August 28, 2020

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

Regarding: **Notice of Exempt Modification – T-Mobile Site #: CT11654A_Anchor**
Address: **90 North Plains Industrial Road, Wallingford, CT**

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) antennae at the 148-foot level of the existing +/- 178.5-foot monopole at the above-referenced address, latitude 41.480800, longitude -72.817700. The tower is operated by American Tower Corporation.

T-Mobile now intends to modify its existing telecommunications facility by adding three (3) antennae, adding three (3) remote radio units (RRU), adding one (1) cable and mount reinforcements as more particularly detailed and described in the enclosed Construction Drawings prepared by A.T. Engineering Service, PLLC, last revised August 13, 2020. The centerline height of the existing and proposed antennas is and will remain at 148 feet.

Planned Modifications:

Add:
- (3) AIR6449 B41 Antennae
- (3) 4415 B25 RRU
- (1) 1-5/8" Hybrid Cables

Remove
- (6) 1-5/8" Coax

Existing to Remain:
- (9) Antennae
- (3) RRU
- (3) TTA
- (6) 1-5/8" Coax
- (3) 1-1/4" Hybrid Cables

Please accept this letter as notification pursuant to R.C.S.A §16-50j-73 for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to American Tower Corporation as tower operator, The Honorable William W. Dickinson, Jr., Mayor of the Town of Wallingford as chief elected official, Kacie Hand, Town Planner of the Town of Wallingford and R L R Investments LLC as property owner.

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

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

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.

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 safety standard. *Please see the RF emissions calculation for T-Mobile's modified facility dated August 18, 2020 and prepared by EBI Consulting 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 July 23, 2020 and prepared by American Tower Corporation enclosed herewith.*

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

Respectfully submitted,

Jennifer Iliades
Site Acquisition Consultant
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02379
jiliades@clinellc.com

Enclosures:
Exhibit A – Original Facility Approval
Exhibit B – Property Card and GIS
Exhibit C – Construction Drawings
Exhibit D – Structural Analysis Report
Exhibit E – Mount Analysis
Exhibit F – Power Density/RF Emissions Report

cc:
American Tower Corporation, tower operator
The Honorable William W. Dickinson, Jr., Mayor of the Town of Wallingford
Kacie Hand, Town Planner of the Town of Wallingford
R L R Investments LLC, property owner

Exhibit A

Original Facility Approval

Application

Application #_____

Town of Wallingford, Connecticut

APPLICATION FOR SITE PLAN APPROVAL

Name of Applicant Nextel Communications of the Mid-Atlantic, Inc. **Date** 1/6/98

Mailing Address 100 Corporate Place **Phone** 860-513-5400

Rocky Hill, CT 06067

Interest in Property: Own_____ **Rent**_____ **Lease** X **Option to Buy**_____

Other (Please specify)_____

Owner of Property Bilkays Express **Mailing Address** 400 South Second Street

Elizabeth, NJ 07208

Location of Building Lot 90 North Plains Industrial Road

Intended Use(s) Wireless Telecommunications Facility

Square Footage of Use(s) 250 sq. ft. **Zoning District** I-40 **Lot Size** 235, 572 sq. ft.

Name of Surveyor See Note 1 on Sheet C-2 **Phone**_____

Mailing Address_____

Name of Preparer of Site Plan Tectonic Engineering

Mailing Address P.O. Box 447, 515 Route 32, Highland Mills, NY 10930 **Phone** 914-928-6531

If a sign permit is to be issued as part of site plan approval, complete the following section and show sign(s) and their location on site plan.

Size of sign(s)_____

Type of sign(s)_____

_____
Applicant's Signature

_____
Company Name (If Applicable)

FOR OFFICIAL USE:

Application Submitted:_____ **Filing Fee Paid**_____ **Forwarded for Review**_____

Comments:_____

Revi 10/98

8 U

WALLINGFORD PLANNING & ZONING COMMISSION

MUNICIPAL BUILDING
WALLINGFORD • CONNECTICUT

APPLICATION # 202-99

INTER-DEPARTMENT REFERRAL

NOTICE OF PROPOSED DEVELOPMENT

RECEIVED
FEB 2 1999
WALLINGFORD PLANNING & ZONING

DATE OF SUBMISSION: January 8, 1999

DATE OF RECEIPT: January 11, 1999

SCHEDULED MEETING: February 8, 1999

NAME AND APPLICATION OF PROPOSED DEVELOPMENT: Nextel Communications of the Mid-Atlantic, Inc./Site Plan/99 North Plains Industrial Road/Wireless Telecommunications Facility

ACREAGE: _____ NO. OF LOTS: _____

LOCATION: 99 North Plains Industrial Road

NO. OF DWELLING UNITS: _____ OPEN SPACE ACREAGE: _____

REFERRED TO:

✓ ENGINEERING	SOIL CONSERVATION DISTRICT	HEALTH
✓ FIRE	PARK AND RECREATION	BUILDING
SAFETY	CONSERVATION	EDUCATION
CORPORATION COUNSEL	✓ ELECTRIC	✓ WATER & SEWER
	✓ INLAND/WETLANDS	PUBLIC WORKS

BOARD COMMENTS: _____

DEPARTMENT COMMENTS: Site plan #202-99 is unremarkable relative to the Connecticut Fire Safety Code. Access to the proposed complex should be considered by the developer/owner in design phase.

SIGNED BY: Thomas Hanchuruck Acting Fire Marshal DATE: Feb. 1, 1999
(Title)

CT-0003
Verizon

FIELD COPY

TOWN OF WALLINGFORD, CONNECTICUT
BUILDING DEPARTMENT
45 SOUTH MAIN STREET
TELEPHONE NO. (203) 294-2005

BUILDING PERMIT

CK# 3547150

DATE 10/22/01 PERMIT NO. 14604 mco

APPLICANT Verizon Wireless ADDRESS 99 (NO.) River Dr. (STREET) E. Hartford 0900296 (CONTR'S LICENSE)

PERMIT TO Cellular Cabinets (TYPE OF IMPROVEMENT) (___) NO. STORY 13 (PROPOSED USE) NUMBER OF DWELLING UNITS ______

AT (LOCATION) 90 (NO.) North Plains Rd. (STREET) ZONING DISTRICT ______

BETWEEN ______ (CROSS STREET) AND ______ (CROSS STREET)

SUBDIVISION ______ LOT ______ BLOCK ______ LOT SIZE ______

BUILDING IS TO BE ______ FT. WIDE BY ______ FT. LONG BY ______ FT. IN HEIGHT AND SHALL CONFORM IN CONSTRUCTION

TO TYPE ______ USE GROUP ______ BASEMENT WALLS OR FOUNDATION ______ (TYPE)

REMARKS: 9 Panel Antennas on Exist. Tower

AREA OR VOLUME ______ (CUBIC/SQUARE FEET) ESTIMATED COST $ 75,000.— PERMIT FEE $ 906 / 12 EF / CMF / 924

OWNER Spectra Site
ADDRESS 90 No. Pl. Ind Rd

BUILDING DEPT BY [signature]

FORM NO. BOCA - BP 1984

Walls 2X3 16"OC

Exhibit B

Property Card

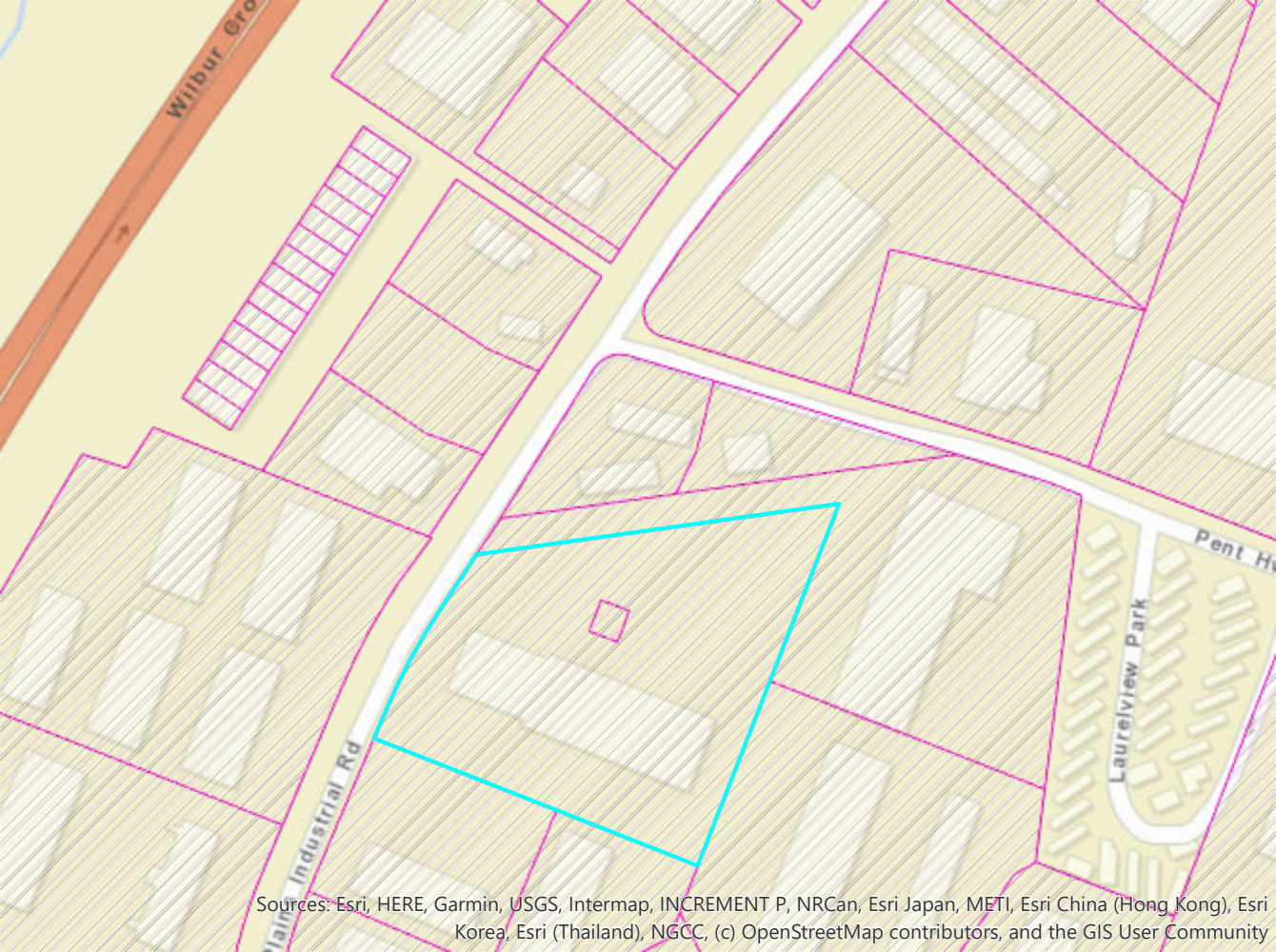


Exhibit C

Construction Drawings

VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: BILKAYS EXPRESS
ATC SITE NUMBER: 302467
T-MOBILE SITE NAME: WALLINGFORD/RT5/RT15
T-MOBILE SITE NUMBER:CT11654A
SITE ADDRESS: 90 NORTH PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

LOCATION MAP

BIRD WATCH SITE:
PLEASE CONTACT BIRD.WATCH@AMERICANTOWER.COM OR AMERICAN TOWER NOC AT 877-518-6937 FOR ASSISTANCE

T-MOBILE ANCHOR ANTENNA AMENDMENT PLAN
67D5A992DB OUTDOOR CONFIGURATION

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

UTILITY COMPANIES

POWER COMPANY: WALLINGFORD ELECTRIC
PHONE: (203) 265-5055

TELEPHONE COMPANY: FRONTIER COMMUNICATIONS
PHONE: (800) 921-8102

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

PROJECT SUMMARY

SITE ADDRESS:

90 NORTH PLAINS INDUSTRIAL RD.

WALLINGFORD, CT 06492

COUNTY: NEW HAVEN

GEOGRAPHIC COORDINATES:

LATITUDE: 41.48076111

LONGITUDE: -72.8177

GROUND ELEVATION: 57' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

T-MOBILE NORTHEAST LLC
12050 BALTIMORE AVENUE
BELTSVILLE, MD 20705

ENGINEER:

ATC TOWER SERVICES, LLC
3500 REGENCY PKWY STE 100
CARY, NC 27518

PROPERTY OWNER:

R L R INVESTMENTS LLC
600 GILLAM RD
WILMINGTON, OH 45177-9089

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

TOWER WORK:

REMOVE (6) 1-5/8" COAX CABLE(S)

INSTALL UPPER HANDRAIL SUPPORT KIT, (3) MOUNTING PIPES, (3) ANTENNA(s), (3) RRH(s), AND (1) 1-5/8" HYBRID CABLE(s)

EXISTING (9) ANTENNA(s), (3) RRH(s), (3) TTA(s), (6) 1-5/8" COAX CABLES(s) AND (3) 1-1/4" HYBRID CABLE(s) TO REMAIN

GROUND WORK:

REMOVE (2) CABINETS

INSTALL (1) ENCLOSURE 6160 AC AND (1) B160 ENCLOSURE BATTERY CABINET

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.

PROJECT LOCATION DIRECTIONS

FROM HARTFORD TAKE I-91 SOUTH TO EXIT 15. TURN RIGHT ONTO RT 68. FOLLOW OVER RT 5 AND TURN LEFT ON NORTH INDUSTRIAL PLAINS ROAD. TOWER IS DOWN ON LEFT IN TRUCKING COMPANY COMPOUND.

SHEET INDEX

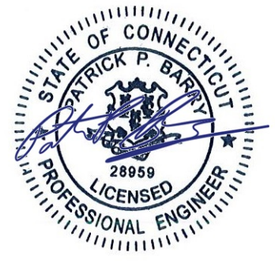
SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	1	08/13/20	CWB
G-002	GENERAL NOTES	0	08/03/20	CWB
C-101	DETAILED SITE PLAN	1	08/13/20	CWB
C-102	DETAILED GROUND PLAN	1	08/13/20	CWB
C-201	TOWER ELEVATION	0	08/03/20	CWB
C-401	ANTENNA INFORMATION & SCHEDULE	1	08/13/20	CWB
C-501	CONSTRUCTION DETAILS	0	08/03/20	CWB
E-501	GROUNDING DETAILS	0	08/03/20	CWB
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			
R-604	SUPPLEMENTAL			
R-605	SUPPLEMENTAL			
R-606	SUPPLEMENTAL			
R-607	SUPPLEMENTAL			

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	CWB	08/03/20
1	REVISED CABINETS	CWB	08/13/20

ATC SITE NUMBER:
302467
ATC SITE NAME:
BILKAYS EXPRESS
T-MOBILE SITE NAME:
WALLINGFORD/RT5/RT15
SITE ADDRESS:
90 NORTH PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

SEAL:



T-Mobile

DATE DRAWN:	08/03/20
ATC JOB NO:	13251790_D1
CUSTOMER ID:	WALLINGFORD/RT5/RT15
CUSTOMER #:	CT11654A

TITLE SHEET

SHEET NUMBER: G-001
REVISION: 1

GENERAL CONSTRUCTION NOTES:

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

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

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

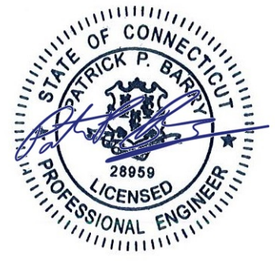
ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE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

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	CWB	08/03/20

ATC SITE NUMBER:
302467
ATC SITE NAME:
BILKAYS EXPRESS
T-MOBILE SITE NAME:
WALLINGFORD/RT5/RT15
SITE ADDRESS:
90 NORTH PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

SEAL:



T-Mobile

DATE DRAWN:	08/03/20
ATC JOB NO:	13251790_D1
CUSTOMER ID:	WALLINGFORD/RT5/RT15
CUSTOMER #:	CT11654A

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

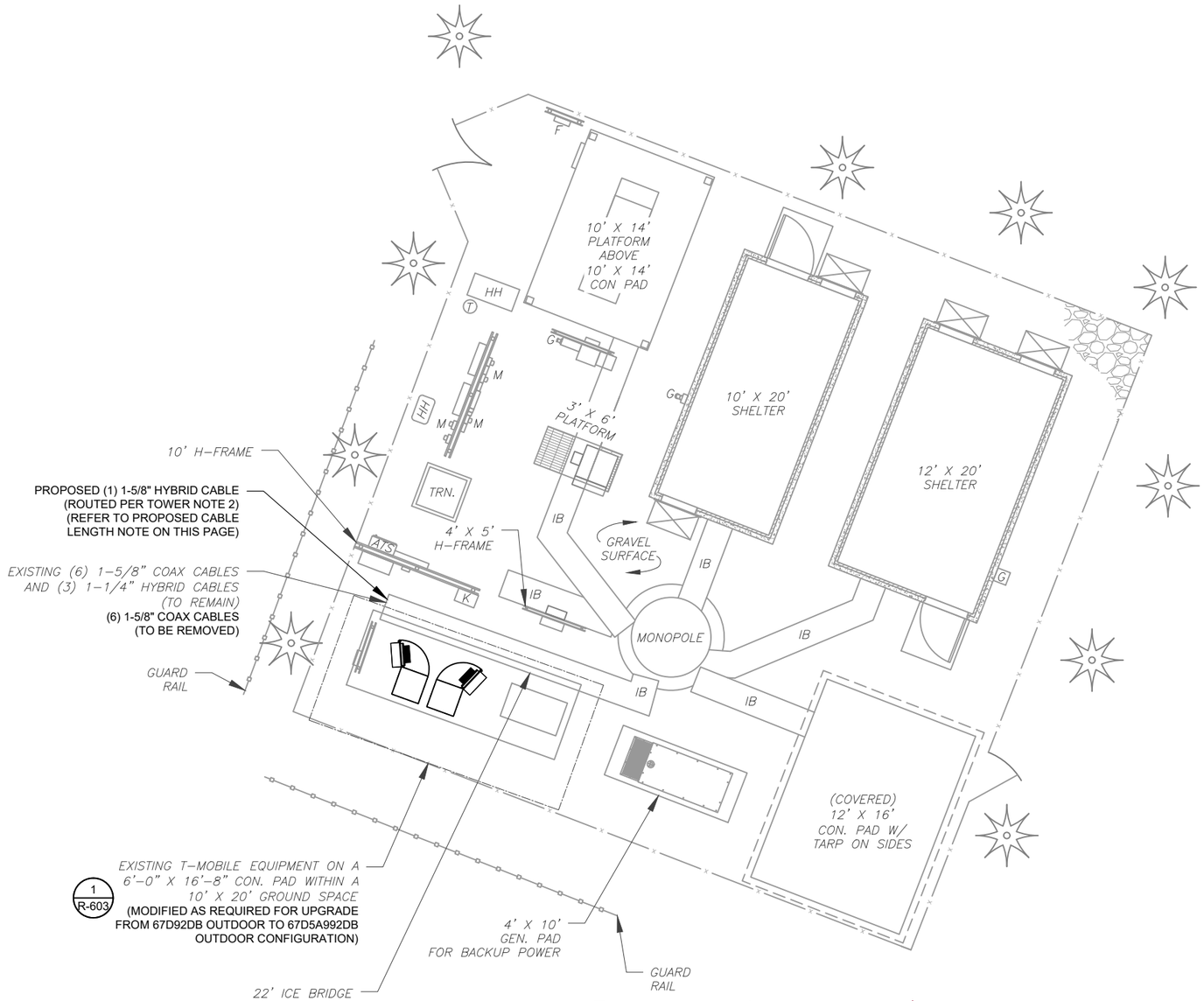
SITE PLAN NOTES:

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.

LEGEND

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



1 DETAILED SITE PLAN

0 10' 20'

SCALE: 1"=10' (11X17)
1"=5' (22X34)

PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **194'**. 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).

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	CWB	08/03/20
1	REVISED CABINETS	CWB	08/13/20

ATC SITE NUMBER:
302467

ATC SITE NAME:
BILKAYS EXPRESS

T-MOBILE SITE NAME:
WALLINGFORD/RT5/RT15

SITE ADDRESS:
90 NORTH PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

SEAL:

T-Mobile

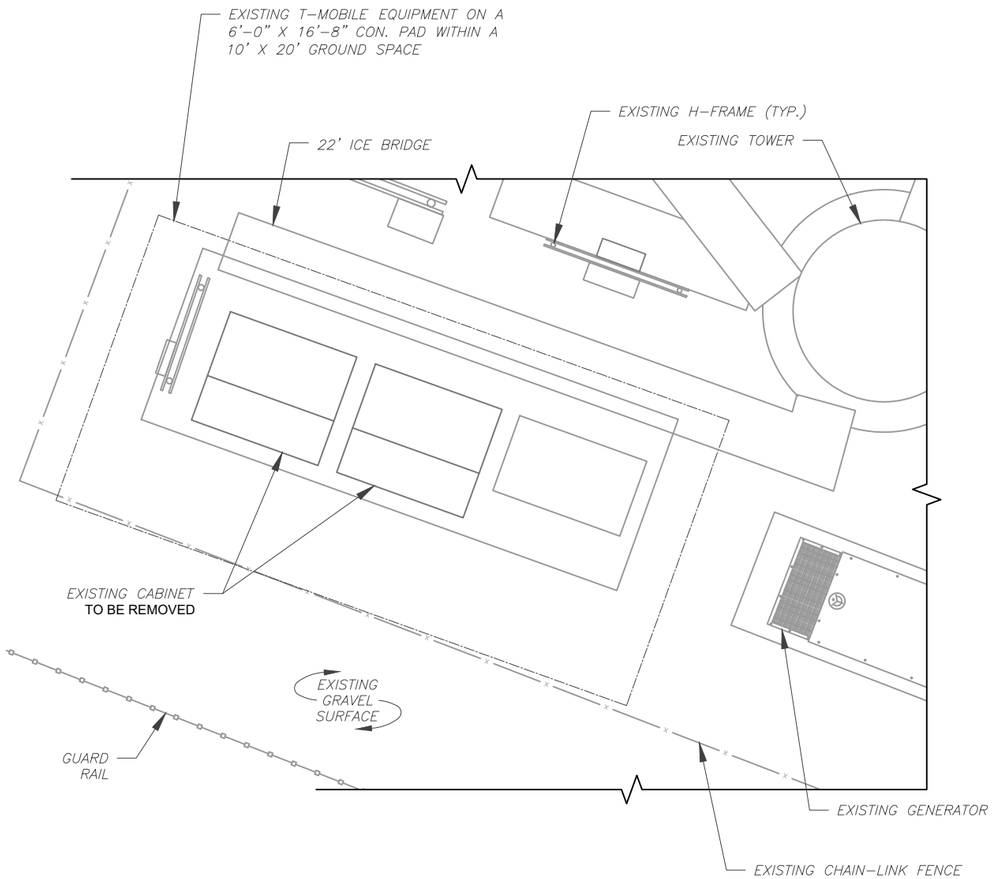
DATE DRAWN:	08/03/20
ATC JOB NO:	13251790_D1
CUSTOMER ID:	WALLINGFORD/RT5/RT15
CUSTOMER #:	CT11654A

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	1

SITE PLAN NOTES:

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

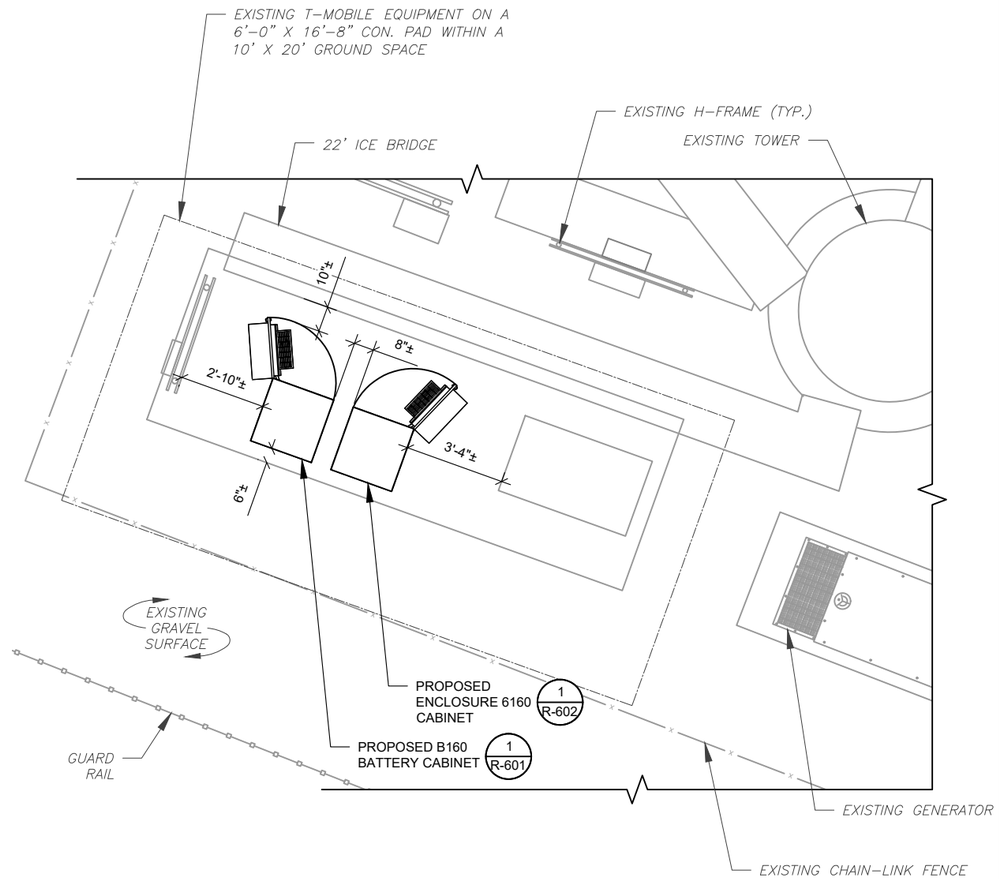


1 EXISTING GROUND EQUIPMENT LAYOUT

0 5' 10'

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

T-MOBILE CM APPROVAL REQUIRED BEFORE INSTALLING CABINETS



2 PROPOSED GROUND EQUIPMENT LAYOUT

0 5' 10'

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

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	CWB	08/03/20
1	REVISED CABINETS	CWB	08/13/20

ATC SITE NUMBER:
302467

ATC SITE NAME:
BILKAYS EXPRESS

T-MOBILE SITE NAME:
WALLINGFORD/RT5/RT15

SITE ADDRESS:
90 NORTH PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

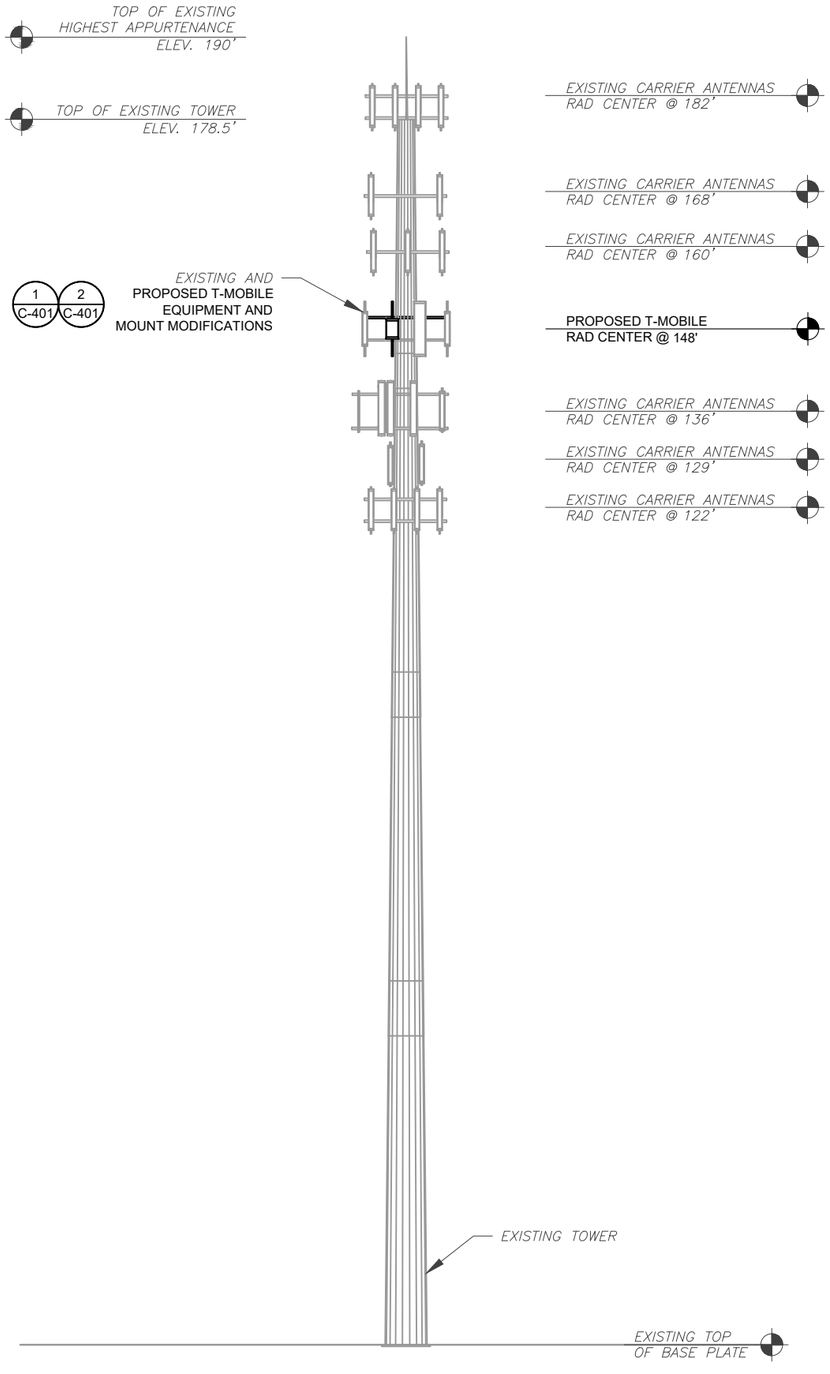
SEAL:

T-Mobile

DATE DRAWN:	08/03/20
ATC JOB NO:	13251790_D1
CUSTOMER ID:	WALLINGFORD/RT5/RT15
CUSTOMER #:	CT11654A

DETAILED GROUND PLAN

SHEET NUMBER:	REVISION:
C-102	1



1 TOWER ELEVATION
SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY AMERICAN TOWER CORPORATION, DATED 07/15/20, THE EXISTING MOUNT CAN NOT ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION 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. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
3. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	CWB	08/03/20

ATC SITE NUMBER:
302467
ATC SITE NAME:
BILKAYS EXPRESS
T-MOBILE SITE NAME:
WALLINGFORD/RT5/RT15
SITE ADDRESS:
90 NORTH PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

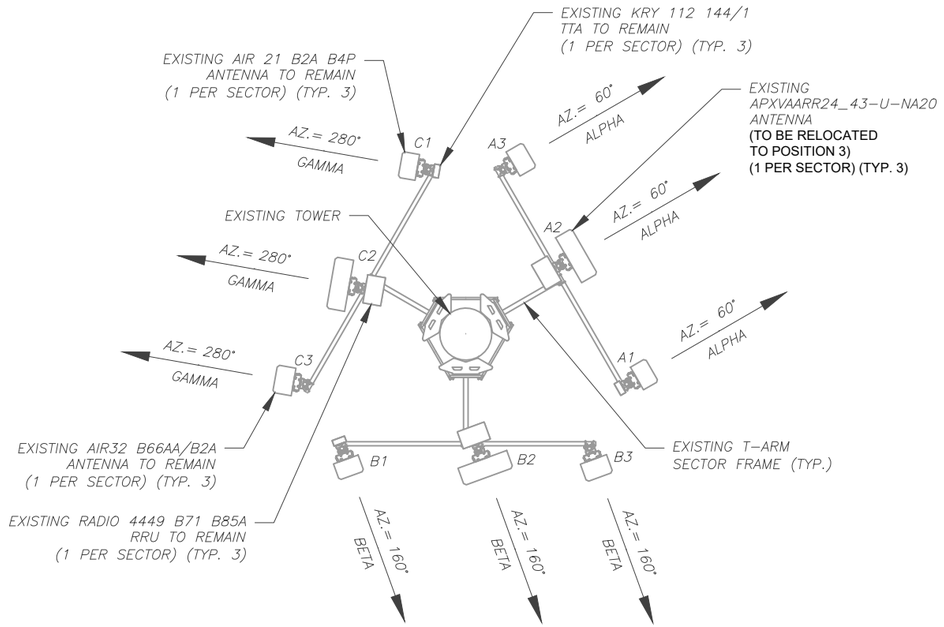
SEAL:

T-Mobile

DATE DRAWN:	08/03/20
ATC JOB NO:	13251790_D1
CUSTOMER ID:	WALLINGFORD/RT5/RT15
CUSTOMER #:	CT11654A

TOWER ELEVATION

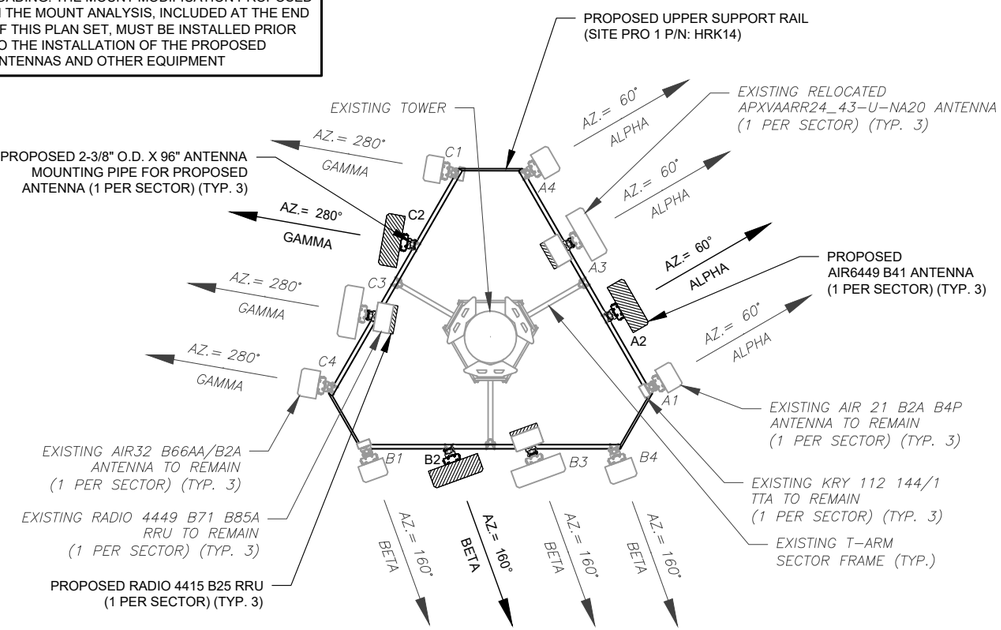
SHEET NUMBER:	REVISION:
C-201	0



1 EXISTING ANTENNA PLAN

SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY AMERICAN TOWER CORPORATION, DATED 07/15/20, THE EXISTING MOUNT CAN NOT ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT



2 FINAL ANTENNA PLAN

SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	148'	60°	A1	AIR 21 B2A B4P	U1900/G1900/ U2100	0°	RMN	KRY 112 144/1	RMN
			A2	APXVAARR24_43-U-NA 20	L700/L600/N600	0°	REL	RADIO 4449 B71 B85A	RMN
			A3	AIR32 B66AA/B2A	L2100/L1900	0°	RMN	–	–
BETA	148'	160°	B1	AIR 21 B2A B4P	U1900/G1900/ U2100	0°	RMN	KRY 112 144/1	RMN
			B2	APXVAARR24_43-U-NA 20	L700/L600/N600	0°	REL	RADIO 4449 B71 B85A	RMN
			B3	AIR32 B66AA/B2A	L2100/L1900	0°	RMN	–	–
GAMMA	148'	280°	C1	AIR 21 B2A B4P	U1900/G1900/ U2100	0°	RMN	KRY 112 144/1	RMN
			C2	APXVAARR24_43-U-NA 20	L700/L600/N600	0°	REL	RADIO 4449 B71 B85A	RMN
			C3	AIR32 B66AA/B2A	L2100/L1900	0°	RMN	–	–

NOTES

1. CONFIRM WITH T-MOBILE 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.

STATUS ABBREVIATIONS

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

CABLE LENGTHS FOR JUMPERS

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

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	148'	60°	A1	AIR 21 B2A B4P	U1900/G1900/ U2100	0°	RMN	KRY 112 144/1	RMN
			A2	AIR6449 B41	L2500/N2500	0°	ADD	-	-
			A3	APXVAARR24_43-U-NA 20	L700/L600/N600	0°	RMN	RADIO 4449 B71 B85A	RMN
								RADIO 4415 B25	ADD
			A4	AIR32 B66AA/B2A	L2100/L1900	0°	RMN	-	-
BETA	148'	160°	B1	AIR 21 B2A B4P	U1900/G1900/ U2100	0°	RMN	KRY 112 144/1	RMN
			B2	AIR6449 B41	L2500/N2500	0°	ADD	-	-
			B3	APXVAARR24_43-U-NA 20	L700/L600/N600	0°	RMN	RADIO 4449 B71 B85A	RMN
								RADIO 4415 B25	ADD
			B4	AIR32 B66AA/B2A	L2100/L1900	0°	RMN	-	-
GAMMA	148'	280°	C1	AIR 21 B2A B4P	U1900/G1900/ U2100	0°	RMN	KRY 112 144/1	RMN
			C2	AIR6449 B41	L2500/N2500	0°	ADD	-	-
			C3	APXVAARR24_43-U-NA 20	L700/L600/N600	0°	RMN	RADIO 4449 B71 B85A	RMN
								RADIO 4415 B25	ADD
			C4	AIR32 B66AA/B2A	L2100/L1900	0°	RMN	-	-

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
–	–	(6) 1-5/8"	(3) 1-1/4"	RMN
–	–	(6) 1-5/8"	–	RMV

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
-	-	(6) 1-5/8"	(3) 1-1/4"	RMN
-	-	-	1-5/8"	ADD

3 EQUIPMENT SCHEDULES

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	CWB	08/03/20
1	REVISED CABINETS	CWB	08/13/20

ATC SITE NUMBER:
302467
ATC SITE NAME:
BILKAYS EXPRESS
T-MOBILE SITE NAME:
WALLINGFORD/RT5/RT15
SITE ADDRESS:
90 NORTH PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

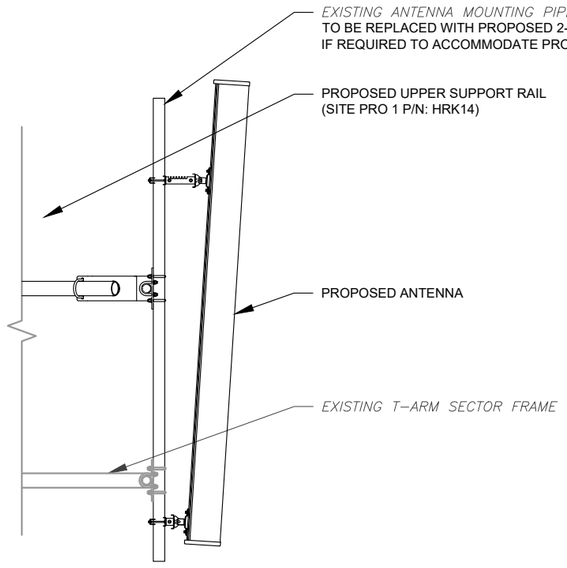
SEAL:

T-Mobile

DATE DRAWN:	08/03/20
ATC JOB NO:	13251790_D1
CUSTOMER ID:	WALLINGFORD/RT5/RT15
CUSTOMER #:	CT11654A

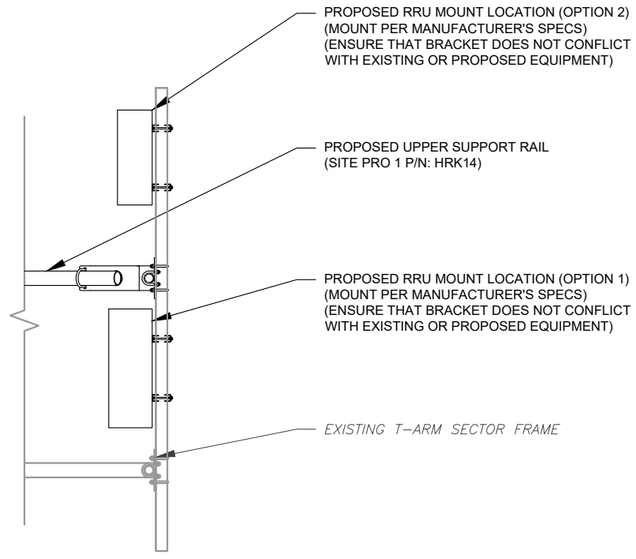
ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-401	1



1 PROPOSED ANTENNA MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



2 PROPOSED RRU MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	CWB	08/03/20

ATC SITE NUMBER:

302467

ATC SITE NAME:

BILKAYS EXPRESS

T-MOBILE SITE NAME:

WALLINGFORD/RT5/RT15

SITE ADDRESS:
90 NORTH PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

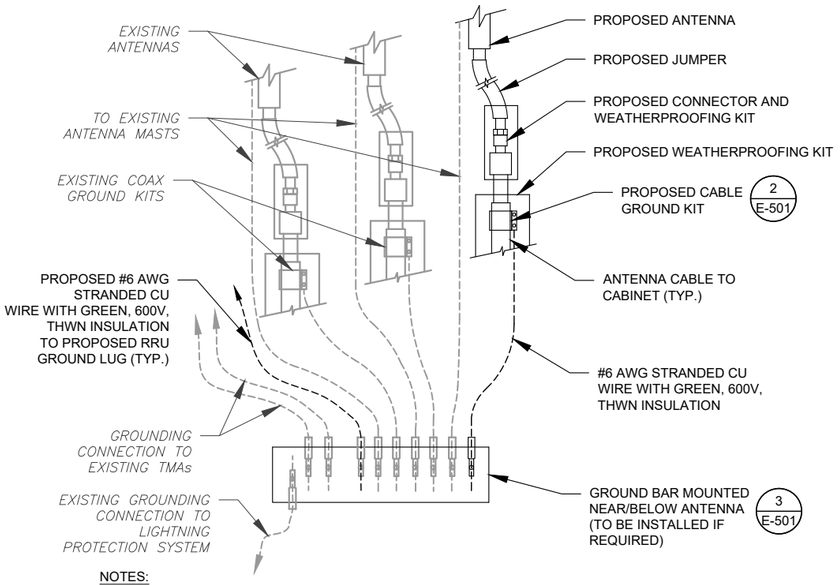
SEAL:

T-Mobile

DATE DRAWN:	08/03/20
ATC JOB NO:	13251790_D1
CUSTOMER ID:	WALLINGFORD/RT5/RT15
CUSTOMER #:	CT11654A

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

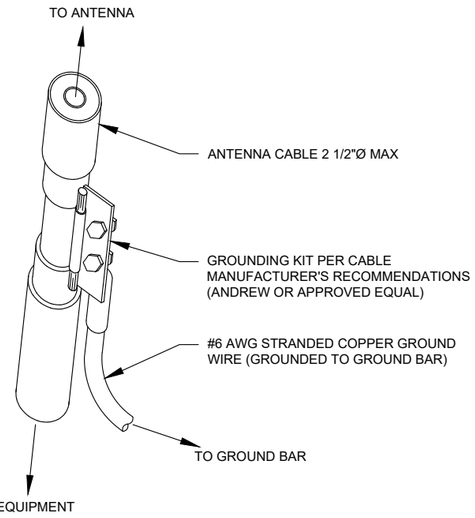


NOTES:

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 T-MOBILE GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH T-MOBILE GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

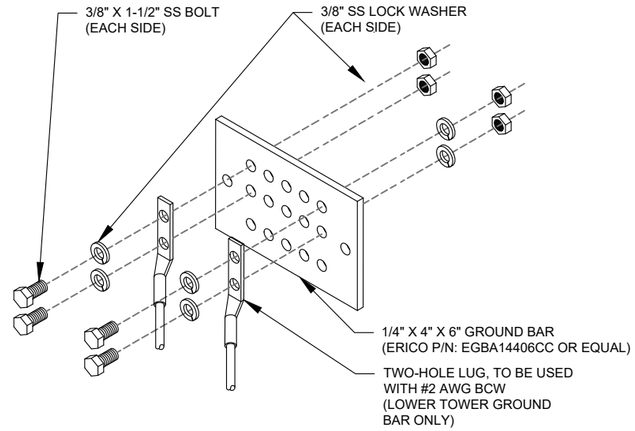


GROUND KIT NOTES:

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

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.



