Filed by:
G. Scott Shepherd, Site Development Specialist II - SBA Communications
134 Flanders Rd., Suite 125, Westborough, MA 01581
508.251.0720 x 3807 - gshepherd@sbasite.com

March 11, 2021

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

RE: Notice of Exempt Modification
Coppermine Rd., Oxford, CT 06478
Latitude: 41.387777
Longitude: -73.172222
Sprint, now a part of T-Mobile USA #: CTNH848A_Sprint Keep

Dear Ms. Bachman:

Sprint, now a part of T-Mobile USA, hereinafter referred to as "Sprint/T-Mobile"currently maintains six (6) antennas at the 168-foot level of the existing 178-foot Monopole Tower at 133 Coppermine Rd., Oxford, CT. The 178-foot tower is owned by SBA 2012 TC Assets, LLC. The property is owned by the Town of Oxford, CT. Sprint/T-Mobile now intends to remove six (6) antennas and replace with six (6) new L700/L600/1900/2100 MHz antennas and install three (3) new 2500 MHz antennas for a total of nine (9) antennas.

The new antennas support 5g services and would be installed at the 168-foot level of the tower.

Please note: Per the Connecticut Siting Council Website: CSC COVID 19 Guidelines.
In order to prevent the spread of Coronavirus and protect the health and safety of our members and staff, as of March 18, 2020, the Connecticut Siting Council shall convert to full remote operations until March 30, 2020. Please be advised that during this time period, all hard copy filing requirements will be waived in lieu of an electronic filing. Please also be advised that the March 26, 2020 regular meeting shall be held via teleconference. The Council's website is not equipped with an on-line filing fee receipt service. Therefore, filing fees and/or direct cost charges associated with matters received electronically during the above-mentioned time period will be directly invoiced at a later date.

Planned Modifications:

TOWER

Remove:
- N/A

Remove and Replace:

- (3) RFS APXVSPP18-C-A20 antenna (remove) – (3) Ericsson AIR32 KRD901146-1_B66A_B2A 1900/2100 MHz antenna (replace)
- (3) RFS APXVSPP18-C-A20 antenna (remove) – (3) RFS APXVAALL24_43-U-NA20 600/700/1900 MHz antenna (replace)
- (3) ALU 1900MHz RRU (remove) – (3) Ericsson 4415 B25 RRU (replace)
- (3) TD-RRH8x20-5 RRU (remove) – (3) Ericsson 4449 B71 + B85 RRU (replace)

Install New:

- (3) Ericsson AIR6449 B41 2500 MHz antenna
- Handrail kit, plan bracing and kicker kit (as shown on TES Mount Drawings Job# 100841)
- (3) 2" Hybrid

Existing Equipment to Remain:

- Low Profile Platform w/handrail
- (4) RFS ACU-A20-N-RET
- (3) ALU 800 MHz RRU
- (3) ALU 800 MHz filter

Entitlements:

- (4) 1-1/4" coax

GROUND

Install New:

- Equipment inside existing RBS 6201 Equipment cabinet
- (1) T-Mobile B160 Battery Cabinet
- (2) 2" conduit
- (2) 1" conduit
- (1) T-Mobile 6160 cabinet
- (1) AAV cabinet on new steel post

Remove:

- Fiber distribution box
- (1) BBU cabinet
- Existing MMBTS

We were unable to locate any original zoning documents that verify the construction of the telecommunications facility, either through the Connecticut Siting Council website, or the through the Town of Oxford. The Town of Oxford provided their oldest document on file, which is P&Z# Z-05-024 dated February 10, 2005, which provides approval modifications to the Tower for an antennae and associated equipment. A corresponding approval from the Connecticut Siting Council (CSC) EM-VER-108-041214 was also provided. Both are attached herein for reference, along with an email from the Town of Oxford that the above mentioned documents is all they could find on file. We were able to locate a tower a Tower Foundation Design conducted February 23, 2000, also attached for your reference. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16.50j-72(b)(2). In accordance with R.C.S.A. § 16.50j-73, a copy of this letter is being sent to the Town of Oxford's First Selectman, George E. Temple, Building Official Gordon Gramolini and the Economic Development Director, Jeffrey Luff. (Separate notice is not being sent to tower owner, as it belongs to SBA.)

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 modification 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 modification 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 telecommunication facility constitute an exempt modifications under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

G. Scott Shepherd
Site Development Specialist II
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA 01581
508.251.0720 x3807 + T
508.366.2610 + F
508.868.6000 + C
gshepherd@sbasite.com

Attachments

cc: George E. Temple, First Selectman / with attachments
Oxford Town Hall, 486 Oxford Rd., Oxford, ct. 06478-1298
Gordon Gramolini, Building Official / with attachments
Oxford Town Hall, 486 Oxford Rd., Oxford, ct. 06478-1298
Jeffrey Luff, Economic Development Director / with attachments
Oxford Town Hall, 486 Oxford Rd., Oxford, ct. 06478-1298

EXHIBIT LIST

Exhibit 1	Check Copy	To be invoiced at a later date per Covid guidelines
Exhibit 2	Notification Receipts	x
Exhibit 3	Property Card	x
Exhibit 4	Property Map	x
Exhibit 5	Original Zoning Approval	*Orig. Zoning approval not found, see attached email from Town of Oxford P & Z Dept.
Exhibit 6	Construction Drawings	Centerline 3/1/21
Exhibit 7	Structural Analysis	TES 12/28/20
Exhibit 8	Mod Mount Drawings	TES 12/23/20 (Job# 100841)
Exhibit 9	Post-Mod Mount Analysis	TES 12/18/20
Exhibit 10	EME Report	EBI Consulting 2/23/21

EXHIBIT 1

Normally, Exhibit 1 would contain a copy of the check for the filing fee.

EXHIBIT 2

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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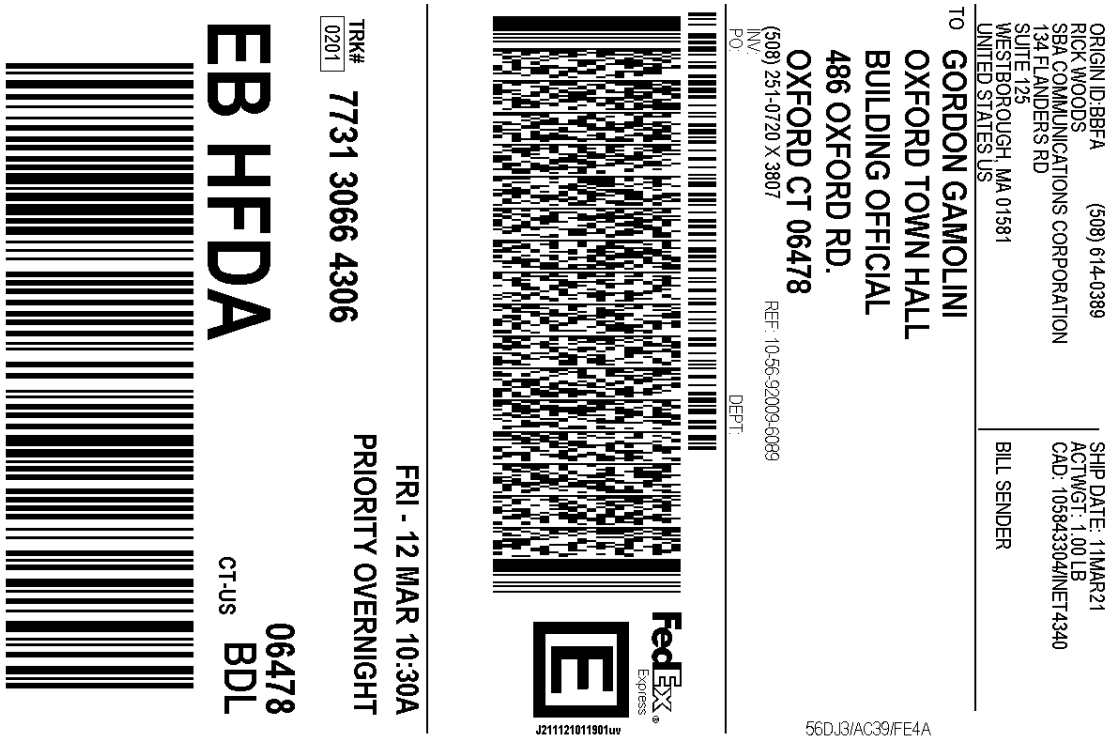

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EXHIBIT 3

Town of Oxford
Property Listing Report

Parcel ID 12/51/17

Account 00416500

Property Information

Owner	OXFORD TOWN OF
Address	133 COPPERMINE RD
Mailing Address	486 OXFORD RD OXFORD , CT 06478
Land Use	- Exempt Vac
Land Class	E

Census Tract	R 9
Neighborhood	090
Zoning	RESA
Acreage	0.87
Utilities	
Lot Setting/ Desc	/ Clear,Wooded,Wet

Photo

PARCEL VALUATIONS (Assessed value = 70% of Appraised Value)

	Appraised	Assessed
Buildings	0	0
Outbuildings	0	0
Improvements	0	0
Extras	0	0
Land	258700	181100
Total	258700	181100
Previous		

Construction Details

Year Built	
Stories	
Building Style	
Building Use	
Building Condition	
Total Rooms	
Bedrooms	
Full Bathrooms	0
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	
Roof Cover	

EXTERIOR WALLS:	
Primary	
Secondary	
INTERIOR WALLS:	
Primary	
Secondary	
FLOORS:	
Primary	
Secondary	
HEATING/AC:	
Heating Type	
Heating Fuel	
AC Type	

BUILDING AREA:	
Effective Building Area	
Gross Building Area	
Total Living Area	

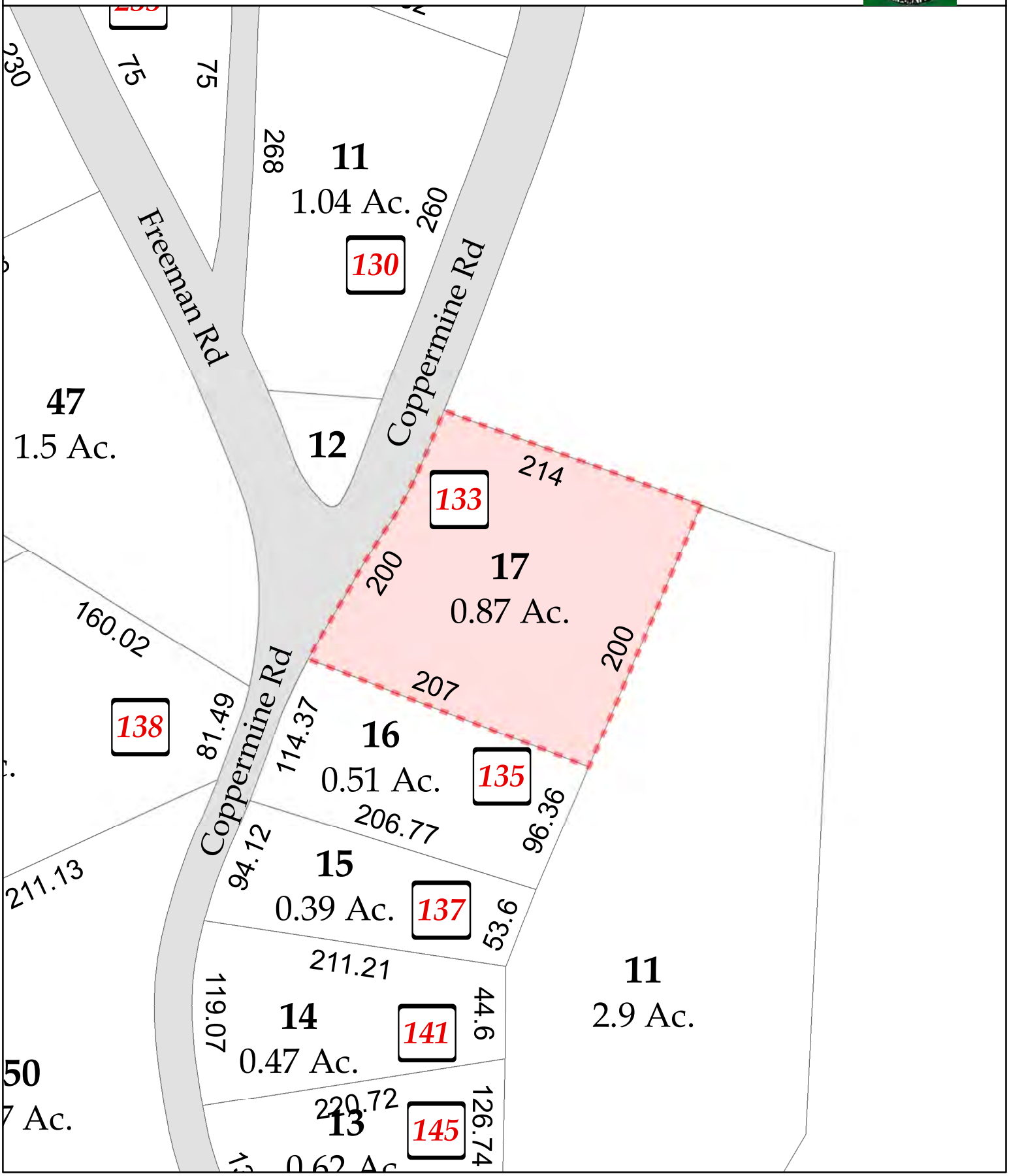
SALES HISTORY:	
Sale Date	10/1/2010
Sale Price	0
Book/ Page	36/ 103

Report Created On 3/9/2021

EXHIBIT 4

Town of Oxford, Connecticut - Assessment Parcel Map

Parcel: 12-51-17 **Location:** 133 COPPERMINE RD



Approximate Scale: 1 inch = 100 feet

0 50 100 150 200 Feet

Map Produced: February 2021

Disclaimer: This map is for informational purposes only All information is subject to verification by any user. The Town of Oxford and its mapping contractors assume no legal responsibility for the information contained herein.

Google Maps 133 Coppermine Rd

Imagery ©2021 Maxar Technologies, Map data ©2021 20 ft

EXHIBIT 5

From: Jessica Pennell
To: Glenn Shepherd
Subject: [External] Coppermine Road
Date: Tuesday, March 9, 2021 9:44:05 AM
Attachments: 2005 Cell Tower Approval.pdf

Nice talking to you, here is what I found.

Best,

Jessica Pennell, Coordinator
Planning & Zoning Commission

Town of Oxford
Planning & Zoning Department Information
P & Z Coordinator - COVID-19 Modified Business Hours
Open to the Public: Monday & Wednesday from 1PM-5PM
Open to the Public: Tuesday & Thursday 9AM-1PM

Direct Line: (203) 828-6512
Website: oxford-ct.gov

Zoning Enforcement Officer - COVID-19 Modified Business Hours
Open to the Public: Monday & Wednesday from 1PM-5PM
Open to the Public: Tuesday & Thursday 9AM-1PM
Open to the Public: Friday 8AM-12PM

Direct Line: (203) 828-6503
Email: zoningenforce@oxford-ct.gov

PLANNING & ZONING COMMISSION
TOWN OF OXFORD
486 Oxford Road
Oxford, CT 06478
(203) 888-2543

Z#: Z-05-029
Date Rec'd: 2-10-05
Date on Agenda: _____
65-Day Expiration: _____

ZONING PERMIT APPLICATION

(This permit is hereby applied for in accordance with the requirements of the Oxford Zoning Regulations)

Property Identification

Street Address: 133 COPPERMINE ROAD
Subdivision Name: _____ Date Approved: _____
Map: ____ Block: ____ Lot: ____ Zoning district: _____

Owner/Applicant

Owner Name: VERIZON WIRELESS
Owner Address: 99-101 EAST RIVER DRIVE, EAST HARTFORD CT
Owner Telephone: 860-803-8240

Applicant Name: NATCOMM, LLC
Applicant Address: 63-2 N. BRANFORD RD, BRANFORD, CT
Applicant Telephone: 203-488-0580

Miscellaneous Information

Special Exception: Article ____ Selection ____ Yes No
Site Plan Approval: Article ____ Selection ____ Yes No
Estimated Cost of Construction: $100,000
Variance Granted: _____ Date Granted: _____

Signatures/Authorization

Application for Zoning Permit approval as described herein is hereby made. The Oxford Planing & Zoning Commission and its technical staff are authorized to enter the property for the purpose of evaluating this application.

Permit Void If: a) Work or activity not commenced within 1 year of the date of issuance or b) Authorized construction not completed within 2 years of the date of issuance.

This permit, if issued, is based upon the plot plan submitted. Falsification, by misrepresentation or omission, or failure to comply with the conditions of approval of this permit constitute a violation of the Oxford Zoning Regulations.

_____ 2/10/05
Property Owner or Agent — Date

Purpose

— New Home
— Addition
— Garage
— Cottage Business
— Swimming Pool IG AG
— Sign
— Shed
— Barn
— Change of Use
— Excavating/Filling
— Trailer
X Other CELLULAR ANTENNAS & BASE EQUIPMENT

Use

— Single-Family Residence
— Multi-Family Residence
— Commercial
— Industrial
— Residential/POD
X Other WIRELESS COMMUNICATIONS FACILITY

Required Approvals and Dates

X Inland Wetlands
N/A P.D.D.H.
— Fire Marshal
— Z.B.A.
— W.P.C.A.
— Floodplain
X Copy of Deed verbal
— Driveway
— Erosion Control Plan
X Plot Plan *R-23-04
— Other _____

100.00 Town Fee
30.00 State Fee
130.00 Total Fee

*Draw Plot plan of proposed construction and attach. Plan must show property boundaries and dimensions; location of proposed buildings on property with respect to boundaries; location of existing buildings on property; outside dimension of all buildings proposed or now existing; location of water supply; location of sewage system. All copies must have a complete sketch. Construction and use must be exactly as described in this application. If later changes from this plan are desired prior approval of an amended application is necessary,

Denied **Approved** By: Danny Vitt Date: 2-10-05
Title: ZEO

Reason for Denial _____

ZPA-1
(Adopted 5/15/97)

White - P&Z Files / Yellow - Building Department / Pink - Applicant

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@po.state.ct.us
www.ct.gov/csc

January 25, 2005

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

RE: **EM-VER-108-041214** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at Coppermine Road, Oxford, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on January 24, 2005, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated December 14, 2004, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

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

Thank you for your attention and cooperation.

Very truly yours,

Pamela B. Katz

Pamela B. Katz, P.E.
Chairman

PBK/laf

c: The Honorable August A. Palmer, First Selectman, Town of Oxford
Vincent Vizzo, Planning & Zoning Chairman, Town of Oxford
Thomas F. Flynn III, Nextel Communications, Inc.
Thomas J. Regan, Esq., Brown Rudnick Berlack Israels, LLP
Michele G. Briggs, The New Cingular Wireless PCS, LLC

G:\em\ver\oxford\dc012405.doc

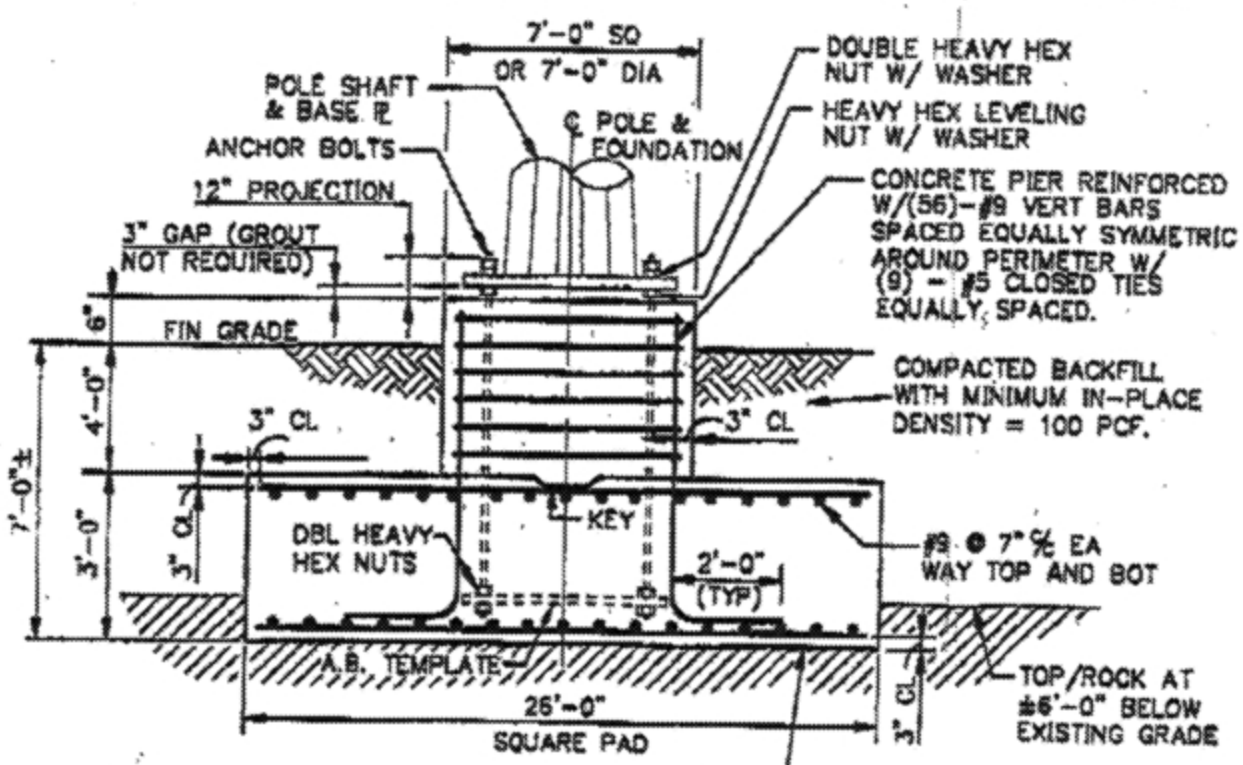
CSC
CONNECTICUT SITING COUNCIL

SUMMIT MANUFACTURING INC.
225 KIWANIS BOULEVARD, WEST HAZLETON, PA 18201
PHONE: (888)847-6537 E MAIL: SUMMITLG@EPIX.NET
FAX: (888)460-6885 WEB: HTTP:\\WWW.SUMMITMFG.LLC.COM

PAUL J. FORD AND COMPANY
STRUCTURAL ENGINEERS
250 East Broad Street, Suite 500, Columbus, Ohio 4321
(614)-221-5679 FAX (614)-221-016

Pole 178 FT MONOPOLE
Location OXFORD, CT
Site CT-0061 OXFORD
Owner NEXTEL COMMUNICATIONS
Design 85 MPH/74 MPH + 1/2" RADIAL ICE

Page 1 Of 1
By RKT Date 02-23-2000
Summit Job No. 6198 Job No. 29200-156
Revision No. Date
According to TIA/EIA-222-F 1996



PAD & PIER FOUNDATION

NOTES:

1. ALL STRUCTURAL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF AT LEAST 3000 PSI AT 28 DAYS.

2. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (GRADE 60) EXCEPT PIER TIES MAY BE ASTM A615 GRADE 40).

3. SEE PJF POLE DESIGN DATED 02-11-2000 FOR ANCHOR BOLT QUANTITY, SIZE, LENGTH AND BOLT CIRCLE.

4. TOTAL CONCRETE = 83.5 CUBIC YARDS.

5. FOUNDATION DESIGN BASED UPON GEOTECHNICAL EXPLORATION REPORT PREPARED BY DR. CLARENCE WELTI, P.E., P.C. GEOTECHNICAL ENGINEERING, DATED 02-15-2000.

6. CONTRACTOR SHALL READ THE GEOTECHNICAL REPORT AND CONSULT THE GEOTECHNICAL ENGINNER AS NECESSARY PRIOR TO CONSTRUCTION.

STATE OF CONNECTICUT * KEVIN R. HALLIHAN * No 17881 LICENSED PROFESSIONAL ENGINEER *

2-24-2000

SPREAD FOOTING FOR POLES PROGRAM BY PAUL J. FORD and COMPANY

JOB NO. 29200-156 DATE 02-23-2000 PAGE 1

178' Monopole; Oxford_CT; Site CT-0061

INPUT: SPREAD FOOTING (PAD and PIER) FOR POLES

POLE LOADS: POLE WEIGHT = 34.00 kips (pole,antenna,ice,mounts,etc.)
OVERTURNING MOMENT = 3840.00 ft-k (at the top of the pier)
TOTAL HORIZONTAL = 30.00 kips (at the top of the pier)
DESIGN SAFETY FACTOR AGAINST OVERTURNING = 1.50

CONCRETE: CONCRETE STRENGTH = 3000 psi at 28 days
REINFORCING STEEL STRENGTH = 60000 psi (ASTM A615 grade 60)

SOIL: WATER TABLE AT 4.0 ft below grade
SOIL WT = 100 pcf (dry) 37.60 pcf bouyant
ALLOWABLE SOIL BEARING =12000 psf

FOOTING SIZE: WIDTH = 26.0 ft LENGTH = 26.0 ft
THICKNESS = 3.00 ft DEPTH = 7.00 ft to bottom
PIERS = 7.00 ft square PIER 0.5 ft above grade
CONCRETE WEIGHT = 150 pcf (87.6 pcf bouyant)

OUTPUT: SPREAD FOOTING (PAD and PIER) FOR POLES

VOLUME OF CONCRETE = 2249 ft^3 (83.28 cubic yards)

WEIGHT OF POLE ==>> 34.00 kips
WEIGHT OF CONCRETE => 337.28 kips (2249 x 0.150)
WEIGHT OF SOIL ==>> 250.80 kips (2508 x 0.100)
WEIGHT OF WATER ==>> - 126.55 kips (2028 x 0.0624)
TOTAL WEIGHT = 495.53 kips

OVERTURNING MOMENT = 3840.00 ft-k + (30.00 k x 7.50 ft) = 4065 ft-kips
RESISTING MOMENT = 495.53 k x (26.00 ft / 2) = 6442 ft-kips

SAFETY FACTOR = Mresist / O.T.M. = 6442 / 4065 = 1.58 > 1.50 O.K.

ULTIMATE OVERTURNING MOMENT = 4065 ft-k x 1.50 = 6098 ft-kips
ULTIMATE NET SOIL BEARING PRESSURE = 17771 psf

GROSS SOIL BEARING = 2649 psf (includes soil overburden)
SOIL OVERBURDEN = 513 psf (soil overburden)
NET SOIL BEARING = 2136 psf <12000 psf O.K.

BENDING MOMENT IN PIER = 3840 ft-k +(30.00 k x 4.50 ft) = 3975 ft-kips
AREA OF REINF STEEL REQUIRED IN THE PIER = 52.95 sq in (36 no. 11 bars)
(.5 % = 35.28 sq in)

BENDING MOMENT IN FOOTING = 4404 ft-kips
FOOTING REINFORCING = 1.64 in^2/ft = 28 no. 11 bars @ 11.44 in. o.c.
(.18 % = 0.78 in^2/ft)

BENDING SHEAR IN THE FOOTING = 393.02 kips
ALLOWABLE BENDING SHEAR = 703.93 kips O.K.

EXHIBIT 6

PROJECT INFORMATION

TOWER OWNER:	SBA PROPERTIES, LLC 8501 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561-226-9523
SBA TOWER ID:	CT46127-A
SBA SITE NAME:	OXFORD-SOUTH
T-MOBILE SITE NAME:	CTNH848A
T-MOBILE SITE NUMBER:	CTNH848A
SBA SITE ADDRESS:	133 COPPERMINE RD OXFORD, CT 06483
LATITUDE:	41.38780000
LONGITUDE:	-73.17220000
TOWER HEIGHT:	178'-0"± AGL
RAD CENTER:	168'-0"± AGL
ZONING JURISDICTION:	TOWN OF NORTHBRIDGE
COUNTY:	FAIRFIELD/SHELTON

DESCRIPTION OF WORK:

TELECOMMUNICATIONS FACILITY UPGRADE (SPRINT RETAIN):

MONOPOLE

COMPLIANCE CODES:

1.	BUILDING CODE: IBC 2015 & CONNECTICUT STATE BUILDING CODE 2018
2.	ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
3.	CONCRETE CODE: AMERICAN CONCRETE INSTITUTE (ACI) 318
4.	STEEL CODE: AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), 14TH EDITION
5.	TELECOMMUNICATIONS CODE: EIA/TIA-222-G STRUCTURAL STANDARDS FOR STEEL

BASED ON INFORMATION PROVIDED BY T-MOBILE, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS AN ELIGIBLE FACILITY UNDER THE TAX RELIEF ACT OF 2012, 47 USC 1455(A), AND IS SUBJECT TO AN EXPEDITED ELIGIBLE FACILITIES REQUEST/REVIEW AND ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW).

PROJECT DIRECTORY

A&E / PROJECT MANAGER:
CENTERLINE COMMUNICATIONS
750 WEST CENTER ST, SUITE 301
WEST BRIDGEWATER, MA 02379
PHONE 781.713.4725

APPLICANT:
T-MOBILE NORTHEAST, LLC.
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
PHONE: (508) 286-2700
FAX: (508) 286-2893

SITE NAME: CTNH848A
133 COPPERMINE RD
OXFORD, CT 06483

SITE NUMBER: CTNH848A
SBA SITE #: CT46127-A
PROJECT: SPRINT RETAIN
CONFIGURATION: 67D5A997DB 6160 (GSM ONLY)

VICINITY MAP
NOT TO SCALE

GENERAL NOTES:

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSE OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.

3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE T-MOBILE REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

DRAWING INDEX

NO.	DESCRIPTION	REV.	DATE
T-1	TITLE SHEET	2	03/01/21
GN-1	GENERAL NOTES	2	03/01/21
A-1	COMPOUND & EQUIPMENT PLANS	2	03/01/21
A-2	ANTENNA LAYOUT & ELEVATIONS	2	03/01/21
A-3	DETAILS	2	03/01/21
SN-1	STRUCTURAL NOTES	2	03/01/21
RF-1	RF PLUMBING DIAGRAM	2	03/01/21
G-1	GROUNDING DETAILS	2	03/01/21

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PHONE: (508) 251-0720

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

REVISIONS		
2	03/01/21	CONSTRUCTION FINAL
1	02/25/21	ISSUED FOR CONSTRUCTION
0	12/11/20	ISSUED FOR REVIEW
NO.	DATE	DESCRIPTION
DESIGNED BY: TG		APPROVED BY: DC

STATE OF CONNECTICUT
DEREK J. CREASER
No. 28551
LICENSED PROFESSIONAL ENGINEER

DATE: 03/01/21

CBYD.com 811 Call Before You Dig, Inc.

SITE NAME:	CTNH848A
SITE NUMBER:	CTNH848A
SITE ADDRESS:	133 COPPERMINE RD OXFORD, CT 06483
PROJECT TYPE:	SPRINT RETAIN
SHEET TITLE:	TITLE SHEET
DRAWING #: T-1	REVISION: 2

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR – CENTERLINE COMMUNICATIONS
SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
OWNER – T–MOBILE

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

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

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

6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.

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 SPACE FOR APPROVAL BY THE CONTRACTOR.

9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, 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.

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 OWNER.

11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.

13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR–ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.

15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.

16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF T–MOBILE SITES."

17. 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.

18. THE EXISTING CELL SITE IS 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.

19. SINCE THE 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 ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

20. APPLICABLE BUILDING CODES:
SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
BUILDING CODE: IBC 2015 & CONNECTICUT STATE BUILDING CODE 2018
ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
LIGHTNING CODE: NFPA 70–2017

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222–G, STRUCTURAL STANDARDS FOR STEEL

ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES; REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	G.C.	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
AWG	AMERICAN WIRE GAUGE	MGB	MASTER GROUND BUS		
BCW	BARE COPPER WIRE	MIN	MINIMUM	TBD	TO BE DETERMINED
BTS	BASE TRANSCEIVER STATION	PROPOSED	NEW	TBR	TO BE REMOVED
EXISTING	EXISTING	N.T.S.	NOT TO SCALE	TBRR	TO BE REMOVED AND REPLACED
EG	EQUIPMENT GROUND	REF	REFERENCE	TYP	TYPICAL
EGR	EQUIPMENT GROUND RING	REQ	REQUIRED		

RF NOTES

1. ACTUAL LENGTHS SHALL BE DETERMINED PER SITE CONDITION BY SUBCONTRACTOR

2. THE DESIGN IS BASED ON RF DATA SHEETS, SIGNED AND APPROVED.

3. RADIO SIGNAL CABLE AND RACEWAY SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC, NFPA 70), CHAPTER 8.

4. ALL SPECIFIED MATERIAL FOR EACH LOCATION (E.G. OUT DOORS–OCCUPIED, INDOORS–UNOCCUPIED, PLENUMS, RISER SHAFTS, ETC.) SHALL BE APPROVED, LISTED, OR LABELED AS REQUIRED BY THE NEC.

5. RADIO SIGNAL CABLE SHALL BE SUPPORTED AT MINIMUM OF EVERY THREE (3) FEET EXCEPT INSIDE MONOPOLES OR MONOPOLES WHERE CABLE AND CONNECTOR MANUFACTURERS SUPPORT RECOMMENDATIONS SHALL BE FOLLOWED. MANUFACTURER RECOMMENDATION CABLES SUPPORT ACCESSORIES SHALL BE USED.

6. THE OUTDOOR CABLE SUPPORT SYSTEM SHALL BE PROVIDED WITH AN ICE SHIELD TO SUPPORT AND PROTECT ANTENNA CABLE RUNS.

7. DRIP LOOPS SHALL BE REQUIRED ON ALL OUTSIDE CABLES. CABLES SHALL BE SLOPED AWAY FROM BUILDING OR OUTDOOR BTS CABINETS TO PREVENT WATER FROM ENTERING THROUGH THE COAXIAL CABLE PORT.

8. ALL FEEDER LINE AND JUMPER CONNECTORS SHALL BE 7/16 DIN CABLE CONNECTORS THAT MEET IP68 STANDARDS.

9. 7/16 DIN CONNECTORS REQUIRE NO ADDITIONAL WEATHER PROOFING IN INDOOR APPLICATIONS IF INSTALLED AND TORQUED PROPERLY. IN OUTDOOR APPLICATIONS WEATHER PROOFING IS REQUIRED AND THE FOLLOWING PROCEDURE SHOULD BE FOLLOWED.

10. USING WEATHERPROOFING KIT APPROVED BY CABLE MANUFACTURER AND CONTRACTOR START TAPE APPROXIMATELY 5 INCHES FROM THE CONNECTOR, AND WRAP 2 INCHES TOWARD THE CONNECTOR, THEN REVERSE THE TAPE SO THAT THE STICKY SIDE IS UP. TAPE OVER THE CONNECTOR OR SURGE ARRESTOR UNTIL THREE (3) TO FOUR (4) INCHES BEYOND THE CONNECTOR AND REVERSE AGAIN WITH THE STICKY SIDE DOWN FOR ANOTHER INCH OR TWO. PASS THE BUTYL RUBBER AND FINISH WITH A FINAL LAYER OF TAPE.

11. ANTENNAS SHALL BE PAINTED,WHEN REQUIRED, BY THE LANDLORD OR AUTHORITY OF HAVING JURISDICTION IN ACCORDANCE WITH ANTENNA MANUFACTURERS' SURFACES PREPARATION AND PAINTING REQUIREMENTS.

12. CABLE SHIELDS AND TOWER CONDUITS SHALL BE GROUNDED AT THE TOP OF THE TOWER WITHIN 10 FEET OF THEIR CONNECTORS, AND AT THE BOTTOM OF THE TOWER ABOUT 6 INCHES BEFORE THEY TURN TOWARD THE FACILITY. THEY SHALL BE GROUNDED AT THE MIDPOINT OF THE TOWERS THAT ARE BETWEEN 60 FEET AND 200 FEET HIGH, AND AT INTERVALS OF 60 FEET OR LESS ON TOWERS THAT ARE HIGHER THAN 200 FEET.

ANTENNA CABLE AND SCHEDULING NOTES

1. SUBCONTRACTOR SHALL VERIFY THE ACTUAL LENGTH IN THE FIELD BEFORE INSTALLATION.

2. TAG AND COLOR CODE ALL MAIN CABLES AT LOCATIONS PER T–MOBILE ANTENNA CABLE MARKING STANDARD:

- TOP OF TOWER END OF MAIN COAX
- BOTTOM OF TOWER END OF MAIN COAX
- DIRECTLY BEFORE AND AFTER RF EQUIPMENT
- END OF JUMPERS AT BTS EQUIPMENT

3. ANTENNAS SHALL BE PROCURED AND INSTALLED WITH DOWN TILT MOUNTING BRACKETS SUPPLIED BY ANTENNA MANUFACTURER.

4. PRIOR APPROVAL IS REQUIRED BEFORE PERFORMING ANY WORK ON EXISTING CELL SITE EQUIPMENT.

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PHONE: 781.713.4725

REVISIONS		
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DESIGNED BY: TG		APPROVED BY: DC

STATE OF CONNECTICUT
DEREK J. CREASER
No. 28551
LICENSED PROFESSIONAL ENGINEER

DATE: 03/01/21

SITE NAME: CTNH848A

SITE NUMBER: CTNH848A

SITE ADDRESS: 133 COPPERMINE RD OXFORD, CT 06483

PROJECT TYPE: SPRINT RETAIN

SHEET TITLE: GENERAL NOTES

DRAWING #: GN–1

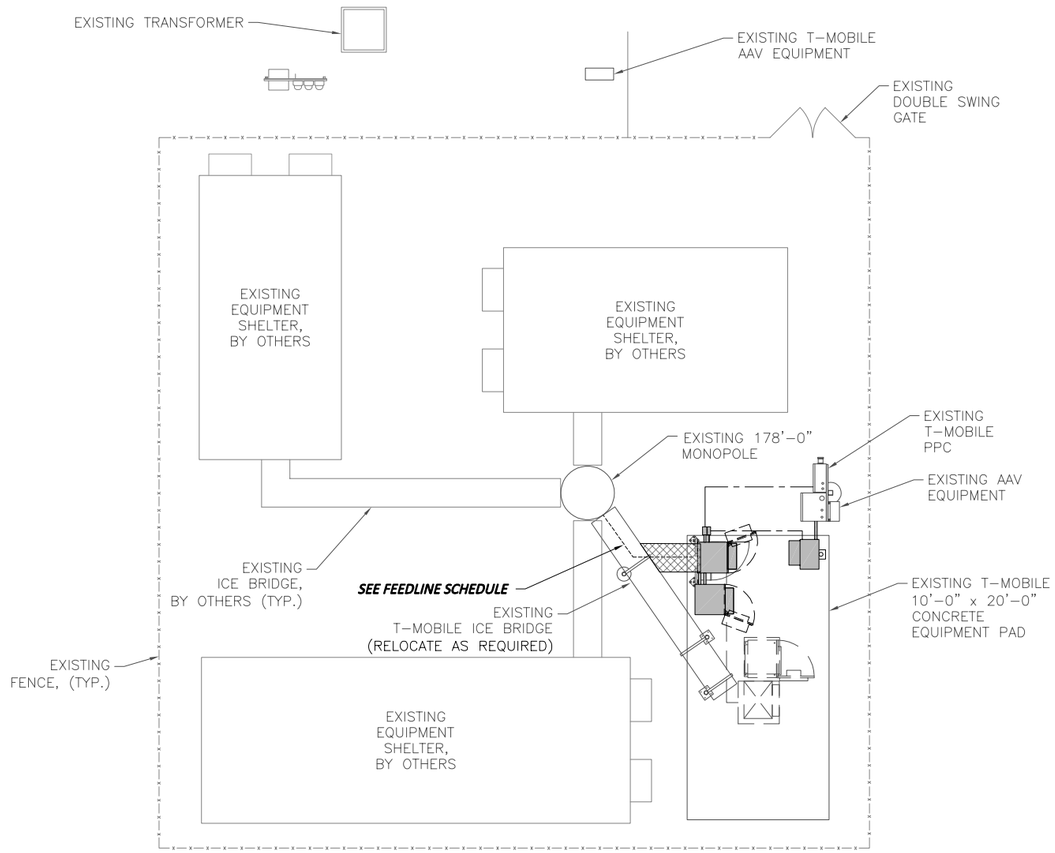
REVISION: 2

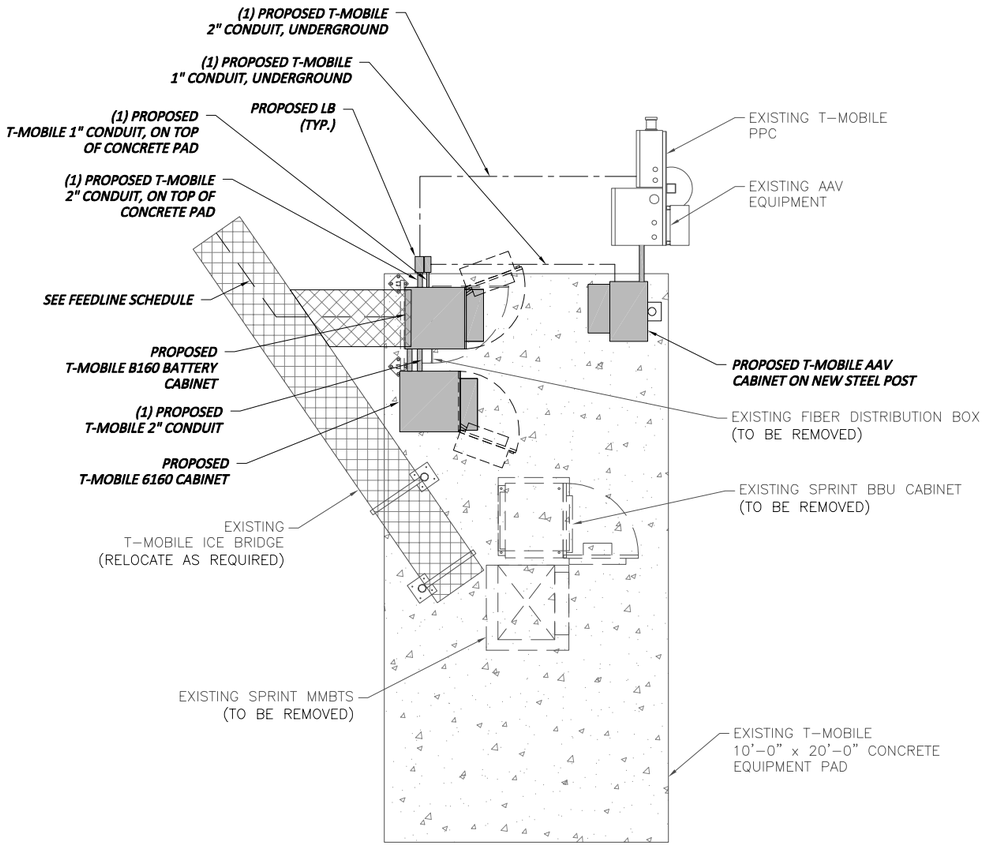
NOTES:

1. REFERENCE STRUCTURAL ANALYSIS BY OTHERS FOR FURTHER INFORMATION REGARDING THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THIS EQUIPMENT UPGRADE.
2. REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

FEEDLINE SCHEDULE	FEEDLINES	LOCATION
A	EXISTING TO BE REMOVED: (3) 1-5/8" COAX	FROM CABINET TO TOP RAD
B	PROPOSED: (3) 6x24 (1-5/8") HYBRID FIBER	FROM CABINET TO TOP RAD

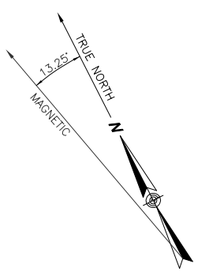
NOTE:
EXISTING T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON COLLOCATION APPLICATION AND SBA RECORD, NOT FIELD OBSERVATIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.
SEE STRUCTURAL ANALYSIS FOR FEEDLINE INSTALLATION.





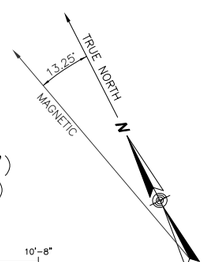
COMPOUND PLAN

SCALE: 3/16" = 1'–0" (22"X34")
3/32" = 1'–0" (11"X17")



EQUIPMENT PLAN

SCALE: 3/8" = 1'–0" (22"X34")
3/16" = 1'–0" (11"X17")



GRAPHIC SCALE

(IN FEET)

T - Mobile
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STATE OF CONNECTICUT
DEREK J. CREASER
No. 28551
LICENSED PROFESSIONAL ENGINEER

DATE: 03/01/21

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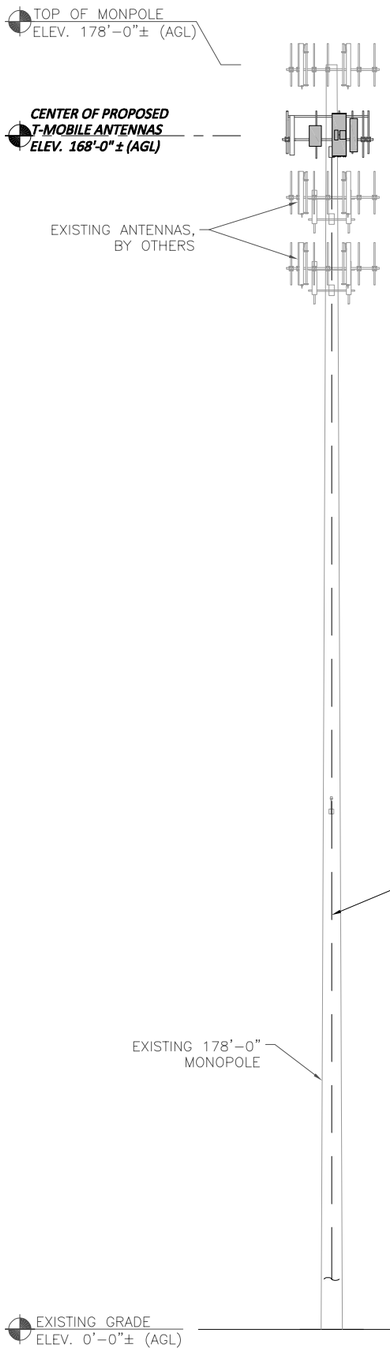
SITE NUMBER:	CTNH848A
SITE ADDRESS:	133 COPPERMINE RD OXFORD, CT 06483
PROJECT TYPE:	SPRINT RETAIN
SHEET TITLE:	COMPOUND & EQUIPMENT PLANS
DRAWING #: A–1	REVISION: 2

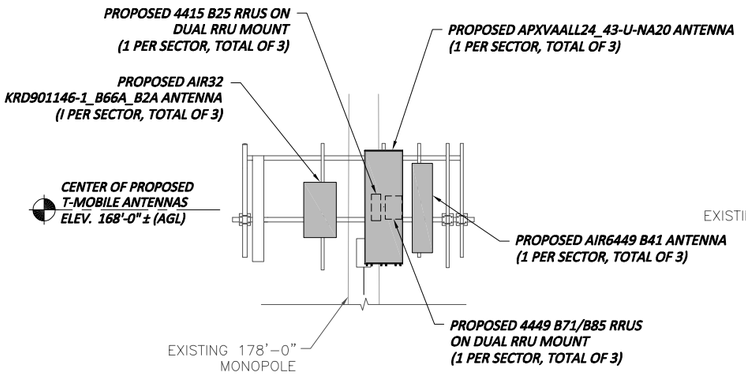


TOWER ELEVATION

SCALE: 3/32" = 1'-0" (22"X34")
3/64" = 1'-0" (11"X17")

NOTES:

1. REFERENCE STRUCTURAL ANALYSIS BY OTHERS FOR FURTHER INFORMATION REGARDING THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THIS EQUIPMENT UPGRADE.
2. REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



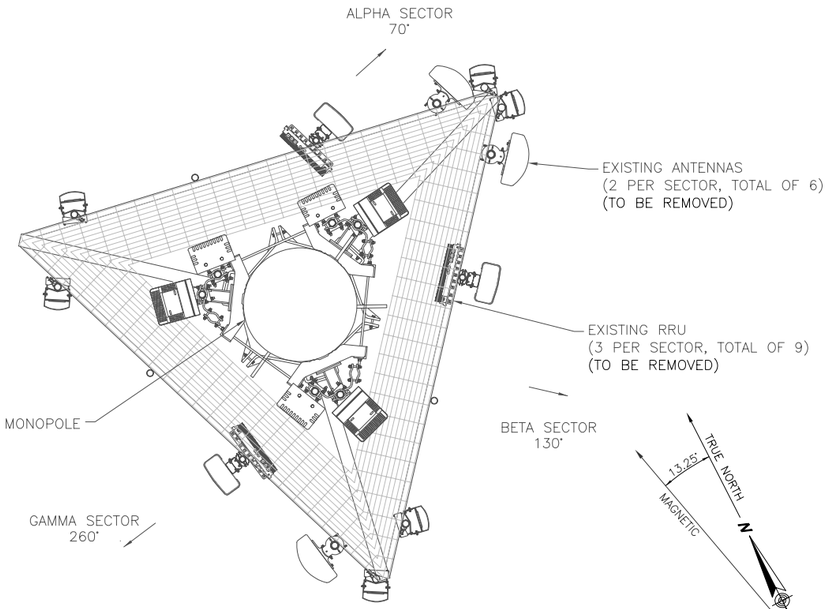
ENLARGED ANTENNA ELEVATION

SCALE: N.T.S

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).

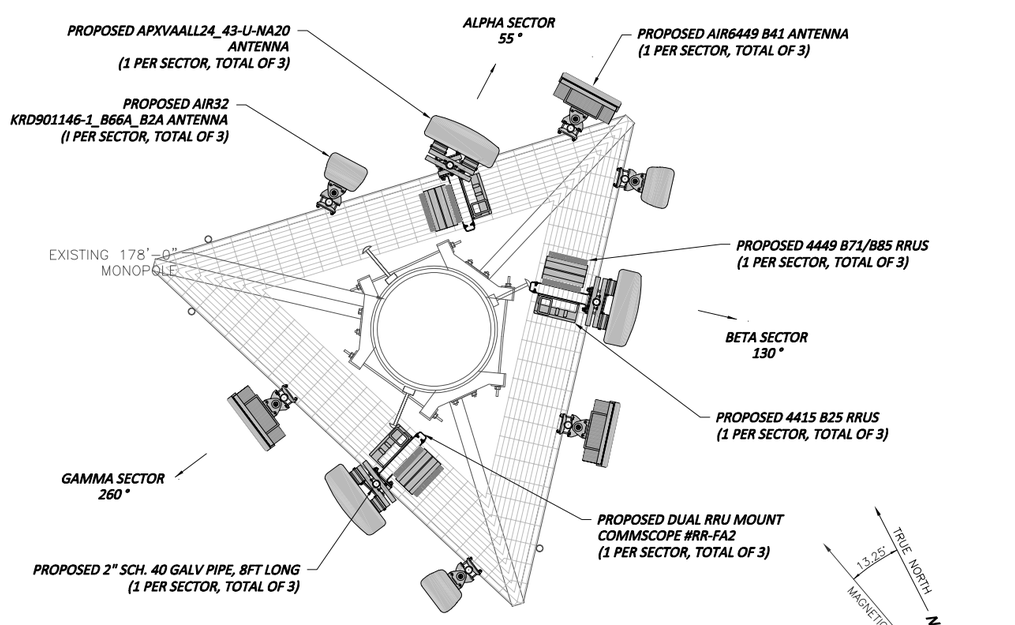
SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS)
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL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

GRAPHIC SCALE
5'-4" 0 5'-4" 10'-8" 21'-4" 42'-8"
(IN FEET)



EXISTING ANTENNA CONFIGURATION

SCALE: N.T.S



PROPOSED ANTENNA CONFIGURATION

SCALE: N.T.S

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No. 22551
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DATE: 03/01/21

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SITE NUMBER: CTNH848A
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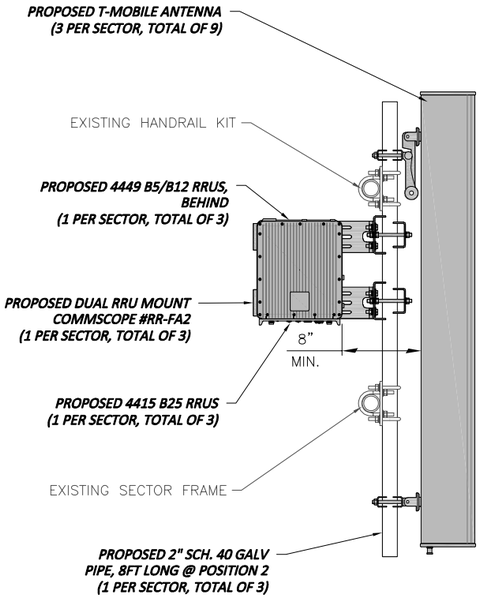
PROJECT TYPE: SPRINT RETAIN
SHEET TITLE: ANTENNA LAYOUT & ELEVATIONS
DRAWING #: A-2
REVISION: 2

ANTENNA SCHEDULE

SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA ℄ HEIGHT	AZIMUTH	TMA/ DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER
A1	PROPOSED	L2100, G1900, L1900	AIR32 KRD901146-1 B66A_B2	56.6x12.9x8.7	±168'	55°	–	–	–	(P) (3) 6x24 HCS
A2	PROPOSED	L700, L600, N600, L1900	APXVAALL24_43-U -NA20	95.9x24x8.5	±168'	55°	–	(P) (1) 4449 B71 B85 RRUS (P) (1) 4415 B25 RRUS	15x13.2x10.4 16.5x13.4x5.9	
A3	PROPOSED	L2500, N2500	AIR6449 B41	33.1x20.6x8.6	±168'	55°	–	–	–	
B1	PROPOSED	L2100, G1900, L1900	AIR32 KRD901146-1 B66A_B2	56.6x12.9x8.7	±168'	130°	–	–	–	
B2	PROPOSED	L700, L600, N600, L1900	APXVAALL24_43-U -NA20	95.9x24x8.5	±168'	130°	–	(P) (1) 4449 B71 B85 RRUS (P) (1) 4415 B25 RRUS	15x13.2x10.4 16.5x13.4x5.9	
B3	PROPOSED	L2500, N2500	AIR6449 B41	33.1x20.6x8.6	±168'	130°	–	–	–	
G1	PROPOSED	L2100, G1900, L1900	AIR32 KRD901146-1 B66A_B2	56.6x12.9x8.7	±168'	260°	–	–	–	
G2	PROPOSED	L700, L600, N600, L1900	APXVAALL24_43-U -NA20	95.9x24x8.5	±168'	260°	–	(P) (1) 4449 B71 B85 RRUS (P) (1) 4415 B25 RRUS	15x13.2x10.4 16.5x13.4x5.9	
G3	PROPOSED	L2500, N2500	AIR6449 B41	33.1x20.6x8.6	±168'	260°	–	–	–	

NOTES:

1. REFERENCE STRUCTURAL ANALYSIS BY OTHERS FOR FURTHER INFORMATION REGARDING THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THIS EQUIPMENT UPGRADE.
2. REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



ANTENNA MOUNTING DETAIL

N.T.S.

RRU CHART				
QUANTITY	MODEL	L	W	D
3(P)	4449 B71/B85	15.0"	13.2"	10.4"
3(P)	4415 B25	16.5"	13.4"	5.9"

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

REFER TO THE FINAL RFDS AND TABLE FOR THE PROPOSED RRUS MODEL, QUANTITY, AND DIMENSIONS

RRUS DETAIL

N.T.S.

ERICSSON RBS6160 EQUIPMENT CABINET

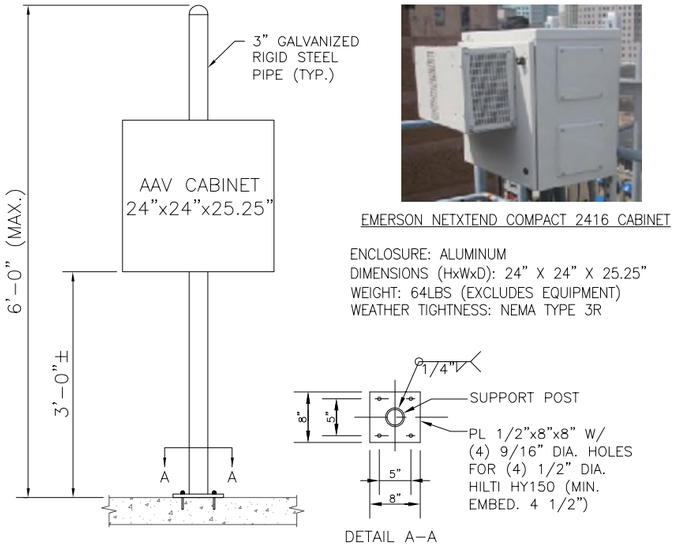
ENCLOSURE: ALUMINUM
DIMENSIONS (HxWxD): 63" X 25.6" X 33.5"
WEIGHT: 188LBS (EXCLUDES EQUIPMENT)
WEATHER TIGHTNESS: NEMA TYPE 3R

ERICSSON B160 BATTERY CABINET

ENCLOSURE: ALUMINUM
DIMENSIONS (HxWxD): 63" X 26" X 26"
WEIGHT: 188LBS (EXCLUDES EQUIPMENT)
WEATHER TIGHTNESS: NEMA TYPE 3R

EQUIPMENT CABINET DETAIL

N.T.S.



EMERSON NETXTEND COMPACT 2416 CABINET

ENCLOSURE: ALUMINUM
DIMENSIONS (HxWxD): 24" X 24" X 25.25"
WEIGHT: 64LBS (EXCLUDES EQUIPMENT)
WEATHER TIGHTNESS: NEMA TYPE 3R

DETAIL A-A

AAV CABINET DETAIL

N.T.S.

T-Mobile NORTHEAST LLC
T-MOBILE NORTHEAST, LLC.
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
PHONE: (508) 286-2700
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PHONE: (508) 251-0720

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

REVISIONS		
2	03/01/21	CONSTRUCTION FINAL
1	02/25/21	ISSUED FOR CONSTRUCTION
0	12/11/20	ISSUED FOR REVIEW
NO.	DATE	DESCRIPTION
DESIGNED BY: TG		APPROVED BY: DC

STATE OF CONNECTICUT
DEREK J. CREASER
No. 28551
LICENSED PROFESSIONAL ENGINEER

DATE: 03/01/21

SITE NAME:	CTNH848A
SITE NUMBER:	CTNH848A
SITE ADDRESS:	133 COPPERMINE RD OXFORD, CT 06483
PROJECT TYPE:	SPRINT RETAIN
SHEET TITLE:	DETAILS
DRAWING #: A-3	REVISION: 2

STRUCTURAL NOTES:

1. DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER OF RECORD.
3. DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
4. STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
5. STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
6. STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 TYPE-X "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 3/4" DIA UON.
7. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
8. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
9. FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
10. CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND DI.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL". 14TH EDITION.
11. INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
12. UNISTRUT SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP., WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
13. EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS. AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-270 AND OR HY-200 SYSTEMS (AS SPECIFIED IN DWG.) OR ENGINEERS APPROVED EQUAL.
14. EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT III OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
15. LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
16. WHERE ROOF PENETRATIONS ARE REQUIRED, THE CONTRACTOR SHALL CONTACT AND COORDINATE RELATED WORK WITH THE BUILDING OWNER AND THE EXISTING ROOF INSTALLER. WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO NOT VOID THE EXISTING ROOF WARRANTY. ROOF SHALL BE WATERTIGHT.
17. ALL FIBERGLASS MEMBERS USED ARE AS MANUFACTURED BY STRONGWELL COMPANY OF BRISTOL, VA 24203. ALL DESIGN CRITERIA FOR THESE MEMBERS IS BASED ON INFORMATION PROVIDED IN THE DESIGN MANUAL. ALL REQUIREMENTS PUBLISHED IN SAID MANUAL MUST BE STRICTLY ADHERED TO.
18. NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
19. SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

SPECIAL INSPECTIONS (REFERENCE IBC CHAPTER 17):

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

THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND ENGINEERS OF RECORD INVOLVED IN THE DESIGN OF THE PROJECT ARE PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.

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

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

SPECIAL INSPECTION CHECKLIST	
BEFORE CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
N/A	ENGINEER OF RECORD APPROVED SHOP DRAWINGS [1]
N/A	MATERIAL SPECIFICATIONS REPORT [2]
N/A	FABRICATOR NDE INSPECTION
N/A	PACKING SLIPS [3]
ADDITIONAL TESTING AND INSPECTIONS:	
DURING CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS [4]
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION [5]
N/A	GROUT VERIFICATION
N/A	CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
N/A	ON SITE COLD GALVANIZING VERIFICATION
N/A	GUY WIRE TENSION REPORT
ADDITIONAL TESTING AND INSPECTIONS:	
AFTER CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS [6]
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
REQUIRED	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTES:

1. REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
2. PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
3. PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
4. HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
5. ADHESIVE FOR REBAR AND ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. DESIGN ADHESIVE BOND STRENGTH HAS BEEN BASED ON ACI 355.4 TEMPERATURE CATEGORY B WITH INSTALLATIONS INTO DRY HOLES DRILLED USING A CARBIDE BIT INTO CRACKED CONCRETE THAT HAS CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS REQUIRING CERTIFIED INSTALLATIONS SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER ACI 318-11 D.9.2.2. INSTALLATIONS REQUIRING CERTIFIED INSTALLERS SHALL BE INSPECTED PER ACI 318-11 D.8.2.4.
6. AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

NOTES:

1. ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
2. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
3. SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
4. VERIFICATION OF EXISTING ROOF CONSTRUCTION IS REQUIRED PRIOR TO THE INSTALLATION OF THE ROOF PLATFORM. ENGINEER OF RECORD IS TO APPROVE EXISTING CONDITIONS IN ORDER TO MOVE FORWARD.
5. CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
6. EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

T - Mobile
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T-MOBILE NORTHEAST, LLC.
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SBA COMMUNICATIONS CORP.
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CENTERLINE COMMUNICATIONS
750 W CENTER ST, SUITE 301
WEST BRIDGEWATER, MA 02379
PHONE: 781.713.4725

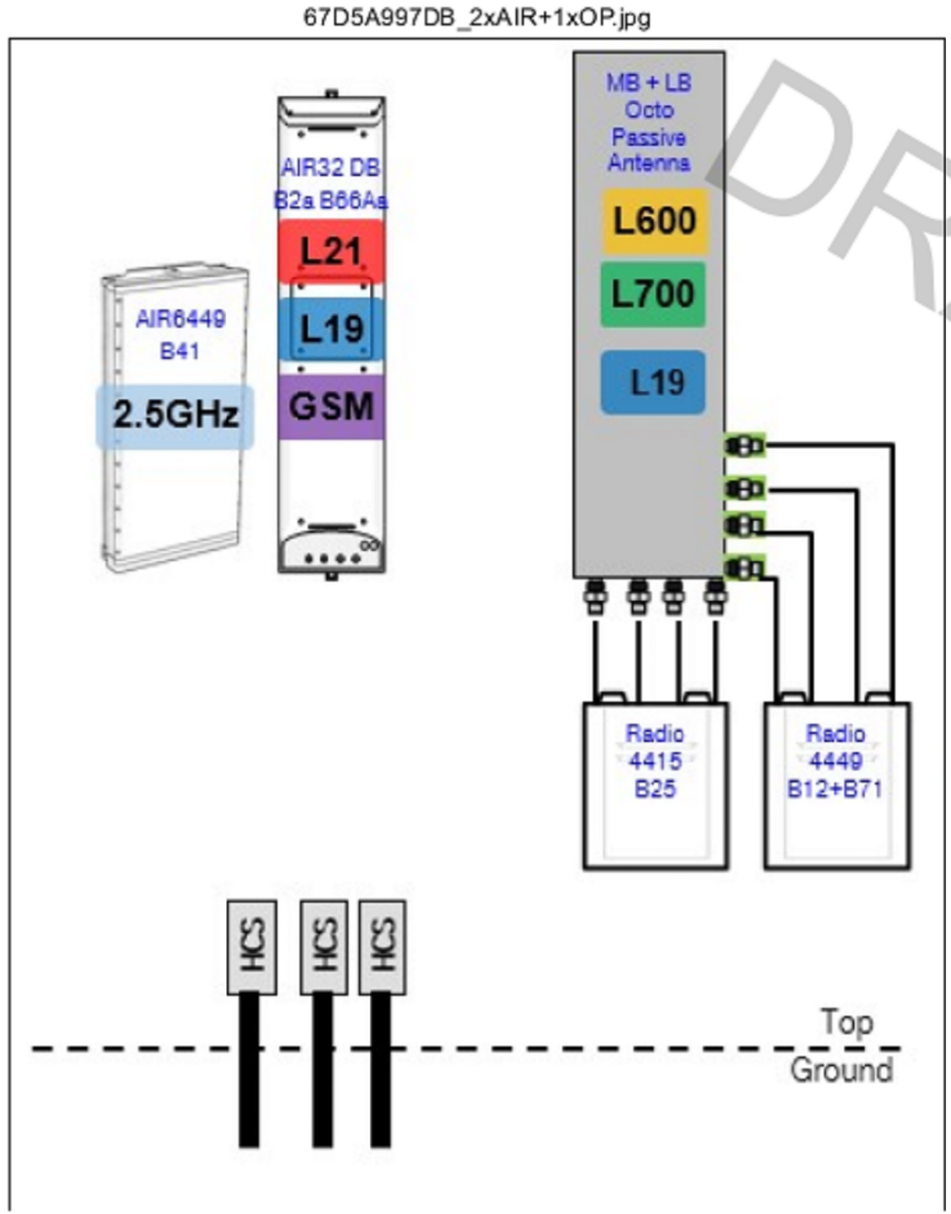
REVISIONS		
2	03/01/21	CONSTRUCTION FINAL
1	02/25/21	ISSUED FOR CONSTRUCTION
0	12/11/20	ISSUED FOR REVIEW
NO.	DATE	DESCRIPTION

DESIGNED BY:	APPROVED BY:
TG	DC

STATE OF CONNECTICUT
DEREK J. CREASER
No. 28551
LICENSED
PROFESSIONAL ENGINEER

DATE: 03/01/21

SITE NAME:	CTNH848A
SITE NUMBER:	CTNH848A
SITE ADDRESS:	133 COPPERMINE RD OXFORD, CT 06483
PROJECT TYPE:	SPRINT RETAIN
SHEET TITLE:	STRUCTURAL NOTES
DRAWING #:	SN-1
REVISION:	2



PLUMBING DIAGRAM

N.T.S.

