



QC Development

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Storrs, CT 06268

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February 20, 2018

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

Notice of Exempt Modification – New Cingular Wireless PCS, LLC (AT&T) – CT5431
30 Oliver Terrace, Shelton, CT 06484
N 41-17-38.09
W 73-06-25.73

Dear Ms. Bachman:

AT&T currently maintains six (6) antennas at the 95-foot level of the existing 140-foot Monopole at 30 Oliver Terrace, Shelton, CT. The tower is owned by Crown Castle. The property is owned by Brennan Realty LLC. AT&T now intends to remove its antenna equipment from the 95-foot level of the monopole and install six (6) new CCI antennas on a new platform mount at the 129-foot level. AT&T will also install three (3) Ericsson RRUS-11 and three (3) Ericsson RRUS-B2 units on the same platform mount.

This facility was approved by the Connecticut Siting Council in Petition # 0608 on March 25, 2003 and was later approved for an extension of the monopole to 140' AGL per Petition # 0722 on November 03, 2005. Since no further modification to the overall facility height is proposed, this modification complies with the aforementioned approvals.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Mark A. Lauretti, Mayor of the City of Shelton, and the Shelton Planning & Zoning Department as well as

the property owner and the tower owner.

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

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

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

Please feel free to call me at (860) 670-9068 with any questions regarding this matter. Thank you for your consideration.

Sincerely,



Mark Roberts
QC Development
Consultant for AT&T

Attachments

cc: The Honorable Mark A. Lauretti - as Elected Official
Rick Shultz – Planning & Zoning Administrator
Brennan Realty LLC - as Property Owner
Crown Castle - as Tower Owner (via e-mail)

Power Density

Existing Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm ²)	Freq. Band (MHz ^{**})	Limit S (mW/cm ²)	%MPE
Other Carriers*							11.24%
AT&T GSM	2	419	95	0.0380	850	0.5667	0.67%
AT&T UMTS	2	419	95	0.380	850	0.5667	0.67%
AT&T UMTS	2	817	95	0.0742	1900	1.0000	0.74%
AT&T LTE	2	940	95	0.0854	700	0.4667	1.83%
AT&T LTE	2	1791	95	0.1626	1900	1.0000	1.63%
Site Total							16.78%

*Per CSC Records (available upon request, includes calculation formulas)

** If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

Proposed Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm ²)	Freq. Band (MHz ^{**})	Limit S (mW/cm ²)	%MPE
Other Carriers*							11.24%
AT&T UMTS	2	234	129	0.0212	850	0.5667	0.20%
AT&T LTE	2	828	129	0.0752	700	0.4667	0.84%
AT&T LTE	2	2153	129	0.1955	1900	1.0000	1.02%
Site Total							13.30%

*Per CSC Records (available upon request, includes calculation formulas)

** If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

PROJECT INFORMATION

SCOPE OF WORK: TELECOMMUNICATIONS FACILITY UPGRADE (RF MOD 2018 UPGRADE):

SITE ADDRESS: OLIVER TERRACE
SHELTON, CT 06484

LATITUDE: 41.293791° N 41° 17' 37.65" N

LONGITUDE: 73.107298° W 73° 6' 26.27" W

TYPE OF SITE: MONOPOLE / OUTDOOR EQUIPMENT

TOWER HEIGHT: 140'±

RAD CENTER: 129'±

JURISDICTION: NATIONAL, STATE & LOCAL CODES OR ORDINANCES

CURRENT USE: TELECOMMUNICATIONS FACILITY

PROPOSED USE: TELECOMMUNICATIONS FACILITY



SITE NUMBER: CT5431

SITE NAME: SHELTON NE

PROJECT: RF MOD 2018 UPGRADE

DRAWING INDEX

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
A-1	COMPOUND & EQUIPMENT PLAN	1
A-2	ANTENNA LAYOUTS & ELEVATION	1
A-3	DETAILS	1
RF-1	RF PLUMBING DIAGRAM	1
G-1	GROUNDING DETAILS	1

CROWN SITE NAME: SHELTON NE
CROWN SITE #: 842873

VICINITY MAP

DIRECTIONS TO SITE:
START OUT GOING NORTHEAST ON ENTERPRISE DR TOWARD CAPITOL BLVD. 0.4 MI. TURN LEFT ONTO CAPITOL BLVD. 0.3 MI. TURN LEFT ONTO WEST ST. 0.3 MI. MERGE ONTO I-91 S TO CT-372 E IN BERLIN. TAKE EXIT 21 FROM CT-9 N. MERGE ONTO I-91 S TOWARD NEW HAVEN/NEW YORK CITY TAKE EXIT 17 TO MERGE ONTO CT-15 S/WILBUR CROSS PKWY TAKE EXIT 58 TO MERGE ONTO CT-34 W/DERBY AVE/DERBY TURNPIKE TOWARD DERBY CONTINUE TO FOLLOW CT-34 W/DERBY AVE USE THE LEFT 2 LANES TO TURN LEFT ONTO MAIN ST USE THE LEFT 2 LANES TO TURN LEFT TO MERGE ONTO CT-8 S TOWARD BRIDGEPORT TAKE EXIT 13 FOR BRIDGEPORT AVE. CONTINUE ON BRIDGEPORT AVE. DRIVE TO OLIVER TERRACE TURN LEFT ONTO BRIDGEPORT AVE. TURN LEFT ONTO PLATT RD TURN RIGHT ONTO OLIVER TERRACE. OLIVER TERRACE, SHELTON, CT 06484



GENERAL NOTES

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T MOBILITY REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.

72 HOURS

CALL BEFORE YOU DIG
CALL TOLL FREE 1-800-922-4455
OR CALL 811

UNDERGROUND SERVICE ALERT

HGD HUDSON Design Group LLC
45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845
TEL: (978) 557-5553 FAX: (978) 336-5586

SAI
12 INDUSTRIAL WAY SALEM, NH 03079

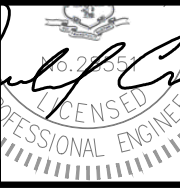
SITE NUMBER: CT5431
SITE NAME: SHELTON NE
CCI SITE #: 842873

OLIVER TERRACE
SHELTON, CT 06484
FAIRFIELD COUNTY

at&t
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	02/05/18	ISSUED FOR CONSTRUCTION	SB	AT	DJC
A	12/04/17	ISSUED FOR REVIEW	GA	AT	DJC

SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: GA



AT&T
TITLE SHEET
RF MOD 2018 UPGRADE
SITE NUMBER: CT5431
DRAWING NUMBER: T-1
REV: 1

GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTNING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWS COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR – SAI
 SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER – AT&T MOBILITY
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH LTE SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T SITES."
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. APPLICABLE BUILDING CODES:
 SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
 BUILDING CODE: IBC 2012 WITH 2016 CT BUILDING CODE AMENDMENTS
 ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS
 LIGHTENING CODE: REFER TO ELECTRICAL DRAWINGS

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

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

 AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
 MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

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

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

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

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE (ANTENNA)	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		

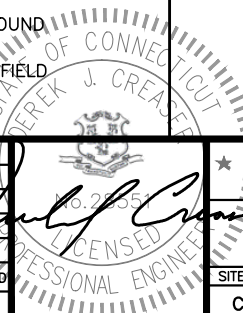


SITE NUMBER: CT5431
SITE NAME: SHELTON NE
CCI SITE #: 842873

OLIVER TERRACE
 SHELTON, CT 06484
 FAIRFIELD COUNTY



1	02/05/18	ISSUED FOR CONSTRUCTION	SB	AT	DJC
A	12/04/17	ISSUED FOR REVIEW	GA	AT	DJC
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: GA		



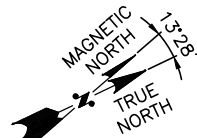
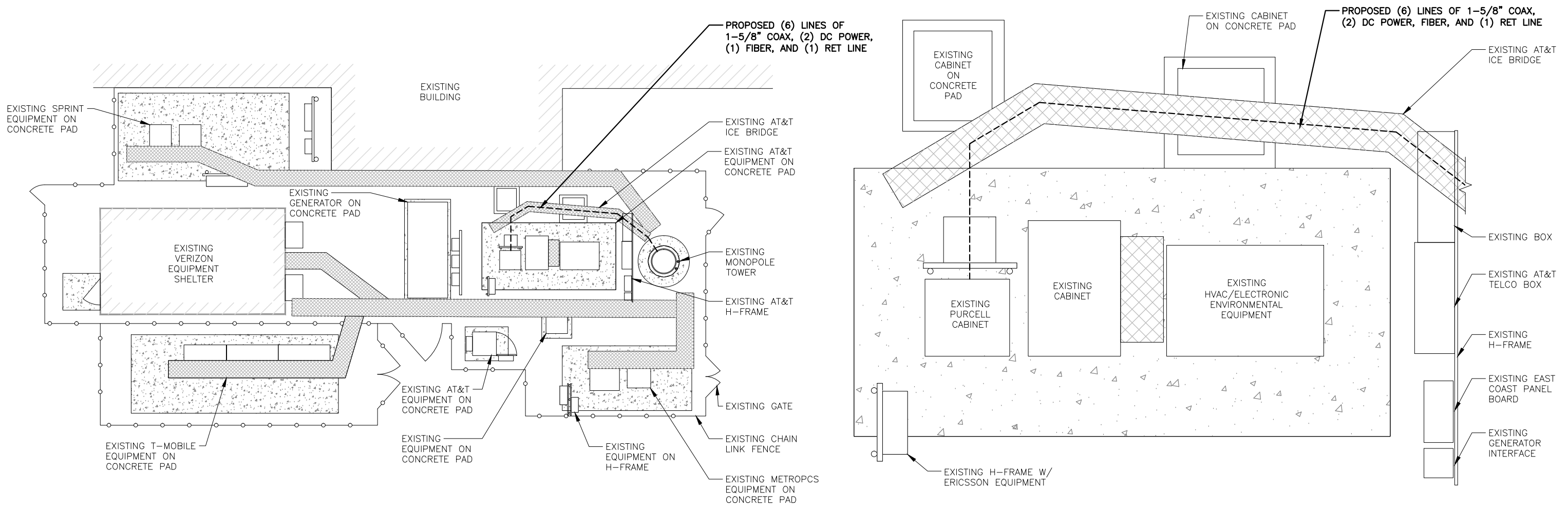
AT&T

GENERAL NOTES
 RF MOD 2018 UPGRADE

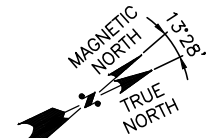
SITE NUMBER	DRAWING NUMBER	REV
CT5431	GN-1	1

NOTE:
ALL LINES AND ANTENNAS TO BE INSTALLED IN ACCORDANCE WITH PASSING STRUCTURAL ANALYSIS PROVIDED BY CROWN CASTLE AND AT&T ANTENNA DESIGN SHEET/RECOMMENDATION.

NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

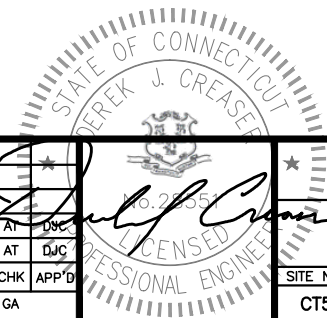


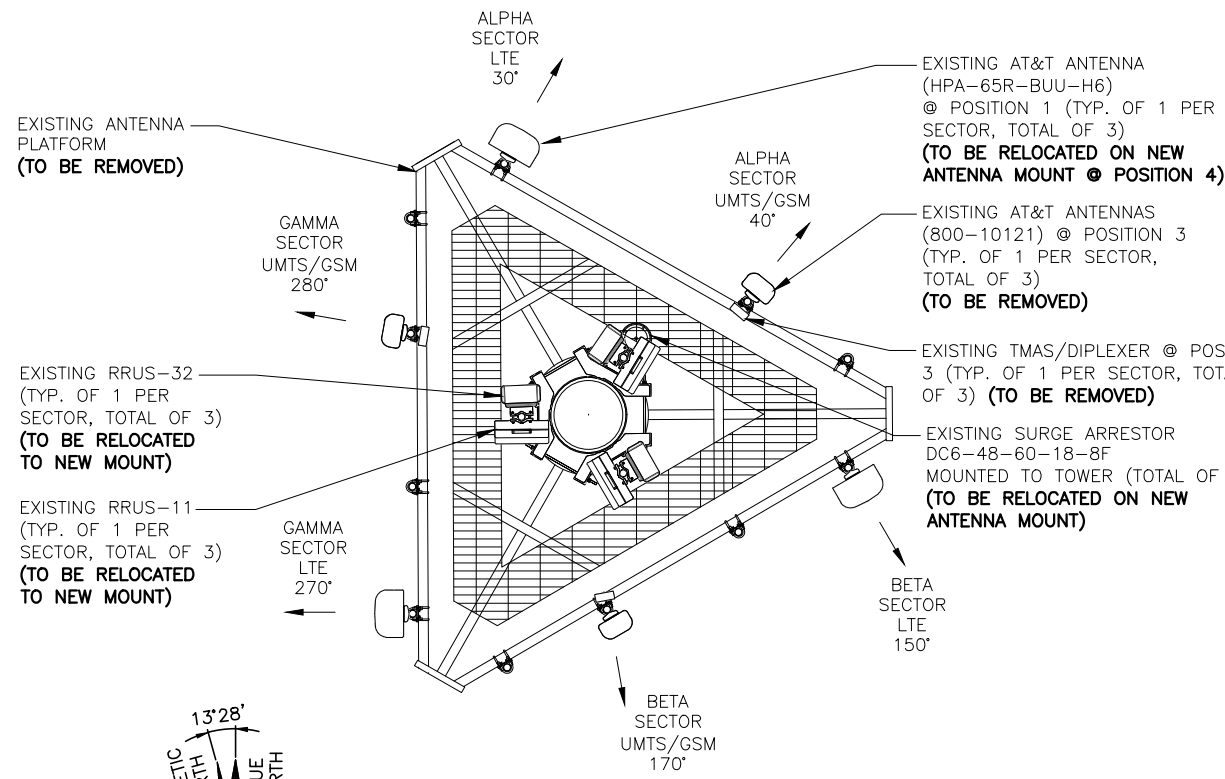
COMPOUND PLAN
22x34 SCALE: 3/16"=1'-0"
11x17 SCALE: 3/32"=1'-0"
1
A-1
0 2'-8" 5'-4" 10'-8" 16'-0"



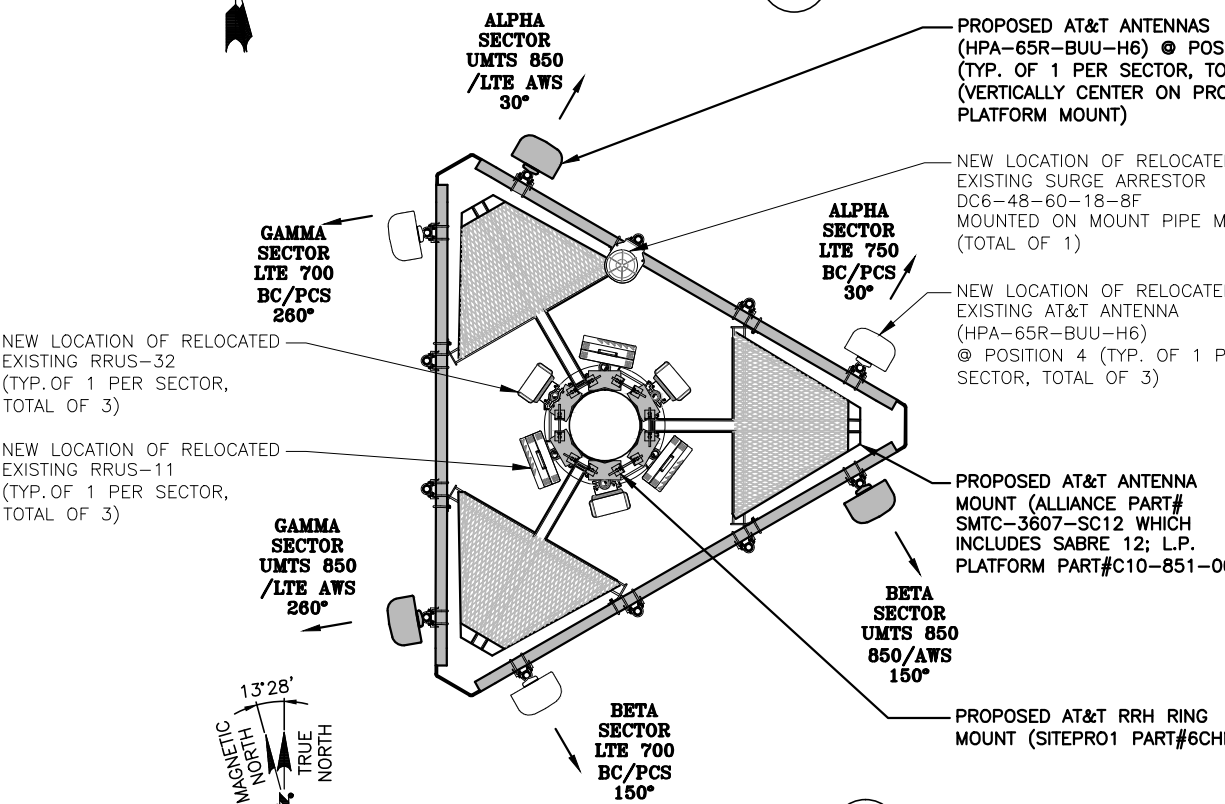
EQUIPMENT PLAN
22x34 SCALE: 3/4"=1'-0"
11x17 SCALE: 3/8"=1'-0"
2
A-1
0 0'-8" 1'-4" 2'-8" 4'-0"

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NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: GA		





EXISTING ANTENNA LAYOUT 1
SCALE: N.T.S



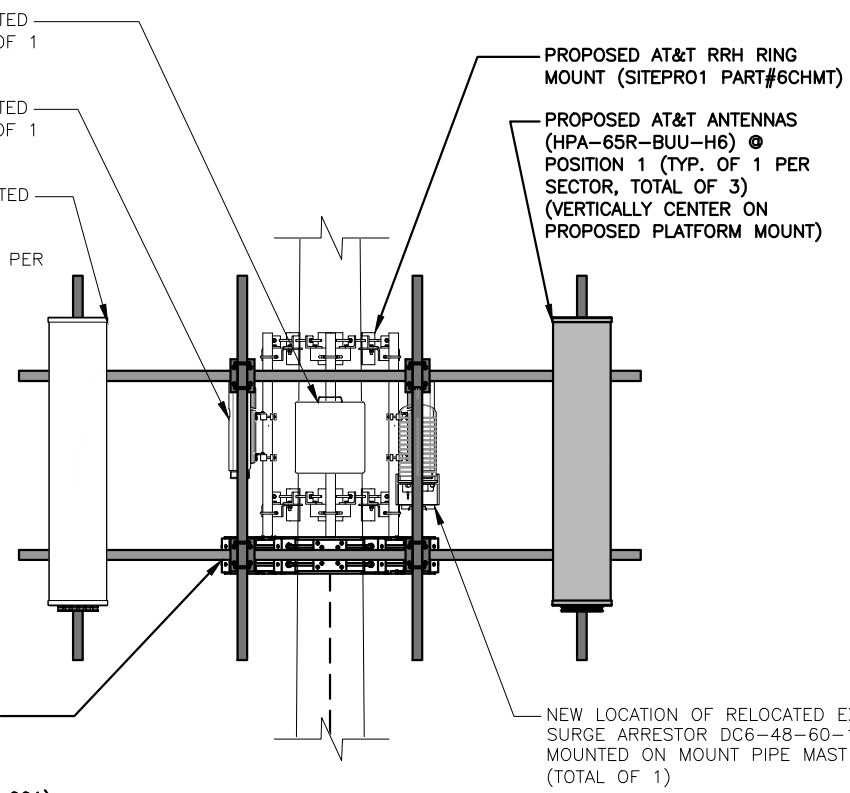
PROPOSED ANTENNA LAYOUT 2
SCALE: N.T.S

NOTE:
ALL LINES AND ANTENNAS TO BE INSTALLED IN ACCORDANCE WITH PASSING STRUCTURAL ANALYSIS PROVIDED BY CROWN CASTLE AND AT&T ANTENNA DESIGN SHEET/RECOMMENDATION.

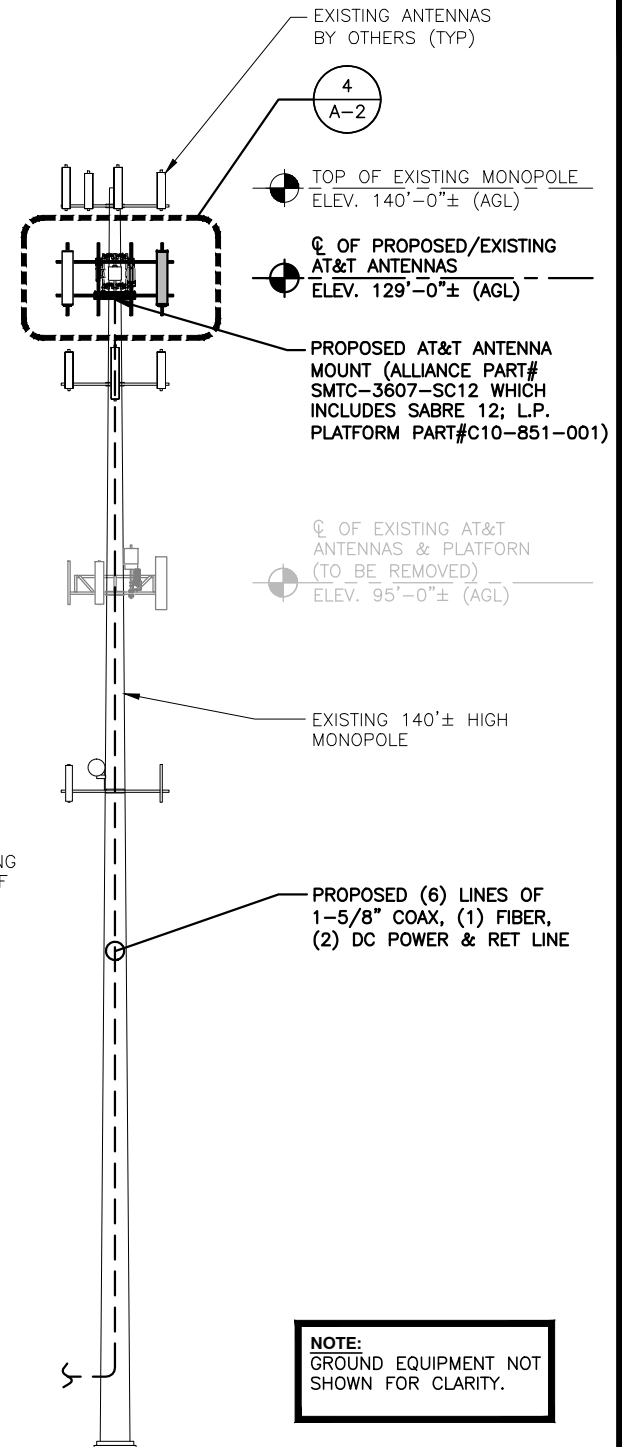
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NEW LOCATION OF RELOCATED EXISTING RRUS-11 (TYP. OF 1 PER SECTOR, TOTAL OF 3)
NEW LOCATION OF RELOCATED EXISTING RRUS-32 (TYP. OF 1 PER SECTOR, TOTAL OF 3)
NEW LOCATION OF RELOCATED EXISTING AT&T ANTENNA (HPA-65R-BUU-H6) @ POSITION 4 (TYP. OF 1 PER SECTOR, TOTAL OF 3)
NEW LOCATION OF RELOCATED EXISTING SURGE ARRESTOR DC6-48-60-18-8F MOUNTED ON TOWER (TOTAL OF 1) (TO BE RELOCATED ON NEW ANTENNA MOUNT)

☉ OF PROPOSED/EXISTING AT&T ANTENNAS
ELEV. 129'-0"± (AGL)



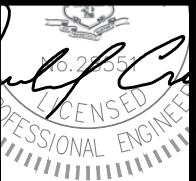
ENLARGED ANTENNA ELEVATION 4
22x34 SCALE: 1/2"=1'-0"
11x17 SCALE: 1/4"=1'-0"



ELEVATION 3
22x34 SCALE: 3/32"=1'-0"
11x17 SCALE: 3/64"=1'-0"

NOTE:
GROUND EQUIPMENT NOT SHOWN FOR CLARITY.

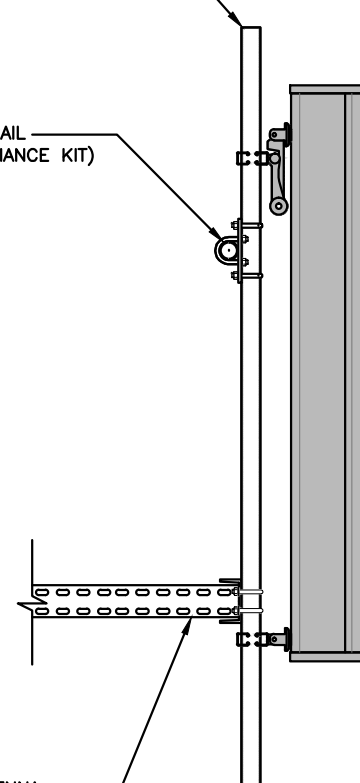
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FINAL ANTENNA SCHEDULE													
SECTOR	BAND	ANTENNA	SIZE (INCHES) (L X W X D)	RAD CENTER	AZIMUTH	TMA	RRU	SIZE (INCHES) (L X W X D)	COAX JUMPERS	FIBER JUMPERS	COAX		
ALPHA	UMTS 850/LTE AWS	PROPOSED	HPA-65R-BUU-H6	72.0X14.8X9.0	129'-0"±	30'	-	-	EXISTING EXISTING	RRUS-11 (700) RRUS-32 (PCS)	-	2* 1**	-
	LTE 700/BC/PCS	EXISTING	HPA-65R-BUU-H6	72.0X14.8X9.0	129'-0"±	30'	-	-	-	-	-	-	(2)1-5/8"
BETA	UMTS 850/LTE AWS	PROPOSED	HPA-65R-BUU-H6	72.0X14.8X9.0	129'-0"±	150'	-	-	EXISTING EXISTING	RRUS-11 (700) RRUS-32 (PCS)	-	2* 1**	-
	LTE 700/BC/PCS	EXISTING	HPA-65R-BUU-H6	72.0X14.8X9.0	129'-0"±	150'	-	-	-	-	-	-	(2)1-5/8"
GAMMA	UMTS 850/LTE AWS	PROPOSED	HPA-65R-BUU-H6	72.0X14.8X9.0	129'-0"±	260'	-	-	EXISTING EXISTING	RRUS-11 (700) RRUS-32 (PCS)	-	2* 1**	-
	LTE 700/BC/PCS	EXISTING	HPA-65R-BUU-H6	72.0X14.8X9.0	129'-0"±	260'	-	-	-	-	-	-	(2)1-5/8"

PROPOSED 2" STD (2.38" O.D.)
MOUNTING PIPE (TYP. OF 2
PER SECTOR, TOTAL OF 6)

PROPOSED HANDRAIL
(INCLUDED IN ALLIANCE KIT)



☉ OF PROPOSED/EXISTING
AT&T ANTENNAS
ELEV. 129'-0"± (AGL)

PROPOSED AT&T ANTENNAS
MOUNTED ON PROPOSED PLATFORM
(TYP. OF 1 PER SECTOR,
TOTAL OF 3)

PROPOSED AT&T ANTENNA
MOUNT (ALLIANCE PART#
SMTC-3607-SC12 WHICH
INCLUDES SABRE 12; L.P.
PLATFORM PART#C10-851-001)

FINAL ANTENNA CONFIGURATION TABLE

SCALE: N.T.S.

2
A-3

***COAX JUMPER NOTE:**
COAX JUMPERS (2) PER SECTOR
FROM EACH RRU (TOTAL OF 6).

****FIBER JUMPER NOTE:**
FIBER JUMPERS (1) PER SECTOR
FROM THE SQUID TO EACH RRU
(TOTAL OF 3).

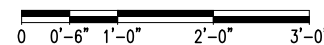
NOTE:
ALL LINES AND ANTENNAS TO BE
INSTALLED IN ACCORDANCE WITH
PASSING STRUCTURAL ANALYSIS
PROVIDED BY CROWN CASTLE AND
AT&T ANTENNA DESIGN
SHEET/RECOMMENDATION.

NOTE:
REFER TO THE FINAL RF DATA
SHEET FOR FINAL ANTENNA
SETTINGS.

PROPOSED ANTENNA MOUNTING DETAIL

22x34 SCALE: 1"=1'-0"
11x17 SCALE: 1/2"=1'-0"

1
A-3



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



12 INDUSTRIAL WAY
SALEM, NH 03079

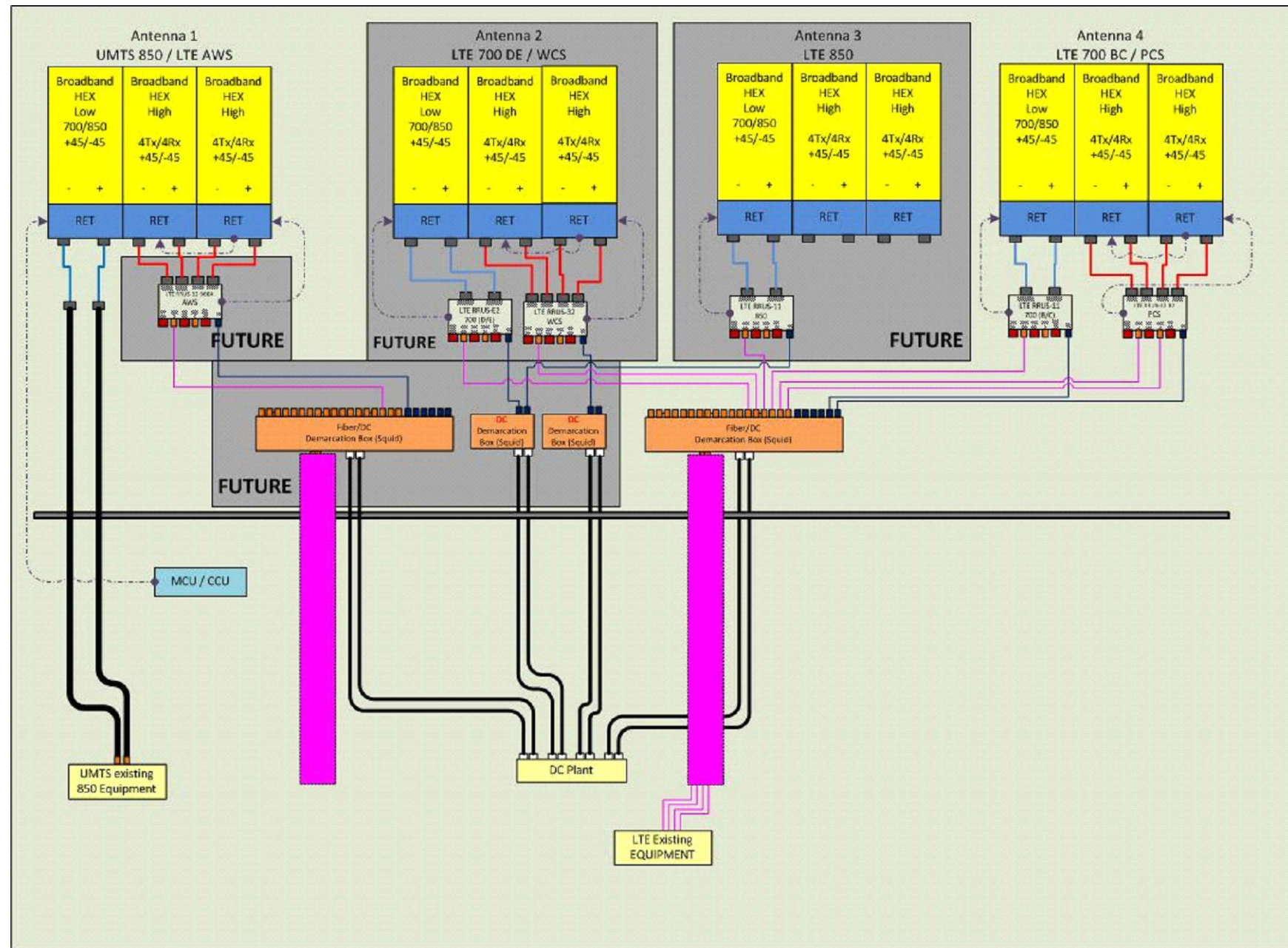
SITE NUMBER: CT5431
SITE NAME: SHELTON NE
CCI SITE #: 842873

OLIVER TERRACE
SHELTON, CT 06484
FAIRFIELD COUNTY



500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

				STATE OF CONNECTICUT Derek J. Creaser Professional Engineer No. 2935				AT&T	
				Derek J. Creaser				DETAILS	
				RF MOD 2018 UPGRADE				DRAWING NUMBER	
								SITE NUMBER	
								CT5431	
								DRAWING NUMBER	
								A-3	
								REV	
								1	



RF PLUMBING DIAGRAM
SCALE: N.T.S

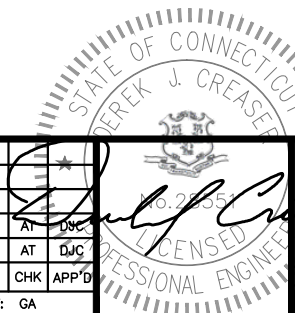
1
RF-1

NOTE:
1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS

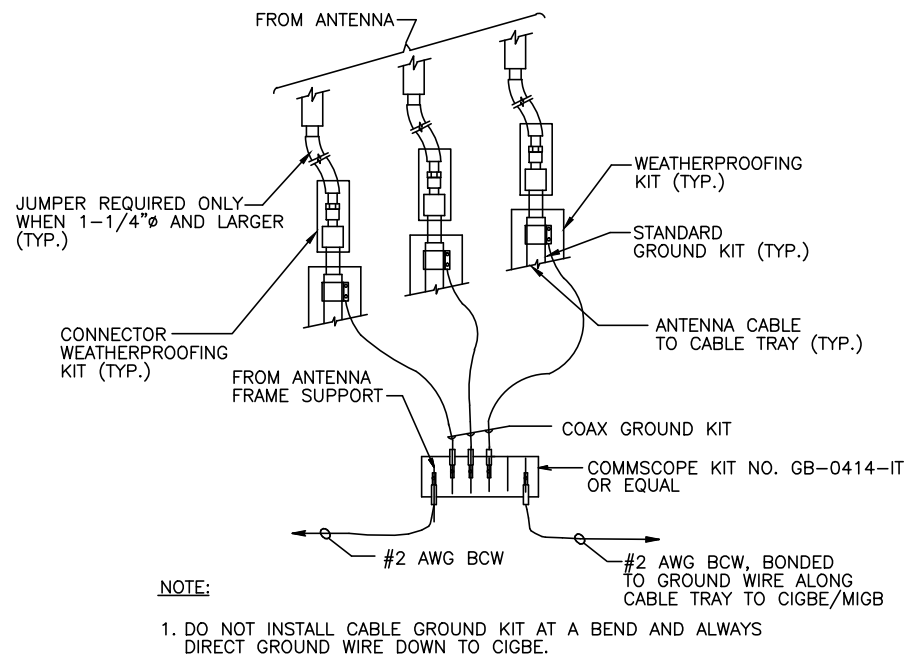
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	02/05/18	ISSUED FOR CONSTRUCTION	SB	AT	DJC
A	12/04/17	ISSUED FOR REVIEW	GA	AT	DJC

SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: GA



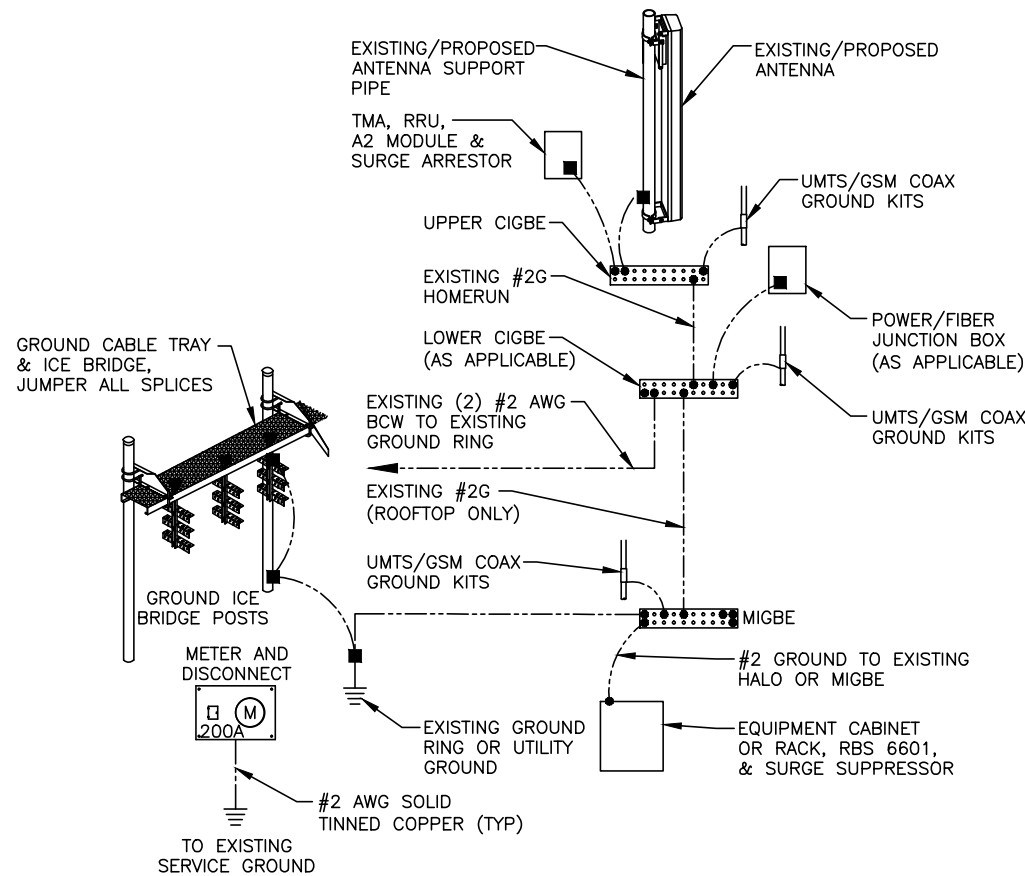
AT&T		
RF PLUMBING DIAGRAM RF MOD 2018 UPGRADE		
SITE NUMBER	DRAWING NUMBER	REV
CT5431	RF-1	1



GROUND WIRE TO GROUND BAR CONNECTION DETAIL

SCALE: N.T.S.

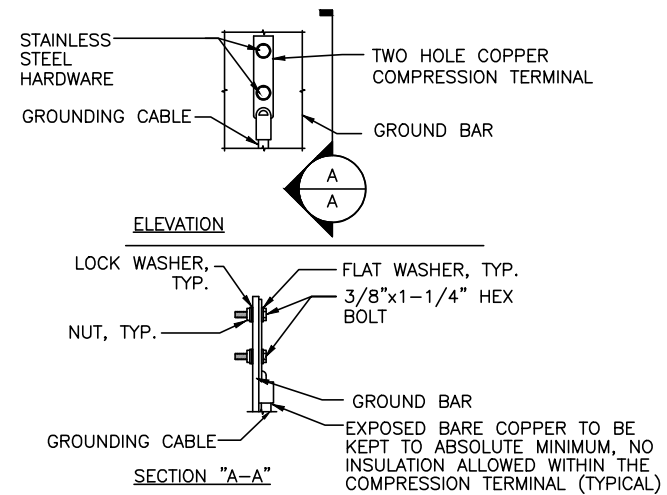
1
G-1



GROUNDING RISER DIAGRAM

SCALE: N.T.S.

2
G-1



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

TYPICAL GROUND BAR CONNECTION DETAIL

SCALE: N.T.S.

3
G-1

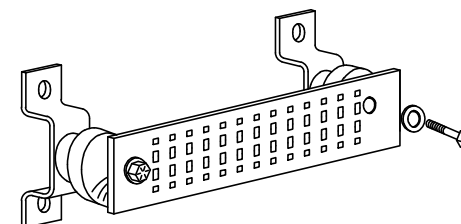
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" - SURGE PRODUCERS

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

SECTION "A" - SURGE ABSORBERS

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



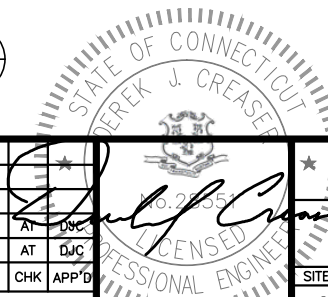
GROUND BAR - DETAIL

SCALE: N.T.S.

4
G-1

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	02/05/18	ISSUED FOR CONSTRUCTION	SB	AT	DJC
A	12/04/17	ISSUED FOR REVIEW	GA	AT	DJC

SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: GA



SITE NUMBER	DRAWING NUMBER	REV
CT5431	G-1	1

Date: **December 14, 2017**

Marianne Dunst
Crown Castle
3530 Toringdon Way
Charlotte, NC 28277

JACOBS
Jacobs Engineering Group, Inc.
5449 Bells Ferry Road
Acworth, GA 30102
770-701-2500

Subject: **Structural Analysis Report**

Carrier Designation: **AT&T Mobility Co-Locate**
Carrier Site Number: CT5431
Carrier Site Name: SHELTON SE

Crown Castle Designation: **Crown Castle BU Number:** 842873
Crown Castle Site Name: SHELTON NE
Crown Castle JDE Job Number: 473709
Crown Castle Work Order Number: 1497476
Crown Castle Application Number: 417818 Rev. 2

Engineering Firm Designation: **Jacobs Engineering Group, Inc. Project Number:** 1497476

Site Data: **30 Oliver Terrace, SHELTON, Fairfield County, CT**
Latitude 41° 17' 38.21", Longitude -73° 6' 25.83"
140 Foot - Monopole Tower

Dear Marianne Dunst,

Jacobs Engineering Group, Inc. is pleased to submit this "**Structural Analysis Report**" to determine the structural integrity of the above mentioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 1118103, in accordance with application 417818, revision 2.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Existing + Reserved + Proposed Equipment

Sufficient Capacity

Note: See Table I and Table II for the proposed and existing/reserved loading, respectively.

This analysis has been performed in accordance with the 2016 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 125 mph converted to a nominal 3-second gust wind speed of 97 mph per Section 1609.3 and Appendix N as required for use in the TIA-222-G Standard per Exception #5 of Section 1609.1.1. Exposure Category and Risk Category II were used in this analysis.

All modifications and equipment proposed in this report shall be installed in accordance with the attached drawings for the determined available structural capacity to be effective.

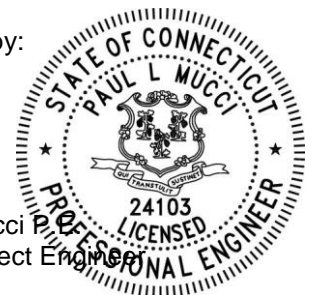
We at Jacobs Engineering Group, Inc. appreciate the opportunity of providing our continuing professional services to you and Crown Castle. If you have any questions or need further assistance on this or any other projects please give us a call.

Structural analysis prepared by:



Jeremiah Lugtu
Structural Engineer

Reviewed by:



Paul L. Mucci
Senior Project Engineer

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1) INTRODUCTION

This tower is a 101.58-ft Monopole tower designed by FWT, Inc. in January of 2003. The tower was originally designed for a wind speed of 85 mph per TIA/EIA-222-F. A 38.42 ft tower extension was added by Paul J. Ford and Company in October of 2004 bringing the overall height to 140 ft. The tower has been modified multiple times in the past to accommodate additional loading.

2) ANALYSIS CRITERIA

The structural analysis was performed for this tower in accordance with the requirements of TIA-222-G Structural Standards for Steel Antenna Towers and Antenna Supporting Structures using a 3-second gust wind speed of 97 mph with no ice, 50 mph with 0.75 inch ice thickness and 60 mph under service loads, exposure category B.

Table 1 - Proposed Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
129.0	129.0	6	cci antennas	HPA-65R-BUU-H6 w/ Mount Pipe	6	1-5/8	-
		1	tower mounts	Platform Mount [LP 301-1]	1	3/8	
		3	ericsson	RRUS 32 B2	2	3/4	
		3	ericsson	RRUS-11			

Table 2 - Existing and Reserved Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
138.0	145.0	1	andrew	DB636-C	14 2	1-5/8 1-1/4	1
	140.0	3	alcatel lucent	AWS4 (B66) 4x45 RRH			
		3	alcatel lucent	RRH2X60-PCS			
		3	alcatel lucent	RRH2x60-700			
		3	amphenol	BXA-80063-6BF-EDIN-4 w/ Mount Pipe			
		6	andrew	HBXX-6516DS-A2M w/ Mount Pipe			
		3	css	X7C-FRO-660-VR0 w/ Mount Pipe			
		2	rfs celwave	DB-T1-6Z-8AB-0Z			
	138.0	1	tower mounts	Platform Mount [LP 403-1]			
120.0	120.0	3	commscope	LNx-6515DS-A1M w/ Mount Pipe	18	1-5/8	1
		1	tower mounts	T-Arm Mount [TA 602-3]			
		3	ericsson	KRY 112 144/1			
		3	ericsson	KRY 112 489/2			
		3	rfs celwave	APX16DWV-16DWVS-E-A20 w/ Mount Pipe			
		3	rfs celwave	APX16PV-16PVL w/ Mount Pipe			

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
99.0	103.0	3	ericsson	RRUS A2	-	-	3
	99.0	1	tower mounts	Side Arm Mount [SO 102-3]			
		3	ericsson	RRUS 11			
		3	ericsson	RRUS 12			
95.0	95.0	3	cci antennas	HPA-65R-BUU-H6 w/ Mount Pipe	6 2 1	7/8 5/8 3/8	3
		1	tower mounts	Platform Mount [LP 1001-1]			
		3	powerwave technologies	7770.00 w/ Mount Pipe			
		6	powerwave technologies	LGP21401			
73.0	75.0	3	alcatel lucent	TD-RRH8X20-25	1	1-1/4	2
		3	rfs celwave	APXVTM14-C-120 w/ Mount Pipe			
		3	alcatel lucent	1900MHz 4X40W RRH	3	1-1/4	1
		3	rfs celwave	APXVSP18-C-A20 w/ Mount Pipe			
	73.0	1	tower mounts	Platform Mount [LP 1201-1]			
50.0	50.0	1	tower mounts	Pipe Mount [PM 601-1]	-	-	1
		1	pctel	GPS-TMG-HR-26NCM			

Notes:

- 1) Existing Equipment
- 2) Reserved Equipment
- 3) Equipment to be Removed; Not Considered in this Analysis

Table 3 - Design Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
100.0	100.0	6	allgon	7920.XX Dual Band Antenna	-	-
		2	generic	4' Diam. Std. Dish		
90.0	90.0	9	generic	4' x 1' x 3" Panel	-	-
80.0	80.0	9	generic	4' x 1' x 3" Panel	-	-

3) ANALYSIS PROCEDURE

Table 4 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	Clarence Welti Assoc., Inc.	4529442	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	Dewberry-Goodkind, Inc.	4598376	CCISITES
4-TOWER MANUFACTURER DRAWINGS	FWT, Inc.	4598387	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	B+T Group	4858944	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	GPD Associates	5461041	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	GPD Associates	5461043	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	FDH Velocitel	5785413	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	Jacobs Engineering Group, Inc.	5963243	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	Jacobs Engineering Group, Inc.	6087139	CCISITES
4-POST-MODIFICATION INSPECTION	B+T Group	5095590	CCISITES
4-POST-MODIFICATION INSPECTION	Tower Engineering Professionals	5994609	CCISITES
4-POST-MODIFICATION INSPECTION	FDH Velocitel	6231105	CCISITES
4-POST-MODIFICATION INSPECTION	FDH Velocitel	6086125	CCISITES

3.1) Analysis Method

tnxTower (version 7.0.7.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

- 1) Tower and structures were built in accordance with the manufacturer's specifications.
- 2) The tower and structures have been maintained in accordance with the manufacturer's specification.
- 3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
- 4) The existing base plate grout was not considered in this analysis.
- 5) Specifications of the weld connecting the tower shaft to the base plate have not been provided to Jacobs at time of analysis and are outside the scope of this report.
- 6) Porthole dimensions, placement, and weld specifications have not been provided to Jacobs and are outside the scope of this report.

