MODIFICATION MATERIAL IS ACCEPTABLE	
X	CERTIFICATE OF CONFORMANCE	ANY RECEIPTED NUTS, WELDERS OR ANCHORS AS PROVIDED FROM REPUTABLE SUPPLIERS SHALL HAVE A SITE SPECIFIC CERTIFICATE OF COMPLIANCE REFERRED TO COME FROM ACCEPTABILITY	
X	WELDERS REPORT (CUSTOM WELDING) AND WELDING HARDWARE (NUT & BOLT)	ALL HARDWARE NOT SPECIFICALLY PROVIDED AS A FIELD ENGINEERED PART, AND/OR ASSEMBLY SHALL REQUIRE MINS TO VERIFY ACCEPTABILITY. PHOTOS OF ALL HARDWARE (BEFORE AND AFTER) PRIOR TO MODIFICATIONS	
X	EXISTING MOUNTS	PHOTOS OF ALL SECTIONS WHERE TYPE BOLT IS INSTALLED ON THE BOUNTIES	
X	HARDWARE PRIOR TO INSTALLATION	PHOTOS OF ALL SECTIONS WHERE TYPE BOLT IS INSTALLED ON THE BOUNTIES	
X	NOT A FULL PERMEITATION OR WELDING SHOP CERTIFIED WELD INSPECTION	ANSI STAMPED REPORT REQUIRED. WELDING REQUIREMENTS NOT MET. UNSTAMPED NUTS, PARTS OR ASSEMBLIES FROM REPUTABLE SUPPLIERS.	
X	WELDERS CERTIFICATIONS		
X	(ON SITE GOLD GALVANIZING SEE STRUCTURAL STEEL NOTE #2)	ANY DAMAGE TO THE TOWER SHALL BE REPAIRED IN ACCORDANCE WITH STRUCTURAL STEEL NOTE #2	
X	GC AS-BUILT DRAWINGS	ALL DEVIATIONS TO THE DRAWINGS THAT WE'RE FOUND MUST BE CLEARLY MARKED AND APPROVED BY THE GC	
X	MEMBER SIZES	WHY MEMBERS SIZE THE MEMBER WITH A TAPER FOR CURE OF JOINTS	
X	CONNECTION HARDWARE	BOLT SIZE (QA CALLS), FIT-UP, LOCKING MECHANISM, AND TIGHTNESS SHALL BE VERIFIED AND DOCUMENTED.	
X	CRITICAL DIMENSIONS	ALL DIMENSIONS SPECIFICALLY CALLED OUT IN THE DRAWING PACKAGE SHALL BE VERIFIED AND DOCUMENTED. DIMENSIONS SHALL INCLUDE MEMBER LENGTH, HORIZONTAL AND/OR VERTICAL, OFFSETS, SPACING REQUIREMENTS, ETC.	
X	FINAL INSTALLED CONFIGURATION	THE COMPLETE AND CORRECT CONFIGURATION MUST BE ENSURED TO ENSURE THE STRUCTURE IS AS-BUILT	

MECHANICAL JUNT

STRUCTURAL BOX

NONWEIGHTING MATERIALS

LOCK WHEEL

ANGLE

MATCH

ANGLE

HEIGHT

T.V.

TYPICAL BOX ASSEMBLY

TYPICAL SITCH ASSEMBLY

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN EDGE DISTANCE	SPACING	DIMENSIONS GIVEN IN NOTES MATCH EXISTING WHEN APPLICABLE					
					LEG	4	3	2	1	
1/8	5/16	1/8	1/8	1/8	0	1/2	1/2	1/2	1/2	1
3/16	1/2	3/16	3/16	3/16	0	1/2	1/2	1/2	1/2	1
1/4	5/8	1/2	1/2	1/2	0	1/2	1/2	1/2	1/2	1
5/16	3/4	5/8	3/4	3/4	0	1/2	1/2	1/2	1/2	1
3/8	7/8	7/8	7/8	7/8	0	1/2	1/2	1/2	1/2	1
1/2	1 1/8	1 1/8	1 1/8	1 1/8	0	1/2	1/2	1/2	1/2	1
5/8	1 3/8	1 3/8	1 3/8	1 3/8	0	1/2	1/2	1/2	1/2	1
3/4	1 1/2	1 1/2	1 1/2	1 1/2	0	1/2	1/2	1/2	1/2	1
7/8	1 5/8	1 5/8	1 5/8	1 5/8	0	1/2	1/2	1/2	1/2	1
1	2	2	2	2	0	1/2	1/2	1/2	1/2	1
1 1/8	2 1/8	2 1/8	2 1/8	2 1/8	0	1/2	1/2	1/2	1/2	1
1 1/4	2 1/4	2 1/4	2 1/4	2 1/4	0	1/2	1/2	1/2	1/2	1
1 1/2	2 1/2	2 1/2	2 1/2	2 1/2	0	1/2	1/2	1/2	1/2	1
1 3/4	2 3/4	2 3/4	2 3/4	2 3/4	0	1/2	1/2	1/2	1/2	1
2	3	3	3	3	0	1/2	1/2	1/2	1/2	1
2 1/8	3 1/8	3 1/8	3 1/8	3 1/8	0	1/2	1/2	1/2	1/2	1
2 1/4	3 1/4	3 1/4	3 1/4	3 1/4	0	1/2	1/2	1/2	1/2	1
2 1/2	3 1/2	3 1/2	3 1/2	3 1/2	0	1/2	1/2	1/2	1/2	1
2 3/4	3 3/4	3 3/4	3 3/4	3 3/4	0	1/2	1/2	1/2	1/2	1
3	4	4	4	4	0	1/2	1/2	1/2	1/2	1
3 1/8	4 1/8	4 1/8	4 1/8	4 1/8	0	1/2	1/2	1/2	1/2	1
3 1/4	4 1/4	4 1/4	4 1/4	4 1/4	0	1/2	1/2	1/2	1/2	1
3 1/2	4 1/2	4 1/2	4 1/2	4 1/2	0	1/2	1/2	1/2	1/2	1
3 3/4	4 3/4	4 3/4	4 3/4	4 3/4	0	1/2	1/2	1/2	1/2	1
4	5	5	5	5	0	1/2	1/2	1/2	1/2	1
4 1/8	5 1/8	5 1/8	5 1/8	5 1/8	0	1/2	1/2	1/2	1/2	1
4 1/4	5 1/4	5 1/4	5 1/4	5 1/4	0	1/2	1/2	1/2	1/2	1
4 1/2	5 1/2	5 1/2	5 1/2	5 1/2	0	1/2	1/2	1/2	1/2	1
4 3/4	5 3/4	5 3/4	5 3/4	5 3/4	0	1/2	1/2	1/2	1/2	1
5	6	6	6	6	0	1/2	1/2	1/2	1/2	1
5 1/8	6 1/8	6 1/8	6 1/8	6 1/8	0	1/2	1/2	1/2	1/2	1
5 1/4	6 1/4	6 1/4	6 1/4	6 1/4	0	1/2	1/2	1/2	1/2	1
5 1/2	6 1/2	6 1/2	6 1/2	6 1/2	0	1/2	1/2	1/2	1/2	1
5 3/4	6 3/4	6 3/4	6 3/4	6 3/4	0	1/2	1/2	1/2	1/2	1
6	7	7	7	7	0	1/2	1/2	1/2	1/2	1
6 1/8	7 1/8	7 1/8	7 1/8	7 1/8	0	1/2	1/2	1/2	1/2	1
6 1/4	7 1/4	7 1/4	7 1/4	7 1/4	0	1/2				

SPACING	DISTANCE	DIMENSIONS (GIVEN IN INCHES)	COPED ANGLE
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9
10	10	10	10
11	11	11	11
12	12	12	12
13	13	13	13
14	14	14	14
15	15	15	15
16	16	16	16
17	17	17	17
18	18	18	18
19	19	19	19
20	20	20	20
21	21	21	21
22	22	22	22
23	23	23	23
24	24	24	24
25	25	25	25
26	26	26	26
27	27	27	27
28	28	28	28
29	29	29	29
30	30	30	30
31	31	31	31
32	32	32	32
33	33	33	33
34	34	34	34
35	35	35	35
36	36	36	36
37	37	37	37
38	38	38	38
39	39	39	39
40	40	40	40
41	41	41	41
42	42	42	42
43	43	43	43
44	44	44	44
45	45	45	45
46	46	46	46
47	47	47	47
48	48	48	48
49	49	49	49
50	50	50	50
51	51	51	51
52	52	52	52
53	53	53	53
54	54	54	54
55	55	55	55
56	56	56	56
57	57	57	57
58	58	58	58
59	59	59	59
60	60	60	60
61	61	61	61
62	62	62	62
63	63	63	63
64	64	64	64
65	65	65	65
66	66	66	66
67	67	67	67
68	68	68	68
69	69	69	69
70	70	70	70
71	71	71	71
72	72	72	72
73	73	73	73
74	74	74	74
75	75	75	75
76	76	76	76
77	77	77	77
78	78	78	78
79	79	79	79
80	80	80	80
81	81	81	81
82	82	82	82
83	83	83	83
84	84	84	84
85	85	85	85
86	86	86	86
87	87	87	87
88	88	88	88
89	89	89	89
90	90	90	90
91	91	91	91
92	92	92	92
93	93	93	93
94	94	94	94
95	95	95	95
96	96	96	96
97	97	97	97
98	98	98	98
99	99	99	99
100	100	100	100

Figure 1: Allowable Angle Cope. The figure includes a table of dimensions and two diagrams. The table lists dimensions for spacing, distance, and cope angle for various hole types. The diagrams show the placement of

4/3/22

1 THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING PROVISIONS OF MATERIALS AND METHODS, AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, AND ALSO: MATERIALS, FABRICATION, INSTALLATION, AND ALL OTHER SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES AND THE CONTRACT SPECIFICATIONS.

2

3 THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING. ANY PROBLEMS WITH ACCESS, INTERFERENCE, ETC. SHALL BE RESOLVED PRIOR TO MOBILIZATION. CONTRACTOR SHALL FIELD THESE DRAWINGS OR THAT INTERFERE WITH THE CONTINUOUS INSTALLATION OF THE MODIFICATIONS. CONTRACTOR SHALL NOTE ALL ATTACHMENT POINTS, ATTACHMENTS, MOUNTS, COAX, LIGHTING, AND ALL OTHERS. CONTRACTOR SHALL BE CONTACTED IMMEDIATELY TO EVALUATE THE SIGNIFICANCE OF ANY MODIFICATION PRIOR TO ORDERING MATERIAL.

4 ALL MATERIALS SPECIFIED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIALS THAT ARE FOUND TO BE DEFECTIVE MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING. CONTRACTOR SHALL PROVIDE THE UNDERGROUND DESIGN, INTERFERENCE DRAWINGS, FROM THE ORIGINAL DESIGN, AND ALL NECESSARY MAINTENANCE, REPAIR, AND RETACEMENT SHALL BE NOTED. ESTIMATES OF CONTRASTED SUB-CONTRACTORS SHALL BE PROVIDED TO THE ENGINEER.

5 CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A MODIFICATION INSPECTOR AT THE TIME OF AWARD TO COORDINATE AN INSPECTION SCHEDULE AND ENSURE PROPER DOCUMENTATION IS RETAINED THROUGHOUT THE PROJECT. REFER TO THE MODIFICATION INSPECTION TABLES ON THIS SHEET. THE INSTALLATION OF THE PROPOSED LOADING IS BY OTHERS AND IS BEYOND THE SCOPE OF THESE

OWNER AND GPD, THAT THEY HAVE OBTAINED, UNDERSTAND, AND WILL FOLLOW TOWER OWNER STANDARDS OF PRACTICE, CONSTRUCTION GUIDELINES, ALL SITE AND TOWER SAFETY PROCEDURES, ALL PRODUCT LIMITATIONS, AND INSTALLATION PROCEDURES USED ON SITE, AND PROPOSED MODIFICATIONS DESCRIBED. RECEIPT OF ACKNOWLEDGMENT MUST OCCUR PRIOR TO BEGINNING CONSTRUCTION OF THE TOWER. THE SENDER AND GPD, ON BEHALF OF THE CONTRACTOR, HEREBY CERTIFY THAT THIS DOCUMENTATION FOR TOWER OWNER AND GPD, ON BEHALF OF THE CONTRACTOR, AND THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN THIS DOCUMENTATION FROM LOWER TIER SUBCONTRACTORS (ON SUBCONTRACTOR LETTERHEAD), AND DELIVER IT TO TOWER OWNER AND GPD.

9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
8

CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY REMOVING ALL COAX T-BRACKETS, ANTENNA MOUNTS, AND ANY OTHER APPURTENANCE THAT MAY INTERFERE WITH THE TOWER MODIFICATIONS. ALL TOWER APPURTENANCES MUST BE REPLACED AND/OR RESTORED TO ITS ORIGINAL LOCATION. SOME ATTACHMENTS MAY REQUIRE CUSTOM MODIFICATIONS TO PROPERLY FIT THE MODIFIED REGION OF THE STRUCTURE. THESE CUSTOMIZATIONS ARE DESIGNED BY OTHERS AND MUST BE APPROVED BY THE STRUCTURE MANUFACTURER.

CONTRACTOR SHALL WORK WITHIN THE LIMITS OF THE TOWER OWNERS PROPERTY OR LEASED AREA AND ADJACENT EASEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WORK IS WITHIN THESE BOUNDARIES. CONTRACTOR SHALL EMPLOY A SURVEYOR AS REQUIRED. ANY WORK OUTSIDE THESE BOUNDARIES SHALL BE APPROVED IN WRITING BY THE LAND OWNER PRIOR TO MOBILIZATION. CONSTRUCTION STAKING AND BOUNDARY MARKING IS THE RESPONSIBILITY OF THE CONTRACTOR.

WORK SHALL ONLY BE PERFORMED DURING CALM DAY DAYS (WINDS LESS THAN 10 MPH). ALL TEMPORARY BRACING AND TEMPORARY SUPPORTS ARE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE. WORKING CONDITIONS INCLUDING, BUT NOT LIMITED TO, HAVING FM SIGNATURE ON THE PERMIT, ENGINEERING ASSESSMENT OF CONSTRUCTION STRESSES WITH INSTALLATION MAXIMUM WIND SPEED AND/OR TEMPORARY BRACING AND SHORING.

14

15

16 ALL MANUFACTURERS HARDWARE AND ASSEMBLY INSTRUCTIONS SHALL BE FOLLOWED EXACTLY.
17 DEVIATION FROM THE INSTRUCTIONS IS UNACCEPTABLE AND REQUIRES WRITTEN APPROVAL FROM
18 THE ENGINEER.
19
20 DO NOT SCALE DRAWINGS.
21
22 THE CLIMBING FACILITIES, SAFETY CLIMB AND ALL ASSOCIATED HARDWARE SHALL NOT BE IMPEDED
23 OR MODIFIED WITHOUT THE WRITTEN CONSENT OF GFD.

[illegible]

UNLESS NOTED OTHERWISE, ALL NEW MEMBERS SHALL MAINTAIN THE EXISTING MEMBER WORK LINES AND NOT INTRODUCE ECCENTRICITIES INTO THE STRUCTURE.

