NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

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

October 6, 2022

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

RE: Notice of Exempt Modification
80 Shuttle Meadow Road, Southington, CT 06489
Latitude: 41.63855000
Longitude: -72.84108000
T-Mobile Site#: CTHA527A_L600

Dear Ms. Bachman:
T-Mobile currently maintains six (6) antennas at the 130-foot level of the existing 150-foot monople located at 80 Shuttle Meadow Road, Southington, CT 06489. The tower is owned by American Tower and property is owned by Southern New England Telephone Co (aka American Tower). T-Mobile now intends to remove six (6) existing antenna and replace with three (3) new 600/700/1900/2100 MHz antenna. The new antennas would be installed at the 130-foot level of the monopole. This modification includes B2, B5 hardware that is both 4G (LTE), and 5G capable.
T-Mobile Planned Modifications:
Remove:
(3) RFS APXV18-209014C Antenna
(6) Diplexers
(3) Bias Tee

Remove and Replace:
(3) Andrew LNX-6515DS Antenna (Remove) – (3) RFS APXVAALL24 600/700/1900/2100 MHz Antenna (Replace)

Install New:
(3) RRU 4480 B71
(3) Hybrid Line

Existing to Remain:
(12) Coax Line

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This facility was approved by the Connecticut Siting Council Petition No. 40 on May 15, 1984. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Mark J. Sciota, Town Manager and Matthew Reimondo, Zoning Enforcement Officer as well as the property owner and the tower owner.

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

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

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

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

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

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

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

Sincerely,

Victoria Masse

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

NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

Attachments:

cc: Mark J. Sciota, Town Manager
196 North Main Street
Southington, CT 06489

Matthew Reimondo, Zoning Enforcement Officer
196 North Main Street
Southington, CT 06489

Southern New England Telephone Co – as property owner
PO BOX 723597
Atlanta, GA 30339

American Tower – as tower owner
10 Presidential Way
Worburn, MA 01801

Exhibit A

Original Facility Approval

DOCKET NO. 40

ORIGINAL

AN APPLICATION SUBMITTED BY THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF FACILITIES TO PROVIDE CELLULAR SERVICE IN THE HARTFORD AND MIDDLESEX COUNTIES.	:	CONNECTICUT SITING COUNCIL
	:	May 15, 1984

D E C I S I O N A N D O R D E R

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

Shuttle Meadow Road, Southington, Connecticut;
Mountain Street, Hartford, Connecticut;
Prestige Park Road, East Hartford, Connecticut;
Beckley Road, Berlin, Connecticut;
Slicer tract, Niederwerfer Road, South Windsor, Connecticut; and
Kikapoo Road, Middlefield, Connecticut.

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

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

   a) 150 feet at the Southington site,
   b) 100 feet at the Hartford site,
   c) 150 feet at the East Hartford site,
   d) 150 feet at the Berlin site,
   e) 75 feet at the South Windsor site, and
   f) 75 feet at the Middlefield site.

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

3. The applicant or its successor shall notify the Council if and when directional antennas or any other equipment is added to any of these facilities.
4. The applicant or its successor shall permit in accordance with representations made by it during the proceeding public or private entities to share space on the facilities, for due consideration received, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
5. Unless necessary to comply with condition number seven, below, no lights shall be installed on any of these towers.
6. The facility construction shall be conducted in accordance with all applicable federal, state, and municipal laws and regulations.
7. The applicant shall submit a development and management plan (D&M) for the South Windsor, Southington, and Berlin sites pursuant to sections 16-50j-85 through 16-50j-87 of the regulations of state agencies, except that irrelevant items in section 16-50j-86 need only be identified as such. The D&M plans shall include appropriate evergreen screening of the sites. The applicant shall comply with the reporting requirements of section 16-50j-87 for all sites. The applicant shall consult with Mrs. Claire Aubin and the Town of South Windsor in the preparation of the South Windsor site D&M.
8. Construction activities shall take place during daylight working hours.
9. This decision and order shall be void and the towers and associated equipment approved herein shall be dismantled and removed,

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

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

Pursuant to section 16-50p(c) of the General Statutes, we hereby direct that a copy of the opinion and decision and order be served on each person listed below. A notice of the issuance shall be published in the Hartford Courant, Journal Inquirer, and the Middletown Press.

The parties to this proceeding are

Southern New England Telephone Company Room 314 227 Church Street New Haven, Connecticut 06506	(Applicant)
ATTN: Mr. Peter J. Tyrrell, Esquire	(its attorney)
Town of South Windsor 1540 Sullivan Avenue South Windsor, Connecticut 06074	represented by: Mr. Richard M. Rittenband Town Attorney 1734 Ellington Road South Windsor, Connecticut 06074
Frank Niederwerfer 260 Niederwerfer Road South Windsor, Connecticut 06074	(service waived)
Claire Aubin 407 Niederwerfer Road South Windsor, Connecticut 06074	(service waived)

Betty S. Kleiner
Chairman
Hartford Audubon Society, Inc.
5 Flintlock Ridge
Simsbury, Connecticut 06070

(service waived)

Roger Thorpe
2916 Ellington Road
South Windsor, Connecticut 06074

Intervenors in this proceeding are

Dwight A. Johnson
Murtha, Cullina, Richter
and Pinney
101 Pearl Street
P.O. Box 3197
Hartford, Connecticut 06103-0197

representing:

Metromedia TeleCommunications
Nutmeg Telecommunications, Inc.
CSI of New Haven
CSI of Stamford
Cellular Communications, Inc.
LIN Cellular Corp.
Cellular Mobile Services
Maxcell TeleCommunications, Inc.
Mobile Cellular Telephone, Inc.
Cellular Dynamics
Connecticut Corridor Cellular
Chase/Post Cellular

CERTIFICATION

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

Dated at New Britain, Connecticut, this 15th day of May, 1984.

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

STATE OF CONNECTICUT)
: ss. New Britain, May 15, 1984
COUNTY OF HARTFORD)

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

ATTEST:

Christopher S. Wood, Executive Director
Connecticut Siting Council

Exhibit B

Property Card

80 SHUTTLE MEADOW RD

Location	80 SHUTTLE MEADOW RD	**Mblu**	184/ / 019/ /
Acct#	11918	**Owner**	SOUTHERN NEW ENGLAND TELEPHONE CO
Assessment	$176,420	**Appraisal**	$252,030
PID	16574	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$8,010	$244,020	$252,030
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2020	$5,610	$170,810	$176,420

Owner of Record

Owner	SOUTHERN NEW ENGLAND TELEPHONE CO	**Sale Price**	$0
Co-Owner	SITE# 302475 - STTN SOUTHINGTON CT	**Certificate**	
Address	C/O AMERICAN TOWER LAND MNGMT PO Box 723597 Atlanta, GA 30339	**Book & Page**	0331/0320
		Sale Date	02/14/1983
		Instrument	25

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
SOUTHERN NEW ENGLAND TELEPHONE CO	$0		0331/0320	25	02/14/1983

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0
Building Percent Good:

Building Attributes	
Field	**Description**

Style	Vacant w/OB
Model	
Grade:	
Stories	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Full Bthrms:	
Half Baths:	
Extra Fixtures	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Total Kitchens	
Fireplaces	
Whirlpool Tubs	
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Garages	
.	
Bsmt Type	
Attic Type	
Cath Ceiling	
Fndtn Cndtn	
Basement	

Building Photo

184 019 05/24/2015

(https://images.vgsi.com/photos2/SouthingtonCTPhotos//\00\04\94\50.JPG

Building Layout

(ParcelSketch.ashx?pid=16574&bid=16574)

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

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	433V
Description	Radio, Television Trans Ld
Zone	R-80
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	0.17
Depth	

Outbuildings

Outbuildings					Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Bldg #**
FN1	Fence - Chain			400.00 L.F.	1
SHD1	Shed	MS	Masonry	572.00 S.F.	1
GEN	Generator		Generator	0.00 Units	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$8,010	$244,020	$252,030
2020	$8,010	$244,020	$252,030
2019	$18,560	$227,860	$246,420
2018	$18,560	$227,860	$246,420
2017	$18,560	$227,860	$246,420

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$5,610	$170,810	$176,420
2020	$5,610	$170,810	$176,420
2019	$12,990	$159,500	$172,490
2018	$12,990	$159,500	$172,490
2017	$12,990	$159,500	$172,490

2065+/-

Summary

80 SHUTTLE MEADOW RD

SOUTHERN NEW ENGLAND

Parcel ID: 184019 View Details

SHUTTLE MEADOW RD

80

810

019

0.17 AC

80

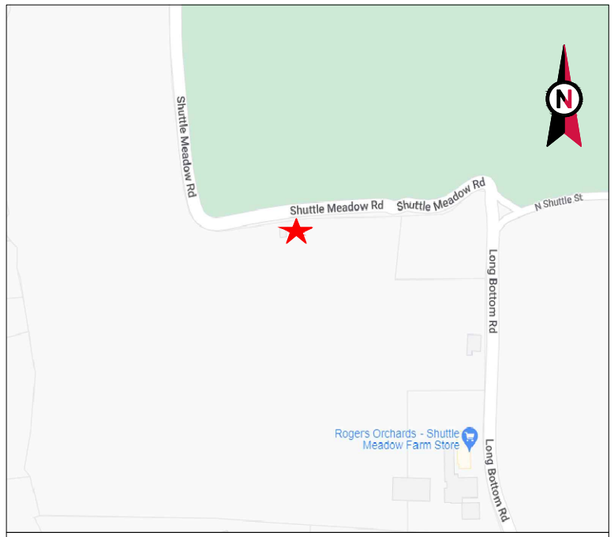
6m

20ft

lat 41.6388, long -72.8416

Exhibit C

Construction Drawings



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: STTN - SOUTHINGTON
ATC SITE NUMBER: 302475
T-MOBILE SITE NAME: ATC SOUTHINGTON MONOPOLE
T-MOBILE SITE NUMBER: CTHA527A
SITE ADDRESS: 80 SHUTTLE MEADOW ROAD
SOUTHINGTON, CT 06489-1313

LOCATION MAP

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

T-MOBILE L600 AMENDMENT PLAN
67E05F 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: UTILITY COMPANY DIRECT
PHONE: UNKNOWN

TELEPHONE COMPANY: UNKNOWN
PHONE: UNKNOWN

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

PROJECT SUMMARY

SITE ADDRESS:

80 SHUTTLE MEADOW ROAD
SOUTHINGTON, CT 06489-1313
COUNTY: HARTFORD

GEOGRAPHIC COORDINATES:

LATITUDE: 41.638602
LONGITUDE: -72.84113749
GROUND ELEVATION: 489' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

APPLICANT:

T-MOBILE

ENGINEER:

HUDSON DESIGN GROUP, LLC.
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845

PROPERTY OWNER:

---
80 SHUTTLE MEADOW ROAD
SOUTHINGTON, CT 06489-1313

PROJECT DESCRIPTION

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

TOWER WORK:

REMOVE (6) ANTENNA(s)

INSTALL (3) ANTENNA(s), (3) RRU(s) AND (3) ERICSSON HYBRID TRUNK 6X24 4AWG CABLE(s)

EXISTING (12) 1-5/8" COAX CABLE(s) TO REMAIN

GROUND WORK:

REMOVE (6) DIPLEXER(s) AND (1) BB 5216

INSTALL (1) BB 6648, (1) XMU AND (1) PSU 4813

EXISTING (2) RBS 6201 TO REMAIN

PROJECT NOTES

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

PROJECT LOCATION DIRECTIONS

FROM HARTFORD : I-84 W TOWARD WATERBURY11.9 MI4.SLIGHT RIGHT AT CT-72 W (SIGNS FOR BRISTOL/CT-72 W/PLAINVILLE)0.6 MI5.TAKE EXIT 2 TOWARD CT-372/NEW BRITAIN AVE/PLAINVILLE0.3 MI6.TURN RIGHT AT CT-372/NEW BRITAIN AVE0.5 MI7.TURN RIGHT AT CROOKED ST0.4 MI8.TURN RIGHT AT WHITE OAK AVE0.1 MI9.TURN LEFT AT LEDGE RD1.3 MI10.CONTINUE ON SHUTTLE MEADOW RD

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	07/21/22	BB
G-002	GENERAL NOTES	0	07/21/22	BB
C-101	DETAILED SITE PLAN	0	07/21/22	BB
C-102	DETAILED EQUIPMENT PLAN	0	07/21/22	BB
C-201	TOWER ELEVATION	0	07/21/22	BB
C-401	ANTENNA INFORMATION & SCHEDULE	0	07/21/22	BB
C-501	CONSTRUCTION DETAILS	0	07/21/22	BB
E-501	GROUNDING DETAILS	0	07/21/22	BB
R-601	SUPPLEMENTAL	0		
R-602	SUPPLEMENTAL	0		
R-603	SUPPLEMENTAL	0		
R-604	SUPPLEMENTAL	0		
R-605	SUPPLEMENTAL	0		

AMERICAN TOWER®

HUDSON Design Group LLC

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

REV.	DESCRIPTION	BY	DATE
A	PRELIM	SS	07/07/22
0	FINALS	BB	07/21/22

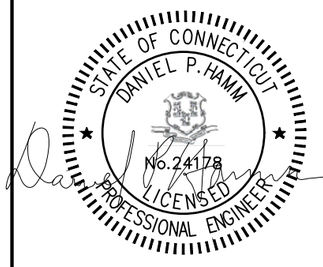
ATC SITE NUMBER:
302475

ATC SITE NAME:
STTN - SOUTHINGTON

T-MOBILE SITE NAME:
ATC SOUTHINGTON MONOPOLE

SITE ADDRESS:
80 SHUTTLE MEADOW ROAD
SOUTHINGTON, CT 06489-1313

SEAL:



T-Mobile

DATE DRAWN:	06/03/22
ATC JOB NO:	14098054_D1
CUSTOMER ID:	ATC SOUTHINGTON MONOPOLE
CUSTOMER #:	CTHA527A

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

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

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

AMERICAN TOWER®

HUDSON Design Group LLC

45 BEECHWOOD DRIVE
N. ANDOVER, MA 01845

TEL: (978) 557-5553
FAX: (978) 336-5586

REV.	DESCRIPTION	BY	DATE
A	PRELIM	SS	07/07/22
0	FINALS	BB	07/21/22

ATC SITE NUMBER:
302475

ATC SITE NAME:
STTN - SOUTHINGTON

T-MOBILE SITE NAME:
ATC SOUTHINGTON MONOPOLE

SITE ADDRESS:
80 SHUTTLE MEADOW ROAD
SOUTHINGTON, CT 06489-1313

SEAL:

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

T-Mobile

DATE DRAWN:	06/03/22
ATC JOB NO:	14098054_D1
CUSTOMER ID:	ATC SOUTHINGTON MONOPOLE
CUSTOMER #:	CTHA527A

GENERAL NOTES

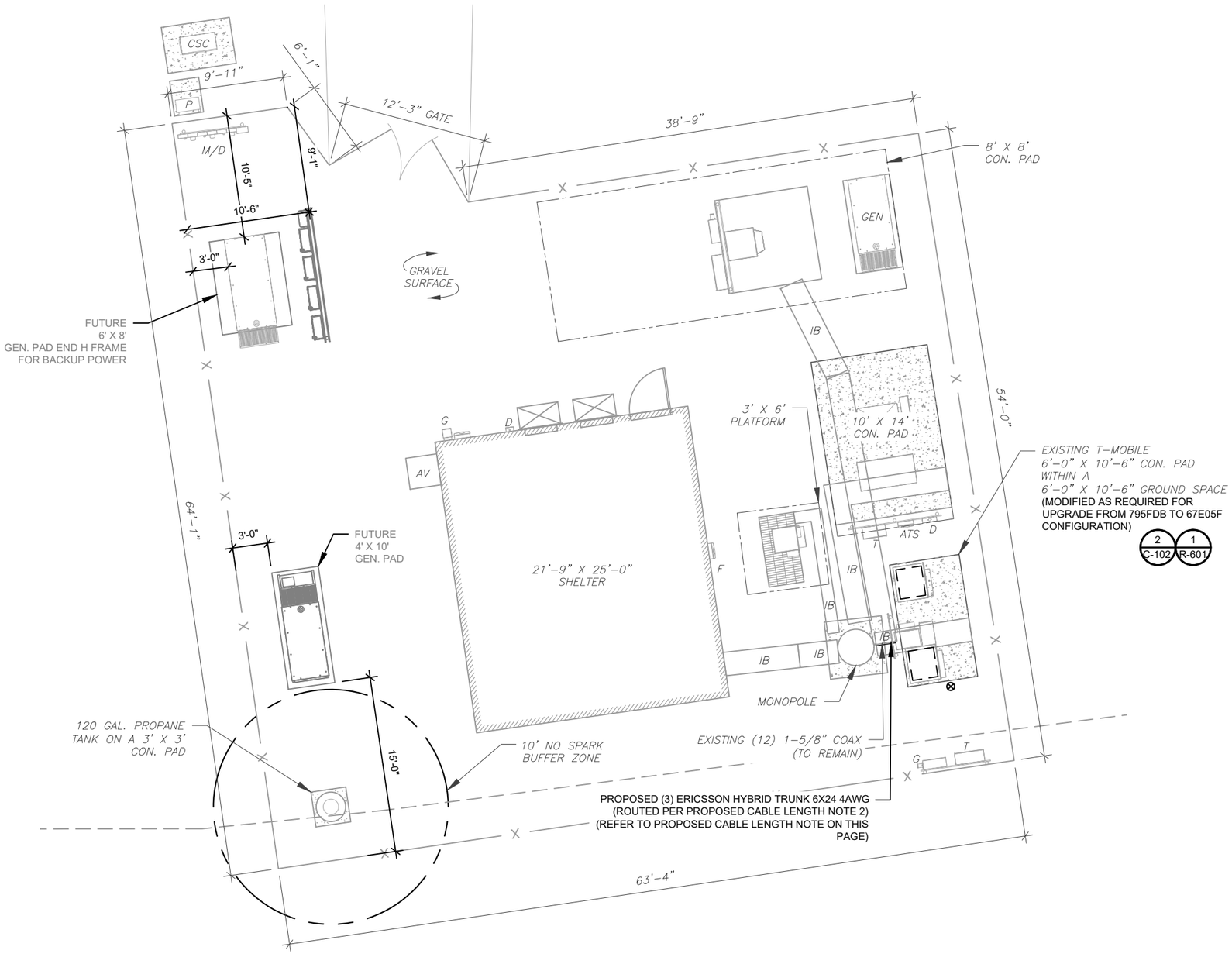
SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

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

LEGEND

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



1 DETAILED SITE PLAN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 UNIT = 10 FEET

PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **160'**. 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. 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.

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T-MOBILE SITE NAME:
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SITE ADDRESS:
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SOUTHINGTON, CT 06489-1313

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LICENSED PROFESSIONAL ENGINEER

T-Mobile

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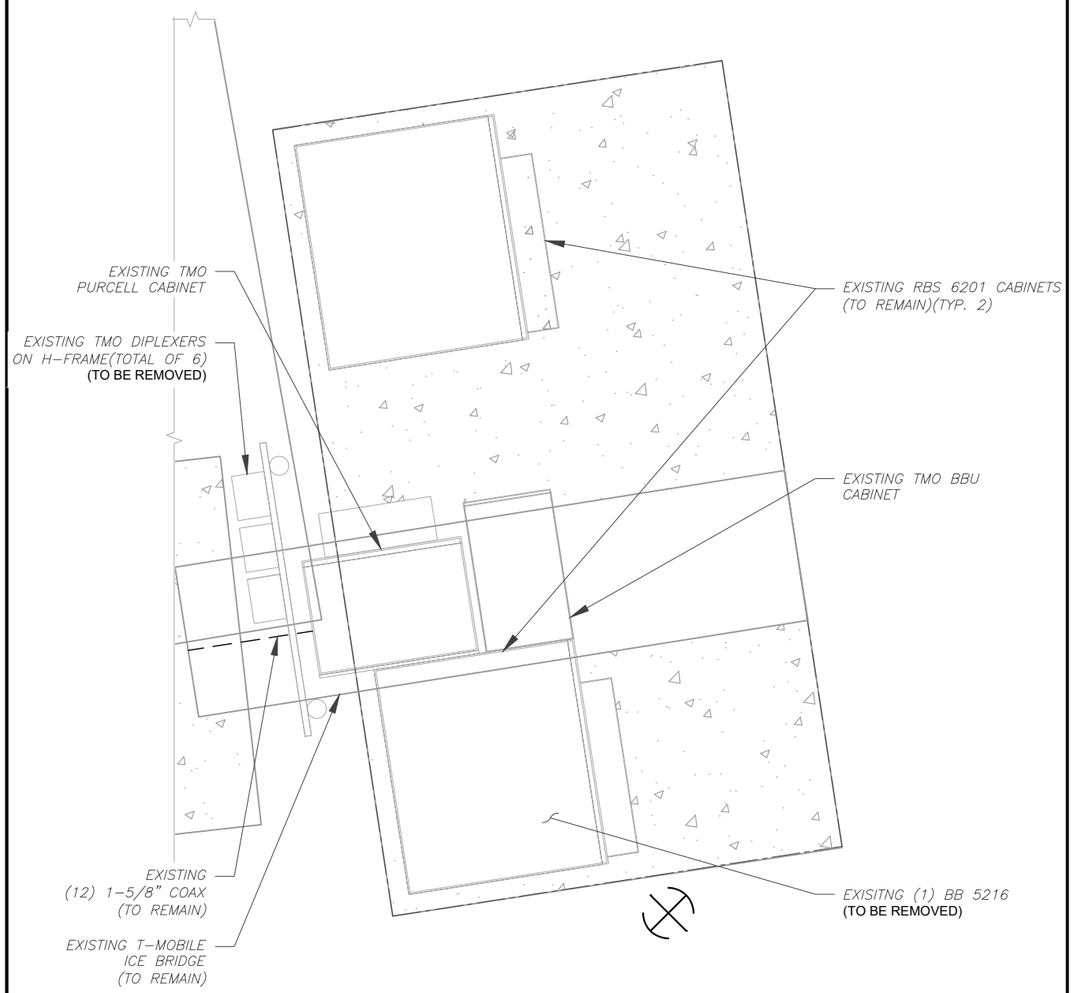
ATC JOB NO:	14098054_D1
CUSTOMER ID:	ATC SOUTHINGTON MONOPOLE
CUSTOMER #:	CTHA527A

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

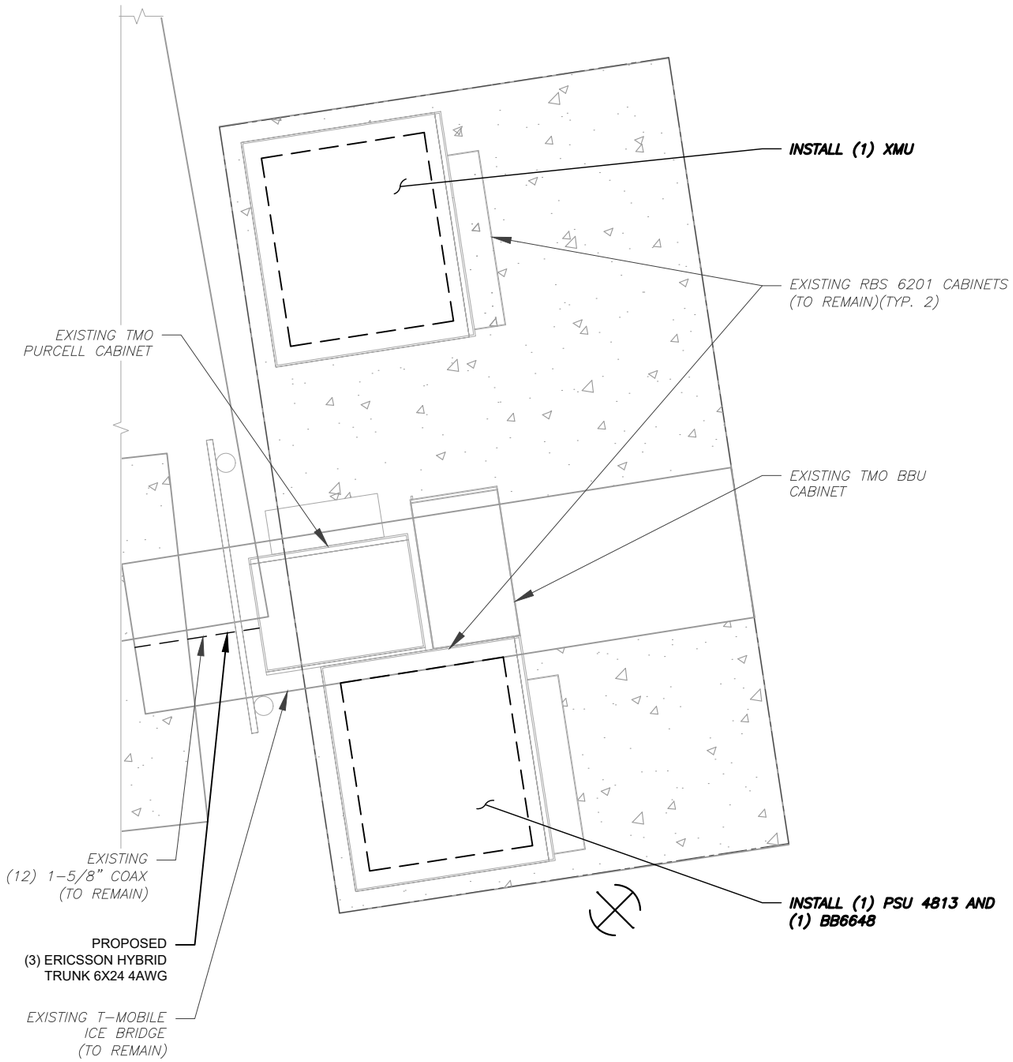
SITE PLAN NOTES:

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



1 EXISTING GROUND EQUIPMENT LAYOUT

GRAPHIC SCALE
2 0 1 2
(IN FEET)
1 UNIT = 2 FEET



2 PROPOSED GROUND EQUIPMENT LAYOUT

GRAPHIC SCALE
2 0 1 2
(IN FEET)
1 UNIT = 2 FEET

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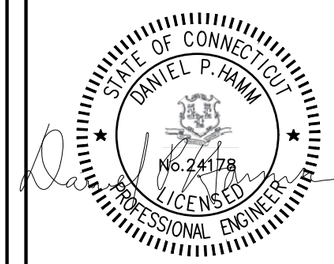
SITE ADDRESS:
80 SHUTTLE MEADOW ROAD
SOUTHINGTON, CT 06489-1313

SEAL:



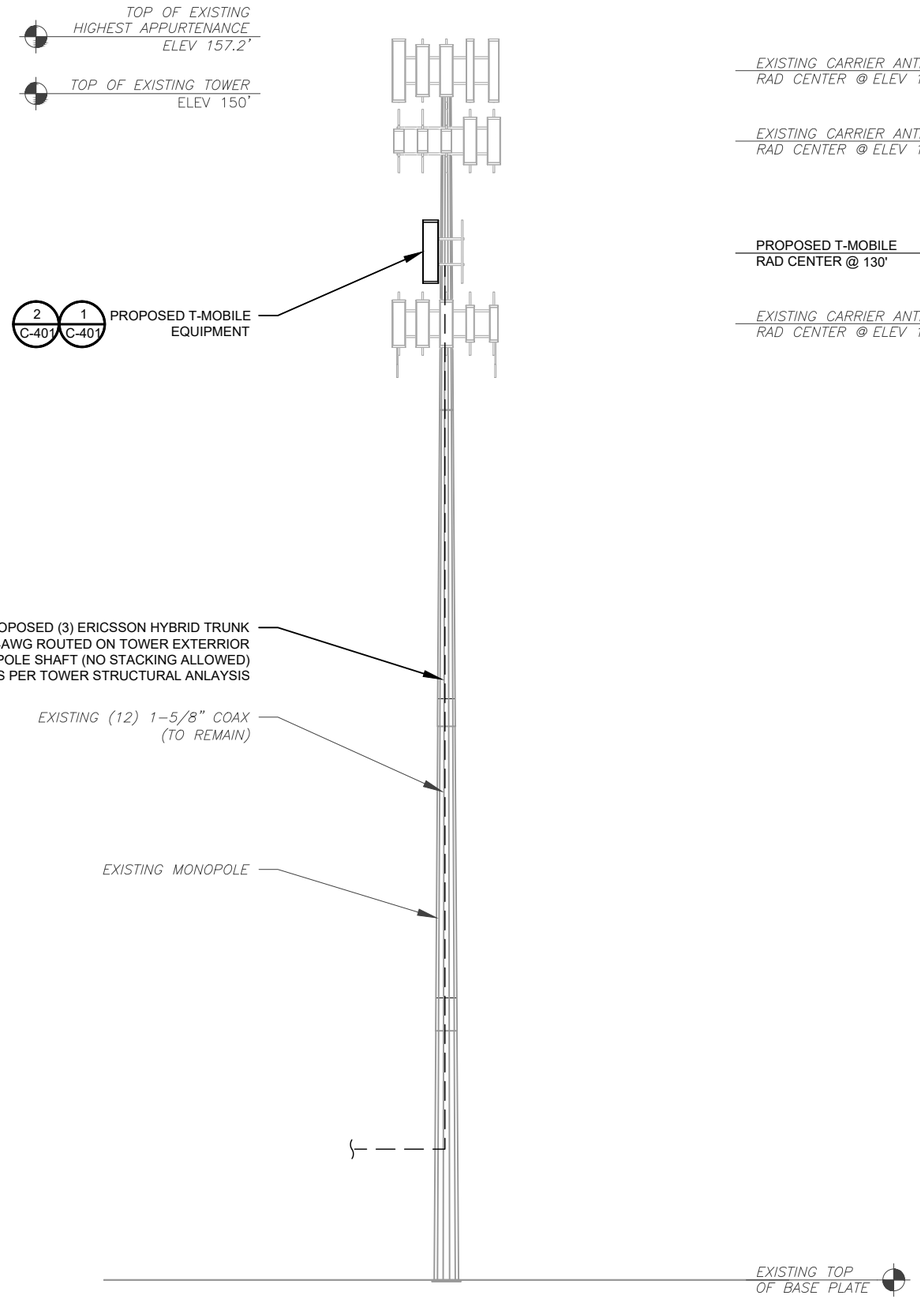
T-Mobile

DATE DRAWN:	06/03/22
ATC JOB NO:	14098054_D1
CUSTOMER ID:	ATC SOUTHINGTON MONOPOLE
CUSTOMER #:	CTHA527A

DETAILED EQUIPMENT PLAN

SHEET NUMBER:	REVISION:
C-102	0

PER MOUNT ANALYSIS COMPLETED BY POD, DATED 05/04/22, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



1 TOWER ELEVATION
SCALE: N.T.S.

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. 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.
4. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)
5. TOWER ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

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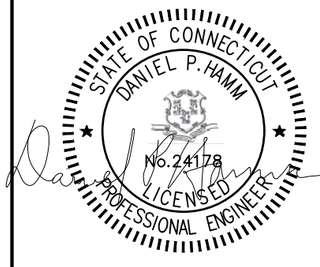
ATC SITE NUMBER:
302475

ATC SITE NAME:
STTN - SOUTHINGTON

T-MOBILE SITE NAME:
ATC SOUTHINGTON MONOPOLE

SITE ADDRESS:
80 SHUTTLE MEADOW ROAD
SOUTHINGTON, CT 06489-1313

SEAL:

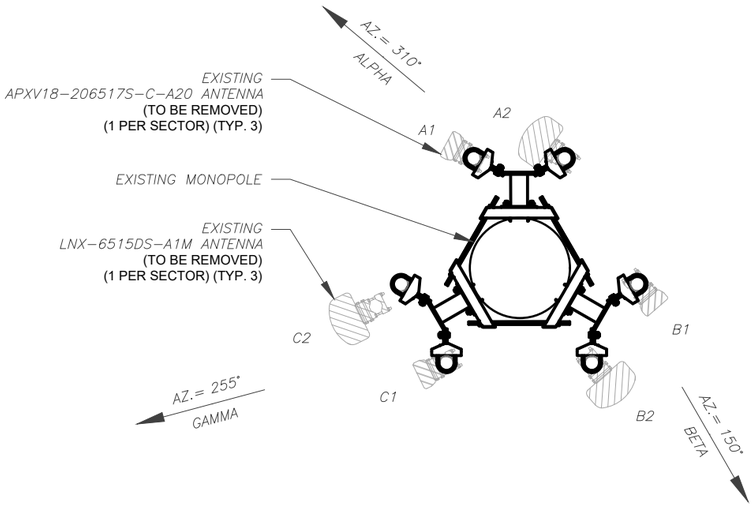


T-Mobile

DATE DRAWN:	06/03/22
ATC JOB NO:	14098054_D1
CUSTOMER ID:	ATC SOUTHINGTON MONOPOLE
CUSTOMER #:	CTHA527A

TOWER ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

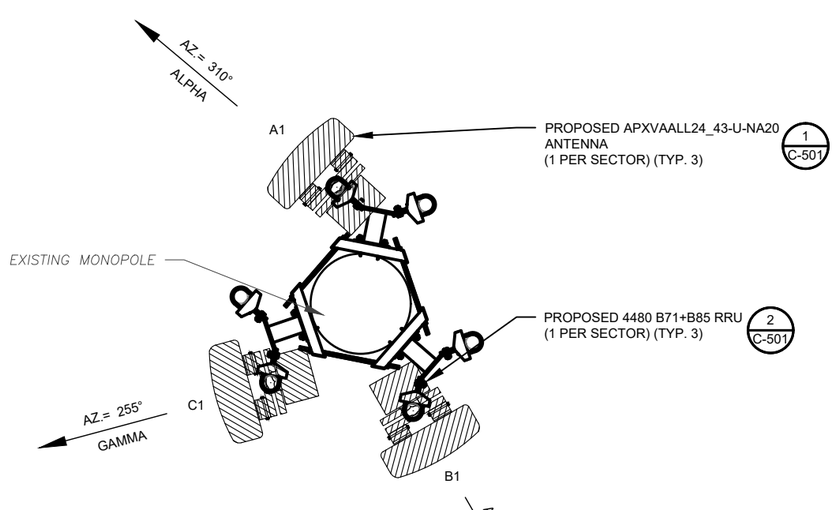


1 EXISTING ANTENNA PLAN

SCALE: N.T.S.

