March 14, 2023

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

Re: Notice of Exempt Modification – AT&T Mobility Site 114178890
AT&T Wireless Telecommunications Facility @ 1000 Trumbull Avenue, Bridgeport
AKA 1320 Chopsey Hill Road, AKA 1330 Chopsey Hill Road
EM-CING-015-22030

Dear Ms. Bachman,

Enclosed please find a check in the amount of Six Hundred and Twenty Five Dollars ($625.00); an original and two (2) copies of the following documents: the CSC Exempt Modification letter; a Letter of Authorization from the tower owner; GIS data of the property; a set of Construction Drawings; a Structural Analysis Report; an Antenna Mount Analysis Report; an EME Study Report; and four (4) Notice Confirmations.

I will email copies of these documents to the Council.

If you have any questions, please feel free to contact me; I can be reached at 443-677-0144 or via email at jmandrews@clinellc.com. Thank you for your kind cooperation in this matter.

Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046
443-677-0144

March 6, 2023

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

Re: Notice of Exempt Modification – AT&T Mobility Site 114178890
AT&T Wireless Telecommunications Facility @ 1000 Trumbull Avenue, Bridgeport
AKA 1320 Chopsey Hill Road, AKA 1330 Chopsey Hill Road
EM-CING-015-22030

Dear Ms. Bachman,

AT&T Mobility ("AT&T") is proposing to modify a wireless telecommunications facility on an existing two hundred forty (240) foot tall lattice tower at 1000 Trumbull Avenue Bridgeport, CT 06606 (also known as 1320 Chopsey Hill Road), (Latitude: 41.21958, Longitude: -73.20131). The tower is owned by American Tower Corporation. The subject property is owned by Global Tower Assets LLC.

AT&T proposes to remove one (1) existing antenna and two (2) RRUs and install one (1) new antenna and four (4) RRUs, one (1) DC6, six (6) diplexers, four (4) Y cables, three (3) DC trunks, and one (1) fiber trunk at a centerline elevation of one hundred sixty five (165) feet. Groundwork involves installing a 6675 unit in the existing shelter.

The tower is a non-conforming use that was approved by the Bridgeport Zoning Board of Appeals on November 24, 1989 (copy enclosed).

Please accept this application as notification in accordance with 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 the following individuals: American Tower Corporation as Tower Owner; Global Tower Assets as Property Owner; the Honorable Joseph P. Ganim, Mayor of Bridgeport, and Thomas F. Gill, Director of the Bridgeport Office of Planning and Economic Development.

The applicant's proposal falls squarely within those activities explicitly provided for in R.C.S.A. § § 16-50j-72(b)(2):

1. The proposed modifications will NOT result in an increase in the height of the existing structure. AT&T's antennas and associated lines will be installed at the existing mount height of on the tower. The new antennas will not exceed the height of the existing antennas.
2. The proposed modifications will NOT require an 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.

Jack Andrews. 10130 Donleigh Dr., Columbia, MD 21046 443-677-0144 jmandrews@clinellc.com
Centerline Communications • 750 W Center Street, Suite 301, W Bridgewater, MA 02379

4. The operation of the modified facility will NOT increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. Please see the RF emissions calculation for AT&T's modified facility enclosed herewith.

5. The proposed modifications will NOT cause an ineligible change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading. Please see the structural analysis dated January 27, 2023, prepared by American Tower Corporation, and enclosed herewith.

For the foregoing reasons, AT&T respectfully requests that the Council approve this request for the exempt modifications under R.C.S.A. § 16-50j-72(b)(2), for this tower located at 1000 Trumbull Avenue, Bridgeport, CT 06606 (also known as 1320 Chopsey Hill Road).

Please feel free to contact me with any questions or comments. Thank you for your attention to this matter.

Sincerely,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046
443-677-0144

Enclosures:
- Letter of Authorization
- Property Card and GIS
- Construction Drawings
- Structural Analysis Report
- Antenna Mount Analysis Report
- EME Study Report
- Prior CSC Approvals
- Four (4) Notice Confirmations

cc: American Tower Corporation - Tower Operator/Owner
Global Tower Assets LLC - Property Owner
The Honorable Joseph P. Ganim - Mayor of Bridgeport
Thomas F. Gill - Director of the Bridgeport Office of Planning and Economic Development.

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CORPORATION

LETTER OF AUTHORIZATION FOR PERMITTING

ATC SITE#/NAME/PROJECT: 383598 / TARTAGLIA / 14178890
SITE ADDRESS: 1000 TRUMBULL AVE, BRIDGEPORT, CT 06602
APN: BRID M:82 B:2778 L:61-B
LICENSEE: NEW CINGULAR WIRELESS PCS, LLC dba AT&T MOBILITY
SITE ACQUISITION VENDOR (APPLICANT REPRESENTATIVE): CENTERLINE COMMUNICATIONS LLC

I, Margaret Robinson, Vice President, UST Legal for American Tower*, owner/operator of the tower facility located at the address identified above (the "Tower Facility"), do hereby authorize **NEW CINGULAR WIRELESS PCS, LLC dba AT&T MOBILITY, CENTERLINE COMMUNICATIONS LLC** their successors and assigns, and/or their agent, (collectively, the "Licensee") to act as American Tower's non-exclusive agent for the sole purpose of filing and consummating any land-use, building, or electrical permit application(s) as may be required by the applicable permitting authorities for **NEW CINGULAR WIRELESS PCS, LLC** telecommunications' installation on the Tower Facility.

I understand that these applications may approved with conditions. The above authorization is limited to the acceptance by Licensee only of conditions related to Licensee's installation and any such conditions of approval or modifications will be Licensee's sole responsibility.

Signature:

Print Name: Margaret Robinson
Vice President, UST Legal
American Tower*

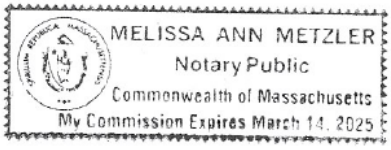
NOTARY BLOCK

Commonwealth of MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Vice President, UST Legal for American Tower*, personally known to me (or proved to me based on satisfactory evidence of identification) to be the person whose name is signed on the preceding or attached document and acknowledged to me that they signed it voluntarily for its stated purpose.

WITNESS my hand and official seal, this 21st day of February, 2023

NOTARY SEAL



Notary Public
My Commission Expires: March 14, 2025

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CORPORATION

* American Tower is defined as American Tower Corporation and any of its affiliates or subsidiaries.

City of Bridgeport GIS

Search...

Parcels (1)

I want to...

Tools

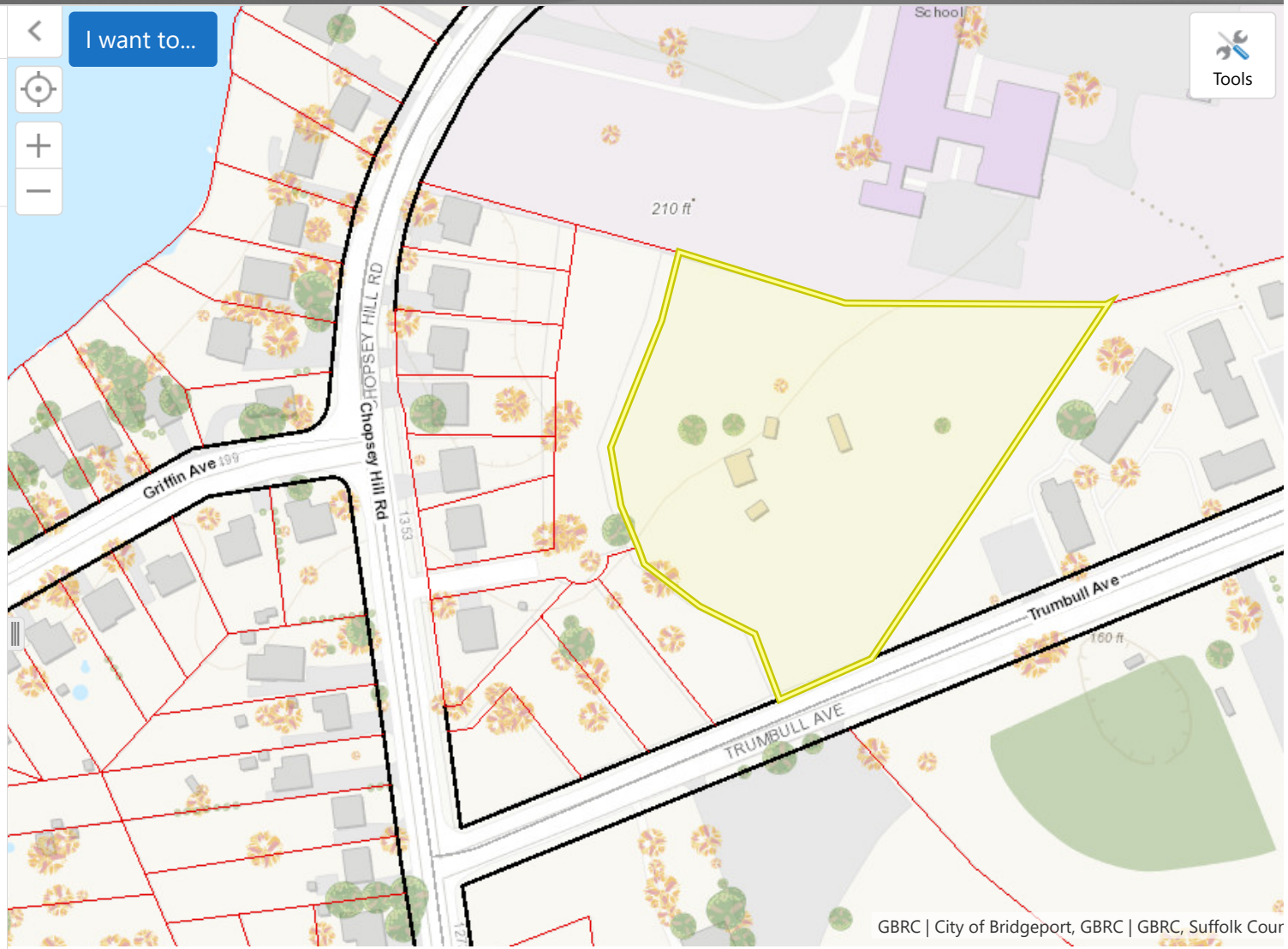
Site Address: 1000 TRUMBULL AV

GLOBAL TOWER ASSETS LLC

Field Card

Zoom to Feature

Buffer Feature



Displaying 1 - 1 (Total: 1)

Page 1 of 1

Basemaps

0 100 200ft

1:500

Home Layers Parcels (1)

1000 TRUMBULL AV

Location	1000 TRUMBULL AV	**Mblu**	82/ 2778/ 61/B /
Acct#	RT-0049550	**Owner**	GLOBAL TOWER ASSETS LLC
Assessment	$393,250	**Appraisal**	$561,770
PID	32253	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2022	$78,060	$483,710	$561,770
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2022	$54,650	$338,600	$393,250

Owner of Record

Owner	GLOBAL TOWER ASSETS LLC	**Sale Price**	$0
Co-Owner		**Certificate**	
Address	10 PRESIDENTIAL WAY WOBURN, MA 01801	**Book & Page**	9695/0074
		Sale Date	09/13/2017
		Instrument	04

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
GLOBAL TOWER ASSETS LLC	$0		9695/0074	04	09/13/2017
GLOBAL TOWER ASSETS LLC	$0		9500/0294	03	09/14/2016
CELL TOWER LEASE ACQUISION LLC	$0		7342/0302	03	01/23/2007
UNISON SITE MANAGEMENT LLC	$1,925,000		7342/0299	03	01/23/2007
TARTAGLIA REMO	$700,000		3018/0317		07/06/1992

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0
Replacement Cost: $0
Building Percent Good:
Replacement Cost Less Depreciation: $0

Building Attributes	
Field	**Description**
Style:	Outbuildings
Model	
Grade:	
Stories:	
Occupancy:	
Exterior Wall 1:	
Exterior Wall 2:	
Roof Structure:	
Roof Cover:	
Interior Wall 1:	
Interior Wall 2:	
Interior Flr 1:	
Interior Flr 2	
Heat Fuel:	
Heat Type:	
AC Type:	
Total Bedrooms	
Total Full Baths	
Total Half Baths	
Total Xtra Fixtrs:	
Total Rooms	
Bath Style:	
Kitchen Style:	
Num Kitchens	
Fireplaces	
Fin Bsmt Area	
Fin Bsmt Quality	
Num Park	
Bsmt Garages	
.	

Building Photo

(https://images.vgsi.com/photos2/BridgeportCTPhotos//\0125\IMG_3283_1

Building Layout

Building Layout (ParcelSketch.ashx?pid=32253&bid=32253)

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Fndtn Cndtn	
Basement	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	200V
Description	Commercial Lnd
Zone	RA
Neighborhood	21
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	3.05
Frontage	0
Depth	0
Assessed Value	$338,600
Appraised Value	$483,710

Outbuildings

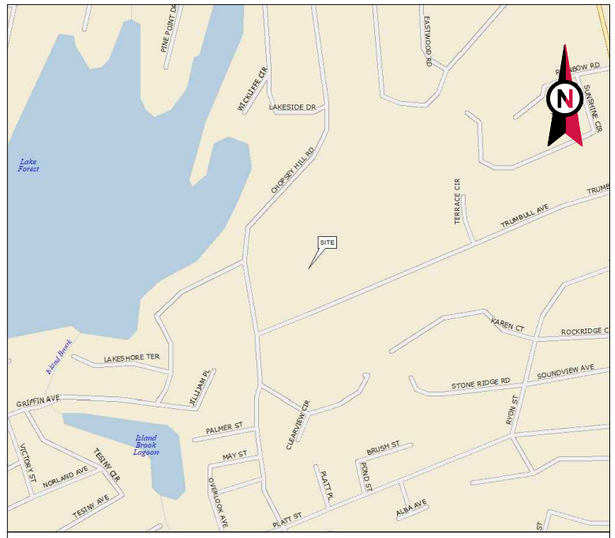
Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
FN5	Fence 10'			616.00 LF	$6,470	1
PAV2	Paving Conc			40.00 SF	$120	1
TWR	Tower			240.00 LF	$49,920	1
SHD1	Shed	MS	Masonry	1200.00 SF	$12,240	1
SHD1	Shed	MS	Masonry	432.00 SF	$4,410	1
SHD1	Shed	MS	Masonry	240.00 SF	$2,450	1
SHD1	Shed	MS	Masonry	240.00 SF	$2,450	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2022	$78,060	$483,710	$561,770
2021	$78,060	$483,710	$561,770
2020	$78,060	$483,710	$561,770

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2022	$54,650	$338,600	$393,250
2021	$54,650	$338,600	$393,250

2020	$54,650	$338,600	$393,250



VICINITY MAP

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ATC SITE NAME: TARTAGLIA
ATC SITE NUMBER: 383598
AT&T MOBILITY PACE NUMBERS: MRCTB057463
(SPLIT SECTOR - LTE)
AT&T MOBILITY SITE ID: CTL05093
AT&T MOBILITY FA CODE: 10070948
AT&T MOBILITY SITE NAME: BRIDGEPORT BEARDSLEY
SITE ADDRESS: 1000 TRUMBULL AVE
BRIDGEPORT, CT 06606

AT&T MOBILITY
ANTENNA AMENDMENT PLAN

LOCATION MAP

COMPLIANCE CODE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.

1. 2015 INTERNATIONAL BUILDING CODE (IBC 2015)
2. 2017 NATIONAL ELECTRIC CODE (NEC 2017)
3. LOCAL BUILDING CODE
4. CITY/COUNTY ORDINANCES

PROJECT TEAM

TOWER OWNER:
AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:
AT&T MOBILITY

ENGINEER:
TOWER ENGINEERING PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603

PROPERTY OWNER:
CELL TOWER LEASE ACQUISITION LLC
92 THOMAS JOHNSON DR
FREDERICK, MD 21702

UTILITY COMPANIES

POWER COMPANY: UNITED ILLUMINATING COMPANY
PHONE: (800) 722-5584

TELEPHONE COMPANY: AT&T
PHONE: (800) 331-0500

811
Know what's below.
Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:
1000 TRUMBULL AVE
BRIDGEPORT, CT 06606
COUNTY: FAIRFIELD

GEOGRAPHIC COORDINATES:
LATITUDE: 41.21958
LONGITUDE: -73.20131
GROUND ELEVATION: 212' AMSL

ZONING INFORMATION:
JURISDICTION: CITY OF BRIDGEPORT
PARCEL ID: 2778-61B

PROJECT LOCATION DIRECTIONS

FROM DOWNTOWN NEW HAVEN CT START OUT GOING NORTHEAST ON CHURCH ST TOWARD WALL ST. CHURCH ST BECOMES WHITNEY AVE. TURN RIGHT ONTO TRUMBULL ST. TURN SLIGHT LEFT TO TAKE THE I-91 S/I-91 N RAMP. MERGE ONTO I-91 S TOWARD I-95/N.Y.CITY/NEW LONDON. KEEP RIGHT TOWARD NY CITY. MERGE ONTO I-95 S VIA THE EXIT ON THE LEFT TOWARD N Y CITY. TAKE EXIT 38 TOWARD CT-15/MERRITT PKWY/W CROSS PKWY. MERGE ONTO MILFORD PKWY. MERGE ONTO MERRITT PARKWAY/CT-15 S VIA EXIT 3B ON THE LEFT TOWARD NY CITY. MERGE ONTO CT-8 S VIA EXIT 52 TOWARD BRIDGEPORT. TAKE THE CT-127/WHITE PLAINS ROAD EXIT, EXIT 7. TURN SLIGHT LEFT ONTO OLD TOWN RD. OLD TOWN RD BECOMES TRUMBULL AVE. TURN RIGHT ONTO CHOPSEY HILL RD. 1336 CHOPSEY HILL RD, BRIDGEPORT, CT 06606-2422, 1336 CHOPSEY HILL RD IS ON THE RIGHT. DRIVE BETWEEN HOUSES TO TOWER SITE

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:
TOWER WORK:
REMOVE (1) ANTENNA, AND (2) RRU(s).

INSTALL (1) ANTENNA, (4) RRU(s), (1) DC6, (6) DIPLEXER(s), (4) Y-CABLE(s), (3) 0.92" DC TRUNK(s), AND (1) 0.41" FIBER TRUNK.

EXISTING (11) ANTENNA(s), (13) RRU(s), (3) Y-CABLE(s), (1) DC9, (2) DC6(s), (6) 1-5/8" COAX CABLE(s), (4) 0.92" DC TRUNK(s), AND (2) 0.41" FIBER TRUNK(s) TO REMAIN.

GROUND WORK:
EXISTING (3) RRU(s) TO REMAIN IN EXISTING SHELTER.
INSTALL (1) 6675 IN EXISTING SHELTER.

NOTE: THIS CONSTRUCTION DRAWING SET IS NOT INTENDED TO REPRESENT ANY ELECTRICAL DESIGN OTHER THAN THE GROUNDING SHOWN, OR TO BE USED TO OBTAIN AN ELECTRICAL PERMIT. AN ELECTRICAL PERMIT IS REQUIRED TO WIRE UP THE PROPOSED EQUIPMENT. ANY ELECTRICAL UPGRADES WILL BE ENGINEERED AND PERMITTED IN A SEPARATE CONSTRUCTION DRAWING SET.

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.
6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	02/16/23	TR
G-002	GENERAL NOTES	0	02/16/23	TR
C-101	DETAILED SITE PLAN	0	02/16/23	TR
C-201	TOWER ELEVATION	0	02/16/23	TR
C-401	ANTENNA INSTALLATION	0	02/16/23	TR
C-402	ANTENNA SCHEDULE	0	02/16/23	TR
C-501	CONSTRUCTION DETAILS	0	02/16/23	TR
E-101	GROUNDING DETAILS	0	02/16/23	TR
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			
R-604	SUPPLEMENTAL			
R-605	SUPPLEMENTAL			
R-606	SUPPLEMENTAL			
R-607	SUPPLEMENTAL			

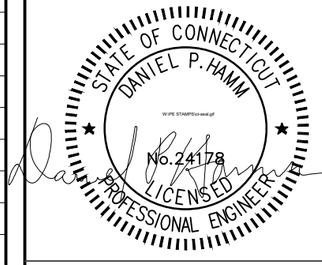
AMERICAN TOWER®

PLANS PREPARED BY:
TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	RRG	02/01/23
0	FINALS	TR	02/16/23

ATC SITE NUMBER: 383598
ATC SITE NAME: TARTAGLIA
AT&T MOBILITY SITE NUMBER:
CTL05093
AT&T MOBILITY SITE NAME:
BRIDGEPORT BEARDSLEY
SITE ADDRESS:
1000 TRUMBULL AVE
BRIDGEPORT, CT 06606

SEAL:



AT&T

DATE DRAWN:	02/01/23
ATC JOB NO:	14178890
CUSTOMER NAME:	BRIDGEPORT BEARDSLEY
CUSTOMER ID:	CTL05093

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, AT&T MOBILITY "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
   - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
   - B. AC/TELCO INTERFACE BOX (PPC)
   - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
   - D. TOWERS, MONOPOLES
   - E. TOWER LIGHTING
   - F. GENERATORS & LIQUID PROPANE TANK
   - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
   - H. ANTENNAS (INSTALLED BY OTHERS)
   - I. TRANSMISSION LINE
   - J. TRANSMISSION LINE JUMPERS
   - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   - L. TRANSMISSION LINE GROUND KITS
   - M. HANGERS
   - N. HOISTING GRIPS
   - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF AT&T MOBILITY TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE AT&T MOBILITY REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE AT&T MOBILITY REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE AT&T MOBILITY REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE AT&T MOBILITY CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE AT&T MOBILITY REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH AT&T MOBILITY AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MOBILITY MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T MOBILITY SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO AT&T MOBILITY FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T MOBILITY SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY AT&T MOBILITY REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE AT&T MOBILITY REP. ANY WORK FOUND BY THE AT&T MOBILITY REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. AT&T MOBILITY FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE AT&T MOBILITY WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. AT&T MOBILITY OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO AT&T MOBILITY OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

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

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

AMERICAN TOWER®

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	RRG	02/01/23
0	FINALS	TR	02/16/23

ATC SITE NUMBER: 383598

ATC SITE NAME: TARTAGLIA

AT&T MOBILITY SITE NUMBER:

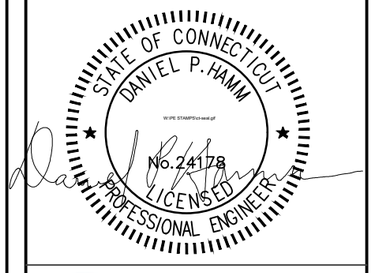
CTL05093

AT&T MOBILITY SITE NAME:

BRIDGEPORT BEARDSLEY

SITE ADDRESS:
1000 TRUMBULL AVE
BRIDGEPORT, CT 06606

SEAL:



AT&T

DATE DRAWN:	02/01/23
ATC JOB NO:	14178890
CUSTOMER NAME:	BRIDGEPORT BEARDSLEY
CUSTOMER ID:	CTL05093

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

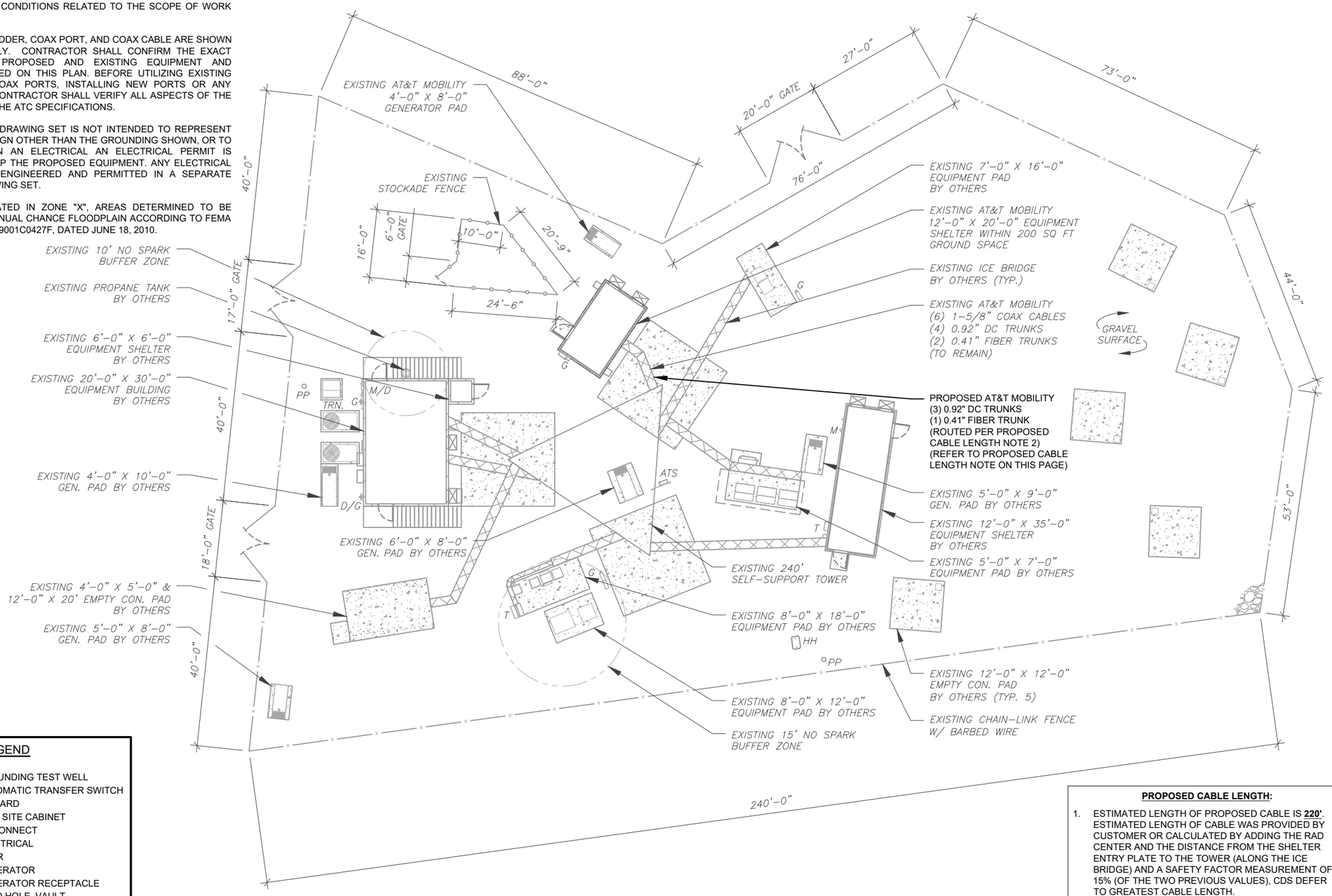
SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.

2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.

3. THIS CONSTRUCTION DRAWING SET IS NOT INTENDED TO REPRESENT ANY ELECTRICAL DESIGN OTHER THAN THE GROUNDING SHOWN, OR TO BE USED TO OBTAIN AN ELECTRICAL AN ELECTRICAL PERMIT IS REQUIRED TO WIRE UP THE PROPOSED EQUIPMENT. ANY ELECTRICAL UPGRADES WILL BE ENGINEERED AND PERMITTED IN A SEPARATE CONSTRUCTION DRAWING SET.

4. THE TOWER IS LOCATED IN ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA COMMUNITY PANEL #09001C0427F, DATED JUNE 18, 2010.



LEGEND

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

1 DETAILED SITE PLAN

SCALE: 1" = 20'

0 20' 40'

SCALE: 1"=20' (11X17)
1"=10' (22X34)

PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **220'**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).

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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	RRG	02/01/23
0	FINALS	TR	02/16/23

ATC SITE NUMBER: 383598

ATC SITE NAME: TARTAGLIA

AT&T MOBILITY SITE NUMBER:

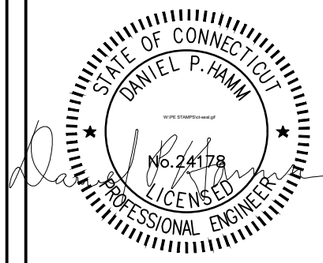
CTL05093

AT&T MOBILITY SITE NAME:

BRIDGEPORT BEARDSLEY

SITE ADDRESS:
1000 TRUMBULL AVE
BRIDGEPORT, CT 06606

SEAL:

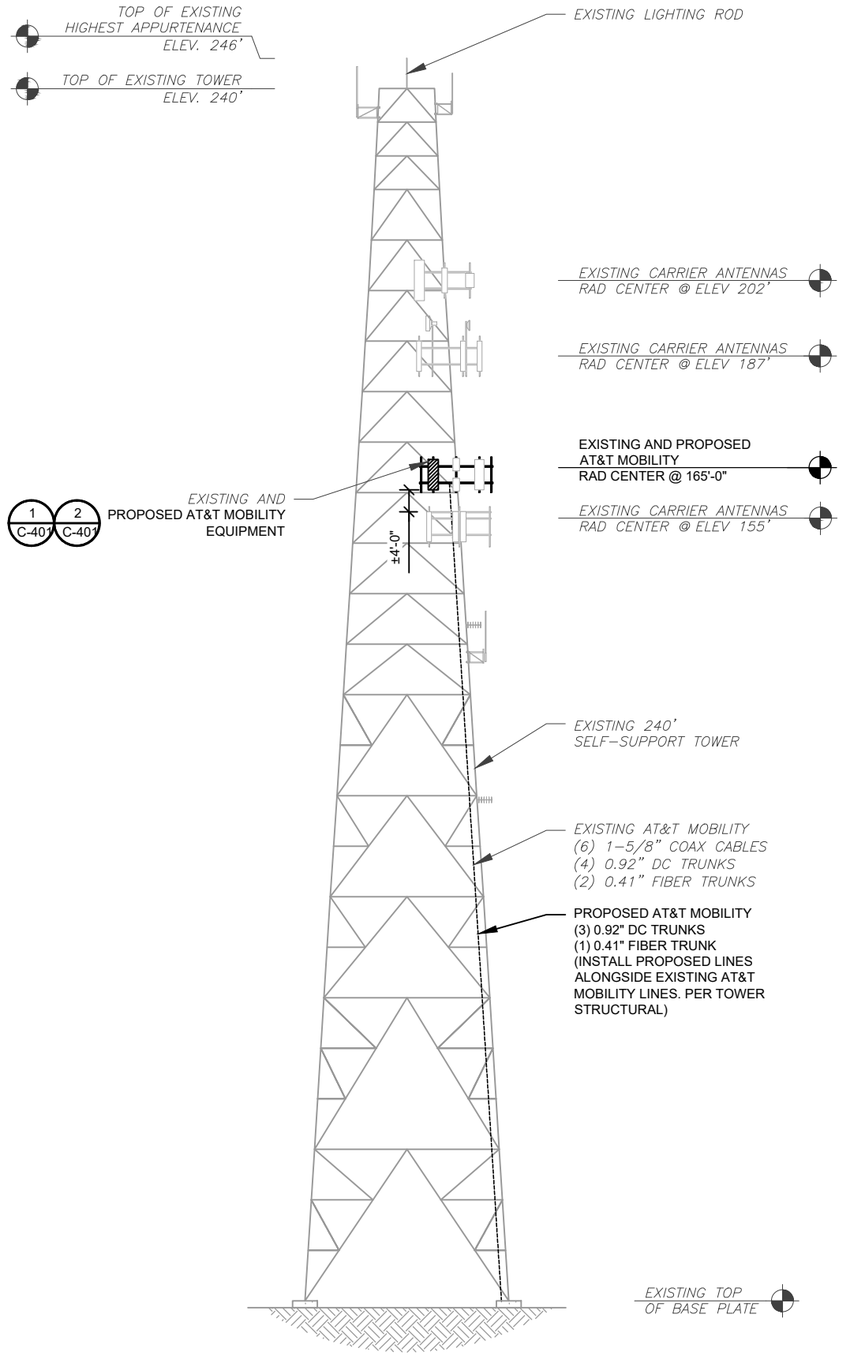


AT&T

DATE DRAWN:	02/01/23
ATC JOB NO:	14178890
CUSTOMER NAME:	BRIDGEPORT BEARDSLEY
CUSTOMER ID:	CTL05093

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0



1 TOWER ELEVATION

SCALE: 1" = 30'

0 30' 60'

SCALE: 1"=30' (11X17)
1"=15' (22X34)

PER MOUNT ANALYSIS COMPLETED BY ATC, DATED 01/25/2023, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. WHERE POSSIBLE UTILIZE EXISTING CABLE SUPPORT STRUCTURES AS PROVIDED FOR CARRIER TO ADEQUATELY SECURE CABLES, USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER. OTHERWISE, ATTACH CABLES TO HORIZONTAL OR DIAGONAL TOWER MEMBERS USING PROPOSED STAINLESS STEEL ADAPTERS (DO NOT ATTACH TO TOWER LEG).
4. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
5. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	RRG	02/01/23
0	FINALS	TR	02/16/23

ATC SITE NUMBER: 383598

ATC SITE NAME: TARTAGLIA

AT&T MOBILITY SITE NUMBER:

CTL05093

AT&T MOBILITY SITE NAME:

BRIDGEPORT BEARDSLEY

SITE ADDRESS:
1000 TRUMBULL AVE
BRIDGEPORT, CT 06606

SEAL:

STATE OF CONNECTICUT
DANIEL P. HAMM
No. 24178
LICENSED
PROFESSIONAL ENGINEER

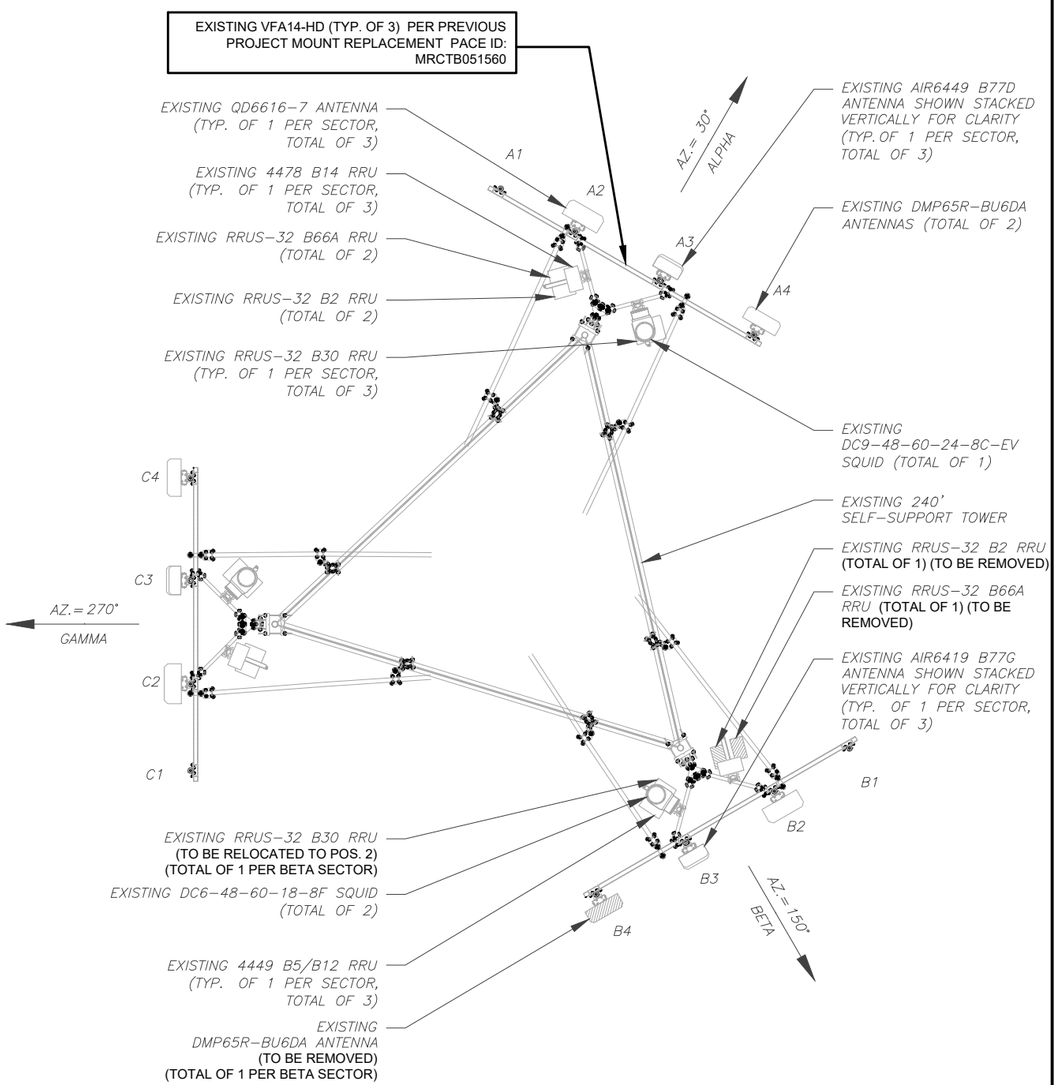
AT&T

DATE DRAWN:	02/01/23
ATC JOB NO:	14178890
CUSTOMER NAME:	BRIDGEPORT BEARDSLEY
CUSTOMER ID:	CTL05093

TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

EXISTING CONFIGURATIONS ARE BASED ON RFDS.
CONTRACTOR TO VERIFY EXISTING CONDITIONS.