This analysis may be affected if any assumptions are not valid or have been made in error. Jacobs Engineering Group, Inc. should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 5 - Section Capacity (Summary)

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
140 - 135	Pole	TP14.296x13.161x0.1875	Pole	16.2%	Pass
135 - 130	Pole	TP15.431x14.296x0.1875	Pole	28.0%	Pass
130 - 125	Pole	TP16.566x15.431x0.1875	Pole	44.1%	Pass
125 - 120	Pole	TP17.701x16.566x0.1875	Pole	57.9%	Pass
120 - 115	Pole	TP18.836x17.701x0.1875	Pole	73.5%	Pass
115 - 114.75	Pole + Reinf.	TP18.893x18.836x0.4625	Reinf. 11 Tension Rupture	55.2%	Pass
114.75 - 109.75	Pole + Reinf.	TP20.027x18.893x0.45	Reinf. 11 Tension Rupture	66.9%	Pass
109.75 - 104.75	Pole + Reinf.	TP21.162x20.027x0.425	Reinf. 11 Tension Rupture	77.3%	Pass
104.75 - 101.58	Pole + Reinf.	TP21.882x21.162x0.4188	Reinf. 11 Tension Rupture	83.4%	Pass
101.58 - 101.33	Pole	TP21.939x21.882x0.3125	Pole	62.8%	Pass
101.33 - 96.33	Pole	TP23.074x21.939x0.3125	Pole	67.4%	Pass
96.33 - 91.33	Pole	TP24.209x23.074x0.3125	Pole	71.2%	Pass
91.33 - 91	Pole	TP24.284x24.209x0.3125	Pole	71.4%	Pass
91 - 90.75	Pole + Reinf.	TP24.34x24.284x0.6	Reinf. 10 Compression	45.3%	Pass
90.75 - 85.75	Pole + Reinf.	TP25.475x24.34x0.5875	Reinf. 10 Compression	48.4%	Pass
85.75 - 80.75	Pole + Reinf.	TP26.61x25.475x0.5625	Reinf. 10 Compression	51.2%	Pass
80.75 - 75.75	Pole + Reinf.	TP27.745x26.61x0.55	Reinf. 10 Compression	53.7%	Pass
75.75 - 70.75	Pole + Reinf.	TP28.88x27.745x0.5438	Reinf. 10 Compression	56.8%	Pass
70.75 - 69.98	Pole + Reinf.	TP29.055x28.88x0.5313	Reinf. 4 Tension Rupture	81.6%	Pass
69.98 - 69.73	Pole + Reinf.	TP29.112x29.055x0.5313	Reinf. 4 Tension Rupture	81.9%	Pass
69.73 - 64.73	Pole + Reinf.	TP30.247x29.112x0.525	Reinf. 4 Tension Rupture	85.9%	Pass
64.73 - 63	Pole	TP30.64x30.247x0.3125	Pole	87.1%	Pass
63 - 62.75	Pole + Reinf.	TP30.696x30.64x0.7	Reinf. 4 Tension Rupture	67.3%	Pass
62.75 - 59.08	Pole + Reinf.	TP31.53x30.696x0.6875	Reinf. 4 Tension Rupture	69.7%	Pass
59.08 - 58.82	Pole + Reinf.	TP31.589x31.53x0.625	Reinf. 5 Tension Rupture	71.3%	Pass
58.82 - 58.67	Pole + Reinf.	TP31.623x31.589x0.625	Reinf. 5 Tension Rupture	71.4%	Pass

58.67 - 53.67	Pole + Reinf.	TP32.758x31.623x0.6125	Reinf. 5 Tension Rupture	74.3%	Pass
53.67 - 53	Pole + Reinf.	TP33.913x32.758x0.6125	Reinf. 5 Tension Rupture	74.6%	Pass
53 - 47.58	Pole + Reinf.	TP33.515x32.285x0.6375	Reinf. 3 Tension Rupture	79.6%	Pass
47.58 - 42.58	Pole + Reinf.	TP34.65x33.515x0.625	Reinf. 3 Tension Rupture	82.2%	Pass
42.58 - 39.75	Pole + Reinf.	TP35.293x34.65x0.6125	Reinf. 3 Tension Rupture	83.5%	Pass
39.75 - 39.5	Pole + Reinf.	TP35.35x35.293x0.8125	Reinf. 3 Tension Rupture	64.9%	Pass
39.5 - 34.5	Pole + Reinf.	TP36.485x35.35x0.7875	Reinf. 3 Tension Rupture	66.9%	Pass
34.5 - 32.5	Pole + Reinf.	TP36.939x36.485x0.7875	Reinf. 3 Tension Rupture	67.7%	Pass
32.5 - 32.25	Pole + Reinf.	TP36.995x36.939x0.6125	Reinf. 7 Tension Rupture	83.8%	Pass
32.25 - 31.42	Pole + Reinf.	TP37.184x36.995x0.6	Reinf. 7 Tension Rupture	84.2%	Pass
31.42 - 31.17	Pole + Reinf.	TP37.241x37.184x0.775	Reinf. 1 Tension Rupture	68.3%	Pass
31.17 - 29	Pole + Reinf.	TP37.733x37.241x0.7625	Reinf. 1 Tension Rupture	69.1%	Pass
29 - 28.75	Pole + Reinf.	TP37.79x37.733x0.85	Reinf. 1 Tension Rupture	65.1%	Pass
28.75 - 28.5	Pole + Reinf.	TP37.847x37.79x0.675	Reinf. 1 Tension Rupture	82.3%	Pass
28.5 - 23.5	Pole + Reinf.	TP38.982x37.847x0.6625	Reinf. 1 Tension Rupture	84.3%	Pass
23.5 - 23.25	Pole + Reinf.	TP39.039x38.982x0.7875	Reinf. 1 Tension Rupture	68.9%	Pass
23.25 - 23	Pole + Reinf.	TP39.095x39.039x0.7875	Reinf. 1 Tension Rupture	69.0%	Pass
23 - 22.75	Pole + Reinf.	TP39.152x39.095x0.65	Reinf. 1 Tension Rupture	83.8%	Pass
22.75 - 17.75	Pole + Reinf.	TP40.287x39.152x0.6375	Reinf. 1 Tension Rupture	85.7%	Pass
17.75 - 12.75	Pole + Reinf.	TP41.422x40.287x0.625	Reinf. 1 Tension Rupture	87.4%	Pass
12.75 - 7.75	Pole + Reinf.	TP42.558x41.422x0.6125	Reinf. 1 Tension Rupture	89.0%	Pass
7.75 - 5.25	Pole + Reinf.	TP43.125x42.558x0.6125	Reinf. 1 Tension Rupture	89.7%	Pass
5.25 - 5	Pole + Reinf.	TP43.182x43.125x0.6875	Reinf. 1 Tension Rupture	76.1%	Pass
5 - 0	Pole + Reinf.	TP44.317x43.182x0.6875	Reinf. 1 Tension Rupture	77.6%	Pass
				Summary	
			Pole	87.1%	Pass
			Reinforcement	89.7%	Pass
			Overall	89.7%	Pass

Table 6 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	71.3	Pass
1	Base Plate	0	62.5	Pass
1	Base Foundation Structural	0	58.9	Pass
1	Base Foundation Soil Interaction	0	76.5	Pass
1	Flange Plate	101.58	49.9	Pass
1	Flange Bolt		91.7	Pass

Structure Rating (max from all components) =	91.7%
---	--------------

Notes:

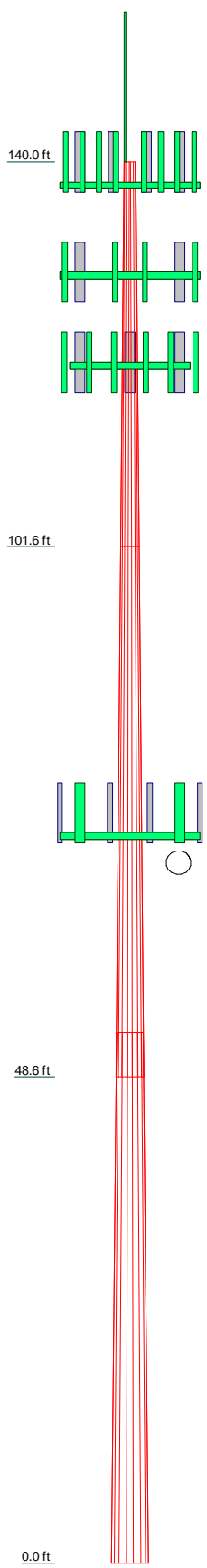
- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the existing, reserved and proposed loads. No modifications are required at this time.

APPENDIX A
TNXTOWER OUTPUT

Section	1	2	3
Length (ft)	38.4200	53.0000	53.0000
Number of Sides	18	18	18
Thickness (in)	0.1875	0.3125	0.3125
Socket Length (ft)		4.4200	
Top Dia (in)	13.1610	21.8820	32.2847
Bot Dia (in)	21.8820	33.9130	44.3170
Grade		A572-65	
Weight (K)	1.3	4.9	6.8



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod 2"x15'	140	APX16PV-16PVL w/ Mount Pipe	120
(2) HBXX-6516DS-A2M w/ Mount Pipe	138	LNx-6515DS-A1M w/ Mount Pipe	120
(2) HBXX-6516DS-A2M w/ Mount Pipe	138	LNx-6515DS-A1M w/ Mount Pipe	120
(2) HBXX-6516DS-A2M w/ Mount Pipe	138	LNx-6515DS-A1M w/ Mount Pipe	120
X7C-FRO-660-VR0 w/ Mount Pipe	138	APX16DWV-16DWVS-E-A20 w/ Mount Pipe	120
X7C-FRO-660-VR0 w/ Mount Pipe	138	APX16DWV-16DWVS-E-A20 w/ Mount Pipe	120
DB636-C	138	APX16DWV-16DWVS-E-A20 w/ Mount Pipe	120
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	138	APX16DWV-16DWVS-E-A20 w/ Mount Pipe	120
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	138	KRY 112 489/2	120
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	138	KRY 112 489/2	120
AWS4 (B66) 4x45 RRH	138	KRY 112 489/2	120
AWS4 (B66) 4x45 RRH	138	KRY 112 144/1	120
AWS4 (B66) 4x45 RRH	138	KRY 112 144/1	120
RRH2X60-PCS	138	KRY 112 144/1	120
RRH2X60-PCS	138	T-Arm Mount [TA 602-3]	120
RRH2X60-700	138	APXVTM14-C-120 w/ Mount Pipe	73
RRH2X60-700	138	APXVTM14-C-120 w/ Mount Pipe	73
RRH2X60-700	138	APXVTM14-C-120 w/ Mount Pipe	73
DB-T1-6Z-8AB-0Z	138	TD-RRH8X20-25	73
DB-T1-6Z-8AB-0Z	138	TD-RRH8X20-25	73
Platform Mount [LP 403-1]	138	TD-RRH8X20-25	73
(2) HPA-65R-BUU-H6 w/ Mount Pipe	129	APXVSP18-C-A20 w/ Mount Pipe	73
(2) HPA-65R-BUU-H6 w/ Mount Pipe	129	APXVSP18-C-A20 w/ Mount Pipe	73
(2) HPA-65R-BUU-H6 w/ Mount Pipe	129	APXVSP18-C-A20 w/ Mount Pipe	73
RRUS 32 B2	129	1900MHz 4X40W RRH	73
RRUS 32 B2	129	1900MHz 4X40W RRH	73
RRUS 32 B2	129	1900MHz 4X40W RRH	73
RRUS-11	129	10x3" Pipe Mount	73
RRUS-11	129	10x3" Pipe Mount	73
RRUS-11	129	10x3" Pipe Mount	73
RRUS-11	129	Platform Mount [LP 1201-1]	73
Platform Mount [LP 301-1]	129	GPS-TMG-HR-26NCM	50
APX16PV-16PVL w/ Mount Pipe	120	Pipe Mount [PM 601-1]	50
APX16PV-16PVL w/ Mount Pipe	120		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-G Standard.
3. Tower designed for a 97 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.0000 ft

Jacobs Engineering Group, Inc.

5449 Bells Ferry Road
Acworth, GA 30102
Phone: 770-701-2500
FAX: 770-701-2501

Job: SHELTON NE		
Project: BU#842873 WO#1497476		
Client: Crown Castle	Drawn by: Jeremiah Lugtu	App'd:
Code: TIA-222-G	Date: 12/21/17	Scale: NTS
Path:		Dwg No. E-1

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod 2"x15'	140	APX16PV-16PVL w/ Mount Pipe	120
(2) HBXX-6516DS-A2M w/ Mount Pipe	138	LNx-6515DS-A1M w/ Mount Pipe	120
(2) HBXX-6516DS-A2M w/ Mount Pipe	138	LNx-6515DS-A1M w/ Mount Pipe	120
(2) HBXX-6516DS-A2M w/ Mount Pipe	138	LNx-6515DS-A1M w/ Mount Pipe	120
X7C-FRO-660-VR0 w/ Mount Pipe	138	APX16DWV-16DWVS-E-A20 w/ Mount Pipe	120
X7C-FRO-660-VR0 w/ Mount Pipe	138	APX16DWV-16DWVS-E-A20 w/ Mount Pipe	120
DB636-C	138	APX16DWV-16DWVS-E-A20 w/ Mount Pipe	120
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	138	APX16DWV-16DWVS-E-A20 w/ Mount Pipe	120
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	138	KRY 112 489/2	120
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	138	KRY 112 489/2	120
AWS4 (B66) 4x45 RRH	138	KRY 112 489/2	120
AWS4 (B66) 4x45 RRH	138	KRY 112 144/1	120
AWS4 (B66) 4x45 RRH	138	KRY 112 144/1	120
RRH2X60-PCS	138	KRY 112 144/1	120
RRH2X60-PCS	138	T-Arm Mount [TA 602-3]	120
RRH2X60-700	138	APXVTM14-C-120 w/ Mount Pipe	73
RRH2X60-700	138	APXVTM14-C-120 w/ Mount Pipe	73
RRH2X60-700	138	APXVTM14-C-120 w/ Mount Pipe	73
DB-T1-6Z-8AB-0Z	138	TD-RRH8X20-25	73
DB-T1-6Z-8AB-0Z	138	TD-RRH8X20-25	73
Platform Mount [LP 403-1]	138	TD-RRH8X20-25	73
(2) HPA-65R-BUU-H6 w/ Mount Pipe	129	APXVSP18-C-A20 w/ Mount Pipe	73
(2) HPA-65R-BUU-H6 w/ Mount Pipe	129	APXVSP18-C-A20 w/ Mount Pipe	73
(2) HPA-65R-BUU-H6 w/ Mount Pipe	129	APXVSP18-C-A20 w/ Mount Pipe	73
RRUS 32 B2	129	1900MHz 4X40W RRH	73
RRUS 32 B2	129	1900MHz 4X40W RRH	73
RRUS 32 B2	129	1900MHz 4X40W RRH	73
RRUS-11	129	10"x3" Pipe Mount	73
RRUS-11	129	10"x3" Pipe Mount	73
RRUS-11	129	10"x3" Pipe Mount	73
Platform Mount [LP 301-1]	129	Platform Mount [LP 1201-1]	73
APX16PV-16PVL w/ Mount Pipe	120	GPS-TMG-HR-26NCM	50
APX16PV-16PVL w/ Mount Pipe	120	Pipe Mount [PM 601-1]	50

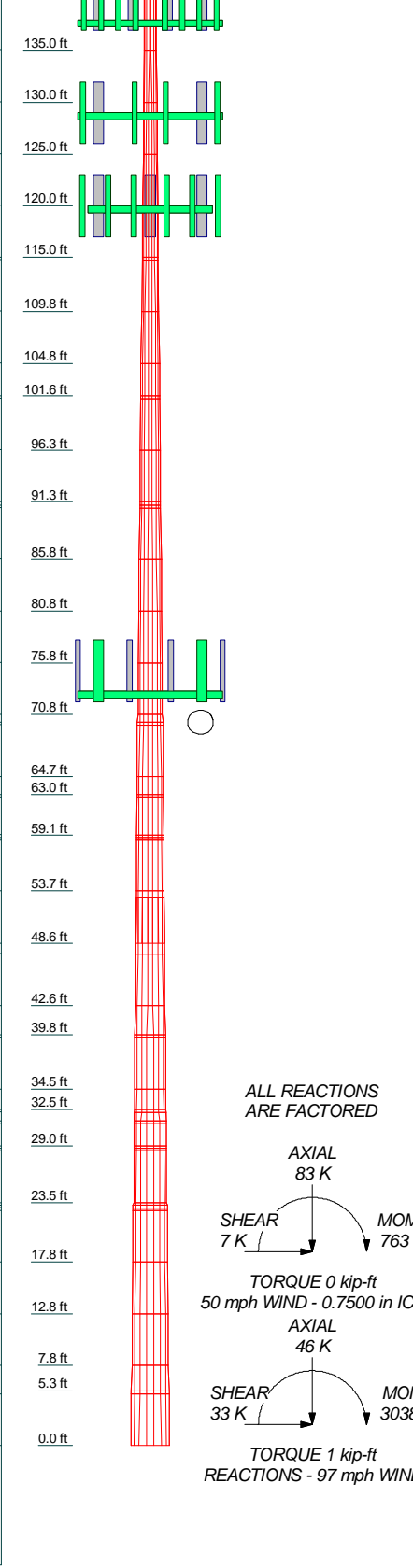
MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

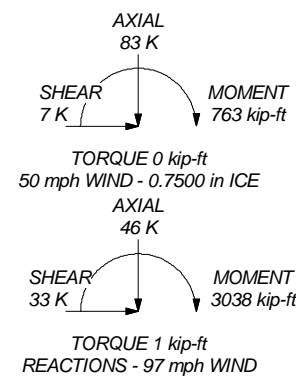
TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-G Standard.
3. Tower designed for a 97 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.0000 ft

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
2	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
3	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
4	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
5	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
6	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
7	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
8	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
9	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
10	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
11	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
12	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
13	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
14	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
15	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
16	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
17	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
18	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
19	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
20	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
21	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
22	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
23	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
24	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
25	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
26	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
27	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
28	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
29	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
30	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
31	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
32	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
33	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
34	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
35	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
36	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
37	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
38	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
39	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
40	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
41	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
42	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
43	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
44	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
45	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
46	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
47	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
48	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
49	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1
50	5.0000	18	0.6250	4.4200	43.1882	44.3423	A572-65	0.1



ALL REACTIONS ARE FACTORED



Jacobs Engineering Group, Inc.		
5449 Bells Ferry Road Acworth, GA 30102 Phone: 770-701-2500 FAX: 770-701-2501		
Job: SHELTON NE		
Project: BU#842873 WO#1497476		
Client: Crown Castle	Drawn by: Jeremiah Lugtu	App'd:
Code: TIA-222-G	Date: 12/21/17	Scale: NTS
Path:		Dwg No. E-1

Tower Input Data

There is a pole section.

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

The following design criteria apply:

- 1) Tower is located in Fairfield County, Connecticut.
- 2) Basic wind speed of 97 mph.
- 3) Structure Class II.
- 4) Exposure Category B.
- 5) Topographic Category 1.
- 6) Crest Height 0.0000 ft.
- 7) Nominal ice thickness of 0.7500 in.
- 8) Ice thickness is considered to increase with height.
- 9) Ice density of 56.00 pcf.
- 10) A wind speed of 50 mph is used in combination with ice.
- 11) Temperature drop of 50 °F.
- 12) Deflections calculated using a wind speed of 60 mph.
- 13) A non-linear (P-delta) analysis was used.
- 14) Pressures are calculated at each section.
- 15) Stress ratio used in pole design is 1.
- 16) Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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	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	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 <div style="text-align: center; background-color: #e0e0e0; padding: 2px;">Poles</div> ✓ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets
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Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	140.0000- 135.0000	5.0000	0.00	18	13.1610	14.2960	0.1875	0.7500	A572-65 (65 ksi)
L2	135.0000- 130.0000	5.0000	0.00	18	14.2960	15.4309	0.1875	0.7500	A572-65 (65 ksi)
L3	130.0000- 125.0000	5.0000	0.00	18	15.4309	16.5659	0.1875	0.7500	A572-65 (65 ksi)
L4	125.0000- 120.0000	5.0000	0.00	18	16.5659	17.7008	0.1875	0.7500	A572-65 (65 ksi)
L5	120.0000- 115.0000	5.0000	0.00	18	17.7008	18.8358	0.1875	0.7500	A572-65 (65 ksi)
L6	115.0000- 114.7500	0.2500	0.00	18	18.8358	18.8925	0.4625	1.8500	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L7	114.7500-109.7500	5.0000	0.00	18	18.8925	20.0275	0.4500	1.8000	A572-65 (65 ksi)
L8	109.7500-104.7500	5.0000	0.00	18	20.0275	21.1624	0.4250	1.7000	A572-65 (65 ksi)
L9	104.7500-101.5800	3.1700	0.00	18	21.1624	21.8820	0.4188	1.6750	A572-65 (65 ksi)
L10	101.5800-101.3300	0.2500	0.00	18	21.8820	21.9387	0.3125	1.2500	A572-65 (65 ksi)
L11	101.3300-96.3300	5.0000	0.00	18	21.9387	23.0738	0.3125	1.2500	A572-65 (65 ksi)
L12	96.3300-91.3300	5.0000	0.00	18	23.0738	24.2087	0.3125	1.2500	A572-65 (65 ksi)
L13	91.3300-91.0000	0.3300	0.00	18	24.2087	24.2837	0.3125	1.2500	A572-65 (65 ksi)
L14	91.0000-90.7500	0.2500	0.00	18	24.2837	24.3404	0.6000	2.4000	A572-65 (65 ksi)
L15	90.7500-85.7500	5.0000	0.00	18	24.3404	25.4754	0.5875	2.3500	A572-65 (65 ksi)
L16	85.7500-80.7500	5.0000	0.00	18	25.4754	26.6104	0.5625	2.2500	A572-65 (65 ksi)
L17	80.7500-75.7500	5.0000	0.00	18	26.6104	27.7454	0.5500	2.2000	A572-65 (65 ksi)
L18	75.7500-70.7500	5.0000	0.00	18	27.7454	28.8804	0.5437	2.1750	A572-65 (65 ksi)
L19	70.7500-69.9800	0.7700	0.00	18	28.8804	29.0552	0.5313	2.1250	A572-65 (65 ksi)
L20	69.9800-69.7300	0.2500	0.00	18	29.0552	29.1120	0.5313	2.1250	A572-65 (65 ksi)
L21	69.7300-64.7300	5.0000	0.00	18	29.1120	30.2469	0.5250	2.1000	A572-65 (65 ksi)
L22	64.7300-63.0000	1.7300	0.00	18	30.2469	30.6397	0.3125	1.2500	A572-65 (65 ksi)
L23	63.0000-62.7500	0.2500	0.00	18	30.6397	30.6964	0.7000	2.8000	A572-65 (65 ksi)
L24	62.7500-59.0800	3.6700	0.00	18	30.6964	31.5295	0.6875	2.7500	A572-65 (65 ksi)
L25	59.0800-58.8200	0.2600	0.00	18	31.5295	31.5885	0.6250	2.5000	A572-65 (65 ksi)
L26	58.8200-58.6700	0.1500	0.00	18	31.5885	31.6226	0.6250	2.5000	A572-65 (65 ksi)
L27	58.6700-53.6700	5.0000	0.00	18	31.6226	32.7576	0.6125	2.4500	A572-65 (65 ksi)
L28	53.6700-48.5800	5.0900	4.42	18	32.7576	33.9130	0.6125	2.4500	A572-65 (65 ksi)
L29	48.5800-47.5800	5.4200	0.00	18	32.2847	33.5151	0.6375	2.5500	A572-65 (65 ksi)
L30	47.5800-42.5800	5.0000	0.00	18	33.5151	34.6503	0.6250	2.5000	A572-65 (65 ksi)
L31	42.5800-39.7500	2.8300	0.00	18	34.6503	35.2927	0.6125	2.4500	A572-65 (65 ksi)
L32	39.7500-39.5000	0.2500	0.00	18	35.2927	35.3495	0.8125	3.2500	A572-65 (65 ksi)
L33	39.5000-34.5000	5.0000	0.00	18	35.3495	36.4846	0.7875	3.1500	A572-65 (65 ksi)
L34	34.5000-32.5000	2.0000	0.00	18	36.4846	36.9387	0.7875	3.1500	A572-65 (65 ksi)
L35	32.5000-32.2500	0.2500	0.00	18	36.9387	36.9954	0.6125	2.4500	A572-65 (65 ksi)
L36	32.2500-31.4200	0.8300	0.00	18	36.9954	37.1839	0.6000	2.4000	A572-65 (65 ksi)
L37	31.4200-31.1700	0.2500	0.00	18	37.1839	37.2406	0.7750	3.1000	A572-65 (65 ksi)
L38	31.1700-29.0000	2.1700	0.00	18	37.2406	37.7333	0.7625	3.0500	A572-65 (65 ksi)
L39	29.0000-28.7500	0.2500	0.00	18	37.7333	37.7900	0.8500	3.4000	A572-65 (65 ksi)
L40	28.7500-28.5000	0.2500	0.00	18	37.7900	37.8468	0.6750	2.7000	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L41	28.5000- 23.5000	5.0000	0.00	18	37.8468	38.9819	0.6625	2.6500	A572-65 (65 ksi)
L42	23.5000- 23.2500	0.2500	0.00	18	38.9819	39.0387	0.7875	3.1500	A572-65 (65 ksi)
L43	23.2500- 23.0000	0.2500	0.00	18	39.0387	39.0954	0.7875	3.1500	A572-65 (65 ksi)
L44	23.0000- 22.7500	0.2500	0.00	18	39.0954	39.1522	0.6500	2.6000	A572-65 (65 ksi)
L45	22.7500- 17.7500	5.0000	0.00	18	39.1522	40.2873	0.6375	2.5500	A572-65 (65 ksi)
L46	17.7500- 12.7500	5.0000	0.00	18	40.2873	41.4224	0.6250	2.5000	A572-65 (65 ksi)
L47	12.7500- 7.7500	5.0000	0.00	18	41.4224	42.5576	0.6125	2.4500	A572-65 (65 ksi)
L48	7.7500-5.2500	2.5000	0.00	18	42.5576	43.1251	0.6125	2.4500	A572-65 (65 ksi)
L49	5.2500-5.0000	0.2500	0.00	18	43.1251	43.1819	0.6875	2.7500	A572-65 (65 ksi)
L50	5.0000-0.0000	5.0000		18	43.1819	44.3170	0.6875	2.7500	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L1	13.3640	7.7209	164.1788	4.6056	6.6858	24.5564	328.5737	3.8612	1.9863	10.594
	14.5165	8.3963	211.1466	5.0085	7.2623	29.0742	422.5710	4.1989	2.1861	11.659
L2	14.5165	8.3963	211.1466	5.0085	7.2623	29.0742	422.5710	4.1989	2.1861	11.659
	15.6690	9.0717	266.3129	5.4114	7.8389	33.9732	532.9762	4.5367	2.3858	12.724
L3	15.6690	9.0717	266.3129	5.4114	7.8389	33.9732	532.9762	4.5367	2.3858	12.724
	16.8214	9.7472	330.3372	5.8143	8.4155	39.2536	661.1090	4.8745	2.5856	13.79
L4	16.8214	9.7472	330.3372	5.8143	8.4155	39.2536	661.1090	4.8745	2.5856	13.79
	17.9739	10.4226	403.8790	6.2172	8.9920	44.9153	808.2895	5.2123	2.7853	14.855
L5	17.9739	10.4226	403.8790	6.2172	8.9920	44.9153	808.2895	5.2123	2.7853	14.855
	19.1264	11.0981	487.5980	6.6201	9.5686	50.9583	975.8376	5.5501	2.9851	15.921
L6	19.1264	26.9715	1150.3132	6.5225	9.5686	120.2178	2302.1400	13.4883	2.5011	5.408
	19.1840	27.0548	1161.0047	6.5427	9.5974	120.9707	2323.5372	13.5300	2.5111	5.429
L7	19.1840	26.3415	1131.9263	6.5471	9.5974	117.9409	2265.3420	13.1732	2.5331	5.629
	20.3364	27.9625	1354.0273	6.9500	10.1740	133.0875	2709.8362	13.9839	2.7328	6.073
L8	20.3364	26.4428	1283.7088	6.9589	10.1740	126.1759	2569.1067	13.2239	2.7768	6.534
	21.4889	27.9738	1519.8426	7.3618	10.7505	141.3739	3041.6850	13.9895	2.9766	7.004
L9	21.4889	27.5707	1498.8463	7.3640	10.7505	139.4208	2999.6649	13.7880	2.9876	7.135
	22.2196	28.5271	1660.2965	7.6195	11.1161	149.3602	3322.7776	14.2662	3.1142	7.437
L10	22.2196	21.3942	1257.5192	7.6572	11.1161	113.1264	2516.6931	10.6992	3.3012	10.564
	22.2772	21.4505	1267.4711	7.6773	11.1449	113.7267	2536.6099	10.7273	3.3112	10.596
L11	22.2772	21.4505	1267.4711	7.6773	11.1449	113.7267	2536.6099	10.7273	3.3112	10.596
	23.4297	22.5763	1477.6879	8.0802	11.7215	126.0668	2957.3202	11.2903	3.5110	11.235
L12	23.4297	22.5763	1477.6879	8.0802	11.7215	126.0668	2957.3202	11.2903	3.5110	11.235
	24.5822	23.7021	1709.9510	8.4832	12.2980	139.0425	3422.1519	11.8533	3.7107	11.874
L13	24.5822	23.7021	1709.9510	8.4832	12.2980	139.0425	3422.1519	11.8533	3.7107	11.874
	24.6583	23.7764	1726.0825	8.5098	12.3361	139.9213	3454.4362	11.8905	3.7239	11.917
L14	24.6583	45.1032	3196.2598	8.4077	12.3361	259.0981	6396.7254	22.5559	3.2179	5.363
	24.7159	45.2112	3219.2912	8.4278	12.3649	260.3566	6442.8185	22.6099	3.2279	5.38
L15	24.7159	44.2926	3157.2045	8.4323	12.3649	255.3354	6318.5633	22.1505	3.2499	5.532
	25.8684	46.4091	3631.7632	8.8352	12.9415	280.6291	7268.3052	23.2090	3.4497	5.872
L16	25.8684	44.4789	3487.7093	8.8441	12.9415	269.4979	6980.0078	22.2437	3.4937	6.211
	27.0209	46.5053	3986.4429	9.2470	13.5181	294.8969	7978.1313	23.2571	3.6934	6.566
L17	27.0209	45.4937	3903.4695	9.2514	13.5181	288.7590	7812.0754	22.7512	3.7154	6.755
	28.1734	47.4750	4436.0241	9.6544	14.0947	314.7306	8877.8852	23.7420	3.9152	7.119
L18	28.1734	46.9463	4388.6391	9.6566	14.0947	311.3687	8783.0529	23.4776	3.9262	7.221
	29.3259	48.9052	4961.2330	10.0595	14.6712	338.1602	9928.9940	24.4572	4.1260	7.588
L19	29.3259	47.8020	4853.5991	10.0640	14.6712	330.8239	9713.5847	23.9055	4.1480	7.808
	29.5034	48.0967	4943.9300	10.1260	14.7600	334.9537	9894.3654	24.0529	4.1787	7.866
L20	29.5034	48.0967	4943.9300	10.1260	14.7600	334.9537	9894.3654	24.0529	4.1787	7.866
	29.5610	48.1924	4973.4975	10.1461	14.7889	336.3000	9953.5392	24.1008	4.1887	7.885

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L21	29.5610	47.6359	4918.2108	10.1484	14.7889	332.5616	9842.8932	23.8225	4.1997	7.999
	30.7136	49.5272	5527.5868	10.5513	15.3655	359.7413	11062.447	24.7683	4.3995	8.38
L22	30.7136	29.6912	3361.3075	10.6267	15.3655	218.7575	6727.0379	14.8484	4.7735	15.275
	31.1123	30.0808	3495.3416	10.7661	15.5649	224.5649	6995.2824	15.0432	4.8426	15.496
L23	31.1123	66.5199	7533.2608	10.6286	15.5649	483.9888	15076.434	33.2663	4.1606	5.944
	31.1700	66.6460	7576.1795	10.6487	15.5938	485.8464	15162.327	33.3293	4.1706	5.958
L24	31.1700	65.4832	7450.1967	10.6532	15.5938	477.7673	14910.196	32.7478	4.1926	6.098
	32.0159	67.3011	8088.0658	10.9489	16.0170	504.9680	16186.774	33.6569	4.3392	6.312
L25	32.0159	61.3068	7397.5780	10.9711	16.0170	461.8583	14804.890	30.6592	4.4492	7.119
	32.0758	61.4239	7440.0417	10.9920	16.0470	463.6416	14889.873	30.7178	4.4596	7.135
L26	32.0758	61.4239	7440.0417	10.9920	16.0470	463.6416	14889.873	30.7178	4.4596	7.135
	32.1104	61.4914	7464.6137	11.0041	16.0643	464.6720	14939.049	30.7516	4.4656	7.145
L27	32.1104	60.2859	7324.1749	11.0086	16.0643	455.9296	14657.987	30.1487	4.4876	7.327
	33.2629	62.4924	8158.1858	11.4115	16.6408	490.2507	16327.106	31.2522	4.6873	7.653
L28	33.2629	62.4924	8158.1858	11.4115	16.6408	490.2507	16327.106	31.2522	4.6873	7.653
	34.4362	64.7387	9069.9048	11.8217	17.2278	526.4690	18151.744	32.3755	4.8907	7.985
L29	33.8016	64.0357	8102.6819	11.2347	16.4006	494.0477	16216.025	32.0239	4.5601	7.153
	34.0322	66.5254	9085.0297	11.6716	17.0257	533.6071	18182.013	33.2690	4.7767	7.493
L30	34.0322	65.2458	8917.0549	11.6760	17.0257	523.7412	17845.843	32.6291	4.7987	7.678
	35.1848	67.4976	9872.5395	12.0790	17.6023	560.8654	19758.069	33.7552	4.9984	7.998
L31	35.1848	66.1720	9685.7557	12.0834	17.6023	550.2541	19384.256	33.0923	5.0204	8.197
	35.8372	67.4210	10244.645	12.3115	17.9287	571.4099	20502.771	33.7169	5.1335	8.381
L32	35.8372	88.9202	13356.072	12.2405	17.9287	744.9543	26729.719	44.4686	4.7815	5.885
	35.8948	89.0666	13422.135	12.2606	17.9575	747.4370	26861.932	44.5418	4.7915	5.897
L33	35.8948	86.3886	13037.417	12.2695	17.9575	726.0133	26091.990	43.2025	4.8355	6.14
	37.0475	89.2259	14364.640	12.6725	18.5342	775.0347	28748.181	44.6214	5.0353	6.394
L34	37.0475	89.2259	14364.640	12.6725	18.5342	775.0347	28748.181	44.6214	5.0353	6.394
	37.5085	90.3608	14919.776	12.8337	18.7648	795.0917	29859.184	45.1890	5.1152	6.496
L35	37.5085	70.6208	11773.608	12.8958	18.7648	627.4289	23562.709	35.3171	5.4232	8.854
	37.5661	70.7312	11828.880	12.9159	18.7937	629.4073	23673.325	35.3723	5.4332	8.871
L36	37.5661	69.3115	11599.422	12.9204	18.7937	617.1980	23214.107	34.6623	5.4552	9.092
	37.7575	69.6703	11780.518	12.9873	18.8894	623.6575	23576.537	34.8418	5.4884	9.147
L37	37.7575	89.5603	14999.180	12.9251	18.8894	794.0526	30018.096	44.7887	5.1804	6.684
	37.8151	89.7000	15069.434	12.9453	18.9182	796.5560	30158.697	44.8585	5.1903	6.697
L38	37.8151	88.2834	14841.631	12.9497	18.9182	784.5145	29702.791	44.1501	5.2123	6.836
	38.3154	89.4757	15451.106	13.1246	19.1685	806.0676	30922.544	44.7464	5.2991	6.95

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L39	38.3154	99.5074	17102.178 6	13.0936	19.1685	892.2023	34226.860 8	49.7631	5.1451	6.053
	38.3730	99.6605	17181.251 2	13.1137	19.1973	894.9812	34385.109 9	49.8397	5.1550	6.065
L40	38.3730	79.5171	13838.765 5	13.1758	19.1973	720.8692	27695.740 5	39.7661	5.4630	8.093
	38.4306	79.6387	13902.349 4	13.1960	19.2262	723.0953	27822.991 9	39.8269	5.4730	8.108
L41	38.4306	78.1902	13658.668 5	13.2004	19.2262	710.4209	27335.309 5	39.1025	5.4950	8.294
	39.5833	80.5771	14948.119 3	13.6034	19.8028	754.8485	29915.907 7	40.2962	5.6948	8.596
L42	39.5833	95.4679	17595.200 1	13.5590	19.8028	888.5205	35213.552 5	47.7430	5.4748	6.952
	39.6409	95.6097	17673.755 4	13.5792	19.8316	891.1898	35370.766 3	47.8140	5.4848	6.965
L43	39.6409	95.6097	17673.755 4	13.5792	19.8316	891.1898	35370.766 3	47.8140	5.4848	6.965
	39.6985	95.7516	17752.544 1	13.5993	19.8605	893.8631	35528.447 4	47.8849	5.4948	6.978
L44	39.6985	79.3167	14811.243 0	13.6481	19.8605	745.7649	29641.975 0	39.6659	5.7368	8.826
	39.7562	79.4338	14876.936 7	13.6683	19.8893	747.9868	29773.448 8	39.7245	5.7468	8.841
L45	39.7562	77.9316	14605.057 4	13.6727	19.8893	734.3171	29229.332 5	38.9732	5.7688	9.049
	40.9088	80.2284	15934.836 3	14.0757	20.4659	778.6024	31890.640 0	40.1218	5.9686	9.362
L46	40.9088	78.6801	15637.168 5	14.0801	20.4659	764.0578	31294.912 8	39.3475	5.9906	9.585
	42.0614	80.9319	17018.557 0	14.4831	21.0426	808.7671	34059.507 4	40.4736	6.1903	9.905
L47	42.0614	79.3376	16693.520 7	14.4875	21.0426	793.3205	33409.007 2	39.6763	6.2123	10.143
	43.2141	81.5443	18125.614 6	14.8905	21.6192	838.4021	36275.079 3	40.7799	6.4121	10.469
L48	43.2141	81.5443	18125.614 6	14.8905	21.6192	838.4021	36275.079 3	40.7799	6.4121	10.469
	43.7904	82.6477	18871.394 5	15.0920	21.9076	861.4102	37767.620 5	41.3317	6.5120	10.632
L49	43.7904	92.6042	21070.267 5	15.0654	21.9076	961.7807	42168.259 9	46.3109	6.3800	9.28
	43.8480	92.7280	21154.919 2	15.0855	21.9364	964.3755	42337.674 5	46.3728	6.3900	9.295
L50	43.8480	92.7280	21154.919 2	15.0855	21.9364	964.3755	42337.674 5	46.3728	6.3900	9.295
	45.0007	95.2050	22895.903 3	15.4885	22.5130	1017.0065	45821.933 7	47.6116	6.5898	9.585

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A _r	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
L1 140.0000-135.0000				1	1	1			
L2 135.0000-130.0000				1	1	1			
L3 130.0000-125.0000				1	1	1			
L4 125.0000-120.0000				1	1	1			
L5 120.0000-115.0000				1	1	1			
L6 115.0000-114.7500				1	1	0.910459			
L7 114.7500-109.7500				1	1	0.90506			

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_r	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							
L8 109.7500-104.7500				1	1	0.928842			
L9 104.7500-101.5800				1	1	0.925837			
L10 101.5800-101.3300				1	1	1			
L11 101.3300-96.3300				1	1	1			
L12 96.3300-91.3300				1	1	1			
L13 91.3300-91.0000				1	1	1			
L14 91.0000-90.7500				1	1	0.925286			
L15 90.7500-85.7500				1	1	0.925661			
L16 85.7500-80.7500				1	1	0.947954			
L17 80.7500-75.7500				1	1	0.952304			
L18 75.7500-70.7500				1	1	0.947475			
L19 70.7500-69.9800				1	1	0.951412			
L20 69.9800-69.7300				1	1	0.950691			
L21 69.7300-64.7300				1	1	0.9478			
L22 64.7300-63.0000				1	1	1			
L23 63.0000-62.7500				1	1	0.981128			
L24 62.7500-59.0800				1	1	0.983857			
L25 59.0800-58.8200				1	1	0.999823			
L26 58.8200-58.6700				1	1	0.999274			
L27 58.6700-53.6700				1	1	1.00128			
L28 53.6700-48.5800				1	1	0.99897			
L29 48.5800-47.5800				1	1	0.940602			
L30 47.5800-42.5800				1	1	0.943735			
L31 42.5800-39.7500				1	1	0.954259			
L32 39.7500-39.5000				1	1	0.925083			
L33 39.5000-34.5000				1	1	0.936051			
L34 34.5000-32.5000				1	1	0.929278			
L35 32.5000-32.2500				1	1	0.944082			
L36 32.2500-31.4200				1	1	0.961139			
L37 31.4200-31.1700				1	1	0.939463			
L38 31.1700-29.0000				1	1	0.947279			
L39 29.0000-28.7500				1	1	0.97145			

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_r	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
L40 28.7500-28.5000				1	1	0.990358			
L41 28.5000-23.5000				1	1	0.992797			
L42 23.5000-23.2500				1	1	1.02556			
L43 23.2500-23.0000				1	1	1.02463			
L44 23.0000-22.7500				1	1	1.08475			
L45 22.7500-17.7500				1	1	1.08804			
L46 17.7500-12.7500				1	1	1.09249			
L47 12.7500-7.7500				1	1	1.0981			
L48 7.7500-5.2500				1	1	1.09025			
L49 5.2500-5.0000				1	1	0.914314			
L50 5.0000-0.0000				1	1	0.902352			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Section	Component Type	Placement	Total Number	Number Per Row	Start/End Position	Width or Diameter	Perimeter	Weight
			ft				in	in	plf
Safety Line 5/8	A	Surface Ar (CaAa)	140.0000 - 0.0000	1	1	0.500 0.500	0.8800		0.40
*									
*									
*									
** FACE B **									
LDF7-50A(1-5/8")	B	Surface Ar (CaAa)	120.0000 - 0.0000	18	6	-0.150 0.100	1.9800		0.82
AL7-50(1-5/8)	B	Surface Ar (CaAa)	138.0000 - 0.0000	2	1	0.330 0.330	1.9600		0.52
*									
*									
*									
*** Existing Flat Plates ***									
5.75" x 1" Flat Plate (G)	A	Surface Af (CaAa)	33.3300 - 0.5000	1	1	0.500 0.500	5.7500	13.5000	19.57
5.75" x 1" Flat Plate (G)	B	Surface Af (CaAa)	33.3300 - 0.5000	1	1	0.500 0.500	5.7500	13.5000	0.00
5.75" x 1" Flat Plate (G)	C	Surface Af (CaAa)	33.3300 - 0.5000	1	1	0.500 0.500	5.7500	13.5000	0.00

5.75" x 1" Flat Plate (G)	A	Surface Af (CaAa)	50.5800 - 30.5800	1	1	-0.300 -0.300	5.7500	13.5000	0.00
5.75" x 1" Flat Plate (G)	B	Surface Af (CaAa)	50.5800 - 30.5800	1	1	-0.300 -0.300	5.7500	13.5000	0.00
5.75" x 1" Flat Plate (G)	C	Surface Af (CaAa)	50.5800 - 30.5800	1	1	-0.300 -0.300	5.7500	13.5000	0.00

5.75" x 1" Flat Plate (G)	A	Surface Af (CaAa)	72.0000 - 57.0000	1	1	-0.300 -0.300	5.7500	13.5000	0.00
5.75" x 1" Flat Plate (G)	B	Surface Af (CaAa)	72.0000 - 57.0000	1	1	-0.300 -0.300	5.7500	13.5000	0.00
5.75" x 1" Flat Plate (G)	C	Surface Af (CaAa)	72.0000 - 57.0000	1	1	-0.300 -0.300	5.7500	13.5000	0.00

Description	Sector	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf

Aero MP304	A	Surface Af (CaAa)	60.5000 - 0.5000	1	1	0.000 0.000	4.7800	12.7800	0.00
Aero MP304	B	Surface Af (CaAa)	60.5000 - 0.5000	1	1	0.000 0.000	4.7800	12.7800	0.00
Aero MP304	C	Surface Af (CaAa)	60.5000 - 0.5000	1	1	0.000 0.000	4.7800	12.7800	0.00

6" x 1" Flat Plate (G)	A	Surface Af (CaAa)	41.6700 - 26.6700	1	1	0.200 0.200	6.0000	14.0000	0.00
6" x 1" Flat Plate (G)	B	Surface Af (CaAa)	41.6700 - 26.6700	1	1	0.200 0.200	6.0000	14.0000	0.00
6" x 1" Flat Plate (G)	C	Surface Af (CaAa)	41.6700 - 26.6700	1	1	0.200 0.200	6.0000	14.0000	0.00

6" x 1" Flat Plate (G)	A	Surface Af (CaAa)	25.5000 - 0.5000	1	1	0.300 0.300	6.0000	14.0000	0.00
6" x 1" Flat Plate (G)	B	Surface Af (CaAa)	25.5000 - 0.5000	1	1	-0.200 -0.200	6.0000	14.0000	0.00
6" x 1" Flat Plate (G)	C	Surface Af (CaAa)	25.5000 - 0.5000	1	1	0.200 0.200	6.0000	14.0000	0.00

6" x 1" Flat Plate (G)	A	Surface Af (CaAa)	65.0000 - 50.0000	1	1	0.200 0.200	6.0000	14.0000	0.00
6" x 1" Flat Plate (G)	B	Surface Af (CaAa)	65.0000 - 50.0000	1	1	0.300 0.300	6.0000	14.0000	0.00
6" x 1" Flat Plate (G)	C	Surface Af (CaAa)	65.0000 - 50.0000	1	1	0.200 0.200	6.0000	14.0000	0.00

6" x 1" Flat Plate (G)	A	Surface Af (CaAa)	93.0000 - 68.0000	1	1	0.300 0.300	6.0000	14.0000	0.00
6" x 1" Flat Plate (G)	B	Surface Af (CaAa)	93.0000 - 68.0000	1	1	0.300 0.300	6.0000	14.0000	0.00
6" x 1" Flat Plate (G)	C	Surface Af (CaAa)	93.0000 - 68.0000	1	1	0.300 0.300	6.0000	14.0000	0.00

4.5" x 1" Flat Plate (G)	A	Surface Af (CaAa)	117.0000 - 102.0000	1	1	0.300 0.300	4.5000	11.0000	0.00
4.5" x 1" Flat Plate (G)	B	Surface Af (CaAa)	117.0000 - 102.0000	1	1	0.300 0.300	4.5000	11.0000	0.00
4.5" x 1" Flat Plate (G)	C	Surface Af (CaAa)	117.0000 - 102.0000	1	1	0.300 0.300	4.5000	11.0000	0.00
Proposed Flat Plates									
6" x 1" Flat Plate (G)	A	Surface Af (CaAa)	31.2500 - 21.2500	1	1	-0.200 -0.200	6.0000	14.0000	0.00
6" x 1" Flat Plate (G)	C	Surface Af (CaAa)	31.2500 - 21.2500	1	1	-0.200 -0.200	6.0000	14.0000	0.00

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight plf
* ** FACE A **								
LDF6-50A(1-1/4")	A	No	Inside Pole	73.0000 - 0.0000	3	No Ice	0.0000	0.66
						1/2" Ice	0.0000	0.66
						1" Ice	0.0000	0.66
HB114-21U3M12-XXXF(1-1/4)	A	No	Inside Pole	73.0000 - 0.0000	1	No Ice	0.0000	1.22
						1/2" Ice	0.0000	1.22
						1" Ice	0.0000	1.22
* *								
AL7-50(1-5/8)	B	No	Inside Pole	138.0000 - 0.0000	12	No Ice	0.0000	0.52
						1/2" Ice	0.0000	0.52

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number	C _{AA}		Weight
						ft ² /ft	plf	
HB114-21U3M12- XXXF(1-1/4)	B	No	Inside Pole	138.0000 - 0.0000	2	1" Ice	0.0000	0.52
						No Ice	0.0000	1.22
						1/2" Ice	0.0000	1.22
						1" Ice	0.0000	1.22
* *								
** FACE C ** AL7-50(1-5/8)	C	No	Inside Pole	129.0000 - 0.0000	6	No Ice	0.0000	0.52
						1/2" Ice	0.0000	0.52
						1" Ice	0.0000	0.52
FB-L98B-034- XXXXXX(3/8)	C	No	Inside Pole	129.0000 - 0.0000	1	No Ice	0.0000	0.05
						1/2" Ice	0.0000	0.05
						1" Ice	0.0000	0.05
WR-VG86ST-BRD(3/4)	C	No	Inside Pole	129.0000 - 0.0000	2	No Ice	0.0000	0.58
						1/2" Ice	0.0000	0.58
						1" Ice	0.0000	0.58
* *								

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R	A _F	C _{AA} In Face	C _{AA} Out Face	Weight
			ft ²	ft ²	ft ²	ft ²	K
L1	140.0000- 135.0000	A	0.000	0.000	0.440	0.000	0.0020
		B	0.000	0.000	0.588	0.000	0.0292
		C	0.000	0.000	0.000	0.000	0.0000
L2	135.0000- 130.0000	A	0.000	0.000	0.440	0.000	0.0020
		B	0.000	0.000	0.980	0.000	0.0486
		C	0.000	0.000	0.000	0.000	0.0000
L3	130.0000- 125.0000	A	0.000	0.000	0.440	0.000	0.0020
		B	0.000	0.000	0.980	0.000	0.0486
		C	0.000	0.000	0.000	0.000	0.0174
L4	125.0000- 120.0000	A	0.000	0.000	0.440	0.000	0.0020
		B	0.000	0.000	0.980	0.000	0.0486
		C	0.000	0.000	0.000	0.000	0.0217
L5	120.0000- 115.0000	A	0.000	0.000	1.940	0.000	0.0020
		B	0.000	0.000	8.420	0.000	0.1224
		C	0.000	0.000	1.500	0.000	0.0217
L6	115.0000- 114.7500	A	0.000	0.000	0.209	0.000	0.0001
		B	0.000	0.000	0.533	0.000	0.0061
		C	0.000	0.000	0.188	0.000	0.0011
L7	114.7500- 109.7500	A	0.000	0.000	4.190	0.000	0.0020
		B	0.000	0.000	10.670	0.000	0.1224
		C	0.000	0.000	3.750	0.000	0.0217
L8	109.7500- 104.7500	A	0.000	0.000	4.190	0.000	0.0020
		B	0.000	0.000	10.670	0.000	0.1224
		C	0.000	0.000	3.750	0.000	0.0217
L9	104.7500- 101.5800	A	0.000	0.000	2.341	0.000	0.0013
		B	0.000	0.000	6.450	0.000	0.0776
		C	0.000	0.000	2.063	0.000	0.0138
L10	101.5800- 101.3300	A	0.000	0.000	0.022	0.000	0.0001
		B	0.000	0.000	0.346	0.000	0.0061
		C	0.000	0.000	0.000	0.000	0.0011
L11	101.3300- 96.3300	A	0.000	0.000	0.440	0.000	0.0020
		B	0.000	0.000	6.920	0.000	0.1224
		C	0.000	0.000	0.000	0.000	0.0217
L12	96.3300-91.3300	A	0.000	0.000	2.110	0.000	0.0020
		B	0.000	0.000	8.590	0.000	0.1224
		C	0.000	0.000	1.670	0.000	0.0217
L13	91.3300-91.0000	A	0.000	0.000	0.359	0.000	0.0001
		B	0.000	0.000	0.787	0.000	0.0081
		C	0.000	0.000	0.330	0.000	0.0014
L14	91.0000-90.7500	A	0.000	0.000	0.272	0.000	0.0001
		B	0.000	0.000	0.596	0.000	0.0061
		C	0.000	0.000	0.250	0.000	0.0011

Tower Sectio n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L15	90.7500-85.7500	A	0.000	0.000	5.440	0.000	0.0020
		B	0.000	0.000	11.920	0.000	0.1224
		C	0.000	0.000	5.000	0.000	0.0217
L16	85.7500-80.7500	A	0.000	0.000	5.440	0.000	0.0020
		B	0.000	0.000	11.920	0.000	0.1224
		C	0.000	0.000	5.000	0.000	0.0217
L17	80.7500-75.7500	A	0.000	0.000	5.440	0.000	0.0020
		B	0.000	0.000	11.920	0.000	0.1224
		C	0.000	0.000	5.000	0.000	0.0217
L18	75.7500-70.7500	A	0.000	0.000	6.638	0.000	0.0092
		B	0.000	0.000	13.118	0.000	0.1224
		C	0.000	0.000	6.198	0.000	0.0217
L19	70.7500-69.9800	A	0.000	0.000	1.576	0.000	0.0028
		B	0.000	0.000	2.574	0.000	0.0188
		C	0.000	0.000	1.508	0.000	0.0033
L20	69.9800-69.7300	A	0.000	0.000	0.512	0.000	0.0009
		B	0.000	0.000	0.836	0.000	0.0061
		C	0.000	0.000	0.490	0.000	0.0011
L21	69.7300-64.7300	A	0.000	0.000	7.232	0.000	0.0180
		B	0.000	0.000	13.712	0.000	0.1224
		C	0.000	0.000	6.792	0.000	0.0217
L22	64.7300-63.0000	A	0.000	0.000	3.540	0.000	0.0062
		B	0.000	0.000	5.782	0.000	0.0424
		C	0.000	0.000	3.388	0.000	0.0075
L23	63.0000-62.7500	A	0.000	0.000	0.512	0.000	0.0009
		B	0.000	0.000	0.836	0.000	0.0061
		C	0.000	0.000	0.490	0.000	0.0011
L24	62.7500-59.0800	A	0.000	0.000	8.641	0.000	0.0132
		B	0.000	0.000	13.398	0.000	0.0898
		C	0.000	0.000	8.318	0.000	0.0159
L25	59.0800-58.8200	A	0.000	0.000	0.739	0.000	0.0009
		B	0.000	0.000	1.076	0.000	0.0064
		C	0.000	0.000	0.716	0.000	0.0011
L26	58.8200-58.6700	A	0.000	0.000	0.426	0.000	0.0005
		B	0.000	0.000	0.621	0.000	0.0037
		C	0.000	0.000	0.413	0.000	0.0007
L27	58.6700-53.6700	A	0.000	0.000	11.024	0.000	0.0180
		B	0.000	0.000	17.504	0.000	0.1224
		C	0.000	0.000	10.584	0.000	0.0217
L28	53.6700-48.5800	A	0.000	0.000	10.090	0.000	0.0183
		B	0.000	0.000	16.686	0.000	0.1246
		C	0.000	0.000	9.642	0.000	0.0221
L29	48.5800-47.5800	A	0.000	0.000	1.843	0.000	0.0036
		B	0.000	0.000	3.139	0.000	0.0245
		C	0.000	0.000	1.755	0.000	0.0043
L30	47.5800-42.5800	A	0.000	0.000	9.215	0.000	0.0180
		B	0.000	0.000	15.695	0.000	0.1224
		C	0.000	0.000	8.775	0.000	0.0217
L31	42.5800-39.7500	A	0.000	0.000	7.136	0.000	0.0102
		B	0.000	0.000	10.803	0.000	0.0693
		C	0.000	0.000	6.887	0.000	0.0123
L32	39.7500-39.5000	A	0.000	0.000	0.711	0.000	0.0009
		B	0.000	0.000	1.035	0.000	0.0061
		C	0.000	0.000	0.689	0.000	0.0011
L33	39.5000-34.5000	A	0.000	0.000	14.215	0.000	0.0180
		B	0.000	0.000	20.695	0.000	0.1224
		C	0.000	0.000	13.775	0.000	0.0217
L34	34.5000-32.5000	A	0.000	0.000	6.481	0.000	0.0234
		B	0.000	0.000	9.073	0.000	0.0490
		C	0.000	0.000	6.305	0.000	0.0087
L35	32.5000-32.2500	A	0.000	0.000	0.950	0.000	0.0058
		B	0.000	0.000	1.274	0.000	0.0061
		C	0.000	0.000	0.928	0.000	0.0011
L36	32.2500-31.4200	A	0.000	0.000	3.155	0.000	0.0192
		B	0.000	0.000	4.231	0.000	0.0203
		C	0.000	0.000	3.082	0.000	0.0036
L37	31.4200-31.1700	A	0.000	0.000	1.030	0.000	0.0058
		B	0.000	0.000	1.274	0.000	0.0061
		C	0.000	0.000	1.008	0.000	0.0011