T - Mobile
NORTHEAST LLC
T-MOBILE NORTHEAST, LLC.
15 COMMERCE WAY, SUITE B
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PHONE: (508) 251-0720

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

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NO.	DATE	DESCRIPTION

DESIGNED BY:	APPROVED BY:
TG	DC

STATE OF CONNECTICUT
DEREK J. CREASER
No. 23551
LICENSED PROFESSIONAL ENGINEER

DATE: 03/01/21

SITE NAME: CTNH848A

SITE NUMBER: CTNH848A

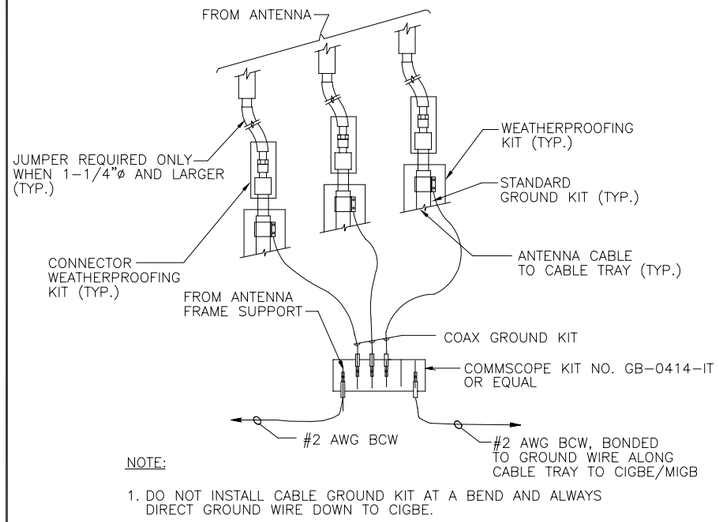
SITE ADDRESS: 133 COPPERMINE RD
OXFORD, CT 06483

PROJECT TYPE: SPRINT RETAIN

SHEET TITLE: RF PLUMBING DIAGRAM

DRAWING #: RF-1

REVISION: 2



NOTE:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE.

GROUNDING RISER DIAGRAM
N.T.S.

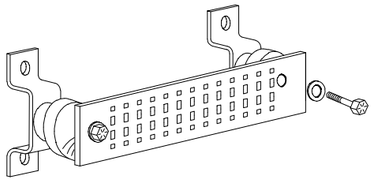
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" – SURGE PRODUCERS

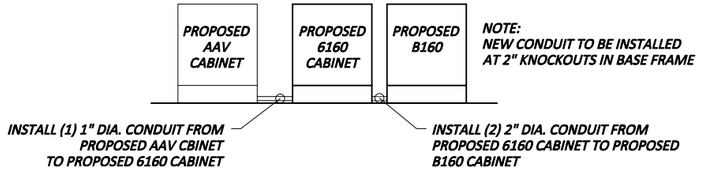
CABLE ENTRY PORTS (HATCH PLATES) (#2)
GENERATOR FRAMEWORK (IF AVAILABLE) (#2)
TELCO GROUND BAR
COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2)
+24V POWER SUPPLY RETURN BAR (#2)
-48V POWER SUPPLY RETURN BAR (#2)
RECTIFIER FRAMES.

SECTION "A" – SURGE ABSORBERS

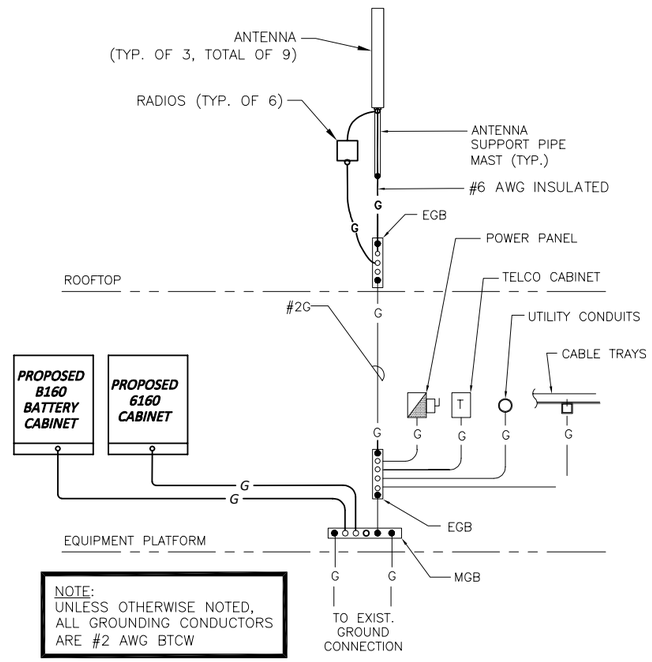
INTERIOR GROUND RING (#2)
EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2)
METALLIC COLD WATER PIPE (IF AVAILABLE) (#2)
BUILDING STEEL (IF AVAILABLE) (#2)



GROUND BAR DETAIL
N.T.S.

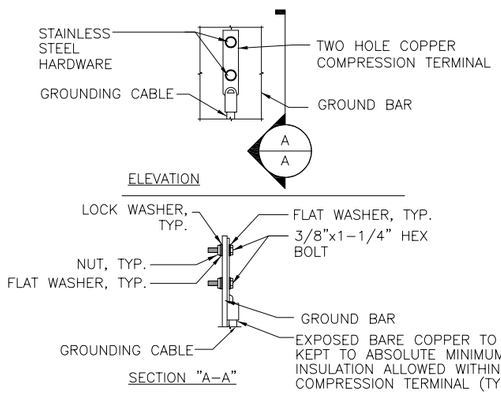


CONDUIT DETAIL
N.T.S.



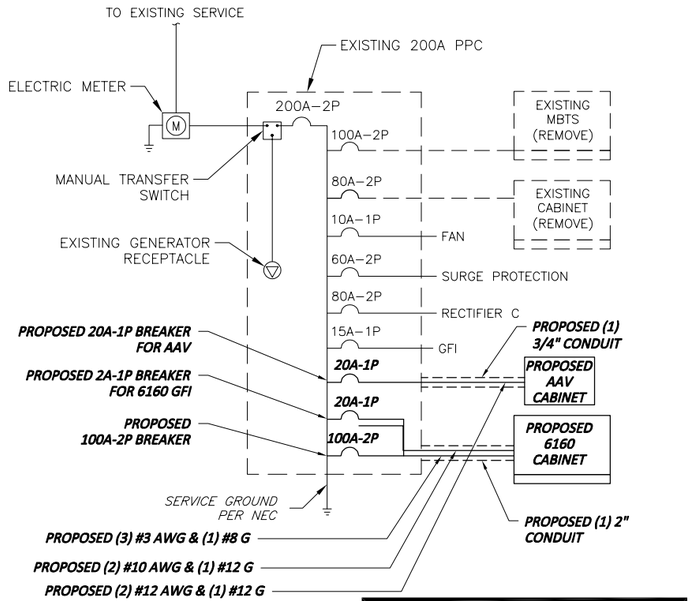
NOTE:
UNLESS OTHERWISE NOTED, ALL GROUNDING CONDUCTORS ARE #2 AWG BTCW

GROUNDING RISER DIAGRAM
N.T.S.



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

GROUND BAR CONNECTION DETAIL
N.T.S.



NOTE:
ALL WORK NEEDS TO BE PERFORMED BY LICENSED ELECTRICIAN ADHERING TO THE NEC AND LOCAL CODE REQUIREMENTS

ONE LINE POWER DIAGRAM
N.T.S.

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T-MOBILE NORTHEAST, LLC.
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REVISIONS		
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DESIGNED BY:	APPROVED BY:
TG	DC

STATE OF CONNECTICUT
DEREK J. CREASER
No. 28551
LICENSED PROFESSIONAL ENGINEER

DATE: 03/01/21

SITE NAME:	CTNH848A
SITE NUMBER:	CTNH848A
SITE ADDRESS:	133 COPPERMINE RD OXFORD, CT 06483
PROJECT TYPE:	SPRINT RETAIN
SHEET TITLE:	GROUNDING DETAILS
DRAWING #: G-1	REVISION: 2

EXHIBIT 7

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

Structural Analysis Report

Existing 178 ft SUMMIT Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT46127-A

Customer Site Name: Oxford-south

Carrier Name: T-Mobile Sprint (App#: 144033, V1)

Carrier Site ID / Name: CT03XC036 / _

Site Location: Coppermine Rd.

Oxford, Connecticut

New Haven County

Latitude: 41.387777

Longitude: -73.172222

Analysis Result:

Max Structural Usage: 99.7% [Pass]

Max Foundation Usage: 55.0% [Pass]

Additional Usage Caused by Mount Modification: +3.2%

Report Prepared By : Dipika Dhungana

Introduction

The purpose of this report is to summarize the analysis results on the 178 ft SUMMIT Monopole 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	Paul J. Ford And Company, Job# 29200-156, dated 02/11/2000
Foundation Drawing	Paul J. Ford And Company, Job# 29200-156, dated 02/23/2000
Geotechnical Report	DR. Clarence Welti, P.E., P.C, dated 12/15/2000
Modification Drawings	Close Out Letter by Vertical Solutions, Project# 140196.01, Revision 0, dated 02/19/2014 Close Out Letter by Vertical Solutions, Project# 130317.01, Revision 0, dated 04/02/2013
Mount Analysis	Modification and Design Drawing by TES, Project# 100841, dated 12/23/2020

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 **TESPoles,** 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 Vult = 125.0mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 97.0 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:	C
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	S_S = 0.199, S_1 = 0.065

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
1	178.0	1	DB220 – B Omni	Platform w/ Hand Rail	(1) 7/8"	Oxford Fire Department
-	168.0	3	RFS APXVSPP18-C-A20	Low Profile Platform w/handrail	(4) 1-1/4''	Sprint
-		3	RFS APXVTM14-C-I20			
-		3	ALU 1900MHz			
-		3	ALU 800MHz			
-		3	ALU TD-RRH8x2-25			
-		3	ALU 800MHz			
-		4	RFS ACU-A20-N RET			
10	158.0	3	Powerwave 7770.00	Low Profile Platform	(12) 1 5/8"	AT&T
11		2	Andrew SBNH1D6565C			
12		4	KMW AM-X-CD-16-65-00T-RET			
13		6	CCI DTMABP7819VG12A			
14		6	Ericsson RRUS 11			
15		1	Raycap DC6-48-60-18-8F			
16	148.0	3	Antel BXA-70063-6CF	Low Profile Platform	(12) 1 5/8"	Verizon
17		3	Antel BXA-171063-12BF			
18		2	Antel LPA-80063-4CF			
19		4	Decibel DB844G65ZAXY - Panel			
20		6	RFS FD9R6004-2C-3L			

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
2	168.0	3	Ericsson AIR32 KRD901146-1_B66A_B2A (Octo)	Low Profile Platform w/handrail + New replaced handrail kit, plan bracing and kicker kit	(3) 2" Hybrid	T-Mobile Sprint
3		3	RFS APXVAALL24_43-U-NA20			
4		3	Ericsson AIR6449 B41			
5		4	RFS ACU-A20-N RET			
6		3	Ericsson 4415 B25			
7		3	ALU 800 MHz RRH			
8		3	Ericsson 4449 B71 + B85			
9		3	ALU 800 MHz Filter			

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:

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	**99.7%**	**70.0%**	**53.0%**
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)
Analysis Reactions	4244.1	33.2

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 1.5227 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.

Usage Diagram - Max Ratio 67.54% at 105.0ft

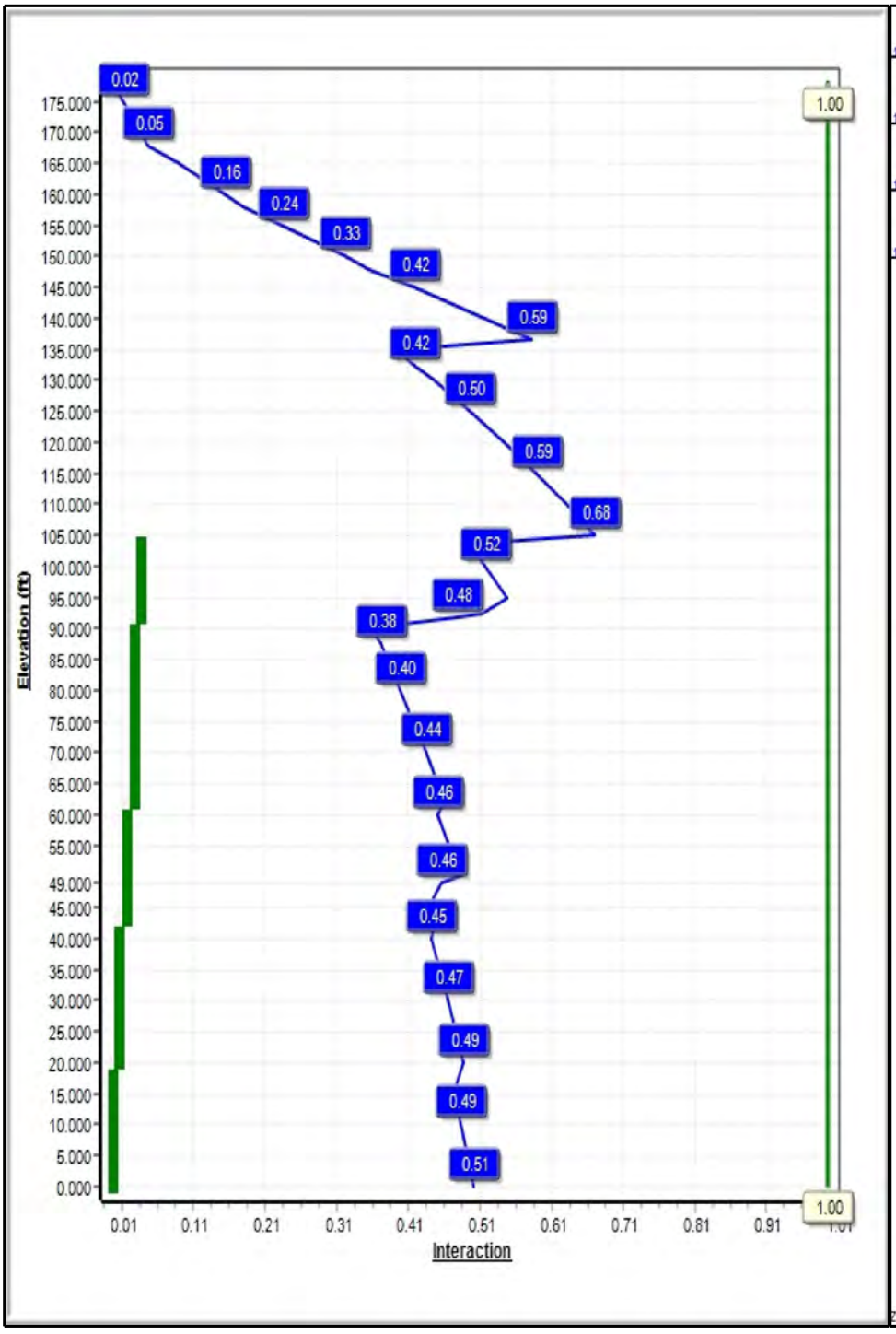
Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south	**Exposure:**	C	
Height:	178.00 (ft)	**Gh:**	1.1	
Base Elev:	0.000 (ft)			Page: 1

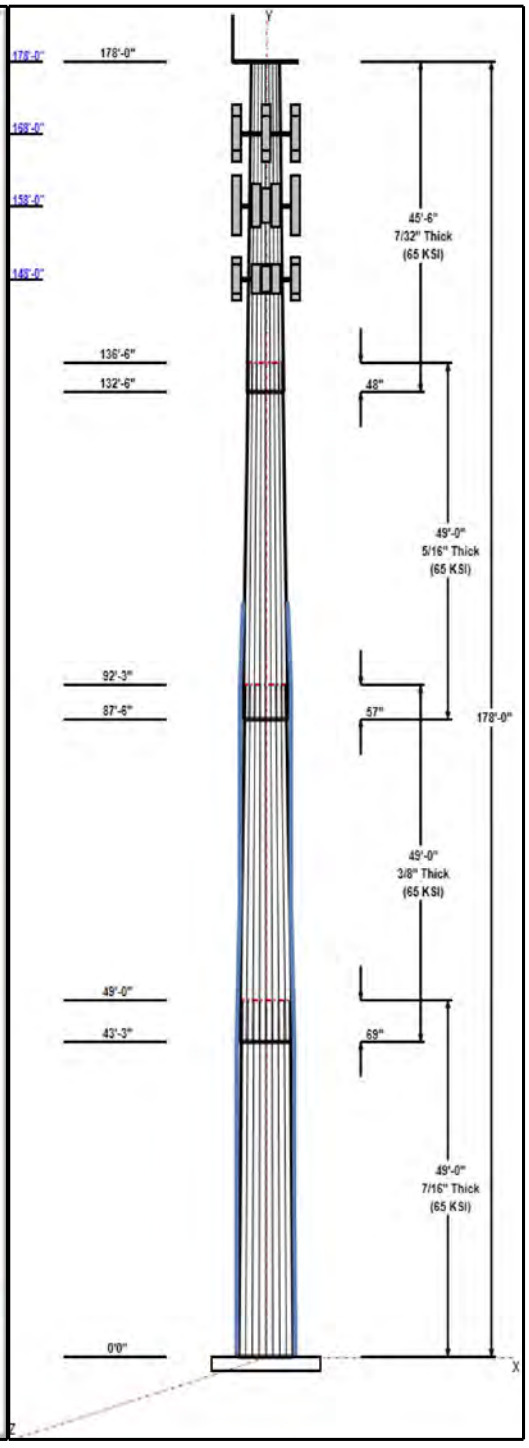
Tower Engineering Solutions

Dead Load Factor:	1.20
Wind Load Factor:	1.60

Load Case : 1.2D + 1.6W 97 mph Wind

Iterations: 25





Structure: CT46127-A-SBA

Type: Tapered
Site Name: Oxford-south
Height: 178.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.16580

12/28/2020

Tower Engineering Solutions

Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	49.00	43.58	51.70	0.438		0.16580	65
2	49.00	37.15	45.28	0.375	Slip	0.16580	65
3	49.00	30.44	38.57	0.313	Slip	0.16580	65
4	45.50	24.00	31.54	0.219	Slip	0.16580	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
178.00	178.00	1	Platform w/ Hand Rail	Nextel
178.00	181.06	1	DB220	Nextel
168.00	168.00	3	KRD 9011461-B66A-B2A	T-Mobile Sprint
168.00	168.00	3	APXVAARR24_43-U-NA20	T-Mobile Sprint
168.00	168.00	3	AIR6449 B41	T-Mobile Sprint
168.00	168.00	4	ACU-A20-N	T-Mobile Sprint
168.00	168.00	3	RRUS 4415 B25	T-Mobile Sprint
168.00	168.00	3	800MHz RRH w/ filter	T-Mobile Sprint
168.00	168.00	3	4449 B71 + B85	T-Mobile Sprint
168.00	168.00	3	ALU 800MHz External	T-Mobile Sprint
168.00	168.00	1	Platform w/ Hand Rail	T-Mobile Sprint
158.00	158.00	3	7770.00	AT&T
158.00	158.00	2	SBNH-1D65C	AT&T
158.00	158.00	4	AM-X-CD-16-65-00T-RET	AT&T
158.00	158.00	6	DTMABP7819VG12A	AT&T
158.00	158.00	6	RRUS 11	AT&T
158.00	158.00	1	DC6-48-60-18-8F	AT&T
158.00	158.00	1	Low Profile	AT&T
148.00	148.00	1	Low Profile	Verizon
148.00	148.00	3	BXA-70063-6CF	Verizon
148.00	148.00	3	BXA-171063-12BF	Verizon
148.00	148.00	2	/LPA-80063-4CF	Verizon
148.00	148.00	4	DB844G65ZAXY	Verizon
148.00	148.00	6	FD9R6004-2C-3L	Verizon

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	178.00	Inside	7/8" Coax	Nextel
0.00	168.00	Inside	2" Hybrid	T-Mobile Sprint
0.00	158.00	Inside	1 5/8" Coax	AT&T
0.00	148.00	Inside	1 5/8" Coax	Verizon
0.00	103.00	Outside	1.25" Reinforcing plate	

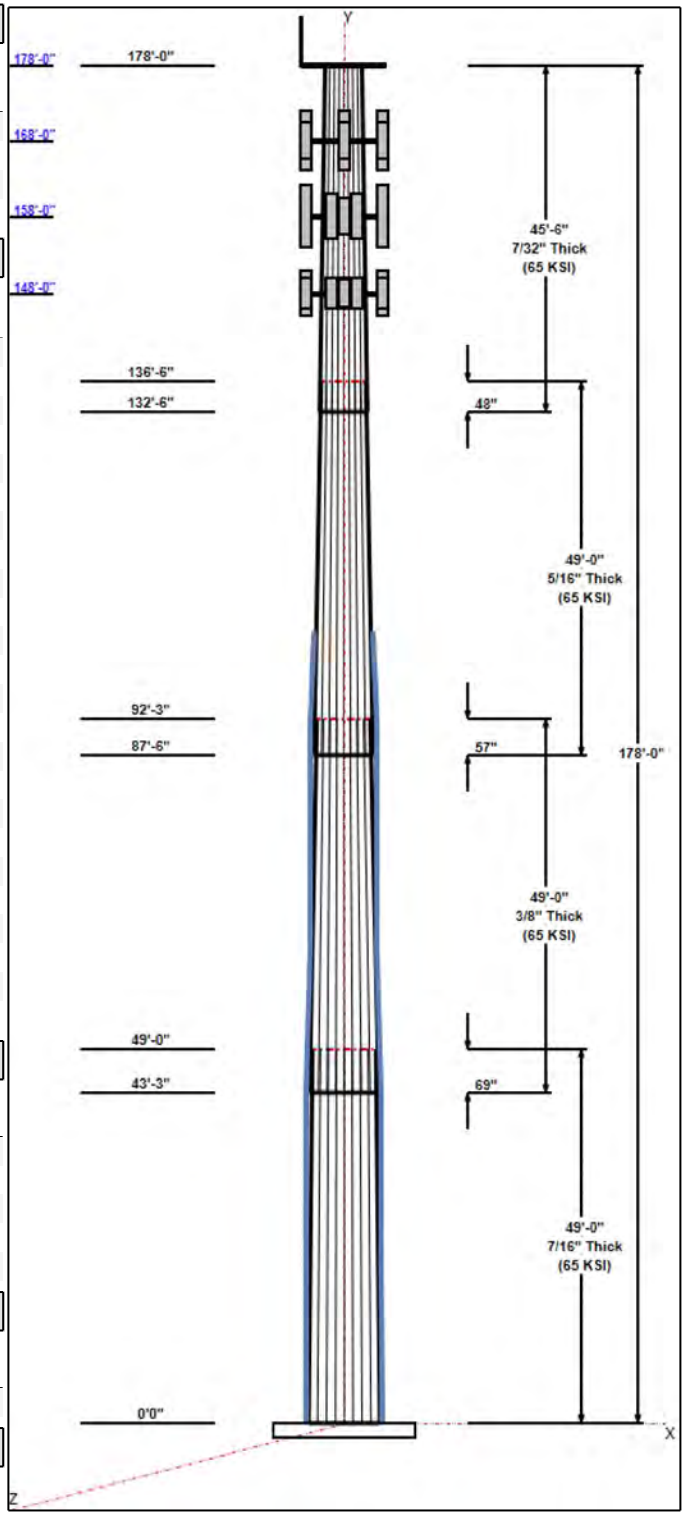
Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
16	2.25" 18J	75.0	Cluster

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
3.2500	57.0	50.0	Clipped

Reactions



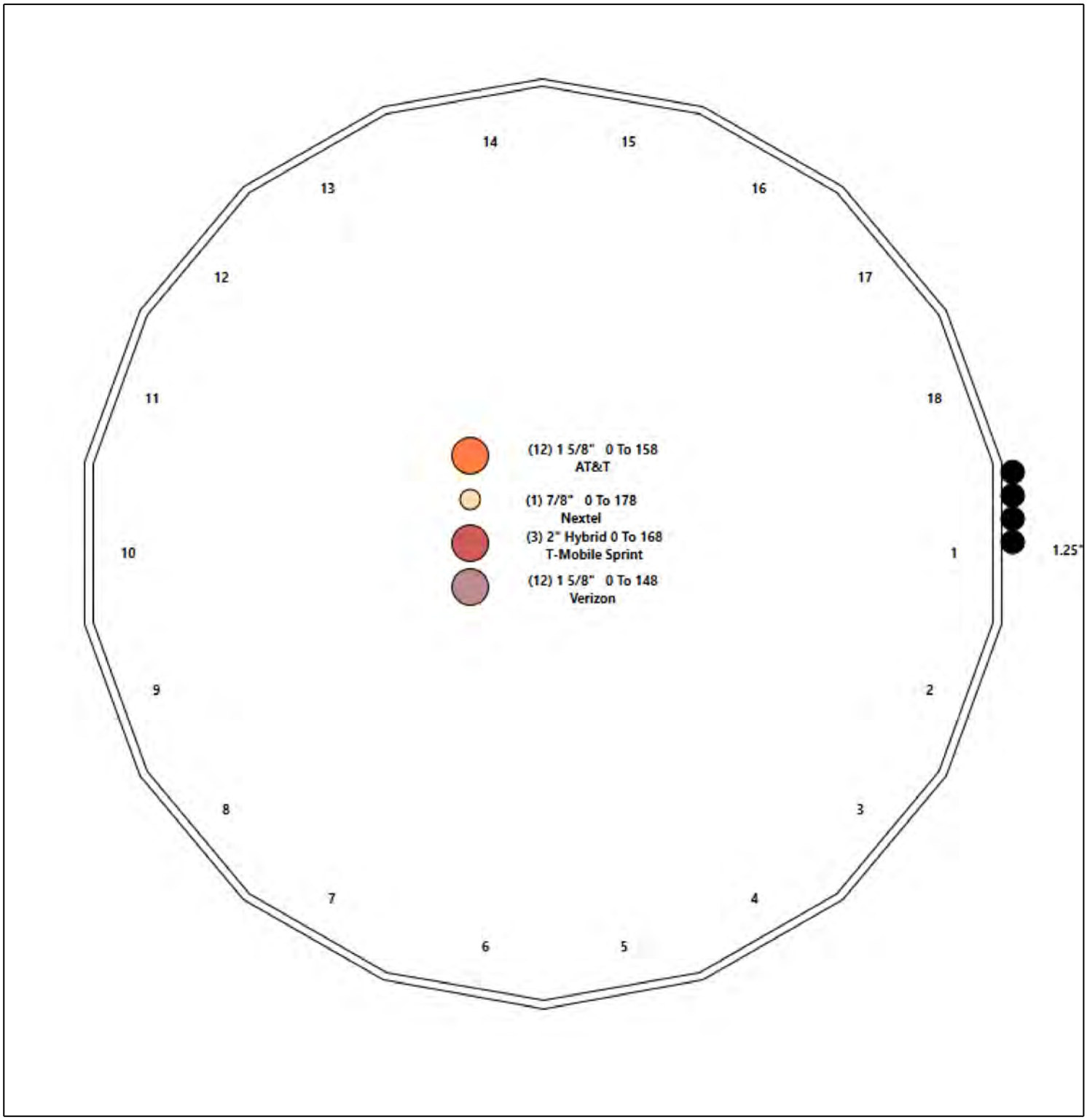
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 97 mph Wind	4244.2	33.2	49.5
0.9D + 1.6W 97 mph Wind	4198.8	33.2	37.1
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1250.6	9.8	75.7
1.2D + 1.0E	307.0	2.3	49.6
0.9D + 1.0E	303.4	2.3	37.2
1.0D + 1.0W 60 mph Wind	1009.0	7.9	41.3

Structure: CT46127-A-SBA - Coax Line Placement

Type: Monopole
Site Name: Oxford-south
Height: 178.00 (ft)

12/28/2020

Tower Engineering Solutions



Shaft Properties

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 5

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	49.000	0.4375	65		0.00	10,928
2	18	49.000	0.3750	65	Slip	69.00	8,105
3	18	49.000	0.3125	65	Slip	57.00	5,655
4	18	45.500	0.2188	65	Slip	48.00	2,962
					Total Shaft Weight:		**27,650**

	Bottom						Top						
Sec. No.	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Taper**
1	51.70	0.00	71.18	23633.16	19.43	118.17	43.58	49.00	59.90	14083.4	16.15	99.60	0.165801
2	45.28	43.25	53.45	13615.50	19.88	120.74	37.15	92.25	43.78	7481.79	16.06	99.08	0.165801
3	38.57	87.50	37.94	7015.45	20.35	123.42	30.44	136.50	29.88	3427.83	15.77	97.42	0.165801
4	31.54	132.5	21.75	2696.94	24.01	144.17	24.00	178.00	16.51	1180.03	17.93	109.6	0.165801

Additional Steel

							Intermediate Connectors		Termination Connectors			
Elev From (ft)	**Elev To (ft)**	**Qty**	**Description**	**Fy (ksi)**	**Fu (ksi)**	**Offset (in)**	**Description**	**Spacing (in)**	**Description**	**Spacing (in)**	**Lower Qty**	**Upper Qty**
0.00	20.00	4	PLT 8"x1.5"(1.25"Hole)	50	65	0.00	AJM20&sleeve	15.00	AJM20&sleeve	3.00		
20.00	43.04	4	PLT 7"x1.5"(1.25"Hole)	50	65	0.00	AJM20&sleeve	15.00	AJM20&sleeve	3.00		
43.04	62.00	4	PLT 6.5x1.5(31mm Hole)	50	65	0.00	AJM20&sleeve	15.00	AJM20&sleeve	3.00		
62.00	91.75	4	PLT 6"x1.5"(1.25" Hole)	50	65	0.00	AJM20&sleeve	18.00	AJM20&sleeve	3.00		
91.75	103.7	4	PLT 5"x3/4"(1.25"Hole)	50	65	0.00	AJM20&sleeve	21.00	AJM20&sleeve	3.00		8

Load Summary

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 6	

Discrete Appurtenances

				No Ice			Ice				
No.	**Elev (ft)**	**Description**	**Qty**	**Weight (lb)**	**CaAa (sf)**	**CaAa Factor**	**Weight (lb)**	**CaAa (sf)**	**CaAa Factor**	**Hor. Ecc. (ft)**	**Vert Ecc (ft)**
1	178.00	Platform w/ Hand Rail (round)	1	1600.00	40.00	1.00	3736.09	75.507	1.00	0.00	0.00
2	178.00	DB220	1	13.00	1.37	1.00	57.40	5.158	1.00	0.00	3.06
3	168.00	KRD 9011461-B66A-B2A	3	132.20	6.51	0.87	317.92	7.645	0.87	0.00	0.00
4	168.00	APXVAARR24_43-U-NA20	3	128.00	20.24	0.70	551.31	22.163	0.70	0.00	0.00
5	168.00	AIR6449 B41	3	103.00	5.65	0.71	241.68	6.611	0.71	0.00	0.00
6	168.00	ACU-A20-N	4	1.00	0.14	0.50	5.34	0.440	0.50	0.00	0.00
7	168.00	RRUS 4415 B25	3	46.00	1.64	0.50	87.57	2.161	0.50	0.00	0.00
8	168.00	800MHz RRH w/ filter	3	68.30	3.46	0.50	159.78	4.789	0.50	0.00	0.00
9	168.00	4449 B71 + B85	3	73.20	1.97	0.50	131.60	2.546	0.50	0.00	0.00
10	168.00	ALU 800MHz External Notch Filt	3	8.80	0.78	0.50	26.64	1.434	0.50	0.00	0.00
11	168.00	Platform w/ Hand Rail (round)	1	1600.00	32.00	1.00	3723.78	60.242	1.00	0.00	0.00
12	158.00	7770.00	3	35.00	5.50	0.73	171.04	6.571	0.73	0.00	0.00
13	158.00	SBNH-1D65C	2	49.60	11.46	0.85	315.16	13.134	0.85	0.00	0.00
14	158.00	AM-X-CD-16-65-00T-RET	4	48.50	8.02	0.75	211.62	10.828	0.75	0.00	0.00
15	158.00	DTMABP7819VG12A	6	19.20	1.14	0.50	44.85	1.914	0.50	0.00	0.00
16	158.00	RRUS 11	6	50.70	2.52	0.50	140.46	3.175	0.50	0.00	0.00
17	158.00	DC6-48-60-18-8F	1	31.80	0.92	0.50	93.95	1.360	0.50	0.00	0.00
18	158.00	Low Profile Platform-Round	1	1500.00	22.00	1.00	2815.73	39.754	1.00	0.00	0.00
19	148.00	Low Profile Platform-Round	1	1500.00	22.00	1.00	2807.16	39.638	1.00	0.00	0.00
20	148.00	BXA-70063-6CF	3	12.60	4.41	0.74	109.45	6.159	0.74	0.00	0.00
21	148.00	BXA-171063-12BF	3	6.50	3.11	0.77	70.58	4.896	0.77	0.00	0.00
22	148.00	/LPA-80063-4CF	2	27.00	9.76	0.93	288.13	12.509	0.93	0.00	0.00
23	148.00	DB844G65ZAXY	4	17.00	6.15	0.78	188.35	7.200	0.78	0.00	0.00
24	148.00	FD9R6004-2C-3L	6	3.10	0.36	0.50	11.12	0.803	0.50	0.00	0.00
		Totals:	**70**	**8,942.80**			**22,843.30**				

Linear Appurtenances

Bottom Elev. (ft)	**Top Elev. (ft)**	**Description**	**Exposed Width**	**Exposed**
0.00	178.00	(1) 7/8" Coax	0.00	Inside
0.00	168.00	(3) 2" Hybrid	0.00	Inside
0.00	158.00	(12) 1 5/8" Coax	0.00	Inside
0.00	148.00	(12) 1 5/8" Coax	0.00	Inside
0.00	103.00	(4) 1.25" Reinforcing plate	1.50	Outside

Shaft Section Properties

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 7	

Increment Length: **5 (ft)**

											Additional Reinforcing			
Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
0.00	RB1	0.4375	51.700	71.182	23633.2	19.43	118.17	65	79	0.0	48.00	20043.8	14184.1	
5.00		0.4375	50.871	70.031	22505.0	19.09	116.28	65	79	1201.3	48.00	19427.5	13750.1	816.7
10.00		0.4375	50.042	68.880	21413.4	18.76	114.38	65	79	1181.7	48.00	18820.9	13323.0	816.7
15.00		0.4375	49.213	67.728	20357.6	18.42	112.49	65	80	1162.1	48.00	18223.9	12902.7	816.7
20.00	RT1 RB2	0.4375	48.384	66.577	19337.2	18.09	110.59	65	80	1142.5	42.00	15409.9	10897.8	714.6
25.00		0.4375	47.555	65.426	18351.4	17.76	108.70	65	81	1122.9	42.00	14904.5	10542.0	714.6
30.00		0.4375	46.726	64.275	17399.7	17.42	106.80	65	81	1103.4	42.00	14407.6	10192.1	714.6
35.00		0.4375	45.897	63.124	16481.4	17.09	104.91	65	81	1083.8	42.00	13919.1	9848.2	714.6
40.00		0.4375	45.068	61.973	15596.1	16.75	103.01	65	82	1064.2	42.00	13439.2	9510.3	714.6
43.04	RT2 RB3	0.4375	44.564	61.273	15073.7	16.55	101.86	65	82	637.5	39.00	12202.8	8630.2	403.5
43.25	Bot - Section 2	0.4375	44.529	61.224	15038.0	16.54	101.78	65	82	43.8	39.00	12184.4	8617.3	27.9
45.00		0.4375	44.239	60.822	14743.1	16.42	101.12	65	82	680.6	39.00	12427.9	8788.7	232.3
49.00	Top - Section 1	0.3750	44.326	52.310	12766.6	19.43	118.20	65	79	1539.0	39.00	12077.6	8542.0	530.9
50.00		0.3750	44.160	52.113	12622.6	19.35	117.76	65	79	177.7	39.00	11990.8	8480.9	132.7
55.00		0.3750	43.331	51.126	11919.1	18.96	115.55	65	79	878.3	39.00	11561.6	8178.7	663.6
60.00		0.3750	42.502	50.140	11242.3	18.57	113.34	65	80	861.5	39.00	11140.2	7882.1	663.6
62.00	RT3 RB4	0.3750	42.170	49.745	10978.9	18.42	112.45	65	80	339.9	36.00	10121.8	7156.8	245.0
65.00		0.3750	41.673	49.153	10591.6	18.18	111.13	65	80	504.8	36.00	9893.7	6996.2	367.5
70.00		0.3750	40.844	48.166	9966.5	17.79	108.92	65	80	827.9	36.00	9519.2	6732.6	612.5
75.00		0.3750	40.015	47.180	9366.4	17.40	106.71	65	81	811.1	36.00	9152.1	6474.1	612.5
80.00		0.3750	39.186	46.193	8791.0	17.01	104.50	65	81	794.3	36.00	8792.2	6220.7	612.5
85.00		0.3750	38.357	45.206	8239.6	16.63	102.29	65	82	777.5	36.00	8439.5	5972.4	612.5
87.50	Bot - Section 3	0.3750	37.942	44.713	7972.8	16.43	101.18	65	82	382.5	36.00	8265.9	5850.1	306.3
90.00		0.3750	37.528	44.220	7711.8	16.24	100.07	65	82	699.3	36.00	8353.9	5912.1	306.3
91.75	RT4 RB5	0.3750	37.238	43.874	7532.5	16.10	99.30	65	82	484.9	15.00	3294.6	2328.4	89.3
92.25	Top - Section 2	0.3125	37.780	37.162	6591.0	19.91	120.90	65	78	137.9	15.00	3280.5	2318.5	25.5
95.00		0.3125	37.324	36.709	6353.3	19.65	119.44	65	78	345.6	15.00	3203.7	2264.4	140.4
100.00		0.3125	36.495	35.887	5935.9	19.18	116.78	65	79	617.6	15.00	3066.3	2167.6	255.2
103.75	RT5	0.3125	35.873	35.270	5635.1	18.83	114.79	65	79	454.0	15.00	2965.2	2096.5	191.4
105.00		0.3125	35.666	35.065	5537.2	18.71	114.13	65	79	149.6				
110.00		0.3125	34.837	34.243	5156.7	18.25	111.48	65	80	589.6				
115.00		0.3125	34.008	33.420	4794.1	17.78	108.83	65	80	575.6				
120.00		0.3125	33.179	32.598	4448.9	17.31	106.17	65	81	561.6				
125.00		0.3125	32.350	31.776	4120.6	16.84	103.52	65	82	547.6				
130.00		0.3125	31.521	30.954	3809.0	16.37	100.87	65	82	533.6				
132.50	Bot - Section 4	0.3125	31.106	30.543	3659.2	16.14	99.54	65	82	261.6				
135.00		0.3125	30.692	30.131	3513.4	15.91	98.21	65	83	441.9				
136.50	Top - Section 3	0.2188	30.881	21.293	2529.2	23.48	141.14	65	74	262.3				
140.00		0.2188	30.300	20.890	2388.3	23.01	138.48	65	74	251.2				
145.00		0.2188	29.471	20.314	2196.3	22.34	134.70	65	75	350.5				
148.00		0.2188	28.974	19.969	2086.1	21.94	132.42	65	76	205.6				
150.00		0.2188	28.642	19.739	2014.8	21.67	130.91	65	76	135.1				
155.00		0.2188	27.813	19.163	1843.6	21.00	127.12	65	77	330.9				
158.00		0.2188	27.316	18.818	1745.7	20.60	124.84	65	77	193.9				
160.00		0.2188	26.984	18.587	1682.4	20.34	123.33	65	77	127.3				
165.00		0.2188	26.155	18.012	1530.8	19.67	119.54	65	78	311.3				
168.00		0.2188	25.658	17.666	1444.5	19.27	117.27	65	79	182.1				
170.00		0.2188	25.326	17.436	1388.7	19.00	115.75	65	79	119.4				
175.00		0.2188	24.497	16.860	1255.6	18.33	111.96	65	80	291.8				
178.00		0.2188	24.000	16.515	1180.0	17.93	109.69	65	80	170.4				

Increment Length: 5 (ft)

Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing Area (in^2)	Additional Reinforcing Ixp (in^4)	Additional Reinforcing Iyp (in^4)	Additional Reinforcing Weight (lb)
							Total Weight			27650.3				13054.1

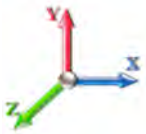
Wind Loading - Shaft

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 9	

Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	1.00	0.85	19.450	21.40	391.24	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	19.450	21.40	384.96	0.650	0.000	5.00	21.699	14.10	482.8	0.0	1441.5
10.00		1.00	0.85	19.450	21.40	378.69	0.650	0.000	5.00	21.348	13.88	475.0	0.0	1418.0
15.00		1.00	0.85	19.450	21.40	372.42	0.650	0.000	5.00	20.997	13.65	467.2	0.0	1394.5
20.00	RT1 RB2	1.00	0.90	20.638	22.70	377.15	0.650	0.000	5.00	20.646	13.42	487.4	0.0	1371.0
25.00		1.00	0.95	21.630	23.79	379.50	0.650	0.000	5.00	20.296	13.19	502.2	0.0	1347.5
30.00		1.00	0.98	22.477	24.72	380.11	0.650	0.000	5.00	19.945	12.96	512.8	0.0	1324.0
35.00		1.00	1.01	23.218	25.54	379.47	0.650	0.000	5.00	19.594	12.74	520.4	0.0	1300.5
40.00		1.00	1.04	23.880	26.27	377.89	0.650	0.000	5.00	19.243	12.51	525.7	0.0	1277.0
43.04	RT2 RB3	1.00	1.06	24.251	26.68	376.56	0.650	0.000	3.04	11.529	7.49	319.8	0.0	764.9
43.25	Bot - Section 2	1.00	1.06	24.276	26.70	376.46	0.650	0.000	0.21	0.792	0.51	22.0	0.0	52.5
45.00		1.00	1.07	24.479	26.93	375.57	0.650	0.000	1.75	6.684	4.34	187.2	0.0	816.7
49.00	Top - Section 1	1.00	1.09	24.922	27.41	373.27	0.650	0.000	4.00	15.115	9.83	431.0	0.0	1846.7
50.00		1.00	1.09	25.029	27.53	379.08	0.650	0.000	1.00	3.744	2.43	107.2	0.0	213.2
55.00		1.00	1.12	25.536	28.09	375.71	0.650	0.000	5.00	18.508	12.03	540.7	0.0	1053.9
60.00		1.00	1.14	26.008	28.61	371.92	0.650	0.000	5.00	18.158	11.80	540.2	0.0	1033.8
62.00	RT3 RB4	1.00	1.14	26.188	28.81	370.29	0.650	0.000	2.00	7.165	4.66	214.7	0.0	407.9
65.00		1.00	1.16	26.450	29.09	367.75	0.650	0.000	3.00	10.642	6.92	322.0	0.0	605.8
70.00		1.00	1.17	26.866	29.55	363.26	0.650	0.000	5.00	17.456	11.35	536.5	0.0	993.5
75.00		1.00	1.19	27.259	29.98	358.48	0.650	0.000	5.00	17.105	11.12	533.4	0.0	973.3
80.00		1.00	1.21	27.632	30.39	353.44	0.650	0.000	5.00	16.755	10.89	529.6	0.0	953.2
85.00		1.00	1.22	27.987	30.79	348.18	0.650	0.000	5.00	16.404	10.66	525.2	0.0	933.0
87.50	Bot - Section 3	1.00	1.23	28.158	30.97	345.47	0.650	0.000	2.50	8.070	5.25	260.0	0.0	459.0
90.00		1.00	1.24	28.325	31.16	342.71	0.650	0.000	2.50	8.115	5.27	263.0	0.0	839.2
91.75	RT4 RB5	1.00	1.24	28.441	31.28	340.75	0.650	0.000	1.75	5.628	3.66	183.1	0.0	581.9
92.25	Top - Section 2	1.00	1.24	28.473	31.32	340.19	0.650	0.000	0.50	1.600	1.04	52.1	0.0	165.4
95.00		1.00	1.25	28.650	31.51	342.79	0.650	0.000	2.75	8.738	5.68	286.4	0.0	414.8
100.00		1.00	1.27	28.961	31.86	336.99	0.650	0.000	5.00	15.616	10.15	517.4	0.0	741.1
103.75	RT5	1.00	1.28	29.186	32.10	332.54	0.650	0.000	3.75	11.482	7.46	383.4	0.0	544.8
105.00		1.00	1.28	29.260	32.19	331.03	0.650	0.000	1.25	3.783	2.46	126.6	0.0	179.5
110.00		1.00	1.29	29.548	32.50	324.93	0.650	0.000	5.00	14.915	9.69	504.2	0.0	707.5
115.00		1.00	1.30	29.826	32.81	318.68	0.650	0.000	5.00	14.564	9.47	496.9	0.0	690.7
120.00		1.00	1.32	30.094	33.10	312.31	0.650	0.000	5.00	14.213	9.24	489.3	0.0	673.9
125.00		1.00	1.33	30.354	33.39	305.82	0.650	0.000	5.00	13.862	9.01	481.4	0.0	657.2
130.00		1.00	1.34	30.605	33.67	299.21	0.650	0.000	5.00	13.512	8.78	473.1	0.0	640.4
132.50	Bot - Section 4	1.00	1.34	30.728	33.80	295.87	0.650	0.000	2.50	6.624	4.31	232.9	0.0	313.9
135.00		1.00	1.35	30.850	33.93	292.50	0.650	0.000	2.50	6.629	4.31	234.0	0.0	530.3
136.50	Top - Section 3	1.00	1.35	30.921	34.01	290.47	0.650	0.000	1.50	3.935	2.56	139.2	0.0	314.7
140.00		1.00	1.36	31.087	34.20	289.88	0.650	0.000	3.50	9.060	5.89	322.2	0.0	301.4
145.00		1.00	1.37	31.317	34.45	282.99	0.650	0.000	5.00	12.645	8.22	453.0	0.0	420.6
148.00	Appurtenance(s)	1.00	1.37	31.452	34.60	278.82	0.650	0.000	3.00	7.418	4.82	266.9	0.0	246.7
150.00		1.00	1.38	31.541	34.70	276.02	0.650	0.000	2.00	4.875	3.17	175.9	0.0	162.1
155.00		1.00	1.39	31.760	34.94	268.96	0.650	0.000	5.00	11.943	7.76	433.9	0.0	397.1
158.00	Appurtenance(s)	1.00	1.39	31.888	35.08	264.68	0.650	0.000	3.00	6.997	4.55	255.3	0.0	232.6
160.00		1.00	1.40	31.973	35.17	261.81	0.650	0.000	2.00	4.595	2.99	168.1	0.0	152.7
165.00		1.00	1.41	32.181	35.40	254.59	0.650	0.000	5.00	11.242	7.31	413.9	0.0	373.6
168.00	Appurtenance(s)	1.00	1.41	32.303	35.53	250.22	0.650	0.000	3.00	6.577	4.27	243.0	0.0	218.5

Wind Loading - Shaft

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 10	

170.00		1.00	1.42	32.384	35.62	247.30	0.650	0.000	2.00	4.314	2.80	159.8	0.0	143.3
175.00		1.00	1.42	32.582	35.84	239.93	0.650	0.000	5.00	10.540	6.85	392.9	0.0	350.1
178.00	Appurtenance(s)	1.00	1.43	32.699	35.97	235.48	0.650	0.000	3.00	6.156	4.00	230.3	0.0	204.4
								Totals:	**178.00**			**17,421.2**		**33,180.4**

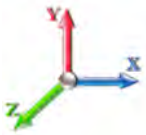
Discrete Appurtenance Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 11	

Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	178.00	Platform w/ Hand Rail	1	32.699	35.969	1.00	1.00	40.00	1920.00	0.000	0.000	2301.99	0.00	0.00
2	178.00	DB220	1	32.816	36.098	1.00	1.00	1.37	15.60	0.000	3.063	79.13	0.00	242.33
3	168.00	ACU-A20-N	4	32.303	35.533	0.38	0.75	0.21	4.80	0.000	0.000	11.94	0.00	0.00
4	168.00	KRD 9011461-B66A-B2A	3	32.303	35.533	0.65	0.75	12.74	475.92	0.000	0.000	724.50	0.00	0.00
5	168.00	APXVAARR24_43-U-NA2	3	32.303	35.533	0.52	0.75	31.88	460.80	0.000	0.000	1812.37	0.00	0.00
6	168.00	AIR6449 B41	3	32.303	35.533	0.53	0.75	9.03	370.80	0.000	0.000	513.15	0.00	0.00
7	168.00	800MHz RRH w/ filter	3	32.303	35.533	0.38	0.75	3.89	245.88	0.000	0.000	221.30	0.00	0.00
8	168.00	RRUS 4415 B25	3	32.303	35.533	0.38	0.75	1.84	165.60	0.000	0.000	104.89	0.00	0.00
9	168.00	4449 B71 + B85	3	32.303	35.533	0.38	0.75	2.22	263.52	0.000	0.000	126.00	0.00	0.00
10	168.00	ALU 800MHz External	3	32.303	35.533	0.38	0.75	0.88	31.68	0.000	0.000	49.89	0.00	0.00
11	168.00	Platform w/ Hand Rail	1	32.303	35.533	1.00	1.00	32.00	1920.00	0.000	0.000	1819.31	0.00	0.00
12	158.00	Low Profile	1	31.888	35.077	1.00	1.00	22.00	1800.00	0.000	0.000	1234.72	0.00	0.00
13	158.00	DC6-48-60-18-8F	1	31.888	35.077	0.40	0.80	0.37	38.16	0.000	0.000	20.65	0.00	0.00
14	158.00	DTMABP7819VG12A	6	31.888	35.077	0.40	0.80	2.74	138.24	0.000	0.000	153.55	0.00	0.00
15	158.00	AM-X-CD-16-65-00T-RET	4	31.888	35.077	0.60	0.80	19.25	232.80	0.000	0.000	1080.27	0.00	0.00
16	158.00	SBNH-1D65C	2	31.888	35.077	0.68	0.80	15.59	119.04	0.000	0.000	874.72	0.00	0.00
17	158.00	7770.00	3	31.888	35.077	0.58	0.80	9.64	126.00	0.000	0.000	540.81	0.00	0.00
18	158.00	RRUS 11	6	31.888	35.077	0.40	0.80	6.05	365.04	0.000	0.000	339.44	0.00	0.00
19	148.00	BXA-171063-12BF	3	31.452	34.598	0.62	0.80	5.75	23.40	0.000	0.000	318.15	0.00	0.00
20	148.00	Low Profile	1	31.452	34.598	1.00	1.00	22.00	1800.00	0.000	0.000	1217.84	0.00	0.00
21	148.00	BXA-70063-6CF	3	31.452	34.598	0.59	0.80	7.83	45.36	0.000	0.000	433.56	0.00	0.00
22	148.00	FD9R6004-2C-3L	6	31.452	34.598	0.40	0.80	0.86	22.32	0.000	0.000	47.83	0.00	0.00
23	148.00	/LPA-80063-4CF	2	31.452	34.598	0.74	0.80	14.52	64.80	0.000	0.000	803.93	0.00	0.00
24	148.00	DB844G65ZAXY	4	31.452	34.598	0.62	0.80	15.35	81.60	0.000	0.000	849.74	0.00	0.00
							Totals:		**10,731.36**			**15,679.67**		

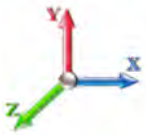
Total Applied Force Summary

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 12

Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		482.82	1623.40	0.00	0.00
10.00		475.01	1599.90	0.00	0.00
15.00		467.21	1576.40	0.00	0.00
20.00		487.45	1552.90	0.00	0.00
25.00		502.21	1529.39	0.00	0.00
30.00		512.85	1505.89	0.00	0.00
35.00		520.45	1482.39	0.00	0.00
40.00		525.70	1458.89	0.00	0.00
43.04		319.84	875.52	0.00	0.00
43.25		21.98	60.16	0.00	0.00
45.00		187.17	880.39	0.00	0.00
49.00		430.96	1992.24	0.00	0.00
50.00		107.19	249.57	0.00	0.00
55.00		540.69	1235.76	0.00	0.00
60.00		540.25	1215.62	0.00	0.00
62.00		214.65	480.61	0.00	0.00
65.00		322.01	714.87	0.00	0.00
70.00		536.51	1175.33	0.00	0.00
75.00		533.42	1155.18	0.00	0.00
80.00		529.63	1135.04	0.00	0.00
85.00		525.20	1114.90	0.00	0.00
87.50		259.97	549.89	0.00	0.00
90.00		262.96	930.09	0.00	0.00
91.75		183.12	645.57	0.00	0.00
92.25		52.12	183.62	0.00	0.00
95.00		286.40	514.78	0.00	0.00
100.00		517.38	922.95	0.00	0.00
103.75		383.37	681.19	0.00	0.00
105.00		126.64	224.97	0.00	0.00
110.00		504.15	889.37	0.00	0.00
115.00		496.93	872.59	0.00	0.00
120.00		489.32	855.80	0.00	0.00
125.00		481.37	839.01	0.00	0.00
130.00		473.08	822.22	0.00	0.00
132.50		232.87	404.82	0.00	0.00
135.00		233.96	621.22	0.00	0.00
136.50		139.21	369.31	0.00	0.00
140.00		322.20	428.74	0.00	0.00
145.00		453.01	602.49	0.00	0.00
148.00	(19) attachments	3937.97	2393.33	0.00	0.00
150.00		175.92	204.93	0.00	0.00
155.00		433.93	504.10	0.00	0.00
158.00	(23) attachments	4499.42	3116.10	0.00	0.00
160.00		168.07	165.58	0.00	0.00
165.00		413.86	405.71	0.00	0.00
168.00	(26) attachments	5626.39	4176.79	0.00	0.00

Total Applied Force Summary

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 13

170.00		159.83	144.58	0.00	0.00
175.00		392.87	353.23	0.00	0.00
178.00	(2) attachments	2611.38	2141.89	0.00	242.33
	Totals:	**33,100.92**	**49,579.21**	**0.00**	**242.33**

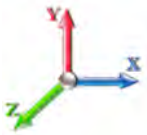
Linear Appurtenance Segment Forces (Factored)

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 14	

Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.029	0.000	19.450	0.00	0.00
10.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.029	0.000	19.450	0.00	0.00
15.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.030	0.000	19.450	0.00	0.00
20.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.030	0.000	20.638	0.00	0.00
25.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.031	0.000	21.630	0.00	0.00
30.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.031	0.000	22.477	0.00	0.00
35.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.032	0.000	23.218	0.00	0.00
40.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.032	0.000	23.880	0.00	0.00
43.04	1.25" Reinforcing	Yes	3.04	0.000	1.50	0.38	0.00	0.033	0.000	24.251	0.00	0.00
43.25	1.25" Reinforcing	Yes	0.21	0.000	1.50	0.03	0.00	0.033	0.000	24.276	0.00	0.00
45.00	1.25" Reinforcing	Yes	1.75	0.000	1.50	0.22	0.00	0.033	0.000	24.479	0.00	0.00
49.00	1.25" Reinforcing	Yes	4.00	0.000	1.50	0.50	0.00	0.034	0.000	24.922	0.00	0.00
50.00	1.25" Reinforcing	Yes	1.00	0.000	1.50	0.13	0.00	0.033	0.000	25.029	0.00	0.00
55.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.034	0.000	25.536	0.00	0.00
60.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.034	0.000	26.008	0.00	0.00
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.50	0.25	0.00	0.035	0.000	26.188	0.00	0.00
65.00	1.25" Reinforcing	Yes	3.00	0.000	1.50	0.38	0.00	0.035	0.000	26.450	0.00	0.00
70.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.036	0.000	26.866	0.00	0.00
75.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.037	0.000	27.259	0.00	0.00
80.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.037	0.000	27.632	0.00	0.00
85.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.038	0.000	27.987	0.00	0.00
87.50	1.25" Reinforcing	Yes	2.50	0.000	1.50	0.31	0.00	0.039	0.000	28.158	0.00	0.00
90.00	1.25" Reinforcing	Yes	2.50	0.000	1.50	0.31	0.00	0.039	0.000	28.325	0.00	0.00
91.75	1.25" Reinforcing	Yes	1.75	0.000	1.50	0.22	0.00	0.040	0.000	28.441	0.00	0.00
92.25	1.25" Reinforcing	Yes	0.50	0.000	1.50	0.06	0.00	0.040	0.000	28.473	0.00	0.00
95.00	1.25" Reinforcing	Yes	2.75	0.000	1.50	0.34	0.00	0.039	0.000	28.650	0.00	0.00
100.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.040	0.000	28.961	0.00	0.00
103.75	1.25" Reinforcing	Yes	3.00	0.000	1.50	0.38	0.00	0.033	0.000	29.186	0.00	0.00
										Totals:	**0.0**	**0.0**

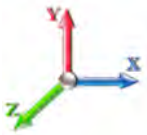
Calculated Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 15	

Load Case: 1.2D + 1.6W 97 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 25

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-49.53	-33.17	0.00	-4244.1	0.00	4244.18	5032.32	2516.16	10592.9	5304.33	0.00	0.000	0.000	0.506
5.00	-47.82	-32.81	0.00	-4078.3	0.00	4078.34	4975.71	2487.85	10302.9	5159.13	0.08	-0.157	0.000	0.497
10.00	-46.13	-32.46	0.00	-3914.2	0.00	3914.27	4918.28	2459.14	10015.1	5015.04	0.33	-0.313	0.000	0.487
15.00	-44.47	-32.10	0.00	-3751.9	0.00	3751.98	4860.04	2430.02	9729.75	4872.10	0.74	-0.470	0.000	0.477
20.00	-42.84	-31.72	0.00	-3591.4	0.00	3591.47	4800.98	2400.49	9446.70	4730.37	1.32	-0.627	0.000	0.491
25.00	-41.22	-31.32	0.00	-3432.8	0.00	3432.86	4741.11	2370.56	9166.14	4589.88	2.07	-0.793	0.000	0.481
30.00	-39.64	-30.90	0.00	-3276.2	0.00	3276.27	4680.43	2340.21	8888.14	4450.68	2.98	-0.958	0.000	0.470
35.00	-38.08	-30.46	0.00	-3121.7	0.00	3121.78	4618.93	2309.46	8612.79	4312.80	4.07	-1.123	0.000	0.458
40.00	-36.56	-29.99	0.00	-2969.4	0.00	2969.48	4556.62	2278.31	8340.18	4176.29	5.34	-1.287	0.000	0.447
43.04	-35.66	-29.68	0.00	-2878.3	0.00	2878.32	4518.33	2259.17	8175.80	4093.98	6.19	-1.388	0.000	0.452
43.25	-35.59	-29.68	0.00	-2872.0	0.00	2872.08	4515.67	2257.84	8164.48	4088.31	6.25	-1.395	0.000	0.452
45.00	-34.66	-29.53	0.00	-2820.1	0.00	2820.15	4493.49	2246.74	8070.38	4041.19	6.77	-1.455	0.000	0.442
49.00	-32.64	-29.09	0.00	-2702.0	0.00	2702.03	3697.88	1848.94	6673.72	3341.82	8.05	-1.589	0.000	0.461
50.00	-32.34	-29.04	0.00	-2672.9	0.00	2672.94	3688.23	1844.12	6630.98	3320.42	8.39	-1.622	0.000	0.487
55.00	-31.03	-28.56	0.00	-2527.7	0.00	2527.75	3639.50	1819.75	6418.42	3213.98	10.18	-1.798	0.000	0.472
60.00	-29.78	-28.04	0.00	-2384.9	0.00	2384.98	3589.95	1794.97	6207.79	3108.51	12.16	-1.972	0.000	0.456
62.00	-29.26	-27.85	0.00	-2328.9	0.00	2328.90	3569.90	1784.95	6124.11	3066.60	13.00	-2.042	0.000	0.465
65.00	-28.49	-27.58	0.00	-2245.3	0.00	2245.35	3539.58	1769.79	5999.19	3004.06	14.31	-2.149	0.000	0.455
70.00	-27.25	-27.08	0.00	-2107.4	0.00	2107.47	3488.40	1744.20	5792.70	2900.65	16.66	-2.325	0.000	0.438
75.00	-26.04	-26.57	0.00	-1972.0	0.00	1972.09	3436.41	1718.21	5588.39	2798.35	19.19	-2.499	0.000	0.421
80.00	-24.85	-26.07	0.00	-1839.2	0.00	1839.22	3383.61	1691.80	5386.36	2697.18	21.89	-2.670	0.000	0.404
85.00	-23.71	-25.54	0.00	-1708.8	0.00	1708.89	3329.98	1664.99	5186.69	2597.20	24.78	-2.838	0.000	0.386
87.50	-23.14	-25.29	0.00	-1645.0	0.00	1645.04	3302.87	1651.43	5087.76	2547.66	26.29	-2.922	0.000	0.377
90.00	-22.19	-25.00	0.00	-1581.8	0.00	1581.82	3275.55	1637.77	4989.46	2498.44	27.84	-3.005	0.000	0.362
91.75	-21.54	-24.80	0.00	-1538.0	0.00	1538.07	3256.30	1628.15	4921.02	2464.17	28.95	-3.062	0.000	0.482
92.25	-21.33	-24.77	0.00	-1525.6	0.00	1525.66	2608.31	1304.15	4013.68	2009.82	29.27	-3.084	0.000	0.516
95.00	-20.76	-24.52	0.00	-1457.5	0.00	1457.56	2586.56	1293.28	3931.38	1968.61	31.08	-3.203	0.000	0.552
100.00	-19.78	-24.01	0.00	-1334.9	0.00	1334.98	2546.40	1273.20	3782.92	1894.27	34.56	-3.434	0.000	0.522
103.75	-19.08	-23.63	0.00	-1244.9	0.00	1244.93	2515.74	1257.87	3672.60	1839.03	37.33	-3.604	0.000	0.499
103.75	-19.08	-23.63	0.00	-1244.9	0.00	1244.93	2515.74	1257.87	3672.60	1839.03	37.33	-3.604	0.000	0.499
105.00	-18.79	-23.55	0.00	-1215.3	0.00	1215.39	2505.42	1252.71	3636.03	1820.72	38.28	-3.660	0.000	0.675
110.00	-17.82	-23.08	0.00	-1097.6	0.00	1097.66	2463.62	1231.81	3490.80	1747.99	42.27	-3.957	0.000	0.636
115.00	-16.87	-22.60	0.00	-982.29	0.00	982.29	2421.01	1210.51	3347.31	1676.14	46.56	-4.244	0.000	0.593
120.00	-15.95	-22.12	0.00	-869.29	0.00	869.29	2377.59	1188.79	3205.66	1605.21	51.15	-4.519	0.000	0.549
125.00	-15.06	-21.64	0.00	-758.68	0.00	758.68	2333.35	1166.68	3065.91	1535.23	56.02	-4.779	0.000	0.501
130.00	-14.22	-21.14	0.00	-650.48	0.00	650.48	2288.30	1144.15	2928.16	1466.26	61.15	-5.023	0.000	0.450
132.50	-13.79	-20.90	0.00	-597.62	0.00	597.62	2265.47	1132.73	2860.06	1432.16	63.81	-5.139	0.000	0.424
135.00	-13.16	-20.63	0.00	-545.37	0.00	545.37	2238.61	1119.31	2787.73	1395.94	66.53	-5.250	0.000	0.397
136.50	-12.77	-20.48	0.00	-514.42	0.00	514.42	1414.08	707.04	1782.89	892.77	68.19	-5.315	0.000	0.586
140.00	-12.31	-20.16	0.00	-442.73	0.00	442.73	1397.66	698.83	1728.59	865.58	72.13	-5.454	0.000	0.521
145.00	-11.69	-19.69	0.00	-341.91	0.00	341.91	1373.51	686.75	1651.57	827.01	77.97	-5.687	0.000	0.423
148.00	-9.68	-15.55	0.00	-282.84	0.00	282.84	1358.62	679.31	1605.69	804.04	81.58	-5.809	0.000	0.359
150.00	-9.46	-15.37	0.00	-251.74	0.00	251.74	1348.54	674.27	1575.26	788.80	84.02	-5.882	0.000	0.327
155.00	-8.98	-14.90	0.00	-174.89	0.00	174.89	1322.76	661.38	1499.73	750.98	90.26	-6.032	0.000	0.240
158.00	-6.35	-10.11	0.00	-130.17	0.00	130.17	1306.90	653.45	1454.83	728.50	94.06	-6.103	0.000	0.184
160.00	-6.19	-9.93	0.00	-109.96	0.00	109.96	1296.17	648.08	1425.08	713.60	96.62	-6.142	0.000	0.159
165.00	-5.82	-9.48	0.00	-60.32	0.00	60.32	1268.76	634.38	1351.39	676.70	103.09	-6.214	0.000	0.094
168.00	-2.28	-3.43	0.00	-31.89	0.00	31.89	1251.92	625.96	1307.68	654.81	106.99	-6.240	0.000	0.051