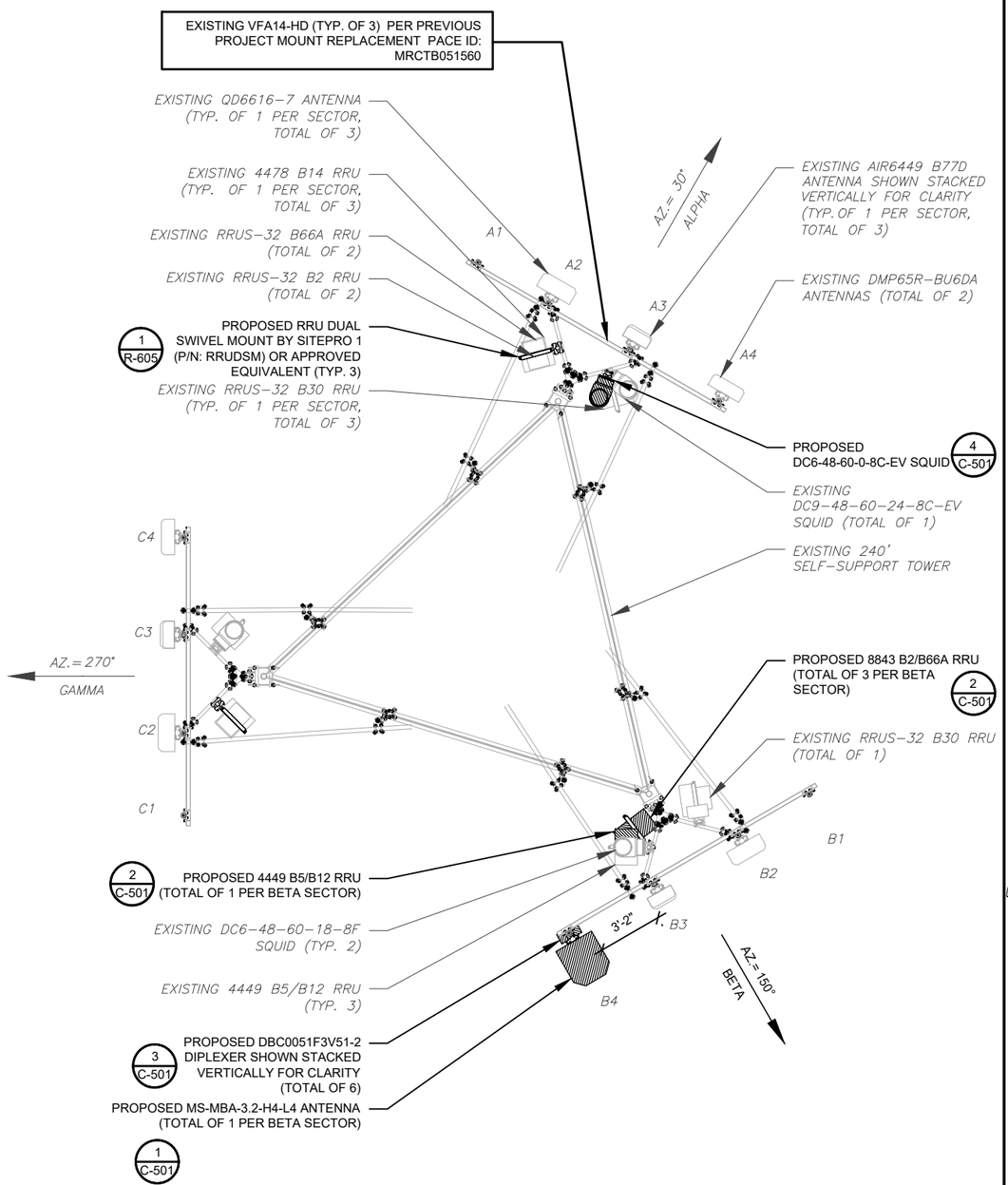


1 EXISTING ANTENNA PLAN
SCALE: 1" = 5'

0 5' 10'

SCALE: 1"=5' (11X17)
1"=2.5' (22X34)

PER MOUNT ANALYSIS COMPLETED BY ATC, DATED 01/25/2023, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



2 FINAL ANTENNA PLAN
SCALE: 1" = 5'

0 5' 10'

SCALE: 1"=5' (11X17)
1"=2.5' (22X34)

PROPOSED RRUs MUST BE INSTALLED A MINIMUM OF 12" AWAY FROM ALL ANTENNAS

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REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	RRG	02/01/23
0	FINALS	TR	02/16/23

ATC SITE NUMBER: 383598

ATC SITE NAME: TARTAGLIA

AT&T MOBILITY SITE NUMBER:

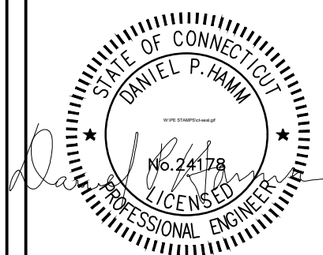
CTL05093

AT&T MOBILITY SITE NAME:

BRIDGEPORT BEARDSLEY

SITE ADDRESS:
1000 TRUMBULL AVE
BRIDGEPORT, CT 06606

SEAL:



AT&T

DATE DRAWN:	02/01/23
ATC JOB NO:	14178890
CUSTOMER NAME:	BRIDGEPORT BEARDSLEY
CUSTOMER ID:	CTL05093

ANTENNA INSTALLATION

SHEET NUMBER:	REVISION:
C-401	0

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	165'	30°	A1	–	–	–	–	–
			A2	QD6616-7	LTE 700/LTE 1900/ LTE AWS/5G 1900/ 5G AWS	RMN	(1) 4478 B14 (1) RRUS-32 B2 (1) RRUS-32 B66A (1) RRUS-E2 B29	RMN RMN RMN RMN
	167'		A3A	AIR6419 B77G	5G CBAND	RMN	–	–
	163'		A3B	AIR6449 B77D	5G CBAND	RMN		
	165'		A4	DMP65R-BU6DA	LTE 700/5G 850/ LTE WCS	RMN	(1) 4449 B5/B12 (1) RRUS-32 B30 (1) Y-CABLE	RMN RMN RMN
BETA	165'	150°	B1	–	–	–	–	–
			B2	QD6616-7	LTE 700/LTE 1900/ LTE AWS/5G 1900/ 5G AWS	RMN	(1) 4478 B14 (1) RRUS-32 B2 (1) RRUS-32 B66A (1) RRUS-E2 B29	RMN RMV RMV RMN
	167'		B3A	AIR6419 B77G	5G CBAND	RMN	–	–
	163'		B3B	AIR6449 B77D	5G CBAND	RMN		
	165'		B4	DMP65R-BU6DA	LTE 700/5G 850/ LTE WCS	RMV	(1) 4449 B5/B12 (1) RRUS-32 B30 (1) Y-CABLE	RMN REL RMN
GAMMA	165'	270°	C1	–	–	–	–	–
			C2	QD6616-7	LTE 700/LTE 1900/ LTE AWS/5G 1900/ 5G AWS	RMN	(1) 4478 B14 (1) RRUS-32 B2 (1) RRUS-32 B66A (1) RRUS-E2 B29	RMN RMN RMN RMN
	167'		C3A	AIR6419 B77G	5G CBAND	RMN	–	–
	163'		C3B	AIR6449 B77D	5G CBAND	RMN		
	165'		C4	DMP65R-BU6DA	LTE 700/5G 850/ LTE WCS	RMN	(1) 4449 B5/B12 (1) RRUS-32 B30 (1) Y-CABLE	RMN RMN RMN

NOTES

1. CONFIRM WITH AT&T MOBILITY REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.
3. THE ANTENNA ORIENTATION PLAN IS A SCHEMATIC. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA AZIMUTHS, MOUNT CONFIGURATIONS AND TOWER ORIENTATION. SCALES SHOWN ARE FOR REFERENCE ONLY AND EXISTING DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO INSTALLATION AND NOTIFY ATC OF ANY DISCREPANCIES.
4. CONTRACTOR TO ENSURE PROPER SEPARATION IN ACCORDANCE WITH AT&T'S FIRSTNET REQUIREMENTS (SEE SHEET R-607)

STATUS ABBREVIATIONS

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

CABLE LENGTHS FOR JUMPERS

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

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY				NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	165'	30°	A1	-	-	-	-	-
			A2	QD6616-7	LTE 700/LTE 1900/ LTE AWS/5G 1900/ 5G AWS	RMN	(1) 4478 B14 (1) RRUS-32 B2 (1) RRUS-32 B66A (1) RRUS-E2 B29	RMN RMN RMN RMN
	167'		A3	AIR6419 B77G	5G CBAND	RMN	-	-
	163'		A3	AIR6449 B77D	5G CBAND	RMN		
	165'		A4	DMP65R-BU6DA	LTE 700/5G 850/ LTE WCS	RMN	(1) 4449 B5/B12 (1) RRUS-32 B30 (1) Y-CABLE	RMN RMN RMN
BETA	165'	150°	B1	-	-	-	-	-
			B2	QD6616-7	LTE 700/LTE WCS	RMN	(1) 4478 B14 (1) RRUS-32 B30 (1) RRUS-E2 B29	RMN REL RMN
	167'		B3	AIR6419 B77G	5G CBAND	RMN	-	-
	163'		B3	AIR6449 B77D	5G CBAND	RMN		
	165'		B4	MS-MBA-3.2-H4-L4	LTE 700/LTE 1900/ 5G 850/LTE AWS/ 5G AWS/5G 1900	ADD	(1) 4449 B5/B12 (1) Y-CABLE (1) 4449 B5/B12 (3) 8843 B2/B66A (6) DBC0051F3V51-2 (4) Y-CABLES	RMN RMN ADD ADD ADD ADD
GAMMA	165'	270°	C1	-	-	-	-	-
			C2	QD6616-7	LTE 700/LTE 1900/ LTE AWS/5G 1900/ 5G AWS	RMN	(1) 4478 B14 (1) RRUS-32 B2 (1) RRUS-32 B66A (1) RRUS-E2 B29	RMN RMN RMN RMN
	167'		C3	AIR6419 B77G	5G CBAND	RMN	-	-
	163'		C3	AIR6449 B77D	5G CBAND	RMN		
	165'		C4	DMP65R-BU6DA	LTE 700/5G 850/ LTE WCS	RMN	(1) 4449 B5/B12 (1) RRUS-32 B30 (1) Y-CABLE	RMN RMN RMN

EXISTING FIBER DISTRIBUTION/SQUID		EXISTING CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS
(1) DC9-48-60-24-8C-EV (2) DC6-48-60-18-8F	RMN	(6) 1-5/8"	(4) 0.92"	(2) 0.41"	RMN

FINAL FIBER DISTRIBUTION/SQUID		FINAL CABLING SUMMARY			
MODEL NUMBER	STATUS	COAX	DC	FIBER	STATUS
(1) DC9-48-60-24-8C-EV (2) DC6-48-60-18-8F	RMN	(6) 1-5/8"	(4) 0.92"	(2) 0.41"	RMN
(1) DC6-48-60-0-8C-EV	ADD	-	(3) 0.92"	(1) 0.41"	ADD

1 EQUIPMENT SCHEDULES

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CTL05093

AT&T MOBILITY SITE NAME:

BRIDGEPORT BEARDSLEY

SITE ADDRESS:
1000 TRUMBULL AVE
BRIDGEPORT, CT 06606

SEAL:

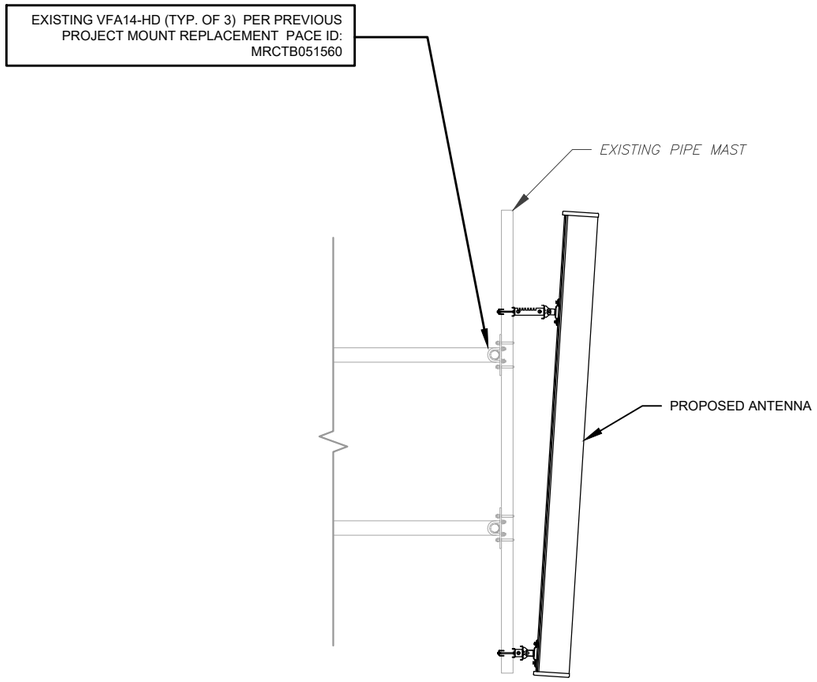
STATE OF CONNECTICUT
DANIEL P. HAMM
No. 24178
LICENSED PROFESSIONAL ENGINEER

AT&T

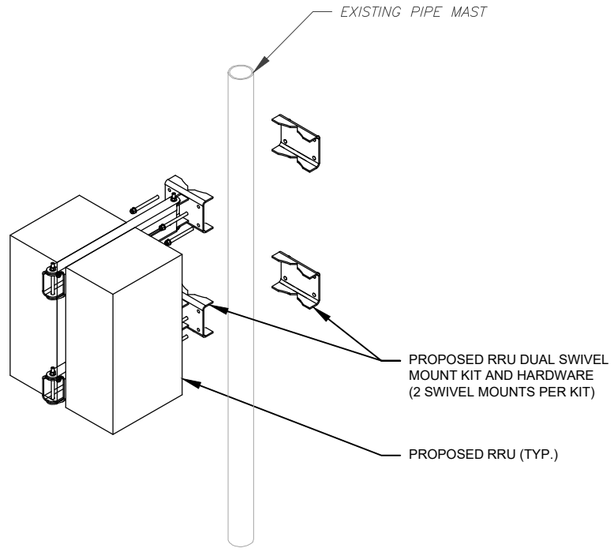
DATE DRAWN:	02/01/23
ATC JOB NO:	14178890
CUSTOMER NAME:	BRIDGEPORT BEARDSLEY
CUSTOMER ID:	CTL05093

ANTENNA SCHEDULE

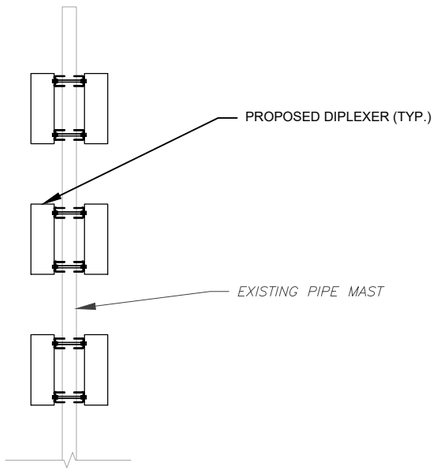
SHEET NUMBER:	REVISION:
C-402	0



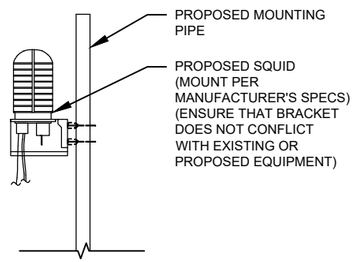
1 PROPOSED ANTENNA MOUNTING DETAIL
SCALE: N.T.S



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



3 PROPOSED DIPLEXER MOUNTING DETAIL
SCALE: N.T.S.



4 PROPOSED SQUID MOUNTING DETAIL
SCALE: N.T.S.

AMERICAN TOWER®

PLANS PREPARED BY:

TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	RRG	02/01/23
0	FINALS	TR	02/16/23

ATC SITE NUMBER: 383598

ATC SITE NAME: TARTAGLIA

AT&T MOBILITY SITE NUMBER:

CTL05093

AT&T MOBILITY SITE NAME:

BRIDGEPORT BEARDSLEY

SITE ADDRESS:
1000 TRUMBULL AVE
BRIDGEPORT, CT 06606

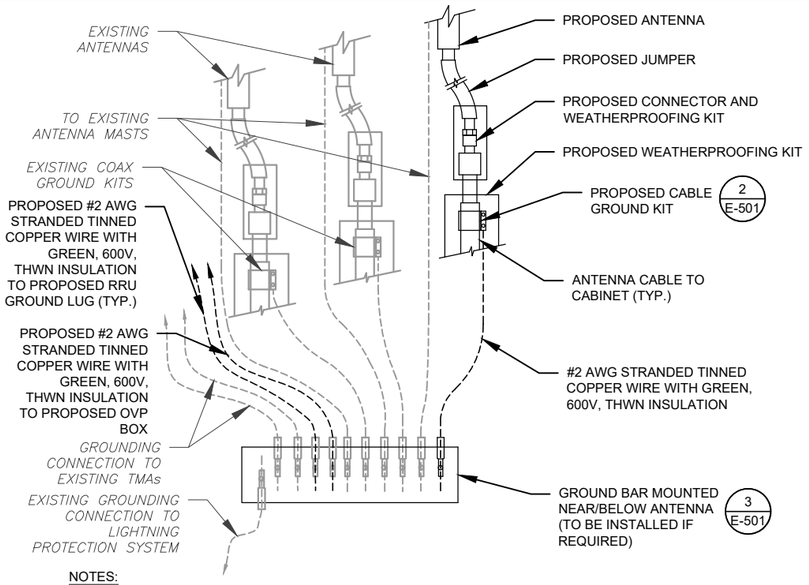
SEAL:

AT&T

DATE DRAWN:	02/01/23
ATC JOB NO:	14178890
CUSTOMER NAME:	BRIDGEPORT BEARDSLEY
CUSTOMER ID:	CTL05093

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

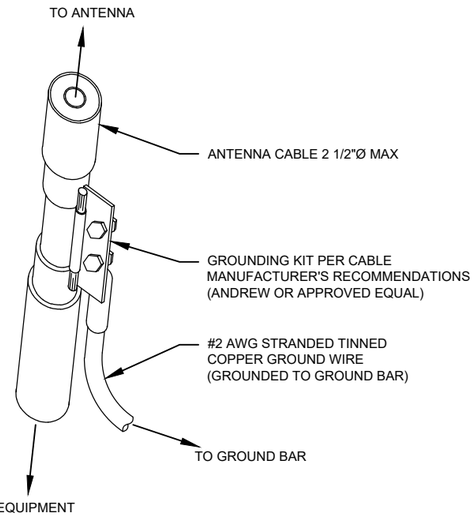


NOTES:

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

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

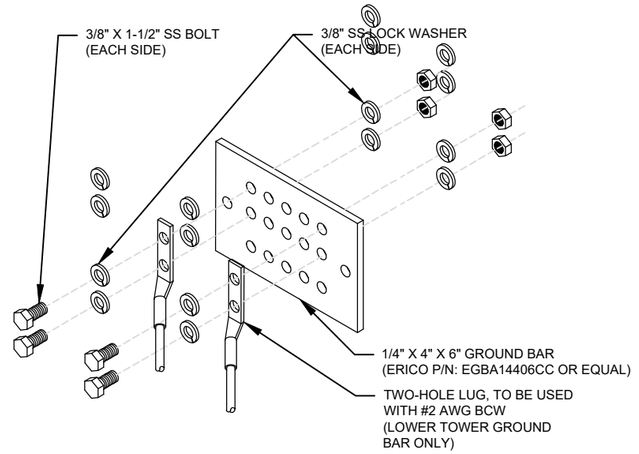


GROUND KIT NOTES:

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

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.

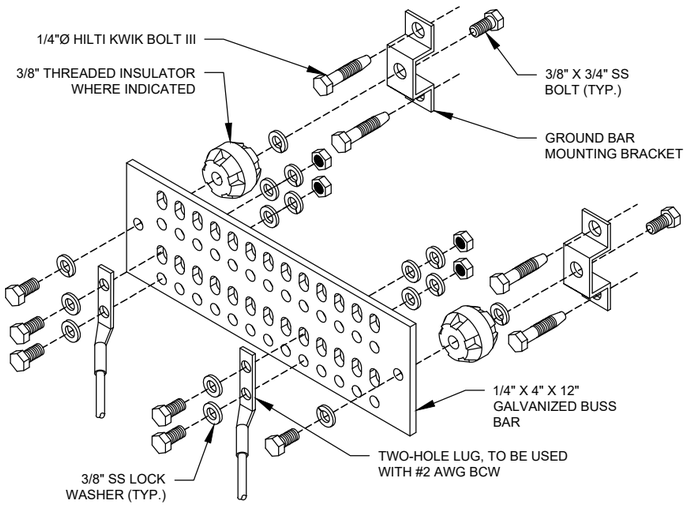


GROUND BAR NOTES:

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

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

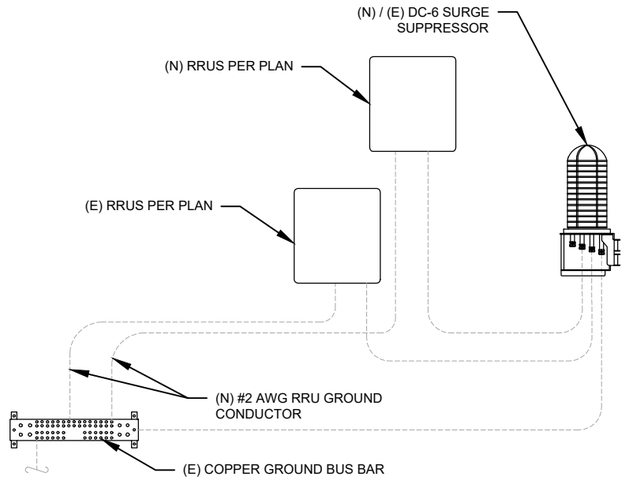


GROUND BAR NOTES

1. GROUND KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
2. GROUND BAR SHALL BE BOLTED TO STRUCTURAL MEMBER OR ANCHORED TO CONCRETE SLAB W/ HILTI KWIK BOLT III.

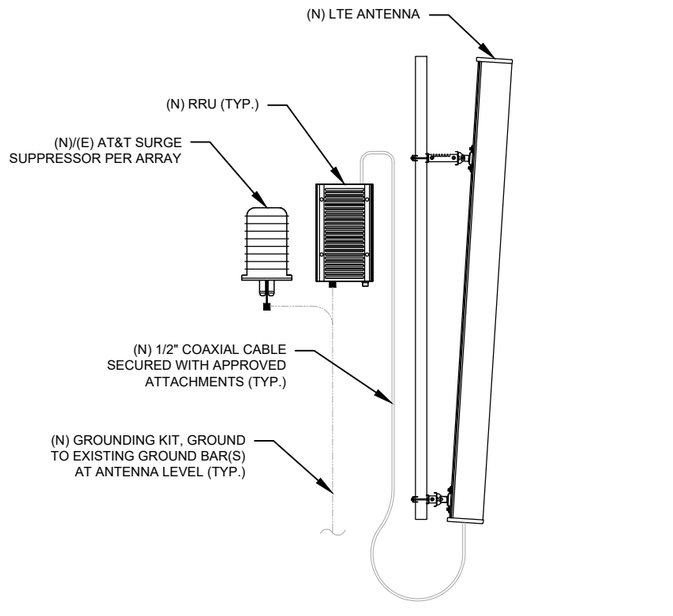
4 MAIN GROUND BAR DETAIL

SCALE: N.T.S.



5 RRU GROUNDING

SCALE: N.T.S.



6 ANTENNA/RRU GROUNDING

SCALE: N.T.S.

AMERICAN TOWER®

PLANS PREPARED BY:
TOWER ENGINEERING PROFESSIONALS
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net

REV.	DESCRIPTION	BY	DATE
A	PRELIMINARY	RRG	02/01/23
0	FINALS	TR	02/16/23

ATC SITE NUMBER: 383598

ATC SITE NAME: TARTAGLIA

AT&T MOBILITY SITE NUMBER:

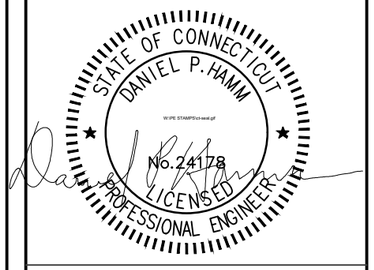
CTL05093

AT&T MOBILITY SITE NAME:

BRIDGEPORT BEARDSLEY

SITE ADDRESS:
1000 TRUMBULL AVE
BRIDGEPORT, CT 06606

SEAL:

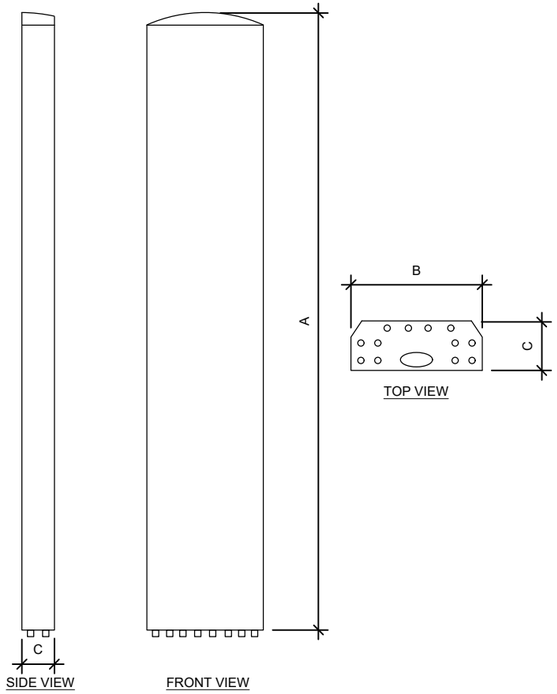


AT&T

DATE DRAWN:	02/01/23
ATC JOB NO:	14178890
CUSTOMER NAME:	BRIDGEPORT BEARDSLEY
CUSTOMER ID:	CTL05093

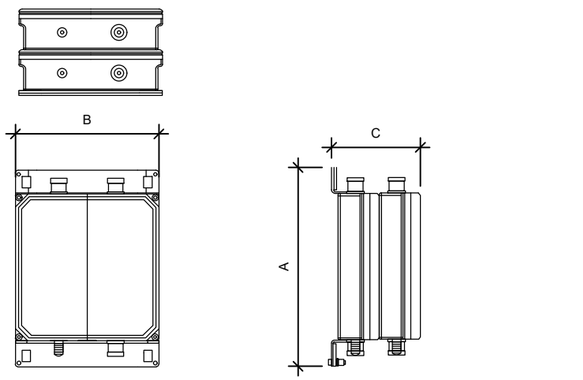
GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0



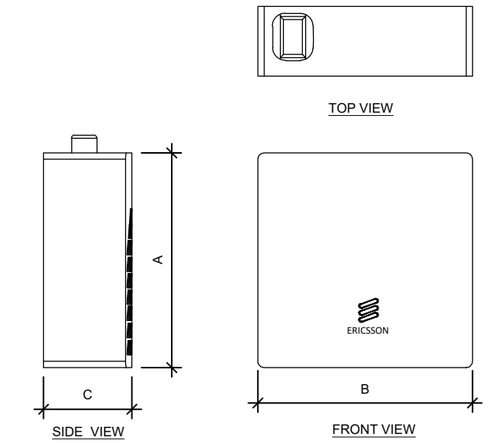
SIDE VIEW FRONT VIEW TOP VIEW

ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
MS-MBA-3.2-H4-L4	72.0"	24.0"	26.0"	130.0



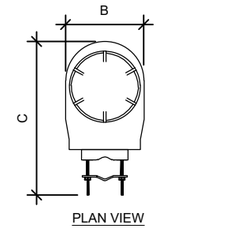
FRONT VIEW SIDE VIEW

DIPLEXER SPECIFICATIONS				
DIPLEXER MODEL	A	B	C	WEIGHT (LBS)
DBC0051F3V51-2	8.0"	6.2"	4.4"	12.4

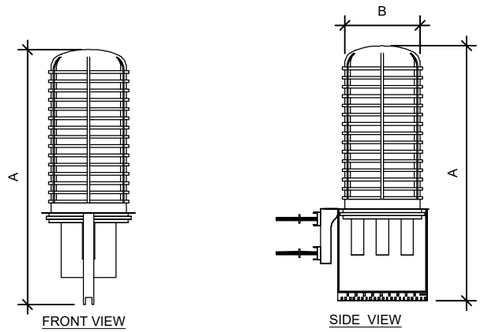


SIDE VIEW FRONT VIEW

RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
4449 B5/B12	17.9"	13.2"	9.4"	71.0
8843 B2/B66A	14.9"	13.2"	10.9"	72.0



PLAN VIEW



FRONT VIEW SIDE VIEW

RAYCAP SPECIFICATIONS				
RAYCAP MODEL	A	B	C	WEIGHT (LBS)
DC6-48-60-0-8C-EV	18.3"	10.2"	31.4"	16.0

1 EQUIPMENT SPECIFICATIONS

SCALE: N.T.S.

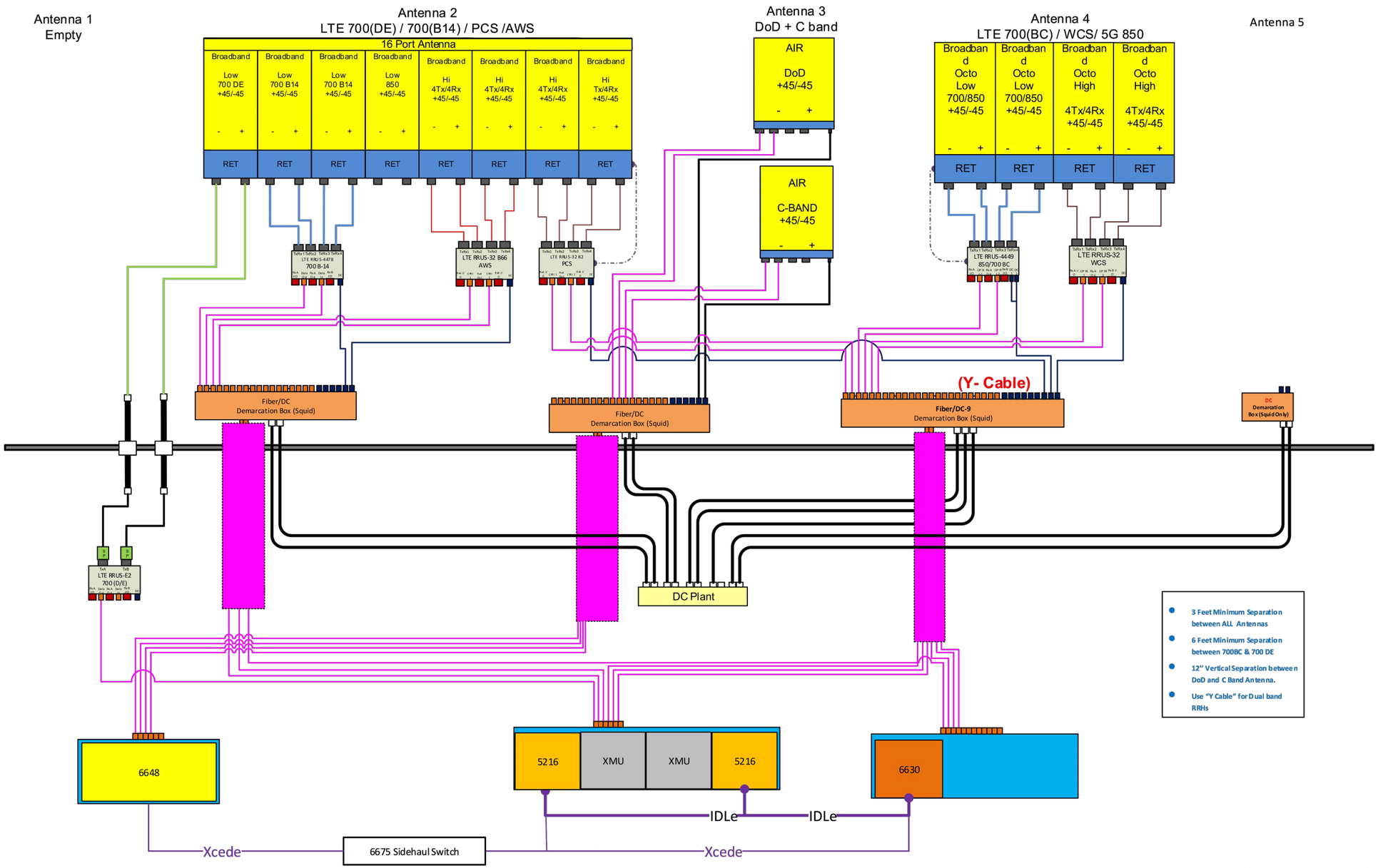
SUPPLEMENTAL

SHEET NUMBER: R-601

REVISION: 0

Diagram - Sector	A	Diagram File Name - CT5093_A_G_No Change_Rev.3.vsd					
Atoll Site Name -	CT5093	Location Name -	BRIDGEPORT BEARDSLEY	Market -	CONNECTICUT	Market Cluster -	NEW ENGLAND

Comments: "Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson"



1 RFDS PLUMBING DIAGRAM

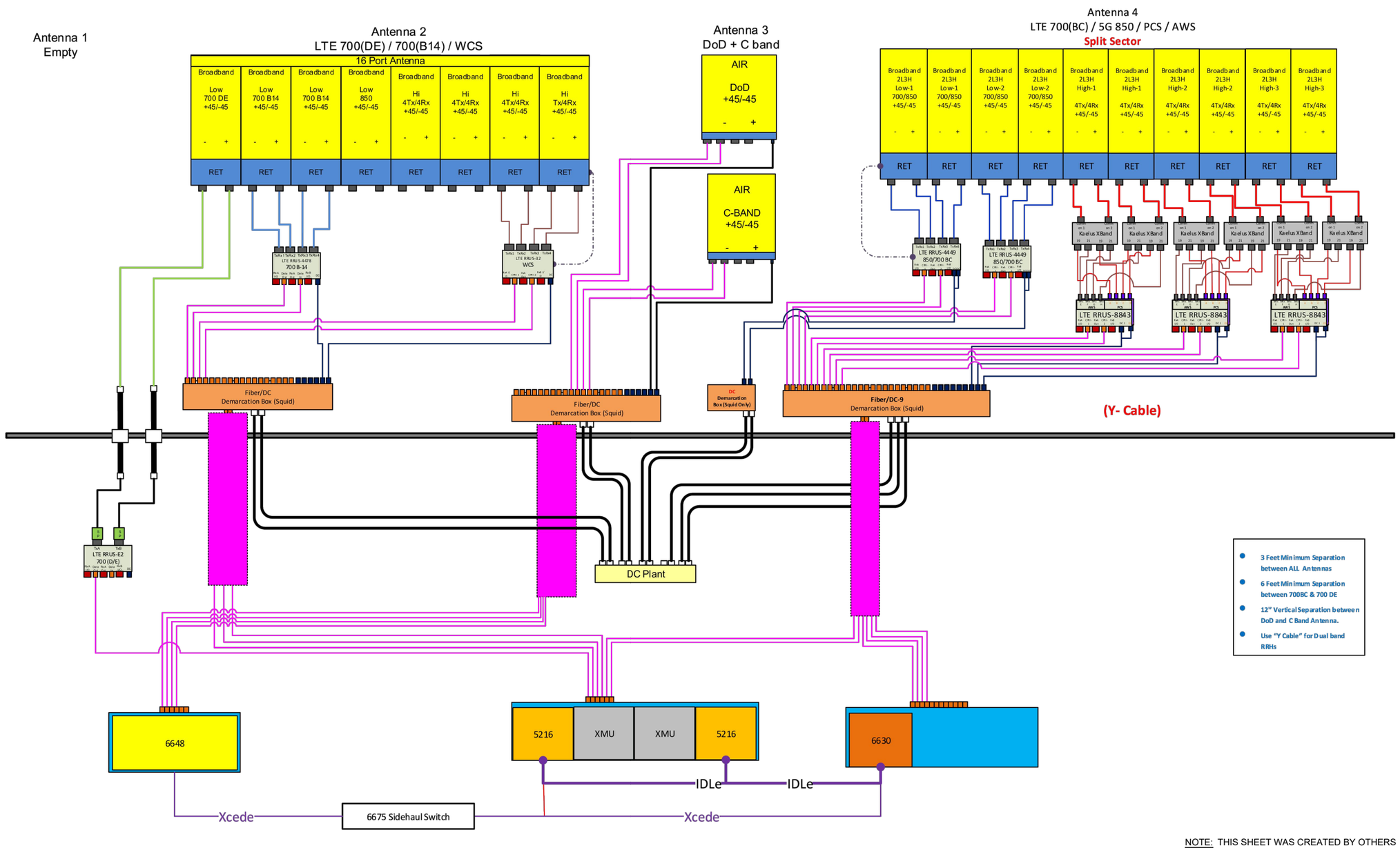
NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. GENERAL CONTRACTOR IS TO CHECK WITH THE AT&T MOBILITY CM TO ENSURE THIS IS THE MOST RECENT VERSION OF THE RFDS.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-602	0

Diagram - Sector	B	Diagram File Name - CT5093_B_Split Sector_Rev.3.vsd					
Atoll Site Name -	CT5093	Location Name -	BRIDGEPORT BEARDSLEY	Market -	CONNECTICUT	Market Cluster -	NEW ENGLAND

Comments: "Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson"



1 RFDS PLUMBING DIAGRAM

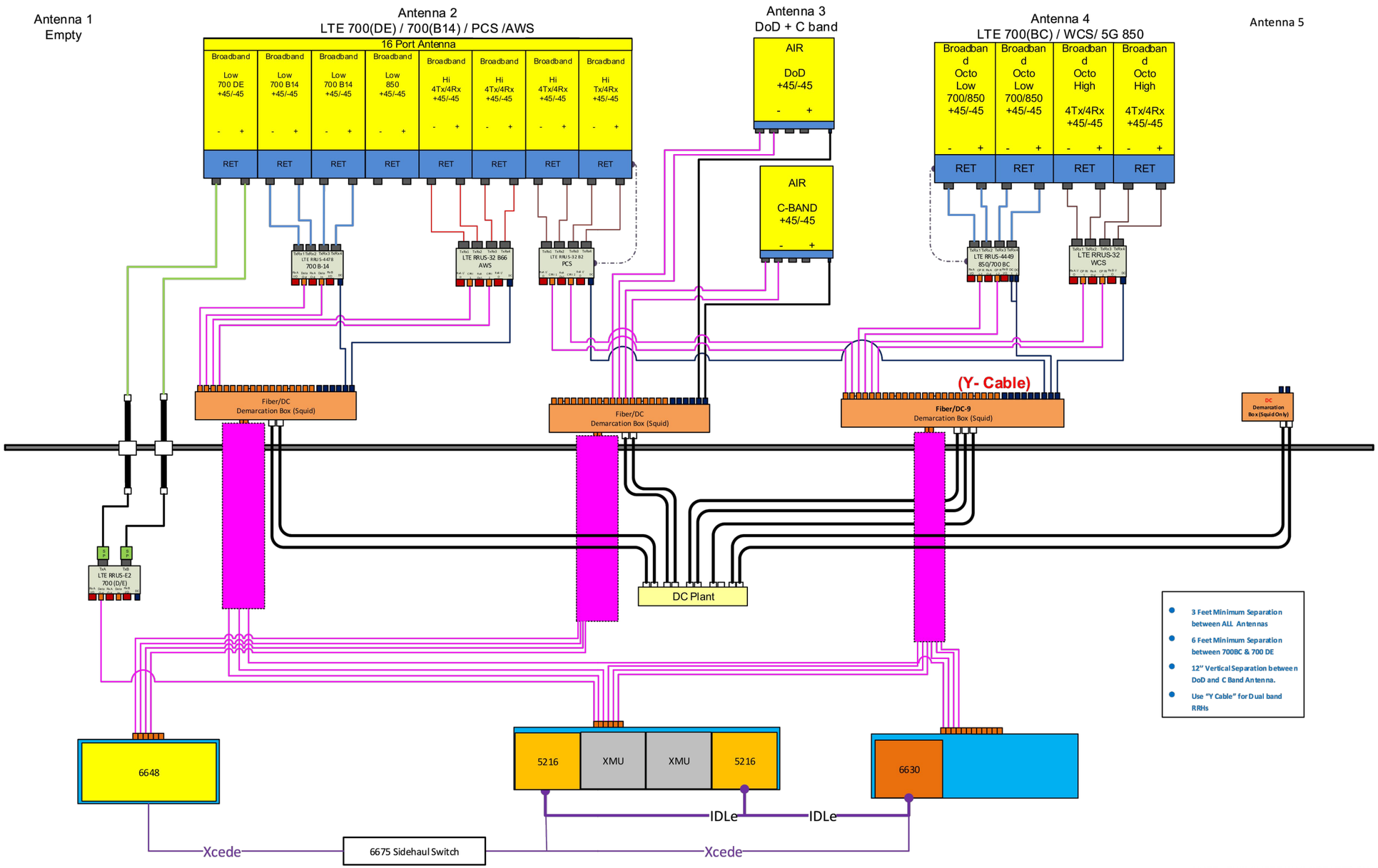
NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. GENERAL CONTRACTOR IS TO CHECK WITH THE AT&T MOBILITY CM TO ENSURE THIS IS THE MOST RECENT VERSION OF THE RFDS.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-603	0

Diagram - Sector	C	Diagram File Name - CT5093_A_G_No Change_Rev.3.vsd					
Atoll Site Name -	CT5093	Location Name -	BRIDGEPORT BEARDSLEY	Market -	CONNECTICUT	Market Cluster -	NEW ENGLAND

Comments: "Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson"

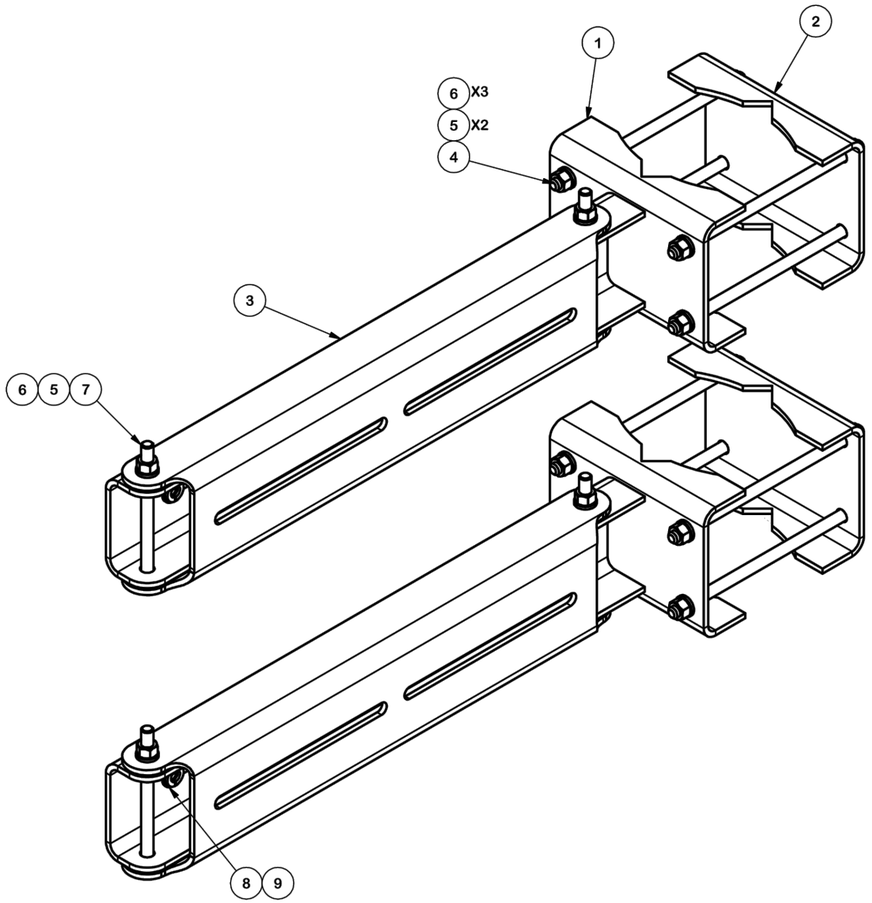


1 RFDS PLUMBING DIAGRAM

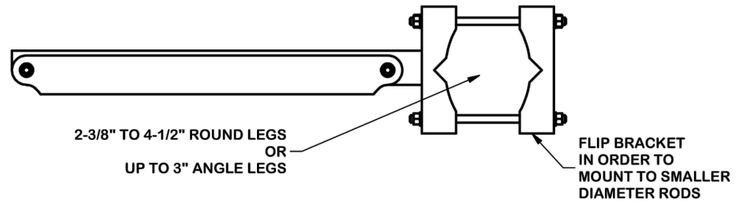
NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. GENERAL CONTRACTOR IS TO CHECK WITH THE AT&T MOBILITY CM TO ENSURE THIS IS THE MOST RECENT VERSION OF THE RFDS.

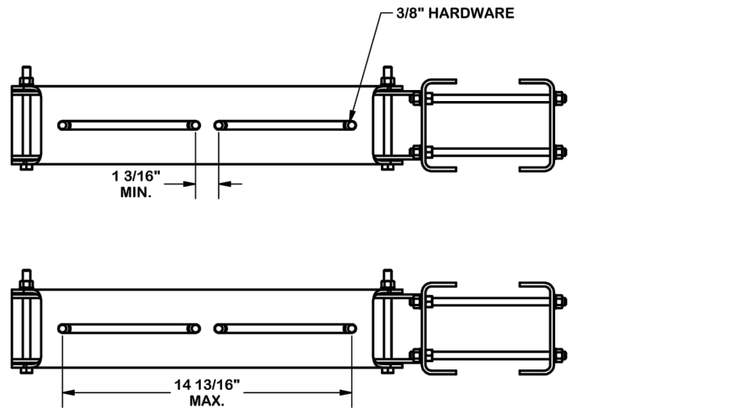
SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-604	0



PARTS LIST					
ITEM	QTY	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	MOUNTING ARM		8.99	17.97
2	2	CLAMP PLATE		2.35	4.69
3	2	SWIVEL MOUNT		6.65	13.30
4	8	3/8"-16 UNC X 8" GALV. THREADED ROD		0.25	2.00
5	20	3/8" GALV LOCK WASHER		0.01	0.13
6	28	3/8"-16 UNC GALV HEX NUT		0.02	0.52
7	4	3/8" X 5" GALV BOLT		0.18	0.71
8	8	3/8" SS FLAT WASHER		0.01	0.06
9	8	3/8" SS LOCK WASHER		0.01	0.05
				TOTAL WT. #	39.43





TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES *(± 0.030")*
DRILLED AND GAS CUT HOLES *(± 0.030")* - NO CONING OF HOLES
LASER CUT EDGES AND HOLES *(± 0.010")* - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

DESCRIPTION: RRU DUAL SWIVEL MOUNT

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
	CEK 1/12/2015		RRUDSM

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	01	SHOP	BMC 2/3/2015	RRUDSM

SITE PRO 1 — A valmont COMPANY
Engineering Support Team: 1-888-753-7446
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

1 PROPOSED RRU DUAL SWIVEL MOUNT DETAIL
SCALE: N.T.S.

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

SUPPLEMENTAL

SHEET NUMBER: R-605

REVISION: 0

RF REQUIREMENTS FOR 700 B14 FIRSTNET, 700 B12, 700D B29 ANTENNA SEPARATION

- ❑ Horizontal separation (side to side of antenna): >= 3’
- ❑ Vertical separation (between the tips of the antennas): > 3’
- ❑ Inter-sector separation: > 3’ between the center of the antenna backplanes.

- ❑ Please note additional horizontal separation may be required if B14 antennas azimuth are different from others or antennas are severely angled with respect to the mount.
- ❑ Typical 3' horizontal separation can tolerate skew angle up to 6°.

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

SUPPLEMENTAL

SHEET NUMBER: R-606

REVISION: 0

AMERICAN TOWER® CORPORATION

Mount Analysis Report

ATC Asset Name	:	Tartaglia
ATC Asset Number	:	383598
Engineering Number	:	14178890_C8_01
Mount Elevation	:	165 ft
Proposed Carrier	:	AT&T Mobility
Carrier Site Name	:	MRCTB057463
Carrier Site Number	:	CTL05093
Site Location	:	1000 Trumbull Avenue Bridgeport, CT 6606 41.21958, -73.201313
County	:	Fairfield
Date	:	January 25, 2023
Max Usage	:	51%
Analysis Result	:	Pass - Pending Mod

Prepared By:
Sharon Thorne
Structural Engineer

Reviewed I

STATE OF CONNECTICUT
ESHA KAUSHAL MODI
32593
LICENSED
PROFESSIONAL ENGINEER

Authorized by "EOR"
29 Jan 2023 04:33:58 cosign

COA: PEC.0001553

Introduction

The purpose of this report is to summarize results of the mount analysis performed for AT&T Mobility at 165 ft.

Supporting Documents

Specifications Sheet:	Site Pro 1 VFA14-HD, dated June 29, 2018
Previous Analysis:	ATC Project #13682699_C8_09, dated June 29, 2022
Radio Frequency Data Sheet:	RFDS ID #10070948, dated January 17, 2023
Reference Photos:	Site photos from 2020
Other Document:	ATC Project # 13682699_G3 dated December 9, 2021

**** The modifications by ATC Job # 13682699_C8_09 are scheduled to be installed at construction of the referenced project.***

Analysis

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

Basic Wind Speed:	119 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.00'' radial ice concurrent
Codes:	ANSI/TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.211, S1 = 0.054
Site Class:	D - Stiff Soil - Default
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the mount meets the requirements per the applicable codes listed above. The mount can support the equipment as described in this report. If the pending modifications cited in the Supporting Documents table are not completed, the results of this analysis are no longer valid, and AT&T Mobility should contact American Tower's Site Manager for further direction on how to proceed.

- Analysis based on new installation of Site Pro 1 VFA14-HD V-Frame(s) (M900R(1500)-4[6]).