CONTRACTOR SHALL RE-ORIENT ANTENNA MOUNT(s) AS NECESSARY TO ACHIEVE PROPOSED ANTENNA AZIMUTHS

PER MOUNT ANALYSIS COMPLETED BY POD, DATED 05/04/22, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



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	130'	310°	A1	APXV18–206517S–C–A20	U2100, L2100, L1900	0/2	RMV	–	–
			A2	LNX–6515DS–A1M	L700	0/2	RMV	–	–
BETA	130'	150°	B1	APXV18–206517S–C–A20	U2100, L2100, L1900	0/2	RMV	–	–
			B2	LNX–6515DS–A1M	L700	0/2	RMV	–	–
GAMMA	130'	255°	C1	APXV18–206517S–C–A20	U2100, L2100, L1900	0/2	RMV	–	–
			C2	LNX–6515DS–A1M	L700	0/2	RMV	–	–

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	130'	310°	A1	-	-	-	-	-	-
			A2	APXVAALL24_43-U-NA20	L700, L600, N600	0/2	ADD	4480 B71+B85 RRU	ADD
BETA	130'	150°	B1	-	-	-	-	-	-
			B2	APXVAALL24_43-U-NA20	L700, L600, N600	0/2	ADD	4480 B71+B85 RRU	ADD
GAMMA	130'	255°	C1	-	-	-	-	-	-
			C2	APXVAALL24_43-U-NA20	L700, L600, N600	0/2	ADD	4480 B71+B85 RRU	ADD

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
–	–	(12) 1–5/8" COAX	RMN

3 EQUIPMENT SCHEDULES

FINAL FIBER DISTRIBUTION / OVP BOX		M	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
–	–	(12) 1–5/8" COAX	RMN
-	-	(3) ERICSSON HYBRID TRUNK 6X24 4AWG	ADD

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ATC SITE NUMBER:
302475

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SITE ADDRESS:
80 SHUTTLE MEADOW ROAD
SOUTHINGTON, CT 06489-1313

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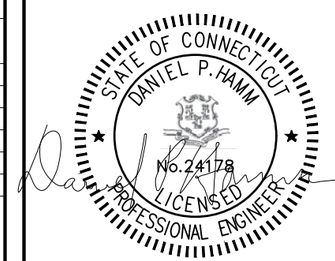

T-Mobile

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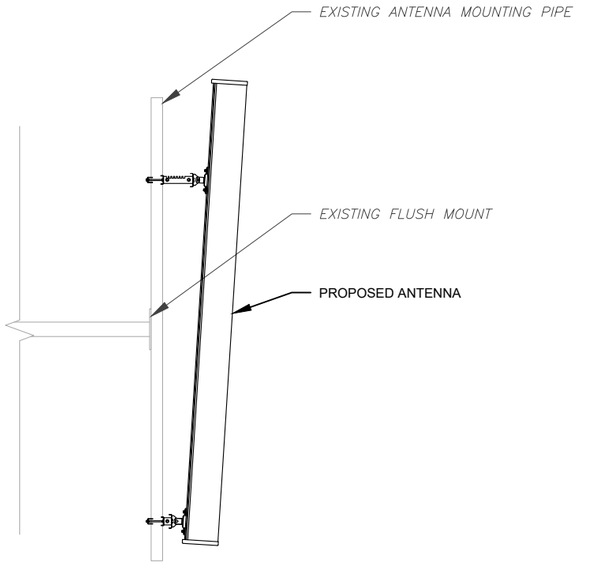
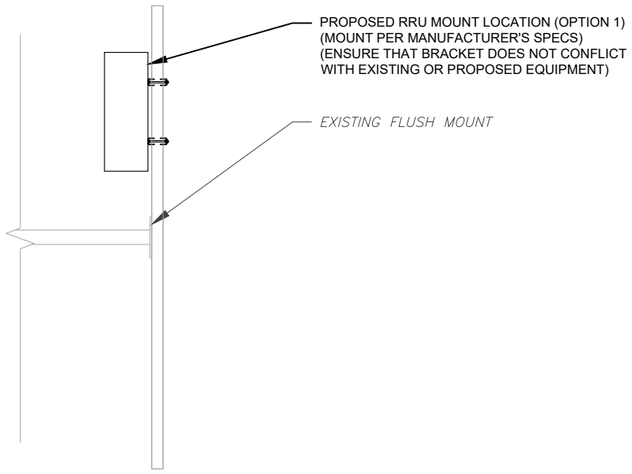
CUSTOMER ID:	ATC SOUTHINGTON MONOPOLE
CUSTOMER #:	CTHA527A

ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-401	0



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



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

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SOUTHINGTON, CT 06489-1313

SEAL:

T-Mobile

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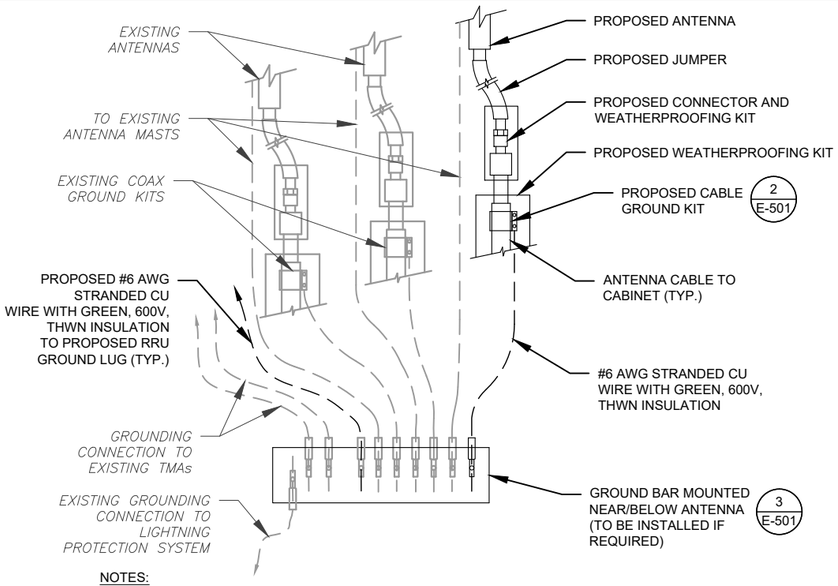
CUSTOMER ID:	ATC SOUTHINGTON MONOPOLE
CUSTOMER #:	CTHA527A

CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

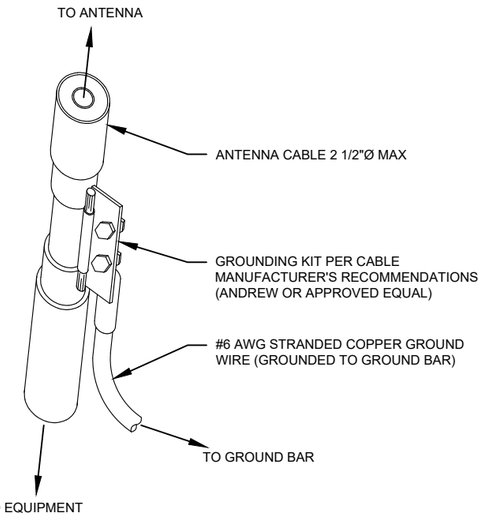


NOTES:

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.

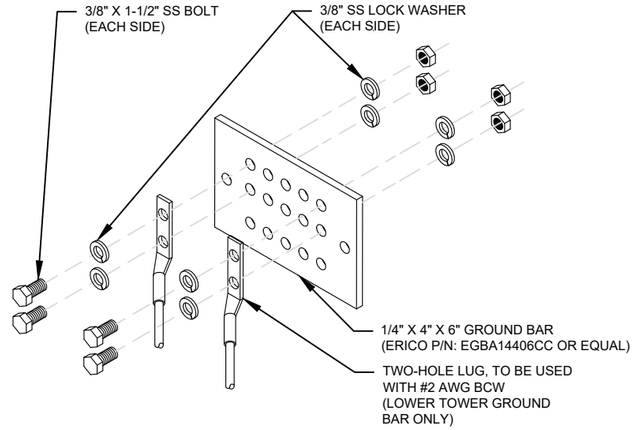


GROUND KIT NOTES:

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.

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N. ANDOVER, MA 01845

TEL: (978) 557-5553
FAX: (978) 336-5586

REV.	DESCRIPTION	BY	DATE
A	PRELIM	SS	07/07/22
0	FINALS	BB	07/21/22

ATC SITE NUMBER:
302475

ATC SITE NAME:
STTN - SOUTHINGTON

T-MOBILE SITE NAME:
ATC SOUTHINGTON MONOPOLE

SITE ADDRESS:
80 SHUTTLE MEADOW ROAD
SOUTHINGTON, CT 06489-1313

SEAL:

T-Mobile

DATE DRAWN:	06/03/22
ATC JOB NO:	14098054_D1
CUSTOMER ID:	ATC SOUTHINGTON MONOPOLE
CUSTOMER #:	CTHA527A

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

RAN Template:	A&L Template:
67E05F	67E05F_1DP+1OP

CTHA527A_L600_6

Print Name: Standard
PORs: L600_L600 Coverage

Section 1 - Site Information

Site ID: CTHA527A
Status: Final
Version: 6
Project Type: L600
Approved: 3/9/2022 1:52:07 PM
Approved By: ANKIT.JAISWAL20@T-Mobile.com
Last Modified: 3/9/2022 1:52:07 PM
Last Modified By: ANKIT.JAISWAL20@T-Mobile.com

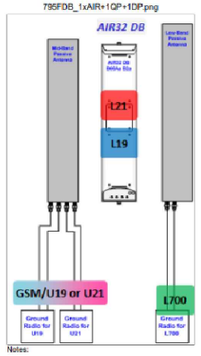
Site Name: ATC Southington Monopole
Site Class: Monopole
Site Type: Structure Non Building
Plan Year: 2022
Market: CONNECTICUT CT
Vendor: Ericsson
Landlord: <undefined>

Latitude: 41.63855000
Longitude: -72.84108000
Address: 80 Shuttle Meadow Rd
City, State: Southington, CT
Region: NORTHEAST

RAN Template: 67E05F	AL Template: 67E05F_1DP+1OP			
Sector Count: 3	Antenna Count: 3	Coax Line Count: 12	TMA Count: 0	RRU Count: 3

Section 2 - Existing Template Images

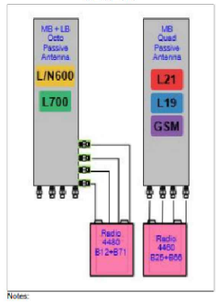
795FDB_1xAIR+1QP+1DP.png



Notes:

Section 3 - Proposed Template Images

67E998E.JPG



Notes:

Section 4 - Siteplan Images

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

RAN Template:	A&L Template:
67E05F	67E05F_1DP+1OP

CTHA527A_L600_6

Print Name: Standard
PORs: L600_L600 Coverage

Section 5 - RAN Equipment

Existing RAN Equipment

Template: 795FDB

Enclosure	1	2
Enclosure Type	RBS 6201	RBS 6201
Baseband	DUW30 (U2100); BB 5216 (L2100, L1900)	BB 5216 (L700)
Radio	RUS01 B2 (x 3) (L1900); RUS01 B4 (x 3) (U2100); RUS01 B4 (x 3) (L2100)	RUS01 B12 (x 6) (L700)

Proposed RAN Equipment

Template: 67E05F

Enclosure	1	2
Enclosure Type	RBS 6201	RBS 6201
Baseband	DUW30 (U2100); BB 5216 (L2100, L1900)	BB 6648 (L700, L600, N600)
Hybrid Cable System		PSU 4813 vR4A (KIT); Ericsson Hybrid Trunk 6/24 4AWG 60m (x 3)
Multiplexer	XMU	
Radio	RUS01 B2 (x 3) (L1900); RUS01 B4 (x 3) (U2100); RUS01 B4 (x 3) (L2100)	

RAN Scope of Work:

CTHA527A
Use existing cabinet 6201.
Replacing BB 5216 used for L7 with BB6648 for low band(L7/L6/N6).
Add PSU 4813.
Add 60 meter Hybrid.
Adding 4480s Radio at the antenna for low band.
Existing BB 5216 used for L2100 / L1900 remains.
Use Octo port antenna for mid band and low band. Mid band will be moved to Octo one 1st antenna is killed.
Height and azimuth of site remain same.
No diplexer on cabinet. Remove it.

RAN Template:	A&L Template:
67E05F	67E05F_1DP+1OP

CTHA527A_L600_6

Print Name: Standard
PORs: L600_L600 Coverage

Section 6 - A&L Equipment

Existing Template: 795FDB_1xAIR+1QP+1DP
Proposed Template: 67E05F_1DP+1OP

Sector 1 (Existing) view from behind

Coverage Type	A - Outdoor Macro	
Antenna	1	2
Antenna Model	RFS - APXV18-206517S-C-A20 (Dual)	Andrew - LNX-6515DS-A1M (Dual)
Azimuth	310	310
M. Tilt	0	0
Height	130	130
Ports	P1	P2
Active Tech.	U2100, L2100, L1900	L700
Dark Tech.		
Restricted Tech.		
Decomm. Tech.		
E. Tilt	2	2
Cables	1-5/8" Coax - 175 ft. (x2)	1-5/8" Coax - 175 ft. (x2)
TMAs		
Diplexers / Combiners	Generic AWS/PCS Diplexer (AtCabinet) (x2)	
Radio		
Sector Equipment		

Unconnected Equipment:

Scope of Work:

Swap Diplexers to AWS / PCS

RAN Template:	A&L Template:
67E05F	67E05F_1DP+1OP

CTHA527A_L600_6

Print Name: Standard
PORs: L600_L600 Coverage

Sector 1 (Proposed) view from behind

Coverage Type	A - Outdoor Macro			
Antenna	1			
Antenna Model	RFS - APXVAALL24_43-U-NA20 (Octo)			
Azimuth	310			
M. Tilt	0			
Height	130			
Ports	P1	P2	P3	P4
Active Tech.	L700, L600, N600	L700, L600, N600	U2100, L2100, L1900	U2100, L2100, L1900
Dark Tech.				
Restricted Tech.				
Decomm. Tech.				
E. Tilt	2			
Cables			1-5/8" Coax - 175 ft. (x2)	1-5/8" Coax - 175 ft. (x2)
TMAs				
Diplexers / Combiners				
Radio	Radio 4480 B71+B85 (At Antenna)	Radio 4480 B71+B85 (At Antenna)		
Sector Equipment				

Unconnected Equipment:

Scope of Work:

CTHA527A
Use existing cabinet 6201.
Replacing BB 5216 used for L7 with BB6648 for low band(L7/L6/N6).
Add PSU 4813.
Add 60 meter Hybrid.
Adding 4480s Radio at the antenna for low band.
Existing BB 5216 used for L2100 / L1900 remains.
Use Octo port antenna for mid band and low band. Mid band will be moved to Octo one 1st antenna is killed.
Height and azimuth of site remain same.
No diplexer on cabinet. Remove it.

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

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

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-601	0

RAN Template:	A&L Template:
67E05F	67E05F_1DP+1OP

CTHA527A_L600_6
Print Name: Standard
PORs: L600_L600 Coverage

Sector 2 (Existing) view from behind		
Coverage Type	A - Outdoor Macro	
Antenna	1	2
Antenna Model	RFS - APXV18-206517S-C-A20 (Dual)	Andrew - LNX-6515DS-A1M (Dual)
Azimuth	150	150
M. Tilt	0	0
Height	130	130
Ports	P1	P2
Active Tech.	U2100 L2100 L1900	L700
Dark Tech.		
Restricted Tech.		
Decomm. Tech.		
E. Tilt	2	2
Cables	1-5/8" Coax - 175 ft. (x2)	1-5/8" Coax - 175 ft. (x2)
TMAs		
Diplexers / Combiners	Generic AWS/PCS Diplexer (AtCabinet) (x2)	
Radio		
Sector Equipment		

Unconnected Equipment:

Scope of Work:

Swap Diplexers to AWS / PCS

RAN Template:	A&L Template:
67E05F	67E05F_1DP+1OP

CTHA527A_L600_6
Print Name: Standard
PORs: L600_L600 Coverage

Sector 3 (Existing) view from behind		
Coverage Type	A - Outdoor Macro	
Antenna	1	2
Antenna Model	RFS - APXV18-206517S-C-A20 (Dual)	Andrew - LNX-6515DS-A1M (Dual)
Azimuth	255	255
M. Tilt	0	0
Height	130	130
Ports	P1	P2
Active Tech.	U2100 L2100 L1900	L700
Dark Tech.		
Restricted Tech.		
Decomm. Tech.		
E. Tilt	2	2
Cables	1-5/8" Coax - 175 ft. (x2)	1-5/8" Coax - 175 ft. (x2)
TMAs		
Diplexers / Combiners	Generic AWS/PCS Diplexer (AtCabinet) (x2)	
Radio		
Sector Equipment		

Unconnected Equipment:

Scope of Work:

Swap Diplexers to AWS / PCS

RAN Template:	A&L Template:
67E05F	67E05F_1DP+1OP

CTHA527A_L600_6
Print Name: Standard
PORs: L600_L600 Coverage

Section 7 - Power Systems Equipment

Existing Power Systems Equipment

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

Proposed Power Systems Equipment

RAN Template:	A&L Template:
67E05F	67E05F_1DP+1OP

CTHA527A_L600_6
Print Name: Standard
PORs: L600_L600 Coverage

Sector 2 (Proposed) view from behind				
Coverage Type	A - Outdoor Macro			
Antenna	1			
Antenna Model	RFS - APXVAALL24_43-U-NA20 (Octo)			
Azimuth	150			
M. Tilt	0			
Height	130			
Ports	P1	P2	P3	P4
Active Tech.	L700 L600 N600	L700 L600 N600	U2100 L2100 L1900	U2100 L2100 L1900
Dark Tech.				
Restricted Tech.				
Decomm. Tech.				
E. Tilt	2			
Cables			1-5/8" Coax - 175 ft. (x2)	1-5/8" Coax - 175 ft. (x2)
TMAs				
Diplexers / Combiners				
Radio	Radio 4480 B71+B85 (At Antenna)	SHARED Radio 4480 B71+B85 (At Antenna)		
Sector Equipment				

Unconnected Equipment:

Scope of Work:

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

RAN Template:	A&L Template:
67E05F	67E05F_1DP+1OP

CTHA527A_L600_6
Print Name: Standard
PORs: L600_L600 Coverage

Sector 3 (Proposed) view from behind				
Coverage Type	A - Outdoor Macro			
Antenna	1			
Antenna Model	RFS - APXVAALL24_43-U-NA20 (Octo)			
Azimuth	255			
M. Tilt	0			
Height	130			
Ports	P1	P2	P3	P4
Active Tech.	L700 L600 N600	L700 L600 N600	U2100 L2100 L1900	U2100 L2100 L1900
Dark Tech.				
Restricted Tech.				
Decomm. Tech.				
E. Tilt	2			
Cables			1-5/8" Coax - 175 ft. (x2)	1-5/8" Coax - 175 ft. (x2)
TMAs				
Diplexers / Combiners				
Radio	Radio 4480 B71+B85 (At Antenna)	SHARED Radio 4480 B71+B85 (At Antenna)		
Sector Equipment				

Unconnected Equipment:

Scope of Work:

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

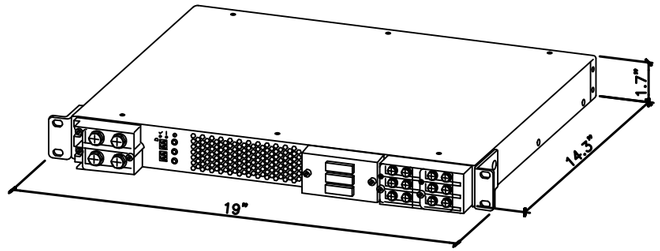
NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

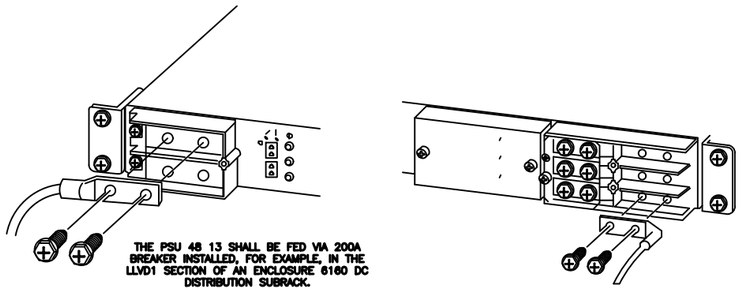
SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-602	0

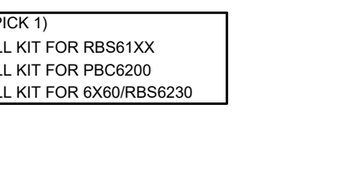
MANUFACTURER:	ERICSSON
MODEL:	PSU 48 13
WEIGHT:	17.1 LBS
DIMENSIONS:	19"x 1.7"x 14.3"

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

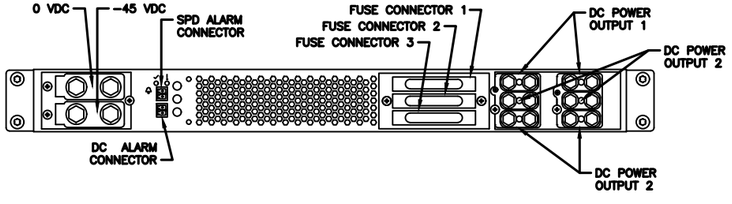




THE PSU 48 13 SHALL BE FED VIA 200A BREAKER INSTALLED, FOR EXAMPLE, IN THE LLVD1 SECTION OF AN ENCLOSURE 6160 DC DISTRIBUTION SUBRACK.



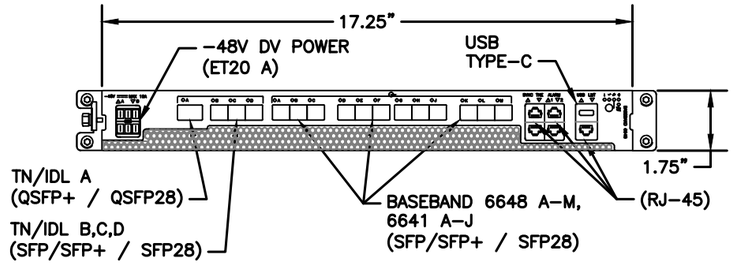
CONNECT –58 VDC DISTRIBUTION CABLE TO TERMINAL AT THE RIGHT, WHICH WILL BE FED TO RRU/AIR AT THE OTHER END.

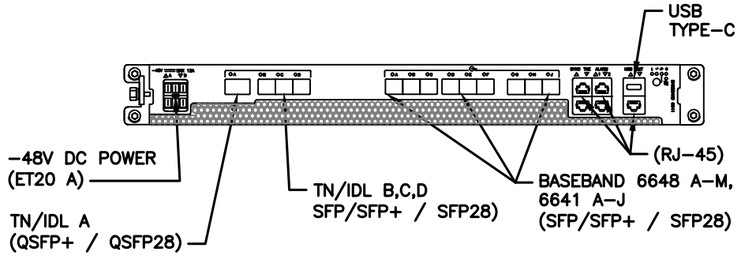


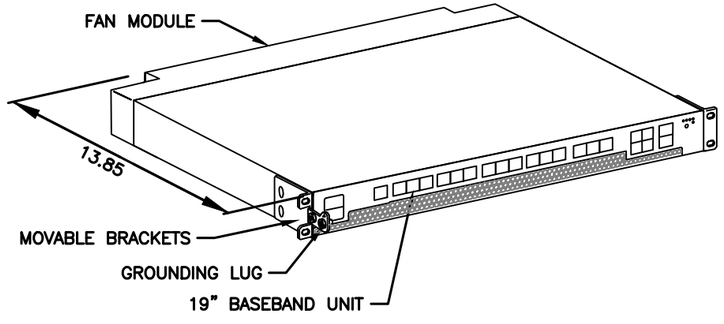
1 SKU# 34132 - PSU 48 13

SCALE: N.T.S.

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







1 34111 - ERICSSON BASEBAND 6648 (WITH FAN)

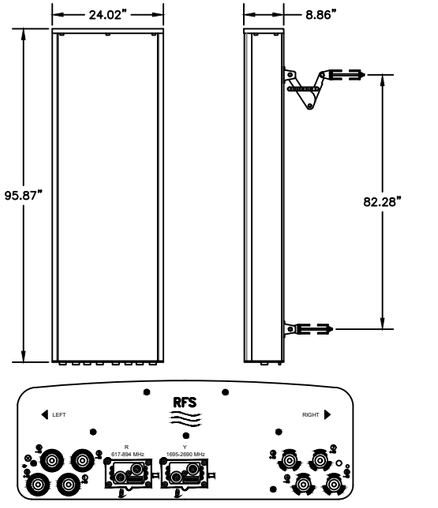
SCALE: N.T.S.

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

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-603	0

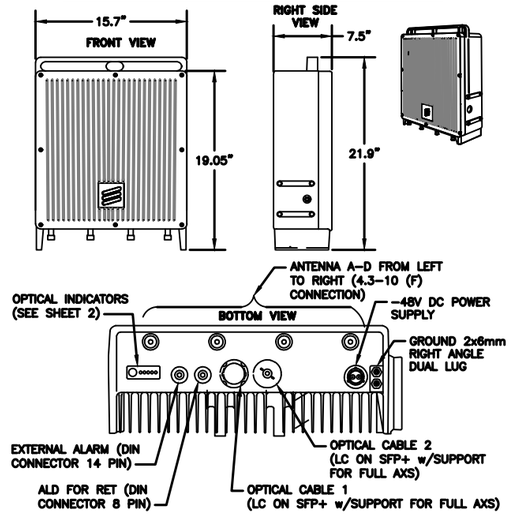
MANUFACTURER:	RFS
MODEL:	APXVAALL24_43-U-NA20
DIMENSIONS:	95.87" x 24.02" x 8.86"
WEIGHT:	119 LB
BAND:	QUAD BAND (8 PORT)
MOUNTING KIT & WEIGHT:	APM40-10E BEAM TILT KIT (INCLUDED) (16.53 LBS)



1 34087 - RFS APXVAALL24_43-U-NA20

SCALE: N.T.S.

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



1 34372 - ERICSSON 4480 RADIO

SCALE: N.T.S.

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

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-604	0

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

POD
POWER OF DESIGN

Antenna Mount Analysis Report

ATC Site Name	:	**Sttn - Southington**
ATC Site Number	:	**302475**
Engineering Number	:	**14098054_C8_01**
Mount Elevation	:	**129 ft**
Carrier	:	**T-MOBILE**
Carrier Site Name	:	**ATC Southington Monopole**
Carrier Site Number	:	**CTHA527A**
Site Location	:	**80 Shuttle Meadow Road** **Southington, CT 06489** **41.63860200, -72.84113749**
County	:	**Hartford**
Date	:	**May 4, 2022**
Max Usage	:	**55 %**
Result	:	**Pass**

Prepared By: Navaneetha Musku
Jason Cheronis
Vice President of Structural Engineering

Jason Cheronis
Digitally signed by Jason Cheronis
Date: 2022.05.04 11:56:24 -04'00'

STATE OF CONNECTICUT · JASON CHERONIS · PEN.0032793 · LICENSED PROFESSIONAL ENGINEER

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for T-MOBILE at 130 ft.

Supporting Documents

Structural Analysis	ATC Engineering #:13703662_C3_01dated: October 25, 2021
RFDS	RFDS dated March 9, 2022
Photos	Site photos from 2022

Analysis

This antenna mount was analyzed using RISA-3D v17 analysis software

Basic Wind Speed:	118 mph, Vult (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.50" Radial Ice (Escalating)
Codes:	TIA-222-H
Structure Class:	II
Exposure Category:	B
Topographic Factor Procedure:	Method 2
Topographic Feature:	Flat
Crest Height:	0 ft
Spectral Response:	S_s = 0.195, S_1 = 0.055
Site Class:	D (assumed)
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above. The mount can support the equipment as described in this report.

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

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:	REVISION:
R-605	0

Exhibit D

Structural Analysis Report

AMERICAN TOWER®
CORPORATION

Post – Modification Structural Analysis Report

Structure	:	**150 ft Monopole**
ATC Site Name	:	**Sttn - Southington,CT**
ATC Site Number	:	**302475**
Engineering Number	:	**14098054_C4_05**
Proposed Carrier	:	**T-Mobile**
Carrier Site Name	:	**ATC Southington Monopole**
Carrier Site Number	:	**CTHA527A**
Site Location	:	**80 Shuttle Meadow Road** **Southington, CT 06489-1313** **41.6386, -72.8411**
County	:	**Hartford**
Date	:	**September 15, 2022**
Max Usage	:	**90%**
Result	:	**Pass**

Prepared By:

Robert D. Barrett, E.I.
Structural Engineer II

Robert D. Barrett

Reviewed By:

COA : PEC.0001553

Table of Contents

Introduction

The purpose of this report is to summarize results of a post – modification structural analysis performed on the 150 ft Monopole to reflect the change in loading by T-Mobile.

Supporting Documents

Tower Drawings	SpectraSite Mapping Site #CT-0011, dated May 29, 2002 AT&T Technologies Project #AT-8935, dated April 13, 1984
Foundation Drawing	Girard & Co. Engineers Project #38922, dated May 18, 1983 Mapping by Delta Oaks Group Project #BG121-11413-01, dated October 20, 2021
Geotechnical Report	GeoTechnologies Project #1-02-0934-EA, dated July 12, 2002
Modifications	ATC Job #40480332, dated May 25, 2007 ATC Job #42608538, dated April 22, 2009 ATC Job #OAA740798_C6_05, dated January 22, 2019 ATC Job #12978549_C6_11, dated September 14, 2020 ATC Job #14098054_C6_06, dated September 6, 2022 (Pending)

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:	118 mph (3-second gust)
Basic Wind Speed w/ Ice:	50 mph (3-second gust) w/ 1.50" 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
Crest Length (L):	0 ft
Spectral Response:	Ss = 0.20, S_1 = 0.06
Site Class:	D - Stiff Soil - Default

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

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report. If the pending modifications cited in the supporting documents table are not completed, the results of this analysis are no longer valid, and T-Mobile should contact American Tower's Site Manager for further direction on how to proceed.