Calculated Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 16	

170.00	-2.15	-3.26	0.00	-25.02	0.00	25.02	1240.54	620.27	1278.75	640.32	109.61	-6.251	0.000	0.041
175.00	-1.84	-2.83	0.00	-8.73	0.00	8.73	1211.50	605.75	1207.23	604.51	116.15	-6.268	0.000	0.016
178.00	0.00	-2.61	0.00	-0.24	0.00	0.24	1193.69	596.84	1164.89	583.31	120.08	-6.271	0.000	0.000

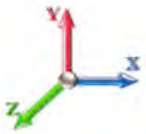
Wind Loading - Shaft

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 17	

Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	1.00	0.85	19.450	21.40	391.24	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	19.450	21.40	384.96	0.650	0.000	5.00	21.699	14.10	482.8	0.0	1081.2
10.00		1.00	0.85	19.450	21.40	378.69	0.650	0.000	5.00	21.348	13.88	475.0	0.0	1063.5
15.00		1.00	0.85	19.450	21.40	372.42	0.650	0.000	5.00	20.997	13.65	467.2	0.0	1045.9
20.00	RT1 RB2	1.00	0.90	20.638	22.70	377.15	0.650	0.000	5.00	20.646	13.42	487.4	0.0	1028.3
25.00		1.00	0.95	21.630	23.79	379.50	0.650	0.000	5.00	20.296	13.19	502.2	0.0	1010.7
30.00		1.00	0.98	22.477	24.72	380.11	0.650	0.000	5.00	19.945	12.96	512.8	0.0	993.0
35.00		1.00	1.01	23.218	25.54	379.47	0.650	0.000	5.00	19.594	12.74	520.4	0.0	975.4
40.00		1.00	1.04	23.880	26.27	377.89	0.650	0.000	5.00	19.243	12.51	525.7	0.0	957.8
43.04	RT2 RB3	1.00	1.06	24.251	26.68	376.56	0.650	0.000	3.04	11.529	7.49	319.8	0.0	573.7
43.25	Bot - Section 2	1.00	1.06	24.276	26.70	376.46	0.650	0.000	0.21	0.792	0.51	22.0	0.0	39.4
45.00		1.00	1.07	24.479	26.93	375.57	0.650	0.000	1.75	6.684	4.34	187.2	0.0	612.6
49.00	Top - Section 1	1.00	1.09	24.922	27.41	373.27	0.650	0.000	4.00	15.115	9.83	431.0	0.0	1385.1
50.00		1.00	1.09	25.029	27.53	379.08	0.650	0.000	1.00	3.744	2.43	107.2	0.0	159.9
55.00		1.00	1.12	25.536	28.09	375.71	0.650	0.000	5.00	18.508	12.03	540.7	0.0	790.4
60.00		1.00	1.14	26.008	28.61	371.92	0.650	0.000	5.00	18.158	11.80	540.2	0.0	775.3
62.00	RT3 RB4	1.00	1.14	26.188	28.81	370.29	0.650	0.000	2.00	7.165	4.66	214.7	0.0	305.9
65.00		1.00	1.16	26.450	29.09	367.75	0.650	0.000	3.00	10.642	6.92	322.0	0.0	454.3
70.00		1.00	1.17	26.866	29.55	363.26	0.650	0.000	5.00	17.456	11.35	536.5	0.0	745.1
75.00		1.00	1.19	27.259	29.98	358.48	0.650	0.000	5.00	17.105	11.12	533.4	0.0	730.0
80.00		1.00	1.21	27.632	30.39	353.44	0.650	0.000	5.00	16.755	10.89	529.6	0.0	714.9
85.00		1.00	1.22	27.987	30.79	348.18	0.650	0.000	5.00	16.404	10.66	525.2	0.0	699.8
87.50	Bot - Section 3	1.00	1.23	28.158	30.97	345.47	0.650	0.000	2.50	8.070	5.25	260.0	0.0	344.2
90.00		1.00	1.24	28.325	31.16	342.71	0.650	0.000	2.50	8.115	5.27	263.0	0.0	629.4
91.75	RT4 RB5	1.00	1.24	28.441	31.28	340.75	0.650	0.000	1.75	5.628	3.66	183.1	0.0	436.4
92.25	Top - Section 2	1.00	1.24	28.473	31.32	340.19	0.650	0.000	0.50	1.600	1.04	52.1	0.0	124.1
95.00		1.00	1.25	28.650	31.51	342.79	0.650	0.000	2.75	8.738	5.68	286.4	0.0	311.1
100.00		1.00	1.27	28.961	31.86	336.99	0.650	0.000	5.00	15.616	10.15	517.4	0.0	555.8
103.75	RT5	1.00	1.28	29.186	32.10	332.54	0.650	0.000	3.75	11.482	7.46	383.4	0.0	408.6
105.00		1.00	1.28	29.260	32.19	331.03	0.650	0.000	1.25	3.783	2.46	126.6	0.0	134.6
110.00		1.00	1.29	29.548	32.50	324.93	0.650	0.000	5.00	14.915	9.69	504.2	0.0	530.6
115.00		1.00	1.30	29.826	32.81	318.68	0.650	0.000	5.00	14.564	9.47	496.9	0.0	518.0
120.00		1.00	1.32	30.094	33.10	312.31	0.650	0.000	5.00	14.213	9.24	489.3	0.0	505.5
125.00		1.00	1.33	30.354	33.39	305.82	0.650	0.000	5.00	13.862	9.01	481.4	0.0	492.9
130.00		1.00	1.34	30.605	33.67	299.21	0.650	0.000	5.00	13.512	8.78	473.1	0.0	480.3
132.50	Bot - Section 4	1.00	1.34	30.728	33.80	295.87	0.650	0.000	2.50	6.624	4.31	232.9	0.0	235.4
135.00		1.00	1.35	30.850	33.93	292.50	0.650	0.000	2.50	6.629	4.31	234.0	0.0	397.7
136.50	Top - Section 3	1.00	1.35	30.921	34.01	290.47	0.650	0.000	1.50	3.935	2.56	139.2	0.0	236.1
140.00		1.00	1.36	31.087	34.20	289.88	0.650	0.000	3.50	9.060	5.89	322.2	0.0	226.1
145.00		1.00	1.37	31.317	34.45	282.99	0.650	0.000	5.00	12.645	8.22	453.0	0.0	315.5
148.00	Appurtenance(s)	1.00	1.37	31.452	34.60	278.82	0.650	0.000	3.00	7.418	4.82	266.9	0.0	185.1
150.00		1.00	1.38	31.541	34.70	276.02	0.650	0.000	2.00	4.875	3.17	175.9	0.0	121.6
155.00		1.00	1.39	31.760	34.94	268.96	0.650	0.000	5.00	11.943	7.76	433.9	0.0	297.8
158.00	Appurtenance(s)	1.00	1.39	31.888	35.08	264.68	0.650	0.000	3.00	6.997	4.55	255.3	0.0	174.5
160.00		1.00	1.40	31.973	35.17	261.81	0.650	0.000	2.00	4.595	2.99	168.1	0.0	114.6
165.00		1.00	1.41	32.181	35.40	254.59	0.650	0.000	5.00	11.242	7.31	413.9	0.0	280.2
168.00	Appurtenance(s)	1.00	1.41	32.303	35.53	250.22	0.650	0.000	3.00	6.577	4.27	243.0	0.0	163.9

Wind Loading - Shaft

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 18	

170.00		1.00	1.42	32.384	35.62	247.30	0.650	0.000	2.00	4.314	2.80	159.8	0.0	107.5
175.00		1.00	1.42	32.582	35.84	239.93	0.650	0.000	5.00	10.540	6.85	392.9	0.0	262.6
178.00	Appurtenance(s)	1.00	1.43	32.699	35.97	235.48	0.650	0.000	3.00	6.156	4.00	230.3	0.0	153.3
								Totals:	**178.00**			**17,421.2**		**24,885.3**

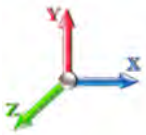
Discrete Appurtenance Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 19	

Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	178.00	Platform w/ Hand Rail	1	32.699	35.969	1.00	1.00	40.00	1440.00	0.000	0.000	2301.99	0.00	0.00
2	178.00	DB220	1	32.816	36.098	1.00	1.00	1.37	11.70	0.000	3.063	79.13	0.00	242.33
3	168.00	ACU-A20-N	4	32.303	35.533	0.38	0.75	0.21	3.60	0.000	0.000	11.94	0.00	0.00
4	168.00	KRD 9011461-B66A-B2A	3	32.303	35.533	0.65	0.75	12.74	356.94	0.000	0.000	724.50	0.00	0.00
5	168.00	APXVAARR24_43-U-NA2	3	32.303	35.533	0.52	0.75	31.88	345.60	0.000	0.000	1812.37	0.00	0.00
6	168.00	AIR6449 B41	3	32.303	35.533	0.53	0.75	9.03	278.10	0.000	0.000	513.15	0.00	0.00
7	168.00	800MHz RRH w/ filter	3	32.303	35.533	0.38	0.75	3.89	184.41	0.000	0.000	221.30	0.00	0.00
8	168.00	RRUS 4415 B25	3	32.303	35.533	0.38	0.75	1.84	124.20	0.000	0.000	104.89	0.00	0.00
9	168.00	4449 B71 + B85	3	32.303	35.533	0.38	0.75	2.22	197.64	0.000	0.000	126.00	0.00	0.00
10	168.00	ALU 800MHz External	3	32.303	35.533	0.38	0.75	0.88	23.76	0.000	0.000	49.89	0.00	0.00
11	168.00	Platform w/ Hand Rail	1	32.303	35.533	1.00	1.00	32.00	1440.00	0.000	0.000	1819.31	0.00	0.00
12	158.00	Low Profile	1	31.888	35.077	1.00	1.00	22.00	1350.00	0.000	0.000	1234.72	0.00	0.00
13	158.00	DC6-48-60-18-8F	1	31.888	35.077	0.40	0.80	0.37	28.62	0.000	0.000	20.65	0.00	0.00
14	158.00	DTMABP7819VG12A	6	31.888	35.077	0.40	0.80	2.74	103.68	0.000	0.000	153.55	0.00	0.00
15	158.00	AM-X-CD-16-65-00T-RET	4	31.888	35.077	0.60	0.80	19.25	174.60	0.000	0.000	1080.27	0.00	0.00
16	158.00	SBNH-1D65C	2	31.888	35.077	0.68	0.80	15.59	89.28	0.000	0.000	874.72	0.00	0.00
17	158.00	7770.00	3	31.888	35.077	0.58	0.80	9.64	94.50	0.000	0.000	540.81	0.00	0.00
18	158.00	RRUS 11	6	31.888	35.077	0.40	0.80	6.05	273.78	0.000	0.000	339.44	0.00	0.00
19	148.00	BXA-171063-12BF	3	31.452	34.598	0.62	0.80	5.75	17.55	0.000	0.000	318.15	0.00	0.00
20	148.00	Low Profile	1	31.452	34.598	1.00	1.00	22.00	1350.00	0.000	0.000	1217.84	0.00	0.00
21	148.00	BXA-70063-6CF	3	31.452	34.598	0.59	0.80	7.83	34.02	0.000	0.000	433.56	0.00	0.00
22	148.00	FD9R6004-2C-3L	6	31.452	34.598	0.40	0.80	0.86	16.74	0.000	0.000	47.83	0.00	0.00
23	148.00	/LPA-80063-4CF	2	31.452	34.598	0.74	0.80	14.52	48.60	0.000	0.000	803.93	0.00	0.00
24	148.00	DB844G65ZAXY	4	31.452	34.598	0.62	0.80	15.35	61.20	0.000	0.000	849.74	0.00	0.00
							Totals:		**8,048.52**			**15,679.67**		

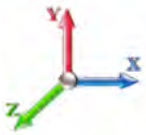
Total Applied Force Summary

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 20

Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		482.82	1217.55	0.00	0.00
10.00		475.01	1199.93	0.00	0.00
15.00		467.21	1182.30	0.00	0.00
20.00		487.45	1164.67	0.00	0.00
25.00		502.21	1147.05	0.00	0.00
30.00		512.85	1129.42	0.00	0.00
35.00		520.45	1111.79	0.00	0.00
40.00		525.70	1094.17	0.00	0.00
43.04		319.84	656.64	0.00	0.00
43.25		21.98	45.12	0.00	0.00
45.00		187.17	660.29	0.00	0.00
49.00		430.96	1494.18	0.00	0.00
50.00		107.19	187.18	0.00	0.00
55.00		540.69	926.82	0.00	0.00
60.00		540.25	911.71	0.00	0.00
62.00		214.65	360.46	0.00	0.00
65.00		322.01	536.15	0.00	0.00
70.00		536.51	881.50	0.00	0.00
75.00		533.42	866.39	0.00	0.00
80.00		529.63	851.28	0.00	0.00
85.00		525.20	836.17	0.00	0.00
87.50		259.97	412.42	0.00	0.00
90.00		262.96	697.57	0.00	0.00
91.75		183.12	484.18	0.00	0.00
92.25		52.12	137.71	0.00	0.00
95.00		286.40	386.08	0.00	0.00
100.00		517.38	692.21	0.00	0.00
103.75		383.37	510.90	0.00	0.00
105.00		126.64	168.72	0.00	0.00
110.00		504.15	667.03	0.00	0.00
115.00		496.93	654.44	0.00	0.00
120.00		489.32	641.85	0.00	0.00
125.00		481.37	629.26	0.00	0.00
130.00		473.08	616.67	0.00	0.00
132.50		232.87	303.61	0.00	0.00
135.00		233.96	465.91	0.00	0.00
136.50		139.21	276.98	0.00	0.00
140.00		322.20	321.55	0.00	0.00
145.00		453.01	451.87	0.00	0.00
148.00	(19) attachments	3937.97	1795.00	0.00	0.00
150.00		175.92	153.70	0.00	0.00
155.00		433.93	378.08	0.00	0.00
158.00	(23) attachments	4499.42	2337.07	0.00	0.00
160.00		168.07	124.18	0.00	0.00
165.00		413.86	304.29	0.00	0.00
168.00	(26) attachments	5626.39	3132.59	0.00	0.00

Total Applied Force Summary

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 21

170.00		159.83	108.44	0.00	0.00
175.00		392.87	264.92	0.00	0.00
178.00	(2) attachments	2611.38	1606.42	0.00	242.33
	Totals:	**33,100.92**	**37,184.41**	**0.00**	**242.33**

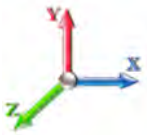
Linear Appurtenance Segment Forces (Factored)

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 22	

Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.029	0.000	19.450	0.00	0.00
10.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.029	0.000	19.450	0.00	0.00
15.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.030	0.000	19.450	0.00	0.00
20.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.030	0.000	20.638	0.00	0.00
25.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.031	0.000	21.630	0.00	0.00
30.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.031	0.000	22.477	0.00	0.00
35.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.032	0.000	23.218	0.00	0.00
40.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.032	0.000	23.880	0.00	0.00
43.04	1.25" Reinforcing	Yes	3.04	0.000	1.50	0.38	0.00	0.033	0.000	24.251	0.00	0.00
43.25	1.25" Reinforcing	Yes	0.21	0.000	1.50	0.03	0.00	0.033	0.000	24.276	0.00	0.00
45.00	1.25" Reinforcing	Yes	1.75	0.000	1.50	0.22	0.00	0.033	0.000	24.479	0.00	0.00
49.00	1.25" Reinforcing	Yes	4.00	0.000	1.50	0.50	0.00	0.034	0.000	24.922	0.00	0.00
50.00	1.25" Reinforcing	Yes	1.00	0.000	1.50	0.13	0.00	0.033	0.000	25.029	0.00	0.00
55.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.034	0.000	25.536	0.00	0.00
60.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.034	0.000	26.008	0.00	0.00
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.50	0.25	0.00	0.035	0.000	26.188	0.00	0.00
65.00	1.25" Reinforcing	Yes	3.00	0.000	1.50	0.38	0.00	0.035	0.000	26.450	0.00	0.00
70.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.036	0.000	26.866	0.00	0.00
75.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.037	0.000	27.259	0.00	0.00
80.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.037	0.000	27.632	0.00	0.00
85.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.038	0.000	27.987	0.00	0.00
87.50	1.25" Reinforcing	Yes	2.50	0.000	1.50	0.31	0.00	0.039	0.000	28.158	0.00	0.00
90.00	1.25" Reinforcing	Yes	2.50	0.000	1.50	0.31	0.00	0.039	0.000	28.325	0.00	0.00
91.75	1.25" Reinforcing	Yes	1.75	0.000	1.50	0.22	0.00	0.040	0.000	28.441	0.00	0.00
92.25	1.25" Reinforcing	Yes	0.50	0.000	1.50	0.06	0.00	0.040	0.000	28.473	0.00	0.00
95.00	1.25" Reinforcing	Yes	2.75	0.000	1.50	0.34	0.00	0.039	0.000	28.650	0.00	0.00
100.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.040	0.000	28.961	0.00	0.00
103.75	1.25" Reinforcing	Yes	3.00	0.000	1.50	0.38	0.00	0.033	0.000	29.186	0.00	0.00
										Totals:	**0.0**	**0.0**

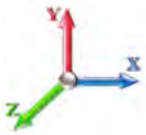
Calculated Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 23	

Load Case: 0.9D + 1.6W 97 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-37.14	-33.15	0.00	-4198.8	0.00	4198.81	5032.32	2516.16	10592.9	5304.33	0.00	0.000	0.000	0.499
5.00	-35.83	-32.76	0.00	-4033.0	0.00	4033.06	4975.71	2487.85	10302.9	5159.13	0.08	-0.155	0.000	0.490
10.00	-34.55	-32.38	0.00	-3869.2	0.00	3869.24	4918.28	2459.14	10015.1	5015.04	0.33	-0.310	0.000	0.480
15.00	-33.28	-31.99	0.00	-3707.3	0.00	3707.36	4860.04	2430.02	9729.75	4872.10	0.74	-0.465	0.000	0.470
20.00	-32.03	-31.58	0.00	-3547.4	0.00	3547.40	4800.98	2400.49	9446.70	4730.37	1.31	-0.620	0.000	0.484
25.00	-30.81	-31.15	0.00	-3389.4	0.00	3389.49	4741.11	2370.56	9166.14	4589.88	2.04	-0.783	0.000	0.473
30.00	-29.60	-30.71	0.00	-3233.7	0.00	3233.72	4680.43	2340.21	8888.14	4450.68	2.95	-0.946	0.000	0.462
35.00	-28.41	-30.25	0.00	-3080.1	0.00	3080.18	4618.93	2309.46	8612.79	4312.80	4.03	-1.109	0.000	0.451
40.00	-27.26	-29.76	0.00	-2928.9	0.00	2928.93	4556.62	2278.31	8340.18	4176.29	5.28	-1.271	0.000	0.439
43.04	-26.58	-29.45	0.00	-2838.4	0.00	2838.45	4518.33	2259.17	8175.80	4093.98	6.12	-1.371	0.000	0.445
43.25	-26.52	-29.44	0.00	-2832.2	0.00	2832.27	4515.67	2257.84	8164.48	4088.31	6.18	-1.378	0.000	0.444
45.00	-25.82	-29.28	0.00	-2780.7	0.00	2780.74	4493.49	2246.74	8070.38	4041.19	6.69	-1.437	0.000	0.435
49.00	-24.29	-28.85	0.00	-2663.6	0.00	2663.60	3697.88	1848.94	6673.72	3341.82	7.95	-1.569	0.000	0.453
50.00	-24.06	-28.78	0.00	-2634.7	0.00	2634.75	3688.23	1844.12	6630.98	3320.42	8.29	-1.602	0.000	0.479
55.00	-23.06	-28.28	0.00	-2490.8	0.00	2490.85	3639.50	1819.75	6418.42	3213.98	10.06	-1.775	0.000	0.463
60.00	-22.11	-27.76	0.00	-2349.4	0.00	2349.44	3589.95	1794.97	6207.79	3108.51	12.01	-1.946	0.000	0.448
62.00	-21.71	-27.57	0.00	-2293.9	0.00	2293.92	3569.90	1784.95	6124.11	3066.60	12.84	-2.015	0.000	0.457
65.00	-21.12	-27.28	0.00	-2211.2	0.00	2211.22	3539.58	1769.79	5999.19	3004.06	14.14	-2.121	0.000	0.447
70.00	-20.18	-26.77	0.00	-2074.8	0.00	2074.85	3488.40	1744.20	5792.70	2900.65	16.45	-2.294	0.000	0.430
75.00	-19.26	-26.25	0.00	-1941.0	0.00	1941.01	3436.41	1718.21	5588.39	2798.35	18.94	-2.465	0.000	0.414
80.00	-18.36	-25.74	0.00	-1809.7	0.00	1809.74	3383.61	1691.80	5386.36	2697.18	21.62	-2.634	0.000	0.396
85.00	-17.49	-25.21	0.00	-1681.0	0.00	1681.03	3329.98	1664.99	5186.69	2597.20	24.46	-2.799	0.000	0.378
87.50	-17.06	-24.96	0.00	-1618.0	0.00	1618.00	3302.87	1651.43	5087.76	2547.66	25.95	-2.882	0.000	0.369
90.00	-16.35	-24.68	0.00	-1555.6	0.00	1555.60	3275.55	1637.77	4989.46	2498.44	27.48	-2.963	0.000	0.355
91.75	-15.86	-24.48	0.00	-1512.4	0.00	1512.41	3256.30	1628.15	4921.02	2464.17	28.58	-3.020	0.000	0.473
92.25	-15.69	-24.44	0.00	-1500.1	0.00	1500.17	2608.31	1304.15	4013.68	2009.82	28.89	-3.041	0.000	0.506
95.00	-15.25	-24.18	0.00	-1432.9	0.00	1432.95	2586.56	1293.28	3931.38	1968.61	30.68	-3.158	0.000	0.541
100.00	-14.51	-23.68	0.00	-1312.0	0.00	1312.04	2546.40	1273.20	3782.92	1894.27	34.11	-3.385	0.000	0.512
103.75	-13.98	-23.29	0.00	-1223.2	0.00	1223.25	2515.74	1257.87	3672.60	1839.03	36.83	-3.552	0.000	0.489
103.75	-13.98	-23.29	0.00	-1223.2	0.00	1223.25	2515.74	1257.87	3672.60	1839.03	36.83	-3.552	0.000	0.489
105.00	-13.74	-23.20	0.00	-1194.1	0.00	1194.14	2505.42	1252.71	3636.03	1820.72	37.77	-3.607	0.000	0.662
110.00	-13.00	-22.71	0.00	-1078.1	0.00	1078.16	2463.62	1231.81	3490.80	1747.99	41.70	-3.899	0.000	0.622
115.00	-12.27	-22.23	0.00	-964.59	0.00	964.59	2421.01	1210.51	3347.31	1676.14	45.93	-4.181	0.000	0.581
120.00	-11.57	-21.75	0.00	-853.44	0.00	853.44	2377.59	1188.79	3205.66	1605.21	50.45	-4.451	0.000	0.537
125.00	-10.89	-21.27	0.00	-744.70	0.00	744.70	2333.35	1166.68	3065.91	1535.23	55.25	-4.706	0.000	0.490
130.00	-10.25	-20.77	0.00	-638.37	0.00	638.37	2288.30	1144.15	2928.16	1466.26	60.30	-4.945	0.000	0.440
132.50	-9.93	-20.53	0.00	-586.43	0.00	586.43	2265.47	1132.73	2860.06	1432.16	62.92	-5.059	0.000	0.414
135.00	-9.46	-20.27	0.00	-535.10	0.00	535.10	2238.61	1119.31	2787.73	1395.94	65.60	-5.168	0.000	0.388
136.50	-9.16	-20.13	0.00	-504.69	0.00	504.69	1414.08	707.04	1782.89	892.77	67.23	-5.231	0.000	0.573
140.00	-8.80	-19.81	0.00	-434.24	0.00	434.24	1397.66	698.83	1728.59	865.58	71.11	-5.368	0.000	0.509
145.00	-8.34	-19.34	0.00	-335.22	0.00	335.22	1373.51	686.75	1651.57	827.01	76.85	-5.597	0.000	0.412
148.00	-6.92	-15.25	0.00	-277.21	0.00	277.21	1358.62	679.31	1605.69	804.04	80.40	-5.716	0.000	0.350
150.00	-6.75	-15.07	0.00	-246.71	0.00	246.71	1348.54	674.27	1575.26	788.80	82.81	-5.787	0.000	0.318
155.00	-6.39	-14.62	0.00	-171.34	0.00	171.34	1322.76	661.38	1499.73	750.98	88.95	-5.935	0.000	0.233
158.00	-4.53	-9.90	0.00	-127.49	0.00	127.49	1306.90	653.45	1454.83	728.50	92.69	-6.004	0.000	0.179
160.00	-4.41	-9.73	0.00	-107.69	0.00	107.69	1296.17	648.08	1425.08	713.60	95.21	-6.043	0.000	0.155
165.00	-4.14	-9.29	0.00	-59.06	0.00	59.06	1268.76	634.38	1351.39	676.70	101.57	-6.113	0.000	0.091
168.00	-1.63	-3.36	0.00	-31.20	0.00	31.20	1251.92	625.96	1307.68	654.81	105.41	-6.138	0.000	0.049

Calculated Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 24	

170.00	-1.54	-3.19	0.00	-24.49	0.00	24.49	1240.54	620.27	1278.75	640.32	107.98	-6.149	0.000	0.040
175.00	-1.32	-2.77	0.00	-8.55	0.00	8.55	1211.50	605.75	1207.23	604.51	114.42	-6.166	0.000	0.015
178.00	0.00	-2.61	0.00	-0.24	0.00	0.24	1193.69	596.84	1164.89	583.31	118.29	-6.169	0.000	0.000

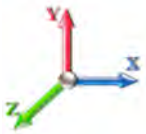
Wind Loading - Shaft

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 25	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	1.00	0.85	5.168	5.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.168	5.68	0.00	1.200	1.242	5.00	22.734	27.28	155.1	405.5	1847.0
10.00		1.00	0.85	5.168	5.68	0.00	1.200	1.331	5.00	22.457	26.95	153.2	428.4	1846.4
15.00		1.00	0.85	5.168	5.68	0.00	1.200	1.386	5.00	22.152	26.58	151.1	439.4	1833.9
20.00	RT1 RB2	1.00	0.90	5.483	6.03	0.00	1.200	1.427	5.00	21.835	26.20	158.0	445.2	1816.2
25.00		1.00	0.95	5.747	6.32	0.00	1.200	1.459	5.00	21.511	25.81	163.2	447.9	1795.4
30.00		1.00	0.98	5.972	6.57	0.00	1.200	1.486	5.00	21.183	25.42	167.0	448.7	1772.7
35.00		1.00	1.01	6.169	6.79	0.00	1.200	1.509	5.00	20.851	25.02	169.8	448.0	1748.6
40.00		1.00	1.04	6.345	6.98	0.00	1.200	1.529	5.00	20.518	24.62	171.8	446.3	1723.3
43.04	RT2 RB3	1.00	1.06	6.444	7.09	0.00	1.200	1.540	3.04	12.309	14.77	104.7	270.4	1035.4
43.25	Bot - Section 2	1.00	1.06	6.450	7.10	0.00	1.200	1.541	0.21	0.846	1.01	7.2	18.7	71.2
45.00		1.00	1.07	6.504	7.15	0.00	1.200	1.547	1.75	7.135	8.56	61.3	157.8	974.6
49.00	Top - Section 1	1.00	1.09	6.622	7.28	0.00	1.200	1.560	4.00	16.156	19.39	141.2	358.8	2205.5
50.00		1.00	1.09	6.650	7.32	0.00	1.200	1.564	1.00	4.004	4.81	35.2	89.6	302.8
55.00		1.00	1.12	6.785	7.46	0.00	1.200	1.579	5.00	19.824	23.79	177.5	444.0	1497.9
60.00		1.00	1.14	6.910	7.60	0.00	1.200	1.592	5.00	19.485	23.38	177.7	439.8	1473.5
62.00	RT3 RB4	1.00	1.14	6.958	7.65	0.00	1.200	1.598	2.00	7.697	9.24	70.7	175.2	583.0
65.00		1.00	1.16	7.028	7.73	0.00	1.200	1.605	3.00	11.445	13.73	106.2	261.1	866.8
70.00		1.00	1.17	7.138	7.85	0.00	1.200	1.617	5.00	18.804	22.56	177.2	430.1	1423.5
75.00		1.00	1.19	7.243	7.97	0.00	1.200	1.628	5.00	18.462	22.15	176.5	424.7	1398.0
80.00		1.00	1.21	7.342	8.08	0.00	1.200	1.639	5.00	18.120	21.74	175.6	419.0	1372.2
85.00		1.00	1.22	7.436	8.18	0.00	1.200	1.649	5.00	17.778	21.33	174.5	413.1	1346.1
87.50	Bot - Section 3	1.00	1.23	7.482	8.23	0.00	1.200	1.654	2.50	8.759	10.51	86.5	205.0	664.0
90.00		1.00	1.24	7.526	8.28	0.00	1.200	1.658	2.50	8.806	10.57	87.5	206.7	1045.9
91.75	RT4 RB5	1.00	1.24	7.557	8.31	0.00	1.200	1.662	1.75	6.113	7.34	61.0	143.9	725.9
92.25	Top - Section 2	1.00	1.24	7.565	8.32	0.00	1.200	1.662	0.50	1.739	2.09	17.4	41.1	206.5
95.00		1.00	1.25	7.612	8.37	0.00	1.200	1.667	2.75	9.503	11.40	95.5	223.9	638.7
100.00		1.00	1.27	7.695	8.46	0.00	1.200	1.676	5.00	17.013	20.42	172.8	400.6	1141.7
103.75	RT5	1.00	1.28	7.755	8.53	0.00	1.200	1.682	3.75	12.533	15.04	128.3	296.7	841.5
105.00		1.00	1.28	7.774	8.55	0.00	1.200	1.684	1.25	4.134	4.96	42.4	98.5	278.0
110.00		1.00	1.29	7.851	8.64	0.00	1.200	1.692	5.00	16.325	19.59	169.2	387.0	1094.5
115.00		1.00	1.30	7.925	8.72	0.00	1.200	1.699	5.00	15.980	19.18	167.2	380.0	1070.7
120.00		1.00	1.32	7.996	8.80	0.00	1.200	1.707	5.00	15.635	18.76	165.0	372.8	1046.8
125.00		1.00	1.33	8.065	8.87	0.00	1.200	1.714	5.00	15.290	18.35	162.8	365.5	1022.7
130.00		1.00	1.34	8.132	8.95	0.00	1.200	1.720	5.00	14.945	17.93	160.4	358.1	998.5
132.50	Bot - Section 4	1.00	1.34	8.165	8.98	0.00	1.200	1.724	2.50	7.343	8.81	79.1	177.2	491.1
135.00		1.00	1.35	8.197	9.02	0.00	1.200	1.727	2.50	7.349	8.82	79.5	177.6	707.9
136.50	Top - Section 3	1.00	1.35	8.216	9.04	0.00	1.200	1.729	1.50	4.368	5.24	47.4	105.9	420.7
140.00		1.00	1.36	8.260	9.09	0.00	1.200	1.733	3.50	10.071	12.09	109.8	243.4	544.8
145.00		1.00	1.37	8.321	9.15	0.00	1.200	1.739	5.00	14.094	16.91	154.8	339.9	760.5
148.00	Appurtenance(s)	1.00	1.37	8.357	9.19	0.00	1.200	1.743	3.00	8.290	9.95	91.4	201.1	447.9
150.00		1.00	1.38	8.381	9.22	0.00	1.200	1.745	2.00	5.457	6.55	60.4	132.8	295.0
155.00		1.00	1.39	8.439	9.28	0.00	1.200	1.751	5.00	13.402	16.08	149.3	324.1	721.2
158.00	Appurtenance(s)	1.00	1.39	8.473	9.32	0.00	1.200	1.754	3.00	7.875	9.45	88.1	191.6	424.2
160.00		1.00	1.40	8.495	9.34	0.00	1.200	1.757	2.00	5.180	6.22	58.1	126.4	279.2
165.00		1.00	1.41	8.551	9.41	0.00	1.200	1.762	5.00	12.710	15.25	143.5	308.0	681.6
168.00	Appurtenance(s)	1.00	1.41	8.583	9.44	0.00	1.200	1.765	3.00	7.459	8.95	84.5	181.8	400.3

Wind Loading - Shaft

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 26

170.00	1.00	1.42	8.604	9.46	0.00	1.200	1.767	2.00	4.903	5.88	55.7	119.9	263.2
175.00	1.00	1.42	8.657	9.52	0.00	1.200	1.772	5.00	12.017	14.42	137.3	291.5	641.6
178.00 Appurtenance(s)	1.00	1.43	8.688	9.56	0.00	1.200	1.775	3.00	7.043	8.45	80.8	171.9	376.3
							Totals:	**178.00**			**5,810.3**		**47,165.0**

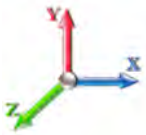
Discrete Appurtenance Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 27	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	178.00	Platform w/ Hand Rail	1	8.688	9.557	1.00	1.00	75.51	3456.09	0.000	0.000	721.61	0.00	0.00
2	178.00	DB220	1	8.719	9.591	1.00	1.00	5.16	47.50	0.000	3.063	49.48	0.00	151.52
3	168.00	ACU-A20-N	4	8.583	9.441	0.38	0.75	0.66	16.98	0.000	0.000	6.23	0.00	0.00
4	168.00	KRD 9011461-B66A-B2A	3	8.583	9.441	0.65	0.75	14.97	1033.07	0.000	0.000	141.29	0.00	0.00
5	168.00	APXVAARR24_43-U-NA2	3	8.583	9.441	0.52	0.75	34.91	1730.73	0.000	0.000	329.56	0.00	0.00
6	168.00	AIR6449 B41	3	8.583	9.441	0.53	0.75	10.56	691.74	0.000	0.000	99.72	0.00	0.00
7	168.00	800MHz RRH w/ filter	3	8.583	9.441	0.38	0.75	5.39	442.62	0.000	0.000	50.87	0.00	0.00
8	168.00	RRUS 4415 B25	3	8.583	9.441	0.38	0.75	2.43	262.12	0.000	0.000	22.95	0.00	0.00
9	168.00	4449 B71 + B85	3	8.583	9.441	0.38	0.75	2.86	263.52	0.000	0.000	27.04	0.00	0.00
10	168.00	ALU 800MHz External	3	8.583	9.441	0.38	0.75	1.61	70.21	0.000	0.000	15.23	0.00	0.00
11	168.00	Platform w/ Hand Rail	1	8.583	9.441	1.00	1.00	60.24	3443.78	0.000	0.000	568.76	0.00	0.00
12	158.00	Low Profile	1	8.473	9.320	1.00	1.00	39.75	2815.73	0.000	0.000	370.51	0.00	0.00
13	158.00	DC6-48-60-18-8F	1	8.473	9.320	0.40	0.80	0.54	82.61	0.000	0.000	5.07	0.00	0.00
14	158.00	DTMABP7819VG12A	6	8.473	9.320	0.40	0.80	4.59	248.36	0.000	0.000	42.80	0.00	0.00
15	158.00	AM-X-CD-16-65-00T-RET	4	8.473	9.320	0.60	0.80	25.99	699.29	0.000	0.000	242.21	0.00	0.00
16	158.00	SBNH-1D65C	2	8.473	9.320	0.68	0.80	17.86	650.17	0.000	0.000	166.48	0.00	0.00
17	158.00	7770.00	3	8.473	9.320	0.58	0.80	11.51	534.12	0.000	0.000	107.30	0.00	0.00
18	158.00	RRUS 11	6	8.473	9.320	0.40	0.80	7.62	903.63	0.000	0.000	71.02	0.00	0.00
19	148.00	BXA-171063-12BF	3	8.357	9.193	0.62	0.80	9.05	160.74	0.000	0.000	83.18	0.00	0.00
20	148.00	Low Profile	1	8.357	9.193	1.00	1.00	39.64	2807.16	0.000	0.000	364.38	0.00	0.00
21	148.00	BXA-70063-6CF	3	8.357	9.193	0.59	0.80	10.94	252.52	0.000	0.000	100.56	0.00	0.00
22	148.00	FD9R6004-2C-3L	6	8.357	9.193	0.40	0.80	1.93	56.61	0.000	0.000	17.71	0.00	0.00
23	148.00	/LPA-80063-4CF	2	8.357	9.193	0.74	0.80	18.61	437.26	0.000	0.000	171.11	0.00	0.00
24	148.00	DB844G65ZAXY	4	8.357	9.193	0.62	0.80	17.97	767.01	0.000	0.000	165.21	0.00	0.00
							Totals:		**21,873.56**			**3,940.29**		

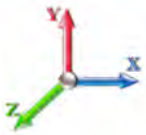
Total Applied Force Summary

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 28

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		155.08	2065.06	0.00	0.00
10.00		153.20	2067.61	0.00	0.00
15.00		151.12	2057.09	0.00	0.00
20.00		158.05	2040.84	0.00	0.00
25.00		163.19	2021.28	0.00	0.00
30.00		166.99	1999.56	0.00	0.00
35.00		169.80	1976.27	0.00	0.00
40.00		171.84	1951.81	0.00	0.00
43.04		104.69	1174.57	0.00	0.00
43.25		7.20	80.81	0.00	0.00
45.00		61.26	1054.80	0.00	0.00
49.00		141.22	2389.29	0.00	0.00
50.00		35.15	348.72	0.00	0.00
55.00		177.55	1728.33	0.00	0.00
60.00		177.73	1704.46	0.00	0.00
62.00		70.70	675.50	0.00	0.00
65.00		106.17	1005.66	0.00	0.00
70.00		177.18	1655.41	0.00	0.00
75.00		176.51	1630.34	0.00	0.00
80.00		175.61	1604.95	0.00	0.00
85.00		174.50	1579.28	0.00	0.00
87.50		86.51	780.66	0.00	0.00
90.00		87.48	1162.64	0.00	0.00
91.75		60.98	807.63	0.00	0.00
92.25		17.36	229.86	0.00	0.00
95.00		95.48	767.30	0.00	0.00
100.00		172.80	1375.90	0.00	0.00
103.75		128.29	1009.45	0.00	0.00
105.00		42.43	323.44	0.00	0.00
110.00		169.18	1276.40	0.00	0.00
115.00		167.16	1252.59	0.00	0.00
120.00		165.03	1228.63	0.00	0.00
125.00		162.78	1204.54	0.00	0.00
130.00		160.43	1180.33	0.00	0.00
132.50		79.13	581.99	0.00	0.00
135.00		79.51	798.86	0.00	0.00
136.50		47.37	475.21	0.00	0.00
140.00		109.80	672.09	0.00	0.00
145.00		154.81	942.39	0.00	0.00
148.00	(19) attachments	993.59	5038.28	0.00	0.00
150.00		60.37	337.75	0.00	0.00
155.00		149.29	828.21	0.00	0.00
158.00	(23) attachments	1093.47	6422.29	0.00	0.00
160.00		58.09	292.00	0.00	0.00
165.00		143.45	713.66	0.00	0.00
168.00	(26) attachments	1346.17	8374.37	0.00	0.00

Total Applied Force Summary

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 29

Tower Engineering Solutions

170.00		55.69	264.48	0.00	0.00
175.00		137.32	644.69	0.00	0.00
178.00	(2) attachments	851.87	3881.77	0.00	151.52
	Totals:	**9,750.58**	**75,679.08**	**0.00**	**151.52**

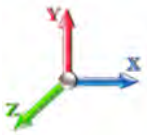
Linear Appurtenance Segment Forces (Factored)

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 30	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.66	0.00	0.029	0.000	5.168	0.00	36.18
10.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.73	0.00	0.029	0.000	5.168	0.00	39.32
15.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.78	0.00	0.030	0.000	5.168	0.00	41.30
20.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.81	0.00	0.030	0.000	5.483	0.00	42.78
25.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.84	0.00	0.031	0.000	5.747	0.00	43.98
30.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.86	0.00	0.031	0.000	5.972	0.00	44.98
35.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.88	0.00	0.032	0.000	6.169	0.00	45.85
40.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.90	0.00	0.032	0.000	6.345	0.00	46.62
43.04	1.25" Reinforcing	Yes	3.04	0.000	1.50	1.16	0.00	0.033	0.000	6.444	0.00	28.61
43.25	1.25" Reinforcing	Yes	0.21	0.000	1.50	0.08	0.00	0.033	0.000	6.450	0.00	1.98
45.00	1.25" Reinforcing	Yes	1.75	0.000	1.50	0.67	0.00	0.033	0.000	6.504	0.00	16.56
49.00	1.25" Reinforcing	Yes	4.00	0.000	1.50	1.54	0.00	0.034	0.000	6.622	0.00	38.26
50.00	1.25" Reinforcing	Yes	1.00	0.000	1.50	0.39	0.00	0.033	0.000	6.650	0.00	9.59
55.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.94	0.00	0.034	0.000	6.785	0.00	48.53
60.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.95	0.00	0.034	0.000	6.910	0.00	49.06
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.50	0.78	0.00	0.035	0.000	6.958	0.00	19.71
65.00	1.25" Reinforcing	Yes	3.00	0.000	1.50	1.18	0.00	0.035	0.000	7.028	0.00	29.74
70.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.97	0.00	0.036	0.000	7.138	0.00	50.03
75.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.98	0.00	0.037	0.000	7.243	0.00	50.47
80.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	1.99	0.00	0.037	0.000	7.342	0.00	50.88
85.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	2.00	0.00	0.038	0.000	7.436	0.00	51.28
87.50	1.25" Reinforcing	Yes	2.50	0.000	1.50	1.00	0.00	0.039	0.000	7.482	0.00	25.73
90.00	1.25" Reinforcing	Yes	2.50	0.000	1.50	1.00	0.00	0.039	0.000	7.526	0.00	25.83
91.75	1.25" Reinforcing	Yes	1.75	0.000	1.50	0.70	0.00	0.040	0.000	7.557	0.00	18.12
92.25	1.25" Reinforcing	Yes	0.50	0.000	1.50	0.20	0.00	0.040	0.000	7.565	0.00	5.18
95.00	1.25" Reinforcing	Yes	2.75	0.000	1.50	1.11	0.00	0.039	0.000	7.612	0.00	28.60
100.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	2.02	0.00	0.040	0.000	7.695	0.00	52.35
103.75	1.25" Reinforcing	Yes	3.00	0.000	1.50	1.22	0.00	0.033	0.000	7.755	0.00	31.56
										Totals:	**0.0**	**973.1**

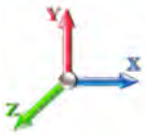
Calculated Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 31	

Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 25

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-75.68	-9.78	0.00	-1250.5	0.00	1250.57	5032.32	2516.16	10592.9	5304.33	0.00	0.000	0.000	0.156
5.00	-73.60	-9.68	0.00	-1201.6	0.00	1201.67	4975.71	2487.85	10302.9	5159.13	0.02	-0.046	0.000	0.153
10.00	-71.53	-9.59	0.00	-1153.2	0.00	1153.25	4918.28	2459.14	10015.1	5015.04	0.10	-0.092	0.000	0.150
15.00	-69.46	-9.49	0.00	-1105.3	0.00	1105.31	4860.04	2430.02	9729.75	4872.10	0.22	-0.139	0.000	0.147
20.00	-67.41	-9.38	0.00	-1057.8	0.00	1057.88	4800.98	2400.49	9446.70	4730.37	0.39	-0.185	0.000	0.152
25.00	-65.39	-9.26	0.00	-1010.9	0.00	1010.98	4741.11	2370.56	9166.14	4589.88	0.61	-0.233	0.000	0.148
30.00	-63.38	-9.14	0.00	-964.66	0.00	964.66	4680.43	2340.21	8888.14	4450.68	0.88	-0.282	0.000	0.145
35.00	-61.40	-9.01	0.00	-918.95	0.00	918.95	4618.93	2309.46	8612.79	4312.80	1.20	-0.331	0.000	0.141
40.00	-59.44	-8.87	0.00	-873.89	0.00	873.89	4556.62	2278.31	8340.18	4176.29	1.57	-0.379	0.000	0.138
43.04	-58.26	-8.77	0.00	-846.92	0.00	846.92	4518.33	2259.17	8175.80	4093.98	1.82	-0.409	0.000	0.139
43.25	-58.18	-8.78	0.00	-845.08	0.00	845.08	4515.67	2257.84	8164.48	4088.31	1.84	-0.411	0.000	0.139
45.00	-57.12	-8.74	0.00	-829.72	0.00	829.72	4493.49	2246.74	8070.38	4041.19	2.00	-0.429	0.000	0.136
49.00	-54.73	-8.60	0.00	-794.78	0.00	794.78	3697.88	1848.94	6673.72	3341.82	2.37	-0.468	0.000	0.142
50.00	-54.38	-8.59	0.00	-786.18	0.00	786.18	3688.23	1844.12	6630.98	3320.42	2.47	-0.478	0.000	0.150
55.00	-52.64	-8.44	0.00	-743.23	0.00	743.23	3639.50	1819.75	6418.42	3213.98	3.00	-0.529	0.000	0.145
60.00	-50.94	-8.28	0.00	-701.01	0.00	701.01	3589.95	1794.97	6207.79	3108.51	3.58	-0.580	0.000	0.141
62.00	-50.26	-8.23	0.00	-684.45	0.00	684.45	3569.90	1784.95	6124.11	3066.60	3.83	-0.601	0.000	0.143
65.00	-49.25	-8.15	0.00	-659.77	0.00	659.77	3539.58	1769.79	5999.19	3004.06	4.22	-0.633	0.000	0.140
70.00	-47.59	-7.99	0.00	-619.04	0.00	619.04	3488.40	1744.20	5792.70	2900.65	4.91	-0.684	0.000	0.135
75.00	-45.95	-7.84	0.00	-579.07	0.00	579.07	3436.41	1718.21	5588.39	2798.35	5.65	-0.735	0.000	0.130
80.00	-44.34	-7.68	0.00	-539.89	0.00	539.89	3383.61	1691.80	5386.36	2697.18	6.45	-0.786	0.000	0.125
85.00	-42.76	-7.51	0.00	-501.50	0.00	501.50	3329.98	1664.99	5186.69	2597.20	7.30	-0.835	0.000	0.119
87.50	-41.98	-7.43	0.00	-482.73	0.00	482.73	3302.87	1651.43	5087.76	2547.66	7.74	-0.860	0.000	0.116
90.00	-40.81	-7.34	0.00	-464.16	0.00	464.16	3275.55	1637.77	4989.46	2498.44	8.20	-0.884	0.000	0.112
91.75	-40.01	-7.27	0.00	-451.32	0.00	451.32	3256.30	1628.15	4921.02	2464.17	8.52	-0.901	0.000	0.149
92.25	-39.77	-7.27	0.00	-447.68	0.00	447.68	2608.31	1304.15	4013.68	2009.82	8.62	-0.907	0.000	0.159
95.00	-39.00	-7.19	0.00	-427.70	0.00	427.70	2586.56	1293.28	3931.38	1968.61	9.15	-0.942	0.000	0.171
100.00	-37.62	-7.04	0.00	-391.73	0.00	391.73	2546.40	1273.20	3782.92	1894.27	10.17	-1.010	0.000	0.162
103.75	-36.61	-6.91	0.00	-365.35	0.00	365.35	2515.74	1257.87	3672.60	1839.03	10.99	-1.060	0.000	0.155
103.75	-36.61	-6.91	0.00	-365.35	0.00	365.35	2515.74	1257.87	3672.60	1839.03	10.99	-1.060	0.000	0.155
105.00	-36.28	-6.90	0.00	-356.71	0.00	356.71	2505.42	1252.71	3636.03	1820.72	11.27	-1.076	0.000	0.210
110.00	-35.00	-6.75	0.00	-322.23	0.00	322.23	2463.62	1231.81	3490.80	1747.99	12.44	-1.163	0.000	0.199
115.00	-33.74	-6.61	0.00	-288.47	0.00	288.47	2421.01	1210.51	3347.31	1676.14	13.71	-1.248	0.000	0.186
120.00	-32.51	-6.46	0.00	-255.42	0.00	255.42	2377.59	1188.79	3205.66	1605.21	15.06	-1.328	0.000	0.173
125.00	-31.30	-6.31	0.00	-223.12	0.00	223.12	2333.35	1166.68	3065.91	1535.23	16.49	-1.405	0.000	0.159
130.00	-30.12	-6.15	0.00	-191.57	0.00	191.57	2288.30	1144.15	2928.16	1466.26	18.00	-1.476	0.000	0.144
132.50	-29.53	-6.07	0.00	-176.21	0.00	176.21	2265.47	1132.73	2860.06	1432.16	18.78	-1.511	0.000	0.136
135.00	-28.74	-5.98	0.00	-161.03	0.00	161.03	2238.61	1119.31	2787.73	1395.94	19.58	-1.544	0.000	0.128
136.50	-28.26	-5.94	0.00	-152.06	0.00	152.06	1414.08	707.04	1782.89	892.77	20.07	-1.563	0.000	0.190
140.00	-27.58	-5.84	0.00	-131.28	0.00	131.28	1397.66	698.83	1728.59	865.58	21.23	-1.604	0.000	0.171
145.00	-26.64	-5.68	0.00	-102.10	0.00	102.10	1373.51	686.75	1651.57	827.01	22.95	-1.673	0.000	0.143
148.00	-21.63	-4.55	0.00	-85.06	0.00	85.06	1358.62	679.31	1605.69	804.04	24.01	-1.710	0.000	0.122
150.00	-21.29	-4.49	0.00	-75.97	0.00	75.97	1348.54	674.27	1575.26	788.80	24.73	-1.732	0.000	0.112
155.00	-20.47	-4.33	0.00	-53.52	0.00	53.52	1322.76	661.38	1499.73	750.98	26.57	-1.777	0.000	0.087
158.00	-14.08	-3.04	0.00	-40.54	0.00	40.54	1306.90	653.45	1454.83	728.50	27.70	-1.799	0.000	0.066
160.00	-13.79	-2.97	0.00	-34.46	0.00	34.46	1296.17	648.08	1425.08	713.60	28.45	-1.811	0.000	0.059
165.00	-13.08	-2.81	0.00	-19.59	0.00	19.59	1268.76	634.38	1351.39	676.70	30.36	-1.834	0.000	0.039
168.00	-4.75	-1.20	0.00	-11.15	0.00	11.15	1251.92	625.96	1307.68	654.81	31.52	-1.843	0.000	0.021

Calculated Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 32	

170.00	-4.49	-1.13	0.00	-8.76	0.00	8.76	1240.54	620.27	1278.75	640.32	32.29	-1.847	0.000	0.017
175.00	-3.85	-0.98	0.00	-3.08	0.00	3.08	1211.50	605.75	1207.23	604.51	34.23	-1.853	0.000	0.008
178.00	0.00	-0.85	0.00	-0.15	0.00	0.15	1193.69	596.84	1164.89	583.31	35.39	-1.854	0.000	0.000

Seismic Segment Forces (Factored)

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 33

Load Case:	1.2D + 1.0E							**Iterations**	23
Gust Response Factor	1.10				**Sds**	0.21		**Ss**	0.20
Dead Load Factor	1.20	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.26		**SA**	0.03	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00	RB1	0.00	0.00	0.00	0.00	0.00	
5.00		1201.2	0.00	0.03	0.02	26.91	
10.00		1181.7	0.01	0.05	0.03	37.91	
15.00		1162.1	0.01	0.06	0.03	43.06	
20.00	RT1 RB2	1142.5	0.02	0.07	0.04	45.41	
25.00		1122.9	0.04	0.07	0.04	46.36	
30.00		1103.3	0.05	0.07	0.04	46.69	
35.00		1083.7	0.07	0.07	0.04	46.82	
40.00		1064.1	0.10	0.07	0.04	46.93	
43.04	RT2 RB3	637.45	0.11	0.07	0.04	28.48	
43.25	Bot - Section 2	43.77	0.11	0.07	0.04	1.96	
45.00		680.61	0.12	0.07	0.03	30.67	
49.00	Top - Section 1	1538.9	0.14	0.07	0.03	70.53	
50.00		177.67	0.15	0.07	0.03	8.17	
55.00		878.25	0.18	0.07	0.03	41.01	
60.00		861.47	0.21	0.06	0.02	40.28	
62.00	RT3 RB4	339.89	0.23	0.06	0.02	15.80	
65.00		504.79	0.25	0.05	0.02	23.05	
70.00		827.89	0.29	0.05	0.01	35.32	
75.00		811.10	0.34	0.04	0.01	29.93	
80.00		794.32	0.38	0.02	0.01	21.88	
85.00		777.53	0.43	0.01	0.01	11.15	
87.50	Bot - Section 3	382.47	0.46	0.00	0.01	2.49	
90.00		699.30	0.48	-0.01	0.01	-1.29	
91.75	RT4 RB5	484.93	0.50	-0.02	0.01	-3.79	
92.25	Top - Section 2	137.86	0.51	-0.02	0.01	-1.31	
95.00		345.63	0.54	-0.03	0.01	-6.47	
100.00		617.57	0.60	-0.05	0.01	-20.74	
103.75	RT5	454.00	0.64	-0.07	0.02	-19.18	
105.00		149.58	0.66	-0.07	0.02	-6.67	
110.00		589.60	0.72	-0.09	0.03	-30.01	
115.00		575.61	0.79	-0.11	0.05	-30.30	
120.00		561.62	0.86	-0.12	0.07	-28.12	
125.00		547.63	0.93	-0.12	0.10	-23.80	
130.00		533.64	1.01	-0.11	0.14	-17.61	
132.50	Bot - Section 4	261.57	1.05	-0.09	0.16	-6.89	
135.00		441.91	1.09	-0.08	0.18	-8.30	
136.50	Top - Section 3	262.29	1.11	-0.06	0.19	-3.61	
140.00		251.19	1.17	-0.02	0.23	-0.20	
145.00		350.52	1.25	0.06	0.30	7.34	
148.00	Appurtenance(s)	1903.5	1.31	0.13	0.34	68.19	
150.00		135.12	1.34	0.18	0.37	6.29	
155.00		330.93	1.43	0.35	0.47	25.15	
158.00	Appurtenance(s)	2543.2	1.49	0.47	0.53	243.18	
160.00		127.28	1.53	0.57	0.58	13.94	
165.00		311.34	1.62	0.85	0.70	45.80	

Seismic Segment Forces (Factored)

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 34	

168.00	Appurtenance(s)		3464.6	1.68	1.06	0.79	594.70		
170.00			119.44	1.72	1.22	0.85	22.56		
175.00			291.75	1.83	1.66	1.02	68.54		
178.00	Appurtenance(s)		1783.3	1.89	1.98	1.14	472.01		
		Totals:	**36,593.1**				**2,060.3**	**Total Wind:**	**33,100.9**

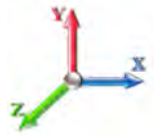
Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 35	

Tower Engineering Solutions

Load Case: 1.2D + 1.0E



Gust Response Factor	1.10			**Sds**	0.21			**Iterations**	23
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.10			**Ss**	0.20
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.26	**SA**	0.03			**S1**	0.07
								Seismic Importance Factor	1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-49.58	-2.27	0.00	-306.97	0.00	306.97	5032.32	2516.16	10592.9	5304.33		0.00	0.00	0.042
5.00	-47.96	-2.25	0.00	-295.61	0.00	295.61	4975.71	2487.85	10302.9	5159.13		0.01	-0.01	0.041
10.00	-46.35	-2.23	0.00	-284.34	0.00	284.34	4918.28	2459.14	10015.1	5015.04		0.02	-0.02	0.041
15.00	-44.78	-2.19	0.00	-273.21	0.00	273.21	4860.04	2430.02	9729.75	4872.10		0.05	-0.03	0.040
20.00	-43.22	-2.15	0.00	-262.25	0.00	262.25	4800.98	2400.49	9446.70	4730.37		0.10	-0.05	0.041
25.00	-41.69	-2.11	0.00	-251.49	0.00	251.49	4741.11	2370.56	9166.14	4589.88		0.15	-0.06	0.040
30.00	-40.19	-2.07	0.00	-240.92	0.00	240.92	4680.43	2340.21	8888.14	4450.68		0.22	-0.07	0.039
35.00	-38.71	-2.03	0.00	-230.55	0.00	230.55	4618.93	2309.46	8612.79	4312.80		0.30	-0.08	0.038
40.00	-37.25	-1.99	0.00	-220.38	0.00	220.38	4556.62	2278.31	8340.18	4176.29		0.39	-0.09	0.038
43.04	-36.37	-1.96	0.00	-214.33	0.00	214.33	4518.33	2259.17	8175.80	4093.98		0.45	-0.10	0.038
43.25	-36.31	-1.96	0.00	-213.91	0.00	213.91	4515.67	2257.84	8164.48	4088.31		0.46	-0.10	0.038
45.00	-35.43	-1.94	0.00	-210.48	0.00	210.48	4493.49	2246.74	8070.38	4041.19		0.49	-0.11	0.037
49.00	-33.44	-1.86	0.00	-202.74	0.00	202.74	3697.88	1848.94	6673.72	3341.82		0.59	-0.12	0.039
50.00	-33.19	-1.86	0.00	-200.87	0.00	200.87	3688.23	1844.12	6630.98	3320.42		0.61	-0.12	0.041
55.00	-31.95	-1.82	0.00	-191.57	0.00	191.57	3639.50	1819.75	6418.42	3213.98		0.74	-0.13	0.040
60.00	-30.74	-1.79	0.00	-182.45	0.00	182.45	3589.95	1794.97	6207.79	3108.51		0.89	-0.15	0.039
62.00	-30.26	-1.77	0.00	-178.88	0.00	178.88	3569.90	1784.95	6124.11	3066.60		0.95	-0.15	0.040
65.00	-29.54	-1.75	0.00	-173.56	0.00	173.56	3539.58	1769.79	5999.19	3004.06		1.05	-0.16	0.040
70.00	-28.36	-1.72	0.00	-164.80	0.00	164.80	3488.40	1744.20	5792.70	2900.65		1.22	-0.17	0.039
75.00	-27.21	-1.69	0.00	-156.19	0.00	156.19	3436.41	1718.21	5588.39	2798.35		1.41	-0.19	0.037
80.00	-26.07	-1.67	0.00	-147.72	0.00	147.72	3383.61	1691.80	5386.36	2697.18		1.61	-0.20	0.036
85.00	-24.96	-1.66	0.00	-139.35	0.00	139.35	3329.98	1664.99	5186.69	2597.20		1.83	-0.21	0.035
87.50	-24.41	-1.66	0.00	-135.19	0.00	135.19	3302.87	1651.43	5087.76	2547.66		1.95	-0.22	0.035
90.00	-23.48	-1.66	0.00	-131.03	0.00	131.03	3275.55	1637.77	4989.46	2498.44		2.06	-0.23	0.034
91.75	-22.83	-1.66	0.00	-128.12	0.00	128.12	3256.30	1628.15	4921.02	2464.17		2.15	-0.23	0.045
92.25	-22.65	-1.66	0.00	-127.29	0.00	127.29	2608.31	1304.15	4013.68	2009.82		2.17	-0.23	0.048
95.00	-22.13	-1.66	0.00	-122.73	0.00	122.73	2586.56	1293.28	3931.38	1968.61		2.31	-0.24	0.052
100.00	-21.21	-1.67	0.00	-114.40	0.00	114.40	2546.40	1273.20	3782.92	1894.27		2.58	-0.26	0.050
103.75	-20.53	-1.67	0.00	-108.15	0.00	108.15	2515.74	1257.87	3672.60	1839.03		2.79	-0.28	0.049
103.75	-20.53	-1.67	0.00	-108.15	0.00	108.15	2515.74	1257.87	3672.60	1839.03		2.79	-0.28	0.049
105.00	-20.30	-1.67	0.00	-106.06	0.00	106.06	2505.42	1252.71	3636.03	1820.72		2.86	-0.28	0.066
110.00	-19.41	-1.68	0.00	-97.70	0.00	97.70	2463.62	1231.81	3490.80	1747.99		3.17	-0.31	0.064
115.00	-18.54	-1.68	0.00	-89.32	0.00	89.32	2421.01	1210.51	3347.31	1676.14		3.51	-0.34	0.061
120.00	-17.68	-1.68	0.00	-80.93	0.00	80.93	2377.59	1188.79	3205.66	1605.21		3.88	-0.36	0.058
125.00	-16.84	-1.68	0.00	-72.52	0.00	72.52	2333.35	1166.68	3065.91	1535.23		4.27	-0.39	0.054
130.00	-16.02	-1.68	0.00	-64.10	0.00	64.10	2288.30	1144.15	2928.16	1466.26		4.68	-0.41	0.051
132.50	-15.62	-1.68	0.00	-59.89	0.00	59.89	2265.47	1132.73	2860.06	1432.16		4.90	-0.42	0.049
135.00	-14.99	-1.68	0.00	-55.68	0.00	55.68	2238.61	1119.31	2787.73	1395.94		5.12	-0.43	0.047
136.50	-14.62	-1.68	0.00	-53.16	0.00	53.16	1414.08	707.04	1782.89	892.77		5.26	-0.44	0.070
140.00	-14.20	-1.68	0.00	-47.28	0.00	47.28	1397.66	698.83	1728.59	865.58		5.59	-0.45	0.065
145.00	-13.59	-1.68	0.00	-38.86	0.00	38.86	1373.51	686.75	1651.57	827.01		6.07	-0.48	0.057
148.00	-11.20	-1.59	0.00	-33.84	0.00	33.84	1358.62	679.31	1605.69	804.04		6.38	-0.49	0.050
150.00	-10.99	-1.58	0.00	-30.66	0.00	30.66	1348.54	674.27	1575.26	788.80		6.59	-0.50	0.047
155.00	-10.49	-1.56	0.00	-22.74	0.00	22.74	1322.76	661.38	1499.73	750.98		7.12	-0.52	0.038
158.00	-7.38	-1.29	0.00	-18.07	0.00	18.07	1306.90	653.45	1454.83	728.50		7.45	-0.53	0.030
160.00	-7.21	-1.27	0.00	-15.50	0.00	15.50	1296.17	648.08	1425.08	713.60		7.68	-0.53	0.027
165.00	-6.81	-1.22	0.00	-9.14	0.00	9.14	1268.76	634.38	1351.39	676.70		8.24	-0.55	0.019

