NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

Northeast Site Solutions
Denise Sabo
4 Angela's Way, Burlington CT 06013
203-435-3640
denise@northeastsitesolutions.com

June 8, 2022

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

RE: Exempt Modification Application
131 Gifford Lane, Bozrah, CT 06334
Latitude: 41.552500
Longitude: -72.150694
Site #: CT01105-S _CT11313A_SBA/T-Mobile

Dear Ms. Bachman:

T-Mobile is requesting to file an exempt modification for an existing tower located at 131 Gifford Lane (a/k/a 141 Gifford Lane), Bozrah, CT 06334. T-Mobile currently maintains three (3) antennas at the 191-foot level of the existing 193-foot self-support tower. The property is owned by NGA Capital LLC, and the tower is owned by SBA. T-Mobile now intends to add (3) antennas. The new antennas would be installed at the 191-foot level of the tower. This modification includes B2, B5 hardware that is both 4G (LTE), and 5G capable. Antenna mount modifications will be completed as per the attached GEO Structural mount analysis dated April 12, 2022.

T-Mobile Planned Modifications:
Remove: None

Remove and Replace:
(3) ERICSSON 4424 B25 RRU (REMOVE) - (3) ERICSSON 4460 B25+B66A RRU (REPLACE)

Install New:
(3) ERICSSON AIR6419 B41 Antennas

Existing to Remain:
(3) RFS APXVAALL24-43-U-NA20 Antennas
(3) ERICSSON 4449 B71+B85 RRU
(3) HCS Fiber Cable 1.9"
(3) EMS Panel Antennas *
(3) ERICSSON 4415 B66A RRU *
(3) COMMSCOPE Diplexers *

(1) ANDREW Omni Antenna (E-911) @ 30' AGL
(2) ½" Coax

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*Equipment listed for entitlement purposed only

The facility was approved by the Town of Bozrah Planning & Zoning Commission on February 11, 1999. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies§ 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.SA. § 16-SOj-73, a copy of this letter is being sent to Glenn Pianka, First Selectman and Katie DeCarli, Wetlands & Zoning Agent for the Town of Bozrah, as well as the property owner and the tower owner.

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

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

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

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

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

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

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

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

Sincerely,

Denise Sabo
Mobile: 203-435-3640
Fax: 413-521-0558
Office: 4 Angela's Way, Burlington CT 06013
Email: denise@northeastsitesolutions.com

NORTHEAST SITE SOLUTIONS
Turnkey Wireless Development

Attachments

Cc: Glenn S. Pianka, First Selectman
Town of Bozrah
1 River Road
Bozrah, CT 06334

Katie DeCarli, Wetlands & Zoning Agent
Town of Bozrah
1 River Road
Bozrah, CT 06334

NGA Capital LLC – Property Owner
38 Bozrah Street
Bozrah, CT 06334

SBA - Tower Owner

Exhibit A

Original Facility Approval

TOWN OF BOZRAH
PLANNING & ZONING COMMISSION
TOWN HALL, 1 RIVER ROAD
BOZRAH, CONNECTICUT 06334

Notice of Decision

At their regular meeting of February 11, 1999 the Bozrah Planning & Zoning Commission rendered the following decisions:

Fargo Family Partnership, Stockhouse Road. Subdivision creating two building lots on Stockhouse Road which is zoned for Industrial use. **ACTION - Approved.**

SBA Inc., Boca Roton, Florida. Application for a special permit to construct a 196' telecommunications tower at 131 Gifford Lane on property owned by John and Betty Orr. **ACTION - Approved with conditions.**

Town of Bozrah. Proposal to extend a 16" water main northeasterly along Stockhouse Road. This application is submitted in accordance with Section 8-24 of the Connecticut General Statutes as a municipal improvement. **ACTION - The Commission approved the plan and strongly supports the proposal to extend this water main along Stockhouse Road.**

Seymour Adelman, Chairman
Stephen Seder, Vice-Chairman
Planning & Zoning Commission

****

PLEASE PUBLISH THE "BULLETIN" "ONCE AS SOON AS POSSIBLE".

cc:: First Selectman
Applicant by "Certified Mail"
Bulletin Board
Town Clerk
File

Post-it® Fax Note 7671	Date 2/12/99	# of pages ▶ 1
To R. Barker, First Selectman	From R. Seder	
Co./Dept. Town of Bozrah	Co. SCCOG	
Phone #	Phone # 889-2324	
Fax # 887-5449	Fax # 889-1222	

TRANSMISSION VERIFICATION REPORT

TIME : 02/12/1999 10:09
NAME : SCCOG
FAX : 860-889-1222
TEL : 860-889-2324

DATE, TIME	02/12 10:09
FAX NO. /NAME	BULLETIN
DURATION	00:00:37
PAGE(S)	01
RESULT	OK
MODE	STANDARD ECM

TOWN OF BOZRAH
BOZRAH, CONNECTICUT

DRIVEWAY PERMIT

ISSUED TO SBA, Inc. DATE _____

ADDRESS 125 Shaw Street, New London CT 06320

FOR: driveway/acess road to telecommunications site at 131 Gifford Lane

YOUR REQUEST TO CONSTRUCT A DRIVEWAY ON LOT NO. 119

MAP NO. 7 TO: Gifford Lane

WHICH IS TOWN PROPERTY, IS GRANTED SUBJECT TO THE FOLLOWING PROVISIONS:

1. THE DRIVEWAY SHALL BE CONSTRUCTED IN SUCH A MANNER THAT IT DOES NOT INTERFERE WITH THE EXISTING DRAINAGE, THE MOVEMENT OF TRAFFIC, OR THE REMOVAL OF SNOW FROM _____.

2. THE DRIVEWAY SHALL BE CONSTRUCTED IN SUCH A MANNER THAT IT DOES NOT PERMIT THE RUNOFF OF WATER FROM _____ TO ENTER INTO THE PROPERTY OF THE OWNER THEREBY CREATING A NUISANCE TO THE TOWN AND THE OWNER.

3. THE OWNER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CLAIMS OF DAMAGE RESULTING FROM THE CONSTRUCTION OF THE DRIVEWAY.

4. THE DRIVEWAY SHALL BE STABILIZED FOR A SUFFICIENT DISTANCE IN FROM TOWN PROPERTY TO PREVENT EROSION ON TO TOWN PROPERTY AND SHALL BE DESIGNED IN A MANNER TO CONFINE THE SURFACE WATER TO THE GUTTER AREAS AND PERMIT FREE FLOWAGE OF THE WATER IN THE WATERWAYS.

5. IF THE DRIVEWAY IS TO BE HARDTOPPED AT A LATER DATE ALLOWANCES MUST BE MADE FOR THE ADDITIONAL CHANGE OF GRADE WHERE THE DRIVEWAY CONNECTS WITH EXISTING WATERWAYS OR TRAVELLED PORTION OF THE TOWN ROAD.

6. THE DISTURBED AREAS WITHIN THE TOWN'S RIGHT-OF-WAY SHALL BE REPAIRED BY THE OWNER OR THE CONTRACTOR

7. WHERE EXISTING EXCAVATIONS OR FILLS WITHIN THE TOWN'S RIGHT-OF-WAY ENDANGER THE LIFE OF EXISTING TREES OR OTHER GROWTHS OR STONES EXIST AS OBSTACLES TO THE ACCESS OR EGRESS TO PROPERTY, SUCH OBSTACLES, TREES, OR GROWTHS, SHALL BE REMOVED AT THE OWNER'S EXPENSE.

K McNary

APPLICANT

FIRST SELECTMAN

ITEM NO. 3 - TOWN MEETING - JUNE 2, 1987

RESOLVED: THAT EFFECTIVE JULY 1, 1987 ALL NEW DRIVEWAYS AND PARKING LOTS THAT ABUT TOWN OWNED ROADS SHALL BE PAVED. DRIVEWAYS SHALL BE PAVED A DISTANCE OF 15 FEET ALONG THE ROAD WITH CLASS 2 BITUMINOUS CONCRETE, 2 INCHES THICK. THE LENGTH OF THE PAVED DRIVEWAY WILL BE 15 FEET FROM THE EDGE OF THE TOWN ROAD. AFTER THE FIRST 5 FEET OF LENGTH THE PAVED AREA WILL NECK DOWN TO 10 FEET WIDE X 2 INCHES THICK FOR THE FINAL 10 FEET OF LENGTH. PARKING LOTS THAT ABUT ON TOWN OWNED ROADS WILL BE PAVED WITH CLASS 2 BITUMINOUS CONCRETE, 2 INCHES THICK X 15 FEET DEEP. THE WIDTH ALONG THE ROAD WILL BE DETERMINED BY THE AREA GRADED FOR VEHICLE USE.

Exhibit B

Property Card

All information is for assessment purposes only. Assessments are calculated at 70% of the estimated October 1, 2017 market value which was the date of the last revaluation as completed by eQuality Valuation Services, LLC.

Information on the Property Records for the Municipality of Bozrah was last updated on 10/22/2021.

Parcel Information

Location:	141 GIFFORD LA	Property Use:	Vacant Land	Primary Use:	Residential Vacant Land
Unique ID:	24000633	Map Block Lot:	07/119	Acres:	61.21
490 Acres:	61.21	Zone:	R-1	Volume / Page:	0090/0519
Developers Map / Lot:		Census:	7131		

Value Information

	Appraised Value	Assessed Value
Land	89,244	17,140
Buildings	0	0
Detached Outbuildings	0	0
Total	89,244	17,140

Owner's Information

Owner's Data
NGA CAPITAL LLC 38 BOZRAH ST BOZRAH, CT 06334

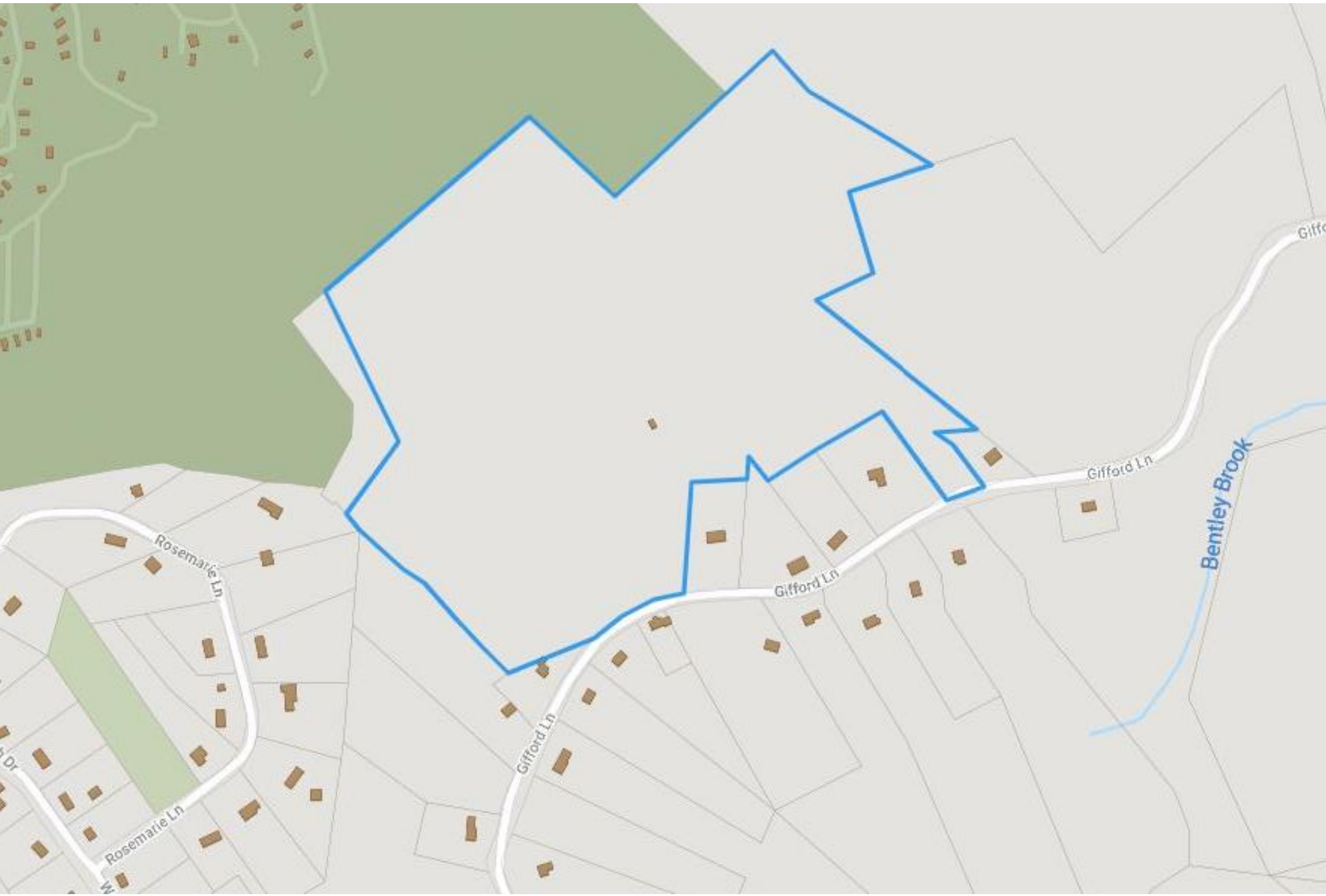

Gifford Ln
Gifford Ln
Gifford Ln
Rosemarie Ln
Rosemarie Ln
Bentley Brook

Exhibit C

Construction Drawings

SPECIAL CONSTRUCTION NOTE:
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL AUGMENTS (STRUCTURAL MODIFICATIONS) AT T-MOBILE'S RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS).

CT11313A/BOZRAH

131 GIFFORD LANE
BOZRAH, CT 06334
NEW LONDON COUNTY

SITE NO.: CT11313A

SITE TYPE: 195'± SELF-SUPPORT TOWER

RF DESIGN GUIDELINE: 67D5D998E 6160

APPROVALS

PROJECT MANAGER:	DATE:	ZONING/SITE ACQ.:	DATE:
CONSTRUCTION:	DATE:	OPERATIONS:	DATE:
RF ENGINEERING:	DATE:	TOWER OWNER:	DATE:

T-MOBILE TECHNICIAN SITE SAFETY NOTES

LOCATION	SPECIAL RESTRICTIONS
SECTOR A:	ACCESS BY CERTIFIED CLIMBER
SECTOR B:	ACCESS BY CERTIFIED CLIMBER
SECTOR C:	ACCESS BY CERTIFIED CLIMBER
GPS/LMU:	UNRESTRICTED
RADIO CABINETS:	UNRESTRICTED
PPC DISCONNECT:	UNRESTRICTED
MAIN CIRCUIT D/C:	UNRESTRICTED
NIU/T DEMARC:	UNRESTRICTED
OTHER/SPECIAL:	NONE

SCOPE OF WORK

REMOVE:
- 6 RADIOS
- 3 DIPLEXERS
- ALL COAX CABLES
- 1 125A-2P BREAKER

INSTALL:
- 3 ANTENNAS
- 3 RADIOS
- 1 SLACKBOX
- 1 150A-2P BREAKER

SITE NOTES

1. THIS IS AN UNMANNED AND RESTRICTED ACCESS TELECOMMUNICATION FACILITY, AND IS NOT FOR HUMAN HABITATION. IT WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
   - ADA COMPLIANCE NOT REQUIRED.
   - POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.
   - NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.
2. CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
3. NEW CONSTRUCTION WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
   - BUILDING CODE: 2018 CONNECTICUT STATE BUILDING CODE
   - ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
   - STRUCTURAL CODE: TIA/EIA-222-G STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

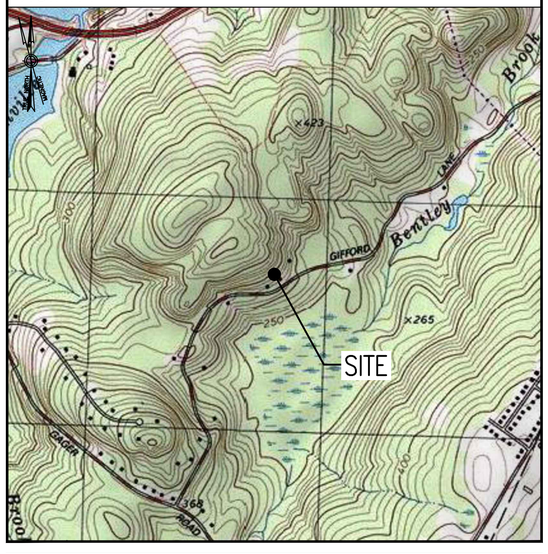
GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE OMNIPOINT REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
12. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
13. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
14. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
15. THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE LESSEE/LICENSEE REPRESENTATIVE.
16. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
17. ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK.

AT LEAST 72 HOURS PRIOR TO DIGGING, THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT 811

VICINITY MAP

SCALE: 1" = 1000'-0"



DIRECTIONS

TURN LEFT ONTO S WASHINGTON ST. TURN RIGHT ONTO MA-123 E. TURN LEFT TO MERGE ONTO I-495 NORTH TOWARD MANSFIELD/MARLBORO. MERGE ONTO I-495 NORTH. TAKE EXIT 13B TO MERGE ONTO I-95 SOUTH TOWARD PROVIDENCE RI. TAKE EXIT 4 FOR I-295 SOUTH TOWARD WOONSOCKET/WARWICK. CONTINUE ONTO I-295 SOUTH. TAKE EXIT9C-A FOR US-6 WEST TOWARD HARTFORD CT. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR JOHNSTON/SCITUATE/FOSTER AND MERGE ONTO US-6 WEST. CONTINUE STRAIGHT ON TO STAY ON US-6 WEST. TURN RIGHT ONTO EAST FRANKLIN STREET. TURN RIGHT, SITE WILL BE ON THE LEFT.

SHEET INDEX

SHT. NO.	DESCRIPTION	VER.
T-1	TITLE SHEET	0
GN-1	GENERAL NOTES	0
A-1	COMPOUND & EQUIPMENT PLAN	0
A-2	TOWER ELEVATIONS & ANTENNA PLAN	0
A-3	SITE DETAILS	0
A-4	ANTENNA & FEEDLINE CHARTS	0
E-1	ELECTRIC & GROUNDING DETAILS	0

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

PROJECT SUMMARY

SITE NUMBER:	CT11313A
SITE NAME:	CT11313A/BOZRAH
SBA SITE NUMBER:	CT01105-S
SBA SITE NAME:	BOZRAH
SITE ADDRESS:	131 GIFFORD LANE BOZRAH, CT 06334
PROPERTY OWNER:	NATHAN G. ADELMAN 38 BOZRAH STREET BOZRAH, CT 06634
TOWER OWNER:	SBA TOWERS, LLC 8501 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561-226-9523
COUNTY:	NEW LONDON
ZONING DISTRICT:	N/A
STRUCTURE TYPE:	SELF-SUPPORT TOWER
STRUCTURE HEIGHT:	195'±
APPLICANT:	T-MOBILE NORTHEAST LLC 15 COMMERCE WAY, SUITE B NORTON, MA 02766
ARCHITECT:	CHAPPELL ENGINEERING ASSOCIATES, LLC. 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752
STRUCTURAL ENGINEER:	CHAPPELL ENGINEERING ASSOCIATES, LLC. 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752
SITE CONTROL POINT:	LATITUDE: N.41.552517° N.41°33'09.06" LONGITUDE W.72.150708° W.72°09'02.55"

SPECIAL ZONING NOTE:
BASED ON INFORMATION PROVIDED BY T-MOBILE REGULATORY COMPLIANCE PROFESSIONALS AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AN ELIGIBLE FACILITY UNDER THE MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012, 47 USC 1455(A), SECTION 6409(A), AND IS SUBJECT TO AN ELIGIBLE FACILITY REQUEST, EXPEDITED REVIEW, AND LIMITED/PARTIAL ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW, OR ADMINISTRATIVE REVIEW).

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
(508) 286-2700

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil ·Structural ·Land Surveying
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25997
LICENSED
PROFESSIONAL CIVIL ENGINEER
6/3/2022

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
0	03/24/22	ISSUED FOR CONSTRUCTION	NWC

SITE NUMBER:
CT11313A

SITE ADDRESS:
131 GIFFORD LANE
BOZRAH, CT 06334

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

1815.455

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR – T–MOBILE
   SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   OWNER – T–MOBILE
   OEM – ORIGINAL EQUIPMENT MANUFACTURER

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.

3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.

4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL, STATE AND FEDERAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

5. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.

6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.

9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, T1 CABLES AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR AND/OR LANDLORD PRIOR TO CONSTRUCTION.

10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.

11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.

12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.

13. THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.

14. SUBCONTRACTOR SHALL NOTIFY CHAPPELL ENGINEERING ASSOCIATES, LLC 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS AND POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.

15. CONSTRUCTION SHALL COMPLY WITH ALL T–MOBILE STANDARDS AND SPECIFICATIONS.

16. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

17. THE EXISTING CELL SITES ARE IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.

18. IF THE EXISTING CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.

2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION.

3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.

4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

5. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.

6. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

7. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.

8. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.

9. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.

10. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

11. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE T–MOBILE SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST–IN–PLACE CONCRETE.

2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (4000PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS

3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.

4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   CONCRETE CAST AGAINST EARTH.....3 IN.
   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 AND LARGER .....2 IN.
   #5 AND SMALLER & WWF .....1½ IN.
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER
   OR NOT CAST AGAINST THE GROUND:
   SLAB AND WALL .....¾ IN.
   BEAMS AND COLUMNS .....1½ IN.

5. A CHAMFER ¾" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.

7. CONCRETE CYLINDER TIES ARE NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;
   (A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIERS PLANT.
   (B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.

8. AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.

9. EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

1. ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T–MOBILE SPECIFICATIONS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM–A–36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".

2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.

3. BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (¾"ø) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.

4. NON–STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ⅝" DIA. ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.

5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL

6. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.

2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.

3. AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.

4. COMPACTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.

5. AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OR A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND–OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL–GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

1. HAND OPERATED DOUBLE DRUN, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

1. FIELD VERIFICATION:
SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T–MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.

2. COORDINATION OF WORK:
SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.

3. CABLE LADDER RACK:
SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND/OR ICE BRIDGE, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.

ELECTRICAL INSTALLATION NOTES:

1. WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.

2. SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.

3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.

4. CABLES SHALL NOT BE ROUTED THROUGH LADDER–STYLE CABLE TRAY RUNGS.

5. EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA, AND MATCH INSTALLATION REQUIREMENTS.

6. POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, ½ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND OSHA.

7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).

8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.

9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.

10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.

11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.

12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.

13. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN–2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.

14. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP–STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY HARGER (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).

15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.

16. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.

17. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

18. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

19. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.

20. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.

21. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

22. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.

23. CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.

24. CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.

25. WIREWAYS SHALL BE EPOXY–COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.

26. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY–COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.

27. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY–COATED, OR NON–CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.

28. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.

29. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

30. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.

31. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.

32. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

T-MOBILE
NORTHEAST LLC

15 COMMERCE WAY, SUITE B
NORTON, MA 02766
(508) 286–2700

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251–0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil ·Structural ·Land Surveying
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481–7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25997
LICENSED
PROFESSIONAL CIVIL ENGINEER
4/5/2022

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
0	03/24/22	ISSUED FOR CONSTRUCTION	NWC

SITE NUMBER:
CT11313A

SITE ADDRESS:
131 GIFFORD LANE
BOZRAH, CT 06334

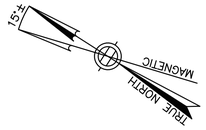
SHEET TITLE
GENERAL NOTES

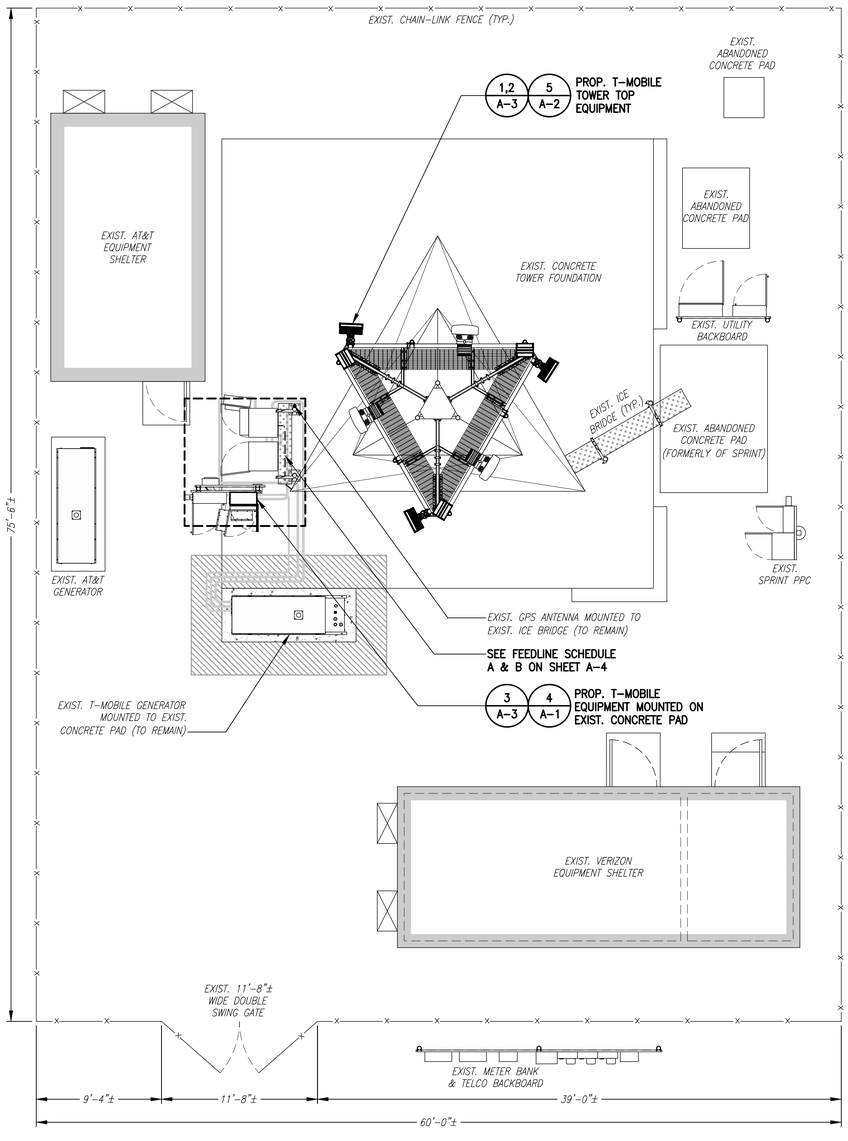
SHEET NUMBER
GN-1

1815.455

SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

SPECIAL CONSTRUCTION NOTE:
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL AUGMENTS (STRUCTURAL MODIFICATIONS) AT T-MOBILE'S RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS).



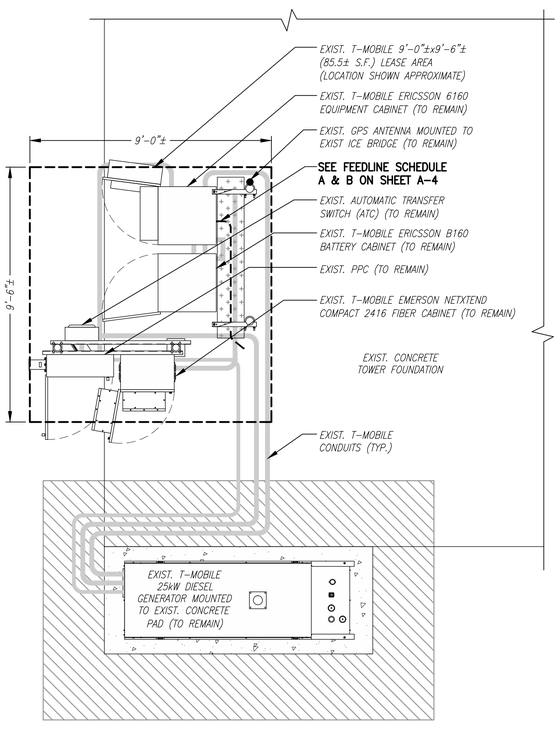


T-MOBILE TO UTILIZE EXIST. SITE ACCESS

EXIST. ELECTRIC TRANSFORMER

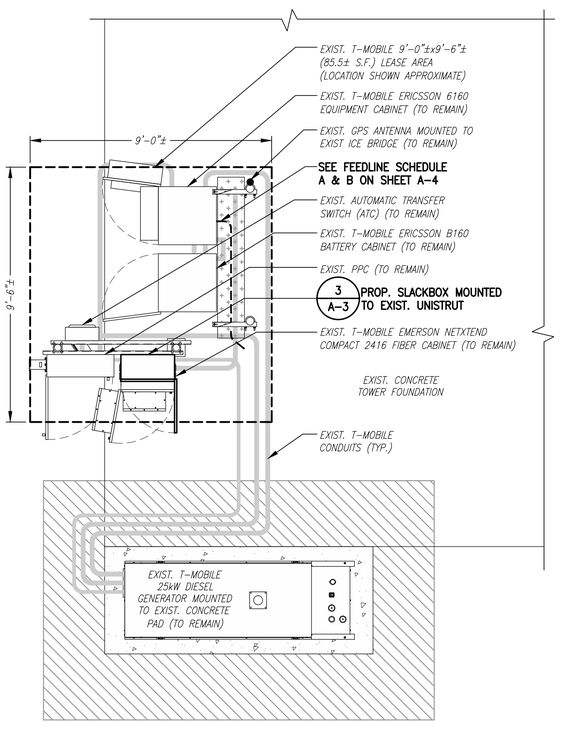
COMPOUND PLAN
1 A-1
SCALE: 3/16" = 1'-0"
0 5'-4" 10'-8" 16'-0"

EXISTING EQUIPMENT PHOTO
2 A-1
SCALE: N.T.S.



EXISTING EQUIPMENT PLAN
3 A-1
NORTH
SCALE: 3/8" = 1'-0"
0 2'-8" 5'-4" 8'-0"

NOTE:
BURY CONDUITS, AS REQUIRED, TO AVOID TRIP HAZARD.



PROPOSED EQUIPMENT PLAN
4 A-1
NORTH
SCALE: 3/8" = 1'-0"
0 2'-8" 5'-4" 8'-0"

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SHEET TITLE
COMPOUND & EQUIPMENT PLANS

SHEET NUMBER
A-1

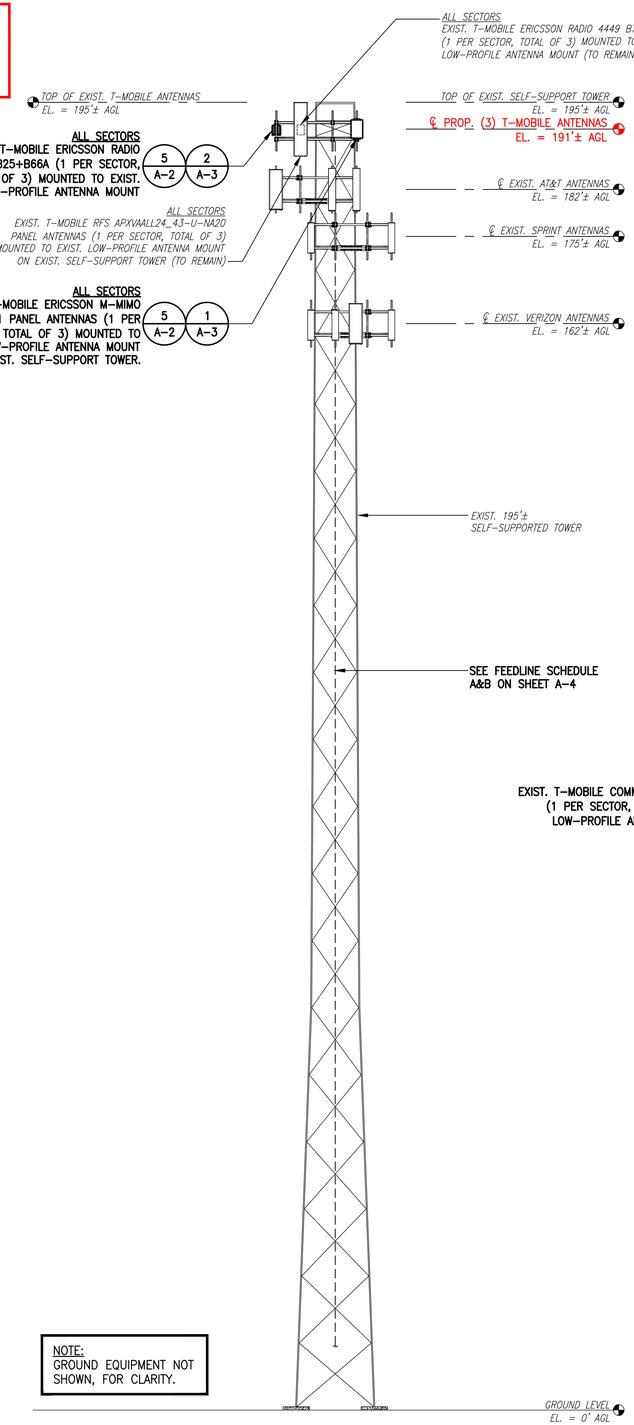
1815.455

SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

SPECIAL CONSTRUCTION NOTE:
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL AUGMENTS (STRUCTURAL MODIFICATIONS) AT T-MOBILE'S RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS).

RAD CENTER NOTE:
T-MOBILE RAD CENTER SHOWN IN RED TEXT BASED ON SBA-PROVIDED CO-LOCATION APPLICATION, EQUIPMENT DATABASE, AND STRUCTURAL ANALYSIS. THE SBA-PROVIDED ANTENNA RAD CENTER SHALL SUPERSEDE ANY CONFLICTING INFORMATION DERIVED FROM THE T-MOBILE RFDS.

EXISTING TOWER PHOTO (1 / A-2)
SCALE: N.T.S.

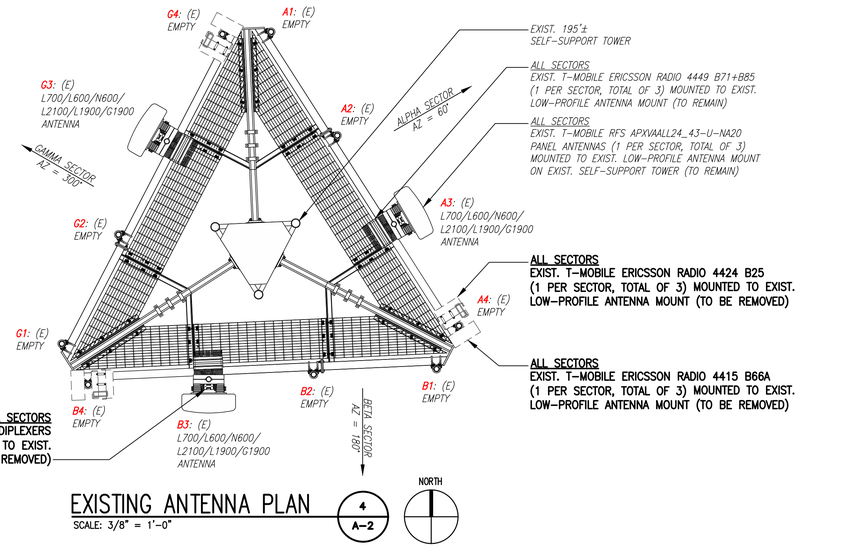


TOWER ELEVATION (2 / A-2)
SCALE: 3/32" = 1'-0"
0 10'-8" 21'-4" 32'-0"

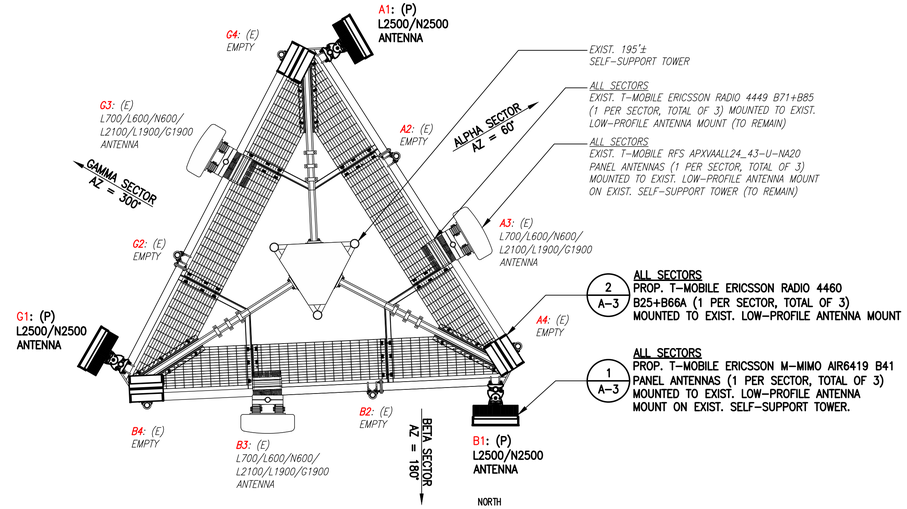
EXISTING ANTENNA PHOTO (3 / A-2)
SCALE: N.T.S.

ANTENNA STATUS LEGEND:
EMPTY - EMPTY PIPE
(E) - EXISTING
(P) - INSTALL
(F) - FUTURE

NOTE:
VERIFY PROPOSED AZIMUTHS WITH RF ENGINEER PRIOR TO INSTALLATION.



EXISTING ANTENNA PLAN (4 / A-2)
SCALE: 3/8" = 1'-0"
NORTH



PROPOSED ANTENNA PLAN (5 / A-2)
SCALE: 3/8" = 1'-0"
NORTH

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
(508) 286-2700

SBA COMMUNICATIONS CORP.
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SHEET TITLE
TOWER ELEVATIONS & ANTENNA PLANS

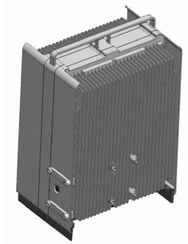
SHEET NUMBER
A-2

1815.455

ERICSSON M-MIMO AIR6419 B41 ANTENNA

DIMENSIONS: 36.3"H x 20.9"W x 9.0"D
WEIGHT: 83.3 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3

ANTENNA DETAILS (1 / A-3)
SCALE: N.T.S.



ERICSSON RADIO 4460 B25+B66

DIMENSIONS: 17.0"H x 15.1"W x 11.9"D
WEIGHT: 104.0 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3

RADIO DETAILS (2 / A-3)
SCALE: N.T.S.

SLACKBOX – HOFFMAN 32FH91
NEMA 3R ENCLOSURE

DIMENSIONS: 24.0"H x 24.0"W x 12.0"D
QUANTITY: TOTAL OF 1

SSC DETAILS (3 / A-3)
SCALE: N.T.S.

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
(508) 286-2700

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720

CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil ·Structural ·Land Surveying
R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com

STATE OF CONNECTICUT
JAMES M. FITZGERALD
No. 25997
LICENSED PROFESSIONAL CIVIL ENGINEER
6/3/2022

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
0	03/24/22	ISSUED FOR CONSTRUCTION	NWC

SITE NUMBER:
CT11313A

SITE ADDRESS:
131 GIFFORD LANE
BOZRAH, CT 06334

SHEET TITLE
SITE DETAILS

SHEET NUMBER
A-3

1815.455

FINAL ANTENNA CONFIGURATION

SECTOR		ANTENNA	RAD CENTER	AZIMUTH (TRUE NORTH)	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	BAND	TMA/RADIOS	SIGNAL CABLES
ALPHA	A1	ERICSSON M-MIMO AIR6419 B41	191'± AGL	60°	0°	0°	L2500/N2500	–	(3) 2" (6x24) HCS FIBER CABLES
	A2	*EMPTY PIPE*	–	–	–	–	–	–	
	A3	RFS APXVAALL24_43-U-NA20	191'± AGL	60°	0°	0°	L700/L600/N600	*RADIO 4449 B71+B85*	
	A4	*EMPTY PIPE*	–	–	–	–	L2100/L1900/G1900	RADIO 4460 B25+B66	
BETA	B1	ERICSSON M-MIMO AIR6419 B41	191'± AGL	180°	0°	0°	L2500/N2500	–	
	B2	*EMPTY PIPE*	–	–	–	–	–	–	
	B3	RFS APXVAALL24_43-U-NA20	191'± AGL	180°	0°	0°	L700/L600/N600	*RADIO 4449 B71+B85*	
	B4	*EMPTY PIPE*	–	–	–	–	L2100/L1900/G1900	RADIO 4460 B25+B66	
GAMMA	G1	ERICSSON M-MIMO AIR6419 B41	191'± AGL	300°	0°	0°	L2500/N2500	–	
	G2	*EMPTY PIPE*	–	–	–	–	–	–	
	G3	RFS APXVAALL24_43-U-NA20	191'± AGL	300°	0°	0°	L700/L600/N600	*RADIO 4449 B71+B85*	
	G4	*EMPTY PIPE*	–	–	–	–	L2100/L1900/G1900	RADIO 4460 B25+B66	

CABLE NOTE: ALL COAX CABLES TO BE REMOVED. SEE FEEDLINE SCHEDULE A & B BELOW.

NOTE: RFDS REV4 – 03/02/22

FEEDLINE SCHEDULE

SCHEDULE	FEEDLINES	LOCATION
A	*EXISTING TO REMAIN:* *(1) ½" COAX CABLE FOR GPS ANTENNA* *(3) 2" (6x24) HCS FIBER CABLES* *EXISTING TO BE REMOVED:* *ALL COAX CABLES*	ROUTED PER STRUCTURAL ANALYSIS
B	PROPOSED: NONE	

NOTE:
EXISTING T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.

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0	03/24/22	ISSUED FOR CONSTRUCTION	NWC

SITE NUMBER:
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SITE ADDRESS:
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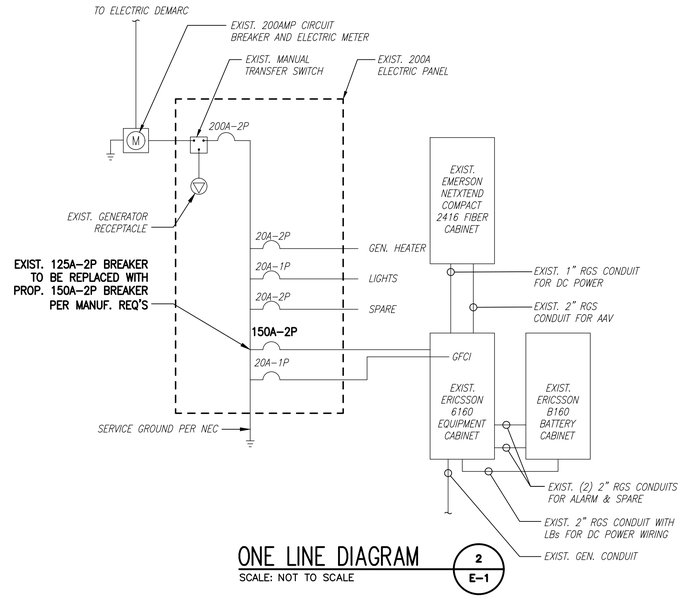
BOZRAH, CT 06334

SHEET TITLE
ANTENNA & FEEDLINE CHARTS

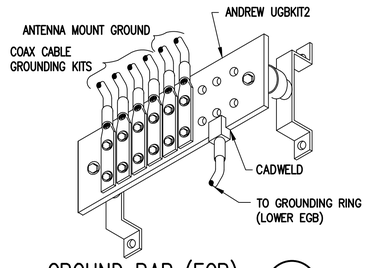
SHEET NUMBER
A-4

1815.455

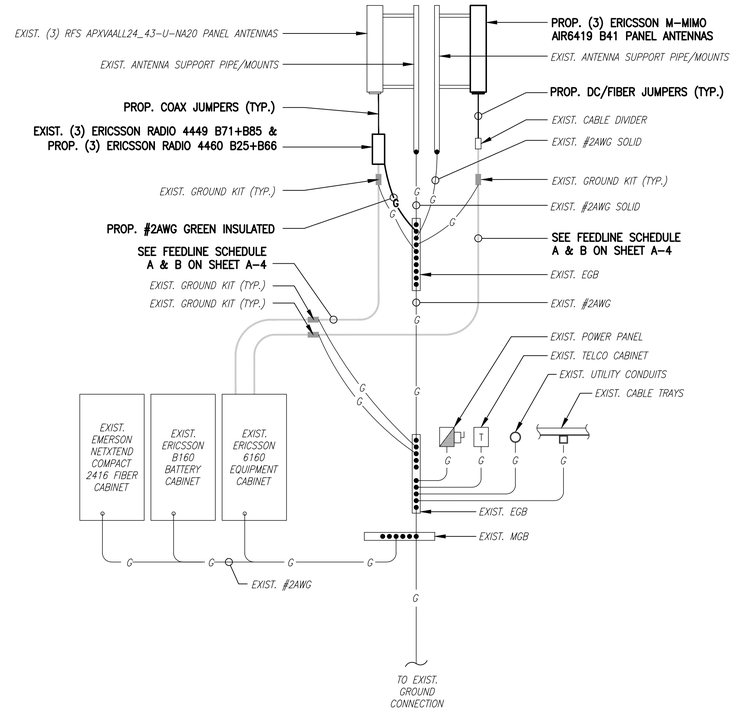
EXISTING POWER PANEL PHOTOS (1 / E-1)
SCALE: NOT TO SCALE



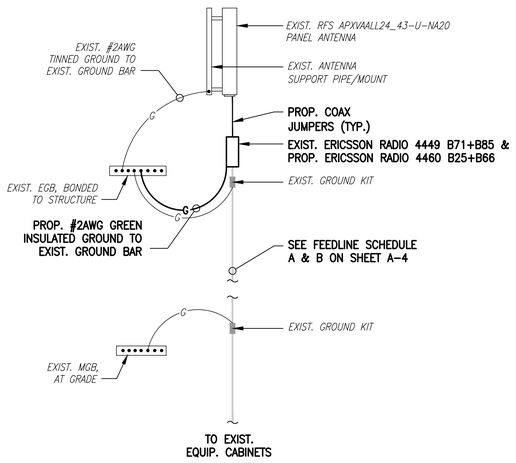
ONE LINE DIAGRAM (2 / E-1)
SCALE: NOT TO SCALE



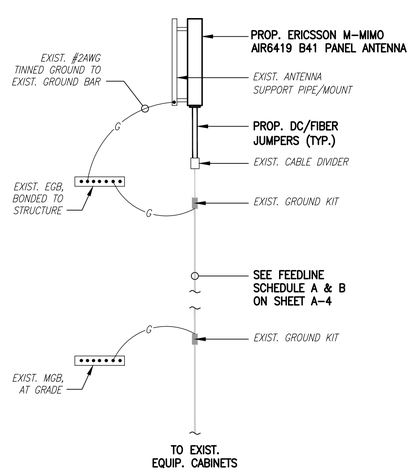
GROUND BAR (EGB) (5 / E-1)
SCALE: NOT TO SCALE



GROUNDING RISER DIAGRAM (3 / E-1)
SCALE: NOT TO SCALE

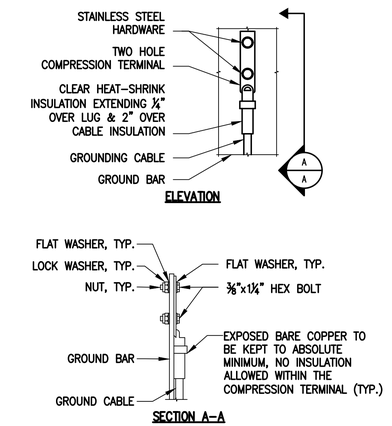


L700/L600/N600/L2100/L1900/G1900 ANTENNA



L2500/N2500 ANTENNA

COAX CABLE CONNECTION AND GROUNDING DETAIL (4 / E-1)
SCALE: NOT TO SCALE



NOTES:
1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
3. CADWELL DOWNLEADS FROM UPPER EGB, LOWER EGB AND MGB.