WELDING OF ANY KIND IS NOT PERMITTED ON SITE UNLESS SPECIFIED WITHIN THESE DRAWINGS. OXY FUEL GAS WELDING OR BRAZING IS STRICTLY PROHIBITED. SPECIALLY NO TORSION CUTTING OR OPEN FLAME IS PERMITTED ON SITE. ALL HOLES SHALL BE CUT WITH A GRINDER.

MODIFICATION INSPECTION NOTES

GENERAL

1. THE MI IS AN ON-SITE AND HANDS-ON INSPECTION OF THE MODIFICATIONS INCLUDING A REVIEW OF CONSTRUCTION REPORTS AND ADDITIONAL PERTINENT DOCUMENTATION PROVIDED BY THE GENERAL CONTRACTOR (GC), AS WELL AS AND INSPECTION DOCUMENT IS PROVIDED BY 3RD PARTY INSPECTORS

DESIGNED BY THE ENGINEER OF RECORD (EOR).

2 NO DOCUMENT, CODE, OR POLICY CAN ANTICIPATE EVERY SITUATION THAT MAY ARISE. ACCORDINGLY, THE CHECKLIST IS INTENDED TO SERVE AS A SOURCE OF GUIDING PRINCIPLES IN ESTABLISHING GUIDELINES FOR THE MODIFICATION INSPECTION.

3 THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF. THE MI INSPECTOR DOES NOT TAKE OWNERSHIP AND PROVIDES THE COMMENTS TO THE OWNER AND THE EOR FOR THEIR OWN CONFORMANCE AND EVALUATION.

FAILING INSPECTION REQUIREMENTS

IF THE MODIFICATION INSTALLATION WOULD FAIL THE MODIFICATION INSPECTION, CEALD MODIFICATIONS SHALL BE REMOVED FROM THE PROJECT WITHIN THE SPECIFIED TIME FRAME.

- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL MODIFICATION DRAWINGS AND COORDINATE A SUPPLEMENT MODIFICATION INSPECTION.
- OR, WITH TOWER OWNER APPROVAL, THE GC MAY WORK WITH THE ENGINEER OF RECORD TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS BUILT CONDITION.

SERVICE LEVEL COMMITMENT

THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE

- THE GC SHALL PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY TO THE MI TO BE CONDUCTED.
- THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY MINOR DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT

1. BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:

- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
- RAW MATERIALS
- PHOTOS OF ALL CRITICAL DETAILS

- BOLT INSTALLATION
- FINAL INSTALLED CONDITION
- SURFACE COATING REPAIR
- ANY OTHER PHOTOS DEEMED RELEVANT TO SHOW COMPLETE DETAILS OF THE MODIFICATIONS

PHOTOS OF ELEVATED MODIFICATION TAKEN ONLY FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

**SPD Engineering and Architecture
Professional Corporation**

8320 South Main Street
Akron, OH 44311
310.672.2100 Fax 310.672.2102

Ver

83

PROJECT NO.
SECTION CH.

F
& INS

INSTRUCTION	-
CODED	-

MAH	MAH
SUBJECT MANAGER	APPROVED BY
BAB	CJS

JOB NO.

N-01

[illegible]

WESTON NORTH CT
237 GODFREY RD
WESTON, CT 06883

ISSUED FOR:	
PERMIT	4/4/2022
BIO	-
CONSTRUCTION	-
RECORD	-

ENGINEER	DESIGNER
MAH	MAH
PROJECT MANAGER	APPROVED BY
BAB	CJS

JOB NO.
2022740.468022.03

S-01

1. THE MANUFACTURERS LISTED ARE THE APPROVED VENDORS FOR THE VZW MOUNT KITS. EACH MANUFACTURER WILL BE AWARE OF WHICH KITS HAVE BEEN APPROVED THROUGH THE VZW APPROVAL PROCESS AND THEY ARE IN TURN APPROVED TO PLEASE NOTE THAT THE MATERIAL UTILIZED ON THE MOUNT MODIFICATIONS WILL BE REVIEWED AS A PART OF THE DESKTOP PMI COMPLETED BY THE SMART TOOL VENDOR IT WILL BE REQUIRED THAT THE VZW KITS SPECIFIED ARE UTILIZED IN THE MODIFICATIONS.

2. ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE INTRACOR.

REV	DATE	DESCRIPTION
0	4/16/20	INITIAL RELEASE

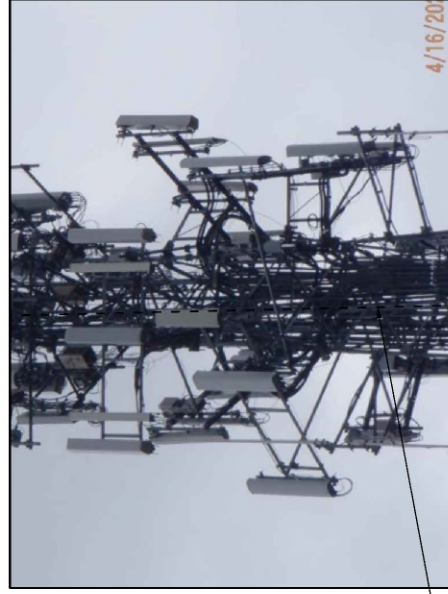
WESTON NORTH CT
 237 GODFREY RD
 WESTON, CT 06883

SHEET FOR	44/0222
PERMIT	44/0222
ISO	
CONSTRUCTION	
RECORD	

ENGINEER	DESIGNER
SAV	SAV
PROJECT MANAGER	APPROVED BY
SAB	CJB

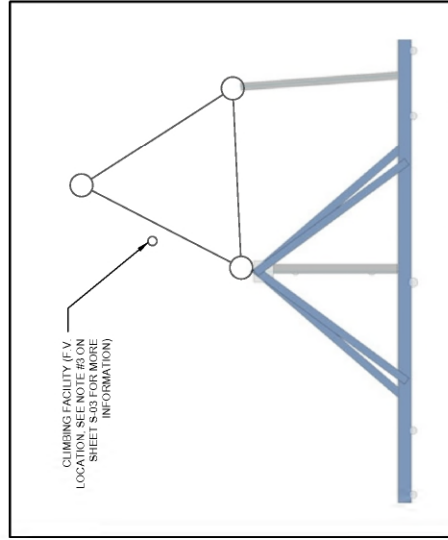
JOB NO
 2022740.468022.03

S-02



CLIMBING FACILITY PHOTO

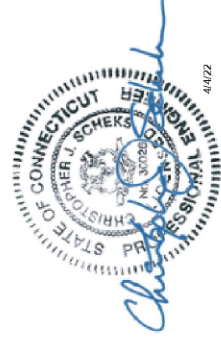
CLIMBING FACILITY (SEE NOTE #3 ON SHEET S-03 FOR MORE INFORMATION)



CLIMBING FACILITY LOCATION

NOTES

1. CONTRACTOR TO INSPECT CLIMBING FACILITIES AT SITE AND ENSURE THAT THE SAFETY CLIMB IS IN GOOD CONDITION AND THAT THE WIRE ROPE DOES NOT OR WILL NOT INTERFERE WITH THE EXISTING OR PROPOSED MOUNT CONNECTIONS. CONTRACTOR SHALL INSTALL SAFETY CLIMB WIRE ROPE CONNECTIONS AND SAFETY CLIMB WIRE ROPE CONNECTIONS TO THE EXISTING OR PROPOSED MOUNT CONNECTIONS. CONTRACTOR SHALL NOT CAUSE HARM TO THE STRUCTURE. CLIMBING FACILITY SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE, TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE NF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCE.
- 2.





REV	DATE	DESCRIPTION
0	4/22	INITIAL RELEASE

WESTON NORTH CT
237 GODFREY RD
WESTON, CT 06883

MODIFICATION SCHEDULE
& DETAILS

ISSUED FOR	440222
PERMIT	
ISO	
CONSTRUCTION	
RECORD	

ENGINEER	DESIGNER
DATE	
PROJECT MANAGER	APPROVED BY
SAB	CJB

JOB NO
2022740.468022.03

S-03

MOUNT MODIFICATION SCHEDULE

NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	102'-0"	3	FACE HORIZONTAL (P1.5 STD, 4" OD x 0.226" THICK)	INSTALL A NEW FACE HORIZONTAL CONNECTED TO MOUNT PIPES (F V MOUNT PIPES LENGTH BEFORE ORDERING). CONNECT NEW FACE HORIZONTAL TO MOUNT PIPES USING NEW CROSSOVER PLATE ASSEMBLIES (VERIZON PIN VZWSMART-MS66)
2		6	V-STYLE REINFORCEMENT KIT (PART # VZWSMART-SFK3)	INSTALL NEW V-STYLE REINFORCEMENT KITS (VERIZON PIN VZWSMART-SFK3) CONNECTED TO TOWER LEG AND NEW FACE HORIZONTAL. FIELD TRIM REINFORCEMENT ANGLES TO REQUIRED LENGTH AND DRILL NEW STANDARD SIZE HOLES FOR CONNECTION BOLTS (TYP. OF 2 PER SECTOR)

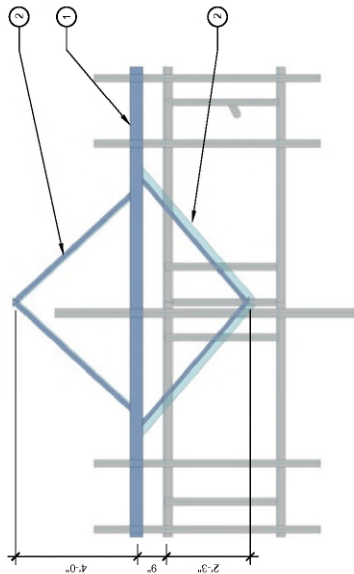
- NOTES:
- ANY SUBSTITUTION OF PARTS SPECIFIED IN THIS DESIGN PACKAGE SHALL REQUIRE ENGINEER APPROVAL PRIOR TO FABRICATION
 - ALL MATERIAL REMOVED FROM MOUNT SHALL BE DISPOSED OF BY CONTRACTOR OFF SITE.
 - INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB OR ANY SYSTEM INSTALLED ON THE STRUCTURE.



1 ELEVATION VIEW

S-03

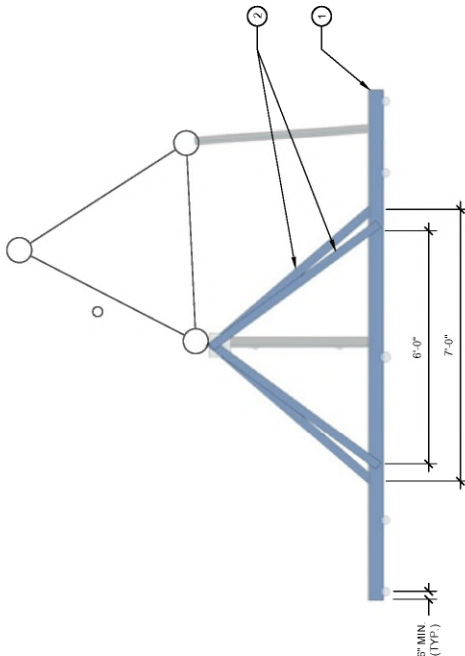
- NOTE:
- DETAIL IS TYPICAL FOR ALL THREE SECTORS. ONLY ONE SECTOR SHOWN FOR DETAIL CLARITY.
 - ALL FIELD CUT ANGLES AND DRILLED HOLES SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF BRUSH APPLIED ZINC RICH COLD GALVANIZING PAINT.



2 PLAN VIEW

S-03

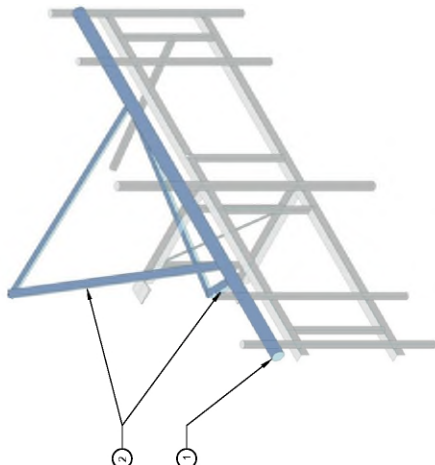
- NOTE:
- DETAIL IS TYPICAL FOR ALL THREE SECTORS. ONLY ONE SECTOR SHOWN FOR DETAIL CLARITY.
 - ALL FIELD CUT ANGLES AND DRILLED HOLES SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF BRUSH APPLIED ZINC RICH COLD GALVANIZING PAINT.



3 ISOMETRIC VIEW

S-03

- NOTE:
- DETAIL IS TYPICAL FOR ALL THREE SECTORS. ONLY ONE SECTOR SHOWN FOR DETAIL CLARITY.
 - ALL FIELD CUT ANGLES AND DRILLED HOLES SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF BRUSH APPLIED ZINC RICH COLD GALVANIZING PAINT.



NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.



DESIGN DRAWINGS
PREPARED FOR
WESTON NORTH CT
SITE # 468022
SMART TOOL PROJECT # 1041945

VERIZON

REV	DATE	DESCRIPTION
0	4/4/22	INITIAL RELEASE

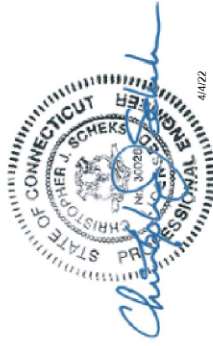
WESTON NORTH CT
237 GODFREY RD
WESTON, CT 06883
MOUNT PHOTOS

ISSUED FOR	440222
PERMIT	440222
ISO	
CONSTRUCTION	
RECORD	

ENGINEER	DESIGNER
SAV	SAV
PROJECT MANAGER	APPROVED BY
SAB	CJB

JOB NO
2022740.468022.03

P-01



MOUNT PHOTO



MOUNT PHOTO



MOUNT PHOTO



MOUNT PHOTO



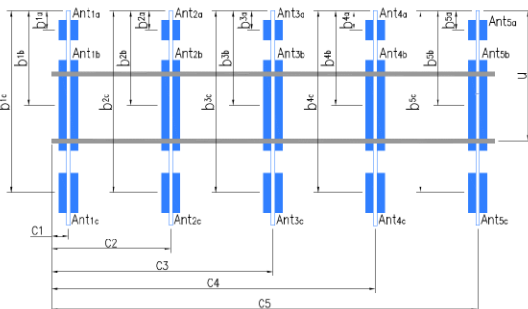
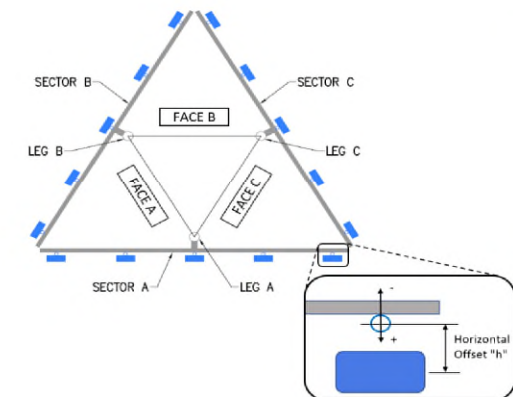
	Antenna Mount Mapping Form (PATENT PENDING)			FCC #
				UNKNOWN
	Tower Owner:	TOWER OF WESTON	Mapping Date:	04-16-2021
	Site Name:	VZW: WESTON NORTH CT	Tower Type:	Self Support
Site Number or ID:	VZW: 16272233, VZW:468022	Tower Height (Ft.):	UNKNOWN	
Mapping Contractor:	RKS Design & Engineering, LLC	Mount Elevation (Ft.):	161.5	

This antenna mapping form is the property of TES and under **PATENT PENDING**. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warranting the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.

