



February 18, 2025

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

Re: Notice of Exempt Modification New Cingular Wireless PCS LLC ("AT&T") Site CT1050
82 Tyrone Road, Pomfret, CT 06258 (the "Property")
Latitude: 41.890241 N Longitude: -71.955611 W

Dear Ms. Bachman:

AT&T currently maintains (6) antennas at the 150'± cl on the existing 155'± monopole tower ("Tower") at 82 Tyrone Road, Pomfret, CT. The Tower is owned by Crown Castle & property is owned by The Pomfret School. AT&T intends to modify its Facility by adding (3) AIR6472 B77G B77M antennas at the 151'6"cl on the Tower and (3) 4494 B14/B29 RRUs at the 150'± cl on the Tower. The height of AT&Ts existing antennas and existing & proposed RRUs is 150'± cl on the Tower. The height of AT&T proposed antennas is 151'6"cl on the Tower. The pipe mounts to be replaced per the mount analysis.

This modification may include B2, B5, B17, B14, B29, B30, B66 & n77 hardware that is 4G(LTE) and/or 5GNR capable through remote software configuration and either or both services may be turned on or off at various times.

The tower was approved by the CT Siting Council, under Docket 142, on June 20, 1991. The approval contained no conditions that could be violated by this modification. Therefore, AT&Ts modification complies with the above-mentioned approval.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies ("R.C.S.A") §16-50j-73 for construction that constitutes an exempt modification pursuant to R.C.S.A §16-50j-72(b)(2). In accordance with to R.C.S.A §16-50j-73, a copy of this letter is being sent to the Hon. Maureen A. Nicholson, First Selectman, Town of Pomfret, Mr. James Rabbitt, Town Planner, Town of Pomfret, the Pomfret School, the property owner and Crown Castle, the Tower owner.

The planned modification of the facility falls squarely within those activities explicitly provided for in R.C.S.A §16-50j-72(b)(2). Specifically:

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

2. The proposed modifications will not require an 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 modified facility 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 Tower and foundation can support the proposed loading.

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

Sincerely,

Hollis M. Redding

Hollis M. Redding
SAI Communications, LLC
12 Industrial Way
Salem, NH 03079
Mobile: 860-834-6964
hredding@saigrp.com

Enclosures

Cc:

Hon. Maureen A. Nicholson, First Selectman, Town of Pomfret
Mr. James Rabbitt, Town Planner, Town of Pomfret
The Pomfret School, the Property owner
Crown Castle, the Tower owner



C Squared Systems, LLC
65 Dartmouth Drive
Auburn, NH 03032
(603) 644-2800

support@csquaredsystems.com

Calculated Radio Frequency Emissions Report



CT1050

82 Tyrone Road, Pomfret, CT

February 17, 2025

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1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed modification of AT&T's antenna arrays mounted at 151.5' AGL on the existing monopole tower located at 82 Tyrone Road in Pomfret, CT. The coordinates of the monopole tower are 41° 53' 24.87" N, 71° 57' 20.19" W.

AT&T is proposing the following:

- 1) Install nine (9) directional panel antennas, three (3) per sector to support its commercial LTE and 5G network.

This report considers the antenna configuration for AT&T's¹ proposed installation, in addition to existing antenna configuration² for VHF antenna to calculate the resulting % Maximum Permissible Exposure (MPE) at ground level around the existing facility.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm²). The general population exposure limits for the various frequency ranges are defined in the document referenced in Attachment A of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

¹ As referenced to AT&T's Radio Frequency Design Sheet modified on 10/04/2024 and construction drawings prepared by B+T Group dated 11/26/2024.

² As referenced to the Structural Analysis Report prepared by Morrison Hershfield dated 01/15/2025.

3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

$$\text{Power Density} = \left(\frac{\text{GRF}^2 \times 1.64 \times \text{ERP}}{4\pi \times R^2} \right) \times \text{Off Beam Loss}$$

Where:

EIRP = Effective Isotropic Radiated Power

R = Radial Distance = $\sqrt{H^2 + V^2}$

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Off Beam Loss is determined by the selected antenna patterns

Ground reflection factor (GRF) of 1.6

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not take into account actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the final installations.

The percent of MPE values presented in this report reflect levels that one may encounter from one sector of a carrier's antennas. Most carriers use 3 or 4 sectors per site with azimuths approximately 90 or 120 degrees apart, respectively; therefore, one could not be standing in the main beam of all sectors at the same time. In cases where antenna models are not uniform across all sectors, the antenna model with the highest gain was used for the calculations. This results in a conservative or "worst case" assumption for percent of MPE calculations.

4. Antenna Inventory

Table 1 below outlines AT&T's proposed antenna configuration for the site. The associated data model and antenna patterns for these specific antenna models are included in Attachments C.

Operator	Sector / Azimuth	TX Freq (MHz)	Power at Antenna (Watts)	Ant Gain (dBi)	Power EIRP (Watts)	Antenna Model	Beam Width	Mech. Tilt	Length (ft)	Antenna Centerline Height (ft)
AT&T	Alpha / 45°	722	80	14.4	2203	NNH4-65B-R6	69	0	6	151.5
		763	160	14.4	4407		65			
		1900	160	16.3	6825		60			
		2100	240	16.5	10720		60			
		739	160	14	4019	DMP65R-BU6D	74	0	6	151.5
		850	160	14.6	4614		63			
		2300	100	18.4	6918		54			
		3500	200	19.1	16257		60			
		3700	200	18.9	15525	AIR 6472	60	0	3	151.5
							60			
	Beta / 140°	722	80	14.4	2203	NNH4-65B-R6	69	0	6	151.5
		763	160	14.4	4407		65			
		1900	160	16.3	6825		60			
		2100	240	16.5	10720		60			
		739	160	14	4019	DMP65R-BU6D	74	0	6	151.5
		850	160	14.6	4614		63			
		2300	100	18.4	6918		54			
		3500	200	19.1	16257		60			
		3700	200	18.9	15525	AIR 6472	60	0	3	151.5
							60			
	Gamma / 260°	722	80	14.4	2203	NNH4-65B-R6	69	0	6	151.5
		763	160	14.4	4407		65			
		1900	160	16.3	6825		60			
		2100	240	16.5	10720		60			
		739	160	14	4019	DMP65R-BU6D	74	0	6	151.5
		850	160	14.6	4614		63			
		2300	100	18.4	6918		54			
		3500	200	19.1	16257		60			
		3700	200	18.9	15525	AIR 6472	60	0	3	151.5
							60			

Table 1: Proposed Antenna Inventory^{3 4}

³ Antenna heights are in reference to construction drawings prepared by B+T Group dated 11/22/2024

⁴ Transmit power assumes 0 dB of cable loss.

5. Calculation Results

The calculated % MPE results for the proposed and existing antenna configuration are shown in Figure 1 below. Each frequency band and technology is calculated as well as the resulting cumulative percent of MPE. For completeness, the calculations for this analysis range from 0 feet horizontal distance (directly below the antennas) to a value of 3,000 feet horizontal distance from the site. In addition to the other worst-case scenario considerations that were previously mentioned, the power density calculations to each horizontal distance point away from the antennas was completed using a local maximum off beam antenna gain (within ± 5 degrees of the true mathematical angle) to incorporate a realistic worst-case scenario.

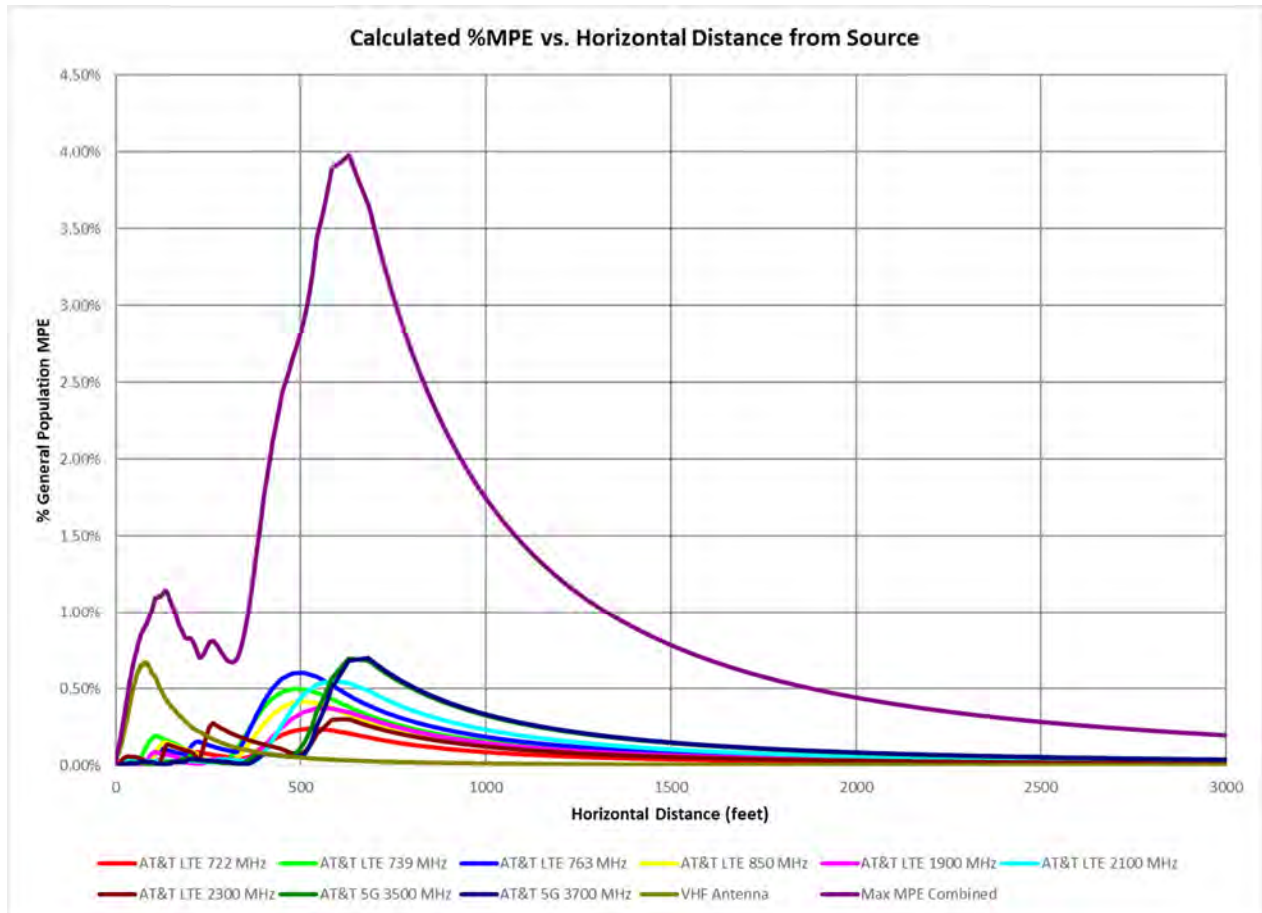


Figure 1: Graph of General Population % MPE vs. Distance

The highest percent of MPE (3.98% of the General Population limit) is calculated to occur at a horizontal distance of 628 feet from antennas. Please note that the percent of MPE calculations close to the site take into account off beam loss, which is determined from the vertical pattern of the antennas used. Therefore, RF power density levels may increase as the distance from the site increases. At distances of approximately 1000 feet and beyond, one would now be in the main beam of the antenna pattern and off beam loss is no longer considered. Beyond this point, RF levels become calculated solely on distance from the site and the percent of MPE decreases significantly as distance from the site increases.

Table 2 below lists percent of MPE values as well as the associated parameters that were included in the calculations. As stated in Section 3, all calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. In addition, a six foot height offset was considered in this analysis to account for average human height. As a result, the predicted signal levels are significantly higher than the actual signal levels will be from the final configuration. The results presented in Figure 1 and Table 2 assume level ground elevation from the base of the tower out to the horizontal distances calculated.

Carrier	Number of Transmitters	Power out of Base Station Per Transmitter (Watts)	Antenna Height (Feet)	Distance to the Base of Antennas (Feet)	Power Density (mW/cm ²)	Limit (mW/cm ²)	% MPE
AT&T 5G 3500 MHz	1	200.0	151.1	628	0.006934	1.000	0.69%
AT&T 5G 3700 MHz	1	200.0	151.1	628	0.006785	1.000	0.68%
AT&T LTE 1900 MHz	1	160.0	151.1	628	0.003485	1.000	0.35%
AT&T LTE 2100 MHz	1	240.0	151.5	628	0.005374	1.000	0.54%
AT&T LTE 2300 MHz	1	100.0	151.5	628	0.003015	1.000	0.30%
AT&T LTE 722 MHz	1	80.0	151.5	628	0.001012	0.481	0.21%
AT&T LTE 739 MHz	1	160.0	151.5	628	0.001889	0.493	0.38%
AT&T LTE 763 MHz	1	160.0	151.5	628	0.002331	0.509	0.46%
AT&T LTE 850 MHz	1	160.0	151.5	628	0.001889	0.567	0.33%
VHF Antenna	1	100.0	104.0	628	0.000067	0.200	0.03%
Total							3.98%

Table 2: Maximum Percent of General Population Exposure Values^{5 6 7}

⁵ Frequencies listed are representative of the operating band and are not the specific operating frequency.

⁶ The total % MPE listed is a summation of each unrounded contribution. Therefore, summing each rounded value may not reflect the total value listed in the table.

⁷ When the technical operating information was unavailable, reasonable assumptions were made based on available data and industry standards for the analysis.

6. Conclusion

The above analysis verifies that RF exposure levels from the site with AT&T's proposed antenna configuration will be well below the maximum permissible levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using the conservative calculation methods and parameters detailed above, the maximum cumulative percent of MPE in consideration of all transmitters is calculated to be **3.98 % of the FCC limit (General Population/Uncontrolled)**. This maximum cumulative percent of MPE value is calculated to occur 628 feet away from the site.

7. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.1, ANSI/IEEE Std. C95.3 and FCC OET Bulletin 65 Edition 97-01.



Report Prepared By: Ram Acharya
RF Engineer
C Squared Systems, LLC

February 14, 2025
Date



Reviewed/Approved By: Martin Lavin
Senior RF Engineer
C Squared Systems, LLC

February 17, 2025
Date

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

IEEE C95.1-2019, IEEE Standard Safety Levels With Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz IEEE-SA Standards Board

IEEE C95.3-2021, IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic, and Electromagnetic Fields with Respect to Human Exposure to Such Fields, 0 Hz-300 GHz IEEE-SA Standards Board

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure⁸

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

(B) Limits for General Population/Uncontrolled Exposure⁹

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

f = frequency in MHz * Plane-wave equivalent power density

Table 3: FCC Limits for Maximum Permissible Exposure

⁸ Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

⁹ General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

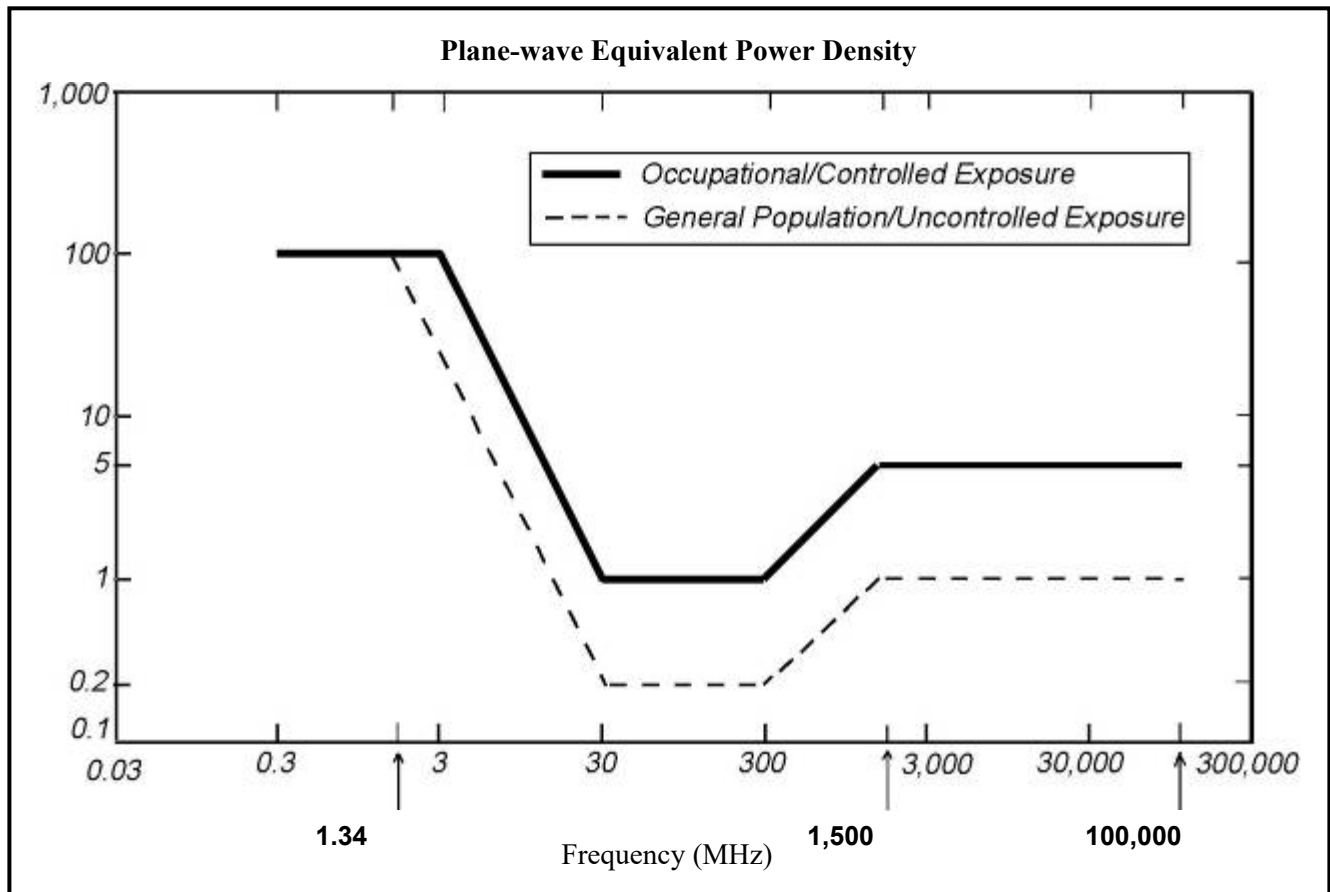
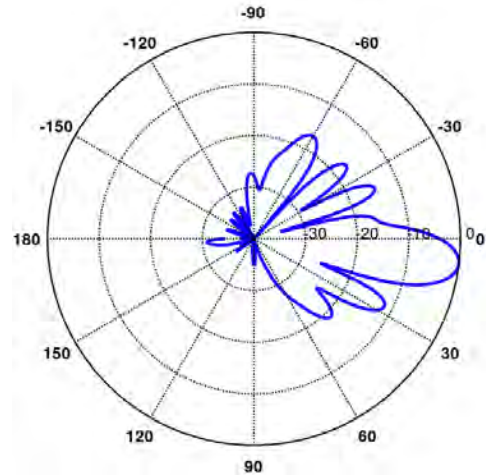


Figure 2: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

Attachment C: AT&T Antenna Model Data and Electrical Patterns

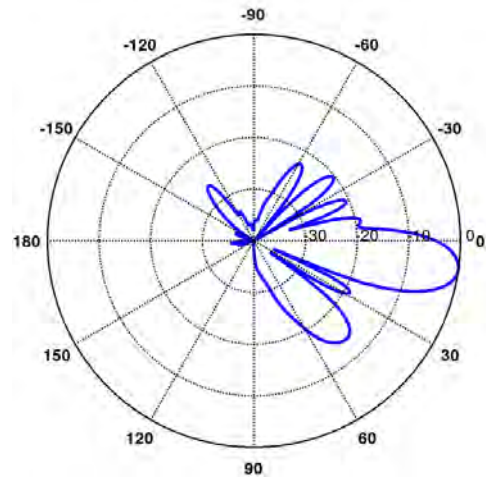
722/763 MHz

Manufacturer: COMMSCOPE
 Model #: NNH4-65B-R6
 Frequency Band: 698-806 MHz
 Gain: 14.4 dBi
 Electrical Down-Tilt: 8°
 Vertical Beamwidth: 12°
 Horizontal Beamwidth: 69°
 Polarization: $\pm 45^\circ$
 Dimensions (L x W x D): 72.0" x 19.6" x 7.7"



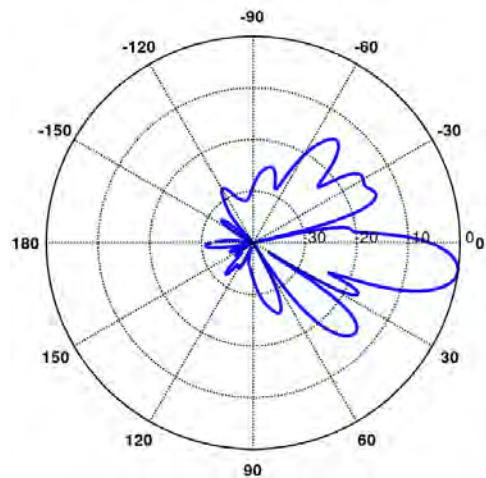
739 MHz

Manufacturer: CCI
 Model #: DMP65R-BU6D
 Frequency Band: 698-798 MHz
 Gain: 14 dBi
 Electrical Down-Tilt: 8°
 Vertical Beamwidth: 13°
 Horizontal Beamwidth: 74°
 Polarization: Dual Linear 45°
 Dimensions (L x W x D): 71.2" x 20.7" x 7.7"



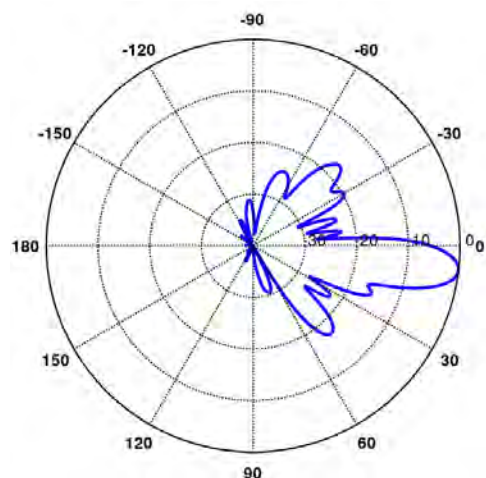
850 MHz

Manufacturer: CCI
 Model #: DMP65R-BU6D
 Frequency Band: 824-896 MHz
 Gain: 14.6 dBi
 Electrical Down-Tilt: 8°
 Vertical Beamwidth: 11.1°
 Horizontal Beamwidth: 63°
 Polarization: Dual Linear 45°
 Dimensions (L x W x D): 71.2" x 20.7" x 7.7"



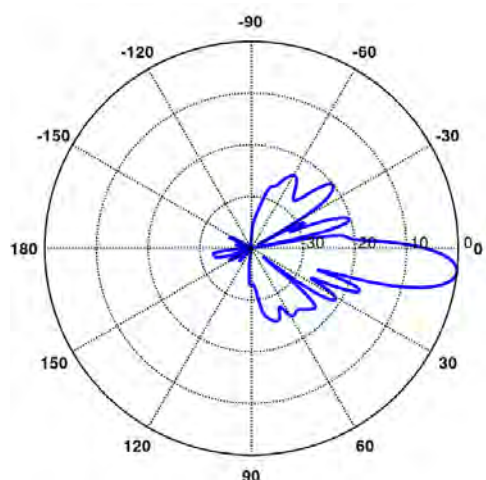
1900 MHz

Manufacturer: COMMSCOPE
 Model #: NNH4-65B-R6
 Frequency Band: 1850-1990 MHz
 Gain: 16.3 dBi
 Electrical Down-Tilt: 7°
 Vertical Beamwidth: 10.4°
 Horizontal Beamwidth: 60°
 Polarization: $\pm 45^\circ$
 Dimensions (L x W x D): 72.0" x 19.6" x 7.7"



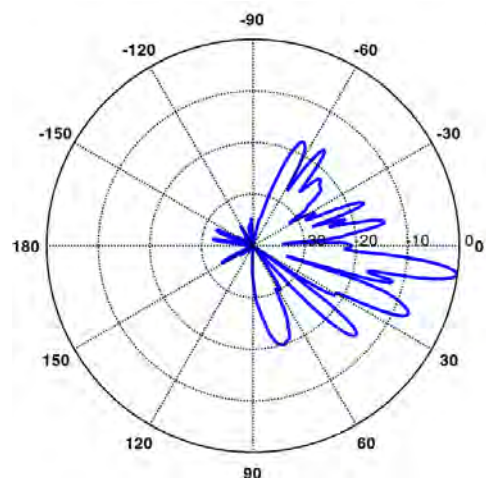
2100 MHz

Manufacturer: COMMSCOPE
 Model #: NNH4-65B-R6
 Frequency Band: 1920-2180 MHz
 Gain: 16.5 dBi
 Electrical Down-Tilt: 7°
 Vertical Beamwidth: 9.8°
 Horizontal Beamwidth: 60°
 Polarization: $\pm 45^\circ$
 Dimensions (L x W x D): 72.0" x 19.6" x 7.7"



2300 MHz

Manufacturer: CCI
 Model #: DMP65R-BU6D
 Frequency Band: 2300-2400 MHz
 Gain: 18.4 dBi
 Electrical Down-Tilt: 8°
 Vertical Beamwidth: 4.1°
 Horizontal Beamwidth: 54°
 Polarization: Dual Linear 45°
 Dimensions (L x W x D): 71.2" x 20.7" x 7.7"



3500 MHz Manufacturer: ERICSSON Model #: AIR 6472 B77G B77M Frequency Band: 3450-3550 MHz Gain: - dBi Electrical Down-Tilt 2° Vertical Beamwidth: 87-105° Horizontal Beamwidth: 60° Polarization: N/A° Dimensions (L x W x D): 36.3” x 15.83” x 7.4“	N/A
3700 MHz Manufacturer: ERICSSON Model #: AIR 6472 B77G B77M Frequency Band: 3840-3980 MHz Gain: - dBi Electrical Down-Tilt 2° Vertical Beamwidth: 87-105° Horizontal Beamwidth: 60° Polarization: N/A° Dimensions (L x W x D): 36.3” x 15.83” x 7.4“	N/A



SITE NAME:
POMFRET-TYRONE RD

SITE ID: CTL01050
USID: 71304
FA NUMBER: 10035021

IWM	PTN
WSCTB0028708	2051A1F7F0
WSCTB0028541	2051A1F7F1
WSCTB0028576	2051A1F7EY
WSCTB0028779	2051A1F7EZ
WSCTB0028825	2051A1F7F3
WSCTB0028555	2051A1F7F2

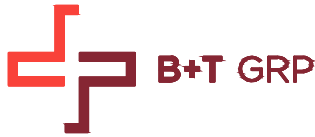
EXISTING 155'-0" MONOPOLE
5G NR 1DR-1 CBAND

RF DATA SHEET

RFDS ID	RFDS-34360
LAST MODIFIED DATE	10/04/24

PROFESSIONAL CERTIFICATION:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF CONNECTICUT, LICENSE NO.: 23924, EXPIRATION DATE: 01/31/2025.



