



July 28, 2017

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

Re: Notice of Exempt Modification – Antenna Swap
Property Address: 130 East Side Blvd Naugatuck, Ct AKA Clark Hill Rd.
Applicant: AT&T Mobility, LLC

Dear Ms. Bachman:

On behalf of AT&T, please accept this application as notification pursuant to R.C.S.A. §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16-50j-72(b) (2).

AT&T currently maintains a wireless telecommunications facility consisting of nine (9) wireless telecommunication antennas at an antenna center line height of 156-feet on an existing 276 – guyed tower, owned by WTIC TV FOX 61 / 20 INC. C/O Tribune Broadcasting Hartford, LLC 285 BROAD STREET HARTFORD, CT 06115 and located at 130 East Side Blvd. AKA 0 Clark Hill Rd Naugatuck, CT 06770. AT&T now intends to REPLACE (6) EXISTING ANTENNAS, (1) PER SECTOR with (6) NEW ANTENNAS (1) PER SECTOR. AT&T also plans to add (6) new RRUs, (12) TRIPLEXERS, (1) SQUID, (1) FIBER CABLES, and (2) DC POWER CABLES.

This facility was approved at the Zoning Commission meeting held on: Wednesday July 7th, 1991 for a certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of telecommunications antennas, associated equipment, and building to provide Domestic Public Cellular radio Telecommunication service in the Connecticut- New England area. SEE ATTACHED

The following is a list of subsequent decisions:

EM-CING-088-050616 – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 103 East Side Boulevard, **Naugatuck**, Connecticut.

EM-CING-088-130109 - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 103 Eastside Boulevard, **Naugatuck**, Connecticut.

EM-CING-088-130802 - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 103 Eastside Boulevard, **Naugatuck**, Connecticut.



Please accept this letter pursuant to Regulation of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-510j-72(b) (2). In accordance with R.C.S.A., a copy of this letter is being sent to Mayor: N. Warren "Pete" Hess III and Town Planner/ZEO/WEO, Sue Goggin Registry Land Use Office Borough of Naugatuck Town Hall 229 Church St Naugatuck, CT 06770. A copy of this letter is also being sent to Tower/Land Owner- Tribune Broadcasting Hartford, LLC 285 Broad St Hartford, CT 06115

The planned modifications to AT&T's 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 tower. AT&T's replacement antennas will be installed at the 156-foot level of the 276-guyed tower.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore, will not require and extension of the site boundary.
3. The proposed modifications will not increase the noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative worst-case RF emissions calculation for AT&T's modified facility is provided in the RF Emissions Compliance Report, included in Tab 2.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The tower and its foundation can support AT&T's proposed modifications. (See Structural Analysis Report included in Tab 3).

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

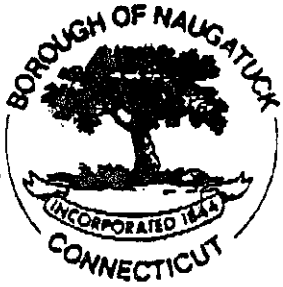
Sincerely,

David Barbagallo

Enclosures:

| Mayor: N. Warren "Pete" Hess III
Town Planner/ZEO/WEO, Sue Goggin
Tower/Land Owner Tribune Broadcasting Hartford LLC

85 Range way Rd Bldg. #3 Suite 102 North Billerica | MA 01862-2105



BOROUGH OF NAUGATUCK

INLAND WETLANDS COMMISSION
PLANNING COMMISSION
ZONING BOARD OF APPEALS
ZONING COMMISSION

LAND USE OFFICE
213 CHURCH STREET
NAUGATUCK, CT 06770
203/729-4571

I HEREBY CERTIFY THAT Channel 20, Inc. owner of record
(owners address) 414 Meadow Street, Waterbury CT 06702, filed an
application pursuant to Section 32 of the Zoning Regulations of
the Borough of Naugatuck for a SPECIAL PERMIT for property at
described in the attached Schedule A, which was APPROVED
AT THE MEETING OF THE ZONING COMMISSION HELD ON:

Wednesday, July 17, 1991
DAY DATE

FOR THE PURPOSE OF: Erecting and operating a transmission and communication
tower with an overall height of 281 feet, with supporting anchors and
guy wires.

SIGNED: Robert Wagner (cfm)
Zoning Commission Chairman

Michael Moenile
Zoning Enforcement Officer

This action shall be filed with the Town Clerk on the Land Records of the Town as required by Section 8-3c(b) of the State Statutes.

SCHEDULE A

All that certain piece or parcel of land situated on the southerly side of East Side Boulevard in the City of Waterbury and in the Borough of Naugatuck, County of New Haven and State of Connecticut, bounded and described as follows:

Beginning at a point in the southerly line of East Side Boulevard in the City of Waterbury, Connecticut at the north-easterly corner of a parcel designated as a 50' R.O.W. on a map entitled "Subdivision of Peach Orchard Estates, Section Four, Waterbury, Conn., August, 1972, Scale: 1"=50'", recorded in Map Drawer IV, Page 386 of Waterbury Land Records, said 50' R.O.W. being located easterly of Lot #107 as shown on said Map, thence running easterly in the southerly line of East Side Boulevard and in a line curving to the left having a radius of 110.26 feet, a distance of 50.00 feet to land now or formerly of L & M Builders, Incorporated, thence running in line of land now or formerly of L & M Builder, Incorporated S 2°43'42W and crossing the Waterbury-Naugatuck Town Line from Waterbury 15.17feet into Naugatuck S 1° 19' 46" E, 125.00 feet, thence continuing in line of land now or formerly of L & M Builders, Incorporated S 87° 32' 18" E, 100.22 feet to The Naugatuck-Prospect Town Line and land now or formerly of George and Jennie Nardozza, thence running in line of land now or formerly of George and Jennie Nardozza, land now or formerly of Mary F. Raynor, land now or formerly of Grace M. Perun, land now or formerly of Thomas Bros., Inc., and land now or formerly of Philip J. Langdo S 1° 19' 46" E, 821.13 feet to land now or formerly of Estate of Stanley J. Lucas, the last described line being the Naugatuck-Prospect Town Line, thence running in line of land now or formerly of Estate of Stanley J. Lucas N 73° 32' 16" W, 181.07 feet, N 70° 15' 58" W, 117.30 feet, and N 69° 28' 34" W, 130.68 feet, N 57° 19' 46" W, 94.73 feet, N 71° 30' 34" W, 73.64 feet, and N 80° 52' 16" W, 45.91 feet to a point, thence running in line of remaining land of Francis M. McWeeney, Jr., N 1° 19' 46" W, 200.00 feet, N 88° 40' 14" E, 266.87 feet, N 1° 19' 46" W, 516.79 feet to Lot #107 as shown on a map entitled "Subdivision of Peach Orchard Estates Section Four", thence running in line of said lot #107 and a 50' wide Right of Way S 87° 32' 18" E, 165.00 feet, the last described line being the Naugatuck-Waterbury Town Line, thence running in the easterly line of a 50' wide Right of Way N 30° 36' 32" E, 31.53 feet to East Side Boulevard and the point of beginning. Bounded:

- Northerly - by Lot #107 "Peach Orchard Estates Section Four", a 50' wide Right of Way, East Side Boulevard, and land now or formerly of L & M Builders, Incorporated;
- Easterly - by land now or formerly of George & Jennie Nardozza, land now or formerly of Mary F. Raynor, land now or formerly of Grace M. Perun, land now or formerly of Thomas Bros. Inc., and land now or formerly of Philip J. Langdo;
- Southerly - by land now or formerly of Estate of Stanley J. Lucas;
- Westerly - by land now or formerly of Francis M. McWeeney, Jr.

Being a portion of the premises conveyed to Francis M. McWeeney, Jr., by L & M Builders, Incorporated a/k/a L & M Builders, Inc. by Quit-Claim Deed dated and recorded December 11, 1973 in Volume 1122, Page 152 of the Waterbury Land Records and in Volume 180, Page 27 of the Naugatuck Land Records.

SCHEDULE A
(continued)

Together with a right of way over area designated at 50' R.O.W. on map of "Subdivision of Peach Orchard Estates Section Four, Waterbury, Conn., August, 1972, Scale: 1"=50'", recorded in Drawer IV, Page 386, Waterbury Land Records, said right of way being located easterly of Lot #107 as shown on said Map and running southerly from East Side Boulevard to the Waterbury-Naugatuck Town Line as described in Volume 1121, Pages 011 and 012 of Waterbury Land Records.

Together with an easement and right of way through, over, under and across (a) the remaining land owned by Francis M. McWeeney, Jr. located northerly of the Waterbury town line and lying between said town line and the southerly line of East Side Boulevard, as shown on a map entitled "Map of Land of Thomas Bros., Inc. Prospect, Conn. The A. J. Patton Co., Surveyor, Waterbury, Conn. June 15, 1979 Scale: 1" = 40' Additions Oct. 21, 1980" (the "Map"), and (b) the remaining land of Francis M. McWeeney, Jr. located in the Town of Naugatuck, bounded northerly by the Waterbury town line, westerly and southerly by the Premises and easterly by land N/F of Grace M. Franco, as shown on said Map, to use said lands for all purposes customarily made of a public highway, including, without limiting the generality of the foregoing, the right to pass and repass on foot or in vehicles, to enter upon, travel and transport materials over and upon said lands and, if necessary or convenient, in connection therewith, the right to grade, excavate, fill or otherwise improve said lands, said easement and right of way to terminate upon the completion of the construction of a television tower and station upon the Premises.

Together with a permanent easement and right of way sufficient in width to satisfy town road specifications for the zone district in which the remaining land of Francis M. McWeeney, Jr. (as defined herein and hereinafter referred to as the "Remaining Property") is located, said easement to begin at a point in the westerly boundary of the Premises and running therefrom generally westerly through, over, under and across the Remaining Property to any future public highway constructed on or which adjoins or benefits the Remaining Property, to use said land for all purposes customarily made of a public highway, including without limiting the generality of the foregoing, the right to lay, install and maintain sewer, water and storm water lines therein, the right to pass and repass on foot or in vehicles, and, if necessary or convenient, in connection therewith, the right to grade, excavate, fill or otherwise improve said right of way. Said easement and right of way shall be located in such area as Francis M. McWeeney, Jr. or his successor shall determine; provided, however, that said easement and right shall be subject to the approval of the Naugatuck Economic Development Commission.

Exhibit C



BOROUGH OF NAUGATUCK

ZONING PERMIT

PERMIT NO. _____

DATE June 18 19 91

PERMISSION TO: (BUILD) ~~(MAKE ALTERATIONS)~~ ~~(BUILD ON ADDITION)~~

A ~~FAVOR~~ ~~OWNERS~~ ~~OR~~ ~~OTHER~~ transmission tower 281 feet high

DESCRIPTION OF PREMISES: ZONING PDD-8/ICC VALUE \$70,000

Northeast corner of Naugatuck, at rear of William C. Rado Sr. Drive
and Industrial Park, bordering Town of Prospect and City of Waterbury;

Tax Map 354 C, Block 20E138, Lot A.

FEE 35⁰⁰

- ZONING
- PLANNING
- WETLAND--FLOOD PLAIN
- ZONING BOARD OF APPEALS
- HEALTH-LIQUID WASTE
- SEPTIC TANK

Granted, DATE _____

ZONING ENFORCEMENT OFFICER _____

APPLICANT: I hereby certify that the information contained herein is accurate.

Robert H. Hall

Signature of Applicant

Robert H. Hall, Attorney for Channel 20, Inc.

Name of Applicant (Print)

43 Main St., P.O. Box 395, Newtown, CT 06470

Address

426-8177

Telephone No.

THIS APPROVAL IS SUBJECT TO COMPLIANCE (PRIOR TO OCCUPANCY) WITH THE PROVISIONS OF THE ZONING REGULATIONS AND THE SUBDIVISION REGULATIONS OF THE BOROUGH OF NAUGATUCK (WHERE APPLICABLE) AND AS AUTHORIZED UNDER SECTION 8 OF THE CONNECTICUT GENERAL STATUTES, AS AMENDED. THIS PERMIT IS BASED UPON THE PLOT PLAN SUBMITTED. FALSIFICATION BY MISREPRESENTATION OR OMISSION SHALL CONSTITUTE A VIOLATION OF THE BOROUGH ZONING REGULATIONS.



Borough of Naugatuck, CT

Property Listing Report

Map Block Lot

K-20E138-A

Account

011-3060

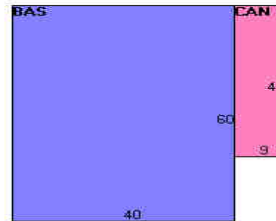
Property Information

Property Location	0 CLARK HILL RD
Owner	CHANNEL 20 INC C/O WTIC TV
Co-Owner	
Mailing Address	C/O EQUITY PROPERTY TAX GROUP CHICAGO IL 60606-6115
Land Use	4330 RAD/TV TR
Land Class	I
Zoning Code	
Census Tract	
Sub Lot	
Neighborhood	D
Acreage	7.9
Utilities	
Lot Setting/Desc	
Survey Map	
Additional Info	

Photo



Sketch



Primary Construction Details

Year Built	1980
Stories	1
Building Style	Transmit Bldg
Building Use	Ind/Comm
Building Condition	C
Floors	Concrete
Total Rooms	

Bedrooms	
Full Bathrooms	1
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	Gable
Roof Cover	Metal/Tin

Exterior Walls	Pre-finsh Metl
Interior Walls	Drywall
Heating Type	Forced Hot Air
Heating Fuel	Electric
AC Type	Central
Gross Bldg Area	2778
Total Living Area	2400



Borough of Naugatuck, CT

Property Listing Report

Map Block Lot

K-20E138-A

Account

011-3060

Valuation Summary (Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	279060	195340
Extras	0	0
Outbuildings	375690	262990
Land	219000	153300
Total	0	

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	2400	2400
Canopy	378	0
Total Area	2778	2400

Outbuilding and Extra Items

Type	Description
CELL BLDG	170 S.F.
CELL BLDG	360 S.F.
Fence 6 ft	500 L.F.
CELL BLDG	140 S.F.
CELL BLDG	264 S.F.
TV TOWER	280 HEIGHT
TV TOWER	980 HEIGHT

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
CHANNEL 20 INC C/O WTIC TV	328/ 466	3/3/1989	1800000

From: TrackingUpdates@fedex.com
To: [David Barbagallo](#)
Subject: FedEx Shipment 779753224112 Delivered
Date: Tuesday, August 01, 2017 12:59:20 PM

FedEx®

Your package has been delivered


Tracking # 779753224112

Ship date:
Fri, 7/28/2017

Dave Barbagallo
Smartlink LLC
KENSINGTON, CT 06037
US

Delivery date:
Tue, 8/1/2017 12:54 pm

Sue Goggin
Town Planner/ZEO/WEO
229 Church St Registry Land
Use Office Borough
NAUGATUCK, CT 06770
US

 **Delivered**

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	779753224112
Status:	Delivered: 08/01/2017 12:54 PM Signed for By: S.GOGGINS
Signed for by:	S.GOGGINS
Delivery location:	NAUGATUCK, CT
Delivered to:	Receptionist/Front Desk
Service type:	FedEx 2Day
Packaging type:	FedEx Pak
Number of pieces:	1
Weight:	1.00 lb.
Special handling/Services:	Deliver Weekday
Standard transit:	8/1/2017 by 4:30 pm

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 11:59 AM CDT on 08/01/2017.

All weights are estimated.

To track the latest status of your shipment, click on the tracking number above.

Standard transit is the date and time the package is scheduled to be delivered by, based on the selected service, destination and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

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Thank you for your business.

From: TrackingUpdates@fedex.com
To: [David Barbagallo](#)
Subject: FedEx Shipment 779753342180 Delivered
Date: Tuesday, August 01, 2017 9:13:40 AM

FedEx®

Your package has been delivered

Tracking # 779753342180

Ship date: Fri, 7/28/2017	Delivery date: Tue, 8/1/2017 9:11 am
Dave Barbagallo Smartlink LLC KENSINGTON, CT 06037 US	Dean Maluski Tribune Broadcasting Hartford, LLC 285 Broad St HARTFORD, CT 06115 US

 **Delivered**

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	779753342180
Status:	Delivered: 08/01/2017 09:11 AM Signed for By: C.WILLIAMS
Signed for by:	C.WILLIAMS
Delivery location:	HARTFORD, CT
Delivered to:	Receptionist/Front Desk
Service type:	FedEx 2Day
Packaging type:	FedEx Envelope
Number of pieces:	1
Weight:	0.50 lb.
Special handling/Services:	Deliver Weekday Residential Delivery
Standard transit:	8/1/2017 by 4:30 pm

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Thank you for your business.

From: TrackingUpdates@fedex.com
To: [David Barbagallo](mailto:David.Barbagallo)
Subject: FedEx Shipment 779759714558 Delivered
Date: Monday, July 31, 2017 12:41:21 PM


FedEx®

Your package has been delivered

Tracking # 779759714558

Ship date:
Fri, 7/28/2017

Dave Barbagallo
Smartlink LLC
KENSINGTON, CT 06037
US


Delivered

Delivery date:
Mon, 7/31/2017 11:16 am

Mayor N. Warren Hess III
Town of Naugatuck
229 Church St. Town Hall
NAUGATUCK, CT 06770
US

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	779759714558
Status:	Delivered: 07/31/2017 11:16 AM Signed for By: J.DAMBOWSSKY
Signed for by:	J.DAMBOWSSKY
Delivery location:	NAUGATUCK, CT
Delivered to:	Receptionist/Front Desk
Service type:	FedEx 2Day
Packaging type:	FedEx Pak
Number of pieces:	1
Weight:	1.00 lb.
Special handling/Services:	Deliver Weekday
Standard transit:	8/1/2017 by 4:30 pm

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Standard transit is the date and time the package is scheduled to be delivered by, based on the selected service, destination and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

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Thank you for your business.



PROJECT: LTE 3C / MULTI CARRIER
SITE NUMBER: CTL02056
FA NUMBER: 10050930
PTN NUMBER: 2051A066KF
PACE NUMBER: MRCTB018361 / MRCTB018819
SITE NAME: NAUGATUCK EAST BLVD ROAD
SITE ADDRESS: 130 EAST SIDE BLVD.
 NAUGATUCK, CT



PROJECT INFORMATION

SITE NAME: NAUGATUCK EAST BLVD ROAD
SITE NUMBER: CTL02056
SITE ADDRESS: 130 EAST SIDE BLVD. NAUGATUCK, CT 10050930
FA NUMBER: 2051A066KF
PTN NUMBER: MRCTB018361 / MRCTB018819
USID NUMBER: 82711

APPLICANT: AT&T WIRELESS
 550 COCHITUATE ROAD SUITE 550 13 AND 14 FRAMINGHAM, MA 01701

OWNER: WTIC TV FOX 61
 285 BROAD STREET HARTFORD, CT 06115

JURISDICTION: NAUGATUCK, CT
COUNTY: NEW HAVEN (RFDS)
SITE COORDINATES FROM: 41.51777°
LATITUDE: -73.01861°
LONGITUDE: 758'
GROUND ELEV.: TELECOMMUNICATIONS FACILITY
PROPOSED USE:

AT&T RF MANAGER: CAMERON SYME
PHONE: (508) 596-7146
EMAIL: cs6970@att.com

SCOPE OF WORK

LTE WCS/BWE WILL BE 3C AT THE SITE WITH BRONZE CONFIGURATION / MULTI CARRIER. PROPOSED 3C/BWE PROJECT SCOPE HEREIN BASED ON RFDS ID # 1113722, VERSION 1.00 LAST UPDATED 03/23/16 & RFDS ID # 1166205, VERSION 1.00 LAST UPDATED 04/15/16.

- (6) NEW ANTENNAS TO REPLACE (6) EXISTING ANTENNAS
- (3) NEW RRUS-32
- (3) NEW RRUS-32 B2
- (12) NEW TRIPLEXERS
- (1) NEW DC-6 FIBER SQUID
- (1) FIBER CABLE AND (2) DC POWER CABLES
- (1) NEW LTE DUS
- (1) NEW EMERSON POWER PLANT
- CONTRACTOR SHALL FURNISH ALL MATERIAL WITH THE EXCEPTION OF AT&T SUPPLIED MATERIAL.
- ALL MATERIAL SHALL BE INSTALLED BY THE CONTRACTOR, UNLESS STATED OTHERWISE.

APPLICABLE BUILDING CODES AND STANDARDS

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.

BUILDING CODE: 2012 INTERNATIONAL BUILDING CODE
 2016 CONNECTICUT STATE BUILDING CODE SUPPLEMENT

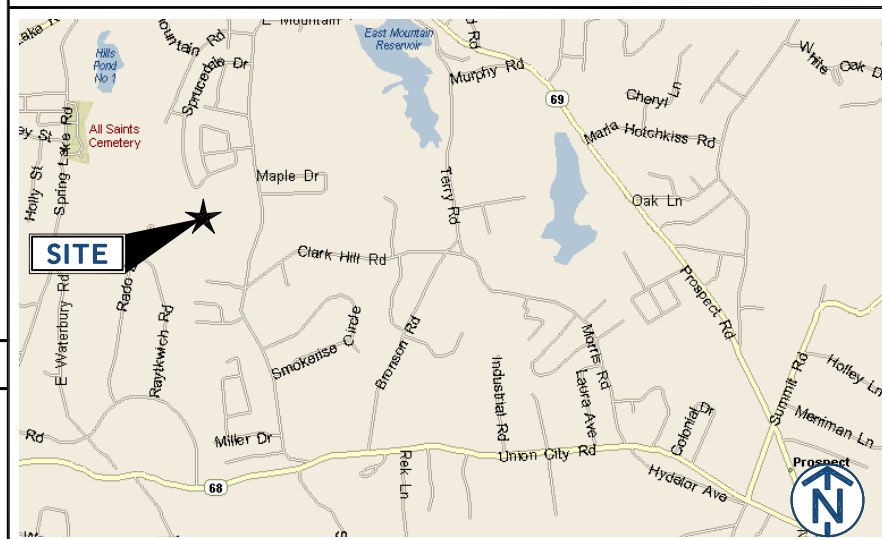
ELECTRICAL CODE: 2014 NATIONAL ELECTRIC CODE

- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
- ADA ACCESS REQUIREMENTS ARE NOT REQUIRED.
- THIS FACILITY DOES NOT REQUIRE POTABLE WATER AND WILL NOT PRODUCE ANY SEWAGE

REV	DATE	DESCRIPTION	BY
0	08/19/16	90% REVIEW	VV
1	08/30/16	FOR PERMIT	KC
2	11/01/16	FOUNDATION MOD DESIGN	EB
3	07/25/17	REVISION	MD

I HEREBY CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE CODES.

SITE LOCATION MAP



DIRECTIONS

SCAN QR CODE FOR LINK TO SITE LOCATION MAP



DRAWING INDEX

TITLE	DESCRIPTION
T1	TITLE SHEET
SP1	NOTES AND SPECIFICATIONS
SP2	NOTES AND SPECIFICATIONS
A1	COMPOUND PLAN
A2	EQUIPMENT PLAN
A3	ELEVATIONS
A4	ANTENNA PLANS
A5	EQUIPMENT DETAILS
A6	ANTENNA & CABLE CONFIGURATION
A7	CABLE NOTES AND COLOR CODING
A8	GROUNDING DETAILS
S1	STRUCTURAL NOTES
S2	FOUNDATION MODIFICATION DETAILS

PROJECT CONSULTANTS

PROJECT MANAGER: SMARTLINK
 85 RANGEWAY ROAD, SUITE 102 NORTH BILLERICA, MA 01862
CONTACT: RYAN BURGENDORFER (508) 665-8005
EMAIL: Ryan.Burgdorfer@Smartlinkllc.com

SITE ACQUISITION: SMARTLINK
 85 RANGEWAY ROAD, SUITE 102 NORTH BILLERICA, MA 01862
CONTACT: SHARON KEEFE (978) 930-3918
EMAIL: Sharon.Keefe@Smartlinkllc.com

ENGINEER/ARCHITECT: FULLERTON ENGINEERING
 1100 E. WOODFIELD ROAD, SUITE 500 SCHAUMBURG, IL 60173
CONTACT: MILEN DIMITROV (847) 908-8439
EMAIL: MDimitrov@fullertonengineering.com

CONSTRUCTION: SMARTLINK
 85 RANGEWAY ROAD, SUITE 102 NORTH BILLERICA, MA 01862
CONTACT: MARK DONNELLY (617) 515-2080
EMAIL: mark.donnelly@smartlinkllc.com

SITE NAME
NAUGATUCK EAST BLVD ROAD

SITE NUMBER:
CTL02056

SITE ADDRESS
130 EAST SIDE BLVD. NAUGATUCK, CT

SHEET NAME
TITLE SHEET

SHEET NUMBER
T1



NOTE: DRAWING SCALES ARE FOR 11"x17" SHEETS UNLESS OTHERWISE NOTED

THESE DRAWINGS ARE THE PROPERTY OF FULLERTON ENGINEERING CONSULTANTS, INC. IT IS FOR THE EXCLUSIVE USE OF THIS PROJECT. ANY RE-USE OF THIS DRAWING WITHOUT THE EXPRESSED WRITTEN CONSENT OF FULLERTON ENGINEERING CONSULTANTS, INC. IS PROHIBITED.

GENERAL CONSTRUCTION

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR/CM – SMARTLINK
OWNER – AT&T WIRELESS
2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND AT&T PROJECT SPECIFICATIONS.
3. GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
10. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFIRM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
11. GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
12. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
13. SEAL PENETRATIONS THROUGH FIRE RATED AREAS WITH UL LISTED MATERIALS APPROVED BY LOCAL JURISDICTION. CONTRACTOR SHALL KEEP AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS.
14. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
15. CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
16. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
17. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
18. GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
19. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.

20. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
21. THE GENERAL CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A OT 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
22. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.
23. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
24. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
25. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL.
26. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUNDING. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
27. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
28. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
29. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
30. CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
31. CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
32. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITAT (NO HANDICAP ACCESS REQUIRED).
33. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
34. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED.
35. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST REVISION AT&T MOBILITY GROUNDING STANDARD "TECHNICAL SPECIFICATION FOR CONSTRUCTION OF GSM/GPRS WIRELESS SITES" AND "TECHNICAL SPECIFICATION FOR FACILITY GROUNDING". IN CASE OF A CONFLICT BETWEEN THE CONSTRUCTION SPECIFICATION AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
36. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION, IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
37. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
38. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
39. NO WHITE STROBE LIGHTS ARE PERMITTED. LIGHTING IF REQUIRED, WILL MEET FAA STANDARDS AND REQUIREMENTS.

ANTENNA MOUNTING

40. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANS/TIA-222 OR APPLICABLE LOCAL CODES.

41. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS NOTED OTHERWISE.
 42. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS NOTED OTHERWISE.
 43. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
 44. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH LOCK NUTS, DOUBLE NUTS AND SHALL BE TORQUED TO MANUFACTURER'S RECOMMENDATIONS.
 45. CONTRACTOR SHALL INSTALL ANTENNA PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION AND GROUNDING.
 46. ALL UNUSED PORTS ON ANY ANTENNAS SHALL BE TERMINATED WITH A 50-OHM LOAD TO ENSURE ANTENNAS PERFORM AS DESIGNED.
 47. PRIOR TO SETTING ANTENNA AZIMUTHS AND DOWNTILTS, ANTENNA CONTRACTOR SHALL CHECK THE ANTENNA MOUNT FOR TIGHTNESS AND ENSURE THAT THEY ARE PLUMB. ANTENNA AZIMUTHS SHALL BE SET FROM TRUE NORTH AND BE ORIENTED WITHIN +/- 5% AS DEFINED BY THE RFDS. ANTENNA DOWNTILTS SHALL BE WITHIN +/- 0.5% AS DEFINED BY THE RFDS. REFER TO ND-00246.
 48. JUMPERS FROM THE TMA'S MUST TERMINATE TO OPPOSITE POLARIZATION'S IN EACH SECTOR.
 49. CONTRACTOR SHALL RECORD THE SERIAL #, SECTOR, AND POSITION OF EACH ACTUATOR INSTALLED AT THE ANTENNAS AND PROVIDE THE INFORMATION TO AT&T.
 50. TMA'S SHALL BE MOUNTED ON PIPE DIRECTLY BEHIND ANTENNAS AS CLOSE TO ANTENNA AS FEASIBLE IN A VERTICAL POSITION.
- TORQUE REQUIREMENTS
51. ALL RF CONNECTIONS SHALL BE TIGHTENED BY A TORQUE WRENCH.
 52. ALL RF CONNECTIONS, GROUNDING HARDWARE AND ANTENNA HARDWARE SHALL HAVE A TORQUE MARK INSTALLED IN A CONTINUOUS STRAIGHT LINE FROM BOTH SIDES OF THE CONNECTION.
 - A. RF CONNECTION BOTH SIDES OF THE CONNECTOR.
 - B. GROUNDING AND ANTENNA HARDWARE ON THE NUT SIDE STARTING FROM THE THREADS TO THE SOLID SURFACE. EXAMPLE OF SOLID SURFACE: GROUND BAR, ANTENNA BRACKET METAL.
- FIBER & POWER CABLE MOUNTING
53. THE FIBER OPTIC TRUNK CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY. WHEN INSTALLING FIBER OPTIC TRUNK CABLES INTO A CABLE TRAY SYSTEM, THEY SHALL BE INSTALLED INTO AN INTER DUCT AND A PARTITION BARRIER SHALL BE INSTALLED BETWEEN THE 600 VOLT CABLES AND THE INTER DUCT IN ORDER TO SEGREGATE CABLE TYPES. OPTIC FIBER TRUNK CABLES SHALL HAVE APPROVED CABLE RESTRAINTS EVERY (60) SIXTY FEET AND SECURELY FASTENED TO THE CABLE TRAY SYSTEM. NFPA 70 (NEC) ARTICLE 770 RULES SHALL APPLY.
 54. THE TYPE TC-ER CABLES SHALL BE INSTALLED INTO CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY AND SHALL BE SECURED AT INTERVALS NOT EXCEEDING (6) SIX FEET. AN EXCEPTION; WHERE TYPE TC-ER CABLES ARE NOT SUBJECT TO PHYSICAL DAMAGE, CABLES SHALL BE PERMITTED TO MAKE A TRANSITION BETWEEN CONDUITS, CHANNEL CABLE TRAYS, OR CABLE TRAY WHICH ARE SERVING UTILIZATION EQUIPMENT OR DEVICES, A DISTANCE (6) SIX FEET SHALL NOT BE EXCEEDED WITHOUT CONTINUOUS SUPPORTING. NFPA 70 (NEC) ARTICLES 336 AND 392 RULES SHALL APPLY.
 55. WHEN INSTALLING OPTIC FIBER TRUNK CABLES OR TYPE TC-ER CABLES INTO CONDUITS, NFPA 70 (NEC) ARTICLE 300 RULES SHALL APPLY.
- COAXIAL CABLE NOTES
62. TYPES AND SIZES OF THE ANTENNA CABLE ARE BASED ON ESTIMATED LENGTHS. PRIOR TO ORDERING CABLE, CONTRACTOR SHALL VERIFY ACTUAL LENGTH BASED ON CONSTRUCTION LAYOUT AND NOTIFY THE PROJECT MANAGER IF ACTUAL LENGTHS EXCEED ESTIMATED LENGTHS.
 63. CONTRACTOR SHALL VERIFY THE DOWN-TILT OF EACH ANTENNA WITH A DIGITAL LEVEL.
 64. CONTRACTOR SHALL CONFIRM COAX COLOR CODING PRIOR TO CONSTRUCTION.
 65. ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE SHALL BE 1/2" DIA. LDF AND SHALL NOT EXCEED 6'-0".

66. ALL COAXIAL CABLE SHALL BE SECURED TO THE DESIGNED SUPPORT STRUCTURE, IN AN APPROVED MANNER, AT DISTANCES NOT TO EXCEED 4'-0" OC.
 67. CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS REGARDING BOTH THE INSTALLATION AND GROUNDING OF ALL COAXIAL CABLES, CONNECTORS, ANTENNAS, AND ALL OTHER EQUIPMENT.
 68. CONTRACTOR SHALL GROUND ALL EQUIPMENT. INCLUDING ANTENNAS, RET MOTORS, TMA'S, COAX CABLES, AND RET CONTROL CABLES AS A COMPLETE SYSTEM. GROUNDING SHALL BE EXECUTED BY QUALIFIED WIREMEN IN COMPLIANCE WITH MANUFACTURER'S SPECIFICATION AND RECOMMENDATION.
 69. CONTRACTOR SHALL PROVIDE STRAIN-RELIEF AND CABLE SUPPORTS FOR ALL CABLE ASSEMBLIES, COAX CABLES, AND RET CONTROL CABLES. CABLE STRAIN-RELIEFS AND CABLE SUPPORTS SHALL BE APPROVED FOR THE PURPOSE. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
 70. CONTRACTOR TO VERIFY THAT EXISTING COAX HANGERS ARE STACKABLE SNAP IN HANGERS. IF EXISTING HANGERS ARE NOT STACKABLE SNAP IN HANGERS THE CONTRACTOR SHALL REPLACE EXISTING HANGERS WITH NEW SNAP IN HANGERS IF APPLICABLE.
- GENERAL CABLE AND EQUIPMENT NOTES
71. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ANTENNA, TMAS, DIPLEXERS, AND COAX CONFIGURATION, MAKE AND MODELS PRIOR TO INSTALLATION.
 72. ALL CONNECTIONS FOR HANGERS, SUPPORTS, BRACING, ETC. SHALL BE INSTALLED PER TOWER MANUFACTURER'S RECOMMENDATIONS.
 73. CONTRACTOR SHALL REFERENCE THE TOWER STRUCTURAL ANALYSIS/DESIGN DRAWINGS FOR DIRECTIONS ON CABLE DISTRIBUTION/ROUTING.
 74. ALL OUTDOOR RF CONNECTORS/CONNECTIONS SHALL BE WEATHERPROOFED, EXCEPT THE RET CONNECTORS, USING BUTYL TAPE AFTER INSTALLATION AND FINAL CONNECTIONS ARE MADE. BUTYL TAPE SHALL HAVE A MINIMUM OF ONE-HALF TAPE WIDTH OVERLAP ON EACH TURN AND EACH LAYER SHALL BE WRAPPED THREE TIMES. WEATHERPROOFING SHALL BE SMOOTH WITHOUT BUCKLING. BUTYL BLEEDING IS NOT ALLOWED.
 75. IF REQUIRED TO PAINT ANTENNAS AND/OR COAX:
 - A. TEMPERATURE SHALL BE ABOVE 50° F.
 - B. PAINT COLOR MUST BE APPROVED BY BUILDING OWNER/LANDLORD.
 - C. FOR REGULATED TOWERS, FAA/FCC APPROVED PAINT IS REQUIRED.
 - D. DO NOT PAINT OVER COLOR CODING OR ON EQUIPMENT MODEL NUMBERS
 76. ALL CABLES SHALL BE GROUND WITH COAXIAL CABLE GROUND KITS. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS.
 - A. GROUNDING AT THE ANTENNA LEVEL.
 - B. GROUNDING AT MID LEVEL, TOWERS WHICH ARE OVER 200'-0", ADDITIONAL CABLE GROUNDING REQUIRED.
 - C. GROUNDING AT BASE OF TOWER PRIOR TO TURNING HORIZONTAL.
 - D. GROUNDING OUTSIDE THE EQUIPMENT SHELTER AT ENTRY PORT.
 - E. GROUNDING INSIDE THE EQUIPMENT SHELTER AT THE ENTRY PORT.
 77. ALL PROPOSED GROUND BAR DOWNLEADS ARE TO BE TERMINATED TO THE EXISTING ADJACENT GROUND BAR DOWNLEADS A MINIMUM DISTANCE OF 4'-0" BELOW GROUND BAR. TERMINATIONS MAY BE EXOTHERMIC OR COMPRESSION.



550 COCHITUATE ROAD
SUITE 550 13 AND 14
FRAMINGHAM, MA 01701



1362 MELLON ROAD
SUITE 140
HANOVER, MD 21076



1100 E. WOODFIELD ROAD, SUITE 500
SCHAUMBURG, ILLINOIS 60173
TEL: 847-908-8400
COA# PEC.0001444
www.FullertonEngineering.com

REV	DATE	DESCRIPTION	BY
0	08/19/16	90% REVIEW	VV
1	08/30/16	FOR PERMIT	KC
2	11/01/16	FOUNDATION MOD DESIGN	EB
3	07/25/17	REVISION	MD

I HEREBY CERTIFY THAT THESE DRAWINGS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND CONTROL, AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE CODES.



SITE NAME
**NAUGATUCK EAST
BLVD ROAD**

SITE NUMBER:
CTL02056

SITE ADDRESS
**130 EAST SIDE BLVD.
NAUGATUCK, CT**

SHEET NAME
**NOTES AND
SPECIFICATIONS**

SHEET NUMBER
SP1

NOTICE

Beyond This Point you are entering a controlled area where RF emissions *may exceed* the FCC General Population Exposure Limits.

Follow all posted signs and site guidelines for working in a RF environment.

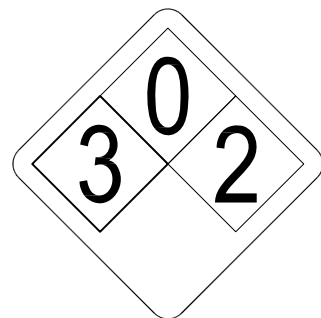
Ref: 47CFR 1.1307(b)

CAUTION

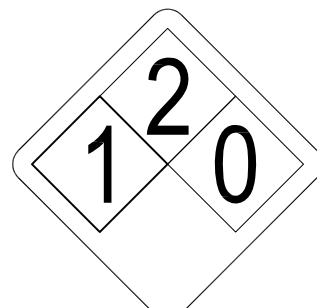
Beyond This Point you are entering a controlled area where RF emissions *may exceed* the FCC Occupational Exposure Limits.

Obey all posted signs and site guidelines for working in a RF environment.

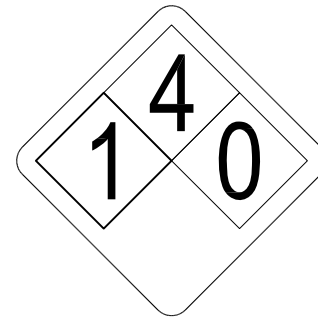
Ref: 47CFR 1.1307(b)



ALERTING SIGN
(FOR CELL SITE BATTERIES)



ALERTING SIGN
(FOR DIESEL FUEL)



ALERTING SIGN
(FOR PROPANE)

550 COCHITUATE ROAD
SUITE 550 13 AND 14
FRAMINGHAM, MA 01701

1362 MELLON ROAD
SUITE 140
HANOVER, MD 21076

FULLERTON
ENGINEERING · DESIGN

1100 E. WOODFIELD ROAD, SUITE 500
SCHAUMBURG, ILLINOIS 60173
TEL: 847-908-8400
COA# PEC.0001444
www.FullertonEngineering.com

ALERTING SIGNS

WARNING!

DANGER DO NOT TOUCH TOWER!

SERIOUS "RF" BURN HAZARD!

MAINTAIN AN ADEQUATE CLEARANCE BETWEEN TOWER SUPPORTS AND GUY WIRES

FAILURE TO OBEY ALL POSTED SIGNS AND SITE GUIDELINES FOR WORKING IN A RADIO FREQUENCY ENVIRONMENT COULD RESULT IN SERIOUS INJURY. CONTACT CURRENT MAY EXCEED LIMITS PRESCRIBED IN ANSI, IEEE C95.1-1992 FOR CONTROLLED ENVIRONMENTS.

PROPERTY OF AT&T

AUTHORIZED PERSONNEL ONLY

IN CASE OF EMERGENCY, OR PRIOR TO PERFORMING MAINTENANCE ON THIS SITE, CALL 800-638-2822 AND REFERENCE CELL SITE NUMBER _____

ALERTING SIGN

INFO SIGN #4

GENERAL SIGNAGE GUIDELINES

STRUCTURE TYPE	INFO SIGN #1	INFO SIGN #2	INFO SIGN #3	INFO SIGN #4	STRIPING	NOTICE SIGN	CAUTION SIGN
TOWERS							
MONOPOLE/MONOPINE/MONOPALM	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING SIDE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS			AT THE HEIGHT OF THE FIRST CLIMBING STEP, MIN 9 FT ABOVE GROUND
SEC TOWERS/TOWERS WITH HIGH VOLTAGE	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING SIDE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS			
LIGHT POLES/FLAG POLES	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA AND LESS THAN 9FT ABOVE GROUND	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS			
UTILITY WOOD POLES (JPA)	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA AND LESS THAN 9FT ABOVE GROUND	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS		IF GP MAX VALUE OF MPE AT ANTENNA LEVEL IS: 0-99%; NOTICE SIGN; OVER 99%; CAUTION SIGN AT NO LESS THAN 3FT BELOW ANTENNA AND 9FT ABOVE GROUND	
MICROCELLS MOUNTED ON NON-JPA POLES	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 3FT BELOW THE ANTENNA AND LESS THAN 9FT ABOVE GROUND	ON BACKSIDE OF ANTENNAS	ENTRANCE GATES, SHELTER DOORS OR ON THE OUTDOOR CABINETS		NOTICE OR CAUTION SIGN AT NO LESS THAN 9FT ABOVE GROUND; ONLY IF THE EXPOSURE EXCEEDS 90% OF THE GENERAL PUBLIC EXPOSURE AT EXPOSURE AT 6FT ABOVE GROUND OR AT OUTSIDE OF SURFACE OF ADJACENT BUILDING	
TOWERS							
AT ALL ACCESS POINTS TO THE ROOF	X			X			
ON ANTENNAS	X		X	X			
CONCEALED ANTENNAS	X	X		X			
ANTENNAS MOUNTED FACING OUTSIDE THE BUILDING	X	X		X			
ANTENNAS ON SUPPORT STRUCTURE	X	X		X			
ROOFVIEW GRAPH							
RADIATION AREA IS WITHIN 3FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA		X		EITHER NOTICE OR CAUTION SIGN (BASED ON ROOFVIEW RESULTS) AT ANTENNA /BARRIER	
RADIATION AREA IS BEYOND 3FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA		X	DIAGONAL, YELLOW STRIPING AS TO ROOFVIEW GRAPH		
CHURCH STEEPLES	ACCESS TO STEEPLE	ADJACENT TO ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ACCESS TO STEEPLE			CAUTION SIGN AT THE ANTENNAS
WATER STATIONS	ACCESS TO LADDER	ADJACENT TO ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ACCESS TO LADDER			CAUTION SIGN BESIDE INFO SIGN #1, MIN. 9FT ABOVE GROUND

STAY BACK 3 FEET FROM ANTENNA

INFORMATION

AT&T operates telecommunications antennas at this location. Remain at least 3 feet away from any antenna and obey all posted signs.

Contact the owner(s) of the antenna(s) before working closer than 3 feet from the antenna.

Contact AT&T at _____ prior to performing any maintenance or repairs near AT&T antennas. This is Site # _____

Contact the management office if this door/hatch/gate is found unlocked.

INFORMACION

En esta propiedad se ubican antenas de telecomunicaciones operadas por AT&T. Favor mantener una distancia de no menos de 3 pies y obedecer todos los avisos.

Comuníquese con el propietario o los propietarios de las antenas antes de trabajar o caminar a una distancia de menos de 3 pies de la antena.

Comuníquese con AT&T _____ antes de realizar cualquier mantenimiento o reparaciones cerca de la antena de AT&T.

Esta es la estación base maestra. _____

Favor comunicarse con la oficina de la administración del edificio si esta puerta o compuerta se encuentra sin candado.

INFORMATION

ACTIVE ANTENNAS ARE MOUNTED

ON THE OUTSIDE OF THIS BUILDING

BEHIND THIS PANEL

ON THIS STRUCTURE

STAY BACK A MINIMUM OF 3 FEET FROM THESE ANTENNAS

Contact AT&T at _____ and follow their instructions prior to performing any maintenance or repairs closer than 3 feet from the antennas.

This is AT&T site # _____

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SITE NAME

NAUGATUCK EAST BLVD ROAD

SITE NUMBER:

CTL02056

SITE ADDRESS

130 EAST SIDE BLVD. NAUGATUCK, CT

SHEET NAME

NOTES AND SPECIFICATIONS

SHEET NUMBER

SP2

INFO SIGN #1

INFO SIGN #2

INFO SIGN #3

SIGNAGE GUIDELINES CHART

NOTES FOR ROOFTOP SITES:

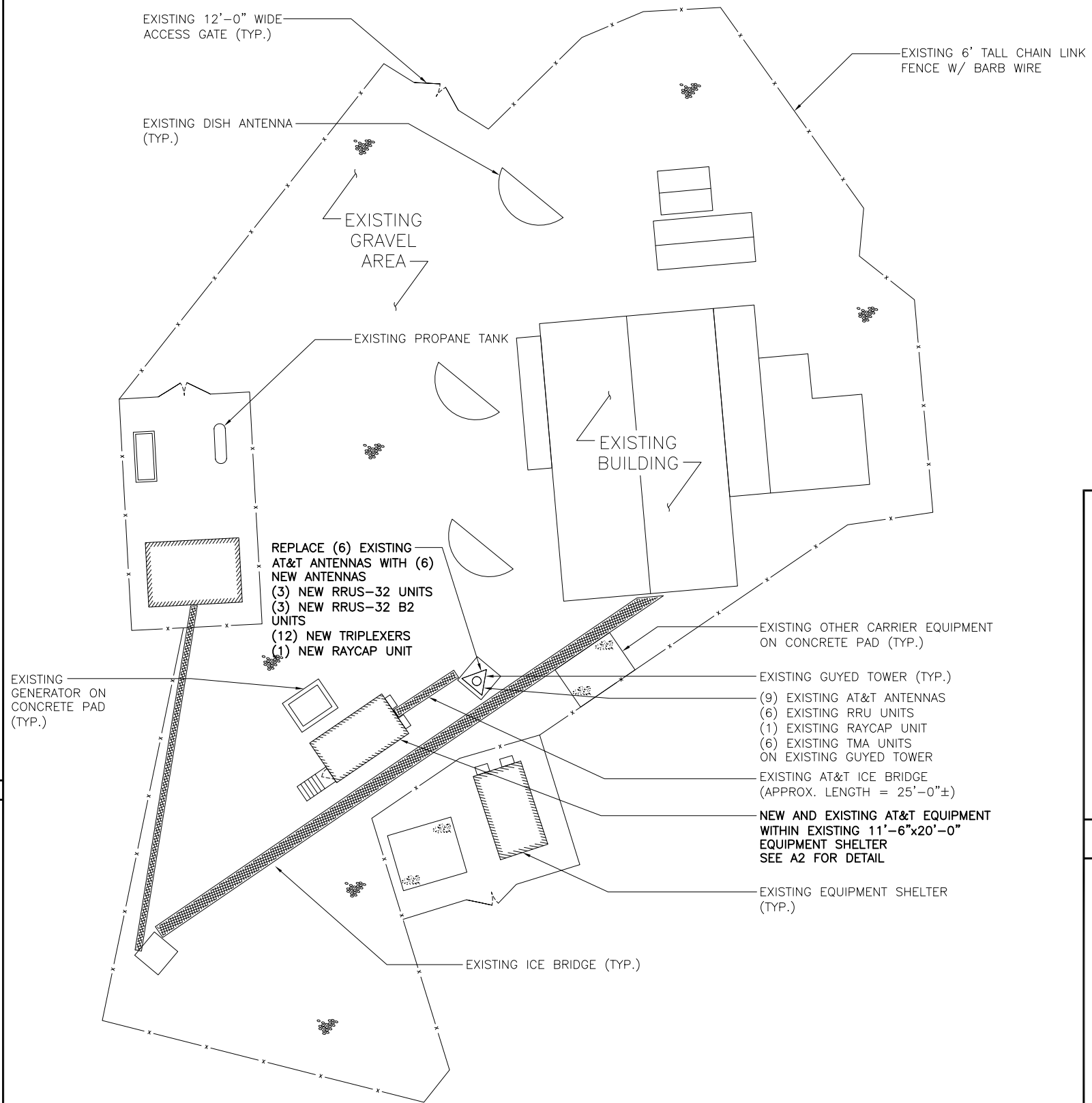
- EITHER NOTICE OR CAUTION SIGNS NEED TO BE POSTED AT EACH SECTOR AS CLOSE AS POSSIBLE TO: THE OUTER EDGE OF THE STRIPED OFF AREA OR THE OUTER ANTENNAS OF THE SECTOR
- IF ROOFVIEWS SHOWS: ONLY BLUE = NOTICE SIGN, BLUE AND YELLOW = CAUTION SIGN, ONLY YELLOW = CAUTION SIGN TO BE INSTALLED
- SHOULD THE REQUIRED STRIPING AREAS INTERFERE WITH ANY STRUCTURE OR EQUIPMENT (A/C, VENTS, ROOF HATCH, DOORS, OTHER ANTENNAS, DISHES, ETC.). PLEASE NOTIFY AT&T TO MODIFY THE STRIPING AREA, PRIOR TO STARTING THE WORK.

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AGL	ABOVE GRADE LEVEL
AMSL	ABOVE MEAN SEA LEVEL
APPROX	APPROXIMATE
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BTS	BASE TRANSMISSION STATION
CL	CENTERLINE
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CND	CONDUIT
DWG	DRAWING
FT	FOOT(FEET)
EGB	EQUIPMENT GROUND BAR
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ELEV	ELEVATION
EQUIP	EQUIPMENT
(E)	EXISTING
EXT	EXTERIOR
FND	FOUNDATION
F	FIBER
FIF	FACILITY INTERFACE FRAME
GA	GAUGE
GALV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
GSM	GLOBAL SYSTEM FOR MOBILE COMMUNICATION
LTE	LONG TERM EVOLUTION
MAX	MAXIMUM
MCPA	MULTI-CARRIER POWER AMPLIFIER
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
MTS	MANUAL TRANSFER SWITCH
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OE/OT	OVERHEAD ELECTRIC/TELCO
PPC	POWER PROTECTION CABINET
PL	PROPERTY LINE
RBS	RADIO BASED STATION
RET	REMOTE ELECTRIC TILT
RRU	REMOTE RADIO UNIT
RGS	RIGID GALVANIZED STEEL
IN	INCH(ES)
INT	INTERIOR
LB(S), #	POUND(S)
SF	SQUARE FOOT
STL	STEEL
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UE/UT	UNDERGROUND ELECTRIC/TELCO
UNO	UNLESS NOTED OTHERWISE
UMTS	UNIVERSAL MOBILE TELE-COMMUNICATION SYSTEM
VIF	VERIFY IN FIELD
W/	WITH
XFMR	TRANSFORMER

SYMBOLS

	REVISION
	WORK POINT
	UTILITY POLE
	COMPRESSED STONE
	BRICK
	CONCRETE
	EARTH
	GRAVEL
	MASONRY
	STEEL
	CENTERLINE
	PROPERTY LINE
	LEASE LINE
	EASEMENT LINE
	CHAIN LINK FENCE
	WOOD FENCE
	BELOW GRADE ELECTRIC
	BELOW GRADE TELEPHONE
	OVERHEAD ELECTRIC/TELEPHONE
	SECTION REFERENCE



REPLACE (6) EXISTING AT&T ANTENNAS WITH (6) NEW ANTENNAS
 (3) NEW RRUS-32 UNITS
 (3) NEW RRUS-32 B2 UNITS
 (12) NEW TRIPLEXERS
 (1) NEW RAYCAP UNIT

(9) EXISTING AT&T ANTENNAS
 (6) EXISTING RRU UNITS
 (1) EXISTING RAYCAP UNIT
 (6) EXISTING TMA UNITS ON EXISTING GUYED TOWER
 NEW AND EXISTING AT&T EQUIPMENT WITHIN EXISTING 11'-6"x20'-0" EQUIPMENT SHELTER SEE A2 FOR DETAIL



COMPOUND PLAN

SCALE: 1" = 30'-0" 1



550 COCHITUATE ROAD
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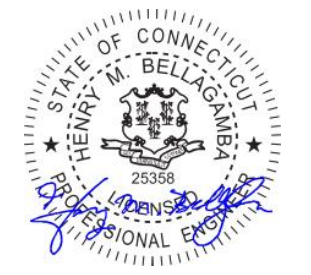
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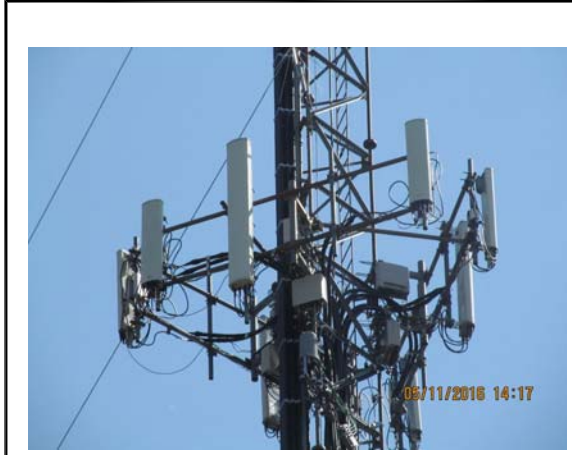
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SITE NAME
**NAUGATUCK EAST
 BLVD ROAD**



SITE PHOTO 1 SCALE: N.T.S. 2



SITE PHOTO 2 SCALE: N.T.S. 3

SITE NUMBER:
CTL02056

SITE ADDRESS
**130 EAST SIDE BLVD.
 NAUGATUCK, CT**

SHEET NAME
**COMPOUND
 PLAN**

SHEET NUMBER
A1

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BLVD ROAD**

SITE NUMBER:

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SITE ADDRESS

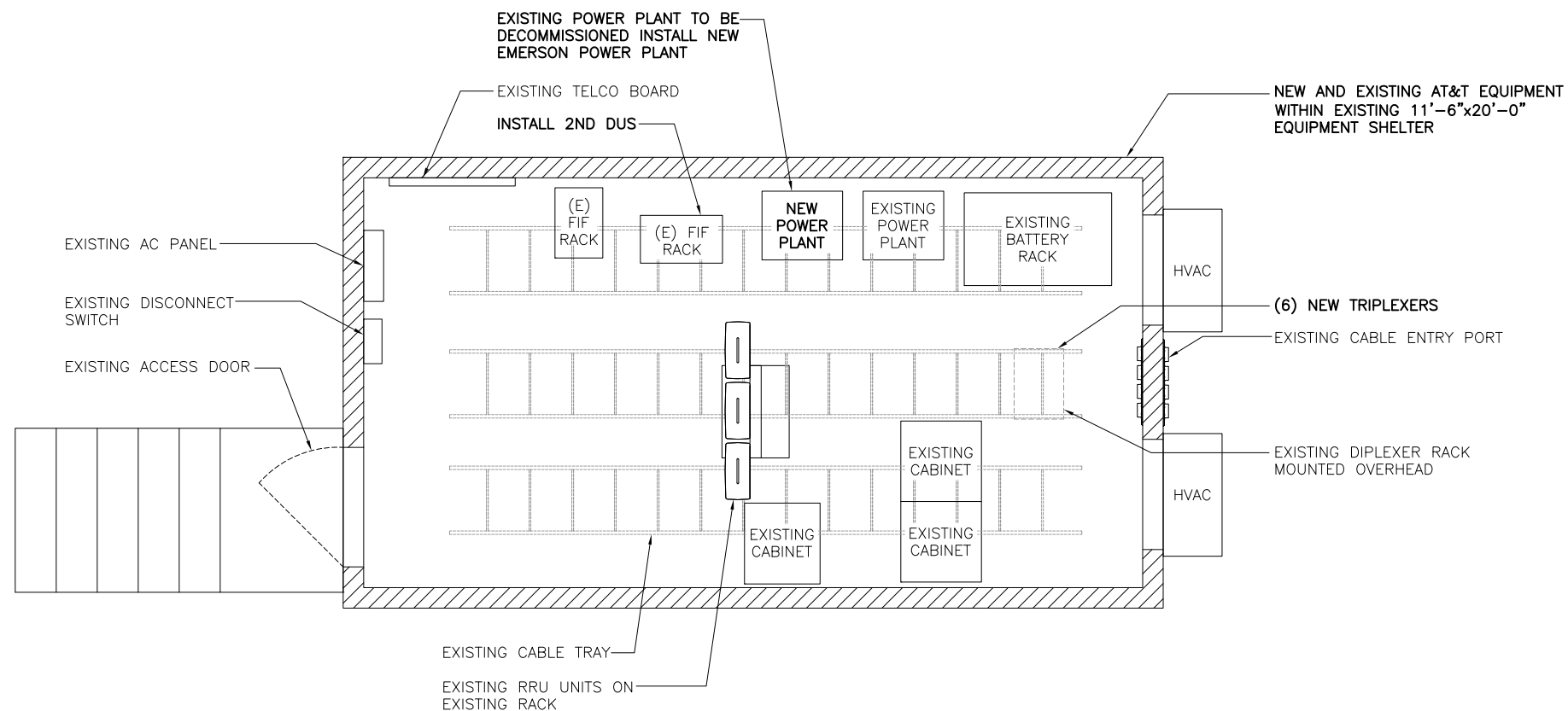
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NAUGATUCK, CT**

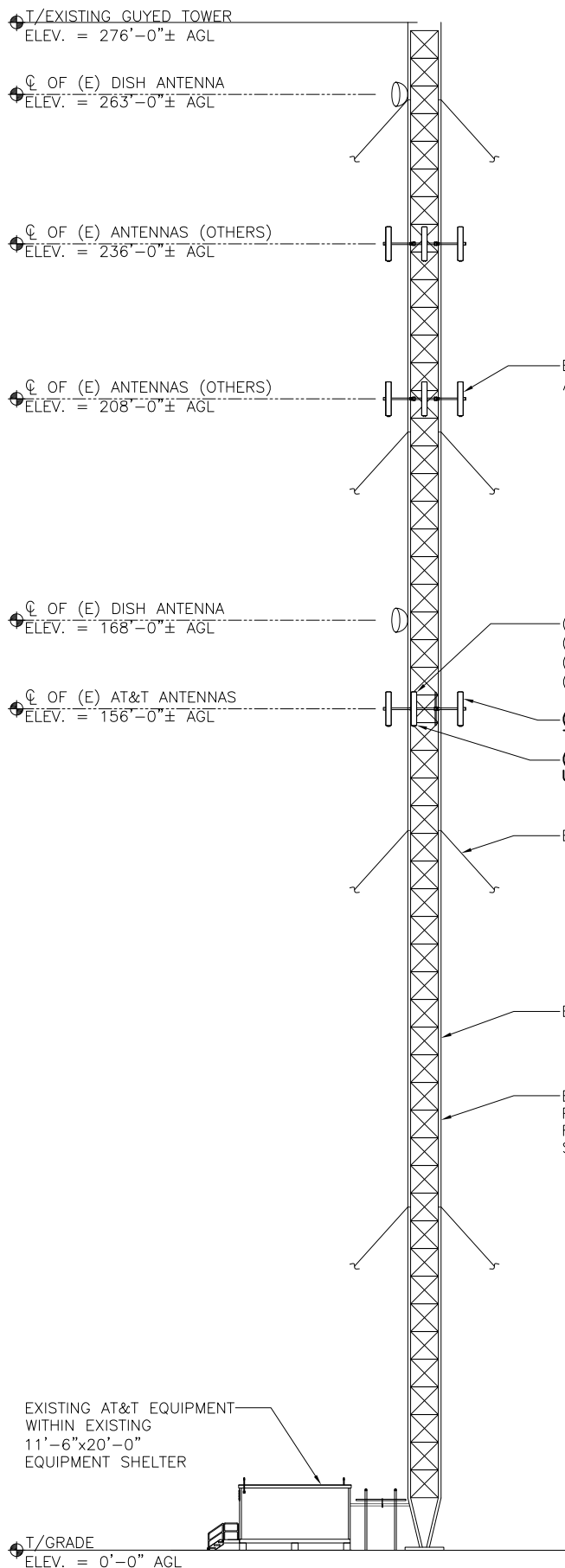
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**EQUIPMENT
PLAN**

SHEET NUMBER

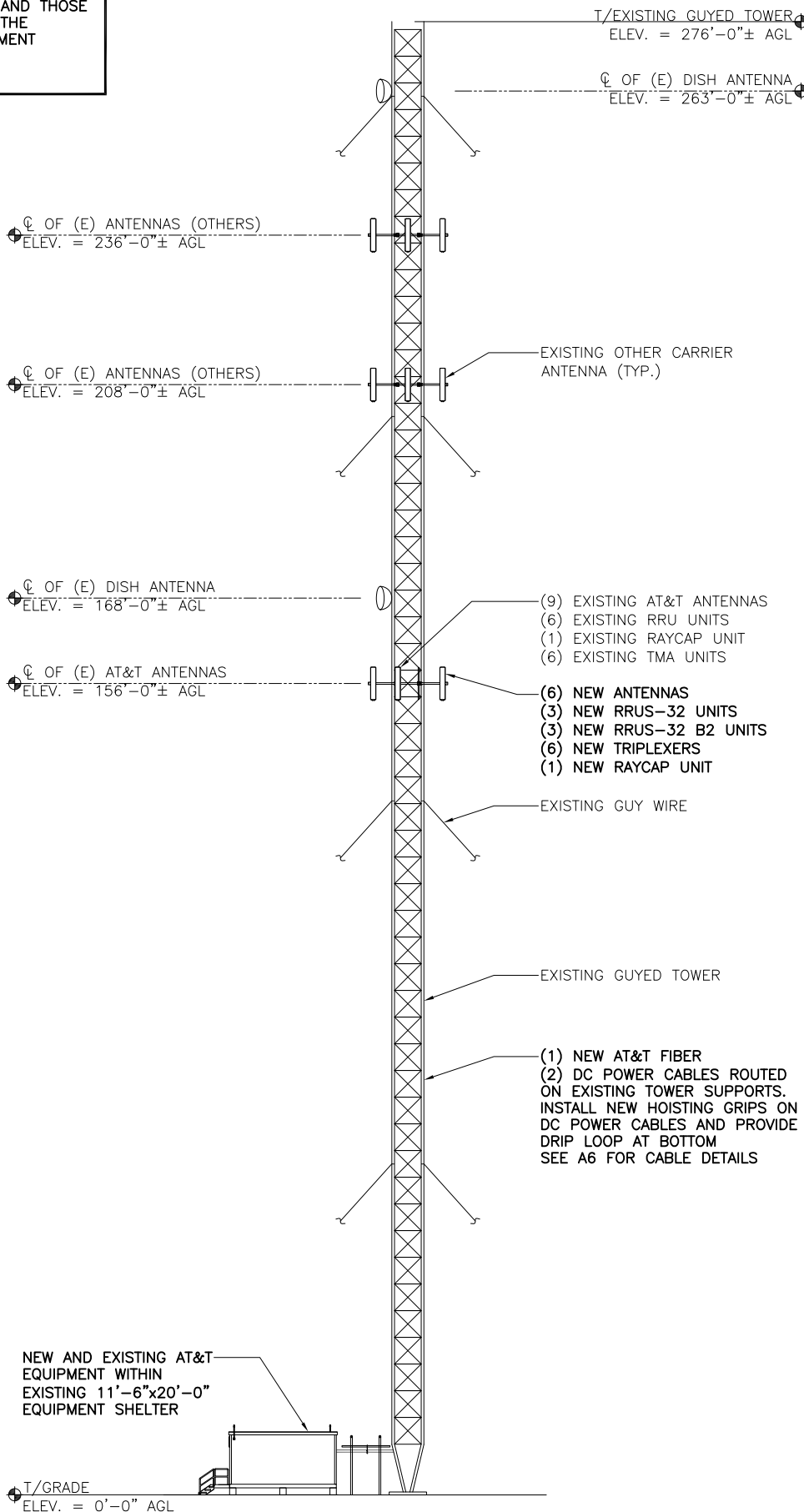
A2





NOTES:

1. CALCULATIONS FOR THE STRUCTURE AND ANTENNA MOUNTS WERE PREPARED BY FULLERTON AND THOSE CALCULATIONS CERTIFY THE CAPACITY OF THE STRUCTURE TO SUPPORT THE NEW EQUIPMENT
2. CABLES NOT SHOWN FOR CLARITY



EXISTING ELEVATION

SCALE: 1" = 30'-0" 1

NEW ELEVATION

SCALE: 1" = 30'-0" 2

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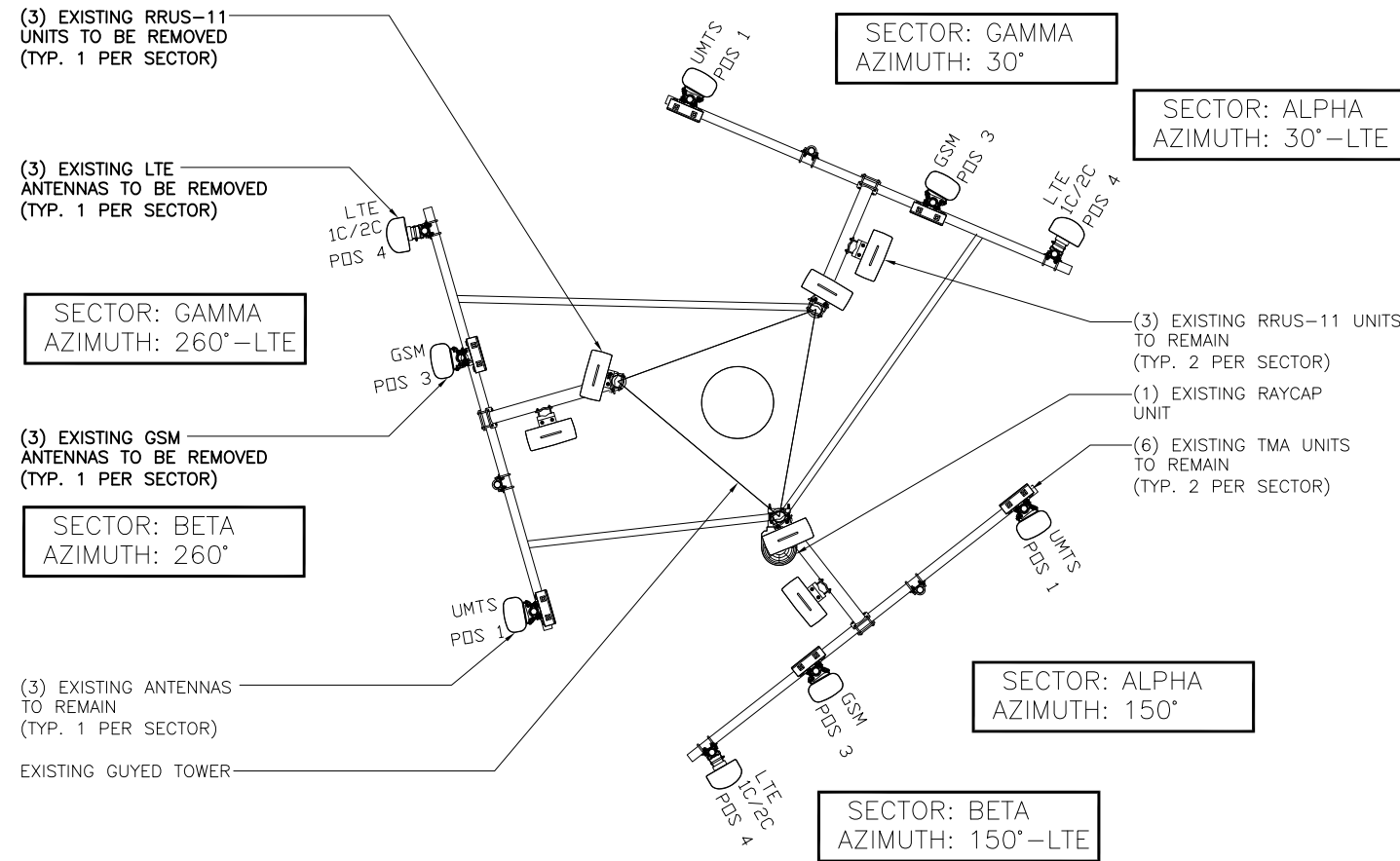
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**130 EAST SIDE BLVD.
NAUGATUCK, CT**

SHEET NAME
ELEVATIONS

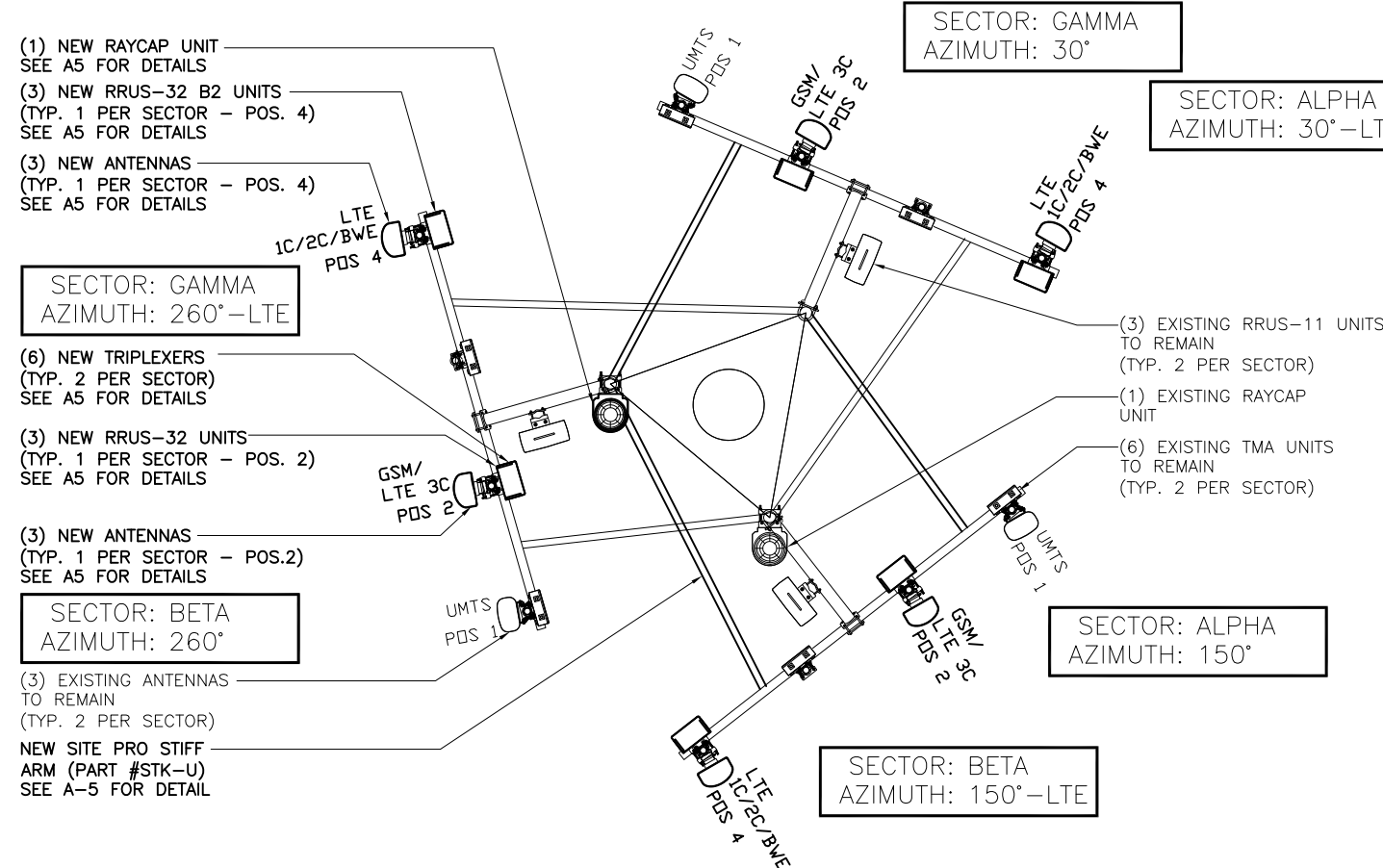
SHEET NUMBER
A3

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EXISTING ANTENNA PLAN

SCALE: 3/16" = 1'-0" 1



FINAL ANTENNA PLAN

SCALE: 3/16" = 1'-0" 2



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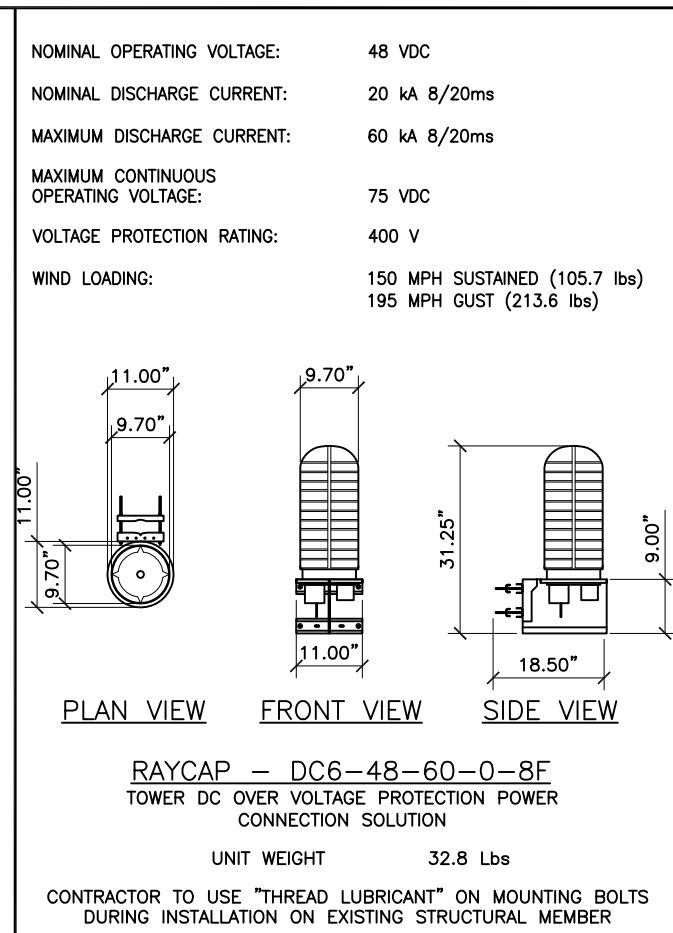
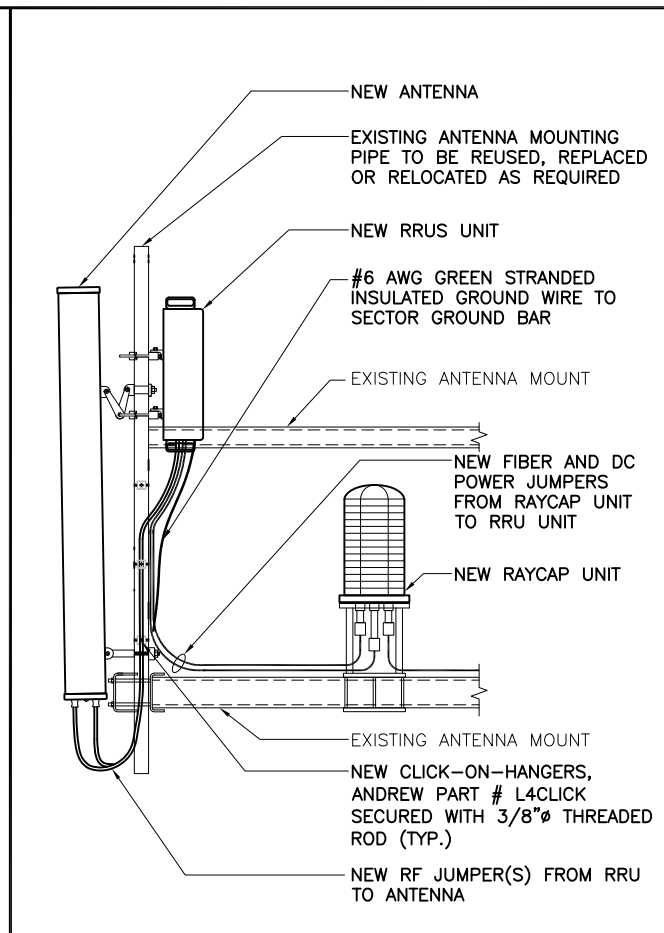
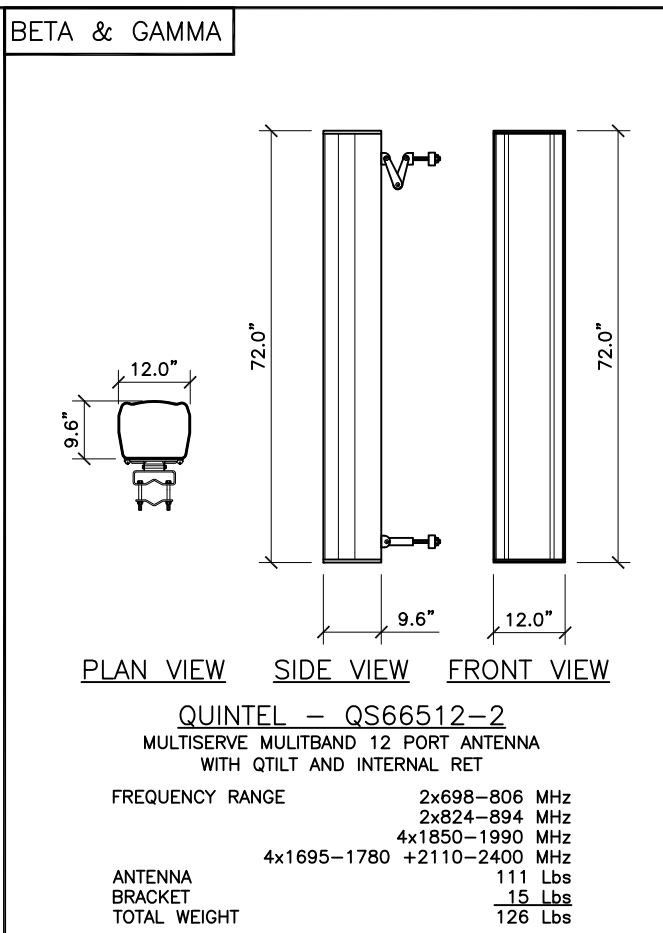
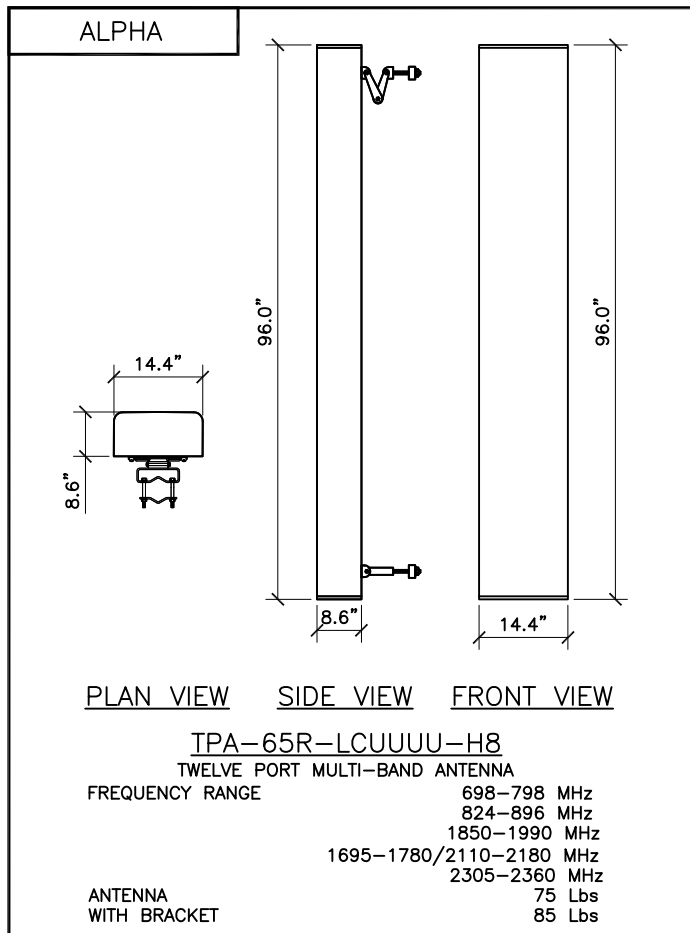
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NAUGATUCK, CT**