Please insert the sketches of the antenna mount from the "Sketches" tab with dimensions and members here.

Mount Pipe Configuration and Geometries [Unit = Inches]							
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	PIPE 2.375"Ø X 0.18" X 72" LONG	58.50	2.75	C1	PIPE 2.375"Ø X 0.18" X 72" LONG	58.50	2.75
A2	PIPE 2.375"Ø X 0.18" X 72" LONG	58.50	23.50	C2	PIPE 2.375"Ø X 0.18" X 72" LONG	58.50	23.50
A3	PIPE 2.375"Ø X 0.18" X 72" LONG	59.00	71.50	C3	PIPE 2.375"Ø X 0.18" X 72" LONG	59.00	71.50
A4	PIPE 2.375"Ø X 0.18" X 72" LONG	58.50	125.50	C4	PIPE 2.375"Ø X 0.18" X 72" LONG	58.50	125.50
A5	PIPE 2.375"Ø X 0.18" X 72" LONG	58.50	146.50	C5	PIPE 2.375"Ø X 0.18" X 72" LONG	58.50	146.50
A6				C6			
B1	PIPE 2.375"Ø X 0.18" X 72" LONG	58.50	2.75	D1			
B2	PIPE 2.375"Ø X 0.18" X 72" LONG	58.50	23.50	D2			
B3	PIPE 2.375"Ø X 0.18" X 72" LONG	59.00	71.50	D3			
B4	PIPE 2.375"Ø X 0.18" X 72" LONG	58.50	125.50	D4			
B5	PIPE 2.375"Ø X 0.18" X 72" LONG	58.50	146.50	D5			
B6				D6			
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :							17.50
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :							9.25
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :							
Please enter additional infomation or comments below.							
Tower Face Width at Mount Elev. (ft.):		5	Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):				2.875
For T-Arms/Platforms on monopoles, report the weld size from the main standoff to the plate bolting into the collar mount.							

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center- line (Ft.)	Vertical Distances"b _{1a} , b _{2a} , b _{3a} , b _{1b} ,..." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant _{1a}										
Ant _{1b}	UNKNOWN PANEL	9.75	8.00	78.50		161.646	39.25	9.00	0.00	18, 252
Ant _{1c}										
Ant _{2a}	B4 RRH2X60-4R	10.63	5.75	36.60		162.896	24.25	-8.00		18, 252
Ant _{2b}	742213V01	6.10	2.80	76.90		161.708	38.50	7.50	0.00	18, 252
Ant _{2c}										
Ant _{3a}										
Ant _{3b}	UNKNOWN PANEL	11.00	4.00	72.00		161.958	36.00	12.00	0.00	18, 254
Ant _{3c}										
Ant _{4a}										
Ant _{4b}	742213V01	6.10	2.80	76.90		161.708	38.50	7.50	0.00	18, 255
Ant _{4c}										
Ant _{5a}										
Ant _{5b}	UNKNOWN PANEL	9.75	8.00	78.50		161.646	39.25	9.00	0.00	18, 255
Ant _{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										



Antenna Layout (Looking Out From Tower)

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #
1	COAX:TOTAL(19): (18)FH 1-5/8, (1)1.5"Ø HYBRID	37
2		
3		
4		
5		
6		
7		
8		

Observed Obstructions to Tower Lighting System			
If the tower lighting system is being obstructed by the carrier's equipment (for example: a light nested by the antennas), please provide photos and fill in the information below.			Photo #
Description of Obstruction:			
Type of Light:	Photo #		Additional Comments:
Lighting Technology:	Photo #		
Elevation (AGL) at base of light (Ft.):	Photo #		
Is a service loop available?	Photo #		
Is beacon installed on an extension?	Photo #		

Mapping Notes
1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.) 2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness. 3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab. 4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type. 5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required. 6. Please measure and report the size and length of all existing antenna mounting pipes. 7. Please measure and report the antenna information for all sectors. 8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

Standard Conditions
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.



**PAUL J. FORD
& COMPANY**

Antenna Mount Mapping Form (PATENT PENDING)

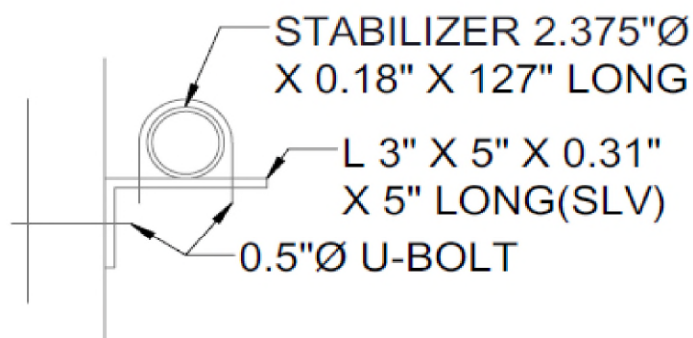
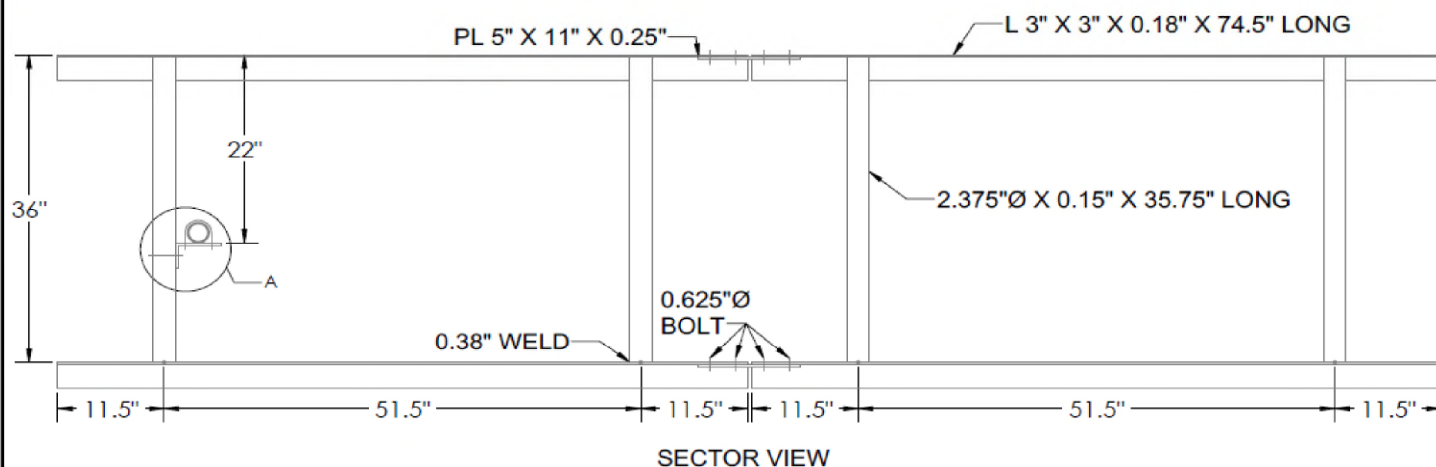
FCC #

UNKNOWN

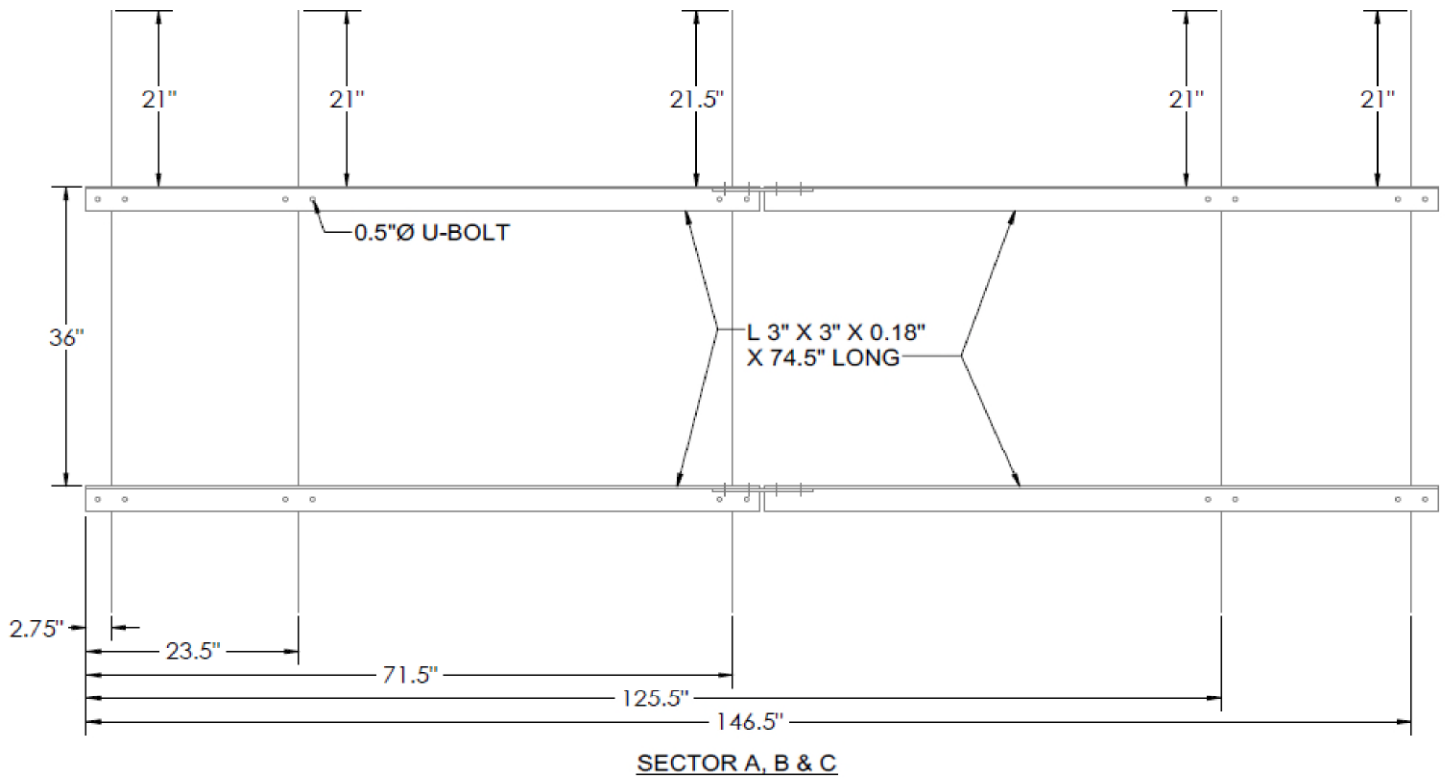
Tower Owner:	TOWER OF WESTON	Mapping Date:	04-16-2021
Site Name:	VZW: WESTON NORTH CT	Tower Type:	Self Support
Site Number or ID:	VZW: 16272233, VZW:468022	Tower Height (Ft.):	UNKNOWN
Mapping Contractor:	RKS Design & Engineering, LLC	Mount Elevation (Ft.):	161.5

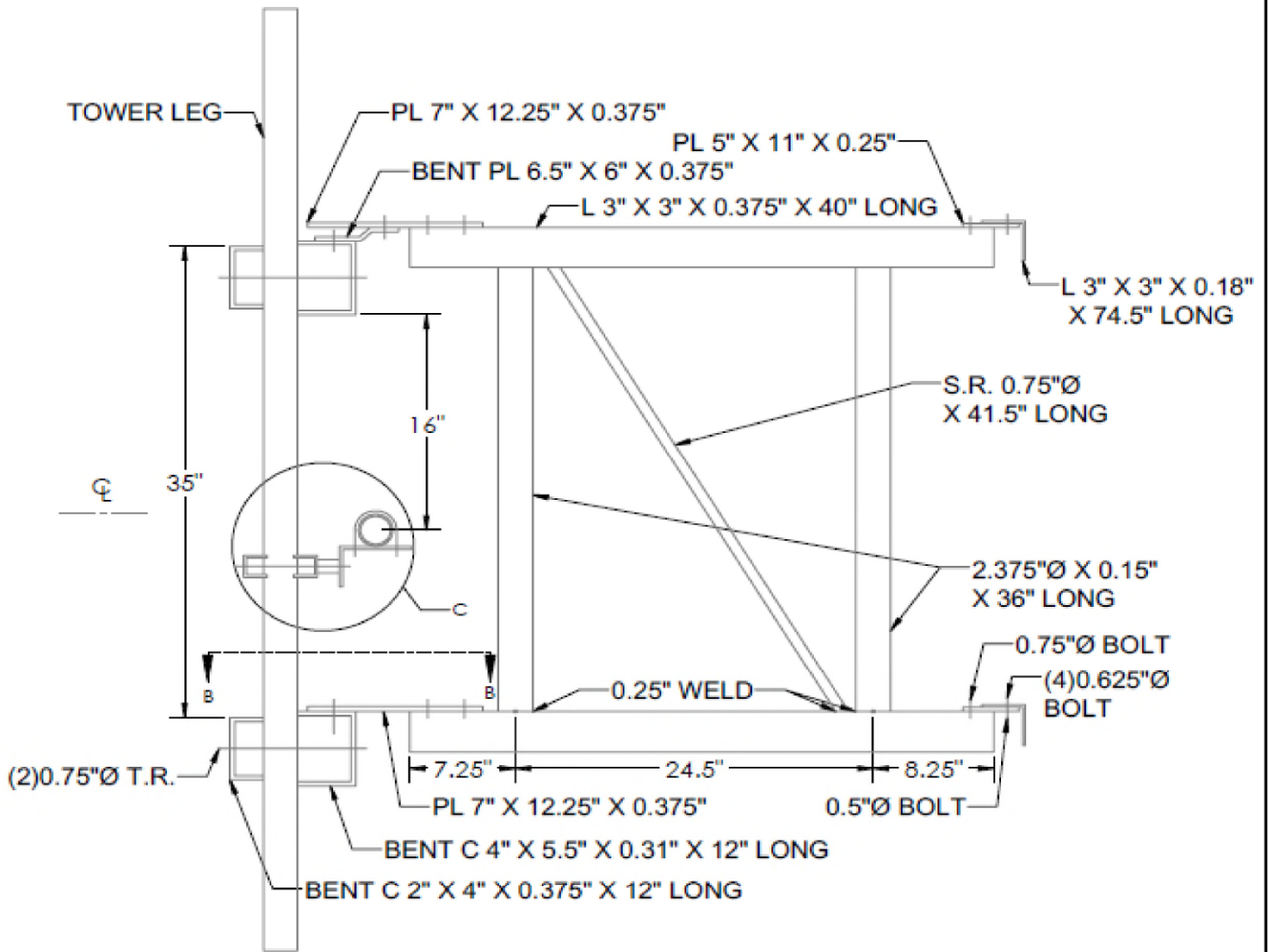
This antenna mapping form is the property of TES and under **PATENT PENDING**. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warranting the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.