Calculated Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 36	

168.00	-2.63	-0.59	0.00	-5.48	0.00	5.48	1251.92	625.96	1307.68	654.81	8.59	-0.55	0.010
170.00	-2.49	-0.56	0.00	-4.30	0.00	4.30	1240.54	620.27	1278.75	640.32	8.82	-0.55	0.009
175.00	-2.14	-0.49	0.00	-1.48	0.00	1.48	1211.50	605.75	1207.23	604.51	9.40	-0.55	0.004
178.00	0.00	-0.47	0.00	0.00	0.00	0.00	1193.69	596.84	1164.89	583.31	9.75	-0.55	0.000

Seismic Segment Forces (Factored)

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 37

Load Case:	0.9D + 1.0E							**Iterations**	23
Gust Response Factor	1.10				**Sds**	0.21		**Ss**	0.20
Dead Load Factor	0.90	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.26		**SA**	0.03	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00	RB1	0.00	0.00	0.00	0.00	0.00	
5.00		1201.2	0.00	0.03	0.02	26.91	
10.00		1181.7	0.01	0.05	0.03	37.91	
15.00		1162.1	0.01	0.06	0.03	43.06	
20.00	RT1 RB2	1142.5	0.02	0.07	0.04	45.41	
25.00		1122.9	0.04	0.07	0.04	46.36	
30.00		1103.3	0.05	0.07	0.04	46.69	
35.00		1083.7	0.07	0.07	0.04	46.82	
40.00		1064.1	0.10	0.07	0.04	46.93	
43.04	RT2 RB3	637.45	0.11	0.07	0.04	28.48	
43.25	Bot - Section 2	43.77	0.11	0.07	0.04	1.96	
45.00		680.61	0.12	0.07	0.03	30.67	
49.00	Top - Section 1	1538.9	0.14	0.07	0.03	70.53	
50.00		177.67	0.15	0.07	0.03	8.17	
55.00		878.25	0.18	0.07	0.03	41.01	
60.00		861.47	0.21	0.06	0.02	40.28	
62.00	RT3 RB4	339.89	0.23	0.06	0.02	15.80	
65.00		504.79	0.25	0.05	0.02	23.05	
70.00		827.89	0.29	0.05	0.01	35.32	
75.00		811.10	0.34	0.04	0.01	29.93	
80.00		794.32	0.38	0.02	0.01	21.88	
85.00		777.53	0.43	0.01	0.01	11.15	
87.50	Bot - Section 3	382.47	0.46	0.00	0.01	2.49	
90.00		699.30	0.48	-0.01	0.01	-1.29	
91.75	RT4 RB5	484.93	0.50	-0.02	0.01	-3.79	
92.25	Top - Section 2	137.86	0.51	-0.02	0.01	-1.31	
95.00		345.63	0.54	-0.03	0.01	-6.47	
100.00		617.57	0.60	-0.05	0.01	-20.74	
103.75	RT5	454.00	0.64	-0.07	0.02	-19.18	
105.00		149.58	0.66	-0.07	0.02	-6.67	
110.00		589.60	0.72	-0.09	0.03	-30.01	
115.00		575.61	0.79	-0.11	0.05	-30.30	
120.00		561.62	0.86	-0.12	0.07	-28.12	
125.00		547.63	0.93	-0.12	0.10	-23.80	
130.00		533.64	1.01	-0.11	0.14	-17.61	
132.50	Bot - Section 4	261.57	1.05	-0.09	0.16	-6.89	
135.00		441.91	1.09	-0.08	0.18	-8.30	
136.50	Top - Section 3	262.29	1.11	-0.06	0.19	-3.61	
140.00		251.19	1.17	-0.02	0.23	-0.20	
145.00		350.52	1.25	0.06	0.30	7.34	
148.00	Appurtenance(s)	1903.5	1.31	0.13	0.34	68.19	
150.00		135.12	1.34	0.18	0.37	6.29	
155.00		330.93	1.43	0.35	0.47	25.15	
158.00	Appurtenance(s)	2543.2	1.49	0.47	0.53	243.18	
160.00		127.28	1.53	0.57	0.58	13.94	
165.00		311.34	1.62	0.85	0.70	45.80	

Seismic Segment Forces (Factored)

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 38

168.00	Appurtenance(s)		3464.6	1.68	1.06	0.79	594.70		
170.00			119.44	1.72	1.22	0.85	22.56		
175.00			291.75	1.83	1.66	1.02	68.54		
178.00	Appurtenance(s)		1783.3	1.89	1.98	1.14	472.01		
		Totals:	**36,593.1**				**2,060.3**	**Total Wind:**	**33,100.9**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 39	

Load Case:	0.9D + 1.0E							**Iterations**	23
Gust Response Factor	1.10			**Sds**	0.21			**Ss**	0.20
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.26	**SA**	0.03	**Seismic Importance Factor**			1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-37.18	-2.27	0.00	-303.41	0.00	303.41	5032.32	2516.16	10592.9	5304.33		0.00	0.00	0.040
5.00	-35.97	-2.25	0.00	-292.06	0.00	292.06	4975.71	2487.85	10302.9	5159.13		0.01	-0.01	0.039
10.00	-34.77	-2.22	0.00	-280.80	0.00	280.80	4918.28	2459.14	10015.1	5015.04		0.02	-0.02	0.039
15.00	-33.58	-2.18	0.00	-269.70	0.00	269.70	4860.04	2430.02	9729.75	4872.10		0.05	-0.03	0.038
20.00	-32.42	-2.14	0.00	-258.79	0.00	258.79	4800.98	2400.49	9446.70	4730.37		0.09	-0.05	0.039
25.00	-31.27	-2.10	0.00	-248.07	0.00	248.07	4741.11	2370.56	9166.14	4589.88		0.15	-0.06	0.038
30.00	-30.14	-2.06	0.00	-237.56	0.00	237.56	4680.43	2340.21	8888.14	4450.68		0.21	-0.07	0.038
35.00	-29.03	-2.02	0.00	-227.26	0.00	227.26	4618.93	2309.46	8612.79	4312.80		0.29	-0.08	0.037
40.00	-27.93	-1.97	0.00	-217.17	0.00	217.17	4556.62	2278.31	8340.18	4176.29		0.38	-0.09	0.036
43.04	-27.28	-1.95	0.00	-211.17	0.00	211.17	4518.33	2259.17	8175.80	4093.98		0.45	-0.10	0.036
43.25	-27.23	-1.95	0.00	-210.76	0.00	210.76	4515.67	2257.84	8164.48	4088.31		0.45	-0.10	0.036
45.00	-26.57	-1.92	0.00	-207.35	0.00	207.35	4493.49	2246.74	8070.38	4041.19		0.49	-0.11	0.036
49.00	-25.08	-1.85	0.00	-199.68	0.00	199.68	3697.88	1848.94	6673.72	3341.82		0.58	-0.12	0.037
50.00	-24.89	-1.84	0.00	-197.84	0.00	197.84	3688.23	1844.12	6630.98	3320.42		0.60	-0.12	0.039
55.00	-23.96	-1.80	0.00	-188.63	0.00	188.63	3639.50	1819.75	6418.42	3213.98		0.73	-0.13	0.039
60.00	-23.05	-1.77	0.00	-179.61	0.00	179.61	3589.95	1794.97	6207.79	3108.51		0.88	-0.14	0.038
62.00	-22.69	-1.75	0.00	-176.08	0.00	176.08	3569.90	1784.95	6124.11	3066.60		0.94	-0.15	0.038
65.00	-22.15	-1.73	0.00	-170.82	0.00	170.82	3539.58	1769.79	5999.19	3004.06		1.04	-0.16	0.038
70.00	-21.27	-1.70	0.00	-162.17	0.00	162.17	3488.40	1744.20	5792.70	2900.65		1.21	-0.17	0.037
75.00	-20.41	-1.67	0.00	-153.68	0.00	153.68	3436.41	1718.21	5588.39	2798.35		1.39	-0.18	0.036
80.00	-19.55	-1.65	0.00	-145.33	0.00	145.33	3383.61	1691.80	5386.36	2697.18		1.59	-0.20	0.035
85.00	-18.72	-1.64	0.00	-137.08	0.00	137.08	3329.98	1664.99	5186.69	2597.20		1.81	-0.21	0.034
87.50	-18.31	-1.64	0.00	-132.98	0.00	132.98	3302.87	1651.43	5087.76	2547.66		1.92	-0.22	0.033
90.00	-17.61	-1.64	0.00	-128.89	0.00	128.89	3275.55	1637.77	4989.46	2498.44		2.03	-0.22	0.032
91.75	-17.12	-1.64	0.00	-126.02	0.00	126.02	3256.30	1628.15	4921.02	2464.17		2.12	-0.23	0.043
92.25	-16.99	-1.64	0.00	-125.21	0.00	125.21	2608.31	1304.15	4013.68	2009.82		2.14	-0.23	0.046
95.00	-16.60	-1.64	0.00	-120.70	0.00	120.70	2586.56	1293.28	3931.38	1968.61		2.28	-0.24	0.050
100.00	-15.91	-1.64	0.00	-112.51	0.00	112.51	2546.40	1273.20	3782.92	1894.27		2.54	-0.26	0.048
103.75	-15.39	-1.64	0.00	-106.35	0.00	106.35	2515.74	1257.87	3672.60	1839.03		2.75	-0.27	0.046
103.75	-15.39	-1.64	0.00	-106.35	0.00	106.35	2515.74	1257.87	3672.60	1839.03		2.75	-0.27	0.046
105.00	-15.23	-1.64	0.00	-104.30	0.00	104.30	2505.42	1252.71	3636.03	1820.72		2.82	-0.28	0.063
110.00	-14.56	-1.65	0.00	-96.08	0.00	96.08	2463.62	1231.81	3490.80	1747.99		3.13	-0.30	0.061
115.00	-13.90	-1.65	0.00	-87.84	0.00	87.84	2421.01	1210.51	3347.31	1676.14		3.46	-0.33	0.058
120.00	-13.26	-1.65	0.00	-79.59	0.00	79.59	2377.59	1188.79	3205.66	1605.21		3.82	-0.35	0.055
125.00	-12.63	-1.65	0.00	-71.33	0.00	71.33	2333.35	1166.68	3065.91	1535.23		4.20	-0.38	0.052
130.00	-12.01	-1.65	0.00	-63.06	0.00	63.06	2288.30	1144.15	2928.16	1466.26		4.61	-0.40	0.048
132.50	-11.71	-1.65	0.00	-58.93	0.00	58.93	2265.47	1132.73	2860.06	1432.16		4.83	-0.41	0.046
135.00	-11.24	-1.65	0.00	-54.80	0.00	54.80	2238.61	1119.31	2787.73	1395.94		5.05	-0.42	0.044
136.50	-10.97	-1.65	0.00	-52.32	0.00	52.32	1414.08	707.04	1782.89	892.77		5.18	-0.43	0.066
140.00	-10.64	-1.65	0.00	-46.54	0.00	46.54	1397.66	698.83	1728.59	865.58		5.50	-0.45	0.061
145.00	-10.19	-1.65	0.00	-38.28	0.00	38.28	1373.51	686.75	1651.57	827.01		5.98	-0.47	0.054
148.00	-8.40	-1.56	0.00	-33.35	0.00	33.35	1358.62	679.31	1605.69	804.04		6.29	-0.48	0.048
150.00	-8.24	-1.56	0.00	-30.22	0.00	30.22	1348.54	674.27	1575.26	788.80		6.49	-0.49	0.044
155.00	-7.86	-1.53	0.00	-22.43	0.00	22.43	1322.76	661.38	1499.73	750.98		7.02	-0.51	0.036
158.00	-5.53	-1.27	0.00	-17.84	0.00	17.84	1306.90	653.45	1454.83	728.50		7.34	-0.52	0.029
160.00	-5.41	-1.25	0.00	-15.30	0.00	15.30	1296.17	648.08	1425.08	713.60		7.56	-0.53	0.026
165.00	-5.10	-1.21	0.00	-9.03	0.00	9.03	1268.76	634.38	1351.39	676.70		8.12	-0.54	0.017

Calculated Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 40	

168.00	-1.97	-0.58	0.00	-5.42	0.00	5.42	1251.92	625.96	1307.68	654.81	8.46	-0.54	0.010
170.00	-1.87	-0.56	0.00	-4.25	0.00	4.25	1240.54	620.27	1278.75	640.32	8.69	-0.54	0.008
175.00	-1.60	-0.49	0.00	-1.46	0.00	1.46	1211.50	605.75	1207.23	604.51	9.26	-0.55	0.004
178.00	0.00	-0.47	0.00	0.00	0.00	0.00	1193.69	596.84	1164.89	583.31	9.60	-0.55	0.000

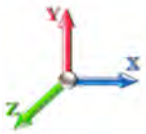
Wind Loading - Shaft

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 41	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00	RB1	1.00	0.85	7.442	8.19	242.00	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	7.442	8.19	238.12	0.650	0.000	5.00	21.699	14.10	115.5	0.0	1201.3
10.00		1.00	0.85	7.442	8.19	234.24	0.650	0.000	5.00	21.348	13.88	113.6	0.0	1181.7
15.00		1.00	0.85	7.442	8.19	230.36	0.650	0.000	5.00	20.997	13.65	111.7	0.0	1162.1
20.00	RT1 RB2	1.00	0.90	7.896	8.69	233.29	0.650	0.000	5.00	20.646	13.42	116.6	0.0	1142.5
25.00		1.00	0.95	8.276	9.10	234.74	0.650	0.000	5.00	20.296	13.19	120.1	0.0	1122.9
30.00		1.00	0.98	8.600	9.46	235.12	0.650	0.000	5.00	19.945	12.96	122.6	0.0	1103.4
35.00		1.00	1.01	8.883	9.77	234.73	0.650	0.000	5.00	19.594	12.74	124.5	0.0	1083.8
40.00		1.00	1.04	9.137	10.05	233.75	0.650	0.000	5.00	19.243	12.51	125.7	0.0	1064.2
43.04	RT2 RB3	1.00	1.06	9.279	10.21	232.92	0.650	0.000	3.04	11.529	7.49	76.5	0.0	637.5
43.25	Bot - Section 2	1.00	1.06	9.288	10.22	232.86	0.650	0.000	0.21	0.792	0.51	5.3	0.0	43.8
45.00		1.00	1.07	9.366	10.30	232.31	0.650	0.000	1.75	6.684	4.34	44.8	0.0	680.6
49.00	Top - Section 1	1.00	1.09	9.536	10.49	230.89	0.650	0.000	4.00	15.115	9.83	103.1	0.0	1539.0
50.00		1.00	1.09	9.576	10.53	234.48	0.650	0.000	1.00	3.744	2.43	25.6	0.0	177.7
55.00		1.00	1.12	9.770	10.75	232.40	0.650	0.000	5.00	18.508	12.03	129.3	0.0	878.3
60.00		1.00	1.14	9.951	10.95	230.05	0.650	0.000	5.00	18.158	11.80	129.2	0.0	861.5
62.00	RT3 RB4	1.00	1.14	10.020	11.02	229.05	0.650	0.000	2.00	7.165	4.66	51.3	0.0	339.9
65.00		1.00	1.16	10.120	11.13	227.47	0.650	0.000	3.00	10.642	6.92	77.0	0.0	504.8
70.00		1.00	1.17	10.279	11.31	224.69	0.650	0.000	5.00	17.456	11.35	128.3	0.0	827.9
75.00		1.00	1.19	10.430	11.47	221.74	0.650	0.000	5.00	17.105	11.12	127.6	0.0	811.1
80.00		1.00	1.21	10.572	11.63	218.62	0.650	0.000	5.00	16.755	10.89	126.7	0.0	794.3
85.00		1.00	1.22	10.708	11.78	215.37	0.650	0.000	5.00	16.404	10.66	125.6	0.0	777.5
87.50	Bot - Section 3	1.00	1.23	10.774	11.85	213.69	0.650	0.000	2.50	8.070	5.25	62.2	0.0	382.5
90.00		1.00	1.24	10.838	11.92	211.99	0.650	0.000	2.50	8.115	5.27	62.9	0.0	699.3
91.75	RT4 RB5	1.00	1.24	10.882	11.97	210.77	0.650	0.000	1.75	5.628	3.66	43.8	0.0	484.9
92.25	Top - Section 2	1.00	1.24	10.894	11.98	210.43	0.650	0.000	0.50	1.600	1.04	12.5	0.0	137.9
95.00		1.00	1.25	10.962	12.06	212.04	0.650	0.000	2.75	8.738	5.68	68.5	0.0	345.6
100.00		1.00	1.27	11.081	12.19	208.45	0.650	0.000	5.00	15.616	10.15	123.7	0.0	617.6
103.75	RT5	1.00	1.28	11.167	12.28	205.69	0.650	0.000	3.75	11.482	7.46	91.7	0.0	454.0
105.00		1.00	1.28	11.195	12.31	204.76	0.650	0.000	1.25	3.783	2.46	30.3	0.0	149.6
110.00		1.00	1.29	11.305	12.44	200.99	0.650	0.000	5.00	14.915	9.69	120.6	0.0	589.6
115.00		1.00	1.30	11.412	12.55	197.12	0.650	0.000	5.00	14.564	9.47	118.8	0.0	575.6
120.00		1.00	1.32	11.514	12.67	193.18	0.650	0.000	5.00	14.213	9.24	117.0	0.0	561.6
125.00		1.00	1.33	11.614	12.78	189.17	0.650	0.000	5.00	13.862	9.01	115.1	0.0	547.6
130.00		1.00	1.34	11.710	12.88	185.08	0.650	0.000	5.00	13.512	8.78	113.1	0.0	533.6
132.50	Bot - Section 4	1.00	1.34	11.757	12.93	183.01	0.650	0.000	2.50	6.624	4.31	55.7	0.0	261.6
135.00		1.00	1.35	11.803	12.98	180.93	0.650	0.000	2.50	6.629	4.31	55.9	0.0	441.9
136.50	Top - Section 3	1.00	1.35	11.831	13.01	179.67	0.650	0.000	1.50	3.935	2.56	33.3	0.0	262.3
140.00		1.00	1.36	11.894	13.08	179.31	0.650	0.000	3.50	9.060	5.89	77.0	0.0	251.2
145.00		1.00	1.37	11.982	13.18	175.05	0.650	0.000	5.00	12.645	8.22	108.3	0.0	350.5
148.00	Appurtenance(s)	1.00	1.37	12.034	13.24	172.47	0.650	0.000	3.00	7.418	4.82	63.8	0.0	205.6
150.00		1.00	1.38	12.068	13.27	170.73	0.650	0.000	2.00	4.875	3.17	42.1	0.0	135.1
155.00		1.00	1.39	12.152	13.37	166.36	0.650	0.000	5.00	11.943	7.76	103.8	0.0	330.9
158.00	Appurtenance(s)	1.00	1.39	12.201	13.42	163.72	0.650	0.000	3.00	6.997	4.55	61.0	0.0	193.9
160.00		1.00	1.40	12.233	13.46	161.95	0.650	0.000	2.00	4.595	2.99	40.2	0.0	127.3
165.00		1.00	1.41	12.313	13.54	157.48	0.650	0.000	5.00	11.242	7.31	99.0	0.0	311.3
168.00	Appurtenance(s)	1.00	1.41	12.360	13.60	154.78	0.650	0.000	3.00	6.577	4.27	58.1	0.0	182.1

Wind Loading - Shaft

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 42	

170.00	1.00	1.42	12.390	13.63	152.97	0.650	0.000	2.00	4.314	2.80	38.2	0.0	119.4
175.00	1.00	1.42	12.466	13.71	148.41	0.650	0.000	5.00	10.540	6.85	93.9	0.0	291.8
178.00 Appurtenance(s)	1.00	1.43	12.511	13.76	145.66	0.650	0.000	3.00	6.156	4.00	55.1	0.0	170.4
							Totals:	**178.00**			**4,166.0**		**27,650.3**

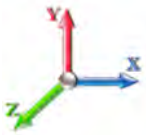
Discrete Appurtenance Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 43	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	178.00	Platform w/ Hand Rail	1	12.511	13.762	1.00	1.00	40.00	1600.00	0.000	0.000	550.48	0.00	0.00
2	178.00	DB220	1	12.556	13.812	1.00	1.00	1.37	13.00	0.000	3.063	18.92	0.00	57.95
3	168.00	ACU-A20-N	4	12.360	13.596	0.38	0.75	0.21	4.00	0.000	0.000	2.86	0.00	0.00
4	168.00	KRD 9011461-B66A-B2A	3	12.360	13.596	0.65	0.75	12.74	396.60	0.000	0.000	173.25	0.00	0.00
5	168.00	APXVAARR24_43-U-NA2	3	12.360	13.596	0.52	0.75	31.88	384.00	0.000	0.000	433.40	0.00	0.00
6	168.00	AIR6449 B41	3	12.360	13.596	0.53	0.75	9.03	309.00	0.000	0.000	122.71	0.00	0.00
7	168.00	800MHz RRH w/ filter	3	12.360	13.596	0.38	0.75	3.89	204.90	0.000	0.000	52.92	0.00	0.00
8	168.00	RRUS 4415 B25	3	12.360	13.596	0.38	0.75	1.84	138.00	0.000	0.000	25.08	0.00	0.00
9	168.00	4449 B71 + B85	3	12.360	13.596	0.38	0.75	2.22	219.60	0.000	0.000	30.13	0.00	0.00
10	168.00	ALU 800MHz External	3	12.360	13.596	0.38	0.75	0.88	26.40	0.000	0.000	11.93	0.00	0.00
11	168.00	Platform w/ Hand Rail	1	12.360	13.596	1.00	1.00	32.00	1600.00	0.000	0.000	435.06	0.00	0.00
12	158.00	Low Profile	1	12.201	13.421	1.00	1.00	22.00	1500.00	0.000	0.000	295.26	0.00	0.00
13	158.00	DC6-48-60-18-8F	1	12.201	13.421	0.40	0.80	0.37	31.80	0.000	0.000	4.94	0.00	0.00
14	158.00	DTMABP7819VG12A	6	12.201	13.421	0.40	0.80	2.74	115.20	0.000	0.000	36.72	0.00	0.00
15	158.00	AM-X-CD-16-65-00T-RET	4	12.201	13.421	0.60	0.80	19.25	194.00	0.000	0.000	258.33	0.00	0.00
16	158.00	SBNH-1D65C	2	12.201	13.421	0.68	0.80	15.59	99.20	0.000	0.000	209.17	0.00	0.00
17	158.00	7770.00	3	12.201	13.421	0.58	0.80	9.64	105.00	0.000	0.000	129.32	0.00	0.00
18	158.00	RRUS 11	6	12.201	13.421	0.40	0.80	6.05	304.20	0.000	0.000	81.17	0.00	0.00
19	148.00	BXA-171063-12BF	3	12.034	13.238	0.62	0.80	5.75	19.50	0.000	0.000	76.08	0.00	0.00
20	148.00	Low Profile	1	12.034	13.238	1.00	1.00	22.00	1500.00	0.000	0.000	291.23	0.00	0.00
21	148.00	BXA-70063-6CF	3	12.034	13.238	0.59	0.80	7.83	37.80	0.000	0.000	103.68	0.00	0.00
22	148.00	FD9R6004-2C-3L	6	12.034	13.238	0.40	0.80	0.86	18.60	0.000	0.000	11.44	0.00	0.00
23	148.00	/LPA-80063-4CF	2	12.034	13.238	0.74	0.80	14.52	54.00	0.000	0.000	192.25	0.00	0.00
24	148.00	DB844G65ZAXY	4	12.034	13.238	0.62	0.80	15.35	68.00	0.000	0.000	203.20	0.00	0.00
							Totals:		**8,942.80**			**3,749.52**		

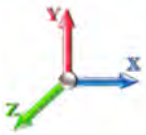
Total Applied Force Summary

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 44

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		115.46	1352.84	0.00	0.00
10.00		113.59	1333.25	0.00	0.00
15.00		111.73	1313.67	0.00	0.00
20.00		116.56	1294.08	0.00	0.00
25.00		120.10	1274.50	0.00	0.00
30.00		122.64	1254.91	0.00	0.00
35.00		124.46	1235.33	0.00	0.00
40.00		125.71	1215.74	0.00	0.00
43.04		76.48	729.60	0.00	0.00
43.25		5.26	50.13	0.00	0.00
45.00		44.76	733.66	0.00	0.00
49.00		103.06	1660.20	0.00	0.00
50.00		25.63	207.98	0.00	0.00
55.00		129.30	1029.80	0.00	0.00
60.00		129.19	1013.02	0.00	0.00
62.00		51.33	400.51	0.00	0.00
65.00		77.00	595.72	0.00	0.00
70.00		128.30	979.44	0.00	0.00
75.00		127.56	962.65	0.00	0.00
80.00		126.65	945.87	0.00	0.00
85.00		125.59	929.08	0.00	0.00
87.50		62.17	458.24	0.00	0.00
90.00		62.88	775.08	0.00	0.00
91.75		43.79	537.97	0.00	0.00
92.25		12.46	153.01	0.00	0.00
95.00		68.49	428.98	0.00	0.00
100.00		123.72	769.12	0.00	0.00
103.75		91.68	567.66	0.00	0.00
105.00		30.28	187.47	0.00	0.00
110.00		120.56	741.15	0.00	0.00
115.00		118.83	727.16	0.00	0.00
120.00		117.01	713.17	0.00	0.00
125.00		115.11	699.18	0.00	0.00
130.00		113.13	685.19	0.00	0.00
132.50		55.69	337.35	0.00	0.00
135.00		55.95	517.68	0.00	0.00
136.50		33.29	307.76	0.00	0.00
140.00		77.05	357.28	0.00	0.00
145.00		108.33	502.07	0.00	0.00
148.00	(19) attachments	941.70	1994.44	0.00	0.00
150.00		42.07	170.78	0.00	0.00
155.00		103.77	420.08	0.00	0.00
158.00	(23) attachments	1075.96	2596.75	0.00	0.00
160.00		40.19	137.98	0.00	0.00
165.00		98.97	338.09	0.00	0.00
168.00	(26) attachments	1345.45	3480.66	0.00	0.00

Total Applied Force Summary

Structure:	CT46127-A-SBA		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 45

170.00		38.22	120.48	0.00	0.00
175.00		93.95	294.35	0.00	0.00
178.00	(2) attachments	624.47	1784.91	0.00	57.95
	Totals:	**7,915.51**	**41,316.01**	**0.00**	**57.95**

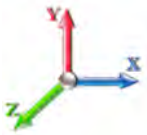
Linear Appurtenance Segment Forces (Factored)

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 46	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.029	0.000	7.442	0.00	0.00
10.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.029	0.000	7.442	0.00	0.00
15.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.030	0.000	7.442	0.00	0.00
20.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.030	0.000	7.896	0.00	0.00
25.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.031	0.000	8.276	0.00	0.00
30.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.031	0.000	8.600	0.00	0.00
35.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.032	0.000	8.883	0.00	0.00
40.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.032	0.000	9.137	0.00	0.00
43.04	1.25" Reinforcing	Yes	3.04	0.000	1.50	0.38	0.00	0.033	0.000	9.279	0.00	0.00
43.25	1.25" Reinforcing	Yes	0.21	0.000	1.50	0.03	0.00	0.033	0.000	9.288	0.00	0.00
45.00	1.25" Reinforcing	Yes	1.75	0.000	1.50	0.22	0.00	0.033	0.000	9.366	0.00	0.00
49.00	1.25" Reinforcing	Yes	4.00	0.000	1.50	0.50	0.00	0.034	0.000	9.536	0.00	0.00
50.00	1.25" Reinforcing	Yes	1.00	0.000	1.50	0.13	0.00	0.033	0.000	9.576	0.00	0.00
55.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.034	0.000	9.770	0.00	0.00
60.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.034	0.000	9.951	0.00	0.00
62.00	1.25" Reinforcing	Yes	2.00	0.000	1.50	0.25	0.00	0.035	0.000	10.020	0.00	0.00
65.00	1.25" Reinforcing	Yes	3.00	0.000	1.50	0.38	0.00	0.035	0.000	10.120	0.00	0.00
70.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.036	0.000	10.279	0.00	0.00
75.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.037	0.000	10.430	0.00	0.00
80.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.037	0.000	10.572	0.00	0.00
85.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.038	0.000	10.708	0.00	0.00
87.50	1.25" Reinforcing	Yes	2.50	0.000	1.50	0.31	0.00	0.039	0.000	10.774	0.00	0.00
90.00	1.25" Reinforcing	Yes	2.50	0.000	1.50	0.31	0.00	0.039	0.000	10.838	0.00	0.00
91.75	1.25" Reinforcing	Yes	1.75	0.000	1.50	0.22	0.00	0.040	0.000	10.882	0.00	0.00
92.25	1.25" Reinforcing	Yes	0.50	0.000	1.50	0.06	0.00	0.040	0.000	10.894	0.00	0.00
95.00	1.25" Reinforcing	Yes	2.75	0.000	1.50	0.34	0.00	0.039	0.000	10.962	0.00	0.00
100.00	1.25" Reinforcing	Yes	5.00	0.000	1.50	0.63	0.00	0.040	0.000	11.081	0.00	0.00
103.75	1.25" Reinforcing	Yes	3.00	0.000	1.50	0.38	0.00	0.033	0.000	11.167	0.00	0.00
										Totals:	**0.0**	**0.0**

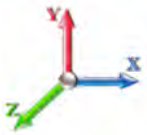
Calculated Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 47	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 24

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-41.31	-7.93	0.00	-1009.0	0.00	1009.04	5032.32	2516.16	10592.9	5304.33	0.00	0.000	0.000	0.124
5.00	-39.96	-7.84	0.00	-969.40	0.00	969.40	4975.71	2487.85	10302.9	5159.13	0.02	-0.037	0.000	0.121
10.00	-38.62	-7.75	0.00	-930.21	0.00	930.21	4918.28	2459.14	10015.1	5015.04	0.08	-0.074	0.000	0.119
15.00	-37.30	-7.66	0.00	-891.47	0.00	891.47	4860.04	2430.02	9729.75	4872.10	0.18	-0.112	0.000	0.116
20.00	-36.00	-7.56	0.00	-853.17	0.00	853.17	4800.98	2400.49	9446.70	4730.37	0.31	-0.149	0.000	0.120
25.00	-34.72	-7.46	0.00	-815.35	0.00	815.35	4741.11	2370.56	9166.14	4589.88	0.49	-0.188	0.000	0.117
30.00	-33.46	-7.36	0.00	-778.04	0.00	778.04	4680.43	2340.21	8888.14	4450.68	0.71	-0.228	0.000	0.115
35.00	-32.22	-7.25	0.00	-741.24	0.00	741.24	4618.93	2309.46	8612.79	4312.80	0.97	-0.267	0.000	0.112
40.00	-31.00	-7.14	0.00	-704.99	0.00	704.99	4556.62	2278.31	8340.18	4176.29	1.27	-0.306	0.000	0.109
43.04	-30.27	-7.06	0.00	-683.29	0.00	683.29	4518.33	2259.17	8175.80	4093.98	1.47	-0.330	0.000	0.110
43.25	-30.22	-7.06	0.00	-681.81	0.00	681.81	4515.67	2257.84	8164.48	4088.31	1.49	-0.331	0.000	0.110
45.00	-29.48	-7.02	0.00	-669.45	0.00	669.45	4493.49	2246.74	8070.38	4041.19	1.61	-0.346	0.000	0.108
49.00	-27.82	-6.92	0.00	-641.36	0.00	641.36	3697.88	1848.94	6673.72	3341.82	1.91	-0.377	0.000	0.112
50.00	-27.61	-6.91	0.00	-634.44	0.00	634.44	3688.23	1844.12	6630.98	3320.42	1.99	-0.385	0.000	0.119
55.00	-26.58	-6.79	0.00	-599.91	0.00	599.91	3639.50	1819.75	6418.42	3213.98	2.42	-0.427	0.000	0.115
60.00	-25.56	-6.66	0.00	-565.97	0.00	565.97	3589.95	1794.97	6207.79	3108.51	2.89	-0.468	0.000	0.111
62.00	-25.16	-6.62	0.00	-552.64	0.00	552.64	3569.90	1784.95	6124.11	3066.60	3.09	-0.485	0.000	0.113
65.00	-24.56	-6.55	0.00	-532.79	0.00	532.79	3539.58	1769.79	5999.19	3004.06	3.40	-0.510	0.000	0.111
70.00	-23.58	-6.43	0.00	-500.04	0.00	500.04	3488.40	1744.20	5792.70	2900.65	3.96	-0.552	0.000	0.107
75.00	-22.61	-6.31	0.00	-467.89	0.00	467.89	3436.41	1718.21	5588.39	2798.35	4.56	-0.593	0.000	0.103
80.00	-21.66	-6.19	0.00	-436.34	0.00	436.34	3383.61	1691.80	5386.36	2697.18	5.20	-0.634	0.000	0.098
85.00	-20.73	-6.06	0.00	-405.40	0.00	405.40	3329.98	1664.99	5186.69	2597.20	5.89	-0.674	0.000	0.094
87.50	-20.27	-6.00	0.00	-390.25	0.00	390.25	3302.87	1651.43	5087.76	2547.66	6.24	-0.694	0.000	0.092
90.00	-19.50	-5.93	0.00	-375.24	0.00	375.24	3275.55	1637.77	4989.46	2498.44	6.61	-0.713	0.000	0.088
91.75	-18.96	-5.89	0.00	-364.86	0.00	364.86	3256.30	1628.15	4921.02	2464.17	6.88	-0.727	0.000	0.117
92.25	-18.80	-5.88	0.00	-361.91	0.00	361.91	2608.31	1304.15	4013.68	2009.82	6.95	-0.732	0.000	0.126
95.00	-18.37	-5.82	0.00	-345.75	0.00	345.75	2586.56	1293.28	3931.38	1968.61	7.38	-0.761	0.000	0.135
100.00	-17.60	-5.70	0.00	-316.66	0.00	316.66	2546.40	1273.20	3782.92	1894.27	8.21	-0.815	0.000	0.127
103.75	-17.03	-5.61	0.00	-295.29	0.00	295.29	2515.74	1257.87	3672.60	1839.03	8.87	-0.855	0.000	0.122
103.75	-17.03	-5.61	0.00	-295.29	0.00	295.29	2515.74	1257.87	3672.60	1839.03	8.87	-0.855	0.000	0.122
105.00	-16.84	-5.59	0.00	-288.28	0.00	288.28	2505.42	1252.71	3636.03	1820.72	9.09	-0.869	0.000	0.165
110.00	-16.09	-5.47	0.00	-260.36	0.00	260.36	2463.62	1231.81	3490.80	1747.99	10.04	-0.939	0.000	0.155
115.00	-15.36	-5.36	0.00	-232.99	0.00	232.99	2421.01	1210.51	3347.31	1676.14	11.06	-1.007	0.000	0.145
120.00	-14.65	-5.25	0.00	-206.19	0.00	206.19	2377.59	1188.79	3205.66	1605.21	12.15	-1.073	0.000	0.135
125.00	-13.94	-5.13	0.00	-179.96	0.00	179.96	2333.35	1166.68	3065.91	1535.23	13.31	-1.134	0.000	0.123
130.00	-13.26	-5.01	0.00	-154.31	0.00	154.31	2288.30	1144.15	2928.16	1466.26	14.53	-1.192	0.000	0.111
132.50	-12.92	-4.96	0.00	-141.77	0.00	141.77	2265.47	1132.73	2860.06	1432.16	15.16	-1.220	0.000	0.105
135.00	-12.40	-4.90	0.00	-129.37	0.00	129.37	2238.61	1119.31	2787.73	1395.94	15.80	-1.246	0.000	0.098
136.50	-12.09	-4.86	0.00	-122.03	0.00	122.03	1414.08	707.04	1782.89	892.77	16.20	-1.261	0.000	0.145
140.00	-11.73	-4.78	0.00	-105.02	0.00	105.02	1397.66	698.83	1728.59	865.58	17.14	-1.294	0.000	0.130
145.00	-11.23	-4.67	0.00	-81.09	0.00	81.09	1373.51	686.75	1651.57	827.01	18.52	-1.350	0.000	0.106
148.00	-9.26	-3.69	0.00	-67.08	0.00	67.08	1358.62	679.31	1605.69	804.04	19.38	-1.378	0.000	0.090
150.00	-9.09	-3.65	0.00	-59.70	0.00	59.70	1348.54	674.27	1575.26	788.80	19.96	-1.396	0.000	0.082
155.00	-8.67	-3.54	0.00	-41.47	0.00	41.47	1322.76	661.38	1499.73	750.98	21.44	-1.431	0.000	0.062
158.00	-6.10	-2.40	0.00	-30.86	0.00	30.86	1306.90	653.45	1454.83	728.50	22.35	-1.448	0.000	0.047
160.00	-5.96	-2.35	0.00	-26.07	0.00	26.07	1296.17	648.08	1425.08	713.60	22.96	-1.457	0.000	0.041
165.00	-5.62	-2.25	0.00	-14.30	0.00	14.30	1268.76	634.38	1351.39	676.70	24.49	-1.475	0.000	0.026
168.00	-2.18	-0.81	0.00	-7.56	0.00	7.56	1251.92	625.96	1307.68	654.81	25.42	-1.481	0.000	0.013

Calculated Forces

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 48	

170.00	-2.06	-0.77	0.00	-5.93	0.00	5.93	1240.54	620.27	1278.75	640.32	26.04	-1.483	0.000	0.011
175.00	-1.77	-0.67	0.00	-2.07	0.00	2.07	1211.50	605.75	1207.23	604.51	27.60	-1.487	0.000	0.005
178.00	0.00	-0.62	0.00	-0.06	0.00	0.06	1193.69	596.84	1164.89	583.31	28.53	-1.488	0.000	0.000

Final Analysis Summary

Structure:	CT46127-A-SBA	**Code:**	EIA/TIA-222-G	12/28/2020	
Site Name:	Oxford-south	**Exposure:**	C		
Height:	178.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 49	

Tower Engineering Solutions

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 97 mph Wind	33.2	0.00	49.53	0.00	0.00	4244.18
0.9D + 1.6W 97 mph Wind	33.2	0.00	37.14	0.00	0.00	4198.81
1.2D + 1.0Di + 1.0Wi 50 mph Wind	9.8	0.00	75.68	0.00	0.00	1250.57
1.2D + 1.0E	2.3	0.00	49.58	0.00	0.00	306.97
0.9D + 1.0E	2.3	0.00	37.18	0.00	0.00	303.41
1.0D + 1.0W 60 mph Wind	7.9	0.00	41.31	0.00	0.00	1009.04

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 97 mph Wind	-18.79	-23.55	0.00	-1215.3	0.00	-1215.3	2505.42	1252.7	3636.03	1820.72	105.00	0.675
0.9D + 1.6W 97 mph Wind	-13.74	-23.20	0.00	-1194.1	0.00	-1194.1	2505.42	1252.7	3636.03	1820.72	105.00	0.662
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-36.28	-6.90	0.00	-356.71	0.00	-356.71	2505.42	1252.7	3636.03	1820.72	105.00	0.210
1.2D + 1.0E	-14.62	-1.68	0.00	-53.16	0.00	-53.16	1414.08	707.04	1782.89	892.77	136.50	0.070
0.9D + 1.0E	-10.97	-1.65	0.00	-52.32	0.00	-52.32	1414.08	707.04	1782.89	892.77	136.50	0.066
1.0D + 1.0W 60 mph Wind	-16.84	-5.59	0.00	-288.28	0.00	-288.28	2505.42	1252.7	3636.03	1820.72	105.00	0.165

Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors VQ/I (lb/in)	Vu (kips)	phi Vn (kips)	Lower Termination MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	Upper Termination MQ/I (kips)	phi Vn (kips)	Num Reqd	Num Actual	Max Member Pu (kips)	phi Pn (kips)	phi Tn (kips)	Ratio
0.0	20.0	(4) PLT-8"x1.5"(1.25"Hole)	-274.8	-4.12	37.1	397.1	37.1	11	0	373.3	37.1			397.12	528.3	493.59	0.805
20.0	43.0	(4) PLT-7"x1.5"(1.25"Hole)	-274.8	-4.12	37.1	345.7	37.1			316.1	37.1			345.73	462.2	420.47	0.822
43.0	62.0	(4) PLT-6.5x1.5(31mm Hole)	-290.1	-4.35	37.1	302.8	37.1			291.1	37.1			310.96	429.2	386.10	0.805
62.0	91.8	(4) PLT-6"x1.5"(1.25" Hole)	-300.5	-5.41	37.1	278.7	37.1			223.6	37.1			278.68	392.4	347.34	0.802
91.8	103.8	(4) PLT-5"x3/4"(1.25"Hole)	-300.5	-6.31	37.1	128.6	37.1			125.0	37.1	4	8	136.73	142.2	137.11	0.997

Base Plate Summary

Structure:	CT46127-A-SB		**Code:**	EIA/TIA-222-G	12/28/2020
Site Name:	Oxford-south		**Exposure:**	C	
Height:	178.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 50

Reactions	
Original Design	
Moment (kip-ft):	3840.00
Axial (kip):	34.00
Shear (kip):	30.00
Analysis (1.2D + 1.6W)	
Moment (kip-ft):	4244.18
Axial (kip):	49.53
Shear (kip):	33.17

Base Plate	
Yield (ksi):	50.00
Width (in):	57.00
Style:	Clipped
Polygon Sides:	4.00
Clip Length (in):	6.00
Effective Len (in):	10.32
Moment (kip-in):	643.96
Allow Stress (ksi):	67.50
Applied Stress (ksi):	35.77
Stress Ratio:	0.53

Anchor Bolts	
Bolt Circle:	59.00
Number Bolts:	16.00
Bolt Type:	2.25" 18J
Bolt Diameter (in):	2.25
Yield (ksi):	75.00
Ultimate (ksi):	100.00
Arrangement:	Clustered
Cluster Dist (in):	6.00
Start Angle (deg):	45.00
Compression	
Force (kip):	177.37
Allowable (kip):	260.00
Ratio:	0.70
Tension	
Force (kip):	167.92
Allowable (kip):	260.00
Ratio:	0.66

Monopole Mat Foundation Design

				Date
				12/21/2020
	Customer Name:	T-Mobile Sprint	**EIA/TIA Standard:**	EIA-222-G
	Site Name:		**Structure Height (Ft.):**	178
	Site Number:	CT46127-A-SBA	**Engineer Name:**	J. Chen
	Engr. Number:	100522	**Engineer Login ID:**	

Foundation Info Obtained from: Drawings/Calculations

Structure Type: Monopole

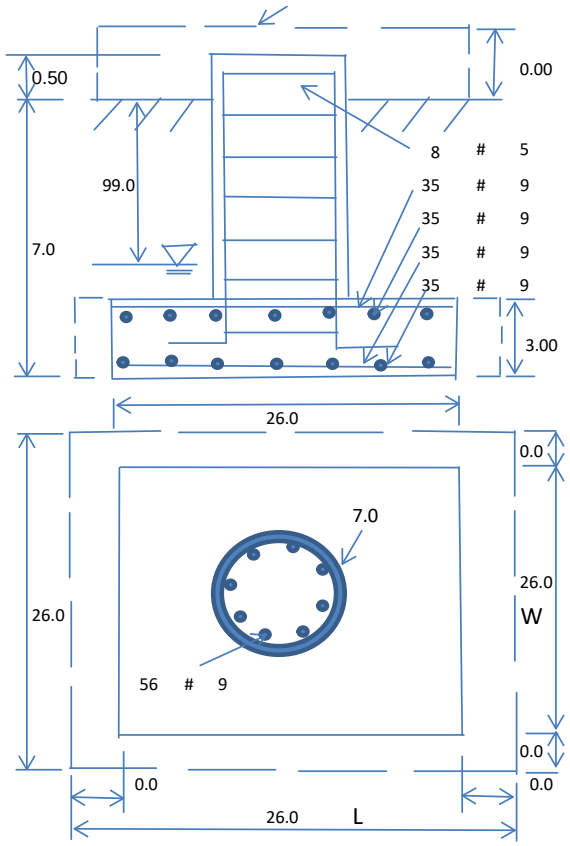
Analysis or Design? Analysis

Base Reactions (Factored):

Axial Load (Kips):	49.5	Shear Force (Kips):	33.2
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4244.1
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	7.0	Depth of Base BG (ft.):	7.0
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft):	3.00
Length of Pad (ft.):	26	Width of Pad (ft.):	26
Final Length of pad (ft)	26.0	Final width of pad (ft):	26.0



Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	40	
Vertical Rebar Size #:	9	Tie / Stirrup Size #:	5	
Qty. of Vertical Rebars:	56	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	9	
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):	35	Qty. of Rebar in Pad (W):	35

Rebar at the top of the concrete pad:

Qty. of Rebar in Pad (L):	35	Qty. of Rebar in Pad (W):	35
Apply 1.35 factor for e/w Per G:	1.35		

Soil Design Parameters:

Soil Unit Weight (pcf):	110.0	Soil Buoyant Weight:	37.6	Pcf		
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	12000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	Yes		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	Yes	Reduction factor on the maximum soil bearing pressure:	1.00			

Foundation Analysis and Design: Uplift Strength Reduction Factor: 0.75 — Compression Strength Reduction Factor: 0.75

Total Dry Soil Volume (cu. Ft.):	2550.06	Total Dry Soil Weight (Kips):	280.51
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	280.51	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	2201.18	Total Dry Concrete Weight (Kips):	330.18
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	330.18	Total Vertical Load on Base (Kips):	660.18

Check Soil Capacities:

					Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	2697	<	Allowable Factored Soil Bearing (psf):	9000	0.30	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	7788.5	>	Design Factored Momont (kips-ft):	4293	0.55	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.81	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		
					Load/ Capacity Ratio	
(1) Concrete Pier:						
Vertical Steel Rebar Area (sq. in./each):	1.00		Tie / Stirrup Area (sq. in./each):	0.31		
Calculated Moment Capacity (Mn,Kips-Ft):	8863.4	>	Design Factored Moment (Mu, Kips-F	4393.5	0.50	OK!
Calculated Shear Capacity (Kips):	594.2	>	Design Factored Shear (Kips):	33.2	0.06	OK!
Calculated Tension Capacity (Tn, Kips):	3024.0	>	Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	7274.1	>	Design Factored Axial Load (Pu Kips):	49.5	0.01	OK!
Moment & Axial Strength Combination:	0.50	OK!	Check Tie Spacing (Design/Required):		1	OK!
Pier Reinforcement Ratio:	0.010		Reinforcement Ratio is satisfied per ACI			
(2).Concrete Pad:						
One-Way Design Shear Capacity (L-Direction, Kips):	831.5	>	One-Way Factored Shear (L-D. Kips):	265.4	0.32	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	831.5	>	One-Way Factored Shear (W-D., Kips)	265.4	0.32	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	779.1	>	One-Way Factored Shear (C-C, Kips):	257.5	0.33	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0035	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0035		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	4901.0	>	Moment at Bottom (L-Dir. K-Ft):	1518.1	0.31	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	4901.0	>	Moment at Bottom (W-Dir. K-Ft):	1518.1	0.31	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	6862.0	>	Moment at Bottom (C-C Dir. K-Ft):	2147.0	0.31	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0035	OK!	Upper Steel Reinf. Ratio (W-Dir.):	0.0035		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	4901.0	>	Moment at the top (L-Dir K-Ft):	690.7	0.14	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	4901.0	>	Moment at the top (W-Dir K-Ft):	690.7	0.14	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	6862.0	>	Moment at the top (C-C Dir. K-Ft):	647.2	0.09	OK!
(3).Check Punching Shear Capacity due to Moment in the Pier:						
Moment transferred by punching shear:	1697.6	k-ft.	Max. factored shear stress v_{u_CD}:		4.9	Psi
Max. factored shear stress v_{u_AB}:	11.4	Psi	Factored shear Strength ϕv_n:		164.3	Psi
Max. factored shear stress v_u:	11.4	Psi	Check Usage of Punching Shear Capacity:		0.07	OK!

EXHIBIT 8

MODIFICATION AND DESIGN DRAWINGS FOR EXISTING ANTENNA MOUNTS EXISTING MONOPOLE TOWER

PROPOSED CARRIER: T-MOBILE SPRINT

TOWER OWNER: SBA / TOWER OWNER SITE #: CT46127-A

CARRIER SITE #/NAME: CT03XC036

COORDINATES (LATITUDE: 41.387777°, LONGITUDE: -73.172222°)

PLEASE NOTE THIS SET OF DRAWINGS ARE FOR INSTALLATION AND ASSEMBLY ONLY. FABRICATION DETAIL DRAWINGS ARE NOT PROVIDED AND MUST BE COMPLETED BY THE STEEL FABRICATOR SELECTED. TES CAN PROVIDE THE FABRICATION DETAIL DRAWINGS FOR AN ADDITIONAL FEE.

SHEET	SHEET TITLE	REV
T-1	TITLE SHEET	0
BOM	BILL OF MATERIALS	0
GN-1	GENERAL NOTES	0
A-1	ANTENNA MOUNT MODIFICATION DETAILS	0
A-2	ANTENNA MOUNT PHOTOS	0
D-1	STANDARD DETAILS	0
D-2	STANDARD DETAILS	0
D-3	STANDARD DETAILS	0
SAF-1	SAFETY CABLE GUIDE DETAILS	0
MS-HRCP-35	METROSITE SUPPORT RAIL CENTER PIPE KIT	
MS-HRCP-35-2875	METROSITE SUPPORT RAIL CENTER PIPE KIT	
MS-HRECP-35_18	METROSITE SUPPORT RAIL WITH END CONNECTION KIT	
MS-H1436	METROSITE HEAVY COLLAR MOUNT PLATE ASSEMBLY	
MPHW-1	METROSITE HEAVY COLLAR MOUNT PLATE WELDMENT	
MS-HK22-8	METROSITE HEAVY KICKER SUPPORT KIT	

NOTE:

1. THE MODIFICATION DRAWINGS ARE BASED ON THE TES PROJECT NO. 100521, DATED 12/14/2020.

TES
Tower Engineering Solutions
1320 GREENWAY DRIVE, SUITE 600
IRVING, TX 75038
PH: (972) 483-0607

SBA
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800)-487-SITE

TES JOB NO: 100841

CUSTOMER SITE NO: CT46127-A-SBA

CUSTOMER SITE NAME: OXFORD-SOUTH

COPPERMINE RD.
OXFORD, CT 06483

Exp.01/31/2021

STATE OF CONNECTICUT
MUSTAPHA ...ASSI
No. 23865
LICENSED
PROFESSIONAL ENGINEER

12/23/2020

DRAWN BY: GA | CHECKED BY: JM/CHLE

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	GA	12/23/20

SHEET TITLE: TITLE SHEET

SHEET NUMBER: T-1 | REV #: 0

BILL OF MATERIALS

QUANTITY COUNTED	QUANTITY PROVIDED	PART NUMBER	DESCRIPTIONS	SHEET LIST	PIECE WEIGHT (LBS)	WEIGHT (LB)	NOTES
			MATERIAL & HARDWARE				
4	4	MS-HRCP-35	METROSITE SUPPORT RAIL CENTER PIPE KIT	A-1, MS-HRCP-35	23.0	92.0	Galvanized
6	6	MS-HRCP-35-2875	METROSITE SUPPORT RAIL CENTER PIPE KIT	A-1, MS-HRCP-35-2875	11.0	66.0	Galvanized
1	1	MS-HRECP-35_18	METROSITE SUPPORT RAIL WITH END CONNECTION KIT	A-1, MS-HRECP-35_18	607.0	607.0	Galvanized
1	1	MS-H1436	METROSITE HEAVY COLLAR MOUNT PLATE ASSEMBLY	A-1, MS-H1436	136.7	136.7	Galvanized
1	1	MS-HKI22-8	METROSITE HEAVY KICKER SUPPORT KIT	A-1, MS-HKI22-8	211.0	211.0	Galvanized
			FOLLOWING ITEMS ARE "CUSTOM" PARTS				
3	3	L33375-9	L 3" X 3" X 3/8" X 9'-0" A36	D-1, D-3	65.71	197.1	GALVANIZED (FINAL CUT LENGTH TO BE DETERMINED IN FIELD)
6	6	L2225-8	L 2" X 2" X 1/4" X 8'-0" A36	D-1, D-3	26.00	156.0	GALVANIZED (FINAL CUT LENGTH TO BE DETERMINED IN FIELD)
3	3	CAL-4X3-65	L 4" X 3" X 3/8" X 0'-6 1/2" A36	D-1, D-3	4.67	14.7	GALVANIZED
3	3	PL-1	PL 3/8" X 3" X 0'-6 1/2" A36	D-1, D-3	2.10	6.3	GALVANIZED
6	6	PL375-11	PL 3/8" X 4 1/4" X 0'-11" A36	D-1, D-3	5.04	30.2	GALVANIZED
12	13	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)	D-1	1.45	18.9	(2) HHN & LKW-EA GALVANIZED
6	7	---	THREADED ROD 5/8" X 10" A36	D-1	0.00	0.0	(2) HHN & LKW-EA GALVANIZED
26	28	---	BOLT 5/8" X 2" A325	D-1, SAF-1	0.38	10.6	(1) HHN & LKW-EA GALVANIZED
2	2	TMP-2	PL 1/4" X 2" 7" A36	SAF-1, D-3	1.00	2.0	GALVANIZED
2	2	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)	SAF-1	0.00	0.0	GALVANIZED
4	5	---	BOLT 3/8" X 1 1/2" FULL THREAD SAE GR 5	SAF-1	0.00	0.0	(1) HHN & LKW-EA GALVANIZED
			ALL METROSITE PARTS ARE AVAILABLE FROM METROSITE, LLC. **180 IND PARK BLVD COMMERCE, GA 30529** **OFFICE: (706) 335-7045** **FAX: (706) 335-7056**				
			NOTE: ALL MATERIALS, WHICH WEREN'T LISTED IN THIS SHEET, ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.				
				TOTAL WEIGHT (LBS) =		**1548.6**	

TES
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(800)-487-SITE

TES JOB NO: 100841

CUSTOMER SITE NO: CT46127-A-SBA

CUSTOMER SITE NAME: OXFORD-SOUTH

COPPERMINE RD.
OXFORD, CT 06483

DRAWN BY: GA | CHECKED BY: JM/CHLE

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	GA	12/23/20

SHEET TITLE: BILL OF MATERIALS

SHEET NUMBER: BOM | REV #: 0

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE ANSI/TIA-222-G, ANSI/ASSP A10.48, AND ANY OTHER GOVERNING BUILDING CODES AND OSHA SAFETY REGULATIONS.
2. ALL WORK INDICATED ON THE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TELECOMMUNICATIONS TOWER, POLE AND FOUNDATION CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND FABRICATION OF ALL MISCELLANEOUS PARTS (SUCH AS SHIMS), TEMPORARY SUPPORTS, AND GUYINGS, ETC., PER ANSI/ASSP A10.48, TO COMPLETE THE ASSEMBLY AS SHOWN IN THE DRAWINGS.
4. CONTRACTOR SHALL PROCEED WITH THE INSTALLATION WORK CAREFULLY SO THE WORK WILL NOT DAMAGE ANY EXISTING CABLE, EQUIPMENT OR THE STRUCTURE.
5. THE USE OF GAS TORCH OR WELDER, ARE NOT ALLOWED ON ANY TOWER STRUCTURE WITHOUT THE CONSENT OF THE TOWER OWNER.
6. GENERALLY THE CONTRACTOR IS RESPONSIBLE TO CONDUCT AN ONSITE VISIT SURVEY OF THE JOB SITE AFTER AWARD, AND REPORT ANY ISSUES WITH THE SITE TO **TES** BEFORE PROCEEDING CONSTRUCTION.
7. IT IS THE RESPONSIBILITY OF THE GC TO VERIFY THAT THERE IS NO INTERFERENCES (WITH SAFETY CLIMB BRACKETS, TRANSMISSION LINES, ETC.) PRIOR TO MOBILIZATION AND INSTALLATION OF THESE MODIFICATIONS.
8. PLEASE NOTIFY TES IMMEDIATELY IF ANY INSTALLATION ISSUES OCCUR RELATED TO THIS DRAWING @ 972-483-0607 OR EMAIL-TESORDERS@TESTOWER.US

FABRICATION

1. ALL STEEL SHALL MEET OR EXCEED THE MINIMUM STRENGTH AS SPECIFIED IN THE DRAWINGS. IF YIELD STRENGTH WAS NOT NOTED IN THE DRAWINGS, CONTRACTORS SHALL CONTACT TES FOR DIRECTION.
2. ALL FIELD CUT EDGES SHALL BE GROUND SMOOTH. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

WELDING

1. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNO. (E70XX UNLESS NOTED OTHERWISE).
2. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING APPROX. 0.5" BEYOND THE PROPOSED FIELD WELD SURFACES.
3. ALL WELDS SHALL BE INSPECTED VISUALLY. A MINIMUM OF 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. 100% OF WELDS SHALL BE INSPECTED IF DEFECTS ARE FOUND.
4. WELD INSPECTIONS SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
5. AFTER INSPECTION, ALL FIELD WELDED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

BOLTED ASSEMBLIES AND TIGHTENING OF CONNECTIONS

1. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS AS APPROVED BY THE RCSC.
2. FLANGE BOLTS SHALL BE TIGHTENED BY THE AISC "TURN-OF-THE-NUT" METHOD. THE FOLLOWING TABLE SHOULD BE USED FOR THE "TURN-OF-THE-NUT" TIGHTENING.
3. SPLICE BOLTS AND ALL OTHER BOLTS IN BEARING TYPE CONNECTIONS SHALL BE TIGHTENED TO A SNUG-TIGHT CONDITION.
4. THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER WITH AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
5. HB HOLLO-BOLT SHALL BE INSTALLED PER ICC ESR-3330 INSTRUCTIONS.

VERIFICATION AND INSPECTION

1. IF APPLICABLE, VERIFICATION INSPECTION TO BE PERFORMED SHALL BE IN ACCORDANCE TO IBC-2015 SECTION 1705 FOR STEEL CONSTRUCTION AND TABLE 1705.3 FOR CONCRETE CONSTRUCTION.

TABLE 8.2 NUT ROTATION FROM SNUG-TIGHT CONDITION FOR TURN-OF-NUT PRETENSIONING [a,b]

BOLT LENGTH [c]	DISPOSITION OF OUTER FACE OF BOLTED PARTS		
	BOTH FACES NORMAL TO BOLT AXIS	ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20 [d]	BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS [d]
NOT MORE THAN $4d_b$	1/3 TURN	1/2 TURN	2/3 TURN
MORE THAN $4d_b$ BUT NOT MORE THAN $8d_b$	1/2 TURN	2/3 TURN	5/6 TURN
MORE THAN $8d_b$ BUT NOT MORE THAN $12d_b$	2/3 TURN	5/6 TURN	1 TURN

[a] NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR REQUIRED NUT ROTATIONS OF 1/2 TURN AND LESS, THE TOLERANCE IS PLUS OR MINUS 30 DEGREES; FOR REQUIRED NUT ROTATIONS OF 2/3 TURN AND MORE, THE TOLERANCE IS PLUS OR MINUS 45 DEGREES.

[b] APPLICABLE ONLY TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

[c] WHEN THE BOLT LENGTH EXCEEDS $12d_b$, THE REQUIRED NUT ROTATION SHALL BE DETERMINED BY ACTUAL TESTING IN A SUITABLE TENSION CALIBRATOR THAT SIMULATES THE CONDITIONS OF SOLIDLY FITTING STEEL.

[d] BEVELED WASHER NOT USED.

SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004 RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS

INSTALLATION TORQUE REQUIRED FOR HOLLO BOLTS AND AJAX BOLTS:

1. HB12 HOLLO BOLT: 59 FT-LBS
2. HB16 HOLLO BOLT: 140 FT-LBS
3. HB20 HOLLO BOLT: 221 FT-LBS
4. M20 AJAX BOLT: 280 FT-LBS.

FIELD HOT WORK PLAN NOTES:

FOLLOWING GUIDELINES SHALL BE COMPLIED WITH:

1. CONTRACTOR'S RESPONSIBILITY TO COMPLETE A HOT WORK PLAN IF AWARDED PER CUSTOMER SPECIFICATIONS GUIDELINES FOR WELDING, CUTTING & SPARK PRODUCING WORK.
2. HAVE A FIRE PLAN APPROVED BY THE CUSTOMER AND THEIR SAFETY MANAGEMENT DEPT.
3. CONTRACTOR MUST OBTAIN THE CONTACT INFO OF THE LOCAL FIRE DEPARTMENT AND THE 911 ADDRESS OF THE TOWER SITE BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL MAKE SURE THAT CELL PHONE COVERAGE IS AVAILABLE IN THE TOWER SITE. IF CELL COVERAGE IS NOT AVAILABLE, AN IMMEDIATE AVAILABLE MEANS OF DIRECT COMMUNICATION WITH THE FIRE DEPARTMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION START.
5. ALL CONSTRUCTION SHALL BE PERFORMED UNDER WIND SPEED LESS THAN 10 MPH ON THE GROUND LEVEL. IF WIND SPEED INCREASE, CONTRACTOR MUST DETERMINE IF CONSTRUCTION SHALL BE DISCONTINUED.
6. FIRE SUPPRESSION EQUIPMENT MUST BE MADE AVAILABLE ON SITE AND READY TO USE.
7. CONTRACTOR SHALL ASSIGN A FIRE WATCHER TO PERFORM FIRE-FIGHTING DUTIES.
8. ALL WELDERS SHALL BE AWS OR STATE CERTIFIED. THEY MUST ALSO BE EXPERIENCED IN WELDING ON GALVANIZED MATERIALS.
9. IF IT IS POSSIBLE, ALL EXISTING COAX NEAR WELDING AREA SHALL BE TEMPORARILY MOVED AWAY FROM THE WELDING AREA BEFORE WELDING THE PLATES.
10. PLEASE REPORT ANY FIELD ISSUE TO TES @ 972-483-0607.

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TES JOB NO:
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CUSTOMER SITE NO:
CT46127-A-SBA
CUSTOMER SITE NAME:
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OXFORD, CT 06483

DRAWN BY: GA | CHECKED BY: JM/CHLE

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	GA	12/23/20

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER: GN-1
REV #: 0

SCOPE OF WORK

1. REPLACE EXISTING ANTENNA MOUNT CONNECTIONS ON EXISTING BOTTOM SUPPORT RAIL PIPE WITH NEW SUPPORT RAIL CENTER PIPE KIT AS SHOWN, (4) PER SECTOR. SEE SHEET MS-HRCP-35 FOR DETAILS.

2. A. REPLACE EXISTING ANTENNA MOUNT CONNECTION ON EXISTING BOTTOM SUPPORT RAIL PIPE WITH NEW SUPPORT RAIL CENTER PIPE KIT AS SHOWN, (1) PER SECTOR. SEE SHEET MS-HRCP-35-2875 FOR DETAILS.

   B. INSTALL NEW SUPPORT RAIL CENTER PIPE KIT, (1) PER SECTOR. SEE SHEET MS-HRCP-35-2875 FOR DETAILS.

3. A. INSTALL NEW SUPPORT RAIL WITH END CONNECTION KIT. SEE SHEET MS-HRECP-35_18 FOR DETAILS.

   NOTE:
   LOWER EXISTING SUPPORT RAIL IF NECESSARY, TO INSTALL NEW SUPPORT RAIL.

   B. REMOVE EXISTING SUPPORT RAILS AND END CONNECTIONS AFTER THE INSTALLATION OF NEW SUPPORT RAIL WITH END CONNECTION KIT IS COMPLETE.