GROUND BAR NOTES:

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

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

ELECTRICAL NOTES:

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE T-MOBILE REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.
2. ATC HAS NOT VERIFIED ANY EXISTING T-MOBILE GROUND EQUIPMENT OR ELECTRICAL LOADING. PROPOSED WORK BASED ON INSTALLATION CONFIGURATION PROVIDED BY T-MOBILE. CONTRACTOR TO VERIFY EXISTING T-MOBILE PANEL HAS SUFFICIENT SPACE FOR PROPOSED BREAKER. PROPOSED CABLE AND CONDUIT SHALL BE MINIMUM SIZE PER BELOW:

OCPD SIZE	WIRE SIZE	GROUND SIZE	CONDUIT SIZE
80A/2P	2#3 AWG	#8 AWG	1-1/4"
100/2P	2#2 AWG	#8 AWG	1-1/4"
125A/2P	2#1 AWG	#8 AWG	1-1/2"
150A/2P	2#1/0 AWG	#8 AWG	1-1/2"

AMERICAN TOWER®
A.T. ENGINEERING SERVICE, PLLC
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: PEC.0001553

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	CWB	08/03/20

ATC SITE NUMBER:
302467
ATC SITE NAME:
BILKAYS EXPRESS
T-MOBILE SITE NAME:
WALLINGFORD/RT5/RT15
SITE ADDRESS:
90 NORTH PLAINS INDUSTRIAL RD.
WALLINGFORD, CT 06492

SEAL:

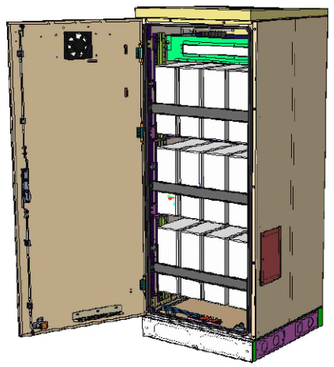
T-Mobile

DATE DRAWN:	08/03/20
ATC JOB NO:	13251790_D1
CUSTOMER ID:	WALLINGFORD/RT5/RT15
CUSTOMER #:	CT11654A

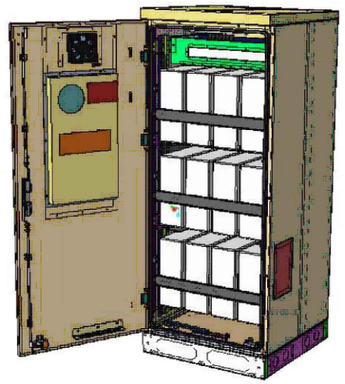
GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

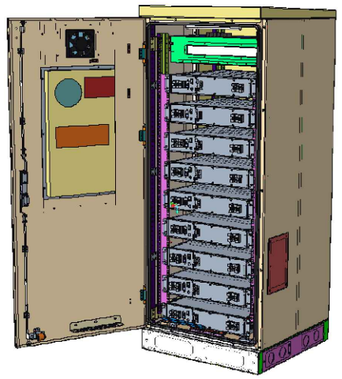
Enclosure B160



Enclosure B160
AirCon + VRLA



Enclosure B160
AirCon + Li-Ion



Enclosure B160
Convection Cooling
+ VRLA

Enclosure B160

Capacity
- VRLA 12V: 100Ah / 150Ah / 170Ah / 190Ah / 210Ah
- Li-Ion: 24U 19" / 23"
- Sodium-Nickel: 3x FIAMM

Electrical specification
- DC Output: -48VDC/200A
- Battery breakers: 2x 125/2p
- Alarms: Door open, Climate failure, MCB Connection

Mechanical specification
- Weight: 134kg
- Dimensions: 63 x 26 x 26 in. (incl. Base frame)
- Base frame height: 6 in.
- Material: Galvanized steel (180g/m^2)
- Color: Powder paint NCS 2002-B
- Door: Front access
- Locking type: Pad lock / cylinder

Environmental specification
- Ingress protection: VRLA/Sodium IP44
Li-Ion IP55
- Relative humidity: 15-100%

Climate system
- Air Conditioner
  - Fan type: DC
  - Cooling capacity: 500W @L35/L35
- Convection cooling
  - Emergency fan

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

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-601	0

Enclosure 6160 AC

The Enclosure 6160 is a multi-purpose site cabinet designed to support a multitude of equipment such as ERS Baseband, Transport, Li-Ion battery and 3PP vendor equipment. It also provides a highly capable power system and battery back-up - all in a streamlined design and minimized footprint to support cost efficient expansion of mobile broadband.

Being an all-in-one enclosure, the Enclosure 6160 is a very fitting choice for all types of sites where the capacity need is large or room for future expansion is needed. It is ideally used for modernizing existing sites or in greenfield scenarios to match both current and future needs.

With a robust design, IP65 compliance and a sealed Heat Exchanger (HEX) climate system the Enclosure 6160 ensures optimal environmental protection of the active equipment - enabling them for a long-lasting service. The complete system is also integrated and verified for the entire Ericsson Radio System and ensures best-in-class service.

The power system offers 31,5kW of power in total and provides 24kW of -48V DC power for both internal and external consumers.

The equipment space allows 19U of rack space ensuring well enough capacity for existing need and future expansion.

One of the main advantages of the Enclosure 6160 is its default integration with ENM - allowing for advanced remote monitoring and control such a fault management (alarms), inventory management and performance measurements. The cabinet also provides an open O&M interface for integration to 3PP O&M systems.

Preliminary technical specification for Enclosure 6160 AC

CAPACITY	
Rack space user equipment	19U (19" rack)
Hardware capabilities	Power and CPRI support for multi-standard remote radios (RRU or AIR) ERS Baseband and Transport units Li-Ion batteries 3PP equipment Additional power feed available as option
MECHANICAL SPECIFICATION	
Weight	145 kg (excluding active equipment) 320 lbs (excluding active equipment)
Dimension (H x W x D)	1600 x 650 x 650 mm (incl. Base frame) 63 x 26 x 26 in. (incl. Base frame)
Base frame height	150 mm 6 in.
Mounting position	Ground
Enclosure material	Aluminum
Color	Power paint NCS 2002-B
Door	Front access
Rack type	19" (IEC 60297-3-100)
Locking type	Pad lock or Cylinder
POWER SYSTEM	
Input voltage	3P+N+PE: 346/200-415/240 VAC 2P+N+PE: 208/120-220/127 VAC 1P+N+PE: 200-250 VAC
Input power	<33kW
Output load (-48VDC)	24kW
Total capacity (-48VDC)	31.5kW
AC SPD	Class 2/Type 2
DC SPD	Class 2/Type 2
PSU Slots	9x
Service outlet	Optional
Priority load	8x Circuit Breaker
LLVD 1	6x Circuit Breaker
LLVD 2	6x Circuit Breaker
CB ratings	3A / 5A / 10A / 15A / 20A / 25A / 30A / 40A / 50A / 60A / 80A / 100A
Battery Interface	2x Circuit Breaker
Battery Circuit Breaker rating	125A 2pol (200A)
PSU capacity	3500W

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

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-602	0

Existing RAN Equipment

Template: 67D92DB Outdoor

Enclosure	1	2
Enclosure Type	RBS 6131	Ancillary Equipment (Ericsson)
Baseband	DUW30 (U1900); DUW30 (U2100); DUG20 (G1900); BB 6630 (L700, L600, L2100, L1900); BB 6630 (N600)	
Hybrid Cable System		Ericsson 9x18 HCS "Select Length"; Ericsson 6x12 HCS "Select Length & AWG"; Ericsson 6x12 HCS 6AWG 60m
Multiplexer	XMU	
Radio	RU22 (x 6) U2100	

Proposed RAN Equipment

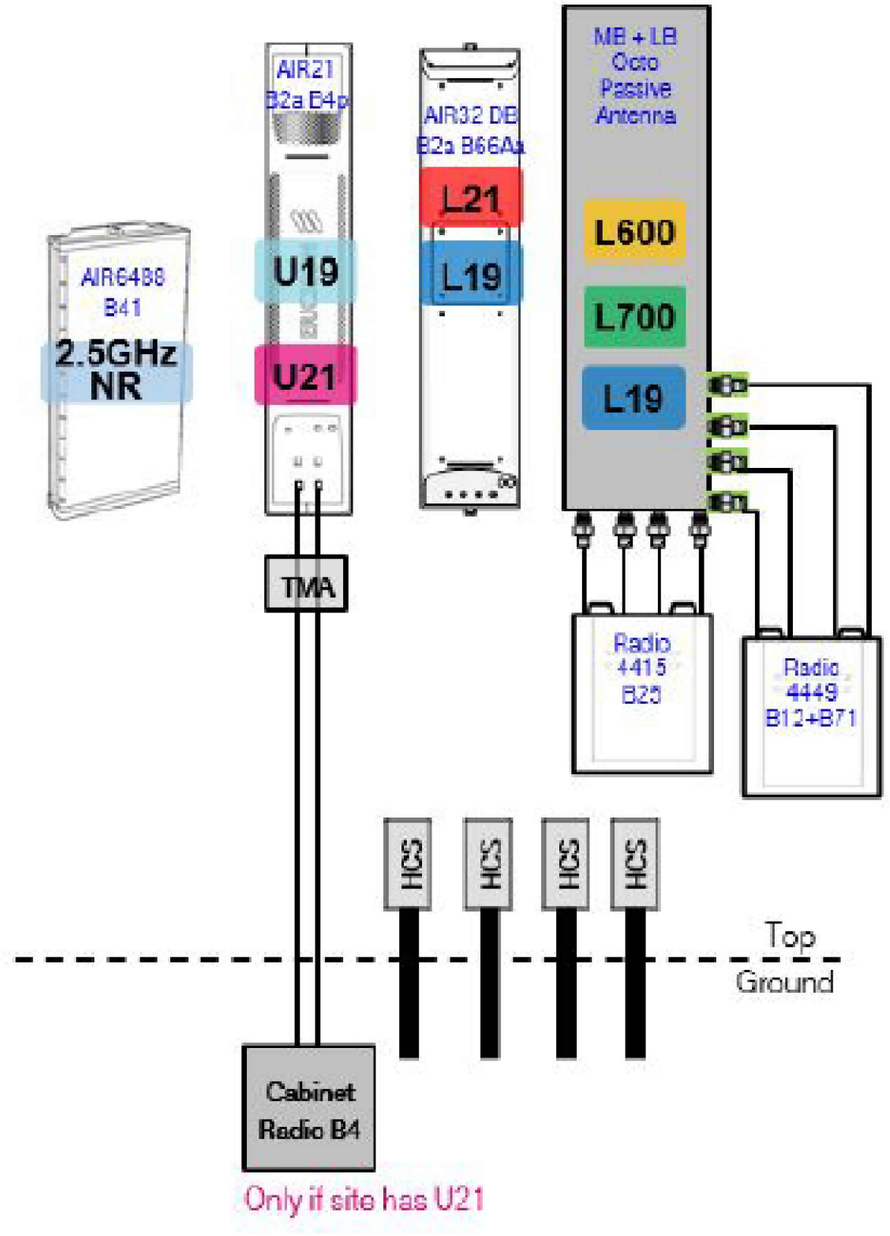
Template: 67D5A992DB Outdoor

Enclosure	1	2	3	4
Enclosure Type	RBS 6131	Ancillary Equipment (Ericsson)	Enclosure 6160	B160
Baseband	DUW30 (U1900); DUW30 (U2100); DUG20 (G1900); BB 6630 (L2100, L1900, L700, L600); BB 6630 (N600)		BB 6630 (x 3) L2600; BB 6648 (N2600)	
Hybrid Cable System		Ericsson 6x12 HCS "Select AWG & Length"; Ericsson 6x12 HCS "Select Length & AWG"; Ericsson 6x12 HCS 6AWG 60m	Ericsson 6x12 HCS "Select AWG & Length"	
Radio	RU22 (x 6) U2100			

1 CABINET CONFIGURATION

SCALE: NOT TO SCALE

67D5992DB_3xAIR+1OP.JPG



2 ANTENNA CONFIGURATION

SCALE: NOT TO SCALE

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

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-603	0

AIR6449 B41

Frequency Range	LTE TDD B41: 2496 – 2690 MHz
Instantaneous BW	DL 194 MHz
Antenna Ports	64T64R
Technology	NR, LTE and NR+LTE MSMM
Antenna Elements	192
Output RF Power	300 W (=64 TRX x 4.6875W)
Data Ports	4 x 25Gb/s CPRI
5G NR Support	YES
DC Feed	-48V DC power connector
Cooling	Passive cooling (vs. active cooling on AIR32 DB)
Dimensions (H x W x D)	33.1" x 20.6" x 8.6" inches (=841 x 524 x 217 mm)
Weight	104 lbs (=47 kg)
Electrical downtilt	-3 to 11 degrees
Horizontal beamwidth	+/- 65 degrees
HW/SW Availability	July 2020
Material SAP #	34105 – AIR 6449 B41

RRUS 4415 B25

- B25
  - TX = 1930 – 1995 MHz
  - RX = 1850 – 1915 MHz
- CPRI 2 ports x 2.5/4.9/9.8/10.1 Gbps. Install 2 SFPs and connect 2 fiber pair to the RRUS 4415 during initial install.
- Only use Ericsson supplied and approved SFPs RDH10265/25
  Exception: SFP7 RDH 10265/3 for CPRI 1.4km to 10km
  Exception: SFP7 (pair): RDH 102 70/1 and RDH 102 70/2 for CPRI > 10km
- 2 external alarm inputs
- Max wind load @ 50m/sec = 260N
- Breaker size = 25A, DC Power Consumption = 670 W (for dimensioning)
- 200mm horizontal separation required for side by side mounting
- 200mm separation required from antenna backplane to radio
- 400mm vertical outdoor/indoor separation required between 2 radios
- 500mm vertical separation below antenna
- Min, Max DC cable size from squid to radio = 10,8 AWG
  - Adapter is required for 2-wire connection
  - Shielded DC cable is required
- Ground cable size = 2AWG
- Dimensions (incl. handles, feet and sunshield, w/o fan unit)
  - Height: 16.5" (420 mm)
  - Width: 13.4" (342 mm)
  - Depth: 5.9" (149 mm)
- Weight, excl. mounting hardware = 46 lbs (21 kg)

SUPPLEMENTAL

SHEET NUMBER: R-604

REVISION: 0

AMERICAN TOWER®
CORPORATION

Antenna Mount Analysis Report

ATC Site Name	:	**Bilkays Express, CT**
ATC Site Number	:	**302467**
Engineering Number	:	**13251790_C8_05**
Mount Elevation	:	**148 ft**
Carrier	:	**T-Mobile**
Carrier Site Name	:	**Wallingford/Rt5/Rt15**
Carrier Site Number	:	**CT11654A**
Site Location	:	**90 North Plains Industrial Rd.** **Wallingford, CT 06492-2334** **41.48076111, -72.8177**
County	:	**New Haven**
Date	:	**July 15, 2020**
Max Usage	:	**82%**
Result	:	**Contingent Pass**

Prepared By:
Michael Ellis
Structural Engineer

Reviewed By:

STATE OF CONNECTICUT · ESHA KAUSHAL MODI · 32593 · LICENSED PROFESSIONAL ENGINEER

Authorized by "EOR"
15 Jul 2020 06:36:05 cosign

COA: PEC.0001553

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for T-Mobile at 148 ft.

Supporting Documents

Previous Mount Analysis	Infinigy Project #1009-Z0003-B, dated July 1, 2020
Mount Modifications	Site Pro 1 HRK14 handrail kit, dated May 30, 2012
Radio Frequency Data Sheet	RFDS ID #CT11654A, dated May 20, 2020
Reference Photos	Site photos from 2020

Analysis

This antenna 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'' radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	Ss = 0.205, S1 = 0.055
Site Class:	D - Stiff Soil
Live Loads: *	Lm = 500 lbs

*** Based on experience it has been determined that the maintenance load cases do not control over rigging load cases in platform mount analyses. Therefore, these load cases have been excluded from this analysis.**

Conclusion

Based on the analysis results, the antenna mount does not meet the requirements per the applicable codes listed above. The mount can support the equipment as described in this report after the below listed modifications are completed:

- Mount pipes B, F and J are not currently on the mount and need to be added to support the new equipment.
- • Add Site Pro 1 HRK14 handrail kit.

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

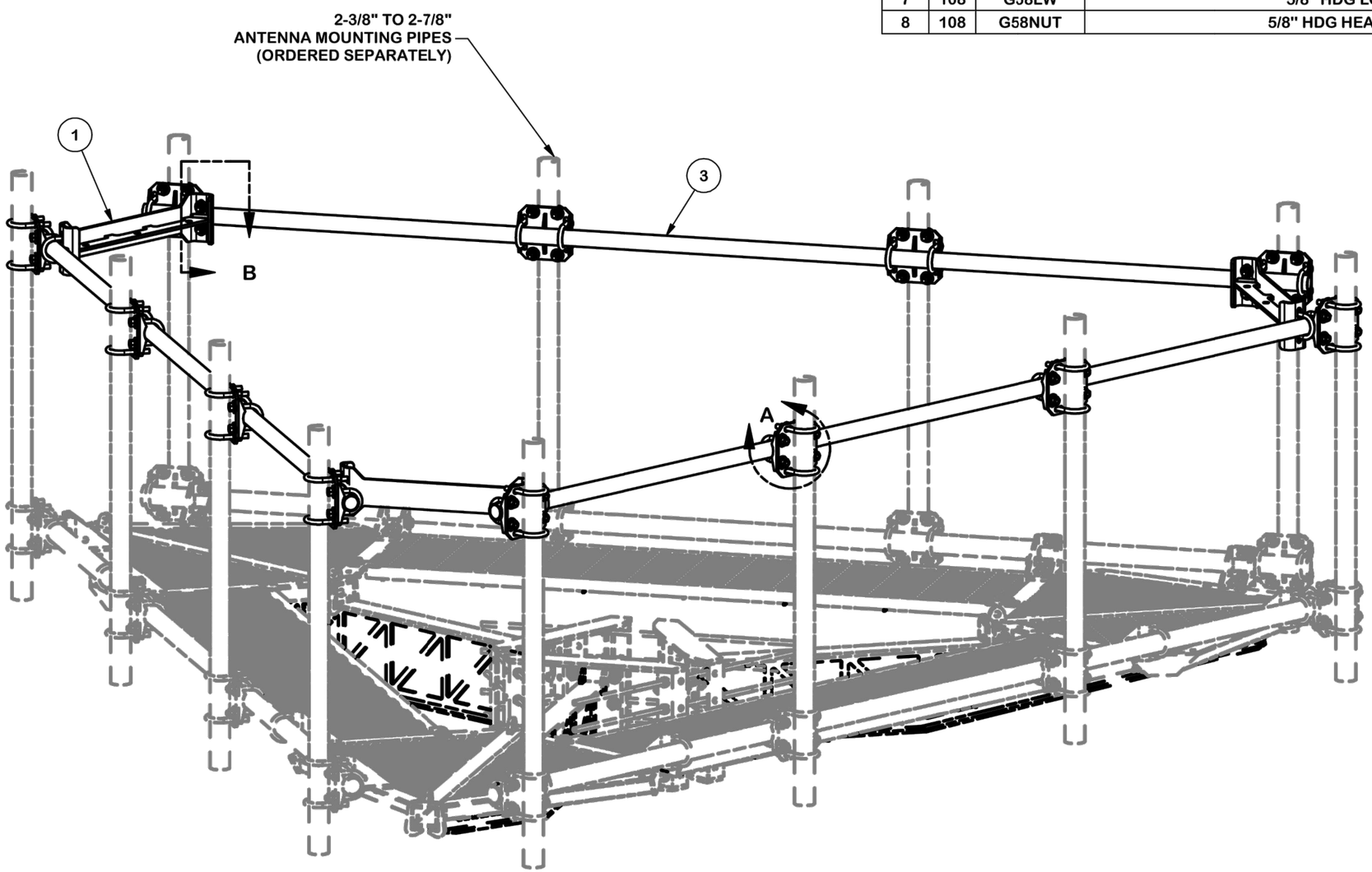
NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERYIFY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

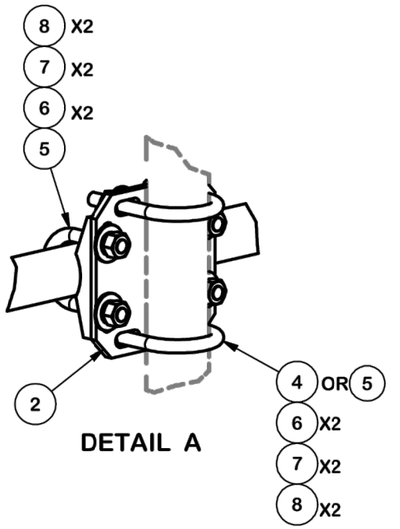
SUPPLEMENTAL

SHEET NUMBER: R-605

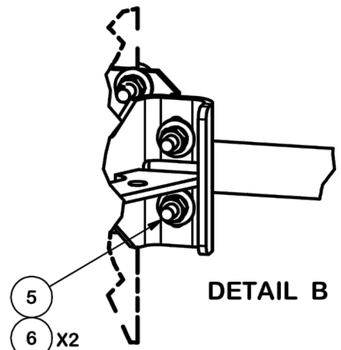
REVISION: 0

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	X-F3PHRW	CORNER WELDMENT FOR 3-SIDED FORTRESS PLATFORM HADNRAIL KITS		27.72	83.15
2	12	X-SCX3-FR	FORTRESS CROSSOVER PLATE		6.61	79.37
3	3	P2174	2-3/8" OD X 174" SCH 40 GALVANIZED PIPE	174 in	55.75	167.24
4	24	X-UB5300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	27.59
5	54	X-UB5258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	54.01
6	108	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	7.61
7	108	G58LW	5/8" HDG LOCKWASHER		0.03	2.82
8	108	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	14.03
					TOTAL WT. #	435.81





DETAIL A



DETAIL B

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")*

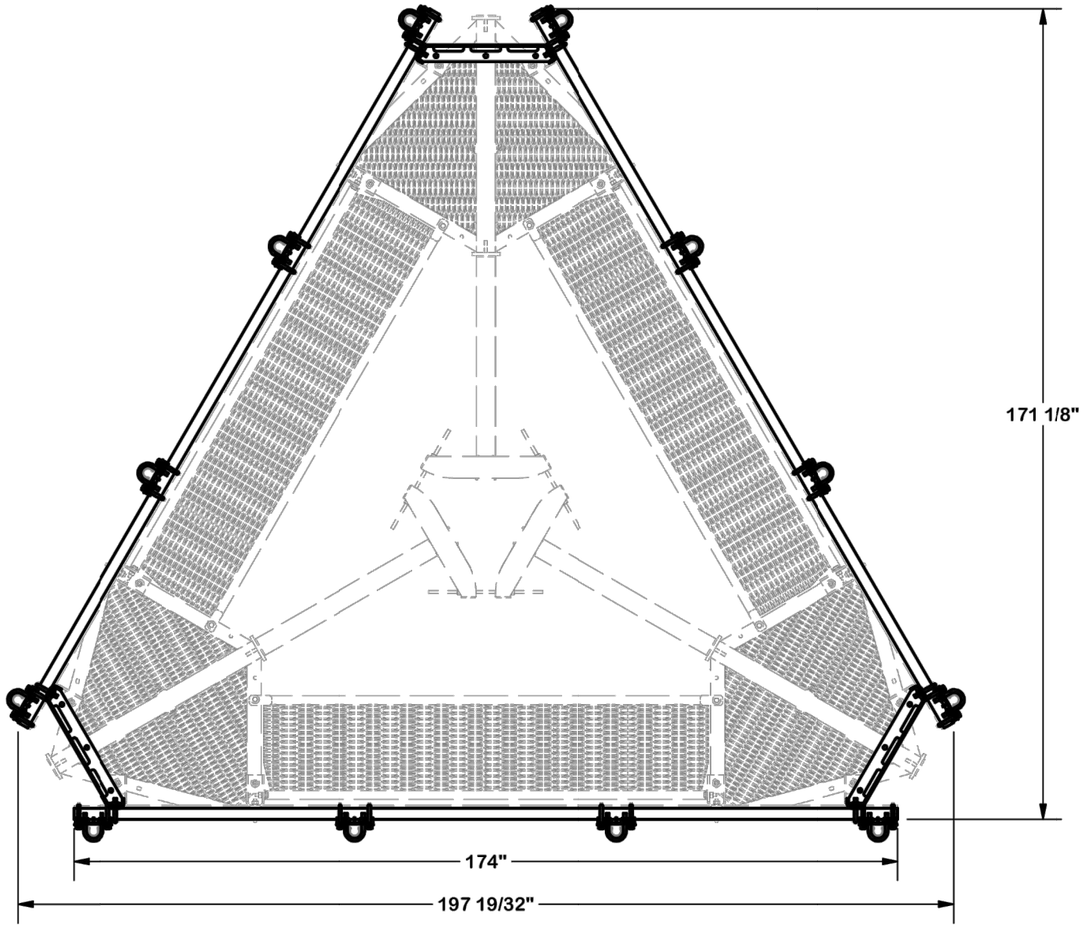
DESCRIPTION
HANDRAIL KIT FOR
14' FORTRESS™ PLATFORM

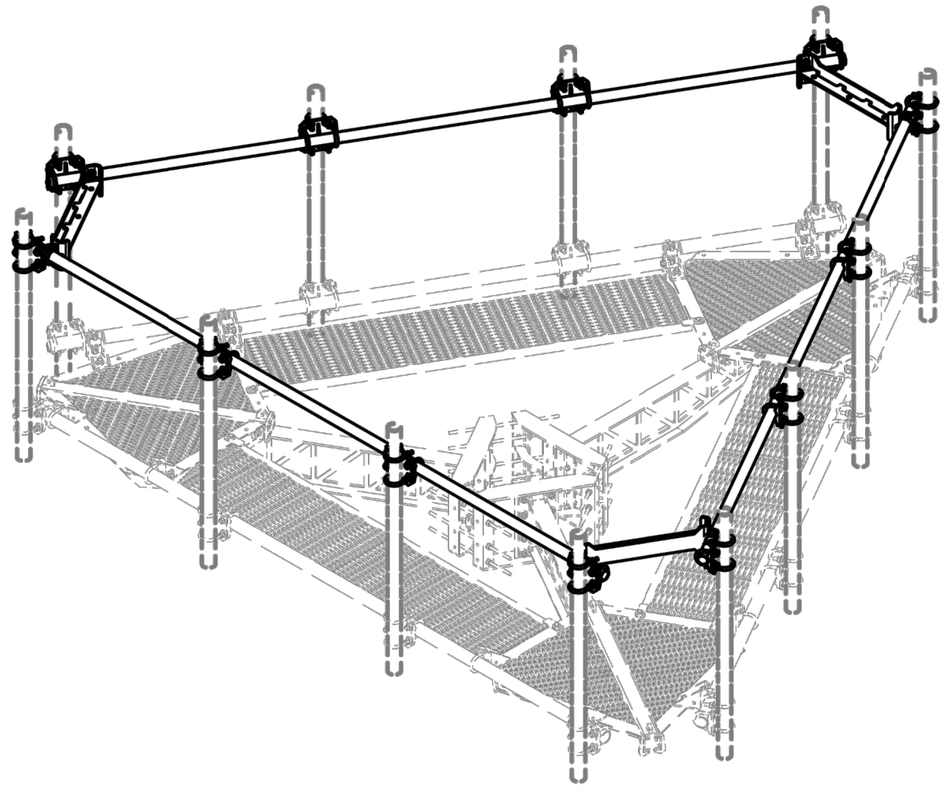
SITE PRO 1 — A valmont COMPANY

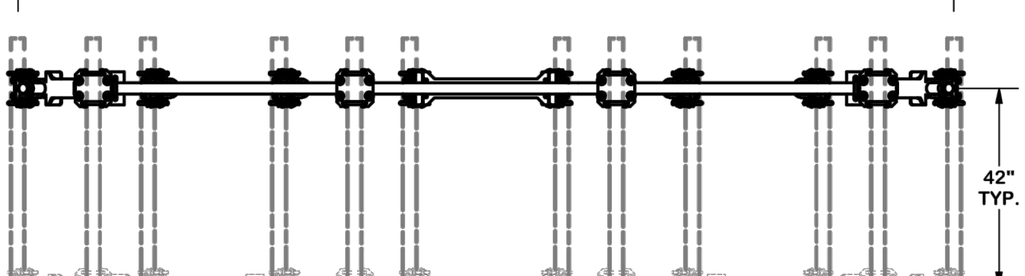
Engineering Support Team: 1-888-753-7446

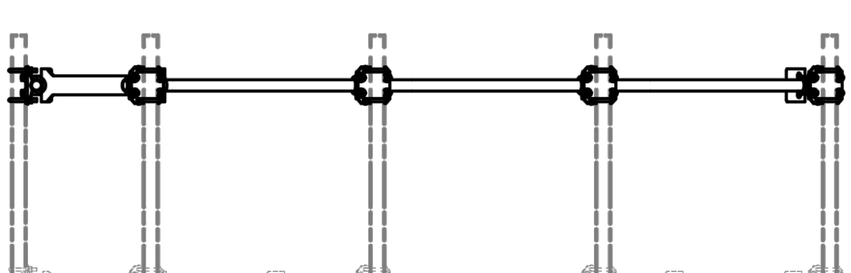
Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX

CPD NO.		DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
		CEK 8/29/2017		F3P-HRK14	1 OF 2
CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.	
81	02	CUSTOMER	BMC 9/14/2017	F3P-HRK14	









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
HANDRAIL KIT FOR
14' FORTRESS™ PLATFORM

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

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
	CEK 8/29/2017		F3P-HRK14

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	02	CUSTOMER	BMC 9/14/2017	F3P-HRK14

Exhibit D

Structural Analysis Report

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**178.5 ft Monopole**
ATC Site Name	:	**Bilkays Express, CT**
ATC Asset Number	:	**302467**
Engineering Number	:	**13251790_C3_06**
Proposed Carrier	:	**T-MOBILE**
Carrier Site Name	:	**Wallingford/Rt5/Rt15**
Carrier Site Number	:	**CT11654A**
Site Location	:	**90 North Plains Industrial Rd. Wallingford, CT 06492-2334 41.480800,-72.817700**
County	:	**New Haven**
Date	:	**July 23, 2020**
Max Usage	:	**73%**
Result	:	**Pass**

Prepared By:
Purity Mbugua
Engineer Intern

Reviewed By:

COA: PEC.0001553

AMERICAN TOWER®
CORPORATION

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 178.5 ft monopole to reflect the change in loading by T-MOBILE.

Supporting Documents

Tower Drawings	FWT Job #18357, dated March 19, 1999
Foundation Drawing	FWT Job #18357, dated March 19, 1999
Geotechnical Report	Tectonic Work Order #1170.C947C, dated March 11, 1999
Mount Analysis	ATC Engineering #13251790_C8_05, dated July 15, 2020

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" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Crest Height (H):	0 ft
Spectral Response:	Ss = 0.20, S_1 = 0.05
Site Class:	D - Stiff Soil

Conclusion

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

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

Existing and Reserved Equipment

Elev.[1] (ft)	Qty	Antenna	Mount Type	Lines	Carrier
182.0	12	Decibel DB844H90E-XY	Low Profile Platform	(12) 1 5/8" Coax	SPRINT NEXTEL
171.0	1	DragonWave A-ANT-18G-2-C	Collar	(2) 1/2" Coax (6) 5/16" (0.31"-7.9mm) Coax	CLEARWIRE CORPORATION
	1	DragonWave A-ANT-11G-2-C			
	3	Argus LLPX310R			
	3	NextNet BTS-2500			
	2	DragonWave Horizon Compact			
165.0	1	Generic 18" x 12" Junction Box		(1) 2" conduit	
160.0	3	Ericsson RRUS 32 B2	Platform with Handrails	(2) 0.39" (10mm) Fiber Trunk (6) 0.78" (19.7mm) 8 AWG 6 (12) 1 5/8" Coax (4) 2" conduit (1) 3/8" (0.38"-9.5mm) RET Control Cable	AT&T MOBILITY
	3	Ericsson RRUS 11 (Band 7)			
	3	Ericsson RRUS-32 (77 lbs)			
	1	Raycap DC6-48-60-18-8C-EV			
	3	Powerwave Allgon 7770.00			
	3	Quintel QS66512-2			
	3	Ericsson RRUS 4478 B5 (56.1 lbs)			
	3	Ericsson RRUS 4478 B14			
	3	Ericsson RRUS 4426 B66			
	2	Raycap DC6-48-60-18-8F (23.5" Height)			
	6	Powerwave Allgon LGP21401			
	9	Kaelus DBCT108F1V92-1			
	6	Powerwave Allgon 7020			
	3	CCI OPA-65R-LCUU-H6			
	3	Kathrein Scala 80010965			
148.0	3	RFS APXVAARR24_43-U-NA20	-	(1) 1 1/4" Hybriflex Cable (6) 1 5/8" Coax	T-MOBILE
	3	Ericsson AIR32 B66Aa/B2a			
	3	Ericsson KRY 112 144/1			
138.0	6	Samsung B5/B13 RRH-BR04C	Platform with Handrails	(12) 1 5/8" Coax (2) 1 5/8" Hybriflex	VERIZON WIRELESS
	6	Samsung B2/B66A RRH-BR049			
	2	RFS DB-T1-6Z-8AB-0Z			
	3	Samsung Outdoor CBRS 20W RRH –Clip-on Antenna			
	3	Samsung Outdoor CBRS 20W RRH			
	3	Commscope CBC78T-DS-43-2X			
	3	Amphenol Antel BXA-80063-6BF-EDIN-X			
	6	Commscope JAHH-65B-R3B			
128.0	3	RFS APXV18-206517S-C	Flush	(6) 1 5/8" Coax (1) 7/8" Coax	METRO PCS INC
	1	Nortel NTGB01MA			
122.0	3	Alcatel-Lucent 1900 MHz 4X45 RRH	Low Profile Platform	(4) 1 1/4" Hybriflex Cable	SPRINT NEXTEL
	3	Alcatel-Lucent 800 MHz RRH			
	3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
118.0	3	RFS APXV9TM14-ALU-I20*			
	3	RFS APXVSPP18-C-A20			
20.0	1	PCTEL GPS-TMG-HR-26N	Stand-Off	(1) 1/2" Coax	

Equipment to be Removed

Elev.[1] (ft)	Qty	Antenna	Mount Type	Lines	Carrier
148.0	3	Ericsson AIR 21, 1.3 M, B2A B4P	T-Arm with Working Platforms	(2) 1 1/4" (1.25"-31.8mm) Fiber (6) 1 5/8" Coax	T-MOBILE
	3	Ericsson Radio 4449 B12,B71			

Proposed Equipment

Elev.[1] (ft)	Qty	Antenna	Mount Type	Lines	Carrier
148.0	3	Ericsson Radio 4449 B71 B85A	T-Arm with Working Platforms and Handrail Reinforcements	(3) 1 1/4" Hybriflex Cable	T-MOBILE
	3	Ericsson RRUS 4415 B25			
	3	Ericsson Air6449 B41			
	3	Ericsson AIR 21, 1.3M, B2A B4P (91.5 lbs)			

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

Install proposed lines outside the pole shaft. Stacking not to exceed 2 rows.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	73%	Pass
Shaft	62%	Pass
Base Plate	12%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	5503.4	71%
Axial (Kips)	80.4	26%
Shear (Kips)	48.9	61%

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.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
171.0	DragonWave A-ANT-11G-2-C	CLEARWIRE CORPORATION	1.412	0.835
	DragonWave A-ANT-18G-2-C			
148.0	Ericsson Radio 4449 B71 B85A	T-MOBILE	1.082	0.800
	Ericsson RRUS 4415 B25			
	Ericsson Air6449 B41			
	Ericsson AIR 21, 1.3M, B2A B4P (91.5 lbs)			

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

AMERICAN TOWER®
CORPORATION

Standard Conditions

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

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

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

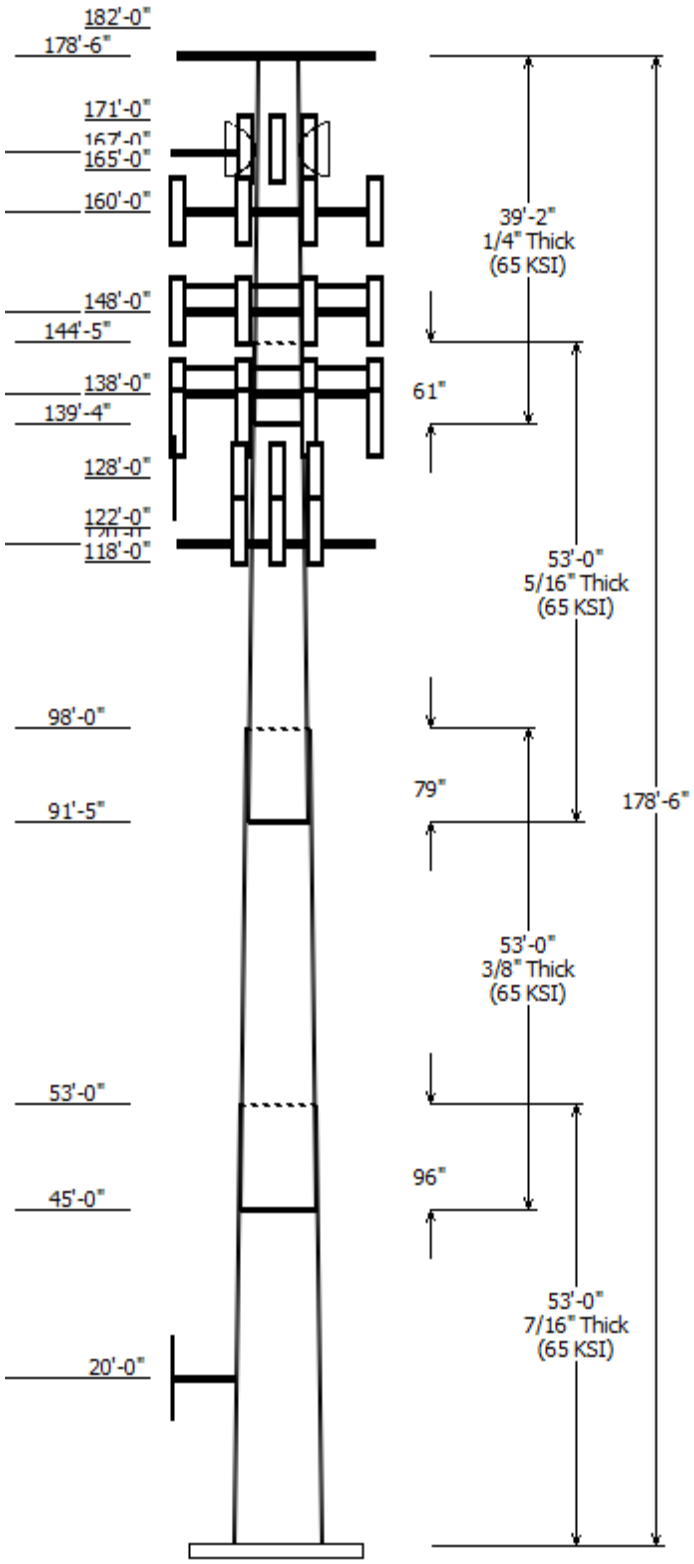
All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with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

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

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

Job Information

Client :	T-MOBILE		
Pole :	302467	Code:	ANSI/TIA-222-H
Location :	Bilkays Express, CT		
Description :	178.5' FWT Monopole	Risk Category :	II
Shape :	18 Sides	Exposure :	B
Height :	178.50 (ft)	Topo Method :	Method 1
Base Elev (ft):	0.00	Topographic Category :	1
Taper:	0.251401 (in/ft)		

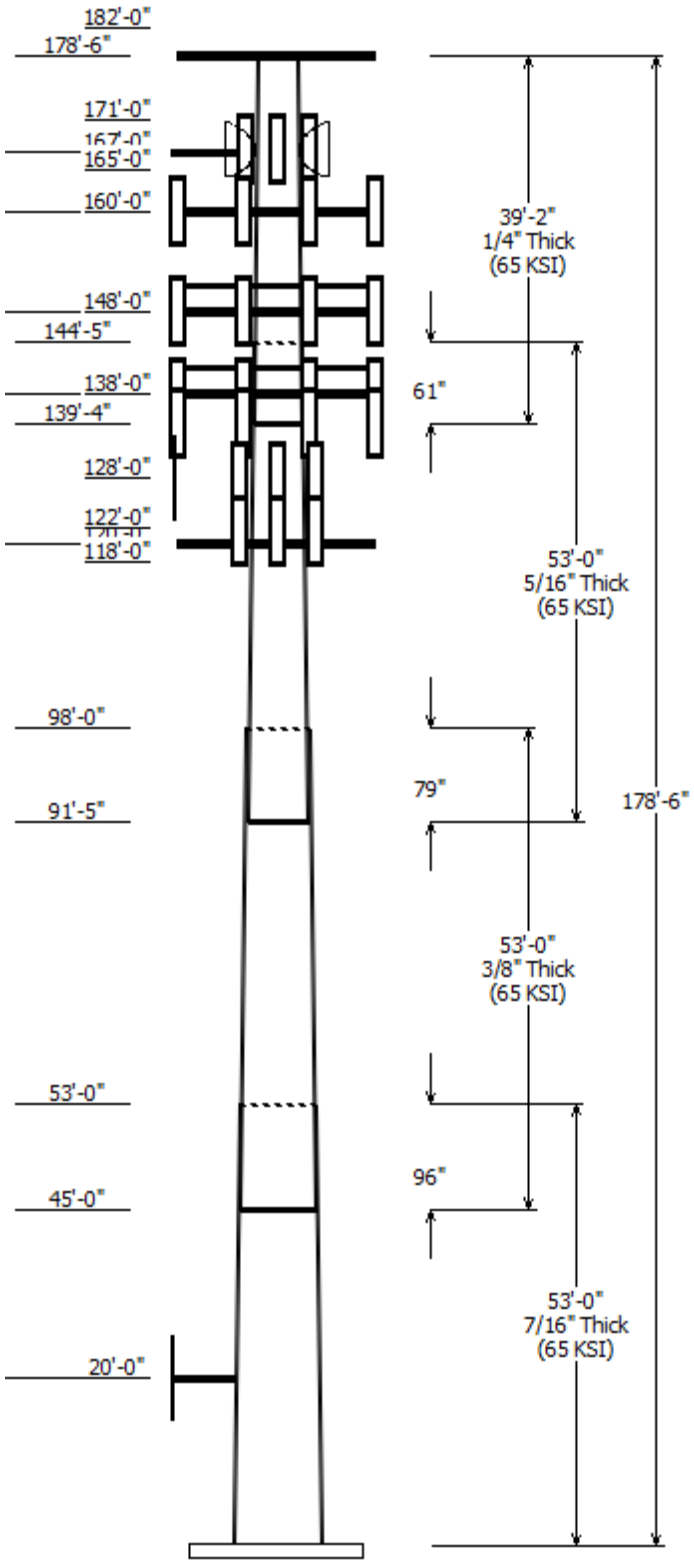


Sections Properties

Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
1	53.000	58.67	72.00	0.438		0.000	18 Sides	65
2	53.000	48.11	61.43	0.375	Slip Joint	96.000	18 Sides	65
3	53.000	37.06	50.39	0.313	Slip Joint	79.000	18 Sides	65
4	39.167	29.00	38.84	0.250	Slip Joint	61.000	18 Sides	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
182.000	182.000	12	Decibel DB844H90E-XY
178.500	178.500	1	Flat Low Profile Platform
171.000	168.000	1	DragonWave A-ANT-18G-2-C
171.000	168.000	1	DragonWave A-ANT-11G-2-C
171.000	168.000	3	Argus LLPX310R
171.000	168.000	3	NextNet BTS-2500
171.000	168.000	2	DragonWave Horizon Compact
167.000	167.000	1	Side Arms
165.000	165.000	1	Generic 18" x 12" Junction Box
160.000	160.000	1	Flat Platform w/ Handrails
160.000	160.000	3	Kathrein Scala 80010965
160.000	160.000	3	CCI OPA-65R-LCUU-H6
160.000	160.000	3	Quintel QS66512-2
160.000	160.000	3	Powerwave Allgon 7770.00
160.000	160.000	1	Raycap DC6-48-60-18-8C-EV
160.000	160.000	3	Ericsson RRUS-32 (77 lbs)
160.000	160.000	3	Ericsson RRUS 11 (Band 7)
160.000	158.000	3	Ericsson RRUS 32 B2
160.000	160.000	3	Ericsson RRUS 4478 B5 (56.1 lb
160.000	160.000	3	Ericsson RRUS 4478 B14
160.000	160.000	3	Ericsson RRUS 4426 B66
160.000	160.000	2	Raycap DC6-48-60-18-8F (23.5"
160.000	160.000	6	Powerwave Allgon LGP21401
160.000	160.000	9	Kaelus DBCT108F1V92-1
160.000	160.000	6	Powerwave Allgon 7020
148.000	148.000	1	Round Platform w/ Handrails
148.000	148.000	3	RFS APXVAARR24_43-U-NA20
148.000	148.000	3	Ericsson AIR32 B66Aa/B2a
148.000	148.000	3	Ericsson AIR 21, 1.3M, B2A B4P
148.000	148.000	3	Ericsson Air6449 B41
148.000	148.000	3	Ericsson RRUS 4415 B25
148.000	148.000	3	Ericsson Radio 4449 B71 B85A
148.000	152.000	3	Ericsson KRY 112 144/1
138.000	138.000	1	Round Platform w/ Handrails
138.000	136.000	6	Commscope JAHH-65B-R3B
138.000	138.000	3	Amphenol Antel BXA-80063-
138.000	140.000	2	RFS DB-T1-6Z-8AB-0Z
138.000	138.000	6	Samsung B2/B66A RRH-BR049
138.000	138.000	6	Samsung B5/B13 RRH-BR04C
138.000	138.000	3	Samsung Outdoor CBRS 20W
138.000	138.000	3	Samsung Outdoor CBRS 20W
138.000	138.000	3	Commscope CBC78T-DS-43-2X
128.000	128.000	3	RFS APXV18-206517S-C
128.000	128.000	1	Nortel NTGB01MA