Please Insert Sketches of the Antenna Mount

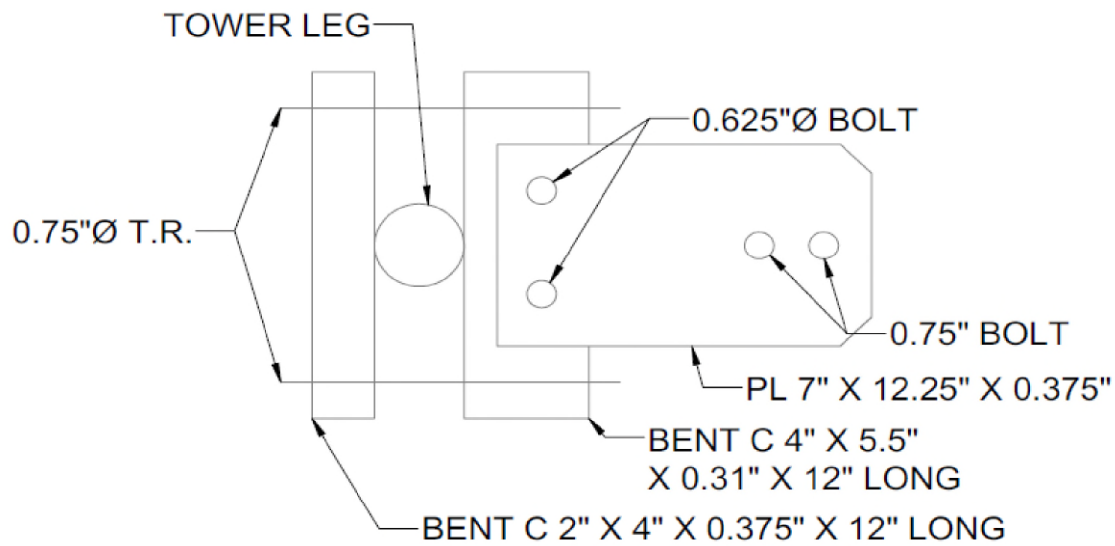


DETAIL A
STABILIZER CONNECTION DETAIL
ON MOUNT PIPE

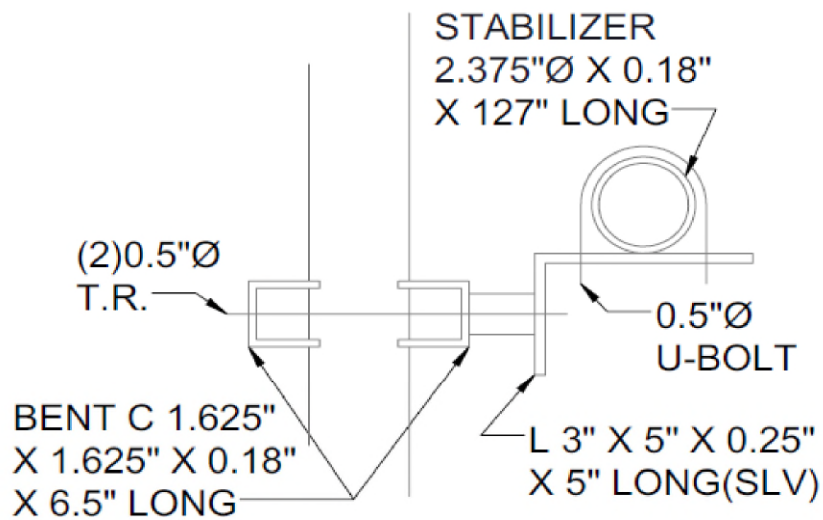




STAND OFF VIEW

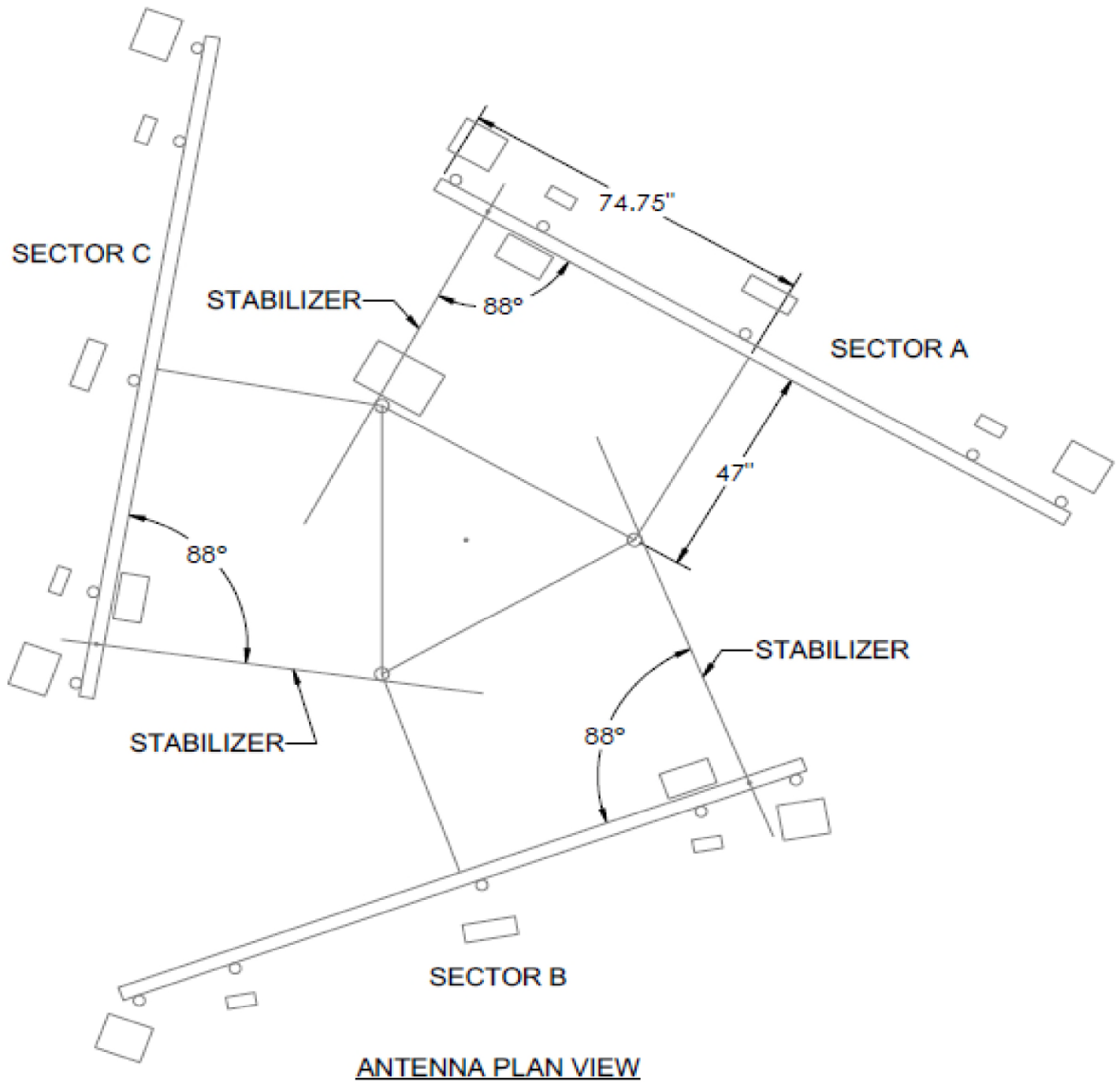


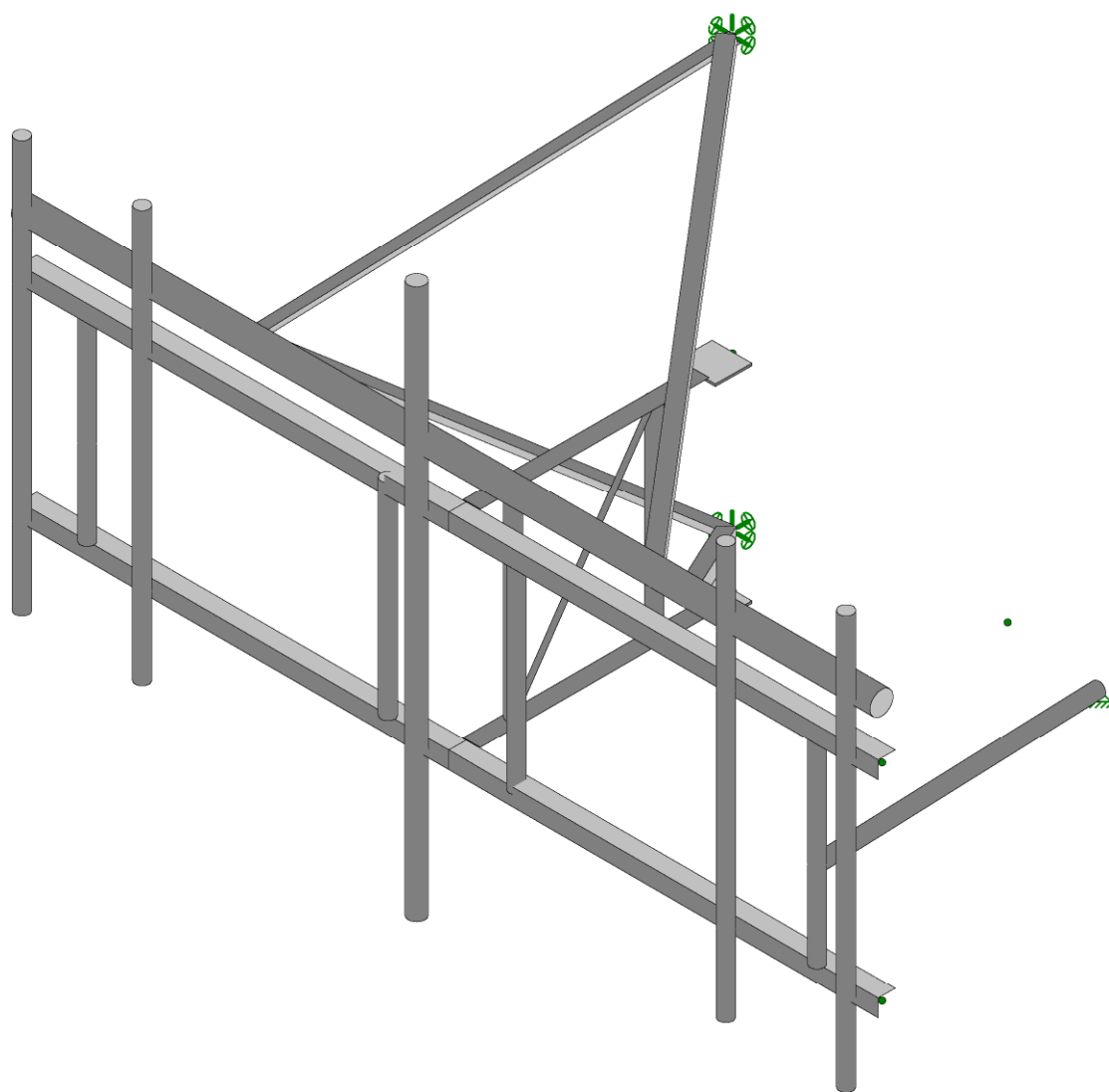
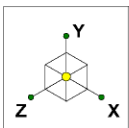
SECTION B-B