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

A.T. Engineering Service, PLLC - 3500 Regency Parkway, Suite 100 - Cary, NC 27518 - 919.468.0112 Office - 919.466.5414 Fax - www.americantower.com

1 MOUNT ANALYSIS

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERYIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONTRUCTION.

SUPPLEMENTAL

SHEET NUMBER: R-607

REVISION: 0

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	240 ft Self Support Tower
ATC Asset Name	:	Tartaglia
ATC Asset Number	:	383598
Engineering Number	:	14178890_C3_04
Proposed Carrier	:	AT&T MOBILITY
Carrier Site Name	:	MRCTB057463
Carrier Site Number	:	CTL05093
Site Location	:	1000 Trumbull Avenue Bridgeport, CT 06606 41.2196, -73.2013
County	:	Fairfield
Date	:	January 27, 2023
Max Usage	:	96%
Analysis Result	:	Pass

Prepared By:

Nathan Lyle
Structural Engineer I

Nathan Lyle

Reviewed

COA: PEC.0001553

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 240 ft Self Support tower to reflect the change in loading by AT&T MOBILITY.

Supporting Documents

Tower Drawing:	Rohn Drawing #C880400RI, dated March 3, 1988
Foundation Drawing:	Mapping by FDH Project #10-12269E N1, dated January 17, 2011
Geotechnical Report:	Soiltesting Job #G96-1987-87, dated January 6, 1988
Modification:	Centek Job #10001.CO78, dated December 6, 2010 GlenMartin Drawing #GM-07602, dated February 21, 2013

Analysis

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

Basic Wind Speed:	119 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.00" radial ice concurrent
Code(s):	ANSI/TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	Ss = 0.21, S_1 = 0.05
Site Class:	D - Stiff Soil - Default

Wind load and Ice thickness have been reduced by applicable existing structure load modification factors in accordance with TIA-222-H, ANNEX-S

Conclusion

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

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

Existing/Reserved Loading

Elev.*	Qty	Equipment	Lines	Carrier
263.2’	1	8' Yagi	-	UNKNOWN
248.5’	1	12' Omni	-	UNKNOWN
247.7’	1	Dielectric DCR-L1	-	RED WOLF BROADCASTING
245.2’	1	10' Omni	-	UNKNOWN
245.0’	-	-	(1) 1 1/4" Coax	UNKNOWN
243.0’	-	-	(1) 1 5/8" Coax	RED WOLF BROADCASTING
240.0’	2	Side Arm	-	OTHER
	1	Dielectric DCR-L1 w/ Radome	-	RED WOLF BROADCASTING
	1	Beacon	-	-
	1	Lightning Rod		
235.9’	2	8' Omni	-	UNKNOWN
235.2’	2	10' Omni	-	UNKNOWN
230.0’	1	Side Arm	-	-
223.0’	1	Empty Side Arm	-	-
	1	Side Arm		
207.4’	3	Ericsson Radio 4449 B71 B85A	-	T-MOBILE
206.8’	3	Ericsson Air6449 B41	-	T-MOBILE
205.0’	-	-	(1) 1 1/4" Hybriflex Cable (6) 1 5/8" Coax	T-MOBILE
202.0’	1	Mount Reinforcement	(2) 1 1/4" Hybriflex Cable (3) 1 5/8" Hybriflex	T-MOBILE
	3	Ericsson AIR 32 B66AA B2P		
	3	Ericsson RRUS 4415 B25		
	3	Sector Frame		
	3	RFS APXVAARR24_43-U-NA20		
194.0’	-	-	(3) 1/2" Coax	SPRINT NEXTEL
193.5’	1	3' HP Dish	-	SPRINT NEXTEL
193.1’	2	2' Std. Dish	-	SPRINT NEXTEL
187.4’	3	Nokia 2.5G MAA - AAHC(64T64R)	-	SPRINT NEXTEL
187.3’	3	Argus LLPX310R	-	SPRINT NEXTEL
187.2’	3	Motorola DAP Vx	-	SPRINT NEXTEL
187.1’	2	RFS APXVSPP18-C-A20	-	SPRINT NEXTEL
187.0’	-	-	(1) 1.7" (43.2mm) Hybrid (6) 5/16" (0.31"-7.9mm) Coax	SPRINT NEXTEL
186.6’	1	RFS APXV9ERR18-C-A20	-	SPRINT NEXTEL
184.4’	1	24" x 24" Junction Box	-	SPRINT NEXTEL
183.0’	3	Light Sector Frame	-	SPRINT NEXTEL
181.7’	6	Alcatel-Lucent 1900MHz RRH	-	SPRINT NEXTEL
180.1’	3	Alcatel-Lucent 800 MHz RRH	-	SPRINT NEXTEL
180.0’	3	Side Arm	(4) 1 1/4" Hybriflex Cable (2) 2" conduit	SPRINT NEXTEL
155.0’	2	Mount Reinforcement	(6) 1 5/8" Coax (2) 1 5/8" Hybriflex	VERIZON WIRELESS
	2	Raycap RxxDC-3315-PF-48		
	3	Amphenol Antel BXA-80063-6BF-EDIN-X		
	3	Commscope CBC78T-DS-43-2X		
	3	Light Sector Frame		
	3	Samsung B2/B66A RRH-BR049		
	3	Samsung B5/B13 RRH-BR04C		
	3	Samsung MT6407-77A		
	3	Samsung Outdoor CBRS 20W RRH		

Elev.*	Qty	Equipment	Lines	Carrier
	3	Samsung Outdoor CBRS 20W RRH –Clip-on Antenna		
	6	Commscope JAHH-65B-R3B		
150.0’	-	-	(3) 1 1/4" Hybriflex Cable	VERIZON WIRELESS
145.0’	1	Commscope RDIDC-9181-PF-48	(1) 1.75" (44.5mm) Hybrid	DISH WIRELESS L.L.C.
	3	Fujitsu TA08025-B604		
	3	Fujitsu TA08025-B605		
	3	Sector Frame		
	3	JMA Wireless MX08FRO665-21		
140.0’	3	Small Side Lights	-	-
133.8’	1	2' Yagi	-	UNKNOWN
132.0’	1	Side Arm	-	-
128.0’	-	-	(1) 1 1/4" Coax	UNKNOWN
127.4’	1	10' Omni	-	UNKNOWN
118.0’	1	Side Arm	-	-
115.0’	-	-	(1) 7/8" Coax	UNKNOWN
108.0’	1	Side Arm	-	-
100.0’	-	-	(1) 1 1/4" Coax	UNKNOWN
99.2’	1	4' Yagi	-	UNKNOWN
98.0’	1	Side Arm	-	-
80.0’	1	Empty Side Arm	-	-
8.0’	1	Side Arm	-	T-MOBILE

(If table breaks across pages, please see previous page for data in merged cells)

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

Proposed Carrier Final Loading

Elev.*	Qty	Equipment	Lines	Carrier
171.6’	2	Raycap DC6-48-60-18-8F (23.5" Height)	-	AT&T MOBILITY
171.0’	3	Ericsson RRUS 4478 B14	-	AT&T MOBILITY
167.0’	3	Ericsson AIR 6419 N77G	-	AT&T MOBILITY
165.0’	1	Ericsson RRUS 4449 B5, B12	(3) 0.41" (10.3mm) Fiber (7) 0.92" (23.4mm) Cable (6) 1 5/8" Coax	AT&T MOBILITY
	1	Matsing MS-MBA-3.2-H4-L4 *		
	1	Raycap DC9-48-60-24-8C-EV (Enclosure)		
	2	CCI DMP65R-BU6DA		
	2	Ericsson RRUS 32 B2		
	2	Ericsson RRUS 32 B30		
	3	Ericsson RRUS 32 B66		
	3	Ericsson RRUS 4449 B5, B12		
	3	Ericsson RRUS 8843 B2, B66A		
	3	Sector Frame		
	3	Quintel QD6616-7		
	6	Kaelus DBC0051F3V51-2		
163.0’	3	Ericsson AIR 6449 n77D	-	AT&T MOBILITY

(If table breaks across pages, please see previous page for data in merged cells)

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

Install proposed lines alongside existing AT&T MOBILITY lines.

Structure Usages

Structural Component	Usage	Pass/Fail
Legs	44%	Pass
Diagonals	96%	Pass
Horizontals	85%	Pass
Anchor Rods	50%	Pass
Leg Bolts	36%	Pass

Foundation Reactions & Usages

Reaction Component	Analysis Reactions	Usage
Uplift (k)	276.7	83%
Compression (k)	343.5	1%
Moment (k-ft)	10671.0	6%
Shear (k)	49.2	71%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Antenna Deflection, Twist, and Sway

Elev.	Antenna	Carrier	Deflection	Twist	Sway [Rotation]
193.5’	Generic 3' HP Dish	SPRINT NEXTEL	0.137’	0.004°	0.054°
193.1’	Generic 2' Std. Dish	SPRINT NEXTEL	0.137’	0.004°	0.054°
167.0’	Ericsson AIR 6419 N77G	AT&T MOBILITY	0.118’	0.004°	0.053°
165.0’	Ericsson RRUS 32 B2	AT&T MOBILITY	0.118’	0.004°	0.053°
	Ericsson RRUS 32 B66				
	Ericsson RRUS 4449 B5, B12				
	Ericsson RRUS 8843 B2, B66A				
	Kaelus DBC0051F3V51-2				
	Matsing MS-MBA-3.2-H4-L4 *				
	Raycap DC9-48-60-24-8C-EV (Enclosure)				
163.0’	Ericsson AIR 6449 n77D	AT&T MOBILITY	0.109’	0.004°	0.054°

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

Standard Conditions

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

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

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

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

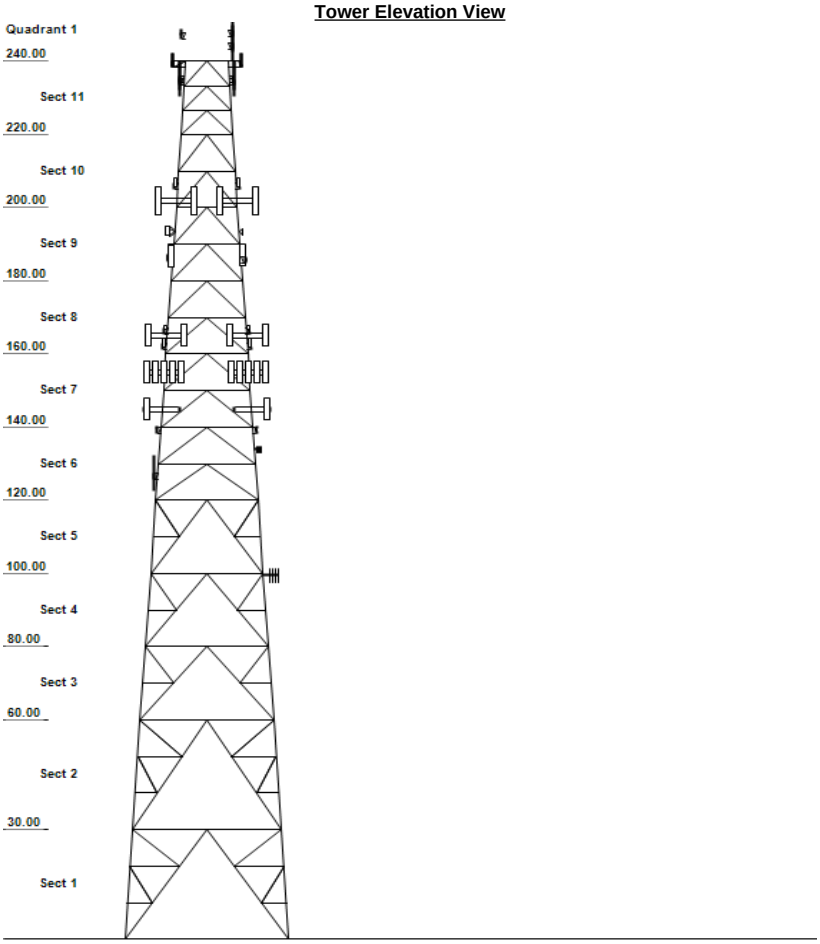
Unless explicitly agreed by both the client and A.T. Engineering Services LLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

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

ANALYSIS PARAMETERS

Nominal Wind:	116 mph	**Ice Wind:**	49 mph w/ 0.85" ice	**Service Wind:**	60 mph
Risk Category:	II	**Exposure:**	C	**S_s:** 0.211	**S_1:** 0.054
Topo Category:	1	**Topo Factor:**	Method 1	**Topo Feature:**	
Structure Height:	240 ft	**Base Elevation:**	0 ft	**Shape:**	Triangle
Base Width:	40.33 ft	**Top Width:**	10.93 ft		

Tower Elevation View



GLOBAL BASE REACTIONS

	DL+WL	DL+WL+IL
Moment (k-ft):	10671.05	3465.35
Axial (k):	113.95	187.70
Shear (k):	81.88	27.65

INDIVIDUAL BASE REACTIONS

Comp (k):	343.49
Uplift (k):	276.73
Shear (k):	49.19

TOWER SECTION PROPERTIES

Section	Leg Members	Diagonal Members	Horizontal Members
1	PX 50 ksi 10" DIA PIP	PST 50 ksi 3" DIA PIPE	PST 50 ksi 3-1/2" DIA PIPE
2 - 3	PX 50 ksi 10" DIA PIP	PST 50 ksi 3" DIA PIPE	PST 50 ksi 3" DIA PIPE
4	PX 50 ksi 8" DIA PIPE	PST 50 ksi 3" DIA PIPE	PST 50 ksi 3" DIA PIPE
5	PX 50 ksi 8" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE
6	PX 50 ksi 8" DIA PIPE	PST 50 ksi 3" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE
7 - 8	PX 50 ksi 8" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE
9 - 1 0	PX 50 ksi 8" DIA PIPE	PST 50 ksi 2-1/2" DIA PIPE	PST 50 ksi 2" DIA PIPE
1 1	PX 50 ksi 8" DIA PIPE	PST 50 ksi 2" DIA PIPE	PST 50 ksi 2" DIA PIPE

SECONDARY BRACING MEMBERS

Section	Sub Diagonal 1	Sub Diagonal 2	Sub Diagonal 3
1	P1-1/2" DIA PIPE	P2-1/2" DIA PIPE	-
2	P1-1/2" DIA PIPE	P2" DIA PIPE	-
3 - 4	P2" DIA PIPE	-	-
5	P1-1/2" DIA PIPE	-	-
6 - 11	-	-	-

Section	Sub Horizontal 1	Sub Horizontal 2	Sub Horizontal 3
1	P1-1/2" DIA PI	P2" DIA PIPE	-
2	P1-1/2" DIA PI	P2" DIA PIPE	-
3 - 4	P1-1/2" DIA PI	-	-
5	P1-1/2" DIA PI	-	-
6 - 11	-	-	-

DISCRETE APPURTENANCE

Elev (ft)	Description
263.2	(1) Generic 8' Yagi
248.5	(1) Generic 12' Omni
247.7	(1) Dielectric DCR-L1
245.2	(1) Generic 10' Omni
240.0	(2) Generic Round Side Arm
240.0	(1) Beacon
240.0	(1) Lightning Rod
240.0	(1) Dielectric DCR-L1 w/ Radome
235.9	(2) Generic 8' Omni
235.2	(2) Generic 10' Omni
230.0	(1) Generic Round Side Arm
223.0	(1) Empty Flat Side Arm
223.0	(1) Generic Round Side Arm
207.4	(3) Ericsson Radio 4449 B71 B85A
206.8	(3) Ericsson Air6449 B41
202.0	(3) Ericsson RRUS 4415 B25
202.0	(3) Ericsson AIR 32 B66AA B2P
202.0	(3) RFS APXVAARR24_43-U-NA20
202.0	(3) Generic Round Sector Frame
202.0	(1) Generic Mount Reinforcement
193.5	(1) Generic 3' HP Dish
193.1	(2) Generic 2' Std. Dish
187.4	(3) Nokia 2.5G MAA - AAHC(64T64R)
187.3	(3) Argus LLPX310R
187.2	(3) Motorola DAP Vx
187.1	(2) RFS APXVSPP18-C-A20
186.6	(1) RFS APXV9ERR18-C-A20
184.4	(1) Generic 24" x 24" Junction Box
183.0	(3) Flat Light Sector Frame
181.7	(6) Alcatel-Lucent 1900MHz RRH
180.1	(3) Alcatel-Lucent 800 MHz RRH
180.0	(3) Generic Flat Side Arm
171.6	(2) Raycap DC6-48-60-18-8F (23.5"
171.0	(3) Ericsson RRUS 4478 B14
167.0	(3) Ericsson AIR 6419 N77G
165.0	(6) Kaelus DBC0051F3V51-2
165.0	(3) Quintel QD6616-7
165.0	(3) Ericsson RRUS 32 B66
165.0	(3) Ericsson RRUS 4449 B5, B12
165.0	(3) Ericsson RRUS 8843 B2, B66A
165.0	(3) Generic Round Sector Frame
165.0	(2) CCI DMP65R-BU6DA
165.0	(2) Ericsson RRUS 32 B2
165.0	(2) Ericsson RRUS 32 B30
165.0	(1) Matsing MS-MBA-3.2-H4-L4 *
165.0	(1) Raycap DC9-48-60-24-8C-EV (Enc
165.0	(1) Ericsson RRUS 4449 B5, B12

LINEAR APPURTENANCE

Elev To (ft)	Description
245.0	(1) 1 1/4" Coax
243.0	(1) 1 5/8" Coax
240.0	(1) Waveguide
205.0	(6) 1 5/8" Coax
205.0	(1) 1 1/4" Hybriflex Cable
202.0	(3) 1 5/8" Hybriflex
202.0	(2) 1 1/4" Hybriflex Cable
202.0	(1) Waveguide
194.0	(3) 1/2" Coax
187.0	(6) 5/16" (0.31"-7.9mm) Coax
187.0	(1) 1.7" (43.2mm) Hybrid
183.0	(1) Waveguide
180.0	(4) 1 1/4" Hybriflex Cable
180.0	(2) 2" conduit
174.0	(1) Waveguide
165.0	(7) 0.92" (23.4mm) Cable
165.0	(6) 1 5/8" Coax
165.0	(3) 0.41" (10.3mm) Fiber
165.0	(1) Waveguide
155.0	(6) 1 5/8" Coax
155.0	(2) 1 5/8" Hybriflex
155.0	(1) Waveguide
150.0	(3) 1 1/4" Hybriflex Cable
145.0	(1) Waveguide
145.0	(1) 1.75" (44.5mm) Hybrid
128.0	(1) 1 1/4" Coax
115.0	(1) 7/8" Coax
100.0	(1) 1 1/4" Coax

DISCRETE APPURTENANCE

Elev (ft)	Description
163.0	(3) Ericsson AIR 6449 n77D
155.0	(6) Commscope JAHH-65B-R3B
155.0	(3) Amphenol Antel BXA-80063-6BF-E
155.0	(3) Samsung MT6407-77A
155.0	(3) Samsung B2/B66A RRH-BR049
155.0	(3) Samsung B5/B13 RRH-BR04C
155.0	(3) Samsung Outdoor CBRS 20W RRH –
155.0	(3) Commscope CBC78T-DS-43-2X
155.0	(3) Samsung Outdoor CBRS 20W RRH
155.0	(3) Flat Light Sector Frame
155.0	(2) Raycap RxxDC-3315-PF-48
155.0	(2) Generic Mount Reinforcement
145.0	(3) JMA Wireless MX08FRO665-21
145.0	(3) Fujitsu TA08025-B605
145.0	(3) Generic Round Sector Frame
145.0	(3) Fujitsu TA08025-B604
145.0	(1) Commscope RDIDC-9181-PF-48
140.0	(3) Small Side Lights
133.8	(1) Generic 2' Yagi
132.0	(1) Flat Side Arm
127.4	(1) Generic 10' Omni
118.0	(1) Round Side Arm
108.0	(1) Round Side Arm
99.2	(1) Generic 4' Yagi
98.0	(1) Flat Side Arm
80.0	(1) Empty Round Side Arm
8.0	(1) Round Side Arm

ANALYSIS PARAMETERS

Location:	Fairfield County, CT	**Height:**	240 ft
Type and Shape:	Self Support, Triangle	**Base Elevation:**	0.00 ft
Manufacturer:	Rohn	**Bottom Face Width:**	40.33 ft
Kd	0.85	**Top Face Width:**	10.93 ft
Ke:	0.99	**Anchor Bolt Detail Type:**	c

ICE & WIND PARAMETERS

Exposure Category:	C	**Design Wind Speed Without Ice:**	116 mph
Risk Category:	II	**Design Wind Speed with Ice:**	49 mph
Topographic Factor Procedure:	Method 1	**Operational Windspeed:**	60 mph
Topographic Category:	Flat	**Design Ice Thickness:**	0.85 in
Crest Height:	0 ft	**HMSL:**	212 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil			**Period Based on Rayleigh Method (sec):**	0.72
T_L (sec):	6	**P:**	1.3	**C_s:**	0.040
S_s:	0.211	**S_1:**	0.054	**C_s Max:**	0.040
F_a:	1.600	**F_v:**	2.400	**C_s Min:**	0.030
S_{ds}:	0.225	**S_{d1}:**	0.086		

LOAD CASES

1.2D + 1.0W Normal	1.2D + 1.0W Normal115.99 mph Wind with No Ice
1.2D + 1.0W 60°	1.2D + 1.0W 60°115.99 mph Wind with No Ice
1.2D + 1.0W 90°	1.2D + 1.0W 90°115.99 mph Wind with No Ice
0.9D + 1.0W Normal	0.9D + 1.0W Normal115.99 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 60°	0.9D + 1.0W 60°115.99 mph Wind with No Ice (Reduced DL)
0.9D + 1.0W 90°	0.9D + 1.0W 90°115.99 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	1.2D + 1.0Di + 1.0Wi Normal48.73 mph Wind with 0.85" Radial Ice
1.2D + 1.0Di + 1.0Wi 60°	1.2D + 1.0Di + 1.0Wi 60°48.73 mph Wind with 0.85" Radial Ice
1.2D + 1.0Di + 1.0Wi 90°	1.2D + 1.0Di + 1.0Wi 90°48.73 mph Wind with 0.85" Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	1.2D + 1.0Ev + 1.0Eh NormalSeismic
1.2D + 1.0Ev + 1.0Eh 60°	1.2D + 1.0Ev + 1.0Eh 60°Seismic
1.2D + 1.0Ev + 1.0Eh 90°	1.2D + 1.0Ev + 1.0Eh 90°Seismic
0.9D - 1.0Ev + 1.0Eh Normal	0.9D - 1.0Ev + 1.0Eh NormalSeismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 60°	0.9D - 1.0Ev + 1.0Eh 60°Seismic (Reduced DL)
0.9D - 1.0Ev + 1.0Eh 90°	0.9D - 1.0Ev + 1.0Eh 90°Seismic (Reduced DL)
1.0D + 1.0W Service Normal	1.0D + 1.0W Service Normal60 mph Wind with No Ice
1.0D + 1.0W Service 60°	1.0D + 1.0W Service 60°60 mph Wind with No Ice
1.0D + 1.0W Service 90°	1.0D + 1.0W Service 90°60 mph Wind with No Ice

TOWER LOADING – DISCRETE APPURTENANCE

Discrete Appurtenance Properties for LC: **1.2D + 1.0W**

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc. (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
263.2	Generic 8' Yagi	1	30	12.0	8.0	60.0	3.0	1.00	1.00	0.0	0.00	45.08	460	36
248.5	Generic 12' Omni	1	40	3.6	12.0	3.0	3.0	1.00	1.00	0.0	0.00	44.53	136	48
247.7	Dielectric DCR-L1	1	8	1.2	2.0	14.0	36.0	1.00	1.00	0.0	0.00	44.50	45	10
245.2	Generic 10' Omni	1	25	3.0	10.0	3.0	3.0	1.00	1.00	0.0	0.00	44.41	113	30
240.0	Lightning Rod	1	10	1.0	4.0	3.0	3.0	1.00	1.00	0.0	0.00	44.21	38	12
240.0	Dielectric DCR-L1 w/ Radome	1	18	1.8	0.0	0.0	0.0	1.00	1.00	3.0	203.45	44.33	68	22
240.0	Beacon	1	70	4.5	3.0	18.0	18.0	1.00	1.00	0.0	0.00	44.21	169	84
240.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	0.90	0.90	0.0	0.00	44.21	317	450
235.9	Generic 8' Omni	2	25	2.4	8.0	3.0	3.0	1.00	1.00	0.0	0.00	44.05	180	60
235.2	Generic 10' Omni	2	25	3.0	10.0	3.0	3.0	1.00	1.00	0.0	0.00	44.02	225	60
230.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	43.82	194	225
223.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	43.53	192	225
223.0	Empty Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	43.53	233	180
207.4	Ericsson Radio 4449 B71 B85A	3	75	1.6	1.3	13.2	10.5	0.80	0.50	0.0	0.00	42.87	72	270
206.8	Ericsson Air6449 B41	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.00	42.85	313	374
202.0	Ericsson RRUS 4415 B25	3	46	1.8	1.4	13.4	5.9	0.80	0.50	0.0	0.00	42.63	80	166
202.0	Ericsson AIR 32 B66AA B2P	3	109	6.9	4.9	12.9	8.7	0.80	0.71	0.0	0.00	42.63	424	392
202.0	Generic Mount Reinforcement	1	200	7.5	0.0	0.0	0.0	1.00	1.00	0.0	0.00	42.63	272	240
202.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	42.63	787	1080
202.0	RFS APXVAARR24_43-U-NA20	3	128	20.2	8.0	24.0	8.7	0.80	0.63	0.0	0.00	42.63	1109	460
193.5	Generic 3' HP Dish	1	140	8.9	3.0	36.0	0.0	0.90	1.00	0.0	0.00	42.25	288	168
193.1	Generic 2' Std. Dish	2	14	5.2	2.0	24.0	0.0	1.00	1.00	0.0	0.00	42.23	375	34
187.4	Nokia 2.5G MAA - AAHC(64T64R)	3	104	4.2	2.1	19.7	9.6	0.80	0.64	0.0	0.00	41.97	230	373
187.3	Argus LLPX310R	3	29	4.3	3.5	11.8	4.5	0.80	0.63	0.0	0.00	41.96	231	103
187.2	Motorola DAP Vx	3	27	1.6	2.1	7.6	5.5	0.80	0.50	0.0	0.00	41.96	70	95
187.1	RFS APXVSPP18-C-A20	2	57	8.0	6.0	11.8	7.0	0.80	0.77	0.0	0.00	41.95	353	137
186.6	RFS APXV9ERR18-C-A20	1	62	8.0	6.0	11.8	7.9	0.80	1.00	0.0	0.00	41.93	229	74
184.4	Generic 24" x 24" Junction Box	1	20	4.8	2.0	24.0	8.0	0.80	0.50	0.0	0.00	41.82	68	24
183.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	41.76	958	1440
181.7	Alcatel-Lucent 1900MHz RRH	6	44	3.3	1.9	13.0	17.0	0.80	0.50	0.0	0.00	41.69	277	317
180.1	Alcatel-Lucent 800 MHz RRH	3	53	2.1	1.6	13.0	10.8	0.80	0.50	0.0	0.00	41.62	91	191
180.0	Generic Flat Side Arm	3	188	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.00	41.61	448	675
171.6	Raycap DC6-48-60-18-8F (23.5"	2	20	1.3	2.0	9.7	9.7	0.80	0.50	0.0	0.00	41.19	35	48
171.0	Ericsson RRUS 4478 B14	3	60	1.8	1.4	13.4	7.7	0.80	0.50	0.0	0.00	41.16	77	216
167.0	Ericsson AIR 6419 N77G	3	70	3.9	1.3	30.0	6.7	0.80	0.57	0.0	0.00	40.96	187	252
165.0	Kaelus DBC0051F3V51-2	6	12	0.4	0.7	6.2	4.4	0.80	0.50	0.0	0.00	40.86	34	89
165.0	Ericsson RRUS 8843 B2, B66A	3	72	1.6	1.2	13.2	10.9	0.80	0.50	0.0	0.00	40.86	68	259
165.0	Ericsson RRUS 4449 B5, B12	3	71	2.0	1.5	13.2	9.4	0.80	0.50	0.0	0.00	40.86	82	256
165.0	Ericsson RRUS 4449 B5, B12	1	71	2.0	1.5	13.2	9.4	0.80	0.50	0.0	0.00	40.86	27	85
165.0	Raycap DC9-48-60-24-8C-EV (Enc	1	19	2.7	2.2	12.4	9.7	0.80	0.50	0.0	0.00	40.86	37	22
165.0	Ericsson RRUS 32 B30	2	60	2.7	2.3	12.1	7.0	0.80	0.50	0.0	0.00	40.86	76	144
165.0	Ericsson RRUS 32 B2	2	53	2.7	2.3	12.1	7.0	0.80	0.50	0.0	0.00	40.86	76	127
165.0	Ericsson RRUS 32 B66	3	53	2.7	2.3	12.1	7.0	0.80	0.50	0.0	0.00	40.86	114	191
165.0	CCI DMP65R-BU6DA	2	79	12.7	5.9	20.7	7.7	0.80	0.63	0.0	0.00	40.86	445	191
165.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	40.86	754	1080
165.0	Matsing MS-MBA-3.2-H4-L4 *	1	130	15.8	6.0	24.0	26.0	0.80	1.00	0.0	0.00	40.86	438	156
165.0	Quintel QD6616-7	3	130	51.4	6.0	22.0	9.6	0.80	0.64	0.0	0.00	40.86	2742	468
163.0	Ericsson AIR 6449 n77D	3	82	4.0	2.5	15.9	8.1	0.80	0.65	0.0	0.00	40.75	218	294
155.0	Commscope CBC78T-DS-43-2X	3	21	0.6	0.8	6.9	6.4	0.80	0.50	0.0	0.00	40.32	23	75
155.0	Samsung Outdoor CBRS 20W RRH	3	19	0.9	1.0	8.5	4.1	0.80	0.50	0.0	0.00	40.32	35	67
155.0	Samsung Outdoor CBRS 20W RRH –	3	4	0.9	1.0	8.7	1.4	0.80	0.50	0.0	0.00	40.32	37	16
155.0	Samsung B5/B13 RRH-BR04C	3	70	1.9	1.3	15.0	8.1	0.80	0.50	0.0	0.00	40.32	77	253
155.0	Samsung B2/B66A RRH-BR049	3	84	1.9	1.3	15.0	10.0	0.80	0.50	0.0	0.00	40.32	77	304
155.0	Raycap RxxDC-3315-PF-48	2	21	2.5	1.6	15.7	10.3	0.80	0.50	0.0	0.00	40.32	69	51
155.0	Samsung MT6407-77A	3	82	4.7	2.9	16.1	5.5	0.80	0.61	0.0	0.00	40.32	236	294
155.0	Amphenol Antel BXA-80063-6BF-E	3	19	7.3	5.7	11.2	5.3	0.80	0.66	0.0	0.00	40.32	394	69
155.0	Generic Mount Reinforcement	2	200	7.5	0.0	0.0	0.0	1.00	1.00	0.0	0.00	40.32	514	480
155.0	Commscope JAHH-65B-R3B	6	61	9.1	6.0	13.8	8.2	0.80	0.69	0.0	0.00	40.32	1034	436
155.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	40.32	925	1440
145.0	Commscope RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	0.50	0.0	0.00	39.76	25	26
145.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	39.76	80	270
145.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	39.76	80	230
145.0	JMA Wireless MX08FRO665-21	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	39.76	648	232
145.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	39.76	821	1080
140.0	Small Side Lights	3	45	2.0	1.0	8.0	8.0	1.00	1.00	0.0	0.00	39.47	201	162
133.8	Generic 2' Yagi	1	5	1.3	2.0	24.0	2.0	1.00	1.00	0.0	0.00	39.09	44	6
132.0	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	38.98	209	180
127.4	Generic 10' Omni	1	25	3.0	10.0	3.0	3.0	1.00	1.00	0.0	0.00	38.69	99	30
118.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	38.07	168	180
108.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	37.37	165	180
99.2	Generic 4' Yagi	1	15	4.9	4.0	48.0	3.0	1.00	1.00	0.0	0.00	36.71	153	18
98.0	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	36.61	196	180
80.0	Empty Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	35.08	155	180
8.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	24.69	109	180
	Totals	**166**	**15,460**	**1034.8**									21,031	18,552

Discrete Appurtenance Properties for LC: **0.9D + 1.0W**

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc. (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
263.2	Generic 8' Yagi	1	30	12.0	8.0	60.0	3.0	1.00	1.00	0.0	0.00	45.08	460	27
248.5	Generic 12' Omni	1	40	3.6	12.0	3.0	3.0	1.00	1.00	0.0	0.00	44.53	136	36
247.7	Dielectric DCR-L1	1	8	1.2	2.0	14.0	36.0	1.00	1.00	0.0	0.00	44.50	45	7
245.2	Generic 10' Omni	1	25	3.0	10.0	3.0	3.0	1.00	1.00	0.0	0.00	44.41	113	22
240.0	Lightning Rod	1	10	1.0	4.0	3.0	3.0	1.00	1.00	0.0	0.00	44.21	38	9
240.0	Dielectric DCR-L1 w/ Radome	1	18	1.8	0.0	0.0	0.0	1.00	1.00	3.0	203.45	44.33	68	16
240.0	Beacon	1	70	4.5	3.0	18.0	18.0	1.00	1.00	0.0	0.00	44.21	169	63
240.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	0.90	0.90	0.0	0.00	44.21	317	338
235.9	Generic 8' Omni	2	25	2.4	8.0	3.0	3.0	1.00	1.00	0.0	0.00	44.05	180	45
235.2	Generic 10' Omni	2	25	3.0	10.0	3.0	3.0	1.00	1.00	0.0	0.00	44.02	225	45
230.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	43.82	194	169
223.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	43.53	192	169
223.0	Empty Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	43.53	233	135
207.4	Ericsson Radio 4449 B71 B85A	3	75	1.6	1.3	13.2	10.5	0.80	0.50	0.0	0.00	42.87	72	202
206.8	Ericsson Air6449 B41	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.00	42.85	313	281
202.0	Ericsson RRUS 4415 B25	3	46	1.8	1.4	13.4	5.9	0.80	0.50	0.0	0.00	42.63	80	124
202.0	Ericsson AIR 32 B66AA B2P	3	109	6.9	4.9	12.9	8.7	0.80	0.71	0.0	0.00	42.63	424	294
202.0	Generic Mount Reinforcement	1	200	7.5	0.0	0.0	0.0	1.00	1.00	0.0	0.00	42.63	272	180
202.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	42.63	787	810
202.0	RFS APXVAARR24_43-U-NA20	3	128	20.2	8.0	24.0	8.7	0.80	0.63	0.0	0.00	42.63	1109	345
193.5	Generic 3' HP Dish	1	140	8.9	3.0	36.0	0.0	0.90	1.00	0.0	0.00	42.25	288	126
193.1	Generic 2' Std. Dish	2	14	5.2	2.0	24.0	0.0	1.00	1.00	0.0	0.00	42.23	375	25
187.4	Nokia 2.5G MAA - AAHC(64T64R)	3	104	4.2	2.1	19.7	9.6	0.80	0.64	0.0	0.00	41.97	230	280
187.3	Argus LLPX310R	3	29	4.3	3.5	11.8	4.5	0.80	0.63	0.0	0.00	41.96	231	77
187.2	Motorola DAP Vx	3	27	1.6	2.1	7.6	5.5	0.80	0.50	0.0	0.00	41.96	70	72
187.1	RFS APXVSPP18-C-A20	2	57	8.0	6.0	11.8	7.0	0.80	0.77	0.0	0.00	41.95	353	103
186.6	RFS APXV9ERR18-C-A20	1	62	8.0	6.0	11.8	7.9	0.80	1.00	0.0	0.00	41.93	229	56
184.4	Generic 24" x 24" Junction Box	1	20	4.8	2.0	24.0	8.0	0.80	0.50	0.0	0.00	41.82	68	18
183.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	41.76	958	1080
181.7	Alcatel-Lucent 1900MHz RRH	6	44	3.3	1.9	13.0	17.0	0.80	0.50	0.0	0.00	41.69	277	238
180.1	Alcatel-Lucent 800 MHz RRH	3	53	2.1	1.6	13.0	10.8	0.80	0.50	0.0	0.00	41.62	91	143
180.0	Generic Flat Side Arm	3	188	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.00	41.61	448	506
171.6	Raycap DC6-48-60-18-8F (23.5"	2	20	1.3	2.0	9.7	9.7	0.80	0.50	0.0	0.00	41.19	35	36
171.0	Ericsson RRUS 4478 B14	3	60	1.8	1.4	13.4	7.7	0.80	0.50	0.0	0.00	41.16	77	162
167.0	Ericsson AIR 6419 N77G	3	70	3.9	1.3	30.0	6.7	0.80	0.57	0.0	0.00	40.96	187	189
165.0	Kaelus DBC0051F3V51-2	6	12	0.4	0.7	6.2	4.4	0.80	0.50	0.0	0.00	40.86	34	67
165.0	Ericsson RRUS 8843 B2, B66A	3	72	1.6	1.2	13.2	10.9	0.80	0.50	0.0	0.00	40.86	68	194
165.0	Ericsson RRUS 4449 B5, B12	3	71	2.0	1.5	13.2	9.4	0.80	0.50	0.0	0.00	40.86	82	192
165.0	Ericsson RRUS 4449 B5, B12	1	71	2.0	1.5	13.2	9.4	0.80	0.50	0.0	0.00	40.86	27	64
165.0	Raycap DC9-48-60-24-8C-EV (Enc	1	19	2.7	2.2	12.4	9.7	0.80	0.50	0.0	0.00	40.86	37	17
165.0	Ericsson RRUS 32 B30	2	60	2.7	2.3	12.1	7.0	0.80	0.50	0.0	0.00	40.86	76	108
165.0	Ericsson RRUS 32 B2	2	53	2.7	2.3	12.1	7.0	0.80	0.50	0.0	0.00	40.86	76	95
165.0	Ericsson RRUS 32 B66	3	53	2.7	2.3	12.1	7.0	0.80	0.50	0.0	0.00	40.86	114	143
165.0	CCI DMP65R-BU6DA	2	79	12.7	5.9	20.7	7.7	0.80	0.63	0.0	0.00	40.86	445	143
165.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	40.86	754	810
165.0	Matsing MS-MBA-3.2-H4-L4 *	1	130	15.8	6.0	24.0	26.0	0.80	1.00	0.0	0.00	40.86	438	117
165.0	Quintel QD6616-7	3	130	51.4	6.0	22.0	9.6	0.80	0.64	0.0	0.00	40.86	2742	351
163.0	Ericsson AIR 6449 n77D	3	82	4.0	2.5	15.9	8.1	0.80	0.65	0.0	0.00	40.75	218	220
155.0	Commscope CBC78T-DS-43-2X	3	21	0.6	0.8	6.9	6.4	0.80	0.50	0.0	0.00	40.32	23	56
155.0	Samsung Outdoor CBRS 20W RRH	3	19	0.9	1.0	8.5	4.1	0.80	0.50	0.0	0.00	40.32	35	50
155.0	Samsung Outdoor CBRS 20W RRH –	3	4	0.9	1.0	8.7	1.4	0.80	0.50	0.0	0.00	40.32	37	12
155.0	Samsung B5/B13 RRH-BR04C	3	70	1.9	1.3	15.0	8.1	0.80	0.50	0.0	0.00	40.32	77	190
155.0	Samsung B2/B66A RRH-BR049	3	84	1.9	1.3	15.0	10.0	0.80	0.50	0.0	0.00	40.32	77	228
155.0	Raycap RxxDC-3315-PF-48	2	21	2.5	1.6	15.7	10.3	0.80	0.50	0.0	0.00	40.32	69	39
155.0	Samsung MT6407-77A	3	82	4.7	2.9	16.1	5.5	0.80	0.61	0.0	0.00	40.32	236	220
155.0	Amphenol Antel BXA-80063-6BF-E	3	19	7.3	5.7	11.2	5.3	0.80	0.66	0.0	0.00	40.32	394	52
155.0	Generic Mount Reinforcement	2	200	7.5	0.0	0.0	0.0	1.00	1.00	0.0	0.00	40.32	514	360
155.0	Commscope JAHH-65B-R3B	6	61	9.1	6.0	13.8	8.2	0.80	0.69	0.0	0.00	40.32	1034	327
155.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	40.32	925	1080
145.0	Commscope RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	0.50	0.0	0.00	39.76	25	20
145.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	39.76	80	202
145.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	39.76	80	173
145.0	JMA Wireless MX08FRO665-21	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	39.76	648	174
145.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	39.76	821	810
140.0	Small Side Lights	3	45	2.0	1.0	8.0	8.0	1.00	1.00	0.0	0.00	39.47	201	122
133.8	Generic 2' Yagi	1	5	1.3	2.0	24.0	2.0	1.00	1.00	0.0	0.00	39.09	44	4
132.0	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	38.98	209	135
127.4	Generic 10' Omni	1	25	3.0	10.0	3.0	3.0	1.00	1.00	0.0	0.00	38.69	99	22
118.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	38.07	168	135
108.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	37.37	165	135
99.2	Generic 4' Yagi	1	15	4.9	4.0	48.0	3.0	1.00	1.00	0.0	0.00	36.71	153	14
98.0	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	36.61	196	135
80.0	Empty Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	35.08	155	135
8.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	24.69	109	135
	Totals	**166**	**15,460**	**1034.8**									21,031	13,914