122.000	122.000	3	Alcatel-Lucent TD-RRH8x20-25
122.000	122.000	3	Alcatel-Lucent 1900 MHz 4X45
122.000	122.000	3	Alcatel-Lucent 800 MHz RRH
120.000	120.000	1	Round Low Profile Platform
118.000	122.000	3	RFS APXVSPP18-C-A20
118.000	122.000	3	RFS APXV9TM14-ALU-I20*
20.000	20.000	1	Standoff
20.000	20.000	1	PCTEL GPS-TMG-HR-26N

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	20.000	1/2" Coax	Yes
0.000	116.0	1 1/4" Hybriflex	Yes
0.000	118.0	1 1/4" Hybriflex	Yes
0.000	128.0	1 5/8" Coax	Yes
0.000	128.0	7/8" Coax	No
0.000	138.0	1 5/8" Coax	No
0.000	138.0	1 5/8" Coax	Yes
0.000	138.0	1 5/8" Hybriflex	Yes
0.000	148.0	1 1/4" Hybriflex	Yes
0.000	148.0	1 1/4" Hybriflex	Yes
0.000	148.0	1 5/8" Coax	Yes
0.000	160.0	0.39" (10mm)	No
0.000	160.0	0.78" (19.7mm) 8	No
0.000	160.0	1 5/8" Coax	No
0.000	160.0	2" conduit	No
0.000	160.0	2" conduit	No
0.000	160.0	3/8" (0.38"-	No
0.000	165.0	2" conduit	Yes
0.000	171.0	1/2" Coax	Yes
0.000	171.0	5/16" (0.31"-	No
0.000	182.0	1 5/8" Coax	No

Load Cases

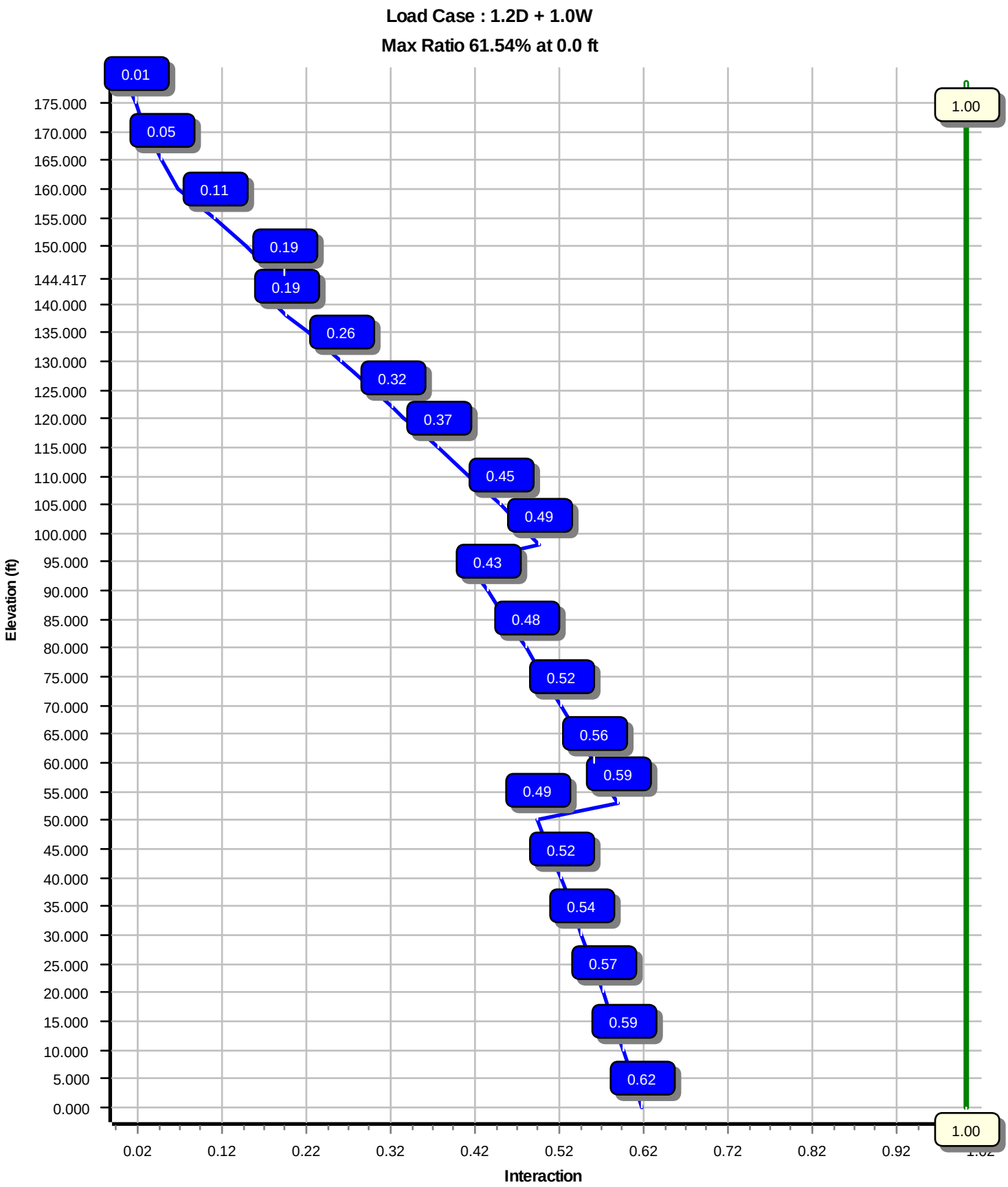
1.2D + 1.0W	119 mph with No Ice
0.9D + 1.0W	119 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.0W	5503.38	48.94	80.44
0.9D + 1.0W	5452.92	48.92	60.32
1.2D + 1.0Di + 1.0Wi	1203.89	9.97	108.68
1.2D + 1.0Ev + 1.0Eh	280.12	2.02	80.89
0.9D - 1.0Ev + 1.0Eh	276.72	2.01	55.69
1.0D + 1.0W	1244.72	11.13	67.07

Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	171.00	16.946	0.835
1.0D + 1.0W	171.00	16.946	0.835


Load Case : 1.2D + 1.0W
Max Ratio 61.54% at 0.0 ft
0.01
0.05
0.11
0.19
0.19
0.26
0.32
0.37
0.45
0.49
0.43
0.48
0.52
0.56
0.59
0.49
0.52
0.54
0.57
0.59
0.62
1.00
1.00
175.000
170.000
165.000
160.000
155.000
150.000
144.417
140.000
135.000
130.000
125.000
120.000
115.000
110.000
105.000
100.000
95.000
90.000
85.000
80.000
75.000
70.000
65.000
60.000
55.000
50.000
45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
Elevation (ft)
0.02
0.12
0.22
0.32
0.42
0.52
0.62
0.72
0.82
0.92
Interaction

Site Number: 302467 Code: ANSI/TIA-222-H

Site Name: Bilkays Express, CT Engineering Number:13251790_C3_06 7/23/2020 3:31:49 PM

Customer: T-MOBILE

Analysis Parameters

Location :	New Haven County, CT	Height (ft) :	178.5
Code :	ANSI/TIA-222-H	Base Diameter (in) :	72.00
Shape :	18 Sides	Top Diameter (in) :	29.00
Pole Type :	Taper	Taper (in/ft) :	0.251
Pole Manfacturer :	FWT	Rotation (deg) :	0.00
Kd (non-service) :	0.95	Ke :	1.00

Ice & Wind Parameters

Exposure Category:	B	Design Wind Speed Without Ice:	119 mph
Risk Category:	II	Design Wind Speed With Ice:	50 mph
Topographic Factor Procedure:	Method 1	Operational Wind Speed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.00 in
Crest Height:	0 ft	HMSL:	57.00 ft

Seismic Parameters

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil				
Period Based on Rayleigh Method (sec):	2.29				
T_L (sec):	6	p:	1	C_s:	0.030
S_s:	0.205	S_1:	0.055	C_s Max:	0.030
F_a:	1.600	F_v:	2.400	C_s Min:	0.030
S_{ds}:	0.219	S_{d1}:	0.088		

Load Cases

1.2D + 1.0W	119 mph with No Ice
0.9D + 1.0W	119 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in²)	Bottom Ix (in⁴)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (in²)	Top Ix (in⁴)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	53.000	0.4375	65		0.00	16,253	72.00	0.00	99.37	64295.3	27.26	164.57	58.67	53.00	80.87	34653.6	21.89	134.12	0.251401
2-18	53.000	0.3750	65	Slip	96.00	11,677	61.43	45.00	72.68	34236.4	27.12	163.83	48.11	98.00	56.82	16359.2	20.86	128.30	0.251401
3-18	53.000	0.3125	65	Slip	79.00	7,766	50.39	91.42	49.67	15739.6	26.67	161.26	37.06	144.42	36.46	6222.7	19.15	118.62	0.251401
4-18	39.167	0.2500	65	Slip	61.00	3,561	38.84	139.33	30.63	5764.1	25.64	155.39	29.00	178.50	22.81	2382.3	18.69	116.00	0.251401
				Shaft Weight		39,257													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor
182.00	Decibel DB844H90E-XY	12	0.80	0.000	14.00	3.615	0.73	83.10	3.626	0.73
178.50	Flat Low Profile Platform	1	1.00	0.000	1,500.00	26.100	1.00	1,939.97	39.065	1.00
171.00	DragonWave Horizon Compact	2	1.00	-3.000	10.60	0.721	0.50	25.82	1.106	0.50
171.00	NextNet BTS-2500	3	1.00	-3.000	35.00	1.817	0.50	66.38	2.437	0.50
171.00	Argus LLPX310R	3	1.00	-3.000	28.60	4.292	0.63	89.58	5.411	0.63
171.00	DragonWave A-ANT-11G-2-C	1	1.00	-3.000	27.00	4.688	1.00	92.94	5.550	1.00
171.00	DragonWave A-ANT-18G-2-C	1	1.00	-3.000	27.10	4.688	1.00	93.13	5.550	1.00
167.00	Side Arms	1	1.00	0.000	560.00	8.500	1.00	875.93	13.295	1.00
165.00	Generic 18" x 12" Junction Box	1	1.00	0.000	15.00	1.800	1.00	52.63	2.406	1.00
160.00	Powerwave Allgon 7020	6	0.75	0.000	2.20	0.339	0.50	9.05	0.614	0.50
160.00	Kaelus DBCT108F1V92-1	9	0.75	0.000	13.90	0.633	0.50	30.79	0.999	0.50
160.00	Powerwave Allgon LGP21401	6	0.75	0.000	14.10	1.104	0.50	30.85	1.583	0.50
160.00	Raycap DC6-48-60-18-8F (23.5"	2	0.75	0.000	20.00	1.260	1.00	55.35	1.702	1.00
160.00	Ericsson RRUS 4426 B66	3	0.75	0.000	48.40	1.650	0.50	78.37	2.220	0.50
160.00	Ericsson RRUS 4478 B14	3	0.75	0.000	59.40	2.021	0.50	100.60	2.654	0.50
160.00	Ericsson RRUS 4478 B5 (56.1 lbs)	3	0.75	0.000	56.10	2.036	0.50	96.35	2.671	0.50
160.00	Ericsson RRUS 32 B2	3	0.75	-2.000	53.00	2.743	0.50	102.37	3.528	0.50
160.00	Ericsson RRUS 11 (Band 7)	3	0.75	0.000	50.70	2.791	0.50	99.31	3.527	0.50
160.00	Ericsson RRUS-32 (77 lbs)	3	0.75	0.000	77.00	3.314	0.50	142.29	4.176	0.50
160.00	Raycap DC6-48-60-18-8C-EV	1	0.75	0.000	16.00	4.788	1.00	102.69	5.775	1.00
160.00	Powerwave Allgon 7770.00	3	0.75	0.000	35.00	5.508	0.65	118.85	6.199	0.65
160.00	Quintel QS66512-2	3	0.75	0.000	111.00	8.133	0.74	244.77	10.004	0.74
160.00	CCI OPA-65R-LCUU-H6	3	0.75	0.000	73.00	9.658	0.66	209.63	11.519	0.66
160.00	Kathrein Scala 80010965	3	0.75	0.000	97.60	13.814	0.62	276.57	15.862	0.62
160.00	Flat Platform w/ Handrails	1	1.00	0.000	2,000.00	42.400	1.00	2,954.03	56.479	1.00
148.00	Ericsson KRY 112 144/1	3	0.75	4.000	11.00	0.351	0.50	18.17	0.622	0.50
148.00	Ericsson Radio 4449 B71 B85A	3	0.75	0.000	75.00	1.650	0.50	115.08	2.216	0.50
148.00	Ericsson RRUS 4415 B25	3	0.75	0.000	46.00	1.650	0.50	74.85	2.216	0.50
148.00	Ericsson Air6449 B41	3	0.75	0.000	104.00	5.682	0.63	194.83	6.740	0.63
148.00	Ericsson AIR 21, 1.3M, B2A B4P	3	0.75	0.000	91.50	6.037	0.70	188.53	7.466	0.70
148.00	Ericsson AIR32 B66Aa/B2a	3	0.75	0.000	132.20	6.510	0.71	238.57	7.970	0.71
148.00	RFS APXVAARR24_43-U-NA20	3	0.75	0.000	127.90	20.243	0.63	389.54	22.715	0.63
148.00	Round Platform w/ Handrails	1	1.00	0.000	2,000.00	27.200	1.00	2,863.59	43.491	1.00
138.00	Commscope CBC78T-DS-43-2X	3	0.75	0.000	20.70	0.552	0.50	35.32	0.888	0.50
138.00	Samsung Outdoor CBRS 20W	3	0.75	0.000	18.60	0.857	0.50	34.48	1.272	0.50
138.00	Samsung Outdoor CBRS 20W	3	0.75	0.000	4.40	0.892	0.50	16.31	1.315	0.50
138.00	Samsung B5/B13 RRH-BR04C	6	0.75	0.000	70.30	1.875	0.50	108.15	2.472	0.50
138.00	Samsung B2/B66A RRH-BR049	6	0.75	0.000	84.40	1.875	0.50	126.62	2.472	0.50
138.00	RFS DB-T1-6Z-8AB-0Z	2	0.75	2.000	44.00	4.800	0.72	127.29	5.740	0.72
138.00	Amphenol Antel BXA-80063-6BF-	3	0.75	0.000	19.20	7.262	0.66	114.62	9.023	0.66
138.00	Commscope JAHH-65B-R3B	6	0.75	-2.000	60.60	9.113	0.69	194.48	10.949	0.69
138.00	Round Platform w/ Handrails	1	1.00	0.000	2,000.00	27.200	1.00	2,857.50	43.376	1.00
128.00	Nortel NTGB01MA	1	1.00	0.000	1.00	0.090	1.00	4.55	0.206	1.00
128.00	RFS APXV18-206517S-C	3	1.00	0.000	26.40	5.160	0.68	87.25	6.713	0.68
122.00	Alcatel-Lucent 800 MHz RRH	3	0.80	0.000	53.00	2.134	0.50	101.26	2.774	0.50
122.00	Alcatel-Lucent 1900 MHz 4X45	3	0.80	0.000	60.00	2.322	0.50	112.69	3.029	0.50
122.00	Alcatel-Lucent TD-RRH8x20-25	3	0.80	0.000	70.00	4.046	0.50	131.79	4.914	0.50

120.00	Round Low Profile Platform	1	1.00	0.000	1,500.00	21.700	1.00	1,922.91	34.232	1.00
118.00	RFS APXV9TM14-ALU-I20*	3	0.80	4.000	55.10	6.342	0.66	144.79	7.761	0.66
118.00	RFS APXVSPP18-C-A20	3	0.80	4.000	57.00	8.024	0.69	169.36	9.841	0.69
20.00	PCTEL GPS-TMG-HR-26N	1	1.00	0.000	0.60	0.090	1.00	3.21	0.187	1.00
20.00	Standoff	1	1.00	0.000	75.00	2.500	1.00	122.67	3.438	1.00
Totals	Num Loadings:52	157			16,644.00			29,769.48		

Linear Appurtenance Properties

Load Case Azimuth (deg) : 90

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax / Row	Dist Between Rows (in)	Dist Between Cols (in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	182.00	12	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	SPRINT NEXTEL
0.00	171.00	2	1/2" Coax	0.63	0.15	Y	2	0.00	0.00	130	0.00	Y	CLEARWIRE
0.00	171.00	6	5/16" (0.31"-7.9mm)	0.31	0.05	N	0	0.00	0.00	0	0.00	N	CLEARWIRE
0.00	165.00	1	2" conduit	2.38	3.65	Y	1	0.00	0.00	135	0.00	Y	CLEARWIRE
0.00	160.00	2	0.39" (10mm) Fiber	0.39	0.06	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	160.00	6	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	160.00	12	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	160.00	1	2" conduit	2.38	3.65	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	160.00	3	2" conduit	2.38	3.65	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	160.00	1	3/8" (0.38"- 9.5mm)	0.38	0.23	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	148.00	1	1 1/4" Hybriflex Cable	1.54	1.00	Y	1	0.00	0.00	265	0.00	Y	T-MOBILE
0.00	148.00	3	1 1/4" Hybriflex Cable	1.54	1.00	Y	3	0.00	0.00	265	0.50	Y	T-MOBILE
0.00	148.00	6	1 5/8" Coax	1.98	0.82	Y	6	0.00	0.00	260	0.00	Y	T-MOBILE
0.00	138.00	9	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	138.00	3	1 5/8" Coax	1.98	0.82	Y	3	0.00	0.00	0	0.00	Y	VERIZON WIRELES
0.00	138.00	2	1 5/8" Hybriflex	1.98	1.30	Y	2	0.00	0.00	0	0.00	Y	VERIZON WIRELESS
0.00	128.00	6	1 5/8" Coax	1.98	0.82	Y	6	0.00	0.00	200	0.00	Y	METRO PCS INC
0.00	128.00	1	7/8" Coax	1.09	0.33	N	0	0.00	0.00	0	0.00	N	METRO PCS INC
0.00	118.00	3	1 1/4" Hybriflex Cable	1.54	1.00	Y	3	0.00	0.00	170	0.00	Y	SPRINT NEXTEL
0.00	116.00	1	1 1/4" Hybriflex Cable	1.54	1.00	Y	1	0.00	0.00	175	0.00	Y	SPRINT NEXTEL
0.00	20.00	1	1/2" Coax	0.63	0.15	Y	1	0.00	0.00	180	0.00	Y	SPRINT NEXTEL

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)
0.00		0.4375	72.000	99.370	64,295.3	27.26	164.57	69.3	1758.	0.0	0.0
5.00		0.4375	70.743	97.624	60,966.4	26.75	161.70	69.9	1697.	0.0	1,675.8
10.00		0.4375	69.486	95.879	57,754.4	26.24	158.83	70.5	1637.	0.0	1,646.1
15.00		0.4375	68.229	94.134	54,657.3	25.74	155.95	71.1	1577.	0.0	1,616.4
20.00		0.4375	66.972	92.388	51,672.9	25.23	153.08	71.7	1519.	0.0	1,586.7
25.00		0.4375	65.715	90.643	48,799.2	24.72	150.21	72.3	1462.	0.0	1,557.0
30.00		0.4375	64.458	88.897	46,034.1	24.22	147.33	72.9	1406.	0.0	1,527.3
35.00		0.4375	63.201	87.152	43,375.4	23.71	144.46	73.5	1351.	0.0	1,497.6
40.00		0.4375	61.944	85.406	40,821.1	23.20	141.59	74.1	1298.	0.0	1,467.9
45.00	Bot - Section 2	0.4375	60.687	83.661	38,369.2	22.70	138.71	74.7	1245.	0.0	1,438.2
50.00		0.4375	59.430	81.915	36,017.4	22.19	135.84	75.3	1193.	0.0	2,632.3
53.00	Top - Section 1	0.3750	59.426	70.283	30,963.7	26.18	158.47	70.6	1026.	0.0	1,552.9
55.00		0.3750	58.923	69.684	30,179.4	25.94	157.13	70.9	1008.	0.0	476.3
60.00		0.3750	57.666	68.188	28,277.0	25.35	153.78	71.6	965.8	0.0	1,172.9
65.00		0.3750	56.409	66.692	26,456.3	24.76	150.42	72.3	923.8	0.0	1,147.4
70.00		0.3750	55.152	65.196	24,715.5	24.17	147.07	73.0	882.7	0.0	1,122.0
75.00		0.3750	53.895	63.700	23,052.8	23.58	143.72	73.7	842.5	0.0	1,096.5
80.00		0.3750	52.638	62.204	21,466.3	22.99	140.37	74.4	803.2	0.0	1,071.1
85.00		0.3750	51.381	60.708	19,954.4	22.40	137.02	75.1	764.9	0.0	1,045.6
90.00		0.3750	50.124	59.212	18,515.2	21.81	133.66	75.8	727.6	0.0	1,020.1
91.42	Bot - Section 3	0.3750	49.768	58.788	18,120.3	21.64	132.71	76.0	717.1	0.0	284.4
95.00		0.3750	48.867	57.715	17,146.9	21.21	130.31	76.4	691.1	0.0	1,310.5
98.00	Top - Section 2	0.3125	48.738	48.030	14,230.2	25.74	155.96	71.1	575.1	0.0	1,078.7
100.0		0.3125	48.235	47.531	13,791.5	25.45	154.35	71.5	563.2	0.0	325.2
105.0		0.3125	46.978	46.285	12,734.5	24.74	150.33	72.3	533.9	0.0	798.1
110.0		0.3125	45.721	45.038	11,732.9	24.03	146.31	73.1	505.4	0.0	776.9
115.0		0.3125	44.464	43.791	10,785.2	23.33	142.28	74.0	477.8	0.0	755.7
118.0		0.3125	43.710	43.043	10,241.9	22.90	139.87	74.5	461.5	0.0	443.2
120.0		0.3125	43.207	42.544	9,890.0	22.62	138.26	74.8	450.8	0.0	291.2
122.0		0.3125	42.704	42.046	9,546.3	22.33	136.65	75.1	440.3	0.0	287.8
125.0		0.3125	41.950	41.298	9,045.8	21.91	134.24	75.6	424.7	0.0	425.4
128.0		0.3125	41.196	40.550	8,563.1	21.48	131.83	76.1	409.4	0.0	417.8
130.0		0.3125	40.693	40.051	8,251.0	21.20	130.22	76.5	399.4	0.0	274.3
135.0		0.3125	39.436	38.804	7,504.2	20.49	126.19	77.3	374.8	0.0	670.8
138.0		0.3125	38.682	38.056	7,078.5	20.06	123.78	77.8	360.4	0.0	392.3
139.3	Bot - Section 4	0.3125	38.347	37.724	6,894.6	19.87	122.71	78.0	354.1	0.0	171.9
140.0		0.3125	38.179	37.557	6,803.9	19.78	122.17	78.1	351.0	0.0	154.7
144.4	Top - Section 3	0.2500	37.569	29.611	5,210.3	24.73	150.27	72.3	273.2	0.0	1,007.8
145.0		0.2500	37.422	29.495	5,149.1	24.63	149.69	72.4	271.0	0.0	58.7
148.0		0.2500	36.668	28.896	4,842.0	24.10	146.67	73.1	260.1	0.0	298.0
150.0		0.2500	36.165	28.497	4,644.2	23.74	144.66	73.5	252.9	0.0	195.3
155.0		0.2500	34.908	27.500	4,173.4	22.86	139.63	74.5	235.5	0.0	476.4
160.0		0.2500	33.651	26.503	3,735.6	21.97	134.60	75.6	218.6	0.0	459.4
165.0		0.2500	32.394	25.505	3,329.5	21.08	129.58	76.6	202.4	0.0	442.4
167.0		0.2500	31.891	25.106	3,175.7	20.73	127.56	77.0	196.1	0.0	172.2
170.0		0.2500	31.137	24.508	2,954.0	20.20	124.55	77.6	186.9	0.0	253.2
171.0		0.2500	30.886	24.308	2,882.4	20.02	123.54	77.9	183.8	0.0	83.1
175.0		0.2500	29.880	23.510	2,607.8	19.31	119.52	78.7	171.9	0.0	325.4
178.5		0.2500	29.000	22.812	2,382.3	18.69	116.00	79.4	161.8	0.0	275.8
											39,257.1

Load Case: 1.2D + 1.0W 119 mph with No Ice 23 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		485.7	0.0					0.0	0.0	485.7	0.0	0.0	0.0
5.00		963.9	2,011.0					0.0	439.1	963.9	2,450.1	0.0	0.0
10.00		948.8	1,975.3					0.0	439.1	948.8	2,414.4	0.0	0.0
15.00		933.8	1,939.7					0.0	439.1	933.8	2,378.8	0.0	0.0
20.00	Appurtenance(s)	918.8	1,904.1	68.5	0.0	0.0	90.7	0.0	439.1	987.3	2,433.9	0.0	0.0
25.00		903.8	1,868.4					0.0	438.2	903.8	2,306.6	0.0	0.0
30.00		899.3	1,832.8					0.0	438.2	899.3	2,271.0	0.0	0.0
35.00		913.2	1,797.2					0.0	438.2	913.2	2,235.3	0.0	0.0
40.00		932.5	1,761.5					0.0	438.2	932.5	2,199.7	0.0	0.0
45.00	Bot - Section 2	953.6	1,725.9					0.0	438.2	953.6	2,164.1	0.0	0.0
50.00		775.6	3,158.8					0.0	438.2	775.6	3,597.0	0.0	0.0
53.00	Top - Section 1	487.9	1,863.5					0.0	262.9	487.9	2,126.4	0.0	0.0
55.00		686.7	571.5					0.0	175.3	686.7	746.8	0.0	0.0
60.00		985.1	1,407.4					0.0	438.2	985.1	1,845.6	0.0	0.0
65.00		989.2	1,376.9					0.0	438.2	989.2	1,815.1	0.0	0.0
70.00		991.3	1,346.4					0.0	438.2	991.3	1,784.5	0.0	0.0
75.00		991.6	1,315.8					0.0	438.2	991.6	1,754.0	0.0	0.0
80.00		990.2	1,285.3					0.0	438.2	990.2	1,723.4	0.0	0.0
85.00		987.4	1,254.7					0.0	438.2	987.4	1,692.9	0.0	0.0
90.00		632.0	1,224.2					0.0	438.2	632.0	1,662.4	0.0	0.0
91.42	Bot - Section 3	494.8	341.3					0.0	124.2	494.8	465.4	0.0	0.0
95.00		652.2	1,572.6					0.0	314.0	652.2	1,886.6	0.0	0.0
98.00	Top - Section 2	493.2	1,294.5					0.0	262.9	493.2	1,557.4	0.0	0.0
100.00		685.6	390.2					0.0	175.3	685.6	565.5	0.0	0.0
105.00		974.0	957.7					0.0	438.2	974.0	1,395.9	0.0	0.0
110.00		965.4	932.3					0.0	438.2	965.4	1,370.4	0.0	0.0
115.00		766.3	906.8					0.0	438.2	766.3	1,345.0	0.0	0.0
118.00	Appurtenance(s)	475.4	531.9	922.7	0.0	3,690.8	403.6	0.0	260.5	1,398.1	1,195.9	0.0	0.0
120.00	Appurtenance(s)	378.2	349.5	854.1	0.0	0.0	1,800.0	0.0	165.7	1,232.3	2,315.2	0.0	0.0
122.00	Appurtenance(s)	470.0	345.4	403.4	0.0	0.0	658.8	0.0	165.7	873.4	1,169.9	0.0	0.0
125.00		560.5	510.5					0.0	248.5	560.5	759.0	0.0	0.0
128.00	Appurtenance(s)	455.0	501.3	425.6	0.0	0.0	96.2	0.0	248.5	880.6	846.1	0.0	0.0
130.00		610.6	329.1					0.0	153.1	610.6	482.2	0.0	0.0
135.00		692.6	805.0					0.0	382.7	692.6	1,187.7	0.0	0.0
138.00	Appurtenance(s)	371.3	470.8	3,375.0	0.0	-1,882.0	4,282.2	0.0	229.6	3,746.2	4,982.6	0.0	0.0
139.33	Bot - Section 4	170.9	206.3					0.0	82.1	170.9	288.4	0.0	0.0
140.00		434.0	185.7					0.0	41.1	434.0	226.7	0.0	0.0
144.42	Top - Section 3	425.8	1,209.4					0.0	272.1	425.8	1,481.5	0.0	0.0
145.00		300.6	70.4					0.0	35.9	300.6	106.3	0.0	0.0
148.00	Appurtenance(s)	345.6	357.6	3,676.0	0.0	66.5	4,515.4	0.0	184.8	4,021.6	5,057.8	0.0	0.0
150.00		325.5	234.4					0.0	101.8	325.5	336.2	0.0	0.0
155.00		456.5	571.6					0.0	254.5	456.5	826.2	0.0	0.0
160.00	Appurtenance(s)	444.1	551.3	5,334.3	0.0	-262.8	5,115.0	0.0	254.5	5,778.3	5,920.8	0.0	0.0
165.00	Appurtenance(s)	304.6	530.9	77.6	0.0	0.0	18.0	0.0	84.5	382.2	633.5	0.0	0.0
167.00	Appurtenance(s)	212.4	206.7	367.7	0.0	0.0	672.0	0.0	25.1	580.0	903.7	0.0	0.0
170.00		168.3	303.9					0.0	37.6	168.3	341.5	0.0	0.0
171.00	Appurtenance(s)	205.7	99.7	907.1	0.0	-2,721.2	319.3	0.0	12.5	1,112.8	431.5	0.0	0.0
175.00		303.9	390.5					0.0	47.2	303.9	437.8	0.0	0.0

Load Case: 1.2D + 1.0W 119 mph with No Ice 23 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

178.50	Appurtenance(s)	139.9	331.0	1,150.7	0.0	0.0	1,800.0	0.0	41.3	1,290.6	2,172.3	0.0	0.0
									Totals:	48,216.0	80,290.8	0.00	0.00

Load Case: 1.2D + 1.0W 119 mph with No Ice 23 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-80.44	-48.94	0.00	-5,503.38	0.00	5,503.38	6,201.63	1,743.94	11,271.7	9,147.40	0.00	0.00	0.615
5.00	-77.89	-48.14	0.00	-5,258.69	0.00	5,258.69	6,145.05	1,713.31	10,879.2	8,903.77	0.06	-0.12	0.604
10.00	-75.38	-47.34	0.00	-5,018.02	0.00	5,018.02	6,086.60	1,682.68	10,493.7	8,660.43	0.25	-0.24	0.593
15.00	-72.91	-46.54	0.00	-4,781.34	0.00	4,781.34	6,026.28	1,652.04	10,115.2	8,417.51	0.57	-0.36	0.581
20.00	-70.38	-45.69	0.00	-4,548.62	0.00	4,548.62	5,964.08	1,621.41	9,743.60	8,175.18	1.01	-0.48	0.569
25.00	-67.99	-44.91	0.00	-4,320.18	0.00	4,320.18	5,900.01	1,590.78	9,378.96	7,933.57	1.58	-0.60	0.557
30.00	-65.64	-44.12	0.00	-4,095.64	0.00	4,095.64	5,834.07	1,560.15	9,021.26	7,692.84	2.28	-0.73	0.544
35.00	-63.32	-43.32	0.00	-3,875.03	0.00	3,875.03	5,766.26	1,529.51	8,670.52	7,453.12	3.11	-0.85	0.532
40.00	-61.04	-42.48	0.00	-3,658.45	0.00	3,658.45	5,696.58	1,498.88	8,326.74	7,214.56	4.07	-0.97	0.519
45.00	-58.81	-41.62	0.00	-3,446.04	0.00	3,446.04	5,625.02	1,468.25	7,989.90	6,977.32	5.15	-1.10	0.505
50.00	-55.16	-40.86	0.00	-3,237.97	0.00	3,237.97	5,551.60	1,437.62	7,660.03	6,741.53	6.37	-1.22	0.491
53.00	-53.00	-40.39	0.00	-3,115.38	0.00	3,115.38	4,466.37	1,233.46	6,578.51	5,434.80	7.16	-1.30	0.586
55.00	-52.20	-39.77	0.00	-3,034.61	0.00	3,034.61	4,445.78	1,222.96	6,466.97	5,363.40	7.71	-1.35	0.579
60.00	-50.29	-38.86	0.00	-2,835.77	0.00	2,835.77	4,392.99	1,196.70	6,192.29	5,185.21	9.20	-1.48	0.559
65.00	-48.41	-37.94	0.00	-2,641.47	0.00	2,641.47	4,338.33	1,170.45	5,923.57	5,007.61	10.83	-1.62	0.540
70.00	-46.57	-37.01	0.00	-2,451.78	0.00	2,451.78	4,281.80	1,144.19	5,660.81	4,830.75	12.60	-1.76	0.519
75.00	-44.76	-36.06	0.00	-2,266.75	0.00	2,266.75	4,223.39	1,117.93	5,404.01	4,654.77	14.52	-1.89	0.499
80.00	-42.99	-35.12	0.00	-2,086.44	0.00	2,086.44	4,163.12	1,091.68	5,153.18	4,479.82	16.57	-2.03	0.477
85.00	-41.25	-34.16	0.00	-1,910.86	0.00	1,910.86	4,100.97	1,065.42	4,908.30	4,306.05	18.77	-2.16	0.455
90.00	-39.57	-33.52	0.00	-1,740.05	0.00	1,740.05	4,036.95	1,039.16	4,669.38	4,133.61	21.10	-2.29	0.432
91.42	-39.09	-33.05	0.00	-1,692.56	0.00	1,692.56	4,018.47	1,031.72	4,602.78	4,085.01	21.79	-2.33	0.425
95.00	-37.18	-32.38	0.00	-1,574.12	0.00	1,574.12	3,971.06	1,012.91	4,436.43	3,962.63	23.57	-2.42	0.408
98.00	-35.61	-31.86	0.00	-1,476.99	0.00	1,476.99	3,074.73	842.93	3,686.72	3,067.88	25.12	-2.50	0.494
100.00	-35.03	-31.21	0.00	-1,413.27	0.00	1,413.27	3,057.08	834.18	3,610.56	3,018.39	26.18	-2.55	0.481
105.00	-33.60	-30.25	0.00	-1,257.24	0.00	1,257.24	3,011.64	812.29	3,423.66	2,895.03	28.92	-2.68	0.447
110.00	-32.22	-29.29	0.00	-1,106.00	0.00	1,106.00	2,964.33	790.41	3,241.72	2,772.28	31.80	-2.82	0.411
115.00	-30.86	-28.51	0.00	-959.54	0.00	959.54	2,915.15	768.53	3,064.74	2,650.30	34.82	-2.94	0.374
118.00	-29.71	-27.08	0.00	-870.32	0.00	870.32	2,884.74	755.41	2,960.94	2,577.54	36.69	-3.01	0.349
120.00	-27.45	-25.75	0.00	-816.15	0.00	816.15	2,864.09	746.65	2,892.74	2,529.23	37.97	-3.06	0.333
122.00	-26.30	-24.84	0.00	-764.65	0.00	764.65	2,843.15	737.90	2,825.33	2,481.09	39.26	-3.11	0.319
125.00	-25.55	-24.27	0.00	-690.12	0.00	690.12	2,811.17	724.77	2,725.70	2,409.22	41.23	-3.17	0.297
128.00	-24.73	-23.37	0.00	-617.32	0.00	617.32	2,778.51	711.65	2,627.86	2,337.78	43.25	-3.23	0.274
130.00	-24.26	-22.76	0.00	-570.59	0.00	570.59	2,756.37	702.89	2,563.63	2,290.41	44.61	-3.27	0.259
135.00	-23.09	-22.02	0.00	-456.81	0.00	456.81	2,699.70	681.01	2,406.52	2,172.95	48.09	-3.36	0.220
138.00	-18.32	-18.00	0.00	-390.74	0.00	390.74	2,664.80	667.88	2,314.65	2,103.19	50.21	-3.41	0.193
139.33	-18.04	-17.82	0.00	-366.74	0.00	366.74	2,649.07	662.05	2,274.38	2,072.36	51.17	-3.43	0.185
140.00	-17.83	-17.38	0.00	-354.87	0.00	354.87	2,641.16	659.13	2,254.39	2,056.99	51.65	-3.44	0.180
144.42	-16.37	-16.87	0.00	-278.10	0.00	278.10	1,927.04	519.68	1,751.62	1,481.39	54.86	-3.50	0.197
145.00	-16.27	-16.58	0.00	-268.26	0.00	268.26	1,922.70	517.63	1,737.88	1,472.21	55.29	-3.51	0.192
148.00	-11.47	-12.26	0.00	-218.47	0.00	218.47	1,899.96	507.13	1,668.08	1,425.08	57.50	-3.55	0.160
150.00	-11.14	-11.92	0.00	-193.96	0.00	193.96	1,884.42	500.13	1,622.34	1,393.78	58.99	-3.57	0.146
155.00	-10.34	-11.42	0.00	-134.37	0.00	134.37	1,844.28	482.63	1,510.78	1,316.02	62.76	-3.62	0.108
160.00	-4.79	-5.28	0.00	-77.27	0.00	77.27	1,802.26	465.12	1,403.19	1,239.06	66.57	-3.66	0.065

Load Case: 1.2D + 1.0W 119 mph with No Ice 23 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

165.00	-4.18	-4.86	0.00	-50.88	0.00	50.88	1,758.37	447.62	1,299.57	1,163.05	70.41	-3.68	0.046
167.00	-3.32	-4.22	0.00	-41.17	0.00	41.17	1,740.29	440.62	1,259.24	1,132.94	71.95	-3.69	0.038
170.00	-2.99	-4.03	0.00	-28.50	0.00	28.50	1,712.61	430.11	1,199.93	1,088.14	74.27	-3.70	0.028
171.00	-2.63	-2.89	0.00	-24.47	0.00	24.47	1,703.23	426.61	1,180.48	1,073.30	75.05	-3.70	0.024
175.00	-2.21	-2.56	0.00	-12.90	0.00	12.90	1,664.97	412.61	1,104.26	1,014.48	78.15	-3.71	0.014
178.50	0.00	-2.41	0.00	-3.93	0.00	3.93	1,630.52	400.36	1,039.66	963.73	80.87	-3.71	0.004

Load Case: 0.9D + 1.0W — 119 mph with No Ice (Reduced DL) — 23 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		485.7	0.0					0.0	0.0	485.7	0.0	0.0	0.0
5.00		963.9	1,508.2					0.0	329.3	963.9	1,837.5	0.0	0.0
10.00		948.8	1,481.5					0.0	329.3	948.8	1,810.8	0.0	0.0
15.00		933.8	1,454.8					0.0	329.3	933.8	1,784.1	0.0	0.0
20.00	Appurtenance(s)	918.8	1,428.1	68.5	0.0	0.0	68.0	0.0	329.3	987.3	1,825.4	0.0	0.0
25.00		903.8	1,401.3					0.0	328.6	903.8	1,730.0	0.0	0.0
30.00		899.3	1,374.6					0.0	328.6	899.3	1,703.2	0.0	0.0
35.00		913.2	1,347.9					0.0	328.6	913.2	1,676.5	0.0	0.0
40.00		932.5	1,321.1					0.0	328.6	932.5	1,649.8	0.0	0.0
45.00	Bot - Section 2	953.6	1,294.4					0.0	328.6	953.6	1,623.1	0.0	0.0
50.00		775.6	2,369.1					0.0	328.6	775.6	2,697.7	0.0	0.0
53.00	Top - Section 1	487.9	1,397.6					0.0	197.2	487.9	1,594.8	0.0	0.0
55.00		686.7	428.6					0.0	131.5	686.7	560.1	0.0	0.0
60.00		985.1	1,055.6					0.0	328.6	985.1	1,384.2	0.0	0.0
65.00		989.2	1,032.7					0.0	328.6	989.2	1,361.3	0.0	0.0
70.00		991.3	1,009.8					0.0	328.6	991.3	1,338.4	0.0	0.0
75.00		991.6	986.9					0.0	328.6	991.6	1,315.5	0.0	0.0
80.00		990.2	963.9					0.0	328.6	990.2	1,292.6	0.0	0.0
85.00		987.4	941.0					0.0	328.6	987.4	1,269.7	0.0	0.0
90.00		632.0	918.1					0.0	328.6	632.0	1,246.8	0.0	0.0
91.42	Bot - Section 3	494.8	256.0					0.0	93.1	494.8	349.1	0.0	0.0
95.00		652.2	1,179.4					0.0	235.5	652.2	1,415.0	0.0	0.0
98.00	Top - Section 2	493.2	970.8					0.0	197.2	493.2	1,168.0	0.0	0.0
100.00		685.6	292.7					0.0	131.5	685.6	424.1	0.0	0.0
105.00		974.0	718.3					0.0	328.6	974.0	1,046.9	0.0	0.0
110.00		965.4	699.2					0.0	328.6	965.4	1,027.8	0.0	0.0
115.00		766.3	680.1					0.0	328.6	766.3	1,008.7	0.0	0.0
118.00	Appurtenance(s)	475.4	398.9	922.7	0.0	3,690.8	302.7	0.0	195.4	1,398.1	896.9	0.0	0.0
120.00	Appurtenance(s)	378.2	262.1	854.1	0.0	0.0	1,350.0	0.0	124.3	1,232.3	1,736.4	0.0	0.0
122.00	Appurtenance(s)	470.0	259.1	403.4	0.0	0.0	494.1	0.0	124.3	873.4	877.4	0.0	0.0
125.00		560.5	382.9					0.0	186.4	560.5	569.2	0.0	0.0
128.00	Appurtenance(s)	455.0	376.0	425.6	0.0	0.0	72.2	0.0	186.4	880.6	634.5	0.0	0.0
130.00		610.6	246.8					0.0	114.8	610.6	361.6	0.0	0.0
135.00		692.6	603.7					0.0	287.0	692.6	890.7	0.0	0.0
138.00	Appurtenance(s)	371.3	353.1	3,375.0	0.0	-1,882.0	3,211.6	0.0	172.2	3,746.2	3,736.9	0.0	0.0
139.33	Bot - Section 4	170.9	154.7					0.0	61.6	170.9	216.3	0.0	0.0
140.00		434.0	139.2					0.0	30.8	434.0	170.0	0.0	0.0
144.42	Top - Section 3	425.8	907.0					0.0	204.1	425.8	1,111.1	0.0	0.0
145.00		300.6	52.8					0.0	27.0	300.6	79.7	0.0	0.0
148.00	Appurtenance(s)	345.6	268.2	3,676.0	0.0	66.5	3,386.5	0.0	138.6	4,021.6	3,793.4	0.0	0.0
150.00		325.5	175.8					0.0	76.4	325.5	252.1	0.0	0.0
155.00		456.5	428.7					0.0	190.9	456.5	619.6	0.0	0.0
160.00	Appurtenance(s)	444.1	413.5	5,334.3	0.0	-262.8	3,836.2	0.0	190.9	5,778.3	4,440.6	0.0	0.0
165.00	Appurtenance(s)	304.6	398.2	77.6	0.0	0.0	13.5	0.0	63.4	382.2	475.1	0.0	0.0
167.00	Appurtenance(s)	212.4	155.0	367.7	0.0	0.0	504.0	0.0	18.8	580.0	677.8	0.0	0.0
170.00		168.3	227.9					0.0	28.2	168.3	256.1	0.0	0.0
171.00	Appurtenance(s)	205.7	74.7	907.1	0.0	-2,721.2	239.5	0.0	9.4	1,112.8	323.6	0.0	0.0
175.00		303.9	292.9					0.0	35.4	303.9	328.3	0.0	0.0

Load Case: 0.9D + 1.0W 119 mph with No Ice (Reduced DL) 23 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.00

178.50	Appurtenance(s)	139.9	248.3	1,150.7	0.0	0.0	1,350.0	0.0	31.0	1,290.6	1,629.3	0.0	0.0
									Totals:	48,216.0	60,218.1	0.00	0.00