SHEET NAME
**ANTENNA
PLANS**

SHEET NUMBER
A4



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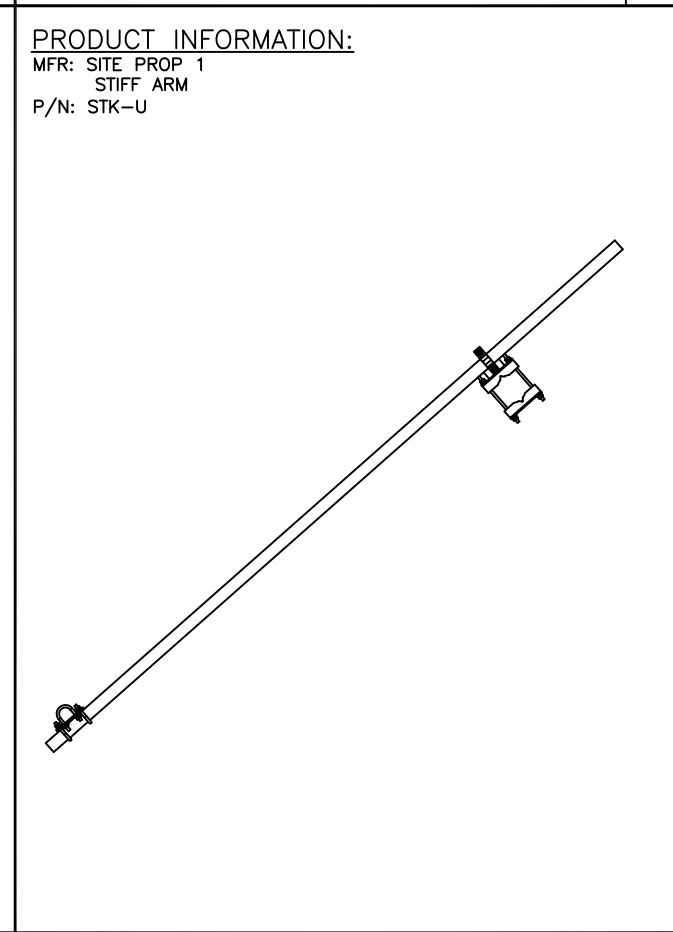
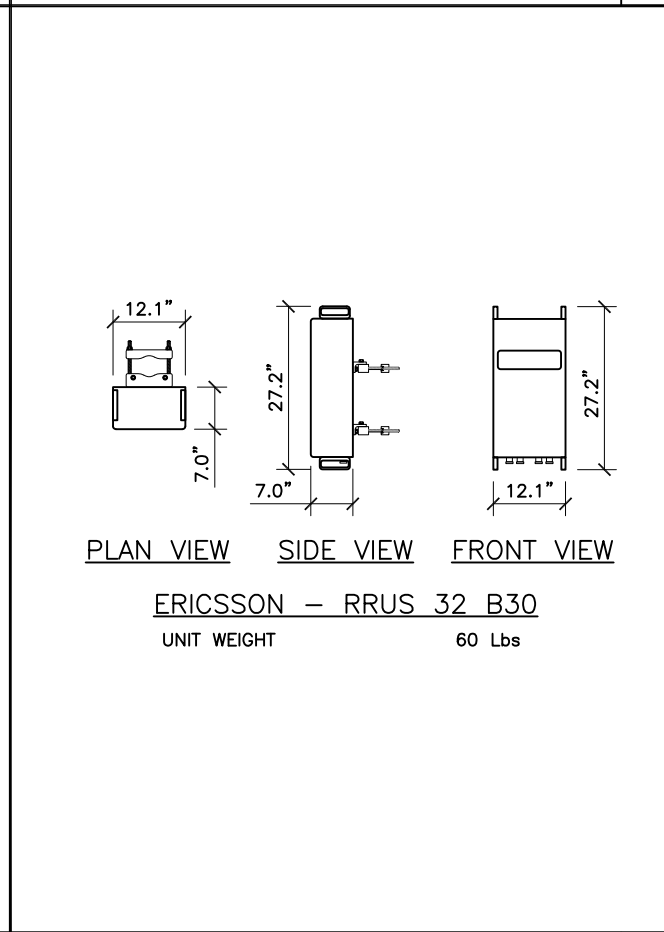
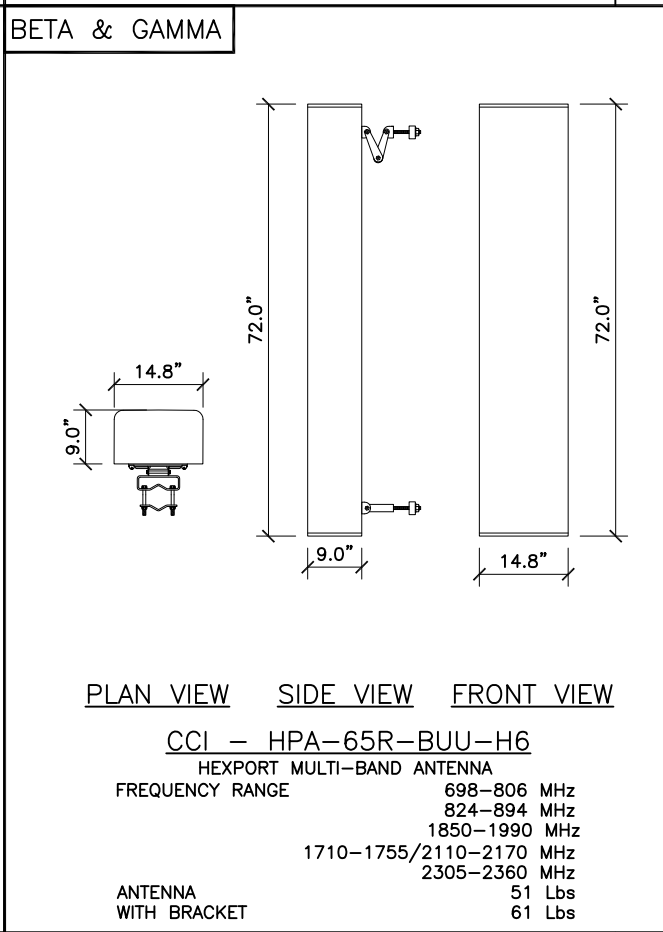
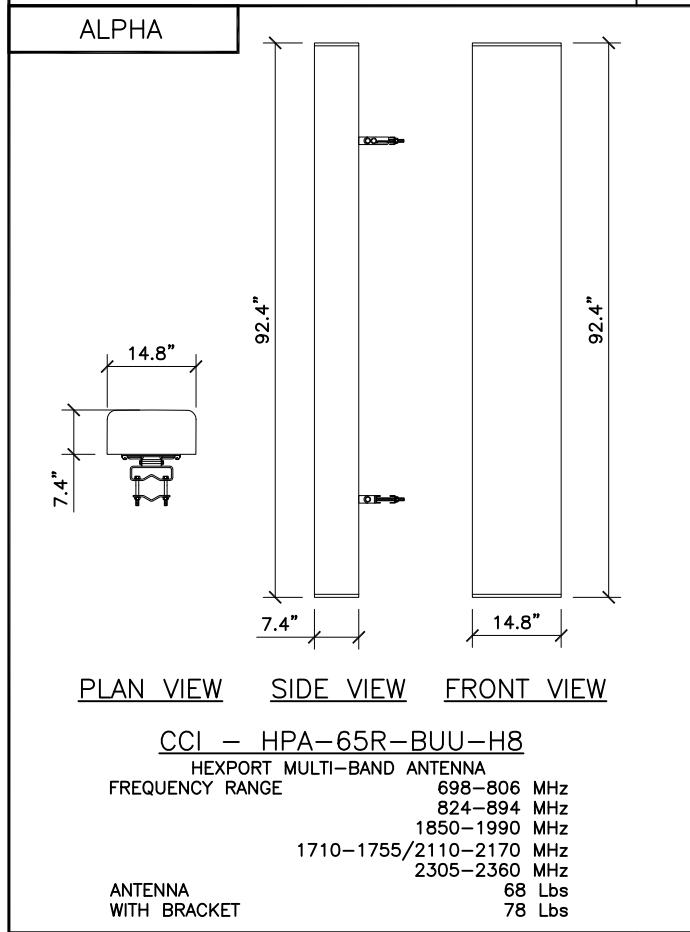
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ANTENNA SPEC (POSITION 2) SCALE: N.T.S. 1

ANTENNA SPEC (POSITION 2) SCALE: N.T.S. 2

ANTENNA SCHEMATIC SCALE: N.T.S. 3

RAYCAP SPEC SCALE: N.T.S. 4



ANTENNA SPEC (POSITION 4) SCALE: N.T.S. 5

ANTENNA SPEC (POSITION 4) SCALE: N.T.S. 6

RRU SPEC SCALE: N.T.S. 7

STIFF ARM DETAIL SCALE: N.T.S. 8

SITE NAME
NAUGATUCK EAST BLVD ROAD

SITE NUMBER:
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SITE ADDRESS
**130 EAST SIDE BLVD.
NAUGATUCK, CT**

SHEET NAME
EQUIPMENT DETAILS

SHEET NUMBER
A5

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SITE NAME

**NAUGATUCK EAST
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SITE NUMBER:

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SITE ADDRESS

**130 EAST SIDE BLVD.
NAUGATUCK, CT**

SHEET NAME

**ANTENNA &
CABLE
CONFIGURATION**

SHEET NUMBER

A6

FINAL ANTENNA CONFIGURATION AND CABLE SCHEDULE
SUPPLIED BY AT&T WIRELESS, FROM RF CONFIGS. DATED (03/23/16 & 4/15/16)

SECTOR	ANTENNA NUMBER	ANTENNA STATUS & TYPE	ANTENNA MODEL NUMBER	ANTENNA VENDOR	TMA/RRU UNIT	AZIMUTH	ANTENNA CL FROM GROUND	CABLE FEEDER		RAYCAP UNIT
								TYPE	LENGTH	
ALPHA	A-1	(E) UMTS ANTENNA	7770	POWERWAVE	(2) EXISTING TMA UNIT(S)	150°	156'-0"	1-5/8"∅ LDF7-50A	180'-0"	(1) (E) DC6-48-60-18-8F UNIT (1) (N) DC6-48-60-18-8F UNIT
	A-2	(N) GSM/LTE3C ANTENNA	TPA-65R-LUUU-H8	CCI	(1) NEW RRUS-32 UNIT(S) & (2) NEW TRIPLEXERS	30°	156'-0"	(2) 1-5/8"∅ LDF7-50A (1) NEW FIBER CABLE & (2) NEW DC POWER CABLES	180'-0" 180'-0"	
	A-3	-	-	-	-	-	-	-	-	
	A-4	(N) LTE 1C/2C/BWE ANTENNA	HPA-65R-BUU-H8	CCI	(1) EXISTING RRUS-11 UNIT(S) & (1) NEW RRUS-32 B2(S)	30°	156'-0"	(1) EXISTING FIBER CABLE (2) EXISTING DC POWER CABLES	180'-0" 180'-0"	
BETA	B-1	(E) UMTS ANTENNA	7770	POWERWAVE	(2) EXISTING TMA UNIT(S)	260°	156'-0"	1-5/8"∅ LDF7-50A 1-5/8"∅ LDF7-50A	180'-0" 180'-0"	
	B-2	(N) GSM/LTE3C ANTENNA	QS66512-2	QUINTEL	(1) NEW RRUS-32 UNIT(S) & (2) NEW TRIPLEXERS	150°	156'-0"	(2) 1-5/8"∅ LDF7-50A SEE ANTENNA A-2 FOR CABLE TYPE AND LENGTH	180'-0"	
	B-3	-	-	-	-	-	-	-	-	
	B-4	(N) LTE 1C/2C/BWE ANTENNA	HPS-65R-BUU-H6	CCI	(1) EXISTING RRUS-11 UNIT(S) & (1) NEW RRUS-32 B2(S)	150°	156'-0"	SEE ANTENNA A-4 FOR CABLE TYPE AND LENGTH	-	
GAMMA	C-1	(E) UMTS ANTENNA	7770	POWERWAVE	(2) EXISTING TMA UNIT(S)	30°	156'-0"	1-5/8"∅ LDF7-50A 1-5/8"∅ LDF7-50A	180'-0" 180'-0"	
	C-2	(N) GSM/LTE3C ANTENNA	QS66512-2	QUINTEL	(1) NEW RRUS-32 UNIT(S) & (2) NEW TRIPLEXERS	260°	156'-0"	(2) 1-5/8"∅ LDF7-50A SEE ANTENNA A-2 FOR CABLE TYPE AND LENGTH	180'-0"	
	C-3	-	-	-	-	-	-	-	-	
	C-4	(N) LTE 1C/2C/BWE ANTENNA	HPS-65R-BUU-H6	CCI	(1) EXISTING RRUS-11 UNIT(S) & (1) NEW RRUS-32 B2(S)	260°	156'-0"	SEE ANTENNA A-4 FOR CABLE TYPE AND LENGTH	-	

- CONTRACTOR IS TO REFER TO AT&T'S MOST CURRENT RADIO FREQUENCY DATA SHEET (RFDS) PRIOR TO CONSTRUCTION.
- THE SIZE, HEIGHT, AND DIRECTION OF THE ANTENNAS SHALL BE ADJUSTED TO ACHIEVE THE AZIMUTHS SPECIFIED AND LIMIT SHADOWING AND TO MEET THE SYSTEM REQUIREMENTS.
- CONTRACTOR SHALL VERIFY THE HEIGHT OF THE ANTENNA WITH THE AT&T WIRELESS PROJECT MANAGER.
- VERIFY TYPE AND SIZE OF TOWER LEG PRIOR TO ORDERING ANY ANTENNA MOUNT.
- UNLESS NOTED OTHERWISE THE CONTRACTOR MUST PROVIDE ALL MATERIAL NECESSARY.
- ANTENNA AZIMUTHS ARE DEGREES OFF OF TRUE NORTH, BEARING CLOCKWISE, IN WHICH ANTENNA FACE IS DIRECTED. ALL ANTENNAS (AND SUPPORTING STRUCTURES AS PRACTICAL) SHALL BE ACCURATELY ORIENTED IN THE SPECIFIED DIRECTION.
- CONTRACTOR SHALL VERIFY ALL RF INFORMATION PRIOR TO CONSTRUCTION.
- SWEEP TEST SHALL BE PERFORMED BY GENERAL CONTRACTOR AND SUBMITTED TO AT&T WIRELESS CONSTRUCTION SPECIALIST. TEST SHALL BE PERFORMED PER AT&T WIRELESS STANDARDS.
- CABLE LENGTHS WERE DETERMINED BASED ON THE DESIGN DRAWING. CONTRACTOR TO VERIFY ACTUAL LENGTH DURING PRE-CONSTRUCTION WALK.
- CONTRACTOR TO USE ROSENBERGER FIBER LINE HANGER COMPONENTS (OR ENGINEER APPROVED EQUAL).

ANTENNA AND CABLING NOTES

SCALE: N.T.S. 1

RF, DC, & COAX CABLE MARKING LOCATIONS TABLE	
NO	LOCATIONS
1	EACH TOP-JUMPER SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS.
2	EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS NEAR THE TOP-JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING.
3	CABLE ENTRY PORT ON THE INTERIOR OF THE SHELTER.
4	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.
5	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER.

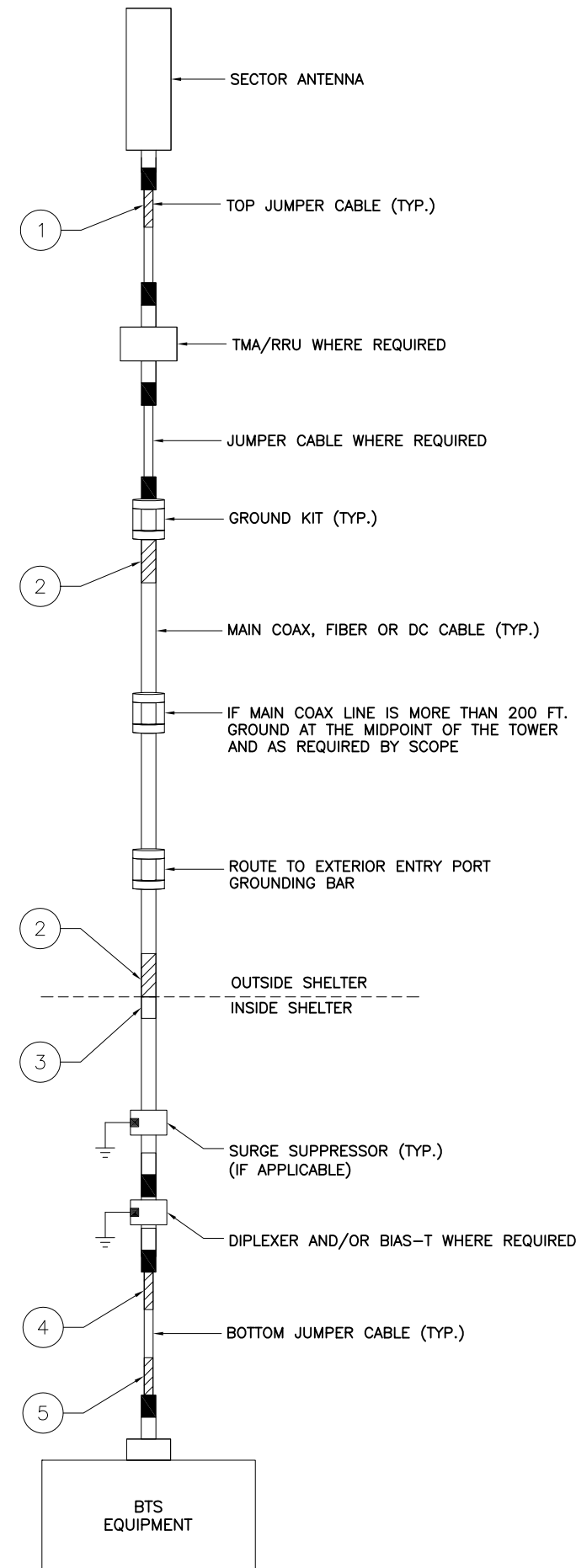
CABLE MARKING DIAGRAM

SCALE: N.T.S. 2

- THE ANTENNA SYSTEM COAX SHALL BE LABELED WITH VINYL TAPE.
- THE STANDARD IS BASED ON EIGHT COLORED TAPES-RED, BLUE, GREEN, YELLOW, ORANGE, BROWN, WHITE, AND VIOLET. THESE TAPES MUST BE 3/4" WIDE & UV RESISTANT SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE AND SHOULD BE READILY AVAILABLE TO THE ELECTRICIAN OR CONTRACTOR ON SITE.
- USING COLOR BANDS ON THE CABLES, MARK ALL RF CABLE BY SECTOR AND CABLE NUMBER AS SHOWN ON "CABLE COLOR CHART".
- WHEN AN EXISTING COAXIAL LINE THAT IS INTENDED TO BE A SHARED LINE BETWEEN TECHNOLOGIES IS ENCOUNTERED, THE CONTRACTOR SHALL REMOVE THE EXISTING COLOR CODING SCHEME AND REPLACE IT WITH THE COLOR CODING STANDARD. IN THE ABSENCE OF AN EXISTING COLOR CODING AND TAGGING SCHEME, OR WHEN INSTALLING PROPOSED COAXIAL CABLES, THIS GUIDELINE SHALL BE IMPLEMENTED AT THAT SITE REGARDLESS OF TECHNOLOGY.
- ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE INSTALLED USING A MINIMUM OF (3) THREE WRAPS OF TAPE AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID UNRAVELING.
- ALL COLOR BANDS INSTALLED AT THE TOP OF THE TOWER SHALL BE A MINIMUM OF 3" WIDE, AND SHALL HAVE A MINIMUM OF 3/4" OF SPACE BETWEEN EACH COLOR.
- ALL COLOR CODES SHALL BE INSTALLED SO AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE-TO-SIDE.
- IF EXISTING CABLES AT THE SITE ALREADY HAVE A COLOR CODING SCHEME AND THEY ARE NOT INTENDED TO BE REUSED OR SHARED WITH THE NEW TECHNOLOGY, THE EXISTING COLOR CODING SCHEME SHALL REMAIN UNTOUCHED.

CABLE MARKING NOTES

SCALE: N.T.S. 3



CABLE COLOR CODING DIAGRAM

SCALE: N.T.S. 4



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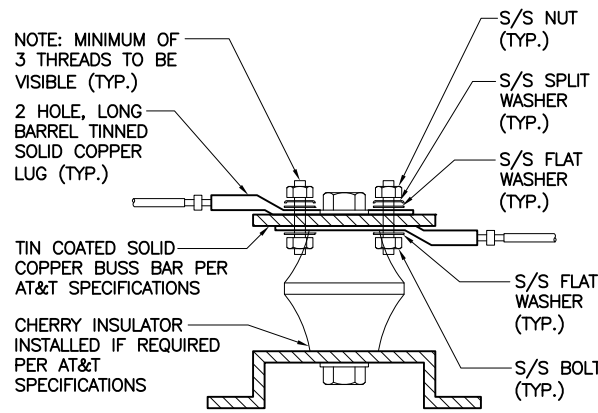
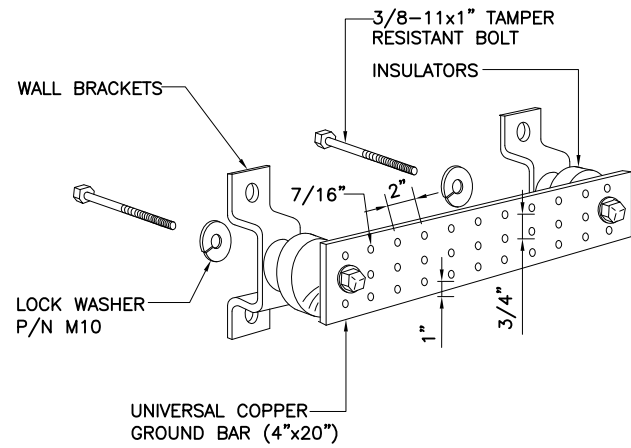
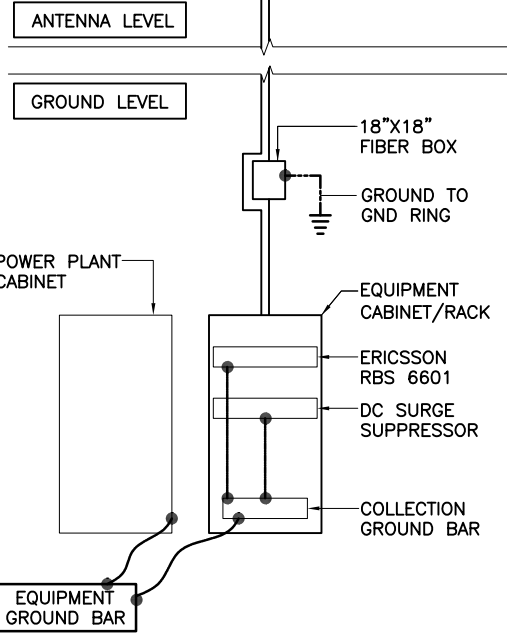
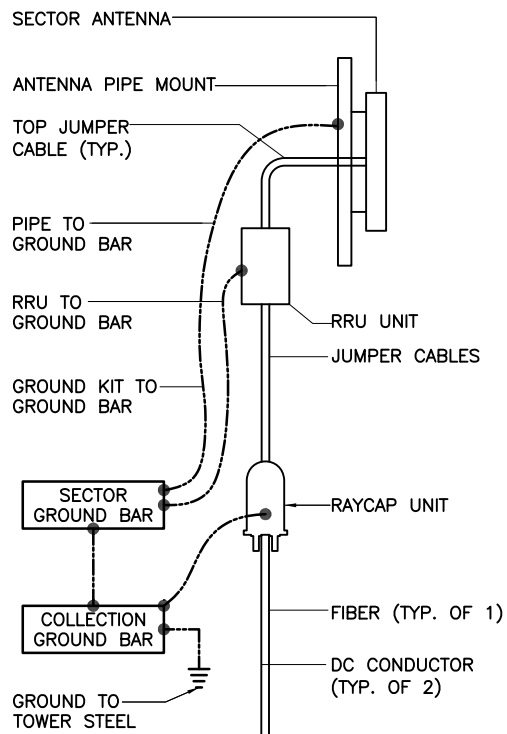
SITE NUMBER:
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SITE ADDRESS
**130 EAST SIDE BLVD.
NAUGATUCK, CT**

SHEET NAME
**CABLE NOTES
AND COLOR
CODING**

SHEET NUMBER
A7

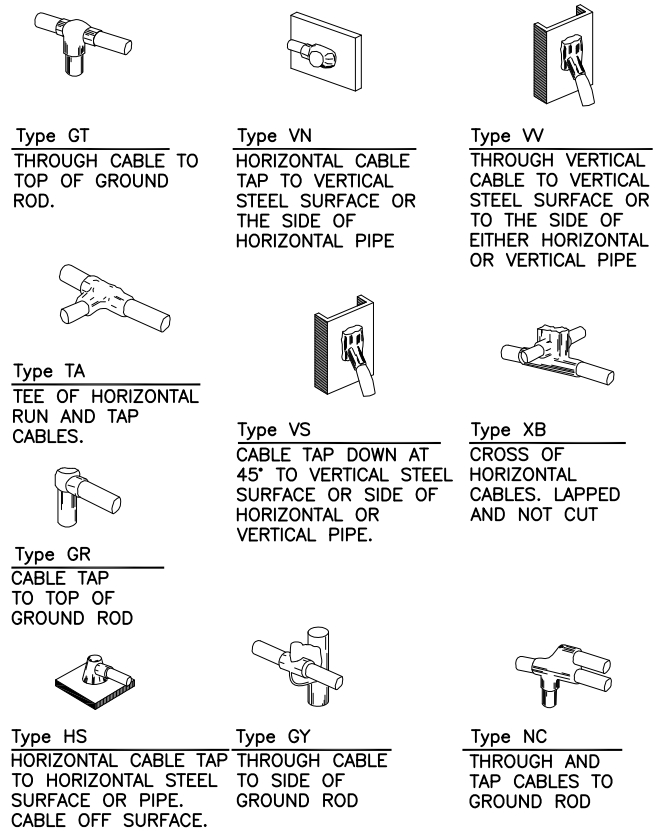
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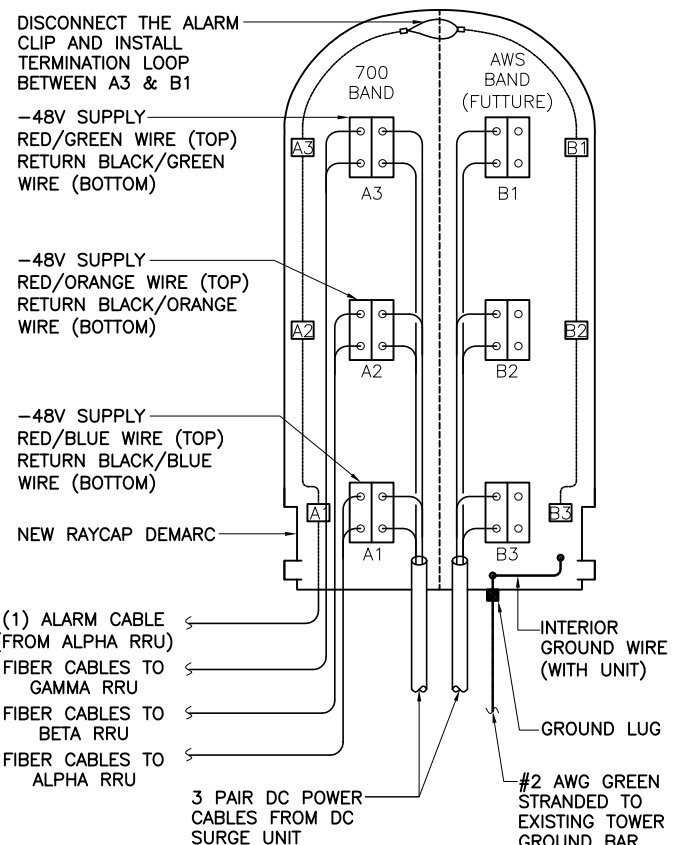
- NOTES:**
1. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING SPLIT WASHERS.
 2. COAT WIRE END WITH ANTI-OXIDATION COMPOUND PRIOR TO INSERTION INTO LUG BARREL AND CRIMPING.
 3. APPLY ANTI-OXIDATION COMPOUND BETWEEN ALL LUGS AND BUSS BARS PRIOR TO MATING AND BOLTING.

GROUND BAR DETAIL SCALE: N.T.S. 2

LUG DETAIL SCALE: N.T.S. 3



EXOTHERMIC WELD DETAILS SCALE: N.T.S. 4



RAYCAP DC POWER AND ALARM DET. SCALE: N.T.S. 5

NOT USED SCALE: N.T.S. 6



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REV	DATE	DESCRIPTION	BY
0	08/19/16	90% REVIEW	VV
1	08/30/16	FOR PERMIT	KC
2	11/01/16	FOUNDATION MOD DESIGN	EB
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SITE NAME
**NAUGATUCK EAST
BLVD ROAD**

SITE NUMBER:
CTL02056

SITE ADDRESS
**130 EAST SIDE BLVD.
NAUGATUCK, CT**

SHEET NAME
**GROUNDING
DETAILS**

SHEET NUMBER
A8

GROUNDING SCHEMATIC SCALE: N.T.S. 1

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APPLICABLE CODES

- 1.1 DESIGN & CONSTRUCTION OF ALL WORK SHALL CONFORM TO THE FOLLOWING CODES:
- 2012 INTERNATIONAL BUILDING CODE
 - TIA-222-G

GENERAL:

- ALL REFERENCES TO OWNER HEREIN SHALL BE CONSTRUED TO MEAN OWNER OR ITS DESIGNATED REPRESENTATIVE.
- ALL WORK PRESENTED ON THESE DRAWINGS SHALL BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL BE EXPERIENCED IN THE PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE AND/OR COUNTY IN WHICH IT IS TO BE PERFORMED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION PROCEDURES MEET THE REQUIREMENTS OF OSHA, THE OWNER AND OTHER APPLICABLE LOCAL, STATE AND FEDERAL SAFETY REGULATIONS.
- IF REQUESTED BY OWNER THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING APPROVALS AND PERMITS REQUIRED FROM ALL AUTHORITIES HAVING JURISDICTION FOR THIS PROJECT.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER OF RECORD PRIOR TO FABRICATION OR THE START OF ANY WORK.
- ALL WORKMANSHIP SHALL BE IN ACCORDANCE WITH ANSI, ASTM, ACI AND AISC STANDARDS AS REFERENCED IN THE APPLICABLE BUILDING CODE.
- ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE DRAWINGS. ANY AND ALL SUBSTITUTIONS SHALL BE DULY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER OF RECORD PRIOR TO FABRICATION AND INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
- ALL MANUFACTURER'S HARDWARE ASSEMBLY INSTRUCTIONS SHALL BE FOLLOWED EXACTLY. ANY CONFLICT WITH THESE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO FABRICATION OR THE START OF ANY WORK.
- ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE ALL INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIAL ACCESS, WITH THE OWNER.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY, LOCATE, AND SAFEGUARD ANY AND ALL EXISTING STRUCTURES OR BURIED SERVICES OR UTILITIES AFFECTED BY THIS CONSTRUCTION. CONTRACTOR SHALL ALSO RESPONSIBLE FOR TEMPORARILY RELOCATING ANY LINES OR STRUTS THAT ARE NECESSARY WHEN COMPLETING THE REQUIRED WORK.
- THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS FOR CONSTRUCTION STRESSES AND SHALL PROVIDE SUFFICIENT TEMPORARY BRACING AND/OR SHORING OF ALL STRUCTURAL AND NON-STRUCTURAL ELEMENTS DURING CONSTRUCTION UNTIL ALL STRUCTURAL ELEMENTS HAVE BEEN PROPERLY INSTALLED.
- STRUCTURAL DESIGN IS FOR THE COMPLETE CONDITION ONLY. ALL DESIGN LOADINGS INDICATED ON THE DRAWINGS AND RELATED CALCULATIONS ARE WORKING (I.E. UNFACTORED) LOADS UNLESS OTHERWISE INDICATED. ON ANY NEW STRUCTURAL FRAMING, DO NOT EXCEED THE DESIGN LOADS INDICATED ON THESE DRAWINGS.
- MEMBER REPLACEMENT SHALL BE PERFORMED ONLY DURING CALM DAYS (MAX. WIND SPEED OF 15 MPH). REPLACE ONLY ONE MEMBER AT A TIME. ALL FACES AND SIDES OF THE TOWER SHALL BE REINFORCED IDENTICALLY, UNLESS NOTED OTHERWISE.
- DO NOT SCALE DRAWINGS.
- DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
- STRUCTURAL CALCULATIONS FOR THE TOWER WERE PREPARED BY FULLERTON ENGINEERING, INC. AND THOSE CALCULATIONS CERTIFY THE CAPACITY OF THE TOWER STRUCTURE FOR THE ADDITIONAL LOADS. THE CONTRACTOR WILL COORDINATE WITH PROJECT MANAGER TO OBTAIN A COPY.
- CONTRACTOR TO REFER TO STRUCTURAL CALCULATIONS OF THE TOWER FOR ADDITIONAL LOADS. NO ERECTION OR MODIFICATION OF THE STRUCTURE SHALL BE MADE WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER OF RECORD PRIOR TO FABRICATION OR THE START OF ANY WORK

INSTALLATION:

- ALL CONTRACTORS MUST ADHERE TO ALL SITE AND TOWER SAFETY PROCEDURES AND PROVIDE THIS DOCUMENTATION IN WRITING IF REQUESTED TO THE OWNER. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF OSHA, ANSI/TIA-1019-A "STANDARDS FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS" AS WELL AS THE LATEST EDITION OF THE STATE LABOR CODE FOR THE STATE IN WHICH THIS PROJECT IS LOCATED.
- THE OWNER SHALL BE CONTACTED IMMEDIATELY TO EVALUATE ANY EXISTING CONDITIONS THAT WILL AFFECT THE SAFETY AND SCOPE OF WORK.
- CONTRACTOR TO PROVIDE THE NECESSARY CERTIFICATIONS OF ALL WORKERS ON THE TOWER TO OWNER UPON REQUEST.
- THE CONTRACTOR SHALL SUPERVISE ALL SAFETY PROGRAMS AND PRECAUTIONS IN CONNECTION WITH THIS WORK AND MUST PROVIDE WRITTEN DOCUMENTS OF THESE PROCEDURES.
- THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING; ALL INFORMATION PROVIDED ABOUT THE TOWER HAS BEEN TAKEN FROM MULTIPLE SOURCES AND HAS BEEN ASSUMED TO BE RELIABLE.
- EVERY ATTEMPT IS TO BE MADE TO AVOID CARRIER DOWNTIME. ALL COAX AND ITEMS CURRENTLY ON TOWER MUST BE RETURNED TO EQUAL OR BETTER THAN ORIGINAL CONDITION PRIOR TO COMPLETION. ANY DOWNTIME OR CHANGES ARE TO BE COORDINATED IN WRITING WITH THE OWNER.
- WORK IS TO BE CONTAINED TO THE SITE COMPOUND AREA ONLY. ANY OUTSIDE OR ADJACENT PROPERTY NEEDED TO PERFORM ACCESS OR SCOPE OF WORK TO BE REQUESTED IN WRITING TO THE OWNER.

CONCRETE REINFORCEMENT:

- ALL REINFORCING STEEL BARS SHALL BE ASTM A615, GRADE 60, DEFORMED BARS UNO.
- CONTRACTOR SHALL PREPARE AND SUBMIT CONCRETE REINFORCEMENT FABRICATION "SHOP" DRAWINGS TO FULLERTON FOR REVIEW PRIOR TO ORDERING ANY MATERIAL OR COMENCING WITH CONCRETE REINFORCING STEEL FABRICATION.
- THE CONTRACTOR SHALL HAVE ALL CONCRETE REINFORCING CAGES INSPECTED BY A QUALIFIED MATERIAL TESTING COMPANY PRIOR TO PLACEMENT OF CONCRETE. A REPORT OF THIS INSPECTION SHALL BE PROVIDED TO THE OWNER AND ENGINEER OF RECORD FOR REVIEW.
- REINFORCING STEEL SHALL BE DETAILED, FABRICATED, BENT AND PLACED IN ACCORDANCE WITH THE CRSI MANUAL OF STANDARD PRACTICE AND THE ACI 315 (LATEST EDITION).
- WELDING OF REINFORCING AND EMBEDMENTS IS PROHIBITED.
- CONCRETE COVER OVER ALL STEEL SHALL CONFORM TO ACI 318 BUILDING CODE MINIMUM REQUIREMENTS AND AS SHOWN ON STRUCTURAL DETAILS.
7. SPACING DEVICES SHALL BE USED AS REQUIRED TO MAINTAIN THE SIDE & BOTTOM CLEARANCE BETWEEN THE STEEL REINFORCEMENT AND EXCAVATION.

CONCRETE:

- ALL CONCRETE WORK SHALL CONFORM TO ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE. ALL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI.
- CONTRACTOR SHALL PREPARE AND SUBMIT CONCRETE MIX DESIGNS FOR EACH TYPE AND STRENGTH OF CONCRETE IN ACCORDANCE WITH ACI 211, "PROPORTIONING CONCRETE MIXTURES" AND ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE" TO FULLERTON FOR REVIEW PRIOR TO ORDERING OR INSTALLING ANY POURED IN PLACE CONCRETE.
- THE CONTRACTOR SHALL HAVE ALL FOUNDATION EXCAVATIONS INSPECTED BY A QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE TO VERIFY THE EXISTING SOILS CONDITIONS ARE CONSISTENT WITH THOSE CONSIDERED IN THIS DESIGN. A REPORT OF THIS INSPECTION SHALL BE PROVIDED TO THE OWNER AND ENGINEER OF RECORD FOR REVIEW.
- THE CONTRACTOR SHALL HAVE ALL POURED IN PLACE CONCRETE INSPECTED AND TESTED FOR SLUMP, AIR ENTRAINMENT AND 28 DAY COMPRESSIVE STRENGTH BY A QUALIFIED MATERIAL TESTING COMPANY. A REPORT OF THIS INSPECTION AND TEST RESULTS SHALL BE PROVIDED TO THE OWNER AND ENGINEER OF RECORD FOR REVIEW.
- ALL CONCRETE SHALL BE NORMAL DENSITY CONCRETE, MIXED IN ACCORDANCE WITH ASTM C94 FOR READY MIX CONCRETE.
- SLUMP TEST SHALL BE MADE IN ACCORDANCE WITH ASTM C 143. THE ALLOWABLE CONCRETE SLUMP SHALL BE 4 INCHES UNLESS SUPER-PLASTICIZERS ARE USED.
- THE ENGINEER OF RECORD SHALL APPROVE THE USE OF ANY SUPER-PLASTICIZER PRIOR TO INSTALLATION.
- CEMENT SHALL CONFORM TO ASTM C 150 TYPE I. FINE AGGREGATE SHALL CONFORM TO ASTM C33. COURSE AGGREGATE SHALL BE GRAVEL OR CRUSHED STONE CONFORMING TO ASTM C33. MAXIMUM AGGREGATE SIZE SHALL BE 3/4".
- WATER SHALL BE CLEAN AND FREE FROM OILS, ACIDS, ALKALIES, AND ORGANIC MATERIALS. NO ADDITIONAL WATER SHALL BE ADDED TO THE CONCRETE AT THE JOB SITE.
- DO NOT USE IN ADMIXTURE, WATER OR OTHER CONSTITUENTS OF CONCRETE WHICH CONTAINS CALCIUM CHLORIDE.
- PROVIDE AIR ENTRAINED CONCRETE WITH AIR CONTENT OF 5% TO 7% FOR ALL CONCRETE EXPOSED TO EARTH OR WEATHER. AIR ENTRAINING ADMIXTURE SHALL CONFORM TO ASTM C260.
- HOT WEATHER CONCRETE SHALL COMPLY WITH ACI 305R. NO CONCRETE SHALL BE PLACED WHEN THE ATMOSPHERIC TEMPERATURE IS BELOW 40 DEGREES F.
- CONCRETE SHALL BE PLACED INTO EXCAVATION WITHIN 8 TO 12 HOURS OF EXCAVATION WITH THE USE OF A CHUTE OR HOPPER DEVICE TO DIRECT THE CONCRETE TO FALL WITHIN THE CENTER OF THE STEEL CAGE. CONCRETE SHALL NOT BE ALLOWED TO HIT THE STEEL REINFORCEMENT WHICH WOULD CAUSE SEGREGATION OF THE MATERIAL.
- CURING COMPOUNDS SHALL BE WATER CLEAR, STYRENE ACRYLATE TYPE WITH A MINIMUM SOLIDS CONTENT OF 30%. APPLICATION SHALL BE IN CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS.
- CONSTRUCTION JOINTS MAY BE USED AT THE BASE OF PEDESTALS AS LONG AS BONDING AGENTS ARE APPLIED PRIOR TO SECOND POUR.
- ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4 INCH.

FOUNDATION NOTES:

- CONTRACTOR TO AVOID EXISTING REINFORCEMENT WHILE INSTALLING NEW DOWELS.
- PROVIDE WATER SEALANT, USE GREENSTREAK LOCKSTOP OR EQUIVALENT BETWEEN NEW AND EXISTING FOUNDATION. INSTALL PER MANUFACTURER RECOMMENDATIONS.
- THE INTERFACE BETWEEN EXISTING AND NEW FOUNDATIONS SHALL BE CLEAN AND FREE OF LAITANCE. THE EXISTING CONCRETE SURFACE SHALL BE ROUGHENED BY MECHANICAL CLEANING DEVICES, SCABBLERS, OR NEEDLE GUNS WITHOUT DAMAGING THE EXISTING CONCRETE FOUNDATION.
- REINFORCEMENT DOWELS TO BE DRILLED AND EPOXIED INTO FOUNDATION USING HILTI-RE 500 EPOXY ADHESIVE (OR EQUIVALENT) PER HILTI SPECIFICATIONS.
- NO EXCAVATION ALLOWED BELOW EXISTING FOUNDATION.
- CONTRACTOR TO FABRICATE REINFORCEMENT TO AVOID INTERFERENCE WITH EXISTING CONCRETE FOUNDATION.
- FOUNDATION MODIFICATIONS ARE TYPICAL FOR ALL 3 TOWER LEGS.
- CONTRACTOR SHALL REMOVE EXISTING FENCE & EXISTING ASPHALT TO ACCOMMODATE PROPOSED BUILD-OUT (FENCE MAY NEED TO BE REINSTALLED AT LATER DATE).



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SITE NAME
**NAUGATUCK EAST
BLVD ROAD**

SITE NUMBER:
CTL02056

SITE ADDRESS
**130 EAST SIDE BLVD.
NAUGATUCK, CT**

SHEET NAME
**STRUCTURAL
NOTES**

SHEET NUMBER
S1

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SITE NAME
**NAUGATUCK EAST
BLVD ROAD**

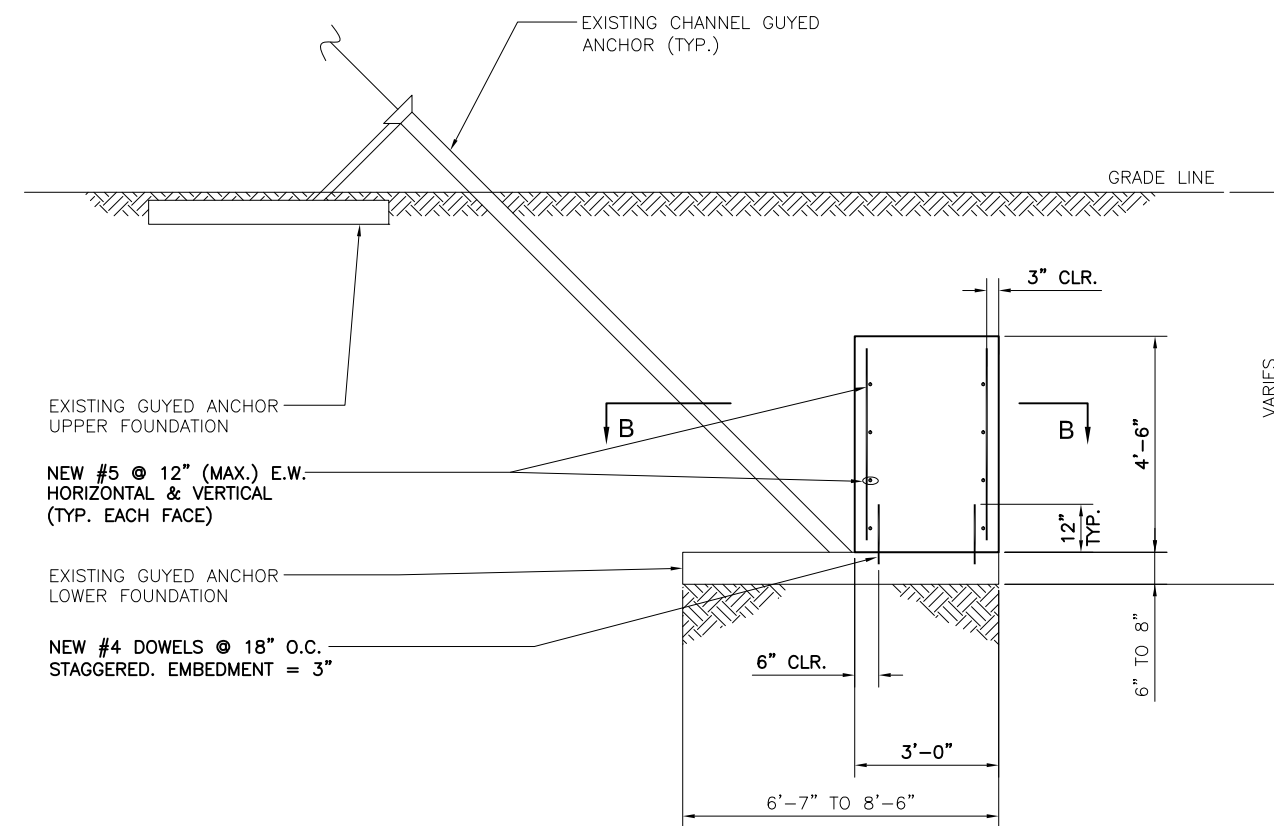
SITE NUMBER:
CTL02056

SITE ADDRESS
**130 EAST SIDE BLVD.
NAUGATUCK, CT**

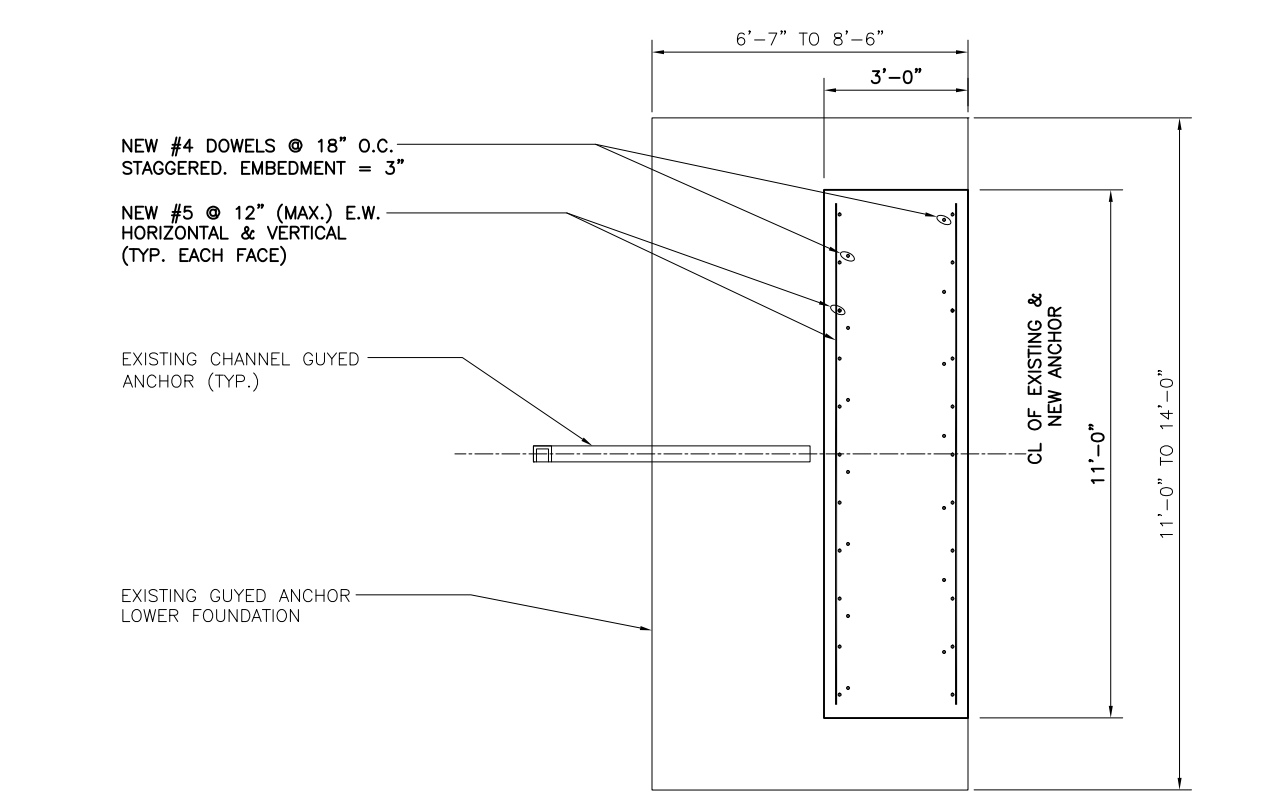
SHEET NAME
**FOUNDATION
MODIFICATION
DETAILS**

SHEET NUMBER

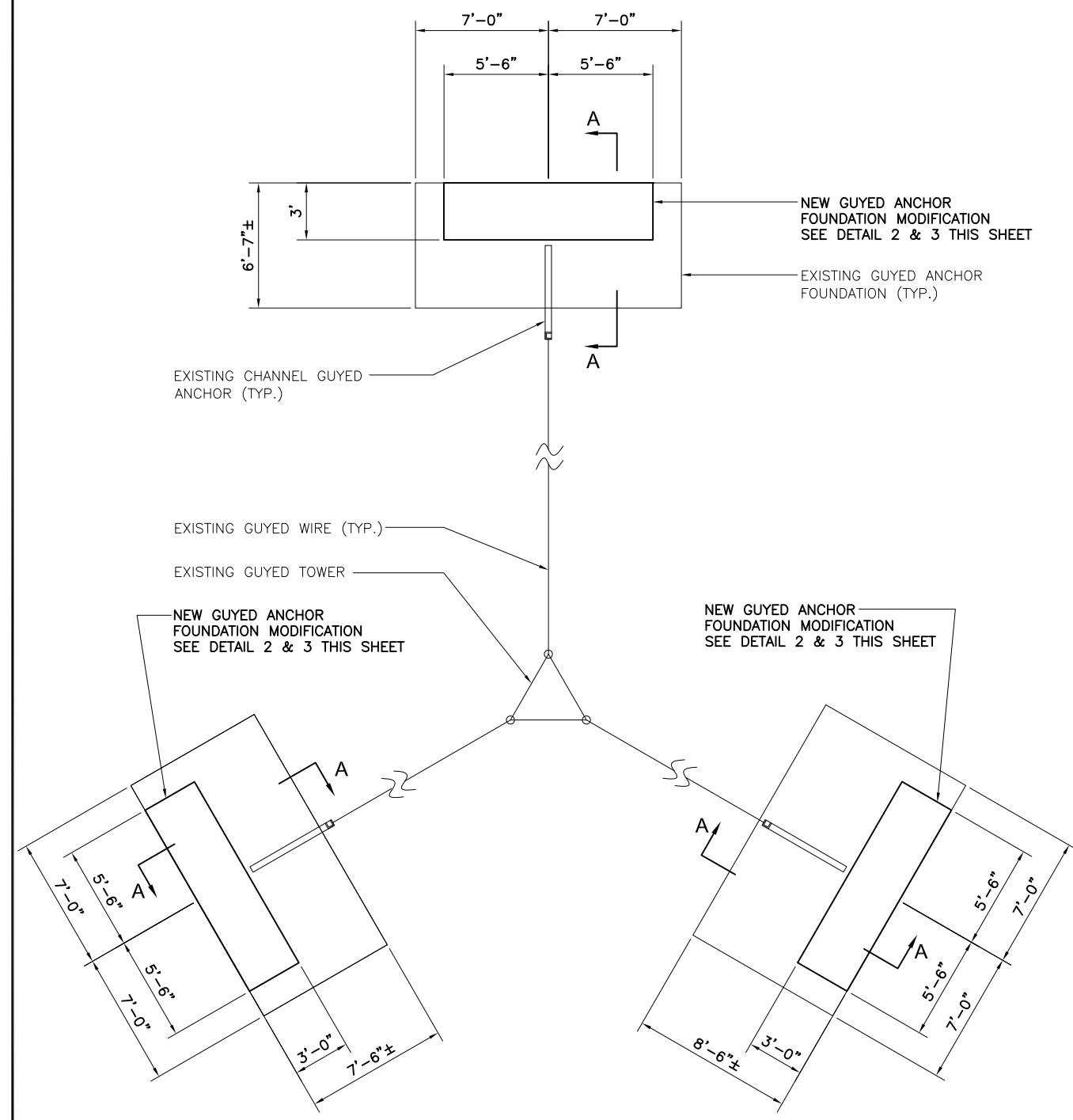
S2



GUYED TOWER FOUNDATION MODIFICATION SECTION A-A SCALE: 1/4" = 1'-0" 2



GUYED TOWER FOUNDATION MODIFICATION SECTION B-B SCALE: 1/4" = 1'-0" 3



TOWER FOUNDATION PLAN SCALE: 1/8" = 1'-0" 1

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STRUCTURAL ANALYSIS REPORT

Prepared for: Smartlink / AT&T LTE 3C / MULTI CARRIER

New Antenna Installation on Existing Guyed Tower

Site No.: CTL02056

FA No.: 10050930

Pace No.: MRCTB018361 / MRCTB018819

Site Name: Naugatuck East Blvd. Road

130 East Side Blvd.

Naugatuck, CT 06706

July 21, 2017

Revision 5: Included Modification by Others

Henry M. Bellagamba, P.E.

Summary

A rigorous structural analysis was performed by Fullerton, as requested by the client, to determine the conformance of existing structure with the governing building code, 2012 International Building Code and the industry standard, ANSI/TIA-222-G (Structural Standard for Steel Antenna Towers and Antenna Supporting Structures). The analysis considers the tower properties, existing and proposed appurtenances and the required loading criteria.

Conclusion

- **The tower members are in conformance for the loading considered.**
- **The tower base pier foundation is in conformance for the loading considered.**
- **The guy anchor foundation is in conformance for the loading considered, provided that the proposed modifications are applied to each anchor footing.**
- **This analysis assumes that the referenced modifications (Hudson Design Group, dated 05/14/2015) have been installed.**

Analysis Data

The following is based on information provided by the client, field investigation, and other determination by Fullerton Engineering Consultants or third parties.

Configuration	276'-0" Guyed Tower with a face width of 4'-0" and with guy wires at elevations 62'-0", 130'-0", 202'-0", and 261'-9"
References	<p>Rigorous Structural Analysis by Stainless, Report 350810 dated 10/21/2016 (Loading Only)</p> <p>Modification Drawings by Stainless, dated 10/24/2016</p> <p>Structural Analysis Report and Modifications by Hudson Design Group, dated 05/14/2015</p> <p>Foundation Investigation by Hudson Design Group, dated 11/05/2014</p> <p>Geotechnical Investigation Report by Hudson Design Group, dated 11/04/2014</p>
Modification History	<p>Increased tower mast foundation footing thickness from 8" to 18".</p> <p>Add L2 1/2x2 1/2x1/4 secondary horizontals at Elev. 0' to 42'</p> <p>Increase guy wire size from 1/2" to 9/16" at Elev. 62'</p> <p>Increase guy wire size from 5/8" to 3/4" at Elev. 130'</p> <p>Add L2x2x3/16 secondary horizontals at Elev. 42' - 106'</p> <p>Add L2x2x3/16 secondary horizontals at Elev. 126' - 130'</p> <p>Increase diagonal size to L2x2x1/4 at Elev. 46' - 74'</p> <p>Increase diagonal size to L2x2x3/8 at Elev. 130' - 146'</p>

Appurtenance Loading Schedule

ELEV. (FT.=AGL)	APPURTENANCE	TRANSMISSION LINES
	Proposed	
152'-0"	(1) CCI TPA-65R-LCUUUU-H8 (2) Quintel QS66512-2 (1) CCI HPA-65R-BUU-H8 (2) CCI HPA-65R-BUU-H6 (3) Ericsson RRUS-32 (3) Ericsson RRUS-32 B2 (1) Raycap DC6-48-60-18-8F (6) CCI TPX-070821 Mounted on existing (1) low profile platform	(1) Fiber Cable (2) DC Power Cable
	Existing (To Remain)	
281'-6"	(1) Lightning Rod Mounted on top of tower	
276'-0" (future)	(1) Junction Box Mounted to tower	(1) 1 1/2" Conduit
274'-0"	(1) 6' Ice Shields Mounted to tower leg	
270'-0"	(1) 6' Ice Shields Mounted to tower leg	
264'-0"	(2) Commscope HP6-105C 6'Ø Dish (1) Mounted on existing (1) pipe mounts and (1) mounted to tower leg	(4) EW63 Coaxial Cable
254'-0"	(1) Kathrein PR-460 4'Ø Grid Dish Mounted to tower leg	(1) 7/8" Coaxial Cable
236'-0"	(3) Commscope DBXNH-6565A-A2M (3) KRD901146/ AIR32 B66Aa/B2a (3) RRUS11 B12 Mounted on existing (3) T-frames	(6) 1-5/8" Coaxial Cable (1) Hybrid Cable
208'-0"	(3) RFS APXVSP18-C-A20 (4) EMS FS65-17-DP (6) RRH-1900 w/ (3) Combiners (3) RRH-800 w/Notch Filter Mounted on existing (3) T- frames	(12) 1-5/8" Coaxial Cable (3) 1-1/4" Coaxial Cable

196'-0"	(1) 18"x24" Dish Antenna Mounted to tower leg	(1) 1/2" Cable
188'-0" (future)	(1) Junction Box Mounted to tower	
172'-0"	(1) 6' Ice Shields Mounted to tower leg	
164'-0"	(1) Grid Dish Mounted to tower leg	(1) 1/2" Coaxial Cable
162'-0"	(1) 4 Bay Dipole Mounted to tower leg	(1) 7/8" Coaxial Cable
152'-0"	(3) Powerwave 7770 Antennas (3) RRUS-11 (3) RRUS-12 (6) Powerwave LGP21401 (1) Raycap DC6-48-60-18-8F Mounted on existing (3) sector frames	(12) 1-5/8" Coaxial Cable (1) Fiber Cable (2) DC Power Cable
115'-0" (future)	(1) DB222-A Antenna Mounted to (1) side arm	(1) 7/8" Coaxial Cable
94'-0" (future)	(1) Junction Box Mounted to tower	
52'-0"	(1) Weather/Wind Gauge Mounted to tower leg	(1) 3/8" Cable
20'-0"	(1) Alarm / temperature sensor Mounted to tower leg	(1) 3/8" Cable
10'-0" (future)	(1) Junction Box Mounted to tower	
Existing (To Be Removed)		
152'-0"	(2) KMW AM-X-CD-16-65 (1) Commscope SBNH-1D6565C (3) Powerwave 7770 Antennas Existing equipment shall be removed prior to the installation of the proposed equipment	

Results

The results of the structural analysis are summarized as follows:

Tower	The tower legs are adequate for proposed loads, with a maximum stress ratio of 89.1% @ Elev. 102'-122' AGL. The tower diagonals are adequate for proposed loads, with a maximum stress ratio of 84.3% @ Elev. 130'-134' AGL.
Guy Wires	The guy wires are adequate for proposed loads, with a maximum stress ratio of 77.2% @ Elev. 130' AGL.
Guy Anchor Shaft	The guy anchor shafts are adequate for proposed loads, with a maximum stress ratio of 83.0%.
Foundation	The base pier foundation is adequate for proposed loads. Modified guy anchor foundations are adequate for proposed loads.

Tower Modification

Modify the following members before adding proposed loading:

Guy Anchor Foundation	Install additional 5.5 yd ³ of concrete on top of each guy anchor foundation as 3' wide by 4.5' thick by 11' long block. The new concrete block shall be doweled into existing concrete block.
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Assumptions

This analysis is based on the theoretical capacity of the members and is not a condition assessment of the tower. The analysis is based solely on the information supplied, and the results, in turn, are only as accurate as data extracted from this information. Fullerton has been instructed by the client to assume the information supplied is accurate, and Fullerton has made no independent determination of its accuracy. The exception to the previous statement is if Fullerton has been contracted by the client to provide an independent structural mapping report of the tower and related appurtenances, in which case Fullerton has made an independent determination of the accuracy of the information resulting from the mapping report.

- The tower member sizes and geometry are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and stated in the materials section.
- The existing tower is assumed to have been properly maintained in accordance with the TIA/EIA standard and/or its original manufacturer's recommendations. The existing tower is assumed to be in good condition with no structural defects and with no deterioration to its member capacities.
- The antenna configuration is as supplied and/or stated in the analysis section. It is assumed to be complete and accurate. All antennas, mounts, remote radios, cables and cable supports are assumed to be properly installed and supported as per the manufacturer's requirements.
- The antennas, mounts, remote radios, cables and cable supports and lines stated in the appurtenance loading schedule represent Fullerton's understanding of the overall antenna configuration. If the actual configuration is different than above, then this analysis is invalid. Please refer to this report for the projected wind areas used in the calculations for antennas and mounts. If variations or discrepancies are identified, please inform Fullerton.
- Some assumptions are made regarding antenna and mount sizes and their projected areas based on a best interpretation of the data supplied and a best knowledge of antenna type and industry practice.
- The existing foundation is assumed to be in good condition with no structural defects and with no deterioration to its member capacities.
- The soil parameters are as per data supplied, or as assumed, and stated in the calculations.
- All welds and connections are assumed to develop at least the member capacity, unless determined otherwise and explicitly stated in this report.
- All prior structural modifications, if any, are assumed to be as per date supplied/ available, to be properly installed and to be fully effective.

Scope and Limitations

The engineering services rendered by Fullerton Engineering Consultants, Inc. (Fullerton) in connection with this structural analysis are limited to an analysis of the structure, size and capacity of its members. Fullerton does not analyze the fabrication, including welding and connection capacities, except as included in this report.

The information and conclusions contained in this report were determined by application of the current engineering standards and analysis procedures and formulae, and Fullerton assumes no obligation to revise any of the information or conclusions contained in this report in the event such engineering and analysis procedures and formulae are hereafter modified or revised.

Fullerton makes no warranties, expressed or implied in connection with this report and disclaims any liability arising from original design, material, fabrication and erection deficiencies or the “as-built” condition of this tower. Fullerton will not be responsible whatsoever for or on account of consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report.

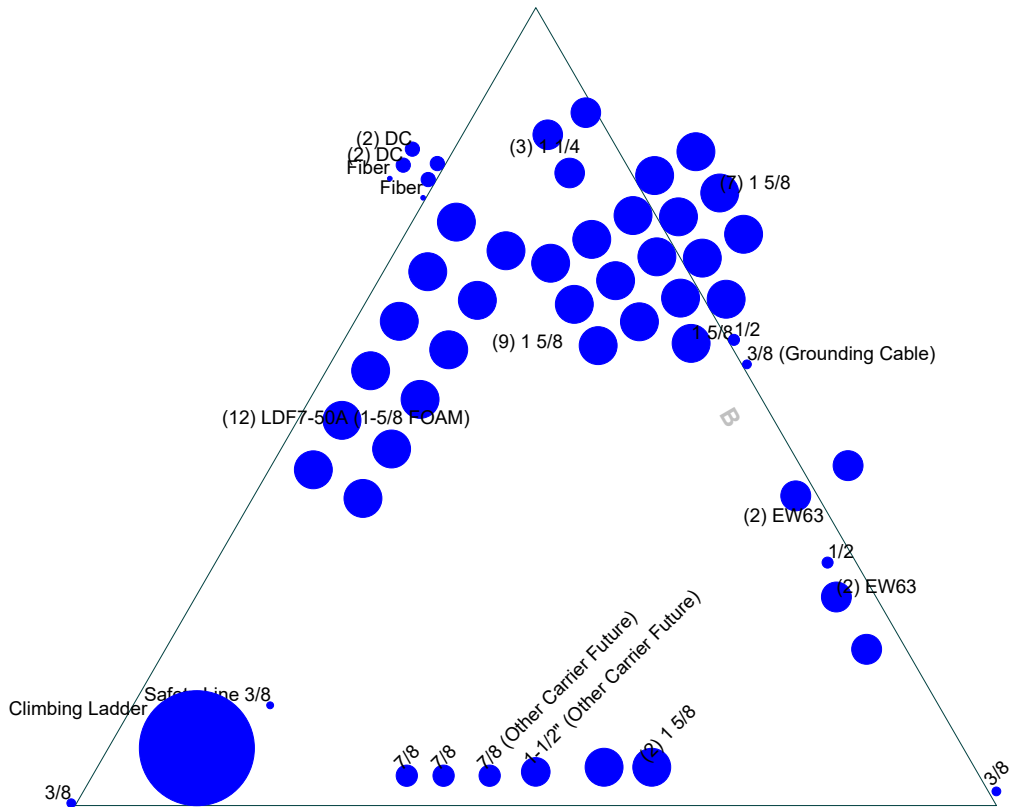
Installation procedures and loading are not within the scope of this report and should be performed and evaluated by a competent tower erection contractor.

Structural Calculations

Feed Line Plan 10'

_____ Round
 _____ Flat
 _____ App In Face
 _____ App Out Face

Section @ 10'



Fullerton Engineering		Job: Naugatuck East Blvd. - CTL02056	
1100 E. Woodfield Road, Suite 500		Project: LTE 3C	
Schaumburg, IL 60173		Client: Smartlink / AT&T	Drawn by: AS
Phone: (847) 908 8400		Code: TIA-222-G	App'd: _____
FAX: _____		Path: _____	Scale: NTS
		Page 10 of 149	Dwg No. E-7

tnxTower Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:	Job Naugatuck East Blvd. - CTL02056	Page 1 of 129
	Project LTE 3C	Date 12:39:55 07/21/17
	Client Smartlink / AT&T	Designed by AS

Tower Input Data

The main tower is a 3x guyed tower with an overall height of 276.00 ft above the ground line.

The base of the tower is set at an elevation of 0.00 ft above the ground line.

The face width of the tower is 4.00 ft at the top and 4.00 ft at the base.

This tower is designed using the TIA-222-G standard.

The following design criteria apply:

Tower is located in New Haven County, Connecticut.

Basic wind speed of 100 mph.

Structure Class II.

Exposure Category B.

Topographic Category 1.

Crest Height 0.00 ft.

Nominal ice thickness of 0.7500 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

A wind speed of 50 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

I-Beam base is 2.00 ft above the pivot.

Pressures are calculated at each section.

Safety factor used in guy design is 1.