Tower Sectio n	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 K
L38	31.1700-29.0000	A	0.000	0.000	8.905	0.000	0.0503
		B	0.000	0.000	9.547	0.000	0.0531
		C	0.000	0.000	8.714	0.000	0.0094
L39	29.0000-28.7500	A	0.000	0.000	0.961	0.000	0.0058
		B	0.000	0.000	1.035	0.000	0.0061
		C	0.000	0.000	0.939	0.000	0.0011
L40	28.7500-28.5000	A	0.000	0.000	0.961	0.000	0.0058
		B	0.000	0.000	1.035	0.000	0.0061
		C	0.000	0.000	0.939	0.000	0.0011
L41	28.5000-23.5000	A	0.000	0.000	18.045	0.000	0.1158
		B	0.000	0.000	19.525	0.000	0.1224
		C	0.000	0.000	17.605	0.000	0.0217
L42	23.5000-23.2500	A	0.000	0.000	0.961	0.000	0.0058
		B	0.000	0.000	1.035	0.000	0.0061
		C	0.000	0.000	0.939	0.000	0.0011
L43	23.2500-23.0000	A	0.000	0.000	0.961	0.000	0.0058
		B	0.000	0.000	1.035	0.000	0.0061
		C	0.000	0.000	0.939	0.000	0.0011
L44	23.0000-22.7500	A	0.000	0.000	0.961	0.000	0.0058
		B	0.000	0.000	1.035	0.000	0.0061
		C	0.000	0.000	0.939	0.000	0.0011
L45	22.7500-17.7500	A	0.000	0.000	15.715	0.000	0.1158
		B	0.000	0.000	20.695	0.000	0.1224
		C	0.000	0.000	15.275	0.000	0.0217
L46	17.7500-12.7500	A	0.000	0.000	14.215	0.000	0.1158
		B	0.000	0.000	20.695	0.000	0.1224
		C	0.000	0.000	13.775	0.000	0.0217
L47	12.7500-7.7500	A	0.000	0.000	14.215	0.000	0.1158
		B	0.000	0.000	20.695	0.000	0.1224
		C	0.000	0.000	13.775	0.000	0.0217
L48	7.7500-5.2500	A	0.000	0.000	7.107	0.000	0.0579
		B	0.000	0.000	10.348	0.000	0.0612
		C	0.000	0.000	6.887	0.000	0.0108
L49	5.2500-5.0000	A	0.000	0.000	0.711	0.000	0.0058
		B	0.000	0.000	1.035	0.000	0.0061
		C	0.000	0.000	0.689	0.000	0.0011
L50	5.0000-0.0000	A	0.000	0.000	12.838	0.000	0.1060
		B	0.000	0.000	19.317	0.000	0.1224
		C	0.000	0.000	12.398	0.000	0.0217

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Sectio n	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 K
L1	140.0000- 135.0000	A	1.730	0.000	0.000	2.170	0.000	0.0296
		B		0.000	0.000	1.626	0.000	0.0760
		C		0.000	0.000	0.000	0.000	0.0000
L2	135.0000- 130.0000	A	1.724	0.000	0.000	2.164	0.000	0.0294
		B		0.000	0.000	2.704	0.000	0.1262
		C		0.000	0.000	0.000	0.000	0.0000
L3	130.0000- 125.0000	A	1.717	0.000	0.000	2.157	0.000	0.0292
		B		0.000	0.000	2.697	0.000	0.1257
		C		0.000	0.000	0.000	0.000	0.0174
L4	125.0000- 120.0000	A	1.710	0.000	0.000	2.150	0.000	0.0291
		B		0.000	0.000	2.690	0.000	0.1253
		C		0.000	0.000	0.000	0.000	0.0217
L5	120.0000- 115.0000	A	1.703	0.000	0.000	4.302	0.000	0.0520
		B		0.000	0.000	14.395	0.000	0.3797
		C		0.000	0.000	2.158	0.000	0.0448
L6	115.0000- 114.7500	A	1.699	0.000	0.000	0.377	0.000	0.0043
		B		0.000	0.000	0.881	0.000	0.0207
		C		0.000	0.000	0.270	0.000	0.0040
L7	114.7500- 109.7500	A	1.695	0.000	0.000	7.525	0.000	0.0861
		B		0.000	0.000	17.610	0.000	0.4128
		C		0.000	0.000	5.390	0.000	0.0791

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L8	109.7500-104.7500	A	1.688	0.000	0.000	7.512	0.000	0.0855
		B		0.000	0.000	17.586	0.000	0.4112
		C		0.000	0.000	5.384	0.000	0.0787
L9	104.7500-101.5800	A	1.681	0.000	0.000	4.303	0.000	0.0492
		B		0.000	0.000	10.685	0.000	0.2551
		C		0.000	0.000	2.958	0.000	0.0450
L10	101.5800-101.3300	A	1.678	0.000	0.000	0.106	0.000	0.0014
		B		0.000	0.000	0.609	0.000	0.0176
		C		0.000	0.000	0.000	0.000	0.0011
L11	101.3300-96.3300	A	1.674	0.000	0.000	2.114	0.000	0.0281
		B		0.000	0.000	12.171	0.000	0.3521
		C		0.000	0.000	0.000	0.000	0.0217
L12	96.3300-91.3300	A	1.665	0.000	0.000	4.331	0.000	0.0498
		B		0.000	0.000	14.378	0.000	0.3728
		C		0.000	0.000	2.226	0.000	0.0436
L13	91.3300-91.0000	A	1.660	0.000	0.000	0.578	0.000	0.0062
		B		0.000	0.000	1.241	0.000	0.0274
		C		0.000	0.000	0.440	0.000	0.0058
L14	91.0000-90.7500	A	1.660	0.000	0.000	0.438	0.000	0.0047
		B		0.000	0.000	0.940	0.000	0.0208
		C		0.000	0.000	0.333	0.000	0.0044
L15	90.7500-85.7500	A	1.655	0.000	0.000	8.750	0.000	0.0928
		B		0.000	0.000	18.784	0.000	0.4145
		C		0.000	0.000	6.655	0.000	0.0869
L16	85.7500-80.7500	A	1.645	0.000	0.000	8.731	0.000	0.0921
		B		0.000	0.000	18.753	0.000	0.4125
		C		0.000	0.000	6.645	0.000	0.0864
L17	80.7500-75.7500	A	1.635	0.000	0.000	8.710	0.000	0.0913
		B		0.000	0.000	18.719	0.000	0.4105
		C		0.000	0.000	6.635	0.000	0.0859
L18	75.7500-70.7500	A	1.624	0.000	0.000	10.218	0.000	0.1132
		B		0.000	0.000	20.214	0.000	0.4238
		C		0.000	0.000	8.154	0.000	0.1009
L19	70.7500-69.9800	A	1.618	0.000	0.000	2.278	0.000	0.0258
		B		0.000	0.000	3.816	0.000	0.0722
		C		0.000	0.000	1.961	0.000	0.0226
L20	69.9800-69.7300	A	1.617	0.000	0.000	0.739	0.000	0.0084
		B		0.000	0.000	1.239	0.000	0.0234
		C		0.000	0.000	0.637	0.000	0.0073
L21	69.7300-64.7300	A	1.611	0.000	0.000	10.786	0.000	0.1290
		B		0.000	0.000	20.764	0.000	0.4292
		C		0.000	0.000	8.735	0.000	0.1082
L22	64.7300-63.0000	A	1.602	0.000	0.000	4.976	0.000	0.0574
		B		0.000	0.000	8.425	0.000	0.1608
		C		0.000	0.000	4.270	0.000	0.0502
L23	63.0000-62.7500	A	1.600	0.000	0.000	0.719	0.000	0.0083
		B		0.000	0.000	1.217	0.000	0.0232
		C		0.000	0.000	0.617	0.000	0.0072
L24	62.7500-59.0800	A	1.595	0.000	0.000	12.130	0.000	0.1376
		B		0.000	0.000	19.440	0.000	0.3564
		C		0.000	0.000	10.637	0.000	0.1226
L25	59.0800-58.8200	A	1.590	0.000	0.000	1.036	0.000	0.0116
		B		0.000	0.000	1.554	0.000	0.0270
		C		0.000	0.000	0.931	0.000	0.0105
L26	58.8200-58.6700	A	1.589	0.000	0.000	0.598	0.000	0.0067
		B		0.000	0.000	0.896	0.000	0.0156
		C		0.000	0.000	0.537	0.000	0.0061
L27	58.6700-53.6700	A	1.582	0.000	0.000	15.847	0.000	0.1810
		B		0.000	0.000	25.789	0.000	0.4776
		C		0.000	0.000	13.825	0.000	0.1609
L28	53.6700-48.5800	A	1.567	0.000	0.000	14.799	0.000	0.1685
		B		0.000	0.000	24.902	0.000	0.4685
		C		0.000	0.000	12.756	0.000	0.1484
L29	48.5800-47.5800	A	1.558	0.000	0.000	2.783	0.000	0.0315
		B		0.000	0.000	4.768	0.000	0.0905
		C		0.000	0.000	2.382	0.000	0.0276
L30	47.5800-42.5800	A	1.547	0.000	0.000	13.857	0.000	0.1553
		B		0.000	0.000	23.757	0.000	0.4476
		C		0.000	0.000	11.870	0.000	0.1360

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 K
L31	42.5800-39.7500	A	1.534	0.000	0.000	10.200	0.000	0.1096
		B		0.000	0.000	15.793	0.000	0.2741
		C		0.000	0.000	9.083	0.000	0.0989
L32	39.7500-39.5000	A	1.528	0.000	0.000	1.000	0.000	0.0106
		B		0.000	0.000	1.493	0.000	0.0251
		C		0.000	0.000	0.901	0.000	0.0096
L33	39.5000-34.5000	A	1.517	0.000	0.000	19.958	0.000	0.2099
		B		0.000	0.000	29.819	0.000	0.4985
		C		0.000	0.000	18.001	0.000	0.1914
L34	34.5000-32.5000	A	1.502	0.000	0.000	9.007	0.000	0.1085
		B		0.000	0.000	12.944	0.000	0.2070
		C		0.000	0.000	8.230	0.000	0.0850
L35	32.5000-32.2500	A	1.497	0.000	0.000	1.309	0.000	0.0180
		B		0.000	0.000	1.801	0.000	0.0274
		C		0.000	0.000	1.212	0.000	0.0122
L36	32.2500-31.4200	A	1.495	0.000	0.000	4.343	0.000	0.0597
		B		0.000	0.000	5.976	0.000	0.0909
		C		0.000	0.000	4.022	0.000	0.0405
L37	31.4200-31.1700	A	1.492	0.000	0.000	1.394	0.000	0.0189
		B		0.000	0.000	1.799	0.000	0.0273
		C		0.000	0.000	1.297	0.000	0.0131
L38	31.1700-29.0000	A	1.486	0.000	0.000	11.684	0.000	0.1624
		B		0.000	0.000	13.619	0.000	0.2190
		C		0.000	0.000	10.848	0.000	0.1122
L39	29.0000-28.7500	A	1.480	0.000	0.000	1.260	0.000	0.0179
		B		0.000	0.000	1.482	0.000	0.0244
		C		0.000	0.000	1.164	0.000	0.0121
L40	28.7500-28.5000	A	1.479	0.000	0.000	1.259	0.000	0.0179
		B		0.000	0.000	1.482	0.000	0.0244
		C		0.000	0.000	1.163	0.000	0.0121
L41	28.5000-23.5000	A	1.465	0.000	0.000	23.806	0.000	0.3415
		B		0.000	0.000	28.247	0.000	0.4703
		C		0.000	0.000	21.901	0.000	0.2264
L42	23.5000-23.2500	A	1.449	0.000	0.000	1.268	0.000	0.0176
		B		0.000	0.000	1.489	0.000	0.0239
		C		0.000	0.000	1.173	0.000	0.0118
L43	23.2500-23.0000	A	1.448	0.000	0.000	1.268	0.000	0.0175
		B		0.000	0.000	1.489	0.000	0.0239
		C		0.000	0.000	1.173	0.000	0.0118
L44	23.0000-22.7500	A	1.446	0.000	0.000	1.267	0.000	0.0175
		B		0.000	0.000	1.489	0.000	0.0239
		C		0.000	0.000	1.173	0.000	0.0118
L45	22.7500-17.7500	A	1.428	0.000	0.000	21.529	0.000	0.3091
		B		0.000	0.000	29.679	0.000	0.4730
		C		0.000	0.000	19.661	0.000	0.1948
L46	17.7500-12.7500	A	1.388	0.000	0.000	19.769	0.000	0.2864
		B		0.000	0.000	29.469	0.000	0.4617
		C		0.000	0.000	17.940	0.000	0.1730
L47	12.7500-7.7500	A	1.334	0.000	0.000	19.552	0.000	0.2777
		B		0.000	0.000	29.185	0.000	0.4467
		C		0.000	0.000	17.778	0.000	0.1655
L48	7.7500-5.2500	A	1.275	0.000	0.000	9.658	0.000	0.1342
		B		0.000	0.000	14.437	0.000	0.2152
		C		0.000	0.000	8.800	0.000	0.0787
L49	5.2500-5.0000	A	1.245	0.000	0.000	0.960	0.000	0.0132
		B		0.000	0.000	1.436	0.000	0.0211
		C		0.000	0.000	0.876	0.000	0.0077
L50	5.0000-0.0000	A	1.158	0.000	0.000	17.123	0.000	0.2288
		B		0.000	0.000	26.536	0.000	0.3873
		C		0.000	0.000	15.525	0.000	0.1300

Feed Line Center of Pressure

Section	Elevation	CP _x	CP _z	CP _x Ice	CP _z Ice
	ft	in	in	in	in
L1	140.0000-135.0000	0.1948	-0.0846	0.3334	-0.3023
L2	135.0000-130.0000	0.3021	-0.0612	0.5103	-0.2518
L3	130.0000-125.0000	0.3012	-0.0624	0.5199	-0.2607
L4	125.0000-120.0000	0.3003	-0.0635	0.5288	-0.2688
L5	120.0000-115.0000	0.9094	-0.5299	0.9514	-0.5875
L6	115.0000-114.7500	0.6866	-0.4002	0.7509	-0.4642
L7	114.7500-109.7500	0.6967	-0.4062	0.7647	-0.4733
L8	109.7500-104.7500	0.7153	-0.4172	0.7906	-0.4902
L9	104.7500-101.5800	0.7716	-0.4502	0.8525	-0.5293
L10	101.5800-101.3300	1.2341	-0.7203	1.2871	-0.7996
L11	101.3300-96.3300	1.2419	-0.7250	1.3034	-0.8104
L12	96.3300-91.3300	0.9749	-0.5694	1.0837	-0.6747
L13	91.3300-91.0000	0.6824	-0.3987	0.8010	-0.4991
L14	91.0000-90.7500	0.6833	-0.3992	0.8024	-0.4999
L15	90.7500-85.7500	0.6916	-0.4041	0.8141	-0.5076
L16	85.7500-80.7500	0.7069	-0.4132	0.8361	-0.5219
L17	80.7500-75.7500	0.7218	-0.4221	0.8576	-0.5359
L18	75.7500-70.7500	0.6665	-0.3899	0.8056	-0.5039
L19	70.7500-69.9800	0.5260	-0.3077	0.6544	-0.4095
L20	69.9800-69.7300	0.5272	-0.3085	0.6561	-0.4106
L21	69.7300-64.7300	0.6501	-0.3714	0.8009	-0.4936
L22	64.7300-63.0000	0.5014	-0.1578	0.6505	-0.2865
L23	63.0000-62.7500	0.5035	-0.1584	0.6535	-0.2877
L24	62.7500-59.0800	0.4646	-0.1459	0.6026	-0.2651
L25	59.0800-58.8200	0.4132	-0.1295	0.5353	-0.2353
L26	58.8200-58.6700	0.4136	-0.1296	0.5358	-0.2355
L27	58.6700-53.6700	0.4943	-0.1546	0.6320	-0.2776
L28	53.6700-48.5800	0.5504	-0.2165	0.6922	-0.3418
L29	48.5800-47.5800	0.6079	-0.3560	0.7405	-0.4645
L30	47.5800-42.5800	0.6148	-0.3601	0.7498	-0.4704
L31	42.5800-39.7500	0.5154	-0.3019	0.6437	-0.4039
L32	39.7500-39.5000	0.4792	-0.2808	0.6035	-0.3788
L33	39.5000-34.5000	0.4843	-0.2838	0.6102	-0.3830
L34	34.5000-32.5000	0.4492	-0.2632	0.5682	-0.3567
L35	32.5000-32.2500	0.4030	-0.2362	0.5116	-0.3212
L36	32.2500-31.4200	0.4039	-0.2367	0.5128	-0.3219
L37	31.4200-31.1700	0.3636	-0.1312	0.4775	-0.2350
L38	31.1700-29.0000	0.3256	0.0784	0.4634	-0.0747
L39	29.0000-28.7500	0.3443	0.0832	0.4898	-0.0786
L40	28.7500-28.5000	0.3446	0.0833	0.4903	-0.0786
L41	28.5000-23.5000	0.3147	-0.1107	0.4666	-0.2769
L42	23.5000-23.2500	0.2307	-0.3910	0.3777	-0.5434
L43	23.2500-23.0000	0.2309	-0.3914	0.3780	-0.5440
L44	23.0000-22.7500	0.2311	-0.3918	0.3784	-0.5445
L45	22.7500-17.7500	0.3280	-0.7077	0.4692	-0.8105
L46	17.7500-12.7500	0.3806	-0.8769	0.5194	-0.9534
L47	12.7500-7.7500	0.3866	-0.8935	0.5273	-0.9719
L48	7.7500-5.2500	0.3911	-0.9058	0.5325	-0.9850
L49	5.2500-5.0000	0.3927	-0.9103	0.5342	-0.9895
L50	5.0000-0.0000	0.4380	-0.9146	0.5859	-0.9990

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L1	1	Safety Line 5/8	135.00 - 140.00	1.0000	1.0000
L1	15	AL7-50(1-5/8)	135.00 - 138.00	1.0000	1.0000
L2	1	Safety Line 5/8	130.00 - 135.00	1.0000	1.0000
L2	15	AL7-50(1-5/8)	130.00 - 135.00	1.0000	1.0000
L3	1	Safety Line 5/8	125.00 - 130.00	1.0000	1.0000
L3	15	AL7-50(1-5/8)	125.00 - 130.00	1.0000	1.0000
L4	1	Safety Line 5/8	120.00 - 125.00	1.0000	1.0000
L4	15	AL7-50(1-5/8)	120.00 - 125.00	1.0000	1.0000
L5	1	Safety Line 5/8	115.00 - 120.00	1.0000	1.0000
L5	13	LDF7-50A(1-5/8")	115.00 - 120.00	1.0000	1.0000
L5	15	AL7-50(1-5/8)	115.00 - 120.00	1.0000	1.0000
L5	58	4.5" x 1" Flat Plate (G)	115.00 - 117.00	1.0000	1.0000
L5	59	4.5" x 1" Flat Plate (G)	115.00 - 117.00	1.0000	1.0000
L5	60	4.5" x 1" Flat Plate (G)	115.00 - 117.00	1.0000	1.0000
L6	1	Safety Line 5/8	114.75 - 115.00	1.0000	1.0000
L6	13	LDF7-50A(1-5/8")	114.75 - 115.00	1.0000	1.0000
L6	15	AL7-50(1-5/8)	114.75 - 115.00	1.0000	1.0000
L6	58	4.5" x 1" Flat Plate (G)	114.75 - 115.00	1.0000	1.0000
L6	59	4.5" x 1" Flat Plate (G)	114.75 - 115.00	1.0000	1.0000
L6	60	4.5" x 1" Flat Plate (G)	114.75 - 115.00	1.0000	1.0000
L7	1	Safety Line 5/8	109.75 - 114.75	1.0000	1.0000
L7	13	LDF7-50A(1-5/8")	109.75 - 114.75	1.0000	1.0000
L7	15	AL7-50(1-5/8)	109.75 - 114.75	1.0000	1.0000
L7	58	4.5" x 1" Flat Plate (G)	109.75 - 114.75	1.0000	1.0000
L7	59	4.5" x 1" Flat Plate (G)	109.75 - 114.75	1.0000	1.0000
L7	60	4.5" x 1" Flat Plate (G)	109.75 - 114.75	1.0000	1.0000
L8	1	Safety Line 5/8	104.75 - 109.75	1.0000	1.0000
L8	13	LDF7-50A(1-5/8")	104.75 - 109.75	1.0000	1.0000
L8	15	AL7-50(1-5/8)	104.75 - 109.75	1.0000	1.0000
L8	58	4.5" x 1" Flat Plate (G)	104.75 - 109.75	1.0000	1.0000
L8	59	4.5" x 1" Flat Plate (G)	104.75 - 109.75	1.0000	1.0000
L8	60	4.5" x 1" Flat Plate (G)	104.75 - 109.75	1.0000	1.0000
L9	1	Safety Line 5/8	101.58 - 104.75	1.0000	1.0000
L9	13	LDF7-50A(1-5/8")	101.58 - 104.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L9	15	AL7-50(1-5/8)	101.58 - 104.75	1.0000	1.0000
L9	58	4.5" x 1" Flat Plate (G)	102.00 - 104.75	1.0000	1.0000
L9	59	4.5" x 1" Flat Plate (G)	102.00 - 104.75	1.0000	1.0000
L9	60	4.5" x 1" Flat Plate (G)	102.00 - 104.75	1.0000	1.0000
L10	1	Safety Line 5/8	101.33 - 101.58	1.0000	1.0000
L10	13	LDF7-50A(1-5/8")	101.33 - 101.58	1.0000	1.0000
L10	15	AL7-50(1-5/8)	101.33 - 101.58	1.0000	1.0000
L11	1	Safety Line 5/8	96.33 - 101.33	1.0000	1.0000
L11	13	LDF7-50A(1-5/8")	96.33 - 101.33	1.0000	1.0000
L11	15	AL7-50(1-5/8)	96.33 - 101.33	1.0000	1.0000
L12	1	Safety Line 5/8	91.33 - 96.33	1.0000	1.0000
L12	13	LDF7-50A(1-5/8")	91.33 - 96.33	1.0000	1.0000
L12	15	AL7-50(1-5/8)	91.33 - 96.33	1.0000	1.0000
L12	54	6" x 1" Flat Plate (G)	91.33 - 93.00	1.0000	1.0000
L12	55	6" x 1" Flat Plate (G)	91.33 - 93.00	1.0000	1.0000
L12	56	6" x 1" Flat Plate (G)	91.33 - 93.00	1.0000	1.0000
L13	1	Safety Line 5/8	91.00 - 91.33	1.0000	1.0000
L13	13	LDF7-50A(1-5/8")	91.00 - 91.33	1.0000	1.0000
L13	15	AL7-50(1-5/8)	91.00 - 91.33	1.0000	1.0000
L13	54	6" x 1" Flat Plate (G)	91.00 - 91.33	1.0000	1.0000
L13	55	6" x 1" Flat Plate (G)	91.00 - 91.33	1.0000	1.0000
L13	56	6" x 1" Flat Plate (G)	91.00 - 91.33	1.0000	1.0000
L14	1	Safety Line 5/8	90.75 - 91.00	1.0000	1.0000
L14	13	LDF7-50A(1-5/8")	90.75 - 91.00	1.0000	1.0000
L14	15	AL7-50(1-5/8)	90.75 - 91.00	1.0000	1.0000
L14	54	6" x 1" Flat Plate (G)	90.75 - 91.00	1.0000	1.0000
L14	55	6" x 1" Flat Plate (G)	90.75 - 91.00	1.0000	1.0000
L14	56	6" x 1" Flat Plate (G)	90.75 - 91.00	1.0000	1.0000
L15	1	Safety Line 5/8	85.75 - 90.75	1.0000	1.0000
L15	13	LDF7-50A(1-5/8")	85.75 - 90.75	1.0000	1.0000
L15	15	AL7-50(1-5/8)	85.75 - 90.75	1.0000	1.0000
L15	54	6" x 1" Flat Plate (G)	85.75 - 90.75	1.0000	1.0000
L15	55	6" x 1" Flat Plate (G)	85.75 - 90.75	1.0000	1.0000
L15	56	6" x 1" Flat Plate (G)	85.75 - 90.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L16	1	Safety Line 5/8	80.75 - 85.75	1.0000	1.0000
L16	13	LDF7-50A(1-5/8")	80.75 - 85.75	1.0000	1.0000
L16	15	AL7-50(1-5/8)	80.75 - 85.75	1.0000	1.0000
L16	54	6" x 1" Flat Plate (G)	80.75 - 85.75	1.0000	1.0000
L16	55	6" x 1" Flat Plate (G)	80.75 - 85.75	1.0000	1.0000
L16	56	6" x 1" Flat Plate (G)	80.75 - 85.75	1.0000	1.0000
L17	1	Safety Line 5/8	75.75 - 80.75	1.0000	1.0000
L17	13	LDF7-50A(1-5/8")	75.75 - 80.75	1.0000	1.0000
L17	15	AL7-50(1-5/8)	75.75 - 80.75	1.0000	1.0000
L17	54	6" x 1" Flat Plate (G)	75.75 - 80.75	1.0000	1.0000
L17	55	6" x 1" Flat Plate (G)	75.75 - 80.75	1.0000	1.0000
L17	56	6" x 1" Flat Plate (G)	75.75 - 80.75	1.0000	1.0000
L18	1	Safety Line 5/8	70.75 - 75.75	1.0000	1.0000
L18	13	LDF7-50A(1-5/8")	70.75 - 75.75	1.0000	1.0000
L18	15	AL7-50(1-5/8)	70.75 - 75.75	1.0000	1.0000
L18	34	5.75" x 1" Flat Plate (G)	70.75 - 72.00	1.0000	1.0000
L18	35	5.75" x 1" Flat Plate (G)	70.75 - 72.00	1.0000	1.0000
L18	36	5.75" x 1" Flat Plate (G)	70.75 - 72.00	1.0000	1.0000
L18	54	6" x 1" Flat Plate (G)	70.75 - 75.75	1.0000	1.0000
L18	55	6" x 1" Flat Plate (G)	70.75 - 75.75	1.0000	1.0000
L18	56	6" x 1" Flat Plate (G)	70.75 - 75.75	1.0000	1.0000
L19	1	Safety Line 5/8	69.98 - 70.75	1.0000	1.0000
L19	13	LDF7-50A(1-5/8")	69.98 - 70.75	1.0000	1.0000
L19	15	AL7-50(1-5/8)	69.98 - 70.75	1.0000	1.0000
L19	34	5.75" x 1" Flat Plate (G)	69.98 - 70.75	1.0000	1.0000
L19	35	5.75" x 1" Flat Plate (G)	69.98 - 70.75	1.0000	1.0000
L19	36	5.75" x 1" Flat Plate (G)	69.98 - 70.75	1.0000	1.0000
L19	54	6" x 1" Flat Plate (G)	69.98 - 70.75	1.0000	1.0000
L19	55	6" x 1" Flat Plate (G)	69.98 - 70.75	1.0000	1.0000
L19	56	6" x 1" Flat Plate (G)	69.98 - 70.75	1.0000	1.0000
L20	1	Safety Line 5/8	69.73 - 69.98	1.0000	1.0000
L20	13	LDF7-50A(1-5/8")	69.73 - 69.98	1.0000	1.0000
L20	15	AL7-50(1-5/8)	69.73 - 69.98	1.0000	1.0000
L20	34	5.75" x 1" Flat Plate (G)	69.73 - 69.98	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L20	35	5.75" x 1" Flat Plate (G)	69.73 - 69.98	1.0000	1.0000
L20	36	5.75" x 1" Flat Plate (G)	69.73 - 69.98	1.0000	1.0000
L20	54	6" x 1" Flat Plate (G)	69.73 - 69.98	1.0000	1.0000
L20	55	6" x 1" Flat Plate (G)	69.73 - 69.98	1.0000	1.0000
L20	56	6" x 1" Flat Plate (G)	69.73 - 69.98	1.0000	1.0000
L21	1	Safety Line 5/8	64.73 - 69.73	1.0000	1.0000
L21	13	LDF7-50A(1-5/8")	64.73 - 69.73	1.0000	1.0000
L21	15	AL7-50(1-5/8)	64.73 - 69.73	1.0000	1.0000
L21	34	5.75" x 1" Flat Plate (G)	64.73 - 69.73	1.0000	1.0000
L21	35	5.75" x 1" Flat Plate (G)	64.73 - 69.73	1.0000	1.0000
L21	36	5.75" x 1" Flat Plate (G)	64.73 - 69.73	1.0000	1.0000
L21	50	6" x 1" Flat Plate (G)	64.73 - 65.00	1.0000	1.0000
L21	51	6" x 1" Flat Plate (G)	64.73 - 65.00	1.0000	1.0000
L21	52	6" x 1" Flat Plate (G)	64.73 - 65.00	1.0000	1.0000
L21	54	6" x 1" Flat Plate (G)	68.00 - 69.73	1.0000	1.0000
L21	55	6" x 1" Flat Plate (G)	68.00 - 69.73	1.0000	1.0000
L21	56	6" x 1" Flat Plate (G)	68.00 - 69.73	1.0000	1.0000
L22	1	Safety Line 5/8	63.00 - 64.73	1.0000	1.0000
L22	13	LDF7-50A(1-5/8")	63.00 - 64.73	1.0000	1.0000
L22	15	AL7-50(1-5/8)	63.00 - 64.73	1.0000	1.0000
L22	34	5.75" x 1" Flat Plate (G)	63.00 - 64.73	1.0000	1.0000
L22	35	5.75" x 1" Flat Plate (G)	63.00 - 64.73	1.0000	1.0000
L22	36	5.75" x 1" Flat Plate (G)	63.00 - 64.73	1.0000	1.0000
L22	50	6" x 1" Flat Plate (G)	63.00 - 64.73	1.0000	1.0000
L22	51	6" x 1" Flat Plate (G)	63.00 - 64.73	1.0000	1.0000
L22	52	6" x 1" Flat Plate (G)	63.00 - 64.73	1.0000	1.0000
L23	1	Safety Line 5/8	62.75 - 63.00	1.0000	1.0000
L23	13	LDF7-50A(1-5/8")	62.75 - 63.00	1.0000	1.0000
L23	15	AL7-50(1-5/8)	62.75 - 63.00	1.0000	1.0000
L23	34	5.75" x 1" Flat Plate (G)	62.75 - 63.00	1.0000	1.0000
L23	35	5.75" x 1" Flat Plate (G)	62.75 - 63.00	1.0000	1.0000
L23	36	5.75" x 1" Flat Plate (G)	62.75 - 63.00	1.0000	1.0000
L23	50	6" x 1" Flat Plate (G)	62.75 - 63.00	1.0000	1.0000
L23	51	6" x 1" Flat Plate (G)	62.75 - 63.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L23	52	6" x 1" Flat Plate (G)	62.75 - 63.00	1.0000	1.0000
L24	1	Safety Line 5/8	59.08 - 62.75	1.0000	1.0000
L24	13	LDF7-50A(1-5/8")	59.08 - 62.75	1.0000	1.0000
L24	15	AL7-50(1-5/8)	59.08 - 62.75	1.0000	1.0000
L24	34	5.75" x 1" Flat Plate (G)	59.08 - 62.75	1.0000	1.0000
L24	35	5.75" x 1" Flat Plate (G)	59.08 - 62.75	1.0000	1.0000
L24	36	5.75" x 1" Flat Plate (G)	59.08 - 62.75	1.0000	1.0000
L24	38	Aero MP304	59.08 - 60.50	1.0000	1.0000
L24	39	Aero MP304	59.08 - 60.50	1.0000	1.0000
L24	40	Aero MP304	59.08 - 60.50	1.0000	1.0000
L24	50	6" x 1" Flat Plate (G)	59.08 - 62.75	1.0000	1.0000
L24	51	6" x 1" Flat Plate (G)	59.08 - 62.75	1.0000	1.0000
L24	52	6" x 1" Flat Plate (G)	59.08 - 62.75	1.0000	1.0000
L25	1	Safety Line 5/8	58.82 - 59.08	1.0000	1.0000
L25	13	LDF7-50A(1-5/8")	58.82 - 59.08	1.0000	1.0000
L25	15	AL7-50(1-5/8)	58.82 - 59.08	1.0000	1.0000
L25	34	5.75" x 1" Flat Plate (G)	58.82 - 59.08	1.0000	1.0000
L25	35	5.75" x 1" Flat Plate (G)	58.82 - 59.08	1.0000	1.0000
L25	36	5.75" x 1" Flat Plate (G)	58.82 - 59.08	1.0000	1.0000
L25	38	Aero MP304	58.82 - 59.08	1.0000	1.0000
L25	39	Aero MP304	58.82 - 59.08	1.0000	1.0000
L25	40	Aero MP304	58.82 - 59.08	1.0000	1.0000
L25	50	6" x 1" Flat Plate (G)	58.82 - 59.08	1.0000	1.0000
L25	51	6" x 1" Flat Plate (G)	58.82 - 59.08	1.0000	1.0000
L25	52	6" x 1" Flat Plate (G)	58.82 - 59.08	1.0000	1.0000
L26	1	Safety Line 5/8	58.67 - 58.82	1.0000	1.0000
L26	13	LDF7-50A(1-5/8")	58.67 - 58.82	1.0000	1.0000
L26	15	AL7-50(1-5/8)	58.67 - 58.82	1.0000	1.0000
L26	34	5.75" x 1" Flat Plate (G)	58.67 - 58.82	1.0000	1.0000
L26	35	5.75" x 1" Flat Plate (G)	58.67 - 58.82	1.0000	1.0000
L26	36	5.75" x 1" Flat Plate (G)	58.67 - 58.82	1.0000	1.0000
L26	38	Aero MP304	58.67 - 58.82	1.0000	1.0000
L26	39	Aero MP304	58.67 - 58.82	1.0000	1.0000
L26	40	Aero MP304	58.67 - 58.82	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L26	50	6" x 1" Flat Plate (G)	58.67 - 58.82	1.0000	1.0000
L26	51	6" x 1" Flat Plate (G)	58.67 - 58.82	1.0000	1.0000
L26	52	6" x 1" Flat Plate (G)	58.67 - 58.82	1.0000	1.0000
L27	1	Safety Line 5/8	53.67 - 58.67	1.0000	1.0000
L27	13	LDF7-50A(1-5/8")	53.67 - 58.67	1.0000	1.0000
L27	15	AL7-50(1-5/8)	53.67 - 58.67	1.0000	1.0000
L27	34	5.75" x 1" Flat Plate (G)	57.00 - 58.67	1.0000	1.0000
L27	35	5.75" x 1" Flat Plate (G)	57.00 - 58.67	1.0000	1.0000
L27	36	5.75" x 1" Flat Plate (G)	57.00 - 58.67	1.0000	1.0000
L27	38	Aero MP304	53.67 - 58.67	1.0000	1.0000
L27	39	Aero MP304	53.67 - 58.67	1.0000	1.0000
L27	40	Aero MP304	53.67 - 58.67	1.0000	1.0000
L27	50	6" x 1" Flat Plate (G)	53.67 - 58.67	1.0000	1.0000
L27	51	6" x 1" Flat Plate (G)	53.67 - 58.67	1.0000	1.0000
L27	52	6" x 1" Flat Plate (G)	53.67 - 58.67	1.0000	1.0000
L28	1	Safety Line 5/8	48.58 - 53.67	1.0000	1.0000
L28	13	LDF7-50A(1-5/8")	48.58 - 53.67	1.0000	1.0000
L28	15	AL7-50(1-5/8)	48.58 - 53.67	1.0000	1.0000
L28	30	5.75" x 1" Flat Plate (G)	48.58 - 50.58	1.0000	1.0000
L28	31	5.75" x 1" Flat Plate (G)	48.58 - 50.58	1.0000	1.0000
L28	32	5.75" x 1" Flat Plate (G)	48.58 - 50.58	1.0000	1.0000
L28	38	Aero MP304	48.58 - 53.67	1.0000	1.0000
L28	39	Aero MP304	48.58 - 53.67	1.0000	1.0000
L28	40	Aero MP304	48.58 - 53.67	1.0000	1.0000
L28	50	6" x 1" Flat Plate (G)	50.00 - 53.67	1.0000	1.0000
L28	51	6" x 1" Flat Plate (G)	50.00 - 53.67	1.0000	1.0000
L28	52	6" x 1" Flat Plate (G)	50.00 - 53.67	1.0000	1.0000
L30	1	Safety Line 5/8	42.58 - 47.58	1.0000	1.0000
L30	13	LDF7-50A(1-5/8")	42.58 - 47.58	1.0000	1.0000
L30	15	AL7-50(1-5/8)	42.58 - 47.58	1.0000	1.0000
L30	30	5.75" x 1" Flat Plate (G)	42.58 - 47.58	1.0000	1.0000
L30	31	5.75" x 1" Flat Plate (G)	42.58 - 47.58	1.0000	1.0000
L30	32	5.75" x 1" Flat Plate (G)	42.58 - 47.58	1.0000	1.0000
L30	38	Aero MP304	42.58 - 47.58	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L30	39	Aero MP304	42.58 - 47.58	1.0000	1.0000
L30	40	Aero MP304	42.58 - 47.58	1.0000	1.0000
L31	1	Safety Line 5/8	39.75 - 42.58	1.0000	1.0000
L31	13	LDF7-50A(1-5/8")	39.75 - 42.58	1.0000	1.0000
L31	15	AL7-50(1-5/8)	39.75 - 42.58	1.0000	1.0000
L31	30	5.75" x 1" Flat Plate (G)	39.75 - 42.58	1.0000	1.0000
L31	31	5.75" x 1" Flat Plate (G)	39.75 - 42.58	1.0000	1.0000
L31	32	5.75" x 1" Flat Plate (G)	39.75 - 42.58	1.0000	1.0000
L31	38	Aero MP304	39.75 - 42.58	1.0000	1.0000
L31	39	Aero MP304	39.75 - 42.58	1.0000	1.0000
L31	40	Aero MP304	39.75 - 42.58	1.0000	1.0000
L31	42	6" x 1" Flat Plate (G)	39.75 - 41.67	1.0000	1.0000
L31	43	6" x 1" Flat Plate (G)	39.75 - 41.67	1.0000	1.0000
L31	44	6" x 1" Flat Plate (G)	39.75 - 41.67	1.0000	1.0000
L32	1	Safety Line 5/8	39.50 - 39.75	1.0000	1.0000
L32	13	LDF7-50A(1-5/8")	39.50 - 39.75	1.0000	1.0000
L32	15	AL7-50(1-5/8)	39.50 - 39.75	1.0000	1.0000
L32	30	5.75" x 1" Flat Plate (G)	39.50 - 39.75	1.0000	1.0000
L32	31	5.75" x 1" Flat Plate (G)	39.50 - 39.75	1.0000	1.0000
L32	32	5.75" x 1" Flat Plate (G)	39.50 - 39.75	1.0000	1.0000
L32	38	Aero MP304	39.50 - 39.75	1.0000	1.0000
L32	39	Aero MP304	39.50 - 39.75	1.0000	1.0000
L32	40	Aero MP304	39.50 - 39.75	1.0000	1.0000
L32	42	6" x 1" Flat Plate (G)	39.50 - 39.75	1.0000	1.0000
L32	43	6" x 1" Flat Plate (G)	39.50 - 39.75	1.0000	1.0000
L32	44	6" x 1" Flat Plate (G)	39.50 - 39.75	1.0000	1.0000
L33	1	Safety Line 5/8	34.50 - 39.50	1.0000	1.0000
L33	13	LDF7-50A(1-5/8")	34.50 - 39.50	1.0000	1.0000
L33	15	AL7-50(1-5/8)	34.50 - 39.50	1.0000	1.0000
L33	30	5.75" x 1" Flat Plate (G)	34.50 - 39.50	1.0000	1.0000
L33	31	5.75" x 1" Flat Plate (G)	34.50 - 39.50	1.0000	1.0000
L33	32	5.75" x 1" Flat Plate (G)	34.50 - 39.50	1.0000	1.0000
L33	38	Aero MP304	34.50 - 39.50	1.0000	1.0000
L33	39	Aero MP304	34.50 - 39.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L33	40	Aero MP304	34.50 - 39.50	1.0000	1.0000
L33	42	6" x 1" Flat Plate (G)	34.50 - 39.50	1.0000	1.0000
L33	43	6" x 1" Flat Plate (G)	34.50 - 39.50	1.0000	1.0000
L33	44	6" x 1" Flat Plate (G)	34.50 - 39.50	1.0000	1.0000
L34	1	Safety Line 5/8	32.50 - 34.50	1.0000	1.0000
L34	13	LDF7-50A(1-5/8")	32.50 - 34.50	1.0000	1.0000
L34	15	AL7-50(1-5/8)	32.50 - 34.50	1.0000	1.0000
L34	26	5.75" x 1" Flat Plate (G)	32.50 - 33.33	1.0000	1.0000
L34	27	5.75" x 1" Flat Plate (G)	32.50 - 33.33	1.0000	1.0000
L34	28	5.75" x 1" Flat Plate (G)	32.50 - 33.33	1.0000	1.0000
L34	30	5.75" x 1" Flat Plate (G)	32.50 - 34.50	1.0000	1.0000
L34	31	5.75" x 1" Flat Plate (G)	32.50 - 34.50	1.0000	1.0000
L34	32	5.75" x 1" Flat Plate (G)	32.50 - 34.50	1.0000	1.0000
L34	38	Aero MP304	32.50 - 34.50	1.0000	1.0000
L34	39	Aero MP304	32.50 - 34.50	1.0000	1.0000
L34	40	Aero MP304	32.50 - 34.50	1.0000	1.0000
L34	42	6" x 1" Flat Plate (G)	32.50 - 34.50	1.0000	1.0000
L34	43	6" x 1" Flat Plate (G)	32.50 - 34.50	1.0000	1.0000
L34	44	6" x 1" Flat Plate (G)	32.50 - 34.50	1.0000	1.0000
L35	1	Safety Line 5/8	32.25 - 32.50	1.0000	1.0000
L35	13	LDF7-50A(1-5/8")	32.25 - 32.50	1.0000	1.0000
L35	15	AL7-50(1-5/8)	32.25 - 32.50	1.0000	1.0000
L35	26	5.75" x 1" Flat Plate (G)	32.25 - 32.50	1.0000	1.0000
L35	27	5.75" x 1" Flat Plate (G)	32.25 - 32.50	1.0000	1.0000
L35	28	5.75" x 1" Flat Plate (G)	32.25 - 32.50	1.0000	1.0000
L35	30	5.75" x 1" Flat Plate (G)	32.25 - 32.50	1.0000	1.0000
L35	31	5.75" x 1" Flat Plate (G)	32.25 - 32.50	1.0000	1.0000
L35	32	5.75" x 1" Flat Plate (G)	32.25 - 32.50	1.0000	1.0000
L35	38	Aero MP304	32.25 - 32.50	1.0000	1.0000
L35	39	Aero MP304	32.25 - 32.50	1.0000	1.0000
L35	40	Aero MP304	32.25 - 32.50	1.0000	1.0000
L35	42	6" x 1" Flat Plate (G)	32.25 - 32.50	1.0000	1.0000
L35	43	6" x 1" Flat Plate (G)	32.25 - 32.50	1.0000	1.0000
L35	44	6" x 1" Flat Plate (G)	32.25 - 32.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L36	1	Safety Line 5/8	31.42 - 32.25	1.0000	1.0000
L36	13	LDF7-50A(1-5/8")	31.42 - 32.25	1.0000	1.0000
L36	15	AL7-50(1-5/8)	31.42 - 32.25	1.0000	1.0000
L36	26	5.75" x 1" Flat Plate (G)	31.42 - 32.25	1.0000	1.0000
L36	27	5.75" x 1" Flat Plate (G)	31.42 - 32.25	1.0000	1.0000
L36	28	5.75" x 1" Flat Plate (G)	31.42 - 32.25	1.0000	1.0000
L36	30	5.75" x 1" Flat Plate (G)	31.42 - 32.25	1.0000	1.0000
L36	31	5.75" x 1" Flat Plate (G)	31.42 - 32.25	1.0000	1.0000
L36	32	5.75" x 1" Flat Plate (G)	31.42 - 32.25	1.0000	1.0000
L36	38	Aero MP304	31.42 - 32.25	1.0000	1.0000
L36	39	Aero MP304	31.42 - 32.25	1.0000	1.0000
L36	40	Aero MP304	31.42 - 32.25	1.0000	1.0000
L36	42	6" x 1" Flat Plate (G)	31.42 - 32.25	1.0000	1.0000
L36	43	6" x 1" Flat Plate (G)	31.42 - 32.25	1.0000	1.0000
L36	44	6" x 1" Flat Plate (G)	31.42 - 32.25	1.0000	1.0000
L37	1	Safety Line 5/8	31.17 - 31.42	1.0000	1.0000
L37	13	LDF7-50A(1-5/8")	31.17 - 31.42	1.0000	1.0000
L37	15	AL7-50(1-5/8)	31.17 - 31.42	1.0000	1.0000
L37	26	5.75" x 1" Flat Plate (G)	31.17 - 31.42	1.0000	1.0000
L37	27	5.75" x 1" Flat Plate (G)	31.17 - 31.42	1.0000	1.0000
L37	28	5.75" x 1" Flat Plate (G)	31.17 - 31.42	1.0000	1.0000
L37	30	5.75" x 1" Flat Plate (G)	31.17 - 31.42	1.0000	1.0000
L37	31	5.75" x 1" Flat Plate (G)	31.17 - 31.42	1.0000	1.0000
L37	32	5.75" x 1" Flat Plate (G)	31.17 - 31.42	1.0000	1.0000
L37	38	Aero MP304	31.17 - 31.42	1.0000	1.0000
L37	39	Aero MP304	31.17 - 31.42	1.0000	1.0000
L37	40	Aero MP304	31.17 - 31.42	1.0000	1.0000
L37	42	6" x 1" Flat Plate (G)	31.17 - 31.42	1.0000	1.0000
L37	43	6" x 1" Flat Plate (G)	31.17 - 31.42	1.0000	1.0000
L37	44	6" x 1" Flat Plate (G)	31.17 - 31.42	1.0000	1.0000
L37	62	6" x 1" Flat Plate (G)	31.17 - 31.25	1.0000	1.0000
L37	63	6" x 1" Flat Plate (G)	31.17 - 31.25	1.0000	1.0000
L38	1	Safety Line 5/8	29.00 - 31.17	1.0000	1.0000
L38	13	LDF7-50A(1-5/8")	29.00 - 31.17	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L38	15	AL7-50(1-5/8)	29.00 - 31.17	1.0000	1.0000
L38	26	5.75" x 1" Flat Plate (G)	29.00 - 31.17	1.0000	1.0000
L38	27	5.75" x 1" Flat Plate (G)	29.00 - 31.17	1.0000	1.0000
L38	28	5.75" x 1" Flat Plate (G)	29.00 - 31.17	1.0000	1.0000
L38	30	5.75" x 1" Flat Plate (G)	30.58 - 31.17	1.0000	1.0000
L38	31	5.75" x 1" Flat Plate (G)	30.58 - 31.17	1.0000	1.0000
L38	32	5.75" x 1" Flat Plate (G)	30.58 - 31.17	1.0000	1.0000
L38	38	Aero MP304	29.00 - 31.17	1.0000	1.0000
L38	39	Aero MP304	29.00 - 31.17	1.0000	1.0000
L38	40	Aero MP304	29.00 - 31.17	1.0000	1.0000
L38	42	6" x 1" Flat Plate (G)	29.00 - 31.17	1.0000	1.0000
L38	43	6" x 1" Flat Plate (G)	29.00 - 31.17	1.0000	1.0000
L38	44	6" x 1" Flat Plate (G)	29.00 - 31.17	1.0000	1.0000
L38	62	6" x 1" Flat Plate (G)	29.00 - 31.17	1.0000	1.0000
L38	63	6" x 1" Flat Plate (G)	29.00 - 31.17	1.0000	1.0000
L39	1	Safety Line 5/8	28.75 - 29.00	1.0000	1.0000
L39	13	LDF7-50A(1-5/8")	28.75 - 29.00	1.0000	1.0000
L39	15	AL7-50(1-5/8)	28.75 - 29.00	1.0000	1.0000
L39	26	5.75" x 1" Flat Plate (G)	28.75 - 29.00	1.0000	1.0000
L39	27	5.75" x 1" Flat Plate (G)	28.75 - 29.00	1.0000	1.0000
L39	28	5.75" x 1" Flat Plate (G)	28.75 - 29.00	1.0000	1.0000
L39	38	Aero MP304	28.75 - 29.00	1.0000	1.0000
L39	39	Aero MP304	28.75 - 29.00	1.0000	1.0000
L39	40	Aero MP304	28.75 - 29.00	1.0000	1.0000
L39	42	6" x 1" Flat Plate (G)	28.75 - 29.00	1.0000	1.0000
L39	43	6" x 1" Flat Plate (G)	28.75 - 29.00	1.0000	1.0000
L39	44	6" x 1" Flat Plate (G)	28.75 - 29.00	1.0000	1.0000
L39	62	6" x 1" Flat Plate (G)	28.75 - 29.00	1.0000	1.0000
L39	63	6" x 1" Flat Plate (G)	28.75 - 29.00	1.0000	1.0000
L40	1	Safety Line 5/8	28.50 - 28.75	1.0000	1.0000
L40	13	LDF7-50A(1-5/8")	28.50 - 28.75	1.0000	1.0000
L40	15	AL7-50(1-5/8)	28.50 - 28.75	1.0000	1.0000
L40	26	5.75" x 1" Flat Plate (G)	28.50 - 28.75	1.0000	1.0000
L40	27	5.75" x 1" Flat Plate (G)	28.50 - 28.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L40	28	5.75" x 1" Flat Plate (G)	28.50 - 28.75	1.0000	1.0000
L40	38	Aero MP304	28.50 - 28.75	1.0000	1.0000
L40	39	Aero MP304	28.50 - 28.75	1.0000	1.0000
L40	40	Aero MP304	28.50 - 28.75	1.0000	1.0000
L40	42	6" x 1" Flat Plate (G)	28.50 - 28.75	1.0000	1.0000
L40	43	6" x 1" Flat Plate (G)	28.50 - 28.75	1.0000	1.0000
L40	44	6" x 1" Flat Plate (G)	28.50 - 28.75	1.0000	1.0000
L40	62	6" x 1" Flat Plate (G)	28.50 - 28.75	1.0000	1.0000
L40	63	6" x 1" Flat Plate (G)	28.50 - 28.75	1.0000	1.0000
L41	1	Safety Line 5/8	23.50 - 28.50	1.0000	1.0000
L41	13	LDF7-50A(1-5/8")	23.50 - 28.50	1.0000	1.0000
L41	15	AL7-50(1-5/8)	23.50 - 28.50	1.0000	1.0000
L41	26	5.75" x 1" Flat Plate (G)	23.50 - 28.50	1.0000	1.0000
L41	27	5.75" x 1" Flat Plate (G)	23.50 - 28.50	1.0000	1.0000
L41	28	5.75" x 1" Flat Plate (G)	23.50 - 28.50	1.0000	1.0000
L41	38	Aero MP304	23.50 - 28.50	1.0000	1.0000
L41	39	Aero MP304	23.50 - 28.50	1.0000	1.0000
L41	40	Aero MP304	23.50 - 28.50	1.0000	1.0000
L41	42	6" x 1" Flat Plate (G)	26.67 - 28.50	1.0000	1.0000
L41	43	6" x 1" Flat Plate (G)	26.67 - 28.50	1.0000	1.0000
L41	44	6" x 1" Flat Plate (G)	26.67 - 28.50	1.0000	1.0000
L41	46	6" x 1" Flat Plate (G)	23.50 - 25.50	1.0000	1.0000
L41	47	6" x 1" Flat Plate (G)	23.50 - 25.50	1.0000	1.0000
L41	48	6" x 1" Flat Plate (G)	23.50 - 25.50	1.0000	1.0000
L41	62	6" x 1" Flat Plate (G)	23.50 - 28.50	1.0000	1.0000
L41	63	6" x 1" Flat Plate (G)	23.50 - 28.50	1.0000	1.0000
L42	1	Safety Line 5/8	23.25 - 23.50	1.0000	1.0000
L42	13	LDF7-50A(1-5/8")	23.25 - 23.50	1.0000	1.0000
L42	15	AL7-50(1-5/8)	23.25 - 23.50	1.0000	1.0000
L42	26	5.75" x 1" Flat Plate (G)	23.25 - 23.50	1.0000	1.0000
L42	27	5.75" x 1" Flat Plate (G)	23.25 - 23.50	1.0000	1.0000
L42	28	5.75" x 1" Flat Plate (G)	23.25 - 23.50	1.0000	1.0000
L42	38	Aero MP304	23.25 - 23.50	1.0000	1.0000
L42	39	Aero MP304	23.25 - 23.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L42	40	Aero MP304	23.25 - 23.50	1.0000	1.0000
L42	46	6" x 1" Flat Plate (G)	23.25 - 23.50	1.0000	1.0000
L42	47	6" x 1" Flat Plate (G)	23.25 - 23.50	1.0000	1.0000
L42	48	6" x 1" Flat Plate (G)	23.25 - 23.50	1.0000	1.0000
L42	62	6" x 1" Flat Plate (G)	23.25 - 23.50	1.0000	1.0000
L42	63	6" x 1" Flat Plate (G)	23.25 - 23.50	1.0000	1.0000
L43	1	Safety Line 5/8	23.00 - 23.25	1.0000	1.0000
L43	13	LDF7-50A(1-5/8")	23.00 - 23.25	1.0000	1.0000
L43	15	AL7-50(1-5/8)	23.00 - 23.25	1.0000	1.0000
L43	26	5.75" x 1" Flat Plate (G)	23.00 - 23.25	1.0000	1.0000
L43	27	5.75" x 1" Flat Plate (G)	23.00 - 23.25	1.0000	1.0000
L43	28	5.75" x 1" Flat Plate (G)	23.00 - 23.25	1.0000	1.0000
L43	38	Aero MP304	23.00 - 23.25	1.0000	1.0000
L43	39	Aero MP304	23.00 - 23.25	1.0000	1.0000
L43	40	Aero MP304	23.00 - 23.25	1.0000	1.0000
L43	46	6" x 1" Flat Plate (G)	23.00 - 23.25	1.0000	1.0000
L43	47	6" x 1" Flat Plate (G)	23.00 - 23.25	1.0000	1.0000
L43	48	6" x 1" Flat Plate (G)	23.00 - 23.25	1.0000	1.0000
L43	62	6" x 1" Flat Plate (G)	23.00 - 23.25	1.0000	1.0000
L43	63	6" x 1" Flat Plate (G)	23.00 - 23.25	1.0000	1.0000
L44	1	Safety Line 5/8	22.75 - 23.00	1.0000	1.0000
L44	13	LDF7-50A(1-5/8")	22.75 - 23.00	1.0000	1.0000
L44	15	AL7-50(1-5/8)	22.75 - 23.00	1.0000	1.0000
L44	26	5.75" x 1" Flat Plate (G)	22.75 - 23.00	1.0000	1.0000
L44	27	5.75" x 1" Flat Plate (G)	22.75 - 23.00	1.0000	1.0000
L44	28	5.75" x 1" Flat Plate (G)	22.75 - 23.00	1.0000	1.0000
L44	38	Aero MP304	22.75 - 23.00	1.0000	1.0000
L44	39	Aero MP304	22.75 - 23.00	1.0000	1.0000
L44	40	Aero MP304	22.75 - 23.00	1.0000	1.0000
L44	46	6" x 1" Flat Plate (G)	22.75 - 23.00	1.0000	1.0000
L44	47	6" x 1" Flat Plate (G)	22.75 - 23.00	1.0000	1.0000
L44	48	6" x 1" Flat Plate (G)	22.75 - 23.00	1.0000	1.0000
L44	62	6" x 1" Flat Plate (G)	22.75 - 23.00	1.0000	1.0000
L44	63	6" x 1" Flat Plate (G)	22.75 - 23.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L45	1	Safety Line 5/8	17.75 - 22.75	1.0000	1.0000
L45	13	LDF7-50A(1-5/8")	17.75 - 22.75	1.0000	1.0000
L45	15	AL7-50(1-5/8)	17.75 - 22.75	1.0000	1.0000
L45	26	5.75" x 1" Flat Plate (G)	17.75 - 22.75	1.0000	1.0000
L45	27	5.75" x 1" Flat Plate (G)	17.75 - 22.75	1.0000	1.0000
L45	28	5.75" x 1" Flat Plate (G)	17.75 - 22.75	1.0000	1.0000
L45	38	Aero MP304	17.75 - 22.75	1.0000	1.0000
L45	39	Aero MP304	17.75 - 22.75	1.0000	1.0000
L45	40	Aero MP304	17.75 - 22.75	1.0000	1.0000
L45	46	6" x 1" Flat Plate (G)	17.75 - 22.75	1.0000	1.0000
L45	47	6" x 1" Flat Plate (G)	17.75 - 22.75	1.0000	1.0000
L45	48	6" x 1" Flat Plate (G)	17.75 - 22.75	1.0000	1.0000
L45	62	6" x 1" Flat Plate (G)	21.25 - 22.75	1.0000	1.0000
L45	63	6" x 1" Flat Plate (G)	21.25 - 22.75	1.0000	1.0000
L46	1	Safety Line 5/8	12.75 - 17.75	1.0000	1.0000
L46	13	LDF7-50A(1-5/8")	12.75 - 17.75	1.0000	1.0000
L46	15	AL7-50(1-5/8)	12.75 - 17.75	1.0000	1.0000
L46	26	5.75" x 1" Flat Plate (G)	12.75 - 17.75	1.0000	1.0000
L46	27	5.75" x 1" Flat Plate (G)	12.75 - 17.75	1.0000	1.0000
L46	28	5.75" x 1" Flat Plate (G)	12.75 - 17.75	1.0000	1.0000
L46	38	Aero MP304	12.75 - 17.75	1.0000	1.0000
L46	39	Aero MP304	12.75 - 17.75	1.0000	1.0000
L46	40	Aero MP304	12.75 - 17.75	1.0000	1.0000
L46	46	6" x 1" Flat Plate (G)	12.75 - 17.75	1.0000	1.0000
L46	47	6" x 1" Flat Plate (G)	12.75 - 17.75	1.0000	1.0000
L46	48	6" x 1" Flat Plate (G)	12.75 - 17.75	1.0000	1.0000
L47	1	Safety Line 5/8	7.75 - 12.75	1.0000	1.0000
L47	13	LDF7-50A(1-5/8")	7.75 - 12.75	1.0000	1.0000
L47	15	AL7-50(1-5/8)	7.75 - 12.75	1.0000	1.0000
L47	26	5.75" x 1" Flat Plate (G)	7.75 - 12.75	1.0000	1.0000
L47	27	5.75" x 1" Flat Plate (G)	7.75 - 12.75	1.0000	1.0000
L47	28	5.75" x 1" Flat Plate (G)	7.75 - 12.75	1.0000	1.0000
L47	38	Aero MP304	7.75 - 12.75	1.0000	1.0000
L47	39	Aero MP304	7.75 - 12.75	1.0000	1.0000
L47	40	Aero MP304	7.75 - 12.75	1.0000	1.0000
L47	46	6" x 1" Flat Plate (G)	7.75 - 12.75	1.0000	1.0000
L47	47	6" x 1" Flat Plate (G)	7.75 - 12.75	1.0000	1.0000
L47	48	6" x 1" Flat Plate (G)	7.75 - 12.75	1.0000	1.0000
L48	1	Safety Line 5/8	5.25 - 7.75	1.0000	1.0000
L48	13	LDF7-50A(1-5/8")	5.25 - 7.75	1.0000	1.0000
L48	15	AL7-50(1-5/8)	5.25 - 7.75	1.0000	1.0000
L48	26	5.75" x 1" Flat Plate (G)	5.25 - 7.75	1.0000	1.0000
L48	27	5.75" x 1" Flat Plate (G)	5.25 - 7.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L48	28	5.75" x 1" Flat Plate (G)	5.25 - 7.75	1.0000	1.0000
L48	38	Aero MP304	5.25 - 7.75	1.0000	1.0000
L48	39	Aero MP304	5.25 - 7.75	1.0000	1.0000
L48	40	Aero MP304	5.25 - 7.75	1.0000	1.0000
L48	46	6" x 1" Flat Plate (G)	5.25 - 7.75	1.0000	1.0000
L48	47	6" x 1" Flat Plate (G)	5.25 - 7.75	1.0000	1.0000
L48	48	6" x 1" Flat Plate (G)	5.25 - 7.75	1.0000	1.0000
L49	1	Safety Line 5/8	5.00 - 5.25	1.0000	1.0000
L49	13	LDF7-50A(1-5/8")	5.00 - 5.25	1.0000	1.0000
L49	15	AL7-50(1-5/8)	5.00 - 5.25	1.0000	1.0000
L49	26	5.75" x 1" Flat Plate (G)	5.00 - 5.25	1.0000	1.0000
L49	27	5.75" x 1" Flat Plate (G)	5.00 - 5.25	1.0000	1.0000
L49	28	5.75" x 1" Flat Plate (G)	5.00 - 5.25	1.0000	1.0000
L49	38	Aero MP304	5.00 - 5.25	1.0000	1.0000
L49	39	Aero MP304	5.00 - 5.25	1.0000	1.0000
L49	40	Aero MP304	5.00 - 5.25	1.0000	1.0000
L49	46	6" x 1" Flat Plate (G)	5.00 - 5.25	1.0000	1.0000
L49	47	6" x 1" Flat Plate (G)	5.00 - 5.25	1.0000	1.0000
L49	48	6" x 1" Flat Plate (G)	5.00 - 5.25	1.0000	1.0000
L50	1	Safety Line 5/8	0.00 - 5.00	1.0000	1.0000
L50	13	LDF7-50A(1-5/8")	0.00 - 5.00	1.0000	1.0000
L50	15	AL7-50(1-5/8)	0.00 - 5.00	1.0000	1.0000
L50	26	5.75" x 1" Flat Plate (G)	0.50 - 5.00	1.0000	1.0000
L50	27	5.75" x 1" Flat Plate (G)	0.50 - 5.00	1.0000	1.0000
L50	28	5.75" x 1" Flat Plate (G)	0.50 - 5.00	1.0000	1.0000
L50	38	Aero MP304	0.50 - 5.00	1.0000	1.0000
L50	39	Aero MP304	0.50 - 5.00	1.0000	1.0000
L50	40	Aero MP304	0.50 - 5.00	1.0000	1.0000
L50	46	6" x 1" Flat Plate (G)	0.50 - 5.00	1.0000	1.0000
L50	47	6" x 1" Flat Plate (G)	0.50 - 5.00	1.0000	1.0000
L50	48	6" x 1" Flat Plate (G)	0.50 - 5.00	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C _{AA} Front	C _{AA} Side	Weight K	
Lightning Rod 2"x15'	C	From Leg	0.0000 0.0000 7.5000	0.000	140.0000	No Ice	3.0000	3.0000	0.0800
						1/2" Ice	4.5250	4.5250	0.1031
						Ice	6.0667	6.0667	0.1358
						1" Ice			
* * ** Level 138 ft **									
(2) HBXX-6516DS-A2M w/ Mount Pipe	A	From Leg	4.0000 0.0000 2.0000	0.000	138.0000	No Ice	5.6558	4.5251	0.0497
						1/2" Ice	6.0642	5.2049	0.0990
						Ice	6.4748	5.8567	0.1544
						1" Ice			
(2) HBXX-6516DS-A2M w/ Mount Pipe	B	From Leg	4.0000 0.0000 2.0000	0.000	138.0000	No Ice	5.6558	4.5251	0.0497
						1/2" Ice	6.0642	5.2049	0.0990
						Ice	6.4748	5.8567	0.1544
						1" Ice			
(2) HBXX-6516DS-A2M w/ Mount Pipe	C	From Leg	4.0000 0.0000 2.0000	0.000	138.0000	No Ice	5.6558	4.5251	0.0497
						1/2" Ice	6.0642	5.2049	0.0990
						Ice	6.4748	5.8567	0.1544
						1" Ice			
X7C-FRO-660-VR0 w/ Mount Pipe	A	From Leg	4.0000 0.0000 2.0000	0.000	138.0000	No Ice	9.7864	7.5292	0.0606
						1/2" Ice	10.3601	8.7153	0.1387
						Ice	10.8989	9.6153	0.2250
						1" Ice			