Load Case: 0.9D + 1.0W 119 mph with No Ice (Reduced DL) 23 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-60.32	-48.92	0.00	-5,452.92	0.00	5,452.92	6,201.63	1,743.94	11,271.7	9,147.40	0.00	0.00	0.607
5.00	-58.38	-48.07	0.00	-5,208.34	0.00	5,208.34	6,145.05	1,713.31	10,879.2	8,903.77	0.06	-0.12	0.595
10.00	-56.48	-47.23	0.00	-4,967.98	0.00	4,967.98	6,086.60	1,682.68	10,493.7	8,660.43	0.25	-0.24	0.584
15.00	-54.60	-46.41	0.00	-4,731.82	0.00	4,731.82	6,026.28	1,652.04	10,115.2	8,417.51	0.57	-0.36	0.572
20.00	-52.69	-45.52	0.00	-4,499.79	0.00	4,499.79	5,964.08	1,621.41	9,743.60	8,175.18	1.00	-0.48	0.560
25.00	-50.87	-44.70	0.00	-4,272.21	0.00	4,272.21	5,900.01	1,590.78	9,378.96	7,933.57	1.57	-0.60	0.548
30.00	-49.08	-43.89	0.00	-4,048.70	0.00	4,048.70	5,834.07	1,560.15	9,021.26	7,692.84	2.26	-0.72	0.535
35.00	-47.33	-43.05	0.00	-3,829.26	0.00	3,829.26	5,766.26	1,529.51	8,670.52	7,453.12	3.08	-0.84	0.523
40.00	-45.60	-42.19	0.00	-3,613.99	0.00	3,613.99	5,696.58	1,498.88	8,326.74	7,214.56	4.02	-0.96	0.510
45.00	-43.91	-41.30	0.00	-3,403.03	0.00	3,403.03	5,625.02	1,468.25	7,989.90	6,977.32	5.10	-1.08	0.496
50.00	-41.16	-40.55	0.00	-3,196.51	0.00	3,196.51	5,551.60	1,437.62	7,660.03	6,741.53	6.30	-1.21	0.482
53.00	-39.53	-40.07	0.00	-3,074.88	0.00	3,074.88	4,466.37	1,233.46	6,578.51	5,434.80	7.08	-1.28	0.576
55.00	-38.92	-39.43	0.00	-2,994.75	0.00	2,994.75	4,445.78	1,222.96	6,466.97	5,363.40	7.63	-1.33	0.568
60.00	-37.47	-38.50	0.00	-2,797.61	0.00	2,797.61	4,392.99	1,196.70	6,192.29	5,185.21	9.10	-1.47	0.549
65.00	-36.05	-37.56	0.00	-2,605.11	0.00	2,605.11	4,338.33	1,170.45	5,923.57	5,007.61	10.71	-1.60	0.530
70.00	-34.65	-36.61	0.00	-2,417.31	0.00	2,417.31	4,281.80	1,144.19	5,660.81	4,830.75	12.46	-1.74	0.510
75.00	-33.29	-35.66	0.00	-2,234.25	0.00	2,234.25	4,223.39	1,117.93	5,404.01	4,654.77	14.36	-1.87	0.489
80.00	-31.95	-34.70	0.00	-2,055.97	0.00	2,055.97	4,163.12	1,091.68	5,153.18	4,479.82	16.39	-2.00	0.468
85.00	-30.64	-33.73	0.00	-1,882.49	0.00	1,882.49	4,100.97	1,065.42	4,908.30	4,306.05	18.56	-2.13	0.446
90.00	-29.37	-33.10	0.00	-1,713.82	0.00	1,713.82	4,036.95	1,039.16	4,669.38	4,133.61	20.86	-2.26	0.423
91.42	-29.01	-32.62	0.00	-1,666.94	0.00	1,666.94	4,018.47	1,031.72	4,602.78	4,085.01	21.54	-2.30	0.416
95.00	-27.57	-31.95	0.00	-1,550.05	0.00	1,550.05	3,971.06	1,012.91	4,436.43	3,962.63	23.30	-2.39	0.399
98.00	-26.39	-31.44	0.00	-1,454.20	0.00	1,454.20	3,074.73	842.93	3,686.72	3,067.88	24.83	-2.47	0.484
100.00	-25.95	-30.78	0.00	-1,391.33	0.00	1,391.33	3,057.08	834.18	3,610.56	3,018.39	25.87	-2.51	0.471
105.00	-24.88	-29.81	0.00	-1,237.45	0.00	1,237.45	3,011.64	812.29	3,423.66	2,895.03	28.58	-2.65	0.437
110.00	-23.83	-28.85	0.00	-1,088.39	0.00	1,088.39	2,964.33	790.41	3,241.72	2,772.28	31.43	-2.78	0.402
115.00	-22.82	-28.08	0.00	-944.13	0.00	944.13	2,915.15	768.53	3,064.74	2,650.30	34.41	-2.90	0.365
118.00	-21.97	-26.66	0.00	-856.21	0.00	856.21	2,884.74	755.41	2,960.94	2,577.54	36.25	-2.97	0.341
120.00	-20.28	-25.35	0.00	-802.90	0.00	802.90	2,864.09	746.65	2,892.74	2,529.23	37.51	-3.02	0.326
122.00	-19.42	-24.45	0.00	-752.20	0.00	752.20	2,843.15	737.90	2,825.33	2,481.09	38.78	-3.07	0.311
125.00	-18.86	-23.88	0.00	-678.85	0.00	678.85	2,811.17	724.77	2,725.70	2,409.22	40.73	-3.13	0.290
128.00	-18.25	-22.98	0.00	-607.21	0.00	607.21	2,778.51	711.65	2,627.86	2,337.78	42.72	-3.19	0.267
130.00	-17.90	-22.37	0.00	-561.25	0.00	561.25	2,756.37	702.89	2,563.63	2,290.41	44.06	-3.23	0.253
135.00	-17.03	-21.65	0.00	-449.39	0.00	449.39	2,699.70	681.01	2,406.52	2,172.95	47.49	-3.32	0.214
138.00	-13.51	-17.70	0.00	-384.44	0.00	384.44	2,664.80	667.88	2,314.65	2,103.19	49.59	-3.36	0.189
139.33	-13.30	-17.52	0.00	-360.85	0.00	360.85	2,649.07	662.05	2,274.38	2,072.36	50.53	-3.38	0.180
140.00	-13.14	-17.08	0.00	-349.17	0.00	349.17	2,641.16	659.13	2,254.39	2,056.99	51.01	-3.39	0.175
144.42	-12.05	-16.60	0.00	-273.71	0.00	273.71	1,927.04	519.68	1,751.62	1,481.39	54.17	-3.45	0.192
145.00	-11.98	-16.30	0.00	-264.03	0.00	264.03	1,922.70	517.63	1,737.88	1,472.21	54.59	-3.46	0.187
148.00	-8.43	-12.06	0.00	-215.06	0.00	215.06	1,899.96	507.13	1,668.08	1,425.08	56.78	-3.50	0.156
150.00	-8.19	-11.72	0.00	-190.94	0.00	190.94	1,884.42	500.13	1,622.34	1,393.78	58.25	-3.52	0.142
155.00	-7.59	-11.24	0.00	-132.32	0.00	132.32	1,844.28	482.63	1,510.78	1,316.02	61.96	-3.57	0.105
160.00	-3.52	-5.19	0.00	-76.14	0.00	76.14	1,802.26	465.12	1,403.19	1,239.06	65.72	-3.61	0.064

Site Number: 302467 Code: ANSI/TIA-222-H

Site Name: Bilkays Express, CT Engineering Number:13251790_C3_06 7/23/2020 3:32:00 PM

Customer: T-MOBILE

Load Case: 0.9D + 1.0W 119 mph with No Ice (Reduced DL) 23 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.00

165.00	-3.07	-4.78	0.00	-50.17	0.00	50.17	1,758.37	447.62	1,299.57	1,163.05	69.51	-3.63	0.045
167.00	-2.43	-4.16	0.00	-40.61	0.00	40.61	1,740.29	440.62	1,259.24	1,132.94	71.03	-3.64	0.037
170.00	-2.18	-3.98	0.00	-28.12	0.00	28.12	1,712.61	430.11	1,199.93	1,088.14	73.32	-3.65	0.027
171.00	-1.93	-2.85	0.00	-24.14	0.00	24.14	1,703.23	426.61	1,180.48	1,073.30	74.09	-3.65	0.024
175.00	-1.62	-2.52	0.00	-12.76	0.00	12.76	1,664.97	412.61	1,104.26	1,014.48	77.15	-3.66	0.014
178.50	0.00	-2.41	0.00	-3.93	0.00	3.93	1,630.52	400.36	1,039.66	963.73	79.83	-3.66	0.004

Load Case: 1.2D + 1.0Di + 1.0Wi — 50 mph with 1.00 in Radial Ice — 22 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		86.5	0.0					0.0	0.0	86.5	0.0	0.0	0.0
5.00		171.6	2,357.2					0.0	608.7	171.6	2,965.9	0.0	0.0
10.00		169.0	2,355.4					0.0	627.0	169.0	2,982.4	0.0	0.0
15.00		166.2	2,332.8					0.0	636.5	166.2	2,969.3	0.0	0.0
20.00	Appurtenance(s)	163.3	2,303.4	16.9	0.0	0.0	127.6	0.0	643.0	180.2	3,074.0	0.0	0.0
25.00		160.4	2,270.5					0.0	643.9	160.4	2,914.4	0.0	0.0
30.00		159.4	2,235.4					0.0	648.0	159.4	2,883.4	0.0	0.0
35.00		161.6	2,198.8					0.0	651.5	161.6	2,850.3	0.0	0.0
40.00		164.7	2,161.0					0.0	654.6	164.7	2,815.6	0.0	0.0
45.00	Bot - Section 2	168.1	2,122.4					0.0	657.3	168.1	2,779.7	0.0	0.0
50.00		136.5	3,556.5					0.0	659.7	136.5	4,216.3	0.0	0.0
53.00	Top - Section 1	85.8	2,101.2					0.0	396.9	85.8	2,498.1	0.0	0.0
55.00		120.7	729.4					0.0	265.0	120.7	994.4	0.0	0.0
60.00		172.9	1,796.3					0.0	664.0	172.9	2,460.4	0.0	0.0
65.00		173.2	1,760.7					0.0	665.9	173.2	2,426.6	0.0	0.0
70.00		173.2	1,724.7					0.0	667.7	173.2	2,392.4	0.0	0.0
75.00		172.8	1,688.4					0.0	669.4	172.8	2,357.8	0.0	0.0
80.00		172.1	1,651.8					0.0	670.9	172.1	2,322.8	0.0	0.0
85.00		171.1	1,615.0					0.0	672.4	171.1	2,287.4	0.0	0.0
90.00		109.3	1,578.0					0.0	673.8	109.3	2,251.8	0.0	0.0
91.42	Bot - Section 3	85.4	441.2					0.0	191.2	85.4	632.4	0.0	0.0
95.00		112.3	1,824.6					0.0	484.0	112.3	2,308.6	0.0	0.0
98.00	Top - Section 2	84.9	1,503.1					0.0	405.7	84.9	1,908.8	0.0	0.0
100.00		117.8	528.2					0.0	270.7	117.8	799.0	0.0	0.0
105.00		167.0	1,295.2					0.0	677.7	167.0	1,972.8	0.0	0.0
110.00		165.0	1,262.5					0.0	678.8	165.0	1,941.3	0.0	0.0
115.00		130.6	1,229.7					0.0	680.0	130.6	1,909.6	0.0	0.0
118.00	Appurtenance(s)	80.8	723.1	199.6	0.0	798.4	876.1	0.0	403.2	280.4	2,002.4	0.0	0.0
120.00	Appurtenance(s)	64.1	475.8	237.9	0.0	0.0	2,129.9	0.0	250.0	302.0	2,855.7	0.0	0.0
122.00	Appurtenance(s)	79.5	470.5	89.8	0.0	0.0	1,039.8	0.0	250.2	169.3	1,760.5	0.0	0.0
125.00		94.7	695.3					0.0	375.5	94.7	1,070.8	0.0	0.0
128.00	Appurtenance(s)	78.2	683.3	98.4	0.0	0.0	241.7	0.0	375.8	176.6	1,300.8	0.0	0.0
130.00		107.9	449.3					0.0	218.0	107.9	667.3	0.0	0.0
135.00		122.2	1,097.1					0.0	545.5	122.2	1,642.6	0.0	0.0
138.00	Appurtenance(s)	65.4	643.3	809.1	0.0	-399.6	6,199.2	0.0	327.6	874.5	7,170.1	0.0	0.0
139.33	Bot - Section 4	30.1	282.5					0.0	110.2	30.1	392.6	0.0	0.0
140.00		76.2	224.1					0.0	55.1	76.2	279.2	0.0	0.0
144.42	Top - Section 3	74.7	1,457.4					0.0	365.1	74.7	1,822.5	0.0	0.0
145.00		52.7	103.1					0.0	48.2	52.7	151.3	0.0	0.0
148.00	Appurtenance(s)	73.1	522.7	851.5	0.0	20.8	6,466.5	0.0	248.2	924.7	7,237.4	0.0	0.0
150.00		100.5	343.1					0.0	110.5	100.5	453.6	0.0	0.0
155.00		141.2	835.0					0.0	276.4	141.2	1,111.4	0.0	0.0
160.00	Appurtenance(s)	137.7	806.3	1,190.0	0.0	-59.7	7,932.9	0.0	276.5	1,327.7	9,015.6	0.0	0.0
165.00	Appurtenance(s)	94.6	777.5	18.3	0.0	0.0	47.6	0.0	106.6	112.9	931.7	0.0	0.0
167.00	Appurtenance(s)	66.1	304.0	101.5	0.0	0.0	920.7	0.0	29.6	167.7	1,254.4	0.0	0.0
170.00		52.5	446.8					0.0	44.5	52.5	491.3	0.0	0.0
171.00	Appurtenance(s)	64.2	147.0	199.6	0.0	-598.7	665.6	0.0	14.8	263.8	827.4	0.0	0.0
175.00		95.1	574.2					0.0	47.2	95.1	621.4	0.0	0.0

Code: ANSI/TIA-222-H
Engineering Number:13251790_C3_06

Load Case: 1.2D + 1.0Di + 1.0Wi — 50 mph with 1.00 in Radial Ice — 22 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

Ice Dead Load Factor :1.00

Ice Importance Factor :1.00

178.50	Appurtenance(s)	43.8	487.5	304.0	0.0	0.0	2,147.0	0.0	41.3	347.9	2,675.8	0.0	0.0
									Totals:	9,833.21	107,651.	0.00	0.00

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph with 1.00 in Radial Ice 22 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-108.68	-9.97	0.00	-1,203.89	0.00	1,203.89	6,201.63	1,743.94	11,271.7	9,147.40	0.00	0.00	0.149
5.00	-105.71	-9.85	0.00	-1,154.04	0.00	1,154.04	6,145.05	1,713.31	10,879.2	8,903.77	0.01	-0.03	0.147
10.00	-102.72	-9.72	0.00	-1,104.81	0.00	1,104.81	6,086.60	1,682.68	10,493.7	8,660.43	0.06	-0.05	0.144
15.00	-99.75	-9.60	0.00	-1,056.20	0.00	1,056.20	6,026.28	1,652.04	10,115.2	8,417.51	0.13	-0.08	0.142
20.00	-96.67	-9.46	0.00	-1,008.20	0.00	1,008.20	5,964.08	1,621.41	9,743.60	8,175.18	0.22	-0.11	0.140
25.00	-93.75	-9.34	0.00	-960.91	0.00	960.91	5,900.01	1,590.78	9,378.96	7,933.57	0.35	-0.13	0.137
30.00	-90.87	-9.21	0.00	-914.22	0.00	914.22	5,834.07	1,560.15	9,021.26	7,692.84	0.50	-0.16	0.134
35.00	-88.01	-9.09	0.00	-868.15	0.00	868.15	5,766.26	1,529.51	8,670.52	7,453.12	0.69	-0.19	0.132
40.00	-85.19	-8.95	0.00	-822.71	0.00	822.71	5,696.58	1,498.88	8,326.74	7,214.56	0.90	-0.22	0.129
45.00	-82.41	-8.81	0.00	-777.95	0.00	777.95	5,625.02	1,468.25	7,989.90	6,977.32	1.14	-0.24	0.126
50.00	-78.19	-8.69	0.00	-733.88	0.00	733.88	5,551.60	1,437.62	7,660.03	6,741.53	1.41	-0.27	0.123
53.00	-75.69	-8.61	0.00	-707.81	0.00	707.81	4,466.37	1,233.46	6,578.51	5,434.80	1.58	-0.29	0.147
55.00	-74.69	-8.51	0.00	-690.59	0.00	690.59	4,445.78	1,222.96	6,466.97	5,363.40	1.71	-0.30	0.146
60.00	-72.23	-8.37	0.00	-648.02	0.00	648.02	4,392.99	1,196.70	6,192.29	5,185.21	2.04	-0.33	0.141
65.00	-69.80	-8.22	0.00	-606.19	0.00	606.19	4,338.33	1,170.45	5,923.57	5,007.61	2.40	-0.36	0.137
70.00	-67.40	-8.06	0.00	-565.11	0.00	565.11	4,281.80	1,144.19	5,660.81	4,830.75	2.80	-0.39	0.133
75.00	-65.04	-7.91	0.00	-524.79	0.00	524.79	4,223.39	1,117.93	5,404.01	4,654.77	3.23	-0.43	0.128
80.00	-62.72	-7.75	0.00	-485.24	0.00	485.24	4,163.12	1,091.68	5,153.18	4,479.82	3.69	-0.46	0.123
85.00	-60.43	-7.60	0.00	-446.47	0.00	446.47	4,100.97	1,065.42	4,908.30	4,306.05	4.19	-0.49	0.118
90.00	-58.17	-7.49	0.00	-408.48	0.00	408.48	4,036.95	1,039.16	4,669.38	4,133.61	4.72	-0.52	0.113
91.42	-57.54	-7.41	0.00	-397.88	0.00	397.88	4,018.47	1,031.72	4,602.78	4,085.01	4.87	-0.53	0.112
95.00	-55.23	-7.30	0.00	-371.32	0.00	371.32	3,971.06	1,012.91	4,436.43	3,962.63	5.28	-0.55	0.108
98.00	-53.32	-7.21	0.00	-349.43	0.00	349.43	3,074.73	842.93	3,686.72	3,067.88	5.63	-0.57	0.131
100.00	-52.52	-7.10	0.00	-335.01	0.00	335.01	3,057.08	834.18	3,610.56	3,018.39	5.87	-0.58	0.128
105.00	-50.54	-6.94	0.00	-299.50	0.00	299.50	3,011.64	812.29	3,423.66	2,895.03	6.49	-0.61	0.120
110.00	-48.60	-6.78	0.00	-264.79	0.00	264.79	2,964.33	790.41	3,241.72	2,772.28	7.15	-0.64	0.112
115.00	-46.69	-6.65	0.00	-230.88	0.00	230.88	2,915.15	768.53	3,064.74	2,650.30	7.84	-0.67	0.103
118.00	-44.69	-6.36	0.00	-210.13	0.00	210.13	2,884.74	755.41	2,960.94	2,577.54	8.27	-0.69	0.097
120.00	-41.84	-6.03	0.00	-197.42	0.00	197.42	2,864.09	746.65	2,892.74	2,529.23	8.56	-0.70	0.093
122.00	-40.08	-5.85	0.00	-185.36	0.00	185.36	2,843.15	737.90	2,825.33	2,481.09	8.86	-0.71	0.089
125.00	-39.01	-5.75	0.00	-167.82	0.00	167.82	2,811.17	724.77	2,725.70	2,409.22	9.31	-0.73	0.084
128.00	-37.71	-5.56	0.00	-150.58	0.00	150.58	2,778.51	711.65	2,627.86	2,337.78	9.77	-0.74	0.078
130.00	-37.04	-5.46	0.00	-139.45	0.00	139.45	2,756.37	702.89	2,563.63	2,290.41	10.09	-0.75	0.074
135.00	-35.40	-5.32	0.00	-112.17	0.00	112.17	2,699.70	681.01	2,406.52	2,172.95	10.89	-0.78	0.065
138.00	-28.24	-4.36	0.00	-96.19	0.00	96.19	2,664.80	667.88	2,314.65	2,103.19	11.38	-0.79	0.056
139.33	-27.85	-4.32	0.00	-90.39	0.00	90.39	2,649.07	662.05	2,274.38	2,072.36	11.60	-0.79	0.054
140.00	-27.57	-4.25	0.00	-87.51	0.00	87.51	2,641.16	659.13	2,254.39	2,056.99	11.71	-0.79	0.053
144.42	-25.75	-4.15	0.00	-68.75	0.00	68.75	1,927.04	519.68	1,751.62	1,481.39	12.45	-0.81	0.060
145.00	-25.60	-4.10	0.00	-66.33	0.00	66.33	1,922.70	517.63	1,737.88	1,472.21	12.55	-0.81	0.058
148.00	-18.37	-3.07	0.00	-54.02	0.00	54.02	1,899.96	507.13	1,668.08	1,425.08	13.07	-0.82	0.048
150.00	-17.92	-2.97	0.00	-47.88	0.00	47.88	1,884.42	500.13	1,622.34	1,393.78	13.41	-0.83	0.044
155.00	-16.81	-2.81	0.00	-33.04	0.00	33.04	1,844.28	482.63	1,510.78	1,316.02	14.28	-0.84	0.034
160.00	-7.81	-1.35	0.00	-18.97	0.00	18.97	1,802.26	465.12	1,403.19	1,239.06	15.17	-0.85	0.020

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph with 1.00 in Radial Ice 22 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

165.00	-6.88	-1.23	0.00	-12.20	0.00	12.20	1,758.37	447.62	1,299.57	1,163.05	16.06	-0.85	0.014
167.00	-5.63	-1.04	0.00	-9.74	0.00	9.74	1,740.29	440.62	1,259.24	1,132.94	16.42	-0.86	0.012
170.00	-5.14	-0.98	0.00	-6.61	0.00	6.61	1,712.61	430.11	1,199.93	1,088.14	16.96	-0.86	0.009
171.00	-4.32	-0.71	0.00	-5.63	0.00	5.63	1,703.23	426.61	1,180.48	1,073.30	17.14	-0.86	0.008
175.00	-3.70	-0.60	0.00	-2.80	0.00	2.80	1,664.97	412.61	1,104.26	1,014.48	17.86	-0.86	0.005
178.50	0.00	-0.55	0.00	-0.70	0.00	0.70	1,630.52	400.36	1,039.66	963.73	18.49	-0.86	0.001

Load Case: 1.0D + 1.0W Serviceability 60 mph 22 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.00
Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		110.5	0.0					0.0	0.0	110.5	0.0	0.0	0.0
5.00		219.2	1,675.8					0.0	365.9	219.2	2,041.7	0.0	0.0
10.00		215.8	1,646.1					0.0	365.9	215.8	2,012.0	0.0	0.0
15.00		212.4	1,616.4					0.0	365.9	212.4	1,982.3	0.0	0.0
20.00	Appurtenance(s)	209.0	1,586.7	15.6	0.0	0.0	75.6	0.0	365.9	224.6	2,028.2	0.0	0.0
25.00		205.6	1,557.0					0.0	365.2	205.6	1,922.2	0.0	0.0
30.00		204.6	1,527.3					0.0	365.2	204.6	1,892.5	0.0	0.0
35.00		207.7	1,497.6					0.0	365.2	207.7	1,862.8	0.0	0.0
40.00		212.1	1,467.9					0.0	365.2	212.1	1,833.1	0.0	0.0
45.00	Bot - Section 2	216.9	1,438.2					0.0	365.2	216.9	1,803.4	0.0	0.0
50.00		176.4	2,632.3					0.0	365.2	176.4	2,997.5	0.0	0.0
53.00	Top - Section 1	111.0	1,552.9					0.0	219.1	111.0	1,772.0	0.0	0.0
55.00		156.2	476.3					0.0	146.1	156.2	622.3	0.0	0.0
60.00		224.1	1,172.9					0.0	365.2	224.1	1,538.0	0.0	0.0
65.00		225.0	1,147.4					0.0	365.2	225.0	1,512.6	0.0	0.0
70.00		225.5	1,122.0					0.0	365.2	225.5	1,487.1	0.0	0.0
75.00		225.5	1,096.5					0.0	365.2	225.5	1,461.7	0.0	0.0
80.00		225.2	1,071.1					0.0	365.2	225.2	1,436.2	0.0	0.0
85.00		224.6	1,045.6					0.0	365.2	224.6	1,410.8	0.0	0.0
90.00		143.8	1,020.1					0.0	365.2	143.8	1,385.3	0.0	0.0
91.42	Bot - Section 3	112.6	284.4					0.0	103.5	112.6	387.9	0.0	0.0
95.00		148.3	1,310.5					0.0	261.7	148.3	1,572.2	0.0	0.0
98.00	Top - Section 2	112.2	1,078.7					0.0	219.1	112.2	1,297.8	0.0	0.0
100.00		156.0	325.2					0.0	146.1	156.0	471.2	0.0	0.0
105.00		221.5	798.1					0.0	365.2	221.5	1,163.2	0.0	0.0
110.00		219.6	776.9					0.0	365.2	219.6	1,142.0	0.0	0.0
115.00		174.3	755.7					0.0	365.2	174.3	1,120.8	0.0	0.0
118.00	Appurtenance(s)	108.1	443.2	209.9	0.0	839.5	336.3	0.0	217.1	318.0	996.6	0.0	0.0
120.00	Appurtenance(s)	86.0	291.2	194.3	0.0	0.0	1,500.0	0.0	138.1	280.3	1,929.3	0.0	0.0
122.00	Appurtenance(s)	106.9	287.8	91.8	0.0	0.0	549.0	0.0	138.1	198.7	974.9	0.0	0.0
125.00		127.5	425.4					0.0	207.1	127.5	632.5	0.0	0.0
128.00	Appurtenance(s)	103.5	417.8	96.8	0.0	0.0	80.2	0.0	207.1	200.3	705.1	0.0	0.0
130.00		138.9	274.3					0.0	127.6	138.9	401.8	0.0	0.0
135.00		157.5	670.8					0.0	318.9	157.5	989.7	0.0	0.0
138.00	Appurtenance(s)	84.4	392.3	767.7	0.0	-428.1	3,568.5	0.0	191.3	852.1	4,152.1	0.0	0.0
139.33	Bot - Section 4	38.9	171.9					0.0	68.5	38.9	240.4	0.0	0.0
140.00		98.7	154.7					0.0	34.2	98.7	188.9	0.0	0.0
144.42	Top - Section 3	96.9	1,007.8					0.0	226.8	96.9	1,234.6	0.0	0.0
145.00		68.4	58.7					0.0	29.9	68.4	88.6	0.0	0.0
148.00	Appurtenance(s)	78.6	298.0	836.1	0.0	15.1	3,762.8	0.0	154.0	914.8	4,214.9	0.0	0.0
150.00		74.0	195.3					0.0	84.8	74.0	280.1	0.0	0.0
155.00		103.8	476.4					0.0	212.1	103.8	688.5	0.0	0.0
160.00	Appurtenance(s)	101.0	459.4	1,213.3	0.0	-59.8	4,262.5	0.0	212.1	1,314.3	4,934.0	0.0	0.0
165.00	Appurtenance(s)	69.3	442.4	17.6	0.0	0.0	15.0	0.0	70.5	86.9	527.9	0.0	0.0
167.00	Appurtenance(s)	48.3	172.2	83.6	0.0	0.0	560.0	0.0	20.9	131.9	753.1	0.0	0.0
170.00		38.3	253.2					0.0	31.3	38.3	284.6	0.0	0.0
171.00	Appurtenance(s)	46.8	83.1	206.3	0.0	-619.0	266.1	0.0	10.4	253.1	359.6	0.0	0.0
175.00		69.1	325.4					0.0	39.4	69.1	364.8	0.0	0.0

Load Case: 1.0D + 1.0W Serviceability 60 mph 22 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.00
Wind Load Factor :1.00

178.50	Appurtenance(s)	31.8	275.8	261.7	0.0	0.0	1,500.0	0.0	34.4	293.6	1,810.3	0.0	0.0
									Totals:	10,967.1	66,909.0	0.00	0.00

Load Case: 1.0D + 1.0W Serviceability 60 mph 22 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.00
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-67.07	-11.13	0.00	-1,244.72	0.00	1,244.72	6,201.63	1,743.94	11,271.7	9,147.40	0.00	0.00	0.147
5.00	-65.03	-10.94	0.00	-1,189.09	0.00	1,189.09	6,145.05	1,713.31	10,879.2	8,903.77	0.01	-0.03	0.144
10.00	-63.01	-10.75	0.00	-1,134.40	0.00	1,134.40	6,086.60	1,682.68	10,493.7	8,660.43	0.06	-0.05	0.141
15.00	-61.02	-10.57	0.00	-1,080.64	0.00	1,080.64	6,026.28	1,652.04	10,115.2	8,417.51	0.13	-0.08	0.139
20.00	-58.99	-10.37	0.00	-1,027.81	0.00	1,027.81	5,964.08	1,621.41	9,743.60	8,175.18	0.23	-0.11	0.136
25.00	-57.06	-10.18	0.00	-975.99	0.00	975.99	5,900.01	1,590.78	9,378.96	7,933.57	0.36	-0.14	0.133
30.00	-55.17	-10.00	0.00	-925.07	0.00	925.07	5,834.07	1,560.15	9,021.26	7,692.84	0.52	-0.16	0.130
35.00	-53.30	-9.81	0.00	-875.06	0.00	875.06	5,766.26	1,529.51	8,670.52	7,453.12	0.70	-0.19	0.127
40.00	-51.46	-9.62	0.00	-826.00	0.00	826.00	5,696.58	1,498.88	8,326.74	7,214.56	0.92	-0.22	0.124
45.00	-49.66	-9.42	0.00	-777.90	0.00	777.90	5,625.02	1,468.25	7,989.90	6,977.32	1.16	-0.25	0.120
50.00	-46.66	-9.25	0.00	-730.80	0.00	730.80	5,551.60	1,437.62	7,660.03	6,741.53	1.44	-0.28	0.117
53.00	-44.88	-9.14	0.00	-703.06	0.00	703.06	4,466.37	1,233.46	6,578.51	5,434.80	1.62	-0.29	0.139
55.00	-44.26	-9.00	0.00	-684.78	0.00	684.78	4,445.78	1,222.96	6,466.97	5,363.40	1.74	-0.30	0.138
60.00	-42.72	-8.79	0.00	-639.80	0.00	639.80	4,392.99	1,196.70	6,192.29	5,185.21	2.08	-0.34	0.133
65.00	-41.20	-8.57	0.00	-595.87	0.00	595.87	4,338.33	1,170.45	5,923.57	5,007.61	2.45	-0.37	0.129
70.00	-39.71	-8.36	0.00	-552.99	0.00	552.99	4,281.80	1,144.19	5,660.81	4,830.75	2.85	-0.40	0.124
75.00	-38.25	-8.15	0.00	-511.19	0.00	511.19	4,223.39	1,117.93	5,404.01	4,654.77	3.28	-0.43	0.119
80.00	-36.81	-7.93	0.00	-470.46	0.00	470.46	4,163.12	1,091.68	5,153.18	4,479.82	3.74	-0.46	0.114
85.00	-35.39	-7.71	0.00	-430.83	0.00	430.83	4,100.97	1,065.42	4,908.30	4,306.05	4.24	-0.49	0.109
90.00	-34.01	-7.57	0.00	-392.28	0.00	392.28	4,036.95	1,039.16	4,669.38	4,133.61	4.77	-0.52	0.103
91.42	-33.62	-7.46	0.00	-381.56	0.00	381.56	4,018.47	1,031.72	4,602.78	4,085.01	4.92	-0.53	0.102
95.00	-32.05	-7.31	0.00	-354.83	0.00	354.83	3,971.06	1,012.91	4,436.43	3,962.63	5.33	-0.55	0.098
98.00	-30.75	-7.19	0.00	-332.92	0.00	332.92	3,074.73	842.93	3,686.72	3,067.88	5.67	-0.56	0.119
100.00	-30.28	-7.04	0.00	-318.54	0.00	318.54	3,057.08	834.18	3,610.56	3,018.39	5.91	-0.57	0.116
105.00	-29.11	-6.82	0.00	-283.35	0.00	283.35	3,011.64	812.29	3,423.66	2,895.03	6.53	-0.61	0.108
110.00	-27.97	-6.60	0.00	-249.24	0.00	249.24	2,964.33	790.41	3,241.72	2,772.28	7.18	-0.64	0.099
115.00	-26.85	-6.43	0.00	-216.23	0.00	216.23	2,915.15	768.53	3,064.74	2,650.30	7.86	-0.66	0.091
118.00	-25.85	-6.10	0.00	-196.11	0.00	196.11	2,884.74	755.41	2,960.94	2,577.54	8.29	-0.68	0.085
120.00	-23.93	-5.80	0.00	-183.91	0.00	183.91	2,864.09	746.65	2,892.74	2,529.23	8.57	-0.69	0.081
122.00	-22.95	-5.60	0.00	-172.30	0.00	172.30	2,843.15	737.90	2,825.33	2,481.09	8.87	-0.70	0.078
125.00	-22.32	-5.47	0.00	-155.50	0.00	155.50	2,811.17	724.77	2,725.70	2,409.22	9.31	-0.72	0.073
128.00	-21.62	-5.26	0.00	-139.10	0.00	139.10	2,778.51	711.65	2,627.86	2,337.78	9.77	-0.73	0.067
130.00	-21.21	-5.13	0.00	-128.57	0.00	128.57	2,756.37	702.89	2,563.63	2,290.41	10.07	-0.74	0.064
135.00	-20.23	-4.96	0.00	-102.95	0.00	102.95	2,699.70	681.01	2,406.52	2,172.95	10.86	-0.76	0.055
138.00	-16.08	-4.05	0.00	-88.07	0.00	88.07	2,664.80	667.88	2,314.65	2,103.19	11.34	-0.77	0.048
139.33	-15.84	-4.01	0.00	-82.66	0.00	82.66	2,649.07	662.05	2,274.38	2,072.36	11.56	-0.77	0.046
140.00	-15.66	-3.91	0.00	-79.98	0.00	79.98	2,641.16	659.13	2,254.39	2,056.99	11.66	-0.78	0.045
144.42	-14.42	-3.80	0.00	-62.70	0.00	62.70	1,927.04	519.68	1,751.62	1,481.39	12.39	-0.79	0.050
145.00	-14.34	-3.73	0.00	-60.48	0.00	60.48	1,922.70	517.63	1,737.88	1,472.21	12.48	-0.79	0.049
148.00	-10.13	-2.76	0.00	-49.26	0.00	49.26	1,899.96	507.13	1,668.08	1,425.08	12.98	-0.80	0.040
150.00	-9.85	-2.69	0.00	-43.73	0.00	43.73	1,884.42	500.13	1,622.34	1,393.78	13.32	-0.81	0.037
155.00	-9.17	-2.57	0.00	-30.30	0.00	30.30	1,844.28	482.63	1,510.78	1,316.02	14.17	-0.82	0.028
160.00	-4.25	-1.19	0.00	-17.43	0.00	17.43	1,802.26	465.12	1,403.19	1,239.06	15.03	-0.83	0.016

Load Case: 1.0D + 1.0W Serviceability 60 mph 22 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.00
Wind Load Factor :1.00

165.00	-3.72	-1.10	0.00	-11.48	0.00	11.48	1,758.37	447.62	1,299.57	1,163.05	15.90	-0.83	0.012
167.00	-2.97	-0.95	0.00	-9.29	0.00	9.29	1,740.29	440.62	1,259.24	1,132.94	16.25	-0.83	0.010
170.00	-2.69	-0.91	0.00	-6.44	0.00	6.44	1,712.61	430.11	1,199.93	1,088.14	16.77	-0.83	0.007
171.00	-2.33	-0.65	0.00	-5.53	0.00	5.53	1,703.23	426.61	1,180.48	1,073.30	16.95	-0.83	0.007
175.00	-1.97	-0.58	0.00	-2.92	0.00	2.92	1,664.97	412.61	1,104.26	1,014.48	17.65	-0.84	0.004
178.50	0.00	-0.55	0.00	-0.89	0.00	0.89	1,630.52	400.36	1,039.66	963.73	18.26	-0.84	0.001

Equivalent Lateral Forces Method Analysis

Spectral Response Acceleration for Short Period (S_s):	0.20
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.05
Long-Period Transition Period (T_L):	6
Importance Factor (I_E):	1.00
Site Coefficient F_a:	1.60
Site Coeffiecient F_v:	2.40
Response Modification Coefficient (R):	1.50
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):	0.03
Upper Limit C_s	0.03
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	2.29
Redundancy Factor (p):	1.00
Seismic Force Distribution Exponent (k):	1.89
Total Unfactored Dead Load:	67.08 k
Seismic Base Shear (E):	2.01 k

Load Case 1.2D + 1.0Ev + 1.0Eh Seismic

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
48	176.75	310	5,609	0.013	26	386
47	173.00	365	6,332	0.014	29	454
46	170.50	93	1,579	0.004	7	116
45	168.50	285	4,698	0.011	22	354
44	166.00	193	3,099	0.007	14	240
43	162.50	513	7,906	0.018	36	638
42	157.50	671	9,756	0.022	45	835
41	152.50	688	9,410	0.021	43	856
40	149.00	280	3,664	0.008	17	348
39	146.50	452	5,726	0.013	26	562
38	144.71	89	1,097	0.002	5	110
37	142.21	1,235	14,782	0.034	68	1,535
36	139.67	189	2,186	0.005	10	235
35	138.67	240	2,744	0.006	13	299
34	136.50	584	6,467	0.015	30	726
33	132.50	990	10,365	0.024	48	1,231
32	129.00	402	4,000	0.009	18	500
31	126.50	625	5,994	0.014	27	777
30	123.50	632	5,797	0.013	27	787
29	121.00	426	3,755	0.009	17	530
28	119.00	429	3,668	0.008	17	534
27	116.50	660	5,419	0.012	25	821
26	112.50	1,121	8,609	0.020	39	1,394
25	107.50	1,142	8,048	0.018	37	1,420
24	102.50	1,163	7,491	0.017	34	1,447

23	99.00	471	2,841	0.006	13	586
22	96.50	1,298	7,455	0.017	34	1,614
21	93.21	1,572	8,456	0.019	39	1,955
20	90.71	388	1,982	0.005	9	482
19	87.50	1,385	6,610	0.015	30	1,723
18	82.50	1,411	6,022	0.014	28	1,755
17	77.50	1,436	5,446	0.012	25	1,786
16	72.50	1,462	4,885	0.011	22	1,818
15	67.50	1,487	4,341	0.010	20	1,850
14	62.50	1,513	3,816	0.009	17	1,881
13	57.50	1,538	3,313	0.008	15	1,913
12	54.00	622	1,190	0.003	5	774
11	51.50	1,772	3,098	0.007	14	2,204
10	47.50	2,997	4,496	0.010	21	3,728
9	42.50	1,803	2,191	0.005	10	2,243
8	37.50	1,833	1,757	0.004	8	2,280
7	32.50	1,863	1,362	0.003	6	2,317
6	27.50	1,892	1,008	0.002	5	2,354
5	22.50	1,922	700	0.002	3	2,391
4	17.50	1,953	442	0.001	2	2,429
3	12.50	1,982	237	0.001	1	2,465
2	7.50	2,012	91	0.000	0	2,502
1	2.50	2,042	12	0.000	0	2,539
Decibel DB844H90E-XY	178.50	168	3,094	0.007	14	209
Flat Low Profile Pla	178.50	1,500	27,625	0.063	127	1,866
DragonWave Horizon C	171.00	21	360	0.001	2	26
NextNet BTS-2500	171.00	105	1,783	0.004	8	131
Argus LLPX310R	171.00	86	1,457	0.003	7	107
DragonWave A-ANT-11G	171.00	27	458	0.001	2	34
DragonWave A-ANT-18G	171.00	27	460	0.001	2	34
Side Arms	167.00	560	9,091	0.021	42	696
Generic 18" x 12" Ju	165.00	15	238	0.001	1	19
Powerwave Allgon 702	160.00	13	198	0.000	1	16
Kaelus DBCT108F1V92-	160.00	125	1,873	0.004	9	156
Powerwave Allgon LGP	160.00	85	1,266	0.003	6	105
Raycap DC6-48-60-18-	160.00	40	599	0.001	3	50
Ericsson RRUS 4426 B	160.00	145	2,174	0.005	10	181
Ericsson RRUS 4478 B	160.00	178	2,668	0.006	12	222
Ericsson RRUS 4478 B	160.00	168	2,519	0.006	12	209
Ericsson RRUS 32 B2	160.00	159	2,380	0.005	11	198
Ericsson RRUS 11 (Ba	160.00	152	2,277	0.005	10	189
Ericsson RRUS-32 (77	160.00	231	3,458	0.008	16	287
Raycap DC6-48-60-18-	160.00	16	240	0.001	1	20
Powerwave Allgon 777	160.00	105	1,572	0.004	7	131
Quintel QS66512-2	160.00	333	4,985	0.011	23	414
CCI OPA-65R-LCUU-H6	160.00	219	3,278	0.007	15	272
Kathrein Scala 80010	160.00	293	4,383	0.010	20	364
Flat Platform w/ Han	160.00	2,000	29,938	0.068	137	2,487
Ericsson KRY 112 144	148.00	33	426	0.001	2	41
Ericsson Radio 4449	148.00	225	2,906	0.007	13	280
Ericsson RRUS 4415 B	148.00	138	1,782	0.004	8	172
Ericsson Air6449 B41	148.00	312	4,029	0.009	18	388
Ericsson AIR 21, 1.3	148.00	275	3,545	0.008	16	341
Ericsson AIR32 B66Aa	148.00	397	5,122	0.012	23	493
RFS APXVAARR24_43-U-	148.00	384	4,955	0.011	23	477
Round Platform w/ Ha	148.00	2,000	25,828	0.059	118	2,487
Commscope CBC78T-DS-	138.00	62	702	0.002	3	77
Samsung Outdoor CBRS	138.00	56	631	0.001	3	69
Samsung Outdoor CBRS	138.00	13	149	0.000	1	16
Samsung B5/B13 RRH-B	138.00	422	4,771	0.011	22	525
Samsung B2/B66A RRH-	138.00	506	5,728	0.013	26	630
RFS DB-T1-6Z-8AB-0Z	138.00	88	995	0.002	5	109
Amphenol Antel BXA-8	138.00	58	652	0.001	3	72
Commscope JAHH-65B-R	138.00	364	4,113	0.009	19	452

Round Platform w/ Ha	138.00	2,000	22,622	0.052	104	2,487
Nortel NTGB01MA	128.00	1	10	0.000	0	1
RFS APXV18-206517S-C	128.00	79	777	0.002	4	99
Alcatel-Lucent 800 M	122.00	159	1,424	0.003	7	198
Alcatel-Lucent 1900	122.00	180	1,612	0.004	7	224
Alcatel-Lucent TD-RR	122.00	210	1,881	0.004	9	261
Round Low Profile Pl	120.00	1,500	13,020	0.030	60	1,866
RFS APXV9TM14-ALU-I2	118.00	165	1,390	0.003	6	206
RFS APXVSPP18-C-A20	118.00	171	1,438	0.003	7	213
PCTEL GPS-TMG-HR-26N	20.00	1	0	0.000	0	1
Standoff	20.00	75	22	0.000	0	93
		67,077	438,857	1.000	2,012	83,426

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

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
48	176.75	310	5,609	0.013	26	266
47	173.00	365	6,332	0.014	29	312
46	170.50	93	1,579	0.004	7	80
45	168.50	285	4,698	0.011	22	244
44	166.00	193	3,099	0.007	14	165
43	162.50	513	7,906	0.018	36	439
42	157.50	671	9,756	0.022	45	575
41	152.50	688	9,410	0.021	43	590
40	149.00	280	3,664	0.008	17	240
39	146.50	452	5,726	0.013	26	387
38	144.71	89	1,097	0.002	5	76
37	142.21	1,235	14,782	0.034	68	1,057
36	139.67	189	2,186	0.005	10	162
35	138.67	240	2,744	0.006	13	206
34	136.50	584	6,467	0.015	30	500
33	132.50	990	10,365	0.024	48	847
32	129.00	402	4,000	0.009	18	344
31	126.50	625	5,994	0.014	27	535
30	123.50	632	5,797	0.013	27	542
29	121.00	426	3,755	0.009	17	365
28	119.00	429	3,668	0.008	17	368
27	116.50	660	5,419	0.012	25	565
26	112.50	1,121	8,609	0.020	39	960
25	107.50	1,142	8,048	0.018	37	978
24	102.50	1,163	7,491	0.017	34	996
23	99.00	471	2,841	0.006	13	404
22	96.50	1,298	7,455	0.017	34	1,111
21	93.21	1,572	8,456	0.019	39	1,346
20	90.71	388	1,982	0.005	9	332
19	87.50	1,385	6,610	0.015	30	1,186
18	82.50	1,411	6,022	0.014	28	1,208
17	77.50	1,436	5,446	0.012	25	1,230
16	72.50	1,462	4,885	0.011	22	1,252
15	67.50	1,487	4,341	0.010	20	1,273
14	62.50	1,513	3,816	0.009	17	1,295
13	57.50	1,538	3,313	0.008	15	1,317
12	54.00	622	1,190	0.003	5	533
11	51.50	1,772	3,098	0.007	14	1,517
10	47.50	2,997	4,496	0.010	21	2,567
9	42.50	1,803	2,191	0.005	10	1,544
8	37.50	1,833	1,757	0.004	8	1,570
7	32.50	1,863	1,362	0.003	6	1,595
6	27.50	1,892	1,008	0.002	5	1,620
5	22.50	1,922	700	0.002	3	1,646