Discrete Appurtenance Properties for LC: **1.2D + 1.0Di + 1.0Wi**

Elev (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc. (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
263.2	Generic 8' Yagi	1	231	31.8	8.0	60.0	3.0	1.00	1.00	0.0	0.00	7.96	215	237
248.5	Generic 12' Omni	1	94	6.1	12.0	3.0	3.0	1.00	1.00	0.0	0.00	7.86	41	102
247.7	Dielectric DCR-L1	1	27	2.4	2.0	14.0	36.0	1.00	1.00	0.0	0.00	7.86	16	29
245.2	Generic 10' Omni	1	70	5.1	10.0	3.0	3.0	1.00	1.00	0.0	0.00	7.84	34	75
240.0	Lightning Rod	1	38	1.5	4.0	3.0	3.0	1.00	1.00	0.0	0.00	7.80	10	40
240.0	Dielectric DCR-L1 w/ Radome	1	62	3.7	0.0	0.0	0.0	1.00	1.00	3.0	73.12	7.82	24	65
240.0	Beacon	1	189	3.7	3.0	18.0	18.0	1.00	1.00	0.0	0.00	7.80	25	203
240.0	Generic Round Side Arm	2	242	6.8	0.0	0.0	0.0	0.90	0.90	0.0	0.00	7.80	73	558
235.9	Generic 8' Omni	2	61	4.0	8.0	3.0	3.0	1.00	1.00	0.0	0.00	7.77	53	132
235.2	Generic 10' Omni	2	70	5.1	10.0	3.0	3.0	1.00	1.00	0.0	0.00	7.77	68	150
230.0	Generic Round Side Arm	1	242	6.8	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.73	45	279
223.0	Generic Round Side Arm	1	241	6.8	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.68	44	279
223.0	Empty Flat Side Arm	1	193	7.7	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.68	51	223
207.4	Ericsson Radio 4449 B71 B85A	3	110	2.1	1.3	13.2	10.5	0.80	0.50	0.0	0.00	7.57	17	376
206.8	Ericsson Air6449 B41	3	184	6.6	2.8	20.6	8.6	0.80	0.63	0.0	0.00	7.56	64	615
202.0	Ericsson RRUS 4415 B25	3	75	2.4	1.4	13.4	5.9	0.80	0.50	0.0	0.00	7.52	18	251
202.0	Ericsson AIR 32 B66AA B2P	3	206	8.2	4.9	12.9	8.7	0.80	0.71	0.0	0.00	7.52	89	683
202.0	Generic Mount Reinforcement	1	313	11.9	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.52	76	353
202.0	Generic Round Sector Frame	3	514	24.0	0.0	0.0	0.0	0.75	0.67	0.0	0.00	7.52	232	1722
202.0	RFS APXVAARR24_43-U-NA20	3	356	22.4	8.0	24.0	8.7	0.80	0.63	0.0	0.00	7.52	217	1145
193.5	Generic 3' HP Dish	1	246	9.9	3.0	36.0	0.0	0.90	1.00	0.0	0.00	7.46	57	274
193.1	Generic 2' Std. Dish	2	46	6.1	2.0	24.0	0.0	1.00	1.00	0.0	0.00	7.45	78	98
187.4	Nokia 2.5G MAA - AAHC(64T64R)	3	169	5.0	2.1	19.7	9.6	0.80	0.64	0.0	0.00	7.41	48	570
187.3	Argus LLPX310R	3	81	5.3	3.5	11.8	4.5	0.80	0.63	0.0	0.00	7.41	50	260
187.2	Motorola DAP Vx	3	53	2.2	2.1	7.6	5.5	0.80	0.50	0.0	0.00	7.41	17	176
187.1	RFS APXVSPP18-C-A20	2	157	9.6	6.0	11.8	7.0	0.80	0.77	0.0	0.00	7.40	75	337
186.6	RFS APXV9ERR18-C-A20	1	167	9.6	6.0	11.8	7.9	0.80	1.00	0.0	0.00	7.40	49	180
184.4	Generic 24" x 24" Junction Box	1	86	5.6	2.0	24.0	8.0	0.80	0.50	0.0	0.00	7.38	14	90
183.0	Flat Light Sector Frame	3	573	26.6	0.0	0.0	0.0	0.75	0.67	0.0	0.00	7.37	251	1959
181.7	Alcatel-Lucent 1900MHz RRH	6	107	3.9	1.9	13.0	17.0	0.80	0.50	0.0	0.00	7.36	59	693
180.1	Alcatel-Lucent 800 MHz RRH	3	95	2.7	1.6	13.0	10.8	0.80	0.50	0.0	0.00	7.35	20	318
180.0	Generic Flat Side Arm	3	264	8.1	0.0	0.0	0.0	1.00	0.67	0.0	0.00	7.34	102	905
171.6	Raycap DC6-48-60-18-8F (23.5"	2	50	1.6	2.0	9.7	9.7	0.80	0.50	0.0	0.00	7.27	8	109
171.0	Ericsson RRUS 4478 B14	3	92	2.4	1.4	13.4	7.7	0.80	0.50	0.0	0.00	7.27	17	311
167.0	Ericsson AIR 6419 N77G	3	124	4.7	1.3	30.0	6.7	0.80	0.57	0.0	0.00	7.23	40	414
165.0	Kaelus DBC0051F3V51-2	6	21	0.7	0.7	6.2	4.4	0.80	0.50	0.0	0.00	7.21	10	140
165.0	Ericsson RRUS 8843 B2, B66A	3	107	2.1	1.2	13.2	10.9	0.80	0.50	0.0	0.00	7.21	16	364
165.0	Ericsson RRUS 4449 B5, B12	3	108	2.5	1.5	13.2	9.4	0.80	0.50	0.0	0.00	7.21	18	365
165.0	Ericsson RRUS 4449 B5, B12	1	108	2.5	1.5	13.2	9.4	0.80	0.50	0.0	0.00	7.21	6	122
165.0	Raycap DC9-48-60-24-8C-EV (Enc	1	66	3.3	2.2	12.4	9.7	0.80	0.50	0.0	0.00	7.21	8	70
165.0	Ericsson RRUS 32 B30	2	102	3.4	2.3	12.1	7.0	0.80	0.50	0.0	0.00	7.21	17	228
165.0	Ericsson RRUS 32 B2	2	95	3.4	2.3	12.1	7.0	0.80	0.50	0.0	0.00	7.21	17	211
165.0	Ericsson RRUS 32 B66	3	95	3.4	2.3	12.1	7.0	0.80	0.50	0.0	0.00	7.21	25	316
165.0	CCI DMP65R-BU6DA	2	226	14.3	5.9	20.7	7.7	0.80	0.63	0.0	0.00	7.21	88	483
165.0	Generic Round Sector Frame	3	509	23.8	0.0	0.0	0.0	0.75	0.67	0.0	0.00	7.21	220	1707
165.0	Matsing MS-MBA-3.2-H4-L4 *	1	409	17.4	6.0	24.0	26.0	0.80	1.00	0.0	0.00	7.21	85	435
165.0	Quintel QD6616-7	3	296	57.5	6.0	22.0	9.6	0.80	0.64	0.0	0.00	7.21	541	966
163.0	Ericsson AIR 6449 n77D	3	140	4.8	2.5	15.9	8.1	0.80	0.65	0.0	0.00	7.19	46	470
155.0	Commscope CBC78T-DS-43-2X	3	33	0.8	0.8	6.9	6.4	0.80	0.50	0.0	0.00	7.12	6	112
155.0	Samsung Outdoor CBRS 20W RRH	3	32	1.2	1.0	8.5	4.1	0.80	0.50	0.0	0.00	7.12	9	108
155.0	Samsung Outdoor CBRS 20W RRH –	3	15	1.3	1.0	8.7	1.4	0.80	0.50	0.0	0.00	7.12	9	47
155.0	Samsung B5/B13 RRH-BR04C	3	103	2.4	1.3	15.0	8.1	0.80	0.50	0.0	0.00	7.12	17	351
155.0	Samsung B2/B66A RRH-BR049	3	121	2.4	1.3	15.0	10.0	0.80	0.50	0.0	0.00	7.12	17	413
155.0	Raycap RxxDC-3315-PF-48	2	67	3.1	1.6	15.7	10.3	0.80	0.50	0.0	0.00	7.12	15	142
155.0	Samsung MT6407-77A	3	139	5.6	2.9	16.1	5.5	0.80	0.61	0.0	0.00	7.12	49	467
155.0	Amphenol Antel BXA-80063-6BF-E	3	101	8.8	5.7	11.2	5.3	0.80	0.66	0.0	0.00	7.12	84	315
155.0	Generic Mount Reinforcement	2	310	11.8	0.0	0.0	0.0	1.00	1.00	0.0	0.00	7.12	142	700
155.0	Commscope JAHH-65B-R3B	6	175	10.7	6.0	13.8	8.2	0.80	0.69	0.0	0.00	7.12	214	1126
155.0	Flat Light Sector Frame	3	571	26.5	0.0	0.0	0.0	0.75	0.67	0.0	0.00	7.12	241	1953
145.0	Commscope RDIDC-9181-PF-48	1	54	2.4	1.3	14.0	8.0	0.80	0.50	0.0	0.00	7.02	6	58
145.0	Fujitsu TA08025-B605	3	110	2.5	1.3	15.0	9.1	0.80	0.50	0.0	0.00	7.02	18	375
145.0	Fujitsu TA08025-B604	3	97	2.5	1.3	15.0	7.9	0.80	0.50	0.0	0.00	7.02	18	328
145.0	JMA Wireless MX08FRO665-21	3	208	14.1	6.0	20.0	8.0	0.80	0.64	0.0	0.00	7.02	129	664
145.0	Generic Round Sector Frame	3	506	23.7	0.0	0.0	0.0	0.75	0.75	0.0	0.00	7.02	238	1698
140.0	Small Side Lights	3	65	0.7	1.0	8.0	8.0	1.00	1.00	0.0	0.00	6.97	12	222
133.8	Generic 2' Yagi	1	28	2.7	2.0	24.0	2.0	1.00	1.00	0.0	0.00	6.90	16	29
132.0	Flat Side Arm	1	191	7.7	0.0	0.0	0.0	1.00	1.00	0.0	0.00	6.88	45	221
127.4	Generic 10' Omni	1	67	5.0	10.0	3.0	3.0	1.00	1.00	0.0	0.00	6.83	29	72
118.0	Round Side Arm	1	190	6.7	0.0	0.0	0.0	1.00	1.00	0.0	0.00	6.72	38	220
108.0	Round Side Arm	1	189	6.7	0.0	0.0	0.0	1.00	1.00	0.0	0.00	6.60	37	219
99.2	Generic 4' Yagi	1	93	11.9	4.0	48.0	3.0	1.00	1.00	0.0	0.00	6.48	65	96
98.0	Flat Side Arm	1	189	7.6	0.0	0.0	0.0	1.00	1.00	0.0	0.00	6.46	42	219
80.0	Empty Round Side Arm	1	188	6.6	0.0	0.0	0.0	1.00	1.00	0.0	0.00	6.19	35	218
8.0	Round Side Arm	1	183	6.4	0.0	0.0	0.0	1.00	1.00	0.0	0.00	4.36	24	213
	Totals	**166**	**27,577**	**1357.3**									4950	30,669

Discrete Appurtenance Properties for LC: **1.0D + 1.0W Service**

Elev (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K_a	Orient. Factor	Vert. Ecc. (ft)	M_u (lb-ft)	Q_z (psf)	F_a (WL) (lb)	P_a (DL) (lb)
263.2	Generic 8' Yagi	1	30	12.0	8.0	60.0	3.0	1.00	1.00	0.0	0.00	12.06	123	30
248.5	Generic 12' Omni	1	40	3.6	12.0	3.0	3.0	1.00	1.00	0.0	0.00	11.92	36	40
247.7	Dielectric DCR-L1	1	8	1.2	2.0	14.0	36.0	1.00	1.00	0.0	0.00	11.91	12	8
245.2	Generic 10' Omni	1	25	3.0	10.0	3.0	3.0	1.00	1.00	0.0	0.00	11.88	30	25
240.0	Lightning Rod	1	10	1.0	4.0	3.0	3.0	1.00	1.00	0.0	0.00	11.83	10	10
240.0	Dielectric DCR-L1 w/ Radome	1	18	1.8	0.0	0.0	0.0	1.00	1.00	3.0	54.44	11.86	18	18
240.0	Beacon	1	70	4.5	3.0	18.0	18.0	1.00	1.00	0.0	0.00	11.83	45	70
240.0	Generic Round Side Arm	2	188	5.2	0.0	0.0	0.0	0.90	0.90	0.0	0.00	11.83	85	375
235.9	Generic 8' Omni	2	25	2.4	8.0	3.0	3.0	1.00	1.00	0.0	0.00	11.79	48	50
235.2	Generic 10' Omni	2	25	3.0	10.0	3.0	3.0	1.00	1.00	0.0	0.00	11.78	60	50
230.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	11.72	52	188
223.0	Generic Round Side Arm	1	188	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	11.65	51	188
223.0	Empty Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	11.65	62	150
207.4	Ericsson Radio 4449 B71 B85A	3	75	1.6	1.3	13.2	10.5	0.80	0.50	0.0	0.00	11.47	19	225
206.8	Ericsson Air6449 B41	3	104	5.7	2.8	20.6	8.6	0.80	0.63	0.0	0.00	11.46	84	312
202.0	Ericsson RRUS 4415 B25	3	46	1.8	1.4	13.4	5.9	0.80	0.50	0.0	0.00	11.41	21	138
202.0	Ericsson AIR 32 B66AA B2P	3	109	6.9	4.9	12.9	8.7	0.80	0.71	0.0	0.00	11.41	114	327
202.0	Generic Mount Reinforcement	1	200	7.5	0.0	0.0	0.0	1.00	1.00	0.0	0.00	11.41	73	200
202.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	11.41	211	900
202.0	RFS APXVAARR24_43-U-NA20	3	128	20.2	8.0	24.0	8.7	0.80	0.63	0.0	0.00	11.41	297	384
193.5	Generic 3' HP Dish	1	140	8.9	3.0	36.0	0.0	0.90	1.00	0.0	0.00	11.31	77	140
193.1	Generic 2' Std. Dish	2	14	5.2	2.0	24.0	0.0	1.00	1.00	0.0	0.00	11.30	100	28
187.4	Nokia 2.5G MAA - AAHC(64T64R)	3	104	4.2	2.1	19.7	9.6	0.80	0.64	0.0	0.00	11.23	62	311
187.3	Argus LLPX310R	3	29	4.3	3.5	11.8	4.5	0.80	0.63	0.0	0.00	11.23	62	86
187.2	Motorola DAP Vx	3	27	1.6	2.1	7.6	5.5	0.80	0.50	0.0	0.00	11.23	19	80
187.1	RFS APXVSPP18-C-A20	2	57	8.0	6.0	11.8	7.0	0.80	0.77	0.0	0.00	11.23	94	114
186.6	RFS APXV9ERR18-C-A20	1	62	8.0	6.0	11.8	7.9	0.80	1.00	0.0	0.00	11.22	61	62
184.4	Generic 24" x 24" Junction Box	1	20	4.8	2.0	24.0	8.0	0.80	0.50	0.0	0.00	11.19	18	20
183.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	11.17	256	1200
181.7	Alcatel-Lucent 1900MHz RRH	6	44	3.3	1.9	13.0	17.0	0.80	0.50	0.0	0.00	11.16	74	264
180.1	Alcatel-Lucent 800 MHz RRH	3	53	2.1	1.6	13.0	10.8	0.80	0.50	0.0	0.00	11.14	24	159
180.0	Generic Flat Side Arm	3	188	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.00	11.13	120	562
171.6	Raycap DC6-48-60-18-8F (23.5"	2	20	1.3	2.0	9.7	9.7	0.80	0.50	0.0	0.00	11.02	9	40
171.0	Ericsson RRUS 4478 B14	3	60	1.8	1.4	13.4	7.7	0.80	0.50	0.0	0.00	11.02	21	180
167.0	Ericsson AIR 6419 N77G	3	70	3.9	1.3	30.0	6.7	0.80	0.57	0.0	0.00	10.96	50	210
165.0	Kaelus DBC0051F3V51-2	6	12	0.4	0.7	6.2	4.4	0.80	0.50	0.0	0.00	10.93	9	74
165.0	Ericsson RRUS 8843 B2, B66A	3	72	1.6	1.2	13.2	10.9	0.80	0.50	0.0	0.00	10.93	18	216
165.0	Ericsson RRUS 4449 B5, B12	3	71	2.0	1.5	13.2	9.4	0.80	0.50	0.0	0.00	10.93	22	213
165.0	Ericsson RRUS 4449 B5, B12	1	71	2.0	1.5	13.2	9.4	0.80	0.50	0.0	0.00	10.93	7	71
165.0	Raycap DC9-48-60-24-8C-EV (Enc	1	19	2.7	2.2	12.4	9.7	0.80	0.50	0.0	0.00	10.93	10	18
165.0	Ericsson RRUS 32 B30	2	60	2.7	2.3	12.1	7.0	0.80	0.50	0.0	0.00	10.93	20	120
165.0	Ericsson RRUS 32 B2	2	53	2.7	2.3	12.1	7.0	0.80	0.50	0.0	0.00	10.93	20	106
165.0	Ericsson RRUS 32 B66	3	53	2.7	2.3	12.1	7.0	0.80	0.50	0.0	0.00	10.93	31	159
165.0	CCI DMP65R-BU6DA	2	79	12.7	5.9	20.7	7.7	0.80	0.63	0.0	0.00	10.93	119	159
165.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.00	10.93	202	900
165.0	Matsing MS-MBA-3.2-H4-L4 *	1	130	15.8	6.0	24.0	26.0	0.80	1.00	0.0	0.00	10.93	117	130
165.0	Quintel QD6616-7	3	130	51.4	6.0	22.0	9.6	0.80	0.64	0.0	0.00	10.93	734	390
163.0	Ericsson AIR 6449 n77D	3	82	4.0	2.5	15.9	8.1	0.80	0.65	0.0	0.00	10.90	58	245
155.0	Commscope CBC78T-DS-43-2X	3	21	0.6	0.8	6.9	6.4	0.80	0.50	0.0	0.00	10.79	6	62
155.0	Samsung Outdoor CBRS 20W RRH	3	19	0.9	1.0	8.5	4.1	0.80	0.50	0.0	0.00	10.79	9	56
155.0	Samsung Outdoor CBRS 20W RRH –	3	4	0.9	1.0	8.7	1.4	0.80	0.50	0.0	0.00	10.79	10	13
155.0	Samsung B5/B13 RRH-BR04C	3	70	1.9	1.3	15.0	8.1	0.80	0.50	0.0	0.00	10.79	21	211
155.0	Samsung B2/B66A RRH-BR049	3	84	1.9	1.3	15.0	10.0	0.80	0.50	0.0	0.00	10.79	21	253
155.0	Raycap RxxDC-3315-PF-48	2	21	2.5	1.6	15.7	10.3	0.80	0.50	0.0	0.00	10.79	18	43
155.0	Samsung MT6407-77A	3	82	4.7	2.9	16.1	5.5	0.80	0.61	0.0	0.00	10.79	63	245
155.0	Amphenol Antel BXA-80063-6BF-E	3	19	7.3	5.7	11.2	5.3	0.80	0.66	0.0	0.00	10.79	105	58
155.0	Generic Mount Reinforcement	2	200	7.5	0.0	0.0	0.0	1.00	1.00	0.0	0.00	10.79	138	400
155.0	Commscope JAHH-65B-R3B	6	61	9.1	6.0	13.8	8.2	0.80	0.69	0.0	0.00	10.79	277	364
155.0	Flat Light Sector Frame	3	400	17.9	0.0	0.0	0.0	0.75	0.67	0.0	0.00	10.79	247	1200
145.0	Commscope RDIDC-9181-PF-48	1	22	1.9	1.3	14.0	8.0	0.80	0.50	0.0	0.00	10.64	7	22
145.0	Fujitsu TA08025-B605	3	75	2.0	1.3	15.0	9.1	0.80	0.50	0.0	0.00	10.64	21	225
145.0	Fujitsu TA08025-B604	3	64	2.0	1.3	15.0	7.9	0.80	0.50	0.0	0.00	10.64	21	192
145.0	JMA Wireless MX08FRO665-21	3	65	12.5	6.0	20.0	8.0	0.80	0.64	0.0	0.00	10.64	173	194
145.0	Generic Round Sector Frame	3	300	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.00	10.64	220	900
140.0	Small Side Lights	3	45	2.0	1.0	8.0	8.0	1.00	1.00	0.0	0.00	10.56	54	135
133.8	Generic 2' Yagi	1	5	1.3	2.0	24.0	2.0	1.00	1.00	0.0	0.00	10.46	12	5
132.0	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	10.43	56	150
127.4	Generic 10' Omni	1	25	3.0	10.0	3.0	3.0	1.00	1.00	0.0	0.00	10.35	26	25
118.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	10.19	45	150
108.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	10.00	44	150
99.2	Generic 4' Yagi	1	15	4.9	4.0	48.0	3.0	1.00	1.00	0.0	0.00	9.82	41	15
98.0	Flat Side Arm	1	150	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.00	9.80	52	150
80.0	Empty Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	9.39	41	150
8.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.00	6.61	29	150
	Totals	**166**	**15,460**	**1034.8**									5,627	15,460

TOWER LOADING – LINEAR APPURTENANCE

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	% In Wind	Spread On Faces	Bundling	Cluster Dia (in)	Out of Zone	Spacing (in)	Orient. Factor	K_a Override
0.0	245.0	1 1/4" Coax	1	1.55	0.63	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	243.0	1 5/8" Coax	1	1.98	0.82	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	240.0	Waveguide	1	1.50	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	205.0	1 5/8" Coax	6	1.98	0.82	50	1	Block	0.00	N	1.00	1.00	0.00
0.0	205.0	1 1/4" Hybriflex Cable	1	1.54	1.00	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	202.0	1 1/4" Hybriflex Cable	2	1.54	1.00	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	202.0	1 5/8" Hybriflex	3	1.98	1.30	100	3	Individual	0.00	N	1.00	1.00	0.01
0.0	202.0	Waveguide	1	1.50	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	194.0	1/2" Coax	3	0.63	0.15	67	1	Block	0.00	N	1.00	1.00	0.00
0.0	187.0	5/16" (0.31"-7.9mm) Coax	6	0.31	0.05	50	1	Block	0.00	N	1.00	1.00	0.00
0.0	187.0	1.7" (43.2mm) Hybrid	1	1.70	1.78	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	183.0	Waveguide	1	1.50	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	180.0	2" conduit	2	2.38	3.65	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	180.0	1 1/4" Hybriflex Cable	4	1.54	1.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	174.0	Waveguide	1	1.50	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.0	165.0	0.92" (23.4mm) Cable	3	0.92	0.89	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	165.0	0.92" (23.4mm) Cable	4	0.92	0.89	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	165.0	0.41" (10.3mm) Fiber	3	0.41	0.09	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	165.0	1 5/8" Coax	6	1.98	0.82	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	165.0	Waveguide	1	1.50	6.00	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	155.0	1 5/8" Coax	6	1.98	0.82	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	155.0	1 5/8" Hybriflex	2	1.98	1.30	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	155.0	Waveguide	1	1.50	6.00	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	150.0	1 1/4" Hybriflex Cable	3	1.54	1.00	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	145.0	1.75" (44.5mm) Hybrid	1	1.75	2.72	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	145.0	Waveguide	1	2.00	6.00	100	2	Individual	0.00	N	1.00	1.00	0.00
0.0	128.0	1 1/4" Coax	1	1.55	0.63	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	115.0	7/8" Coax	1	1.09	0.33	100	3	Individual	0.00	N	1.00	1.00	0.00
0.0	100.0	1 1/4" Coax	1	1.55	0.63	100	3	Individual	0.00	N	1.00	1.00	0.00

SECTION FORCES

1.2D + 1.0W Normal — Gust Response Factor (Gh): 0.85
115.99 mph Wind with No Ice — Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
11	230	43.82	0.000	45.353	0.00	0.179	2.67	1.00	1.00	0.0	22.58	60.21	0.00	4712	0	2242	269	2512
10	210	42.98	0.000	45.187	0.00	0.153	2.76	1.00	1.00	0.0	21.88	60.41	0.00	4940	0	2207	415	2622
9	190	42.09	0.000	46.842	0.00	0.137	2.82	1.00	1.00	0.0	22.55	63.63	0.00	5506	0	2277	1121	3398
8	170	41.11	0.000	50.084	0.00	0.128	2.86	1.00	1.00	0.0	24.29	69.39	0.00	6731	0	2425	2068	4492
7	150	40.04	0.000	57.359	0.00	0.130	2.85	1.00	1.00	0.0	28.04	79.87	0.00	8218	0	2718	3428	6147
6	130	38.86	0.000	57.395	0.00	0.116	2.90	1.00	1.00	0.0	28.35	82.18	0.00	8574	0	2714	3775	6489
5	110	37.51	0.000	63.059	0.00	0.116	2.90	1.00	1.00	0.0	30.75	89.19	0.00	8465	0	2844	3712	6556
4	90	35.96	0.000	57.777	0.00	0.097	2.98	1.00	1.00	0.0	28.05	83.46	0.00	8372	0	2551	3625	6176
3	70	34.11	0.000	66.406	0.00	0.102	2.96	1.00	1.00	0.0	31.82	94.04	0.00	9364	0	2726	3438	6165
2	45	31.08	0.000	113.831	0.00	0.107	2.94	1.00	1.00	0.0	55.68	163.56	0.00	14607	0	4321	4699	9020
1	15	24.69	0.000	120.618	0.00	0.102	2.96	1.00	1.00	0.0	57.80	170.80	0.00	15912	0	3585	3734	7319
													Totals	**95,401**	**0**			**60,896**

1.2D + 1.0W 60° — Gust Response Factor (Gh): 0.85
115.99 mph Wind with No Ice — Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
11	230	43.82	0.000	45.353	0.00	0.179	2.67	0.80	1.00	0.0	22.58	60.21	0.00	4712	0	2242	269	2512
10	210	42.98	0.000	45.187	0.00	0.153	2.76	0.80	1.00	0.0	21.88	60.41	0.00	4940	0	2207	415	2622
9	190	42.09	0.000	46.842	0.00	0.137	2.82	0.80	1.00	0.0	22.55	63.63	0.00	5506	0	2277	1121	3398
8	170	41.11	0.000	50.084	0.00	0.128	2.86	0.80	1.00	0.0	24.29	69.39	0.00	6731	0	2425	2068	4492
7	150	40.04	0.000	57.359	0.00	0.130	2.85	0.80	1.00	0.0	28.04	79.87	0.00	8218	0	2718	3428	6147
6	130	38.86	0.000	57.395	0.00	0.116	2.90	0.80	1.00	0.0	28.35	82.18	0.00	8574	0	2714	3775	6489
5	110	37.51	0.000	63.059	0.00	0.116	2.90	0.80	1.00	0.0	30.75	89.19	0.00	8465	0	2844	3712	6556
4	90	35.96	0.000	57.777	0.00	0.097	2.98	0.80	1.00	0.0	28.05	83.46	0.00	8372	0	2551	3625	6176
3	70	34.11	0.000	66.406	0.00	0.102	2.96	0.80	1.00	0.0	31.82	94.04	0.00	9364	0	2726	3438	6165
2	45	31.08	0.000	113.831	0.00	0.107	2.94	0.80	1.00	0.0	55.68	163.56	0.00	14607	0	4321	4699	9020
1	15	24.69	0.000	120.618	0.00	0.102	2.96	0.80	1.00	0.0	58.57	173.10	0.00	15912	0	3633	3734	7367
													Totals	**95,401**	**0**			**60,944**

1.2D + 1.0W 90° — Gust Response Factor (Gh): 0.85
115.99 mph Wind with No Ice — Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
11	230	43.82	0.000	45.353	0.00	0.179	2.67	0.85	1.00	0.0	22.58	60.21	0.00	4712	0	2242	269	2512
10	210	42.98	0.000	45.187	0.00	0.153	2.76	0.85	1.00	0.0	21.88	60.41	0.00	4940	0	2207	415	2622
9	190	42.09	0.000	46.842	0.00	0.137	2.82	0.85	1.00	0.0	22.55	63.63	0.00	5506	0	2277	1121	3398
8	170	41.11	0.000	50.084	0.00	0.128	2.86	0.85	1.00	0.0	24.29	69.39	0.00	6731	0	2425	2068	4492
7	150	40.04	0.000	57.359	0.00	0.130	2.85	0.85	1.00	0.0	28.04	79.87	0.00	8218	0	2718	3428	6147
6	130	38.86	0.000	57.395	0.00	0.116	2.90	0.85	1.00	0.0	28.35	82.18	0.00	8574	0	2714	3775	6489
5	110	37.51	0.000	63.059	0.00	0.116	2.90	0.85	1.00	0.0	30.75	89.19	0.00	8465	0	2844	3712	6556
4	90	35.96	0.000	57.777	0.00	0.097	2.98	0.85	1.00	0.0	28.05	83.46	0.00	8372	0	2551	3625	6176
3	70	34.11	0.000	66.406	0.00	0.102	2.96	0.85	1.00	0.0	31.82	94.04	0.00	9364	0	2726	3438	6165
2	45	31.08	0.000	113.831	0.00	0.107	2.94	0.85	1.00	0.0	55.68	163.56	0.00	14607	0	4321	4699	9020
1	15	24.69	0.000	120.618	0.00	0.102	2.96	0.85	1.00	0.0	58.57	173.10	0.00	15912	0	3633	3734	7367
													Totals	**95,401**	**0**			**60,944**

0.9D + 1.0W Normal — Gust Response Factor (Gh): 0.85
115.99 mph Wind with No Ice (Reduced DL) — Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
11	230	43.82	0.000	45.353	0.00	0.179	2.67	1.00	1.00	0.0	22.58	60.21	0.00	3534	0	2242	269	2512
10	210	42.98	0.000	45.187	0.00	0.153	2.76	1.00	1.00	0.0	21.88	60.41	0.00	3705	0	2207	415	2622
9	190	42.09	0.000	46.842	0.00	0.137	2.82	1.00	1.00	0.0	22.55	63.63	0.00	4130	0	2277	1121	3398
8	170	41.11	0.000	50.084	0.00	0.128	2.86	1.00	1.00	0.0	24.29	69.39	0.00	5048	0	2425	2068	4492
7	150	40.04	0.000	57.359	0.00	0.130	2.85	1.00	1.00	0.0	28.04	79.87	0.00	6164	0	2718	3428	6147
6	130	38.86	0.000	57.395	0.00	0.116	2.90	1.00	1.00	0.0	28.35	82.18	0.00	6431	0	2714	3775	6489
5	110	37.51	0.000	63.059	0.00	0.116	2.90	1.00	1.00	0.0	30.75	89.19	0.00	6349	0	2844	3712	6556
4	90	35.96	0.000	57.777	0.00	0.097	2.98	1.00	1.00	0.0	28.05	83.46	0.00	6279	0	2551	3625	6176
3	70	34.11	0.000	66.406	0.00	0.102	2.96	1.00	1.00	0.0	31.82	94.04	0.00	7023	0	2726	3438	6165
2	45	31.08	0.000	113.831	0.00	0.107	2.94	1.00	1.00	0.0	55.68	163.56	0.00	10955	0	4321	4699	9020
1	15	24.69	0.000	120.618	0.00	0.102	2.96	1.00	1.00	0.0	58.57	173.10	0.00	11934	0	3633	3734	7367
													Totals	**71,551**	**0**			**60,944**

0.9D + 1.0W 60° — Gust Response Factor (Gh): 0.85
115.99 mph Wind with No Ice (Reduced DL) — Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
11	230	43.82	0.000	45.353	0.00	0.179	2.67	0.80	1.00	0.0	22.58	60.21	0.00	3534	0	2242	269	2512
10	210	42.98	0.000	45.187	0.00	0.153	2.76	0.80	1.00	0.0	21.88	60.41	0.00	3705	0	2207	415	2622
9	190	42.09	0.000	46.842	0.00	0.137	2.82	0.80	1.00	0.0	22.55	63.63	0.00	4130	0	2277	1121	3398
8	170	41.11	0.000	50.084	0.00	0.128	2.86	0.80	1.00	0.0	24.29	69.39	0.00	5048	0	2425	2068	4492
7	150	40.04	0.000	57.359	0.00	0.130	2.85	0.80	1.00	0.0	28.04	79.87	0.00	6164	0	2718	3428	6147

SECTION FORCES

0.9D + 1.0W 60° Gust Response Factor (Gh): 0.85
115.99 mph Wind with No Ice (Reduced DL) Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
6	130	38.86	0.000	57.395	0.00	0.116	2.90	0.80	1.00	0.0	28.35	82.18	0.00	6431	0	2714	3775	6489
5	110	37.51	0.000	63.059	0.00	0.116	2.90	0.80	1.00	0.0	30.75	89.19	0.00	6349	0	2844	3712	6556
4	90	35.96	0.000	57.777	0.00	0.097	2.98	0.80	1.00	0.0	28.05	83.46	0.00	6279	0	2551	3625	6176
3	70	34.11	0.000	66.406	0.00	0.102	2.96	0.80	1.00	0.0	31.82	94.04	0.00	7023	0	2726	3438	6165
2	45	31.08	0.000	113.831	0.00	0.107	2.94	0.80	1.00	0.0	55.68	163.56	0.00	10955	0	4321	4699	9020
1	15	24.69	0.000	120.618	0.00	0.102	2.96	0.80	1.00	0.0	58.57	173.10	0.00	11934	0	3633	3734	7367
													Totals	**71,551**	**0**			**60,944**

0.9D + 1.0W 90° Gust Response Factor (Gh): 0.85
115.99 mph Wind with No Ice (Reduced DL) Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
11	230	43.82	0.000	45.353	0.00	0.179	2.67	0.85	1.00	0.0	22.58	60.21	0.00	3534	0	2242	269	2512
10	210	42.98	0.000	45.187	0.00	0.153	2.76	0.85	1.00	0.0	21.88	60.41	0.00	3705	0	2207	415	2622
9	190	42.09	0.000	46.842	0.00	0.137	2.82	0.85	1.00	0.0	22.55	63.63	0.00	4130	0	2277	1121	3398
8	170	41.11	0.000	50.084	0.00	0.128	2.86	0.85	1.00	0.0	24.29	69.39	0.00	5048	0	2425	2068	4492
7	150	40.04	0.000	57.359	0.00	0.130	2.85	0.85	1.00	0.0	28.04	79.87	0.00	6164	0	2718	3428	6147
6	130	38.86	0.000	57.395	0.00	0.116	2.90	0.85	1.00	0.0	28.35	82.18	0.00	6431	0	2714	3775	6489
5	110	37.51	0.000	63.059	0.00	0.116	2.90	0.85	1.00	0.0	30.75	89.19	0.00	6349	0	2844	3712	6556
4	90	35.96	0.000	57.777	0.00	0.097	2.98	0.85	1.00	0.0	28.05	83.46	0.00	6279	0	2551	3625	6176
3	70	34.11	0.000	66.406	0.00	0.102	2.96	0.85	1.00	0.0	31.82	94.04	0.00	7023	0	2726	3438	6165
2	45	31.08	0.000	113.831	0.00	0.107	2.94	0.85	1.00	0.0	55.68	163.56	0.00	10955	0	4321	4699	9020
1	15	24.69	0.000	120.618	0.00	0.102	2.96	0.85	1.00	0.0	58.57	173.10	0.00	11934	0	3633	3734	7367
													Totals	**71,551**	**0**			**60,944**

1.2D + 1.0Di + 1.0Wi Normal Gust Response Factor (Gh): 0.85 Ice Importance Factor: 1.00
48.73 mph Wind with 0.85" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
11	230	7.73	0.000	67.581	22.23	0.264	2.40	1.00	1.00	1.0	40.41	96.87	22.23	7022	2310	637	121	758
10	210	7.59	0.000	65.068	19.88	0.218	2.54	1.00	1.00	1.0	38.08	96.64	19.88	7245	2305	623	168	791
9	190	7.43	0.000	67.820	20.98	0.196	2.61	1.00	1.00	1.0	39.39	102.82	20.98	8720	3213	649	446	1095
8	170	7.26	0.000	72.228	22.14	0.182	2.66	1.00	1.00	1.0	41.81	111.06	22.14	11025	4294	685	946	1631
7	150	7.07	0.000	77.759	25.61	0.174	2.68	1.00	1.00	1.0	47.91	128.60	25.61	14477	6259	773	1687	2459
6	130	6.86	0.000	81.778	24.38	0.165	2.72	1.00	1.00	1.0	47.16	128.17	24.38	14830	6256	747	1851	2598
5	110	6.62	0.000	78.482	20.03	0.144	2.79	1.00	1.00	1.0	47.39	132.45	20.03	15220	6755	745	1847	2592
4	90	6.35	0.000	76.261	18.48	0.128	2.86	1.00	1.00	0.9	43.50	124.22	18.48	14402	6031	670	1816	2486
3	70	6.02	0.000	85.071	18.66	0.130	2.85	1.00	1.00	0.9	48.53	138.07	18.66	15452	6089	707	1696	2402
2	45	5.49	0.000	137.693	23.86	0.128	2.85	1.00	1.00	0.9	78.28	223.32	23.86	23945	9339	1041	2270	3311
1	15	4.36	0.000	136.326	24.35	0.115	2.90	1.00	1.00	0.8	82.37	239.22	24.35	24688	8776	886	1729	2615
													Totals	**157,028**	**61,627**			**22,739**

1.2D + 1.0Di + 1.0Wi 60° Gust Response Factor (Gh): 0.85 Ice Importance Factor: 1.00
48.73 mph Wind with 0.85" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
11	230	7.73	0.000	67.581	22.23	0.264	2.40	0.80	1.00	1.0	40.41	96.87	22.23	7022	2310	637	121	758
10	210	7.59	0.000	65.068	19.88	0.218	2.54	0.80	1.00	1.0	38.08	96.64	19.88	7245	2305	623	168	791
9	190	7.43	0.000	67.820	20.98	0.196	2.61	0.80	1.00	1.0	39.39	102.82	20.98	8720	3213	649	446	1095
8	170	7.26	0.000	72.228	22.14	0.182	2.66	0.80	1.00	1.0	41.81	111.06	22.14	11025	4294	685	946	1631
7	150	7.07	0.000	77.759	25.61	0.174	2.68	0.80	1.00	1.0	47.91	128.60	25.61	14477	6259	773	1687	2459
6	130	6.86	0.000	81.778	24.38	0.165	2.72	0.80	1.00	1.0	47.16	128.17	24.38	14830	6256	747	1851	2598
5	110	6.62	0.000	78.482	20.03	0.144	2.79	0.80	1.00	1.0	47.39	132.45	20.03	15220	6755	745	1847	2592
4	90	6.35	0.000	76.261	18.48	0.128	2.86	0.80	1.00	0.9	43.50	124.22	18.48	14402	6031	670	1816	2486
3	70	6.02	0.000	85.071	18.66	0.130	2.85	0.80	1.00	0.9	48.53	138.07	18.66	15452	6089	707	1696	2402
2	45	5.49	0.000	137.693	23.86	0.128	2.85	0.80	1.00	0.9	78.28	223.32	23.86	23945	9339	1041	2270	3311
1	15	4.36	0.000	136.326	24.35	0.115	2.90	0.80	1.00	0.8	82.37	239.22	24.35	24688	8776	886	1729	2615
													Totals	**157,028**	**61,627**			**22,739**

1.2D + 1.0Di + 1.0Wi 90° Gust Response Factor (Gh): 0.85 Ice Importance Factor: 1.00
48.73 mph Wind with 0.85" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
11	230	7.73	0.000	67.581	22.23	0.264	2.40	0.85	1.00	1.0	40.41	96.87	22.23	7022	2310	637	121	758
10	210	7.59	0.000	65.068	19.88	0.218	2.54	0.85	1.00	1.0	38.08	96.64	19.88	7245	2305	623	168	791
9	190	7.43	0.000	67.820	20.98	0.196	2.61	0.85	1.00	1.0	39.39	102.82	20.98	8720	3213	649	446	1095
8	170	7.26	0.000	72.228	22.14	0.182	2.66	0.85	1.00	1.0	41.81	111.06	22.14	11025	4294	685	946	1631
7	150	7.07	0.000	77.759	25.61	0.174	2.68	0.85	1.00	1.0	47.91	128.60	25.61	14477	6259	773	1687	2459
6	130	6.86	0.000	81.778	24.38	0.165	2.72	0.85	1.00	1.0	47.16	128.17	24.38	14830	6256	747	1851	2598
5	110	6.62	0.000	78.482	20.03	0.144	2.79	0.85	1.00	1.0	47.39	132.45	20.03	15220	6755	745	1847	2592
4	90	6.35	0.000	76.261	18.48	0.128	2.86	0.85	1.00	0.9	43.50	124.22	18.48	14402	6031	670	1816	2486
3	70	6.02	0.000	85.071	18.66	0.130	2.85	0.85	1.00	0.9	48.53	138.07	18.66	15452	6089	707	1696	2402
2	45	5.49	0.000	137.693	23.86	0.128	2.85	0.85	1.00	0.9	78.28	223.32	23.86	23945	9339	1041	2270	3311

SECTION FORCES

1.2D + 1.0Di + 1.0Wi 90° Gust Response Factor (Gh): 0.85 Ice Importance Factor: 1.00
48.73 mph Wind with 0.85" Radial Ice Wind Importance Factor (Iw): 1.00 Ice Dead Load Factor: 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
1	15	4.36	0.000	136.326	24.35	0.115	2.90	0.85	1.00	0.8	82.37	239.22	24.35	24688	8776	886	1729	2615
													Totals	**157,028**	**61,627**			**22,739**

1.0D + 1.0W Service Normal Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
11	230	11.72	0.000	45.353	0.00	0.179	2.67	1.00	1.00	0.0	25.16	67.10	0.00	3927	0	669	72	741
10	210	11.50	0.000	45.187	0.00	0.153	2.76	1.00	1.00	0.0	24.73	68.26	0.00	4117	0	667	111	778
9	190	11.26	0.000	46.842	0.00	0.137	2.82	1.00	1.00	0.0	25.60	72.23	0.00	4588	0	691	300	991
8	170	11.00	0.000	50.084	0.00	0.128	2.86	1.00	1.00	0.0	27.49	78.52	0.00	5609	0	734	553	1288
7	150	10.72	0.000	57.359	0.00	0.130	2.85	1.00	1.00	0.0	31.63	90.10	0.00	6848	0	821	917	1738
6	130	10.40	0.000	57.395	0.00	0.116	2.90	1.00	1.00	0.0	31.83	92.28	0.00	7145	0	815	1010	1826
5	110	10.04	0.000	63.059	0.00	0.116	2.90	1.00	1.00	0.0	34.72	100.70	0.00	7054	0	859	993	1852
4	90	9.62	0.000	57.777	0.00	0.097	2.98	1.00	1.00	0.0	31.99	95.18	0.00	6976	0	779	970	1749
3	70	9.13	0.000	66.406	0.00	0.102	2.96	1.00	1.00	0.0	35.30	104.31	0.00	7803	0	809	920	1729
2	45	8.32	0.000	113.831	0.00	0.107	2.94	1.00	1.00	0.0	62.23	182.80	0.00	12172	0	1292	1257	2550
1	15	6.61	0.000	120.618	0.00	0.102	2.96	1.00	1.00	0.0	65.85	194.62	0.00	13260	0	1093	999	2092
													Totals	**79,501**	**0**			**17,334**

1.0D + 1.0W Service 60° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
11	230	11.72	0.000	45.353	0.00	0.179	2.67	0.80	1.00	0.0	25.16	67.10	0.00	3927	0	669	72	741
10	210	11.50	0.000	45.187	0.00	0.153	2.76	0.80	1.00	0.0	24.73	68.26	0.00	4117	0	667	111	778
9	190	11.26	0.000	46.842	0.00	0.137	2.82	0.80	1.00	0.0	25.60	72.23	0.00	4588	0	691	300	991
8	170	11.00	0.000	50.084	0.00	0.128	2.86	0.80	1.00	0.0	27.49	78.52	0.00	5609	0	734	553	1288
7	150	10.72	0.000	57.359	0.00	0.130	2.85	0.80	1.00	0.0	31.63	90.10	0.00	6848	0	821	917	1738
6	130	10.40	0.000	57.395	0.00	0.116	2.90	0.80	1.00	0.0	31.83	92.28	0.00	7145	0	815	1010	1826
5	110	10.04	0.000	63.059	0.00	0.116	2.90	0.80	1.00	0.0	34.72	100.70	0.00	7054	0	859	993	1852
4	90	9.62	0.000	57.777	0.00	0.097	2.98	0.80	1.00	0.0	31.99	95.18	0.00	6976	0	779	970	1749
3	70	9.13	0.000	66.406	0.00	0.102	2.96	0.80	1.00	0.0	35.30	104.31	0.00	7803	0	809	920	1729
2	45	8.32	0.000	113.831	0.00	0.107	2.94	0.80	1.00	0.0	62.23	182.80	0.00	12172	0	1292	1257	2550
1	15	6.61	0.000	120.618	0.00	0.102	2.96	0.80	1.00	0.0	65.85	194.62	0.00	13260	0	1093	999	2092
													Totals	**79,501**	**0**			**17,334**

1.0D + 1.0W Service 90° Gust Response Factor (Gh): 0.85
60 mph Wind with No Ice Wind Importance Factor (Iw): 1.00