TYPICAL GROUND BAR CONNECTIONS DETAIL (6 / E-1)
SCALE: NOT TO SCALE

ELECTRICAL AND GROUNDING NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
5. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
6. BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THININSULATION.
8. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
9. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
10. WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
11. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
12. PPC SUPPLIED BY PROJECT OWNER.
13. GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH "T-MOBILE BTS SITE GROUNDING STANDARDS".
14. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
15. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
16. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
17. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
18. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
19. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
20. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXIST. TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
21. CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMNS MINIMUM RESISTANCE REQUIRED.
22. CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.

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REV.	DATE	DESCRIPTION	BY
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CT11313A

SITE ADDRESS:
131 GIFFORD LANE
BOZRAH, CT 06334

SHEET TITLE
ELECTRIC & GROUNDING DETAILS

SHEET NUMBER
E-1

1815.455

Exhibit D

Structural Analysis Report

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 193 ft PIROD Self Supporting Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT01105-S

Customer Site Name: Bozrah

Carrier Name: T-Mobile (App#: 192385, V#1)

Carrier Site ID / Name: CT11313A / Bozrah

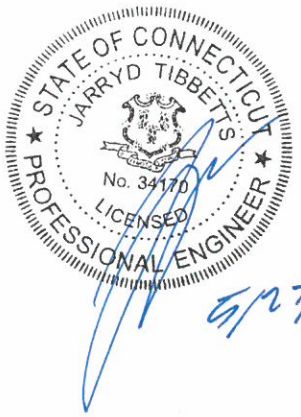
Site Location: 131 Gifford Lane

Bozrah, Connecticut

New London County

Latitude: 41.552517

Longitude: -72.150708



Analysis Result:

Max Structural Usage: 87.5% [Pass]

Max Foundation Usage: 62.0% [Pass]

Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Ikram Efaz

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 193 ft PIROD Self Supporting Tower

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New London County

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Longitude: -72.150708

Analysis Result:

Max Structural Usage: 87.5% [Pass]

Max Foundation Usage: 62.0% [Pass]

Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Ikram Efaz

Introduction

The purpose of this report is to summarize the analysis results on the 193 ft PIROD Self Supporting Tower to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	PIROD Inc, dwg# 105243-b, date: 04/07/1999
Foundation Drawing	PIROD Inc, dwg# 204669-B, date: 04/07/1999
Geotechnical Report	JGI, Project# C98492G, Date: 12/4/1998
Modification Drawings	N/A
Mount Analysis	Geo Structural, SBA Site #Bozrah-2/ Rt 2, dated 04/12/2022

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA-222-G-2**.** In accordance with this standard, the structure was analyzed using **TESTowers,** a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed V_{ult} = 135.0 mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 105.0 mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	S_S = 0.17, S_1 = 0.061

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
-	191.0	6	EMS - EMS RR90-17-02DP - Panel	Modified Low Profile Platform with PRK-1245L, (3) TAP-472 and (1) HRK12-U	(8) 1 5/8" (3) 1.9" Fiber	T-Mobile
-		3	RFS - RFS APXVAARR24_43-U-NA20 - Panel			
-		3	CommScope SDX1926Q-43 Diplexers			
-		3	Ericsson Radio 4449 B71 + B85			
-		3	Ericsson 4424 B25			
-		3	Ericsson 4415 B66A			
8	182.0	3	Powerwave 7770	(3) Sector Frame (Commscope MTC3615)	(12) 1 5/8" Coax (4) 3/4" DC (3) 3/8" RET (2) 5/8" Fiber	AT&T
9		3	Cci HPA-65R-BUU-H8			
10		3	Cci DMP65R-BU8DA			
11		6	Powerwave LGP21401 TMA			
12		6	Powerwave LGP21902 Diplexer			
13		3	Ericsson 4449 B5/B12			
14		3	Ericsson RRUS 12			
15		3	Ericsson RRUS 11			
16		3	Ericsson RRUS 32			
17		3	Ericsson RRUS A2			
18		1	Raycap DC6-48-60-18-8F			
19		1	Raycap DC6-48-60-0-8C-EV			
20	175.0	3	RFS APXVTM14-C-I20 Antennas - Panel	(3) Sector Frame w/ Handrails (3) Sitepro SFSH-L	(4) 1 1/4" Fiber	Sprint Nextel
21		3	Commscope NNVV-65B-R4 Antenna			
22		3	ALU 1900 MHz RRH			
23		6	ALU 800 MHz RRH			
24		3	ALU TD-RRH 8X20-25			
25	160.1	3	Commscope LNX-6514DS-A1M - Panel	(3) Modified Sector Frame w/ Handrails W/ (3) Site Pro 1 SFS-V (V-Style Reinforcement Kit), (12) Site Pro 1 Puck (Crossover Plate Assembly), (6) Site Pro 1 SCX7-U (Crossover Plate Assembly), (3) 4'-0" (F.V.) P2 STD Pipe & (3) 8'-0" P2.5 STD Pipe	(12) 1 5/8" (3) 1 5/8" Hybrid	Verizon
26		6	Andrew SBNHH-1D65B - Panel			
27		3	Samsung MT6407-77A - Panel			
28		3	Samsung B2/B66A RRH-BR049 (RFV01U-D1A)			
29		3	Samsung B5/B13 RRH-BR04C (RFV01U-D2A)			
30		3	Raycap DB-B1-6C-12AB-0Z - OVP			
31	100.0	1	Alcatel Lucent KS24019-L112A-GPS	Direct Mount	(1) GPS Line	
-	30.0	2	Andrew PC1N0F-0190B-002ME911 Omnis	Direct mount	(2) 1/2"	T-Mobile

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	191.0	3	EMS- RR90-17-02DP - Panel	Modified Low Profile Platform with (1) PRK-1245L, (3) TAP-472 and (1) HRK12-U and **(3) Sitepro1 SFS-V-L (V-Brace Kit)**	(8) 1 5/8" (3) 1.9" Fiber	T-Mobile
2		3	RFS- APXVAALL24_43-U-NA20- Panel			
3		3	Ericsson- AIR6419 B41 - Panel			
4		3	Commscope- SDX1926Q-43 – Diplexer			
5		3	Ericsson- 4449 B71+B85- RRU			
6		3	Ericsson- 4460 B25 + B66 -RRU			
7		3	Ericsson- 4415 B66A -RRU			
32	30.0	2	Andrew- PC1N0F-0190B-002M- Omni (E-911 Equipment)	Direct Mount	(2) 1/2"	

See the attached coax layout for the line placement considered in the analysis.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

Tower Component	Legs	Diagonals	Horizontals
Max. Usage:	**72.9%**	**87.5%**	**6.5%**
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Compression (Kips)	Uplift (Kips)	Shear (Kips)
Analysis Reactions	378.6	325.3	42.8

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.2415 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222 Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC.** Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.

2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.

3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the ANSI/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.

4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.

5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.

6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Structure: CT01105-S-SBA

Site Name:	Bozrah			**Code:**	TIA-222-G	5/27/2022
Type:	Self Support	**Base Shape:**	Triangle	**Basic WS:**	105.00	
Height:	193.00 (ft)	**Base Width:**	22.00	**Basic Ice WS:**	50.00	
Base Elev:	0.00 (ft)	**Top Width:**	5.00	**Operational WS:**	60.00	Page: 1

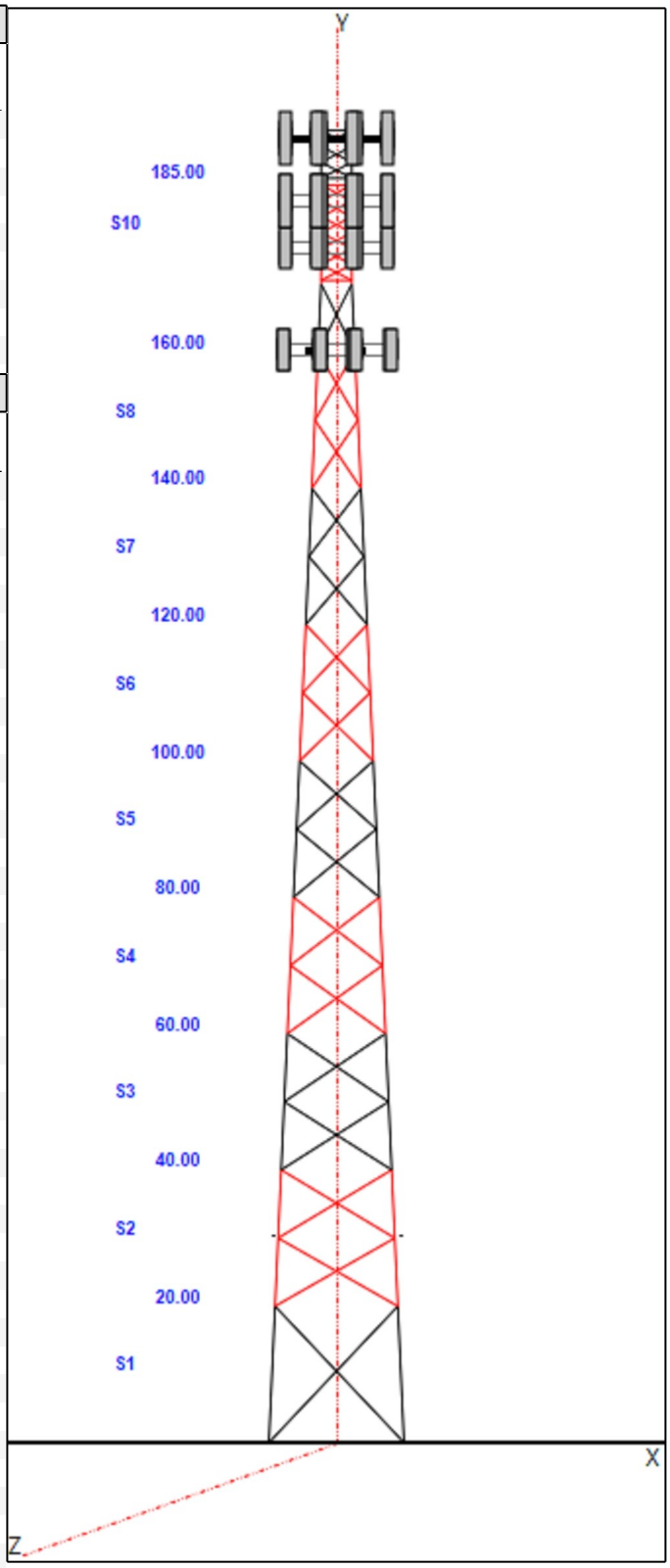
IES Tower Engineering Solutions

Section Properties

Sect	Leg Members	Diagonal Members	Horizontal Members
1	18B 18"BD 2.5"	DAE 3.5X3.5X0.3125	
2-3	12B 12"BD 2.25"	SAE 3.5X3.5X0.3125	
4	12B 12"BD 2"	SAE 3.5X3.5X0.3125	
5	12B 12"BD 2"	SAE 3X3X0.3125	SAE
6	12B 12"BD 1.75"	SAE 3X3X0.3125	
7	12B 12"BD 1.5"	SAE 3X3X0.1875	SAE
8	12B 12"BD 1.5"	SAE 3X3X0.1875	
9	12B 12"BD 1.25"	SAE 2.5X2.5X0.1875	SAE
10-11	SOL 2" SOLID	SOL 1" SOLID	SOL 1 1/4" SOLID

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description
191.00	191.00	3	RR90-17-02DP
191.00	191.00	3	APXVAALL24_43-U-NA20
191.00	191.00	1	Low Profile Platform
191.00	191.00	1	PRK-1245 (kicker kit)
191.00	191.00	1	TAP-472
191.00	191.00	1	HRA12
191.00	191.00	3	Commscope SDX1926Q-43
191.00	191.00	3	Ericsson 4449 B71 + B85
191.00	191.00	3	Ericsson 4415 B66A
191.00	191.00	3	AIR6419 B41
191.00	191.00	3	4460 B25 + B66
191.00	191.00	1	(3) SFS-H-L (V-Braces)
182.00	182.00	3	CCI HPA-65R-BUU-H8 Antennas
182.00	182.00	3	Powerwave 7770 Antennas
182.00	182.00	6	Powerwave LGP21401 TMAs
182.00	182.00	3	Ericsson RRUS 11
182.00	182.00	3	Ericsson RRUS 12
182.00	182.00	3	Ericsson RRUS A2
182.00	182.00	3	Ericsson RRUS 32
182.00	182.00	6	Powerwave LGP21903
182.00	182.00	1	Raycap DC6-48-60-18-8F
182.00	182.00	3	Sector Frame w/ Handrails
182.00	182.00	3	DMP65R-BU8DA
182.00	182.00	3	4449 B5/B12
182.00	182.00	1	DC6-48-60-0-8C-EV
175.00	175.00	3	RFS APXVTM14-C-I20 Antennas
175.00	175.00	3	Commscope NNVV-65B-R4 Antenna
175.00	175.00	3	ALU 1900 MHz RRH
175.00	175.00	6	ALU 800 MHz RRH
175.00	175.00	3	ALU TD-RRH 8X20-25
175.00	175.00	3	Sector Frame w/ Handrails
175.00	175.00	1	(3) SFS-H-L (V-Braces)
160.00	160.10	3	Commscope LNX-6514DS-A1M
160.00	160.00	3	Sector Frame w/ Handrails
160.00	160.10	6	Andrew SBNHH-1D65B
160.00	160.10	3	Samsung MT6407-77A
160.00	160.10	1	(3) SFS-V (V-Braces)
160.00	160.00	3	8'-0" P2.5 STD Pipe
160.00	160.10	3	B2/B66A RRH-BR049 (RFV01U-D1A)
160.00	160.10	3	B5/B13 RRH-BR04C (RFV01U-D2A)



160.00	160.10	3	Raycap DB-B1-6C-12AB-0Z-OVP
100.00	100.00	1	Lucent KS24019-L112A GPS
100.00	100.00	1	Direct Mount
30.00	30.00	2	Andrew PC1N0F-0190B-002M
30.00	30.00	1	Direct Mount

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Qty	Description
0.00	191.00	8	1 5/8" Coax
0.00	191.00	3	1.9" Fiber
0.00	191.00	1	W/G Ladder
0.00	182.00	12	1 5/8" Coax
0.00	182.00	4	3/4" DC
0.00	182.00	3	3/8" RET
0.00	182.00	2	5/8" Fiber
0.00	182.00	1	W/G Ladder
0.00	175.00	4	1 1/4" Coax
0.00	160.00	12	1 5/8" Coax
0.00	160.00	3	1 5/8" Hybrid
0.00	100.00	1	GPS Line
0.00	100.00	1	W/G Ladder
0.00	30.00	2	1/2" Coax

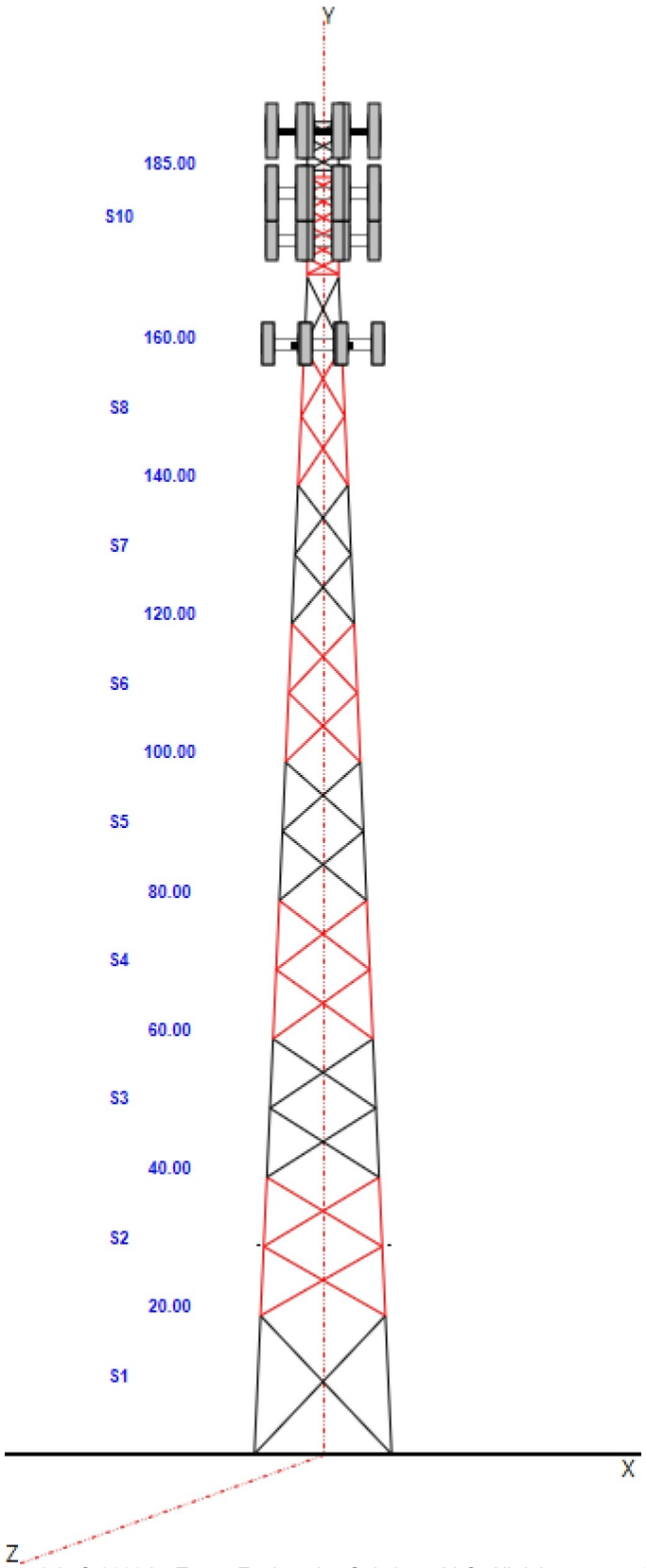
Base Reactions

Leg			Overturning		
Max Uplift:	-325.24	(kips	Moment:	6751.99	(ft-kips)
Max Down:	378.65	(kips	Total Down:	72.79	(kips)
Max Shear:	42.77	(kips	Total Shear:	55.97	(kips)

Structure: CT01105-S-SBA

Site Name:	Bozrah			**Code:**	TIA-222-G	5/27/2022
Type:	Self Support	**Base Shape:**	Triangle	**Basic WS:**	105.00	
Height:	193.00 (ft)	**Base Width:**	22.00	**Basic Ice WS:**	50.00	
Base Elev:	0.00 (ft)	**Top Width:**	5.00	**Operational WS:**	60.00	Page: 3

Tower Engineering Solutions

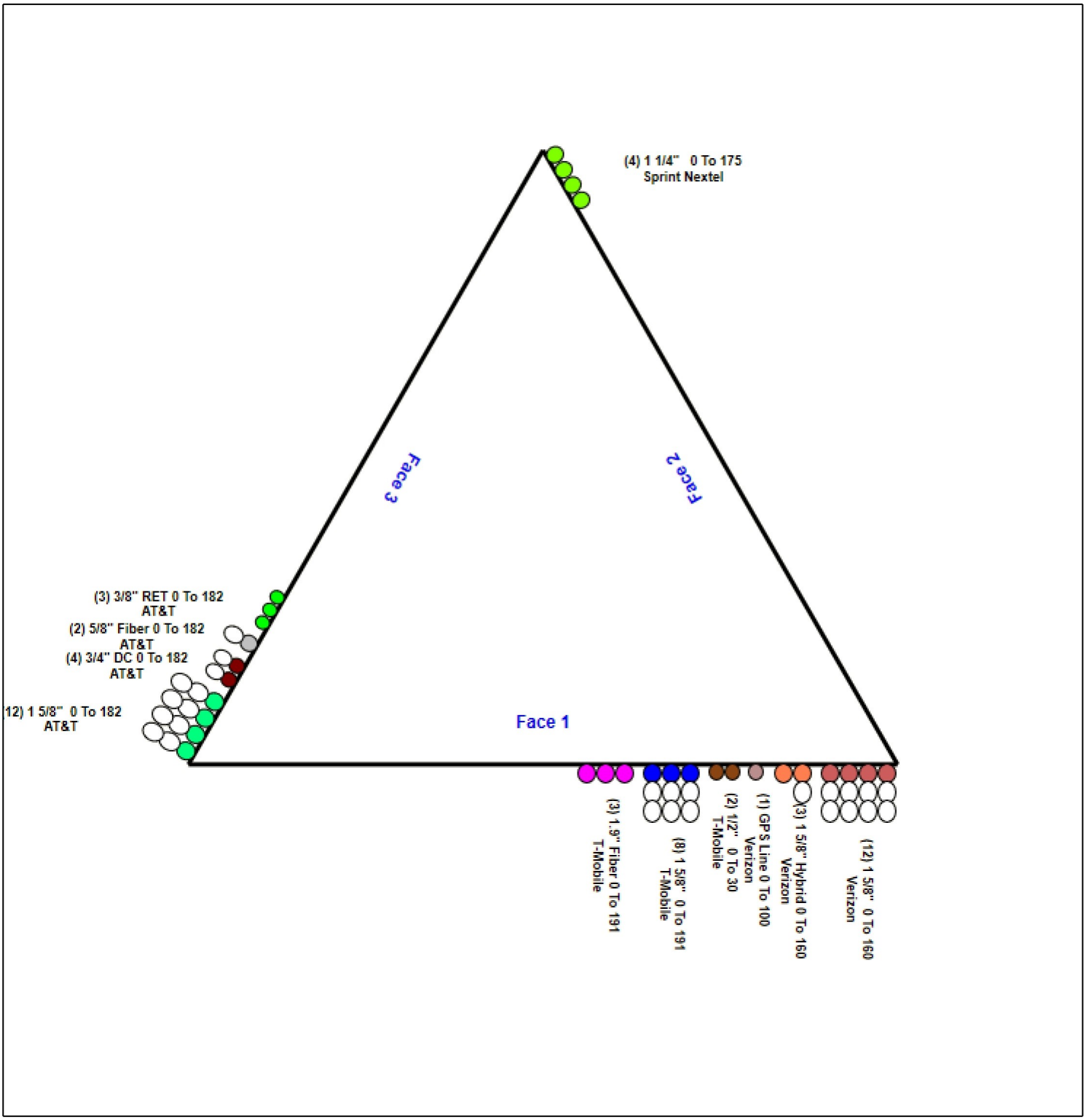


Structure: CT01105-S-SBA - Coax Line Placement

Type: Self Support
Site Name: Bozrah
Height: 193.00 (ft)

5/27/2022

Tower Engineering Solutions



Loading Summary

Structure:	CT01105-S-SBA		**Code:**	TIA-222-G	5/27/2022
Site Name:	Bozrah		**Exposure:**	B	
Height:	193.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	0.85	**Topography:** 1	**Struct Class:**	II	Page: 5

IES Tower Engineering Solutions

Discrete Appurtenances Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	Ice Weight (lb)	Ice CaAa (sf)	Len (in)	Width (in)	Depth (in)	Ka	Orientation Factor	Vert Ecc (ft)
191.00	RR90-17-02DP	3	13.50	4.360	115.20	5.371	56.000	8.000	2.800	0.75	0.68	0.000
191.00	APXVAALL24_43-U-NA20	3	128.00	20.240	556.98	22.186	95.900	24.000	7.800	0.75	0.70	0.000
191.00	Low Profile Platform	1	1500.0	22.000	2839.51	40.075	0.000	0.000	0.000	1.00	1.00	0.000
191.00	PRK-1245 (kicker kit)	1	464.91	9.500	797.05	19.680	0.000	0.000	0.000	1.00	1.00	0.000
191.00	TAP-472	1	240.00	6.400	582.92	13.258	0.000	0.000	0.000	1.00	1.00	0.000
191.00	HRA12	1	415.06	9.850	830.19	22.516	0.000	0.000	0.000	1.00	1.00	0.000
191.00	Commscope SDX1926Q-43	3	5.00	0.700	22.13	1.360	12.000	6.000	3.000	0.75	0.67	0.000
191.00	Ericsson 4449 B71 + B85	3	70.00	1.650	140.26	2.202	15.000	13.200	9.300	0.75	0.67	0.000
191.00	Ericsson 4415 B66A	3	49.60	1.640	108.46	2.202	15.000	13.200	6.200	0.75	0.67	0.000
191.00	AIR6419 B41	3	103.00	5.650	243.32	6.623	33.100	20.500	8.300	0.75	0.71	0.000
191.00	4460 B25 + B66	3	109.00	2.850	182.59	3.540	21.800	15.700	7.500	0.75	0.67	0.000
191.00	(3) SFS-H-L (V-Braces)	1	230.00	6.700	558.63	13.880	0.000	0.000	0.000	0.75	1.00	0.000
182.00	CCI HPA-65R-BUU-H8 Antennas	3	68.00	12.980	364.82	14.624	92.400	14.800	7.400	0.80	0.79	0.000
182.00	Powerwave 7770 Antennas	3	16.00	1.730	72.03	2.339	28.000	7.000	4.000	0.80	0.79	0.000
182.00	Powerwave LGP21401 TMAs	6	14.10	1.290	39.53	2.140	14.400	9.200	2.600	0.80	0.50	0.000
182.00	Ericsson RRUS 11	3	51.00	2.520	124.50	3.164	17.000	17.800	7.200	0.80	0.67	0.000
182.00	Ericsson RRUS 12	3	60.00	2.700	135.57	3.795	18.200	17.800	8.000	0.80	0.67	0.000
182.00	Ericsson RRUS A2	3	21.20	1.860	57.92	2.850	12.800	15.000	3.400	0.80	0.67	0.000
182.00	Ericsson RRUS 32	3	77.00	1.650	126.59	2.240	20.900	9.500	3.300	0.80	0.67	0.000
182.00	Powerwave LGP21903	6	5.50	0.270	14.07	0.674	4.400	6.300	3.000	0.80	0.50	0.000
182.00	Raycap DC6-48-60-18-8F	1	31.80	0.920	94.67	1.365	24.000	11.000	11.000	0.80	1.00	0.000
182.00	Sector Frame w/ Handrails	3	550.00	21.500	1252.84	41.343	0.000	0.000	0.000	0.75	0.75	0.000
182.00	DMP65R-BU8DA	3	39.00	12.850	393.79	38.448	96.000	20.500	8.500	0.80	0.50	0.000
182.00	4449 B5/B12	3	71.00	1.970	125.29	2.527	17.900	13.200	9.400	0.80	0.67	0.000
182.00	DC6-48-60-0-8C-EV	1	16.00	4.780	141.83	5.679	31.400	18.300	10.200	0.80	1.00	0.000
175.00	RFS APXVTM14-C-I20 Antennas	3	56.00	6.340	219.69	7.473	56.300	12.600	6.300	0.80	0.79	0.000
175.00	Commscope NNVV-65B-R4 Antenna	3	77.40	12.270	367.81	13.751	72.000	19.600	7.800	0.80	0.74	0.000
175.00	ALU 1900 MHz RRH	3	44.00	3.800	155.02	5.214	23.000	13.000	17.000	0.80	0.67	0.000
175.00	ALU 800 MHz RRH	6	53.00	2.490	128.22	3.653	19.700	13.000	10.800	0.80	0.67	0.000
175.00	ALU TD-RRH 8X20-25	3	70.00	4.050	182.74	4.878	26.100	18.600	6.700	0.80	0.67	0.000
175.00	Sector Frame w/ Handrails	3	550.00	21.500	1252.84	41.343	0.000	0.000	0.000	0.75	0.75	0.000
175.00	(3) SFS-H-L (V-Braces)	1	230.00	6.700	556.57	13.835	0.000	0.000	0.000	0.75	1.00	0.000
160.00	Commscope LNX-6514DS-A1M	3	38.40	8.170	214.68	10.993	72.700	11.900	7.100	0.80	0.83	0.100
160.00	Sector Frame w/ Handrails	3	550.00	21.500	1241.11	41.011	0.000	0.000	0.000	0.75	0.75	0.000
160.00	Andrew SBNHH-1D65B	6	40.00	8.160	243.13	9.460	72.600	11.900	7.100	0.80	0.83	0.100
160.00	Samsung MT6407-77A	3	79.40	4.690	198.94	5.637	35.100	16.100	5.500	0.80	0.70	0.100
160.00	(3) SFS-V (V-Braces)	1	197.00	10.000	472.05	20.471	0.000	0.000	0.000	0.75	1.00	0.100
160.00	8'-0" P2.5 STD Pipe	3	12.00	3.075	23.73	6.939	0.000	0.000	0.000	0.75	1.00	0.000
160.00	B2/B66A RRH-BR049	3	84.40	1.870	160.96	2.443	15.000	15.000	10.000	0.80	0.67	0.100
160.00	B5/B13 RRH-BR04C (RFV01U-D2A)	3	70.30	1.870	139.66	2.443	15.000	15.000	8.100	0.80	0.67	0.100
160.00	Raycap DB-B1-6C-12AB-0Z-OVP	3	26.90	4.100	176.00	4.901	25.700	15.730	10.250	0.80	0.67	0.100
100.00	Lucent KS24019-L112A GPS	1	0.50	0.120	6.82	0.315	6.000	3.600	3.600	1.00	1.00	0.000
100.00	Direct Mount	1	87.00	4.310	213.96	9.428	0.000	0.000	0.000	1.00	1.00	0.000
30.00	Andrew PC1N0F-0190B-002M	2	0.40	0.030	2.15	0.123	3.900	1.600	1.600	1.00	1.00	0.000
30.00	Direct Mount	1	87.00	4.310	200.75	8.895	0.000	0.000	0.000	1.00	1.00	0.000
	Totals:	**122**	**13,445.97**		**34,915.26**						**Number of Appurtenances :**	**45**

Loading Summary

Structure:	CT01105-S-SBA		**Code:**	TIA-222-G	5/27/2022
Site Name:	Bozrah		**Exposure:**	B	
Height:	193.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	0.85	**Topography:** 1	**Struct Class:**	II	Page: 6

Tower Engineering Solutions

Linear Appurtenances Properties

Elev. From (ft)	Elev. To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	191.00	1 5/8" Coax	8	1.98	1.04	50.00	1	Block		N	1.00	0.50	
0.00	191.00	1.9" Fiber	3	1.90	1.04	100.00	1	Individual IR		N	1.00	1.00	
0.00	191.00	W/G Ladder	1	1.50	6.00	100.00	1	Individual NR		N	1.00	1.00	
0.00	182.00	1 5/8" Coax	12	1.98	1.04	50.00	3	Block		N	1.00	1.00	
0.00	182.00	3/4" DC	4	0.75	0.40	75.00	3	Block		N	1.00	1.00	
0.00	182.00	3/8" RET	3	0.38	0.06	100.00	3	Individual NR		N	1.00	1.00	0
0.00	182.00	5/8" Fiber	2	1.11	0.52	100.00	3	Individual IR		N	1.00	1.00	0
0.00	182.00	W/G Ladder	1	1.50	6.00	100.00	1	Individual NR		N	1.00	1.00	
0.00	175.00	1 1/4" Coax	4	1.55	0.66	100.00	2	Individual IR		N	1.00	0.67	
0.00	160.00	1 5/8" Coax	12	1.98	1.04	50.00	1	Block		N	1.00	0.50	
0.00	160.00	1 5/8" Hybrid	3	2.00	1.10	100.00	1	Individual IR		N	1.00	0.80	0
0.00	100.00	GPS Line	1	0.96	0.40	100.00	1	Individual NR		N	1.00	0.80	
0.00	100.00	W/G Ladder	1	1.50	6.00	100.00	1	Individual NR		N	1.00	1.00	
0.00	30.00	1/2" Coax	2	0.65	0.16	100.00	1	Individual IR		N	1.00	1.00	

Section Forces

Structure:	CT01105-S-SBA	**Code:**	TIA-222-G	5/27/2022	
Site Name:	Bozrah	**Exposure:**	B		
Height:	193.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 7	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W Normal Wind — 1.2D + 1.6W 105 mph Wind at Normal To Face

Wind Load Factor: 1.60 — **Wind Importance Factor:** 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	16.79	16.538	26.21	0.00	0.10	2.97	1.00	1.00	0.00	27.79	126.14	0.00	10,396.	0.0	1884.33	1734.59	3,618.92
2	30.0	16.81	24.346	23.64	0.00	0.12	2.88	1.00	1.00	0.00	35.36	125.06	0.00	7,722.3	0.0	2324.19	1718.22	4,042.41
3	50.0	19.45	22.326	23.64	0.00	0.13	2.84	1.00	1.00	0.00	32.95	123.97	0.00	7,537.3	0.0	2478.56	1967.59	4,446.15
4	70.0	21.41	20.384	22.04	0.00	0.14	2.82	1.00	1.00	0.00	30.47	123.97	0.00	6,712.5	0.0	2503.61	2166.13	4,669.74
5	90.0	23.01	15.857	22.04	0.00	0.14	2.81	1.00	1.00	0.00	25.76	123.97	0.00	6,284.1	0.0	2263.75	2327.39	4,591.15
6	110.0	24.36	14.383	18.83	0.00	0.14	2.79	1.00	1.00	0.00	23.49	119.88	0.00	5,224.1	0.0	2171.62	2327.16	4,498.78
7	130.0	25.55	13.022	17.23	0.00	0.16	2.73	1.00	1.00	0.00	21.68	119.88	0.00	4,182.5	0.0	2059.88	2440.93	4,500.81
8	150.0	26.62	11.787	17.23	0.00	0.20	2.61	1.00	1.00	0.00	20.58	119.88	0.00	4,116.0	0.0	1945.67	2542.80	4,488.47
9	165.0	27.35	4.586	7.81	0.00	0.21	2.56	1.00	1.00	0.00	8.73	40.87	0.00	1,578.3	0.0	832.11	1068.77	1,900.88
10	177.5	27.93	0.000	11.36	0.00	0.15	2.78	1.00	1.00	0.00	6.56	49.96	0.00	2,001.2	0.0	693.43	1313.39	2,006.82
11	189.0	28.44	0.000	6.35	0.00	0.15	2.76	1.00	1.00	0.00	3.67	9.06	0.00	902.3	0.0	391.80	209.19	600.99
														56,657.3	**0.0**			**39,365.13**

Load Case: 1.2D + 1.6W 60° Wind — 1.2D + 1.6W 105 mph Wind at 60° From Face

Wind Load Factor: 1.60 — **Wind Importance Factor:** 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	16.79	16.538	26.21	0.00	0.10	2.97	0.80	1.00	0.00	24.48	126.14	0.00	10,396.	0.0	1660.03	1734.59	3,394.62
2	30.0	16.81	24.346	23.64	0.00	0.12	2.88	0.80	1.00	0.00	30.49	125.06	0.00	7,722.3	0.0	2004.16	1718.22	3,722.38
3	50.0	19.45	22.326	23.64	0.00	0.13	2.84	0.80	1.00	0.00	28.48	123.97	0.00	7,537.3	0.0	2142.67	1967.59	4,110.26
4	70.0	21.41	20.384	22.04	0.00	0.14	2.82	0.80	1.00	0.00	26.39	123.97	0.00	6,712.5	0.0	2168.58	2166.13	4,334.71
5	90.0	23.01	15.857	22.04	0.00	0.14	2.81	0.80	1.00	0.00	22.58	123.97	0.00	6,284.1	0.0	1985.02	2327.39	4,312.41
6	110.0	24.36	14.383	18.83	0.00	0.14	2.79	0.80	1.00	0.00	20.61	119.88	0.00	5,224.1	0.0	1905.64	2327.16	4,232.80
7	130.0	25.55	13.022	17.23	0.00	0.16	2.73	0.80	1.00	0.00	19.08	119.88	0.00	4,182.5	0.0	1812.47	2440.93	4,253.40
8	150.0	26.62	11.787	17.23	0.00	0.20	2.61	0.80	1.00	0.00	18.22	119.88	0.00	4,116.0	0.0	1722.76	2542.80	4,265.56
9	165.0	27.35	4.586	7.81	0.00	0.21	2.56	0.80	1.00	0.00	7.82	40.87	0.00	1,578.3	0.0	744.71	1068.77	1,813.49
10	177.5	27.93	0.000	11.36	0.00	0.15	2.78	0.80	1.00	0.00	6.56	49.96	0.00	2,001.2	0.0	693.43	1313.39	2,006.82
11	189.0	28.44	0.000	6.35	0.00	0.15	2.76	0.80	1.00	0.00	3.67	9.06	0.00	902.3	0.0	391.80	209.19	600.99
														56,657.3	**0.0**			**37,047.42**

Section Forces

Structure:	CT01105-S-SBA	**Code:**	TIA-222-G	5/27/2022	
Site Name:	Bozrah	**Exposure:**	B		
Height:	193.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 8	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 90° Wind — 1.2D + 1.6W 105 mph Wind at 90° From Face

Wind Load Factor: 1.60 — **Wind Importance Factor:** 1.00

Dead Load Factor: 1.20

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	16.79	16.538	26.21	0.00	0.10	2.97	0.85	1.00	0.00	25.31	126.14	0.00	10,396.	0.0	1716.11	1734.59	3,450.69
2	30.0	16.81	24.346	23.64	0.00	0.12	2.88	0.85	1.00	0.00	31.71	125.06	0.00	7,722.3	0.0	2084.17	1718.22	3,802.39
3	50.0	19.45	22.326	23.64	0.00	0.13	2.84	0.85	1.00	0.00	29.60	123.97	0.00	7,537.3	0.0	2226.64	1967.59	4,194.23
4	70.0	21.41	20.384	22.04	0.00	0.14	2.82	0.85	1.00	0.00	27.41	123.97	0.00	6,712.5	0.0	2252.33	2166.13	4,418.47
5	90.0	23.01	15.857	22.04	0.00	0.14	2.81	0.85	1.00	0.00	23.38	123.97	0.00	6,284.1	0.0	2054.70	2327.39	4,382.09
6	110.0	24.36	14.383	18.83	0.00	0.14	2.79	0.85	1.00	0.00	21.33	119.88	0.00	5,224.1	0.0	1972.13	2327.16	4,299.30
7	130.0	25.55	13.022	17.23	0.00	0.16	2.73	0.85	1.00	0.00	19.73	119.88	0.00	4,182.5	0.0	1874.32	2440.93	4,315.25
8	150.0	26.62	11.787	17.23	0.00	0.20	2.61	0.85	1.00	0.00	18.81	119.88	0.00	4,116.0	0.0	1778.49	2542.80	4,321.29
9	165.0	27.35	4.586	7.81	0.00	0.21	2.56	0.85	1.00	0.00	8.04	40.87	0.00	1,578.3	0.0	766.56	1068.77	1,835.33
10	177.5	27.93	0.000	11.36	0.00	0.15	2.78	0.85	1.00	0.00	6.56	49.96	0.00	2,001.2	0.0	693.43	1313.39	2,006.82
11	189.0	28.44	0.000	6.35	0.00	0.15	2.76	0.85	1.00	0.00	3.67	9.06	0.00	902.3	0.0	391.80	209.19	600.99
														56,657.3	**0.0**			**37,626.85**

Load Case: 0.9D + 1.6W Normal Wind — 0.9D + 1.6W 105 mph Wind at Normal To Face

Wind Load Factor: 1.60 — **Wind Importance Factor:** 1.00

Dead Load Factor: 0.90

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	16.79	16.538	26.21	0.00	0.10	2.97	1.00	1.00	0.00	27.79	126.14	0.00	7,797.4	0.0	1884.33	1734.59	3,618.92
2	30.0	16.81	24.346	23.64	0.00	0.12	2.88	1.00	1.00	0.00	35.36	125.06	0.00	5,791.7	0.0	2324.19	1718.22	4,042.41
3	50.0	19.45	22.326	23.64	0.00	0.13	2.84	1.00	1.00	0.00	32.95	123.97	0.00	5,653.0	0.0	2478.56	1967.59	4,446.15
4	70.0	21.41	20.384	22.04	0.00	0.14	2.82	1.00	1.00	0.00	30.47	123.97	0.00	5,034.4	0.0	2503.61	2166.13	4,669.74
5	90.0	23.01	15.857	22.04	0.00	0.14	2.81	1.00	1.00	0.00	25.76	123.97	0.00	4,713.1	0.0	2263.75	2327.39	4,591.15
6	110.0	24.36	14.383	18.83	0.00	0.14	2.79	1.00	1.00	0.00	23.49	119.88	0.00	3,918.1	0.0	2171.62	2327.16	4,498.78
7	130.0	25.55	13.022	17.23	0.00	0.16	2.73	1.00	1.00	0.00	21.68	119.88	0.00	3,136.9	0.0	2059.88	2440.93	4,500.81
8	150.0	26.62	11.787	17.23	0.00	0.20	2.61	1.00	1.00	0.00	20.58	119.88	0.00	3,087.0	0.0	1945.67	2542.80	4,488.47
9	165.0	27.35	4.586	7.81	0.00	0.21	2.56	1.00	1.00	0.00	8.73	40.87	0.00	1,183.7	0.0	832.11	1068.77	1,900.88
10	177.5	27.93	0.000	11.36	0.00	0.15	2.78	1.00	1.00	0.00	6.56	49.96	0.00	1,500.9	0.0	693.43	1313.39	2,006.82
11	189.0	28.44	0.000	6.35	0.00	0.15	2.76	1.00	1.00	0.00	3.67	9.06	0.00	676.8	0.0	391.80	209.19	600.99
														42,493.0	**0.0**			**39,365.13**

Section Forces

Structure:	CT01105-S-SBA	**Code:**	TIA-222-G	5/27/2022	
Site Name:	Bozrah	**Exposure:**	B		
Height:	193.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 9	

TES Tower Engineering Solutions

Load Case: 0.9D + 1.6W 60° Wind — 0.9D + 1.6W 105 mph Wind at 60° From Face

Wind Load Factor: 1.60 — **Wind Importance Factor:** 1.00

Dead Load Factor: 0.90

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	16.79	16.538	26.21	0.00	0.10	2.97	0.80	1.00	0.00	24.48	126.14	0.00	7,797.4	0.0	1660.03	1734.59	3,394.62
2	30.0	16.81	24.346	23.64	0.00	0.12	2.88	0.80	1.00	0.00	30.49	125.06	0.00	5,791.7	0.0	2004.16	1718.22	3,722.38
3	50.0	19.45	22.326	23.64	0.00	0.13	2.84	0.80	1.00	0.00	28.48	123.97	0.00	5,653.0	0.0	2142.67	1967.59	4,110.26
4	70.0	21.41	20.384	22.04	0.00	0.14	2.82	0.80	1.00	0.00	26.39	123.97	0.00	5,034.4	0.0	2168.58	2166.13	4,334.71
5	90.0	23.01	15.857	22.04	0.00	0.14	2.81	0.80	1.00	0.00	22.58	123.97	0.00	4,713.1	0.0	1985.02	2327.39	4,312.41
6	110.0	24.36	14.383	18.83	0.00	0.14	2.79	0.80	1.00	0.00	20.61	119.88	0.00	3,918.1	0.0	1905.64	2327.16	4,232.80
7	130.0	25.55	13.022	17.23	0.00	0.16	2.73	0.80	1.00	0.00	19.08	119.88	0.00	3,136.9	0.0	1812.47	2440.93	4,253.40
8	150.0	26.62	11.787	17.23	0.00	0.20	2.61	0.80	1.00	0.00	18.22	119.88	0.00	3,087.0	0.0	1722.76	2542.80	4,265.56
9	165.0	27.35	4.586	7.81	0.00	0.21	2.56	0.80	1.00	0.00	7.82	40.87	0.00	1,183.7	0.0	744.71	1068.77	1,813.49
10	177.5	27.93	0.000	11.36	0.00	0.15	2.78	0.80	1.00	0.00	6.56	49.96	0.00	1,500.9	0.0	693.43	1313.39	2,006.82
11	189.0	28.44	0.000	6.35	0.00	0.15	2.76	0.80	1.00	0.00	3.67	9.06	0.00	676.8	0.0	391.80	209.19	600.99
														42,493.0	**0.0**			**37,047.42**