4	17.50	1,953	442	0.001	2	1,672
3	12.50	1,982	237	0.001	1	1,697
2	7.50	2,012	91	0.000	0	1,723
1	2.50	2,042	12	0.000	0	1,748
Decibel DB844H90E-XY	178.50	168	3,094	0.007	14	144
Flat Low Profile Pla	178.50	1,500	27,625	0.063	127	1,284
DragonWave Horizon C	171.00	21	360	0.001	2	18
NextNet BTS-2500	171.00	105	1,783	0.004	8	90
Argus LLPX310R	171.00	86	1,457	0.003	7	73
DragonWave A-ANT-11G	171.00	27	458	0.001	2	23
DragonWave A-ANT-18G	171.00	27	460	0.001	2	23
Side Arms	167.00	560	9,091	0.021	42	480
Generic 18" x 12" Ju	165.00	15	238	0.001	1	13
Powerwave Allgon 702	160.00	13	198	0.000	1	11
Kaelus DBCT108F1V92-	160.00	125	1,873	0.004	9	107
Powerwave Allgon LGP	160.00	85	1,266	0.003	6	72
Raycap DC6-48-60-18-	160.00	40	599	0.001	3	34
Ericsson RRUS 4426 B	160.00	145	2,174	0.005	10	124
Ericsson RRUS 4478 B	160.00	178	2,668	0.006	12	153
Ericsson RRUS 4478 B	160.00	168	2,519	0.006	12	144
Ericsson RRUS 32 B2	160.00	159	2,380	0.005	11	136
Ericsson RRUS 11 (Ba	160.00	152	2,277	0.005	10	130
Ericsson RRUS-32 (77	160.00	231	3,458	0.008	16	198
Raycap DC6-48-60-18-	160.00	16	240	0.001	1	14
Powerwave Allgon 777	160.00	105	1,572	0.004	7	90
Quintel QS66512-2	160.00	333	4,985	0.011	23	285
CCI OPA-65R-LCUU-H6	160.00	219	3,278	0.007	15	188
Kathrein Scala 80010	160.00	293	4,383	0.010	20	251
Flat Platform w/ Han	160.00	2,000	29,938	0.068	137	1,713
Ericsson KRY 112 144	148.00	33	426	0.001	2	28
Ericsson Radio 4449	148.00	225	2,906	0.007	13	193
Ericsson RRUS 4415 B	148.00	138	1,782	0.004	8	118
Ericsson Air6449 B41	148.00	312	4,029	0.009	18	267
Ericsson AIR 21, 1.3	148.00	275	3,545	0.008	16	235
Ericsson AIR32 B66Aa	148.00	397	5,122	0.012	23	340
RFS APXVAARR24_43-U-	148.00	384	4,955	0.011	23	329
Round Platform w/ Ha	148.00	2,000	25,828	0.059	118	1,713
Commscope CBC78T-DS-	138.00	62	702	0.002	3	53
Samsung Outdoor CBRS	138.00	56	631	0.001	3	48
Samsung Outdoor CBRS	138.00	13	149	0.000	1	11
Samsung B5/B13 RRH-B	138.00	422	4,771	0.011	22	361
Samsung B2/B66A RRH-	138.00	506	5,728	0.013	26	434
RFS DB-T1-6Z-8AB-0Z	138.00	88	995	0.002	5	75
Amphenol Antel BXA-8	138.00	58	652	0.001	3	49
Commscope JAHH-65B-R	138.00	364	4,113	0.009	19	311
Round Platform w/ Ha	138.00	2,000	22,622	0.052	104	1,713
Nortel NTGB01MA	128.00	1	10	0.000	0	1
RFS APXV18-206517S-C	128.00	79	777	0.002	4	68
Alcatel-Lucent 800 M	122.00	159	1,424	0.003	7	136
Alcatel-Lucent 1900	122.00	180	1,612	0.004	7	154
Alcatel-Lucent TD-RR	122.00	210	1,881	0.004	9	180
Round Low Profile Pl	120.00	1,500	13,020	0.030	60	1,284
RFS APXV9TM14-ALU-I2	118.00	165	1,390	0.003	6	142
RFS APXVSPP18-C-A20	118.00	171	1,438	0.003	7	146
PCTEL GPS-TMG-HR-26N	20.00	1	0	0.000	0	1
Standoff	20.00	75	22	0.000	0	64
		67,077	438,857	1.000	2,012	57,436

Load Case 1.2D + 1.0Ev + 1.0Eh Seismic

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-80.89	-2.02	0.00	-280.12	0.00	280.12	6,201.63	1,743.94	11,271.7	9,147.40	0.00	0.00	0.044
5.00	-78.38	-2.02	0.00	-270.04	0.00	270.04	6,145.05	1,713.31	10,879.2	8,903.77	0.00	-0.01	0.043
10.00	-75.92	-2.03	0.00	-259.93	0.00	259.93	6,086.60	1,682.68	10,493.7	8,660.43	0.01	-0.01	0.042
15.00	-73.49	-2.04	0.00	-249.77	0.00	249.77	6,026.28	1,652.04	10,115.2	8,417.51	0.03	-0.02	0.042
20.00	-71.00	-2.04	0.00	-239.60	0.00	239.60	5,964.08	1,621.41	9,743.60	8,175.18	0.05	-0.02	0.041
25.00	-68.65	-2.04	0.00	-229.40	0.00	229.40	5,900.01	1,590.78	9,378.96	7,933.57	0.08	-0.03	0.041
30.00	-66.33	-2.04	0.00	-219.19	0.00	219.19	5,834.07	1,560.15	9,021.26	7,692.84	0.12	-0.04	0.040
35.00	-64.05	-2.04	0.00	-208.98	0.00	208.98	5,766.26	1,529.51	8,670.52	7,453.12	0.16	-0.04	0.039
40.00	-61.81	-2.03	0.00	-198.79	0.00	198.79	5,696.58	1,498.88	8,326.74	7,214.56	0.21	-0.05	0.038
45.00	-58.08	-2.02	0.00	-188.61	0.00	188.61	5,625.02	1,468.25	7,989.90	6,977.32	0.27	-0.06	0.037
50.00	-55.88	-2.01	0.00	-178.53	0.00	178.53	5,551.60	1,437.62	7,660.03	6,741.53	0.33	-0.06	0.037
53.00	-55.10	-2.00	0.00	-172.51	0.00	172.51	4,466.37	1,233.46	6,578.51	5,434.80	0.38	-0.07	0.044
55.00	-53.19	-1.99	0.00	-168.50	0.00	168.50	4,445.78	1,222.96	6,466.97	5,363.40	0.40	-0.07	0.043
60.00	-51.31	-1.98	0.00	-158.55	0.00	158.55	4,392.99	1,196.70	6,192.29	5,185.21	0.48	-0.08	0.042
65.00	-49.46	-1.96	0.00	-148.66	0.00	148.66	4,338.33	1,170.45	5,923.57	5,007.61	0.57	-0.09	0.041
70.00	-47.64	-1.94	0.00	-138.86	0.00	138.86	4,281.80	1,144.19	5,660.81	4,830.75	0.67	-0.09	0.040
75.00	-45.85	-1.92	0.00	-129.14	0.00	129.14	4,223.39	1,117.93	5,404.01	4,654.77	0.77	-0.10	0.039
80.00	-44.10	-1.90	0.00	-119.54	0.00	119.54	4,163.12	1,091.68	5,153.18	4,479.82	0.88	-0.11	0.037
85.00	-42.38	-1.87	0.00	-110.06	0.00	110.06	4,100.97	1,065.42	4,908.30	4,306.05	1.00	-0.12	0.036
90.00	-41.89	-1.86	0.00	-100.72	0.00	100.72	4,036.95	1,039.16	4,669.38	4,133.61	1.13	-0.13	0.035
91.42	-39.94	-1.82	0.00	-98.09	0.00	98.09	4,018.47	1,031.72	4,602.78	4,085.01	1.17	-0.13	0.034
95.00	-38.32	-1.79	0.00	-91.56	0.00	91.56	3,971.06	1,012.91	4,436.43	3,962.63	1.26	-0.13	0.033
98.00	-37.74	-1.77	0.00	-86.21	0.00	86.21	3,074.73	842.93	3,686.72	3,067.88	1.35	-0.14	0.040
100.00	-36.29	-1.74	0.00	-82.66	0.00	82.66	3,057.08	834.18	3,610.56	3,018.39	1.41	-0.14	0.039
105.00	-34.87	-1.70	0.00	-73.96	0.00	73.96	3,011.64	812.29	3,423.66	2,895.03	1.56	-0.15	0.037
110.00	-33.48	-1.67	0.00	-65.44	0.00	65.44	2,964.33	790.41	3,241.72	2,772.28	1.72	-0.16	0.035
115.00	-32.66	-1.64	0.00	-57.11	0.00	57.11	2,915.15	768.53	3,064.74	2,650.30	1.89	-0.16	0.033
118.00	-31.70	-1.61	0.00	-52.19	0.00	52.19	2,884.74	755.41	2,960.94	2,577.54	1.99	-0.17	0.031
120.00	-29.31	-1.53	0.00	-48.97	0.00	48.97	2,864.09	746.65	2,892.74	2,529.23	2.06	-0.17	0.030
122.00	-27.84	-1.48	0.00	-45.91	0.00	45.91	2,843.15	737.90	2,825.33	2,481.09	2.13	-0.17	0.028
125.00	-27.06	-1.45	0.00	-41.48	0.00	41.48	2,811.17	724.77	2,725.70	2,409.22	2.24	-0.18	0.027
128.00	-26.46	-1.43	0.00	-37.14	0.00	37.14	2,778.51	711.65	2,627.86	2,337.78	2.36	-0.18	0.025
130.00	-25.23	-1.38	0.00	-34.28	0.00	34.28	2,756.37	702.89	2,563.63	2,290.41	2.43	-0.18	0.024
135.00	-24.51	-1.35	0.00	-27.40	0.00	27.40	2,699.70	681.01	2,406.52	2,172.95	2.63	-0.19	0.022
138.00	-19.77	-1.13	0.00	-23.36	0.00	23.36	2,664.80	667.88	2,314.65	2,103.19	2.75	-0.19	0.019
139.33	-19.53	-1.12	0.00	-21.85	0.00	21.85	2,649.07	662.05	2,274.38	2,072.36	2.80	-0.19	0.018
140.00	-18.00	-1.05	0.00	-21.10	0.00	21.10	2,641.16	659.13	2,254.39	2,056.99	2.83	-0.19	0.017
144.42	-17.89	-1.05	0.00	-16.46	0.00	16.46	1,927.04	519.68	1,751.62	1,481.39	3.01	-0.20	0.020
145.00	-17.33	-1.02	0.00	-15.85	0.00	15.85	1,922.70	517.63	1,737.88	1,472.21	3.03	-0.20	0.020
148.00	-12.30	-0.76	0.00	-12.80	0.00	12.80	1,899.96	507.13	1,668.08	1,425.08	3.16	-0.20	0.015
150.00	-11.44	-0.72	0.00	-11.28	0.00	11.28	1,884.42	500.13	1,622.34	1,393.78	3.24	-0.20	0.014
155.00	-10.61	-0.67	0.00	-7.70	0.00	7.70	1,844.28	482.63	1,510.78	1,316.02	3.45	-0.20	0.012
160.00	-4.67	-0.32	0.00	-4.35	0.00	4.35	1,802.26	465.12	1,403.19	1,239.06	3.67	-0.21	0.006
165.00	-4.41	-0.30	0.00	-2.76	0.00	2.76	1,758.37	447.62	1,299.57	1,163.05	3.89	-0.21	0.005
167.00	-3.36	-0.24	0.00	-2.16	0.00	2.16	1,740.29	440.62	1,259.24	1,132.94	3.97	-0.21	0.004
170.00	-3.24	-0.23	0.00	-1.45	0.00	1.45	1,712.61	430.11	1,199.93	1,088.14	4.10	-0.21	0.003
171.00	-2.46	-0.18	0.00	-1.22	0.00	1.22	1,703.23	426.61	1,180.48	1,073.30	4.15	-0.21	0.003

175.00	-2.07	-0.15	0.00	-0.52	0.00	0.52	1,664.97	412.61	1,104.26	1,014.48	4.32	-0.21	0.002
178.50	0.00	-0.14	0.00	0.00	0.00	0.00	1,630.52	400.36	1,039.66	963.73	4.48	-0.21	0.000

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

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-55.69	-2.01	0.00	-276.72	0.00	276.72	6,201.63	1,743.94	11,271.7	9,147.40	0.00	0.00	0.039
5.00	-53.96	-2.02	0.00	-266.65	0.00	266.65	6,145.05	1,713.31	10,879.2	8,903.77	0.00	-0.01	0.039
10.00	-52.27	-2.02	0.00	-256.55	0.00	256.55	6,086.60	1,682.68	10,493.7	8,660.43	0.01	-0.01	0.038
15.00	-50.59	-2.03	0.00	-246.43	0.00	246.43	6,026.28	1,652.04	10,115.2	8,417.51	0.03	-0.02	0.038
20.00	-48.88	-2.03	0.00	-236.29	0.00	236.29	5,964.08	1,621.41	9,743.60	8,175.18	0.05	-0.02	0.037
25.00	-47.26	-2.03	0.00	-226.15	0.00	226.15	5,900.01	1,590.78	9,378.96	7,933.57	0.08	-0.03	0.037
30.00	-45.67	-2.03	0.00	-216.01	0.00	216.01	5,834.07	1,560.15	9,021.26	7,692.84	0.12	-0.04	0.036
35.00	-44.10	-2.02	0.00	-205.88	0.00	205.88	5,766.26	1,529.51	8,670.52	7,453.12	0.16	-0.04	0.035
40.00	-42.55	-2.02	0.00	-195.77	0.00	195.77	5,696.58	1,498.88	8,326.74	7,214.56	0.21	-0.05	0.035
45.00	-39.99	-2.00	0.00	-185.69	0.00	185.69	5,625.02	1,468.25	7,989.90	6,977.32	0.27	-0.06	0.034
50.00	-38.47	-1.99	0.00	-175.70	0.00	175.70	5,551.60	1,437.62	7,660.03	6,741.53	0.33	-0.06	0.033
53.00	-37.94	-1.98	0.00	-169.75	0.00	169.75	4,466.37	1,233.46	6,578.51	5,434.80	0.37	-0.07	0.040
55.00	-36.62	-1.97	0.00	-165.78	0.00	165.78	4,445.78	1,222.96	6,466.97	5,363.40	0.40	-0.07	0.039
60.00	-35.32	-1.95	0.00	-155.94	0.00	155.94	4,392.99	1,196.70	6,192.29	5,185.21	0.48	-0.08	0.038
65.00	-34.05	-1.94	0.00	-146.18	0.00	146.18	4,338.33	1,170.45	5,923.57	5,007.61	0.56	-0.09	0.037
70.00	-32.80	-1.92	0.00	-136.50	0.00	136.50	4,281.80	1,144.19	5,660.81	4,830.75	0.66	-0.09	0.036
75.00	-31.57	-1.89	0.00	-126.92	0.00	126.92	4,223.39	1,117.93	5,404.01	4,654.77	0.76	-0.10	0.035
80.00	-30.36	-1.87	0.00	-117.45	0.00	117.45	4,163.12	1,091.68	5,153.18	4,479.82	0.87	-0.11	0.034
85.00	-29.17	-1.84	0.00	-108.11	0.00	108.11	4,100.97	1,065.42	4,908.30	4,306.05	0.99	-0.12	0.032
90.00	-28.84	-1.83	0.00	-98.92	0.00	98.92	4,036.95	1,039.16	4,669.38	4,133.61	1.11	-0.12	0.031
91.42	-27.50	-1.79	0.00	-96.32	0.00	96.32	4,018.47	1,031.72	4,602.78	4,085.01	1.15	-0.13	0.030
95.00	-26.38	-1.76	0.00	-89.91	0.00	89.91	3,971.06	1,012.91	4,436.43	3,962.63	1.25	-0.13	0.029
98.00	-25.98	-1.74	0.00	-84.64	0.00	84.64	3,074.73	842.93	3,686.72	3,067.88	1.33	-0.14	0.036
100.00	-24.98	-1.71	0.00	-81.15	0.00	81.15	3,057.08	834.18	3,610.56	3,018.39	1.39	-0.14	0.035
105.00	-24.01	-1.67	0.00	-72.60	0.00	72.60	3,011.64	812.29	3,423.66	2,895.03	1.54	-0.15	0.033
110.00	-23.05	-1.64	0.00	-64.22	0.00	64.22	2,964.33	790.41	3,241.72	2,772.28	1.69	-0.15	0.031
115.00	-22.48	-1.61	0.00	-56.05	0.00	56.05	2,915.15	768.53	3,064.74	2,650.30	1.86	-0.16	0.029
118.00	-21.83	-1.58	0.00	-51.22	0.00	51.22	2,884.74	755.41	2,960.94	2,577.54	1.96	-0.17	0.027
120.00	-20.18	-1.50	0.00	-48.05	0.00	48.05	2,864.09	746.65	2,892.74	2,529.23	2.03	-0.17	0.026
122.00	-19.16	-1.45	0.00	-45.05	0.00	45.05	2,843.15	737.90	2,825.33	2,481.09	2.10	-0.17	0.025
125.00	-18.63	-1.42	0.00	-40.71	0.00	40.71	2,811.17	724.77	2,725.70	2,409.22	2.21	-0.17	0.024
128.00	-18.22	-1.40	0.00	-36.44	0.00	36.44	2,778.51	711.65	2,627.86	2,337.78	2.32	-0.18	0.022
130.00	-17.37	-1.35	0.00	-33.65	0.00	33.65	2,756.37	702.89	2,563.63	2,290.41	2.40	-0.18	0.021
135.00	-16.87	-1.32	0.00	-26.90	0.00	26.90	2,699.70	681.01	2,406.52	2,172.95	2.59	-0.19	0.019
138.00	-13.61	-1.11	0.00	-22.94	0.00	22.94	2,664.80	667.88	2,314.65	2,103.19	2.71	-0.19	0.016
139.33	-13.45	-1.10	0.00	-21.45	0.00	21.45	2,649.07	662.05	2,274.38	2,072.36	2.76	-0.19	0.015
140.00	-12.39	-1.03	0.00	-20.72	0.00	20.72	2,641.16	659.13	2,254.39	2,056.99	2.78	-0.19	0.015
144.42	-12.31	-1.03	0.00	-16.17	0.00	16.17	1,927.04	519.68	1,751.62	1,481.39	2.96	-0.19	0.017
145.00	-11.93	-1.00	0.00	-15.57	0.00	15.57	1,922.70	517.63	1,737.88	1,472.21	2.99	-0.19	0.017
148.00	-8.47	-0.75	0.00	-12.57	0.00	12.57	1,899.96	507.13	1,668.08	1,425.08	3.11	-0.20	0.013
150.00	-7.88	-0.70	0.00	-11.08	0.00	11.08	1,884.42	500.13	1,622.34	1,393.78	3.19	-0.20	0.012
155.00	-7.30	-0.66	0.00	-7.56	0.00	7.56	1,844.28	482.63	1,510.78	1,316.02	3.40	-0.20	0.010
160.00	-3.21	-0.31	0.00	-4.28	0.00	4.28	1,802.26	465.12	1,403.19	1,239.06	3.61	-0.20	0.005
165.00	-3.04	-0.30	0.00	-2.72	0.00	2.72	1,758.37	447.62	1,299.57	1,163.05	3.82	-0.20	0.004
167.00	-2.31	-0.23	0.00	-2.12	0.00	2.12	1,740.29	440.62	1,259.24	1,132.94	3.91	-0.20	0.003
170.00	-2.23	-0.22	0.00	-1.43	0.00	1.43	1,712.61	430.11	1,199.93	1,088.14	4.04	-0.20	0.003
171.00	-1.69	-0.17	0.00	-1.20	0.00	1.20	1,703.23	426.61	1,180.48	1,073.30	4.08	-0.20	0.002

175.00	-1.43	-0.15	0.00	-0.51	0.00	0.51	1,664.97	412.61	1,104.26	1,014.48	4.25	-0.21	0.001
178.50	0.00	-0.14	0.00	0.00	0.00	0.00	1,630.52	400.36	1,039.66	963.73	4.40	-0.21	0.000

Analysis Summary

	Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W	48.94	0.00	80.44	0.00	0.00	5503.38	0.00	0.62
0.9D + 1.0W	48.92	0.00	60.32	0.00	0.00	5452.92	0.00	0.61
1.2D + 1.0Di + 1.0Wi	9.97	0.00	108.68	0.00	0.00	1203.89	0.00	0.15
1.2D + 1.0Ev + 1.0Eh	2.02	0.00	80.89	0.00	0.00	280.12	53.00	0.04
0.9D - 1.0Ev + 1.0Eh	2.01	0.00	55.69	0.00	0.00	276.72	53.00	0.04
1.0D + 1.0W	11.13	0.00	67.07	0.00	0.00	1244.72	0.00	0.15

Base Plate & Anchor Rod Analysis

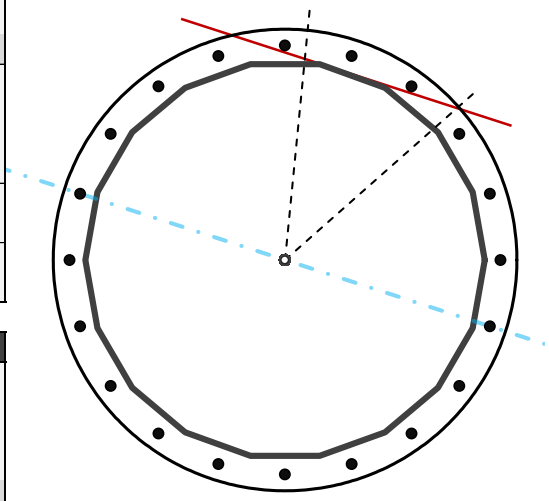
Pole Dimensions		
Number of Sides	18	-
Diameter	72	in
Thickness	0.4375	in
Orientation Offset		°

Base Reactions		
Moment, Mu	5503.4	k-ft
Axial, Pu	80.4	k
Shear, Vu	48.9	k
Neutral Axis	342	°

Report Capacities		
Component	Capacity	Result
Base Plate	12%	Pass
Anchor Rods	73%	Pass
Dwyidag	-	-

Base Plate		
Shape	Round	-
Diameter, ø	85	in
Thickness	2 3/4	in
Grade	A633 Gr. E	
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	80	ksi
Clip	N/A	in
Orientation Offset		°
Anchor Rod Detail	d	η=0.5
Clear Distance	3	in
Applied Moment, Mu	396.8	k
Bending Stress, ϕMn	3285.5	k

Original Anchor Rods		
Arrangement	Radial	-
Quantity	20	-
Diameter, ø	2 1/4	in
Bolt Circle	79	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	12.4	in
Orientation Offset		°
Applied Force, Pu	176.3	k
Anchor Rods, ϕPn	243.6	k



Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	48.9	5503.4	1.00
Anchor Rod Forces	48.9	5503.4	1.00
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	0.0	0.00
Stiffener Forces	0.0	0.0	0.00

Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in^2	in^2	in^4	#	in^4
Pole	97.8602	5.4367	0.3479		62651.39
Bolt	3.9761	3.2477	0.8393	4.5	47687.92
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	0.0000	0.0000	0.0000		0.00
Stiffener	0.0000	0.0000	0.0000		0.00

Base Plate		
Shape	Round	-
Diameter, D	85	in
Thickness, t	2.75	in
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	80	ksi
Base Plate Chord	45.177	in
Detail Type	d	-
Detail Factor	0.50	-
Clear Distance	3	-

Anchor Rods		
Anchor Rod Quantity, N	20	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	79	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	176.3	k
Applied Shear, Vu	1.2	k
Compressive Capacity, ϕPn	243.6	k
Tensile Capacity, ϕRnt	0.724	OK
Interaction Capacity	0.734	OK

External Base Plate		
Chord Length AA	37.950	in
Additional AA	5.500	in
Section Modulus, Z	82.148	in^3
Applied Moment, Mu	522.6	k-ft
Bending Capacity, ϕMn	4436.0	k-ft
Capacity, Mu/ϕMn	0.118	OK
Chord Length AB	35.756	in
Additional AB	5.500	in
Section Modulus, Z	78.000	in^3
Applied Moment, Mu	298.7	k-ft
Bending Capacity, ϕMn	4212.0	k-ft
Capacity, Mu/ϕMn	0.071	OK
Bend Line Length	32.181	in
Additional Bend Line	0.000	in
Section Modulus, Z	60.843	in^3
Applied Moment, Mu	396.8	k-ft
Bending Capacity, ϕMn	3285.5	k-ft
Capacity, Mu/ϕMn	0.121	OK

Internal Base Plate		
Arc Length	0.000	in
Section Modulus, Z	0.000	in^3
Moment Arm	0.000	in
Applied Moment, Mu	0.0	k-ft
Bending Capacity, ϕMn	0.0	k-ft
Capacity, Mu/ϕMn		

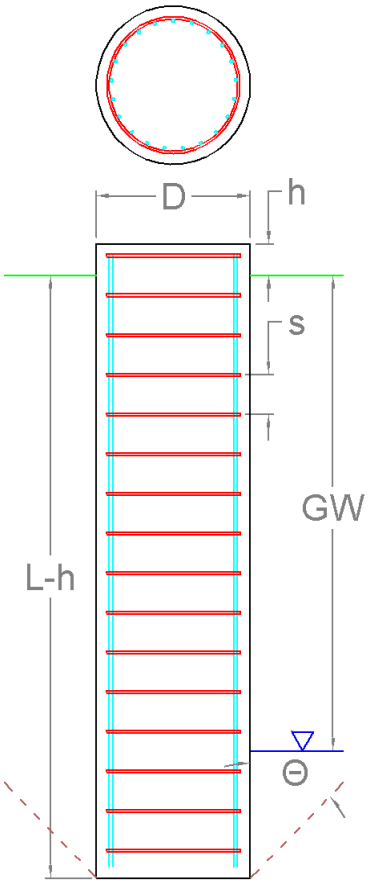
Pier Foundation Analysis (ANSI/TIA-222-H)

Foundation Analysis Parameters			
Pier Diameter	*D*	8.50	ft
Pier Embedment	*L-h*	29.5	ft
Pier Height above Ground	*H*	0.50	ft
Water Table Depth [BGL]	*GW*	6	ft
Pullout Angle	Θ	30	°
Unit Weight of Concrete		150	pcf
Uplift Skin Friction Factor		0.750	

Reactions		
Moment, M_u	5,503.4	k-ft
Shear, V_u	48.9	k
Axial, P_u	80.4	k
Uplift, T_u	0.0	k

Soil Properties

Layer Depth (ft)		Unit Weight	Cohesion	Friction Angle	Ultimate Skin Friction	Ultimate Bearing Pressure
TOP	BTM	pcf	psf	°	psf	psf
0.0	5.0	120	0	0	0	0
5.0	15.0	122	0	34	480	0
15.0	20.0	122	0	34	690	0
20.0	30.5	122	0	34	820	5,000



Soil Strength Capacities		
Volume of Concrete	1,702.4	ft^3
Weight of Concrete [Buoyancy Considered]	172.1	k
Average Soil Unit Weight	72.0	pcf
Skin Friction Resistance	428.3	k
Compressive Bearing Resistance	283.7	k
Pullout Weight [Minus Concrete Weight]	1,127.5	k
Compressive Force, P_u	137.4	k
Nominal Compressive Capacity, $\phi_s P_n$	534.0	k
P_u / $\phi_s P_n$	**25.7%**	
Total Lateral Resistance	2,738.2	k
Inflection Point [BGL]	20.5	ft
Moment at Inflection Point, M_D	6,530.0	k-ft
Nominal Moment Capacity, $\phi_s M_n$	12,239.4	k-ft
M_D / $\phi_s M_n$	**53.4%**	

Pier Strength Capacities			
Concrete Compressive Strength, f'_c		3,000	psi
Rebar Size #		11	
Rebar Area (Single)		1.56	in^2
Rebar Quantity		27	
Rebar Yield Strength, F_y		60	ksi
Vertical Rebar Clear Cover		4	in
Tie Rebar Size #		5	
Tie Rebar Area (Single)		0.31	in^2
Tie Rebar Spacing	*s*	18.0	in
Tie Rebar Yield Strength, F_y		40	ksi
Rebar Cage Diameter		91.34	in
Strength Bending/Tension Reduction Factor, ϕ_B		0.90	
Strength Shear Reduction Factor, ϕ_V		0.75	
Strength Compression Reduction Factor, ϕ_C		0.65	
Steel Elastic Modulus		29,000	ksi
Design Moment, M_u		5,536.0	k-ft
Moment Capacity, $\phi_B M_n$		7,837.9	k-ft
$M_u / \phi_B M_n$		**70.6%**	
Design Shear, V_u		463.0	k
Shear Capacity, $\phi_V V_n$		759.0	k
$V_u / \phi_V V_n$		**61.0%**	
Design Compression, P_u		137.4	k
Compression Capacity, $\phi_P P_n$		12,093.4	k
$P_u / \phi_P P_n$		**1.1%**	
Bending Reinforcement Ratio		0.005	

Exhibit E

Mount Analysis

AMERICAN TOWER®
CORPORATION

Antenna Mount Analysis Report

ATC Site Name	:	**Bilkays Express, CT**
ATC Site Number	:	**302467**
Engineering Number	:	**13251790_C8_05**
Mount Elevation	:	**148 ft**
Carrier	:	**T-Mobile**
Carrier Site Name	:	**Wallingford/Rt5/Rt15**
Carrier Site Number	:	**CT11654A**
Site Location	:	**90 North Plains Industrial Rd.** **Wallingford, CT 06492-2334** **41.48076111, -72.8177**
County	:	**New Haven**
Date	:	**July 15, 2020**
Max Usage	:	**82%**
Result	:	**Contingent Pass**

Prepared By:
Michael Ellis
Structural Engineer

Reviewed By:

COA: PEC.0001553

AMERICAN TOWER®
CORPORATION

Table of Contents

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for T-Mobile at 148 ft.

Supporting Documents

Previous Mount Analysis	Infinigy Project #1009-Z0003-B, dated July 1, 2020
Mount Modifications	Site Pro 1 HRK14 handrail kit, dated May 30, 2012
Radio Frequency Data Sheet	RFDS ID #CT11654A, dated May 20, 2020
Reference Photos	Site photos from 2020

Analysis

This antenna 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'' radial ice concurrent
Codes:	ANSI/TIA-222-H
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	Ss = 0.205, S1 = 0.055
Site Class:	D - Stiff Soil
Live Loads: *	Lm = 500 lbs

*** Based on experience it has been determined that the maintenance load cases do not control over rigging load cases in platform mount analyses. Therefore, these load cases have been excluded from this analysis.**

Conclusion

Based on the analysis results, the antenna mount does not meet the requirements per the applicable codes listed above. The mount can support the equipment as described in this report after the below listed modifications are completed:

- Mount pipes B, F and J are not currently on the mount and need to be added to support the new equipment.
- • Add Site Pro 1 HRK14 handrail kit.

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.

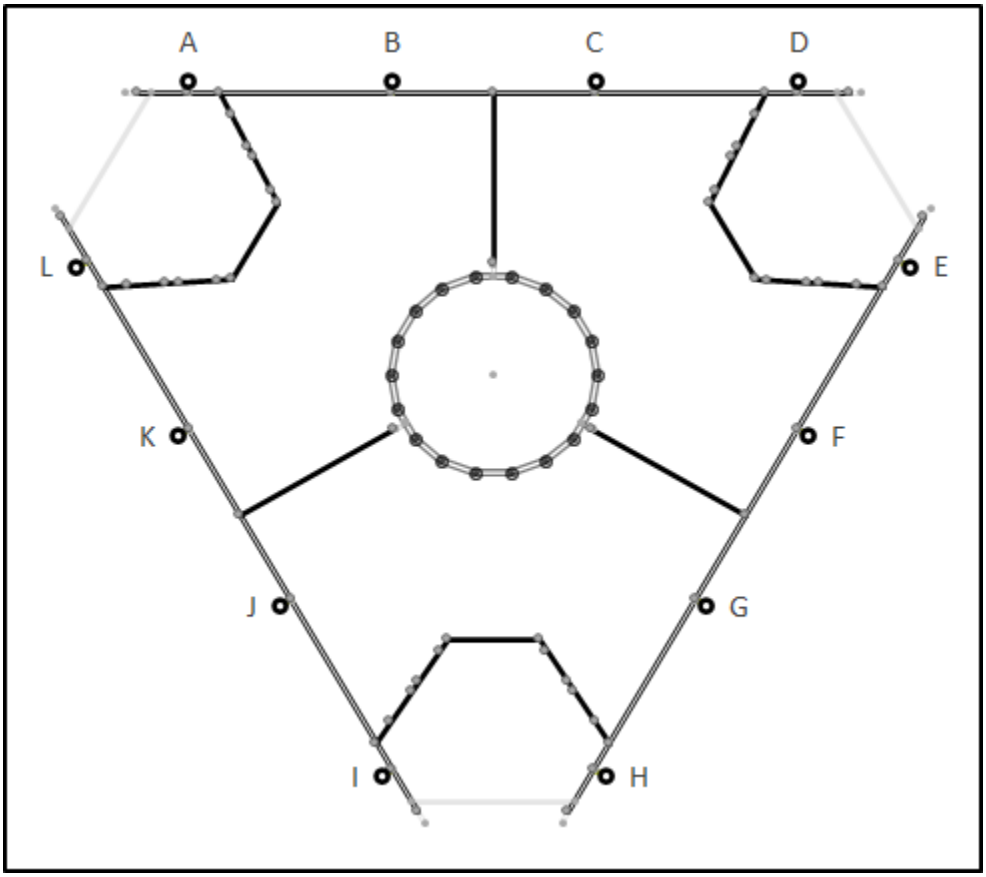
Application Loading

Mount Centerline (ft)	Antenna Centerline (ft)	Qty	Antenna Model
148.0	148.0	3	RFS APXVAARR24_43-U-NA20
		3	Ericsson AIR32 B66Aa/B2a
		3	Ericsson AIR 21, 1.3M, B2A B4P (91.5 lbs)
		3	Ericsson Air6449 B41
		3	Ericsson KRY 112 144/1
		3	Ericsson Radio 4449 B71 B85A
		3	Ericsson RRUS 4415 B25

Structure Usages

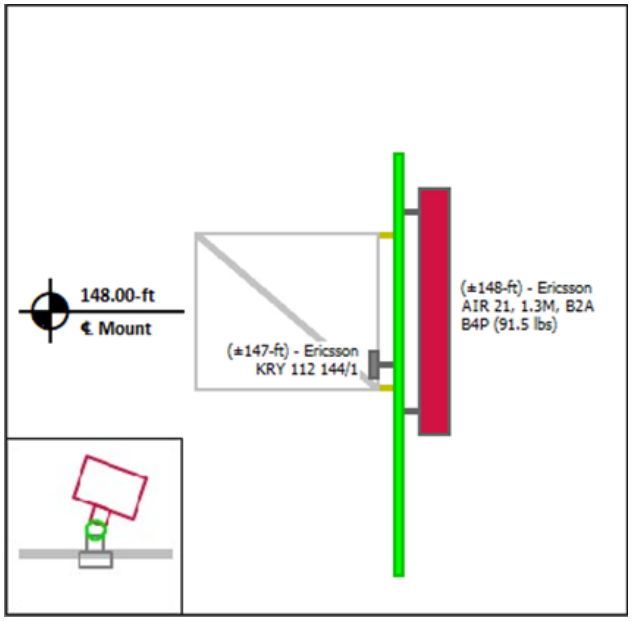
Structural Component	Controlling Usage	Pass/Fail
Horizontals	82%	Pass
Verticals	40%	Pass
Mount Pipes	79%	Pass
Handrail	34%	Pass

Mount Layout

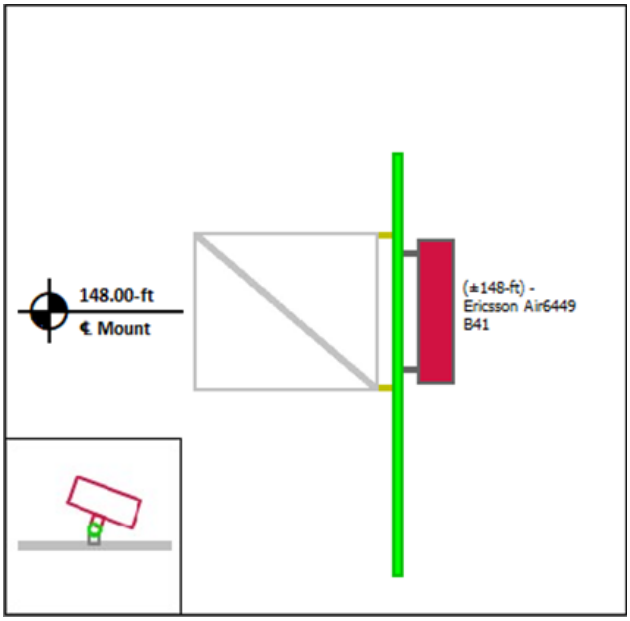


Equipment Layout

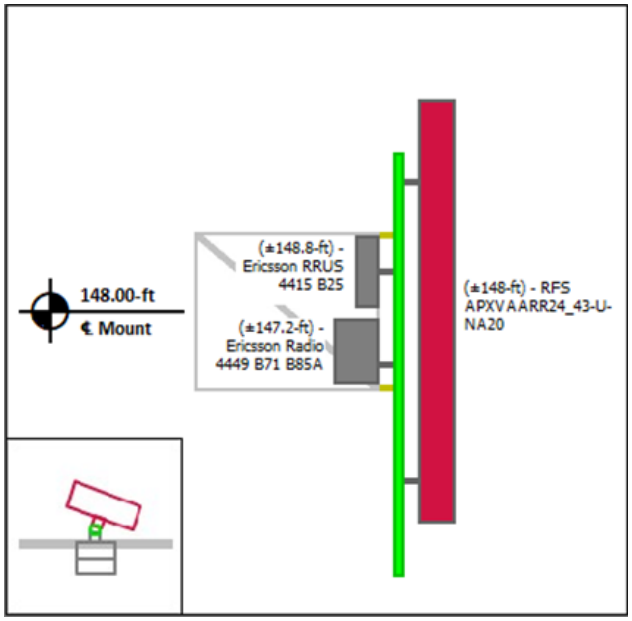
Mount Pipe A



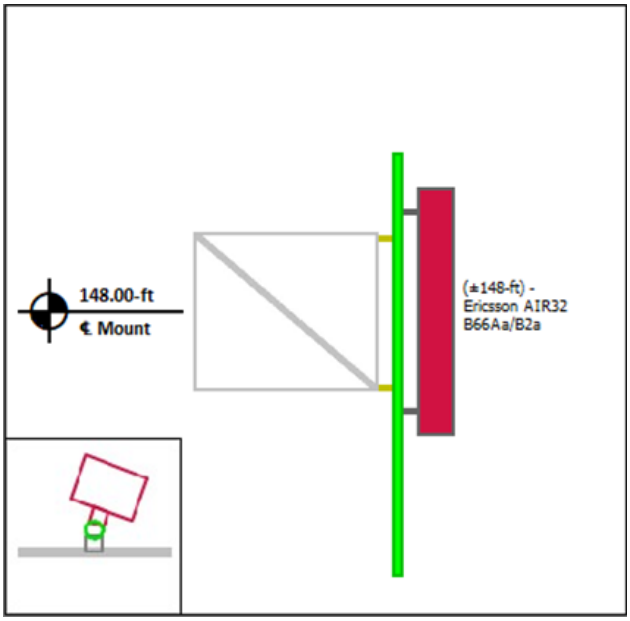
Mount Pipe B



Mount Pipe C

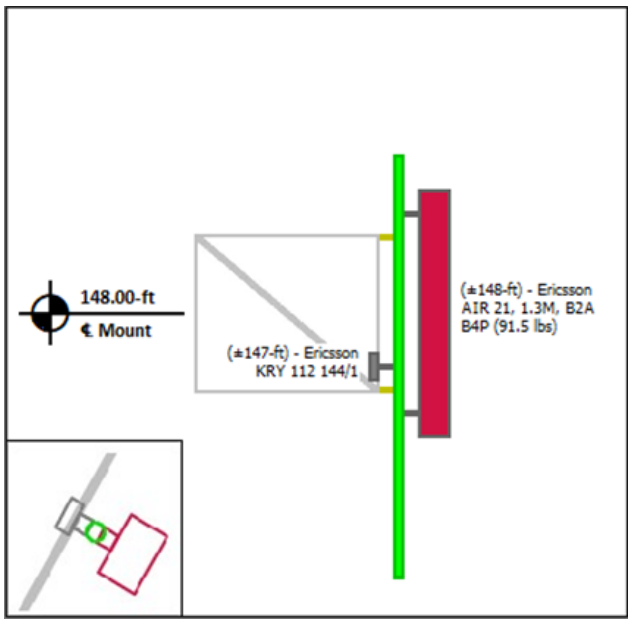


Mount Pipe D

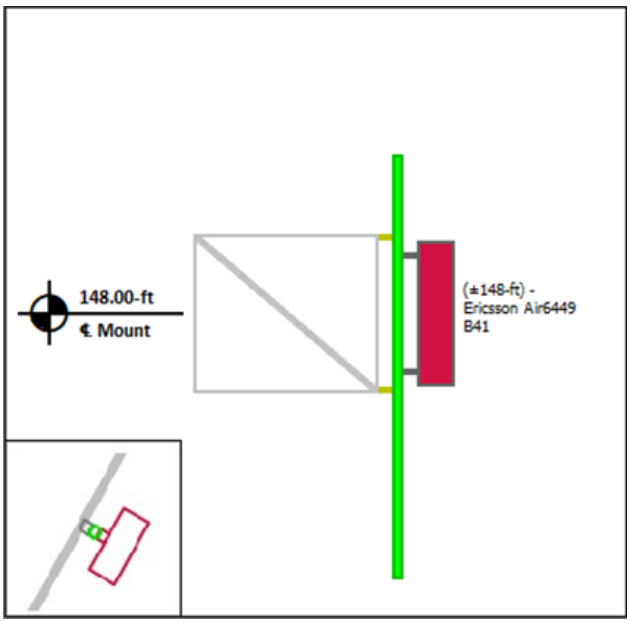


Equipment Layout Cont'd.

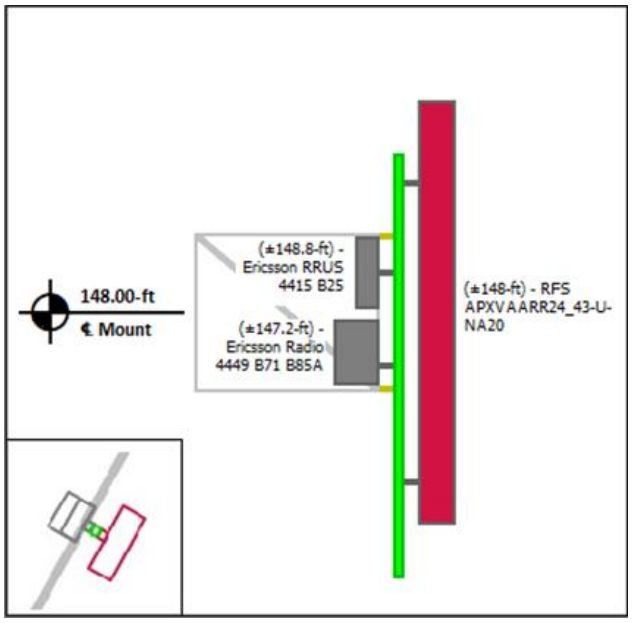
Mount Pipe E



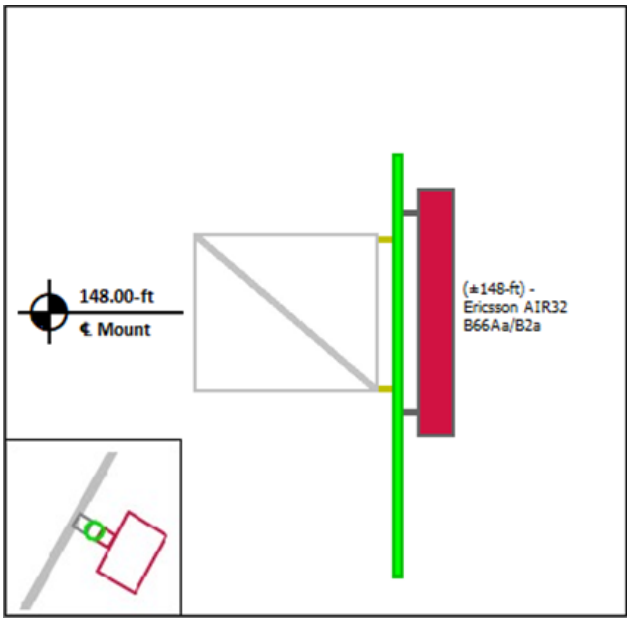
Mount Pipe F



Mount Pipe G

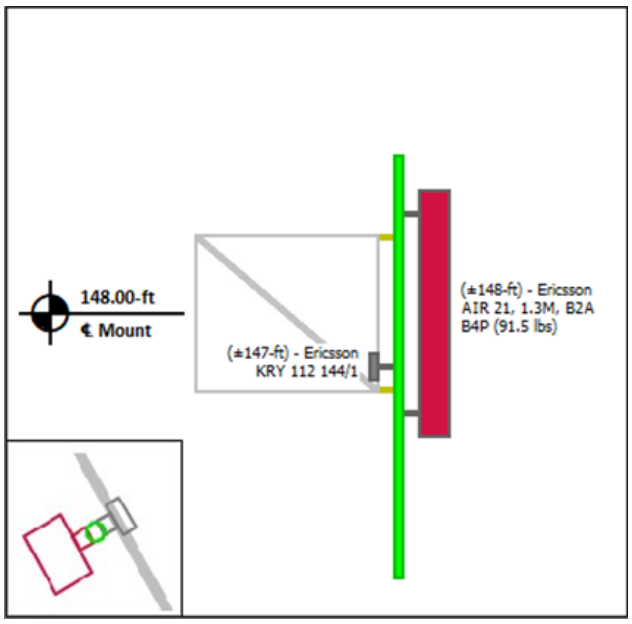


Mount Pipe H

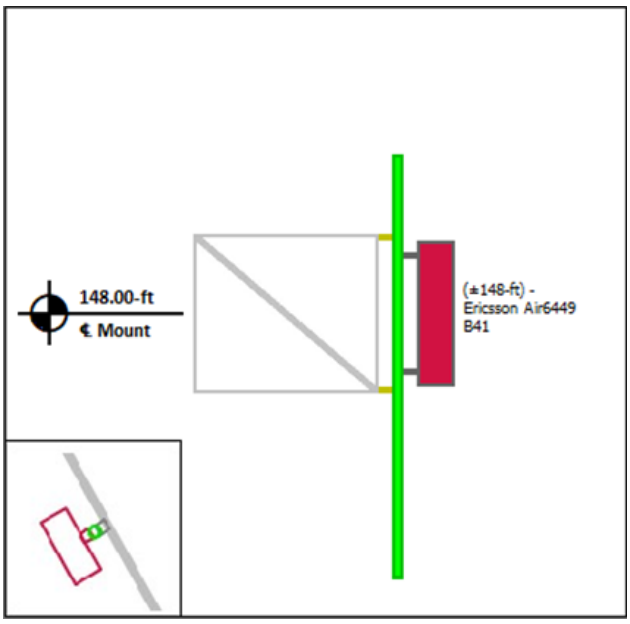


Equipment Layout Cont'd.