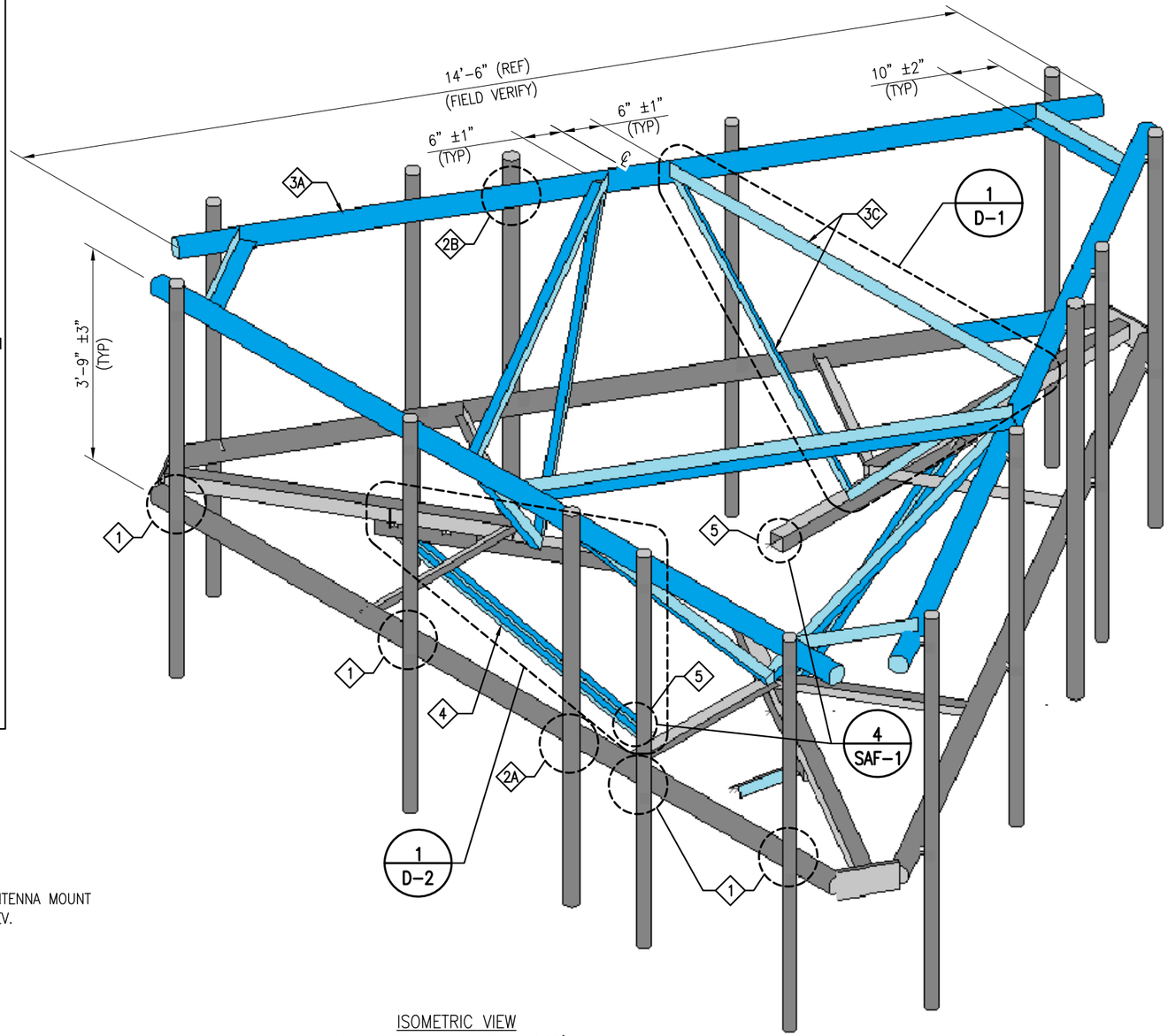
   C. INSTALL NEW INTERNAL HORIZONTAL BRACING AND DIAGONAL BRACING. SEE SHEET D-1 FOR DETAILS.

4. INSTALL NEW HEAVY COLLAR MOUNT (NOT SHOWN FOR CLARITY) AND NEW HEAVY KICKER SUPPORT KIT. SEE SHEETS MS-H1436, MS-HKI22-8 AND D-2 FOR DETAILS.

5. INSTALL NEW SAFETY CLIMB GUIDES TO PREVENT EXISTING SAFETY CLIMB FROM RUBBING AGAINST NEW AND EXISTING COLLAR MOUNTS. SEE SHEET SAF-1 FOR DETAILS.

6. CONTRACTOR TO COORDINATE WITH TOWER OWNER AND CARRIER REGARDING THE PRESENCE OF BIRD'S NEST ON EXISTING PLATFORM.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP, REMOVAL AND DISPOSAL OF EXCESS MATERIALS USED AND REMOVED FROM THE STRUCTURE AT THE COMPLETION OF THE PROJECT.



ISOMETRIC VIEW
EXISTING ANTENNA MOUNT @ 168' ELEV.

PHOTO 1

NOTES:
1. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
2. WHEN FIELD CUTTING AND DRILLING ANGLES, USE SAME GAGE LINES AND EDGE DISTANCES AS INDICATED ON SHOP CUT AND DRILLED ENDS.
3. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND AS PER THE MANUFACTURER'S SPECIFICATIONS TO ALL FIELD CUT AND DRILLED AREAS.
4. **MEMBERS IN BLUE COLOR ARE NEW REINFORCEMENTS.**

CONTRACTOR NOTE:
1. **IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THERE IS NO INTERFERENCES WITH (PORT HOLES, SAFETY CLIMB BRACKETS, TRANSMISSION LINES, ETC.) PRIOR TO MOBILIZATION AND INSTALLATION OF THESE MODIFICATIONS.**
2. **PLEASE NOTIFY TES IMMEDIATELY IF ANY INSTALLATION ISSUES OCCUR RELATED TO THIS DRAWING @ 972-483-0607 OR EMAIL-TESORDERS@TESTOWER.US**

ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	4	MS-HRCP-35	METROSITE SUPPORT RAIL CENTER PIPE KIT
2	6	MS-HRCP-35-2875	METROSITE SUPPORT RAIL CENTER PIPE KIT
3	1	MS-HRECP-35_18	METROSITE SUPPORT RAIL WITH END CONNECTION K
4	1	MS-H1436	METROSITE HEAVY COLLAR MOUNT PLATE ASSEMBLY
5	1	MS-HKI22-8	METROSITE HEAVY KICKER SUPPORT KIT

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TES JOB NO:
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CUSTOMER SITE NAME:
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DRAWN BY: GA | CHECKED BY: JM/CHLE

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	GA	12/23/20

SHEET TITLE:
ANTENNA MOUNT MODIFICATION DETAILS

SHEET NUMBER: A-1
REV #: 0

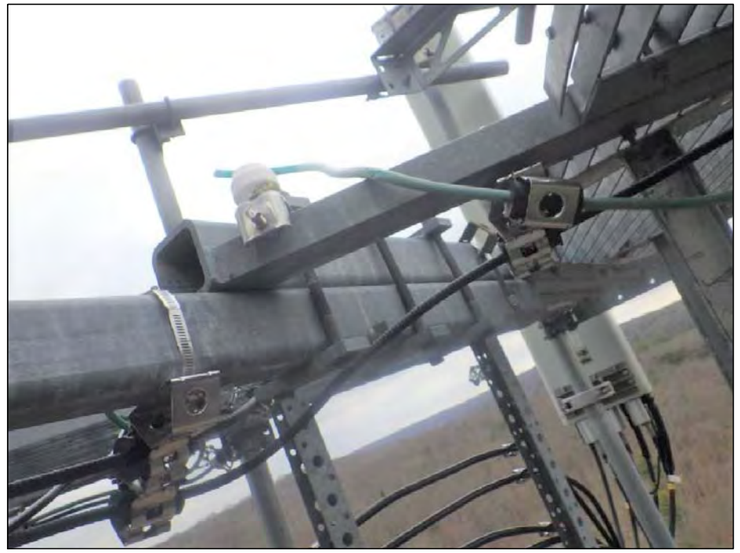

PHOTO 1

REPLACE EXISTING CONNECTIONS ON EXISTING BOTTOM SUPPORT RAIL PIPE WITH NEW SUPPORT RAIL CENTER PIPE KIT, (4) PER SECTOR. SEE SHEET MS-HRCP-35 FOR DETAILS.

PHOTO 2

REMOVE EXISTING SUPPORT RAIL AND END CONNECTION AFTER THE INSTALLATION OF NEW SUPPORT RAIL WITH END CONNECTION KIT IS COMPLETE.

PHOTO 3

CONTRACTOR TO COORDINATE WITH TOWER OWNER AND CARRIER REGARDING THE PRESENCE OF BIRD'S NEST ON EXISTING PLATFORM.

INSTALL NEW SAFETY CLIMB GUIDES TO PREVENT EXISTING SAFETY CLIMB FROM RUBBING AGAINST NEW AND EXISTING COLLAR MOUNTS. SEE SHEET SAF-1 FOR DETAILS.

PHOTO 4

NOTE:
EXISTING RRUS/EQUIPMENT MAY BE RELOCATED ALONG THE MEMBER TO ACCOMMODATE THE INSTALLATION OF NEW MOUNT MODIFICATION

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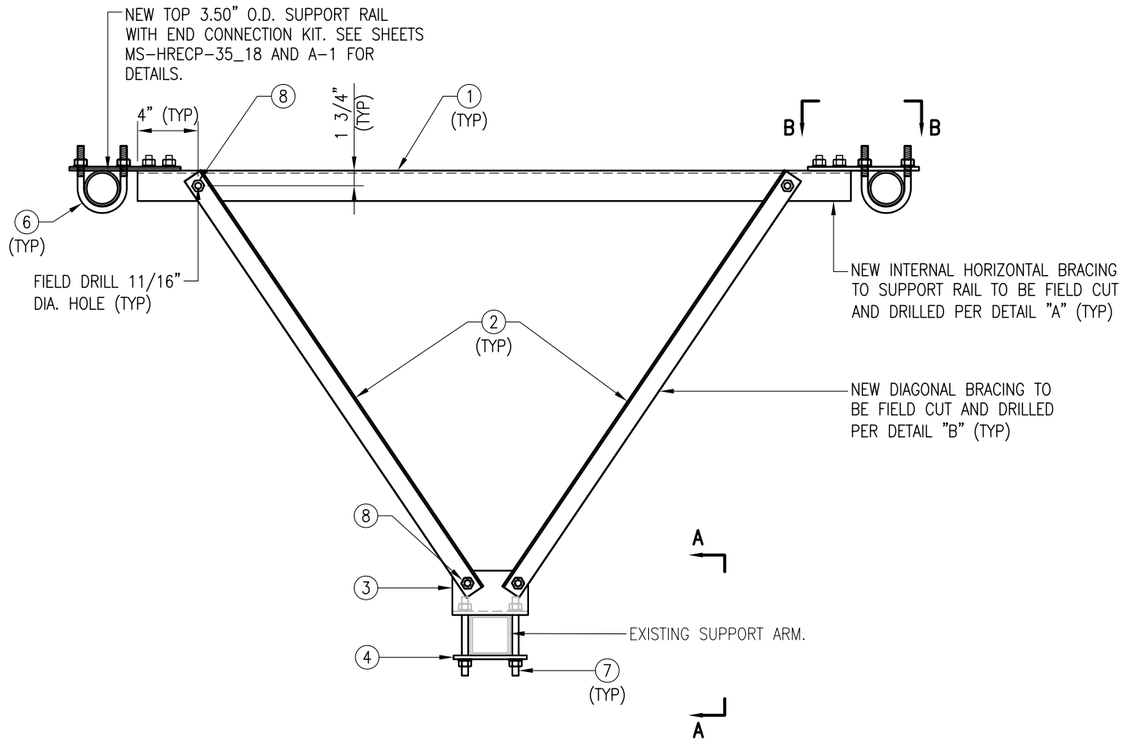
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	GA	12/23/20

SHEET TITLE:

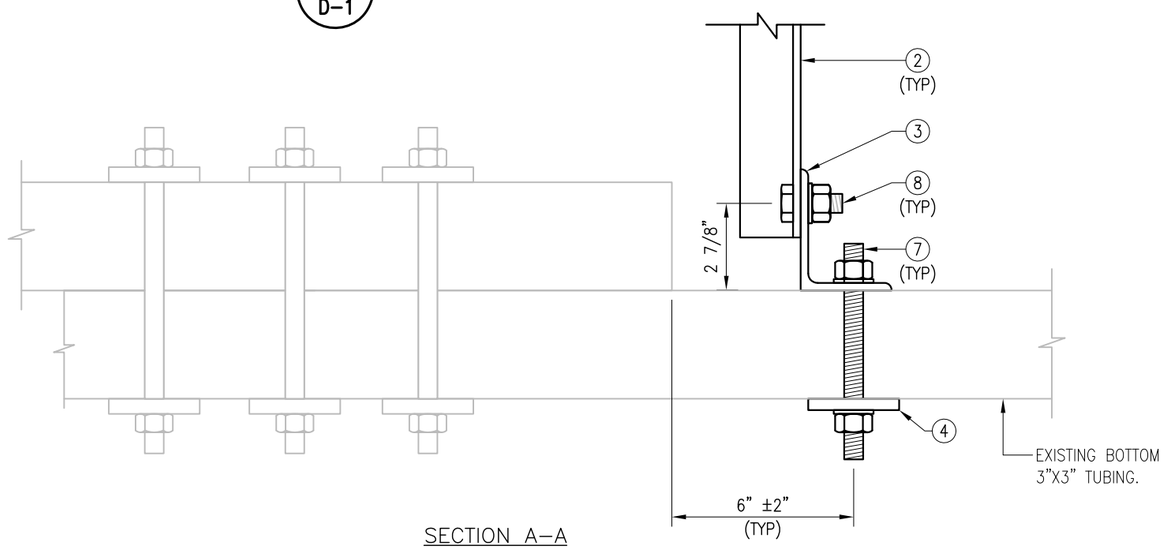
ANTENNA MOUNT PHOTOS

SHEET NUMBER: A-2

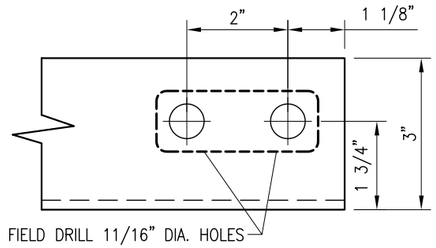
REV #: 0



1
D-1
DETAIL



SECTION A-A



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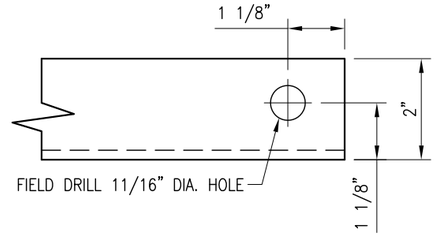
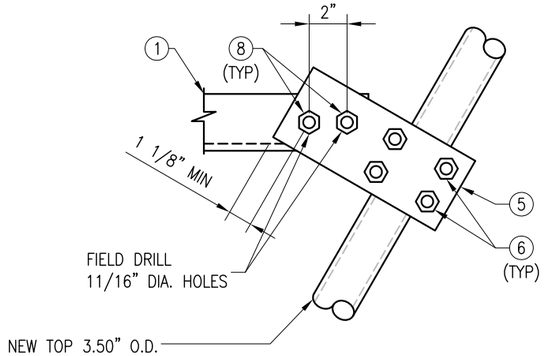


DETAIL "B"



SECTION "B-B"

ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	3	L33375-9	L 3" X 3" X 3/8" X 9'-0" A36
2	6	L2225-8	L 2" X 2" X 1/4" X 8'-0" A36
3	3	CAL-4X3-65	L 4" X 3" X 3/8" X 0'-6 1/2" A36
4	3	PL-1	PL 3/8" X 3" X 0'-6 1/2" A36
5	6	PL375-11	PL 3/8" X 4 1/4" X 0'-11" A36
6	12	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)
7	6	---	THREADED ROD 5/8" X 10" A36
8	24	---	BOLT 5/8" X 2" A325

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.
2. ALL HOLES ARE 11/16" DIA. U.N.O

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TES JOB NO:
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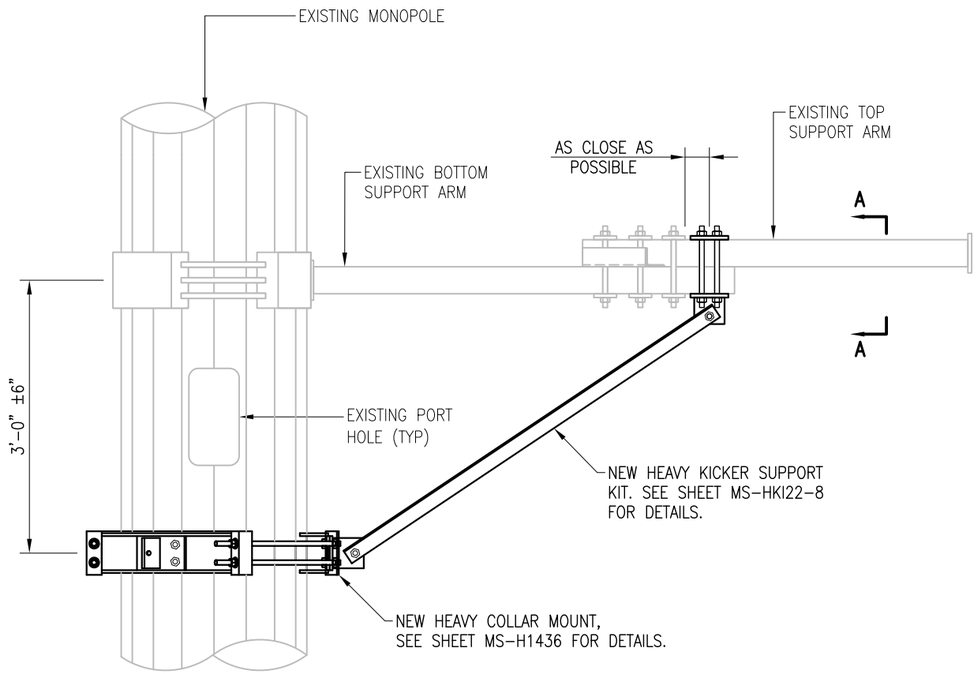
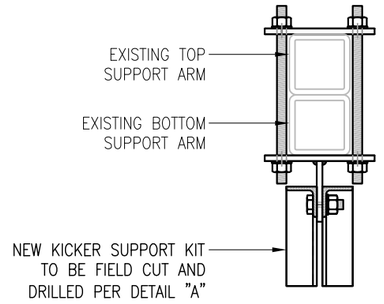
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	GA	12/23/20

SHEET TITLE:
STANDARD DETAILS

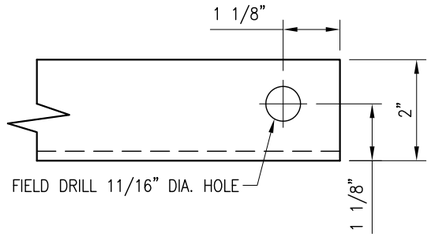
SHEET NUMBER: D-1
REV #: 0





SECTION A-A

1 / D-2 DETAIL



DETAIL "A"

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.
2. ALL HOLES ARE 11/16" DIA. U.N.O

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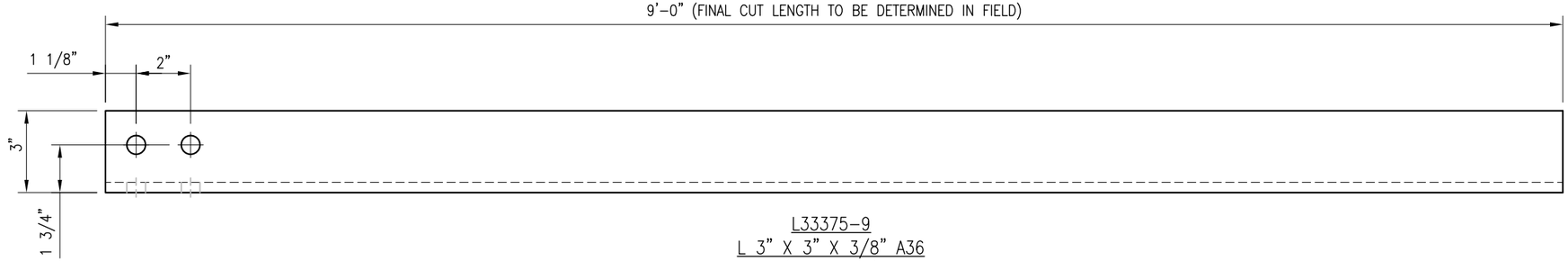
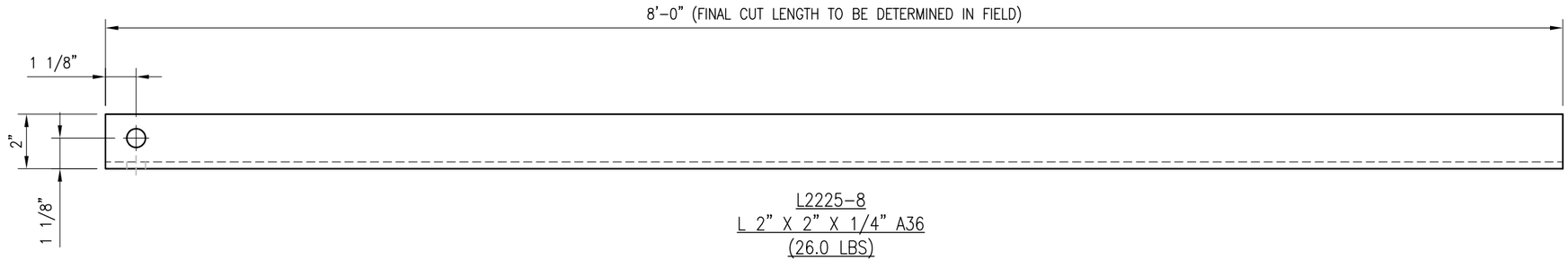
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	GA	12/23/20

SHEET TITLE: STANDARD DETAILS

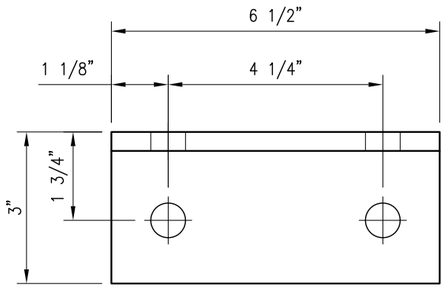
SHEET NUMBER: D-2
REV #: 0

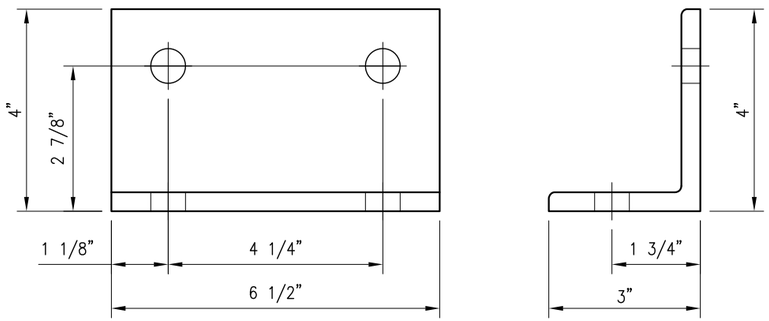


L33375-9
L 3" X 3" X 3/8" A36
(65.71 LBS)

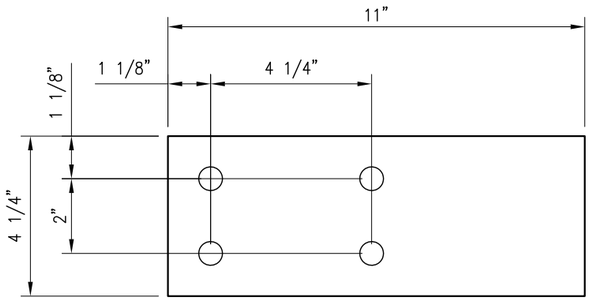


L2225-8
L 2" X 2" X 1/4" A36
(26.0 LBS)

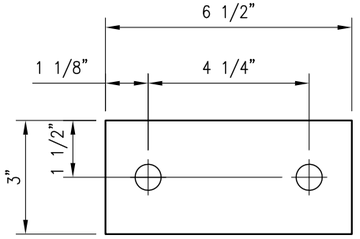




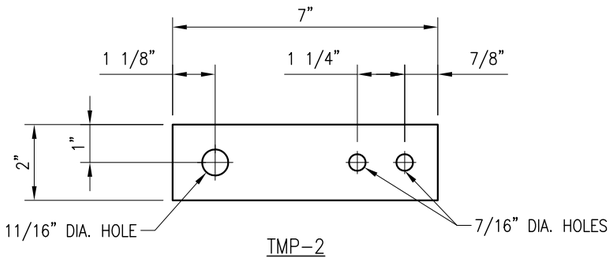
CAL-4X3-65
L 4" X 3" X 3/8" A36
(4.67 LBS)



PL375-11
PL 3/8" X 4 1/4" X 0'-11" A36
(5.04 LBS)



PL-1
PL 3/8" X 3" X 6 1/2" A36
(2.1 LBS)



TMP-2
PL 1/4" X 2" X 7" A36
(1.0 LBS)

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.
2. ALL HOLES ARE 11/16" DIA. U.N.O

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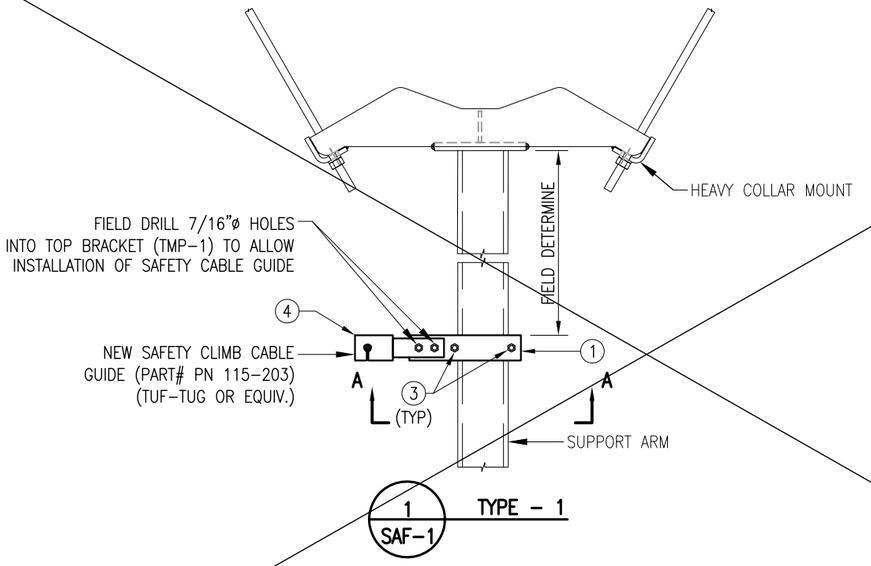
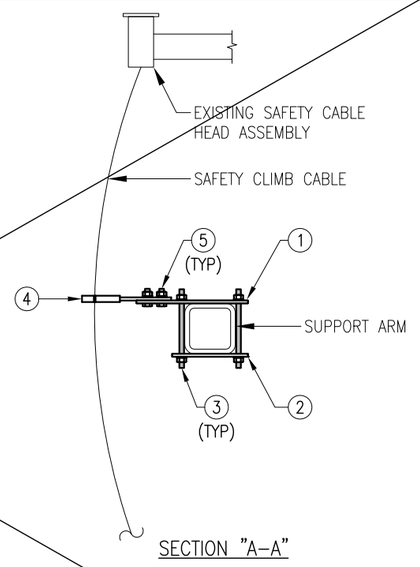
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	GA	12/23/20

SHEET TITLE:
STANDARD DETAILS

SHEET NUMBER: D-3
REV #: 0

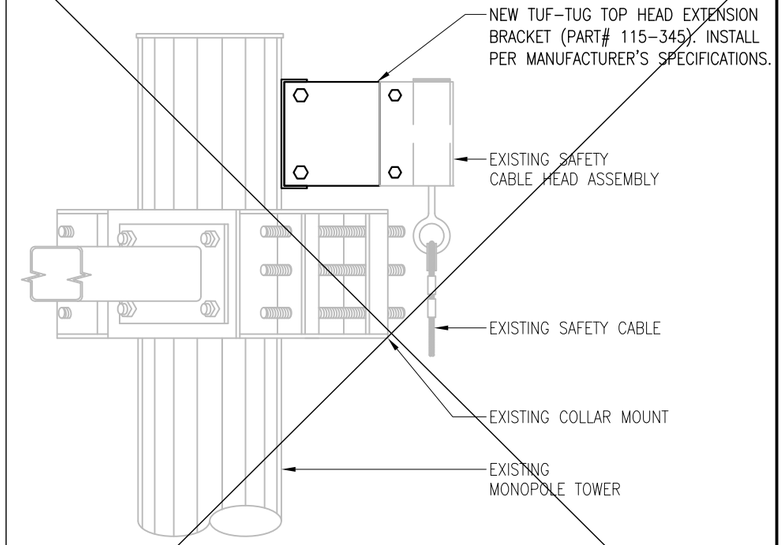


1 SAF-1 TYPE – 1



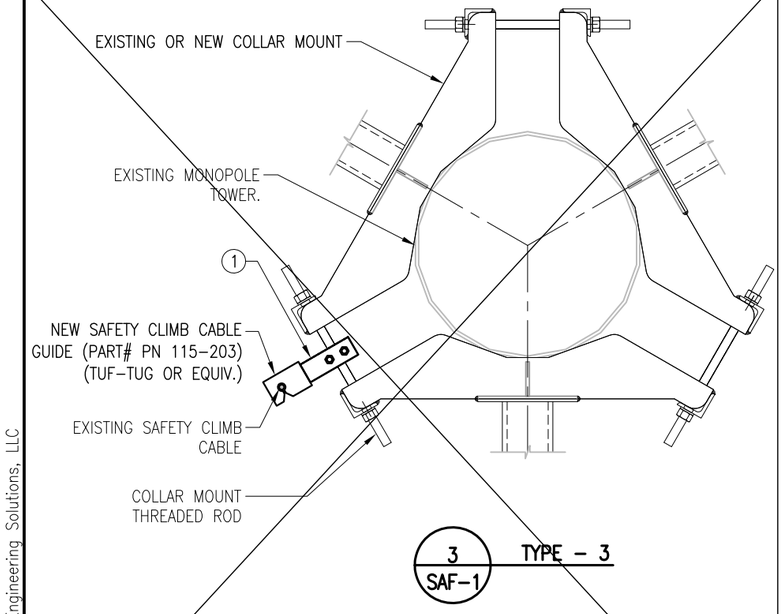
ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	TMP-1	PL 1/4" X 2" X 9 1/2" A36
2	1	BMP-1	PL 1/4" X 2" X 6 1/2" A36
3	2	---	THREADED ROD 3/8" X 8" A36
4	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)
5	2	---	BOLT 3/8" X 1 1/2" FULL THREAD SAE GR 5

NOTE:
SAFETY CLIMB GUIDE MAY BE INSTALLED ON EITHER LEFT OR RIGHT SIDE OF THE SUPPORT ARM, DEPENDING ON WHERE THE EXISTING SAFETY CLIMB IS LOCATED.



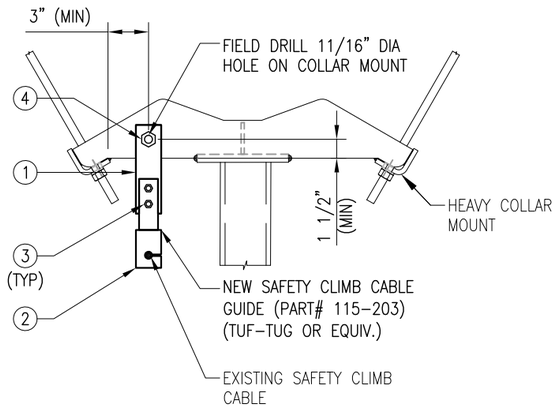
2 SAF-1 TYPE – 2

ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	115-345	TUF-TUG MONOPOLE HEAD EXTENSION ASSEMBLY



3 SAF-1 TYPE – 3

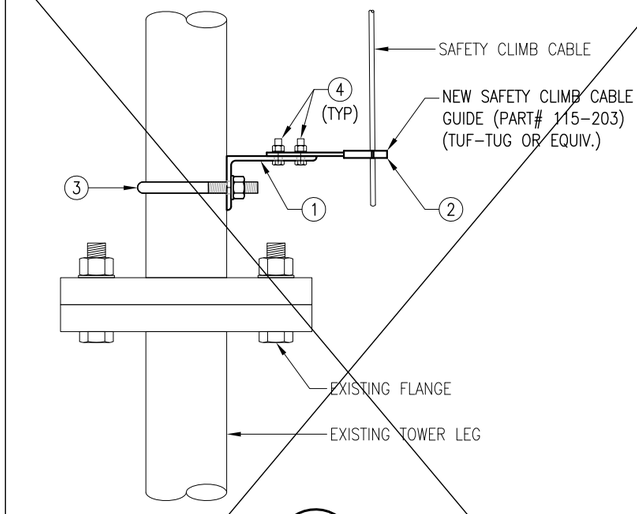
ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)



4 SAF-1 TYPE – 4

NOTE:
SAFETY CLIMB GUIDE MAY BE INSTALLED ON EITHER LEFT OR RIGHT SIDE OF THE COLLAR MOUNT, DEPENDING ON WHERE THE EXISTING SAFETY CLIMB IS LOCATED.

ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	TMP-2	PL 1/4" X 2" X 7" A36
2	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)
3	2	---	BOLT 3/8" X 1 1/2" FULL THREAD SAE GR 5
4	1	---	BOLT 5/8" X 2" A325



5 SAF-1 TYPE – 5

ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	SCGB-4	L 5" X 3" X 1/4" X 7 1/2" A36
2	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)
3	1	MS02-625-4625-700	RU-BOLT 5/8" X 4 5/8" I.W. X 7" I.L. A36 (OR EQUIV.)
4	2	---	BOLT 3/8" X 1 1/2" FULL THREAD SAE GR 5

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DRAWN BY: GA | CHECKED BY: JM/CHLE

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	GA	12/23/20

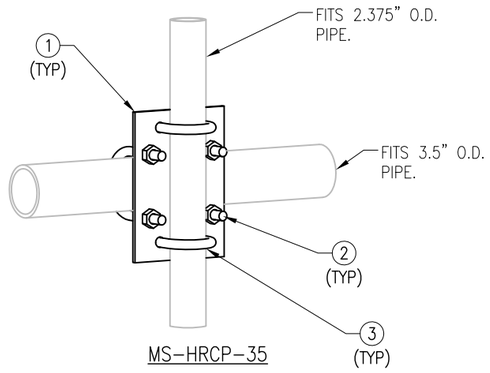
SHEET TITLE:
SAFETY CABLE GUIDE DETAILS

SHEET NUMBER: SAF-1
REV #: 0

THE FOLLOWING DRAWINGS ARE INCLUDED FOR REFERENCE ONLY
PLEASE REFER TO THE INSTALLATION DRAWINGS FOR ACTUAL INSTALLATION DETAILS

NOTES:
1. 1. ALL HOLES ARE 11/16" DIA. U.N.O
2. HOT-DIPPED GALVANIZED PER ASTM A123.

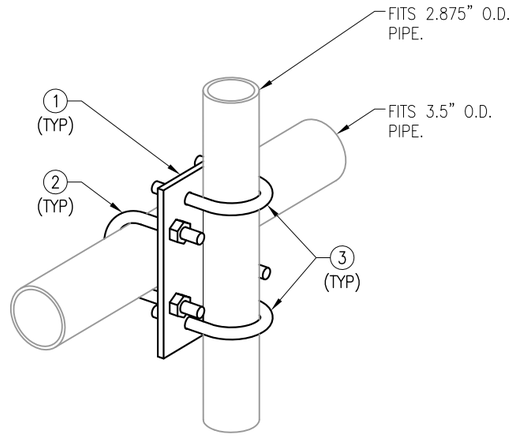
MS-HRCP-35						
ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	3	PL375-10	PL 3/8" X 7 1/8" X 10"	A36	TAF-1	23.1
2	6	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)	A36	RBC-1	--
3	6	MS02-625-250-400	RU-BOLT 5/8" X 2 1/2" I.W. X 4" I.L. A36 (OR EQUIV.)	A36	RBC-1	--
					GALVANIZED WT	23



THIRD ANGLE PROJECTION		METROSITE FABRICATORS LLC 180 INDUSTRIAL PARK BLVD. COMMERCE GA 30529	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH	CONFIDENTIAL ALL INFORMATION ON THIS DOCUMENT IS PROPERTY OF METROSITE FABRICATORS LLC	TITLE MS-HRCP-35 SUPPORT RAIL CENTER PIPE KIT	
STANDARD SHEET TOLERANCES	APPROVAL / SIGNATURES	DATE	SIZE DWG NO REV
DECIMALS .X ± 0.1 .XX ± 0.02 .XXX ± 0.005 / ANGLES ± 1° / FRACTIONS ± 1/32	DRAWN BY XXX	05/12/17	B MS-HRCP-35 0
	REVIEWED XXX	-	
	APPROVED XXX	-	SCALE - SHEET 1 OF 1

NOTES:
1. 1. ALL HOLES ARE 11/16" DIA. U.N.O
2. HOT-DIPPED GALVANIZED PER ASTM A123.

MS-HRCP-35-2875						
ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	1	PL350-2875	PL 3/8" X 7 1/8" X 10"	A36	TAF-2	7.7
2	2	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)	A36	RBC-1	1.5
3	2	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	A36	RBC-1	1.4
					GALVANIZED WT	11



MS-HRCP-35-2875

THIRD ANGLE PROJECTION

METROSITE FABRICATORS LLC
180 INDUSTRIAL PARK BLVD.
COMMERCE GA 30529

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH

STANDARD SHEET TOLERANCES

DECIMALS	ANGLES
.X ± 0.1	± 1°
.XX ± 0.02	FRACTIONS
.XXX ± 0.005	± 1/32

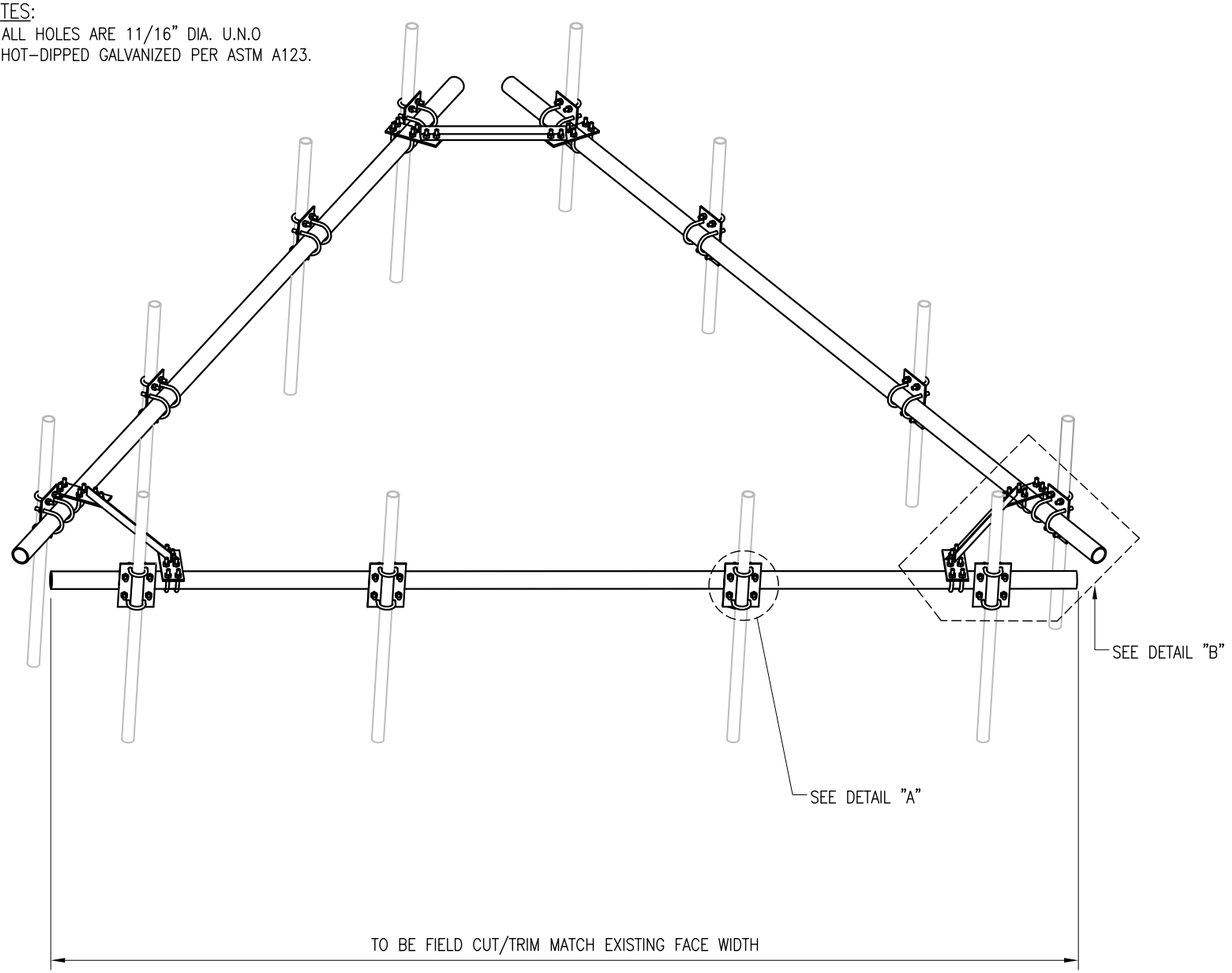
APPROVAL / SIGNATURES		DATE
DRAWN BY	XXX	05/12/17
REVIEWED	XXX	-
APPROVED	XXX	-

TITLE
MS-HRCP-35-2875
SUPPORT RAIL CENTER PIPE KIT

SIZE	DWG NO	REV
B	MS-HRCP-35-2875	0

SCALE - SHEET 1 OF 1

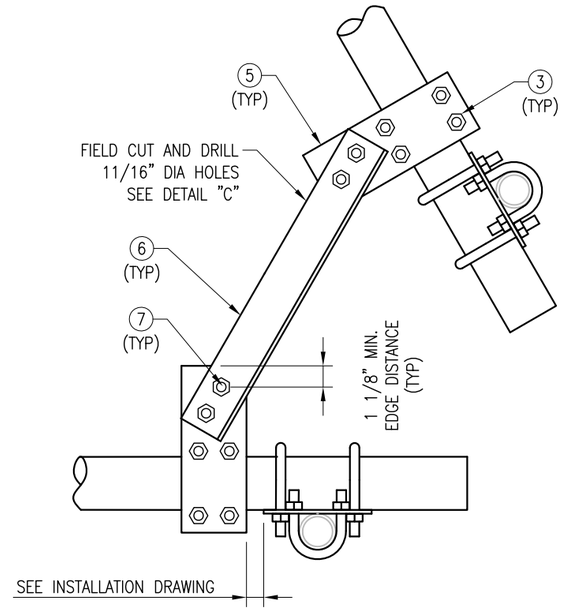
NOTES:
1. ALL HOLES ARE 11/16" DIA. U.N.O
2. HOT-DIPPED GALVANIZED PER ASTM A123.



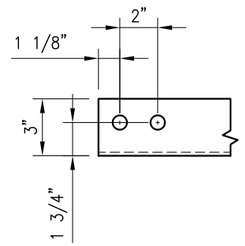
ELEVATION VIEW

MS-HRECP-35_18

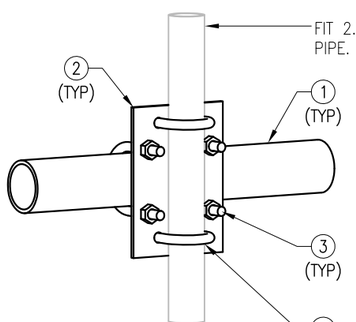
ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	3	3PST-216	3" PST (3.50" O.D X .216" THICK) X 18'-0"	A53 GR-B	HR35-18	430.2
2	12	PL375-10	PL 3/8" X 7 1/8" X 10"	A36	TAF-1	92.4
3	36	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)	A36	RBC-1	--
4	24	MS02-625-250-400	RU-BOLT 5/8" X 2 1/2" I.W. X 4" I.L. A36 (OR EQUIV.)	A36	RBC-1	--
5	6	PL375-11	PL 3/8" X 4 1/4" X 0'-11"	A36	TAF-1	30.2
6	3	AL-33C	L 3" X 3" X 1/4" X 3'-6"	A36	ECP-1	54.0
7	12	--	BOLT 5/8" X 2" A325 W/ HHN & LKW	A325	--	--
					GALVANIZED WT	607



DETAIL "B"



DETAIL "C"
11/16"ø HOLES FIELD DRILLED



DETAIL "A"

THIRD ANGLE PROJECTION

METROSITE FABRICATORS LLC
180 INDUSTRIAL PARK BLVD.
COMMERCE GA 30529

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
AND INCLUDE FINISH

STANDARD SHEET TOLERANCES

DECIMALS	ANGLES
.X ± 0.1	± 1°
.XX ± 0.02	FRACTIONS
.XXX ± 0.005	± 1/32

APPROVAL / SIGNATURES		DATE
DRAWN BY	XXX	05/12/17
REVIEWED	XXX	-
APPROVED	XXX	-

TITLE
MS-HRECP-35_18
SUPPORT RAIL WITH END
CONNECTION KIT

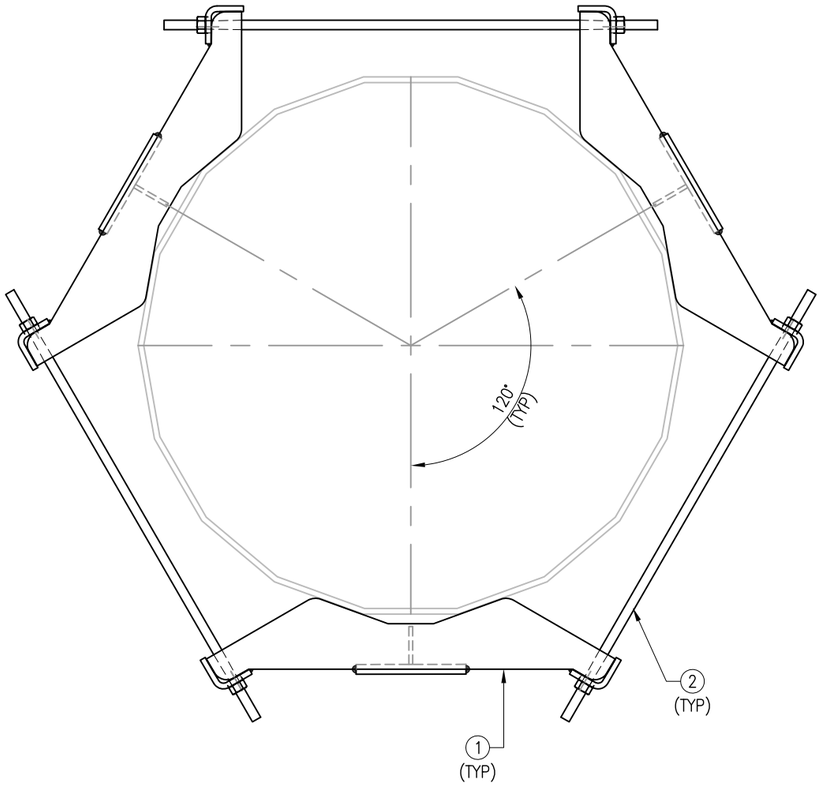
SIZE	DWG NO	REV
B	MS-HRECP-35_18	0

SCALE - SHEET 1 OF 1

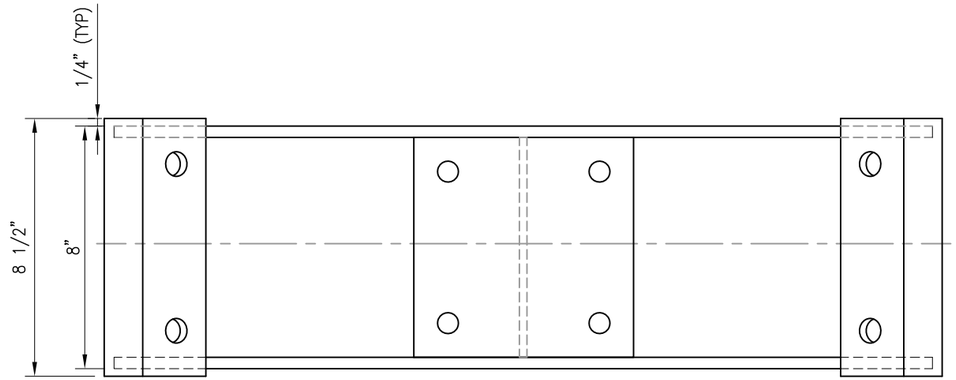
NOTE:
1) FITS 12" DIA TO 32" DIA.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	3	MPHW-1	MOUNT PLATE WELDMENT A36
2	6	---	THREADED ROD 3/4" X 2'-4 3/4" W/ 2 HHN & LW EA A36

GALVANIZED WEIGHT: 136.7 LBS



TOP VIEW



FRONT VIEW

THIRD ANGLE PROJECTION

METROSITE FABRICATORS LLC
180 INDUSTRIAL PARK BLVD.
COMMERCE GA 30529

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH

STANDARD SHEET TOLERANCES

DECIMALS	ANGLES
.X ± 0.1	± 1°
.XX ± 0.02	FRACTIONS
.XXX ± 0.005	± 1/32

APPROVAL / SIGNATURES		DATE
DRAWN BY	XXX	05/12/17
REVIEWED	XXX	-
APPROVED	XXX	-

TITLE
HEAVY COLLAR MOUNT PLATE
ASSEMBLY DETAIL MS-H1436

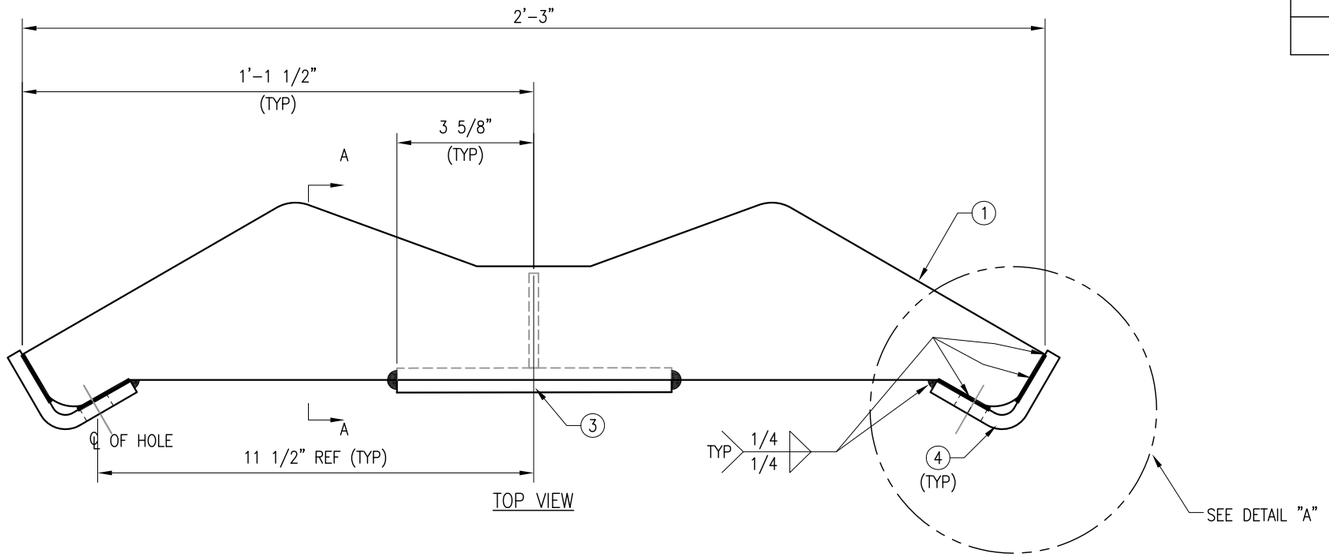
SIZE	DWG NO	REV
B	MS-H1436	1

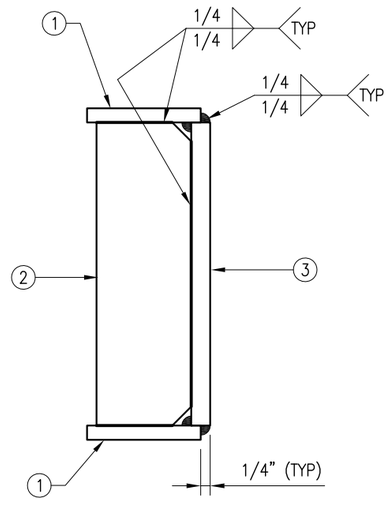
SCALE -

SHEET 1 OF 1

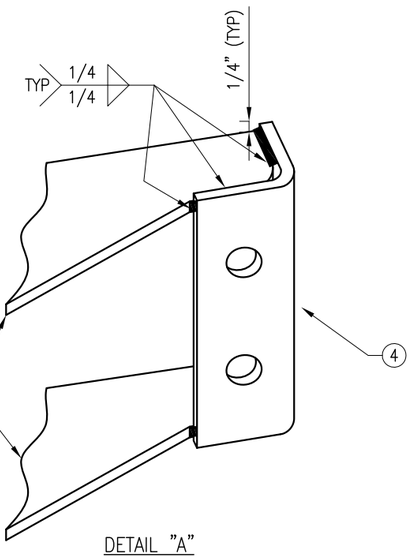
NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.
2. WELD TYPE: E70XX.

MPHW-1 WELDMENT						
ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	2	PL-4	PL 3/8" X 5 3/8" X 2'-3"	A36	F-2	18.8
2	1	PL-5	PL 3/8" X 2 1/2" X 0'-7 1/4"	A36	F-2	1.9
3	1	PL-6	PL 1/2" X 7 1/4" X 0'-7 1/4"	A36	F-2	7.5
4	2	PL-7	PL 3/8" x 4 3/8" x 8 1/2"	A36	F-2	7.8
					BLACK WT	36
					GALVANIZED WT	38

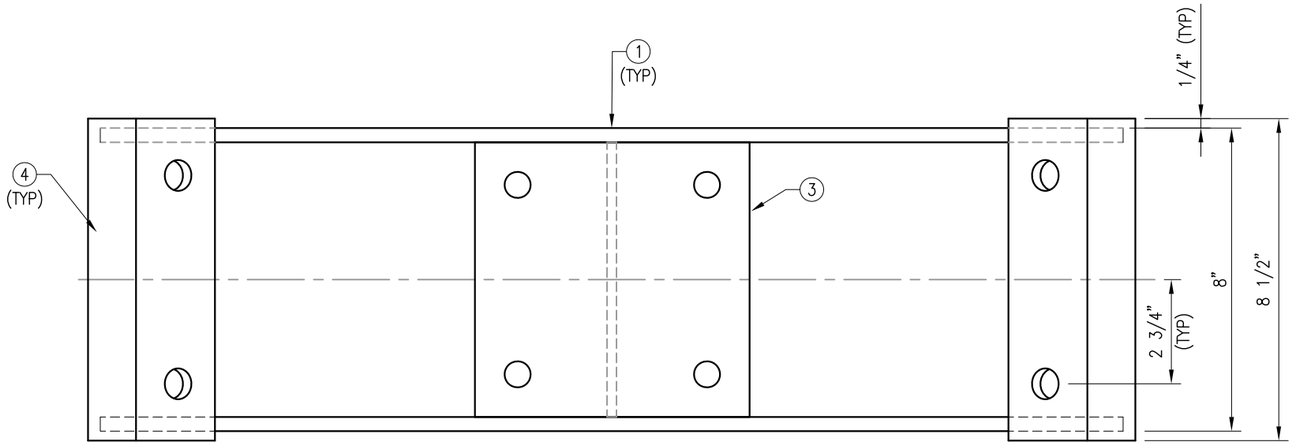




SECTION "A-A"



DETAIL "A"



FRONT VIEW

MPW-1 WELDMENT

THIRD ANGLE PROJECTION

METROSITE FABRICATORS LLC
180 INDUSTRIAL PARK BLVD.
COMMERCE GA 30529

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH

STANDARD SHEET TOLERANCES

DECIMALS	ANGLES
.X ± 0.1	± 1°
.XX ± 0.02	FRACTIONS
.XXX ± 0.005	± 1/32

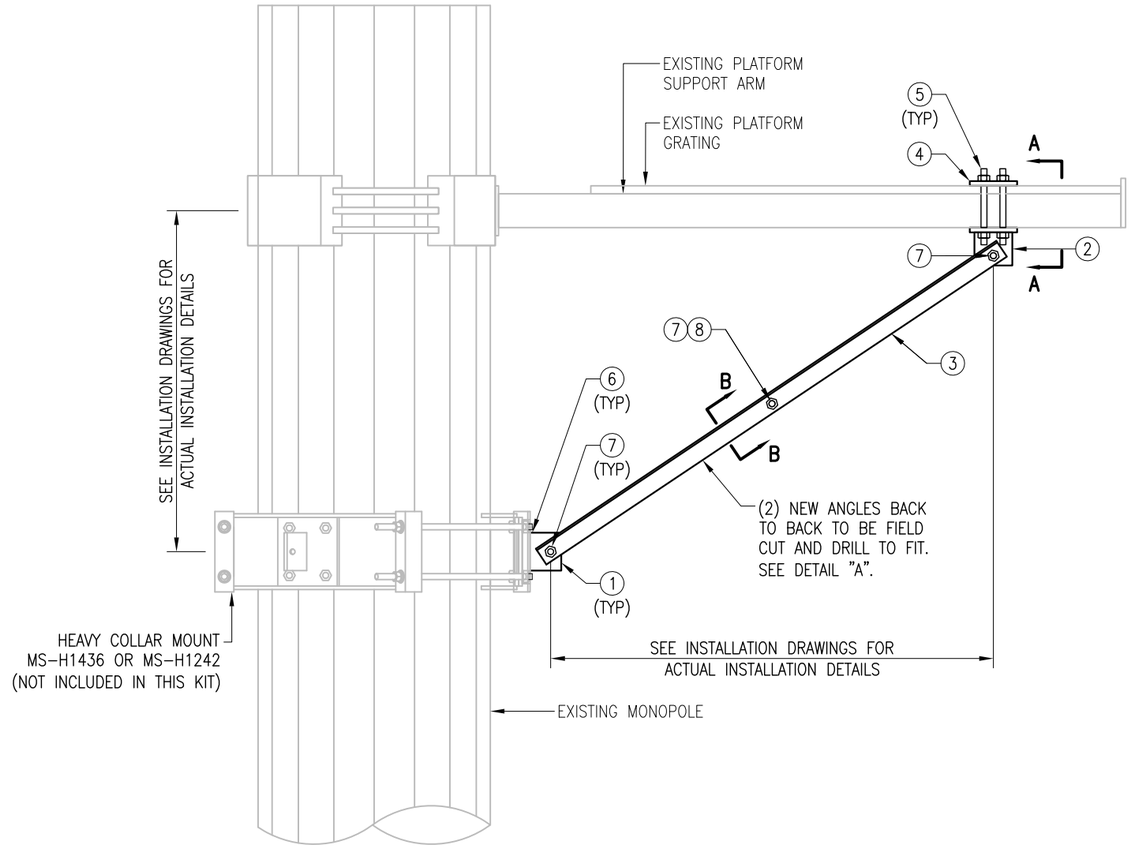
APPROVAL / SIGNATURES		DATE
DRAWN BY	XXX	05/12/17
REVIEWED	XXX	-
APPROVED	XXX	-

TITLE
HEAVY COLLAR MOUNT PLATE WELDMENT DETAIL

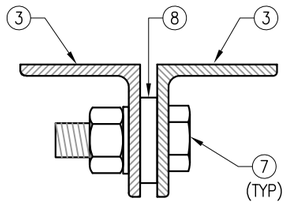
SIZE	DWG NO	REV
B	MPHW-1	0

SCALE - SHEET 1 OF 1

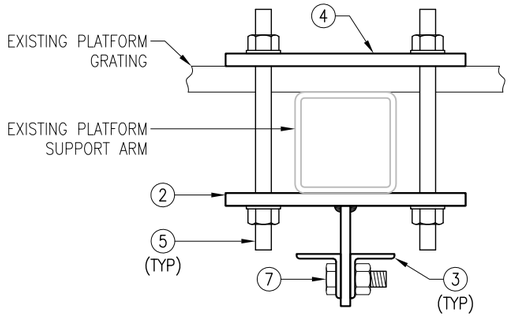
NOTE:
THE LOCATION OF KICKER AND EXISTING ANTENNA MOUNT SHOWN ON THE DRAWING IS FOR REPRESENTATION PURPOSE ONLY. SEE INSTALLATION DRAWINGS FOR ACTUAL INSTALLATION OF DETAILS.



ELEVATION



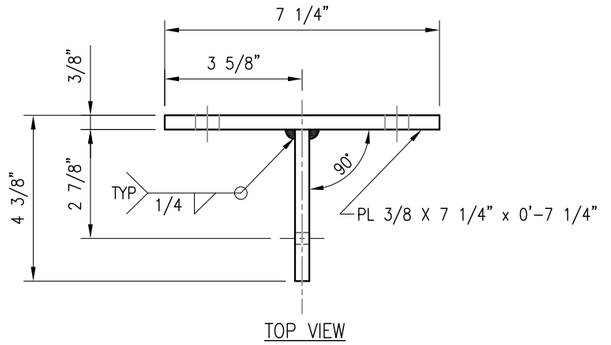
SECTION "B-B"



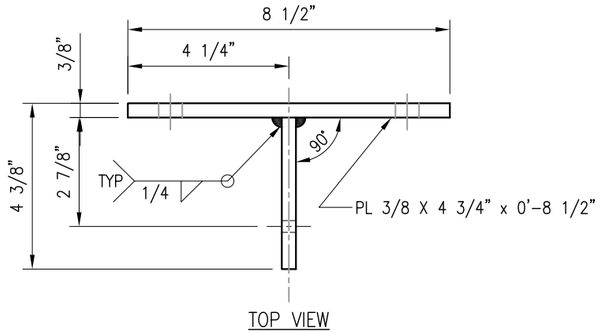
SECTION "A-A"

NOTES:
1. ALL HOLES ARE 11/16" DIA. U.N.O
2. HOT-DIPPED GALVANIZED PER ASTM A123.
3. FIT UP TO 5" X 5" SQ. TUBING OR 4 1/2" O.D. PIPE

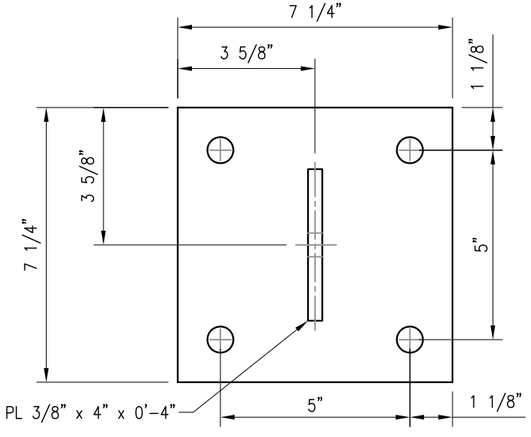
MS-HKI22-8						
ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	3	BRKW-HK	BRACKET WELDMENT	---	BRKW-HK	23.4
2	3	BRKW-5S	BRACKET WELDMENT	---	BRKW-5S	18.9
3	6	L2225-8	L 2" X 2" X 1/4" X 8'-0"	A36	HKF-8	156.0
4	3	PL5S-375	PL 3/8" X 4 3/4" X 8 1/2"	A36	HKF-8	12.9
5	12	---	ALL THREADED ROD 5/8" DIA. X 1'-0" HDG W/ (2) HHN & LKW EA.	A36	---	--
6	12	---	BOLT 5/8" X 2" W/ HHN & LKW	A325	--	--
7	9	---	BOLT 5/8" X 2 1/4" W/ HHN & LKW	A325	--	--
8	3	---	SPACER/SHIM FOR 5/8" BOLT (3/8" THICK)	A36	--	--
				GALVANIZED WT		211



TOP VIEW

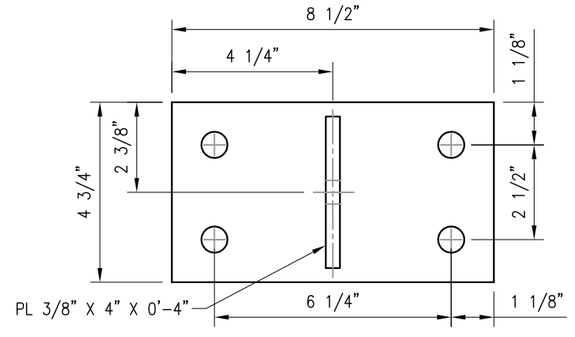


TOP VIEW



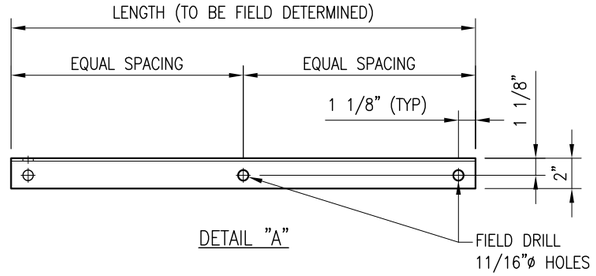
FRONT VIEW

BRKW-HK WELDMENT



FRONT VIEW

BRKW-5S WELDMENT



DETAIL "A"

THIRD ANGLE PROJECTION

METROSITE FABRICATORS LLC
180 INDUSTRIAL PARK BLVD.
COMMERCE GA 30529

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH
STANDARD SHEET TOLERANCES
DECIMALS .X ± 0.1, .XX ± 0.02, .XXX ± 0.005
ANGLES ± 1°
FRACTIONS ± 1/32

APPROVAL / SIGNATURES		DATE
DRAWN BY	XXX	06/21/18
REVIEWED	XXX	-
APPROVED	XXX	-

TITLE
HEAVY KICKER SUPPORT KIT

SIZE	DWG NO	REV
B	MS-HKI22-8	0

SCALE -
SHEET 1 OF 1

EXHIBIT 9

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

Post-Mod Antenna Mount Analysis Report

Existing 180-Ft Monopole Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT46127-A-SBA / Oxford-south

Customer Site Name: Oxford-south

Carrier Name: T-Mobile Sprint (App#: 144033-1)

Carrier Site ID / Name: CT03XC036 / _

Site Location: Coppermine Rd.