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A _A Front	C _A A _A Side	Weight	
			Horz	Lateral						Vert
			ft	ft	°	ft	ft ²	ft ²	K	
X7C-FRO-660-VR0 w/ Mount Pipe	B	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	7.7864	7.5292	0.0606
			0.0000	0.0000			No Ice	10.3601	8.7153	0.1387
			2.0000	2.0000			1/2"	10.8989	9.6153	0.2250
X7C-FRO-660-VR0 w/ Mount Pipe	C	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	9.7864	7.5292	0.0606
			0.0000	0.0000			No Ice	10.3601	8.7153	0.1387
			2.0000	2.0000			1/2"	10.8989	9.6153	0.2250
DB636-C	A	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	2.3750	2.3750	0.0300
			0.0000	0.0000			No Ice	3.3542	3.3542	0.0477
			7.0000	7.0000			1/2"	4.3500	4.3500	0.0717
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	A	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	7.4998	5.6302	0.0437
			0.0000	0.0000			No Ice	8.0328	6.7191	0.1029
			2.0000	2.0000			1/2"	8.5348	7.5606	0.1695
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	B	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	7.4998	5.6302	0.0437
			0.0000	0.0000			No Ice	8.0328	6.7191	0.1029
			2.0000	2.0000			1/2"	8.5348	7.5606	0.1695
BXA-80063-6BF-EDIN-4 w/ Mount Pipe	C	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	7.4998	5.6302	0.0437
			0.0000	0.0000			No Ice	8.0328	6.7191	0.1029
			2.0000	2.0000			1/2"	8.5348	7.5606	0.1695
AWS4 (B66) 4x45 RRH	A	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	2.6600	1.5861	0.0640
			0.0000	0.0000			No Ice	2.8781	1.7690	0.0844
			2.0000	2.0000			1/2"	3.1037	1.9588	0.1078
AWS4 (B66) 4x45 RRH	B	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	2.6600	1.5861	0.0640
			0.0000	0.0000			No Ice	2.8781	1.7690	0.0844
			2.0000	2.0000			1/2"	3.1037	1.9588	0.1078
AWS4 (B66) 4x45 RRH	C	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	2.6600	1.5861	0.0640
			0.0000	0.0000			No Ice	2.8781	1.7690	0.0844
			2.0000	2.0000			1/2"	3.1037	1.9588	0.1078
RRH2X60-PCS	A	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	2.2000	1.7233	0.0550
			0.0000	0.0000			No Ice	2.3926	1.9015	0.0754
			2.0000	2.0000			1/2"	2.5926	2.0870	0.0987
RRH2X60-PCS	B	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	2.2000	1.7233	0.0550
			0.0000	0.0000			No Ice	2.3926	1.9015	0.0754
			2.0000	2.0000			1/2"	2.5926	2.0870	0.0987
RRH2X60-PCS	C	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	2.2000	1.7233	0.0550
			0.0000	0.0000			No Ice	2.3926	1.9015	0.0754
			2.0000	2.0000			1/2"	2.5926	2.0870	0.0987
RRH2x60-700	A	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	3.5002	1.8157	0.0600
			0.0000	0.0000			No Ice	3.7609	2.0519	0.0827
			2.0000	2.0000			1/2"	4.0285	2.2894	0.1091
RRH2x60-700	B	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	3.5002	1.8157	0.0600
			0.0000	0.0000			No Ice	3.7609	2.0519	0.0827
			2.0000	2.0000			1/2"	4.0285	2.2894	0.1091
RRH2x60-700	C	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	3.5002	1.8157	0.0600
			0.0000	0.0000			No Ice	3.7609	2.0519	0.0827
			2.0000	2.0000			1/2"	4.0285	2.2894	0.1091
DB-T1-6Z-8AB-0Z	C	From Leg	4.0000	0.0000	0.000	138.0000	1" Ice	4.8000	2.0000	0.0440
			0.0000	0.0000			No Ice	5.0704	2.1926	0.0801
			2.0000	2.0000			1/2"	5.3481	2.3926	0.1202
						1" Ice				

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
DB-T1-6Z-8AB-0Z	C	From Leg	4.0000	0.000	138.0000	No Ice	4.8000	2.0000	0.0440
			0.0000			1/2"	5.0704	2.1926	0.0801
			2.0000			Ice	5.3481	2.3926	0.1202
Platform Mount [LP 403-1]	C	None		0.000	138.0000	1" Ice			
						No Ice	18.8500	18.8500	1.5000
						1/2"	24.3000	24.3000	1.7966
						Ice	29.7500	29.7500	2.0931
						1" Ice			
** Level 129 ft **									
(2) HPA-65R-BUU-H6 w/ Mount Pipe	A	From Leg	4.0000	0.000	129.0000	No Ice	9.8953	8.1125	0.0766
			0.0000			1/2"	10.4700	9.3041	0.1580
			0.0000			Ice	11.0098	10.2095	0.2478
(2) HPA-65R-BUU-H6 w/ Mount Pipe	B	From Leg	4.0000 0.0000 0.0000	0.000	129.0000	1" Ice			
						No Ice	9.8953	8.1125	0.0766
						1/2"	10.4700	9.3041	0.1580
						Ice	11.0098	10.2095	0.2478
(2) HPA-65R-BUU-H6 w/ Mount Pipe	C	From Leg	4.0000 0.0000 0.0000	0.000	129.0000	1" Ice			
						No Ice	9.8953	8.1125	0.0766
						1/2"	10.4700	9.3041	0.1580
						Ice	11.0098	10.2095	0.2478
RRUS 32 B2	A	From Leg	4.0000 0.0000 0.0000	0.000	129.0000	1" Ice			
						No Ice	2.7313	1.6681	0.0529
						1/2"	2.9531	1.8552	0.0740
						Ice	3.1823	2.0493	0.0982
RRUS 32 B2	B	From Leg	4.0000 0.0000 0.0000	0.000	129.0000	1" Ice			
						No Ice	2.7313	1.6681	0.0529
						1/2"	2.9531	1.8552	0.0740
						Ice	3.1823	2.0493	0.0982
RRUS 32 B2	C	From Leg	4.0000 0.0000 0.0000	0.000	129.0000	1" Ice			
						No Ice	2.7313	1.6681	0.0529
						1/2"	2.9531	1.8552	0.0740
						Ice	3.1823	2.0493	0.0982
RRUS-11	A	From Leg	4.0000 0.0000 0.0000	0.000	129.0000	1" Ice			
						No Ice	2.5217	1.0680	0.0550
						1/2"	2.7187	1.2106	0.0743
						Ice	2.9231	1.3606	0.0966
RRUS-11	B	From Leg	4.0000 0.0000 0.0000	0.000	129.0000	1" Ice			
						No Ice	2.5217	1.0680	0.0550
						1/2"	2.7187	1.2106	0.0743
						Ice	2.9231	1.3606	0.0966
RRUS-11	C	From Leg	4.0000 0.0000 0.0000	0.000	129.0000	1" Ice			
						No Ice	2.5217	1.0680	0.0550
						1/2"	2.7187	1.2106	0.0743
						Ice	2.9231	1.3606	0.0966
Platform Mount [LP 301-1]	C	None		0.000	129.0000	1" Ice			
						No Ice	30.1000	30.1000	1.5885
						1/2"	40.8000	40.8000	2.0292
						Ice	51.5000	51.5000	2.4699
						1" Ice			
** Level 120 ft **									
APX16PV-16PVL w/ Mount Pipe	A	From Leg	4.0000	0.000	120.0000	No Ice	6.2744	3.2678	0.0594
			0.0000			1/2"	6.7026	3.9735	0.1048
			0.0000			Ice	7.1290	4.6395	0.1564
APX16PV-16PVL w/ Mount Pipe	B	From Leg	4.0000 0.0000 0.0000	0.000	120.0000	1" Ice			
						No Ice	6.2744	3.2678	0.0594
						1/2"	6.7026	3.9735	0.1048
						Ice	7.1290	4.6395	0.1564
APX16PV-16PVL w/ Mount Pipe	C	From Leg	4.0000 0.0000 0.0000	0.000	120.0000	1" Ice			
						No Ice	6.2744	3.2678	0.0594
						1/2"	6.7026	3.9735	0.1048
						Ice	7.1290	4.6395	0.1564

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
LNx-6515DS-A1M w/ Mount Pipe	A	From Leg	4.0000	0.000	120.0000	1" Ice			
			0.0000			No Ice	11.4453	9.3589	0.0759
			0.0000			1/2"	12.0637	10.6795	0.1602
LNx-6515DS-A1M w/ Mount Pipe	B	From Leg	4.0000	0.000	120.0000	Ice	12.6895	11.7139	0.2541
			0.0000			1" Ice			
			0.0000			No Ice	11.4453	9.3589	0.0759
LNx-6515DS-A1M w/ Mount Pipe	C	From Leg	4.0000	0.000	120.0000	1/2"	12.0637	10.6795	0.1602
			0.0000			Ice	12.6895	11.7139	0.2541
			0.0000			1" Ice			
APX16DWV-16DWVS-E- A20 w/ Mount Pipe	A	From Leg	4.0000	0.000	120.0000	No Ice	7.2332	3.7823	0.0637
			0.0000			1/2"	7.7120	4.6432	0.1147
			0.0000			Ice	8.1762	5.3818	0.1725
APX16DWV-16DWVS-E- A20 w/ Mount Pipe	B	From Leg	4.0000	0.000	120.0000	1" Ice			
			0.0000			No Ice	7.2332	3.7823	0.0637
			0.0000			1/2"	7.7120	4.6432	0.1147
APX16DWV-16DWVS-E- A20 w/ Mount Pipe	C	From Leg	4.0000	0.000	120.0000	Ice	8.1762	5.3818	0.1725
			0.0000			1" Ice			
			0.0000			No Ice	7.2332	3.7823	0.0637
KRY 112 489/2	A	From Leg	4.0000	0.000	120.0000	1/2"	7.7120	4.6432	0.1147
			0.0000			Ice	8.1762	5.3818	0.1725
			0.0000			1" Ice			
KRY 112 489/2	B	From Leg	4.0000	0.000	120.0000	No Ice	0.5592	0.3651	0.0154
			0.0000			1/2"	0.6579	0.4484	0.0205
			0.0000			Ice	0.7640	0.5420	0.0271
KRY 112 489/2	C	From Leg	4.0000	0.000	120.0000	1" Ice			
			0.0000			No Ice	0.5592	0.3651	0.0154
			0.0000			1/2"	0.6579	0.4484	0.0205
KRY 112 144/1	A	From Leg	4.0000	0.000	120.0000	Ice	0.7640	0.5420	0.0271
			0.0000			1" Ice			
			0.0000			No Ice	0.3523	0.1617	0.0110
KRY 112 144/1	B	From Leg	4.0000	0.000	120.0000	1/2"	0.4284	0.2195	0.0141
			0.0000			Ice	0.5119	0.2846	0.0184
			0.0000			1" Ice			
KRY 112 144/1	C	From Leg	4.0000	0.000	120.0000	No Ice	0.3523	0.1617	0.0110
			0.0000			1/2"	0.4284	0.2195	0.0141
			0.0000			Ice	0.5119	0.2846	0.0184
T-Arm Mount [TA 602-3]	C	None		0.000	120.0000	1" Ice			
						No Ice	11.5900	11.5900	0.2581
						1/2"	15.4400	15.4400	0.3301
						Ice	19.2900	19.2900	0.4222
						1" Ice			
** Level 99 ft **									
** Level 95 ft **									
** Level 73 ft **									
APXVTM14-C-120 w/ Mount Pipe	A	From Leg	4.0000	0.000	73.0000	No Ice	6.5799	4.9591	0.0768
			0.0000			1/2"	7.0306	5.7544	0.1314
			2.0000			Ice	7.4733	6.4723	0.1927

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 K
APXVTM14-C-120 w/ Mount Pipe	B	From Leg	4.0000 0.0000 2.0000	0.000	73.0000	1" Ice			
						No Ice	6.5799	4.9591	0.0768
						1/2"	7.0306	5.7544	0.1314
APXVTM14-C-120 w/ Mount Pipe	C	From Leg	4.0000 0.0000 2.0000	0.000	73.0000	Ice	7.4733	6.4723	0.1927
						1" Ice			
						No Ice	6.5799	4.9591	0.0768
TD-RRH8X20-25	A	From Leg	4.0000 0.0000 2.0000	0.000	73.0000	1/2"	7.0306	5.7544	0.1314
						Ice	7.4733	6.4723	0.1927
						No Ice	6.5799	4.9591	0.0768
TD-RRH8X20-25	B	From Leg	4.0000 0.0000 2.0000	0.000	73.0000	1" Ice			
						No Ice	4.0455	1.5326	0.0700
						1/2"	4.2975	1.7122	0.0971
TD-RRH8X20-25	C	From Leg	4.0000 0.0000 2.0000	0.000	73.0000	Ice	4.5570	1.8987	0.1278
						1" Ice			
						No Ice	4.0455	1.5326	0.0700
APXVSPP18-C-A20 w/ Mount Pipe	A	From Face	4.0000 0.0000 2.0000	0.000	73.0000	1/2"	4.2975	1.7122	0.0971
						Ice	4.5570	1.8987	0.1278
						No Ice	4.0455	1.5326	0.0700
APXVSPP18-C-A20 w/ Mount Pipe	B	From Face	4.0000 0.0000 2.0000	0.000	73.0000	1" Ice			
						No Ice	8.2619	6.9458	0.0826
						1/2"	8.8215	8.1266	0.1506
APXVSPP18-C-A20 w/ Mount Pipe	C	From Face	4.0000 0.0000 2.0000	0.000	73.0000	Ice	9.3462	9.0212	0.2265
						1" Ice			
						No Ice	8.2619	6.9458	0.0826
1900MHz 4X40W RRH	A	From Face	4.0000 0.0000 2.0000	0.000	73.0000	1/2"	8.8215	8.1266	0.1506
						Ice	9.3462	9.0212	0.2265
						No Ice	8.2619	6.9458	0.0826
1900MHz 4X40W RRH	B	From Face	4.0000 0.0000 2.0000	0.000	73.0000	1" Ice			
						No Ice	2.3218	2.2360	0.0595
						1/2"	2.5266	2.4385	0.0826
1900MHz 4X40W RRH	C	From Face	4.0000 0.0000 2.0000	0.000	73.0000	Ice	2.7388	2.6485	0.1090
						1" Ice			
						No Ice	2.3218	2.2360	0.0595
10'x3" Pipe Mount	A	From Face	4.0000 0.0000 0.0000	0.000	73.0000	1/2"	2.5266	2.4385	0.0826
						Ice	2.7388	2.6485	0.1090
						No Ice	2.3218	2.2360	0.0595
10'x3" Pipe Mount	B	From Face	4.0000 0.0000 0.0000	0.000	73.0000	1" Ice			
						No Ice	3.0000	3.0000	0.0200
						1/2"	4.0333	4.0333	0.0418
10'x3" Pipe Mount	C	From Face	4.0000 0.0000 0.0000	0.000	73.0000	Ice	5.0269	5.0269	0.0701
						1" Ice			
						No Ice	3.0000	3.0000	0.0200
Platform Mount [LP 1201-1]	C	None		0.000	73.0000	1/2"	4.0333	4.0333	0.0418
						Ice	5.0269	5.0269	0.0701
						No Ice	3.0000	3.0000	0.0200
GPS-TMG-HR-26NCM	C	From Leg	1.0000	0.000	50.0000	1" Ice			
						No Ice	23.1000	23.1000	2.1000
						1/2"	26.8000	26.8000	2.5000
						Ice	30.5000	30.5000	2.9000

** Level 50 ft **

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
			0.0000			1/2"	0.1826	0.0024
			0.0000			Ice	0.2393	0.0051
Pipe Mount [PM 601-1]	C	From Leg	0.5000	0.000	50.0000	1" Ice	3.0000	0.0650
			0.0000			No Ice	0.9000	0.0791
			0.0000			1/2"	3.7400	0.0791
						Ice	4.4800	0.0933
						1" Ice		

Tower Forces - No Ice - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L1 140.0000-135.0000	0.0312	0.1371	A	1	0.65	24.77	1	1	5.808	0.1272	25.43	C
			B	1	0.65		1	1	5.808			
			C	1	0.804		1	1	5.808			
L2 135.0000-130.0000	0.0506	0.1486	A	1	0.65	24.50	1	1	6.289	0.2734	54.68	C
			B	1	0.65		1	1	6.289			
			C	1	1.2		1	1	6.289			
L3 130.0000-125.0000	0.0680	0.1601	A	1	0.65	24.24	1	1	6.769	0.2858	57.15	C
			B	1	0.65		1	1	6.769			
			C	1	1.2		1	1	6.769			
L4 125.0000-120.0000	0.0723	0.1716	A	1	0.65	23.96	1	1	7.249	0.2977	59.54	C
			B	1	0.65		1	1	7.249			
			C	1	1.2		1	1	7.249			
L5 120.0000-115.0000	0.1461	0.1831	A	1	1.2	23.68	1	1	7.729	0.3948	78.96	C
			B	1	0.65		1	1	7.729			
			C	1	1.2		1	1	7.729			
L6 115.0000-114.7500	0.0073	0.0209	A	1	1.2	23.53	1	1	0.399	0.0205	81.84	C
			B	1	0.65		1	1	0.399			
			C	1	1.2		1	1	0.399			
L7 114.7500-109.7500	0.1461	0.4181	A	1	1.2	23.37	1	1	8.233	0.4143	82.86	C
			B	1	0.65		1	1	8.233			
			C	1	1.2		1	1	8.233			
L8 109.7500-104.7500	0.1461	0.4300	A	1	1.2	23.07	1	1	8.714	0.4235	84.71	C
			B	1	0.65		1	1	8.714			
			C	1	1.2		1	1	8.714			
L9 104.7500-101.5800	0.0926	0.2801	A	1	1.2	22.82	1	1	5.773	0.2718	85.75	C
			B	1	0.65		1	1	5.773			
			C	1	1.2		1	1	5.773			
L10 101.5800-101.3300	0.0073	0.0182	A	1	1.2	22.71	1	1	0.464	0.0209	83.78	C
			B	1	0.65		1	1	0.464			
			C	1	1.2		1	1	0.464			
L11 101.3300-96.3300	0.1461	0.3745	A	1	1.2	22.54	1	1	9.522	0.4233	84.65	C
			B	1	0.65		1	1	9.522			
			C	1	1.2		1	1	9.522			
L12 96.3300-91.3300	0.1461	0.3937	A	1	1.2	22.20	1	1	10.002	0.4358	87.16	C
			B	1	0.65		1	1	10.002			
			C	1	1.2		1	1	10.002			
L13 91.3300-91.0000	0.0096	0.0267	A	1	1.2	22.02	1	1	0.677	0.0296	89.80	C
			B	1	0.65		1	1	0.677			
			C	1	1.2		1	1	0.677			
L14 91.0000-90.7500	0.0073	0.0355	A	1	1.2	22.00	1	1	0.514	0.0225	89.88	C
			B	1	0.65		1	1	0.514			
			C	1	1.2		1	1	0.514			
L15 90.7500-85.7500	0.1461	0.7142	A	1	1.2	21.82	1	1	10.538	0.4529	90.58	C
			B	1	0.65		1	1	10.538			
			C	1	1.2		1	1	10.538			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L16 85.7500- 80.7500	0.1461	0.7337	A	1	1.2	21.46	1	1	11.019	0.4590	91.80	C
			B	1	0.65		1	1	11.019			
			C	1	1.2		1	1	11.019			
L17 80.7500- 75.7500	0.1461	0.7532	A	1	1.2	21.08	1	1	11.499	0.4643	92.86	C
			B	1	0.65		1	1	11.499			
			C	1	1.2		1	1	11.499			
L18 75.7500- 70.7500	0.1533	0.7726	A	1	1.2	20.69	1	1	11.979	0.4720	94.40	C
			B	1	0.65		1	1	11.979			
			C	1	1.2		1	1	11.979			
L19 70.7500- 69.9800	0.0250	0.1195	A	1	1.2	20.45	1	1	1.887	0.0745	96.74	C
			B	1	0.65		1	1	1.887			
			C	1	1.2		1	1	1.887			
L20 69.9800- 69.7300	0.0081	0.0389	A	1	1.2	20.41	1	1	0.615	0.0242	96.81	C
			B	1	0.65		1	1	0.615			
			C	1	1.2		1	1	0.615			
L21 69.7300- 64.7300	0.1621	0.7834	A	1	1.2	20.19	1	1	12.557	0.4778	95.55	C
			B	1	0.65		1	1	12.557			
			C	1	1.2		1	1	12.557			
L22 64.7300- 63.0000	0.0561	0.1759	A	1	1.2	19.89	1	1	4.457	0.1684	97.34	C
			B	1	0.65		1	1	4.457			
			C	1	1.2		1	1	4.457			
L23 63.0000- 62.7500	0.0081	0.0556	A	1	1.2	19.81	1	1	0.649	0.0244	97.40	C
			B	1	0.65		1	1	0.649			
			C	1	1.2		1	1	0.649			
L24 62.7500- 59.0800	0.1190	0.8157	A	1	1.2	19.63	1	1	9.662	0.3578	97.50	C
			B	1	0.65		1	1	9.662			
			C	1	1.2		1	1	9.662			
L25 59.0800- 58.8200	0.0084	0.0543	A	1	1.2	19.44	1	1	0.694	0.0254	97.56	C
			B	1	0.65		1	1	0.694			
			C	1	1.2		1	1	0.694			
L26 58.8200- 58.6700	0.0049	0.0313	A	1	1.2	19.42	1	1	0.401	0.0146	97.57	C
			B	1	0.65		1	1	0.401			
			C	1	1.2		1	1	0.401			
L27 58.6700- 53.6700	0.1621	1.0458	A	1	1.2	19.18	1	1	13.619	0.4798	95.97	C
			B	1	0.65		1	1	13.619			
			C	1	1.2		1	1	13.619			
L28 53.6700- 48.5800	0.1650	1.1007	A	1	0.828	18.67	1	1	14.358	0.4850	95.28	C
			B	1	0.65		1	1	14.358			
			C	1	1.2		1	1	14.358			
L29 48.5800- 47.5800	0.0324	1.1325	A	1	0.821	18.34	1	1	2.826	0.0935	93.50	C
			B	1	0.65		1	1	2.826			
			C	1	1.2		1	1	2.826			
L30 47.5800- 42.5800	0.1621	1.0657	A	1	0.814	18.01	1	1	14.420	0.4658	93.15	C
			B	1	0.65		1	1	14.420			
			C	1	1.2		1	1	14.420			
L31 42.5800- 39.7500	0.0917	0.6138	A	1	0.838	17.55	1	1	8.375	0.2660	93.98	C
			B	1	0.65		1	1	8.375			
			C	1	1.2		1	1	8.375			
L32 39.7500- 39.5000	0.0081	0.0700	A	1	1.2	17.36	1	1	0.747	0.0236	94.33	C
			B	1	0.65		1	1	0.747			
			C	1	1.2		1	1	0.747			
L33 39.5000- 34.5000	0.1621	1.3984	A	1	0.843	17.02	1	1	15.196	0.4681	93.62	C
			B	1	0.65		1	1	15.196			
			C	1	1.2		1	1	15.196			
L34 34.5000- 32.5000	0.0811	0.5679	A	1	0.835	16.54	1	1	6.213	0.1850	92.48	C
			B	1	0.65		1	1	6.213			
			C	1	1.2		1	1	6.213			
L35 32.5000- 32.2500	0.0130	0.0568	A	1	0.832	16.38	1	1	0.782	0.0230	92.05	C
			B	1	0.65		1	1	0.782			
			C	1	1.2		1	1	0.782			
L36 32.2500- 31.4200	0.0431	0.1886	A	1	0.831	16.31	1	1	2.605	0.0762	91.83	C
			B	1	0.65		1	1	2.605			
			C	1	1.2		1	1	2.605			
L37 31.4200- 31.1700	0.0130	0.0716	A	1	0.83	16.23	1	1	0.787	0.0231	92.24	C
			B	1	0.65		1	1	0.787			
			C	1	1.2		1	1	0.787			
L38 31.1700- 29.0000	0.1128	0.6217	A	1	0.793	16.04	1	1	6.883	0.1987	91.59	C
			B	1	0.65		1	1	6.883			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L39 29.0000-28.7500	0.0130	0.0823	C	1	1.2	16.02	1	1	6.883	0.0228	91.39	C
			A	1	0.779		1	1	0.799			
			B	1	0.65		1	1	0.799			
L40 28.7500-28.5000	0.0130	0.0670	C	1	1.2	16.02	1	1	0.799	0.0229	91.49	C
			A	1	0.778		1	1	0.800			
			B	1	0.65		1	1	0.800			
L41 28.5000-23.5000	0.2599	1.3409	C	1	1.2	16.02	1	1	0.800	0.4566	91.31	C
			A	1	0.78		1	1	16.253			
			B	1	0.65		1	1	16.253			
L42 23.5000-23.2500	0.0130	0.0834	C	1	1.2	16.02	1	1	16.253	0.0229	91.66	C
			A	1	0.811		1	1	0.825			
			B	1	0.65		1	1	0.825			
L43 23.2500-23.0000	0.0130	0.0834	C	1	1.2	16.02	1	1	0.825	0.0229	91.76	C
			A	1	0.81		1	1	0.826			
			B	1	0.65		1	1	0.826			
L44 23.0000-22.7500	0.0130	0.0732	C	1	1.2	16.02	1	1	0.826	0.0230	91.86	C
			A	1	0.81		1	1	0.828			
			B	1	0.65		1	1	0.828			
L45 22.7500-17.7500	0.2599	1.4639	C	1	1.2	16.02	1	1	0.828	0.4578	91.55	C
			A	1	0.805		1	1	16.805			
			B	1	0.65		1	1	16.805			
L46 17.7500-12.7500	0.2599	1.4834	C	1	1.2	16.02	1	1	16.805	0.4650	93.00	C
			A	1	0.795		1	1	17.285			
			B	1	0.65		1	1	17.285			
L47 12.7500-7.7500	0.2599	1.5029	C	1	1.2	16.02	1	1	17.285	0.4751	95.03	C
			A	1	0.786		1	1	17.766			
			B	1	0.65		1	1	17.766			
L48 7.7500-5.2500	0.1300	0.7614	C	1	1.2	16.02	1	1	17.766	0.2414	96.55	C
			A	1	0.779		1	1	9.063			
			B	1	0.65		1	1	9.063			
L49 5.2500-5.0000	0.0130	0.0721	C	1	1.2	16.02	1	1	9.063	0.0243	97.11	C
			A	1	0.777		1	1	0.913			
			B	1	0.65		1	1	0.913			
L50 5.0000-0.0000	0.2501	1.4426	C	1	1.2	16.02	1	1	0.913	0.4909	98.18	C
			A	1	0.765		1	1	18.510			
			B	1	0.65		1	1	18.510			
Sum Weight:	4.6041	24.2368						OTM	770.74 kip-ft	11.9695		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L1 140.0000-135.0000	0.0312	0.1371	A	1	0.804	24.77	1	1	5.808	0.1272	25.43	A
			B	1	0.65		1	1	5.808			
			C	1	0.65		1	1	5.808			
L2 135.0000-130.0000	0.0506	0.1486	A	1	1.2	24.50	1	1	6.289	0.2734	54.68	A
			B	1	0.65		1	1	6.289			
			C	1	0.65		1	1	6.289			
L3 130.0000-125.0000	0.0680	0.1601	A	1	1.2	24.24	1	1	6.769	0.2858	57.15	A
			B	1	0.65		1	1	6.769			
			C	1	0.65		1	1	6.769			
L4 125.0000-120.0000	0.0723	0.1716	A	1	1.2	23.96	1	1	7.249	0.2977	59.54	A
			B	1	0.65		1	1	7.249			
			C	1	0.65		1	1	7.249			
L5 120.0000-115.0000	0.1461	0.1831	A	1	1.2	23.68	1	1	7.729	0.3948	78.96	A
			B	1	1.2		1	1	7.729			
			C	1	0.65		1	1	7.729			
L6 115.0000-114.7500	0.0073	0.0209	A	1	1.2	23.53	1	1	0.399	0.0205	81.84	A
			B	1	1.2		1	1	0.399			
			C	1	1.2		1	1	0.399			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L7 114.7500- 109.7500	0.1461	0.4181	C	1	0.65	23.37	1	1	0.399	0.4143	82.86	A
			A	1	1.2		1	1	8.233			
			B	1	1.2		1	1	8.233			
L8 109.7500- 104.7500	0.1461	0.4300	C	1	0.65	23.07	1	1	8.233	0.4235	84.71	A
			A	1	1.2		1	1	8.714			
			B	1	1.2		1	1	8.714			
L9 104.7500- 101.5800	0.0926	0.2801	C	1	0.65	22.82	1	1	8.714	0.2718	85.75	A
			A	1	1.2		1	1	5.773			
			B	1	1.2		1	1	5.773			
L10 101.5800- 101.3300	0.0073	0.0182	C	1	0.65	22.71	1	1	5.773	0.0209	83.78	A
			A	1	1.2		1	1	0.464			
			B	1	1.2		1	1	0.464			
L11 101.3300- 96.3300	0.1461	0.3745	C	1	0.65	22.54	1	1	0.464	0.4233	84.65	A
			A	1	1.2		1	1	9.522			
			B	1	1.2		1	1	9.522			
L12 96.3300- 91.3300	0.1461	0.3937	C	1	0.65	22.20	1	1	9.522	0.4358	87.16	A
			A	1	1.2		1	1	10.002			
			B	1	1.2		1	1	10.002			
L13 91.3300- 91.0000	0.0096	0.0267	C	1	0.65	22.02	1	1	10.002	0.0296	89.80	A
			A	1	1.2		1	1	0.677			
			B	1	1.2		1	1	0.677			
L14 91.0000- 90.7500	0.0073	0.0355	C	1	0.65	22.00	1	1	0.677	0.0225	89.88	A
			A	1	1.2		1	1	0.514			
			B	1	1.2		1	1	0.514			
L15 90.7500- 85.7500	0.1461	0.7142	C	1	0.65	21.82	1	1	0.514	0.4529	90.58	A
			A	1	1.2		1	1	10.538			
			B	1	1.2		1	1	10.538			
L16 85.7500- 80.7500	0.1461	0.7337	C	1	0.65	21.46	1	1	10.538	0.4590	91.80	A
			A	1	1.2		1	1	11.019			
			B	1	1.2		1	1	11.019			
L17 80.7500- 75.7500	0.1461	0.7532	C	1	0.65	21.08	1	1	11.019	0.4643	92.86	A
			A	1	1.2		1	1	11.499			
			B	1	1.2		1	1	11.499			
L18 75.7500- 70.7500	0.1533	0.7726	C	1	0.65	20.69	1	1	11.499	0.4720	94.40	A
			A	1	1.2		1	1	11.979			
			B	1	1.2		1	1	11.979			
L19 70.7500- 69.9800	0.0250	0.1195	C	1	0.65	20.45	1	1	11.979	0.0745	96.74	A
			A	1	1.2		1	1	1.887			
			B	1	1.2		1	1	1.887			
L20 69.9800- 69.7300	0.0081	0.0389	C	1	0.65	20.41	1	1	1.887	0.0242	96.81	A
			A	1	1.2		1	1	0.615			
			B	1	1.2		1	1	0.615			
L21 69.7300- 64.7300	0.1621	0.7834	C	1	0.65	20.19	1	1	0.615	0.4778	95.55	A
			A	1	1.2		1	1	12.557			
			B	1	1.2		1	1	12.557			
L22 64.7300- 63.0000	0.0561	0.1759	C	1	0.65	19.89	1	1	12.557	0.1684	97.34	A
			A	1	1.2		1	1	4.457			
			B	1	1.2		1	1	4.457			
L23 63.0000- 62.7500	0.0081	0.0556	C	1	0.65	19.81	1	1	4.457	0.0244	97.40	A
			A	1	1.2		1	1	0.649			
			B	1	1.2		1	1	0.649			
L24 62.7500- 59.0800	0.1190	0.8157	C	1	0.65	19.63	1	1	0.649	0.3578	97.50	A
			A	1	1.2		1	1	9.662			
			B	1	1.2		1	1	9.662			
L25 59.0800- 58.8200	0.0084	0.0543	C	1	0.65	19.44	1	1	9.662	0.0254	97.56	A
			A	1	1.2		1	1	0.694			
			B	1	1.2		1	1	0.694			
L26 58.8200- 58.6700	0.0049	0.0313	C	1	0.65	19.42	1	1	0.694	0.0146	97.57	A
			A	1	1.2		1	1	0.401			
			B	1	1.2		1	1	0.401			
L27 58.6700- 53.6700	0.1621	1.0458	C	1	0.65	19.18	1	1	0.401	0.4798	95.97	A
			A	1	1.2		1	1	13.619			
			B	1	1.2		1	1	13.619			
L28 53.6700- 48.5800	0.1650	1.1007	C	1	0.65	18.67	1	1	13.619	0.4850	95.28	A
			A	1	1.2		1	1	14.358			
			B	1	0.828		1	1	14.358			
			C	1	0.65		1	1	14.358			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L29 48.5800-47.5800	0.0324	1.1325	A	1	1.2	18.34	1	1	2.826	0.0935	93.50	A
			B	1	0.821		1	1	2.826			
			C	1	0.65		1	1	2.826			
L30 47.5800-42.5800	0.1621	1.0657	A	1	1.2	18.01	1	1	14.420	0.4658	93.15	A
			B	1	0.814		1	1	14.420			
			C	1	0.65		1	1	14.420			
L31 42.5800-39.7500	0.0917	0.6138	A	1	1.2	17.55	1	1	8.375	0.2660	93.98	A
			B	1	0.838		1	1	8.375			
			C	1	0.65		1	1	8.375			
L32 39.7500-39.5000	0.0081	0.0700	A	1	1.2	17.36	1	1	0.747	0.0236	94.33	A
			B	1	1.2		1	1	0.747			
			C	1	0.65		1	1	0.747			
L33 39.5000-34.5000	0.1621	1.3984	A	1	1.2	17.02	1	1	15.196	0.4681	93.62	A
			B	1	0.843		1	1	15.196			
			C	1	0.65		1	1	15.196			
L34 34.5000-32.5000	0.0811	0.5679	A	1	1.2	16.54	1	1	6.213	0.1850	92.48	A
			B	1	0.835		1	1	6.213			
			C	1	0.65		1	1	6.213			
L35 32.5000-32.2500	0.0130	0.0568	A	1	1.2	16.38	1	1	0.782	0.0230	92.05	A
			B	1	0.832		1	1	0.782			
			C	1	0.65		1	1	0.782			
L36 32.2500-31.4200	0.0431	0.1886	A	1	1.2	16.31	1	1	2.605	0.0762	91.83	A
			B	1	0.831		1	1	2.605			
			C	1	0.65		1	1	2.605			
L37 31.4200-31.1700	0.0130	0.0716	A	1	1.2	16.23	1	1	0.787	0.0231	92.24	A
			B	1	0.83		1	1	0.787			
			C	1	0.65		1	1	0.787			
L38 31.1700-29.0000	0.1128	0.6217	A	1	1.2	16.04	1	1	6.883	0.1987	91.59	A
			B	1	0.793		1	1	6.883			
			C	1	0.65		1	1	6.883			
L39 29.0000-28.7500	0.0130	0.0823	A	1	1.2	16.02	1	1	0.799	0.0228	91.39	A
			B	1	0.779		1	1	0.799			
			C	1	0.65		1	1	0.799			
L40 28.7500-28.5000	0.0130	0.0670	A	1	1.2	16.02	1	1	0.800	0.0229	91.49	A
			B	1	0.778		1	1	0.800			
			C	1	0.65		1	1	0.800			
L41 28.5000-23.5000	0.2599	1.3409	A	1	1.2	16.02	1	1	16.253	0.4566	91.31	A
			B	1	0.78		1	1	16.253			
			C	1	0.65		1	1	16.253			
L42 23.5000-23.2500	0.0130	0.0834	A	1	1.2	16.02	1	1	0.825	0.0229	91.66	A
			B	1	0.811		1	1	0.825			
			C	1	0.65		1	1	0.825			
L43 23.2500-23.0000	0.0130	0.0834	A	1	1.2	16.02	1	1	0.826	0.0229	91.76	A
			B	1	0.81		1	1	0.826			
			C	1	0.65		1	1	0.826			
L44 23.0000-22.7500	0.0130	0.0732	A	1	1.2	16.02	1	1	0.828	0.0230	91.86	A
			B	1	0.81		1	1	0.828			
			C	1	0.65		1	1	0.828			
L45 22.7500-17.7500	0.2599	1.4639	A	1	1.2	16.02	1	1	16.805	0.4578	91.55	A
			B	1	0.805		1	1	16.805			
			C	1	0.65		1	1	16.805			
L46 17.7500-12.7500	0.2599	1.4834	A	1	1.2	16.02	1	1	17.285	0.4650	93.00	A
			B	1	0.795		1	1	17.285			
			C	1	0.65		1	1	17.285			
L47 12.7500-7.7500	0.2599	1.5029	A	1	1.2	16.02	1	1	17.766	0.4751	95.03	A
			B	1	0.786		1	1	17.766			
			C	1	0.65		1	1	17.766			
L48 7.7500-5.2500	0.1300	0.7614	A	1	1.2	16.02	1	1	9.063	0.2414	96.55	A
			B	1	0.779		1	1	9.063			
			C	1	0.65		1	1	9.063			
L49 5.2500-5.0000	0.0130	0.0721	A	1	1.2	16.02	1	1	0.913	0.0243	97.11	A
			B	1	0.777		1	1	0.913			
			C	1	0.65		1	1	0.913			
L50 5.0000-0.0000	0.2501	1.4426	A	1	1.2	16.02	1	1	18.510	0.4909	98.18	A
			B	1	0.765		1	1	18.510			
			C	1	0.65		1	1	18.510			
Sum Weight:	4.6041	24.2368						OTM	770.74 kip-ft	11.9695		