Load Case: 0.9D + 1.6W 90° Wind — 0.9D + 1.6W 105 mph Wind at 90° From Face

Wind Load Factor: 1.60 — **Wind Importance Factor:** 1.00

Dead Load Factor: 0.90

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	16.79	16.538	26.21	0.00	0.10	2.97	0.85	1.00	0.00	25.31	126.14	0.00	7,797.4	0.0	1716.11	1734.59	3,450.69
2	30.0	16.81	24.346	23.64	0.00	0.12	2.88	0.85	1.00	0.00	31.71	125.06	0.00	5,791.7	0.0	2084.17	1718.22	3,802.39
3	50.0	19.45	22.326	23.64	0.00	0.13	2.84	0.85	1.00	0.00	29.60	123.97	0.00	5,653.0	0.0	2226.64	1967.59	4,194.23
4	70.0	21.41	20.384	22.04	0.00	0.14	2.82	0.85	1.00	0.00	27.41	123.97	0.00	5,034.4	0.0	2252.33	2166.13	4,418.47
5	90.0	23.01	15.857	22.04	0.00	0.14	2.81	0.85	1.00	0.00	23.38	123.97	0.00	4,713.1	0.0	2054.70	2327.39	4,382.09
6	110.0	24.36	14.383	18.83	0.00	0.14	2.79	0.85	1.00	0.00	21.33	119.88	0.00	3,918.1	0.0	1972.13	2327.16	4,299.30
7	130.0	25.55	13.022	17.23	0.00	0.16	2.73	0.85	1.00	0.00	19.73	119.88	0.00	3,136.9	0.0	1874.32	2440.93	4,315.25
8	150.0	26.62	11.787	17.23	0.00	0.20	2.61	0.85	1.00	0.00	18.81	119.88	0.00	3,087.0	0.0	1778.49	2542.80	4,321.29
9	165.0	27.35	4.586	7.81	0.00	0.21	2.56	0.85	1.00	0.00	8.04	40.87	0.00	1,183.7	0.0	766.56	1068.77	1,835.33
10	177.5	27.93	0.000	11.36	0.00	0.15	2.78	0.85	1.00	0.00	6.56	49.96	0.00	1,500.9	0.0	693.43	1313.39	2,006.82
11	189.0	28.44	0.000	6.35	0.00	0.15	2.76	0.85	1.00	0.00	3.67	9.06	0.00	676.8	0.0	391.80	209.19	600.99
														42,493.0	**0.0**			**37,626.85**

Section Forces

Structure:	CT01105-S-SBA	**Code:**	TIA-222-G	5/27/2022	
Site Name:	Bozrah	**Exposure:**	B		
Height:	193.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 10	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi Normal Wind — 1.2D + 1.0Di + 1.0Wi 50 mph Wind at Normal From Face

Wind Load Factor: 1.00
Dead Load Factor: 1.20
Ice Dead Load Factor: 1.00
Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	3.81	16.538	47.97	21.76	0.15	2.78	1.00	1.00	1.33	43.75	196.47	17.75	17,524.	7127.6	393.82	424.43	818.25
2	30.0	3.81	24.346	54.83	31.19	0.20	2.60	1.00	1.00	1.49	55.84	198.26	19.81	15,430.	7708.0	469.88	427.00	896.88
3	50.0	4.41	22.326	54.64	31.01	0.22	2.54	1.00	1.00	1.56	53.88	196.73	20.85	15,398.	7861.6	513.94	487.37	1,001.32
4	70.0	4.86	20.384	52.28	30.24	0.23	2.50	1.00	1.00	1.62	50.72	198.69	21.56	14,597.	7884.9	523.27	542.55	1,065.82
5	90.0	5.22	15.857	51.25	29.21	0.24	2.46	1.00	1.00	1.66	45.75	200.20	22.11	13,923.	7639.0	498.93	587.79	1,086.72
6	110.0	5.52	14.383	46.91	28.07	0.26	2.41	1.00	1.00	1.69	41.95	191.69	16.92	12,491.	7267.6	473.87	550.33	1,024.20
7	130.0	5.79	13.022	44.16	26.93	0.29	2.31	1.00	1.00	1.72	39.39	192.64	17.20	11,352.	7169.8	448.44	580.36	1,028.80
8	150.0	6.04	11.787	43.10	25.87	0.36	2.16	1.00	1.00	1.75	38.43	193.47	17.45	11,245.	7129.5	425.66	607.40	1,033.06
9	165.0	6.20	4.586	20.40	12.59	0.40	2.06	1.00	1.00	1.76	17.60	70.40	8.81	4,344.6	2766.3	190.81	270.27	461.08
10	177.5	6.33	0.000	42.78	31.42	0.52	1.87	1.00	1.00	1.77	29.96	84.95	10.65	5,860.9	3859.7	302.12	271.65	573.76
11	189.0	6.45	0.000	23.94	17.59	0.55	1.85	1.00	1.00	1.79	17.13	15.42	0.00	2,267.4	1365.1	173.28	47.00	220.28
														124,436.4	**67779.2**			**9,210.18**

Load Case: 1.2D + 1.0Di + 1.0Wi 60° Wind — 1.2D + 1.0Di + 1.0Wi 50 mph Wind at 60° From Face

Wind Load Factor: 1.00
Dead Load Factor: 1.20
Ice Dead Load Factor: 1.00
Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	3.81	16.538	47.97	21.76	0.15	2.78	0.80	1.00	1.33	40.44	196.47	17.75	17,524.	7127.6	364.05	424.43	788.48
2	30.0	3.81	24.346	54.83	31.19	0.20	2.60	0.80	1.00	1.49	50.97	198.26	19.81	15,430.	7708.0	428.91	427.00	855.91
3	50.0	4.41	22.326	54.64	31.01	0.22	2.54	0.80	1.00	1.56	49.41	196.73	20.85	15,398.	7861.6	471.35	487.37	958.72
4	70.0	4.86	20.384	52.28	30.24	0.23	2.50	0.80	1.00	1.62	46.64	198.69	21.56	14,597.	7884.9	481.21	542.55	1,023.76
5	90.0	5.22	15.857	51.25	29.21	0.24	2.46	0.80	1.00	1.66	42.58	200.20	22.11	13,923.	7639.0	464.34	587.79	1,052.13
6	110.0	5.52	14.383	46.91	28.07	0.26	2.41	0.80	1.00	1.69	39.07	191.69	16.92	12,491.	7267.6	441.37	550.33	991.71
7	130.0	5.79	13.022	44.16	26.93	0.29	2.31	0.80	1.00	1.72	36.79	192.64	17.20	11,352.	7169.8	418.79	580.36	999.15
8	150.0	6.04	11.787	43.10	25.87	0.36	2.16	0.80	1.00	1.75	36.07	193.47	17.45	11,245.	7129.5	399.54	607.40	1,006.95
9	165.0	6.20	4.586	20.40	12.59	0.40	2.06	0.80	1.00	1.76	16.68	70.40	8.81	4,344.6	2766.3	180.87	270.27	451.14
10	177.5	6.33	0.000	42.78	31.42	0.52	1.87	0.80	1.00	1.77	29.96	84.95	10.65	5,860.9	3859.7	302.12	271.65	573.76
11	189.0	6.45	0.000	23.94	17.59	0.55	1.85	0.80	1.00	1.79	17.13	15.42	0.00	2,267.4	1365.1	173.28	47.00	220.28
														124,436.4	**67779.2**			**8,921.99**

Section Forces

Structure:	CT01105-S-SBA	**Code:**	TIA-222-G	5/27/2022	
Site Name:	Bozrah	**Exposure:**	B		
Height:	193.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 11	

TES Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 90° Wind — 1.2D + 1.0Di + 1.0Wi 50 mph Wind at 90° From Face

Wind Load Factor: 1.00
Dead Load Factor: 1.20
Ice Dead Load Factor: 1.00
Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	3.81	16.538	47.97	21.76	0.15	2.78	0.85	1.00	1.33	41.27	196.47	17.75	17,524.	7127.6	371.49	424.43	795.92
2	30.0	3.81	24.346	54.83	31.19	0.20	2.60	0.85	1.00	1.49	52.19	198.26	19.81	15,430.	7708.0	439.15	427.00	866.15
3	50.0	4.41	22.326	54.64	31.01	0.22	2.54	0.85	1.00	1.56	50.53	196.73	20.85	15,398.	7861.6	482.00	487.37	969.37
4	70.0	4.86	20.384	52.28	30.24	0.23	2.50	0.85	1.00	1.62	47.66	198.69	21.56	14,597.	7884.9	491.73	542.55	1,034.28
5	90.0	5.22	15.857	51.25	29.21	0.24	2.46	0.85	1.00	1.66	43.37	200.20	22.11	13,923.	7639.0	472.99	587.79	1,060.78
6	110.0	5.52	14.383	46.91	28.07	0.26	2.41	0.85	1.00	1.69	39.79	191.69	16.92	12,491.	7267.6	449.50	550.33	999.83
7	130.0	5.79	13.022	44.16	26.93	0.29	2.31	0.85	1.00	1.72	37.44	192.64	17.20	11,352.	7169.8	426.20	580.36	1,006.56
8	150.0	6.04	11.787	43.10	25.87	0.36	2.16	0.85	1.00	1.75	36.66	193.47	17.45	11,245.	7129.5	406.07	607.40	1,013.47
9	165.0	6.20	4.586	20.40	12.59	0.40	2.06	0.85	1.00	1.76	16.91	70.40	8.81	4,344.6	2766.3	183.35	270.27	453.62
10	177.5	6.33	0.000	42.78	31.42	0.52	1.87	0.85	1.00	1.77	29.96	84.95	10.65	5,860.9	3859.7	302.12	271.65	573.76
11	189.0	6.45	0.000	23.94	17.59	0.55	1.85	0.85	1.00	1.79	17.13	15.42	0.00	2,267.4	1365.1	173.28	47.00	220.28
														124,436.4	**67779.2**			**8,994.04**

Load Case: 1.0D + 1.0W Normal Wind — 1.0D + 1.0W 60 mph Wind at Normal To Face

Wind Load Factor: 1.00
Dead Load Factor: 1.00
Ice Dead Load Factor: 0.00
Wind Importance Factor: 1.00
Ice Importance Factor: 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	5.48	16.538	26.21	0.00	0.10	2.97	1.00	1.00	0.00	31.21	126.14	0.00	8,663.8	0.0	431.97	354.00	785.97
2	30.0	5.49	24.346	23.64	0.00	0.12	2.88	1.00	1.00	0.00	37.71	125.06	0.00	6,435.3	0.0	505.82	350.66	856.47
3	50.0	6.35	22.326	23.64	0.00	0.13	2.84	1.00	1.00	0.00	35.70	123.97	0.00	6,281.1	0.0	548.09	401.55	949.64
4	70.0	6.99	20.384	22.04	0.00	0.14	2.82	1.00	1.00	0.00	32.86	123.97	0.00	5,593.8	0.0	551.16	442.07	993.23
5	90.0	7.51	15.857	22.04	0.00	0.14	2.81	1.00	1.00	0.00	28.31	123.97	0.00	5,236.8	0.0	507.79	474.98	982.77
6	110.0	7.96	14.383	18.83	0.00	0.14	2.79	1.00	1.00	0.00	25.06	119.88	0.00	4,353.4	0.0	472.91	474.93	947.85
7	130.0	8.34	13.022	17.23	0.00	0.16	2.73	1.00	1.00	0.00	22.82	119.88	0.00	3,485.4	0.0	442.42	498.15	940.57
8	150.0	8.69	11.787	17.23	0.00	0.20	2.61	1.00	1.00	0.00	21.67	119.88	0.00	3,430.0	0.0	418.19	518.94	937.13
9	165.0	8.93	4.586	7.81	0.00	0.21	2.56	1.00	1.00	0.00	9.09	40.87	0.00	1,315.2	0.0	176.75	218.12	394.87
10	177.5	9.12	0.000	11.36	0.00	0.15	2.78	1.00	1.00	0.00	6.56	49.96	0.00	1,667.7	0.0	141.52	268.04	409.55
11	189.0	9.29	0.000	6.35	0.00	0.15	2.76	1.00	1.00	0.00	3.67	9.06	0.00	752.0	0.0	79.96	42.69	122.65
														47,214.4	**0.0**			**8,320.70**

Section Forces

Structure:	CT01105-S-SBA	**Code:**	TIA-222-G	5/27/2022	
Site Name:	Bozrah	**Exposure:**	B		
Height:	193.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 12	

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Load Case: 1.0D + 1.0W 60° Wind — 1.0D + 1.0W 60 mph Wind at 60° From Face

Wind Load Factor: 1.00 — **Wind Importance Factor:** 1.00

Dead Load Factor: 1.00

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	5.48	16.538	26.21	0.00	0.10	2.97	0.80	1.00	0.00	27.91	126.14	0.00	8,663.8	0.0	386.19	354.00	740.19
2	30.0	5.49	24.346	23.64	0.00	0.12	2.88	0.80	1.00	0.00	32.84	125.06	0.00	6,435.3	0.0	440.50	350.66	791.16
3	50.0	6.35	22.326	23.64	0.00	0.13	2.84	0.80	1.00	0.00	31.24	123.97	0.00	6,281.1	0.0	479.54	401.55	881.09
4	70.0	6.99	20.384	22.04	0.00	0.14	2.82	0.80	1.00	0.00	28.79	123.97	0.00	5,593.8	0.0	482.79	442.07	924.86
5	90.0	7.51	15.857	22.04	0.00	0.14	2.81	0.80	1.00	0.00	25.14	123.97	0.00	5,236.8	0.0	450.91	474.98	925.88
6	110.0	7.96	14.383	18.83	0.00	0.14	2.79	0.80	1.00	0.00	22.18	119.88	0.00	4,353.4	0.0	418.63	474.93	893.56
7	130.0	8.34	13.022	17.23	0.00	0.16	2.73	0.80	1.00	0.00	20.22	119.88	0.00	3,485.4	0.0	391.93	498.15	890.08
8	150.0	8.69	11.787	17.23	0.00	0.20	2.61	0.80	1.00	0.00	19.31	119.88	0.00	3,430.0	0.0	372.70	518.94	891.64
9	165.0	8.93	4.586	7.81	0.00	0.21	2.56	0.80	1.00	0.00	8.17	40.87	0.00	1,315.2	0.0	158.92	218.12	377.03
10	177.5	9.12	0.000	11.36	0.00	0.15	2.78	0.80	1.00	0.00	6.56	49.96	0.00	1,667.7	0.0	141.52	268.04	409.55
11	189.0	9.29	0.000	6.35	0.00	0.15	2.76	0.80	1.00	0.00	3.67	9.06	0.00	752.0	0.0	79.96	42.69	122.65
														47,214.4	**0.0**			**7,847.70**

Load Case: 1.0D + 1.0W 90° Wind — 1.0D + 1.0W 60 mph Wind at 90° From Face

Wind Load Factor: 1.00 — **Wind Importance Factor:** 1.00

Dead Load Factor: 1.00

Ice Dead Load Factor: 0.00 — **Ice Importance Factor:** 1.00

Sect Seq	Wind Height (ft)	qz (psf)	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Ice Thick (in)	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)
1	10.0	5.48	16.538	26.21	0.00	0.10	2.97	0.85	1.00	0.00	28.73	126.14	0.00	8,663.8	0.0	397.64	354.00	751.63
2	30.0	5.49	24.346	23.64	0.00	0.12	2.88	0.85	1.00	0.00	34.06	125.06	0.00	6,435.3	0.0	456.83	350.66	807.49
3	50.0	6.35	22.326	23.64	0.00	0.13	2.84	0.85	1.00	0.00	32.35	123.97	0.00	6,281.1	0.0	496.68	401.55	898.23
4	70.0	6.99	20.384	22.04	0.00	0.14	2.82	0.85	1.00	0.00	29.81	123.97	0.00	5,593.8	0.0	499.88	442.07	941.95
5	90.0	7.51	15.857	22.04	0.00	0.14	2.81	0.85	1.00	0.00	25.93	123.97	0.00	5,236.8	0.0	465.13	474.98	940.11
6	110.0	7.96	14.383	18.83	0.00	0.14	2.79	0.85	1.00	0.00	22.90	119.88	0.00	4,353.4	0.0	432.20	474.93	907.13
7	130.0	8.34	13.022	17.23	0.00	0.16	2.73	0.85	1.00	0.00	20.87	119.88	0.00	3,485.4	0.0	404.55	498.15	902.70
8	150.0	8.69	11.787	17.23	0.00	0.20	2.61	0.85	1.00	0.00	19.90	119.88	0.00	3,430.0	0.0	384.07	518.94	903.01
9	165.0	8.93	4.586	7.81	0.00	0.21	2.56	0.85	1.00	0.00	8.40	40.87	0.00	1,315.2	0.0	163.38	218.12	381.49
10	177.5	9.12	0.000	11.36	0.00	0.15	2.78	0.85	1.00	0.00	6.56	49.96	0.00	1,667.7	0.0	141.52	268.04	409.55
11	189.0	9.29	0.000	6.35	0.00	0.15	2.76	0.85	1.00	0.00	3.67	9.06	0.00	752.0	0.0	79.96	42.69	122.65
														47,214.4	**0.0**			**7,965.95**

Force/Stress Compression Summary

Structure:	CT01105-S-SBA	**Code:**	TIA-222-G	5/27/2022	
Site Name:	Bozrah	**Exposure:**	B		
Height:	193.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 13	

Tower Engineering Solutions

LEG MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fy (ksi)	Mem Cap (kips)	Leg Use %	Controls
1	20	18B - 18"BD 2.5"	-354.70	1.2D + 1.6W Normal Wind	20.03	100	100	100	32.60	50.00	612.89	57.9	Member X
2	40	12B - 12"BD 2.25"	-344.31	1.2D + 1.6W Normal Wind	10.02	100	100	100	24.38	50.00	514.03	67.0	Member X
3	60	12B - 12"BD 2.25"	-309.32	1.2D + 1.6W Normal Wind	10.02	100	100	100	24.38	50.00	514.03	60.2	Member X
4	80	12B - 12"BD 2"	-275.21	1.2D + 1.6W Normal Wind	10.02	100	100	100	24.41	50.00	405.83	67.8	Member X
5	100	12B - 12"BD 2"	-239.98	1.2D + 1.6W Normal Wind	10.02	100	100	100	24.41	50.00	405.83	59.1	Member X
6	120	12B - 12"BD 1.75"	-202.61	1.2D + 1.6W Normal Wind	10.02	100	100	100	25.99	50.00	308.82	65.6	Member X
7	140	12B - 12"BD 1.5"	-162.55	1.2D + 1.6W Normal Wind	10.02	100	100	100	30.32	50.00	222.99	72.9	Member X
8	160	12B - 12"BD 1.5"	-116.03	1.2D + 1.6W Normal Wind	10.02	100	100	100	30.32	50.00	222.99	52.0	Member X
9	170	12B - 12"BD 1.25"	-56.72	1.2D + 1.6W Normal Wind	10.02	100	100	100	36.38	50.00	150.33	37.7	Member X
10	185	SOL - 2" SOLID	-42.61	1.2D + 1.6W Normal Wind	2.33	100	100	100	56.00	50.00	112.40	37.9	Member X
11	193	SOL - 2" SOLID	-7.92	1.2D + 1.6W Normal Wind	0.50	100	100	100	12.00	50.00	139.89	5.7	Member X

Splices

		Top Splice					Bottom Splice				
Sect	Top Elev	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts
1	20	1.2D + 1.6W Normal Wind	349.64	0.00	0.0			1.2D + 1.6W Normal Wind	378.71	0.00			
2	40	1.2D + 1.6W Normal Wind	317.88	0.00	0.0			1.2D + 1.6W Normal Wind	349.64	0.00		1/4 A325	6
3	60	1.2D + 1.6W Normal Wind	284.41	0.00	0.0			1.2D + 1.6W Normal Wind	317.88	0.00		1/4 A325	6
4	80	1.2D + 1.6W Normal Wind	249.42	0.00	0.0			1.2D + 1.6W Normal Wind	284.41	0.00		1/4 A325	6
5	100	1.2D + 1.6W Normal Wind	213.00	0.00	0.0			1.2D + 1.6W Normal Wind	249.42	0.00		1/4 A325	6
6	120	1.2D + 1.6W Normal Wind	173.84	0.00	0.0			1.2D + 1.6W Normal Wind	213.00	0.00		1 A325	6
7	140	1.2D + 1.6W Normal Wind	129.60	0.00	0.0			1.2D + 1.6W Normal Wind	173.84	0.00		1 A325	6
8	160	1.2D + 1.6W Normal Wind	74.49	0.00	0.0			1.2D + 1.6W Normal Wind	129.60	0.00		1 A325	6
9	170	1.2D + 1.6W Normal Wind	47.24	0.00	0.0			1.2D + 1.6W Normal Wind	74.49	0.00		1 A325	6
10	185	1.2D + 1.6W Normal Wind	8.00	0.00	0.0			1.2D + 1.6W Normal Wind	47.24	0.00		1 A325	6
11	193	1.2D + 1.0E	0.40	0.00	0.0			1.2D + 1.6W Normal Wind	8.00	0.00		5/8 A325	4

HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	Use %	Controls
1	20										0.00	0	0				
2	40										0.00	0	0				
3	60										0.00	0	0				
4	80										0.00	0	0				
5	100										0.00	0	0				
6	120										0.00	0	0				
7	140										0.00	0	0				
8	160										0.00	0	0				
9	170										0.00	0	0				
10	185	SOL - 1 1/4" SOLID	-0.90	1.2D + 1.6W 60° Wind	5.00	100	100	100	134.40	50.00	15.35	0	0			6	Member X
11	193	SOL - 1 1/4" SOLID	-1.00	1.2D + 1.6W Normal Wind	5.00	100	100	100	134.40	50.00	15.35	0	0			7	Member X

DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	Use %	Controls
1	20	DAE - 3.5X3.5X0.3125	-16.5	1.2D + 1.6W Normal Wind	29.01	48	96	24	223.39	36.00	18.92	4	2	127.24	278.	87	Member Y
2	40	SAE - 3.5X3.5X0.3125	-9.48	1.2D + 1.6W 90° Wind	21.03	50	50	50	182.88	36.00	14.12	1	1	43.49	37.5	67	Member Z
3	60	SAE - 3.5X3.5X0.3125	-8.57	0.9D + 1.6W 90° Wind	20.16	50	50	50	175.28	36.00	15.37	1	1	43.49	37.5	56	Member Z

Force/Stress Compression Summary

Structure:	CT01105-S-SBA	**Code:**	TIA-222-G	5/27/2022	
Site Name:	Bozrah	**Exposure:**	B		
Height:	193.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 14	

IES
Tower Engineering Solutions

DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Len (ft)	Bracing % X	Y	Z	KL/R	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	Use %	Controls
4	80	SAE - 3.5X3.5X0.3125	-8.46	1.2D + 1.6W 90° Wind	18.45	50	50	50	160.42	36.00	18.35	1	1	43.49	37.5	46	Member Z
5	100	SAE - 3X3X0.3125	-8.07	1.2D + 1.6W 90° Wind	16.80	50	50	50	171.17	36.00	13.73	1	1	43.49	37.5	59	Member Z
6	120	SAE - 3X3X0.3125	-7.97	1.2D + 1.6W 90° Wind	15.24	50	50	50	155.27	36.00	16.68	1	1	31.81	29.9	48	Member Z
7	140	SAE - 3X3X0.1875	-8.14	1.2D + 1.6W 90° Wind	13.80	50	50	50	138.89	36.00	12.77	1	1	31.81	17.9	64	Member Z
8	160	SAE - 3X3X0.1875	-9.18	1.2D + 1.6W 90° Wind	12.50	50	50	50	125.87	36.00	15.34	1	1	31.81	17.9	60	Member Z
9	170	SAE - 2.5X2.5X0.1875	-9.28	1.2D + 1.6W Normal Wind	11.42	50	50	50	138.38	36.00	10.64	1	1	31.81	17.9	87	Member Z
10	185	SOL - 1" SOLID	-5.76	1.2D + 1.6W 90° Wind	5.52	50	50	50	119.18	50.00	12.49	0	0			46	Member X
11	193	SOL - 1" SOLID	-2.31	1.2D + 1.6W 90° Wind	5.52	50	50	50	119.18	50.00	12.49	0	0			19	Member X

Force/Stress Tension Summary

Structure:	CT01105-S-SBA	**Code:**	TIA-222-G	5/27/2022	
Site Name:	Bozrah	**Exposure:**	B		
Height:	193.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 15	

TES Tower Engineering Solutions

LEG MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Leg Use %	Controls
1	20	18B - 18"BD 2.5"	308.21	0.9D + 1.6W 60° Wind	50	662.40	46.5	Member
2	40	12B - 12"BD 2.25"	298.21	0.9D + 1.6W 60° Wind	50	536.85	55.5	Member
3	60	12B - 12"BD 2.25"	270.07	0.9D + 1.6W 60° Wind	50	536.85	50.3	Member
4	80	12B - 12"BD 2"	242.14	0.9D + 1.6W 60° Wind	50	423.90	57.1	Member
5	100	12B - 12"BD 2"	212.29	0.9D + 1.6W 60° Wind	50	423.90	50.1	Member
6	120	12B - 12"BD 1.75"	180.06	0.9D + 1.6W 60° Wind	50	324.45	55.5	Member
7	140	12B - 12"BD 1.5"	144.39	0.9D + 1.6W 60° Wind	50	238.50	60.5	Member
8	160	12B - 12"BD 1.5"	101.35	0.9D + 1.6W 60° Wind	50	238.50	42.5	Member
9	170	12B - 12"BD 1.25"	48.03	0.9D + 1.6W 60° Wind	50	165.60	29.0	Member
10	185	SOL - 2" SOLID	37.98	0.9D + 1.6W 60° Wind	50	141.37	26.9	Member
11	193	SOL - 2" SOLID	4.44	0.9D + 1.6W 60° Wind	50	141.37	3.1	Member

Splices

		Top Splice					Bottom Splice				
Sect	Top Elev	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts	Load Case	Force (kips)	Cap (kips)	Use %	Bolt Type	Num Bolts
1	20	0.9D + 1.6W 60° Wind	300.70	0.00	0.0			0.9D + 1.6W 60° Wind	328.0	0.00			
2	40	0.9D + 1.6W 60° Wind	275.84	0.00	0.0			0.9D + 1.6W 60° Wind	300.7	457.92	65.7	1 1/4 A325	6
3	60	0.9D + 1.6W 60° Wind	248.46	0.00	0.0			0.9D + 1.6W 60° Wind	275.8	457.92	60.2	1 1/4 A325	6
4	80	0.9D + 1.6W 60° Wind	219.11	0.00	0.0			0.9D + 1.6W 60° Wind	248.4	457.92	54.3	1 1/4 A325	6
5	100	0.9D + 1.6W 60° Wind	187.83	0.00	0.0			0.9D + 1.6W 60° Wind	219.1	457.92	47.8	1 1/4 A325	6
6	120	0.9D + 1.6W 60° Wind	153.34	0.00	0.0			0.9D + 1.6W 60° Wind	187.8	318.06	59.1	1 A325	6
7	140	0.9D + 1.6W 60° Wind	112.95	0.00	0.0			0.9D + 1.6W 60° Wind	153.3	318.06	48.2	1 A325	6
8	160	0.9D + 1.6W 60° Wind	61.14	0.00	0.0			0.9D + 1.6W 60° Wind	112.9	318.06	35.5	1 A325	6
9	170	0.9D + 1.6W 60° Wind	37.37	0.00	0.0			0.9D + 1.6W 60° Wind	61.14	318.06	19.2	1 A325	6
10	185	0.9D + 1.6W 60° Wind	4.38	0.00	0.0			0.9D + 1.6W 60° Wind	37.37	318.06	11.8	1 A325	6
11	193		0.00	0.00	0.0			0.9D + 1.6W 60° Wind	4.38	82.80	5.3	5/8 A325	4

HORIZONTAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
1	20	-			36	0.00	0	0					
2	40	-			36	0.00	0	0					
3	60	-			36	0.00	0	0					
4	80	-			36	0.00	0	0					
5	100	SAE -			36	0.00	0	0					
6	120	-			36	0.00	0	0					
7	140	SAE -			36	0.00	0	0					
8	160	-			36	0.00	0	0					
9	170	SAE -			36	0.00	0	0					
10	185	SOL - 1 1/4" SOLID	0.91	1.2D + 1.6W Normal Wi	50	55.22	0	0				1.6	Member
11	193	SOL - 1 1/4" SOLID	1.00	1.2D + 1.6W 60° Wind	50	55.22	0	0				1.8	Member

DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
1	20	DAE - 3.5X3.5X0.3125	13.82	0.9D + 1.6W 90° Wind	36	113.43	4	2	127.24	278.40	134.33	12.2	Member
2	40	SAE - 3.5X3.5X0.3125	9.78	1.2D + 1.6W Normal Wi	36	54.17	1	1	43.49	37.52	23.70	41.3	Blck Shear
3	60	SAE - 3.5X3.5X0.3125	8.44	1.2D + 1.6W 90° Wind	36	54.17	1	1	43.49	37.52	23.70	35.6	Blck Shear
4	80	SAE - 3.5X3.5X0.3125	8.13	0.9D + 1.6W 90° Wind	36	54.17	1	1	43.49	37.52	23.70	34.3	Blck Shear

Force/Stress Tension Summary

Structure:	CT01105-S-SBA	**Code:**	TIA-222-G	5/27/2022	
Site Name:	Bozrah	**Exposure:**	B		
Height:	193.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 16	

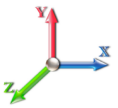
Tower Engineering Solutions

DIAGONAL MEMBERS

Sect	Top Elev	Member	Force (kips)	Load Case	Fy (ksi)	Mem Cap (kips)	Num Bolts	Num Holes	Shear Cap (kips)	Bear Cap (kips)	B.S. Cap (kips)	Use %	Controls
5	100	SAE - 3X3X0.3125	7.75	0.9D + 1.6W 90° Wind	36	44.05	1	1	43.49	37.52	20.30	38.2	Blck Shear
6	120	SAE - 3X3X0.3125	7.66	1.2D + 1.6W 90° Wind	36	46.60	1	1	31.81	29.91	19.47	39.3	Blck Shear
7	140	SAE - 3X3X0.1875	8.22	1.2D + 1.6W 90° Wind	36	28.68	1	1	31.81	17.94	11.68	70.3	Blck Shear
8	160	SAE - 3X3X0.1875	9.74	1.2D + 1.6W 90° Wind	36	28.68	1	1	31.81	17.94	11.68	83.4	Blck Shear
9	170	SAE - 2.5X2.5X0.1875	8.49	0.9D + 1.6W 60° Wind	36	22.55	1	1	31.81	17.94	10.66	79.6	Blck Shear
10	185	SOL - 1" SOLID	5.71	1.2D + 1.6W 90° Wind	50	35.34	0	0				16.1	Member
11	193	SOL - 1" SOLID	2.31	1.2D + 1.6W 90° Wind	50	35.34	0	0				6.5	Member

Seismic Section Forces

Structure:	CT01105-S-SBA	**Code:**	TIA-222-G	5/27/2022	
Site Name:	Bozrah	**Exposure:**	B		
Height:	193.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 17	



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Load Case: 1.2D + 1.0E

Dead Load Factor	1.20	**Sds**	0.181	**Ss**	0.1700	**Fa**	1.6000	**Ke**	0.0000
Seismic Load Factor	1.00	**Sd1**	0.097	**S1**	0.0610	**Fv**	2.4000	**Kg**	0.0000
Seismic Importance Factor	1.00	**SA**	0.136	**R**	3.0000	**Vs**	3.3207	**f1**	1.4015

Sect #	Elev (ft)	Wz (lb)	a	b	c	Lateral Fsz (lb)
1	10.00	8663.8	0.01	0.04	0.03	32.41
2	30.00	6523.0	0.05	0.07	0.04	48.84
3	50.00	6281.0	0.13	0.07	0.03	69.36
4	70.00	5593.7	0.25	0.06	0.02	87.04
5	90.00	5324.2	0.41	0.01	0.01	105.48
6	110.00	4353.4	0.61	-0.06	0.02	100.27
7	130.00	3485.4	0.86	-0.12	0.07	96.92
8	150.00	6451.1	1.14	-0.04	0.21	267.34
9	165.00	1315.2	1.38	0.25	0.41	83.13
10	177.50	7632.8	1.60	0.77	0.67	698.80
11	189.00	5036.2	1.81	1.60	1.00	639.00

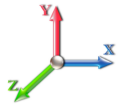
Load Case: 0.9D + 1.0E

Dead Load Factor	0.90	**Sds**	0.181	**Ss**	0.1700	**Fa**	1.6000	**Ke**	0.0000
Seismic Load Factor	1.00	**Sd1**	0.097	**S1**	0.0610	**Fv**	2.4000	**Kg**	0.0000
Seismic Importance Factor	1.00	**SA**	0.136	**R**	3.0000	**Vs**	3.3207	**f1**	1.4015

Sect #	Elev (ft)	Wz (lb)	a	b	c	Lateral Fsz (lb)
1	10.00	8663.8	0.01	0.04	0.03	32.41
2	30.00	6523.0	0.05	0.07	0.04	48.84
3	50.00	6281.0	0.13	0.07	0.03	69.36
4	70.00	5593.7	0.25	0.06	0.02	87.04
5	90.00	5324.2	0.41	0.01	0.01	105.48
6	110.00	4353.4	0.61	-0.06	0.02	100.27
7	130.00	3485.4	0.86	-0.12	0.07	96.92
8	150.00	6451.1	1.14	-0.04	0.21	267.34
9	165.00	1315.2	1.38	0.25	0.41	83.13
10	177.50	7632.8	1.60	0.77	0.67	698.80
11	189.00	5036.2	1.81	1.60	1.00	639.00

Support Forces Summary

Structure:	CT01105-S-SBA	**Code:**	TIA-222-G	5/27/2022	
Site Name:	Bozrah	**Exposure:**	B		
Height:	193.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	0.85 **Topography:** 1	**Struct Class:**	II	Page: 18	



TES Tower Engineering Solutions

Load Case	Node	FX (kips)	FY (kips)	FZ (kips)	(-) = Uplift (+) = Down
1.2D + 1.6W Normal Wind	1	0.00	378.65	-42.77	
	1a	16.34	-152.93	-6.60	
	1b	-16.34	-152.93	-6.60	
1.2D + 1.6W 60° Wind	1	2.52	196.31	-21.97	
	1a	-17.76	196.29	13.17	
	1b	-31.22	-319.81	-18.03	
1.2D + 1.6W 90° Wind	1	2.89	24.28	-2.65	
	1a	-30.82	324.45	19.48	
	1b	-26.30	-275.94	-16.83	
0.9D + 1.6W Normal Wind	1	0.00	371.94	-42.07	
	1a	16.91	-158.67	-6.95	
	1b	-16.91	-158.67	-6.95	
0.9D + 1.6W 60° Wind	1	2.51	189.93	-21.28	
	1a	-17.18	189.91	12.81	
	1b	-31.79	-325.24	-18.36	
0.9D + 1.6W 90° Wind	1	2.87	18.22	-1.96	
	1a	-30.22	317.83	19.12	
	1b	-26.88	-281.45	-17.16	
1.2D + 1.0Di + 1.0Wi Normal Wind	1	0.00	136.30	-11.72	
	1a	2.35	10.53	-0.63	
	1b	-2.35	10.53	-0.63	
1.2D + 1.0Di + 1.0Wi 60° Wind	1	0.63	93.74	-6.93	
	1a	-5.69	93.74	4.02	
	1b	-5.94	-30.13	-3.43	
1.2D + 1.0Di + 1.0Wi 90° Wind	1	0.73	52.45	-2.34	
	1a	-8.77	124.25	5.49	
	1b	-4.73	-19.35	-3.15	
1.2D + 1.0E	1	0.00	42.38	3.31	
	1a	5.25	15.21	-2.75	
	1b	-5.25	15.21	-2.75	
0.9D + 1.0E	1	0.00	36.28	4.00	
	1a	5.84	9.16	-3.09	
	1b	-5.84	9.16	-3.09	
1.0D + 1.0W Normal Wind	1	0.00	93.52	-10.63	
	1a	1.90	-16.43	-0.53	
	1b	-1.90	-16.43	-0.53	
1.0D + 1.0W 60° Wind	1	0.50	55.82	-6.30	
	1a	-5.21	55.81	3.58	
	1b	-5.02	-50.97	-2.90	
1.0D + 1.0W 90° Wind	1	0.57	20.22	-2.27	
	1a	-7.93	82.38	4.91	
	1b	-4.00	-41.94	-2.64	

Max Reactions

Leg			Overturning		
Max Uplift:	-325.24	(kips)	Moment:	6751.99	(ft-kips)
Max Down:	378.65	(kips)	Total Down:	72.79	(kips)
Max Shear:	42.77	(kips)	Total Shear:	55.97	(kips)

Max Reactions

Leg			Overturning		
Max Uplift:	-325.24	(kips)	Moment:	6751.99	(ft-kips)
Max Down:	378.65	(kips)	Total Down:	72.79	(kips)
Max Shear:	42.77	(kips)	Total Shear:	55.97	(kips)

Anchor Bolts

Bolt Size (in.):	2.00	Number Bolts:	6
Yield Strength (Ksi):	105.00	Tensile Strength (Ksi):	150.00
Detail Type:	C		

Interaction Ratio: 0.22

Max Usages

Max Leg: 72.9% (1.2D + 1.6W Normal Wind - Sect 7)
Max Diag: 87.5% (1.2D + 1.6W Normal Wind - Sect 1)
Max Horiz: 6.5% (1.2D + 1.6W Normal Wind - Sect 11)

Max Deflection, Twist and Sway

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)
0.9D + 1.0E - Normal To Face	30.00	0.0046	0.0003	0.0172
	100.00	0.0242	0.0008	0.0299
	160.00	0.0744	0.0017	0.0701
	175.17	0.0954	0.0016	0.0838
	182.17	0.1057	0.0012	0.0780
	190.17	0.1183	0.0010	0.0858
0.9D + 1.6W 105 mph Wind at 60° From Face	30.00	0.0353	0.0069	0.1514
	100.00	0.4125	0.0189	0.5018
	160.00	1.2172	0.0349	1.0341
	175.17	1.5093	0.0357	1.1651
	182.17	1.6512	0.0356	1.1119
	190.17	1.8189	0.0357	1.1772
0.9D + 1.6W 105 mph Wind at 90° From Face	30.00	0.0351	-0.0077	0.1602
	100.00	0.4140	-0.0203	0.5036
	160.00	1.2214	-0.0359	1.0398
	175.17	1.5153	-0.0366	1.1662
	182.17	1.6575	-0.0365	1.1154
	190.17	1.8256	-0.0365	1.1792
0.9D + 1.6W 105 mph Wind at Normal To Face	30.00	0.0363	0.0070	0.1567
	100.00	0.4226	0.0188	0.5127
	160.00	1.2407	0.0340	1.0488
	175.17	1.5365	0.0341	1.1775
	182.17	1.6797	0.0341	1.1253
	190.17	1.8494	0.0339	1.1896

1.0D + 1.0W 60 mph Wind at 60° From Face	30.00	0.0073	0.0014	0.0307
	100.00	0.0851	0.0039	0.1034
	160.00	0.2503	0.0071	0.2124
	175.17	0.3106	0.0066	0.2395
	182.17	0.3397	0.0058	0.2280
	190.17	0.3741	0.0054	0.2418
1.0D + 1.0W 60 mph Wind at 90° From Face	30.00	0.0073	-0.0016	0.0333
	100.00	0.0858	-0.0042	0.1041
	160.00	0.2524	-0.0074	0.2139
	175.17	0.3124	-0.0070	0.2401
	182.17	0.3415	-0.0064	0.2293
	190.17	0.3761	-0.0060	0.2426
1.0D + 1.0W 60 mph Wind at Normal To Face	30.00	0.0075	0.0015	0.0333
	100.00	0.0876	0.0039	0.1059
	160.00	0.2564	0.0069	0.2156
	175.17	0.3166	0.0064	0.2414
	182.17	0.3460	0.0057	0.2313
	190.17	0.3809	0.0052	0.2444
1.2D + 1.0Di + 1.0Wi 50 mph Wind at 60° From Face	30.00	0.0101	0.0016	0.0368
	100.00	0.1002	0.0044	0.1212
	160.00	0.2946	0.0081	0.2527
	175.17	0.3671	0.0079	0.2874
	182.17	0.4018	0.0074	0.2723
	190.17	0.4430	0.0071	0.2895
1.2D + 1.0Di + 1.0Wi 50 mph Wind at 90° From Face	30.00	0.0099	-0.0018	0.0383
	100.00	0.1002	-0.0049	0.1220
	160.00	0.2962	-0.0087	0.2537
	175.17	0.3679	-0.0086	0.2873
	182.17	0.4027	-0.0082	0.2732
	190.17	0.4440	-0.0080	0.2897
1.2D + 1.0Di + 1.0Wi 50 mph Wind at Normal From Face	30.00	0.0093	0.0016	0.0366
	100.00	0.1005	0.0044	0.1232
	160.00	0.2989	0.0079	0.2543
	175.17	0.3703	0.0077	0.2873
	182.17	0.4053	0.0072	0.2746
	190.17	0.4468	0.0069	0.2904
1.2D + 1.0E - Normal To Face	30.00	0.0047	0.0003	0.0166
	100.00	0.0242	0.0008	0.0300
	160.00	0.0745	0.0017	0.0705
	175.17	0.0957	0.0016	0.0842
	182.17	0.1060	0.0012	0.0783
	190.17	0.1186	0.0010	0.0860
1.2D + 1.6W 105 mph Wind at 60° From Face	30.00	0.0353	0.0069	0.1514
	100.00	0.4134	0.0189	0.5031
	160.00	1.2206	0.0349	1.0378
	175.17	1.5139	0.0358	1.1698
	182.17	1.6564	0.0357	1.1160
	190.17	1.8247	0.0357	1.1819
1.2D + 1.6W 105 mph Wind at 90° From Face	30.00	0.0352	-0.0077	0.1605
	100.00	0.4149	-0.0204	0.5050
	160.00	1.2249	-0.0360	1.0435
	175.17	1.5200	-0.0366	1.1709
	182.17	1.6626	-0.0366	1.1196
	190.17	1.8314	-0.0366	1.1840
1.2D + 1.6W 105 mph Wind at Normal To Face	30.00	0.0363	0.0070	0.1572
	100.00	0.4237	0.0188	0.5141
	160.00	1.2444	0.0341	1.0525
	175.17	1.5411	0.0341	1.1819
	182.17	1.6850	0.0342	1.1295
	190.17	1.8553	0.0340	1.1942

Mat Foundation Design for Self Supporting Tower

			Date: 5/17/2022
Customer Name:	SBA Communications Corp	TIA Standard:	TIA-222-G
Site Name:		Structure Height (Ft.):	193
Site Nmber:	CT01105-S-SBA	Engineer Name:	I. Hasan Efaz
Engr. Number:	129196	Engineer Login ID:	

Foundation Info Obtained from: Drawings/Calculations

Analysis or Design? Analysis

Number of Tower Legs: 3 Legs

Base Reactions (Factored):

(1). Individual Leg:

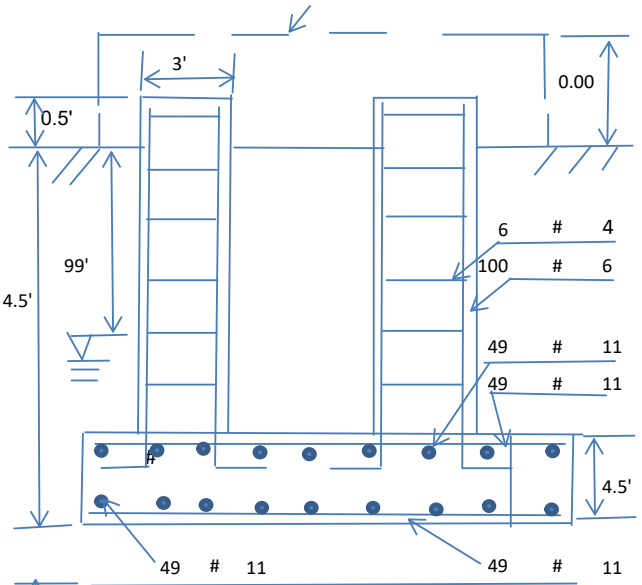
Axial Load (Kips):	376.6	Uplift Force (Kips):	323.3
Shear Force (Kips):	42.6		

(2). Tower Base:

Total Vertical Load (Kips):	72.5	Total Shear Force (Kips):	55.8
Moment (Kips-ft):	6714.2		

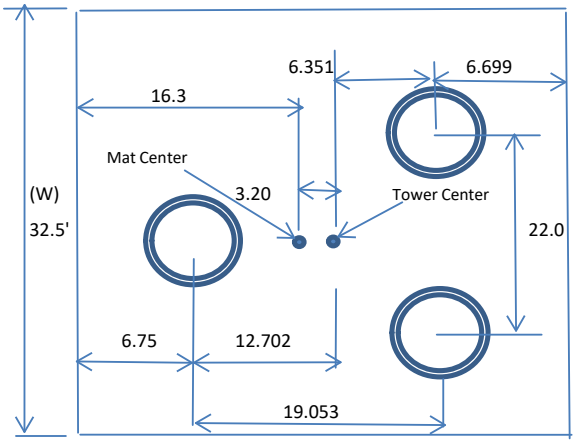
Foundation Geometries:

Leg distance (Center-to-Center ft.):		22.0	Mods required -Yes/No ?:	No	
Diameter of Pier (ft.):	Round	3.0	Pier Height A. G. (ft.):	0.50	
Tower center to mat center (ft):		3.2	Depth of Base BG (ft.):	4.5	
Length of Pad (ft.):		32.5	Width of Pad (ft.):	32.5	
Thickness of Pad (ft):		4.50			



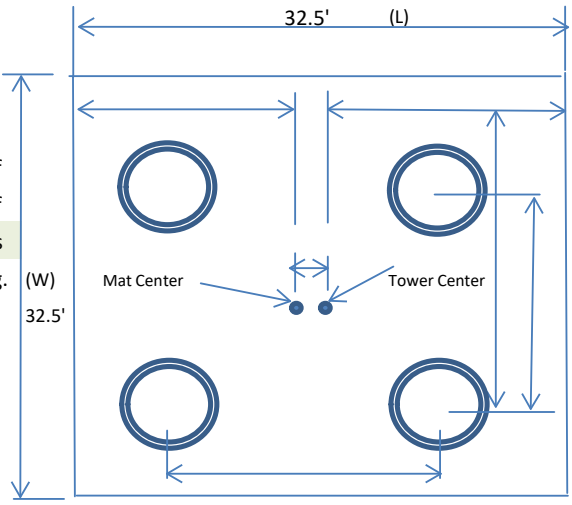
Material Properties and Reabr Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi	
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60		
Vertical Rebar Size #:	6	Tie / Stirrup Size #:	4		
Qty. of Vertical Rebars:	100	Tie Spacing (in):	12.0		
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	11		
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf	
Rebar at the bottom of the concrete pad:					
Qty. of Rebar in Pad (L):	49	Qty. of Rebar in Pad (W):	49		
Rebar at the top of the concrete pad:					
Qty. of Rebar in Pad (L):	49	Qty. of Rebar in Pad (W):	49		



Soil Design Parameters:

Soil Unit Weight (pcf):	100.0	Soil Buoyant Weight:	50.0	Pcf	
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	
Ultimate Bearing Pressure (psf):	40000	Consider ties in concrete shear strength:		Yes	
Consider Soil Lateral Resistance ?	Yes	Enter soil C (psf) or Phi (deg.):	30.0	Deg.	
		Depth to ignor lateral resistance	1.0	Ft.	