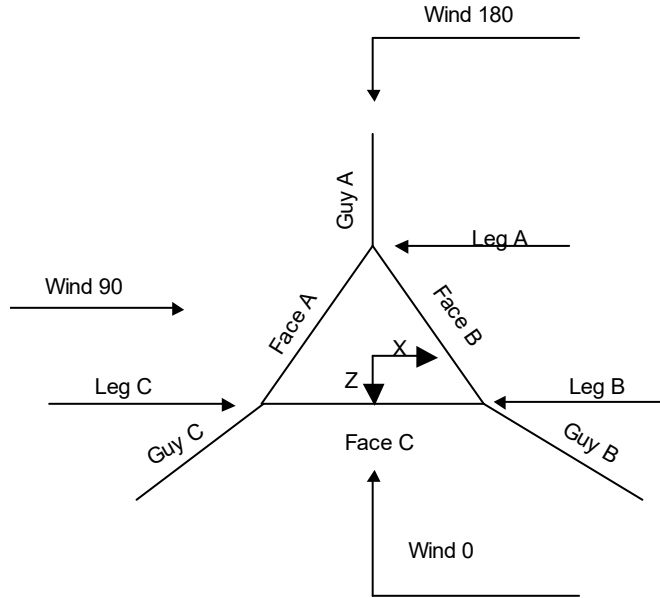
Stress ratio used in tower member design is 1.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

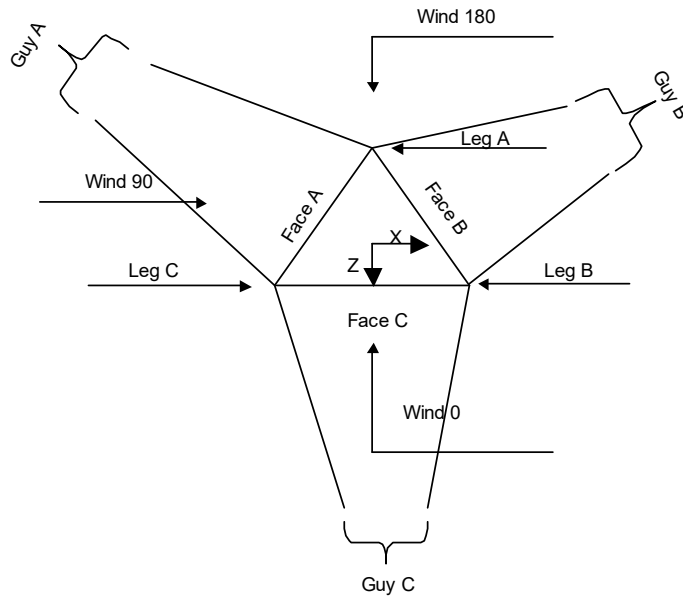
Options

<ul style="list-style-type: none"> Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification √ Use Code Stress Ratios √ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity Leg Bolts Are At Top Of Section √ Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric 	<ul style="list-style-type: none"> Distribute Leg Loads As Uniform Assume Legs Pinned √ Assume Rigid Index Plate √ Use Clear Spans For Wind Area √ Use Clear Spans For KL/r √ Retension Guys To Initial Tension Bypass Mast Stability Checks √ Use Azimuth Dish Coefficients √ Project Wind Area of Appurt. √ Autocalc Torque Arm Areas Add IBC .6D+W Combination √ Sort Capacity Reports By Component Triangulate Diamond Inner Bracing √ Treat Feed Line Bundles As Cylinder 	<ul style="list-style-type: none"> Use ASCE 10 X-Brace Ly Rules √ Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation √ Consider Feed Line Torque √ Include Angle Block Shear Check Use TIA-222-G Bracing Resist. Exemption Use TIA-222-G Tension Splice Exemption <li style="text-align: center;">Poles Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets
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Corner & Starmount Guyed Tower



Face Guyed

tnxTower Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:	Job Naugatuck East Blvd. - CTL02056	Page 3 of 129
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	Client Smartlink / AT&T	Designed by AS

Tower Section Geometry

<i>Tower Section</i>	<i>Tower Elevation</i>	<i>Assembly Database</i>	<i>Description</i>	<i>Section Width</i>	<i>Number of Sections</i>	<i>Section Length</i>
	<i>ft</i>			<i>ft</i>		<i>ft</i>
T1	276.00-265.50			4.00	1	10.50
T2	265.50-261.75			4.00	1	3.75
T3	261.75-258.00			4.00	1	3.75
T4	258.00-254.00			4.00	1	4.00
T5	254.00-242.00			4.00	1	12.00
T6	242.00-222.00			4.00	1	20.00
T7	222.00-206.00			4.00	1	16.00
T8	206.00-202.00			4.00	1	4.00
T9	202.00-198.00			4.00	1	4.00
T10	198.00-194.00			4.00	1	4.00
T11	194.00-182.00			4.00	1	12.00
T12	182.00-162.00			4.00	1	20.00
T13	162.00-158.00			4.00	1	4.00
T14	158.00-154.00			4.00	1	4.00
T15	154.00-150.00			4.00	1	4.00
T16	150.00-146.00			4.00	1	4.00
T17	146.00-142.00			4.00	1	4.00
T18	142.00-138.00			4.00	1	4.00
T19	138.00-134.00			4.00	1	4.00
T20	134.00-130.00			4.00	1	4.00
T21	130.00-126.00			4.00	1	4.00
T22	126.00-122.00			4.00	1	4.00
T23	122.00-102.00			4.00	1	20.00
T24	102.00-98.00			4.00	1	4.00
T25	98.00-94.00			4.00	1	4.00
T26	94.00-90.00			4.00	1	4.00
T27	90.00-86.00			4.00	1	4.00
T28	86.00-82.00			4.00	1	4.00
T29	82.00-78.00			4.00	1	4.00
T30	78.00-74.00			4.00	1	4.00
T31	74.00-70.00			4.00	1	4.00
T32	70.00-66.00			4.00	1	4.00
T33	66.00-62.00			4.00	1	4.00
T34	62.00-58.00			4.00	1	4.00
T35	58.00-54.00			4.00	1	4.00
T36	54.00-50.00			4.00	1	4.00
T37	50.00-46.00			4.00	1	4.00
T38	46.00-42.00			4.00	1	4.00
T39	42.00-38.00			4.00	1	4.00
T40	38.00-34.00			4.00	1	4.00
T41	34.00-30.00			4.00	1	4.00
T42	30.00-26.00			4.00	1	4.00
T43	26.00-22.00			4.00	1	4.00
T44	22.00-18.00			4.00	1	4.00
T45	18.00-14.00			4.00	1	4.00
T46	14.00-10.00			4.00	1	4.00
T47	10.00-6.00			4.00	1	4.00
T48	6.00-2.00			4.00	1	4.00

tnxTower Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:	Job	Naugatuck East Blvd. - CTL02056	Page	4 of 129
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	Client	Smartlink / AT&T	Designed by	AS

Tower Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T1	276.00-265.50	3.50	K Brace Left	No	Yes	0.0000	0.0000
T2	265.50-261.75	3.75	Diag Down	No	Yes	0.0000	0.0000
T3	261.75-258.00	3.75	X Brace	No	Yes	0.0000	0.0000
T4	258.00-254.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T5	254.00-242.00	4.00	K Brace Left	No	Yes	0.0000	0.0000
T6	242.00-222.00	4.00	K Brace Right	No	Yes	0.0000	0.0000
T7	222.00-206.00	4.00	K Brace Right	No	Yes	0.0000	0.0000
T8	206.00-202.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T9	202.00-198.00	4.00	X Brace	No	Yes	0.0000	0.0000
T10	198.00-194.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T11	194.00-182.00	4.00	K Brace Right	No	Yes	0.0000	0.0000
T12	182.00-162.00	4.00	K Brace Left	No	Yes	0.0000	0.0000
T13	162.00-158.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T14	158.00-154.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T15	154.00-150.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T16	150.00-146.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T17	146.00-142.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T18	142.00-138.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T19	138.00-134.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T20	134.00-130.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T21	130.00-126.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T22	126.00-122.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T23	122.00-102.00	4.00	K Brace Right	No	Yes	0.0000	0.0000
T24	102.00-98.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T25	98.00-94.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T26	94.00-90.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T27	90.00-86.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T28	86.00-82.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T29	82.00-78.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T30	78.00-74.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T31	74.00-70.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T32	70.00-66.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T33	66.00-62.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T34	62.00-58.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T35	58.00-54.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T36	54.00-50.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T37	50.00-46.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T38	46.00-42.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T39	42.00-38.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T40	38.00-34.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T41	34.00-30.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T42	30.00-26.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T43	26.00-22.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T44	22.00-18.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T45	18.00-14.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T46	14.00-10.00	4.00	Diag Up	No	Yes	0.0000	0.0000
T47	10.00-6.00	4.00	Diag Down	No	Yes	0.0000	0.0000
T48	6.00-2.00	4.00	Diag Up	No	Yes	0.0000	0.0000

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:</p>	<p>Job</p> <p style="text-align: center;">Naugatuck East Blvd. - CTL02056</p>	<p>Page</p> <p style="text-align: center;">5 of 129</p>
	<p>Project</p> <p style="text-align: center;">LTE 3C</p>	<p>Date</p> <p style="text-align: center;">12:39:55 07/21/17</p>
	<p>Client</p> <p style="text-align: center;">Smartlink / AT&T</p>	<p>Designed by</p> <p style="text-align: center;">AS</p>

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 276.00-265.50	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T2 265.50-261.75	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T3 261.75-258.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T4 258.00-254.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T5 254.00-242.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T6 242.00-222.00	Solid Round	1 3/4	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T7 222.00-206.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T8 206.00-202.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/8	A36 (36 ksi)
T9 202.00-198.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/8	A36 (36 ksi)
T10 198.00-194.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/8	A36 (36 ksi)
T11 194.00-182.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T12 182.00-162.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T13 162.00-158.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T14 158.00-154.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T15 154.00-150.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T16 150.00-146.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T17 146.00-142.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/8	A36 (36 ksi)
T18 142.00-138.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/8	A36 (36 ksi)
T19 138.00-134.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/8	A36 (36 ksi)
T20 134.00-130.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/8	A36 (36 ksi)
T21 130.00-126.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T22 126.00-122.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T23 122.00-102.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T24 102.00-98.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T25 98.00-94.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T26 94.00-90.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T27 90.00-86.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T28 86.00-82.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T29 82.00-78.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)

tnxTower Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:	Job	Naugatuck East Blvd. - CTL02056	Page	6 of 129
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	Client	Smartlink / AT&T	Designed by	AS

<i>Tower Elevation</i> <i>ft</i>	<i>Leg Type</i>	<i>Leg Size</i>	<i>Leg Grade</i>	<i>Diagonal Type</i>	<i>Diagonal Size</i>	<i>Diagonal Grade</i>
T30 78.00-74.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T31 74.00-70.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T32 70.00-66.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T33 66.00-62.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T34 62.00-58.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T35 58.00-54.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T36 54.00-50.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T37 50.00-46.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T38 46.00-42.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T39 42.00-38.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T40 38.00-34.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T41 34.00-30.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T42 30.00-26.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T43 26.00-22.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T44 22.00-18.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T45 18.00-14.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T46 14.00-10.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T47 10.00-6.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T48 6.00-2.00	Solid Round	2	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)

Tower Section Geometry (cont'd)

<i>Tower Elevation</i> <i>ft</i>	<i>Top Girt Type</i>	<i>Top Girt Size</i>	<i>Top Girt Grade</i>	<i>Bottom Girt Type</i>	<i>Bottom Girt Size</i>	<i>Bottom Girt Grade</i>
T1 276.00-265.50	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T2 265.50-261.75	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T3 261.75-258.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T4 258.00-254.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T5 254.00-242.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T6 242.00-222.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:</p>	Job	Naugatuck East Blvd. - CTL02056	Page	7 of 129
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	Client	Smartlink / AT&T	Designed by	AS

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T7 222.00-206.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T8 206.00-202.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T9 202.00-198.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T10 198.00-194.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T11 194.00-182.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T12 182.00-162.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T13 162.00-158.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T14 158.00-154.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T15 154.00-150.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T16 150.00-146.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T17 146.00-142.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T18 142.00-138.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T23 122.00-102.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T24 102.00-98.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T25 98.00-94.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T26 94.00-90.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T27 90.00-86.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T28 86.00-82.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T29 82.00-78.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T30 78.00-74.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T31 74.00-70.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T32 70.00-66.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T33 66.00-62.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T34 62.00-58.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T35 58.00-54.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T36 54.00-50.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T37 50.00-46.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T38 46.00-42.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T39 42.00-38.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T40 38.00-34.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T41 34.00-30.00	Equal Angle	L2x2x3/16	A36	Solid Round		A36

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Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T42 30.00-26.00	Equal Angle	L2x2x3/16	(36 ksi) A36	Solid Round		(36 ksi) A36
T43 26.00-22.00	Equal Angle	L2x2x3/16	(36 ksi) A36	Solid Round		(36 ksi) A36
T44 22.00-18.00	Equal Angle	L2x2x3/16	(36 ksi) A36	Solid Round		(36 ksi) A36
T45 18.00-14.00	Equal Angle	L2x2x3/16	(36 ksi) A36	Solid Round		(36 ksi) A36
T46 14.00-10.00	Equal Angle	L2x2x3/16	(36 ksi) A36	Solid Round		(36 ksi) A36
T47 10.00-6.00	Equal Angle	L2x2x3/16	(36 ksi) A36	Solid Round		(36 ksi) A36
T48 6.00-2.00	Equal Angle	L2x2x3/16	(36 ksi) A36	Solid Round		(36 ksi) A36

Tower Section Geometry (cont'd)

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 276.00-265.50	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T2 265.50-261.75	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T3 261.75-258.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T4 258.00-254.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T5 254.00-242.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T6 242.00-222.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T7 222.00-206.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T8 206.00-202.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T9 202.00-198.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T10 198.00-194.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T11 194.00-182.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T12 182.00-162.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T13 162.00-158.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T14 158.00-154.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T15 154.00-150.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T16 150.00-146.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T17 146.00-142.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)

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<i>Tower Elevation</i> <i>ft</i>	<i>No. of Mid Girts</i>	<i>Mid Girt Type</i>	<i>Mid Girt Size</i>	<i>Mid Girt Grade</i>	<i>Horizontal Type</i>	<i>Horizontal Size</i>	<i>Horizontal Grade</i>
T18 142.00-138.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T19 138.00-134.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T20 134.00-130.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T21 130.00-126.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T22 126.00-122.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T23 122.00-102.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T24 102.00-98.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T25 98.00-94.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T26 94.00-90.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T27 90.00-86.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T28 86.00-82.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T29 82.00-78.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T30 78.00-74.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T31 74.00-70.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T32 70.00-66.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T33 66.00-62.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T34 62.00-58.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T35 58.00-54.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T36 54.00-50.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T37 50.00-46.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T38 46.00-42.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T39 42.00-38.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T40 38.00-34.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T41 34.00-30.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T42 30.00-26.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T43 26.00-22.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T44 22.00-18.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T45 18.00-14.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T46 14.00-10.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)
T47 10.00-6.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)

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Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T48 6.00-2.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L2x2x3/16	A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T21 130.00-126.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T24 102.00-98.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T25 98.00-94.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T26 94.00-90.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T27 90.00-86.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T28 86.00-82.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T29 82.00-78.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T30 78.00-74.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T31 74.00-70.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T32 70.00-66.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T33 66.00-62.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T34 62.00-58.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T35 58.00-54.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T36 54.00-50.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T37 50.00-46.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T38 46.00-42.00	Equal Angle	L2x2x3/16	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T39 42.00-38.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T40 38.00-34.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T41 34.00-30.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T42 30.00-26.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T43 26.00-22.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T44 22.00-18.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T45 18.00-14.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)

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Tower Elevation	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
<i>ft</i>						
T46 14.00-10.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T47 10.00-6.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T48 6.00-2.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
<i>ft</i>	<i>ft²</i>	<i>in</i>							
T1	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
276.00-265.50									
T2	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
265.50-261.75									
T3	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
261.75-258.00									
T4	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
258.00-254.00									
T5	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
254.00-242.00									
T6	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
242.00-222.00									
T7	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
222.00-206.00									
T8	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
206.00-202.00									
T9	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
202.00-198.00									
T10	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
198.00-194.00									
T11	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
194.00-182.00									
T12	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
182.00-162.00									
T13	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
162.00-158.00									
T14	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
158.00-154.00									
T15	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
154.00-150.00									
T16	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
150.00-146.00									
T17	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
146.00-142.00									
T18	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
142.00-138.00									
T19	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
138.00-134.00									
T20	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000
134.00-130.00									
T21	0.00	0.0000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000	36.0000

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Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft ²	in							
130.00-126.00			(36 ksi)						
T22	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
126.00-122.00			(36 ksi)						
T23	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
122.00-102.00			(36 ksi)						
T24	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
102.00-98.00			(36 ksi)						
T25	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
98.00-94.00			(36 ksi)						
T26	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
94.00-90.00			(36 ksi)						
T27	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
90.00-86.00			(36 ksi)						
T28	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
86.00-82.00			(36 ksi)						
T29	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
82.00-78.00			(36 ksi)						
T30	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
78.00-74.00			(36 ksi)						
T31	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
74.00-70.00			(36 ksi)						
T32	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
70.00-66.00			(36 ksi)						
T33	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
66.00-62.00			(36 ksi)						
T34	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
62.00-58.00			(36 ksi)						
T35	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
58.00-54.00			(36 ksi)						
T36	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
54.00-50.00			(36 ksi)						
T37	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
50.00-46.00			(36 ksi)						
T38	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
46.00-42.00			(36 ksi)						
T39	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
42.00-38.00			(36 ksi)						
T40	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
38.00-34.00			(36 ksi)						
T41	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
34.00-30.00			(36 ksi)						
T42	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
30.00-26.00			(36 ksi)						
T43	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
26.00-22.00			(36 ksi)						
T44	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
22.00-18.00			(36 ksi)						
T45	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
18.00-14.00			(36 ksi)						
T46	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
14.00-10.00			(36 ksi)						
T47 10.00-6.00	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000
T48 6.00-2.00	0.00	0.0000	A36	1	1	1.05	36.0000	36.0000	36.0000

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Tower Section Geometry (cont'd)

Tower Elevation	Calc K Single Angles	Calc K Solid Rounds	Legs	K Factors ¹							
				X Brace Diags	K Brace Diags	Single Diags	Girts	Horiz.	Sec. Horiz.	Inner Brace	
				X Y	X Y	X Y	X Y	X Y	X Y	X Y	
ft											
T1	Yes	Yes	1	1	1	1	1	1	1	1	1
276.00-265.50				1	1	1	1	1	1	1	1
T2	Yes	Yes	1	1	1	1	1	1	1	1	1
265.50-261.75				1	1	1	1	1	1	1	1
T3	Yes	Yes	1	1	1	1	1	1	1	1	1
261.75-258.00				1	1	1	1	1	1	1	1
T4	Yes	Yes	1	1	1	1	1	1	1	1	1
258.00-254.00				1	1	1	1	1	1	1	1
T5	Yes	Yes	1	1	1	1	1	1	1	1	1
254.00-242.00				1	1	1	1	1	1	1	1
T6	Yes	Yes	1	1	1	1	1	1	1	1	1
242.00-222.00				1	1	1	1	1	1	1	1
T7	Yes	Yes	1	1	1	1	1	1	1	1	1
222.00-206.00				1	1	1	1	1	1	1	1
T8	Yes	Yes	1	1	1	1	1	1	1	1	1
206.00-202.00				1	1	1	1	1	1	1	1
T9	Yes	Yes	1	1	1	1	1	1	1	1	1
202.00-198.00				1	1	1	1	1	1	1	1
T10	Yes	Yes	1	1	1	1	1	1	1	1	1
198.00-194.00				1	1	1	1	1	1	1	1
T11	Yes	Yes	1	1	1	1	1	1	1	1	1
194.00-182.00				1	1	1	1	1	1	1	1
T12	Yes	Yes	1	1	1	1	1	1	1	1	1
182.00-162.00				1	1	1	1	1	1	1	1
T13	Yes	Yes	1	1	1	1	1	1	1	1	1
162.00-158.00				1	1	1	1	1	1	1	1
T14	Yes	Yes	1	1	1	1	1	1	1	1	1
158.00-154.00				1	1	1	1	1	1	1	1
T15	Yes	Yes	1	1	1	1	1	1	1	1	1
154.00-150.00				1	1	1	1	1	1	1	1
T16	Yes	Yes	1	1	1	1	1	1	1	1	1
150.00-146.00				1	1	1	1	1	1	1	1
T17	Yes	Yes	1	1	1	1	1	1	1	1	1
146.00-142.00				1	1	1	1	1	1	1	1
T18	Yes	Yes	1	1	1	1	1	1	1	1	1
142.00-138.00				1	1	1	1	1	1	1	1
T19	Yes	Yes	1	1	1	1	1	1	1	1	1
138.00-134.00				1	1	1	1	1	1	1	1
T20	Yes	Yes	1	1	1	1	1	1	1	1	1
134.00-130.00				1	1	1	1	1	1	1	1
T21	Yes	Yes	1	1	1	1	1	1	1	1	1
130.00-126.00				1	1	1	1	1	1	1	1
T22	Yes	Yes	1	1	1	1	1	1	1	1	1
126.00-122.00				1	1	1	1	1	1	1	1
T23	Yes	Yes	1	1	1	1	1	1	1	1	1
122.00-102.00				1	1	1	1	1	1	1	1
T24	Yes	Yes	1	1	1	1	1	1	1	1	1
102.00-98.00				1	1	1	1	1	1	1	1
T25	Yes	Yes	1	1	1	1	1	1	1	1	1
98.00-94.00				1	1	1	1	1	1	1	1
T26	Yes	Yes	1	1	1	1	1	1	1	1	1
94.00-90.00				1	1	1	1	1	1	1	1
T27	Yes	Yes	1	1	1	1	1	1	1	1	1
90.00-86.00				1	1	1	1	1	1	1	1
T28	Yes	Yes	1	1	1	1	1	1	1	1	1

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Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	<i>K Factors¹</i>							
			Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
			86.00-82.00 T29	Yes	Yes	1	1	1	1	1
82.00-78.00 T30	Yes	Yes	1	1	1	1	1	1	1	1
78.00-74.00 T31	Yes	Yes	1	1	1	1	1	1	1	1
74.00-70.00 T32	Yes	Yes	1	1	1	1	1	1	1	1
70.00-66.00 T33	Yes	Yes	1	1	1	1	1	1	1	1
66.00-62.00 T34	Yes	Yes	1	1	1	1	1	1	1	1
62.00-58.00 T35	Yes	Yes	1	1	1	1	1	1	1	1
58.00-54.00 T36	Yes	Yes	1	1	1	1	1	1	1	1
54.00-50.00 T37	Yes	Yes	1	1	1	1	1	1	1	1
50.00-46.00 T38	Yes	Yes	1	1	1	1	1	1	1	1
46.00-42.00 T39	Yes	Yes	1	1	1	1	1	1	1	1
42.00-38.00 T40	Yes	Yes	1	1	1	1	1	1	1	1
38.00-34.00 T41	Yes	Yes	1	1	1	1	1	1	1	1
34.00-30.00 T42	Yes	Yes	1	1	1	1	1	1	1	1
30.00-26.00 T43	Yes	Yes	1	1	1	1	1	1	1	1
26.00-22.00 T44	Yes	Yes	1	1	1	1	1	1	1	1
22.00-18.00 T45	Yes	Yes	1	1	1	1	1	1	1	1
18.00-14.00 T46	Yes	Yes	1	1	1	1	1	1	1	1
14.00-10.00 T47	Yes	Yes	1	1	1	1	1	1	1	1
10.00-6.00 T48	Yes	Yes	1	1	1	1	1	1	1	1
6.00-2.00										

¹Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.

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Tower Section Geometry (cont'd)

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 276.00-265.50	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T2 265.50-261.75	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T3 261.75-258.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 258.00-254.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 254.00-242.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 242.00-222.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 222.00-206.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 206.00-202.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T9 202.00-198.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 198.00-194.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T11 194.00-182.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T12 182.00-162.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T13 162.00-158.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T14 158.00-154.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T15 154.00-150.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T16 150.00-146.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T17 146.00-142.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T18 142.00-138.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T19 138.00-134.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T20 134.00-130.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T21 130.00-126.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T22 126.00-122.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T23 122.00-102.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T24 102.00-98.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T25 98.00-94.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T26 94.00-90.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T27 90.00-86.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

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Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T28 86.00-82.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T29 82.00-78.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T30 78.00-74.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T31 74.00-70.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T32 70.00-66.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T33 66.00-62.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T34 62.00-58.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T35 58.00-54.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T36 54.00-50.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T37 50.00-46.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T38 46.00-42.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T39 42.00-38.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T40 38.00-34.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T41 34.00-30.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T42 30.00-26.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T43 26.00-22.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T44 22.00-18.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T45 18.00-14.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T46 14.00-10.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T47 10.00-6.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T48 6.00-2.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 276.00-265.50	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T2 265.50-261.75	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
		A325N		A325N		A325N		A325N		A325N		A325N		A325N	

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Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T3	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
261.75-258.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T4	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
258.00-254.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T5	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
254.00-242.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T6	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
242.00-222.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T7	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
222.00-206.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T8	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
206.00-202.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T9	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
202.00-198.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T10	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
198.00-194.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T11	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
194.00-182.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T12	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
182.00-162.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T13	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
162.00-158.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T14	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
158.00-154.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T15	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
154.00-150.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T16	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
150.00-146.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T17	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
146.00-142.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T18	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
142.00-138.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T19	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
138.00-134.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T20	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
134.00-130.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T21	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
130.00-126.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T22	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
126.00-122.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T23	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
122.00-102.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T24	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
102.00-98.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T25	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
98.00-94.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T26	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
94.00-90.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T27	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
90.00-86.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T28	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
86.00-82.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T29	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
82.00-78.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T30	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
78.00-74.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T31	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
74.00-70.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	

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Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T32	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
70.00-66.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T33	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
66.00-62.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T34	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
62.00-58.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T35	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
58.00-54.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T36	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
54.00-50.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T37	Flange	0.7500	0	0.6250	1	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
50.00-46.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T38	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
46.00-42.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T39	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
42.00-38.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T40	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
38.00-34.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T41	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
34.00-30.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T42	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
30.00-26.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T43	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
26.00-22.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T44	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
22.00-18.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T45	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
18.00-14.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T46	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
14.00-10.00		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T47 10.00-6.00	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
		A325N		A325N		A325N		A325N		A325N		A325N		A325N	
T48 6.00-2.00	Flange	0.7500	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0	0.6250	0
		A325N		A325N		A325N		A325N		A325N		A325N		A325N	

Guy Data

Guy Elevation ft	Guy Grade	Guy Size	Initial Tension lb	%	Guy Modulus ksi	Guy Weight plf	L _u ft	Anchor Radius ft	Anchor Azimuth Adj. °	Anchor Elevation ft	End Fitting Efficiency %
261.75	EHS	A 9/16	3500.00	10%	21000	0.671	293.09	147.00	0.0000	6.00	100%
		B 9/16	3500.00	10%	21000	0.671	292.84	141.00	0.0000	3.00	100%
		C 9/16	3500.00	10%	21000	0.671	315.11	170.00	0.0000	-6.00	100%
202	EHS	A 9/16	3500.00	10%	21000	0.671	242.81	147.00	0.0000	6.00	100%
		B 9/16	3500.00	10%	21000	0.671	241.77	141.00	0.0000	3.00	100%
		C 9/16	3500.00	10%	21000	0.671	266.30	170.00	0.0000	-6.00	100%
130	EHS	A 3/4	5830.00	10%	19000	1.155	190.39	147.00	0.0000	6.00	100%
		B 3/4	5830.00	10%	19000	1.155	187.89	141.00	0.0000	3.00	100%
		C 3/4	5830.00	10%	19000	1.155	215.72	170.00	0.0000	-6.00	100%
62	EHS	A 9/16	3500.00	10%	21000	0.671	155.02	147.00	0.0000	6.00	100%
		B 9/16	3500.00	10%	21000	0.671	150.59	141.00	0.0000	3.00	100%
		C 9/16	3500.00	10%	21000	0.671	180.80	170.00	0.0000	-6.00	100%

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Guy Data(cont'd)

Guy Elevation ft	Mount Type	Torque-Arm Spread ft	Torque-Arm Leg Angle °	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
261.75	Torque Arm	12.00	30.0000	Bat Ear	A36 (36 ksi)	Equal Angle	L3 1/2x3 1/2x3/8
202	Torque Arm	12.00	30.0000	Bat Ear	A36 (36 ksi)	Equal Angle	L3 1/2x3 1/2x3/8
130	Corner						
62	Corner						

Guy Data (cont'd)

Guy Elevation ft	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap	Pull-Off Grade	Pull-Off Type	Pull-Off Size
261.75	A572-50 (50 ksi)	Solid Round			No	A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x3/8
202.00	A572-50 (50 ksi)	Solid Round			No	A36 (36 ksi)	Equal Angle	L2 1/2x2 1/2x3/8
130.00	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Equal Angle	
62.00	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Equal Angle	

Guy Data (cont'd)

Guy Elevation ft	Cable Weight A lb	Cable Weight B lb	Cable Weight C lb	Cable Weight D lb	Tower Intercept A ft	Tower Intercept B ft	Tower Intercept C ft	Tower Intercept D ft
261.75	196.66	196.50	211.44		8.04	8.03	9.29	
202	162.92	162.23	178.69		4.9 sec/pulse 5.55	4.9 sec/pulse 5.50	5.3 sec/pulse 6.67	
130	219.90	217.01	249.15		4.1 sec/pulse 3.55	4.1 sec/pulse 3.46	4.5 sec/pulse 4.55	
62	104.02	101.05	121.32		3.3 sec/pulse 2.29	3.2 sec/pulse 2.16	3.7 sec/pulse 3.12	
					2.6 sec/pulse	2.5 sec/pulse	3.0 sec/pulse	

Guy Data (cont'd)

Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm		Pull Off		Diagonal	
			K _x	K _y	K _x	K _y	K _x	K _y
261.75	Yes	No	1	1	1	1	1	1

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Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm		Pull Off		Diagonal	
			K _x	K _y	K _x	K _y	K _x	K _y
202	Yes	No	1	1	1	1	1	1
130	No	No			1	1	1	1
62	No	No			1	1	1	1

Guy Data (cont'd)

Guy Elevation ft	Torque-Arm				Pull Off				Diagonal			
	Bolt Size in	Number	Net Width Deduct in	U	Bolt Size in	Number	Net Width Deduct in	U	Bolt Size in	Number	Net Width Deduct in	U
261.75	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
202	0.0000 A325N	0	0.0000	1	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
130	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
62	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75

Guy Pressures

Guy Elevation ft	Guy Location	z ft	q _z psf	q _z Ice psf	Ice Thickness in
261.75	A	133.88	23	6	1.7255
	B	132.38	23	6	1.7235
	C	127.88	23	6	1.7176
202	A	104.00	22	5	1.6825
	B	102.50	22	5	1.6800
	C	98.00	21	5	1.6725
130	A	68.00	19	5	1.6125
	B	66.50	19	5	1.6089
	C	62.00	19	5	1.5976
62	A	34.00	16	4	1.5045
	B	32.50	16	4	1.4977
	C	28.00	15	4	1.4756

Guy-Tensioning Information

Temperature At Time Of Tensioning																	
Guy Elevation ft	H ft	V ft	0 F		20 F		40 F		60 F		80 F		100 F		120 F		
			Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	
261.75	A	143.66	255.75	3861	7.31	3740	7.54	3620	7.78	3500	8.04	3381	8.32	3263	8.62	3146	8.93
	B	137.67	258.75	3833	7.34	3722	7.56	3611	7.79	3500	8.03	3390	8.28	3281	8.55	3173	8.84
	C	166.64	267.75	3913	8.33	3774	8.63	3636	8.95	3500	9.29	3365	9.65	3231	10.04	3099	10.46
202	A	143.66	196.00	4027	4.84	3850	5.05	3674	5.29	3500	5.55	3327	5.84	3157	6.15	2988	6.49
	B	137.67	199.00	3990	4.84	3826	5.04	3662	5.26	3500	5.50	3339	5.76	3180	6.05	3022	6.36
	C	166.64	208.00	4080	5.74	3885	6.02	3691	6.33	3500	6.67	3311	7.04	3126	7.45	2944	7.91

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Temperature At Time Of Tensioning																	
Guy Elevation ft	H ft	V ft	0 F		20 F		40 F		60 F		80 F		100 F		120 F		
			Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	
130	A	144.69	124.00	7194	2.88	6735	3.08	6280	3.30	5830	3.55	5387	3.84	4954	4.17	4532	4.55
	B	138.69	127.00	7121	2.84	6687	3.02	6256	3.22	5830	3.46	5410	3.72	4997	4.03	4593	4.37
	C	167.69	136.00	7234	3.68	6760	3.93	6291	4.22	5830	4.55	5378	4.93	4939	5.36	4515	5.86
62	A	144.69	56.00	4825	1.67	4377	1.84	3935	2.04	3500	2.29	3076	2.61	2668	3.00	2286	3.50
	B	138.69	59.00	4794	1.58	4358	1.74	3925	1.93	3500	2.16	3084	2.45	2683	2.82	2304	3.28
	C	167.69	68.00	4788	2.28	4351	2.51	3921	2.78	3500	3.12	3092	3.52	2704	4.03	2343	4.64

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
EW63	B	No	Ar (CaAa)	264.00 - 8.00	-0.2000	0.1	2	1	1.5742	1.5742		0.51
EW63	B	No	Ar (CaAa)	264.00 - 8.00	-1.0000	0.25	2	2	1.5742	1.5742		0.51
7/8	C	No	Ar (CaAa)	254.00 - 8.00	-1.0000	0.1	1	1	1.1100	1.1100		0.54
7/8	C	No	Ar (CaAa)	162.00 - 8.00	-1.0000	0.14	1	1	1.1100	1.1100		0.54
1 5/8	B	No	Ar (CaAa)	236.00 - 8.00	0.0000	-0.2	7	4	0.5000	1.9800		1.04

1 5/8	B	No	Ar (CaAa)	208.00 - 8.00	-5.0000	-0.2	9	3	0.5000	1.9800		1.04
1 5/8	B	No	Ar (CaAa)	208.00 - 8.00	-0.7500	-0.1	1	1	0.5000	1.9800		1.04
1 5/8	C	No	Ar (CaAa)	208.00 - 8.00	-1.0000	-0.1	2	2	0.5000	1.9800		1.04
1 1/4	B	No	Ar (CaAa)	208.00 - 8.00	-2.0000	-0.35	3	2	0.7500	1.5500		0.66

1/2	B	No	Ar (CaAa)	196.00 - 8.00	-1.0000	0.18	1	1	0.5800	0.5800		0.25
1/2	B	No	Ar (CaAa)	164.00 - 8.00	0.0000	-0.08	1	1	0.5800	0.5800		0.25
3/8	B	No	Ar (CaAa)	236.00 - 8.00	0.0000	-0.05	1	1	0.4650	0.4650		0.13
(Grounding Cable)												
3/8	A	No	Ar (CaAa)	56.00 - 8.00	0.0000	-0.5	1	1	0.4650	0.4650		0.13
3/8	C	No	Ar (CaAa)	20.00 - 8.00	-0.5000	-0.5	1	1	0.4650	0.4650		0.13
Safety Line	A	No	Ar (CaAa)	276.00 - 8.00	-6.0000	-0.3	1	1	0.3750	0.3750		0.22
3/8												

LDF7-50A (1-5/8 FOAM)	A	No	Ar (CaAa)	152.00 - 8.00	-4.0000	0.1	12	6	1.0000	1.9800		0.82
Fiber	A	No	Ar (CaAa)	152.00 - 8.00	0.0000	0.26	1	1	0.2500	0.2500		0.07
DC	A	No	Ar (CaAa)	152.00 - 8.00	0.0000	0.28	2	1	0.7500	0.7500		1.13

Fiber	A	No	Ar (CaAa)	152.00 - 8.00	2.0000	0.26	1	1	0.2500	0.2500		0.07
DC	A	No	Ar (CaAa)	152.00 - 8.00	0.0000	0.3	2	1	0.7500	0.7500		1.13

1-1/2"	C	No	Ar (CaAa)	276.00 - 0.00	-1.0000	0	1	1	1.5000	1.5000		1.12
(Other Carrier Future)												
7/8	C	No	Ar (CaAa)	115.00 - 0.00	-1.0000	0.05	1	1	1.1100	1.1100		0.54
(Other Carrier Future)												

L2x2x3/16 half bay brace	A	No	Af (CaAa)	106.00 - 42.00	0.0000	0	1	1	1.4000	1.4000		1.73
L2x2x3/16 half bay brace	B	No	Af (CaAa)	106.00 - 42.00	0.0000	0	1	1	1.4000	1.4000		1.73
L2x2x3/16 half bay brace	C	No	Af (CaAa)	106.00 - 42.00	0.0000	0	1	1	1.4000	1.4000		1.73
L2x2x3/16 half bay brace	A	No	Af (CaAa)	130.00 - 126.00	0.0000	0	1	1	1.4000	1.4000		1.73

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	Client	Smartlink / AT&T	Designed by	AS

Description	Face or Shield Leg	Allow	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
L2x2x3/16 half bay brace	B	No	Af (CaAa)	130.00 - 126.00	0.0000	0	1	1	1.4000	1.4000		1.73
L2x2x3/16 half bay brace	C	No	Af (CaAa)	130.00 - 126.00	0.0000	0	1	1	1.4000	1.4000		1.73

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Shield Leg	Allow	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	C _{AA}	Weight plf	
Climbing Ladder	A	No	CaAa (In Face)	276.00 - 8.00	-1.0000	-0.38	1	No Ice	0.29	4.81
								1/2" Ice	0.55	10.60
								1" Ice	0.81	13.30

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight lb
T1	276.00-265.50	A	0.000	0.000	3.439	0.000	52.81
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	1.575	0.000	11.76
T2	265.50-261.75	A	0.000	0.000	1.228	0.000	18.86
		B	0.000	0.000	1.417	0.000	4.59
		C	0.000	0.000	0.563	0.000	4.20
T3	261.75-258.00	A	0.000	0.000	1.228	0.000	18.86
		B	0.000	0.000	2.361	0.000	7.65
		C	0.000	0.000	0.563	0.000	4.20
T4	258.00-254.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	2.519	0.000	8.16
		C	0.000	0.000	0.600	0.000	4.48
T5	254.00-242.00	A	0.000	0.000	3.930	0.000	60.36
		B	0.000	0.000	7.556	0.000	24.48
		C	0.000	0.000	3.132	0.000	19.92
T6	242.00-222.00	A	0.000	0.000	6.550	0.000	100.60
		B	0.000	0.000	32.649	0.000	144.54
		C	0.000	0.000	5.220	0.000	33.20
T7	222.00-206.00	A	0.000	0.000	5.240	0.000	80.48
		B	0.000	0.000	37.885	0.000	175.96
		C	0.000	0.000	4.968	0.000	30.72
T8	206.00-202.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	18.029	0.000	87.32
		C	0.000	0.000	2.628	0.000	14.96
T9	202.00-198.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	18.029	0.000	87.32
		C	0.000	0.000	2.628	0.000	14.96
T10	198.00-194.00	A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	18.145	0.000	87.82
		C	0.000	0.000	2.628	0.000	14.96
T11	194.00-182.00	A	0.000	0.000	3.930	0.000	60.36
		B	0.000	0.000	54.782	0.000	264.96
		C	0.000	0.000	7.884	0.000	44.88
T12	182.00-162.00	A	0.000	0.000	6.550	0.000	100.60
		B	0.000	0.000	91.420	0.000	442.10

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Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight lb
T13	162.00-158.00	C	0.000	0.000	13.140	0.000	74.80
		A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	18.493	0.000	89.32
T14	158.00-154.00	C	0.000	0.000	3.072	0.000	17.12
		A	0.000	0.000	1.310	0.000	20.12
		B	0.000	0.000	18.493	0.000	89.32
T15	154.00-150.00	C	0.000	0.000	3.072	0.000	17.12
		A	0.000	0.000	6.762	0.000	49.12
		B	0.000	0.000	18.493	0.000	89.32
T16	150.00-146.00	C	0.000	0.000	3.072	0.000	17.12
		A	0.000	0.000	12.214	0.000	78.12
		B	0.000	0.000	18.493	0.000	89.32
T17	146.00-142.00	C	0.000	0.000	3.072	0.000	17.12
		A	0.000	0.000	12.214	0.000	78.12
		B	0.000	0.000	18.493	0.000	89.32
T18	142.00-138.00	C	0.000	0.000	3.072	0.000	17.12
		A	0.000	0.000	12.214	0.000	78.12
		B	0.000	0.000	18.493	0.000	89.32
T19	138.00-134.00	C	0.000	0.000	3.072	0.000	17.12
		A	0.000	0.000	12.214	0.000	78.12
		B	0.000	0.000	18.493	0.000	89.32
T20	134.00-130.00	C	0.000	0.000	3.072	0.000	17.12
		A	0.000	0.000	12.214	0.000	78.12
		B	0.000	0.000	18.493	0.000	89.32
T21	130.00-126.00	C	0.000	0.000	3.072	0.000	17.12
		A	0.000	0.000	13.147	0.000	85.02
		B	0.000	0.000	19.426	0.000	96.22
T22	126.00-122.00	C	0.000	0.000	4.005	0.000	24.02
		A	0.000	0.000	12.214	0.000	78.12
		B	0.000	0.000	18.493	0.000	89.32
T23	122.00-102.00	C	0.000	0.000	3.072	0.000	17.12
		A	0.000	0.000	62.003	0.000	397.50
		B	0.000	0.000	93.397	0.000	453.50
T24	102.00-98.00	C	0.000	0.000	17.736	0.000	99.52
		A	0.000	0.000	13.147	0.000	85.02
		B	0.000	0.000	19.426	0.000	96.22
T25	98.00-94.00	C	0.000	0.000	4.449	0.000	26.18
		A	0.000	0.000	13.147	0.000	85.02
		B	0.000	0.000	19.426	0.000	96.22
T26	94.00-90.00	C	0.000	0.000	4.449	0.000	26.18
		A	0.000	0.000	13.147	0.000	85.02
		B	0.000	0.000	19.426	0.000	96.22
T27	90.00-86.00	C	0.000	0.000	4.449	0.000	26.18
		A	0.000	0.000	13.147	0.000	85.02
		B	0.000	0.000	19.426	0.000	96.22
T28	86.00-82.00	C	0.000	0.000	4.449	0.000	26.18
		A	0.000	0.000	13.147	0.000	85.02
		B	0.000	0.000	19.426	0.000	96.22
T29	82.00-78.00	C	0.000	0.000	4.449	0.000	26.18
		A	0.000	0.000	13.147	0.000	85.02
		B	0.000	0.000	19.426	0.000	96.22
T30	78.00-74.00	C	0.000	0.000	4.449	0.000	26.18
		A	0.000	0.000	13.147	0.000	85.02
		B	0.000	0.000	19.426	0.000	96.22
T31	74.00-70.00	C	0.000	0.000	4.449	0.000	26.18
		A	0.000	0.000	13.147	0.000	85.02
		B	0.000	0.000	19.426	0.000	96.22
T32	70.00-66.00	C	0.000	0.000	4.449	0.000	26.18
		A	0.000	0.000	13.147	0.000	85.02
		B	0.000	0.000	19.426	0.000	96.22

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Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight lb
T33	66.00-62.00	A	0.000	0.000	13.147	0.000	85.02
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	4.449	0.000	26.18
T34	62.00-58.00	A	0.000	0.000	13.147	0.000	85.02
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	4.449	0.000	26.18
T35	58.00-54.00	A	0.000	0.000	13.240	0.000	85.28
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	4.449	0.000	26.18
T36	54.00-50.00	A	0.000	0.000	13.333	0.000	85.54
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	4.449	0.000	26.18
T37	50.00-46.00	A	0.000	0.000	13.333	0.000	85.54
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	4.449	0.000	26.18
T38	46.00-42.00	A	0.000	0.000	13.333	0.000	85.54
		B	0.000	0.000	19.426	0.000	96.22
		C	0.000	0.000	4.449	0.000	26.18
T39	42.00-38.00	A	0.000	0.000	12.400	0.000	78.64
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.516	0.000	19.28
T40	38.00-34.00	A	0.000	0.000	12.400	0.000	78.64
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.516	0.000	19.28
T41	34.00-30.00	A	0.000	0.000	12.400	0.000	78.64
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.516	0.000	19.28
T42	30.00-26.00	A	0.000	0.000	12.400	0.000	78.64
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.516	0.000	19.28
T43	26.00-22.00	A	0.000	0.000	12.400	0.000	78.64
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.516	0.000	19.28
T44	22.00-18.00	A	0.000	0.000	12.400	0.000	78.64
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.609	0.000	19.54
T45	18.00-14.00	A	0.000	0.000	12.400	0.000	78.64
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.702	0.000	19.80
T46	14.00-10.00	A	0.000	0.000	12.400	0.000	78.64
		B	0.000	0.000	18.493	0.000	89.32
		C	0.000	0.000	3.702	0.000	19.80
T47	10.00-6.00	A	0.000	0.000	6.200	0.000	39.32
		B	0.000	0.000	9.246	0.000	44.66
		C	0.000	0.000	2.373	0.000	13.22
T48	6.00-2.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	1.044	0.000	6.64

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight lb
T1	276.00-265.50	A	1.851	0.000	0.000	17.435	0.000	243.11
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	5.463	0.000	91.35
T2	265.50-261.75	A	1.846	0.000	0.000	6.214	0.000	86.63

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Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight lb
		B		0.000	0.000	5.584	0.000	69.48
		C		0.000	0.000	1.947	0.000	32.51
T3	261.75-258.00	A	1.844	0.000	0.000	6.206	0.000	86.53
		B		0.000	0.000	9.301	0.000	115.59
		C		0.000	0.000	1.945	0.000	32.45
T4	258.00-254.00	A	1.841	0.000	0.000	6.612	0.000	92.18
		B		0.000	0.000	9.913	0.000	123.06
		C		0.000	0.000	2.073	0.000	34.54
T5	254.00-242.00	A	1.835	0.000	0.000	19.786	0.000	275.83
		B		0.000	0.000	29.691	0.000	367.65
		C		0.000	0.000	11.941	0.000	188.90
T6	242.00-222.00	A	1.823	0.000	0.000	32.801	0.000	457.19
		B		0.000	0.000	81.980	0.000	1162.15
		C		0.000	0.000	19.804	0.000	311.87
T7	222.00-206.00	A	1.808	0.000	0.000	26.072	0.000	363.34
		B		0.000	0.000	83.986	0.000	1241.03
		C		0.000	0.000	18.206	0.000	275.97
T8	206.00-202.00	A	1.800	0.000	0.000	6.493	0.000	90.48
		B		0.000	0.000	34.033	0.000	536.47
		C		0.000	0.000	8.825	0.000	119.55
T9	202.00-198.00	A	1.796	0.000	0.000	6.483	0.000	90.33
		B		0.000	0.000	34.002	0.000	535.46
		C		0.000	0.000	8.814	0.000	119.25
T10	198.00-194.00	A	1.793	0.000	0.000	6.472	0.000	90.19
		B		0.000	0.000	34.804	0.000	545.32
		C		0.000	0.000	8.803	0.000	118.95
T11	194.00-182.00	A	1.785	0.000	0.000	19.353	0.000	269.64
		B		0.000	0.000	106.703	0.000	1661.82
		C		0.000	0.000	26.343	0.000	355.02
T12	182.00-162.00	A	1.769	0.000	0.000	32.027	0.000	446.18
		B		0.000	0.000	177.922	0.000	2756.37
		C		0.000	0.000	43.668	0.000	585.19
T13	162.00-158.00	A	1.757	0.000	0.000	6.369	0.000	88.72
		B		0.000	0.000	36.937	0.000	566.35
		C		0.000	0.000	10.545	0.000	142.76
T14	158.00-154.00	A	1.752	0.000	0.000	6.356	0.000	88.54
		B		0.000	0.000	36.892	0.000	564.92
		C		0.000	0.000	10.528	0.000	142.30
T15	154.00-150.00	A	1.748	0.000	0.000	16.927	0.000	277.32
		B		0.000	0.000	36.846	0.000	563.46
		C		0.000	0.000	10.511	0.000	141.83
T16	150.00-146.00	A	1.743	0.000	0.000	27.472	0.000	465.16
		B		0.000	0.000	36.799	0.000	561.97
		C		0.000	0.000	10.493	0.000	141.34
T17	146.00-142.00	A	1.738	0.000	0.000	27.431	0.000	464.00
		B		0.000	0.000	36.751	0.000	560.44
		C		0.000	0.000	10.475	0.000	140.85
T18	142.00-138.00	A	1.733	0.000	0.000	27.389	0.000	462.82
		B		0.000	0.000	36.701	0.000	558.88
		C		0.000	0.000	10.456	0.000	140.34
T19	138.00-134.00	A	1.728	0.000	0.000	27.346	0.000	461.61
		B		0.000	0.000	36.650	0.000	557.28
		C		0.000	0.000	10.437	0.000	139.83
T20	134.00-130.00	A	1.723	0.000	0.000	27.302	0.000	460.37
		B		0.000	0.000	36.598	0.000	555.64
		C		0.000	0.000	10.418	0.000	139.29
T21	130.00-126.00	A	1.718	0.000	0.000	29.022	0.000	498.34
		B		0.000	0.000	38.309	0.000	593.19
		C		0.000	0.000	12.163	0.000	177.99
T22	126.00-122.00	A	1.712	0.000	0.000	27.210	0.000	457.79
		B		0.000	0.000	36.489	0.000	552.22

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	Client	Smartlink / AT&T	Designed by	AS

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight lb
T23	122.00-102.00	C		0.000	0.000	10.377	0.000	138.19
		A	1.695	0.000	0.000	137.594	0.000	2306.81
		B		0.000	0.000	183.852	0.000	2772.25
		C		0.000	0.000	59.696	0.000	803.21
T24	102.00-98.00	A	1.676	0.000	0.000	29.171	0.000	487.14
		B		0.000	0.000	38.393	0.000	578.76
		C		0.000	0.000	14.298	0.000	197.49
T25	98.00-94.00	A	1.669	0.000	0.000	29.107	0.000	485.33
		B		0.000	0.000	38.318	0.000	576.42
		C		0.000	0.000	14.261	0.000	196.46
T26	94.00-90.00	A	1.662	0.000	0.000	29.041	0.000	483.46
		B		0.000	0.000	38.240	0.000	574.01
		C		0.000	0.000	14.223	0.000	195.39
T27	90.00-86.00	A	1.655	0.000	0.000	28.971	0.000	481.52
		B		0.000	0.000	38.159	0.000	571.50
		C		0.000	0.000	14.183	0.000	194.29
T28	86.00-82.00	A	1.647	0.000	0.000	28.899	0.000	479.50
		B		0.000	0.000	38.075	0.000	568.89
		C		0.000	0.000	14.142	0.000	193.14
T29	82.00-78.00	A	1.639	0.000	0.000	28.824	0.000	477.39
		B		0.000	0.000	37.988	0.000	566.17
		C		0.000	0.000	14.098	0.000	191.94
T30	78.00-74.00	A	1.631	0.000	0.000	28.746	0.000	475.20
		B		0.000	0.000	37.896	0.000	563.34
		C		0.000	0.000	14.053	0.000	190.69
T31	74.00-70.00	A	1.622	0.000	0.000	28.663	0.000	472.91
		B		0.000	0.000	37.800	0.000	560.38
		C		0.000	0.000	14.006	0.000	189.39
T32	70.00-66.00	A	1.612	0.000	0.000	28.576	0.000	470.50
		B		0.000	0.000	37.698	0.000	557.27
		C		0.000	0.000	13.956	0.000	188.02
T33	66.00-62.00	A	1.603	0.000	0.000	28.485	0.000	467.98
		B		0.000	0.000	37.592	0.000	554.01
		C		0.000	0.000	13.904	0.000	186.59
T34	62.00-58.00	A	1.592	0.000	0.000	28.388	0.000	465.31
		B		0.000	0.000	37.479	0.000	550.57
		C		0.000	0.000	13.848	0.000	185.07
T35	58.00-54.00	A	1.581	0.000	0.000	29.011	0.000	470.66
		B		0.000	0.000	37.359	0.000	546.93
		C		0.000	0.000	13.789	0.000	183.48
T36	54.00-50.00	A	1.570	0.000	0.000	29.618	0.000	475.63
		B		0.000	0.000	37.231	0.000	543.06
		C		0.000	0.000	13.726	0.000	181.78
T37	50.00-46.00	A	1.557	0.000	0.000	29.491	0.000	472.22
		B		0.000	0.000	37.094	0.000	538.92
		C		0.000	0.000	13.659	0.000	179.97
T38	46.00-42.00	A	1.544	0.000	0.000	29.354	0.000	468.56
		B		0.000	0.000	36.946	0.000	534.49
		C		0.000	0.000	13.586	0.000	178.03
T39	42.00-38.00	A	1.529	0.000	0.000	27.048	0.000	430.61
		B		0.000	0.000	34.630	0.000	495.71
		C		0.000	0.000	11.350	0.000	141.95
T40	38.00-34.00	A	1.513	0.000	0.000	26.898	0.000	426.74
		B		0.000	0.000	34.467	0.000	490.92
		C		0.000	0.000	11.277	0.000	140.10
T41	34.00-30.00	A	1.495	0.000	0.000	26.732	0.000	422.48
		B		0.000	0.000	34.287	0.000	485.65
		C		0.000	0.000	11.196	0.000	138.07
T42	30.00-26.00	A	1.476	0.000	0.000	26.546	0.000	417.74
		B		0.000	0.000	34.086	0.000	479.79
		C		0.000	0.000	11.105	0.000	135.82

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Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight lb
T43	26.00-22.00	A	1.453	0.000	0.000	26.334	0.000	412.39
		B		0.000	0.000	33.857	0.000	473.17
		C		0.000	0.000	11.001	0.000	133.28
T44	22.00-18.00	A	1.427	0.000	0.000	26.089	0.000	406.23
		B		0.000	0.000	33.591	0.000	465.53
		C		0.000	0.000	11.544	0.000	137.21
T45	18.00-14.00	A	1.395	0.000	0.000	25.794	0.000	398.92
		B		0.000	0.000	33.272	0.000	456.45
		C		0.000	0.000	12.039	0.000	140.10
T46	14.00-10.00	A	1.356	0.000	0.000	25.423	0.000	389.85
		B		0.000	0.000	32.871	0.000	445.18
		C		0.000	0.000	11.826	0.000	135.20
T47	10.00-6.00	A	1.302	0.000	0.000	12.460	0.000	188.87
		B		0.000	0.000	16.163	0.000	215.04
		C		0.000	0.000	7.331	0.000	84.24
T48	6.00-2.00	A	1.215	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	2.987	0.000	36.55

Feed Line Center of Pressure

Section	Elevation ft	CP _X in	CP _Z in	CP _X Ice in	CP _Z Ice in
T1	276.00-265.50	-1.1943	0.9073	-1.5049	1.0459
T2	265.50-261.75	-0.0693	0.7542	-0.7067	0.8248
T3	261.75-258.00	0.3862	0.5841	-0.2311	0.5267
T4	258.00-254.00	0.4530	0.6850	-0.3148	0.7187
T5	254.00-242.00	0.3627	0.8156	-0.3709	0.8710
T6	242.00-222.00	0.9537	-0.6606	-0.0411	0.3347
T7	222.00-206.00	1.0589	-1.1138	0.0979	0.0728
T8	206.00-202.00	1.0572	-1.5932	0.2397	-0.2991
T9	202.00-198.00	0.9868	-1.4871	0.2009	-0.2507
T10	198.00-194.00	1.0712	-1.5835	0.2938	-0.2918
T11	194.00-182.00	1.0851	-1.5739	0.3463	-0.2848
T12	182.00-162.00	1.1002	-1.5947	0.3588	-0.2980
T13	162.00-158.00	1.0603	-1.5144	0.3523	-0.2525
T14	158.00-154.00	1.0603	-1.5144	0.3529	-0.2534
T15	154.00-150.00	0.5846	-1.7218	0.1131	-0.6537
T16	150.00-146.00	0.2519	-1.8667	-0.0682	-0.9563
T17	146.00-142.00	0.2519	-1.8667	-0.0679	-0.9572
T18	142.00-138.00	0.2519	-1.8667	-0.0676	-0.9582
T19	138.00-134.00	0.2504	-1.8556	-0.0670	-0.9543
T20	134.00-130.00	0.2504	-1.8556	-0.0667	-0.9554
T21	130.00-126.00	0.2261	-1.6750	-0.0585	-0.8426
T22	126.00-122.00	0.2504	-1.8556	-0.0660	-0.9575
T23	122.00-102.00	0.2406	-1.7941	-0.0721	-0.8892
T24	102.00-98.00	0.2174	-1.6274	-0.0665	-0.7629
T25	98.00-94.00	0.2174	-1.6274	-0.0661	-0.7643
T26	94.00-90.00	0.2174	-1.6274	-0.0657	-0.7658
T27	90.00-86.00	0.2174	-1.6274	-0.0654	-0.7673
T28	86.00-82.00	0.2174	-1.6274	-0.0650	-0.7689
T29	82.00-78.00	0.2174	-1.6274	-0.0645	-0.7706
T30	78.00-74.00	0.2174	-1.6274	-0.0641	-0.7724
T31	74.00-70.00	0.2174	-1.6274	-0.0636	-0.7742
T32	70.00-66.00	0.2174	-1.6274	-0.0631	-0.7762
T33	66.00-62.00	0.2174	-1.6274	-0.0626	-0.7782

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Section	Elevation	CP _x	CP _z	CP _x	CP _z
	ft	in	in	Ice in	Ice in
T34	62.00-58.00	0.2163	-1.6187	-0.0616	-0.7758
T35	58.00-54.00	0.2018	-1.6148	-0.1113	-0.7476
T36	54.00-50.00	0.1863	-1.6022	-0.1596	-0.7156
T37	50.00-46.00	0.1863	-1.6022	-0.1587	-0.7184
T38	46.00-42.00	0.1863	-1.6022	-0.1577	-0.7215
T39	42.00-38.00	0.2002	-1.7219	-0.1683	-0.7790
T40	38.00-34.00	0.2002	-1.7219	-0.1670	-0.7830
T41	34.00-30.00	0.2002	-1.7219	-0.1656	-0.7874
T42	30.00-26.00	0.2002	-1.7219	-0.1639	-0.7925
T43	26.00-22.00	0.2002	-1.7219	-0.1620	-0.7983
T44	22.00-18.00	0.2156	-1.7085	-0.1069	-0.7701
T45	18.00-14.00	0.2310	-1.6953	-0.0529	-0.7443
T46	14.00-10.00	0.2310	-1.6953	-0.0502	-0.7554
T47	10.00-6.00	0.1924	-1.3819	-0.0486	-0.5354
T48	6.00-2.00	-0.0473	0.5644	-0.0611	0.6550

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T1	17	Safety Line 3/8	265.50 - 276.00	0.6000	0.5292
T1	18	Climbing Ladder	265.50 - 276.00	0.6000	0.5292
T1	27	1-1/2"	265.50 - 276.00	0.6000	0.5292
T2	1	EW63	261.75 - 264.00	0.6000	0.5433
T2	2	EW63	261.75 - 264.00	0.6000	0.5433
T2	17	Safety Line 3/8	261.75 - 265.50	0.6000	0.5433
T2	18	Climbing Ladder	261.75 - 265.50	0.6000	0.5433
T2	27	1-1/2"	261.75 - 265.50	0.6000	0.5433
T3	1	EW63	258.00 - 261.75	0.6000	0.3908
T3	2	EW63	258.00 - 261.75	0.6000	0.3908
T3	17	Safety Line 3/8	258.00 - 261.75	0.6000	0.3908
T3	18	Climbing Ladder	258.00 - 261.75	0.6000	0.3908
T3	27	1-1/2"	258.00 - 261.75	0.6000	0.3908
T4	1	EW63	254.00 - 258.00	0.6000	0.5557
T4	2	EW63	254.00 - 258.00	0.6000	0.5557
T4	17	Safety Line 3/8	254.00 - 258.00	0.6000	0.5557
T4	18	Climbing Ladder	254.00 - 258.00	0.6000	0.5557
T4	27	1-1/2"	254.00 -	0.6000	0.5557

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			258.00		
T5	1	EW63	242.00 - 254.00	0.6000	0.5565
T5	2	EW63	242.00 - 254.00	0.6000	0.5565
T5	3	7/8	242.00 - 254.00	0.6000	0.5565
T5	17	Safety Line 3/8	242.00 - 254.00	0.6000	0.5565
T5	18	Climbing Ladder	242.00 - 254.00	0.6000	0.5565
T5	27	1-1/2"	242.00 - 254.00	0.6000	0.5565
T6	1	EW63	222.00 - 242.00	0.6000	0.5583
T6	2	EW63	222.00 - 242.00	0.6000	0.5583
T6	3	7/8	222.00 - 242.00	0.6000	0.5583
T6	5	1 5/8	222.00 - 236.00	0.6000	0.5583
T6	14	3/8	222.00 - 236.00	0.6000	0.5583
T6	17	Safety Line 3/8	222.00 - 242.00	0.6000	0.5583
T6	18	Climbing Ladder	222.00 - 242.00	0.6000	0.5583
T6	27	1-1/2"	222.00 - 242.00	0.6000	0.5583
T7	1	EW63	206.00 - 222.00	0.6000	0.5352
T7	2	EW63	206.00 - 222.00	0.6000	0.5352
T7	3	7/8	206.00 - 222.00	0.6000	0.5352
T7	5	1 5/8	206.00 - 222.00	0.6000	0.5352
T7	7	1 5/8	206.00 - 208.00	0.6000	0.5352
T7	8	1 5/8	206.00 - 208.00	0.6000	0.5352
T7	9	1 5/8	206.00 - 208.00	0.6000	0.5352
T7	10	1 1/4	206.00 - 208.00	0.6000	0.5352
T7	14	3/8	206.00 - 222.00	0.6000	0.5352
T7	17	Safety Line 3/8	206.00 - 222.00	0.6000	0.5352
T7	18	Climbing Ladder	206.00 - 222.00	0.6000	0.5352
T7	27	1-1/2"	206.00 - 222.00	0.6000	0.5352
T8	1	EW63	202.00 - 206.00	0.6000	0.5367
T8	2	EW63	202.00 - 206.00	0.6000	0.5367
T8	3	7/8	202.00 - 206.00	0.6000	0.5367
T8	5	1 5/8	202.00 - 206.00	0.6000	0.5367
T8	7	1 5/8	202.00 -	0.6000	0.5367

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			206.00		
T8	8	1 5/8	202.00 - 206.00	0.6000	0.5367
T8	9	1 5/8	202.00 - 206.00	0.6000	0.5367
T8	10	1 1/4	202.00 - 206.00	0.6000	0.5367
T8	14	3/8	202.00 - 206.00	0.6000	0.5367
T8	17	Safety Line 3/8	202.00 - 206.00	0.6000	0.5367
T8	18	Climbing Ladder	202.00 - 206.00	0.6000	0.5367
T8	27	1-1/2"	202.00 - 206.00	0.6000	0.5367
T9	1	EW63	198.00 - 202.00	0.6000	0.3742
T9	2	EW63	198.00 - 202.00	0.6000	0.3742
T9	3	7/8	198.00 - 202.00	0.6000	0.3742
T9	5	1 5/8	198.00 - 202.00	0.6000	0.3742
T9	7	1 5/8	198.00 - 202.00	0.6000	0.3742
T9	8	1 5/8	198.00 - 202.00	0.6000	0.3742
T9	9	1 5/8	198.00 - 202.00	0.6000	0.3742
T9	10	1 1/4	198.00 - 202.00	0.6000	0.3742
T9	14	3/8	198.00 - 202.00	0.6000	0.3742
T9	17	Safety Line 3/8	198.00 - 202.00	0.6000	0.3742
T9	18	Climbing Ladder	198.00 - 202.00	0.6000	0.3742
T9	27	1-1/2"	198.00 - 202.00	0.6000	0.3742
T10	1	EW63	194.00 - 198.00	0.6000	0.5378
T10	2	EW63	194.00 - 198.00	0.6000	0.5378
T10	3	7/8	194.00 - 198.00	0.6000	0.5378
T10	5	1 5/8	194.00 - 198.00	0.6000	0.5378
T10	7	1 5/8	194.00 - 198.00	0.6000	0.5378
T10	8	1 5/8	194.00 - 198.00	0.6000	0.5378
T10	9	1 5/8	194.00 - 198.00	0.6000	0.5378
T10	10	1 1/4	194.00 - 198.00	0.6000	0.5378
T10	12	1/2	194.00 - 196.00	0.6000	0.5378
T10	14	3/8	194.00 - 198.00	0.6000	0.5378
T10	17	Safety Line 3/8	194.00 - 198.00	0.6000	0.5378
T10	18	Climbing Ladder	194.00 -	0.6000	0.5378

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			198.00		
T10	27	1-1/2"	194.00 - 198.00	0.6000	0.5378
T11	1	EW63	182.00 - 194.00	0.6000	0.5388
T11	2	EW63	182.00 - 194.00	0.6000	0.5388
T11	3	7/8	182.00 - 194.00	0.6000	0.5388
T11	5	1 5/8	182.00 - 194.00	0.6000	0.5388
T11	7	1 5/8	182.00 - 194.00	0.6000	0.5388
T11	8	1 5/8	182.00 - 194.00	0.6000	0.5388
T11	9	1 5/8	182.00 - 194.00	0.6000	0.5388
T11	10	1 1/4	182.00 - 194.00	0.6000	0.5388
T11	12	1/2	182.00 - 194.00	0.6000	0.5388
T11	14	3/8	182.00 - 194.00	0.6000	0.5388
T11	17	Safety Line 3/8	182.00 - 194.00	0.6000	0.5388
T11	18	Climbing Ladder	182.00 - 194.00	0.6000	0.5388
T11	27	1-1/2"	182.00 - 194.00	0.6000	0.5388
T12	1	EW63	162.00 - 182.00	0.6000	0.5538
T12	2	EW63	162.00 - 182.00	0.6000	0.5538
T12	3	7/8	162.00 - 182.00	0.6000	0.5538
T12	5	1 5/8	162.00 - 182.00	0.6000	0.5538
T12	7	1 5/8	162.00 - 182.00	0.6000	0.5538
T12	8	1 5/8	162.00 - 182.00	0.6000	0.5538
T12	9	1 5/8	162.00 - 182.00	0.6000	0.5538
T12	10	1 1/4	162.00 - 182.00	0.6000	0.5538
T12	12	1/2	162.00 - 182.00	0.6000	0.5538
T12	13	1/2	162.00 - 164.00	0.6000	0.5538
T12	14	3/8	162.00 - 182.00	0.6000	0.5538
T12	17	Safety Line 3/8	162.00 - 182.00	0.6000	0.5538
T12	18	Climbing Ladder	162.00 - 182.00	0.6000	0.5538
T12	27	1-1/2"	162.00 - 182.00	0.6000	0.5538
T13	1	EW63	158.00 - 162.00	0.6000	0.5556
T13	2	EW63	158.00 - 162.00	0.6000	0.5556
T13	3	7/8	158.00 -	0.6000	0.5556

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			162.00		
T13	4	7/8	158.00 - 162.00	0.6000	0.5556
T13	5	1 5/8	158.00 - 162.00	0.6000	0.5556
T13	7	1 5/8	158.00 - 162.00	0.6000	0.5556
T13	8	1 5/8	158.00 - 162.00	0.6000	0.5556
T13	9	1 5/8	158.00 - 162.00	0.6000	0.5556
T13	10	1 1/4	158.00 - 162.00	0.6000	0.5556
T13	12	1/2	158.00 - 162.00	0.6000	0.5556
T13	13	1/2	158.00 - 162.00	0.6000	0.5556
T13	14	3/8	158.00 - 162.00	0.6000	0.5556
T13	17	Safety Line 3/8	158.00 - 162.00	0.6000	0.5556
T13	18	Climbing Ladder	158.00 - 162.00	0.6000	0.5556
T13	27	1-1/2"	158.00 - 162.00	0.6000	0.5556
T14	1	EW63	154.00 - 158.00	0.6000	0.5562
T14	2	EW63	154.00 - 158.00	0.6000	0.5562
T14	3	7/8	154.00 - 158.00	0.6000	0.5562
T14	4	7/8	154.00 - 158.00	0.6000	0.5562
T14	5	1 5/8	154.00 - 158.00	0.6000	0.5562
T14	7	1 5/8	154.00 - 158.00	0.6000	0.5562
T14	8	1 5/8	154.00 - 158.00	0.6000	0.5562
T14	9	1 5/8	154.00 - 158.00	0.6000	0.5562
T14	10	1 1/4	154.00 - 158.00	0.6000	0.5562
T14	12	1/2	154.00 - 158.00	0.6000	0.5562
T14	13	1/2	154.00 - 158.00	0.6000	0.5562
T14	14	3/8	154.00 - 158.00	0.6000	0.5562
T14	17	Safety Line 3/8	154.00 - 158.00	0.6000	0.5562
T14	18	Climbing Ladder	154.00 - 158.00	0.6000	0.5562
T14	27	1-1/2"	154.00 - 158.00	0.6000	0.5562
T15	1	EW63	150.00 - 154.00	0.6000	0.5569
T15	2	EW63	150.00 - 154.00	0.6000	0.5569
T15	3	7/8	150.00 - 154.00	0.6000	0.5569
T15	4	7/8	150.00 -	0.6000	0.5569

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			154.00		
T15	5	1 5/8	150.00 -	0.6000	0.5569
			154.00		
T15	7	1 5/8	150.00 -	0.6000	0.5569
			154.00		
T15	8	1 5/8	150.00 -	0.6000	0.5569
			154.00		
T15	9	1 5/8	150.00 -	0.6000	0.5569
			154.00		
T15	10	1 1/4	150.00 -	0.6000	0.5569
			154.00		
T15	12	1/2	150.00 -	0.6000	0.5569
			154.00		
T15	13	1/2	150.00 -	0.6000	0.5569
			154.00		
T15	14	3/8	150.00 -	0.6000	0.5569
			154.00		
T15	17	Safety Line 3/8	150.00 -	0.6000	0.5569
			154.00		
T15	18	Climbing Ladder	150.00 -	0.6000	0.5569
			154.00		
T15	20	LDF7-50A (1-5/8 FOAM)	150.00 -	0.6000	0.5569
			152.00		
T15	21	Fiber	150.00 -	0.6000	0.5569
			152.00		
T15	22	DC	150.00 -	0.6000	0.5569
			152.00		
T15	24	Fiber	150.00 -	0.6000	0.5569
			152.00		
T15	25	DC	150.00 -	0.6000	0.5569
			152.00		
T15	27	1-1/2"	150.00 -	0.6000	0.5569
			154.00		
T16	1	EW63	146.00 -	0.6000	0.5576
			150.00		
T16	2	EW63	146.00 -	0.6000	0.5576
			150.00		
T16	3	7/8	146.00 -	0.6000	0.5576
			150.00		
T16	4	7/8	146.00 -	0.6000	0.5576
			150.00		
T16	5	1 5/8	146.00 -	0.6000	0.5576
			150.00		
T16	7	1 5/8	146.00 -	0.6000	0.5576
			150.00		
T16	8	1 5/8	146.00 -	0.6000	0.5576
			150.00		
T16	9	1 5/8	146.00 -	0.6000	0.5576
			150.00		
T16	10	1 1/4	146.00 -	0.6000	0.5576
			150.00		
T16	12	1/2	146.00 -	0.6000	0.5576
			150.00		
T16	13	1/2	146.00 -	0.6000	0.5576
			150.00		
T16	14	3/8	146.00 -	0.6000	0.5576
			150.00		
T16	17	Safety Line 3/8	146.00 -	0.6000	0.5576
			150.00		
T16	18	Climbing Ladder	146.00 -	0.6000	0.5576
			150.00		
T16	20	LDF7-50A (1-5/8 FOAM)	146.00 -	0.6000	0.5576

<p>tnxTower</p> <p>Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:</p>	<p>Job</p> <p>Naugatuck East Blvd. - CTL02056</p>	<p>Page</p> <p>34 of 129</p>
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	<p>Client</p> <p>Smartlink / AT&T</p>	<p>Designed by</p> <p>AS</p>

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			150.00		
T16	21	Fiber	146.00 - 150.00	0.6000	0.5576
T16	22	DC	146.00 - 150.00	0.6000	0.5576
T16	24	Fiber	146.00 - 150.00	0.6000	0.5576
T16	25	DC	146.00 - 150.00	0.6000	0.5576
T16	27	1-1/2"	146.00 - 150.00	0.6000	0.5576
T17	1	EW63	142.00 - 146.00	0.6000	0.5583
T17	2	EW63	142.00 - 146.00	0.6000	0.5583
T17	3	7/8	142.00 - 146.00	0.6000	0.5583
T17	4	7/8	142.00 - 146.00	0.6000	0.5583
T17	5	1 5/8	142.00 - 146.00	0.6000	0.5583
T17	7	1 5/8	142.00 - 146.00	0.6000	0.5583
T17	8	1 5/8	142.00 - 146.00	0.6000	0.5583
T17	9	1 5/8	142.00 - 146.00	0.6000	0.5583
T17	10	1 1/4	142.00 - 146.00	0.6000	0.5583
T17	12	1/2	142.00 - 146.00	0.6000	0.5583
T17	13	1/2	142.00 - 146.00	0.6000	0.5583
T17	14	3/8	142.00 - 146.00	0.6000	0.5583
T17	17	Safety Line 3/8	142.00 - 146.00	0.6000	0.5583
T17	18	Climbing Ladder	142.00 - 146.00	0.6000	0.5583
T17	20	LDF7-50A (1-5/8 FOAM)	142.00 - 146.00	0.6000	0.5583
T17	21	Fiber	142.00 - 146.00	0.6000	0.5583
T17	22	DC	142.00 - 146.00	0.6000	0.5583
T17	24	Fiber	142.00 - 146.00	0.6000	0.5583
T17	25	DC	142.00 - 146.00	0.6000	0.5583
T17	27	1-1/2"	142.00 - 146.00	0.6000	0.5583
T18	1	EW63	138.00 - 142.00	0.6000	0.5590
T18	2	EW63	138.00 - 142.00	0.6000	0.5590
T18	3	7/8	138.00 - 142.00	0.6000	0.5590
T18	4	7/8	138.00 - 142.00	0.6000	0.5590
T18	5	1 5/8	138.00 - 142.00	0.6000	0.5590
T18	7	1 5/8	138.00 -	0.6000	0.5590

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			142.00		
T18	8	1 5/8	138.00 -	0.6000	0.5590
			142.00		
T18	9	1 5/8	138.00 -	0.6000	0.5590
			142.00		
T18	10	1 1/4	138.00 -	0.6000	0.5590
			142.00		
T18	12	1/2	138.00 -	0.6000	0.5590
			142.00		
T18	13	1/2	138.00 -	0.6000	0.5590
			142.00		
T18	14	3/8	138.00 -	0.6000	0.5590
			142.00		
T18	17	Safety Line 3/8	138.00 -	0.6000	0.5590
			142.00		
T18	18	Climbing Ladder	138.00 -	0.6000	0.5590
			142.00		
T18	20	LDF7-50A (1-5/8 FOAM)	138.00 -	0.6000	0.5590
			142.00		
T18	21	Fiber	138.00 -	0.6000	0.5590
			142.00		
T18	22	DC	138.00 -	0.6000	0.5590
			142.00		
T18	24	Fiber	138.00 -	0.6000	0.5590
			142.00		
T18	25	DC	138.00 -	0.6000	0.5590
			142.00		
T18	27	1-1/2"	138.00 -	0.6000	0.5590
			142.00		
T19	1	EW63	134.00 -	0.6000	0.5507
			138.00		
T19	2	EW63	134.00 -	0.6000	0.5507
			138.00		
T19	3	7/8	134.00 -	0.6000	0.5507
			138.00		
T19	4	7/8	134.00 -	0.6000	0.5507
			138.00		
T19	5	1 5/8	134.00 -	0.6000	0.5507
			138.00		
T19	7	1 5/8	134.00 -	0.6000	0.5507
			138.00		
T19	8	1 5/8	134.00 -	0.6000	0.5507
			138.00		
T19	9	1 5/8	134.00 -	0.6000	0.5507
			138.00		
T19	10	1 1/4	134.00 -	0.6000	0.5507
			138.00		
T19	12	1/2	134.00 -	0.6000	0.5507
			138.00		
T19	13	1/2	134.00 -	0.6000	0.5507
			138.00		
T19	14	3/8	134.00 -	0.6000	0.5507
			138.00		
T19	17	Safety Line 3/8	134.00 -	0.6000	0.5507
			138.00		
T19	18	Climbing Ladder	134.00 -	0.6000	0.5507
			138.00		
T19	20	LDF7-50A (1-5/8 FOAM)	134.00 -	0.6000	0.5507
			138.00		
T19	21	Fiber	134.00 -	0.6000	0.5507
			138.00		
T19	22	DC	134.00 -	0.6000	0.5507

tnxTower Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:	Job Naugatuck East Blvd. - CTL02056	Page 36 of 129
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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T19	24	Fiber	138.00 - 134.00	0.6000	0.5507
T19	25	DC	138.00 - 134.00	0.6000	0.5507
T19	27	1-1/2"	138.00 - 134.00	0.6000	0.5507
T20	1	EW63	134.00 - 134.00	0.6000	0.5515
T20	2	EW63	134.00 - 134.00	0.6000	0.5515
T20	3	7/8	134.00 - 134.00	0.6000	0.5515
T20	4	7/8	134.00 - 134.00	0.6000	0.5515
T20	5	1 5/8	134.00 - 134.00	0.6000	0.5515
T20	7	1 5/8	134.00 - 134.00	0.6000	0.5515
T20	8	1 5/8	134.00 - 134.00	0.6000	0.5515
T20	9	1 5/8	134.00 - 134.00	0.6000	0.5515
T20	10	1 1/4	134.00 - 134.00	0.6000	0.5515
T20	12	1/2	134.00 - 134.00	0.6000	0.5515
T20	13	1/2	134.00 - 134.00	0.6000	0.5515
T20	14	3/8	134.00 - 134.00	0.6000	0.5515
T20	17	Safety Line 3/8	134.00 - 134.00	0.6000	0.5515
T20	18	Climbing Ladder	134.00 - 134.00	0.6000	0.5515
T20	20	LDF7-50A (1-5/8 FOAM)	134.00 - 134.00	0.6000	0.5515
T20	21	Fiber	134.00 - 134.00	0.6000	0.5515
T20	22	DC	134.00 - 134.00	0.6000	0.5515
T20	24	Fiber	134.00 - 134.00	0.6000	0.5515
T20	25	DC	134.00 - 134.00	0.6000	0.5515
T20	27	1-1/2"	134.00 - 134.00	0.6000	0.5515
T21	1	EW63	130.00 - 130.00	0.6000	0.4548
T21	2	EW63	130.00 - 130.00	0.6000	0.4548
T21	3	7/8	130.00 - 130.00	0.6000	0.4548
T21	4	7/8	130.00 - 130.00	0.6000	0.4548
T21	5	1 5/8	130.00 - 130.00	0.6000	0.4548
T21	7	1 5/8	130.00 - 130.00	0.6000	0.4548
T21	8	1 5/8	130.00 - 130.00	0.6000	0.4548
T21	9	1 5/8	130.00 - 130.00	0.6000	0.4548

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			130.00		
T21	10	1 1/4	126.00 -	0.6000	0.4548
			130.00		
T21	12	1/2	126.00 -	0.6000	0.4548
			130.00		
T21	13	1/2	126.00 -	0.6000	0.4548
			130.00		
T21	14	3/8	126.00 -	0.6000	0.4548
			130.00		
T21	17	Safety Line 3/8	126.00 -	0.6000	0.4548
			130.00		
T21	18	Climbing Ladder	126.00 -	0.6000	0.4548
			130.00		
T21	20	LDF7-50A (1-5/8 FOAM)	126.00 -	0.6000	0.4548
			130.00		
T21	21	Fiber	126.00 -	0.6000	0.4548
			130.00		
T21	22	DC	126.00 -	0.6000	0.4548
			130.00		
T21	24	Fiber	126.00 -	0.6000	0.4548
			130.00		
T21	25	DC	126.00 -	0.6000	0.4548
			130.00		
T21	27	1-1/2"	126.00 -	0.6000	0.4548
			130.00		
T21	33	L2x2x3/16 half bay brace	126.00 -	0.6000	0.4548
			130.00		
T21	34	L2x2x3/16 half bay brace	126.00 -	0.6000	0.4548
			130.00		
T21	35	L2x2x3/16 half bay brace	126.00 -	0.6000	0.4548
			130.00		
T22	1	EW63	122.00 -	0.6000	0.5530
			126.00		
T22	2	EW63	122.00 -	0.6000	0.5530
			126.00		
T22	3	7/8	122.00 -	0.6000	0.5530
			126.00		
T22	4	7/8	122.00 -	0.6000	0.5530
			126.00		
T22	5	1 5/8	122.00 -	0.6000	0.5530
			126.00		
T22	7	1 5/8	122.00 -	0.6000	0.5530
			126.00		
T22	8	1 5/8	122.00 -	0.6000	0.5530
			126.00		
T22	9	1 5/8	122.00 -	0.6000	0.5530
			126.00		
T22	10	1 1/4	122.00 -	0.6000	0.5530
			126.00		
T22	12	1/2	122.00 -	0.6000	0.5530
			126.00		
T22	13	1/2	122.00 -	0.6000	0.5530
			126.00		
T22	14	3/8	122.00 -	0.6000	0.5530
			126.00		
T22	17	Safety Line 3/8	122.00 -	0.6000	0.5530
			126.00		
T22	18	Climbing Ladder	122.00 -	0.6000	0.5530
			126.00		
T22	20	LDF7-50A (1-5/8 FOAM)	122.00 -	0.6000	0.5530
			126.00		
T22	21	Fiber	122.00 -	0.6000	0.5530

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			126.00		
T22	22	DC	122.00 - 126.00	0.6000	0.5530
T22	24	Fiber	122.00 - 126.00	0.6000	0.5530
T22	25	DC	122.00 - 126.00	0.6000	0.5530
T22	27	1-1/2"	122.00 - 126.00	0.6000	0.5530
T23	1	EW63	102.00 - 122.00	0.6000	0.5645
T23	2	EW63	102.00 - 122.00	0.6000	0.5645
T23	3	7/8	102.00 - 122.00	0.6000	0.5645
T23	4	7/8	102.00 - 122.00	0.6000	0.5645
T23	5	1 5/8	102.00 - 122.00	0.6000	0.5645
T23	7	1 5/8	102.00 - 122.00	0.6000	0.5645
T23	8	1 5/8	102.00 - 122.00	0.6000	0.5645
T23	9	1 5/8	102.00 - 122.00	0.6000	0.5645
T23	10	1 1/4	102.00 - 122.00	0.6000	0.5645
T23	12	1/2	102.00 - 122.00	0.6000	0.5645
T23	13	1/2	102.00 - 122.00	0.6000	0.5645
T23	14	3/8	102.00 - 122.00	0.6000	0.5645
T23	17	Safety Line 3/8	102.00 - 122.00	0.6000	0.5645
T23	18	Climbing Ladder	102.00 - 122.00	0.6000	0.5645
T23	20	LDF7-50A (1-5/8 FOAM)	102.00 - 122.00	0.6000	0.5645
T23	21	Fiber	102.00 - 122.00	0.6000	0.5645
T23	22	DC	102.00 - 122.00	0.6000	0.5645
T23	24	Fiber	102.00 - 122.00	0.6000	0.5645
T23	25	DC	102.00 - 122.00	0.6000	0.5645
T23	27	1-1/2"	102.00 - 122.00	0.6000	0.5645
T23	28	7/8	102.00 - 115.00	0.6000	0.5645
T23	30	L2x2x3/16 half bay brace	102.00 - 106.00	0.6000	0.5645
T23	31	L2x2x3/16 half bay brace	102.00 - 106.00	0.6000	0.5645
T23	32	L2x2x3/16 half bay brace	102.00 - 106.00	0.6000	0.5645
T24	1	EW63	98.00 - 102.00	0.6000	0.4712
T24	2	EW63	98.00 - 102.00	0.6000	0.4712
T24	3	7/8	98.00 - 102.00	0.6000	0.4712
T24	4	7/8	98.00 - 102.00	0.6000	0.4712
T24	5	1 5/8	98.00 - 102.00	0.6000	0.4712