Section #	Elev (ft)	Q_Z (psf)	A_f (sf)	A_r (sf)	Ice A_r (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_a (sf)	EPA_{ai} (sf)	Wt (lb)	Ice Wt (lb)	F_{st} (lb)	F_a (lb)	Force (lb)
11	230	11.72	0.000	45.353	0.00	0.179	2.67	0.85	1.00	0.0	25.16	67.10	0.00	3927	0	669	72	741
10	210	11.50	0.000	45.187	0.00	0.153	2.76	0.85	1.00	0.0	24.73	68.26	0.00	4117	0	667	111	778
9	190	11.26	0.000	46.842	0.00	0.137	2.82	0.85	1.00	0.0	25.60	72.23	0.00	4588	0	691	300	991
8	170	11.00	0.000	50.084	0.00	0.128	2.86	0.85	1.00	0.0	27.49	78.52	0.00	5609	0	734	553	1288
7	150	10.72	0.000	57.359	0.00	0.130	2.85	0.85	1.00	0.0	31.63	90.10	0.00	6848	0	821	917	1738
6	130	10.40	0.000	57.395	0.00	0.116	2.90	0.85	1.00	0.0	31.83	92.28	0.00	7145	0	815	1010	1826
5	110	10.04	0.000	63.059	0.00	0.116	2.90	0.85	1.00	0.0	34.72	100.70	0.00	7054	0	859	993	1852
4	90	9.62	0.000	57.777	0.00	0.097	2.98	0.85	1.00	0.0	31.99	95.18	0.00	6976	0	779	970	1749
3	70	9.13	0.000	66.406	0.00	0.102	2.96	0.85	1.00	0.0	35.30	104.31	0.00	7803	0	809	920	1729
2	45	8.32	0.000	113.831	0.00	0.107	2.94	0.85	1.00	0.0	62.23	182.80	0.00	12172	0	1292	1257	2550
1	15	6.61	0.000	120.618	0.00	0.102	2.96	0.85	1.00	0.0	65.85	194.62	0.00	13260	0	1093	999	2092
													Totals	**79,501**	**0**			**17,334**

EQUIVALENT LATERAL FORCE METHOD

Spectral Response Acceleration for Short Period (S_S):	0.21
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.05
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.00
Site Coefficient F_a:	1.60
Site Coefficient F_v:	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.22
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Seismic Response Coefficient (C_s):	0.04
Upper Limit C_S:	0.04
Lower Limit C_S:	0.03
Period based on Rayleigh Method (sec):	0.72
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.11
Total Unfactored Dead Load:	94.96 k
Seismic Base Shear (E):	4.94 k

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
11	230.00	3,927	1,639,057	0.087	432	3,357
10	210.00	4,117	1,553,412	0.083	410	3,520
9	190.00	4,588	1,549,489	0.083	408	3,923
8	170.00	5,609	1,674,216	0.089	441	4,796
7	150.00	6,848	1,779,089	0.095	469	5,855
6	130.00	7,145	1,583,686	0.084	418	6,109
5	110.00	7,054	1,298,948	0.069	342	6,031
4	90.00	6,976	1,028,164	0.055	271	5,965
3	70.00	7,803	870,176	0.046	229	6,672
2	45.00	12,172	831,344	0.044	219	10,407
1	15.00	13,260	267,640	0.014	71	11,337
Generic 8' Yagi	240.00	30	13,129	0.001	3	26
Generic 12' Omni	240.00	40	17,505	0.001	5	34
Dielectric DCR-L1	240.00	8	3,501	0.000	1	7
Generic 10' Omni	240.00	25	10,940	0.001	3	21
Lightning Rod	240.00	10	4,376	0.000	1	9
Dielectric DCR-L1 w/ Radome	240.00	18	7,877	0.000	2	15
Beacon	240.00	70	30,633	0.002	8	60
Generic Round Side Arm	240.00	375	164,107	0.009	43	321
Generic 8' Omni	235.90	50	21,467	0.001	6	43
Generic 10' Omni	235.20	50	21,396	0.001	6	43
Generic Round Side Arm	230.00	188	78,269	0.004	21	160
Generic Round Side Arm	223.00	188	75,630	0.004	20	160
Empty Flat Side Arm	223.00	150	60,504	0.003	16	128
Ericsson Radio 4449 B71 B85A	207.40	225	83,739	0.004	22	192
Ericsson Air6449 B41	206.80	312	115,745	0.006	31	267
Ericsson RRUS 4415 B25	202.00	138	49,878	0.003	13	118
Ericsson AIR 32 B66AA B2P	202.00	327	118,189	0.006	31	280
Generic Mount Reinforcement	202.00	200	72,287	0.004	19	171
Generic Round Sector Frame	202.00	900	325,292	0.017	86	769
RFS APXVAARR24_43-U-NA20	202.00	384	138,683	0.007	37	328
Generic 3' HP Dish	193.50	140	48,244	0.003	13	120
Generic 2' Std. Dish	193.10	28	9,627	0.000	3	24
Nokia 2.5G MAA - AAHC(64T64R)	187.40	311	103,362	0.006	27	266
Argus LLPX310R	187.30	86	28,517	0.002	8	73
Motorola DAP Vx	187.20	80	26,408	0.001	7	68
RFS APXVSPP18-C-A20	187.10	114	37,845	0.002	10	97
RFS APXV9ERR18-C-A20	186.60	62	20,521	0.001	5	53
Generic 24" x 24" Junction Box	184.40	20	6,533	0.000	2	17
Flat Light Sector Frame	183.00	1,200	388,696	0.021	102	1,026
Alcatel-Lucent 1900MHz RRH	181.70	264	84,839	0.004	22	226
Alcatel-Lucent 800 MHz RRH	180.10	159	50,597	0.003	13	136

Generic Flat Side Arm	180.00	562	178,890	0.010	47	481
Raycap DC6-48-60-18-8F (23.5" Height)	171.60	40	12,064	0.001	3	34
Ericsson RRUS 4478 B14	171.00	180	53,988	0.003	14	154
Ericsson AIR 6419 N77G	167.00	210	61,455	0.003	16	180
Kaelus DBC0051F3V51-2	165.00	74	21,484	0.001	6	64
Ericsson RRUS 8843 B2, B66A	165.00	216	62,372	0.003	16	185
Ericsson RRUS 4449 B5, B12	165.00	213	61,505	0.003	16	182
Ericsson RRUS 4449 B5, B12	165.00	71	20,502	0.001	5	61
Raycap DC9-48-60-24-8C-EV (Enclosure)	165.00	18	5,342	0.000	1	16
Ericsson RRUS 32 B30	165.00	120	34,651	0.002	9	103
Ericsson RRUS 32 B2	165.00	106	30,608	0.002	8	91
Ericsson RRUS 32 B66	165.00	159	45,912	0.002	12	136
CCI DMP65R-BU6DA	165.00	159	45,855	0.002	12	136
Generic Round Sector Frame	165.00	900	259,882	0.014	69	769
Matsing MS-MBA-3.2-H4-L4 *	165.00	130	37,538	0.002	10	111
Quintel QD6616-7	165.00	390	112,615	0.006	30	333
Ericsson AIR 6449 n77D	163.00	245	69,738	0.004	18	209
Commscope CBC78T-DS-43-2X	155.00	62	16,730	0.001	4	53
Samsung Outdoor CBRS 20W RRH	155.00	56	15,033	0.001	4	48
Samsung Outdoor CBRS 20W RRH –Clip-on Antenna	155.00	13	3,556	0.000	1	11
Samsung B5/B13 RRH-BR04C	155.00	211	56,817	0.003	15	180
Samsung B2/B66A RRH-BR049	155.00	253	68,213	0.004	18	216
Raycap RxxDC-3315-PF-48	155.00	43	11,531	0.001	3	37
Samsung MT6407-77A	155.00	245	65,950	0.004	17	209
Amphenol Antel BXA-80063-6BF-EDIN-X	155.00	58	15,518	0.001	4	49
Generic Mount Reinforcement	155.00	400	107,762	0.006	28	342
Commscope JAHH-65B-R3B	155.00	364	97,955	0.005	26	311
Flat Light Sector Frame	155.00	1,200	323,285	0.017	85	1,026
Commscope RDIDC-9181-PF-48	145.00	22	5,479	0.000	1	19
Fujitsu TA08025-B605	145.00	225	56,292	0.003	15	192
Fujitsu TA08025-B604	145.00	192	47,961	0.003	13	164
JMA Wireless MX08FRO665-21	145.00	194	48,411	0.003	13	165
Generic Round Sector Frame	145.00	900	225,169	0.012	59	769
Small Side Lights	140.00	135	32,486	0.002	9	115
Generic 2' Yagi	133.80	5	1,144	0.000	0	4
Flat Side Arm	132.00	150	33,814	0.002	9	128
Generic 10' Omni	127.40	25	5,418	0.000	1	21
Round Side Arm	118.00	150	29,858	0.002	8	128
Round Side Arm	108.00	150	27,064	0.001	7	128
Generic 4' Yagi	99.20	15	2,463	0.000	1	13
Flat Side Arm	98.00	150	24,298	0.001	6	128
Empty Round Side Arm	80.00	150	19,399	0.001	5	128
Round Side Arm	8.00	150	1,507	0.000	0	128
Totals		**94,960**	**18,751,072**	**0.999**	**4,943**	**81,190**

1.2D + 1.0Ev + 1.0Eh

Section/Appurtenance	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	Cvx	Horizontal Force (lb)	Vertical Force (lb)
11	230.00	3,927	1,639,057	0.087	432	4,889
10	210.00	4,117	1,553,412	0.083	410	5,125
9	190.00	4,588	1,549,489	0.083	408	5,713
8	170.00	5,609	1,674,216	0.089	441	6,983
7	150.00	6,848	1,779,089	0.095	469	8,526
6	130.00	7,145	1,583,686	0.084	418	8,896
5	110.00	7,054	1,298,948	0.069	342	8,783
4	90.00	6,976	1,028,164	0.055	271	8,686
3	70.00	7,803	870,176	0.046	229	9,715
2	45.00	12,172	831,344	0.044	219	15,154
1	15.00	13,260	267,640	0.014	71	16,509
Generic 8' Yagi	240.00	30	13,129	0.001	3	37
Generic 12' Omni	240.00	40	17,505	0.001	5	50
Dielectric DCR-L1	240.00	8	3,501	0.000	1	10
Generic 10' Omni	240.00	25	10,940	0.001	3	31
Lightning Rod	240.00	10	4,376	0.000	1	12
Dielectric DCR-L1 w/ Radome	240.00	18	7,877	0.000	2	22
Beacon	240.00	70	30,633	0.002	8	87
Generic Round Side Arm	240.00	375	164,107	0.009	43	467
Generic 8' Omni	235.90	50	21,467	0.001	6	62
Generic 10' Omni	235.20	50	21,396	0.001	6	62
Generic Round Side Arm	230.00	188	78,269	0.004	21	233
Generic Round Side Arm	223.00	188	75,630	0.004	20	233
Empty Flat Side Arm	223.00	150	60,504	0.003	16	187
Ericsson Radio 4449 B71 B85A	207.40	225	83,739	0.004	22	280
Ericsson Air6449 B41	206.80	312	115,745	0.006	31	388
Ericsson RRUS 4415 B25	202.00	138	49,878	0.003	13	172
Ericsson AIR 32 B66AA B2P	202.00	327	118,189	0.006	31	407
Generic Mount Reinforcement	202.00	200	72,287	0.004	19	249
Generic Round Sector Frame	202.00	900	325,292	0.017	86	1,121
RFS APXVAARR24_43-U-NA20	202.00	384	138,683	0.007	37	478
Generic 3' HP Dish	193.50	140	48,244	0.003	13	174
Generic 2' Std. Dish	193.10	28	9,627	0.000	3	35
Nokia 2.5G MAA - AAHC(64T64R)	187.40	311	103,362	0.006	27	387

Argus LLPX310R	187.30	86	28,517	0.002	8	107
Motorola DAP Vx	187.20	80	26,408	0.001	7	99
RFS APXVSPP18-C-A20	187.10	114	37,845	0.002	10	142
RFS APXV9ERR18-C-A20	186.60	62	20,521	0.001	5	77
Generic 24" x 24" Junction Box	184.40	20	6,533	0.000	2	25
Flat Light Sector Frame	183.00	1,200	388,696	0.021	102	1,494
Alcatel-Lucent 1900MHz RRH	181.70	264	84,839	0.004	22	329
Alcatel-Lucent 800 MHz RRH	180.10	159	50,597	0.003	13	198
Generic Flat Side Arm	180.00	562	178,890	0.010	47	700
Raycap DC6-48-60-18-8F (23.5" Height)	171.60	40	12,064	0.001	3	50
Ericsson RRUS 4478 B14	171.00	180	53,988	0.003	14	224
Ericsson AIR 6419 N77G	167.00	210	61,455	0.003	16	261
Kaelus DBC0051F3V51-2	165.00	74	21,484	0.001	6	93
Ericsson RRUS 8843 B2, B66A	165.00	216	62,372	0.003	16	269
Ericsson RRUS 4449 B5, B12	165.00	213	61,505	0.003	16	265
Ericsson RRUS 4449 B5, B12	165.00	71	20,502	0.001	5	88
Raycap DC9-48-60-24-8C-EV (Enclosure)	165.00	18	5,342	0.000	1	23
Ericsson RRUS 32 B30	165.00	120	34,651	0.002	9	149
Ericsson RRUS 32 B2	165.00	106	30,608	0.002	8	132
Ericsson RRUS 32 B66	165.00	159	45,912	0.002	12	198
CCI DMP65R-BU6DA	165.00	159	45,855	0.002	12	198
Generic Round Sector Frame	165.00	900	259,882	0.014	69	1,121
Matsing MS-MBA-3.2-H4-L4 *	165.00	130	37,538	0.002	10	162
Quintel QD6616-7	165.00	390	112,615	0.006	30	486
Ericsson AIR 6449 n77D	163.00	245	69,738	0.004	18	305
Commscope CBC78T-DS-43-2X	155.00	62	16,730	0.001	4	77
Samsung Outdoor CBRS 20W RRH	155.00	56	15,033	0.001	4	69
Samsung Outdoor CBRS 20W RRH –Clip-on Antenna	155.00	13	3,556	0.000	1	16
Samsung B5/B13 RRH-BR04C	155.00	211	56,817	0.003	15	263
Samsung B2/B66A RRH-BR049	155.00	253	68,213	0.004	18	315
Raycap RxxDC-3315-PF-48	155.00	43	11,531	0.001	3	53
Samsung MT6407-77A	155.00	245	65,950	0.004	17	305
Amphenol Antel BXA-80063-6BF-EDIN-X	155.00	58	15,518	0.001	4	72
Generic Mount Reinforcement	155.00	400	107,762	0.006	28	498
Commscope JAHH-65B-R3B	155.00	364	97,955	0.005	26	453
Flat Light Sector Frame	155.00	1,200	323,285	0.017	85	1,494
Commscope RDIDC-9181-PF-48	145.00	22	5,479	0.000	1	27
Fujitsu TA08025-B605	145.00	225	56,292	0.003	15	280
Fujitsu TA08025-B604	145.00	192	47,961	0.003	13	239
JMA Wireless MX08FRO665-21	145.00	194	48,411	0.003	13	241
Generic Round Sector Frame	145.00	900	225,169	0.012	59	1,121
Small Side Lights	140.00	135	32,486	0.002	9	168
Generic 2' Yagi	133.80	5	1,144	0.000	0	6
Flat Side Arm	132.00	150	33,814	0.002	9	187
Generic 10' Omni	127.40	25	5,418	0.000	1	31
Round Side Arm	118.00	150	29,858	0.002	8	187
Round Side Arm	108.00	150	27,064	0.001	7	187
Generic 4' Yagi	99.20	15	2,463	0.000	1	19
Flat Side Arm	98.00	150	24,298	0.001	6	187
Empty Round Side Arm	80.00	150	19,399	0.001	5	187
Round Side Arm	8.00	150	1,507	0.000	0	187
Totals		**94,960**	**18,751,072**	**0.999**	**4,943**	**118,227**

FORCE/STRESS SUMMARY

Section 1 – 0.0' to 30.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 10" DIA PIPE	-297.09	1.2D + 1.0W N	30.078	33	33	33	32.81	32.81	669.65	0.00	0.00	0	0	44	Member X
H PST - 3-1/2" DIA PIPE	-15.40	1.2D + 1.0W 90°	18.292	100	100	100	163.80	163.80	22.56	0.00	42.31	2	0	68	Member X
D PST - 3" DIA PIPE	-30.89	1.2D + 1.0W 90°	36.164	33	33	33	0.00	0.00	41.40	0.00	60.65	3	0	74	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 10" DIA PIPE	236.50	0.9D + 1.0W 60°	50.0	65	724.50	0.00	0.00		0	0	32	Member
H PST - 3-1/2" DIA PIPE	16.22	1.2D + 1.0W 90°	50.0	65	120.60	0.00	33.93	0.00	2	0	47	Bolt Bear
D PST - 3" DIA PIPE	29.02	0.9D + 1.0W 90°	50.0	65	100.35	0.00	52.65	0.00	3	0	55	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	280.48	0.9D + 1.0W 60°	681.46	17	12	1" A193-B7
Bot Compression	344.24	1.2D + 1.0W N	763.24	50	0	

Section 2 – 30.0' to 60.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 10" DIA PIPE	-243.93	1.2D + 1.0W N	30.078	33	33	33	32.81	32.81	669.65	0.00	0.00	0	0	36	Member X
H PST - 3" DIA PIPE	-14.90	1.2D + 1.0W 90°	16.417	100	100	100	169.83	169.83	17.47	0.00	40.44	2	0	85	Member X
D PST - 3" DIA PIPE	-33.83	1.2D + 1.0W 90°	35.153	33	33	33	120.01	120.01	34.98	0.00	60.65	3	0	96	Member X

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 10" DIA PIPE	190.75	0.9D + 1.0W 60°	50.0	65	724.50	0.00	0.00		0	0	26	Member
H PST - 3" DIA PIPE	15.81	1.2D + 1.0W 90°	50.0	65	100.35	0.00	32.43	0.00	2	0	48	Bolt Bear
D PST - 3" DIA PIPE	31.33	0.9D + 1.0W 90°	50.0	65	100.35	0.00	52.65	0.00	3	0	59	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	234.83	0.9D + 1.0W 60°	654.20	36	12	1 A325

Section 3 – 60.0' to 80.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 10" DIA PIPE	-207.47	1.2D + 1.0W N	20.052	50	50	50	33.14	33.14	668.58	0.00	0.00	0	0	31	Member X
H PST - 3" DIA PIPE	-13.54	1.2D + 1.0W 90°	15.167	100	100	100	156.89	156.89	20.47	0.00	40.44	2	0	66	Member X
D PST - 3" DIA PIPE	-24.65	1.2D + 1.0W 90°	25.885	50	50	50	133.89	133.89	28.10	0.00	50.54	3	0	87	Member X

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 10" DIA PIPE	161.31	0.9D + 1.0W 60°	50.0	65	724.50	0.00	0.00		0	0	22	Member
H PST - 3" DIA PIPE	14.40	1.2D + 1.0W 90°	50.0	65	100.35	0.00	32.43	0.00	2	0	44	Bolt Bear
D PST - 3" DIA PIPE	22.88	0.9D + 1.0W 90°	50.0	65	100.35	0.00	43.80	0.00	3	0	52	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	189.15	0.9D + 1.0W 60°	654.20	29	12	1 A325

Section 4 – 80.0' to 100.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	-172.17	1.2D + 1.0W N	20.059	50	50	50	41.79	41.79	506.95	0.00	0.00	0	0	33	Member X
H PST - 3" DIA PIPE	-12.54	0.9D + 1.0W 90°	13.839	100	100	100	143.16	143.16	24.58	0.00	40.44	2	0	51	Member X
D PST - 3" DIA PIPE	-23.62	1.2D + 1.0W 90°	25.112	50	50	50	129.89	129.89	29.86	0.00	50.54	3	0	79	Member X

FORCE/STRESS SUMMARY

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	131.30	0.9D + 1.0W 60°	50.0	65	576.00	0.00	0.00		0	0	22	Member
H PST - 3" DIA PIPE	12.95	1.2D + 1.0W 90°	50.0	65	100.35	0.00	32.43	0.00	2	0	39	Bolt Bear
D PST - 3" DIA PIPE	22.08	0.9D + 1.0W 90°	50.0	65	100.35	0.00	43.80	0.00	3	0	50	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	159.83	0.9D + 1.0W 60°	654.20	24	12	1 A325

FORCE/STRESS SUMMARY

Section 5 – 100.0' to 120.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	-135.82	1.2D + 1.0W N	20.052	50	50	50	41.78	41.78	507.00	0.00	0.00	0	0	26	Member X
H PST - 2-1/2" DIA PIPE	-11.54	0.9D + 1.0W 90°	12.589	100	100	100	159.52	159.52	15.13	0.00	38.00	2	0	76	Member X
D PST - 2-1/2" DIA PIPE	-23.59	1.2D + 1.0W 90°	24.332	50	50	50	0.00	0.00	28.20	0.00	47.50	3	0	83	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	100.14	0.9D + 1.0W 60°	50.0	65	576.00	0.00	0.00		0	0	17	Member
H PST - 2-1/2" DIA PIPE	12.21	1.2D + 1.0W 90°	50.0	65	76.68	0.00	30.48	0.00	2	0	40	Bolt Bear
D PST - 2-1/2" DIA PIPE	21.89	1.2D + 1.0W 90°	50.0	65	76.68	0.00	41.17	0.00	3	0	53	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	129.89	0.9D + 1.0W 60°	436.14	30	8	1 A325

Section 6 – 120.0' to 140.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	-117.31	1.2D + 1.0W N	10.026	100	100	100	41.78	41.78	507.00	0.00	0.00	0	0	23	Member X
H PST - 2-1/2" DIA PIPE	-10.62	0.9D + 1.0W 90°	11.964	100	100	100	151.60	151.60	16.75	0.00	31.67	2	0	63	Member X
D PST - 3" DIA PIPE	-15.19	1.2D + 1.0W 90°	16.081	100	100	100	166.36	166.36	18.20	0.00	50.54	3	0	83	Member X

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	81.08	1.2D + 1.0W 60°	50.0	65	576.00	0.00	0.00		0	0	14	Member
H PST - 2-1/2" DIA PIPE	11.27	1.2D + 1.0W 90°	50.0	65	76.68	0.00	25.33	0.00	2	0	44	Bolt Bear
D PST - 3" DIA PIPE	14.05	1.2D + 1.0W 90°	50.0	65	100.35	0.00	43.80	0.00	3	0	32	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	98.89	0.9D + 1.0W 60°	436.14	23	8	1 A325

Section 7 – 140.0' to 160.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	-82.39	1.2D + 1.0W N	10.026	100	100	100	41.78	41.78	507.00	0.00	0.00	0	0	16	Member X
H PST - 2-1/2" DIA PIPE	-8.82	0.9D + 1.0W 90°	10.714	100	100	100	135.76	135.76	20.89	0.00	31.67	2	0	42	Member X
D PST - 2-1/2" DIA PIPE	-13.28	1.2D + 1.0W 90°	15.123	100	100	100	0.00	0.00	23.40	0.00	47.50	3	0	56	User Input

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	53.30	1.2D + 1.0W 60°	50.0	65	576.00	0.00	0.00		0	0	9	Member
H PST - 2-1/2" DIA PIPE	9.20	1.2D + 1.0W 60°	50.0	65	76.68	0.00	25.33	0.00	2	0	36	Bolt Bear
D PST - 2-1/2" DIA PIPE	12.37	0.9D + 1.0W 90°	50.0	65	76.68	0.00	41.17	0.00	3	0	30	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	69.41	0.9D + 1.0W 60°	436.14	16	8	1 A325

Section 8 – 160.0' to 180.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	-51.75	1.2D + 1.0W N	10.026	100	100	100	41.78	41.78	507.00	0.00	0.00	0	0	10	Member X
H PST - 2-1/2" DIA PIPE	-5.23	1.2D + 1.0W 90°	9.464	100	100	100	119.92	119.92	26.77	0.00	31.67	2	0	19	Member X
D PST - 2-1/2" DIA PIPE	-8.60	1.2D + 1.0W 90°	14.209	100	100	100	180.06	180.06	11.87	0.00	47.50	3	0	72	Member X

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls

FORCE/STRESS SUMMARY

L PX - 8" DIA PIPE	34.81	0.9D + 1.0W 60°	50.0	65	576.00	0.00	0.00		0	0	6	Member
H PST - 2-1/2" DIA PIPE	5.58	1.2D + 1.0W 60°	50.0	65	76.68	0.00	25.33	0.00	2	0	22	Bolt Bear
D PST - 2-1/2" DIA PIPE	7.89	0.9D + 1.0W 90°	50.0	65	76.68	0.00	41.17	0.00	3	0	19	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	41.88	0.9D + 1.0W 60°	436.14	10	8	1 A325

Section 9 – 180.0' to 200.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	-29.93	1.2D + 1.0W N	10.026	100	100	100	41.78	41.78	507.00	0.00	0.00	0	0	5	Member X
H PST - 2" DIA PIPE	-3.70	1.2D + 1.0W 90°	8.214	100	100	100	125.24	125.24	15.41	0.00	24.02	2	0	24	Member X
D PST - 2-1/2" DIA PIPE	-6.54	1.2D + 1.0W 90°	13.351	100	100	100	169.18	169.18	13.45	0.00	47.50	3	0	48	Member X

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	18.60	0.9D + 1.0W 60°	50.0	65	576.00	0.00	0.00		0	0	3	Member
H PST - 2" DIA PIPE	4.32	1.2D + 1.0W 60°	50.0	65	48.15	0.00	19.22	0.00	2	0	22	Bolt Bear
D PST - 2-1/2" DIA PIPE	5.79	1.2D + 1.0W 60°	50.0	65	76.68	0.00	41.17	0.00	3	0	14	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	25.32	0.9D + 1.0W 60°	436.14	6	8	1 A325

Section 10 – 200.0' to 220.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	-14.22	1.2D + 1.0W N	10.021	100	100	100	41.75	41.75	507.06	0.00	0.00	0	0	2	Member X
H PST - 2" DIA PIPE	-1.88	1.2D + 1.0W N	7.026	100	100	100	107.13	107.13	20.80	0.00	24.02	2	0	9	Member X
D PST - 2-1/2" DIA PIPE	-3.85	1.2D + 1.0W 60°	12.558	100	100	100	159.12	159.12	15.20	0.00	47.50	3	0	25	Member X

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	7.18	1.2D + 1.0W 60°	50.0	65	576.00	0.00	0.00		0	0	1	Member
H PST - 2" DIA PIPE	2.21	1.2D + 1.0W 60°	50.0	65	48.15	0.00	19.22	0.00	2	0	11	Bolt Bear
D PST - 2-1/2" DIA PIPE	3.34	1.2D + 1.0W 60°	50.0	65	76.68	0.00	41.17	0.00	3	0	8	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	11.79	0.9D + 1.0W 60°	436.14	3	8	1 A325

Section 11 – 220.0' to 240.00'

Member Compression	Pu (kip)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	F'_y (ksi)	$\Phi_c P_n$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	-5.32	1.2D + 1.0W N	6.678	100	100	100	27.82	27.82	544.30	0.00	0.00	0	0	0	Member X
H PST - 2" DIA PIPE	-1.08	1.2D + 1.0W N	6.13	100	100	100	93.47	93.47	25.42	0.00	24.02	2	0	4	Member X
D PST - 2" DIA PIPE	-2.15	1.2D + 1.0W 60°	9.288	100	100	100	141.61	141.61	12.05	0.00	36.04	3	0	17	Member X

Member Tension	Pu (kip)	Load Case	F_y (ksi)	F_u (ksi)	$\Phi_c Pn$ (kip)	Shear ΦR_{nv} (kip)	Bear ΦR_n (kip)	Blk Shear $\Phi_t P_n$ (kip)	# Bolt	# Hole	Use %	Controls
L PX - 8" DIA PIPE	0.15	1.2D + 1.0W N	50.0	65	576.00	0.00	0.00		0	0	0	Member
H PST - 2" DIA PIPE	1.41	1.2D + 1.0W 60°	50.0	65	48.15	0.00	19.22	0.00	2	0	7	Bolt Bear
D PST - 2" DIA PIPE	1.60	1.2D + 1.0W N	50.0	65	48.15	0.00	31.23	0.00	3	0	5	Bolt Bear

Max Splice Forces	Pu (kip)	Load Case	ΦR_{nt} (kip)	Use %	Num Bolts	Bolt Type
Bot Tension	4.06	0.9D + 1.0W 60°	436.14	1	8	1 A325

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	80.00	0.0392	-0.0027	0.0364	0.0365
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	100.00	0.0535	-0.0035	0.0476	0.0477
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	120.00	0.0717	-0.0039	0.0512	0.0513
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	130.00	0.0805	-0.0039	0.0500	0.0502
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	140.00	0.0895	-0.0041	0.0528	0.053
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	160.00	0.1089	-0.0043	0.0539	0.0541
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	170.00	0.1179	-0.0042	0.0525	0.0526
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	180.00	0.1272	-0.0044	0.0537	0.0539
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	190.00	0.1367	-0.0044	0.0535	0.0535
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	200.00	0.1459	-0.0044	0.0525	0.0526
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	210.00	0.1549	-0.0044	0.0516	0.0517
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	220.00	0.1639	-0.0044	0.0516	0.0517
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	226.67	0.1699	-0.0044	0.0514	0.0516
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	233.33	0.1759	-0.0044	0.0508	0.051
1.0D + 1.0W Service 90° 60 mph Wind with No Ice	240.00	0.1818	-0.0044	0.0503	0.0505
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	80.00	0.039	-0.0023	0.0361	0.0362
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	100.00	0.0533	-0.0031	0.0472	0.0473
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	120.00	0.0714	-0.0034	0.0511	0.0512
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	130.00	0.0801	-0.0034	0.0499	0.05
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	140.00	0.0891	-0.0036	0.0530	0.053
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	160.00	0.1085	-0.0037	0.0542	0.0542
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	170.00	0.1176	-0.0036	0.0529	0.0529
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	180.00	0.1269	-0.0038	0.0538	0.0539
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	190.00	0.1364	-0.0038	0.0537	0.0537
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	200.00	0.1456	-0.0038	0.0528	0.0528
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	210.00	0.1547	-0.0038	0.0519	0.0519
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	220.00	0.1637	-0.0038	0.0519	0.0519
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	226.67	0.1697	-0.0038	0.0516	0.0517
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	233.33	0.1757	-0.0038	0.0509	0.0511
1.0D + 1.0W Service 60° 60 mph Wind with No Ice	240.00	0.1817	-0.0038	0.0505	0.0506
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	80.00	0.0384	0.0021	0.0361	0.0361
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	100.00	0.0525	0.0027	0.0471	0.0471
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	120.00	0.0705	0.0029	0.0509	0.051
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	130.00	0.0792	-0.0029	0.0500	0.0501
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	140.00	0.0882	0.0030	0.0529	0.053
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	160.00	0.1075	0.0031	0.0541	0.0542
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	170.00	0.1167	-0.0030	0.0528	0.0528
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	180.00	0.126	0.0030	0.0539	0.0539
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	190.00	0.1354	0.0030	0.0538	0.0539
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	200.00	0.1448	0.0029	0.0527	0.0527
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	210.00	0.1539	-0.0029	0.0520	0.052
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	220.00	0.163	0.0028	0.0520	0.052
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	226.67	0.169	0.0028	0.0518	0.0518
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	233.33	0.175	0.0027	0.0509	0.051
1.0D + 1.0W Service Normal 60 mph Wind with No Ice	240.00	0.1809	0.0027	0.0508	0.0508
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	80.00	0.0092	-0.0007	0.0103	0.0103
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	100.00	0.0132	-0.0010	0.0139	0.0139
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	120.00	0.0186	-0.0011	0.0159	0.0159
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	130.00	0.0214	-0.0011	0.0159	0.016
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	140.00	0.0243	-0.0012	0.0173	0.0173
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	160.00	0.0306	-0.0013	0.0185	0.0185
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	170.00	0.0338	-0.0013	0.0187	0.0187
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	180.00	0.037	-0.0013	0.0189	0.0189
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	190.00	0.0404	-0.0014	0.0191	0.0191
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	200.00	0.0437	-0.0014	0.0191	0.0191
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	210.00	0.047	-0.0014	0.0189	0.0189
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	220.00	0.0503	-0.0013	0.0186	0.0186
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	226.67	0.0524	-0.0013	0.0183	0.0183
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	233.33	0.0545	-0.0013	0.0178	0.0178

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
0.9D - 1.0Ev + 1.0Eh 90° Seismic (Reduced DL)	240.00	0.0566	-0.0013	0.0178	0.0178
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	80.00	0.0091	0.0006	0.0103	0.0103
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	100.00	0.0132	0.0008	0.0138	0.0138
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	120.00	0.0186	0.0010	0.0159	0.0159
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	130.00	0.0213	0.0010	0.0159	0.0159
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	140.00	0.0243	0.0011	0.0173	0.0173
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	160.00	0.0305	0.0011	0.0185	0.0185
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	170.00	0.0338	0.0011	0.0188	0.0188
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	180.00	0.037	0.0012	0.0190	0.019
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	190.00	0.0404	0.0012	0.0191	0.0191
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	200.00	0.0437	0.0012	0.0191	0.0191
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	210.00	0.047	0.0012	0.0189	0.0189
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	220.00	0.0503	0.0012	0.0187	0.0187
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	226.67	0.0524	0.0011	0.0183	0.0183
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	233.33	0.0545	0.0011	0.0178	0.0178
0.9D - 1.0Ev + 1.0Eh 60° Seismic (Reduced DL)	240.00	0.0566	0.0011	0.0178	0.0178
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	80.00	0.0092	0.0006	0.0103	0.0103
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	100.00	0.0132	0.0008	0.0138	0.0139
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	120.00	0.0186	0.0010	0.0159	0.0159
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	130.00	0.0214	0.0010	0.0159	0.016
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	140.00	0.0243	0.0011	0.0173	0.0173
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	160.00	0.0306	0.0011	0.0184	0.0184
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	170.00	0.0338	0.0011	0.0186	0.0187
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	180.00	0.037	0.0012	0.0189	0.0189
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	190.00	0.0404	0.0012	0.0191	0.0191
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	200.00	0.0437	0.0012	0.0190	0.0191
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	210.00	0.047	0.0012	0.0188	0.0189
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	220.00	0.0503	0.0012	0.0185	0.0186
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	226.67	0.0524	0.0011	0.0183	0.0183
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	233.33	0.0545	0.0011	0.0179	0.0179
0.9D - 1.0Ev + 1.0Eh Normal Seismic (Reduced DL)	240.00	0.0566	0.0011	0.0177	0.0177
1.2D + 1.0Ev + 1.0Eh 90° Seismic	80.00	0.0092	-0.0007	0.0104	0.0104
1.2D + 1.0Ev + 1.0Eh 90° Seismic	100.00	0.0132	-0.0010	0.0139	0.014
1.2D + 1.0Ev + 1.0Eh 90° Seismic	120.00	0.0187	-0.0011	0.0160	0.016
1.2D + 1.0Ev + 1.0Eh 90° Seismic	130.00	0.0214	-0.0011	0.0160	0.016
1.2D + 1.0Ev + 1.0Eh 90° Seismic	140.00	0.0244	-0.0012	0.0173	0.0173
1.2D + 1.0Ev + 1.0Eh 90° Seismic	160.00	0.0306	-0.0013	0.0186	0.0186
1.2D + 1.0Ev + 1.0Eh 90° Seismic	170.00	0.0339	-0.0013	0.0188	0.0188
1.2D + 1.0Ev + 1.0Eh 90° Seismic	180.00	0.0371	-0.0014	0.0190	0.019
1.2D + 1.0Ev + 1.0Eh 90° Seismic	190.00	0.0405	-0.0014	0.0191	0.0192
1.2D + 1.0Ev + 1.0Eh 90° Seismic	200.00	0.0438	-0.0014	0.0192	0.0192
1.2D + 1.0Ev + 1.0Eh 90° Seismic	210.00	0.0471	-0.0014	0.0190	0.019
1.2D + 1.0Ev + 1.0Eh 90° Seismic	220.00	0.0503	-0.0013	0.0187	0.0187
1.2D + 1.0Ev + 1.0Eh 90° Seismic	226.67	0.0525	-0.0013	0.0183	0.0183
1.2D + 1.0Ev + 1.0Eh 90° Seismic	233.33	0.0546	-0.0013	0.0178	0.0179
1.2D + 1.0Ev + 1.0Eh 90° Seismic	240.00	0.0566	-0.0013	0.0179	0.0179
1.2D + 1.0Ev + 1.0Eh 60° Seismic	80.00	0.0092	0.0006	0.0105	0.0105
1.2D + 1.0Ev + 1.0Eh 60° Seismic	100.00	0.0132	0.0008	0.0140	0.014
1.2D + 1.0Ev + 1.0Eh 60° Seismic	120.00	0.0186	0.0010	0.0160	0.016
1.2D + 1.0Ev + 1.0Eh 60° Seismic	130.00	0.0214	0.0010	0.0160	0.016
1.2D + 1.0Ev + 1.0Eh 60° Seismic	140.00	0.0243	0.0011	0.0173	0.0173
1.2D + 1.0Ev + 1.0Eh 60° Seismic	160.00	0.0306	0.0011	0.0186	0.0186
1.2D + 1.0Ev + 1.0Eh 60° Seismic	170.00	0.0338	0.0011	0.0189	0.0189
1.2D + 1.0Ev + 1.0Eh 60° Seismic	180.00	0.0371	0.0012	0.0190	0.019
1.2D + 1.0Ev + 1.0Eh 60° Seismic	190.00	0.0404	0.0012	0.0192	0.0192
1.2D + 1.0Ev + 1.0Eh 60° Seismic	200.00	0.0438	0.0012	0.0192	0.0192
1.2D + 1.0Ev + 1.0Eh 60° Seismic	210.00	0.0471	0.0012	0.0190	0.019
1.2D + 1.0Ev + 1.0Eh 60° Seismic	220.00	0.0503	0.0012	0.0187	0.0187
1.2D + 1.0Ev + 1.0Eh 60° Seismic	226.67	0.0525	0.0011	0.0183	0.0183

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Ev + 1.0Eh 60° Seismic	233.33	0.0546	0.0011	0.0178	0.0178
1.2D + 1.0Ev + 1.0Eh 60° Seismic	240.00	0.0566	0.0011	0.0180	0.018
1.2D + 1.0Ev + 1.0Eh Normal Seismic	80.00	0.0092	0.0006	0.0104	0.0104
1.2D + 1.0Ev + 1.0Eh Normal Seismic	100.00	0.0133	0.0008	0.0139	0.0139
1.2D + 1.0Ev + 1.0Eh Normal Seismic	120.00	0.0187	0.0010	0.0159	0.0159
1.2D + 1.0Ev + 1.0Eh Normal Seismic	130.00	0.0214	0.0010	0.0160	0.016
1.2D + 1.0Ev + 1.0Eh Normal Seismic	140.00	0.0244	0.0011	0.0173	0.0173
1.2D + 1.0Ev + 1.0Eh Normal Seismic	160.00	0.0306	0.0011	0.0185	0.0185
1.2D + 1.0Ev + 1.0Eh Normal Seismic	170.00	0.0339	0.0011	0.0187	0.0187
1.2D + 1.0Ev + 1.0Eh Normal Seismic	180.00	0.0371	0.0012	0.0189	0.019
1.2D + 1.0Ev + 1.0Eh Normal Seismic	190.00	0.0405	0.0012	0.0191	0.0191
1.2D + 1.0Ev + 1.0Eh Normal Seismic	200.00	0.0438	0.0012	0.0191	0.0191
1.2D + 1.0Ev + 1.0Eh Normal Seismic	210.00	0.0471	0.0012	0.0189	0.0189
1.2D + 1.0Ev + 1.0Eh Normal Seismic	220.00	0.0503	0.0012	0.0186	0.0186
1.2D + 1.0Ev + 1.0Eh Normal Seismic	226.67	0.0525	0.0011	0.0184	0.0184
1.2D + 1.0Ev + 1.0Eh Normal Seismic	233.33	0.0546	0.0011	0.0179	0.0179
1.2D + 1.0Ev + 1.0Eh Normal Seismic	240.00	0.0566	0.0011	0.0178	0.0178
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	80.00	0.048	-0.0031	0.0419	0.042
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	100.00	0.0638	-0.0040	0.0539	0.054
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	120.00	0.0837	-0.0043	0.0564	0.0566
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	130.00	0.0932	-0.0042	0.0543	0.0545
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	140.00	0.103	-0.0045	0.0571	0.0573
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	160.00	0.1237	-0.0047	0.0578	0.0579
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	170.00	0.1335	-0.0046	0.0564	0.0564
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	180.00	0.1434	-0.0048	0.0573	0.0575
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	190.00	0.1535	-0.0048	0.0570	0.0573
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	200.00	0.1634	-0.0048	0.0563	0.0563
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	210.00	0.1731	-0.0048	0.0554	0.0555
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	220.00	0.1829	-0.0049	0.0558	0.056
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	226.67	0.1894	-0.0049	0.0557	0.0559
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	233.33	0.1959	-0.0049	0.0553	0.0555
1.2D + 1.0Di + 1.0Wi 90° 48.73 mph Wind with 0.85" Radial Ice	240.00	0.2023	-0.0049	0.0548	0.055
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	80.00	0.0489	-0.0027	0.0422	0.0422
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	100.00	0.0647	-0.0035	0.0535	0.0536
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	120.00	0.0846	-0.0038	0.0566	0.0566
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	130.00	0.0941	-0.0037	0.0548	0.0548
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	140.00	0.1038	-0.0039	0.0577	0.0577
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	160.00	0.1242	-0.0040	0.0584	0.0584
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	170.00	0.134	-0.0040	0.0571	0.0571
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	180.00	0.1439	-0.0041	0.0577	0.0578
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	190.00	0.1538	-0.0042	0.0577	0.0577
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	200.00	0.1637	-0.0041	0.0570	0.057
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	210.00	0.1735	-0.0041	0.0561	0.0561
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	220.00	0.1831	-0.0042	0.0563	0.0564
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	226.67	0.1896	-0.0042	0.0562	0.0564
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	233.33	0.1956	-0.0042	0.0557	0.0558
1.2D + 1.0Di + 1.0Wi 60° 48.73 mph Wind with 0.85" Radial Ice	240.00	0.2024	-0.0042	0.0552	0.0554
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	80.00	0.0476	0.0024	0.0420	0.042
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	100.00	0.0636	0.0030	0.0536	0.0536
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	120.00	0.0837	0.0031	0.0565	0.0566
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	130.00	0.0932	0.0030	0.0548	0.0549
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	140.00	0.103	-0.0032	0.0577	0.0578
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	160.00	0.1237	-0.0032	0.0585	0.0585
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	170.00	0.1335	0.0030	0.0571	0.0571
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	180.00	0.1436	0.0031	0.0580	0.0581
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	190.00	0.1536	0.0031	0.0580	0.0581
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	200.00	0.1637	0.0030	0.0571	0.0572
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	210.00	0.1735	0.0029	0.0566	0.0566
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	220.00	0.1833	0.0029	0.0567	0.0567