Apply 1.35 for e/w per G/H: 1.35

Foundation Analysis and Design:	Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75			
Total Dry Soil Volume (cu. Ft.):		0.00	Total Dry Soil Weight (Kips):	0.00			
Total Buoyant Soil Volume (cu. Ft.):		0.00	Total Buoyant Soil Weight (Kips):	0.00			
Total Effective Soil Weight (Kips):		0.00	Weight from the Concrete Block at Top (K):	0.00			
Total Dry Concrete Volume (cu. Ft.):		4763.73	Total Dry Concrete Weight (Kips):	714.56			
Total Buoyant Concrete Volume (cu. Ft.):		0.00	Total Buoyant Concrete Weight (Kips):	0.00			
Total Effective Concrete Weight (Kips):		714.56	Total Vertical Load on Base (Kips):	787.08			
Check Soil Capacities:						Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):		2452.21	<	Allowable Factored Soil Bearing (psf):	30000	0.08	OK!
Allowable Foundation Overturning Resistance (kips-ft.):		11628.8	>	Design Factored Momont (kips-ft):	7225	0.62	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):		1.61	OK!				
Check the capacities of Reinforceing Concrete:							
Strength reduction factor (Flexure and axial tension):		0.90	Strength reduction factor (Shear):		0.75		
Strength reduction factor (Axial compresion):		0.65	Wind Load Factor on Concrete Design:		1.00		
(1) Concrete Pier:						Load/ Capacity Ratio	
Vertical Steel Rebar Area (sq. in./each):		0.44		Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):		2105.1	>	Design Factored Moment (Mu, Kips-Ft)	21.3	0.01	OK!
Calculated Shear Capacity (Kips):		74.3	>	Design Factored Shear (Kips):	42.6	0.57	OK!
Calculated Tension Capacity (Tn, Kips):		2376.0	>	Design Factored Tension (Tu Kips):	323.3	0.14	OK!
Calculated Compression Capacity (Pn, Kips):		1721.8	>	Design Factored Axial Load (Pu Kips):	376.6	0.22	OK!
Moment & Tension Strength Combination:		0.01	OK!	Check Tie Spacing (Design/Req'd):	1.00		
Pier Reinforcement Ratio:		0.043	Reinforcement Ratio is satisfied per ACI				
(2).Concrete Pad:							
One-Way Design Shear Capacity (L or W Direction, Kips):		1861.5	>	One-Way Factored Shear (L/W-Dir Kips	263.6	0.14	OK!
One-Way Design Shear Capacity (Diagonal Dir., Kips):		1554.8	>	One-Way Factored Shear (Dia. Dir, Kips	336.3	0.22	OK!
Lower Steel Pad Reinforcement Ratio (L or W-Direct.):		0.0039		Lower Steel Reinf. Ratio (Dia. Dir.):	0.0034		
Lower Steel Pad Moment Capacity (L or W-Dir. Kips-ft):		16711.6	>	Moment at Bottom (L-Direct. K-Ft):	1436.6	0.09	OK!
Lower Steel Pad Moment Capacity (Dia. Direction,K-ft):		16629.9	>	Moment at Bottom (Dia. Dir. K-Ft):	1778.8	0.11	OK!
Upper Steel Pad Reinforcement Ratio (L or W -Direction):		0.0039		Upper Steel Reinf. Ratio (Dia. Dir.):	0.0034		
Upper Steel Pad Moment Capacity (L or W-Dir., Kips-ft):		16711.6	>	Moment at the top (L-Dir Kips-Ft):	612.7	0.04	OK!
Upper Steel Pad Moment Capacity (Dia. Direction, K-ft):		16629.9	>	Moment at the top (Dia. Dir., K-Ft):	979.3	0.06	OK!
Punching Failure Capacity (Kips):		2588.5	>	Punch. Failure Factored Shear (K):	376.6	0.15	OK!

Exhibit E

Mount Analysis

Mount Structural Analysis

SBA Site:	**Bozrah-2/ Rt 2**
T-Mobile Site Number:	**CT11313A**
Project:	Anchor
Prepared For:	T-Mobile
Mount Description:	Platform w/ Handrails Kicker and V-Brace Augment
Site Location:	131 Gifford Lane Bozrah, CT 06334 Delaware County 41.552588°, -72.150833°
Design Codes:	ANSI/TIA-222-G 2015 IBC w/ 2018 Connecticut State Building Code
Analysis Load Case:	T-Mobile Final Configuration
Analysis Result:	**adequate @ 77%** - Once Augmented See Conclusion & Recommendations for installation requirements.

STATE OF CONNECTICUT
GREGORY DURGIN
No. 32155
LICENSED
PROFESSIONAL ENGINEER

Date Signed:
4/12/2022

Revision 0
April 12, 2022

GeoStructural ▪ P.O. Box 2621, Boise, ID 83701 ▪ Office: (530) 539-4787
Professional Engineers | Tower Technicians | Climbers | sUAS Mapping

1.0 Introduction

GeoStructural LLC has completed a structural analysis for the existing T-Mobile mount assembly with augments located at the *CT11313A communications site* in Delaware County, CT considering the final appurtenance loading configurations listed in Section 3.0.

2.0 Analysis Procedure & Design Criteria

An elastic three-dimensional model of the structure has been analyzed pursuant to the following criteria:

- 2018 Connecticut State Building Code
- 2015 IBC – International Building Code
- ANSI/TIA-222 – Structural Standard for Antenna Supporting Structures and Antennas.
- ASCE 7 – Minimum Design Loads and Associated Criteria for Buildings and Other Structures.
- AISC – Steel Construction Manual.
- ANSI/AWS D1.1 – Structural Welding Code.

Wind w/o ice = 131 mph (3-sec gust Ultimate Wind Speed) Wind w/ ice = 50 mph (3-sec gust Basic) with 0.75" Design Ice (Escalated with Height) [1]
Topographic Category 1; Exposure Category C Structure Class (Risk Category) II; Ground Elevation = 452 ft (NAVD 88) Gust Effect Factor = 1.0; Directionality Factor = 0.95;
Seismic Design Parameters: Site Class D "Stiff Soil"; S_s = 0.170, S_1 = 0.061, S_{DS} = 0.181
Maintenance Loads[2]: L_m = 500 lb @ Worst Case Mount Pipe (Concurrent with 30 mph Wind Speed) L_v = 250 lb @ Worst Case Member Location (Center Span or Cantilever)
1. Ice loading has been ignored with Design Ice Thickness ≤ 0.5". *2. The face horizontal boom rails of T-Arm mount assemblies are not rated for rigging, hoisting or maintenance loading unless noted otherwise.*

GeoStructural has not conducted a site visit or independent study to verify existing structural conditions and the results of this analysis are based solely on the information provided. The following documents were obtained and/or provided:

- Previous CDs Site #: CT11313A, GeoStructural Mod Drawings, Dated 08/09/19
- Previous MMA Site #: CT11313A, GeoStructural, Dated 03/19/21
- RFDS Site #: CT11313A, Rev.4, Dated 03/01/22

The results of the analysis are illustrated in Section 4.0. If any of the existing or proposed conditions reported in this analysis are not accurately represented, please contact our office immediately to request an amended report.

3.0 Appurtenance Information

Table 3.1 - Final T-Mobile Appurtenance Configuration[1,2]

COR	(Quantity) Appurtenance Make/Model	Mount Description
191'±	(3) ERICSSON AIR 6419 B41	*Platform w/ Handrails and kicker Augment*
	(3) RFS APXVAALL24_43-U-NA20	
	(3) RRH Ericsson 4449 B71 + B85	
	(3) RRH 4460 B25+B66	

1. *Refer to antenna installation Construction Drawings (when applicable) for additional information regarding final antenna and equipment orientations.*
2. *All RRH units must be installed on the back-to-back pipe mount assemblies installed on the pipe at location 3 in order for this analysis to be valid.*

4.0 Structural Analysis Results

Table 4.1 – Augmented Mount Capacity

Load Case	Governing Mount Component[1]	% Capacity[2]	Result
Final T-Mobile Configuration	Handrail	31%	Adequate Once Augmented[3]
	Standoff Bracing	77%	
	Main Horizontal	24%	
	Mount Pipe	61%	
	Modification	11%	
	Connection	51%	

1. *Refer to the Calculations & Software Output portion of this report for mount component and structural information.*
2. *Listed results are expressed as a percentage of available mount member capacity based upon the assumed material strengths listed in Table 4.2. 105% is an acceptable allowable stress percentage for mount components. Refer to Section 7.0 for additional member usage capacities.*
3. *Refer to Section 5.0 for information regarding required mount augments.*

Table 4.2 – Structural Component Material Strengths

Structural Component	Nominal Strength/Material[1]
Pipe	F_y = 35 ksi (A53, Gr. B)
Tube	F_y = 46 ksi (A500, Gr. B)
Structural Shapes (L, C, W, etc.), Plate & Bar	F_y = 36 ksi (A36)
Uni-Strut (P1000, etc.)	F_y = 33 ksi (A570, Gr. 33)
Connection Bolts	A325
U-Bolts / Threaded Rod	SAE J429 Grade 2 (Substitution: ASTM A449) F_y = 57 ksi (Yield) & F_u = 74 ksi (Tension)
	SAE J429 Grade 5 (¼" to 1" Nominal ϕ) F_y = 92 ksi (Yield) & F_u = 120 ksi (Tension)
Welds	E70XX Electrodes

1. *Strengths listed were assumed for this analysis and are based upon ASTM, AISC, RCSC, AWS and ACI preferred specification values. Values and materials are consistent with industry standards. Material strengths were taken from original design documents when available.*

5.0 Conclusion & Recommendations

Based on T-Mobile's final equipment loading configuration, the existing mount assembly does not have sufficient capacity to support the loading considered in this analysis pursuant to the listed standards. Structural augments (reinforcements) will be required and are briefly summarized below:

- Install V-Brace Kit; located at the existing mount top face rail elevation to the tower leg.
  - Sitepro1 SFS-V-L, (3) total. Attach SFS channel bracket clamps to existing top rail pipe member with a horizontal spread of ~4.5' for the vertical V-brace. Attach gate foot bracket ~2.75' below existing platform to existing tower leg. Existing standoff kicker to remain in place.

Once the recommended augments are successfully implemented, the augmented mount assembly has sufficient capacity to support the loading considered in this analysis pursuant to the listed standards.

Augmentation Requirements:

- In order to obtain a mount structure capable of supporting the currently proposed final loading configuration, upgrade augments must be installed in accordance with GeoStructural's *Mount Augment recommendations*.
- RRH units to be installed directly to standoff member vertical end pipe (similar to existing) and not to the panel antenna mount pipes on the mount face. TMAs/Diplexers to be installed on mount pipe behind panel antenna on Position 1.

This analysis only encompasses the antenna mount assembly. The tower, overall mount support structure, foundation, etc. are beyond the scope of this analysis. If any of the existing or proposed conditions (appurtenance loading, member sizes, etc.) reported in this analysis are not properly represented, please contact our office immediately to request an amended report.

Prepared by:

Fathullah Zamani
518.892.0471
fathullah.zamani@geostructural.com

Reviewed and Approved by:

Gregory Durgin
509.999.5278
gregory.durgin@geostructural.com

6.0 Standard Conditions

- All data required to complete our structural analysis was furnished by our client. GeoStructural has not conducted a site visit or independent study to verify existing conditions and the results of this analysis are based solely on the information provided. It has been assumed that the tower, antenna support structure and foundation have been constructed according to the provided existing drawings, previous structural analysis reports, mapping documents, etc.

- The default Structure Classification is Class II in accordance with ANSI/TIA-222 §A.2.2 & §A.15.4 and has been assumed for this analysis. The owner shall verify this classification conforms with original or desired reliability criteria.

- This analysis assumes that the structure has been properly installed and maintained in accordance with ANSI/TIA-222 §15.6 and that no physical deterioration has occurred in any of the components of the structure. Damaged, missing, or rusted members were not considered.

- This analysis verifies the adequacy of the main components of the structure. Not all connections, welds, bolts, plates, etc. were individually detailed and analyzed. Where not specifically analyzed, the existing connection plates, welds, bolts, etc. were assumed adequate to develop the full capacity of the main structural members.

- No consideration has been made for unusual or extreme wind events, rime/in-cloud ice loadings, harmonic or nodal vibration, vortex shedding or other similar conditions.

- It is the owner's responsibility to determine the appropriate design wind speed and amount of ice accumulation beyond code minimum values that should be considered in the analysis.

- This analysis report does not constitute a maintenance and condition assessment. No certifications regarding maintenance and condition are expressed or implied. If desired, GeoStructural can provide these services under a subsequent contract.

- This analysis only encompasses the antenna mount assembly. The tower, overall mount support structure, foundation, etc. are beyond the scope of this analysis. If desired, GeoStructural can provide these services under a subsequent contract.

7.0 Attachments, Calculations & Software Output

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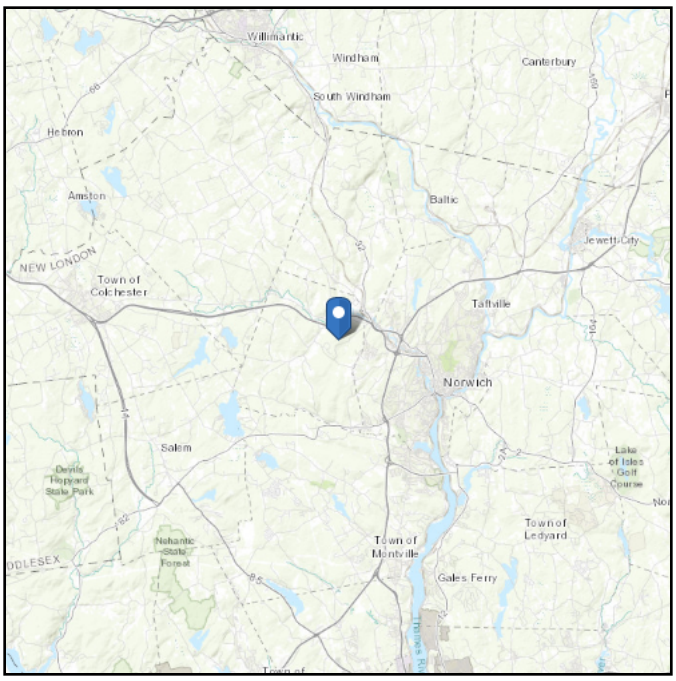
ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 452.35 ft (NAVD 88)
Latitude: 41.552588
Longitude: -72.150833



Wind

Results:

Wind Speed	135 Vmph	per 2018 Conn. Building code

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, and Section 26.5.2, incorporating errata of March 12, 2014

Date Accessed: Mon Mar 14 2022

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

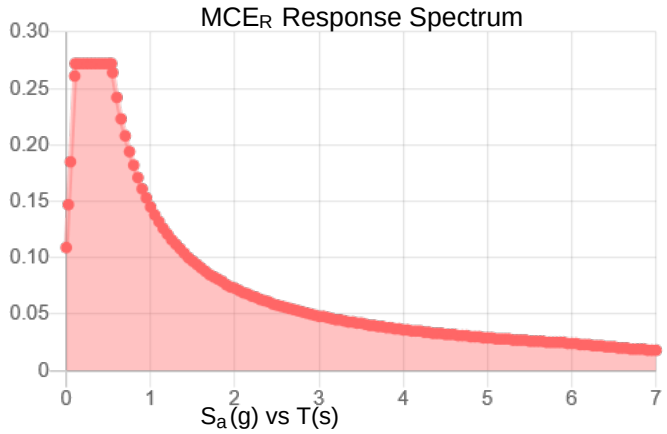
Seismic

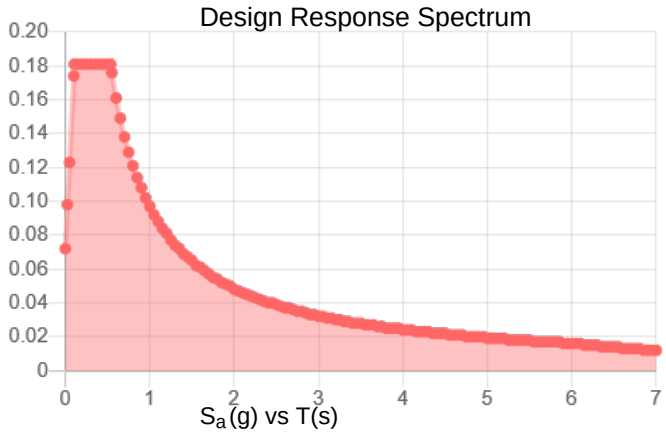
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.17	S_{DS} :	0.181
S_1 :	0.061	S_{D1} :	0.097
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.085
S_{MS} :	0.272	PGA_M :	0.136
S_{M1} :	0.145	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B





Data Accessed: **Mon Mar 14 2022**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	0.75 in.
Concurrent Temperature:	15 F
Gust Speed	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Mon Mar 14 2022

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Design Wind Force on Appurtenances

ASCE 7-10 & IBC 2015

Wind Design Parmeters:

V_{basic} =	135	mph	*Basic Ult Wind (§2.6.4)*	B	*Exposure Category (§2.6.5.1.2)*		
V_{ice} =	50	mph	*Basic Wind w/ ice (§2.6.4)*	1	*Topographic Category (§2.6.6.2.1)*		
t_{ice} =	0.75	inch	*Ice Thickness (§2.6.10)*	II	*Risk Category (§2, Table 2-1)*		
K_a =	0.9			30	*mph*	Service Wind Speed	
K_d =	0.95						
G_h =	1						

q_z =	52	psf	*Wind Load without Ice*	t_{ice} =	0	inch
q_z =	7	psf	*Wind Load with Ice*	t_{ice} =	0.89	inch

z =	191.0	ft	*COR (Height above ground level at the base of structure)*
H =	0	ft	*Height of crest above surrounding terrain (Topo Categories 2, 3 & 4)*
z_s =	452.4	ft	*Mean elevation of base of structure above sea level*

Seismic Design Parmeters:

Site Class:	D	**Occupancy Cat:**	II	**Seismic Design Cat:**	B	z =	191
						h =	191

Amp. Factor, ap: 1 Response Factor, Rp: 2.5

S_{DS} = 0.1813 S_{D1} = 0.098

(ASCE 7-10 13.3-3)	$F_{p,\min} = 0.3 S_{DS} I_p W_p$	= 0.0544	w_p	
(ASCE 7-10 13.3-1)	$F_p = \frac{0.4 a_p S_{DS} W_p}{\left(\frac{R_p}{I_p}\right)}\left(1+2\frac{z}{h}\right)$	= 0.08704	w_p	Use F_p = 0.087 Wp
(ASCE 7-10 13.3-2)	$F_{p,\max} = 1.6 S_{DS} I_p W_p$	= 0.290133	w_p	

Importance Factor (§2, Table 2-3):

I =	1.00	*Wind Load without Ice*
I =	1.00	*Wind Load with Ice*
I =	1.00	*Ice Thickness*
I =	1.00	*Earthquake*

Appurtenances

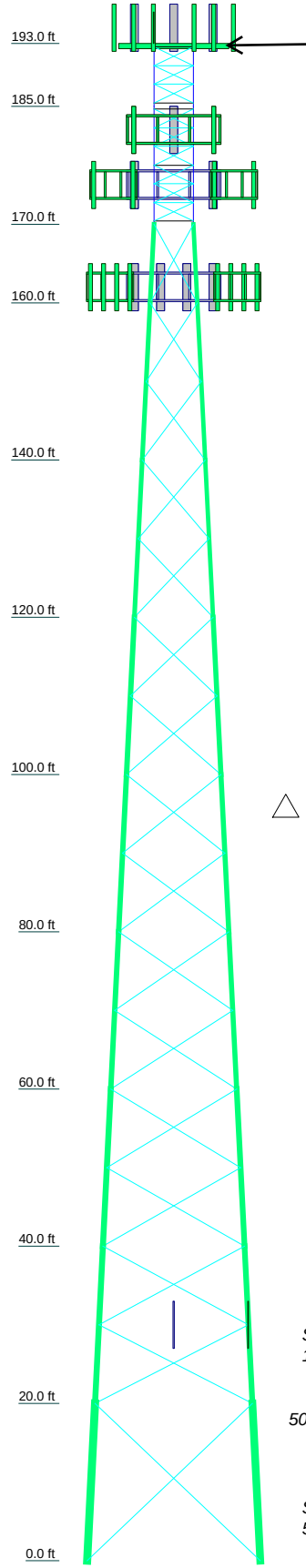
ERICSSON	AIR 6419 B41			
	FFRONT	FSIDE	WT	E
No Ice	**301.8**	**125.2**	**45.0**	**3.9**
0.89 inch Ice	**47.2**	**22.3**	**70.3**	

RFS	APXVAALL24_43-U-NA20			
	FFRONT	FSIDE	WT	E
No Ice	**944.5**	**414.7**	**128.0**	**11.1**
0.89 inch Ice	**141.8**	**69.9**	**193.8**	

RRH	ERICSSON 4449 B71 B85			
	FFRONT	FSIDE	WT	E
No Ice	**91.9**	**65.8**	**75.0**	**6.5**
0.89 inch Ice	**15.7**	**11.8**	**30.7**	

RRH	Ericsson 4460 B25+B66			
	FFRONT	FSIDE	WT	E
No Ice	**119.6**	**92.2**	**110.0**	**9.6**
0.89 inch Ice	**19.9**	**15.8**	**42.6**	

Section		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11		
Legs			SR 2	A		Pirod 105217		Pirod 105219		Pirod 105220		Pirod 112738		
Leg Grade						A572-50								
Diagonals			SR 1	B		L3x3x3/16		L3x3x5/16		L3 1/2x3 1/2x5/16		2L3 1/2x3 1/2x5/16x1		
Diagonal Grade			A572-50					A36						
Top Girts			SR 1 1/4					N.A.						
Mid Girts		N.A.	SR 1 1/4					N.A.						
Bottom Girts			SR 1 1/4					N.A.						
Horizontals			SR 7/8					N.A.						
Face Width (ft)	5				6		10	12	14	16	18	20	22	
# Panels @ (ft)		9 @ 2.375						15 @ 10				1 @ 20		
Weight (K)	0.7	1.3		1.1	2.4	2.5	3.4	4.1	4.5	5.1	5.3	7.7	38.0	



Mount height at 193'.
Rad at 191'

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	Pirod 105244	B	L2 1/2x2 1/2x3/16

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in New London County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-G Standard.
3. Tower designed for a 102 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 87.3%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 375 K
SHEAR: 43 K

UPLIFT: -321 K
SHEAR: 37 K

AXIAL 179 K
SHEAR 14 K *MOMENT 1705 kip-ft*
TORQUE 7 kip-ft
50 mph WIND - 0.7500 in ICE

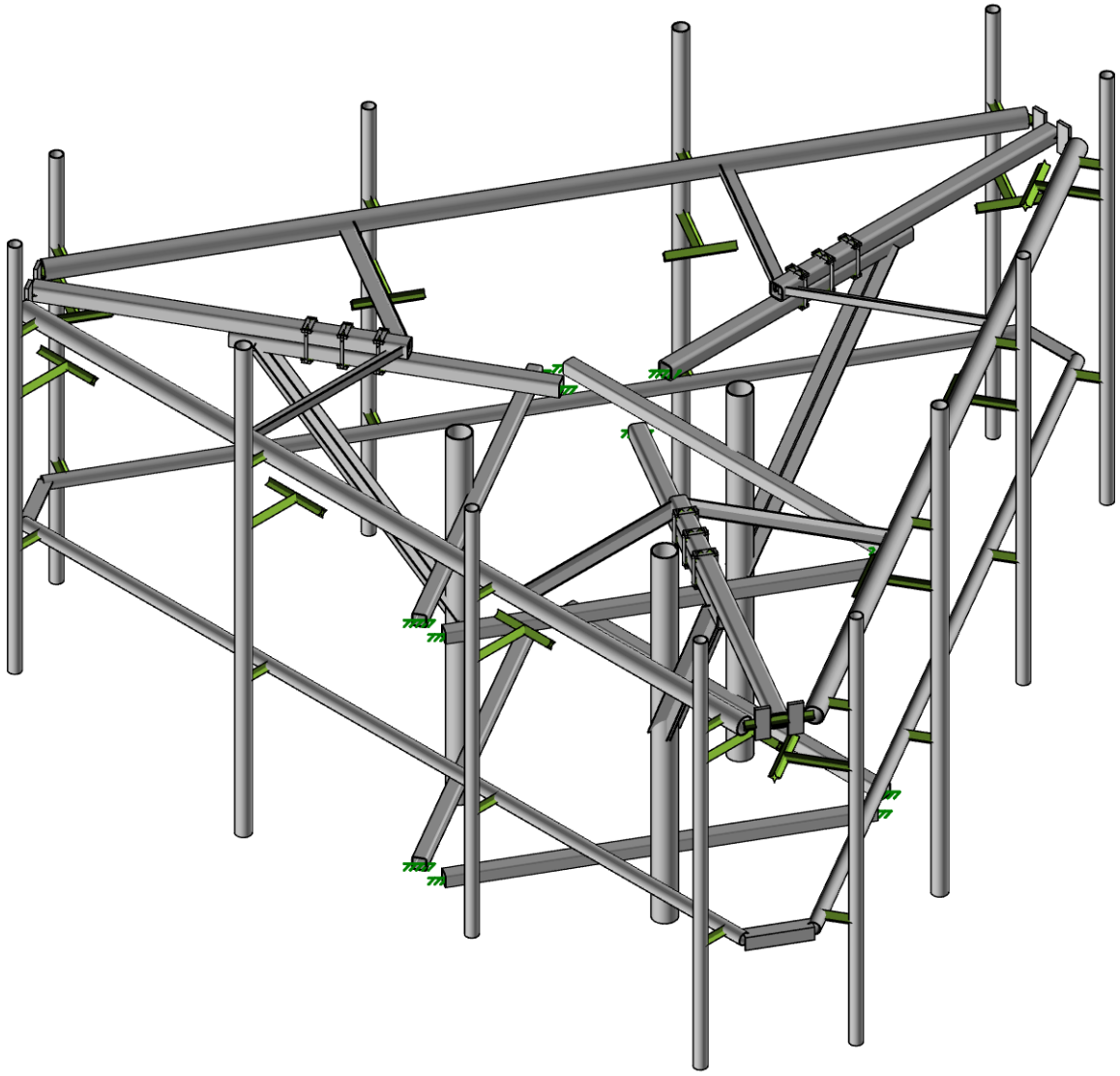
AXIAL 73 K
SHEAR 58 K *MOMENT 6810 kip-ft*
TORQUE 33 kip-ft
REACTIONS - 102 mph WIND

Allpro Consultants group inc
9221 lyndon B johson Freeway. Suite 204
Dalls Tx. 75243
Phone: 972 231 8893
FAX: 866 364 8375

Job: **18-3611**		
Project: **CT01105-S-02 BOZRAH**		
Client: SBA	Drawn by: bakech	App'd:
Code: TIA-222-G	Date: 05/29/18	Scale: NTS
Path:		Dwg No. E-1

Y
Z X

Existing Configuration



Envelope Only Solution

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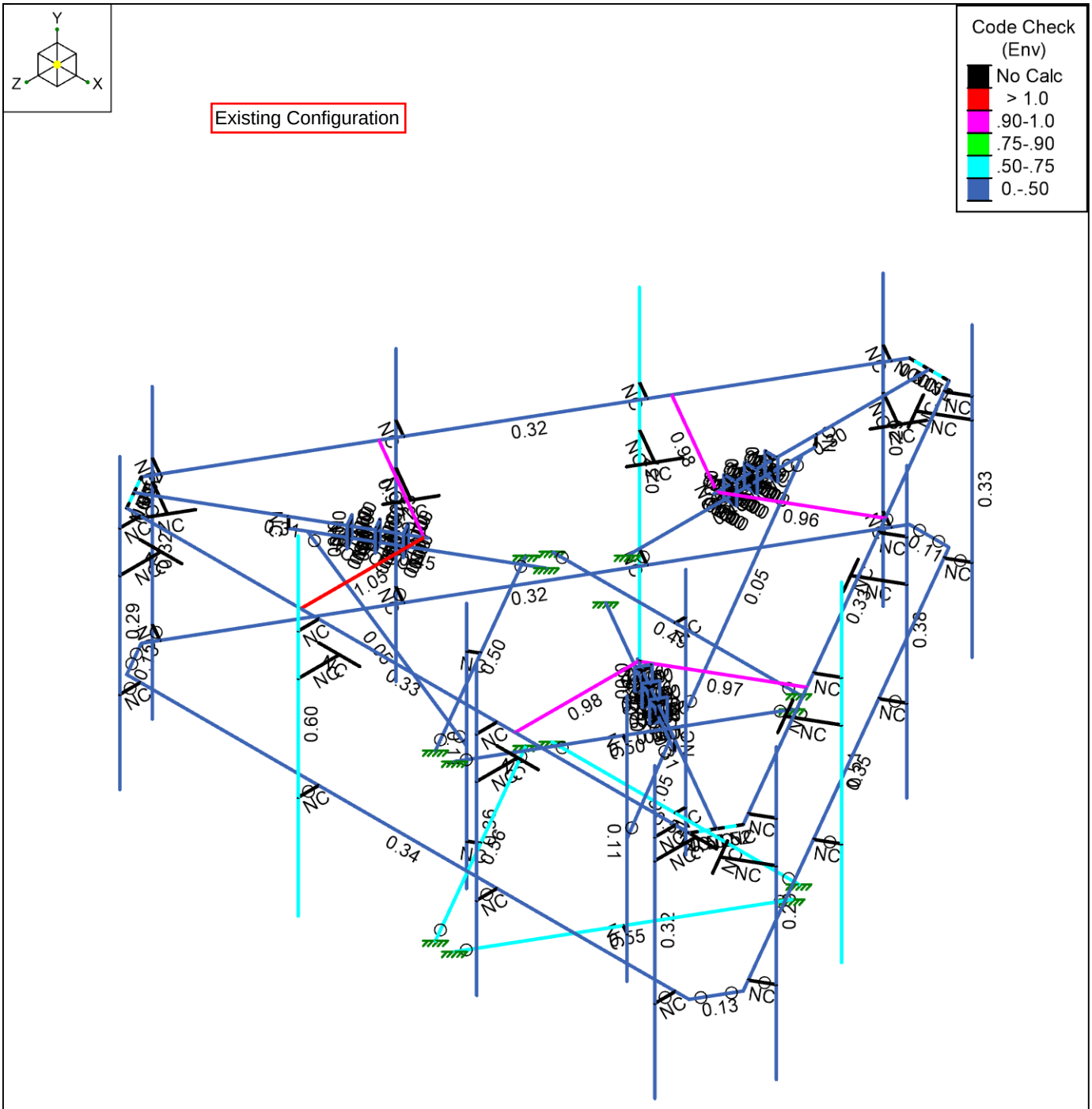
Fathullah Zamani		Mar 25, 2022
Bozrah-2/ Rt 2		CT11313A_Mount Analysis_R0 22…



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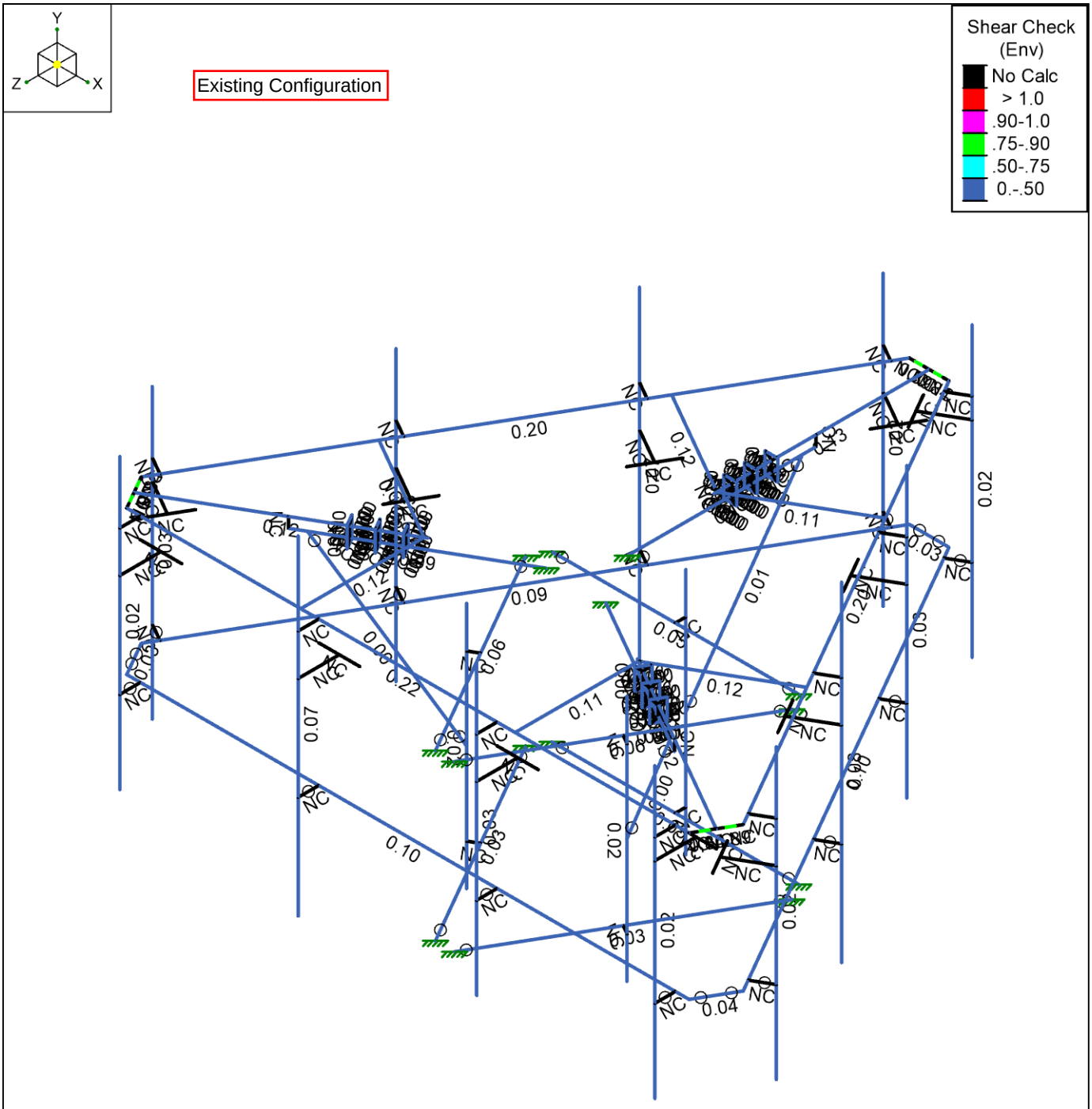

Member Shear Checks Displayed (Enveloped)
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Fathullah Zamani		Mar 25, 2022
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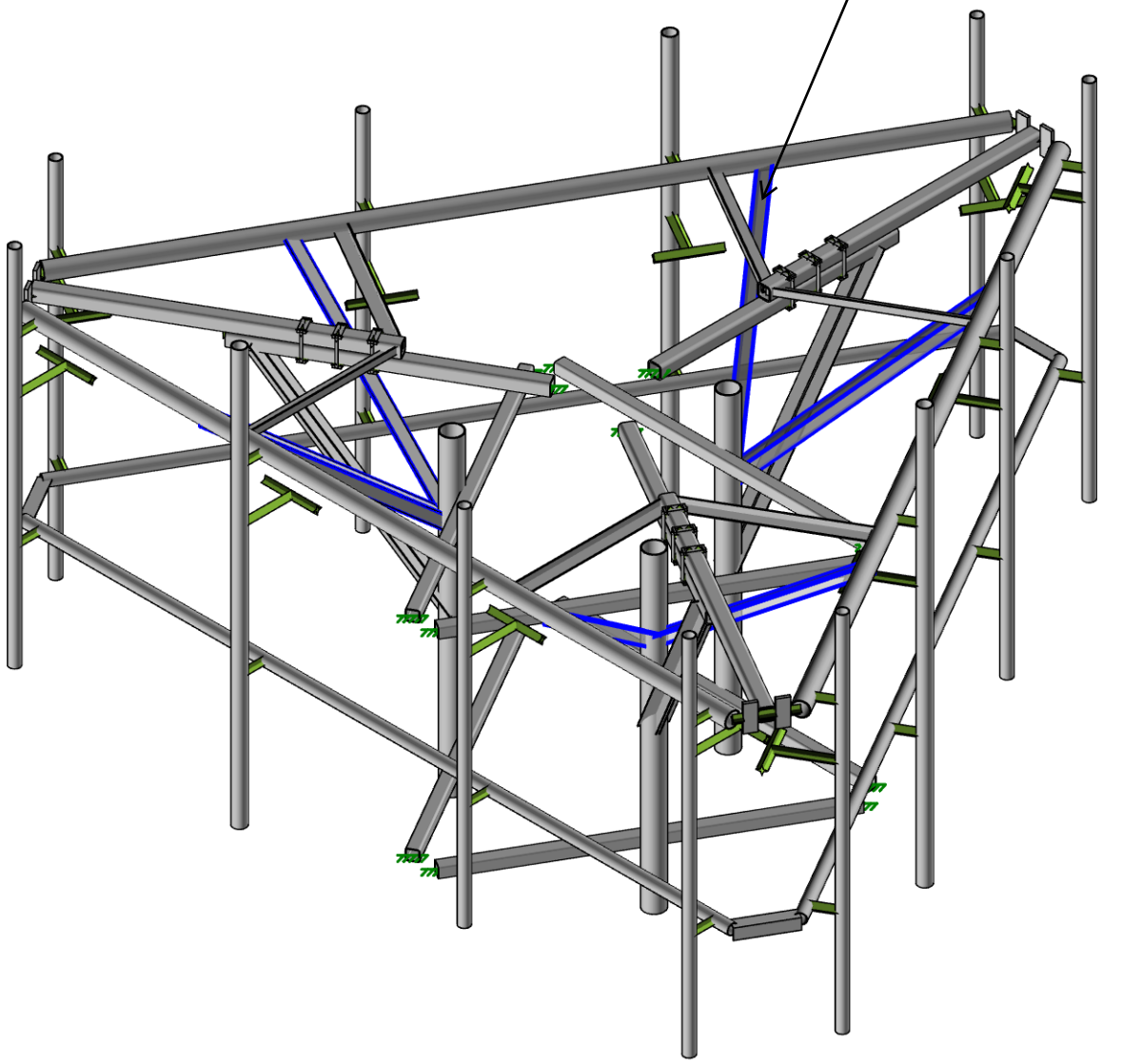
Proposed Configuration



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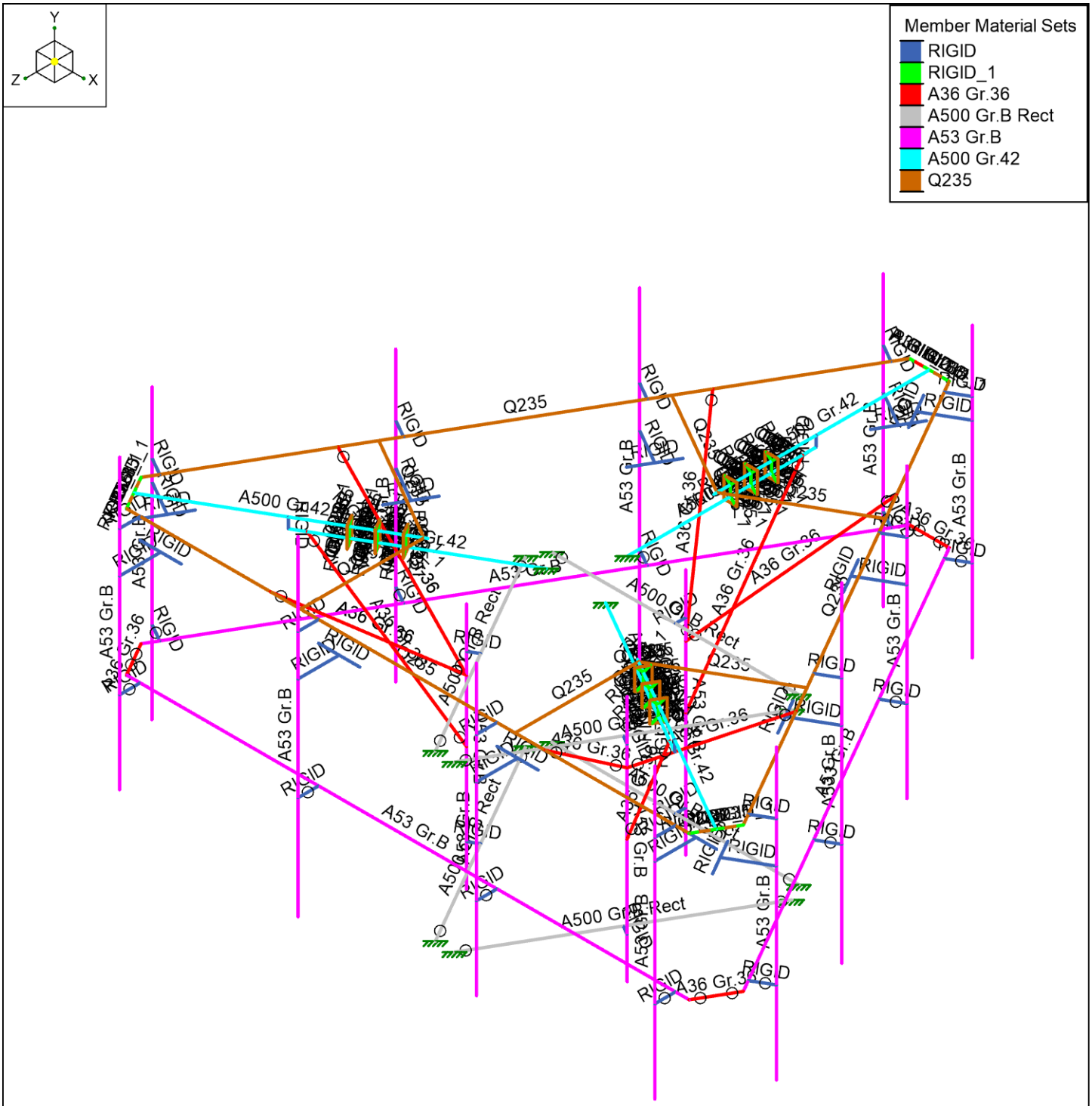