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T24	7	1 5/8	98.00 - 102.00	0.6000	0.4712
T24	8	1 5/8	98.00 - 102.00	0.6000	0.4712
T24	9	1 5/8	98.00 - 102.00	0.6000	0.4712
T24	10	1 1/4	98.00 - 102.00	0.6000	0.4712
T24	12	1/2	98.00 - 102.00	0.6000	0.4712
T24	13	1/2	98.00 - 102.00	0.6000	0.4712
T24	14	3/8	98.00 - 102.00	0.6000	0.4712
T24	17	Safety Line 3/8	98.00 - 102.00	0.6000	0.4712
T24	18	Climbing Ladder	98.00 - 102.00	0.6000	0.4712
T24	20	LDF7-50A (1-5/8 FOAM)	98.00 - 102.00	0.6000	0.4712
T24	21	Fiber	98.00 - 102.00	0.6000	0.4712
T24	22	DC	98.00 - 102.00	0.6000	0.4712
T24	24	Fiber	98.00 - 102.00	0.6000	0.4712
T24	25	DC	98.00 - 102.00	0.6000	0.4712
T24	27	1-1/2"	98.00 - 102.00	0.6000	0.4712
T24	28	7/8	98.00 - 102.00	0.6000	0.4712
T24	30	L2x2x3/16 half bay brace	98.00 - 102.00	0.6000	0.4712
T24	31	L2x2x3/16 half bay brace	98.00 - 102.00	0.6000	0.4712
T24	32	L2x2x3/16 half bay brace	98.00 - 102.00	0.6000	0.4712
T25	1	EW63	94.00 - 98.00	0.6000	0.4724
T25	2	EW63	94.00 - 98.00	0.6000	0.4724
T25	3	7/8	94.00 - 98.00	0.6000	0.4724
T25	4	7/8	94.00 - 98.00	0.6000	0.4724
T25	5	1 5/8	94.00 - 98.00	0.6000	0.4724
T25	7	1 5/8	94.00 - 98.00	0.6000	0.4724
T25	8	1 5/8	94.00 - 98.00	0.6000	0.4724
T25	9	1 5/8	94.00 - 98.00	0.6000	0.4724
T25	10	1 1/4	94.00 - 98.00	0.6000	0.4724
T25	12	1/2	94.00 - 98.00	0.6000	0.4724
T25	13	1/2	94.00 - 98.00	0.6000	0.4724
T25	14	3/8	94.00 - 98.00	0.6000	0.4724
T25	17	Safety Line 3/8	94.00 - 98.00	0.6000	0.4724
T25	18	Climbing Ladder	94.00 - 98.00	0.6000	0.4724
T25	20	LDF7-50A (1-5/8 FOAM)	94.00 - 98.00	0.6000	0.4724
T25	21	Fiber	94.00 - 98.00	0.6000	0.4724
T25	22	DC	94.00 - 98.00	0.6000	0.4724
T25	24	Fiber	94.00 - 98.00	0.6000	0.4724
T25	25	DC	94.00 - 98.00	0.6000	0.4724
T25	27	1-1/2"	94.00 - 98.00	0.6000	0.4724
T25	28	7/8	94.00 - 98.00	0.6000	0.4724
T25	30	L2x2x3/16 half bay brace	94.00 - 98.00	0.6000	0.4724
T25	31	L2x2x3/16 half bay brace	94.00 - 98.00	0.6000	0.4724
T25	32	L2x2x3/16 half bay brace	94.00 - 98.00	0.6000	0.4724
T26	1	EW63	90.00 - 94.00	0.6000	0.4736
T26	2	EW63	90.00 - 94.00	0.6000	0.4736
T26	3	7/8	90.00 - 94.00	0.6000	0.4736
T26	4	7/8	90.00 - 94.00	0.6000	0.4736
T26	5	1 5/8	90.00 - 94.00	0.6000	0.4736
T26	7	1 5/8	90.00 - 94.00	0.6000	0.4736
T26	8	1 5/8	90.00 - 94.00	0.6000	0.4736
T26	9	1 5/8	90.00 - 94.00	0.6000	0.4736
T26	10	1 1/4	90.00 - 94.00	0.6000	0.4736
T26	12	1/2	90.00 - 94.00	0.6000	0.4736
T26	13	1/2	90.00 - 94.00	0.6000	0.4736
T26	14	3/8	90.00 - 94.00	0.6000	0.4736
T26	17	Safety Line 3/8	90.00 - 94.00	0.6000	0.4736
T26	18	Climbing Ladder	90.00 - 94.00	0.6000	0.4736
T26	20	LDF7-50A (1-5/8 FOAM)	90.00 - 94.00	0.6000	0.4736
T26	21	Fiber	90.00 - 94.00	0.6000	0.4736
T26	22	DC	90.00 - 94.00	0.6000	0.4736
T26	24	Fiber	90.00 - 94.00	0.6000	0.4736
T26	25	DC	90.00 - 94.00	0.6000	0.4736

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T26	27	1-1/2"	90.00 - 94.00	0.6000	0.4736
T26	28	7/8	90.00 - 94.00	0.6000	0.4736
T26	30	L2x2x3/16 half bay brace	90.00 - 94.00	0.6000	0.4736
T26	31	L2x2x3/16 half bay brace	90.00 - 94.00	0.6000	0.4736
T26	32	L2x2x3/16 half bay brace	90.00 - 94.00	0.6000	0.4736
T27	1	EW63	86.00 - 90.00	0.6000	0.4750
T27	2	EW63	86.00 - 90.00	0.6000	0.4750
T27	3	7/8	86.00 - 90.00	0.6000	0.4750
T27	4	7/8	86.00 - 90.00	0.6000	0.4750
T27	5	1 5/8	86.00 - 90.00	0.6000	0.4750
T27	7	1 5/8	86.00 - 90.00	0.6000	0.4750
T27	8	1 5/8	86.00 - 90.00	0.6000	0.4750
T27	9	1 5/8	86.00 - 90.00	0.6000	0.4750
T27	10	1 1/4	86.00 - 90.00	0.6000	0.4750
T27	12	1/2	86.00 - 90.00	0.6000	0.4750
T27	13	1/2	86.00 - 90.00	0.6000	0.4750
T27	14	3/8	86.00 - 90.00	0.6000	0.4750
T27	17	Safety Line 3/8	86.00 - 90.00	0.6000	0.4750
T27	18	Climbing Ladder	86.00 - 90.00	0.6000	0.4750
T27	20	LDF7-50A (1-5/8 FOAM)	86.00 - 90.00	0.6000	0.4750
T27	21	Fiber	86.00 - 90.00	0.6000	0.4750
T27	22	DC	86.00 - 90.00	0.6000	0.4750
T27	24	Fiber	86.00 - 90.00	0.6000	0.4750
T27	25	DC	86.00 - 90.00	0.6000	0.4750
T27	27	1-1/2"	86.00 - 90.00	0.6000	0.4750
T27	28	7/8	86.00 - 90.00	0.6000	0.4750
T27	30	L2x2x3/16 half bay brace	86.00 - 90.00	0.6000	0.4750
T27	31	L2x2x3/16 half bay brace	86.00 - 90.00	0.6000	0.4750
T27	32	L2x2x3/16 half bay brace	86.00 - 90.00	0.6000	0.4750
T28	1	EW63	82.00 - 86.00	0.6000	0.4763
T28	2	EW63	82.00 - 86.00	0.6000	0.4763
T28	3	7/8	82.00 - 86.00	0.6000	0.4763
T28	4	7/8	82.00 - 86.00	0.6000	0.4763
T28	5	1 5/8	82.00 - 86.00	0.6000	0.4763
T28	7	1 5/8	82.00 - 86.00	0.6000	0.4763
T28	8	1 5/8	82.00 - 86.00	0.6000	0.4763
T28	9	1 5/8	82.00 - 86.00	0.6000	0.4763
T28	10	1 1/4	82.00 - 86.00	0.6000	0.4763
T28	12	1/2	82.00 - 86.00	0.6000	0.4763
T28	13	1/2	82.00 - 86.00	0.6000	0.4763
T28	14	3/8	82.00 - 86.00	0.6000	0.4763
T28	17	Safety Line 3/8	82.00 - 86.00	0.6000	0.4763
T28	18	Climbing Ladder	82.00 - 86.00	0.6000	0.4763
T28	20	LDF7-50A (1-5/8 FOAM)	82.00 - 86.00	0.6000	0.4763
T28	21	Fiber	82.00 - 86.00	0.6000	0.4763
T28	22	DC	82.00 - 86.00	0.6000	0.4763
T28	24	Fiber	82.00 - 86.00	0.6000	0.4763
T28	25	DC	82.00 - 86.00	0.6000	0.4763
T28	27	1-1/2"	82.00 - 86.00	0.6000	0.4763
T28	28	7/8	82.00 - 86.00	0.6000	0.4763
T28	30	L2x2x3/16 half bay brace	82.00 - 86.00	0.6000	0.4763
T28	31	L2x2x3/16 half bay brace	82.00 - 86.00	0.6000	0.4763
T28	32	L2x2x3/16 half bay brace	82.00 - 86.00	0.6000	0.4763
T29	1	EW63	78.00 - 82.00	0.6000	0.4778
T29	2	EW63	78.00 - 82.00	0.6000	0.4778
T29	3	7/8	78.00 - 82.00	0.6000	0.4778
T29	4	7/8	78.00 - 82.00	0.6000	0.4778
T29	5	1 5/8	78.00 - 82.00	0.6000	0.4778
T29	7	1 5/8	78.00 - 82.00	0.6000	0.4778
T29	8	1 5/8	78.00 - 82.00	0.6000	0.4778
T29	9	1 5/8	78.00 - 82.00	0.6000	0.4778
T29	10	1 1/4	78.00 - 82.00	0.6000	0.4778

tnxTower Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:	Job	Naugatuck East Blvd. - CTL02056	Page	41 of 129
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	Client	Smartlink / AT&T	Designed by	AS

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T29	12	1/2	78.00 - 82.00	0.6000	0.4778
T29	13	1/2	78.00 - 82.00	0.6000	0.4778
T29	14	3/8	78.00 - 82.00	0.6000	0.4778
T29	17	Safety Line 3/8	78.00 - 82.00	0.6000	0.4778
T29	18	Climbing Ladder	78.00 - 82.00	0.6000	0.4778
T29	20	LDF7-50A (1-5/8 FOAM)	78.00 - 82.00	0.6000	0.4778
T29	21	Fiber	78.00 - 82.00	0.6000	0.4778
T29	22	DC	78.00 - 82.00	0.6000	0.4778
T29	24	Fiber	78.00 - 82.00	0.6000	0.4778
T29	25	DC	78.00 - 82.00	0.6000	0.4778
T29	27	1-1/2"	78.00 - 82.00	0.6000	0.4778
T29	28	7/8	78.00 - 82.00	0.6000	0.4778
T29	30	L2x2x3/16 half bay brace	78.00 - 82.00	0.6000	0.4778
T29	31	L2x2x3/16 half bay brace	78.00 - 82.00	0.6000	0.4778
T29	32	L2x2x3/16 half bay brace	78.00 - 82.00	0.6000	0.4778
T30	1	EW63	74.00 - 78.00	0.6000	0.4792
T30	2	EW63	74.00 - 78.00	0.6000	0.4792
T30	3	7/8	74.00 - 78.00	0.6000	0.4792
T30	4	7/8	74.00 - 78.00	0.6000	0.4792
T30	5	1 5/8	74.00 - 78.00	0.6000	0.4792
T30	7	1 5/8	74.00 - 78.00	0.6000	0.4792
T30	8	1 5/8	74.00 - 78.00	0.6000	0.4792
T30	9	1 5/8	74.00 - 78.00	0.6000	0.4792
T30	10	1 1/4	74.00 - 78.00	0.6000	0.4792
T30	12	1/2	74.00 - 78.00	0.6000	0.4792
T30	13	1/2	74.00 - 78.00	0.6000	0.4792
T30	14	3/8	74.00 - 78.00	0.6000	0.4792
T30	17	Safety Line 3/8	74.00 - 78.00	0.6000	0.4792
T30	18	Climbing Ladder	74.00 - 78.00	0.6000	0.4792
T30	20	LDF7-50A (1-5/8 FOAM)	74.00 - 78.00	0.6000	0.4792
T30	21	Fiber	74.00 - 78.00	0.6000	0.4792
T30	22	DC	74.00 - 78.00	0.6000	0.4792
T30	24	Fiber	74.00 - 78.00	0.6000	0.4792
T30	25	DC	74.00 - 78.00	0.6000	0.4792
T30	27	1-1/2"	74.00 - 78.00	0.6000	0.4792
T30	28	7/8	74.00 - 78.00	0.6000	0.4792
T30	30	L2x2x3/16 half bay brace	74.00 - 78.00	0.6000	0.4792
T30	31	L2x2x3/16 half bay brace	74.00 - 78.00	0.6000	0.4792
T30	32	L2x2x3/16 half bay brace	74.00 - 78.00	0.6000	0.4792
T31	1	EW63	70.00 - 74.00	0.6000	0.4808
T31	2	EW63	70.00 - 74.00	0.6000	0.4808
T31	3	7/8	70.00 - 74.00	0.6000	0.4808
T31	4	7/8	70.00 - 74.00	0.6000	0.4808
T31	5	1 5/8	70.00 - 74.00	0.6000	0.4808
T31	7	1 5/8	70.00 - 74.00	0.6000	0.4808
T31	8	1 5/8	70.00 - 74.00	0.6000	0.4808
T31	9	1 5/8	70.00 - 74.00	0.6000	0.4808
T31	10	1 1/4	70.00 - 74.00	0.6000	0.4808
T31	12	1/2	70.00 - 74.00	0.6000	0.4808
T31	13	1/2	70.00 - 74.00	0.6000	0.4808
T31	14	3/8	70.00 - 74.00	0.6000	0.4808
T31	17	Safety Line 3/8	70.00 - 74.00	0.6000	0.4808
T31	18	Climbing Ladder	70.00 - 74.00	0.6000	0.4808
T31	20	LDF7-50A (1-5/8 FOAM)	70.00 - 74.00	0.6000	0.4808
T31	21	Fiber	70.00 - 74.00	0.6000	0.4808
T31	22	DC	70.00 - 74.00	0.6000	0.4808
T31	24	Fiber	70.00 - 74.00	0.6000	0.4808
T31	25	DC	70.00 - 74.00	0.6000	0.4808
T31	27	1-1/2"	70.00 - 74.00	0.6000	0.4808
T31	28	7/8	70.00 - 74.00	0.6000	0.4808
T31	30	L2x2x3/16 half bay brace	70.00 - 74.00	0.6000	0.4808
T31	31	L2x2x3/16 half bay brace	70.00 - 74.00	0.6000	0.4808

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:</p>	Job	Naugatuck East Blvd. - CTL02056	Page	42 of 129
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	Client	Smartlink / AT&T	Designed by	AS

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T31	32	L2x2x3/16 half bay brace	70.00 - 74.00	0.6000	0.4808
T32	1	EW63	66.00 - 70.00	0.6000	0.4825
T32	2	EW63	66.00 - 70.00	0.6000	0.4825
T32	3	7/8	66.00 - 70.00	0.6000	0.4825
T32	4	7/8	66.00 - 70.00	0.6000	0.4825
T32	5	1 5/8	66.00 - 70.00	0.6000	0.4825
T32	7	1 5/8	66.00 - 70.00	0.6000	0.4825
T32	8	1 5/8	66.00 - 70.00	0.6000	0.4825
T32	9	1 5/8	66.00 - 70.00	0.6000	0.4825
T32	10	1 1/4	66.00 - 70.00	0.6000	0.4825
T32	12	1/2	66.00 - 70.00	0.6000	0.4825
T32	13	1/2	66.00 - 70.00	0.6000	0.4825
T32	14	3/8	66.00 - 70.00	0.6000	0.4825
T32	17	Safety Line 3/8	66.00 - 70.00	0.6000	0.4825
T32	18	Climbing Ladder	66.00 - 70.00	0.6000	0.4825
T32	20	LDF7-50A (1-5/8 FOAM)	66.00 - 70.00	0.6000	0.4825
T32	21	Fiber	66.00 - 70.00	0.6000	0.4825
T32	22	DC	66.00 - 70.00	0.6000	0.4825
T32	24	Fiber	66.00 - 70.00	0.6000	0.4825
T32	25	DC	66.00 - 70.00	0.6000	0.4825
T32	27	1-1/2"	66.00 - 70.00	0.6000	0.4825
T32	28	7/8	66.00 - 70.00	0.6000	0.4825
T32	30	L2x2x3/16 half bay brace	66.00 - 70.00	0.6000	0.4825
T32	31	L2x2x3/16 half bay brace	66.00 - 70.00	0.6000	0.4825
T32	32	L2x2x3/16 half bay brace	66.00 - 70.00	0.6000	0.4825
T33	1	EW63	62.00 - 66.00	0.6000	0.4842
T33	2	EW63	62.00 - 66.00	0.6000	0.4842
T33	3	7/8	62.00 - 66.00	0.6000	0.4842
T33	4	7/8	62.00 - 66.00	0.6000	0.4842
T33	5	1 5/8	62.00 - 66.00	0.6000	0.4842
T33	7	1 5/8	62.00 - 66.00	0.6000	0.4842
T33	8	1 5/8	62.00 - 66.00	0.6000	0.4842
T33	9	1 5/8	62.00 - 66.00	0.6000	0.4842
T33	10	1 1/4	62.00 - 66.00	0.6000	0.4842
T33	12	1/2	62.00 - 66.00	0.6000	0.4842
T33	13	1/2	62.00 - 66.00	0.6000	0.4842
T33	14	3/8	62.00 - 66.00	0.6000	0.4842
T33	17	Safety Line 3/8	62.00 - 66.00	0.6000	0.4842
T33	18	Climbing Ladder	62.00 - 66.00	0.6000	0.4842
T33	20	LDF7-50A (1-5/8 FOAM)	62.00 - 66.00	0.6000	0.4842
T33	21	Fiber	62.00 - 66.00	0.6000	0.4842
T33	22	DC	62.00 - 66.00	0.6000	0.4842
T33	24	Fiber	62.00 - 66.00	0.6000	0.4842
T33	25	DC	62.00 - 66.00	0.6000	0.4842
T33	27	1-1/2"	62.00 - 66.00	0.6000	0.4842
T33	28	7/8	62.00 - 66.00	0.6000	0.4842
T33	30	L2x2x3/16 half bay brace	62.00 - 66.00	0.6000	0.4842
T33	31	L2x2x3/16 half bay brace	62.00 - 66.00	0.6000	0.4842
T33	32	L2x2x3/16 half bay brace	62.00 - 66.00	0.6000	0.4842
T34	1	EW63	58.00 - 62.00	0.6000	0.4770
T34	2	EW63	58.00 - 62.00	0.6000	0.4770
T34	3	7/8	58.00 - 62.00	0.6000	0.4770
T34	4	7/8	58.00 - 62.00	0.6000	0.4770
T34	5	1 5/8	58.00 - 62.00	0.6000	0.4770
T34	7	1 5/8	58.00 - 62.00	0.6000	0.4770
T34	8	1 5/8	58.00 - 62.00	0.6000	0.4770
T34	9	1 5/8	58.00 - 62.00	0.6000	0.4770
T34	10	1 1/4	58.00 - 62.00	0.6000	0.4770
T34	12	1/2	58.00 - 62.00	0.6000	0.4770
T34	13	1/2	58.00 - 62.00	0.6000	0.4770
T34	14	3/8	58.00 - 62.00	0.6000	0.4770
T34	17	Safety Line 3/8	58.00 - 62.00	0.6000	0.4770

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T34	18	Climbing Ladder	58.00 - 62.00	0.6000	0.4770
T34	20	LDF7-50A (1-5/8 FOAM)	58.00 - 62.00	0.6000	0.4770
T34	21	Fiber	58.00 - 62.00	0.6000	0.4770
T34	22	DC	58.00 - 62.00	0.6000	0.4770
T34	24	Fiber	58.00 - 62.00	0.6000	0.4770
T34	25	DC	58.00 - 62.00	0.6000	0.4770
T34	27	1-1/2"	58.00 - 62.00	0.6000	0.4770
T34	28	7/8	58.00 - 62.00	0.6000	0.4770
T34	30	L2x2x3/16 half bay brace	58.00 - 62.00	0.6000	0.4770
T34	31	L2x2x3/16 half bay brace	58.00 - 62.00	0.6000	0.4770
T34	32	L2x2x3/16 half bay brace	58.00 - 62.00	0.6000	0.4770
T35	1	EW63	54.00 - 58.00	0.6000	0.4880
T35	2	EW63	54.00 - 58.00	0.6000	0.4880
T35	3	7/8	54.00 - 58.00	0.6000	0.4880
T35	4	7/8	54.00 - 58.00	0.6000	0.4880
T35	5	1 5/8	54.00 - 58.00	0.6000	0.4880
T35	7	1 5/8	54.00 - 58.00	0.6000	0.4880
T35	8	1 5/8	54.00 - 58.00	0.6000	0.4880
T35	9	1 5/8	54.00 - 58.00	0.6000	0.4880
T35	10	1 1/4	54.00 - 58.00	0.6000	0.4880
T35	12	1/2	54.00 - 58.00	0.6000	0.4880
T35	13	1/2	54.00 - 58.00	0.6000	0.4880
T35	14	3/8	54.00 - 58.00	0.6000	0.4880
T35	15	3/8	54.00 - 56.00	0.6000	0.4880
T35	17	Safety Line 3/8	54.00 - 58.00	0.6000	0.4880
T35	18	Climbing Ladder	54.00 - 58.00	0.6000	0.4880
T35	20	LDF7-50A (1-5/8 FOAM)	54.00 - 58.00	0.6000	0.4880
T35	21	Fiber	54.00 - 58.00	0.6000	0.4880
T35	22	DC	54.00 - 58.00	0.6000	0.4880
T35	24	Fiber	54.00 - 58.00	0.6000	0.4880
T35	25	DC	54.00 - 58.00	0.6000	0.4880
T35	27	1-1/2"	54.00 - 58.00	0.6000	0.4880
T35	28	7/8	54.00 - 58.00	0.6000	0.4880
T35	30	L2x2x3/16 half bay brace	54.00 - 58.00	0.6000	0.4880
T35	31	L2x2x3/16 half bay brace	54.00 - 58.00	0.6000	0.4880
T35	32	L2x2x3/16 half bay brace	54.00 - 58.00	0.6000	0.4880
T36	1	EW63	50.00 - 54.00	0.6000	0.4901
T36	2	EW63	50.00 - 54.00	0.6000	0.4901
T36	3	7/8	50.00 - 54.00	0.6000	0.4901
T36	4	7/8	50.00 - 54.00	0.6000	0.4901
T36	5	1 5/8	50.00 - 54.00	0.6000	0.4901
T36	7	1 5/8	50.00 - 54.00	0.6000	0.4901
T36	8	1 5/8	50.00 - 54.00	0.6000	0.4901
T36	9	1 5/8	50.00 - 54.00	0.6000	0.4901
T36	10	1 1/4	50.00 - 54.00	0.6000	0.4901
T36	12	1/2	50.00 - 54.00	0.6000	0.4901
T36	13	1/2	50.00 - 54.00	0.6000	0.4901
T36	14	3/8	50.00 - 54.00	0.6000	0.4901
T36	15	3/8	50.00 - 54.00	0.6000	0.4901
T36	17	Safety Line 3/8	50.00 - 54.00	0.6000	0.4901
T36	18	Climbing Ladder	50.00 - 54.00	0.6000	0.4901
T36	20	LDF7-50A (1-5/8 FOAM)	50.00 - 54.00	0.6000	0.4901
T36	21	Fiber	50.00 - 54.00	0.6000	0.4901
T36	22	DC	50.00 - 54.00	0.6000	0.4901
T36	24	Fiber	50.00 - 54.00	0.6000	0.4901
T36	25	DC	50.00 - 54.00	0.6000	0.4901
T36	27	1-1/2"	50.00 - 54.00	0.6000	0.4901
T36	28	7/8	50.00 - 54.00	0.6000	0.4901
T36	30	L2x2x3/16 half bay brace	50.00 - 54.00	0.6000	0.4901
T36	31	L2x2x3/16 half bay brace	50.00 - 54.00	0.6000	0.4901
T36	32	L2x2x3/16 half bay brace	50.00 - 54.00	0.6000	0.4901
T37	1	EW63	46.00 - 50.00	0.6000	0.4923

<p>tnxTower</p> <p>Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:</p>	Job	Naugatuck East Blvd. - CTL02056	Page	44 of 129
	Project	LTE 3C	Date	12:39:55 07/21/17
	Client	Smartlink / AT&T	Designed by	AS

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T37	2	EW63	46.00 - 50.00	0.6000	0.4923
T37	3	7/8	46.00 - 50.00	0.6000	0.4923
T37	4	7/8	46.00 - 50.00	0.6000	0.4923
T37	5	1 5/8	46.00 - 50.00	0.6000	0.4923
T37	7	1 5/8	46.00 - 50.00	0.6000	0.4923
T37	8	1 5/8	46.00 - 50.00	0.6000	0.4923
T37	9	1 5/8	46.00 - 50.00	0.6000	0.4923
T37	10	1 1/4	46.00 - 50.00	0.6000	0.4923
T37	12	1/2	46.00 - 50.00	0.6000	0.4923
T37	13	1/2	46.00 - 50.00	0.6000	0.4923
T37	14	3/8	46.00 - 50.00	0.6000	0.4923
T37	15	3/8	46.00 - 50.00	0.6000	0.4923
T37	17	Safety Line 3/8	46.00 - 50.00	0.6000	0.4923
T37	18	Climbing Ladder	46.00 - 50.00	0.6000	0.4923
T37	20	LDF7-50A (1-5/8 FOAM)	46.00 - 50.00	0.6000	0.4923
T37	21	Fiber	46.00 - 50.00	0.6000	0.4923
T37	22	DC	46.00 - 50.00	0.6000	0.4923
T37	24	Fiber	46.00 - 50.00	0.6000	0.4923
T37	25	DC	46.00 - 50.00	0.6000	0.4923
T37	27	1-1/2"	46.00 - 50.00	0.6000	0.4923
T37	28	7/8	46.00 - 50.00	0.6000	0.4923
T37	30	L2x2x3/16 half bay brace	46.00 - 50.00	0.6000	0.4923
T37	31	L2x2x3/16 half bay brace	46.00 - 50.00	0.6000	0.4923
T37	32	L2x2x3/16 half bay brace	46.00 - 50.00	0.6000	0.4923
T38	1	EW63	42.00 - 46.00	0.6000	0.4948
T38	2	EW63	42.00 - 46.00	0.6000	0.4948
T38	3	7/8	42.00 - 46.00	0.6000	0.4948
T38	4	7/8	42.00 - 46.00	0.6000	0.4948
T38	5	1 5/8	42.00 - 46.00	0.6000	0.4948
T38	7	1 5/8	42.00 - 46.00	0.6000	0.4948
T38	8	1 5/8	42.00 - 46.00	0.6000	0.4948
T38	9	1 5/8	42.00 - 46.00	0.6000	0.4948
T38	10	1 1/4	42.00 - 46.00	0.6000	0.4948
T38	12	1/2	42.00 - 46.00	0.6000	0.4948
T38	13	1/2	42.00 - 46.00	0.6000	0.4948
T38	14	3/8	42.00 - 46.00	0.6000	0.4948
T38	15	3/8	42.00 - 46.00	0.6000	0.4948
T38	17	Safety Line 3/8	42.00 - 46.00	0.6000	0.4948
T38	18	Climbing Ladder	42.00 - 46.00	0.6000	0.4948
T38	20	LDF7-50A (1-5/8 FOAM)	42.00 - 46.00	0.6000	0.4948
T38	21	Fiber	42.00 - 46.00	0.6000	0.4948
T38	22	DC	42.00 - 46.00	0.6000	0.4948
T38	24	Fiber	42.00 - 46.00	0.6000	0.4948
T38	25	DC	42.00 - 46.00	0.6000	0.4948
T38	27	1-1/2"	42.00 - 46.00	0.6000	0.4948
T38	28	7/8	42.00 - 46.00	0.6000	0.4948
T38	30	L2x2x3/16 half bay brace	42.00 - 46.00	0.6000	0.4948
T38	31	L2x2x3/16 half bay brace	42.00 - 46.00	0.6000	0.4948
T38	32	L2x2x3/16 half bay brace	42.00 - 46.00	0.6000	0.4948
T39	1	EW63	38.00 - 42.00	0.6000	0.4884
T39	2	EW63	38.00 - 42.00	0.6000	0.4884
T39	3	7/8	38.00 - 42.00	0.6000	0.4884
T39	4	7/8	38.00 - 42.00	0.6000	0.4884
T39	5	1 5/8	38.00 - 42.00	0.6000	0.4884
T39	7	1 5/8	38.00 - 42.00	0.6000	0.4884
T39	8	1 5/8	38.00 - 42.00	0.6000	0.4884
T39	9	1 5/8	38.00 - 42.00	0.6000	0.4884
T39	10	1 1/4	38.00 - 42.00	0.6000	0.4884
T39	12	1/2	38.00 - 42.00	0.6000	0.4884
T39	13	1/2	38.00 - 42.00	0.6000	0.4884
T39	14	3/8	38.00 - 42.00	0.6000	0.4884
T39	15	3/8	38.00 - 42.00	0.6000	0.4884

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T39	17	Safety Line 3/8	38.00 - 42.00	0.6000	0.4884
T39	18	Climbing Ladder	38.00 - 42.00	0.6000	0.4884
T39	20	LDF7-50A (1-5/8 FOAM)	38.00 - 42.00	0.6000	0.4884
T39	21	Fiber	38.00 - 42.00	0.6000	0.4884
T39	22	DC	38.00 - 42.00	0.6000	0.4884
T39	24	Fiber	38.00 - 42.00	0.6000	0.4884
T39	25	DC	38.00 - 42.00	0.6000	0.4884
T39	27	1-1/2"	38.00 - 42.00	0.6000	0.4884
T39	28	7/8	38.00 - 42.00	0.6000	0.4884
T40	1	EW63	34.00 - 38.00	0.6000	0.4912
T40	2	EW63	34.00 - 38.00	0.6000	0.4912
T40	3	7/8	34.00 - 38.00	0.6000	0.4912
T40	4	7/8	34.00 - 38.00	0.6000	0.4912
T40	5	1 5/8	34.00 - 38.00	0.6000	0.4912
T40	7	1 5/8	34.00 - 38.00	0.6000	0.4912
T40	8	1 5/8	34.00 - 38.00	0.6000	0.4912
T40	9	1 5/8	34.00 - 38.00	0.6000	0.4912
T40	10	1 1/4	34.00 - 38.00	0.6000	0.4912
T40	12	1/2	34.00 - 38.00	0.6000	0.4912
T40	13	1/2	34.00 - 38.00	0.6000	0.4912
T40	14	3/8	34.00 - 38.00	0.6000	0.4912
T40	15	3/8	34.00 - 38.00	0.6000	0.4912
T40	17	Safety Line 3/8	34.00 - 38.00	0.6000	0.4912
T40	18	Climbing Ladder	34.00 - 38.00	0.6000	0.4912
T40	20	LDF7-50A (1-5/8 FOAM)	34.00 - 38.00	0.6000	0.4912
T40	21	Fiber	34.00 - 38.00	0.6000	0.4912
T40	22	DC	34.00 - 38.00	0.6000	0.4912
T40	24	Fiber	34.00 - 38.00	0.6000	0.4912
T40	25	DC	34.00 - 38.00	0.6000	0.4912
T40	27	1-1/2"	34.00 - 38.00	0.6000	0.4912
T40	28	7/8	34.00 - 38.00	0.6000	0.4912
T41	1	EW63	30.00 - 34.00	0.6000	0.4944
T41	2	EW63	30.00 - 34.00	0.6000	0.4944
T41	3	7/8	30.00 - 34.00	0.6000	0.4944
T41	4	7/8	30.00 - 34.00	0.6000	0.4944
T41	5	1 5/8	30.00 - 34.00	0.6000	0.4944
T41	7	1 5/8	30.00 - 34.00	0.6000	0.4944
T41	8	1 5/8	30.00 - 34.00	0.6000	0.4944
T41	9	1 5/8	30.00 - 34.00	0.6000	0.4944
T41	10	1 1/4	30.00 - 34.00	0.6000	0.4944
T41	12	1/2	30.00 - 34.00	0.6000	0.4944
T41	13	1/2	30.00 - 34.00	0.6000	0.4944
T41	14	3/8	30.00 - 34.00	0.6000	0.4944
T41	15	3/8	30.00 - 34.00	0.6000	0.4944
T41	17	Safety Line 3/8	30.00 - 34.00	0.6000	0.4944
T41	18	Climbing Ladder	30.00 - 34.00	0.6000	0.4944
T41	20	LDF7-50A (1-5/8 FOAM)	30.00 - 34.00	0.6000	0.4944
T41	21	Fiber	30.00 - 34.00	0.6000	0.4944
T41	22	DC	30.00 - 34.00	0.6000	0.4944
T41	24	Fiber	30.00 - 34.00	0.6000	0.4944
T41	25	DC	30.00 - 34.00	0.6000	0.4944
T41	27	1-1/2"	30.00 - 34.00	0.6000	0.4944
T41	28	7/8	30.00 - 34.00	0.6000	0.4944
T42	1	EW63	26.00 - 30.00	0.6000	0.4980
T42	2	EW63	26.00 - 30.00	0.6000	0.4980
T42	3	7/8	26.00 - 30.00	0.6000	0.4980
T42	4	7/8	26.00 - 30.00	0.6000	0.4980
T42	5	1 5/8	26.00 - 30.00	0.6000	0.4980
T42	7	1 5/8	26.00 - 30.00	0.6000	0.4980
T42	8	1 5/8	26.00 - 30.00	0.6000	0.4980
T42	9	1 5/8	26.00 - 30.00	0.6000	0.4980
T42	10	1 1/4	26.00 - 30.00	0.6000	0.4980

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T42	12	1/2	26.00 - 30.00	0.6000	0.4980
T42	13	1/2	26.00 - 30.00	0.6000	0.4980
T42	14	3/8	26.00 - 30.00	0.6000	0.4980
T42	15	3/8	26.00 - 30.00	0.6000	0.4980
T42	17	Safety Line 3/8	26.00 - 30.00	0.6000	0.4980
T42	18	Climbing Ladder	26.00 - 30.00	0.6000	0.4980
T42	20	LDF7-50A (1-5/8 FOAM)	26.00 - 30.00	0.6000	0.4980
T42	21	Fiber	26.00 - 30.00	0.6000	0.4980
T42	22	DC	26.00 - 30.00	0.6000	0.4980
T42	24	Fiber	26.00 - 30.00	0.6000	0.4980
T42	25	DC	26.00 - 30.00	0.6000	0.4980
T42	27	1-1/2"	26.00 - 30.00	0.6000	0.4980
T42	28	7/8	26.00 - 30.00	0.6000	0.4980
T43	1	EW63	22.00 - 26.00	0.6000	0.5021
T43	2	EW63	22.00 - 26.00	0.6000	0.5021
T43	3	7/8	22.00 - 26.00	0.6000	0.5021
T43	4	7/8	22.00 - 26.00	0.6000	0.5021
T43	5	1 5/8	22.00 - 26.00	0.6000	0.5021
T43	7	1 5/8	22.00 - 26.00	0.6000	0.5021
T43	8	1 5/8	22.00 - 26.00	0.6000	0.5021
T43	9	1 5/8	22.00 - 26.00	0.6000	0.5021
T43	10	1 1/4	22.00 - 26.00	0.6000	0.5021
T43	12	1/2	22.00 - 26.00	0.6000	0.5021
T43	13	1/2	22.00 - 26.00	0.6000	0.5021
T43	14	3/8	22.00 - 26.00	0.6000	0.5021
T43	15	3/8	22.00 - 26.00	0.6000	0.5021
T43	17	Safety Line 3/8	22.00 - 26.00	0.6000	0.5021
T43	18	Climbing Ladder	22.00 - 26.00	0.6000	0.5021
T43	20	LDF7-50A (1-5/8 FOAM)	22.00 - 26.00	0.6000	0.5021
T43	21	Fiber	22.00 - 26.00	0.6000	0.5021
T43	22	DC	22.00 - 26.00	0.6000	0.5021
T43	24	Fiber	22.00 - 26.00	0.6000	0.5021
T43	25	DC	22.00 - 26.00	0.6000	0.5021
T43	27	1-1/2"	22.00 - 26.00	0.6000	0.5021
T43	28	7/8	22.00 - 26.00	0.6000	0.5021
T44	1	EW63	18.00 - 22.00	0.6000	0.5068
T44	2	EW63	18.00 - 22.00	0.6000	0.5068
T44	3	7/8	18.00 - 22.00	0.6000	0.5068
T44	4	7/8	18.00 - 22.00	0.6000	0.5068
T44	5	1 5/8	18.00 - 22.00	0.6000	0.5068
T44	7	1 5/8	18.00 - 22.00	0.6000	0.5068
T44	8	1 5/8	18.00 - 22.00	0.6000	0.5068
T44	9	1 5/8	18.00 - 22.00	0.6000	0.5068
T44	10	1 1/4	18.00 - 22.00	0.6000	0.5068
T44	12	1/2	18.00 - 22.00	0.6000	0.5068
T44	13	1/2	18.00 - 22.00	0.6000	0.5068
T44	14	3/8	18.00 - 22.00	0.6000	0.5068
T44	15	3/8	18.00 - 22.00	0.6000	0.5068
T44	16	3/8	18.00 - 20.00	0.6000	0.5068
T44	17	Safety Line 3/8	18.00 - 22.00	0.6000	0.5068
T44	18	Climbing Ladder	18.00 - 22.00	0.6000	0.5068
T44	20	LDF7-50A (1-5/8 FOAM)	18.00 - 22.00	0.6000	0.5068
T44	21	Fiber	18.00 - 22.00	0.6000	0.5068
T44	22	DC	18.00 - 22.00	0.6000	0.5068
T44	24	Fiber	18.00 - 22.00	0.6000	0.5068
T44	25	DC	18.00 - 22.00	0.6000	0.5068
T44	27	1-1/2"	18.00 - 22.00	0.6000	0.5068
T44	28	7/8	18.00 - 22.00	0.6000	0.5068
T45	1	EW63	14.00 - 18.00	0.6000	0.5125
T45	2	EW63	14.00 - 18.00	0.6000	0.5125
T45	3	7/8	14.00 - 18.00	0.6000	0.5125
T45	4	7/8	14.00 - 18.00	0.6000	0.5125

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T45	5	1 5/8	14.00 - 18.00	0.6000	0.5125
T45	7	1 5/8	14.00 - 18.00	0.6000	0.5125
T45	8	1 5/8	14.00 - 18.00	0.6000	0.5125
T45	9	1 5/8	14.00 - 18.00	0.6000	0.5125
T45	10	1 1/4	14.00 - 18.00	0.6000	0.5125
T45	12	1/2	14.00 - 18.00	0.6000	0.5125
T45	13	1/2	14.00 - 18.00	0.6000	0.5125
T45	14	3/8	14.00 - 18.00	0.6000	0.5125
T45	15	3/8	14.00 - 18.00	0.6000	0.5125
T45	16	3/8	14.00 - 18.00	0.6000	0.5125
T45	17	Safety Line 3/8	14.00 - 18.00	0.6000	0.5125
T45	18	Climbing Ladder	14.00 - 18.00	0.6000	0.5125
T45	20	LDF7-50A (1-5/8 FOAM)	14.00 - 18.00	0.6000	0.5125
T45	21	Fiber	14.00 - 18.00	0.6000	0.5125
T45	22	DC	14.00 - 18.00	0.6000	0.5125
T45	24	Fiber	14.00 - 18.00	0.6000	0.5125
T45	25	DC	14.00 - 18.00	0.6000	0.5125
T45	27	1-1/2"	14.00 - 18.00	0.6000	0.5125
T45	28	7/8	14.00 - 18.00	0.6000	0.5125
T46	1	EW63	10.00 - 14.00	0.6000	0.5197
T46	2	EW63	10.00 - 14.00	0.6000	0.5197
T46	3	7/8	10.00 - 14.00	0.6000	0.5197
T46	4	7/8	10.00 - 14.00	0.6000	0.5197
T46	5	1 5/8	10.00 - 14.00	0.6000	0.5197
T46	7	1 5/8	10.00 - 14.00	0.6000	0.5197
T46	8	1 5/8	10.00 - 14.00	0.6000	0.5197
T46	9	1 5/8	10.00 - 14.00	0.6000	0.5197
T46	10	1 1/4	10.00 - 14.00	0.6000	0.5197
T46	12	1/2	10.00 - 14.00	0.6000	0.5197
T46	13	1/2	10.00 - 14.00	0.6000	0.5197
T46	14	3/8	10.00 - 14.00	0.6000	0.5197
T46	15	3/8	10.00 - 14.00	0.6000	0.5197
T46	16	3/8	10.00 - 14.00	0.6000	0.5197
T46	17	Safety Line 3/8	10.00 - 14.00	0.6000	0.5197
T46	18	Climbing Ladder	10.00 - 14.00	0.6000	0.5197
T46	20	LDF7-50A (1-5/8 FOAM)	10.00 - 14.00	0.6000	0.5197
T46	21	Fiber	10.00 - 14.00	0.6000	0.5197
T46	22	DC	10.00 - 14.00	0.6000	0.5197
T46	24	Fiber	10.00 - 14.00	0.6000	0.5197
T46	25	DC	10.00 - 14.00	0.6000	0.5197
T46	27	1-1/2"	10.00 - 14.00	0.6000	0.5197
T46	28	7/8	10.00 - 14.00	0.6000	0.5197
T47	1	EW63	8.00 - 10.00	0.6000	0.5295
T47	2	EW63	8.00 - 10.00	0.6000	0.5295
T47	3	7/8	8.00 - 10.00	0.6000	0.5295
T47	4	7/8	8.00 - 10.00	0.6000	0.5295
T47	5	1 5/8	8.00 - 10.00	0.6000	0.5295
T47	7	1 5/8	8.00 - 10.00	0.6000	0.5295
T47	8	1 5/8	8.00 - 10.00	0.6000	0.5295
T47	9	1 5/8	8.00 - 10.00	0.6000	0.5295
T47	10	1 1/4	8.00 - 10.00	0.6000	0.5295
T47	12	1/2	8.00 - 10.00	0.6000	0.5295
T47	13	1/2	8.00 - 10.00	0.6000	0.5295
T47	14	3/8	8.00 - 10.00	0.6000	0.5295
T47	15	3/8	8.00 - 10.00	0.6000	0.5295
T47	16	3/8	8.00 - 10.00	0.6000	0.5295
T47	17	Safety Line 3/8	8.00 - 10.00	0.6000	0.5295
T47	18	Climbing Ladder	8.00 - 10.00	0.6000	0.5295
T47	20	LDF7-50A (1-5/8 FOAM)	8.00 - 10.00	0.6000	0.5295
T47	21	Fiber	8.00 - 10.00	0.6000	0.5295
T47	22	DC	8.00 - 10.00	0.6000	0.5295
T47	24	Fiber	8.00 - 10.00	0.6000	0.5295

tnxTower Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:	Job	Naugatuck East Blvd. - CTL02056	Page	48 of 129
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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T47	25	DC	8.00 - 10.00	0.6000	0.5295
T47	27	1-1/2"	6.00 - 10.00	0.6000	0.5295
T47	28	7/8	6.00 - 10.00	0.6000	0.5295
T48	27	1-1/2"	2.00 - 6.00	0.6000	0.5455
T48	28	7/8	2.00 - 6.00	0.6000	0.5455

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _A A _A Front ft ²	C _A A _A Side ft ²	Weight lb	
Lightning Rod 5'x.625"	C	From Leg	0.00	0.0000	281.50	No Ice	0.31	0.31	5.20
			0.00			1/2" Ice	0.83	0.83	8.70
			2.00			1" Ice	1.32	1.32	15.48
06' Ice Shield	A	From Leg	0.00	0.0000	274.00	No Ice	3.10	3.60	341.00
			0.00			1/2" Ice	3.48	4.04	516.29
			0.00			1" Ice	3.87	4.48	700.85
06' Ice Shield	C	From Leg	0.00	0.0000	270.00	No Ice	3.10	3.60	341.00
			0.00			1/2" Ice	3.48	4.04	516.29
			0.00			1" Ice	3.87	4.48	700.85
SO301-1	C	From Leg	0.00	0.0000	264.00	No Ice	1.00	0.90	7.67
			0.00			1/2" Ice	1.39	1.42	10.86
			0.00			1" Ice	1.78	1.94	14.05

PiROD 10' Lightweight T-Frame	A	From Leg	1.50	0.0000	236.00	No Ice	9.30	9.30	251.00
			0.00			1/2" Ice	14.50	14.50	344.00
			0.00			1" Ice	19.70	19.70	437.00
PiROD 10' Lightweight T-Frame	B	From Leg	1.50	0.0000	236.00	No Ice	9.30	9.30	251.00
			0.00			1/2" Ice	14.50	14.50	344.00
			0.00			1" Ice	19.70	19.70	437.00
PiROD 10' Lightweight T-Frame	C	From Leg	1.50	0.0000	236.00	No Ice	9.30	9.30	251.00
			0.00			1/2" Ice	14.50	14.50	344.00
			0.00			1" Ice	19.70	19.70	437.00
Commscope DBXNH-6565A-A2M	A	From Leg	2.50	0.0000	236.00	No Ice	5.80	4.95	66.90
			-6.00			1/2" Ice	6.29	5.77	119.16
			0.00			1" Ice	6.74	6.47	177.83
Commscope DBXNH-6565A-A2M	B	From Leg	2.50	0.0000	236.00	No Ice	5.80	4.95	66.90
			-6.00			1/2" Ice	6.29	5.77	119.16
			0.00			1" Ice	6.74	6.47	177.83
Commscope DBXNH-6565A-A2M	C	From Leg	2.50	0.0000	236.00	No Ice	5.80	4.95	66.90
			-6.00			1/2" Ice	6.29	5.77	119.16
			0.00			1" Ice	6.74	6.47	177.83
AIR 32 w/Mount Pipe	A	From Leg	2.50	0.0000	236.00	No Ice	6.47	5.87	120.90
			6.00			1/2" Ice	6.95	6.73	179.37
			0.00			1" Ice	7.41	7.46	244.70
AIR 32 w/Mount Pipe	B	From Leg	2.50	0.0000	236.00	No Ice	6.47	5.87	120.90
			6.00			1/2" Ice	6.95	6.73	179.37
			0.00			1" Ice	7.41	7.46	244.70
AIR 32 w/Mount Pipe	C	From Leg	2.50	0.0000	236.00	No Ice	6.47	5.87	120.90
			6.00			1/2" Ice	6.95	6.73	179.37
			0.00			1" Ice	7.41	7.46	244.70

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz	Vert					
			ft	ft	°	ft	ft ²	ft ²	lb
RRUS-11 B12	A	From Leg	2.50	0.0000	236.00	No Ice	2.79	1.19	50.70
			0.00			1/2" Ice	3.00	1.34	71.56
			0.00			1" Ice	3.21	1.49	95.47
RRUS-11 B12	B	From Leg	2.50	0.0000	236.00	No Ice	2.79	1.19	50.70
			0.00			1/2" Ice	3.00	1.34	71.56
			0.00			1" Ice	3.21	1.49	95.47
RRUS-11 B12	C	From Leg	2.50	0.0000	236.00	No Ice	2.79	1.19	50.70
			0.00			1/2" Ice	3.00	1.34	71.56
			0.00			1" Ice	3.21	1.49	95.47

PiROD 12' T-Frame	A	From Leg	2.00	0.0000	208.00	No Ice	12.20	12.20	360.00
			0.00			1/2" Ice	17.60	17.60	490.00
			0.00			1" Ice	23.00	23.00	620.00
PiROD 12' T-Frame	B	From Leg	2.00	0.0000	208.00	No Ice	12.20	12.20	360.00
			0.00			1/2" Ice	17.60	17.60	490.00
			0.00			1" Ice	23.00	23.00	620.00
PiROD 12' T-Frame	C	From Leg	2.00	0.0000	208.00	No Ice	12.20	12.20	360.00
			0.00			1/2" Ice	17.60	17.60	490.00
			0.00			1" Ice	23.00	23.00	620.00
RFS APXVSPP18-C	A	From Leg	3.00	0.0000	208.00	No Ice	8.72	8.07	125.14
			0.00			1/2" Ice	9.33	9.14	204.84
			0.00			1" Ice	9.92	10.09	294.67
RFS APXVSPP18-C	B	From Leg	3.00	0.0000	208.00	No Ice	8.72	8.07	125.14
			0.00			1/2" Ice	9.33	9.14	204.84
			0.00			1" Ice	9.92	10.09	294.67
RFS APXVSPP18-C	C	From Leg	3.00	0.0000	208.00	No Ice	8.72	8.07	125.14
			0.00			1/2" Ice	9.33	9.14	204.84
			0.00			1" Ice	9.92	10.09	294.67
(2) FR65-17-DP	A	From Leg	3.00	0.0000	208.00	No Ice	4.36	1.97	18.00
			0.00			1/2" Ice	4.70	2.31	40.42
			0.00			1" Ice	5.06	2.66	67.36
FR65-17-DP	B	From Leg	3.00	0.0000	208.00	No Ice	4.36	1.97	18.00
			0.00			1/2" Ice	4.70	2.31	40.42
			0.00			1" Ice	5.06	2.66	67.36
FR65-17-DP	C	From Leg	3.00	0.0000	208.00	No Ice	4.36	1.97	18.00
			0.00			1/2" Ice	4.70	2.31	40.42
			0.00			1" Ice	5.06	2.66	67.36
800 MHz with Notch Filter	A	From Leg	3.00	0.0000	208.00	No Ice	1.71	1.89	64.00
			0.00			1/2" Ice	1.88	2.06	85.46
			0.00			1" Ice	2.05	2.24	109.91
800 MHz with Notch Filter	B	From Leg	3.00	0.0000	208.00	No Ice	1.71	1.89	64.00
			0.00			1/2" Ice	1.88	2.06	85.46
			0.00			1" Ice	2.05	2.24	109.91
800 MHz with Notch Filter	C	From Leg	3.00	0.0000	208.00	No Ice	1.71	1.89	64.00
			0.00			1/2" Ice	1.88	2.06	85.46
			0.00			1" Ice	2.05	2.24	109.91
(2) 1900 RRH Combiner	A	From Leg	3.00	0.0000	208.00	No Ice	1.13	0.28	40.00
			0.00			1/2" Ice	1.27	0.34	49.01
			0.00			1" Ice	1.42	0.42	60.16
(2) 1900 RRH Combiner	B	From Leg	3.00	0.0000	208.00	No Ice	1.13	0.28	40.00
			0.00			1/2" Ice	1.27	0.34	49.01
			0.00			1" Ice	1.42	0.42	60.16
(2) 1900 RRH Combiner	C	From Leg	3.00	0.0000	208.00	No Ice	1.13	0.28	40.00
			0.00			1/2" Ice	1.27	0.34	49.01
			0.00			1" Ice	1.42	0.42	60.16

F 24 x 18	A	None		0.0000	196.00	No Ice	3.60	3.60	30.00

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Lateral						°
						1/2" Ice	3.84	3.84	70.48	
						1" Ice	4.08	4.08	115.04	
06' Ice Shield	A	From Leg	0.00		0.0000	172.00	No Ice	3.10	3.60	341.00
			0.00				1/2" Ice	3.48	4.04	516.29
			0.00				1" Ice	3.87	4.48	700.85
4 Bay DiPole	C	None			0.0000	162.00	No Ice	0.00	0.00	0.00
							1/2" Ice	0.00	0.00	0.00
							1" Ice	0.00	0.00	0.00

PiROD 12' T-Frame	A	From Leg	2.00		0.0000	152.00	No Ice	12.20	12.20	360.00
			0.00				1/2" Ice	17.60	17.60	490.00
			0.00				1" Ice	23.00	23.00	620.00
PiROD 12' T-Frame	B	From Leg	2.00		0.0000	152.00	No Ice	12.20	12.20	360.00
			0.00				1/2" Ice	17.60	17.60	490.00
			0.00				1" Ice	23.00	23.00	620.00
PiROD 12' T-Frame	C	From Leg	2.00		0.0000	152.00	No Ice	12.20	12.20	360.00
			0.00				1/2" Ice	17.60	17.60	490.00
			0.00				1" Ice	23.00	23.00	620.00
Powerwave 7770.00	A	From Leg	4.00		0.0000	152.00	No Ice	5.84	4.35	60.90
			6.00				1/2" Ice	6.32	5.20	109.42
			0.00				1" Ice	6.77	5.92	164.42
Powerwave 7770.00	B	From Leg	4.00		0.0000	152.00	No Ice	5.84	4.35	60.90
			6.00				1/2" Ice	6.32	5.20	109.42
			0.00				1" Ice	6.77	5.92	164.42
Powerwave 7770.00	C	From Leg	4.00		0.0000	152.00	No Ice	5.84	4.35	60.90
			6.00				1/2" Ice	6.32	5.20	109.42
			0.00				1" Ice	6.77	5.92	164.42
RRUS-11	A	From Leg	4.00		0.0000	152.00	No Ice	2.52	1.07	55.00
			0.00				1/2" Ice	2.72	1.21	74.32
			0.00				1" Ice	2.92	1.36	96.56
RRUS-11	B	From Leg	4.00		0.0000	152.00	No Ice	2.52	1.07	55.00
			0.00				1/2" Ice	2.72	1.21	74.32
			0.00				1" Ice	2.92	1.36	96.56
RRUS-11	C	From Leg	4.00		0.0000	152.00	No Ice	2.52	1.07	55.00
			0.00				1/2" Ice	2.72	1.21	74.32
			0.00				1" Ice	2.92	1.36	96.56
(2) Powerwave LGP21401 TMA	A	From Leg	4.00		0.0000	152.00	No Ice	1.09	0.37	14.00
			0.00				1/2" Ice	1.23	0.47	21.03
			0.00				1" Ice	1.38	0.58	29.98
(2) Powerwave LGP21401 TMA	B	From Leg	4.00		0.0000	152.00	No Ice	1.09	0.37	14.00
			0.00				1/2" Ice	1.23	0.47	21.03
			0.00				1" Ice	1.38	0.58	29.98
(2) Powerwave LGP21401 TMA	C	From Leg	4.00		0.0000	152.00	No Ice	1.09	0.37	14.00
			0.00				1/2" Ice	1.23	0.47	21.03
			0.00				1" Ice	1.38	0.58	29.98
RRUS-12	A	From Leg	4.00		0.0000	152.00	No Ice	3.15	1.29	50.00
			0.00				1/2" Ice	3.36	1.44	73.22
			0.00				1" Ice	3.59	1.60	99.64
RRUS-12	B	From Leg	4.00		0.0000	152.00	No Ice	3.15	1.29	50.00
			0.00				1/2" Ice	3.36	1.44	73.22
			0.00				1" Ice	3.59	1.60	99.64
RRUS-12	C	From Leg	4.00		0.0000	152.00	No Ice	3.15	1.29	50.00
			0.00				1/2" Ice	3.36	1.44	73.22
			0.00				1" Ice	3.59	1.60	99.64
Raycap DC6-48-60-18-8F	B	From Leg	0.00		0.0000	152.00	No Ice	0.83	0.83	22.00
			0.00				1/2" Ice	1.34	1.34	37.91
			0.00				1" Ice	1.52	1.52	56.21

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	Client	Smartlink / AT&T	Designed by	AS

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz	Lateral					

Weather/Wind Gauge	C	From Leg	1.00	0.0000	52.00	No Ice	0.40	0.40	10.00
			0.00			1/2" Ice	0.51	0.51	15.22
			0.00			1" Ice	0.62	0.62	21.81
Alarm	B	From Leg	1.00	0.0000	20.00	No Ice	0.40	0.40	10.00
			0.00			1/2" Ice	0.51	0.51	15.22
			0.00			1" Ice	0.62	0.62	21.81
Proposed									
Quintel QS66512-2 w/Mount Pipe	A	From Leg	4.00	0.0000	152.00	No Ice	8.61	8.70	155.20
			-2.00			1/2" Ice	9.27	9.99	233.50
			0.00			1" Ice	9.90	11.12	320.14
Quintel QS66512-2 w/Mount Pipe	B	From Leg	4.00	0.0000	152.00	No Ice	8.61	8.70	155.20
			-2.00			1/2" Ice	9.27	9.99	233.50
			0.00			1" Ice	9.90	11.12	320.14
CCI TPA-65R-LCUUUU-H8 w/Mount Pipe	C	From Leg	4.00	0.0000	152.00	No Ice	13.30	10.72	114.20
			-2.00			1/2" Ice	13.90	12.15	214.76
			0.00			1" Ice	14.50	13.43	325.30
RRUS-32	A	From Leg	4.00	0.0000	152.00	No Ice	3.31	2.42	77.00
			-2.00			1/2" Ice	3.56	2.64	104.93
			0.00			1" Ice	3.81	2.86	136.47
RRUS-32	A	From Leg	4.00	0.0000	152.00	No Ice	3.31	2.42	77.00
			-2.00			1/2" Ice	3.56	2.64	104.93
			0.00			1" Ice	3.81	2.86	136.47
RRUS-32	A	From Leg	4.00	0.0000	152.00	No Ice	3.31	2.42	77.00
			-2.00			1/2" Ice	3.56	2.64	104.93
			0.00			1" Ice	3.81	2.86	136.47
Raycap DC6-48-60-18-8F	C	From Leg	0.00	0.0000	152.00	No Ice	0.83	0.83	22.00
			0.00			1/2" Ice	1.34	1.34	37.91
			0.00			1" Ice	1.52	1.52	56.21
(6) CCI TPX-070821	C	None		0.0000	152.00	No Ice	0.47	0.10	7.50
						1/2" Ice	0.56	0.15	10.95
						1" Ice	0.66	0.20	15.73
CCI HPA-65R-BUU-H6	C	From Leg	4.00	0.0000	152.00	No Ice	9.49	5.49	48.00
			-6.00			1/2" Ice	9.96	5.94	105.33
			0.00			1" Ice	10.43	6.41	168.95
CCI HPA-65R-BUU-H6	B	From Leg	4.00	0.0000	152.00	No Ice	9.49	5.49	48.00
			-6.00			1/2" Ice	9.96	5.94	105.33
			0.00			1" Ice	10.43	6.41	168.95
CCI HPA-65R-BUU-H8 w/mount pipe	A	From Leg	4.00	0.0000	152.00	No Ice	12.83	9.38	82.20
			-6.00			1/2" Ice	13.44	10.78	175.71
			0.00			1" Ice	14.05	12.04	278.92
RRUS-32 B2	A	From Leg	4.00	0.0000	152.00	No Ice	3.31	2.42	77.00
			-6.00			1/2" Ice	3.56	2.64	104.93
			0.00			1" Ice	3.81	2.86	136.47
RRUS-32 B2	A	From Leg	4.00	0.0000	152.00	No Ice	3.31	2.42	77.00
			-6.00			1/2" Ice	3.56	2.64	104.93
			0.00			1" Ice	3.81	2.86	136.47
RRUS-32 B2	A	From Leg	4.00	0.0000	152.00	No Ice	3.31	2.42	77.00
			-6.00			1/2" Ice	3.56	2.64	104.93
			0.00			1" Ice	3.81	2.86	136.47

DB222-A (Other Carrier Future)	C	None		0.0000	115.00	No Ice	1.60	1.60	16.00
						1/2" Ice	2.88	2.88	20.80
						1" Ice	4.16	4.16	25.60
SO301-1 (Other Carrier Future)	C	None		0.0000	115.00	No Ice	1.00	0.90	7.67
						1/2" Ice	1.39	1.42	10.86
						1" Ice	1.78	1.94	14.05

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz Lateral	Vert						
			ft	ft	°	ft	ft ²	ft ²	lb	
Box 12 x 12 x 6 (Other Carrier Future)	C	None			0.0000	276.00	No Ice	1.20	0.60	20.00
							1/2" Ice	1.34	0.70	30.34
							1" Ice	1.48	0.81	42.81
Box 12 x 12 x 6 (Other Carrier Future)	C	None			0.0000	188.00	No Ice	1.20	0.60	20.00
							1/2" Ice	1.34	0.70	30.34
							1" Ice	1.48	0.81	42.81
Box 12 x 12 x 6 (Other Carrier Future)	C	None			0.0000	94.00	No Ice	1.20	0.60	20.00
							1/2" Ice	1.34	0.70	30.34
							1" Ice	1.48	0.81	42.81
Box 12 x 12 x 6 (Other Carrier Future)	C	None			0.0000	10.00	No Ice	1.20	0.60	20.00
							1/2" Ice	1.34	0.70	30.34
							1" Ice	1.48	0.81	42.81

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets:		Azimuth Adjustment	3 dB Beam Width	Elevation	Outside Diameter	Aperture Area	Weight	
				Horz Lateral	Vert							
			ft	ft	°	°	ft	ft	ft ²	lb		
HP6-105C	A	Paraboloid w/Shroud (HP)	From Leg	2.00	0.0000	0.0000		264.00	6.00	No Ice	28.27	143.00
										1/2" Ice	29.05	292.13
										1" Ice	29.83	441.25
HP6-105C	C	Paraboloid w/Shroud (HP)	From Leg	3.00	0.0000	0.0000		264.00	6.00	No Ice	28.27	143.00
										1/2" Ice	29.05	292.13
										1" Ice	29.83	441.25
Kathrein PR-460	A	Grid	From Leg	1.00	0.0000	0.0000		254.00	4.65	No Ice	8.00	38.00
										1/2" Ice	14.00	128.40
										1" Ice	18.22	218.80
GHF4-23A	A	Grid	From Leg	1.00	0.0000	0.0000		164.00	4.88	No Ice	14.90	105.00
										1/2" Ice	19.30	204.07
										1" Ice	23.70	303.14

Tower Pressures - No Ice

$$G_H = 0.850$$

Section Elevation	z	K _Z	q _z	A _G	F _a	A _F	A _R	A _{leg}	Leg %	C _{AA} In Face	C _{AA} Out Face	
ft	ft		psf	ft ²	c	ft ²	ft ²	ft ²		ft ²	ft ²	
T1 276.00-265.50	270.75	1.314	29	43.531	A	4.168	3.063	3.063	42.36	3.439	0.000	
					B	4.168	3.063			0.000	0.000	
					C	4.168	3.063			42.36	1.575	0.000
T2 265.50-261.75	263.63	1.304	28	15.547	A	1.413	1.094	1.094	43.64	1.228	0.000	
					B	1.413	1.094			43.64	1.417	0.000
					C	1.413	1.094			43.64	0.563	0.000

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Section Elevation ft	z ft	K _Z	q _z psf	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
T3 261.75-258.00	259.88	1.298	28	15.547	A	2.344	1.094	1.094	31.82	1.228	0.000
					B	2.344	1.094		31.82	2.361	0.000
					C	2.344	1.094		31.82	0.563	0.000
T4 258.00-254.00	256.00	1.293	28	16.583	A	1.437	1.167	1.167	44.80	1.310	0.000
					B	1.437	1.167		44.80	2.519	0.000
					C	1.437	1.167		44.80	0.600	0.000
T5 254.00-242.00	248.00	1.281	28	49.750	A	4.312	3.500	3.500	44.80	3.930	0.000
					B	4.312	3.500		44.80	7.556	0.000
					C	4.312	3.500		44.80	3.132	0.000
T6 242.00-222.00	232.00	1.257	27	82.917	A	7.186	5.833	5.833	44.80	6.550	0.000
					B	7.186	5.833		44.80	32.649	0.000
					C	7.186	5.833		44.80	5.220	0.000
T7 222.00-206.00	214.00	1.228	27	66.667	A	7.080	5.333	5.333	42.97	5.240	0.000
					B	7.080	5.333		42.97	37.885	0.000
					C	7.080	5.333		42.97	4.968	0.000
T8 206.00-202.00	204.00	1.212	26	16.667	A	1.768	1.333	1.333	42.99	1.310	0.000
					B	1.768	1.333		42.99	18.029	0.000
					C	1.768	1.333		42.99	2.628	0.000
T9 202.00-198.00	200.00	1.205	26	16.667	A	3.057	1.333	1.333	30.37	1.310	0.000
					B	3.057	1.333		30.37	18.029	0.000
					C	3.057	1.333		30.37	2.628	0.000
T10 198.00-194.00	196.00	1.198	26	16.667	A	1.768	1.333	1.333	42.99	1.310	0.000
					B	1.768	1.333		42.99	18.145	0.000
					C	1.768	1.333		42.99	2.628	0.000
T11 194.00-182.00	188.00	1.184	26	50.000	A	5.305	4.000	4.000	42.99	3.930	0.000
					B	5.305	4.000		42.99	54.782	0.000
					C	5.305	4.000		42.99	7.884	0.000
T12 182.00-162.00	172.00	1.154	25	83.333	A	7.712	6.667	6.667	46.36	6.550	0.000
					B	7.712	6.667		46.36	91.420	0.000
					C	7.712	6.667		46.36	13.140	0.000
T13 162.00-158.00	160.00	1.13	25	16.667	A	1.542	1.333	1.333	46.36	1.310	0.000
					B	1.542	1.333		46.36	18.493	0.000
					C	1.542	1.333		46.36	3.072	0.000
T14 158.00-154.00	156.00	1.122	24	16.667	A	1.542	1.333	1.333	46.36	1.310	0.000
					B	1.542	1.333		46.36	18.493	0.000
					C	1.542	1.333		46.36	3.072	0.000
T15 154.00-150.00	152.00	1.114	24	16.667	A	1.542	1.333	1.333	46.36	6.762	0.000
					B	1.542	1.333		46.36	18.493	0.000
					C	1.542	1.333		46.36	3.072	0.000
T16 150.00-146.00	148.00	1.105	24	16.667	A	1.542	1.333	1.333	46.36	12.214	0.000
					B	1.542	1.333		46.36	18.493	0.000
					C	1.542	1.333		46.36	3.072	0.000
T17 146.00-142.00	144.00	1.097	24	16.667	A	1.542	1.333	1.333	46.36	12.214	0.000
					B	1.542	1.333		46.36	18.493	0.000
					C	1.542	1.333		46.36	3.072	0.000
T18 142.00-138.00	140.00	1.088	24	16.667	A	1.542	1.333	1.333	46.36	12.214	0.000
					B	1.542	1.333		46.36	18.493	0.000
					C	1.542	1.333		46.36	3.072	0.000
T19 138.00-134.00	136.00	1.079	23	16.667	A	1.702	1.333	1.333	43.93	12.214	0.000
					B	1.702	1.333		43.93	18.493	0.000
					C	1.702	1.333		43.93	3.072	0.000
T20 134.00-130.00	132.00	1.07	23	16.667	A	1.702	1.333	1.333	43.93	12.214	0.000
					B	1.702	1.333		43.93	18.493	0.000
					C	1.702	1.333		43.93	3.072	0.000
T21 130.00-126.00	128.00	1.06	23	16.667	A	2.341	1.333	1.333	36.29	13.147	0.000
					B	2.341	1.333		36.29	19.426	0.000
					C	2.341	1.333		36.29	4.005	0.000
T22 126.00-122.00	124.00	1.051	23	16.667	A	1.702	1.333	1.333	43.93	12.214	0.000
					B	1.702	1.333		43.93	18.493	0.000
					C	1.702	1.333		43.93	3.072	0.000

tnxTower Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:	Job Naugatuck East Blvd. - CTL02056	Page 54 of 129
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	Client Smartlink / AT&T	Designed by AS

Section Elevation ft	z ft	K _Z	q _z psf	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
T23 122.00-102.00	112.00	1.021	22	83.333	A	7.712	6.667	6.667	46.36	62.003	0.000
					B	7.712	6.667		46.36	93.397	0.000
					C	7.712	6.667		46.36	17.736	0.000
T24 102.00-98.00	100.00	0.988	22	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T25 98.00-94.00	96.00	0.977	21	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T26 94.00-90.00	92.00	0.965	21	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T27 90.00-86.00	88.00	0.953	21	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T28 86.00-82.00	84.00	0.94	20	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T29 82.00-78.00	80.00	0.927	20	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T30 78.00-74.00	76.00	0.914	20	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T31 74.00-70.00	72.00	0.9	20	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T32 70.00-66.00	68.00	0.885	19	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T33 66.00-62.00	64.00	0.87	19	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T34 62.00-58.00	60.00	0.854	19	16.667	A	2.341	1.333	1.333	36.29	13.147	0.000
					B	2.341	1.333		36.29	19.426	0.000
					C	2.341	1.333		36.29	4.449	0.000
T35 58.00-54.00	56.00	0.837	18	16.667	A	2.181	1.333	1.333	37.94	13.240	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T36 54.00-50.00	52.00	0.82	18	16.667	A	2.181	1.333	1.333	37.94	13.333	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T37 50.00-46.00	48.00	0.801	17	16.667	A	2.181	1.333	1.333	37.94	13.333	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T38 46.00-42.00	44.00	0.782	17	16.667	A	2.181	1.333	1.333	37.94	13.333	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T39 42.00-38.00	40.00	0.761	17	16.667	A	2.341	1.333	1.333	36.29	12.400	0.000
					B	2.341	1.333		36.29	18.493	0.000
					C	2.341	1.333		36.29	3.516	0.000
T40 38.00-34.00	36.00	0.738	16	16.667	A	2.341	1.333	1.333	36.29	12.400	0.000
					B	2.341	1.333		36.29	18.493	0.000
					C	2.341	1.333		36.29	3.516	0.000
T41 34.00-30.00	32.00	0.714	16	16.667	A	2.341	1.333	1.333	36.29	12.400	0.000
					B	2.341	1.333		36.29	18.493	0.000
					C	2.341	1.333		36.29	3.516	0.000
T42 30.00-26.00	28.00	0.7	15	16.667	A	2.341	1.333	1.333	36.29	12.400	0.000
					B	2.341	1.333		36.29	18.493	0.000
					C	2.341	1.333		36.29	3.516	0.000

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Section Elevation ft	z ft	K _Z	q _z psf	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _{AA} In Face ft ²	C _{AA} Out Face ft ²
T43 26.00-22.00	24.00	0.7	15	16.667	A	2.341	1.333	1.333	36.29	12.400	0.000
					B	2.341	1.333		36.29	18.493	0.000
					C	2.341	1.333		36.29	3.516	0.000
T44 22.00-18.00	20.00	0.7	15	16.667	A	2.341	1.333	1.333	36.29	12.400	0.000
					B	2.341	1.333		36.29	18.493	0.000
					C	2.341	1.333		36.29	3.609	0.000
T45 18.00-14.00	16.00	0.7	15	16.667	A	2.341	1.333	1.333	36.29	12.400	0.000
					B	2.341	1.333		36.29	18.493	0.000
					C	2.341	1.333		36.29	3.702	0.000
T46 14.00-10.00	12.00	0.7	15	16.667	A	2.341	1.333	1.333	36.29	12.400	0.000
					B	2.341	1.333		36.29	18.493	0.000
					C	2.341	1.333		36.29	3.702	0.000
T47 10.00-6.00	8.00	0.7	15	16.667	A	2.341	1.333	1.333	36.29	6.200	0.000
					B	2.341	1.333		36.29	9.246	0.000
					C	2.341	1.333		36.29	2.373	0.000
T48 6.00-2.00	4.00	0.7	15	16.667	A	2.341	1.333	1.333	36.29	0.000	0.000
					B	2.341	1.333		36.29	0.000	0.000
					C	2.341	1.333		36.29	1.044	0.000

Tower Pressure - With Ice

$G_H = 0.850$

Section Elevation ft	z ft	K _Z	q _z psf	t _z in	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _{AA} In Face ft ²	C _{AA} Out Face ft ²
T1 276.00-265.50	270.75	1.314	7	1.8514	46.771	A	4.168	17.851	9.542	43.34	17.435	0.000
						B	4.168	17.851		43.34	0.000	0.000
						C	4.168	17.851		43.34	5.463	0.000
T2 265.50-261.75	263.63	1.304	7	1.8465	16.701	A	1.413	6.214	3.402	44.61	6.214	0.000
						B	1.413	6.214		44.61	5.584	0.000
						C	1.413	6.214		44.61	1.947	0.000
T3 261.75-258.00	259.88	1.298	7	1.8438	16.699	A	2.344	7.830	3.399	33.40	6.206	0.000
						B	2.344	7.830		33.40	9.301	0.000
						C	2.344	7.830		33.40	1.945	0.000
T4 258.00-254.00	256.00	1.293	7	1.8410	17.811	A	1.437	6.476	3.621	45.76	6.612	0.000
						B	1.437	6.476		45.76	9.913	0.000
						C	1.437	6.476		45.76	2.073	0.000
T5 254.00-242.00	248.00	1.281	7	1.8352	53.420	A	4.312	19.379	10.841	45.76	19.786	0.000
						B	4.312	19.379		45.76	29.691	0.000
						C	4.312	19.379		45.76	11.941	0.000
T6 242.00-222.00	232.00	1.257	7	1.8230	88.993	A	7.186	32.122	17.987	45.76	32.801	0.000
						B	7.186	32.122		45.76	81.980	0.000
						C	7.186	32.122		45.76	19.804	0.000
T7 222.00-206.00	214.00	1.228	7	1.8083	71.489	A	7.080	26.145	14.978	45.08	26.072	0.000
						B	7.080	26.145		45.08	83.986	0.000
						C	7.080	26.145		45.08	18.206	0.000
T8 206.00-202.00	204.00	1.212	7	1.7997	17.866	A	1.768	6.509	3.733	45.10	6.493	0.000
						B	1.768	6.509		45.10	34.033	0.000
						C	1.768	6.509		45.10	8.825	0.000
T9 202.00-198.00	200.00	1.205	7	1.7962	17.864	A	3.057	8.121	3.728	33.35	6.483	0.000
						B	3.057	8.121		33.35	34.002	0.000
						C	3.057	8.121		33.35	8.814	0.000
T10 198.00-194.00	196.00	1.198	7	1.7925	17.862	A	1.768	6.488	3.723	45.10	6.472	0.000
						B	1.768	6.488		45.10	34.804	0.000