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

Existing and Reserved Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
153.2	1	Generic 96" x 16" Panel	Sector Frames	(2) 0.39" Fiber Trunk (6) 0.78" 8 AWG 6 (1) 3" Conduit (12) 7/8" Coax	AT&T Mobility
153.0	6	CCI TPX-070821			
	2	Kathrein Scala 80010965			
	1	Andrew SBNH-1D6565C (60.8 lbs)			
	1	Kathrein Scala 80010966			
	3	Quintel QS66512-3 (112 lbs.)			
	2	KMW AM-X-CD-16-65-00T-RET			
	3	Powerwave Allgon 7770.00			
	3	Ericsson RRUS-32 (77 lbs)			
	3	Ericsson RRUS 32 B2			
	3	Ericsson RRUS-11 (50 lbs.)			
	3	Ericsson RRUS 4478 B5			
	3	Ericsson RRUS 4478 B14			
	6	Kaelus DBCT108F1V92-1			
	2	Raycap DC6-48-60-18-8F (23.5" Height)			
	3	CCI DTMABP7819VG12A (w/ Bracket)			
	1	Raycap DC6-48-60-18-8F ("Squid")			
	3	Ericsson RRUS 4426 B66			
143.0	3	Samsung MT6407-77A	Triangular Platform with Handrails	(2) 1 5/8" Hybriflex	Verizon Wireless
	1	Raycap RVZDC-6627-PF-48			
	3	Samsung B5/B13 RRH-BR04C			
	3	Samsung B2/B66A RRH-BR049			
	3	Samsung RT4401-48A			
	3	Samsung Outdoor CBRS 20W RRH –Clip-on Antenna			
	6	Commscope NNHH-65B-R4			
130.0	-	-	Collar	(12) 1 5/8" Coax	T-Mobile
104.0	1	dB Systems 5100A	Side Arms	(6) 7/8" Coax	L3harris Technologies, Inc.
	4	dB Systems 5100A-D			
	1	VertexRSI 101V VPD			

Equipment to be Removed

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
130.0	3	RFS APXV18-206517S-C	-	-	T-Mobile
	3	Andrew LNX-6515DS-VTM			
	3	Kathrein Scala Smart Bias Tee			

Proposed Equipment

Elev.[1] (ft)	Qty	Equipment	Mount Type	Lines	Carrier
130.0	3	Ericsson 4480 BAND 71	Collar	(3) 1.99" Hybrid	T-Mobile
	3	RFS APXVAALL24 43-U-NA20			

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

Install proposed lines outside the pole shaft. Stacking lines is not allowed.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	69%	Pass
Shaft	88%	Pass
Base Plate	28%	Pass
Flanges	32%	Pass
Reinforcement	75%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	2730.5	90%
Axial (Kips)	50.1	86%
Shear (Kips)	25.7	27%

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, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
130.0	RFS APXVAALL24 43-U-NA20	T-Mobile	1.620	1.450
	Ericsson 4480 BAND 71			

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

Standard Conditions

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

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

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

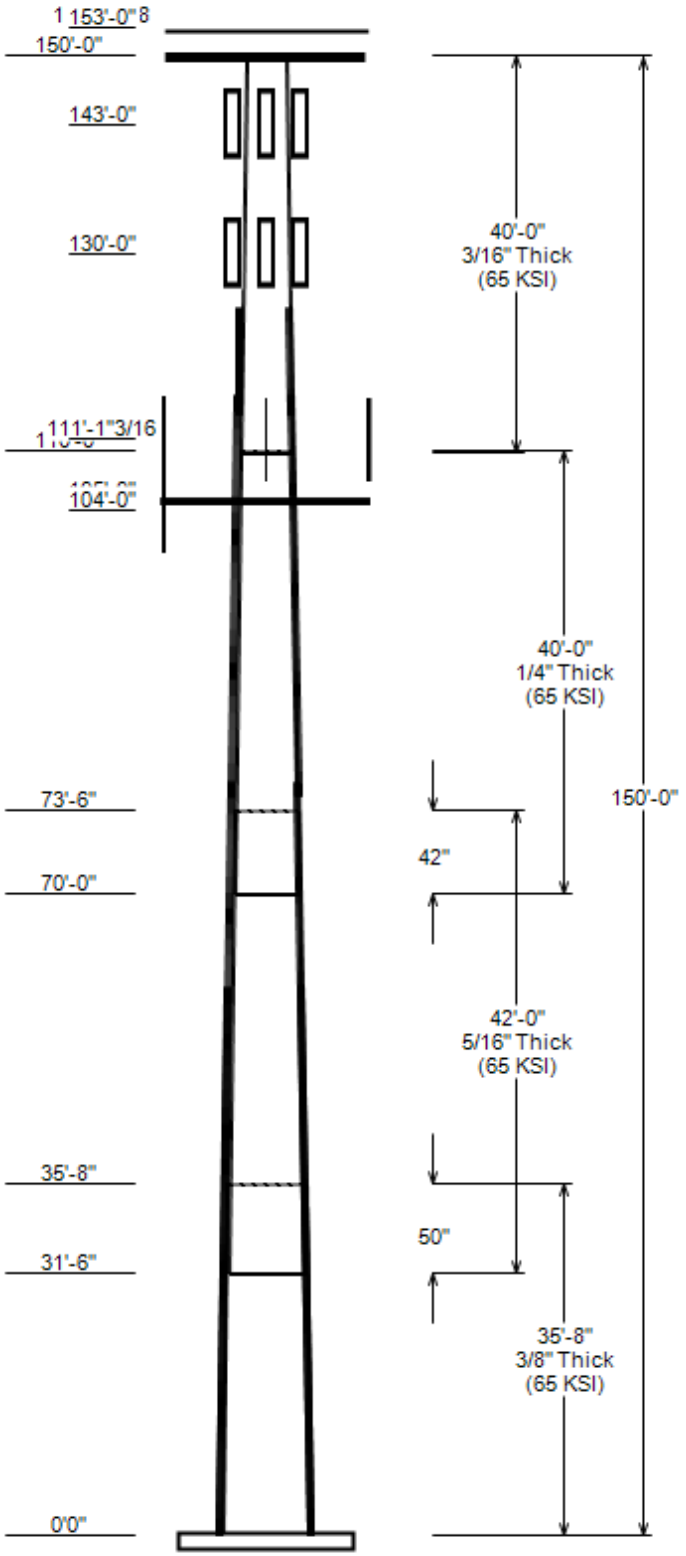
All assets of American Tower Corporation, its affiliates, and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with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

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

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

JOB INFORMATION

Asset :	302475, Sttn - Southington	Height :	150 ft
Client :	T-MOBILE	Base Width :	37
Code :	ANSI/TIA-222-H	Shape :	12 Sides



SITE PARAMETERS

Nominal Wind: 115.01 mph wind with no ic **Topo Category:** 1

Ice Wind: 48.73 mph wind with 1.275" **Topo Method:** Method 1

Base Elev (ft): 0.00 **Taper :** 0.16100(In/ft) **Topo Feature:**

Structure Class: II **Exposure :** B **S_s :** 0.195 **S_1** : 0.055

SECTION PROPERTIES

Shaft Section	Length (ft)	Diameter (in) Across Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
1	35.667	31.26	37.00	0.375		0.000	12 Sides	65
2	42.000	25.80	32.56	0.312	Slip Joint	50.000	12 Sides	65
3	40.000	20.43	26.87	0.250	Slip Joint	42.000	12 Sides	65
4	40.000	14.00	20.43	0.188	Butt Joint	0.000	12 Sides	65

DISCRETE APPURTENANCE

Attach Elev (ft)	Force Elev (ft)	Qty	Description
153.2	153.2	1	Generic 96" x 16" Panel
153.0	153.0	6	CCI TPX-070821
153.0	153.0	6	Kaelus DBCT108F1V92-1
153.0	153.0	2	Raycap DC6-48-60-18-8F (23.5"
153.0	153.0	3	CCI DTMABP7819VG12A (w/ Bracke
153.0	153.0	1	Raycap DC6-48-60-18-8F ("Squid
153.0	153.0	3	Ericsson RRUS 4426 B66
153.0	153.0	3	Ericsson RRUS 4478 B14
153.0	153.0	3	Ericsson RRUS 4478 B5
153.0	153.0	3	Ericsson RRUS-11 (50 lbs.)
153.0	153.0	3	Ericsson RRUS 32 B2
153.0	153.0	3	Ericsson RRUS-32 (77 lbs)
153.0	153.0	3	Powerwave Allgon 7770.00
153.0	153.0	2	KMW AM-X-CD-16-65-00T-RET
153.0	153.0	3	Quintel QS66512-3 (112 lbs.)
153.0	153.0	1	Andrew SBNH-1D6565C (60.8 lbs)
153.0	153.0	2	Kathrein Scala 80010965
153.0	153.0	1	Kathrein Scala 80010966
150.0	150.0	3	Round Sector Frame
143.0	143.0	3	Samsung Outdoor CBRS 20W RRH –
143.0	143.0	3	Samsung RT4401-48A
143.0	143.0	3	Samsung B2/B66A RRH-BR049
143.0	143.0	3	Samsung B5/B13 RRH-BR04C
143.0	143.0	1	Raycap RVZDC-6627-PF-48
143.0	143.0	3	Samsung MT6407-77A
143.0	143.0	6	Commscope NNHH-65B-R4
143.0	143.0	1	Site-Pro RMQP-496 w/ HRK-12
130.0	130.0	3	Site-Pro UWS6-NP Collar
130.0	130.0	3	Ericsson 4480 BAND 71
130.0	130.0	3	RFS APXVAALL24 43-U-NA20
111.2	111.2	1	dB Systems 5100A
111.1	111.1	4	dB Systems 5100A-D
105.0	105.0	3	Round Side Arm
104.0	104.0	1	VertexRSI 101V VPD

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	153.0	7/8" Coax	No
0.0	153.0	3" conduit	No
0.0	153.0	0.78" (19.7mm) 8 AWG 6	No
0.0	153.0	0.39" (10mm) Fiber Trunk	No

JOB INFORMATION

Asset :	302475, Sttn - Southington	Height :	150 ft
Client :	T-MOBILE	Base Width :	37
Code :	ANSI/TIA-222-H	Shape :	12 Sides

LINEAR APPURTENANCE

Elev From (ft)	Elev To (ft)	Description	Exp To Wind
0.0	143.0	1 5/8" Hybriflex	No
0.0	130.0	1.99" (50.7mm) Hybrid	No
0.0	130.0	1 5/8" Coax	Yes
0.0	130.0	1 5/8" Coax	Yes
109.0	129.0	W8 Brackets for #20	Yes
109.0	129.0	W8 Brackets for #20	Yes
109.0	129.0	W8 Brackets for #20	Yes
109.0	129.0	W8 Brackets for #20	Yes
109.0	129.0	#20 w/ W Brackets	Yes
109.0	129.0	#20 w/ W Brackets	Yes
109.0	129.0	#20 w/ W Brackets	Yes
109.0	129.0	#20 w/ W Brackets	Yes
69.0	119.0	W5 Brackets for #20	Yes
69.0	119.0	W5 Brackets for #20	Yes
69.0	119.0	W5 Brackets for #20	Yes
69.0	119.0	W5 Brackets for #20	Yes
69.0	119.0	#20 Dywidag Bars	Yes
69.0	119.0	#20 Dywidag Bars	Yes
69.0	119.0	#20 Dywidag Bars	Yes
69.0	119.0	#20 Dywidag Bars	Yes
0.0	111.0	7/8" Coax	Yes
0.0	80.0	#20 w/ Angle Brackets	Yes
0.0	80.0	#20 w/ Angle Brackets	Yes
0.0	80.0	#20 w/ Angle Brackets	Yes
0.0	80.0	#20 w/ Angle Brackets	Yes
0.0	62.5	#20 w/ Angle Brackets	Yes
0.0	62.5	#20 w/ Angle Brackets	Yes
0.0	62.5	#20 w/ Angle Brackets	Yes
0.0	62.5	#20 w/ Angle Brackets	Yes

LOAD CASES

1.2D + 1.0W	115.01 mph wind with no ice
0.9D + 1.0W	115.01 mph wind with no ice
1.2D + 1.0Di + 1.0Wi	48.73 mph wind with 1.275" radial
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

REACTIONS

Load Case	Moment (kip-ft)	Shear (Kip)	Axial (Kip)
1.2D + 1.0W	2730.53	25.66	50.06
0.9D + 1.0W	2689.17	25.63	37.53
1.2D + 1.0Di + 1.0Wi	872.64	7.53	75.84
1.2D + 1.0Ev + 1.0Eh	160.16	1.26	49.64
0.9D - 1.0Ev + 1.0Eh	157.07	1.26	34.32
1.0D + 1.0W	659.15	6.24	41.75

DISH DEFLECTIONS

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)

ANALYSIS PARAMETERS

Location:	Hartford County,CT	**Height:**	150 ft
Type and Shape:	Taper, 12 Sides	**Base Diameter:**	37.00 in
Manufacturer:	ITT Meyer	**Top Diameter:**	14.00 in
K_d (non-service):	0.95	**Taper:**	0.1610 in/ft
K_e:	0.98	**Rotation:**	0.000°

ICE & WIND PARAMETERS

Exposure Category:	B	**Design Wind Speed w/o Ice:**	115 mph
Risk Category:	II	**Design Wind Speed w/Ice:**	49 mph
Topo Factor Procedure:	Method 1	**Operational Wind Speed:**	60 mph
Topographic Category:	1	**Design Ice Thickness:**	1.28 in
Crest Height:	0 ft	**HMSL:**	489.00 ft

SEISMIC PARAMETERS

Analysis Method:	Equivalent Lateral Force Method				
Site Class:	D - Stiff Soil			**Period Based on Rayleigh Method (sec):**	2.70
T_L (sec):	6	**P:**	1	**C_s:**	0.030
S_s:	0.195	**S_1:**	0.055	**C_s Max:**	0.030
F_a:	1.600	**F_v:**	2.400	**C_s Min:**	0.030
S_{ds}:	0.208	**S_{d1}:**	0.088		

LOAD CASES

1.2D + 1.0W	115.01 mph wind with no ice
0.9D + 1.0W	115.01 mph wind with no ice
1.2D + 1.0Di + 1.0Wi	48.73 mph wind with 1.275" radial ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

SHAFT SECTION PROPERTIES

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	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 (in)	Top Area (in²)	Top Ix (in⁴)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-12	35.67	0.3750	65		0.00	4,947	37.00	0.003	44.22	7,571.9	23.76	98.67	31.26	35.67	37.30	4,542.2	19.66	83.37	0.1608
2-12	42.00	0.3125	65	Slip	50.00	4,152	32.56	31.500	32.45	4,306.5	25.24	104.19	25.80	73.50	25.65	2,127.5	19.45	82.57	0.1608
3-12	40.00	0.2500	65	Slip	42.00	2,564	26.87	70.000	21.43	1,937.5	26.12	107.47	20.43	110.00	16.25	844.8	19.22	81.73	0.1608
								110.00								203.1			
4-12	40.00	0.1875	65	Butt	0.00	1,399	20.43	0	12.22	639.5	26.52	108.98	14.00	150.00	8.34		17.33	74.67	0.1608

Shaft Weight 13,062

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
153.20	Generic 96" x 16" Panel	1	0.80	0.000	50.00	14.459	1.00	295.07	17.620	1.00
153.00	Kathrein Scala 80010965	2	0.80	0.000	97.60	13.814	0.72	324.30	16.408	0.72
153.00	Andrew SBNH-1D6565C (60.8 lbs)	1	0.80	0.000	60.80	11.440	1.00	255.90	14.191	1.00
153.00	Quintel QS66512-3 (112 lbs.)	3	0.80	0.000	112.00	8.133	0.74	281.45	10.503	0.74
153.00	KMW AM-X-CD-16-65-00T-RET	2	0.80	0.000	48.50	8.024	0.75	186.20	10.396	0.75
153.00	Powerwave Allgon 7770.00	3	0.80	0.000	35.00	5.508	0.65	131.66	7.316	0.65
153.00	Kathrein Scala 80010966	1	0.80	0.000	114.60	17.363	1.00	387.64	20.500	1.00
153.00	CCI TPX-070821	6	0.80	0.000	7.50	0.469	0.50	17.81	0.876	0.50
153.00	Kaelus DBCT108F1V92-1	6	0.80	0.000	13.90	0.633	0.50	35.30	1.097	0.50
153.00	Raycap DC6-48-60-18-8F (23.5"	2	0.80	0.000	20.00	1.260	1.00	64.77	1.820	1.00
153.00	CCI DTMABP7819VG12A (w/ Bracke	3	0.80	0.000	19.20	1.370	0.50	48.16	2.034	0.50
153.00	Raycap DC6-48-60-18-8F ("Squid	1	0.80	0.000	31.80	1.470	1.00	84.26	2.064	1.00
153.00	Ericsson RRUS 4426 B66	3	0.80	0.000	48.40	1.650	0.50	86.36	2.372	0.50
153.00	Ericsson RRUS 4478 B14	3	0.80	0.000	59.90	1.842	0.50	106.92	2.605	0.50
153.00	Ericsson RRUS 4478 B5	3	0.80	0.000	59.90	1.842	0.50	106.92	2.605	0.50
153.00	Ericsson RRUS-11 (50 lbs.)	3	0.80	0.000	50.00	2.566	0.67	107.96	3.457	0.67
153.00	Ericsson RRUS 32 B2	3	0.80	0.000	53.00	2.743	0.67	115.54	3.737	0.67
153.00	Ericsson RRUS-32 (77 lbs)	3	0.80	0.000	77.00	3.314	0.71	159.70	4.406	0.71
150.00	Round Sector Frame	3	0.75	0.000	300.00	14.400	0.67	612.77	28.475	0.67
143.00	Site-Pro RMQP-496 w/ HRK-12	1	1.00	0.000	2445.80	21.760	1.00	3888.63	34.597	1.00
143.00	Commscope NNHH-65B-R4	6	0.75	0.000	83.80	12.271	0.64	296.57	14.645	0.64
143.00	Samsung MT6407-77A	3	0.75	0.000	81.60	4.709	0.61	167.91	5.995	0.61
143.00	Raycap RVZDC-6627-PF-48	1	0.75	0.000	32.00	3.781	1.00	124.86	4.901	1.00
143.00	Samsung RT4401-48A	3	0.75	0.000	18.60	0.996	0.50	41.47	1.575	0.50
143.00	Samsung B2/B66A RRH-BR049	3	0.75	0.000	84.40	1.875	0.50	138.42	2.639	0.50
143.00	Samsung B5/B13 RRH-BR04C	3	0.75	0.000	70.30	1.875	0.50	118.74	2.639	0.50
143.00	Samsung Outdoor CBRS 20W RRH –	3	0.75	0.000	4.40	0.892	0.50	19.64	1.433	0.50
130.00	Site-Pro UWS6-NP Collar	3	1.00	0.000	96.00	1.500	0.67	148.12	2.630	0.67
130.00	Ericsson 4480 BAND 71	3	0.80	0.000	81.00	2.878	0.67	144.79	3.819	0.67
130.00	RFS APXVAALL24 43-U-NA20	3	0.80	0.000	122.80	20.243	0.63	449.21	23.351	0.63
111.20	dB Systems 5100A	1	1.00	0.000	21.00	2.048	1.00	65.09	3.165	1.00
111.10	dB Systems 5100A-D	4	1.00	0.000	38.00	3.093	1.00	118.79	4.252	1.00
105.00	Round Side Arm	3	1.00	0.000	300.00	10.400	0.67	420.18	14.864	0.67
104.00	VertexRSI 101V VPD	1	1.00	0.000	4.00	2.407	1.00	67.47	7.749	1.00
Totals	Num Loadings: 34	93			8,895.90			19,110.46		

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg) : 90.00

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	153.00	12	7/8" Coax	1.09	0.33	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	153.00	6	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	153.00	2	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	153.00	1	3" conduit	3.5	7.58	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	143.00	2	1 5/8" Hybriflex	1.98	1.3	N	0	0	0	0	0	N	VERIZON WIREL
0.00	130.00	6	1 5/8" Coax	1.98	0.82	N	6	1	1	220	1	Y	T-MOBILE
0.00	130.00	6	1 5/8" Coax	1.98	0.82	N	4	1	1	110	1	Y	T-MOBILE
0.00	130.00	3	1.99" (50.7mm) Hybrid	1.99	1.9	N	0	0	0	0	0	N	T-MOBILE
109.00	129.00	1	W8 Brackets for #20	2.48	0	Y	1	0	0	285	2.9	Y	

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
109.00	129.00	1	#20 w/ W Brackets	2.5	0	N	1	0	0	15	8.28	Y	
109.00	129.00	1	W8 Brackets for #20	2.48	0	Y	1	0	0	195	2.9	Y	
109.00	129.00	1	W8 Brackets for #20	2.48	0	Y	1	0	0	105	2.9	Y	
109.00	129.00	1	#20 w/ W Brackets	2.5	0	N	1	0	0	285	8.28	Y	
109.00	129.00	1	#20 w/ W Brackets	2.5	0	N	1	0	0	195	8.28	Y	
109.00	129.00	1	#20 w/ W Brackets	2.5	0	N	1	0	0	105	8.28	Y	
109.00	129.00	1	W8 Brackets for #20	2.48	0	Y	1	0	0	15	2.9	Y	
69.00	119.00	1	#20 Dywidag Bars	2.5	0	N	1	0	0	210	5.15	Y	
69.00	119.00	1	#20 Dywidag Bars	2.5	0	N	1	0	0	30	5.15	Y	
69.00	119.00	1	#20 Dywidag Bars	2.5	0	N	1	0	0	120	5.15	Y	
69.00	119.00	1	#20 Dywidag Bars	2.5	0	N	1	0	0	300	5.15	Y	
69.00	119.00	1	W5 Brackets for #20	1.55	0	Y	1	0	0	120	1.8	Y	
69.00	119.00	1	W5 Brackets for #20	1.55	0	Y	1	0	0	300	1.8	Y	
69.00	119.00	1	W5 Brackets for #20	1.55	0	Y	1	0	0	30	1.8	Y	
69.00	119.00	1	W5 Brackets for #20	1.55	0	Y	1	0	0	210	1.8	Y	
0.00	111.00	6	7/8" Coax	1.09	0.33	N	6	1	1	0	1	Y	L3HARRIS TECH
0.00	80.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	150	0	Y	
0.00	80.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	60	0	Y	
0.00	80.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	240	0	Y	
0.00	80.00	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	330	0	Y	
0.00	62.50	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	180	0	Y	
0.00	62.50	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	0	0	Y	
0.00	62.50	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	270	0	Y	
0.00	62.50	1	#20 w/ Angle Brackets	4	4.68	N	1	0	0	90	0	Y	

ADDITIONAL STEEL

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Intermediate Connectors Description	Spacing (in)	Len (in)	Connectors	Continuation?
0.00	55.48	4	SOL #20 All Thread Bar	80	2.19	6" Angle Bracket	30.00	3.31	5/8" A36 U-Bolt	N
0.00	76.25	4	SOL #20 All Thread Bar	80	2.19	6" Angle Bracket	30.00	3.31	5/8" A36 U-Bolt	N
74.92	115.54	4	SOL #20 All Thread Bar	80	5.15	6" T Bracket	32.00	3.31	5/8" A36 U-Bolt	N
113.56	124.44	4	SOL #20 All Thread Bar	80	8.28	6" T Bracket	32.00	3.31	5/8" A36 U-Bolt	N

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)	Additional Reinforcing Area (in^2)	Additional Reinforcing Ix (in^4)	Additional Reinforcing Weight (lb)
0.00		0.3750	37.000	44.225	7,571.90	23.76	98.67	78.8	395.3	0.0	0.0	39.280	9,469.30	0.0
5.00		0.3750	36.196	43.254	7,084.00	23.18	96.52	79.4	378.1	0.0	744.2	39.280	9,126.00	668.0
10.00		0.3750	35.392	42.283	6,617.60	22.61	94.38	80.1	361.2	0.0	727.7	39.280	8,789.00	668.0
15.00		0.3750	34.588	41.312	6,172.00	22.03	92.23	80.7	344.7	0.0	711.1	39.280	8,458.40	668.0
20.00		0.3750	33.783	40.341	5,747.00	21.46	90.09	81.3	328.6	0.0	694.6	39.280	8,134.10	668.0
25.00		0.3750	32.979	39.370	5,341.90	20.89	87.94	81.9	312.9	0.0	678.1	39.280	7,816.10	668.0
30.00		0.3750	32.175	38.399	4,956.30	20.31	85.80	81.9	297.6	0.0	661.6	39.280	7,504.50	668.0
31.50	Bot - Section 2	0.3750	31.934	38.107	4,844.30	20.14	85.16	81.9	293.1	0.0	195.3	39.280	7,412.30	200.4
35.00		0.3750	31.371	37.427	4,589.70	19.74	83.66	81.9	282.6	0.0	832.9	39.280	7,436.00	467.6
35.67	Top - Section 1	0.3125	31.889	31.773	4,043.60	24.66	102.04	77.8	245.0	0.0	157.0	39.280	7,395.10	89.1
40.00		0.3125	31.192	31.072	3,781.70	24.07	99.81	78.5	234.2	0.0	463.3	39.280	7,132.20	578.9
45.00		0.3125	30.388	30.263	3,493.90	23.38	97.24	79.2	222.1	0.0	521.8	39.280	6,834.70	668.0
50.00		0.3125	29.583	29.454	3,221.00	22.69	94.67	80	210.3	0.0	508.0	39.280	6,543.60	668.0
55.00		0.3125	28.779	28.645	2,962.80	22.00	92.09	80.7	198.9	0.0	494.2	39.280	6,258.80	668.0
55.48	Reinf. Top	0.3125	28.702	28.567	2,938.80	21.93	91.85	80.8	197.8	0.0	46.7	39.280	6,231.80	64.1
60.00		0.3125	27.975	27.835	2,718.70	21.31	89.52	81.5	187.7	0.0	433.7	19.640	2,990.20	301.9
65.00		0.3125	27.171	27.026	2,488.50	20.62	86.95	81.9	176.9	0.0	466.7	19.640	2,854.10	334.0
70.00	Bot - Section 3	0.3125	26.367	26.217	2,271.60	19.93	84.37	81.9	166.4	0.0	452.9	19.640	2,721.30	334.0
73.50	Top - Section 2	0.2500	26.304	20.973	1,817.20	25.51	105.21	76.9	133.5	0.0	561.3	19.640	2,711.00	233.8
74.92	Reinf Bottom	0.2500	26.075	20.789	1,769.80	25.27	104.30	77.2	131.1	0.0	100.9	19.640	2,673.90	94.9
75.00		0.2500	26.063	20.779	1,767.10	25.25	104.25	77.2	131.0	0.0	5.7	39.280	6,387.30	10.7
76.25	Reinf. Top	0.2500	25.861	20.617	1,726.20	25.04	103.45	77.4	128.9	0.0	88.0	39.280	6,316.60	167.0
80.00		0.2500	25.258	20.132	1,607.10	24.39	101.03	78.1	122.9	0.0	260.0	19.640	3,563.60	250.5
85.00		0.2500	24.454	19.484	1,457.00	23.53	97.82	79.1	115.1	0.0	337.0	19.640	3,414.90	334.0
90.00		0.2500	23.650	18.837	1,316.50	22.67	94.60	80	107.5	0.0	326.0	19.640	3,269.40	334.0
95.00		0.2500	22.846	18.190	1,185.40	21.81	91.38	80.9	100.2	0.0	315.0	19.640	3,127.10	334.0
100.00		0.2500	22.042	17.542	1,063.30	20.94	88.17	81.9	93.2	0.0	304.0	19.640	2,987.90	334.0
104.00		0.2500	21.398	17.024	971.90	20.26	85.59	81.9	87.7	0.0	235.2	19.640	2,878.90	267.2
105.00		0.2500	21.238	16.895	949.90	20.08	84.95	81.9	86.4	0.0	57.7	19.640	2,851.90	66.8
110.00	Top - Section 3	0.2500	20.433	16.248	844.80	19.22	81.73	81.9	79.9	0.0	281.9	19.640	2,719.10	334.0
110.00	Bot - Section 4	0.1875	20.433	12.223	639.50	26.52	108.98	75.8	60.5	0.0		19.640	2,719.10	
111.10		0.1875	20.256	12.117	622.90	26.27	108.03	76.1	59.4	0.0	45.6	19.640	2,690.30	73.5
111.20		0.1875	20.240	12.107	621.40	26.25	107.95	76.1	59.3	0.0	4.1	19.640	2,687.70	6.7
113.56	Reinf Bottom	0.1875	19.861	11.878	586.80	25.70	105.92	76.7	57.1	0.0	96.3	19.640	2,626.50	157.6
115.00		0.1875	19.629	11.738	566.30	25.37	104.69	77	55.7	0.0	57.9	39.280	6,271.90	192.4
115.54	Reinf. Top	0.1875	19.542	11.685	558.70	25.25	104.23	77.2	55.2	0.0	21.5	39.280	6,241.60	72.1
120.00		0.1875	18.825	11.252	498.90	24.22	100.40	78.3	51.2	0.0	174.1	19.640	3,531.30	297.9
124.44	Reinf. Top	0.1875	18.111	10.821	443.70	23.20	96.59	79.4	47.3	0.0	166.7	19.640	3,399.70	296.6
125.00		0.1875	18.021	10.767	437.10	23.07	96.11	79.5	46.9	0.0	20.6			
130.00		0.1875	17.217	10.281	380.60	21.92	91.82	80.8	42.7	0.0	179.1			
135.00		0.1875	16.413	9.796	329.20	20.77	87.53	81.9	38.7	0.0	170.8			
140.00		0.1875	15.608	9.310	282.60	19.63	83.24	81.9	35.0	0.0	162.5			
143.00		0.1875	15.126	9.019	256.90	18.94	80.67	81.9	32.8	0.0	93.6			
145.00		0.1875	14.804	8.825	240.70	18.48	78.96	81.9	31.4	0.0	60.7			
150.00		0.1875	14.000	8.339	203.10	17.33	74.67	81.9	28.0	0.0	146.0			
									Totals:		13,062.0			12,239.7

Load Case: 1.2D + 1.0W 115.01 mph wind with no ice 26 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	-50.06	-25.66	0.00	-2,730.5	0.00	2,730.53	3,136.53	776.14	2,681.85	2,336.59	0	0	0.529
5.00	-47.83	-25.29	0.00	-2,602.2	0.00	2,602.23	3,092.06	759.10	2,565.42	2,252.37	0.12	-0.22	0.514
10.00	-45.62	-24.91	0.00	-2,475.8	0.00	2,475.78	3,046.49	742.06	2,451.56	2,168.84	0.47	-0.45	0.499
15.00	-43.44	-24.53	0.00	-2,351.2	0.00	2,351.23	2,999.83	725.02	2,340.29	2,086.05	1.06	-0.67	0.484
20.00	-41.29	-24.14	0.00	-2,228.6	0.00	2,228.60	2,952.07	707.98	2,231.61	2,004.07	1.88	-0.89	0.469
25.00	-39.15	-23.74	0.00	-2,107.9	0.00	2,107.92	2,901.93	690.94	2,125.51	1,922.08	2.93	-1.11	0.453
30.00	-37.07	-23.43	0.00	-1,989.2	0.00	1,989.22	2,830.35	673.89	2,021.99	1,827.91	4.22	-1.33	0.441
31.50	-36.42	-23.24	0.00	-1,954.1	0.00	1,954.09	2,808.88	668.78	1,991.44	1,800.12	4.65	-1.4	0.437
35.00	-34.53	-23.01	0.00	-1,872.7	0.00	1,872.73	2,758.78	656.85	1,921.06	1,736.10	5.73	-1.56	0.419
35.67	-34.14	-22.84	0.00	-1,857.4	0.00	1,857.39	2,225.24	557.62	1,661.14	1,429.67	5.95	-1.59	0.468
40.00	-32.44	-22.42	0.00	-1,758.4	0.00	1,758.44	2,194.35	545.32	1,588.64	1,378.40	7.48	-1.77	0.450
45.00	-30.51	-21.94	0.00	-1,646.4	0.00	1,646.36	2,157.69	531.12	1,507.00	1,319.72	9.46	-2	0.430
50.00	-28.61	-21.43	0.00	-1,536.7	0.00	1,536.68	2,119.93	516.91	1,427.52	1,261.60	11.67	-2.21	0.409
55.00	-26.75	-21.06	0.00	-1,429.5	0.00	1,429.51	2,081.07	502.71	1,350.19	1,204.10	14.1	-2.43	0.389
55.48	-26.54	-20.88	0.00	-1,419.4	0.00	1,419.40	2,077.29	501.35	1,342.87	1,198.61	14.35	-2.45	0.387
55.48	-26.54	-20.88	0.00	-1,419.4	0.00	1,419.40	2,077.29	501.35	1,342.87	1,198.61	14.35	-2.45	0.584
60.00	-25.20	-20.42	0.00	-1,325.0	0.00	1,325.03	2,041.12	488.51	1,275.01	1,147.26	16.76	-2.64	0.559
65.00	-23.78	-19.94	0.00	-1,222.9	0.00	1,222.92	1,992.10	474.31	1,201.98	1,086.79	19.7	-2.96	0.533
70.00	-22.45	-19.46	0.00	-1,123.2	0.00	1,123.22	1,932.46	460.11	1,131.11	1,022.32	22.97	-3.27	0.508
73.50	-21.24	-19.12	0.00	-1,055.1	0.00	1,055.13	1,451.36	368.08	904.71	769.62	25.45	-3.49	0.560
74.92	-20.90	-19.01	0.00	-1,028.0	0.00	1,027.98	1,443.63	364.85	888.92	758.75	26.51	-3.58	0.550
75.00	-20.87	-18.96	0.00	-1,026.5	0.00	1,026.46	1,443.19	364.67	888.04	758.14	26.57	-3.58	0.301
76.25	-20.48	-18.71	0.00	-1,002.8	0.00	1,002.76	1,436.31	361.83	874.26	748.59	27.51	-3.63	0.295
76.25	-20.48	-18.71	0.00	-1,002.8	0.00	1,002.76	1,436.31	361.83	874.26	748.59	27.51	-3.63	0.438
80.00	-19.60	-18.18	0.00	-932.6	0.00	932.60	1,415.26	353.31	833.59	720.08	30.41	-3.76	0.412
85.00	-18.55	-17.65	0.00	-841.7	0.00	841.70	1,386.24	341.95	780.86	682.41	34.47	-4	0.378
90.00	-17.51	-17.16	0.00	-753.5	0.00	753.46	1,356.12	330.59	729.85	645.17	38.79	-4.23	0.344
95.00	-16.50	-16.66	0.00	-667.6	0.00	667.64	1,324.90	319.23	680.56	608.43	43.34	-4.45	0.310
100.00	-15.51	-16.19	0.00	-584.3	0.00	584.34	1,293.04	307.87	633.00	572.44	48.11	-4.66	0.276
104.00	-14.74	-15.80	0.00	-519.6	0.00	519.60	1,254.87	298.78	596.19	538.95	52.08	-4.82	0.252
105.00	-13.52	-14.74	0.00	-503.8	0.00	503.80	1,245.33	296.51	587.16	530.74	53.09	-4.85	0.245
110.00	-12.59	-14.23	0.00	-430.1	0.00	430.08	1,197.61	285.15	543.05	490.61	58.26	-5.03	0.215
110.00	-12.59	-14.23	0.00	-430.1	0.00	430.08	833.77	214.52	409.72	343.68	58.26	-5.03	0.248
111.10	-12.26	-13.67	0.00	-414.4	0.00	414.43	829.49	212.65	402.60	338.90	59.43	-5.06	0.240
111.20	-12.22	-13.50	0.00	-413.1	0.00	413.06	829.10	212.48	401.95	338.47	59.53	-5.07	0.239
113.56	-11.84	-13.23	0.00	-381.2	0.00	381.19	819.73	208.45	386.88	328.25	62.06	-5.15	0.222
115.00	-11.49	-13.06	0.00	-362.2	0.00	362.15	813.89	206.00	377.83	322.04	63.62	-5.2	0.100
115.54	-11.36	-12.85	0.00	-355.1	0.00	355.09	811.68	205.08	374.47	319.72	64.2	-5.2	0.098
115.54	-11.36	-12.85	0.00	-355.1	0.00	355.09	811.68	205.08	374.47	319.72	64.2	-5.2	0.156
120.00	-10.65	-12.26	0.00	-297.8	0.00	297.78	792.92	197.48	347.23	300.64	69.09	-5.27	0.131
124.44	-9.95	-11.86	0.00	-243.3	0.00	243.33	773.38	189.91	321.14	281.88	74.02	-5.35	0.108
124.44	-9.95	-11.86	0.00	-243.3	0.00	243.33	773.38	189.91	321.14	281.88	74.02	-5.35	0.880
125.00	-9.85	-11.71	0.00	-236.7	0.00	236.69	770.85	188.96	317.92	279.54	74.65	-5.36	0.863
130.00	-8.44	-9.75	0.00	-178.1	0.00	178.14	747.69	180.44	289.91	258.78	80.63	-6.03	0.703
135.00	-8.08	-9.54	0.00	-129.4	0.00	129.38	722.05	171.92	263.18	237.98	87.26	-6.61	0.558
140.00	-7.75	-9.35	0.00	-81.7	0.00	81.68	686.26	163.40	237.75	214.85	94.42	-7.07	0.395
143.00	-3.44	-5.91	0.00	-53.6	0.00	53.62	664.79	158.28	223.11	201.53	98.92	-7.27	0.273
145.00	-3.34	-5.75	0.00	-41.8	0.00	41.79	650.48	154.88	213.61	192.90	101.98	-7.38	0.223
150.00	0.00	-5.27	0.00	-13.0	0.00	13.04	614.69	146.35	190.76	172.13	109.79	-7.54	0.077