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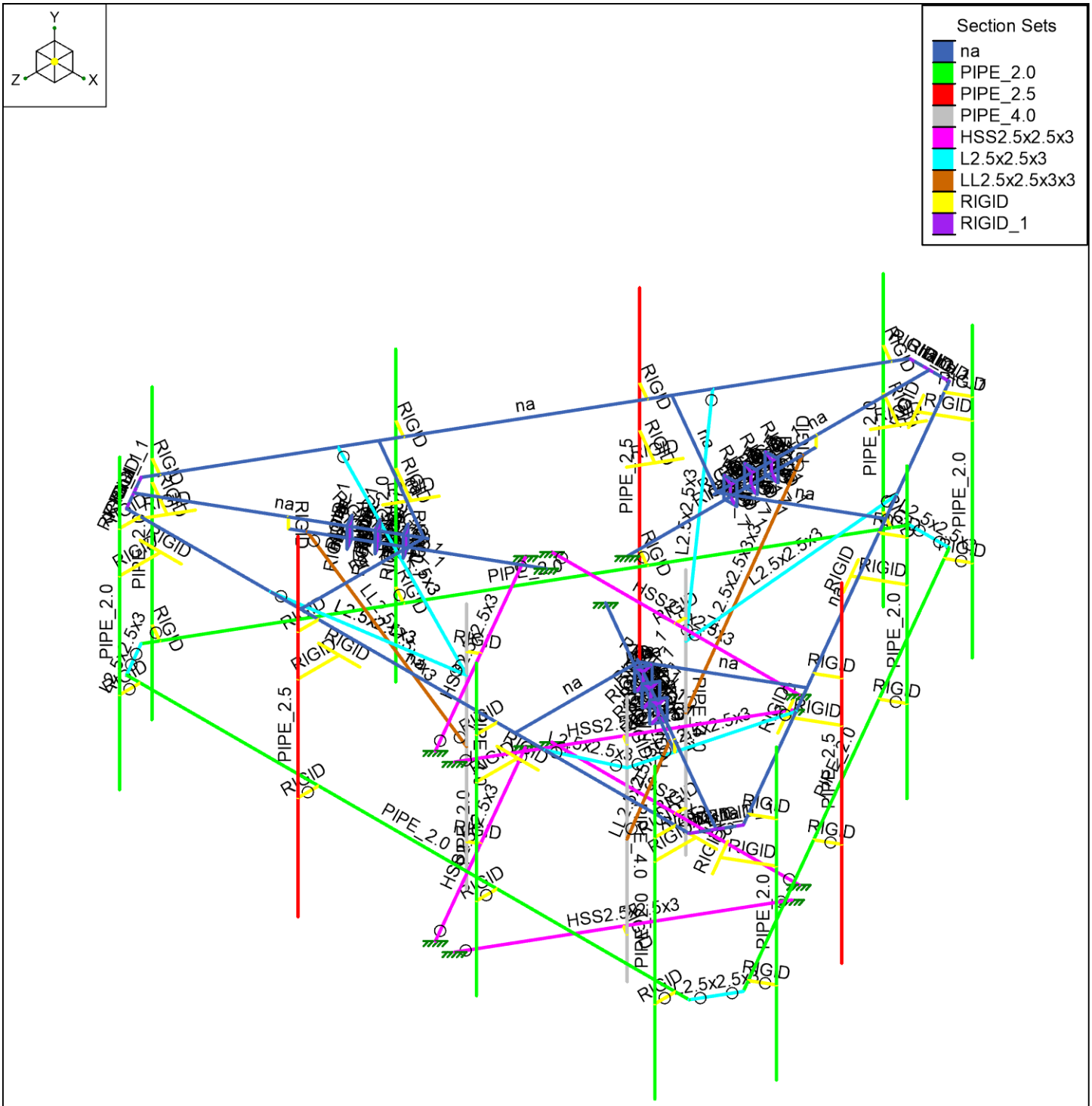

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Fathullah Zamani		Apr 11, 2022
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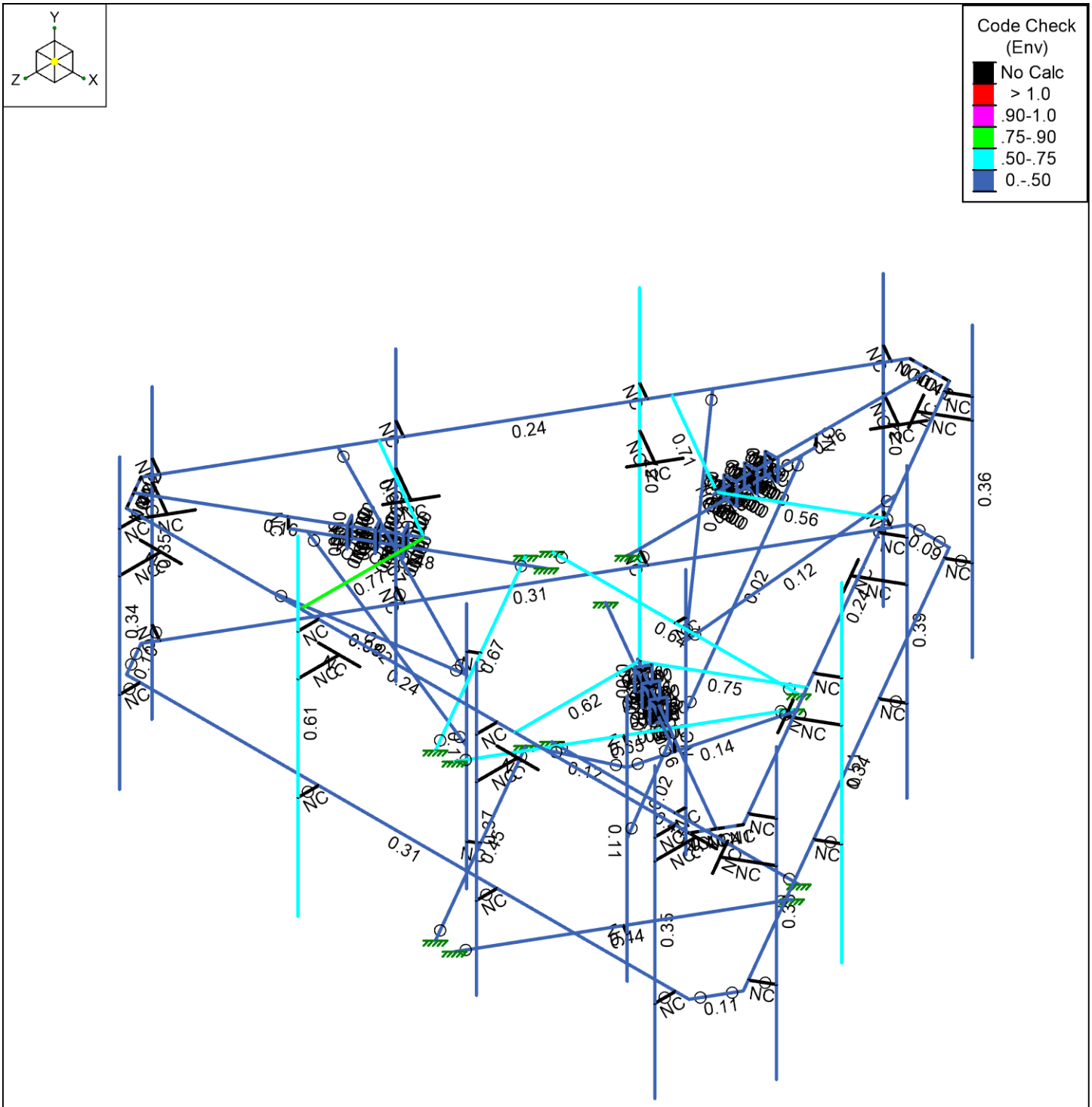

Member Code Checks Displayed (Enveloped)
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Fathullah Zamani		Apr 11, 2022
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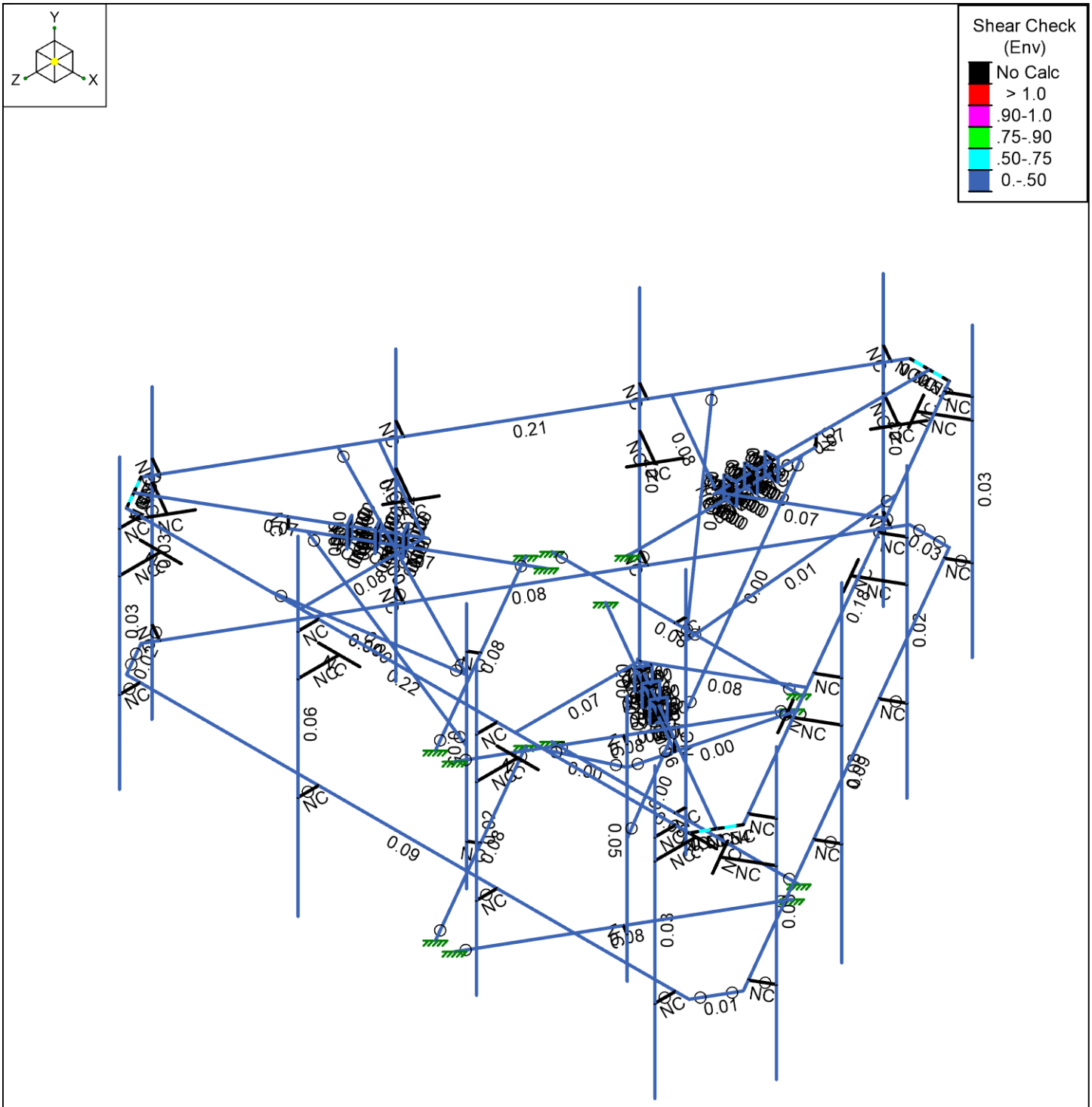

Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

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Fathullah Zamani		Apr 11, 2022
Bozrah-2/ Rt 2		CT11313A_Mount Modification An…

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Nodal	Distributed	Area(Member)
1	Self Weight	DL		-1.1		18		9
2	Wind Load AZI 000	WLZ				18	239	
3	Wind Load AZI 090	WLX				18	239	
4	Ice Weight	OL1				18	239	9
5	Wind + Ice Load AZI 000	OL2				18	239	
6	Wind + Ice Load AZI 090	OL3				18	239	
7	Service Lm1	LL				3		
8	Service Lm2	OL4				3		
9	Service Lm3	OL5				3		
10	Service Lm4	OL6				3		
11	Service Lv 1	OL8				3		
12	Service Lv 2	OL9				3		
13	Service Lv 3	OL10				3		
14	Seismic Load AZI 000	ELZ			-0.09	18		
15	Seismic Load AZI 090	ELX	-0.09			18		
16	BLC 1 Transient Area Loads	None					96	
17	BLC 4 Transient Area Loads	None					96	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.0D	Yes	Y	DL	1						
2	0.6W AZI 000	Yes	Y	WLZ	0.6						
3	0.6W AZI 030	Yes	Y	WLZ	0.52	WLX	0.3				
4	0.6W AZI 060	Yes	Y	WLZ	0.3	WLX	0.52				
5	0.6W AZI 090	Yes	Y			WLX	0.6				
6	0.6W AZI 120	Yes	Y	WLZ	-0.3	WLX	0.52				
7	0.6W AZI 150	Yes	Y	WLZ	-0.52	WLX	0.3				
8	0.6W AZI 180	Yes	Y	WLZ	-0.6						
9	0.6W AZI 210	Yes	Y	WLZ	-0.52	WLX	-0.3				
10	0.6W AZI 240	Yes	Y	WLZ	-0.3	WLX	-0.52				
11	0.6W AZI 270	Yes	Y			WLX	-0.6				
12	0.6W AZI 300	Yes	Y	WLZ	0.3	WLX	-0.52				
13	0.6W AZI 330	Yes	Y	WLZ	0.52	WLX	-0.3				
14	0.7E AZI 000	Yes	Y	ELZ	0.7						
15	0.7E AZI 030	Yes	Y	ELZ	0.606	ELX	0.35				
16	0.7E AZI 060	Yes	Y	ELZ	0.35	ELX	0.606				
17	0.7E AZI 090	Yes	Y			ELX	0.7				
18	0.7E AZI 120	Yes	Y	ELZ	-0.35	ELX	0.606				
19	0.7E AZI 150	Yes	Y	ELZ	-0.606	ELX	0.35				
20	0.7E AZI 180	Yes	Y	ELZ	-0.7						
21	0.7E AZI 210	Yes	Y	ELZ	-0.606	ELX	-0.35				
22	0.7E AZI 240	Yes	Y	ELZ	-0.35	ELX	-0.606				
23	0.7E AZI 270	Yes	Y			ELX	-0.7				
24	0.7E AZI 300	Yes	Y	ELZ	0.35	ELX	-0.606				
25	0.7E AZI 330	Yes	Y	ELZ	0.606	ELX	-0.35				
26	1D + 0.6W AZI 000	Yes	Y	DL	1	WLZ	0.6				
27	1D + 0.6W AZI 030	Yes	Y	DL	1	WLZ	0.52	WLX	0.3		
28	1D + 0.6W AZI 060	Yes	Y	DL	1	WLZ	0.3	WLX	0.52		
29	1D + 0.6W AZI 090	Yes	Y	DL	1			WLX	0.6		
30	1D + 0.6W AZI 120	Yes	Y	DL	1	WLZ	-0.3	WLX	0.52		
31	1D + 0.6W AZI 150	Yes	Y	DL	1	WLZ	-0.52	WLX	0.3		
32	1D + 0.6W AZI 180	Yes	Y	DL	1	WLZ	-0.6				
33	1D + 0.6W AZI 210	Yes	Y	DL	1	WLZ	-0.52	WLX	-0.3		
34	1D + 0.6W AZI 240	Yes	Y	DL	1	WLZ	-0.3	WLX	-0.52		

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
35	1D + 0.6W AZI 270	Yes	Y	DL	1			WLX	-0.6		
36	1D + 0.6W AZI 300	Yes	Y	DL	1	WLZ	0.3	WLX	-0.52		
37	1D + 0.6W AZI 330	Yes	Y	DL	1	WLZ	0.52	WLX	-0.3		
38	0.6D + 0.6W AZI 000	Yes	Y	DL	0.6	WLZ	0.6				
39	0.6D + 0.6W AZI 030	Yes	Y	DL	0.6	WLZ	0.52	WLX	0.3		
40	0.6D + 0.6W AZI 060	Yes	Y	DL	0.6	WLZ	0.3	WLX	0.52		
41	0.6D + 0.6W AZI 090	Yes	Y	DL	0.6			WLX	0.6		
42	0.6D + 0.6W AZI 120	Yes	Y	DL	0.6	WLZ	-0.3	WLX	0.52		
43	0.6D + 0.6W AZI 150	Yes	Y	DL	0.6	WLZ	-0.52	WLX	0.3		
44	0.6D + 0.6W AZI 180	Yes	Y	DL	0.6	WLZ	-0.6				
45	0.6D + 0.6W AZI 210	Yes	Y	DL	0.6	WLZ	-0.52	WLX	-0.3		
46	0.6D + 0.6W AZI 240	Yes	Y	DL	0.6	WLZ	-0.3	WLX	-0.52		
47	0.6D + 0.6W AZI 270	Yes	Y	DL	0.6			WLX	-0.6		
48	0.6D + 0.6W AZI 300	Yes	Y	DL	0.6	WLZ	0.3	WLX	-0.52		
49	0.6D + 0.6W AZI 330	Yes	Y	DL	0.6	WLZ	0.52	WLX	-0.3		
50	1D + 1Di	Yes	Y	DL	1	OL1	1				
51	1D + 1Di + 1Wi AZI 000	Yes	Y	DL	1	OL1	1	OL2	1		
52	1D + 1Di + 1Wi AZI 030	Yes	Y	DL	1	OL1	1	OL2	0.866	OL3	0.5
53	1D + 1Di + 1Wi AZI 060	Yes	Y	DL	1	OL1	1	OL2	0.5	OL3	0.866
54	1D + 1Di + 1Wi AZI 090	Yes	Y	DL	1	OL1	1			OL3	1
55	1D + 1Di + 1Wi AZI 120	Yes	Y	DL	1	OL1	1	OL2	-0.5	OL3	0.866
56	1D + 1Di + 1Wi AZI 150	Yes	Y	DL	1	OL1	1	OL2	-0.866	OL3	0.5
57	1D + 1Di + 1Wi AZI 180	Yes	Y	DL	1	OL1	1	OL2	-1		
58	1D + 1Di + 1Wi AZI 210	Yes	Y	DL	1	OL1	1	OL2	-0.866	OL3	-0.5
59	1D + 1Di + 1Wi AZI 240	Yes	Y	DL	1	OL1	1	OL2	-0.5	OL3	-0.866
60	1D + 1Di + 1Wi AZI 270	Yes	Y	DL	1	OL1	1			OL3	-1
61	1D + 1Di + 1Wi AZI 300	Yes	Y	DL	1	OL1	1	OL2	0.5	OL3	-0.866
62	1D + 1Di + 1Wi AZI 330	Yes	Y	DL	1	OL1	1	OL2	0.866	OL3	-0.5
63	1D + 1.5LM1 + 0.049WL (30 mph) AZI 000	Yes	Y	DL	1	LL	1.5	WLZ	0.049		
64	1D + 1.5LM1 + 0.049WL (30 mph) AZI 030	Yes	Y	DL	1	LL	1.5	WLZ	0.042	WLX	0.025
65	1D + 1.5LM1 + 0.049WL (30 mph) AZI 060	Yes	Y	DL	1	LL	1.5	WLZ	0.025	WLX	0.042
66	1D + 1.5LM1 + 0.049WL (30 mph) AZI 090	Yes	Y	DL	1	LL	1.5			WLX	0.049
67	1D + 1.5LM1 + 0.049WL (30 mph) AZI 120	Yes	Y	DL	1	LL	1.5	WLZ	-0.025	WLX	0.042
68	1D + 1.5LM1 + 0.049WL (30 mph) AZI 150	Yes	Y	DL	1	LL	1.5	WLZ	-0.042	WLX	0.025
69	1D + 1.5LM1 + 0.049WL (30 mph) AZI 180	Yes	Y	DL	1	LL	1.5	WLZ	-0.049		
70	1D + 1.5LM1 + 0.049WL (30 mph) AZI 210	Yes	Y	DL	1	LL	1.5	WLZ	-0.042	WLX	-0.025
71	1D + 1.5LM1 + 0.049WL (30 mph) AZI 240	Yes	Y	DL	1	LL	1.5	WLZ	-0.025	WLX	-0.042
72	1D + 1.5LM1 + 0.049WL (30 mph) AZI 270	Yes	Y	DL	1	LL	1.5			WLX	-0.049
73	1D + 1.5LM1 + 0.049WL (30 mph) AZI 300	Yes	Y	DL	1	LL	1.5	WLZ	0.025	WLX	-0.042
74	1D + 1.5LM1 + 0.049WL (30 mph) AZI 330	Yes	Y	DL	1	LL	1.5	WLZ	0.042	WLX	-0.025
75	1D + 1.5LM2 + 0.049WL (30 mph) AZI 000	Yes	Y	DL	1	OL4	1.5	WLZ	0.049		
76	1D + 1.5LM2 + 0.049WL (30 mph) AZI 030	Yes	Y	DL	1	OL4	1.5	WLZ	0.042	WLX	0.025
77	1D + 1.5LM2 + 0.049WL (30 mph) AZI 060	Yes	Y	DL	1	OL4	1.5	WLZ	0.025	WLX	0.042
78	1D + 1.5LM2 + 0.049WL (30 mph) AZI 090	Yes	Y	DL	1	OL4	1.5			WLX	0.049
79	1D + 1.5LM2 + 0.049WL (30 mph) AZI 120	Yes	Y	DL	1	OL4	1.5	WLZ	-0.025	WLX	0.042
80	1D + 1.5LM2 + 0.049WL (30 mph) AZI 150	Yes	Y	DL	1	OL4	1.5	WLZ	-0.042	WLX	0.025
81	1D + 1.5LM2 + 0.049WL (30 mph) AZI 180	Yes	Y	DL	1	OL4	1.5	WLZ	-0.049		
82	1D + 1.5LM2 + 0.049WL (30 mph) AZI 210	Yes	Y	DL	1	OL4	1.5	WLZ	-0.042	WLX	-0.025
83	1D + 1.5LM2 + 0.049WL (30 mph) AZI 240	Yes	Y	DL	1	OL4	1.5	WLZ	-0.025	WLX	-0.042
84	1D + 1.5LM2 + 0.049WL (30 mph) AZI 270	Yes	Y	DL	1	OL4	1.5			WLX	-0.049
85	1D + 1.5LM2 + 0.049WL (30 mph) AZI 300	Yes	Y	DL	1	OL4	1.5	WLZ	0.025	WLX	-0.042
86	1D + 1.5LM2 + 0.049WL (30 mph) AZI 330	Yes	Y	DL	1	OL4	1.5	WLZ	0.042	WLX	-0.025
87	1D + 1.5LM3 + 0.049WL (30 mph) AZI 000	Yes	Y	DL	1	OL5	1.5	WLZ	0.049		
88	1D + 1.5LM3 + 0.049WL (30 mph) AZI 030	Yes	Y	DL	1	OL5	1.5	WLZ	0.042	WLX	0.025
89	1D + 1.5LM3 + 0.049WL (30 mph) AZI 060	Yes	Y	DL	1	OL5	1.5	WLZ	0.025	WLX	0.042

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
90	1D + 1.5LM3 + 0.049WL (30 mph) AZI 090	Yes	Y	DL	1	OL5	1.5			WLX	0.049
91	1D + 1.5LM3 + 0.049WL (30 mph) AZI 120	Yes	Y	DL	1	OL5	1.5	WLZ	-0.025	WLX	0.042
92	1D + 1.5LM3 + 0.049WL (30 mph) AZI 150	Yes	Y	DL	1	OL5	1.5	WLZ	-0.042	WLX	0.025
93	1D + 1.5LM3 + 0.049WL (30 mph) AZI 180	Yes	Y	DL	1	OL5	1.5	WLZ	-0.049		
94	1D + 1.5LM3 + 0.049WL (30 mph) AZI 210	Yes	Y	DL	1	OL5	1.5	WLZ	-0.042	WLX	-0.025
95	1D + 1.5LM3 + 0.049WL (30 mph) AZI 240	Yes	Y	DL	1	OL5	1.5	WLZ	-0.025	WLX	-0.042
96	1D + 1.5LM3 + 0.049WL (30 mph) AZI 270	Yes	Y	DL	1	OL5	1.5			WLX	-0.049
97	1D + 1.5LM3 + 0.049WL (30 mph) AZI 300	Yes	Y	DL	1	OL5	1.5	WLZ	0.025	WLX	-0.042
98	1D + 1.5LM3 + 0.049WL (30 mph) AZI 330	Yes	Y	DL	1	OL5	1.5	WLZ	0.042	WLX	-0.025
99	1D + 1.5LM4 + 0.049WL (30 mph) AZI 000	Yes	Y	DL	1	OL6	1.5	WLZ	0.049		
100	1D + 1.5LM4 + 0.049WL (30 mph) AZI 030	Yes	Y	DL	1	OL6	1.5	WLZ	0.042	WLX	0.025
101	1D + 1.5LM4 + 0.049WL (30 mph) AZI 060	Yes	Y	DL	1	OL6	1.5	WLZ	0.025	WLX	0.042
102	1D + 1.5LM4 + 0.049WL (30 mph) AZI 090	Yes	Y	DL	1	OL6	1.5			WLX	0.049
103	1D + 1.5LM4 + 0.049WL (30 mph) AZI 120	Yes	Y	DL	1	OL6	1.5	WLZ	-0.025	WLX	0.042
104	1D + 1.5LM4 + 0.049WL (30 mph) AZI 150	Yes	Y	DL	1	OL6	1.5	WLZ	-0.042	WLX	0.025
105	1D + 1.5LM4 + 0.049WL (30 mph) AZI 180	Yes	Y	DL	1	OL6	1.5	WLZ	-0.049		
106	1D + 1.5LM4 + 0.049WL (30 mph) AZI 210	Yes	Y	DL	1	OL6	1.5	WLZ	-0.042	WLX	-0.025
107	1D + 1.5LM4 + 0.049WL (30 mph) AZI 240	Yes	Y	DL	1	OL6	1.5	WLZ	-0.025	WLX	-0.042
108	1D + 1.5LM4 + 0.049WL (30 mph) AZI 270	Yes	Y	DL	1	OL6	1.5			WLX	-0.049
109	1D + 1.5LM4 + 0.049WL (30 mph) AZI 300	Yes	Y	DL	1	OL6	1.5	WLZ	0.025	WLX	-0.042
110	1D + 1.5LM4 + 0.049WL (30 mph) AZI 330	Yes	Y	DL	1	OL6	1.5	WLZ	0.042	WLX	-0.025
111	1D + 1.5Lv1	Yes	Y	DL	1	OL8	1.5				
112	1D + 1.5Lv2	Yes	Y	DL	1	OL9	1.5				
113	1D + 1.5Lv3	Yes	Y	DL	1	OL10	1.5				
114	(1.0+0.14Sds)D + 0.7E AZI 000	Yes	Y	DL	1.025	ELZ	0.7				
115	(1.0+0.14Sds)D + 0.7E AZI 030	Yes	Y	DL	1.025	ELZ	0.606	ELX	0.35		
116	(1.0+0.14Sds)D + 0.7E AZI 060	Yes	Y	DL	1.025	ELZ	0.35	ELX	0.606		
117	(1.0+0.14Sds)D + 0.7E AZI 090	Yes	Y	DL	1.025			ELX	0.7		
118	(1.0+0.14Sds)D + 0.7E AZI 120	Yes	Y	DL	1.025	ELZ	-0.35	ELX	0.606		
119	(1.0+0.14Sds)D + 0.7E AZI 150	Yes	Y	DL	1.025	ELZ	-0.606	ELX	0.35		
120	(1.0+0.14Sds)D + 0.7E AZI 180	Yes	Y	DL	1.025	ELZ	-0.7				
121	(1.0+0.14Sds)D + 0.7E AZI 210	Yes	Y	DL	1.025	ELZ	-0.606	ELX	-0.35		
122	(1.0+0.14Sds)D + 0.7E AZI 240	Yes	Y	DL	1.025	ELZ	-0.35	ELX	-0.606		
123	(1.0+0.14Sds)D + 0.7E AZI 270	Yes	Y	DL	1.025			ELX	-0.7		
124	(1.0+0.14Sds)D + 0.7E AZI 300	Yes	Y	DL	1.025	ELZ	0.35	ELX	-0.606		
125	(1.0+0.14Sds)D + 0.7E AZI 330	Yes	Y	DL	1.025	ELZ	0.606	ELX	-0.35		
126	(0.6-0.2Sds)D + 0.7E AZI 000	Yes	Y	DL	0.575	ELZ	0.7				
127	(0.6-0.2Sds)D + 0.7E AZI 030	Yes	Y	DL	0.575	ELZ	0.606	ELX	0.35		
128	(0.6-0.2Sds)D + 0.7E AZI 060	Yes	Y	DL	0.575	ELZ	0.35	ELX	0.606		
129	(0.6-0.2Sds)D + 0.7E AZI 090	Yes	Y	DL	0.575			ELX	0.7		
130	(0.6-0.2Sds)D + 0.7E AZI 120	Yes	Y	DL	0.575	ELZ	-0.35	ELX	0.606		
131	(0.6-0.2Sds)D + 0.7E AZI 150	Yes	Y	DL	0.575	ELZ	-0.606	ELX	0.35		
132	(0.6-0.2Sds)D + 0.7E AZI 180	Yes	Y	DL	0.575	ELZ	-0.7				
133	(0.6-0.2Sds)D + 0.7E AZI 210	Yes	Y	DL	0.575	ELZ	-0.606	ELX	-0.35		
134	(0.6-0.2Sds)D + 0.7E AZI 240	Yes	Y	DL	0.575	ELZ	-0.35	ELX	-0.606		
135	(0.6-0.2Sds)D + 0.7E AZI 270	Yes	Y	DL	0.575			ELX	-0.7		
136	(0.6-0.2Sds)D + 0.7E AZI 300	Yes	Y	DL	0.575	ELZ	0.35	ELX	-0.606		
137	(0.6-0.2Sds)D + 0.7E AZI 330	Yes	Y	DL	0.575	ELZ	0.606	ELX	-0.35		

Node Boundary Conditions

	Node 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	N23	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N175	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N176	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N243						

Node Boundary Conditions (Continued)

	Node 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]
5	N244						
6	N246						
7	N248						
8	N293	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
9	N294	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
10	N295	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
11	N296	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
12	N303						
13	N304	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
14	N305	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
15	N306	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
16	N307	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
17	N314						
18	N315	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
19	N316	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
20	N317	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
21	N318	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
22	N347						
23	N353						
24	N357						

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [k/ft^{3}]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
3	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.49	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.49	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7	A500 Gr.42	29000	11154	0.3	0.65	0.49	42	1.3	58	1.1
8	A500 Gr.46	29000	11154	0.3	0.65	0.49	46	1.2	58	1.1
9	Q235	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
10	Grade 2	29000	11154	0.3	0.65	0.49	57	1.1	58	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in^{2}]	Iyy [in^{4}]	Izz [in^{4}]	J [in^{4}]
1	PIPE_1.5	PIPE_1.5	Beam	None	A53 Gr.B	Typical	0.749	0.293	0.293	0.586
2	PIPE_2.0	PIPE_2.0	Beam	None	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
3	PIPE_2.5	PIPE_2.5	Beam	None	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
4	PIPE_3.0	PIPE_3.0	Beam	None	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
5	PIPE_3.5	PIPE_3.5	Beam	None	A53 Gr.B	Typical	2.5	4.52	4.52	9.04
6	PIPE_4.0	PIPE_4.0	Beam	None	A53 Gr.B	Typical	2.96	6.82	6.82	13.6
7	PIPE_5.0	PIPE_5.0	Beam	None	A53 Gr.B	Typical	4.01	14.3	14.3	28.6
8	HSS2.5x2.5x3	HSS2.5X2.5X3	Beam	None	A500 Gr.B Rect	Typical	1.54	1.35	1.35	2.25
9	HSS3x3x3	HSS3X3X3	Beam	None	A500 Gr.B Rect	Typical	1.89	2.46	2.46	4.03
10	HSS4x4x3	HSS4X4X3	Beam	None	A500 Gr.B Rect	Typical	2.58	6.21	6.21	10
11	HSS4x4x4	HSS4X4X4	Beam	None	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
12	HSS5x5x4	HSS5X5X4	Beam	None	A500 Gr.B Rect	Typical	4.3	16	16	25.8
13	C3x3.5	C3X3.5	Beam	None	A36 Gr.36	Typical	1.09	0.169	1.57	0.023
14	C4x4.5	C4X4.5_HRA	Beam	None	A36 Gr.36	Typical	1.38	0.289	3.65	0.032
15	C5x6.7	C5X6.7	Beam	None	A36 Gr.36	Typical	1.97	0.47	7.48	0.055
16	L2.5x2.5x3	L2.5X2.5X3	Beam	None	A36 Gr.36	Typical	0.901	0.535	0.535	0.011
17	L2.5x2.5x4	L2.5X2.5X4	Beam	None	A36 Gr.36	Typical	1.19	0.692	0.692	0.026

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
18	L3x3x3	L3X3X3	Beam	None	A36 Gr.36	Typical	1.09	0.948	0.948	0.014
19	L3x3x4	L3X3X4	Beam	None	A36 Gr.36	Typical	1.44	1.23	1.23	0.031
20	L3x3x6	L3X3X6	Beam	None	A36 Gr.36	Typical	2.11	1.75	1.75	0.101
21	L3.5x3.5x4	L3.5X3.5X4	Beam	None	A36 Gr.36	Typical	1.7	2	2	0.039
22	L4x4x4	L4X4X4	Beam	None	A36 Gr.36	Typical	1.93	3	3	0.044
23	LL2.5x2.5x3x3	LL2.5X2.5X3X3	Beam	None	A36 Gr.36	Typical	1.8	2.46	1.07	0.023

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	M1	N65	N124		RIGID_1	None	None	RIGID_1	Typical
2	M2	N62	N123		RIGID_1	None	None	RIGID_1	Typical
3	M3	N60	N120		RIGID_1	None	None	RIGID_1	Typical
4	M4	N60	N119		RIGID_1	None	None	RIGID_1	Typical
5	M5	N62	N118		RIGID_1	None	None	RIGID_1	Typical
6	M6	N65	N117		RIGID_1	None	None	RIGID_1	Typical
7	M7	N55	N121		RIGID_1	None	None	RIGID_1	Typical
8	M8	N53	N122		RIGID_1	None	None	RIGID_1	Typical
9	M9	N51	N116		RIGID_1	None	None	RIGID_1	Typical
10	M10	N125	N51		RIGID_1	None	None	RIGID_1	Typical
11	M11	N115	N53		RIGID_1	None	None	RIGID_1	Typical
12	M12	N55	N114		RIGID_1	None	None	RIGID_1	Typical
13	M13	N44	N107		RIGID_1	None	None	RIGID_1	Typical
14	M14	N41	N112		RIGID_1	None	None	RIGID_1	Typical
15	M15	N39	N105		RIGID_1	None	None	RIGID_1	Typical
16	M16	N39	N111		RIGID_1	None	None	RIGID_1	Typical
17	M17	N41	N106		RIGID_1	None	None	RIGID_1	Typical
18	M18	N44	N113		RIGID_1	None	None	RIGID_1	Typical
19	M19	N34	N110		RIGID_1	None	None	RIGID_1	Typical
20	M20	N32	N103		RIGID_1	None	None	RIGID_1	Typical
21	M21	N30	N102		RIGID_1	None	None	RIGID_1	Typical
22	M22	N108	N30		RIGID_1	None	None	RIGID_1	Typical
23	M23	N109	N32		RIGID_1	None	None	RIGID_1	Typical
24	M24	N34	N104		RIGID_1	None	None	RIGID_1	Typical
25	M25	N22	N96		RIGID_1	None	None	RIGID_1	Typical
26	M26	N19	N101		RIGID_1	None	None	RIGID_1	Typical
27	M27	N17	N92		RIGID_1	None	None	RIGID_1	Typical
28	M28	N17	N93		RIGID_1	None	None	RIGID_1	Typical
29	M29	N19	N94		RIGID_1	None	None	RIGID_1	Typical
30	M30	N22	N99		RIGID_1	None	None	RIGID_1	Typical
31	M31	N11	N91		RIGID_1	None	None	RIGID_1	Typical
32	M32	N9	N100		RIGID_1	None	None	RIGID_1	Typical
33	M33	N7	N97		RIGID_1	None	None	RIGID_1	Typical
34	M34	N98	N7		RIGID_1	None	None	RIGID_1	Typical
35	M35	N95	N9		RIGID_1	None	None	RIGID_1	Typical
36	M36	N11	N90		RIGID_1	None	None	RIGID_1	Typical
37	M37	N34	N39		RIGID_1	None	None	RIGID_1	Typical
38	M38	N32	N41		RIGID_1	None	None	RIGID_1	Typical
39	M39	N30	N44		RIGID_1	None	None	RIGID_1	Typical
40	M40	N11	N17		RIGID_1	None	None	RIGID_1	Typical
41	M41	N9	N19		RIGID_1	None	None	RIGID_1	Typical
42	M42	N7	N22		RIGID_1	None	None	RIGID_1	Typical
43	M43	N60	N55		RIGID_1	None	None	RIGID_1	Typical
44	M44	N62	N53		RIGID_1	None	None	RIGID_1	Typical
45	M45	N65	N51		RIGID_1	None	None	RIGID_1	Typical
46	M46	N50	N59		RB.5	Beam	None	Q235	DR1

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
47	M47	N56	N61		RB.5	Beam	None	Q235	DR1
48	M48	N54	N63		RB.5	Beam	None	Q235	DR1
49	M49	N49	N58		RB.5	Beam	None	Q235	DR1
50	M50	N52	N57		RB.5	Beam	None	Q235	DR1
51	M51	N48	N64		RB.5	Beam	None	Q235	DR1
52	M52	N29	N38		RB.5	Beam	None	Q235	DR1
53	M53	N35	N40		RB.5	Beam	None	Q235	DR1
54	M54	N33	N42		RB.5	Beam	None	Q235	DR1
55	M55	N28	N37		RB.5	Beam	None	Q235	DR1
56	M56	N31	N36		RB.5	Beam	None	Q235	DR1
57	M57	N27	N43		RB.5	Beam	None	Q235	DR1
58	M58	N6	N15		RB.5	Beam	None	Q235	DR1
59	M59	N12	N18		RB.5	Beam	None	Q235	DR1
60	M60	N10	N20		RB.5	Beam	None	Q235	DR1
61	M61	N5	N14		RB.5	Beam	None	Q235	DR1
62	M62	N8	N13		RB.5	Beam	None	Q235	DR1
63	M63	N4	N21		RB.5	Beam	None	Q235	DR1
64	M64	N82	N89		PIPE_3.0	Beam	None	Q235	Typical_APP_APP
65	M65	N74	N81		PIPE_3.0	Beam	None	Q235	Typical_APP_APP
66	M66	N73	N66		PIPE_3.0	Beam	None	Q235	Typical_APP_APP
67	M67	N47	N68	270	L2.5X1.5X.25	Beam	None	Q235	Typical_APP_APP
68	M68	N26	N84	270	L2.5X1.5X.25	Beam	None	Q235	Typical_APP_APP
69	M69	N3	N76	270	L2.5X1.5X.25	Beam	None	Q235	Typical_APP_APP
70	M70	N79	N325	270	L2.5X1.5X.25	Beam	None	Q235	Typical_APP_APP
71	M71	N87	N326	270	L2.5X1.5X.25	Beam	None	Q235	Typical_APP_APP
72	M72	N71	N26	270	L2.5X1.5X.25	Beam	None	Q235	Typical_APP_APP
73	M73	N16	N23		HSS3X3X5	Beam	None	A500 Gr.42	Typical_APP_APP
74	M74	N46	N45		HSS3X3X5	Beam	None	A500 Gr.42	Typical_APP_APP
75	M75	N2	N1		HSS3X3X5	Beam	None	A500 Gr.42	Typical_APP_APP
76	M76	N25	N24		HSS3X3X5	Beam	None	A500 Gr.42	Typical_APP_APP
77	M77	N66	N145	90	RIGID_1	None	None	RIGID_1	Typical
78	M78	N73	N146	90	RIGID_1	None	None	RIGID_1	Typical
79	M79	N142	N143	90	5/8X6	Beam	None	Q235	Typical_APP_APP
80	M80	N18	N92		1/2X1.5	Beam	None	Q235	Typical_APP_APP
81	M81	N6	N90		1/2X1.5	Beam	None	Q235	Typical_APP_APP
82	M82	N5	N95		1/2X1.5	Beam	None	Q235	Typical_APP_APP
83	M83	N14	N94		1/2X1.5	Beam	None	Q235	Typical_APP_APP
84	M84	N21	N96		1/2X1.5	Beam	None	Q235	Typical_APP_APP
85	M85	N8	N97		1/2X1.5	Beam	None	Q235	Typical_APP_APP
86	M86	N43	N107		1/2X1.5	Beam	None	Q235	Typical_APP_APP
87	M87	N31	N102		1/2X1.5	Beam	None	Q235	Typical_APP_APP
88	M88	N37	N106		1/2X1.5	Beam	None	Q235	Typical_APP_APP
89	M89	N33	N103		1/2X1.5	Beam	None	Q235	Typical_APP_APP
90	M90	N29	N104		1/2X1.5	Beam	None	Q235	Typical_APP_APP
91	M91	N40	N105		1/2X1.5	Beam	None	Q235	Typical_APP_APP
92	M92	N59	N119		1/2X1.5	Beam	None	Q235	Typical_APP_APP
93	M93	N58	N118		1/2X1.5	Beam	None	Q235	Typical_APP_APP
94	M94	N57	N117		1/2X1.5	Beam	None	Q235	Typical_APP_APP
95	M95	N52	N116		1/2X1.5	Beam	None	Q235	Typical_APP_APP
96	M96	N49	N115		1/2X1.5	Beam	None	Q235	Typical_APP_APP
97	M97	N50	N114		1/2X1.5	Beam	None	Q235	Typical_APP_APP
98	M98	N90	N131		1/2X1.5	Beam	None	Q235	Typical_APP_APP
99	M99	N91	N12		1/2X1.5	Beam	None	Q235	Typical_APP_APP
100	M100	N92	N130		1/2X1.5	Beam	None	Q235	Typical_APP_APP
101	M101	N93	N15		1/2X1.5	Beam	None	Q235	Typical_APP_APP