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Section Elevation	z	K _Z	q _z	t _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _{AA} In Face	C _{AA} Out Face
ft	ft		psf	in	ft ²		ft ²	ft ²	ft ²		ft ²	ft ²
T11 194.00-182.00	188.00	1.184	6	1.7851	53.570	C A B C	1.768 5.305 5.305 5.305	6.488 19.400 19.400 19.400	11.140	45.10 45.09 45.09 45.09	8.803 19.353 106.703 26.343	0.000 0.000 0.000 0.000
T12 182.00-162.00	172.00	1.154	6	1.7693	89.231	A B C	7.712 7.712 7.712	32.106 32.106 32.106	18.462	46.36 46.36 46.36	32.027 177.922 43.668	0.000 0.000 0.000
T13 162.00-158.00	160.00	1.13	6	1.7565	17.838	A B C	1.542 1.542 1.542	6.385 6.385 6.385	3.675	46.36 46.36 46.36	6.369 36.937 10.545	0.000 0.000 0.000
T14 158.00-154.00	156.00	1.122	6	1.7521	17.835	A B C	1.542 1.542 1.542	6.372 6.372 6.372	3.669	46.36 46.36 46.36	6.356 36.892 10.528	0.000 0.000 0.000
T15 154.00-150.00	152.00	1.114	6	1.7475	17.832	A B C	1.542 1.542 1.542	6.359 6.359 6.359	3.663	46.36 46.36 46.36	16.927 36.846 10.511	0.000 0.000 0.000
T16 150.00-146.00	148.00	1.105	6	1.7429	17.829	A B C	1.542 1.542 1.542	6.345 6.345 6.345	3.657	46.36 46.36 46.36	27.472 36.799 10.493	0.000 0.000 0.000
T17 146.00-142.00	144.00	1.097	6	1.7381	17.825	A B C	1.542 1.542 1.542	6.332 6.332 6.332	3.651	46.36 46.36 46.36	27.431 36.751 10.475	0.000 0.000 0.000
T18 142.00-138.00	140.00	1.088	6	1.7332	17.822	A B C	1.542 1.542 1.542	6.318 6.318 6.318	3.644	46.36 46.36 46.36	27.389 36.701 10.456	0.000 0.000 0.000
T19 138.00-134.00	136.00	1.079	6	1.7282	17.819	A B C	1.702 1.702 1.702	6.303 6.303 6.303	3.638	45.44 45.44 45.44	27.346 36.650 10.437	0.000 0.000 0.000
T20 134.00-130.00	132.00	1.07	6	1.7230	17.815	A B C	1.702 1.702 1.702	6.288 6.288 6.288	3.631	45.44 45.44 45.44	27.302 36.598 10.418	0.000 0.000 0.000
T21 130.00-126.00	128.00	1.06	6	1.7178	17.812	A B C	2.341 2.341 2.341	7.371 7.371 7.371	3.624	37.31 37.31 37.31	29.022 38.309 12.163	0.000 0.000 0.000
T22 126.00-122.00	124.00	1.051	6	1.7123	17.808	A B C	1.702 1.702 1.702	6.258 6.258 6.258	3.616	45.43 45.43 45.43	27.210 36.489 10.377	0.000 0.000 0.000
T23 122.00-102.00	112.00	1.021	6	1.6950	88.983	A B C	7.712 7.712 7.712	31.038 31.038 31.038	17.966	46.36 46.36 46.36	137.594 183.852 59.696	0.000 0.000 0.000
T24 102.00-98.00	100.00	0.988	5	1.6759	17.784	A B C	2.181 2.181 2.181	7.223 7.223 7.223	3.568	37.94 37.94 37.94	29.171 38.393 14.298	0.000 0.000 0.000
T25 98.00-94.00	96.00	0.977	5	1.6690	17.779	A B C	2.181 2.181 2.181	7.199 7.199 7.199	3.559	37.94 37.94 37.94	29.107 38.318 14.261	0.000 0.000 0.000
T26 94.00-90.00	92.00	0.965	5	1.6620	17.775	A B C	2.181 2.181 2.181	7.174 7.174 7.174	3.549	37.94 37.94 37.94	29.041 38.240 14.223	0.000 0.000 0.000
T27 90.00-86.00	88.00	0.953	5	1.6546	17.770	A B C	2.181 2.181 2.181	7.149 7.149 7.149	3.539	37.94 37.94 37.94	28.971 38.159 14.183	0.000 0.000 0.000
T28 86.00-82.00	84.00	0.94	5	1.6469	17.765	A B C	2.181 2.181 2.181	7.122 7.122 7.122	3.529	37.94 37.94 37.94	28.899 38.075 14.142	0.000 0.000 0.000
T29 82.00-78.00	80.00	0.927	5	1.6389	17.759	A B C	2.181 2.181 2.181	7.093 7.093 7.093	3.519	37.94 37.94 37.94	28.824 37.988 14.098	0.000 0.000 0.000
T30 78.00-74.00	76.00	0.914	5	1.6305	17.754	A B	2.181 2.181	7.064 7.064	3.507	37.94 37.94	28.746 37.896	0.000 0.000

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Project	LTE 3C	Date	12:39:55 07/21/17
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Section Elevation ft	z ft	K _Z	q _z psf	t _z in	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _{AA} In Face ft ²	C _{AA} Out Face ft ²
T31 74.00-70.00	72.00	0.9	5	1.6217	17.748	C	2.181	7.064		37.94	14.053	0.000
						A	2.181	7.033	3.496	37.94	28.663	0.000
						B	2.181	7.033		37.94	37.800	0.000
						C	2.181	7.033		37.94	14.006	0.000
T32 70.00-66.00	68.00	0.885	5	1.6125	17.742	A	2.181	7.001	3.483	37.94	28.576	0.000
						B	2.181	7.001		37.94	37.698	0.000
						C	2.181	7.001		37.94	13.956	0.000
T33 66.00-62.00	64.00	0.87	5	1.6027	17.735	A	2.181	6.966	3.470	37.94	28.485	0.000
						B	2.181	6.966		37.94	37.592	0.000
						C	2.181	6.966		37.94	13.904	0.000
T34 62.00-58.00	60.00	0.854	5	1.5924	17.728	A	2.341	6.930	3.457	37.28	28.388	0.000
						B	2.341	6.930		37.28	37.479	0.000
						C	2.341	6.930		37.28	13.848	0.000
T35 58.00-54.00	56.00	0.837	5	1.5815	17.721	A	2.181	6.892	3.442	37.94	29.011	0.000
						B	2.181	6.892		37.94	37.359	0.000
						C	2.181	6.892		37.94	13.789	0.000
T36 54.00-50.00	52.00	0.82	4	1.5698	17.713	A	2.181	6.851	3.426	37.94	29.618	0.000
						B	2.181	6.851		37.94	37.231	0.000
						C	2.181	6.851		37.94	13.726	0.000
T37 50.00-46.00	48.00	0.801	4	1.5573	17.705	A	2.181	6.807	3.410	37.94	29.491	0.000
						B	2.181	6.807		37.94	37.094	0.000
						C	2.181	6.807		37.94	13.659	0.000
T38 46.00-42.00	44.00	0.782	4	1.5438	17.696	A	2.181	6.759	3.392	37.94	29.354	0.000
						B	2.181	6.759		37.94	36.946	0.000
						C	2.181	6.759		37.94	13.586	0.000
T39 42.00-38.00	40.00	0.761	4	1.5291	17.686	A	2.341	6.708	3.372	37.27	27.048	0.000
						B	2.341	6.708		37.27	34.630	0.000
						C	2.341	6.708		37.27	11.350	0.000
T40 38.00-34.00	36.00	0.738	4	1.5131	17.675	A	2.341	6.651	3.351	37.26	26.898	0.000
						B	2.341	6.651		37.26	34.467	0.000
						C	2.341	6.651		37.26	11.277	0.000
T41 34.00-30.00	32.00	0.714	4	1.4954	17.664	A	2.341	6.589	3.327	37.26	26.732	0.000
						B	2.341	6.589		37.26	34.287	0.000
						C	2.341	6.589		37.26	11.196	0.000
T42 30.00-26.00	28.00	0.7	4	1.4756	17.650	A	2.341	6.519	3.301	37.25	26.546	0.000
						B	2.341	6.519		37.25	34.086	0.000
						C	2.341	6.519		37.25	11.105	0.000
T43 26.00-22.00	24.00	0.7	4	1.4530	17.635	A	2.341	6.440	3.271	37.25	26.334	0.000
						B	2.341	6.440		37.25	33.857	0.000
						C	2.341	6.440		37.25	11.001	0.000
T44 22.00-18.00	20.00	0.7	4	1.4267	17.618	A	2.341	6.348	3.236	37.24	26.089	0.000
						B	2.341	6.348		37.24	33.591	0.000
						C	2.341	6.348		37.24	11.544	0.000
T45 18.00-14.00	16.00	0.7	4	1.3952	17.597	A	2.341	6.237	3.194	37.23	25.794	0.000
						B	2.341	6.237		37.23	33.272	0.000
						C	2.341	6.237		37.23	12.039	0.000
T46 14.00-10.00	12.00	0.7	4	1.3557	17.570	A	2.341	6.098	3.141	37.22	25.423	0.000
						B	2.341	6.098		37.22	32.871	0.000
						C	2.341	6.098		37.22	11.826	0.000
T47 10.00-6.00	8.00	0.7	4	1.3018	17.535	A	2.341	5.909	3.069	37.20	12.460	0.000
						B	2.341	5.909		37.20	16.163	0.000
						C	2.341	5.909		37.20	7.331	0.000
T48 6.00-2.00	4.00	0.7	4	1.2146	17.476	A	2.341	5.602	2.953	37.17	0.000	0.000
						B	2.341	5.602		37.17	0.000	0.000
						C	2.341	5.602		37.17	2.987	0.000

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Tower Pressure - Service

$G_H = 0.850$

Section Elevation	z	K _Z	q _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face	C _A A _A Out Face
ft	ft		psf	ft ²		ft ²	ft ²	ft ²		ft ²	ft ²
T1 276.00-265.50	270.75	1.314	10	43.531	A	4.168	3.063	3.063	42.36	3.439	0.000
					B	4.168	3.063		42.36	0.000	0.000
					C	4.168	3.063		42.36	1.575	0.000
T2 265.50-261.75	263.63	1.304	10	15.547	A	1.413	1.094	1.094	43.64	1.228	0.000
					B	1.413	1.094		43.64	1.417	0.000
					C	1.413	1.094		43.64	0.563	0.000
T3 261.75-258.00	259.88	1.298	10	15.547	A	2.344	1.094	1.094	31.82	1.228	0.000
					B	2.344	1.094		31.82	2.361	0.000
					C	2.344	1.094		31.82	0.563	0.000
T4 258.00-254.00	256.00	1.293	10	16.583	A	1.437	1.167	1.167	44.80	1.310	0.000
					B	1.437	1.167		44.80	2.519	0.000
					C	1.437	1.167		44.80	0.600	0.000
T5 254.00-242.00	248.00	1.281	10	49.750	A	4.312	3.500	3.500	44.80	3.930	0.000
					B	4.312	3.500		44.80	7.556	0.000
					C	4.312	3.500		44.80	3.132	0.000
T6 242.00-222.00	232.00	1.257	10	82.917	A	7.186	5.833	5.833	44.80	6.550	0.000
					B	7.186	5.833		44.80	32.649	0.000
					C	7.186	5.833		44.80	5.220	0.000
T7 222.00-206.00	214.00	1.228	10	66.667	A	7.080	5.333	5.333	42.97	5.240	0.000
					B	7.080	5.333		42.97	37.885	0.000
					C	7.080	5.333		42.97	4.968	0.000
T8 206.00-202.00	204.00	1.212	9	16.667	A	1.768	1.333	1.333	42.99	1.310	0.000
					B	1.768	1.333		42.99	18.029	0.000
					C	1.768	1.333		42.99	2.628	0.000
T9 202.00-198.00	200.00	1.205	9	16.667	A	3.057	1.333	1.333	30.37	1.310	0.000
					B	3.057	1.333		30.37	18.029	0.000
					C	3.057	1.333		30.37	2.628	0.000
T10 198.00-194.00	196.00	1.198	9	16.667	A	1.768	1.333	1.333	42.99	1.310	0.000
					B	1.768	1.333		42.99	18.145	0.000
					C	1.768	1.333		42.99	2.628	0.000
T11 194.00-182.00	188.00	1.184	9	50.000	A	5.305	4.000	4.000	42.99	3.930	0.000
					B	5.305	4.000		42.99	54.782	0.000
					C	5.305	4.000		42.99	7.884	0.000
T12 182.00-162.00	172.00	1.154	9	83.333	A	7.712	6.667	6.667	46.36	6.550	0.000
					B	7.712	6.667		46.36	91.420	0.000
					C	7.712	6.667		46.36	13.140	0.000
T13 162.00-158.00	160.00	1.13	9	16.667	A	1.542	1.333	1.333	46.36	1.310	0.000
					B	1.542	1.333		46.36	18.493	0.000
					C	1.542	1.333		46.36	3.072	0.000
T14 158.00-154.00	156.00	1.122	9	16.667	A	1.542	1.333	1.333	46.36	1.310	0.000
					B	1.542	1.333		46.36	18.493	0.000
					C	1.542	1.333		46.36	3.072	0.000
T15 154.00-150.00	152.00	1.114	9	16.667	A	1.542	1.333	1.333	46.36	6.762	0.000
					B	1.542	1.333		46.36	18.493	0.000
					C	1.542	1.333		46.36	3.072	0.000
T16 150.00-146.00	148.00	1.105	9	16.667	A	1.542	1.333	1.333	46.36	12.214	0.000
					B	1.542	1.333		46.36	18.493	0.000
					C	1.542	1.333		46.36	3.072	0.000
T17 146.00-142.00	144.00	1.097	9	16.667	A	1.542	1.333	1.333	46.36	12.214	0.000
					B	1.542	1.333		46.36	18.493	0.000
					C	1.542	1.333		46.36	3.072	0.000
T18 142.00-138.00	140.00	1.088	9	16.667	A	1.542	1.333	1.333	46.36	12.214	0.000
					B	1.542	1.333		46.36	18.493	0.000
					C	1.542	1.333		46.36	3.072	0.000

tnxTower

Fullerton Engineering
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Section Elevation ft	z ft	K _Z	q _z psf	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
T19 138.00-134.00	136.00	1.079	8	16.667	A	1.702	1.333	1.333	43.93	12.214	0.000
					B	1.702	1.333		43.93	18.493	0.000
					C	1.702	1.333		43.93	3.072	0.000
T20 134.00-130.00	132.00	1.07	8	16.667	A	1.702	1.333	1.333	43.93	12.214	0.000
					B	1.702	1.333		43.93	18.493	0.000
					C	1.702	1.333		43.93	3.072	0.000
T21 130.00-126.00	128.00	1.06	8	16.667	A	2.341	1.333	1.333	36.29	13.147	0.000
					B	2.341	1.333		36.29	19.426	0.000
					C	2.341	1.333		36.29	4.005	0.000
T22 126.00-122.00	124.00	1.051	8	16.667	A	1.702	1.333	1.333	43.93	12.214	0.000
					B	1.702	1.333		43.93	18.493	0.000
					C	1.702	1.333		43.93	3.072	0.000
T23 122.00-102.00	112.00	1.021	8	83.333	A	7.712	6.667	6.667	46.36	62.003	0.000
					B	7.712	6.667		46.36	93.397	0.000
					C	7.712	6.667		46.36	17.736	0.000
T24 102.00-98.00	100.00	0.988	8	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T25 98.00-94.00	96.00	0.977	8	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T26 94.00-90.00	92.00	0.965	8	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T27 90.00-86.00	88.00	0.953	7	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T28 86.00-82.00	84.00	0.94	7	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T29 82.00-78.00	80.00	0.927	7	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T30 78.00-74.00	76.00	0.914	7	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T31 74.00-70.00	72.00	0.9	7	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T32 70.00-66.00	68.00	0.885	7	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T33 66.00-62.00	64.00	0.87	7	16.667	A	2.181	1.333	1.333	37.94	13.147	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T34 62.00-58.00	60.00	0.854	7	16.667	A	2.341	1.333	1.333	36.29	13.147	0.000
					B	2.341	1.333		36.29	19.426	0.000
					C	2.341	1.333		36.29	4.449	0.000
T35 58.00-54.00	56.00	0.837	7	16.667	A	2.181	1.333	1.333	37.94	13.240	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T36 54.00-50.00	52.00	0.82	6	16.667	A	2.181	1.333	1.333	37.94	13.333	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T37 50.00-46.00	48.00	0.801	6	16.667	A	2.181	1.333	1.333	37.94	13.333	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000
T38 46.00-42.00	44.00	0.782	6	16.667	A	2.181	1.333	1.333	37.94	13.333	0.000
					B	2.181	1.333		37.94	19.426	0.000
					C	2.181	1.333		37.94	4.449	0.000

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Section Elevation ft	z ft	K _Z	q _z psf	A _G ft ²	F _{a c e} ft ²	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _{AA} In Face ft ²	C _{AA} Out Face ft ²
T39 42.00-38.00	40.00	0.761	6	16.667	A B C	2.341 2.341 2.341	1.333 1.333 1.333	1.333	36.29 36.29 36.29	12.400 18.493 3.516	0.000 0.000 0.000
T40 38.00-34.00	36.00	0.738	6	16.667	A B C	2.341 2.341 2.341	1.333 1.333 1.333	1.333	36.29 36.29 36.29	12.400 18.493 3.516	0.000 0.000 0.000
T41 34.00-30.00	32.00	0.714	6	16.667	A B C	2.341 2.341 2.341	1.333 1.333 1.333	1.333	36.29 36.29 36.29	12.400 18.493 3.516	0.000 0.000 0.000
T42 30.00-26.00	28.00	0.7	5	16.667	A B C	2.341 2.341 2.341	1.333 1.333 1.333	1.333	36.29 36.29 36.29	12.400 18.493 3.516	0.000 0.000 0.000
T43 26.00-22.00	24.00	0.7	5	16.667	A B C	2.341 2.341 2.341	1.333 1.333 1.333	1.333	36.29 36.29 36.29	12.400 18.493 3.516	0.000 0.000 0.000
T44 22.00-18.00	20.00	0.7	5	16.667	A B C	2.341 2.341 2.341	1.333 1.333 1.333	1.333	36.29 36.29 36.29	12.400 18.493 3.609	0.000 0.000 0.000
T45 18.00-14.00	16.00	0.7	5	16.667	A B C	2.341 2.341 2.341	1.333 1.333 1.333	1.333	36.29 36.29 36.29	12.400 18.493 3.702	0.000 0.000 0.000
T46 14.00-10.00	12.00	0.7	5	16.667	A B C	2.341 2.341 2.341	1.333 1.333 1.333	1.333	36.29 36.29 36.29	12.400 18.493 3.702	0.000 0.000 0.000
T47 10.00-6.00	8.00	0.7	5	16.667	A B C	2.341 2.341 2.341	1.333 1.333 1.333	1.333	36.29 36.29 36.29	6.200 9.246 2.373	0.000 0.000 0.000
T48 6.00-2.00	4.00	0.7	5	16.667	A B C	2.341 2.341 2.341	1.333 1.333 1.333	1.333	36.29 36.29 36.29	0.000 0.000 1.044	0.000 0.000 0.000

Tower Forces - No Ice - Wind Normal To Face

Section Elevation ft	Add Weight lb	Self Weight lb	F _{a c e} ft ²	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
T1 276.00-265.50	64.58	468.83	A B C	0.166	2.713	29	1	1	5.911	462.75	44.07	C
T2 265.50-261.75	27.65	163.84	A B C	0.161	2.731	28	1	1	2.035	179.74	47.93	C
T3 261.75-258.00	30.71	243.86 TA 705.99	A B C	0.221	2.527	28	1	1	2.977	239.37	63.83	C
T4 258.00-254.00	32.76	171.44	A B C	0.157	2.746	28	1	1	2.100	200.29	50.07	C
T5 254.00-242.00	104.76	514.33	A B C	0.157	2.746	28	1	1	6.301	614.39	51.20	C
T6 242.00-222.00	278.34	857.21	A B C	0.157	2.746	27	1	1	10.501	1216.22	60.81	B
T7 222.00-206.00	287.16	950.03	A B	0.186	2.643	27	1	1	10.131	1165.65	72.85	B

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T8 206.00-202.00	122.40	270.25	C	0.186	2.643		1	1	10.131			
			A	0.186	2.643	26	1	1	2.531	374.69	93.67	B
			B	0.186	2.643		1	1	2.531			
T9 202.00-198.00	122.40	418.67 TA 713.11	C	0.186	2.643		1	1	2.531			
			A	0.263	2.398	26	1	1	3.842	428.77	107.19	B
			B	0.263	2.398		1	1	3.842			
T10 198.00-194.00	122.90	270.25	C	0.263	2.398		1	1	3.842			
			A	0.186	2.643	26	1	1	2.531	371.97	92.99	B
			B	0.186	2.643		1	1	2.531			
T11 194.00-182.00	370.20	712.52	C	0.186	2.643		1	1	2.531			
			A	0.186	2.643	26	1	1	7.594	1107.28	92.27	B
			B	0.186	2.643		1	1	7.594			
T12 182.00-162.00	617.50	1111.14	C	0.186	2.643		1	1	7.594			
			A	0.173	2.69	25	1	1	11.514	1747.79	87.39	B
			B	0.173	2.69		1	1	11.514			
T13 162.00-158.00	126.56	222.23	C	0.173	2.69		1	1	11.514			
			A	0.173	2.69	25	1	1	2.303	350.60	87.65	B
			B	0.173	2.69		1	1	2.303			
T14 158.00-154.00	126.56	222.23	C	0.173	2.69		1	1	2.303			
			A	0.173	2.69	24	1	1	2.303	348.07	87.02	B
			B	0.173	2.69		1	1	2.303			
T15 154.00-150.00	155.56	222.23	C	0.173	2.69		1	1	2.303			
			A	0.173	2.69	24	1	1	2.303	385.40	96.35	A
			B	0.173	2.69		1	1	2.303			
T16 150.00-146.00	184.56	222.23	C	0.173	2.69		1	1	2.303			
			A	0.173	2.69	24	1	1	2.303	440.07	110.02	A
			B	0.173	2.69		1	1	2.303			
T17 146.00-142.00	184.56	247.81	C	0.173	2.69		1	1	2.303			
			A	0.173	2.69	24	1	1	2.303	436.64	109.16	A
			B	0.173	2.69		1	1	2.303			
T18 142.00-138.00	184.56	247.81	C	0.173	2.69		1	1	2.303			
			A	0.173	2.69	24	1	1	2.303	433.14	108.29	A
			B	0.173	2.69		1	1	2.303			
T19 138.00-134.00	184.56	268.18	C	0.173	2.69		1	1	2.303			
			A	0.182	2.657	23	1	1	2.464	436.59	109.15	A
			B	0.182	2.657		1	1	2.464			
T20 134.00-130.00	184.56	268.18	C	0.182	2.657		1	1	2.464			
			A	0.182	2.657	23	1	1	2.464	432.89	108.22	A
			B	0.182	2.657		1	1	2.464			
T21 130.00-126.00	205.26	273.25	C	0.182	2.657		1	1	2.464			
			A	0.22	2.529	23	1	1	3.112	488.02	122.00	A
			B	0.22	2.529		1	1	3.112			
T22 126.00-122.00	184.56	242.59	C	0.22	2.529		1	1	3.112			
			A	0.182	2.657	23	1	1	2.464	425.22	106.31	A
			B	0.182	2.657		1	1	2.464			
T23 122.00-102.00	950.52	1111.14	C	0.182	2.657		1	1	2.464			
			A	0.173	2.69	22	1	1	11.514	2080.00	104.00	A
			B	0.173	2.69		1	1	11.514			
T24 102.00-98.00	207.42	239.36	C	0.173	2.69		1	1	11.514			
			A	0.211	2.56	22	1	1	2.950	453.82	113.46	A
			B	0.211	2.56		1	1	2.950			
T25 98.00-94.00	207.42	239.36	C	0.211	2.56		1	1	2.950			
			A	0.211	2.56	21	1	1	2.950	448.56	112.14	A
			B	0.211	2.56		1	1	2.950			
T26 94.00-90.00	207.42	239.36	C	0.211	2.56		1	1	2.950			
			A	0.211	2.56	21	1	1	2.950	443.14	110.78	A
			B	0.211	2.56		1	1	2.950			
T27 90.00-86.00	207.42	239.36	C	0.211	2.56		1	1	2.950			
			A	0.211	2.56	21	1	1	2.950	437.55	109.39	A
			B	0.211	2.56		1	1	2.950			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
T28 86.00-82.00	207.42	239.36	C	0.211	2.56		1	1	2.950			
			A	0.211	2.56	20	1	1	2.950	431.77	107.94	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T29 82.00-78.00	207.42	239.36	A	0.211	2.56	20	1	1	2.950	425.79	106.45	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T30 78.00-74.00	207.42	239.36	A	0.211	2.56	20	1	1	2.950	419.60	104.90	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T31 74.00-70.00	207.42	252.88	A	0.211	2.56	20	1	1	2.950	413.17	103.29	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T32 70.00-66.00	207.42	252.88	A	0.211	2.56	19	1	1	2.950	406.47	101.62	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T33 66.00-62.00	207.42	252.88	A	0.211	2.56	19	1	1	2.950	399.49	99.87	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T34 62.00-58.00	207.42	273.25	A	0.22	2.529	19	1	1	3.112	397.23	99.31	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T35 58.00-54.00	207.68	252.88	A	0.211	2.56	18	1	1	2.950	385.40	96.35	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T36 54.00-50.00	207.94	252.88	A	0.211	2.56	18	1	1	2.950	378.17	94.54	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T37 50.00-46.00	207.94	252.88	A	0.211	2.56	17	1	1	2.950	369.62	92.41	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T38 46.00-42.00	207.94	239.36	A	0.211	2.56	17	1	1	2.950	360.55	90.14	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T39 42.00-38.00	187.24	259.73	A	0.22	2.529	17	1	1	3.112	331.71	82.93	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T40 38.00-34.00	187.24	259.73	A	0.22	2.529	16	1	1	3.112	321.88	80.47	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T41 34.00-30.00	187.24	259.73	A	0.22	2.529	16	1	1	3.112	311.23	77.81	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T42 30.00-26.00	187.24	259.73	A	0.22	2.529	15	1	1	3.112	305.28	76.32	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T43 26.00-22.00	187.24	259.73	A	0.22	2.529	15	1	1	3.112	305.28	76.32	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T44 22.00-18.00	187.50	273.25	A	0.22	2.529	15	1	1	3.112	306.00	76.50	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T45 18.00-14.00	187.76	273.25	A	0.22	2.529	15	1	1	3.112	306.73	76.68	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T46 14.00-10.00	187.76	273.25	A	0.22	2.529	15	1	1	3.112	306.73	76.68	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T47 10.00-6.00	97.20	273.25	A	0.22	2.529	15	1	1	3.112	208.37	52.09	A
			B	0.22	2.529		1	1	3.112			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T48 6.00-2.00	6.64	273.25	C	0.22	2.529		1	1	3.112			
			A	0.22	2.529	15	1	1	3.112	110.02	27.50	C
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
Sum Weight:	9569.36	17489.63								23349.12		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T1 276.00-265.50	64.58	468.83	A	0.166	2.713	29	0.8	1	5.078	407.81	38.84	C
			B	0.166	2.713		0.8	1	5.078			
			C	0.166	2.713		0.8	1	5.078			
T2 265.50-261.75	27.65	163.84	A	0.161	2.731	28	0.8	1	1.752	161.13	42.97	B
			B	0.161	2.731		0.8	1	1.752			
			C	0.161	2.731		0.8	1	1.752			
T3 261.75-258.00	30.71	243.86	A	0.221	2.527	28	0.8	1	2.508	210.93	56.25	B
		TA 705.99	B	0.221	2.527		0.8	1	2.508			
			C	0.221	2.527		0.8	1	2.508			
T4 258.00-254.00	32.76	171.44	A	0.157	2.746	28	0.8	1	1.813	181.42	45.36	B
			B	0.157	2.746		0.8	1	1.813			
			C	0.157	2.746		0.8	1	1.813			
T5 254.00-242.00	104.76	514.33	A	0.157	2.746	28	0.8	1	5.438	558.28	46.52	B
			B	0.157	2.746		0.8	1	5.438			
			C	0.157	2.746		0.8	1	5.438			
T6 242.00-222.00	278.34	857.21	A	0.157	2.746	27	0.8	1	9.064	1124.47	56.22	C
			B	0.157	2.746		0.8	1	9.064			
			C	0.157	2.746		0.8	1	9.064			
T7 222.00-206.00	287.16	950.03	A	0.186	2.643	27	0.8	1	8.716	1080.65	67.54	C
			B	0.186	2.643		0.8	1	8.716			
			C	0.186	2.643		0.8	1	8.716			
T8 206.00-202.00	122.40	270.25	A	0.186	2.643	26	0.8	1	2.178	353.74	88.44	C
			B	0.186	2.643		0.8	1	2.178			
			C	0.186	2.643		0.8	1	2.178			
T9 202.00-198.00	122.40	418.67	A	0.263	2.398	26	0.8	1	3.230	396.10	99.03	C
		TA 713.11	B	0.263	2.398		0.8	1	3.230			
			C	0.263	2.398		0.8	1	3.230			
T10 198.00-194.00	122.90	270.25	A	0.186	2.643	26	0.8	1	2.178	351.27	87.82	C
			B	0.186	2.643		0.8	1	2.178			
			C	0.186	2.643		0.8	1	2.178			
T11 194.00-182.00	370.20	712.52	A	0.186	2.643	26	0.8	1	6.533	1045.90	87.16	C
			B	0.186	2.643		0.8	1	6.533			
			C	0.186	2.643		0.8	1	6.533			
T12 182.00-162.00	617.50	1111.14	A	0.173	2.69	25	0.8	1	9.971	1659.23	82.96	C
			B	0.173	2.69		0.8	1	9.971			
			C	0.173	2.69		0.8	1	9.971			
T13 162.00-158.00	126.56	222.23	A	0.173	2.69	25	0.8	1	1.994	333.25	83.31	C
			B	0.173	2.69		0.8	1	1.994			
			C	0.173	2.69		0.8	1	1.994			
T14 158.00-154.00	126.56	222.23	A	0.173	2.69	24	0.8	1	1.994	330.85	82.71	C
			B	0.173	2.69		0.8	1	1.994			
			C	0.173	2.69		0.8	1	1.994			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _c psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
T15 154.00-150.00	155.56	222.23	A	0.173	2.69	24	0.8	1	1.994	368.31	92.08	B
			B	0.173	2.69		0.8	1	1.994			
			C	0.173	2.69		0.8	1	1.994			
T16 150.00-146.00	184.56	222.23	A	0.173	2.69	24	0.8	1	1.994	423.10	105.78	B
			B	0.173	2.69		0.8	1	1.994			
			C	0.173	2.69		0.8	1	1.994			
T17 146.00-142.00	184.56	247.81	A	0.173	2.69	24	0.8	1	1.994	419.81	104.95	B
			B	0.173	2.69		0.8	1	1.994			
			C	0.173	2.69		0.8	1	1.994			
T18 142.00-138.00	184.56	247.81	A	0.173	2.69	24	0.8	1	1.994	416.44	104.11	B
			B	0.173	2.69		0.8	1	1.994			
			C	0.173	2.69		0.8	1	1.994			
T19 138.00-134.00	184.56	268.18	A	0.182	2.657	23	0.8	1	2.124	418.54	104.64	B
			B	0.182	2.657		0.8	1	2.124			
			C	0.182	2.657		0.8	1	2.124			
T20 134.00-130.00	184.56	268.18	A	0.182	2.657	23	0.8	1	2.124	414.99	103.75	B
			B	0.182	2.657		0.8	1	2.124			
			C	0.182	2.657		0.8	1	2.124			
T21 130.00-126.00	205.26	273.25	A	0.22	2.529	23	0.8	1	2.644	464.79	116.20	B
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T22 126.00-122.00	184.56	242.59	A	0.182	2.657	23	0.8	1	2.124	407.64	101.91	B
			B	0.182	2.657		0.8	1	2.124			
			C	0.182	2.657		0.8	1	2.124			
T23 122.00-102.00	950.52	1111.14	A	0.173	2.69	22	0.8	1	9.971	2001.66	100.08	B
			B	0.173	2.69		0.8	1	9.971			
			C	0.173	2.69		0.8	1	9.971			
T24 102.00-98.00	207.42	239.36	A	0.211	2.56	22	0.8	1	2.514	433.41	108.35	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T25 98.00-94.00	207.42	239.36	A	0.211	2.56	21	0.8	1	2.514	428.38	107.10	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T26 94.00-90.00	207.42	239.36	A	0.211	2.56	21	0.8	1	2.514	423.20	105.80	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T27 90.00-86.00	207.42	239.36	A	0.211	2.56	21	0.8	1	2.514	417.86	104.47	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T28 86.00-82.00	207.42	239.36	A	0.211	2.56	20	0.8	1	2.514	412.35	103.09	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T29 82.00-78.00	207.42	239.36	A	0.211	2.56	20	0.8	1	2.514	406.64	101.66	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T30 78.00-74.00	207.42	239.36	A	0.211	2.56	20	0.8	1	2.514	400.72	100.18	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T31 74.00-70.00	207.42	252.88	A	0.211	2.56	20	0.8	1	2.514	394.58	98.64	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T32 70.00-66.00	207.42	252.88	A	0.211	2.56	19	0.8	1	2.514	388.19	97.05	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T33 66.00-62.00	207.42	252.88	A	0.211	2.56	19	0.8	1	2.514	381.52	95.38	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T34 62.00-58.00	207.42	273.25	A	0.22	2.529	19	0.8	1	2.644	378.53	94.63	B
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T35 58.00-54.00	207.68	252.88	A	0.211	2.56	18	0.8	1	2.514	368.10	92.03	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T36 54.00-50.00	207.94	252.88	A	0.211	2.56	18	0.8	1	2.514	361.24	90.31	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T37 50.00-46.00	207.94	252.88	A	0.211	2.56	17	0.8	1	2.514	353.07	88.27	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T38 46.00-42.00	207.94	239.36	A	0.211	2.56	17	0.8	1	2.514	344.40	86.10	B
			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T39 42.00-38.00	187.24	259.73	A	0.22	2.529	17	0.8	1	2.644	315.06	78.76	B
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T40 38.00-34.00	187.24	259.73	A	0.22	2.529	16	0.8	1	2.644	305.71	76.43	B
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T41 34.00-30.00	187.24	259.73	A	0.22	2.529	16	0.8	1	2.644	295.60	73.90	B
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T42 30.00-26.00	187.24	259.73	A	0.22	2.529	15	0.8	1	2.644	289.95	72.49	B
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T43 26.00-22.00	187.24	259.73	A	0.22	2.529	15	0.8	1	2.644	289.95	72.49	B
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T44 22.00-18.00	187.50	273.25	A	0.22	2.529	15	0.8	1	2.644	290.67	72.67	B
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T45 18.00-14.00	187.76	273.25	A	0.22	2.529	15	0.8	1	2.644	291.40	72.85	B
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T46 14.00-10.00	187.76	273.25	A	0.22	2.529	15	0.8	1	2.644	291.40	72.85	B
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T47 10.00-6.00	97.20	273.25	A	0.22	2.529	15	0.8	1	2.644	193.04	48.26	B
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T48 6.00-2.00	6.64	273.25	A	0.22	2.529	15	0.8	1	2.644	94.69	23.67	C
			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
Sum Weight:	9569.36	17489.63								22079.97		

Tower Forces - No Ice - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T1 276.00-265.50	64.58	468.83	A	0.166	2.713	29	0.85	1	5.286	421.54	40.15	C
			B	0.166	2.713		0.85	1	5.286			
			C	0.166	2.713		0.85	1	5.286			
T2	27.65	163.84	A	0.161	2.731	28	0.85	1	1.823	165.78	44.21	C

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Section Elevation ft	Add Weight lb	Self Weight lb	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
265.50-261.75			B	0.161	2.731		0.85	1	1.823			
			C	0.161	2.731		0.85	1	1.823			
T3	30.71	243.86	A	0.221	2.527	28	0.85	1	2.625	218.04	58.14	C
261.75-258.00		TA 705.99	B	0.221	2.527		0.85	1	2.625			
			C	0.221	2.527		0.85	1	2.625			
T4	32.76	171.44	A	0.157	2.746	28	0.85	1	1.885	186.14	46.53	C
258.00-254.00			B	0.157	2.746		0.85	1	1.885			
			C	0.157	2.746		0.85	1	1.885			
T5	104.76	514.33	A	0.157	2.746	28	0.85	1	5.654	572.31	47.69	C
254.00-242.00			B	0.157	2.746		0.85	1	5.654			
			C	0.157	2.746		0.85	1	5.654			
T6	278.34	857.21	A	0.157	2.746	27	0.85	1	9.423	1144.59	57.23	C
242.00-222.00			B	0.157	2.746		0.85	1	9.423			
			C	0.157	2.746		0.85	1	9.423			
T7	287.16	950.03	A	0.186	2.643	27	0.85	1	9.069	1091.49	68.22	A
222.00-206.00			B	0.186	2.643		0.85	1	9.069			
			C	0.186	2.643		0.85	1	9.069			
T8	122.40	270.25	A	0.186	2.643	26	0.85	1	2.266	359.75	89.94	A
206.00-202.00			B	0.186	2.643		0.85	1	2.266			
			C	0.186	2.643		0.85	1	2.266			
T9	122.40	418.67	A	0.263	2.398	26	0.85	1	3.383	405.04	101.26	A
202.00-198.00		TA 713.11	B	0.263	2.398		0.85	1	3.383			
			C	0.263	2.398		0.85	1	3.383			
T10	122.90	270.25	A	0.186	2.643	26	0.85	1	2.266	357.21	89.30	A
198.00-194.00			B	0.186	2.643		0.85	1	2.266			
			C	0.186	2.643		0.85	1	2.266			
T11	370.20	712.52	A	0.186	2.643	26	0.85	1	6.798	1063.51	88.63	A
194.00-182.00			B	0.186	2.643		0.85	1	6.798			
			C	0.186	2.643		0.85	1	6.798			
T12	617.50	1111.14	A	0.173	2.69	25	0.85	1	10.357	1685.06	84.25	A
182.00-162.00			B	0.173	2.69		0.85	1	10.357			
			C	0.173	2.69		0.85	1	10.357			
T13	126.56	222.23	A	0.173	2.69	25	0.85	1	2.071	338.31	84.58	A
162.00-158.00			B	0.173	2.69		0.85	1	2.071			
			C	0.173	2.69		0.85	1	2.071			
T14	126.56	222.23	A	0.173	2.69	24	0.85	1	2.071	335.87	83.97	A
158.00-154.00			B	0.173	2.69		0.85	1	2.071			
			C	0.173	2.69		0.85	1	2.071			
T15	155.56	222.23	A	0.173	2.69	24	0.85	1	2.071	377.19	94.30	C
154.00-150.00			B	0.173	2.69		0.85	1	2.071			
			C	0.173	2.69		0.85	1	2.071			
T16	184.56	222.23	A	0.173	2.69	24	0.85	1	2.071	425.08	106.27	C
150.00-146.00			B	0.173	2.69		0.85	1	2.071			
			C	0.173	2.69		0.85	1	2.071			
T17	184.56	247.81	A	0.173	2.69	24	0.85	1	2.071	421.76	105.44	C
146.00-142.00			B	0.173	2.69		0.85	1	2.071			
			C	0.173	2.69		0.85	1	2.071			
T18	184.56	247.81	A	0.173	2.69	24	0.85	1	2.071	418.38	104.60	C
142.00-138.00			B	0.173	2.69		0.85	1	2.071			
			C	0.173	2.69		0.85	1	2.071			
T19	184.56	268.18	A	0.182	2.657	23	0.85	1	2.209	420.84	105.21	C
138.00-134.00			B	0.182	2.657		0.85	1	2.209			
			C	0.182	2.657		0.85	1	2.209			
T20	184.56	268.18	A	0.182	2.657	23	0.85	1	2.209	417.27	104.32	C
134.00-130.00			B	0.182	2.657		0.85	1	2.209			
			C	0.182	2.657		0.85	1	2.209			
T21	205.26	273.25	A	0.22	2.529	23	0.85	1	2.761	468.42	117.11	C
130.00-126.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T22	184.56	242.59	A	0.182	2.657	23	0.85	1	2.209	409.88	102.47	C

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
126.00-122.00			B	0.182	2.657		0.85	1	2.209			
			C	0.182	2.657		0.85	1	2.209			
T23	950.52	1111.14	A	0.173	2.69	22	0.85	1	10.357	2010.76	100.54	C
122.00-102.00			B	0.173	2.69		0.85	1	10.357			
			C	0.173	2.69		0.85	1	10.357			
T24	207.42	239.36	A	0.211	2.56	22	0.85	1	2.623	436.48	109.12	C
102.00-98.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T25	207.42	239.36	A	0.211	2.56	21	0.85	1	2.623	431.42	107.86	C
98.00-94.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T26	207.42	239.36	A	0.211	2.56	21	0.85	1	2.623	426.21	106.55	C
94.00-90.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T27	207.42	239.36	A	0.211	2.56	21	0.85	1	2.623	420.83	105.21	C
90.00-86.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T28	207.42	239.36	A	0.211	2.56	20	0.85	1	2.623	415.27	103.82	C
86.00-82.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T29	207.42	239.36	A	0.211	2.56	20	0.85	1	2.623	409.52	102.38	C
82.00-78.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T30	207.42	239.36	A	0.211	2.56	20	0.85	1	2.623	403.57	100.89	C
78.00-74.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T31	207.42	252.88	A	0.211	2.56	20	0.85	1	2.623	397.38	99.34	C
74.00-70.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T32	207.42	252.88	A	0.211	2.56	19	0.85	1	2.623	390.94	97.74	C
70.00-66.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T33	207.42	252.88	A	0.211	2.56	19	0.85	1	2.623	384.23	96.06	C
66.00-62.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T34	207.42	273.25	A	0.22	2.529	19	0.85	1	2.761	381.45	95.36	C
62.00-58.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T35	207.68	252.88	A	0.211	2.56	18	0.85	1	2.623	370.71	92.68	C
58.00-54.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T36	207.94	252.88	A	0.211	2.56	18	0.85	1	2.623	363.79	90.95	C
54.00-50.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T37	207.94	252.88	A	0.211	2.56	17	0.85	1	2.623	355.56	88.89	C
50.00-46.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T38	207.94	239.36	A	0.211	2.56	17	0.85	1	2.623	346.83	86.71	C
46.00-42.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T39	187.24	259.73	A	0.22	2.529	17	0.85	1	2.761	317.66	79.41	C
42.00-38.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T40	187.24	259.73	A	0.22	2.529	16	0.85	1	2.761	308.24	77.06	C
38.00-34.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T41	187.24	259.73	A	0.22	2.529	16	0.85	1	2.761	298.04	74.51	C
34.00-30.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T42	187.24	259.73	A	0.22	2.529	15	0.85	1	2.761	292.35	73.09	C

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
30.00-26.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T43	187.24	259.73	A	0.22	2.529	15	0.85	1	2.761	292.35	73.09	C
26.00-22.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T44	187.50	273.25	A	0.22	2.529	15	0.85	1	2.761	293.07	73.27	C
22.00-18.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T45	187.76	273.25	A	0.22	2.529	15	0.85	1	2.761	293.79	73.45	C
18.00-14.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T46	187.76	273.25	A	0.22	2.529	15	0.85	1	2.761	293.79	73.45	C
14.00-10.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T47	97.20	273.25	A	0.22	2.529	15	0.85	1	2.761	196.15	49.04	C
10.00-6.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T48 6.00-2.00	6.64	273.25	A	0.22	2.529	15	0.85	1	2.761	98.52	24.63	C
			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
Sum Weight:	9569.36	17489.63								22332.37		

Tower Forces - With Ice - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T1	334.46	1574.59	A	0.471	1.941	7	1	1	16.121	263.66	25.11	C
276.00-265.50			B	0.471	1.941		1	1	16.121			
			C	0.471	1.941		1	1	16.121			
T2	188.63	542.01	A	0.457	1.963	7	1	1	5.530	104.75	27.93	C
265.50-261.75			B	0.457	1.963		1	1	5.530			
			C	0.457	1.963		1	1	5.530			
T3	234.57	800.39	A	0.609	1.799	7	1	1	8.213	122.84	32.76	C
261.75-258.00			TA	0.609	1.799		1	1	8.213			
		1925.29	C	0.609	1.799		1	1	8.213			
T4	249.78	559.15	A	0.444	1.983	7	1	1	5.689	118.97	29.74	C
258.00-254.00			B	0.444	1.983		1	1	5.689			
			C	0.444	1.983		1	1	5.689			
T5	832.38	1672.14	A	0.443	1.984	7	1	1	17.027	372.16	31.01	C
254.00-242.00			B	0.443	1.984		1	1	17.027			
			C	0.443	1.984		1	1	17.027			
T6	1931.22	2768.51	A	0.442	1.987	7	1	1	28.235	699.89	34.99	B
242.00-222.00			B	0.442	1.987		1	1	28.235			
			C	0.442	1.987		1	1	28.235			
T7	1880.34	2647.04	A	0.465	1.95	7	1	1	24.508	601.73	37.61	B
222.00-206.00			B	0.465	1.95		1	1	24.508			
			C	0.465	1.95		1	1	24.508			
T8	746.50	691.70	A	0.463	1.952	7	1	1	6.102	185.88	46.47	B
206.00-202.00			B	0.463	1.952		1	1	6.102			
			C	0.463	1.952		1	1	6.102			
T9	745.05	1056.14	A	0.626	1.79	7	1	1	9.233	174.59	43.65	B
202.00-198.00			TA	0.626	1.79		1	1	9.233			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
T10 198.00-194.00	754.46	1904.45 689.37	C A B C	0.626 0.462 0.462 0.462	1.79 1.954 1.954 1.954	7	1 1 1 1	1 1 1 1	9.233 6.085 6.085 6.085	186.09	46.52	B
T11 194.00-182.00	2286.48	1962.66	A B C	0.461 0.461 0.461	1.956 1.956 1.956	6	1 1 1	1 1 1	18.202 18.202 18.202	558.49	46.54	B
T12 182.00-162.00	3787.74	3039.56	A B C	0.446 0.446 0.446	1.98 1.98 1.98	6	1 1 1	1 1 1	28.821 28.821 28.821	911.14	45.56	B
T13 162.00-158.00	797.83	604.01	A B C	0.444 0.444 0.444	1.983 1.983 1.983	6	1 1 1	1 1 1	5.734 5.734 5.734	187.85	46.96	B
T14 158.00-154.00	795.75	602.66	A B C	0.444 0.444 0.444	1.984 1.984 1.984	6	1 1 1	1 1 1	5.724 5.724 5.724	186.38	46.60	B
T15 154.00-150.00	982.60	601.27	A B C	0.443 0.443 0.443	1.985 1.985 1.985	6	1 1 1	1 1 1	5.713 5.713 5.713	192.86*	48.22	C
T16 150.00-146.00	1168.47	599.86	A B C	0.442 0.442 0.442	1.986 1.986 1.986	6	1 1 1	1 1 1	5.703 5.703 5.703	191.36*	47.84	C
T17 146.00-142.00	1165.29	624.00	A B C	0.442 0.442 0.442	1.987 1.987 1.987	6	1 1 1	1 1 1	5.691 5.691 5.691	189.84*	47.46	C
T18 142.00-138.00	1162.04	622.51	A B C	0.441 0.441 0.441	1.988 1.988 1.988	6	1 1 1	1 1 1	5.680 5.680 5.680	188.28*	47.07	C
T19 138.00-134.00	1158.71	659.28	A B C	0.449 0.449 0.449	1.975 1.975 1.975	6	1 1 1	1 1 1	5.855 5.855 5.855	186.69*	46.67	C
T20 134.00-130.00	1155.30	657.67	A B C	0.449 0.449 0.449	1.976 1.976 1.976	6	1 1 1	1 1 1	5.843 5.843 5.843	185.07*	46.27	C
T21 130.00-126.00	1269.51	775.57	A B C	0.545 0.545 0.545	1.848 1.848 1.848	6	1 1 1	1 1 1	7.577 7.577 7.577	183.42*	45.85	C
T22 126.00-122.00	1148.21	628.73	A B C	0.447 0.447 0.447	1.979 1.979 1.979	6	1 1 1	1 1 1	5.818 5.818 5.818	181.72*	45.43	C
T23 122.00-102.00	5882.27	2927.07	A B C	0.435 0.435 0.435	1.998 1.998 1.998	6	1 1 1	1 1 1	27.958 27.958 27.958	882.00*	44.10	C
T24 102.00-98.00	1263.40	707.52	A B C	0.529 0.529 0.529	1.865 1.865 1.865	5	1 1 1	1 1 1	7.245 7.245 7.245	170.66*	42.66	C
T25 98.00-94.00	1258.22	704.88	A B C	0.528 0.528 0.528	1.867 1.867 1.867	5	1 1 1	1 1 1	7.223 7.223 7.223	168.63*	42.16	C
T26 94.00-90.00	1252.86	702.14	A B C	0.526 0.526 0.526	1.868 1.868 1.868	5	1 1 1	1 1 1	7.200 7.200 7.200	166.55*	41.64	C
T27 90.00-86.00	1247.30	699.29	A B C	0.525 0.525 0.525	1.87 1.87 1.87	5	1 1 1	1 1 1	7.177 7.177 7.177	164.40*	41.10	C
T28 86.00-82.00	1241.52	696.34	A B C	0.524 0.524 0.524	1.871 1.871 1.871	5	1 1 1	1 1 1	7.153 7.153 7.153	162.19*	40.55	C
T29 82.00-78.00	1235.50	693.27	A B	0.522 0.522	1.873 1.873	5	1 1	1 1	7.127 7.127	159.89*	39.97	C

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	Project	LTE 3C	Date	12:39:55 07/21/17
	Client	Smartlink / AT&T	Designed by	AS

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T30	1229.23	690.06	C	0.522	1.873		1	1	7.127			
78.00-74.00			A	0.521	1.874	5	1	1	7.101	157.52*	39.38	C
			B	0.521	1.874		1	1	7.101			
			C	0.521	1.874		1	1	7.101			
T31	1222.67	700.23	A	0.519	1.876	5	1	1	7.073	155.05*	38.76	C
74.00-70.00			B	0.519	1.876		1	1	7.073			
			C	0.519	1.876		1	1	7.073			
T32	1215.80	696.71	A	0.518	1.878	5	1	1	7.044	152.49*	38.12	C
70.00-66.00			B	0.518	1.878		1	1	7.044			
			C	0.518	1.878		1	1	7.044			
T33	1208.57	693.02	A	0.516	1.88	5	1	1	7.013	149.81*	37.45	C
66.00-62.00			B	0.516	1.88		1	1	7.013			
			C	0.516	1.88		1	1	7.013			
T34	1200.96	726.00	A	0.523	1.872	5	1	1	7.176	147.02*	36.76	C
62.00-58.00			B	0.523	1.872		1	1	7.176			
			C	0.523	1.872		1	1	7.176			
T35	1201.07	685.01	A	0.512	1.885	5	1	1	6.947	144.09*	36.02	C
58.00-54.00			B	0.512	1.885		1	1	6.947			
			C	0.512	1.885		1	1	6.947			
T36	1200.47	680.63	A	0.51	1.887	4	1	1	6.911	141.01*	35.25	C
54.00-50.00			B	0.51	1.887		1	1	6.911			
			C	0.51	1.887		1	1	6.911			
T37	1191.12	675.96	A	0.508	1.89	4	1	1	6.872	137.76*	34.44	C
50.00-46.00			B	0.508	1.89		1	1	6.872			
			C	0.508	1.89		1	1	6.872			
T38	1181.08	657.42	A	0.505	1.893	4	1	1	6.831	134.31*	33.58	C
46.00-42.00			B	0.505	1.893		1	1	6.831			
			C	0.505	1.893		1	1	6.831			
T39	1068.27	688.23	A	0.512	1.885	4	1	1	6.978	130.63*	32.66	C
42.00-38.00			B	0.512	1.885		1	1	6.978			
			C	0.512	1.885		1	1	6.978			
T40	1057.76	682.17	A	0.509	1.889	4	1	1	6.929	126.68*	31.67	C
38.00-34.00			B	0.509	1.889		1	1	6.929			
			C	0.509	1.889		1	1	6.929			
T41	1046.20	675.51	A	0.506	1.893	4	1	1	6.874	122.40*	30.60	C
34.00-30.00			B	0.506	1.893		1	1	6.874			
			C	0.506	1.893		1	1	6.874			
T42	1033.35	668.10	A	0.502	1.897	4	1	1	6.814	119.97*	29.99	C
30.00-26.00			B	0.502	1.897		1	1	6.814			
			C	0.502	1.897		1	1	6.814			
T43	1018.84	659.73	A	0.498	1.903	4	1	1	6.745	119.87*	29.97	C
26.00-22.00			B	0.498	1.903		1	1	6.745			
			C	0.498	1.903		1	1	6.745			
T44	1008.97	663.60	A	0.493	1.909	4	1	1	6.666	119.75*	29.94	C
22.00-18.00			B	0.493	1.909		1	1	6.666			
			C	0.493	1.909		1	1	6.666			
T45	995.47	652.14	A	0.487	1.917	4	1	1	6.572	119.61*	29.90	C
18.00-14.00			B	0.487	1.917		1	1	6.572			
			C	0.487	1.917		1	1	6.572			
T46	970.23	637.93	A	0.48	1.927	4	1	1	6.455	119.43*	29.86	C
14.00-10.00			B	0.48	1.927		1	1	6.455			
			C	0.48	1.927		1	1	6.455			
T47	488.14	618.90	A	0.47	1.941	4	1	1	6.297	89.47	22.37	A
10.00-6.00			B	0.47	1.941		1	1	6.297			
			C	0.47	1.941		1	1	6.297			
T48	6.00-2.00	36.55	588.90	A	0.455	1.966	4	1	6.047	43.76	10.94	C
			B	0.455	1.966		1	1	6.047			
			C	0.455	1.966		1	1	6.047			
Sum Weight:	57731.11	48079.32				2.1A _g limit				10478.61		

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	Project	LTE 3C	Date	12:39:55 07/21/17
	Client	Smartlink / AT&T	Designed by	AS

Tower Forces - With Ice - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
T1 276.00-265.50	334.46	1574.59	A	0.471	1.941	7	0.8	1	15.288	253.83	24.17	C
			B	0.471	1.941		0.8	1	15.288			
			C	0.471	1.941		0.8	1	15.288			
T2 265.50-261.75	188.63	542.01	A	0.457	1.963	7	0.8	1	5.247	101.41	27.04	C
			B	0.457	1.963		0.8	1	5.247			
			C	0.457	1.963		0.8	1	5.247			
T3 261.75-258.00	234.57	800.39	A	0.609	1.799	7	0.8	1	7.745	117.78	31.41	C
			TA	0.609	1.799		0.8	1	7.745			
			C	0.609	1.799		0.8	1	7.745			
T4 258.00-254.00	249.78	559.15	A	0.444	1.983	7	0.8	1	5.402	115.56	28.89	C
			B	0.444	1.983		0.8	1	5.402			
			C	0.444	1.983		0.8	1	5.402			
T5 254.00-242.00	832.38	1672.14	A	0.443	1.984	7	0.8	1	16.164	362.02	30.17	C
			B	0.443	1.984		0.8	1	16.164			
			C	0.443	1.984		0.8	1	16.164			
T6 242.00-222.00	1931.22	2768.51	A	0.442	1.987	7	0.8	1	26.798	683.29	34.16	C
			B	0.442	1.987		0.8	1	26.798			
			C	0.442	1.987		0.8	1	26.798			
T7 222.00-206.00	1880.34	2647.04	A	0.465	1.95	7	0.8	1	23.092	586.04	36.63	C
			B	0.465	1.95		0.8	1	23.092			
			C	0.465	1.95		0.8	1	23.092			
T8 206.00-202.00	746.50	691.70	A	0.463	1.952	7	0.8	1	5.749	182.02	45.50	C
			B	0.463	1.952		0.8	1	5.749			
			C	0.463	1.952		0.8	1	5.749			
T9 202.00-198.00	745.05	1056.14	A	0.626	1.79	7	0.8	1	8.621	168.49	42.12	C
			TA	0.626	1.79		0.8	1	8.621			
			C	0.626	1.79		0.8	1	8.621			
T10 198.00-194.00	754.46	689.37	A	0.462	1.954	7	0.8	1	5.731	182.26	45.57	C
			B	0.462	1.954		0.8	1	5.731			
			C	0.462	1.954		0.8	1	5.731			
T11 194.00-182.00	2286.48	1962.66	A	0.461	1.956	6	0.8	1	17.141	547.13	45.59	C
			B	0.461	1.956		0.8	1	17.141			
			C	0.461	1.956		0.8	1	17.141			
T12 182.00-162.00	3787.74	3039.56	A	0.446	1.98	6	0.8	1	27.278	894.85	44.74	C
			B	0.446	1.98		0.8	1	27.278			
			C	0.446	1.98		0.8	1	27.278			
T13 162.00-158.00	797.83	604.01	A	0.444	1.983	6	0.8	1	5.426	184.65	46.16	C
			B	0.444	1.983		0.8	1	5.426			
			C	0.444	1.983		0.8	1	5.426			
T14 158.00-154.00	795.75	602.66	A	0.444	1.984	6	0.8	1	5.415	183.21	45.80	C
			B	0.444	1.984		0.8	1	5.415			
			C	0.444	1.984		0.8	1	5.415			
T15 154.00-150.00	982.60	601.27	A	0.443	1.985	6	0.8	1	5.405	192.86*	48.22	C
			B	0.443	1.985		0.8	1	5.405			
			C	0.443	1.985		0.8	1	5.405			
T16 150.00-146.00	1168.47	599.86	A	0.442	1.986	6	0.8	1	5.394	191.36*	47.84	C
			B	0.442	1.986		0.8	1	5.394			
			C	0.442	1.986		0.8	1	5.394			
T17 146.00-142.00	1165.29	624.00	A	0.442	1.987	6	0.8	1	5.383	189.84*	47.46	C
			B	0.442	1.987		0.8	1	5.383			
			C	0.442	1.987		0.8	1	5.383			
T18 142.00-138.00	1162.04	622.51	A	0.441	1.988	6	0.8	1	5.372	188.28*	47.07	C
			B	0.441	1.988		0.8	1	5.372			
			C	0.441	1.988		0.8	1	5.372			
T19 138.00-134.00	1158.71	659.28	A	0.449	1.975	6	0.8	1	5.515	186.69*	46.67	C
			B	0.449	1.975		0.8	1	5.515			
			C	0.449	1.975		0.8	1	5.515			

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	Project	LTE 3C	Date	12:39:55 07/21/17
	Client	Smartlink / AT&T	Designed by	AS

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
T20 134.00-130.00	1155.30	657.67	A	0.449	1.976	6	0.8	1	5.503	185.07*	46.27	C
			B	0.449	1.976		0.8	1	5.503			
			C	0.449	1.976		0.8	1	5.503			
T21 130.00-126.00	1269.51	775.57	A	0.545	1.848	6	0.8	1	7.109	183.42*	45.85	C
			B	0.545	1.848		0.8	1	7.109			
			C	0.545	1.848		0.8	1	7.109			
T22 126.00-122.00	1148.21	628.73	A	0.447	1.979	6	0.8	1	5.478	181.72*	45.43	C
			B	0.447	1.979		0.8	1	5.478			
			C	0.447	1.979		0.8	1	5.478			
T23 122.00-102.00	5882.27	2927.07	A	0.435	1.998	6	0.8	1	26.416	882.00*	44.10	C
			B	0.435	1.998		0.8	1	26.416			
			C	0.435	1.998		0.8	1	26.416			
T24 102.00-98.00	1263.40	707.52	A	0.529	1.865	5	0.8	1	6.808	170.66*	42.66	C
			B	0.529	1.865		0.8	1	6.808			
			C	0.529	1.865		0.8	1	6.808			
T25 98.00-94.00	1258.22	704.88	A	0.528	1.867	5	0.8	1	6.787	168.63*	42.16	C
			B	0.528	1.867		0.8	1	6.787			
			C	0.528	1.867		0.8	1	6.787			
T26 94.00-90.00	1252.86	702.14	A	0.526	1.868	5	0.8	1	6.764	166.55*	41.64	C
			B	0.526	1.868		0.8	1	6.764			
			C	0.526	1.868		0.8	1	6.764			
T27 90.00-86.00	1247.30	699.29	A	0.525	1.87	5	0.8	1	6.741	164.40*	41.10	C
			B	0.525	1.87		0.8	1	6.741			
			C	0.525	1.87		0.8	1	6.741			
T28 86.00-82.00	1241.52	696.34	A	0.524	1.871	5	0.8	1	6.716	162.19*	40.55	C
			B	0.524	1.871		0.8	1	6.716			
			C	0.524	1.871		0.8	1	6.716			
T29 82.00-78.00	1235.50	693.27	A	0.522	1.873	5	0.8	1	6.691	159.89*	39.97	C
			B	0.522	1.873		0.8	1	6.691			
			C	0.522	1.873		0.8	1	6.691			
T30 78.00-74.00	1229.23	690.06	A	0.521	1.874	5	0.8	1	6.665	157.52*	39.38	C
			B	0.521	1.874		0.8	1	6.665			
			C	0.521	1.874		0.8	1	6.665			
T31 74.00-70.00	1222.67	700.23	A	0.519	1.876	5	0.8	1	6.637	155.05*	38.76	C
			B	0.519	1.876		0.8	1	6.637			
			C	0.519	1.876		0.8	1	6.637			
T32 70.00-66.00	1215.80	696.71	A	0.518	1.878	5	0.8	1	6.608	152.49*	38.12	C
			B	0.518	1.878		0.8	1	6.608			
			C	0.518	1.878		0.8	1	6.608			
T33 66.00-62.00	1208.57	693.02	A	0.516	1.88	5	0.8	1	6.577	149.81*	37.45	C
			B	0.516	1.88		0.8	1	6.577			
			C	0.516	1.88		0.8	1	6.577			
T34 62.00-58.00	1200.96	726.00	A	0.523	1.872	5	0.8	1	6.708	147.02*	36.76	C
			B	0.523	1.872		0.8	1	6.708			
			C	0.523	1.872		0.8	1	6.708			
T35 58.00-54.00	1201.07	685.01	A	0.512	1.885	5	0.8	1	6.511	144.09*	36.02	C
			B	0.512	1.885		0.8	1	6.511			
			C	0.512	1.885		0.8	1	6.511			
T36 54.00-50.00	1200.47	680.63	A	0.51	1.887	4	0.8	1	6.475	141.01*	35.25	C
			B	0.51	1.887		0.8	1	6.475			
			C	0.51	1.887		0.8	1	6.475			
T37 50.00-46.00	1191.12	675.96	A	0.508	1.89	4	0.8	1	6.436	137.76*	34.44	C
			B	0.508	1.89		0.8	1	6.436			
			C	0.508	1.89		0.8	1	6.436			
T38 46.00-42.00	1181.08	657.42	A	0.505	1.893	4	0.8	1	6.394	134.31*	33.58	C
			B	0.505	1.893		0.8	1	6.394			
			C	0.505	1.893		0.8	1	6.394			
T39 42.00-38.00	1068.27	688.23	A	0.512	1.885	4	0.8	1	6.510	130.63*	32.66	C
			B	0.512	1.885		0.8	1	6.510			
			C	0.512	1.885		0.8	1	6.510			

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	Project	LTE 3C	Date	12:39:55 07/21/17
	Client	Smartlink / AT&T	Designed by	AS

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T40 38.00-34.00	1057.76	682.17	A	0.509	1.889	4	0.8	1	6.461	126.68*	31.67	C
			B	0.509	1.889		0.8	1	6.461			
			C	0.509	1.889		0.8	1	6.461			
T41 34.00-30.00	1046.20	675.51	A	0.506	1.893	4	0.8	1	6.406	122.40*	30.60	C
			B	0.506	1.893		0.8	1	6.406			
			C	0.506	1.893		0.8	1	6.406			
T42 30.00-26.00	1033.35	668.10	A	0.502	1.897	4	0.8	1	6.346	119.97*	29.99	C
			B	0.502	1.897		0.8	1	6.346			
			C	0.502	1.897		0.8	1	6.346			
T43 26.00-22.00	1018.84	659.73	A	0.498	1.903	4	0.8	1	6.277	119.87*	29.97	C
			B	0.498	1.903		0.8	1	6.277			
			C	0.498	1.903		0.8	1	6.277			
T44 22.00-18.00	1008.97	663.60	A	0.493	1.909	4	0.8	1	6.198	119.75*	29.94	C
			B	0.493	1.909		0.8	1	6.198			
			C	0.493	1.909		0.8	1	6.198			
T45 18.00-14.00	995.47	652.14	A	0.487	1.917	4	0.8	1	6.104	119.61*	29.90	C
			B	0.487	1.917		0.8	1	6.104			
			C	0.487	1.917		0.8	1	6.104			
T46 14.00-10.00	970.23	637.93	A	0.48	1.927	4	0.8	1	5.986	119.43*	29.86	C
			B	0.48	1.927		0.8	1	5.986			
			C	0.48	1.927		0.8	1	5.986			
T47 10.00-6.00	488.14	618.90	A	0.47	1.941	4	0.8	1	5.829	86.53	21.63	B
			B	0.47	1.941		0.8	1	5.829			
			C	0.47	1.941		0.8	1	5.829			
T48 6.00-2.00	36.55	588.90	A	0.455	1.966	4	0.8	1	5.579	40.78	10.19	C
			B	0.455	1.966		0.8	1	5.579			
			C	0.455	1.966		0.8	1	5.579			
Sum Weight:	57731.11	48079.32			*2.1A _g limit					10360.82		

Tower Forces - With Ice - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T1 276.00-265.50	334.46	1574.59	A	0.471	1.941	7	0.85	1	15.496	256.29	24.41	C
			B	0.471	1.941		0.85	1	15.496			
			C	0.471	1.941		0.85	1	15.496			
T2 265.50-261.75	188.63	542.01	A	0.457	1.963	7	0.85	1	5.318	102.25	27.27	C
			B	0.457	1.963		0.85	1	5.318			
			C	0.457	1.963		0.85	1	5.318			
T3 261.75-258.00	234.57	800.39	A	0.609	1.799	7	0.85	1	7.862	119.04	31.74	C
		TA	B	0.609	1.799		0.85	1	7.862			
		1925.29	C	0.609	1.799		0.85	1	7.862			
T4 258.00-254.00	249.78	559.15	A	0.444	1.983	7	0.85	1	5.474	116.41	29.10	C
			B	0.444	1.983		0.85	1	5.474			
			C	0.444	1.983		0.85	1	5.474			
T5 254.00-242.00	832.38	1672.14	A	0.443	1.984	7	0.85	1	16.380	364.56	30.38	C
			B	0.443	1.984		0.85	1	16.380			
			C	0.443	1.984		0.85	1	16.380			
T6 242.00-222.00	1931.22	2768.51	A	0.442	1.987	7	0.85	1	27.157	680.39	34.02	C
			B	0.442	1.987		0.85	1	27.157			
			C	0.442	1.987		0.85	1	27.157			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
T7 222.00-206.00	1880.34	2647.04	A	0.465	1.95	7	0.85	1	23.446	583.37	36.46	A
			B	0.465	1.95		0.85	1	23.446			
			C	0.465	1.95		0.85	1	23.446			
T8 206.00-202.00	746.50	691.70	A	0.463	1.952	7	0.85	1	5.837	182.98	45.75	A
			B	0.463	1.952		0.85	1	5.837			
			C	0.463	1.952		0.85	1	5.837			
T9 202.00-198.00	745.05	1056.14	A	0.626	1.79	7	0.85	1	8.774	170.01	42.50	A
			TA	0.626	1.79		0.85	1	8.774			
			B	0.626	1.79		0.85	1	8.774			
T10 198.00-194.00	754.46	689.37	A	0.462	1.954	7	0.85	1	5.820	183.22	45.80	A
			B	0.462	1.954		0.85	1	5.820			
			C	0.462	1.954		0.85	1	5.820			
T11 194.00-182.00	2286.48	1962.66	A	0.461	1.956	6	0.85	1	17.406	549.97	45.83	A
			B	0.461	1.956		0.85	1	17.406			
			C	0.461	1.956		0.85	1	17.406			
T12 182.00-162.00	3787.74	3039.56	A	0.446	1.98	6	0.85	1	27.664	898.92	44.95	A
			B	0.446	1.98		0.85	1	27.664			
			C	0.446	1.98		0.85	1	27.664			
T13 162.00-158.00	797.83	604.01	A	0.444	1.983	6	0.85	1	5.503	185.45	46.36	A
			B	0.444	1.983		0.85	1	5.503			
			C	0.444	1.983		0.85	1	5.503			
T14 158.00-154.00	795.75	602.66	A	0.444	1.984	6	0.85	1	5.493	184.00	46.00	A
			B	0.444	1.984		0.85	1	5.493			
			C	0.444	1.984		0.85	1	5.493			
T15 154.00-150.00	982.60	601.27	A	0.443	1.985	6	0.85	1	5.482	192.86*	48.22	C
			B	0.443	1.985		0.85	1	5.482			
			C	0.443	1.985		0.85	1	5.482			
T16 150.00-146.00	1168.47	599.86	A	0.442	1.986	6	0.85	1	5.471	191.36*	47.84	C
			B	0.442	1.986		0.85	1	5.471			
			C	0.442	1.986		0.85	1	5.471			
T17 146.00-142.00	1165.29	624.00	A	0.442	1.987	6	0.85	1	5.460	189.84*	47.46	C
			B	0.442	1.987		0.85	1	5.460			
			C	0.442	1.987		0.85	1	5.460			
T18 142.00-138.00	1162.04	622.51	A	0.441	1.988	6	0.85	1	5.449	188.28*	47.07	C
			B	0.441	1.988		0.85	1	5.449			
			C	0.441	1.988		0.85	1	5.449			
T19 138.00-134.00	1158.71	659.28	A	0.449	1.975	6	0.85	1	5.600	186.69*	46.67	C
			B	0.449	1.975		0.85	1	5.600			
			C	0.449	1.975		0.85	1	5.600			
T20 134.00-130.00	1155.30	657.67	A	0.449	1.976	6	0.85	1	5.588	185.07*	46.27	C
			B	0.449	1.976		0.85	1	5.588			
			C	0.449	1.976		0.85	1	5.588			
T21 130.00-126.00	1269.51	775.57	A	0.545	1.848	6	0.85	1	7.226	183.42*	45.85	C
			B	0.545	1.848		0.85	1	7.226			
			C	0.545	1.848		0.85	1	7.226			
T22 126.00-122.00	1148.21	628.73	A	0.447	1.979	6	0.85	1	5.563	181.72*	45.43	C
			B	0.447	1.979		0.85	1	5.563			
			C	0.447	1.979		0.85	1	5.563			
T23 122.00-102.00	5882.27	2927.07	A	0.435	1.998	6	0.85	1	26.802	882.00*	44.10	C
			B	0.435	1.998		0.85	1	26.802			
			C	0.435	1.998		0.85	1	26.802			
T24 102.00-98.00	1263.40	707.52	A	0.529	1.865	5	0.85	1	6.918	170.66*	42.66	C
			B	0.529	1.865		0.85	1	6.918			
			C	0.529	1.865		0.85	1	6.918			
T25 98.00-94.00	1258.22	704.88	A	0.528	1.867	5	0.85	1	6.896	168.63*	42.16	C
			B	0.528	1.867		0.85	1	6.896			
			C	0.528	1.867		0.85	1	6.896			
T26 94.00-90.00	1252.86	702.14	A	0.526	1.868	5	0.85	1	6.873	166.55*	41.64	C
			B	0.526	1.868		0.85	1	6.873			
			C	0.526	1.868		0.85	1	6.873			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
T27 90.00-86.00	1247.30	699.29	A	0.525	1.87	5	0.85	1	6.850	164.40*	41.10	C
			B	0.525	1.87		0.85	1	6.850			
			C	0.525	1.87		0.85	1	6.850			
T28 86.00-82.00	1241.52	696.34	A	0.524	1.871	5	0.85	1	6.825	162.19*	40.55	C
			B	0.524	1.871		0.85	1	6.825			
			C	0.524	1.871		0.85	1	6.825			
T29 82.00-78.00	1235.50	693.27	A	0.522	1.873	5	0.85	1	6.800	159.89*	39.97	C
			B	0.522	1.873		0.85	1	6.800			
			C	0.522	1.873		0.85	1	6.800			
T30 78.00-74.00	1229.23	690.06	A	0.521	1.874	5	0.85	1	6.774	157.52*	39.38	C
			B	0.521	1.874		0.85	1	6.774			
			C	0.521	1.874		0.85	1	6.774			
T31 74.00-70.00	1222.67	700.23	A	0.519	1.876	5	0.85	1	6.746	155.05*	38.76	C
			B	0.519	1.876		0.85	1	6.746			
			C	0.519	1.876		0.85	1	6.746			
T32 70.00-66.00	1215.80	696.71	A	0.518	1.878	5	0.85	1	6.717	152.49*	38.12	C
			B	0.518	1.878		0.85	1	6.717			
			C	0.518	1.878		0.85	1	6.717			
T33 66.00-62.00	1208.57	693.02	A	0.516	1.88	5	0.85	1	6.686	149.81*	37.45	C
			B	0.516	1.88		0.85	1	6.686			
			C	0.516	1.88		0.85	1	6.686			
T34 62.00-58.00	1200.96	726.00	A	0.523	1.872	5	0.85	1	6.825	147.02*	36.76	C
			B	0.523	1.872		0.85	1	6.825			
			C	0.523	1.872		0.85	1	6.825			
T35 58.00-54.00	1201.07	685.01	A	0.512	1.885	5	0.85	1	6.620	144.09*	36.02	C
			B	0.512	1.885		0.85	1	6.620			
			C	0.512	1.885		0.85	1	6.620			
T36 54.00-50.00	1200.47	680.63	A	0.51	1.887	4	0.85	1	6.584	141.01*	35.25	C
			B	0.51	1.887		0.85	1	6.584			
			C	0.51	1.887		0.85	1	6.584			
T37 50.00-46.00	1191.12	675.96	A	0.508	1.89	4	0.85	1	6.545	137.76*	34.44	C
			B	0.508	1.89		0.85	1	6.545			
			C	0.508	1.89		0.85	1	6.545			
T38 46.00-42.00	1181.08	657.42	A	0.505	1.893	4	0.85	1	6.503	134.31*	33.58	C
			B	0.505	1.893		0.85	1	6.503			
			C	0.505	1.893		0.85	1	6.503			
T39 42.00-38.00	1068.27	688.23	A	0.512	1.885	4	0.85	1	6.627	130.63*	32.66	C
			B	0.512	1.885		0.85	1	6.627			
			C	0.512	1.885		0.85	1	6.627			
T40 38.00-34.00	1057.76	682.17	A	0.509	1.889	4	0.85	1	6.578	126.68*	31.67	C
			B	0.509	1.889		0.85	1	6.578			
			C	0.509	1.889		0.85	1	6.578			
T41 34.00-30.00	1046.20	675.51	A	0.506	1.893	4	0.85	1	6.523	122.40*	30.60	C
			B	0.506	1.893		0.85	1	6.523			
			C	0.506	1.893		0.85	1	6.523			
T42 30.00-26.00	1033.35	668.10	A	0.502	1.897	4	0.85	1	6.463	119.97*	29.99	C
			B	0.502	1.897		0.85	1	6.463			
			C	0.502	1.897		0.85	1	6.463			
T43 26.00-22.00	1018.84	659.73	A	0.498	1.903	4	0.85	1	6.394	119.87*	29.97	C
			B	0.498	1.903		0.85	1	6.394			
			C	0.498	1.903		0.85	1	6.394			
T44 22.00-18.00	1008.97	663.60	A	0.493	1.909	4	0.85	1	6.315	119.75*	29.94	C
			B	0.493	1.909		0.85	1	6.315			
			C	0.493	1.909		0.85	1	6.315			
T45 18.00-14.00	995.47	652.14	A	0.487	1.917	4	0.85	1	6.221	119.61*	29.90	C
			B	0.487	1.917		0.85	1	6.221			
			C	0.487	1.917		0.85	1	6.221			
T46 14.00-10.00	970.23	637.93	A	0.48	1.927	4	0.85	1	6.103	119.43*	29.86	C
			B	0.48	1.927		0.85	1	6.103			
			C	0.48	1.927		0.85	1	6.103			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T47 10.00-6.00	488.14	618.90	A	0.47	1.941	4	0.85	1	5.946	87.10	21.78	C
			B	0.47	1.941		0.85	1	5.946			
			C	0.47	1.941		0.85	1	5.946			
T48 6.00-2.00	36.55	588.90	A	0.455	1.966	4	0.85	1	5.696	41.52	10.38	C
			B	0.455	1.966		0.85	1	5.696			
			C	0.455	1.966		0.85	1	5.696			
Sum Weight:	57731.11	48079.32			*2.1A _g limit					10376.47		