Load Case: 0.9D + 1.0W 115.01 mph wind with no ice 26 Iterations
Gust Response Factor: 1.10
Dead load Factor: 0.90
Wind Load Factor: 1.00

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-37.53	-25.63	0.00	-2,689.2	0.00	2,689.17	3,136.53	776.14	2,681.85	2,336.59	0	0	0.519
5.00	-35.84	-25.22	0.00	-2,561.0	0.00	2,561.00	3,092.06	759.10	2,565.42	2,252.37	0.12	-0.22	0.504
10.00	-34.16	-24.79	0.00	-2,434.9	0.00	2,434.93	3,046.49	742.06	2,451.56	2,168.84	0.47	-0.44	0.489
15.00	-32.51	-24.37	0.00	-2,311.0	0.00	2,310.96	2,999.83	725.02	2,340.29	2,086.05	1.04	-0.66	0.474
20.00	-30.87	-23.94	0.00	-2,189.1	0.00	2,189.11	2,952.07	707.98	2,231.61	2,004.07	1.85	-0.88	0.459
25.00	-29.25	-23.52	0.00	-2,069.4	0.00	2,069.39	2,901.93	690.94	2,125.51	1,922.08	2.88	-1.09	0.443
30.00	-27.68	-23.19	0.00	-1,951.8	0.00	1,951.81	2,830.35	673.89	2,021.99	1,827.91	4.15	-1.31	0.431
31.50	-27.18	-22.99	0.00	-1,917.0	0.00	1,917.03	2,808.88	668.78	1,991.44	1,800.12	4.57	-1.38	0.427
35.00	-25.76	-22.75	0.00	-1,836.6	0.00	1,836.55	2,758.78	656.85	1,921.06	1,736.10	5.64	-1.53	0.409
35.67	-25.45	-22.57	0.00	-1,821.4	0.00	1,821.38	2,225.24	557.62	1,661.14	1,429.67	5.86	-1.56	0.457
40.00	-24.17	-22.13	0.00	-1,723.6	0.00	1,723.59	2,194.35	545.32	1,588.64	1,378.40	7.36	-1.74	0.440
45.00	-22.71	-21.63	0.00	-1,613.0	0.00	1,612.95	2,157.69	531.12	1,507.00	1,319.72	9.3	-1.96	0.420
50.00	-21.26	-21.12	0.00	-1,504.8	0.00	1,504.79	2,119.93	516.91	1,427.52	1,261.60	11.47	-2.17	0.399
55.00	-19.86	-20.75	0.00	-1,399.2	0.00	1,399.19	2,081.07	502.71	1,350.19	1,204.10	13.86	-2.39	0.379
55.48	-19.70	-20.56	0.00	-1,389.2	0.00	1,389.23	2,077.29	501.35	1,342.87	1,198.61	14.1	-2.41	0.377
55.48	-19.70	-20.56	0.00	-1,389.2	0.00	1,389.23	2,077.29	501.35	1,342.87	1,198.61	14.1	-2.41	0.570
60.00	-18.68	-20.08	0.00	-1,296.3	0.00	1,296.31	2,041.12	488.51	1,275.01	1,147.26	16.47	-2.6	0.545
65.00	-17.60	-19.58	0.00	-1,195.9	0.00	1,195.89	1,992.10	474.31	1,201.98	1,086.79	19.35	-2.91	0.519
70.00	-16.59	-19.09	0.00	-1,098.0	0.00	1,097.97	1,932.46	460.11	1,131.11	1,022.32	22.56	-3.21	0.495
73.50	-15.68	-18.76	0.00	-1,031.2	0.00	1,031.16	1,451.36	368.08	904.71	769.62	24.99	-3.42	0.546
74.92	-15.42	-18.64	0.00	-1,004.5	0.00	1,004.53	1,443.63	364.85	888.92	758.75	26.02	-3.51	0.535
75.00	-15.40	-18.59	0.00	-1,003.0	0.00	1,003.04	1,443.19	364.67	888.04	758.14	26.08	-3.51	0.293
76.25	-15.10	-18.34	0.00	-979.8	0.00	979.80	1,436.31	361.83	874.26	748.59	27.01	-3.56	0.287
76.25	-15.10	-18.34	0.00	-979.8	0.00	979.80	1,436.31	361.83	874.26	748.59	27.01	-3.56	0.426
80.00	-14.44	-17.81	0.00	-911.0	0.00	911.01	1,415.26	353.31	833.59	720.08	29.85	-3.68	0.401
85.00	-13.64	-17.27	0.00	-822.0	0.00	821.97	1,386.24	341.95	780.86	682.41	33.84	-3.92	0.368
90.00	-12.86	-16.79	0.00	-735.6	0.00	735.60	1,356.12	330.59	729.85	645.17	38.06	-4.15	0.335
95.00	-12.10	-16.29	0.00	-651.7	0.00	651.67	1,324.90	319.23	680.56	608.43	42.52	-4.36	0.301
100.00	-11.35	-15.82	0.00	-570.2	0.00	570.23	1,293.04	307.87	633.00	572.44	47.2	-4.56	0.268
104.00	-10.77	-15.44	0.00	-507.0	0.00	506.95	1,254.87	298.78	596.19	538.95	51.08	-4.72	0.244
105.00	-9.88	-14.41	0.00	-491.5	0.00	491.51	1,245.33	296.51	587.16	530.74	52.08	-4.75	0.237
110.00	-9.18	-13.91	0.00	-419.5	0.00	419.46	1,197.61	285.15	543.05	490.61	57.14	-4.92	0.209
110.00	-9.18	-13.91	0.00	-419.5	0.00	419.46	833.77	214.52	409.72	343.68	57.14	-4.92	0.241
111.10	-8.94	-13.35	0.00	-404.2	0.00	404.17	829.49	212.65	402.60	338.90	58.28	-4.96	0.232
111.20	-8.92	-13.19	0.00	-402.8	0.00	402.83	829.10	212.48	401.95	338.47	58.38	-4.96	0.231
113.56	-8.63	-12.92	0.00	-371.7	0.00	371.71	819.73	208.45	386.88	328.25	60.85	-5.04	0.215
115.00	-8.37	-12.76	0.00	-353.1	0.00	353.10	813.89	206.00	377.83	322.04	62.38	-5.09	0.097
115.54	-8.28	-12.55	0.00	-346.2	0.00	346.21	811.68	205.08	374.47	319.72	62.96	-5.1	0.095
115.54	-8.28	-12.55	0.00	-346.2	0.00	346.21	811.68	205.08	374.47	319.72	62.96	-5.1	0.151
120.00	-7.75	-11.98	0.00	-290.2	0.00	290.24	792.92	197.48	347.23	300.64	67.74	-5.15	0.127
124.44	-7.23	-11.59	0.00	-237.1	0.00	237.06	773.38	189.91	321.14	281.88	72.57	-5.24	0.104
124.44	-7.23	-11.59	0.00	-237.1	0.00	237.06	773.38	189.91	321.14	281.88	72.57	-5.24	0.854
125.00	-7.14	-11.42	0.00	-230.6	0.00	230.57	770.85	188.96	317.92	279.54	73.19	-5.25	0.838
130.00	-6.11	-9.48	0.00	-173.5	0.00	173.47	747.69	180.44	289.91	258.78	79.04	-5.9	0.681
135.00	-5.83	-9.25	0.00	-126.1	0.00	126.09	722.05	171.92	263.18	237.98	85.52	-6.46	0.541
140.00	-5.58	-9.06	0.00	-79.8	0.00	79.83	686.26	163.40	237.75	214.85	92.53	-6.91	0.383
143.00	-2.43	-5.77	0.00	-52.6	0.00	52.64	664.79	158.28	223.11	201.53	96.93	-7.11	0.266
145.00	-2.35	-5.61	0.00	-41.1	0.00	41.10	650.48	154.88	213.61	192.90	99.92	-7.21	0.218
150.00	0.00	-5.27	0.00	-13.0	0.00	13.04	614.69	146.35	190.76	172.13	107.56	-7.37	0.077

Load Case: 1.2D + 1.0Di + 1.0Wi		48.73 mph wind with 1.275" radial ice			25 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	-75.84	-7.53	0.00	-872.6	0.00	872.64	3,136.53	776.14	2,681.85	2,336.59	0	0	0.179
5.00	-73.17	-7.53	0.00	-835.0	0.00	835.01	3,092.06	759.10	2,565.42	2,252.37	0.04	-0.07	0.175
10.00	-70.48	-7.53	0.00	-797.4	0.00	797.37	3,046.49	742.06	2,451.56	2,168.84	0.15	-0.14	0.170
15.00	-67.77	-7.52	0.00	-759.8	0.00	759.75	2,999.83	725.02	2,340.29	2,086.05	0.34	-0.21	0.165
20.00	-65.08	-7.47	0.00	-722.2	0.00	722.16	2,952.07	707.98	2,231.61	2,004.07	0.6	-0.29	0.160
25.00	-62.40	-7.42	0.00	-684.8	0.00	684.81	2,901.93	690.94	2,125.51	1,922.08	0.94	-0.36	0.156
30.00	-59.73	-7.36	0.00	-647.7	0.00	647.72	2,830.35	673.89	2,021.99	1,827.91	1.36	-0.43	0.151
31.50	-58.93	-7.34	0.00	-636.7	0.00	636.68	2,808.88	668.78	1,991.44	1,800.12	1.5	-0.45	0.150
35.00	-56.61	-7.29	0.00	-611.0	0.00	610.98	2,758.78	656.85	1,921.06	1,736.10	1.85	-0.5	0.144
35.67	-56.17	-7.28	0.00	-606.1	0.00	606.12	2,225.24	557.62	1,661.14	1,429.67	1.92	-0.51	0.161
40.00	-53.98	-7.21	0.00	-574.6	0.00	574.58	2,194.35	545.32	1,588.64	1,378.40	2.41	-0.57	0.155
45.00	-51.47	-7.12	0.00	-538.5	0.00	538.54	2,157.69	531.12	1,507.00	1,319.72	3.05	-0.65	0.149
50.00	-48.97	-7.03	0.00	-502.9	0.00	502.93	2,119.93	516.91	1,427.52	1,261.60	3.77	-0.72	0.142
55.00	-46.50	-6.94	0.00	-467.8	0.00	467.80	2,081.07	502.71	1,350.19	1,204.10	4.56	-0.79	0.134
55.48	-46.26	-6.91	0.00	-464.5	0.00	464.47	2,077.29	501.35	1,342.87	1,198.61	4.64	-0.8	0.134
55.48	-46.26	-6.91	0.00	-464.5	0.00	464.47	2,077.29	501.35	1,342.87	1,198.61	4.64	-0.8	0.201
60.00	-44.39	-6.83	0.00	-433.2	0.00	433.22	2,041.12	488.51	1,275.01	1,147.26	5.43	-0.86	0.193
65.00	-42.45	-6.74	0.00	-399.1	0.00	399.08	1,992.10	474.31	1,201.98	1,086.79	6.38	-0.96	0.184
70.00	-40.58	-6.64	0.00	-365.4	0.00	365.37	1,932.46	460.11	1,131.11	1,022.32	7.44	-1.06	0.175
73.50	-38.89	-6.53	0.00	-342.1	0.00	342.11	1,451.36	368.08	904.71	769.62	8.25	-1.14	0.193
74.92	-38.35	-6.49	0.00	-332.8	0.00	332.84	1,443.63	364.85	888.92	758.75	8.59	-1.16	0.189
75.00	-38.31	-6.48	0.00	-332.3	0.00	332.32	1,443.19	364.67	888.04	758.14	8.61	-1.16	0.104
76.25	-37.74	-6.42	0.00	-324.2	0.00	324.22	1,436.31	361.83	874.26	748.59	8.92	-1.18	0.102
76.25	-37.74	-6.42	0.00	-324.2	0.00	324.22	1,436.31	361.83	874.26	748.59	8.92	-1.18	0.152
80.00	-36.34	-6.27	0.00	-300.1	0.00	300.14	1,415.26	353.31	833.59	720.08	9.86	-1.22	0.143
85.00	-34.68	-6.09	0.00	-268.8	0.00	268.80	1,386.24	341.95	780.86	682.41	11.18	-1.3	0.131
90.00	-33.04	-5.90	0.00	-238.4	0.00	238.36	1,356.12	330.59	729.85	645.17	12.59	-1.37	0.118
95.00	-31.41	-5.71	0.00	-208.8	0.00	208.84	1,324.90	319.23	680.56	608.43	14.06	-1.44	0.106
100.00	-29.80	-5.50	0.00	-180.3	0.00	180.30	1,293.04	307.87	633.00	572.44	15.61	-1.51	0.094
104.00	-28.48	-5.28	0.00	-158.3	0.00	158.30	1,254.87	298.78	596.19	538.95	16.89	-1.55	0.085
105.00	-26.79	-4.98	0.00	-153.0	0.00	153.02	1,245.33	296.51	587.16	530.74	17.22	-1.57	0.082
110.00	-25.16	-4.70	0.00	-128.1	0.00	128.10	1,197.61	285.15	543.05	490.61	18.89	-1.62	0.072
110.00	-25.16	-4.70	0.00	-128.1	0.00	128.10	833.77	214.52	409.72	343.68	18.89	-1.62	0.083
111.10	-24.33	-4.49	0.00	-122.9	0.00	122.93	829.49	212.65	402.60	338.90	19.26	-1.63	0.080
111.20	-24.24	-4.45	0.00	-122.5	0.00	122.48	829.10	212.48	401.95	338.47	19.29	-1.63	0.080
113.56	-23.45	-4.26	0.00	-112.0	0.00	111.98	819.73	208.45	386.88	328.25	20.11	-1.65	0.073
115.00	-22.85	-4.14	0.00	-105.8	0.00	105.85	813.89	206.00	377.83	322.04	20.61	-1.67	0.034
115.54	-22.63	-4.06	0.00	-103.6	0.00	103.62	811.68	205.08	374.47	319.72	20.8	-1.67	0.033
115.54	-22.63	-4.06	0.00	-103.6	0.00	103.62	811.68	205.08	374.47	319.72	20.8	-1.67	0.054
120.00	-21.19	-3.69	0.00	-85.5	0.00	85.51	792.92	197.48	347.23	300.64	22.37	-1.69	0.045
124.44	-19.96	-3.43	0.00	-69.1	0.00	69.11	773.38	189.91	321.14	281.88	23.95	-1.71	0.038
124.44	-19.96	-3.43	0.00	-69.1	0.00	69.11	773.38	189.91	321.14	281.88	23.95	-1.71	0.271
125.00	-19.85	-3.40	0.00	-67.2	0.00	67.19	770.85	188.96	317.92	279.54	24.15	-1.71	0.266
130.00	-16.75	-2.77	0.00	-50.2	0.00	50.21	747.69	180.44	289.91	258.78	26.05	-1.91	0.217
135.00	-16.26	-2.73	0.00	-36.3	0.00	36.34	722.05	171.92	263.18	237.98	28.14	-2.07	0.175
140.00	-15.80	-2.69	0.00	-22.7	0.00	22.69	686.26	163.40	237.75	214.85	30.37	-2.2	0.129
143.00	-8.14	-1.69	0.00	-14.6	0.00	14.63	664.79	158.28	223.11	201.53	31.77	-2.25	0.085
145.00	-7.97	-1.65	0.00	-11.2	0.00	11.25	650.48	154.88	213.61	192.90	32.72	-2.28	0.071
150.00	0.00	-1.33	0.00	-3.0	0.00	3.01	614.69	146.35	190.76	172.13	35.14	-2.32	0.018

Load Case: 1.0D + 1.0W 60 mph Wind with No Ice 24 Iterations
Gust Response Factor: 1.10
Dead load Factor: 1.00
Wind Load Factor: 1.00

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-41.75	-6.24	0.00	-659.2	0.00	659.15	3,136.53	776.14	2,681.85	2,336.59	0	0	0.132
5.00	-39.97	-6.15	0.00	-627.9	0.00	627.93	3,092.06	759.10	2,565.42	2,252.37	0.03	-0.05	0.129
10.00	-38.21	-6.05	0.00	-597.2	0.00	597.20	3,046.49	742.06	2,451.56	2,168.84	0.11	-0.11	0.125
15.00	-36.46	-5.95	0.00	-567.0	0.00	566.97	2,999.83	725.02	2,340.29	2,086.05	0.26	-0.16	0.121
20.00	-34.73	-5.85	0.00	-537.2	0.00	537.24	2,952.07	707.98	2,231.61	2,004.07	0.45	-0.21	0.117
25.00	-33.01	-5.74	0.00	-508.0	0.00	508.01	2,901.93	690.94	2,125.51	1,922.08	0.71	-0.27	0.113
30.00	-31.32	-5.67	0.00	-479.3	0.00	479.29	2,830.35	673.89	2,021.99	1,827.91	1.02	-0.32	0.110
31.50	-30.81	-5.62	0.00	-470.8	0.00	470.79	2,808.88	668.78	1,991.44	1,800.12	1.12	-0.34	0.109
35.00	-29.25	-5.56	0.00	-451.1	0.00	451.12	2,758.78	656.85	1,921.06	1,736.10	1.38	-0.38	0.104
35.67	-28.96	-5.52	0.00	-447.4	0.00	447.41	2,225.24	557.62	1,661.14	1,429.67	1.44	-0.38	0.117
40.00	-27.59	-5.41	0.00	-423.5	0.00	423.49	2,194.35	545.32	1,588.64	1,378.40	1.8	-0.43	0.112
45.00	-26.04	-5.29	0.00	-396.4	0.00	396.43	2,157.69	531.12	1,507.00	1,319.72	2.28	-0.48	0.107
50.00	-24.49	-5.17	0.00	-370.0	0.00	369.95	2,119.93	516.91	1,427.52	1,261.60	2.81	-0.53	0.102
55.00	-22.97	-5.08	0.00	-344.1	0.00	344.10	2,081.07	502.71	1,350.19	1,204.10	3.4	-0.59	0.097
55.48	-22.82	-5.04	0.00	-341.7	0.00	341.66	2,077.29	501.35	1,342.87	1,198.61	3.46	-0.59	0.096
55.48	-22.82	-5.04	0.00	-341.7	0.00	341.66	2,077.29	501.35	1,342.87	1,198.61	3.46	-0.59	0.145
60.00	-21.75	-4.92	0.00	-318.9	0.00	318.90	2,041.12	488.51	1,275.01	1,147.26	4.04	-0.64	0.139
65.00	-20.63	-4.80	0.00	-294.3	0.00	294.28	1,992.10	474.31	1,201.98	1,086.79	4.75	-0.71	0.132
70.00	-19.57	-4.68	0.00	-270.3	0.00	270.27	1,932.46	460.11	1,131.11	1,022.32	5.54	-0.79	0.126
73.50	-18.58	-4.60	0.00	-253.9	0.00	253.87	1,451.36	368.08	904.71	769.62	6.14	-0.84	0.139
74.92	-18.31	-4.58	0.00	-247.3	0.00	247.33	1,443.63	364.85	888.92	758.75	6.39	-0.86	0.137
75.00	-18.29	-4.56	0.00	-247.0	0.00	246.97	1,443.19	364.67	888.04	758.14	6.4	-0.86	0.075
76.25	-17.96	-4.50	0.00	-241.3	0.00	241.26	1,436.31	361.83	874.26	748.59	6.63	-0.87	0.074
76.25	-17.96	-4.50	0.00	-241.3	0.00	241.26	1,436.31	361.83	874.26	748.59	6.63	-0.87	0.110
80.00	-17.25	-4.38	0.00	-224.4	0.00	224.37	1,415.26	353.31	833.59	720.08	7.33	-0.9	0.103
85.00	-16.40	-4.25	0.00	-202.5	0.00	202.50	1,386.24	341.95	780.86	682.41	8.31	-0.96	0.095
90.00	-15.56	-4.13	0.00	-181.3	0.00	181.27	1,356.12	330.59	729.85	645.17	9.35	-1.02	0.086
95.00	-14.74	-4.01	0.00	-160.6	0.00	160.63	1,324.90	319.23	680.56	608.43	10.45	-1.07	0.078
100.00	-13.92	-3.89	0.00	-140.6	0.00	140.59	1,293.04	307.87	633.00	572.44	11.6	-1.12	0.070
104.00	-13.27	-3.80	0.00	-125.0	0.00	125.02	1,254.87	298.78	596.19	538.95	12.56	-1.16	0.064
105.00	-12.22	-3.55	0.00	-121.2	0.00	121.22	1,245.33	296.51	587.16	530.74	12.8	-1.17	0.062
110.00	-11.42	-3.42	0.00	-103.5	0.00	103.48	1,197.61	285.15	543.05	490.61	14.05	-1.21	0.054
110.00	-11.42	-3.42	0.00	-103.5	0.00	103.48	833.77	214.52	409.72	343.68	14.05	-1.21	0.063
111.10	-11.12	-3.29	0.00	-99.7	0.00	99.72	829.49	212.65	402.60	338.90	14.33	-1.22	0.061
111.20	-11.08	-3.25	0.00	-99.4	0.00	99.39	829.10	212.48	401.95	338.47	14.35	-1.22	0.060
113.56	-10.75	-3.18	0.00	-91.7	0.00	91.72	819.73	208.45	386.88	328.25	14.96	-1.24	0.056
115.00	-10.45	-3.14	0.00	-87.1	0.00	87.14	813.89	206.00	377.83	322.04	15.34	-1.25	0.026
115.54	-10.34	-3.09	0.00	-85.4	0.00	85.44	811.68	205.08	374.47	319.72	15.48	-1.25	0.025
115.54	-10.34	-3.09	0.00	-85.4	0.00	85.44	811.68	205.08	374.47	319.72	15.48	-1.25	0.040
120.00	-9.72	-2.95	0.00	-71.7	0.00	71.66	792.92	197.48	347.23	300.64	16.66	-1.27	0.034
124.44	-9.11	-2.85	0.00	-58.6	0.00	58.56	773.38	189.91	321.14	281.88	17.85	-1.29	0.028
124.44	-9.11	-2.85	0.00	-58.6	0.00	58.56	773.38	189.91	321.14	281.88	17.85	-1.29	0.220
125.00	-9.07	-2.82	0.00	-57.0	0.00	56.96	770.85	188.96	317.92	279.54	18	-1.29	0.216
130.00	-7.83	-2.34	0.00	-42.9	0.00	42.87	747.69	180.44	289.91	258.78	19.44	-1.45	0.176
135.00	-7.57	-2.29	0.00	-31.2	0.00	31.16	722.05	171.92	263.18	237.98	21.04	-1.59	0.142
140.00	-7.32	-2.25	0.00	-19.7	0.00	19.71	686.26	163.40	237.75	214.85	22.77	-1.7	0.103
143.00	-3.43	-1.43	0.00	-13.0	0.00	12.97	664.79	158.28	223.11	201.53	23.85	-1.75	0.070
145.00	-3.34	-1.39	0.00	-10.1	0.00	10.12	650.48	154.88	213.61	192.90	24.59	-1.78	0.058
150.00	0.00	-1.28	0.00	-3.2	0.00	3.18	614.69	146.35	190.76	172.13	26.48	-1.82	0.019

EQUIVALENT LATERAL FORCES METHOD ANALYSIS

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

Spectral Response Acceleration for Short Period (S_S):	0.195
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.055
Long-Period Transition Period (T_L – Seconds):	6
Importance Factor (I_e):	1.000
Site Coefficient F_a:	1.600
Site Coefficient F_v:	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.208
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.088
Seismic Response Coefficient (C_s):	0.030
Upper Limit C_S:	0.030
Lower Limit C_S:	0.030
Period based on Rayleigh Method (sec):	2.700
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	2.000
Total Unfactored Dead Load:	41.760 k
Seismic Base Shear (E):	1.250 k

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)
43	147.5	222	4,830	0.015	19	276
42	144	91	1,889	0.006	7	113
41	141.5	147	2,942	0.009	12	182
40	137.5	252	4,756	0.015	19	312
39	132.5	260	4,561	0.014	18	323
38	127.5	346	5,621	0.018	22	429
37	124.72	39	610	0.002	2	49
36	122.22	611	9,132	0.029	36	759
35	117.77	621	8,609	0.027	34	771
34	115.27	112	1,484	0.005	6	139
33	114.28	298	3,895	0.012	15	370
32	112.38	333	4,201	0.013	17	413
31	111.15	14	175	0.000	1	18
30	110.55	158	1,927	0.006	8	196
29	107.5	793	9,159	0.029	36	984
28	104.5	160	1,745	0.006	7	198
27	102	644	6,697	0.021	26	799
26	97.5	815	7,743	0.024	30	1,011
25	92.5	826	7,064	0.022	28	1,025
24	87.5	837	6,405	0.020	25	1,039
23	82.5	848	5,769	0.018	23	1,052
22	78.125	713	4,353	0.014	17	885
21	75.625	323	1,845	0.006	7	401
20	74.96	21	116	0.000	0	26
19	74.21	272	1,501	0.005	6	338
18	71.75	984	5,067	0.016	20	1,222
17	67.5	1,057	4,817	0.015	19	1,313
16	62.5	1,118	4,366	0.014	17	1,388
15	57.74	1,065	3,549	0.011	14	1,322
14	55.24	146	445	0.001	2	181
13	52.5	1,526	4,206	0.013	17	1,895
12	47.5	1,540	3,474	0.011	14	1,912
11	42.5	1,554	2,806	0.009	11	1,929
10	37.8334	1,358	1,943	0.006	8	1,686

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
9	35.3334	295	368	0.001	1	366
8	33.25	1,555	1,719	0.005	7	1,931
7	30.75	505	477	0.002	2	627
6	27.5	1,693	1,281	0.004	5	2,102
5	22.5	1,710	866	0.003	3	2,123
4	17.5	1,726	529	0.002	2	2,144
3	12.5	1,743	272	0.001	1	2,164
2	7.5	1,759	99	0.000	0	2,185
1	2.5	1,776	11	0.000	0	2,205
Generic 96" x 16" Panel	150	50	1,125	0.004	4	62
CCI TPX-070821	150	45	1,012	0.003	4	56
Kaelus DBCT108F1V92-1	150	83	1,876	0.006	7	104
Raycap DC6-48-60-18-8F (23.5" Height)	150	40	900	0.003	4	50
CCI DTMABP7819VG12A (w/ Bracket)	150	58	1,296	0.004	5	72
Raycap DC6-48-60-18-8F ("Squid")	150	32	716	0.002	3	39
Ericsson RRUS 4426 B66	150	145	3,267	0.010	13	180
Ericsson RRUS 4478 B14	150	180	4,043	0.013	16	223
Ericsson RRUS 4478 B5	150	180	4,043	0.013	16	223
Ericsson RRUS-11 (50 lbs.)	150	150	3,375	0.011	13	186
Ericsson RRUS 32 B2	150	159	3,578	0.011	14	197
Ericsson RRUS-32 (77 lbs)	150	231	5,198	0.016	20	287
Powerwave Allgon 7770.00	150	105	2,362	0.007	9	130
KMW AM-X-CD-16-65-00T-RET	150	97	2,182	0.007	9	120
Quintel QS66512-3 (112 lbs.)	150	336	7,560	0.024	30	417
Andrew SBNH-1D6565C (60.8 lbs)	150	61	1,368	0.004	5	75
Kathrein Scala 80010965	150	195	4,392	0.014	17	242
Kathrein Scala 80010966	150	115	2,578	0.008	10	142
Round Sector Frame	150	900	20,250	0.064	80	1,117
Samsung Outdoor CBRS 20W RRH –Clip-on Antenna	143	13	270	0.001	1	16
Samsung RT4401-48A	143	56	1,141	0.004	4	69
Samsung B2/B66A RRH-BR049	143	253	5,178	0.016	20	314
Samsung B5/B13 RRH-BR04C	143	211	4,313	0.014	17	262
Raycap RVZDC-6627-PF-48	143	32	654	0.002	3	40
Samsung MT6407-77A	143	245	5,006	0.016	20	304
Commscope NNHH-65B-R4	143	503	10,282	0.032	40	624
Site-Pro RMQP-496 w/ HRK-12	143	2,446	50,014	0.157	197	3,037
Site-Pro UWS6-NP Collar	130	288	4,867	0.015	19	358
Ericsson 4480 BAND 71	130	243	4,107	0.013	16	302
RFS APXVAALL24 43-U-NA20	130	368	6,226	0.020	24	457
dB Systems 5100A	111.2	21	260	0.001	1	26
dB Systems 5100A-D	111.1	152	1,876	0.006	7	189
Round Side Arm	105	900	9,922	0.031	39	1,117
VertexRSI 101V VPD	104	4	43	0.000	0	5
		41,757	318,606	1.000	1,253	51,845

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)
43	147.5	222	4,830	0.015	19	191
42	144	91	1,889	0.006	7	78
41	141.5	147	2,942	0.009	12	126
40	137.5	252	4,756	0.015	19	216
39	132.5	260	4,561	0.014	18	223
38	127.5	346	5,621	0.018	22	297
37	124.72	39	610	0.002	2	34
36	122.22	611	9,132	0.029	36	525
35	117.77	621	8,609	0.027	34	533
34	115.27	112	1,484	0.005	6	96
33	114.28	298	3,895	0.012	15	256
32	112.38	333	4,201	0.013	17	286
31	111.15	14	175	0.000	1	12

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
30	110.55	158	1,927	0.006	8	135
29	107.5	793	9,159	0.029	36	680
28	104.5	160	1,745	0.006	7	137
27	102	644	6,697	0.021	26	553
26	97.5	815	7,743	0.024	30	699
25	92.5	826	7,064	0.022	28	709
24	87.5	837	6,405	0.020	25	718
23	82.5	848	5,769	0.018	23	728
22	78.125	713	4,353	0.014	17	612
21	75.625	323	1,845	0.006	7	277
20	74.96	21	116	0.000	0	18
19	74.21	272	1,501	0.005	6	234
18	71.75	984	5,067	0.016	20	845
17	67.5	1,057	4,817	0.015	19	907
16	62.5	1,118	4,366	0.014	17	959
15	57.74	1,065	3,549	0.011	14	914
14	55.24	146	445	0.001	2	125
13	52.5	1,526	4,206	0.013	17	1,310
12	47.5	1,540	3,474	0.011	14	1,322
11	42.5	1,554	2,806	0.009	11	1,334
10	37.8334	1,358	1,943	0.006	8	1,165
9	35.3334	295	368	0.001	1	253
8	33.25	1,555	1,719	0.005	7	1,335
7	30.75	505	477	0.002	2	433
6	27.5	1,693	1,281	0.004	5	1,454
5	22.5	1,710	866	0.003	3	1,468
4	17.5	1,726	529	0.002	2	1,482
3	12.5	1,743	272	0.001	1	1,496
2	7.5	1,759	99	0.000	0	1,510
1	2.5	1,776	11	0.000	0	1,524
Generic 96" x 16" Panel	150	50	1,125	0.004	4	43
CCI TPX-070821	150	45	1,012	0.003	4	39
Kaelus DBCT108F1V92-1	150	83	1,876	0.006	7	72
Raycap DC6-48-60-18-8F (23.5" Height)	150	40	900	0.003	4	34
CCI DTMABP7819VG12A (w/ Bracket)	150	58	1,296	0.004	5	49
Raycap DC6-48-60-18-8F ("Squid")	150	32	716	0.002	3	27
Ericsson RRUS 4426 B66	150	145	3,267	0.010	13	125
Ericsson RRUS 4478 B14	150	180	4,043	0.013	16	154
Ericsson RRUS 4478 B5	150	180	4,043	0.013	16	154
Ericsson RRUS-11 (50 lbs.)	150	150	3,375	0.011	13	129
Ericsson RRUS 32 B2	150	159	3,578	0.011	14	136
Ericsson RRUS-32 (77 lbs)	150	231	5,198	0.016	20	198
Powerwave Allgon 7770.00	150	105	2,362	0.007	9	90
KMW AM-X-CD-16-65-00T-RET	150	97	2,182	0.007	9	83
Quintel QS66512-3 (112 lbs.)	150	336	7,560	0.024	30	288
Andrew SBNH-1D6565C (60.8 lbs)	150	61	1,368	0.004	5	52
Kathrein Scala 80010965	150	195	4,392	0.014	17	168
Kathrein Scala 80010966	150	115	2,578	0.008	10	98
Round Sector Frame	150	900	20,250	0.064	80	773
Samsung Outdoor CBRS 20W RRH –Clip-on Antenna	143	13	270	0.001	1	11
Samsung RT4401-48A	143	56	1,141	0.004	4	48
Samsung B2/B66A RRH-BR049	143	253	5,178	0.016	20	217
Samsung B5/B13 RRH-BR04C	143	211	4,313	0.014	17	181
Raycap RVZDC-6627-PF-48	143	32	654	0.002	3	27
Samsung MT6407-77A	143	245	5,006	0.016	20	210
Commscope NNHH-65B-R4	143	503	10,282	0.032	40	432
Site-Pro RMQP-496 w/ HRK-12	143	2,446	50,014	0.157	197	2,099
Site-Pro UWS6-NP Collar	130	288	4,867	0.015	19	247
Ericsson 4480 BAND 71	130	243	4,107	0.013	16	209
RFS APXVAALL24 43-U-NA20	130	368	6,226	0.020	24	316
dB Systems 5100A	111.2	21	260	0.001	1	18
dB Systems 5100A-D	111.1	152	1,876	0.006	7	130
Round Side Arm	105	900	9,922	0.031	39	773
VertexRSI 101V VPD	104	4	43	0.000	0	3
		41,757	318,606	1.000	1,253	35,844