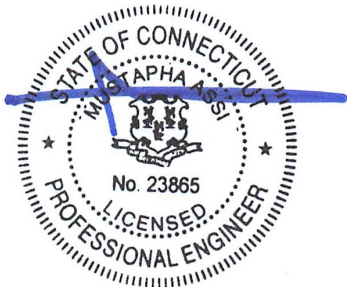
Oxford, Connecticut

New Haven County

Latitude: 41.387777

Longitude: -73.172222

Exp.01/31/2021



12/18/2020

Analysis Result:

Max Structural Usage: 45.1% [Pass]

Report Prepared By: Jian Ma

Introduction

The purpose of this report is to summarize the analysis results on the (1) Platform w/ Hand Rails at 168.00' elevation including the proposed modifications to support the proposed antenna configuration. Any existing modification listed under Sources of Information was assumed completed and was included in this analysis.

The proposed modification by **TES** listed under Sources of Information was considered completed and was included in this analysis.

Sources of Information

Mount Drawings	Mount mapping by TEP, dated 12/9/2020.
Antenna Loading	Application #: 144033, v1 from SBA
Existing Modification	N/A
Proposed Modification	TES Project No. 100841

Analysis Criteria

Basic Wind Speed Used in the Analysis: V_{ULT} = 121 mph (3-Sec. Gust) / Equivalent to
V_{ASD} = 94 mph (3-Sec. Gust)
Basic Wind Speed with Ice: 50 mph (3-Sec. Gust) with 0.75" radial ice concurrent
Operational Wind Speed: 60 mph +0" Radial ice
Standard/Codes: ANSI/TIA/EIA 222-G
Exposure Category: C
Structure Class: II
Topographic Category: 1
Crest Height (Ft): 0

The site is a Risk Category II structure per IBC Table 1604.5. This site does not support emergency communication equipment for first responders such as fire departments, police, hospitals, ambulance services or any of the facilities listed for Risk Categories III and IV. The scope of work detailed in this structural analysis does not include items that are a part of emergency service as the 911 or essential facility service of an emergency response system.

Mount Information

(1) Low-Profile Platform with new replaced handrail kit, plan bracings and kicker kit at 168.00' elevation

Final Antenna Configuration

3	Ericsson AIR32 KRD901146-1_B66A_B2A (Octo)
3	RFS APXVAALL24_43-U-NA20
3	Ericsson AIR6449 B41
4	RFS ACU-A20-N RET
3	Ericsson 4415 B25
3	ALU 800 MHz RRH
3	Ericsson 4449 B71 + B85
3	ALU 800 MHz Filter

Analysis Results

Our calculations have determined that under design wind load the existing mounts will be structurally adequate to support the proposed antenna configuration after the proposed modification is successfully completed. The maximum structural usage is 45.1%, which occurs in the connection. The proposed equipment must be installed as stipulated in the Final Antenna Configuration section of this report. The analysis results are void if the proposed equipment is not installed in accordance with this report.

Attachments

1. Mount Photos Before Modification
2. Antenna Placement Diagram
3. Mount Mapping Information
4. Analysis Calculations

Standard Conditions

1. The loading configuration as analyzed in this report is as provided from the customer. Any deviation from this design shall be communicated to TES to verify deviation will not adversely impact the analysis.

2. The analysis is based on the presumption that the antenna mount members and components along with any existing reinforcement items have been correctly and properly designed, manufactured, installed and maintained.

3. All the existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion. The mount analysis is not a condition assessment of the mount.

4. The mount analysis was performed in accordance with the loading provided, and if applicable the modification required to support the additional loading.

5. If the mount is modified, installation must adhere to the configuration communicated in the modification drawings.

6. The modification drawings are not intended to convey means or methods. These are the responsibility of the installing contractor.

7. Rigging plan review is available if the contractor requires for a construction class IV or other if required. Review fee would apply.

8. The mount modification package was created based upon information provided for the mount loading. The underlying tower is assumed to provide support and sufficient rigidity to support the mount loads as a tower analysis was not part of the mount analysis.

9. TES is not responsible for modifications to climbing facilities unless communicated to TES in writing.

Structure: CT46127-A-SBA - Oxford-south

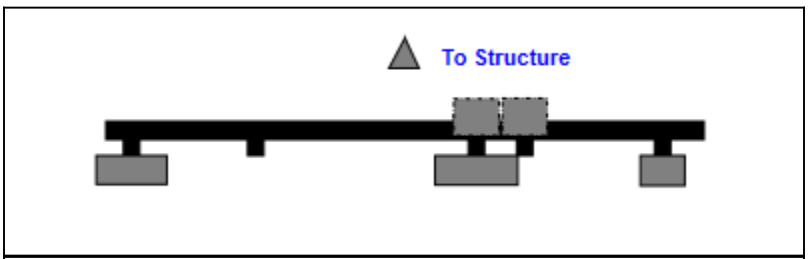
Sector: A

Structure Type: Monopole

Mount Elev: 168.00

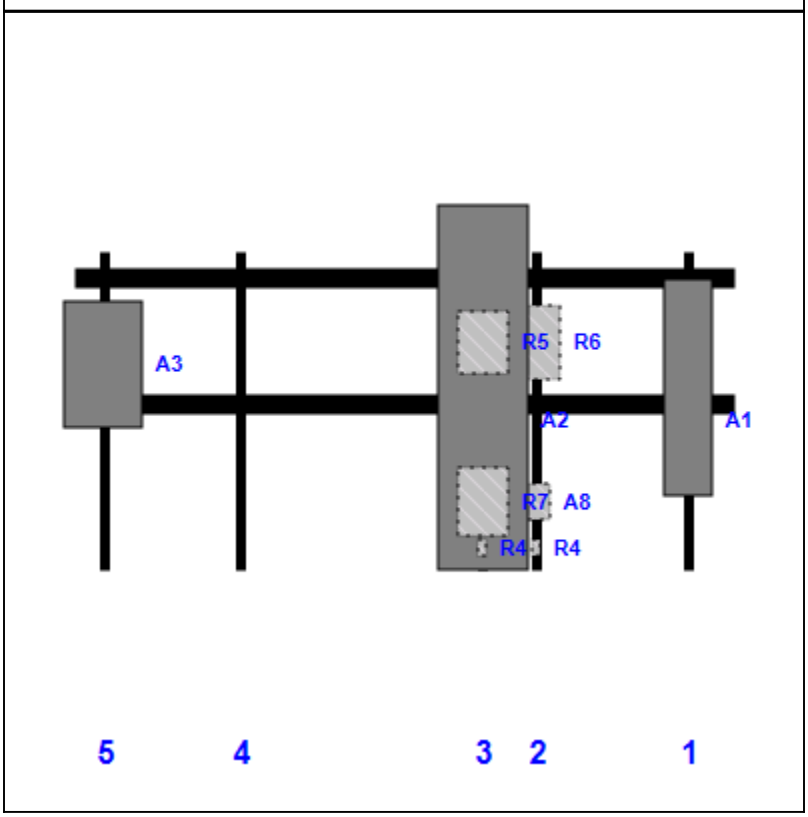
12/18/2020

Plan View



Front View

Looking Toward Structure



Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A1	AIR32 KRD901146-1_B66A_B2A (Octo)	56.60	12.90	162.00	1	a	Front	36.00			
R4	ACU-A20-N RET	4.00	2.00	122.00	2	a	Behind	78.00			
R6	800 MHz RRH	19.70	13.00	122.00	2	a	Behind	24.00			
A8	800 MHz Filter	10.00	8.00	122.00	2	b	Behind	66.00			
A2	APXVAALL24_43-U-NA20	95.90	24.00	108.00	3	a	Front	36.00			
R4	ACU-A20-N RET	4.00	2.00	108.00	3	a	Behind	78.00			
R5	4415 B25	16.50	13.40	108.00	3	a	Behind	24.00			
R7	4449 B71 + B85	17.90	13.10	108.00	3	a	Behind	66.00			
A3	AIR6449 B41	33.10	20.50	8.00	5	a	Front	30.00			

Structure: CT46127-A-SBA - Oxford-south

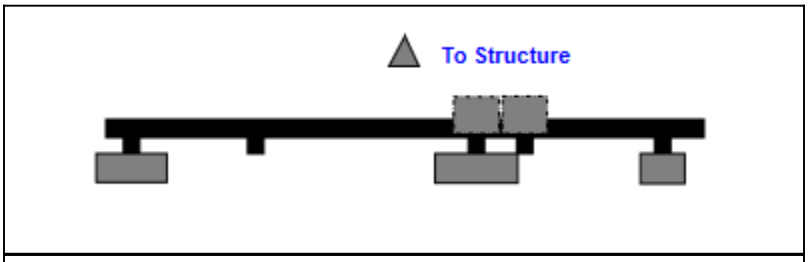
Sector: B

Structure Type: Monopole

Mount Elev: 168.00

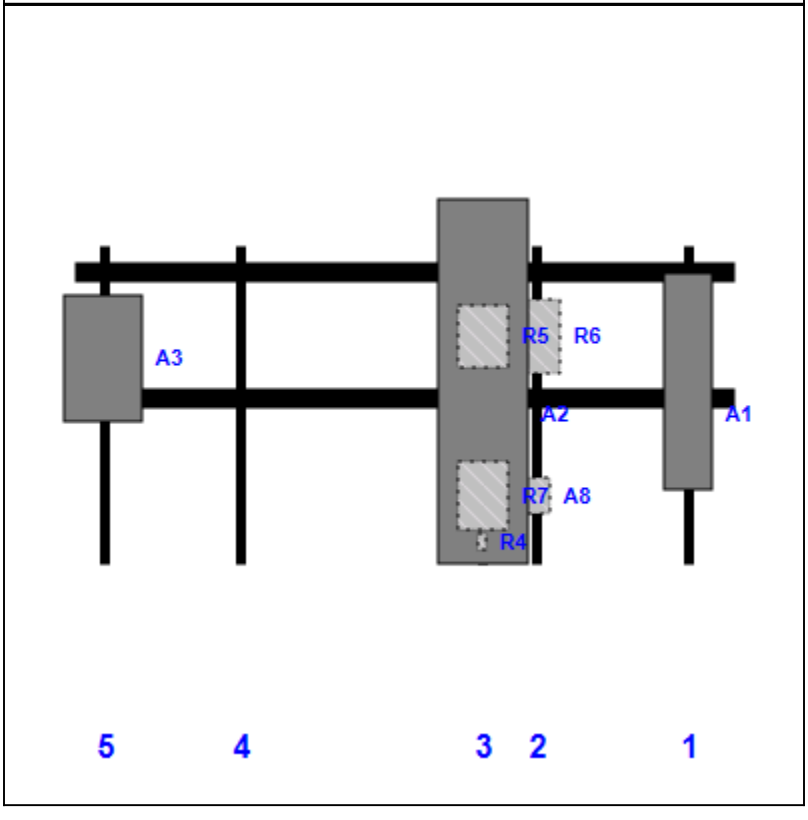
12/18/2020

Plan View



Front View

Looking Toward Structure



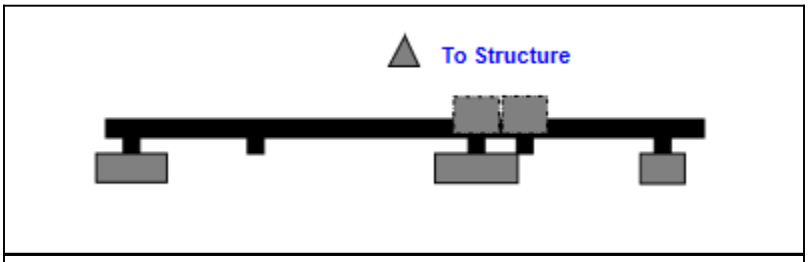
Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A1	AIR32 KRD901146-1_B66A_B2A (Octo)	56.60	12.90	162.00	1	a	Front	36.00			
R6	800 MHz RRH	19.70	13.00	122.00	2	a	Behind	24.00			
A8	800 MHz Filter	10.00	8.00	122.00	2	b	Behind	66.00			
A2	APXVAALL24_43-U-NA20	95.90	24.00	108.00	3	a	Front	36.00			
R4	ACU-A20-N RET	4.00	2.00	108.00	3	a	Behind	78.00			
R5	4415 B25	16.50	13.40	108.00	3	a	Behind	24.00			
R7	4449 B71 + B85	17.90	13.10	108.00	3	a	Behind	66.00			
A3	AIR6449 B41	33.10	20.50	8.00	5	a	Front	30.00			

Structure: CT46127-A-SBA - Oxford-south

Sector: C
Structure Type: Monopole
Mount Elev: 168.00

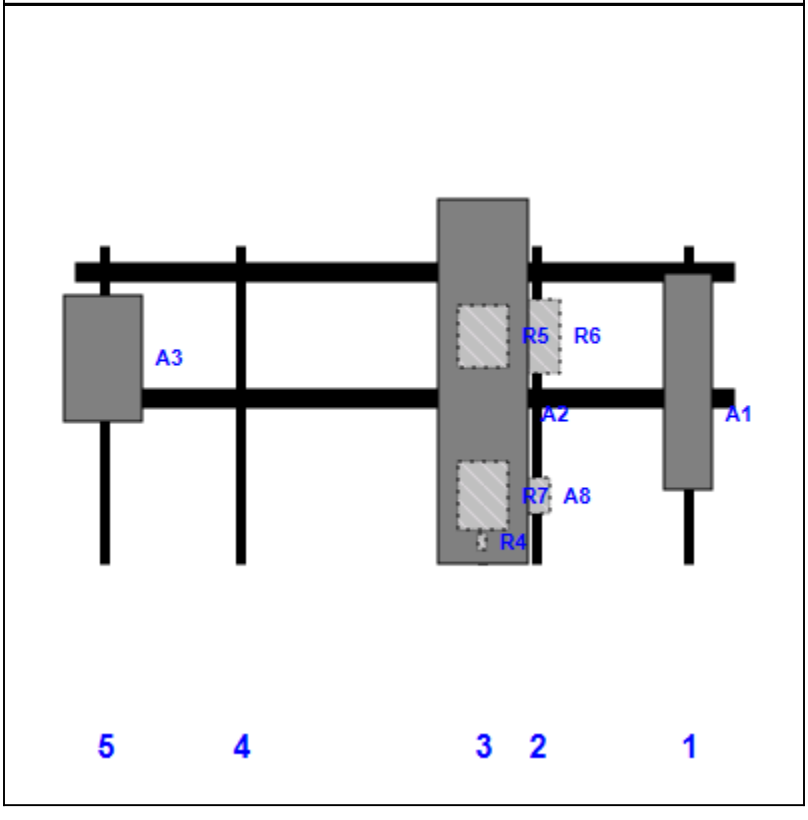
12/18/2020

Plan View



Front View

Looking Toward Structure



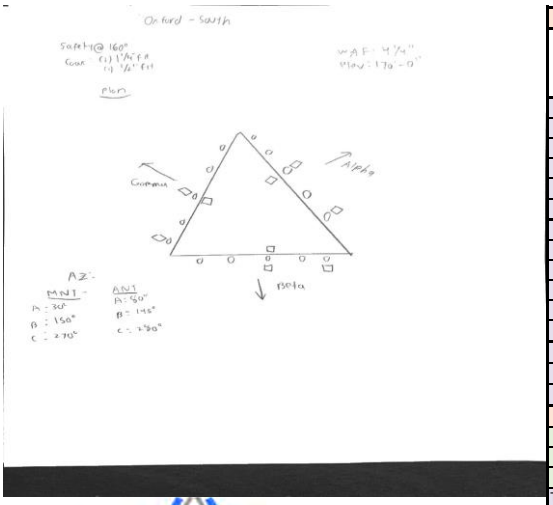
Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A1	AIR32 KRD901146-1_B66A_B2A (Octo)	56.60	12.90	162.00	1	a	Front	36.00			
R6	800 MHz RRH	19.70	13.00	122.00	2	a	Behind	24.00			
A8	800 MHz Filter	10.00	8.00	122.00	2	b	Behind	66.00			
A2	APXVAALL24_43-U-NA20	95.90	24.00	108.00	3	a	Front	36.00			
R4	ACU-A20-N RET	4.00	2.00	108.00	3	a	Behind	78.00			
R5	4415 B25	16.50	13.40	108.00	3	a	Behind	24.00			
R7	4449 B71 + B85	17.90	13.10	108.00	3	a	Behind	66.00			
A3	AIR6449 B41	33.10	20.50	8.00	5	a	Front	30.00			

V3.0 Updated on 8-31-2020

Antenna Mount Mapping Form (PATENT PENDING)

FCC #
N/A

Tower Owner:	Unknown	**Mapping Date:**	12/9/2020
Site Name:	Oxford-south	**Tower Type:**	Monopole
Site Number or ID:	CT46127-A	**Tower Height (Ft.):**	180
Mapping Contractor:	TEP	**Mount Elevation (Ft.):**	170

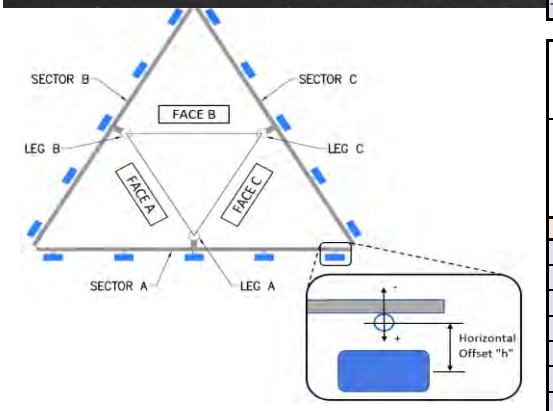


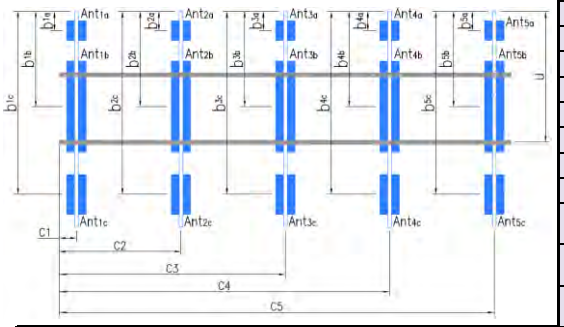
Mount Pipe Configuration and Geometries [Unit = Inches]

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	2.4"Øx0.154"x84"	40.00	8.00	C1	2.4"Øx0.154"x84"	40.00	8.00
A2	2.4"Øx0.154"x84"	40.00	44.00	C2	2.4"Øx0.154"x84"	40.00	44.00
A3	2.9"x0.203"x84"	39.00	62.00	C3	2.9"x0.203"x84"	39.00	62.00
A4	2.4"Øx0.154"x84"	40.00	122.00	C4	2.4"Øx0.154"x84"	40.00	122.00
A5	2.4"Øx0.154"x84"	40.00	162.00	C5	2.4"Øx0.154"x84"	40.00	162.00
A6				C6			
B1	2.4"Øx0.154"x84"	40.00	8.00	D1			
B2	2.4"Øx0.154"x84"	40.00	44.00	D2			
B3	2.9"x0.203"x84"	39.00	62.00	D3			
B4	2.4"Øx0.154"x84"	40.00	122.00	D4			
B5	2.4"Øx0.154"x84"	40.00	162.00	D5			
B6				D6			

Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	
Please enter additional infomation or comments below.	

Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	24.1



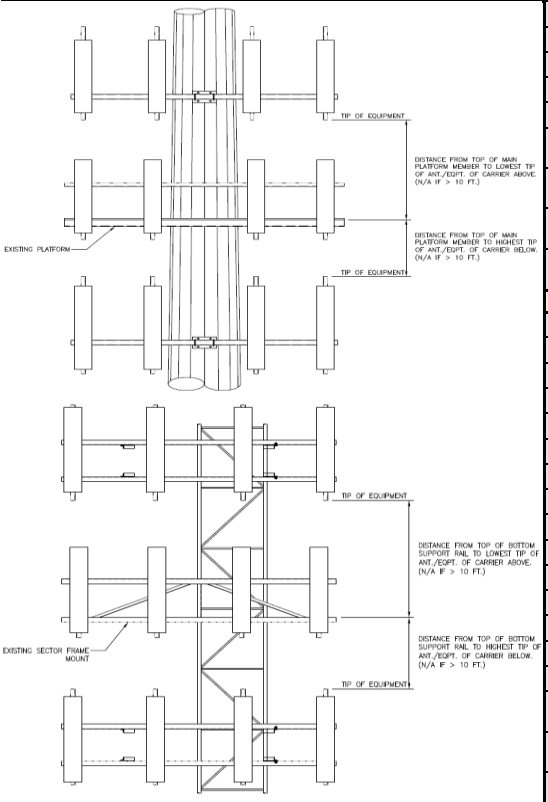


Antenna Layout (Looking Out From Tower)

Ants. Items	Enter antenna model. If not labeled, enter "Unknown". Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Mounting Locations [Units are inches and degrees] Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photos of antennas Photo Numbers
Sector A										
Ant_{1a}										
Ant_{1b}	EMPTY					173.333				158
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	EMPTY					173.333				165
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	APXVTM14-ALU-120	9.30	10.30	53.10		170.75	30.00	10.00	80.00	174
Ant_{3c}	RRH8X20-25-FE4	17.51	5.70	25.00		168.25	60.00	-6.00		278
Ant_{4a}										
Ant_{4b}	EMPTY					173.333				187
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	APXVSPP18	12.40	5.70	71.80		171	28.00	9.00	80.00	192
Ant_{5c}										
Ant on Standoff	RRH2X50-800	13.00	12.20	19.00						261
Ant on Standoff	RRH 1900-4x45	12.00	6.90	21.65						263
Ant on Tower										
Ant on Tower										

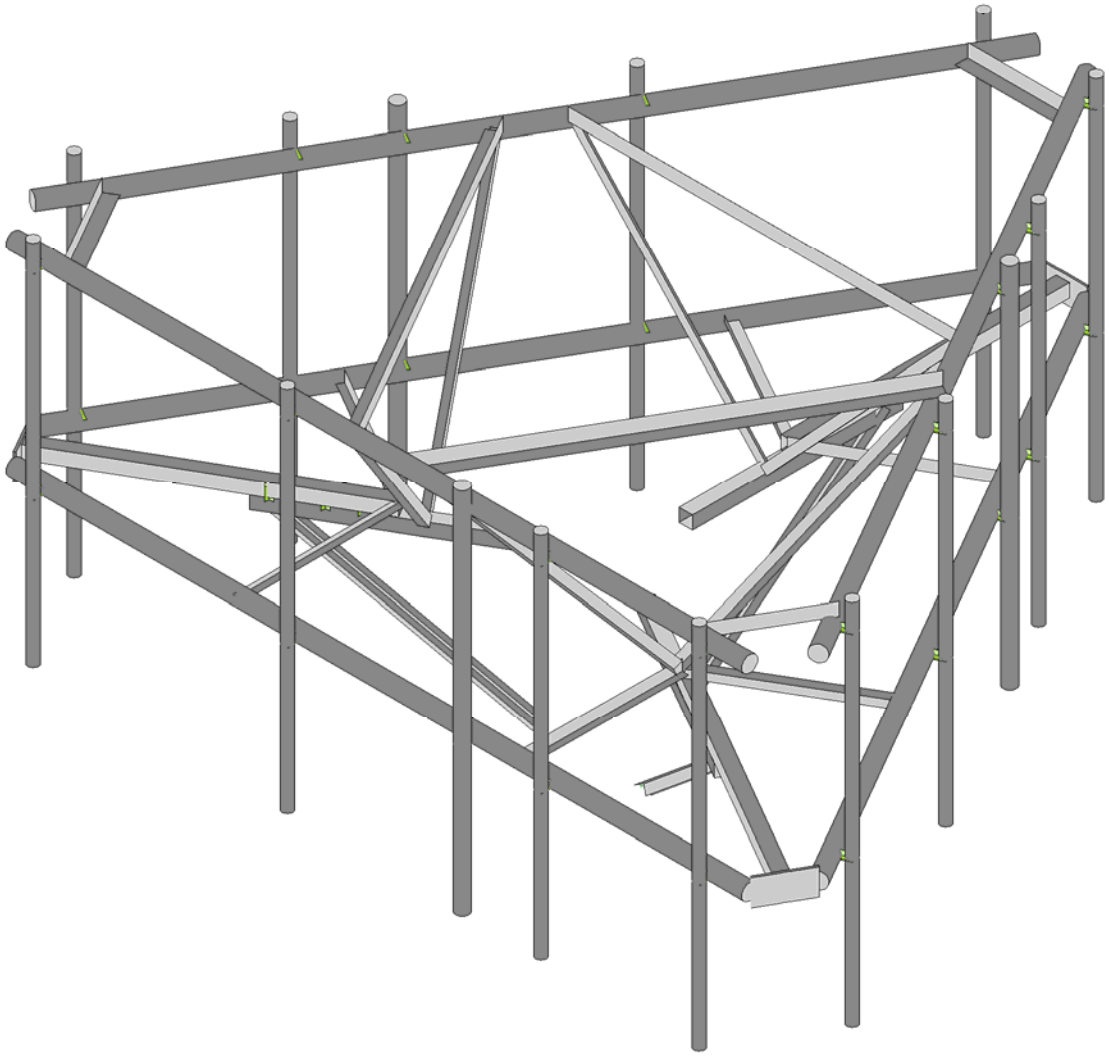
Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	30.00	Deg	Leg A:		Deg
Sector B:	150.00	Deg	Leg B:		Deg
Sector C:	270.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information		
Location:	160.00 Deg	Sector B
Climbing Facility	Corrosion Type:	Good condition.
	Access:	Climbing path was unobstructed.
	Condition:	Good condition.

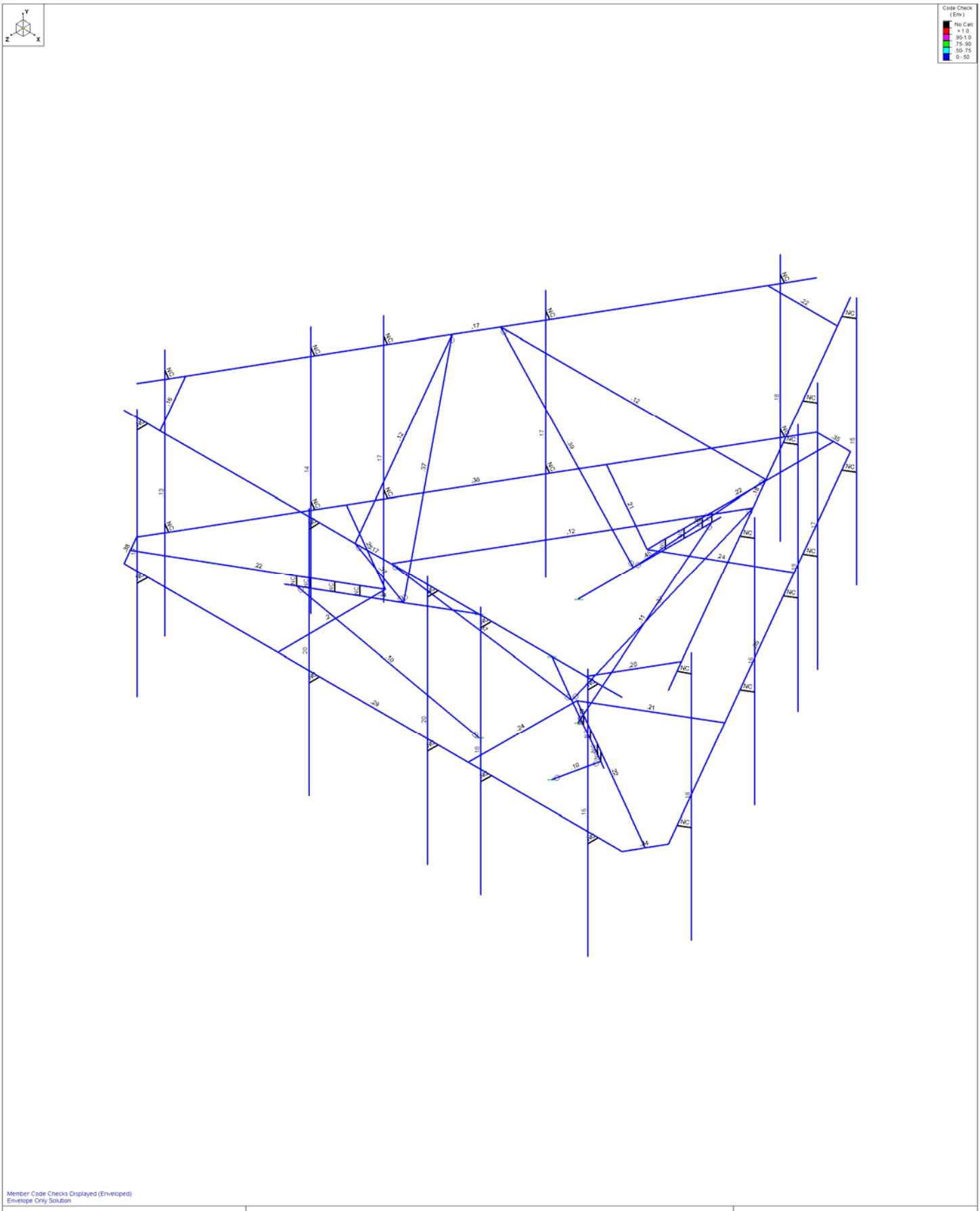


Sector B										
Ant_{1a}										
Ant_{1b}	APXVSPP18	12.40	5.70	71.80		171	28.00	9.00	145.00	204
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	EMPTY					173.333				206
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	APXVTM14-ALU-120	9.30	10.30	53.10		170.75	30.00	10.00	145.00	209
Ant_{3c}	TD-RRH8X20-25	17.51	5.70	25.00		168.25	60.00	-6.00		274
Ant_{4a}										
Ant_{4b}	EMPTY					173.333				211
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	EMPTY					173.333				213
Ant_{5c}										
Ant on Standoff	RRH2X50-800	13.00	12.20	19.00						264
Ant on Standoff	RRH1900-4x45	12.00	6.90	21.65						265
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}	APXVSPP18	12.40	5.70	71.80		171	28.00	9.00	280.00	220
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	EMPTY					173.333				222
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	APXVTM14-ALU-120	9.30	10.30	53.10		170.75	30.00	10.00	280.00	225
Ant_{3c}	RRH 8X20-25-FEU	17.51	5.70	25.00		168.25	60.00	-6.00		280
Ant_{4a}										
Ant_{4b}	EMPTY					173.333				228
Ant_{4c}										
Ant_{5a}										
Ant_{5b}	EMPTY					173.333				230
Ant_{5c}										
Ant on Standoff	RRH2X50-800	13.00	12.20	19.00						267
Ant on Standoff	RRH1900-4x45	12.00	6.90	21.65						269
Ant on Tower										
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

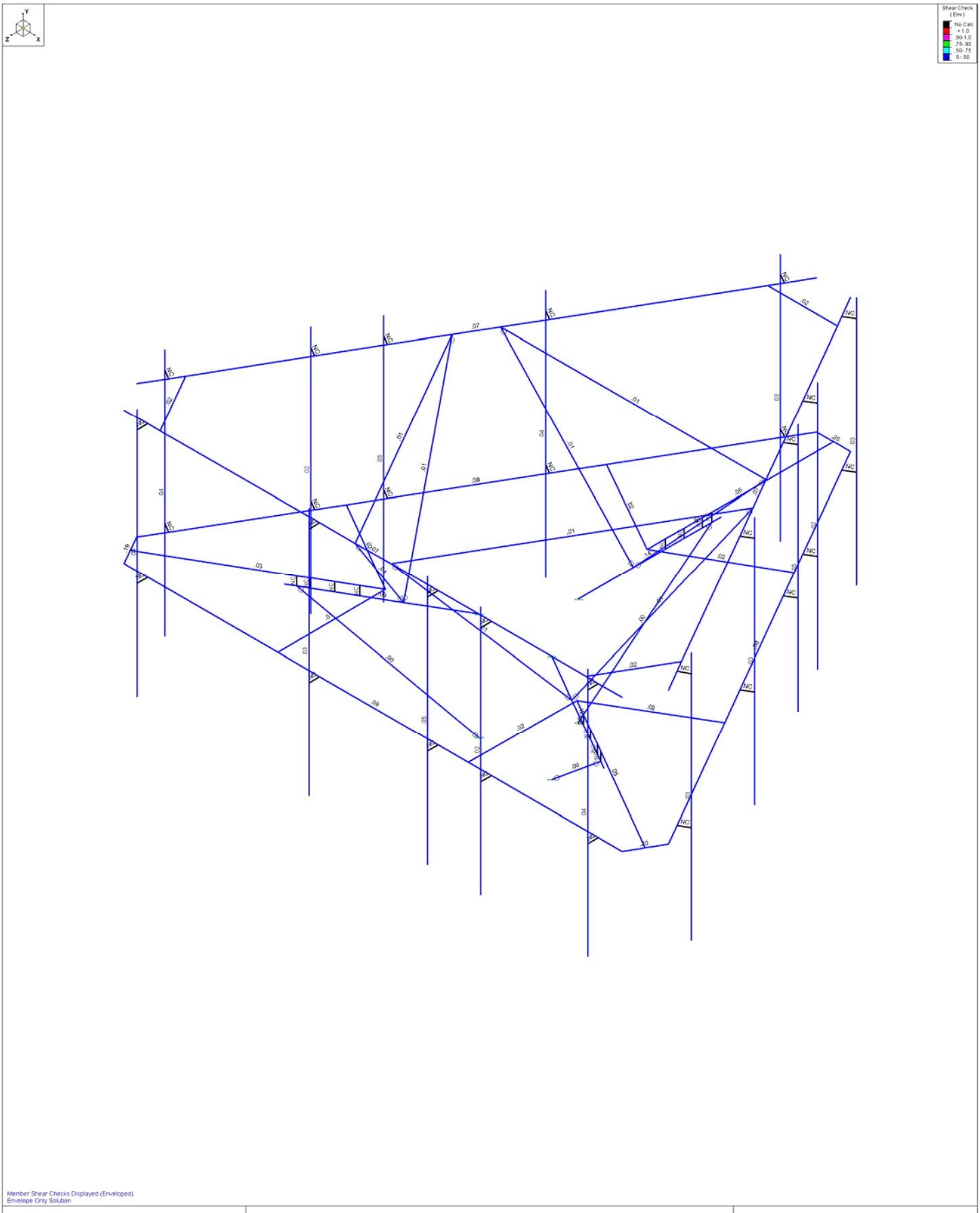
Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #



Envelope Only Solution



Tower Engineering Solutio...	CT46127-A-SBA_MT_LO_Loads Only_G	SK - 2
		Dec 18, 2020 at 2:20 PM
TES Project No. 100841		CT46127-A-SBA_100841_G_RISA_...



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Tower Engineering Solutio...	CT46127-A-SBA_MT_LO_Loads Only_G	SK - 3
		Dec 18, 2020 at 2:20 PM
TES Project No. 100841		CT46127-A-SBA_100841_G_RISA_...

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
1	Antenna D	None					31			
2	Antenna Di	None					31			
3	Antenna W Front	None					31			
4	Antenna Wi Front	None					31			
5	Antenna W Side	None					31			
6	Antenna Wi Side	None					31			
7	Service Lm1	None					1			
8	Service Lm2	None					1			
9	Structure D	None		-1						
10	Structure Di	None						51		
11	Structure W Front	None						51		
12	Structure Wi Front	None						51		
13	Structure W Side	None						51		
14	Structure Wi Side	None						51		

Load Combinations

	Description	S...	P...	S...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D+1.6W (Front)	Yes	Y		1	1.2	9	1.2	3	1.6	11	1.6												
2	1.2D+1.6W (Back)	Yes	Y		1	1.2	9	1.2	3	-1.6	11	-1.6												
3	1.2D+1.6W (Left)	Yes	Y		1	1.2	9	1.2	5	1.6	13	1.6												
4	1.2D+1.6W (Right)	Yes	Y		1	1.2	9	1.2	5	-1.6	13	-1.6												
5	1.2D+1.0Di+1.0Wi (Front)	Yes	Y		1	1.2	9	1.2	2	1	10	1	4	1	12	1								
6	1.2D+1.0Di+1.0Wi (Back)	Yes	Y		1	1.2	9	1.2	2	1	10	1	4	-1	12	-1								
7	1.2D+1.0Di+1.0Wi (Left)	Yes	Y		1	1.2	9	1.2	2	1	10	1	6	1	14	1								
8	1.2D+1.0Di+1.0Wi (Right)	Yes	Y		1	1.2	9	1.2	2	1	10	1	6	-1	14	-1								
9	1.2D+1.5L1+.16W (Maintai...	Yes	Y		1	1.2	9	1.2	7	1.5	3	.16	11	.16										
10	1.2D+1.5L2+.16W (Maintai...	Yes	Y		1	1.2	9	1.2	8	1.5	3	.16	11	.16										
11	1.4D	Yes	Y		1	1.4	9	1.4																

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	-7.000012	0	4.590779	0	
2	N2	7.000012	0	4.591129	0	
3	N3	7.237874	0	4.179139	0	
4	N4	2.676441	0	4.590779	0	
5	N5	-2.676441	0	4.590779	0	
6	N6	4.041459	-.25	2.333337	0	
7	N7	3.143297	-.25	1.814818	0	
8	N8	3.592408	-.25	2.074078	0	
9	N9	2.694306	0	1.555558	0	
10	N10	4.041279	0	2.333337	0	
11	N11	3.143297	0	1.814818	0	
12	N12	3.592288	0	2.074078	0	
13	N13	-2.694306	0	1.555558	0	
14	N14	7.475737	0	3.767149	0	
15	N15	0.475725	0	-8.357578	0	
16	N16	0.	0	-8.357578	0	
17	N17	2.637463	0	-4.613229	0	
18	N18	5.313847	0	0.022538	0	
19	N19	0.	-.25	-1.179262	0	
20	N20	0.	-.25	-4.666675	0	
21	N21	0	-.25	-5.18332	0	
22	N22	0.	-.25	-3.629636	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
23	N23	0.	-.25	-4.148155	0	
24	N24	0.	0	-3.111116	0	
25	N25	0.	0	-4.666675	0	
26	N26	0.	0	-3.629636	0	
27	N27	0.	0	-4.148155	0	
28	N28	-0.475725	0	-8.357578	0	
29	N29	-7.475737	0	3.7668	0	
30	N30	-7.237874	0	4.178789	0	
31	N31	-5.313951	0	0.022477	0	
32	N32	-2.63751	0	-4.613255	0	
33	N33	-4.041459	-.25	2.333337	0	
34	N34	-3.143357	-.25	1.814818	0	
35	N35	-3.592408	-.25	2.074078	0	
36	N36	-4.041459	0	2.333337	0	
37	N37	-3.143357	0	1.814818	0	
38	N38	-3.592408	0	2.074078	0	
39	N39	-7.199391	0	4.245445	0	
40	N40	7.199391	0	4.245795	0	
41	N41	0.076967	0	-8.357578	0	
42	N42	-7.276358	0	4.112134	0	
43	N43	7.276358	0	4.112483	0	
44	N44	-0.076967	0	-8.357578	0	
45	N47	-7.000012	3.75	4.590779	0	
46	N48	7.000012	3.75	4.591129	0	
47	N53	0	-.25	-4.932807	0	
48	N54	-5.148396	0	2.972428	0	
49	N55	5.148069	0	2.972428	0	
50	N65	-5.987962	3.75	4.590779	0	
51	N66	5.987962	3.75	4.590779	0	
52	N71	-4.271936	-.25	2.466403	0	
53	N72	4.271936	-.25	2.466403	0	
54	N73	-1.021271	-.25	0.589631	0	
55	N74	-4.488887	-.25	2.59166	0	
56	N75	1.021271	-.25	0.589631	0	
57	N76	4.488887	-.25	2.59166	0	
58	N77	6.333345	0	4.590779	0	
59	N78	6.333345	3.75	4.590779	0	
60	N81	6.333345	0	4.891129	0	
61	N82	6.333345	3.75	4.891129	0	
62	N81A	6.333345	-2.75	4.891129	0	
63	N82A	6.333345	4.25	4.891129	0	
64	N83	1.833345	0	4.590779	0	
65	N84	1.833345	3.75	4.590779	0	
66	N85	1.833345	0	4.891129	0	
67	N86	1.833345	3.75	4.891129	0	
68	N87	1.833345	-2.75	4.891129	0	
69	N88	1.833345	4.25	4.891129	0	
70	N89	-6.333345	0	4.590779	0	
71	N90	-6.333345	3.75	4.590779	0	
72	N91	-6.333345	0	4.891129	0	
73	N92	-6.333345	3.75	4.891129	0	
74	N93	-6.333345	-2.75	4.891129	0	
75	N94	-6.333345	4.25	4.891129	0	
76	N95	-1.500012	0	4.590779	0	
77	N96	-1.500012	3.75	4.590779	0	
78	N97	-1.500012	0	4.891129	0	
79	N98	-1.500012	3.75	4.891129	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
80	N99	-1.500012	-2.75	4.891129	0	
81	N100	-1.500012	4.25	4.891129	0	
82	N153A	-1.887296	-.25	1.089631	0	
83	N85A	3.333345	0	4.590779	0	
84	N86A	3.333345	3.75	4.590779	0	
85	N87A	3.333345	0	4.891129	0	
86	N88A	3.333345	3.75	4.891129	0	
87	N89A	3.333345	-2.75	4.891129	0	
88	N90A	3.333345	4.25	4.891129	0	
89	N91A	0.809051	0	-7.780223	0	
90	N92A	0.809347	3.75	-7.780394	0	
91	N93A	1.069169	0	-7.930402	0	
92	N94A	1.069169	3.75	-7.930402	0	
93	N95A	1.069169	-2.75	-7.930402	0	
94	N96A	1.069169	4.25	-7.930402	0	
95	N97A	3.059002	0	-3.883081	0	
96	N98A	3.05925	3.75	-3.883224	0	
97	N99A	3.319169	0	-4.033288	0	
98	N100A	3.319169	3.75	-4.033288	0	
99	N101	3.319169	-2.75	-4.033288	0	
100	N102	3.319169	4.25	-4.033288	0	
101	N103	7.142259	0	3.189532	0	
102	N104	7.142418	3.75	3.18944	0	
103	N105	7.402514	0	3.039274	0	
104	N106	7.402514	3.75	3.039274	0	
105	N107	7.402514	-2.75	3.039274	0	
106	N108	7.402514	4.25	3.039274	0	
107	N109	4.725645	0	-0.996288	0	
108	N110	4.725856	3.75	-0.99641	0	
109	N111	4.985848	0	-1.146516	0	
110	N112	4.985848	3.75	-1.146516	0	
111	N113	4.985848	-2.75	-1.146516	0	
112	N114	4.985848	4.25	-1.146516	0	
113	N115	2.309018	0	-5.182128	0	
114	N116	2.309282	3.75	-5.18228	0	
115	N117	2.569169	0	-5.332326	0	
116	N118	2.569169	3.75	-5.332326	0	
117	N119	2.569169	-2.75	-5.332326	0	
118	N120	2.569169	4.25	-5.332326	0	
119	N121	-7.142403	0	3.189449	0	
120	N122	-7.142692	3.75	3.189282	0	
121	N123	-7.402514	0	3.039274	0	
122	N124	-7.402514	3.75	3.039274	0	
123	N125	-7.402514	-2.75	3.039274	0	
124	N126	-7.402514	4.25	3.039274	0	
125	N127	-4.892403	0	-0.707665	0	
126	N128	-4.892595	3.75	-0.707776	0	
127	N129	-5.152514	0	-0.857841	0	
128	N130	-5.152514	3.75	-0.857841	0	
129	N131	-5.152514	-2.75	-0.857841	0	
130	N132	-5.152514	4.25	-0.857841	0	
131	N133	-0.809058	0	-7.780227	0	
132	N134	-0.809073	3.75	-7.780236	0	
133	N135	-1.069169	0	-7.930402	0	
134	N136	-1.069169	3.75	-7.930402	0	
135	N137	-1.069169	-2.75	-7.930402	0	
136	N138	-1.069169	4.25	-7.930402	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
137	N139	-3.225725	0	-3.594438	0	
138	N140	-3.225844	3.75	-3.594507	0	
139	N141	-3.485836	0	-3.744613	0	
140	N142	-3.485836	3.75	-3.744613	0	
141	N143	-3.485836	-2.75	-3.744613	0	
142	N144	-3.485836	4.25	-3.744613	0	
143	N145	-5.642403	0	0.591373	0	
144	N146	-5.642627	3.75	0.591243	0	
145	N147	-5.902514	0	0.441198	0	
146	N148	-5.902514	3.75	0.441198	0	
147	N149	-5.902514	-2.75	0.441198	0	
148	N150	-5.902514	4.25	0.441198	0	
149	N151	7.475737	3.75	3.766799	0	
150	N152A	0.476028	3.75	-8.357753	0	
151	N153B	6.969727	3.75	2.890313	0	
152	N154	0.982125	3.75	-7.481117	0	
153	N155	-0.475725	3.75	-8.357578	0	
154	N156	-7.47604	3.75	3.766624	0	
155	N157	-0.981779	3.75	-7.481117	0	
156	N158	-6.9699	3.75	2.890014	0	
157	N159	0.	-3.25	-1.179262	0	
158	N161	-1.021271	-3.25	0.589631	0	
159	N163	1.021271	-3.25	0.589631	0	
160	N162	0.500101	3.75	4.590779	0	
161	N163A	-0.500101	3.75	4.590779	0	
162	N164	3.725897	3.75	-2.72849	0	
163	N165	4.225875	3.75	-1.862452	0	
164	N166	-4.22589	3.75	-1.862477	0	
165	N167	-3.725868	3.75	-2.72849	0	
166	N170	-2.362941	-.25	1.364245	0	
167	N173	2.362941	-.25	1.364245	0	
168	N176	-2e-14	-.25	-2.72849	0	
169	N170A	0.	0	-4.932807	0	
170	N171	-4.271936	0	2.466403	0	
171	N173A	4.271936	0	2.466403	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design L...	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Pipe2	PIPE_2.0	Beam	Pipe	A500 Gr...	Typical	1.02	.627	.627	1.25
2	Pipe 2.5	PIPE_2.5	Beam	Pipe	A500 Gr...	Typical	1.61	1.45	1.45	2.89
3	Pipe 3	PIPE_3.0	Beam	Pipe	A500 Gr...	Typical	2.07	2.85	2.85	5.69
4	PL1/5x6	PL1/2x6	Beam	RECT	A36 Gr.36	Typical	3	.063	9	.237
5	Kicker	LL2x2x4x0	Beam	Double A...	A36 Gr.36	Typical	1.89	1.34	.692	.042
6	Inner Angle	L2.25x1.25x5	Beam	Single A...	A36 Gr.36	Typical	.996	.108	.493	.028
7	L3x3x4	L3X3X4	Beam	Single A...	A36 Gr.36	Typical	1.44	1.23	1.23	.031
8	L333	L3X3X3	Beam	Single A...	A36 Gr.36	Typical	1.09	.948	.948	.014
9	BP6.6	BP6.625x0.25	Beam	Single A...	A36 Gr.36	Typical	1.594	1.615	1.774	.032
10	L2.5x2.5x4	L2.5x2.5x4	Beam	Single A...	A36 Gr.36	Typical	1.19	.692	.692	.026
11	L1.5x1.5x3	L2.5x2.5x4	Beam	Single A...	A36 Gr.36	Typical	1.19	.692	.692	.026
12	Intern B-V	L2x2x4	Beam	Single A...	A36 Gr.36	Typical	.944	.346	.346	.021
13	HSS336	HSS3X3X5	Beam	SquareT...	A500 Gr...	Typical	2.94	3.45	3.45	5.94
14	HSS334	HSS3X3X5	Beam	SquareT...	A500 Gr...	Typical	2.94	3.45	3.45	5.94
15	HR-V	PIPE_.75	Beam	Pipe	A53 Gr.B	Typical	.312	.035	.035	.07

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rul...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF	1.5CS1.5x063	Beam	CU	A570 Gr.33	Typical	.263	.062	.104	.000348

Aluminum Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	AL1A	AACS14X13.9	Beam	AA Channel	3003-H14	Typical	11.8	44.7	401	1.19

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Cold Formed Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E5 F)	Density[k/ft^3]	Yield[ksi]	Fu[ksi]
1	A570 Gr.33	29500	11346	.3	.65	.49	33	52
2	A607 C1 Gr.55	29500	11346	.3	.65	.49	55	70

Aluminum Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (...	Density[...	Table B.4	kt	Ftu[ksi]	Fty[ksi]	Fcy[ksi]	Fsu[ksi]	Ct
1	3003-H14	10100	3787.5	.33	1.3	.173	Table B....	1	19	16	13	12	141
2	6061-T6	10100	3787.5	.33	1.3	.173	Table B....	1	38	35	35	24	141
3	6063-T5	10100	3787.5	.33	1.3	.173	Table B....	1	22	16	16	13	141
4	6063-T6	10100	3787.5	.33	1.3	.173	Table B....	1	30	25	25	19	141
5	5052-H34	10200	3787.5	.33	1.3	.173	Table B....	1	34	26	24	20	141
6	6061-T6 W	10100	3787.5	.33	1.3	.173	Table B....	1	24	15	15	15	141

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
1	M1	N1	N2			PIPE_3.0	Beam	Pipe	A53 Gr.B	DR1
2	M2	N9	N3			HSS334	Beam	SquareTube	A500 Gr.B Rect	Typical
3	M3	N4	N9			L2.5x1.5x4	Beam	Single Angle	A36 Gr.36	DR1_1
4	M4	N10	N6			RIGID	Beam	None	RIGID	DR1
5	M5	N12	N8			RIGID	Beam	None	RIGID	DR1
6	M6	N11	N7			RIGID	Beam	None	RIGID	DR1
7	M7	N5	N13		270	L2.5x1.5x4	Beam	Single Angle	A36 Gr.36	DR1_1
8	M8	N14	N15			PIPE_3.0	Beam	Pipe	A53 Gr.B	DR1
9	M9	N24	N16			HSS334	Beam	SquareTube	A500 Gr.B Rect	Typical
10	M10	N19	N21		270	HSS334	Beam	SquareTube	A500 Gr.B Rect	Typical
11	M11	N17	N24			L2.5x1.5x4	Beam	Single Angle	A36 Gr.36	DR1_1
12	M12	N25	N20			RIGID	Beam	None	RIGID	DR1
13	M13	N27	N23			RIGID	Beam	None	RIGID	DR1
14	M14	N26	N22			RIGID	Beam	None	RIGID	DR1
15	M15	N18	N9		270	L2.5x1.5x4	Beam	Single Angle	A36 Gr.36	DR1_1
16	M16	N28	N29			PIPE_3.0	Beam	Pipe	A53 Gr.B	DR1

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
17	M17	N13	N30			HSS334	Beam	SquareTube	A500 Gr.B Rect	Typical
18	M18	N31	N13			L2.5x1.5x4	Beam	Single Angle	A36 Gr.36	DR1_1
19	M19	N36	N33			RIGID	Beam	None	RIGID	DR1
20	M20	N38	N35			RIGID	Beam	None	RIGID	DR1
21	M21	N37	N34			RIGID	Beam	None	RIGID	DR1
22	M22	N32	N24		270	L2.5x1.5x4	Beam	Single Angle	A36 Gr.36	DR1_1
23	M23	N2	N14			PL1/5x6	Beam	RECT	A36 Gr.36	Typical
24	M24	N15	N28			PL1/5x6	Beam	RECT	A36 Gr.36	Typical
25	M25	N29	N1			PL1/5x6	Beam	RECT	A36 Gr.36	Typical
26	M26	N47	N48			Pipe 3	Beam	Pipe	A500 Gr.B RND	Typical
27	M32	N73	N74		270	HSS334	Beam	SquareTube	A500 Gr.B Rect	Typical
28	M33	N75	N76		270	HSS334	Beam	SquareTube	A500 Gr.B Rect	Typical
29	M34	N77	N81			RIGID	Beam	None	RIGID	DR1
30	MP1A	N82A	N81A			Pipe2	Beam	Pipe	A500 Gr.B RND	Typical
31	M37	N83	N85			RIGID	Beam	None	RIGID	DR1
32	M38	N84	N86			RIGID	Beam	None	RIGID	DR1
33	MP3A	N88	N87			Pipe 2.5	Beam	Pipe	A500 Gr.B RND	Typical
34	M40	N89	N91			RIGID	Beam	None	RIGID	DR1
35	MP5A	N94	N93			Pipe2	Beam	Pipe	A500 Gr.B RND	Typical
36	M43	N95	N97			RIGID	Beam	None	RIGID	DR1
37	M44	N96	N98			RIGID	Beam	None	RIGID	DR1
38	MP4A	N100	N99			Pipe2	Beam	Pipe	A500 Gr.B RND	Typical
39	M42	N85A	N87A			RIGID	Beam	None	RIGID	DR1
40	M43A	N86A	N88A			RIGID	Beam	None	RIGID	DR1
41	MP2A	N90A	N89A			Pipe2	Beam	Pipe	A500 Gr.B RND	Typical
42	M45	N91A	N93A			RIGID	Beam	None	RIGID	DR1
43	MP1C	N96A	N95A			Pipe2	Beam	Pipe	A500 Gr.B RND	Typical
44	M48	N97A	N99A			RIGID	Beam	None	RIGID	DR1
45	M49	N98A	N100A			RIGID	Beam	None	RIGID	DR1
46	MP3C	N102	N101			Pipe 2.5	Beam	Pipe	A500 Gr.B RND	Typical
47	M51	N103	N105			RIGID	Beam	None	RIGID	DR1
48	MP5C	N108	N107			Pipe2	Beam	Pipe	A500 Gr.B RND	Typical
49	M54	N109	N111			RIGID	Beam	None	RIGID	DR1
50	M55	N110	N112			RIGID	Beam	None	RIGID	DR1
51	MP4C	N114	N113			Pipe2	Beam	Pipe	A500 Gr.B RND	Typical
52	M57	N115	N117			RIGID	Beam	None	RIGID	DR1
53	M58	N116	N118			RIGID	Beam	None	RIGID	DR1
54	MP2C	N120	N119			Pipe2	Beam	Pipe	A500 Gr.B RND	Typical
55	M60	N121	N123			RIGID	Beam	None	RIGID	DR1
56	MP1B	N126	N125			Pipe2	Beam	Pipe	A500 Gr.B RND	Typical
57	M63	N127	N129			RIGID	Beam	None	RIGID	DR1
58	M64	N128	N130			RIGID	Beam	None	RIGID	DR1
59	MP3B	N132	N131			Pipe 2.5	Beam	Pipe	A500 Gr.B RND	Typical
60	M66	N133	N135			RIGID	Beam	None	RIGID	DR1
61	MP5B	N138	N137			Pipe2	Beam	Pipe	A500 Gr.B RND	Typical
62	M69	N139	N141			RIGID	Beam	None	RIGID	DR1
63	M70	N140	N142			RIGID	Beam	None	RIGID	DR1
64	MP4B	N144	N143			Pipe2	Beam	Pipe	A500 Gr.B RND	Typical
65	M72	N145	N147			RIGID	Beam	None	RIGID	DR1
66	M73	N146	N148			RIGID	Beam	None	RIGID	DR1
67	MP2B	N150	N149			Pipe2	Beam	Pipe	A500 Gr.B RND	Typical
68	M75	N151	N152A			Pipe 3	Beam	Pipe	A500 Gr.B RND	Typical
69	M76	N155	N156			Pipe 3	Beam	Pipe	A500 Gr.B RND	Typical
70	M77	N65	N158			L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
71	M78	N153B	N66			L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
72	M79	N157	N154			L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
73	M74	N90	N92			RIGID	Beam	None	RIGID	DR1

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(d...	Section/Shape	Type	Design List	Material	Design Ru...
74	M75A	N122	N124			RIGID	Beam	None	RIGID	DR1
75	M76A	N104	N106			RIGID	Beam	None	RIGID	DR1
76	M77A	N78	N82			RIGID	Beam	None	RIGID	DR1
77	M78A	N134	N136			RIGID	Beam	None	RIGID	DR1
78	M79A	N92A	N94A			RIGID	Beam	None	RIGID	DR1
79	M80	N53	N159			Kicker	Beam	Double Angl...	A36 Gr.36	Typical
80	M81	N71	N161			Kicker	Beam	Double Angl...	A36 Gr.36	Typical
81	M82	N72	N163			Kicker	Beam	Double Angl...	A36 Gr.36	Typical
82	M83	N166	N163A			L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
83	M83A	N166	N170			Intern B-V	Beam	Single Angle	A36 Gr.36	Typical
84	M84	N170	N163A			Intern B-V	Beam	Single Angle	A36 Gr.36	Typical
85	M85	N162	N165			L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
86	M86	N162	N173			Intern B-V	Beam	Single Angle	A36 Gr.36	Typical
87	M87	N173	N165			Intern B-V	Beam	Single Angle	A36 Gr.36	Typical
88	M88	N164	N167			L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
89	M89	N164	N176			Intern B-V	Beam	Single Angle	A36 Gr.36	Typical
90	M90	N176	N167			Intern B-V	Beam	Single Angle	A36 Gr.36	Typical
91	M91	N170A	N53			RIGID	Beam	None	RIGID	DR1
92	M92	N171	N71			RIGID	Beam	None	RIGID	DR1
93	M93	N173A	N72			RIGID	Beam	None	RIGID	DR1

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Analysis ...	Inactive	Seismic Design ...
1	M1						Yes			None
2	M2						Yes			None
3	M3						Yes			None
4	M4						Yes			None
5	M5						Yes			None
6	M6						Yes			None
7	M7						Yes			None
8	M8						Yes			None
9	M9						Yes			None
10	M10						Yes			None
11	M11						Yes			None
12	M12						Yes			None
13	M13						Yes			None
14	M14						Yes			None
15	M15						Yes			None
16	M16						Yes			None
17	M17						Yes			None
18	M18						Yes			None
19	M19						Yes			None
20	M20						Yes			None
21	M21						Yes			None
22	M22						Yes			None
23	M23						Yes			None
24	M24						Yes			None
25	M25						Yes			None
26	M26						Yes			None
27	M32						Yes			None
28	M33						Yes			None
29	M34						Yes			None
30	MP1A						Yes			None
31	M37						Yes			None
32	M38						Yes			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Analysis ...	Inactive	Seismic Design ...
33	MP3A						Yes			None
34	M40						Yes			None
35	MP5A						Yes			None
36	M43						Yes			None
37	M44						Yes			None
38	MP4A						Yes			None
39	M42						Yes			None
40	M43A						Yes			None
41	MP2A						Yes			None
42	M45						Yes			None
43	MP1C						Yes			None
44	M48						Yes			None
45	M49						Yes			None
46	MP3C						Yes			None
47	M51						Yes			None
48	MP5C						Yes			None
49	M54						Yes			None
50	M55						Yes			None
51	MP4C						Yes			None
52	M57						Yes			None
53	M58						Yes			None
54	MP2C						Yes			None
55	M60						Yes			None
56	MP1B						Yes			None
57	M63						Yes			None
58	M64						Yes			None
59	MP3B						Yes			None
60	M66						Yes			None
61	MP5B						Yes			None
62	M69						Yes			None
63	M70						Yes			None
64	MP4B						Yes			None
65	M72						Yes			None
66	M73						Yes			None
67	MP2B						Yes			None
68	M75						Yes			None
69	M76						Yes			None
70	M77						Yes			None
71	M78						Yes			None
72	M79						Yes			None
73	M74						Yes			None
74	M75A						Yes			None
75	M76A						Yes			None
76	M77A						Yes			None
77	M78A						Yes			None
78	M79A						Yes			None
79	M80	BenPIN	BenPIN				Yes			None
80	M81	BenPIN	BenPIN				Yes			None
81	M82	BenPIN	BenPIN				Yes			None
82	M83						Yes			None
83	M83A	BenPIN	BenPIN				Yes			None
84	M84	BenPIN	BenPIN				Yes			None
85	M85						Yes			None
86	M86	BenPIN	BenPIN				Yes			None
87	M87	BenPIN	BenPIN				Yes			None
88	M88						Yes			None
89	M89	BenPIN	BenPIN				Yes			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Analysis ...	Inactive	Seismic Design ...
90	M90	BenPIN	BenPIN				Yes			None
91	M91						Yes			None
92	M92						Yes			None
93	M93						Yes			None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torq...	Kyy	Kzz	Cb	Function
1	M1	PIPE_3.0	14			Lbyy			2.1	2.1		Lateral
2	M2	HSS334	5.247			Lbyy			2.1	2.1		Lateral
3	M3	L2.5x1.5x4	3.035			Lbyy			.65	.65		Lateral
4	M7	L2.5x1.5x4	3.035			Lbyy			.65	.65		Lateral
5	M8	PIPE_3.0	14			Lbyy			2.1	2.1		Lateral
6	M9	HSS334	5.246			Lbyy			2.1	2.1		Lateral
7	M10	HSS334	4.004			Lbyy			2.1	2.1		Lateral
8	M11	L2.5x1.5x4	3.035			Lbyy			.65	.65		Lateral
9	M15	L2.5x1.5x4	3.035			Lbyy			.65	.65		Lateral
10	M16	PIPE_3.0	14			Lbyy			2.1	2.1		Lateral
11	M17	HSS334	5.246			Lbyy			2.1	2.1		Lateral
12	M18	L2.5x1.5x4	3.035			Lbyy			.65	.65		Lateral
13	M22	L2.5x1.5x4	3.035			Lbyy			.65	.65		Lateral
14	M23	PL1/5x6	.951			Lbyy			.65	.65		Lateral
15	M24	PL1/5x6	.951			Lbyy			.65	.65		Lateral
16	M25	PL1/5x6	.951			Lbyy			.65	.65		Lateral
17	M26	Pipe 3	14			Lbyy			2.1	2.1		Lateral
18	M32	HSS334	4.004			Lbyy			2.1	2.1		Lateral
19	M33	HSS334	4.004			Lbyy			2.1	2.1		Lateral
20	MP1A	Pipe2	7			Lbyy						Lateral
21	MP3A	Pipe 2.5	7			Lbyy						Lateral
22	MP5A	Pipe2	7			Lbyy						Lateral
23	MP4A	Pipe2	7			Lbyy						Lateral
24	MP2A	Pipe2	7			Lbyy						Lateral
25	MP1C	Pipe2	7			Lbyy						Lateral
26	MP3C	Pipe 2.5	7			Lbyy						Lateral
27	MP5C	Pipe2	7			Lbyy						Lateral
28	MP4C	Pipe2	7			Lbyy						Lateral
29	MP2C	Pipe2	7			Lbyy						Lateral
30	MP1B	Pipe2	7			Lbyy						Lateral
31	MP3B	Pipe 2.5	7			Lbyy						Lateral
32	MP5B	Pipe2	7			Lbyy						Lateral
33	MP4B	Pipe2	7			Lbyy						Lateral
34	MP2B	Pipe2	7			Lbyy						Lateral
35	M75	Pipe 3	14			Lbyy			2.1	2.1		Lateral
36	M76	Pipe 3	14			Lbyy			2.1	2.1		Lateral
37	M77	L3x3x4	1.964			Lbyy						Lateral
38	M78	L3x3x4	1.964			Lbyy						Lateral
39	M79	L3x3x4	1.964			Lbyy						Lateral
40	M80	Kicker	4.805			Lbyy						Lateral
41	M81	Kicker	4.805			Lbyy						Lateral
42	M82	Kicker	4.805			Lbyy						Lateral
43	M83	L3x3x4	7.452			Lbyy						Lateral
44	M83A	Intern B-V	5.466			Lbyy						Lateral
45	M84	Intern B-V	5.466			Lbyy						Lateral
46	M85	L3x3x4	7.452			Lbyy						Lateral
47	M86	Intern B-V	5.466			Lbyy						Lateral
48	M87	Intern B-V	5.466			Lbyy						Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torq...	Kyy	Kzz	Cb	Function
49	M88	L3x3x4	7.452			Lbyy						Lateral
50	M89	Intern B-V	5.466			Lbyy						Lateral
51	M90	Intern B-V	5.466			Lbyy						Lateral

Cold Formed Steel Design Parameters

Label	Shape	Lengt...	Lbyy[ft]	Lbzz[ft]	Lcomp t...	Lcomp ...	L-torque...	Kyy	Kzz	Cm-...	Cm-...	Cb	R	a[ft]	y sw...	z sw...
No Data to Print ...																