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	K	K				psf			ft ²	K	plf	
L1 140.0000-135.0000	0.0312	0.1371	A	1	0.726	24.77	1	1	5.808	0.1148	22.96	A
			B	1	0.65		1	1	5.808			
			C	1	0.65		1	1	5.808			
L2 135.0000-130.0000	0.0506	0.1486	A	1	1.2	24.50	1	1	6.289	0.2577	51.55	A
			B	1	0.65		1	1	6.289			
			C	1	0.65		1	1	6.289			
L3 130.0000-125.0000	0.0680	0.1601	A	1	0.842	24.24	1	1	6.769	0.1520	30.39	A
			B	1	0.65		1	1	6.769			
			C	1	0.65		1	1	6.769			
L4 125.0000-120.0000	0.0723	0.1716	A	1	0.816	23.96	1	1	7.249	0.1560	31.20	A
			B	1	0.65		1	1	7.249			
			C	1	0.65		1	1	7.249			
L5 120.0000-115.0000	0.1461	0.1831	A	1	0.796	23.68	1	1	7.729	0.3393	67.86	B
			B	1	1.2		1	1	7.729			
			C	1	0.65		1	1	7.729			
L6 115.0000-114.7500	0.0073	0.0209	A	1	0.788	23.53	1	1	0.399	0.0173	69.09	B
			B	1	1.2		1	1	0.399			
			C	1	0.65		1	1	0.399			
L7 114.7500-109.7500	0.1461	0.4181	A	1	0.778	23.37	1	1	8.233	0.3509	70.18	B
			B	1	1.2		1	1	8.233			
			C	1	0.65		1	1	8.233			
L8 109.7500-104.7500	0.1461	0.4300	A	1	0.76	23.07	1	1	8.714	0.3610	72.20	B
			B	1	1.2		1	1	8.714			
			C	1	0.65		1	1	8.714			
L9 104.7500-101.5800	0.0926	0.2801	A	1	0.746	22.82	1	1	5.773	0.2338	73.75	B
			B	1	1.2		1	1	5.773			
			C	1	0.65		1	1	5.773			
L10 101.5800-101.3300	0.0073	0.0182	A	1	0.738	22.71	1	1	0.464	0.0186	74.26	B
			B	1	1.2		1	1	0.464			
			C	1	0.65		1	1	0.464			
L11 101.3300-96.3300	0.1461	0.3745	A	1	0.73	22.54	1	1	9.522	0.3760	75.20	B
			B	1	1.2		1	1	9.522			
			C	1	0.65		1	1	9.522			
L12 96.3300-91.3300	0.1461	0.3937	A	1	0.717	22.20	1	1	10.002	0.3846	76.91	B
			B	1	1.2		1	1	10.002			
			C	1	0.65		1	1	10.002			
L13 91.3300-91.0000	0.0096	0.0267	A	1	0.71	22.02	1	1	0.677	0.0257	77.77	B
			B	1	1.2		1	1	0.677			
			C	1	0.65		1	1	0.677			
L14 91.0000-90.7500	0.0073	0.0355	A	1	0.71	22.00	1	1	0.514	0.0195	77.86	B
			B	1	1.2		1	1	0.514			
			C	1	0.65		1	1	0.514			
L15 90.7500-85.7500	0.1461	0.7142	A	1	0.704	21.82	1	1	10.538	0.3933	78.66	B
			B	1	1.2		1	1	10.538			
			C	1	0.65		1	1	10.538			
L16 85.7500-80.7500	0.1461	0.7337	A	1	0.693	21.46	1	1	11.019	0.4004	80.08	B
			B	1	1.2		1	1	11.019			
			C	1	0.65		1	1	11.019			
L17 80.7500-75.7500	0.1461	0.7532	A	1	0.683	21.08	1	1	11.499	0.4067	81.35	B
			B	1	1.2		1	1	11.499			
			C	1	0.65		1	1	11.499			
L18 75.7500-70.7500	0.1533	0.7726	A	1	0.674	20.69	1	1	11.979	0.4123	82.45	B
			B	1	1.2		1	1	11.979			
			C	1	0.65		1	1	11.979			
L19 70.7500-69.9800	0.0250	0.1195	A	1	0.669	20.45	1	1	1.887	0.0639	83.01	B
			B	1	1.2		1	1	1.887			
			C	1	0.65		1	1	1.887			
L20 69.9800-69.7300	0.0081	0.0389	A	1	0.668	20.41	1	1	0.615	0.0208	83.10	B
			B	1	1.2		1	1	0.615			
			C	1	0.65		1	1	0.615			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L21 69.7300- 64.7300	0.1621	0.7834	A	1	0.664	20.19	1	1	12.557	0.2349	46.98	B
			B	1	0.842		1	1	12.557			
			C	1	0.65		1	1	12.557			
L22 64.7300- 63.0000	0.0561	0.1759	A	1	0.658	19.89	1	1	4.457	0.0812	46.94	B
			B	1	0.833		1	1	4.457			
			C	1	0.65		1	1	4.457			
L23 63.0000- 62.7500	0.0081	0.0556	A	1	0.657	19.81	1	1	0.649	0.0117	46.92	B
			B	1	0.83		1	1	0.649			
			C	1	0.65		1	1	0.649			
L24 62.7500- 59.0800	0.1190	0.8157	A	1	0.692	19.63	1	1	9.662	0.3158	86.04	B
			B	1	1.2		1	1	9.662			
			C	1	0.65		1	1	9.662			
L25 59.0800- 58.8200	0.0084	0.0543	A	1	0.749	19.44	1	1	0.694	0.0231	88.85	B
			B	1	1.2		1	1	0.694			
			C	1	0.65		1	1	0.694			
L26 58.8200- 58.6700	0.0049	0.0313	A	1	0.749	19.42	1	1	0.401	0.0133	88.86	B
			B	1	1.2		1	1	0.401			
			C	1	0.65		1	1	0.401			
L27 58.6700- 53.6700	0.1621	1.0458	A	1	0.743	19.18	1	1	13.619	0.4449	88.98	B
			B	1	1.2		1	1	13.619			
			C	1	0.65		1	1	13.619			
L28 53.6700- 48.5800	0.1650	1.1007	A	1	0.734	18.67	1	1	14.358	0.4530	89.00	B
			B	1	1.2		1	1	14.358			
			C	1	0.65		1	1	14.358			
L29 48.5800- 47.5800	0.0324	1.1325	A	1	0.733	18.34	1	1	2.826	0.0876	87.60	B
			B	1	1.2		1	1	2.826			
			C	1	0.65		1	1	2.826			
L30 47.5800- 42.5800	0.1621	1.0657	A	1	0.727	18.01	1	1	14.420	0.4368	87.36	B
			B	1	1.2		1	1	14.420			
			C	1	0.65		1	1	14.420			
L31 42.5800- 39.7500	0.0917	0.6138	A	1	0.72	17.55	1	1	8.375	0.2459	86.87	B
			B	1	1.2		1	1	8.375			
			C	1	0.65		1	1	8.375			
L32 39.7500- 39.5000	0.0081	0.0700	A	1	0.718	17.36	1	1	0.747	0.0217	86.61	B
			B	1	1.2		1	1	0.747			
			C	1	0.65		1	1	0.747			
L33 39.5000- 34.5000	0.1621	1.3984	A	1	0.713	17.02	1	1	15.196	0.4303	86.06	B
			B	1	1.2		1	1	15.196			
			C	1	0.65		1	1	15.196			
L34 34.5000- 32.5000	0.0811	0.5679	A	1	0.73	16.54	1	1	6.213	0.1721	86.07	B
			B	1	1.2		1	1	6.213			
			C	1	0.65		1	1	6.213			
L35 32.5000- 32.2500	0.0130	0.0568	A	1	0.758	16.38	1	1	0.782	0.0218	87.02	B
			B	1	1.2		1	1	0.782			
			C	1	0.657		1	1	0.782			
L36 32.2500- 31.4200	0.0431	0.1886	A	1	0.757	16.31	1	1	2.605	0.0721	86.82	B
			B	1	1.2		1	1	2.605			
			C	1	0.656		1	1	2.605			
L37 31.4200- 31.1700	0.0130	0.0716	A	1	0.756	16.23	1	1	0.787	0.0217	86.62	B
			B	1	1.2		1	1	0.787			
			C	1	0.655		1	1	0.787			
L38 31.1700- 29.0000	0.1128	0.6217	A	1	0.754	16.04	1	1	6.883	0.1869	86.14	B
			B	1	1.2		1	1	6.883			
			C	1	0.654		1	1	6.883			
L39 29.0000- 28.7500	0.0130	0.0823	A	1	0.752	16.02	1	1	0.799	0.0216	86.49	B
			B	1	1.2		1	1	0.799			
			C	1	0.652		1	1	0.799			
L40 28.7500- 28.5000	0.0130	0.0670	A	1	0.751	16.02	1	1	0.800	0.0216	86.60	B
			B	1	1.2		1	1	0.800			
			C	1	0.652		1	1	0.800			
L41 28.5000- 23.5000	0.2599	1.3409	A	1	0.747	16.02	1	1	16.253	0.4383	87.66	B
			B	1	1.2		1	1	16.253			
			C	1	0.65		1	1	16.253			
L42 23.5000- 23.2500	0.0130	0.0834	A	1	0.742	16.02	1	1	0.825	0.0222	88.73	B
			B	1	1.2		1	1	0.825			
			C	1	0.65		1	1	0.825			
L43 23.2500- 23.0000	0.0130	0.0834	A	1	0.742	16.02	1	1	0.826	0.0222	88.83	B
			B	1	1.2		1	1	0.826			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L44 23.0000-22.7500	0.0130	0.0732	C	1	0.65	16.02	1	1	0.826	0.0222	88.93	B
			A	1	0.741		1	1	0.828			
			B	1	1.2		1	1	0.828			
L45 22.7500-17.7500	0.2599	1.4639	C	1	0.65	16.02	1	1	0.828	0.4500	90.00	B
			A	1	0.737		1	1	16.805			
			B	1	1.2		1	1	16.805			
L46 17.7500-12.7500	0.2599	1.4834	C	1	0.65	16.02	1	1	0.828	0.4601	92.03	B
			A	1	0.729		1	1	17.285			
			B	1	1.2		1	1	17.285			
L47 12.7500-7.7500	0.2599	1.5029	C	1	0.65	16.02	1	1	17.285	0.4703	94.06	B
			A	1	0.722		1	1	17.766			
			B	1	1.2		1	1	17.766			
L48 7.7500-5.2500	0.1300	0.7614	C	1	0.65	16.02	1	1	17.766	0.1342	53.68	B
			A	1	0.717		1	1	9.063			
			B	1	0.84		1	1	9.063			
L49 5.2500-5.0000	0.0130	0.0721	C	1	0.65	16.02	1	1	9.063	0.0135	53.89	B
			A	1	0.715		1	1	0.913			
			B	1	0.838		1	1	0.913			
L50 5.0000-0.0000	0.2501	1.4426	C	1	0.65	16.02	1	1	0.913	0.2677	53.54	B
			A	1	0.7		1	1	18.510			
			B	1	0.821		1	1	18.510			
Sum Weight:	4.6041	24.2368	C	1	0.65			OTM	641.46 kip-ft	10.1232		

Tower Forces - With Ice - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L1 140.0000-135.0000	0.1055	0.3022	A	1	1.2	6.58	1	1	7.250	0.0789	15.78	C
			B	1	1.2		1	1	7.250			
			C	1	1.2		1	1	7.250			
L2 135.0000-130.0000	0.1556	0.3251	A	1	1.2	6.51	1	1	7.225	0.0926	18.52	C
			B	1	1.2		1	1	7.725			
			C	1	1.2		1	1	7.725			
L3 130.0000-125.0000	0.1723	0.3478	A	1	1.2	6.44	1	1	8.200	0.0956	19.12	C
			B	1	1.2		1	1	8.200			
			C	1	1.2		1	1	8.200			
L4 125.0000-120.0000	0.1760	0.3705	A	1	1.2	6.37	1	1	8.674	0.0985	19.69	C
			B	1	1.2		1	1	8.674			
			C	1	1.2		1	1	8.674			
L5 120.0000-115.0000	0.4764	0.3930	A	1	1.2	6.29	1	1	9.148	0.1339	26.78	C
			B	1	1.2		1	1	9.148			
			C	1	1.2		1	1	9.148			
L6 115.0000-114.7500	0.0290	0.0317	A	1	1.2	6.25	1	1	0.470	0.0071	28.37	C
			B	1	1.2		1	1	0.470			
			C	1	1.2		1	1	0.470			
L7 114.7500-109.7500	0.5780	0.6394	A	1	1.2	6.21	1	1	9.646	0.1429	28.57	C
			B	1	1.2		1	1	9.646			
			C	1	1.2		1	1	9.646			
L8 109.7500-104.7500	0.5755	0.6621	A	1	1.2	6.13	1	1	10.120	0.1448	28.95	C
			B	1	1.2		1	1	10.120			
			C	1	1.2		1	1	10.120			
L9 104.7500-101.5800	0.3493	0.4327	A	1	1.2	6.06	1	1	6.661	0.0918	28.95	C
			B	1	1.2		1	1	6.661			
			C	1	1.2		1	1	6.661			
L10 101.5800-101.3300	0.0201	0.0304	A	1	1.2	6.03	1	1	0.533	0.0068	27.19	C
			B	1	1.2		1	1	0.533			
			C	1	1.2		1	1	0.533			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L11	0.4019	0.6243	A	1	1.2	5.99	1	1	10.917	0.1368	27.37	C
101.3300-			B	1	1.2		1	1	10.917			
96.3300			C	1	1.2		1	1	10.917			
L12 96.3300-	0.4662	0.6538	A	1	1.2	5.90	1	1	11.390	0.1419	28.39	C
91.3300			B	1	1.2		1	1	11.390			
			C	1	1.2		1	1	11.390			
L13 91.3300-	0.0393	0.0442	A	1	1.2	5.85	1	1	0.768	0.0099	29.91	C
91.0000			B	1	1.2		1	1	0.768			
			C	1	1.2		1	1	0.768			
L14 91.0000-	0.0298	0.0488	A	1	1.2	5.85	1	1	0.583	0.0075	29.93	C
90.7500			B	1	1.2		1	1	0.583			
			C	1	1.2		1	1	0.583			
L15 90.7500-	0.5942	0.9856	A	1	1.2	5.80	1	1	11.918	0.1502	30.04	C
85.7500			B	1	1.2		1	1	11.918			
			C	1	1.2		1	1	11.918			
L16 85.7500-	0.5910	1.0149	A	1	1.2	5.70	1	1	12.390	0.1512	30.24	C
80.7500			B	1	1.2		1	1	12.390			
			C	1	1.2		1	1	12.390			
L17 80.7500-	0.5877	1.0439	A	1	1.2	5.60	1	1	12.862	0.1519	30.38	C
75.7500			B	1	1.2		1	1	12.862			
			C	1	1.2		1	1	12.862			
L18 75.7500-	0.6379	1.0727	A	1	1.2	5.50	1	1	13.333	0.1548	30.95	C
70.7500			B	1	1.2		1	1	13.333			
			C	1	1.2		1	1	13.333			
L19 70.7500-	0.1206	0.1666	A	1	1.2	5.43	1	1	2.095	0.0249	32.39	C
69.9800			B	1	1.2		1	1	2.095			
			C	1	1.2		1	1	2.095			
L20 69.9800-	0.0391	0.0543	A	1	1.2	5.42	1	1	0.683	0.0081	32.38	C
69.7300			B	1	1.2		1	1	0.683			
			C	1	1.2		1	1	0.683			
L21 69.7300-	0.6664	1.0944	A	1	1.2	5.36	1	1	13.899	0.1562	31.24	C
64.7300			B	1	1.2		1	1	13.899			
			C	1	1.2		1	1	13.899			
L22 64.7300-	0.2684	0.2856	A	1	1.2	5.29	1	1	4.919	0.0559	32.30	C
63.0000			B	1	1.2		1	1	4.919			
			C	1	1.2		1	1	4.919			
L23 63.0000-	0.0387	0.0715	A	1	1.2	5.26	1	1	0.715	0.0081	32.28	C
62.7500			B	1	1.2		1	1	0.715			
			C	1	1.2		1	1	0.715			
L24 62.7500-	0.6165	1.0520	A	1	1.2	5.21	1	1	10.638	0.1188	32.38	C
59.0800			B	1	1.2		1	1	10.638			
			C	1	1.2		1	1	10.638			
L25 59.0800-	0.0491	0.0712	A	1	1.2	5.17	1	1	0.763	0.0085	32.54	C
58.8200			B	1	1.2		1	1	0.763			
			C	1	1.2		1	1	0.763			
L26 58.8200-	0.0283	0.0411	A	1	1.2	5.16	1	1	0.441	0.0049	32.53	C
58.6700			B	1	1.2		1	1	0.441			
			C	1	1.2		1	1	0.441			
L27 58.6700-	0.8195	1.3755	A	1	1.2	5.10	1	1	14.938	0.1563	31.25	C
53.6700			B	1	1.2		1	1	14.938			
			C	1	1.2		1	1	14.938			
L28 53.6700-	0.7854	1.4443	A	1	1.2	4.96	1	1	15.687	0.1558	30.62	C
48.5800			B	1	1.2		1	1	15.687			
			C	1	1.2		1	1	15.687			
L29 48.5800-	0.1496	1.1997	A	1	1.2	4.87	1	1	3.088	0.0299	29.93	C
47.5800			B	1	1.2		1	1	3.088			
			C	1	1.2		1	1	3.088			
L30 47.5800-	0.7389	1.4060	A	1	1.2	4.78	1	1	15.710	0.1483	29.67	C
42.5800			B	1	1.2		1	1	15.710			
			C	1	1.2		1	1	15.710			
L31 42.5800-	0.4826	0.8094	A	1	1.2	4.66	1	1	9.098	0.0859	30.37	C
39.7500			B	1	1.2		1	1	9.098			
			C	1	1.2		1	1	9.098			
L32 39.7500-	0.0453	0.0874	A	1	1.2	4.61	1	1	0.811	0.0077	30.69	C
39.5000			B	1	1.2		1	1	0.811			
			C	1	1.2		1	1	0.811			
L33 39.5000-	0.8997	1.7489	A	1	1.2	4.52	1	1	16.461	0.1517	30.34	C
34.5000			B	1	1.2		1	1	16.461			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L34 34.5000-32.5000	0.4004	0.7096	C	1	1.2	4.40	1	1	16.461	0.0596	29.82	C
			A	1	1.2		1	1	6.714			
			B	1	1.2		1	1	6.714			
			C	1	1.2		1	1	6.714			
L35 32.5000-32.2500	0.0576	0.0745	A	1	1.2	4.35	1	1	0.844	0.0074	29.63	C
			B	1	1.2		1	1	0.844			
			C	1	1.2		1	1	0.844			
L36 32.2500-31.4200	0.1911	0.2477	A	1	1.2	4.33	1	1	2.812	0.0245	29.54	C
			B	1	1.2		1	1	2.812			
			C	1	1.2		1	1	2.812			
L37 31.4200-31.1700	0.0593	0.0895	A	1	1.2	4.31	1	1	0.849	0.0075	29.89	C
			B	1	1.2		1	1	0.849			
			C	1	1.2		1	1	0.849			
L38 31.1700-29.0000	0.4936	0.7768	A	1	1.2	4.26	1	1	7.421	0.0642	29.59	C
			B	1	1.2		1	1	7.421			
			C	1	1.2		1	1	7.421			
L39 29.0000-28.7500	0.0544	0.1002	A	1	1.2	4.26	1	1	0.861	0.0073	29.27	C
			B	1	1.2		1	1	0.861			
			C	1	1.2		1	1	0.861			
L40 28.7500-28.5000	0.0544	0.0850	A	1	1.2	4.26	1	1	0.862	0.0073	29.29	C
			B	1	1.2		1	1	0.862			
			C	1	1.2		1	1	0.862			
L41 28.5000-23.5000	1.0382	1.7014	A	1	1.2	4.26	1	1	17.473	0.1432	28.64	C
			B	1	1.2		1	1	17.473			
			C	1	1.2		1	1	17.473			
L42 23.5000-23.2500	0.0533	0.1014	A	1	1.2	4.26	1	1	0.886	0.0071	28.37	C
			B	1	1.2		1	1	0.886			
			C	1	1.2		1	1	0.886			
L43 23.2500-23.0000	0.0533	0.1015	A	1	1.2	4.26	1	1	0.887	0.0071	28.39	C
			B	1	1.2		1	1	0.887			
			C	1	1.2		1	1	0.887			
L44 23.0000-22.7500	0.0532	0.0914	A	1	1.2	4.26	1	1	0.888	0.0071	28.41	C
			B	1	1.2		1	1	0.888			
			C	1	1.2		1	1	0.888			
L45 22.7500-17.7500	0.9769	1.8267	A	1	1.2	4.26	1	1	17.996	0.1384	27.68	C
			B	1	1.2		1	1	17.996			
			C	1	1.2		1	1	17.996			
L46 17.7500-12.7500	0.9211	1.8454	A	1	1.2	4.26	1	1	18.443	0.1385	27.69	C
			B	1	1.2		1	1	18.443			
			C	1	1.2		1	1	18.443			
L47 12.7500-7.7500	0.8899	1.8597	A	1	1.2	4.26	1	1	18.878	0.1403	28.06	C
			B	1	1.2		1	1	18.878			
			C	1	1.2		1	1	18.878			
L48 7.7500-5.2500	0.4281	0.9350	A	1	1.2	4.26	1	1	9.594	0.0707	28.29	C
			B	1	1.2		1	1	9.594			
			C	1	1.2		1	1	9.594			
L49 5.2500-5.0000	0.0420	0.0891	A	1	1.2	4.26	1	1	0.965	0.0071	28.38	C
			B	1	1.2		1	1	0.965			
			C	1	1.2		1	1	0.965			
L50 5.0000-0.0000	0.7461	1.7637	A	1	1.2	4.26	1	1	19.475	0.1424	28.48	C
			B	1	1.2		1	1	19.475			
			C	1	1.2		1	1	19.475			
Sum Weight:	18.2472	32.3296						OTM	259.33 kip-ft	3.8977		

Tower Forces - With Ice - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L1 140.0000-135.0000	0.1055	0.3022	A	1	1.2	6.58	1	1	7.250	0.0789	15.78	A
			B	1	1.2		1	1	7.250			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L2 135.0000- 130.0000	0.1556	0.3251	C	1	1.2	6.51	1	1	7.250	0.0926	18.52	A
			A	1	1.2		1	1	7.725			
			B	1	1.2		1	1	7.725			
L3 130.0000- 125.0000	0.1723	0.3478	C	1	1.2	6.44	1	1	7.725	0.0956	19.12	A
			A	1	1.2		1	1	8.200			
			B	1	1.2		1	1	8.200			
L4 125.0000- 120.0000	0.1760	0.3705	C	1	1.2	6.37	1	1	8.200	0.0985	19.69	A
			A	1	1.2		1	1	8.674			
			B	1	1.2		1	1	8.674			
L5 120.0000- 115.0000	0.4764	0.3930	C	1	1.2	6.29	1	1	8.674	0.1339	26.78	A
			A	1	1.2		1	1	9.148			
			B	1	1.2		1	1	9.148			
L6 115.0000- 114.7500	0.0290	0.0317	C	1	1.2	6.25	1	1	9.148	0.0071	28.37	A
			A	1	1.2		1	1	0.470			
			B	1	1.2		1	1	0.470			
L7 114.7500- 109.7500	0.5780	0.6394	C	1	1.2	6.21	1	1	0.470	0.1429	28.57	A
			A	1	1.2		1	1	9.646			
			B	1	1.2		1	1	9.646			
L8 109.7500- 104.7500	0.5755	0.6621	C	1	1.2	6.13	1	1	9.646	0.1448	28.95	A
			A	1	1.2		1	1	10.120			
			B	1	1.2		1	1	10.120			
L9 104.7500- 101.5800	0.3493	0.4327	C	1	1.2	6.06	1	1	10.120	0.0918	28.95	A
			A	1	1.2		1	1	6.661			
			B	1	1.2		1	1	6.661			
L10 101.5800- 101.3300	0.0201	0.0304	C	1	1.2	6.03	1	1	6.661	0.0068	27.19	A
			A	1	1.2		1	1	0.533			
			B	1	1.2		1	1	0.533			
L11 101.3300- 96.3300	0.4019	0.6243	C	1	1.2	5.99	1	1	0.533	0.1368	27.37	A
			A	1	1.2		1	1	10.917			
			B	1	1.2		1	1	10.917			
L12 96.3300- 91.3300	0.4662	0.6538	C	1	1.2	5.90	1	1	10.917	0.1419	28.39	A
			A	1	1.2		1	1	11.390			
			B	1	1.2		1	1	11.390			
L13 91.3300- 91.0000	0.0393	0.0442	C	1	1.2	5.85	1	1	11.390	0.0099	29.91	A
			A	1	1.2		1	1	0.768			
			B	1	1.2		1	1	0.768			
L14 91.0000- 90.7500	0.0298	0.0488	C	1	1.2	5.85	1	1	0.768	0.0075	29.93	A
			A	1	1.2		1	1	0.583			
			B	1	1.2		1	1	0.583			
L15 90.7500- 85.7500	0.5942	0.9856	C	1	1.2	5.80	1	1	0.583	0.1502	30.04	A
			A	1	1.2		1	1	11.918			
			B	1	1.2		1	1	11.918			
L16 85.7500- 80.7500	0.5910	1.0149	C	1	1.2	5.70	1	1	11.918	0.1512	30.24	A
			A	1	1.2		1	1	12.390			
			B	1	1.2		1	1	12.390			
L17 80.7500- 75.7500	0.5877	1.0439	C	1	1.2	5.60	1	1	12.390	0.1519	30.38	A
			A	1	1.2		1	1	12.862			
			B	1	1.2		1	1	12.862			
L18 75.7500- 70.7500	0.6379	1.0727	C	1	1.2	5.50	1	1	12.862	0.1548	30.95	A
			A	1	1.2		1	1	13.333			
			B	1	1.2		1	1	13.333			
L19 70.7500- 69.9800	0.1206	0.1666	C	1	1.2	5.43	1	1	13.333	0.0249	32.39	A
			A	1	1.2		1	1	2.095			
			B	1	1.2		1	1	2.095			
L20 69.9800- 69.7300	0.0391	0.0543	C	1	1.2	5.42	1	1	2.095	0.0081	32.38	A
			A	1	1.2		1	1	0.683			
			B	1	1.2		1	1	0.683			
L21 69.7300- 64.7300	0.6664	1.0944	C	1	1.2	5.36	1	1	0.683	0.1562	31.24	A
			A	1	1.2		1	1	13.899			
			B	1	1.2		1	1	13.899			
L22 64.7300- 63.0000	0.2684	0.2856	C	1	1.2	5.29	1	1	13.899	0.0559	32.30	A
			A	1	1.2		1	1	4.919			
			B	1	1.2		1	1	4.919			
L23 63.0000- 62.7500	0.0387	0.0715	C	1	1.2	5.26	1	1	4.919	0.0081	32.28	A
			A	1	1.2		1	1	0.715			
			B	1	1.2		1	1	0.715			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L24 62.7500- 59.0800	0.6165	1.0520	A	1	1.2	5.21	1	1	10.638	0.1188	32.38	A
			B	1	1.2	1	1	10.638				
			C	1	1.2	1	1	10.638				
L25 59.0800- 58.8200	0.0491	0.0712	A	1	1.2	5.17	1	1	0.763	0.0085	32.54	A
			B	1	1.2	1	1	0.763				
			C	1	1.2	1	1	0.763				
L26 58.8200- 58.6700	0.0283	0.0411	A	1	1.2	5.16	1	1	0.441	0.0049	32.53	A
			B	1	1.2	1	1	0.441				
			C	1	1.2	1	1	0.441				
L27 58.6700- 53.6700	0.8195	1.3755	A	1	1.2	5.10	1	1	14.938	0.1563	31.25	A
			B	1	1.2	1	1	14.938				
			C	1	1.2	1	1	14.938				
L28 53.6700- 48.5800	0.7854	1.4443	A	1	1.2	4.96	1	1	15.687	0.1558	30.62	A
			B	1	1.2	1	1	15.687				
			C	1	1.2	1	1	15.687				
L29 48.5800- 47.5800	0.1496	1.1997	A	1	1.2	4.87	1	1	3.088	0.0299	29.93	A
			B	1	1.2	1	1	3.088				
			C	1	1.2	1	1	3.088				
L30 47.5800- 42.5800	0.7389	1.4060	A	1	1.2	4.78	1	1	15.710	0.1483	29.67	A
			B	1	1.2	1	1	15.710				
			C	1	1.2	1	1	15.710				
L31 42.5800- 39.7500	0.4826	0.8094	A	1	1.2	4.66	1	1	9.098	0.0859	30.37	A
			B	1	1.2	1	1	9.098				
			C	1	1.2	1	1	9.098				
L32 39.7500- 39.5000	0.0453	0.0874	A	1	1.2	4.61	1	1	0.811	0.0077	30.69	A
			B	1	1.2	1	1	0.811				
			C	1	1.2	1	1	0.811				
L33 39.5000- 34.5000	0.8997	1.7489	A	1	1.2	4.52	1	1	16.461	0.1517	30.34	A
			B	1	1.2	1	1	16.461				
			C	1	1.2	1	1	16.461				
L34 34.5000- 32.5000	0.4004	0.7096	A	1	1.2	4.40	1	1	6.714	0.0596	29.82	A
			B	1	1.2	1	1	6.714				
			C	1	1.2	1	1	6.714				
L35 32.5000- 32.2500	0.0576	0.0745	A	1	1.2	4.35	1	1	0.844	0.0074	29.63	A
			B	1	1.2	1	1	0.844				
			C	1	1.2	1	1	0.844				
L36 32.2500- 31.4200	0.1911	0.2477	A	1	1.2	4.33	1	1	2.812	0.0245	29.54	A
			B	1	1.2	1	1	2.812				
			C	1	1.2	1	1	2.812				
L37 31.4200- 31.1700	0.0593	0.0895	A	1	1.2	4.31	1	1	0.849	0.0075	29.89	A
			B	1	1.2	1	1	0.849				
			C	1	1.2	1	1	0.849				
L38 31.1700- 29.0000	0.4936	0.7768	A	1	1.2	4.26	1	1	7.421	0.0642	29.59	A
			B	1	1.2	1	1	7.421				
			C	1	1.2	1	1	7.421				
L39 29.0000- 28.7500	0.0544	0.1002	A	1	1.2	4.26	1	1	0.861	0.0073	29.27	A
			B	1	1.2	1	1	0.861				
			C	1	1.2	1	1	0.861				
L40 28.7500- 28.5000	0.0544	0.0850	A	1	1.2	4.26	1	1	0.862	0.0073	29.29	A
			B	1	1.2	1	1	0.862				
			C	1	1.2	1	1	0.862				
L41 28.5000- 23.5000	1.0382	1.7014	A	1	1.2	4.26	1	1	17.473	0.1432	28.64	A
			B	1	1.2	1	1	17.473				
			C	1	1.2	1	1	17.473				
L42 23.5000- 23.2500	0.0533	0.1014	A	1	1.2	4.26	1	1	0.886	0.0071	28.37	A
			B	1	1.2	1	1	0.886				
			C	1	1.2	1	1	0.886				
L43 23.2500- 23.0000	0.0533	0.1015	A	1	1.2	4.26	1	1	0.887	0.0071	28.39	A
			B	1	1.2	1	1	0.887				
			C	1	1.2	1	1	0.887				
L44 23.0000- 22.7500	0.0532	0.0914	A	1	1.2	4.26	1	1	0.888	0.0071	28.41	A
			B	1	1.2	1	1	0.888				
			C	1	1.2	1	1	0.888				
L45 22.7500- 17.7500	0.9769	1.8267	A	1	1.2	4.26	1	1	17.996	0.1384	27.68	A
			B	1	1.2	1	1	17.996				
			C	1	1.2	1	1	17.996				
L46 17.7500- 12.7500	0.9211	1.8454	A	1	1.2	4.26	1	1	18.443	0.1385	27.69	A
			B	1	1.2	1	1	18.443				
			C	1	1.2	1	1	18.443				

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L47 12.7500-7.7500	0.8899	1.8597	C	1	1.2	4.26	1	1	18.443	0.1403	28.06	A
			A	1	1.2		1	1	18.878			
			B	1	1.2		1	1	18.878			
L48 7.7500-5.2500	0.4281	0.9350	C	1	1.2	4.26	1	1	18.878	0.0707	28.29	A
			A	1	1.2		1	1	9.594			
			B	1	1.2		1	1	9.594			
L49 5.2500-5.0000	0.0420	0.0891	A	1	1.2	4.26	1	1	0.965	0.0071	28.38	A
			B	1	1.2		1	1	0.965			
			C	1	1.2		1	1	0.965			
L50 5.0000-0.0000	0.7461	1.7637	A	1	1.2	4.26	1	1	19.475	0.1424	28.48	A
			B	1	1.2		1	1	19.475			
			C	1	1.2		1	1	19.475			
Sum Weight:	18.2472	32.3296						OTM	259.33 kip-ft	3.8977		

Tower Forces - With Ice - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L1 140.0000-135.0000	0.1055	0.3022	A	1	1.2	6.58	1	1	7.250	0.0630	12.59	C
			B	1	1.2		1	1	7.250			
			C	1	1.2		1	1	7.250			
L2 135.0000-130.0000	0.1556	0.3251	A	1	1.2	6.51	1	1	7.725	0.0881	17.61	A
			B	1	1.2		1	1	7.725			
			C	1	1.2		1	1	7.725			
L3 130.0000-125.0000	0.1723	0.3478	A	1	1.2	6.44	1	1	8.200	0.0911	18.22	A
			B	1	1.2		1	1	8.200			
			C	1	1.2		1	1	8.200			
L4 125.0000-120.0000	0.1760	0.3705	A	1	1.2	6.37	1	1	8.674	0.0940	18.81	A
			B	1	1.2		1	1	8.674			
			C	1	1.2		1	1	8.674			
L5 120.0000-115.0000	0.4764	0.3930	A	1	1.2	6.29	1	1	9.148	0.1181	23.63	B
			B	1	1.2		1	1	9.148			
			C	1	1.2		1	1	9.148			
L6 115.0000-114.7500	0.0290	0.0317	A	1	1.2	6.25	1	1	0.470	0.0062	24.84	B
			B	1	1.2		1	1	0.470			
			C	1	1.2		1	1	0.470			
L7 114.7500-109.7500	0.5780	0.6394	A	1	1.2	6.21	1	1	9.646	0.1254	25.07	B
			B	1	1.2		1	1	9.646			
			C	1	1.2		1	1	9.646			
L8 109.7500-104.7500	0.5755	0.6621	A	1	1.2	6.13	1	1	10.120	0.1275	25.49	B
			B	1	1.2		1	1	10.120			
			C	1	1.2		1	1	10.120			
L9 104.7500-101.5800	0.3493	0.4327	A	1	1.2	6.06	1	1	6.661	0.0812	25.61	B
			B	1	1.2		1	1	6.661			
			C	1	1.2		1	1	6.661			
L10 101.5800-101.3300	0.0201	0.0304	A	1	1.2	6.03	1	1	0.533	0.0061	24.42	B
			B	1	1.2		1	1	0.533			
			C	1	1.2		1	1	0.533			
L11 101.3300-96.3300	0.4019	0.6243	A	1	1.2	5.99	1	1	10.917	0.1231	24.63	B
			B	1	1.2		1	1	10.917			
			C	1	1.2		1	1	10.917			
L12 96.3300-91.3300	0.4662	0.6538	A	1	1.2	5.90	1	1	11.390	0.1267	25.34	B
			B	1	1.2		1	1	11.390			
			C	1	1.2		1	1	11.390			
L13 91.3300-91.0000	0.0393	0.0442	A	1	1.2	5.85	1	1	0.768	0.0086	26.20	B
			B	1	1.2		1	1	0.768			
			C	1	1.2		1	1	0.768			
L14 91.0000-90.7500	0.0298	0.0488	A	1	1.2	5.85	1	1	0.583	0.0066	26.21	B
			B	1	1.2		1	1	0.583			
			C	1	1.2		1	1	0.583			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L15 90.7500-85.7500	0.5942	0.9856	C	1	1.2	5.80	1	1	0.583	0.1318	26.36	B
			A	1	1.2		1	1	11.918			
			B	1	1.2		1	1	11.918			
			C	1	1.2		1	1	11.918			
L16 85.7500-80.7500	0.5910	1.0149	A	1	1.2	5.70	1	1	12.390	0.1331	26.62	B
			B	1	1.2		1	1	12.390			
			C	1	1.2		1	1	12.390			
L17 80.7500-75.7500	0.5877	1.0439	A	1	1.2	5.60	1	1	12.862	0.1341	26.83	B
			B	1	1.2		1	1	12.862			
			C	1	1.2		1	1	12.862			
L18 75.7500-70.7500	0.6379	1.0727	A	1	1.2	5.50	1	1	13.333	0.1360	27.19	B
			B	1	1.2		1	1	13.333			
			C	1	1.2		1	1	13.333			
L19 70.7500-69.9800	0.1206	0.1666	A	1	1.2	5.43	1	1	2.095	0.0215	27.87	B
			B	1	1.2		1	1	2.095			
			C	1	1.2		1	1	2.095			
L20 69.9800-69.7300	0.0391	0.0543	A	1	1.2	5.42	1	1	0.683	0.0070	27.87	B
			B	1	1.2		1	1	0.683			
			C	1	1.2		1	1	0.683			
L21 69.7300-64.7300	0.6664	1.0944	A	1	1.2	5.36	1	1	13.899	0.1365	27.31	B
			B	1	1.2		1	1	13.899			
			C	1	1.2		1	1	13.899			
L22 64.7300-63.0000	0.2684	0.2856	A	1	1.2	5.29	1	1	4.919	0.0468	27.03	B
			B	1	1.2		1	1	4.919			
			C	1	1.2		1	1	4.919			
L23 63.0000-62.7500	0.0387	0.0715	A	1	1.2	5.26	1	1	0.715	0.0068	27.03	B
			B	1	1.2		1	1	0.715			
			C	1	1.2		1	1	0.715			
L24 62.7500-59.0800	0.6165	1.0520	A	1	1.2	5.21	1	1	10.638	0.1025	27.92	B
			B	1	1.2		1	1	10.638			
			C	1	1.2		1	1	10.638			
L25 59.0800-58.8200	0.0491	0.0712	A	1	1.2	5.17	1	1	0.763	0.0076	29.29	B
			B	1	1.2		1	1	0.763			
			C	1	1.2		1	1	0.763			
L26 58.8200-58.6700	0.0283	0.0411	A	1	1.2	5.16	1	1	0.441	0.0044	29.29	B
			B	1	1.2		1	1	0.441			
			C	1	1.2		1	1	0.441			
L27 58.6700-53.6700	0.8195	1.3755	A	1	1.2	5.10	1	1	14.938	0.1437	28.73	B
			B	1	1.2		1	1	14.938			
			C	1	1.2		1	1	14.938			
L28 53.6700-48.5800	0.7854	1.4443	A	1	1.2	4.96	1	1	15.687	0.1453	28.54	B
			B	1	1.2		1	1	15.687			
			C	1	1.2		1	1	15.687			
L29 48.5800-47.5800	0.1496	1.1997	A	1	1.2	4.87	1	1	3.088	0.0284	28.42	B
			B	1	1.2		1	1	3.088			
			C	1	1.2		1	1	3.088			
L30 47.5800-42.5800	0.7389	1.4060	A	1	1.2	4.78	1	1	15.710	0.1410	28.20	B
			B	1	1.2		1	1	15.710			
			C	1	1.2		1	1	15.710			
L31 42.5800-39.7500	0.4826	0.8094	A	1	1.2	4.66	1	1	9.098	0.0798	28.21	B
			B	1	1.2		1	1	9.098			
			C	1	1.2		1	1	9.098			
L32 39.7500-39.5000	0.0453	0.0874	A	1	1.2	4.61	1	1	0.811	0.0071	28.21	B
			B	1	1.2		1	1	0.811			
			C	1	1.2		1	1	0.811			
L33 39.5000-34.5000	0.8997	1.7489	A	1	1.2	4.52	1	1	16.461	0.1396	27.92	B
			B	1	1.2		1	1	16.461			
			C	1	1.2		1	1	16.461			
L34 34.5000-32.5000	0.4004	0.7096	A	1	1.2	4.40	1	1	6.714	0.0562	28.10	B
			B	1	1.2		1	1	6.714			
			C	1	1.2		1	1	6.714			
L35 32.5000-32.2500	0.0576	0.0745	A	1	1.2	4.35	1	1	0.844	0.0072	28.81	B
			B	1	1.2		1	1	0.844			
			C	1	1.2		1	1	0.844			
L36 32.2500-31.4200	0.1911	0.2477	A	1	1.2	4.33	1	1	2.812	0.0238	28.72	B
			B	1	1.2		1	1	2.812			
			C	1	1.2		1	1	2.812			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L37 31.4200-31.1700	0.0593	0.0895	A	1	1.2	4.31	1	1	0.849	0.0072	28.63	B
			B	1	1.2		1	1	0.849			
			C	1	1.2		1	1	0.849			
L38 31.1700-29.0000	0.4936	0.7768	A	1	1.2	4.26	1	1	7.421	0.0610	28.09	B
			B	1	1.2		1	1	7.421			
			C	1	1.2		1	1	7.421			
L39 29.0000-28.7500	0.0544	0.1002	A	1	1.2	4.26	1	1	0.861	0.0070	28.03	B
			B	1	1.2		1	1	0.861			
			C	1	1.2		1	1	0.861			
L40 28.7500-28.5000	0.0544	0.0850	A	1	1.2	4.26	1	1	0.862	0.0070	28.06	B
			B	1	1.2		1	1	0.862			
			C	1	1.2		1	1	0.862			
L41 28.5000-23.5000	1.0382	1.7014	A	1	1.2	4.26	1	1	17.473	0.1407	28.15	B
			B	1	1.2		1	1	17.473			
			C	1	1.2		1	1	17.473			
L42 23.5000-23.2500	0.0533	0.1014	A	1	1.2	4.26	1	1	0.886	0.0071	28.39	B
			B	1	1.2		1	1	0.886			
			C	1	1.2		1	1	0.886			
L43 23.2500-23.0000	0.0533	0.1015	A	1	1.2	4.26	1	1	0.887	0.0071	28.41	B
			B	1	1.2		1	1	0.887			
			C	1	1.2		1	1	0.887			
L44 23.0000-22.7500	0.0532	0.0914	A	1	1.2	4.26	1	1	0.888	0.0071	28.44	B
			B	1	1.2		1	1	0.888			
			C	1	1.2		1	1	0.888			
L45 22.7500-17.7500	0.9769	1.8267	A	1	1.2	4.26	1	1	17.996	0.1433	28.65	B
			B	1	1.2		1	1	17.996			
			C	1	1.2		1	1	17.996			
L46 17.7500-12.7500	0.9211	1.8454	A	1	1.2	4.26	1	1	18.443	0.1452	29.05	B
			B	1	1.2		1	1	18.443			
			C	1	1.2		1	1	18.443			
L47 12.7500-7.7500	0.8899	1.8597	A	1	1.2	4.26	1	1	18.878	0.1469	29.39	B
			B	1	1.2		1	1	18.878			
			C	1	1.2		1	1	18.878			
L48 7.7500-5.2500	0.4281	0.9350	A	1	1.2	4.26	1	1	9.594	0.0739	29.57	B
			B	1	1.2		1	1	9.594			
			C	1	1.2		1	1	9.594			
L49 5.2500-5.0000	0.0420	0.0891	A	1	1.2	4.26	1	1	0.965	0.0074	29.61	B
			B	1	1.2		1	1	0.965			
			C	1	1.2		1	1	0.965			
L50 5.0000-0.0000	0.7461	1.7637	A	1	1.2	4.26	1	1	19.475	0.1464	29.28	B
			B	1	1.2		1	1	19.475			
			C	1	1.2		1	1	19.475			
Sum Weight:	18.2472	32.3296						OTM	233.82 kip-ft	3.6130		

Tower Forces - Service - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L1 140.0000-135.0000	0.0312	0.1371	A	1	0.65	8.48	1	1	5.808	0.0435	8.71	C
			B	1	0.65		1	1	5.808			
			C	1	0.804		1	1	5.808			
L2 135.0000-130.0000	0.0506	0.1486	A	1	0.65	8.39	1	1	6.289	0.0936	18.72	C
			B	1	0.65		1	1	6.289			
			C	1	1.2		1	1	6.289			
L3 130.0000-125.0000	0.0680	0.1601	A	1	0.65	8.30	1	1	6.769	0.0978	19.57	C
			B	1	0.65		1	1	6.769			
			C	1	1.2		1	1	6.769			
L4 125.0000-120.0000	0.0723	0.1716	A	1	0.65	8.20	1	1	7.249	0.1019	20.38	C
			B	1	0.65		1	1	7.249			
			C	1	1.2		1	1	7.249			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L5 120.0000- 115.0000	0.1461	0.1831	A	1	1.2	8.11	1	1	7.729	0.1352	27.03	C
			B	1	0.65		1	1	7.729			
			C	1	1.2		1	1	7.729			
L6 115.0000- 114.7500	0.0073	0.0209	A	1	1.2	8.05	1	1	0.399	0.0070	28.02	C
			B	1	0.65		1	1	0.399			
			C	1	1.2		1	1	0.399			
L7 114.7500- 109.7500	0.1461	0.4181	A	1	1.2	8.00	1	1	8.233	0.1418	28.36	C
			B	1	0.65		1	1	8.233			
			C	1	1.2		1	1	8.233			
L8 109.7500- 104.7500	0.1461	0.4300	A	1	1.2	7.90	1	1	8.714	0.1450	29.00	C
			B	1	0.65		1	1	8.714			
			C	1	1.2		1	1	8.714			
L9 104.7500- 101.5800	0.0926	0.2801	A	1	1.2	7.81	1	1	5.773	0.0931	29.36	C
			B	1	0.65		1	1	5.773			
			C	1	1.2		1	1	5.773			
L10 101.5800- 101.3300	0.0073	0.0182	A	1	1.2	7.77	1	1	0.464	0.0072	28.68	C
			B	1	0.65		1	1	0.464			
			C	1	1.2		1	1	0.464			
L11 101.3300- 96.3300	0.1461	0.3745	A	1	1.2	7.71	1	1	9.522	0.1449	28.98	C
			B	1	0.65		1	1	9.522			
			C	1	1.2		1	1	9.522			
L12 96.3300- 91.3300	0.1461	0.3937	A	1	1.2	7.60	1	1	10.002	0.1492	29.84	C
			B	1	0.65		1	1	10.002			
			C	1	1.2		1	1	10.002			
L13 91.3300- 91.0000	0.0096	0.0267	A	1	1.2	7.54	1	1	0.677	0.0101	30.74	C
			B	1	0.65		1	1	0.677			
			C	1	1.2		1	1	0.677			
L14 91.0000- 90.7500	0.0073	0.0355	A	1	1.2	7.53	1	1	0.514	0.0077	30.77	C
			B	1	0.65		1	1	0.514			
			C	1	1.2		1	1	0.514			
L15 90.7500- 85.7500	0.1461	0.7142	A	1	1.2	7.47	1	1	10.538	0.1550	31.01	C
			B	1	0.65		1	1	10.538			
			C	1	1.2		1	1	10.538			
L16 85.7500- 80.7500	0.1461	0.7337	A	1	1.2	7.35	1	1	11.019	0.1571	31.43	C
			B	1	0.65		1	1	11.019			
			C	1	1.2		1	1	11.019			
L17 80.7500- 75.7500	0.1461	0.7532	A	1	1.2	7.22	1	1	11.499	0.1589	31.79	C
			B	1	0.65		1	1	11.499			
			C	1	1.2		1	1	11.499			
L18 75.7500- 70.7500	0.1533	0.7726	A	1	1.2	7.08	1	1	11.979	0.1616	32.32	C
			B	1	0.65		1	1	11.979			
			C	1	1.2		1	1	11.979			
L19 70.7500- 69.9800	0.0250	0.1195	A	1	1.2	7.00	1	1	1.887	0.0255	33.12	C
			B	1	0.65		1	1	1.887			
			C	1	1.2		1	1	1.887			
L20 69.9800- 69.7300	0.0081	0.0389	A	1	1.2	6.99	1	1	0.615	0.0083	33.14	C
			B	1	0.65		1	1	0.615			
			C	1	1.2		1	1	0.615			
L21 69.7300- 64.7300	0.1621	0.7834	A	1	1.2	6.91	1	1	12.557	0.1636	32.71	C
			B	1	0.65		1	1	12.557			
			C	1	1.2		1	1	12.557			
L22 64.7300- 63.0000	0.0561	0.1759	A	1	1.2	6.81	1	1	4.457	0.0576	33.32	C
			B	1	0.65		1	1	4.457			
			C	1	1.2		1	1	4.457			
L23 63.0000- 62.7500	0.0081	0.0556	A	1	1.2	6.78	1	1	0.649	0.0083	33.35	C
			B	1	0.65		1	1	0.649			
			C	1	1.2		1	1	0.649			
L24 62.7500- 59.0800	0.1190	0.8157	A	1	1.2	6.72	1	1	9.662	0.1225	33.38	C
			B	1	0.65		1	1	9.662			
			C	1	1.2		1	1	9.662			
L25 59.0800- 58.8200	0.0084	0.0543	A	1	1.2	6.66	1	1	0.694	0.0087	33.40	C
			B	1	0.65		1	1	0.694			
			C	1	1.2		1	1	0.694			
L26 58.8200- 58.6700	0.0049	0.0313	A	1	1.2	6.65	1	1	0.401	0.0050	33.40	C
			B	1	0.65		1	1	0.401			
			C	1	1.2		1	1	0.401			
L27 58.6700- 53.6700	0.1621	1.0458	A	1	1.2	6.56	1	1	13.619	0.1643	32.85	C
			B	1	0.65		1	1	13.619			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L28 53.6700-48.5800	0.1650	1.1007	C	1	1.2	6.39	1	1	13.619	0.1660	32.62	C
			A	1	0.828		1	1	14.358			
			B	1	0.65		1	1	14.358			
			C	1	1.2		1	1	14.358			
L29 48.5800-47.5800	0.0324	1.1325	A	1	0.821	6.28	1	1	2.826	0.0320	32.01	C
			B	1	0.65		1	1	2.826			
			C	1	1.2		1	1	2.826			
L30 47.5800-42.5800	0.1621	1.0657	A	1	0.814	6.16	1	1	14.420	0.1594	31.89	C
			B	1	0.65		1	1	14.420			
			C	1	1.2		1	1	14.420			
L31 42.5800-39.7500	0.0917	0.6138	A	1	0.838	6.01	1	1	8.375	0.0910	32.17	C
			B	1	0.65		1	1	8.375			
			C	1	1.2		1	1	8.375			
L32 39.7500-39.5000	0.0081	0.0700	A	1	1.2	5.94	1	1	0.747	0.0081	32.29	C
			B	1	0.65		1	1	0.747			
			C	1	1.2		1	1	0.747			
L33 39.5000-34.5000	0.1621	1.3984	A	1	0.843	5.83	1	1	15.196	0.1603	32.05	C
			B	1	0.65		1	1	15.196			
			C	1	1.2		1	1	15.196			
L34 34.5000-32.5000	0.0811	0.5679	A	1	0.835	5.66	1	1	6.213	0.0633	31.66	C
			B	1	0.65		1	1	6.213			
			C	1	1.2		1	1	6.213			
L35 32.5000-32.2500	0.0130	0.0568	A	1	0.832	5.61	1	1	0.782	0.0079	31.51	C
			B	1	0.65		1	1	0.782			
			C	1	1.2		1	1	0.782			
L36 32.2500-31.4200	0.0431	0.1886	A	1	0.831	5.58	1	1	2.605	0.0261	31.44	C
			B	1	0.65		1	1	2.605			
			C	1	1.2		1	1	2.605			
L37 31.4200-31.1700	0.0130	0.0716	A	1	0.83	5.55	1	1	0.787	0.0079	31.58	C
			B	1	0.65		1	1	0.787			
			C	1	1.2		1	1	0.787			
L38 31.1700-29.0000	0.1128	0.6217	A	1	0.793	5.49	1	1	6.883	0.0680	31.35	C
			B	1	0.65		1	1	6.883			
			C	1	1.2		1	1	6.883			
L39 29.0000-28.7500	0.0130	0.0823	A	1	0.779	5.48	1	1	0.799	0.0078	31.29	C
			B	1	0.65		1	1	0.799			
			C	1	1.2		1	1	0.799			
L40 28.7500-28.5000	0.0130	0.0670	A	1	0.778	5.48	1	1	0.800	0.0078	31.32	C
			B	1	0.65		1	1	0.800			
			C	1	1.2		1	1	0.800			
L41 28.5000-23.5000	0.2599	1.3409	A	1	0.78	5.48	1	1	16.253	0.1563	31.26	C
			B	1	0.65		1	1	16.253			
			C	1	1.2		1	1	16.253			
L42 23.5000-23.2500	0.0130	0.0834	A	1	0.811	5.48	1	1	0.825	0.0078	31.38	C
			B	1	0.65		1	1	0.825			
			C	1	1.2		1	1	0.825			
L43 23.2500-23.0000	0.0130	0.0834	A	1	0.81	5.48	1	1	0.826	0.0079	31.41	C
			B	1	0.65		1	1	0.826			
			C	1	1.2		1	1	0.826			
L44 23.0000-22.7500	0.0130	0.0732	A	1	0.81	5.48	1	1	0.828	0.0079	31.45	C
			B	1	0.65		1	1	0.828			
			C	1	1.2		1	1	0.828			
L45 22.7500-17.7500	0.2599	1.4639	A	1	0.805	5.48	1	1	16.805	0.1567	31.34	C
			B	1	0.65		1	1	16.805			
			C	1	1.2		1	1	16.805			
L46 17.7500-12.7500	0.2599	1.4834	A	1	0.795	5.48	1	1	17.285	0.1592	31.84	C
			B	1	0.65		1	1	17.285			
			C	1	1.2		1	1	17.285			
L47 12.7500-7.7500	0.2599	1.5029	A	1	0.786	5.48	1	1	17.766	0.1627	32.53	C
			B	1	0.65		1	1	17.766			
			C	1	1.2		1	1	17.766			
L48 7.7500-5.2500	0.1300	0.7614	A	1	0.779	5.48	1	1	9.063	0.0826	33.05	C
			B	1	0.65		1	1	9.063			
			C	1	1.2		1	1	9.063			
L49 5.2500-5.0000	0.0130	0.0721	A	1	0.777	5.48	1	1	0.913	0.0083	33.24	C
			B	1	0.65		1	1	0.913			
			C	1	1.2		1	1	0.913			

Section Elevation	Add Weight	Self Weight	Face	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	K	K				psf			ft ²	K	plf	
L50 5.0000-0.0000	0.2501	1.4426	A	1	0.765	5.48	1	1	18.510	0.1680	33.61	C
			B	1	0.65		1	1	18.510			
			C	1	1.2		1	1	18.510			
Sum Weight:	4.6041	24.2368						OTM	263.85 kip-ft	4.0976		