1.2D + 1.0Ev + 1.0Eh **Seismic**

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-49.64	-1.26	0.00	-160.16	0.00	160.16	3,136.53	776.14	2,682	2,336.59	0.00	0.00	0.04
5.00	-47.46	-1.27	0.00	-153.87	0.00	153.87	3,092.06	759.10	2,565	2,252.37	0.01	-0.01	0.04
10.00	-45.29	-1.28	0.00	-147.54	0.00	147.54	3,046.49	742.06	2,452	2,168.84	0.03	-0.03	0.04
15.00	-43.15	-1.28	0.00	-141.15	0.00	141.15	2,999.83	725.02	2,340	2,086.05	0.06	-0.04	0.04
20.00	-41.02	-1.29	0.00	-134.74	0.00	134.74	2,952.07	707.98	2,232	2,004.07	0.11	-0.05	0.04
25.00	-38.92	-1.29	0.00	-128.30	0.00	128.30	2,901.93	690.94	2,126	1,922.08	0.17	-0.07	0.03
30.00	-38.29	-1.29	0.00	-121.85	0.00	121.85	2,830.35	673.89	2,022	1,827.91	0.25	-0.08	0.03
31.50	-36.36	-1.29	0.00	-119.91	0.00	119.91	2,808.88	668.78	1,991	1,800.12	0.28	-0.08	0.03
35.00	-36.00	-1.29	0.00	-115.41	0.00	115.41	2,758.78	656.85	1,921	1,736.10	0.34	-0.09	0.03
35.67	-34.31	-1.28	0.00	-114.55	0.00	114.55	2,225.24	557.62	1,661	1,429.67	0.36	-0.10	0.04
40.00	-32.38	-1.28	0.00	-108.99	0.00	108.99	2,194.35	545.32	1,589	1,378.40	0.45	-0.11	0.03
45.00	-30.47	-1.27	0.00	-102.61	0.00	102.61	2,157.69	531.12	1,507	1,319.72	0.57	-0.12	0.03
50.00	-28.58	-1.25	0.00	-96.29	0.00	96.29	2,119.93	516.91	1,428	1,261.60	0.70	-0.13	0.03
55.00	-28.39	-1.25	0.00	-90.03	0.00	90.03	2,081.07	502.71	1,350	1,204.10	0.85	-0.15	0.03
55.48	-27.07	-1.24	0.00	-89.43	0.00	89.43	2,077.29	501.35	1,343	1,198.61	0.86	-0.15	0.03
55.48	-27.07	-1.24	0.00	-89.43	0.00	89.43	2,077.29	501.35	1,343	1,198.61	0.86	-0.15	0.04
60.00	-25.68	-1.23	0.00	-83.83	0.00	83.83	2,041.12	488.51	1,275	1,147.26	1.01	-0.16	0.04
65.00	-24.37	-1.21	0.00	-77.71	0.00	77.71	1,992.10	474.31	1,202	1,086.79	1.19	-0.18	0.04
70.00	-23.15	-1.19	0.00	-71.65	0.00	71.65	1,932.46	460.11	1,131	1,022.32	1.39	-0.20	0.04
73.50	-22.81	-1.19	0.00	-67.48	0.00	67.48	1,451.36	368.08	905	769.62	1.55	-0.22	0.04
74.92	-22.79	-1.19	0.00	-65.79	0.00	65.79	1,443.63	364.85	889	758.75	1.61	-0.22	0.04
75.00	-22.38	-1.18	0.00	-65.69	0.00	65.69	1,443.19	364.67	888	758.14	1.62	-0.22	0.02
76.25	-21.50	-1.16	0.00	-64.21	0.00	64.21	1,436.31	361.83	874	748.59	1.67	-0.22	0.02
76.25	-21.50	-1.16	0.00	-64.21	0.00	64.21	1,436.31	361.83	874	748.59	1.67	-0.22	0.04
80.00	-20.45	-1.14	0.00	-59.85	0.00	59.85	1,415.26	353.31	834	720.08	1.85	-0.23	0.03
85.00	-19.41	-1.12	0.00	-54.14	0.00	54.14	1,386.24	341.95	781	682.41	2.11	-0.25	0.03
90.00	-18.38	-1.09	0.00	-48.55	0.00	48.55	1,356.12	330.59	730	645.17	2.37	-0.26	0.03
95.00	-17.37	-1.06	0.00	-43.10	0.00	43.10	1,324.90	319.23	681	608.43	2.66	-0.28	0.03
100.00	-16.57	-1.03	0.00	-37.81	0.00	37.81	1,293.04	307.87	633	572.44	2.95	-0.29	0.02
104.00	-16.37	-1.03	0.00	-33.68	0.00	33.68	1,254.87	298.78	596	538.95	3.20	-0.30	0.02
105.00	-14.27	-0.94	0.00	-32.66	0.00	32.66	1,245.33	296.51	587	530.74	3.27	-0.30	0.02
110.00	-14.07	-0.93	0.00	-27.95	0.00	27.95	1,197.61	285.15	543	490.61	3.59	-0.31	0.02
110.00	-14.07	-0.93	0.00	-27.95	0.00	27.95	833.77	214.52	410	343.68	3.59	-0.31	0.02
111.10	-13.86	-0.93	0.00	-26.92	0.00	26.92	829.49	212.65	403	338.90	3.66	-0.32	0.02
111.20	-13.43	-0.91	0.00	-26.83	0.00	26.83	829.10	212.48	402	338.47	3.67	-0.32	0.02
113.56	-13.06	-0.89	0.00	-24.69	0.00	24.69	819.73	208.45	387	328.25	3.83	-0.32	0.02
115.00	-12.92	-0.88	0.00	-23.41	0.00	23.41	813.89	206.00	378	322.04	3.93	-0.33	0.01
115.54	-12.15	-0.85	0.00	-22.94	0.00	22.94	811.68	205.08	374	319.72	3.96	-0.33	0.01
115.54	-12.15	-0.85	0.00	-22.94	0.00	22.94	811.68	205.08	374	319.72	3.96	-0.33	0.02
120.00	-11.39	-0.81	0.00	-19.16	0.00	19.16	792.92	197.48	347	300.64	4.27	-0.33	0.01
124.44	-11.34	-0.80	0.00	-15.58	0.00	15.58	773.38	189.91	321	281.88	4.58	-0.34	0.01
124.44	-11.34	-0.80	0.00	-15.58	0.00	15.58	773.38	189.91	321	281.88	4.58	-0.34	0.07
125.00	-10.91	-0.78	0.00	-15.13	0.00	15.13	770.85	188.96	318	279.54	4.62	-0.34	0.07
130.00	-9.47	-0.70	0.00	-11.21	0.00	11.21	747.69	180.44	290	258.78	4.99	-0.38	0.06
135.00	-9.16	-0.69	0.00	-7.69	0.00	7.69	722.05	171.92	263	237.98	5.41	-0.41	0.05
140.00	-8.98	-0.68	0.00	-4.25	0.00	4.25	686.26	163.40	238	214.85	5.86	-0.44	0.03
143.00	-4.20	-0.33	0.00	-2.22	0.00	2.22	664.79	158.28	223	201.53	6.14	-0.45	0.02
145.00	-3.92	-0.31	0.00	-1.55	0.00	1.55	650.48	154.88	214	192.90	6.33	-0.45	0.01
150.00	0.00	-0.28	0.00	0.00	0.00	0.00	614.69	146.35	191	172.13	6.81	-0.46	0.00

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 (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-34.32	-1.26	0.00	-157.07	0.00	157.07	3,136.53	776.14	2,682	2,336.59	0.00	0.00	0.04
5.00	-32.81	-1.26	0.00	-150.79	0.00	150.79	3,092.06	759.10	2,565	2,252.37	0.01	-0.01	0.04
10.00	-31.31	-1.27	0.00	-144.48	0.00	144.48	3,046.49	742.06	2,452	2,168.84	0.03	-0.03	0.03
15.00	-29.83	-1.27	0.00	-138.14	0.00	138.14	2,999.83	725.02	2,340	2,086.05	0.06	-0.04	0.03
20.00	-28.36	-1.27	0.00	-131.78	0.00	131.78	2,952.07	707.98	2,232	2,004.07	0.11	-0.05	0.03
25.00	-26.91	-1.27	0.00	-125.41	0.00	125.41	2,901.93	690.94	2,126	1,922.08	0.17	-0.07	0.03
30.00	-26.47	-1.28	0.00	-119.04	0.00	119.04	2,830.35	673.89	2,022	1,827.91	0.25	-0.08	0.03
31.50	-25.14	-1.27	0.00	-117.13	0.00	117.13	2,808.88	668.78	1,991	1,800.12	0.27	-0.08	0.03

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
35.00	-24.89	-1.27	0.00	-112.69	0.00	112.69	2,758.78	656.85	1,921	1,736.10	0.34	-0.09	0.03
35.67	-23.72	-1.26	0.00	-111.84	0.00	111.84	2,225.24	557.62	1,661	1,429.67	0.35	-0.09	0.03
40.00	-22.39	-1.25	0.00	-106.37	0.00	106.37	2,194.35	545.32	1,589	1,378.40	0.44	-0.10	0.03
45.00	-21.07	-1.24	0.00	-100.10	0.00	100.10	2,157.69	531.12	1,507	1,319.72	0.56	-0.12	0.03
50.00	-19.76	-1.23	0.00	-93.88	0.00	93.88	2,119.93	516.91	1,428	1,261.60	0.69	-0.13	0.03
55.00	-19.63	-1.23	0.00	-87.74	0.00	87.74	2,081.07	502.71	1,350	1,204.10	0.83	-0.14	0.03
55.48	-18.72	-1.21	0.00	-87.15	0.00	87.15	2,077.29	501.35	1,343	1,198.61	0.85	-0.15	0.03
55.48	-18.72	-1.21	0.00	-87.15	0.00	87.15	2,077.29	501.35	1,343	1,198.61	0.85	-0.15	0.04
60.00	-17.76	-1.20	0.00	-81.65	0.00	81.65	2,041.12	488.51	1,275	1,147.26	0.99	-0.16	0.04
65.00	-16.85	-1.18	0.00	-75.65	0.00	75.65	1,992.10	474.31	1,202	1,086.79	1.17	-0.18	0.04
70.00	-16.00	-1.17	0.00	-69.73	0.00	69.73	1,932.46	460.11	1,131	1,022.32	1.36	-0.20	0.04
73.50	-15.77	-1.16	0.00	-65.65	0.00	65.65	1,451.36	368.08	905	769.62	1.51	-0.21	0.04
74.92	-15.75	-1.16	0.00	-64.00	0.00	64.00	1,443.63	364.85	889	758.75	1.58	-0.22	0.04
75.00	-15.47	-1.15	0.00	-63.91	0.00	63.91	1,443.19	364.67	888	758.14	1.58	-0.22	0.02
76.25	-14.86	-1.14	0.00	-62.47	0.00	62.47	1,436.31	361.83	874	748.59	1.64	-0.22	0.02
76.25	-14.86	-1.14	0.00	-62.47	0.00	62.47	1,436.31	361.83	874	748.59	1.64	-0.22	0.03
80.00	-14.13	-1.11	0.00	-58.20	0.00	58.20	1,415.26	353.31	834	720.08	1.81	-0.23	0.03
85.00	-13.42	-1.09	0.00	-52.64	0.00	52.64	1,386.24	341.95	781	682.41	2.06	-0.24	0.03
90.00	-12.71	-1.06	0.00	-47.19	0.00	47.19	1,356.12	330.59	730	645.17	2.32	-0.26	0.03
95.00	-12.01	-1.03	0.00	-41.88	0.00	41.88	1,324.90	319.23	681	608.43	2.60	-0.27	0.02
100.00	-11.46	-1.00	0.00	-36.73	0.00	36.73	1,293.04	307.87	633	572.44	2.89	-0.28	0.02
104.00	-11.31	-1.00	0.00	-32.71	0.00	32.71	1,254.87	298.78	596	538.95	3.13	-0.29	0.02
105.00	-9.86	-0.92	0.00	-31.72	0.00	31.72	1,245.33	296.51	587	530.74	3.19	-0.30	0.02
110.00	-9.73	-0.91	0.00	-27.14	0.00	27.14	1,197.61	285.15	543	490.61	3.51	-0.31	0.02
110.00	-9.73	-0.91	0.00	-27.14	0.00	27.14	833.77	214.52	410	343.68	3.51	-0.31	0.02
111.10	-9.58	-0.90	0.00	-26.14	0.00	26.14	829.49	212.65	403	338.90	3.58	-0.31	0.02
111.20	-9.28	-0.88	0.00	-26.05	0.00	26.05	829.10	212.48	402	338.47	3.58	-0.31	0.02
113.56	-9.02	-0.87	0.00	-23.97	0.00	23.97	819.73	208.45	387	328.25	3.74	-0.31	0.02
115.00	-8.93	-0.86	0.00	-22.72	0.00	22.72	813.89	206.00	378	322.04	3.83	-0.32	0.01
115.54	-8.40	-0.82	0.00	-22.26	0.00	22.26	811.68	205.08	374	319.72	3.87	-0.32	0.01
115.54	-8.40	-0.82	0.00	-22.26	0.00	22.26	811.68	205.08	374	319.72	3.87	-0.32	0.01
120.00	-7.87	-0.78	0.00	-18.58	0.00	18.58	792.92	197.48	347	300.64	4.17	-0.32	0.01
124.44	-7.84	-0.78	0.00	-15.10	0.00	15.10	773.38	189.91	321	281.88	4.47	-0.33	0.01
124.44	-7.84	-0.78	0.00	-15.10	0.00	15.10	773.38	189.91	321	281.88	4.47	-0.33	0.06
125.00	-7.54	-0.76	0.00	-14.66	0.00	14.66	770.85	188.96	318	279.54	4.51	-0.33	0.06
130.00	-6.55	-0.68	0.00	-10.85	0.00	10.85	747.69	180.44	290	258.78	4.87	-0.37	0.05
135.00	-6.33	-0.67	0.00	-7.44	0.00	7.44	722.05	171.92	263	237.98	5.28	-0.40	0.04
140.00	-6.20	-0.66	0.00	-4.11	0.00	4.11	686.26	163.40	238	214.85	5.72	-0.43	0.03
143.00	-2.90	-0.32	0.00	-2.14	0.00	2.14	664.79	158.28	223	201.53	5.99	-0.44	0.02
145.00	-2.71	-0.30	0.00	-1.50	0.00	1.50	650.48	154.88	214	192.90	6.17	-0.44	0.01
150.00	0.00	-0.28	0.00	0.00	0.00	0.00	614.69	146.35	191	172.13	6.64	-0.45	0.00

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	25.66	0.00	50.06	0.00	0.00	2730.53	124.44	0.88
0.9D + 1.0W	25.63	0.00	37.53	0.00	0.00	2689.17	124.44	0.85
1.2D + 1.0Di + 1.0Wi	7.53	0.00	75.84	0.00	0.00	872.64	124.44	0.27
1.2D + 1.0Ev + 1.0Eh	1.29	0.00	49.64	0.00	0.00	160.16	124.44	0.07
0.9D - 1.0Ev + 1.0Eh	1.28	0.00	34.32	0.00	0.00	157.07	124.44	0.06
1.0D + 1.0W	6.24	0.00	41.75	0.00	0.00	659.15	124.44	0.22

ADDITIONAL STEEL SUMMARY

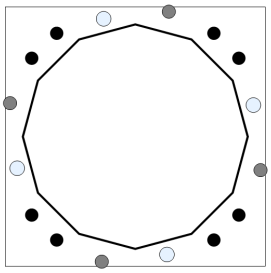
			Intermediate Connectors				Max member		
Elev From (ft)	Elev To (ft)	Member	VQ/I	Shear Applied (kips)	Shear (phiVn) (kips)	Ratio	Pu (kip)	PhiPn (kip)	Ratio
0.00	55.48	SOL #20 All Thread Bar	200.0	6.0	16.8	0.3569	210.1	330.5	0.6357
0.00	76.25	SOL #20 All Thread Bar	346.1	10.4	16.8	0.6176	248.4	330.5	0.7518
74.92	115.54	SOL #20 All Thread Bar	344.4	11.0	16.8	0.6556	213.9	327.4	0.6532
113.56	124.44	SOL #20 All Thread Bar	288.3	9.2	16.8	0.5487	97.4	327.4	0.2974

			Upper Termination Connectors					Lower Termination Connectors				
Elev From (ft)	Elev To (ft)	Member	MQ/I	phiVn (kips)	Num Reqd	Num Actual	Ratio	MQ/I (kips)	phiVn (kip)	Num Reqd	Num Actual	Ratio
0.00	55.48	SOL #20 All Thread Bar	162.246	12	14	20	0.6760	0	12	0	0	0.0000
0.00	76.25	SOL #20 All Thread Bar	120.2602	12	11	14	0.7158	0	12	0	0	0.0000
74.92	115.54	SOL #20 All Thread Bar	49.7525	12	5	8	0.5183	144.2496	12	13	16	0.7513
113.56	124.44	SOL #20 All Thread Bar	69.3288	12	6	12	0.4815	62.9814	12	6	12	0.4374

BASE PLATE ANALYSIS @ 0 FT

PLATE PARAMETERS (ID# 18534)

Width:	44	in
Shape:	Square	
Thickness:	2.5	in
Grade:	A572-60	
Yield Strength:	60	ksi
Tensile Strength:	75	ksi
Clip Length:		in
Rod Detail Type:	c	
Clear Distance	-	in
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Elastic	
Neutral Axis:	142	°



ANCHOR ROD PARAMETERS

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 19003]	Cluster	8	2.25	44	A615-75	75	100	6	-
Bypass [ID# 19002]	Radial	4	2.25	43.88	A615-75	75	100	-	75

DYWIDAG BAR PARAMETERS

Quantity	Bar Size	Bar Diameter (in)	Fy (ksi)	Fu (ksi)	Bracket Type	Bracket Offset (in)	Circle (in)	Offset (°)
4 [ID# 1371]	#20	2.5	80	100	Angle	2.19	43.88	15

ANCHOR ROD GEOMETRY AND APPLIED LOADS --- ORIGINAL (8) 2.25"ø [ID 19003]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in^4)	Axial Load (k)	Shear Load (k)
1	0.649	17.53	13.30	-20.000	1299.909	-157.46	1.47
2	0.922	13.30	17.53	-20.685	1390.482	-162.94	0.08
3	2.220	-13.30	17.53	-5.289	91.692	-39.71	5.55
4	2.493	-17.53	13.30	0.294	1.119	4.97	5.74
5	3.791	-17.53	-13.30	20.000	1299.909	162.69	1.47
6	4.063	-13.30	-17.53	20.685	1390.482	168.18	0.08
7	5.361	13.30	-17.53	5.289	91.692	44.95	5.55
8	5.634	17.53	-13.30	-0.294	1.119	0.27	5.74

ANCHOR ROD GEOMETRY AND APPLIED LOADS --- BYPASS (4) 2.25"ø [ID 19002]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in^4)	Axial Load (k)	Shear Load (k)
1	2.880	-21.19	5.68	8.573	239.513	55.68	0.00
2	4.451	-5.68	-21.19	20.196	1325.486	128.06	0.00
3	6.021	21.19	-5.68	-8.573	239.513	-51.09	0.00
4	1.309	5.68	21.19	-20.196	1325.486	-123.47	0.00

DYWIDAG BAR GEOMETRY AND APPLIED LOADS --- (4) #20 [ID 1371]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in^4)	Axial Load (k)
1	1.833	-5.68	21.19	-13.204	857.711	-173.66
2	3.403	-21.19	-5.68	17.522	1509.012	242.06
3	4.974	5.68	-21.19	13.204	857.711	183.63
4	0.262	21.19	5.68	-17.522	1509.012	-232.09

REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	37"ø x 0.375" (12 Sides)	1143.2	50.06	25.66	0.419
Bolt Group	Original (8) 2.25"ø	1143.2	-	25.66	0.419
Bolt Group	Bypass (4) 2.25"ø	500.1	-	0.00	0.183
Dywidag Group	(4) #20	1087.2	-	-	0.398
	TOTALS	**2730.53**	**50.06**	**25.66**	

COMPONENT PROPERTIES

Component	ID	Gross Area (in^2)	Net Area (in^2)	Individual Inertia (in^4)	Moment of Inertia (in^4)	Threads/in
Pole	37"ø x 0.375" (12 Sides)	42.6566	-	-	7154.41	-
Bolt Group	Original (8) 2.25"ø	3.9761	3.2477	0.8393	5566.40	4.5
Bolt Group	Bypass (4) 2.25"ø	3.9761	3.2477	0.8393	3130.00	4.5
Dywidag Group	(4) #20	4.9087	4.9087	1.9175	4733.45	-

EXTERNAL BASE PLATE BEND LINE ANALYSIS @ 0 FT

POLE PROPERTIES

Flat-to-Flat Diameter:	37.12	in
Point-to-Point Diameter:	38.44	in
Flat Width:	9.948	in
Flat Radians:	0.524	rad

PLATE PROPERTIES

Neutral Axis:	142	°
Bend Line Lower Limit:		rad
Bend Line Upper Limit:	-0.191	rad

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in^3)	Applied Moment Mu (k-in)	Moment Capacity ϕMn (k-in)	Ratio
Flat	25.100	0.00	39.219	590.9	2117.8	0.279
Corner	23.791	0.00	37.173	374.2	2007.3	0.186

ELASTIC ANCHOR ROD ANALYSIS

Class	Group Quantity	Rod Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity ϕPn (k)	Ratio	Interaction
Original	8	2.25	168.2	0.1	243.6	0.690	0.690
Bypass	4	2.25	128.1	0.0	243.6	0.526	0.526

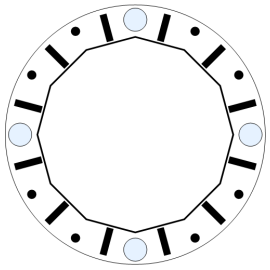
DYWIDAG BAR ANALYSIS

Group Quantity	Bar Size	Bar Circle (in)	Applied Axial Load Pu (k)	Compressive Capacity ϕPn (k)	Ratio
4	#20	43.88	242.1	368.2	0.657

UPPER FLANGE PLATE ANALYSIS @ 110 FT

PLATE PARAMETERS (ID# 18535)

Diameter:	28	in
Shape:	Round	
Thickness:	1	in
Grade:	A36	
Yield Strength:	36	ksi
Tensile Strength:	58	ksi
Pole Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Elastic	
Neutral Axis:	330	°



FLANGE BOLT PARAMETERS

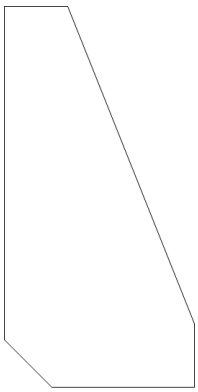
Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	Fy (ksi)	Fu (ksi)	Spacing (in)	Offset (°)
Original [ID# 19004]	Radial	12	1	25.75	A325	92	120	-	-

DYWIDAG BAR PARAMETERS

Quantity	Bar Size	Bar Diameter (in)	Fy (ksi)	Fu (ksi)	Bracket Type	Bracket Offset (in)	Circle (in)	Offset (°)
4 [ID# 1372]	#20	2.5	80	100	Angle	2.19	27.31	-

STIFFENER PARAMETERS

Arrangement:	Radial	
Quantity:	12	
Height:	6	in
Width:	3	in
Thickness:	0.75	in
Notch:	0.75	in
Grade:	A572-50	
Yield Strength:	50	ksi
Tensile Strength:	65	ksi
Horizontal Weld Type:	Fillet	
Horizontal Weld Fillet Size:	0.375	in
Vertical Weld Fillet Size:	0.313	in
Weld Strength:	70	ksi
Orientation Offset:	-	°



FLANGE BOLT GEOMETRY AND APPLIED LOADS --- ORIGINAL (12) 1"ø [ID 19004]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in^4)	Axial Load (k)	Shear Load (k)
1	0.524	11.15	6.44	10.609	68.204	15.29	0.95
2	1.047	6.44	11.15	12.250	90.929	17.62	0.00
3	1.571	0.00	12.88	10.609	68.204	15.29	0.95
4	2.094	-6.44	11.15	6.125	22.754	8.94	1.65
5	2.618	-11.15	6.44	0.000	0.029	0.26	1.91
6	3.142	-12.88	0.00	-6.125	22.754	-8.42	1.65
7	3.665	-11.15	-6.44	-10.609	68.204	-14.77	0.95
8	4.189	-6.44	-11.15	-12.250	90.929	-17.10	0.00
9	4.712	0.00	-12.88	-10.609	68.204	-14.77	0.95
10	5.236	6.44	-11.15	-6.125	22.754	-8.42	1.65
11	5.760	11.15	-6.44	0.000	0.029	0.26	1.91
12	6.283	12.88	0.00	6.125	22.754	8.94	1.65

DYWIDAG BAR GEOMETRY AND APPLIED LOADS --- (4) #20 [ID 1372]

Position	Radians	X (in)	Y (in)	Moment Arm (in)	Inertia (in^4)	Axial Load (k)
1	1.571	0.00	13.66	11.827	688.542	125.02
2	3.142	-13.66	0.00	-6.828	230.792	-68.44
3	4.712	0.00	-13.66	-11.827	688.542	-120.28
4	6.283	13.66	0.00	6.828	230.792	73.18

STIFFENER GEOMETRY AND APPLIED LOADS

Position	Radians	Moment Arm (in)	Inertia (in^4)	Axial Load (k)	Shear Load (k)
1	0.262	8.285	105.143	8.78	0.88
2	0.785	11.317	194.739	11.93	0.32
3	1.309	11.317	194.739	11.93	0.32
4	1.833	8.285	105.143	8.78	0.88
5	2.356	3.032	15.548	3.33	1.20
6	2.880	-3.032	15.548	-2.98	1.20
7	3.403	-8.285	105.143	-8.43	0.88
8	3.927	-11.317	194.739	-11.58	0.32
9	4.451	-11.317	194.739	-11.58	0.32
10	4.974	-8.285	105.143	-8.43	0.88
11	5.498	-3.032	15.548	-2.98	1.20
12	6.021	3.032	15.548	3.33	1.20

REACTION DISTRIBUTION

Component	ID	Moment Mu (k-ft)	Axial Load Pu (k)	Shear Vu (k)	Moment Factor
Pole	20.4333"ø x 0.1875" (12 Sides)	106.4	12.59	14.23	0.247
Bolt Group	Original (12) 1"ø	106.4	-	14.23	0.247
Dywidag Group	(4) #20	323.7	-	-	0.753
Stiffeners	(12) 6"H x 3"W x 0.75"T	71.9	-	9.62	0.167
	TOTALS	**430.08**	**12.59**	**14.23**	

COMPONENT PROPERTIES

Component	ID	Gross Area (in^2)	Net Area (in^2)	Individual Inertia (in^4)	Moment of Inertia (in^4)	Threads/in
Pole	20.4333"ø x 0.1875" (12 Sides)	11.7900	-	-	604.22	-
Bolt Group	Original (12) 1"ø	0.7854	0.6057	0.0292	545.75	8.0
Dywidag Group	(4) #20	4.9087	4.9087	1.9175	1838.67	-
Stiffeners	(12) 6"H x 3"W x 0.75"T	1.6875	1.5188	6.7500	1261.72	-

EXTERNAL UPPER FLANGE PLATE BEND LINE ANALYSIS @ 110 FT

POLE PROPERTIES

Flat-to-Flat Diameter:	20.56	in
Point-to-Point Diameter:	21.28	in
Flat Width:	5.509	in
Flat Radians:	0.524	rad

PLATE PROPERTIES

Neutral Axis:	330	°
Bend Line Lower Limit:	0.266	rad
Bend Line Upper Limit:	1.828	rad

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in^3)	Applied Moment Mu (k-in)	Moment Capacity ϕMn (k-in)	Ratio
Flat	18.000	5.65	5.913	44.8	191.6	0.234
Corner	17.137	4.20	5.335	28.3	172.8	0.164
Circumferential	26.179	7.50	8.420	77.5	272.8	0.284

ELASTIC FLANGE BOLT ANALYSIS

Class	Group Quantity	Bolt Diameter (in)	Applied Axial Load Pu (k)	Applied Shear Load Vu (k)	Compressive Capacity ϕPn (k)	Ratio	Interaction
Original	12	1	17.6	0.0	54.5	0.323	0.323

DYWIDAG BAR ANALYSIS

Group Quantity	Bar Size	Bar Circle (in)	Applied Axial Load Pu (k)	Compressive Capacity ϕPn (k)	Ratio
4	#20	27.31	125.0	368.2	0.340

UPPER FLANGE PLATE STIFFENER ANALYSIS

Quantity:	12	
Height:	6	in
Width:	3	in
Effective Width:	3.000	in
Thickness:	0.75	in
Notch:	0.75	in
Grade:	A572-50	
Yield Strength:	50	ksi
Tensile Strength:	65	ksi
Horizontal Weld Type:	Fillet	
Horizontal Weld Fillet Size:	0.375	in
Horizontal Weld Bevel Size:		in
Vertical Weld Fillet Size:	0.313	in
Weld Strength:	70	ksi
Electrode Coefficient:	1.000	

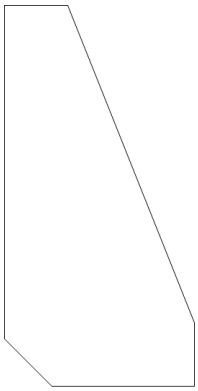


PLATE COMPRESSION

Radius of Gyration:	0.217	in^3
kl/r:	16.63	
4.71 √(E/Fy):	113.43	
Buckling Stress, Fe:	1035.22	ksi
Crit. Buckling Stress, Fcr:	907.89	ksi
Applied Compression, Pu:	11.93	k
Compressive Capacity, ϕPn:	1378.86	k
Pu/ϕPn:	**0.004**	

PLATE TENSION

Gross Cross Section:	1.6875	in^2
Net Cross Section:	1.5188	in^2
Applied Tension, Tu:	11.58	k
Tensile Capacity, ϕTn:	74.04	k
Tu/ϕTn:	**0.078**	

VERTICAL WELD TO POLE

Vertical Eccentricity Ratio, $a=e_x/l$:	0.167	
Spacing Ratio, k:	0.125	
Weld Coefficient, C:	3.660	
Applied Compression, Pu:	11.93	k
Compressive Capacity, ϕPn:	82.48	k
Horizontal Eccentricity Ratio, $a=e_x/l$:	0.333	
Weld Coefficient, C:	2.970	
Applied Shear, Vu	0.32	k
Shear Capacity, ϕVn:	66.93	k
Pu/ϕPn + Vu/ϕVn:	**0.150**	

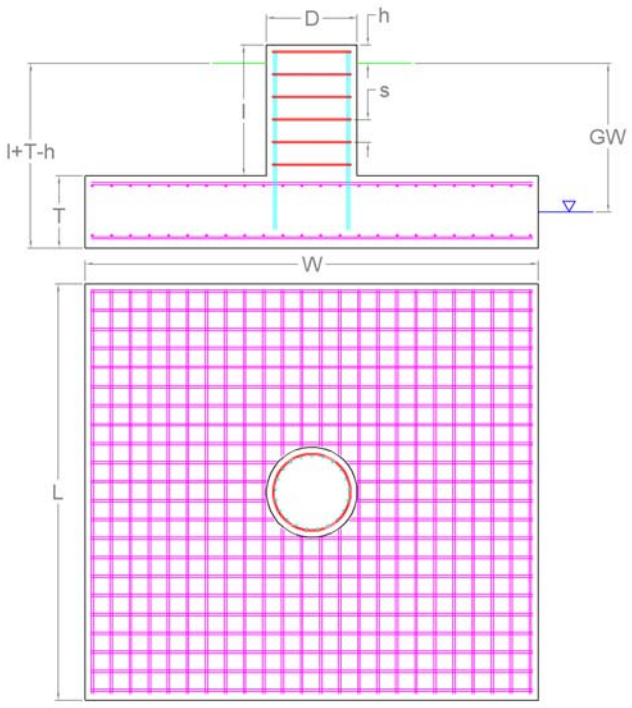
HORIZONTAL WELD TO PLATE

Horizontal Eccentricity Ratio, $a=e_x/l$:	0.167	
Spacing Ratio, k:	0.250	
Weld Coefficient, C:	4.040	
Effective Fillet Size:	0.375	in
Applied Compression, Pu:	11.93	k
Compressive Capacity, ϕPn:	54.54	k
Vertical Eccentricity Ratio, $a=e_x/l$:	0.333	
Weld Coefficient, C:	3.100	
Applied Shear, Vu	0.32	k
Shear Capacity, ϕVn:	41.85	k
Pu/ϕPn + Vu/ϕVn:	**0.227**	

Monolithic Mat Foundation Analysis (ANSI/TIA-222-H)

Foundation & Tower Parameters			
Ignore Mat Rebar?		Y	
Ignore Pier Rebar?		Y	
Foundation has Pier(s)?		Y	
Pier Shape		Square	
Pier Diameter	*D*	5	ft
Pier Height Above Ground	*h*	0.5	ft
Pier Length	*l*	4.3	ft
Mat Base Depth	*l+T-h*	6.8	ft
Mat Length	*L*	18.5	ft
Mat Width	*W*	18.5	ft
Mat Thickness	*T*	3	ft
Unit Weight of Concrete		150	pcf
Tower Eccentricity	ecc	0	ft
Tower Face Width	FW	3.08	ft
Tower Leg Count		1	

Reactions		
Moment, M_u	2,730.53	k-ft
Shear, V_u	25.66	k
Axial, P_u	50.06	k
Uplift, T_u	0	k
Tower Weight	50.06	k
Tower Dead Load Factor	0.9	



Soil Parameters			
Water Table Depth [BGL]	*GW*	9	ft
Unit Weight of Soil		123	pcf
Unit Weight of Soil [Submerged]		60.6	pcf
Shear Friction Coefficient		0.25	
Ultimate Bearing Pressure		11,349	psf
Bearing Pressure Type		Gross	
Conical Failure Angle		30	°
Capacity Increase (Transient Loads)		1.00	
Soil Strength Reduction Factor, ϕ_s		0.75	
Dead Load Factor		1.2	

Soil Capacities		
Design Moment, M_u	2,917.85	k-ft
Nominal Moment Capacity, $\phi_m M_n$	3,240.85	k-ft
$M_u / \phi_s M_n$	90.0%	
Net Bearing Pressure	7,346	k
Nominal Bearing Capacity, $\phi_b P_n$	8,512	k
Bearing Pressure Controlling Load Direction	Parallel to Pad Edge	
$P_u / \phi_s P_n$	86.3%	
Ultimate Friction Resistance	90.03	k
Ultimate Passive Pressure Resistance	36.18	k
Nominal Shear Capacity, $\phi_s V_n$	94.66	k
$V_u / \phi_s V_n$	27.0%	

Exhibit E

Mount Analysis

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

POD
POWER OF DESIGN

Antenna Mount Analysis Report

ATC Site Name	:	**Sttn - Southington**
ATC Site Number	:	**302475**
Engineering Number	:	**14098054_C8_01**
Mount Elevation	:	**129 ft**
Carrier	:	**T-MOBILE**
Carrier Site Name	:	**ATC Southington Monopole**
Carrier Site Number	:	**CTHA527A**
Site Location	:	**80 Shuttle Meadow Road** **Southington, CT 06489** **41.63860200, -72.84113749**
County	:	**Hartford**
Date	:	**May 4, 2022**
Max Usage	:	**55 %**
Result	:	**Pass**

Prepared By: Navaneetha Musku
Jason Cheronis
Vice President of Structural Engineering

Table of Contents

Introduction

The purpose of this report is to summarize results of the antenna mount analysis performed for T-MOBILE at 130 ft.