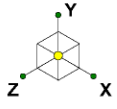


DETAIL C

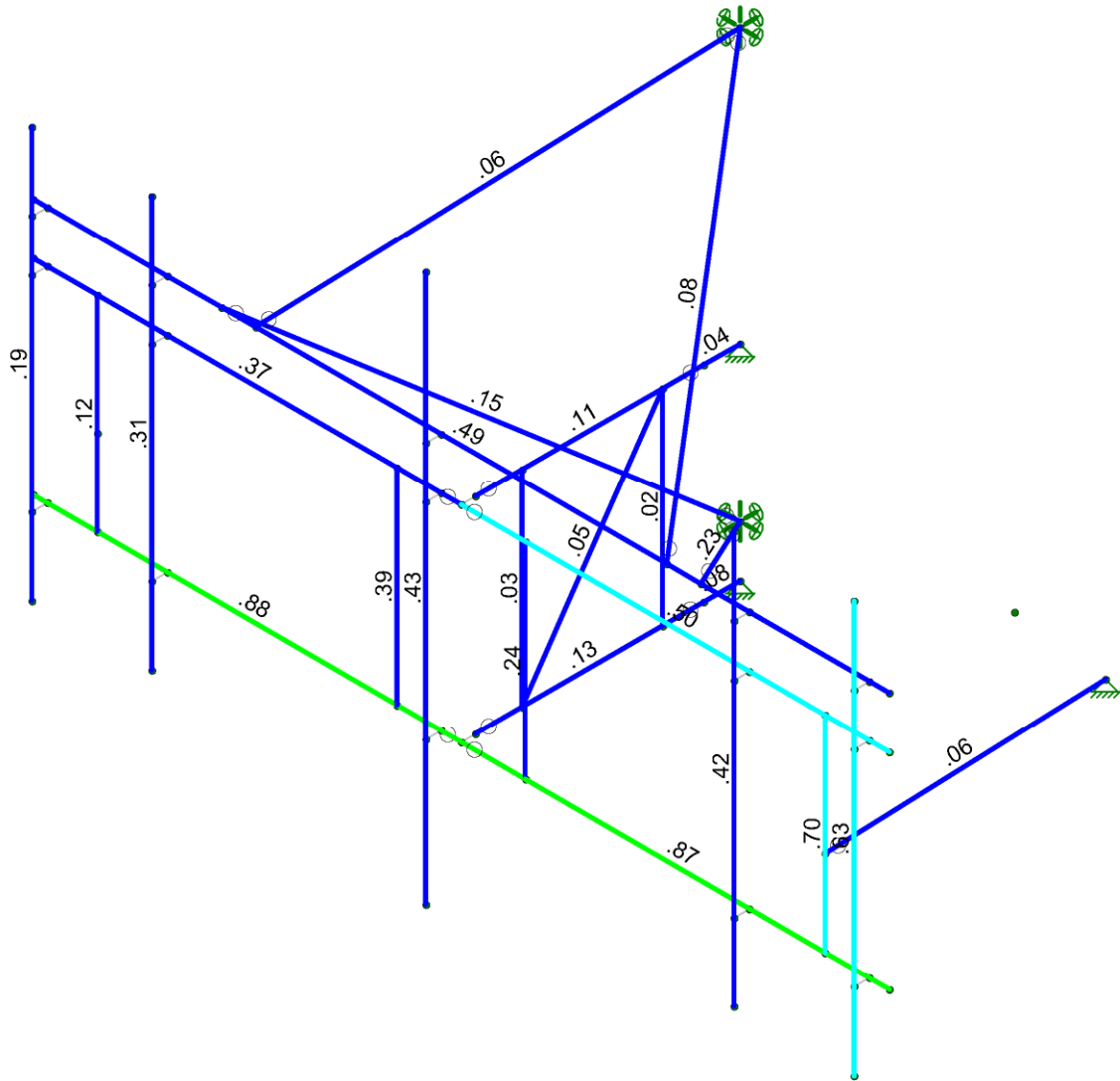
STABILIZER CONNECTION
ON TOWER LEG



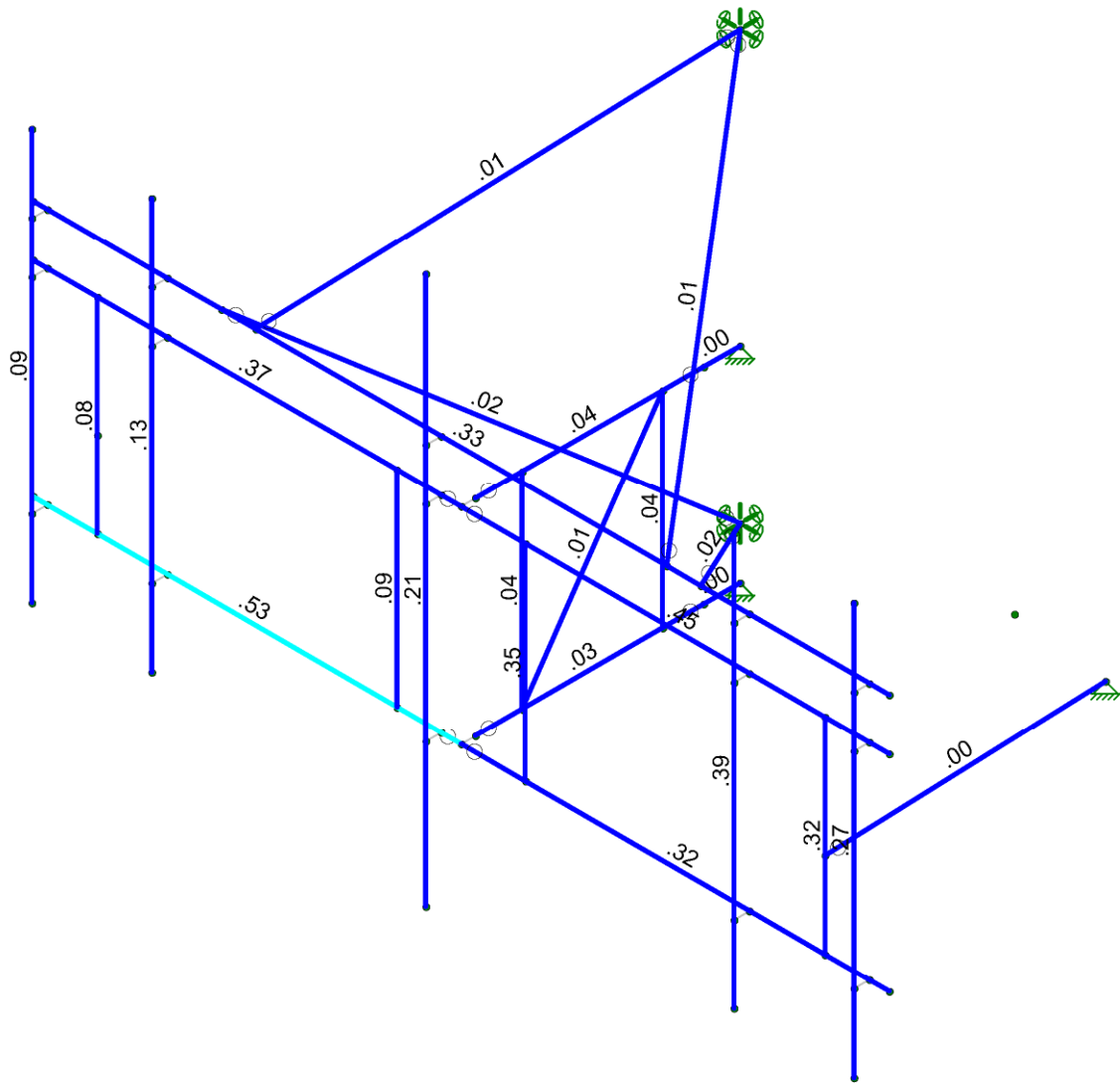
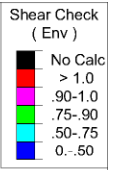
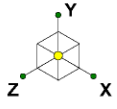




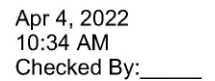
Code Check (Env)	
■	No Calc
■	> 1.0
■	.90-1.0
■	.75-.90
■	.50-.75
■	0-.50



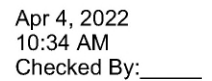
Member Code Checks Displayed (Enveloped)
Results for LC 11, 1.2D+1.0Wo (300 Deg)

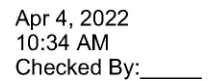


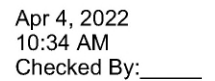
Member Shear Checks Displayed (Enveloped)
Results for LC 11, 1.2D+1.0Wo (300 Deg)

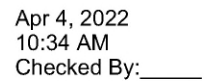


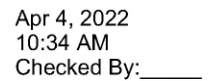
	BLC Description	Category	X Gra...	Y Gra...	Z Grav...	Joint	Point	Distrib...	Area(Member)	Surface(Plate/W...
1	Antenna D	None					48			
2	Antenna Di	None					48			
3	Antenna Wo (0 Deg)	None					48			
4	Antenna Wo (30 Deg)	None					48			
5	Antenna Wo (60 Deg)	None					48			
6	Antenna Wo (90 Deg)	None					48			
7	Antenna Wo (120 Deg)	None					48			
8	Antenna Wo (150 Deg)	None					48			
9	Antenna Wo (180 Deg)	None					48			
10	Antenna Wo (210 Deg)	None					48			
11	Antenna Wo (240 Deg)	None					48			
12	Antenna Wo (270 Deg)	None					48			
13	Antenna Wo (300 Deg)	None					48			
14	Antenna Wo (330 Deg)	None					48			
15	Antenna Wi (0 Deg)	None					48			
16	Antenna Wi (30 Deg)	None					48			
17	Antenna Wi (60 Deg)	None					48			
18	Antenna Wi (90 Deg)	None					48			
19	Antenna Wi (120 Deg)	None					48			
20	Antenna Wi (150 Deg)	None					48			
21	Antenna Wi (180 Deg)	None					48			
22	Antenna Wi (210 Deg)	None					48			
23	Antenna Wi (240 Deg)	None					48			
24	Antenna Wi (270 Deg)	None					48			
25	Antenna Wi (300 Deg)	None					48			
26	Antenna Wi (330 Deg)	None					48			
27	Antenna Wm (0 Deg)	None					48			
28	Antenna Wm (30 Deg)	None					48			
29	Antenna Wm (60 Deg)	None					48			
30	Antenna Wm (90 Deg)	None					48			
31	Antenna Wm (120 Deg)	None					48			
32	Antenna Wm (150 Deg)	None					48			
33	Antenna Wm (180 Deg)	None					48			
34	Antenna Wm (210 Deg)	None					48			
35	Antenna Wm (240 Deg)	None					48			
36	Antenna Wm (270 Deg)	None					48			
37	Antenna Wm (300 Deg)	None					48			
38	Antenna Wm (330 Deg)	None					48			
39	Structure D	None		-1						
40	Structure Di	None						22		
41	Structure Wo (0 Deg)	None						44		
42	Structure Wo (30 Deg)	None						44		
43	Structure Wo (60 Deg)	None						44		
44	Structure Wo (90 Deg)	None						44		
45	Structure Wo (120 Deg)	None						44		
46	Structure Wo (150 Deg)	None						44		
47	Structure Wo (180 Deg)	None						44		
48	Structure Wo (210 Deg)	None						44		
49	Structure Wo (240 Deg)	None						44		
50	Structure Wo (270 Deg)	None						44		
51	Structure Wo (300 Deg)	None						44		
52	Structure Wo (330 Deg)	None						44		
53	Structure Wi (0 Deg)	None						44		
54	Structure Wi (30 Deg)	None						44		
55	Structure Wi (60 Deg)	None						44		
56	Structure Wi (90 Deg)	None						44		







Page 5



	Label	I Joint	J Joint	K Joint	Rotate(d...)	Section/Shape	Type	Design List	Material	Design Rul...
23	M23	N34A	N36A			RIGID	None	None	RIGID	Typical
24	M24	N39A	N41			RIGID	None	None	RIGID	Typical
25	M25A	N38A	N40A			RIGID	None	None	RIGID	Typical
26	M26	N43	N45			RIGID	None	None	RIGID	Typical
27	M27	N42	N44			RIGID	None	None	RIGID	Typical
28	MP1A	N46	N50			Pipe Mount	None	None	A53 Gr.B	Typical
29	MP2A	N47	N51			Pipe Mount	None	None	A53 Gr.B	Typical
30	MP3A	N54	N55			Proposed Pipe Mount	None	None	A53 Gr.B	Typical
31	MP4A	N48	N52			Pipe Mount	None	None	A53 Gr.B	Typical
32	MP5A	N49	N53			Pipe Mount	None	None	A53 Gr.B	Typical
33	M33	N56	N57			Tie Back	None	None	A53 Gr.B	Typical
34	M42	N77	N78		90	Reinforcement Pipe	None	None	A53 Gr.B	Typical
35	M43	N75	N74		180	Reinforcement Angle	None	None	A36 Gr.36	Typical
36	M44	N74	N76		180	Reinforcement Angle	None	None	A36 Gr.36	Typical
37	M45	N79	N80			RIGID	None	None	RIGID	Typical
38	M46	N81	N82			RIGID	None	None	RIGID	Typical
39	M47	N83	N84			RIGID	None	None	RIGID	Typical
40	M48	N85	N86			RIGID	None	None	RIGID	Typical
41	M49	N87	N88			RIGID	None	None	RIGID	Typical
42	M50	N89	N91		180	Reinforcement Angle	None	None	A36 Gr.36	Typical
43	M51	N91	N90		180	Reinforcement Angle	None	None	A36 Gr.36	Typical

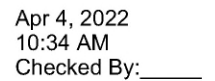
	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical Defl Ratio Opti...	Analysis Offs...	Inactive	Seismi...
1	AS1						Yes	** NA **		None
2	AS2						Yes	** NA **		None
3	M1		000000				Yes	** NA **		None
4	M2	0000X0					Yes	** NA **		None
5	M3	00000X	BenPIN				Yes	** NA **		None
6	M8						Yes	** NA **		None
7	M9						Yes	** NA **		None
8	M10		000000				Yes	** NA **		None
9	M11	0000X0					Yes	** NA **		None
10	M12	00000X	BenPIN				Yes	** NA **		None
11	M17						Yes	** NA **		None
12	M18						Yes	** NA **		None
13	M19						Yes	** NA **		None
14	M20						Yes	** NA **		None
15	M21						Yes	** NA **		None
16	M22						Yes	** NA **		None
17	M25						Yes	** NA **		None
18	M18A		000X00				Yes	** NA **		None
19	M19A		000X00				Yes	** NA **		None
20	M20A		000X00				Yes	** NA **		None
21	M21A		000X00				Yes	** NA **		None
22	M22A		000X00				Yes	** NA **		None
23	M23		000X00				Yes	** NA **		None
24	M24		000X00				Yes	** NA **		None
25	M25A		000X00				Yes	** NA **		None
26	M26		000X00				Yes	** NA **		None
27	M27		000X00				Yes	** NA **		None
28	MP1A						Yes	** NA **		None
29	MP2A						Yes	** NA **		None
30	MP3A						Yes	** NA **		None
31	MP4A						Yes	** NA **		None

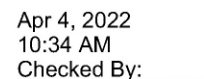
Member Advanced Data (Continued)

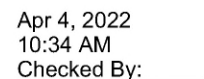
	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical Defl	Ratio Opti...	Analysis Offs...	Inactive	Seismi...
32	MP5A						Yes	** NA **			None
33	M33	BenPIN					Yes	** NA **			None
34	M42						Yes	** NA **			None
35	M43	BenPIN	BenPIN				Yes	** NA **			None
36	M44	BenPIN	BenPIN				Yes	** NA **			None
37	M45						Yes	** NA **			None
38	M46						Yes	** NA **			None
39	M47						Yes	** NA **			None
40	M48						Yes	** NA **			None
41	M49						Yes	** NA **			None
42	M50	BenPIN	BenPIN				Yes	** NA **			None
43	M51	BenPIN	BenPIN				Yes	** NA **			None

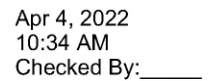
Member Point Loads (BLC 1 : Antenna D)

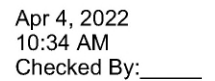
	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	Y	-43.55	1.75
2	MP4A	My	-.022	1.75
3	MP4A	Mz	.019	1.75
4	MP4A	Y	-43.55	4.45
5	MP4A	My	-.022	4.45
6	MP4A	Mz	.019	4.45
7	MP1A	Y	-10.5	1
8	MP1A	My	-.007	1
9	MP1A	Mz	.002	1
10	MP1A	Y	-10.5	5
11	MP1A	My	-.007	5
12	MP1A	Mz	.002	5
13	MP5A	Y	-10.5	1
14	MP5A	My	-.007	1
15	MP5A	Mz	.002	1
16	MP5A	Y	-10.5	5
17	MP5A	My	-.007	5
18	MP5A	Mz	.002	5
19	MP3A	Y	-34.5	1
20	MP3A	My	-.029	1
21	MP3A	Mz	-.014	1
22	MP3A	Y	-34.5	5
23	MP3A	My	-.029	5
24	MP3A	Mz	-.014	5
25	MP3A	Y	-34.5	1
26	MP3A	My	-.014	1
27	MP3A	Mz	.029	1
28	MP3A	Y	-34.5	5
29	MP3A	My	-.014	5
30	MP3A	Mz	.029	5
31	MP3A	Y	-42.2	2
32	MP3A	My	.03	2
33	MP3A	Mz	-.011	2
34	MP3A	Y	-42.2	2
35	MP3A	My	.03	2
36	MP3A	Mz	-.011	2
37	MP3A	Y	-35.15	5
38	MP3A	My	.033	5
39	MP3A	Mz	-.012	5
40	MP3A	Y	-35.15	5

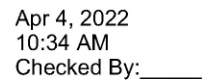
Page 8

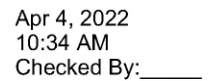
Page 9

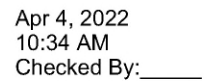


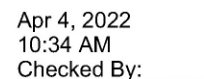
Page 11

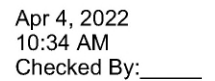
Page 12

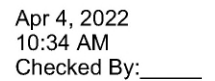
Page 13

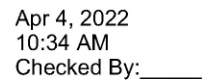
Page 14

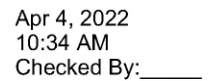
Page 15

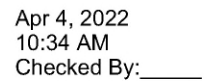


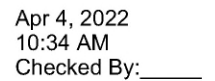
Page 19

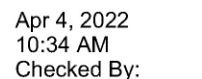


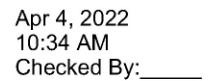
Page 21

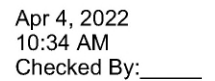
Page 22

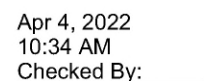


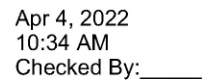
Page 24

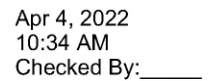
Page 25

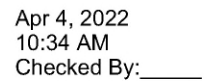


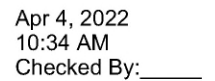


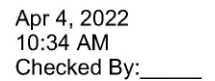


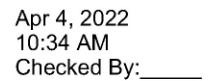
Page 29

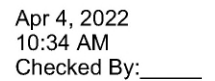


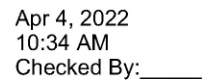
Page 31

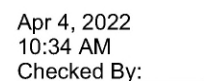


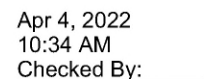


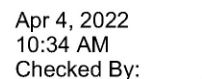


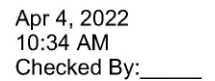


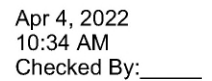
Page 37

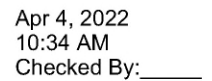
Page 38

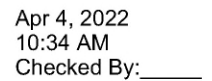
Page 39

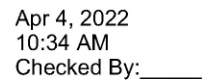


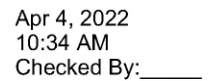


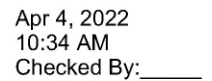


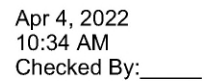


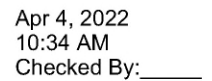


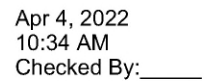


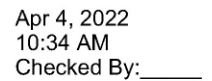
Page 46

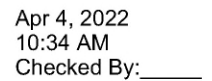


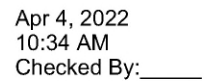
Page 48

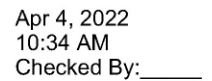


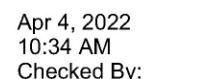


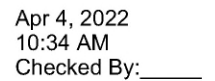




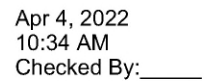
Page 53

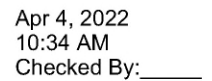


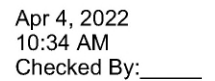


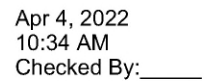


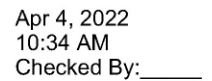
	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,F,ksf]	Start Location[ft,%]	End Location[ft,%]
1	AS1	X	1.181	1.181	0	%100
2	AS1	Z	2.045	2.045	0	%100
3	AS2	X	1.181	1.181	0	%100
4	AS2	Z	2.045	2.045	0	%100
5	M1	X	1.682	1.682	0	%100
6	M1	Z	2.913	2.913	0	%100
7	M2	X	1.682	1.682	0	%100
8	M2	Z	2.913	2.913	0	%100
9	M3	X	46	46	0	%100