Tower Forces - Service - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	Face	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	K	K				psf			ft ²	K	plf	
L1 140.0000-135.0000	0.0312	0.1371	A	1	0.804	8.48	1	1	5.808	0.0435	8.71	A
			B	1	0.65		1	1	5.808			
			C	1	0.65		1	1	5.808			
L2 135.0000-130.0000	0.0506	0.1486	A	1	1.2	8.39	1	1	6.289	0.0936	18.72	A
			B	1	0.65		1	1	6.289			
			C	1	0.65		1	1	6.289			
L3 130.0000-125.0000	0.0680	0.1601	A	1	1.2	8.30	1	1	6.769	0.0978	19.57	A
			B	1	0.65		1	1	6.769			
			C	1	0.65		1	1	6.769			
L4 125.0000-120.0000	0.0723	0.1716	A	1	1.2	8.20	1	1	7.249	0.1019	20.38	A
			B	1	0.65		1	1	7.249			
			C	1	0.65		1	1	7.249			
L5 120.0000-115.0000	0.1461	0.1831	A	1	1.2	8.11	1	1	7.729	0.1352	27.03	A
			B	1	1.2		1	1	7.729			
			C	1	0.65		1	1	7.729			
L6 115.0000-114.7500	0.0073	0.0209	A	1	1.2	8.05	1	1	0.399	0.0070	28.02	A
			B	1	1.2		1	1	0.399			
			C	1	0.65		1	1	0.399			
L7 114.7500-109.7500	0.1461	0.4181	A	1	1.2	8.00	1	1	8.233	0.1418	28.36	A
			B	1	1.2		1	1	8.233			
			C	1	0.65		1	1	8.233			
L8 109.7500-104.7500	0.1461	0.4300	A	1	1.2	7.90	1	1	8.714	0.1450	29.00	A
			B	1	1.2		1	1	8.714			
			C	1	0.65		1	1	8.714			
L9 104.7500-101.5800	0.0926	0.2801	A	1	1.2	7.81	1	1	5.773	0.0931	29.36	A
			B	1	1.2		1	1	5.773			
			C	1	0.65		1	1	5.773			
L10 101.5800-101.3300	0.0073	0.0182	A	1	1.2	7.77	1	1	0.464	0.0072	28.68	A
			B	1	1.2		1	1	0.464			
			C	1	0.65		1	1	0.464			
L11 101.3300-96.3300	0.1461	0.3745	A	1	1.2	7.71	1	1	9.522	0.1449	28.98	A
			B	1	1.2		1	1	9.522			
			C	1	0.65		1	1	9.522			
L12 96.3300-91.3300	0.1461	0.3937	A	1	1.2	7.60	1	1	10.002	0.1492	29.84	A
			B	1	1.2		1	1	10.002			
			C	1	0.65		1	1	10.002			
L13 91.3300-91.0000	0.0096	0.0267	A	1	1.2	7.54	1	1	0.677	0.0101	30.74	A
			B	1	1.2		1	1	0.677			
			C	1	0.65		1	1	0.677			
L14 91.0000-90.7500	0.0073	0.0355	A	1	1.2	7.53	1	1	0.514	0.0077	30.77	A
			B	1	1.2		1	1	0.514			
			C	1	0.65		1	1	0.514			
L15 90.7500-85.7500	0.1461	0.7142	A	1	1.2	7.47	1	1	10.538	0.1550	31.01	A
			B	1	1.2		1	1	10.538			
			C	1	0.65		1	1	10.538			
L16 85.7500-80.7500	0.1461	0.7337	A	1	1.2	7.35	1	1	11.019	0.1571	31.43	A
			B	1	1.2		1	1	11.019			
			C	1	0.65		1	1	11.019			
L17 80.7500-75.7500	0.1461	0.7532	A	1	1.2	7.22	1	1	11.499	0.1589	31.79	A
			B	1	1.2		1	1	11.499			
			C	1	0.65		1	1	11.499			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L18 75.7500- 70.7500	0.1533	0.7726	A	1	1.2	7.08	1	1	11.979	0.1616	32.32	A
			B	1	1.2		1	1	11.979			
			C	1	0.65		1	1	11.979			
L19 70.7500- 69.9800	0.0250	0.1195	A	1	1.2	7.00	1	1	1.887	0.0255	33.12	A
			B	1	1.2		1	1	1.887			
			C	1	0.65		1	1	1.887			
L20 69.9800- 69.7300	0.0081	0.0389	A	1	1.2	6.99	1	1	0.615	0.0083	33.14	A
			B	1	1.2		1	1	0.615			
			C	1	0.65		1	1	0.615			
L21 69.7300- 64.7300	0.1621	0.7834	A	1	1.2	6.91	1	1	12.557	0.1636	32.71	A
			B	1	1.2		1	1	12.557			
			C	1	0.65		1	1	12.557			
L22 64.7300- 63.0000	0.0561	0.1759	A	1	1.2	6.81	1	1	4.457	0.0576	33.32	A
			B	1	1.2		1	1	4.457			
			C	1	0.65		1	1	4.457			
L23 63.0000- 62.7500	0.0081	0.0556	A	1	1.2	6.78	1	1	0.649	0.0083	33.35	A
			B	1	1.2		1	1	0.649			
			C	1	0.65		1	1	0.649			
L24 62.7500- 59.0800	0.1190	0.8157	A	1	1.2	6.72	1	1	9.662	0.1225	33.38	A
			B	1	1.2		1	1	9.662			
			C	1	0.65		1	1	9.662			
L25 59.0800- 58.8200	0.0084	0.0543	A	1	1.2	6.66	1	1	0.694	0.0087	33.40	A
			B	1	1.2		1	1	0.694			
			C	1	0.65		1	1	0.694			
L26 58.8200- 58.6700	0.0049	0.0313	A	1	1.2	6.65	1	1	0.401	0.0050	33.40	A
			B	1	1.2		1	1	0.401			
			C	1	0.65		1	1	0.401			
L27 58.6700- 53.6700	0.1621	1.0458	A	1	1.2	6.56	1	1	13.619	0.1643	32.85	A
			B	1	1.2		1	1	13.619			
			C	1	0.65		1	1	13.619			
L28 53.6700- 48.5800	0.1650	1.1007	A	1	1.2	6.39	1	1	14.358	0.1660	32.62	A
			B	1	0.828		1	1	14.358			
			C	1	0.65		1	1	14.358			
L29 48.5800- 47.5800	0.0324	1.1325	A	1	1.2	6.28	1	1	2.826	0.0320	32.01	A
			B	1	0.821		1	1	2.826			
			C	1	0.65		1	1	2.826			
L30 47.5800- 42.5800	0.1621	1.0657	A	1	1.2	6.16	1	1	14.420	0.1594	31.89	A
			B	1	0.814		1	1	14.420			
			C	1	0.65		1	1	14.420			
L31 42.5800- 39.7500	0.0917	0.6138	A	1	1.2	6.01	1	1	8.375	0.0910	32.17	A
			B	1	0.838		1	1	8.375			
			C	1	0.65		1	1	8.375			
L32 39.7500- 39.5000	0.0081	0.0700	A	1	1.2	5.94	1	1	0.747	0.0081	32.29	A
			B	1	1.2		1	1	0.747			
			C	1	0.65		1	1	0.747			
L33 39.5000- 34.5000	0.1621	1.3984	A	1	1.2	5.83	1	1	15.196	0.1603	32.05	A
			B	1	0.843		1	1	15.196			
			C	1	0.65		1	1	15.196			
L34 34.5000- 32.5000	0.0811	0.5679	A	1	1.2	5.66	1	1	6.213	0.0633	31.66	A
			B	1	0.835		1	1	6.213			
			C	1	0.65		1	1	6.213			
L35 32.5000- 32.2500	0.0130	0.0568	A	1	1.2	5.61	1	1	0.782	0.0079	31.51	A
			B	1	0.832		1	1	0.782			
			C	1	0.65		1	1	0.782			
L36 32.2500- 31.4200	0.0431	0.1886	A	1	1.2	5.58	1	1	2.605	0.0261	31.44	A
			B	1	0.831		1	1	2.605			
			C	1	0.65		1	1	2.605			
L37 31.4200- 31.1700	0.0130	0.0716	A	1	1.2	5.55	1	1	0.787	0.0079	31.58	A
			B	1	0.83		1	1	0.787			
			C	1	0.65		1	1	0.787			
L38 31.1700- 29.0000	0.1128	0.6217	A	1	1.2	5.49	1	1	6.883	0.0680	31.35	A
			B	1	0.793		1	1	6.883			
			C	1	0.65		1	1	6.883			
L39 29.0000- 28.7500	0.0130	0.0823	A	1	1.2	5.48	1	1	0.799	0.0078	31.29	A
			B	1	0.779		1	1	0.799			
			C	1	0.65		1	1	0.799			
L40 28.7500- 28.5000	0.0130	0.0670	A	1	1.2	5.48	1	1	0.800	0.0078	31.32	A
			B	1	0.778		1	1	0.800			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L41 28.5000-23.5000	0.2599	1.3409	C	1	0.65	5.48	1	1	0.800	0.1563	31.26	A
			A	1	1.2		1	1	16.253			
			B	1	0.78		1	1	16.253			
L42 23.5000-23.2500	0.0130	0.0834	C	1	0.65	5.48	1	1	16.253	0.0078	31.38	A
			A	1	1.2		1	1	0.825			
			B	1	0.811		1	1	0.825			
L43 23.2500-23.0000	0.0130	0.0834	A	1	1.2	5.48	1	1	0.826	0.0079	31.41	A
			B	1	0.81		1	1	0.826			
			C	1	0.65		1	1	0.826			
L44 23.0000-22.7500	0.0130	0.0732	A	1	1.2	5.48	1	1	0.828	0.0079	31.45	A
			B	1	0.81		1	1	0.828			
			C	1	0.65		1	1	0.828			
L45 22.7500-17.7500	0.2599	1.4639	A	1	1.2	5.48	1	1	16.805	0.1567	31.34	A
			B	1	0.805		1	1	16.805			
			C	1	0.65		1	1	16.805			
L46 17.7500-12.7500	0.2599	1.4834	A	1	1.2	5.48	1	1	17.285	0.1592	31.84	A
			B	1	0.795		1	1	17.285			
			C	1	0.65		1	1	17.285			
L47 12.7500-7.7500	0.2599	1.5029	A	1	1.2	5.48	1	1	17.766	0.1627	32.53	A
			B	1	0.786		1	1	17.766			
			C	1	0.65		1	1	17.766			
L48 7.7500-5.2500	0.1300	0.7614	A	1	1.2	5.48	1	1	9.063	0.0826	33.05	A
			B	1	0.779		1	1	9.063			
			C	1	0.65		1	1	9.063			
L49 5.2500-5.0000	0.0130	0.0721	A	1	1.2	5.48	1	1	0.913	0.0083	33.24	A
			B	1	0.777		1	1	0.913			
			C	1	0.65		1	1	0.913			
L50 5.0000-0.0000	0.2501	1.4426	A	1	1.2	5.48	1	1	18.510	0.1680	33.61	A
			B	1	0.765		1	1	18.510			
			C	1	0.65		1	1	18.510			
Sum Weight:	4.6041	24.2368						OTM	263.85 kip-ft	4.0976		

Tower Forces - Service - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L1 140.0000-135.0000	0.0312	0.1371	A	1	0.726	8.48	1	1	5.808	0.0393	7.86	A
			B	1	0.65		1	1	5.808			
			C	1	0.65		1	1	5.808			
L2 135.0000-130.0000	0.0506	0.1486	A	1	1.2	8.39	1	1	6.289	0.0882	17.65	A
			B	1	0.65		1	1	6.289			
			C	1	0.65		1	1	6.289			
L3 130.0000-125.0000	0.0680	0.1601	A	1	0.842	8.30	1	1	6.769	0.0520	10.40	A
			B	1	0.65		1	1	6.769			
			C	1	0.65		1	1	6.769			
L4 125.0000-120.0000	0.0723	0.1716	A	1	0.816	8.20	1	1	7.249	0.0534	10.68	A
			B	1	0.65		1	1	7.249			
			C	1	0.65		1	1	7.249			
L5 120.0000-115.0000	0.1461	0.1831	A	1	0.796	8.11	1	1	7.729	0.1162	23.23	B
			B	1	1.2		1	1	7.729			
			C	1	0.65		1	1	7.729			
L6 115.0000-114.7500	0.0073	0.0209	A	1	0.788	8.05	1	1	0.399	0.0059	23.65	B
			B	1	1.2		1	1	0.399			
			C	1	0.65		1	1	0.399			
L7 114.7500-109.7500	0.1461	0.4181	A	1	0.778	8.00	1	1	8.233	0.1201	24.03	B
			B	1	1.2		1	1	8.233			
			C	1	0.65		1	1	8.233			
L8 109.7500-104.7500	0.1461	0.4300	A	1	0.76	7.90	1	1	8.714	0.1236	24.72	B
			B	1	1.2		1	1	8.714			
			C	1	0.65		1	1	8.714			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L9 104.7500- 101.5800	0.0926	0.2801	C	1	0.65	7.81	1	1	8.714	0.0800	25.25	B
			A	1	0.746		1	1	5.773			
			B	1	1.2		1	1	5.773			
L10 101.5800- 101.3300	0.0073	0.0182	C	1	0.65	7.77	1	1	5.773	0.0064	25.42	B
			A	1	0.738		1	1	0.464			
			B	1	1.2		1	1	0.464			
L11 101.3300- 96.3300	0.1461	0.3745	C	1	0.65	7.71	1	1	9.522	0.1287	25.74	B
			A	1	0.73		1	1	9.522			
			B	1	1.2		1	1	9.522			
L12 96.3300- 91.3300	0.1461	0.3937	C	1	0.65	7.60	1	1	10.002	0.1316	26.33	B
			A	1	0.717		1	1	10.002			
			B	1	1.2		1	1	10.002			
L13 91.3300- 91.0000	0.0096	0.0267	C	1	0.65	7.54	1	1	10.002	0.0088	26.62	B
			A	1	0.71		1	1	0.677			
			B	1	1.2		1	1	0.677			
L14 91.0000- 90.7500	0.0073	0.0355	C	1	0.65	7.53	1	1	0.677	0.0067	26.66	B
			A	1	0.71		1	1	0.514			
			B	1	1.2		1	1	0.514			
L15 90.7500- 85.7500	0.1461	0.7142	C	1	0.65	7.47	1	1	0.514	0.1346	26.93	B
			A	1	0.704		1	1	10.538			
			B	1	1.2		1	1	10.538			
L16 85.7500- 80.7500	0.1461	0.7337	C	1	0.65	7.35	1	1	10.538	0.1371	27.42	B
			A	1	0.693		1	1	11.019			
			B	1	1.2		1	1	11.019			
L17 80.7500- 75.7500	0.1461	0.7532	C	1	0.65	7.22	1	1	11.019	0.1392	27.85	B
			A	1	0.683		1	1	11.499			
			B	1	1.2		1	1	11.499			
L18 75.7500- 70.7500	0.1533	0.7726	C	1	0.65	7.08	1	1	11.499	0.1411	28.23	B
			A	1	0.674		1	1	11.979			
			B	1	1.2		1	1	11.979			
L19 70.7500- 69.9800	0.0250	0.1195	C	1	0.65	7.00	1	1	11.979	0.0219	28.42	B
			A	1	0.669		1	1	1.887			
			B	1	1.2		1	1	1.887			
L20 69.9800- 69.7300	0.0081	0.0389	C	1	0.65	6.99	1	1	1.887	0.0071	28.45	B
			A	1	0.668		1	1	0.615			
			B	1	1.2		1	1	0.615			
L21 69.7300- 64.7300	0.1621	0.7834	C	1	0.65	6.91	1	1	0.615	0.0804	16.08	B
			A	1	0.664		1	1	12.557			
			B	1	0.842		1	1	12.557			
L22 64.7300- 63.0000	0.0561	0.1759	C	1	0.65	6.81	1	1	12.557	0.0278	16.07	B
			A	1	0.658		1	1	4.457			
			B	1	0.833		1	1	4.457			
L23 63.0000- 62.7500	0.0081	0.0556	C	1	0.65	6.78	1	1	4.457	0.0040	16.06	B
			A	1	0.657		1	1	0.649			
			B	1	0.83		1	1	0.649			
L24 62.7500- 59.0800	0.1190	0.8157	C	1	0.65	6.72	1	1	0.649	0.1081	29.46	B
			A	1	0.692		1	1	9.662			
			B	1	1.2		1	1	9.662			
L25 59.0800- 58.8200	0.0084	0.0543	C	1	0.65	6.66	1	1	9.662	0.0079	30.42	B
			A	1	0.749		1	1	0.694			
			B	1	1.2		1	1	0.694			
L26 58.8200- 58.6700	0.0049	0.0313	C	1	0.65	6.65	1	1	0.694	0.0046	30.42	B
			A	1	0.749		1	1	0.401			
			B	1	1.2		1	1	0.401			
L27 58.6700- 53.6700	0.1621	1.0458	C	1	0.65	6.56	1	1	0.401	0.1523	30.46	B
			A	1	0.743		1	1	13.619			
			B	1	1.2		1	1	13.619			
L28 53.6700- 48.5800	0.1650	1.1007	C	1	0.65	6.39	1	1	13.619	0.1551	30.47	B
			A	1	0.734		1	1	14.358			
			B	1	1.2		1	1	14.358			
L29 48.5800- 47.5800	0.0324	1.1325	C	1	0.65	6.28	1	1	14.358	0.0300	29.99	B
			A	1	0.733		1	1	2.826			
			B	1	1.2		1	1	2.826			
L30 47.5800- 42.5800	0.1621	1.0657	C	1	0.65	6.16	1	1	2.826	0.1495	29.91	B
			A	1	0.727		1	1	14.420			
			B	1	1.2		1	1	14.420			
			C	1	0.65		1	1	14.420			

Section Elevation ft	Add Weight K	Self Weight K	F a c e	e	C _F	q _z psf	D _F	D _R	A _E ft ²	F K	w plf	Ctrl. Face
L31 42.5800-39.7500	0.0917	0.6138	A	1	0.72	6.01	1	1	8.375	0.0842	29.74	B
			B	1	1.2		1	1	8.375			
			C	1	0.65		1	1	8.375			
L32 39.7500-39.5000	0.0081	0.0700	A	1	0.718	5.94	1	1	0.747	0.0074	29.65	B
			B	1	1.2		1	1	0.747			
			C	1	0.65		1	1	0.747			
L33 39.5000-34.5000	0.1621	1.3984	A	1	0.713	5.83	1	1	15.196	0.1473	29.46	B
			B	1	1.2		1	1	15.196			
			C	1	0.65		1	1	15.196			
L34 34.5000-32.5000	0.0811	0.5679	A	1	0.73	5.66	1	1	6.213	0.0589	29.46	B
			B	1	1.2		1	1	6.213			
			C	1	0.65		1	1	6.213			
L35 32.5000-32.2500	0.0130	0.0568	A	1	0.758	5.61	1	1	0.782	0.0074	29.79	B
			B	1	1.2		1	1	0.782			
			C	1	0.657		1	1	0.782			
L36 32.2500-31.4200	0.0431	0.1886	A	1	0.757	5.58	1	1	2.605	0.0247	29.72	B
			B	1	1.2		1	1	2.605			
			C	1	0.656		1	1	2.605			
L37 31.4200-31.1700	0.0130	0.0716	A	1	0.756	5.55	1	1	0.787	0.0074	29.65	B
			B	1	1.2		1	1	0.787			
			C	1	0.655		1	1	0.787			
L38 31.1700-29.0000	0.1128	0.6217	A	1	0.754	5.49	1	1	6.883	0.0640	29.49	B
			B	1	1.2		1	1	6.883			
			C	1	0.654		1	1	6.883			
L39 29.0000-28.7500	0.0130	0.0823	A	1	0.752	5.48	1	1	0.799	0.0074	29.61	B
			B	1	1.2		1	1	0.799			
			C	1	0.652		1	1	0.799			
L40 28.7500-28.5000	0.0130	0.0670	A	1	0.751	5.48	1	1	0.800	0.0074	29.64	B
			B	1	1.2		1	1	0.800			
			C	1	0.652		1	1	0.800			
L41 28.5000-23.5000	0.2599	1.3409	A	1	0.747	5.48	1	1	16.253	0.1500	30.01	B
			B	1	1.2		1	1	16.253			
			C	1	0.65		1	1	16.253			
L42 23.5000-23.2500	0.0130	0.0834	A	1	0.742	5.48	1	1	0.825	0.0076	30.37	B
			B	1	1.2		1	1	0.825			
			C	1	0.65		1	1	0.825			
L43 23.2500-23.0000	0.0130	0.0834	A	1	0.742	5.48	1	1	0.826	0.0076	30.41	B
			B	1	1.2		1	1	0.826			
			C	1	0.65		1	1	0.826			
L44 23.0000-22.7500	0.0130	0.0732	A	1	0.741	5.48	1	1	0.828	0.0076	30.44	B
			B	1	1.2		1	1	0.828			
			C	1	0.65		1	1	0.828			
L45 22.7500-17.7500	0.2599	1.4639	A	1	0.737	5.48	1	1	16.805	0.1540	30.81	B
			B	1	1.2		1	1	16.805			
			C	1	0.65		1	1	16.805			
L46 17.7500-12.7500	0.2599	1.4834	A	1	0.729	5.48	1	1	17.285	0.1575	31.50	B
			B	1	1.2		1	1	17.285			
			C	1	0.65		1	1	17.285			
L47 12.7500-7.7500	0.2599	1.5029	A	1	0.722	5.48	1	1	17.766	0.1610	32.20	B
			B	1	1.2		1	1	17.766			
			C	1	0.65		1	1	17.766			
L48 7.7500-5.2500	0.1300	0.7614	A	1	0.717	5.48	1	1	9.063	0.0459	18.38	B
			B	1	0.84		1	1	9.063			
			C	1	0.65		1	1	9.063			
L49 5.2500-5.0000	0.0130	0.0721	A	1	0.715	5.48	1	1	0.913	0.0046	18.45	B
			B	1	0.838		1	1	0.913			
			C	1	0.65		1	1	0.913			
L50 5.0000-0.0000	0.2501	1.4426	A	1	0.7	5.48	1	1	18.510	0.0917	18.33	B
			B	1	0.821		1	1	18.510			
			C	1	0.65		1	1	18.510			
Sum Weight:	4.6041	24.2368						OTM	219.60 kip-ft	3.4655		

Force Totals

Load Case	Vertical Forces K	Sum of Forces X K	Sum of Forces Z K	Sum of Overturning Moments, M_x kip-ft	Sum of Overturning Moments, M_z kip-ft	Sum of Torques kip-ft
Leg Weight	24.2368					
Bracing Weight	0.0000					
Total Member Self-Weight	24.2368			-2.49	-3.08	
Total Weight	38.0854			-2.49	-3.08	
Wind 0 deg - No Ice		0.0783	-20.7855	-1832.36	-12.37	0.68
Wind 30 deg - No Ice		7.2090	-12.3298	-1229.93	-722.48	-0.40
Wind 60 deg - No Ice		11.8104	-6.8187	-688.30	-1190.94	-0.26
Wind 90 deg - No Ice		13.5932	-0.0783	-11.78	-1369.37	-0.03
Wind 120 deg - No Ice		14.8360	8.4751	806.55	-1422.95	-0.28
Wind 150 deg - No Ice		9.3340	16.1670	1440.07	-835.94	-0.36
Wind 180 deg - No Ice		-0.0783	20.7855	1827.39	6.22	-0.68
Wind 210 deg - No Ice		-7.2090	12.3298	1224.96	716.32	0.40
Wind 240 deg - No Ice		-11.8104	6.8187	683.33	1184.79	0.26
Wind 270 deg - No Ice		-13.5932	0.0783	6.81	1363.22	0.03
Wind 300 deg - No Ice		-14.8360	-8.4751	-811.52	1416.80	0.28
Wind 330 deg - No Ice		-9.3340	-16.1670	-1445.04	829.78	0.36
Member Ice	8.0928					
Total Weight Ice	75.2359			-5.74	-8.50	
Wind 0 deg - Ice		0.0262	-7.4778	-696.93	-11.38	0.26
Wind 30 deg - Ice		3.4018	-5.8398	-557.06	-330.13	-0.19
Wind 60 deg - Ice		5.3578	-3.0933	-307.25	-530.73	-0.15
Wind 90 deg - Ice		6.5896	-0.0262	-8.61	-630.86	-0.07
Wind 120 deg - Ice		6.0918	3.4869	318.06	-575.09	-0.16
Wind 150 deg - Ice		3.5569	6.1607	562.24	-336.42	-0.22
Wind 180 deg - Ice		-0.0262	7.4778	685.45	-5.63	-0.26
Wind 210 deg - Ice		-3.4018	5.8398	545.58	313.12	0.19
Wind 240 deg - Ice		-5.3578	3.0933	295.77	513.73	0.15
Wind 270 deg - Ice		-6.5896	0.0262	-2.87	613.85	0.07
Wind 300 deg - Ice		-6.0918	-3.4869	-329.54	558.09	0.16
Wind 330 deg - Ice		-3.5569	-6.1607	-573.72	319.42	0.22
Total Weight	38.0854			-2.49	-3.08	
Wind 0 deg - Service		0.0268	-7.1156	-626.29	-2.69	-0.16
Wind 30 deg - Service		2.4679	-4.2209	-420.05	-245.78	-0.14
Wind 60 deg - Service		4.0431	-2.3343	-234.63	-406.16	-0.09
Wind 90 deg - Service		4.6535	-0.0268	-3.03	-467.24	-0.01
Wind 120 deg - Service		5.0789	2.9014	277.11	-485.58	0.07
Wind 150 deg - Service		3.1954	5.5346	493.99	-284.63	0.13
Wind 180 deg - Service		-0.0268	7.1156	626.58	3.68	0.16
Wind 210 deg - Service		-2.4679	4.2209	420.35	246.77	0.14
Wind 240 deg - Service		-4.0431	2.3343	234.93	407.15	0.09
Wind 270 deg - Service		-4.6535	0.0268	3.33	468.23	0.01
Wind 300 deg - Service		-5.0789	-2.9014	-276.81	486.57	-0.07
Wind 330 deg - Service		-3.1954	-5.5346	-493.69	285.61	-0.13

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 60 deg - No Ice
7	0.9 Dead+1.6 Wind 60 deg - No Ice
8	1.2 Dead+1.6 Wind 90 deg - No Ice
9	0.9 Dead+1.6 Wind 90 deg - No Ice
10	1.2 Dead+1.6 Wind 120 deg - No Ice
11	0.9 Dead+1.6 Wind 120 deg - No Ice
12	1.2 Dead+1.6 Wind 150 deg - No Ice

Comb. No.	Description
13	0.9 Dead+1.6 Wind 150 deg - No Ice
14	1.2 Dead+1.6 Wind 180 deg - No Ice
15	0.9 Dead+1.6 Wind 180 deg - No Ice
16	1.2 Dead+1.6 Wind 210 deg - No Ice
17	0.9 Dead+1.6 Wind 210 deg - No Ice
18	1.2 Dead+1.6 Wind 240 deg - No Ice
19	0.9 Dead+1.6 Wind 240 deg - No Ice
20	1.2 Dead+1.6 Wind 270 deg - No Ice
21	0.9 Dead+1.6 Wind 270 deg - No Ice
22	1.2 Dead+1.6 Wind 300 deg - No Ice
23	0.9 Dead+1.6 Wind 300 deg - No Ice
24	1.2 Dead+1.6 Wind 330 deg - No Ice
25	0.9 Dead+1.6 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	140 - 135	Pole	Max Tension	39	0.0000	-0.00	-0.00
			Max. Compression	26	-9.0574	1.63	-0.37
			Max. Mx	20	-2.9270	27.92	-0.60
			Max. My	14	-2.8343	0.85	-27.26
			Max. Vy	20	-5.7585	27.92	-0.60
			Max. Vx	2	-5.7389	-0.12	27.05
			Max. Torque	14			-0.76
L2	135 - 130	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-9.5779	1.58	-0.36
			Max. Mx	20	-3.1673	57.17	-1.09
			Max. My	14	-3.0347	1.36	-57.07
			Max. Vy	20	-5.9498	57.17	-1.09
			Max. Vx	2	-6.1934	-0.61	56.87
			Max. Torque	14			-0.76
L3	130 - 125	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-16.9336	1.52	-0.34
			Max. Mx	20	-5.8806	102.81	-1.60
			Max. My	14	-5.6417	1.87	-104.78
			Max. Vy	20	-9.9958	102.81	-1.60
			Max. Vx	2	-10.5545	-1.11	104.58
			Max. Torque	14			-0.70
L4	125 - 120	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-17.5289	1.44	-0.32

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L5	120 - 115	Pole	Max. Mx	20	-6.2352	153.21	-2.11
			Max. My	14	-5.9653	2.39	-158.66
			Max. Vy	8	10.1741	-152.31	1.90
			Max. Vx	2	-11.0137	-1.62	158.47
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-22.2434	1.14	-0.16
			Max. Mx	20	-7.5774	218.11	-2.57
			Max. My	14	-7.2221	2.83	-228.91
			Max. Vy	8	13.0904	-217.38	2.47
L6	115 - 114.75	Pole	Max. Vx	2	-14.3703	-2.20	228.82
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-22.3098	1.13	-0.15
			Max. Mx	20	-7.6261	221.38	-2.59
			Max. My	14	-7.2706	2.85	-232.51
			Max. Vy	8	13.0952	-220.65	2.50
			Max. Vx	2	-14.3976	-2.23	232.42
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
L7	114.75 - 109.75	Pole	Max. Compression	26	-23.6400	0.81	0.02
			Max. Mx	20	-8.3420	287.36	-3.05
			Max. My	2	-7.9432	-2.82	306.17
			Max. Vy	8	13.3389	-286.81	3.06
			Max. Vx	2	-15.0920	-2.82	306.17
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-24.9928	0.48	0.19
			Max. Mx	20	-9.0867	354.53	-3.50
			Max. My	2	-8.6544	-3.41	383.38
L8	109.75 - 104.75	Pole	Max. Vy	8	13.5786	-354.16	3.63
			Max. Vx	2	-15.7871	-3.41	383.38
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-25.8494	0.26	0.31
			Max. Mx	20	-9.5708	397.74	-3.79
			Max. My	2	-9.1212	-3.79	434.14
			Max. Vy	8	13.7308	-397.49	3.99
			Max. Vx	2	-16.2280	-3.79	434.14
			Max. Torque	16			-0.65
L9	104.75 - 101.58	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-25.9051	0.24	0.32
			Max. Mx	20	-9.6117	401.17	-3.81
			Max. My	2	-9.1631	-3.82	438.20
			Max. Vy	8	13.7377	-400.92	4.02
			Max. Vx	2	-16.2564	-3.82	438.20
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-27.0354	-0.12	0.51
			Max. Mx	20	-10.3172	470.27	-4.26
L10	101.58 - 101.33	Pole	Max. My	2	-9.8566	-4.41	521.14
			Max. Vy	8	13.9566	-470.23	4.59
			Max. Vx	2	-16.9110	-4.41	521.14
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-28.2634	-0.49	0.70
			Max. Mx	8	-11.0556	-540.60	5.16
			Max. My	2	-10.5961	-5.01	607.35
			Max. Vy	8	14.1697	-540.60	5.16
			Max. Vx	2	-17.5696	-5.01	607.35
L11	101.33 - 96.33	Pole	Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-27.0354	-0.12	0.51
			Max. Mx	20	-10.3172	470.27	-4.26
			Max. My	2	-9.8566	-4.41	521.14
			Max. Vy	8	13.9566	-470.23	4.59
			Max. Vx	2	-16.9110	-4.41	521.14
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-28.3542	-0.51	0.72
L12	96.33 - 91.33	Pole	Max. Mx	8	-11.0556	-540.60	5.16
			Max. My	2	-10.5961	-5.01	607.35
			Max. Vy	8	14.1697	-540.60	5.16
			Max. Vx	2	-17.5696	-5.01	607.35
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-28.3542	-0.51	0.72
			Max. Mx	8	-11.0556	-540.60	5.16
			Max. My	2	-10.5961	-5.01	607.35
			Max. Vy	8	14.1697	-540.60	5.16
L13	91.33 - 91	Pole	Max. Vx	2	-17.5696	-5.01	607.35
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-28.3542	-0.51	0.72
			Max. Mx	8	-11.0556	-540.60	5.16
			Max. My	2	-10.5961	-5.01	607.35
			Max. Vy	8	14.1697	-540.60	5.16
			Max. Vx	2	-17.5696	-5.01	607.35
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L14	91 - 90.75	Pole	Max. Mx	8	-11.1129	-545.28	5.20
			Max. My	2	-10.6565	-5.05	613.16
			Max. Vy	8	14.1781	-545.28	5.20
			Max. Vx	2	-17.6080	-5.05	613.16
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-28.4414	-0.53	0.73
			Max. Mx	8	-11.1685	-548.83	5.23
			Max. My	2	-10.7122	-5.08	617.57
			Max. Vy	8	14.1903	-548.83	5.23
L15	90.75 - 85.75	Pole	Max. Vx	2	-17.6436	-5.08	617.57
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-30.1932	-0.91	0.93
			Max. Mx	8	-12.2399	-620.56	5.80
			Max. My	2	-11.7686	-5.69	707.69
			Max. Vy	10	14.6583	-573.09	-324.11
			Max. Vx	2	-18.3922	-5.69	707.69
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
L16	85.75 - 80.75	Pole	Max. Compression	26	-31.9751	-1.31	1.13
			Max. Mx	8	-13.3425	-693.66	6.38
			Max. My	2	-12.8645	-6.31	801.54
			Max. Vy	10	15.2283	-647.88	-366.58
			Max. Vx	2	-19.1367	-6.31	801.54
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-33.7866	-1.71	1.35
			Max. Mx	8	-14.4706	-768.13	6.95
			Max. My	2	-13.9921	-6.92	899.10
L17	80.75 - 75.75	Pole	Max. Vy	10	15.7990	-725.53	-410.69
			Max. Vx	2	-19.8798	-6.92	899.10
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-42.8726	-2.14	1.57
			Max. Mx	8	-19.1335	-853.85	7.53
			Max. My	2	-18.6257	-7.55	1010.37
			Max. Vy	10	18.9526	-814.65	-461.41
			Max. Vx	2	-23.6190	-7.55	1010.37
			Max. Torque	16			-0.65
L18	75.75 - 70.75	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-43.1887	-2.20	1.60
			Max. Mx	8	-19.3186	-867.92	7.62
			Max. My	2	-18.8133	-7.64	1028.60
			Max. Vy	10	19.0391	-829.28	-469.75
			Max. Vx	2	-23.7310	-7.64	1028.60
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-43.2915	-2.22	1.62
			Max. Mx	8	-19.3825	-872.50	7.65
L19	70.75 - 69.98	Pole	Max. My	2	-18.8800	-7.67	1034.54
			Max. Vy	10	19.0644	-834.05	-472.47
			Max. Vx	2	-23.7635	-7.67	1034.54
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-45.2414	-2.66	1.84
			Max. Mx	8	-20.5782	-964.65	8.24
			Max. My	2	-20.0885	-8.31	1155.21
			Max. Vy	10	19.6279	-930.87	-527.63
			Max. Vx	2	-24.4928	-8.31	1155.21
L20	69.98 - 69.73	Pole	Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-45.2414	-2.66	1.84
			Max. Mx	8	-20.5782	-964.65	8.24
			Max. My	2	-20.0885	-8.31	1155.21
			Max. Vy	10	19.6279	-930.87	-527.63
			Max. Vx	2	-24.4928	-8.31	1155.21
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-45.2414	-2.66	1.84
L21	69.73 - 64.73	Pole	Max. Mx	8	-20.5782	-964.65	8.24
			Max. My	2	-20.0885	-8.31	1155.21
			Max. Vy	10	19.6279	-930.87	-527.63
			Max. Vx	2	-24.4928	-8.31	1155.21
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-45.2414	-2.66	1.84
			Max. Mx	8	-20.5782	-964.65	8.24
			Max. My	2	-20.0885	-8.31	1155.21
			Max. Vy	10	19.6279	-930.87	-527.63
L22	64.73 - 63	Pole	Max. Vx	2	-24.4928	-8.31	1155.21
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L23	63 - 62.75	Pole	Max. Compression	26	-45.8419	-2.81	1.91
			Max. Mx	8	-20.8828	-996.81	8.44
			Max. My	2	-20.4013	-8.52	1197.79
			Max. Vy	10	19.8164	-965.00	-547.08
			Max. Vx	2	-24.7361	-8.52	1197.79
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-45.9648	-2.83	1.92
			Max. Mx	8	-20.9827	-1001.46	8.47
			Max. My	2	-20.5142	-8.56	1203.97
L24	62.75 - 59.08	Pole	Max. Vy	10	19.8247	-969.96	-549.91
			Max. Vx	2	-24.7476	-8.56	1203.97
			Max. Torque	16			-0.65
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-47.8203	-3.15	2.07
			Max. Mx	8	-22.1352	-1070.22	8.90
			Max. My	2	-21.6719	-9.02	1295.87
			Max. Vy	10	20.2679	-1043.59	-591.88
			Max. Vx	2	-25.3169	-9.02	1295.87
			Max. Torque	3			-0.67
L25	59.08 - 58.82	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-47.9532	-3.17	2.08
			Max. Mx	8	-22.2192	-1075.12	8.93
			Max. My	2	-21.7605	-9.05	1302.46
			Max. Vy	10	20.2922	-1048.87	-594.89
			Max. Vx	2	-25.3483	-9.05	1302.46
			Max. Torque	3			-0.67
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-48.0298	-3.19	2.09
			Max. Mx	8	-22.2651	-1077.95	8.95
L26	58.82 - 58.67	Pole	Max. My	2	-21.8074	-9.07	1306.26
			Max. Vy	10	20.3101	-1051.92	-596.63
			Max. Vx	2	-25.3711	-9.07	1306.26
			Max. Torque	3			-0.67
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-50.4664	-3.63	2.29
			Max. Mx	8	-23.7667	-1172.91	9.54
			Max. My	2	-23.3270	-9.71	1435.00
			Max. Vy	10	20.8822	-1154.99	-655.39
			Max. Vx	2	-26.1063	-9.71	1435.00
L27	58.67 - 53.67	Pole	Max. Torque	3			-0.72
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-50.7906	-3.70	2.32
			Max. Mx	8	-23.9741	-1185.73	9.62
			Max. My	2	-23.5392	-9.80	1452.52
			Max. Vy	10	20.9184	-1169.01	-663.39
			Max. Vx	2	-26.1975	-9.80	1452.52
			Max. Torque	3			-0.72
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-54.9611	-3.97	2.43
L28	53.67 - 48.58	Pole	Max. Mx	8	-26.8007	-1290.63	10.25
			Max. My	2	-26.3731	-10.43	1596.99
			Max. Vy	10	21.3663	-1283.60	-728.80
			Max. Vx	2	-27.1120	-10.43	1596.99
			Max. Torque	3			-0.73
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-57.3515	-4.44	2.68
			Max. Mx	10	-28.1037	-1391.18	-789.99
			Max. My	2	-27.9408	-11.22	1734.26
			Max. Vy	10	21.6316	-1391.18	-789.99
L29	48.58 - 47.58	Pole	Max. Vx	2	-27.7878	-11.22	1734.26
			Max. Torque	3			-0.78
			Max. Compression	26	-57.3515	-4.44	2.68
			Max. Mx	10	-28.1037	-1391.18	-789.99
			Max. My	2	-27.9408	-11.22	1734.26
			Max. Vy	10	21.6316	-1391.18	-789.99
L30	47.58 - 42.58	Pole	Max. Vx	2	-27.7878	-11.22	1734.26
			Max. Torque	3			-0.78
			Max. Compression	26	-57.3515	-4.44	2.68
			Max. Mx	10	-28.1037	-1391.18	-789.99
			Max. My	2	-27.9408	-11.22	1734.26
			Max. Vy	10	21.6316	-1391.18	-789.99

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L31	42.58 - 39.75	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-58.7846	-4.71	2.82
			Max. Mx	10	-28.9972	-1452.66	-824.97
			Max. My	2	-28.8387	-11.67	1813.45
			Max. Vy	10	21.7870	-1452.66	-824.97
			Max. Vx	2	-28.1737	-11.67	1813.45
L32	39.75 - 39.5	Pole	Max. Torque	3			-0.81
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-58.9330	-4.73	2.83
			Max. Mx	10	-29.1064	-1458.11	-828.07
			Max. My	2	-28.9513	-11.71	1820.50
			Max. Vy	10	21.8027	-1458.11	-828.07
L33	39.5 - 34.5	Pole	Max. Vx	2	-28.1944	-11.71	1820.50
			Max. Torque	3			-0.81
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-61.8937	-5.18	3.07
			Max. Mx	10	-31.0426	-1567.98	-890.58
			Max. My	2	-30.8931	-12.50	1963.27
L34	34.5 - 32.5	Pole	Max. Vy	10	22.0991	-1567.98	-890.58
			Max. Vx	2	-28.8991	-12.50	1963.27
			Max. Torque	3			-0.85
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-63.1336	-5.40	3.20
			Max. Mx	10	-31.8494	-1612.36	-915.79
L35	32.5 - 32.25	Pole	Max. My	2	-31.7034	-12.85	2021.39
			Max. Vy	10	22.2114	-1612.36	-915.79
			Max. Vx	2	-29.1722	-12.85	2021.39
			Max. Torque	3			-0.87
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-63.2797	-5.43	3.22
L36	32.25 - 31.42	Pole	Max. Mx	10	-31.9431	-1617.93	-918.94
			Max. My	2	-31.7992	-12.90	2028.70
			Max. Vy	10	22.2181	-1617.93	-918.94
			Max. Vx	2	-29.1977	-12.90	2028.70
			Max. Torque	3			-0.87
			Max Tension	1	0.0000	0.00	0.00
L37	31.42 - 31.17	Pole	Max. Compression	26	-63.7648	-5.54	3.29
			Max. Mx	10	-32.2307	-1636.44	-929.42
			Max. My	2	-32.0879	-13.06	2053.02
			Max. Vy	10	22.2651	-1636.44	-929.42
			Max. Vx	2	-29.3108	-13.06	2053.02
			Max. Torque	3			-0.88
L38	31.17 - 29	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-63.9305	-5.57	3.31
			Max. Mx	10	-32.3422	-1642.02	-932.59
			Max. My	2	-32.2015	-13.11	2060.36
			Max. Vy	10	22.2720	-1642.02	-932.59
			Max. Vx	2	-29.3365	-13.11	2060.36
L39	29 - 28.75	Pole	Max. Torque	3			-0.88
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-65.3478	-5.84	3.45
			Max. Mx	10	-33.2486	-1690.61	-960.11
			Max. My	2	-33.1109	-13.53	2124.45
			Max. Vy	10	22.3897	-1690.61	-960.11
L40	28.75 - 28.5	Pole	Max. Vx	2	-29.6345	-13.53	2124.45
			Max. Torque	3			-0.89
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-65.5215	-5.87	3.47
			Max. Mx	10	-33.3732	-1696.22	-963.29
			Max. My	2	-33.2377	-13.58	2131.87
L40	28.75 - 28.5	Pole	Max. Vy	10	22.3951	-1696.22	-963.29
			Max. Vx	2	-29.6593	-13.58	2131.87
			Max. Torque	3			-0.89
L40	28.75 - 28.5	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-65.6769	-5.90	3.49
			Max. Mx	10	-33.4729	-1701.84	-966.47

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L41	28.5 - 23.5	Pole	Max. My	2	-33.3380	-13.63	2139.30
			Max. Vy	10	22.4073	-1701.84	-966.47
			Max. Vx	2	-29.6923	-13.63	2139.30
			Max. Torque	3			-0.89
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-68.7366	-6.52	3.88
			Max. Mx	10	-35.4716	-1814.78	-1030.45
			Max. My	2	-35.3511	-14.62	2289.61
			Max. Vy	10	22.6489	-1814.78	-1030.45
			Max. Vx	2	-30.3375	-14.62	2289.61
L42	23.5 - 23.25	Pole	Max. Torque	3			-0.92
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-68.9107	-6.55	3.91
			Max. Mx	10	-35.5978	-1820.46	-1033.67
			Max. My	2	-35.4801	-14.67	2297.21
			Max. Vy	10	22.6539	-1820.46	-1033.67
			Max. Vx	2	-30.3604	-14.67	2297.21
			Max. Torque	3			-0.92
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-69.0847	-6.58	3.93
L43	23.25 - 23	Pole	Max. Mx	10	-35.7170	-1826.14	-1036.89
			Max. My	2	-35.6000	-14.72	2304.82
			Max. Vy	10	22.6673	-1826.14	-1036.89
			Max. Vx	2	-30.3934	-14.72	2304.82
			Max. Torque	3			-0.92
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-69.2465	-6.61	3.96
			Max. Mx	10	-35.8244	-1831.82	-1040.11
			Max. My	2	-35.7082	-14.77	2312.44
			Max. Vy	10	22.6800	-1831.82	-1040.11
L44	23 - 22.75	Pole	Max. Vx	2	-30.4256	-14.77	2312.44
			Max. Torque	3			-0.92
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-72.3949	-7.24	4.51
			Max. Mx	10	-37.9735	-1946.16	-1104.88
			Max. My	2	-37.8760	-15.76	2466.39
			Max. Vy	10	22.9299	-1946.16	-1104.88
			Max. Vx	2	-31.0567	-15.76	2466.39
			Max. Torque	3			-0.94
			Max Tension	1	0.0000	0.00	0.00
L45	22.75 - 17.75	Pole	Max. Compression	26	-75.5100	-7.88	5.09
			Max. Mx	10	-40.1544	-2061.69	-1170.34
			Max. My	2	-40.0807	-16.75	2623.44
			Max. Vy	10	23.1650	-2061.69	-1170.34
			Max. Vx	2	-31.6739	-16.75	2623.44
			Max. Torque	3			-0.97
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-78.6121	-8.53	5.68
			Max. Mx	10	-42.3603	-2178.39	-1236.46
			Max. My	2	-42.3135	-17.75	2783.58
L46	17.75 - 12.75	Pole	Max. Vy	10	23.3936	-2178.39	-1236.46
			Max. Vx	2	-32.2914	-17.75	2783.58
			Max. Torque	3			-1.00
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-80.1535	-8.85	5.98
			Max. Mx	10	-43.4729	-2237.17	-1269.76
			Max. My	2	-43.4398	-18.26	2864.81
			Max. Vy	10	23.5095	-2237.17	-1269.76
			Max. Vx	2	-32.6054	-18.26	2864.81
			Max. Torque	3			-1.01
L47	12.75 - 7.75	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-80.3017	-8.89	6.01
			Max. Mx	10	-43.5885	-2243.07	-1273.10
			Max. My	2	-43.5600	-18.31	2872.97
			Max. Vy	10	23.5082	-2243.07	-1273.10
			Max. Vx	2	-32.6206	-18.31	2872.97
			Max. Torque	3			-1.01
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-80.3017	-8.89	6.01
			Max. Mx	10	-43.5885	-2243.07	-1273.10
L48	7.75 - 5.25	Pole	Max. My	2	-43.5600	-18.31	2872.97
			Max. Vy	10	23.5082	-2243.07	-1273.10
			Max. Vx	2	-32.6206	-18.31	2872.97
			Max. Torque	3			-1.01
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-80.3017	-8.89	6.01
			Max. Mx	10	-43.5885	-2243.07	-1273.10
			Max. My	2	-43.5600	-18.31	2872.97
			Max. Vy	10	23.5082	-2243.07	-1273.10
			Max. Vx	2	-32.6206	-18.31	2872.97
L49	5.25 - 5	Pole	Max. Torque	3			-1.01
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-80.3017	-8.89	6.01
			Max. Mx	10	-43.5885	-2243.07	-1273.10
			Max. My	2	-43.5600	-18.31	2872.97
			Max. Vy	10	23.5082	-2243.07	-1273.10
			Max. Vx	2	-32.6206	-18.31	2872.97
			Max. Torque	3			-1.01
			Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-80.3017	-8.89	6.01

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L50	5 - 0	Pole	Max Tension	1	0.0000	0.00	0.00
			Max. Compression	26	-83.1500	-9.50	6.54
			Max. Mx	10	-45.6944	-2361.53	-1340.27
			Max. My	2	-45.6915	-19.29	3037.95
			Max. Vy	10	23.7493	-2361.53	-1340.27
			Max. Vx	2	-33.2719	-19.29	3037.95
			Max. Torque	3			-1.05

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K	
Pole	Max. Vert	26	83.1500	-0.0000	0.0000	
	Max. H _x	23	34.2769	23.7376	13.5602	
	Max. H _z	2	45.7025	-0.1253	33.2568	
	Max. M _x	2	3037.95	-0.1253	33.2568	
	Max. M _z	10	2361.53	-23.7376	-13.5602	
	Max. Torsion	15	1.01	0.1253	-33.2568	
	Min. Vert	19	34.2769	18.8966	-10.9100	
	Min. H _x	10	45.7025	-23.7376	-13.5602	
	Min. H _z	14	45.7025	0.1253	-33.2568	
	Min. M _x	14	-3031.87	0.1253	-33.2568	
	Min. M _z	22	-2354.01	23.7376	13.5602	
	Min. Torsion	3		-1.05	-0.1253	33.2568

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead Only	38.0854	0.0000	0.0000	-2.49	-3.08	-0.00
1.2 Dead+1.6 Wind 0 deg - No Ice	45.7025	0.1253	-33.2568	-3037.95	-19.29	1.03
0.9 Dead+1.6 Wind 0 deg - No Ice	34.2769	0.1253	-33.2568	-3008.18	-18.16	1.05
1.2 Dead+1.6 Wind 30 deg - No Ice	45.7025	11.5344	-19.7276	-2045.00	-1200.64	-0.65
0.9 Dead+1.6 Wind 30 deg - No Ice	34.2769	11.5344	-19.7276	-2023.27	-1187.37	-0.64
1.2 Dead+1.6 Wind 60 deg - No Ice	45.7025	18.8966	-10.9100	-1144.25	-1980.39	-0.43
0.9 Dead+1.6 Wind 60 deg - No Ice	34.2769	18.8966	-10.9100	-1131.70	-1959.05	-0.42
1.2 Dead+1.6 Wind 90 deg - No Ice	45.7025	21.7492	-0.1253	-18.59	-2277.28	-0.05
0.9 Dead+1.6 Wind 90 deg - No Ice	34.2769	21.7492	-0.1253	-17.64	-2252.89	-0.05
1.2 Dead+1.6 Wind 120 deg - No Ice	45.7025	23.7376	13.5602	1340.27	-2361.53	-0.42
0.9 Dead+1.6 Wind 120 deg - No Ice	34.2769	23.7376	13.5602	1327.89	-2337.43	-0.43
1.2 Dead+1.6 Wind 150 deg - No Ice	45.7025	14.9344	25.8671	2390.70	-1385.80	-0.52
0.9 Dead+1.6 Wind 150 deg - No Ice	34.2769	14.9344	25.8671	2368.42	-1371.53	-0.54
1.2 Dead+1.6 Wind 180 deg - No Ice	45.7025	-0.1253	33.2568	3031.87	11.77	-1.00
0.9 Dead+1.6 Wind 180 deg - No Ice	34.2769	-0.1253	33.2568	3003.64	12.55	-1.01