Tower Forces - Service - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T1 276.00-265.50	64.58	468.83	A	0.166	2.713	10	1	1	5.911	166.59	15.87	C
			B	0.166	2.713		1	1	5.911			
			C	0.166	2.713		1	1	5.911			
T2 265.50-261.75	27.65	163.84	A	0.161	2.731	10	1	1	2.035	64.70	17.25	C
			B	0.161	2.731		1	1	2.035			
			C	0.161	2.731		1	1	2.035			
T3 261.75-258.00	30.71	243.86	A	0.221	2.527	10	1	1	2.977	86.17	22.98	C
		TA 705.99	B	0.221	2.527		1	1	2.977			
			C	0.221	2.527		1	1	2.977			
T4 258.00-254.00	32.76	171.44	A	0.157	2.746	10	1	1	2.100	72.11	18.03	C
			B	0.157	2.746		1	1	2.100			
			C	0.157	2.746		1	1	2.100			
T5 254.00-242.00	104.76	514.33	A	0.157	2.746	10	1	1	6.301	221.18	18.43	C
			B	0.157	2.746		1	1	6.301			
			C	0.157	2.746		1	1	6.301			
T6 242.00-222.00	278.34	857.21	A	0.157	2.746	10	1	1	10.501	437.84	21.89	B
			B	0.157	2.746		1	1	10.501			
			C	0.157	2.746		1	1	10.501			
T7 222.00-206.00	287.16	950.03	A	0.186	2.643	10	1	1	10.131	419.63	26.23	B
			B	0.186	2.643		1	1	10.131			
			C	0.186	2.643		1	1	10.131			
T8 206.00-202.00	122.40	270.25	A	0.186	2.643	9	1	1	2.531	134.89	33.72	B
			B	0.186	2.643		1	1	2.531			
			C	0.186	2.643		1	1	2.531			
T9 202.00-198.00	122.40	418.67	A	0.263	2.398	9	1	1	3.842	154.36	38.59	B
		TA 713.11	B	0.263	2.398		1	1	3.842			
			C	0.263	2.398		1	1	3.842			
T10 198.00-194.00	122.90	270.25	A	0.186	2.643	9	1	1	2.531	133.91	33.48	B
			B	0.186	2.643		1	1	2.531			
			C	0.186	2.643		1	1	2.531			
T11 194.00-182.00	370.20	712.52	A	0.186	2.643	9	1	1	7.594	398.62	33.22	B
			B	0.186	2.643		1	1	7.594			
			C	0.186	2.643		1	1	7.594			
T12 182.00-162.00	617.50	1111.14	A	0.173	2.69	9	1	1	11.514	629.21	31.46	B
			B	0.173	2.69		1	1	11.514			
			C	0.173	2.69		1	1	11.514			
T13 162.00-158.00	126.56	222.23	A	0.173	2.69	9	1	1	2.303	126.22	31.55	B
			B	0.173	2.69		1	1	2.303			
			C	0.173	2.69		1	1	2.303			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
T14 158.00-154.00	126.56	222.23	A	0.173	2.69	9	1	1	2.303	125.31	31.33	B
			B	0.173	2.69		1	1	2.303			
			C	0.173	2.69		1	1	2.303			
T15 154.00-150.00	155.56	222.23	A	0.173	2.69	9	1	1	2.303	138.75	34.69	A
			B	0.173	2.69		1	1	2.303			
			C	0.173	2.69		1	1	2.303			
T16 150.00-146.00	184.56	222.23	A	0.173	2.69	9	1	1	2.303	158.43	39.61	A
			B	0.173	2.69		1	1	2.303			
			C	0.173	2.69		1	1	2.303			
T17 146.00-142.00	184.56	247.81	A	0.173	2.69	9	1	1	2.303	157.19	39.30	A
			B	0.173	2.69		1	1	2.303			
			C	0.173	2.69		1	1	2.303			
T18 142.00-138.00	184.56	247.81	A	0.173	2.69	9	1	1	2.303	155.93	38.98	A
			B	0.173	2.69		1	1	2.303			
			C	0.173	2.69		1	1	2.303			
T19 138.00-134.00	184.56	268.18	A	0.182	2.657	8	1	1	2.464	157.17	39.29	A
			B	0.182	2.657		1	1	2.464			
			C	0.182	2.657		1	1	2.464			
T20 134.00-130.00	184.56	268.18	A	0.182	2.657	8	1	1	2.464	155.84	38.96	A
			B	0.182	2.657		1	1	2.464			
			C	0.182	2.657		1	1	2.464			
T21 130.00-126.00	205.26	273.25	A	0.22	2.529	8	1	1	3.112	175.69	43.92	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T22 126.00-122.00	184.56	242.59	A	0.182	2.657	8	1	1	2.464	153.08	38.27	A
			B	0.182	2.657		1	1	2.464			
			C	0.182	2.657		1	1	2.464			
T23 122.00-102.00	950.52	1111.14	A	0.173	2.69	8	1	1	11.514	748.80	37.44	A
			B	0.173	2.69		1	1	11.514			
			C	0.173	2.69		1	1	11.514			
T24 102.00-98.00	207.42	239.36	A	0.211	2.56	8	1	1	2.950	163.38	40.84	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T25 98.00-94.00	207.42	239.36	A	0.211	2.56	8	1	1	2.950	161.48	40.37	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T26 94.00-90.00	207.42	239.36	A	0.211	2.56	8	1	1	2.950	159.53	39.88	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T27 90.00-86.00	207.42	239.36	A	0.211	2.56	7	1	1	2.950	157.52	39.38	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T28 86.00-82.00	207.42	239.36	A	0.211	2.56	7	1	1	2.950	155.44	38.86	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T29 82.00-78.00	207.42	239.36	A	0.211	2.56	7	1	1	2.950	153.29	38.32	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T30 78.00-74.00	207.42	239.36	A	0.211	2.56	7	1	1	2.950	151.06	37.76	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T31 74.00-70.00	207.42	252.88	A	0.211	2.56	7	1	1	2.950	148.74	37.18	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T32 70.00-66.00	207.42	252.88	A	0.211	2.56	7	1	1	2.950	146.33	36.58	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T33 66.00-62.00	207.42	252.88	A	0.211	2.56	7	1	1	2.950	143.82	35.95	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T34 62.00-58.00	207.42	273.25	A	0.22	2.529	7	1	1	3.112	143.00	35.75	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T35 58.00-54.00	207.68	252.88	A	0.211	2.56	7	1	1	2.950	138.74	34.69	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T36 54.00-50.00	207.94	252.88	A	0.211	2.56	6	1	1	2.950	136.14	34.04	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T37 50.00-46.00	207.94	252.88	A	0.211	2.56	6	1	1	2.950	133.06	33.27	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T38 46.00-42.00	207.94	239.36	A	0.211	2.56	6	1	1	2.950	129.80	32.45	A
			B	0.211	2.56		1	1	2.950			
			C	0.211	2.56		1	1	2.950			
T39 42.00-38.00	187.24	259.73	A	0.22	2.529	6	1	1	3.112	119.42	29.85	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T40 38.00-34.00	187.24	259.73	A	0.22	2.529	6	1	1	3.112	115.88	28.97	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T41 34.00-30.00	187.24	259.73	A	0.22	2.529	6	1	1	3.112	112.04	28.01	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T42 30.00-26.00	187.24	259.73	A	0.22	2.529	5	1	1	3.112	109.90	27.48	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T43 26.00-22.00	187.24	259.73	A	0.22	2.529	5	1	1	3.112	109.90	27.48	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T44 22.00-18.00	187.50	273.25	A	0.22	2.529	5	1	1	3.112	110.16	27.54	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T45 18.00-14.00	187.76	273.25	A	0.22	2.529	5	1	1	3.112	110.42	27.61	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T46 14.00-10.00	187.76	273.25	A	0.22	2.529	5	1	1	3.112	110.42	27.61	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T47 10.00-6.00	97.20	273.25	A	0.22	2.529	5	1	1	3.112	75.01	18.75	A
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
T48 6.00-2.00	6.64	273.25	A	0.22	2.529	5	1	1	3.112	39.61	9.90	C
			B	0.22	2.529		1	1	3.112			
			C	0.22	2.529		1	1	3.112			
Sum Weight:	9569.36	17489.63								8405.68		

Tower Forces - Service - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T1	64.58	468.83	A	0.166	2.713	10	0.8	1	5.078	146.81	13.98	C

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
276.00-265.50			B	0.166	2.713		0.8	1	5.078			
			C	0.166	2.713		0.8	1	5.078			
T2	27.65	163.84	A	0.161	2.731	10	0.8	1	1.752	58.01	15.47	B
265.50-261.75			B	0.161	2.731		0.8	1	1.752			
			C	0.161	2.731		0.8	1	1.752			
T3	30.71	243.86	A	0.221	2.527	10	0.8	1	2.508	75.93	20.25	B
261.75-258.00		TA 705.99	B	0.221	2.527		0.8	1	2.508			
			C	0.221	2.527		0.8	1	2.508			
T4	32.76	171.44	A	0.157	2.746	10	0.8	1	1.813	65.31	16.33	B
258.00-254.00			B	0.157	2.746		0.8	1	1.813			
			C	0.157	2.746		0.8	1	1.813			
T5	104.76	514.33	A	0.157	2.746	10	0.8	1	5.438	200.98	16.75	B
254.00-242.00			B	0.157	2.746		0.8	1	5.438			
			C	0.157	2.746		0.8	1	5.438			
T6	278.34	857.21	A	0.157	2.746	10	0.8	1	9.064	404.81	20.24	C
242.00-222.00			B	0.157	2.746		0.8	1	9.064			
			C	0.157	2.746		0.8	1	9.064			
T7	287.16	950.03	A	0.186	2.643	10	0.8	1	8.716	389.03	24.31	C
222.00-206.00			B	0.186	2.643		0.8	1	8.716			
			C	0.186	2.643		0.8	1	8.716			
T8	122.40	270.25	A	0.186	2.643	9	0.8	1	2.178	127.35	31.84	C
206.00-202.00			B	0.186	2.643		0.8	1	2.178			
			C	0.186	2.643		0.8	1	2.178			
T9	122.40	418.67	A	0.263	2.398	9	0.8	1	3.230	142.60	35.65	C
202.00-198.00		TA 713.11	B	0.263	2.398		0.8	1	3.230			
			C	0.263	2.398		0.8	1	3.230			
T10	122.90	270.25	A	0.186	2.643	9	0.8	1	2.178	126.46	31.61	C
198.00-194.00			B	0.186	2.643		0.8	1	2.178			
			C	0.186	2.643		0.8	1	2.178			
T11	370.20	712.52	A	0.186	2.643	9	0.8	1	6.533	376.52	31.38	C
194.00-182.00			B	0.186	2.643		0.8	1	6.533			
			C	0.186	2.643		0.8	1	6.533			
T12	617.50	1111.14	A	0.173	2.69	9	0.8	1	9.971	597.32	29.87	C
182.00-162.00			B	0.173	2.69		0.8	1	9.971			
			C	0.173	2.69		0.8	1	9.971			
T13	126.56	222.23	A	0.173	2.69	9	0.8	1	1.994	119.97	29.99	C
162.00-158.00			B	0.173	2.69		0.8	1	1.994			
			C	0.173	2.69		0.8	1	1.994			
T14	126.56	222.23	A	0.173	2.69	9	0.8	1	1.994	119.10	29.78	C
158.00-154.00			B	0.173	2.69		0.8	1	1.994			
			C	0.173	2.69		0.8	1	1.994			
T15	155.56	222.23	A	0.173	2.69	9	0.8	1	1.994	132.59	33.15	B
154.00-150.00			B	0.173	2.69		0.8	1	1.994			
			C	0.173	2.69		0.8	1	1.994			
T16	184.56	222.23	A	0.173	2.69	9	0.8	1	1.994	152.32	38.08	B
150.00-146.00			B	0.173	2.69		0.8	1	1.994			
			C	0.173	2.69		0.8	1	1.994			
T17	184.56	247.81	A	0.173	2.69	9	0.8	1	1.994	151.13	37.78	B
146.00-142.00			B	0.173	2.69		0.8	1	1.994			
			C	0.173	2.69		0.8	1	1.994			
T18	184.56	247.81	A	0.173	2.69	9	0.8	1	1.994	149.92	37.48	B
142.00-138.00			B	0.173	2.69		0.8	1	1.994			
			C	0.173	2.69		0.8	1	1.994			
T19	184.56	268.18	A	0.182	2.657	8	0.8	1	2.124	150.68	37.67	B
138.00-134.00			B	0.182	2.657		0.8	1	2.124			
			C	0.182	2.657		0.8	1	2.124			
T20	184.56	268.18	A	0.182	2.657	8	0.8	1	2.124	149.40	37.35	B
134.00-130.00			B	0.182	2.657		0.8	1	2.124			
			C	0.182	2.657		0.8	1	2.124			
T21	205.26	273.25	A	0.22	2.529	8	0.8	1	2.644	167.32	41.83	B

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Project	LTE 3C	Date	12:39:55 07/21/17
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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
130.00-126.00			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T22	184.56	242.59	A	0.182	2.657	8	0.8	1	2.124	146.75	36.69	B
126.00-122.00			B	0.182	2.657		0.8	1	2.124			
			C	0.182	2.657		0.8	1	2.124			
T23	950.52	1111.14	A	0.173	2.69	8	0.8	1	9.971	720.60	36.03	B
122.00-102.00			B	0.173	2.69		0.8	1	9.971			
			C	0.173	2.69		0.8	1	9.971			
T24	207.42	239.36	A	0.211	2.56	8	0.8	1	2.514	156.03	39.01	B
102.00-98.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T25	207.42	239.36	A	0.211	2.56	8	0.8	1	2.514	154.22	38.55	B
98.00-94.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T26	207.42	239.36	A	0.211	2.56	8	0.8	1	2.514	152.35	38.09	B
94.00-90.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T27	207.42	239.36	A	0.211	2.56	7	0.8	1	2.514	150.43	37.61	B
90.00-86.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T28	207.42	239.36	A	0.211	2.56	7	0.8	1	2.514	148.44	37.11	B
86.00-82.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T29	207.42	239.36	A	0.211	2.56	7	0.8	1	2.514	146.39	36.60	B
82.00-78.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T30	207.42	239.36	A	0.211	2.56	7	0.8	1	2.514	144.26	36.07	B
78.00-74.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T31	207.42	252.88	A	0.211	2.56	7	0.8	1	2.514	142.05	35.51	B
74.00-70.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T32	207.42	252.88	A	0.211	2.56	7	0.8	1	2.514	139.75	34.94	B
70.00-66.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T33	207.42	252.88	A	0.211	2.56	7	0.8	1	2.514	137.35	34.34	B
66.00-62.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T34	207.42	273.25	A	0.22	2.529	7	0.8	1	2.644	136.27	34.07	B
62.00-58.00			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T35	207.68	252.88	A	0.211	2.56	7	0.8	1	2.514	132.52	33.13	B
58.00-54.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T36	207.94	252.88	A	0.211	2.56	6	0.8	1	2.514	130.05	32.51	B
54.00-50.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T37	207.94	252.88	A	0.211	2.56	6	0.8	1	2.514	127.11	31.78	B
50.00-46.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T38	207.94	239.36	A	0.211	2.56	6	0.8	1	2.514	123.98	31.00	B
46.00-42.00			B	0.211	2.56		0.8	1	2.514			
			C	0.211	2.56		0.8	1	2.514			
T39	187.24	259.73	A	0.22	2.529	6	0.8	1	2.644	113.42	28.36	B
42.00-38.00			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T40	187.24	259.73	A	0.22	2.529	6	0.8	1	2.644	110.06	27.51	B
38.00-34.00			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T41	187.24	259.73	A	0.22	2.529	6	0.8	1	2.644	106.41	26.60	B

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
34.00-30.00			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T42	187.24	259.73	A	0.22	2.529	5	0.8	1	2.644	104.38	26.10	B
30.00-26.00			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T43	187.24	259.73	A	0.22	2.529	5	0.8	1	2.644	104.38	26.10	B
26.00-22.00			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T44	187.50	273.25	A	0.22	2.529	5	0.8	1	2.644	104.64	26.16	B
22.00-18.00			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T45	187.76	273.25	A	0.22	2.529	5	0.8	1	2.644	104.90	26.23	B
18.00-14.00			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T46	187.76	273.25	A	0.22	2.529	5	0.8	1	2.644	104.90	26.23	B
14.00-10.00			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T47	97.20	273.25	A	0.22	2.529	5	0.8	1	2.644	69.49	17.37	B
10.00-6.00			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
T48	6.64	273.25	A	0.22	2.529	5	0.8	1	2.644	34.09	8.52	C
6.00-2.00			B	0.22	2.529		0.8	1	2.644			
			C	0.22	2.529		0.8	1	2.644			
Sum Weight:	9569.36	17489.63								7948.79		

Tower Forces - Service - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
T1	64.58	468.83	A	0.166	2.713	10	0.85	1	5.286	151.76	14.45	C
276.00-265.50			B	0.166	2.713		0.85	1	5.286			
			C	0.166	2.713		0.85	1	5.286			
T2	27.65	163.84	A	0.161	2.731	10	0.85	1	1.823	59.68	15.92	C
265.50-261.75			B	0.161	2.731		0.85	1	1.823			
			C	0.161	2.731		0.85	1	1.823			
T3	30.71	243.86	A	0.221	2.527	10	0.85	1	2.625	78.49	20.93	C
261.75-258.00		TA 705.99	B	0.221	2.527		0.85	1	2.625			
			C	0.221	2.527		0.85	1	2.625			
T4	32.76	171.44	A	0.157	2.746	10	0.85	1	1.885	67.01	16.75	C
258.00-254.00			B	0.157	2.746		0.85	1	1.885			
			C	0.157	2.746		0.85	1	1.885			
T5	104.76	514.33	A	0.157	2.746	10	0.85	1	5.654	206.03	17.17	C
254.00-242.00			B	0.157	2.746		0.85	1	5.654			
			C	0.157	2.746		0.85	1	5.654			
T6	278.34	857.21	A	0.157	2.746	10	0.85	1	9.423	412.05	20.60	C
242.00-222.00			B	0.157	2.746		0.85	1	9.423			
			C	0.157	2.746		0.85	1	9.423			
T7	287.16	950.03	A	0.186	2.643	10	0.85	1	9.069	392.94	24.56	A
222.00-206.00			B	0.186	2.643		0.85	1	9.069			
			C	0.186	2.643		0.85	1	9.069			
T8	122.40	270.25	A	0.186	2.643	9	0.85	1	2.266	129.51	32.38	A
206.00-202.00			B	0.186	2.643		0.85	1	2.266			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
T9 202.00-198.00	122.40	418.67 TA 713.11	C	0.186	2.643	9	0.85	1	2.266	145.81	36.45	A
			A	0.263	2.398		0.85	1	3.383			
			B	0.263	2.398		0.85	1	3.383			
T10 198.00-194.00	122.90	270.25	C	0.263	2.398	9	0.85	1	2.266	128.59	32.15	A
			A	0.186	2.643		0.85	1	2.266			
			B	0.186	2.643		0.85	1	2.266			
T11 194.00-182.00	370.20	712.52	C	0.186	2.643	9	0.85	1	6.798	382.86	31.91	A
			A	0.186	2.643		0.85	1	6.798			
			B	0.186	2.643		0.85	1	6.798			
T12 182.00-162.00	617.50	1111.14	C	0.173	2.69	9	0.85	1	10.357	606.62	30.33	A
			A	0.173	2.69		0.85	1	10.357			
			B	0.173	2.69		0.85	1	10.357			
T13 162.00-158.00	126.56	222.23	C	0.173	2.69	9	0.85	1	2.071	121.79	30.45	A
			A	0.173	2.69		0.85	1	2.071			
			B	0.173	2.69		0.85	1	2.071			
T14 158.00-154.00	126.56	222.23	C	0.173	2.69	9	0.85	1	2.071	120.91	30.23	A
			A	0.173	2.69		0.85	1	2.071			
			B	0.173	2.69		0.85	1	2.071			
T15 154.00-150.00	155.56	222.23	C	0.173	2.69	9	0.85	1	2.071	135.79	33.95	C
			A	0.173	2.69		0.85	1	2.071			
			B	0.173	2.69		0.85	1	2.071			
T16 150.00-146.00	184.56	222.23	C	0.173	2.69	9	0.85	1	2.071	153.03	38.26	C
			A	0.173	2.69		0.85	1	2.071			
			B	0.173	2.69		0.85	1	2.071			
T17 146.00-142.00	184.56	247.81	C	0.173	2.69	9	0.85	1	2.071	151.83	37.96	C
			A	0.173	2.69		0.85	1	2.071			
			B	0.173	2.69		0.85	1	2.071			
T18 142.00-138.00	184.56	247.81	C	0.173	2.69	9	0.85	1	2.071	150.62	37.65	C
			A	0.173	2.69		0.85	1	2.071			
			B	0.173	2.69		0.85	1	2.071			
T19 138.00-134.00	184.56	268.18	C	0.182	2.657	8	0.85	1	2.209	151.50	37.88	C
			A	0.182	2.657		0.85	1	2.209			
			B	0.182	2.657		0.85	1	2.209			
T20 134.00-130.00	184.56	268.18	C	0.182	2.657	8	0.85	1	2.209	150.22	37.55	C
			A	0.182	2.657		0.85	1	2.209			
			B	0.182	2.657		0.85	1	2.209			
T21 130.00-126.00	205.26	273.25	C	0.182	2.657	8	0.85	1	2.209	168.63	42.16	C
			A	0.22	2.529		0.85	1	2.761			
			B	0.22	2.529		0.85	1	2.761			
T22 126.00-122.00	184.56	242.59	C	0.182	2.657	8	0.85	1	2.209	147.56	36.89	C
			A	0.182	2.657		0.85	1	2.209			
			B	0.182	2.657		0.85	1	2.209			
T23 122.00-102.00	950.52	1111.14	C	0.173	2.69	8	0.85	1	10.357	723.88	36.19	C
			A	0.173	2.69		0.85	1	10.357			
			B	0.173	2.69		0.85	1	10.357			
T24 102.00-98.00	207.42	239.36	C	0.211	2.56	8	0.85	1	2.623	157.13	39.28	C
			A	0.211	2.56		0.85	1	2.623			
			B	0.211	2.56		0.85	1	2.623			
T25 98.00-94.00	207.42	239.36	C	0.211	2.56	8	0.85	1	2.623	155.31	38.83	C
			A	0.211	2.56		0.85	1	2.623			
			B	0.211	2.56		0.85	1	2.623			
T26 94.00-90.00	207.42	239.36	C	0.211	2.56	8	0.85	1	2.623	153.43	38.36	C
			A	0.211	2.56		0.85	1	2.623			
			B	0.211	2.56		0.85	1	2.623			
T27 90.00-86.00	207.42	239.36	C	0.211	2.56	7	0.85	1	2.623	151.50	37.87	C
			A	0.211	2.56		0.85	1	2.623			
			B	0.211	2.56		0.85	1	2.623			
T28 86.00-82.00	207.42	239.36	C	0.211	2.56	7	0.85	1	2.623	149.50	37.37	C
			A	0.211	2.56		0.85	1	2.623			
			B	0.211	2.56		0.85	1	2.623			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
T29	207.42	239.36	C	0.211	2.56		0.85	1	2.623			
82.00-78.00			A	0.211	2.56	7	0.85	1	2.623	147.43	36.86	C
			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T30	207.42	239.36	A	0.211	2.56	7	0.85	1	2.623	145.28	36.32	C
78.00-74.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T31	207.42	252.88	A	0.211	2.56	7	0.85	1	2.623	143.06	35.76	C
74.00-70.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T32	207.42	252.88	A	0.211	2.56	7	0.85	1	2.623	140.74	35.18	C
70.00-66.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T33	207.42	252.88	A	0.211	2.56	7	0.85	1	2.623	138.32	34.58	C
66.00-62.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T34	207.42	273.25	A	0.22	2.529	7	0.85	1	2.761	137.32	34.33	C
62.00-58.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T35	207.68	252.88	A	0.211	2.56	7	0.85	1	2.623	133.46	33.36	C
58.00-54.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T36	207.94	252.88	A	0.211	2.56	6	0.85	1	2.623	130.96	32.74	C
54.00-50.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T37	207.94	252.88	A	0.211	2.56	6	0.85	1	2.623	128.00	32.00	C
50.00-46.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T38	207.94	239.36	A	0.211	2.56	6	0.85	1	2.623	124.86	31.22	C
46.00-42.00			B	0.211	2.56		0.85	1	2.623			
			C	0.211	2.56		0.85	1	2.623			
T39	187.24	259.73	A	0.22	2.529	6	0.85	1	2.761	114.36	28.59	C
42.00-38.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T40	187.24	259.73	A	0.22	2.529	6	0.85	1	2.761	110.97	27.74	C
38.00-34.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T41	187.24	259.73	A	0.22	2.529	6	0.85	1	2.761	107.29	26.82	C
34.00-30.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T42	187.24	259.73	A	0.22	2.529	5	0.85	1	2.761	105.24	26.31	C
30.00-26.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T43	187.24	259.73	A	0.22	2.529	5	0.85	1	2.761	105.24	26.31	C
26.00-22.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T44	187.50	273.25	A	0.22	2.529	5	0.85	1	2.761	105.50	26.38	C
22.00-18.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T45	187.76	273.25	A	0.22	2.529	5	0.85	1	2.761	105.76	26.44	C
18.00-14.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T46	187.76	273.25	A	0.22	2.529	5	0.85	1	2.761	105.76	26.44	C
14.00-10.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T47	97.20	273.25	A	0.22	2.529	5	0.85	1	2.761	70.62	17.65	C
10.00-6.00			B	0.22	2.529		0.85	1	2.761			
			C	0.22	2.529		0.85	1	2.761			
T48	6.64	273.25	A	0.22	2.529	5	0.85	1	2.761	35.47	8.87	C
6.00-2.00			B	0.22	2.529		0.85	1	2.761			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F lb	w plf	Ctrl. Face
ft	lb	lb	C									
Sum Weight:	9569.36	17489.63		0.22	2.529		0.85	1	2.761	8039.65		

Force Totals (Does not include forces on guys)

Load Case	Vertical Forces lb	Sum of Forces X lb	Sum of Forces Z lb	Sum of Torques lb-ft
Leg Weight	8800.51			
Bracing Weight	8689.12			
Total Member Self-Weight	17489.63			
Guy Weight	3229.32			
Total Weight	38150.28			
Wind 0 deg - No Ice		449.98	-30017.09	-2372.11
Wind 30 deg - No Ice		14721.97	-25517.94	-4968.17
Wind 60 deg - No Ice		25331.46	-15044.94	-6680.52
Wind 90 deg - No Ice		30313.85	-391.59	-6681.89
Wind 120 deg - No Ice		26789.01	15537.46	-3839.97
Wind 150 deg - No Ice		14315.20	25617.50	470.44
Wind 180 deg - No Ice		-287.60	28847.80	3134.87
Wind 210 deg - No Ice		-14645.75	25562.03	4976.70
Wind 240 deg - No Ice		-26239.28	15739.67	6108.32
Wind 270 deg - No Ice		-30143.93	139.21	6428.95
Wind 300 deg - No Ice		-25621.43	-14880.26	3649.40
Wind 330 deg - No Ice		-14390.63	-25377.66	-226.03
Member Ice	30589.68			
Guy Ice	20127.41			
Total Weight Ice	152935.18			
Wind 0 deg - Ice		121.06	-13975.49	-1022.72
Wind 30 deg - Ice		6968.66	-12081.73	-1979.16
Wind 60 deg - Ice		11922.29	-7032.44	-2305.33
Wind 90 deg - Ice		13700.26	-101.13	-1962.64
Wind 120 deg - Ice		11836.16	7256.07	-599.28
Wind 150 deg - Ice		6670.53	12205.29	745.88
Wind 180 deg - Ice		-76.32	14029.68	1219.03
Wind 210 deg - Ice		-6827.93	12310.74	1386.35
Wind 240 deg - Ice		-11912.01	7439.65	1622.71
Wind 270 deg - Ice		-13653.45	39.29	1892.96
Wind 300 deg - Ice		-11774.87	-6859.20	1085.59
Wind 330 deg - Ice		-6811.04	-11922.36	-83.38
Total Weight	38150.28			
Wind 0 deg - Service		161.99	-10806.15	-853.96
Wind 30 deg - Service		5299.91	-9186.46	-1788.54
Wind 60 deg - Service		9119.33	-5416.18	-2404.99
Wind 90 deg - Service		10912.98	-140.97	-2405.48
Wind 120 deg - Service		9644.04	5593.49	-1382.39
Wind 150 deg - Service		5153.47	9222.30	169.36
Wind 180 deg - Service		-103.54	10385.21	1128.55
Wind 210 deg - Service		-5272.47	9202.33	1791.61
Wind 240 deg - Service		-9446.14	5666.28	2198.99
Wind 270 deg - Service		-10851.81	50.12	2314.42
Wind 300 deg - Service		-9223.71	-5356.89	1313.78
Wind 330 deg - Service		-5180.63	-9135.96	-81.37

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Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice+1.0 Guy
3	1.2 Dead+1.6 Wind 30 deg - No Ice+1.0 Guy
4	1.2 Dead+1.6 Wind 60 deg - No Ice+1.0 Guy
5	1.2 Dead+1.6 Wind 90 deg - No Ice+1.0 Guy
6	1.2 Dead+1.6 Wind 120 deg - No Ice+1.0 Guy
7	1.2 Dead+1.6 Wind 150 deg - No Ice+1.0 Guy
8	1.2 Dead+1.6 Wind 180 deg - No Ice+1.0 Guy
9	1.2 Dead+1.6 Wind 210 deg - No Ice+1.0 Guy
10	1.2 Dead+1.6 Wind 240 deg - No Ice+1.0 Guy
11	1.2 Dead+1.6 Wind 270 deg - No Ice+1.0 Guy
12	1.2 Dead+1.6 Wind 300 deg - No Ice+1.0 Guy
13	1.2 Dead+1.6 Wind 330 deg - No Ice+1.0 Guy
14	1.2 Dead+1.0 Ice+1.0 Temp+Guy
15	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy
16	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy
17	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy
18	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy
19	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy
20	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy
21	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy
22	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy
23	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy
24	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy
25	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy
26	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy
27	Dead+Wind 0 deg - Service+Guy
28	Dead+Wind 30 deg - Service+Guy
29	Dead+Wind 60 deg - Service+Guy
30	Dead+Wind 90 deg - Service+Guy
31	Dead+Wind 120 deg - Service+Guy
32	Dead+Wind 150 deg - Service+Guy
33	Dead+Wind 180 deg - Service+Guy
34	Dead+Wind 210 deg - Service+Guy
35	Dead+Wind 240 deg - Service+Guy
36	Dead+Wind 270 deg - Service+Guy
37	Dead+Wind 300 deg - Service+Guy
38	Dead+Wind 330 deg - Service+Guy

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T1	276 - 265.5	Leg	Max Tension	11	872.36	-8.55	-21.04
			Max. Compression	23	-2291.40	16.61	-42.02
			Max. Mx	5	-480.50	-278.71	66.48
			Max. My	8	-1261.40	-13.64	-316.98
			Max. Vy	5	109.19	-278.71	66.48
			Max. Vx	8	121.59	-13.64	-316.98
			Max Tension	5	607.91	0.00	0.00
		Diagonal	Max. Compression	11	-623.88	0.00	0.00
			Max. Mx	19	-115.87	-33.24	0.00
			Max. My	20	-87.02	0.00	0.15
			Max. Vy	19	25.02	0.00	0.00
			Max. Vx	20	0.11	0.00	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft	
T2	265.5 - 261.75	Horizontal	Max Tension	8	167.14	0.00	0.00	
			Max. Compression	2	-169.51	0.00	0.00	
			Max. Mx	21	37.76	-27.30	0.00	
			Max. My	20	34.81	0.00	0.00	
			Max. Vy	21	27.30	0.00	0.00	
			Max. Vx	20	-0.00	0.00	0.00	
		Top Girt	Max Tension	4	65.14	0.00	0.00	
			Max. Compression	10	-71.31	0.00	0.00	
			Max. Mx	21	-14.64	-27.30	0.00	
			Max. My	20	-21.45	0.00	0.00	
			Max. Vy	21	27.30	0.00	0.00	
			Max. Vx	20	-0.00	0.00	0.00	
		Leg	Max Tension	8	2487.64	189.59	-201.49	
			Max. Compression	23	-4050.20	48.43	-40.45	
			Max. Mx	5	-2083.67	593.06	55.21	
			Max. My	8	-1188.96	-39.30	673.48	
			Max. Vy	5	-586.26	-278.71	66.46	
			Max. Vx	8	-665.71	-13.64	-316.98	
			Diagonal	Max Tension	3	2713.03	0.00	0.00
				Max. Compression	8	-2751.78	0.00	0.00
				Max. Mx	19	-420.10	-34.20	0.00
				Max. My	20	-474.96	0.00	0.16
				Max. Vy	19	24.95	0.00	0.00
				Max. Vx	20	-0.12	0.00	0.00
Top Girt	Max Tension	8	971.06	0.00	0.00			
	Max. Compression	2	-798.02	0.00	0.00			
	Max. Mx	21	193.62	-27.22	0.00			
	Max. My	20	49.80	0.00	0.00			
	Max. Vy	21	-27.22	0.00	0.00			
	Max. Vx	20	0.00	0.00	0.00			
T3	261.75 - 258	Leg	Max Tension	8	319.86	-14.54	-237.79	
			Max. Compression	17	-3416.11	-21.17	-41.29	
			Max. Mx	5	-1127.01	-430.95	55.18	
			Max. My	8	-937.44	-39.32	-455.62	
			Max. Vy	5	-409.92	-430.95	55.18	
			Max. Vx	2	407.77	-5.10	414.80	
		Diagonal	Max Tension	7	3473.95	0.00	0.00	
			Max. Compression	13	-4062.71	0.00	0.00	
			Max. Mx	20	242.66	13.90	-0.16	
			Max. My	7	-3483.87	3.32	-2.57	
			Max. Vy	20	-17.51	13.90	-0.16	
			Max. Vx	7	0.94	3.32	-2.57	
		Guy A	Bottom Tension	9	12182.58			
			Top Tension	9	12351.15			
			Top Cable Vert	9	10855.53			
			Top Cable Norm	9	5891.11			
			Top Cable Tan	9	57.36			
			Bot Cable Vert	9	-10480.29			
		Guy B	Bot Cable Norm	9	6209.09			
			Bot Cable Tan	9	161.38			
			Bottom Tension	13	11921.27			
			Top Tension	13	12091.98			
			Top Cable Vert	13	10759.39			
			Top Cable Norm	13	5517.89			
Guy C	Top Cable Tan	13	66.78					
	Bot Cable Vert	13	-10388.44					
	Bot Cable Norm	13	5845.84					
	Bot Cable Tan	13	152.29					
	Bottom Tension	3	11448.74					
	Top Tension	3	11625.69					
	Top Cable Vert	3	9974.94					

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Top Cable Norm	3	5970.95		
			Top Cable Tan	3	71.69		
			Bot Cable Vert	3	-9568.65		
			Bot Cable Norm	3	6284.06		
			Bot Cable Tan	3	158.67		
		Top Guy Pull-Off	Max Tension	8	8132.98	0.00	0.00
			Max. Compression	2	-3011.78	0.00	0.00
			Max. Mx	21	2471.19	-39.07	0.00
			Max. My	20	4762.07	0.00	0.00
			Max. Vy	21	39.07	0.00	0.00
			Max. Vx	20	0.00	0.00	0.00
		Torque Arm Top	Max Tension	10	16471.95	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	25	13577.17	-121.04	0.00
			Max. My	20	13511.40	0.00	-0.00
			Max. Vy	25	79.24	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
		Torque Arm Bottom	Max Tension	1	0.00	0.00	0.00
			Max. Compression	11	-18554.69	0.00	0.00
			Max. Mx	19	-14128.64	-142.58	0.00
			Max. My	20	-10163.32	0.00	0.39
			Max. Vy	19	79.55	0.00	0.00
			Max. Vx	20	0.22	0.00	0.00
T4	258 - 254	Leg	Max Tension	6	1285.18	-38.77	-3.10
			Max. Compression	12	-26913.55	30.06	-55.00
			Max. Mx	13	-941.75	70.83	33.29
			Max. My	13	-26786.84	-34.48	75.76
			Max. Vy	10	38.01	39.44	22.44
			Max. Vx	13	46.86	-34.48	75.76
		Diagonal	Max Tension	13	3271.81	0.00	0.00
			Max. Compression	7	-3446.20	0.00	0.00
			Max. Mx	19	837.21	-35.19	0.00
			Max. My	20	128.36	0.00	0.19
			Max. Vy	19	24.88	0.00	0.00
			Max. Vx	20	0.13	0.00	0.00
		Top Girt	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-2712.87	0.00	0.00
			Max. Mx	21	-2132.08	-27.14	0.00
			Max. My	20	-2321.49	0.00	0.00
			Max. Vy	21	-27.14	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
T5	254 - 242	Leg	Max Tension	2	8897.58	-32.13	10.13
			Max. Compression	8	-32159.29	66.01	56.98
			Max. Mx	6	-26210.27	112.68	9.43
			Max. My	2	-24420.34	-49.70	-103.92
			Max. Vy	6	-120.61	-46.58	12.56
			Max. Vx	3	118.02	35.05	48.26
		Diagonal	Max Tension	7	2864.69	0.00	0.00
			Max. Compression	13	-2868.56	0.00	0.00
			Max. Mx	19	597.19	-35.05	0.00
			Max. My	20	-202.62	0.00	0.17
			Max. Vy	19	-24.78	0.00	0.00
			Max. Vx	20	0.12	0.00	0.00
		Horizontal	Max Tension	8	557.02	0.00	0.00
			Max. Compression	8	-557.02	0.00	0.00
			Max. Mx	23	384.55	-27.04	0.00
			Max. My	20	312.19	0.00	0.00
			Max. Vy	23	27.04	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
		Top Girt	Max Tension	4	247.91	0.00	0.00
			Max. Compression	10	-203.47	0.00	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T6	242 - 222	Leg	Max. Mx	21	-31.58	-27.04	0.00
			Max. My	20	-49.33	0.00	0.00
			Max. Vy	21	27.04	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
			Max Tension	2	11710.54	-26.47	200.54
			Max. Compression	12	-34164.14	136.79	164.56
			Max. Mx	11	-15408.03	-479.16	24.49
			Max. My	2	-28373.35	-50.12	-480.48
			Max. Vy	11	-375.41	255.82	24.49
			Max. Vx	2	-376.46	-50.12	254.57
			Max Tension	12	2744.48	0.00	0.00
			Max. Compression	8	-2963.68	0.00	0.00
		Diagonal	Max. Mx	19	411.07	-34.77	0.00
			Max. My	20	-316.82	0.00	0.16
			Max. Vy	19	24.59	0.00	0.00
			Max. Vx	20	-0.11	0.00	0.00
			Max Tension	12	647.00	0.00	0.00
			Max. Compression	6	-605.21	0.00	0.00
		Horizontal	Max. Mx	22	480.89	-26.85	0.00
			Max. My	20	386.71	0.00	0.00
			Max. Vy	22	26.85	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
			Max Tension	3	88.47	0.00	0.00
			Max. Compression	6	-28.60	0.00	0.00
Top Girt	Max. Mx	25	76.18	-26.85	0.00		
	Max. My	20	48.54	0.00	0.00		
	Max. Vy	25	26.85	0.00	0.00		
	Max. Vx	20	-0.00	0.00	0.00		
	Max Tension	3	88.47	0.00	0.00		
	Max. Compression	6	-28.60	0.00	0.00		
T7	222 - 206	Leg	Max. Mx	25	76.18	-26.85	0.00
			Max. My	20	48.54	0.00	0.00
			Max. Vy	25	26.85	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
			Max Tension	6	2996.81	22.47	-31.55
			Max. Compression	15	-28005.72	59.73	141.91
			Max. Mx	5	-22852.58	597.56	23.79
			Max. My	2	-19012.07	36.43	-585.35
			Max. Vy	11	479.19	346.91	10.81
			Max. Vx	2	466.37	-47.18	334.89
			Max Tension	12	4971.30	0.00	0.00
			Max. Compression	9	-5384.26	0.00	0.00
		Diagonal	Max. Mx	19	-950.53	-47.99	0.00
			Max. My	20	-849.35	0.00	0.19
			Max. Vy	19	33.93	0.00	0.00
			Max. Vx	20	-0.13	0.00	0.00
			Max Tension	12	810.87	0.00	0.00
			Max. Compression	6	-716.84	0.00	0.00
		Horizontal	Max. Mx	26	445.36	-26.62	0.00
			Max. My	20	452.69	0.00	0.00
			Max. Vy	26	26.62	0.00	0.00
			Max. Vx	20	0.00	0.00	0.00
			Max Tension	8	196.92	0.00	0.00
			Max. Compression	2	-121.68	0.00	0.00
Top Girt	Max. Mx	21	124.66	-26.62	0.00		
	Max. My	20	15.93	0.00	0.00		
	Max. Vy	21	26.62	0.00	0.00		
	Max. Vx	20	0.00	0.00	0.00		
	Max Tension	8	196.92	0.00	0.00		
	Max. Compression	2	-121.68	0.00	0.00		
T8	206 - 202	Leg	Max. Mx	21	124.66	-26.62	0.00
			Max. My	20	15.93	0.00	0.00
			Max. Vy	21	26.62	0.00	0.00
			Max. Vx	20	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	20	-28594.80	26.01	35.51
		Diagonal	Max. Mx	5	-19230.35	-282.07	23.77
			Max. My	8	-16473.80	14.80	-264.72
			Max. Vy	6	-73.23	-258.81	-97.56
			Max. Vx	7	-63.05	-89.26	-240.57
			Max Tension	9	6926.11	0.00	0.00
			Max. Compression	3	-6793.59	0.00	0.00
Max. Mx	15	-1719.63	-54.31	0.00			

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T9	202 - 198	Top Girt	Max. My	20	-2129.06	0.00	0.20
			Max. Vy	15	38.40	0.00	0.00
			Max. Vx	20	-0.14	0.00	0.00
			Max Tension	4	729.74	0.00	0.00
			Max. Compression	10	-640.08	0.00	0.00
			Max. Mx	26	-108.16	-26.48	0.00
		Leg	Max. My	20	-96.78	0.00	0.00
			Max. Vy	26	26.48	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	20	-22556.77	-55.54	-99.11
			Max. Mx	11	-13547.54	-218.88	30.65
		Diagonal	Max. My	2	-13664.65	-88.68	-223.46
			Max. Vy	11	326.83	186.78	13.37
			Max. Vx	2	322.86	-50.73	171.58
			Max Tension	13	3746.37	0.00	0.00
			Max. Compression	8	-7790.98	0.00	0.00
			Max. Mx	4	-924.66	80.10	3.64
		Guy A	Max. My	8	-7165.86	28.86	-21.92
			Max. Vy	26	-43.66	69.29	-0.89
			Max. Vx	12	7.77	29.98	-21.89
			Bottom Tension	9	15372.04		
			Top Tension	9	15501.13		
			Top Cable Vert	9	12562.83		
		Guy B	Top Cable Norm	9	9080.76		
			Top Cable Tan	9	5.23		
			Bot Cable Vert	9	-12254.58		
			Bot Cable Norm	9	9279.07		
			Bot Cable Tan	9	154.18		
			Bottom Tension	13	15470.36		
		Guy C	Top Tension	13	15601.42		
			Top Cable Vert	13	12887.12		
			Top Cable Norm	13	8793.55		
			Top Cable Tan	13	10.08		
			Bot Cable Vert	13	-12581.43		
			Bot Cable Norm	13	9000.96		
		Top Guy Pull-Off	Bot Cable Tan	13	149.58		
			Bottom Tension	3	14607.32		
			Top Tension	3	14744.61		
			Top Cable Vert	3	11584.98		
			Top Cable Norm	3	9120.94		
			Top Cable Tan	3	20.78		
Torque Arm Top	Bot Cable Vert	3	-11249.82				
	Bot Cable Norm	3	9316.27				
	Bot Cable Tan	3	149.29				
	Max Tension	8	14885.55	0.00	0.00		
	Max. Compression	10	-5349.17	0.00	0.00		
	Max. Mx	26	3813.04	-38.23	0.00		
Torque Arm Bottom	Max. My	11	5301.56	0.00	0.00		
	Max. Vy	26	38.23	0.00	0.00		
	Max. Vx	11	-0.00	0.00	0.00		
	Max Tension	2	19717.81	0.00	0.00		
	Max. Compression	1	0.00	0.00	0.00		
	Max. Mx	16	9037.44	-118.70	0.00		
Torque Arm Bottom	Max. My	10	7028.98	0.00	-0.00		
	Max. Vy	16	-77.71	0.00	0.00		
	Max. Vx	10	0.00	0.00	0.00		
	Max Tension	1	0.00	0.00	0.00		
	Max. Compression	13	-21385.39	0.00	0.00		
	Max. Mx	19	-11959.41	-142.19	0.00		
			Max. My	4	-3830.72	0.00	-0.32

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T10	198 - 194	Leg	Max. Vy	19	77.88	0.00	0.00
			Max. Vx	4	0.18	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	25	-44905.84	-95.91	146.33
			Max. Mx	20	-42582.81	174.98	-1.14
			Max. My	23	-44110.30	-86.47	155.50
		Diagonal	Max. Vy	6	-113.29	-169.45	-19.03
			Max. Vx	2	93.75	51.53	138.92
			Max Tension	4	5676.68	0.00	0.00
			Max. Compression	10	-5777.39	0.00	0.00
			Max. Mx	15	1431.63	-54.13	0.00
			Max. My	18	1205.37	0.00	-0.18
		Top Girt	Max. Vy	15	-38.27	0.00	0.00
			Max. Vx	18	0.12	0.00	0.00
			Max Tension	12	1830.89	0.00	0.00
			Max. Compression	2	-2181.06	0.00	0.00
			Max. Mx	26	1212.28	-26.37	0.00
			Max. My	20	457.37	0.00	0.00
T11	194 - 182	Leg	Max. Vy	26	-26.37	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
			Max Tension	6	1656.09	-41.66	99.83
			Max. Compression	13	-53648.27	103.27	-151.40
			Max. Mx	22	-47210.01	-210.55	-6.00
			Max. My	19	-46310.06	98.05	185.60
		Diagonal	Max. Vy	6	-109.63	-163.26	31.66
			Max. Vx	23	94.06	83.40	-181.95
			Max Tension	10	5053.97	0.00	0.00
			Max. Compression	4	-5449.40	0.00	0.00
			Max. Mx	26	-118.85	-47.39	0.00
			Max. My	18	946.92	0.00	-0.15
		Horizontal	Max. Vy	26	-33.51	0.00	0.00
			Max. Vx	18	0.11	0.00	0.00
			Max Tension	13	929.22	0.00	0.00
			Max. Compression	13	-929.22	0.00	0.00
			Max. Mx	17	845.56	-26.25	0.00
			Max. My	11	929.17	0.00	0.00
Top Girt	Max. Vy	17	26.25	0.00	0.00		
	Max. Vx	11	-0.00	0.00	0.00		
	Max Tension	12	308.71	0.00	0.00		
	Max. Compression	6	-174.11	0.00	0.00		
	Max. Mx	23	4.89	-26.25	0.00		
	Max. My	15	6.12	0.00	0.00		
T12	182 - 162	Leg	Max. Vy	23	26.25	0.00	0.00
			Max. Vx	15	-0.00	0.00	0.00
			Max Tension	2	5779.29	109.01	-17.42
			Max. Compression	11	-57889.65	54.02	-147.15
			Max. Mx	10	-46939.37	243.57	17.08
			Max. My	20	-44998.59	-95.35	-220.22
		Diagonal	Max. Vy	10	-187.56	243.57	17.08
			Max. Vx	13	-164.46	-103.18	194.47
			Max Tension	4	3677.54	0.00	0.00
			Max. Compression	10	-3691.25	0.00	0.00
			Max. Mx	25	587.56	-39.62	0.00
			Max. My	4	1886.63	0.00	-0.16
		Horizontal	Max. Vy	25	28.02	0.00	0.00
			Max. Vx	4	0.11	0.00	0.00
			Max Tension	11	1002.68	0.00	0.00
			Max. Compression	11	-1002.68	0.00	0.00
			Max. Mx	16	909.90	-26.01	0.00
			Max. My	11	1002.68	0.00	0.00
		Max. Vy	16	26.01	0.00	0.00	

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft	
T13	162 - 158	Top Girt	Max. Vx	11	-0.00	0.00	0.00	
			Max Tension	8	331.98	0.00	0.00	
			Max. Compression	2	-173.83	0.00	0.00	
			Max. Mx	18	205.99	-26.01	0.00	
			Max. My	11	286.48	0.00	0.00	
			Max. Vy	18	26.01	0.00	0.00	
		Leg	Max. Vx	11	-0.00	0.00	0.00	
			Max Tension	2	3111.18	105.85	40.30	
			Max. Compression	11	-55959.14	-21.38	-195.37	
			Max. Mx	10	-48074.03	-330.03	28.33	
			Max. My	7	-34924.81	118.16	257.42	
			Max. Vy	10	160.28	243.56	17.07	
			Diagonal	Max. Vx	13	127.26	-103.18	194.46
				Max Tension	11	3446.71	0.00	0.00
Max. Compression	5			-3358.67	0.00	0.00		
Max. Mx	25			843.54	-39.35	0.00		
Max. My	24			-361.46	0.00	0.16		
Max. Vy	25			27.83	0.00	0.00		
Top Girt	Max. Vx		24	-0.11	0.00	0.00		
	Max Tension		12	482.84	0.00	0.00		
	Max. Compression	6	-320.54	0.00	0.00			
	Max. Mx	15	-23.34	-25.81	0.00			
	Max. My	11	-115.73	0.00	0.00			
	Max. Vy	15	25.81	0.00	0.00			
T14	158 - 154	Leg	Max. Vx	11	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	3	-53543.67	-211.22	323.65	
			Max. Mx	10	-45551.26	674.37	-167.84	
			Max. My	8	-17292.62	-102.11	-601.72	
			Max. Vy	10	-267.94	674.37	-167.84	
		Diagonal	Max. Vx	8	225.29	-102.11	-601.72	
			Max Tension	4	3340.28	0.00	0.00	
			Max. Compression	11	-3985.18	0.00	0.00	
			Max. Mx	21	648.87	-39.24	0.00	
			Max. My	4	1895.17	0.00	-0.17	
			Max. Vy	21	27.75	0.00	0.00	
		Top Girt	Max. Vx	4	0.12	0.00	0.00	
			Max Tension	9	223.91	0.00	0.00	
Max. Compression	2		-15.30	0.00	0.00			
Max. Mx	16		114.49	-25.74	0.00			
Max. My	11		185.93	0.00	0.00			
Max. Vy	16		25.74	0.00	0.00			
T15	154 - 150	Leg	Max. Vx	11	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	16	-54694.61	89.59	319.95	
			Max. Mx	11	-32812.27	-1174.33	29.46	
			Max. My	2	-49419.24	165.24	-1163.01	
			Max. Vy	10	931.51	674.36	-167.84	
		Diagonal	Max. Vx	2	-906.19	165.24	635.16	
			Max Tension	11	5709.37	0.00	0.00	
			Max. Compression	5	-5624.14	0.00	0.00	
			Max. Mx	25	1518.38	-39.17	0.00	
			Max. My	24	-910.67	0.00	0.18	
			Max. Vy	25	27.70	0.00	0.00	
		Top Girt	Max. Vx	24	-0.13	0.00	0.00	
			Max Tension	8	1461.62	0.00	0.00	
Max. Compression	2		-1300.38	0.00	0.00			
Max. Mx	16		341.89	-25.67	0.00			
Max. My	11		-623.17	0.00	0.00			
Max. Vy	16		25.67	0.00	0.00			
	Max. Vx	11	-0.00	0.00	0.00			

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T16	150 - 146	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-53835.67	30.53	168.47
			Max. Mx	5	-32956.43	-640.72	35.44
			Max. My	2	-42136.21	165.25	635.16
			Max. Vy	5	-249.73	-640.72	35.44
		Diagonal	Max. Vx	2	240.87	165.25	635.16
			Max Tension	9	7537.12	0.00	0.00
			Max. Compression	11	-8078.02	0.00	0.00
			Max. Mx	21	2268.45	-39.05	0.00
			Max. My	4	164.49	0.00	-0.19
			Max. Vy	21	27.61	0.00	0.00
			Max. Vx	4	0.13	0.00	0.00
		Top Girt	Max Tension	4	1564.57	0.00	0.00
			Max. Compression	10	-1390.22	0.00	0.00
			Max. Mx	26	160.57	-25.60	0.00
			Max. My	11	842.94	0.00	0.00
Max. Vy	26		25.60	0.00	0.00		
T17	146 - 142	Leg	Max. Vx	11	-0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	15	-53535.98	-126.31	-229.85
			Max. Mx	5	-37171.35	269.92	-14.94
			Max. My	2	-43216.80	-112.13	-268.27
		Diagonal	Max. Vy	18	144.65	-254.37	9.61
			Max. Vx	15	-127.93	128.85	223.12
			Max Tension	11	8085.99	0.00	0.00
			Max. Compression	5	-8027.18	0.00	0.00
			Max. Mx	25	2174.04	-44.10	0.00
			Max. My	5	2700.56	0.00	-0.24
			Max. Vy	25	31.18	0.00	0.00
		Top Girt	Max. Vx	5	0.17	0.00	0.00
			Max Tension	3	256.01	0.00	0.00
			Max. Compression	10	-41.81	0.00	0.00
			Max. Mx	18	108.25	-25.53	0.00
Max. My	11		-1.42	0.00	0.00		
T18	142 - 138	Leg	Max. Vy	18	-25.53	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	20	-54031.12	118.26	201.57
			Max. Mx	25	-51701.02	261.90	-3.95
		Diagonal	Max. My	26	-52256.39	134.61	225.12
			Max. Vy	24	-138.72	260.46	-4.33
			Max. Vx	15	121.19	128.85	223.12
			Max Tension	9	8395.20	0.00	0.00
			Max. Compression	11	-9066.05	0.00	0.00
			Max. Mx	21	2488.66	-43.97	0.00
			Max. My	4	230.26	0.00	-0.27
		Top Girt	Max. Vy	21	31.09	0.00	0.00
			Max. Vx	4	0.19	0.00	0.00
			Max Tension	4	430.41	0.00	0.00
			Max. Compression	10	-220.20	0.00	0.00
Max. Mx	26		152.10	-25.45	0.00		
T19	138 - 134	Leg	Max. My	11	348.42	0.00	0.00
			Max. Vy	26	25.45	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-54985.86	-115.13	-209.94
		Diagonal	Max. Mx	25	-52058.91	261.90	-3.95
			Max. My	25	-54658.13	138.18	227.64
			Max. Vy	24	139.08	260.45	-4.33
			Max. Vx	21	120.22	126.05	-226.69
			Max Tension	11	9334.69	0.00	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T20	134 - 130	Horizontal	Max. Compression	9	-9337.43	0.00	0.00
			Max. Mx	25	2476.82	-43.88	0.00
			Max. My	5	3525.26	0.00	-0.25
			Max. Vy	25	-31.03	0.00	0.00
			Max. Vx	5	0.18	0.00	0.00
			Max Tension	26	1333.34	0.00	0.00
		Leg	Max. Compression	26	-1333.34	0.00	0.00
			Max. Mx	26	1333.34	-32.43	0.00
			Max. My	11	1084.89	0.00	0.00
			Max. Vy	26	-32.43	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
			Max Tension	12	2606.56	33.04	-77.03
		Diagonal	Max. Compression	10	-59582.40	-57.38	-252.97
			Max. Mx	25	-56581.43	291.27	-10.84
			Max. My	10	-59582.40	-57.38	-252.97
			Max. Vy	25	-145.97	291.27	-10.84
			Max. Vx	21	125.63	-148.74	-247.37
			Max Tension	9	9577.90	0.00	0.00
			Max. Compression	11	-10142.88	0.00	0.00
			Max. Mx	22	3135.04	-43.74	0.00
			Max. My	10	-211.45	0.00	0.27
Max. Vy	22		30.93	0.00	0.00		
Max. Vx	10		-0.19	0.00	0.00		
Max Tension	10		1444.80	0.00	0.00		
Max. Compression	10		-1444.80	0.00	0.00		
Max. Mx	26		1341.33	-32.34	0.00		
Max. My	11		1230.71	0.00	0.00		
Max. Vy	26	32.34	0.00	0.00			
Max. Vx	11	-0.00	0.00	0.00			
T21	130 - 126	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-63063.30	91.79	197.09
			Max. Mx	25	-61863.28	291.27	-10.84
			Max. My	10	-63016.36	-57.39	-252.98
			Max. Vy	25	150.04	291.27	-10.84
			Max. Vx	10	-138.00	-57.39	-252.98
		Diagonal	Max Tension	13	5618.04	0.00	0.00
			Max. Compression	7	-5945.41	0.00	0.00
			Max. Mx	24	-1470.54	-38.50	0.00
			Max. My	24	407.20	0.00	0.17
			Max. Vy	24	27.22	0.00	0.00
			Max. Vx	24	-0.12	0.00	0.00
		Horizontal	Max Tension	5	11548.98	0.00	0.00
			Max. Compression	10	-1529.20	0.00	0.00
			Max. Mx	26	3778.01	-32.25	0.00
			Max. My	11	10834.97	0.00	0.00
			Max. Vy	26	32.25	0.00	0.00
			Max. Vx	11	-0.00	0.00	0.00
		Secondary Horizontal	Max Tension	10	1529.20	0.00	0.00
			Max. Compression	10	-1529.20	0.00	0.00
			Max. Mx	26	1478.17	-25.21	0.00
Max. My	11		1338.96	0.00	0.00		
Max. Vy	26		25.21	0.00	0.00		
Max. Vx	11		-0.00	0.00	0.00		
Guy A	Bottom Tension		9	26171.70			
	Top Tension		9	26313.14			
	Top Cable Vert		9	17186.44			
	Top Cable Norm		9	19925.00			
	Top Cable Tan		9	49.27			
	Bot Cable Vert		9	-16846.01			
Bot Cable Norm	9		20028.32				

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T22	126 - 122	Guy B	Bot Cable Tan	9	190.14			
			Bottom Tension	13	26854.79			
			Top Tension	13	26999.61			
			Top Cable Vert	13	18288.65			
			Top Cable Norm	13	19862.06			
			Top Cable Tan	13	53.16			
			Bot Cable Vert	13	-17949.96			
			Bot Cable Norm	13	19973.51			
			Bot Cable Tan	13	194.25			
			Guy C	Bottom Tension	3	25265.42		
				Top Tension	3	25420.72		
				Top Cable Vert	3	16098.64		
				Top Cable Norm	3	19673.49		
				Top Cable Tan	3	29.11		
		Bot Cable Vert		3	-15720.12			
		Bot Cable Norm		3	19778.43			
		Bot Cable Tan		3	181.80			
		Leg		Max Tension	1	0.00	0.00	0.00
				Max. Compression	26	-62511.28	125.22	244.81
			Max. Mx	25	-61023.32	306.67	-1.66	
			Max. My	21	-61682.88	-148.64	-264.51	
			Max. Vy	24	-160.07	306.52	-3.23	
			Max. Vx	21	138.18	-148.64	-264.51	
			Diagonal	Max Tension	7	5065.64	0.00	0.00
				Max. Compression	13	-5361.02	0.00	0.00
				Max. Mx	22	-1284.68	-38.36	0.00
				Max. My	10	-655.05	0.00	0.18
				Max. Vy	22	27.13	0.00	0.00
				Max. Vx	10	-0.12	0.00	0.00
			Horizontal	Max Tension	10	1529.20	0.00	0.00
				Max. Compression	10	-1529.20	0.00	0.00
				Max. Mx	26	1515.82	-32.16	0.00
				Max. My	11	1338.96	0.00	0.00
Max. Vy	26			32.16	0.00	0.00		
Max. Vx	11			-0.00	0.00	0.00		
T23	122 - 102			Leg	Max Tension	1	0.00	0.00
		Max. Compression			20	-64210.43	-152.09	-274.06
		Max. Mx	24		-62804.17	317.50	1.63	
		Max. My	26		-64018.72	161.06	274.96	
		Max. Vy	24		-172.62	315.27	-0.55	
		Max. Vx	21		149.43	-150.59	-271.65	
		Diagonal	Max Tension	13	4355.38	0.00	0.00	
			Max. Compression	7	-4751.23	0.00	0.00	
			Max. Mx	24	-1194.86	-38.00	0.00	
			Max. My	10	-529.96	0.00	0.18	
			Max. Vy	24	26.87	0.00	0.00	
			Max. Vx	10	-0.13	0.00	0.00	
		Horizontal	Max Tension	20	1112.16	0.00	0.00	
			Max. Compression	20	-1112.16	0.00	0.00	
			Max. Mx	20	1112.16	-24.87	0.00	
			Max. My	11	835.47	0.00	0.00	
			Max. Vy	20	24.87	0.00	0.00	
			Max. Vx	11	-0.00	0.00	0.00	
			Top Girt	Max Tension	12	371.99	0.00	0.00
Max. Compression	6			-153.81	0.00	0.00		
Max. Mx	20			150.75	-24.87	0.00		
Max. My	11			-69.63	0.00	0.00		
Max. Vy	20	24.87		0.00	0.00			
Max. Vx	11	-0.00		0.00	0.00			
T24	102 - 98	Leg		Max Tension	1	0.00	0.00	0.00
				Max. Compression	26	-64827.15	2.58	-9.55

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft		
T25	98 - 94	Diagonal	Max. Mx	24	-63848.83	320.07	-2.49		
			Max. My	26	-64791.65	161.06	274.96		
			Max. Vy	24	-167.45	320.07	-2.49		
			Max. Vx	15	148.41	157.67	273.22		
			Max Tension	4	1295.29	0.00	0.00		
			Max. Compression	12	-1682.30	0.00	0.00		
			Max. Mx	22	-221.47	-34.87	0.00		
			Max. My	24	-628.07	0.00	0.15		
			Max. Vy	22	24.65	0.00	0.00		
			Max. Vx	24	-0.11	0.00	0.00		
			Max Tension	26	1571.97	0.00	0.00		
			Max. Compression	26	-1571.97	0.00	0.00		
		Top Girt			Max. Mx	23	1540.03	-24.58	0.00
					Max. My	11	1197.28	0.00	0.00
					Max. Vy	23	24.58	0.00	0.00
					Max. Vx	11	-0.00	0.00	0.00
					Max Tension	4	402.24	0.00	0.00
					Max. Compression	10	-164.97	0.00	0.00
					Max. Mx	23	183.51	-24.58	0.00
					Max. My	11	358.81	0.00	0.00
					Max. Vy	23	24.58	0.00	0.00
					Max. Vx	11	-0.00	0.00	0.00
		Leg			Max Tension	1	0.00	0.00	0.00
					Max. Compression	15	-65290.46	8.28	-7.62
					Max. Mx	24	-64157.52	320.07	-2.49
					Max. My	26	-65061.28	160.38	279.22
					Max. Vy	24	170.70	320.07	-2.49
					Max. Vx	15	-148.29	157.32	278.28
					Max Tension	12	711.37	0.00	0.00
					Max. Compression	5	-1070.69	0.00	0.00
					Max. Mx	24	-195.72	-34.73	0.00
					Max. My	24	-407.97	0.00	0.14
Max. Vy	24				-24.56	0.00	0.00		
Max. Vx	24				-0.10	0.00	0.00		
Max Tension	15				1583.21	0.00	0.00		
Max. Compression	15				-1583.21	0.00	0.00		
Max. Mx	23				1556.46	-24.47	0.00		
Max. My	11				1232.42	0.00	0.00		
Max. Vy	23				24.47	0.00	0.00		
Max. Vx	11				-0.00	0.00	0.00		
Top Girt			Max Tension	12	408.21	0.00	0.00		
			Max. Compression	6	-188.63	0.00	0.00		
			Max. Mx	23	178.92	-24.47	0.00		
			Max. My	5	370.43	0.00	0.00		
			Max. Vy	23	24.47	0.00	0.00		
			Max. Vx	5	-0.00	0.00	0.00		
Leg			Max Tension	1	0.00	0.00	0.00		
			Max. Compression	19	-65991.44	10.91	-2.06		
			Max. Mx	24	-64944.73	326.21	-2.68		
			Max. My	20	-65658.53	-161.56	-279.53		
			Max. Vy	18	-170.39	-313.33	4.36		
			Max. Vx	15	152.69	157.31	278.28		
			Max Tension	5	656.33	0.00	0.00		
			Max. Compression	11	-1119.02	0.00	0.00		
			Max. Mx	22	134.17	-34.57	0.00		
			Max. My	24	-458.41	0.00	0.15		
			Max. Vy	22	24.45	0.00	0.00		
			Max. Vx	24	0.11	0.00	0.00		
Secondary Horizontal			Max Tension	19	1600.21	0.00	0.00		
			Max. Compression	19	-1600.21	0.00	0.00		

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft		
T27	90 - 86	Horizontal	Max. Compression	19	-1600.21	0.00	0.00		
			Max. Mx	23	1571.31	-24.37	0.00		
			Max. My	11	1216.05	0.00	0.00		
			Max. Vy	23	24.37	0.00	0.00		
			Max. Vx	11	-0.00	0.00	0.00		
			Top Girt	Max Tension	4	414.66	0.00	0.00	
				Max. Compression	10	-183.85	0.00	0.00	
				Max. Mx	23	178.51	-24.37	0.00	
				Max. My	11	372.30	0.00	0.00	
				Max. Vy	23	24.37	0.00	0.00	
				Max. Vx	11	-0.00	0.00	0.00	
			Leg	Max Tension	1	0.00	0.00	0.00	
		Max. Compression		15	-66230.97	7.69	-6.26		
		Max. Mx		24	-64974.55	326.21	-2.68		
		Max. My		26	-66077.97	162.78	285.02		
		Max. Vy		24	173.58	326.21	-2.68		
		Max. Vx		15	-150.38	159.48	284.11		
		Diagonal		Max Tension	11	1366.60	0.00	0.00	
				Max. Compression	5	-1672.67	0.00	0.00	
				Max. Mx	24	133.19	-34.42	0.00	
				Max. My	5	-271.50	0.00	-0.15	
			Max. Vy	24	24.34	0.00	0.00		
		Secondary Horizontal	Max. Vx	5	0.10	0.00	0.00		
			Max Tension	15	1606.02	0.00	0.00		
		T28	86 - 82	Horizontal	Max. Compression	15	-1606.02	0.00	0.00
					Max. Mx	23	1576.65	-24.26	0.00
					Max. My	11	1224.53	0.00	0.00
					Max. Vy	23	24.26	0.00	0.00
Max. Vx	11				-0.00	0.00	0.00		
Top Girt	Max Tension				12	403.37	0.00	0.00	
	Max. Compression				6	-182.06	0.00	0.00	
	Max. Mx				23	177.12	-24.26	0.00	
	Max. My				5	365.99	0.00	0.00	
	Max. Vy				23	24.26	0.00	0.00	
	Max. Vx				5	-0.00	0.00	0.00	
Leg	Max Tension				1	0.00	0.00	0.00	
	Max. Compression			19	-66671.08	8.83	-2.27		
	Max. Mx			24	-65963.47	332.89	-4.02		
	Max. My			21	-65216.25	-164.15	-285.31		
	Max. Vy			24	-172.64	332.89	-4.02		
	Max. Vx			15	153.66	159.48	284.11		
	Diagonal			Max Tension	5	1933.78	0.00	0.00	
				Max. Compression	11	-2372.88	0.00	0.00	
				Max. Mx	22	474.67	-34.25	0.00	
				Max. My	24	-294.91	0.00	0.15	
Max. Vy				22	24.22	0.00	0.00		
Secondary Horizontal	Max. Vx			24	-0.11	0.00	0.00		
	Max Tension			19	1616.69	0.00	0.00		
Top Girt	Max. Compression			19	-1616.69	0.00	0.00		
	Max. Mx			23	1590.98	-24.14	0.00		
	Max. My			11	1164.32	0.00	0.00		
	Max. Vy			23	24.14	0.00	0.00		
	Max. Vx	11	-0.00	0.00	0.00				
	Max Tension	4	399.03	0.00	0.00				
	Max. Compression	10	-164.22	0.00	0.00				
	Max. Mx	23	176.11	-24.14	0.00				
	Max. My	11	357.47	0.00	0.00				
	Max. Vy	23	24.14	0.00	0.00				

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft	
T29	82 - 78	Leg	Max. Vx	11	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	26	-67023.48	4.71	-1.77	
			Max. Mx	24	-65728.60	332.89	-4.02	
			Max. My	26	-67010.59	164.62	291.68	
			Max. Vy	24	176.19	332.89	-4.02	
			Max. Vx	15	152.66	-155.38	282.85	
			Max Tension	11	2595.02	0.00	0.00	
			Max. Compression	5	-2930.68	0.00	0.00	
			Max. Mx	24	445.36	-34.09	0.00	
			Max. My	5	482.95	0.00	-0.15	
			Max. Vy	24	-24.10	0.00	0.00	
		Diagonal	Max. Vx	5	0.11	0.00	0.00	
			Max Tension	26	1625.23	0.00	0.00	
			Max. Compression	26	-1625.23	0.00	0.00	
			Max. Mx	23	1585.76	-24.02	0.00	
			Max. My	11	1147.19	0.00	0.00	
			Max. Vy	23	24.02	0.00	0.00	
			Max. Vx	11	-0.00	0.00	0.00	
			Secondary Horizontal	Max Tension	12	392.99	0.00	0.00
				Max. Compression	6	-166.90	0.00	0.00
				Max. Mx	23	176.29	-24.02	0.00
				Max. My	5	357.29	0.00	0.00
				Max. Vy	23	24.02	0.00	0.00
Max. Vx	5	-0.00		0.00	0.00			
T30	78 - 74	Leg	Max Tension	1	0.00	0.00	0.00	
			Max. Compression	20	-67514.47	2.91	-2.48	
			Max. Mx	24	-66933.06	339.99	-6.57	
			Max. My	21	-67132.21	-169.86	-292.11	
			Max. Vy	24	-175.00	339.99	-6.57	
			Max. Vx	15	155.46	160.72	290.25	
			Diagonal	Max Tension	5	3157.01	0.00	0.00
				Max. Compression	11	-3570.34	0.00	0.00
				Max. Mx	22	797.95	-33.91	0.00
				Max. My	10	-227.61	0.00	0.15
				Max. Vy	22	23.98	0.00	0.00
				Max. Vx	10	-0.11	0.00	0.00
		Secondary Horizontal	Max Tension	20	1637.14	0.00	0.00	
			Max. Compression	20	-1637.14	0.00	0.00	
			Max. Mx	23	1600.14	-23.90	0.00	
			Max. My	11	1045.41	0.00	0.00	
			Max. Vy	23	23.90	0.00	0.00	
			Max. Vx	11	-0.00	0.00	0.00	
			Top Girt	Max Tension	4	385.85	0.00	0.00
				Max. Compression	10	-143.68	0.00	0.00
				Max. Mx	23	174.39	-23.90	0.00
				Max. My	11	341.85	0.00	0.00
				Max. Vy	23	23.90	0.00	0.00
				Max. Vx	11	-0.00	0.00	0.00
T31	74 - 70	Leg	Max Tension	1	0.00	0.00	0.00	
			Max. Compression	25	-68232.11	5.21	3.98	
			Max. Mx	24	-66457.23	339.99	-6.57	
			Max. My	26	-67890.97	165.72	299.81	
			Max. Vy	24	176.54	339.99	-6.57	
			Max. Vx	15	-153.74	160.17	297.78	
		Diagonal	Max Tension	11	3750.45	0.00	0.00	
			Max. Compression	5	-4115.27	0.00	0.00	
			Max. Mx	23	737.32	-36.44	0.00	
			Max. My	5	1206.09	0.00	-0.20	

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft	
T32	70 - 66	Secondary Horizontal	Max. Vy	23	-25.77	0.00	0.00	
			Max. Vx	5	0.14	0.00	0.00	
			Max Tension	25	1654.54	0.00	0.00	
			Max. Compression	25	-1654.54	0.00	0.00	
			Max. Mx	23	1585.18	-23.77	0.00	
			Max. My	5	1051.69	0.00	0.00	
		Top Girt	Max. Vy	23	23.77	0.00	0.00	
			Max. Vx	5	-0.00	0.00	0.00	
			Max Tension	12	372.77	0.00	0.00	
			Max. Compression	6	-140.16	0.00	0.00	
			Max. Mx	23	173.56	-23.77	0.00	
			Max. My	5	338.52	0.00	0.00	
		Leg	Max. Vy	23	23.77	0.00	0.00	
			Max. Vx	5	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	23	-70069.14	-2.86	-0.61	
			Max. Mx	25	-68856.53	338.51	-14.50	
			Max. My	26	-67702.02	165.72	299.81	
			Max. Vy	24	-176.78	337.32	-16.95	
			Max. Vx	15	157.72	160.17	297.78	
			Diagonal	Max Tension	5	4328.02	0.00	0.00
				Max. Compression	11	-4696.70	0.00	0.00
				Max. Mx	23	1075.42	-36.24	0.00
				Max. My	11	1663.29	0.00	0.20
				Max. Vy	23	25.63	0.00	0.00
				Max. Vx	11	-0.14	0.00	0.00
			Secondary Horizontal	Max Tension	23	1699.09	0.00	0.00
				Max. Compression	23	-1699.09	0.00	0.00
				Max. Mx	23	1599.82	-23.63	0.00
				Max. My	5	1083.77	0.00	0.00
Max. Vy	23	23.63		0.00	0.00			
Max. Vx	5	-0.00		0.00	0.00			
Top Girt	Max Tension	4	373.30	0.00	0.00			
	Max. Compression	10	-130.51	0.00	0.00			
	Max. Mx	23	169.90	-23.63	0.00			
	Max. My	11	322.61	0.00	0.00			
	Max. Vy	23	23.63	0.00	0.00			
	Max. Vx	11	-0.00	0.00	0.00			
T33	66 - 62	Leg	Max Tension	1	0.00	0.00	0.00	
			Max. Compression	23	-72162.19	29.30	-16.47	
			Max. Mx	16	-69981.12	-350.92	-12.57	
			Max. My	25	-70654.92	154.22	320.59	
			Max. Vy	26	176.84	5.94	33.02	
			Max. Vx	21	-170.32	27.49	-25.26	
		Diagonal	Max Tension	11	4794.79	0.00	0.00	
			Max. Compression	5	-5195.88	0.00	0.00	
			Max. Mx	23	953.54	-36.04	0.00	
			Max. My	5	1858.71	0.00	-0.21	
			Max. Vy	23	25.48	0.00	0.00	
			Max. Vx	5	0.15	0.00	0.00	
		Secondary Horizontal	Max Tension	23	1749.84	0.00	0.00	
			Max. Compression	23	-1749.84	0.00	0.00	
			Max. Mx	23	1584.05	-23.48	0.00	
			Max. My	5	1167.13	0.00	0.00	
			Max. Vy	23	-23.48	0.00	0.00	
			Max. Vx	5	-0.00	0.00	0.00	
		Top Girt	Max Tension	12	295.48	0.00	0.00	
			Max. Compression	6	-79.35	0.00	0.00	

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T34	62 - 58	Leg	Max. Mx	23	159.44	-23.48	0.00	
			Max. My	5	267.01	0.00	0.00	
			Max. Vy	23	-23.48	0.00	0.00	
			Max. Vx	5	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	23	-75080.96	16.07	-38.08	
			Max. Mx	25	-72357.95	352.80	-13.72	
			Max. My	25	-73771.56	154.22	320.59	
			Max. Vy	26	-188.74	29.52	33.17	
			Max. Vx	22	180.51	15.66	-43.56	
			Max Tension	7	4377.61	0.00	0.00	
			Max. Compression	13	-4881.76	0.00	0.00	
		Diagonal	Max. Mx	23	-1150.58	-35.82	0.00	
			Max. My	11	-2867.05	0.00	0.19	
			Max. Vy	23	25.33	0.00	0.00	
			Max. Vx	11	-0.14	0.00	0.00	
			Max Tension	23	1820.62	0.00	0.00	
			Max. Compression	23	-1820.62	0.00	0.00	
			Max. Mx	23	1678.18	-23.33	0.00	
			Max. My	5	1195.36	0.00	0.00	
			Max. Vy	23	23.33	0.00	0.00	
			Max. Vx	5	-0.00	0.00	0.00	
			Top Girt	Max Tension	11	7503.77	0.00	0.00
				Max. Compression	1	0.00	0.00	0.00
		Max. Mx		23	4334.38	-30.16	0.00	
		Max. My		11	579.94	0.00	0.00	
		Max. Vy		23	30.16	0.00	0.00	
		Max. Vx		11	-0.00	0.00	0.00	
		Guy A		Bottom Tension	9	13345.73		
				Top Tension	9	13382.98		
				Top Cable Vert	9	4878.46		
				Top Cable Norm	9	12462.13		
				Top Cable Tan	9	9.70		
Bot Cable Vert	9			-4742.24				
Bot Cable Norm	9		12474.59					
Bot Cable Tan	9		64.95					
Guy B	Bottom Tension		11	13685.18				
	Top Tension		11	13724.44				
	Top Cable Vert		11	5417.18				
	Top Cable Norm		11	12610.09				
	Top Cable Tan	11	7.08					
	Bot Cable Vert	11	-5282.28					
	Bot Cable Norm	11	12624.49					
	Bot Cable Tan	11	61.35					
	Guy C	Bottom Tension	3	13134.78				
		Top Tension	3	13180.05				
		Top Cable Vert	3	5010.87				
		Top Cable Norm	3	12190.36				
Top Cable Tan		3	2.00					
Bot Cable Vert		3	-4851.65					
Bot Cable Norm		3	12205.73					
Bot Cable Tan		3	64.84					
T35		58 - 54	Leg	Max Tension	1	0.00	0.00	0.00
				Max. Compression	23	-74313.78	5.57	14.22
				Max. Mx	17	-70821.30	-361.43	2.78
				Max. My	26	-71901.36	179.66	321.63
	Max. Vy			24	192.02	351.86	-15.74	
	Max. Vx			26	169.44	-156.87	306.67	
	Diagonal		Max Tension	13	3995.90	0.00	0.00	
			Max. Compression	7	-4230.41	0.00	0.00	