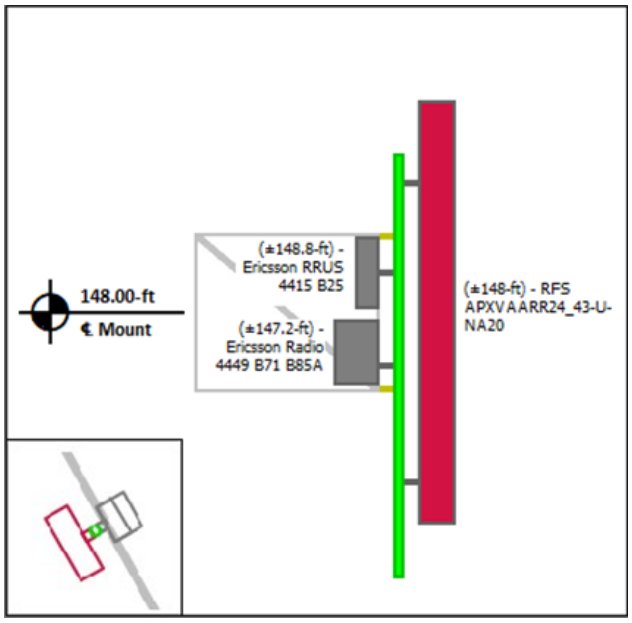
Mount Pipe I



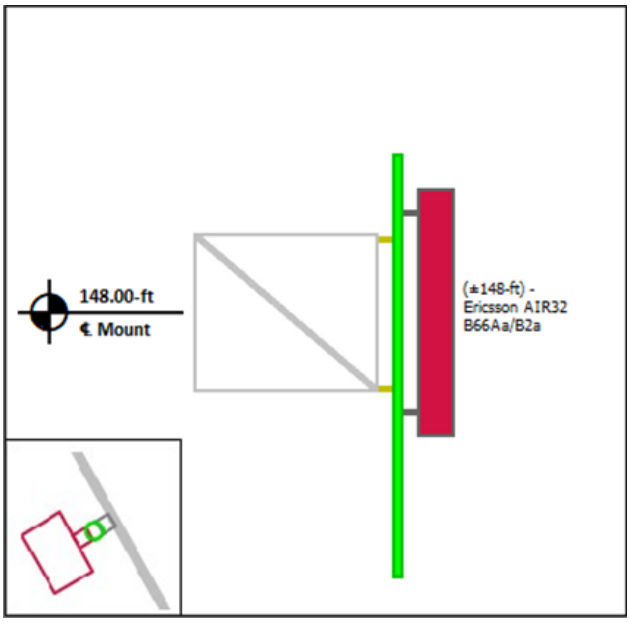
Mount Pipe J



Mount Pipe K



Mount Pipe L



Standard Conditions

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

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

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

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

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.

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.

AMERICAN TOWER®
CORPORATION

Site Number:	*302467*
Project Number:	*13251790_C8_05*
Carrier:	*T-Mobile*
Mount Elevation:	*148 ft*
Date:	7/15/2020

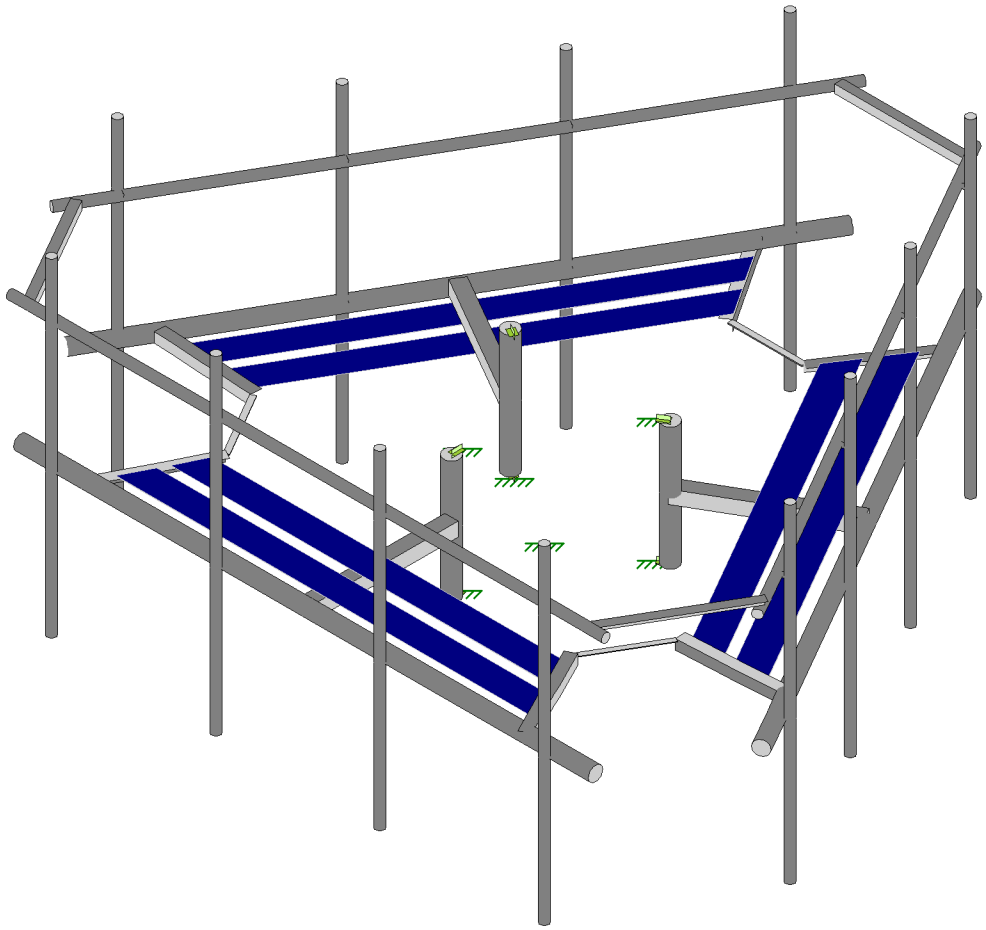
Mount Analysis Force Calculations

Wind & Ice Load Calculations			
Velocity Pressure Coefficient	K_z	1.11	
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	1.00	
Wind Direction Probability Factor	K_d	0.95	
Basic Wind Speed	V	119	mph
Velocity Pressure	q_z	38.0	psf
Height Escalation Factor	K_{iz}	1.16	
Thickness of Radial Glaze Ice	T_{iz}	1.16	in

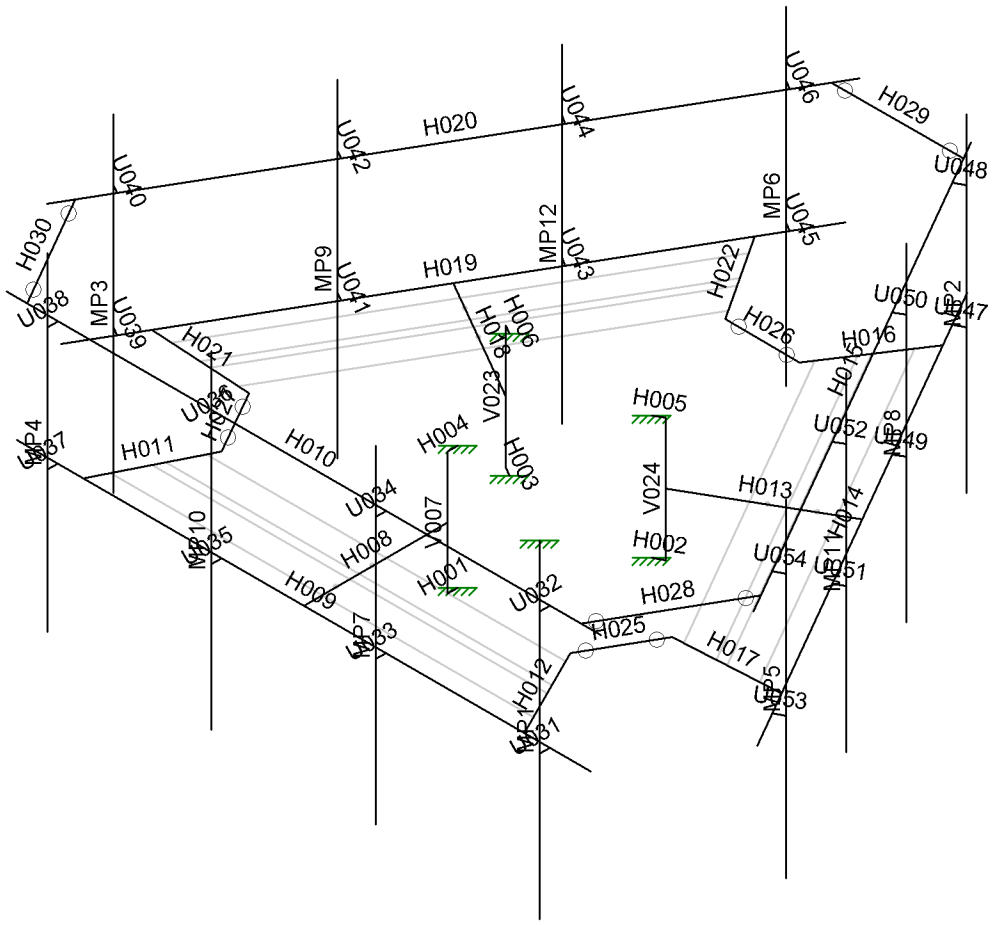
Seismic Load Calculations			
Short Period DSRAP	S_{DS}	0.219	
1 Second DSRAP	S_{D1}	0.088	
Importance Factor	I	1.0	
Response Modification Coefficient	R	2.0	
Seismic Response Coefficient	C_S	0.109	
Amplification Factor	A	1.0	
Total Weight	W	2950.1	lbs
Total Shear Force	V_S	322.5	lbs
Horizontal Seismic Load	Eh	322.5	lbs
Vertical Seismic Load	Ev	129.0	lbs

Antenna Calculations

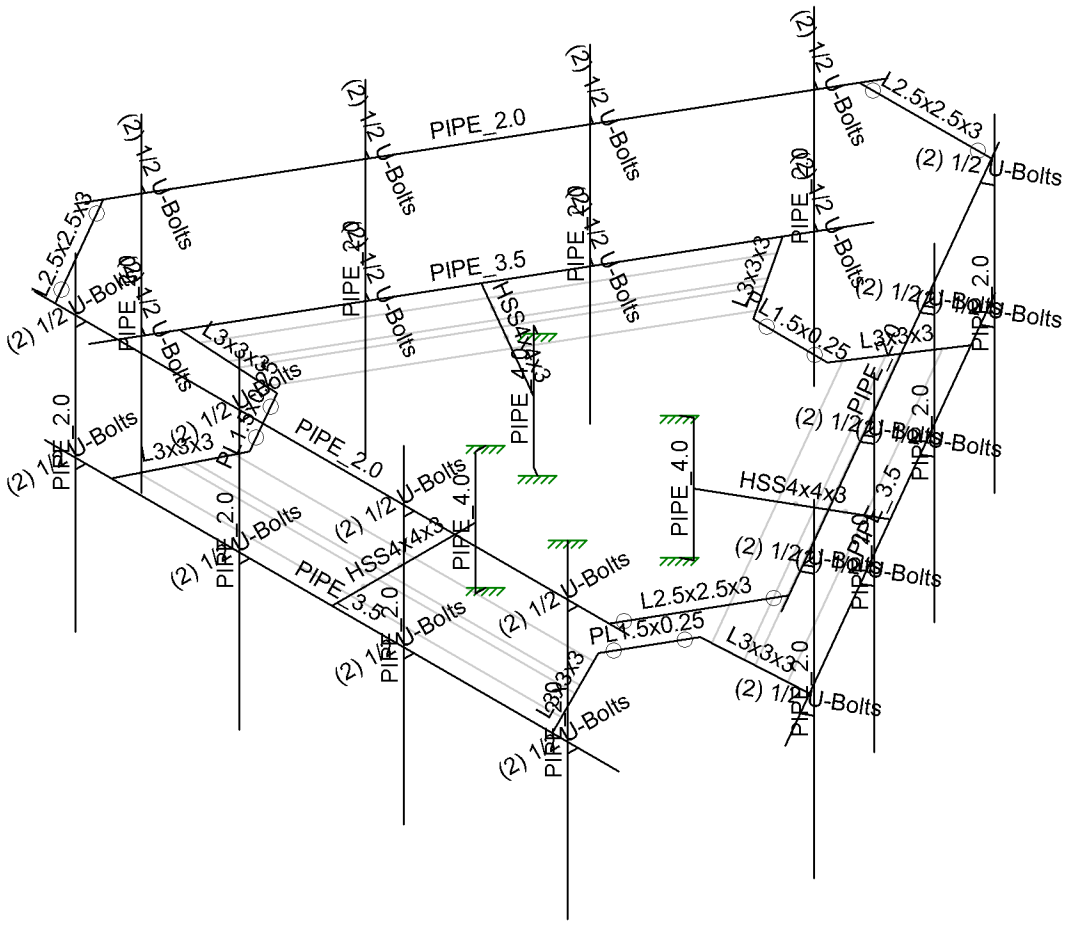
Equipment	Height	Width	Depth	Weight	EPA_N	EPA_T	EPA_{Ni}	EPA_{Ti}
Model #	in	in	in	lbs	sqft	sqft	sqft	sqft
RFS APXVAARR24_43-U-NA20	95.9	24.0	8.7	127.9	20.24	3.48	22.74	4.51
Ericsson AIR32 B66Aa/B2a	56.6	12.9	8.7	132.2	6.51	3.31	8.00	4.36
Ericsson AIR 21, 1.3M, B2A B4P (91.5 lbs)	55.9	12.0	7.8	91.5	6.04	1.82	7.51	2.46
Ericsson Air6449 B41	33.1	20.6	8.6	104.0	5.68	1.56	6.77	2.12
Ericsson KRY 112 144/1	6.9	6.1	2.7	11.0	0.35	0.09	0.65	0.23
Ericsson Radio 4449 B71 B85A	15.0	13.2	10.5	75.0	1.65	1.31	2.24	1.85
Ericsson RRUS 4415 B25	16.5	13.4	5.9	46.0	1.84	0.82	2.47	1.30



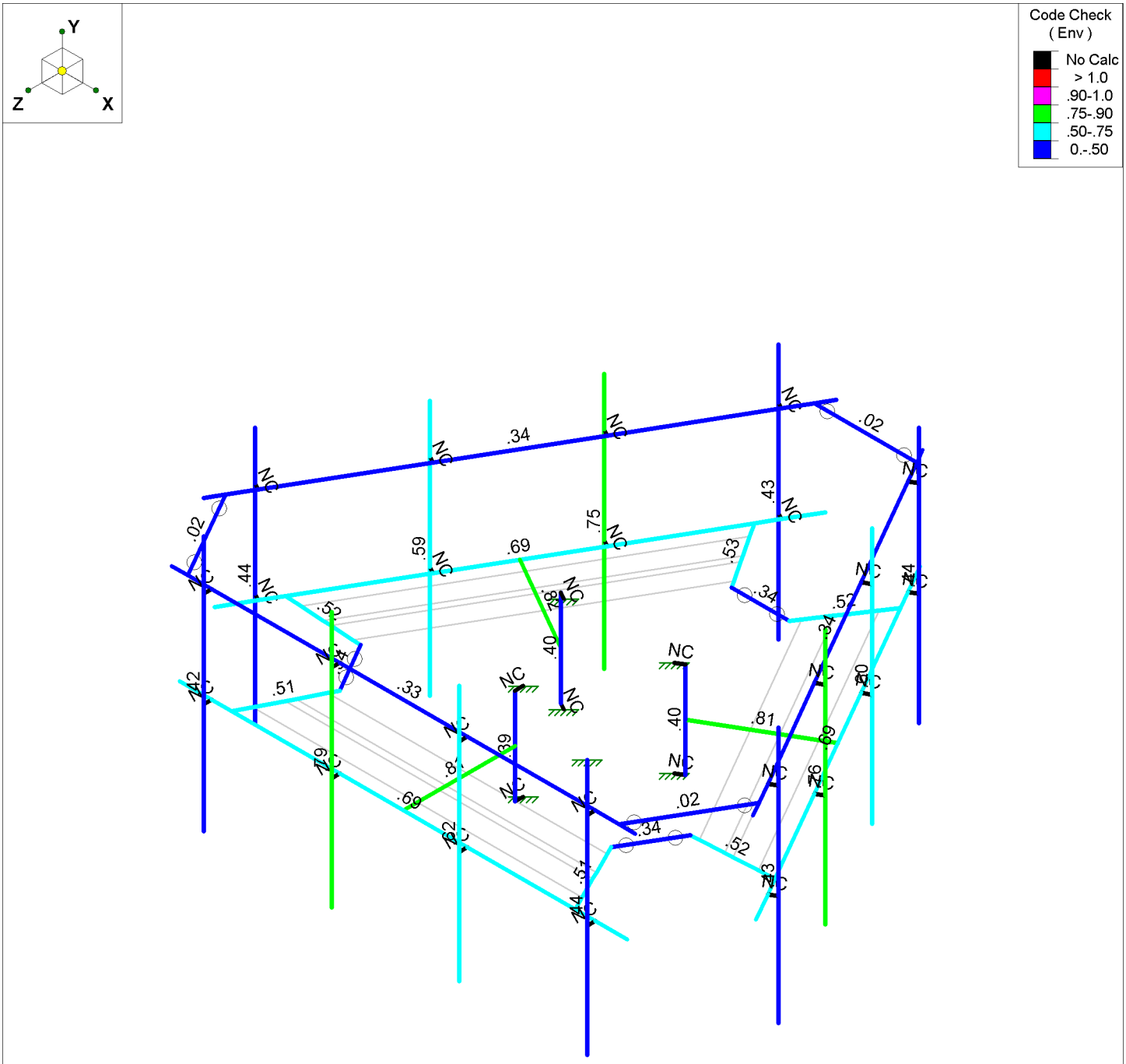
American Tower Corp.		SK - 1
Michael.Ellis	302467, Bilkays Express	July 15, 2020 at 1:59 PM
13251790_C8_05	3D Rendering	R3D. T-MOBILE @ 302467, Bilkays ...



American Tower Corp.		SK - 2
Michael.Ellis	302467, Bilkays Express	July 15, 2020 at 1:59 PM
13251790_C8_05	Member Labels	R3D. T-MOBILE @ 302467, Bilkays ...

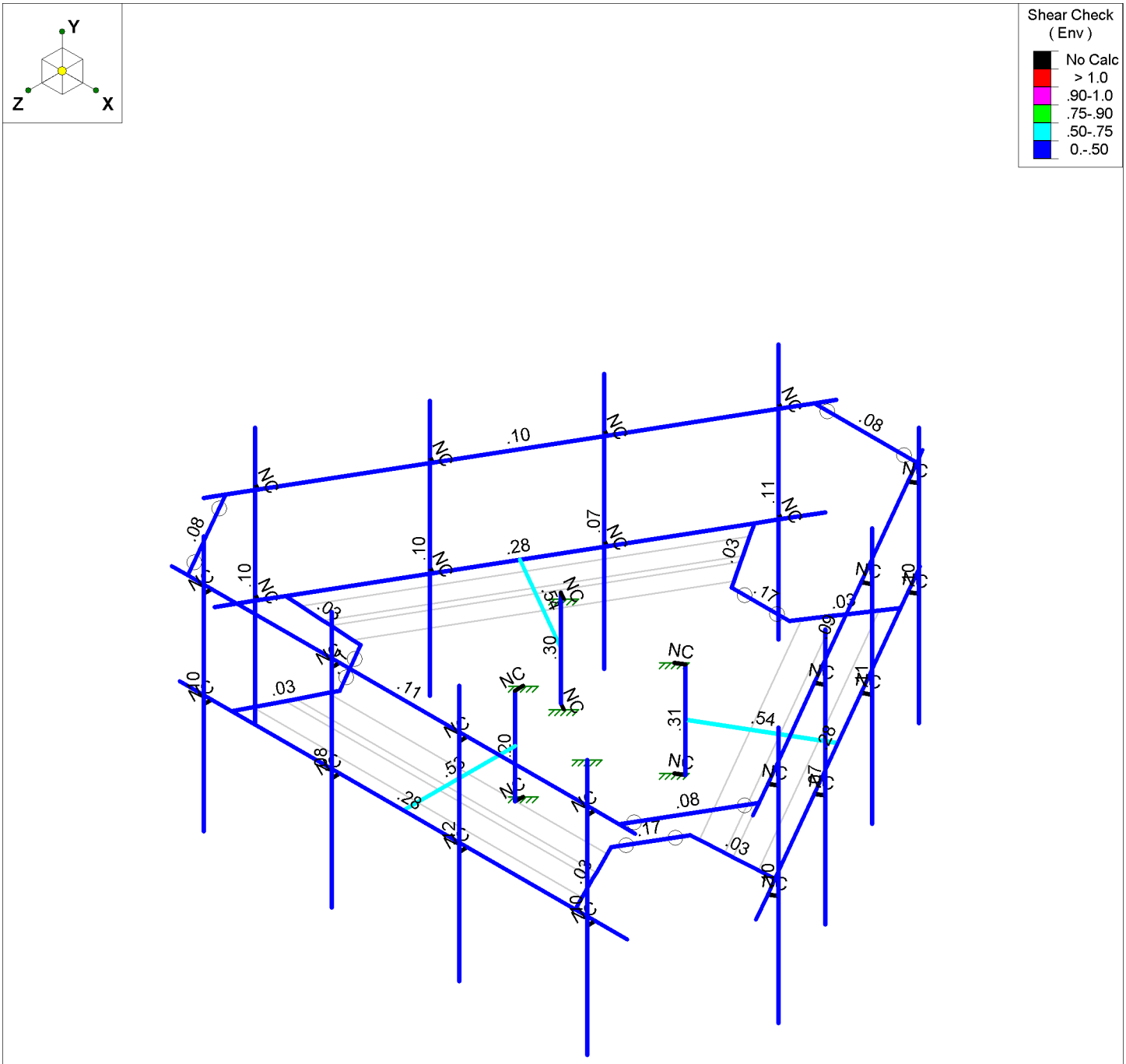


American Tower Corp.		SK - 3
Michael.Ellis	302467, Bilkays Express	July 15, 2020 at 1:59 PM
13251790_C8_05	Member Shapes	R3D. T-MOBILE @ 302467, Bilkays ...



Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.4D

American Tower Corp.		SK - 4
Michael.Ellis	302467, Bilkays Express	July 15, 2020 at 2:00 PM
13251790_C8_05	Unity Bending Checks	R3D. T-MOBILE @ 302467, Bilkays ...



Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.4D

American Tower Corp.		SK - 5
Michael.Ellis	302467, Bilkays Express	July 15, 2020 at 2:00 PM
13251790_C8_05	Shear Checks	R3D. T-MOBILE @ 302467, Bilkays ...

Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1	N001	120	120	120	0	
2	N002	120	120	144	0	
3	N003	140.78461	120	108	0	
4	N004	99.21539	120	108	0	
5	N005	120	156	144	0	
6	N006	140.78461	156	108	0	
7	N007	99.21539	156	108	0	
8	N008	120	120	147	0	
9	N009	143.382686	120	106.5	0	
10	N010	96.617314	120	106.5	0	
11	N014	120	156	147	0	
12	N015	143.382686	156	106.5	0	
13	N016	96.617314	156	106.5	0	
14	N017	120	138	147	0	
15	N018	120	138	189	0	
16	N019	204	138	189	0	
17	N020	36	138	189	0	
18	N021	207	174	189	0	
19	N022	33	174	189	0	
20	N023	184.5	138	189	0	
21	N024	55.5	138	189	0	
22	N025	69	138	162	0	
23	N026	171	138	162	0	
24	N027	143.382686	138	106.5	0	
25	N028	179.755753	138	85.5	0	
26	N029	221.755753	138	158.246134	0	
27	N030	137.755753	138	12.753866	0	
28	N031	223.255753	174	160.84421	0	
29	N032	136.255753	174	10.15579	0	
30	N033	212.005753	138	141.358639	0	
31	N034	147.505753	138	29.641361	0	
32	N035	130.873067	138	54.832704	0	
33	N036	181.873067	138	143.167296	0	
34	N037	96.617314	138	106.5	0	
35	N038	60.244247	138	85.5	0	
36	N039	102.244247	138	12.753866	0	
37	N040	18.244247	138	158.246134	0	
38	N041	103.744247	174	10.15579	0	
39	N042	16.744247	174	160.84421	0	
40	N043	92.494247	138	29.641361	0	
41	N044	27.994247	138	141.358639	0	
42	N045	58.126933	138	143.167296	0	
43	N046	109.126933	138	54.832704	0	
44	N047	181.816718	138	183.633437	0	
45	N048	58.183282	138	183.633437	0	
46	N049	172.425233	138	164.850466	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
47	N050	67.574767	138	164.850466	0	
48	N051	176.450155	138	172.900311	0	
49	N052	177.791796	138	175.583592	0	
50	N053	62.208204	138	175.583592	0	
51	N054	63.549845	138	172.900311	0	
52	N055	144.199814	138	34.648433	0	
53	N056	33.983468	138	141.71813	0	
54	N057	139.240905	138	42.15904	0	
55	N058	42.967299	138	142.257367	0	
56	N059	137.587935	138	44.662576	0	
57	N060	45.96191	138	142.437113	0	
58	N061	132.629026	138	52.173184	0	
59	N062	54.945741	138	142.976351	0	
60	N063	185.054259	138	142.976351	0	
61	N064	107.370974	138	52.173184	0	
62	N065	194.03809	138	142.437113	0	
63	N066	102.412065	138	44.662576	0	
64	N067	197.032701	138	142.257367	0	
65	N068	100.759095	138	42.15904	0	
66	N069	206.016532	138	141.71813	0	
67	N070	95.800186	138	34.648433	0	
68	N071	201	174	189	0	
69	N072	139.255753	174	15.351942	0	
70	N073	19.744247	174	155.648058	0	
71	N074	39	174	189	0	
72	N075	220.255753	174	155.648058	0	
73	N076	100.744247	174	15.351942	0	
74	N077	192	138	192	0	
75	N078	146.353829	138	21.646171	0	
76	N079	21.646171	138	146.353829	0	
77	N080	48	138	192	0	
78	N081	218.353829	138	146.353829	0	
79	N082	93.646171	138	21.646171	0	
80	N083	144	138	192	0	
81	N084	170.353829	138	63.21539	0	
82	N085	45.646171	138	104.78461	0	
83	N086	96	138	192	0	
84	N087	194.353829	138	104.78461	0	
85	N088	69.646171	138	63.21539	0	
86	N089	192	138	189	0	
87	N090	192	174	192	0	
88	N091	192	174	189	0	
89	N092	144	138	189	0	
90	N093	144	174	192	0	
91	N094	144	174	189	0	
92	N095	96	138	189	0	
93	N096	96	174	192	0	
94	N097	96	174	189	0	
95	N098	48	138	189	0	
96	N099	48	174	192	0	
97	N100	48	174	189	0	
98	N101	24.244247	138	147.853829	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
99	N102	21.646171	174	146.353829	0	
100	N103	24.244247	174	147.853829	0	
101	N104	48.244247	138	106.28461	0	
102	N105	45.646171	174	104.78461	0	
103	N106	48.244247	174	106.28461	0	
104	N107	72.244247	138	64.71539	0	
105	N108	69.646171	174	63.21539	0	
106	N109	72.244247	174	64.71539	0	
107	N110	96.244247	138	23.146171	0	
108	N111	93.646171	174	21.646171	0	
109	N112	96.244247	174	23.146171	0	
110	N113	143.755753	138	23.146171	0	
111	N114	146.353829	174	21.646171	0	
112	N115	143.755753	174	23.146171	0	
113	N116	167.755753	138	64.71539	0	
114	N117	170.353829	174	63.21539	0	
115	N118	167.755753	174	64.71539	0	
116	N119	191.755753	138	106.28461	0	
117	N120	194.353829	174	104.78461	0	
118	N121	191.755753	174	106.28461	0	
119	N122	215.755753	138	147.853829	0	
120	N123	218.353829	174	146.353829	0	
121	N124	215.755753	174	147.853829	0	
122	MP1t	192	192	192	0	
123	MP1b	192	96	192	0	
124	MP2t	146.353829	192	21.646171	0	
125	MP2b	146.353829	96	21.646171	0	
126	MP3t	21.646171	192	146.353829	0	
127	MP3b	21.646171	96	146.353829	0	
128	MP4t	48	192.75	192	0	
129	MP4b	48	96.75	192	0	
130	MP5t	218.353829	192.75	146.353829	0	
131	MP5b	218.353829	96.75	146.353829	0	
132	MP6t	93.646171	192.75	21.646171	0	
133	MP6b	93.646171	96.75	21.646171	0	
134	MP7t	144	192	192	0	
135	MP7b	144	96	192	0	
136	MP8t	170.353829	192	63.21539	0	
137	MP8b	170.353829	96	63.21539	0	
138	MP9t	45.646171	192	104.78461	0	
139	MP9b	45.646171	96	104.78461	0	
140	MP10t	96	192	192	0	
141	MP10b	96	96	192	0	
142	MP11t	194.353829	192	104.78461	0	
143	MP11b	194.353829	96	104.78461	0	
144	MP12t	69.646171	192	63.21539	0	
145	MP12b	69.646171	96	63.21539	0	
146	NAL1	10.744247	216.75	216	0	
147	NAL2	10.744247	90	216	0	
148	NAL3	229.255753	216.75	216	0	
149	NAL4	229.255753	90	216	0	
150	NAL5	229.255753	216.75	-13.84421	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
151	NAL6	229.255753	90	-13.84421	0	

Joint Boundary Conditions

	Joint Label	X [lb/in]	Y [lb/in]	Z [lb/in]	X Rot.[k-in/rad]	Y Rot.[k-in/rad]	Z Rot.[k-in/rad]
1	N001	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N002	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N003	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N004	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
5	N005	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	N006	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
7	N007	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	H001	N002	N008			RIGID	None	None	RIGID	Typical
2	H002	N003	N009			RIGID	None	None	RIGID	Typical
3	H003	N004	N010			RIGID	None	None	RIGID	Typical
4	H004	N005	N014			RIGID	None	None	RIGID	Typical
5	H005	N006	N015			RIGID	None	None	RIGID	Typical
6	H006	N007	N016			RIGID	None	None	RIGID	Typical
7	V007	N014	N008			PIPE_4.0	Column	None	A53 Gr. B	Typical
8	H008	N017	N018			HSS4x4x3	Beam	None	A500 Gr. ...	Typical
9	H009	N019	N020			PIPE_3.5	Beam	None	A53 Gr. B	Typical
10	H010	N021	N022			PIPE_2.0	Beam	None	A53 Gr. B	Typical
11	H011	N024	N025		90	L3x3x3	Beam	None	A36	Typical
12	H012	N023	N026		180	L3x3x3	Beam	None	A36	Typical
13	H013	N027	N028			HSS4x4x3	Beam	None	A500 Gr. ...	Typical
14	H014	N029	N030			PIPE_3.5	Beam	None	A53 Gr. B	Typical
15	H015	N031	N032			PIPE_2.0	Beam	None	A53 Gr. B	Typical
16	H016	N034	N035		180	L3x3x3	Beam	None	A36	Typical
17	H017	N033	N036		90	L3x3x3	Beam	None	A36	Typical
18	H018	N037	N038			HSS4x4x3	Beam	None	A500 Gr. ...	Typical
19	H019	N039	N040			PIPE_3.5	Beam	None	A53 Gr. B	Typical
20	H020	N041	N042			PIPE_2.0	Beam	None	A53 Gr. B	Typical
21	H021	N044	N045		180	L3x3x3	Beam	None	A36	Typical
22	H022	N043	N046		90	L3x3x3	Beam	None	A36	Typical
23	V023	N016	N010			PIPE_4.0	Column	None	A53 Gr. B	Typical
24	V024	N015	N009			PIPE_4.0	Column	None	A53 Gr. B	Typical
25	H025	N026	N036		90	PL1.5x0.25	Beam	None	A36	Typical
26	H026	N035	N046		90	PL1.5x0.25	Beam	None	A36	Typical
27	H027	N045	N025		90	PL1.5x0.25	Beam	None	A36	Typical
28	H028	N075	N071		180	L2.5x2.5x3	Beam	None	A36	Typical
29	H029	N076	N072		180	L2.5x2.5x3	Beam	None	A36	Typical
30	H030	N074	N073		180	L2.5x2.5x3	Beam	None	A36	Typical
31	U031	N077	N089			(2) 1/2 U-Bolts	Beam	None	A36	Typical
32	U032	N090	N091			(2) 1/2 U-Bolts	Beam	None	A36	Typical
33	U033	N083	N092			(2) 1/2 U-Bolts	Beam	None	A36	Typical
34	U034	N093	N094			(2) 1/2 U-Bolts	Beam	None	A36	Typical
35	U035	N086	N095			(2) 1/2 U-Bolts	Beam	None	A36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
36	U036	N096	N097			(2) 1/2 U-Bolts	Beam	None	A36	Typical
37	U037	N080	N098			(2) 1/2 U-Bolts	Beam	None	A36	Typical
38	U038	N099	N100			(2) 1/2 U-Bolts	Beam	None	A36	Typical
39	U039	N079	N101			(2) 1/2 U-Bolts	Beam	None	A36	Typical
40	U040	N102	N103			(2) 1/2 U-Bolts	Beam	None	A36	Typical
41	U041	N085	N104			(2) 1/2 U-Bolts	Beam	None	A36	Typical
42	U042	N105	N106			(2) 1/2 U-Bolts	Beam	None	A36	Typical
43	U043	N088	N107			(2) 1/2 U-Bolts	Beam	None	A36	Typical
44	U044	N108	N109			(2) 1/2 U-Bolts	Beam	None	A36	Typical
45	U045	N082	N110			(2) 1/2 U-Bolts	Beam	None	A36	Typical
46	U046	N111	N112			(2) 1/2 U-Bolts	Beam	None	A36	Typical
47	U047	N078	N113			(2) 1/2 U-Bolts	Beam	None	A36	Typical
48	U048	N114	N115			(2) 1/2 U-Bolts	Beam	None	A36	Typical
49	U049	N084	N116			(2) 1/2 U-Bolts	Beam	None	A36	Typical
50	U050	N117	N118			(2) 1/2 U-Bolts	Beam	None	A36	Typical
51	U051	N087	N119			(2) 1/2 U-Bolts	Beam	None	A36	Typical
52	U052	N120	N121			(2) 1/2 U-Bolts	Beam	None	A36	Typical
53	U053	N081	N122			(2) 1/2 U-Bolts	Beam	None	A36	Typical
54	U054	N123	N124			(2) 1/2 U-Bolts	Beam	None	A36	Typical
55	MP1	MP1t	MP1b			PIPE_2.0	Column	None	A53 Gr. B	Typical
56	MP2	MP2t	MP2b			PIPE_2.0	Column	None	A53 Gr. B	Typical
57	MP3	MP3t	MP3b			PIPE_2.0	Column	None	A53 Gr. B	Typical
58	MP4	MP4t	MP4b			PIPE_2.0	Column	None	A53 Gr. B	Typical
59	MP5	MP5t	MP5b			PIPE_2.0	Column	None	A53 Gr. B	Typical
60	MP6	MP6t	MP6b			PIPE_2.0	Column	None	A53 Gr. B	Typical
61	MP7	MP7t	MP7b			PIPE_2.0	Column	None	A53 Gr. B	Typical
62	MP8	MP8t	MP8b			PIPE_2.0	Column	None	A53 Gr. B	Typical
63	MP9	MP9t	MP9b			PIPE_2.0	Column	None	A53 Gr. B	Typical
64	MP10	MP10t	MP10b			PIPE_2.0	Column	None	A53 Gr. B	Typical
65	MP11	MP11t	MP11b			PIPE_2.0	Column	None	A53 Gr. B	Typical
66	MP12	MP12t	MP12b			PIPE_2.0	Column	None	A53 Gr. B	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	H001						Yes	** NA **			None
2	H002						Yes	** NA **			None
3	H003						Yes	** NA **			None
4	H004						Yes	** NA **			None
5	H005						Yes	** NA **			None
6	H006						Yes	** NA **			None
7	V007						Yes	** NA **			None
8	H008						Yes				None
9	H009						Yes				None
10	H010						Yes				None
11	H011						Yes				None
12	H012						Yes				None
13	H013						Yes				None
14	H014						Yes				None
15	H015						Yes				None
16	H016						Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
17	H017						Yes				None
18	H018						Yes				None
19	H019						Yes				None
20	H020						Yes				None
21	H021						Yes				None
22	H022						Yes				None
23	V023						Yes	** NA **			None
24	V024						Yes	** NA **			None
25	H025	BenPIN	BenPIN				Yes				None
26	H026	BenPIN	BenPIN				Yes				None
27	H027	BenPIN	BenPIN				Yes				None
28	H028	BenPIN	BenPIN				Yes				None
29	H029	BenPIN	BenPIN				Yes				None
30	H030	BenPIN	BenPIN				Yes				None
31	U031						Yes			Exclude	None
32	U032						Yes			Exclude	None
33	U033						Yes			Exclude	None
34	U034						Yes			Exclude	None
35	U035						Yes			Exclude	None
36	U036						Yes			Exclude	None
37	U037						Yes			Exclude	None
38	U038						Yes			Exclude	None
39	U039						Yes			Exclude	None
40	U040						Yes			Exclude	None
41	U041						Yes			Exclude	None
42	U042						Yes			Exclude	None
43	U043						Yes			Exclude	None
44	U044						Yes			Exclude	None
45	U045						Yes			Exclude	None
46	U046						Yes			Exclude	None
47	U047						Yes			Exclude	None
48	U048						Yes			Exclude	None
49	U049						Yes			Exclude	None
50	U050						Yes			Exclude	None
51	U051						Yes			Exclude	None
52	U052						Yes			Exclude	None
53	U053						Yes			Exclude	None
54	U054						Yes			Exclude	None
55	MP1						Yes	** NA **			None
56	MP2						Yes	** NA **			None
57	MP3						Yes	** NA **			None
58	MP4						Yes	** NA **			None
59	MP5						Yes	** NA **			None
60	MP6						Yes	** NA **			None
61	MP7						Yes	** NA **			None
62	MP8						Yes	** NA **			None
63	MP9						Yes	** NA **			None
64	MP10						Yes	** NA **			None
65	MP11						Yes	** NA **			None
66	MP12						Yes	** NA **			None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
1	V007	PIPE_4.0	36						.65	.65		Lateral
2	H008	HSS4x4x3	42						.65	.65		Lateral
3	H009	PIPE_3.5	168						1	1		Lateral
4	H010	PIPE_2.0	174						1	1		Lateral
5	H011	L3x3x3	30.187						.65	.65		Lateral
6	H012	L3x3x3	30.187						.65	.65		Lateral
7	H013	HSS4x4x3	42						.65	.65		Lateral
8	H014	PIPE_3.5	168						1	1		Lateral
9	H015	PIPE_2.0	174						1	1		Lateral
10	H016	L3x3x3	30.187						.65	.65		Lateral
11	H017	L3x3x3	30.187						.65	.65		Lateral
12	H018	HSS4x4x3	42						.65	.65		Lateral
13	H019	PIPE_3.5	168						1	1		Lateral
14	H020	PIPE_2.0	174						1	1		Lateral
15	H021	L3x3x3	30.187						.65	.65		Lateral
16	H022	L3x3x3	30.187						.65	.65		Lateral
17	V023	PIPE_4.0	36						.65	.65		Lateral
18	V024	PIPE_4.0	36						.65	.65		Lateral
19	H025	PL1.5x0.25	21.746						1	1		Lateral
20	H026	PL1.5x0.25	21.746						1	1		Lateral
21	H027	PL1.5x0.25	21.746						1	1		Lateral
22	H028	L2.5x2.5x3	38.512						1	1		Lateral
23	H029	L2.5x2.5x3	38.512						1	1		Lateral
24	H030	L2.5x2.5x3	38.512						1	1		Lateral
25	U031	(2) 1/2 U-B...	3						.5	.5		Lateral
26	U032	(2) 1/2 U-B...	3						.5	.5		Lateral
27	U033	(2) 1/2 U-B...	3						.5	.5		Lateral
28	U034	(2) 1/2 U-B...	3						.5	.5		Lateral
29	U035	(2) 1/2 U-B...	3						.5	.5		Lateral
30	U036	(2) 1/2 U-B...	3						.5	.5		Lateral
31	U037	(2) 1/2 U-B...	3						.5	.5		Lateral
32	U038	(2) 1/2 U-B...	3						.5	.5		Lateral
33	U039	(2) 1/2 U-B...	3						.5	.5		Lateral
34	U040	(2) 1/2 U-B...	3						.5	.5		Lateral
35	U041	(2) 1/2 U-B...	3						.5	.5		Lateral
36	U042	(2) 1/2 U-B...	3						.5	.5		Lateral
37	U043	(2) 1/2 U-B...	3						.5	.5		Lateral
38	U044	(2) 1/2 U-B...	3						.5	.5		Lateral
39	U045	(2) 1/2 U-B...	3						.5	.5		Lateral
40	U046	(2) 1/2 U-B...	3						.5	.5		Lateral
41	U047	(2) 1/2 U-B...	3						.5	.5		Lateral
42	U048	(2) 1/2 U-B...	3						.5	.5		Lateral
43	U049	(2) 1/2 U-B...	3						.5	.5		Lateral
44	U050	(2) 1/2 U-B...	3						.5	.5		Lateral
45	U051	(2) 1/2 U-B...	3						.5	.5		Lateral
46	U052	(2) 1/2 U-B...	3						.5	.5		Lateral
47	U053	(2) 1/2 U-B...	3						.5	.5		Lateral
48	U054	(2) 1/2 U-B...	3						.5	.5		Lateral
49	MP1	PIPE_2.0	96						2.1	2.1		Lateral
50	MP2	PIPE_2.0	96						2.1	2.1		Lateral
51	MP3	PIPE_2.0	96						2.1	2.1		Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
52	MP4	PIPE_2.0	96						2.1	2.1		Lateral
53	MP5	PIPE_2.0	96						2.1	2.1		Lateral
54	MP6	PIPE_2.0	96						2.1	2.1		Lateral
55	MP7	PIPE_2.0	96						2.1	2.1		Lateral
56	MP8	PIPE_2.0	96						2.1	2.1		Lateral
57	MP9	PIPE_2.0	96						2.1	2.1		Lateral
58	MP10	PIPE_2.0	96						2.1	2.1		Lateral
59	MP11	PIPE_2.0	96						2.1	2.1		Lateral
60	MP12	PIPE_2.0	96						2.1	2.1		Lateral

Hot Rolled Steel Properties

	Label	E [psi]	G [psi]	Nu	Therm (/1E..	Density[lb/f...	Yield[psi]	Ry	Fu[psi]	Rt
1	A36	2.9e+7	1.115e+7	.3	.65	490	36000	1.5	58000	1.2
2	A572-50	2.9e+7	1.115e+7	.3	.65	490	50000	1.1	65000	1.1
3	A500 Gr. B [RND]	2.9e+7	1.115e+7	.3	.65	527	42000	1.4	58000	1.3
4	A500 Gr. B [SQR]	2.9e+7	1.115e+7	.3	.65	527	46000	1.4	58000	1.3
5	A500 Gr. C	2.9e+7	1.115e+7	.3	.65	190	46000	1.4	62000	1.3
6	A1085	2.9e+7	1.115e+7	.3	.65	490	50000	1.1	65000	1.1
7	A53 Gr. B	2.9e+7	1.115e+7	.3	.65	490	35000	1.6	60000	1.2
8	A992	2.9e+7	1.115e+7	.3	.65	490	50000	1.1	65000	1.1
9	SAE J429 Gr. 2	2.9e+7	1.115e+7	.3	.65	490	57000	1.1	74000	1.1

Joint Loads and Enforced Displacements (BLC 12 : Lm (1))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	MP1t	L	Y	-500

Joint Loads and Enforced Displacements (BLC 13 : Lm (2))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	MP2t	L	Y	-500

Joint Loads and Enforced Displacements (BLC 14 : Lm (3))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	MP3t	L	Y	-500

Joint Loads and Enforced Displacements (BLC 15 : Lm (4))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	MP4t	L	Y	-500

Joint Loads and Enforced Displacements (BLC 16 : Lm (5))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	MP5t	L	Y	-500

Joint Loads and Enforced Displacements (BLC 17 : Lm (6))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	MP6t	L	Y	-500