Aluminum Design Parameters

Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torq...	Kyy	Kzz	Cb	Function
No Data to Print ...											

Joint Loads and Enforced Displacements

Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
No Data to Print ...			

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-66.1	2
2	MP1A	Y	-66.1	4
3	MP1B	Y	-66.1	2
4	MP1B	Y	-66.1	4
5	MP1C	Y	-66.1	2
6	MP1C	Y	-66.1	4
7	MP3A	Y	-61.4	1
8	MP3A	Y	-61.4	5
9	MP3B	Y	-61.4	1
10	MP3B	Y	-61.4	5
11	MP3C	Y	-61.4	1
12	MP3C	Y	-61.4	5
13	MP5A	Y	-103	2.5
14	MP5B	Y	-103	2.5
15	MP5C	Y	-103	2.5
16	MP2A	Y	-1.04	6.5
17	MP3A	Y	-1.04	6.5
18	MP3B	Y	-1.04	6.5
19	MP3C	Y	-1.04	6.5
20	MP3A	Y	-46	2
21	MP3B	Y	-46	2
22	MP3C	Y	-46	2
23	MP2A	Y	-53	2
24	MP2B	Y	-53	2
25	MP2C	Y	-53	2
26	MP3A	Y	-75	5.5
27	MP3B	Y	-75	5.5
28	MP3C	Y	-75	5.5
29	MP2A	Y	-8.8	5.5
30	MP2B	Y	-8.8	5.5
31	MP2C	Y	-8.8	5.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-92.858	2
2	MP1A	Y	-92.858	4
3	MP1B	Y	-92.858	2
4	MP1B	Y	-92.858	4
5	MP1C	Y	-92.858	2
6	MP1C	Y	-92.858	4
7	MP3A	Y	-216.597	1
8	MP3A	Y	-216.597	5
9	MP3B	Y	-216.597	1
10	MP3B	Y	-216.597	5
11	MP3C	Y	-216.597	1
12	MP3C	Y	-216.597	5
13	MP5A	Y	-154.952	2.5
14	MP5B	Y	-154.952	2.5
15	MP5C	Y	-154.952	2.5
16	MP2A	Y	-8.58	6.5
17	MP3A	Y	-8.58	6.5
18	MP3B	Y	-8.58	6.5
19	MP3C	Y	-8.58	6.5
20	MP3A	Y	-61.362	2
21	MP3B	Y	-61.362	2
22	MP3C	Y	-61.362	2
23	MP2A	Y	-88.697	2
24	MP2B	Y	-88.697	2
25	MP2C	Y	-88.697	2
26	MP3A	Y	-82.647	5.5
27	MP3B	Y	-82.647	5.5
28	MP3C	Y	-82.647	5.5
29	MP2A	Y	-25.237	5.5
30	MP2B	Y	-25.237	5.5
31	MP2C	Y	-25.237	5.5

Member Point Loads (BLC 3 : Antenna W Front)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Z	-108.617	2
2	MP1A	Z	-108.617	4
3	MP1B	Z	-86.122	2
4	MP1B	Z	-86.122	4
5	MP1C	Z	-86.122	2
6	MP1C	Z	-86.122	4
7	MP3A	Z	-337.698	1
8	MP3A	Z	-337.698	5
9	MP3B	Z	-193.707	1
10	MP3B	Z	-193.707	5
11	MP3C	Z	-193.707	1
12	MP3C	Z	-193.707	5
13	MP5A	Z	-188.537	2.5
14	MP5B	Z	-107.589	2.5
15	MP5C	Z	-107.589	2.5
16	MP2A	Z	-4.672	6.5
17	MP3A	Z	-4.672	6.5
18	MP3B	Z	-4.088	6.5
19	MP3C	Z	-4.088	6.5
20	MP3A	Z	-27.363	2
21	MP3B	Z	-17.104	2
22	MP3C	Z	-17.104	2

Member Point Loads (BLC 3 : Antenna W Front) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	Z	-83.09	2
24	MP2B	Z	-65.145	2
25	MP2C	Z	-65.145	2
26	MP3A	Z	-32.869	5.5
27	MP3B	Z	-28.003	5.5
28	MP3C	Z	-28.003	5.5
29	MP2A	Z	-26.028	5.5
30	MP2B	Z	-12.957	5.5
31	MP2C	Z	-12.957	5.5

Member Point Loads (BLC 4 : Antenna Wi Front)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Z	-36.091	2
2	MP1A	Z	-36.091	4
3	MP1B	Z	-29.354	2
4	MP1B	Z	-29.354	4
5	MP1C	Z	-29.354	2
6	MP1C	Z	-29.354	4
7	MP3A	Z	-104.622	1
8	MP3A	Z	-104.622	5
9	MP3B	Z	-62.817	1
10	MP3B	Z	-62.817	5
11	MP3C	Z	-62.817	1
12	MP3C	Z	-62.817	5
13	MP5A	Z	-62.643	2.5
14	MP5B	Z	-37.793	2.5
15	MP5C	Z	-37.793	2.5
16	MP2A	Z	-2.174	6.5
17	MP3A	Z	-2.174	6.5
18	MP3B	Z	-2.71	6.5
19	MP3C	Z	-2.71	6.5
20	MP3A	Z	-11.406	2
21	MP3B	Z	-7.299	2
22	MP3C	Z	-7.299	2
23	MP2A	Z	-26.019	2
24	MP2B	Z	-23.195	2
25	MP2C	Z	-23.195	2
26	MP3A	Z	-12.022	5.5
27	MP3B	Z	-10.55	5.5
28	MP3C	Z	-10.55	5.5
29	MP2A	Z	-9.783	5.5
30	MP2B	Z	-6.225	5.5
31	MP2C	Z	-6.225	5.5

Member Point Loads (BLC 5 : Antenna W Side)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	78.623	2
2	MP1A	X	78.623	4
3	MP1B	X	101.119	2
4	MP1B	X	101.119	4
5	MP1C	X	101.119	2
6	MP1C	X	101.119	4
7	MP3A	X	145.709	1
8	MP3A	X	145.709	5
9	MP3B	X	289.701	1
10	MP3B	X	289.701	5

Member Point Loads (BLC 5 : Antenna W Side) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP3C	X	289.701	1
12	MP3C	X	289.701	5
13	MP5A	X	80.607	2.5
14	MP5B	X	161.554	2.5
15	MP5C	X	161.554	2.5
16	MP2A	X	3.893	6.5
17	MP3A	X	3.893	6.5
18	MP3B	X	4.477	6.5
19	MP3C	X	4.477	6.5
20	MP3A	X	27.368	2
21	MP3B	X	47.886	2
22	MP3C	X	47.886	2
23	MP2A	X	59.164	2
24	MP2B	X	77.108	2
25	MP2C	X	77.108	2
26	MP3A	X	52.763	5.5
27	MP3B	X	62.494	5.5
28	MP3C	X	62.494	5.5
29	MP2A	X	8.6	5.5
30	MP2B	X	21.671	5.5
31	MP2C	X	21.671	5.5

Member Point Loads (BLC 6 : Antenna Wi Side)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	27.109	2
2	MP1A	X	27.109	4
3	MP1B	X	33.845	2
4	MP1B	X	33.845	4
5	MP1C	X	33.845	2
6	MP1C	X	33.845	4
7	MP3A	X	48.882	1
8	MP3A	X	48.882	5
9	MP3B	X	90.687	1
10	MP3B	X	90.687	5
11	MP3C	X	90.687	1
12	MP3C	X	90.687	5
13	MP5A	X	29.51	2.5
14	MP5B	X	54.36	2.5
15	MP5C	X	54.36	2.5
16	MP2A	X	2.889	6.5
17	MP3A	X	2.889	6.5
18	MP3B	X	2.352	6.5
19	MP3C	X	2.352	6.5
20	MP3A	X	11.86	2
21	MP3B	X	20.074	2
22	MP3C	X	20.074	2
23	MP2A	X	22.253	2
24	MP2B	X	25.078	2
25	MP2C	X	25.078	2
26	MP3A	X	20.118	5.5
27	MP3B	X	23.062	5.5
28	MP3C	X	23.062	5.5
29	MP2A	X	5.039	5.5
30	MP2B	X	8.597	5.5
31	MP2C	X	8.597	5.5

Member Point Loads (BLC 7 : Service Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%5

Member Point Loads (BLC 8 : Service Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%50

Member Distributed Loads (BLC 10 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-11.354	-11.354	0	%100
2	M2	Y	-13.084	-13.084	0	%100
3	M3	Y	-7.915	-7.915	0	%100
4	M7	Y	-7.915	-7.915	0	%100
5	M8	Y	-11.354	-11.354	0	%100
6	M9	Y	-13.084	-13.084	0	%100
7	M10	Y	-13.084	-13.084	0	%100
8	M11	Y	-7.915	-7.915	0	%100
9	M15	Y	-7.915	-7.915	0	%100
10	M16	Y	-11.354	-11.354	0	%100
11	M17	Y	-13.084	-13.084	0	%100
12	M18	Y	-7.915	-7.915	0	%100
13	M22	Y	-7.915	-7.915	0	%100
14	M23	Y	-13.77	-13.77	0	%100
15	M24	Y	-13.77	-13.77	0	%100
16	M25	Y	-13.77	-13.77	0	%100
17	M26	Y	-11.354	-11.354	0	%100
18	M32	Y	-13.084	-13.084	0	%100
19	M33	Y	-13.084	-13.084	0	%100
20	MP1A	Y	-8.928	-8.928	0	%100
21	MP3A	Y	-10.006	-10.006	0	%100
22	MP5A	Y	-8.928	-8.928	0	%100
23	MP4A	Y	-8.928	-8.928	0	%100
24	MP2A	Y	-8.928	-8.928	0	%100
25	MP1C	Y	-8.928	-8.928	0	%100
26	MP3C	Y	-10.006	-10.006	0	%100
27	MP5C	Y	-8.928	-8.928	0	%100
28	MP4C	Y	-8.928	-8.928	0	%100
29	MP2C	Y	-8.928	-8.928	0	%100
30	MP1B	Y	-8.928	-8.928	0	%100
31	MP3B	Y	-10.006	-10.006	0	%100
32	MP5B	Y	-8.928	-8.928	0	%100
33	MP4B	Y	-8.928	-8.928	0	%100
34	MP2B	Y	-8.928	-8.928	0	%100
35	M75	Y	-11.354	-11.354	0	%100
36	M76	Y	-11.354	-11.354	0	%100
37	M77	Y	-10.66	-10.66	0	%100
38	M78	Y	-10.66	-10.66	0	%100
39	M79	Y	-10.66	-10.66	0	%100
40	M80	Y	-11.711	-11.711	0	%100
41	M81	Y	-11.711	-11.711	0	%100
42	M82	Y	-11.711	-11.711	0	%100
43	M83	Y	-10.66	-10.66	0	%100
44	M83A	Y	-7.915	-7.915	0	%100
45	M84	Y	-7.915	-7.915	0	%100
46	M85	Y	-10.66	-10.66	0	%100
47	M86	Y	-7.915	-7.915	0	%100

Member Distributed Loads (BLC 10 : Structure Di) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[ft,%]	End Location[ft,%]
48	M87	Y	-7.915	-7.915	0	%100
49	M88	Y	-10.66	-10.66	0	%100
50	M89	Y	-7.915	-7.915	0	%100
51	M90	Y	-7.915	-7.915	0	%100

Member Distributed Loads (BLC 11 : Structure W Front)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[ft,%]	End Location[ft,%]
1	M1	PZ	-11.679	-11.679	0	%100
2	M2	PZ	-16.685	-16.685	0	%100
3	M3	PZ	-13.904	-13.904	0	%100
4	M7	PZ	-13.904	-13.904	0	%100
5	M8	PZ	-11.679	-11.679	0	%100
6	M9	PZ	-16.685	-16.685	0	%100
7	M10	PZ	-16.685	-16.685	0	%100
8	M11	PZ	-13.904	-13.904	0	%100
9	M15	PZ	-13.904	-13.904	0	%100
10	M16	PZ	-11.679	-11.679	0	%100
11	M17	PZ	-16.685	-16.685	0	%100
12	M18	PZ	-13.904	-13.904	0	%100
13	M22	PZ	-13.904	-13.904	0	%100
14	M23	PZ	-33.369	-33.369	0	%100
15	M24	PZ	-33.369	-33.369	0	%100
16	M25	PZ	-33.369	-33.369	0	%100
17	M26	PZ	-11.679	-11.679	0	%100
18	M32	PZ	-16.685	-16.685	0	%100
19	M33	PZ	-16.685	-16.685	0	%100
20	MP1A	PZ	-7.925	-7.925	0	%100
21	MP3A	PZ	-9.594	-9.594	0	%100
22	MP5A	PZ	-7.925	-7.925	0	%100
23	MP4A	PZ	-7.925	-7.925	0	%100
24	MP2A	PZ	-7.925	-7.925	0	%100
25	MP1C	PZ	-7.925	-7.925	0	%100
26	MP3C	PZ	-9.594	-9.594	0	%100
27	MP5C	PZ	-7.925	-7.925	0	%100
28	MP4C	PZ	-7.925	-7.925	0	%100
29	MP2C	PZ	-7.925	-7.925	0	%100
30	MP1B	PZ	-7.925	-7.925	0	%100
31	MP3B	PZ	-9.594	-9.594	0	%100
32	MP5B	PZ	-7.925	-7.925	0	%100
33	MP4B	PZ	-7.925	-7.925	0	%100
34	MP2B	PZ	-7.925	-7.925	0	%100
35	M75	PZ	-11.679	-11.679	0	%100
36	M76	PZ	-11.679	-11.679	0	%100
37	M77	PZ	-16.685	-16.685	0	%100
38	M78	PZ	-16.685	-16.685	0	%100
39	M79	PZ	-16.685	-16.685	0	%100
40	M80	PZ	-11.123	-11.123	0	%100
41	M81	PZ	-11.123	-11.123	0	%100
42	M82	PZ	-11.123	-11.123	0	%100
43	M83	PZ	-16.685	-16.685	0	%100
44	M83A	PZ	-11.123	-11.123	0	%100
45	M84	PZ	-11.123	-11.123	0	%100
46	M85	PZ	-16.685	-16.685	0	%100
47	M86	PZ	-11.123	-11.123	0	%100
48	M87	PZ	-11.123	-11.123	0	%100
49	M88	PZ	-16.685	-16.685	0	%100

Member Distributed Loads (BLC 11 : Structure W Front) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[ft,%]	End Location[ft,%]
50	M89	PZ	-11.123	-11.123	0	%100
51	M90	PZ	-11.123	-11.123	0	%100

Member Distributed Loads (BLC 12 : Structure Wi Front)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[ft,%]	End Location[ft,%]
1	M1	PZ	-6.637	-6.637	0	%100
2	M2	PZ	-8.054	-8.054	0	%100
3	M3	PZ	-7.267	-7.267	0	%100
4	M7	PZ	-7.267	-7.267	0	%100
5	M8	PZ	-6.637	-6.637	0	%100
6	M9	PZ	-8.054	-8.054	0	%100
7	M10	PZ	-8.054	-8.054	0	%100
8	M11	PZ	-7.267	-7.267	0	%100
9	M15	PZ	-7.267	-7.267	0	%100
10	M16	PZ	-6.637	-6.637	0	%100
11	M17	PZ	-8.054	-8.054	0	%100
12	M18	PZ	-7.267	-7.267	0	%100
13	M22	PZ	-7.267	-7.267	0	%100
14	M23	PZ	-12.774	-12.774	0	%100
15	M24	PZ	-12.774	-12.774	0	%100
16	M25	PZ	-12.774	-12.774	0	%100
17	M26	PZ	-6.637	-6.637	0	%100
18	M32	PZ	-8.054	-8.054	0	%100
19	M33	PZ	-8.054	-8.054	0	%100
20	MP1A	PZ	-5.575	-5.575	0	%100
21	MP3A	PZ	-6.047	-6.047	0	%100
22	MP5A	PZ	-5.575	-5.575	0	%100
23	MP4A	PZ	-5.575	-5.575	0	%100
24	MP2A	PZ	-5.575	-5.575	0	%100
25	MP1C	PZ	-5.575	-5.575	0	%100
26	MP3C	PZ	-6.047	-6.047	0	%100
27	MP5C	PZ	-5.575	-5.575	0	%100
28	MP4C	PZ	-5.575	-5.575	0	%100
29	MP2C	PZ	-5.575	-5.575	0	%100
30	MP1B	PZ	-5.575	-5.575	0	%100
31	MP3B	PZ	-6.047	-6.047	0	%100
32	MP5B	PZ	-5.575	-5.575	0	%100
33	MP4B	PZ	-5.575	-5.575	0	%100
34	MP2B	PZ	-5.575	-5.575	0	%100
35	M75	PZ	-6.637	-6.637	0	%100
36	M76	PZ	-6.637	-6.637	0	%100
37	M77	PZ	-8.054	-8.054	0	%100
38	M78	PZ	-8.054	-8.054	0	%100
39	M79	PZ	-8.054	-8.054	0	%100
40	M80	PZ	-6.48	-6.48	0	%100
41	M81	PZ	-6.48	-6.48	0	%100
42	M82	PZ	-6.48	-6.48	0	%100
43	M83	PZ	-8.054	-8.054	0	%100
44	M83A	PZ	-6.48	-6.48	0	%100
45	M84	PZ	-6.48	-6.48	0	%100
46	M85	PZ	-8.054	-8.054	0	%100
47	M86	PZ	-6.48	-6.48	0	%100
48	M87	PZ	-6.48	-6.48	0	%100
49	M88	PZ	-8.054	-8.054	0	%100
50	M89	PZ	-6.48	-6.48	0	%100
51	M90	PZ	-6.48	-6.48	0	%100

Member Distributed Loads (BLC 13 : Structure W Side)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[ft,%]	End Location[ft,%]
1	M1	PX	11.679	11.679	0	%100
2	M2	PX	16.685	16.685	0	%100
3	M3	PX	13.904	13.904	0	%100
4	M7	PX	13.904	13.904	0	%100
5	M8	PX	11.679	11.679	0	%100
6	M9	PX	16.685	16.685	0	%100
7	M10	PX	16.685	16.685	0	%100
8	M11	PX	13.904	13.904	0	%100
9	M15	PX	13.904	13.904	0	%100
10	M16	PX	11.679	11.679	0	%100
11	M17	PX	16.685	16.685	0	%100
12	M18	PX	13.904	13.904	0	%100
13	M22	PX	13.904	13.904	0	%100
14	M23	PX	33.369	33.369	0	%100
15	M24	PX	33.369	33.369	0	%100
16	M25	PX	33.369	33.369	0	%100
17	M26	PX	11.679	11.679	0	%100
18	M32	PX	16.685	16.685	0	%100
19	M33	PX	16.685	16.685	0	%100
20	MP1A	PX	7.925	7.925	0	%100
21	MP3A	PX	9.594	9.594	0	%100
22	MP5A	PX	7.925	7.925	0	%100
23	MP4A	PX	7.925	7.925	0	%100
24	MP2A	PX	7.925	7.925	0	%100
25	MP1C	PX	7.925	7.925	0	%100
26	MP3C	PX	9.594	9.594	0	%100
27	MP5C	PX	7.925	7.925	0	%100
28	MP4C	PX	7.925	7.925	0	%100
29	MP2C	PX	7.925	7.925	0	%100
30	MP1B	PX	7.925	7.925	0	%100
31	MP3B	PX	9.594	9.594	0	%100
32	MP5B	PX	7.925	7.925	0	%100
33	MP4B	PX	7.925	7.925	0	%100
34	MP2B	PX	7.925	7.925	0	%100
35	M75	PX	11.679	11.679	0	%100
36	M76	PX	11.679	11.679	0	%100
37	M77	PX	16.685	16.685	0	%100
38	M78	PX	16.685	16.685	0	%100
39	M79	PX	16.685	16.685	0	%100
40	M80	PX	11.123	11.123	0	%100
41	M81	PX	11.123	11.123	0	%100
42	M82	PX	11.123	11.123	0	%100
43	M83	PX	16.685	16.685	0	%100
44	M83A	PX	11.123	11.123	0	%100
45	M84	PX	11.123	11.123	0	%100
46	M85	PX	16.685	16.685	0	%100
47	M86	PX	11.123	11.123	0	%100
48	M87	PX	11.123	11.123	0	%100
49	M88	PX	16.685	16.685	0	%100
50	M89	PX	11.123	11.123	0	%100
51	M90	PX	11.123	11.123	0	%100

Member Distributed Loads (BLC 14 : Structure Wi Side)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[ft,%]	End Location[ft,%]
1	M1	PX	6.637	6.637	0	%100
2	M2	PX	8.054	8.054	0	%100

Member Distributed Loads (BLC 14 : Structure Wi Side) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,psf]	End Magnitude[lb/f...	Start Location[ft,%]	End Location[ft,%]
3	M3	PX	7.267	7.267	0	%100
4	M7	PX	7.267	7.267	0	%100
5	M8	PX	6.637	6.637	0	%100
6	M9	PX	8.054	8.054	0	%100
7	M10	PX	8.054	8.054	0	%100
8	M11	PX	7.267	7.267	0	%100
9	M15	PX	7.267	7.267	0	%100
10	M16	PX	6.637	6.637	0	%100
11	M17	PX	8.054	8.054	0	%100
12	M18	PX	7.267	7.267	0	%100
13	M22	PX	7.267	7.267	0	%100
14	M23	PX	12.774	12.774	0	%100
15	M24	PX	12.774	12.774	0	%100
16	M25	PX	12.774	12.774	0	%100
17	M26	PX	6.637	6.637	0	%100
18	M32	PX	8.054	8.054	0	%100
19	M33	PX	8.054	8.054	0	%100
20	MP1A	PX	5.575	5.575	0	%100
21	MP3A	PX	6.047	6.047	0	%100
22	MP5A	PX	5.575	5.575	0	%100
23	MP4A	PX	5.575	5.575	0	%100
24	MP2A	PX	5.575	5.575	0	%100
25	MP1C	PX	5.575	5.575	0	%100
26	MP3C	PX	6.047	6.047	0	%100
27	MP5C	PX	5.575	5.575	0	%100
28	MP4C	PX	5.575	5.575	0	%100
29	MP2C	PX	5.575	5.575	0	%100
30	MP1B	PX	5.575	5.575	0	%100
31	MP3B	PX	6.047	6.047	0	%100
32	MP5B	PX	5.575	5.575	0	%100
33	MP4B	PX	5.575	5.575	0	%100
34	MP2B	PX	5.575	5.575	0	%100
35	M75	PX	6.637	6.637	0	%100
36	M76	PX	6.637	6.637	0	%100
37	M77	PX	8.054	8.054	0	%100
38	M78	PX	8.054	8.054	0	%100
39	M79	PX	8.054	8.054	0	%100
40	M80	PX	6.48	6.48	0	%100
41	M81	PX	6.48	6.48	0	%100
42	M82	PX	6.48	6.48	0	%100
43	M83	PX	8.054	8.054	0	%100
44	M83A	PX	6.48	6.48	0	%100
45	M84	PX	6.48	6.48	0	%100
46	M85	PX	8.054	8.054	0	%100
47	M86	PX	6.48	6.48	0	%100
48	M87	PX	6.48	6.48	0	%100
49	M88	PX	8.054	8.054	0	%100
50	M89	PX	6.48	6.48	0	%100
51	M90	PX	6.48	6.48	0	%100

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[psf]
No Data to Print ...						

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N19	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N73	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N75	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N159	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
5	N161	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	N163	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N19	max	3117.512	4	1804.67	1	5882.926	1	1.577	1	4.044	3	.367	3
2		min	-3080.516	3	-854.969	2	-3874.64	2	-.767	2	-3.995	4	-.273	4
3	N73	max	5251.081	4	1604.509	4	2242.126	1	.306	1	2.319	1	.583	3
4		min	-3533.133	3	-654.189	3	-3279.633	2	-.632	2	-2.256	2	-1.332	4
5	N75	max	2885.169	4	1581.396	7	3077.379	1	.312	1	3.052	2	1.177	3
6		min	-4641.002	3	-586.405	4	-4049.5	2	-.82	6	-3.023	1	-.521	4
7	N159	max	39.624	4	2524.287	5	432.228	2	0	1	0	4	0	3
8		min	-39.124	3	-348.308	2	-3091.239	5	0	1	0	3	0	4
9	N161	max	133.236	3	2465.695	8	1512.664	8	0	4	0	3	0	3
10		min	-2611.168	8	-133.516	3	-95.142	3	0	3	0	4	0	4
11	N163	max	2628.748	7	2482.995	7	1525.509	7	0	1	0	1	0	1
12		min	-181.788	4	-178.296	4	-123.095	4	0	2	0	2	0	2
13	Totals:	max	9098.552	4	10400.533	6	8978.583	1						
14		min	-9098.55	3	4080.913	3	-8978.578	2						

Envelope Member Section Forces

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
1	M1	1	max	1104.068	2	544.784	9	134.483	4	.184	9	.26	1	.157	6
2			min	-1113.783	1	-3.464	3	-146.09	3	-.109	2	-.264	2	-.013	1
3		2	max	1161.25	2	-42.735	4	185.84	2	.071	9	.216	4	.262	8
4			min	-1031.565	1	-247.543	9	-215.779	1	-.017	1	-.264	3	.015	3
5		3	max	1328.407	2	303.91	10	133.267	3	.034	2	.127	1	.252	5
6			min	-1062.263	1	-145.518	3	-91.476	4	-.08	1	-.115	2	-.35	10
7		4	max	1181.449	2	148.766	4	209.873	1	.048	1	.346	3	.102	4
8			min	-1264.278	1	-51.505	3	-201.51	2	-.07	2	-.299	4	-.077	3
9		5	max	1183.211	2	25.393	4	153.132	4	.006	3	.314	1	.132	7
10			min	-1320.568	1	-383.654	7	-209.253	3	-.081	8	-.281	2	-.002	4
11	M2	1	max	596.712	2	-80.965	9	981.806	2	.165	6	.224	2	-.048	4
12			min	-602.958	1	-235.021	6	-943.578	1	-.036	1	-.267	1	-.17	7
13		2	max	872.533	4	170.277	4	70.01	2	.015	2	.389	1	.164	7
14			min	-4089.107	7	-814.346	7	-51.493	1	-.007	1	-.36	2	.023	4
15		3	max	2251.108	4	705.803	7	137.265	2	.034	3	.635	1	1.495	7
16			min	-2104.391	3	98.779	4	-141.793	1	-.014	4	-.582	2	.141	4
17		4	max	2235.945	4	670.26	7	161.551	2	.034	3	.429	1	.593	7
18			min	-2089.228	3	82.385	4	-170.454	1	-.014	4	-.387	2	.022	4
19		5	max	2220.782	4	636.163	7	187.811	2	.034	3	.188	1	-.075	4
20			min	-2074.064	3	65.45	4	-196.714	1	-.014	4	-.157	2	-.264	7
21	M3	1	max	1265.926	1	-17.281	1	64.436	4	.001	6	.041	1	-.009	3
22			min	-1201.216	2	-143.496	6	-35.746	3	0	1	-.025	2	-.239	8
23		2	max	1266.026	1	-20.215	1	54.157	2	.001	6	.018	1	.005	3
24			min	-1201.316	2	-152.436	6	-25.872	1	0	1	-.008	2	-.123	8
25		3	max	1266.125	1	-23.15	1	54.157	2	.001	6	.007	4	.026	3
26			min	-1201.415	2	-161.376	6	-25.872	1	0	1	-.006	1	-.022	4
27		4	max	1266.224	1	-26.084	1	54.158	2	.001	6	.022	2	.136	6

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
28			min	-1201.514	2	-170.316	6	-25.873	1	0	1	-.031	1	.01	1
29		5	max	1266.324	1	-29.018	1	54.158	2	.001	6	.036	2	.274	6
30			min	-1201.614	2	-179.256	6	-25.874	1	0	1	-.056	1	.023	1
31	M4	1	max	3.662	1	1467.716	7	840.238	7	.008	1	.021	4	.184	7
32			min	-4.132	2	-304.111	4	-172.018	4	-.017	2	-.105	7	-.038	4
33		2	max	3.662	1	1467.716	7	840.238	7	.008	1	.011	4	.092	7
34			min	-4.132	2	-304.111	4	-172.018	4	-.017	2	-.053	7	-.019	4
35		3	max	3.662	1	1467.716	7	840.238	7	.008	1	0	1	0	2
36			min	-4.132	2	-304.111	4	-172.018	4	-.017	2	0	2	0	1
37		4	max	3.662	1	1467.716	7	840.238	7	.008	1	.052	7	.019	4
38			min	-4.132	2	-304.111	4	-172.018	4	-.017	2	-.011	4	-.091	7
39		5	max	3.662	1	1467.716	7	840.238	7	.008	1	.105	7	.038	4
40			min	-4.132	2	-304.111	4	-172.018	4	-.017	2	-.022	4	-.183	7
41	M5	1	max	.378	1	1904.747	7	1100.988	7	.01	1	.03	4	.238	7
42			min	-.476	4	-410.591	4	-236.883	4	-.02	2	-.138	7	-.051	4
43		2	max	.378	1	1904.747	7	1100.988	7	.01	1	.015	4	.119	7
44			min	-.476	4	-410.591	4	-236.883	4	-.02	2	-.069	7	-.026	4
45		3	max	.378	1	1904.747	7	1100.988	7	.01	1	0	2	0	1
46			min	-.476	4	-410.591	4	-236.883	4	-.02	2	0	1	0	2
47		4	max	.378	1	1904.747	7	1100.988	7	.01	1	.069	7	.026	4
48			min	-.476	4	-410.591	4	-236.883	4	-.02	2	-.015	4	-.119	7
49		5	max	.378	1	1904.747	7	1100.988	7	.01	1	.138	7	.051	4
50			min	-.476	4	-410.591	4	-236.883	4	-.02	2	-.03	4	-.238	7
51	M6	1	max	277.933	4	824.146	4	995.096	1	1.173	1	.098	3	.078	1
52			min	-615.994	3	-2003.431	3	-1698.501	2	-1.125	2	-.141	4	-.201	6
53		2	max	277.933	4	824.146	4	995.096	1	1.173	1	.05	1	.085	1
54			min	-615.994	3	-2003.431	3	-1698.501	2	-1.125	2	-.136	2	-.131	2
55		3	max	277.933	4	824.146	4	995.096	1	1.173	1	.112	1	.095	3
56			min	-615.994	3	-2003.431	3	-1698.501	2	-1.125	2	-.242	2	-.066	4
57		4	max	277.933	4	824.146	4	995.096	1	1.173	1	.174	1	.22	3
58			min	-615.994	3	-2003.431	3	-1698.501	2	-1.125	2	-.348	2	-.117	4
59		5	max	277.933	4	824.146	4	995.096	1	1.173	1	.237	1	.345	3
60			min	-615.994	3	-2003.431	3	-1698.501	2	-1.125	2	-.454	2	-.169	4
61	M7	1	max	448.366	1	138.674	2	19.949	1	0	1	.031	9	.178	2
62			min	-352.051	2	-86.593	1	-44.917	2	-.001	9	-.005	3	-.094	1
63		2	max	448.465	1	138.675	2	17.014	1	0	1	.016	9	.071	3
64			min	-352.15	2	-86.593	1	-47.852	2	-.001	9	0	2	-.03	4
65		3	max	448.564	1	138.675	2	14.08	1	0	1	.007	3	.039	1
66			min	-352.249	2	-86.594	1	-55.558	6	-.001	9	-.007	4	-.044	2
67		4	max	448.664	1	138.676	2	11.146	1	0	1	.003	3	.104	1
68			min	-352.349	2	-86.595	1	-64.498	6	-.001	9	-.022	8	-.157	2
69		5	max	448.763	1	138.677	2	8.212	1	0	1	-.007	2	.168	1
70			min	-352.448	2	-86.595	1	-73.438	6	-.001	9	-.048	5	-.27	2
71	M8	1	max	1510.046	3	235.274	6	117.926	2	.127	4	.316	4	.161	7
72			min	-1518.714	4	26.644	1	-130.106	1	-.128	3	-.321	3	-.024	4
73		2	max	1428.538	3	-72.211	3	198.844	3	.063	7	.146	3	.267	6
74			min	-1297.704	4	-233.975	8	-228.055	4	-.015	4	-.191	4	-.008	1
75		3	max	1433.459	3	287.504	2	89.273	4	.036	3	.087	2	.246	8
76			min	-1165.45	4	-144.046	1	-48.263	3	-.082	4	-.076	1	.065	3
77		4	max	1176.77	1	134.024	2	222.665	2	.038	4	.27	1	.072	4
78			min	-1255.049	2	-36.512	1	-215.013	1	-.06	3	-.222	2	-.047	3
79		5	max	1478.74	1	-16.98	2	147.608	3	.033	1	.321	2	.133	5
80			min	-1611.763	2	-374.241	5	-202.049	4	-.094	2	-.29	1	-.008	2
81	M9	1	max	609.889	1	-69.562	4	993.959	3	.17	7	.265	3	-.053	2
82			min	-617.675	2	-236.531	7	-955.594	4	-.063	4	-.305	4	-.169	5
83		2	max	1145.345	2	248.823	2	78.178	3	.019	3	.417	4	.163	5
84			min	-4160.923	5	-833.545	5	-60.028	4	-.012	4	-.392	3	.024	2

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
85		3	max	2670.425	2	706.522	5	152.061	3	.03	7	.684	4	1.501	5
86			min	-2526.787	1	85.994	2	-156.84	4	-.008	4	-.639	3	.106	2
87		4	max	2670.425	2	672.427	5	187.075	3	.03	7	.455	4	.597	5
88			min	-2526.787	1	69.059	2	-191.854	4	-.008	4	-.417	3	.004	2
89		5	max	2670.425	2	638.331	5	222.089	3	.03	7	.18	4	-.075	2
90			min	-2526.787	1	52.124	2	-226.868	4	-.008	4	-.149	3	-.263	5
91	M10	1	max	3874.64	2	3075.371	3	1798.696	1	.273	4	.767	2	4.044	3
92			min	-5882.926	1	-3115.441	4	-856.912	2	-.367	3	-1.577	1	-3.995	4
93		2	max	3874.64	2	3048.648	3	1785.772	1	.273	4	.218	1	.979	3
94			min	-5882.926	1	-3088.719	4	-869.837	2	-.367	3	-.097	2	-.89	4
95		3	max	3773.719	2	1006.826	3	626.319	2	.273	4	.526	1	1.238	4
96			min	-5793.407	1	-965.537	4	-1479.493	1	-.367	3	-.291	2	-1.146	3
97		4	max	2010.699	2	36.638	7	251.927	2	.019	3	.087	1	.417	4
98			min	-1181.908	1	-9.348	4	-827.295	5	-.012	4	-.084	2	-.387	3
99		5	max	0	1	0	1	0	1	0	1	0	1	0	1
100			min	0	1	0	1	0	1	0	1	0	1	0	1
101	M11	1	max	935.544	4	2.012	4	64.722	3	.001	5	.037	4	.027	4
102			min	-870.951	3	-147.294	7	-36.118	4	0	2	-.021	3	-.248	7
103		2	max	942.803	4	-.922	4	60.588	3	.001	5	.015	8	.018	4
104			min	-878.211	3	-156.234	7	-31.984	4	0	2	-.003	3	-.127	7
105		3	max	950.063	4	-3.856	4	56.453	3	.001	5	.011	3	.028	1
106			min	-885.47	3	-165.174	7	-27.849	4	0	2	-.009	4	-.025	2
107		4	max	957.322	4	-6.791	4	52.319	3	.001	5	.021	3	.135	7
108			min	-892.729	3	-174.114	7	-23.715	4	0	2	-.029	4	.009	4
109		5	max	964.581	4	-9.725	4	48.185	3	.001	5	.027	3	.275	7
110			min	-899.988	3	-183.054	7	-19.58	4	0	2	-.046	4	.01	4
111	M12	1	max	.286	6	13.876	3	1728.192	5	.014	4	.064	2	.002	3
112			min	-.335	1	-8.483	4	-509.015	2	-.022	3	-.216	5	-.001	4
113		2	max	.286	6	13.876	3	1728.192	5	.014	4	.032	2	0	3
114			min	-.335	1	-8.483	4	-509.015	2	-.022	3	-.108	5	0	4
115		3	max	.286	6	13.876	3	1728.192	5	.014	4	0	1	0	4
116			min	-.335	1	-8.483	4	-509.015	2	-.022	3	0	2	0	1
117		4	max	.286	6	13.876	3	1728.192	5	.014	4	.108	5	0	4
118			min	-.335	1	-8.483	4	-509.015	2	-.022	3	-.032	2	0	3
119		5	max	.286	6	13.876	3	1728.192	5	.014	4	.216	5	.001	4
120			min	-.335	1	-8.483	4	-509.015	2	-.022	3	-.064	2	-.002	3
121	M13	1	max	.027	10	.859	4	2252.841	5	.016	4	.086	2	0	4
122			min	-.913	1	-1.454	7	-687.927	2	-.027	3	-.282	5	0	7
123		2	max	.027	10	.859	4	2252.841	5	.016	4	.043	2	0	4
124			min	-.913	1	-1.454	7	-687.927	2	-.027	3	-.141	5	0	7
125		3	max	.027	10	.859	4	2252.841	5	.016	4	0	2	0	4
126			min	-.913	1	-1.454	7	-687.927	2	-.027	3	0	1	0	3
127		4	max	.027	10	.859	4	2252.841	5	.016	4	.141	5	0	7
128			min	-.913	1	-1.454	7	-687.927	2	-.027	3	-.043	2	0	4
129		5	max	.027	10	.859	4	2252.841	5	.016	4	.282	5	0	7
130			min	-.913	1	-1.454	7	-687.927	2	-.027	3	-.086	2	0	4
131	M14	1	max	361.95	2	931.541	4	2452.391	1	1.244	4	.141	2	.157	7
132			min	-699.511	1	-952.999	3	-1075.021	2	-1.203	3	-.222	1	-.052	4
133		2	max	361.95	2	931.541	4	2452.391	1	1.244	4	.073	2	.207	3
134			min	-699.511	1	-952.999	3	-1075.021	2	-1.203	3	-.068	1	-.11	4
135		3	max	361.95	2	931.541	4	2452.391	1	1.244	4	.097	5	.267	3
136			min	-699.511	1	-952.999	3	-1075.021	2	-1.203	3	.006	2	-.168	4
137		4	max	361.95	2	931.541	4	2452.391	1	1.244	4	.238	1	.327	3
138			min	-699.511	1	-952.999	3	-1075.021	2	-1.203	3	-.061	2	-.226	4
139		5	max	361.95	2	931.541	4	2452.391	1	1.244	4	.392	1	.386	3
140			min	-699.511	1	-952.999	3	-1075.021	2	-1.203	3	-.128	2	-.284	4
141	M15	1	max	455.661	4	161.343	1	16.233	2	0	2	.022	6	.201	1

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
142			min	-360.5	3	-107.028	2	-41.796	1	0	5	-.005	1	-.114	2
143		2	max	463.02	4	148.769	1	13.299	2	0	2	.014	8	.08	1
144			min	-367.858	3	-94.455	2	-45.375	5	0	5	-.003	3	-.038	2
145		3	max	470.379	4	136.196	1	10.365	2	0	2	.007	1	.028	2
146			min	-375.217	3	-81.881	2	-54.315	5	0	5	-.008	2	-.034	1
147		4	max	477.737	4	123.622	1	7.431	2	0	2	.005	1	.084	2
148			min	-382.575	3	-69.307	2	-63.254	5	0	5	-.023	6	-.139	1
149		5	max	485.096	4	114.603	3	4.496	2	0	2	-.003	1	.131	2
150			min	-389.934	3	-62.19	4	-72.194	5	0	5	-.048	6	-.237	1
151	M16	1	max	1468.829	1	240.412	5	108.054	3	.089	2	.279	2	.157	5
152			min	-1476.062	2	20.906	2	-120.543	4	-.09	1	-.284	1	-.01	2
153		2	max	1293.535	1	-52.775	1	175.518	1	.061	8	.194	1	.265	5
154			min	-1161.099	2	-238.07	6	-204.897	2	-.005	3	-.24	2	-.004	2
155		3	max	1115.912	1	277.964	1	106.478	2	.012	4	.141	3	.251	7
156			min	-847.281	2	-133.517	2	-65.653	1	-.072	6	-.13	4	.026	4
157		4	max	1400.411	4	118.179	9	237.246	3	.036	3	.209	2	.17	9
158			min	-1481.687	3	-.18	2	-229.671	4	-.059	4	-.164	1	-.016	6
159		5	max	1578.237	4	-12.356	9	161.612	1	.04	4	.371	3	.129	8
160			min	-1714.075	3	-369.469	6	-216.774	2	-.101	3	-.34	4	.004	3
161	M17	1	max	724.06	4	-77.516	2	725.185	4	.166	5	.227	1	-.057	1
162			min	-728.895	3	-233.913	5	-682.764	3	-.045	2	-.264	2	-.167	6
163		2	max	657.894	3	168.56	3	89.935	9	.035	9	.28	2	.161	9
164			min	-4029.466	8	-811.594	8	-31.187	3	-.001	3	-.258	1	.038	1
165		3	max	2404.165	3	693.393	8	83.745	1	.092	9	.486	2	1.467	8
166			min	-2255.285	4	140.421	3	-88.264	2	-.006	1	-.448	1	.236	3
167		4	max	2389.003	3	657.741	8	111.467	1	.092	9	.355	2	.582	8
168			min	-2240.124	4	124.549	3	-113.122	2	-.006	1	-.32	1	.062	3
169		5	max	2373.842	3	623.645	8	137.728	1	.092	9	.189	2	-.085	1
170			min	-2224.962	4	107.614	3	-139.383	2	-.006	1	-.156	1	-.26	6
171	M18	1	max	1155.997	3	-8.517	2	73.163	1	.001	8	.043	2	.016	2
172			min	-1093.794	4	-144.711	5	-44.303	2	0	3	-.027	1	-.246	5
173		2	max	1163.356	3	-11.451	2	60.589	1	.001	8	.019	3	.013	2
174			min	-1101.153	4	-153.652	5	-31.729	2	0	3	-.009	4	-.126	5
175		3	max	1170.714	3	-14.386	2	48.014	1	.001	8	.01	1	.016	2
176			min	-1108.512	4	-162.592	5	-19.155	2	0	3	-.008	2	-.013	1
177		4	max	1178.073	3	-17.32	2	46.262	8	.001	8	.016	4	.131	8
178			min	-1115.87	4	-171.532	5	-15.547	3	0	3	-.025	3	.024	2
179		5	max	1185.432	3	-20.254	2	48.121	4	.001	8	.033	4	.267	5
180			min	-1123.229	4	-180.472	5	-19.853	3	0	3	-.052	3	.038	2
181	M19	1	max	.558	9	1453.875	8	172.287	3	.001	3	.106	8	.182	8
182			min	-.277	4	-297.128	3	-847.616	8	-.04	9	-.022	3	-.037	3
183		2	max	.558	9	1453.875	8	172.287	3	.001	3	.053	8	.091	8
184			min	-.277	4	-297.128	3	-847.616	8	-.04	9	-.011	3	-.019	3
185		3	max	.558	9	1453.875	8	172.287	3	.001	3	0	3	0	3
186			min	-.277	4	-297.128	3	-847.616	8	-.04	9	0	1	0	4
187		4	max	.558	9	1453.875	8	172.287	3	.001	3	.011	3	.019	3
188			min	-.277	4	-297.128	3	-847.616	8	-.04	9	-.053	8	-.091	8
189		5	max	.558	9	1453.875	8	172.287	3	.001	3	.022	3	.037	3
190			min	-.277	4	-297.128	3	-847.616	8	-.04	9	-.106	8	-.182	8
191	M20	1	max	.183	9	1899.53	8	234.499	3	.001	3	.137	8	.237	8
192			min	-.717	4	-406.295	3	-1095.932	8	-.048	9	-.029	3	-.051	3
193		2	max	.183	9	1899.53	8	234.499	3	.001	3	.068	8	.119	8
194			min	-.717	4	-406.295	3	-1095.932	8	-.048	9	-.015	3	-.025	3
195		3	max	.183	9	1899.53	8	234.499	3	.001	3	0	3	0	3
196			min	-.717	4	-406.295	3	-1095.932	8	-.048	9	0	4	0	4
197		4	max	.183	9	1899.53	8	234.499	3	.001	3	.015	3	.025	3
198			min	-.717	4	-406.295	3	-1095.932	8	-.048	9	-.068	8	-.119	8

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
199		5	max	.183	9	1899.53	8	234.499	3	.001	3	.029	3	.051	3
200			min	-.717	4	-406.295	3	-1095.932	8	-.048	9	-.137	8	-.237	8
201	M21	1	max	284.591	3	2340.947	4	506.18	1	.779	3	.198	8	.148	4
202			min	-621.806	4	-1138.548	3	-1172.339	2	-.734	4	-.045	3	-.125	3
203		2	max	284.591	3	2340.947	4	506.18	1	.779	3	.148	5	.059	2
204			min	-621.806	4	-1138.548	3	-1172.339	2	-.734	4	-.057	2	-.111	1
205		3	max	284.591	3	2340.947	4	506.18	1	.779	3	.172	1	.017	3
206			min	-621.806	4	-1138.548	3	-1172.339	2	-.734	4	-.131	2	-.185	9
207		4	max	284.591	3	2340.947	4	506.18	1	.779	3	.204	1	.089	3
208			min	-621.806	4	-1138.548	3	-1172.339	2	-.734	4	-.204	2	-.291	4
209		5	max	284.591	3	2340.947	4	506.18	1	.779	3	.236	1	.16	3
210			min	-621.806	4	-1138.548	3	-1172.339	2	-.734	4	-.277	2	-.438	4
211	M22	1	max	415.723	2	153.081	4	22.015	3	0	3	.02	7	.187	4
212			min	-319.087	1	-99.938	3	-47.283	4	0	8	.002	4	-.101	3
213		2	max	422.983	2	148.946	4	19.08	3	0	3	.014	6	.066	4
214			min	-326.347	1	-95.804	3	-50.217	4	0	8	0	1	-.026	3
215		3	max	430.242	2	144.812	4	16.146	3	0	3	.006	2	.046	3
216			min	-333.606	1	-91.669	3	-56.02	8	0	8	-.007	1	-.052	4
217		4	max	437.502	2	140.678	4	13.212	3	0	3	.002	4	.114	3
218			min	-340.866	1	-87.535	3	-64.96	8	0	8	-.022	7	-.168	4
219		5	max	444.761	2	136.543	4	10.277	3	0	3	-.004	4	.178	3
220			min	-348.125	1	-83.4	3	-73.9	8	0	8	-.049	7	-.281	4
221	M23	1	max	641.128	3	25.273	4	1098.602	2	-.032	4	.314	1	.052	3
222			min	-661.994	4	-383.866	7	-1241.673	1	-.145	7	-.281	2	-.059	4
223		2	max	646.627	3	22.36	4	1101.777	2	-.032	4	.018	1	.123	3
224			min	-667.493	4	-390.055	7	-1244.848	1	-.145	7	-.02	2	-.065	4
225		3	max	686.268	3	242.16	7	1361.384	4	.043	4	.323	3	.23	3
226			min	-698.314	4	-363.665	6	-1362.359	3	-.145	7	-.326	4	-.083	4
227		4	max	691.767	3	241.62	6	1350.583	4	.119	7	.035	2	.203	3
228			min	-703.813	4	29.327	1	-1354.036	3	.043	4	-.039	1	-.103	4
229		5	max	697.266	3	235.431	6	1341.058	4	.119	7	.316	4	.178	3
230			min	-709.312	4	26.413	1	-1344.511	3	.043	4	-.321	3	-.122	4
231	M24	1	max	819.398	1	-17.651	2	1236.828	1	-.04	2	.321	2	.078	1
232			min	-836.91	2	-374.688	5	-1374.609	2	-.143	5	-.29	1	-.086	2
233		2	max	819.398	1	-20.565	2	1249.528	1	-.04	2	.029	4	.14	1
234			min	-836.91	2	-380.877	5	-1387.309	2	-.143	5	-.031	3	-.081	2
235		3	max	819.398	1	253.591	5	1260.827	1	.052	4	.314	1	.225	5
236			min	-836.91	2	-358.551	8	-1401.616	2	-.143	5	-.339	2	-.076	2
237		4	max	787.203	1	247.408	5	1252.577	2	.12	5	.034	3	.177	1
238			min	-801.416	2	24.289	2	-1256.524	1	.036	2	-.038	4	-.077	2
239		5	max	787.203	1	241.219	5	1239.878	2	.12	5	.279	2	.139	1
240			min	-801.416	2	21.375	2	-1243.824	1	.036	2	-.284	1	-.082	2
241	M25	1	max	734.266	4	-12.012	9	1402.181	4	-.042	1	.371	3	.078	4
242			min	-750.339	3	-369.38	6	-1541.469	3	-.141	6	-.34	4	-.086	3
243		2	max	728.766	4	-14.926	9	1411.706	4	-.042	1	.024	2	.12	4
244			min	-744.84	3	-375.569	6	-1550.994	3	-.141	6	-.026	1	-.062	3
245		3	max	723.267	4	550.288	9	1419.996	4	.135	9	.332	4	.217	6
246			min	-739.341	3	-381.757	6	-1561.939	3	-.141	6	-.367	3	-.051	1
247		4	max	614.625	4	547.374	9	1025.637	1	.135	9	.025	4	.176	2
248			min	-632.056	3	-.7	3	-1026.118	2	.036	3	-.029	3	-.076	1
249		5	max	609.126	4	544.46	9	1022.462	1	.135	9	.26	1	.156	2
250			min	-626.556	3	-3.614	3	-1022.943	2	.036	3	-.264	2	-.134	9
251	M26	1	max	0	1	0	1	0	1	0	1	0	1	0	1
252			min	0	1	0	1	0	1	0	1	0	1	0	1
253		2	max	82.199	3	-18.931	10	80.878	2	.044	9	.027	5	.069	4
254			min	-308.068	8	-167.909	7	-89.221	1	-.064	10	0	3	-.057	10
255		3	max	-102.468	1	1039.006	4	183.33	4	.042	9	.357	2	1.012	5

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
256			min	-448.401	6	-935.755	3	-248.4	3	-.109	7	-.339	1	.265	2
257		4	max	115.564	4	111.928	4	58.062	2	.039	3	.264	1	.068	4
258			min	-158.411	3	-25.884	3	-47.903	1	-.048	4	-.282	2	-.039	3
259		5	max	0	1	0	1	0	1	0	1	0	1	0	1
260			min	0	1	0	1	0	1	0	1	0	1	0	1
261	M32	1	max	3508.534	3	1847.216	1	1599.654	4	.171	2	.592	3	2.319	1
262			min	-5516.925	4	-1878.37	2	-655.503	3	-.266	1	-1.403	4	-2.256	2
263		2	max	3496.963	3	1828.504	1	1586.363	4	.171	2	.196	8	.48	1
264			min	-5505.354	4	-1855.289	2	-668.569	3	-.266	1	-.071	3	-.386	2
265		3	max	3404.023	3	683.607	4	468.786	3	.171	2	.462	4	.841	2
266			min	-5420.345	4	-646.641	3	-1327.541	8	-.266	1	-.226	3	-.754	1
267		4	max	1990.502	3	96.2	9	171.665	3	.035	9	.084	4	.284	2
268			min	-1157.214	4	-2.212	4	-805.345	8	-.001	3	-.082	3	-.257	1
269		5	max	0	1	.001	3	0	3	0	1	0	1	0	1
270			min	0	1	0	6	0	5	0	1	0	1	0	1
271	M33	1	max	3169.245	4	2388.123	2	1578.146	7	.25	1	.527	4	3.052	2
272			min	-5177.069	3	-2441.761	1	-587.493	4	-.344	2	-1.371	7	-3.023	1
273		2	max	3157.674	4	2368.081	2	1552.124	7	.25	1	.196	7	.672	2
274			min	-5165.498	3	-2421.719	1	-600.418	4	-.344	2	-.068	4	-.589	1
275		3	max	3064.735	4	966.045	2	463.805	4	.25	1	.443	7	1.159	1
276			min	-5080.29	3	-933.494	1	-1330.338	7	-.344	2	-.187	4	-1.062	2
277		4	max	1678.83	4	29.53	6	173.407	4	.015	2	.067	3	.392	1
278			min	-846.241	3	1.184	4	-807.581	7	-.007	1	-.065	4	-.358	2
279		5	max	0	1	0	8	0	4	0	1	0	1	0	1
280			min	0	1	-.001	3	0	6	0	1	0	1	0	1
281	M34	1	max	344.721	1	384.609	7	314.8	3	.205	3	.12	4	.069	2
282			min	-280.281	2	94.375	4	-369.728	4	-.303	4	-.118	3	-.109	1
283		2	max	344.721	1	384.609	7	314.8	3	.205	3	.092	4	.06	2
284			min	-280.281	2	94.375	4	-369.728	4	-.303	4	-.094	3	-.122	1
285		3	max	344.721	1	384.609	7	314.8	3	.205	3	.065	4	.05	2
286			min	-280.281	2	94.375	4	-369.728	4	-.303	4	-.07	3	-.136	1
287		4	max	344.721	1	384.609	7	314.8	3	.205	3	.037	4	.04	2
288			min	-280.281	2	94.375	4	-369.728	4	-.303	4	-.047	3	-.149	1
289		5	max	344.721	1	384.609	7	314.8	3	.205	3	.009	4	.031	2
290			min	-280.281	2	94.375	4	-369.728	4	-.303	4	-.023	3	-.177	5
291	MP1A	1	max	0	1	0	4	.001	1	0	1	0	1	0	1
292			min	0	1	-.005	7	-.003	6	0	1	0	1	0	1
293		2	max	34.088	3	64.504	8	133.823	2	.009	4	.061	2	.132	4
294			min	-87.793	4	-1.767	2	-69.287	1	-.023	3	-.09	1	-.094	3
295		3	max	165.42	7	199.559	4	126.692	1	.009	4	.11	5	.109	3
296			min	-.634	4	-144.987	3	-62.155	2	-.023	3	.015	2	-.167	4
297		4	max	-7.839	10	22.198	3	22.201	2	0	1	.019	1	.019	3
298			min	-23.463	7	-22.192	4	-22.196	1	0	1	-.019	2	-.019	4
299		5	max	0	1	.02	7	.024	6	0	1	0	1	0	1
300			min	0	1	-.002	4	-.005	1	0	1	0	1	0	1
301	M37	1	max	859.955	1	124.9	4	640.516	3	.138	3	.207	4	.147	1
302			min	-796.692	2	-536.993	10	-861.475	4	-.576	8	-.137	3	-.293	2
303		2	max	859.955	1	124.9	4	640.516	3	.138	3	.142	4	.159	1
304			min	-796.692	2	-536.993	10	-861.475	4	-.576	8	-.089	3	-.292	2
305		3	max	859.955	1	124.9	4	640.516	3	.138	3	.103	2	.172	1
306			min	-796.692	2	-536.993	10	-861.475	4	-.576	8	-.066	1	-.292	2
307		4	max	859.955	1	124.9	4	640.516	3	.138	3	.097	2	.184	1
308			min	-796.692	2	-536.993	10	-861.475	4	-.576	8	-.077	1	-.291	2
309		5	max	859.955	1	124.9	4	640.516	3	.138	3	.091	2	.197	1
310			min	-796.692	2	-536.993	10	-861.475	4	-.576	8	-.088	1	-.291	2
311	M38	1	max	431.961	1	1241.284	7	306.612	8	.245	3	.045	1	.197	7
312			min	-495.224	2	218.407	4	67.633	3	-.722	8	-.115	2	-.063	4

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
313		2	max	431.961	1	1241.284	7	306.612	8	.245	3	.056	1	.13	3
314			min	-495.224	2	218.407	4	67.633	3	-.722	8	-.109	2	-.079	4
315		3	max	431.961	1	1241.284	7	306.612	8	.245	3	.066	1	.081	3
316			min	-495.224	2	218.407	4	67.633	3	-.722	8	-.103	2	-.096	4
317		4	max	431.961	1	1241.284	7	306.612	8	.245	3	.077	1	.033	3
318			min	-495.224	2	218.407	4	67.633	3	-.722	8	-.097	2	-.125	8
319		5	max	431.961	1	1241.284	7	306.612	8	.245	3	.088	1	-.015	3
320			min	-495.224	2	218.407	4	67.633	3	-.722	8	-.091	2	-.209	8
321	MP3A	1	max	0	1	0	4	.001	1	0	1	0	1	0	1
322			min	0	1	-.01	7	-.005	6	0	1	0	1	0	1
323		2	max	-132.347	4	412.98	4	134.6	1	.091	2	.07	2	.314	4
324			min	-921.198	7	-191.001	3	-71.521	2	-.088	1	-.134	1	-.133	3
325		3	max	-64.774	4	483.632	4	205.243	1	.091	2	.191	1	.29	3
326			min	-774.752	7	-261.653	3	-142.164	2	-.088	1	-.144	2	-.498	4
327		4	max	-103.622	1	117.539	3	86.917	2	0	1	.046	1	.052	3
328			min	-212.36	5	-117.437	4	-86.891	1	0	1	-.046	2	-.052	4
329		5	max	0	1	.376	5	.11	7	0	1	0	1	0	1
330			min	0	1	.011	10	-.01	2	0	1	0	1	0	1
331	M40	1	max	269.281	1	391.842	8	317.995	3	.386	7	.066	4	.174	2
332			min	-251.043	2	12.875	9	-177.989	4	-.112	4	-.117	3	-.125	1
333		2	max	269.281	1	391.842	8	317.995	3	.386	7	.053	4	.166	2
334			min	-251.043	2	12.875	9	-177.989	4	-.112	4	-.093	3	-.14	1
335		3	max	269.281	1	391.842	8	317.995	3	.386	7	.039	4	.157	2
336			min	-251.043	2	12.875	9	-177.989	4	-.112	4	-.069	3	-.155	1
337		4	max	269.281	1	391.842	8	317.995	3	.386	7	.026	4	.149	2
338			min	-251.043	2	12.875	9	-177.989	4	-.112	4	-.045	3	-.17	1
339		5	max	269.281	1	391.842	8	317.995	3	.386	7	.013	4	.141	2
340			min	-251.043	2	12.875	9	-177.989	4	-.112	4	-.021	3	-.185	1
341	MP5A	1	max	0	1	.005	8	0	1	0	1	0	1	0	1
342			min	0	1	0	3	-.002	6	0	1	0	1	0	1
343		2	max	73.476	10	-17.281	4	117.135	2	.013	4	.086	2	.062	4
344			min	-134.32	9	-183.095	7	-98.761	1	-.021	3	-.088	1	-.14	3
345		3	max	344.909	8	133.88	4	225.089	1	.013	4	.064	9	.239	7
346			min	-2.881	9	-273.709	3	-206.715	2	-.021	3	-.03	2	-.056	4
347		4	max	-7.839	4	22.191	3	22.201	2	0	1	.019	1	.019	3
348			min	-23.463	5	-22.2	4	-22.197	1	0	1	-.019	2	-.019	4
349		5	max	0	1	0	3	.017	6	0	1	0	1	0	1
350			min	0	1	-.037	8	-.007	1	0	1	0	1	0	1
351	M43	1	max	67.417	1	-2.527	3	283.278	3	.379	3	.043	4	-.013	4
352			min	-43.827	2	-571.456	10	-200.706	4	-.248	4	-.062	3	-.19	7
353		2	max	67.417	1	-2.527	3	283.278	3	.379	3	.028	4	.014	4
354			min	-43.827	2	-571.456	10	-200.706	4	-.248	4	-.041	3	-.159	7
355		3	max	67.417	1	-2.527	3	283.278	3	.379	3	.015	1	.041	4
356			min	-43.827	2	-571.456	10	-200.706	4	-.248	4	-.022	2	-.127	7
357		4	max	67.417	1	-2.527	3	283.278	3	.379	3	.019	1	.069	4
358			min	-43.827	2	-571.456	10	-200.706	4	-.248	4	-.02	2	-.125	3
359		5	max	67.417	1	-2.527	3	283.278	3	.379	3	.023	1	.096	4
360			min	-43.827	2	-571.456	10	-200.706	4	-.248	4	-.018	2	-.125	3
361	M44	1	max	42.352	4	621.309	8	111.97	4	.417	3	.036	9	.18	4
362			min	-65.834	3	33.888	3	-194.454	3	-.235	4	-.016	4	-.111	3
363		2	max	42.352	4	621.309	8	111.97	4	.417	3	.027	9	.151	4
364			min	-65.834	3	33.888	3	-194.454	3	-.235	4	-.012	1	-.114	3
365		3	max	42.352	4	621.309	8	111.97	4	.417	3	.022	2	.121	4
366			min	-65.834	3	33.888	3	-194.454	3	-.235	4	-.015	1	-.116	3
367		4	max	42.352	4	621.309	8	111.97	4	.417	3	.02	2	.092	4
368			min	-65.834	3	33.888	3	-194.454	3	-.235	4	-.019	1	-.119	3
369		5	max	42.352	4	621.309	8	111.97	4	.417	3	.018	2	.062	4