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T36	54 - 50	Secondary Horizontal	Max. Mx	23	-1056.47	-35.59	0.00
			Max. My	5	-2393.45	0.00	-0.20
			Max. Vy	23	-25.16	0.00	0.00
			Max. Vx	5	0.14	0.00	0.00
			Max Tension	23	1802.01	0.00	0.00
			Max. Compression	23	-1802.01	0.00	0.00
			Max. Mx	23	1720.57	-23.17	0.00
			Max. My	5	1120.53	0.00	0.00
			Max. Vy	23	23.17	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
			Max Tension	12	290.38	0.00	0.00
			Max. Compression	6	-76.39	0.00	0.00
		Top Girt	Max. Mx	23	148.01	-23.17	0.00
			Max. My	5	261.94	0.00	0.00
			Max. Vy	23	23.17	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	23	-73755.46	-180.73	-320.39
			Max. Mx	24	-72279.28	372.21	-4.80
			Max. My	26	-73194.64	179.66	321.63
			Max. Vy	18	-191.63	-361.28	-2.45
			Max. Vx	15	171.23	174.04	320.52
			Max Tension	7	3248.06	0.00	0.00
			Max. Compression	13	-3784.74	0.00	0.00
		Diagonal	Max. Mx	23	-918.60	-35.34	0.00
			Max. My	11	-2260.88	0.00	0.19
			Max. Vy	23	24.99	0.00	0.00
			Max. Vx	11	-0.14	0.00	0.00
			Max Tension	23	1788.47	0.00	0.00
			Max. Compression	23	-1788.47	0.00	0.00
			Max. Mx	23	1739.74	-23.00	0.00
			Max. My	5	1179.19	0.00	0.00
Max. Vy	23		-23.00	0.00	0.00		
Max. Vx	5		-0.00	0.00	0.00		
Max Tension	4		367.58	0.00	0.00		
Max. Compression	10		-120.27	0.00	0.00		
Top Girt	Max. Mx	23	161.11	-23.00	0.00		
	Max. My	11	320.20	0.00	0.00		
	Max. Vy	23	-23.00	0.00	0.00		
	Max. Vx	11	-0.00	0.00	0.00		
	Max Tension	1	0.00	0.00	0.00		
	Max. Compression	24	-73637.22	-363.25	-2.34		
	Max. Mx	24	-73327.73	372.21	-4.80		
	Max. My	26	-73181.18	186.20	326.62		
	Max. Vy	24	195.81	372.21	-4.80		
	Max. Vx	26	170.45	-173.23	320.93		
	Max Tension	13	2831.79	0.00	0.00		
	Max. Compression	7	-3079.35	0.00	0.00		
Diagonal	Max. Mx	23	-837.66	-35.09	0.00		
	Max. My	5	-1751.40	0.00	-0.20		
	Max. Vy	23	24.81	0.00	0.00		
	Max. Vx	5	0.14	0.00	0.00		
	Max Tension	24	1785.61	0.00	0.00		
	Max. Compression	24	-1785.61	0.00	0.00		
	Max. Mx	23	1779.57	-22.82	0.00		
	Max. My	5	1268.44	0.00	0.00		
	Max. Vy	23	22.82	0.00	0.00		
	Max. Vx	5	-0.00	0.00	0.00		
	Secondary Horizontal	Max. Mx	23	1779.57	-22.82	0.00	
		Max. My	5	1268.44	0.00	0.00	
Max. Vy		23	22.82	0.00	0.00		
Max. Vx		5	-0.00	0.00	0.00		

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft	
T38	46 - 42	Top Girt	Max Tension	12	353.61	0.00	0.00	
			Max. Compression	6	-109.44	0.00	0.00	
			Max. Mx	23	164.58	-22.82	0.00	
			Max. My	5	325.95	0.00	0.00	
			Max. Vy	23	22.82	0.00	0.00	
		Leg	Max. Vx	5	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	15	-74457.16	-0.06	-10.50	
			Max. Mx	23	-74018.25	379.70	-5.89	
			Max. My	25	-73541.32	-178.96	328.80	
			Max. Vy	18	-194.59	-369.39	0.82	
			Max. Vx	15	172.82	182.12	326.54	
			Diagonal	Max Tension	7	2108.98	0.00	0.00
				Max. Compression	13	-2661.31	0.00	0.00
				Max. Mx	23	-685.57	-32.09	0.00
		Max. My		11	-1646.96	0.00	0.15	
		Max. Vy		23	22.69	0.00	0.00	
		Secondary Horizontal	Max. Vx	11	-0.11	0.00	0.00	
			Max Tension	15	1805.49	0.00	0.00	
			Max. Compression	15	-1805.49	0.00	0.00	
Max. Mx	19		1793.59	-22.62	0.00			
Max. My	5		1320.57	0.00	0.00			
T39	42 - 38	Top Girt	Max. Vy	19	22.62	0.00	0.00	
			Max. Vx	5	-0.00	0.00	0.00	
			Max Tension	4	362.41	0.00	0.00	
			Max. Compression	10	-107.07	0.00	0.00	
			Max. Mx	19	170.49	-22.62	0.00	
		Leg	Max. My	11	323.53	0.00	0.00	
			Max. Vy	19	22.62	0.00	0.00	
			Max. Vx	11	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	22	-75689.74	-375.77	-8.21	
			Max. Mx	23	-75146.93	379.70	-5.89	
			Max. My	15	-74902.08	187.08	330.28	
			Max. Vy	24	199.72	379.33	-2.50	
			Max. Vx	26	174.34	-179.27	328.52	
			Diagonal	Max Tension	13	1720.14	0.00	0.00
		Max. Compression		7	-1961.59	0.00	0.00	
		Max. Mx		23	-615.96	-31.80	0.00	
		Max. My		5	-1127.63	0.00	-0.16	
		Max. Vy		23	22.48	0.00	0.00	
		Secondary Horizontal	Max. Vx	5	0.11	0.00	0.00	
Max Tension	22		1835.38	0.00	0.00			
Max. Compression	22		-1835.38	0.00	0.00			
Max. Mx	19		1820.37	-29.13	0.00			
Max. My	5		1373.94	0.00	0.00			
T40	38 - 34	Top Girt	Max. Vy	19	29.13	0.00	0.00	
			Max. Vx	5	-0.00	0.00	0.00	
			Max Tension	12	351.75	0.00	0.00	
			Max. Compression	6	-107.28	0.00	0.00	
			Max. Mx	19	159.07	-22.41	0.00	
		Leg	Max. My	5	323.93	0.00	0.00	
			Max. Vy	19	22.41	0.00	0.00	
			Max. Vx	5	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	22	-76621.62	385.20	-7.60	
Max. Mx	23	-76068.57	386.90	-4.27				
Max. My	25	-76101.20	-183.36	335.84				
Max. Vy	19	-197.89	-375.83	-1.92				

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft	
T41	34 - 30	Diagonal	Max. Vx	15	175.39	187.08	330.28	
			Max Tension	7	1038.46	0.00	0.00	
			Max. Compression	13	-1596.19	0.00	0.00	
			Max. Mx	23	-441.57	-31.47	0.00	
			Max. My	4	-122.97	0.00	-0.15	
			Max. Vy	23	22.25	0.00	0.00	
			Max. Vx	4	0.11	0.00	0.00	
		Secondary Horizontal	Max Tension	22	1857.98	0.00	0.00	
			Max. Compression	22	-1857.98	0.00	0.00	
			Max. Mx	19	1835.11	-28.87	0.00	
			Max. My	5	1405.00	0.00	0.00	
			Max. Vy	19	28.87	0.00	0.00	
			Max. Vx	5	-0.00	0.00	0.00	
			Max Tension	4	346.38	0.00	0.00	
		Top Girt	Max. Compression	10	-96.49	0.00	0.00	
			Max. Mx	19	167.88	-22.18	0.00	
			Max. My	5	-47.11	0.00	0.00	
			Max. Vy	19	22.18	0.00	0.00	
			Max. Vx	5	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	22	-77742.34	-383.78	-8.11	
		Leg	Max. Mx	23	-76827.09	386.90	-4.27	
			Max. My	25	-77156.08	-183.36	335.84	
			Max. Vy	24	202.97	385.68	-0.89	
			Max. Vx	26	177.36	-183.99	334.97	
			Diagonal	Max Tension	12	699.82	0.00	0.00
				Max. Compression	7	-921.74	0.00	0.00
				Max. Mx	23	-390.79	-31.12	0.00
				Max. My	5	-543.54	0.00	-0.16
			Secondary Horizontal	Max. Vy	23	22.00	0.00	0.00
				Max. Vx	5	0.11	0.00	0.00
				Max Tension	22	1885.15	0.00	0.00
				Max. Compression	22	-1885.15	0.00	0.00
Top Girt	Max. Mx		19	1853.14	-28.59	0.00		
	Max. My		5	1424.88	0.00	0.00		
	Max. Vy		19	28.59	0.00	0.00		
	Max. Vx		5	-0.00	0.00	0.00		
	Max Tension	12	342.32	0.00	0.00			
	Max. Compression	6	-98.24	0.00	0.00			
	Max. Mx	19	156.89	-21.93	0.00			
	Max. My	5	315.29	0.00	0.00			
	Max. Vy	19	21.93	0.00	0.00			
	Max. Vx	5	-0.00	0.00	0.00			
	Leg	Max Tension	1	0.00	0.00	0.00		
		Max. Compression	21	-78508.15	389.29	-8.94		
Max. Mx		23	-77737.31	393.72	-3.37			
Max. My		25	-77981.51	-187.34	342.12			
Max. Vy		19	-201.31	-382.61	-0.86			
Max. Vx		15	177.92	191.21	335.02			
Diagonal		Max Tension	6	81.27	0.00	0.00		
		Max. Compression	12	-636.47	0.00	0.00		
		Max. Mx	23	-201.95	-30.72	0.00		
		Max. My	4	-152.00	0.00	-0.16		
Secondary Horizontal		Max. Vy	23	21.72	0.00	0.00		
	Max. Vx	4	0.11	0.00	0.00			
	Max Tension	21	1903.72	0.00	0.00			
	Max. Compression	21	-1903.72	0.00	0.00			
Top Girt	Max. Mx	19	1867.22	-28.27	0.00			

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T43	26 - 22	Top Girt	Max. My	5	1436.17	0.00	0.00
			Max. Vy	19	28.27	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
			Max Tension	4	338.43	0.00	0.00
			Max. Compression	10	-89.58	0.00	0.00
			Max. Mx	19	164.18	-21.65	0.00
		Leg	Max. My	5	-41.93	0.00	0.00
			Max. Vy	19	-21.65	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	21	-79239.12	-392.55	-7.82
			Max. Mx	23	-78148.21	393.72	-3.37
		Diagonal	Max. My	25	-78701.83	-187.34	342.12
			Max. Vy	23	206.52	393.72	-3.37
			Max. Vx	26	180.27	-187.96	340.95
			Max Tension	2	315.55	0.00	0.00
			Max. Compression	6	-916.24	0.00	0.00
			Max. Mx	23	-170.95	-30.27	0.00
		Secondary Horizontal	Max. My	5	15.90	0.00	-0.17
			Max. Vy	23	21.40	0.00	0.00
			Max. Vx	5	0.12	0.00	0.00
			Max Tension	21	1921.45	0.00	0.00
			Max. Compression	21	-1921.45	0.00	0.00
			Max. Mx	19	1877.12	-27.92	0.00
T44	22 - 18	Top Girt	Max. My	5	1424.20	0.00	0.00
			Max. Vy	19	27.92	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
			Max Tension	12	338.71	0.00	0.00
			Max. Compression	6	-91.86	0.00	0.00
			Max. Mx	19	155.54	-21.33	0.00
		Leg	Max. My	5	310.82	0.00	0.00
			Max. Vy	19	21.33	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	22	-79736.30	398.67	-6.97
			Max. Mx	23	-79040.08	400.27	-3.55
		Diagonal	Max. My	25	-79252.53	-190.49	348.04
			Max. Vy	19	-204.79	-390.16	-1.11
			Max. Vx	15	180.65	194.50	340.76
			Max Tension	5	960.34	0.00	0.00
			Max. Compression	2	-1174.88	0.00	0.00
			Max. Mx	23	38.89	-32.46	0.00
		Secondary Horizontal	Max. My	4	-176.74	0.00	-0.21
			Max. Vy	23	22.96	0.00	0.00
			Max. Vx	4	0.15	0.00	0.00
			Max Tension	22	1933.50	0.00	0.00
			Max. Compression	22	-1933.50	0.00	0.00
			Max. Mx	19	1890.62	-27.50	0.00
Top Girt	Max. My	5	1416.37	0.00	0.00		
	Max. Vy	19	27.50	0.00	0.00		
	Max. Vx	5	-0.00	0.00	0.00		
	Max Tension	4	336.93	0.00	0.00		
	Max. Compression	10	-86.19	0.00	0.00		
	Max. Mx	19	161.43	-20.97	0.00		
	Max. My	5	-38.95	0.00	0.00		
	Max. Vy	19	20.97	0.00	0.00		
	Max. Vx	5	-0.00	0.00	0.00		
	Max Tension	1	0.00	0.00	0.00		
	Max. Compression	21	-80129.00	-397.28	-8.01		

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T46	14 - 10	Diagonal	Max. Mx	23	-79113.60	400.27	-3.55
			Max. My	25	-79645.57	-190.49	348.04
			Max. Vy	24	208.22	398.87	-0.16
			Max. Vx	26	181.79	-191.14	347.35
			Max Tension	3	1247.00	0.00	0.00
			Max. Compression	5	-1818.28	0.00	0.00
			Max. Mx	23	56.67	-31.85	0.00
			Max. My	5	570.65	0.00	-0.22
			Max. Vy	23	22.52	0.00	0.00
			Max. Vx	5	0.16	0.00	0.00
			Max Tension	21	1943.02	0.00	0.00
			Max. Compression	21	-1943.02	0.00	0.00
		Secondary Horizontal	Max. Mx	19	1895.65	-27.01	0.00
			Max. My	5	1373.01	0.00	0.00
			Max. Vy	19	27.01	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
			Max Tension	12	340.48	0.00	0.00
			Max. Compression	6	-89.89	0.00	0.00
			Max. Mx	19	153.75	-20.53	0.00
			Max. My	5	311.75	0.00	0.00
			Max. Vy	19	20.53	0.00	0.00
			Max. Vx	5	-0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	22	-80401.33	400.76	-7.52
		Top Girt	Max. Mx	23	-79979.45	402.47	-4.63
			Max. My	25	-79854.17	-191.72	349.81
			Max. Vy	24	-208.10	401.25	-1.64
			Max. Vx	26	-181.61	-191.72	349.22
			Max Tension	5	1864.42	0.00	0.00
			Max. Compression	3	-2134.74	0.00	0.00
			Max. Mx	23	277.52	-31.08	0.00
			Max. My	4	-203.25	0.00	-0.21
			Max. Vy	23	21.98	0.00	0.00
			Max. Vx	4	0.15	0.00	0.00
			Max Tension	22	1949.63	0.00	0.00
			Max. Compression	22	-1949.63	0.00	0.00
Secondary Horizontal	Max. Mx	19	1905.33	-26.41	0.00		
	Max. My	5	1346.39	0.00	0.00		
	Max. Vy	19	-26.41	0.00	0.00		
	Max. Vx	5	-0.00	0.00	0.00		
	Max Tension	4	333.01	0.00	0.00		
	Max. Compression	10	-79.61	0.00	0.00		
	Max. Mx	19	157.43	-19.99	0.00		
	Max. My	5	-28.68	0.00	0.00		
	Max. Vy	19	19.99	0.00	0.00		
	Max. Vx	5	-0.00	0.00	0.00		
	Max Tension	1	0.00	0.00	0.00		
	Max. Compression	21	-80196.61	-394.67	-13.44		
Leg	Max. Mx	23	-79634.14	402.47	-4.63		
	Max. My	25	-79840.81	-191.72	349.81		
	Max. Vy	23	201.91	402.47	-4.63		
	Max. Vx	15	-178.28	184.27	344.06		
	Max Tension	3	2166.12	0.00	0.00		
	Max. Compression	5	-2665.19	0.00	0.00		
	Max. Mx	23	274.58	-30.06	0.00		
	Max. My	5	1090.09	0.00	-0.22		
	Max. Vy	23	21.26	0.00	0.00		
	Max. Vx	5	0.16	0.00	0.00		
	Max Tension	21	1944.66	0.00	0.00		

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft	
T48	6 - 2	Horizontal	Max. Compression	21	-1944.66	0.00	0.00	
			Max. Mx	19	1911.92	-25.59	0.00	
			Max. My	5	1273.01	0.00	0.00	
			Max. Vy	19	25.59	0.00	0.00	
			Max. Vx	5	-0.00	0.00	0.00	
			Top Girt	Max Tension	12	309.90	0.00	0.00
				Max. Compression	6	-59.01	0.00	0.00
				Max. Mx	14	127.32	-19.27	0.00
				Max. My	5	287.28	0.00	0.00
				Max. Vy	14	19.27	0.00	0.00
				Max. Vx	5	-0.00	0.00	0.00
			Leg	Max Tension	1	0.00	0.00	0.00
		Max. Compression		23	-79977.66	398.10	-155.28	
		Max. Mx		23	-79977.66	398.10	-155.28	
		Max. My		26	-79349.80	-59.41	419.17	
		Max. Vy		24	-201.55	398.08	-151.02	
		Max. Vx		26	-225.40	-59.41	419.17	
		Diagonal		Max Tension	5	2467.11	0.00	0.00
				Max. Compression	3	-2784.27	0.00	0.00
				Max. Mx	23	431.25	-28.45	0.00
				Max. My	4	-222.03	0.00	-0.22
				Max. Vy	23	20.11	0.00	0.00
				Max. Vx	4	0.15	0.00	0.00
		Secondary Horizontal	Max Tension	23	1939.36	0.00	0.00	
			Max. Compression	23	-1939.36	0.00	0.00	
			Max. Mx	19	1907.22	-24.30	0.00	
			Max. My	5	1230.75	0.00	0.00	
			Max. Vy	19	24.30	0.00	0.00	
			Max. Vx	5	-0.00	0.00	0.00	
			Top Girt	Max Tension	3	212.17	0.00	0.00
				Max. Compression	1	0.00	0.00	0.00
				Max. Mx	19	119.68	-18.13	0.00
				Max. My	5	52.88	0.00	0.00
				Max. Vy	19	-18.13	0.00	0.00
				Max. Vx	5	-0.00	0.00	0.00
		Base Beam	Max Tension	22	24993.79	-65315.41	212.06	
			Max. Compression	23	-71329.76	39.71	125.35	
			Max. Mx	18	-26161.48	-68775.08	-252.27	
			Max. My	5	3536.72	5674.53	-17114.34	
			Max. Vy	18	-26254.90	-68291.60	-11.59	
Max. Vx	5		-13025.83	5674.53	-17114.34			

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Guy C @ 170 ft Elev -6 ft Azimuth 240 deg	Max. Vert	10	-2642.28	-1297.89	748.84
	Max. H _x	10	-2642.28	-1297.89	748.84
	Max. H _z	3	-60275.88	-53019.55	31695.42
	Min. Vert	3	-60275.88	-53019.55	31695.42
	Min. H _x	5	-59419.38	-53292.13	29795.87
	Min. H _z	10	-2642.28	-1297.89	748.84

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Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Guy B @ 141 ft Elev 3 ft Azimuth 120 deg	Max. Vert	6	-3256.60	1269.23	731.72
	Max. H _x	11	-67592.26	53461.17	29821.25
	Max. H _z	13	-67975.49	52744.61	31533.06
	Min. Vert	13	-67975.49	52744.61	31533.06
	Min. H _x	6	-3256.60	1269.23	731.72
	Min. H _z	6	-3256.60	1269.23	731.72
Guy A @ 147 ft Elev 6 ft Azimuth 0 deg	Max. Vert	2	-2860.03	0.34	-1379.02
	Max. H _x	10	-56992.07	1585.52	-54399.26
	Max. H _z	2	-2860.03	0.34	-1379.02
	Min. Vert	9	-65059.46	972.21	-62124.30
	Min. H _x	5	-33243.59	-1539.23	-31333.18
	Min. H _z	9	-65059.46	972.21	-62124.30
Mast	Max. Vert	23	238383.51	-115.39	-76.88
	Max. H _x	12	130262.42	1280.40	758.36
	Max. H _z	4	123655.92	-1510.26	801.76
	Max. M _x	1	0.00	-22.04	-18.58
	Max. M _z	1	0.00	-22.04	-18.58
	Max. Torsion	1	0.00	-22.04	-18.58
	Min. Vert	1	87951.97	-22.04	-18.58
	Min. H _x	4	123655.92	-1510.26	801.76
	Min. H _z	8	128753.00	-69.54	-1610.11
	Min. M _x	1	0.00	-22.04	-18.58
	Min. M _z	1	0.00	-22.04	-18.58
	Min. Torsion	1	0.00	-22.04	-18.58

Tower Mast Reaction Summary

Load Combination	Vertical lb	Shear _x lb	Shear _z lb	Overturning Moment, M _x lb-ft	Overturning Moment, M _z lb-ft	Torque lb-ft
Dead Only	87951.97	22.04	18.58	0.00	0.00	0.00
1.2 Dead+1.6 Wind 0 deg - No Ice+1.0 Guy	161220.47	110.30	-710.64	0.00	0.00	0.00
1.2 Dead+1.6 Wind 30 deg - No Ice+1.0 Guy	146594.49	947.11	-758.63	0.00	0.00	0.00
1.2 Dead+1.6 Wind 60 deg - No Ice+1.0 Guy	123655.92	1510.26	-801.76	0.00	0.00	0.00
1.2 Dead+1.6 Wind 90 deg - No Ice+1.0 Guy	142603.84	1285.01	-375.33	0.00	0.00	0.00
1.2 Dead+1.6 Wind 120 deg - No Ice+1.0 Guy	156707.09	840.96	415.23	0.00	0.00	0.00
1.2 Dead+1.6 Wind 150 deg - No Ice+1.0 Guy	145331.71	303.61	1156.78	0.00	0.00	0.00
1.2 Dead+1.6 Wind 180 deg - No Ice+1.0 Guy	128753.00	69.54	1610.11	0.00	0.00	0.00
1.2 Dead+1.6 Wind 210 deg - No Ice+1.0 Guy	150961.82	-137.28	1120.42	0.00	0.00	0.00
1.2 Dead+1.6 Wind 240 deg - No Ice+1.0 Guy	163936.73	-557.70	412.36	0.00	0.00	0.00
1.2 Dead+1.6 Wind 270 deg - No Ice+1.0 Guy	151055.42	-945.68	-344.27	0.00	0.00	0.00
1.2 Dead+1.6 Wind 300 deg - No Ice+1.0 Guy	130262.42	-1280.40	-758.36	0.00	0.00	0.00

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Load Combination	Vertical lb	Shear _x lb	Shear _z lb	Overturning Moment, M _x lb-ft	Overturning Moment, M _z lb-ft	Torque lb-ft
1.2 Dead+1.6 Wind 330 deg - No Ice+1.0 Guy	149406.73	-753.73	-638.63	0.00	0.00	0.00
1.2 Dead+1.0 Ice+1.0 Temp+Guy	232025.24	104.01	93.63	0.00	0.00	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy	235626.33	83.70	59.98	0.00	0.00	0.00
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy	234597.02	163.54	45.90	0.00	0.00	0.00
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy	234092.36	212.90	40.78	0.00	0.00	0.00
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy	233946.88	219.87	54.55	0.00	0.00	0.00
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy	234529.24	164.58	116.49	0.00	0.00	0.00
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy	235782.18	150.23	207.58	0.00	0.00	0.00
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy	236950.34	140.48	230.68	0.00	0.00	0.00
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy	237707.13	131.57	177.60	0.00	0.00	0.00
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy	238383.51	115.39	76.88	0.00	0.00	0.00
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy	238195.20	41.74	25.48	0.00	0.00	0.00
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy	237830.23	0.56	2.08	0.00	0.00	0.00
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy	236874.28	17.21	22.51	0.00	0.00	0.00
Dead+Wind 0 deg - Service+Guy	88496.94	33.47	-468.80	0.00	0.00	0.00
Dead+Wind 30 deg - Service+Guy	88237.16	259.30	-385.04	0.00	0.00	0.00
Dead+Wind 60 deg - Service+Guy	88166.70	419.93	-221.84	0.00	0.00	0.00
Dead+Wind 90 deg - Service+Guy	88189.96	488.91	4.99	0.00	0.00	0.00
Dead+Wind 120 deg - Service+Guy	88387.78	449.20	248.27	0.00	0.00	0.00
Dead+Wind 150 deg - Service+Guy	88801.23	246.51	407.17	0.00	0.00	0.00
Dead+Wind 180 deg - Service+Guy	89163.68	11.97	467.46	0.00	0.00	0.00
Dead+Wind 210 deg - Service+Guy	89291.16	-217.03	416.49	0.00	0.00	0.00
Dead+Wind 240 deg - Service+Guy	89401.85	-405.55	270.68	0.00	0.00	0.00
Dead+Wind 270 deg - Service+Guy	89366.94	-437.64	28.29	0.00	0.00	0.00
Dead+Wind 300 deg - Service+Guy	89273.87	-362.05	-197.50	0.00	0.00	0.00
Dead+Wind 330 deg - Service+Guy	88916.81	-195.34	-370.52	0.00	0.00	0.00

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Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	
1	0.00	-38149.81	0.00	1.33	38149.93	-0.59	0.004%
2	624.73	-45361.06	-56266.29	-622.95	45360.07	56263.87	0.004%
3	27303.33	-45204.77	-47429.92	-27300.50	45204.77	47428.78	0.004%
4	46515.79	-45027.04	-27495.54	-46507.20	45027.57	27488.54	0.016%
5	54127.08	-45214.63	-551.47	-54131.58	45208.59	571.13	0.030%
6	48207.50	-45376.59	28023.83	-48208.47	45375.20	-28016.42	0.011%
7	26745.97	-45143.86	47600.93	-26743.24	45143.29	-47596.91	0.007%
8	-364.92	-44906.93	54395.42	362.19	44907.11	-54392.31	0.006%
9	-27181.39	-45063.22	47500.46	27179.27	45064.05	-47501.39	0.003%
10	-47968.30	-45240.95	28607.10	47965.36	45240.81	-28608.19	0.004%
11	-53855.21	-45053.36	147.67	53852.72	45051.15	-147.98	0.005%
12	-46339.37	-44891.40	-26972.31	46352.06	44892.42	26983.45	0.024%
13	-26866.66	-45124.14	-47217.19	26866.63	45123.95	47215.06	0.003%
14	0.00	-159915.87	0.00	-0.33	159915.86	0.83	0.001%
15	24.95	-160142.09	-19916.37	-20.81	160142.01	19916.48	0.003%
16	9784.13	-159986.19	-17067.47	-9782.69	159986.20	17066.36	0.001%
17	16884.48	-159809.11	-9863.76	-16886.91	159809.87	9862.57	0.002%
18	19530.93	-159998.67	-24.70	-19540.68	159998.59	47.30	0.015%
19	17030.26	-160162.20	10332.26	-17030.36	160160.55	-10320.74	0.007%
20	9726.79	-159928.36	17455.25	-9727.33	159928.20	-17454.52	0.001%
21	19.79	-159689.65	19970.57	-20.78	159689.76	-19970.33	0.001%
22	-9643.40	-159845.55	17296.48	9641.99	159845.65	-17296.00	0.001%
23	-16874.20	-160022.63	10270.97	16873.53	160022.70	-10270.85	0.000%
24	-19484.12	-159833.06	-37.14	19482.84	159833.08	37.41	0.001%
25	-16968.97	-159669.54	-9935.39	16968.32	159669.61	9935.74	0.000%
26	-9867.30	-159903.38	-17172.32	9869.03	159903.66	17173.98	0.002%
27	140.56	-38200.89	-12659.91	-138.21	38200.17	12658.10	0.008%
28	6143.25	-38165.73	-10671.73	-6140.69	38163.10	10670.94	0.009%
29	10466.05	-38125.74	-6186.50	-10462.52	38109.00	6189.60	0.043%
30	12178.59	-38167.95	-124.08	-12179.02	38162.48	128.00	0.017%
31	10846.69	-38204.39	6305.36	-10847.15	38200.55	-6299.79	0.017%
32	6017.84	-38152.02	10710.21	-6017.60	38151.25	-10708.59	0.005%
33	-82.11	-38098.72	12238.97	80.44	38098.50	-12236.72	0.007%
34	-6115.81	-38133.88	10687.60	6115.02	38132.41	-10684.92	0.008%
35	-10792.87	-38173.87	6436.60	10793.08	38173.05	-6434.41	0.006%
36	-12117.42	-38131.66	33.22	12117.56	38128.32	-28.67	0.014%
37	-10426.36	-38095.22	-6068.77	10422.36	38089.05	6070.94	0.019%
38	-6045.00	-38147.59	-10623.87	6044.53	38147.41	10622.73	0.003%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	9	0.00000001	0.00004501
2	Yes	18	0.00005051	0.00006167
3	Yes	18	0.00004203	0.00004514
4	Yes	17	0.00000001	0.00001599
5	Yes	17	0.00007291	0.00007819
6	Yes	18	0.00000001	0.00004312
7	Yes	17	0.00008364	0.00007769
8	Yes	17	0.00008712	0.00002575
9	Yes	18	0.00004920	0.00005876
10	Yes	18	0.00005827	0.00007857

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11	Yes	18	0.00004921	0.00005885
12	Yes	16	0.00008298	0.00003340
13	Yes	18	0.00004809	0.00005024
14	Yes	14	0.00000001	0.00001891
15	Yes	14	0.00000001	0.00002868
16	Yes	14	0.00000001	0.00001530
17	Yes	13	0.00010000	0.00003809
18	Yes	12	0.00010000	0.00009790
19	Yes	13	0.00010000	0.00007907
20	Yes	14	0.00000001	0.00004718
21	Yes	15	0.00000001	0.00002834
22	Yes	15	0.00000001	0.00003035
23	Yes	16	0.00000001	0.00001391
24	Yes	15	0.00000001	0.00002529
25	Yes	15	0.00000001	0.00002080
26	Yes	14	0.00000001	0.00003552
27	Yes	10	0.00000001	0.00008842
28	Yes	10	0.00000001	0.00004747
29	Yes	9	0.00000001	0.00009672
30	Yes	10	0.00000001	0.00005351
31	Yes	10	0.00000001	0.00008163
32	Yes	10	0.00000001	0.00004267
33	Yes	9	0.00000001	0.00007051
34	Yes	10	0.00000001	0.00005771
35	Yes	11	0.00000001	0.00003753
36	Yes	10	0.00000001	0.00006443
37	Yes	9	0.00000001	0.00008531
38	Yes	10	0.00000001	0.00004537

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	276 - 265.5	2.518	37	0.0653	0.0674
T2	265.5 - 261.75	2.585	37	0.0653	0.0680
T3	261.75 - 258	2.608	37	0.0656	0.0663
T4	258 - 254	2.638	37	0.0652	0.0662
T5	254 - 242	2.667	37	0.0612	0.0837
T6	242 - 222	2.724	37	0.0451	0.0681
T7	222 - 206	2.702	37	0.0257	0.0915
T8	206 - 202	2.628	37	0.0236	0.0936
T9	202 - 198	2.609	37	0.0214	0.0773
T10	198 - 194	2.599	37	0.0204	0.0775
T11	194 - 182	2.587	37	0.0206	0.1115
T12	182 - 162	2.529	37	0.0334	0.1075
T13	162 - 158	2.396	35	0.0667	0.1799
T14	158 - 154	2.352	35	0.0730	0.1610
T15	154 - 150	2.304	35	0.0787	0.1960
T16	150 - 146	2.248	35	0.0831	0.1764
T17	146 - 142	2.186	35	0.0853	0.2056
T18	142 - 138	2.124	35	0.0852	0.1826
T19	138 - 134	2.061	35	0.0829	0.2108
T20	134 - 130	2.000	35	0.0781	0.1876
T21	130 - 126	1.941	35	0.0706	0.2078
T22	126 - 122	1.898	35	0.0653	0.2018
T23	122 - 102	1.856	35	0.0615	0.2217
T24	102 - 98	1.644	35	0.0592	0.2185
T25	98 - 94	1.596	35	0.0610	0.2384
T26	94 - 90	1.544	35	0.0637	0.2243

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Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T27	90 - 86	1.489	35	0.0667	0.2441
T28	86 - 82	1.431	35	0.0696	0.2293
T29	82 - 78	1.370	35	0.0721	0.2490
T30	78 - 74	1.306	35	0.0739	0.2336
T31	74 - 70	1.240	35	0.0749	0.2532
T32	70 - 66	1.174	35	0.0749	0.2375
T33	66 - 62	1.109	35	0.0737	0.2561
T34	62 - 58	1.044	35	0.0711	0.2345
T35	58 - 54	0.989	35	0.0691	0.2618
T36	54 - 50	0.934	35	0.0684	0.2428
T37	50 - 46	0.879	35	0.0687	0.2645
T38	46 - 42	0.824	35	0.0700	0.2453
T39	42 - 38	0.766	35	0.0719	0.2663
T40	38 - 34	0.707	35	0.0744	0.2478
T41	34 - 30	0.644	35	0.0773	0.2686
T42	30 - 26	0.579	35	0.0805	0.2498
T43	26 - 22	0.510	35	0.0837	0.2703
T44	22 - 18	0.438	35	0.0869	0.2512
T45	18 - 14	0.363	35	0.0899	0.2720
T46	14 - 10	0.286	35	0.0926	0.2520
T47	10 - 6	0.206	35	0.0947	0.2727
T48	6 - 2	0.124	35	0.0962	0.2525

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
281.50	Lightning Rod 5'x.625"	37	2.518	0.0653	0.0674	101931
276.00	Box 12 x 12 x 6	37	2.518	0.0653	0.0674	101931
274.00	06' Ice Shield	37	2.532	0.0653	0.0684	101931
270.00	06' Ice Shield	37	2.558	0.0652	0.0696	85125
264.00	HP6-105C	37	2.594	0.0654	0.0668	40022
261.75	Guy	37	2.608	0.0656	0.0663	28811
254.00	Kathrein PR-460	37	2.667	0.0612	0.0837	39137
236.00	PiROD 10' Lightweight T-Frame	37	2.731	0.0362	0.0787	32043
208.00	PiROD 12' T-Frame	37	2.639	0.0244	0.1015	255949
202.00	Guy	37	2.609	0.0214	0.0773	22461
196.00	F 24 x 18	37	2.594	0.0204	0.0893	50829
188.00	Box 12 x 12 x 6	37	2.563	0.0253	0.1188	45233
172.00	06' Ice Shield	35	2.476	0.0497	0.1665	29065
164.00	GHF4-23A	35	2.415	0.0634	0.1941	27569
162.00	4 Bay DiPole	35	2.396	0.0667	0.1799	29645
152.00	PiROD 12' T-Frame	35	2.277	0.0812	0.1797	25259
130.00	Guy	35	1.941	0.0706	0.2078	13561
115.00	DB222-A	35	1.785	0.0579	0.2299	222894
94.00	Box 12 x 12 x 6	35	1.544	0.0637	0.2243	54062
62.00	Guy	35	1.044	0.0711	0.2345	21929
52.00	Weather/Wind Gauge	35	0.907	0.0685	0.2358	204388
20.00	Alarm	35	0.401	0.0884	0.2422	66539
10.00	Box 12 x 12 x 6	35	0.206	0.0947	0.2727	101752

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Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	276 - 265.5	25.100	10	0.3317	0.5166
T2	265.5 - 261.75	25.273	10	0.3307	0.5172
T3	261.75 - 258	25.327	10	0.3298	0.5024
T4	258 - 254	25.414	10	0.3269	0.5020
T5	254 - 242	25.494	10	0.3164	0.4714
T6	242 - 222	25.590	10	0.2760	0.5127
T7	222 - 206	25.130	10	0.1995	0.4996
T8	206 - 202	24.380	10	0.2303	0.5054
T9	202 - 198	24.171	10	0.2269	0.5272
T10	198 - 194	24.005	2	0.2247	0.5286
T11	194 - 182	23.870	2	0.2455	0.6058
T12	182 - 162	23.327	2	0.3335	0.6482
T13	162 - 158	21.770	2	0.5166	0.8833
T14	158 - 154	21.351	2	0.5512	0.8609
T15	154 - 150	20.903	2	0.5832	0.9497
T16	150 - 146	20.416	2	0.6107	0.9143
T17	146 - 142	19.896	2	0.6298	0.9719
T18	142 - 138	19.370	2	0.6388	0.9199
T19	138 - 134	18.839	2	0.6367	0.9805
T20	134 - 130	18.309	2	0.6228	0.9257
T21	130 - 126	17.792	2	0.5960	0.9750
T22	126 - 122	17.340	2	0.5776	0.9246
T23	122 - 102	16.895	2	0.5663	1.0039
T24	102 - 98	14.619	2	0.5837	0.9669
T25	98 - 94	14.132	2	0.5971	1.0456
T26	94 - 90	13.627	2	0.6131	0.9799
T27	90 - 86	13.106	2	0.6288	1.0582
T28	86 - 82	12.568	2	0.6435	0.9905
T29	82 - 78	12.017	2	0.6561	1.0683
T30	78 - 74	11.451	2	0.6658	0.9988
T31	74 - 70	10.877	2	0.6715	1.0761
T32	70 - 66	10.300	2	0.6725	1.0032
T33	66 - 62	9.724	2	0.6678	1.0806
T34	62 - 58	9.149	2	0.6568	1.0128
T35	58 - 54	8.622	2	0.6488	1.0911
T36	54 - 50	8.093	2	0.6462	1.0145
T37	50 - 46	7.564	2	0.6487	1.0993
T38	46 - 42	7.028	2	0.6551	1.0214
T39	42 - 38	6.486	2	0.6650	1.1062
T40	38 - 34	5.931	2	0.6772	1.0283
T41	34 - 30	5.364	2	0.6913	1.1130
T42	30 - 26	4.781	2	0.7064	1.0334
T43	26 - 22	4.184	2	0.7219	1.1180
T44	22 - 18	3.571	2	0.7370	1.0367
T45	18 - 14	2.944	2	0.7512	1.1217
T46	14 - 10	2.305	2	0.7636	1.0380
T47	10 - 6	1.654	2	0.7737	1.1231
T48	6 - 2	0.994	2	0.7807	1.0379

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Critical Deflections and Radius of Curvature - Design Wind

<i>Elevation</i>	<i>Appurtenance</i>	<i>Gov. Load Comb.</i>	<i>Deflection in</i>	<i>Tilt °</i>	<i>Twist °</i>	<i>Radius of Curvature ft</i>
281.50	Lightning Rod 5'x.625"	10	25.100	0.3317	0.5166	6229
276.00	Box 12 x 12 x 6	10	25.100	0.3317	0.5166	6229
274.00	06' Ice Shield	10	25.137	0.3316	0.5209	6229
270.00	06' Ice Shield	10	25.206	0.3313	0.5257	5192
264.00	HP6-105C	10	25.292	0.3304	0.5101	3149
261.75	Guy	10	25.327	0.3298	0.5024	3302
254.00	Kathrein PR-460	10	25.494	0.3164	0.4714	6703
236.00	PiROD 10' Lightweight T-Frame	10	25.529	0.2523	0.5304	5946
208.00	PiROD 12' T-Frame	10	24.486	0.2303	0.4937	17725
202.00	Guy	10	24.171	0.2269	0.5272	5156
196.00	F 24 x 18	2	23.941	0.2328	0.5630	9337
188.00	Box 12 x 12 x 6	2	23.628	0.2872	0.6457	7383
172.00	06' Ice Shield	2	22.660	0.4233	0.8064	5376
164.00	GHF4-23A	2	21.967	0.4985	0.8944	5217
162.00	4 Bay DiPole	2	21.770	0.5166	0.8833	5529
152.00	PiROD 12' T-Frame	2	20.665	0.5978	0.9336	4972
130.00	Guy	2	17.792	0.5960	0.9750	2984
115.00	DB222-A	2	16.114	0.5604	1.0214	31624
94.00	Box 12 x 12 x 6	2	13.627	0.6131	0.9799	9974
62.00	Guy	2	9.149	0.6568	1.0128	4604
52.00	Weather/Wind Gauge	2	7.829	0.6469	1.0573	38113
20.00	Alarm	2	3.259	0.7443	1.0792	13799
10.00	Box 12 x 12 x 6	2	1.654	0.7737	1.1231	21438

Bolt Design Data

<i>Section No.</i>	<i>Elevation ft</i>	<i>Component Type</i>	<i>Bolt Grade</i>	<i>Bolt Size in</i>	<i>Number Of Bolts</i>	<i>Maximum Load per Bolt lb</i>	<i>Allowable Load lb</i>	<i>Ratio Load Allowable</i>	<i>Allowable Ratio</i>	<i>Criteria</i>
T17	146	Diagonal	A325N	0.6250	1	8085.99	12425.20	0.651	1	Bolt Shear
T18	142	Diagonal	A325N	0.6250	1	9066.05	12425.20	0.730	1	Bolt Shear
T19	138	Diagonal	A325N	0.6250	1	9337.43	12425.20	0.751	1	Bolt Shear
T20	134	Diagonal	A325N	0.6250	1	10142.90	12425.20	0.816	1	Bolt Shear
T31	74	Diagonal	A325N	0.6250	1	3750.45	9107.81	0.412	1	Member Block Shear
T32	70	Diagonal	A325N	0.6250	1	4328.02	9107.81	0.475	1	Member Block Shear
T33	66	Diagonal	A325N	0.6250	1	4794.79	9107.81	0.526	1	Member Block Shear
T34	62	Diagonal	A325N	0.6250	1	4377.61	9107.81	0.481	1	Member Block Shear
T35	58	Diagonal	A325N	0.6250	1	3995.90	9107.81	0.439	1	Member Block Shear
T36	54	Diagonal	A325N	0.6250	1	3248.06	9107.81	0.357	1	Member Block Shear
T37	50	Diagonal	A325N	0.6250	1	2831.79	9107.81	0.311	1	Member Block Shear

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Guy Design Data

Section No.	Elevation ft	Size	Initial Tension lb	Breaking Load lb	Actual T_u lb	Allowable ϕT_n lb	Required S.F.	Actual S.F.
T3	261.75 (A) (655)	9/16 EHS	3500.00	35000.04	11908.70	21000.00	1.000	1.763
	261.75 (A) (656)	9/16 EHS	3500.00	35000.04	12351.20	21000.00	1.000	1.700
	261.75 (B) (649)	9/16 EHS	3500.00	35000.04	11932.00	21000.00	1.000	1.760
	261.75 (B) (650)	9/16 EHS	3500.00	35000.04	12092.00	21000.00	1.000	1.737
	261.75 (C) (643)	9/16 EHS	3500.00	35000.04	11625.70	21000.00	1.000	1.806
	261.75 (C) (644)	9/16 EHS	3500.00	35000.04	11022.30	21000.00	1.000	1.905
T9	202.00 (A) (673)	9/16 EHS	3500.00	35000.04	15122.20	21000.00	1.000	1.389
	202.00 (A) (674)	9/16 EHS	3500.00	35000.04	15501.10	21000.00	1.000	1.355
	202.00 (B) (667)	9/16 EHS	3500.00	35000.04	15064.50	21000.00	1.000	1.394
	202.00 (B) (668)	9/16 EHS	3500.00	35000.04	15601.40	21000.00	1.000	1.346
	202.00 (C) (661)	9/16 EHS	3500.00	35000.04	14744.60	21000.00	1.000	1.424
	202.00 (C) (662)	9/16 EHS	3500.00	35000.04	13895.60	21000.00	1.000	1.511
T21	130.00 (A) (681)	3/4 EHS	5830.00	58299.91	26313.10	34980.00	1.000	1.329
	130.00 (B) (680)	3/4 EHS	5830.00	58299.91	26999.60	34980.00	1.000	1.296
	130.00 (C) (679)	3/4 EHS	5830.00	58299.91	25420.70	34980.00	1.000	1.376
T34	62.00 (A) (684)	9/16 EHS	3500.00	35000.04	13383.00	21000.00	1.000	1.569
	62.00 (B) (683)	9/16 EHS	3500.00	35000.04	13724.40	21000.00	1.000	1.530
	62.00 (C) (682)	9/16 EHS	3500.00	35000.04	13180.00	21000.00	1.000	1.593

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in ²	Mast Stability Index	P_u lb	ϕP_n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	1 3/4	10.50	3.50	96.0	2.4053	1.00	-2291.40	55173.40	0.042 ¹
T2	265.5 - 261.75	1 3/4	3.75	3.75	102.9	2.4053	1.00	-4050.20	49937.80	0.081 ¹
T3	261.75 - 258	1 3/4	3.75	3.75	102.9	2.4053	1.00	-3416.11	49937.80	0.068 ¹
T4	258 - 254	1 3/4	4.00	4.00	109.7	2.4053	1.00	-26913.60	44889.40	0.600 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	Mast Stability Index	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T5	254 - 242	1 3/4	12.00	4.00	109.7 K=1.00	2.4053	1.00	-32159.30	44889.40	0.716 ¹
T6	242 - 222	1 3/4	20.00	4.00	109.7 K=1.00	2.4053	1.00	-34164.10	44889.40	0.761 ¹
T7	222 - 206	2	16.00	4.00	96.0 K=1.00	3.1416	1.00	-28005.70	72063.20	0.389 ¹
T8	206 - 202	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-28594.80	72063.20	0.397 ¹
T9	202 - 198	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-22556.80	72063.20	0.313 ¹
T10	198 - 194	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-44905.80	72063.20	0.623 ¹
T11	194 - 182	2	12.00	4.00	96.0 K=1.00	3.1416	1.00	-53648.30	72063.20	0.744 ¹
T12	182 - 162	2	20.00	4.00	96.0 K=1.00	3.1416	1.00	-57889.60	72063.20	0.803 ¹
T13	162 - 158	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-55959.10	72063.20	0.777 ¹
T14	158 - 154	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-53543.70	72063.20	0.743 ¹
T15	154 - 150	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-54694.60	72063.20	0.759 ¹
T16	150 - 146	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-53835.70	72063.20	0.747 ¹
T17	146 - 142	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-53536.00	72063.20	0.743 ¹
T18	142 - 138	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-54031.10	72063.20	0.750 ¹
T19	138 - 134	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-54985.90	72063.20	0.763 ¹
T20	134 - 130	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-59582.40	72063.20	0.827 ¹
T21	130 - 126	2	4.00	2.00	48.0 K=1.00	3.1416	1.00	-63063.30	119454.00	0.528 ¹
T22	126 - 122	2	4.00	4.00	96.0 K=1.00	3.1416	1.00	-62511.30	72063.20	0.867 ¹
T23	122 - 102	2	20.00	4.00	96.0 K=1.00	3.1416	1.00	-64210.40	72063.20	0.891 ¹
T24	102 - 98	2	4.00	2.00	48.0 K=1.00	3.1416	1.00	-64827.10	119454.00	0.543 ¹
T25	98 - 94	2	4.00	2.00	48.0 K=1.00	3.1416	1.00	-65290.50	119454.00	0.547 ¹
T26	94 - 90	2	4.00	2.00	48.0 K=1.00	3.1416	1.00	-65991.40	119454.00	0.552 ¹
T27	90 - 86	2	4.00	2.00	48.0 K=1.00	3.1416	1.00	-66231.00	119454.00	0.554 ¹
T28	86 - 82	2	4.00	2.00	48.0 K=1.00	3.1416	1.00	-66671.10	119454.00	0.558 ¹
T29	82 - 78	2	4.00	2.00	48.0 K=1.00	3.1416	1.00	-67023.50	119454.00	0.561 ¹
T30	78 - 74	2	4.00	2.00	48.0 K=1.00	3.1416	1.00	-67514.50	119454.00	0.565 ¹
T31	74 - 70	2	4.00	2.00	48.0 K=1.00	3.1416	1.00	-68232.10	119454.00	0.571 ¹
T32	70 - 66	2	4.00	2.00	48.0 K=1.00	3.1416	1.00	-70069.10	119454.00	0.587 ¹
T33	66 - 62	2	4.00	2.00	48.0 K=1.00	3.1416	1.00	-72162.20	119454.00	0.604 ¹
T34	62 - 58	2	4.00	2.00	48.0 K=1.00	3.1416	1.00	-75081.00	119454.00	0.629 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	Mast Stability Index	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T35	58 - 54	2	4.00	2.00	48.0	3.1416	1.00	-74313.80	119454.00	0.622 ¹
T36	54 - 50	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-73761.50	119454.00	0.617 ¹
T37	50 - 46	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-73637.20	119454.00	0.616 ¹
T38	46 - 42	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-74457.20	119454.00	0.623 ¹
T39	42 - 38	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-75689.70	119454.00	0.634 ¹
T40	38 - 34	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-76621.60	119454.00	0.641 ¹
T41	34 - 30	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-77742.30	119454.00	0.651 ¹
T42	30 - 26	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-78508.20	119454.00	0.657 ¹
T43	26 - 22	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-79239.10	119454.00	0.663 ¹
T44	22 - 18	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-79736.30	119454.00	0.668 ¹
T45	18 - 14	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-80129.00	119454.00	0.671 ¹
T46	14 - 10	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-80401.30	119454.00	0.673 ¹
T47	10 - 6	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-80196.60	119454.00	0.671 ¹
T48	6 - 2	2	4.00	2.00	K=1.00 48.0	3.1416	1.00	-79977.70	119454.00	0.670 ¹

¹ P_u / φP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	L1 3/4x1 3/4x3/16	5.32	5.12	156.2	0.6211	-623.88	5747.51	0.109 ¹
T2	265.5 - 261.75	L1 3/4x1 3/4x3/16	5.48	5.28	K=0.87 159.7	0.6211	-2751.78	5500.11	0.500 ¹
T3	261.75 - 258	L1 3/4x1 3/4x3/16	5.48	2.64	K=0.87 99.2	0.6211	-4062.71	11984.50	0.339 ¹
T4	258 - 254	L1 3/4x1 3/4x3/16	5.66	5.45	K=1.08 163.3	0.6211	-3446.20	5260.24	0.655 ¹
T5	254 - 242	L1 3/4x1 3/4x3/16	5.66	5.45	K=0.86 163.3	0.6211	-2868.56	5260.24	0.545 ¹
T6	242 - 222	L1 3/4x1 3/4x3/16	5.66	5.45	K=0.86 163.3	0.6211	-2963.68	5260.24	0.563 ¹
T7	222 - 206	L2 1/2x2 1/2x1/4	5.66	5.42	K=0.86 127.7	1.1900	-5384.26	16343.90	0.329 ¹
T8	206 - 202	L2 1/2x2 1/2x3/8	5.66	5.42	K=0.96 128.4	1.7300	-6793.59	23547.10	0.289 ¹
T9	202 - 198	L2 1/2x2 1/2x3/8	5.66	2.71	K=0.96 80.1	1.7300	-7790.98	39987.80	0.195 ¹
T10	198 - 194	L2 1/2x2 1/2x3/8	5.66	5.42	K=1.20 128.4	1.7300	-5777.39	23547.10	0.245 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T11	194 - 182	L2 1/2x2 1/2x1/4	5.66	5.42	127.7 K=0.96	1.1900	-5449.40	16343.90	0.333 ¹
T12	182 - 162	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-3691.25	9606.34	0.384 ¹
T13	162 - 158	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-3358.67	9606.34	0.350 ¹
T14	158 - 154	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-3985.18	9606.34	0.415 ¹
T15	154 - 150	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-5624.14	9606.34	0.585 ¹
T16	150 - 146	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-8078.02	9606.34	0.841 ¹
T17	146 - 142	L2x2x3/8	5.66	5.18	159.8 K=1.00	1.3600	-8027.18	12025.20	0.668 ¹
T18	142 - 138	L2x2x3/8	5.66	5.18	159.8 K=1.00	1.3600	-9066.05	12025.20	0.754 ¹
T19	138 - 134	L2x2x3/8	5.66	5.18	159.8 K=1.00	1.3600	-9337.43	12025.20	0.776 ¹
T20	134 - 130	L2x2x3/8	5.66	5.18	159.8 K=1.00	1.3600	-10142.90	12025.20	0.843 ¹
T21	130 - 126	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-5945.41	9606.34	0.619 ¹
T22	126 - 122	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-5361.02	9606.34	0.558 ¹
T23	122 - 102	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-4751.23	9606.34	0.495 ¹
T24	102 - 98	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-1682.30	7399.97	0.227 ¹
T25	98 - 94	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-1070.69	7399.97	0.145 ¹
T26	94 - 90	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-1119.02	7399.97	0.151 ¹
T27	90 - 86	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-1672.67	7399.97	0.226 ¹
T28	86 - 82	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-2372.88	7399.97	0.321 ¹
T29	82 - 78	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-2930.68	7399.97	0.396 ¹
T30	78 - 74	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-3570.34	7399.97	0.482 ¹
T31	74 - 70	L2x2x1/4	5.66	5.18	159.0 K=1.00	0.9380	-4115.27	8379.37	0.491 ¹
T32	70 - 66	L2x2x1/4	5.66	5.18	159.0 K=1.00	0.9380	-4696.70	8379.37	0.561 ¹
T33	66 - 62	L2x2x1/4	5.66	5.18	159.0 K=1.00	0.9380	-5195.88	8379.37	0.620 ¹
T34	62 - 58	L2x2x1/4	5.66	5.18	159.0 K=1.00	0.9380	-4881.76	8379.37	0.583 ¹
T35	58 - 54	L2x2x1/4	5.66	5.18	159.0 K=1.00	0.9380	-4230.41	8379.37	0.505 ¹
T36	54 - 50	L2x2x1/4	5.66	5.18	159.0 K=1.00	0.9380	-3784.74	8379.37	0.452 ¹
T37	50 - 46	L2x2x1/4	5.66	5.18	159.0 K=1.00	0.9380	-3079.35	8379.37	0.367 ¹
T38	46 - 42	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-2661.31	7399.97	0.360 ¹
T39	42 - 38	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-1961.59	7399.97	0.265 ¹
T40	38 - 34	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-1596.19	7399.97	0.216 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T41	34 - 30	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-921.74	7399.97	0.125 ¹
T42	30 - 26	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-636.47	7399.97	0.086 ¹
T43	26 - 22	L2x2x3/16	5.66	5.42	147.7 K=0.89	0.7150	-916.24	7399.97	0.124 ¹
T44	22 - 18	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-1174.88	9606.34	0.122 ¹
T45	18 - 14	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-1818.28	9606.34	0.189 ¹
T46	14 - 10	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-2134.74	9606.34	0.222 ¹
T47	10 - 6	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-2665.19	9606.34	0.277 ¹
T48	6 - 2	L2x2x1/4	5.66	5.42	148.5 K=0.89	0.9380	-2784.27	9606.34	0.290 ¹

¹ P_u / φP_n controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-169.51	11034.50	0.015 ¹
T5	254 - 242	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-557.02	11034.50	0.050 ¹
T6	242 - 222	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-605.21	11034.50	0.055 ¹
T7	222 - 206	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-716.84	11078.30	0.065 ¹
T11	194 - 182	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-929.22	11078.30	0.084 ¹
T12	182 - 162	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1002.68	11078.30	0.091 ¹
T19	138 - 134	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1333.34	21139.70	0.063 ¹
T20	134 - 130	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1444.80	21139.70	0.068 ¹
T21	130 - 126	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1529.20	21139.70	0.072 ¹
T22	126 - 122	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1529.20	21139.70	0.072 ¹
T23	122 - 102	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1112.16	11078.30	0.100 ¹

¹ P_u / φP_n controls

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Secondary Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T21	130 - 126	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1529.20	11078.30	0.138 ¹
T24	102 - 98	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1571.97	11078.30	0.142 ¹
T25	98 - 94	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1583.21	11078.30	0.143 ¹
T26	94 - 90	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1600.21	11078.30	0.144 ¹
T27	90 - 86	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1606.02	11078.30	0.145 ¹
T28	86 - 82	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1616.69	11078.30	0.146 ¹
T29	82 - 78	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1625.23	11078.30	0.147 ¹
T30	78 - 74	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1637.14	11078.30	0.148 ¹
T31	74 - 70	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1654.54	11078.30	0.149 ¹
T32	70 - 66	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1699.09	11078.30	0.153 ¹
T33	66 - 62	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1749.84	11078.30	0.158 ¹
T34	62 - 58	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1820.62	11078.30	0.164 ¹
T35	58 - 54	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1802.01	11078.30	0.163 ¹
T36	54 - 50	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1788.47	11078.30	0.161 ¹
T37	50 - 46	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1785.61	11078.30	0.161 ¹
T38	46 - 42	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1805.49	11078.30	0.163 ¹
T39	42 - 38	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1835.38	21139.70	0.087 ¹
T40	38 - 34	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1857.98	21139.70	0.088 ¹
T41	34 - 30	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1885.15	21139.70	0.089 ¹
T42	30 - 26	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1903.72	21139.70	0.090 ¹
T43	26 - 22	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1921.45	21139.70	0.091 ¹
T44	22 - 18	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1933.50	21139.70	0.091 ¹
T45	18 - 14	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1943.03	21139.70	0.092 ¹
T46	14 - 10	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1949.63	21139.70	0.092 ¹
T47	10 - 6	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1944.66	21139.70	0.092 ¹
T48	6 - 2	L2 1/2x2 1/2x1/4	4.00	3.83	106.8 K=1.14	1.1900	-1939.36	21139.70	0.092 ¹

¹ P_u / φP_n controls

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Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-71.31	11034.50	0.006 ¹
T2	265.5 - 261.75	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-798.02	11034.50	0.072 ¹
T4	258 - 254	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-2712.87	11034.50	0.246 ¹
T5	254 - 242	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-203.47	11034.50	0.018 ¹
T6	242 - 222	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-28.60	11034.50	0.003 ¹
T7	222 - 206	L2x2x3/16	4.00	3.85	118.7 K=1.01	0.7150	-121.68	11034.50	0.011 ¹
T8	206 - 202	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-640.08	11078.30	0.058 ¹
T10	198 - 194	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-2181.06	11078.30	0.197 ¹
T11	194 - 182	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-174.11	11078.30	0.016 ¹
T12	182 - 162	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-173.83	11078.30	0.016 ¹
T13	162 - 158	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-320.54	11078.30	0.029 ¹
T14	158 - 154	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-15.30	11078.30	0.001 ¹
T15	154 - 150	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1300.38	11078.30	0.117 ¹
T16	150 - 146	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-1390.22	11078.30	0.125 ¹
T17	146 - 142	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-41.81	11078.30	0.004 ¹
T18	142 - 138	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-220.20	11078.30	0.020 ¹
T23	122 - 102	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-153.81	11078.30	0.014 ¹
T24	102 - 98	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-164.97	11078.30	0.015 ¹
T25	98 - 94	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-188.63	11078.30	0.017 ¹
T26	94 - 90	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-183.85	11078.30	0.017 ¹
T27	90 - 86	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-182.06	11078.30	0.016 ¹
T28	86 - 82	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-164.22	11078.30	0.015 ¹
T29	82 - 78	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-166.90	11078.30	0.015 ¹
T30	78 - 74	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-143.68	11078.30	0.013 ¹
T31	74 - 70	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-140.16	11078.30	0.013 ¹
T32	70 - 66	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-130.51	11078.30	0.012 ¹
T33	66 - 62	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-79.35	11078.30	0.007 ¹
T35	58 - 54	L2x2x3/16	4.00	3.83	118.4 K=1.01	0.7150	-76.39	11078.30	0.007 ¹
T36	54 - 50	L2x2x3/16	4.00	3.83	118.4	0.7150	-120.27	11078.30	0.011 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T37	50 - 46	L2x2x3/16	4.00	3.83	K=1.01 118.4	0.7150	-109.44	11078.30	0.010 ¹
T38	46 - 42	L2x2x3/16	4.00	3.83	K=1.01 118.4	0.7150	-107.07	11078.30	0.010 ¹
T39	42 - 38	L2x2x3/16	4.00	3.83	K=1.01 118.4	0.7150	-107.28	11078.30	0.010 ¹
T40	38 - 34	L2x2x3/16	4.00	3.83	K=1.01 118.4	0.7150	-96.49	11078.30	0.009 ¹
T41	34 - 30	L2x2x3/16	4.00	3.83	K=1.01 118.4	0.7150	-98.24	11078.30	0.009 ¹
T42	30 - 26	L2x2x3/16	4.00	3.83	K=1.01 118.4	0.7150	-89.58	11078.30	0.008 ¹
T43	26 - 22	L2x2x3/16	4.00	3.83	K=1.01 118.4	0.7150	-91.86	11078.30	0.008 ¹
T44	22 - 18	L2x2x3/16	4.00	3.83	K=1.01 118.4	0.7150	-86.19	11078.30	0.008 ¹
T45	18 - 14	L2x2x3/16	4.00	3.83	K=1.01 118.4	0.7150	-89.89	11078.30	0.008 ¹
T46	14 - 10	L2x2x3/16	4.00	3.83	K=1.01 118.4	0.7150	-79.61	11078.30	0.007 ¹
T47	10 - 6	L2x2x3/16	4.00	3.83	K=1.01 118.4	0.7150	-59.01	11078.30	0.005 ¹

¹ P_u / φP_n controls

Top Guy Pull-Off Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T3	261.75 - 258	L2 1/2x2 1/2x3/8	4.00	3.85	107.5	1.7300	-3011.78	30510.80	0.099 ¹
T9	202 - 198	L2 1/2x2 1/2x3/8	4.00	3.83	K=1.13 107.2	1.7300	-5349.17	30599.50	0.175 ¹

¹ P_u / φP_n controls

Torque-Arm Bottom Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T3	261.75 - 258 (647)	L3 1/2x3 1/2x3/8	7.17	7.08	122.3	2.4800	-17233.20	36564.50	0.471 ¹
T3	261.75 - 258 (648)	L3 1/2x3 1/2x3/8	7.17	7.08	K=0.99 122.3	2.4800	-18364.90	36564.50	0.502 ¹
T3	261.75 - 258 (653)	L3 1/2x3 1/2x3/8	7.17	7.08	K=0.99 122.3	2.4800	-17603.60	36564.50	0.481 ¹
T3	261.75 - 258 (654)	L3 1/2x3 1/2x3/8	7.17	7.08	K=0.99 122.3	2.4800	-18018.80	36564.50	0.493 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T3	261.75 - 258 (659)	L3 1/2x3 1/2x3/8	7.17	7.08	122.3 K=0.99	2.4800	-18554.70	36564.50	0.507 ¹
T3	261.75 - 258 (660)	L3 1/2x3 1/2x3/8	7.17	7.08	122.3 K=0.99	2.4800	-18357.20	36564.50	0.502 ¹
T9	202 - 198 (665)	L3 1/2x3 1/2x3/8	7.30	7.20	123.6 K=0.98	2.4800	-19898.50	35960.30	0.553 ¹
T9	202 - 198 (666)	L3 1/2x3 1/2x3/8	7.30	7.20	123.6 K=0.98	2.4800	-20993.70	35960.30	0.584 ¹
T9	202 - 198 (671)	L3 1/2x3 1/2x3/8	7.30	7.20	123.6 K=0.98	2.4800	-18706.20	35960.30	0.520 ¹
T9	202 - 198 (672)	L3 1/2x3 1/2x3/8	7.30	7.20	123.6 K=0.98	2.4800	-21376.20	35960.30	0.594 ¹
T9	202 - 198 (677)	L3 1/2x3 1/2x3/8	7.30	7.20	123.6 K=0.98	2.4800	-21385.40	35960.30	0.595 ¹
T9	202 - 198 (678)	L3 1/2x3 1/2x3/8	7.30	7.20	123.6 K=0.98	2.4800	-21075.30	35960.30	0.586 ¹

¹ P_u / φP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	1 3/4	10.50	3.50	96.0	2.4053	872.36	108238.00	0.008 ¹
T2	265.5 - 261.75	1 3/4	3.75	3.75	102.9	2.4053	2487.64	108238.00	0.023 ¹
T3	261.75 - 258	1 3/4	3.75	3.75	102.9	2.4053	319.86	108238.00	0.003 ¹
T4	258 - 254	1 3/4	4.00	4.00	109.7	2.4053	1285.18	108238.00	0.012 ¹
T5	254 - 242	1 3/4	12.00	4.00	109.7	2.4053	8897.58	108238.00	0.082 ¹
T6	242 - 222	1 3/4	20.00	4.00	109.7	2.4053	11710.50	108238.00	0.108 ¹
T7	222 - 206	2	16.00	4.00	96.0	3.1416	2996.81	141372.00	0.021 ¹
T11	194 - 182	2	12.00	4.00	96.0	3.1416	1656.09	141372.00	0.012 ¹
T12	182 - 162	2	20.00	4.00	96.0	3.1416	5779.29	141372.00	0.041 ¹
T13	162 - 158	2	4.00	4.00	96.0	3.1416	3111.18	141372.00	0.022 ¹
T20	134 - 130	2	4.00	4.00	96.0	3.1416	2606.56	141372.00	0.018 ¹

¹ P_u / φP_n controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	L1 3/4x1 3/4x3/16	5.32	5.12	114.5	0.6211	607.91	20123.40	0.030 ¹
T2	265.5 - 261.75	L1 3/4x1 3/4x3/16	5.48	5.28	118.1	0.6211	2713.03	20123.40	0.135 ¹
T3	261.75 - 258	L1 3/4x1 3/4x3/16	5.48	2.64	59.0	0.6211	3473.95	20123.40	0.173 ¹
T4	258 - 254	L1 3/4x1 3/4x3/16	5.66	5.45	121.8	0.6211	3271.81	20123.40	0.163 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio P _u / φP _n
T5	254 - 242	L1 3/4x1 3/4x3/16	5.66	5.45	121.8	0.6211	2864.69	20123.40	0.142 ¹
T6	242 - 222	L1 3/4x1 3/4x3/16	5.66	5.45	121.8	0.6211	2744.48	20123.40	0.136 ¹
T7	222 - 206	L2 1/2x2 1/2x1/4	5.66	5.42	84.6	1.1900	4971.30	38556.00	0.129 ¹
T8	206 - 202	L2 1/2x2 1/2x3/8	5.66	5.42	86.4	1.7300	6926.11	56052.00	0.124 ¹
T9	202 - 198	L2 1/2x2 1/2x3/8	5.66	2.71	43.2	1.7300	3746.37	56052.00	0.067 ¹
T10	198 - 194	L2 1/2x2 1/2x3/8	5.66	5.42	86.4	1.7300	5676.68	56052.00	0.101 ¹
T11	194 - 182	L2 1/2x2 1/2x1/4	5.66	5.42	84.6	1.1900	5053.97	38556.00	0.131 ¹
T12	182 - 162	L2x2x1/4	5.66	5.42	106.8	0.9380	3677.54	30391.20	0.121 ¹
T13	162 - 158	L2x2x1/4	5.66	5.42	106.8	0.9380	3446.71	30391.20	0.113 ¹
T14	158 - 154	L2x2x1/4	5.66	5.42	106.8	0.9380	3340.28	30391.20	0.110 ¹
T15	154 - 150	L2x2x1/4	5.66	5.42	106.8	0.9380	5709.37	30391.20	0.188 ¹
T16	150 - 146	L2x2x1/4	5.66	5.42	106.8	0.9380	7537.12	30391.20	0.248 ¹
T17	146 - 142	L2x2x3/8	5.66	5.18	109.5	0.8091	8085.99	35194.20	0.230 ¹
T18	142 - 138	L2x2x3/8	5.66	5.18	109.5	0.8091	8395.20	35194.20	0.239 ¹
T19	138 - 134	L2x2x3/8	5.66	5.18	109.5	0.8091	9334.69	35194.20	0.265 ¹
T20	134 - 130	L2x2x3/8	5.66	5.18	109.5	0.8091	9577.90	35194.20	0.272 ¹
T21	130 - 126	L2x2x1/4	5.66	5.42	106.8	0.9380	5618.04	30391.20	0.185 ¹
T22	126 - 122	L2x2x1/4	5.66	5.42	106.8	0.9380	5065.64	30391.20	0.167 ¹
T23	122 - 102	L2x2x1/4	5.66	5.42	106.8	0.9380	4355.38	30391.20	0.143 ¹
T24	102 - 98	L2x2x3/16	5.66	5.42	105.4	0.7150	1295.29	23166.00	0.056 ¹
T25	98 - 94	L2x2x3/16	5.66	5.42	105.4	0.7150	711.37	23166.00	0.031 ¹
T26	94 - 90	L2x2x3/16	5.66	5.42	105.4	0.7150	656.33	23166.00	0.028 ¹
T27	90 - 86	L2x2x3/16	5.66	5.42	105.4	0.7150	1366.60	23166.00	0.059 ¹
T28	86 - 82	L2x2x3/16	5.66	5.42	105.4	0.7150	1933.78	23166.00	0.083 ¹
T29	82 - 78	L2x2x3/16	5.66	5.42	105.4	0.7150	2595.01	23166.00	0.112 ¹
T30	78 - 74	L2x2x3/16	5.66	5.42	105.4	0.7150	3157.01	23166.00	0.136 ¹
T31	74 - 70	L2x2x1/4	5.66	5.18	106.8	0.5629	3750.45	24485.10	0.153 ¹
T32	70 - 66	L2x2x1/4	5.66	5.18	106.8	0.5629	4328.02	24485.10	0.177 ¹
T33	66 - 62	L2x2x1/4	5.66	5.18	106.8	0.5629	4794.79	24485.10	0.196 ¹
T34	62 - 58	L2x2x1/4	5.66	5.18	106.8	0.5629	4377.61	24485.10	0.179 ¹
T35	58 - 54	L2x2x1/4	5.66	5.18	106.8	0.5629	3995.90	24485.10	0.163 ¹
T36	54 - 50	L2x2x1/4	5.66	5.18	106.8	0.5629	3248.06	24485.10	0.133 ¹
T37	50 - 46	L2x2x1/4	5.66	5.18	106.8	0.5629	2831.79	24485.10	0.116 ¹
T38	46 - 42	L2x2x3/16	5.66	5.42	105.4	0.7150	2108.98	23166.00	0.091 ¹
T39	42 - 38	L2x2x3/16	5.66	5.42	105.4	0.7150	1720.14	23166.00	0.074 ¹
T40	38 - 34	L2x2x3/16	5.66	5.42	105.4	0.7150	1038.46	23166.00	0.045 ¹
T41	34 - 30	L2x2x3/16	5.66	5.42	105.4	0.7150	699.82	23166.00	0.030 ¹
T42	30 - 26	L2x2x3/16	5.66	5.42	105.4	0.7150	81.27	23166.00	0.004 ¹
T43	26 - 22	L2x2x3/16	5.66	5.42	105.4	0.7150	315.55	23166.00	0.014 ¹
T44	22 - 18	L2x2x1/4	5.66	5.42	106.8	0.9380	960.34	30391.20	0.032 ¹
T45	18 - 14	L2x2x1/4	5.66	5.42	106.8	0.9380	1247.00	30391.20	0.041 ¹
T46	14 - 10	L2x2x1/4	5.66	5.42	106.8	0.9380	1864.42	30391.20	0.061 ¹
T47	10 - 6	L2x2x1/4	5.66	5.42	106.8	0.9380	2166.12	30391.20	0.071 ¹
T48	6 - 2	L2x2x1/4	5.66	5.42	106.8	0.9380	2467.11	30391.20	0.081 ¹

¹ P_u / φP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio P _u / φP _n
T1	276 - 265.5	L2x2x3/16	4.00	3.85	75.0	0.7150	167.14	23166.00	0.007 ¹
T5	254 - 242	L2x2x3/16	4.00	3.85	75.0	0.7150	557.02	23166.00	0.024 ¹
T6	242 - 222	L2x2x3/16	4.00	3.85	75.0	0.7150	647.00	23166.00	0.028 ¹
T7	222 - 206	L2x2x3/16	4.00	3.83	74.6	0.7150	810.87	23166.00	0.035 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T11	194 - 182	L2x2x3/16	4.00	3.83	74.6	0.7150	929.22	23166.00	0.040 ¹
T12	182 - 162	L2x2x3/16	4.00	3.83	74.6	0.7150	1002.68	23166.00	0.043 ¹
T19	138 - 134	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1333.34	38556.00	0.035 ¹
T20	134 - 130	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1444.80	38556.00	0.037 ¹
T21	130 - 126	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	11549.00	38556.00	0.300 ¹
T22	126 - 122	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1529.20	38556.00	0.040 ¹
T23	122 - 102	L2x2x3/16	4.00	3.83	74.6	0.7150	1112.16	23166.00	0.048 ¹

¹ P_u / φP_n controls

Secondary Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T21	130 - 126	L2x2x3/16	4.00	3.83	74.6	0.7150	1529.20	23166.00	0.066 ¹
T24	102 - 98	L2x2x3/16	4.00	3.83	74.6	0.7150	1571.97	23166.00	0.068 ¹
T25	98 - 94	L2x2x3/16	4.00	3.83	74.6	0.7150	1583.21	23166.00	0.068 ¹
T26	94 - 90	L2x2x3/16	4.00	3.83	74.6	0.7150	1600.21	23166.00	0.069 ¹
T27	90 - 86	L2x2x3/16	4.00	3.83	74.6	0.7150	1606.02	23166.00	0.069 ¹
T28	86 - 82	L2x2x3/16	4.00	3.83	74.6	0.7150	1616.69	23166.00	0.070 ¹
T29	82 - 78	L2x2x3/16	4.00	3.83	74.6	0.7150	1625.23	23166.00	0.070 ¹
T30	78 - 74	L2x2x3/16	4.00	3.83	74.6	0.7150	1637.14	23166.00	0.071 ¹
T31	74 - 70	L2x2x3/16	4.00	3.83	74.6	0.7150	1654.54	23166.00	0.071 ¹
T32	70 - 66	L2x2x3/16	4.00	3.83	74.6	0.7150	1699.09	23166.00	0.073 ¹
T33	66 - 62	L2x2x3/16	4.00	3.83	74.6	0.7150	1749.84	23166.00	0.076 ¹
T34	62 - 58	L2x2x3/16	4.00	3.83	74.6	0.7150	1820.62	23166.00	0.079 ¹
T35	58 - 54	L2x2x3/16	4.00	3.83	74.6	0.7150	1802.01	23166.00	0.078 ¹
T36	54 - 50	L2x2x3/16	4.00	3.83	74.6	0.7150	1788.47	23166.00	0.077 ¹
T37	50 - 46	L2x2x3/16	4.00	3.83	74.6	0.7150	1785.61	23166.00	0.077 ¹
T38	46 - 42	L2x2x3/16	4.00	3.83	74.6	0.7150	1805.49	23166.00	0.078 ¹
T39	42 - 38	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1835.38	38556.00	0.048 ¹
T40	38 - 34	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1857.98	38556.00	0.048 ¹
T41	34 - 30	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1885.15	38556.00	0.049 ¹
T42	30 - 26	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1903.72	38556.00	0.049 ¹
T43	26 - 22	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1921.45	38556.00	0.050 ¹
T44	22 - 18	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1933.50	38556.00	0.050 ¹
T45	18 - 14	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1943.03	38556.00	0.050 ¹
T46	14 - 10	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1949.63	38556.00	0.051 ¹
T47	10 - 6	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1944.66	38556.00	0.050 ¹
T48	6 - 2	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	1939.36	38556.00	0.050 ¹

¹ P_u / φP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T1	276 - 265.5	L2x2x3/16	4.00	3.85	75.0	0.7150	65.14	23166.00	0.003 ¹
T2	265.5 - 261.75	L2x2x3/16	4.00	3.85	75.0	0.7150	971.06	23166.00	0.042 ¹