Supporting Documents

Structural Analysis	ATC Engineering #:13703662_C3_01dated: October 25, 2021
RFDS	RFDS dated March 9, 2022
Photos	Site photos from 2022

Analysis

This antenna mount was analyzed using RISA-3D v17 analysis software

Basic Wind Speed:	118 mph, Vult (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.50" Radial Ice (Escalating)
Codes:	TIA-222-H
Structure Class:	II
Exposure Category:	B
Topographic Factor Procedure:	Method 2
Topographic Feature:	Flat
Crest Height:	0 ft
Spectral Response:	Ss = 0.195, S_1 = 0.055
Site Class:	D (assumed)
Live Loads:	Lm = 500 lbs, Lv = 250 lbs

Conclusion

Based on the analysis results, the antenna mount meets the requirements per the applicable codes listed above. The mount can support the equipment as described in this report.

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

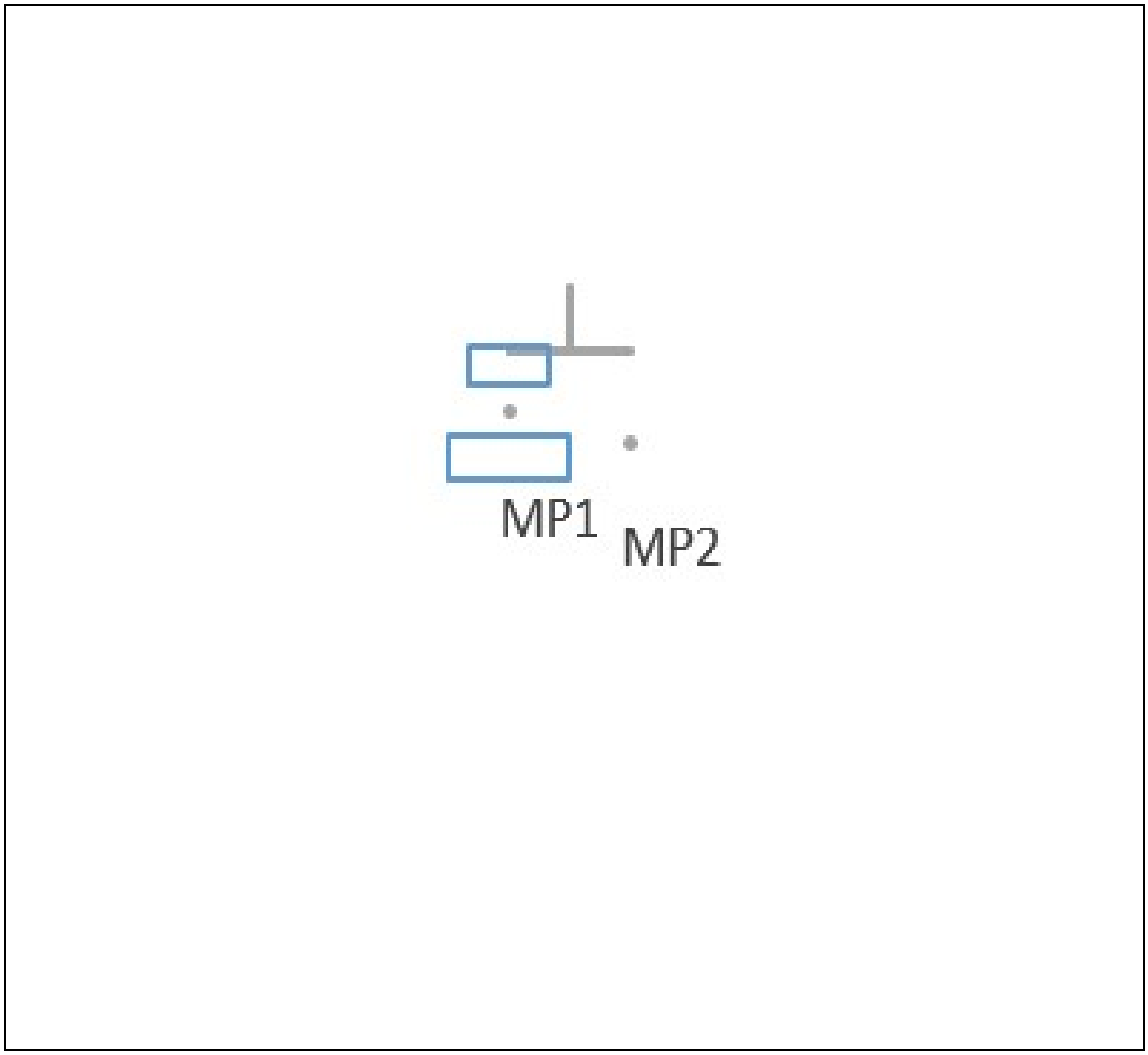
Antenna Loading

Mount Centerline (ft)	Antenna Centerline (ft)	Qty	Antenna Model
129.0	130.0	3	RFS APXVAALL24 43-U-NA20
		3	Ericsson 4480 BAND 71

Structure Usages

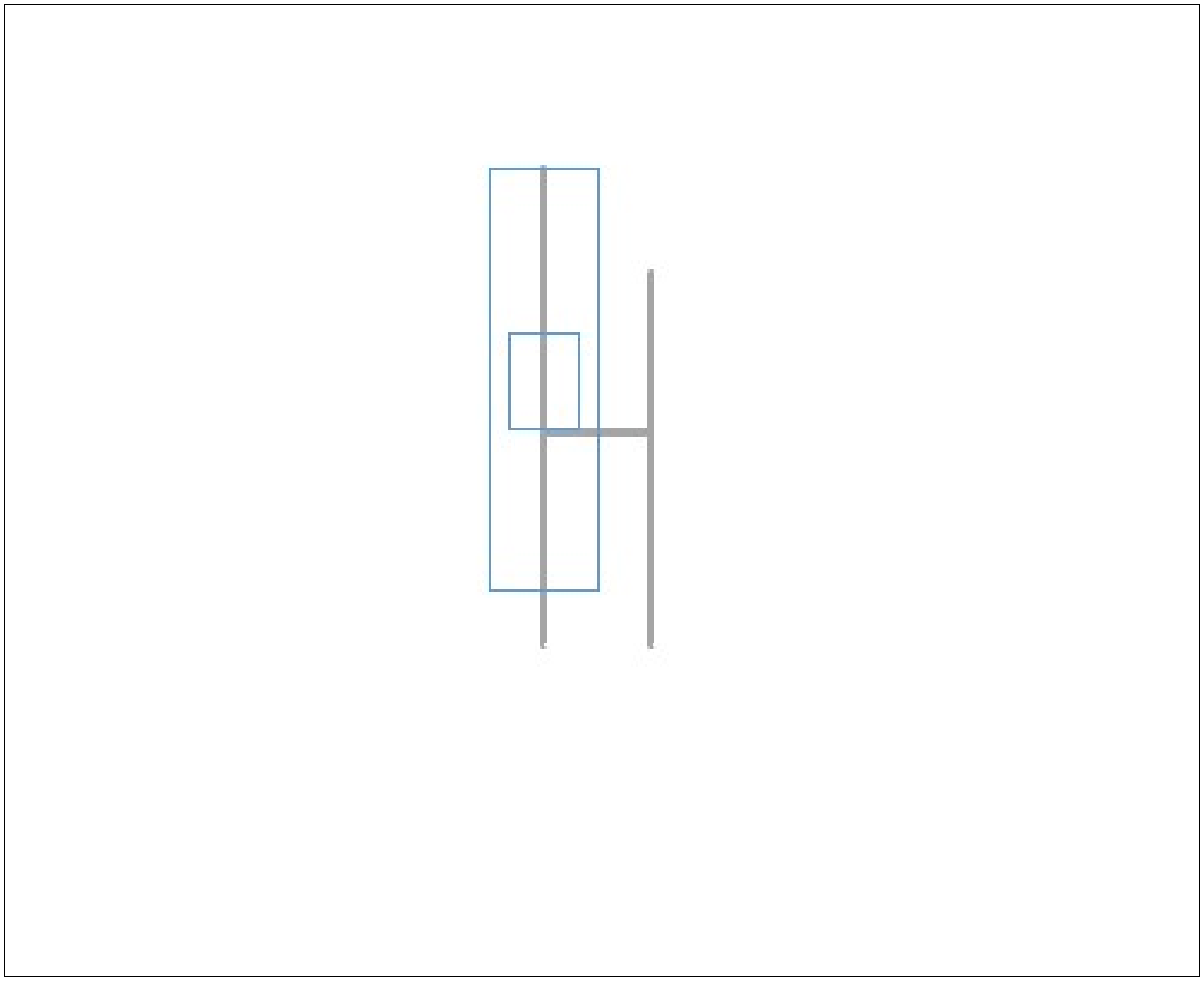
Structural Component	Controlling Usage	Pass/Fail
Plate	53%	Pass
Standoff	13%	Pass
Mount Pipes	55%	Pass
Flange Plate	21%	Pass
Flange Plate Bolts	1%	Pass

Mount Layout (From Above)



Equipment Model	Quantity	Height (in)	Width (in)	Depth (in)	Azimuth	Sector	Mount Pipe #
APXVAALL24 43-U-NA20	1	95.9	24	8.5	0	A	1
4480 BAND 71	1	22	15.7	7.5	0	A	1

Equipment Layout (From Front)



Equipment Model	Quantity	Height (in)	Width (in)	Depth (in)	Azimuth	Sector	Mount Pipe #
APXVAALL24 43-U-NA20	1	95.9	24	8.5	0	A	1
4480 BAND 71	1	22	15.7	7.5	0	A	1

Standard Conditions

All engineering services performed by POD Group 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 POD Group

It is the responsibility of the client to ensure that the information provided to POD Group and used in the performance of our engineering services is correct and complete.

POD Group 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 POD Group, all services will be performed in accordance with the current revision of ANSI/TIA-222.

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

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

POD
POWER OF DESIGN

POD Job #	**22-129119**
Site Number	**302475**
Site Name	**Sttn - Southington**

General Site Information

Mount Type	MF	Risk Category	II	I (seismic)	1				
V (Wind Speed)	118	I(ice)	1	Sms	0.312				
Zs	486.12			Sm1	0.132			width (ft)	height (ft)
ti	1.5	Ss	0.195	Sds	0.208		Front Outer Dimensions	2	0.75
Vi	50	S1	0.055	Sd1	0.088		Side Outer Dimensions	1	0.75
Kzt	1	Soil Site Class	D (assumed)	Seismic Design Category					
Exposure	B	Fa	1.600	B			Number of Sectors	1	
zg	1200	Fv	2.400	Seismic Analysis Not Required					
α	7			R	2	TIA-222-H 16.7			
Kmin	0.7	Tower Type	Monopole	As	1	TIA-222-H 16.7			
G_H	1	Tower Height	150	Cs, Min	0.03	TIA-222-H 2.7.7.1.1			
Ke	0.98			Cs	0.104	TIA-222-H 2.7.7.1.1			
K_D	0.95								
K_s	0.9								

Appurtenance Information

Model	Shielded	% Shielded	Centerline	Centerline on MP	Spacing (in)	Azimuth	Sector	Quantity	MP #
APXVAALL24 43-U-NA20			130	5	70		A	1	1
4480 BAND 71			130	5			A	1	1

Mount Information

Elevation (ft)	129	Grating Thickness (in)	1
K_z	1.06	Grating Ice Weight (k/ft²)	0.020
Kiz	1.15		
tiz	1.72		

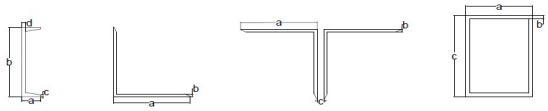
	Length (ft)	Width (in)	Centerline
Mount Pipes	9	2.375	129

Round Members

Member	Length (ft)	Width (in)	Frame Member	# of Members

Flat Members

Member	Length (ft)	Width (in)	Shape	A	B	C	D	Frame Member	# of Members
STANDOFF	1	4	Square HSS		4	0.25	4	No	1
PLATE	0.5	0.5	Channel			6	0.5	No	5



Version 3.56

Appurtenance Wind Calculations

Model	Height	Width	Depth	Weight (lbs)	Kz	qz (lb/ft$_2$)	$(EPA)_N$ (ft^2)	$(EPA)_T$(ft^2)	Wind Force (Kips) Front	Side	Alpha	Beta	Gamma
APXVAALL24 43-U-NA20	95.9	24.0	8.5	122.8	1.07	35.44	18.22	7.86	0.646	0.279	0.554	0.554	0.279
4480 BAND 71	22.0	15.7	7.5	81.0	1.07	35.44	2.59	1.26	0.092	0.045	0.080	0.080	0.045

Appurtenance Ice Calculations

Model	tiz (in)	Height	Width	Depth	Weight (lbs)	Kiz	qz (lb/ft$_2$)	$(EPA)_N$ (ft^2)	$(EPA)_T$(ft^2)	Wind Force (Kips) Front	Side	Alpha	Beta	Gamma
APXVAALL24 43-U-NA20	1.72	99.34	27.44	11.94	420.88	1.15	6.36	21.29	10.71	0.135	0.068	0.119	0.119	0.068
4480 BAND 71	1.72	25.44	19.14	10.94	88.71	1.15	6.36	3.65	2.09	0.023	0.013	0.021	0.021	0.013

Round Members

Member	q_z (lb/ft^2)	Wind Calculations Ar	C	Rrf	Cas	EPA (ft^2)	Load (k/ft)	Width (in)	Weight (k/ft)	q_z (lb/ft^2)	Ice Calculations Arice	Rrfice	Cas	EPA (ft^2)	Load (k/ft)

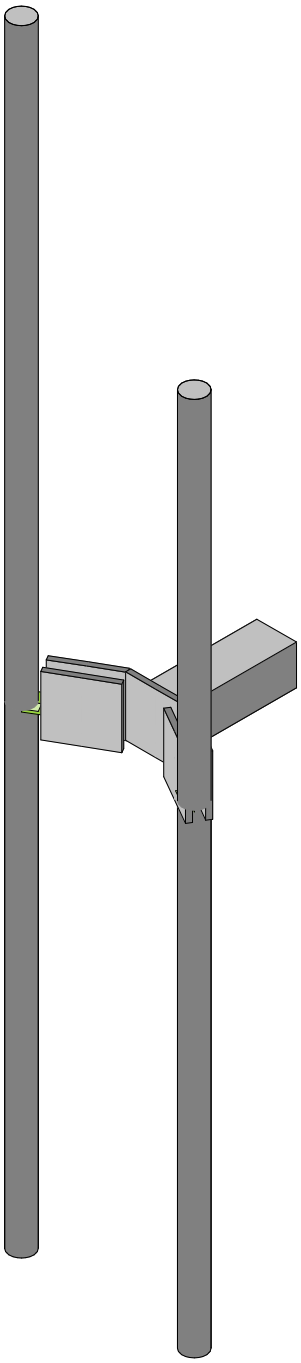
Flat Members

Member	q_z (lb/ft^2)	Wind Calculations Af	Cas	EPA	Load (k/ft)	Width (in)	Weight (k/ft)	q_z (lb/ft^2)	Ice Calculations Arice	Rrfice	Cas	EPA	Load (k/ft)
STANDOFF	35.36	0.33	1.25	0.38	0.007	7.44	0.02	6.35	0.62	0.60	1.25	0.42	0.001
PLATE	35.36	0.10	2.00	0.04	0.001	3.94	0.01	6.35	0.82	0.60	2.00	0.18	0.001

Appurtenance Seismic Calculations

Model	Weight	Sds	ρ	Cs	As	Ev	Eh
APXVAALL24 43-U-NA20	122.8	0.208	1.000	0.104	1.000	0.005	0.013
4480 BAND 71	81.0	0.208	1.000	0.104	1.000	0.003	0.008

Version 3.56



POD	302475	SK - 1
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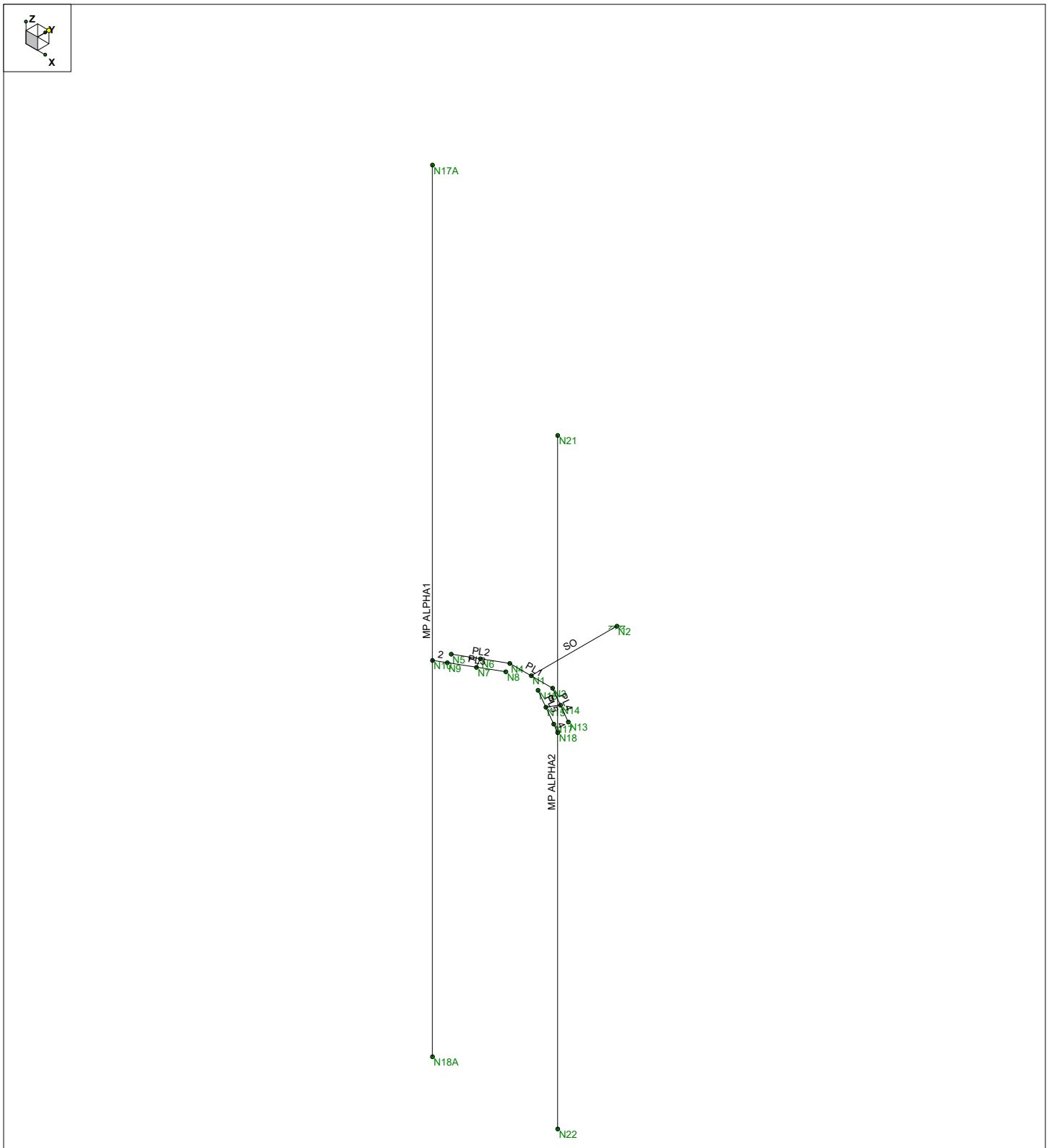
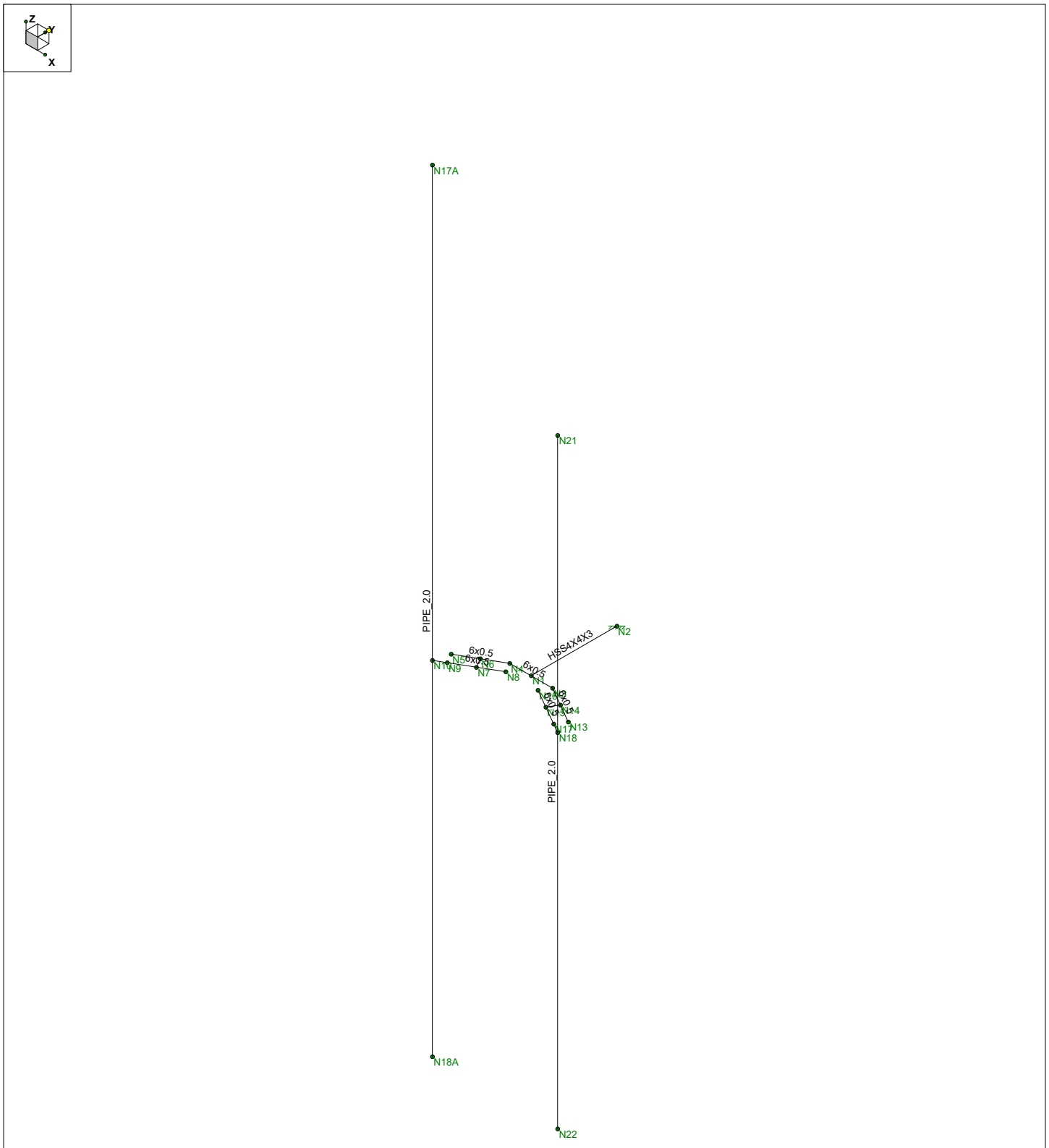
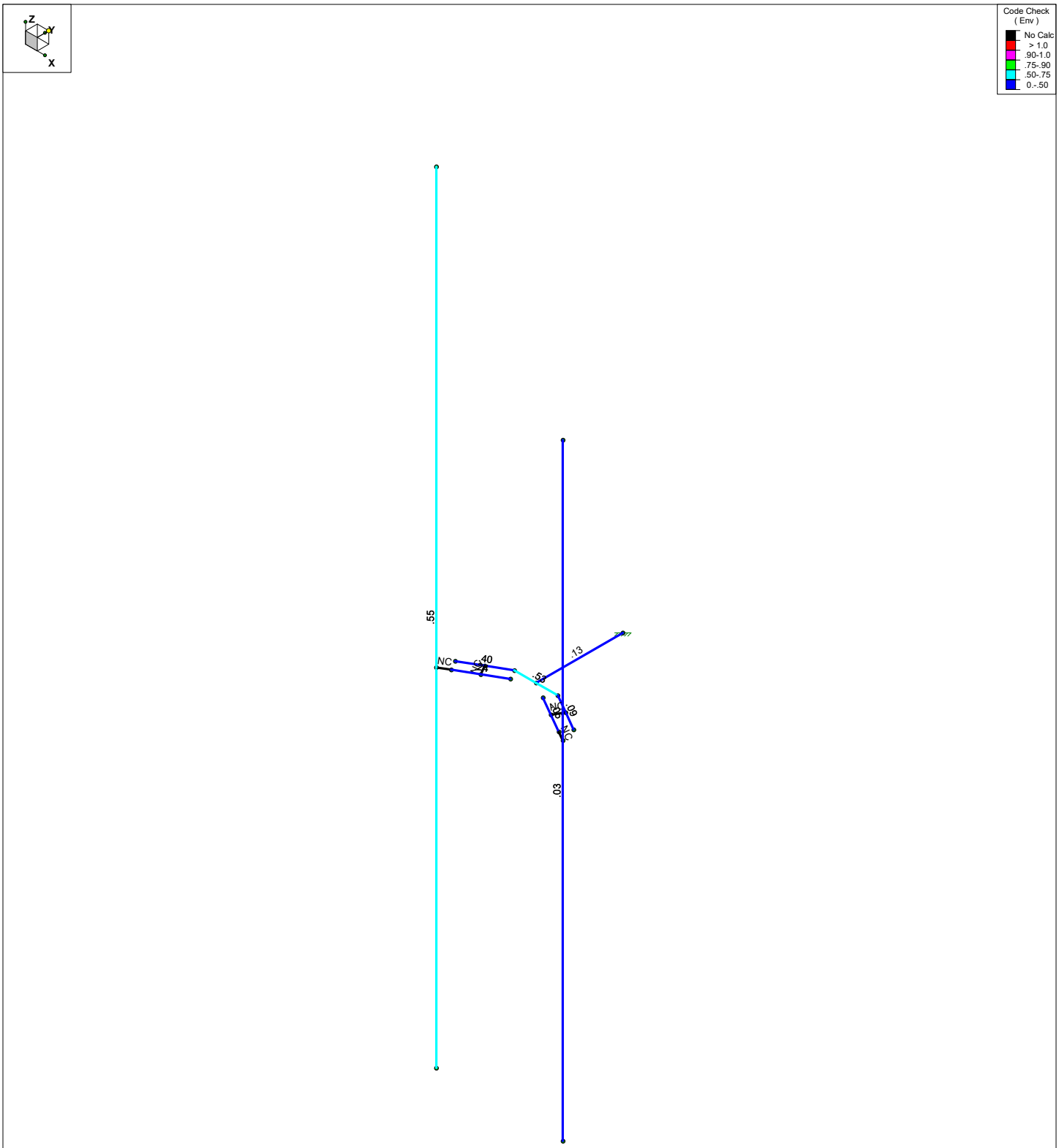
22-129119		T-arm - Loading.r3d



POD	302475	SK - 2
NM		May 4, 2022 at 10:07 AM
22-129119		T-arm - Loading.r3d

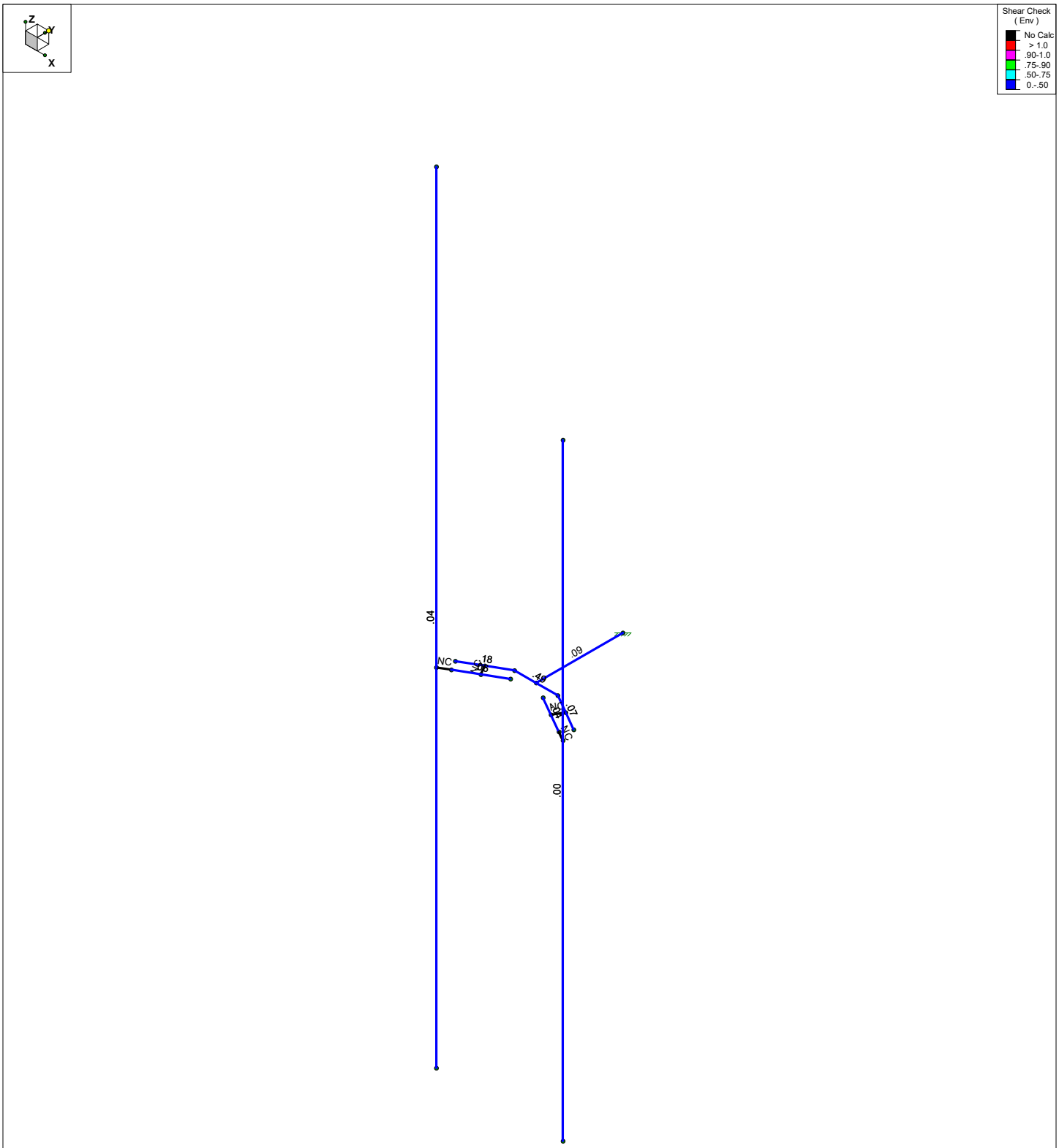


POD	302475	SK - 3
NM		May 4, 2022 at 10:07 AM
22-129119		T-arm - Loading.r3d



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

POD	302475	SK - 6
NM		May 4, 2022 at 10:09 AM
22-129119		T-arm - Loading.r3d



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

POD	302475	SK - 5
NM		May 4, 2022 at 10:08 AM
22-129119		T-arm - Loading.r3d

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Hot Rolled Steel Design Parameters