Load Combination	Vertical	Shear _x	Shear _z	Overturning Moment, M _x	Overturning Moment, M _z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
1.2 Dead+1.6 Wind 210 deg - No Ice	45.7025	-11.5344	19.7276	2038.92	1193.11	0.68
0.9 Dead+1.6 Wind 210 deg - No Ice	34.2769	-11.5344	19.7276	2018.73	1181.75	0.67
1.2 Dead+1.6 Wind 240 deg - No Ice	45.7025	-18.8966	10.9100	1138.16	1972.87	0.43
0.9 Dead+1.6 Wind 240 deg - No Ice	34.2769	-18.8966	10.9100	1127.17	1953.43	0.42
1.2 Dead+1.6 Wind 270 deg - No Ice	45.7025	-21.7492	0.1253	12.50	2269.76	0.03
0.9 Dead+1.6 Wind 270 deg - No Ice	34.2769	-21.7492	0.1253	13.09	2247.27	0.03
1.2 Dead+1.6 Wind 300 deg - No Ice	45.7025	-23.7376	-13.5602	-1346.37	2354.01	0.39
0.9 Dead+1.6 Wind 300 deg - No Ice	34.2769	-23.7376	-13.5602	-1332.43	2331.82	0.40
1.2 Dead+1.6 Wind 330 deg - No Ice	45.7025	-14.9344	-25.8671	-2396.80	1378.27	0.52
0.9 Dead+1.6 Wind 330 deg - No Ice	34.2769	-14.9344	-25.8671	-2372.97	1365.91	0.54
1.2 Dead+1.0 Ice+1.0 Temp	83.1500	0.0000	-0.0000	-6.54	-9.50	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	83.1500	0.0262	-7.4778	-763.17	-12.82	0.20
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	83.1500	3.4018	-5.8398	-611.25	-362.39	-0.23
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	83.1500	5.3578	-3.0933	-337.77	-583.19	-0.17
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	83.1500	6.5896	-0.0262	-9.81	-692.33	-0.06
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	83.1500	6.0918	3.4869	348.02	-630.26	-0.12
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	83.1500	3.5569	6.1607	615.35	-368.72	-0.16
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	83.1500	-0.0262	7.4778	749.93	-6.43	-0.19
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	83.1500	-3.4018	5.8398	598.01	343.14	0.24
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	83.1500	-5.3578	3.0933	324.53	563.95	0.17
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	83.1500	-6.5896	0.0262	-3.43	673.09	0.05
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	83.1500	-6.0918	-3.4869	-361.26	611.02	0.12
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	83.1500	-3.5569	-6.1607	-628.59	349.47	0.16
Dead+Wind 0 deg - Service	38.0854	0.0268	-7.1156	-648.81	-6.43	-0.17
Dead+Wind 30 deg - Service	38.0854	2.4679	-4.2209	-437.05	-257.81	-0.15
Dead+Wind 60 deg - Service	38.0854	4.0431	-2.3343	-245.35	-423.69	-0.09
Dead+Wind 90 deg - Service	38.0854	4.6535	-0.0268	-5.84	-486.85	-0.01
Dead+Wind 120 deg - Service	38.0854	5.0789	2.9014	283.42	-505.02	0.08
Dead+Wind 150 deg - Service	38.0854	3.1954	5.5346	507.06	-297.34	0.14
Dead+Wind 180 deg - Service	38.0854	-0.0268	7.1156	643.74	0.18	0.17
Dead+Wind 210 deg - Service	38.0854	-2.4679	4.2209	431.98	251.56	0.15
Dead+Wind 240 deg - Service	38.0854	-4.0431	2.3343	240.28	417.44	0.09
Dead+Wind 270 deg - Service	38.0854	-4.6535	0.0268	0.77	480.60	0.01
Dead+Wind 300 deg - Service	38.0854	-5.0789	-2.9014	-288.49	498.77	-0.08
Dead+Wind 330 deg - Service	38.0854	-3.1954	-5.5346	-512.13	291.09	-0.14

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.0000	-38.0854	0.0000	0.0000	38.0854	0.0000	0.000%
2	0.1253	-45.7025	-33.2568	-0.1253	45.7025	33.2568	0.000%
3	0.1253	-34.2769	-33.2568	-0.1253	34.2769	33.2568	0.000%
4	11.5344	-45.7025	-19.7276	-11.5344	45.7025	19.7276	0.000%
5	11.5344	-34.2769	-19.7276	-11.5344	34.2769	19.7276	0.000%
6	18.8966	-45.7025	-10.9100	-18.8966	45.7025	10.9100	0.000%
7	18.8966	-34.2769	-10.9100	-18.8966	34.2769	10.9100	0.000%
8	21.7492	-45.7025	-0.1253	-21.7492	45.7025	0.1253	0.000%
9	21.7492	-34.2769	-0.1253	-21.7492	34.2769	0.1253	0.000%
10	23.7376	-45.7025	13.5602	-23.7376	45.7025	-13.5602	0.000%
11	23.7376	-34.2769	13.5602	-23.7376	34.2769	-13.5602	0.000%
12	14.9344	-45.7025	25.8671	-14.9344	45.7025	-25.8671	0.000%
13	14.9344	-34.2769	25.8671	-14.9344	34.2769	-25.8671	0.000%
14	-0.1253	-45.7025	33.2568	0.1253	45.7025	-33.2568	0.000%
15	-0.1253	-34.2769	33.2568	0.1253	34.2769	-33.2568	0.000%
16	-11.5344	-45.7025	19.7276	11.5344	45.7025	-19.7276	0.000%
17	-11.5344	-34.2769	19.7276	11.5344	34.2769	-19.7276	0.000%
18	-18.8966	-45.7025	10.9100	18.8966	45.7025	-10.9100	0.000%
19	-18.8966	-34.2769	10.9100	18.8966	34.2769	-10.9100	0.000%
20	-21.7492	-45.7025	0.1253	21.7492	45.7025	-0.1253	0.000%
21	-21.7492	-34.2769	0.1253	21.7492	34.2769	-0.1253	0.000%
22	-23.7376	-45.7025	-13.5602	23.7376	45.7025	13.5602	0.000%
23	-23.7376	-34.2769	-13.5602	23.7376	34.2769	13.5602	0.000%
24	-14.9344	-45.7025	-25.8671	14.9344	45.7025	25.8671	0.000%
25	-14.9344	-34.2769	-25.8671	14.9344	34.2769	25.8671	0.000%
26	0.0000	-83.1500	0.0000	-0.0000	83.1500	0.0000	0.000%
27	0.0262	-83.1500	-7.4778	-0.0262	83.1500	7.4778	0.000%
28	3.4018	-83.1500	-5.8398	-3.4018	83.1500	5.8398	0.000%
29	5.3578	-83.1500	-3.0933	-5.3578	83.1500	3.0933	0.000%
30	6.5896	-83.1500	-0.0262	-6.5896	83.1500	0.0262	0.000%
31	6.0918	-83.1500	3.4869	-6.0918	83.1500	-3.4869	0.000%
32	3.5569	-83.1500	6.1607	-3.5569	83.1500	-6.1607	0.000%
33	-0.0262	-83.1500	7.4778	0.0262	83.1500	-7.4778	0.000%
34	-3.4018	-83.1500	5.8398	3.4018	83.1500	-5.8398	0.000%
35	-5.3578	-83.1500	3.0933	5.3578	83.1500	-3.0933	0.000%
36	-6.5896	-83.1500	0.0262	6.5896	83.1500	-0.0262	0.000%
37	-6.0918	-83.1500	-3.4869	6.0918	83.1500	3.4869	0.000%
38	-3.5569	-83.1500	-6.1607	3.5569	83.1500	6.1607	0.000%
39	0.0268	-38.0854	-7.1156	-0.0268	38.0854	7.1156	0.000%
40	2.4679	-38.0854	-4.2209	-2.4679	38.0854	4.2209	0.000%
41	4.0431	-38.0854	-2.3343	-4.0431	38.0854	2.3343	0.000%
42	4.6535	-38.0854	-0.0268	-4.6535	38.0854	0.0268	0.000%
43	5.0789	-38.0854	2.9014	-5.0789	38.0854	-2.9014	0.000%
44	3.1954	-38.0854	5.5346	-3.1954	38.0854	-5.5346	0.000%
45	-0.0268	-38.0854	7.1156	0.0268	38.0854	-7.1156	0.000%
46	-2.4679	-38.0854	4.2209	2.4679	38.0854	-4.2209	0.000%
47	-4.0431	-38.0854	2.3343	4.0431	38.0854	-2.3343	0.000%
48	-4.6535	-38.0854	0.0268	4.6535	38.0854	-0.0268	0.000%
49	-5.0789	-38.0854	-2.9014	5.0789	38.0854	2.9014	0.000%
50	-3.1954	-38.0854	-5.5346	3.1954	38.0854	5.5346	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	5	0.00000001	0.00051984
3	Yes	5	0.00000001	0.00022422
4	Yes	6	0.00000001	0.00046889
5	Yes	6	0.00000001	0.00014637
6	Yes	6	0.00000001	0.00045716
7	Yes	6	0.00000001	0.00014576
8	Yes	5	0.00000001	0.00027924
9	Yes	5	0.00000001	0.00011921
10	Yes	6	0.00000001	0.00053816
11	Yes	6	0.00000001	0.00016328
12	Yes	6	0.00000001	0.00053943
13	Yes	6	0.00000001	0.00016336
14	Yes	5	0.00000001	0.00023476
15	Yes	5	0.00000001	0.00009382
16	Yes	6	0.00000001	0.00048515
17	Yes	6	0.00000001	0.00015257
18	Yes	6	0.00000001	0.00044275
19	Yes	6	0.00000001	0.00014080
20	Yes	5	0.00000001	0.00020678
21	Yes	5	0.00000001	0.00008421
22	Yes	6	0.00000001	0.00054678
23	Yes	6	0.00000001	0.00016631
24	Yes	6	0.00000001	0.00053601
25	Yes	6	0.00000001	0.00016217
26	Yes	4	0.00000001	0.00074432
27	Yes	7	0.00000001	0.00019964
28	Yes	7	0.00000001	0.00021883
29	Yes	7	0.00000001	0.00020949
30	Yes	7	0.00000001	0.00018672
31	Yes	7	0.00000001	0.00021735
32	Yes	7	0.00000001	0.00021824
33	Yes	7	0.00000001	0.00019776
34	Yes	7	0.00000001	0.00021523
35	Yes	7	0.00000001	0.00020466
36	Yes	7	0.00000001	0.00018493
37	Yes	7	0.00000001	0.00021752
38	Yes	7	0.00000001	0.00021788
39	Yes	4	0.00000001	0.00084823
40	Yes	5	0.00000001	0.00012719
41	Yes	5	0.00000001	0.00012622
42	Yes	4	0.00000001	0.00063967
43	Yes	5	0.00000001	0.00016310
44	Yes	5	0.00000001	0.00015355
45	Yes	4	0.00000001	0.00089763
46	Yes	5	0.00000001	0.00013811
47	Yes	5	0.00000001	0.00011525
48	Yes	4	0.00000001	0.00063066
49	Yes	5	0.00000001	0.00015629
50	Yes	5	0.00000001	0.00016688

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	140 - 135	22.577	39	1.744	0.006
L2	135 - 130	20.756	39	1.726	0.005
L3	130 - 125	18.974	39	1.674	0.004
L4	125 - 120	17.261	39	1.594	0.003
L5	120 - 115	15.646	39	1.486	0.002
L6	115 - 114.75	14.156	39	1.355	0.002
L7	114.75 - 109.75	14.085	39	1.352	0.002
L8	109.75 - 104.75	12.702	39	1.287	0.001
L9	104.75 - 101.58	11.393	39	1.213	0.001
L10	101.58 - 101.33	10.605	39	1.163	0.001

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L11	101.33 - 96.33	10.544	39	1.158	0.001
L12	96.33 - 91.33	9.387	39	1.052	0.001
L13	91.33 - 91	8.341	39	0.945	0.001
L14	91 - 90.75	8.276	39	0.938	0.001
L15	90.75 - 85.75	8.227	39	0.935	0.001
L16	85.75 - 80.75	7.280	39	0.876	0.001
L17	80.75 - 75.75	6.395	39	0.814	0.001
L18	75.75 - 70.75	5.574	39	0.753	0.000
L19	70.75 - 69.98	4.819	39	0.691	0.000
L20	69.98 - 69.73	4.708	39	0.681	0.000
L21	69.73 - 64.73	4.673	39	0.678	0.000
L22	64.73 - 63	3.996	39	0.614	0.000
L23	63 - 62.75	3.780	39	0.579	0.000
L24	62.75 - 59.08	3.749	39	0.577	0.000
L25	59.08 - 58.82	3.320	39	0.541	0.000
L26	58.82 - 58.67	3.290	39	0.538	0.000
L27	58.67 - 53.67	3.273	39	0.537	0.000
L28	53.67 - 48.58	2.740	39	0.483	0.000
L29	53 - 47.58	2.672	39	0.476	0.000
L30	47.58 - 42.58	2.149	39	0.442	0.000
L31	42.58 - 39.75	1.715	39	0.388	0.000
L32	39.75 - 39.5	1.494	39	0.357	0.000
L33	39.5 - 34.5	1.475	39	0.355	0.000
L34	34.5 - 32.5	1.125	39	0.313	0.000
L35	32.5 - 32.25	0.997	39	0.297	0.000
L36	32.25 - 31.42	0.982	39	0.294	0.000
L37	31.42 - 31.17	0.931	39	0.286	0.000
L38	31.17 - 29	0.916	39	0.284	0.000
L39	29 - 28.75	0.791	39	0.265	0.000
L40	28.75 - 28.5	0.778	39	0.264	0.000
L41	28.5 - 23.5	0.764	39	0.261	0.000
L42	23.5 - 23.25	0.515	39	0.214	0.000
L43	23.25 - 23	0.504	39	0.212	0.000
L44	23 - 22.75	0.493	39	0.210	0.000
L45	22.75 - 17.75	0.482	39	0.208	0.000
L46	17.75 - 12.75	0.289	39	0.160	0.000
L47	12.75 - 7.75	0.146	39	0.113	0.000
L48	7.75 - 5.25	0.052	39	0.066	0.000
L49	5.25 - 5	0.023	39	0.043	0.000
L50	5 - 0	0.021	39	0.041	0.000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
140.0000	Lightning Rod 2"x15'	39	22.577	1.744	0.006	7158
138.0000	(2) HBXX-6516DS-A2M w/ Mount Pipe	39	21.846	1.739	0.006	7158
129.0000	(2) HPA-65R-BUU-H6 w/ Mount Pipe	39	18.625	1.659	0.004	3913
120.0000	APX16PV-16PVL w/ Mount Pipe	39	15.646	1.486	0.002	2393
73.0000	APXVTM14-C-120 w/ Mount Pipe	39	5.151	0.719	0.000	4644
50.0000	GPS-TMG-HR-26NCM	39	2.377	0.456	0.000	7606

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	140 - 135	105.828	2	8.196	0.024
L2	135 - 130	97.299	2	8.112	0.020
L3	130 - 125	88.950	2	7.865	0.015
L4	125 - 120	80.921	2	7.490	0.012
L5	120 - 115	73.354	2	6.982	0.009
L6	115 - 114.75	66.371	2	6.365	0.006
L7	114.75 - 109.75	66.039	2	6.351	0.006
L8	109.75 - 104.75	59.560	2	6.043	0.005
L9	104.75 - 101.58	53.424	2	5.693	0.005
L10	101.58 - 101.33	49.727	2	5.460	0.004
L11	101.33 - 96.33	49.442	2	5.435	0.004
L12	96.33 - 91.33	44.017	2	4.938	0.003
L13	91.33 - 91	39.115	2	4.434	0.003
L14	91 - 90.75	38.810	2	4.401	0.003
L15	90.75 - 85.75	38.580	2	4.387	0.003
L16	85.75 - 80.75	34.136	2	4.109	0.002
L17	80.75 - 75.75	29.986	2	3.822	0.002
L18	75.75 - 70.75	26.139	2	3.532	0.002
L19	70.75 - 69.98	22.595	2	3.242	0.002
L20	69.98 - 69.73	22.076	2	3.196	0.002
L21	69.73 - 64.73	21.909	2	3.182	0.002
L22	64.73 - 63	18.735	2	2.883	0.002
L23	63 - 62.75	17.720	2	2.718	0.001
L24	62.75 - 59.08	17.579	2	2.706	0.001
L25	59.08 - 58.82	15.564	2	2.538	0.001
L26	58.82 - 58.67	15.426	2	2.525	0.001
L27	58.67 - 53.67	15.347	2	2.518	0.001
L28	53.67 - 48.58	12.843	2	2.266	0.001
L29	53 - 47.58	12.527	2	2.232	0.001
L30	47.58 - 42.58	10.073	2	2.072	0.001
L31	42.58 - 39.75	8.036	2	1.819	0.001
L32	39.75 - 39.5	7.001	2	1.676	0.001
L33	39.5 - 34.5	6.913	2	1.666	0.001
L34	34.5 - 32.5	5.271	2	1.470	0.001
L35	32.5 - 32.25	4.672	2	1.392	0.001
L36	32.25 - 31.42	4.600	2	1.380	0.001
L37	31.42 - 31.17	4.363	2	1.339	0.001
L38	31.17 - 29	4.293	2	1.330	0.001
L39	29 - 28.75	3.708	2	1.244	0.001
L40	28.75 - 28.5	3.644	2	1.235	0.001
L41	28.5 - 23.5	3.579	2	1.225	0.001
L42	23.5 - 23.25	2.413	2	1.004	0.000
L43	23.25 - 23	2.360	2	0.995	0.000
L44	23 - 22.75	2.308	2	0.986	0.000
L45	22.75 - 17.75	2.257	2	0.975	0.000
L46	17.75 - 12.75	1.353	2	0.752	0.000
L47	12.75 - 7.75	0.682	2	0.530	0.000
L48	7.75 - 5.25	0.243	2	0.309	0.000
L49	5.25 - 5	0.110	2	0.201	0.000
L50	5 - 0	0.100	2	0.191	0.000

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
140.0000	Lightning Rod 2"x15'	2	105.828	8.196	0.026	1650
138.0000	(2) HBXX-6516DS-A2M w/ Mount Pipe	2	102.406	8.175	0.024	1650
129.0000	(2) HPA-65R-BUU-H6 w/ Mount Pipe	2	87.314	7.798	0.016	873
120.0000	APX16PV-16PVL w/ Mount Pipe	2	73.354	6.982	0.010	524
73.0000	APXVTM14-C-120 w/ Mount Pipe	2	24.152	3.372	0.002	995
50.0000	GPS-TMG-HR-26NCM	2	11.144	2.137	0.001	1624

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	K/lr	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
L1	140 - 139	TP14.296x13.161x0.1875	5.0000	0.0000	0.0	7.8559	-0.1135	583.6570	0.000
	139 - 138					7.9910	-0.1472	593.6940	0.000
	138 - 137					8.1261	-2.8374	603.7300	0.005
	137 - 136					8.2612	-2.8763	613.7660	0.005
	136 - 135					8.3963	-2.9164	623.8030	0.005
L2	135 - 134	TP15.4309x14.296x0.1875	5.0000	0.0000	0.0	8.5314	-2.9624	633.8390	0.005
	134 - 133					8.6665	-3.0094	643.8750	0.005
	133 - 132					8.8016	-3.0576	653.9120	0.005
	132 - 131					8.9367	-3.1068	663.9480	0.005
	131 - 130					9.0717	-3.1124	673.9850	0.005
L3	130 - 129	TP16.5659x15.4309x0.1875	5.0000	0.0000	0.0	9.2068	-3.1666	684.0210	0.005
	129 - 128					9.3419	-5.6165	694.0570	0.008
	128 - 127					9.4770	-5.6779	704.0940	0.008
	127 - 126					9.6121	-5.7411	714.1300	0.008
	126 - 125					9.7472	-5.8059	724.1660	0.008
L4	125 - 124	TP17.7008x16.5659x0.1875	5.0000	0.0000	0.0	9.8823	-5.8736	734.2030	0.008
	124 - 123					10.0174	-5.7664	744.2390	0.008
	123 - 122					10.1524	-5.8312	754.2760	0.008
	122 - 121					10.2875	-5.8975	764.3120	0.008
	121 - 120					10.4226	-5.9653	774.3480	0.008
L5	120 - 119	TP18.8358x17.7008x0.1875	5.0000	0.0000	0.0	10.5577	-6.8444	784.3850	0.009
	119 - 118					10.6928	-6.9358	794.4210	0.009
	118 - 117					10.8279	-7.0293	804.4570	0.009
	117 - 116					10.9630	-7.1247	814.4940	0.009
	116 - 115					11.0981	-7.2221	824.5300	0.009
L6	115 - 114.75 (6)	TP18.8925x18.8358x0.4625	0.2500	0.0000	0.0	27.0548	-7.2706	2010.0400	0.004
L7	114.75 - 113.75	TP20.0275x18.8925x0.45	5.0000	0.0000	0.0	26.6657	-7.3977	1981.1300	0.004
	113.75 - 112.75					26.9899	-7.5320	2005.2100	0.004
	112.75 - 111.75					27.3141	-7.6680	2029.3000	0.004
	111.75 - 110.75					27.6383	-7.8056	2053.3900	0.004
	110.75 - 109.75					27.9625	-7.9432	2077.4800	0.004
	109.75 - 108.75					26.7490	-8.0819	1987.3100	0.004
	108.75 - 107.75					27.0552	-8.2226	2010.0600	0.004
L8	107.75 - 106.75	TP21.1624x20.0275x0.425	5.0000	0.0000	0.0	27.3614	-8.3650	2032.8100	0.004
	106.75 - 105.75					27.6676	-8.5089	2055.5600	0.004

Section No.	Elevation ft	Size	L ft	L _u ft	K/l/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$	
L9	105.75 - 104.75	TP21.882x21.1624x0.418 8	3.1700	0.0000	0.0	27.973	-8.6544	2078.3100	0.004	
	8					27.889	-8.8078	2072.0500	0.004	
	5					28.208	-8.9637	2095.7300	0.004	
	3					28.527	-9.1212	2119.4200	0.004	
L10	102.637 - 101.58	TP21.9388x21.882x0.312 5	0.2500	0.0000	0.0	1	21.450	-9.1631	1593.6700	0.006
	5					21.675	-9.2906	1610.4000	0.006	
L11	101.33 (10) - 100.33	TP23.0738x21.9388x0.31 25	5.0000	0.0000	0.0	7	21.900	-9.4300	1627.1200	0.006
	100.33 - 99.33					8	22.126	-9.5709	1643.8500	0.006
	99.33 - 98.33					0	22.351	-9.7131	1660.5800	0.006
	98.33 - 97.33					2	22.576	-9.8567	1677.3100	0.006
	97.33 - 96.33					3	22.801	-10.0018	1694.0400	0.006
L12	96.33 - 95.33	TP24.2088x23.0738x0.31 25	5.0000	0.0000	0.0	5	23.026	-10.1484	1710.7600	0.006
	95.33 - 94.33					6	23.251	-10.2963	1727.4900	0.006
	94.33 - 93.33					8	23.476	-10.4455	1744.2200	0.006
	93.33 - 92.33					9	23.702	-10.5961	1760.9500	0.006
	92.33 - 91.33					1	23.776	-10.6565	1766.4700	0.006
L13	91.33 - 91 (13)	TP24.2837x24.2088x0.31 25	0.3300	0.0000	0.0	4	23.776	-10.6565	1766.4700	0.006
L14	91 - 90.75 (14)	TP24.3404x24.2837x0.6	0.2500	0.0000	0.0	2	45.211	-10.7122	3358.9700	0.003
L15	90.75 - 89.75	TP25.4754x24.3404x0.58 75	5.0000	0.0000	0.0	9	44.715	-10.9147	3322.1700	0.003
	89.75 - 88.75					2	45.139	-11.1255	3353.6200	0.003
	88.75 - 87.75					5	45.562	-11.3381	3385.0700	0.003
	87.75 - 86.75					8	45.985	-11.5525	3416.5200	0.003
	86.75 - 85.75					1	46.409	-11.7686	3447.9600	0.003
L16	85.75 - 84.75	TP26.6104x25.4754x0.56 25	5.0000	0.0000	0.0	2	44.884	-11.9840	3334.6700	0.004
	84.75 - 83.75					4	45.289	-12.2015	3364.7800	0.004
	83.75 - 82.75					7	45.694	-12.4208	3394.8900	0.004
	82.75 - 81.75					0	46.100	-12.6418	3425.0000	0.004
	81.75 - 80.75					3	46.505	-12.8645	3455.1100	0.004
L17	80.75 - 79.75	TP27.7454x26.6104x0.55	5.0000	0.0000	0.0	9	45.889	-13.0865	3409.3900	0.004
	79.75 - 78.75					2	46.286	-13.3103	3438.8300	0.004
	78.75 - 77.75					5	46.682	-13.5359	3468.2700	0.004
	77.75 - 76.75					8	47.078	-13.7631	3497.7200	0.004
	76.75 - 75.75					0	47.475	-13.9921	3527.1600	0.004
L18	75.75 - 74.75	TP28.8804x27.7454x0.54 38	5.0000	0.0000	0.0	1	47.338	-14.2219	3516.9800	0.004
	74.75 - 73.75					9	47.729	-14.4535	3546.0900	0.004

Section No.	Elevation ft	Size	L ft	L _u ft	K/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
	73.75 - 72.75					48.121	-18.1477	3575.2000	0.005
	72.75 - 71.75					48.513	-18.3858	3604.3000	0.005
	71.75 - 70.75					48.905	-18.6257	3633.4100	0.005
L19	70.75 - 69.98 (19)	TP29.0552x28.8804x0.53 13	0.7700	0.0000	0.0	48.096	-18.8133	3573.3500	0.005
L20	69.98 - 69.73 (20)	TP29.112x29.0552x0.531 3	0.2500	0.0000	0.0	48.192	-18.8800	3580.4600	0.005
L21	69.73 - 68.73	TP30.247x29.112x0.525	5.0000	0.0000	0.0	48.014	-19.1108	3567.2100	0.005
	68.73 - 67.73					48.392	-19.3527	3595.3100	0.005
	67.73 - 66.73					48.770	-19.5963	3623.4200	0.005
	66.73 - 65.73					49.148	-19.8415	3651.5200	0.005
	65.73 - 64.73					49.527	-20.0885	3679.6200	0.005
L22	64.73 - 63 (22)	TP30.6397x30.247x0.312 5	1.7300	0.0000	0.0	30.080	-20.4013	2234.8500	0.009
L23	63 - 62.75 (23)	TP30.6964x30.6397x0.7	0.2500	0.0000	0.0	66.646	-20.5142	4951.4700	0.004
L24	62.75 - 61.5267 61.5267 - 60.3033 60.3033 - 59.08	TP31.5295x30.6964x0.68 75	3.6700	0.0000	0.0	66.089	-20.8904	4910.0900	0.004
						66.695	-21.2795	4955.1100	0.004
						67.301	-21.6719	5000.1400	0.004
L25	59.08 - 58.82 (25)	TP31.5885x31.5295x0.62 5	0.2600	0.0000	0.0	61.423	-21.7605	4563.4900	0.005
L26	58.82 - 58.67 (26)	TP31.6226x31.5885x0.62 5	0.1500	0.0000	0.0	61.491	-21.8074	4568.5100	0.005
L27	58.67 - 57.67	TP32.7576x31.6226x0.61 25	5.0000	0.0000	0.0	60.727	-22.0997	4511.7300	0.005
	57.67 - 56.67					61.168	-22.4036	4544.5100	0.005
	56.67 - 55.67					61.609	-22.7094	4577.3000	0.005
	55.67 - 54.67					62.051	-23.0172	4610.0900	0.005
	54.67 - 53.67					62.492	-23.3270	4642.8800	0.005
L28	53.67 - 53 53 - 48.58	TP33.913x32.7576x0.612 5	5.0900	0.0000	0.0	62.788	-23.5392	4664.8400	0.005
						64.738	-12.9734	4809.7600	0.003
L29	53 - 48.58	TP33.5151x32.2847x0.63 75	5.4200	0.0000	0.0	66.066	-13.0737	4908.3800	0.003
	48.58 - 47.58					66.525	-26.3731	4942.5100	0.005
L30	47.58 - 46.58	TP34.6503x33.5151x0.62 5	5.0000	0.0000	0.0	65.696	-26.6827	4880.9000	0.005
	46.58 - 45.58					66.146	-26.9944	4914.3600	0.005
	45.58 - 44.58					66.596	-27.3080	4947.8200	0.006
	44.58 - 43.58					67.047	-27.6235	4981.2800	0.006
	43.58 - 42.58					67.497	-27.9408	5014.7400	0.006
L31	42.58 - 41.165 41.165 - 39.75	TP35.2927x34.6503x0.61 25	2.8300	0.0000	0.0	66.796	-28.3852	4962.6400	0.006
						67.421	-28.8387	5009.0400	0.006
L32	39.75 - 39.5 (32)	TP35.3495x35.2927x0.81 25	0.2500	0.0000	0.0	89.066	-28.9513	6617.2000	0.004

Section No.	Elevation ft	Size	L ft	L _u ft	K/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
L33	39.5 - 38.5	TP36.4846x35.3495x0.78 75	5.0000	0.0000	0.0	86.956	-29.3292	6460.4000	0.005
						0			
	38.5 - 37.5					87.523	-29.7167	6502.5600	0.005
						5			
	37.5 - 36.5					88.091	-30.1066	6544.7200	0.005
	0								
	36.5 - 35.5				88.658	-30.4987	6586.8800	0.005	
					4				
	35.5 - 34.5				89.225	-30.8931	6629.0400	0.005	
					9				
L34	34.5 - 33.5	TP36.9387x36.4846x0.78 75	2.0000	0.0000	0.0	89.793	-31.2971	6671.1900	0.005
						3			
	33.5 - 32.5				90.360	-31.7034	6713.3500	0.005	
					8				
L35	32.5 - 32.25 (35)	TP36.9954x36.9387x0.61 25	0.2500	0.0000	0.0	70.731	-31.7992	5254.9700	0.006
L36	32.25 - 31.42 (36)	TP37.1839x36.9954x0.6	0.8300	0.0000	0.0	69.670	-32.0878	5176.1600	0.006
						3			
L37	31.42 - 31.17 (37)	TP37.2406x37.1839x0.77 5	0.2500	0.0000	0.0	89.700	-32.2015	6664.2600	0.005
						0			
L38	31.17 - 30.085	TP37.7333x37.2406x0.76 25	2.1700	0.0000	0.0	88.879	-32.6506	6603.3100	0.005
						6			
	30.085 - 29					89.475	-33.1109	6647.6000	0.005
						7			
L39	29 - 28.75 (39)	TP37.79x37.7333x0.85	0.2500	0.0000	0.0	99.660	-33.2377	7404.2800	0.004
						5			
L40	28.75 - 28.5 (40)	TP37.8468x37.79x0.675	0.2500	0.0000	0.0	79.638	-33.3380	5916.7600	0.006
						7			
L41	28.5 - 27.5	TP38.9819x37.8468x0.66 25	5.0000	0.0000	0.0	78.667	-33.7296	5844.6100	0.006
						6			
	27.5 - 26.5					79.144	-34.1319	5880.0700	0.006
						9			
	26.5 - 25.5					79.622	-34.5363	5915.5400	0.006
	3								
	25.5 - 24.5				80.099	-34.9427	5951.0100	0.006	
					7				
	24.5 - 23.5				80.577	-35.3511	5986.4800	0.006	
					1				
L42	23.5 - 23.25 (42)	TP39.0387x38.9819x0.78 75	0.2500	0.0000	0.0	95.609	-35.4801	7103.3300	0.005
						7			
L43	23.25 - 23 (43)	TP39.0954x39.0387x0.78 75	0.2500	0.0000	0.0	95.751	-35.6000	7113.8700	0.005
						6			
L44	23 - 22.75 (44)	TP39.1522x39.0954x0.65	0.2500	0.0000	0.0	79.433	-35.7082	5901.5400	0.006
						8			
L45	22.75 - 21.75	TP40.2873x39.1522x0.63 75	5.0000	0.0000	0.0	78.390	-36.1302	5824.0500	0.006
						9			
	21.75 - 20.75					78.850	-36.5635	5858.1800	0.006
						3			
	20.75 - 19.75					79.309	-36.9988	5892.3100	0.006
						7			
	19.75 - 18.75					79.769	-37.4363	5926.4400	0.006
						0			
18.75 - 17.75	80.228	-37.8760	5960.5700	0.006					
	4								
L46	17.75 - 16.75	TP41.4224x40.2873x0.62 5	5.0000	0.0000	0.0	79.130	-38.3125	5879.0000	0.007
						5			
	16.75 - 15.75					79.580	-38.7514	5912.4600	0.007
						8			
	15.75 - 14.75					80.031	-39.1924	5945.9200	0.007
						2			
14.75 - 13.75	80.481	-39.6355	5979.3800	0.007					
	5								
13.75 - 12.75	80.931	-40.0807	6012.8400	0.007					
	9								
L47	12.75 - 11.75	TP42.5576x41.4224x0.61 25	5.0000	0.0000	0.0	79.778	-40.5229	5927.1700	0.007
						9			
	11.75 - 10.75				80.220	-40.9675	5959.9700	0.007	
					3				

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
	10.75 - 9.75					80.661	-41.4141	5992.7600	0.007
	9.75 - 8.75					81.103	-41.8628	6025.5500	0.007
	8.75 - 7.75					81.544	-42.3135	6058.3400	0.007
L48	7.75 - 6.5	TP43.1251x42.5576x0.61	2.5000	0.0000	0.0	82.096	-42.8735	6099.3200	0.007
	6.5 - 5.25	25				82.647	-43.4398	6140.3100	0.007
L49	5.25 - 5 (49)	TP43.1819x43.1251x0.68	0.2500	0.0000	0.0	92.728	-43.5600	6889.2300	0.006
L50	5 - 4	TP44.317x43.1819x0.687	5.0000	0.0000	0.0	93.223	-43.9758	6926.0400	0.006
	4 - 3	5				93.718	-44.4019	6962.8400	0.006
	3 - 2					94.214	-44.8298	6999.6500	0.006
	2 - 1					94.709	-45.2597	7036.4500	0.006
	1 - 0					95.205	-45.6915	7073.2600	0.006

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M _{uy} kip-ft	φM _{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	140 - 139	TP14.296x13.161x0.1875	1.22	157.44	0.008	0.00	157.44	0.000
	139 - 138		1.42	162.94	0.009	0.00	162.94	0.000
	138 - 137		16.63	168.53	0.099	0.00	168.53	0.000
	137 - 136		22.39	174.22	0.129	0.00	174.22	0.000
	136 - 135		28.19	180.01	0.157	0.00	180.01	0.000
L2	135 - 134	TP15.4309x14.296x0.187	34.02	185.88	0.183	0.00	185.88	0.000
	134 - 133	5	39.89	191.85	0.208	0.00	191.85	0.000
	133 - 132		45.80	197.92	0.231	0.00	197.92	0.000
	132 - 131		51.74	204.08	0.254	0.00	204.08	0.000
	131 - 130		57.86	210.34	0.275	0.00	210.34	0.000
L3	130 - 129	TP16.5659x15.4309x0.18	64.10	216.69	0.296	0.00	216.69	0.000
	129 - 128	75	74.26	223.13	0.333	0.00	223.13	0.000
	128 - 127		84.46	229.67	0.368	0.00	229.67	0.000
	127 - 126		94.71	236.30	0.401	0.00	236.30	0.000
	126 - 125		105.01	243.03	0.432	0.00	243.03	0.000
L4	125 - 124	TP17.7008x16.5659x0.18	115.35	249.85	0.462	0.00	249.85	0.000
	124 - 123	75	126.07	256.77	0.491	0.00	256.77	0.000
	123 - 122		136.85	263.78	0.519	0.00	263.78	0.000
	122 - 121		147.72	270.88	0.545	0.00	270.88	0.000
	121 - 120		158.68	278.08	0.571	0.00	278.08	0.000
L5	120 - 119	TP18.8358x17.7008x0.18	172.49	285.38	0.604	0.00	285.38	0.000
	119 - 118	75	186.42	292.76	0.637	0.00	292.76	0.000
	118 - 117		200.47	300.25	0.668	0.00	300.25	0.000
	117 - 116		214.64	307.82	0.697	0.00	307.82	0.000
	116 - 115		228.93	315.50	0.726	0.00	315.50	0.000
L6	115 - 114.75	TP18.8925x18.8358x0.46	232.52	748.96	0.310	0.00	748.96	0.000
	(6)	25						
L7	114.75 - 113.75	TP20.0275x18.8925x0.45	246.98	748.50	0.330	0.00	748.50	0.000
	113.75 - 112.75		261.57	767.03	0.341	0.00	767.03	0.000
	112.75 - 111.75		276.29	785.79	0.352	0.00	785.79	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	111.75 - 110.75		291.16	804.77	0.362	0.00	804.77	0.000
	110.75 - 109.75		306.18	823.98	0.372	0.00	823.98	0.000
L8	109.75 - 108.75	TP21.1624x20.0275x0.42	321.35	799.58	0.402	0.00	799.58	0.000
	108.75 - 107.75	5	336.65	818.18	0.411	0.00	818.18	0.000
	107.75 - 106.75		352.09	837.00	0.421	0.00	837.00	0.000
	106.75 - 105.75		367.68	856.03	0.430	0.00	856.03	0.000
	105.75 - 104.75		383.40	875.28	0.438	0.00	875.28	0.000
L9	104.75 - 103.693	TP21.882x21.1624x0.418	400.16	883.47	0.453	0.00	883.47	0.000
	103.693 - 102.637	8	417.08	903.98	0.461	0.00	903.98	0.000
	102.637 - 101.58		434.16	924.73	0.469	0.00	924.73	0.000
L10	101.58 - 101.33 (10)	TP21.9388x21.882x0.312	438.22	704.11	0.622	0.00	704.11	0.000
	101.33 - 100.33	5	454.55	719.08	0.632	0.00	719.08	0.000
L11	100.33 - 99.33	TP23.0738x21.9388x0.31	471.01	734.20	0.642	0.00	734.20	0.000
	99.33 - 98.33	25	487.60	749.48	0.651	0.00	749.48	0.000
	98.33 - 97.33		504.31	764.92	0.659	0.00	764.92	0.000
	97.33 - 96.33		521.16	780.51	0.668	0.00	780.51	0.000
L12	96.33 - 95.33	TP24.2088x23.0738x0.31	538.14	796.26	0.676	0.00	796.26	0.000
	95.33 - 94.33	25	555.25	812.17	0.684	0.00	812.17	0.000
	94.33 - 93.33		572.49	828.24	0.691	0.00	828.24	0.000
	93.33 - 92.33		589.87	844.47	0.699	0.00	844.47	0.000
	92.33 - 91.33		607.37	860.85	0.706	0.00	860.85	0.000
L13	91.33 - 91	TP24.2837x24.2088x0.31	613.18	866.29	0.708	0.00	866.29	0.000
	(13)	25						
L14	91 - 90.75	TP24.3404x24.2837x0.6	617.59	1611.93	0.383	0.00	1611.93	0.000
	(14)							
L15	90.75 - 89.75	TP25.4754x24.3404x0.58	635.32	1611.58	0.394	0.00	1611.58	0.000
		75						
	89.75 - 88.75		653.19	1642.60	0.398	0.00	1642.60	0.000
	88.75 - 87.75		671.21	1673.92	0.401	0.00	1673.92	0.000
	87.75 - 86.75		689.39	1705.53	0.404	0.00	1705.53	0.000
	86.75 - 85.75		707.71	1737.44	0.407	0.00	1737.44	0.000
L16	85.75 - 84.75	TP26.6104x25.4754x0.56	726.18	1699.42	0.427	0.00	1699.42	0.000
		25						
	84.75 - 83.75		744.81	1730.58	0.430	0.00	1730.58	0.000
	83.75 - 82.75		763.57	1762.03	0.433	0.00	1762.03	0.000
	82.75 - 81.75		782.49	1793.77	0.436	0.00	1793.77	0.000
	81.75 - 80.75		801.56	1825.78	0.439	0.00	1825.78	0.000
L17	80.75 - 79.75	TP27.7454x26.6104x0.55	820.78	1819.38	0.451	0.00	1819.38	0.000
	79.75 - 78.75		840.14	1851.27	0.454	0.00	1851.27	0.000
	78.75 - 77.75		859.66	1883.43	0.456	0.00	1883.43	0.000
	77.75 - 76.75		879.32	1915.87	0.459	0.00	1915.87	0.000
	76.75 - 75.75		899.13	1948.58	0.461	0.00	1948.58	0.000
L18	75.75 - 74.75	TP28.8804x27.7454x0.54	919.09	1960.39	0.469	0.00	1960.39	0.000
		38						
	74.75 - 73.75		939.20	1993.29	0.471	0.00	1993.29	0.000
	73.75 - 72.75		963.44	2026.47	0.475	0.00	2026.47	0.000
	72.75 - 71.75		986.85	2059.91	0.479	0.00	2059.91	0.000
	71.75 - 70.75		1010.40	2093.63	0.483	0.00	2093.63	0.000
L19	70.75 - 69.98	TP29.0552x28.8804x0.53	1028.63	2073.78	0.496	0.00	2073.78	0.000
	(19)	13						
L20	69.98 - 69.73	TP29.112x29.0552x0.531	1034.58	2082.12	0.497	0.00	2082.12	0.000
	(20)	3						
L21	69.73 - 68.73	TP30.247x29.112x0.525	1058.42	2092.10	0.506	0.00	2092.10	0.000
	68.73 - 67.73		1082.41	2125.49	0.509	0.00	2125.49	0.000
	67.73 - 66.73		1106.54	2159.14	0.512	0.00	2159.14	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	66.73 - 65.73		1130.82	2193.07	0.516	0.00	2193.07	0.000
	65.73 - 64.73		1155.24	2227.25	0.519	0.00	2227.25	0.000
L22	64.73 - 63 (22)	TP30.6397x30.247x0.312 5	1197.82	1390.34	0.862	0.00	1390.34	0.000
L23	63 - 62.75 (23)	TP30.6964x30.6397x0.7 5	1204.00	3008.00	0.400	0.00	3008.00	0.000
L24	62.75 - 61.5267 61.5267 - 60.3033 60.3033 - 59.08	TP31.5295x30.6964x0.68 75	1234.41	3013.59	0.410	0.00	3013.59	0.000
			1265.04	3069.73	0.412	0.00	3069.73	0.000
			1295.90	3126.38	0.415	0.00	3126.38	0.000
L25	59.08 - 58.82 (25)	TP31.5885x31.5295x0.62 5	1302.49	2870.53	0.454	0.00	2870.53	0.000
L26	58.82 - 58.67 (26)	TP31.6226x31.5885x0.62 5	1306.30	2876.90	0.454	0.00	2876.90	0.000
L27	58.67 - 57.67 57.67 - 56.67 56.67 - 55.67 55.67 - 54.67 54.67 - 53.67	TP32.7576x31.6226x0.61 25	1331.75	2864.66	0.465	0.00	2864.66	0.000
			1357.35	2906.84	0.467	0.00	2906.84	0.000
			1383.10	2949.34	0.469	0.00	2949.34	0.000
			1408.99	2992.15	0.471	0.00	2992.15	0.000
			1435.03	3035.27	0.473	0.00	3035.27	0.000
L28	53.67 - 53 53 - 48.58	TP33.913x32.7576x0.612 5	1452.56	3064.32	0.474	0.00	3064.32	0.000
			792.98	3259.50	0.243	0.00	3259.50	0.000
L29	53 - 48.58 53 - 48.58	TP33.5151x32.2847x0.63 75	777.00	3257.80	0.239	0.00	3257.80	0.000
			1597.03	3303.69	0.483	0.00	3303.69	0.000
L30	48.58 - 47.58 47.58 - 46.58	TP34.6503x33.5151x0.62 5	1624.21	3287.95	0.494	0.00	3287.95	0.000
			1651.53	3333.61	0.495	0.00	3333.61	0.000
			1678.98	3379.57	0.497	0.00	3379.57	0.000
			1706.57	3425.86	0.498	0.00	3425.86	0.000
			1734.29	3472.46	0.499	0.00	3472.46	0.000
L31	43.58 - 42.58 42.58 - 41.165 41.165 - 39.75	TP35.2927x34.6503x0.61 25	1773.76	3471.94	0.511	0.00	3471.94	0.000
			1813.48	3537.74	0.513	0.00	3537.74	0.000
L32	39.75 - 39.5 (32)	TP35.3495x35.2927x0.81 25	1820.53	4627.57	0.393	0.00	4627.57	0.000
L33	39.5 - 38.5 38.5 - 37.5 37.5 - 36.5 36.5 - 35.5 35.5 - 34.5	TP36.4846x35.3495x0.78 75	1848.81	4554.83	0.406	0.00	4554.83	0.000
			1877.22	4615.14	0.407	0.00	4615.14	0.000
			1905.78	4675.84	0.408	0.00	4675.84	0.000
			1934.47	4736.94	0.408	0.00	4736.94	0.000
			1963.32	4798.43	0.409	0.00	4798.43	0.000
L34	34.5 - 33.5 33.5 - 32.5	TP36.9387x36.4846x0.78 75	1992.31	4860.32	0.410	0.00	4860.32	0.000
			2021.43	4922.61	0.411	0.00	4922.61	0.000
L35	32.5 - 32.25 (35)	TP36.9954x36.9387x0.61 25	2028.74	3896.82	0.521	0.00	3896.82	0.000
L36	32.25 - 31.42 (36)	TP37.1839x36.9954x0.6 25	2053.06	3861.22	0.532	0.00	3861.22	0.000
L37	31.42 - 31.17 (37)	TP37.2406x37.1839x0.77 5	2060.40	4931.68	0.418	0.00	4931.68	0.000
L38	31.17 - 30.085 30.085 - 29	TP37.7333x37.2406x0.76 25	2092.37	4923.62	0.425	0.00	4923.62	0.000
			2124.49	4990.57	0.426	0.00	4990.57	0.000
L39	29 - 28.75 (39)	TP37.79x37.7333x0.85 25	2131.92	5541.05	0.385	0.00	5541.05	0.000
L40	28.75 - 28.5 (40)	TP37.8468x37.79x0.675 25	2139.35	4476.87	0.478	0.00	4476.87	0.000
L41	28.5 - 27.5 27.5 - 26.5 26.5 - 25.5 25.5 - 24.5 24.5 - 23.5	TP38.9819x37.8468x0.66 25	2169.16	4452.74	0.487	0.00	4452.74	0.000
			2199.09	4507.42	0.488	0.00	4507.42	0.000
			2229.15	4562.43	0.489	0.00	4562.43	0.000
			2259.34	4617.77	0.489	0.00	4617.77	0.000
			2289.66	4673.46	0.490	0.00	4673.46	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L42	23.5 - 23.25 (42)	TP39.0387x38.9819x0.78 75	2297.26	5517.57	0.416	0.00	5517.57	0.000
L43	23.25 - 23 (43)	TP39.0954x39.0387x0.78 75	2304.87	5534.13	0.416	0.00	5534.13	0.000
L44	23 - 22.75 (44)	TP39.1522x39.0954x0.65 75	2312.48	4630.98	0.499	0.00	4630.98	0.000
L45	22.75 - 21.75	TP40.2873x39.1522x0.63 75	2343.03	4600.53	0.509	0.00	4600.53	0.000
	21.75 - 20.75		2373.69	4655.05	0.510	0.00	4655.05	0.000
	20.75 - 19.75		2404.48	4709.88	0.511	0.00	4709.88	0.000
	19.75 - 18.75		2435.40	4765.04	0.511	0.00	4765.04	0.000
	18.75 - 17.75		2466.43	4820.52	0.512	0.00	4820.52	0.000
L46	17.75 - 16.75	TP41.4224x40.2873x0.62 5	2497.60	4785.21	0.522	0.00	4785.21	0.000
	16.75 - 15.75		2528.89	4840.25	0.522	0.00	4840.25	0.000
	15.75 - 14.75		2560.30	4895.61	0.523	0.00	4895.61	0.000
	14.75 - 13.75		2591.83	4951.29	0.523	0.00	4951.29	0.000
	13.75 - 12.75		2623.49	5007.28	0.524	0.00	5007.28	0.000
L47	12.75 - 11.75	TP42.5576x41.4224x0.61 25	2655.28	4966.85	0.535	0.00	4966.85	0.000
	11.75 - 10.75		2687.18	5022.37	0.535	0.00	5022.37	0.000
	10.75 - 9.75		2719.21	5078.18	0.535	0.00	5078.18	0.000
	9.75 - 8.75		2751.36	5134.32	0.536	0.00	5134.32	0.000
	8.75 - 7.75		2783.63	5190.76	0.536	0.00	5190.76	0.000
L48	7.75 - 6.5	TP43.1251x42.5576x0.61 25	2824.15	5261.74	0.537	0.00	5261.74	0.000
	6.5 - 5.25		2864.87	5333.21	0.537	0.00	5333.21	0.000
L49	5.25 - 5 (49)	TP43.1819x43.1251x0.68 75	2873.03	5970.69	0.481	0.00	5970.69	0.000
L50	5 - 4	TP44.317x43.1819x0.687 5	2905.78	6035.17	0.481	0.00	6035.17	0.000
	4 - 3		2938.64	6099.99	0.482	0.00	6099.99	0.000
	3 - 2		2971.63	6165.16	0.482	0.00	6165.16	0.000
	2 - 1		3004.76	6230.67	0.482	0.00	6230.67	0.000
	1 - 0		3038.02	6296.54	0.482	0.00	6296.54	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	140 - 139	TP14.296x13.161x0.1875	0.1810	291.8290	0.001	0.00	315.26	0.000
	139 - 138		0.2260	296.8470	0.001	0.04	326.28	0.000
	138 - 137		5.7409	301.8650	0.019	0.43	337.48	0.001
	137 - 136		5.7780	306.8830	0.019	0.43	348.87	0.001
	136 - 135		5.8153	311.9010	0.019	0.43	360.45	0.001
L2	135 - 134	TP15.4309x14.296x0.187 5	5.8531	316.9200	0.018	0.43	372.22	0.001
	134 - 133		5.8911	321.9380	0.018	0.43	384.18	0.001
	133 - 132		5.9294	326.9560	0.018	0.43	396.33	0.001
	132 - 131		5.9679	331.9740	0.018	0.43	408.66	0.001
	131 - 130		6.2164	336.9920	0.018	0.66	421.19	0.002
L3	130 - 129	TP16.5659x15.4309x0.18 75	6.2665	342.0100	0.018	0.65	433.90	0.002
	129 - 128		10.1843	347.0290	0.029	0.65	446.81	0.001
	128 - 127		10.2320	352.0470	0.029	0.65	459.90	0.001
	127 - 126		10.2797	357.0650	0.029	0.65	473.18	0.001
	126 - 125		10.3274	362.0830	0.029	0.65	486.65	0.001
L4	125 - 124	TP17.7008x16.5659x0.18 75	10.3731	367.1010	0.028	0.65	500.31	0.001
	124 - 123		10.7361	372.1200	0.029	0.62	514.16	0.001
	123 - 122		10.8279	377.1380	0.029	0.61	528.20	0.001
	122 - 121		10.9204	382.1560	0.029	0.60	542.43	0.001
	121 - 120		11.0136	387.1740	0.028	0.58	556.84	0.001