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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T5	254 - 242	L2x2x3/16	4.00	3.85	75.0	0.7150	247.91	23166.00	0.011 ¹
T6	242 - 222	L2x2x3/16	4.00	3.85	75.0	0.7150	88.47	23166.00	0.004 ¹
T7	222 - 206	L2x2x3/16	4.00	3.85	75.0	0.7150	196.92	23166.00	0.009 ¹
T8	206 - 202	L2x2x3/16	4.00	3.83	74.6	0.7150	729.74	23166.00	0.032 ¹
T10	198 - 194	L2x2x3/16	4.00	3.83	74.6	0.7150	1830.89	23166.00	0.079 ¹
T11	194 - 182	L2x2x3/16	4.00	3.83	74.6	0.7150	308.71	23166.00	0.013 ¹
T12	182 - 162	L2x2x3/16	4.00	3.83	74.6	0.7150	331.98	23166.00	0.014 ¹
T13	162 - 158	L2x2x3/16	4.00	3.83	74.6	0.7150	482.84	23166.00	0.021 ¹
T14	158 - 154	L2x2x3/16	4.00	3.83	74.6	0.7150	223.91	23166.00	0.010 ¹
T15	154 - 150	L2x2x3/16	4.00	3.83	74.6	0.7150	1461.62	23166.00	0.063 ¹
T16	150 - 146	L2x2x3/16	4.00	3.83	74.6	0.7150	1564.57	23166.00	0.068 ¹
T17	146 - 142	L2x2x3/16	4.00	3.83	74.6	0.7150	256.01	23166.00	0.011 ¹
T18	142 - 138	L2x2x3/16	4.00	3.83	74.6	0.7150	430.41	23166.00	0.019 ¹
T23	122 - 102	L2x2x3/16	4.00	3.83	74.6	0.7150	371.99	23166.00	0.016 ¹
T24	102 - 98	L2x2x3/16	4.00	3.83	74.6	0.7150	402.24	23166.00	0.017 ¹
T25	98 - 94	L2x2x3/16	4.00	3.83	74.6	0.7150	408.21	23166.00	0.018 ¹
T26	94 - 90	L2x2x3/16	4.00	3.83	74.6	0.7150	414.66	23166.00	0.018 ¹
T27	90 - 86	L2x2x3/16	4.00	3.83	74.6	0.7150	403.37	23166.00	0.017 ¹
T28	86 - 82	L2x2x3/16	4.00	3.83	74.6	0.7150	399.03	23166.00	0.017 ¹
T29	82 - 78	L2x2x3/16	4.00	3.83	74.6	0.7150	392.99	23166.00	0.017 ¹
T30	78 - 74	L2x2x3/16	4.00	3.83	74.6	0.7150	385.85	23166.00	0.017 ¹
T31	74 - 70	L2x2x3/16	4.00	3.83	74.6	0.7150	372.77	23166.00	0.016 ¹
T32	70 - 66	L2x2x3/16	4.00	3.83	74.6	0.7150	373.30	23166.00	0.016 ¹
T33	66 - 62	L2x2x3/16	4.00	3.83	74.6	0.7150	295.48	23166.00	0.013 ¹
T34	62 - 58	L2 1/2x2 1/2x1/4	4.00	3.83	59.8	1.1900	7503.77	38556.00	0.195 ¹
T35	58 - 54	L2x2x3/16	4.00	3.83	74.6	0.7150	290.38	23166.00	0.013 ¹
T36	54 - 50	L2x2x3/16	4.00	3.83	74.6	0.7150	367.58	23166.00	0.016 ¹
T37	50 - 46	L2x2x3/16	4.00	3.83	74.6	0.7150	353.61	23166.00	0.015 ¹
T38	46 - 42	L2x2x3/16	4.00	3.83	74.6	0.7150	362.41	23166.00	0.016 ¹
T39	42 - 38	L2x2x3/16	4.00	3.83	74.6	0.7150	351.75	23166.00	0.015 ¹
T40	38 - 34	L2x2x3/16	4.00	3.83	74.6	0.7150	346.38	23166.00	0.015 ¹
T41	34 - 30	L2x2x3/16	4.00	3.83	74.6	0.7150	342.32	23166.00	0.015 ¹
T42	30 - 26	L2x2x3/16	4.00	3.83	74.6	0.7150	338.43	23166.00	0.015 ¹
T43	26 - 22	L2x2x3/16	4.00	3.83	74.6	0.7150	338.71	23166.00	0.015 ¹
T44	22 - 18	L2x2x3/16	4.00	3.83	74.6	0.7150	336.93	23166.00	0.015 ¹
T45	18 - 14	L2x2x3/16	4.00	3.83	74.6	0.7150	340.48	23166.00	0.015 ¹
T46	14 - 10	L2x2x3/16	4.00	3.83	74.6	0.7150	333.01	23166.00	0.014 ¹
T47	10 - 6	L2x2x3/16	4.00	3.83	74.6	0.7150	309.90	23166.00	0.013 ¹
T48	6 - 2	L2x2x3/16	4.00	3.83	74.6	0.7150	212.17	23166.00	0.009 ¹

¹ P_u / φP_n controls

Top Guy Pull-Off Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T3	261.75 - 258	L2 1/2x2 1/2x3/8	4.00	3.85	61.4	1.7300	8132.98	56052.00	0.145 ¹
T9	202 - 198	L2 1/2x2 1/2x3/8	4.00	3.83	61.1	1.7300	14885.60	56052.00	0.266 ¹

¹ P_u / φP_n controls

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Torque-Arm Top Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u lb	φP _n lb	Ratio $\frac{P_u}{\phi P_n}$
T3	261.75 - 258 (645)	L3 1/2x3 1/2x3/8	6.11	6.04	67.7	2.4800	14479.30	80352.00	0.180 ¹
T3	261.75 - 258 (646)	L3 1/2x3 1/2x3/8	6.11	6.04	67.7	2.4800	15815.50	80352.00	0.197 ¹
T3	261.75 - 258 (651)	L3 1/2x3 1/2x3/8	6.11	6.04	67.7	2.4800	15741.20	80352.00	0.196 ¹
T3	261.75 - 258 (652)	L3 1/2x3 1/2x3/8	6.11	6.04	67.7	2.4800	15887.60	80352.00	0.198 ¹
T3	261.75 - 258 (657)	L3 1/2x3 1/2x3/8	6.11	6.04	67.7	2.4800	16472.00	80352.00	0.205 ¹
T3	261.75 - 258 (658)	L3 1/2x3 1/2x3/8	6.11	6.04	67.7	2.4800	15981.70	80352.00	0.199 ¹
T9	202 - 198 (663)	L3 1/2x3 1/2x3/8	6.11	6.03	67.6	2.4800	18558.40	80352.00	0.231 ¹
T9	202 - 198 (664)	L3 1/2x3 1/2x3/8	6.11	6.03	67.6	2.4800	17800.70	80352.00	0.222 ¹
T9	202 - 198 (669)	L3 1/2x3 1/2x3/8	6.11	6.03	67.6	2.4800	17742.40	80352.00	0.221 ¹
T9	202 - 198 (670)	L3 1/2x3 1/2x3/8	6.11	6.03	67.6	2.4800	19717.80	80352.00	0.245 ¹
T9	202 - 198 (675)	L3 1/2x3 1/2x3/8	6.11	6.03	67.6	2.4800	18479.60	80352.00	0.230 ¹
T9	202 - 198 (676)	L3 1/2x3 1/2x3/8	6.11	6.03	67.6	2.4800	19596.00	80352.00	0.244 ¹

¹ P_u / φP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	φP _{allow} lb	% Capacity	Pass Fail
T1	276 - 265.5	Leg	1 3/4	1	-2291.40	55173.40	4.2	Pass
T2	265.5 - 261.75	Leg	1 3/4	22	-4050.20	49937.80	8.1	Pass
T3	261.75 - 258	Leg	1 3/4	31	-3416.11	49937.80	6.8	Pass
T4	258 - 254	Leg	1 3/4	44	-26913.60	44889.40	60.0	Pass
T5	254 - 242	Leg	1 3/4	54	-32159.30	44889.40	71.6	Pass
T6	242 - 222	Leg	1 3/4	74	-34164.10	44889.40	76.1	Pass
T7	222 - 206	Leg	2	106	-28005.70	72063.20	38.9	Pass
T8	206 - 202	Leg	2	133	-28594.80	72063.20	39.7	Pass
T9	202 - 198	Leg	2	142	-22556.80	72063.20	31.3	Pass
T10	198 - 194	Leg	2	155	-44905.80	72063.20	62.3	Pass
T11	194 - 182	Leg	2	164	-53648.30	72063.20	74.4	Pass
T12	182 - 162	Leg	2	185	-57889.60	72063.20	80.3	Pass
T13	162 - 158	Leg	2	218	-55959.10	72063.20	77.7	Pass
T14	158 - 154	Leg	2	226	-53543.70	72063.20	74.3	Pass
T15	154 - 150	Leg	2	235	-54694.60	72063.20	75.9	Pass
T16	150 - 146	Leg	2	244	-53835.70	72063.20	74.7	Pass
T17	146 - 142	Leg	2	253	-53536.00	72063.20	74.3	Pass
T18	142 - 138	Leg	2	262	-54031.10	72063.20	75.0	Pass
T19	138 - 134	Leg	2	271	-54985.90	72063.20	76.3	Pass
T20	134 - 130	Leg	2	280	-59582.40	72063.20	82.7	Pass
T21	130 - 126	Leg	2	289	-63063.30	119454.00	52.8	Pass
T22	126 - 122	Leg	2	301	-62511.30	72063.20	86.7	Pass
T23	122 - 102	Leg	2	310	-64210.40	72063.20	89.1	Pass
T24	102 - 98	Leg	2	343	-64827.10	119454.00	54.3	Pass
T25	98 - 94	Leg	2	355	-65290.50	119454.00	54.7	Pass
T26	94 - 90	Leg	2	367	-65991.40	119454.00	55.2	Pass
T27	90 - 86	Leg	2	379	-66231.00	119454.00	55.4	Pass
T28	86 - 82	Leg	2	391	-66671.10	119454.00	55.8	Pass

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Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T29	82 - 78	Leg	2	403	-67023.50	119454.00	56.1	Pass
T30	78 - 74	Leg	2	415	-67514.50	119454.00	56.5	Pass
T31	74 - 70	Leg	2	427	-68232.10	119454.00	57.1	Pass
T32	70 - 66	Leg	2	439	-70069.10	119454.00	58.7	Pass
T33	66 - 62	Leg	2	451	-72162.20	119454.00	60.4	Pass
T34	62 - 58	Leg	2	463	-75081.00	119454.00	62.9	Pass
T35	58 - 54	Leg	2	475	-74313.80	119454.00	62.2	Pass
T36	54 - 50	Leg	2	487	-73761.50	119454.00	61.7	Pass
T37	50 - 46	Leg	2	501	-73637.20	119454.00	61.6	Pass
T38	46 - 42	Leg	2	511	-74457.20	119454.00	62.3	Pass
T39	42 - 38	Leg	2	525	-75689.70	119454.00	63.4	Pass
T40	38 - 34	Leg	2	537	-76621.60	119454.00	64.1	Pass
T41	34 - 30	Leg	2	549	-77742.30	119454.00	65.1	Pass
T42	30 - 26	Leg	2	561	-78508.20	119454.00	65.7	Pass
T43	26 - 22	Leg	2	573	-79239.10	119454.00	66.3	Pass
T44	22 - 18	Leg	2	585	-79736.30	119454.00	66.8	Pass
T45	18 - 14	Leg	2	597	-80129.00	119454.00	67.1	Pass
T46	14 - 10	Leg	2	609	-80401.30	119454.00	67.3	Pass
T47	10 - 6	Leg	2	621	-80196.60	119454.00	67.1	Pass
T48	6 - 2	Leg	2	633	-79977.70	119454.00	67.0	Pass
T1	276 - 265.5	Diagonal	L1 3/4x1 3/4x3/16	7	-623.88	5747.51	10.9	Pass
T2	265.5 - 261.75	Diagonal	L1 3/4x1 3/4x3/16	30	-2751.78	5500.11	50.0	Pass
T3	261.75 - 258	Diagonal	L1 3/4x1 3/4x3/16	39	-4062.71	11984.50	33.9	Pass
T4	258 - 254	Diagonal	L1 3/4x1 3/4x3/16	50	-3446.20	5260.24	65.5	Pass
T5	254 - 242	Diagonal	L1 3/4x1 3/4x3/16	71	-2868.56	5260.24	54.5	Pass
T6	242 - 222	Diagonal	L1 3/4x1 3/4x3/16	81	-2963.68	5260.24	56.3	Pass
T7	222 - 206	Diagonal	L2 1/2x2 1/2x1/4	114	-5384.26	16343.90	32.9	Pass
T8	206 - 202	Diagonal	L2 1/2x2 1/2x3/8	141	-6793.59	23547.10	28.9	Pass
T9	202 - 198	Diagonal	L2 1/2x2 1/2x3/8	152	-7790.98	39987.80	19.5	Pass
T10	198 - 194	Diagonal	L2 1/2x2 1/2x3/8	162	-5777.39	23547.10	24.5	Pass
T11	194 - 182	Diagonal	L2 1/2x2 1/2x1/4	183	-5449.40	16343.90	33.3	Pass
T12	182 - 162	Diagonal	L2x2x1/4	216	-3691.25	9606.34	38.4	Pass
T13	162 - 158	Diagonal	L2x2x1/4	223	-3358.67	9606.34	35.0	Pass
T14	158 - 154	Diagonal	L2x2x1/4	232	-3985.18	9606.34	41.5	Pass
T15	154 - 150	Diagonal	L2x2x1/4	241	-5624.14	9606.34	58.5	Pass
T16	150 - 146	Diagonal	L2x2x1/4	250	-8078.02	9606.34	84.1	Pass
T17	146 - 142	Diagonal	L2x2x3/8	259	-8027.18	12025.20	66.8	Pass
T18	142 - 138	Diagonal	L2x2x3/8	268	-9066.05	12025.20	75.4	Pass
T19	138 - 134	Diagonal	L2x2x3/8	279	-9337.43	12025.20	77.6	Pass
T20	134 - 130	Diagonal	L2x2x3/8	286	-10142.90	12025.20	84.3	Pass
T21	130 - 126	Diagonal	L2x2x1/4	296	-5945.41	9606.34	61.9	Pass
T22	126 - 122	Diagonal	L2x2x1/4	308	-5361.02	9606.34	55.8	Pass
T23	122 - 102	Diagonal	L2x2x1/4	341	-4751.23	9606.34	49.5	Pass
T24	102 - 98	Diagonal	L2x2x3/16	350	-1682.30	7399.97	22.7	Pass
T25	98 - 94	Diagonal	L2x2x3/16	363	-1070.69	7399.97	14.5	Pass
T26	94 - 90	Diagonal	L2x2x3/16	373	-1119.02	7399.97	15.1	Pass
T27	90 - 86	Diagonal	L2x2x3/16	385	-1672.67	7399.97	22.6	Pass
T28	86 - 82	Diagonal	L2x2x3/16	397	-2372.88	7399.97	32.1	Pass
T29	82 - 78	Diagonal	L2x2x3/16	409	-2930.68	7399.97	39.6	Pass
T30	78 - 74	Diagonal	L2x2x3/16	421	-3570.34	7399.97	48.2	Pass
T31	74 - 70	Diagonal	L2x2x1/4	433	-4115.27	8379.37	49.1	Pass
T32	70 - 66	Diagonal	L2x2x1/4	445	-4696.70	8379.37	56.1	Pass
T33	66 - 62	Diagonal	L2x2x1/4	457	-5195.88	8379.37	62.0	Pass
T34	62 - 58	Diagonal	L2x2x1/4	470	-4881.76	8379.37	58.3	Pass
T35	58 - 54	Diagonal	L2x2x1/4	482	-4230.41	8379.37	50.5	Pass
T36	54 - 50	Diagonal	L2x2x1/4	494	-3784.74	8379.37	45.2	Pass
T37	50 - 46	Diagonal	L2x2x1/4	506	-3079.35	8379.37	36.7	Pass
T38	46 - 42	Diagonal	L2x2x3/16	518	-2661.31	7399.97	36.0	Pass
T39	42 - 38	Diagonal	L2x2x3/16	530	-1961.59	7399.97	26.5	Pass
T40	38 - 34	Diagonal	L2x2x3/16	542	-1596.19	7399.97	21.6	Pass
T41	34 - 30	Diagonal	L2x2x3/16	554	-921.74	7399.97	12.5	Pass

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">Fullerton Engineering 1100 E. Woodfield Road, Suite 500 Schaumburg, IL 60173 Phone: (847) 908 8400 FAX:</p>	Job	Naugatuck East Blvd. - CTL02056	Page	127 of 129
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Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T42	30 - 26	Diagonal	L2x2x3/16	566	-636.47	7399.97	8.6	Pass
T43	26 - 22	Diagonal	L2x2x3/16	577	-916.24	7399.97	12.4	Pass
T44	22 - 18	Diagonal	L2x2x1/4	591	-1174.88	9606.34	12.2	Pass
T45	18 - 14	Diagonal	L2x2x1/4	601	-1818.28	9606.34	18.9	Pass
T46	14 - 10	Diagonal	L2x2x1/4	615	-2134.74	9606.34	22.2	Pass
T47	10 - 6	Diagonal	L2x2x1/4	625	-2665.19	9606.34	27.7	Pass
T48	6 - 2	Diagonal	L2x2x1/4	639	-2784.27	9606.34	29.0	Pass
T1	276 - 265.5	Horizontal	L2x2x3/16	18	-169.51	11034.50	1.5	Pass
T5	254 - 242	Horizontal	L2x2x3/16	68	-557.02	11034.50	5.0	Pass
T6	242 - 222	Horizontal	L2x2x3/16	95	-605.21	11034.50	5.5	Pass
T7	222 - 206	Horizontal	L2x2x3/16	116	-716.84	11078.30	6.5	Pass
T11	194 - 182	Horizontal	L2x2x3/16	173	-929.22	11078.30	8.4	Pass
T12	182 - 162	Horizontal	L2x2x3/16	199	-1002.68	11078.30	9.1	Pass
T19	138 - 134	Horizontal	L2 1/2x2 1/2x1/4	274	-1333.34	21139.70	6.3	Pass
T20	134 - 130	Horizontal	L2 1/2x2 1/2x1/4	283	-1444.80	21139.70	6.8	Pass
T21	130 - 126	Horizontal	L2 1/2x2 1/2x1/4	294	-11549.00	38556.00	30.0	Pass
T22	126 - 122	Horizontal	L2 1/2x2 1/2x1/4	306	-1529.20	21139.70	7.2	Pass
T23	122 - 102	Horizontal	L2x2x3/16	321	-1112.16	11078.30	10.0	Pass
T21	130 - 126	Secondary Horizontal	L2x2x3/16	298	-1529.20	11078.30	13.8	Pass
T24	102 - 98	Secondary Horizontal	L2x2x3/16	354	-1571.97	11078.30	14.2	Pass
T25	98 - 94	Secondary Horizontal	L2x2x3/16	364	-1583.21	11078.30	14.3	Pass
T26	94 - 90	Secondary Horizontal	L2x2x3/16	376	-1600.21	11078.30	14.4	Pass
T27	90 - 86	Secondary Horizontal	L2x2x3/16	388	-1606.02	11078.30	14.5	Pass
T28	86 - 82	Secondary Horizontal	L2x2x3/16	400	-1616.69	11078.30	14.6	Pass
T29	82 - 78	Secondary Horizontal	L2x2x3/16	412	-1625.23	11078.30	14.7	Pass
T30	78 - 74	Secondary Horizontal	L2x2x3/16	424	-1637.14	11078.30	14.8	Pass
T31	74 - 70	Secondary Horizontal	L2x2x3/16	438	-1654.54	11078.30	14.9	Pass
T32	70 - 66	Secondary Horizontal	L2x2x3/16	450	-1699.09	11078.30	15.3	Pass
T33	66 - 62	Secondary Horizontal	L2x2x3/16	460	-1749.84	11078.30	15.8	Pass
T34	62 - 58	Secondary Horizontal	L2x2x3/16	472	-1820.62	11078.30	16.4	Pass
T35	58 - 54	Secondary Horizontal	L2x2x3/16	486	-1802.01	11078.30	16.3	Pass
T36	54 - 50	Secondary Horizontal	L2x2x3/16	498	-1788.47	11078.30	16.1	Pass
T37	50 - 46	Secondary Horizontal	L2x2x3/16	509	-1785.61	11078.30	16.1	Pass
T38	46 - 42	Secondary Horizontal	L2x2x3/16	522	-1805.49	11078.30	16.3	Pass
T39	42 - 38	Secondary Horizontal	L2 1/2x2 1/2x1/4	533	-1835.38	21139.70	8.7	Pass
T40	38 - 34	Secondary Horizontal	L2 1/2x2 1/2x1/4	545	-1857.98	21139.70	8.8	Pass
T41	34 - 30	Secondary Horizontal	L2 1/2x2 1/2x1/4	558	-1885.15	21139.70	8.9	Pass
T42	30 - 26	Secondary Horizontal	L2 1/2x2 1/2x1/4	569	-1903.72	21139.70	9.0	Pass
T43	26 - 22	Secondary Horizontal	L2 1/2x2 1/2x1/4	581	-1921.45	21139.70	9.1	Pass
T44	22 - 18	Secondary Horizontal	L2 1/2x2 1/2x1/4	593	-1933.50	21139.70	9.1	Pass
T45	18 - 14	Secondary Horizontal	L2 1/2x2 1/2x1/4	606	-1943.03	21139.70	9.2	Pass
T46	14 - 10	Secondary Horizontal	L2 1/2x2 1/2x1/4	617	-1949.63	21139.70	9.2	Pass
T47	10 - 6	Secondary Horizontal	L2 1/2x2 1/2x1/4	629	-1944.66	21139.70	9.2	Pass
T48	6 - 2	Secondary Horizontal	L2 1/2x2 1/2x1/4	642	-1939.36	21139.70	9.2	Pass
T1	276 - 265.5	Top Girt	L2x2x3/16	6	-71.31	11034.50	0.6	Pass
T2	265.5 - 261.75	Top Girt	L2x2x3/16	27	-798.02	11034.50	7.2	Pass
T4	258 - 254	Top Girt	L2x2x3/16	48	-2712.87	11034.50	24.6	Pass
T5	254 - 242	Top Girt	L2x2x3/16	57	-203.47	11034.50	1.8	Pass
T6	242 - 222	Top Girt	L2x2x3/16	76	88.47	23166.00	0.4	Pass
T7	222 - 206	Top Girt	L2x2x3/16	110	-121.68	11034.50	1.1	Pass
T8	206 - 202	Top Girt	L2x2x3/16	138	-640.08	11078.30	5.8	Pass
T10	198 - 194	Top Girt	L2x2x3/16	159	-2181.06	11078.30	19.7	Pass
T11	194 - 182	Top Girt	L2x2x3/16	167	-174.11	11078.30	1.6	Pass
T12	182 - 162	Top Girt	L2x2x3/16	188	-173.83	11078.30	1.6	Pass
T13	162 - 158	Top Girt	L2x2x3/16	221	-320.54	11078.30	2.9	Pass
T14	158 - 154	Top Girt	L2x2x3/16	230	223.91	23166.00	1.0	Pass
T15	154 - 150	Top Girt	L2x2x3/16	240	-1300.38	11078.30	11.7	Pass
T16	150 - 146	Top Girt	L2x2x3/16	249	-1390.22	11078.30	12.5	Pass
T17	146 - 142	Top Girt	L2x2x3/16	256	256.01	23166.00	1.1	Pass
T18	142 - 138	Top Girt	L2x2x3/16	267	-220.20	11078.30	2.0	Pass
T23	122 - 102	Top Girt	L2x2x3/16	314	371.99	23166.00	1.6	Pass

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Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
T24	102 - 98	Top Girt	L2x2x3/16	348	402.24	23166.00	1.7	Pass
T25	98 - 94	Top Girt	L2x2x3/16	359	408.21	23166.00	1.8	Pass
T26	94 - 90	Top Girt	L2x2x3/16	372	414.66	23166.00	1.8	Pass
T27	90 - 86	Top Girt	L2x2x3/16	383	403.37	23166.00	1.7	Pass
T28	86 - 82	Top Girt	L2x2x3/16	396	399.03	23166.00	1.7	Pass
T29	82 - 78	Top Girt	L2x2x3/16	407	392.99	23166.00	1.7	Pass
T30	78 - 74	Top Girt	L2x2x3/16	420	385.85	23166.00	1.7	Pass
T31	74 - 70	Top Girt	L2x2x3/16	431	372.77	23166.00	1.6	Pass
T32	70 - 66	Top Girt	L2x2x3/16	444	373.30	23166.00	1.6	Pass
T33	66 - 62	Top Girt	L2x2x3/16	455	295.48	23166.00	1.3	Pass
T34	62 - 58	Top Girt	L2 1/2x2 1/2x1/4	467	7503.77	38556.00	19.5	Pass
T35	58 - 54	Top Girt	L2x2x3/16	479	290.38	23166.00	1.3	Pass
T36	54 - 50	Top Girt	L2x2x3/16	492	367.58	23166.00	1.6	Pass
T37	50 - 46	Top Girt	L2x2x3/16	503	353.61	23166.00	1.5	Pass
T38	46 - 42	Top Girt	L2x2x3/16	516	362.41	23166.00	1.6	Pass
T39	42 - 38	Top Girt	L2x2x3/16	527	351.75	23166.00	1.5	Pass
T40	38 - 34	Top Girt	L2x2x3/16	540	346.38	23166.00	1.5	Pass
T41	34 - 30	Top Girt	L2x2x3/16	551	342.32	23166.00	1.5	Pass
T42	30 - 26	Top Girt	L2x2x3/16	564	338.43	23166.00	1.5	Pass
T43	26 - 22	Top Girt	L2x2x3/16	575	338.71	23166.00	1.5	Pass
T44	22 - 18	Top Girt	L2x2x3/16	588	336.93	23166.00	1.5	Pass
T45	18 - 14	Top Girt	L2x2x3/16	599	340.48	23166.00	1.5	Pass
T46	14 - 10	Top Girt	L2x2x3/16	612	333.01	23166.00	1.4	Pass
T47	10 - 6	Top Girt	L2x2x3/16	623	309.90	23166.00	1.3	Pass
T48	6 - 2	Top Girt	L2x2x3/16	636	212.17	23166.00	0.9	Pass
T3	261.75 - 258	Guy A@261.75	9/16	656	12351.20	21000.00	58.8	Pass
T9	202 - 198	Guy A@202	9/16	674	15501.10	21000.00	73.8	Pass
T21	130 - 126	Guy A@130	3/4	681	26313.10	34980.00	75.2	Pass
T34	62 - 58	Guy A@62	9/16	684	13383.00	21000.00	63.7	Pass
T3	261.75 - 258	Guy B@261.75	9/16	650	12092.00	21000.00	57.6	Pass
T9	202 - 198	Guy B@202	9/16	668	15601.40	21000.00	74.3	Pass
T21	130 - 126	Guy B@130	3/4	680	26999.60	34980.00	77.2	Pass
T34	62 - 58	Guy B@62	9/16	683	13724.40	21000.00	65.4	Pass
T3	261.75 - 258	Guy C@261.75	9/16	643	11625.70	21000.00	55.4	Pass
T9	202 - 198	Guy C@202	9/16	661	14744.60	21000.00	70.2	Pass
T21	130 - 126	Guy C@130	3/4	679	25420.70	34980.00	72.7	Pass
T34	62 - 58	Guy C@62	9/16	682	13180.00	21000.00	62.8	Pass
T3	261.75 - 258	Top Guy Pull-Off@261.75	L2 1/2x2 1/2x3/8	34	8132.98	56052.00	14.5	Pass
T9	202 - 198	Top Guy Pull-Off@202	L2 1/2x2 1/2x3/8	145	14885.60	56052.00	26.6	Pass
T3	261.75 - 258	Torque Arm Top@261.75	L3 1/2x3 1/2x3/8	657	16472.00	80352.00	20.5	Pass
T9	202 - 198	Torque Arm Top@202	L3 1/2x3 1/2x3/8	670	19717.80	80352.00	24.5	Pass
T3	261.75 - 258	Torque Arm Bottom@261.75	L3 1/2x3 1/2x3/8	659	-18554.70	36564.50	50.7	Pass
T9	202 - 198	Torque Arm Bottom@202	L3 1/2x3 1/2x3/8	677	-21385.40	35960.30	59.5	Pass
						Summary		
						Leg (T23)	89.1	Pass
						Diagonal (T20)	84.3	Pass
						Horizontal (T21)	30.0	Pass
						Secondary Horizontal (T34)	16.4	Pass
						Top Girt (T4)	24.6	Pass
						Guy A (T21)	75.2	Pass

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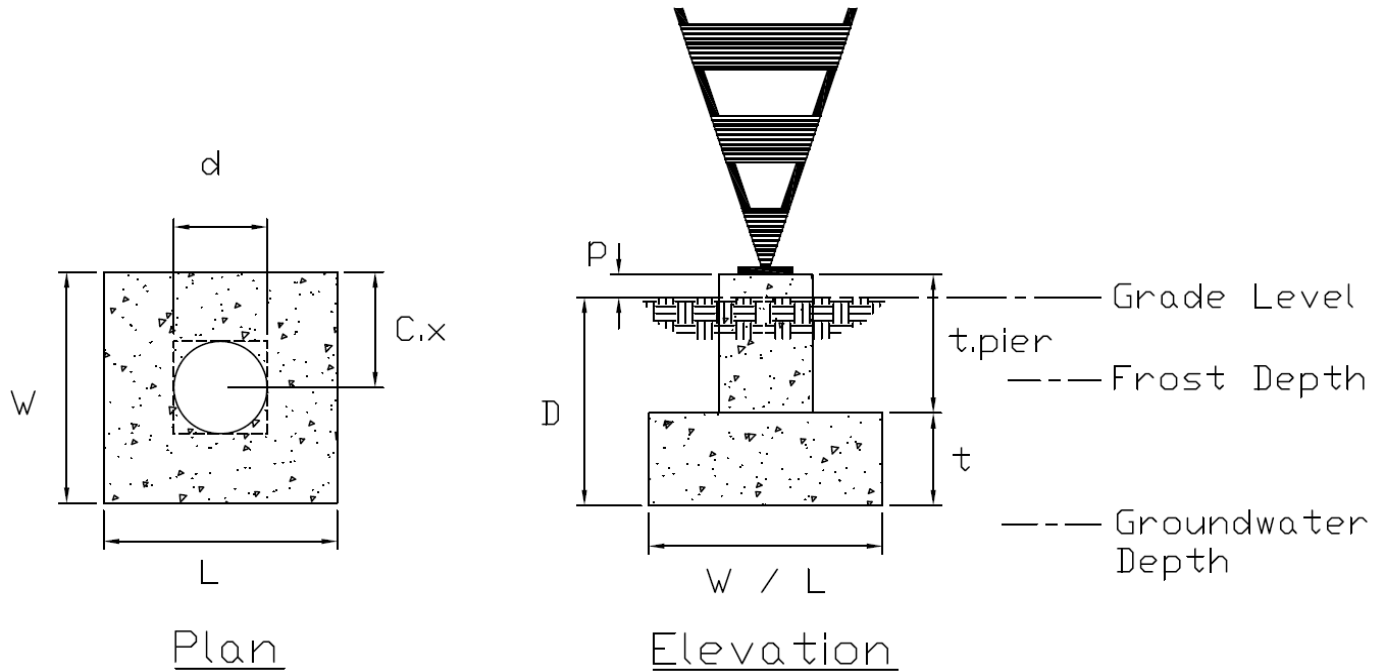
Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	ϕP_{allow} lb	% Capacity	Pass Fail
						Guy B (T21)	77.2	Pass
						Guy C (T21)	72.7	Pass
						Top Guy Pull-Off (T9)	26.6	Pass
						Torque Arm Top (T9)	24.5	Pass
						Torque Arm Bottom (T9)	59.5	Pass
						Bolt Checks	81.6	Pass
						RATING =	89.1	Pass

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Date: 07/21/2017

Guyed Tower Foundation - Pad & Pier with Deadman Guy Anchors



Existing Tower Base Dimensions

W := 8ft + 2in

L := 6ft + 2in

d := 3ft

Cx := 3ft + 1in

p := 1ft + 7in

D := 5ft + 5in

t := 18in

t_{pier} := D + p - t

t_{pier} = 5.5 ft

Pier_Type :=

- "Circular"
- "Square"

Width of Pad

Length of Pad

Diameter of Pier

Minimum distance to center of gravity of tower from outer edge (based on foundation drawings)

Projection of Pier above grade

Depth from grade to the bottom of foundation

Thickness of Pad

Length of Pier

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Base Pier Reactions

$M_{u_base} := 0 \text{ lbf} \cdot \text{ft}$

Factored moment reaction

$P_{u_base} := 238384 \text{ lbf}$

Factored download reaction

$V_{u_base} := 1710 \text{ lbf}$

Factored shear reaction

Soil Properties at Base Pier

$\gamma_{conc} := 150 \text{ pcf}$

$\gamma_{soil} := 120 \text{ pcf}$

$\gamma_{H20} := 62.4 \text{ pcf}$

$\text{Bearing}_{Ult} := 12 \text{ ksf}$

Ultimate bearing pressure

$\text{Bearing_Type} :=$

"Gross"
 "Net"

$H_{frost} := 30 \text{ in}$

Frost depth

$H_{water} := 99 \text{ ft}$

Depth of water

$\phi_b := 0.60$

Reduction factor for Bearing

$\phi_t := 0.80$

*Reduction factor for tensile
yielding*

$\phi_u := 0.75$

Reduction factor for uplift

$\phi_l := 0.75$

Reduction factor for Lateral

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Pad & Pier Soil Bearing Calculations

$$A_{\text{pad}} := W \cdot L \qquad A_{\text{pad}} = 50.36 \text{ ft}^2 \qquad \text{Area of pad}$$

$$A_{\text{pier}} := \begin{cases} \pi \frac{d^2}{4} & \text{if Pier_Type} = \text{"Circular"} \\ d^2 & \text{if Pier_Type} = \text{"Square"} \end{cases} \qquad A_{\text{pier}} = 9 \text{ ft}^2 \qquad \text{Area of pier}$$

$$S := \frac{A_{\text{pad}} \cdot \min(W, L)}{6} \qquad S = 51.76 \cdot \text{ft}^3 \qquad \text{Section modulus of base}$$

▢

$$W_{\text{t}_{\text{pad}}} = 2.27 \cdot \text{kip} \qquad \text{Weight of concrete pad}$$

$$W_{\text{t}_{\text{pier}}} = 3.2 \cdot \text{kip} \qquad \text{Weight of concrete piers}$$

$$W_{\text{t}_{\text{soils}}} = 0 \cdot \text{kip} \qquad \text{Weight of soil is ignored if Net Bearing Pressure is given}$$

$$W_{\text{t}_{\text{total}}} := 1.2W_{\text{t}_{\text{pad}}} + 1.2W_{\text{t}_{\text{pier}}} + 1.2W_{\text{t}_{\text{soils}}} \qquad W_{\text{t}_{\text{total}}} = 6.55 \cdot \text{kip} \qquad \text{Total factored weight of foundation}$$

Check soil bearing capacity

$$\phi R_s := \phi_b \cdot \text{Bearing}_{\text{Ult}} \qquad \phi R_s = 7.2 \cdot \text{ksf}$$

$$R_u := \frac{(P_{u_base} + W_{\text{t}_{\text{total}}})}{A_{\text{pad}}} + \frac{M_{u_base} + \left[P_{u_base} \cdot \left(\frac{\min(L, W)}{2} - Cx \right) \right]}{S} \qquad R_u = 4.86 \cdot \text{ksf}$$

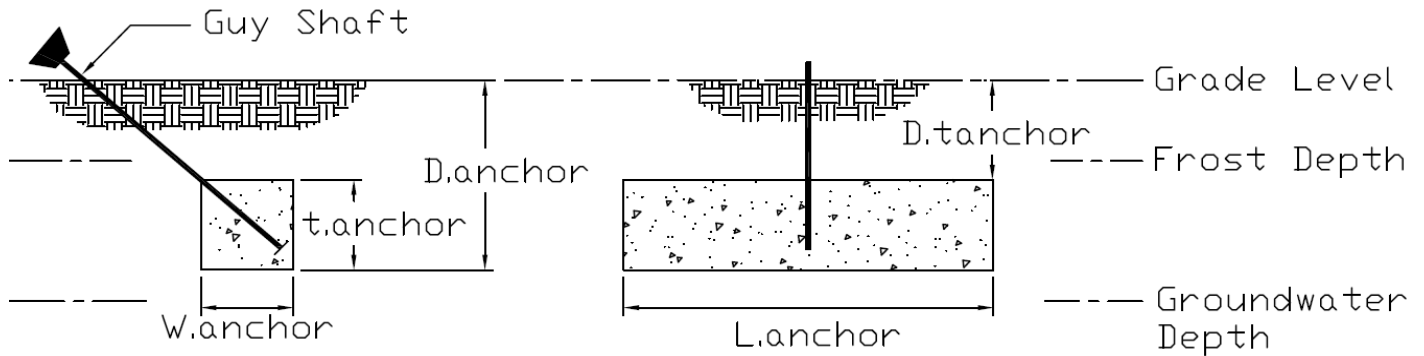
$$\frac{R_u}{\phi R_s} = 0.68$$

BearingCheck = "Bearing of soil is adequate."

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Guy Anchor Shaft Dimensions at Radius 141'

Existing guy wires are anchored with (1) C4x4.5 Channel 50ksi Steel

$$n_{\text{anchor}} := 2$$

Number of elements in guy anchor shaft

$$A_{g1} := n_{\text{anchor}} \cdot 1.38 \text{ in}^2 = 2.76 \cdot \text{in}^2$$

Gross area of guy anchor shaft

$$F_y := 50 \text{ ksi}$$

Yield strength of steel

Guy Anchor Reactions at Radius 141'

$$P_{u_anchor1} := 67.975 \text{ kip}$$

Max factored vertical reaction

$$V_{u_anchor1} := 61.445 \text{ kip}$$

Max factored horizontal reaction

$$T_{u_anchor1} := 91.630 \text{ kip}$$

Max factored tensile reaction

Guy Anchor Shaft Tension Calculations at Radius 141'

Check tension capacity

$$\phi P_n := \phi_t \cdot F_y \cdot A_{g1} \quad \phi P_n = 110.4 \cdot \text{kip}$$

$$P_u := \max\left(T_{u_anchor1}, \sqrt{V_{u_anchor1}^2 + P_{u_anchor1}^2}\right) \quad P_u = 91.63 \cdot \text{kip}$$

Maximum tensile force in shaft

$$\frac{P_u}{\phi P_n} = 0.83$$

AnchorRodCheck = "Anchor shaft is adequate."

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Existing Deadman Anchor Dimensions

$$D_{\text{anchor}} := \begin{pmatrix} 8\text{ft} + 2\text{in} \\ 8\text{ft} \\ 6\text{ft} + 11\text{in} \end{pmatrix} \begin{matrix} \text{NE anchor at 142 feet} \\ \text{SE anchor at 142 feet} \\ \text{SW anchor at 142 feet} \end{matrix}$$

Depth to bottom of foundation

$$W_{\text{anchor}} := \begin{pmatrix} 6\text{ft} + 7\text{in} \\ 8\text{ft} + 6\text{in} \\ 7\text{ft} + 6\text{in} \end{pmatrix}$$

Width of anchor block

$$t_{\text{anchor}} := \begin{pmatrix} 8\text{in} \\ 6\text{in} \\ 9\text{in} \end{pmatrix}$$

Thickness of anchor block

$$L_{\text{anchor}} := \begin{pmatrix} 14\text{ft} \\ 14\text{ft} \\ 11\text{ft} \end{pmatrix}$$

Length of anchor block

$$D_{\text{tanchor}} := D_{\text{anchor}} - t_{\text{anchor}}$$

$$D_{\text{tanchor}} = \begin{pmatrix} 7.5 \\ 7.5 \\ 6.17 \end{pmatrix} \text{ft}$$

Depth of soil to top of anchor

$$W_{\text{anchor2}} := \begin{pmatrix} 5\text{ft} + 0\text{in} \\ 4\text{ft} + 3\text{in} \\ 4\text{ft} + 6\text{in} \end{pmatrix} \begin{matrix} \text{NE anchor at 142 feet} \\ \text{SE anchor at 142 feet} \\ \text{SW anchor at 142 feet} \end{matrix}$$

Width of front anchor block

$$t_{\text{anchor2}} := \begin{pmatrix} 6\text{in} \\ 3\text{in} \\ 8\text{in} \end{pmatrix}$$

Thickness of front anchor block

$$L_{\text{anchor2}} := \begin{pmatrix} 5\text{ft} \\ 4\text{ft} + 3\text{in} \\ 6\text{ft} + 4\text{in} \end{pmatrix}$$

Length of front anchor block

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(847) 908-8400

Date: 07/21/2017

Modification Properties

$$W_{\text{anchor.mod}} := \begin{pmatrix} 3\text{ft} \\ 3\text{ft} \\ 3\text{ft} \end{pmatrix}$$

Width of anchor block modification

$$t_{\text{anchor.mod}} := \begin{pmatrix} 4.5\text{ft} \\ 4.5\text{ft} \\ 4.5\text{ft} \end{pmatrix}$$

*Thickness of anchor block
modification*

$$L_{\text{anchor.mod}} := \begin{pmatrix} 11\text{ft} \\ 11\text{ft} \\ 11\text{ft} \end{pmatrix}$$

Length of anchor block modification

$$V_{\text{conc.mod}} := \text{for } u \in 1 \dots \text{length}(W_{\text{anchor}})$$

Volume of anchor block

$$\begin{cases} V_u \leftarrow W_{\text{anchor.mod}_u} \cdot t_{\text{anchor.mod}_u} \cdot L_{\text{anchor.mod}_u} \\ V \end{cases}$$

$$V_{\text{conc.mod}} = \begin{pmatrix} 148.5 \\ 148.5 \\ 148.5 \end{pmatrix} \cdot \text{ft}^3$$

Soil Properties

$$\gamma_{\text{conc}} := 150 \text{pcf}$$

Concrete unit weight

$$\gamma_{\text{soil}} := 120 \text{pcf}$$

Soil unit weight

$$\gamma_{\text{H2O}} := 62.4 \text{pcf}$$

$$\phi_{\text{soil}} := 35 \cdot \text{deg}$$

Angle of internal friction at each depth

$$\mu := 0.35$$

Coefficient of friction
(Sliding Friction Factor)

$$P_P := 200 \cdot \frac{\text{psf}}{\text{ft}} \cdot (D_{\text{anchor}} + 0.5t_{\text{anchor}})$$

$$P_P = \begin{pmatrix} 1566.67 \\ 1550 \\ 1308.33 \end{pmatrix} \cdot \text{psf}$$

Ultimate passive pressure for each anchor

$$P_{P,\text{mod}} := 200 \cdot \frac{\text{psf}}{\text{ft}} \cdot (D_{\text{anchor}} + 0.5t_{\text{anchor}} - 0.5t_{\text{anchor.mod}})$$

$$P_{P,\text{mod}} = \begin{pmatrix} 1116.67 \\ 1100 \\ 858.33 \end{pmatrix} \cdot \text{psf}$$

Ultimate passive pressure for each anchor

Deadman Anchor Uplift Calculations

$$V_{\text{conc}} := \text{for } u \in 1 \dots \text{length}(W_{\text{anchor}})$$

Volume of anchor block

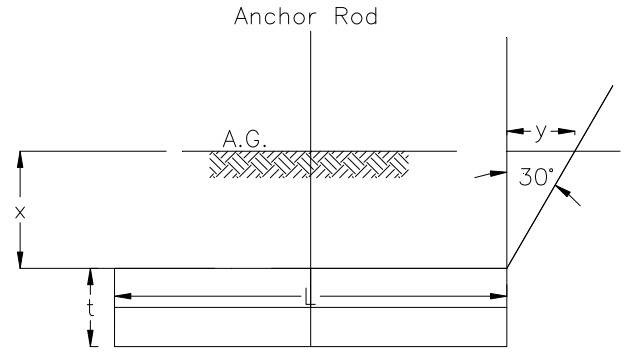
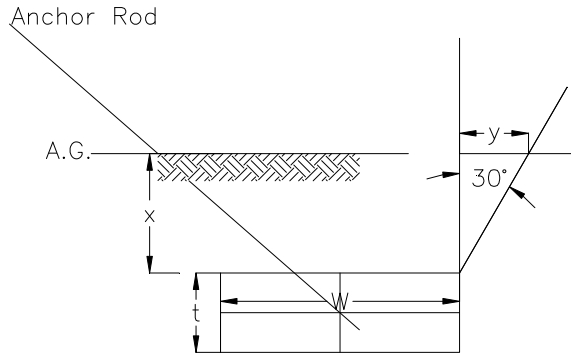
$$\left| \begin{array}{l} V_u \leftarrow W_{\text{anchor}_u} \cdot t_{\text{anchor}_u} \cdot L_{\text{anchor}_u} + W_{\text{anchor2}_u} \cdot t_{\text{anchor2}_u} \cdot L_{\text{anchor2}_u} \\ V \end{array} \right.$$

$$V_{\text{conc}} = \begin{pmatrix} 73.94 \\ 64.02 \\ 80.88 \end{pmatrix} \cdot \text{ft}^3$$

$$Wt_{\text{conc}} := \text{for } u \in 1 \dots \text{length}(W_{\text{anchor}})$$

$$Wt_{\text{conc}} = \begin{pmatrix} 33.37 \\ 31.88 \\ 34.41 \end{pmatrix} \cdot \text{kip} \text{Weight of concrete}$$

$$\left| \begin{array}{l} W_u \leftarrow \begin{cases} (V_{\text{conc}_u} + V_{\text{conc.mod}_u}) \cdot \gamma_{\text{conc}} & \text{if } H_{\text{water}} \geq D_{\text{anchor}_u} \\ (V_{\text{conc}_u} + V_{\text{conc.mod}_u}) \cdot \gamma_{\text{conc_sub}} & \text{otherwise} \end{cases} \\ W \end{array} \right.$$



$$V_{\text{soil_AC}} := \text{for } u \in 1 \dots \text{length}(W_{\text{anchor}}) \quad V_{\text{soil_AC}} = \begin{pmatrix} 691.25 \\ 892.5 \\ 508.75 \end{pmatrix} \cdot \text{ft}^3 \quad \text{Volume of soil above concrete}$$

$$\left| \begin{array}{l} V_u \leftarrow W_{\text{anchor}_u} \cdot D_{\text{tanchor}_u} \cdot L_{\text{anchor}_u} \\ V \end{array} \right.$$

$$y := \tan(\phi_{\text{soil}}) \cdot D_{\text{tanchor}} \quad y = \begin{pmatrix} 5.25 \\ 5.25 \\ 4.32 \end{pmatrix} \text{ ft}$$

$$V_{\text{cone}} := \text{for } u \in 1 \dots \text{length}(W_{\text{anchor}}) \quad V_{\text{cone}} = \begin{pmatrix} 1027.31 \\ 1102.8 \\ 613.01 \end{pmatrix} \cdot \text{ft}^3$$

$$\left| \begin{array}{l} V_u \leftarrow y_u \cdot D_{\text{tanchor}_u} \cdot (L_{\text{anchor}_u} + W_{\text{anchor}_u}) + \pi \cdot (y_u)^2 \cdot \frac{D_{\text{tanchor}_u}}{3} \\ V \end{array} \right.$$

$$V_{\text{soil}} := V_{\text{soil_AC}} + V_{\text{cone}} - V_{\text{conc.mod}} \quad V_{\text{soil}} = \begin{pmatrix} 1570.06 \\ 1846.8 \\ 973.26 \end{pmatrix} \cdot \text{ft}^3$$

$$W_{\text{tsoil}} := V_{\text{soil}} \cdot \gamma_{\text{soil}} \quad W_{\text{tsoil}} = \begin{pmatrix} 206.23 \\ 239.44 \\ 134.61 \end{pmatrix} \cdot \text{kip} \quad \text{Weight of soil above each deadman anchor}$$

Site Name: Naugatuck East Blvd.
 Site No.: CTL02056
 Prepared By: AS
 Checked By: HMB

**Fullerton Engineering
 Consultants, Inc.**
 1100 E Woodfield Road, Suite 500
 Schaumburg, IL 60173
 (847) 908-8400

Date: 07/21/2017

Check Uplift Capacity

$$\phi R_s := \phi_u \cdot (0.9W_{t_{conc}} + 0.9W_{t_{soil}}) \qquad \phi R_s = \begin{pmatrix} 161.73 \\ 183.14 \\ 114.09 \end{pmatrix} \cdot \text{kip}$$

$$R_u := \begin{pmatrix} P_{u_anchor1} \\ P_{u_anchor1} \\ P_{u_anchor1} \end{pmatrix} \qquad R_u = \begin{pmatrix} 67.97 \\ 67.97 \\ 67.97 \end{pmatrix} \cdot \text{kip}$$

$$\text{Capacity} := \text{for } z \in 1 \dots \text{length}(W_{\text{anchor}}) \qquad \text{Capacity} = \begin{pmatrix} 0.42 \\ 0.37 \\ 0.6 \end{pmatrix}$$

$$\left| \begin{array}{l} W_z \leftarrow \frac{R_{u_z}}{\phi R_{s_z}} \\ W \end{array} \right.$$

$$\text{UpliftCheck} = \begin{pmatrix} \text{"Uplift capacity is adequate."} \\ \text{"Uplift capacity is adequate."} \\ \text{"Uplift capacity is adequate."} \end{pmatrix}$$

Deadman Anchor Lateral Calculations

$$F_{\text{friction}} := \text{for } z \in 1 \dots \text{length}(W_{\text{anchor}}) \left| \begin{array}{l} F_z \leftarrow \max \left[0, \mu \left(0.9 W_{t_{\text{soil}_z}} + 0.9 W_{t_{\text{conc}_z}} - R_{u_z} \right) \right] \\ F \end{array} \right. \quad F_{\text{friction}} = \begin{pmatrix} 51.68 \\ 61.67 \\ 29.45 \end{pmatrix} \cdot \text{kip} \quad \text{Resisting force due to friction}$$

$$P_{\text{res}} := \text{for } z \in 1 \dots \text{length}(W_{\text{anchor}}) \left| \begin{array}{l} P_z \leftarrow P_{p_z} \cdot L_{\text{anchor}_z} \cdot t_{\text{anchor}_z} + P_{p_{\text{mod}_z}} \cdot L_{\text{anchor}_{\text{mod}_z}} \cdot t_{\text{anchor}_{\text{mod}_z}} \\ P \end{array} \right. \quad P_{\text{res}} = \begin{pmatrix} 69.9 \\ 65.3 \\ 53.28 \end{pmatrix} \cdot \text{kip} \quad \text{Resisting force due to passive pressure}$$

Check Lateral Capacity

$$\phi R_s := \text{for } z \in 1 \dots \text{length}(W_{\text{anchor}}) \left| \begin{array}{l} P_z \leftarrow \phi_1 \cdot (F_{\text{friction}_z} + P_{\text{res}_z}) \\ P \end{array} \right. \quad \phi R_s = \begin{pmatrix} 91.18 \\ 95.23 \\ 62.05 \end{pmatrix} \cdot \text{kip}$$

$$R_u := \begin{pmatrix} V_{u_{\text{anchor}1}} \\ V_{u_{\text{anchor}1}} \\ V_{u_{\text{anchor}1}} \end{pmatrix} \quad R_u = \begin{pmatrix} 67.97 \\ 67.97 \\ 67.97 \end{pmatrix} \cdot \text{kip}$$

$$\text{Capacity} := \text{for } z \in 1 \dots \text{length}(W_{\text{anchor}}) \left| \begin{array}{l} S_z \leftarrow \frac{R_{u_z}}{\phi R_{s_z}} \\ S \end{array} \right. \quad \text{Capacity} = \begin{pmatrix} 0.67 \\ 0.65 \\ 0.99 \end{pmatrix}$$

LateralCapacityCheck = $\begin{pmatrix} \text{"Lateral Capacity is adequate."} \\ \text{"Lateral Capacity is adequate."} \\ \text{"Lateral Capacity is adequate."} \end{pmatrix}$



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**SmartLink, LLC on behalf of AT&T
Mobility, LLC
Site FA – 10050930
Site ID – CT2056 (3C-MC)
USID – 82711
Site Name – Naugatuck East Blvd
Road
Site Compliance Report**

**130 Eastside Boulevard
Naugatuck, CT 06770**

Latitude: N41-31-04.00
Longitude: W73-1-07.00
Structure Type: Guyed

Report generated date: July 25, 2017
Report by: Leo Romero
Customer Contact: David Barbagallo

**AT&T Mobility, LLC will be compliant when the
remediation recommended in Section 5.2 or
other appropriate remediation is implemented.**

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1 General Site Summary

1.1 Report Summary

AT&T Mobility, LLC	Summary
Access to Antennas Locked?	Yes
RF Sign(s) @ access point(s)	No
RF Sign(s) @ antennas	No
Barrier(s) @ sectors	No
Max cumulative simulated RFE level on the Ground Level	<1% General Public Limit at AT&T Mobility, LLC Alpha, Beta and Gamma Sectors
FCC & AT&T Compliant?	Will Be Compliant

The following documents were provided by the client and were utilized to create this report:

RFDS: NEW-ENGLAND_CONNECTICUT_CTV2056_2017-LTE-Multi-Carrier_1xBBU-RRH-Add_mm093q_PTN_10050930_82711_04-13-2016_Final-Approved_v1.00 and

NEW-ENGLAND_CONNECTICUT_CTV2056_2017-LTE-Next-Carrier_LTE-3C_om636a_PTN_10050930_82711_03-10-2016_Final-Approved_v2.00

CD's: 10050930_AE201_170615_CTL02056_REV3

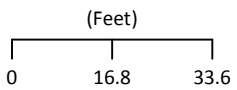
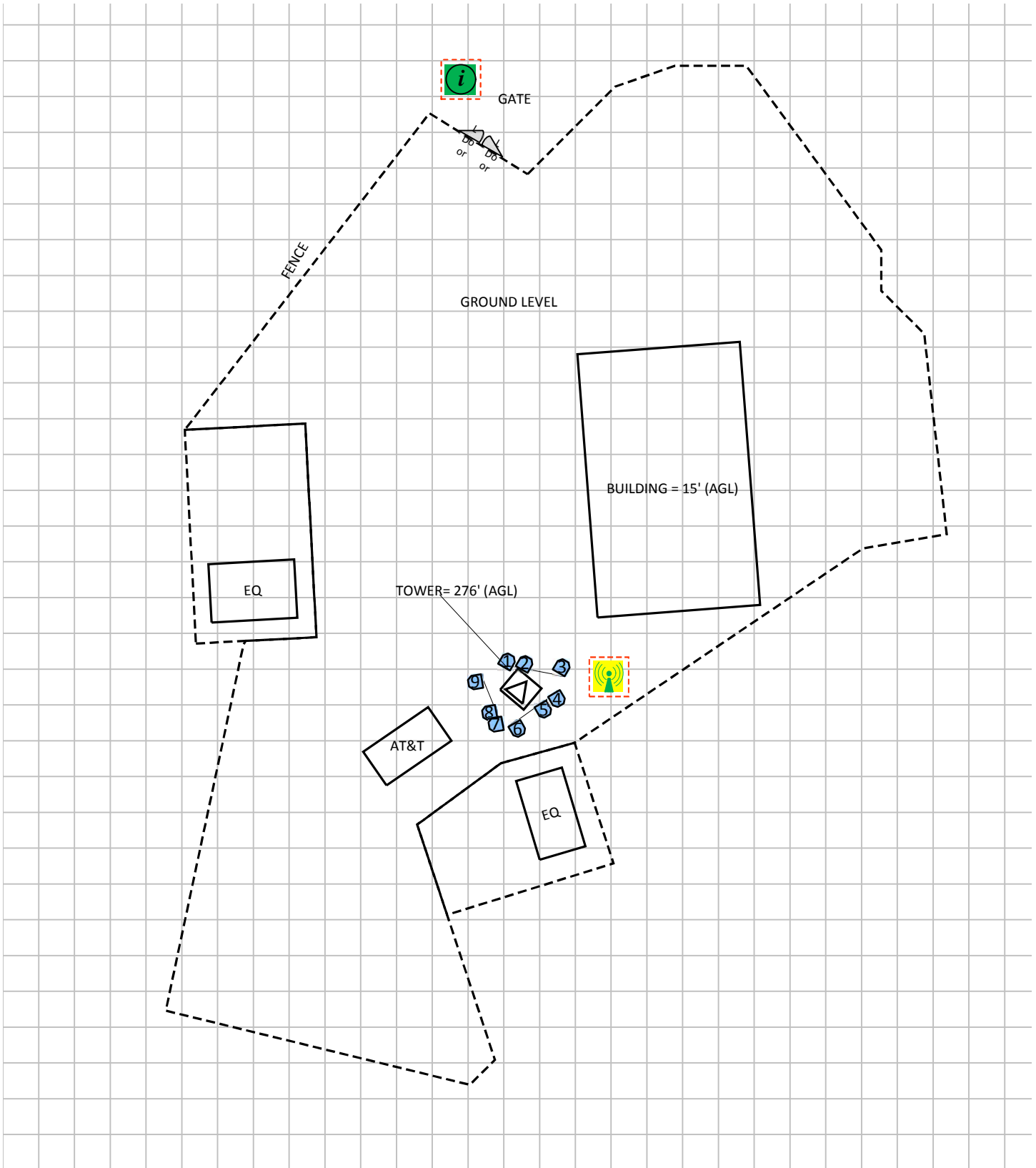
RF Powers Used: RFDS ERP Values

2 Scale Maps of Site

The following diagrams are included:

-) Site Scale Map
-) RF Exposure Diagram
-) Elevation View

Site Scale Map For: Naugatuck East Blvd Road



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 Site Name: Naugatuck East Blvd Road
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Carrier Identification					
	AT&T MOBILITY LLC		VERIZON WIRELESS		T-MOBILE
	SPRINT		UNKNOWN CARRIER		

Sign Legend					
	Caution 1		Caution 2		Notice 2
	Notice 1		Warning		Info 1
	Info 2				

Proposed Barriers/ Signs	
	Barrier
	Proposed Barriers/ Signs

3 Antenna Inventory

The following antenna inventory on this and the following page, were obtained by the customer and were utilized to create the site model diagrams:

Ant ID	Operator	Antenna Make & Model	Type	TX Freq (MHz)	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Ant Gain (dBd)	2G GSM Radio(s)	3G UMTS Radio(s)	4G Radio(s)	Total ERP (Watts)	X	Y	Z (AGL)
1	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	30	82	4.6	11.51	0	2	0	462.4	157.6'	186.4'	153.7'
2	AT&T MOBILITY LLC (Proposed)	CCI Antennas TPA-65R-LCUUUU-H8	Panel	2300	30	65	8	14.36	0	0	1	1285.3	161.9'	185.9'	152'
3	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H8	Panel	737	30	64.9	7.7	13.26	0	0	1	1475.7	171'	185.1'	152.2'
3	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H8	Panel	1900	30	63.1	7.7	14.76	0	0	1	2421	171'	185.1'	152.2'
4	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	150	82	4.6	11.51	0	2	0	462.4	169.8'	177.1'	153.7'
5	AT&T MOBILITY LLC (Proposed)	Quintel QS66512-2	Panel	2300	150	64	6	14.56	0	0	1	1285.3	166.5'	174.5'	153'
6	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H6	Panel	737	150	66.2	6	11.68	0	0	1	1475.7	160.1'	169.8'	153'
6	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H6	Panel	1900	150	61.1	6	14.53	0	0	1	2421	160.1'	169.8'	153'
7	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	260	82	4.6	11.51	0	2	0	462.4	154.7'	171'	153.7'
8	AT&T MOBILITY LLC (Proposed)	Quintel QS66512-2	Panel	2300	260	64	6	14.56	0	0	1	1285.3	153.2'	173.8'	153'
9	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H6	Panel	737	260	66.2	6	11.68	0	0	1	1475.7	149.7'	181.3'	153'
9	AT&T MOBILITY LLC (Proposed)	CCI Antennas HPA-65R-BUU-H6	Panel	1900	260	61.1	6	14.53	0	0	1	2421	149.7'	181.3'	153'

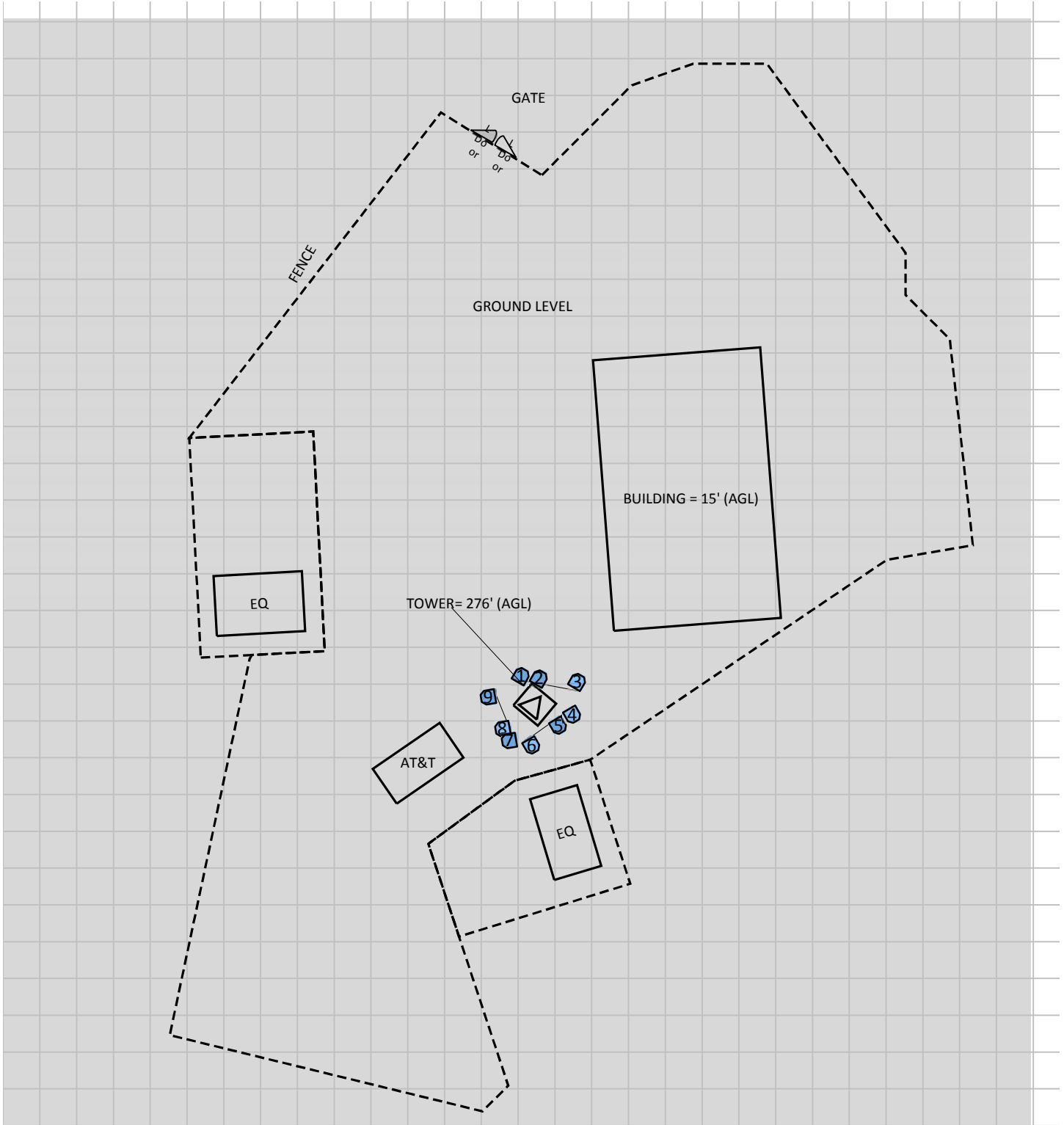
NOTE: X, Y and Z indicate relative position of the bottom of the antenna to the origin location on the site, displayed in the model results diagram. Specifically, the Z reference indicates the bottom of the antenna height **above ground level (AGL)**. The distance to the bottom of the antenna is calculated by subtracting half of the length of the antenna from the antenna centerline. Effective Radiated Power (ERP) is provided by the operator or based on Sitesafe experience. The values used in the modeling may be greater than are currently deployed. For other operators at this site the use of "Generic" as an antenna model or "Unknown" for a wireless operator means the information with regard to operator, their FCC license and/or antenna information was not available nor could it be secured while on site. Other operator's equipment, antenna models and powers used for modeling are based on obtained information or Sitesafe experience.

4 Emission Predictions

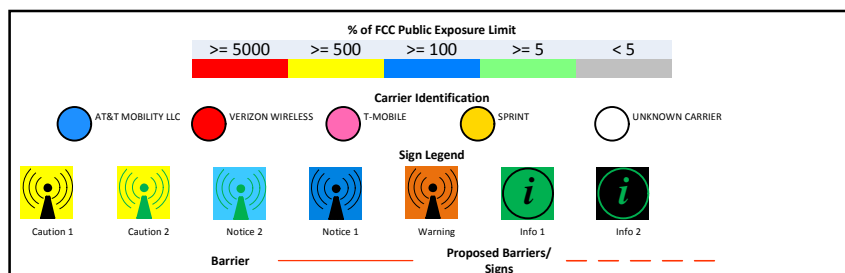
In the RF Exposure Simulations below all heights are reflected with respect to main site level. In most rooftop cases this is the height of the main rooftop and in other cases this can be ground level. Each different height area, rooftop, or platform level is labeled with its height relative to the main site level. Emissions are calculated appropriately based on the relative height and location of that area to all antennas.

The Antenna Inventory heights are referenced to the same level.

RF Exposure Simulation For: Naugatuck East Blvd Road



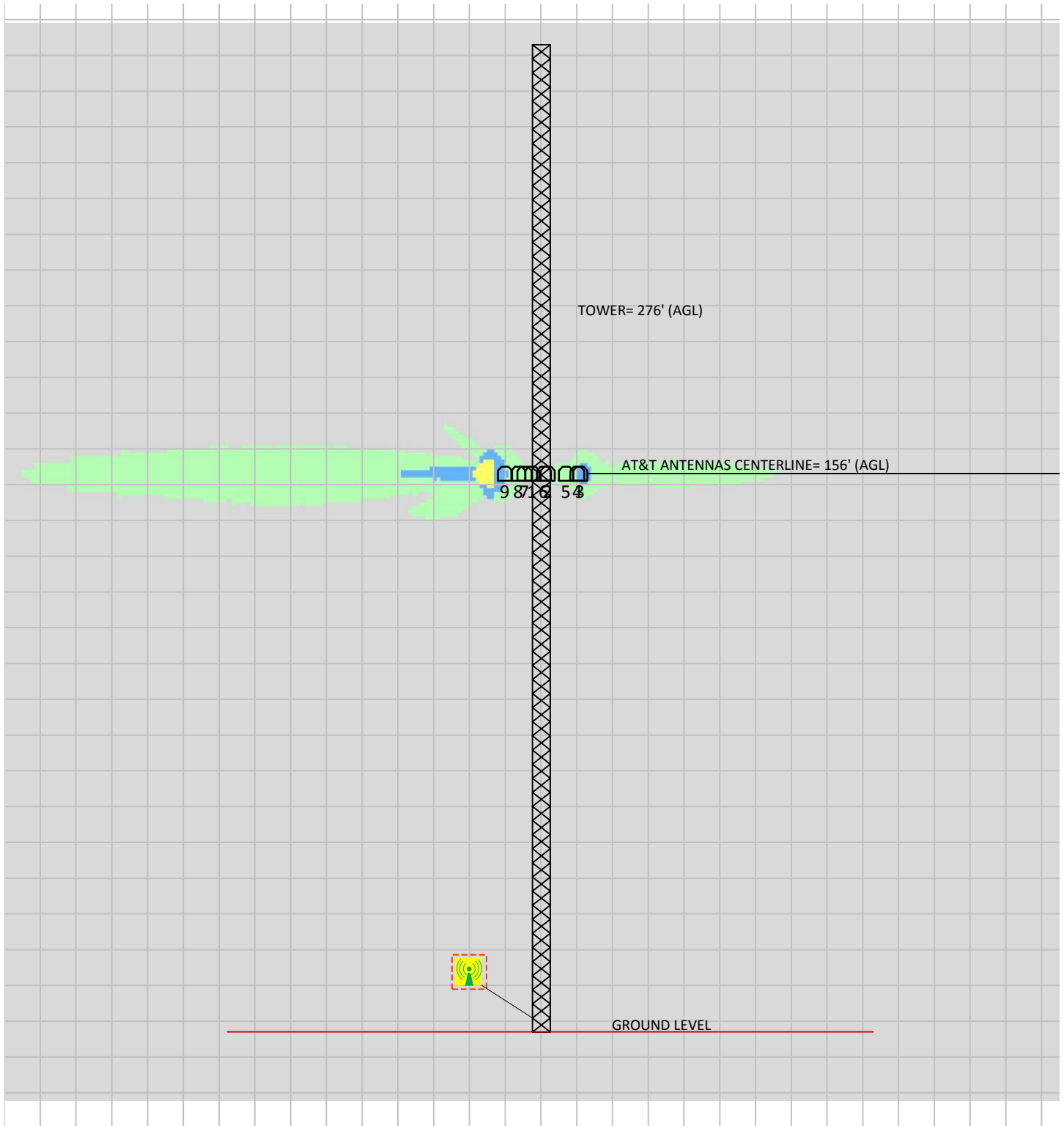
% of FCC Public Exposure Limit
Spatial average 0' - 6'



(Feet)
0 17.8 35.6
www.sitesafe.com
Site Name:Naugatuck East Blvd Road
7/25/2017 5:57:26 PM

SitesafeTC Version:1.0.0.0 - 0.0.0.264
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

RF Exposure Simulation For: Naugatuck East Blvd Road Elevation View

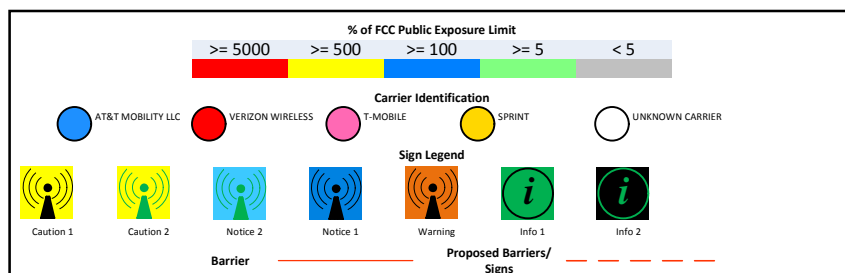


% of FCC Public Exposure Limit

(Feet)

0 20.9 41.8

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Site Name: Naugatuck East Blvd Road
7/25/2017 6:03:03 PM



SitesafeTC Version: 1.0.0.0 - 0.0.0.264
Sitesafe OET-65 Model
Near Field Boundary: 1.5 * Aperture
Reflection Factor: 1
Single Level (0)

5 Site Compliance

5.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, RF hazard signage and antenna locations, Sitesafe has determined that:

AT&T Mobility, LLC will be compliant when the remediation recommended in Section 5.2 or other appropriate remediation is implemented.

The compliance determination is based on General Public RFE levels derived from theoretical modeling, RF signage placement, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the AT&T Mobility, LLC's proposed deployment plan could result in the site being rendered non-compliant.

Modeling is used for determining compliance and the percentage of MPE contribution.

5.2 Actions for Site Compliance

Based on FCC regulations, common industry practice, and our understanding of AT&T Mobility, LLC RF Safety Policy requirements, this section provides a statement of recommendations for site compliance. Recommendations have been proposed based on our understanding of existing access restrictions, signage, and an analysis of predicted RFE levels.

AT&T Mobility, LLC will be made compliant if the following changes are implemented:

Base of Tower

Caution 2 sign required.

Compound Gate

Information 1 sign required.

6 Reviewer Certification

The reviewer whose signature appears below hereby certifies and affirms:

That I am an employee of Sitesafe, Inc., in Arlington, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio-frequency Radiation; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Leo Romero.

July 25, 2017

Appendix A – Statement of Limiting Conditions

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, that Sitesafe became aware of during the normal research involved in creating this report. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data collected by Sitesafe provided by a second party and data collected by Sitesafe, the data will be used.

Appendix B – Regulatory Background Information

FCC Rules and Regulations

In 1996, the Federal Communication Commission (FCC) adopted regulations for the evaluating of the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 (“OET Bulletin 65”), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

FCC regulations define two separate tiers of exposure limits: Occupational or “Controlled environment” and General Public or “Uncontrolled environment”. The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to *accessible* areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

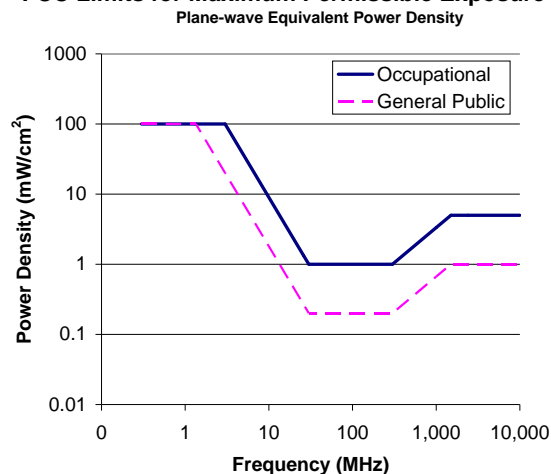
Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:

FCC Limits for Maximum Permissible Exposure (MPE)



Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

*Plane-wave equivalent power density

OSHA Statement

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

- (a) Each employer –
 - (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
 - (2) shall comply with occupational safety and health standards promulgated under this Act.
- (b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic Lock Out Tag Out procedure aimed to control the unexpected energization or start up of machines when maintenance or service is being performed.

Appendix C – Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

Training and Qualification Verification: All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).

Physical Access Control: Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

-) Locked door or gate
-) Alarmed door
-) Locked ladder access
-) Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

RF Signage: Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

Assume all antennas are active: Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

Maintain a 3 foot clearance from all antennas: There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.

Site RF Emissions Diagram: Section 4 of this report contains an RF Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst case scenario assuming a duty cycle of 100% for each transmitting antenna at full power. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.

Appendix D – RF Emissions

The RF Emissions Simulation(s) in this report display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix E.

The key at the bottom of each RF Emissions Simulation indicates percentages displayed referenced to FCC General Public Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:

- J Areas indicated as Gray are predicted to be below 5% of the MPE limits. **Gray represents areas more than 20 times below the most conservative exposure limit.**
- J Green represents areas are predicted to be between 5% and 100% of the MPE limits. **Green areas are accessible to anyone.**
- J Blue represents areas predicted to exceed the General Public MPE limits but are less than Occupational limits. **Blue areas should be accessible only to RF trained workers.**
- J Yellow represents areas predicted to exceed Occupational MPE limits. **Yellow areas should be accessible only to RF trained workers able to assess current exposure levels.**
- J Red represents areas predicted to have exposure more than 10 times the Occupational MPE limits. **Red indicates that the RF levels must be reduced prior to access.** An RF Safety Plan is required which outlines how to reduce the RF energy in these areas prior to access.

Appendix E – Assumptions and Definitions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power at all times**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has further assumed a 100% duty cycle and maximum radiated power.

The modeling is based on recommendations from the FCC's OET-65 bulletin with the following variances per AT&T guidance. Reflection has not been considered in the modeling, i.e. the reflection factor is 1.0. The near / far field boundary has been set to 1.5 times the aperture height of the antenna and modeling beyond that point is the lesser of the near field cylindrical model and the far field model taking into account the gain of the antenna.

The site has been modeled with these assumptions to show the maximum RF energy density. Areas modeled with exposure greater than 100% of the General Public MPE level may not actually occur, but are shown as a prediction that could be realized. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, Sitesafe recommends remodeling of the site utilizing the more complete and accurate data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, Sitesafe uses the closest frequency in the antenna's range that corresponds to the highest Maximum Permissible Exposure (MPE), resulting in a conservative analysis.

Definitions

5% Rule – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible taking corrective actions to bring the site into compliance.

Compliance – The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.

Decibel (dB) – A unit for measuring power or strength of a signal.

Duty Cycle – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Effective Radiated Power (ERP) – In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.

Gain (of an antenna) – The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from an isotropic radiator. Gain is a measure of the relative efficiency of a directional antennas as compared to an omni directional antenna.

General Population/Uncontrolled Environment – Defined by the FCC, as an area where exposure to RF energy may occur to persons who are **unaware** of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.

Generic Antenna – For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.

Isotropic Antenna – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

Maximum Measurement – This measurement represents the single largest measurement recorded when performing a spatial average measurement.

Maximum Permissible Exposure (MPE) – The maximum levels of RF exposure a person may be exposed to without harmful effect and with acceptable safety factor.

Occupational/Controlled Environment – Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are **aware** of the

potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

OET Bulletin 65 – Technical guideline developed by the FCC’s Office of Engineering and Technology to determine the impact of Radio Frequency radiation on Humans. The guideline was published in August 1997.

OSHA (Occupational Safety and Health Administration) – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA’s role is to promote the safety and health of America’s working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

Radio Frequency (RF) – The frequencies of electromagnetic waves which are used for radio communications. Approximately 3 kHz to 300 GHz.

Radio Frequency Exposure (RFE) – The amount of RF power density that a person is or might be exposed to.

Spatial Average Measurement – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average power density an average sized human will be exposed to at a location.

Transmitter Power Output (TPO) – The radio frequency output power of a transmitter’s final radio frequency stage as measured at the output terminal while connected to a load.

Appendix F – References

The following references can be followed for further information about RF Health and Safety.

Sitesafe, Inc.

<http://www.sitesafe.com>

FCC Radio Frequency Safety

<http://www.fcc.gov/encyclopedia/radio-frequency-safety>

National Council on Radiation Protection and Measurements (NCRP)

<http://www.ncrponline.org>

Institute of Electrical and Electronics Engineers, Inc., (IEEE)

<http://www.ieee.org>

American National Standards Institute (ANSI)

<http://www.ansi.org>

Environmental Protection Agency (EPA)

<http://www.epa.gov/radtown/wireless-tech.html>

National Institutes of Health (NIH)

<http://www.niehs.nih.gov/health/topics/agents/emf/>

Occupational Safety and Health Agency (OSHA)

<http://www.osha.gov/SLTC/radiofrequencyradiation/>

International Commission on Non-Ionizing Radiation Protection (ICNIRP)

<http://www.icnirp.org>

World Health Organization (WHO)

<http://www.who.int/peh-emf/en/>

National Cancer Institute

<http://www.cancer.gov/cancertopics/factsheet/Risk/cellphones>

American Cancer Society (ACS)

http://www.cancer.org/docroot/PED/content/PED_1_3X_Cellular_Phone_Towers.asp?sitearea=PED

European Commission Scientific Committee on Emerging and Newly Identified Health Risks

http://ec.europa.eu/health/ph_risk/committees/04_scenihp/docs/scenihp_o_022.pdf

Fairfax County, Virginia Public School Survey

<http://www.fcps.edu/fts/safety-security/RFEESurvey/>

UK Health Protection Agency Advisory Group on Non-ionising Radiation

http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317133826368

Norwegian Institute of Public Health

<http://www.fhi.no/dokumenter/545eea7147.pdf>