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
102	M102	N94	N129		1/2X1.5	Beam	None	Q235	Typical_APP_APP
103	M103	N95	N128		1/2X1.5	Beam	None	Q235	Typical_APP_APP
104	M104	N96	N127		1/2X1.5	Beam	None	Q235	Typical_APP_APP
105	M105	N97	N126		1/2X1.5	Beam	None	Q235	Typical_APP_APP
106	M106	N98	N4		1/2X1.5	Beam	None	Q235	Typical_APP_APP
107	M107	N99	N13		1/2X1.5	Beam	None	Q235	Typical_APP_APP
108	M108	N100	N10		1/2X1.5	Beam	None	Q235	Typical_APP_APP
109	M109	N101	N20		1/2X1.5	Beam	None	Q235	Typical_APP_APP
110	M110	N102	N108		1/2X1.5	Beam	None	Q235	Typical_APP_APP
111	M111	N103	N109		1/2X1.5	Beam	None	Q235	Typical_APP_APP
112	M112	N104	N110		1/2X1.5	Beam	None	Q235	Typical_APP_APP
113	M113	N105	N111		1/2X1.5	Beam	None	Q235	Typical_APP_APP
114	M114	N106	N112		1/2X1.5	Beam	None	Q235	Typical_APP_APP
115	M115	N107	N113		1/2X1.5	Beam	None	Q235	Typical_APP_APP
116	M116	N108	N27		1/2X1.5	Beam	None	Q235	Typical_APP_APP
117	M117	N109	N28		1/2X1.5	Beam	None	Q235	Typical_APP_APP
118	M118	N110	N35		1/2X1.5	Beam	None	Q235	Typical_APP_APP
119	M119	N111	N38		1/2X1.5	Beam	None	Q235	Typical_APP_APP
120	M120	N112	N42		1/2X1.5	Beam	None	Q235	Typical_APP_APP
121	M121	N113	N36		1/2X1.5	Beam	None	Q235	Typical_APP_APP
122	M122	N114	N121		1/2X1.5	Beam	None	Q235	Typical_APP_APP
123	M123	N115	N122		1/2X1.5	Beam	None	Q235	Typical_APP_APP
124	M124	N116	N125		1/2X1.5	Beam	None	Q235	Typical_APP_APP
125	M125	N117	N124		1/2X1.5	Beam	None	Q235	Typical_APP_APP
126	M126	N118	N123		1/2X1.5	Beam	None	Q235	Typical_APP_APP
127	M127	N119	N120		1/2X1.5	Beam	None	Q235	Typical_APP_APP
128	M128	N120	N61		1/2X1.5	Beam	None	Q235	Typical_APP_APP
129	M129	N121	N56		1/2X1.5	Beam	None	Q235	Typical_APP_APP
130	M130	N122	N54		1/2X1.5	Beam	None	Q235	Typical_APP_APP
131	M131	N123	N63		1/2X1.5	Beam	None	Q235	Typical_APP_APP
132	M132	N124	N64		1/2X1.5	Beam	None	Q235	Typical_APP_APP
133	M133	N125	N48		1/2X1.5	Beam	None	Q235	Typical_APP_APP
134	M134	N126	N98		1/2X1.5	Beam	None	Q235	Typical_APP_APP
135	M135	N127	N99		1/2X1.5	Beam	None	Q235	Typical_APP_APP
136	M136	N128	N100		1/2X1.5	Beam	None	Q235	Typical_APP_APP
137	M137	N129	N101		1/2X1.5	Beam	None	Q235	Typical_APP_APP
138	M138	N130	N93		1/2X1.5	Beam	None	Q235	Typical_APP_APP
139	M139	N131	N91		1/2X1.5	Beam	None	Q235	Typical_APP_APP
140	M140	N142	N141		RIGID_1	None	None	RIGID_1	Typical
141	M141	N89	N144		RIGID_1	None	None	RIGID_1	Typical
142	M142	N74	N143		RIGID_1	None	None	RIGID_1	Typical
143	M143	N144	N141	90	5/8X6	Beam	None	A36 Gr.36	Typical_APP_APP
144	M144	N145	N149	90	5/8X6	Beam	None	Q235	Typical_APP_APP
145	M145	N146	N150	90	5/8X6	Beam	None	Q235	Typical_APP_APP
146	M146	N147	N81	90	RIGID_1	None	None	RIGID_1	Typical
147	M147	N148	N82	90	RIGID_1	None	None	RIGID_1	Typical
148	M148	N149	N151	90	RIGID_1	None	None	RIGID_1	Typical
149	M149	N150	N152	90	RIGID_1	None	None	RIGID_1	Typical
150	M150	N151	N147	90	5/8X6	Beam	None	Q235	Typical_APP_APP
151	M151	N152	N148	90	5/8X6	Beam	None	Q235	Typical_APP_APP
152	M152	N72	N156		RIGID	None	None	RIGID	Typical
153	M153	N70	N155		RIGID	None	None	RIGID	Typical
154	M154	N69	N154		RIGID	None	None	RIGID	Typical
155	M155	N67	N153		RIGID	None	None	RIGID	Typical
156	M156	N160	N164		PIPE_2.0	Beam	None	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
157	M157	N159	N163		PIPE_2.5	Beam	None	A53 Gr.B	Typical
158	M158	N158	N162		PIPE_2.0	Beam	None	A53 Gr.B	Typical
159	M159	N157	N161		PIPE_2.0	Beam	None	A53 Gr.B	Typical
160	M160	N171	N172		RIGID	None	None	RIGID	Typical
161	M161	N174	N173		RIGID	None	None	RIGID	Typical
162	M162	N80	N180		RIGID	None	None	RIGID	Typical
163	M163	N78	N179		RIGID	None	None	RIGID	Typical
164	M164	N77	N178		RIGID	None	None	RIGID	Typical
165	M165	N75	N177		RIGID	None	None	RIGID	Typical
166	M166	N184	N188		PIPE_2.0	Beam	None	A53 Gr.B	Typical
167	M167	N183	N187		PIPE_2.5	Beam	None	A53 Gr.B	Typical
168	M168	N182	N186		PIPE_2.0	Beam	None	A53 Gr.B	Typical
169	M169	N181	N185		PIPE_2.0	Beam	None	A53 Gr.B	Typical
170	M170	N88	N198		RIGID	None	None	RIGID	Typical
171	M171	N86	N197		RIGID	None	None	RIGID	Typical
172	M172	N85	N196		RIGID	None	None	RIGID	Typical
173	M173	N83	N195		RIGID	None	None	RIGID	Typical
174	M174	N202	N206		PIPE_2.0	Beam	None	A53 Gr.B	Typical
175	M175	N201	N205		PIPE_2.5	Beam	None	A53 Gr.B	Typical
176	M176	N200	N204		PIPE_2.0	Beam	None	A53 Gr.B	Typical
177	M177	N199	N203		PIPE_2.0	Beam	None	A53 Gr.B	Typical
178	M178	N225	N230		PIPE_2.0	Beam	None	A53 Gr.B	Typical
179	M179	N219	N224		PIPE_2.0	Beam	None	A53 Gr.B	Typical
180	M180	N213	N218		PIPE_2.0	Beam	None	A53 Gr.B	Typical
181	M181	N217	N234		RIGID	None	None	RIGID	Typical
182	M182	N216	N233		RIGID	None	None	RIGID	Typical
183	M183	N215	N232		RIGID	None	None	RIGID	Typical
184	M184	N214	N231		RIGID	None	None	RIGID	Typical
185	M185	N223	N238		RIGID	None	None	RIGID	Typical
186	M186	N222	N237		RIGID	None	None	RIGID	Typical
187	M187	N221	N236		RIGID	None	None	RIGID	Typical
188	M188	N220	N235		RIGID	None	None	RIGID	Typical
189	M189	N229	N242		RIGID	None	None	RIGID	Typical
190	M190	N228	N241		RIGID	None	None	RIGID	Typical
191	M191	N227	N240		RIGID	None	None	RIGID	Typical
192	M192	N226	N239		RIGID	None	None	RIGID	Typical
193	M193	N218	N225	90	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical
194	M194	N230	N219	90	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical
195	M195	N224	N213	90	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical
196	M196	N243	N244		LL2.5x2.5x3x3	Beam	None	A36 Gr.36	Typical
197	M197	N245	N175		HSS3X3X5	Beam	None	A500 Gr.42	Typical APP APP
198	M199	N247	N176		HSS3X3X5	Beam	None	A500 Gr.42	Typical APP APP
199	M201	N249	N250		RIGID	None	None	RIGID	Typical
200	M202	N252	N251		RIGID	None	None	RIGID	Typical
201	M203	N253	N254		RIGID	None	None	RIGID	Typical
202	M204	N256	N255		RIGID	None	None	RIGID	Typical
203	M205	N257	N258		RIGID	None	None	RIGID	Typical
204	M206	N260	N259		RIGID	None	None	RIGID	Typical
205	M207	N261	N262		RIGID	None	None	RIGID	Typical
206	M208	N264	N263		RIGID	None	None	RIGID	Typical
207	M209	N265	N266		RIGID	None	None	RIGID	Typical
208	M210	N268	N267		RIGID	None	None	RIGID	Typical
209	M211	N269	N270		RIGID	None	None	RIGID	Typical
210	M212	N272	N271		RIGID	None	None	RIGID	Typical
211	M213	N273	N274		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
212	M214	N276	N275		RIGID	None	None	RIGID	Typical
213	M215	N277	N278		RIGID	None	None	RIGID	Typical
214	M216	N280	N279		RIGID	None	None	RIGID	Typical
215	M217	N281	N282		RIGID	None	None	RIGID	Typical
216	M218	N284	N283		RIGID	None	None	RIGID	Typical
217	M219	N285	N286		RIGID	None	None	RIGID	Typical
218	M220	N288	N287		RIGID	None	None	RIGID	Typical
219	M221	N289	N290		RIGID	None	None	RIGID	Typical
220	M222	N292	N291		RIGID	None	None	RIGID	Typical
221	M222A	N293	N294		HSS2.5x2.5x3	Beam	None	A500 Gr.B Rect	Typical
222	M223	N295	N296		HSS2.5x2.5x3	Beam	None	A500 Gr.B Rect	Typical
223	M223A	N297	N299		RIGID	None	None	RIGID	Typical
224	M224	N298	N300		RIGID	None	None	RIGID	Typical
225	M225	N301	N302		PIPE_4.0	Beam	None	A53 Gr.B	Typical
226	M226	N246	N303		LL2.5x2.5x3x3	Beam	None	A36 Gr.36	Typical
227	M227	N304	N305		HSS2.5x2.5x3	Beam	None	A500 Gr.B Rect	Typical
228	M228	N306	N307		HSS2.5x2.5x3	Beam	None	A500 Gr.B Rect	Typical
229	M229	N308	N310		RIGID	None	None	RIGID	Typical
230	M230	N309	N311		RIGID	None	None	RIGID	Typical
231	M231	N312	N313		PIPE_4.0	Beam	None	A53 Gr.B	Typical
232	M232	N248	N314		LL2.5x2.5x3x3	Beam	None	A36 Gr.36	Typical
233	M233	N315	N316		HSS2.5x2.5x3	Beam	None	A500 Gr.B Rect	Typical
234	M234	N317	N318		HSS2.5x2.5x3	Beam	None	A500 Gr.B Rect	Typical
235	M235	N319	N321		RIGID	None	None	RIGID	Typical
236	M236	N320	N322		RIGID	None	None	RIGID	Typical
237	M237	N323	N324		PIPE_4.0	Beam	None	A53 Gr.B	Typical
238	M238	N325	N47	270	L2.5X1.5X.25	Beam	None	Q235	Typical_APP_APP
239	M239	N326	N3	270	L2.5X1.5X.25	Beam	None	Q235	Typical_APP_APP
240	M240	N343	N245		RIGID	None	None	RIGID	Typical
241	M241	N247	N344		RIGID	None	None	RIGID	Typical
242	M242	N16	N345		RIGID	None	None	RIGID	Typical
243	M243	N347	N350	90	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical
244	M244	N347	N349	180	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical
245	M245	N353	N354	180	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical
246	M246	N353	N355	90	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical
247	M247	N357	N358	180	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical
248	M248	N357	N359	90	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical
249	M249	N347	N349	180	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical
250	M250	N347	N350	90	L2.5x2.5x3	Beam	None	A36 Gr.36	Typical

Node Loads and Enforced Displacements (BLC 1 : Self Weight)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N331	L	Y	-0.023
2	N333	L	Y	-0.023
3	N163	L	Y	-0.064
4	N159	L	Y	-0.064
5	N255	L	Y	-0.075
6	N256	L	Y	-0.11
7	N332	L	Y	-0.023
8	N334	L	Y	-0.023
9	N205	L	Y	-0.064
10	N201	L	Y	-0.064
11	N287	L	Y	-0.075
12	N288	L	Y	-0.11
13	N335	L	Y	-0.023

Node Loads and Enforced Displacements (BLC 1 : Self Weight) (Continued)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
14	N336	L	Y	-0.023
15	N187	L	Y	-0.064
16	N183	L	Y	-0.064
17	N271	L	Y	-0.075
18	N271	L	Y	-0.075

Node Loads and Enforced Displacements (BLC 2 : Wind Load AZI 000)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N331	L	Z	-0.151
2	N333	L	Z	-0.151
3	N163	L	Z	-0.472
4	N159	L	Z	-0.472
5	N255	L	Z	-0.092
6	N256	L	Z	-0.12
7	N332	L	Z	-0.063
8	N334	L	Z	-0.063
9	N205	L	Z	-0.207
10	N201	L	Z	-0.207
11	N287	L	Z	-0.066
12	N288	L	Z	-0.092
13	N335	L	Z	-0.063
14	N336	L	Z	-0.063
15	N187	L	Z	-0.207
16	N183	L	Z	-0.207
17	N271	L	Z	-0.066
18	N271	L	Z	-0.066

Node Loads and Enforced Displacements (BLC 3 : Wind Load AZI 090)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N331	L	X	-0.063
2	N333	L	X	-0.063
3	N163	L	X	-0.207
4	N159	L	X	-0.207
5	N255	L	X	-0.066
6	N256	L	X	-0.092
7	N332	L	X	-0.151
8	N334	L	X	-0.151
9	N205	L	X	-0.472
10	N201	L	X	-0.472
11	N287	L	X	-0.092
12	N288	L	X	-0.12
13	N335	L	X	-0.151
14	N336	L	X	-0.151
15	N187	L	X	-0.472
16	N183	L	X	-0.472
17	N271	L	X	-0.092
18	N271	L	X	-0.092

Node Loads and Enforced Displacements (BLC 4 : Ice Weight)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N331	L	Y	-0.035
2	N333	L	Y	-0.035

Node Loads and Enforced Displacements (BLC 4 : Ice Weight) (Continued)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
3	N163	L	Y	-0.097
4	N159	L	Y	-0.097
5	N255	L	Y	-0.031
6	N256	L	Y	-0.043
7	N332	L	Y	-0.035
8	N334	L	Y	-0.035
9	N205	L	Y	-0.097
10	N201	L	Y	-0.097
11	N287	L	Y	-0.031
12	N288	L	Y	-0.043
13	N335	L	Y	-0.035
14	N336	L	Y	-0.035
15	N187	L	Y	-0.097
16	N183	L	Y	-0.097
17	N271	L	Y	-0.031
18	N271	L	Y	-0.031

Node Loads and Enforced Displacements (BLC 5 : Wind + Ice Load AZI 000)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N331	L	Z	-0.024
2	N333	L	Z	-0.024
3	N163	L	Z	-0.071
4	N159	L	Z	-0.071
5	N255	L	Z	-0.016
6	N256	L	Z	-0.02
7	N332	L	Z	-0.011
8	N334	L	Z	-0.011
9	N205	L	Z	-0.035
10	N201	L	Z	-0.035
11	N287	L	Z	-0.012
12	N288	L	Z	-0.016
13	N335	L	Z	-0.011
14	N336	L	Z	-0.011
15	N187	L	Z	-0.035
16	N183	L	Z	-0.035
17	N271	L	Z	-0.012
18	N271	L	Z	-0.012

Node Loads and Enforced Displacements (BLC 6 : Wind + Ice Load AZI 090)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N331	L	X	-0.011
2	N333	L	X	-0.011
3	N163	L	X	-0.035
4	N159	L	X	-0.035
5	N255	L	X	-0.012
6	N256	L	X	-0.016
7	N332	L	X	-0.024
8	N334	L	X	-0.024
9	N205	L	X	-0.071
10	N201	L	X	-0.071
11	N287	L	X	-0.016
12	N288	L	X	-0.02
13	N335	L	X	-0.024

Node Loads and Enforced Displacements (BLC 6 : Wind + Ice Load AZI 090) (Continued)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
14	N336	L	X	-0.024
15	N187	L	X	-0.071
16	N183	L	X	-0.071
17	N271	L	X	-0.016
18	N271	L	X	-0.016

Node Loads and Enforced Displacements (BLC 7 : Service Lm1)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N231	L	Y	-0.5
2	N239	L	Y	-0.5
3	N235	L	Y	-0.5

Node Loads and Enforced Displacements (BLC 8 : Service Lm2)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N232	L	Y	-0.5
2	N240	L	Y	-0.5
3	N236	L	Y	-0.5

Node Loads and Enforced Displacements (BLC 9 : Service Lm3)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N233	L	Y	-0.5
2	N241	L	Y	-0.5
3	N237	L	Y	-0.5

Node Loads and Enforced Displacements (BLC 10 : Service Lm4)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N234	L	Y	-0.5
2	N242	L	Y	-0.5
3	N238	L	Y	-0.5

Node Loads and Enforced Displacements (BLC 11 : Service Lv 1)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N66	L	Y	-0.25
2	N82	L	Y	-0.25
3	N74	L	Y	-0.25

Node Loads and Enforced Displacements (BLC 12 : Service Lv 2)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N339	L	Y	-0.25
2	N337	L	Y	-0.25
3	N338	L	Y	-0.25

Node Loads and Enforced Displacements (BLC 13 : Service Lv 3)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N73	L	Y	-0.25
2	N89	L	Y	-0.25

Node Loads and Enforced Displacements (BLC 13 : Service Lv 3) (Continued)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
3	N81	L	Y	-0.25

Node Loads and Enforced Displacements (BLC 14 : Seismic Load AZI 000)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N331	L	Z	-0.002
2	N333	L	Z	-0.002
3	N163	L	Z	-0.006
4	N159	L	Z	-0.006
5	N255	L	Z	-0.007
6	N256	L	Z	-0.01
7	N332	L	Z	-0.002
8	N334	L	Z	-0.002
9	N205	L	Z	-0.006
10	N201	L	Z	-0.006
11	N287	L	Z	-0.007
12	N288	L	Z	-0.01
13	N335	L	Z	-0.002
14	N336	L	Z	-0.002
15	N187	L	Z	-0.006
16	N183	L	Z	-0.006
17	N271	L	Z	-0.007
18	N271	L	Z	-0.007

Node Loads and Enforced Displacements (BLC 15 : Seismic Load AZI 090)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)]
1	N331	L	X	-0.002
2	N333	L	X	-0.002
3	N163	L	X	-0.006
4	N159	L	X	-0.006
5	N255	L	X	-0.007
6	N256	L	X	-0.01
7	N332	L	X	-0.002
8	N334	L	X	-0.002
9	N205	L	X	-0.006
10	N201	L	X	-0.006
11	N287	L	X	-0.007
12	N288	L	X	-0.01
13	N335	L	X	-0.002
14	N336	L	X	-0.002
15	N187	L	X	-0.006
16	N183	L	X	-0.006
17	N271	L	X	-0.007
18	N271	L	X	-0.007

Member Distributed Loads (BLC 2 : Wind Load AZI 000)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	M8	SZ	-0.018	-0.018	0	%100
2	M62	SZ	-0.018	-0.018	0	%100
3	M2	SZ	-0.018	-0.018	0	%100
4	M59	SZ	-0.018	-0.018	0	%100
5	M92	SZ	-0.018	-0.018	0	%100
6	M54	SZ	-0.018	-0.018	0	%100

Member Distributed Loads (BLC 2 : Wind Load AZI 000) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
7	M4	SZ	-0.018	-0.018	0	%100
8	M93	SZ	-0.018	-0.018	0	%100
9	M102	SZ	-0.018	-0.018	0	%100
10	M9	SZ	-0.018	-0.018	0	%100
11	M57	SZ	-0.018	-0.018	0	%100
12	M68	SZ	-0.018	-0.018	0	%100
13	M234	SZ	-0.018	-0.018	0	%100
14	M11	SZ	-0.018	-0.018	0	%100
15	M182	SZ	-0.018	-0.018	0	%100
16	M12	SZ	-0.018	-0.018	0	%100
17	M13	SZ	-0.018	-0.018	0	%100
18	M53	SZ	-0.018	-0.018	0	%100
19	M24	SZ	-0.018	-0.018	0	%100
20	M27	SZ	-0.018	-0.018	0	%100
21	M17	SZ	-0.018	-0.018	0	%100
22	M56	SZ	-0.018	-0.018	0	%100
23	M154	SZ	-0.018	-0.018	0	%100
24	M33	SZ	-0.018	-0.018	0	%100
25	M169	SZ	-0.018	-0.018	0	%100
26	M35	SZ	-0.018	-0.018	0	%100
27	M37	SZ	-0.018	-0.018	0	%100
28	M38	SZ	-0.018	-0.018	0	%100
29	M95	SZ	-0.018	-0.018	0	%100
30	M61	SZ	-0.018	-0.018	0	%100
31	M214	SZ	-0.018	-0.018	0	%100
32	M44	SZ	-0.018	-0.018	0	%100
33	M233	SZ	-0.018	-0.018	0	%100
34	M43	SZ	-0.018	-0.018	0	%100
35	M86	SZ	-0.018	-0.018	0	%100
36	M66	SZ	-0.018	-0.018	0	%100
37	M63	SZ	-0.018	-0.018	0	%100
38	M151	SZ	-0.018	-0.018	0	%100
39	M64	SZ	-0.018	-0.018	0	%100
40	M194	SZ	-0.018	-0.018	0	%100
41	M179	SZ	-0.018	-0.018	0	%100
42	M67	SZ	-0.018	-0.018	0	%100
43	M146	SZ	-0.018	-0.018	0	%100
44	M74	SZ	-0.018	-0.018	0	%100
45	M69	SZ	-0.018	-0.018	0	%100
46	M108	SZ	-0.018	-0.018	0	%100
47	M195	SZ	-0.018	-0.018	0	%100
48	M72	SZ	-0.018	-0.018	0	%100
49	M104	SZ	-0.018	-0.018	0	%100
50	M98	SZ	-0.018	-0.018	0	%100
51	M75	SZ	-0.018	-0.018	0	%100
52	M119	SZ	-0.018	-0.018	0	%100
53	M76	SZ	-0.018	-0.018	0	%100
54	M122	SZ	-0.018	-0.018	0	%100
55	M78	SZ	-0.018	-0.018	0	%100
56	M143	SZ	-0.018	-0.018	0	%100
57	M80	SZ	-0.018	-0.018	0	%100
58	M227	SZ	-0.018	-0.018	0	%100
59	M213	SZ	-0.018	-0.018	0	%100
60	M85	SZ	-0.018	-0.018	0	%100
61	M118	SZ	-0.018	-0.018	0	%100

Member Distributed Loads (BLC 2 : Wind Load AZI 000) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
62	M99	SZ	-0.018	-0.018	0	%100
63	M130	SZ	-0.018	-0.018	0	%100
64	M106	SZ	-0.018	-0.018	0	%100
65	M229	SZ	-0.018	-0.018	0	%100
66	M107	SZ	-0.018	-0.018	0	%100
67	M110	SZ	-0.018	-0.018	0	%100
68	M155	SZ	-0.018	-0.018	0	%100
69	M111	SZ	-0.018	-0.018	0	%100
70	M137	SZ	-0.018	-0.018	0	%100
71	M237	SZ	-0.018	-0.018	0	%100
72	M127	SZ	-0.018	-0.018	0	%100
73	M180	SZ	-0.018	-0.018	0	%100
74	M136	SZ	-0.018	-0.018	0	%100
75	M144	SZ	-0.018	-0.018	0	%100
76	M162	SZ	-0.018	-0.018	0	%100
77	M184	SZ	-0.018	-0.018	0	%100
78	M149	SZ	-0.018	-0.018	0	%100
79	M236	SZ	-0.018	-0.018	0	%100
80	M175	SZ	-0.018	-0.018	0	%100
81	M178	SZ	-0.018	-0.018	0	%100
82	M177	SZ	-0.018	-0.018	0	%100
83	M192	SZ	-0.018	-0.018	0	%100
84	M186	SZ	-0.018	-0.018	0	%100
85	M224	SZ	-0.018	-0.018	0	%100
86	M188	SZ	-0.018	-0.018	0	%100
87	M208	SZ	-0.018	-0.018	0	%100
88	M190	SZ	-0.018	-0.018	0	%100
89	M223	SZ	-0.018	-0.018	0	%100
90	M196	SZ	-0.018	-0.018	0	%100
91	M211	SZ	-0.018	-0.018	0	%100
92	M238	SZ	-0.018	-0.018	0	%100
93	M221	SZ	-0.018	-0.018	0	%100
94	M226	SZ	-0.018	-0.018	0	%100
95	M223A	SZ	-0.018	-0.018	0	%100
96	M232	SZ	-0.018	-0.018	0	%100
97	M239	SZ	-0.018	-0.018	0	%100
98	M82	SZ	-0.018	-0.018	0	%100
99	M58	SZ	-0.018	-0.018	0	%100
100	M81	SZ	-0.018	-0.018	0	%100
101	M42	SZ	-0.018	-0.018	0	%100
102	M34	SZ	-0.018	-0.018	0	%100
103	M32	SZ	-0.018	-0.018	0	%100
104	M41	SZ	-0.018	-0.018	0	%100
105	M60	SZ	-0.018	-0.018	0	%100
106	M40	SZ	-0.018	-0.018	0	%100
107	M31	SZ	-0.018	-0.018	0	%100
108	M36	SZ	-0.018	-0.018	0	%100
109	M83	SZ	-0.018	-0.018	0	%100
110	M101	SZ	-0.018	-0.018	0	%100
111	M73	SZ	-0.018	-0.018	0	%100
112	M28	SZ	-0.018	-0.018	0	%100
113	M26	SZ	-0.018	-0.018	0	%100
114	M29	SZ	-0.018	-0.018	0	%100
115	M109	SZ	-0.018	-0.018	0	%100
116	M84	SZ	-0.018	-0.018	0	%100

Member Distributed Loads (BLC 2 : Wind Load AZI 000) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
117	M25	SZ	-0.018	-0.018	0	%100
118	M30	SZ	-0.018	-0.018	0	%100
119	M116	SZ	-0.018	-0.018	0	%100
120	M55	SZ	-0.018	-0.018	0	%100
121	M117	SZ	-0.018	-0.018	0	%100
122	M90	SZ	-0.018	-0.018	0	%100
123	M52	SZ	-0.018	-0.018	0	%100
124	M39	SZ	-0.018	-0.018	0	%100
125	M21	SZ	-0.018	-0.018	0	%100
126	M22	SZ	-0.018	-0.018	0	%100
127	M87	SZ	-0.018	-0.018	0	%100
128	M20	SZ	-0.018	-0.018	0	%100
129	M23	SZ	-0.018	-0.018	0	%100
130	M89	SZ	-0.018	-0.018	0	%100
131	M19	SZ	-0.018	-0.018	0	%100
132	M121	SZ	-0.018	-0.018	0	%100
133	M88	SZ	-0.018	-0.018	0	%100
134	M15	SZ	-0.018	-0.018	0	%100
135	M16	SZ	-0.018	-0.018	0	%100
136	M91	SZ	-0.018	-0.018	0	%100
137	M14	SZ	-0.018	-0.018	0	%100
138	M120	SZ	-0.018	-0.018	0	%100
139	M18	SZ	-0.018	-0.018	0	%100
140	M51	SZ	-0.018	-0.018	0	%100
141	M133	SZ	-0.018	-0.018	0	%100
142	M96	SZ	-0.018	-0.018	0	%100
143	M49	SZ	-0.018	-0.018	0	%100
144	M46	SZ	-0.018	-0.018	0	%100
145	M97	SZ	-0.018	-0.018	0	%100
146	M10	SZ	-0.018	-0.018	0	%100
147	M45	SZ	-0.018	-0.018	0	%100
148	M50	SZ	-0.018	-0.018	0	%100
149	M48	SZ	-0.018	-0.018	0	%100
150	M7	SZ	-0.018	-0.018	0	%100
151	M47	SZ	-0.018	-0.018	0	%100
152	M129	SZ	-0.018	-0.018	0	%100
153	M94	SZ	-0.018	-0.018	0	%100
154	M3	SZ	-0.018	-0.018	0	%100
155	M128	SZ	-0.018	-0.018	0	%100
156	M5	SZ	-0.018	-0.018	0	%100
157	M131	SZ	-0.018	-0.018	0	%100
158	M132	SZ	-0.018	-0.018	0	%100
159	M1	SZ	-0.018	-0.018	0	%100
160	M6	SZ	-0.018	-0.018	0	%100
161	M77	SZ	-0.018	-0.018	0	%100
162	M153	SZ	-0.018	-0.018	0	%100
163	M152	SZ	-0.018	-0.018	0	%100
164	M65	SZ	-0.018	-0.018	0	%100
165	M142	SZ	-0.018	-0.018	0	%100
166	M165	SZ	-0.018	-0.018	0	%100
167	M164	SZ	-0.018	-0.018	0	%100
168	M163	SZ	-0.018	-0.018	0	%100
169	M147	SZ	-0.018	-0.018	0	%100
170	M173	SZ	-0.018	-0.018	0	%100
171	M172	SZ	-0.018	-0.018	0	%100

Member Distributed Loads (BLC 2 : Wind Load AZI 000) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
172	M171	SZ	-0.018	-0.018	0	%100
173	M70	SZ	-0.018	-0.018	0	%100
174	M170	SZ	-0.018	-0.018	0	%100
175	M141	SZ	-0.018	-0.018	0	%100
176	M139	SZ	-0.018	-0.018	0	%100
177	M100	SZ	-0.018	-0.018	0	%100
178	M138	SZ	-0.018	-0.018	0	%100
179	M71	SZ	-0.018	-0.018	0	%100
180	M103	SZ	-0.018	-0.018	0	%100
181	M105	SZ	-0.018	-0.018	0	%100
182	M134	SZ	-0.018	-0.018	0	%100
183	M135	SZ	-0.018	-0.018	0	%100
184	M112	SZ	-0.018	-0.018	0	%100
185	M113	SZ	-0.018	-0.018	0	%100
186	M114	SZ	-0.018	-0.018	0	%100
187	M115	SZ	-0.018	-0.018	0	%100
188	M123	SZ	-0.018	-0.018	0	%100
189	M124	SZ	-0.018	-0.018	0	%100
190	M125	SZ	-0.018	-0.018	0	%100
191	M126	SZ	-0.018	-0.018	0	%100
192	M140	SZ	-0.018	-0.018	0	%100
193	M79	SZ	-0.018	-0.018	0	%100
194	M145	SZ	-0.018	-0.018	0	%100
195	M150	SZ	-0.018	-0.018	0	%100
196	M148	SZ	-0.018	-0.018	0	%100
197	M159	SZ	-0.018	-0.018	0	%100
198	M158	SZ	-0.018	-0.018	0	%100
199	M157	SZ	-0.018	-0.018	0	%100
200	M156	SZ	-0.018	-0.018	0	%100
201	M160	SZ	-0.018	-0.018	0	%100
202	M161	SZ	-0.018	-0.018	0	%100
203	M197	SZ	-0.018	-0.018	0	%100
204	M199	SZ	-0.018	-0.018	0	%100
205	M168	SZ	-0.018	-0.018	0	%100
206	M167	SZ	-0.018	-0.018	0	%100
207	M166	SZ	-0.018	-0.018	0	%100
208	M176	SZ	-0.018	-0.018	0	%100
209	M174	SZ	-0.018	-0.018	0	%100
210	M183	SZ	-0.018	-0.018	0	%100
211	M181	SZ	-0.018	-0.018	0	%100
212	M193	SZ	-0.018	-0.018	0	%100
213	M187	SZ	-0.018	-0.018	0	%100
214	M185	SZ	-0.018	-0.018	0	%100
215	M191	SZ	-0.018	-0.018	0	%100
216	M189	SZ	-0.018	-0.018	0	%100
217	M201	SZ	-0.018	-0.018	0	%100
218	M202	SZ	-0.018	-0.018	0	%100
219	M203	SZ	-0.018	-0.018	0	%100
220	M204	SZ	-0.018	-0.018	0	%100
221	M205	SZ	-0.018	-0.018	0	%100
222	M206	SZ	-0.018	-0.018	0	%100
223	M207	SZ	-0.018	-0.018	0	%100
224	M209	SZ	-0.018	-0.018	0	%100
225	M210	SZ	-0.018	-0.018	0	%100
226	M212	SZ	-0.018	-0.018	0	%100

Member Distributed Loads (BLC 2 : Wind Load AZI 000) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
227	M215	SZ	-0.018	-0.018	0	%100
228	M216	SZ	-0.018	-0.018	0	%100
229	M217	SZ	-0.018	-0.018	0	%100
230	M218	SZ	-0.018	-0.018	0	%100
231	M219	SZ	-0.018	-0.018	0	%100
232	M220	SZ	-0.018	-0.018	0	%100
233	M222	SZ	-0.018	-0.018	0	%100
234	M222A	SZ	-0.018	-0.018	0	%100
235	M225	SZ	-0.018	-0.018	0	%100
236	M228	SZ	-0.018	-0.018	0	%100
237	M230	SZ	-0.018	-0.018	0	%100
238	M231	SZ	-0.018	-0.018	0	%100
239	M235	SZ	-0.018	-0.018	0	%100

Member Distributed Loads (BLC 3 : Wind Load AZI 090)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	M8	SX	-0.018	-0.018	0	%100
2	M62	SX	-0.018	-0.018	0	%100
3	M2	SX	-0.018	-0.018	0	%100
4	M59	SX	-0.018	-0.018	0	%100
5	M92	SX	-0.018	-0.018	0	%100
6	M54	SX	-0.018	-0.018	0	%100
7	M4	SX	-0.018	-0.018	0	%100
8	M93	SX	-0.018	-0.018	0	%100
9	M102	SX	-0.018	-0.018	0	%100
10	M9	SX	-0.018	-0.018	0	%100
11	M57	SX	-0.018	-0.018	0	%100
12	M234	SX	-0.018	-0.018	0	%100
13	M11	SX	-0.018	-0.018	0	%100
14	M182	SX	-0.018	-0.018	0	%100
15	M12	SX	-0.018	-0.018	0	%100
16	M13	SX	-0.018	-0.018	0	%100
17	M53	SX	-0.018	-0.018	0	%100
18	M68	SX	-0.018	-0.018	0	%100
19	M24	SX	-0.018	-0.018	0	%100
20	M27	SX	-0.018	-0.018	0	%100
21	M17	SX	-0.018	-0.018	0	%100
22	M56	SX	-0.018	-0.018	0	%100
23	M154	SX	-0.018	-0.018	0	%100
24	M33	SX	-0.018	-0.018	0	%100
25	M169	SX	-0.018	-0.018	0	%100
26	M35	SX	-0.018	-0.018	0	%100
27	M37	SX	-0.018	-0.018	0	%100
28	M38	SX	-0.018	-0.018	0	%100
29	M95	SX	-0.018	-0.018	0	%100
30	M61	SX	-0.018	-0.018	0	%100
31	M214	SX	-0.018	-0.018	0	%100
32	M44	SX	-0.018	-0.018	0	%100
33	M233	SX	-0.018	-0.018	0	%100
34	M43	SX	-0.018	-0.018	0	%100
35	M86	SX	-0.018	-0.018	0	%100
36	M66	SX	-0.018	-0.018	0	%100
37	M63	SX	-0.018	-0.018	0	%100
38	M151	SX	-0.018	-0.018	0	%100
39	M64	SX	-0.018	-0.018	0	%100

Member Distributed Loads (BLC 3 : Wind Load AZI 090) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
40	M194	SX	-0.018	-0.018	0	%100
41	M179	SX	-0.018	-0.018	0	%100
42	M146	SX	-0.018	-0.018	0	%100
43	M74	SX	-0.018	-0.018	0	%100
44	M108	SX	-0.018	-0.018	0	%100
45	M195	SX	-0.018	-0.018	0	%100
46	M104	SX	-0.018	-0.018	0	%100
47	M98	SX	-0.018	-0.018	0	%100
48	M67	SX	-0.018	-0.018	0	%100
49	M75	SX	-0.018	-0.018	0	%100
50	M119	SX	-0.018	-0.018	0	%100
51	M69	SX	-0.018	-0.018	0	%100
52	M76	SX	-0.018	-0.018	0	%100
53	M122	SX	-0.018	-0.018	0	%100
54	M72	SX	-0.018	-0.018	0	%100
55	M78	SX	-0.018	-0.018	0	%100
56	M143	SX	-0.018	-0.018	0	%100
57	M80	SX	-0.018	-0.018	0	%100
58	M227	SX	-0.018	-0.018	0	%100
59	M213	SX	-0.018	-0.018	0	%100
60	M85	SX	-0.018	-0.018	0	%100
61	M118	SX	-0.018	-0.018	0	%100
62	M99	SX	-0.018	-0.018	0	%100
63	M130	SX	-0.018	-0.018	0	%100
64	M106	SX	-0.018	-0.018	0	%100
65	M229	SX	-0.018	-0.018	0	%100
66	M107	SX	-0.018	-0.018	0	%100
67	M110	SX	-0.018	-0.018	0	%100
68	M155	SX	-0.018	-0.018	0	%100
69	M111	SX	-0.018	-0.018	0	%100
70	M137	SX	-0.018	-0.018	0	%100
71	M237	SX	-0.018	-0.018	0	%100
72	M127	SX	-0.018	-0.018	0	%100
73	M180	SX	-0.018	-0.018	0	%100
74	M136	SX	-0.018	-0.018	0	%100
75	M144	SX	-0.018	-0.018	0	%100
76	M162	SX	-0.018	-0.018	0	%100
77	M184	SX	-0.018	-0.018	0	%100
78	M149	SX	-0.018	-0.018	0	%100
79	M236	SX	-0.018	-0.018	0	%100
80	M175	SX	-0.018	-0.018	0	%100
81	M178	SX	-0.018	-0.018	0	%100
82	M177	SX	-0.018	-0.018	0	%100
83	M192	SX	-0.018	-0.018	0	%100
84	M186	SX	-0.018	-0.018	0	%100
85	M224	SX	-0.018	-0.018	0	%100
86	M188	SX	-0.018	-0.018	0	%100
87	M208	SX	-0.018	-0.018	0	%100
88	M190	SX	-0.018	-0.018	0	%100
89	M223	SX	-0.018	-0.018	0	%100
90	M196	SX	-0.018	-0.018	0	%100
91	M211	SX	-0.018	-0.018	0	%100
92	M238	SX	-0.018	-0.018	0	%100
93	M221	SX	-0.018	-0.018	0	%100
94	M226	SX	-0.018	-0.018	0	%100

Member Distributed Loads (BLC 3 : Wind Load AZI 090) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
95	M223A	SX	-0.018	-0.018	0	%100
96	M232	SX	-0.018	-0.018	0	%100
97	M239	SX	-0.018	-0.018	0	%100
98	M82	SX	-0.018	-0.018	0	%100
99	M58	SX	-0.018	-0.018	0	%100
100	M81	SX	-0.018	-0.018	0	%100
101	M42	SX	-0.018	-0.018	0	%100
102	M34	SX	-0.018	-0.018	0	%100
103	M32	SX	-0.018	-0.018	0	%100
104	M41	SX	-0.018	-0.018	0	%100
105	M60	SX	-0.018	-0.018	0	%100
106	M40	SX	-0.018	-0.018	0	%100
107	M31	SX	-0.018	-0.018	0	%100
108	M36	SX	-0.018	-0.018	0	%100
109	M83	SX	-0.018	-0.018	0	%100
110	M101	SX	-0.018	-0.018	0	%100
111	M73	SX	-0.018	-0.018	0	%100
112	M28	SX	-0.018	-0.018	0	%100
113	M26	SX	-0.018	-0.018	0	%100
114	M29	SX	-0.018	-0.018	0	%100
115	M109	SX	-0.018	-0.018	0	%100
116	M84	SX	-0.018	-0.018	0	%100
117	M25	SX	-0.018	-0.018	0	%100
118	M30	SX	-0.018	-0.018	0	%100
119	M116	SX	-0.018	-0.018	0	%100
120	M55	SX	-0.018	-0.018	0	%100
121	M117	SX	-0.018	-0.018	0	%100
122	M90	SX	-0.018	-0.018	0	%100
123	M52	SX	-0.018	-0.018	0	%100
124	M39	SX	-0.018	-0.018	0	%100
125	M21	SX	-0.018	-0.018	0	%100
126	M22	SX	-0.018	-0.018	0	%100
127	M87	SX	-0.018	-0.018	0	%100
128	M20	SX	-0.018	-0.018	0	%100
129	M23	SX	-0.018	-0.018	0	%100
130	M89	SX	-0.018	-0.018	0	%100
131	M19	SX	-0.018	-0.018	0	%100
132	M121	SX	-0.018	-0.018	0	%100
133	M88	SX	-0.018	-0.018	0	%100
134	M15	SX	-0.018	-0.018	0	%100
135	M16	SX	-0.018	-0.018	0	%100
136	M91	SX	-0.018	-0.018	0	%100
137	M14	SX	-0.018	-0.018	0	%100
138	M120	SX	-0.018	-0.018	0	%100
139	M18	SX	-0.018	-0.018	0	%100
140	M51	SX	-0.018	-0.018	0	%100
141	M133	SX	-0.018	-0.018	0	%100
142	M96	SX	-0.018	-0.018	0	%100
143	M49	SX	-0.018	-0.018	0	%100
144	M46	SX	-0.018	-0.018	0	%100
145	M97	SX	-0.018	-0.018	0	%100
146	M10	SX	-0.018	-0.018	0	%100
147	M45	SX	-0.018	-0.018	0	%100
148	M50	SX	-0.018	-0.018	0	%100
149	M48	SX	-0.018	-0.018	0	%100

Member Distributed Loads (BLC 3 : Wind Load AZI 090) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
150	M7	SX	-0.018	-0.018	0	%100
151	M47	SX	-0.018	-0.018	0	%100
152	M129	SX	-0.018	-0.018	0	%100
153	M94	SX	-0.018	-0.018	0	%100
154	M3	SX	-0.018	-0.018	0	%100
155	M128	SX	-0.018	-0.018	0	%100
156	M5	SX	-0.018	-0.018	0	%100
157	M131	SX	-0.018	-0.018	0	%100
158	M132	SX	-0.018	-0.018	0	%100
159	M1	SX	-0.018	-0.018	0	%100
160	M6	SX	-0.018	-0.018	0	%100
161	M77	SX	-0.018	-0.018	0	%100
162	M153	SX	-0.018	-0.018	0	%100
163	M152	SX	-0.018	-0.018	0	%100
164	M65	SX	-0.018	-0.018	0	%100
165	M142	SX	-0.018	-0.018	0	%100
166	M165	SX	-0.018	-0.018	0	%100
167	M164	SX	-0.018	-0.018	0	%100
168	M163	SX	-0.018	-0.018	0	%100
169	M147	SX	-0.018	-0.018	0	%100
170	M173	SX	-0.018	-0.018	0	%100
171	M172	SX	-0.018	-0.018	0	%100
172	M171	SX	-0.018	-0.018	0	%100
173	M170	SX	-0.018	-0.018	0	%100
174	M141	SX	-0.018	-0.018	0	%100
175	M139	SX	-0.018	-0.018	0	%100
176	M100	SX	-0.018	-0.018	0	%100
177	M138	SX	-0.018	-0.018	0	%100
178	M103	SX	-0.018	-0.018	0	%100
179	M105	SX	-0.018	-0.018	0	%100
180	M70	SX	-0.018	-0.018	0	%100
181	M134	SX	-0.018	-0.018	0	%100
182	M135	SX	-0.018	-0.018	0	%100
183	M112	SX	-0.018	-0.018	0	%100
184	M113	SX	-0.018	-0.018	0	%100
185	M71	SX	-0.018	-0.018	0	%100
186	M114	SX	-0.018	-0.018	0	%100
187	M115	SX	-0.018	-0.018	0	%100
188	M123	SX	-0.018	-0.018	0	%100
189	M124	SX	-0.018	-0.018	0	%100
190	M125	SX	-0.018	-0.018	0	%100
191	M126	SX	-0.018	-0.018	0	%100
192	M140	SX	-0.018	-0.018	0	%100
193	M79	SX	-0.018	-0.018	0	%100
194	M145	SX	-0.018	-0.018	0	%100
195	M150	SX	-0.018	-0.018	0	%100
196	M148	SX	-0.018	-0.018	0	%100
197	M159	SX	-0.018	-0.018	0	%100
198	M158	SX	-0.018	-0.018	0	%100
199	M157	SX	-0.018	-0.018	0	%100
200	M156	SX	-0.018	-0.018	0	%100
201	M160	SX	-0.018	-0.018	0	%100
202	M161	SX	-0.018	-0.018	0	%100
203	M197	SX	-0.018	-0.018	0	%100
204	M199	SX	-0.018	-0.018	0	%100

Member Distributed Loads (BLC 3 : Wind Load AZI 090) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
205	M168	SX	-0.018	-0.018	0	%100
206	M167	SX	-0.018	-0.018	0	%100
207	M166	SX	-0.018	-0.018	0	%100
208	M176	SX	-0.018	-0.018	0	%100
209	M174	SX	-0.018	-0.018	0	%100
210	M183	SX	-0.018	-0.018	0	%100
211	M181	SX	-0.018	-0.018	0	%100
212	M193	SX	-0.018	-0.018	0	%100
213	M187	SX	-0.018	-0.018	0	%100
214	M185	SX	-0.018	-0.018	0	%100
215	M191	SX	-0.018	-0.018	0	%100
216	M189	SX	-0.018	-0.018	0	%100
217	M201	SX	-0.018	-0.018	0	%100
218	M202	SX	-0.018	-0.018	0	%100
219	M203	SX	-0.018	-0.018	0	%100
220	M204	SX	-0.018	-0.018	0	%100
221	M205	SX	-0.018	-0.018	0	%100
222	M206	SX	-0.018	-0.018	0	%100
223	M207	SX	-0.018	-0.018	0	%100
224	M209	SX	-0.018	-0.018	0	%100
225	M210	SX	-0.018	-0.018	0	%100
226	M212	SX	-0.018	-0.018	0	%100
227	M215	SX	-0.018	-0.018	0	%100
228	M216	SX	-0.018	-0.018	0	%100
229	M217	SX	-0.018	-0.018	0	%100
230	M218	SX	-0.018	-0.018	0	%100
231	M219	SX	-0.018	-0.018	0	%100
232	M220	SX	-0.018	-0.018	0	%100
233	M222	SX	-0.018	-0.018	0	%100
234	M222A	SX	-0.018	-0.018	0	%100
235	M225	SX	-0.018	-0.018	0	%100
236	M228	SX	-0.018	-0.018	0	%100
237	M230	SX	-0.018	-0.018	0	%100
238	M231	SX	-0.018	-0.018	0	%100
239	M235	SX	-0.018	-0.018	0	%100

Member Distributed Loads (BLC 4 : Ice Weight)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	M8	Y	-0.005	-0.005	0	%100
2	M62	Y	-0.005	-0.005	0	%100
3	M2	Y	-0.005	-0.005	0	%100
4	M59	Y	-0.005	-0.005	0	%100
5	M92	Y	-0.005	-0.005	0	%100
6	M54	Y	-0.005	-0.005	0	%100
7	M4	Y	-0.005	-0.005	0	%100
8	M93	Y	-0.005	-0.005	0	%100
9	M102	Y	-0.005	-0.005	0	%100
10	M9	Y	-0.005	-0.005	0	%100
11	M57	Y	-0.005	-0.005	0	%100
12	M234	Y	-0.005	-0.005	0	%100
13	M11	Y	-0.005	-0.005	0	%100
14	M182	Y	-0.005	-0.005	0	%100
15	M12	Y	-0.005	-0.005	0	%100
16	M13	Y	-0.005	-0.005	0	%100
17	M53	Y	-0.005	-0.005	0	%100