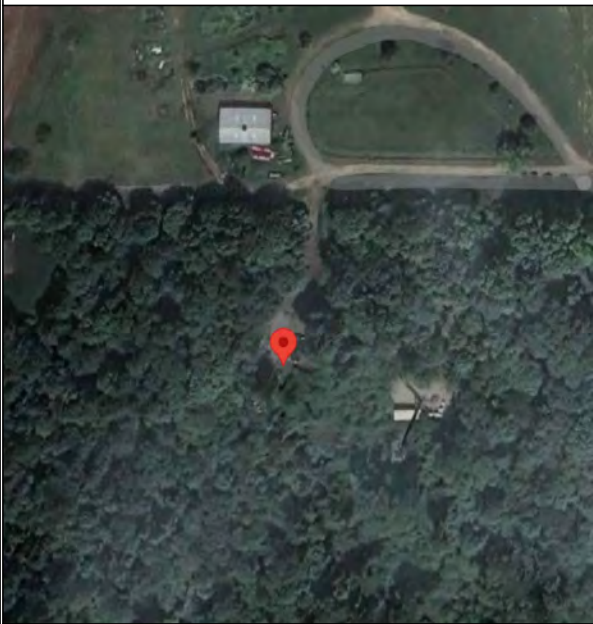
2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

PROJECT SUMMARY

TOWER OWNER: CROWN CASTLE
ADDRESS: 2000 CORPORATE DRIVE
CANONSBURG, PA 15317
CONTACT: N/A
BU NUMBER: 841292
SITE ADDRESS: 82 TYRONE ROAD
POMFRET, CT 06258
CUSTOMER/APPLICANT: AT&T WIRELESS
1425 US HWY 206, STE N2C04A
BEDMINSTER, NJ 07921

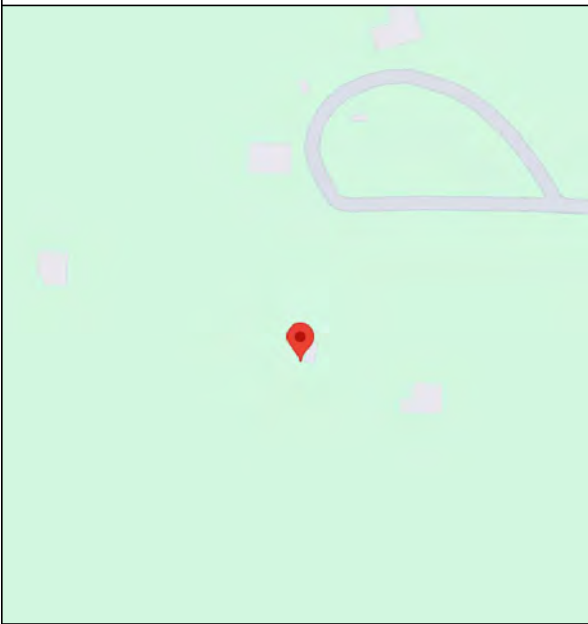
NAD83
LATITUDE: 41.890242° N
LONGITUDE: 71.955611° W
JURISDICTION: CONNECTICUT SITING COUNCIL
COUNTY: WINDHAM
GROUND ELEVATION: 684' AMSL
OCCUPANCY TYPE: UNMANNED
A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND NOT
FOR HUMAN HABITATION
CONSTRUCTION TYPE: II-B
OCCUPANCY GROUP: U

AREA MAP



NO SCALE

LOCATION MAP



NO SCALE

DRAWING INDEX

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PROJECT DESCRIPTION

TOWER SCOPE:
INSTALL:
1. (3) AIR 6472 B77G/B77M ANTENNAS.
2. (3) 4494 B14/B29 RRHs.
3. (2) PV-DC-PTPC-2025-12 PIPE TO PIPE STANDOFFS W/ (1) 2.5" STD. X 10'-0" LONG MOUNT PIPE ON A3.
4. (2) PV-DC-PTPC-2020-24 PIPE TO PIPE STANDOFFS W/ (1) 2" STD. X 10'-0" LONG MOUNT PIPE ON A2.
5. (6) 2" STD X 10'-0" LONG EQUIPMENT PIPES W/ BBPM-K1 DUAL PIPE ATTACHMENT KITS.
6. (2) 2.5" STD. X 10'-6" LONG MOUNT PIPE W/ XP-R CROSSOVER PLATES ON B3/C3.
7. ROTATE MOUNT TO ELIMINATE SKEW IN BETA AND GAMMA SECTORS.

GROUND SCOPE:
1. REMOVE ALL EXISTING GMB BATTERIES
2. INSTALL NEW FIF RACK IN AT&T SHELTER
3. INSTALL VERTIV -58V CONVERTER SHELF IN NEW FIF RACK
4. INSTALL (9) -58V CONVERTERS IN NEW CONVERTER SHELF
5. INSTALL (4) -48V RECTIFIERS IN THE EXISTING DCPP
6. INSTALL NEW BATTERY RACK IN AT&T SHELTER
7. INSTALL (20) 190AH BATTERIES IN NEW BATTERY RACK
8. INSTALL (1) 6672 AND (1) 6610 IN FIF RACK
NID IS -48V

DRIVING DIRECTIONS

DEPART 1425 US HWY 206, BEDMINSTER, NJ:
HEAD NORTHEAST TOWARD SOMERSET CENTER. CONTINUE ONTO SOMERSET CENTER. TURN RIGHT ONTO US-206 S. TURN LEFT ONTO SCHLEY MOUNTAIN RD. MERGE WITH I-287 N. KEEP LEFT TO STAY ON I-287 N. TAKE THE I-87 S/NEW YORK STATE THRUWAY/I-287 EXIT TOWARD GOV MARIO M. CUOMO BR/NEW YORK CITY. MERGE WITH I-87 S. KEEP LEFT TO CONTINUE ON I-287 E, FOLLOW SIGNS FOR WHITE PLAINS/RYE. KEEP LEFT TO STAY ON I-287 E. MERGE WITH I-95 N. SLIGHT LEFT ONTO I-395 N (SIGNS FOR INTERSTATE 395 N/NORWICH/PLAINFIELD). TAKE EXIT 41 FOR CT-101 TOWARD DAYVILLE/E KILLINGLY. USE THE LEFT 2 LANES TO TURN LEFT ONTO CT-101 W. TURN RIGHT ONTO WRIGHTS CROSSING RD. TURN RIGHT TO STAY ON WRIGHTS CROSSING RD. TURN LEFT ONTO TYRONE RD. TURN LEFT ONTO ACCESS ROAD. DESTINATION WILL BE ON THE LEFT.

CODE COMPLIANCE

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:
CODE TYPE CODE
BUILDING/DWELLING 2022 CONNECTICUT SBC/2021 IBC
STRUCTURAL 2022 CONNECTICUT SBC/2021 IBC
MECHANICAL 2022 CONNECTICUT SBC/2021 IMC
ELECTRICAL 2022 CONNECTICUT SBC/2020 NEC

DO NOT SCALE DRAWINGS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11x17.
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SEE SHEET GN-1 FOR ADDITIONAL CONSTRUCTION NOTES

CONTACT INFORMATION

A&E FIRM: B+T GROUP
1717 S. BOULDER, STE. 300
TULSA, OK 74119
CONTACT: WALTER SMITH
EMAIL: WSMITH@BTGRP.COM
CONSTRUCTION PM:
CONTACT: DALE VANDEWALKER
EMAIL: DALE.VANDEWALKER@US.AMENTUM.COM
ELECTRIC PROVIDER: N/A
PHONE:
TELCO PROVIDER: N/A
PHONE:



CALL CONNECTICUT ONE CALL
(800) 922-4455
CALL 3 WORKING DAYS
BEFORE YOU DIG!



POMFRET-TYRONE RD

USID: 71304
FA: 10035021

82 TYRONE ROAD
POMFRET, CT 06258

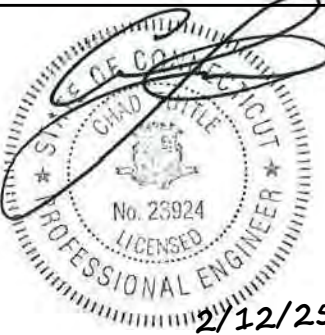
EXISTING MONOPOLE

PROJECT NO: 173127.001.01
CHECKED BY: TDG

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
A	10/16/24	SLS	PRELIMINARY REVIEW
0	11/26/24	SLS	CONSTRUCTION
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MTS ENGINEERING P.L.L.C.
PEC.0002304
Expires 4/11/25



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SHEET NUMBER: REVISION:

T-1

1

173127.001.01.0001_10035021_CT1050.dwg -- Sheet:GN-1 -- User: tim.grove -- Feb 12, 2025 -- 10:01am

PROJECT COMPLIANCE NOTES:

1. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE AND IS NOT FOR HUMAN HABITAT.
(NO HANDICAP ACCESS IS REQUIRED).
2. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH, BY AT&T TECHNICIANS.
3. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS PROPOSAL, UNLESS DURING EMERGENCY.
4. OUTDOOR STORAGE AND SOLID WASTE CONTAINERS ARE NOT PROPOSED.
5. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST AT&T SYSTEM GROUNDING STANDARDS. *TECHNICAL SPECIFICATION FOR CONSTRUCTION OF LTE SITES AND WILL FOLLOW AT&T GROUNDING AND BONDING REQUIREMENTS FOR NETWORK FACILITIES AT&T DOC ID ATT-TP-76416 AND AT&T POLICY LETTER ATT-CEM-13002.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED DURING CONSTRUCTION OPERATION.
7. THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
8. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM DRAWINGS PROVIDED BY THE APPLICANT REPRESENTATIVE. THE CONTRACTOR SHALL NOTIFY TURF VENDOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
9. NO ADDITIONAL PARKING IS PROPOSED. EXISTING ACCESS AND PARKING WILL BE USED.
10. NO ADDITIONAL LANDSCAPING IS PROPOSED AT THIS SITE.
11. ALL COAXIAL CABLE/FIBER AND DC CABLE INSTALLATION IS TO FOLLOW MANUFACTURER’S INSTRUCTION.

GREENFIELD GROUNDING NOTES:

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.

THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.

THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.

METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.

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.

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 SOLID TINNED COPPER FOR OUTDOOR BTS.

CONNECTIONS TO THE GROUND BAR SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BAR ARE PERMITTED.

ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.

ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.

USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.

EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.

ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.

COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.

ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.

APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.

ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.

MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.

BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.

GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS, WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

ELECTRICAL INSTALLATION NOTES:

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

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

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

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

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

EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2” PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR APPROVED EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.

ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH PLASTIC TAPE PER COLOR SCHEDULE. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (I.E. PANEL BOARD AND CIRCUIT ID’S).

PANEL BOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.

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

POWER, CONTROL AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET & DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.

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

POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION WITH OUTER JACKET LISTED OR LABELED FOR THE LOCATION USED UNLESS OTHERWISE SPECIFIED.

ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR APPROVED EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75° C (90° C IF AVAILABLE).

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

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

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

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

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

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

CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.

CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.

WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS; SHALL BE PANDUIT TYPE E (OR APPROVED EQUAL); AND RATED NEMA 1 (OR BETTER).

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

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

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

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

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

INSTALL PLASTIC LABEL ON THE METER CENTER TO SHOW "AT&T WIRELESS".

PROJECT GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:

TURF VENDOR-CONTRACTOR-OWNER-OEM-

GENERAL CONTRACTOR (CONSTRUCTION)AT&TORIGINAL EQUIPMENT MANUFACTURER
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. 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 SCALE 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 TURF VENDOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE CONTRACTOR.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER’S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE TURF VENDOR.
9. CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWINGS.
10. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR’S EXPENSE TO THE SATISFACTION OF OWNER.
11. CONTRACTOR 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. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. CONSTRUCTION SHALL COMPLY WITH AT&T AND MANUFACTURER SPECIFICATIONS.
14. ALL ITEMS REMOVED FROM SERVICE ON SITES THAT HAVE AN AT&T ASSET TAG MUST BE LOGGED BACK IN WITH AT&T.

ABBREVIATIONS AND SYMBOLS:

ABBREVIATIONS:

AGL	ABOVE GRADE LEVEL
BTS	BASE TRANSCEIVER STATION
(E)	EXISTING
MIN.	MINIMUM
N.T.S.	NOT TO SCALE
REF	REFERENCE
RF	RADIO FREQUENCY
T.B.D.	TO BE DETERMINED
T.B.R.	TO BE RESOLVED
TYP	TYPICAL
REQ	REQUIRED
EGR	EQUIPMENT GROUND RING
AWG	AMERICAN WIRE GAUGE
MGB	MASTER GROUND BAR
EG	EQUIPMENT GROUND
BCW	BARE COPPER WIRE
SIAD	SMART INTEGRATED ACCESS DEVICE
GEN	GENERATOR
IGR	INTERIOR GROUND RING (HALO)
RBS	RADIO BASE STATION

SYMBOLS:

	SOLID GROUND BUS BAR
	SOLID NEUTRAL BUS BAR
	SUPPLEMENTAL GROUND CONDUCTOR
	2-POLE THERMAL-MAGNETIC CIRCUIT BREAKER
	SINGLE-POLE THERMAL-MAGNETIC CIRCUIT BREAKER
	CHEMICAL GROUND ROD
	TEST WELL
	DISCONNECT SWITCH
	METER



2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

USID: 71304
FA: 10035021

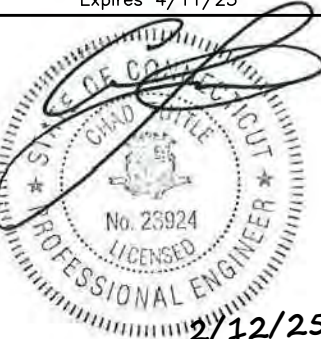
POMFRET-TYRONE
RD

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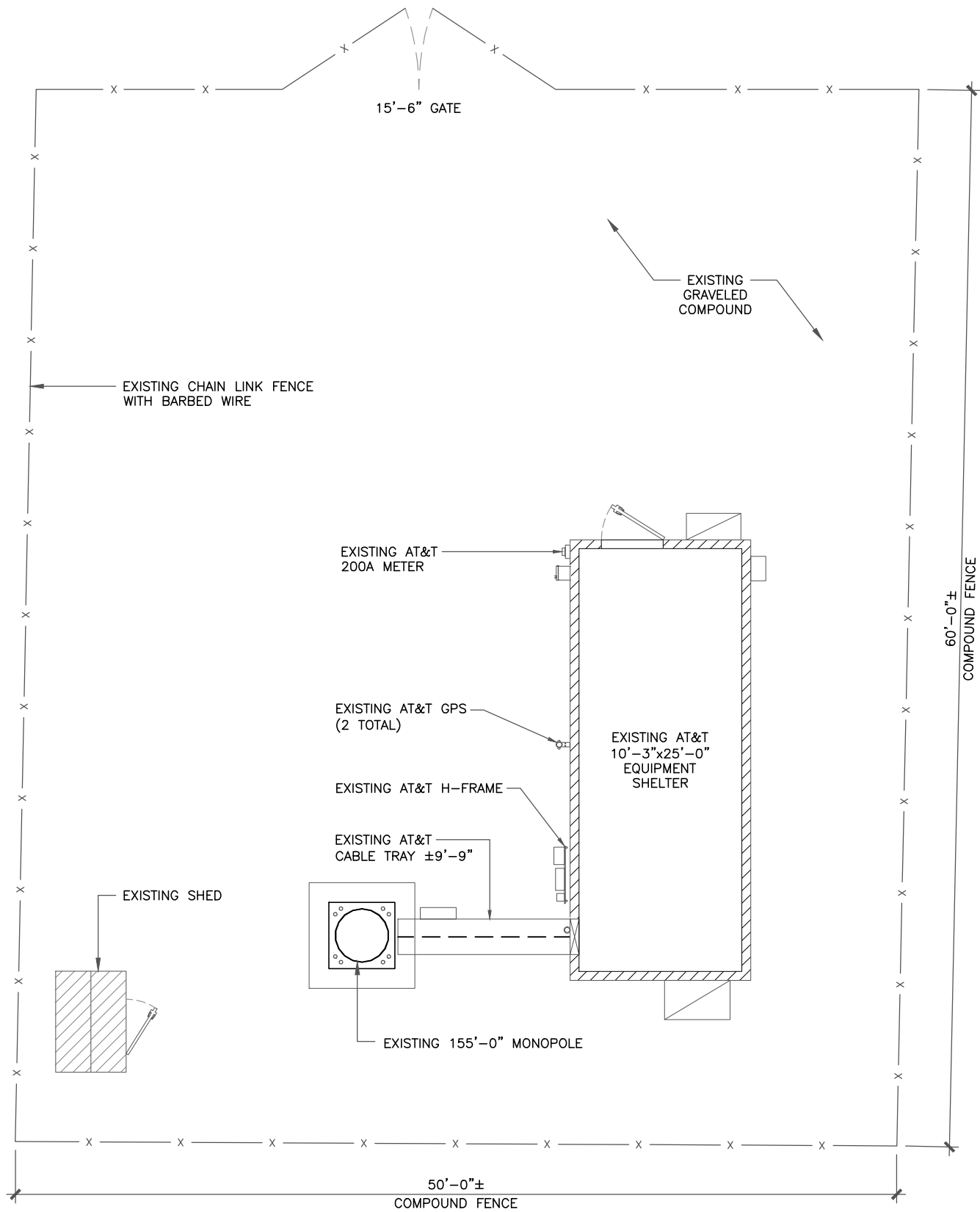
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1. THE SUBCONTRACTOR SHALL GIVE ALL NOTICES AND REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED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



1 OVERALL SITE PLAN
SCALE: 0' 1' 4' 8' 20'



2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

USID: 71304
FA: 10035021
POMFRET-TYRONE RD
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SHEET NUMBER: REVISION:

C-1

1

GROUND SCOPE OF WORK

MONOPOLE, SHELTER

EXISTING ANT AZ - A 22 B 128 C 252
PROPOSED ANT AZ - A 45 B 140 C 260

CIVIL SOW:

- 1. REMOVE ALL EXISTING GMB BATTERIES
 - 2. INSTALL NEW FIF RACK IN AT&T SHELTER
 - 3. INSTALL VERTIV -58V CONVERTER SHELF IN NEW FIF RACK
 - 4. INSTALL (9) -58V CONVERTERS IN NEW CONVERTER SHELF
 - 5. INSTALL (4) -48V RECTIFIERS IN THE EXISTING DCCP
 - 6. INSTALL NEW BATTERY RACK IN AT&T SHELTER
 - 7. INSTALL (20) 190AH BATTERIES IN NEW BATTERY RACK
 - 8. INSTALL (1) 6672 AND (1) 6610 IN FIF RACK
- NID IS -48V



2 ASH STREET, SUITE #3000
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POMFRET, CT 06258

EXISTING MONOPOLE

PROJECT NO: 173127.001.01
CHECKED BY: TDG

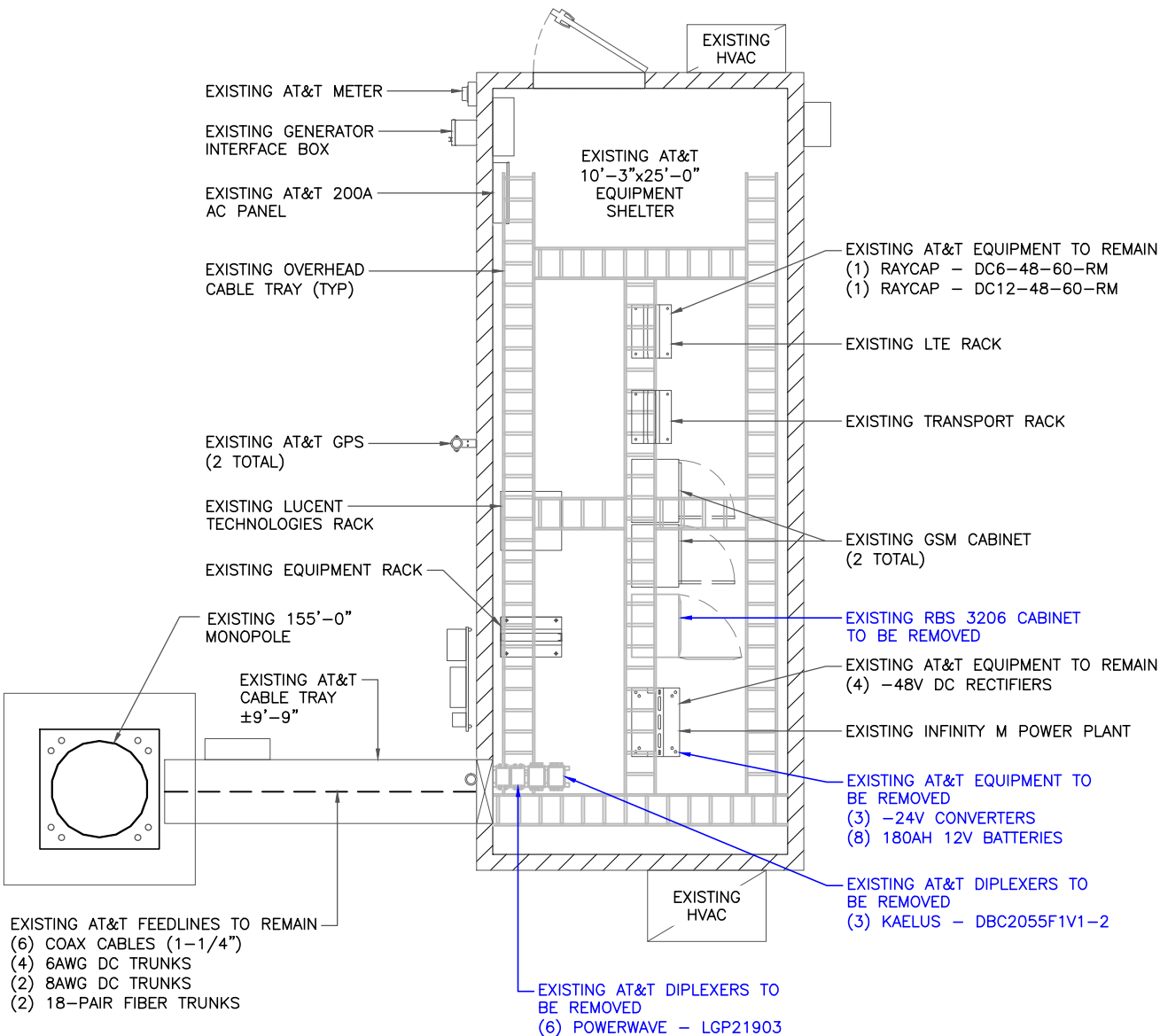
ISSUED FOR:			
REV	DATE	DRWN	DESCRIPTION
A	10/16/24	SLS	PRELIMINARY REVIEW
0	11/26/24	SLS	CONSTRUCTION
1	2/12/25	CLS	CONSTRUCTION

MTS ENGINEERING P.L.L.C.
PEC.0002304
Expires 4/11/25

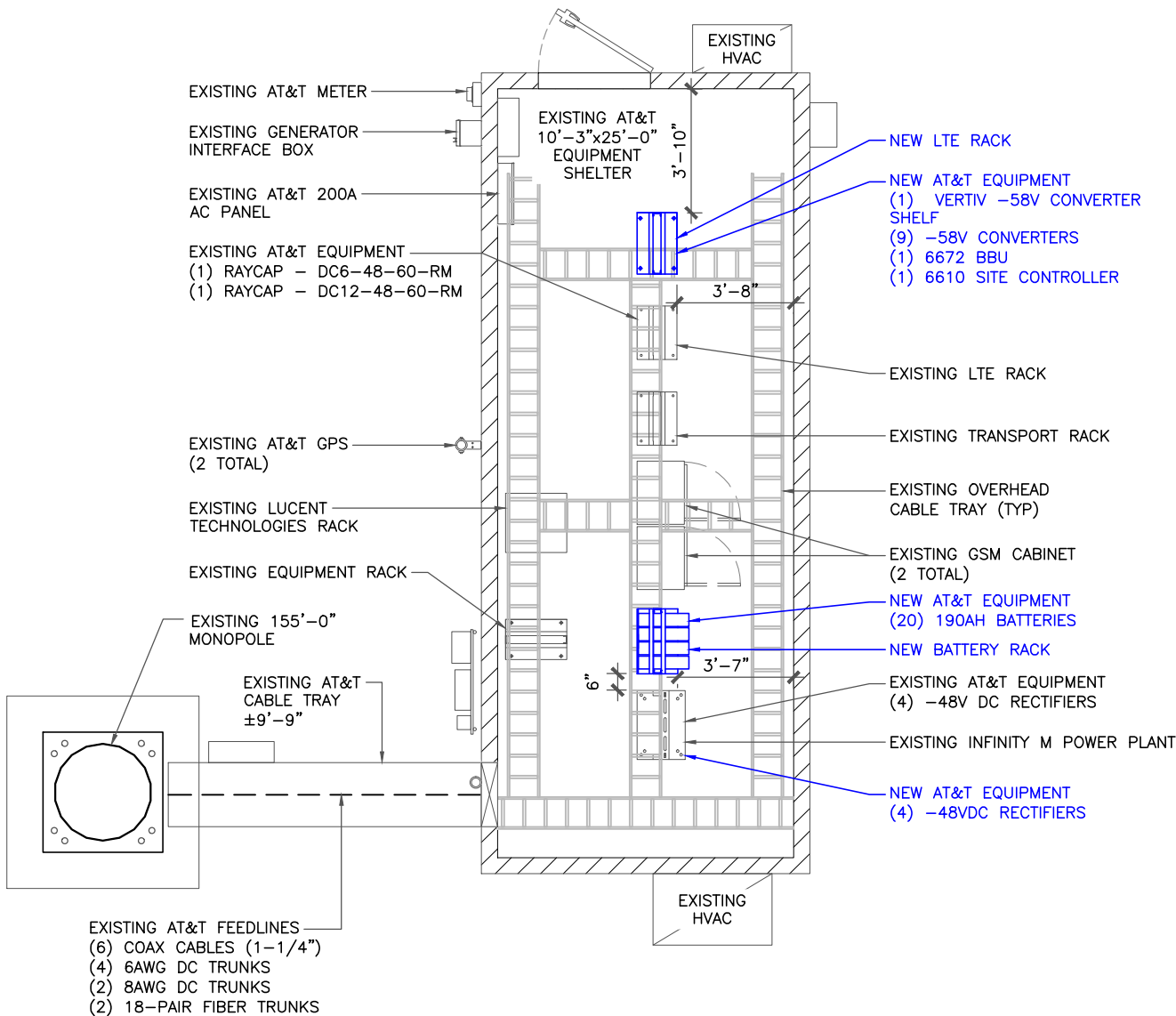


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SHEET NUMBER: C-2
REVISION: 1



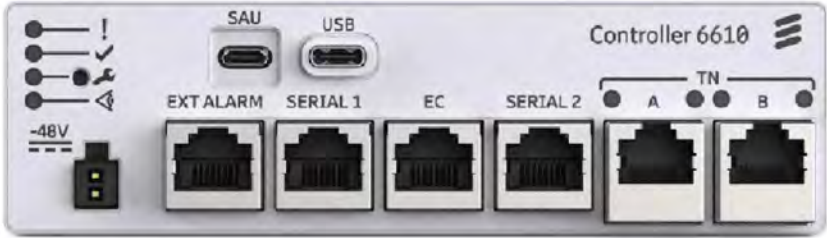
1 EXISTING EQUIPMENT PLAN
SCALE: 0' 1' 4' 8' 16'



2 FINAL EQUIPMENT PLAN
SCALE: 0' 1' 4' 8' 16'

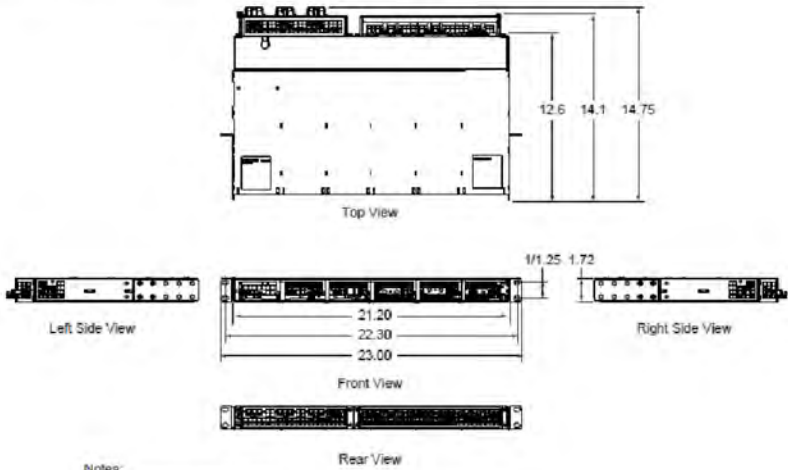


CONTROLLER 6610:
MANUFACTURER: ERICSSON
MODEL NO: CONTROLLER 6610
DIMENSIONS (HxWxD): 1.6"x5.5"x1.26"
WEIGHT: 0.28LBs



1 6610 SITE CONTROLLER
SCALE: N.T.S.

588705300 Module Mounting Assembly (List 03)



- Notes:
1. All dimensions are in inches, unless otherwise specified.
 2. Weight in LBS.
Module Mounting Assembly
Net: 11.7
Rectifier Module
Net: 2.5
Converter Module
Net: 2.3
 3. Finish:
Module Mounting Assembly and Module Bodies:
Bright Zinc Plating
Module Face Plates:
Textured Gray
 4. Front Projection: 9".