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	226.67	0.1899	0.0028	0.0565	0.0565
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	233.33	0.1964	0.0028	0.0557	0.0558
1.2D + 1.0Di + 1.0Wi Normal 48.73 mph Wind with 0.85" Radial Ice	240.00	0.2028	0.0027	0.0557	0.0557
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	80.00	0.1405	-0.0096	0.1305	0.1308
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	100.00	0.1919	-0.0127	0.1706	0.1711
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	120.00	0.2571	-0.0141	0.1836	0.1842
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	130.00	0.2885	-0.0140	0.1795	0.1801
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	140.00	0.3209	-0.0149	0.1893	0.1899
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	160.00	0.3904	-0.0155	0.1931	0.1937
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	170.00	0.4228	-0.0151	0.1875	0.1877
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	180.00	0.4561	-0.0158	0.1921	0.1928
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	190.00	0.4897	-0.0159	0.1908	0.1912
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	200.00	0.5227	-0.0157	0.1873	0.1875
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	210.00	0.5549	-0.0157	0.1842	0.1844
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	220.00	0.5871	-0.0159	0.1841	0.1847
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	226.67	0.6086	-0.0160	0.1836	0.1842
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	233.33	0.6299	-0.0160	0.1817	0.1824
0.9D + 1.0W 90° 115.99 mph Wind with No Ice (Reduced DL)	240.00	0.6511	-0.0160	0.1799	0.1806
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	80.00	0.1396	-0.0083	0.1297	0.13
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	100.00	0.1907	-0.0110	0.1696	0.1699
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	120.00	0.2557	-0.0121	0.1832	0.1836
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	130.00	0.287	-0.0120	0.1790	0.1794
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	140.00	0.3193	-0.0128	0.1895	0.1896
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	160.00	0.3886	-0.0134	0.1931	0.1935
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	170.00	0.4212	-0.0130	0.1886	0.1886
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	180.00	0.4544	-0.0137	0.1920	0.1925
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	190.00	0.4881	-0.0137	0.1911	0.1913
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	200.00	0.5211	-0.0136	0.1878	0.1878
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	210.00	0.5533	-0.0135	0.1848	0.1848
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	220.00	0.5855	-0.0137	0.1848	0.1848
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	226.67	0.607	-0.0138	0.1838	0.1841
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	233.33	0.6284	-0.0137	0.1817	0.1822
0.9D + 1.0W 60° 115.99 mph Wind with No Ice (Reduced DL)	240.00	0.6495	-0.0137	0.1802	0.1807
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	80.00	0.1374	0.0074	0.1288	0.129
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	100.00	0.1881	0.0096	0.1683	0.1685
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	120.00	0.2525	0.0104	0.1823	0.1824
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	130.00	0.2837	-0.0102	0.1788	0.1791
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	140.00	0.316	-0.0108	0.1891	0.1894
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	160.00	0.3849	0.0109	0.1930	0.1933
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	170.00	0.4176	-0.0105	0.1881	0.1881
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	180.00	0.4509	-0.0108	0.1917	0.192
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	190.00	0.4844	0.0107	0.1913	0.1916
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	200.00	0.5176	-0.0104	0.1875	0.1875
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	210.00	0.55	-0.0101	0.1850	0.185
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	220.00	0.5822	0.0100	0.1849	0.1849
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	226.67	0.6037	0.0099	0.1840	0.184
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	233.33	0.625	0.0096	0.1814	0.1814
0.9D + 1.0W Normal 115.99 mph Wind with No Ice (Reduced DL)	240.00	0.646	-0.0096	0.1804	0.1805
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	80.00	0.1405	-0.0096	0.1306	0.1309
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	100.00	0.192	-0.0127	0.1708	0.1713
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	120.00	0.2572	-0.0141	0.1838	0.1844
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	130.00	0.2887	-0.0140	0.1797	0.1803
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	140.00	0.3211	-0.0149	0.1895	0.1901
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	160.00	0.3907	-0.0155	0.1933	0.1939
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	170.00	0.4232	-0.0151	0.1877	0.1879
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	180.00	0.4565	-0.0159	0.1923	0.193
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	190.00	0.4902	-0.0159	0.1911	0.1914
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	200.00	0.5232	-0.0157	0.1875	0.1877
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	210.00	0.5554	-0.0157	0.1844	0.1846

DEFLECTIONS AND ROTATIONS

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	220.00	0.5876	-0.0159	0.1843	0.1849
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	226.67	0.6091	-0.0160	0.1838	0.1845
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	233.33	0.6305	-0.0160	0.1819	0.1826
1.2D + 1.0W 90° 115.99 mph Wind with No Ice	240.00	0.6517	-0.0160	0.1801	0.1808
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	80.00	0.1396	-0.0083	0.1298	0.13
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	100.00	0.1908	-0.0110	0.1697	0.1701
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	120.00	0.2559	-0.0122	0.1834	0.1838
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	130.00	0.2873	-0.0121	0.1792	0.1796
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	140.00	0.3196	-0.0128	0.1898	0.1898
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	160.00	0.3889	-0.0134	0.1934	0.1937
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	170.00	0.4216	-0.0130	0.1889	0.1889
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	180.00	0.4549	-0.0137	0.1922	0.1927
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	190.00	0.4885	-0.0137	0.1914	0.1916
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	200.00	0.5216	-0.0136	0.1880	0.1881
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	210.00	0.5539	-0.0135	0.1851	0.1851
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	220.00	0.5861	-0.0137	0.1851	0.1851
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	226.67	0.6077	-0.0138	0.1840	0.1844
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	233.33	0.629	-0.0138	0.1820	0.1825
1.2D + 1.0W 60° 115.99 mph Wind with No Ice	240.00	0.6502	-0.0137	0.1804	0.181
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	80.00	0.1375	0.0074	0.1290	0.1292
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	100.00	0.1882	0.0096	0.1685	0.1688
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	120.00	0.2527	0.0104	0.1825	0.1826
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	130.00	0.2839	0.0102	0.1791	0.1793
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	140.00	0.3162	-0.0108	0.1893	0.1896
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	160.00	0.3852	-0.0110	0.1933	0.1936
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	170.00	0.418	-0.0105	0.1884	0.1884
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	180.00	0.4513	0.0108	0.1920	0.1923
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	190.00	0.4849	-0.0108	0.1916	0.1919
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	200.00	0.5182	0.0104	0.1878	0.1878
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	210.00	0.5506	0.0101	0.1853	0.1853
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	220.00	0.5829	-0.0101	0.1852	0.1852
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	226.67	0.6044	0.0099	0.1843	0.1843
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	233.33	0.6258	0.0097	0.1817	0.1817
1.2D + 1.0W Normal 115.99 mph Wind with No Ice	240.00	0.6468	-0.0097	0.1806	0.1809

DETAILED REACTIONS

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX* (kip)	FY* (kip)	FZ* (kip)
					(-) Uplift and (+) Down		
	23.29	0.00	0	1	0.02	343.49	-49.19
1.2D + 1.0W Normal	23.29	0.00	120	1a	13.10	-114.74	-16.36
	23.29	0.00	240	1b	-13.12	-114.79	-16.32
	23.29	0.00	0	1	-7.53	190.83	-26.46
1.2D + 1.0W 60°	23.29	0.00	120	1a	-26.47	190.60	7.08
	23.29	0.00	240	1b	-36.94	-267.48	-21.58
	23.29	0.00	0	1	-8.88	38.15	-3.55
1.2D + 1.0W 90°	23.29	0.00	120	1a	-39.31	302.37	18.19
	23.29	0.00	240	1b	-33.73	-226.57	-14.64
	23.29	0.00	0	1	0.02	333.76	-48.32
0.9D + 1.0W Normal	23.29	0.00	120	1a	13.86	-124.13	-16.82
	23.29	0.00	240	1b	-13.88	-124.16	-16.78
	23.29	0.00	0	1	-7.54	181.19	-25.57
0.9D + 1.0W 60°	23.29	0.00	120	1a	-25.71	181.01	6.63
	23.29	0.00	240	1b	-37.70	-276.73	-22.02
	23.29	0.00	0	1	-8.89	28.61	-2.66
0.9D + 1.0W 90°	23.29	0.00	120	1a	-38.54	292.70	17.73
	23.29	0.00	240	1b	-34.49	-235.85	-15.07
	23.29	0.00	0	1	0.01	161.78	-21.14
1.2D + 1.0Di + 1.0Wi Normal	23.29	0.00	120	1a	0.44	13.01	-3.26
	23.29	0.00	240	1b	-0.45	12.91	-3.25
	23.29	0.00	0	1	-2.63	112.39	-13.44
1.2D + 1.0Di + 1.0Wi 60°	23.29	0.00	120	1a	-12.88	111.78	4.56
	23.29	0.00	240	1b	-8.43	-36.47	-4.93
	23.29	0.00	0	1	-3.06	63.00	-5.73
1.2D + 1.0Di + 1.0Wi 90°	23.29	0.00	120	1a	-17.21	147.93	8.33
	23.29	0.00	240	1b	-7.37	-23.24	-2.60
	23.29	0.00	0	1	0.00	60.48	-6.55
1.2D + 1.0Ev + 1.0Eh Normal	23.29	0.00	120	1a	-2.13	26.09	0.83
	23.29	0.00	240	1b	2.13	26.09	0.83
	23.29	0.00	0	1	-0.35	49.02	-5.12
1.2D + 1.0Ev + 1.0Eh 60°	23.29	0.00	120	1a	-4.61	49.02	2.26
	23.29	0.00	240	1b	0.72	14.63	0.42
	23.29	0.00	0	1	-0.40	37.55	-3.69
1.2D + 1.0Ev + 1.0Eh 90°	23.29	0.00	120	1a	-5.44	57.41	2.91
	23.29	0.00	240	1b	0.95	17.70	0.78
	23.29	0.00	0	1	0.00	48.69	-5.39
0.9D - 1.0Ev + 1.0Eh Normal	23.29	0.00	120	1a	-1.13	14.34	0.25
	23.29	0.00	240	1b	1.13	14.34	0.25
	23.29	0.00	0	1	-0.35	37.24	-3.96
0.9D - 1.0Ev + 1.0Eh 60°	23.29	0.00	120	1a	-3.61	37.24	1.68
	23.29	0.00	240	1b	-0.28	2.89	-0.16
	23.29	0.00	0	1	-0.40	25.79	-2.53
0.9D - 1.0Ev + 1.0Eh 90°	23.29	0.00	120	1a	-4.44	45.62	2.33
	23.29	0.00	240	1b	-0.05	5.95	0.20
	23.29	0.00	0	1	0.01	117.00	-15.79
1.0D + 1.0W Service Normal	23.29	0.00	120	1a	1.96	-11.00	-3.57
	23.29	0.00	240	1b	-1.97	-11.04	-3.56
	23.29	0.00	0	1	-2.14	74.40	-9.38
1.0D + 1.0W Service 60°	23.29	0.00	120	1a	-9.13	74.21	2.94
	23.29	0.00	240	1b	-8.58	-53.65	-5.02
	23.29	0.00	0	1	-2.49	31.79	-2.96
1.0D + 1.0W Service 90°	23.29	0.00	120	1a	-12.75	105.40	6.06
	23.29	0.00	240	1b	-7.68	-42.23	-3.11

MAXIMUM REACTIONS SUMMARY

Individual		Global (DL+WL+IL)		Global (DL+WL)	
Max Uplift:	276.73 (kip)	Moment Ice:	3465.35 (kip-ft)	Moment:	10671.05 (kip-ft)
Max Down:	343.49 (kip)	Total Down Ice:	187.7 (kip)	Total Down:	113.95 (kip)
Max Shear:	49.19 (kip)	Total Shear Ice:	27.65 (kip)	Total Shear:	81.88 (kip)

1.2D + 1.0W Normal

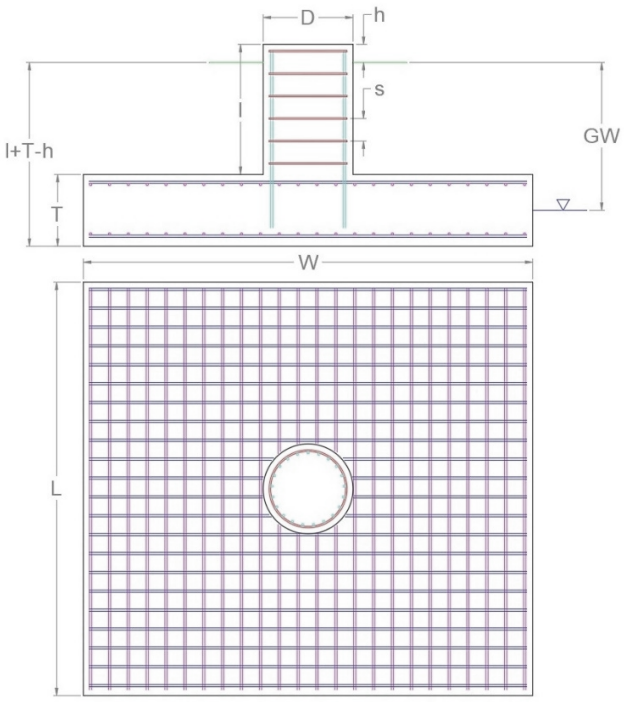
MAT & PIER FOUNDATION ANALYSIS (NODE 1)

APPLIED LOCAL REACTIONS

Axial (k)	Uplift (k)	Shear (k)
343.49	25.79	49.19

FOUNDATION PARAMETERS

Mat Length:	L	22	ft
Mat Width:	W	22	ft
Mat Thickness:	T	6.1	ft
Base Depth:	L+T-h	5.6	ft
Pier Shape:		Round	
Pier Diameter:	D	1	ft
Pier Height above Grade:	h	0.5	ft
Tower Eccentricity:	ecc		ft
Tower Leg Count		1	



SOIL PARAMETERS

Water Table Depth [BGL]:	GW	-	ft
Soil Unit Weight:		140	pcf
Ultimate Skin Friction:		0	psf
Ultimate Bearing Pressure:		95,574	psf
Bearing Pressure Type:		Gross	
Coefficient of Shear Friction:		0.1	
Uplift Pullout Angle:		30	°
Uplift at ____ of Mat:		Top	

SOIL STRENGTH ANALYSIS

Soil Strength Reduction Factor, Φ_s	Uplift Strength Reduction Factor, Φ_s	Asset Dead Load Factor	Dead Load Factor
0.75	0.75	0.9	1.2

SOIL OVERTURNING ANALYSIS

Design Moment, $M_{u,Design}$ (k-ft)	Nominal Overturning Capacity, $\Phi_m M_n$ (k-ft)	Soil Overturning Usage, $M_{u,Design} / \Phi_m M_n$	
300.06	4,712.86	**6.4%**	✓

SOIL BEARING ANALYSIS

Net Bearing Pressure, $P_{u,Net}$ (psf)	Nominal Bearing Capacity, $\Phi_b P_n$ (psf)	Bearing Pressure Controlling Load Direction	Soil Bearing Usage, $P_{u,net} / \Phi_b P_n$	
853.00	71,047.00	Parallel to Pad Edge	**1.2%**	✓

SOIL SLIDING SHEAR ANALYSIS

Applied Shear Force, V_u (k)	Friction Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Nominal Shear Capacity, $\Phi_s V_n$ (k)	Soil Sliding Shear Usage, $V_u / \Phi_s V_n$	
49.19	44.29	357.0	47.91	69.15	**71.0%**	✓

SOIL UPLIFT ANALYSIS

Applied Uplift Force, T_u (k)	Skin Friction Resistance (k)	Nominal Uplift Capacity, $\Phi_s T_n$ (k)	Soil Uplift Usage, $T_u / \Phi_s T_n$	
25.79	0.00	332.19	**7.8%**	✓

MAT & PIER FOUNDATION ANALYSIS (NODE 1a)

APPLIED LOCAL REACTIONS

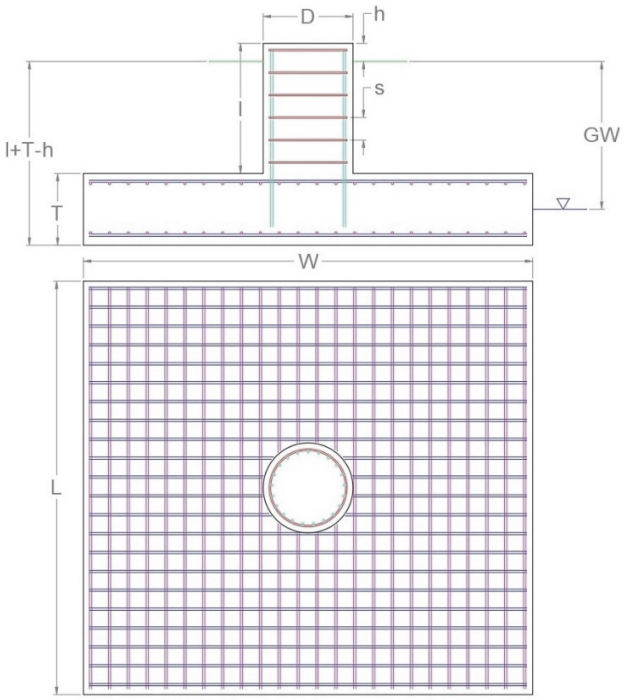
Axial (k)	Uplift (k)	Shear (k)
302.37	124.13	43.31

FOUNDATION PARAMETERS

Mat Length:	L	22	ft
Mat Width:	W	22	ft
Mat Thickness:	T	6.1	ft
Base Depth:	L+T-h	5.6	ft
Pier Shape:		Round	
Pier Diameter:	D	1	ft
Pier Height above Grade:	h	0.5	ft
Tower Eccentricity:	ecc		ft
Tower Leg Count		1	

SOIL PARAMETERS

Water Table Depth [BGL]:	GW	-	ft
Soil Unit Weight:		140	pcf
Ultimate Skin Friction:		0	psf
Ultimate Bearing Pressure:		95,574	psf
Bearing Pressure Type:		Gross	
Coefficient of Shear Friction:		0.1	
Uplift Pullout Angle:		30	°
Uplift at ____ of Mat:		Top	



SOIL STRENGTH ANALYSIS

Soil Strength Reduction Factor, Φ_s	Uplift Strength Reduction Factor, Φ_s	Asset Dead Load Factor	Dead Load Factor
0.75	0.75	0.9	1.2

SOIL OVERTURNING ANALYSIS

Design Moment, $M_{u,Design}$ (k-ft)	Nominal Overturning Capacity, $\Phi_m M_n$ (k-ft)	Soil Overturning Usage, $M_{u,Design} / \Phi_m M_n$	
264.19	4,712.86	**5.6%**	✓

SOIL BEARING ANALYSIS

Net Bearing Pressure, $P_{u,Net}$ (psf)	Nominal Bearing Capacity, $\Phi_b P_n$ (psf)	Bearing Pressure Controlling Load Direction	Soil Bearing Usage, $P_{u,net} / \Phi_b P_n$	
848.00	71,047.00	Parallel to Pad Edge	**1.2%**	✓

SOIL SLIDING SHEAR ANALYSIS

Applied Shear Force, V_u (k)	Friction Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Nominal Shear Capacity, $\Phi_s V_n$ (k)	Soil Sliding Shear Usage, $V_u / \Phi_s V_n$	
43.31	44.29	357.0	47.91	69.15	**63.0%**	✓

SOIL UPLIFT ANALYSIS

Applied Uplift Force, T_u (k)	Skin Friction Resistance (k)	Nominal Uplift Capacity, $\Phi_s T_n$ (k)	Soil Uplift Usage, $T_u / \Phi_s T_n$	
124.13	0.00	332.19	**37.4%**	✓

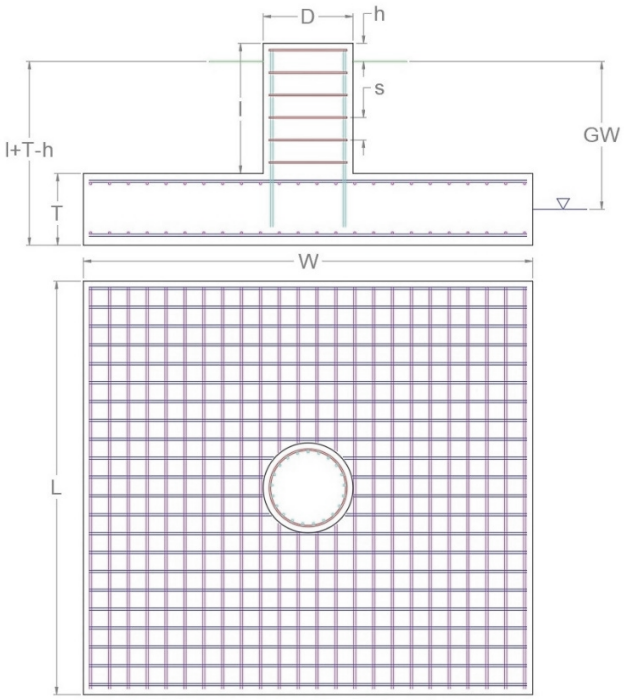
MAT & PIER FOUNDATION ANALYSIS (NODE 1b)

APPLIED LOCAL REACTIONS

Axial (k)	Uplift (k)	Shear (k)
26.09	276.73	43.66

FOUNDATION PARAMETERS

Mat Length:	L	22	ft
Mat Width:	W	22	ft
Mat Thickness:	T	6.1	ft
Base Depth:	L+T-h	5.6	ft
Pier Shape:		Round	
Pier Diameter:	D	1	ft
Pier Height above Grade:	h	0.5	ft
Tower Eccentricity:	ecc		ft
Tower Leg Count		1	



SOIL PARAMETERS

Water Table Depth [BGL]:	GW	-	ft
Soil Unit Weight:		140	pcf
Ultimate Skin Friction:		0	psf
Ultimate Bearing Pressure:		95,574	psf
Bearing Pressure Type:		Gross	
Coefficient of Shear Friction:		0.1	
Uplift Pullout Angle:		30	°
Uplift at ____ of Mat:		Top	

SOIL STRENGTH ANALYSIS

Soil Strength Reduction Factor, Φ_s	Uplift Strength Reduction Factor, Φ_s	Asset Dead Load Factor	Dead Load Factor
0.75	0.75	0.9	1.2

SOIL OVERTURNING ANALYSIS

Design Moment, $M_{u,Design}$ (k-ft)	Nominal Overturning Capacity, $\Phi_m M_n$ (k-ft)	Soil Overturning Usage, $M_{u,Design} / \Phi_m M_n$	
266.33	4,712.86	**5.7%**	✓

SOIL BEARING ANALYSIS

Net Bearing Pressure, $P_{u,Net}$ (psf)	Nominal Bearing Capacity, $\Phi_b P_n$ (psf)	Bearing Pressure Controlling Load Direction	Soil Bearing Usage, $P_{u,net} / \Phi_b P_n$	
849.00	71,047.00	Parallel to Pad Edge	**1.2%**	✓

SOIL SLIDING SHEAR ANALYSIS

Applied Shear Force, V_u (k)	Friction Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Nominal Shear Capacity, $\Phi_s V_n$ (k)	Soil Sliding Shear Usage, $V_u / \Phi_s V_n$	
43.66	44.29	357.0	47.91	69.15	**63.0%**	✓

SOIL UPLIFT ANALYSIS

Applied Uplift Force, T_u (k)	Skin Friction Resistance (k)	Nominal Uplift Capacity, $\Phi_s T_n$ (k)	Soil Uplift Usage, $T_u / \Phi_s T_n$	
276.73	0.00	332.19	**83.3%**	✓

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Mount Analysis Report

ATC Asset Name	:	Tartaglia
ATC Asset Number	:	383598
Engineering Number	:	14178890_C8_01
Mount Elevation	:	165 ft
Proposed Carrier	:	AT&T Mobility
Carrier Site Name	:	MRCTB057463
Carrier Site Number	:	CTL05093
Site Location	:	1000 Trumbull Avenue Bridgeport, CT 6606 41.21958, -73.201313
County	:	Fairfield
Date	:	January 25, 2023
Max Usage	:	51%
Analysis Result	:	Pass - Pending Mod

Prepared By:
Sharon Thorne
Structural Engineer

Reviewed E

COA: PEC.0001553

Table of Contents

Introduction

The purpose of this report is to summarize results of the mount analysis performed for AT&T Mobility at 165 ft.

Supporting Documents

Specifications Sheet:	Site Pro 1 VFA14-HD, dated June 29, 2018
Previous Analysis:	ATC Project #13682699_C8_09, dated June 29, 2022
Radio Frequency Data Sheet:	RFDS ID #10070948, dated January 17, 2023
Reference Photos:	Site photos from 2020
Other Document:	ATC Project # 13682699_G3 dated December 9, 2021

**** The modifications by ATC Job # 13682699_C8_09 are scheduled to be installed at construction of the referenced project.***

Analysis

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

Basic Wind Speed:	119 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.00'' radial ice concurrent
Codes:	ANSI/TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 2
Feature:	Flat
Crest Height (H):	0 ft
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.211, S1 = 0.054
Site Class:	D - Stiff Soil - Default
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the mount meets the requirements per the applicable codes listed above. The mount can support the equipment as described in this report. If the pending modifications cited in the Supporting Documents table are not completed, the results of this analysis are no longer valid, and AT&T Mobility should contact American Tower's Site Manager for further direction on how to proceed.

- Analysis based on new installation of Site Pro 1 VFA14-HD V-Frame(s) (M900R(1500)-4[6]).

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

Application Loading

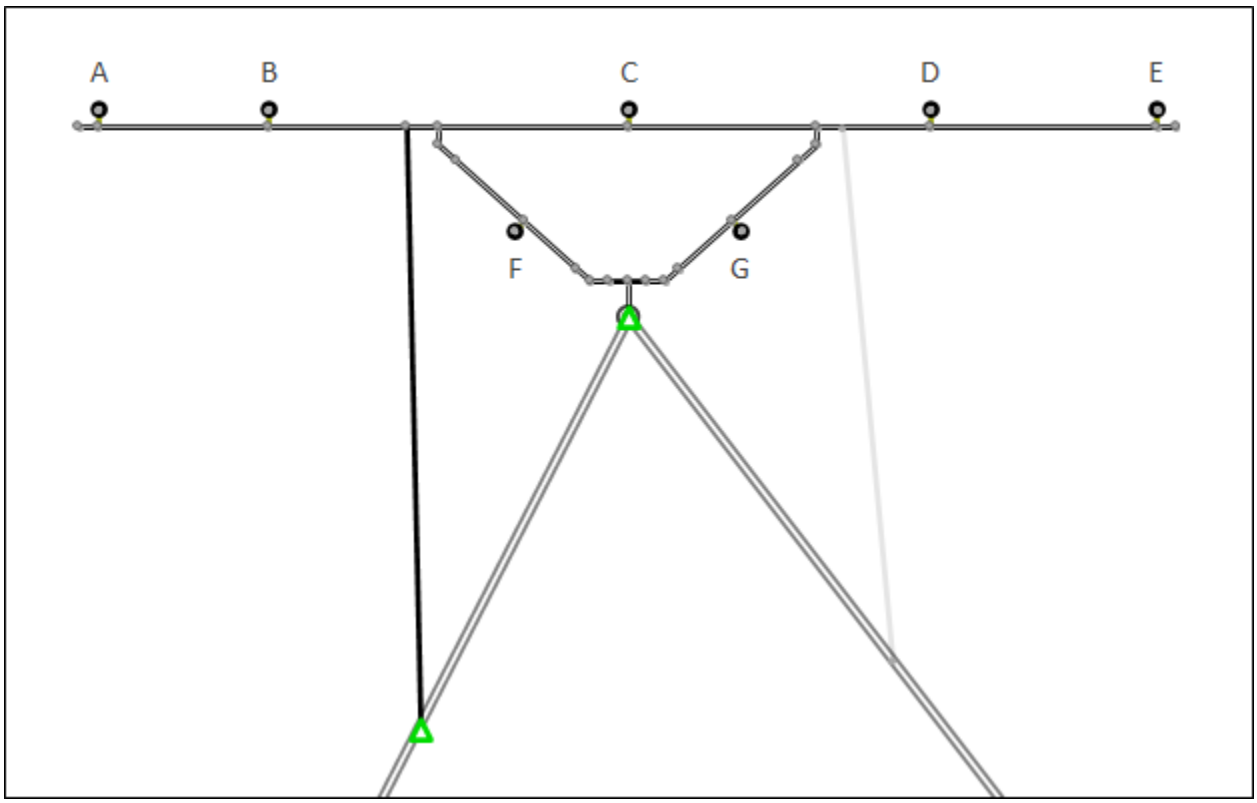
Mount Centerline (ft)	Equipment Centerline (ft)	Qty	Equipment Manufacturer & Model
165.0	167.0	3	Ericsson AIR 6419 N77G
	165.0	2	CCI DMP65R-BU6DA
		1	Matsing MS-MBA-3.2-H4-L4 *
		3	Quintel QD6616-7
		6	Kaelus DBC0051F3V51-2
		2	Raycap DC6-48-60-18-8F (23.5" Height)
		1	Raycap DC9-48-60-24-8C-EV (Enclosure)
		3	Ericsson RRUS 8843 B2, B66A
		4	Ericsson RRUS 4449 B5, B12
		2	Ericsson RRUS 32 B2
		3	Ericsson RRUS 32 B66
		2	Ericsson RRUS 32 B30
		3	Ericsson RRUS 4478 B14
	163.0	3	Ericsson AIR 6449 n77D

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Horizontals	51%	Pass
Verticals	48%	Pass
Diagonals	21%	Pass
Tie-Backs	11%	Pass
Mount Pipes	16%	Pass

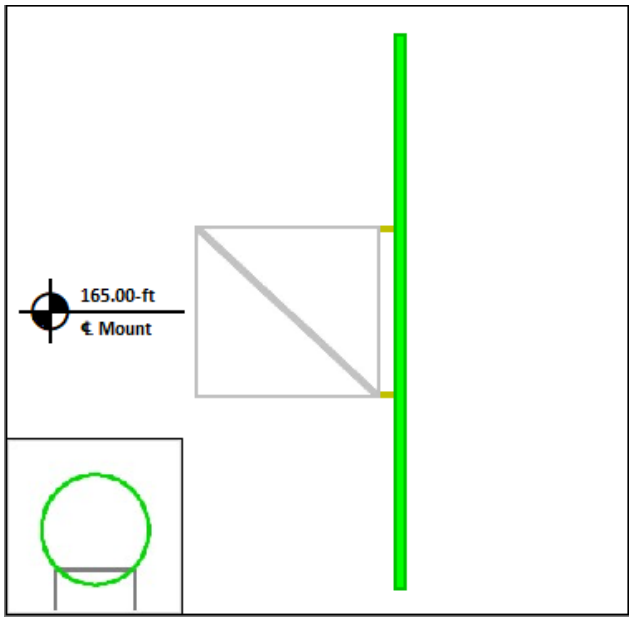
Based on visual inspection and available manufacturer design, Mount to Tower connection hardware is assumed adequate.

Mount Layout

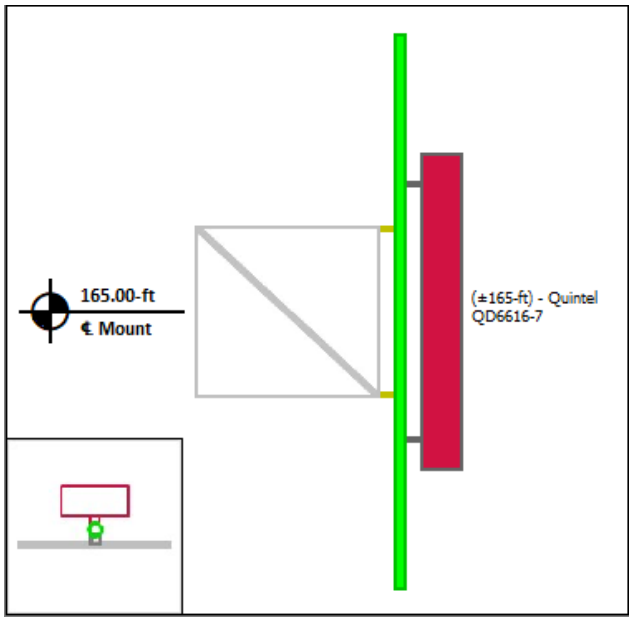


Equipment Layout

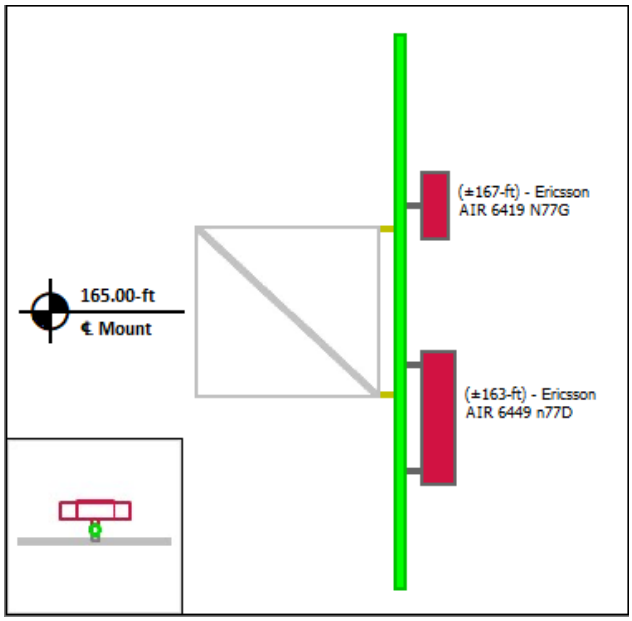
Mount Pipe A



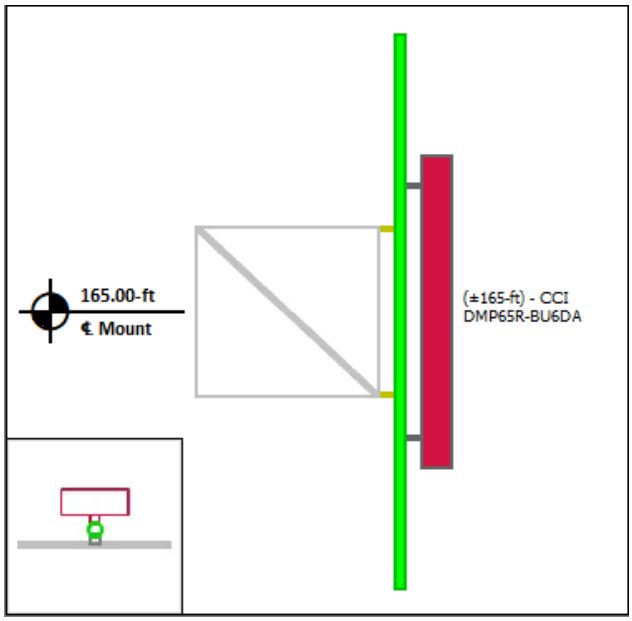
Mount Pipe B



Mount Pipe C

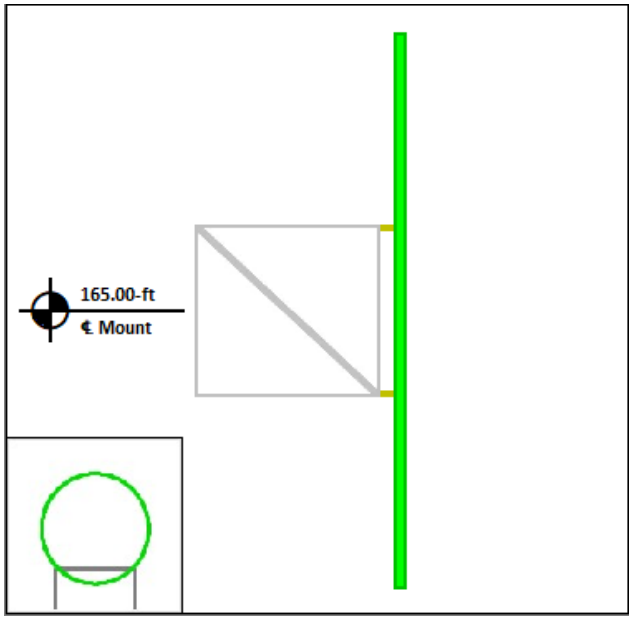


Mount Pipe D

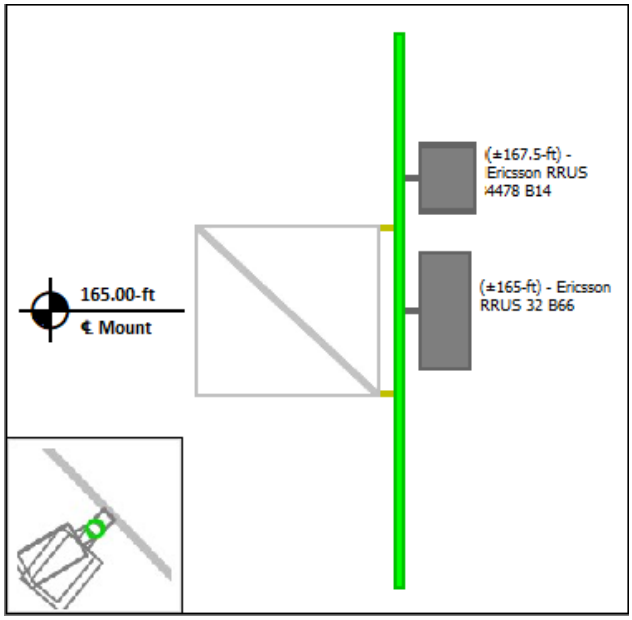


Equipment Layout Cont'd.

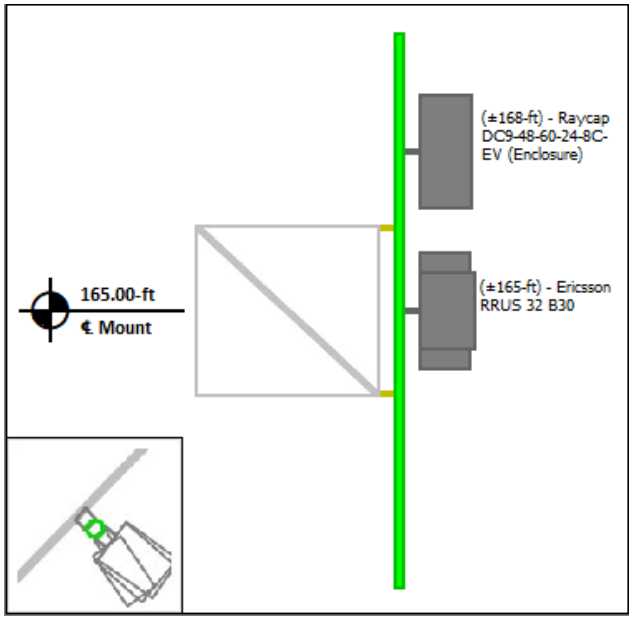
Mount Pipe E



Mount Pipe F



Mount Pipe G



Standard Conditions

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

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

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

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

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

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

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

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

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Site Number:	*383598*
Project Number:	*14178890_C8_01*
Carrier:	*AT&T Mobility*
Mount Elevation:	*165 ft*
Date:	1/25/2023

Mount Analysis Force Calculations

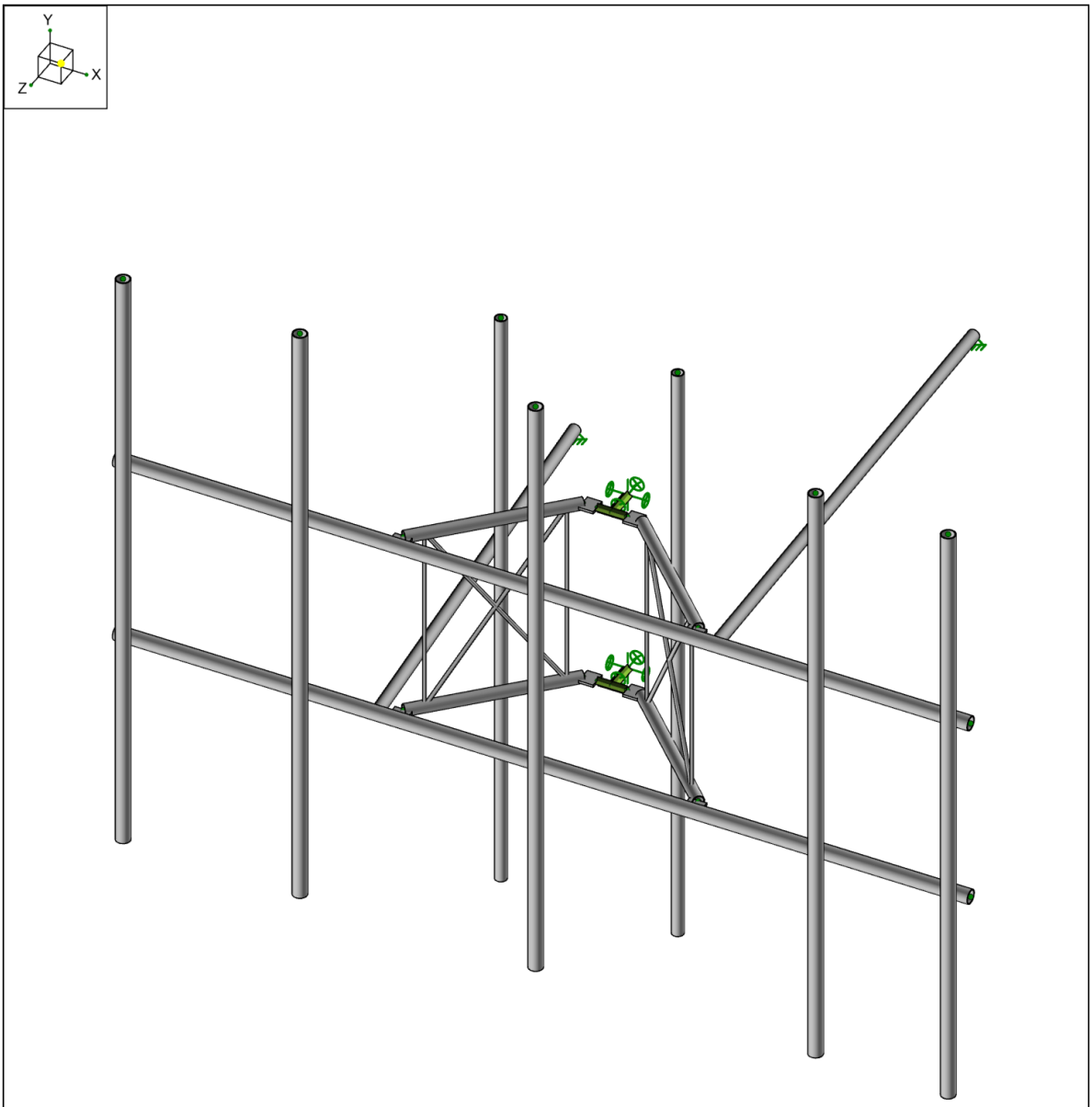
Wind & Ice Load Calculations			
Velocity Pressure Coefficient	K_z	1.41	
Topographic Factor	K_{zt}	1.00	
Rooftop Wind Speed-up Factor	K_s	1.00	
Shielding Factor	K_a	0.90	
Ground Elevation Factor	K_e	0.99	
Wind Direction Probability Factor	K_d	0.95	
Basic Wind Speed	V	119	mph
Velocity Pressure	q_z	48.1	psf
Height Escalation Factor	K_{iz}	1.17	
Thickness of Radial Glaze Ice	T_{iz}	1.17	in

Seismic Load Calculations			
Short Period DSRAP	S_{DS}	0.169	
1 Second DSRAP	S_{D1}	0.086	
Importance Factor	I	1.0	
Response Modification Coefficient	R	2.0	
Seismic Response Coefficient	C_S	0.084	
Amplification Factor	A	1.0	
Total Weight	W	1574.6	lbs
Total Shear Force	V_S	132.9	lbs
Horizontal Seismic Load	Eh	132.9	lbs
Vertical Seismic Load	Ev	53.2	lbs