	Label	Shape	Length[...	Lbyy[ft]	Lbzz[ft]	Lcomp top	Lcomp bot	L-torq...	Kyy	Kzz	Cb	Funct...
1	SO	HSS4X4X3	1			Lbyy						Lateral
2	PL5	6x0.5	.5			Lbyy						Lateral
3	PL4	6x0.5	.5			Lbyy						Lateral
4	PL3	6x0.5	.5			Lbyy						Lateral
5	PL2	6x0.5	.5			Lbyy						Lateral
6	PL1	6x0.5	.5			Lbyy						Lateral
7	MP ALPHA2	PIPE_2.0	7			Lbyy						Lateral
8	MP ALPHA1	PIPE_2.0	9			Lbyy						Lateral

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate...	Section/Shape	Type	Design List	Material	Design ...
1	SO	N1	N2			HSS4X4X3	Beam	SquareTube	A500 Gr.B Rect	Typical
2	PL5	N17	N16		90	6x0.5	Beam	RECT	A36 Gr.36	Typical
3	PL4	N3	N13		90	6x0.5	Beam	RECT	A36 Gr.36	Typical
4	PL3	N9	N8		90	6x0.5	Beam	RECT	A36 Gr.36	Typical
5	PL2	N4	N5		90	6x0.5	Beam	RECT	A36 Gr.36	Typical
6	PL1	N4	N3		90	6x0.5	Beam	RECT	A36 Gr.36	Typical
7	MP ALPHA2	N22	N21			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
8	MP ALPHA1	N18A	N17A			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
9	4	N18	N17			RIGID	None	None	RIGID	Typical
10	3	N14	N15		180	RIGID	None	None	RIGID	Typical
11	2	N10	N9			RIGID	None	None	RIGID	Typical
12	1	N6	N7		180	RIGID	None	None	RIGID	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	SO						Yes				None
2	PL5						Yes				None
3	PL4						Yes				None
4	PL3						Yes				None
5	PL2						Yes				None
6	PL1						Yes				None
7	MP ALPHA2						Yes				None
8	MP ALPHA1						Yes				None
9	4						Yes	** NA **			None
10	3						Yes	** NA **			None
11	2						Yes	** NA **			None
12	1						Yes	** NA **			None

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3

Hot Rolled Steel Properties (Continued)

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E...Density[k/ft...		Yield[ksi]	Ry	Fu[ksi]	Rt
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3
8	A913 Gr.65	29000	11154	.3	.65	.49	65	1.1	80	1.1

Member Point Loads (BLC 1 : Live Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	PL3	Z	-.5	0

Member Point Loads (BLC 2 : Wind Load (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.323	6.917
2	MP ALPHA1	Y	-.323	1.083
3	MP ALPHA2	Y	-.092	4

Member Point Loads (BLC 3 : Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Z	-.061	6.917
2	MP ALPHA1	Z	-.061	1.083
3	MP ALPHA2	Z	-.081	4

Member Point Loads (BLC 4 : Wind Load (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.24	6.917
2	MP ALPHA1	Y	-.24	1.083
3	MP ALPHA1	X	-.138	6.917
4	MP ALPHA1	X	-.138	1.083
5	MP ALPHA2	Y	-.069	4
6	MP ALPHA2	X	-.04	4

Member Point Loads (BLC 5 : Wind Load (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.093	6.917
2	MP ALPHA1	Y	-.093	1.083
3	MP ALPHA1	X	-.16	6.917
4	MP ALPHA1	X	-.16	1.083
5	MP ALPHA2	Y	-.028	4
6	MP ALPHA2	X	-.049	4

Member Point Loads (BLC 6 : Wind Load (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.139	6.917
2	MP ALPHA1	X	-.139	1.083
3	MP ALPHA2	X	-.045	4

Member Point Loads (BLC 7 : Wind Load (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.093	6.917
2	MP ALPHA1	Y	.093	1.083
3	MP ALPHA1	X	-.16	6.917
4	MP ALPHA1	X	-.16	1.083
5	MP ALPHA2	Y	.028	4
6	MP ALPHA2	X	-.049	4

Member Point Loads (BLC 8 : Wind Load (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.24	6.917
2	MP ALPHA1	Y	.24	1.083
3	MP ALPHA1	X	-.138	6.917
4	MP ALPHA1	X	-.138	1.083
5	MP ALPHA2	Y	.069	4
6	MP ALPHA2	X	-.04	4

Member Point Loads (BLC 9 : Wind Load (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.323	6.917
2	MP ALPHA1	Y	.323	1.083
3	MP ALPHA2	Y	.092	4

Member Point Loads (BLC 10 : Wind Load (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.24	6.917
2	MP ALPHA1	Y	.24	1.083
3	MP ALPHA1	X	.138	6.917
4	MP ALPHA1	X	.138	1.083
5	MP ALPHA2	Y	.069	4
6	MP ALPHA2	X	.04	4

Member Point Loads (BLC 11 : Wind Load (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.093	6.917
2	MP ALPHA1	Y	.093	1.083
3	MP ALPHA1	X	.16	6.917
4	MP ALPHA1	X	.16	1.083
5	MP ALPHA2	Y	.028	4
6	MP ALPHA2	X	.049	4

Member Point Loads (BLC 12 : Wind Load (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	.139	6.917
2	MP ALPHA1	X	.139	1.083
3	MP ALPHA2	X	.045	4

Member Point Loads (BLC 13 : Wind Load (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.093	6.917
2	MP ALPHA1	Y	-.093	1.083
3	MP ALPHA1	X	.16	6.917
4	MP ALPHA1	X	.16	1.083
5	MP ALPHA2	Y	-.028	4
6	MP ALPHA2	X	.049	4

Member Point Loads (BLC 14 : Wind Load (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.24	6.917
2	MP ALPHA1	Y	-.24	1.083
3	MP ALPHA1	X	.138	6.917
4	MP ALPHA1	X	.138	1.083
5	MP ALPHA2	Y	-.069	4
6	MP ALPHA2	X	.04	4

Member Point Loads (BLC 15 : Maintanence (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.021	6.917
2	MP ALPHA1	Y	-.021	1.083
3	MP ALPHA2	Y	-.006	4

Member Point Loads (BLC 16 : Maintanence (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.016	6.917
2	MP ALPHA1	Y	-.016	1.083
3	MP ALPHA1	X	-.009	6.917
4	MP ALPHA1	X	-.009	1.083
5	MP ALPHA2	Y	-.004	4
6	MP ALPHA2	X	-.003	4

Member Point Loads (BLC 17 : Maintanence (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.006	6.917
2	MP ALPHA1	Y	-.006	1.083
3	MP ALPHA1	X	-.01	6.917
4	MP ALPHA1	X	-.01	1.083
5	MP ALPHA2	Y	-.002	4
6	MP ALPHA2	X	-.003	4

Member Point Loads (BLC 18 : Maintanence (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.009	6.917
2	MP ALPHA1	X	-.009	1.083
3	MP ALPHA2	X	-.003	4

Member Point Loads (BLC 19 : Maintanence (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.006	6.917
2	MP ALPHA1	Y	.006	1.083
3	MP ALPHA1	X	-.01	6.917
4	MP ALPHA1	X	-.01	1.083
5	MP ALPHA2	Y	.002	4
6	MP ALPHA2	X	-.003	4

Member Point Loads (BLC 20 : Maintanence (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.016	6.917
2	MP ALPHA1	Y	.016	1.083
3	MP ALPHA1	X	-.009	6.917
4	MP ALPHA1	X	-.009	1.083
5	MP ALPHA2	Y	.004	4
6	MP ALPHA2	X	-.003	4

Member Point Loads (BLC 21 : Maintanence (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.021	6.917
2	MP ALPHA1	Y	.021	1.083
3	MP ALPHA2	Y	.006	4

Member Point Loads (BLC 22 : Maintanence (210))

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]

Member Point Loads (BLC 22 : Maintanence (210)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.016	6.917
2	MP ALPHA1	Y	.016	1.083
3	MP ALPHA1	X	.009	6.917
4	MP ALPHA1	X	.009	1.083
5	MP ALPHA2	Y	.004	4
6	MP ALPHA2	X	.003	4

Member Point Loads (BLC 23 : Maintanence (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.006	6.917
2	MP ALPHA1	Y	.006	1.083
3	MP ALPHA1	X	.01	6.917
4	MP ALPHA1	X	.01	1.083
5	MP ALPHA2	Y	.002	4
6	MP ALPHA2	X	.003	4

Member Point Loads (BLC 24 : Maintanence (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	.009	6.917
2	MP ALPHA1	X	.009	1.083
3	MP ALPHA2	X	.003	4

Member Point Loads (BLC 25 : Maintanence (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.006	6.917
2	MP ALPHA1	Y	-.006	1.083
3	MP ALPHA1	X	.01	6.917
4	MP ALPHA1	X	.01	1.083
5	MP ALPHA2	Y	-.002	4
6	MP ALPHA2	X	.003	4

Member Point Loads (BLC 26 : Maintanence (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.016	6.917
2	MP ALPHA1	Y	-.016	1.083
3	MP ALPHA1	X	.009	6.917
4	MP ALPHA1	X	.009	1.083
5	MP ALPHA2	Y	-.004	4
6	MP ALPHA2	X	.003	4

Member Point Loads (BLC 27 : Ice Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Z	-.21	6.917
2	MP ALPHA1	Z	-.21	1.083
3	MP ALPHA2	Z	-.089	4

Member Point Loads (BLC 28 : Ice Wind Load (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.068	6.917
2	MP ALPHA1	Y	-.068	1.083
3	MP ALPHA2	Y	-.023	4

Member Point Loads (BLC 29 : Ice Wind Load (30))

Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]

Member Point Loads (BLC 29 : Ice Wind Load (30)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.051	6.917
2	MP ALPHA1	Y	-.051	1.083
3	MP ALPHA1	X	-.03	6.917
4	MP ALPHA1	X	-.03	1.083
5	MP ALPHA2	Y	-.018	4
6	MP ALPHA2	X	-.01	4

Member Point Loads (BLC 30 : Ice Wind Load (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.021	6.917
2	MP ALPHA1	Y	-.021	1.083
3	MP ALPHA1	X	-.037	6.917
4	MP ALPHA1	X	-.037	1.083
5	MP ALPHA2	Y	-.008	4
6	MP ALPHA2	X	-.014	4

Member Point Loads (BLC 31 : Ice Wind Load (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.034	6.917
2	MP ALPHA1	X	-.034	1.083
3	MP ALPHA2	X	-.013	4

Member Point Loads (BLC 32 : Ice Wind Load (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.021	6.917
2	MP ALPHA1	Y	.021	1.083
3	MP ALPHA1	X	-.037	6.917
4	MP ALPHA1	X	-.037	1.083
5	MP ALPHA2	Y	.008	4
6	MP ALPHA2	X	-.014	4

Member Point Loads (BLC 33 : Ice Wind Load (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.051	6.917
2	MP ALPHA1	Y	.051	1.083
3	MP ALPHA1	X	-.03	6.917
4	MP ALPHA1	X	-.03	1.083
5	MP ALPHA2	Y	.018	4
6	MP ALPHA2	X	-.01	4

Member Point Loads (BLC 34 : Ice Wind Load (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.068	6.917
2	MP ALPHA1	Y	.068	1.083
3	MP ALPHA2	Y	.023	4

Member Point Loads (BLC 35 : Ice Wind Load (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.051	6.917
2	MP ALPHA1	Y	.051	1.083
3	MP ALPHA1	X	.03	6.917
4	MP ALPHA1	X	.03	1.083
5	MP ALPHA2	Y	.018	4
6	MP ALPHA2	X	.01	4

Member Point Loads (BLC 36 : Ice Wind Load (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.021	6.917
2	MP ALPHA1	Y	.021	1.083
3	MP ALPHA1	X	.037	6.917
4	MP ALPHA1	X	.037	1.083
5	MP ALPHA2	Y	.008	4
6	MP ALPHA2	X	.014	4

Member Point Loads (BLC 37 : Ice Wind Load (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	.034	6.917
2	MP ALPHA1	X	.034	1.083
3	MP ALPHA2	X	.013	4

Member Point Loads (BLC 38 : Ice Wind Load (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.021	6.917
2	MP ALPHA1	Y	-.021	1.083
3	MP ALPHA1	X	.037	6.917
4	MP ALPHA1	X	.037	1.083
5	MP ALPHA2	Y	-.008	4
6	MP ALPHA2	X	.014	4

Member Point Loads (BLC 39 : Ice Wind Load (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.051	6.917
2	MP ALPHA1	Y	-.051	1.083
3	MP ALPHA1	X	.03	6.917
4	MP ALPHA1	X	.03	1.083
5	MP ALPHA2	Y	-.018	4
6	MP ALPHA2	X	.01	4

Member Point Loads (BLC 40 : Earthquake (x-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.006	6.917
2	MP ALPHA1	X	-.006	1.083
3	MP ALPHA2	X	-.008	4

Member Point Loads (BLC 41 : Earthquake (y-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.006	6.917
2	MP ALPHA1	Y	-.006	1.083
3	MP ALPHA2	Y	-.008	4

Member Point Loads (BLC 42 : Earthquake (z-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Z	-.003	6.917
2	MP ALPHA1	Z	-.003	1.083
3	MP ALPHA2	Z	-.003	4

Member Distributed Loads (BLC 2 : Wind Load (0))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.007	-.007	0	0

Member Distributed Loads (BLC 2 : Wind Load (0)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
2	PL5	PY	-.001	-.001	0	0
3	PL4	PY	-.001	-.001	0	0
4	PL3	PY	-.001	-.001	0	0
5	PL2	PY	-.001	-.001	0	0
6	PL1	PY	-.001	-.001	0	0
7	MP ALPHA2	PY	-.008	-.008	0	0
8	MP ALPHA1	PY	-.008	-.008	0	0

Member Distributed Loads (BLC 4 : Wind Load (30))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.006	-.006	0	0
2	PL5	PY	-.001	-.001	0	0
3	PL4	PY	-.001	-.001	0	0
4	PL3	PY	-.001	-.001	0	0
5	PL2	PY	-.001	-.001	0	0
6	PL1	PY	-.001	-.001	0	0
7	MP ALPHA2	PY	-.007	-.007	0	0
8	MP ALPHA1	PY	-.007	-.007	0	0
9	SO	PX	-.003	-.003	0	0
10	PL5	PX	-.000663	-.000663	0	0
11	PL4	PX	-.000663	-.000663	0	0
12	PL3	PX	-.000663	-.000663	0	0
13	PL2	PX	-.000663	-.000663	0	0
14	PL1	PX	-.000663	-.000663	0	0
15	MP ALPHA2	PX	-.004	-.004	0	0
16	MP ALPHA1	PX	-.004	-.004	0	0

Member Distributed Loads (BLC 5 : Wind Load (60))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.003	-.003	0	0
2	PL5	PY	-.000663	-.000663	0	0
3	PL4	PY	-.000663	-.000663	0	0
4	PL3	PY	-.000663	-.000663	0	0
5	PL2	PY	-.000663	-.000663	0	0
6	PL1	PY	-.000663	-.000663	0	0
7	MP ALPHA2	PY	-.004	-.004	0	0
8	MP ALPHA1	PY	-.004	-.004	0	0
9	SO	PX	-.006	-.006	0	0
10	PL5	PX	-.001	-.001	0	0
11	PL4	PX	-.001	-.001	0	0
12	PL3	PX	-.001	-.001	0	0
13	PL2	PX	-.001	-.001	0	0
14	PL1	PX	-.001	-.001	0	0
15	MP ALPHA2	PX	-.007	-.007	0	0
16	MP ALPHA1	PX	-.007	-.007	0	0

Member Distributed Loads (BLC 6 : Wind Load (90))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PX	-.007	-.007	0	0
2	PL5	PX	-.001	-.001	0	0
3	PL4	PX	-.001	-.001	0	0
4	PL3	PX	-.001	-.001	0	0
5	PL2	PX	-.001	-.001	0	0
6	PL1	PX	-.001	-.001	0	0
7	MP ALPHA2	PX	-.008	-.008	0	0

Member Distributed Loads (BLC 6 : Wind Load (90)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
8	MP ALPHA1	PX	-.008	-.008	0	0

Member Distributed Loads (BLC 7 : Wind Load (120))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.003	.003	0	0
2	PL5	PY	.000663	.000663	0	0
3	PL4	PY	.000663	.000663	0	0
4	PL3	PY	.000663	.000663	0	0
5	PL2	PY	.000663	.000663	0	0
6	PL1	PY	.000663	.000663	0	0
7	MP ALPHA2	PY	.004	.004	0	0
8	MP ALPHA1	PY	.004	.004	0	0
9	SO	PX	-.006	-.006	0	0
10	PL5	PX	-.001	-.001	0	0
11	PL4	PX	-.001	-.001	0	0
12	PL3	PX	-.001	-.001	0	0
13	PL2	PX	-.001	-.001	0	0
14	PL1	PX	-.001	-.001	0	0
15	MP ALPHA2	PX	-.007	-.007	0	0
16	MP ALPHA1	PX	-.007	-.007	0	0

Member Distributed Loads (BLC 8 : Wind Load (150))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.006	.006	0	0
2	PL5	PY	.001	.001	0	0
3	PL4	PY	.001	.001	0	0
4	PL3	PY	.001	.001	0	0
5	PL2	PY	.001	.001	0	0
6	PL1	PY	.001	.001	0	0
7	MP ALPHA2	PY	.007	.007	0	0
8	MP ALPHA1	PY	.007	.007	0	0
9	SO	PX	-.003	-.003	0	0
10	PL5	PX	-.000663	-.000663	0	0
11	PL4	PX	-.000663	-.000663	0	0
12	PL3	PX	-.000663	-.000663	0	0
13	PL2	PX	-.000663	-.000663	0	0
14	PL1	PX	-.000663	-.000663	0	0
15	MP ALPHA2	PX	-.004	-.004	0	0
16	MP ALPHA1	PX	-.004	-.004	0	0

Member Distributed Loads (BLC 9 : Wind Load (180))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.007	.007	0	0
2	PL5	PY	.001	.001	0	0
3	PL4	PY	.001	.001	0	0
4	PL3	PY	.001	.001	0	0
5	PL2	PY	.001	.001	0	0
6	PL1	PY	.001	.001	0	0
7	MP ALPHA2	PY	.008	.008	0	0
8	MP ALPHA1	PY	.008	.008	0	0

Member Distributed Loads (BLC 10 : Wind Load (210))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.006	.006	0	0
2	PL5	PY	.001	.001	0	0

Member Distributed Loads (BLC 10 : Wind Load (210)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
3	PL4	PY	.001	.001	0	0
4	PL3	PY	.001	.001	0	0
5	PL2	PY	.001	.001	0	0
6	PL1	PY	.001	.001	0	0
7	MP ALPHA2	PY	.007	.007	0	0
8	MP ALPHA1	PY	.007	.007	0	0
9	SO	PX	.003	.003	0	0
10	PL5	PX	.000663	.000663	0	0
11	PL4	PX	.000663	.000663	0	0
12	PL3	PX	.000663	.000663	0	0
13	PL2	PX	.000663	.000663	0	0
14	PL1	PX	.000663	.000663	0	0
15	MP ALPHA2	PX	.004	.004	0	0
16	MP ALPHA1	PX	.004	.004	0	0

Member Distributed Loads (BLC 11 : Wind Load (240))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.003	.003	0	0
2	PL5	PY	.000663	.000663	0	0
3	PL4	PY	.000663	.000663	0	0
4	PL3	PY	.000663	.000663	0	0
5	PL2	PY	.000663	.000663	0	0
6	PL1	PY	.000663	.000663	0	0
7	MP ALPHA2	PY	.004	.004	0	0
8	MP ALPHA1	PY	.004	.004	0	0
9	SO	PX	.006	.006	0	0
10	PL5	PX	.001	.001	0	0
11	PL4	PX	.001	.001	0	0
12	PL3	PX	.001	.001	0	0
13	PL2	PX	.001	.001	0	0
14	PL1	PX	.001	.001	0	0
15	MP ALPHA2	PX	.007	.007	0	0
16	MP ALPHA1	PX	.007	.007	0	0

Member Distributed Loads (BLC 12 : Wind Load (270))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PX	.007	.007	0	0
2	PL5	PX	.001	.001	0	0
3	PL4	PX	.001	.001	0	0
4	PL3	PX	.001	.001	0	0
5	PL2	PX	.001	.001	0	0
6	PL1	PX	.001	.001	0	0
7	MP ALPHA2	PX	.008	.008	0	0
8	MP ALPHA1	PX	.008	.008	0	0

Member Distributed Loads (BLC 13 : Wind Load (300))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.003	-.003	0	0
2	PL5	PY	-.000663	-.000663	0	0
3	PL4	PY	-.000663	-.000663	0	0
4	PL3	PY	-.000663	-.000663	0	0
5	PL2	PY	-.000663	-.000663	0	0
6	PL1	PY	-.000663	-.000663	0	0
7	MP ALPHA2	PY	-.004	-.004	0	0
8	MP ALPHA1	PY	-.004	-.004	0	0

Member Distributed Loads (BLC 13 : Wind Load (300)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
9	SO	PX	.006	.006	0	0
10	PL5	PX	.001	.001	0	0
11	PL4	PX	.001	.001	0	0
12	PL3	PX	.001	.001	0	0
13	PL2	PX	.001	.001	0	0
14	PL1	PX	.001	.001	0	0
15	MP ALPHA2	PX	.007	.007	0	0
16	MP ALPHA1	PX	.007	.007	0	0

Member Distributed Loads (BLC 14 : Wind Load (330))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.006	-.006	0	0
2	PL5	PY	-.001	-.001	0	0
3	PL4	PY	-.001	-.001	0	0
4	PL3	PY	-.001	-.001	0	0
5	PL2	PY	-.001	-.001	0	0
6	PL1	PY	-.001	-.001	0	0
7	MP ALPHA2	PY	-.007	-.007	0	0
8	MP ALPHA1	PY	-.007	-.007	0	0
9	SO	PX	.003	.003	0	0
10	PL5	PX	.000663	.000663	0	0
11	PL4	PX	.000663	.000663	0	0
12	PL3	PX	.000663	.000663	0	0
13	PL2	PX	.000663	.000663	0	0
14	PL1	PX	.000663	.000663	0	0
15	MP ALPHA2	PX	.004	.004	0	0
16	MP ALPHA1	PX	.004	.004	0	0

Member Distributed Loads (BLC 15 : Maintanence (0))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.000429	-.000429	0	0
2	PL5	PY	-8.6e-5	-8.6e-5	0	0
3	PL4	PY	-8.6e-5	-8.6e-5	0	0
4	PL3	PY	-8.6e-5	-8.6e-5	0	0
5	PL2	PY	-8.6e-5	-8.6e-5	0	0
6	PL1	PY	-8.6e-5	-8.6e-5	0	0
7	MP ALPHA2	PY	-.000489	-.000489	0	0
8	MP ALPHA1	PY	-.000489	-.000489	0	0

Member Distributed Loads (BLC 16 : Maintanence (30))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.000371	-.000371	0	0
2	PL5	PY	-7.4e-5	-7.4e-5	0	0
3	PL4	PY	-7.4e-5	-7.4e-5	0	0
4	PL3	PY	-7.4e-5	-7.4e-5	0	0
5	PL2	PY	-7.4e-5	-7.4e-5	0	0
6	PL1	PY	-7.4e-5	-7.4e-5	0	0
7	MP ALPHA2	PY	-.000423	-.000423	0	0
8	MP ALPHA1	PY	-.000423	-.000423	0	0
9	SO	PX	-.000214	-.000214	0	0
10	PL5	PX	-4.3e-5	-4.3e-5	0	0
11	PL4	PX	-4.3e-5	-4.3e-5	0	0
12	PL3	PX	-4.3e-5	-4.3e-5	0	0
13	PL2	PX	-4.3e-5	-4.3e-5	0	0
14	PL1	PX	-4.3e-5	-4.3e-5	0	0

Member Distributed Loads (BLC 16 : Maintanence (30)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
15	MP ALPHA2	PX	-.000244	-.000244	0	0
16	MP ALPHA1	PX	-.000244	-.000244	0	0

Member Distributed Loads (BLC 17 : Maintanence (60))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.000214	-.000214	0	0
2	PL5	PY	-4.3e-5	-4.3e-5	0	0
3	PL4	PY	-4.3e-5	-4.3e-5	0	0
4	PL3	PY	-4.3e-5	-4.3e-5	0	0
5	PL2	PY	-4.3e-5	-4.3e-5	0	0
6	PL1	PY	-4.3e-5	-4.3e-5	0	0
7	MP ALPHA2	PY	-.000244	-.000244	0	0
8	MP ALPHA1	PY	-.000244	-.000244	0	0
9	SO	PX	-.000371	-.000371	0	0
10	PL5	PX	-7.4e-5	-7.4e-5	0	0
11	PL4	PX	-7.4e-5	-7.4e-5	0	0
12	PL3	PX	-7.4e-5	-7.4e-5	0	0
13	PL2	PX	-7.4e-5	-7.4e-5	0	0
14	PL1	PX	-7.4e-5	-7.4e-5	0	0
15	MP ALPHA2	PX	-.000423	-.000423	0	0
16	MP ALPHA1	PX	-.000423	-.000423	0	0

Member Distributed Loads (BLC 18 : Maintanence (90))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PX	-.000429	-.000429	0	0
2	PL5	PX	-8.6e-5	-8.6e-5	0	0
3	PL4	PX	-8.6e-5	-8.6e-5	0	0
4	PL3	PX	-8.6e-5	-8.6e-5	0	0
5	PL2	PX	-8.6e-5	-8.6e-5	0	0
6	PL1	PX	-8.6e-5	-8.6e-5	0	0
7	MP ALPHA2	PX	-.000489	-.000489	0	0
8	MP ALPHA1	PX	-.000489	-.000489	0	0

Member Distributed Loads (BLC 19 : Maintanence (120))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.000214	.000214	0	0
2	PL5	PY	4.3e-5	4.3e-5	0	0
3	PL4	PY	4.3e-5	4.3e-5	0	0
4	PL3	PY	4.3e-5	4.3e-5	0	0
5	PL2	PY	4.3e-5	4.3e-5	0	0
6	PL1	PY	4.3e-5	4.3e-5	0	0
7	MP ALPHA2	PY	.000244	.000244	0	0
8	MP ALPHA1	PY	.000244	.000244	0	0
9	SO	PX	-.000371	-.000371	0	0
10	PL5	PX	-7.4e-5	-7.4e-5	0	0
11	PL4	PX	-7.4e-5	-7.4e-5	0	0
12	PL3	PX	-7.4e-5	-7.4e-5	0	0
13	PL2	PX	-7.4e-5	-7.4e-5	0	0
14	PL1	PX	-7.4e-5	-7.4e-5	0	0
15	MP ALPHA2	PX	-.000423	-.000423	0	0
16	MP ALPHA1	PX	-.000423	-.000423	0	0

Member Distributed Loads (BLC 20 : Maintanence (150))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.000371	.000371	0	0

Member Distributed Loads (BLC 20 : Maintanence (150)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
2	PL5	PY	7.4e-5	7.4e-5	0	0
3	PL4	PY	7.4e-5	7.4e-5	0	0
4	PL3	PY	7.4e-5	7.4e-5	0	0
5	PL2	PY	7.4e-5	7.4e-5	0	0
6	PL1	PY	7.4e-5	7.4e-5	0	0
7	MP ALPHA2	PY	.000423	.000423	0	0
8	MP ALPHA1	PY	.000423	.000423	0	0
9	SO	PX	-.000214	-.000214	0	0
10	PL5	PX	-4.3e-5	-4.3e-5	0	0
11	PL4	PX	-4.3e-5	-4.3e-5	0	0
12	PL3	PX	-4.3e-5	-4.3e-5	0	0
13	PL2	PX	-4.3e-5	-4.3e-5	0	0
14	PL1	PX	-4.3e-5	-4.3e-5	0	0
15	MP ALPHA2	PX	-.000244	-.000244	0	0
16	MP ALPHA1	PX	-.000244	-.000244	0	0

Member Distributed Loads (BLC 21 : Maintanence (180))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.000429	.000429	0	0
2	PL5	PY	8.6e-5	8.6e-5	0	0
3	PL4	PY	8.6e-5	8.6e-5	0	0
4	PL3	PY	8.6e-5	8.6e-5	0	0
5	PL2	PY	8.6e-5	8.6e-5	0	0
6	PL1	PY	8.6e-5	8.6e-5	0	0
7	MP ALPHA2	PY	.000489	.000489	0	0
8	MP ALPHA1	PY	.000489	.000489	0	0

Member Distributed Loads (BLC 22 : Maintanence (210))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.000371	.000371	0	0
2	PL5	PY	7.4e-5	7.4e-5	0	0
3	PL4	PY	7.4e-5	7.4e-5	0	0
4	PL3	PY	7.4e-5	7.4e-5	0	0
5	PL2	PY	7.4e-5	7.4e-5	0	0
6	PL1	PY	7.4e-5	7.4e-5	0	0
7	MP ALPHA2	PY	.000423	.000423	0	0
8	MP ALPHA1	PY	.000423	.000423	0	0
9	SO	PX	.000214	.000214	0	0
10	PL5	PX	4.3e-5	4.3e-5	0	0
11	PL4	PX	4.3e-5	4.3e-5	0	0
12	PL3	PX	4.3e-5	4.3e-5	0	0
13	PL2	PX	4.3e-5	4.3e-5	0	0
14	PL1	PX	4.3e-5	4.3e-5	0	0
15	MP ALPHA2	PX	.000244	.000244	0	0
16	MP ALPHA1	PX	.000244	.000244	0	0

Member Distributed Loads (BLC 23 : Maintanence (240))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.000214	.000214	0	0
2	PL5	PY	4.3e-5	4.3e-5	0	0
3	PL4	PY	4.3e-5	4.3e-5	0	0
4	PL3	PY	4.3e-5	4.3e-5	0	0
5	PL2	PY	4.3e-5	4.3e-5	0	0
6	PL1	PY	4.3e-5	4.3e-5	0	0
7	MP ALPHA2	PY	.000244	.000244	0	0

Member Distributed Loads (BLC 23 : Maintanence (240)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
8	MP ALPHA1	PY	.000244	.000244	0	0
9	SO	PX	.000371	.000371	0	0
10	PL5	PX	7.4e-5	7.4e-5	0	0
11	PL4	PX	7.4e-5	7.4e-5	0	0
12	PL3	PX	7.4e-5	7.4e-5	0	0
13	PL2	PX	7.4e-5	7.4e-5	0	0
14	PL1	PX	7.4e-5	7.4e-5	0	0
15	MP ALPHA2	PX	.000423	.000423	0	0
16	MP ALPHA1	PX	.000423	.000423	0	0

Member Distributed Loads (BLC 24 : Maintanence (270))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PX	.000429	.000429	0	0
2	PL5	PX	8.6e-5	8.6e-5	0	0
3	PL4	PX	8.6e-5	8.6e-5	0	0
4	PL3	PX	8.6e-5	8.6e-5	0	0
5	PL2	PX	8.6e-5	8.6e-5	0	0
6	PL1	PX	8.6e-5	8.6e-5	0	0
7	MP ALPHA2	PX	.000489	.000489	0	0
8	MP ALPHA1	PX	.000489	.000489	0	0

Member Distributed Loads (BLC 25 : Maintanence (300))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.000214	-.000214	0	0
2	PL5	PY	-4.3e-5	-4.3e-5	0	0
3	PL4	PY	-4.3e-5	-4.3e-5	0	0
4	PL3	PY	-4.3e-5	-4.3e-5	0	0
5	PL2	PY	-4.3e-5	-4.3e-5	0	0
6	PL1	PY	-4.3e-5	-4.3e-5	0	0
7	MP ALPHA2	PY	-.000244	-.000244	0	0
8	MP ALPHA1	PY	-.000244	-.000244	0	0
9	SO	PX	.000371	.000371	0	0
10	PL5	PX	7.4e-5	7.4e-5	0	0
11	PL4	PX	7.4e-5	7.4e-5	0	0
12	PL3	PX	7.4e-5	7.4e-5	0	0
13	PL2	PX	7.4e-5	7.4e-5	0	0
14	PL1	PX	7.4e-5	7.4e-5	0	0
15	MP ALPHA2	PX	.000423	.000423	0	0
16	MP ALPHA1	PX	.000423	.000423	0	0

Member Distributed Loads (BLC 26 : Maintanence (330))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.000371	-.000371	0	0
2	PL5	PY	-7.4e-5	-7.4e-5	0	0
3	PL4	PY	-7.4e-5	-7.4e-5	0	0
4	PL3	PY	-7.4e-5	-7.4e-5	0	0
5	PL2	PY	-7.4e-5	-7.4e-5	0	0
6	PL1	PY	-7.4e-5	-7.4e-5	0	0
7	MP ALPHA2	PY	-.000423	-.000423	0	0
8	MP ALPHA1	PY	-.000423	-.000423	0	0
9	SO	PX	.000214	.000214	0	0
10	PL5	PX	4.3e-5	4.3e-5	0	0
11	PL4	PX	4.3e-5	4.3e-5	0	0
12	PL3	PX	4.3e-5	4.3e-5	0	0
13	PL2	PX	4.3e-5	4.3e-5	0	0

Member Distributed Loads (BLC 26 : Maintanence (330)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
14	PL1	PX	4.3e-5	4.3e-5	0	0
15	MP ALPHA2	PX	.000244	.000244	0	0
16	MP ALPHA1	PX	.000244	.000244	0	0

Member Distributed Loads (BLC 27 : Ice Dead Load)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	Z	-.015	-.015	0	0
2	PL5	Z	-.013	-.013	0	0
3	PL4	Z	-.013	-.013	0	0
4	PL3	Z	-.013	-.013	0	0
5	PL2	Z	-.013	-.013	0	0
6	PL1	Z	-.013	-.013	0	0
7	MP ALPHA2	Z	-.009	-.009	0	0
8	MP ALPHA1	Z	-.009	-.009	0	0