2 VERTIV -58V CONVERTER SHELF DETAIL
SCALE: N.T.S.



NE050AC48ATEZ INFINITY RECTIFIER
WEIGHT: 5.05 LBS
SIZE (HxWxD): 1.63x5.23x13.85 IN.

3 RECTIFIER DETAIL
SCALE: N.T.S.



PRODUCT DETAILS	
SPECIFICATIONS	
Chemistry:	Sealed Lead Acid
Nominal Voltage:	12v
Nominal Capacity:	190.0Ah
Terminals:	M6
Dimensions (L x W x H):	22.10 x 4.90 x 12.40
Weight (pounds):	132.3

4 SBS190F 190AH BATTERY DETAIL
SCALE: N.T.S.



VERTIV - C48/58 - 2000P3 eSURE CONVERTER
WEIGHT: 2.49 LBS
SIZE (HxWxD): 1.61x3.33x9.94 IN.

5 CONVERTER DETAIL
SCALE: N.T.S.



6 6672 BBU
SCALE: N.T.S.



2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

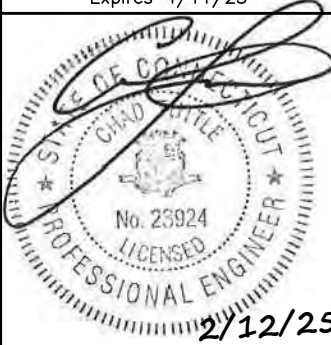
USID: 71304
FA: 10035021
POMFRET-TYRONE
RD
82 TYRONE ROAD
POMFRET, CT 06258
EXISTING MONOPOLE

PROJECT NO: 173127.001.01

CHECKED BY: TDG

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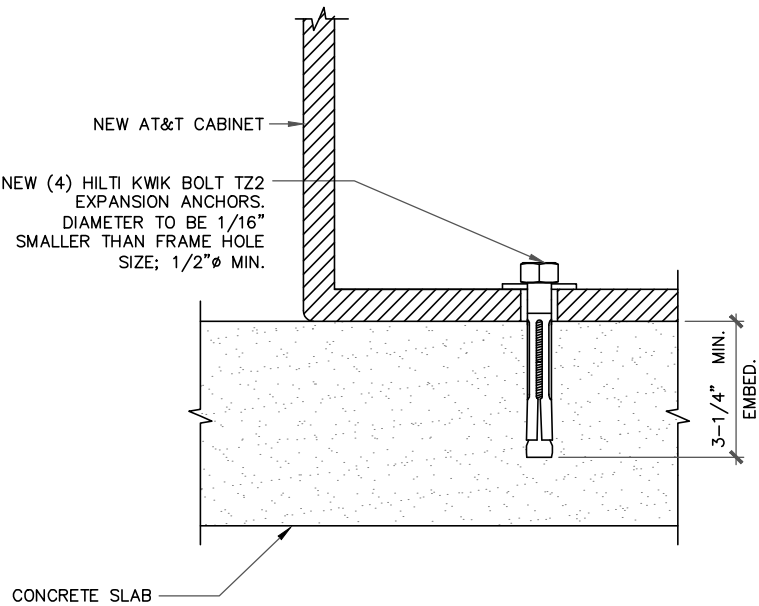
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SHEET NUMBER: REVISION:

C-3

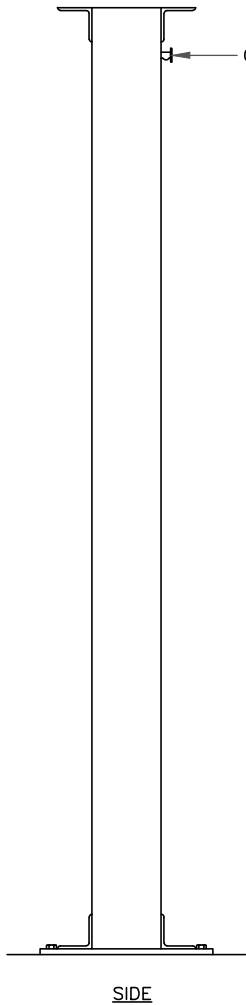
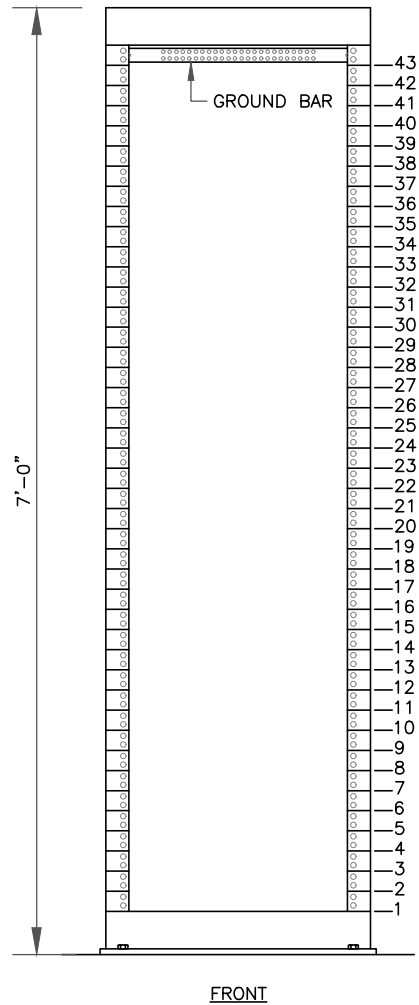
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173127.001.01.0001_10035021_CTI1050.dwg - SheetC-3.1 - User: tim.grove - Feb 12, 2025 - 10:01am

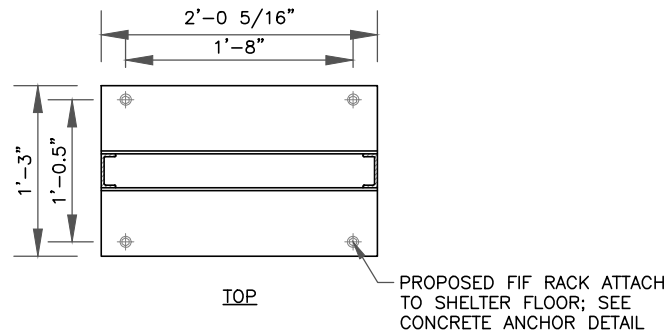


1 CABINET ANCHOR DETAIL
SCALE: N.T.S.

2 NOT USED
SCALE: N.T.S.



3 EQUIPMENT RACK DETAIL
SCALE: N.T.S.



INSTALLER NOTE:

FIF CABINET FRAME SHALL BE GROUNDED TO INTERNAL SHELTER GROUNDING GRID. ALL DEVICES IN FIF ARE TO BE GROUNDED TO RACK INDIVIDUALLY WITH A #6 AWG GROUNDING CONNECTOR. REMOVE PAINT FROM UNDER LUG AS REQUIRED. REFER TO AT&T DOCUMENT TP-76416, LATEST EDITION.



2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

USID: 71304
FA: 10035021
POMFRET-TYRONE RD
82 TYRONE ROAD
POMFRET, CT 06258
EXISTING MONOPOLE

PROJECT NO: 173127.001.01

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MTS ENGINEERING P.L.L.C.
PEC.0002304
Expires 4/11/25



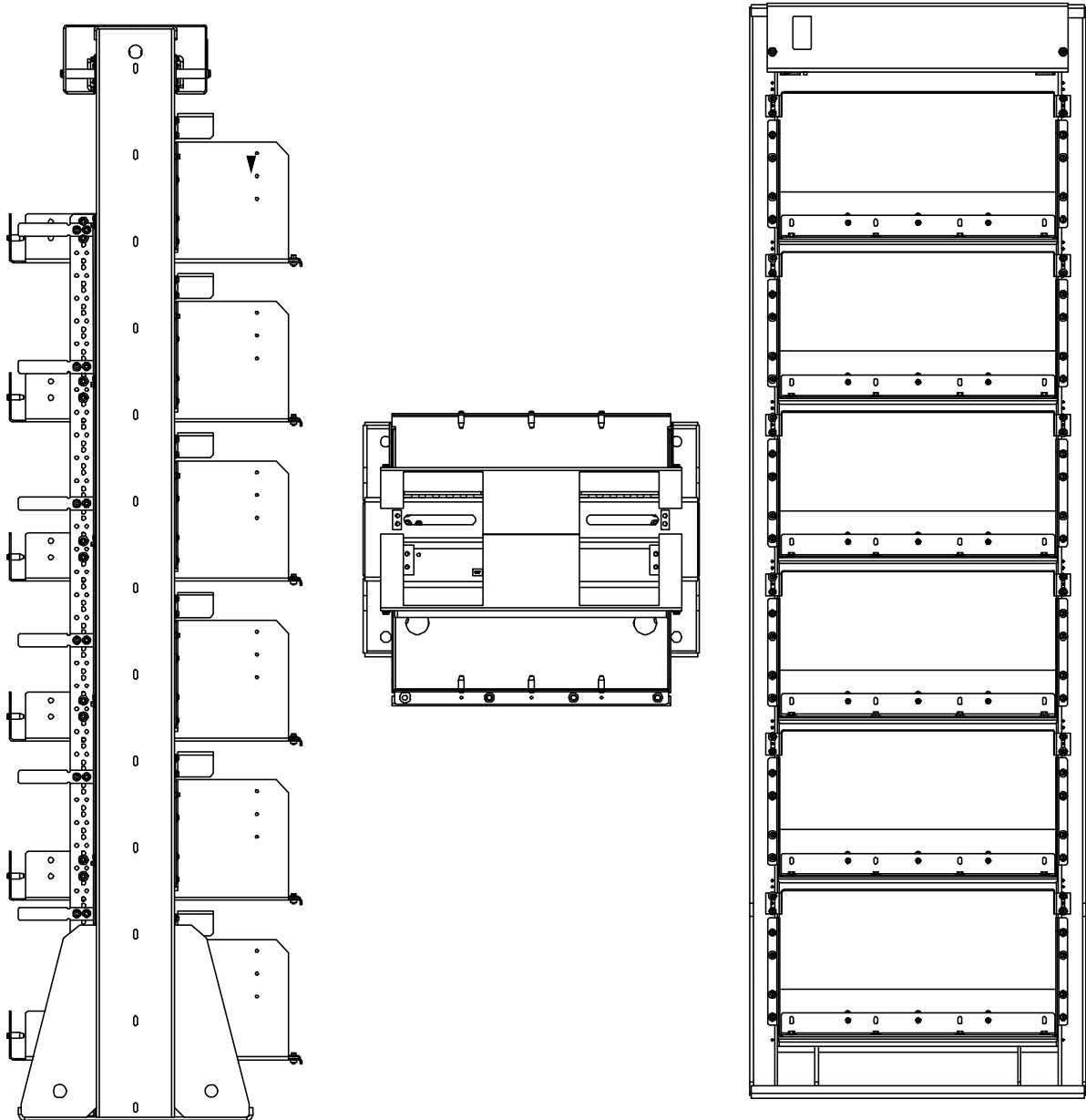
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SHEET NUMBER: C-3.1
REVISION: 1

173127.001.01.0001_10035021_CT1050.dwg - SheetC-3.2 - User: tim.grove - Feb 12, 2025 - 10:01am

1 NOT USED
SCALE: N.T.S.

2 NOT USED
SCALE: N.T.S.



3 INDOOR BATTERY RACK
SCALE: N.T.S.



2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

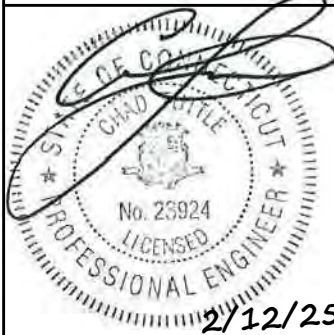
USID: 71304
FA: 10035021
**POMFRET-TYRONE
RD**
82 TYRONE ROAD
POMFRET, CT 06258
EXISTING MONOPOLE

PROJECT NO: 173127.001.01

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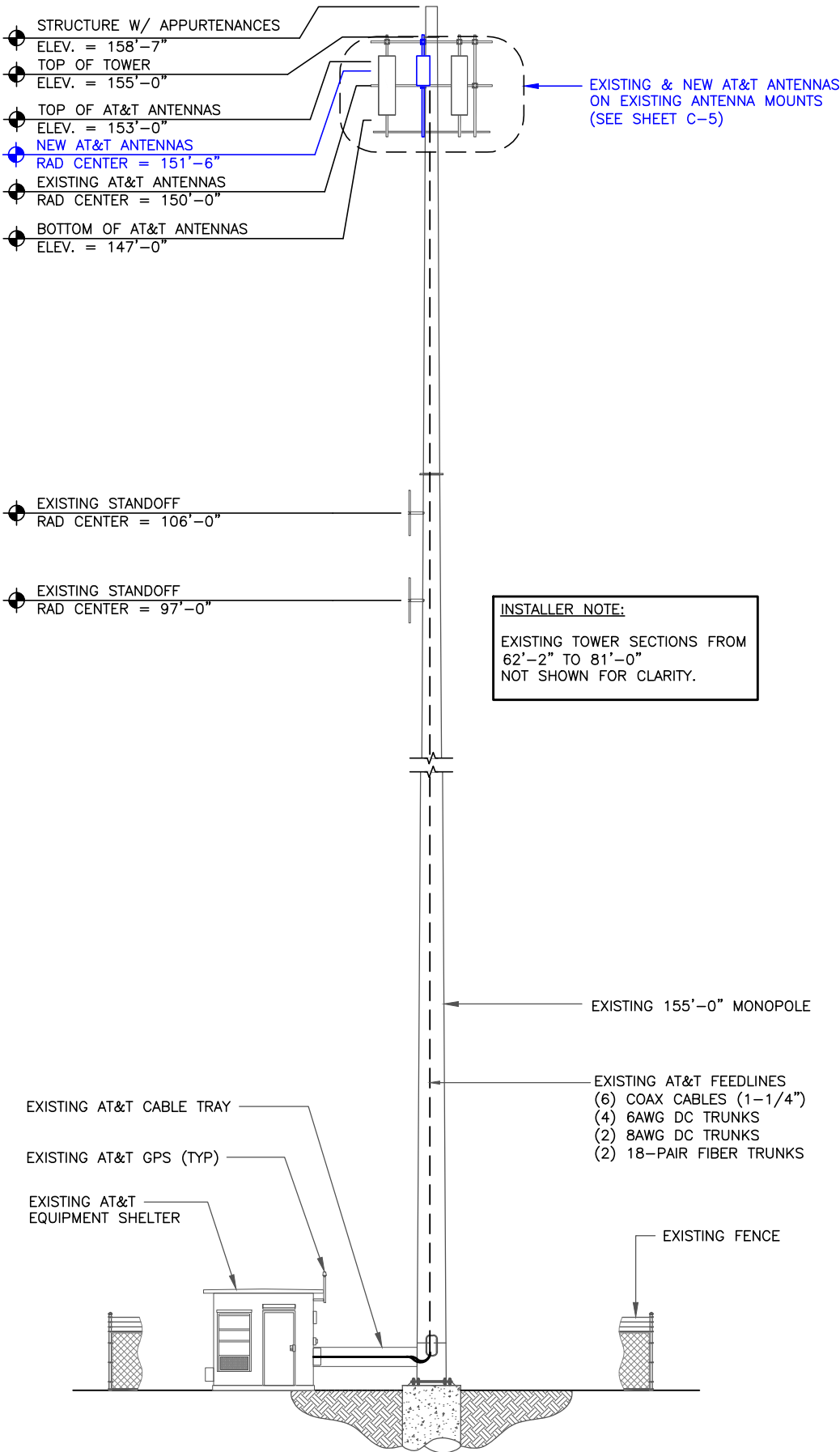
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SHEET NUMBER: C-3.2
REVISION: 1



NOTE:
THESE DRAWINGS ARE NOT INTENDED TO REFLECT THE STRUCTURAL INTEGRITY OF THE TOWER. THE PROPOSED ANTENNAS AND TRANSMISSION LINES SHOWN ARE REPRESENTATIVE IN NATURE AND DO NOT REFLECT THE ACTUAL CONFIGURATIONS REQUIRED. THE CONTRACTOR SHALL REFER TO THE STRUCTURAL ANALYSIS OF THIS TOWER SITE FOR THE APPROVED LOCATION AND CONFIGURATION OF ALL ANTENNAS AND TRANSMISSION LINES. ALL ANTENNAS MUST BE MOUNTED AND THE TRANSMISSION LINES CONFIGURED IN STRICT ACCORDANCE WITH THE STRUCTURAL ANALYSIS.

EXISTING TOWER IS SUFFICIENT PER STRUCTURAL ANALYSIS BY MORRISON HERSHFIELD DATED 1/15/25.

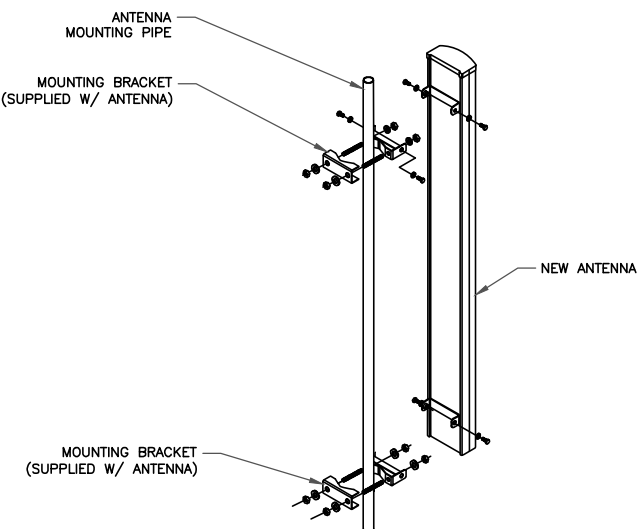
EXISTING MOUNT TO BE MODIFIED PER MOUNT ANALYSIS BY B+T GROUP DATED 11/24/24.

INSTALLER NOTE:
EXISTING TOWER SECTIONS FROM 62'-2" TO 81'-0" NOT SHOWN FOR CLARITY.

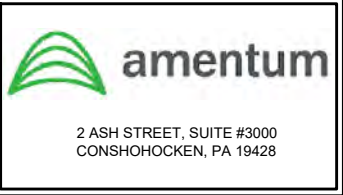
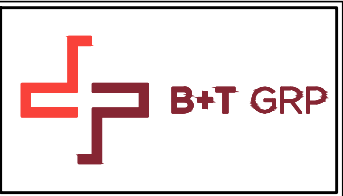
1 TOWER ELEVATION
SCALE: 0' 8' 16' 32' 48'

2 NOT USED
SCALE: N.T.S.

INSTALLER NOTE:
ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



3 ANTENNA MOUNTING DETAIL
SCALE: N.T.S.



USID: 71304
FA: 10035021

POMFRET-TYRONE RD

82 TYRONE ROAD
POMFRET, CT 06258
EXISTING MONOPOLE

PROJECT NO: 173127.001.01
CHECKED BY: TDG

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MTS ENGINEERING P.L.L.C.
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2/12/25

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SHEET NUMBER: C-4
REVISION: 1

TOWER SCOPE OF WORK

MONOPOLE, SHELTER

EXISTING ANT AZ - A 22 B 128 C 252
PROPOSED ANT AZ - A 45 B 140 C 260

INSTALL:

- 1. (3) AIR 6472 B77G/B77M ANTENNAS.
- 2. (3) 4494 B14/B29 RRHs.
- 3. (2) PV-DC-PTPC-2025-12 PIPE TO PIPE STANDOFFS W/ (1) 2.5" STD. X 10'-0" LONG MOUNT PIPE ON A3.
- 4. (2) PV-DC-PTPC-2020-24 PIPE TO PIPE STANDOFFS W/ (1) 2" STD. X 10'-0" LONG MOUNT PIPE ON A2.
- 5. (6) 2" STD X 10'-0" LONG EQUIPMENT PIPES W/ BBPM-K1 DUAL PIPE ATTACHMENT KITS.
- 6. (2) 2.5" STD. X 10'-6" LONG MOUNT PIPE W/ XP-R CROSSOVER PLATES ON B3/C3.
- 7. ROTATE MOUNT TO ELMINATE SKEW IN BETA AND GAMMA SECTORS.



2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

POMFRET-TYRONE

RD

82 TYRONE ROAD
POMFRET, CT 06258

EXISTING MONOPOLE

USID: 71304
FA: 10035021

PROJECT NO: 173127.001.01

CHECKED BY: TDG

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MTS ENGINEERING P.L.L.C.
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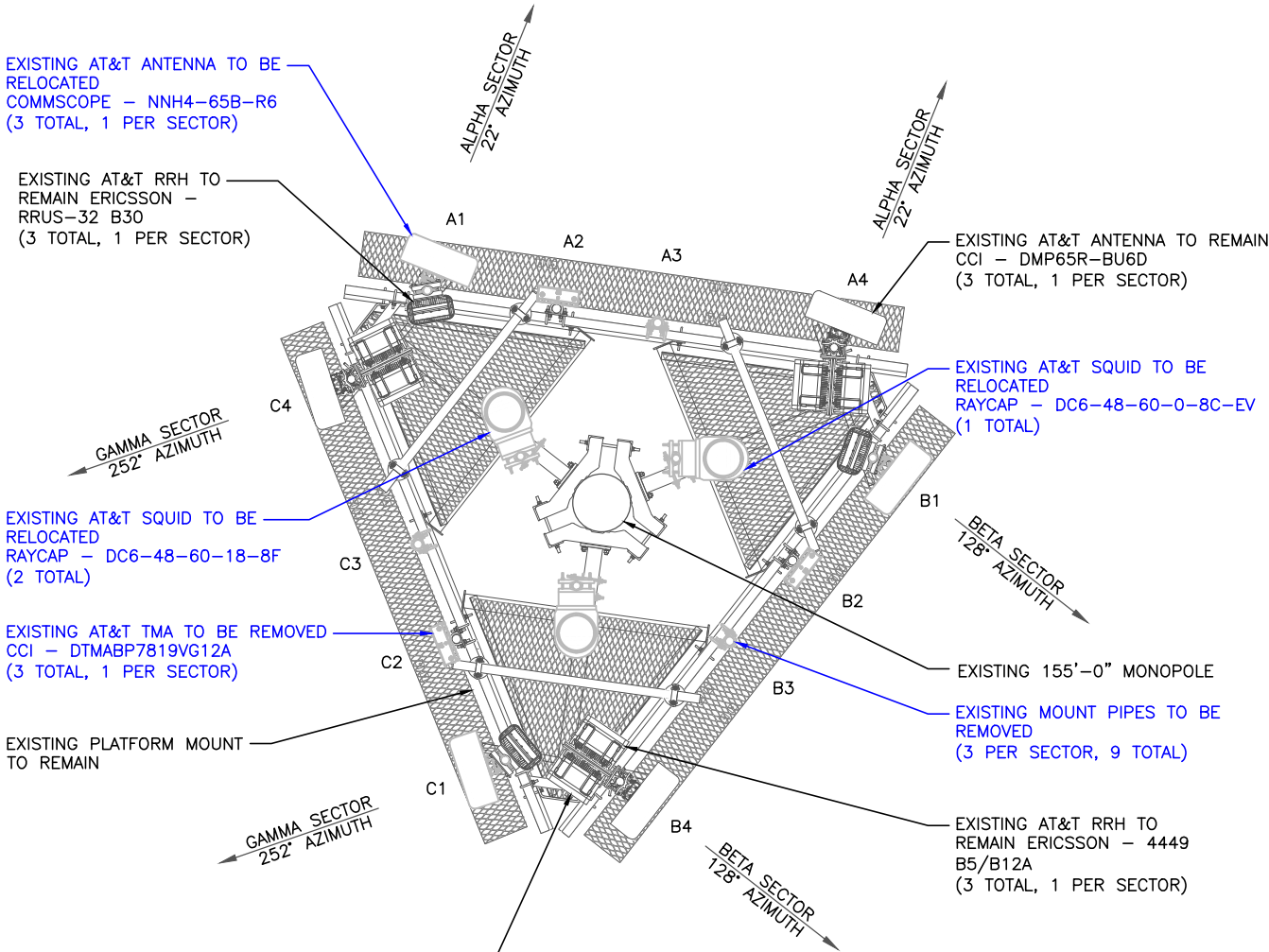
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SHEET NUMBER:

C-5

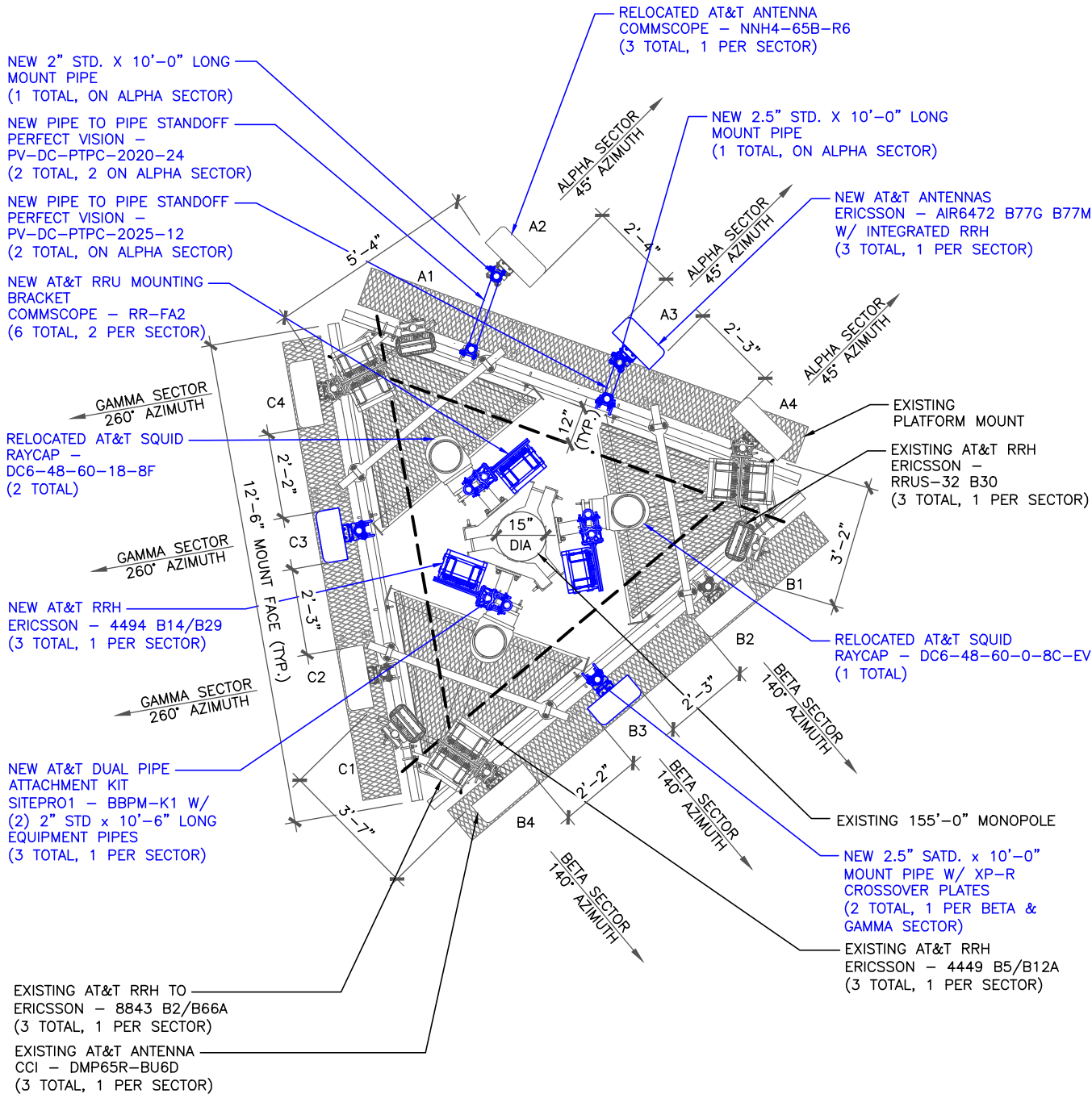
REVISION:

1



1 EXISTING ANTENNA PLAN

SCALE: 0' 1' 2' 4' 10'



2 FINAL ANTENNA PLAN

SCALE: 0' 1' 2' 4' 10'



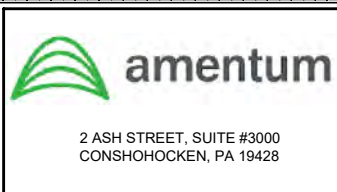
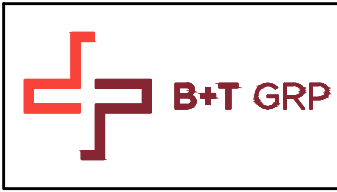
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SECTOR	ANTENNA POSITION	TECHNOLOGY	ANTENNA VENDOR	ANTENNA MODEL	AZIMUTH	RAD CENTER	RRH (QTY) MODEL	SURGE PROTECTION W/ (QTY) FIBER (QTY) DC	FEEDER LENGTH
ALPHA	A1	—	—	—	—	—	—	(1) DC6-48-60-0-8C-EV (1) 18-PAIR FIBER (1) 8AWG DC (1) 6AWG DC	185'-0"
	A2	LTE	COMMSCOPE	NNH4-65B-R6 (72"x19.6"x7.8")	45°	150'-0"	(1) 8843 B2/B66A (17.91"x13.38"x11.41") (1) 4494 B14/B29 (17.48"x15.12"x5.63")		
	A3	CBAND	ERICSSON	AIR6472 B77G B77M (36.42"x16.14"x7.48")	45°	151'-6"	INTEGRATED WITHIN		
	A4	LTE	CCI	DMP65R-BU6D (71.2"x20.7"x7.7")	45°	150'-0"	(1) RRUS-32 B30 (27.2"x12.1"x7.0") (1) 4449 B5/B12A (17.9"x13.19"x9.44")		
BETA	B1	—	—	—	—	—	—	(1) DC6-48-60-18-8F (1) 18-PAIR FIBER (1) 8AWG DC (1) 6AWG DC	185'-0"
	B2	LTE	COMMSCOPE	NNH4-65B-R6 (72"x19.6"x7.8")	140°	150'-0"	(1) 8843 B2/B66A (17.91"x13.38"x11.41") (1) 4494 B14/B29 (17.48"x15.12"x5.63")		
	B3	CBAND	ERICSSON	AIR6472 B77G B77M (36.42"x16.14"x7.48")	140°	151'-6"	INTEGRATED WITHIN		
	B4	LTE	CCI	DMP65R-BU6D (71.2"x20.7"x7.7")	140°	150'-0"	(1) RRUS-32 B30 (27.2"x12.1"x7.0") (1) 4449 B5/B12A (17.9"x13.19"x9.44")		
GAMMA	C1	—	—	—	—	—	—	(1) DC6-48-60-18-8F (2) 6AWG DC	185'-0"
	C2	LTE	COMMSCOPE	NNH4-65B-R6 (72"x19.6"x7.8")	260°	150'-0"	(1) 8843 B2/B66A (17.91"x13.38"x11.41") (1) 4494 B14/B29 (17.48"x15.12"x5.63")		
	C3	CBAND	ERICSSON	AIR6472 B77G B77M (36.42"x16.14"x7.48")	260°	151'-6"	INTEGRATED WITHIN		
	C4	LTE	CCI	DMP65R-BU6D (71.2"x20.7"x7.7")	260°	150'-0"	(1) RRUS-32 B30 (27.2"x12.1"x7.0") (1) 4449 B5/B12A (17.9"x13.19"x9.44")		

NOTES:

1. VERIFY ANTENNA DIMENSIONS WITH MANUFACTURER.
2. VERIFY FINAL ANTENNA MODEL WITH CURRENT VERSION OF THE AT&T RFDS.
3. ALL FEEDLINE LENGTHS SHALL BE FIELD VERIFIED PRIOR TO INSTALLATION.
4. BLUE DENOTES NEW EQUIPMENT.