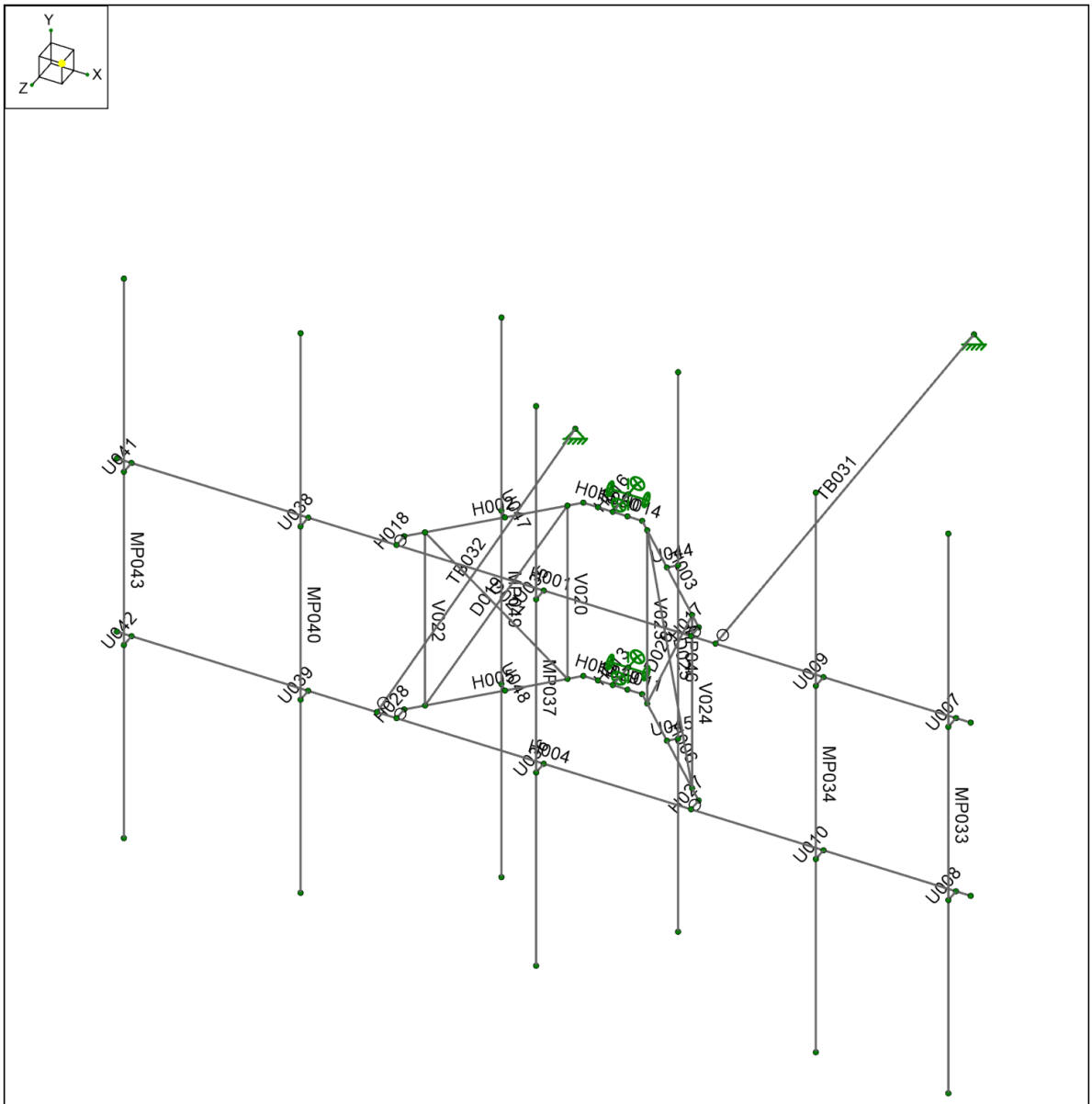
Antenna Calculations (Elevations per Application/RFDS)*

Equipment	Height	Width	Depth	Weight	EPA_N	EPA_T	EPA_{Ni}	EPA_{Ti}
Model #	in	in	in	lbs	sqft	sqft	sqft	sqft
Ericsson AIR 6419 N77G	15.7	30.0	6.7	70.0	3.93	0.37	4.87	0.57
CCI DMP65R-BU6DA	71.2	20.7	7.7	79.4	12.71	2.28	14.62	3.08
Matsing MS-MBA-3.2-H4-L4 *	72.0	24.0	26.0	130.0	N/A	N/A	N/A	N/A
Quintel QD6616-7	72.0	22.0	9.6	130.0	13.58	2.88	15.52	3.70
Kaelus DBC0051F3V51-2	8.0	6.2	4.4	12.4	N/A	N/A	N/A	N/A
Raycap DC6-48-60-18-8F (23.5" Height)	23.5	9.7	9.7	20.0	1.90	1.90	2.60	2.60
Raycap DC9-48-60-24-8C-EV (Enclosure)	25.9	12.4	9.7	18.5	2.68	2.11	3.47	2.85
Ericsson RRUS 8843 B2, B66A	14.9	13.2	10.9	72.0	1.64	1.35	2.24	1.90
Ericsson RRUS 4449 B5, B12	17.9	13.2	9.4	71.0	1.97	1.40	2.62	1.98
Ericsson RRUS 32 B2	27.2	12.1	7.0	53.0	2.74	1.67	3.56	2.42
Ericsson RRUS 32 B66	27.2	12.1	7.0	53.0	2.74	1.67	3.56	2.42
Ericsson RRUS 32 B30	27.2	12.1	7.0	60.0	2.74	1.67	3.56	2.42
Ericsson RRUS 4478 B14	16.5	13.4	7.7	59.9	1.84	1.06	2.47	1.58
Ericsson AIR 6449 n77D	30.4	15.9	8.1	81.6	4.03	1.34	4.98	1.86

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



American Tower Corp.	383598, Tartaglia	SK-1
Sharon.Thorne		Jan 25, 2023
14178890_C8_01		R3D. AT&T MOBILITY @ 383598, …



American Tower Corp.	383598, Tartaglia	SK-2
Sharon.Thorne		Jan 25, 2023
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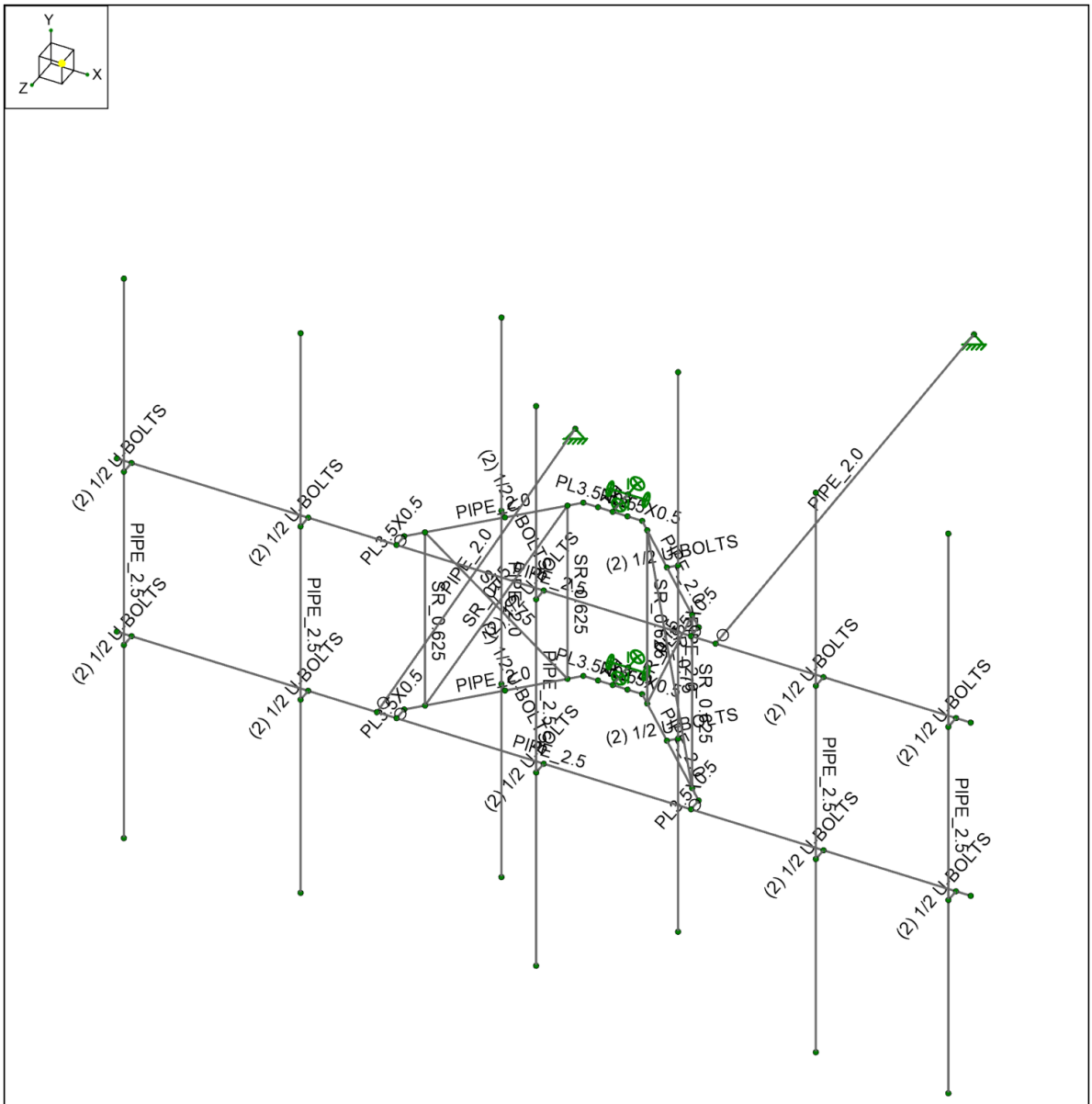

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Sharon.Thorne		Jan 25, 2023
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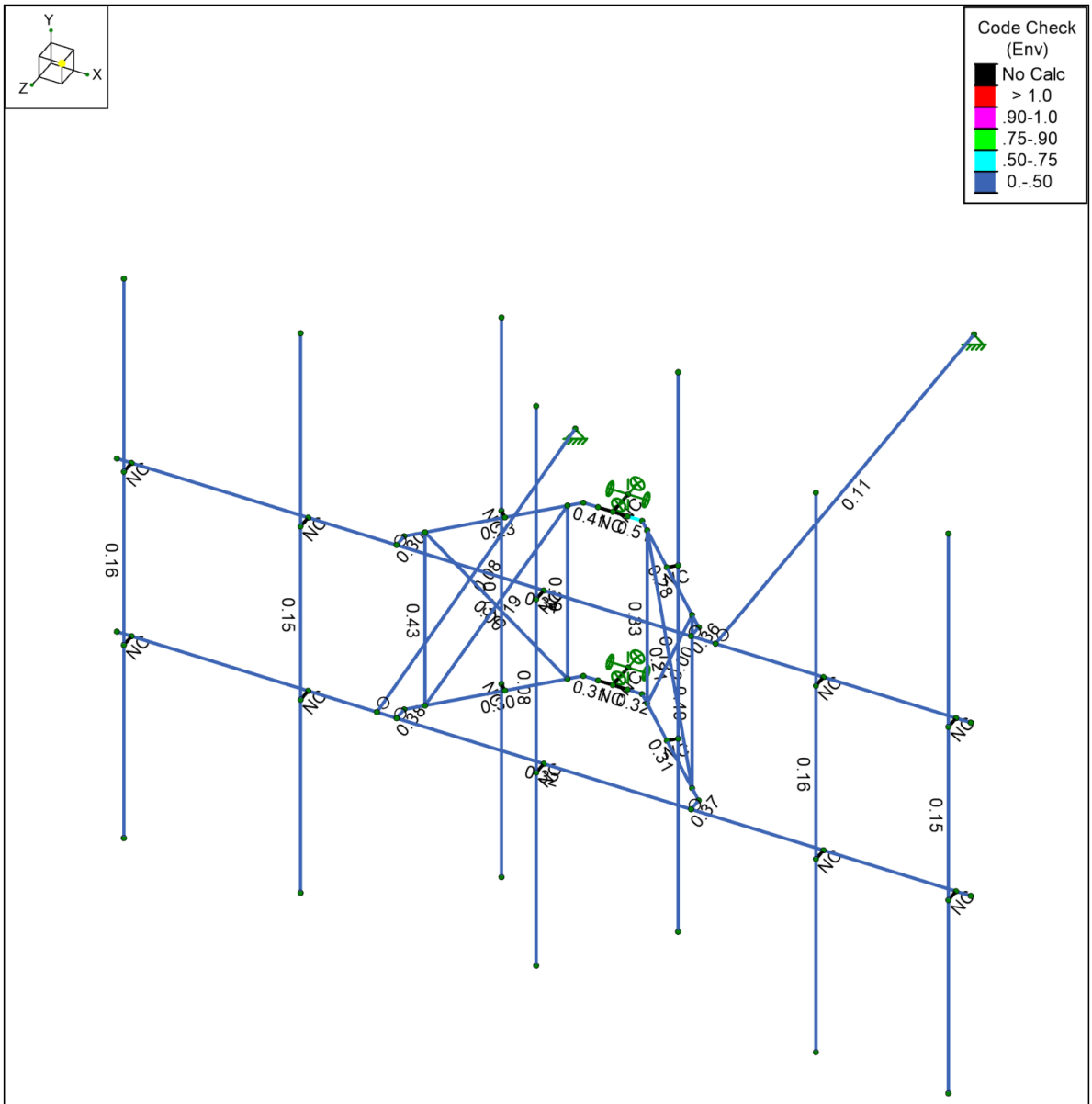

American Tower Corp.	383598, Tartaglia	SK-4
Sharon.Thorne		Jan 25, 2023
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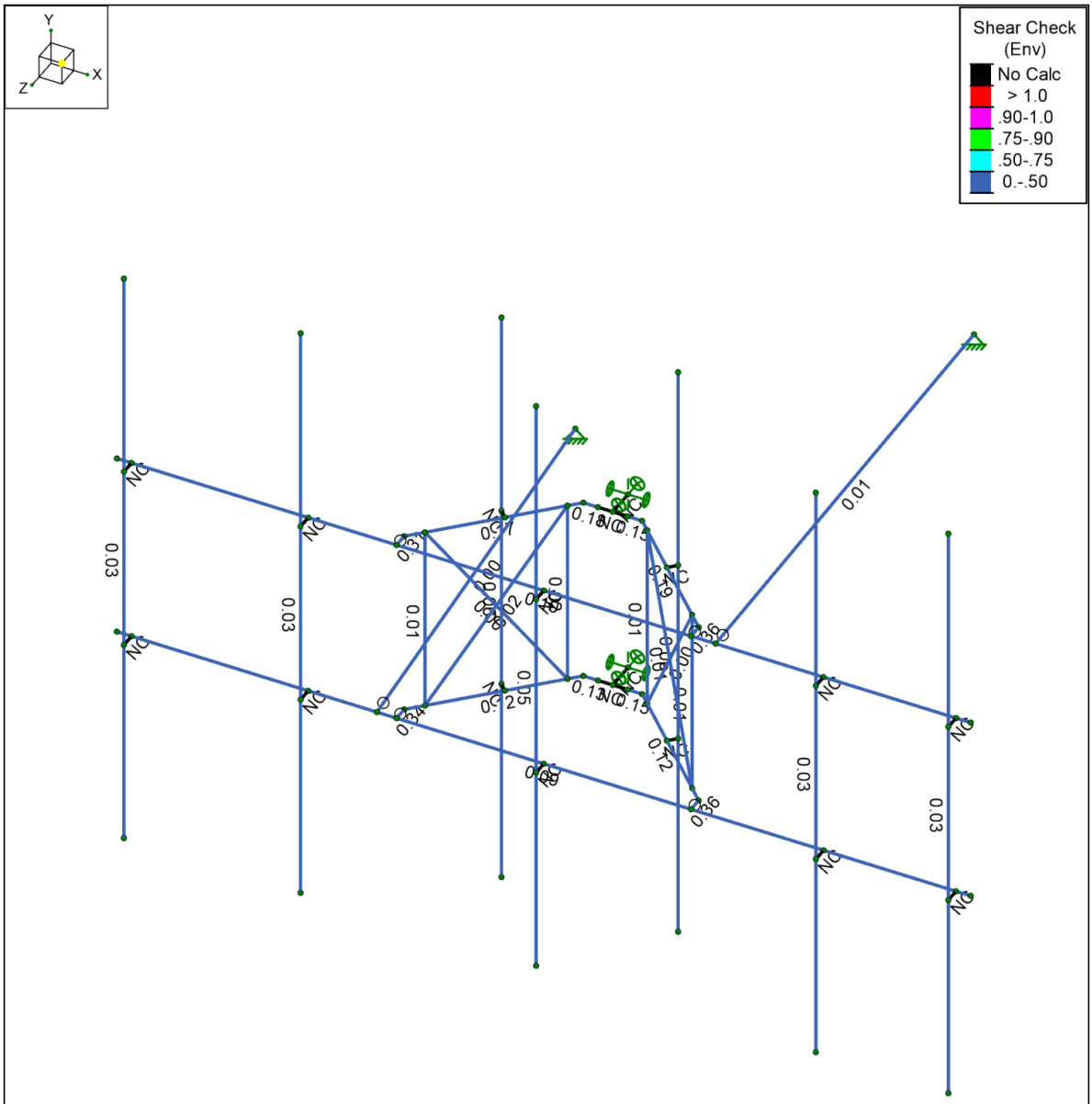

American Tower Corp.	383598, Tartaglia	SK-5
Sharon.Thorne		Jan 25, 2023
14178890_C8_01		R3D. AT&T MOBILITY @ 383598, …

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed
1	D	DL	-1		14	
2	Di	IL			14	31
3	W 0	WL			14	48
4	W 30	WL			28	93
5	W 60	WL			28	93
6	W 90	WL			14	47
7	W 120	WL			28	93
8	W 150	WL			28	93
9	W 180	WL			14	48
10	W 210	WL			28	93
11	W 240	WL			28	93
12	W 270	WL			14	47
13	W 300	WL			28	93
14	W 330	WL			28	93
15	Wi 0	WL			14	48
16	Wi 30	WL			28	93
17	Wi 60	WL			28	93
18	Wi 90	WL			14	47
19	Wi 120	WL			28	93
20	Wi 150	WL			28	93
21	Wi 180	WL			14	48
22	Wi 210	WL			28	93
23	Wi 240	WL			28	93
24	Wi 270	WL			14	47
25	Wi 300	WL			28	93
26	Wi 330	WL			28	93
27	Ws 0	WL			14	48
28	Ws 30	WL			28	93
29	Ws 60	WL			28	93
30	Ws 90	WL			14	47
31	Ws 120	WL			28	93
32	Ws 150	WL			28	93
33	Ws 180	WL			14	48
34	Ws 210	WL			28	93
35	Ws 240	WL			28	93
36	Ws 270	WL			14	47
37	Ws 300	WL			28	93
38	Ws 330	WL			28	93
39	Ev -Y	ELY				31
40	Eh -Z	ELZ				31
41	Eh -X	ELX				31
42	Lv (1)	LL			1	
43	Lv (2)	LL			1	
44	Lv (3)	LL			1	
45	Lv (4)	LL			1	
46	Lv (5)	LL			1	
47	Lv (6)	LL			1	
48	Lv (7)	LL		1		
49	Lv (8)	LL		1		
50	Lm (1)	LL		1		
51	Lm (2)	LL		1		
52	Lm (3)	LL		1		
53	Lm (4)	LL		1		
54	Lm (5)	LL		1		
55	Lm (6)	LL		1		

Basic Load Cases (Continued)

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed
56	Lm (7)	LL		1		

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4D	Yes	Y	DL	1.4						
2	1.2D + 1.0W [0°]	Yes	Y	DL	1.2	3	1				
3	1.2D + 1.0W [30°]	Yes	Y	DL	1.2	4	1				
4	1.2D + 1.0W [60°]	Yes	Y	DL	1.2	5	1				
5	1.2D + 1.0W [90°]	Yes	Y	DL	1.2	6	1				
6	1.2D + 1.0W [120°]	Yes	Y	DL	1.2	7	1				
7	1.2D + 1.0W [150°]	Yes	Y	DL	1.2	8	1				
8	1.2D + 1.0W [180°]	Yes	Y	DL	1.2	9	1				
9	1.2D + 1.0W [210°]	Yes	Y	DL	1.2	10	1				
10	1.2D + 1.0W [240°]	Yes	Y	DL	1.2	11	1				
11	1.2D + 1.0W [270°]	Yes	Y	DL	1.2	12	1				
12	1.2D + 1.0W [300°]	Yes	Y	DL	1.2	13	1				
13	1.2D + 1.0W [330°]	Yes	Y	DL	1.2	14	1				
14	0.9D + 1.0W [0°]	Yes	Y	DL	0.9	3	1				
15	0.9D + 1.0W [30°]	Yes	Y	DL	0.9	4	1				
16	0.9D + 1.0W [60°]	Yes	Y	DL	0.9	5	1				
17	0.9D + 1.0W [90°]	Yes	Y	DL	0.9	6	1				
18	0.9D + 1.0W [120°]	Yes	Y	DL	0.9	7	1				
19	0.9D + 1.0W [150°]	Yes	Y	DL	0.9	8	1				
20	0.9D + 1.0W [180°]	Yes	Y	DL	0.9	9	1				
21	0.9D + 1.0W [210°]	Yes	Y	DL	0.9	10	1				
22	0.9D + 1.0W [240°]	Yes	Y	DL	0.9	11	1				
23	0.9D + 1.0W [270°]	Yes	Y	DL	0.9	12	1				
24	0.9D + 1.0W [300°]	Yes	Y	DL	0.9	13	1				
25	0.9D + 1.0W [330°]	Yes	Y	DL	0.9	14	1				
26	1.2D + 1.0Di + 1.0Wi [0°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	15	1		
27	1.2D + 1.0Di + 1.0Wi [30°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	16	1		
28	1.2D + 1.0Di + 1.0Wi [60°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	17	1		
29	1.2D + 1.0Di + 1.0Wi [90°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	18	1		
30	1.2D + 1.0Di + 1.0Wi [120°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	19	1		
31	1.2D + 1.0Di + 1.0Wi [150°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	20	1		
32	1.2D + 1.0Di + 1.0Wi [180°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	21	1		
33	1.2D + 1.0Di + 1.0Wi [210°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	22	1		
34	1.2D + 1.0Di + 1.0Wi [240°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	23	1		
35	1.2D + 1.0Di + 1.0Wi [270°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	24	1		
36	1.2D + 1.0Di + 1.0Wi [300°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	25	1		
37	1.2D + 1.0Di + 1.0Wi [330°] + 1.0Ti	Yes	Y	DL	1.2	IL	1	26	1		
38	1.2D + 1.0Ev + 1.0Eh [0°]	Yes	Y	DL	1.2	ELY	1	ELZ	1	ELX	0.001
39	1.2D + 1.0Ev + 1.0Eh [30°]	Yes	Y	DL	1.2	ELY	1	ELZ	0.866	ELX	0.5
40	1.2D + 1.0Ev + 1.0Eh [60°]	Yes	Y	DL	1.2	ELY	1	ELZ	0.5	ELX	0.866
41	1.2D + 1.0Ev + 1.0Eh [90°]	Yes	Y	DL	1.2	ELY	1	ELZ	0.001	ELX	1
42	1.2D + 1.0Ev + 1.0Eh [120°]	Yes	Y	DL	1.2	ELY	1	ELZ	-0.5	ELX	0.866
43	1.2D + 1.0Ev + 1.0Eh [150°]	Yes	Y	DL	1.2	ELY	1	ELZ	-0.866	ELX	0.5
44	1.2D + 1.0Ev + 1.0Eh [180°]	Yes	Y	DL	1.2	ELY	1	ELZ	-1	ELX	0.001
45	1.2D + 1.0Ev + 1.0Eh [210°]	Yes	Y	DL	1.2	ELY	1	ELZ	-0.866	ELX	-0.5
46	1.2D + 1.0Ev + 1.0Eh [240°]	Yes	Y	DL	1.2	ELY	1	ELZ	-0.5	ELX	-0.866
47	1.2D + 1.0Ev + 1.0Eh [270°]	Yes	Y	DL	1.2	ELY	1	ELZ	0.001	ELX	-1
48	1.2D + 1.0Ev + 1.0Eh [300°]	Yes	Y	DL	1.2	ELY	1	ELZ	0.5	ELX	-0.866
49	1.2D + 1.0Ev + 1.0Eh [330°]	Yes	Y	DL	1.2	ELY	1	ELZ	0.866	ELX	-0.5
50	0.9D + 1.0Ev + 1.0Eh [0°]	Yes	Y	DL	0.9	ELY	1	ELZ	1	ELX	0.001
51	0.9D + 1.0Ev + 1.0Eh [30°]	Yes	Y	DL	0.9	ELY	1	ELZ	0.866	ELX	0.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
52	0.9D + 1.0Ev + 1.0Eh [60°]	Yes	Y	DL	0.9	ELY	1	ELZ	0.5	ELX	0.866
53	0.9D + 1.0Ev + 1.0Eh [90°]	Yes	Y	DL	0.9	ELY	1	ELZ	0.001	ELX	1
54	0.9D + 1.0Ev + 1.0Eh [120°]	Yes	Y	DL	0.9	ELY	1	ELZ	-0.5	ELX	0.866
55	0.9D + 1.0Ev + 1.0Eh [150°]	Yes	Y	DL	0.9	ELY	1	ELZ	-0.866	ELX	0.5
56	0.9D + 1.0Ev + 1.0Eh [180°]	Yes	Y	DL	0.9	ELY	1	ELZ	-1	ELX	0.001
57	0.9D + 1.0Ev + 1.0Eh [210°]	Yes	Y	DL	0.9	ELY	1	ELZ	-0.866	ELX	-0.5
58	0.9D + 1.0Ev + 1.0Eh [240°]	Yes	Y	DL	0.9	ELY	1	ELZ	-0.5	ELX	-0.866
59	0.9D + 1.0Ev + 1.0Eh [270°]	Yes	Y	DL	0.9	ELY	1	ELZ	0.001	ELX	-1
60	0.9D + 1.0Ev + 1.0Eh [300°]	Yes	Y	DL	0.9	ELY	1	ELZ	0.5	ELX	-0.866
61	0.9D + 1.0Ev + 1.0Eh [330°]	Yes	Y	DL	0.9	ELY	1	ELZ	0.866	ELX	-0.5
62	1.2D + 1.5Lv(1)	Yes	Y	DL	1.2	42	1.5				
63	1.2D + 1.5Lv(2)	Yes	Y	DL	1.2	43	1.5				
64	1.2D + 1.5Lv(3)	Yes	Y	DL	1.2	44	1.5				
65	1.2D + 1.5Lv(4)	Yes	Y	DL	1.2	45	1.5				
66	1.2D + 1.5Lv(5)	Yes	Y	DL	1.2	46	1.5				
67	1.2D + 1.5Lv(6)	Yes	Y	DL	1.2	47	1.5				
68	1.2D + 1.5Lv(7)	Yes	Y	DL	1.2	48	1.5				
69	1.2D + 1.5Lv(8)	Yes	Y	DL	1.2	49	1.5				
70	1.2D + 1.5Lm(1) + 1.0Wm [0°]	Yes	Y	DL	1.2	50	1.5	27	1		
71	1.2D + 1.5Lm(1) + 1.0Wm [30°]	Yes	Y	DL	1.2	50	1.5	28	1		
72	1.2D + 1.5Lm(1) + 1.0Wm [60°]	Yes	Y	DL	1.2	50	1.5	29	1		
73	1.2D + 1.5Lm(1) + 1.0Wm [90°]	Yes	Y	DL	1.2	50	1.5	30	1		
74	1.2D + 1.5Lm(1) + 1.0Wm [120°]	Yes	Y	DL	1.2	50	1.5	31	1		
75	1.2D + 1.5Lm(1) + 1.0Wm [150°]	Yes	Y	DL	1.2	50	1.5	32	1		
76	1.2D + 1.5Lm(1) + 1.0Wm [180°]	Yes	Y	DL	1.2	50	1.5	33	1		
77	1.2D + 1.5Lm(1) + 1.0Wm [210°]	Yes	Y	DL	1.2	50	1.5	34	1		
78	1.2D + 1.5Lm(1) + 1.0Wm [240°]	Yes	Y	DL	1.2	50	1.5	35	1		
79	1.2D + 1.5Lm(1) + 1.0Wm [270°]	Yes	Y	DL	1.2	50	1.5	36	1		
80	1.2D + 1.5Lm(1) + 1.0Wm [300°]	Yes	Y	DL	1.2	50	1.5	37	1		
81	1.2D + 1.5Lm(1) + 1.0Wm [330°]	Yes	Y	DL	1.2	50	1.5	38	1		
82	1.2D + 1.5Lm(2) + 1.0Wm [0°]	Yes	Y	DL	1.2	51	1.5	27	1		
83	1.2D + 1.5Lm(2) + 1.0Wm [30°]	Yes	Y	DL	1.2	51	1.5	28	1		
84	1.2D + 1.5Lm(2) + 1.0Wm [60°]	Yes	Y	DL	1.2	51	1.5	29	1		
85	1.2D + 1.5Lm(2) + 1.0Wm [90°]	Yes	Y	DL	1.2	51	1.5	30	1		
86	1.2D + 1.5Lm(2) + 1.0Wm [120°]	Yes	Y	DL	1.2	51	1.5	31	1		
87	1.2D + 1.5Lm(2) + 1.0Wm [150°]	Yes	Y	DL	1.2	51	1.5	32	1		
88	1.2D + 1.5Lm(2) + 1.0Wm [180°]	Yes	Y	DL	1.2	51	1.5	33	1		
89	1.2D + 1.5Lm(2) + 1.0Wm [210°]	Yes	Y	DL	1.2	51	1.5	34	1		
90	1.2D + 1.5Lm(2) + 1.0Wm [240°]	Yes	Y	DL	1.2	51	1.5	35	1		
91	1.2D + 1.5Lm(2) + 1.0Wm [270°]	Yes	Y	DL	1.2	51	1.5	36	1		
92	1.2D + 1.5Lm(2) + 1.0Wm [300°]	Yes	Y	DL	1.2	51	1.5	37	1		
93	1.2D + 1.5Lm(2) + 1.0Wm [330°]	Yes	Y	DL	1.2	51	1.5	38	1		
94	1.2D + 1.5Lm(3) + 1.0Wm [0°]	Yes	Y	DL	1.2	52	1.5	27	1		
95	1.2D + 1.5Lm(3) + 1.0Wm [30°]	Yes	Y	DL	1.2	52	1.5	28	1		
96	1.2D + 1.5Lm(3) + 1.0Wm [60°]	Yes	Y	DL	1.2	52	1.5	29	1		
97	1.2D + 1.5Lm(3) + 1.0Wm [90°]	Yes	Y	DL	1.2	52	1.5	30	1		
98	1.2D + 1.5Lm(3) + 1.0Wm [120°]	Yes	Y	DL	1.2	52	1.5	31	1		
99	1.2D + 1.5Lm(3) + 1.0Wm [150°]	Yes	Y	DL	1.2	52	1.5	32	1		
100	1.2D + 1.5Lm(3) + 1.0Wm [180°]	Yes	Y	DL	1.2	52	1.5	33	1		
101	1.2D + 1.5Lm(3) + 1.0Wm [210°]	Yes	Y	DL	1.2	52	1.5	34	1		
102	1.2D + 1.5Lm(3) + 1.0Wm [240°]	Yes	Y	DL	1.2	52	1.5	35	1		
103	1.2D + 1.5Lm(3) + 1.0Wm [270°]	Yes	Y	DL	1.2	52	1.5	36	1		
104	1.2D + 1.5Lm(3) + 1.0Wm [300°]	Yes	Y	DL	1.2	52	1.5	37	1		
105	1.2D + 1.5Lm(3) + 1.0Wm [330°]	Yes	Y	DL	1.2	52	1.5	38	1		
106	1.2D + 1.5Lm(4) + 1.0Wm [0°]	Yes	Y	DL	1.2	53	1.5	27	1		

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
107	1.2D + 1.5Lm(4) + 1.0Wm [30°]	Yes	Y	DL	1.2	53	1.5	28	1		
108	1.2D + 1.5Lm(4) + 1.0Wm [60°]	Yes	Y	DL	1.2	53	1.5	29	1		
109	1.2D + 1.5Lm(4) + 1.0Wm [90°]	Yes	Y	DL	1.2	53	1.5	30	1		
110	1.2D + 1.5Lm(4) + 1.0Wm [120°]	Yes	Y	DL	1.2	53	1.5	31	1		
111	1.2D + 1.5Lm(4) + 1.0Wm [150°]	Yes	Y	DL	1.2	53	1.5	32	1		
112	1.2D + 1.5Lm(4) + 1.0Wm [180°]	Yes	Y	DL	1.2	53	1.5	33	1		
113	1.2D + 1.5Lm(4) + 1.0Wm [210°]	Yes	Y	DL	1.2	53	1.5	34	1		
114	1.2D + 1.5Lm(4) + 1.0Wm [240°]	Yes	Y	DL	1.2	53	1.5	35	1		
115	1.2D + 1.5Lm(4) + 1.0Wm [270°]	Yes	Y	DL	1.2	53	1.5	36	1		
116	1.2D + 1.5Lm(4) + 1.0Wm [300°]	Yes	Y	DL	1.2	53	1.5	37	1		
117	1.2D + 1.5Lm(4) + 1.0Wm [330°]	Yes	Y	DL	1.2	53	1.5	38	1		
118	1.2D + 1.5Lm(5) + 1.0Wm [0°]	Yes	Y	DL	1.2	54	1.5	27	1		
119	1.2D + 1.5Lm(5) + 1.0Wm [30°]	Yes	Y	DL	1.2	54	1.5	28	1		
120	1.2D + 1.5Lm(5) + 1.0Wm [60°]	Yes	Y	DL	1.2	54	1.5	29	1		
121	1.2D + 1.5Lm(5) + 1.0Wm [90°]	Yes	Y	DL	1.2	54	1.5	30	1		
122	1.2D + 1.5Lm(5) + 1.0Wm [120°]	Yes	Y	DL	1.2	54	1.5	31	1		
123	1.2D + 1.5Lm(5) + 1.0Wm [150°]	Yes	Y	DL	1.2	54	1.5	32	1		
124	1.2D + 1.5Lm(5) + 1.0Wm [180°]	Yes	Y	DL	1.2	54	1.5	33	1		
125	1.2D + 1.5Lm(5) + 1.0Wm [210°]	Yes	Y	DL	1.2	54	1.5	34	1		
126	1.2D + 1.5Lm(5) + 1.0Wm [240°]	Yes	Y	DL	1.2	54	1.5	35	1		
127	1.2D + 1.5Lm(5) + 1.0Wm [270°]	Yes	Y	DL	1.2	54	1.5	36	1		
128	1.2D + 1.5Lm(5) + 1.0Wm [300°]	Yes	Y	DL	1.2	54	1.5	37	1		
129	1.2D + 1.5Lm(5) + 1.0Wm [330°]	Yes	Y	DL	1.2	54	1.5	38	1		
130	1.2D + 1.5Lm(6) + 1.0Wm [0°]	Yes	Y	DL	1.2	55	1.5	27	1		
131	1.2D + 1.5Lm(6) + 1.0Wm [30°]	Yes	Y	DL	1.2	55	1.5	28	1		
132	1.2D + 1.5Lm(6) + 1.0Wm [60°]	Yes	Y	DL	1.2	55	1.5	29	1		
133	1.2D + 1.5Lm(6) + 1.0Wm [90°]	Yes	Y	DL	1.2	55	1.5	30	1		
134	1.2D + 1.5Lm(6) + 1.0Wm [120°]	Yes	Y	DL	1.2	55	1.5	31	1		
135	1.2D + 1.5Lm(6) + 1.0Wm [150°]	Yes	Y	DL	1.2	55	1.5	32	1		
136	1.2D + 1.5Lm(6) + 1.0Wm [180°]	Yes	Y	DL	1.2	55	1.5	33	1		
137	1.2D + 1.5Lm(6) + 1.0Wm [210°]	Yes	Y	DL	1.2	55	1.5	34	1		
138	1.2D + 1.5Lm(6) + 1.0Wm [240°]	Yes	Y	DL	1.2	55	1.5	35	1		
139	1.2D + 1.5Lm(6) + 1.0Wm [270°]	Yes	Y	DL	1.2	55	1.5	36	1		
140	1.2D + 1.5Lm(6) + 1.0Wm [300°]	Yes	Y	DL	1.2	55	1.5	37	1		
141	1.2D + 1.5Lm(6) + 1.0Wm [330°]	Yes	Y	DL	1.2	55	1.5	38	1		
142	1.2D + 1.5Lm(7) + 1.0Wm [0°]	Yes	Y	DL	1.2	56	1.5	27	1		
143	1.2D + 1.5Lm(7) + 1.0Wm [30°]	Yes	Y	DL	1.2	56	1.5	28	1		
144	1.2D + 1.5Lm(7) + 1.0Wm [60°]	Yes	Y	DL	1.2	56	1.5	29	1		
145	1.2D + 1.5Lm(7) + 1.0Wm [90°]	Yes	Y	DL	1.2	56	1.5	30	1		
146	1.2D + 1.5Lm(7) + 1.0Wm [120°]	Yes	Y	DL	1.2	56	1.5	31	1		
147	1.2D + 1.5Lm(7) + 1.0Wm [150°]	Yes	Y	DL	1.2	56	1.5	32	1		
148	1.2D + 1.5Lm(7) + 1.0Wm [180°]	Yes	Y	DL	1.2	56	1.5	33	1		
149	1.2D + 1.5Lm(7) + 1.0Wm [210°]	Yes	Y	DL	1.2	56	1.5	34	1		
150	1.2D + 1.5Lm(7) + 1.0Wm [240°]	Yes	Y	DL	1.2	56	1.5	35	1		
151	1.2D + 1.5Lm(7) + 1.0Wm [270°]	Yes	Y	DL	1.2	56	1.5	36	1		
152	1.2D + 1.5Lm(7) + 1.0Wm [300°]	Yes	Y	DL	1.2	56	1.5	37	1		
153	1.2D + 1.5Lm(7) + 1.0Wm [330°]	Yes	Y	DL	1.2	56	1.5	38	1		

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	H001	N003	N002		PIPE_2.5	Beam	None	A53 Gr. B	Typical
2	H002	N024	N004		PIPE_2.0	Beam	None	A53 Gr. B	Typical
3	H003	N023	N005		PIPE_2.0	Beam	None	A53 Gr. B	Typical
4	H004	N008	N007		PIPE_2.5	Beam	None	A53 Gr. B	Typical
5	H005	N021	N009		PIPE_2.0	Beam	None	A53 Gr. B	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
6	H006	N020	N010		PIPE_2.0	Beam	None	A53 Gr. B	Typical
7	U007	N011	N013		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
8	U008	N014	N015		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
9	U009	N012	N016		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
10	U010	N017	N018		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
11	H011	N039	N020	90	PL3.5X0.5	Beam	None	A36	Typical
12	H012	N040	N021	90	PL3.5X0.5	Beam	None	A36	Typical
13	H013	N006	N019		RIGID	None	None	RIGID	Typical
14	H014	N037	N023	90	PL3.5X0.5	Beam	None	A36	Typical
15	H015	N038	N024	90	PL3.5X0.5	Beam	None	A36	Typical
16	H016	N001	N022		RIGID	None	None	RIGID	Typical
17	H017	N005	N026	90	PL3.5X0.5	Beam	None	A36	Typical
18	H018	N004	N025	90	PL3.5X0.5	Beam	None	A36	Typical
19	D019	N030	N027		SR_0.75	Column	None	A36	Typical
20	V020	N027	N028		SR_0.625	Column	None	A36	Typical
21	D021	N028	N029		SR_0.75	Column	None	A36	Typical
22	V022	N029	N030		SR_0.625	Column	None	A36	Typical
23	V023	N031	N032		SR_0.625	Column	None	A36	Typical
24	V024	N033	N034		SR_0.625	Column	None	A36	Typical
25	D025	N034	N031		SR_0.75	Column	None	A36	Typical
26	D026	N032	N033		SR_0.75	Column	None	A36	Typical
27	H027	N010	N036	90	PL3.5X0.5	Beam	None	A36	Typical
28	H028	N009	N035	90	PL3.5X0.5	Beam	None	A36	Typical
29	H029	N039	N040		RIGID	None	None	RIGID	Typical
30	H030	N037	N038		RIGID	None	None	RIGID	Typical
31	TB031	N042	N041		PIPE_2.0	Beam	None	A53 Gr. B	Typical
32	TB032	N043	N044		PIPE_2.0	Beam	None	A53 Gr. B	Typical
33	MP033	N045	N046		PIPE_2.5	Column	None	A53 Gr. B	Typical
34	MP034	N047	N048		PIPE_2.5	Column	None	A53 Gr. B	Typical
35	U035	N049	N050		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
36	U036	N051	N052		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
37	MP037	N053	N054		PIPE_2.5	Column	None	A53 Gr. B	Typical
38	U038	N055	N057		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
39	U039	N058	N059		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
40	MP040	N060	N061		PIPE_2.5	Column	None	A53 Gr. B	Typical
41	U041	N056	N062		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
42	U042	N063	N064		(2) 1/2 U-BOLTS	Beam	None	SAE J429 Gr. 2	Typical
43	MP043	N065	N066		PIPE_2.5	Column	None	A53 Gr. B	Typical
44	U044	N067	N068		(2) 1/2 U-BOLTS	Beam	None	A36	Typical
45	U045	N069	N070		(2) 1/2 U-BOLTS	Beam	None	A36	Typical
46	MP046	N071	N072		PIPE_2.0	Column	None	A53 Gr. B	Typical
47	U047	N073	N074		(2) 1/2 U-BOLTS	Beam	None	A36	Typical
48	U048	N075	N076		(2) 1/2 U-BOLTS	Beam	None	A36	Typical
49	MP049	N077	N078		PIPE_2.0	Column	None	A53 Gr. B	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	L-Torque [in]	K y-y	K z-z	Function
1	H001	PIPE_2.5	174			Lbyy		1	1	Lateral
2	H002	PIPE_2.0	33.941			Lbyy		0.8	1	Lateral
3	H003	PIPE_2.0	33.941			Lbyy		0.8	1	Lateral
4	H004	PIPE_2.5	174			Lbyy		1	1	Lateral
5	H005	PIPE_2.0	33.941			Lbyy		0.8	1	Lateral
6	H006	PIPE_2.0	33.941			Lbyy		0.8	1	Lateral
7	U007	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
8	U008	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	L-Torque [in]	K y-y	K z-z	Function
9	U009	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
10	U010	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
11	H011	PL3.5X0.5	3			Lbyy		2.1	2.1	Lateral
12	H012	PL3.5X0.5	3			Lbyy		2.1	2.1	Lateral
13	H014	PL3.5X0.5	3			Lbyy		2.1	2.1	Lateral
14	H015	PL3.5X0.5	3			Lbyy		2.1	2.1	Lateral
15	H017	PL3.5X0.5	3			Lbyy		2.1	2.1	Lateral
16	H018	PL3.5X0.5	3			Lbyy		2.1	2.1	Lateral
17	D019	SR_0.75	47.434			Lbyy		0.65	0.65	Lateral
18	V020	SR_0.625	39			Lbyy		0.65	0.65	Lateral
19	D021	SR_0.75	47.434			Lbyy		0.65	0.65	Lateral
20	V022	SR_0.625	39			Lbyy		0.65	0.65	Lateral
21	V023	SR_0.625	39			Lbyy		0.65	0.65	Lateral
22	V024	SR_0.625	39			Lbyy		0.65	0.65	Lateral
23	D025	SR_0.75	47.434			Lbyy		0.65	0.65	Lateral
24	D026	SR_0.75	47.434			Lbyy		0.65	0.65	Lateral
25	H027	PL3.5X0.5	3			Lbyy		2.1	2.1	Lateral
26	H028	PL3.5X0.5	3			Lbyy		2.1	2.1	Lateral
27	TB031	PIPE_2.0	105.019			Lbyy		1	1	Lateral
28	TB032	PIPE_2.0	93.343			Lbyy		1	1	Lateral
29	MP033	PIPE_2.5	126	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
30	MP034	PIPE_2.5	126	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
31	U035	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
32	U036	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
33	MP037	PIPE_2.5	126	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
34	U038	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
35	U039	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
36	MP040	PIPE_2.5	126	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
37	U041	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
38	U042	(2) 1/2 U-BOLTS	3			Lbyy		0.5	0.5	Lateral
39	MP043	PIPE_2.5	126	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
40	U044	(2) 1/2 U-BOLTS	2.121			Lbyy		0.5	0.5	Lateral
41	U045	(2) 1/2 U-BOLTS	2.121			Lbyy		0.5	0.5	Lateral
42	MP046	PIPE_2.0	126	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral
43	U047	(2) 1/2 U-BOLTS	2.121			Lbyy		0.5	0.5	Lateral
44	U048	(2) 1/2 U-BOLTS	2.121			Lbyy		0.5	0.5	Lateral
45	MP049	PIPE_2.0	126	Segment	Segment	Lbyy	Segment	2.1	2.1	Lateral