Joint Loads and Enforced Displacements (BLC 18 : Lm (7))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	MP7t	L	Y	-500

Joint Loads and Enforced Displacements (BLC 19 : Lm (8))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	MP8t	L	Y	-500

Joint Loads and Enforced Displacements (BLC 20 : Lm (9))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	MP9t	L	Y	-500

Joint Loads and Enforced Displacements (BLC 21 : Lm (10))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	MP10t	L	Y	-500

Joint Loads and Enforced Displacements (BLC 22 : Lm (11))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	MP11t	L	Y	-500

Joint Loads and Enforced Displacements (BLC 23 : Lm (12))

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^...
1	MP12t	L	Y	-500

Member Point Loads (BLC 1 : Dead)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Y	-11	47.25
2	MP1	Y	-45.75	12.9
3	MP1	Y	-45.75	57.6
4	MP2	Y	-11	47.25
5	MP2	Y	-45.75	12.9
6	MP2	Y	-45.75	57.6
7	MP3	Y	-11	47.25
8	MP3	Y	-45.75	12.9
9	MP3	Y	-45.75	57.6
10	MP4	Y	-66.1	12.6
11	MP4	Y	-66.1	57.9
12	MP5	Y	-66.1	12.6
13	MP5	Y	-66.1	57.9
14	MP6	Y	-66.1	12.6
15	MP6	Y	-66.1	57.9
16	MP7	Y	-52	22
17	MP7	Y	-52	48.5
18	MP8	Y	-52	22
19	MP8	Y	-52	48.5
20	MP9	Y	-52	22
21	MP9	Y	-52	48.5
22	MP10	Y	-63.95	6
23	MP10	Y	-63.95	73.6
24	MP10	Y	-75	47.25

Member Point Loads (BLC 1 : Dead) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
25	MP10	Y	-46	26.25
26	MP11	Y	-75	47.25
27	MP11	Y	-46	26.25
28	MP11	Y	-63.95	6
29	MP11	Y	-63.95	73.6
30	MP12	Y	-75	47.25
31	MP12	Y	-46	26.25
32	MP12	Y	-63.95	6
33	MP12	Y	-63.95	73.6

Member Point Loads (BLC 2 : Ice)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Y	-9.16	47.25
2	MP1	Y	-53.144	12.9
3	MP1	Y	-53.144	57.6
4	MP2	Y	-9.16	47.25
5	MP2	Y	-53.144	12.9
6	MP2	Y	-53.144	57.6
7	MP3	Y	-9.16	47.25
8	MP3	Y	-53.144	12.9
9	MP3	Y	-53.144	57.6
10	MP4	Y	-58.535	12.6
11	MP4	Y	-58.535	57.9
12	MP5	Y	-58.535	12.6
13	MP5	Y	-58.535	57.9
14	MP6	Y	-58.535	12.6
15	MP6	Y	-58.535	57.9
16	MP7	Y	-49.764	22
17	MP7	Y	-49.764	48.5
18	MP8	Y	-49.764	22
19	MP8	Y	-49.764	48.5
20	MP9	Y	-49.764	22
21	MP9	Y	-49.764	48.5
22	MP10	Y	-140.345	6
23	MP10	Y	-140.345	73.6
24	MP10	Y	-45.341	47.25
25	MP10	Y	-37.393	26.25
26	MP11	Y	-45.341	47.25
27	MP11	Y	-37.393	26.25
28	MP11	Y	-140.345	6
29	MP11	Y	-140.345	73.6
30	MP12	Y	-45.341	47.25
31	MP12	Y	-37.393	26.25
32	MP12	Y	-140.345	6
33	MP12	Y	-140.345	73.6

Member Point Loads (BLC 3 : Wind -Z)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Z	-5.996	47.25
2	MP1	Z	-107.601	12.9
3	MP1	Z	-107.601	57.6

Member Point Loads (BLC 3 : Wind -Z) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
4	MP2	Z	-4.341	47.25
5	MP2	Z	-78.498	12.9
6	MP2	Z	-78.498	57.6
7	MP3	Z	-4.341	47.25
8	MP3	Z	-78.498	12.9
9	MP3	Z	-78.498	57.6
10	MP4	Z	-123.913	12.6
11	MP4	Z	-123.913	57.9
12	MP5	Z	-104.603	12.6
13	MP5	Z	-104.603	57.9
14	MP6	Z	-104.603	12.6
15	MP6	Z	-104.603	57.9
16	MP7	Z	-100.411	22
17	MP7	Z	-100.411	48.5
18	MP8	Z	-71.688	22
19	MP8	Z	-71.688	48.5
20	MP9	Z	-71.688	22
21	MP9	Z	-71.688	48.5
22	MP10	Z	-392.023	6
23	MP10	Z	-299	73.6
24	MP10	Z	-28.207	47.25
25	MP10	My	7.052	47.25
26	MP10	Z	-31.498	26.25
27	MP11	Z	-33.535	47.25
28	MP11	My	8.384	47.25
29	MP11	Z	-27.892	26.25
30	MP11	Z	-254.716	6
31	MP11	Z	-194.275	73.6
32	MP12	Z	-33.535	47.25
33	MP12	My	8.384	47.25
34	MP12	Z	-27.892	26.25
35	MP12	Z	-254.716	6
36	MP12	Z	-194.275	73.6

Member Point Loads (BLC 4 : Wind -X)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-3.102	47.25
2	MP1	X	-64.482	12.9
3	MP1	X	-64.482	57.6
4	MP2	X	-11.937	47.25
5	MP2	X	-104.905	12.9
6	MP2	X	-104.905	57.6
7	MP3	X	-11.937	47.25
8	MP3	X	-104.905	12.9
9	MP3	X	-104.905	57.6
10	MP4	X	-91.186	12.6
11	MP4	X	-91.186	57.9
12	MP5	X	-124.645	12.6
13	MP5	X	-124.645	57.9
14	MP6	X	-124.645	12.6
15	MP6	X	-124.645	57.9

Member Point Loads (BLC 4 : Wind -X) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
16	MP7	X	-58.308	22
17	MP7	X	-58.308	48.5
18	MP8	X	-97.472	22
19	MP8	X	-97.472	48.5
20	MP9	X	-97.472	22
21	MP9	X	-97.472	48.5
22	MP10	X	-197.654	6
23	MP10	X	-150.753	73.6
24	MP10	Mz	11.219	47.25
25	MP10	X	-28.042	26.25
26	MP11	Mz	17.824	47.25
27	MP11	X	-68.578	26.25
28	MP11	X	-373.751	6
29	MP11	X	-285.064	73.6
30	MP12	Mz	17.824	47.25
31	MP12	X	-68.578	26.25
32	MP12	X	-373.751	6
33	MP12	X	-285.064	73.6

Member Point Loads (BLC 5 : Wind -Z (Ice))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Z	-5.073	47.25
2	MP1	Z	-27.33	12.9
3	MP1	Z	-27.33	57.6
4	MP2	Z	-4.534	47.25
5	MP2	Z	-22.018	12.9
6	MP2	Z	-22.018	57.6
7	MP3	Z	-4.534	47.25
8	MP3	Z	-22.018	12.9
9	MP3	Z	-22.018	57.6
10	MP4	Z	-30.076	12.6
11	MP4	Z	-30.076	57.9
12	MP5	Z	-28.344	12.6
13	MP5	Z	-28.344	57.9
14	MP6	Z	-28.344	12.6
15	MP6	Z	-28.344	57.9
16	MP7	Z	-20.71	22
17	MP7	Z	-20.71	48.5
18	MP8	Z	-17.582	22
19	MP8	Z	-17.582	48.5
20	MP9	Z	-17.582	22
21	MP9	Z	-17.582	48.5
22	MP10	Z	-52.4	6
23	MP10	Z	-39.966	73.6
24	MP10	My	2.526	47.25
25	MP10	Z	-10.668	26.25
26	MP11	My	3.257	47.25
27	MP11	Z	-12.5	26.25
28	MP11	Z	-41.618	6
29	MP11	Z	-31.742	73.6
30	MP12	My	3.257	47.25

Member Point Loads (BLC 5 : Wind -Z (Ice)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
31	MP12	Z	-12.5	26.25
32	MP12	Z	-41.618	6
33	MP12	Z	-31.742	73.6

Member Point Loads (BLC 6 : Wind -X (Ice))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-4.613	47.25
2	MP1	X	-18.857	12.9
3	MP1	X	-18.857	57.6
4	MP2	X	-11.094	47.25
5	MP2	X	-27.207	12.9
6	MP2	X	-27.207	57.6
7	MP3	X	-11.094	47.25
8	MP3	X	-27.207	12.9
9	MP3	X	-27.207	57.6
10	MP4	X	-25.654	12.6
11	MP4	X	-25.654	57.9
12	MP5	X	-31.052	12.6
13	MP5	X	-31.052	57.9
14	MP6	X	-31.052	12.6
15	MP6	X	-31.052	57.9
16	MP7	X	-15.359	22
17	MP7	X	-15.359	48.5
18	MP8	X	-20.859	22
19	MP8	X	-20.859	48.5
20	MP9	X	-20.859	22
21	MP9	X	-20.859	48.5
22	MP10	X	-35.442	6
23	MP10	X	-27.032	73.6
24	MP10	Mz	4.606	47.25
25	MP10	X	-16.55	26.25
26	MP11	Mz	6.678	47.25
27	MP11	X	-26.752	26.25
28	MP11	X	-52.003	6
29	MP11	X	-39.663	73.6
30	MP12	Mz	6.678	47.25
31	MP12	X	-26.752	26.25
32	MP12	X	-52.003	6
33	MP12	X	-39.663	73.6

Member Point Loads (BLC 7 : Wind -Z (Working))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	Z	-.381	47.25
2	MP1	Z	-6.839	12.9
3	MP1	Z	-6.839	57.6
4	MP2	Z	-.276	47.25
5	MP2	Z	-4.989	12.9
6	MP2	Z	-4.989	57.6
7	MP3	Z	-.276	47.25
8	MP3	Z	-4.989	12.9
9	MP3	Z	-4.989	57.6

Member Point Loads (BLC 7 : Wind -Z (Working)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
10	MP4	Z	-7.875	12.6
11	MP4	Z	-7.875	57.9
12	MP5	Z	-6.648	12.6
13	MP5	Z	-6.648	57.9
14	MP6	Z	-6.648	12.6
15	MP6	Z	-6.648	57.9
16	MP7	Z	-6.382	22
17	MP7	Z	-6.382	48.5
18	MP8	Z	-4.556	22
19	MP8	Z	-4.556	48.5
20	MP9	Z	-4.556	22
21	MP9	Z	-4.556	48.5
22	MP10	Z	-24.915	6
23	MP10	Z	-19.003	73.6
24	MP10	My	.448	47.25
25	MP10	Z	-2.002	26.25
26	MP11	My	.533	47.25
27	MP11	Z	-1.773	26.25
28	MP11	Z	-16.188	6
29	MP11	Z	-12.347	73.6
30	MP12	My	.533	47.25
31	MP12	Z	-1.773	26.25
32	MP12	Z	-16.188	6
33	MP12	Z	-12.347	73.6

Member Point Loads (BLC 8 : Wind -X (Working))

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP1	X	-.197	47.25
2	MP1	X	-4.098	12.9
3	MP1	X	-4.098	57.6
4	MP2	X	-.759	47.25
5	MP2	X	-6.667	12.9
6	MP2	X	-6.667	57.6
7	MP3	X	-.759	47.25
8	MP3	X	-6.667	12.9
9	MP3	X	-6.667	57.6
10	MP4	X	-5.795	12.6
11	MP4	X	-5.795	57.9
12	MP5	X	-7.922	12.6
13	MP5	X	-7.922	57.9
14	MP6	X	-7.922	12.6
15	MP6	X	-7.922	57.9
16	MP7	X	-3.706	22
17	MP7	X	-3.706	48.5
18	MP8	X	-6.195	22
19	MP8	X	-6.195	48.5
20	MP9	X	-6.195	22
21	MP9	X	-6.195	48.5
22	MP10	X	-12.562	6
23	MP10	X	-9.581	73.6
24	MP10	Mz	.713	47.25

Member Point Loads (BLC 8 : Wind -X (Working)) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
25	MP10	X	-1.782	26.25
26	MP11	Mz	1.133	47.25
27	MP11	X	-4.358	26.25
28	MP11	X	-23.754	6
29	MP11	X	-18.117	73.6
30	MP12	Mz	1.133	47.25
31	MP12	X	-4.358	26.25
32	MP12	X	-23.754	6
33	MP12	X	-18.117	73.6

Member Distributed Loads (BLC 2 : Ice)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	H001	Y	-1.812	-1.812	0	%100
2	H002	Y	-1.812	-1.812	0	%100
3	H003	Y	-1.812	-1.812	0	%100
4	H004	Y	-1.812	-1.812	0	%100
5	H005	Y	-1.812	-1.812	0	%100
6	H006	Y	-1.812	-1.812	0	%100
7	V007	Y	-8.238	-8.238	0	%100
8	H008	Y	-9.922	-9.922	0	%100
9	H009	Y	-7.511	-7.511	0	%100
10	H010	Y	-5.146	-5.146	0	%100
11	H011	Y	-2.205	-2.205	0	%100
12	H012	Y	-2.205	-2.205	0	%100
13	H013	Y	-9.922	-9.922	0	%100
14	H014	Y	-7.511	-7.511	0	%100
15	H015	Y	-5.146	-5.146	0	%100
16	H016	Y	-2.205	-2.205	0	%100
17	H017	Y	-2.205	-2.205	0	%100
18	H018	Y	-9.922	-9.922	0	%100
19	H019	Y	-7.511	-7.511	0	%100
20	H020	Y	-5.146	-5.146	0	%100
21	H021	Y	-2.205	-2.205	0	%100
22	H022	Y	-2.205	-2.205	0	%100
23	V023	Y	-8.238	-8.238	0	%100
24	V024	Y	-8.238	-8.238	0	%100
25	H025	Y	-1.875	-1.875	0	%100
26	H026	Y	-1.875	-1.875	0	%100
27	H027	Y	-1.875	-1.875	0	%100
28	H028	Y	-2.119	-2.119	0	%100
29	H029	Y	-2.119	-2.119	0	%100
30	H030	Y	-2.119	-2.119	0	%100
31	MP1	Y	-5.146	-5.146	0	%100
32	MP2	Y	-5.146	-5.146	0	%100
33	MP3	Y	-5.146	-5.146	0	%100
34	MP4	Y	-5.146	-5.146	0	%100
35	MP5	Y	-5.146	-5.146	0	%100
36	MP6	Y	-5.146	-5.146	0	%100
37	MP7	Y	-5.146	-5.146	0	%100
38	MP8	Y	-5.146	-5.146	0	%100

Member Distributed Loads (BLC 2 : Ice) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
39	MP9	Y	-5.146	-5.146	0	%100
40	MP10	Y	-5.146	-5.146	0	%100
41	MP11	Y	-5.146	-5.146	0	%100
42	MP12	Y	-5.146	-5.146	0	%100

Member Distributed Loads (BLC 5 : Wind -Z (Ice))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	H001	Z	-1.559	-1.559	0	%100
2	H002	Z	-1.559	-1.559	0	%100
3	H003	Z	-1.559	-1.559	0	%100
4	H004	Z	-1.559	-1.559	0	%100
5	H005	Z	-1.559	-1.559	0	%100
6	H006	Z	-1.559	-1.559	0	%100
7	V007	Z	-1.559	-1.559	0	%100
8	H008	Z	-1.559	-1.559	0	%100
9	H009	Z	-1.559	-1.559	0	%100
10	H010	Z	-1.559	-1.559	0	%100
11	H011	Z	-1.559	-1.559	0	%100
12	H012	Z	-1.559	-1.559	0	%100
13	H013	Z	-1.559	-1.559	0	%100
14	H014	Z	-1.559	-1.559	0	%100
15	H015	Z	-1.559	-1.559	0	%100
16	H016	Z	-1.559	-1.559	0	%100
17	H017	Z	-1.559	-1.559	0	%100
18	H018	Z	-1.559	-1.559	0	%100
19	H019	Z	-1.559	-1.559	0	%100
20	H020	Z	-1.559	-1.559	0	%100
21	H021	Z	-1.559	-1.559	0	%100
22	H022	Z	-1.559	-1.559	0	%100
23	V023	Z	-1.559	-1.559	0	%100
24	V024	Z	-1.559	-1.559	0	%100
25	H025	Z	-1.559	-1.559	0	%100
26	H026	Z	-1.559	-1.559	0	%100
27	H027	Z	-1.559	-1.559	0	%100
28	H028	Z	-1.559	-1.559	0	%100
29	H029	Z	-1.559	-1.559	0	%100
30	H030	Z	-1.559	-1.559	0	%100
31	MP1	Z	-1.559	-1.559	0	%100
32	MP2	Z	-1.559	-1.559	0	%100
33	MP3	Z	-1.559	-1.559	0	%100
34	MP4	Z	-1.559	-1.559	0	%100
35	MP5	Z	-1.559	-1.559	0	%100
36	MP6	Z	-1.559	-1.559	0	%100
37	MP7	Z	-1.559	-1.559	0	%100
38	MP8	Z	-1.559	-1.559	0	%100
39	MP9	Z	-1.559	-1.559	0	%100
40	MP10	Z	-1.559	-1.559	0	%100
41	MP11	Z	-1.559	-1.559	0	%100
42	MP12	Z	-1.559	-1.559	0	%100

Member Distributed Loads (BLC 6 : Wind -X (Ice))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	H001	X	-1.559	-1.559	0	%100
2	H002	X	-1.559	-1.559	0	%100
3	H003	X	-1.559	-1.559	0	%100
4	H004	X	-1.559	-1.559	0	%100
5	H005	X	-1.559	-1.559	0	%100
6	H006	X	-1.559	-1.559	0	%100
7	V007	X	-1.559	-1.559	0	%100
8	H008	X	-1.559	-1.559	0	%100
9	H009	X	-1.559	-1.559	0	%100
10	H010	X	-1.559	-1.559	0	%100
11	H011	X	-1.559	-1.559	0	%100
12	H012	X	-1.559	-1.559	0	%100
13	H013	X	-1.559	-1.559	0	%100
14	H014	X	-1.559	-1.559	0	%100
15	H015	X	-1.559	-1.559	0	%100
16	H016	X	-1.559	-1.559	0	%100
17	H017	X	-1.559	-1.559	0	%100
18	H018	X	-1.559	-1.559	0	%100
19	H019	X	-1.559	-1.559	0	%100
20	H020	X	-1.559	-1.559	0	%100
21	H021	X	-1.559	-1.559	0	%100
22	H022	X	-1.559	-1.559	0	%100
23	V023	X	-1.559	-1.559	0	%100
24	V024	X	-1.559	-1.559	0	%100
25	H025	X	-1.559	-1.559	0	%100
26	H026	X	-1.559	-1.559	0	%100
27	H027	X	-1.559	-1.559	0	%100
28	H028	X	-1.559	-1.559	0	%100
29	H029	X	-1.559	-1.559	0	%100
30	H030	X	-1.559	-1.559	0	%100
31	MP1	X	-1.559	-1.559	0	%100
32	MP2	X	-1.559	-1.559	0	%100
33	MP3	X	-1.559	-1.559	0	%100
34	MP4	X	-1.559	-1.559	0	%100
35	MP5	X	-1.559	-1.559	0	%100
36	MP6	X	-1.559	-1.559	0	%100
37	MP7	X	-1.559	-1.559	0	%100
38	MP8	X	-1.559	-1.559	0	%100
39	MP9	X	-1.559	-1.559	0	%100
40	MP10	X	-1.559	-1.559	0	%100
41	MP11	X	-1.559	-1.559	0	%100
42	MP12	X	-1.559	-1.559	0	%100

Member Distributed Loads (BLC 9 : Ev -Y (Seismic))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	H001	Y	-.541	-.541	0	%100
2	H002	Y	-.541	-.541	0	%100
3	H003	Y	-.541	-.541	0	%100
4	H004	Y	-.541	-.541	0	%100
5	H005	Y	-.541	-.541	0	%100
6	H006	Y	-.541	-.541	0	%100

Member Distributed Loads (BLC 9 : Ev -Y (Seismic)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
7	V007	Y	-.541	-.541	0	%100
8	H008	Y	-.541	-.541	0	%100
9	H009	Y	-.541	-.541	0	%100
10	H010	Y	-.541	-.541	0	%100
11	H011	Y	-.541	-.541	0	%100
12	H012	Y	-.541	-.541	0	%100
13	H013	Y	-.541	-.541	0	%100
14	H014	Y	-.541	-.541	0	%100
15	H015	Y	-.541	-.541	0	%100
16	H016	Y	-.541	-.541	0	%100
17	H017	Y	-.541	-.541	0	%100
18	H018	Y	-.541	-.541	0	%100
19	H019	Y	-.541	-.541	0	%100
20	H020	Y	-.541	-.541	0	%100
21	H021	Y	-.541	-.541	0	%100
22	H022	Y	-.541	-.541	0	%100
23	V023	Y	-.541	-.541	0	%100
24	V024	Y	-.541	-.541	0	%100
25	H025	Y	-.541	-.541	0	%100
26	H026	Y	-.541	-.541	0	%100
27	H027	Y	-.541	-.541	0	%100
28	H028	Y	-.541	-.541	0	%100
29	H029	Y	-.541	-.541	0	%100
30	H030	Y	-.541	-.541	0	%100
31	MP1	Y	-.541	-.541	0	%100
32	MP2	Y	-.541	-.541	0	%100
33	MP3	Y	-.541	-.541	0	%100
34	MP4	Y	-.541	-.541	0	%100
35	MP5	Y	-.541	-.541	0	%100
36	MP6	Y	-.541	-.541	0	%100
37	MP7	Y	-.541	-.541	0	%100
38	MP8	Y	-.541	-.541	0	%100
39	MP9	Y	-.541	-.541	0	%100
40	MP10	Y	-.541	-.541	0	%100
41	MP11	Y	-.541	-.541	0	%100
42	MP12	Y	-.541	-.541	0	%100

Member Distributed Loads (BLC 10 : Eh -Z (Seismic))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	H001	Z	-1.352	-1.352	0	%100
2	H002	Z	-1.352	-1.352	0	%100
3	H003	Z	-1.352	-1.352	0	%100
4	H004	Z	-1.352	-1.352	0	%100
5	H005	Z	-1.352	-1.352	0	%100
6	H006	Z	-1.352	-1.352	0	%100
7	V007	Z	-1.352	-1.352	0	%100
8	H008	Z	-1.352	-1.352	0	%100
9	H009	Z	-1.352	-1.352	0	%100
10	H010	Z	-1.352	-1.352	0	%100
11	H011	Z	-1.352	-1.352	0	%100
12	H012	Z	-1.352	-1.352	0	%100

Member Distributed Loads (BLC 10 : Eh -Z (Seismic)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
13	H013	Z	-1.352	-1.352	0	%100
14	H014	Z	-1.352	-1.352	0	%100
15	H015	Z	-1.352	-1.352	0	%100
16	H016	Z	-1.352	-1.352	0	%100
17	H017	Z	-1.352	-1.352	0	%100
18	H018	Z	-1.352	-1.352	0	%100
19	H019	Z	-1.352	-1.352	0	%100
20	H020	Z	-1.352	-1.352	0	%100
21	H021	Z	-1.352	-1.352	0	%100
22	H022	Z	-1.352	-1.352	0	%100
23	V023	Z	-1.352	-1.352	0	%100
24	V024	Z	-1.352	-1.352	0	%100
25	H025	Z	-1.352	-1.352	0	%100
26	H026	Z	-1.352	-1.352	0	%100
27	H027	Z	-1.352	-1.352	0	%100
28	H028	Z	-1.352	-1.352	0	%100
29	H029	Z	-1.352	-1.352	0	%100
30	H030	Z	-1.352	-1.352	0	%100
31	MP1	Z	-1.352	-1.352	0	%100
32	MP2	Z	-1.352	-1.352	0	%100
33	MP3	Z	-1.352	-1.352	0	%100
34	MP4	Z	-1.352	-1.352	0	%100
35	MP5	Z	-1.352	-1.352	0	%100
36	MP6	Z	-1.352	-1.352	0	%100
37	MP7	Z	-1.352	-1.352	0	%100
38	MP8	Z	-1.352	-1.352	0	%100
39	MP9	Z	-1.352	-1.352	0	%100
40	MP10	Z	-1.352	-1.352	0	%100
41	MP11	Z	-1.352	-1.352	0	%100
42	MP12	Z	-1.352	-1.352	0	%100

Member Distributed Loads (BLC 11 : Eh -X (Seismic))

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	H001	X	-1.352	-1.352	0	%100
2	H002	X	-1.352	-1.352	0	%100
3	H003	X	-1.352	-1.352	0	%100
4	H004	X	-1.352	-1.352	0	%100
5	H005	X	-1.352	-1.352	0	%100
6	H006	X	-1.352	-1.352	0	%100
7	V007	X	-1.352	-1.352	0	%100
8	H008	X	-1.352	-1.352	0	%100
9	H009	X	-1.352	-1.352	0	%100
10	H010	X	-1.352	-1.352	0	%100
11	H011	X	-1.352	-1.352	0	%100
12	H012	X	-1.352	-1.352	0	%100
13	H013	X	-1.352	-1.352	0	%100
14	H014	X	-1.352	-1.352	0	%100
15	H015	X	-1.352	-1.352	0	%100
16	H016	X	-1.352	-1.352	0	%100
17	H017	X	-1.352	-1.352	0	%100
18	H018	X	-1.352	-1.352	0	%100

Member Distributed Loads (BLC 11 : Eh -X (Seismic)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
19	H019	X	-1.352	-1.352	0	%100
20	H020	X	-1.352	-1.352	0	%100
21	H021	X	-1.352	-1.352	0	%100
22	H022	X	-1.352	-1.352	0	%100
23	V023	X	-1.352	-1.352	0	%100
24	V024	X	-1.352	-1.352	0	%100
25	H025	X	-1.352	-1.352	0	%100
26	H026	X	-1.352	-1.352	0	%100
27	H027	X	-1.352	-1.352	0	%100
28	H028	X	-1.352	-1.352	0	%100
29	H029	X	-1.352	-1.352	0	%100
30	H030	X	-1.352	-1.352	0	%100
31	MP1	X	-1.352	-1.352	0	%100
32	MP2	X	-1.352	-1.352	0	%100
33	MP3	X	-1.352	-1.352	0	%100
34	MP4	X	-1.352	-1.352	0	%100
35	MP5	X	-1.352	-1.352	0	%100
36	MP6	X	-1.352	-1.352	0	%100
37	MP7	X	-1.352	-1.352	0	%100
38	MP8	X	-1.352	-1.352	0	%100
39	MP9	X	-1.352	-1.352	0	%100
40	MP10	X	-1.352	-1.352	0	%100
41	MP11	X	-1.352	-1.352	0	%100
42	MP12	X	-1.352	-1.352	0	%100

Member Distributed Loads (BLC 24 : BLC 3 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	H002	Z	0	0	0	3
2	H003	Z	0	0	0	3
3	H005	Z	0	0	0	3
4	H006	Z	0	0	0	3
5	V007	Z	-15.386	-15.386	0	36
6	H009	Z	-13.676	-13.676	0	168
7	H010	Z	-8.12	-8.12	0	174
8	H011	Z	-4.587	-4.587	0	30.187
9	H012	Z	-4.587	-4.587	0	30.187
10	H013	Z	-11.844	-11.844	0	42
11	H014	Z	-6.838	-6.838	0	168
12	H015	Z	-4.06	-4.06	0	174
13	H016	Z	-5.652	-5.652	0	30.187
14	H017	Z	-10.239	-10.239	0	30.187
15	H018	Z	-11.844	-11.844	0	42
16	H019	Z	-6.838	-6.838	0	168
17	H020	Z	-4.06	-4.06	0	174
18	H021	Z	-10.239	-10.239	0	30.187
19	H022	Z	-5.652	-5.652	0	30.187
20	V023	Z	-15.386	-15.386	0	36
21	V024	Z	-15.386	-15.386	0	36
22	H025	Z	-.427	-.427	0	21.746
23	H026	Z	-.855	-.855	0	21.746
24	H027	Z	-.427	-.427	0	21.746

Member Distributed Loads (BLC 24 : BLC 3 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
25	H028	Z	-4.274	-4.274	0	38.512
26	H029	Z	-8.548	-8.548	0	38.512
27	H030	Z	-4.274	-4.274	0	38.512
28	U039	Z	-2.961	-2.961	0	3
29	U040	Z	-2.961	-2.961	0	3
30	U041	Z	-2.961	-2.961	0	3
31	U042	Z	-2.961	-2.961	0	3
32	U043	Z	-2.961	-2.961	0	3
33	U044	Z	-2.961	-2.961	0	3
34	U045	Z	-2.961	-2.961	0	3
35	U046	Z	-2.961	-2.961	0	3
36	U047	Z	-2.961	-2.961	0	3
37	U048	Z	-2.961	-2.961	0	3
38	U049	Z	-2.961	-2.961	0	3
39	U050	Z	-2.961	-2.961	0	3
40	U051	Z	-2.961	-2.961	0	3
41	U052	Z	-2.961	-2.961	0	3
42	U053	Z	-2.961	-2.961	0	3
43	U054	Z	-2.961	-2.961	0	3
44	MP1	Z	-8.12	-8.12	0	96
45	MP2	Z	-8.12	-8.12	0	96
46	MP3	Z	-8.12	-8.12	0	96
47	MP4	Z	-8.12	-8.12	0	96
48	MP5	Z	-8.12	-8.12	0	96
49	MP6	Z	-8.12	-8.12	0	96
50	MP7	Z	-8.12	-8.12	0	96
51	MP8	Z	-8.12	-8.12	0	96
52	MP9	Z	-8.12	-8.12	0	96
53	MP10	Z	-8.12	-8.12	0	96
54	MP11	Z	-8.12	-8.12	0	96
55	MP12	Z	-8.12	-8.12	0	96

Member Distributed Loads (BLC 25 : BLC 4 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	H001	X	0	0	0	3
2	H002	X	0	0	0	3
3	H003	X	0	0	0	3
4	H004	X	0	0	0	3
5	H005	X	0	0	0	3
6	H006	X	0	0	0	3
7	V007	X	-15.386	-15.386	0	36
8	H008	X	-13.676	-13.676	0	42
9	H011	X	-9.174	-9.174	0	30.187
10	H012	X	-9.174	-9.174	0	30.187
11	H013	X	-6.838	-6.838	0	42
12	H014	X	-11.844	-11.844	0	168
13	H015	X	-7.032	-7.032	0	174
14	H016	X	-8.56	-8.56	0	30.187
15	H017	X	-.615	-.615	0	30.187
16	H018	X	-6.838	-6.838	0	42
17	H019	X	-11.844	-11.844	0	168

Member Distributed Loads (BLC 25 : BLC 4 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
18	H020	X	-7.032	-7.032	0	174
19	H021	X	-.615	-.615	0	30.187
20	H022	X	-8.56	-8.56	0	30.187
21	V023	X	-15.386	-15.386	0	36
22	V024	X	-15.386	-15.386	0	36
23	H025	X	-.74	-.74	0	21.746
24	H027	X	-.74	-.74	0	21.746
25	H028	X	-7.403	-7.403	0	38.512
26	H030	X	-7.403	-7.403	0	38.512
27	U031	X	-3.419	-3.419	0	3
28	U032	X	-3.419	-3.419	0	3
29	U033	X	-3.419	-3.419	0	3
30	U034	X	-3.419	-3.419	0	3
31	U035	X	-3.419	-3.419	0	3
32	U036	X	-3.419	-3.419	0	3
33	U037	X	-3.419	-3.419	0	3
34	U038	X	-3.419	-3.419	0	3
35	U039	X	-1.71	-1.71	0	3
36	U040	X	-1.71	-1.71	0	3
37	U041	X	-1.71	-1.71	0	3
38	U042	X	-1.71	-1.71	0	3
39	U043	X	-1.71	-1.71	0	3
40	U044	X	-1.71	-1.71	0	3
41	U045	X	-1.71	-1.71	0	3
42	U046	X	-1.71	-1.71	0	3
43	U047	X	-1.71	-1.71	0	3
44	U048	X	-1.71	-1.71	0	3
45	U049	X	-1.71	-1.71	0	3
46	U050	X	-1.71	-1.71	0	3
47	U051	X	-1.71	-1.71	0	3
48	U052	X	-1.71	-1.71	0	3
49	U053	X	-1.71	-1.71	0	3
50	U054	X	-1.71	-1.71	0	3
51	MP1	X	-8.12	-8.12	0	96
52	MP2	X	-8.12	-8.12	0	96
53	MP3	X	-8.12	-8.12	0	96
54	MP4	X	-8.12	-8.12	0	96
55	MP5	X	-8.12	-8.12	0	96
56	MP6	X	-8.12	-8.12	0	96
57	MP7	X	-8.12	-8.12	0	96
58	MP8	X	-8.12	-8.12	0	96
59	MP9	X	-8.12	-8.12	0	96
60	MP10	X	-8.12	-8.12	0	96
61	MP11	X	-8.12	-8.12	0	96
62	MP12	X	-8.12	-8.12	0	96

Member Distributed Loads (BLC 26 : BLC 5 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	H002	Z	0	0	0	3
2	H003	Z	0	0	0	3
3	H005	Z	0	0	0	3

Member Distributed Loads (BLC 26 : BLC 5 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
4	H006	Z	0	0	0	3
5	V007	Z	-2.716	-2.716	0	36
6	H009	Z	-2.415	-2.415	0	168
7	H010	Z	-1.434	-1.434	0	174
8	H011	Z	-.81	-.81	0	30.187
9	H012	Z	-.81	-.81	0	30.187
10	H013	Z	-2.091	-2.091	0	42
11	H014	Z	-1.207	-1.207	0	168
12	H015	Z	-.717	-.717	0	174
13	H016	Z	-.998	-.998	0	30.187
14	H017	Z	-1.808	-1.808	0	30.187
15	H018	Z	-2.091	-2.091	0	42
16	H019	Z	-1.207	-1.207	0	168
17	H020	Z	-.717	-.717	0	174
18	H021	Z	-1.808	-1.808	0	30.187
19	H022	Z	-.998	-.998	0	30.187
20	V023	Z	-2.716	-2.716	0	36
21	V024	Z	-2.716	-2.716	0	36
22	H025	Z	-.075	-.075	0	21.746
23	H026	Z	-.151	-.151	0	21.746
24	H027	Z	-.075	-.075	0	21.746
25	H028	Z	-.755	-.755	0	38.512
26	H029	Z	-1.509	-1.509	0	38.512
27	H030	Z	-.755	-.755	0	38.512
28	U039	Z	-.523	-.523	0	3
29	U040	Z	-.523	-.523	0	3
30	U041	Z	-.523	-.523	0	3
31	U042	Z	-.523	-.523	0	3
32	U043	Z	-.523	-.523	0	3
33	U044	Z	-.523	-.523	0	3
34	U045	Z	-.523	-.523	0	3
35	U046	Z	-.523	-.523	0	3
36	U047	Z	-.523	-.523	0	3
37	U048	Z	-.523	-.523	0	3
38	U049	Z	-.523	-.523	0	3
39	U050	Z	-.523	-.523	0	3
40	U051	Z	-.523	-.523	0	3
41	U052	Z	-.523	-.523	0	3
42	U053	Z	-.523	-.523	0	3
43	U054	Z	-.523	-.523	0	3
44	MP1	Z	-1.434	-1.434	0	96
45	MP2	Z	-1.434	-1.434	0	96
46	MP3	Z	-1.434	-1.434	0	96
47	MP4	Z	-1.434	-1.434	0	96
48	MP5	Z	-1.434	-1.434	0	96
49	MP6	Z	-1.434	-1.434	0	96
50	MP7	Z	-1.434	-1.434	0	96
51	MP8	Z	-1.434	-1.434	0	96
52	MP9	Z	-1.434	-1.434	0	96
53	MP10	Z	-1.434	-1.434	0	96
54	MP11	Z	-1.434	-1.434	0	96
55	MP12	Z	-1.434	-1.434	0	96

Member Distributed Loads (BLC 27 : BLC 6 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	H001	X	0	0	0	3
2	H002	X	0	0	0	3
3	H003	X	0	0	0	3
4	H004	X	0	0	0	3
5	H005	X	0	0	0	3
6	H006	X	0	0	0	3
7	V007	X	-2.716	-2.716	0	36
8	H008	X	-2.415	-2.415	0	42
9	H011	X	-1.62	-1.62	0	30.187
10	H012	X	-1.62	-1.62	0	30.187
11	H013	X	-1.207	-1.207	0	42
12	H014	X	-2.091	-2.091	0	168
13	H015	X	-1.242	-1.242	0	174
14	H016	X	-1.511	-1.511	0	30.187
15	H017	X	-.108	-.108	0	30.187
16	H018	X	-1.207	-1.207	0	42
17	H019	X	-2.091	-2.091	0	168
18	H020	X	-1.242	-1.242	0	174
19	H021	X	-.108	-.108	0	30.187
20	H022	X	-1.511	-1.511	0	30.187
21	V023	X	-2.716	-2.716	0	36
22	V024	X	-2.716	-2.716	0	36
23	H025	X	-.131	-.131	0	21.746
24	H027	X	-.131	-.131	0	21.746
25	H028	X	-1.307	-1.307	0	38.512
26	H030	X	-1.307	-1.307	0	38.512
27	U031	X	-.604	-.604	0	3
28	U032	X	-.604	-.604	0	3
29	U033	X	-.604	-.604	0	3
30	U034	X	-.604	-.604	0	3
31	U035	X	-.604	-.604	0	3
32	U036	X	-.604	-.604	0	3
33	U037	X	-.604	-.604	0	3
34	U038	X	-.604	-.604	0	3
35	U039	X	-.302	-.302	0	3
36	U040	X	-.302	-.302	0	3
37	U041	X	-.302	-.302	0	3
38	U042	X	-.302	-.302	0	3
39	U043	X	-.302	-.302	0	3
40	U044	X	-.302	-.302	0	3
41	U045	X	-.302	-.302	0	3
42	U046	X	-.302	-.302	0	3
43	U047	X	-.302	-.302	0	3
44	U048	X	-.302	-.302	0	3
45	U049	X	-.302	-.302	0	3
46	U050	X	-.302	-.302	0	3
47	U051	X	-.302	-.302	0	3
48	U052	X	-.302	-.302	0	3
49	U053	X	-.302	-.302	0	3
50	U054	X	-.302	-.302	0	3
51	MP1	X	-1.434	-1.434	0	96
52	MP2	X	-1.434	-1.434	0	96

Member Distributed Loads (BLC 27 : BLC 6 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
53	MP3	X	-1.434	-1.434	0	96
54	MP4	X	-1.434	-1.434	0	96
55	MP5	X	-1.434	-1.434	0	96
56	MP6	X	-1.434	-1.434	0	96
57	MP7	X	-1.434	-1.434	0	96
58	MP8	X	-1.434	-1.434	0	96
59	MP9	X	-1.434	-1.434	0	96
60	MP10	X	-1.434	-1.434	0	96
61	MP11	X	-1.434	-1.434	0	96
62	MP12	X	-1.434	-1.434	0	96

Member Distributed Loads (BLC 28 : BLC 7 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	H002	Z	0	0	0	3
2	H003	Z	0	0	0	3
3	H005	Z	0	0	0	3
4	H006	Z	0	0	0	3
5	V007	Z	-.978	-.978	0	36
6	H009	Z	-.869	-.869	0	168
7	H010	Z	-.516	-.516	0	174
8	H011	Z	-.291	-.291	0	30.187
9	H012	Z	-.291	-.291	0	30.187
10	H013	Z	-.753	-.753	0	42
11	H014	Z	-.435	-.435	0	168
12	H015	Z	-.258	-.258	0	174
13	H016	Z	-.359	-.359	0	30.187
14	H017	Z	-.651	-.651	0	30.187
15	H018	Z	-.753	-.753	0	42
16	H019	Z	-.435	-.435	0	168
17	H020	Z	-.258	-.258	0	174
18	H021	Z	-.651	-.651	0	30.187
19	H022	Z	-.359	-.359	0	30.187
20	V023	Z	-.978	-.978	0	36
21	V024	Z	-.978	-.978	0	36
22	H025	Z	-.027	-.027	0	21.746
23	H026	Z	-.054	-.054	0	21.746
24	H027	Z	-.027	-.027	0	21.746
25	H028	Z	-.272	-.272	0	38.512
26	H029	Z	-.543	-.543	0	38.512
27	H030	Z	-.272	-.272	0	38.512
28	U039	Z	-.188	-.188	0	3
29	U040	Z	-.188	-.188	0	3
30	U041	Z	-.188	-.188	0	3
31	U042	Z	-.188	-.188	0	3
32	U043	Z	-.188	-.188	0	3
33	U044	Z	-.188	-.188	0	3
34	U045	Z	-.188	-.188	0	3
35	U046	Z	-.188	-.188	0	3
36	U047	Z	-.188	-.188	0	3
37	U048	Z	-.188	-.188	0	3
38	U049	Z	-.188	-.188	0	3

Member Distributed Loads (BLC 28 : BLC 7 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
39	U050	Z	-.188	-.188	0	3
40	U051	Z	-.188	-.188	0	3
41	U052	Z	-.188	-.188	0	3
42	U053	Z	-.188	-.188	0	3
43	U054	Z	-.188	-.188	0	3
44	MP1	Z	-.516	-.516	0	96
45	MP2	Z	-.516	-.516	0	96
46	MP3	Z	-.516	-.516	0	96
47	MP4	Z	-.516	-.516	0	96
48	MP5	Z	-.516	-.516	0	96
49	MP6	Z	-.516	-.516	0	96
50	MP7	Z	-.516	-.516	0	96
51	MP8	Z	-.516	-.516	0	96
52	MP9	Z	-.516	-.516	0	96
53	MP10	Z	-.516	-.516	0	96
54	MP11	Z	-.516	-.516	0	96
55	MP12	Z	-.516	-.516	0	96

Member Distributed Loads (BLC 29 : BLC 8 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	H001	X	0	0	0	3
2	H002	X	0	0	0	3
3	H003	X	0	0	0	3
4	H004	X	0	0	0	3
5	H005	X	0	0	0	3
6	H006	X	0	0	0	3
7	V007	X	-.978	-.978	0	36
8	H008	X	-.869	-.869	0	42
9	H011	X	-.583	-.583	0	30.187
10	H012	X	-.583	-.583	0	30.187
11	H013	X	-.435	-.435	0	42
12	H014	X	-.753	-.753	0	168
13	H015	X	-.447	-.447	0	174
14	H016	X	-.544	-.544	0	30.187
15	H017	X	-.039	-.039	0	30.187
16	H018	X	-.435	-.435	0	42
17	H019	X	-.753	-.753	0	168
18	H020	X	-.447	-.447	0	174
19	H021	X	-.039	-.039	0	30.187
20	H022	X	-.544	-.544	0	30.187
21	V023	X	-.978	-.978	0	36
22	V024	X	-.978	-.978	0	36
23	H025	X	-.047	-.047	0	21.746
24	H027	X	-.047	-.047	0	21.746
25	H028	X	-.47	-.47	0	38.512
26	H030	X	-.47	-.47	0	38.512
27	U031	X	-.217	-.217	0	3
28	U032	X	-.217	-.217	0	3
29	U033	X	-.217	-.217	0	3
30	U034	X	-.217	-.217	0	3
31	U035	X	-.217	-.217	0	3

Member Distributed Loads (BLC 29 : BLC 8 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
32	U036	X	-.217	-.217	0	3
33	U037	X	-.217	-.217	0	3
34	U038	X	-.217	-.217	0	3
35	U039	X	-.109	-.109	0	3
36	U040	X	-.109	-.109	0	3
37	U041	X	-.109	-.109	0	3
38	U042	X	-.109	-.109	0	3
39	U043	X	-.109	-.109	0	3
40	U044	X	-.109	-.109	0	3
41	U045	X	-.109	-.109	0	3
42	U046	X	-.109	-.109	0	3
43	U047	X	-.109	-.109	0	3
44	U048	X	-.109	-.109	0	3
45	U049	X	-.109	-.109	0	3
46	U050	X	-.109	-.109	0	3
47	U051	X	-.109	-.109	0	3
48	U052	X	-.109	-.109	0	3
49	U053	X	-.109	-.109	0	3
50	U054	X	-.109	-.109	0	3
51	MP1	X	-.516	-.516	0	96
52	MP2	X	-.516	-.516	0	96
53	MP3	X	-.516	-.516	0	96
54	MP4	X	-.516	-.516	0	96
55	MP5	X	-.516	-.516	0	96
56	MP6	X	-.516	-.516	0	96
57	MP7	X	-.516	-.516	0	96
58	MP8	X	-.516	-.516	0	96
59	MP9	X	-.516	-.516	0	96
60	MP10	X	-.516	-.516	0	96
61	MP11	X	-.516	-.516	0	96
62	MP12	X	-.516	-.516	0	96

Member Area Loads (BLC 3 : Wind -Z)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	NAL1	NAL2	NAL4	NAL3	PZ	Open Structure	-41.029

Member Area Loads (BLC 4 : Wind -X)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	NAL3	NAL4	NAL6	NAL5	PX	Open Structure	-41.029

Member Area Loads (BLC 5 : Wind -Z (Ice))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	NAL1	NAL2	NAL4	NAL3	PZ	Open Structure	-7.244