UNUSED FEEDLINES		
(QTY) TYPE	SIZE	LENGTH
(6) COAX	1-1/4"	200'-0"



2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

USID: 71304
FA: 10035021

POMFRET-TYRONE
RD

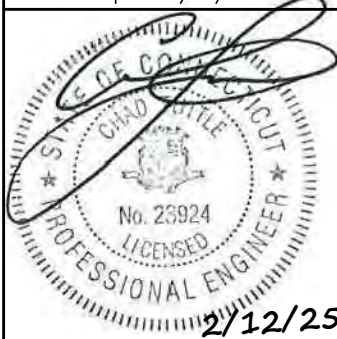
82 TYRONE ROAD
POMFRET, CT 06258
EXISTING MONOPOLE

PROJECT NO: 173127.001.01

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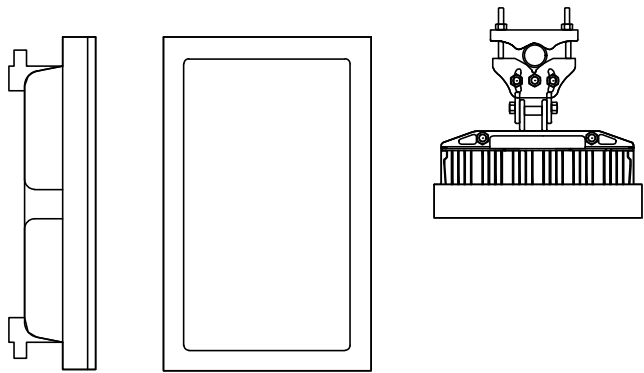


2/12/25

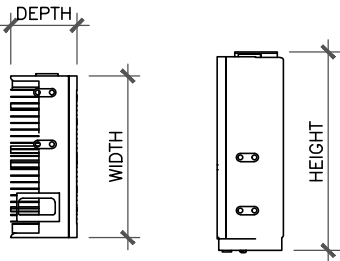
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C-6

REVISION:
1



ERICSSON – AIR6472 B77G B77M
WEIGHT: 92.61 LBS
SIZE (HxWxD): 36.42x16.14x7.48 IN.



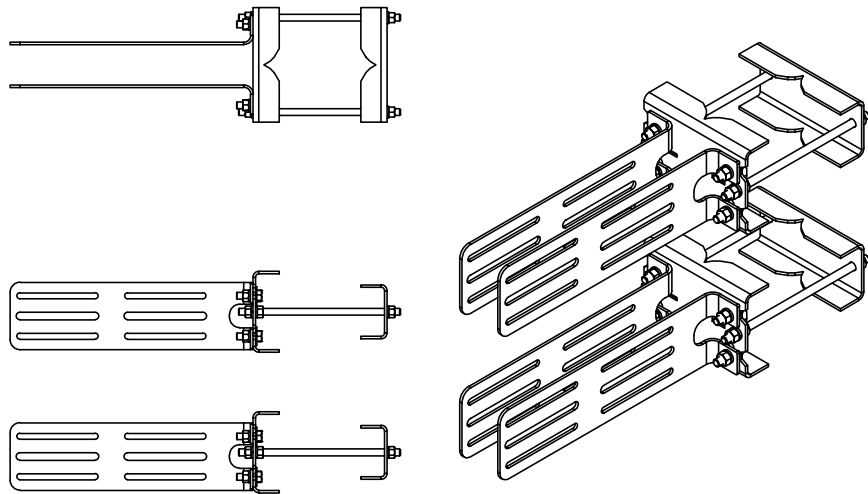
ERICSSON – RADIO 4494 B14/B29
WEIGHT: 57.33 LBS
SIZE (HxWxD): 17.48x15.12x5.63 IN.

1 ANTENNA DETAIL
SCALE: N.T.S.

2 RRH DETAIL
SCALE: N.T.S.

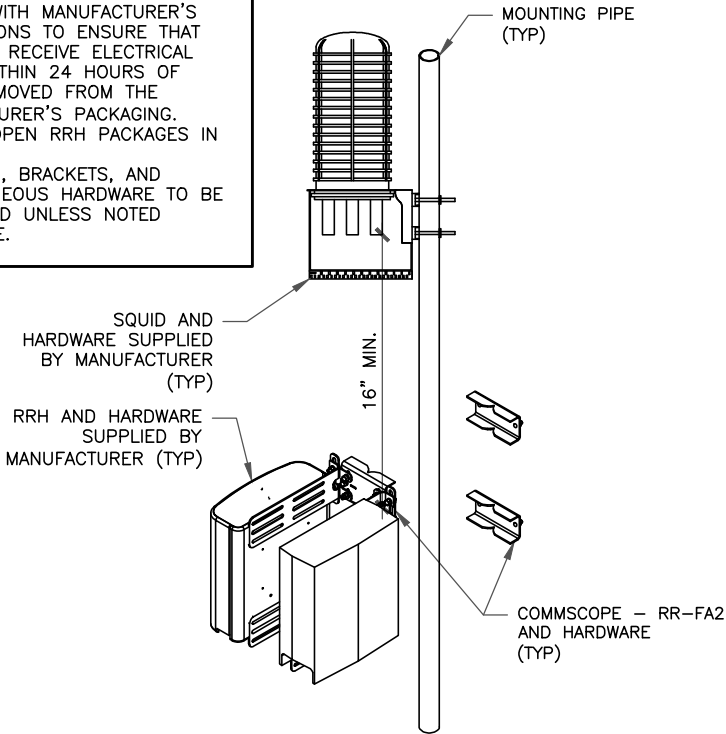
- MOUNTING NOTES:**
- REFER TO PRODUCT SPECS FOR BOLT SIZE & PIPE DIAMETER TOLERANCES.
 - THE PART NO. RR-FA2 (OR APPROVED EQUAL) IS REQUIRED FOR (2) RRHs.

- INSTALLER NOTES:**
- COMPLY WITH MANUFACTURER'S INSTRUCTIONS TO ENSURE THAT ALL RRHs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
 - DO NOT OPEN RRH PACKAGES IN THE RAIN.
 - ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



COMMSCOPE – RR-FA2
FAST ACCESS DUAL RRH MOUNT

3 DUAL RRH MOUNT BRACKET DETAIL
SCALE: N.T.S.



4 DUAL RRH AND SQUID MOUNTING DETAIL
SCALE: N.T.S.

5 NOT USED
SCALE: N.T.S.



2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

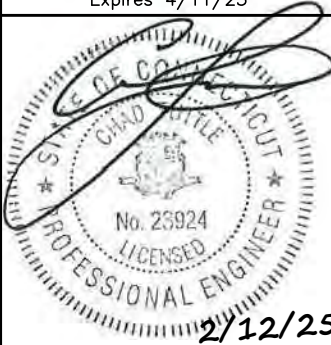
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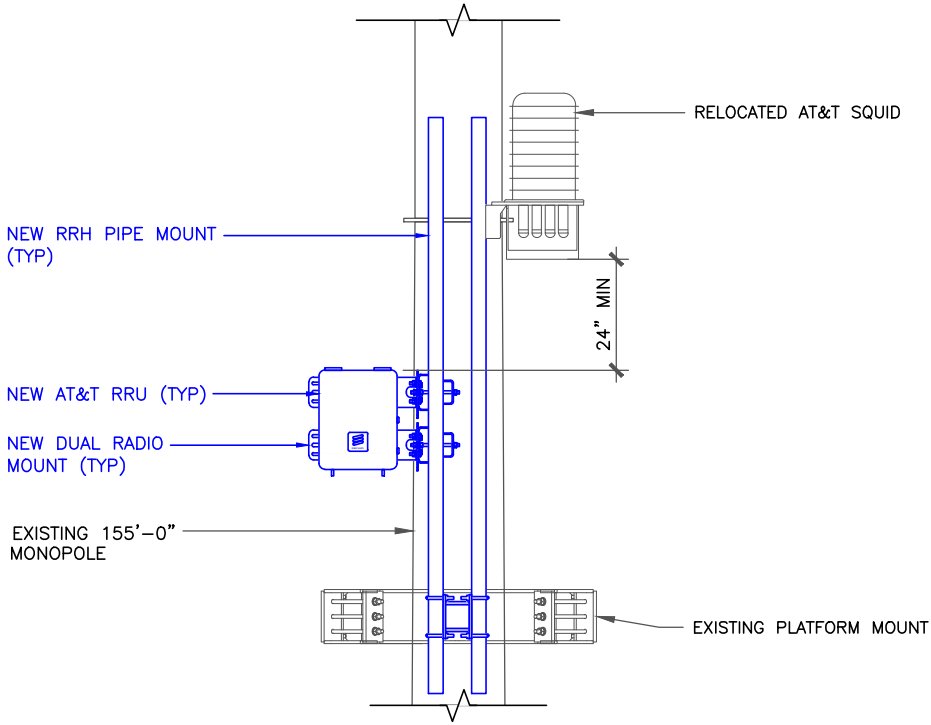
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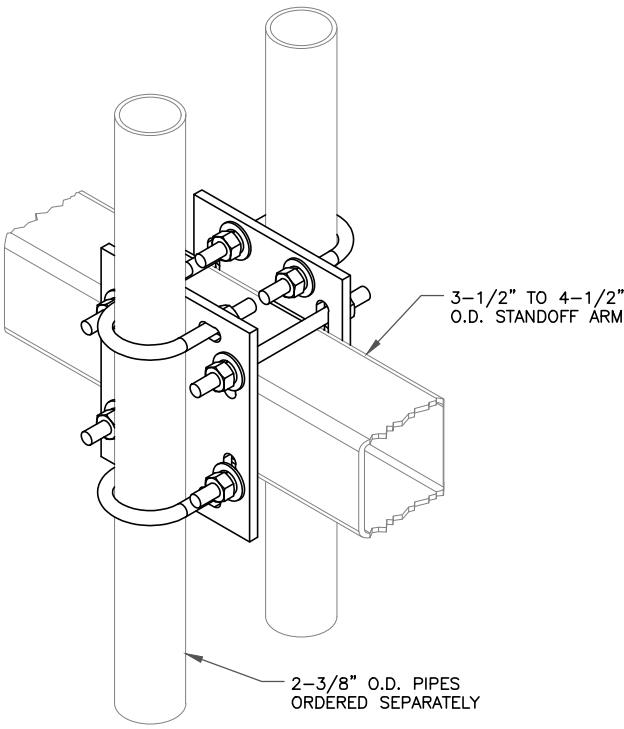
C-7

REVISION:

1



1 VERTICAL RRH & SQUID PLACEMENT DETAIL
SCALE: N.T.S.



2 SITEPRO1 - BBPM-K1
SCALE: N.T.S.



2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

USID: 71304
FA: 10035021

**POMFRET-TYRONE
RD**

82 TYRONE ROAD
POMFRET, CT 06258

EXISTING MONOPOLE

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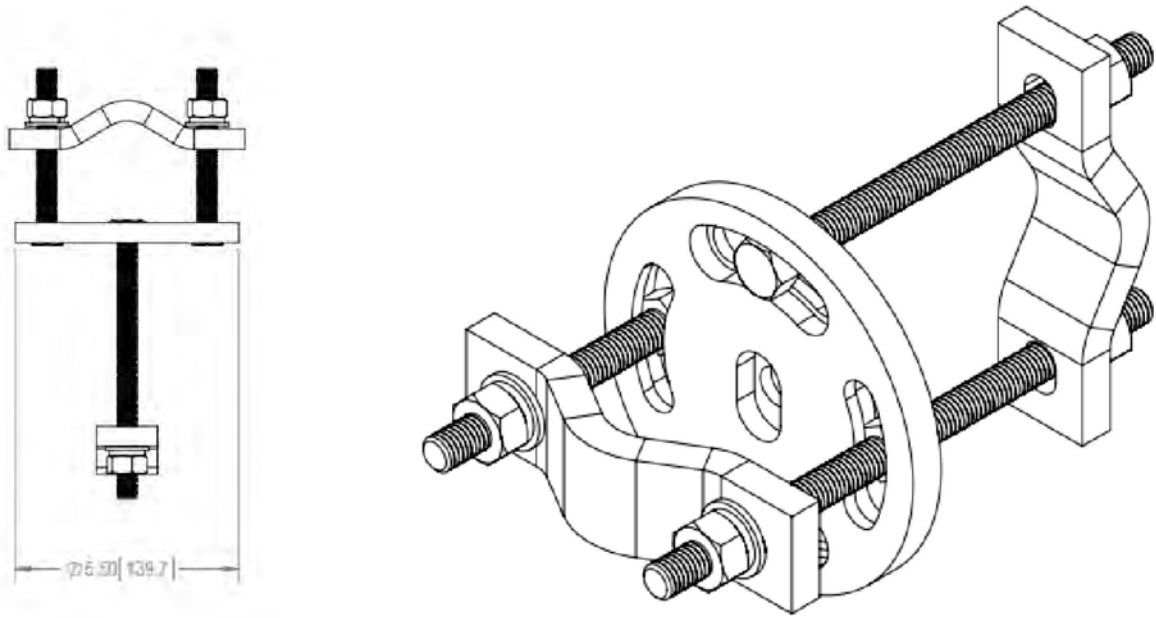
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SHEET NUMBER: C-7.1	REVISION: 1
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3 NOT USED
SCALE: N.T.S.

4 NOT USED
SCALE: N.T.S.

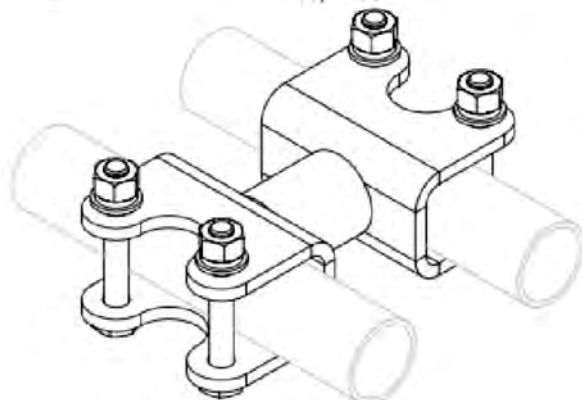
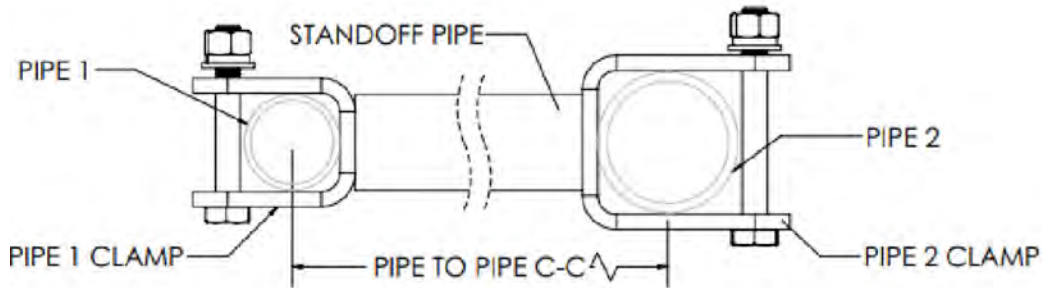
ITEM	PART NO.	DESCRIPTION	QTY.	WEIGHT	NOTE NO.
1	PCC4.01	PUCK CROSSOVER CLAMP, 4"	1	2.20 LBS	
2	SCP10	SMALL DISH CLAMP HALF	2	1.20 LBS	
3	GWFO4A	1/2" GALV FLAT WASHER (A325)	4	0.02 LBS	
4	GN-04A	1/2" GALV HEX NUT (A194 2H)	4	0.07 LBS	
5	GWL-04	1/2" GALV LOCK WASHER	4	0.01 LBS	
6	GB04405FT	1/2-13 UNC X 4" GALV FULL THREAD HEX BOLT (GRADE 5)	2	0.24 LBS	
7	GB04645FT	1/2-13 UNC X 6 1/2" GALV FULL THREAD HEX BOLT (GRADE 5)	2	0.36 LBS	



1 COMMSCOPE XP-R CROSSOVER PLATE
SCALE: N.T.S.

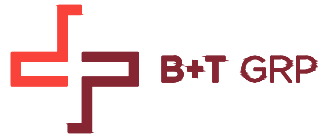
Table 1: Crossover Pipe to Pipe Connection Configurations								
Part Number	CONMAT	Weight	Pipe to Pipe C-C	Pipe 1 Diameter	Pipe 2 Diameter	Pipe 1 Bolt Size	Pipe 2 Bolt Size	Standoff Pipe Diameter
		lbs	in	in	in	in	in	in
PV-DC-PTPC-2020-6	ANT.58412	13.0	6	Ø 2.375	Ø 2.375	Ø 5/8 x 4-1/2	Ø 5/8 x 4-1/2	Ø 2.375 (NPS 2 SCH40)
PV-DC-PTPC-2020-12	ANT.58415	14.8	12					
PV-DC-PTPC-2020-18	ANT.58414	16.6	18					
PV-DC-PTPC-2020-24	ANT.58413	18.5	24					
PV-DC-PTPC-2025-6	ANT.58411	13.8	6					
PV-DC-PTPC-2025-12	ANT.58409	15.7	12					
PV-DC-PTPC-2025-18	ANT.58410	17.5	18	Ø 2.875	Ø 2.875	Ø 5/8 x 4-1/2	Ø 5/8 x 5	Ø 2.875 (NPS 2-1/2 SCH40)
PV-DC-PTPC-2025-24	ANT.58408	19.3	24					
PV-DC-PTPC-2030-6	ANT.58405	15.0	6					
PV-DC-PTPC-2030-12	ANT.58404	19.1	12					
PV-DC-PTPC-2030-18	ANT.58407	18.6	18					
PV-DC-PTPC-2030-24	ANT.58403	20.4	24					
PV-DC-PTPC-2525-6	ANT.58406	15.2	6	Ø 2.875	Ø 2.875	Ø 5/8 x 5	Ø 5/8 x 5	Ø 2.875 (NPS 2-1/2 SCH40)
PV-DC-PTPC-2525-12	ANT.58401	18.0	12					
PV-DC-PTPC-2525-18	ANT.58402	21.0	18					
PV-DC-PTPC-2525-24	ANT.58398	23.9	24					
PV-DC-PTPC-2530-6	ANT.58400	16.2	6					
PV-DC-PTPC-2530-12	ANT.58399	19.1	12					
PV-DC-PTPC-2530-18	ANT.58395	18.6	18	Ø 3.5	Ø 3.5	Ø 5/8 x 5-1/2	Ø 5/8 x 5-1/2	Ø 3.5 (NPS 3 SCH40)
PV-DC-PTPC-2530-24	ANT.58396	25.0	24					
PV-DC-PTPC-3030-6	ANT.58397	17.5	6					
PV-DC-PTPC-3030-12	ANT.58394	21.3	12					
PV-DC-PTPC-3030-18	ANT.58392	25.1	18					
PV-DC-PTPC-3030-24	ANT.58393	28.9	24					
PV-DC-PTPC-3040-6	-	19.1	6	Ø 4.5	Ø 5/8 x 5-1/2	Ø 5/8 x 5-1/2	Ø 5/8 x 6-1/2	Ø 4.5 (NPS 3 SCH40)
PV-DC-PTPC-3040-12	-	23.0	12					
PV-DC-PTPC-3040-18	-	26.7	18					
PV-DC-PTPC-3040-24	-	30.5	24					

PERFECT VISION.



PV-DC-PTPC-####-##
DUALCROSS - PIPE TO PIPE CONNECTION

2 PERFECT VISION - PIPE TO PIPE CONNECTION
SCALE: N.T.S.



2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

USID: 71304
FA: 10035021
POMFRET-TYRONE RD
82 TYRONE ROAD
POMFRET, CT 06258
EXISTING MONOPOLE

PROJECT NO: 173127.001.01

CHECKED BY: TDG

ISSUED FOR:			
REV	DATE	DRWN	DESCRIPTION
A	10/16/24	SLS	PRELIMINARY REVIEW
0	11/26/24	SLS	CONSTRUCTION
1	2/12/25	CLS	CONSTRUCTION

MTS ENGINEERING P.L.L.C.
PEC.0002304
Expires 4/11/25

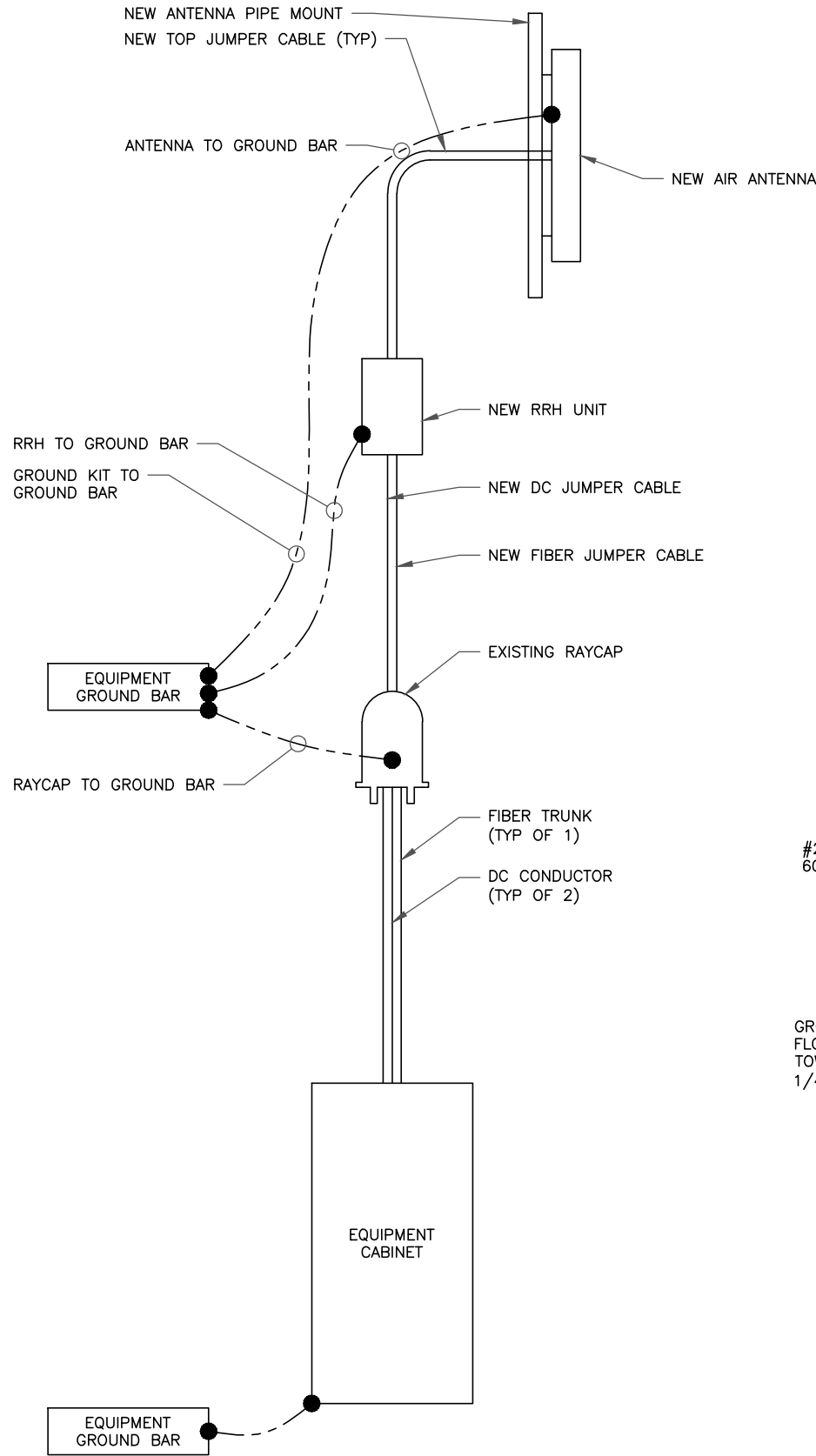


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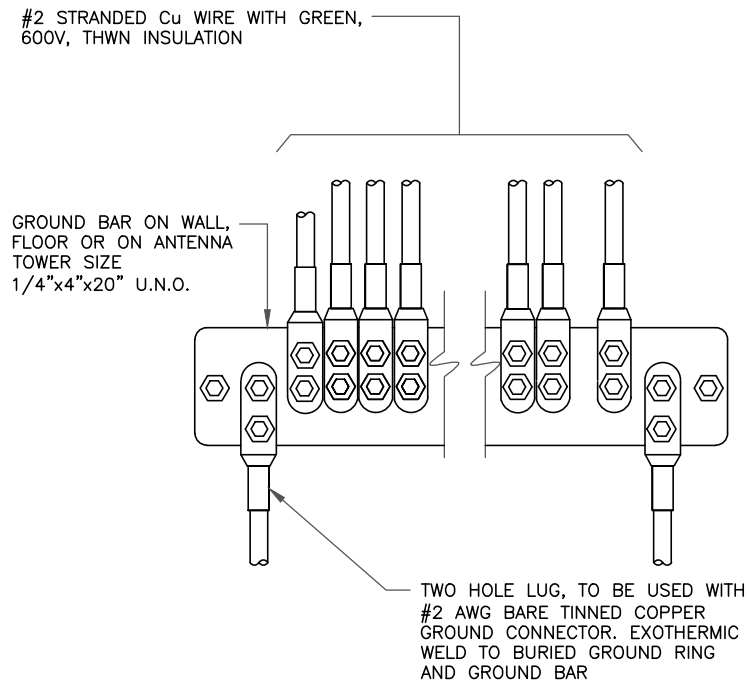
SHEET NUMBER: REVISION:

C-7.2 1

173127.001.01.0001_10035021_CTI1050.dwg - SheetG-1 - User: tim.grove - Feb 12, 2025 - 10:01am



1 GROUNDING SCHEMATIC
SCALE: N.T.S.



2 INSTALLATION OF GROUND WIRE TO GROUND BAR
SCALE: N.T.S.



2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

USID: 71304
FA: 10035021
POMFRET-TYRONE RD
82 TYRONE ROAD
POMFRET, CT 06258
EXISTING MONOPOLE

PROJECT NO: 173127.001.01
CHECKED BY: TDG

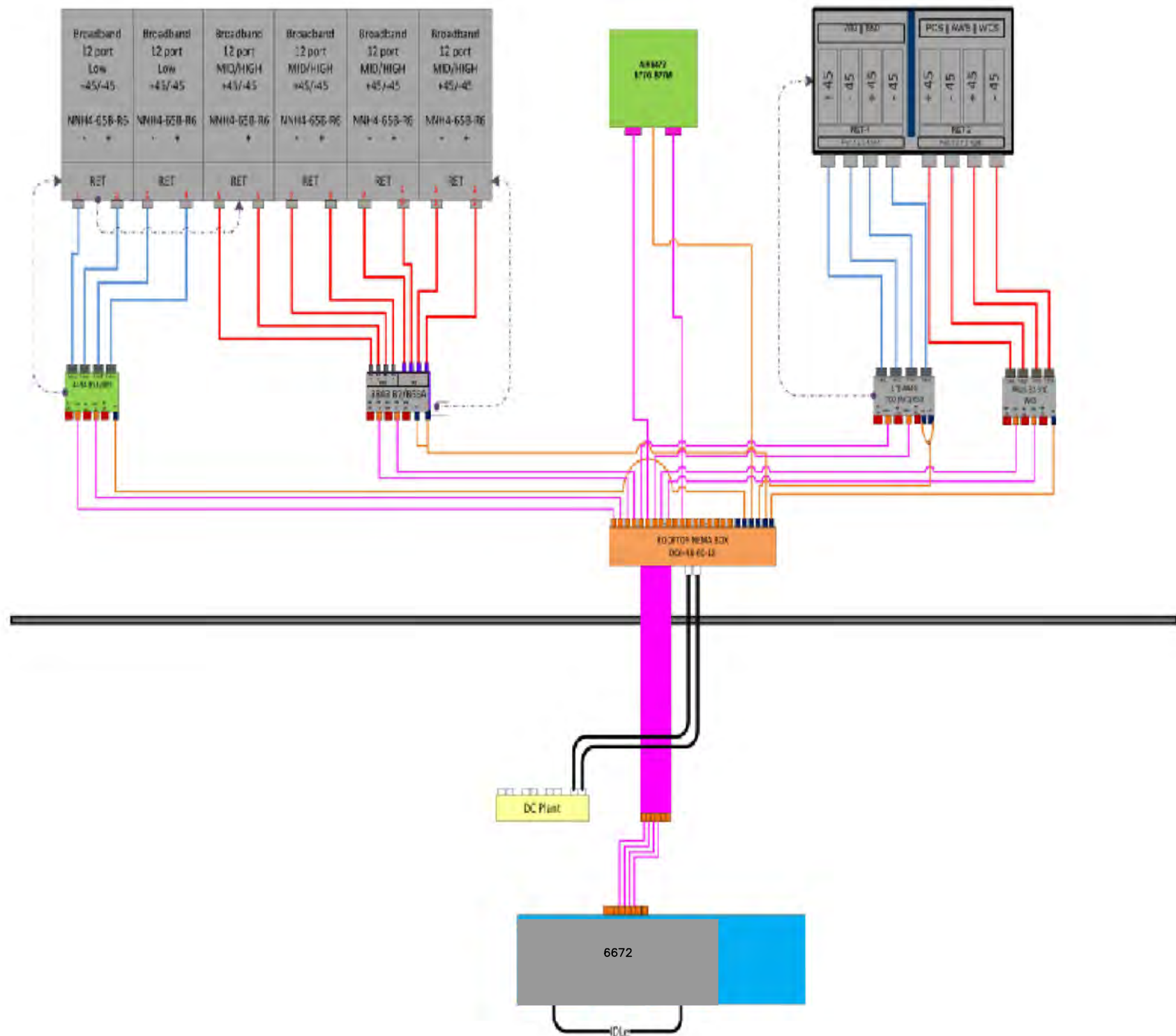
ISSUED FOR:			
REV	DATE	DRWN	DESCRIPTION
A	10/16/24	SLS	PRELIMINARY REVIEW
0	11/26/24	SLS	CONSTRUCTION
1	2/12/25	CLS	CONSTRUCTION

MTS ENGINEERING P.L.L.C.
PEC.0002304
Expires 4/11/25

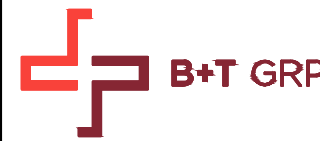


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SHEET NUMBER: **G-1**
REVISION: **1**



1 PLUMBING DIAGRAM (ALL SECTORS)
SCALE: N.T.S.



2 ASH STREET, SUITE #3000
CONSHOHOCKEN, PA 19428

USID: 71304
FA: 10035021
POMFRET-TYRONE
RD
82 TYRONE ROAD
POMFRET, CT 06258
EXISTING MONOPOLE

PROJECT NO: 173127.001.01

CHECKED BY: TDG

ISSUED FOR:			
REV	DATE	DRWN	DESCRIPTION
A	10/16/24	SLS	PRELIMINARY REVIEW
0	11/26/24	SLS	CONSTRUCTION
1	2/12/25	CLS	CONSTRUCTION

MTS ENGINEERING P.L.L.C.
PEC.0002304
Expires 4/11/25



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SHEET NUMBER: REVISION:

RF-1 1

Date: **January 15, 2025**



Morrison Hershfield
1455 Lincoln Parkway, Suite 500
Atlanta, GA 34046
(770) 379-8500

Subject: **Structural Analysis Report**

Carrier Designation: **AT&T Mobility Co-Locate**
Site Number: CT1050
Site Name: Pomfret-Tyrone Rd
FA Number: 10035021

Crown Castle Designation: **BU Number:** 841292
Site Name: Pomfret-Tyrone Rd
JDE Job Number: 2137118
Work Order Number: 2355917
Order Number: 691491 Rev. 0

Engineering Firm Designation: **Morrison Hershfield Project Number:** CN14-506 / 2400001

Site Data: **82 Tyrone Road, Pomfret, Windham County, CT 06258**
Latitude 41° 53' 24.93", Longitude -71° 57' 20.23"
150 Foot - Monopole Tower

Morrison Hershfield is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above-mentioned tower.

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:

LC5: Proposed Equipment Configuration

Sufficient Capacity – 95.4%

This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2022 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Respectfully submitted by:

G. Lance Cooke, P.E. (CT License No. PEN.0028133)
Senior Engineer



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1) INTRODUCTION

This tower is a 150 monopole tower, and the original drawings are not available. A tower mapping was performed by Autoplex Cellular Telecommunications Systems in April of 1984. The tower geometry and member sizes have been obtained from the above mentioned report and are considered to be accurate.

The tower was modified per reinforcement drawings prepared by GPD Group in October of 2013. Reinforcement consisted of installation of bridge plate stiffeners at 110, installation of anchor rod brackets, installation of foundation collar and installation of flat plate reinforcement from 0' to 30.75', 28.5' to 58.5', 56.25' to 74.25', 72' to 91.75', 90' to 109.75' and from 110.25' to 130.25'. Per the post modification inspection completed by Hudson Design Group, Inc., in January of 2014, these modifications have been properly installed and were considered in this analysis.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	120 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	1 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
147.0	150.0	3	ericsson	AIR 6472 B77G B77M_20240625	6 6 2	1-1/4 3/4 3/8
		3	ericsson	RADIO 4494 44B14 20B29		
	147.0	3	cci antennas	DTMABP7819VG12A		
		3	ericsson	RRUS 32 B2		
		3	ericsson	RRUS 4449 B5/B12		
		3	ericsson	RRUS 8843 B2/B66A		
		2	raycap	DC6-48-60-18-8F		
		1	raycap	DC6-48-60-0-8C-EV		
		9	-	10' Mount Pipe [#P2.5 STD]		
		6	-	10.5' Mount Pipe [#P2.5 STD]		
		3	-	10' Mount Pipe [#P2.0 STD]		
		1	-	Platform Mount [LP 303-1_HR-1]		
	145.0	3	cci antennas	DMP65R-BU6D		
		3	commscope	NNH4-65B-R6		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
104.0	104.0	1	sinclair	SRL-210C-2	1	3/8
		1	ericsson	KRY 112 144/2		
		1	-	Side Arm Mount [SO 302-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
4-GEOTECHNICAL REPORTS	5121526	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	5403014	CCISITES
4-TOWER MANUFACTURER DRAWINGS	5342387	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	5340765	CCISITES
4-POST-MODIFICATION INSPECTION	5403264	CCISITES

3.1) Analysis Method

tnxTower (version 8.2.4.3), 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. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the pole and in the reinforcing elements. These calculations are presented in Appendix C.

3.2) Assumptions

- 1) Tower and structures were maintained in accordance with the TIA-222 Standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
L1	150 - 145	Pole	TP15.25x14.5x0.25	Pole	6.9	Pass
L2	145 - 140	Pole	TP16x15.25x0.25	Pole	20.1	Pass
L3	140 - 135	Pole	TP16.75x16x0.25	Pole	31.4	Pass
L4	135 - 130	Pole	TP17.5x16.75x0.25	Pole	41.2	Pass
L5	130 - 129.25	Pole	TP17.613x17.5x0.25	Pole	42.5	Pass
L6	129.25 - 129	Pole + Reinf.	TP17.65x17.613x0.6	Reinf. 6 Tension Rupture	41.3	Pass
L7	129 - 124	Pole + Reinf.	TP18.4x17.65x0.575	Reinf. 6 Tension Rupture	50.5	Pass
L8	124 - 119	Pole	TP19.15x18.4x0.25	Pole	58.6	Pass
L9	119 - 114	Pole	TP19.9x19.15x0.25	Pole	65.0	Pass
L10	114 - 110.5	Pole	TP20.425x19.9x0.25	Pole	69.1	Pass
L11	110.5 - 110.25	Pole + Reinf.	TP20.463x20.425x0.9375	Reinf. 7 Compression	44.5	Pass
L12	110.25 - 110	Pole + Reinf.	TP20.5x20.462x0.925	Reinf. 7 Compression	44.8	Pass
L13	110 - 109.5	Pole + Reinf.	TP20.576x20.5x0.925	Reinf. 7 Compression	45.3	Pass
L14	109.5 - 109.25	Pole + Reinf.	TP20.613x20.576x0.6375	Reinf. 5 Tension Rupture	53.7	Pass
L15	109.25 - 104.25	Pole + Reinf.	TP21.37x20.613x0.6125	Reinf. 5 Tension Rupture	59.1	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
L16	104.25 - 99.25	Pole + Reinf.	TP22.126x21.37x0.6	Reinf. 5 Tension Rupture	64.6	Pass
L17	99.25 - 94.25	Pole + Reinf.	TP22.882x22.126x0.5875	Reinf. 5 Tension Rupture	69.7	Pass
L18	94.25 - 90.25	Pole + Reinf.	TP23.487x22.882x0.575	Reinf. 5 Tension Rupture	73.6	Pass
L19	90.25 - 90	Pole + Reinf.	TP23.525x23.487x0.575	Reinf. 4 Tension Rupture	73.8	Pass
L20	90 - 85	Pole + Reinf.	TP24.281x23.525x0.5625	Reinf. 4 Tension Rupture	78.5	Pass
L21	85 - 80	Pole + Reinf.	TP25.038x24.281x0.55	Reinf. 4 Tension Rupture	82.9	Pass
L22	80 - 75	Pole + Reinf.	TP25.794x25.038x0.5375	Reinf. 4 Tension Rupture	87.0	Pass
L23	75 - 73.26	Pole + Reinf.	TP26.55x25.794x0.5375	Reinf. 4 Tension Rupture	88.4	Pass
L24	73.26 - 69	Pole + Reinf.	TP26.2x25.557x0.675	Reinf. 3 Tension Rupture	69.4	Pass
L25	69 - 64	Pole + Reinf.	TP26.955x26.2x0.6625	Reinf. 3 Tension Rupture	72.2	Pass
L26	64 - 59	Pole + Reinf.	TP27.71x26.955x0.65	Reinf. 3 Tension Rupture	74.9	Pass
L27	59 - 56.5	Pole + Reinf.	TP28.088x27.71x0.6375	Reinf. 3 Tension Rupture	76.2	Pass
L28	56.5 - 56.25	Pole + Reinf.	TP28.126x28.088x0.6375	Reinf. 2 Tension Rupture	76.4	Pass
L29	56.25 - 51.25	Pole + Reinf.	TP28.881x28.126x0.6375	Reinf. 2 Tension Rupture	78.9	Pass
L30	51.25 - 46.25	Pole + Reinf.	TP29.636x28.881x0.625	Reinf. 2 Tension Rupture	81.3	Pass
L31	46.25 - 41.25	Pole + Reinf.	TP30.391x29.636x0.6125	Reinf. 2 Tension Rupture	83.5	Pass
L32	41.25 - 36.25	Pole + Reinf.	TP31.146x30.391x0.6	Reinf. 2 Tension Rupture	85.7	Pass
L33	36.25 - 33.93	Pole + Reinf.	TP32.09x31.146x0.6	Reinf. 2 Tension Rupture	86.7	Pass
L34	33.93 - 28.93	Pole + Reinf.	TP31.627x30.871x0.6625	Reinf. 2 Tension Rupture	82.9	Pass
L35	28.93 - 28.75	Pole + Reinf.	TP31.654x31.627x0.6625	Reinf. 2 Tension Rupture	82.9	Pass
L36	28.75 - 28.5	Pole + Reinf.	TP31.692x31.654x0.6625	Reinf. 1 Tension Rupture	83.0	Pass
L37	28.5 - 23.5	Pole + Reinf.	TP32.448x31.692x0.65	Reinf. 1 Tension Rupture	84.7	Pass
L38	23.5 - 18.5	Pole + Reinf.	TP33.204x32.448x0.65	Reinf. 1 Tension Rupture	86.2	Pass
L39	18.5 - 13.5	Pole + Reinf.	TP33.959x33.204x0.6375	Reinf. 1 Tension Rupture	87.7	Pass
L40	13.5 - 8.5	Pole + Reinf.	TP34.715x33.959x0.6375	Reinf. 1 Tension Rupture	89.1	Pass
L41	8.5 - 3.5	Pole + Reinf.	TP35.471x34.715x0.625	Reinf. 1 Tension Rupture	90.4	Pass
L42	3.5 - 2.75	Pole + Reinf.	TP35.584x35.471x0.625	Reinf. 1 Tension Rupture	90.6	Pass
L43	2.75 - 2.5	Pole	TP35.622x35.584x0.375	Pole	94.8	Pass
L44	2.5 - 0	Pole	TP36x35.622x0.375	Pole	95.4	Pass
					Summary	
				Pole	95.4	Pass
				Reinforcement	90.6	Pass
				Overall	95.4	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Flange Connection	110	51.2	Pass
1	Bridge Stiffeners		50.3	Pass
1	Anchor Rods	0	68.8	Pass
1	Base Plate		59.9	Pass
1	Base Foundation (Structure)	0	91.5	Pass
1	Base Foundation (Soil Interaction)		52.4	Pass

Structure Rating (max from all components) =	95.4%*
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Notes:

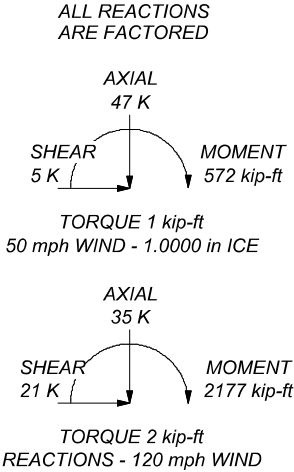
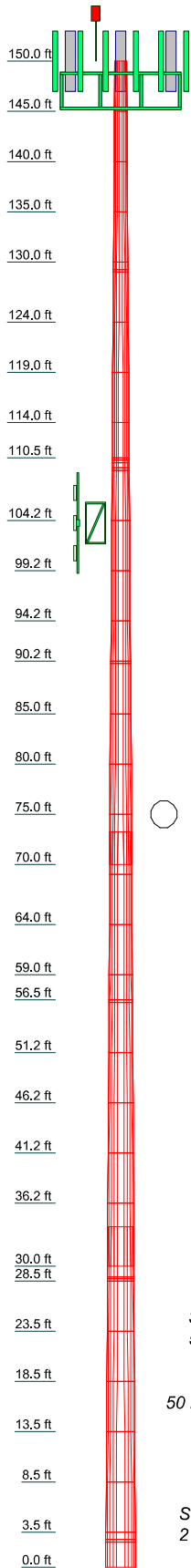
- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
- 2) *Rating per TIA-222-H, Section 15.5.

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A
TNXTOWER OUTPUT

Section	44482	41	40	39	38	37	36	33	32	31	30	29	2827	26	25	24	23	22	21	20	19	18	17	16	15	10	9	8	7	6	4	3	2	1
Length (ft)	2.5025	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
Number of Sides	1212	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
Thickness (in)	0.6375	0.6375	0.6375	0.6375	0.6500	0.6500	0.6500	0.6000	0.6125	0.6250	0.6300	0.6450	0.6500	0.6625	0.6750	0.5375	0.5375	0.5500	0.5600	0.5675	0.5875	0.6000	0.6100	0.6200	0.6300	0.6400	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	0.2500	
Socket Length (ft)	3.93										3.26																							
Top Dia (in)	31.6920	32.4480	33.2037	32.4480	31.6920	32.4480	33.2037	32.4480	31.6920	32.4480	33.2037	32.4480	31.6920	32.4480	33.2037	32.4480	31.6920	32.4480	33.2037	32.4480	31.6920	32.4480	33.2037	32.4480	31.6920	32.4480	33.2037	32.4480	31.6920	32.4480	33.2037	32.4480	31.6920	
Bot Dia (in)	32.4480	33.2037	33.9595	33.2037	32.4480	33.2037	33.9595	33.2037	32.4480	33.2037	33.9595	33.2037	32.4480	33.2037	33.9595	33.2037	32.4480	33.2037	33.9595	33.2037	32.4480	33.2037	33.9595	33.2037	32.4480	33.2037	33.9595	33.2037	32.4480	33.2037	33.9595	33.2037		
Grade	A572-65																																	
Weight (K)	22.50	40.02	1.1	1.1	1.1	1.1	1.1	1.2	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.7	0.7	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6		



MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in Windham County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. CCIPOLE RATING: 95.4%

Tower Input Data

The tower is a monopole.

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

The following design criteria apply:

Tower is located in Windham County, Connecticut.

Tower base elevation above sea level: 683.00 ft.

Basic wind speed of 120 mph.

Risk Category II.

Exposure Category C.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height: 0.00 ft.

Nominal ice thickness of 1.0000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

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

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in pole design is 1.

Tower analysis based on target reliabilities in accordance with Annex S.

Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.

Maximum demand-capacity ratio is: 1.05.

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

Options

Consider Moments - Legs	Assume Legs Pinned	Calculate Redundant Bracing Forces
Consider Moments - Horizontals	✓ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Consider Moments - Diagonals	✓ Use Clear Spans For Wind Area	SR Leg Bolts Resist Compression
Use Moment Magnification	Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
✓ Use Code Stress Ratios	Retention Guys To Initial Tension	Offset Girt At Foundation
✓ Use Code Safety Factors - Guys	✓ Bypass Mast Stability Checks	✓ Consider Feed Line Torque
Escalate Ice	✓ Use Azimuth Dish Coefficients	Include Angle Block Shear Check
Always Use Max Kz	✓ Project Wind Area of Appurtenances	Use TIA-222-H Bracing Resist. Exemption
Use Special Wind Profile	✓ Alternative Appurt. EPA Calculation	Use TIA-222-H Tension Splice Exemption
Include Bolts In Member Capacity	Autocalc Torque Arm Areas	Poles
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	✓ Include Shear-Torsion Interaction
Secondary Horizontal Braces Leg	Sort Capacity Reports By Component	Always Use Sub-Critical Flow
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Use Top Mounted Sockets
SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	Pole Without Linear Attachments
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	Pole With Shroud Or No Appurtenances
Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules	Outside and Inside Corner Radii Are Known

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	150.00-145.00	5.00	0.00	12	14.5000	15.2500	0.2500	1.0000	A572-65 (65 ksi)
L2	145.00-140.00	5.00	0.00	12	15.2500	16.0000	0.2500	1.0000	A572-65 (65 ksi)
L3	140.00-135.00	5.00	0.00	12	16.0000	16.7500	0.2500	1.0000	A572-65 (65 ksi)
L4	135.00-130.00	5.00	0.00	12	16.7500	17.5000	0.2500	1.0000	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
L5	130.00-129.25	0.75	0.00	12	17.5000	17.6125	0.2500	1.0000	A572-65 (65 ksi)
L6	129.25-129.00	0.25	0.00	12	17.6125	17.6500	0.6000	2.4000	A572-65 (65 ksi)
L7	129.00-124.00	5.00	0.00	12	17.6500	18.4000	0.5750	2.3000	A572-65 (65 ksi)
L8	124.00-119.00	5.00	0.00	12	18.4000	19.1500	0.2500	1.0000	A572-65 (65 ksi)
L9	119.00-114.00	5.00	0.00	12	19.1500	19.9000	0.2500	1.0000	A572-65 (65 ksi)
L10	114.00-110.50	3.50	0.00	12	19.9000	20.4250	0.2500	1.0000	A572-65 (65 ksi)
L11	110.50-110.25	0.25	0.00	12	20.4250	20.4625	0.9375	3.7500	A572-65 (65 ksi)
L12	110.25-110.00	0.25	0.00	12	20.4622	20.5000	0.9250	3.7000	A572-65 (65 ksi)
L13	110.00-109.50	0.50	0.00	12	20.5000	20.5756	0.9250	3.7000	A572-65 (65 ksi)
L14	109.50-109.25	0.25	0.00	12	20.5756	20.6134	0.6375	2.5500	A572-65 (65 ksi)
L15	109.25-104.25	5.00	0.00	12	20.6134	21.3697	0.6125	2.4500	A572-65 (65 ksi)
L16	104.25-99.25	5.00	0.00	12	21.3697	22.1259	0.6000	2.4000	A572-65 (65 ksi)
L17	99.25-94.25	5.00	0.00	12	22.1259	22.8822	0.5875	2.3500	A572-65 (65 ksi)
L18	94.25-90.25	4.00	0.00	12	22.8822	23.4872	0.5750	2.3000	A572-65 (65 ksi)
L19	90.25-90.00	0.25	0.00	12	23.4872	23.5250	0.5750	2.3000	A572-65 (65 ksi)
L20	90.00-85.00	5.00	0.00	12	23.5250	24.2812	0.5625	2.2500	A572-65 (65 ksi)
L21	85.00-80.00	5.00	0.00	12	24.2812	25.0375	0.5500	2.2000	A572-65 (65 ksi)
L22	80.00-75.00	5.00	0.00	12	25.0375	25.7937	0.5375	2.1500	A572-65 (65 ksi)
L23	75.00-70.00	5.00	3.26	12	25.7937	26.5500	0.5375	2.1500	A572-65 (65 ksi)
L24	70.00-69.00	4.26	0.00	12	25.5569	26.2003	0.6750	2.7000	A572-65 (65 ksi)
L25	69.00-64.00	5.00	0.00	12	26.2003	26.9554	0.6625	2.6500	A572-65 (65 ksi)
L26	64.00-59.00	5.00	0.00	12	26.9554	27.7105	0.6500	2.6000	A572-65 (65 ksi)
L27	59.00-56.50	2.50	0.00	12	27.7105	28.0880	0.6375	2.5500	A572-65 (65 ksi)
L28	56.50-56.25	0.25	0.00	12	28.0880	28.1258	0.6375	2.5500	A572-65 (65 ksi)
L29	56.25-51.25	5.00	0.00	12	28.1258	28.8808	0.6375	2.5500	A572-65 (65 ksi)
L30	51.25-46.25	5.00	0.00	12	28.8808	29.6359	0.6250	2.5000	A572-65 (65 ksi)
L31	46.25-41.25	5.00	0.00	12	29.6359	30.3910	0.6125	2.4500	A572-65 (65 ksi)
L32	41.25-36.25	5.00	0.00	12	30.3910	31.1461	0.6000	2.4000	A572-65 (65 ksi)
L33	36.25-30.00	6.25	3.93	12	31.1461	32.0900	0.6000	2.4000	A572-65 (65 ksi)
L34	30.00-28.93	5.00	0.00	12	30.8715	31.6272	0.6625	2.6500	A572-65 (65 ksi)
L35	28.93-28.75	0.18	0.00	12	31.6272	31.6545	0.6625	2.6500	A572-65 (65 ksi)
L36	28.75-28.50	0.25	0.00	12	31.6545	31.6922	0.6625	2.6500	A572-65 (65 ksi)
L37	28.50-23.50	5.00	0.00	12	31.6922	32.4480	0.6500	2.6000	A572-65 (65 ksi)
L38	23.50-18.50	5.00	0.00	12	32.4480	33.2037	0.6500	2.6000	A572-65 (65 ksi)
L39	18.50-13.50	5.00	0.00	12	33.2037	33.9595	0.6375	2.5500	A572-65

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
L40	13.50-8.50	5.00	0.00	12	33.9595	34.7152	0.6375	2.5500	(65 ksi) A572-65
L41	8.50-3.50	5.00	0.00	12	34.7152	35.4710	0.6250	2.5000	(65 ksi) A572-65
L42	3.50-2.75	0.75	0.00	12	35.4710	35.5843	0.6250	2.5000	(65 ksi) A572-65
L43	2.75-2.50	0.25	0.00	12	35.5843	35.6221	0.3750	1.5000	(65 ksi) A572-65
L44	2.50-0.00	2.50		12	35.6221	36.0000	0.3750	1.5000	(65 ksi) A572-65