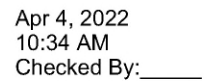


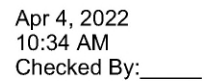


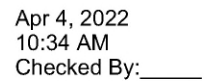


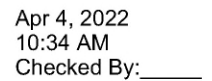


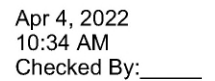
Page 61

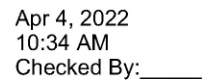
Page 62

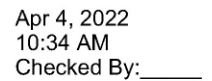
Page 63

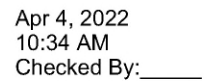


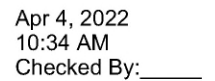


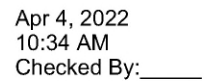
Page 66

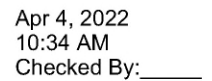
Page 67

Page 68





Page 71





TIA-222-H CONNECTION CHECK
Mount to Tower Connection - Typ. All Sectors
2022740.468022.03

Bolt Information		
Bolt Diameter (d)	0.75	in
Net Tensile Area (A _n)	0.334	in ²
# of Bolts Total (n)	2	
Bolt Distance Up-Down	6	in
Bolt Distance Left-Right	10	in
Bolt Grade	F1554-36	
Bolt Tensile Strength (F _{ub})	58	ksi

RISA 3D Reactions		
Moment (M)	0.00	k-ft
Axial (T)	1.59	kips
Shear (V)	0.11	kips

Bolt Capacity		
Nominal Tensile Strength (R _{nt})	19.399	kips
Nominal Shear Strength (R _{nv})	12.81	kips
Bolt Tensile Force (T _{ub})	0.80	kips
Bolt Shear Force (V _{ub})	0.056	kips
$T_{ub}/\phi R_{nt}$	0.05469	
$V_{ub}/\phi R_{nv}$	0.00588	
$(V_{ub}/\phi R_{nv})^2 + (T_{ub}/\phi R_{nt})^2$	0.00303	
Bolt Capacity =	5.5%	OK



TIA-222-H CONNECTION CHECK
Reinforcement to Tower Connection - Typ. All Sectors
2022740.468022.03

Bolt Information		
Bolt Diameter (d)	0.625	in
Net Tensile Area (A _n)	0.226	in ²
# of Bolts Total (n)	4	
Bolt Grade	F1554-36	
Bolt Tensile Strength (F _{ub})	58	ksi

RISA 3D Reactions		
Moment (M)	0.00	k-ft
Axial (T)	1.96	kips
Shear (V)	1.94	kips

Bolt Capacity		
Nominal Tensile Strength (R _{nt})	13.108	kips
Nominal Shear Strength (R _{nv})	8.90	kips
Bolt Tensile Force (T _{ub})	0.49	kips
Bolt Shear Force (V _{ub})	0.484	kips
T _{ub} /φR _{nt}	0.04981	
V _{ub} /φR _{nv}	0.07258	
(V _{ub} /φR _{nv}) ² + (T _{ub} /φR _{nt}) ²	0.00775	
Bolt Capacity =	7.3%	OK



TIA-222-H CONNECTION CHECK
Tieback to Tower Connection - Alpha Sector
2022740.468022.03

Bolt Information	
Bolt Diameter (d)	0.5 in
Net Tensile Area (A _n)	0.142 in ²
# of Bolts Total (n)	2
Bolt Grade	A307
Bolt Tensile Strength (F _{ub})	60 ksi

RISA 3D Reactions	
Moment (M)	0.00 k-ft
Axial (T)	0.01 kips
Shear (V)	1.51 kips

Bolt Capacity	
Nominal Tensile Strength (R _{nt})	8.514 kips
Nominal Shear Strength (R _{nv})	5.89 kips
Bolt Tensile Force (T _{ub})	0.00 kips
Bolt Shear Force (V _{ub})	0.757 kips
T _{ub} /φR _{nt}	0.00074
V _{ub} /φR _{nv}	0.17135
(V _{ub} /φR _{nv}) ² + (T _{ub} /φR _{nt}) ²	0.02936
Bolt Capacity =	17.1% OK

Subject TIA-222-H Usage

Site Information Site ID: 468022-VZW / WESTON NORTH CT
Site Name: WESTON NORTH CT
Carrier Name: Verizon Wireless
Address: 237 Godfrey Rd, Weston, Connecticut, 6883, Fairfield County
Latitude: 41.241997°
Longitude: -73.364311°

Structure Information Tower Type: Self Support
Mount Type: 12.50-Ft T-Frame

To Whom It May Concern,

We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

The 2015 International Building Code states that, in Section 3108, telecommunication towers shall be designed and constructed in accordance with the provisions of TIA-222. TIA-222-H is the latest revision of the TIA-222 Standard, effective as of January 01, 2018.

As with all ANSI standards and engineering best practice is to apply the most current revision of the standard. This ensures the engineer is applying all updates. As an example, the TIA-222-H Standard includes updates to bring it in line with the latest AISC and ACI standards and it also incorporates the latest wind speed maps by ASCE 7 based on updated studies of the wind data.

The TIA-222-H standard clarifies these specific requirements for the antenna mount analysis such as modeling methods, seismic analysis, 30-degree increment wind directions and maintenance loading. Therefore, it is our opinion that TIA-222-H is the most appropriate standard for antenna mount structural analysis and is acceptable for use at this site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,

GPD Group



Christopher J. Scheks, P.E.
Connecticut #: 30026

WESTON NORTH CT

SITE #: 468022

SMART TOOL PROJECT #: 10141945



PROJECT CONTACTS:

MASER CONSULTING CONTACT:

PETER ALBANO
PETER.ALBANO@COLLIERSENGINEERING.COM
(856) 371-9457
PROJECT #: 468022

ENGINEER CONTACT:

GPD ENGINEERING AND ARCHITECTURE
PROFESSIONAL CORPORATION
520 SOUTH MAIN STREET, SUITE 2531
AKRON, OH 44311
(330)572-2100
FOR QUESTIONS PLEASE EMAIL:
GPD@GPDGROUP.COM

SHEET INDEX:

T-01: TITLE SHEET
N-01: PROJECT NOTES & INSPECTION CHECKLIST
S-01: BILL OF MATERIALS
S-02: CLIMBING FACILITY DETAIL
S-03: MODIFICATION SCHEDULE & DETAILS
S-04 - S-05: DETAILS/PARTS
P-01: MOUNT PHOTOS

CONTRACTOR PMI REQUIREMENTS:

PMI LOCATION: [HTTPS://PMI.VZWSMART.COM](https://pmi.vzwsmart.com)
SMART TOOL PROJECT #: 10141945
VZW LOCATION CODE (PSLC): 468022
FUZE ID: 16272233

REFERENCED DOCUMENTS:

PASSING MOUNT ANALYSIS REPORT
SMART TOOL PROJECT #: 10141945
GPD PROJECT #: 2022740.468022.03
ANALYSIS DATE: 4/4/2022

MOUNT INFORMATION:

MOUNT TYPE: 12'-6" SECTOR MOUNT
SITE LOCATION:
LAT.: 41.241997°
LONG.: -73.364311°
STREET ADDRESS: 237 GODFREY RD
CITY, STATE ZIP: WESTON, CT 06883
COUNTY: FAIRFIELD
TOWER OWNER: UNKNOWN
TOWER SITE NUMBER: N/A

CODE COMPLIANCE:

GOVERNING CODES: TIA-222-H
WIND SPEEDS: 117 MPH 3-SECOND GUST
50 MPH 3-SECOND GUST (W/ ICE)
ICE THICKNESS: 1"
RISK CATEGORY: II
EXPOSURE CATEGORY: B
TOPO CATEGORY: 1
SEISMIC CRITERIA:
SITE CLASS: D
RESPONSE COEFFICIENT (R): 2
1-SECOND SPECTRAL RESPONSE ACCELERATION (S₁): 0.056
SHORT PERIOD SPECTRAL RESPONSE ACCELERATION (S_s): 0.228

WESTON NORTH CT
237 GODFREY RD
WESTON, CT 06883

TITLE SHEET

DESIGNED FOR	4/6/22
PERMIT	22022
BID	
CONSTRUCTION	
RECORD	

NUMBER	DESIGNER
DATE	DATE
PROJECT MANAGER	APPROVED BY
DATE	C.S.

JOB NO.
2022740.468022.03

T-01



REV	DATE	DESCRIPTION
0	4/6/22	INITIAL RELEASE

REQUIRED	REPORT ITEM	PRE-CONSTRUCTION	BRIEF DESCRIPTION
X	PACKING SUPS	ACCEPTABLE	ANY RECEIPT OF PURCHASE FOR THE MODIFICATION MATERIAL IS ACCEPTABLE
X	CERTIFICATE OF CONFORMANCE	ACCEPTABLE	ANY RECEIPTED NITS, PARTS, OR ANSULS ARE PACKAGED FROM REPUTABLE SUPPLIERS SHALL HAVE A SITE SPECIFIC CERTIFICATE OF CONFORMANCE PROVIDED TO COME FROM ACCEPTABILITY
X	WELDERS REPORT (CUSTOM WELDING) (AS REQUIRED) (HARDWARE) (N.Y.V)	ACCEPTABLE	ALL HARDWARE NOT SPECIFICALLY PROVIDED AS A FIELD ENGINEERED PART, AND/OR ASSEMBLY SHALL REQUIRE NITS TO VERIFY ACCEPTABILITY. PHOTOS OF ALL HARDWARE (BEFORE AND AFTER) PRIOR TO MODIFICATIONS
X	EXISTING MOUNTS	ACCEPTABLE	PHOTOS OF ALL SECTIONS (WHERE APPLICABLE) INSTALLED ON THE BOUNTIES
X	HARDWARE PRIOR TO INSTALLATION	ACCEPTABLE	ANS STAMPED REPORT REQUIRED. WELDING REQUIREMENTS NOT APPLICABLE TO FIELD ENGINEERED NITS. PARTS OR ASSEMBLIES FROM REPUTABLE SUPPLIERS.
X	NOT A FULL PENETRATION OR WELDS SHIP	ACCEPTABLE	
X	CERTIFIED WELD INSPECTION	ACCEPTABLE	
X	WELDERS CERTIFICATIONS	ACCEPTABLE	
X	(ON SITE) GOLD GALVANIZING	ACCEPTABLE	ANY DAMAGE TO THE TOWER SHALL BE REPAIRED IN ACCORDANCE WITH STRUCTURAL STEEL NOTE #2
X	GC AS-BUILT DRAWINGS	ACCEPTABLE	ALL DEVIATIONS TO THE DRAWINGS THAT WE'RE FOUND MUST BE CLEARLY MARKED AND APPROVED BY THE GC
X	MEMBER SIZES	ACCEPTABLE	NEW MEMBERS SHALL BE VERIFIED WITH A TACK WELD FOR ALL JOINTS. ALL JOINTS SHALL BE VERIFIED WITH A TACK WELD FOR ALL JOINTS. BOLT SIZE (OA CALIPERS), FIT-UP, LOCKING MECHANISM, AND TIGHTNESS SHALL BE VERIFIED AND DOCUMENTED.
X	CONNECTION HARDWARE	ACCEPTABLE	ALL DIMENSIONS SPECIFICALLY CALLED OUT IN THE DRAWING PACKAGE SHALL BE VERIFIED. ALL DIMENSIONS SHALL BE VERIFIED WITH MEMBER LENGTH, HORIZONTAL AND/OR VERTICAL, OFFSETS, SPACING REQUIREMENTS, ETC.
X	CRITICAL DIMENSIONS	ACCEPTABLE	
X	FINAL INSTALLED CONFIGURATION	ACCEPTABLE	THE COMPLETE MODIFIED CONFIGURATION SHALL BE INSURED TO ENSURE THE MODIFIED CONFIGURATION IS AS-BUILT (AS SHOWN IN DRAWING)

MECHANICAL JUNT

STRUCTURAL BOX

NONWEIGHTING MATERIALS

LOCK WHEEL

ANGLE

MATCH

ANGLE

HEIGHT

T.V.