Member Area Loads (BLC 6 : Wind -X (Ice))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	NAL3	NAL4	NAL6	NAL5	PX	Open Structure	-7.244

Member Area Loads (BLC 7 : Wind -Z (Working))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	NAL1	NAL2	NAL4	NAL3	PZ	Open Structure	-2.607

Member Area Loads (BLC 8 : Wind -X (Working))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
1	NAL3	NAL4	NAL6	NAL5	PX	Open Structure	-2.607

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Dead	DL		-1			33			
2	Ice	IL					33	42		6
3	Wind -Z	WLZ					36		1	
4	Wind -X	WLX					33		1	
5	Wind -Z (Ice)	WL-Z					33	42	1	
6	Wind -X (Ice)	WL-X					33	42	1	
7	Wind -Z (Working)	WLZP1					33		1	
8	Wind -X (Working)	WLXP1					33		1	
9	Ev -Y (Seismic)	ELY						42		
10	Eh -Z (Seismic)	ELZ						42		
11	Eh -X (Seismic)	ELX						42		
12	Lm (1)	LL				1				
13	Lm (2)	LL				1				
14	Lm (3)	LL				1				
15	Lm (4)	LL				1				
16	Lm (5)	LL				1				
17	Lm (6)	LL				1				
18	Lm (7)	LL				1				
19	Lm (8)	LL				1				
20	Lm (9)	LL				1				
21	Lm (10)	LL				1				
22	Lm (11)	LL				1				
23	Lm (12)	LL				1				
24	BLC 3 Transient Area...	None						55		
25	BLC 4 Transient Area...	None						62		
26	BLC 5 Transient Area...	None						55		
27	BLC 6 Transient Area...	None						62		
28	BLC 7 Transient Area...	None						55		
29	BLC 8 Transient Area...	None						62		

Load Combinations

	Description	Sol..	PD..	SR..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact...
1	1.4D	Yes	Y		DL	1.4																				
2	1.2D + 1.0Wo...	Yes	Y		DL	1.2	W...	.001	W...	1																
3	1.2D + 1.0Wo...	Yes	Y		DL	1.2	W...	.5	W...	.866																
4	1.2D + 1.0Wo...	Yes	Y		DL	1.2	W...	.866	W...	.5																
5	1.2D + 1.0Wo...	Yes	Y		DL	1.2	W...	1	W...	.001																
6	1.2D + 1.0Wo...	Yes	Y		DL	1.2	W...	.866	W...	-.5																
7	1.2D + 1.0Wo...	Yes	Y		DL	1.2	W...	.5	W...	-.866																
8	1.2D + 1.0Wo...	Yes	Y		DL	1.2	W...	.001	W...	-1																

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact...
9	1.2D + 1.0Wo...	Yes	Y		DL	1.2	W...	-.5	W...	-.866																
10	1.2D + 1.0Wo...	Yes	Y		DL	1.2	W...	-.866	W...	-.5																
11	1.2D + 1.0Wo...	Yes	Y		DL	1.2	W...	-1	W...	.001																
12	1.2D + 1.0Wo...	Yes	Y		DL	1.2	W...	-.866	W...	.5																
13	1.2D + 1.0Wo...	Yes	Y		DL	1.2	W...	-.5	W...	.866																
14	0.9D + 1.0Wo...	Yes	Y		DL	.9	W...	.001	W...	1																
15	0.9D + 1.0Wo...	Yes	Y		DL	.9	W...	.5	W...	.866																
16	0.9D + 1.0Wo...	Yes	Y		DL	.9	W...	.866	W...	.5																
17	0.9D + 1.0Wo...	Yes	Y		DL	.9	W...	1	W...	.001																
18	0.9D + 1.0Wo...	Yes	Y		DL	.9	W...	.866	W...	-.5																
19	0.9D + 1.0Wo...	Yes	Y		DL	.9	W...	.5	W...	-.866																
20	0.9D + 1.0Wo...	Yes	Y		DL	.9	W...	.001	W...	-1																
21	0.9D + 1.0Wo...	Yes	Y		DL	.9	W...	-.5	W...	-.866																
22	0.9D + 1.0Wo...	Yes	Y		DL	.9	W...	-.866	W...	-.5																
23	0.9D + 1.0Wo...	Yes	Y		DL	.9	W...	-1	W...	.001																
24	0.9D + 1.0Wo...	Yes	Y		DL	.9	W...	-.866	W...	.5																
25	0.9D + 1.0Wo...	Yes	Y		DL	.9	W...	-.5	W...	.866																
26	1.2D + 1.0Di +...	Yes	Y		DL	1.2	IL	1	W...	.001	W...	1														
27	1.2D + 1.0Di +...	Yes	Y		DL	1.2	IL	1	W...	.5	W...	.866														
28	1.2D + 1.0Di +...	Yes	Y		DL	1.2	IL	1	W...	.866	W...	.5														
29	1.2D + 1.0Di +...	Yes	Y		DL	1.2	IL	1	W...	1	W...	.001														
30	1.2D + 1.0Di +...	Yes	Y		DL	1.2	IL	1	W...	.866	W...	-.5														
31	1.2D + 1.0Di +...	Yes	Y		DL	1.2	IL	1	W...	.5	W...	-.866														
32	1.2D + 1.0Di +...	Yes	Y		DL	1.2	IL	1	W...	.001	W...	-1														
33	1.2D + 1.0Di +...	Yes	Y		DL	1.2	IL	1	W...	-.5	W...	-.866														
34	1.2D + 1.0Di +...	Yes	Y		DL	1.2	IL	1	W...	-.866	W...	-.5														
35	1.2D + 1.0Di +...	Yes	Y		DL	1.2	IL	1	W...	-1	W...	.001														
36	1.2D + 1.0Di +...	Yes	Y		DL	1.2	IL	1	W...	-.866	W...	.5														
37	1.2D + 1.0Di +...	Yes	Y		DL	1.2	IL	1	W...	-.5	W...	.866														
38	1.2D + 1.0Ev ...	Yes	Y		DL	1.2	ELY	1	ELZ	1	ELX	.001														
39	1.2D + 1.0Ev ...	Yes	Y		DL	1.2	ELY	1	ELZ	.866	ELX	.5														
40	1.2D + 1.0Ev ...	Yes	Y		DL	1.2	ELY	1	ELZ	.5	ELX	.866														
41	1.2D + 1.0Ev ...	Yes	Y		DL	1.2	ELY	1	ELZ	.001	ELX	1														
42	1.2D + 1.0Ev ...	Yes	Y		DL	1.2	ELY	1	ELZ	-.5	ELX	.866														
43	1.2D + 1.0Ev ...	Yes	Y		DL	1.2	ELY	1	ELZ	-.866	ELX	.5														
44	1.2D + 1.0Ev ...	Yes	Y		DL	1.2	ELY	1	ELZ	-1	ELX	.001														
45	1.2D + 1.0Ev ...	Yes	Y		DL	1.2	ELY	1	ELZ	-.866	ELX	-.5														
46	1.2D + 1.0Ev ...	Yes	Y		DL	1.2	ELY	1	ELZ	-.5	ELX	-.866														
47	1.2D + 1.0Ev ...	Yes	Y		DL	1.2	ELY	1	ELZ	.001	ELX	-1														
48	1.2D + 1.0Ev ...	Yes	Y		DL	1.2	ELY	1	ELZ	.5	ELX	-.866														
49	1.2D + 1.0Ev ...	Yes	Y		DL	1.2	ELY	1	ELZ	.866	ELX	-.5														
50	0.9D + 1.0Ev ...	Yes	Y		DL	.9	ELY	1	ELZ	1	ELX	.001														
51	0.9D + 1.0Ev ...	Yes	Y		DL	.9	ELY	1	ELZ	.866	ELX	.5														
52	0.9D + 1.0Ev ...	Yes	Y		DL	.9	ELY	1	ELZ	.5	ELX	.866														
53	0.9D + 1.0Ev ...	Yes	Y		DL	.9	ELY	1	ELZ	.001	ELX	1														
54	0.9D + 1.0Ev ...	Yes	Y		DL	.9	ELY	1	ELZ	-.5	ELX	.866														
55	0.9D + 1.0Ev ...	Yes	Y		DL	.9	ELY	1	ELZ	-.866	ELX	.5														
56	0.9D + 1.0Ev ...	Yes	Y		DL	.9	ELY	1	ELZ	-1	ELX	.001														
57	0.9D + 1.0Ev ...	Yes	Y		DL	.9	ELY	1	ELZ	-.866	ELX	-.5														
58	0.9D + 1.0Ev ...	Yes	Y		DL	.9	ELY	1	ELZ	-.5	ELX	-.866														
59	0.9D + 1.0Ev ...	Yes	Y		DL	.9	ELY	1	ELZ	.001	ELX	-1														
60	0.9D + 1.0Ev ...	Yes	Y		DL	.9	ELY	1	ELZ	.5	ELX	-.866														

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact...
61	0.9D + 1.0Ev ...	Yes	Y		DL	.9	ELY	1	ELZ	.866	ELX	-.5														
62	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	12	1.5	W...	.001	W...	1														
63	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	12	1.5	W...	.5	W...	.866														
64	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	12	1.5	W...	.866	W...	.5														
65	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	12	1.5	W...	1	W...	.001														
66	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	12	1.5	W...	.866	W...	-.5														
67	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	12	1.5	W...	.5	W...	-.866														
68	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	12	1.5	W...	.001	W...	-1														
69	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	12	1.5	W...	-.5	W...	-.866														
70	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	12	1.5	W...	-.866	W...	-.5														
71	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	12	1.5	W...	-1	W...	.001														
72	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	12	1.5	W...	-.866	W...	.5														
73	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	12	1.5	W...	-.5	W...	.866														
74	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	13	1.5	W...	.001	W...	1														
75	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	13	1.5	W...	.5	W...	.866														
76	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	13	1.5	W...	.866	W...	.5														
77	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	13	1.5	W...	1	W...	.001														
78	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	13	1.5	W...	.866	W...	-.5														
79	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	13	1.5	W...	.5	W...	-.866														
80	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	13	1.5	W...	.001	W...	-1														
81	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	13	1.5	W...	-.5	W...	-.866														
82	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	13	1.5	W...	-.866	W...	-.5														
83	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	13	1.5	W...	-1	W...	.001														
84	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	13	1.5	W...	-.866	W...	.5														
85	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	13	1.5	W...	-.5	W...	.866														
86	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	14	1.5	W...	.001	W...	1														
87	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	14	1.5	W...	.5	W...	.866														
88	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	14	1.5	W...	.866	W...	.5														
89	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	14	1.5	W...	1	W...	.001														
90	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	14	1.5	W...	.866	W...	-.5														
91	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	14	1.5	W...	.5	W...	-.866														
92	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	14	1.5	W...	.001	W...	-1														
93	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	14	1.5	W...	-.5	W...	-.866														
94	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	14	1.5	W...	-.866	W...	-.5														
95	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	14	1.5	W...	-1	W...	.001														
96	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	14	1.5	W...	-.866	W...	.5														
97	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	14	1.5	W...	-.5	W...	.866														
98	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	15	1.5	W...	.001	W...	1														
99	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	15	1.5	W...	.5	W...	.866														
100	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	15	1.5	W...	.866	W...	.5														
101	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	15	1.5	W...	1	W...	.001														
102	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	15	1.5	W...	.866	W...	-.5														
103	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	15	1.5	W...	.5	W...	-.866														
104	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	15	1.5	W...	.001	W...	-1														
105	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	15	1.5	W...	-.5	W...	-.866														
106	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	15	1.5	W...	-.866	W...	-.5														
107	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	15	1.5	W...	-1	W...	.001														
108	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	15	1.5	W...	-.866	W...	.5														
109	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	15	1.5	W...	-.5	W...	.866														
110	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	16	1.5	W...	.001	W...	1														
111	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	16	1.5	W...	.5	W...	.866														
112	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	16	1.5	W...	.866	W...	.5														

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact...
113	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	16	1.5	W...	1	W...	.001														
114	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	16	1.5	W...	.866	W...	-.5														
115	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	16	1.5	W...	.5	W...	-.866														
116	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	16	1.5	W...	.001	W...	-1														
117	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	16	1.5	W...	-.5	W...	-.866														
118	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	16	1.5	W...	-.866	W...	-.5														
119	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	16	1.5	W...	-1	W...	.001														
120	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	16	1.5	W...	-.866	W...	.5														
121	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	16	1.5	W...	-.5	W...	.866														
122	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	17	1.5	W...	.001	W...	1														
123	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	17	1.5	W...	.5	W...	.866														
124	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	17	1.5	W...	.866	W...	.5														
125	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	17	1.5	W...	1	W...	.001														
126	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	17	1.5	W...	.866	W...	-.5														
127	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	17	1.5	W...	.5	W...	-.866														
128	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	17	1.5	W...	.001	W...	-1														
129	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	17	1.5	W...	-.5	W...	-.866														
130	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	17	1.5	W...	-.866	W...	-.5														
131	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	17	1.5	W...	-1	W...	.001														
132	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	17	1.5	W...	-.866	W...	.5														
133	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	17	1.5	W...	-.5	W...	.866														
134	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	18	1.5	W...	.001	W...	1														
135	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	18	1.5	W...	.5	W...	.866														
136	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	18	1.5	W...	.866	W...	.5														
137	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	18	1.5	W...	1	W...	.001														
138	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	18	1.5	W...	.866	W...	-.5														
139	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	18	1.5	W...	.5	W...	-.866														
140	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	18	1.5	W...	.001	W...	-1														
141	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	18	1.5	W...	-.5	W...	-.866														
142	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	18	1.5	W...	-.866	W...	-.5														
143	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	18	1.5	W...	-1	W...	.001														
144	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	18	1.5	W...	-.866	W...	.5														
145	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	18	1.5	W...	-.5	W...	.866														
146	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	19	1.5	W...	.001	W...	1														
147	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	19	1.5	W...	.5	W...	.866														
148	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	19	1.5	W...	.866	W...	.5														
149	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	19	1.5	W...	1	W...	.001														
150	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	19	1.5	W...	.866	W...	-.5														
151	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	19	1.5	W...	.5	W...	-.866														
152	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	19	1.5	W...	.001	W...	-1														
153	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	19	1.5	W...	-.5	W...	-.866														
154	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	19	1.5	W...	-.866	W...	-.5														
155	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	19	1.5	W...	-1	W...	.001														
156	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	19	1.5	W...	-.866	W...	.5														
157	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	19	1.5	W...	-.5	W...	.866														
158	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	20	1.5	W...	.001	W...	1														
159	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	20	1.5	W...	.5	W...	.866														
160	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	20	1.5	W...	.866	W...	.5														
161	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	20	1.5	W...	1	W...	.001														
162	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	20	1.5	W...	.866	W...	-.5														
163	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	20	1.5	W...	.5	W...	-.866														
164	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	20	1.5	W...	.001	W...	-1														

Load Combinations (Continued)

	Description	Sol..	PD..	SR..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact...
165	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	20	1.5	W...	-.5	W...	-.866												
166	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	20	1.5	W...	-.866	W...	-.5												
167	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	20	1.5	W...	-1	W...	.001												
168	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	20	1.5	W...	-.866	W...	.5												
169	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	20	1.5	W...	-.5	W...	.866												
170	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	21	1.5	W...	.001	W...	1												
171	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	21	1.5	W...	.5	W...	.866												
172	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	21	1.5	W...	.866	W...	.5												
173	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	21	1.5	W...	1	W...	.001												
174	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	21	1.5	W...	.866	W...	-.5												
175	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	21	1.5	W...	.5	W...	-.866												
176	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	21	1.5	W...	.001	W...	-1												
177	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	21	1.5	W...	-.5	W...	-.866												
178	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	21	1.5	W...	-.866	W...	-.5												
179	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	21	1.5	W...	-1	W...	.001												
180	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	21	1.5	W...	-.866	W...	.5												
181	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	21	1.5	W...	-.5	W...	.866												
182	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	22	1.5	W...	.001	W...	1												
183	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	22	1.5	W...	.5	W...	.866												
184	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	22	1.5	W...	.866	W...	.5												
185	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	22	1.5	W...	1	W...	.001												
186	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	22	1.5	W...	.866	W...	-.5												
187	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	22	1.5	W...	.5	W...	-.866												
188	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	22	1.5	W...	.001	W...	-1												
189	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	22	1.5	W...	-.5	W...	-.866												
190	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	22	1.5	W...	-.866	W...	-.5												
191	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	22	1.5	W...	-1	W...	.001												
192	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	22	1.5	W...	-.866	W...	.5												
193	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	22	1.5	W...	-.5	W...	.866												
194	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	23	1.5	W...	.001	W...	1												
195	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	23	1.5	W...	.5	W...	.866												
196	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	23	1.5	W...	.866	W...	.5												
197	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	23	1.5	W...	1	W...	.001												
198	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	23	1.5	W...	.866	W...	-.5												
199	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	23	1.5	W...	.5	W...	-.866												
200	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	23	1.5	W...	.001	W...	-1												
201	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	23	1.5	W...	-.5	W...	-.866												
202	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	23	1.5	W...	-.866	W...	-.5												
203	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	23	1.5	W...	-1	W...	.001												
204	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	23	1.5	W...	-.866	W...	.5												
205	1.2D + 1.5Lm(...	Yes	Y		DL	1.2	23	1.5	W...	-.5	W...	.866												

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N001	max	0	205	0	205	0	205	0	205	0	205	0	205
2		min	0	1	0	1	0	1	0	1	0	1	0	1
3	N002	max	1741.461	71	1198.444	29	3515.655	30	1293.385	26	920.132	17	933.488	107
4		min	-2251.675	102	444.489	20	1207.431	14	99.338	20	-1024.441	11	-722.047	66
5	N003	max	3732.976	119	1198.59	33	450.578	118	301.178	121	1658.54	21	-136.064	23
6		min	1021.186	17	442.351	24	-3011.424	75	-1144.883	79	-1765.271	3	-1374.854	113

Envelope Joint Reactions (Continued)

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
7	N004	max	-885.248	23	1198.628	37	13.094	91	118.334	87	1724.707	25	1267.011	95
8		min	-3472.839	89	444.348	16	-3457.745	122	-1329.519	129	-1833.106	7	61.844	17
9	N005	max	2327.594	101	1198.444	29	1155.065	14	1856.453	8	1376.809	5	982.273	101
10		min	-1819.501	71	444.49	20	-3962.327	8	-980.674	14	-1260.087	23	-770.872	71
11	N006	max	1298.126	17	1198.59	33	3041.035	74	770.535	20	2255.471	9	1018.207	17
12		min	-3965.056	11	442.352	24	-1144.242	20	-1150.183	74	-2142.007	15	-1874.057	11
13	N007	max	3488.022	89	1198.628	37	3495.938	122	748.966	20	2327.268	13	1644.722	5
14		min	-1262.246	23	444.349	16	-1029.6	20	-1354.682	2	-2207.837	19	-976.026	23
15	Totals:	max	5299.78	17	7177.866	37	5261.448	14						
16		min	-5299.78	11	2700.159	14	-5261.448	8						

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

	Member	Shape	Code Check	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	phi*Pnc ...	phi*Pnt ...	phi*Mn ...	phi*Mn ...	Cb	Eqn
1	V007	PIPE_4.0	.395	18	32	.204	0		6	92112.7...	93240	10631.25	10631.25	1.5	H1-1b
2	H008	HSS4x4x3	.815	0	104	.534	0	y	101	104610....	106812	12661.5	12661.5	1.688	H3-6
3	H009	PIPE_3.5	.692	84	100	.282	84		2	35420.6...	78750	7953.75	7953.75	1.719	H1-1b
4	H010	PIPE_2.0	.335	112....	106	.110	112.375		8	4678.524	32130	1871.625	1871.625	2.515	H1-1b
5	H011	L3x3x3	.510	0	6	.034	30.187	y	107	27847.0...	35316	1320.097	2833.473	1.619	H2-1
6	H012	L3x3x3	.505	0	10	.034	30.187	z	111	27847.0...	35316	1320.097	2833.473	1.617	H2-1
7	H013	HSS4x4x3	.813	0	120	.538	0	y	118	104610....	106812	12661.5	12661.5	1.687	H3-6
8	H014	PIPE_3.5	.693	84	117	.279	84		6	35420.6...	78750	7953.75	7953.75	1.717	H1-1b
9	H015	PIPE_2.0	.336	61.6...	111	.092	61.625		12	4678.524	32130	1871.625	1871.625	2.521	H1-1b
10	H016	L3x3x3	.522	0	2	.034	30.187	z	128	27847.0...	35316	1320.097	2833.473	1.626	H2-1
11	H017	L3x3x3	.519	0	10	.034	30.187	y	111	27847.0...	35316	1320.097	2833.473	1.623	H2-1
12	H018	HSS4x4x3	.817	0	125	.538	0	y	133	104610....	106812	12661.5	12661.5	1.691	H3-6
13	H019	PIPE_3.5	.695	84	132	.279	84		10	35420.6...	78750	7953.75	7953.75	1.717	H1-1b
14	H020	PIPE_2.0	.336	61.6...	126	.102	61.625		5	4678.524	32130	1871.625	1871.625	2.52	H1-1b
15	H021	L3x3x3	.517	0	6	.034	30.187	z	107	27847.0...	35316	1320.097	2833.473	1.621	H2-1
16	H022	L3x3x3	.527	0	2	.034	30.187	y	128	27847.0...	35316	1320.097	2833.473	1.628	H2-1
17	V023	PIPE_4.0	.396	18	28	.297	0		6	92112.7...	93240	10631.25	10631.25	1.509	H1-1b
18	V024	PIPE_4.0	.397	18	36	.309	0		10	92112.7...	93240	10631.25	10631.25	1.508	H1-1b
19	H025	PL1.5x0.25	.339	10.8...	10	.171	0	y	119	933.052	12150	63.281	379.688	1.136	H1-1a
20	H026	PL1.5x0.25	.343	10.8...	2	.169	0	y	133	933.052	12150	63.281	379.688	1.136	H1-1a
21	H027	PL1.5x0.25	.340	10.8...	6	.170	21.746	y	106	933.052	12150	63.281	379.688	1.136	H1-1a
22	H028	L2.5x2.5x3	.017	19.2...	34	.085	0	y	120	20859.9...	29192.4	872.574	1797.637	1.136	H2-1
23	H029	L2.5x2.5x3	.017	19.2...	8	.084	0	y	124	20859.9...	29192.4	872.574	1797.637	1.136	H2-1
24	H030	L2.5x2.5x3	.017	19.2...	30	.084	0	y	105	20859.9...	29192.4	872.574	1797.637	1.136	H2-1
25	MP1	PIPE_2.0	.435	18	66	.096	54		28	3485.189	32130	1871.625	1871.625	1.814	H1-1a
26	MP2	PIPE_2.0	.437	18	82	.099	54		32	3485.189	32130	1871.625	1871.625	1.785	H1-1a
27	MP3	PIPE_2.0	.436	18	97	.097	54		36	3485.189	32130	1871.625	1871.625	1.89	H1-1a
28	MP4	PIPE_2.0	.418	54	2	.105	54		9	3485.189	32130	1871.625	1871.625	1.833	H1-1b
29	MP5	PIPE_2.0	.431	54	5	.096	54		27	3485.189	32130	1871.625	1871.625	2.016	H1-1b
30	MP6	PIPE_2.0	.430	54	10	.114	54		6	3485.189	32130	1871.625	1871.625	1.712	H1-1b
31	MP7	PIPE_2.0	.619	54	2	.118	54		8	3485.189	32130	1871.625	1871.625	1.923	H1-1b
32	MP8	PIPE_2.0	.597	54	6	.113	54		11	3485.189	32130	1871.625	1871.625	1.933	H1-1b
33	MP9	PIPE_2.0	.592	54	10	.104	54		4	3485.189	32130	1871.625	1871.625	2.01	H1-1b
34	MP10	PIPE_2.0	.795	54	2	.076	54		8	3485.189	32130	1871.625	1871.625	1.852	H1-1b
35	MP11	PIPE_2.0	.756	54	6	.069	54		12	3485.189	32130	1871.625	1871.625	1.907	H1-1b
36	MP12	PIPE_2.0	.752	54	10	.070	54		5	3485.189	32130	1871.625	1871.625	1.806	H1-1b

Exhibit F

Power Density/RF Emissions Report

EBI Consulting

environmental | engineering | due diligence

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

T-Mobile Existing Facility

Site ID: CT11654A

Wallingford/Rt5/Rt15
90 N. Plains Industrial Road
Wallingford, Connecticut 06492

August 18, 2020

EBI Project Number: 6220004028

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**33.20%**

21 B Street, Burlington, MA 01803 · Tel: (781) 273.2500 · Fax: (781) 273.3311

August 18, 2020

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

Emissions Analysis for Site: CT11654A - Wallingford/Rt5/Rt15

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **90 N. Plains Industrial Road** in **Wallingford, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

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

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 90 N. Plains Industrial Road in Wallingford, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

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

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

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

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

4) 4 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

5) 2 UMTS channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

6) 4 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

7) 2 UMTS channels (AWS Band - 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

8) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

9) 2 LTE channels (BRS Band - 2500 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

10) 2 NR channels (BRS Band - 2500 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

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

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

13) The antennas used in this modeling are the Ericsson AIR 21 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz channel(s), the Ericsson AIR 32 for the 1900 MHz / 2100 MHz channel(s) in Sector A, the Ericsson AIR 21 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz channel(s), the Ericsson AIR 32 for the 1900 MHz / 2100 MHz channel(s) in Sector B, the Ericsson AIR 21 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz channel(s), the Ericsson AIR 32 for the 1900 MHz / 2100 MHz channel(s) in Sector C. This is based on

feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

14) The antenna mounting height centerline of the proposed antennas is 148 feet above ground level (AGL).

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

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

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR 21	Make / Model:	Ericsson AIR 21	Make / Model:	Ericsson AIR 21
Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz
Gain:	15.35 dBd / 15.35 dBd / 15.35 dBd	Gain:	15.35 dBd / 15.35 dBd / 15.35 dBd	Gain:	15.35 dBd / 15.35 dBd / 15.35 dBd
Height (AGL):	148 feet	Height (AGL):	148 feet	Height (AGL):	148 feet
Channel Count:	8	Channel Count:	8	Channel Count:	8
Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts
ERP (W):	8,226.43	ERP (W):	8,226.43	ERP (W):	8,226.43
Antenna A1 MPE %:	**1.35%**	Antenna B1 MPE %:	**1.35%**	Antenna C1 MPE %:	**1.35%**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449
Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz
Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd
Height (AGL):	148 feet	Height (AGL):	148 feet	Height (AGL):	148 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	160 Watts	Total TX Power (W):	160 Watts	Total TX Power (W):	160 Watts
ERP (W):	25,651.93	ERP (W):	25,651.93	ERP (W):	25,651.93
Antenna A2 MPE %:	**4.21%**	Antenna B2 MPE %:	**4.21%**	Antenna C2 MPE %:	**4.21%**
Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**
Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20
Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd
Height (AGL):	148 feet	Height (AGL):	148 feet	Height (AGL):	148 feet
Channel Count:	7	Channel Count:	7	Channel Count:	7
Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts
ERP (W):	8,466.41	ERP (W):	8,466.41	ERP (W):	8,466.41
Antenna A3 MPE %:	**2.31%**	Antenna B3 MPE %:	**2.31%**	Antenna C3 MPE %:	**2.31%**
Antenna #:	**4**	Antenna #:	**4**	Antenna #:	**4**
Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32
Frequency Bands:	1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 2100 MHz
Gain:	15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.85 dBd
Height (AGL):	148 feet	Height (AGL):	148 feet	Height (AGL):	148 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts
ERP (W):	8,728.31	ERP (W):	8,728.31	ERP (W):	8,728.31
Antenna A4 MPE %:	**1.43%**	Antenna B4 MPE %:	**1.43%**	Antenna C4 MPE %:	**1.43%**

Site Composite MPE %	
Carrier	**MPE %**
T-Mobile (Max at Sector A):	9.31%
Sprint	1.64%
Clearwire	0.07%
Metro PCS	0.82%
XM Sat Radio	0.12%
AT&T	4.36%
Verizon	16.88%
Site Total MPE % :	33.20%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	9.31%
T-Mobile Sector B Total:	9.31%
T-Mobile Sector C Total:	9.31%
Site Total MPE % :	33.20%

T-Mobile Maximum MPE Power Values (Sector A)

T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 1900 MHz GSM	4	1028.30	148.0	6.75	1900 MHz GSM	1000	0.68%
T-Mobile 1900 MHz UMTS	2	1028.30	148.0	3.38	1900 MHz UMTS	1000	0.34%
T-Mobile 2100 MHz UMTS	2	1028.30	148.0	3.38	2100 MHz UMTS	1000	0.34%
T-Mobile 2500 MHz LTE	2	6412.98	148.0	21.05	2500 MHz LTE	1000	2.11%
T-Mobile 2500 MHz NR	2	6412.98	148.0	21.05	2500 MHz NR	1000	2.11%
T-Mobile 600 MHz LTE	2	591.73	148.0	1.94	600 MHz LTE	400	0.49%
T-Mobile 600 MHz NR	1	1577.94	148.0	2.59	600 MHz NR	400	0.65%
T-Mobile 700 MHz LTE	2	648.82	148.0	2.13	700 MHz LTE	467	0.46%
T-Mobile 1900 MHz LTE	2	2203.69	148.0	7.23	1900 MHz LTE	1000	0.72%
T-Mobile 1900 MHz LTE	2	2056.61	148.0	6.75	1900 MHz LTE	1000	0.68%
T-Mobile 2100 MHz LTE	2	2307.55	148.0	7.57	2100 MHz LTE	1000	0.76%
						Total:	**9.31%**

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

Summary

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

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

T-Mobile Sector	Power Density Value (%)
Sector A:	9.31%
Sector B:	9.31%
Sector C:	9.31%
T-Mobile Maximum MPE % (Sector A):	9.31%
Site Total:	33.20%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **33.20%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

Exhibit G

Mailing Receipts/Proof of Notice

UPS CampusShip: View/Print Label

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

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

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

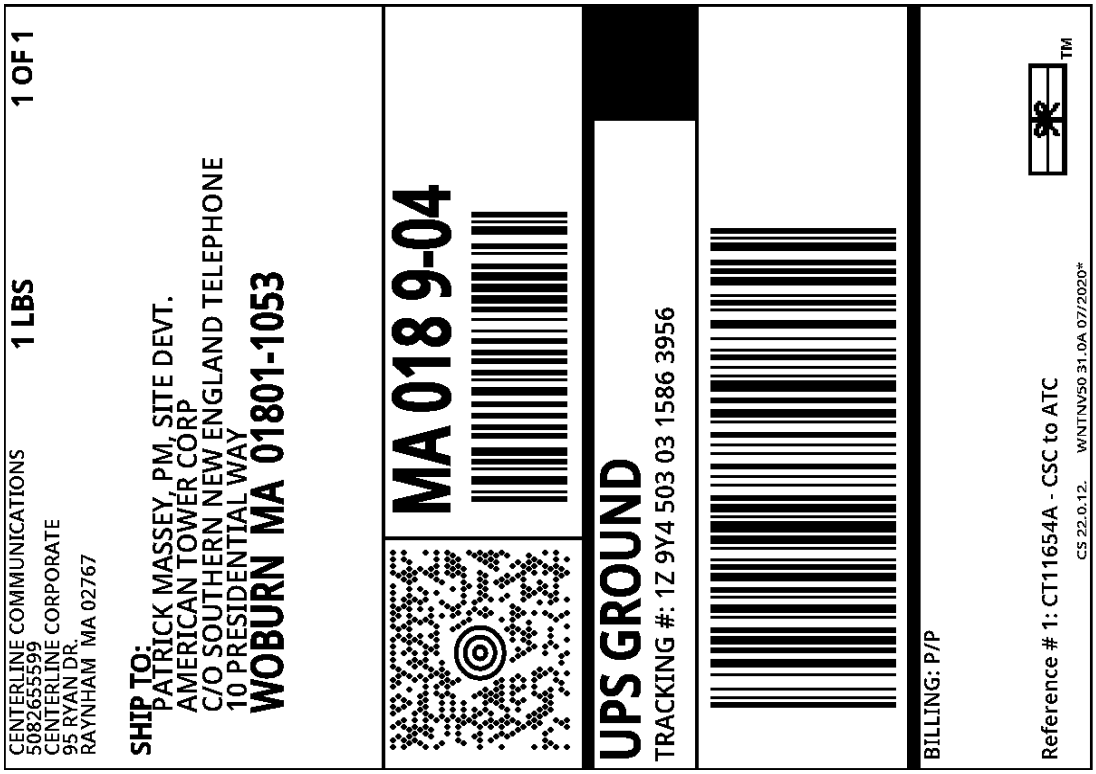
   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
CVS STORE # 972
555 WASHINGTON ST
SOUTH EASTON ,MA 02375

UPS Access Point™
CVS STORE # 7232
689 DEPOT ST
NORTH EASTON ,MA 02356

UPS Access Point™
TOWN LINE GENERAL STORE
450 E CENTER ST
WEST BRIDGEWATER ,MA 02379

FOLD HERE



Jennifer Iliades

From: UPS Quantum View <pkginfo@ups.com>
Sent: Thursday, September 3, 2020 10:59 AM
To: Jennifer Iliades
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030315863956

Hello, your package has been delivered.

Delivery Date: Thursday, 09/03/2020
Delivery Time: 10:57 AM
Left At: FRONT DESK
Signed by: ANCRI

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030315863956
Ship To:	AMERICAN TOWER CORP 10 PRESIDENTIAL WAY C/O SOUTHERN NEW ENGLAND TELEPHONE WOBURN, MA 018011053 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	0.2 LBS
Reference Number:	CT11654A - CSC TO ATC

Download the UPS mobile app

Please do not reply directly to this email. UPS will not receive any reply message.

Review the UPS Privacy Notice

For Questions, Visit Our Help and Support Center

UPS CampusShip: View/Print Label

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

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

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

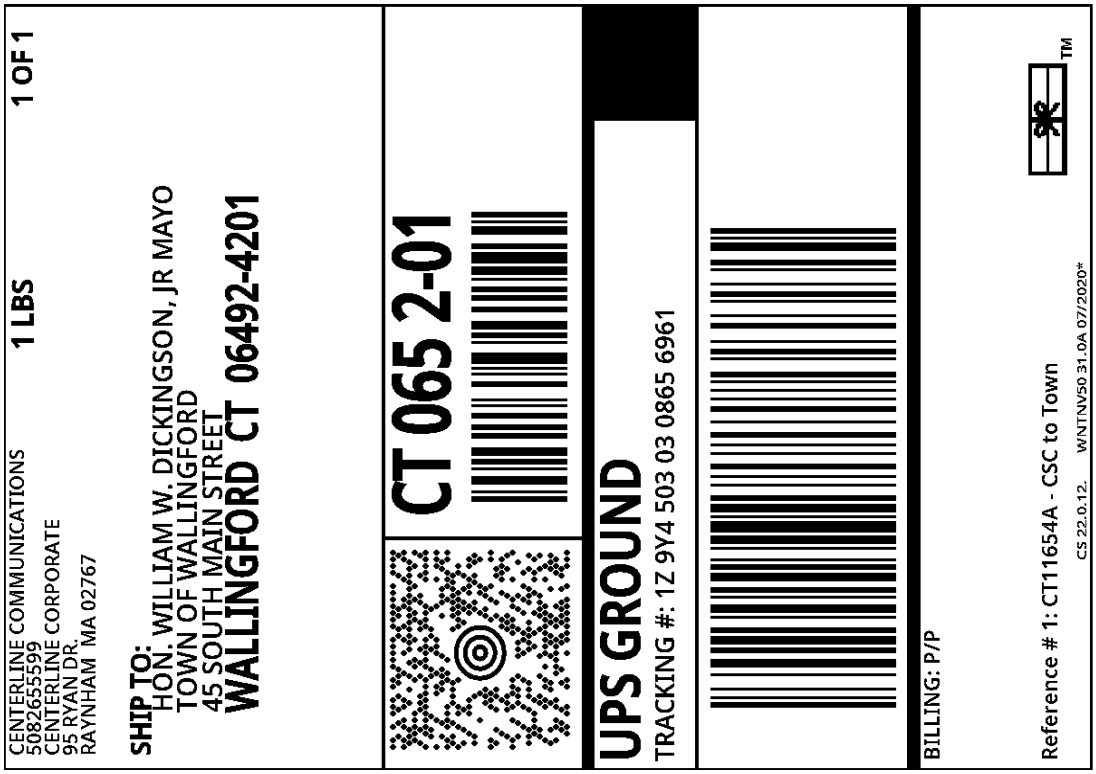
   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
CVS STORE # 972
555 WASHINGTON ST
SOUTH EASTON ,MA 02375

UPS Access Point™
CVS STORE # 7232
689 DEPOT ST
NORTH EASTON ,MA 02356

UPS Access Point™
TOWN LINE GENERAL STORE
450 E CENTER ST
WEST BRIDGEWATER ,MA 02379

FOLD HERE



Jennifer Iliades

From: UPS Quantum View <pkginfo@ups.com>
Sent: Thursday, September 3, 2020 10:07 AM
To: Jennifer Iliades
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030308656961

Hello, your package has been delivered.

Delivery Date: Thursday, 09/03/2020
Delivery Time: 10:05 AM
Left At: FRONT DESK
Signed by: MEILE

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030308656961
Ship To:	TOWN OF WALLINGFORD 45 SOUTH MAIN STREET WALLINGFORD, CT 064924201 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	0.2 LBS
Reference Number:	CT11654A - CSC TO TOWN

Download the UPS mobile app

Review the UPS Privacy Notice

For Questions, Visit Our Help and Support Center

UPS CampusShip: View/Print Label

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

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

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

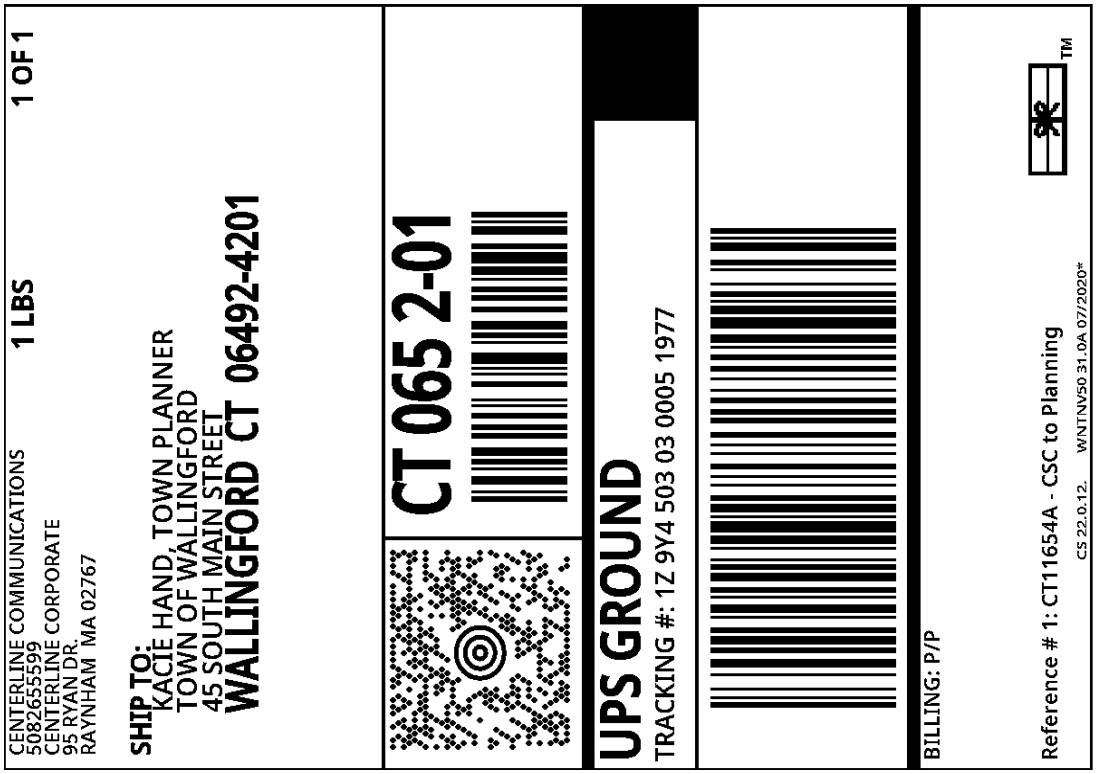
   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
CVS STORE # 972
555 WASHINGTON ST
SOUTH EASTON ,MA 02375

UPS Access Point™
CVS STORE # 7232
689 DEPOT ST
NORTH EASTON ,MA 02356

UPS Access Point™
TOWN LINE GENERAL STORE
450 E CENTER ST
WEST BRIDGEWATER ,MA 02379

FOLD HERE



Jennifer Iliades

From: UPS Quantum View <pkginfo@ups.com>
Sent: Thursday, September 3, 2020 10:08 AM
To: Jennifer Iliades
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030300051977

Hello, your package has been delivered.

Delivery Date: Thursday, 09/03/2020
Delivery Time: 10:06 AM
Left At: FRONT DESK
Signed by: WOLF

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030300051977
Ship To:	TOWN OF WALLINGFORD 45 SOUTH MAIN STREET WALLINGFORD, CT 064924201 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	0.2 LBS
Reference Number:	CT11654A - CSC TO PLANNING

Download the UPS mobile app

Review the UPS Privacy Notice

For Questions, Visit Our Help and Support Center

UPS CampusShip: View/Print Label

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

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

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

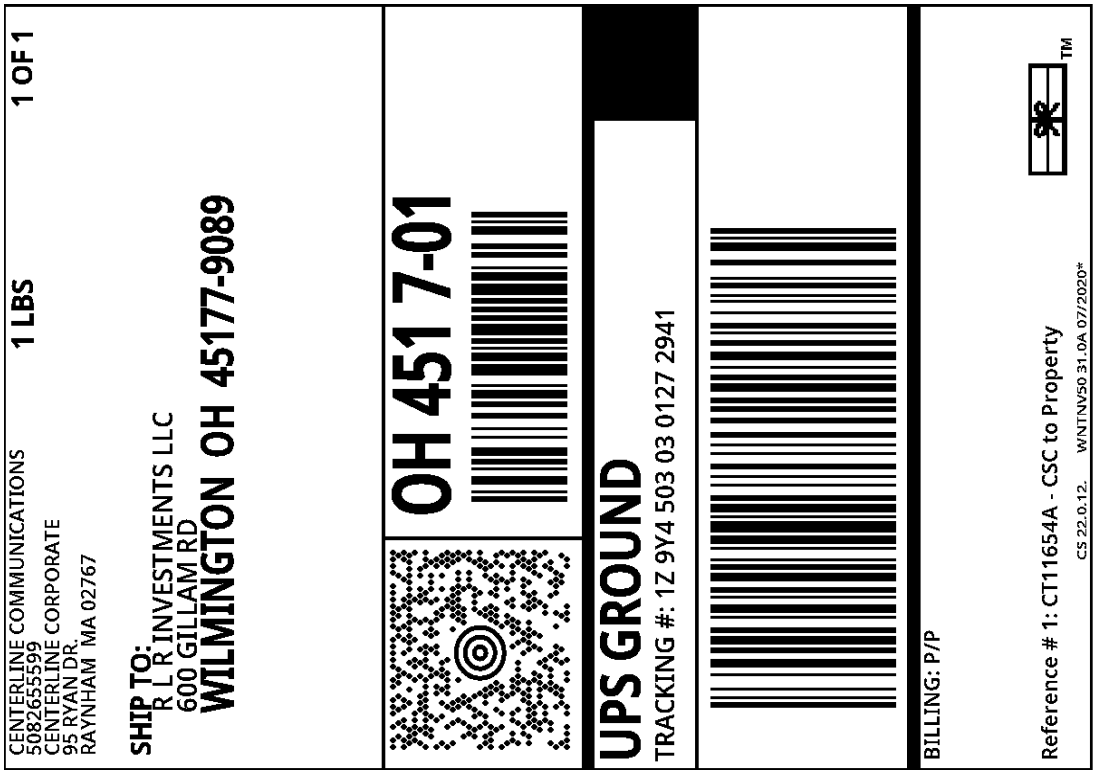
   Customers without a Daily Pickup
   Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.
   Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages.
   Hand the package to any UPS driver in your area.

UPS Access Point™
CVS STORE # 972
555 WASHINGTON ST
SOUTH EASTON ,MA 02375

UPS Access Point™
CVS STORE # 7232
689 DEPOT ST
NORTH EASTON ,MA 02356

UPS Access Point™
TOWN LINE GENERAL STORE
450 E CENTER ST
WEST BRIDGEWATER ,MA 02379

FOLD HERE



Jennifer Iliades

From: UPS Quantum View <pkginfo@ups.com>
Sent: Friday, September 4, 2020 9:38 AM
To: Jennifer Iliades
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030301272941

Hello, your package has been delivered.

Delivery Date: Friday, 09/04/2020
Delivery Time: 09:35 AM
Left At: FRONT DESK
Signed by: CAPTAIN

CENTERLINE SITE ACQUISITION

Tracking Number:	1Z9Y45030301272941
Ship To:	R L R INVESTMENTS LLC 600 GILLAM RD WILMINGTON, OH 451779089 US
Number of Packages:	1
UPS Service:	UPS Ground
Package Weight:	0.2 LBS
Reference Number:	CT11654A - CSC TO PROPERTY

Download the UPS mobile app

Review the UPS Privacy Notice

For Questions, Visit Our Help and Support Center