Tapered Pole Properties

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
L1	14.9233	11.4712	297.3216	5.1015	7.5110	39.5848	602.4541	5.6458	3.2160	12.864
	15.6998	12.0750	346.7812	5.3700	7.8995	43.8991	702.6728	5.9429	3.4170	13.668
L2	15.6998	12.0750	346.7812	5.3700	7.8995	43.8991	702.6728	5.9429	3.4170	13.668
	16.4762	12.6788	401.4426	5.6385	8.2880	48.4366	813.4316	6.2401	3.6180	14.472
L3	16.4762	12.6788	401.4426	5.6385	8.2880	48.4366	813.4316	6.2401	3.6180	14.472
	17.2527	13.2825	461.5658	5.9070	8.6765	53.1972	935.2575	6.5372	3.8190	15.276
L4	17.2527	13.2825	461.5658	5.9070	8.6765	53.1972	935.2575	6.5372	3.8190	15.276
	18.0291	13.8863	527.4109	6.1755	9.0650	58.1810	1068.6775	6.8344	4.0200	16.08
L5	18.0291	13.8863	527.4109	6.1755	9.0650	58.1810	1068.6775	6.8344	4.0200	16.08
	18.1456	13.9768	537.7973	6.2158	9.1233	58.9478	1089.7231	6.8790	4.0502	16.201
L6	18.0221	32.8681	1214.2203	6.0905	9.1233	133.0904	2460.3395	16.1767	3.1122	5.187
	18.0610	32.9406	1222.2674	6.1039	9.1427	133.6878	2476.6451	16.2124	3.1222	5.204
L7	18.0698	31.6144	1176.4997	6.1128	9.1427	128.6819	2383.9073	15.5596	3.1892	5.546
	18.8462	33.0030	1338.4381	6.3813	9.5312	140.4270	2712.0384	16.2431	3.3902	5.896
L8	18.9609	14.6107	614.3441	6.4977	9.5312	64.4561	1244.8278	7.1910	4.2612	17.045
	19.7373	15.2145	693.6929	6.7662	9.9197	69.9308	1405.6099	7.4881	4.4622	17.849
L9	19.7373	15.2145	693.6929	6.7662	9.9197	69.9308	1405.6099	7.4881	4.4622	17.849
	20.5138	15.8182	779.5958	7.0347	10.3082	75.6287	1579.6725	7.7853	4.6632	18.653
L10	20.5138	15.8182	779.5958	7.0347	10.3082	75.6287	1579.6725	7.7853	4.6632	18.653
	21.0573	16.2409	843.7669	7.2226	10.5801	79.7500	1709.7004	7.9933	4.8039	19.216
L11	20.8148	58.8279	2851.5532	6.9765	10.5801	269.5192	5778.0199	28.9533	2.9614	3.159
	20.8536	58.9411	2868.0467	6.9899	10.5996	270.5813	5811.4403	29.0090	2.9714	3.17
L12	20.8577	58.1915	2835.1083	6.9943	10.5994	267.4779	5744.6981	28.6401	3.0049	3.249
	20.8969	58.3041	2851.6017	7.0078	10.6190	268.5377	5778.1182	28.6955	3.0150	3.259
L13	20.8969	58.3041	2851.6017	7.0078	10.6190	268.5377	5778.1182	28.6955	3.0150	3.259
	20.9751	58.5294	2884.7797	7.0349	10.6582	270.6636	5845.3458	28.8064	3.0353	3.281
L14	21.0766	40.9280	2076.7057	7.1378	10.6582	194.8463	4207.9688	20.1435	3.8058	5.97
	21.1157	41.0056	2088.5433	7.1514	10.6778	195.5975	4231.9550	20.1817	3.8159	5.986
L15	21.1245	39.4468	2014.1831	7.1603	10.6778	188.6335	4081.2810	19.4145	3.8829	6.339
	21.9075	40.9384	2251.4042	7.4311	11.0695	203.3881	4561.9553	20.1486	4.0856	6.67
L16	21.9119	40.1270	2209.4440	7.4355	11.0695	199.5975	4476.9325	19.7493	4.1191	6.865
	22.6948	41.5881	2459.6837	7.7063	11.4612	214.6090	4983.9861	20.4684	4.3218	7.203
L17	22.6992	40.7453	2412.6385	7.7108	11.4612	210.5042	4888.6596	20.0536	4.3553	7.413
	23.4821	42.1760	2675.8015	7.9815	11.8530	225.7494	5421.8992	20.7577	4.5579	7.758
L18	23.4865	41.3018	2623.2770	7.9860	11.8530	221.3181	5315.4704	20.3275	4.5914	7.985
	24.1129	42.4219	2842.5582	8.2026	12.1664	233.6407	5759.7935	20.8788	4.7536	8.267
L19	24.1129	42.4219	2842.5582	8.2026	12.1664	233.6407	5759.7935	20.8788	4.7536	8.267
	24.1520	42.4919	2856.6546	8.2161	12.1860	234.4220	5788.3567	20.9132	4.7637	8.285
L20	24.1564	41.5908	2799.1222	8.2206	12.1860	229.7008	5671.7804	20.4697	4.7972	8.528
	24.9394	42.9606	3084.8904	8.4913	12.5777	245.2669	6250.8243	21.1439	4.9999	8.889
L21	24.9438	42.0280	3021.1087	8.4958	12.5777	240.1959	6121.5853	20.6849	5.0334	9.152
	25.7267	43.3674	3319.2339	8.7665	12.9694	255.9276	6725.6678	21.3441	5.2360	9.52
L22	25.7311	42.4034	3248.7668	8.7710	12.9694	250.4943	6582.8824	20.8697	5.2695	9.804
	26.5140	43.7123	3558.9910	9.0417	13.3612	266.3684	7211.4807	21.5138	5.4722	10.181
L23	26.5140	43.7123	3558.9910	9.0417	13.3612	266.3684	7211.4807	21.5138	5.4722	10.181
	27.2970	45.0211	3888.3609	9.3125	13.7529	282.7303	7878.8734	22.1580	5.6749	10.558
L24	26.7300	54.0809	4273.6360	8.9077	13.2385	322.8191	8659.5451	26.6170	5.0403	7.467
	26.8864	55.4792	4613.7746	9.1380	13.5717	339.9546	9348.7582	27.3052	5.2127	7.722
L25	26.8908	54.4784	4534.9903	9.1425	13.5717	334.1496	9189.1199	26.8126	5.2462	7.919
	27.6725	56.0892	4949.2699	9.4128	13.9629	354.4592	10028.5627	27.6054	5.4485	8.224

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
L26	27.6769	55.0571	4862.8165	9.4173	13.9629	348.2675	9853.3845	27.0974	5.4820	8.434
	28.4587	56.6375	5293.7133	9.6876	14.3540	368.7967	10726.4983	27.8753	5.6844	8.745
L27	28.4631	55.5740	5199.1093	9.6921	14.3540	362.2059	10534.8050	27.3518	5.7179	8.969
	28.8540	56.3490	5419.6699	9.8273	14.5496	372.4965	10981.7206	27.7333	5.8191	9.128
L28	28.8540	56.3490	5419.6699	9.8273	14.5496	372.4965	10981.7206	27.7333	5.8191	9.128
	28.8930	56.4265	5442.0625	9.8408	14.5691	373.5335	11027.0940	27.7714	5.8292	9.144
L29	28.8930	56.4265	5442.0625	9.8408	14.5691	373.5335	11027.0940	27.7714	5.8292	9.144
	29.6748	57.9765	5902.9708	10.1111	14.9603	394.5762	11961.0192	28.5343	6.0316	9.461
L30	29.6792	56.8649	5794.9136	10.1156	14.9603	387.3533	11742.0661	27.9872	6.0651	9.704
	30.4609	58.3845	6272.0198	10.3859	15.3514	408.5629	12708.8126	28.7351	6.2674	10.028
L31	30.4653	57.2415	6154.5280	10.3904	15.3514	400.9094	12470.7423	28.1725	6.3009	10.287
	31.2471	58.7307	6647.4952	10.6607	15.7426	422.2627	13469.6274	28.9055	6.5033	10.618
L32	31.2515	57.5563	6520.0358	10.6652	15.7426	414.1662	13211.3601	28.3275	6.5368	10.895
	32.0332	59.0151	7028.4854	10.9355	16.1337	435.6401	14241.6169	29.0455	6.7392	11.232
L33	32.0332	59.0151	7028.4854	10.9355	16.1337	435.6401	14241.6169	29.0455	6.7392	11.232
	33.0104	60.8387	7700.3604	11.2734	16.6226	463.2459	15603.0179	29.9429	6.9921	11.654
L34	32.3418	64.4433	7506.4843	10.8148	15.9914	469.4065	15210.1723	31.7171	6.4981	9.808
	32.5092	66.0555	8084.0722	11.0854	16.3829	493.4454	16380.5221	32.5105	6.7006	10.114
L35	32.5092	66.0555	8084.0722	11.0854	16.3829	493.4454	16380.5221	32.5105	6.7006	10.114
	32.5374	66.1136	8105.4000	11.0951	16.3970	494.3220	16423.7380	32.5391	6.7079	10.125
L36	32.5374	66.1136	8105.4000	11.0951	16.3970	494.3220	16423.7380	32.5391	6.7079	10.125
	32.5765	66.1942	8135.0838	11.1086	16.4166	495.5407	16483.8853	32.5788	6.7180	10.14
L37	32.5809	64.9714	7991.2414	11.1131	16.4166	486.7787	16192.4217	31.9769	6.7515	10.387
	33.3633	66.5532	8589.2258	11.3837	16.8081	511.0184	17404.1001	32.7555	6.9541	10.699
L38	33.3633	66.5532	8589.2258	11.3837	16.8081	511.0184	17404.1001	32.7555	6.9541	10.699
	34.1457	68.1350	9216.3205	11.6542	17.1995	535.8471	18674.7640	33.5340	7.1566	11.01
L39	34.1501	66.8503	9049.5001	11.6587	17.1995	526.1480	18336.7406	32.9017	7.1901	11.279
	34.9326	68.4017	9694.2552	11.9293	17.5910	551.0914	19643.1893	33.6652	7.3926	11.596
L40	34.9326	68.4017	9694.2552	11.9293	17.5910	551.0914	19643.1893	33.6652	7.3926	11.596
	35.7150	69.9531	10368.9301	12.1998	17.9825	576.6126	21010.2635	34.4288	7.5952	11.914
L41	35.7194	68.6066	10176.8083	12.2043	17.9825	565.9288	20620.9727	33.7661	7.6287	12.206
	36.5018	70.1275	10868.7544	12.4749	18.3740	591.5301	22023.0431	34.5146	7.8312	12.53
L42	36.5018	70.1275	10868.7544	12.4749	18.3740	591.5301	22023.0431	34.5146	7.8312	12.53
	36.6191	70.3557	10975.1756	12.5154	18.4327	595.4192	22238.6812	34.6269	7.8616	12.579
L43	36.7073	42.5153	6727.3916	12.6049	18.4327	364.9707	13631.5192	20.9247	8.5316	22.751
	36.7465	42.5609	6749.0745	12.6185	18.4523	365.7587	13675.4547	20.9472	8.5417	22.778
L44	36.7465	42.5609	6749.0745	12.6185	18.4523	365.7587	13675.4547	20.9472	8.5417	22.778
	37.1377	43.0172	6968.4744	12.7538	18.6480	373.6848	14120.0184	21.1718	8.6430	23.048

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							
L1 150.00- 145.00				1	1	1			
L2 145.00- 140.00				1	1	1			
L3 140.00- 135.00				1	1	1			
L4 135.00- 130.00				1	1	1			
L5 130.00- 129.25				1	1	1			
L6 129.25- 129.00				1	1	0.881238			
L7 129.00- 124.00				1	1	0.897866			
L8 124.00- 119.00				1	1	1			
L9 119.00- 114.00				1	1	1			
L10 114.00- 110.50				1	1	1			
L11 110.50- 110.25				1	1	0.530913			
L12 110.25- 110.00				1	1	0.53723			
L13 110.00-				1	1	0.536203			

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							
109.50									
L14 109.50- 109.25				1	1	0.888201			
L15 109.25- 104.25				1	1	0.904531			
L16 104.25- 99.25				1	1	0.905038			
L17 99.25- 94.25				1	1	0.906857			
L18 94.25- 90.25				1	1	0.91308			
L19 90.25- 90.00				1	1	0.912292			
L20 90.00- 85.00				1	1	0.916511			
L21 85.00- 80.00				1	1	0.921952			
L22 80.00- 75.00				1	1	0.928604			
L23 75.00- 70.00				1	1	0.923825			
L24 70.00- 69.00				1	1	0.920803			
L25 69.00- 64.00				1	1	0.924334			
L26 64.00- 59.00				1	1	0.928802			
L27 59.00- 56.50				1	1	0.940299			
L28 56.50- 56.25				1	1	0.939681			
L29 56.25- 51.25				1	1	0.927664			
L30 51.25- 46.25				1	1	0.934195			
L31 46.25- 41.25				1	1	0.941626			
L32 41.25- 36.25				1	1	0.949963			
L33 36.25- 30.00				1	1	0.945097			
L34 30.00- 28.93				1	1	0.950305			
L35 28.93- 28.75				1	1	0.949968			
L36 28.75- 28.50				1	1	0.9495			
L37 28.50- 23.50				1	1	0.95809			
L38 23.50- 18.50				1	1	0.949242			
L39 18.50- 13.50				1	1	0.958881			
L40 13.50- 8.50				1	1	0.950661			
L41 8.50-3.50				1	1	0.961309			
L42 3.50-2.75				1	1	0.960138			
L43 2.75-2.50				1	1	1			
L44 2.50-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

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

PL 1.25x5	A	No	Surface Af (CaAa)	30.75 - 0.00	1	1	0.250 0.250	5.0000	12.5000	0.00
PL 1.25x5	C	No	Surface Af (CaAa)	30.75 - 0.00	1	1	0.500 0.500	5.0000	12.5000	0.00
PL 1.25x5	C	No	Surface Af (CaAa)	30.75 - 0.00	1	1	-0.250 -0.250	5.0000	12.5000	0.00
PL 1.25x5	B	No	Surface Af (CaAa)	30.75 - 0.00	1	1	0.000 0.000	5.0000	12.5000	0.00

PL 1.25x5	A	No	Surface Af (CaAa)	58.50 - 28.50	1	1	0.500 0.500	5.0000	12.5000	0.00
PL 1.25x5	A	No	Surface Af (CaAa)	58.50 - 28.50	1	1	-0.250 -0.250	5.0000	12.5000	0.00
PL 1.25x5	C	No	Surface Af (CaAa)	58.50 - 28.50	1	1	0.000 0.000	5.0000	12.5000	0.00
PL 1.25x5	B	No	Surface Af (CaAa)	58.50 - 28.50	1	1	0.250 0.250	5.0000	12.5000	0.00

PL 1.25x5	A	No	Surface Af (CaAa)	74.25 - 56.25	1	1	0.250 0.250	5.0000	12.5000	0.00
PL 1.25x5	C	No	Surface Af (CaAa)	74.25 - 56.25	1	1	0.500 0.500	5.0000	12.5000	0.00
PL 1.25x5	C	No	Surface Af (CaAa)	74.25 - 56.25	1	1	-0.250 -0.250	5.0000	12.5000	0.00
PL 1.25x5	B	No	Surface Af (CaAa)	74.25 - 56.25	1	1	0.000 0.000	5.0000	12.5000	0.00

PL 1.25x4	A	No	Surface Af (CaAa)	91.75 - 72.00	1	1	0.500 0.500	4.0000	10.5000	0.00
PL 1.25x4	A	No	Surface Af (CaAa)	91.75 - 72.00	1	1	-0.250 -0.250	4.0000	10.5000	0.00
PL 1.25x4	C	No	Surface Af (CaAa)	91.75 - 72.00	1	1	0.000 0.000	4.0000	10.5000	0.00
PL 1.25x4	B	No	Surface Af (CaAa)	91.75 - 72.00	1	1	0.250 0.250	4.0000	10.5000	0.00

PL 1.25x4	A	No	Surface Af (CaAa)	109.75 - 90.00	1	1	0.250 0.250	4.0000	10.5000	0.00
PL 1.25x4	C	No	Surface Af (CaAa)	109.75 - 90.00	1	1	0.500 0.500	4.0000	10.5000	0.00
PL 1.25x4	C	No	Surface Af (CaAa)	109.75 - 90.00	1	1	-0.250 -0.250	4.0000	10.5000	0.00
PL 1.25x4	B	No	Surface Af (CaAa)	109.75 - 90.00	1	1	0.000 0.000	4.0000	10.5000	0.00

PL 1.25" x 3"	A	No	Surface Af (CaAa)	130.25 - 110.25	1	1	0.250 0.250	3.0000	8.5000	0.00
PL 1.25" x 3"	C	No	Surface Af (CaAa)	130.25 - 110.25	1	1	0.500 0.500	3.0000	8.5000	0.00
PL 1.25" x 3"	C	No	Surface Af (CaAa)	130.25 - 110.25	1	1	-0.250 -0.250	3.0000	8.5000	0.00
PL 1.25" x 3"	B	No	Surface Af (CaAa)	130.25 - 110.25	1	1	0.000 0.000	3.0000	8.5000	0.00

Safety Line 3/8	B	No	Surface Ar (CaAa)	150.00 - 0.00	1	1	-0.450 -0.450	0.3750		0.22
Climbing Rungs	B	No	Surface Ar (CaAa)	150.00 - 0.00	1	1	-0.500 -0.400	0.7050		1.80

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight plf

LDF6-50A(1-1/4)	C	No	No	Inside Pole	147.00 - 0.00	6	No Ice	0.00	0.60
							1/2" Ice	0.00	0.60
							1" Ice	0.00	0.60
FB-L98B-034- XXX(3/8)	C	No	No	Inside Pole	147.00 - 0.00	2	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
WR-VG86ST- BRD(3/4)	C	No	No	Inside Pole	147.00 - 0.00	6	No Ice	0.00	0.58
							1/2" Ice	0.00	0.58
							1" Ice	0.00	0.58

LDF2-50(3/8)	C	No	No	Inside Pole	104.00 - 0.00	1	No Ice	0.00	0.08
							1/2" Ice	0.00	0.08
							1" Ice	0.00	0.08

Feed Line/Linear Appurtenances Section Areas

Tower Section 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
L1	150.00-145.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.540	0.000	0.01
		C	0.000	0.000	0.000	0.000	0.01
L2	145.00-140.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.540	0.000	0.01
		C	0.000	0.000	0.000	0.000	0.04
L3	140.00-135.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.540	0.000	0.01
		C	0.000	0.000	0.000	0.000	0.04
L4	135.00-130.00	A	0.000	0.000	0.125	0.000	0.00
		B	0.000	0.000	0.665	0.000	0.01
		C	0.000	0.000	0.250	0.000	0.04
L5	130.00-129.25	A	0.000	0.000	0.375	0.000	0.00
		B	0.000	0.000	0.456	0.000	0.00
		C	0.000	0.000	0.750	0.000	0.01
L6	129.25-129.00	A	0.000	0.000	0.125	0.000	0.00
		B	0.000	0.000	0.152	0.000	0.00
		C	0.000	0.000	0.250	0.000	0.00
L7	129.00-124.00	A	0.000	0.000	2.500	0.000	0.00
		B	0.000	0.000	3.040	0.000	0.01
		C	0.000	0.000	5.000	0.000	0.04
L8	124.00-119.00	A	0.000	0.000	2.500	0.000	0.00
		B	0.000	0.000	3.040	0.000	0.01
		C	0.000	0.000	5.000	0.000	0.04
L9	119.00-114.00	A	0.000	0.000	2.500	0.000	0.00
		B	0.000	0.000	3.040	0.000	0.01
		C	0.000	0.000	5.000	0.000	0.04
L10	114.00-110.50	A	0.000	0.000	1.750	0.000	0.00
		B	0.000	0.000	2.128	0.000	0.01
		C	0.000	0.000	3.500	0.000	0.03
L11	110.50-110.25	A	0.000	0.000	0.125	0.000	0.00
		B	0.000	0.000	0.152	0.000	0.00
		C	0.000	0.000	0.250	0.000	0.00
L12	110.25-110.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.027	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L13	110.00-109.50	A	0.000	0.000	0.167	0.000	0.00
		B	0.000	0.000	0.221	0.000	0.00
		C	0.000	0.000	0.333	0.000	0.00
L14	109.50-109.25	A	0.000	0.000	0.167	0.000	0.00

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
		B	0.000	0.000	0.194	0.000	0.00
		C	0.000	0.000	0.333	0.000	0.00
L15	109.25-104.25	A	0.000	0.000	3.333	0.000	0.00
		B	0.000	0.000	3.873	0.000	0.01
		C	0.000	0.000	6.667	0.000	0.04
L16	104.25-99.25	A	0.000	0.000	3.333	0.000	0.00
		B	0.000	0.000	3.873	0.000	0.01
		C	0.000	0.000	6.667	0.000	0.04
L17	99.25-94.25	A	0.000	0.000	3.333	0.000	0.00
		B	0.000	0.000	3.873	0.000	0.01
		C	0.000	0.000	6.667	0.000	0.04
L18	94.25-90.25	A	0.000	0.000	4.667	0.000	0.00
		B	0.000	0.000	4.099	0.000	0.01
		C	0.000	0.000	6.333	0.000	0.03
L19	90.25-90.00	A	0.000	0.000	0.500	0.000	0.00
		B	0.000	0.000	0.360	0.000	0.00
		C	0.000	0.000	0.500	0.000	0.00
L20	90.00-85.00	A	0.000	0.000	6.667	0.000	0.00
		B	0.000	0.000	3.873	0.000	0.01
		C	0.000	0.000	3.333	0.000	0.04
L21	85.00-80.00	A	0.000	0.000	6.667	0.000	0.00
		B	0.000	0.000	3.873	0.000	0.01
		C	0.000	0.000	3.333	0.000	0.04
L22	80.00-75.00	A	0.000	0.000	6.667	0.000	0.00
		B	0.000	0.000	3.873	0.000	0.01
		C	0.000	0.000	3.333	0.000	0.04
L23	75.00-70.00	A	0.000	0.000	7.542	0.000	0.00
		B	0.000	0.000	6.082	0.000	0.01
		C	0.000	0.000	9.083	0.000	0.04
L24	70.00-69.00	A	0.000	0.000	0.833	0.000	0.00
		B	0.000	0.000	0.941	0.000	0.00
		C	0.000	0.000	1.667	0.000	0.01
L25	69.00-64.00	A	0.000	0.000	4.167	0.000	0.00
		B	0.000	0.000	4.707	0.000	0.01
		C	0.000	0.000	8.333	0.000	0.04
L26	64.00-59.00	A	0.000	0.000	4.167	0.000	0.00
		B	0.000	0.000	4.707	0.000	0.01
		C	0.000	0.000	8.333	0.000	0.04
L27	59.00-56.50	A	0.000	0.000	5.417	0.000	0.00
		B	0.000	0.000	4.020	0.000	0.01
		C	0.000	0.000	5.833	0.000	0.02
L28	56.50-56.25	A	0.000	0.000	0.625	0.000	0.00
		B	0.000	0.000	0.444	0.000	0.00
		C	0.000	0.000	0.625	0.000	0.00
L29	56.25-51.25	A	0.000	0.000	8.333	0.000	0.00
		B	0.000	0.000	4.707	0.000	0.01
		C	0.000	0.000	4.167	0.000	0.04
L30	51.25-46.25	A	0.000	0.000	8.333	0.000	0.00
		B	0.000	0.000	4.707	0.000	0.01
		C	0.000	0.000	4.167	0.000	0.04
L31	46.25-41.25	A	0.000	0.000	8.333	0.000	0.00
		B	0.000	0.000	4.707	0.000	0.01
		C	0.000	0.000	4.167	0.000	0.04
L32	41.25-36.25	A	0.000	0.000	8.333	0.000	0.00
		B	0.000	0.000	4.707	0.000	0.01
		C	0.000	0.000	4.167	0.000	0.04
L33	36.25-30.00	A	0.000	0.000	11.042	0.000	0.00
		B	0.000	0.000	6.508	0.000	0.01
		C	0.000	0.000	6.458	0.000	0.05
L34	30.00-28.93	A	0.000	0.000	2.675	0.000	0.00
		B	0.000	0.000	1.899	0.000	0.00
		C	0.000	0.000	2.675	0.000	0.01
L35	28.93-28.75	A	0.000	0.000	0.450	0.000	0.00
		B	0.000	0.000	0.319	0.000	0.00
		C	0.000	0.000	0.450	0.000	0.00
L36	28.75-28.50	A	0.000	0.000	0.625	0.000	0.00
		B	0.000	0.000	0.444	0.000	0.00
		C	0.000	0.000	0.625	0.000	0.00
L37	28.50-23.50	A	0.000	0.000	4.167	0.000	0.00

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
L38	23.50-18.50	B	0.000	0.000	4.707	0.000	0.01
		C	0.000	0.000	8.333	0.000	0.04
		A	0.000	0.000	4.167	0.000	0.00
L39	18.50-13.50	B	0.000	0.000	4.707	0.000	0.01
		C	0.000	0.000	8.333	0.000	0.04
		A	0.000	0.000	4.167	0.000	0.00
L40	13.50-8.50	B	0.000	0.000	4.707	0.000	0.01
		C	0.000	0.000	8.333	0.000	0.04
		A	0.000	0.000	4.167	0.000	0.00
L41	8.50-3.50	B	0.000	0.000	4.707	0.000	0.01
		C	0.000	0.000	8.333	0.000	0.04
		A	0.000	0.000	4.167	0.000	0.00
L42	3.50-2.75	B	0.000	0.000	0.706	0.000	0.00
		C	0.000	0.000	1.250	0.000	0.01
		A	0.000	0.000	0.625	0.000	0.00
L43	2.75-2.50	B	0.000	0.000	0.235	0.000	0.00
		C	0.000	0.000	0.417	0.000	0.00
		A	0.000	0.000	0.208	0.000	0.00
L44	2.50-0.00	B	0.000	0.000	2.353	0.000	0.01
		C	0.000	0.000	4.167	0.000	0.02
		A	0.000	0.000	2.083	0.000	0.00

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	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²	Weight K
L1	150.00-145.00	A	0.987	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	2.515	0.000	0.03
		C		0.000	0.000	0.000	0.000	0.01
L2	145.00-140.00	A	0.984	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	2.508	0.000	0.03
		C		0.000	0.000	0.000	0.000	0.04
L3	140.00-135.00	A	0.980	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	2.501	0.000	0.03
		C		0.000	0.000	0.000	0.000	0.04
L4	135.00-130.00	A	0.977	0.000	0.000	0.174	0.000	0.00
		B		0.000	0.000	2.667	0.000	0.03
		C		0.000	0.000	0.348	0.000	0.04
L5	130.00-129.25	A	0.975	0.000	0.000	0.521	0.000	0.00
		B		0.000	0.000	0.895	0.000	0.01
		C		0.000	0.000	1.042	0.000	0.01
L6	129.25-129.00	A	0.974	0.000	0.000	0.174	0.000	0.00
		B		0.000	0.000	0.298	0.000	0.00
		C		0.000	0.000	0.347	0.000	0.00
L7	129.00-124.00	A	0.972	0.000	0.000	3.472	0.000	0.02
		B		0.000	0.000	5.957	0.000	0.05
		C		0.000	0.000	6.944	0.000	0.08
L8	124.00-119.00	A	0.968	0.000	0.000	3.468	0.000	0.02
		B		0.000	0.000	5.945	0.000	0.05
		C		0.000	0.000	6.937	0.000	0.08
L9	119.00-114.00	A	0.964	0.000	0.000	3.464	0.000	0.02
		B		0.000	0.000	5.933	0.000	0.05
		C		0.000	0.000	6.929	0.000	0.08
L10	114.00-110.50	A	0.961	0.000	0.000	2.422	0.000	0.02
		B		0.000	0.000	4.145	0.000	0.04
		C		0.000	0.000	4.845	0.000	0.06
L11	110.50-110.25	A	0.959	0.000	0.000	0.173	0.000	0.00
		B		0.000	0.000	0.296	0.000	0.00
		C		0.000	0.000	0.346	0.000	0.00
L12	110.25-110.00	A	0.959	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.123	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
L13	110.00-109.50	A	0.959	0.000	0.000	0.215	0.000	0.00