Node Boundary Conditions

	Node Label	X [lb/in]	Y [lb/in]	Z [lb/in]	X Rot [k-in/rad]	Z Rot [k-in/rad]
1	N001	Reaction	Reaction	Reaction	Reaction	Reaction
2	N006	Reaction	Reaction	Reaction	Reaction	Reaction
3	N042	Reaction	Reaction	Reaction		
4	N043	Reaction	Reaction	Reaction		

Member Advanced Data

	Label	J Release	T/C Only	Physical	Deflection Ratio Options	Activation	Seismic DR
1	H001			Yes	N/A		None
2	H002			Yes	N/A		None
3	H003			Yes	N/A		None
4	H004			Yes	N/A		None
5	H005			Yes	N/A		None
6	H006			Yes	N/A		None

Member Advanced Data (Continued)

	Label	J Release	T/C Only	Physical	Deflection Ratio Options	Activation	Seismic DR
7	U007			Yes	N/A	Exclude	None
8	U008			Yes	N/A	Exclude	None
9	U009			Yes	N/A	Exclude	None
10	U010			Yes	N/A	Exclude	None
11	H011			Yes	N/A		None
12	H012			Yes	N/A		None
13	H013			Yes	** NA **		None
14	H014			Yes	N/A		None
15	H015			Yes	N/A		None
16	H016			Yes	** NA **		None
17	H017	BenPIN		Yes	N/A		None
18	H018	BenPIN		Yes	N/A		None
19	D019		Tension Only	Yes	** NA **		None
20	V020			Yes	** NA **		None
21	D021		Tension Only	Yes	** NA **		None
22	V022			Yes	** NA **		None
23	V023			Yes	** NA **		None
24	V024			Yes	** NA **		None
25	D025		Tension Only	Yes	** NA **		None
26	D026		Tension Only	Yes	** NA **		None
27	H027	BenPIN		Yes	N/A		None
28	H028	BenPIN		Yes	N/A		None
29	H029			Yes	** NA **		None
30	H030			Yes	** NA **		None
31	TB031	BenPIN		Yes	N/A		None
32	TB032	BenPIN		Yes	N/A		None
33	MP033			Yes	** NA **		None
34	MP034			Yes	** NA **		None
35	U035			Yes	N/A	Exclude	None
36	U036			Yes	N/A	Exclude	None
37	MP037			Yes	** NA **		None
38	U038			Yes	N/A	Exclude	None
39	U039			Yes	N/A	Exclude	None
40	MP040			Yes	** NA **		None
41	U041			Yes	N/A	Exclude	None
42	U042			Yes	N/A	Exclude	None
43	MP043			Yes	** NA **		None
44	U044			Yes	N/A	Exclude	None
45	U045			Yes	N/A	Exclude	None
46	MP046			Yes	** NA **		None
47	U047			Yes	N/A	Exclude	None
48	U048			Yes	N/A	Exclude	None
49	MP049			Yes	** NA **		None

Hot Rolled Steel Properties

	Label	E [psi]	G [psi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [lb/ft³]	Yield [psi]	Ry	Fu [psi]	Rt
1	A53 Gr. B	2.9e+07	1.115e+07	0.3	0.65	490	35000	1.6	60000	1.2
2	SAE J429 Gr. 2	2.9e+07	1.115e+07	0.3	0.65	490	57000	1.1	74000	1.1
3	A36	2.9e+07	1.115e+07	0.3	0.65	490	36000	1.5	58000	1.2

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N001	max	1401.625	18	2125.103	32	1124.498	15	-390.77	15	0	153	443.956	77
2		min	-1688.406	80	776.649	14	-2753.578	9	-1144.606	33	0	1	-314.38	119
3	N006	max	1617.813	72	1227.928	26	2424.258	13	-249.922	18	0	153	230.294	76
4		min	-1329.67	126	446.227	20	-905.523	19	-683.356	37	0	1	-146.821	118
5	N042	max	29.118	5	40.725	30	1430.339	13	0	153	0	153	0	153
6		min	-27.895	23	13.322	24	-1384.325	19	0	1	0	1	0	1
7	N043	max	128.489	4	36.155	34	1180.33	4	0	153	0	153	0	153
8		min	-124.402	22	11.923	15	-1133.057	22	0	1	0	1	0	1
9	Totals:	max	2660.215	16	3417.769	32	3545.325	14						
10		min	-2660.215	10	1279.949	14	-3545.325	8						

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-ft]	phi*Mn z-z [lb-ft]	Cb	Eqn
1	H001	PIPE_2.5	0.341	58	9	0.101	52.562		12	10819.554	50715	3596.25	3596.25	1.947	H1-1b
2	H002	PIPE_2.0	0.234	30.052	129	0.171	0		125	29191.323	32130	1871.625	1871.625	1.83	H1-1b
3	H003	PIPE_2.0	0.278	30.052	78	0.191	0		73	29191.323	32130	1871.625	1871.625	1.894	H1-1b
4	H004	PIPE_2.5	0.32	56.188	75	0.088	119.625		4	10819.554	50715	3596.25	3596.25	2.527	H1-1b
5	H005	PIPE_2.0	0.303	29.698	128	0.118	30.052		107	29191.323	32130	1871.625	1871.625	2.355	H1-1b
6	H006	PIPE_2.0	0.307	29.698	76	0.121	30.052		88	29191.323	32130	1871.625	1871.625	2.401	H1-1b
7	H011	PL3.5X0.5	0.317	0	141	0.148	0	y	26	51289.202	56700	590.625	4134.375	1.764	H1-1b
8	H012	PL3.5X0.5	0.309	0	129	0.128	3	y	150	51289.202	56700	590.625	4134.375	1.666	H1-1b
9	H014	PL3.5X0.5	0.513	0	77	0.154	3	y	36	51289.202	56700	590.625	4134.375	1.653	H1-1b
10	H015	PL3.5X0.5	0.409	0	121	0.182	0	y	9	51289.202	56700	590.625	4134.375	1.909	H1-1b
11	H017	PL3.5X0.5	0.359	0	78	0.36	0.031	y	81	51289.202	56700	590.625	4134.375	1.667	H1-1b
12	H018	PL3.5X0.5	0.296	0	118	0.315	3	y	125	51289.202	56700	590.625	4134.375	1.667	H1-1b
13	D019	SR_0.75	0.191	47.434	118	0.016	0		2	3691.013	14313.882	178.924	178.924	2.579	H1-1b*
14	V020	SR_0.625	0.293	39	118	0.015	0		9	2633.14	9940.196	103.544	103.544	2.261	H1-1a
15	D021	SR_0.75	0	47.434	153	0	47.434		153	3691.013	14313.882	178.924	178.924	1	H1-1a
16	V022	SR_0.625	0.431	39	118	0.012	0		7	2633.14	9940.196	103.544	103.544	2.264	H1-1a
17	V023	SR_0.625	0.328	0	76	0.011	39		2	2633.14	9940.196	103.544	103.544	2.262	H1-1a
18	V024	SR_0.625	0.485	0	76	0.015	0		8	2633.14	9940.196	103.544	103.544	2.266	H1-1a
19	D025	SR_0.75	0.211	47.434	76	0.01	47.434		11	3691.013	14313.882	178.924	178.924	2.519	H1-1a*
20	D026	SR_0.75	0	47.434	153	0	47.434		153	3691.013	14313.882	178.924	178.924	1	H1-1a
21	H027	PL3.5X0.5	0.374	0	77	0.359	3	y	70	51289.202	56700	590.625	4134.375	1.667	H1-1b
22	H028	PL3.5X0.5	0.38	0	128	0.342	0	y	126	51289.202	56700	590.625	4134.375	1.667	H1-1b
23	TB031	PIPE_2.0	0.112	0	13	0.005	105.019		11	12826.143	32130	1871.625	1871.625	1.136	H1-1b*
24	TB032	PIPE_2.0	0.076	0	4	0.004	93.343		5	15554.065	32130	1871.625	1871.625	1.136	H1-1b*
25	MP033	PIPE_2.5	0.153	44.625	79	0.026	81.375		72	34640.718	50715	3596.25	3596.25	3	H1-1b
26	MP034	PIPE_2.5	0.165	81.375	72	0.033	44.625		80	34640.718	50715	3596.25	3596.25	2.266	H1-1b
27	MP037	PIPE_2.5	0.075	81.375	2	0.049	81.375		2	34640.718	50715	3596.25	3596.25	2.272	H1-1b
28	MP040	PIPE_2.5	0.149	81.375	126	0.029	81.375		125	34640.718	50715	3596.25	3596.25	3	H1-1b
29	MP043	PIPE_2.5	0.16	44.625	122	0.026	44.625		123	34640.718	50715	3596.25	3596.25	2.271	H1-1b
30	MP046	PIPE_2.0	0.131	43.312	2	0.056	44.625		2	16038.266	32130	1871.625	1871.625	1.701	H1-1b
31	MP049	PIPE_2.0	0.149	43.312	2	0.058	44.625		2	16038.266	32130	1871.625	1871.625	1.701	H1-1b

Radio Frequency Exposure Analysis Report

March 3, 2023

American Tower on behalf of AT&T

AT&T Site Name: Tartaglia
Site Number: CTL05093/383598
FA#: 10070948
USID: 5794

Site Address: 1000 Trumbull Ave, Bridgeport, CT 06606

Michael Fischer, P.E.
Registered Professional Engineer (Electrical)
Connecticut License Number 33928
Expires January 31, 2024

Signed 03 March 2023

Site Compliance Summary

AT&T Compliance Status:	Compliant
Cumulative Calculated Power Density (Ground Level):	1.82611 µW/cm^2
Cumulative General Population % MPE (Ground Level):	0.23238%

March 3, 2023

Attn: Blake Paynter, Project Manager

RF Exposure Analysis for Site: **Tartaglia**

Centerline Communications, LLC ("Centerline") was contracted to analyze the proposed AT&T facility at **1000 Trumbull Ave, Bridgeport, CT 06606** for the purpose of determining whether the predictive exposure from the proposed facility is within specified federal limits.

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as Federal Communications Commission (FCC) OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu W/cm^2$). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in mW/cm^2) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ($f_{MHz}/1500$). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of 1 mW/cm^2 (1000 $\mu W/cm^2$). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Wireless carriers use different frequency bands with varying MPE limits; therefore, it is useful to report results in terms of % MPE as opposed to power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the MPE limits for General Population/Uncontrolled environments as defined below.

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

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/ controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.

Calculation Methodology

Centerline Communications, LLC has performed theoretical modeling of the site using a software tool, RoofMaster®, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.

Data & Results

The following table details the antennas and operating parameters for the AT&T antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at ground level.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.

Maximum Calculated Cumulative Power Density @ Ground Level (Location: approximately 465' SW of site)

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density ($\mu W/cm^2$)	General Population MPE Limit ($\mu W/cm^2$)	General Population % MPE
AT&T A 1	QUINTEL QD6616-7 V1	700	11.75	165.00	6.00	30.00	2694.84	0.00008	466.67	0.00002
AT&T A 1	QUINTEL QD6616-7 V1	1900	15.27	165.00	4.00	30.00	4036.47	0.00001	1000.00	0.00000
AT&T A 1	QUINTEL QD6616-7 V1	2100	15.40	165.00	4.00	30.00	4162.09	0.00005	1000.00	0.00001
AT&T A 2	ERICSSON SON_AIR6419	3450	22.85	167.00	1.00	54.22	10451.04	0.00039	1000.00	0.00004
AT&T A 3	ERICSSON SON_AIR6449	3700	23.55	163.00	1.00	54.22	12278.90	0.00008	1000.00	0.00001
AT&T A 4	CCI DMP65R-BU6D	700	11.35	165.00	2.00	30.00	818.75	0.00002	466.67	0.00000
AT&T A 4	CCI DMP65R-BU6D	850	11.35	165.00	2.00	30.00	818.75	0.00000	566.67	0.00000
AT&T A 4	CCI DMP65R-BU6D	2300	15.25	165.00	4.00	18.00	2411.75	0.00000	1000.00	0.00000
AT&T B 5	QUINTEL QD6616-7 V1	700	11.99	165.00	6.00	30.00	2848.74	0.01551	466.67	0.00332
AT&T B 5	QUINTEL QD6616-7 V1	2300	16.33	165.00	4.00	18.00	3093.37	0.00357	1000.00	0.00036
AT&T B 6	ERICSSON SON_AIR6419	3450	22.85	167.00	1.00	54.22	10451.04	0.24835	1000.00	0.02483
AT&T B 7	ERICSSON SON_AIR6449	3700	23.55	163.00	1.00	54.22	12278.90	0.22284	1000.00	0.02228
AT&T B 8	MATSING MS-MBA-3.2-H4-L4 AZ-30	700	10.11	165.00	1.00	90.00	923.09	0.05181	466.67	0.01110
AT&T B 8	MATSING MS-MBA-3.2-H4-L4 AZ-30	850	12.80	165.00	1.00	90.00	1714.91	0.05862	566.67	0.01035
AT&T B 8	MATSING MS-MBA-3.2-H4-L4 AZ-40	1900	15.76	165.00	1.00	90.00	3390.33	0.09401	1000.00	0.00940
AT&T B 8	MATSING MS-MBA-3.2-H4-L4 AZ-40	2100	16.26	165.00	1.00	90.00	3804.02	0.09784	1000.00	0.00978
AT&T B 8	MATSING MS-MBA-3.2-H4-L4 AZ+30	700	12.28	165.00	1.00	90.00	1521.40	0.00044	466.67	0.00009
AT&T B 8	MATSING MS-MBA-3.2-H4-L4 AZ+30	850	12.28	165.00	1.00	90.00	1521.40	0.00044	566.67	0.00008
AT&T B 8	MATSING MS-MBA-3.2-H4-L4 AZ+40	1900	15.31	165.00	1.00	90.00	3056.63	0.00016	1000.00	0.00002
AT&T B 8	MATSING MS-MBA-3.2-H4-L4 AZ+40	2100	16.04	165.00	1.00	90.00	3616.12	0.00019	1000.00	0.00002
AT&T B 8	MATSING MS-MBA-3.2-H4-L4 AZ0	1900	15.13	165.00	1.00	90.00	2932.53	0.00070	1000.00	0.00007
AT&T B 8	MATSING MS-MBA-3.2-H4-L4 AZ0	2100	15.79	165.00	1.00	90.00	3413.83	0.00068	1000.00	0.00007
AT&T C 9	QUINTEL QD6616-7 V1	700	11.75	165.00	6.00	30.00	2694.84	0.00003	466.67	0.00001
AT&T C 9	QUINTEL QD6616-7 V1	1900	15.14	165.00	4.00	30.00	3917.34	0.00000	1000.00	0.00000
AT&T C 9	QUINTEL QD6616-7 V1	2100	15.50	165.00	4.00	30.00	4256.49	0.00000	1000.00	0.00000
AT&T C 10	ERICSSON SON_AIR6419	3450	22.85	167.00	1.00	54.22	10451.04	0.00015	1000.00	0.00002
AT&T C 11	ERICSSON SON_AIR6449	3700	23.55	163.00	1.00	54.22	12278.90	0.00016	1000.00	0.00002
AT&T C 12	CCI DMP65R-BU6D	700	11.35	165.00	2.00	30.00	818.75	0.00000	466.67	0.00000
AT&T C 12	CCI DMP65R-BU6D	850	11.35	165.00	2.00	30.00	818.75	0.00002	566.67	0.00000
AT&T C 12	CCI DMP65R-BU6D	2300	15.25	165.00	4.00	18.00	2411.75	0.00001	1000.00	0.00000
Unknown 13	GENERIC PANEL 6FT	600	12.33	202.00	2.00	60.00	2052.02	0.00006	400.00	0.00001
Unknown 13	GENERIC PANEL 6FT	700	12.33	202.00	2.00	60.00	2052.02	0.00006	466.67	0.00001
Unknown 14	GENERIC PANEL 6FT	1900	15.84	202.00	2.00	60.00	4604.49	0.00004	1000.00	0.00000

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density (μW/cm²)	General Population MPE Limit (μW/cm²)	General Population % MPE
Unknown 14	GENERIC PANEL 6FT	2100	16.39	202.00	2.00	60.00	5226.14	0.00003	1000.00	0.00000
Unknown 15	ERICSSON SON_AIR6449	2500	17.30	202.00	1.00	60.00	3222.19	0.00003	1000.00	0.00000
Unknown 15	ERICSSON SON_AIR6449	2500	22.35	202.00	1.00	90.00	15461.18	0.00125	1000.00	0.00013
Unknown 15	ERICSSON SON_AIR6449	2500	22.35	202.00	1.00	90.00	15461.18	0.00125	1000.00	0.00013
Unknown 16	GENERIC PANEL 6FT	600	12.33	202.00	2.00	60.00	2052.02	0.03193	400.00	0.00798
Unknown 16	GENERIC PANEL 6FT	700	12.33	202.00	2.00	60.00	2052.02	0.03193	466.67	0.00684
Unknown 17	GENERIC PANEL 6FT	1900	15.84	202.00	2.00	60.00	4604.49	0.03281	1000.00	0.00328
Unknown 17	GENERIC PANEL 6FT	2100	16.39	202.00	2.00	60.00	5226.14	0.03437	1000.00	0.00344
Unknown 18	ERICSSON SON_AIR6449	2500	17.30	202.00	1.00	60.00	3222.19	0.01710	1000.00	0.00171
Unknown 18	ERICSSON SON_AIR6449	2500	22.35	202.00	1.00	90.00	15461.18	0.12854	1000.00	0.01285
Unknown 18	ERICSSON SON_AIR6449	2500	22.35	202.00	1.00	90.00	15461.18	0.12854	1000.00	0.01285
Unknown 19	GENERIC PANEL 6FT	600	12.33	202.00	2.00	60.00	2052.02	0.00014	400.00	0.00004
Unknown 19	GENERIC PANEL 6FT	700	12.33	202.00	2.00	60.00	2052.02	0.00014	466.67	0.00003
Unknown 20	GENERIC PANEL 6FT	1900	15.84	202.00	2.00	60.00	4604.49	0.00001	1000.00	0.00000
Unknown 20	GENERIC PANEL 6FT	2100	16.39	202.00	2.00	60.00	5226.14	0.00001	1000.00	0.00000
Unknown 21	ERICSSON SON_AIR6449	2500	17.30	202.00	1.00	60.00	3222.19	0.00003	1000.00	0.00000
Unknown 21	ERICSSON SON_AIR6449	2500	22.35	202.00	1.00	90.00	15461.18	0.00135	1000.00	0.00014
Unknown 21	ERICSSON SON_AIR6449	2500	22.35	202.00	1.00	90.00	15461.18	0.00135	1000.00	0.00014
Unknown 22	GENERIC MICROWAVE	18000	36.95	192.50	1.00	0.01	49.55	0.00000	1000.00	0.00000
Unknown 23	GENERIC MICROWAVE	11000	38.65	192.50	1.00	0.01	73.28	0.00000	1000.00	0.00000
Unknown 24	GENERIC PANEL 6FT	1900	15.84	187.00	4.00	40.00	6139.32	0.00007	1000.00	0.00001
Unknown 25	GENERIC PANEL 6FT	2100	16.39	187.00	4.00	40.00	6968.19	0.00004	1000.00	0.00000
Unknown 26	GENERIC PANEL 6FT	1900	15.84	187.00	4.00	40.00	6139.32	0.00007	1000.00	0.00001
Unknown 27	GENERIC PANEL 6FT	1900	15.84	187.00	4.00	40.00	6139.32	0.05131	1000.00	0.00513
Unknown 28	GENERIC PANEL 6FT	2100	16.39	187.00	4.00	40.00	6968.19	0.05376	1000.00	0.00538
Unknown 29	GENERIC PANEL 6FT	1900	15.84	187.00	4.00	40.00	6139.32	0.05131	1000.00	0.00513
Unknown 30	GENERIC PANEL 6FT	1900	15.84	187.00	4.00	40.00	6139.32	0.00001	1000.00	0.00000
Unknown 31	GENERIC PANEL 6FT	2100	16.39	187.00	4.00	40.00	6968.19	0.00002	1000.00	0.00000
Unknown 32	GENERIC PANEL 6FT	1900	15.84	187.00	4.00	40.00	6139.32	0.00001	1000.00	0.00000
Unknown 33	GENERIC PANEL 6FT	700	12.33	155.00	4.00	40.00	2736.02	0.00013	466.67	0.00003
Unknown 33	GENERIC PANEL 6FT	850	12.62	155.00	4.00	40.00	2924.96	0.00019	566.67	0.00003
Unknown 33	GENERIC PANEL 6FT	1900	15.84	155.00	4.00	40.00	6139.32	0.00010	1000.00	0.00001
Unknown 34	GENERIC PANEL 6FT	700	12.33	155.00	4.00	40.00	2736.02	0.00013	466.67	0.00003
Unknown 34	GENERIC PANEL 6FT	850	12.62	155.00	4.00	40.00	2924.96	0.00019	566.67	0.00003
Unknown 35	GENERIC PANEL 6FT	2100	16.39	155.00	4.00	40.00	6968.19	0.00006	1000.00	0.00001
Unknown 36	GENERIC PANEL 6FT	700	12.33	155.00	4.00	40.00	2736.02	0.07398	466.67	0.01585

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density (µW/cm²)	General Population MPE Limit (µW/cm²)	General Population % MPE
Unknown 36	GENERIC PANEL 6FT	850	12.62	155.00	4.00	40.00	2924.96	0.07622	566.67	0.01345
Unknown 36	GENERIC PANEL 6FT	1900	15.84	155.00	4.00	40.00	6139.32	0.07601	1000.00	0.00760
Unknown 37	GENERIC PANEL 6FT	700	12.33	155.00	4.00	40.00	2736.02	0.07398	466.67	0.01585
Unknown 37	GENERIC PANEL 6FT	850	12.62	155.00	4.00	40.00	2924.96	0.07622	566.67	0.01345
Unknown 38	GENERIC PANEL 6FT	2100	16.39	155.00	4.00	40.00	6968.19	0.07964	1000.00	0.00796
Unknown 39	GENERIC PANEL 6FT	700	12.33	155.00	4.00	40.00	2736.02	0.00033	466.67	0.00007
Unknown 39	GENERIC PANEL 6FT	850	12.62	155.00	4.00	40.00	2924.96	0.00001	566.67	0.00000
Unknown 39	GENERIC PANEL 6FT	1900	15.84	155.00	4.00	40.00	6139.32	0.00002	1000.00	0.00000
Unknown 40	GENERIC PANEL 6FT	700	12.33	155.00	4.00	40.00	2736.02	0.00000	466.67	0.00007
Unknown 40	GENERIC PANEL 6FT	850	12.62	155.00	4.00	40.00	2924.96	0.00001	566.67	0.00000
Unknown 41	GENERIC PANEL 6FT	2100	16.39	155.00	4.00	40.00	6968.19	0.00003	1000.00	0.00000
Unknown 42	GENERIC OMNI	850	5.96	133.00	1.00	25.25	99.60	0.00304	566.67	0.00054
Unknown 43	GENERIC YAGI	850	15.25	133.00	1.00	0.30	10.05	0.00000	566.67	0.00000
Unknown 44	GENERIC YAGI	850	15.25	100.00	1.00	0.30	10.05	0.00000	566.67	0.00000
Unknown 45	GENERIC OMNI	850	5.96	240.00	1.00	25.25	99.60	0.00090	566.67	0.00016
Unknown 46	GENERIC OMNI	1900	5.96	240.00	1.00	25.00	98.61	0.00089	1000.00	0.00009
							Cumulative Power Density:	**1.82611 µW/cm²**	**Cumulative % MPE:**	**0.23238%**

Summary

The theoretical calculations performed for this analysis yielded cumulative power density totals in all areas at ground level that are within the allowable federal limits for public exposure to RF energy. Therefore, the site is **compliant** with FCC rules and regulations.

Michelle Stone
RF EME Technical Writer
Centerline Communications, LLC

ATTACHMENT 1

BUILDING PERMIT

Building Department

City of Bridgeport, Connecticut

Nº 12165

DEC 2 7 1989 ....., 19.....

Permission is hereby granted to CHOPSEY HILL ASSOCIATES & E. & F. DEVELOPMENT

to erect TWO STORY ADDITION TO MASONRY BUILDING AND ANTENNA

Located at No. 1330 CHOPSEY HILL ROAD Street

THIS PERMIT IS GRANTED ON CONDITION THAT ALL CITY, STATE AND FEDERAL RULES REGULATIONS AND LAWS ARE COMPLIED WITH.

A CERTIFICATE OF OCCUPANCY MUST BE GRANTED BEFORE BUILDING OR ADDITIONS IS OCCUPIED.

THIS PERMIT EXPIRES SIX (6) MONTHS FROM DATE IF WORK IS NOT COMMENCED.

CALL OFFICE WHEN WORK IS STARTED, Telephone 576-7225, Building Department.

Special Conditions: .....

Building fee	$ 410
Occupancy fee	$ 3
Total	$ 413

PETER J. PAAJANEN, *Deputy Building Official*

FRANK A. MERCALDI, *Building Official*

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Form 1209

ATTACHMENT 2

BRIDGEPORT ZONING BOARD OF APPEALS

Room 206 — 45 Lyon Terrace — Bridgeport, Connecticut 06604

At a meeting held in City Hall, on Tuesday, November 14 and Tuesday, November 21, 1989

RE: 1330 Chopsey Hill Rd. & 800 Trumbull Avenue

Petition of Metro-Mobile Cts of Fairfield County, Inc., lessee, waive regulation prohibiting the extension and enlargement of an existing nonconforming use in an A-RESIDENCE ZONE to permit the construction of a 2-sty. masonry addition to the existing nonconforming transmission equipment building. (CONTINUED from 10/10/89)

PUBLIC HEARING, Tuesday, November 14 and Tuesday, November 21, 1989 - Variance of Chap. 20 Sec. 3 GRANTED, subject to the following conditions:

1. The development of the subject property shall be substantially in accord with the plans submitted.
2. The petitioner shall file plans and applications for the issuance of a Certificate of Zoning Compliance and a Building permit.

(over)

NOTE—Unless acted upon within six months this grant becomes void. Your failure to comply with any conditions applicable to this action will also void the rights and privileges granted hereby. This is not a Building Permit and any structure or building contemplated by this action can only be started after proper application to and issuance of such permit by the Building Official. Other approvals or permits, required by law, should be sought from the proper authorities before exercising any part of this grant.

William A. Shaw ..... Clerk

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Form 2113

(over)

3. All construction shall conform with the requirements of the Basic Building Code of the State of CT.

The "Board" assigned the following reason for its action:

1. The development, as proposed, would not create any adverse effects on the immediate area.

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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

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www.ct.gov/csc

September 21, 2015

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

RE: **EM-VER-015-150828** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 1000 Trumbull Avenue, Bridgeport, 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 with the following conditions:

- Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by Cellco shall be removed within 60 days of the date the antenna ceased to function;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated August 27, 2015. 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 by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut 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. Thank you for your attention and cooperation.

Very truly yours,

Melanie A. Bachman
Acting Executive Director

MAB/CH/lm

c: The Honorable Bill Finch, Mayor, City of Bridgeport
Parag Agrawal, Planning Director, City of Bridgeport
David Kooris, Director, Office of Planning and Economic Development, City of Bridgeport
American Tower Corporation
Cell Tower Lease Acquisition LLC

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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May 7, 2018

Tyler Ramsden, Site Acquisition
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767

RE: **EM-CING-015-180322** - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 1000 Trumbull Avenue, Bridgeport, Connecticut.

Dear Mr. Ramsden:

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 with the following conditions:

1. Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;

2. Any material changes to this modification as proposed shall require the filing of a new notice with the Council;

3. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

4. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by New Cingular Wireless shall be removed within 60 days of the date the antenna ceased to function;

5. The validity of this action shall expire one year from the date of this letter; and

6. The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated March 21, 2018, and additional information received on April 10, 2018. 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 by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut 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. Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/CMW/laf

c: The Honorable Joseph P. Ganim, Mayor, City of Bridgeport
Kimberly G. Staley, Chief Administrative Officer
Thomas F. Gill, Director of Planning & Economic Development
American Tower Corporation, Tower and Property Owner

STATE OF CONNECTICUT

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February 26, 2018

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

RE: **EM-VER-015-180205** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 1000 Trumbull Avenue, Bridgeport, 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 with the following conditions:

1. Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;

2. Any material changes to this modification as proposed shall require the filing of a new notice with the Council;

3. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

4. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by Verizon shall be removed within 60 days of the date the antenna ceased to function;

5. The validity of this action shall expire one year from the date of this letter; and

6. The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated February 1, 2018. 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 by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut 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. Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/CMW/cg

c: The Honorable Joseph P. Ganim, Mayor, City of Bridgeport
Kimberly G. Staley, Chief Administrative Officer,
Thomas F. Gill, Director of Planning & Economic Development, City of Bridgeport
American Tower Corporation, Tower Owner
Global Tower Assets, LLC, Property Owner

STATE OF CONNECTICUT

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February 4, 2019

David Hoogasian
Project Manager
Network Building & Consulting, LLC
100 Apollo Drive, Suite 303
Chelmsford, MA 01824

RE: **EM-ATC-015-190111** – American Tower Corporation, Inc. (ATC) notice of intent to modify an existing telecommunications facility located at 1000 Trumbull Avenue, Bridgeport, Connecticut.

Dear Mr. Hoogasian:

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 with the following conditions:

1. Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;

2. Any material changes to this modification as proposed shall require the filing of a new notice with the Council;

3. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

4. The validity of this action shall expire one year from the date of this letter; and

5. The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated December 28, 2018. 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 by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut 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. Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/FOC/emr

c: The Honorable Joseph P. Ganim, Mayor, City of Bridgeport
Kimberly G. Staley, Chief Administrative Officer, City of Bridgeport
Thomas F. Gill, Director of Planning & Economic Development, City of Bridgeport

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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February 11, 2019

Michael Gentile
Site Acquisition
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02739

RE: **EM-CING-015-190123** – New Cingular Wireless notice of intent to modify an existing telecommunications facility located at 1000 Trumbull Avenue, Bridgeport, Connecticut.

Dear Mr. Gentile:

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 with the following conditions:

1. Prior to AT&T's antenna installation, the proposed mount modifications shall be installed in accordance with the Mount Analysis prepared by Hudson Design Group, dated November 29, 2018 and signed and stamped by Daniel Hamm;

2. Within 45 days following completion of equipment installations, AT&T shall provide documentation that its installation complied with the recommendations of the Mount Analysis;

3. Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;

4. Any material changes to this modification as proposed shall require the filing of a new notice with the Council;

5. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

6. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by New Cingular Wireless shall be removed within 60 days of the date the antenna ceased to function;

7. The validity of this action shall expire one year from the date of this letter; and

8. The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated January 22, 2019. 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 by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured

at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut 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. Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/FOC/emr

c: The Honorable Joseph P. Ganim, Mayor, City of Bridgeport
Kimberly G. Staley, Chief Administrative Officer, City of Bridgeport
Thomas F. Gill, Director of Planning & Economic Development, City of Bridgeport
American Tower Corporation, Tower and Property Owner

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
Web Site: www.ct.gov/csc

VIA ELECTRONIC MAIL

June 8, 2020

Alex Murshteyn
Site Acquisition Consultant
Centerline Communications LLC
750 West Center Street
Suite 301
W Bridgewater, MA 02379-1518

RE: **EM-VER-015-200518** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 1000 Trumbull Avenue, Bridgeport, Connecticut.

Dear Mr. Murshteyn:

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 with the following conditions:

1. Prior to Verizon's antenna installation, the antenna mount modifications shall be installed in accordance with the Mount Analysis prepared by American Tower Corporation, dated March 3, 2020 and stamped and signed by Esha Kaushal Modi;

2. Within 45 days following completion of equipment installation, Verizon shall provide documentation certified by a Professional Engineer that its installation complied with the recommendations of the Mount Analysis;

3. Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;

4. Any material changes to this modification as proposed shall require the filing of a new notice with the Council;

5. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

6. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by Verizon shall be removed within 60 days of the date the antenna ceased to function;

7. The validity of this action shall expire one year from the date of this letter; and

8. The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated May 15, 2020. 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 by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut 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. Thank you for your attention and cooperation.

Sincerely,

s/ Melanie A. Bachman

Melanie A. Bachman
Executive Director

MAB/IN/emr

c: The Honorable Joseph P. Ganim, Mayor, City of Bridgeport
Janene Hawkins, Chief Administrative Officer, City of Bridgeport
Thomas F. Gill, Director of Planning & Economic Development, City of Bridgeport

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
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

July 12, 2021

Eric Breun
Transcend Wireless
10 Industrial Avenue, Suite 3
Mahwah, NJ 07430

RE: **EM-T-MOBILE-015-210614** - T-Mobile notice of intent to modify an existing telecommunications facility located at 1000 Trumbull Avenue (a/k/a 1320 Chopsey Hill Road), Bridgeport, Connecticut.

Dear Mr. Breun:

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 with the following conditions:

1. Prior to T-Mobile's antenna installation, the antenna mount modifications shall be installed in accordance with the Mount Analysis prepared by CLS Engineering, PLLC, dated March 23, 2021 and stamped and signed by Tyler M. Barker;

2. Within 45 days following completion of equipment installation, T-Mobile shall provide documentation certified by a Professional Engineer that its installation complied with the recommendations of the Mount Analysis;

3. Any deviation from the proposed modification as specified in this notice and supporting materials with the Council shall render this acknowledgement invalid;

4. Any material changes to this modification as proposed shall require the filing of a new notice with the Council;

5. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;

6. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

7. Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by T-Mobile shall be removed within 60 days of the date the antenna ceased to function;

8. The validity of this action shall expire one year from the date of this letter; and

9. The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated June 11, 2021. 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 by any dimension, increase noise levels at the tower site boundary by six decibels or more, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standards adopted by the Federal Communications Commission pursuant to Section 704 of the Telecommunications Act of 1996 and by the state Department of Energy and Environmental Protection pursuant to Connecticut 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. Thank you for your attention and cooperation.

Sincerely,

s/ Melanie A. Bachman

Melanie A. Bachman
Executive Director

MAB/FOC/emr

c: The Honorable Joseph P. Ganim, Mayor, City of Bridgeport (mayor@bridgeportct.gov)

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
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E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

September 29, 2021

M.J. Umali, Senior Site Acquisition Specialist
Centerline Communications, LLC
750 W Center St, Suite 301
West Bridgewater, MA 02379
mumali@clinellc.com

RE: **EM-VER-015-210819** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 1000 Trumbull Avenue (a/k/a Chopsey Hill Road), Bridgeport, Connecticut.

Dear M. J. Umali:

The Connecticut Siting Council (Council) hereby denies your request to modify the above-referenced existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

This exempt modification request was submitted to the Council on August 19, 2021. Council staff reviewed this request for completeness and had identified a deficiency that was more fully described in a notice of incompletion letter to the requesting entity dated August 25, 2021, and recommended that a valid filing fee check in the amount of $625.00 be submitted by September 25, 2021. To date the Council has not received the required filing fee.

Thus, the proposed modification is not in compliance with the exemption criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies and is hereby denied.

Sincerely,

Melanie Bachman
Executive Director

Enclosure: Council Incomplete Letter, dated August 25, 2021

MAB/laf

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
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

August 25, 2021

M.J. Umali, Senior Site Acquisition Specialist
Centerline Communications, LLC
750 W Center St, Suite 301
West Bridgewater, MA 02379
mumali@clinellc.com

RE: **EM-VER-015-210819** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 1000 Trumbull Avenue (a/k/a Chopsey Hill Road), Bridgeport, Connecticut.

Dear M. J. Umali:

The Connecticut Siting Council (Council) received a notice of intent to modify the above-referenced facility on August 19, 2021.

According to Section 16-50j-71 of the Regulations of Connecticut State Agencies, "...any modification, as defined in Section 16-50j-2a of the Regulations of Connecticut State Agencies, to an existing tower site, except as specified in Sections 16-50j-72 and 16-50j-88 of the Regulations of Connecticut State Agencies, may have a substantial adverse environmental effect."

The Council is not able to process or accept this request for exempt modification as the filing fee check #27475 was returned by the bank for stop payment. A copy of the documentation received from the bank is attached.

Therefore, the exempt modification request is incomplete at this time. The Council recommends that a valid filing fee check in the amount of $625 be submitted by September 25, 2021. If additional time is needed to submit the requested filing fee, please submit a written request for an extension of time prior to September 25, 2021.

This notice of incompletion shall have the effect of tolling the Federal Communications Commission (FCC) 60-day timeframe in accordance with Paragraph 217 of the FCC Wireless Infrastructure Report and Order issued on October 21, 2014 (FCC 14-153).

Thank you for your attention to this matter. Should you have any questions, please feel free to contact me at 860-827-2951.

Sincerely,

Melanie Bachman
Executive Director

Enclosure: Copy of Check #27475

MAB/laf
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March 6, 2023

Blake Paynter, Project Manager
American Tower Corp.
10 Presidential Way
Woburn, MA 01801

Re: Notice of Exempt Modification – AT&T Mobility Site 114178890
AT&T Wireless Telecommunications Facility @ 1000 Trumbull Avenue, Bridgeport
AKA 1320 Chopsey Hill Road, AKA 1330 Chopsey Hill Road
EM-CING-015-22030

Dear Tower Owner,

AT&T Mobility ("AT&T") is proposing to modify a wireless telecommunications facility on an existing two hundred forty (240) foot tall lattice tower at 1000 Trumbull Avenue Bridgeport, CT 06606 (also known as 1320 Chopsey Hill Road), (Latitude: 41.21958, Longitude: -73.20131). The tower is owned by American Tower Corporation. The subject property is owned by Global Tower Assets LLC.

AT&T proposes to remove one (1) existing antenna and two (2) RRUs and install one (1) new antenna and four (4) RRUs, one (1) DC6, six (6) diplexers, four (4) Y cables, three (3) DC trunks, and one (1) fiber trunk at a centerline elevation of one hundred sixty five (165) feet. Groundwork involves installing a 6675 unit in the existing shelter.

This letter is intended to serve as the required notice to the owner of the tower. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe AT&T's proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046

March 6, 2023

Global Tower Assets LLC.
10 Presidential Way
Woburn, MA 01801

Re: Notice of Exempt Modification – AT&T Mobility Site 114178890
AT&T Wireless Telecommunications Facility @ 1000 Trumbull Avenue, Bridgeport
AKA 1320 Chopsey Hill Road, AKA 1330 Chopsey Hill Road
EM-CING-015-22030

Dear Property Owner,

AT&T Mobility ("AT&T") is proposing to modify a wireless telecommunications facility on an existing two hundred forty (240) foot tall lattice tower at 1000 Trumbull Avenue Bridgeport, CT 06606 (also known as 1320 Chopsey Hill Road), (Latitude: 41.21958, Longitude: -73.20131). The tower is owned by American Tower Corporation. The subject property is owned by Global Tower Assets LLC.

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This letter is intended to serve as the required notice to the owner of the property. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe AT&T's proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046

March 6, 2023

Director Thomas F. Gill
Office of Planning and Economic Development
999 Broad Street
Bridgeport, CT 06604

Re: Notice of Exempt Modification – AT&T Mobility Site 114178890
AT&T Wireless Telecommunications Facility @ 1000 Trumbull Avenue, Bridgeport
AKA 1320 Chopsey Hill Road, AKA 1330 Chopsey Hill Road
EM-CING-015-22030

Dear Director Gill,

AT&T Mobility ("AT&T") is proposing to modify a wireless telecommunications facility on an existing two hundred forty (240) foot tall lattice tower at 1000 Trumbull Avenue Bridgeport, CT 06606 (also known as 1320 Chopsey Hill Road), (Latitude: 41.21958, Longitude: -73.20131). The tower is owned by American Tower Corporation. The subject property is owned by Global Tower Assets LLC.

AT&T proposes to remove one (1) existing antenna and two (2) RRUs and install one (1) new antenna and four (4) RRUs, one (1) DC6, six (6) diplexers, four (4) Y cables, three (3) DC trunks, and one (1) fiber trunk at a centerline elevation of one hundred sixty five (165) feet. Groundwork involves installing a 6675 unit in the existing shelter.

This letter is intended to serve as the required notice to the chief Planning official of the municipality. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe AT&T's proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,

Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046

March 6, 2023

The Honorable Joseph P. Ganim
City of Bridgeport
Margaret E. Morton Government Center
999 Broad Street
Bridgeport, CT 06604

Re: Notice of Exempt Modification – AT&T Mobility Site 114178890
AT&T Wireless Telecommunications Facility @ 1000 Trumbull Avenue, Bridgeport
AKA 1320 Chopsey Hill Road, AKA 1330 Chopsey Hill Road
EM-CING-015-22030

Dear Mayor Ganim,

AT&T Mobility ("AT&T") is proposing to modify a wireless telecommunications facility on an existing two hundred forty (240) foot tall lattice tower at 1000 Trumbull Avenue Bridgeport, CT 06606 (also known as 1320 Chopsey Hill Road), (Latitude: 41.21958, Longitude: -73.20131). The tower is owned by American Tower Corporation. The subject property is owned by Global Tower Assets LLC.

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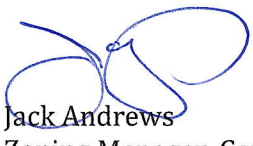
This letter is intended to serve as the required notice to the chief elected official of the municipality. As required by Regulations of Connecticut State Agencies ("RCSA") 16-50j-73 the Connecticut Siting Council ("CSC") has been notified of this proposal and will review this application. Please accept this letter as notification pursuant to RSCA 16-50j-73.

The enclosed letter and attachments to the CSC fully describe AT&T's proposal for the site. However, if you have any questions or require any additional information concerning our plans or the CSC procedures, please contact me at 443-677-0144 or contact Melanie Bachmann, Executive Director of the CSC at 860-972-2935.

Respectfully Submitted,



Jack Andrews
Zoning Manager, Centerline Communications
10130 Donleigh Drive
Columbia, MD 21046

Track your package
Data provided by USPS

Tracking number 9505510391963065703193

Delivered
March 08, 01:02PM
Bridgeport, CT

View details on USPS

Call 1-800-275-8777

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Customer service: 1 (800) 275-8777

Delivery tracking: 1 (800) 222-1811

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Tracking number 9505510391963065703193

Delivered
March 08, 01:02PM
Bridgeport, CT

View details on USPS

Call 1-800-275-8777

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Customer service: 1 (800) 275-8777

Delivery tracking: 1 (800) 222-1811

Track your package
Data provided by USPS

Tracking number 9505510391963065703209

Delivered
March 08, 11:39AM
Woburn, MA

View details on USPS

Call 1-800-275-8777

Track another package

United States Postal Service

Mail company

tools.usps.com

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Customer service: 1 (800) 275-8777

Delivery tracking: 1 (800) 222-1811

Founded: July 1, 1971, Washington, D.C.

United States Postal Service

Track your package
Data provided by USPS

Tracking number 9505510391963065703216

Delivered
March 08, 11:39AM
Woburn, MA

View details on USPS

Call 1-800-275-8777

Track another package

United States Postal Service

Mail company

tools.usps.com

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Customer service: 1 (800) 275-8777

Delivery tracking: 1 (800) 222-1811