Member Distributed Loads (BLC 4 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
18	M24	Y	-0.005	-0.005	0	%100
19	M27	Y	-0.005	-0.005	0	%100
20	M17	Y	-0.005	-0.005	0	%100
21	M56	Y	-0.005	-0.005	0	%100
22	M154	Y	-0.005	-0.005	0	%100
23	M33	Y	-0.005	-0.005	0	%100
24	M169	Y	-0.005	-0.005	0	%100
25	M35	Y	-0.005	-0.005	0	%100
26	M37	Y	-0.005	-0.005	0	%100
27	M38	Y	-0.005	-0.005	0	%100
28	M95	Y	-0.005	-0.005	0	%100
29	M61	Y	-0.005	-0.005	0	%100
30	M214	Y	-0.005	-0.005	0	%100
31	M44	Y	-0.005	-0.005	0	%100
32	M233	Y	-0.005	-0.005	0	%100
33	M43	Y	-0.005	-0.005	0	%100
34	M86	Y	-0.005	-0.005	0	%100
35	M66	Y	-0.005	-0.005	0	%100
36	M68	Y	-0.005	-0.005	0	%100
37	M63	Y	-0.005	-0.005	0	%100
38	M151	Y	-0.005	-0.005	0	%100
39	M64	Y	-0.005	-0.005	0	%100
40	M194	Y	-0.005	-0.005	0	%100
41	M179	Y	-0.005	-0.005	0	%100
42	M146	Y	-0.005	-0.005	0	%100
43	M74	Y	-0.005	-0.005	0	%100
44	M108	Y	-0.005	-0.005	0	%100
45	M195	Y	-0.005	-0.005	0	%100
46	M104	Y	-0.005	-0.005	0	%100
47	M98	Y	-0.005	-0.005	0	%100
48	M75	Y	-0.005	-0.005	0	%100
49	M119	Y	-0.005	-0.005	0	%100
50	M76	Y	-0.005	-0.005	0	%100
51	M122	Y	-0.005	-0.005	0	%100
52	M78	Y	-0.005	-0.005	0	%100
53	M143	Y	-0.005	-0.005	0	%100
54	M80	Y	-0.005	-0.005	0	%100
55	M227	Y	-0.005	-0.005	0	%100
56	M213	Y	-0.005	-0.005	0	%100
57	M85	Y	-0.005	-0.005	0	%100
58	M118	Y	-0.005	-0.005	0	%100
59	M99	Y	-0.005	-0.005	0	%100
60	M130	Y	-0.005	-0.005	0	%100
61	M106	Y	-0.005	-0.005	0	%100
62	M229	Y	-0.005	-0.005	0	%100
63	M107	Y	-0.005	-0.005	0	%100
64	M110	Y	-0.005	-0.005	0	%100
65	M155	Y	-0.005	-0.005	0	%100
66	M67	Y	-0.005	-0.005	0	%100
67	M111	Y	-0.005	-0.005	0	%100
68	M137	Y	-0.005	-0.005	0	%100
69	M69	Y	-0.005	-0.005	0	%100
70	M237	Y	-0.005	-0.005	0	%100
71	M127	Y	-0.005	-0.005	0	%100
72	M72	Y	-0.005	-0.005	0	%100

Member Distributed Loads (BLC 4 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
73	M180	Y	-0.005	-0.005	0	%100
74	M136	Y	-0.005	-0.005	0	%100
75	M144	Y	-0.005	-0.005	0	%100
76	M162	Y	-0.005	-0.005	0	%100
77	M184	Y	-0.005	-0.005	0	%100
78	M149	Y	-0.005	-0.005	0	%100
79	M236	Y	-0.005	-0.005	0	%100
80	M175	Y	-0.005	-0.005	0	%100
81	M178	Y	-0.005	-0.005	0	%100
82	M177	Y	-0.005	-0.005	0	%100
83	M192	Y	-0.005	-0.005	0	%100
84	M186	Y	-0.005	-0.005	0	%100
85	M224	Y	-0.005	-0.005	0	%100
86	M188	Y	-0.005	-0.005	0	%100
87	M208	Y	-0.005	-0.005	0	%100
88	M190	Y	-0.005	-0.005	0	%100
89	M223	Y	-0.005	-0.005	0	%100
90	M196	Y	-0.005	-0.005	0	%100
91	M211	Y	-0.005	-0.005	0	%100
92	M238	Y	-0.005	-0.005	0	%100
93	M221	Y	-0.005	-0.005	0	%100
94	M226	Y	-0.005	-0.005	0	%100
95	M223A	Y	-0.005	-0.005	0	%100
96	M232	Y	-0.005	-0.005	0	%100
97	M239	Y	-0.005	-0.005	0	%100
98	M82	Y	-0.005	-0.005	0	%100
99	M58	Y	-0.005	-0.005	0	%100
100	M81	Y	-0.005	-0.005	0	%100
101	M42	Y	-0.005	-0.005	0	%100
102	M34	Y	-0.005	-0.005	0	%100
103	M32	Y	-0.005	-0.005	0	%100
104	M41	Y	-0.005	-0.005	0	%100
105	M60	Y	-0.005	-0.005	0	%100
106	M40	Y	-0.005	-0.005	0	%100
107	M31	Y	-0.005	-0.005	0	%100
108	M36	Y	-0.005	-0.005	0	%100
109	M83	Y	-0.005	-0.005	0	%100
110	M101	Y	-0.005	-0.005	0	%100
111	M73	Y	-0.005	-0.005	0	%100
112	M28	Y	-0.005	-0.005	0	%100
113	M26	Y	-0.005	-0.005	0	%100
114	M29	Y	-0.005	-0.005	0	%100
115	M109	Y	-0.005	-0.005	0	%100
116	M84	Y	-0.005	-0.005	0	%100
117	M25	Y	-0.005	-0.005	0	%100
118	M30	Y	-0.005	-0.005	0	%100
119	M116	Y	-0.005	-0.005	0	%100
120	M55	Y	-0.005	-0.005	0	%100
121	M117	Y	-0.005	-0.005	0	%100
122	M90	Y	-0.005	-0.005	0	%100
123	M52	Y	-0.005	-0.005	0	%100
124	M39	Y	-0.005	-0.005	0	%100
125	M21	Y	-0.005	-0.005	0	%100
126	M22	Y	-0.005	-0.005	0	%100
127	M87	Y	-0.005	-0.005	0	%100

Member Distributed Loads (BLC 4 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
128	M20	Y	-0.005	-0.005	0	%100
129	M23	Y	-0.005	-0.005	0	%100
130	M89	Y	-0.005	-0.005	0	%100
131	M19	Y	-0.005	-0.005	0	%100
132	M121	Y	-0.005	-0.005	0	%100
133	M88	Y	-0.005	-0.005	0	%100
134	M15	Y	-0.005	-0.005	0	%100
135	M16	Y	-0.005	-0.005	0	%100
136	M91	Y	-0.005	-0.005	0	%100
137	M14	Y	-0.005	-0.005	0	%100
138	M120	Y	-0.005	-0.005	0	%100
139	M18	Y	-0.005	-0.005	0	%100
140	M51	Y	-0.005	-0.005	0	%100
141	M133	Y	-0.005	-0.005	0	%100
142	M96	Y	-0.005	-0.005	0	%100
143	M49	Y	-0.005	-0.005	0	%100
144	M46	Y	-0.005	-0.005	0	%100
145	M97	Y	-0.005	-0.005	0	%100
146	M10	Y	-0.005	-0.005	0	%100
147	M45	Y	-0.005	-0.005	0	%100
148	M50	Y	-0.005	-0.005	0	%100
149	M48	Y	-0.005	-0.005	0	%100
150	M7	Y	-0.005	-0.005	0	%100
151	M47	Y	-0.005	-0.005	0	%100
152	M129	Y	-0.005	-0.005	0	%100
153	M94	Y	-0.005	-0.005	0	%100
154	M3	Y	-0.005	-0.005	0	%100
155	M128	Y	-0.005	-0.005	0	%100
156	M5	Y	-0.005	-0.005	0	%100
157	M131	Y	-0.005	-0.005	0	%100
158	M132	Y	-0.005	-0.005	0	%100
159	M1	Y	-0.005	-0.005	0	%100
160	M6	Y	-0.005	-0.005	0	%100
161	M77	Y	-0.005	-0.005	0	%100
162	M153	Y	-0.005	-0.005	0	%100
163	M152	Y	-0.005	-0.005	0	%100
164	M65	Y	-0.005	-0.005	0	%100
165	M142	Y	-0.005	-0.005	0	%100
166	M165	Y	-0.005	-0.005	0	%100
167	M164	Y	-0.005	-0.005	0	%100
168	M163	Y	-0.005	-0.005	0	%100
169	M147	Y	-0.005	-0.005	0	%100
170	M173	Y	-0.005	-0.005	0	%100
171	M172	Y	-0.005	-0.005	0	%100
172	M171	Y	-0.005	-0.005	0	%100
173	M170	Y	-0.005	-0.005	0	%100
174	M141	Y	-0.005	-0.005	0	%100
175	M139	Y	-0.005	-0.005	0	%100
176	M100	Y	-0.005	-0.005	0	%100
177	M138	Y	-0.005	-0.005	0	%100
178	M103	Y	-0.005	-0.005	0	%100
179	M105	Y	-0.005	-0.005	0	%100
180	M134	Y	-0.005	-0.005	0	%100
181	M135	Y	-0.005	-0.005	0	%100
182	M112	Y	-0.005	-0.005	0	%100

Member Distributed Loads (BLC 4 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
183	M113	Y	-0.005	-0.005	0	%100
184	M114	Y	-0.005	-0.005	0	%100
185	M115	Y	-0.005	-0.005	0	%100
186	M123	Y	-0.005	-0.005	0	%100
187	M124	Y	-0.005	-0.005	0	%100
188	M125	Y	-0.005	-0.005	0	%100
189	M126	Y	-0.005	-0.005	0	%100
190	M140	Y	-0.005	-0.005	0	%100
191	M79	Y	-0.005	-0.005	0	%100
192	M145	Y	-0.005	-0.005	0	%100
193	M150	Y	-0.005	-0.005	0	%100
194	M148	Y	-0.005	-0.005	0	%100
195	M159	Y	-0.005	-0.005	0	%100
196	M158	Y	-0.005	-0.005	0	%100
197	M70	Y	-0.005	-0.005	0	%100
198	M157	Y	-0.005	-0.005	0	%100
199	M156	Y	-0.005	-0.005	0	%100
200	M160	Y	-0.005	-0.005	0	%100
201	M161	Y	-0.005	-0.005	0	%100
202	M197	Y	-0.005	-0.005	0	%100
203	M71	Y	-0.005	-0.005	0	%100
204	M199	Y	-0.005	-0.005	0	%100
205	M168	Y	-0.005	-0.005	0	%100
206	M167	Y	-0.005	-0.005	0	%100
207	M166	Y	-0.005	-0.005	0	%100
208	M176	Y	-0.005	-0.005	0	%100
209	M174	Y	-0.005	-0.005	0	%100
210	M183	Y	-0.005	-0.005	0	%100
211	M181	Y	-0.005	-0.005	0	%100
212	M193	Y	-0.005	-0.005	0	%100
213	M187	Y	-0.005	-0.005	0	%100
214	M185	Y	-0.005	-0.005	0	%100
215	M191	Y	-0.005	-0.005	0	%100
216	M189	Y	-0.005	-0.005	0	%100
217	M201	Y	-0.005	-0.005	0	%100
218	M202	Y	-0.005	-0.005	0	%100
219	M203	Y	-0.005	-0.005	0	%100
220	M204	Y	-0.005	-0.005	0	%100
221	M205	Y	-0.005	-0.005	0	%100
222	M206	Y	-0.005	-0.005	0	%100
223	M207	Y	-0.005	-0.005	0	%100
224	M209	Y	-0.005	-0.005	0	%100
225	M210	Y	-0.005	-0.005	0	%100
226	M212	Y	-0.005	-0.005	0	%100
227	M215	Y	-0.005	-0.005	0	%100
228	M216	Y	-0.005	-0.005	0	%100
229	M217	Y	-0.005	-0.005	0	%100
230	M218	Y	-0.005	-0.005	0	%100
231	M219	Y	-0.005	-0.005	0	%100
232	M220	Y	-0.005	-0.005	0	%100
233	M222	Y	-0.005	-0.005	0	%100
234	M222A	Y	-0.005	-0.005	0	%100
235	M225	Y	-0.005	-0.005	0	%100
236	M228	Y	-0.005	-0.005	0	%100
237	M230	Y	-0.005	-0.005	0	%100

Member Distributed Loads (BLC 4 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
238	M231	Y	-0.005	-0.005	0	%100
239	M235	Y	-0.005	-0.005	0	%100

Member Distributed Loads (BLC 5 : Wind + Ice Load AZI 000)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	M8	SZ	-0.004	-0.004	0	%100
2	M62	SZ	-0.004	-0.004	0	%100
3	M2	SZ	-0.004	-0.004	0	%100
4	M59	SZ	-0.004	-0.004	0	%100
5	M92	SZ	-0.004	-0.004	0	%100
6	M54	SZ	-0.004	-0.004	0	%100
7	M4	SZ	-0.004	-0.004	0	%100
8	M93	SZ	-0.004	-0.004	0	%100
9	M102	SZ	-0.004	-0.004	0	%100
10	M9	SZ	-0.004	-0.004	0	%100
11	M57	SZ	-0.004	-0.004	0	%100
12	M234	SZ	-0.004	-0.004	0	%100
13	M11	SZ	-0.004	-0.004	0	%100
14	M182	SZ	-0.004	-0.004	0	%100
15	M12	SZ	-0.004	-0.004	0	%100
16	M13	SZ	-0.004	-0.004	0	%100
17	M53	SZ	-0.004	-0.004	0	%100
18	M24	SZ	-0.004	-0.004	0	%100
19	M27	SZ	-0.004	-0.004	0	%100
20	M17	SZ	-0.004	-0.004	0	%100
21	M56	SZ	-0.004	-0.004	0	%100
22	M154	SZ	-0.004	-0.004	0	%100
23	M33	SZ	-0.004	-0.004	0	%100
24	M68	SZ	-0.004	-0.004	0	%100
25	M169	SZ	-0.004	-0.004	0	%100
26	M35	SZ	-0.004	-0.004	0	%100
27	M37	SZ	-0.004	-0.004	0	%100
28	M38	SZ	-0.004	-0.004	0	%100
29	M95	SZ	-0.004	-0.004	0	%100
30	M61	SZ	-0.004	-0.004	0	%100
31	M214	SZ	-0.004	-0.004	0	%100
32	M44	SZ	-0.004	-0.004	0	%100
33	M233	SZ	-0.004	-0.004	0	%100
34	M43	SZ	-0.004	-0.004	0	%100
35	M86	SZ	-0.004	-0.004	0	%100
36	M66	SZ	-0.004	-0.004	0	%100
37	M63	SZ	-0.004	-0.004	0	%100
38	M151	SZ	-0.004	-0.004	0	%100
39	M64	SZ	-0.004	-0.004	0	%100
40	M194	SZ	-0.004	-0.004	0	%100
41	M179	SZ	-0.004	-0.004	0	%100
42	M146	SZ	-0.004	-0.004	0	%100
43	M74	SZ	-0.004	-0.004	0	%100
44	M108	SZ	-0.004	-0.004	0	%100
45	M195	SZ	-0.004	-0.004	0	%100
46	M104	SZ	-0.004	-0.004	0	%100
47	M98	SZ	-0.004	-0.004	0	%100
48	M75	SZ	-0.004	-0.004	0	%100
49	M119	SZ	-0.004	-0.004	0	%100
50	M76	SZ	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 5 : Wind + Ice Load AZI 000) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
51	M122	SZ	-0.004	-0.004	0	%100
52	M78	SZ	-0.004	-0.004	0	%100
53	M143	SZ	-0.004	-0.004	0	%100
54	M67	SZ	-0.004	-0.004	0	%100
55	M80	SZ	-0.004	-0.004	0	%100
56	M227	SZ	-0.004	-0.004	0	%100
57	M69	SZ	-0.004	-0.004	0	%100
58	M213	SZ	-0.004	-0.004	0	%100
59	M85	SZ	-0.004	-0.004	0	%100
60	M72	SZ	-0.004	-0.004	0	%100
61	M118	SZ	-0.004	-0.004	0	%100
62	M99	SZ	-0.004	-0.004	0	%100
63	M130	SZ	-0.004	-0.004	0	%100
64	M106	SZ	-0.004	-0.004	0	%100
65	M229	SZ	-0.004	-0.004	0	%100
66	M107	SZ	-0.004	-0.004	0	%100
67	M110	SZ	-0.004	-0.004	0	%100
68	M155	SZ	-0.004	-0.004	0	%100
69	M111	SZ	-0.004	-0.004	0	%100
70	M137	SZ	-0.004	-0.004	0	%100
71	M237	SZ	-0.004	-0.004	0	%100
72	M127	SZ	-0.004	-0.004	0	%100
73	M180	SZ	-0.004	-0.004	0	%100
74	M136	SZ	-0.004	-0.004	0	%100
75	M144	SZ	-0.004	-0.004	0	%100
76	M162	SZ	-0.004	-0.004	0	%100
77	M184	SZ	-0.004	-0.004	0	%100
78	M149	SZ	-0.004	-0.004	0	%100
79	M236	SZ	-0.004	-0.004	0	%100
80	M175	SZ	-0.004	-0.004	0	%100
81	M178	SZ	-0.004	-0.004	0	%100
82	M177	SZ	-0.004	-0.004	0	%100
83	M192	SZ	-0.004	-0.004	0	%100
84	M186	SZ	-0.004	-0.004	0	%100
85	M224	SZ	-0.004	-0.004	0	%100
86	M188	SZ	-0.004	-0.004	0	%100
87	M208	SZ	-0.004	-0.004	0	%100
88	M190	SZ	-0.004	-0.004	0	%100
89	M223	SZ	-0.004	-0.004	0	%100
90	M196	SZ	-0.004	-0.004	0	%100
91	M211	SZ	-0.004	-0.004	0	%100
92	M238	SZ	-0.004	-0.004	0	%100
93	M221	SZ	-0.004	-0.004	0	%100
94	M226	SZ	-0.004	-0.004	0	%100
95	M223A	SZ	-0.004	-0.004	0	%100
96	M232	SZ	-0.004	-0.004	0	%100
97	M239	SZ	-0.004	-0.004	0	%100
98	M82	SZ	-0.004	-0.004	0	%100
99	M58	SZ	-0.004	-0.004	0	%100
100	M81	SZ	-0.004	-0.004	0	%100
101	M42	SZ	-0.004	-0.004	0	%100
102	M34	SZ	-0.004	-0.004	0	%100
103	M32	SZ	-0.004	-0.004	0	%100
104	M41	SZ	-0.004	-0.004	0	%100
105	M60	SZ	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 5 : Wind + Ice Load AZI 000) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
106	M40	SZ	-0.004	-0.004	0	%100
107	M31	SZ	-0.004	-0.004	0	%100
108	M36	SZ	-0.004	-0.004	0	%100
109	M83	SZ	-0.004	-0.004	0	%100
110	M101	SZ	-0.004	-0.004	0	%100
111	M73	SZ	-0.004	-0.004	0	%100
112	M28	SZ	-0.004	-0.004	0	%100
113	M26	SZ	-0.004	-0.004	0	%100
114	M29	SZ	-0.004	-0.004	0	%100
115	M109	SZ	-0.004	-0.004	0	%100
116	M84	SZ	-0.004	-0.004	0	%100
117	M25	SZ	-0.004	-0.004	0	%100
118	M30	SZ	-0.004	-0.004	0	%100
119	M116	SZ	-0.004	-0.004	0	%100
120	M55	SZ	-0.004	-0.004	0	%100
121	M117	SZ	-0.004	-0.004	0	%100
122	M90	SZ	-0.004	-0.004	0	%100
123	M52	SZ	-0.004	-0.004	0	%100
124	M39	SZ	-0.004	-0.004	0	%100
125	M21	SZ	-0.004	-0.004	0	%100
126	M22	SZ	-0.004	-0.004	0	%100
127	M87	SZ	-0.004	-0.004	0	%100
128	M20	SZ	-0.004	-0.004	0	%100
129	M23	SZ	-0.004	-0.004	0	%100
130	M89	SZ	-0.004	-0.004	0	%100
131	M19	SZ	-0.004	-0.004	0	%100
132	M121	SZ	-0.004	-0.004	0	%100
133	M88	SZ	-0.004	-0.004	0	%100
134	M15	SZ	-0.004	-0.004	0	%100
135	M16	SZ	-0.004	-0.004	0	%100
136	M91	SZ	-0.004	-0.004	0	%100
137	M14	SZ	-0.004	-0.004	0	%100
138	M120	SZ	-0.004	-0.004	0	%100
139	M18	SZ	-0.004	-0.004	0	%100
140	M51	SZ	-0.004	-0.004	0	%100
141	M133	SZ	-0.004	-0.004	0	%100
142	M96	SZ	-0.004	-0.004	0	%100
143	M49	SZ	-0.004	-0.004	0	%100
144	M46	SZ	-0.004	-0.004	0	%100
145	M97	SZ	-0.004	-0.004	0	%100
146	M10	SZ	-0.004	-0.004	0	%100
147	M45	SZ	-0.004	-0.004	0	%100
148	M50	SZ	-0.004	-0.004	0	%100
149	M48	SZ	-0.004	-0.004	0	%100
150	M7	SZ	-0.004	-0.004	0	%100
151	M47	SZ	-0.004	-0.004	0	%100
152	M129	SZ	-0.004	-0.004	0	%100
153	M94	SZ	-0.004	-0.004	0	%100
154	M3	SZ	-0.004	-0.004	0	%100
155	M128	SZ	-0.004	-0.004	0	%100
156	M5	SZ	-0.004	-0.004	0	%100
157	M131	SZ	-0.004	-0.004	0	%100
158	M132	SZ	-0.004	-0.004	0	%100
159	M1	SZ	-0.004	-0.004	0	%100
160	M6	SZ	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 5 : Wind + Ice Load AZI 000) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
161	M77	SZ	-0.004	-0.004	0	%100
162	M153	SZ	-0.004	-0.004	0	%100
163	M152	SZ	-0.004	-0.004	0	%100
164	M65	SZ	-0.004	-0.004	0	%100
165	M142	SZ	-0.004	-0.004	0	%100
166	M165	SZ	-0.004	-0.004	0	%100
167	M164	SZ	-0.004	-0.004	0	%100
168	M163	SZ	-0.004	-0.004	0	%100
169	M147	SZ	-0.004	-0.004	0	%100
170	M173	SZ	-0.004	-0.004	0	%100
171	M172	SZ	-0.004	-0.004	0	%100
172	M171	SZ	-0.004	-0.004	0	%100
173	M170	SZ	-0.004	-0.004	0	%100
174	M141	SZ	-0.004	-0.004	0	%100
175	M139	SZ	-0.004	-0.004	0	%100
176	M100	SZ	-0.004	-0.004	0	%100
177	M138	SZ	-0.004	-0.004	0	%100
178	M103	SZ	-0.004	-0.004	0	%100
179	M105	SZ	-0.004	-0.004	0	%100
180	M134	SZ	-0.004	-0.004	0	%100
181	M135	SZ	-0.004	-0.004	0	%100
182	M112	SZ	-0.004	-0.004	0	%100
183	M113	SZ	-0.004	-0.004	0	%100
184	M114	SZ	-0.004	-0.004	0	%100
185	M70	SZ	-0.004	-0.004	0	%100
186	M115	SZ	-0.004	-0.004	0	%100
187	M123	SZ	-0.004	-0.004	0	%100
188	M124	SZ	-0.004	-0.004	0	%100
189	M125	SZ	-0.004	-0.004	0	%100
190	M126	SZ	-0.004	-0.004	0	%100
191	M71	SZ	-0.004	-0.004	0	%100
192	M140	SZ	-0.004	-0.004	0	%100
193	M79	SZ	-0.004	-0.004	0	%100
194	M145	SZ	-0.004	-0.004	0	%100
195	M150	SZ	-0.004	-0.004	0	%100
196	M148	SZ	-0.004	-0.004	0	%100
197	M159	SZ	-0.004	-0.004	0	%100
198	M158	SZ	-0.004	-0.004	0	%100
199	M157	SZ	-0.004	-0.004	0	%100
200	M156	SZ	-0.004	-0.004	0	%100
201	M160	SZ	-0.004	-0.004	0	%100
202	M161	SZ	-0.004	-0.004	0	%100
203	M197	SZ	-0.004	-0.004	0	%100
204	M199	SZ	-0.004	-0.004	0	%100
205	M168	SZ	-0.004	-0.004	0	%100
206	M167	SZ	-0.004	-0.004	0	%100
207	M166	SZ	-0.004	-0.004	0	%100
208	M176	SZ	-0.004	-0.004	0	%100
209	M174	SZ	-0.004	-0.004	0	%100
210	M183	SZ	-0.004	-0.004	0	%100
211	M181	SZ	-0.004	-0.004	0	%100
212	M193	SZ	-0.004	-0.004	0	%100
213	M187	SZ	-0.004	-0.004	0	%100
214	M185	SZ	-0.004	-0.004	0	%100
215	M191	SZ	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 5 : Wind + Ice Load AZI 000) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
216	M189	SZ	-0.004	-0.004	0	%100
217	M201	SZ	-0.004	-0.004	0	%100
218	M202	SZ	-0.004	-0.004	0	%100
219	M203	SZ	-0.004	-0.004	0	%100
220	M204	SZ	-0.004	-0.004	0	%100
221	M205	SZ	-0.004	-0.004	0	%100
222	M206	SZ	-0.004	-0.004	0	%100
223	M207	SZ	-0.004	-0.004	0	%100
224	M209	SZ	-0.004	-0.004	0	%100
225	M210	SZ	-0.004	-0.004	0	%100
226	M212	SZ	-0.004	-0.004	0	%100
227	M215	SZ	-0.004	-0.004	0	%100
228	M216	SZ	-0.004	-0.004	0	%100
229	M217	SZ	-0.004	-0.004	0	%100
230	M218	SZ	-0.004	-0.004	0	%100
231	M219	SZ	-0.004	-0.004	0	%100
232	M220	SZ	-0.004	-0.004	0	%100
233	M222	SZ	-0.004	-0.004	0	%100
234	M222A	SZ	-0.004	-0.004	0	%100
235	M225	SZ	-0.004	-0.004	0	%100
236	M228	SZ	-0.004	-0.004	0	%100
237	M230	SZ	-0.004	-0.004	0	%100
238	M231	SZ	-0.004	-0.004	0	%100
239	M235	SZ	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 6 : Wind + Ice Load AZI 090)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	M8	SX	-0.004	-0.004	0	%100
2	M62	SX	-0.004	-0.004	0	%100
3	M2	SX	-0.004	-0.004	0	%100
4	M59	SX	-0.004	-0.004	0	%100
5	M92	SX	-0.004	-0.004	0	%100
6	M54	SX	-0.004	-0.004	0	%100
7	M4	SX	-0.004	-0.004	0	%100
8	M93	SX	-0.004	-0.004	0	%100
9	M102	SX	-0.004	-0.004	0	%100
10	M9	SX	-0.004	-0.004	0	%100
11	M57	SX	-0.004	-0.004	0	%100
12	M234	SX	-0.004	-0.004	0	%100
13	M11	SX	-0.004	-0.004	0	%100
14	M182	SX	-0.004	-0.004	0	%100
15	M12	SX	-0.004	-0.004	0	%100
16	M13	SX	-0.004	-0.004	0	%100
17	M53	SX	-0.004	-0.004	0	%100
18	M24	SX	-0.004	-0.004	0	%100
19	M27	SX	-0.004	-0.004	0	%100
20	M17	SX	-0.004	-0.004	0	%100
21	M56	SX	-0.004	-0.004	0	%100
22	M154	SX	-0.004	-0.004	0	%100
23	M33	SX	-0.004	-0.004	0	%100
24	M169	SX	-0.004	-0.004	0	%100
25	M35	SX	-0.004	-0.004	0	%100
26	M37	SX	-0.004	-0.004	0	%100
27	M38	SX	-0.004	-0.004	0	%100
28	M95	SX	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 6 : Wind + Ice Load AZI 090) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
29	M61	SX	-0.004	-0.004	0	%100
30	M68	SX	-0.004	-0.004	0	%100
31	M214	SX	-0.004	-0.004	0	%100
32	M44	SX	-0.004	-0.004	0	%100
33	M233	SX	-0.004	-0.004	0	%100
34	M43	SX	-0.004	-0.004	0	%100
35	M86	SX	-0.004	-0.004	0	%100
36	M66	SX	-0.004	-0.004	0	%100
37	M63	SX	-0.004	-0.004	0	%100
38	M151	SX	-0.004	-0.004	0	%100
39	M64	SX	-0.004	-0.004	0	%100
40	M194	SX	-0.004	-0.004	0	%100
41	M179	SX	-0.004	-0.004	0	%100
42	M146	SX	-0.004	-0.004	0	%100
43	M74	SX	-0.004	-0.004	0	%100
44	M108	SX	-0.004	-0.004	0	%100
45	M195	SX	-0.004	-0.004	0	%100
46	M104	SX	-0.004	-0.004	0	%100
47	M98	SX	-0.004	-0.004	0	%100
48	M75	SX	-0.004	-0.004	0	%100
49	M119	SX	-0.004	-0.004	0	%100
50	M76	SX	-0.004	-0.004	0	%100
51	M122	SX	-0.004	-0.004	0	%100
52	M78	SX	-0.004	-0.004	0	%100
53	M143	SX	-0.004	-0.004	0	%100
54	M80	SX	-0.004	-0.004	0	%100
55	M227	SX	-0.004	-0.004	0	%100
56	M213	SX	-0.004	-0.004	0	%100
57	M85	SX	-0.004	-0.004	0	%100
58	M118	SX	-0.004	-0.004	0	%100
59	M99	SX	-0.004	-0.004	0	%100
60	M67	SX	-0.004	-0.004	0	%100
61	M130	SX	-0.004	-0.004	0	%100
62	M106	SX	-0.004	-0.004	0	%100
63	M69	SX	-0.004	-0.004	0	%100
64	M229	SX	-0.004	-0.004	0	%100
65	M107	SX	-0.004	-0.004	0	%100
66	M72	SX	-0.004	-0.004	0	%100
67	M110	SX	-0.004	-0.004	0	%100
68	M155	SX	-0.004	-0.004	0	%100
69	M111	SX	-0.004	-0.004	0	%100
70	M137	SX	-0.004	-0.004	0	%100
71	M237	SX	-0.004	-0.004	0	%100
72	M127	SX	-0.004	-0.004	0	%100
73	M180	SX	-0.004	-0.004	0	%100
74	M136	SX	-0.004	-0.004	0	%100
75	M144	SX	-0.004	-0.004	0	%100
76	M162	SX	-0.004	-0.004	0	%100
77	M184	SX	-0.004	-0.004	0	%100
78	M149	SX	-0.004	-0.004	0	%100
79	M236	SX	-0.004	-0.004	0	%100
80	M175	SX	-0.004	-0.004	0	%100
81	M178	SX	-0.004	-0.004	0	%100
82	M177	SX	-0.004	-0.004	0	%100
83	M192	SX	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 6 : Wind + Ice Load AZI 090) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
84	M186	SX	-0.004	-0.004	0	%100
85	M224	SX	-0.004	-0.004	0	%100
86	M188	SX	-0.004	-0.004	0	%100
87	M208	SX	-0.004	-0.004	0	%100
88	M190	SX	-0.004	-0.004	0	%100
89	M223	SX	-0.004	-0.004	0	%100
90	M196	SX	-0.004	-0.004	0	%100
91	M211	SX	-0.004	-0.004	0	%100
92	M238	SX	-0.004	-0.004	0	%100
93	M221	SX	-0.004	-0.004	0	%100
94	M226	SX	-0.004	-0.004	0	%100
95	M223A	SX	-0.004	-0.004	0	%100
96	M232	SX	-0.004	-0.004	0	%100
97	M239	SX	-0.004	-0.004	0	%100
98	M82	SX	-0.004	-0.004	0	%100
99	M58	SX	-0.004	-0.004	0	%100
100	M81	SX	-0.004	-0.004	0	%100
101	M42	SX	-0.004	-0.004	0	%100
102	M34	SX	-0.004	-0.004	0	%100
103	M32	SX	-0.004	-0.004	0	%100
104	M41	SX	-0.004	-0.004	0	%100
105	M60	SX	-0.004	-0.004	0	%100
106	M40	SX	-0.004	-0.004	0	%100
107	M31	SX	-0.004	-0.004	0	%100
108	M36	SX	-0.004	-0.004	0	%100
109	M83	SX	-0.004	-0.004	0	%100
110	M101	SX	-0.004	-0.004	0	%100
111	M73	SX	-0.004	-0.004	0	%100
112	M28	SX	-0.004	-0.004	0	%100
113	M26	SX	-0.004	-0.004	0	%100
114	M29	SX	-0.004	-0.004	0	%100
115	M109	SX	-0.004	-0.004	0	%100
116	M84	SX	-0.004	-0.004	0	%100
117	M25	SX	-0.004	-0.004	0	%100
118	M30	SX	-0.004	-0.004	0	%100
119	M116	SX	-0.004	-0.004	0	%100
120	M55	SX	-0.004	-0.004	0	%100
121	M117	SX	-0.004	-0.004	0	%100
122	M90	SX	-0.004	-0.004	0	%100
123	M52	SX	-0.004	-0.004	0	%100
124	M39	SX	-0.004	-0.004	0	%100
125	M21	SX	-0.004	-0.004	0	%100
126	M22	SX	-0.004	-0.004	0	%100
127	M87	SX	-0.004	-0.004	0	%100
128	M20	SX	-0.004	-0.004	0	%100
129	M23	SX	-0.004	-0.004	0	%100
130	M89	SX	-0.004	-0.004	0	%100
131	M19	SX	-0.004	-0.004	0	%100
132	M121	SX	-0.004	-0.004	0	%100
133	M88	SX	-0.004	-0.004	0	%100
134	M15	SX	-0.004	-0.004	0	%100
135	M16	SX	-0.004	-0.004	0	%100
136	M91	SX	-0.004	-0.004	0	%100
137	M14	SX	-0.004	-0.004	0	%100
138	M120	SX	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 6 : Wind + Ice Load AZI 090) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
139	M18	SX	-0.004	-0.004	0	%100
140	M51	SX	-0.004	-0.004	0	%100
141	M133	SX	-0.004	-0.004	0	%100
142	M96	SX	-0.004	-0.004	0	%100
143	M49	SX	-0.004	-0.004	0	%100
144	M46	SX	-0.004	-0.004	0	%100
145	M97	SX	-0.004	-0.004	0	%100
146	M10	SX	-0.004	-0.004	0	%100
147	M45	SX	-0.004	-0.004	0	%100
148	M50	SX	-0.004	-0.004	0	%100
149	M48	SX	-0.004	-0.004	0	%100
150	M7	SX	-0.004	-0.004	0	%100
151	M47	SX	-0.004	-0.004	0	%100
152	M129	SX	-0.004	-0.004	0	%100
153	M94	SX	-0.004	-0.004	0	%100
154	M3	SX	-0.004	-0.004	0	%100
155	M128	SX	-0.004	-0.004	0	%100
156	M5	SX	-0.004	-0.004	0	%100
157	M131	SX	-0.004	-0.004	0	%100
158	M132	SX	-0.004	-0.004	0	%100
159	M1	SX	-0.004	-0.004	0	%100
160	M6	SX	-0.004	-0.004	0	%100
161	M77	SX	-0.004	-0.004	0	%100
162	M153	SX	-0.004	-0.004	0	%100
163	M152	SX	-0.004	-0.004	0	%100
164	M65	SX	-0.004	-0.004	0	%100
165	M142	SX	-0.004	-0.004	0	%100
166	M165	SX	-0.004	-0.004	0	%100
167	M164	SX	-0.004	-0.004	0	%100
168	M163	SX	-0.004	-0.004	0	%100
169	M147	SX	-0.004	-0.004	0	%100
170	M173	SX	-0.004	-0.004	0	%100
171	M172	SX	-0.004	-0.004	0	%100
172	M171	SX	-0.004	-0.004	0	%100
173	M170	SX	-0.004	-0.004	0	%100
174	M141	SX	-0.004	-0.004	0	%100
175	M139	SX	-0.004	-0.004	0	%100
176	M100	SX	-0.004	-0.004	0	%100
177	M138	SX	-0.004	-0.004	0	%100
178	M103	SX	-0.004	-0.004	0	%100
179	M105	SX	-0.004	-0.004	0	%100
180	M134	SX	-0.004	-0.004	0	%100
181	M135	SX	-0.004	-0.004	0	%100
182	M112	SX	-0.004	-0.004	0	%100
183	M113	SX	-0.004	-0.004	0	%100
184	M114	SX	-0.004	-0.004	0	%100
185	M115	SX	-0.004	-0.004	0	%100
186	M123	SX	-0.004	-0.004	0	%100
187	M124	SX	-0.004	-0.004	0	%100
188	M125	SX	-0.004	-0.004	0	%100
189	M126	SX	-0.004	-0.004	0	%100
190	M140	SX	-0.004	-0.004	0	%100
191	M70	SX	-0.004	-0.004	0	%100
192	M79	SX	-0.004	-0.004	0	%100
193	M145	SX	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 6 : Wind + Ice Load AZI 090) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
194	M150	SX	-0.004	-0.004	0	%100
195	M148	SX	-0.004	-0.004	0	%100
196	M159	SX	-0.004	-0.004	0	%100
197	M71	SX	-0.004	-0.004	0	%100
198	M158	SX	-0.004	-0.004	0	%100
199	M157	SX	-0.004	-0.004	0	%100
200	M156	SX	-0.004	-0.004	0	%100
201	M160	SX	-0.004	-0.004	0	%100
202	M161	SX	-0.004	-0.004	0	%100
203	M197	SX	-0.004	-0.004	0	%100
204	M199	SX	-0.004	-0.004	0	%100
205	M168	SX	-0.004	-0.004	0	%100
206	M167	SX	-0.004	-0.004	0	%100
207	M166	SX	-0.004	-0.004	0	%100
208	M176	SX	-0.004	-0.004	0	%100
209	M174	SX	-0.004	-0.004	0	%100
210	M183	SX	-0.004	-0.004	0	%100
211	M181	SX	-0.004	-0.004	0	%100
212	M193	SX	-0.004	-0.004	0	%100
213	M187	SX	-0.004	-0.004	0	%100
214	M185	SX	-0.004	-0.004	0	%100
215	M191	SX	-0.004	-0.004	0	%100
216	M189	SX	-0.004	-0.004	0	%100
217	M201	SX	-0.004	-0.004	0	%100
218	M202	SX	-0.004	-0.004	0	%100
219	M203	SX	-0.004	-0.004	0	%100
220	M204	SX	-0.004	-0.004	0	%100
221	M205	SX	-0.004	-0.004	0	%100
222	M206	SX	-0.004	-0.004	0	%100
223	M207	SX	-0.004	-0.004	0	%100
224	M209	SX	-0.004	-0.004	0	%100
225	M210	SX	-0.004	-0.004	0	%100
226	M212	SX	-0.004	-0.004	0	%100
227	M215	SX	-0.004	-0.004	0	%100
228	M216	SX	-0.004	-0.004	0	%100
229	M217	SX	-0.004	-0.004	0	%100
230	M218	SX	-0.004	-0.004	0	%100
231	M219	SX	-0.004	-0.004	0	%100
232	M220	SX	-0.004	-0.004	0	%100
233	M222	SX	-0.004	-0.004	0	%100
234	M222A	SX	-0.004	-0.004	0	%100
235	M225	SX	-0.004	-0.004	0	%100
236	M228	SX	-0.004	-0.004	0	%100
237	M230	SX	-0.004	-0.004	0	%100
238	M231	SX	-0.004	-0.004	0	%100
239	M235	SX	-0.004	-0.004	0	%100

Member Distributed Loads (BLC 16 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	M64	Y	-0.001	-0.003	0	1.093
2	M64	Y	-0.003	-0.004	1.093	2.186
3	M64	Y	-0.004	-0.002	2.186	3.279
4	M64	Y	-0.002	-0.0004	3.279	4.373
5	M64	Y	-0.0004	-8.3e-05	4.373	5.466
6	M76	Y	-0.000118	-0.005	2.615	3.137

Member Distributed Loads (BLC 16 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
7	M76	Y	-0.005	-0.007	3.137	3.66
8	M76	Y	-0.007	-0.005	3.66	4.183
9	M76	Y	-0.005	-0.004	4.183	4.706
10	M76	Y	-0.004	-0.001	4.706	5.229
11	M147	Y	-0.000346	-0.000346	0	0.146
12	M149	Y	-0.000216	-0.000216	0	0.25
13	M151	Y	-0.000535	-0.001	0	0.105
14	M151	Y	-0.001	-0.002	0.105	0.21
15	M64	Y	-0.000222	-0.003	1.366	3.553
16	M64	Y	-0.003	-0.005	3.553	5.739
17	M64	Y	-0.005	-0.005	5.739	7.925
18	M64	Y	-0.005	-0.003	7.925	10.112
19	M64	Y	-0.003	-0.000222	10.112	12.298
20	M68	Y	-0.009	-0.004	1.198	2.097
21	M68	Y	-0.004	6.6e-05	2.097	2.996
22	M71	Y	8.1e-05	-0.004	0	0.875
23	M71	Y	-0.004	-0.009	0.875	1.75
24	M75	Y	-0.004	-0.004	2.037	3.045
25	M76	Y	-0.004	-0.004	2.039	3.047
26	M64	Y	-8.3e-05	-0.000399	8.199	9.292
27	M64	Y	-0.000399	-0.002	9.292	10.385
28	M64	Y	-0.002	-0.004	10.385	11.478
29	M64	Y	-0.004	-0.003	11.478	12.571
30	M64	Y	-0.003	-0.001	12.571	13.664
31	M75	Y	-0.000118	-0.005	2.615	3.137
32	M75	Y	-0.005	-0.007	3.137	3.66
33	M75	Y	-0.007	-0.005	3.66	4.183
34	M75	Y	-0.005	-0.004	4.183	4.706
35	M75	Y	-0.004	-0.001	4.706	5.229
36	M140	Y	-0.000215	-0.000215	0	0.25
37	M141	Y	-0.000343	-0.000343	0	0.146
38	M143	Y	-0.002	-0.001	0	0.105
39	M143	Y	-0.001	-0.000508	0.105	0.21
40	M66	Y	-0.001	-0.003	0	1.093
41	M66	Y	-0.003	-0.004	1.093	2.186
42	M66	Y	-0.004	-0.002	2.186	3.28
43	M66	Y	-0.002	-0.0004	3.28	4.373
44	M66	Y	-0.0004	-8.3e-05	4.373	5.466
45	M78	Y	-0.000346	-0.000346	0	0.146
46	M145	Y	-0.002	-0.001	0	0.105
47	M145	Y	-0.001	-0.000535	0.105	0.21
48	M66	Y	-0.000222	-0.003	1.366	3.553
49	M66	Y	-0.003	-0.005	3.553	5.739
50	M66	Y	-0.005	-0.005	5.739	7.926
51	M66	Y	-0.005	-0.003	7.926	10.112
52	M66	Y	-0.003	-0.000222	10.112	12.298
53	M67	Y	-0.009	-0.004	1.198	2.097
54	M67	Y	-0.004	6.6e-05	2.097	2.996
55	M72	Y	7.9e-05	-0.004	0	0.899
56	M72	Y	-0.004	-0.009	0.899	1.798
57	M74	Y	-0.004	-0.004	2.039	3.047
58	M66	Y	-8.3e-05	-0.0004	8.199	9.292
59	M66	Y	-0.0004	-0.002	9.292	10.385
60	M66	Y	-0.002	-0.004	10.385	11.479
61	M66	Y	-0.004	-0.003	11.479	12.572

Member Distributed Loads (BLC 16 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
62	M66	Y	-0.003	-0.001	12.572	13.665
63	M74	Y	-0.000118	-0.005	2.615	3.137
64	M74	Y	-0.005	-0.007	3.137	3.66
65	M74	Y	-0.007	-0.005	3.66	4.183
66	M74	Y	-0.005	-0.004	4.183	4.706
67	M74	Y	-0.004	-0.001	4.706	5.229
68	M77	Y	-0.000344	-0.000344	0	0.146
69	M144	Y	-0.002	-0.001	0	0.105
70	M144	Y	-0.001	-0.000508	0.105	0.21
71	M148	Y	-0.000215	-0.000215	0	0.25
72	M65	Y	-8.3e-05	-0.0004	8.199	9.293
73	M65	Y	-0.0004	-0.002	9.293	10.386
74	M65	Y	-0.002	-0.004	10.386	11.479
75	M65	Y	-0.004	-0.003	11.479	12.572
76	M65	Y	-0.003	-0.001	12.572	13.666
77	M146	Y	-0.000344	-0.000344	0	0.146
78	M150	Y	-0.000507	-0.001	0	0.105
79	M150	Y	-0.001	-0.002	0.105	0.21
80	M65	Y	-0.000222	-0.003	1.367	3.553
81	M65	Y	-0.003	-0.005	3.553	5.74
82	M65	Y	-0.005	-0.005	5.74	7.926
83	M65	Y	-0.005	-0.003	7.926	10.113
84	M65	Y	-0.003	-0.000222	10.113	12.299
85	M69	Y	-0.009	-0.004	1.199	2.097
86	M69	Y	-0.004	7.9e-05	2.097	2.996
87	M70	Y	6.7e-05	-0.004	0	0.875
88	M70	Y	-0.004	-0.009	0.875	1.75
89	M65	Y	-0.001	-0.003	0	1.093
90	M65	Y	-0.003	-0.004	1.093	2.187
91	M65	Y	-0.004	-0.002	2.187	3.28
92	M65	Y	-0.002	-0.0004	3.28	4.373
93	M65	Y	-0.0004	-8.3e-05	4.373	5.466
94	M79	Y	-0.000535	-0.001	0	0.105
95	M79	Y	-0.001	-0.002	0.105	0.211
96	M142	Y	-0.000346	-0.000346	0	0.146

Member Distributed Loads (BLC 17 : BLC 4 Transient Area Loads)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	M79	Y	-0.000868	-0.001	0.105	0.211
2	M142	Y	-0.000277	-0.000277	0	0.146
3	M64	Y	-0.000947	-0.002	0	1.093
4	M64	Y	-0.002	-0.003	1.093	2.186
5	M64	Y	-0.003	-0.002	2.186	3.279
6	M64	Y	-0.002	-0.00032	3.279	4.373
7	M64	Y	-0.00032	-6.7e-05	4.373	5.466
8	M76	Y	-9.5e-05	-0.004	2.615	3.137
9	M76	Y	-0.004	-0.006	3.137	3.66
10	M76	Y	-0.006	-0.004	3.66	4.183
11	M76	Y	-0.004	-0.003	4.183	4.706
12	M76	Y	-0.003	-0.000938	4.706	5.229
13	M147	Y	-0.000277	-0.000277	0	0.146
14	M149	Y	-0.000173	-0.000173	0	0.25
15	M151	Y	-0.000428	-0.000868	0	0.105
16	M151	Y	-0.000868	-0.001	0.105	0.21
17	M64	Y	-0.000178	-0.002	1.366	3.553