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
370			min	-65.834	3	33.888	3	-194.454	3	-.235	4	-.023	1	-.122	3
371	MP4A	1	max	0	1	.005	5	0	1	0	1	0	1	0	1
372			min	0	1	0	3	-.003	6	0	1	0	1	0	1
373		2	max	-26.047	3	133.324	4	65.816	3	.023	1	.009	4	.076	4
374			min	-597.855	8	-216.635	3	-42.088	4	-.018	2	-.046	10	-.154	3
375		3	max	-18.208	3	155.515	4	65.816	3	.023	1	.076	3	.244	3
376			min	-587.128	10	-238.825	3	-42.088	4	-.018	2	-.064	4	-.176	4
377		4	max	-7.839	1	22.188	3	22.196	2	0	1	.019	1	.019	3
378			min	-23.463	5	-22.19	4	-22.196	1	0	1	-.019	2	-.019	4
379		5	max	0	1	.003	10	.005	2	0	1	0	1	0	1
380			min	0	1	-.007	9	-.005	5	0	1	0	1	0	1
381	M42	1	max	231.182	1	372.067	7	198.454	3	.131	3	.096	4	.078	3
382			min	-195.641	2	61.967	4	-295.471	4	-.314	4	-.07	3	-.072	4
383		2	max	231.182	1	372.067	7	198.454	3	.131	3	.074	4	.063	3
384			min	-195.641	2	61.967	4	-295.471	4	-.314	4	-.055	3	-.076	4
385		3	max	231.182	1	372.067	7	198.454	3	.131	3	.052	4	.048	3
386			min	-195.641	2	61.967	4	-295.471	4	-.314	4	-.041	3	-.081	4
387		4	max	231.182	1	372.067	7	198.454	3	.131	3	.03	4	.032	3
388			min	-195.641	2	61.967	4	-295.471	4	-.314	4	-.026	3	-.086	4
389		5	max	231.182	1	372.067	7	198.454	3	.131	3	.008	4	.02	2
390			min	-195.641	2	61.967	4	-295.471	4	-.314	4	-.011	3	-.109	8
391	M43A	1	max	39.65	1	44.811	4	121.426	8	.1	3	.009	3	-.008	2
392			min	-75.195	2	-159.239	10	4.962	3	-.28	4	-.035	8	-.105	5
393		2	max	39.65	1	44.811	4	121.426	8	.1	3	.01	3	-.007	2
394			min	-75.195	2	-159.239	10	4.962	3	-.28	4	-.028	4	-.1	8
395		3	max	39.65	1	44.811	4	121.426	8	.1	3	.01	3	0	3
396			min	-75.195	2	-159.239	10	4.962	3	-.28	4	-.021	4	-.097	8
397		4	max	39.65	1	44.811	4	121.426	8	.1	3	.01	3	.007	3
398			min	-75.195	2	-159.239	10	4.962	3	-.28	4	-.014	4	-.094	8
399		5	max	39.65	1	44.811	4	121.426	8	.1	3	.011	3	.014	3
400			min	-75.195	2	-159.239	10	4.962	3	-.28	4	-.008	4	-.091	8
401	MP2A	1	max	0	1	0	4	.001	1	0	1	0	1	0	1
402			min	0	1	-.006	7	-.003	6	0	1	0	1	0	1
403		2	max	167.068	10	131.213	8	53.306	8	.008	4	.07	2	.145	4
404			min	-36.965	4	-17.581	3	-17.298	1	-.011	3	-.085	1	-.086	3
405		3	max	279.478	7	231.119	4	137.837	1	.008	4	.103	1	.106	3
406			min	34.474	4	-134.434	3	-102.237	2	-.011	3	-.057	2	-.216	4
407		4	max	-19.647	2	42.191	3	71.32	2	0	1	.039	1	.031	3
408			min	-69.089	5	-42.174	4	-71.312	1	0	1	-.039	2	-.031	4
409		5	max	0	1	.075	5	.04	6	0	1	0	1	0	1
410			min	0	1	.004	2	-.001	1	0	1	0	1	0	1
411	M45	1	max	267.34	4	379.187	5	273.642	1	.158	1	.095	2	.043	1
412			min	-203.091	3	102.587	3	-328.518	2	-.256	2	-.093	1	-.082	2
413		2	max	267.34	4	379.187	5	273.642	1	.158	1	.071	2	.029	1
414			min	-203.091	3	102.587	3	-328.518	2	-.256	2	-.072	1	-.091	2
415		3	max	267.34	4	379.187	5	273.642	1	.158	1	.046	2	.015	1
416			min	-203.091	3	102.587	3	-328.518	2	-.256	2	-.052	1	-.116	6
417		4	max	267.34	4	379.187	5	273.642	1	.158	1	.021	2	.001	1
418			min	-203.091	3	102.587	3	-328.518	2	-.256	2	-.031	1	-.143	6
419		5	max	267.34	4	379.187	5	273.642	1	.158	1	-.003	2	-.013	1
420			min	-203.091	3	102.587	3	-328.518	2	-.256	2	-.018	8	-.169	6
421	MP1C	1	max	0	1	.001	4	.005	5	0	1	0	1	0	1
422			min	0	1	-.001	3	0	2	0	1	0	1	0	1
423		2	max	24.849	4	135.021	3	-27.419	2	-.003	2	.123	2	.057	4
424			min	-79.239	3	-106.683	4	-88.702	6	-.018	8	-.076	1	-.051	3
425		3	max	160.033	5	77.298	4	107.929	1	-.003	2	.059	1	.013	2
426			min	7.92	3	-48.96	3	-187.405	2	-.018	8	-.151	2	-.068	5

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
427		4	max	-7.839	3	22.199	3	22.192	2	0	1	.019	1	.019	3
428			min	-23.463	5	-22.197	4	-22.2	1	0	1	-.019	2	-.019	4
429		5	max	0	1	.012	7	.001	2	0	1	0	1	0	1
430			min	0	1	-.006	4	-.028	5	0	1	0	1	0	1
431	M48	1	max	698.226	4	189.296	3	569.279	1	.086	1	.214	3	.127	4
432			min	-634.541	3	-363.607	4	-790.111	2	-.564	6	-.145	4	-.274	3
433		2	max	698.226	4	189.296	3	569.279	1	.086	1	.171	3	.154	4
434			min	-634.541	3	-363.607	4	-790.111	2	-.564	6	-.119	4	-.288	3
435		3	max	698.226	4	189.296	3	569.279	1	.086	1	.129	3	.182	4
436			min	-634.541	3	-363.607	4	-790.111	2	-.564	6	-.093	4	-.302	3
437		4	max	698.226	4	189.296	3	569.279	1	.086	1	.086	3	.209	4
438			min	-634.541	3	-363.607	4	-790.111	2	-.564	6	-.066	4	-.316	3
439		5	max	698.226	4	189.296	3	569.279	1	.086	1	.084	1	.236	4
440			min	-634.541	3	-363.607	4	-790.111	2	-.564	6	-.081	2	-.331	3
441	M49	1	max	356.822	4	1249.464	8	310.399	8	.161	1	.053	2	.215	4
442			min	-420.509	3	153.208	3	-39.39	3	-.7	6	-.123	1	-.1	3
443		2	max	356.822	4	1249.464	8	310.399	8	.161	1	.06	2	.162	4
444			min	-420.509	3	153.208	3	-39.39	3	-.7	6	-.113	1	-.112	3
445		3	max	356.822	4	1249.464	8	310.399	8	.161	1	.067	2	.109	4
446			min	-420.509	3	153.208	3	-39.39	3	-.7	6	-.103	1	-.123	3
447		4	max	356.822	4	1249.464	8	310.399	8	.161	1	.074	2	.056	4
448			min	-420.509	3	153.208	3	-39.39	3	-.7	6	-.094	1	-.135	3
449		5	max	356.822	4	1249.464	8	310.399	8	.161	1	.081	2	.003	4
450			min	-420.509	3	153.208	3	-39.39	3	-.7	6	-.084	1	-.209	7
451	MP3C	1	max	0	1	.002	6	.011	5	0	1	0	1	0	1
452			min	0	1	-.001	1	0	2	0	1	0	1	0	1
453		2	max	-67.525	3	50.121	1	158.32	1	.084	1	.294	6	.103	4
454			min	-929.303	8	-106.062	3	-381.26	2	-.081	2	-.09	1	-.138	3
455		3	max	.049	3	153.402	4	212.549	1	.084	1	.252	1	.186	3
456			min	-782.857	8	-209.542	3	-435.488	2	-.081	2	-.454	2	-.123	4
457		4	max	-103.622	3	133.955	3	78.133	2	0	1	.043	1	.057	3
458			min	-212.36	8	-133.983	4	-78.234	1	0	1	-.043	2	-.057	4
459		5	max	0	1	.033	4	-.026	1	0	1	0	1	0	1
460			min	0	1	-.129	6	-.37	6	0	1	0	1	0	1
461	M51	1	max	236.138	4	392.743	6	270.028	1	.365	5	.05	2	.19	3
462			min	-217.935	3	102.716	1	-129.813	2	-.028	2	-.101	1	-.141	4
463		2	max	236.138	4	392.743	6	270.028	1	.365	5	.04	2	.179	3
464			min	-217.935	3	102.716	1	-129.813	2	-.028	2	-.08	1	-.154	4
465		3	max	236.138	4	392.743	6	270.028	1	.365	5	.03	2	.168	3
466			min	-217.935	3	102.716	1	-129.813	2	-.028	2	-.06	1	-.166	4
467		4	max	236.138	4	392.743	6	270.028	1	.365	5	.021	2	.157	3
468			min	-217.935	3	102.716	1	-129.813	2	-.028	2	-.04	1	-.178	4
469		5	max	236.138	4	392.743	6	270.028	1	.365	5	.011	2	.146	3
470			min	-217.935	3	102.716	1	-129.813	2	-.028	2	-.019	1	-.19	4
471	MP5C	1	max	0	1	0	4	0	1	0	1	0	1	0	1
472			min	0	1	-.004	7	-.005	6	0	1	0	1	0	1
473		2	max	60.139	2	110.905	7	138.931	6	.011	2	.043	2	.112	4
474			min	-44.314	1	-24.049	4	30.059	1	-.019	1	-.11	1	-.072	3
475		3	max	345.799	6	256.628	4	224.392	1	.011	2	.177	5	.014	3
476			min	87.125	1	-171.076	3	-112.278	2	-.019	1	-.005	2	-.151	8
477		4	max	-7.839	1	22.202	3	22.201	2	0	1	.019	1	.019	3
478			min	-23.463	6	-22.195	4	-22.195	1	0	1	-.019	2	-.019	4
479		5	max	0	1	.032	7	.028	6	0	1	0	1	0	1
480			min	0	1	-.004	4	-.004	1	0	1	0	1	0	1
481	M54	1	max	88.629	4	50.505	1	231.099	1	.302	1	.036	2	-.016	2
482			min	-65.481	3	-541.13	6	-148.063	2	-.17	2	-.055	1	-.19	5
483		2	max	88.629	4	50.505	1	231.099	1	.302	1	.025	2	.015	2

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
484			min	-65.481	3	-541.13	6	-148.063	2	-.17	2	-.038	1	-.16	5
485		3	max	88.629	4	50.505	1	231.099	1	.302	1	.014	2	.046	2
486			min	-65.481	3	-541.13	6	-148.063	2	-.17	2	-.02	1	-.131	1
487		4	max	88.629	4	50.505	1	231.099	1	.302	1	.023	4	.077	2
488			min	-65.481	3	-541.13	6	-148.063	2	-.17	2	-.024	3	-.134	1
489		5	max	88.629	4	50.505	1	231.099	1	.302	1	.034	4	.108	2
490			min	-65.481	3	-541.13	6	-148.063	2	-.17	2	-.029	3	-.138	1
491	M55	1	max	54.57	2	634.971	6	71.175	2	.335	1	.032	1	.197	2
492			min	-78.361	1	-19.167	1	-154.209	1	-.152	2	-.013	2	-.128	1
493		2	max	54.57	2	634.971	6	71.175	2	.335	1	.024	3	.163	2
494			min	-78.361	1	-19.167	1	-154.209	1	-.152	2	-.011	4	-.127	1
495		3	max	54.57	2	634.971	6	71.175	2	.335	1	.026	3	.13	2
496			min	-78.361	1	-19.167	1	-154.209	1	-.152	2	-.019	4	-.125	1
497		4	max	54.57	2	634.971	6	71.175	2	.335	1	.027	3	.096	2
498			min	-78.361	1	-19.167	1	-154.209	1	-.152	2	-.027	4	-.124	1
499		5	max	54.57	2	634.971	6	71.175	2	.335	1	.029	3	.063	2
500			min	-78.361	1	-19.167	1	-154.209	1	-.152	2	-.034	4	-.122	1
501	MP4C	1	max	0	1	0	4	0	3	0	1	0	1	0	1
502			min	0	1	-.005	7	-.004	8	0	1	0	1	0	1
503		2	max	26.965	1	145	1	116.603	1	.034	4	.038	2	.094	5
504			min	-611.512	6	-82.477	2	-55.966	2	-.029	3	-.091	1	-.027	2
505		3	max	34.804	1	145	1	138.794	1	.034	4	.132	1	.117	2
506			min	-588.048	6	-82.477	2	-78.157	2	-.029	3	-.079	2	-.162	1
507		4	max	-7.839	1	22.193	3	22.192	2	0	1	.019	1	.019	3
508			min	-23.463	5	-22.193	4	-22.19	1	0	1	-.019	2	-.019	4
509		5	max	0	1	.004	1	.007	8	0	1	0	1	0	1
510			min	0	1	-.004	6	-.004	3	0	1	0	1	0	1
511	M57	1	max	165.08	4	367.087	8	165.546	1	.104	1	.079	2	.101	1
512			min	-129.652	3	50.381	3	-262.236	2	-.285	2	-.054	1	-.094	2
513		2	max	165.08	4	367.087	8	165.546	1	.104	1	.06	2	.086	1
514			min	-129.652	3	50.381	3	-262.236	2	-.285	2	-.041	1	-.099	2
515		3	max	165.08	4	367.087	8	165.546	1	.104	1	.04	2	.071	1
516			min	-129.652	3	50.381	3	-262.236	2	-.285	2	-.029	1	-.105	2
517		4	max	165.08	4	367.087	8	165.546	1	.104	1	.02	2	.056	1
518			min	-129.652	3	50.381	3	-262.236	2	-.285	2	-.016	1	-.11	2
519		5	max	165.08	4	367.087	8	165.546	1	.104	1	.003	3	.042	1
520			min	-129.652	3	50.381	3	-262.236	2	-.285	2	-.006	4	-.115	2
521	M58	1	max	48.674	4	54.899	3	121.987	8	.062	1	-.002	1	-.011	1
522			min	-84.082	3	-109.446	4	6.711	3	-.252	6	-.033	6	-.105	6
523		2	max	48.674	4	54.899	3	121.987	8	.062	1	0	1	-.005	1
524			min	-84.082	3	-109.446	4	6.711	3	-.252	6	-.024	6	-.102	6
525		3	max	48.674	4	54.899	3	121.987	8	.062	1	0	1	.002	1
526			min	-84.082	3	-109.446	4	6.711	3	-.252	6	-.015	6	-.098	6
527		4	max	48.674	4	54.899	3	121.987	8	.062	1	.002	1	.009	1
528			min	-84.082	3	-109.446	4	6.711	3	-.252	6	-.006	2	-.094	6
529		5	max	48.674	4	54.899	3	121.987	8	.062	1	.006	4	.016	1
530			min	-84.082	3	-109.446	4	6.711	3	-.252	6	-.003	3	-.09	6
531	MP2C	1	max	0	1	.002	8	.007	5	0	1	0	1	0	1
532			min	0	1	0	3	0	2	0	1	0	1	0	1
533		2	max	117.261	4	47.348	3	-5.188	1	.003	3	.136	2	.055	4
534			min	-47.138	3	-64.871	4	-135.077	6	-.006	4	-.077	1	-.071	3
535		3	max	284.305	8	80.693	4	121.235	1	.003	3	.09	1	.051	3
536			min	24.301	3	-98.216	3	-222.457	2	-.006	4	-.208	2	-.036	4
537		4	max	-18.399	9	56.869	3	42.917	2	0	1	.025	1	.028	3
538			min	-59.261	5	-56.871	4	-42.935	1	0	1	-.025	2	-.028	4
539		5	max	0	1	.005	1	-.005	2	0	1	0	1	0	1
540			min	0	1	-.008	6	-.071	8	0	1	0	1	0	1

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
541	M60	1	max	309.519	3	383.847	6	247.59	2	.11	2	.095	1	.099	4
542			min	-245.05	4	85.126	1	-302.918	1	-.236	9	-.092	2	-.138	3
543		2	max	309.519	3	383.847	6	247.59	2	.11	2	.072	1	.087	4
544			min	-245.05	4	85.126	1	-302.918	1	-.236	9	-.073	2	-.15	3
545		3	max	309.519	3	383.847	6	247.59	2	.11	2	.049	1	.076	4
546			min	-245.05	4	85.126	1	-302.918	1	-.236	9	-.055	2	-.161	3
547		4	max	309.519	3	383.847	6	247.59	2	.11	2	.027	1	.064	4
548			min	-245.05	4	85.126	1	-302.918	1	-.236	9	-.036	2	-.173	3
549		5	max	309.519	3	383.847	6	247.59	2	.11	2	.004	1	.053	4
550			min	-245.05	4	85.126	1	-302.918	1	-.236	9	-.02	6	-.185	3
551	MP1B	1	max	0	1	.005	8	0	1	0	1	0	1	0	1
552			min	0	1	0	3	-.003	6	0	1	0	1	0	1
553		2	max	42.698	2	19.958	3	76.532	9	.004	1	.074	2	.067	4
554			min	-96.925	1	-104.41	8	-34.138	1	-.02	6	-.092	1	-.111	3
555		3	max	164.649	6	80.907	4	125.847	1	.004	1	.098	9	.135	7
556			min	-9.766	1	-164.023	3	-110.461	2	-.02	6	-.066	2	-.014	4
557		4	max	-7.839	1	22.194	3	22.198	2	0	1	.019	1	.019	3
558			min	-23.463	5	-22.201	4	-22.196	1	0	1	-.019	2	-.019	4
559		5	max	0	1	.003	3	.01	6	0	1	0	1	0	1
560			min	0	1	-.03	8	-.005	1	0	1	0	1	0	1
561	M63	1	max	750.334	3	194.036	1	539.079	2	.03	2	.215	1	.116	3
562			min	-687.816	4	-368.288	2	-759.626	1	-.546	5	-.145	2	-.262	4
563		2	max	750.334	3	194.036	1	539.079	2	.03	2	.158	1	.112	3
564			min	-687.816	4	-368.288	2	-759.626	1	-.546	5	-.105	2	-.245	4
565		3	max	750.334	3	194.036	1	539.079	2	.03	2	.101	1	.108	3
566			min	-687.816	4	-368.288	2	-759.626	1	-.546	5	-.064	2	-.228	4
567		4	max	750.334	3	194.036	1	539.079	2	.03	2	.079	4	.104	3
568			min	-687.816	4	-368.288	2	-759.626	1	-.546	5	-.06	3	-.211	1
569		5	max	750.334	3	194.036	1	539.079	2	.03	2	.109	4	.131	2
570			min	-687.816	4	-368.288	2	-759.626	1	-.546	5	-.106	3	-.226	1
571	M64	1	max	304.71	3	1256.034	6	295.548	8	.102	2	.104	3	.206	2
572			min	-367.224	4	149.062	1	7.681	3	-.681	5	-.173	4	-.091	1
573		2	max	304.71	3	1256.034	6	295.548	8	.102	2	.104	3	.152	2
574			min	-367.224	4	149.062	1	7.681	3	-.681	5	-.157	4	-.102	1
575		3	max	304.71	3	1256.034	6	295.548	8	.102	2	.105	3	.099	2
576			min	-367.224	4	149.062	1	7.681	3	-.681	5	-.141	4	-.113	1
577		4	max	304.71	3	1256.034	6	295.548	8	.102	2	.105	3	.046	2
578			min	-367.224	4	149.062	1	7.681	3	-.681	5	-.125	4	-.127	5
579		5	max	304.71	3	1256.034	6	295.548	8	.102	2	.106	3	-.008	2
580			min	-367.224	4	149.062	1	7.681	3	-.681	5	-.109	4	-.209	5
581	MP3B	1	max	0	1	.009	8	0	4	0	1	0	1	0	1
582			min	0	1	0	3	-.007	7	0	1	0	1	0	1
583		2	max	-63.11	1	65.065	4	285.558	1	.109	4	.101	2	.059	4
584			min	-935.91	6	-251.264	5	-125.044	2	-.106	3	-.225	1	-.223	7
585		3	max	4.464	1	168.546	4	339.787	1	.109	4	.339	1	.337	3
586			min	-789.464	6	-333.477	3	-179.273	2	-.106	3	-.183	2	-.194	4
587		4	max	-103.622	2	133.921	3	78.23	2	0	1	.043	1	.057	3
588			min	-212.36	5	-133.994	4	-78.155	1	0	1	-.043	2	-.057	4
589		5	max	0	1	.022	4	.301	7	0	1	0	1	0	1
590			min	0	1	-.29	7	-.018	4	0	1	0	1	0	1
591	M66	1	max	190.435	3	391.935	7	286.602	2	.374	6	.043	1	.116	1
592			min	-172.202	4	96.943	4	-146.959	1	-.058	1	-.093	2	-.067	2
593		2	max	190.435	3	391.935	7	286.602	2	.374	6	.032	1	.102	1
594			min	-172.202	4	96.943	4	-146.959	1	-.058	1	-.072	2	-.076	2
595		3	max	190.435	3	391.935	7	286.602	2	.374	6	.021	1	.088	1
596			min	-172.202	4	96.943	4	-146.959	1	-.058	1	-.05	2	-.086	2
597		4	max	190.435	3	391.935	7	286.602	2	.374	6	.01	3	.075	1

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
598			min	-172.202	4	96.943	4	-146.959	1	-.058	1	-.029	4	-.095	2
599		5	max	190.435	3	391.935	7	286.602	2	.374	6	.007	3	.061	1
600			min	-172.202	4	96.943	4	-146.959	1	-.058	1	-.016	4	-.105	2
601	MP5B	1	max	0	1	0	4	.005	5	0	1	0	1	0	1
602			min	0	1	-.003	7	0	2	0	1	0	1	0	1
603		2	max	65.596	3	145.053	3	-60.694	4	.007	3	.124	2	.078	4
604			min	-49.892	4	-91.148	4	-160.12	6	-.016	4	-.056	1	-.041	3
605		3	max	344.989	7	189.53	4	132.075	1	.007	3	.026	1	-.015	1
606			min	81.547	4	-135.625	3	-262.043	2	-.016	4	-.222	6	-.076	8
607		4	max	-7.839	4	22.199	3	22.191	2	0	1	.019	1	.019	3
608			min	-23.463	8	-22.198	4	-22.201	1	0	1	-.019	2	-.019	4
609		5	max	0	1	.012	7	0	2	0	1	0	1	0	1
610			min	0	1	-.007	4	-.038	5	0	1	0	1	0	1
611	M69	1	max	86.12	2	20.803	4	245.625	2	.328	2	.023	1	-.034	3
612			min	-63.084	1	-530.118	7	-163.061	1	-.198	1	-.043	2	-.186	8
613		2	max	86.12	2	20.803	4	245.625	2	.328	2	.016	3	-.005	3
614			min	-63.084	1	-530.118	7	-163.061	1	-.198	1	-.029	4	-.155	8
615		3	max	86.12	2	20.803	4	245.625	2	.328	2	.013	3	.024	3
616			min	-63.084	1	-530.118	7	-163.061	1	-.198	1	-.02	4	-.124	8
617		4	max	86.12	2	20.803	4	245.625	2	.328	2	.013	2	.053	3
618			min	-63.084	1	-530.118	7	-163.061	1	-.198	1	-.013	1	-.11	4
619		5	max	86.12	2	20.803	4	245.625	2	.328	2	.031	2	.082	3
620			min	-63.084	1	-530.118	7	-163.061	1	-.198	1	-.026	1	-.112	4
621	M70	1	max	47.099	3	623.951	7	86.246	1	.362	2	.025	4	.163	3
622			min	-70.874	4	10.482	4	-168.665	2	-.181	1	-.006	3	-.093	4
623		2	max	47.099	3	623.951	7	86.246	1	.362	2	.019	4	.131	3
624			min	-70.874	4	10.482	4	-168.665	2	-.181	1	-.006	3	-.094	4
625		3	max	47.099	3	623.951	7	86.246	1	.362	2	.013	4	.1	3
626			min	-70.874	4	10.482	4	-168.665	2	-.181	1	-.007	3	-.095	4
627		4	max	47.099	3	623.951	7	86.246	1	.362	2	.019	1	.07	1
628			min	-70.874	4	10.482	4	-168.665	2	-.181	1	-.018	2	-.096	2
629		5	max	47.099	3	623.951	7	86.246	1	.362	2	.026	1	.042	1
630			min	-70.874	4	10.482	4	-168.665	2	-.181	1	-.031	2	-.101	2
631	MP4B	1	max	0	1	0	1	.005	5	0	1	0	1	0	1
632			min	0	1	-.001	6	0	2	0	1	0	1	0	1
633		2	max	-2.709	4	48.202	2	105.508	1	.031	2	.136	2	.034	2
634			min	-600.492	7	-27.011	1	-189.044	2	-.026	1	-.054	1	-.021	1
635		3	max	5.131	4	48.202	2	127.698	1	.031	2	.15	1	.027	1
636			min	-577.029	7	-27.011	1	-211.235	2	-.026	1	-.214	2	-.051	2
637		4	max	-7.839	2	22.194	3	22.189	2	0	1	.019	1	.019	3
638			min	-23.463	5	-22.193	4	-22.19	1	0	1	-.019	2	-.019	4
639		5	max	0	1	.006	6	.002	3	0	1	0	1	0	1
640			min	0	1	-.003	1	-.003	8	0	1	0	1	0	1
641	M72	1	max	201.602	3	367.982	6	138.076	2	.05	2	.077	1	.117	4
642			min	-165.925	4	51.614	1	-235.174	1	-.243	5	-.051	2	-.111	3
643		2	max	201.602	3	367.982	6	138.076	2	.05	2	.059	1	.104	4
644			min	-165.925	4	51.614	1	-235.174	1	-.243	5	-.041	2	-.117	3
645		3	max	201.602	3	367.982	6	138.076	2	.05	2	.041	1	.09	4
646			min	-165.925	4	51.614	1	-235.174	1	-.243	5	-.03	2	-.123	3
647		4	max	201.602	3	367.982	6	138.076	2	.05	2	.024	1	.077	4
648			min	-165.925	4	51.614	1	-235.174	1	-.243	5	-.02	2	-.13	3
649		5	max	201.602	3	367.982	6	138.076	2	.05	2	.006	1	.063	4
650			min	-165.925	4	51.614	1	-235.174	1	-.243	5	-.009	2	-.136	3
651	M73	1	max	36.721	2	53.838	1	114.14	7	.013	2	-.005	2	-.003	4
652			min	-72.388	1	-108.25	2	41.581	10	-.237	5	-.032	5	-.107	7
653		2	max	36.721	2	53.838	1	114.14	7	.013	2	-.001	2	.002	4
654			min	-72.388	1	-108.25	2	41.581	10	-.237	5	-.023	5	-.103	7

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
655		3	max	36.721	2	53.838	1	114.14	7	.013	2	.002	2	.008	4
656			min	-72.388	1	-108.25	2	41.581	10	-.237	5	-.015	5	-.099	7
657		4	max	36.721	2	53.838	1	114.14	7	.013	2	.006	2	.013	4
658			min	-72.388	1	-108.25	2	41.581	10	-.237	5	-.01	1	-.095	7
659		5	max	36.721	2	53.838	1	114.14	7	.013	2	.009	2	.019	4
660			min	-72.388	1	-108.25	2	41.581	10	-.237	5	-.006	1	-.091	7
661	MP2B	1	max	0	1	.006	8	0	1	0	1	0	1	0	1
662			min	0	1	0	3	-.005	6	0	1	0	1	0	1
663		2	max	116.088	2	8.416	2	86.239	9	.006	1	.061	2	.066	4
664			min	-46.033	1	-108.662	5	13.758	4	-.009	2	-.104	1	-.109	3
665		3	max	285.209	6	104.882	4	155.782	1	.006	1	.123	1	.162	3
666			min	25.406	1	-183.757	3	-89.811	2	-.009	2	-.051	2	-.067	4
667		4	max	-18.399	1	56.862	3	42.933	2	0	1	.025	1	.028	3
668			min	-59.261	5	-56.877	4	-42.922	1	0	1	-.025	2	-.028	4
669		5	max	0	1	-.002	3	.043	7	0	1	0	1	0	1
670			min	0	1	-.061	8	-.001	4	0	1	0	1	0	1
671	M75	1	max	0	1	.004	2	.002	3	0	1	0	1	0	1
672			min	0	1	-.001	8	0	5	0	1	0	1	0	1
673		2	max	229.782	1	-49.962	4	114.243	1	.011	1	.069	4	.085	2
674			min	-440.537	2	-159.663	7	-122.435	2	-.047	6	-.053	3	-.052	1
675		3	max	-124.585	2	1132.623	2	425.867	2	.044	2	.326	3	1.004	8
676			min	-440.438	5	-1029.967	1	-491.427	1	-.114	5	-.308	4	.292	3
677		4	max	238.735	3	95.719	6	52.322	1	.029	4	.182	4	.115	4
678			min	-282.099	4	-5.065	3	-42.519	2	-.038	3	-.2	3	-.085	3
679		5	max	0	1	0	6	0	8	0	1	0	1	0	1
680			min	0	1	-.004	4	-.002	2	0	1	0	1	0	1
681	M76	1	max	0	1	.004	1	.003	3	0	1	0	1	0	1
682			min	0	1	-.001	8	0	2	0	1	0	1	0	1
683		2	max	240.651	4	-24.043	4	123.448	4	.013	2	.057	4	.082	3
684			min	-450.854	3	-167.529	7	-131.692	3	-.048	5	-.041	3	-.05	4
685		3	max	-43.418	3	1112.97	1	547.747	3	.05	3	.289	4	1.004	7
686			min	-459.051	8	-1009.185	2	-612.987	4	-.113	8	-.272	3	.276	4
687		4	max	234.44	1	168.394	9	64.588	4	.041	2	.24	3	.197	9
688			min	-277.595	2	30.031	2	-54.686	3	-.05	1	-.257	4	-.009	3
689		5	max	0	1	.001	7	0	2	0	1	0	1	0	1
690			min	0	1	-.004	2	-.004	3	0	1	0	1	0	1
691	M77	1	max	147.7	3	105.849	5	198.592	1	0	2	.142	2	.091	3
692			min	-205.863	4	-35.928	9	-151.026	2	0	9	-.2	1	-.147	4
693		2	max	142.025	3	97.729	5	201.869	1	0	2	.081	2	.038	3
694			min	-200.188	4	-38.815	9	-154.303	2	0	9	-.099	1	-.109	9
695		3	max	136.35	3	89.608	5	205.145	1	0	2	.045	3	-.008	2
696			min	-194.512	4	-41.702	9	-157.58	2	0	9	-.026	4	-.09	9
697		4	max	130.674	3	82.928	1	208.422	1	0	2	.103	1	-.016	10
698			min	-188.837	4	-44.589	9	-160.856	2	0	9	-.048	2	-.09	6
699		5	max	124.999	3	80.041	1	211.699	1	0	2	.204	1	.027	1
700			min	-183.162	4	-47.476	9	-164.133	2	0	9	-.115	2	-.106	6
701	M78	1	max	154.942	1	107.387	6	241.574	2	0	1	.193	1	.137	1
702			min	-213.42	2	-21.362	1	-194.142	1	0	2	-.252	2	-.193	2
703		2	max	149.267	1	99.267	6	238.297	2	0	1	.119	1	.078	1
704			min	-207.746	2	-24.248	1	-190.866	1	0	2	-.137	2	-.141	2
705		3	max	143.593	1	91.148	6	235.021	2	0	1	.044	1	.021	1
706			min	-202.072	2	-27.135	1	-187.59	1	0	2	-.025	2	-.089	2
707		4	max	137.919	1	83.028	6	231.745	2	0	1	.085	2	-.016	4
708			min	-196.397	2	-30.021	1	-184.314	1	0	2	-.03	1	-.088	7
709		5	max	132.244	1	79.64	2	228.469	2	0	1	.193	2	.018	4
710			min	-190.723	2	-32.908	1	-181.037	1	0	2	-.105	1	-.103	5
711	M79	1	max	93.222	2	135.269	3	254.884	3	0	4	.226	4	.118	4

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
712			min	-151.47	1	-65.657	4	-207.512	4	0	3	-.284	3	-.174	3
713		2	max	93.222	2	132.382	3	254.884	3	0	4	.131	4	.069	4
714			min	-151.47	1	-68.544	4	-207.512	4	0	3	-.149	3	-.132	3
715		3	max	93.222	2	129.495	3	254.884	3	0	4	.038	2	.021	4
716			min	-151.47	1	-71.431	4	-207.512	4	0	3	-.019	1	-.089	3
717		4	max	93.222	2	126.609	3	254.884	3	0	4	.117	3	-.026	4
718			min	-151.47	1	-74.318	4	-207.512	4	0	3	-.063	4	-.084	6
719		5	max	93.222	2	123.722	3	254.884	3	0	4	.249	3	0	3
720			min	-151.47	1	-77.205	4	-207.512	4	0	3	-.161	4	-.1	8
721	M74	1	max	121.147	1	142.109	9	-39.74	4	.345	7	.067	7	.031	1
722			min	-139.37	2	-65.635	10	-173.156	7	-.032	4	0	4	-.056	9
723		2	max	121.147	1	142.109	9	-39.74	4	.345	7	.054	7	.034	1
724			min	-139.37	2	-65.635	10	-173.156	7	-.032	4	-.004	4	-.067	9
725		3	max	121.147	1	142.109	9	-39.74	4	.345	7	.041	7	.037	1
726			min	-139.37	2	-65.635	10	-173.156	7	-.032	4	-.007	4	-.077	9
727		4	max	121.147	1	142.109	9	-39.74	4	.345	7	.029	3	.041	1
728			min	-139.37	2	-65.635	10	-173.156	7	-.032	4	-.01	4	-.088	9
729		5	max	121.147	1	142.109	9	-39.74	4	.345	7	.021	3	.044	1
730			min	-139.37	2	-65.635	10	-173.156	7	-.032	4	-.013	4	-.099	9
731	M75A	1	max	47.578	3	104.697	1	110.144	9	-.007	2	.015	3	-.03	2
732			min	-112.048	4	-34.869	2	-12.647	1	-.213	9	-.021	9	-.113	8
733		2	max	47.578	3	104.697	1	110.144	9	-.007	2	.015	3	-.028	2
734			min	-112.048	4	-34.869	2	-12.647	1	-.213	9	-.013	4	-.12	5
735		3	max	47.578	3	104.697	1	110.144	9	-.007	2	.015	3	-.025	2
736			min	-112.048	4	-34.869	2	-12.647	1	-.213	9	-.009	4	-.126	5
737		4	max	47.578	3	104.697	1	110.144	9	-.007	2	.015	7	-.022	2
738			min	-112.048	4	-34.869	2	-12.647	1	-.213	9	-.004	4	-.133	5
739		5	max	47.578	3	104.697	1	110.144	9	-.007	2	.02	6	-.02	2
740			min	-112.048	4	-34.869	2	-12.647	1	-.213	9	-.004	1	-.139	5
741	M76A	1	max	64.588	4	52.115	1	-19.021	4	.321	5	.067	7	0	2
742			min	-82.789	3	-52.318	2	-177.592	7	.069	2	-.004	4	-.031	8
743		2	max	64.588	4	52.115	1	-19.021	4	.321	5	.053	7	.003	2
744			min	-82.789	3	-52.318	2	-177.592	7	.069	2	-.006	4	-.03	8
745		3	max	64.588	4	52.115	1	-19.021	4	.321	5	.04	7	.007	2
746			min	-82.789	3	-52.318	2	-177.592	7	.069	2	-.007	4	-.032	1
747		4	max	64.588	4	52.115	1	-19.021	4	.321	5	.028	3	.011	2
748			min	-82.789	3	-52.318	2	-177.592	7	.069	2	-.009	4	-.036	1
749		5	max	64.588	4	52.115	1	-19.021	4	.321	5	.019	1	.015	2
750			min	-82.789	3	-52.318	2	-177.592	7	.069	2	-.011	2	-.039	1
751	M77A	1	max	91.606	1	95.628	4	62.361	5	.082	3	.015	3	.007	1
752			min	-156.059	2	-26.262	3	-1.862	2	-.188	4	-.018	4	-.123	6
753		2	max	91.606	1	95.628	4	62.361	5	.082	3	.017	3	.007	1
754			min	-156.059	2	-26.262	3	-1.862	2	-.188	4	-.016	4	-.128	6
755		3	max	91.606	1	95.628	4	62.361	5	.082	3	.019	3	.006	1
756			min	-156.059	2	-26.262	3	-1.862	2	-.188	4	-.014	4	-.134	6
757		4	max	91.606	1	95.628	4	62.361	5	.082	3	.021	3	.006	1
758			min	-156.059	2	-26.262	3	-1.862	2	-.188	4	-.011	4	-.139	6
759		5	max	91.606	1	95.628	4	62.361	5	.082	3	.023	3	.005	1
760			min	-156.059	2	-26.262	3	-1.862	2	-.188	4	-.009	4	-.145	6
761	M78A	1	max	110.281	3	57.627	4	4	4	.33	6	.063	7	.048	3
762			min	-128.51	4	-57.823	3	-185.45	7	.035	1	.015	4	-.072	4
763		2	max	110.281	3	57.627	4	4	4	.33	6	.049	7	.052	3
764			min	-128.51	4	-57.823	3	-185.45	7	.035	1	.015	4	-.077	4
765		3	max	110.281	3	57.627	4	4	4	.33	6	.036	6	.057	3
766			min	-128.51	4	-57.823	3	-185.45	7	.035	1	.013	1	-.081	4
767		4	max	110.281	3	57.627	4	4	4	.33	6	.024	8	.061	3
768			min	-128.51	4	-57.823	3	-185.45	7	.035	1	.003	3	-.085	4

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
769		5	max	110.281	3	57.627	4	4	4	.33	6	.016	4	.065	3
770			min	-128.51	4	-57.823	3	-185.45	7	.035	1	-.007	3	-.09	4
771	M79A	1	max	89.763	4	86.913	3	102.599	4	.042	1	.021	3	.026	4
772			min	-154.013	3	-17.068	4	-47.592	3	-.148	2	-.023	4	-.126	7
773		2	max	89.763	4	86.913	3	102.599	4	.042	1	.017	3	.027	4
774			min	-154.013	3	-17.068	4	-47.592	3	-.148	2	-.016	4	-.132	7
775		3	max	89.763	4	86.913	3	102.599	4	.042	1	.014	3	.029	4
776			min	-154.013	3	-17.068	4	-47.592	3	-.148	2	-.008	4	-.138	7
777		4	max	89.763	4	86.913	3	102.599	4	.042	1	.013	5	.03	4
778			min	-154.013	3	-17.068	4	-47.592	3	-.148	2	0	4	-.144	7
779		5	max	89.763	4	86.913	3	102.599	4	.042	1	.018	8	.031	4
780			min	-154.013	3	-17.068	4	-47.592	3	-.148	2	.003	2	-.15	7
781	M80	1	max	3947.644	5	42.531	5	42.758	3	0	4	0	1	0	1
782			min	-619.958	2	-2.183	2	-42.758	4	0	3	0	1	0	1
783		2	max	3958.419	5	21.266	5	21.379	3	0	4	.039	3	.002	2
784			min	-603.743	2	-1.091	2	-21.379	4	0	3	-.039	4	-.038	5
785		3	max	3969.193	5	0	1	0	1	0	4	.051	3	.003	2
786			min	-587.528	2	0	1	0	1	0	3	-.051	4	-.051	5
787		4	max	3979.968	5	1.091	2	21.379	4	0	4	.039	3	.002	2
788			min	-571.313	2	-21.266	5	-21.379	3	0	3	-.039	4	-.038	5
789		5	max	3990.743	5	2.183	2	42.758	4	0	4	0	1	0	1
790			min	-555.099	2	-42.531	5	-42.758	3	0	3	0	1	0	1
791	M81	1	max	3853.921	8	42.662	8	34.089	1	0	3	0	1	0	1
792			min	-276.411	3	-2.542	3	-34.089	2	0	4	0	1	0	1
793		2	max	3864.614	8	21.331	8	17.044	1	0	3	.031	1	.002	3
794			min	-259.972	3	-1.271	3	-17.044	2	0	4	-.031	2	-.038	8
795		3	max	3875.307	8	0	1	0	1	0	3	.041	1	.003	3
796			min	-243.532	3	0	1	0	1	0	4	-.041	2	-.051	8
797		4	max	3886	8	1.271	3	17.044	2	0	3	.031	1	.002	3
798			min	-227.093	3	-21.331	8	-17.044	1	0	4	-.031	2	-.038	8
799		5	max	3896.693	8	2.542	3	34.089	2	0	3	0	1	0	1
800			min	-210.654	3	-42.662	8	-34.089	1	0	4	0	1	0	1
801	M82	1	max	3881.632	7	42.662	7	34.089	2	0	1	0	1	0	1
802			min	-348.132	4	-2.542	4	-34.089	1	0	2	0	1	0	1
803		2	max	3892.325	7	21.331	7	17.044	2	0	1	.031	2	.002	4
804			min	-331.693	4	-1.271	4	-17.044	1	0	2	-.031	1	-.038	7
805		3	max	3903.018	7	0	1	0	1	0	1	.041	2	.003	4
806			min	-315.253	4	0	1	0	1	0	2	-.041	1	-.051	7
807		4	max	3913.711	7	1.271	4	17.044	1	0	1	.031	2	.002	4
808			min	-298.814	4	-21.331	7	-17.044	2	0	2	-.031	1	-.038	7
809		5	max	3924.404	7	2.542	4	34.089	1	0	1	0	1	0	1
810			min	-282.375	4	-42.662	7	-34.089	2	0	2	0	1	0	1
811	M83	1	max	205.761	3	39.053	7	54.12	3	0	5	.004	1	.054	2
812			min	-1298.077	8	-2.089	4	-39.105	4	0	2	-.044	7	-.107	1
813		2	max	227.295	3	16.353	3	25.292	7	0	5	.057	3	.042	3
814			min	-1304.574	8	-13.042	4	-2.208	2	0	2	-.048	4	-.093	4
815		3	max	248.829	3	5.399	3	35.492	4	0	5	.069	3	.025	3
816			min	-1311.07	8	-29.405	8	-20.476	3	0	2	-.05	4	-.047	4
817		4	max	270.363	3	-5.555	3	72.79	4	0	5	.017	3	.063	4
818			min	-1317.567	8	-60.218	8	-57.775	3	0	2	-.017	4	-.026	3
819		5	max	291.897	3	-16.509	3	110.088	4	0	5	.05	4	.237	4
820			min	-1324.063	8	-91.031	8	-95.073	3	0	2	-.098	3	-.112	3
821	M83A	1	max	2303.969	2	32.063	1	39.605	3	0	6	0	1	0	1
822			min	-1092.564	1	-17.701	2	-39.605	4	0	1	0	1	0	1
823		2	max	2319.412	2	16.032	1	19.802	3	0	6	.037	1	.036	3
824			min	-1100.298	1	-8.851	2	-19.802	4	0	1	-.027	2	-.046	4
825		3	max	2334.855	2	0	1	0	1	0	6	.05	1	.048	3

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
826			min	-1108.032	1	0	1	0	1	0	1	-.036	2	-.061	4
827		4	max	2350.299	2	8.851	2	19.802	4	0	6	.037	1	.036	3
828			min	-1115.766	1	-16.032	1	-19.802	3	0	1	-.027	2	-.046	4
829		5	max	2365.742	2	17.701	2	39.605	4	0	6	0	1	0	1
830			min	-1123.499	1	-32.063	1	-39.605	3	0	1	0	1	0	1
831	M84	1	max	2140.023	4	32.063	2	39.604	3	0	2	0	1	0	1
832			min	-1015.685	3	-17.702	1	-39.604	4	0	1	0	1	0	1
833		2	max	2128.376	4	16.032	2	19.802	3	0	2	.046	3	.027	1
834			min	-1011.748	3	-8.851	1	-19.802	4	0	1	-.036	4	-.037	2
835		3	max	2116.729	4	0	1	0	1	0	2	.061	3	.036	1
836			min	-1007.81	3	0	1	0	1	0	1	-.047	4	-.05	2
837		4	max	2105.083	4	8.851	1	19.802	4	0	2	.046	3	.027	1
838			min	-1003.873	3	-16.032	2	-19.802	3	0	1	-.036	4	-.037	2
839		5	max	2093.436	4	17.702	1	39.604	4	0	2	0	1	0	1
840			min	-999.935	3	-32.063	2	-39.604	3	0	1	0	1	0	1
841	M85	1	max	239.004	4	40.369	5	84.344	4	0	6	.026	3	.09	3
842			min	-1309.732	7	-7.707	2	-69.274	3	0	1	-.055	4	-.143	4
843		2	max	217.47	4	21.982	1	47.046	4	0	6	.033	4	.053	1
844			min	-1303.236	7	-18.661	2	-31.976	3	0	1	-.024	3	-.104	2
845		3	max	195.936	4	11.029	1	26.614	2	0	6	.058	4	.024	1
846			min	-1296.739	7	-30.764	6	-11.585	1	0	1	-.039	3	-.046	2
847		4	max	174.402	4	.075	1	42.62	3	0	6	.025	1	.057	6
848			min	-1290.243	7	-61.577	6	-27.55	4	0	1	-.025	2	-.007	1
849		5	max	152.868	4	-10.879	1	79.918	3	0	6	.035	3	.198	6
850			min	-1283.746	7	-92.39	6	-64.848	4	0	1	-.086	8	-.039	1
851	M86	1	max	2047.289	3	32.063	2	39.604	4	0	1	0	1	0	1
852			min	-832.477	4	-17.702	1	-39.604	3	0	2	0	1	0	1
853		2	max	2058.936	3	16.032	2	19.802	4	0	1	.046	4	.027	1
854			min	-836.414	4	-8.851	1	-19.802	3	0	2	-.036	3	-.037	2
855		3	max	2070.582	3	0	1	0	1	0	1	.061	4	.036	1
856			min	-840.352	4	0	1	0	1	0	2	-.047	3	-.05	2
857		4	max	2082.229	3	8.851	1	19.802	3	0	1	.046	4	.027	1
858			min	-844.289	4	-16.032	2	-19.802	4	0	2	-.036	3	-.037	2
859		5	max	2093.876	3	17.702	1	39.604	3	0	1	0	1	0	1
860			min	-848.227	4	-32.063	2	-39.604	4	0	2	0	1	0	1
861	M87	1	max	2413.722	2	32.063	1	39.605	4	0	1	0	1	0	1
862			min	-1291.967	1	-17.701	2	-39.605	3	0	2	0	1	0	1
863		2	max	2398.279	2	16.032	1	19.802	4	0	1	.037	1	.036	4
864			min	-1284.233	1	-8.851	2	-19.802	3	0	2	-.027	2	-.046	3
865		3	max	2382.836	2	0	1	0	1	0	1	.05	1	.048	4
866			min	-1276.499	1	0	1	0	1	0	2	-.036	2	-.061	3
867		4	max	2367.393	2	8.851	2	19.802	3	0	1	.037	1	.036	4
868			min	-1268.765	1	-16.032	1	-19.802	4	0	2	-.027	2	-.046	3
869		5	max	2351.949	2	17.701	2	39.605	3	0	1	0	1	0	1
870			min	-1261.031	1	-32.063	1	-39.605	4	0	2	0	1	0	1
871	M88	1	max	301.314	2	40.168	8	96.578	2	0	3	.027	1	.059	4
872			min	-1320.461	5	-5.095	3	-81.559	1	0	4	-.056	2	-.112	3
873		2	max	301.314	2	19.342	4	46.846	2	0	3	.051	2	.036	4
874			min	-1320.461	5	-16.049	3	-31.827	1	0	4	-.042	1	-.088	3
875		3	max	301.314	2	8.388	4	22.19	5	0	3	.079	2	.028	4
876			min	-1320.461	5	-30.343	7	-2.886	2	0	4	-.06	1	-.049	3
877		4	max	301.314	2	-2.566	4	67.637	1	0	3	.033	4	.055	5
878			min	-1320.461	5	-61.156	7	-52.618	2	0	4	-.033	3	-.007	2
879		5	max	301.314	2	-13.52	4	117.37	1	0	3	.058	1	.21	5
880			min	-1320.461	5	-91.97	7	-102.35	2	0	4	-.105	2	-.079	2
881	M89	1	max	2214.445	1	33.226	3	48.643	2	0	4	0	1	0	1
882			min	-1000.665	2	-18.864	4	-48.643	1	0	3	0	1	0	1

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
883		2	max	2218.299	1	16.613	3	24.322	2	0	4	.04	2	.03	2
884			min	-996.81	2	-9.432	4	-24.322	1	0	3	-.03	1	-.04	1
885		3	max	2222.154	1	0	1	0	1	0	4	.054	2	.04	2
886			min	-992.956	2	0	1	0	1	0	3	-.04	1	-.054	1
887		4	max	2226.009	1	9.432	4	24.322	1	0	4	.04	2	.03	2
888			min	-989.101	2	-16.613	3	-24.322	2	0	3	-.03	1	-.04	1
889		5	max	2229.863	1	18.864	4	48.643	1	0	4	0	1	0	1
890			min	-985.246	2	-33.226	3	-48.643	2	0	3	0	1	0	1
891	M90	1	max	2211.521	1	33.226	4	48.643	2	0	4	0	1	0	1
892			min	-1087.293	2	-18.864	3	-48.643	1	0	3	0	1	0	1
893		2	max	2207.666	1	16.613	4	24.322	2	0	4	.04	2	.03	2
894			min	-1091.147	2	-9.432	3	-24.322	1	0	3	-.03	1	-.04	1
895		3	max	2203.811	1	0	1	0	1	0	4	.054	2	.04	2
896			min	-1095.002	2	0	1	0	1	0	3	-.04	1	-.054	1
897		4	max	2199.957	1	9.432	3	24.322	1	0	4	.04	2	.03	2
898			min	-1098.857	2	-16.613	4	-24.322	2	0	3	-.03	1	-.04	1
899		5	max	2196.102	1	18.864	3	48.643	1	0	4	0	1	0	1
900			min	-1102.711	2	-33.226	4	-48.643	2	0	3	0	1	0	1
901	M91	1	max	1577.655	5	27.094	3	-1016.107	2	.406	4	1.7	5	-.003	4
902			min	-146.85	2	-55.05	4	-5300.454	5	-.386	3	.216	2	-.017	7
903		2	max	1577.655	5	27.094	3	-1016.107	2	.406	4	1.369	5	0	4
904			min	-146.85	2	-55.05	4	-5300.454	5	-.386	3	.153	2	-.016	7
905		3	max	1577.655	5	27.094	3	-1016.107	2	.406	4	1.037	5	.004	4
906			min	-146.85	2	-55.05	4	-5300.454	5	-.386	3	.089	2	-.015	7
907		4	max	1577.655	5	27.094	3	-1016.107	2	.406	4	.706	5	.007	4
908			min	-146.85	2	-55.05	4	-5300.454	5	-.386	3	.026	2	-.016	3
909		5	max	1577.655	5	27.094	3	-1016.107	2	.406	4	.375	5	.011	4
910			min	-146.85	2	-55.05	4	-5300.454	5	-.386	3	-.038	2	-.017	3
911	M92	1	max	1541.009	8	-1205.892	3	2644.382	6	.273	2	-.186	3	-.301	3
912			min	-12.284	3	-4491.46	8	658.446	1	-.256	1	-.845	8	-1.435	8
913		2	max	1541.009	8	-1205.892	3	2644.382	6	.273	2	-.139	3	-.225	3
914			min	-12.284	3	-4491.46	8	658.446	1	-.256	1	-.681	8	-1.154	8
915		3	max	1541.009	8	-1205.892	3	2644.382	6	.273	2	-.093	3	-.15	3
916			min	-12.284	3	-4491.46	8	658.446	1	-.256	1	-.518	8	-.873	8
917		4	max	1541.009	8	-1205.892	3	2644.382	6	.273	2	-.046	3	-.075	3
918			min	-12.284	3	-4491.46	8	658.446	1	-.256	1	-.354	8	-.593	8
919		5	max	1541.009	8	-1205.892	3	2644.382	6	.273	2	0	3	0	3
920			min	-12.284	3	-4491.46	8	658.446	1	-.256	1	-.19	8	-.312	8
921	M93	1	max	1557.189	7	4619.129	7	2622.271	7	.375	1	-.13	4	1.48	7
922			min	-53.18	4	892.648	4	542.631	4	-.35	2	-.833	7	.205	4
923		2	max	1557.189	7	4619.129	7	2622.271	7	.375	1	-.096	4	1.191	7
924			min	-53.18	4	892.648	4	542.631	4	-.35	2	-.669	7	.149	4
925		3	max	1557.189	7	4619.129	7	2622.271	7	.375	1	-.062	4	.902	7
926			min	-53.18	4	892.648	4	542.631	4	-.35	2	-.505	7	.093	4
927		4	max	1557.189	7	4619.129	7	2622.271	7	.375	1	-.028	4	.614	7
928			min	-53.18	4	892.648	4	542.631	4	-.35	2	-.341	7	.038	4
929		5	max	1557.189	7	4619.129	7	2622.271	7	.375	1	.006	4	.325	7
930			min	-53.18	4	892.648	4	542.631	4	-.35	2	-.178	7	-.018	4

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[..	Dir	LC	phi*Pnc...	phi*Pnt...	phi*Mn...	phi*Mn...	Cb	Eqn
1	M23	PL1/2x6	.342	.476	3	.199	.466	y	7	84665.0..	97200	1.012	12.15	1..	H1-1b
2	M24	PL1/2x6	.345	.476	2	.196	.466	y	5	84665.0..	97200	1.012	12.15	1..	H1-1b
3	M25	PL1/2x6	.378	0	3	.194	.476	y	6	84665.0..	97200	1.012	12.15	1..	H1-1b
4	M10	HSS3X3X5	.451	0	3	.142	0	y	3	67901.6..	121716	10.005	10.005	2..	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[..	Dir	LC	phi*Pnc...	phi*Pnt...	phi*Mn...	phi*Mn...	Cb	Eqn
5	M33	HSS3X3X5	.422	0	2	.117	0	y	2	67901.6..	121716	10.005	10.005	2..	H1-1b
6	M1	PIPE_3.0	.292	9.771	2	.091	9.625		2	5172.804	65205	5.749	5.749	2..	H1-1a
7	M32	HSS3X3X5	.336	0	2	.090	0	y	1	67901.6..	121716	10.005	10.005	2..	H1-1b
8	M16	PIPE_3.0	.362	13.417	4	.085	9.625		4	5172.804	65205	5.749	5.749	3..	H1-1a
9	M8	PIPE_3.0	.348	.583	3	.078	9.625		3	5172.58	65205	5.749	5.749	2..	H1-1a
10	M76	PIPE_3.0	.172	6.563	7	.073	7.583		6	5172.804	78246	6.899	6.899	2..	H1-1b
11	M75	PIPE_3.0	.175	6.563	6	.072	7.583		8	5172.804	78246	6.899	6.899	2..	H1-1b
12	M26	PIPE_3.0	.171	6.563	8	.071	7.583		7	5172.804	78246	6.899	6.899	2..	H1-1b
13	M9	HSS3X3X5	.220	1.858	8	.052	.492	z	3	44588.7..	121716	10.005	10.005	1..	H1-1b
14	MP3B	PIPE_2.5	.173	.51	5	.052	.51		4	37613.1..	60858	4.316	4.316	2..	H1-1b
15	MP3A	PIPE_2.5	.201	4.229	4	.051	.51		2	37613.1..	60858	4.316	4.316	2..	H1-1b
16	M2	HSS3X3X5	.218	1.858	7	.048	.492	z	2	44585.74	121716	10.005	10.005	1..	H1-1b
17	MP3C	PIPE_2.5	.185	4.229	2	.046	4.229		2	37613.1..	60858	4.316	4.316	2..	H1-1b
18	MP1B	PIPE_2.0	.128	4.229	3	.036	4.229		3	19050.8..	38556	2.246	2.246	2..	H1-1b
19	MP1A	PIPE_2.0	.157	4.229	4	.036	4.229		3	19050.8..	38556	2.246	2.246	2..	H1-1b
20	MP5A	PIPE_2.0	.193	4.229	3	.035	4.229		3	19050.8..	38556	2.246	2.246	2..	H1-1b
21	MP4B	PIPE_2.0	.170	4.229	2	.035	4.229		2	19050.8..	38556	2.246	2.246	2..	H1-1b
22	MP4A	PIPE_2.0	.196	4.229	3	.034	4.229		3	19050.8..	38556	2.246	2.246	2..	H1-1b
23	M17	HSS3X3X5	.221	1.858	6	.033	.492	z	4	44588.71	121716	10.005	10.005	1..	H1-1b
24	MP5C	PIPE_2.0	.178	4.229	5	.031	4.229		1	19050.8..	38556	2.246	2.246	2..	H1-1b
25	MP1C	PIPE_2.0	.147	4.229	2	.031	4.229		2	19050.8..	38556	2.246	2.246	2..	H1-1b
26	MP4C	PIPE_2.0	.160	4.229	1	.029	4.229		4	19050.8..	38556	2.246	2.246	2..	H1-1b
27	MP5B	PIPE_2.0	.185	4.229	6	.027	4.229		2	19050.8..	38556	2.246	2.246	2..	H1-1b
28	MP2A	PIPE_2.0	.178	4.229	4	.025	4.229		4	19050.8..	38556	2.246	2.246	2..	H1-1b
29	M11	L2.5x1.5x4	.238	3.035	6	.023	3.035	y	7	23042.5..	30682.8	.461	1.597	2..	H2-1
30	M3	L2.5x1.5x4	.244	3.035	5	.023	3.035	y	6	23042.3..	30682.8	.461	1.597	2..	H2-1
31	M18	L2.5x1.5x4	.246	3.035	7	.022	3.035	y	5	23042.3..	30682.8	.461	1.597	2..	H2-1
32	MP2B	PIPE_2.0	.141	4.229	3	.022	4.229		3	19050.8..	38556	2.246	2.246	2..	H1-1b
33	MP2C	PIPE_2.0	.169	4.229	2	.020	4.229		2	19050.8..	38556	2.246	2.246	2..	H1-1b
34	M79	L3X3X4	.217	0	3	.020	.02	z	3	42835.4..	46656	1.688	3.756	1..	H2-1
35	M78	L3X3X4	.205	0	2	.018	0	z	2	42836.8	46656	1.688	3.756	1..	H2-1
36	M77	L3X3X4	.155	0	1	.017	1.964	z	1	42835.5..	46656	1.688	3.756	1..	H2-1
37	M15	L2.5x1.5x4	.210	3.035	5	.017	0	y	1	23042.8..	30682.8	.461	1.597	2..	H2-1
38	M22	L2.5x1.5x4	.214	3.035	8	.016	0	y	4	23042.32	30682.8	.461	1.597	2..	H2-1
39	M7	L2.5x1.5x4	.213	3.035	6	.015	3.035	z	6	23042.3..	30682.8	.461	1.597	2..	H2-1
40	M88	L3X3X4	.123	7.452	7	.009	7.452	y	7	13923.0..	46656	1.688	3.568	2..	H2-1
41	M85	L3X3X4	.124	7.452	6	.009	7.452	y	6	13923.8..	46656	1.688	3.587	2..	H2-1
42	M83	L3X3X4	.120	7.452	4	.009	7.452	y	5	13923.7..	46656	1.688	3.608	2..	H2-1
43	M90	L2x2x4	.393	2.733	1	.009	5.466	y	4	7422.672	30585.6	.691	1.413	1..	H2-1
44	M87	L2x2x4	.375	2.619	2	.007	0	y	1	7422.672	30585.6	.691	1.413	1..	H2-1
45	M84	L2x2x4	.374	2.676	4	.007	5.466	y	2	7423.019	30585.6	.691	1.413	1..	H2-1
46	M89	L2x2x4	.396	2.733	1	.006	5.466	y	4	7422.618	30585.6	.691	1.413	1..	H2-1
47	M83A	L2x2x4	.368	2.847	2	.006	0	z	3	7422.618	30585.6	.691	1.413	1..	H2-1
48	M86	L2x2x4	.368	2.79	3	.005	0	z	1	7423.019	30585.6	.691	1.413	1..	H2-1
49	M81	LL2x2x4x0	.103	4.805	8	.004	0	y	4	37965.5..	61236	2.894	2.114	1..	H1-1b*
50	M82	LL2x2x4x0	.103	4.805	7	.004	0	z	2	37965.5..	61236	2.894	2.114	1..	H1-1b*
51	M80	LL2x2x4x0	.105	4.805	5	.003	4.805	z	3	37965.5..	61236	2.894	2.114	1	H1-1b*

Envelope AISI S100-10: LRFD Cold Formed Steel Code Checks

Member	Shape	Code ...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pn[lb]	phi*Tn[lb]	phi*Mny...	phi*Mnz...	Cb	Cmyy	Cmzz	Eqn
No Data to Print ...																

Envelope AA ADM1-10: ASD - Building Aluminum Code Checks

Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	Pnc/O...	Pnt/Om...	Mny/O...	Mnz/O...	Vny/O...	Vnz/O...	Cb	Eqn
No Data to Print ...																

Wood Wall Panel Parameters

	Label	Top Plate	Sill Plate	Studs	Min Stud Sp...	Max Stud Sp...	Green Lumb...	Header Size	Header Matl
1	Typical	2-2X6	2X6	2X6	16	16		6x8	Same as Wall

Additional Wood Wall Panel Parameters

	Label	Schedule	Min. Pan...	Max. Pan...	Double Si...	Max. Nail ...	Min. Nail ...	HD Chords	HD Chord...	Hold Down	Eccent...
1	Typical	IBC2012 Pan...	.375	.75	Optimum	6-in.	2-in.	2-2X6	Same as ...	SIMPSON Cat...	Yes

EXHIBIT 10

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: CTNH848A

133 Coppermine Road
Oxford, Connecticut 06478

February 23, 2021

EBI Project Number: 6221000654

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**11.90%**

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

February 23, 2021

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

Emissions Analysis for Site: CTNH848A

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **133 Coppermine Road** in **Oxford, 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 133 Coppermine Road in Oxford, 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) 4 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

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

8) 1 NR channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 120 Watts.

9) 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.

10) 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.

11) The antennas used in this modeling are the Ericsson AIR 32 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector A, the Ericsson AIR 32 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector B, the Ericsson AIR 32 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 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.

12) The antenna mounting height centerline of the proposed antennas is 168 feet above ground level (AGL).

13) 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.

14) 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 32	Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32
Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz
Gain:	15.35 dBd / 15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.35 dBd / 15.85 dBd
Height (AGL):	168 feet	Height (AGL):	168 feet	Height (AGL):	168 feet
Channel Count:	8	Channel Count:	8	Channel Count:	8
Total TX Power (W):	360 Watts	Total TX Power (W):	360 Watts	Total TX Power (W):	360 Watts
ERP (W):	12,841.53	ERP (W):	12,841.53	ERP (W):	12,841.53
Antenna A1 MPE %:	**1.64%**	Antenna B1 MPE %:	**1.64%**	Antenna C1 MPE %:	**1.64%**
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	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd
Height (AGL):	168 feet	Height (AGL):	168 feet	Height (AGL):	168 feet
Channel Count:	7	Channel Count:	7	Channel Count:	7
Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts
ERP (W):	8,360.85	ERP (W):	8,360.85	ERP (W):	8,360.85
Antenna A2 MPE %:	**1.79%**	Antenna B2 MPE %:	**1.79%**	Antenna C2 MPE %:	**1.79%**
Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449
Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz
Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd
Height (AGL):	168 feet	Height (AGL):	168 feet	Height (AGL):	168 feet
Channel Count:	2	Channel Count:	2	Channel Count:	2
Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts
ERP (W):	38,477.89	ERP (W):	38,477.89	ERP (W):	38,477.89
Antenna A3 MPE %:	**4.90%**	Antenna B3 MPE %:	**4.90%**	Antenna C3 MPE %:	**4.90%**

Site Composite MPE %	
Carrier	**MPE %**
T-Mobile (Max at Sector A):	8.33%
Nextel	0.19%
Sprint	0.28%
AT&T	1.69%
Verizon	1.41%
Site Total MPE % :	11.90%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	8.33%
T-Mobile Sector B Total:	8.33%
T-Mobile Sector C Total:	8.33%
Site Total MPE % :	11.90%

T-Mobile Maximum MPE Power Values (Sector A)

T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 1900 MHz GSM	4	1028.30	168.0	5.24	1900 MHz GSM	1000	0.52%
T-Mobile 1900 MHz LTE	2	2056.61	168.0	5.24	1900 MHz LTE	1000	0.52%
T-Mobile 2100 MHz LTE	2	2307.55	168.0	5.88	2100 MHz LTE	1000	0.59%
T-Mobile 600 MHz LTE	2	591.73	168.0	1.51	600 MHz LTE	400	0.38%
T-Mobile 600 MHz NR	1	1577.94	168.0	2.01	600 MHz NR	400	0.50%
T-Mobile 700 MHz LTE	2	695.22	168.0	1.77	700 MHz LTE	467	0.38%
T-Mobile 1900 MHz LTE	2	2104.51	168.0	5.36	1900 MHz LTE	1000	0.54%
T-Mobile 2500 MHz LTE	1	19238.94	168.0	24.51	2500 MHz LTE	1000	2.45%
T-Mobile 2500 MHz NR	1	19238.94	168.0	24.51	2500 MHz NR	1000	2.45%
						Total:	**8.33%**

• 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:	8.33%
Sector B:	8.33%
Sector C:	8.33%
T-Mobile Maximum MPE % (Sector A):	8.33%
Site Total:	11.90%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **11.90%** 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.