Member Distributed Loads (BLC 28 : Ice Wind Load (0))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.001	-.001	0	0
2	PL5	PY	-.001	-.001	0	0
3	PL4	PY	-.001	-.001	0	0
4	PL3	PY	-.001	-.001	0	0
5	PL2	PY	-.001	-.001	0	0
6	PL1	PY	-.001	-.001	0	0
7	MP ALPHA2	PY	-.003	-.003	0	0
8	MP ALPHA1	PY	-.003	-.003	0	0

Member Distributed Loads (BLC 29 : Ice Wind Load (30))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.001	-.001	0	0
2	PL5	PY	-.000974	-.000974	0	0
3	PL4	PY	-.000974	-.000974	0	0
4	PL3	PY	-.000974	-.000974	0	0
5	PL2	PY	-.000974	-.000974	0	0
6	PL1	PY	-.000974	-.000974	0	0
7	MP ALPHA2	PY	-.003	-.003	0	0
8	MP ALPHA1	PY	-.003	-.003	0	0
9	SO	PX	-.000664	-.000664	0	0
10	PL5	PX	-.000563	-.000563	0	0
11	PL4	PX	-.000563	-.000563	0	0
12	PL3	PX	-.000563	-.000563	0	0
13	PL2	PX	-.000563	-.000563	0	0
14	PL1	PX	-.000563	-.000563	0	0
15	MP ALPHA2	PX	-.002	-.002	0	0
16	MP ALPHA1	PX	-.002	-.002	0	0

Member Distributed Loads (BLC 30 : Ice Wind Load (60))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.000664	-.000664	0	0
2	PL5	PY	-.000563	-.000563	0	0
3	PL4	PY	-.000563	-.000563	0	0
4	PL3	PY	-.000563	-.000563	0	0
5	PL2	PY	-.000563	-.000563	0	0
6	PL1	PY	-.000563	-.000563	0	0
7	MP ALPHA2	PY	-.002	-.002	0	0
8	MP ALPHA1	PY	-.002	-.002	0	0

Member Distributed Loads (BLC 30 : Ice Wind Load (60)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
9	SO	PX	-.001	-.001	0	0
10	PL5	PX	-.000974	-.000974	0	0
11	PL4	PX	-.000974	-.000974	0	0
12	PL3	PX	-.000974	-.000974	0	0
13	PL2	PX	-.000974	-.000974	0	0
14	PL1	PX	-.000974	-.000974	0	0
15	MP ALPHA2	PX	-.003	-.003	0	0
16	MP ALPHA1	PX	-.003	-.003	0	0

Member Distributed Loads (BLC 31 : Ice Wind Load (90))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PX	-.001	-.001	0	0
2	PL5	PX	-.001	-.001	0	0
3	PL4	PX	-.001	-.001	0	0
4	PL3	PX	-.001	-.001	0	0
5	PL2	PX	-.001	-.001	0	0
6	PL1	PX	-.001	-.001	0	0
7	MP ALPHA2	PX	-.003	-.003	0	0
8	MP ALPHA1	PX	-.003	-.003	0	0

Member Distributed Loads (BLC 32 : Ice Wind Load (120))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.000664	.000664	0	0
2	PL5	PY	.000563	.000563	0	0
3	PL4	PY	.000563	.000563	0	0
4	PL3	PY	.000563	.000563	0	0
5	PL2	PY	.000563	.000563	0	0
6	PL1	PY	.000563	.000563	0	0
7	MP ALPHA2	PY	.002	.002	0	0
8	MP ALPHA1	PY	.002	.002	0	0
9	SO	PX	-.001	-.001	0	0
10	PL5	PX	-.000974	-.000974	0	0
11	PL4	PX	-.000974	-.000974	0	0
12	PL3	PX	-.000974	-.000974	0	0
13	PL2	PX	-.000974	-.000974	0	0
14	PL1	PX	-.000974	-.000974	0	0
15	MP ALPHA2	PX	-.003	-.003	0	0
16	MP ALPHA1	PX	-.003	-.003	0	0

Member Distributed Loads (BLC 33 : Ice Wind Load (150))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.001	.001	0	0
2	PL5	PY	.000974	.000974	0	0
3	PL4	PY	.000974	.000974	0	0
4	PL3	PY	.000974	.000974	0	0
5	PL2	PY	.000974	.000974	0	0
6	PL1	PY	.000974	.000974	0	0
7	MP ALPHA2	PY	.003	.003	0	0
8	MP ALPHA1	PY	.003	.003	0	0
9	SO	PX	-.000664	-.000664	0	0
10	PL5	PX	-.000563	-.000563	0	0
11	PL4	PX	-.000563	-.000563	0	0
12	PL3	PX	-.000563	-.000563	0	0
13	PL2	PX	-.000563	-.000563	0	0
14	PL1	PX	-.000563	-.000563	0	0

Member Distributed Loads (BLC 33 : Ice Wind Load (150)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
15	MP ALPHA2	PX	-.002	-.002	0	0
16	MP ALPHA1	PX	-.002	-.002	0	0

Member Distributed Loads (BLC 34 : Ice Wind Load (180))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.001	.001	0	0
2	PL5	PY	.001	.001	0	0
3	PL4	PY	.001	.001	0	0
4	PL3	PY	.001	.001	0	0
5	PL2	PY	.001	.001	0	0
6	PL1	PY	.001	.001	0	0
7	MP ALPHA2	PY	.003	.003	0	0
8	MP ALPHA1	PY	.003	.003	0	0

Member Distributed Loads (BLC 35 : Ice Wind Load (210))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.001	.001	0	0
2	PL5	PY	.000974	.000974	0	0
3	PL4	PY	.000974	.000974	0	0
4	PL3	PY	.000974	.000974	0	0
5	PL2	PY	.000974	.000974	0	0
6	PL1	PY	.000974	.000974	0	0
7	MP ALPHA2	PY	.003	.003	0	0
8	MP ALPHA1	PY	.003	.003	0	0
9	SO	PX	.000664	.000664	0	0
10	PL5	PX	.000563	.000563	0	0
11	PL4	PX	.000563	.000563	0	0
12	PL3	PX	.000563	.000563	0	0
13	PL2	PX	.000563	.000563	0	0
14	PL1	PX	.000563	.000563	0	0
15	MP ALPHA2	PX	.002	.002	0	0
16	MP ALPHA1	PX	.002	.002	0	0

Member Distributed Loads (BLC 36 : Ice Wind Load (240))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	.000664	.000664	0	0
2	PL5	PY	.000563	.000563	0	0
3	PL4	PY	.000563	.000563	0	0
4	PL3	PY	.000563	.000563	0	0
5	PL2	PY	.000563	.000563	0	0
6	PL1	PY	.000563	.000563	0	0
7	MP ALPHA2	PY	.002	.002	0	0
8	MP ALPHA1	PY	.002	.002	0	0
9	SO	PX	.001	.001	0	0
10	PL5	PX	.000974	.000974	0	0
11	PL4	PX	.000974	.000974	0	0
12	PL3	PX	.000974	.000974	0	0
13	PL2	PX	.000974	.000974	0	0
14	PL1	PX	.000974	.000974	0	0
15	MP ALPHA2	PX	.003	.003	0	0
16	MP ALPHA1	PX	.003	.003	0	0

Member Distributed Loads (BLC 37 : Ice Wind Load (270))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PX	.001	.001	0	0

Member Distributed Loads (BLC 37 : Ice Wind Load (270)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
2	PL5	PX	.001	.001	0	0
3	PL4	PX	.001	.001	0	0
4	PL3	PX	.001	.001	0	0
5	PL2	PX	.001	.001	0	0
6	PL1	PX	.001	.001	0	0
7	MP ALPHA2	PX	.003	.003	0	0
8	MP ALPHA1	PX	.003	.003	0	0

Member Distributed Loads (BLC 38 : Ice Wind Load (300))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.000664	-.000664	0	0
2	PL5	PY	-.000563	-.000563	0	0
3	PL4	PY	-.000563	-.000563	0	0
4	PL3	PY	-.000563	-.000563	0	0
5	PL2	PY	-.000563	-.000563	0	0
6	PL1	PY	-.000563	-.000563	0	0
7	MP ALPHA2	PY	-.002	-.002	0	0
8	MP ALPHA1	PY	-.002	-.002	0	0
9	SO	PX	.001	.001	0	0
10	PL5	PX	.000974	.000974	0	0
11	PL4	PX	.000974	.000974	0	0
12	PL3	PX	.000974	.000974	0	0
13	PL2	PX	.000974	.000974	0	0
14	PL1	PX	.000974	.000974	0	0
15	MP ALPHA2	PX	.003	.003	0	0
16	MP ALPHA1	PX	.003	.003	0	0

Member Distributed Loads (BLC 39 : Ice Wind Load (330))

	Member Label	Direction	Start Magnitude[k/ft,...	End Magnitude[k/ft,F,...	Start Location[ft,%]	End Location[ft,%]
1	SO	PY	-.001	-.001	0	0
2	PL5	PY	-.000974	-.000974	0	0
3	PL4	PY	-.000974	-.000974	0	0
4	PL3	PY	-.000974	-.000974	0	0
5	PL2	PY	-.000974	-.000974	0	0
6	PL1	PY	-.000974	-.000974	0	0
7	MP ALPHA2	PY	-.003	-.003	0	0
8	MP ALPHA1	PY	-.003	-.003	0	0
9	SO	PX	.000664	.000664	0	0
10	PL5	PX	.000563	.000563	0	0
11	PL4	PX	.000563	.000563	0	0
12	PL3	PX	.000563	.000563	0	0
13	PL2	PX	.000563	.000563	0	0
14	PL1	PX	.000563	.000563	0	0
15	MP ALPHA2	PX	.002	.002	0	0
16	MP ALPHA1	PX	.002	.002	0	0

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N2	max	.481	8	.861	2	1.114	37	-.484	20	.509	13	.848	17
2		min	-.481	26	-.861	20	.364	2	-1.516	4	.033	29	-.846	35
3	Totals:	max	.481	8	.861	2	1.114	37						
4		min	-.481	26	-.861	20	.364	2						

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Live Load	DL					1			
2	Wind Load (0)	DL					3	8		
3	Dead Load	DL			-1.1		3			
4	Wind Load (30)	DL					6	16		
5	Wind Load (60)	DL					6	16		
6	Wind Load (90)	DL					3	8		
7	Wind Load (120)	DL					6	16		
8	Wind Load (150)	DL					6	16		
9	Wind Load (180)	DL					3	8		
10	Wind Load (210)	DL					6	16		
11	Wind Load (240)	DL					6	16		
12	Wind Load (270)	DL					3	8		
13	Wind Load (300)	DL					6	16		
14	Wind Load (330)	DL					6	16		
15	Maintanence (0)	DL					3	8		
16	Maintanence (30)	DL					6	16		
17	Maintanence (60)	DL					6	16		
18	Maintanence (90)	DL					3	8		
19	Maintanence (120)	DL					6	16		
20	Maintanence (150)	DL					6	16		
21	Maintanence (180)	DL					3	8		
22	Maintanence (210)	DL					6	16		
23	Maintanence (240)	DL					6	16		
24	Maintanence (270)	DL					3	8		
25	Maintanence (300)	DL					6	16		
26	Maintanence (330)	DL					6	16		
27	Ice Dead Load	DL					3	8		
28	Ice Wind Load (0)	DL					3	8		
29	Ice Wind Load (30)	DL					6	16		
30	Ice Wind Load (60)	DL					6	16		
31	Ice Wind Load (90)	DL					3	8		
32	Ice Wind Load (120)	DL					6	16		
33	Ice Wind Load (150)	DL					6	16		
34	Ice Wind Load (180)	DL					3	8		
35	Ice Wind Load (210)	DL					6	16		
36	Ice Wind Load (240)	DL					6	16		
37	Ice Wind Load (270)	DL					3	8		
38	Ice Wind Load (300)	DL					6	16		
39	Ice Wind Load (330)	DL					6	16		
40	Earthquake (x-directio...	DL	-.114				3			
41	Earthquake (y-directio...	DL		-.114			3			
42	Earthquake (z-directio...	DL			-.046		3			

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...
1	1.4D	Yes	Y		3	1.4																		
2	1.2D + 1.0...	Yes	Y		3	1.2	2	1																
3	1.2D + 1.0...	Yes	Y		3	1.2	27	1	28	1														
4	1.2D + 1.5...	Yes	Y		3	1.2	1	1.5	15	1														
5	1.2D + 1.0...	Yes	Y		3	1.2	4	1																
6	1.2D + 1.0...	Yes	Y		3	1.2	27	1	29	1														
7	1.2D + 1.5...	Yes	Y		3	1.2	1	1.5	16	1														
8	1.2D + 1.0...	Yes	Y		3	1.2	5	1																
9	1.2D + 1.0...	Yes	Y		3	1.2	27	1	30	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...
10	1.2D + 1.5...	Yes	Y		3	1.2	1	1.5	17	1														
11	1.2D + 1.0...	Yes	Y		3	1.2	6	1																
12	1.2D + 1.0...	Yes	Y		3	1.2	27	1	31	1														
13	1.2D + 1.5...	Yes	Y		3	1.2	1	1.5	18	1														
14	1.2D + 1.0...	Yes	Y		3	1.2	7	1																
15	1.2D + 1.0...	Yes	Y		3	1.2	27	1	32	1														
16	1.2D + 1.5...	Yes	Y		3	1.2	1	1.5	19	1														
17	1.2D + 1.0...	Yes	Y		3	1.2	8	1																
18	1.2D + 1.0...	Yes	Y		3	1.2	27	1	33	1														
19	1.2D + 1.5...	Yes	Y		3	1.2	1	1.5	20	1														
20	1.2D + 1.0...	Yes	Y		3	1.2	9	1																
21	1.2D + 1.0...	Yes	Y		3	1.2	27	1	34	1														
22	1.2D + 1.5...	Yes	Y		3	1.2	1	1.5	21	1														
23	1.2D + 1.0...	Yes	Y		3	1.2	10	1																
24	1.2D + 1.0...	Yes	Y		3	1.2	27	1	35	1														
25	1.2D + 1.5...	Yes	Y		3	1.2	1	1.5	22	1														
26	1.2D + 1.0...	Yes	Y		3	1.2	11	1																
27	1.2D + 1.0...	Yes	Y		3	1.2	27	1	36	1														
28	1.2D + 1.5...	Yes	Y		3	1.2	1	1.5	23	1														
29	1.2D + 1.0...	Yes	Y		3	1.2	12	1																
30	1.2D + 1.0...	Yes	Y		3	1.2	27	1	37	1														
31	1.2D + 1.5...	Yes	Y		3	1.2	1	1.5	24	1														
32	1.2D + 1.0...	Yes	Y		3	1.2	13	1																
33	1.2D + 1.0...	Yes	Y		3	1.2	27	1	38	1														
34	1.2D + 1.5...	Yes	Y		3	1.2	1	1.5	25	1														
35	1.2D + 1.0...	Yes	Y		3	1.2	14	1																
36	1.2D + 1.0...	Yes	Y		3	1.2	27	1	39	1														
37	1.2D + 1.5...	Yes	Y		3	1.2	1	1.5	26	1														
38	1.2D + 1.0...	Yes	Y		3	1.2	40	1	42	1	1	1												
39	1.2D + 1.0...	Yes	Y		3	1.2	41	1	42	1	1	1												
40	1.2D - 1.0...	Yes	Y		3	1.2	40	-1	42	1	1	1												
41	1.2D - 1.0...	Yes	Y		3	1.2	41	-1	42	1	1	1												

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Ch...	Loc[ft]	...	LC	phi*...	phi*...	phi*...	phi*...	Cb	Eqn
1	MP ALPHA1	PIPE_...	.553	4.031	2	.037	4.031		2	12.144	32.13	1.872	1.872	1.733	H1-...
2	PL1	6x0.5	.533	.25	17	.485	.25	y	4	88.748	97.2	1.012	12.15	1.159	H1-...
3	PL2	6x0.5	.396	0	17	.182	0	y	37	88.748	97.2	1.012	12.15	1.729	H1-...
4	PL3	6x0.5	.238	.25	20	.055	.25	y	35	88.748	97.2	1.012	12.15	1.539	H1-...
5	SO	HSS4X...	.133	1	33	.085	1	z	13	106....	106....	12.662	12.662	1.328	H1-...
6	PL4	6x0.5	.089	0	23	.070	0	y	24	88.748	97.2	1.012	12.15	1.737	H1-...
7	PL5	6x0.5	.053	.25	5	.038	.25	y	5	88.748	97.2	1.012	12.15	1.471	H1-...
8	MP ALPHA2	PIPE_...	.032	3.938	35	.003	3.938		2	17.855	32.13	1.872	1.872	1.826	H1-...

POD
POWER OF DESIGN

POD Job #	**22-129119**
Site Number	**302475**
Site Name	**Sttn - Southington**

Calculations Based on *TIA-222-H*

Reactions from RISA-3D

Moment	1.516	ft-kip
Axial	0.861	kips
Shear	1.114	kips

Capacities

Bolts	*0.8%*
Flange Plate	*21.3%*

Bolt Information

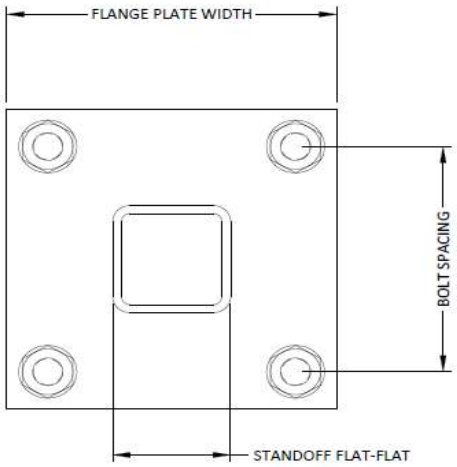
Grade	A325	
Threads in Shear Plane	Included	
Diameter	0.625	in.
Bolt Spacing	6	in.
Number of Rods	4	

Flange Plate Information

Width	8	in.
Thickness	0.5	in.
Grade	A36	

Standoff Information

Standoff Member	HSS	
Flat-Flat	4	in.
Thickness	0.1875	in.



Bolt Calculations

ϕ	0.75	
A_{nt}	0.226	in^2
A_b	0.307	in^2
Fu	120	ksi
ϕR_{nv}	13.81	kips
ϕR_{nt}	20.34	kips
V	0.28	kips
F	1.73	kips
Capacity	0.8%	

Flange Plate Calculations

ϕ	0.9	
Fy	36	ksi
t_{min}	0.12	in
Z	0.5	in^3
ϕM_n	16.2	in-kip
M_u	3.5	in-kip
Capacity	21.3%	

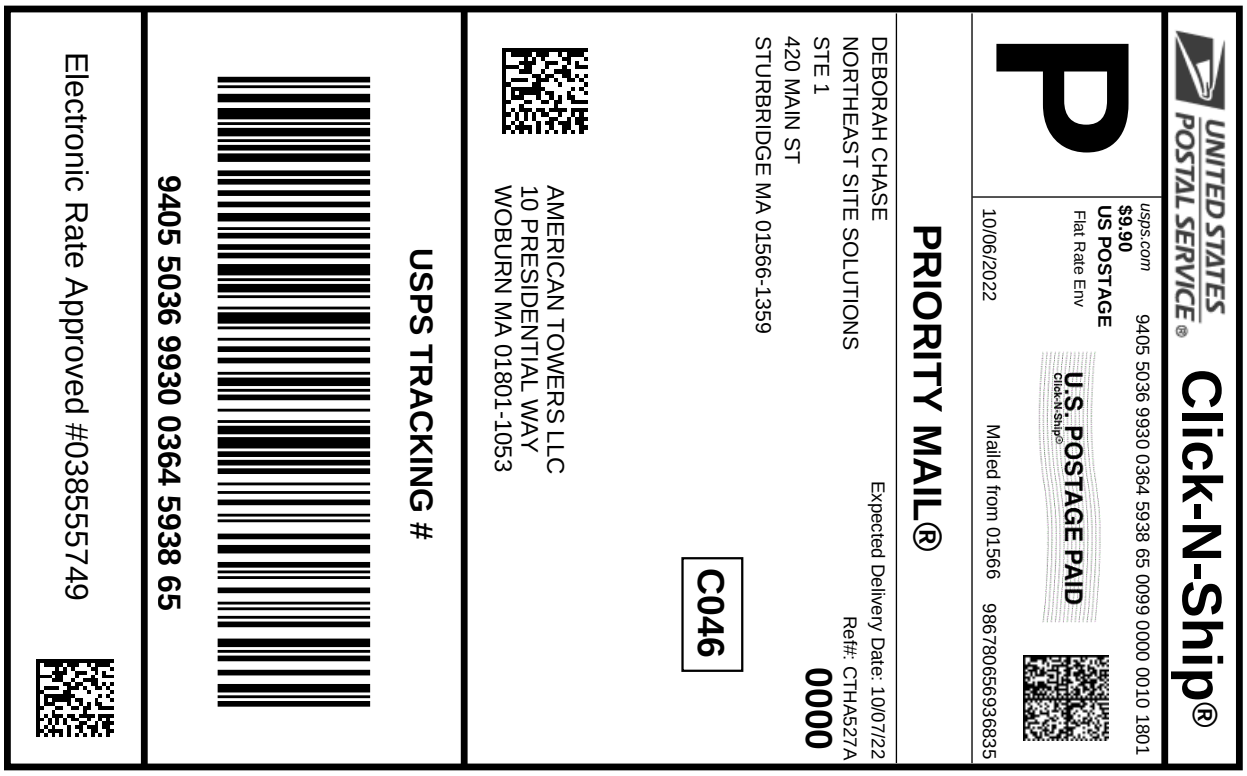
Ver 1.0 - 3/5/2019

Exhibit F

Power Density/RF Emissions Report

Exhibit G

Recipient Mailings



Cut on dotted line.

Instructions

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

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0364 5938 65

Trans. #:	573239144
Print Date:	10/06/2022
Ship Date:	10/06/2022
Expected Delivery Date:	10/07/2022

Priority Mail® Postage:	**$9.90**
Total:	**$9.90**

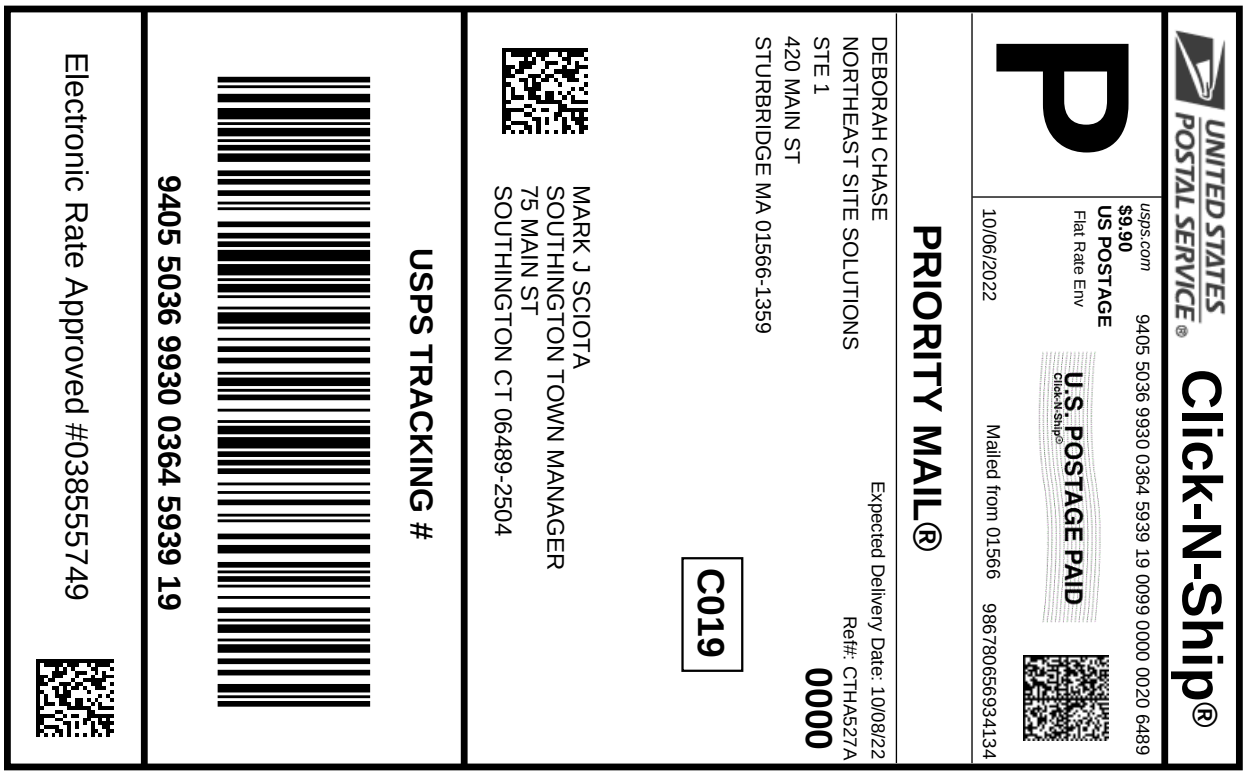
From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
STE 1
420 MAIN ST
STURBRIDGE MA 01566-1359

Ref#: CTHA527A

To: AMERICAN TOWERS LLC
10 PRESIDENTIAL WAY
WOBURN MA 01801-1053

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

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



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Instructions

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Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0364 5939 19

Trans. #:	573239144
Print Date:	10/06/2022
Ship Date:	10/06/2022
Expected Delivery Date:	10/08/2022

Priority Mail® Postage:	**$9.90**
Total:	**$9.90**

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

Ref#: CTHA527A

To: MARK J SCIOTA
SOUTHINGTON TOWN MANAGER
75 MAIN ST
SOUTHINGTON CT 06489-2504

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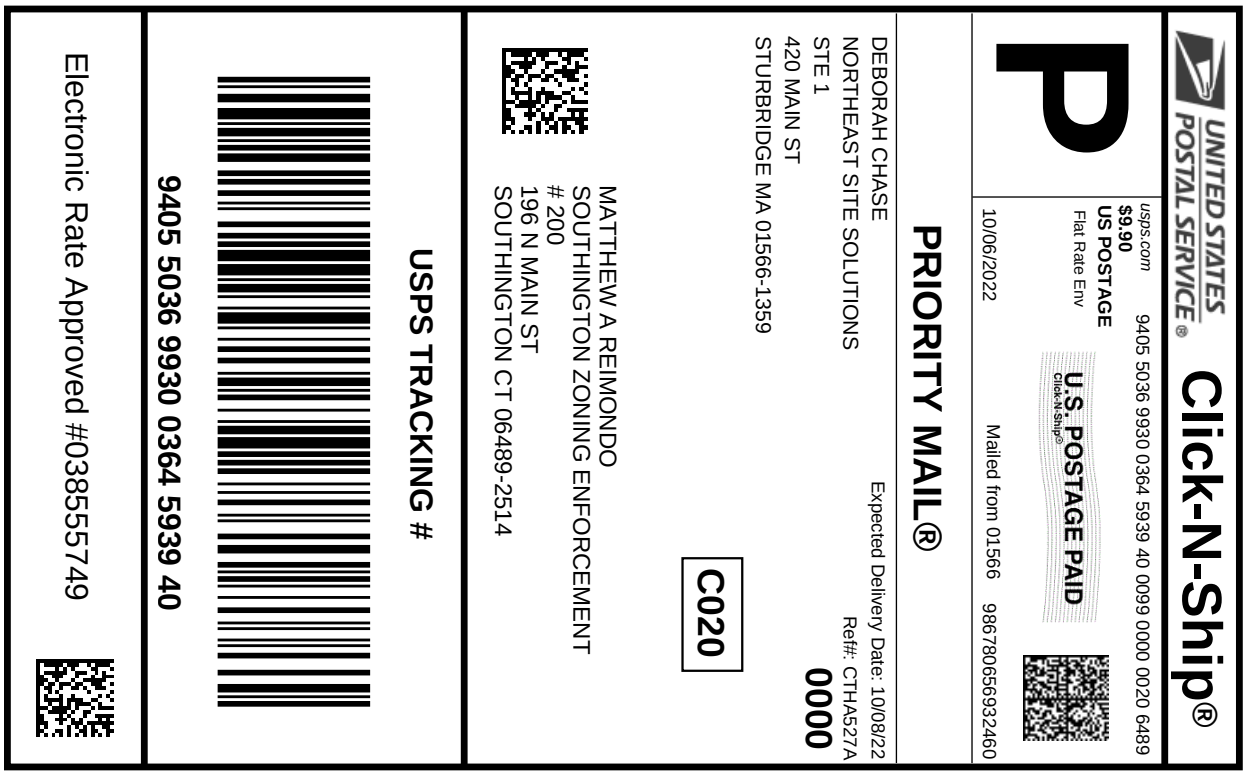

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Instructions

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

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0364 5939 40

Trans. #:	573239144
Print Date:	10/06/2022
Ship Date:	10/06/2022
Expected Delivery Date:	10/08/2022

Priority Mail® Postage:	**$9.90**
Total:	**$9.90**

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

Ref#: CTHA527A

To: MATTHEW A REIMONDO
SOUTHINGTON ZONING ENFORCEMENT OFFICER
200
196 N MAIN ST
SOUTHINGTON CT 06489-2514

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

Thank you for shipping with the United States Postal Service!
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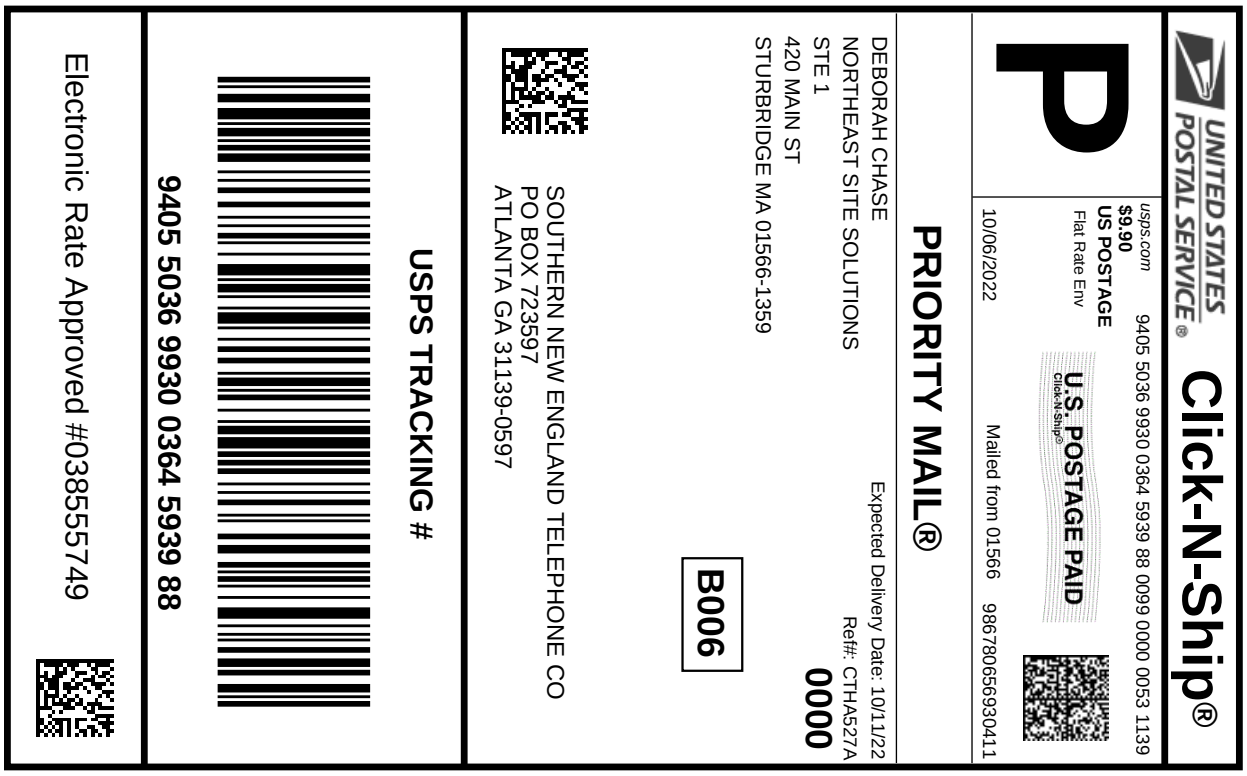

Cut on dotted line.

Instructions

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5. **Mail your package on the "Ship Date" you selected when creating this label.**

Click-N-Ship® Label Record

USPS TRACKING # :
9405 5036 9930 0364 5939 88

Trans. #:	573239144
Print Date:	10/06/2022
Ship Date:	10/06/2022
Expected Delivery Date:	10/11/2022

Priority Mail® Postage:	**$9.90**
Total:	**$9.90**

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

Ref#: CTHA527A

To: SOUTHERN NEW ENGLAND TELEPHONE CO
PO BOX 723597
ATLANTA GA 31139-0597

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

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

Exhibit H

AMERICAN TOWER®
CORPORATION

LETTER OF AUTHORIZATION FOR PERMITTING

ATC SITE#/NAME/PROJECT: 302475 / STTN - SOUTHINGTON / 14098054
SITE ADDRESS: 80 SHUTTLE MEADOW RD, SOUTHINGTON, CT 06489
APN: SOUT M:184 L:019
LICENSEE: T-MOBILE NORTHEAST LLC dba T-MOBILE
SITE ACQUISITION VENDOR: NORTHEAST SITE SOLUTIONS LLC

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

American Tower understands that this application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by Licensee only of conditions related to Licensee's installation and any such conditions of approval or modifications will be Licensee's sole responsibility.

Signature:

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

NOTARY BLOCK

Commonwealth of MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Vice President, UST Legal for American Tower*, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

WITNESS my hand and official seal, this 3rd day of October, 2022

NOTARY SEAL

MELISSA ANN METZLER
Notary Public
Commonwealth of Massachusetts
My Commission Expires March 14, 2025

Notary Public
My Commission Expires: March 14, 2025

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