Member Distributed Loads (BLC 17 : BLC 4 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
18	M64	Y	-0.002	-0.004	3.553	5.739
19	M64	Y	-0.004	-0.004	5.739	7.925
20	M64	Y	-0.004	-0.002	7.925	10.112
21	M64	Y	-0.002	-0.000178	10.112	12.298
22	M68	Y	-0.007	-0.003	1.198	2.097
23	M68	Y	-0.003	5.3e-05	2.097	2.996
24	M71	Y	6.5e-05	-0.003	0	0.875
25	M71	Y	-0.003	-0.007	0.875	1.75
26	M75	Y	-0.003	-0.003	2.037	3.045
27	M76	Y	-0.003	-0.003	2.039	3.047
28	M64	Y	-6.7e-05	-0.00032	8.199	9.292
29	M64	Y	-0.00032	-0.002	9.292	10.385
30	M64	Y	-0.002	-0.003	10.385	11.478
31	M64	Y	-0.003	-0.002	11.478	12.571
32	M64	Y	-0.002	-0.000944	12.571	13.664
33	M75	Y	-9.5e-05	-0.004	2.615	3.137
34	M75	Y	-0.004	-0.006	3.137	3.66
35	M75	Y	-0.006	-0.004	3.66	4.183
36	M75	Y	-0.004	-0.003	4.183	4.706
37	M75	Y	-0.003	-0.000939	4.706	5.229
38	M140	Y	-0.000172	-0.000172	0	0.25
39	M141	Y	-0.000275	-0.000275	0	0.146
40	M143	Y	-0.001	-0.000869	0	0.105
41	M143	Y	-0.000869	-0.000406	0.105	0.21
42	M66	Y	-0.000947	-0.002	0	1.093
43	M66	Y	-0.002	-0.003	1.093	2.186
44	M66	Y	-0.003	-0.002	2.186	3.28
45	M66	Y	-0.002	-0.00032	3.28	4.373
46	M66	Y	-0.00032	-6.7e-05	4.373	5.466
47	M78	Y	-0.000277	-0.000277	0	0.146
48	M145	Y	-0.001	-0.000869	0	0.105
49	M145	Y	-0.000869	-0.000428	0.105	0.21
50	M66	Y	-0.000178	-0.002	1.366	3.553
51	M66	Y	-0.002	-0.004	3.553	5.739
52	M66	Y	-0.004	-0.004	5.739	7.926
53	M66	Y	-0.004	-0.002	7.926	10.112
54	M66	Y	-0.002	-0.000178	10.112	12.298
55	M67	Y	-0.007	-0.003	1.198	2.097
56	M67	Y	-0.003	5.3e-05	2.097	2.996
57	M72	Y	6.3e-05	-0.003	0	0.899
58	M72	Y	-0.003	-0.007	0.899	1.798
59	M74	Y	-0.003	-0.003	2.039	3.047
60	M66	Y	-6.7e-05	-0.00032	8.199	9.292
61	M66	Y	-0.00032	-0.002	9.292	10.385
62	M66	Y	-0.002	-0.003	10.385	11.479
63	M66	Y	-0.003	-0.002	11.479	12.572
64	M66	Y	-0.002	-0.000944	12.572	13.665
65	M74	Y	-9.5e-05	-0.004	2.615	3.137
66	M74	Y	-0.004	-0.006	3.137	3.66
67	M74	Y	-0.006	-0.004	3.66	4.183
68	M74	Y	-0.004	-0.003	4.183	4.706
69	M74	Y	-0.003	-0.000939	4.706	5.229
70	M77	Y	-0.000275	-0.000275	0	0.146
71	M144	Y	-0.001	-0.000869	0	0.105
72	M144	Y	-0.000869	-0.000406	0.105	0.21

Member Distributed Loads (BLC 17 : BLC 4 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
73	M148	Y	-0.000172	-0.000172	0	0.25
74	M65	Y	-6.7e-05	-0.00032	8.199	9.293
75	M65	Y	-0.00032	-0.002	9.293	10.386
76	M65	Y	-0.002	-0.003	10.386	11.479
77	M65	Y	-0.003	-0.002	11.479	12.572
78	M65	Y	-0.002	-0.000944	12.572	13.666
79	M146	Y	-0.000275	-0.000275	0	0.146
80	M150	Y	-0.000406	-0.000869	0	0.105
81	M150	Y	-0.000869	-0.001	0.105	0.21
82	M65	Y	-0.000178	-0.002	1.367	3.553
83	M65	Y	-0.002	-0.004	3.553	5.74
84	M65	Y	-0.004	-0.004	5.74	7.926
85	M65	Y	-0.004	-0.002	7.926	10.113
86	M65	Y	-0.002	-0.000178	10.113	12.299
87	M69	Y	-0.007	-0.003	1.199	2.097
88	M69	Y	-0.003	6.3e-05	2.097	2.996
89	M70	Y	5.4e-05	-0.003	0	0.875
90	M70	Y	-0.003	-0.007	0.875	1.75
91	M65	Y	-0.000948	-0.002	0	1.093
92	M65	Y	-0.002	-0.003	1.093	2.187
93	M65	Y	-0.003	-0.002	2.187	3.28
94	M65	Y	-0.002	-0.00032	3.28	4.373
95	M65	Y	-0.00032	-6.7e-05	4.373	5.466
96	M79	Y	-0.000428	-0.000868	0	0.105

Member Area Loads (BLC 1 : Self Weight)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N82	N24	N138	N84	Y	Two Way	-0.005
2	N138	N84	N87	N135	Y	Two Way	-0.005
3	N135	N1	N89	N87	Y	Two Way	-0.005
4	N73	N24	N138	N71	Y	Two Way	-0.005
5	N71	N138	N132	N68	Y	Two Way	-0.005
6	N66	N68	N132	N45	Y	Two Way	-0.005
7	N45	N81	N79	N132	Y	Two Way	-0.005
8	N132	N79	N76	N135	Y	Two Way	-0.005
9	N135	N76	N74	N1	Y	Two Way	-0.005

Member Area Loads (BLC 4 : Ice Weight)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N82	N24	N138	N84	Y	Two Way	-0.004
2	N138	N84	N87	N135	Y	Two Way	-0.004
3	N135	N1	N89	N87	Y	Two Way	-0.004
4	N73	N24	N138	N71	Y	Two Way	-0.004
5	N71	N138	N132	N68	Y	Two Way	-0.004
6	N66	N68	N132	N45	Y	Two Way	-0.004
7	N45	N81	N79	N132	Y	Two Way	-0.004
8	N132	N79	N76	N135	Y	Two Way	-0.004
9	N135	N76	N74	N1	Y	Two Way	-0.004

Envelope Node Reactions

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N23	max	0.401	89	0.945	51	0.663	2	2.378	57	0.663	11	0.1	67
2		min	-0.274	10	-0.032	8	-4.979	69	-0.189	2	-0.839	29	-0.16	109
3	N175	max	0.754	6	0.966	55	2.547	73	0.075	7	0.694	11	0.229	6
4		min	-4.411	109	-0.065	12	-0.796	6	-1.252	62	-0.856	29	-2.097	61
5	N176	max	4.365	65	0.947	59	2.676	101	0.118	9	0.42	11	2.084	53
6		min	-0.891	10	-0.067	4	-0.595	10	-1.158	52	-0.556	29	-0.199	10
7	N293	max	0.22	5	0.286	56	0.05	3	0.005	8	0	137	0	137
8		min	-0.276	35	-0.041	2	-0.371	57	-0.114	98	0	1	0	1
9	N294	max	0.22	5	0.295	58	0.048	2	0.005	8	0	137	0	137
10		min	-0.276	35	-0.041	2	-0.362	81	-0.114	98	0	1	0	1
11	N295	max	0.034	5	0.296	57	0.047	2	0.006	2	0	137	0	137
12		min	-0.041	35	-0.043	2	-0.161	105	-0.141	93	0	1	0	1
13	N296	max	0.034	5	0.291	57	0.047	2	0.006	2	0	137	0	137
14		min	-0.041	35	-0.043	2	-0.158	69	-0.141	93	0	1	0	1
15	N304	max	0.102	4	0.298	61	0.349	88	0.058	90	0	137	0.101	90
16		min	-0.354	83	-0.057	6	-0.172	9	-0.002	11	0	1	-0.004	11
17	N305	max	0.121	4	0.307	61	0.339	88	0.058	90	0	137	0.101	90
18		min	-0.361	83	-0.057	6	-0.16	9	-0.002	11	0	1	-0.004	11
19	N306	max	0.05	5	0.308	61	0.095	99	0.072	97	0	137	0.125	97
20		min	-0.14	72	-0.059	6	-0.041	8	-0.005	6	0	1	-0.009	6
21	N307	max	0.056	5	0.304	61	0.091	110	0.072	97	0	137	0.125	97
22		min	-0.142	72	-0.059	6	-0.036	7	-0.005	6	0	1	-0.009	6
23	N315	max	0.405	91	0.291	53	0.255	86	0.057	95	0	137	0.004	4
24		min	-0.12	12	-0.057	10	-0.152	7	-0.002	4	0	1	-0.098	95
25	N316	max	0.388	91	0.299	53	0.26	86	0.057	95	0	137	0.004	4
26		min	-0.102	12	-0.058	10	-0.164	7	-0.002	4	0	1	-0.098	95
27	N317	max	0.147	102	0.3	53	0.083	64	0.07	89	0	137	0.008	10
28		min	-0.056	11	-0.059	10	-0.035	9	-0.005	10	0	1	-0.122	89
29	N318	max	0.141	102	0.296	53	0.084	63	0.07	89	0	137	0.008	10
30		min	-0.05	11	-0.058	10	-0.04	8	-0.005	10	0	1	-0.122	89
31	Totals:	max	2.725	5	6.203	53	2.294	26						
32		min	-2.725	35	0	10	-2.294	8						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1	M72	L2.5X1.5X.25	0.768	0	33	0.079	2.996	z	57	20.162	20.21	1.018	0.701	1	H2-1
2	M70	L2.5X1.5X.25	0.75	0	36	0.076	2.917	z	61	20.169	20.21	1.018	0.701	1	H2-1
3	M71	L2.5X1.5X.25	0.707	0	29	0.078	2.917	z	54	20.169	20.21	1.018	0.701	1	H2-1
4	M227	HSS2.5X2.5X3	0.668	3	61	0.078	0	z	98	28.497	42.419	3.03	3.03	1.31	H1-1b
5	M233	HSS2.5X2.5X3	0.65	3	53	0.076	0	z	89	28.497	42.419	3.03	3.03	1.309	H1-1b
6	M222A	HSS2.5X2.5X3	0.645	3	58	0.076	0	z	94	28.497	42.419	3.03	3.03	1.312	H1-1b
7	M68	L2.5X1.5X.25	0.631	2.996	28	0.074	0	z	53	20.162	20.21	1.018	0.701	1	H2-1
8	M67	L2.5X1.5X.25	0.624	2.996	31	0.073	0	z	56	20.169	20.21	1.018	0.701	1	H2-1
9	M157	PIPE_2.5	0.608	6	32	0.063	6		29	19.986	33.743	2.393	2.393	1	H1-1b
10	M175	PIPE_2.5	0.572	6	29	0.073	6		42	19.986	33.743	2.393	2.393	1	H1-1b
11	M69	L2.5X1.5X.25	0.556	2.996	35	0.072	0	z	60	20.169	20.21	1.018	0.701	1	H2-1
12	M167	PIPE_2.5	0.514	6	36	0.079	6		40	19.986	33.743	2.393	2.393	1	H1-1b
13	M73	HSS3X3X5	0.49	4.584	54	0.072	4.584	y	98	72.482	73.94	6.078	6.078	2.82	H1-1b
14	M197	HSS3X3X5	0.485	4.584	54	0.072	4.584	y	90	72.483	73.94	6.078	6.078	2.904	H1-1b
15	M199	HSS3X3X5	0.48	4.584	54	0.07	4.584	y	92	72.481	73.94	6.078	6.078	2.696	H1-1b
16	M228	HSS2.5X2.5X3	0.447	3	109	0.08	0	y	61	28.497	42.419	3.03	3.03	1.314	H1-1b
17	M234	HSS2.5X2.5X3	0.438	3	101	0.078	0	y	53	28.497	42.419	3.03	3.03	1.313	H1-1b
18	M223	HSS2.5X2.5X3	0.435	3	105	0.077	0	y	57	28.497	42.419	3.03	3.03	1.314	H1-1b
19	M151	5/8X6	0.416	0	73	0.512	0.21	y	100	80.343	80.838	10.105	1.053	1	H1-1b

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
20	M144	5/8X6	0.415	0.21	65	0.514	0.21	y	103	80.343	80.838	10.105	1.053	1.08	H1-1b
21	M79	5/8X6	0.413	0	69	0.516	0.211	y	108	80.343	80.838	10.105	1.053	1	H1-1b
22	M150	5/8X6	0.412	0	65	0.538	0.21	y	74	80.343	80.838	10.105	1.053	1.025	H1-1b
23	M145	5/8X6	0.408	0.21	73	0.545	0.21	y	70	80.343	80.838	10.105	1.053	1	H1-1b
24	M143	5/8X6	0.407	0.21	69	0.544	0.21	y	66	80.011	80.838	10.105	1.053	1.027	H1-1b
25	M168	PIPE_2.0	0.388	5.469	35	0.024	5.469		35	11.88	21.377	1.245	1.245	1	H1-1b
26	M158	PIPE_2.0	0.371	5.469	32	0.021	5.469		32	11.88	21.377	1.245	1.245	1	H1-1b
27	M169	PIPE_2.0	0.357	5.469	64	0.032	5.469		28	11.88	21.377	1.245	1.245	1	H1-1b
28	M177	PIPE_2.0	0.355	5.469	66	0.029	5.469		67	11.88	21.377	1.245	1.245	1	H1-1b
29	M159	PIPE_2.0	0.354	5.469	70	0.029	5.469		71	11.88	21.377	1.245	1.245	1	H1-1b
30	M156	PIPE_2.0	0.339	5.469	104	0.026	5.469		103	11.88	21.377	1.245	1.245	1	H1-1b
31	M179	PIPE_2.0	0.337	8.968	29	0.086	4.555		106	3.504	21.377	1.245	1.245	1	H1-1b
32	M174	PIPE_2.0	0.336	5.469	100	0.026	5.469		110	11.88	21.377	1.245	1.245	1	H1-1b
33	M166	PIPE_2.0	0.333	5.469	108	0.025	5.469		107	11.88	21.377	1.245	1.245	1	H1-1b
34	M178	PIPE_2.0	0.312	9.11	35	0.083	4.555		99	3.505	21.377	1.245	1.245	1	H1-1b
35	M180	PIPE_2.0	0.311	8.968	26	0.086	4.555		103	3.505	21.377	1.245	1.245	1	H1-1b
36	M176	PIPE_2.0	0.31	5.469	28	0.021	5.469		36	11.88	21.377	1.245	1.245	1	H1-1b
37	M66	PIPE_3.0	0.243	13.665	101	0.221	4.27		32	15.931	44.623	3.934	3.934	1	H1-1b
38	M64	PIPE_3.0	0.242	0	110	0.207	9.394		29	15.933	44.623	3.934	3.934	1	H1-1b
39	M65	PIPE_3.0	0.241	0	106	0.184	9.395		30	15.929	44.623	3.934	3.934	1	H1-1b
40	M74	HSS3X3X5	0.159	2.506	101	0.062	2.506	y	37	73.776	73.94	6.078	6.078	1.825	H1-1b
41	M76	HSS3X3X5	0.159	2.506	109	0.065	0.381	y	33	73.777	73.94	6.078	6.078	1.834	H1-1b
42	M75	HSS3X3X5	0.157	2.506	105	0.074	0.381	z	29	73.777	73.94	6.078	6.078	1.842	H1-1b
43	M248	L2.5X2.5X3	0.149	2.237	96	0.006	4.569	z	29	9.83	19.423	0.581	1.103	1.136	H2-1
44	M246	L2.5X2.5X3	0.144	2.237	92	0.004	4.569	z	27	9.83	19.423	0.581	1.103	1.136	H2-1
45	M245	L2.5X2.5X3	0.124	2.236	86	0.003	4.568	y	32	9.832	19.423	0.581	1.103	1.136	H2-1
46	M247	L2.5X2.5X3	0.122	2.236	78	0.006	4.568	y	35	9.832	19.423	0.581	1.103	1.136	H2-1
47	M231	PIPE_4.0	0.109	1.5	98	0.048	1.5		87	55.288	62.036	7.073	7.073	1	H1-1b
48	M195	L2.5X2.5X3	0.107	0.962	29	0.015	0.962	z	27	18.458	19.423	0.581	1.312	1.075	H2-1
49	M225	PIPE_4.0	0.106	1.5	94	0.047	1.5		96	55.288	62.036	7.073	7.073	1	H1-1b
50	M237	PIPE_4.0	0.106	1.5	90	0.046	1		91	55.288	62.036	7.073	7.073	1	H1-1b
51	M193	L2.5X2.5X3	0.104	0	36	0.016	0	z	28	18.458	19.423	0.581	1.312	1.11	H2-1
52	M194	L2.5X2.5X3	0.092	0.962	33	0.03	0.962	z	30	18.457	19.423	0.581	1.312	1.034	H2-1
53	M243	L2.5X2.5X3	0.081	2.237	88	0.003	4.569	z	32	9.83	19.423	0.581	1.103	1.136	H2-1
54	M250	L2.5X2.5X3	0.081	2.237	88	0.003	4.569	z	32	9.83	19.423	0.581	1.103	1.136	H2-1
55	M244	L2.5X2.5X3	0.069	2.236	82	0.003	4.568	y	37	9.832	19.423	0.581	1.103	1.136	H2-1
56	M249	L2.5X2.5X3	0.069	2.236	82	0.003	4.568	y	37	9.832	19.423	0.581	1.103	1.136	H2-1
57	M226	LL2.5X2.5X3X3	0.022	2.451	30	0.004	4.902	y	30	28.562	38.802	2.631	1.696	1	H1-1b
58	M232	LL2.5X2.5X3X3	0.022	2.451	34	0.004	4.902	y	34	28.562	38.802	2.631	1.696	1	H1-1b
59	M196	LL2.5X2.5X3X3	0.017	2.451	62	0.004	4.902	y	35	28.562	38.802	2.631	1.696	1	H1-1b
60	M57	RB.5	0	0.5	57	0	0		26	4.01	4.225	0.034	0.034	1	H1-1b*
61	M51	RB.5	0	0.5	51	0	0		32	4.01	4.225	0.034	0.034	1	H1-1b*
62	M54	RB.5	0	0.5	57	0	0		26	4.01	4.225	0.034	0.034	1	H1-1b*
63	M53	RB.5	0	0.5	57	0	0		26	4.01	4.225	0.034	0.034	1	H1-1b*
64	M48	RB.5	0	0.5	51	0	0		32	4.01	4.225	0.034	0.034	1	H1-1b*
65	M47	RB.5	0	0.5	51	0	0		32	4.01	4.225	0.034	0.034	1	H1-1b*
66	M56	RB.5	0	0.5	51	0	0.5		26	4.01	4.225	0.034	0.034	1	H1-1b*
67	M50	RB.5	0	0.5	57	0	0.5		32	4.01	4.225	0.034	0.034	1	H1-1b*
68	M55	RB.5	0	0.5	51	0	0.5		26	4.01	4.225	0.034	0.034	1	H1-1b*
69	M49	RB.5	0	0.5	57	0	0.5		32	4.01	4.225	0.034	0.034	1	H1-1b*
70	M52	RB.5	0	0.5	51	0	0.5		26	4.01	4.225	0.034	0.034	1	H1-1b*
71	M46	RB.5	0	0.5	57	0	0.5		32	4.01	4.225	0.034	0.034	1	H1-1b*
72	M63	RB.5	0	0.5	61	0	0.5		32	4.01	4.225	0.034	0.034	1	H1-1b*
73	M59	RB.5	0	0.5	60	0	0.5		32	4.01	4.225	0.034	0.034	1	H1-1b*
74	M60	RB.5	0	0.5	61	0	0.5		32	4.01	4.225	0.034	0.034	1	H1-1b*

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

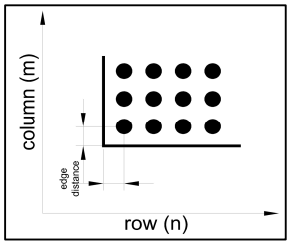
	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
75	M62	RB.5	0	0.5	55	0	0.5		26	4.01	4.225	0.034	0.034	1	H1-1b*
76	M58	RB.5	0	0.5	54	0	0.5		32	4.01	4.225	0.034	0.034	1	H1-1b*
77	M61	RB.5	0	0.5	55	0	0.5		32	4.01	4.225	0.034	0.034	1	H1-1b*
78	M92	1/2X1.5	0	0.031	32	0	0.031	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
79	M93	1/2X1.5	0	0.031	32	0	0.031	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
80	M94	1/2X1.5	0	0.031	32	0	0.031	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
81	M88	1/2X1.5	0	0.031	26	0	0.031	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
82	M91	1/2X1.5	0	0.031	32	0	0.031	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
83	M89	1/2X1.5	0	0.031	26	0	0.031	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
84	M97	1/2X1.5	0	0.031	26	0	0.031	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
85	M86	1/2X1.5	0	0.031	32	0	0.031	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
86	M96	1/2X1.5	0	0.031	26	0	0.031	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
87	M90	1/2X1.5	0	0.031	32	0	0.031	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
88	M95	1/2X1.5	0	0.031	26	0	0.031	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
89	M87	1/2X1.5	0	0.031	32	0	0.031	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
90	M119	1/2X1.5	0	0.001	26	0	0	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
91	M128	1/2X1.5	0	0.001	26	0	0	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
92	M121	1/2X1.5	0	0.001	26	0	0	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
93	M131	1/2X1.5	0	0.001	26	0	0	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
94	M129	1/2X1.5	0	0.001	32	0	0	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
95	M132	1/2X1.5	0	0.001	26	0	0	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
96	M130	1/2X1.5	0	0.001	32	0	0	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
97	M118	1/2X1.5	0	0.001	26	0	0	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
98	M120	1/2X1.5	0	0.001	32	0	0	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
99	M133	1/2X1.5	0	0.001	32	0	0	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
100	M116	1/2X1.5	0	0.001	26	0	0	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
101	M117	1/2X1.5	0	0.001	32	0	0	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
102	M115	1/2X1.5	0	0	28	0	0.25	y	50	16.013	16.168	0.505	0.168	1	H1-1b*
103	M127	1/2X1.5	0	0.25	30	0	0.25	y	58	16.013	16.168	0.505	0.168	1	H1-1b*
104	M113	1/2X1.5	0	0.25	33	0	0.25	y	58	16.013	16.168	0.505	0.168	1	H1-1b*
105	M114	1/2X1.5	0	0.25	27	0	0.25	y	51	16.013	16.168	0.505	0.168	1	H1-1b*
106	M126	1/2X1.5	0	0	36	0	0.25	y	61	16.013	16.168	0.505	0.168	1	H1-1b*
107	M125	1/2X1.5	0	0	37	0	0.25	y	56	16.013	16.168	0.505	0.168	1	H1-1b*
108	M122	1/2X1.5	0	0.25	43	0	0.25	y	52	16.013	16.168	0.505	0.168	1	H1-1b*
109	M112	1/2X1.5	0	0.25	40	0	0.25	y	55	16.013	16.168	0.505	0.168	1	H1-1b*
110	M124	1/2X1.5	0	0.25	43	0	0.25	y	53	16.013	16.168	0.505	0.168	1	H1-1b*
111	M110	1/2X1.5	0	0	46	0	0.25	y	57	16.013	16.168	0.505	0.168	1	H1-1b*
112	M111	1/2X1.5	0	0	40	0	0.25	y	57	16.013	16.168	0.505	0.168	1	H1-1b*
113	M123	1/2X1.5	0	0	48	0	0.25	y	60	16.013	16.168	0.505	0.168	1	H1-1b*
114	M137	1/2X1.5	0	0.125	123	0	0.125	y	51	16.129	16.168	0.505	0.168	1	H1-1b*
115	M100	1/2X1.5	0	0	123	0	0	y	51	16.129	16.168	0.505	0.168	1	H1-1b*
116	M102	1/2X1.5	0	0	117	0	0	y	62	16.129	16.168	0.505	0.168	1	H1-1b*
117	M138	1/2X1.5	0	0.125	117	0	0.125	y	50	16.129	16.168	0.505	0.168	1	H1-1b*
118	M104	1/2X1.5	0	0	123	0	0	y	60	16.129	16.168	0.505	0.168	1	H1-1b*
119	M135	1/2X1.5	0	0.125	117	0	0.125	y	60	16.129	16.168	0.505	0.168	1	H1-1b*
120	M139	1/2X1.5	0	0.125	23	0	0.125	y	58	16.129	16.168	0.505	0.168	1	H1-1b*
121	M134	1/2X1.5	0	0.125	23	0	0.125	y	53	16.129	16.168	0.505	0.168	1	H1-1b*
122	M105	1/2X1.5	0	0	17	0	0	y	59	16.129	16.168	0.505	0.168	1	H1-1b*
123	M103	1/2X1.5	0	0	17	0	0	y	53	16.129	16.168	0.505	0.168	1	H1-1b*
124	M136	1/2X1.5	0	0.125	23	0	0.125	y	57	16.129	16.168	0.505	0.168	1	H1-1b*
125	M98	1/2X1.5	0	0	17	0	0	y	59	16.129	16.168	0.505	0.168	1	H1-1b*
126	M83	1/2X1.5	0	0.031	123	0	0.031	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
127	M80	1/2X1.5	0	0.031	117	0	0.031	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
128	M84	1/2X1.5	0	0.031	117	0	0.031	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
129	M81	1/2X1.5	0	0.031	117	0	0.031	y	57	16.165	16.168	0.505	0.168	1	H1-1b*

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	Pnc/om [k]	Pnt/om [k]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
130	M82	1/2X1.5	0	0.031	117	0	0.031	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
131	M85	1/2X1.5	0	0.031	117	0	0.031	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
132	M107	1/2X1.5	0	0.001	123	0	0	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
133	M101	1/2X1.5	0	0.001	123	0	0	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
134	M109	1/2X1.5	0	0.001	117	0	0	y	57	16.165	16.168	0.505	0.168	1	H1-1b*
135	M106	1/2X1.5	0	0.001	123	0	0	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
136	M108	1/2X1.5	0	0.001	123	0	0	y	51	16.165	16.168	0.505	0.168	1	H1-1b*
137	M99	1/2X1.5	0	0.001	123	0	0	y	51	16.165	16.168	0.505	0.168	1	H1-1b*

Bolt Calculator

Capacity Input:	N	4/3 Increase N
Analysis/Design:	Analysis	
ASD/LRFD:	ASD	
Data	Auto Calc Capacity	



Bolt Properties		
Nominal Diameter (d)	5/8	inches
Steel Grade	A307	
Threads Excluded?	N	
Yield Strength (Fyb)	36	ksi
Ultimate Strength (Fub)	60	ksi
Threads/in (n)	11	
Gross Area (Agb)	0.307	in^2
Net Area (Anb)	0.226	in^2

Bolt Group Properties		
No. of Column	2	
No. of Rows	3	
Bolt Spacing per Row	3	inches
Bolt Spacing per Column	6	inches
Edge Distance	1	inches
Parallel along	Y-Axis	

Pu_x	4403.0	lbs
Pu_y	782.0	lbs
Pu_z	2578.0	lbs

Mu_x	2282.0	lbs-ft
Mu_y	1340.0	lbs-ft
Mu_z	2024.0	lbs-ft

Bolt Capacity (0.625 A307 Bolts)				
	Ult Load/ Bolt	Capacity	# of Bolts	Factor Joint Capacity
Shear	3129.3	3129.3	6	18775.9
Axial	6074.6	6074.6	6	36447.4

Interaction Check	
V /ϕVn	51.0%
T /ϕTn	45.1%
≤1.0	46.4%
	Pass

Exhibit F

Power Density/RF Emissions Report

EBI Consulting

environmental | engineering | due diligence

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

T-Mobile Existing Facility

Site ID: CT11313A

Bozrah-2/ Rt 2
131 Gifford Lane
Bozrah, Connecticut 06334

June 2, 2022

EBI Project Number: 6222003671

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**17.29%**

June 2, 2022

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

Emissions Analysis for Site: CT11313A - Bozrah-2/ Rt 2

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **131 Gifford Lane** in **Bozrah, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

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

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 131 Gifford Lane in Bozrah, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

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

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

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

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

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

5) 2 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

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

7) 1 LTE Traffic channel (LTE 1C and 2C BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 60 Watts.

8) 1 LTE Broadcast channel (LTE 1C and 2C BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 20 Watts.

9) 1 NR Traffic channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 120 Watts.

10) 1 NR Broadcast channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 40 Watts.

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

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

13) The antennas used in this modeling are the Ericsson AIR 6419 for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s), the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector A, the Ericsson AIR 6419 for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s), the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector B, the Ericsson AIR 6419 for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s), the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative

estimate as gain reductions for these particular antennas are typically much higher in this direction.

14) The antenna mounting height centerline of the proposed antennas is 191 feet above ground level (AGL).

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

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

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR 6419	Make / Model:	Ericsson AIR 6419	Make / Model:	Ericsson AIR 6419
Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz
Gain:	22.05 dBd / 15.55 dBd / 22.05 dBd / 15.55 dBd	Gain:	22.05 dBd / 15.55 dBd / 22.05 dBd / 15.55 dBd	Gain:	22.05 dBd / 15.55 dBd / 22.05 dBd / 15.55 dBd
Height (AGL):	191 feet	Height (AGL):	191 feet	Height (AGL):	191 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	240.00 Watts	Total TX Power (W):	240.00 Watts	Total TX Power (W):	240.00 Watts
ERP (W):	31,011.95	ERP (W):	31,011.95	ERP (W):	31,011.95
Antenna A1 MPE %:	**3.26%**	Antenna B1 MPE %:	**3.26%**	Antenna C1 MPE %:	**3.26%**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	RFS APXVAALL24_43-U-NA20	Make / Model:	RFS APXVAALL24_43-U-NA20	Make / Model:	RFS APXVAALL24_43-U-NA20
Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd / 15.45 dBd / 16.45 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd / 15.45 dBd / 16.45 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd / 15.45 dBd / 16.45 dBd
Height (AGL):	191 feet	Height (AGL):	191 feet	Height (AGL):	191 feet
Channel Count:	13	Channel Count:	13	Channel Count:	13
Total TX Power (W):	560.00 Watts	Total TX Power (W):	560.00 Watts	Total TX Power (W):	560.00 Watts
ERP (W):	17,868.72	ERP (W):	17,868.72	ERP (W):	17,868.72
Antenna A2 MPE %:	**2.48%**	Antenna B2 MPE %:	**2.48%**	Antenna C2 MPE %:	**2.48%**

Site Composite MPE %	
Carrier	**MPE %**
T-Mobile (Max at Sector A):	5.74%
Omnipoint	0.08%
Verizon	7.13%
Sprint	1.92%
AT&T	2.42%
Site Total MPE % :	17.29%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	5.74%
T-Mobile Sector B Total:	5.74%
T-Mobile Sector C Total:	5.74%
Site Total MPE % :	17.29%

T-Mobile Maximum MPE Power Values (Sector A)

T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 2500 MHz LTE 1C & 2C Traffic	1	9619.47	191.0	10.10	2500 MHz LTE 1C & 2C Traffic	1000	1.01%
T-Mobile 2500 MHz LTE 1C & 2C Broadcast	1	717.84	191.0	0.75	2500 MHz LTE 1C & 2C Broadcast	1000	0.08%
T-Mobile 2500 MHz NR Traffic	1	19238.94	191.0	20.21	2500 MHz NR Traffic	1000	2.02%
T-Mobile 2500 MHz NR Broadcast	1	1435.69	191.0	1.51	2500 MHz NR Broadcast	1000	0.15%
T-Mobile 600 MHz LTE	2	591.73	191.0	1.24	600 MHz LTE	400	0.31%
T-Mobile 600 MHz NR	1	1577.94	191.0	1.66	600 MHz NR	400	0.41%
T-Mobile 700 MHz LTE	2	695.22	191.0	1.46	700 MHz LTE	467	0.31%
T-Mobile 1900 MHz GSM	4	1052.26	191.0	4.42	1900 MHz GSM	1000	0.44%
T-Mobile 1900 MHz LTE	2	2104.51	191.0	4.42	1900 MHz LTE	1000	0.44%
T-Mobile 2100 MHz LTE	2	2649.42	191.0	5.57	2100 MHz LTE	1000	0.56%
						Total:	**5.74%**

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

Summary

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

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

T-Mobile Sector	Power Density Value (%)
Sector A:	5.74%
Sector B:	5.74%
Sector C:	5.74%
T-Mobile Maximum MPE % (Sector A):	5.74%
Site Total:	17.29%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **17.29%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

Exhibit G

Recipient Mailings

UNITED STATES POSTAL SERVICE®

Click-N-Ship®

9405 5036 9930 0270 0385 66 0089 5000 0010 1581

usps.com
$8.95
US POSTAGE
Flat Rate Env

U.S. POSTAGE PAID
Click-N-Ship®

06/10/2022 Mailed from 01566

P

PRIORITY MAIL 1-DAY™

Expected Delivery Date: 06/11/22

Ref#: SBCT-313A

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

0006

R005

SBA COMMUNICATIONS CORPORATION
13 FLANDERS RD
STE 125
WESTBOROUGH MA 01581

USPS TRACKING #

9405 5036 9930 0270 0385 66

Electronic Rate Approved #038555749

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 0270 0385 66

Trans. #:	565319064
Print Date:	06/10/2022
Ship Date:	06/10/2022
Expected Delivery Date:	06/11/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

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

Ref#: SBCT-313A

To: SBA COMMUNICATIONS CORPORATION
13 FLANDERS RD
STE 125
WESTBOROUGH MA 01581

* 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.

UNITED STATES POSTAL SERVICE®

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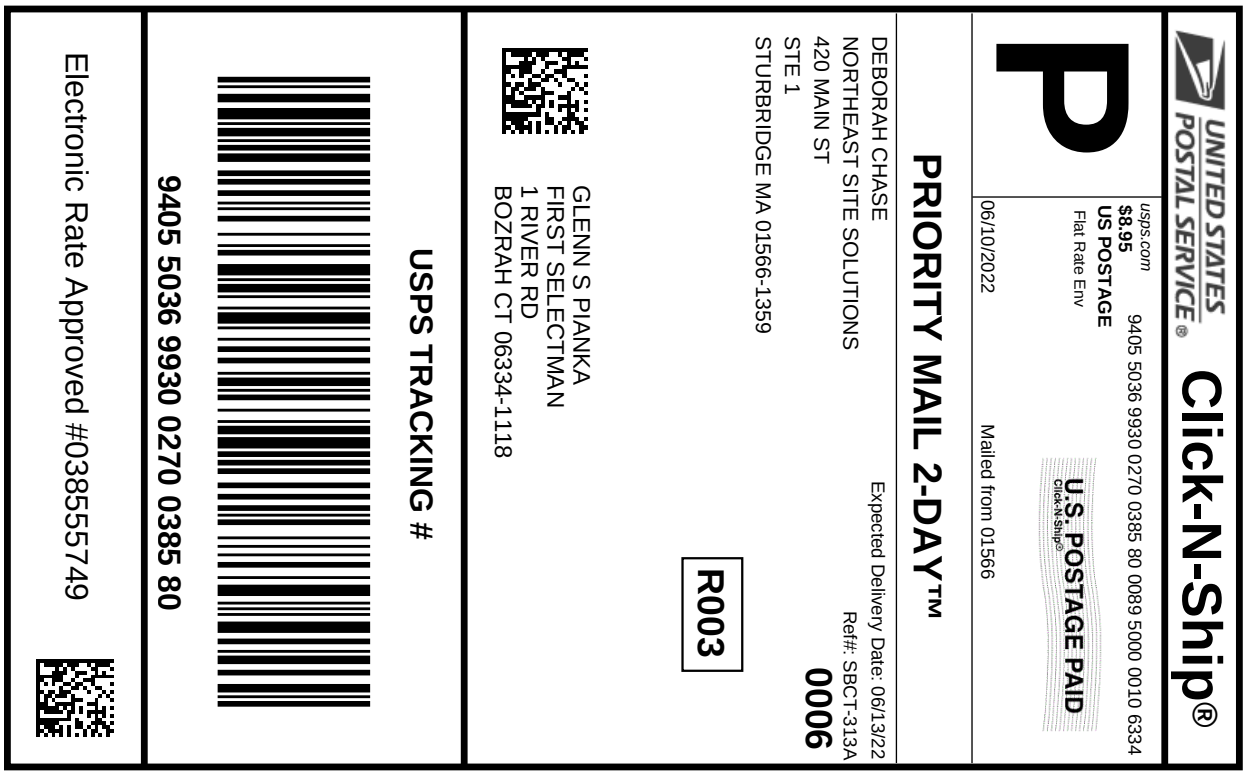
Check the status of your shipment on the USPS Tracking® page at usps.com



Cut on dotted line.

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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 0270 0385 80

Trans. #:	565319064
Print Date:	06/10/2022
Ship Date:	06/10/2022
Expected Delivery Date:	06/13/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

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

Ref#: SBCT-313A

To: GLENN S PIANKA
FIRST SELECTMAN
1 RIVER RD
BOZRAH CT 06334-1118

* 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.

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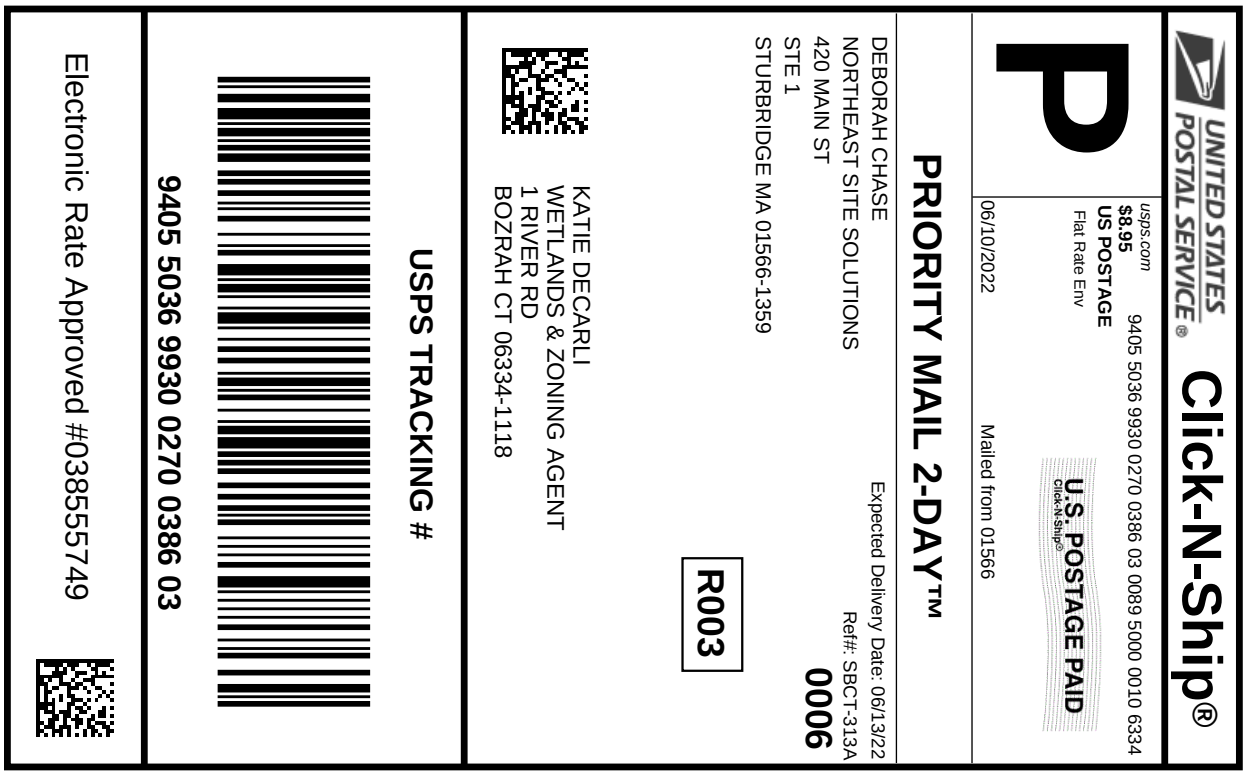

Cut on dotted line.

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 0270 0386 03

Trans. #:	565319064
Print Date:	06/10/2022
Ship Date:	06/10/2022
Expected Delivery Date:	06/13/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

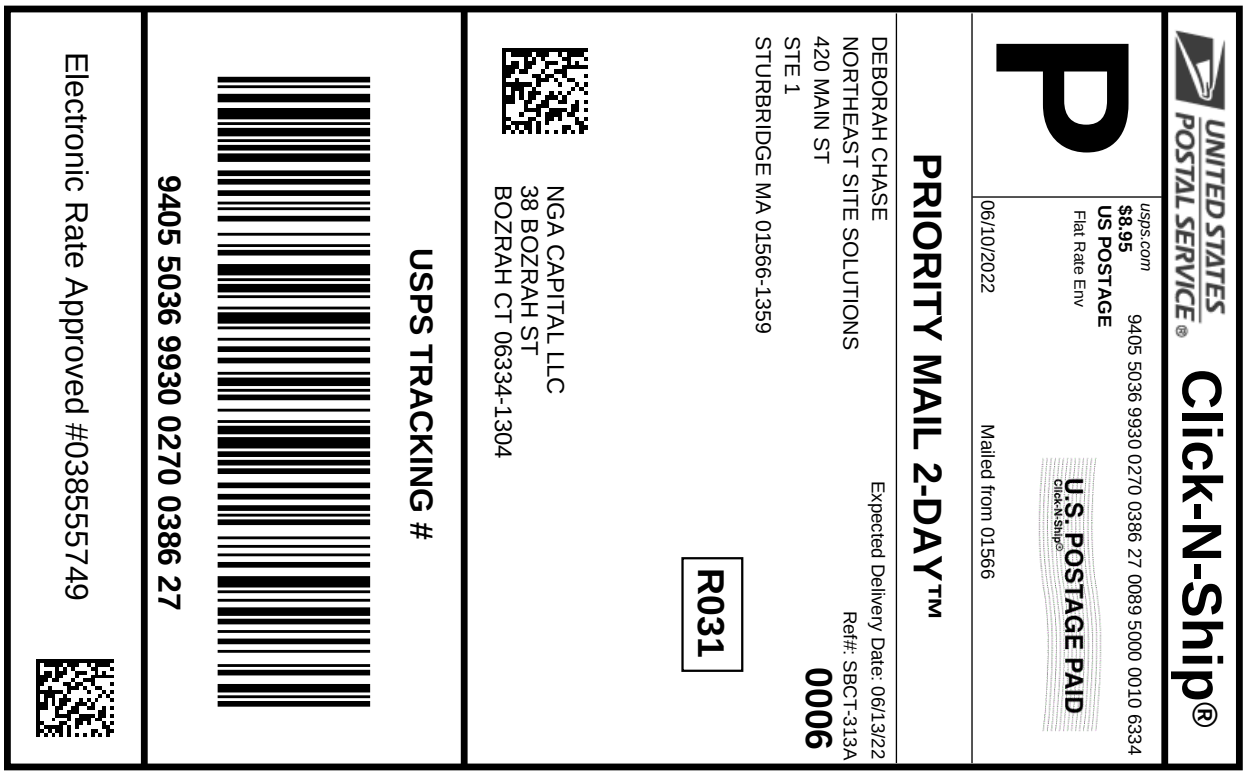
From: DEBORAH CHASE
NORTHEAST SITE SOLUTIONS
420 MAIN ST
STE 1
STURBRIDGE MA 01566-1359

Ref#: SBCT-313A

To: KATIE DECARLI
WETLANDS & ZONING AGENT
1 RIVER RD
BOZRAH CT 06334-1118

* 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



Cut on dotted line.

Instructions

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2. **Place your label so it does not wrap around the edge of the package.**
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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 0270 0386 27

Trans. #:	565319064
Print Date:	06/10/2022
Ship Date:	06/10/2022
Expected Delivery Date:	06/13/2022

Priority Mail® Postage:	**$8.95**
Total:	**$8.95**

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

Ref#: SBCT-313A

To: NGA CAPITAL LLC
38 BOZRAH ST
BOZRAH CT 06334-1304

* 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

CT11313A SBA-TMO

UNITED STATES POSTAL SERVICE.

FARMINGTON
210 MAIN ST
FARMINGTON, CT 06032-9998
(800)275-8777

06/10/2022 11:58 AM

Product	Qty	Unit Price	Price
Prepaid Mail Bozrah, CT 06334 Weight: 0 lb 8.50 oz Acceptance Date: Fri 06/10/2022 Tracking #: 9405 5036 9930 0270 0385 80	1		$0.00
Prepaid Mail Westborough, MA 01581 Weight: 0 lb 2.00 oz Acceptance Date: Fri 06/10/2022 Tracking #: 9405 5036 9930 0270 0385 66	1		$0.00
Prepaid Mail Bozrah, CT 06334 Weight: 0 lb 8.50 oz Acceptance Date: Fri 06/10/2022 Tracking #: 9405 5036 9930 0270 0386 27	1		$0.00
Prepaid Mail Bozrah, CT 06334 Weight: 0 lb 8.50 oz Acceptance Date: Fri 06/10/2022 Tracking #: 9405 5036 9930 0270 0386 03	1		$0.00
Grand Total:			$0.00

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