TYPICAL BOX ASSEMBLY

TYPICAL SITCH ASSEMBLY

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN EDGE DISTANCE	SPACING	DIMENSIONS GIVEN IN NOTES MATCH EXISTING WHEN APPLICABLE					
					LEG	4	3	2	1	
1/8	5/16	1/8	1/8	1/8	0	1/8	1/8	1/8	1/8	1
3/16	1/2	3/16	3/16	3/16	0	3/16	3/16	3/16	3/16	1
1/2	5/8	1/2	1/2	1/2	0	1/2	1/2	1/2	1/2	1
5/8	3/4	5/8	5/8	5/8	0	5/8	5/8	5/8	5/8	1
3/4	1	3/4	3/4	3/4	0	3/4	3/4	3/4	3/4	1
7/8	1 1/8	7/8	7/8	7/8	0	7/8	7/8	7/8	7/8	1
1	1 1/4	1	1	1	0	1	1	1	1	1
1 1/8	1 3/4	1 1/8	1 1/8	1 1/8	0	1 1/8	1 1/8	1 1/8	1 1/8	1
1 1/2	2	1 1/2	1 1/2	1 1/2	0	1 1/2	1 1/2	1 1/2	1 1/2	1
1 3/4	2 1/4	1 3/4	1 3/4	1 3/4	0	1 3/4	1 3/4	1 3/4	1 3/4	1
2	2 1/2	2	2	2	0	2	2	2	2	1
2 1/4	3	2 1/4	2 1/4	2 1/4	0	2 1/4	2 1/4	2 1/4	2 1/4	1
2 1/2	3 1/4	2 1/2	2 1/2	2 1/2	0	2 1/2	2 1/2	2 1/2	2 1/2	1
2 3/4	3 1/2	2 3/4	2 3/4	2 3/4	0	2 3/4	2 3/4	2 3/4	2 3/4	1
3	3 3/4	3	3	3	0	3	3	3	3	1
3 1/4	4	3 1/4	3 1/4	3 1/4	0	3 1/4	3 1/4	3 1/4	3 1/4	1
3 1/2	4 1/4	3 1/2	3 1/2	3 1/2	0	3 1/2	3 1/2	3 1/2	3 1/2	1
3 3/4	4 1/2	3 3/4	3 3/4	3 3/4	0	3 3/4	3 3/4	3 3/4	3 3/4	1
4	4 1/4	4	4	4	0	4	4	4	4	1
4 1/4	4 3/4	4 1/4	4 1/4	4 1/4	0	4 1/4	4 1/4	4 1/4	4 1/4	1
4 1/2	5	4 1/2	4 1/2	4 1/2	0	4 1/2	4 1/2	4 1/2	4 1/2	1
4 3/4	5 1/4	4 3/4	4 3/4	4 3/4	0	4 3/4	4 3/4	4 3/4	4 3/4	1
5	5 1/4	5	5	5	0	5	5	5	5	1
5 1/4	5 3/4	5 1/4	5 1/4	5 1/4	0	5 1/4	5 1/4	5 1/4	5 1/4	1
5 1/2	6	5 1/2	5 1/2	5 1/2	0	5 1/2	5 1/2	5 1/2	5 1/2	1
5 3/4	6 1/4	5 3/4	5 3/4	5 3/4	0	5 3/4	5 3/4	5 3/4	5 3/4	1
6	6 1/4	6	6	6	0	6	6	6	6	1
6 1/4	6 3/4	6 1/4	6 1/4	6 1/4	0	6 1/4	6 1/4	6 1/4	6 1/4	1
6 1/2	7	6 1/2	6 1/2	6 1/2	0	6 1/2	6 1/2	6 1/2	6 1/2	1
6 3/4	7 1/4	6 3/4	6 3/4	6 3/4	0	6 3/4	6 3/4	6 3/4	6 3/4	1
7	7 1/4	7	7	7	0	7	7	7	7	1
7 1/4	7 3/4	7 1/4	7 1/4	7 1/4	0	7 1/4	7 1/4	7 1/4	7 1/4	1
7 1/2	8	7 1/2	7 1/2	7 1/2	0	7 1/2	7 1/2	7 1/2	7 1/2	1
7 3/4	8 1/4	7 3/4	7 3/4	7 3/4	0	7 3/4	7 3/4	7 3/4	7 3/4	1
8	8 1/4	8	8	8	0	8	8	8	8	1
8 1/4	8 3/4	8 1/4	8 1/4	8 1/4	0	8 1/4	8 1/4	8 1/4	8 1/4	1

[illegible]

4/3/22

1 THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING PROVISIONS OF MATERIALS AND METHODS, AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE AUTHORITY HAVING JURISDICTION THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE AUTHORITY HAVING JURISDICTION THEREOF.

2 THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE AUTHORITY HAVING JURISDICTION THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE AUTHORITY HAVING JURISDICTION THEREOF.

3 THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE AUTHORITY HAVING JURISDICTION THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE AUTHORITY HAVING JURISDICTION THEREOF.

4 THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE AUTHORITY HAVING JURISDICTION THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE AUTHORITY HAVING JURISDICTION THEREOF.

5 THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE AUTHORITY HAVING JURISDICTION THEREOF. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE AUTHORITY HAVING JURISDICTION THEREOF.

OWNER AND GPD, THAT THEY HAVE OBTAINED, UNDERSTAND, AND WILL FOLLOW TOWER OWNER STANDARDS OF PRACTICE, CONSTRUCTION GUIDELINES, ALL SITE AND TOWER SAFETY PROCEDURES, ALL PRODUCT LIMITATIONS, AND INSTALLATION PROCEDURES USED ON SITE, AND PROPOSED MODIFICATIONS DESCRIBED. RECEIPT OF ACKNOWLEDGMENT MUST OCCUR PRIOR TO BEGINNING CONSTRUCTION OF THE TOWER. THE SENDER AND GPD, ON BEHALF OF THE CONTRACTOR, HEREBY CERTIFY THAT THIS DOCUMENTATION FOR TOWER OWNER AND GPD, ON BEHALF OF THE CONTRACTOR, AND THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN THIS DOCUMENTATION FROM LOWER TIER SUBCONTRACTORS (ON SUBCONTRACTOR LETTERHEAD), AND DELIVER IT TO TOWER OWNER AND GPD.

9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
8

CONTRACTOR IS RESPONSIBLE FOR TEMPORARILY REMOVING ALL COAX T-BRACKETS, ANTENNA MOUNTS, AND ANY OTHER APPURTENANCE THAT MAY INTERFERE WITH THE TOWER MODIFICATIONS. ALL TOWER APPURTENANCES MUST BE REPLACED AND/OR RESTORED TO ITS ORIGINAL LOCATION. SOME ATTACHMENTS MAY REQUIRE CUSTOM MODIFICATIONS TO PROPERLY FIT THE MODIFIED REGION OF THE STRUCTURE. THESE CUSTOMIZATIONS ARE DESIGNED BY OTHERS AND MUST BE APPROVED BY THE STRUCTURE MANUFACTURER.

CONTRACTOR SHALL WORK WITHIN THE LIMITS OF THE TOWER OWNERS PROPERTY OR LEASED AREA AND ADJACENT EASEMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WORK IS WITHIN THESE BOUNDARIES. CONTRACTOR SHALL EMPLOY A SURVEYOR AS REQUIRED. ANY WORK OUTSIDE THESE BOUNDARIES SHALL BE APPROVED IN WRITING BY THE LAND OWNER PRIOR TO MOBILIZATION. CONSTRUCTION STAKING AND BOUNDARY MARKING IS THE RESPONSIBILITY OF THE CONTRACTOR.

[illegible]

16 ALL MANUFACTURERS HARDWARE AND ASSEMBLY INSTRUCTIONS SHALL BE FOLLOWED EXACTLY.
17 DEVIATION FROM THE INSTRUCTIONS IS UNACCEPTABLE AND REQUIRES WRITTEN APPROVAL FROM
18 THE ENGINEER.
19
20 DO NOT SCALE DRAWINGS.
21
22 THE CLIMBING FACILITIES, SAFETY CLIMB AND ALL ASSOCIATED HARDWARE SHALL NOT BE IMPEDED
23 OR MODIFIED WITHOUT THE WRITTEN CONSENT OF GFD.

[illegible]

UNLESS NOTED OTHERWISE, ALL NEW MEMBERS SHALL MAINTAIN THE EXISTING MEMBER WORK LINES AND NOT INTRODUCE ECCENTRICITIES INTO THE STRUCTURE.

WELDING OF ANY KIND IS NOT PERMITTED ON SITE UNLESS SPECIFIED WITHIN THESE DRAWINGS. OXY FUEL GAS WELDING OR BRAZING IS STRICTLY PROHIBITED. SPECIALLY NO TORSION CUTTING OR OPEN FLAME IS PERMITTED ON SITE. ALL HOLES SHALL BE CUT WITH A GRINDER.

MODIFICATION INSPECTION NOTES

GENERAL

1. THE MI IS AN ON-SITE AND HANDS-ON INSPECTION OF THE MODIFICATIONS INCLUDING A REVIEW OF CONSTRUCTION REPORTS AND ADDITIONAL PERTINENT DOCUMENTATION PROVIDED BY THE GENERAL CONTRACTOR (GC), AS WELL AS AND INSPECTION DOCUMENT IS PROVIDED BY 3RD PARTY INSPECTORS

DESIGNED BY THE ENGINEER OF RECORD (EOR).

2 NO DOCUMENT, CODE, OR POLICY CAN ANTICIPATE EVERY SITUATION THAT MAY ARISE. ACCORDINGLY, THE CHECKLIST IS INTENDED TO SERVE AS A SOURCE OF GUIDING PRINCIPLES IN ESTABLISHING GUIDELINES FOR THE MODIFICATION INSPECTION.

3 THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF. THE MI INSPECTOR DOES NOT TAKE OWNERSHIP AND PROVIDES THE COMMENTS TO THE OWNER AND THE EOR FOR THEIR OWN CONFORMANCE AND EVALUATION.

IF THE MODIFICATION INSTALLATION WOULD FAIL THE MODIFICATION INSPECTION, REPAIRED MODIFICATIONS WILL BE REINSPECTED WITHIN THE SAME INSPECTION CYCLE.

- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL MODIFICATION DRAWINGS AND COORDINATE A SUPPLEMENT MODIFICATION INSPECTION.
- OR, WITH TOWER OWNER APPROVAL, THE GC MAY WORK WITH THE ENGINEER OF RECORD TO RE-ANALYZE THE MODIFICATION/REINFORCEMENT USING THE AS BUILT CONDITION.

SERVICE LEVEL COMMITMENT

THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE

- THE GC SHALL PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY TO THE MI TO BE CONDUCTED.
- THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY MINOR DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT

1. BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:

- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
- RAW MATERIALS
- PHOTOS OF ALL CRITICAL DETAILS

- BOLT INSTALLATION
- FINAL INSTALLED CONDITION
- SURFACE COATING REPAIR
- ANY OTHER PHOTOS DEEMED RELEVANT TO SHOW COMPLETE DETAILS OF THE MODIFICATIONS

PHOTOS OF ELEVATED MODIFICATION TAKEN ONLY FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.

**SPD Engineering and Architecture
Professional Corporation**

8320 South Main Street
Akron, OH 44311
310.672.2100 Fax 310.672.2102

Ver

83

PROJECT NO.
SECTION CH.

F
& INS

INSTRUCTION	-
CODED	-

MAH	MAH
SUBJECT MANAGER	APPROVED BY
BAB	CJS

JOB NO.

N-01



REV	DATE	DESCRIPTION
0	4/22	INITIAL RELEASE

WESTON NORTH CT
237 GODFREY RD
WESTON, CT 06883

BILL OF MATERIALS

SUBJECT FOR	440222
PERMIT	440222
ISO	
CONSTRUCTION	
RECORD	

ENGINEER	DESIGNER
SAF	DATA
PROJECT MANAGER	APPROVED BY
SAB	CJB

JOB NO
2022740.468022.03

S-01

BILL OF MATERIALS

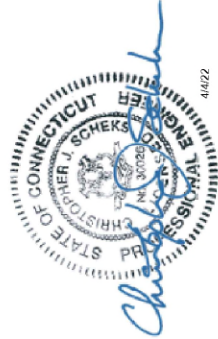
VZWSMART KITS

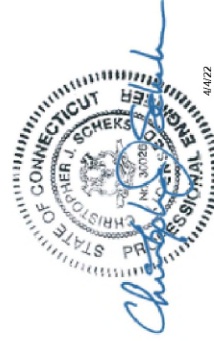
QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT	WEIGHT
15	VZWSMART	VZWSMART MASKS	CROSSOVER PLATE ASSEMBLES	FIELD TRIM REINFORCEMENT ANGLES TO REQUIRED LENGTH AND DRILL NEW STANDARD SIZE HOLES FOR CONNECTION BOLTS	16	240
6		VZWSMART SFK3	V-STYLE REINFORCEMENT KIT		122	732
3	-	13-074 P3.5 STD (4.0" OD x 0.28" THICK) PIPE	FACE HORIZONTAL	FIELD VERIFY REQUIRED LENGTH. SEE PAGE N-01 FOR STEEL GRADE REQUIREMENTS	119	357
TOTAL						1329

OTHER REQUIRED KITS

VZWSMART KITS - APPROVED VENDORS	
COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 364-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM
METROSITE FABRICATORS, LLC	
CONTACT	KENT FRANEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM
PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-8723
EMAIL	WIRELESS@PERFECTVISION.COM
WEBSITE	WWW.PERFECTVISION.COM
SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(860) 428-8837
EMAIL	AWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESOLUTIONS.COM
SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPROT.COM

NOTES:
1. THE MANUFACTURERS LISTED ARE THE APPROVED VENDORS FOR THE VZW MOUNT KITS. EACH MANUFACTURER WILL BE AWARE OF WHICH KITS HAVE BEEN THROUGH THE VZW APPROVAL PROCESS AND THEY ARE IN TURN APPROVED TO PLEASE NOTE THAT THE MATERIAL UTILIZED ON THE MOUNT MODIFICATIONS WILL BE REVIEWED AS A PART OF THE DESKTOP PMI COMPLETED BY THE SMART TOOL VENDOR. IT WILL BE REQUIRED THAT THE CONTRACTOR PROVIDE THE MANUFACTURER'S APPROVAL OF THE MODIFICATIONS. ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.







REV	DATE	DESCRIPTION
0	4/22	INITIAL RELEASE

WESTON NORTH CT
237 GODFREY RD
WESTON, CT 06883

MODIFICATION SCHEDULE
& DETAILS

ISSUED FOR	440222
PERMIT	
ISO	
CONSTRUCTION	
RECORD	

ENGINEER	DESIGNER
DATE	
PROJECT MANAGER	APPROVED BY
SAB	CJB

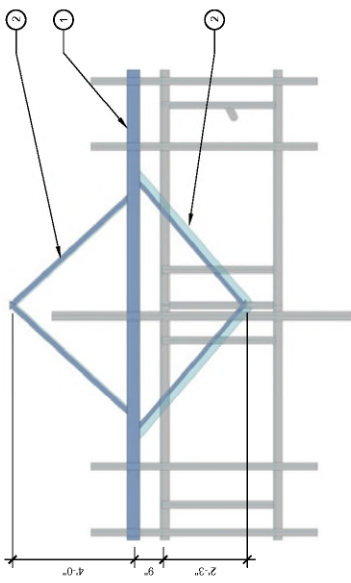
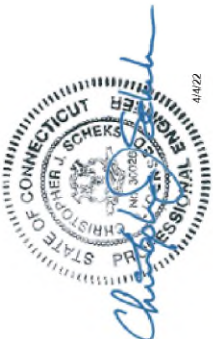
JOB NO
2022740.468022.03

S-03

MOUNT MODIFICATION SCHEDULE

NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	102'-0"	3	FACE HORIZONTAL (P1.5 STD, 4" OD x 0.226" THICK)	INSTALL A NEW FACE HORIZONTAL CONNECTED TO MOUNT PIPES (F V MOUNT PIPES USING NEW CROSSOVER PLATE ASSEMBLIES (VERIZON PIN VZWSMART-MS66)
2		6	V-STYLE REINFORCEMENT KIT (PART # VZWSMART-SFK3)	INSTALL NEW V-STYLE REINFORCEMENT KITS (VERIZON PIN VZWSMART-SFK3) CONNECTED TO TOWER LEG AND NEW FACE HORIZONTAL-FIELD TRIM REINFORCEMENT ANGLES TO REQUIRED LENGTH AND DRILL NEW STANDARD SIZE HOLES FOR CONNECTION BOLTS (TYP. OF 2 PER SECTOR)

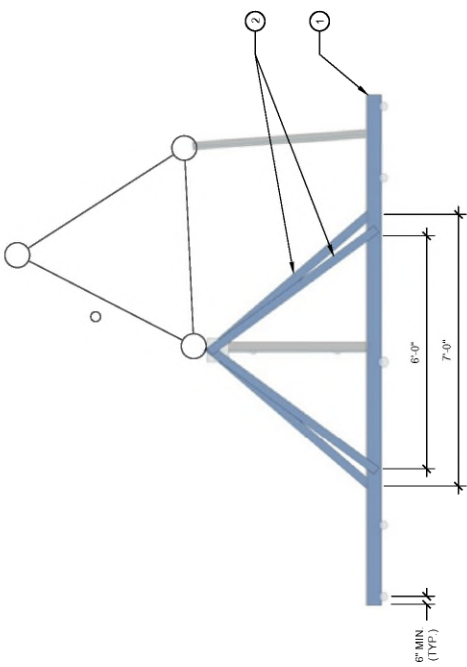
- NOTES:
- ANY SUBSTITUTION OF PARTS SPECIFIED IN THIS DESIGN PACKAGE SHALL REQUIRE ENGINEER APPROVAL PRIOR TO FABRICATION
 - ALL MATERIAL REMOVED FROM MOUNT SHALL BE DISPOSED OF BY CONTRACTOR OFF SITE.
 - INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB OR ANY SYSTEM INSTALLED ON THE STRUCTURE.