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio V_u ϕV_n	Actual T_u kip-ft	ϕT_n kip-ft	Ratio T_u ϕT_n
L5	120 - 119	TP18.8358x17.7008x0.1875	13.8887	392.1920	0.035	0.57	571.45	0.001
	119 - 118		14.0079	397.2110	0.035	0.55	586.24	0.001
	118 - 117		14.1278	402.2290	0.035	0.52	601.23	0.001
	117 - 116		14.2485	407.2470	0.035	0.50	616.40	0.001
	116 - 115		14.3699	412.2650	0.035	0.47	631.76	0.001
L6	115 - 114.75 (6)	TP18.8925x18.8358x0.4625	14.3972	1005.0200	0.014	0.45	1499.75	0.000
L7	114.75 - 113.75	TP20.0275x18.8925x0.45	14.5356	990.5630	0.015	0.44	1498.84	0.000
	113.75 - 112.75		14.6727	1002.6100	0.015	0.43	1535.94	0.000
	112.75 - 111.75		14.8111	1014.6500	0.015	0.41	1573.50	0.000
	111.75 - 110.75		14.9507	1026.6900	0.015	0.39	1611.51	0.000
	110.75 - 109.75		15.0924	1038.7400	0.015	0.34	1649.97	0.000
L8	109.75 - 108.75	TP21.1624x20.0275x0.425	15.2292	993.6570	0.015	0.33	1601.11	0.000
	108.75 - 107.75		15.3670	1005.0300	0.015	0.31	1638.37	0.000
	107.75 - 106.75		15.5060	1016.4100	0.015	0.29	1676.05	0.000
	106.75 - 105.75		15.6461	1027.7800	0.015	0.27	1714.16	0.000
	105.75 - 104.75		15.7874	1039.1600	0.015	0.26	1752.70	0.000
L9	104.75 - 103.693	TP21.882x21.1624x0.4188	15.9334	1036.0200	0.015	0.24	1769.09	0.000
	103.693 - 102.637		16.0802	1047.8700	0.015	0.22	1810.17	0.000
	102.637 - 101.58		16.2283	1059.7100	0.015	0.20	1851.72	0.000
L10	101.58 - 101.33 (10)	TP21.9388x21.882x0.3125	16.2568	796.8340	0.020	0.18	1409.94	0.000
L11	101.33 - 100.33	TP23.0738x21.9388x0.3125	16.3902	805.1980	0.020	0.17	1439.91	0.000
	100.33 - 99.33		16.5191	813.5620	0.020	0.12	1470.19	0.000
	99.33 - 98.33		16.6489	821.9260	0.020	0.08	1500.79	0.000
	98.33 - 97.33		16.7797	830.2900	0.020	0.04	1531.70	0.000
	97.33 - 96.33		16.9114	838.6540	0.020	0.05	1562.93	0.000
L12	96.33 - 95.33	TP24.2088x23.0738x0.3125	17.0412	847.0180	0.020	0.07	1594.47	0.000
	95.33 - 94.33		17.1720	855.3820	0.020	0.10	1626.33	0.000
	94.33 - 93.33		17.3037	863.7460	0.020	0.12	1658.51	0.000
	93.33 - 92.33		17.4363	872.1100	0.020	0.15	1690.99	0.000
	92.33 - 91.33		17.5699	880.4740	0.020	0.18	1723.80	0.000
L13	91.33 - 91 (13)	TP24.2837x24.2088x0.3125	17.6083	883.2340	0.020	0.18	1734.69	0.000
L14	91 - 90.75 (14)	TP24.3404x24.2837x0.6	17.6439	1679.4800	0.011	0.19	3227.81	0.000
L15	90.75 - 89.75	TP25.4754x24.3404x0.5875	17.7943	1661.0900	0.011	0.20	3227.09	0.000
	89.75 - 88.75		17.9423	1676.8100	0.011	0.22	3289.22	0.000
	88.75 - 87.75		18.0913	1692.5300	0.011	0.24	3351.93	0.000
	87.75 - 86.75		18.2414	1708.2600	0.011	0.25	3415.24	0.000
	86.75 - 85.75		18.3925	1723.9800	0.011	0.27	3479.14	0.000
L16	85.75 - 84.75	TP26.6104x25.4754x0.5625	18.5396	1667.3300	0.011	0.28	3402.98	0.000
	84.75 - 83.75		18.6875	1682.3900	0.011	0.30	3465.39	0.000
	83.75 - 82.75		18.8363	1697.4400	0.011	0.32	3528.37	0.000
	82.75 - 81.75		18.9862	1712.5000	0.011	0.33	3591.92	0.000
	81.75 - 80.75		19.1370	1727.5600	0.011	0.35	3656.03	0.000
L17	80.75 - 79.75	TP27.7454x26.6104x0.55	19.2839	1704.7000	0.011	0.37	3643.22	0.000
	79.75 - 78.75		19.4315	1719.4200	0.011	0.38	3707.06	0.000
	78.75 - 77.75		19.5801	1734.1400	0.011	0.40	3771.46	0.000
	77.75 - 76.75		19.7296	1748.8600	0.011	0.42	3836.41	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio V_u ϕV_n	Actual T_u kip-ft	ϕT_n kip-ft	Ratio T_u ϕT_n
L18	76.75 - 75.75	TP28.8804x27.7454x0.54 38	19.8801	1763.5800	0.011	0.43	3901.92	0.000
	75.75 - 74.75		20.0276	1758.4900	0.011	0.45	3925.57	0.000
	74.75 - 73.75		20.1760	1773.0500	0.011	0.46	3991.45	0.000
	73.75 - 72.75		23.3251	1787.6000	0.013	0.48	4057.88	0.000
	72.75 - 71.75		23.4718	1802.1500	0.013	0.49	4124.87	0.000
L19	71.75 - 70.75	TP29.0552x28.8804x0.53 13	23.6192	1816.7100	0.013	0.51	4192.39	0.000
	70.75 - 69.98		23.7312	1786.6700	0.013	0.52	4152.63	0.000
	(19)							
L20	69.98 - 69.73	TP29.112x29.0552x0.531 3	23.7638	1790.2300	0.013	0.52	4169.32	0.000
L21	69.73 - 68.73	TP30.247x29.112x0.525	23.9135	1783.6000	0.013	0.54	4189.32	0.000
	68.73 - 67.73		24.0572	1797.6600	0.013	0.55	4256.18	0.000
	67.73 - 66.73		24.2017	1811.7100	0.013	0.56	4323.57	0.000
	66.73 - 65.73		24.3469	1825.7600	0.013	0.58	4391.49	0.000
	65.73 - 64.73		24.4930	1839.8100	0.013	0.59	4459.94	0.000
L22	64.73 - 63	TP30.6397x30.247x0.312 5	24.7363	1117.4200	0.022	0.61	2784.07	0.000
L23	63 - 62.75	TP30.6964x30.6397x0.7 23	24.7478	2475.7300	0.010	0.61	6023.35	0.000
L24	62.75 - 61.5267	TP31.5295x30.6964x0.68 75	24.9414	2455.0500	0.010	0.63	6034.56	0.000
	61.5267 - 60.3033		25.1286	2477.5600	0.010	0.64	6146.97	0.000
	60.3033 - 59.08		25.3171	2500.0700	0.010	0.65	6260.42	0.000
	59.08 - 58.82		25.3486	2281.7400	0.011	0.65	5748.07	0.000
L25	(25)	5						
L26	58.82 - 58.67	TP31.6226x31.5885x0.62 5	25.3714	2284.2500	0.011	0.65	5760.83	0.000
L27	58.67 - 57.67	TP32.7576x31.6226x0.61 25	25.5220	2255.8600	0.011	0.66	5736.32	0.000
	57.67 - 56.67		25.6671	2272.2600	0.011	0.67	5820.80	0.000
	56.67 - 55.67		25.8128	2288.6500	0.011	0.68	5905.90	0.000
	55.67 - 54.67		25.9593	2305.0400	0.011	0.69	5991.62	0.000
	54.67 - 53.67		26.1065	2321.4400	0.011	0.70	6077.95	0.000
L28	53.67 - 53	TP33.913x32.7576x0.612 5	26.1977	2332.4200	0.011	0.71	6136.14	0.000
L29	53 - 48.58	TP33.5151x32.2847x0.63 75	13.8223	2404.8800	0.006	0.35	6526.97	0.000
	53 - 48.58		13.1666	2454.1900	0.005	0.35	6523.56	0.000
L30	48.58 - 47.58	TP34.6503x33.5151x0.62 5	27.1123	2471.2500	0.011	0.71	6615.47	0.000
	47.58 - 46.58		27.2464	2440.4500	0.011	0.72	6583.95	0.000
	46.58 - 45.58		27.3809	2457.1800	0.011	0.73	6675.37	0.000
	45.58 - 44.58		27.5161	2473.9100	0.011	0.74	6767.42	0.000
	44.58 - 43.58		27.6518	2490.6400	0.011	0.76	6860.10	0.000
L31	43.58 - 42.58	TP35.2927x34.6503x0.61 25	27.7881	2507.3700	0.011	0.77	6953.41	0.000
	42.58 - 41.165		27.9832	2481.3200	0.011	0.78	6952.37	0.000
	41.165 - 39.75		28.1740	2504.5200	0.011	0.79	7084.13	0.000
L32	39.75 - 39.5	TP35.3495x35.2927x0.81 25	28.1947	3308.6000	0.009	0.80	9266.42	0.000
L33	39.5 - 38.5	TP36.4846x35.3495x0.78 75	28.3401	3230.2000	0.009	0.80	9120.83	0.000
	38.5 - 37.5		28.4790	3251.2800	0.009	0.81	9241.58	0.000
	37.5 - 36.5		28.6186	3272.3600	0.009	0.82	9363.08	0.000
	36.5 - 35.5		28.7587	3293.4400	0.009	0.83	9485.50	0.000
	35.5 - 34.5		28.8994	3314.5200	0.009	0.84	9608.58	0.000
L34	34.5 - 33.5	TP36.9387x36.4846x0.78 75	29.0357	3335.6000	0.009	0.85	9732.50	0.000
L35	33.5 - 32.5	TP36.9954x36.9387x0.61 25	29.1725	3356.6800	0.009	0.85	9857.25	0.000
	32.5 - 32.25		29.1980	2627.4900	0.011	0.86	7803.17	0.000
L36	(35)							
L37	32.25 - 31.42	TP37.1839x36.9954x0.6 36	29.3111	2588.0800	0.011	0.86	7731.88	0.000
L37	31.42 - 31.17	TP37.2406x37.1839x0.77 5	29.3368	3332.1300	0.009	0.86	9875.42	0.000
	(37)							

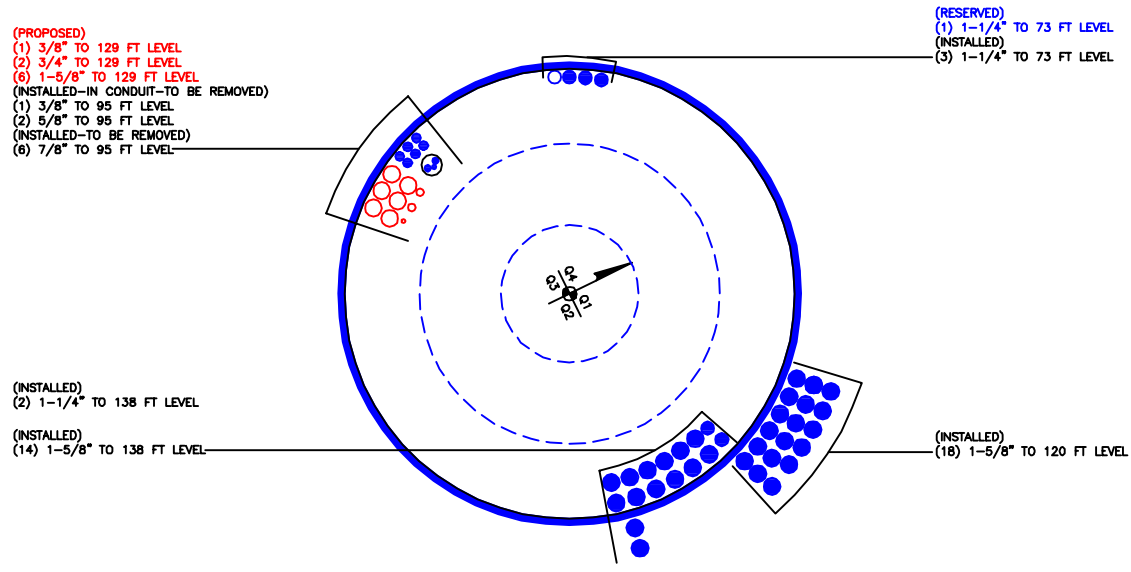
Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio V_u ϕV_n	Actual T_u kip-ft	ϕT_n kip-ft	Ratio T_u ϕT_n
L38	31.17 - 30.085	TP37.7333x37.2406x0.76 25	29.4899	3301.6500	0.009	0.87	9859.25	0.000
L39	30.085 - 29 29 - 28.75 (39)	TP37.79x37.7333x0.85	29.6348 29.6596	3323.8000 3702.1400	0.009 0.008	0.87 0.87	9993.33 11095.67	0.000 0.000
L40	28.75 - 28.5 (40)	TP37.8468x37.79x0.675	29.6925	2958.3800	0.010	0.88	8964.67	0.000
L41	28.5 - 27.5	TP38.9819x37.8468x0.66 25	29.8281	2922.3000	0.010	0.88	8916.33	0.000
	27.5 - 26.5		29.9549	2940.0400	0.010	0.89	9025.83	0.000
	26.5 - 25.5		30.0821	2957.7700	0.010	0.89	9136.00	0.000
	25.5 - 24.5		30.2098	2975.5000	0.010	0.90	9246.83	0.000
	24.5 - 23.5		30.3378	2993.2400	0.010	0.90	9358.33	0.000
L42	23.5 - 23.25 (42)	TP39.0387x38.9819x0.78 75	30.3607	3551.6600	0.009	0.90	11048.67	0.000
L43	23.25 - 23 (43)	TP39.0954x39.0387x0.78 75	30.3937	3556.9300	0.009	0.90	11081.83	0.000
L44	23 - 22.75 (44)	TP39.1522x39.0954x0.65	30.4259	2950.7700	0.010	0.90	9273.25	0.000
L45	22.75 - 21.75	TP40.2873x39.1522x0.63 75	30.5595	2912.0300	0.010	0.91	9212.33	0.000
	21.75 - 20.75		30.6834	2929.0900	0.010	0.91	9321.50	0.000
	20.75 - 19.75		30.8076	2946.1600	0.010	0.92	9431.33	0.000
	19.75 - 18.75		30.9321	2963.2200	0.010	0.92	9541.75	0.000
	18.75 - 17.75		31.0570	2980.2800	0.010	0.93	9652.83	0.000
L46	17.75 - 16.75	TP41.4224x40.2873x0.62 5	31.1800	2939.5000	0.011	0.93	9582.08	0.000
	16.75 - 15.75		31.3030	2956.2300	0.011	0.94	9692.33	0.000
	15.75 - 14.75		31.4264	2972.9600	0.011	0.94	9803.17	0.000
	14.75 - 13.75		31.5501	2989.6900	0.011	0.95	9914.67	0.000
	13.75 - 12.75		31.6741	3006.4200	0.011	0.95	10026.83	0.000
L47	12.75 - 11.75	TP42.5576x41.4224x0.61 25	31.7972	2963.5900	0.011	0.96	9945.83	0.000
	11.75 - 10.75		31.9204	2979.9800	0.011	0.97	10057.00	0.000
	10.75 - 9.75		32.0438	2996.3800	0.011	0.97	10168.83	0.000
	9.75 - 8.75		32.1676	3012.7700	0.011	0.98	10281.17	0.000
	8.75 - 7.75		32.2917	3029.1700	0.011	0.98	10394.25	0.000
L48	7.75 - 6.5	TP43.1251x42.5576x0.61 25	32.4505	3049.6600	0.011	0.99	10536.33	0.000
	6.5 - 5.25		32.6057	3070.1600	0.011	1.00	10679.42	0.000
L49	5.25 - 5 (49)	TP43.1819x43.1251x0.68 75	32.6208	3444.6100	0.009	1.00	11956.00	0.000
L50	5 - 4	TP44.317x43.1819x0.687 5	32.7590	3463.0200	0.009	1.00	12085.08	0.000
	4 - 3		32.8867	3481.4200	0.009	1.01	12214.92	0.000
	3 - 2		33.0148	3499.8200	0.009	1.02	12345.42	0.000
	2 - 1		33.1432	3518.2300	0.009	1.02	12476.58	0.000
	1 - 0		33.2721	3536.6300	0.009	1.03	12608.50	0.000

APPENDIX B
BASE LEVEL DRAWING



CROWN REGION ADDRESS

USA



(PROPOSED)
 (1) 3/8" TO 129 FT LEVEL
 (2) 3/4" TO 129 FT LEVEL
 (6) 1-5/8" TO 129 FT LEVEL
 (INSTALLED-IN CONDUIT-TO BE REMOVED)
 (1) 3/8" TO 95 FT LEVEL
 (2) 5/8" TO 95 FT LEVEL
 (INSTALLED-TO BE REMOVED)
 (6) 7/8" TO 95 FT LEVEL

(RESERVED)
 (1) 1-1/4" TO 73 FT LEVEL
 (INSTALLED)
 (3) 1-1/4" TO 73 FT LEVEL

(INSTALLED)
 (2) 1-1/4" TO 138 FT LEVEL
 (INSTALLED)
 (14) 1-5/8" TO 138 FT LEVEL

(INSTALLED)
 (18) 1-5/8" TO 120 FT LEVEL

BUSINESS UNIT: 842873 TOWER ID: C_BASELEVEL

DATE	DESCRIPTION	BY	CHK
8/12/2015	UPDATED PER WORK ORDER 1190389	AGT	MMM
16/03/16	UPDATED PER WORK ORDER 1190389	AGT	MMM
01/04/16	UPDATED PER WORK ORDER 1223069	AGT	MMM
26/10/16	UPDATED PER WORK ORDER 1319728	AGT	MMM
04/05/17	UPDATED PER WORK ORDER 1397059	AGT	MMM
27/07/17	UPDATED PER WORK ORDER 1432969	AGT	MMM
28/11/17	UPDATED PER WORK ORDER 1468030	AGT	MMM
04/12/17	UPDATED PER WORK ORDER 1497472	AGT	MMM
12/12/17	UPDATED PER WORK ORDER 1500792	AGT	MMM

DRAWN BY: MMM
 CHECKED BY: AGT
 DRAWING DATE: 27/03/14

SITE NUMBER:

SITE NAME:

SHELTON NE

BUSINESS UNIT NUMBER

842873

SITE ADDRESS

30 OLIVER TERRACE
 SHELTON, CT 06484
 FAIRFIELD COUNTY
 USA

SHEET TITLE

SHEET LEVEL

SHEET NUMBER

BASE LEVEL DRAWING

1" = 1'-0" 1

A1-0

APPENDIX C
ADDITIONAL CALCULATIONS

TNX Geometry Input

Increment (ft): 5

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	140 - 135	5		18	13.161	14.296	0.1875	A572-65	1.000
2	135 - 130	5		18	14.296	15.431	0.1875	A572-65	1.000
3	130 - 125	5		18	15.431	16.566	0.1875	A572-65	1.000
4	125 - 120	5		18	16.566	17.701	0.1875	A572-65	1.000
5	120 - 115	5		18	17.701	18.836	0.1875	A572-65	1.000
6	115 - 114.75	0.25		18	18.836	18.893	0.4625	A572-65	0.910
7	114.75 - 109.75	5		18	18.893	20.027	0.45	A572-65	0.905
8	109.75 - 104.75	5		18	20.027	21.162	0.425	A572-65	0.929
9	104.75 - 101.58	3.17	0	18	21.162	21.882	0.41875	A572-65	0.926
10	101.58 - 101.33	0.25		18	21.882	21.939	0.3125	A572-65	1.000
11	101.33 - 96.33	5		18	21.939	23.074	0.3125	A572-65	1.000
12	96.33 - 91.33	5		18	23.074	24.209	0.3125	A572-65	1.000
13	91.33 - 91	0.33		18	24.209	24.284	0.3125	A572-65	1.000
14	91 - 90.75	0.25		18	24.284	24.340	0.6	A572-65	0.925
15	90.75 - 85.75	5		18	24.340	25.475	0.5875	A572-65	0.926
16	85.75 - 80.75	5		18	25.475	26.610	0.5625	A572-65	0.948
17	80.75 - 75.75	5		18	26.610	27.745	0.55	A572-65	0.952
18	75.75 - 70.75	5		18	27.745	28.880	0.54375	A572-65	0.947
19	70.75 - 69.98	0.77		18	28.880	29.055	0.53125	A572-65	0.951
20	69.98 - 69.73	0.25		18	29.055	29.112	0.53125	A572-65	0.951
21	69.73 - 64.73	5		18	29.112	30.247	0.525	A572-65	0.948
22	64.73 - 63	1.73		18	30.247	30.640	0.3125	A572-65	1.000
23	63 - 62.75	0.25		18	30.640	30.696	0.7	A572-65	0.981
24	62.75 - 59.08	3.67		18	30.696	31.530	0.6875	A572-65	0.984
25	59.08 - 58.82	0.26		18	31.530	31.589	0.625	A572-65	1.000
26	58.82 - 58.67	0.15		18	31.589	31.623	0.625	A572-65	0.999
27	58.67 - 53.67	5		18	31.623	32.758	0.6125	A572-65	1.001
28	53.67 - 53	5.09	4.42	18	32.758	33.913	0.6125	A572-65	0.999
29	53 - 47.58	5.42		18	32.285	33.515	0.6375	A572-65	0.941
30	47.58 - 42.58	5		18	33.515	34.650	0.625	A572-65	0.944
31	42.58 - 39.75	2.83		18	34.650	35.293	0.6125	A572-65	0.954
32	39.75 - 39.5	0.25		18	35.293	35.350	0.8125	A572-65	0.925
33	39.5 - 34.5	5		18	35.350	36.485	0.7875	A572-65	0.936
34	34.5 - 32.5	2		18	36.485	36.939	0.7875	A572-65	0.929
35	32.5 - 32.25	0.25		18	36.939	36.995	0.6125	A572-65	0.944
36	32.25 - 31.42	0.83		18	36.995	37.184	0.6	A572-65	0.961
37	31.42 - 31.17	0.25		18	37.184	37.241	0.775	A572-65	0.939
38	31.17 - 29	2.17		18	37.241	37.733	0.7625	A572-65	0.947
39	29 - 28.75	0.25		18	37.733	37.790	0.85	A572-65	0.971
40	28.75 - 28.5	0.25		18	37.790	37.847	0.675	A572-65	0.990
41	28.5 - 23.5	5		18	37.847	38.982	0.6625	A572-65	0.993
42	23.5 - 23.25	0.25		18	38.982	39.039	0.7875	A572-65	1.026
43	23.25 - 23	0.25		18	39.039	39.095	0.7875	A572-65	1.025
44	23 - 22.75	0.25		18	39.095	39.152	0.65	A572-65	1.085
45	22.75 - 17.75	5		18	39.152	40.287	0.6375	A572-65	1.088
46	17.75 - 12.75	5		18	40.287	41.422	0.625	A572-65	1.092
47	12.75 - 7.75	5		18	41.422	42.558	0.6125	A572-65	1.098
48	7.75 - 5.25	2.5		18	42.558	43.125	0.6125	A572-65	1.090
49	5.25 - 5	0.25		18	43.125	43.182	0.6875	A572-65	0.914
50	5 - 0	5		18	43.182	44.317	0.6875	A572-65	0.902

TNX Section Forces

Increment (ft): 5		TNX Output		
	Section Height (ft)	P _u (K)	M _{ux} (kip-ft)	V _u (K)
1	140 - 135	2.92	28.19	5.82
2	135 - 130	3.11	57.86	6.22
3	130 - 125	5.81	105.01	10.33
4	125 - 120	5.97	158.68	11.01
5	120 - 115	7.22	228.93	14.37
6	115 - 114.75	7.27	232.52	14.40
7	114.75 - 109.75	7.94	306.18	15.09
8	109.75 - 104.75	8.65	383.40	15.79
9	104.75 - 101.58	9.12	434.16	16.23
10	101.58 - 101.33	9.16	438.22	16.26
11	101.33 - 96.33	9.86	521.16	16.91
12	96.33 - 91.33	10.60	607.37	17.57
13	91.33 - 91	10.66	613.18	17.61
14	91 - 90.75	10.71	617.59	17.64
15	90.75 - 85.75	11.77	707.71	18.39
16	85.75 - 80.75	12.86	801.56	19.14
17	80.75 - 75.75	13.99	899.13	19.88
18	75.75 - 70.75	18.63	1010.40	23.62
19	70.75 - 69.98	18.81	1028.63	23.73
20	69.98 - 69.73	18.88	1034.57	23.76
21	69.73 - 64.73	20.09	1155.24	24.49
22	64.73 - 63	20.40	1197.82	24.74
23	63 - 62.75	20.51	1204.00	24.75
24	62.75 - 59.08	21.67	1295.90	25.32
25	59.08 - 58.82	21.76	1302.49	25.35
26	58.82 - 58.67	21.81	1306.30	25.37
27	58.67 - 53.67	23.33	1435.03	26.11
28	53.67 - 53	23.54	1452.56	26.20
29	53 - 47.58	26.37	1597.03	27.11
30	47.58 - 42.58	27.94	1734.29	27.79
31	42.58 - 39.75	28.84	1813.48	28.17
32	39.75 - 39.5	28.95	1820.53	28.19
33	39.5 - 34.5	30.89	1963.31	28.90
34	34.5 - 32.5	31.70	2021.43	29.17
35	32.5 - 32.25	31.80	2028.74	29.20
36	32.25 - 31.42	32.09	2053.06	29.31
37	31.42 - 31.17	32.20	2060.40	29.34
38	31.17 - 29	33.11	2124.49	29.63
39	29 - 28.75	33.24	2131.91	29.66
40	28.75 - 28.5	33.34	2139.35	29.69
41	28.5 - 23.5	35.35	2289.66	30.34
42	23.5 - 23.25	35.48	2297.26	30.36
43	23.25 - 23	35.60	2304.87	30.39
44	23 - 22.75	35.71	2312.48	30.43
45	22.75 - 17.75	37.88	2466.44	31.06
46	17.75 - 12.75	40.08	2623.49	31.67
47	12.75 - 7.75	42.31	2783.63	32.29
48	7.75 - 5.25	43.44	2864.87	32.61
49	5.25 - 5	43.56	2873.03	32.62
50	5 - 0	45.69	3038.01	33.27

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
140 - 135	Pole	TP14.296x13.161x0.1875	Pole	16.2%	Pass
135 - 130	Pole	TP15.431x14.296x0.1875	Pole	28.0%	Pass
130 - 125	Pole	TP16.566x15.431x0.1875	Pole	44.1%	Pass
125 - 120	Pole	TP17.701x16.566x0.1875	Pole	57.9%	Pass
120 - 115	Pole	TP18.836x17.701x0.1875	Pole	73.5%	Pass
115 - 114.75	Pole + Reinf.	TP18.893x18.836x0.4625	Reinf. 11 Tension Rupture	55.2%	Pass
114.75 - 109.75	Pole + Reinf.	TP20.027x18.893x0.45	Reinf. 11 Tension Rupture	66.9%	Pass
109.75 - 104.75	Pole + Reinf.	TP21.162x20.027x0.425	Reinf. 11 Tension Rupture	77.3%	Pass
104.75 - 101.58	Pole + Reinf.	TP21.882x21.162x0.4188	Reinf. 11 Tension Rupture	83.4%	Pass
101.58 - 101.33	Pole	TP21.939x21.882x0.3125	Pole	62.8%	Pass
101.33 - 96.33	Pole	TP23.074x21.939x0.3125	Pole	67.4%	Pass
96.33 - 91.33	Pole	TP24.209x23.074x0.3125	Pole	71.2%	Pass
91.33 - 91	Pole	TP24.284x24.209x0.3125	Pole	71.4%	Pass
91 - 90.75	Pole + Reinf.	TP24.34x24.284x0.6	Reinf. 10 Compression	45.3%	Pass
90.75 - 85.75	Pole + Reinf.	TP25.475x24.34x0.5875	Reinf. 10 Compression	48.4%	Pass
85.75 - 80.75	Pole + Reinf.	TP26.61x25.475x0.5625	Reinf. 10 Compression	51.2%	Pass
80.75 - 75.75	Pole + Reinf.	TP27.745x26.61x0.55	Reinf. 10 Compression	53.7%	Pass
75.75 - 70.75	Pole + Reinf.	TP28.88x27.745x0.5438	Reinf. 10 Compression	56.8%	Pass
70.75 - 69.98	Pole + Reinf.	TP29.055x28.88x0.5313	Reinf. 4 Tension Rupture	81.6%	Pass
69.98 - 69.73	Pole + Reinf.	TP29.112x29.055x0.5313	Reinf. 4 Tension Rupture	81.9%	Pass
69.73 - 64.73	Pole + Reinf.	TP30.247x29.112x0.525	Reinf. 4 Tension Rupture	85.9%	Pass
64.73 - 63	Pole	TP30.64x30.247x0.3125	Pole	87.1%	Pass
63 - 62.75	Pole + Reinf.	TP30.696x30.64x0.7	Reinf. 4 Tension Rupture	67.3%	Pass
62.75 - 59.08	Pole + Reinf.	TP31.53x30.696x0.6875	Reinf. 4 Tension Rupture	69.7%	Pass
59.08 - 58.82	Pole + Reinf.	TP31.589x31.53x0.625	Reinf. 5 Tension Rupture	71.3%	Pass
58.82 - 58.67	Pole + Reinf.	TP31.623x31.589x0.625	Reinf. 5 Tension Rupture	71.4%	Pass
58.67 - 53.67	Pole + Reinf.	TP32.758x31.623x0.6125	Reinf. 5 Tension Rupture	74.3%	Pass
53.67 - 53	Pole + Reinf.	TP33.913x32.758x0.6125	Reinf. 5 Tension Rupture	74.6%	Pass
53 - 47.58	Pole + Reinf.	TP33.515x32.285x0.6375	Reinf. 3 Tension Rupture	79.6%	Pass
47.58 - 42.58	Pole + Reinf.	TP34.65x33.515x0.625	Reinf. 3 Tension Rupture	82.2%	Pass
42.58 - 39.75	Pole + Reinf.	TP35.293x34.65x0.6125	Reinf. 3 Tension Rupture	83.5%	Pass
39.75 - 39.5	Pole + Reinf.	TP35.35x35.293x0.8125	Reinf. 3 Tension Rupture	64.9%	Pass
39.5 - 34.5	Pole + Reinf.	TP36.485x35.35x0.7875	Reinf. 3 Tension Rupture	66.9%	Pass
34.5 - 32.5	Pole + Reinf.	TP36.939x36.485x0.7875	Reinf. 3 Tension Rupture	67.7%	Pass
32.5 - 32.25	Pole + Reinf.	TP36.995x36.939x0.6125	Reinf. 7 Tension Rupture	83.8%	Pass
32.25 - 31.42	Pole + Reinf.	TP37.184x36.995x0.6	Reinf. 7 Tension Rupture	84.2%	Pass
31.42 - 31.17	Pole + Reinf.	TP37.241x37.184x0.775	Reinf. 1 Tension Rupture	68.3%	Pass
31.17 - 29	Pole + Reinf.	TP37.733x37.241x0.7625	Reinf. 1 Tension Rupture	69.1%	Pass
29 - 28.75	Pole + Reinf.	TP37.79x37.733x0.85	Reinf. 1 Tension Rupture	65.1%	Pass
28.75 - 28.5	Pole + Reinf.	TP37.847x37.79x0.675	Reinf. 1 Tension Rupture	82.3%	Pass
28.5 - 23.5	Pole + Reinf.	TP38.982x37.847x0.6625	Reinf. 1 Tension Rupture	84.3%	Pass
23.5 - 23.25	Pole + Reinf.	TP39.039x38.982x0.7875	Reinf. 1 Tension Rupture	68.9%	Pass
23.25 - 23	Pole + Reinf.	TP39.095x39.039x0.7875	Reinf. 1 Tension Rupture	69.0%	Pass
23 - 22.75	Pole + Reinf.	TP39.152x39.095x0.65	Reinf. 1 Tension Rupture	83.8%	Pass
22.75 - 17.75	Pole + Reinf.	TP40.287x39.152x0.6375	Reinf. 1 Tension Rupture	85.7%	Pass
17.75 - 12.75	Pole + Reinf.	TP41.422x40.287x0.625	Reinf. 1 Tension Rupture	87.4%	Pass
12.75 - 7.75	Pole + Reinf.	TP42.558x41.422x0.6125	Reinf. 1 Tension Rupture	89.0%	Pass
7.75 - 5.25	Pole + Reinf.	TP43.125x42.558x0.6125	Reinf. 1 Tension Rupture	89.7%	Pass
5.25 - 5	Pole + Reinf.	TP43.182x43.125x0.6875	Reinf. 1 Tension Rupture	76.1%	Pass
5 - 0	Pole + Reinf.	TP44.317x43.182x0.6875	Reinf. 1 Tension Rupture	77.6%	Pass
				Summary	
			Pole	87.1%	Pass
			Reinforcement	89.7%	Pass
			Overall	89.7%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in ⁴)			Area (in ²)			% Capacity													
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13
140 - 135	211	n/a	211	8.40	n/a	8.40	16.2%													
135 - 130	266	n/a	266	9.07	n/a	9.07	28.0%													
130 - 125	330	n/a	330	9.75	n/a	9.75	44.1%													
125 - 120	404	n/a	404	10.42	n/a	10.42	57.9%													
120 - 115	487	n/a	487	11.10	n/a	11.10	73.5%													
115 - 114.75	492	680	1172	11.13	13.50	24.63	30.8%												55.2%	
114.75 - 109.75	587	758	1345	11.81	13.50	25.31	38.0%												66.9%	
109.75 - 104.75	694	841	1534	12.48	13.50	25.98	44.6%												77.3%	
104.75 - 101.58	767	896	1663	12.91	13.50	26.41	48.7%												83.4%	
101.58 - 101.33	1267	n/a	1267	21.45	n/a	21.45	62.8%													
101.33 - 96.33	1477	n/a	1477	22.58	n/a	22.58	67.4%													
96.33 - 91.33	1709	n/a	1709	23.70	n/a	23.70	71.2%													
91.33 - 91	1726	n/a	1726	23.78	n/a	23.78	71.4%													
91 - 90.75	1738	1473	3210	23.83	18.00	41.83	38.2%												45.3%	
90.75 - 85.75	1996	1605	3601	24.96	18.00	42.96	40.8%												48.4%	
85.75 - 80.75	2278	1743	4021	26.08	18.00	44.08	43.3%												51.2%	
80.75 - 75.75	2586	1887	4473	27.21	18.00	45.21	45.5%												53.7%	
75.75 - 70.75	2921	2037	4957	28.33	18.00	46.33	48.1%												56.8%	
70.75 - 69.98	2975	1972	4947	28.51	17.25	45.76	49.5%				81.6%									
69.98 - 69.73	2992	1980	4972	28.56	17.25	45.81	49.6%				81.9%									
69.73 - 64.73	3360	2130	5490	29.69	17.25	46.94	52.1%				85.9%									
64.73 - 63	3494	n/a	3494	30.08	n/a	30.08	87.1%													
63 - 62.75	3520	4069	7589	30.14	35.25	65.39	41.5%				67.3%								62.0%	
62.75 - 59.08	3817	4283	8100	30.96	35.25	66.21	43.0%				69.7%								64.2%	
59.08 - 58.82	3836	3575	7411	31.02	30.39	61.41	46.9%					71.3%	63.1%						69.6%	
58.82 - 58.67	3848	3583	7431	31.05	30.39	61.44	46.9%					71.4%	63.2%						69.7%	
58.67 - 53.67	4282	3833	8115	32.18	30.39	62.57	49.3%					74.3%	65.9%						72.7%	
53.67 - 53	4342	3867	8209	32.33	30.39	62.72	49.6%					74.6%	66.3%						73.0%	
53 - 47.58	4585	4469	9054	32.93	29.64	62.57	49.2%			79.6%			74.7%	74.7%						
47.58 - 42.58	5072	4764	9836	34.06	29.64	63.70	51.3%			82.2%			77.1%	77.1%						
42.58 - 39.75	5362	4936	10298	34.69	29.64	64.33	52.5%			83.5%			78.4%	78.4%						
39.75 - 39.5	5388	7952	13340	34.75	47.64	82.39	40.8%			64.9%			60.9%	60.9%	63.3%					
39.5 - 34.5	5929	8452	14381	35.88	47.64	83.52	42.5%			66.9%			62.8%	62.8%	65.3%					
34.5 - 32.5	6155	8656	14811	36.33	47.64	83.97	43.2%			67.7%			63.5%	63.5%	66.1%					
32.5 - 32.25	6183	5544	11728	36.38	30.39	66.77	54.8%					80.6%	80.6%	83.8%						
32.25 - 31.42	6279	5599	11878	36.57	30.39	66.96	55.2%					80.9%	80.9%	84.2%						
31.42 - 31.17	6308	8793	15102	36.63	47.64	84.27	43.7%	68.3%	68.3%			64.0%	64.0%	66.6%						
31.17 - 29	6564	9019	15584	37.12	47.64	84.76	44.4%	69.1%	69.1%			64.8%	64.8%	67.4%						
29 - 28.75	6634	10616	17250	37.17	59.64	96.81	43.1%	65.1%	60.3%			63.6%	53.0%	63.5%						55.6%
28.75 - 28.5	6685	7179	13864	37.23	41.64	78.87	54.5%	82.3%	74.7%			81.1%	64.5%							67.9%
28.5 - 23.5	7308	7603	14911	38.35	41.64	79.99	56.4%	84.3%	76.6%			83.0%	66.2%							69.7%
23.5 - 23.25	7299	10570	17870	38.41	59.64	98.05	46.2%	68.9%	63.7%			64.6%	59.8%		62.9%					64.1%
23.25 - 23	7331	10600	17931	38.47	59.64	98.11	46.2%	69.0%	63.8%			64.7%	59.8%		63.0%					64.2%
23 - 22.75	7349	7433	14783	38.52	47.64	86.16	55.4%	83.8%	75.0%			68.7%	74.8%		66.0%					
22.75 - 17.75	8012	7855	15867	39.65	47.64	87.29	57.2%	85.7%	76.7%			70.3%	76.4%		67.6%					
17.75 - 12.75	8714	8288	17002	40.77	47.64	88.41	58.9%	87.4%	78.3%			71.7%	78.0%		69.1%					
12.75 - 7.75	9456	8733	18189	41.90	47.64	89.54	60.6%	89.0%	79.9%			73.2%	79.5%		70.5%					
7.75 - 5.25	9842	8960	18802	42.46	47.64	90.10	61.5%	89.7%	80.6%			73.8%	80.2%		71.2%					
5.25 - 5	9878	11455	21333	42.52	42.26	84.78	54.3%	76.1%				74.7%							71.3%	
5 - 0	10683	12020	22703	43.65	42.26	85.91	56.0%	77.6%				76.2%							72.5%	

Note: Section capacity checked in 5 degree increments.

Stiffened or Unstiffened, Exterior Flange Plate - Any Bolt Material TIA Rev G

Site Data

BU#: 842873
 Site Name: Shelton NE
 App #: 417818 Rev. 2

Pole Manufacturer: Other

Bolt Data

Qty:	16	Bolt Fu:	120
Diameter (in.):	1	Bolt Fy:	92
Bolt Material:	A325		
N/A:	100	<-- Disregard	
N/A:	75	<-- Disregard	
Circle (in.):	26		

Plate Data

Diam:	30	in
Thick, t:	1.5	in
Grade (Fy):	50	ksi
Strength, Fu:	65	ksi
Single-Rod B-eff:	4.34	in

Stiffener Data (Welding at Both Sides)

Config:	0	*
Weld Type:		
Groove Depth:		<-- Disregard
Groove Angle:		<-- Disregard
Fillet H. Weld:		in
Fillet V. Weld:		in
Width:		in
Height:		in
Thick:		in
Notch:		in
Grade:		ksi
Weld str.:		ksi

Pole Data

Diam:	21.882	in
Thick:	0.3125	in
Grade:	65	ksi
# of Sides:	18	"0" IF Round
Fu	80	ksi
Reinf. Fillet Weld	0	"0" if None

Reactions

Mu	438.22	ft-kips
Axial, Pu:	9.16	kips
Shear, Vu:	16.26	kips
Elevation:	101.58	feet

Bolt Threads:

X-Excluded
$\phi V_n = \phi(0.55 A_b F_u)$
$\phi = 0.75, \phi V_n$ (kips):
38.88

If No stiffeners, Criteria: TIA G

<-Only Applicable to Unstiffened Cases

Flange Bolt Results

Bolt Tension Capacity, $\phi^*T_n, B1$:	54.54 kips
Adjusted ϕ^*T_n (due to $V_u = V_u/Q_t$), B :	54.52 kips
Max Bolt <u>directly</u> applied Tu:	49.99 Kips
Min. PL "tc" for B cap. w/o Pry:	1.162 in
Min PL "treq" for actual T w/ Pry:	1.029 in
Min PL "t1" for actual T w/o Pry:	1.113 in
T allowable w/o Prying:	54.54 kips
Prying Force, q:	0.00 kips
Total Bolt Tension=Tu+q:	49.99 kips
Non-Prying Bolt Stress Ratio, Tu/B:	91.7% Pass

Rigid

ϕ^*T_n
$\phi T_n [1 - (V_u / \phi V_n)^2]^{0.5}$

$\alpha' < 0$ case

Exterior Flange Plate Results

Compression Side Plate Stress:	22.4 ksi	Flexural Check
Allowable Plate Stress:	45.0 ksi	
Compression Plate Stress Ratio:	49.9% Pass	
No Prying		
Tension Side Stress Ratio, (treq/t)^2:	47.1% Pass	

Rigid

TIA G
ϕ^*F_y
Comp. Y.L. Length:
14.04

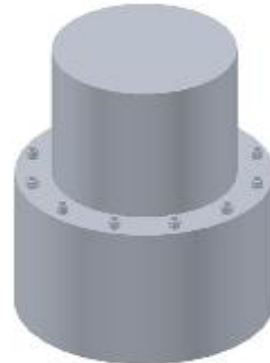
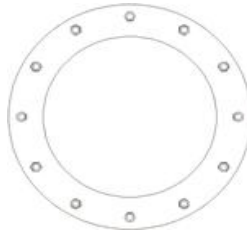
n/a

Stiffener Results

Horizontal Weld :	n/a
Vertical Weld:	n/a
Plate Flex+Shear, $f_b/F_b + (f_v/F_v)^2$:	n/a
Plate Tension+Shear, $f_t/F_t + (f_v/F_v)^2$:	n/a
Plate Comp. (AISC Bracket):	n/a

Pole Results

Pole Punching Shear Check: n/a



* 0 = none, 1 = every bolt, 2 = every 2 bolts, 3 = 2 per bolt

** Note: for complete joint penetration groove welds the groove depth must be exactly 1/2 the stiffener thickness for calculation purposes

Stiffened or Unstiffened, UngROUTed, Circular Base Plate - Any Rod Material

TIA Rev G

Assumption: Clear space between bottom of leveling nut and top of concrete **not** exceeding (1)*(Rod Diameter)

Site Data

BU#: 842873
Site Name: Shelton NE
App #: 417818 Rev. 2
Pole Manufacturer: <i>Other</i>

Anchor Rod Data

Qty:	16	
Diam:	2.25	in
Rod Material:	A615-J	
Strength (Fu):	100	ksi
Yield (Fy):	75	ksi
Bolt Circle:	51	in

Plate Data

Diam:	57	in
Thick:	2.25	in
Grade:	60	ksi
Single-Rod B-eff:	8.79	in

Stiffener Data (Welding at both sides)

Config:	0	*
Weld Type:		
Groove Depth:		<-- Disregard
Groove Angle:		<-- Disregard
Fillet H. Weld:		in
Fillet V. Weld:		in
Width:		in
Height:		in
Thick:		in
Notch:		in
Grade:		ksi
Weld str.:		ksi

Pole Data

Diam:	44.317	in
Thick:	0.3125	in
Grade:	65	ksi
# of Sides:	18	"0" IF Round
Fu	80	ksi
Reinf. Fillet Weld	0	"0" if None

Reactions

Mu:	3038	ft-kips
Axial, Pu:	46	kips
Shear, Vu:	33	kips
Eta Factor, η	0.55	TIA G (Fig. 4-4)

If No stiffeners, Criteria: **AISC LRFD** <-Only Applicable to Unstiffened Cases

Anchor Rod Results

Max Rod (Cu+ Vu/η): 185.3 Kips
 Allowable Axial, $\Phi \cdot Fu \cdot Anet$: 260.0 Kips
 Anchor Rod Stress Ratio: 71.3% **Pass**

Rigid
AISC LRFD
$\phi \cdot Tn$

Base Plate Results

Base Plate Stress: 33.7 ksi
 Allowable Plate Stress: 54.0 ksi
 Base Plate Stress Ratio: 62.5% **Pass**

Flexural Check

Rigid
AISC LRFD
$\phi \cdot Fy$
Y.L. Length: 25.24

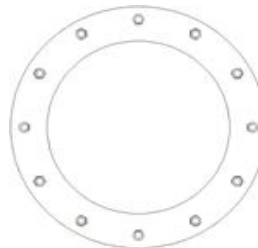
n/a

Stiffener Results

Horizontal Weld : n/a
 Vertical Weld: n/a
 Plate Flex+Shear, $fb/Fb+(fv/Fv)^2$: n/a
 Plate Tension+Shear, $ft/Ft+(fv/Fv)^2$: n/a
 Plate Comp. (AISC Bracket): n/a

Pole Results

Pole Punching Shear Check: n/a



* 0 = none, 1 = every bolt, 2 = every 2 bolts, 3 = 2 per bolt

** Note: for complete joint penetration groove welds the groove depth must be exactly 1/2 the stiffener thickness for calculation purposes

Drilled Pier Foundation

BU #:	842873
Site Name:	SHELTON NE
App. Number:	417818 Rev. 2

TIA-222 Revison:	G
Tower Type:	Monopole



Applied Loads		
	Comp.	Uplift
Moment (kip-ft)	3038	
Axial Force (kips)	46	
Shear Force (kips)	33	

Material Properties		
Concrete Strength, f _c :	4	ksi
Rebar Strength, F _y :	60	ksi

Pier Design Data		
Depth	14	ft
Ext. Above Grade	0.5	ft
Pier Section 1		
<i>From 0.5' above grade to 14' below grade</i>		
Pier Diameter	6	ft
Rebar Quantity	26	
Rebar Size	11	
Clear Cover to Ties	3	in
Tie Size	4	

Analysis Results		
Soil Lateral Capacity	Compression	Uplift
D _{v=0} (ft from TOC)	14.50	-
Soil Safety Factor	1.74	-
Max Moment (kip-ft)	3160.60	-
Rating	76.5%	-
Soil Vertical Capacity	Compression	Uplift
Skin Friction (kips)	318.06	-
End Bearing (kips)	254.47	-
Weight of Concrete (kips)	73.80	-
Total Capacity (kips)	572.53	-
Axial (kips)	119.80	-
Rating	20.9%	-
Reinforced Concrete Capacity	Compression	Uplift
Critical Depth (ft from TOC)	3.82	-
Critical Moment (kip-ft)	3160.57	-
Critical Moment Capacity	5366.72	-
Rating	58.9%	-
Soil Interaction Rating	76.5%	
Structural Foundation Rating	58.9%	

Soil Profile			
Groundwater Depth	n/a	ft	# of Layers
			2

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ _{soil} (pcf)	γ _{concrete} (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	3	3	165	150			0.000	0.000					Cohesionless
2	3	14	11	165	150	4		2.045	2.045			12		Cohesive

CITY OF SHELTON REAL PROPERTY DATA

PROPERTY LOCATION: 30 OLIVER TER ASSRS MAP - LOT 77.-23./1 SURVEY MAP - LOT 1A-2 ZONE 1102. CENSUS TRACT 27000 NBHD 01 SITE CARD RUNDATE 10/10/2017 SIDE 1

CURRENT OWNER		NAME OF BUSINESS	
NAME 1	BRENNAN REALTY LLC	CELL TOWER SITE	
NAME 2	PO BOX 788		
ADDRESS	SHELTON CT		
ADDRESS			
ZIP	06484		

OWNER HISTORY					
NAME	YOL	PAGE	DATE	SALE PRICE	VALID DEED TYP
BRENNAN REALTY LLC	2400	316	07/02/2004		N Q


LAND DESCRIPTION DATA						
LAND TYPE	ACREAGE	INFL CODE	INFL FACT	USE CODE	UNIT PRICE	FULL VALUE ASSESSED
TOTAL						

SITE				DESIRABILITY			
NBHD TYPE	COMMERCIAL	ELEVATION	YES	LANDSCAPING	TYPICAL	INFERIOR	
ROAD	LOCAL	SEWER	PUBLIC	DRIVEWAY			
TRAFFIC	LIGHT	WATER		MAJOR USE			
BLDG SET BACK		UTILITIES					
VIEW		COMPARED					
BUILDING PERMITS							
NUMBER	DATE	VALUE	DESCRIPTION	C.O. DATE	COMP DATE		

ASSESSMENT INFORMATION							
YEAR	CLASS	UNITS	FULL VALUE	ASSESSED			
2016	2-2		100000	70000			
	TOTAL		100000	70000			
2012	2-2	1.00	100000	70000			
	TOTAL		100000	70000			

PROPERTY CLASSIFICATION CODES	
COMMERCIAL 2- 2-1 LAND(EXCEPT APT.BLDS) 2-2 BUILDINGS 2-3 APARTMENTS 2-4 CONDOMINIUMS 2-5 OUTBUILDINGS 2-6 LAND (APT BUILDINGS)	PUBLIC UTILITY 4- 4-1 LAND 4-2 BUILDINGS 4-3 OUTBUILDINGS VACANT LAND 5- 5-1 RESIDENTIAL 5-2 COMMERCIAL 5-3 INDUSTRIAL 5-4 WETLANDS 5-5 OUTBUILDINGS
INDUSTRIAL 3- 3-1 LAND 3-2 BUILDINGS 3-3 IMPROVEMENTS	






**UNITED STATES
POSTAL SERVICE®**

Click-N-Ship®

P

usps.com
US POSTAGE 9405 8036 9930 0595 0478 31 0067 0000 0010 6484
 Flat Rate Env
 02/20/2018



Mailed from 06268 062S0000000311

PRIORITY MAIL 1-DAY™

Expected Delivery Date: 02/21/18


MARK J ROBERTS
 QC DEVELOPMENT
 PO BOX 916
 STORRS CT 06268-0916

0024

C017

SHIP TO: MAYOR MARK LAURETTI
 CITY OF SHELTON
 54 HILL ST
 SHELTON CT 06484-3207

USPS TRACKING #



9405 8036 9930 0595 0478 31

Electronic Rate Approved #038555749



Cut on dotted line.

Instructions

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

Click-N-Ship® Label Record

**USPS TRACKING # / Insurance Number:
9405 8036 9930 0595 0478 31**

Trans. #:	427981736	Priority Mail® Postage:	\$6.70
Print Date:	02/20/2018	Insurance Fee	\$0.00
Ship Date:	02/20/2018	Total	\$6.70
Expected Delivery Date:	02/21/2018		
Insured Value:	\$50.00		

From: MARK J ROBERTS
 QC DEVELOPMENT
 PO BOX 916
 STORRS CT 06268-0916

To: MAYOR MARK LAURETTI
 CITY OF SHELTON
 54 HILL ST
 SHELTON CT 06484-3207

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



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



Shipment Confirmation Acceptance Notice

A. Mailer Action

Note To Mailer: The labels and volume associated to this form online, **must** match the labeled packages being presented to the USPS® employee with this form.

Shipment Date: 02/20/18

Shipped From:

MARK J ROBERTS
QC DEVELOPMENT
PO BOX 916
STORRS CT 06268-0916

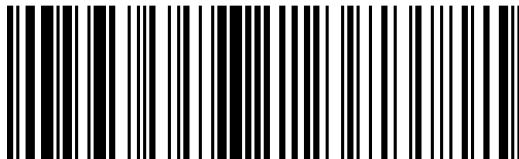
Type of Mail	Volume
Priority Mail®	3
Priority Mail Express™*	0
International Mail*	0
Other	0
Total Volume	3

*Start time for products with service guarantees will begin when mail arrives at the local Post Office™ and items receive individual processing and acceptance scans.

B. USPS Action

- USPS EMPLOYEE: Please scan upon pickup or receipt of mail. Leave form with customer or in customer's mail receptacle.
- Employee verifies the package volume count on the Package Pickup Carrier Manifest.
 - If the volume on the manifest matches the volume being collected from the customer, the employee should make the **1:YES** selection by pressing the number 1 on the keypad of the handheld scanner, or on the keyboard of the POS ONE terminal.
 - If the volume on the manifest does not match the volume being collected from the customer, the employee should make the **2:NO** selection. The mail should still be collected and dispatched as normal.

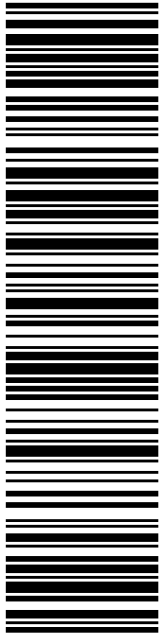
USPS SCAN



9475 7036 9930 0261 3961 11

SHIP TO:
 BRENNAN REALTY LLC
 PO BOX 788
 SHELTON CT 06484-0788


USPS TRACKING #



9405 8036 9930 0595 0478 55

P

usps.com 9405 8036 9930 0595 0478 55 0067 0000 0010 6484
US POSTAGE \$6.70
 Flat Rate Enviv



02/20/2018 Mailed from 06268 062S0000000313

PRIORITY MAIL 1-DAY™

Expected Delivery Date: 02/21/18

B006

0024

Electronic Rate Approved #038555749



Cut on dotted line.

Instructions

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

Click-N-Ship® Label Record

USPS TRACKING # / Insurance Number:
9405 8036 9930 0595 0478 55

Trans. #:	427981736	Priority Mail® Postage:	\$6.70
Print Date:	02/20/2018	Insurance Fee	\$0.00
Ship Date:	02/20/2018	Total	\$6.70
Expected Delivery Date:	02/21/2018		
Insured Value:	\$50.00		

From: MARK J ROBERTS
 QC ENTERPRISES LLC
 340 HANKS HILL RD
 STORRS CT 06268-2355

To: BRENNAN REALTY LLC
 PO BOX 788
 SHELTON CT 06484-0788

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



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



Shipment Confirmation Acceptance Notice

A. Mailer Action

Note To Mailer: The labels and volume associated to this form online, **must** match the labeled packages being presented to the USPS® employee with this form.

Shipment Date: 02/20/18

Shipped From:

MARK J ROBERTS
QC DEVELOPMENT
PO BOX 916
STORRS CT 06268-0916

Type of Mail	Volume
Priority Mail®	3
Priority Mail Express™*	0
International Mail*	0
Other	0
Total Volume	3

*Start time for products with service guarantees will begin when mail arrives at the local Post Office™ and items receive individual processing and acceptance scans.

B. USPS Action

- USPS EMPLOYEE: Please scan upon pickup or receipt of mail. Leave form with customer or in customer's mail receptacle.
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 - If the volume on the manifest does not match the volume being collected from the customer, the employee should make the **2:NO** selection. The mail should still be collected and dispatched as normal.

USPS SCAN



9475 7036 9930 0261 3961 11