1 ELEVATION VIEW

S-03

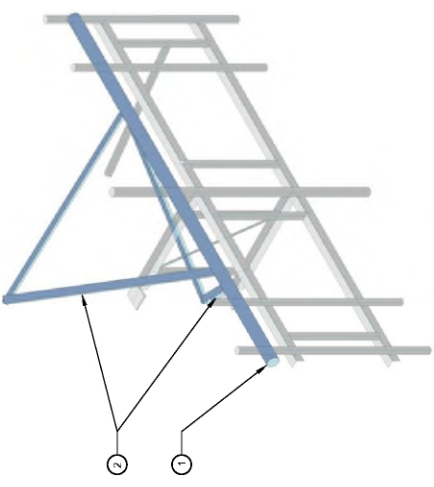
- NOTE:
- DETAIL IS TYPICAL FOR ALL THREE SECTORS. ONLY ONE SECTOR SHOWN FOR DETAIL CLARITY.
 - ALL FIELD CUT ANGLES AND DRILLED HOLES SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF BRUSH APPLIED ZINC RICH COLD GALVANIZING PAINT.



2 PLAN VIEW

S-03

- NOTE:
- DETAIL IS TYPICAL FOR ALL THREE SECTORS. ONLY ONE SECTOR SHOWN FOR DETAIL CLARITY.
 - ALL FIELD CUT ANGLES AND DRILLED HOLES SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF BRUSH APPLIED ZINC RICH COLD GALVANIZING PAINT.



3 ISOMETRIC VIEW

S-03

- NOTE:
- DETAIL IS TYPICAL FOR ALL THREE SECTORS. ONLY ONE SECTOR SHOWN FOR DETAIL CLARITY.
 - ALL FIELD CUT ANGLES AND DRILLED HOLES SHALL BE SOLVENT CLEANED AND TOUCHED UP WITH TWO COATS OF BRUSH APPLIED ZINC RICH COLD GALVANIZING PAINT.

REV	DATE	DESCRIPTION
0	4/22	INITIAL RELEASE

WESTON NORTH CT
 237 GODFREY RD
 WESTON, CT 06883
 DETAILS/PARTS

SUBJECT FOR	440222
PERMIT	
DESIGN	
CONSTRUCTION	
RECORD	

DESIGNER	DESIGN
DRAWN	DRAW
PROJECT MANAGER	APPROVED BY
SAB	CJB

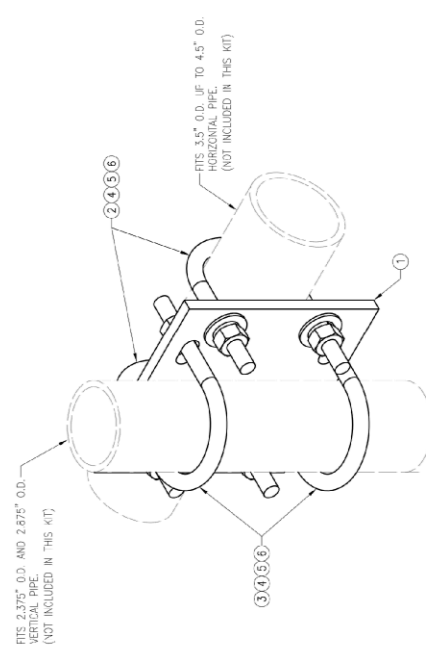
JOB NO
 2022740.468022.03

S-04

VzW
SMART Tool®
Vendor

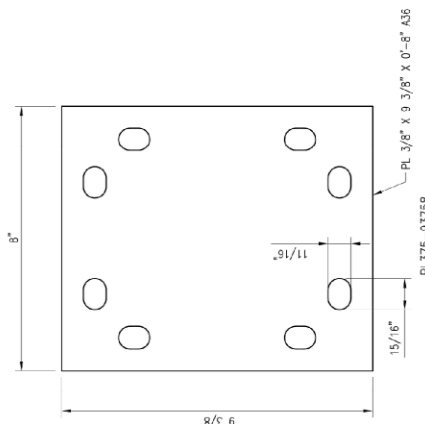
verizon

REFERENCE ONLY



FITS 2.375" O.D. AND 2.875" O.D.
 VERTICAL PIPE
 (NOT INCLUDED IN THIS KIT)

FITS 3.5" O.D. UP TO 4.5" O.D.
 HORIZONTAL PIPE
 (NOT INCLUDED IN THIS KIT)



9 3/8"
 8"
 15 1/16"
 11 1/16"
 PL 3/8" X 9 3/8" X 0'-8" A36
 PL 3/8"-93758

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL 3/8" 93758	PL 3/8" X 9 3/8" X 0'-8" A36	MSK5-F1	8
2	2	MS02-625-4625-700	RL-BOLT 5/8" X 4 5/8" TM X 7" LL A36 (OR EQUIV.)	RBC-1	3
3	2	MS02-625-300-500	RL-BOLT 5/8" X 3" LW X 5" LL A36 (OR EQUIV.)	RBC-1	3
4	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
5	8	LW-625	5/8" HDG LOCK WASHER	---	0
6	8	NUT-625	5/8" HDG HEX NUT	---	1
GALVANIZED WT					16

DESIGNED BY: HAE
 DATE: 04/20/22
 CHECKED BY: HAE
 DATE: 04/20/22

SHEET TITLE:
VZWSMART-MSK5
CROSSOVER PLATE

SCALE: N/A

REV #
VZWSMART-MSK5
0

NOTES:
 1. HOT-DIPPED GALVANIZED PER ASTM A123.

REV	DATE	DESCRIPTION
0	04/22	INITIAL RELEASE

WESTON NORTH CT
 237 GODFREY RD
 WESTON, CT 06883
 DETAILS/PARTS

SHEET FOR	440222
PERMIT	
DESIGN	
CONSTRUCTION	
RECORD	

DESIGNER	
DRAWN	
PROJECT MANAGER	
APPROVED BY	
SAB	CJB

JOB NO
 2022740.468022.03

S-05

VzW
 SMART Tool
 Vendor

verizon

V-BRACING KIT - HORIZONTAL (OPTION-1)
SIDE VIEW

EXISTING TOWER LEG
(FIT 1 1/2" TO 8 5/8" O.D. LEG)
(FIT 1 1/2" TO 8" 60° ANGLE LEG)
(FIT 1 1/2" TO 6" 90° ANGLE LEG)

EXISTING ANTENNA MOUNT PIPE

FIELD DRILL 11/16" DIA. HOLE

PLAN VIEW

FRONT VIEW
DETAIL "A"

COPE IF REQUIRED.

REFERENCE ONLY

V-BRACING KIT - VERTICAL (OPTION-2)
SIDE VIEW

EXISTING TOWER LEG
(FIT 1 1/2" TO 8 5/8" O.D. LEG)
(FIT 1 1/2" TO 8" 60° ANGLE LEG)
(FIT 1 1/2" TO 6" 90° ANGLE LEG)

EXISTING ANTENNA MOUNT PIPE

SUPPORT RAIL
(FIT 1.66" TO 4.5" O.D. PIPE)
(NOT INCLUDED IN THIS KIT)

SEE INSTALLATION DWG

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	BF9025-12	FL 3/8" X 9 5/8" X 1'-0" A36 BENT PLATE	VBSM-F1	12
2	1	BRM-VBSM	WELDMENT BRACKET	VBSM-F3	16
3	2	L2525D-B	L 2 1/2" X 2 1/2" X 1/4" X 8'-0" A36	VBSM-F5	67
4	4	BF6075-10	FL 3/8" X 6 7/8" X 10' A36 BENT PLATE	VBSM-F2	20
5	2	AL-233	L 3" X 3" X 1/4" X 3' A36	VBSM-F2	3
6	4	---	THREADED ROD 5/8" DIA. X 1'-6" F1554-26 HOG	---	---
7	4	---	THREADED ROD 5/8" DIA. X 10' F1554-36 HOG	---	---
8	1	---	ECLT 5/8" X 2 1/4" A325	---	---
9	2	---	ECLT 5/8" X 2" A325	---	---
10	2	---	ECLT 5/8" X 3/4" A325	---	---
11	21	FW-625	5/8" HOG USS F AT WASHER	---	2
12	21	LW-625	5/8" HOG LOCK WASHER	---	0
13	21	NLT-625	5/8" HOG HEX NUT	---	2
GALVANIZED WT					122

NOTES:
 1. HOT-DIPPED GALVANIZED PER ASTM A123.



DESIGN DRAWINGS
PREPARED FOR
WESTON NORTH CT
SITE # 468022
SMART TOOL PROJECT # 1041345

VERIZON

REV	DATE	DESCRIPTION
0	4/4/22	INITIAL RELEASE

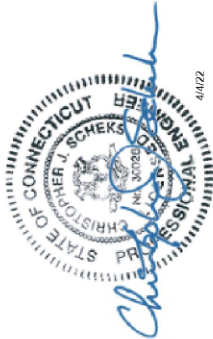
WESTON NORTH CT
237 GODFREY RD
WESTON, CT 06883
MOUNT PHOTOS

ISSUED FOR	440222
PERMIT	440222
ISO	
CONSTRUCTION	
RECORD	

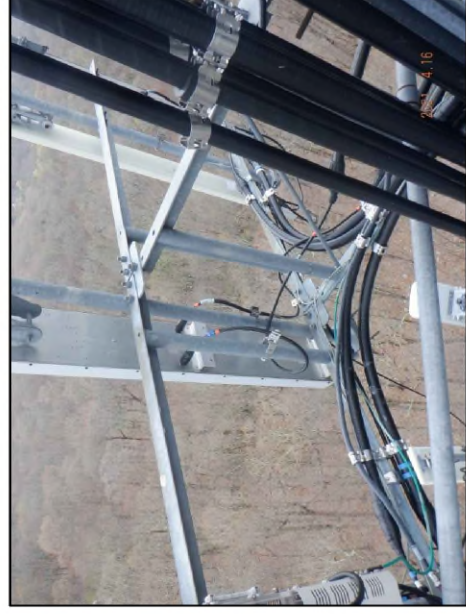
ENGINEER	DESIGNER
SAV	SAV
PROJECT MANAGER	APPROVED BY
SAB	CJB

JOB NO
2022740.468022.03

P-01



MOUNT PHOTO



MOUNT PHOTO



MOUNT PHOTO



MOUNT PHOTO

ATTACHMENT 5





Town of Weston, CT

Property Listing Report

Map Block Lot **16 1 35**

Developer Map **1957**

Unique Identifier **E00131**

Developer Lot

Building # **1**

Property Information

Property Location	237 GODFREY ROAD
Mailing Address	237 GODFREY RD WESTON CT 06883
Land Use	Governmental Building
Zoning Code	C
Neighborhood	C100

Owner	TOWN OF WESTON
Co-Owner	LANDFILL/TRANSFER STATION
Book / Page	0074/0498
Land Class	Commercial
Census Tract	83430
Acreage	57.35

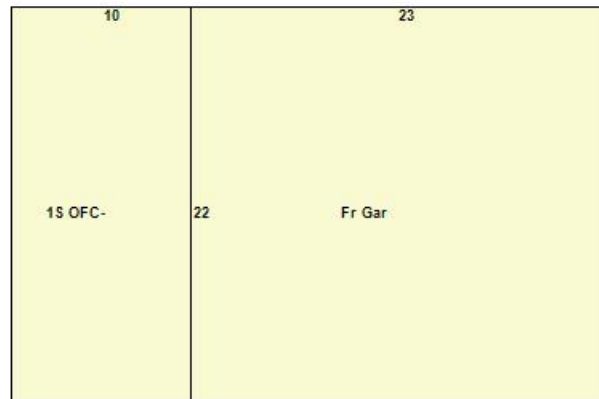
Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	37330	26130
Outbuildings	76175	53320
Land	2198320	1538830
Total	2311825	1618280

Building Area Info - sq/ft

Living	220
Basement	0
Finished Basement	0
Fin Bsmt Quality	



Primary Construction Details

Year Built	1980
Building Desc.	Commercial
Building Style	
Stories	1
Exterior Walls	Reinforced Concrete
Exterior Walls 2	Reinforced Concrete
Interior Walls	Other
Interior Walls 2	Other
Interior Floors 1	Concr Abv Grad
Interior Floors 2	Concr Abv Grad

Heating Fuel	Oil
Heating Type	Forced Hot Air
AC Type	None
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	
Occupancy	0

Building Use	Office Building
Building Condition	Average
Frame Type	C
Fireplaces	0
Bsmt Gar	0
Bsmt Access	
Building Grade	0
Roof Style	Gable
Roof Cover	Asphalt

Report Created On

4/20/2022



Town of Weston, CT

Property Listing Report

Map Block Lot 16 1 35

Developer Map 1957

Unique Identifier E00131

Developer Lot

Building # 1

Detached Outbuildings

Type	Description	Area (sq ft)	Condition	Year Built
Accessory Bldgs	Work Shop Avg	207	Average	1980
Shed	Frame	676	Average	1980
Paving	Paving	19000	Average	1980
Shed	Frame	460	Average	1980
Garage	Detached Garage	912	Good	1992
Other	Generator	0		2019
Shed	Frame	288	Average	1980

Attached Extra Features

Type	Description	Area (sq ft)	Condition	Year Built
Garage	Frame	506	Good	1980

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
TOWN OF WESTON	0074_0498	1/1/1900	0

ATTACHMENT 6



WESTON NORTH
Certificate of Mailing — Firm

Name and Address of Sender Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	TOTAL NO. of Pieces Listed by Sender 2	TOTAL NO. of Pieces Received at Post Office™ 2	Affix Stamp Here <i>Postmark with Date of Receipt.</i> neopost [®] 05/09/2022 US POSTAGE \$002.99 ⁰  ZIP 06103 041L12203937			
	Postmaster, per (name of receiving employee) 					
USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)		Postage	Fee	Special Handling	Parcel Airlift
1.	Samantha Nestor, First Selectman Town of Weston 56 Norfield Road Weston, CT 06883					
2.	Tracy Kulikowski, Land Use Director Town of Weston 56 Norfield Road Weston, CT 06883					
3.						
4.						
5.						
6.						