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
		B		0.000	0.000	0.460	0.000	0.00
		C		0.000	0.000	0.429	0.000	0.01
L14	109.50-109.25	A	0.958	0.000	0.000	0.215	0.000	0.00
		B		0.000	0.000	0.337	0.000	0.00
		C		0.000	0.000	0.429	0.000	0.00
L15	109.25-104.25	A	0.956	0.000	0.000	4.289	0.000	0.03
		B		0.000	0.000	6.741	0.000	0.05
		C		0.000	0.000	8.578	0.000	0.09
L16	104.25-99.25	A	0.951	0.000	0.000	4.285	0.000	0.03
		B		0.000	0.000	6.727	0.000	0.05
		C		0.000	0.000	8.569	0.000	0.09
L17	99.25-94.25	A	0.947	0.000	0.000	4.280	0.000	0.03
		B		0.000	0.000	6.713	0.000	0.05
		C		0.000	0.000	8.560	0.000	0.09
L18	94.25-90.25	A	0.942	0.000	0.000	5.985	0.000	0.04
		B		0.000	0.000	6.642	0.000	0.05
		C		0.000	0.000	8.123	0.000	0.08
L19	90.25-90.00	A	0.940	0.000	0.000	0.641	0.000	0.00
		B		0.000	0.000	0.548	0.000	0.00
		C		0.000	0.000	0.641	0.000	0.01
L20	90.00-85.00	A	0.937	0.000	0.000	8.541	0.000	0.05
		B		0.000	0.000	6.684	0.000	0.05
		C		0.000	0.000	4.270	0.000	0.06
L21	85.00-80.00	A	0.932	0.000	0.000	8.530	0.000	0.05
		B		0.000	0.000	6.668	0.000	0.05
		C		0.000	0.000	4.265	0.000	0.06
L22	80.00-75.00	A	0.926	0.000	0.000	8.518	0.000	0.05
		B		0.000	0.000	6.651	0.000	0.05
		C		0.000	0.000	4.259	0.000	0.06
L23	75.00-70.00	A	0.920	0.000	0.000	9.427	0.000	0.05
		B		0.000	0.000	9.254	0.000	0.07
		C		0.000	0.000	11.198	0.000	0.10
L24	70.00-69.00	A	0.916	0.000	0.000	1.017	0.000	0.01
		B		0.000	0.000	1.493	0.000	0.01
		C		0.000	0.000	2.035	0.000	0.02
L25	69.00-64.00	A	0.912	0.000	0.000	5.078	0.000	0.03
		B		0.000	0.000	7.442	0.000	0.05
		C		0.000	0.000	10.157	0.000	0.09
L26	64.00-59.00	A	0.905	0.000	0.000	5.071	0.000	0.03
		B		0.000	0.000	7.420	0.000	0.05
		C		0.000	0.000	10.142	0.000	0.09
L27	59.00-56.50	A	0.899	0.000	0.000	6.585	0.000	0.04
		B		0.000	0.000	5.728	0.000	0.04
		C		0.000	0.000	7.092	0.000	0.06
L28	56.50-56.25	A	0.897	0.000	0.000	0.760	0.000	0.00
		B		0.000	0.000	0.623	0.000	0.00
		C		0.000	0.000	0.760	0.000	0.01
L29	56.25-51.25	A	0.892	0.000	0.000	10.118	0.000	0.06
		B		0.000	0.000	7.384	0.000	0.05
		C		0.000	0.000	5.059	0.000	0.06
L30	51.25-46.25	A	0.884	0.000	0.000	10.101	0.000	0.05
		B		0.000	0.000	7.358	0.000	0.05
		C		0.000	0.000	5.050	0.000	0.06
L31	46.25-41.25	A	0.874	0.000	0.000	10.082	0.000	0.05
		B		0.000	0.000	7.330	0.000	0.05
		C		0.000	0.000	5.041	0.000	0.06
L32	41.25-36.25	A	0.864	0.000	0.000	10.061	0.000	0.05
		B		0.000	0.000	7.298	0.000	0.05
		C		0.000	0.000	5.030	0.000	0.06
L33	36.25-30.00	A	0.850	0.000	0.000	13.295	0.000	0.07
		B		0.000	0.000	9.824	0.000	0.07
		C		0.000	0.000	7.776	0.000	0.09
L34	30.00-28.93	A	0.840	0.000	0.000	3.221	0.000	0.02
		B		0.000	0.000	2.627	0.000	0.02
		C		0.000	0.000	3.221	0.000	0.02
L35	28.93-28.75	A	0.839	0.000	0.000	0.541	0.000	0.00
		B		0.000	0.000	0.440	0.000	0.00
		C		0.000	0.000	0.541	0.000	0.00
L36	28.75-28.50	A	0.838	0.000	0.000	0.751	0.000	0.00

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
L37	28.50-23.50	B	0.830	0.000	0.000	0.611	0.000	0.00
		C		0.000	0.000	0.751	0.000	0.01
		A		0.000	0.000	4.997	0.000	0.03
L38	23.50-18.50	B	0.812	0.000	0.000	7.196	0.000	0.05
		C		0.000	0.000	9.993	0.000	0.09
		A		0.000	0.000	4.979	0.000	0.02
L39	18.50-13.50	B	0.791	0.000	0.000	7.144	0.000	0.05
		C		0.000	0.000	9.958	0.000	0.09
		A		0.000	0.000	4.957	0.000	0.02
L40	13.50-8.50	B	0.762	0.000	0.000	7.078	0.000	0.05
		C		0.000	0.000	9.915	0.000	0.08
		A		0.000	0.000	4.928	0.000	0.02
L41	8.50-3.50	B	0.717	0.000	0.000	6.991	0.000	0.05
		C		0.000	0.000	9.856	0.000	0.08
		A		0.000	0.000	4.883	0.000	0.02
L42	3.50-2.75	B	0.672	0.000	0.000	6.857	0.000	0.04
		C		0.000	0.000	9.767	0.000	0.08
		A		0.000	0.000	0.726	0.000	0.00
L43	2.75-2.50	B	0.660	0.000	0.000	1.008	0.000	0.01
		C		0.000	0.000	1.451	0.000	0.01
		A		0.000	0.000	0.241	0.000	0.00
L44	2.50-0.00	B	0.613	0.000	0.000	0.334	0.000	0.00
		C		0.000	0.000	0.483	0.000	0.00
		A		0.000	0.000	2.390	0.000	0.01
		B		0.000	0.000	3.272	0.000	0.02
		C		0.000	0.000	4.779	0.000	0.04

Feed Line Center of Pressure

Section	Elevation ft	CP_x in	CP_z in	CP_x Ice in	CP_z Ice in
L1	150.00-145.00	0.0661	-0.6291	0.1817	-1.7287
L2	145.00-140.00	0.0662	-0.6303	0.1838	-1.7486
L3	140.00-135.00	0.0664	-0.6314	0.1857	-1.7667
L4	135.00-130.00	0.1122	-0.7790	0.2202	-1.8475
L5	130.00-129.25	0.4828	-1.9690	0.5120	-2.4266
L6	129.25-129.00	0.4853	-1.9794	0.5146	-2.4388
L7	129.00-124.00	0.4916	-2.0047	0.5218	-2.4722
L8	124.00-119.00	0.5020	-2.0473	0.5342	-2.5294
L9	119.00-114.00	0.5134	-2.0934	0.5473	-2.5900
L10	114.00-110.50	0.5227	-2.1314	0.5581	-2.6398
L11	110.50-110.25	0.5295	-2.1588	0.5652	-2.6730
L12	110.25-110.00	0.0675	-0.6427	0.1950	-1.8552
L13	110.00-109.50	0.4432	-1.8765	0.4799	-2.4879
L14	109.50-109.25	0.5922	-2.3658	0.6068	-2.7690
L15	109.25-104.25	0.5991	-2.3933	0.6142	-2.8018
L16	104.25-99.25	0.6122	-2.4453	0.6281	-2.8635
L17	99.25-94.25	0.6249	-2.4958	0.6416	-2.9234
L18	94.25-90.25	1.0399	-1.5749	1.0285	-2.0004
L19	90.25-90.00	1.4703	-0.5645	1.4442	-0.9540
L20	90.00-85.00	1.7142	1.4068	1.6548	0.6629
L21	85.00-80.00	1.7493	1.4358	1.6863	0.6793
L22	80.00-75.00	1.7797	1.4610	1.7169	0.6956
L23	75.00-70.00	1.3124	-1.3374	1.2943	-1.7144
L24	70.00-69.00	0.7432	-2.9305	0.7460	-3.3019
L25	69.00-64.00	0.7511	-2.9613	0.7535	-3.3326
L26	64.00-59.00	0.7639	-3.0118	0.7663	-3.3867
L27	59.00-56.50	1.6388	-0.9666	1.5905	-1.3508
L28	56.50-56.25	1.7835	-0.6432	1.7310	-1.0194
L29	56.25-51.25	2.0905	1.7907	1.9853	1.0109
L30	51.25-46.25	2.1229	1.8187	2.0162	1.0325
L31	46.25-41.25	2.1547	1.8460	2.0463	1.0544
L32	41.25-36.25	2.1858	1.8728	2.0756	1.0768
L33	36.25-30.00	2.1731	1.4427	2.0706	0.7244
L34	30.00-28.93	1.9415	-0.6998	1.8822	-1.0891

Section	Elevation	CP _x	CP _z	CP _x Ice	CP _z Ice
	ft	in	in	in	in
L35	28.93-28.75	1.9457	-0.7013	1.8851	-1.0862
L36	28.75-28.50	1.9471	-0.7018	1.8865	-1.0868
L37	28.50-23.50	0.8387	-3.3061	0.8373	-3.6740
L38	23.50-18.50	0.8497	-3.3497	0.8471	-3.7104
L39	18.50-13.50	0.8605	-3.3921	0.8560	-3.7416
L40	13.50-8.50	0.8711	-3.4339	0.8640	-3.7656
L41	8.50-3.50	0.8815	-3.4746	0.8699	-3.7744
L42	3.50-2.75	0.8874	-3.4978	0.8711	-3.7621
L43	2.75-2.50	0.8874	-3.4980	0.8700	-3.7525
L44	2.50-0.00	0.8902	-3.5090	0.8677	-3.7237

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L1	32	Safety Line 3/8	145.00 - 150.00	1.0000	1.0000
L1	33	Climbing Rungs	145.00 - 150.00	1.0000	1.0000
L2	32	Safety Line 3/8	140.00 - 145.00	1.0000	1.0000
L2	33	Climbing Rungs	140.00 - 145.00	1.0000	1.0000
L3	32	Safety Line 3/8	135.00 - 140.00	1.0000	1.0000
L3	33	Climbing Rungs	135.00 - 140.00	1.0000	1.0000
L4	27	PL 1.25" x 3"	130.00 - 130.25	1.0000	1.0000
L4	28	PL 1.25" x 3"	130.00 - 130.25	1.0000	1.0000
L4	29	PL 1.25" x 3"	130.00 - 130.25	1.0000	1.0000
L4	30	PL 1.25" x 3"	130.00 - 130.25	1.0000	1.0000
L4	32	Safety Line 3/8	130.00 - 135.00	1.0000	1.0000
L4	33	Climbing Rungs	130.00 - 135.00	1.0000	1.0000
L5	27	PL 1.25" x 3"	129.25 - 130.00	1.0000	1.0000
L5	28	PL 1.25" x 3"	129.25 - 130.00	1.0000	1.0000
L5	29	PL 1.25" x 3"	129.25 - 130.00	1.0000	1.0000
L5	30	PL 1.25" x 3"	129.25 - 130.00	1.0000	1.0000
L5	32	Safety Line 3/8	129.25 - 130.00	1.0000	1.0000
L5	33	Climbing Rungs	129.25 - 130.00	1.0000	1.0000
L6	27	PL 1.25" x 3"	129.00 - 129.25	1.0000	1.0000
L6	28	PL 1.25" x 3"	129.00 - 129.25	1.0000	1.0000
L6	29	PL 1.25" x 3"	129.00 - 129.25	1.0000	1.0000
L6	30	PL 1.25" x 3"	129.00 - 129.25	1.0000	1.0000
L6	32	Safety Line 3/8	129.00 - 129.25	1.0000	1.0000
L6	33	Climbing Rungs	129.00 - 129.25	1.0000	1.0000
L7	27	PL 1.25" x 3"	124.00 - 129.00	1.0000	1.0000
L7	28	PL 1.25" x 3"	124.00 - 129.00	1.0000	1.0000
L7	29	PL 1.25" x 3"	124.00 - 129.00	1.0000	1.0000
L7	30	PL 1.25" x 3"	124.00 - 129.00	1.0000	1.0000
L7	32	Safety Line 3/8	124.00 - 129.00	1.0000	1.0000
L7	33	Climbing Rungs	124.00 - 129.00	1.0000	1.0000
L8	27	PL 1.25" x 3"	119.00 - 124.00	1.0000	1.0000
L8	28	PL 1.25" x 3"	119.00 - 124.00	1.0000	1.0000
L8	29	PL 1.25" x 3"	119.00 - 124.00	1.0000	1.0000
L8	30	PL 1.25" x 3"	119.00 - 124.00	1.0000	1.0000
L8	32	Safety Line 3/8	119.00 - 124.00	1.0000	1.0000
L8	33	Climbing Rungs	119.00 - 124.00	1.0000	1.0000
L9	27	PL 1.25" x 3"	114.00 - 119.00	1.0000	1.0000
L9	28	PL 1.25" x 3"	114.00 - 119.00	1.0000	1.0000
L9	29	PL 1.25" x 3"	114.00 - 119.00	1.0000	1.0000
L9	30	PL 1.25" x 3"	114.00 - 119.00	1.0000	1.0000
L9	32	Safety Line 3/8	114.00 - 119.00	1.0000	1.0000
L9	33	Climbing Rungs	114.00 - 119.00	1.0000	1.0000
L10	27	PL 1.25" x 3"	110.50 - 114.00	1.0000	1.0000
L10	28	PL 1.25" x 3"	110.50 - 114.00	1.0000	1.0000
L10	29	PL 1.25" x 3"	110.50 - 114.00	1.0000	1.0000
L10	30	PL 1.25" x 3"	110.50 - 114.00	1.0000	1.0000
L10	32	Safety Line 3/8	110.50 - 114.00	1.0000	1.0000
L10	33	Climbing Rungs	110.50 - 114.00	1.0000	1.0000
L11	27	PL 1.25" x 3"	110.25 - 110.50	1.0000	1.0000
L11	28	PL 1.25" x 3"	110.25 - 110.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L11	29	PL 1.25" x 3"	110.25 - 110.50	1.0000	1.0000
L11	30	PL 1.25" x 3"	110.25 - 110.50	1.0000	1.0000
L11	32	Safety Line 3/8	110.25 - 110.50	1.0000	1.0000
L11	33	Climbing Rungs	110.25 - 110.50	1.0000	1.0000
L12	32	Safety Line 3/8	110.00 - 110.25	1.0000	1.0000
L12	33	Climbing Rungs	110.00 - 110.25	1.0000	1.0000
L13	22	PL 1.25x4	109.50 - 109.75	1.0000	1.0000
L13	23	PL 1.25x4	109.50 - 109.75	1.0000	1.0000
L13	24	PL 1.25x4	109.50 - 109.75	1.0000	1.0000
L13	25	PL 1.25x4	109.50 - 109.75	1.0000	1.0000
L13	32	Safety Line 3/8	109.50 - 110.00	1.0000	1.0000
L13	33	Climbing Rungs	109.50 - 110.00	1.0000	1.0000
L14	22	PL 1.25x4	109.25 - 109.50	1.0000	1.0000
L14	23	PL 1.25x4	109.25 - 109.50	1.0000	1.0000
L14	24	PL 1.25x4	109.25 - 109.50	1.0000	1.0000
L14	25	PL 1.25x4	109.25 - 109.50	1.0000	1.0000
L14	32	Safety Line 3/8	109.25 - 109.50	1.0000	1.0000
L14	33	Climbing Rungs	109.25 - 109.50	1.0000	1.0000
L15	22	PL 1.25x4	104.25 - 109.25	1.0000	1.0000
L15	23	PL 1.25x4	104.25 - 109.25	1.0000	1.0000
L15	24	PL 1.25x4	104.25 - 109.25	1.0000	1.0000
L15	25	PL 1.25x4	104.25 - 109.25	1.0000	1.0000
L15	32	Safety Line 3/8	104.25 - 109.25	1.0000	1.0000
L15	33	Climbing Rungs	104.25 - 109.25	1.0000	1.0000
L16	22	PL 1.25x4	99.25 - 104.25	1.0000	1.0000
L16	23	PL 1.25x4	99.25 - 104.25	1.0000	1.0000
L16	24	PL 1.25x4	99.25 - 104.25	1.0000	1.0000
L16	25	PL 1.25x4	99.25 - 104.25	1.0000	1.0000
L16	32	Safety Line 3/8	99.25 - 104.25	1.0000	1.0000
L16	33	Climbing Rungs	99.25 - 104.25	1.0000	1.0000
L17	22	PL 1.25x4	94.25 - 99.25	1.0000	1.0000
L17	23	PL 1.25x4	94.25 - 99.25	1.0000	1.0000
L17	24	PL 1.25x4	94.25 - 99.25	1.0000	1.0000
L17	25	PL 1.25x4	94.25 - 99.25	1.0000	1.0000
L17	32	Safety Line 3/8	94.25 - 99.25	1.0000	1.0000
L17	33	Climbing Rungs	94.25 - 99.25	1.0000	1.0000
L18	17	PL 1.25x4	90.25 - 91.75	1.0000	1.0000
L18	18	PL 1.25x4	90.25 - 91.75	1.0000	1.0000
L18	19	PL 1.25x4	90.25 - 91.75	1.0000	1.0000
L18	20	PL 1.25x4	90.25 - 91.75	1.0000	1.0000
L18	22	PL 1.25x4	90.25 - 94.25	1.0000	1.0000
L18	23	PL 1.25x4	90.25 - 94.25	1.0000	1.0000
L18	24	PL 1.25x4	90.25 - 94.25	1.0000	1.0000
L18	25	PL 1.25x4	90.25 - 94.25	1.0000	1.0000
L18	32	Safety Line 3/8	90.25 - 94.25	1.0000	1.0000
L18	33	Climbing Rungs	90.25 - 94.25	1.0000	1.0000
L19	17	PL 1.25x4	90.00 - 90.25	1.0000	1.0000
L19	18	PL 1.25x4	90.00 - 90.25	1.0000	1.0000
L19	19	PL 1.25x4	90.00 - 90.25	1.0000	1.0000
L19	20	PL 1.25x4	90.00 - 90.25	1.0000	1.0000
L19	22	PL 1.25x4	90.00 - 90.25	1.0000	1.0000
L19	23	PL 1.25x4	90.00 - 90.25	1.0000	1.0000
L19	24	PL 1.25x4	90.00 - 90.25	1.0000	1.0000
L19	25	PL 1.25x4	90.00 - 90.25	1.0000	1.0000
L19	32	Safety Line 3/8	90.00 - 90.25	1.0000	1.0000
L19	33	Climbing Rungs	90.00 - 90.25	1.0000	1.0000
L20	17	PL 1.25x4	85.00 - 90.00	1.0000	1.0000
L20	18	PL 1.25x4	85.00 - 90.00	1.0000	1.0000
L20	19	PL 1.25x4	85.00 - 90.00	1.0000	1.0000
L20	20	PL 1.25x4	85.00 - 90.00	1.0000	1.0000
L20	32	Safety Line 3/8	85.00 - 90.00	1.0000	1.0000
L20	33	Climbing Rungs	85.00 - 90.00	1.0000	1.0000
L21	17	PL 1.25x4	80.00 - 85.00	1.0000	1.0000
L21	18	PL 1.25x4	80.00 - 85.00	1.0000	1.0000
L21	19	PL 1.25x4	80.00 - 85.00	1.0000	1.0000
L21	20	PL 1.25x4	80.00 - 85.00	1.0000	1.0000
L21	32	Safety Line 3/8	80.00 - 85.00	1.0000	1.0000
L21	33	Climbing Rungs	80.00 - 85.00	1.0000	1.0000
L22	17	PL 1.25x4	75.00 - 80.00	1.0000	1.0000
L22	18	PL 1.25x4	75.00 - 80.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L22	19	PL 1.25x4	75.00 - 80.00	1.0000	1.0000
L22	20	PL 1.25x4	75.00 - 80.00	1.0000	1.0000
L22	32	Safety Line 3/8	75.00 - 80.00	1.0000	1.0000
L22	33	Climbing Rungs	75.00 - 80.00	1.0000	1.0000
L23	12	PL 1.25x5	70.00 - 74.25	1.0000	1.0000
L23	13	PL 1.25x5	70.00 - 74.25	1.0000	1.0000
L23	14	PL 1.25x5	70.00 - 74.25	1.0000	1.0000
L23	15	PL 1.25x5	70.00 - 74.25	1.0000	1.0000
L23	17	PL 1.25x4	72.00 - 75.00	1.0000	1.0000
L23	18	PL 1.25x4	72.00 - 75.00	1.0000	1.0000
L23	19	PL 1.25x4	72.00 - 75.00	1.0000	1.0000
L23	20	PL 1.25x4	72.00 - 75.00	1.0000	1.0000
L23	32	Safety Line 3/8	70.00 - 75.00	1.0000	1.0000
L23	33	Climbing Rungs	70.00 - 75.00	1.0000	1.0000
L24	12	PL 1.25x5	69.00 - 70.00	1.0000	1.0000
L24	13	PL 1.25x5	69.00 - 70.00	1.0000	1.0000
L24	14	PL 1.25x5	69.00 - 70.00	1.0000	1.0000
L24	15	PL 1.25x5	69.00 - 70.00	1.0000	1.0000
L24	32	Safety Line 3/8	69.00 - 70.00	1.0000	1.0000
L24	33	Climbing Rungs	69.00 - 70.00	1.0000	1.0000
L25	12	PL 1.25x5	64.00 - 69.00	1.0000	1.0000
L25	13	PL 1.25x5	64.00 - 69.00	1.0000	1.0000
L25	14	PL 1.25x5	64.00 - 69.00	1.0000	1.0000
L25	15	PL 1.25x5	64.00 - 69.00	1.0000	1.0000
L25	32	Safety Line 3/8	64.00 - 69.00	1.0000	1.0000
L25	33	Climbing Rungs	64.00 - 69.00	1.0000	1.0000
L26	12	PL 1.25x5	59.00 - 64.00	1.0000	1.0000
L26	13	PL 1.25x5	59.00 - 64.00	1.0000	1.0000
L26	14	PL 1.25x5	59.00 - 64.00	1.0000	1.0000
L26	15	PL 1.25x5	59.00 - 64.00	1.0000	1.0000
L26	32	Safety Line 3/8	59.00 - 64.00	1.0000	1.0000
L26	33	Climbing Rungs	59.00 - 64.00	1.0000	1.0000
L27	7	PL 1.25x5	56.50 - 58.50	1.0000	1.0000
L27	8	PL 1.25x5	56.50 - 58.50	1.0000	1.0000
L27	9	PL 1.25x5	56.50 - 58.50	1.0000	1.0000
L27	10	PL 1.25x5	56.50 - 58.50	1.0000	1.0000
L27	12	PL 1.25x5	56.50 - 59.00	1.0000	1.0000
L27	13	PL 1.25x5	56.50 - 59.00	1.0000	1.0000
L27	14	PL 1.25x5	56.50 - 59.00	1.0000	1.0000
L27	15	PL 1.25x5	56.50 - 59.00	1.0000	1.0000
L27	32	Safety Line 3/8	56.50 - 59.00	1.0000	1.0000
L27	33	Climbing Rungs	56.50 - 59.00	1.0000	1.0000
L28	7	PL 1.25x5	56.25 - 56.50	1.0000	1.0000
L28	8	PL 1.25x5	56.25 - 56.50	1.0000	1.0000
L28	9	PL 1.25x5	56.25 - 56.50	1.0000	1.0000
L28	10	PL 1.25x5	56.25 - 56.50	1.0000	1.0000
L28	12	PL 1.25x5	56.25 - 56.50	1.0000	1.0000
L28	13	PL 1.25x5	56.25 - 56.50	1.0000	1.0000
L28	14	PL 1.25x5	56.25 - 56.50	1.0000	1.0000
L28	15	PL 1.25x5	56.25 - 56.50	1.0000	1.0000
L28	32	Safety Line 3/8	56.25 - 56.50	1.0000	1.0000
L28	33	Climbing Rungs	56.25 - 56.50	1.0000	1.0000
L29	7	PL 1.25x5	51.25 - 56.25	1.0000	1.0000
L29	8	PL 1.25x5	51.25 - 56.25	1.0000	1.0000
L29	9	PL 1.25x5	51.25 - 56.25	1.0000	1.0000
L29	10	PL 1.25x5	51.25 - 56.25	1.0000	1.0000
L29	32	Safety Line 3/8	51.25 - 56.25	1.0000	1.0000
L29	33	Climbing Rungs	51.25 - 56.25	1.0000	1.0000
L30	7	PL 1.25x5	46.25 - 51.25	1.0000	1.0000
L30	8	PL 1.25x5	46.25 - 51.25	1.0000	1.0000
L30	9	PL 1.25x5	46.25 - 51.25	1.0000	1.0000
L30	10	PL 1.25x5	46.25 - 51.25	1.0000	1.0000
L30	32	Safety Line 3/8	46.25 - 51.25	1.0000	1.0000
L30	33	Climbing Rungs	46.25 - 51.25	1.0000	1.0000
L31	7	PL 1.25x5	41.25 - 46.25	1.0000	1.0000
L31	8	PL 1.25x5	41.25 - 46.25	1.0000	1.0000
L31	9	PL 1.25x5	41.25 - 46.25	1.0000	1.0000
L31	10	PL 1.25x5	41.25 - 46.25	1.0000	1.0000
L31	32	Safety Line 3/8	41.25 - 46.25	1.0000	1.0000
L31	33	Climbing Rungs	41.25 - 46.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L32	7	PL 1.25x5	36.25 - 41.25	1.0000	1.0000
L32	8	PL 1.25x5	36.25 - 41.25	1.0000	1.0000
L32	9	PL 1.25x5	36.25 - 41.25	1.0000	1.0000
L32	10	PL 1.25x5	36.25 - 41.25	1.0000	1.0000
L32	32	Safety Line 3/8	36.25 - 41.25	1.0000	1.0000
L32	33	Climbing Rungs	36.25 - 41.25	1.0000	1.0000
L33	2	PL 1.25x5	30.00 - 30.75	1.0000	1.0000
L33	3	PL 1.25x5	30.00 - 30.75	1.0000	1.0000
L33	4	PL 1.25x5	30.00 - 30.75	1.0000	1.0000
L33	5	PL 1.25x5	30.00 - 30.75	1.0000	1.0000
L33	7	PL 1.25x5	30.00 - 36.25	1.0000	1.0000
L33	8	PL 1.25x5	30.00 - 36.25	1.0000	1.0000
L33	9	PL 1.25x5	30.00 - 36.25	1.0000	1.0000
L33	10	PL 1.25x5	30.00 - 36.25	1.0000	1.0000
L33	32	Safety Line 3/8	30.00 - 36.25	1.0000	1.0000
L33	33	Climbing Rungs	30.00 - 36.25	1.0000	1.0000
L34	2	PL 1.25x5	28.93 - 30.00	1.0000	1.0000
L34	3	PL 1.25x5	28.93 - 30.00	1.0000	1.0000
L34	4	PL 1.25x5	28.93 - 30.00	1.0000	1.0000
L34	5	PL 1.25x5	28.93 - 30.00	1.0000	1.0000
L34	7	PL 1.25x5	28.93 - 30.00	1.0000	1.0000
L34	8	PL 1.25x5	28.93 - 30.00	1.0000	1.0000
L34	9	PL 1.25x5	28.93 - 30.00	1.0000	1.0000
L34	10	PL 1.25x5	28.93 - 30.00	1.0000	1.0000
L34	32	Safety Line 3/8	28.93 - 30.00	1.0000	1.0000
L34	33	Climbing Rungs	28.93 - 30.00	1.0000	1.0000
L35	2	PL 1.25x5	28.75 - 28.93	1.0000	1.0000
L35	3	PL 1.25x5	28.75 - 28.93	1.0000	1.0000
L35	4	PL 1.25x5	28.75 - 28.93	1.0000	1.0000
L35	5	PL 1.25x5	28.75 - 28.93	1.0000	1.0000
L35	7	PL 1.25x5	28.75 - 28.93	1.0000	1.0000
L35	8	PL 1.25x5	28.75 - 28.93	1.0000	1.0000
L35	9	PL 1.25x5	28.75 - 28.93	1.0000	1.0000
L35	10	PL 1.25x5	28.75 - 28.93	1.0000	1.0000
L35	32	Safety Line 3/8	28.75 - 28.93	1.0000	1.0000
L35	33	Climbing Rungs	28.75 - 28.93	1.0000	1.0000
L36	2	PL 1.25x5	28.50 - 28.75	1.0000	1.0000
L36	3	PL 1.25x5	28.50 - 28.75	1.0000	1.0000
L36	4	PL 1.25x5	28.50 - 28.75	1.0000	1.0000
L36	5	PL 1.25x5	28.50 - 28.75	1.0000	1.0000
L36	7	PL 1.25x5	28.50 - 28.75	1.0000	1.0000
L36	8	PL 1.25x5	28.50 - 28.75	1.0000	1.0000
L36	9	PL 1.25x5	28.50 - 28.75	1.0000	1.0000
L36	10	PL 1.25x5	28.50 - 28.75	1.0000	1.0000
L36	32	Safety Line 3/8	28.50 - 28.75	1.0000	1.0000
L36	33	Climbing Rungs	28.50 - 28.75	1.0000	1.0000
L37	2	PL 1.25x5	23.50 - 28.50	1.0000	1.0000
L37	3	PL 1.25x5	23.50 - 28.50	1.0000	1.0000
L37	4	PL 1.25x5	23.50 - 28.50	1.0000	1.0000
L37	5	PL 1.25x5	23.50 - 28.50	1.0000	1.0000
L37	32	Safety Line 3/8	23.50 - 28.50	1.0000	1.0000
L37	33	Climbing Rungs	23.50 - 28.50	1.0000	1.0000
L38	2	PL 1.25x5	18.50 - 23.50	1.0000	1.0000
L38	3	PL 1.25x5	18.50 - 23.50	1.0000	1.0000
L38	4	PL 1.25x5	18.50 - 23.50	1.0000	1.0000
L38	5	PL 1.25x5	18.50 - 23.50	1.0000	1.0000
L38	32	Safety Line 3/8	18.50 - 23.50	1.0000	1.0000
L38	33	Climbing Rungs	18.50 - 23.50	1.0000	1.0000
L39	2	PL 1.25x5	13.50 - 18.50	1.0000	1.0000
L39	3	PL 1.25x5	13.50 - 18.50	1.0000	1.0000
L39	4	PL 1.25x5	13.50 - 18.50	1.0000	1.0000
L39	5	PL 1.25x5	13.50 - 18.50	1.0000	1.0000
L39	32	Safety Line 3/8	13.50 - 18.50	1.0000	1.0000
L39	33	Climbing Rungs	13.50 - 18.50	1.0000	1.0000
L40	2	PL 1.25x5	8.50 - 13.50	1.0000	1.0000
L40	3	PL 1.25x5	8.50 - 13.50	1.0000	1.0000
L40	4	PL 1.25x5	8.50 - 13.50	1.0000	1.0000
L40	5	PL 1.25x5	8.50 - 13.50	1.0000	1.0000
L40	32	Safety Line 3/8	8.50 - 13.50	1.0000	1.0000
L40	33	Climbing Rungs	8.50 - 13.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L41	2	PL 1.25x5	3.50 - 8.50	1.0000	1.0000
L41	3	PL 1.25x5	3.50 - 8.50	1.0000	1.0000
L41	4	PL 1.25x5	3.50 - 8.50	1.0000	1.0000
L41	5	PL 1.25x5	3.50 - 8.50	1.0000	1.0000
L41	32	Safety Line 3/8	3.50 - 8.50	1.0000	1.0000
L41	33	Climbing Rungs	3.50 - 8.50	1.0000	1.0000
L42	2	PL 1.25x5	2.75 - 3.50	1.0000	1.0000
L42	3	PL 1.25x5	2.75 - 3.50	1.0000	1.0000
L42	4	PL 1.25x5	2.75 - 3.50	1.0000	1.0000
L42	5	PL 1.25x5	2.75 - 3.50	1.0000	1.0000
L42	32	Safety Line 3/8	2.75 - 3.50	1.0000	1.0000
L42	33	Climbing Rungs	2.75 - 3.50	1.0000	1.0000
L43	2	PL 1.25x5	2.50 - 2.75	1.0000	1.0000
L43	3	PL 1.25x5	2.50 - 2.75	1.0000	1.0000
L43	4	PL 1.25x5	2.50 - 2.75	1.0000	1.0000
L43	5	PL 1.25x5	2.50 - 2.75	1.0000	1.0000
L43	32	Safety Line 3/8	2.50 - 2.75	1.0000	1.0000
L43	33	Climbing Rungs	2.50 - 2.75	1.0000	1.0000
L44	2	PL 1.25x5	0.00 - 2.50	1.0000	1.0000
L44	3	PL 1.25x5	0.00 - 2.50	1.0000	1.0000
L44	4	PL 1.25x5	0.00 - 2.50	1.0000	1.0000
L44	5	PL 1.25x5	0.00 - 2.50	1.0000	1.0000
L44	32	Safety Line 3/8	0.00 - 2.50	1.0000	1.0000
L44	33	Climbing Rungs	0.00 - 2.50	1.0000	1.0000

Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L4	27	PL 1.25" x 3"	130.00 - 130.25	Auto	0.0000
L4	28	PL 1.25" x 3"	130.00 - 130.25	Auto	0.0000
L4	29	PL 1.25" x 3"	130.00 - 130.25	Auto	0.0000
L4	30	PL 1.25" x 3"	130.00 - 130.25	Auto	0.0000
L5	27	PL 1.25" x 3"	129.25 - 130.00	Auto	0.0000
L5	28	PL 1.25" x 3"	129.25 - 130.00	Auto	0.0000
L5	29	PL 1.25" x 3"	129.25 - 130.00	Auto	0.0000
L5	30	PL 1.25" x 3"	129.25 - 130.00	Auto	0.0000
L6	27	PL 1.25" x 3"	129.00 - 129.25	Auto	0.0000
L6	28	PL 1.25" x 3"	129.00 - 129.25	Auto	0.0000
L6	29	PL 1.25" x 3"	129.00 - 129.25	Auto	0.0000
L6	30	PL 1.25" x 3"	129.00 - 129.25	Auto	0.0000
L7	27	PL 1.25" x 3"	124.00 - 129.00	Auto	0.0000
L7	28	PL 1.25" x 3"	124.00 - 129.00	Auto	0.0000
L7	29	PL 1.25" x 3"	124.00 - 129.00	Auto	0.0000
L7	30	PL 1.25" x 3"	124.00 - 129.00	Auto	0.0000
L8	27	PL 1.25" x 3"	119.00 - 124.00	Auto	0.0000
L8	28	PL 1.25" x 3"	119.00 - 124.00	Auto	0.0000
L8	29	PL 1.25" x 3"	119.00 - 124.00	Auto	0.0000
L8	30	PL 1.25" x 3"	119.00 - 124.00	Auto	0.0000
L9	27	PL 1.25" x 3"	114.00 - 119.00	Auto	0.0000
L9	28	PL 1.25" x 3"	114.00 - 119.00	Auto	0.0000
L9	29	PL 1.25" x 3"	114.00 - 119.00	Auto	0.0000
L9	30	PL 1.25" x 3"	114.00 - 119.00	Auto	0.0000
L10	27	PL 1.25" x 3"	110.50 - 114.00	Auto	0.0000
L10	28	PL 1.25" x 3"	110.50 - 114.00	Auto	0.0000
L10	29	PL 1.25" x 3"	110.50 - 114.00	Auto	0.0000
L10	30	PL 1.25" x 3"	110.50 - 114.00	Auto	0.0000
L11	27	PL 1.25" x 3"	110.25 - 110.50	Auto	0.0112
L11	28	PL 1.25" x 3"	110.25 - 110.50	Auto	0.0112
L11	29	PL 1.25" x 3"	110.25 - 110.50	Auto	0.0112
L11	30	PL 1.25" x 3"	110.25 - 110.50	Auto	0.0112
L13	22	PL 1.25x4	109.50 - 109.75	Auto	0.2424
L13	23	PL 1.25x4	109.50 - 109.75	Auto	0.2424
L13	24	PL 1.25x4	109.50 - 109.75	Auto	0.2424
L13	25	PL 1.25x4	109.50 - 109.75	Auto	0.2424

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L14	22	PL 1.25x4	109.25 - 109.50	Auto	0.0473
L14	23	PL 1.25x4	109.25 - 109.50	Auto	0.0473
L14	24	PL 1.25x4	109.25 - 109.50	Auto	0.0473
L14	25	PL 1.25x4	109.25 - 109.50	Auto	0.0473
L15	22	PL 1.25x4	104.25 - 109.25	Auto	0.0085
L15	23	PL 1.25x4	104.25 - 109.25	Auto	0.0085
L15	24	PL 1.25x4	104.25 - 109.25	Auto	0.0085
L15	25	PL 1.25x4	104.25 - 109.25	Auto	0.0085
L16	22	PL 1.25x4	99.25 - 104.25	Auto	0.0000
L16	23	PL 1.25x4	99.25 - 104.25	Auto	0.0000
L16	24	PL 1.25x4	99.25 - 104.25	Auto	0.0000
L16	25	PL 1.25x4	99.25 - 104.25	Auto	0.0000
L17	22	PL 1.25x4	94.25 - 99.25	Auto	0.0000
L17	23	PL 1.25x4	94.25 - 99.25	Auto	0.0000
L17	24	PL 1.25x4	94.25 - 99.25	Auto	0.0000
L17	25	PL 1.25x4	94.25 - 99.25	Auto	0.0000
L18	17	PL 1.25x4	90.25 - 91.75	Auto	0.0000
L18	18	PL 1.25x4	90.25 - 91.75	Auto	0.0000
L18	19	PL 1.25x4	90.25 - 91.75	Auto	0.0000
L18	20	PL 1.25x4	90.25 - 91.75	Auto	0.0000
L18	22	PL 1.25x4	90.25 - 94.25	Auto	0.0000
L18	23	PL 1.25x4	90.25 - 94.25	Auto	0.0000
L18	24	PL 1.25x4	90.25 - 94.25	Auto	0.0000
L18	25	PL 1.25x4	90.25 - 94.25	Auto	0.0000
L19	17	PL 1.25x4	90.00 - 90.25	Auto	0.0000
L19	18	PL 1.25x4	90.00 - 90.25	Auto	0.0000
L19	19	PL 1.25x4	90.00 - 90.25	Auto	0.0000
L19	20	PL 1.25x4	90.00 - 90.25	Auto	0.0000
L19	22	PL 1.25x4	90.00 - 90.25	Auto	0.0000
L19	23	PL 1.25x4	90.00 - 90.25	Auto	0.0000
L19	24	PL 1.25x4	90.00 - 90.25	Auto	0.0000
L19	25	PL 1.25x4	90.00 - 90.25	Auto	0.0000
L20	17	PL 1.25x4	85.00 - 90.00	Auto	0.0000
L20	18	PL 1.25x4	85.00 - 90.00	Auto	0.0000
L20	19	PL 1.25x4	85.00 - 90.00	Auto	0.0000
L20	20	PL 1.25x4	85.00 - 90.00	Auto	0.0000
L21	17	PL 1.25x4	80.00 - 85.00	Auto	0.0000
L21	18	PL 1.25x4	80.00 - 85.00	Auto	0.0000
L21	19	PL 1.25x4	80.00 - 85.00	Auto	0.0000
L21	20	PL 1.25x4	80.00 - 85.00	Auto	0.0000
L22	17	PL 1.25x4	75.00 - 80.00	Auto	0.0000
L22	18	PL 1.25x4	75.00 - 80.00	Auto	0.0000
L22	19	PL 1.25x4	75.00 - 80.00	Auto	0.0000
L22	20	PL 1.25x4	75.00 - 80.00	Auto	0.0000
L23	12	PL 1.25x5	70.00 - 74.25	Auto	0.0000
L23	13	PL 1.25x5	70.00 - 74.25	Auto	0.0000
L23	14	PL 1.25x5	70.00 - 74.25	Auto	0.0000
L23	15	PL 1.25x5	70.00 - 74.25	Auto	0.0000
L23	17	PL 1.25x4	72.00 - 75.00	Auto	0.0000
L23	18	PL 1.25x4	72.00 - 75.00	Auto	0.0000
L23	19	PL 1.25x4	72.00 - 75.00	Auto	0.0000
L23	20	PL 1.25x4	72.00 - 75.00	Auto	0.0000
L24	12	PL 1.25x5	69.00 - 70.00	Auto	0.0000
L24	13	PL 1.25x5	69.00 - 70.00	Auto	0.0000
L24	14	PL 1.25x5	69.00 - 70.00	Auto	0.0000
L24	15	PL 1.25x5	69.00 - 70.00	Auto	0.0000
L25	12	PL 1.25x5	64.00 - 69.00	Auto	0.0000
L25	13	PL 1.25x5	64.00 - 69.00	Auto	0.0000
L25	14	PL 1.25x5	64.00 - 69.00	Auto	0.0000
L25	15	PL 1.25x5	64.00 - 69.00	Auto	0.0000
L26	12	PL 1.25x5	59.00 - 64.00	Auto	0.0000
L26	13	PL 1.25x5	59.00 - 64.00	Auto	0.0000
L26	14	PL 1.25x5	59.00 - 64.00	Auto	0.0000
L26	15	PL 1.25x5	59.00 - 64.00	Auto	0.0000
L27	7	PL 1.25x5	56.50 - 58.50	Auto	0.0000
L27	8	PL 1.25x5	56.50 - 58.50	Auto	0.0000
L27	9	PL 1.25x5	56.50 - 58.50	Auto	0.0000
L27	10	PL 1.25x5	56.50 - 58.50	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L27	12	PL 1.25x5	56.50 - 59.00	Auto	0.0000
L27	13	PL 1.25x5	56.50 - 59.00	Auto	0.0000
L27	14	PL 1.25x5	56.50 - 59.00	Auto	0.0000
L27	15	PL 1.25x5	56.50 - 59.00	Auto	0.0000
L28	7	PL 1.25x5	56.25 - 56.50	Auto	0.0000
L28	8	PL 1.25x5	56.25 - 56.50	Auto	0.0000
L28	9	PL 1.25x5	56.25 - 56.50	Auto	0.0000
L28	10	PL 1.25x5	56.25 - 56.50	Auto	0.0000
L28	12	PL 1.25x5	56.25 - 56.50	Auto	0.0000
L28	13	PL 1.25x5	56.25 - 56.50	Auto	0.0000
L28	14	PL 1.25x5	56.25 - 56.50	Auto	0.0000
L28	15	PL 1.25x5	56.25 - 56.50	Auto	0.0000
L29	7	PL 1.25x5	51.25 - 56.25	Auto	0.0000
L29	8	PL 1.25x5	51.25 - 56.25	Auto	0.0000
L29	9	PL 1.25x5	51.25 - 56.25	Auto	0.0000
L29	10	PL 1.25x5	51.25 - 56.25	Auto	0.0000
L30	7	PL 1.25x5	46.25 - 51.25	Auto	0.0000
L30	8	PL 1.25x5	46.25 - 51.25	Auto	0.0000
L30	9	PL 1.25x5	46.25 - 51.25	Auto	0.0000
L30	10	PL 1.25x5	46.25 - 51.25	Auto	0.0000
L31	7	PL 1.25x5	41.25 - 46.25	Auto	0.0000
L31	8	PL 1.25x5	41.25 - 46.25	Auto	0.0000
L31	9	PL 1.25x5	41.25 - 46.25	Auto	0.0000
L31	10	PL 1.25x5	41.25 - 46.25	Auto	0.0000
L32	7	PL 1.25x5	36.25 - 41.25	Auto	0.0000
L32	8	PL 1.25x5	36.25 - 41.25	Auto	0.0000
L32	9	PL 1.25x5	36.25 - 41.25	Auto	0.0000
L32	10	PL 1.25x5	36.25 - 41.25	Auto	0.0000
L33	2	PL 1.25x5	30.00 - 30.75	Auto	0.0000
L33	3	PL 1.25x5	30.00 - 30.75	Auto	0.0000
L33	4	PL 1.25x5	30.00 - 30.75	Auto	0.0000
L33	5	PL 1.25x5	30.00 - 30.75	Auto	0.0000
L33	7	PL 1.25x5	30.00 - 36.25	Auto	0.0000
L33	8	PL 1.25x5	30.00 - 36.25	Auto	0.0000
L33	9	PL 1.25x5	30.00 - 36.25	Auto	0.0000
L33	10	PL 1.25x5	30.00 - 36.25	Auto	0.0000
L34	2	PL 1.25x5	28.93 - 30.00	Auto	0.0000
L34	3	PL 1.25x5	28.93 - 30.00	Auto	0.0000
L34	4	PL 1.25x5	28.93 - 30.00	Auto	0.0000
L34	5	PL 1.25x5	28.93 - 30.00	Auto	0.0000
L34	7	PL 1.25x5	28.93 - 30.00	Auto	0.0000
L34	8	PL 1.25x5	28.93 - 30.00	Auto	0.0000
L34	9	PL 1.25x5	28.93 - 30.00	Auto	0.0000
L34	10	PL 1.25x5	28.93 - 30.00	Auto	0.0000
L35	2	PL 1.25x5	28.75 - 28.93	Auto	0.0000
L35	3	PL 1.25x5	28.75 - 28.93	Auto	0.0000
L35	4	PL 1.25x5	28.75 - 28.93	Auto	0.0000
L35	5	PL 1.25x5	28.75 - 28.93	Auto	0.0000
L35	7	PL 1.25x5	28.75 - 28.93	Auto	0.0000
L35	8	PL 1.25x5	28.75 - 28.93	Auto	0.0000
L35	9	PL 1.25x5	28.75 - 28.93	Auto	0.0000
L35	10	PL 1.25x5	28.75 - 28.93	Auto	0.0000
L36	2	PL 1.25x5	28.50 - 28.75	Auto	0.0000
L36	3	PL 1.25x5	28.50 - 28.75	Auto	0.0000
L36	4	PL 1.25x5	28.50 - 28.75	Auto	0.0000
L36	5	PL 1.25x5	28.50 - 28.75	Auto	0.0000
L36	7	PL 1.25x5	28.50 - 28.75	Auto	0.0000
L36	8	PL 1.25x5	28.50 - 28.75	Auto	0.0000
L36	9	PL 1.25x5	28.50 - 28.75	Auto	0.0000
L36	10	PL 1.25x5	28.50 - 28.75	Auto	0.0000
L37	2	PL 1.25x5	23.50 - 28.50	Auto	0.0000
L37	3	PL 1.25x5	23.50 - 28.50	Auto	0.0000
L37	4	PL 1.25x5	23.50 - 28.50	Auto	0.0000
L37	5	PL 1.25x5	23.50 - 28.50	Auto	0.0000
L38	2	PL 1.25x5	18.50 - 23.50	Auto	0.0000
L38	3	PL 1.25x5	18.50 - 23.50	Auto	0.0000
L38	4	PL 1.25x5	18.50 - 23.50	Auto	0.0000
L38	5	PL 1.25x5	18.50 - 23.50	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L39	2	PL 1.25x5	13.50 - 18.50	Auto	0.0000
L39	3	PL 1.25x5	13.50 - 18.50	Auto	0.0000
L39	4	PL 1.25x5	13.50 - 18.50	Auto	0.0000
L39	5	PL 1.25x5	13.50 - 18.50	Auto	0.0000
L40	2	PL 1.25x5	8.50 - 13.50	Auto	0.0000
L40	3	PL 1.25x5	8.50 - 13.50	Auto	0.0000
L40	4	PL 1.25x5	8.50 - 13.50	Auto	0.0000
L40	5	PL 1.25x5	8.50 - 13.50	Auto	0.0000
L41	2	PL 1.25x5	3.50 - 8.50	Auto	0.0000
L41	3	PL 1.25x5	3.50 - 8.50	Auto	0.0000
L41	4	PL 1.25x5	3.50 - 8.50	Auto	0.0000
L41	5	PL 1.25x5	3.50 - 8.50	Auto	0.0000
L42	2	PL 1.25x5	2.75 - 3.50	Auto	0.0000
L42	3	PL 1.25x5	2.75 - 3.50	Auto	0.0000
L42	4	PL 1.25x5	2.75 - 3.50	Auto	0.0000
L42	5	PL 1.25x5	2.75 - 3.50	Auto	0.0000
L43	2	PL 1.25x5	2.50 - 2.75	Auto	0.0000
L43	3	PL 1.25x5	2.50 - 2.75	Auto	0.0000
L43	4	PL 1.25x5	2.50 - 2.75	Auto	0.0000
L43	5	PL 1.25x5	2.50 - 2.75	Auto	0.0000
L44	2	PL 1.25x5	0.00 - 2.50	Auto	0.0000
L44	3	PL 1.25x5	0.00 - 2.50	Auto	0.0000
L44	4	PL 1.25x5	0.00 - 2.50	Auto	0.0000
L44	5	PL 1.25x5	0.00 - 2.50	Auto	0.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K

Top Hat 14" Dia x 34" Tall (Flat)	C	None		0.0000	150.00	No Ice 1/2" Ice 1" Ice	4.63 4.94 5.27	4.63 4.94 5.27	0.15 0.19 0.24
Lighting Rod 3/4" x 5'	C	From Centroid-Leg	4.00 -2.00 2.00	0.0000	150.00	No Ice 1/2" Ice 1" Ice	0.38 0.89 1.36	0.38 0.89 1.36	0.03 0.03 0.04
(2) Side Light	C	From Centroid-Leg	4.00 -2.00 4.00	0.0000	150.00	No Ice 1/2" Ice 1" Ice	0.26 0.44 0.54	0.26 0.44 0.54	0.01 0.01 0.02

Bridge Stiffener (3"x1.25")	A	From Leg	0.50 0.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	1.08 1.97 2.86	2.38 4.00 5.62	0.09 0.10 0.10
Bridge Stiffener (3"x1.25")	B	From Face	0.50 0.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	1.08 1.97 2.86	2.38 4.00 5.62	0.09 0.10 0.10
Bridge Stiffener (3"x1.25")	B	From Leg	0.50 0.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	1.08 1.97 2.86	2.38 4.00 5.62	0.09 0.10 0.10
Bridge Stiffener (3"x1.25")	C	From Leg	0.50 0.00 0.00	0.0000	110.00	No Ice 1/2" Ice 1" Ice	1.08 1.97 2.86	2.38 4.00 5.62	0.09 0.10 0.10

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
DMP65R-BU6D	A	From Leg	4.00 0.00 -2.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	11.93 12.68 13.45	4.48 5.12 5.78	0.09 0.16 0.24
DMP65R-BU6D	B	From Leg	4.00 0.00 -2.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	11.93 12.68 13.45	4.48 5.12 5.78	0.09 0.16 0.24
DMP65R-BU6D	C	From Leg	4.00 0.00 -2.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	11.93 12.68 13.45	4.48 5.12 5.78	0.09 0.16 0.24
NNH4-65B-R6	A	From Leg	4.00 0.00 -2.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	7.62 8.12 8.63	3.01 3.45 3.90	0.10 0.17 0.25
NNH4-65B-R6	B	From Leg	4.00 0.00 -2.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	7.62 8.12 8.63	3.01 3.45 3.90	0.10 0.17 0.25
NNH4-65B-R6	C	From Leg	4.00 0.00 -2.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	7.62 8.12 8.63	3.01 3.45 3.90	0.10 0.17 0.25
DTMABP7819VG12A	A	From Leg	4.00 0.00 0.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	0.98 1.10 1.23	0.34 0.42 0.51	0.02 0.03 0.04
DTMABP7819VG12A	B	From Leg	4.00 0.00 0.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	0.98 1.10 1.23	0.34 0.42 0.51	0.02 0.03 0.04
DTMABP7819VG12A	C	From Leg	4.00 0.00 0.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	0.98 1.10 1.23	0.34 0.42 0.51	0.02 0.03 0.04
RRUS 32 B2	A	From Leg	4.00 0.00 0.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	2.73 2.95 3.18	1.67 1.86 2.05	0.05 0.07 0.10
RRUS 32 B2	B	From Leg	4.00 0.00 0.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	2.73 2.95 3.18	1.67 1.86 2.05	0.05 0.07 0.10
RRUS 32 B2	C	From Leg	4.00 0.00 0.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	2.73 2.95 3.18	1.67 1.86 2.05	0.05 0.07 0.10
RRUS 4449 B5/B12	A	From Leg	4.00 0.00 0.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	1.97 2.14 2.33	1.41 1.56 1.73	0.07 0.09 0.11
RRUS 4449 B5/B12	B	From Leg	4.00 0.00 0.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	1.97 2.14 2.33	1.41 1.56 1.73	0.07 0.09 0.11
RRUS 4449 B5/B12	C	From Leg	4.00 0.00 0.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	1.97 2.14 2.33	1.41 1.56 1.73	0.07 0.09 0.11
RRUS 8843 B2/B66A	A	From Leg	4.00 0.00 0.00	0.0000	147.00	No Ice 1/2" Ice 1" Ice	1.64 1.80 1.97	1.35 1.50 1.65	0.07 0.09 0.11
RRUS 8843 B2/B66A	B	From Leg	4.00	0.0000	147.00	No Ice	1.64	1.35	0.07

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
			0.00			1/2"	1.80	1.50	0.09
			0.00			Ice	1.97	1.65	0.11
RRUS 8843 B2/B66A	C	From Leg	4.00	0.0000	147.00	1" Ice	1.64	1.35	0.07
			0.00			No Ice	1.80	1.50	0.09
			0.00			1/2"	1.97	1.65	0.11
			0.00			Ice			
DC6-48-60-0-8C-EV	A	From Leg	4.00	0.0000	147.00	1" Ice	2.74	4.78	0.03
			0.00			No Ice	2.96	5.06	0.06
			0.00			1/2"	3.20	5.35	0.10
			0.00			Ice			
DC6-48-60-18-8F	B	From Leg	4.00	0.0000	147.00	1" Ice	0.92	0.92	0.02
			0.00			No Ice	1.46	1.46	0.04
			0.00			1/2"	1.64	1.64	0.06
			0.00			Ice			
DC6-48-60-18-8F	C	From Leg	4.00	0.0000	147.00	1" Ice	0.92	0.92	0.02
			0.00			No Ice	1.46	1.46	0.04
			0.00			1/2"	1.64	1.64	0.06
			0.00			Ice			
Walkway	A	From Leg	4.00	0.0000	147.00	1" Ice	4.05	6.06	0.11
			0.00			No Ice	5.51	7.49	0.16
			0.00			1/2"	6.97	8.92	0.21
			0.00			Ice			
Walkway	B	From Leg	4.00	0.0000	147.00	1" Ice	4.05	6.06	0.11
			0.00			No Ice	5.51	7.49	0.16
			0.00			1/2"	6.97	8.92	0.21
			0.00			Ice			
Walkway	C	From Leg	4.00	0.0000	147.00	1" Ice	4.05	6.06	0.11
			0.00			No Ice	5.51	7.49	0.16
			0.00			1/2"	6.97	8.92	0.21
			0.00			Ice			
(2) 10' x 2" Mount Pipe	A	From Leg	4.00	0.0000	147.00	1" Ice	2.38	2.38	0.04
			0.00			No Ice	3.40	3.40	0.05
			0.00			1/2"	4.45	4.45	0.08
			0.00			Ice			
(2) 10' x 2" Mount Pipe	B	From Leg	4.00	0.0000	147.00	1" Ice	2.38	2.38	0.04
			0.00			No Ice	3.40	3.40	0.05
			0.00			1/2"	4.45	4.45	0.08
			0.00			Ice			
(2) 10' x 2" Mount Pipe	C	From Leg	4.00	0.0000	147.00	1" Ice	2.38	2.38	0.04
			0.00			No Ice	3.40	3.40	0.05
			0.00			1/2"	4.45	4.45	0.08
			0.00			Ice			
Platform Mount [LP 303-1_HR-1]	C	None		0.0000	147.00	1" Ice	17.09	17.09	1.50
						No Ice	21.47	21.47	1.88
						1/2"	25.72	25.72	2.35
						Ice			
						1" Ice			

AIR 6472 B77G B77M_20240625	A	From Leg	4.00	0.0000	147.00	No Ice	5.58	2.61	0.07
			0.00			1/2"	5.92	2.90	0.10
			3.00			Ice	6.27	3.20	0.14
						1" Ice			
AIR 6472 B77G B77M_20240625	B	From Leg	4.00	0.0000	147.00	No Ice	5.58	2.61	0.07
			0.00			1/2"	5.92	2.90	0.10
			3.00			Ice	6.27	3.20	0.14
						1" Ice			
AIR 6472 B77G B77M_20240625	C	From Leg	4.00	0.0000	147.00	No Ice	5.58	2.61	0.07
			0.00			1/2"	5.92	2.90	0.10
			3.00			Ice	6.27	3.20	0.14
						1" Ice			
RADIO 4494 44B14 20B29	A	From Leg	4.00	0.0000	147.00	No Ice	2.20	0.84	0.06
			0.00			1/2"	2.39	0.97	0.07
			3.00			Ice	2.58	1.10	0.09
						1" Ice			
RADIO 4494 44B14 20B29	B	From Leg	4.00	0.0000	147.00	No Ice	2.20	0.84	0.06

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
			0.00			1/2"	2.39	0.97	0.07
			3.00			Ice	2.58	1.10	0.09
						1" Ice			
RADIO 4494 44B14 20B29	C	From Leg	4.00	0.0000	147.00	No Ice	2.20	0.84	0.06
			0.00			1/2"	2.39	0.97	0.07
			3.00			Ice	2.58	1.10	0.09
						1" Ice			
10' Mount Pipe [#P2.0 STD]	A	From Leg	4.00	0.0000	147.00	No Ice	2.38	2.38	0.04
			0.00			1/2"	3.40	3.40	0.05
			0.00			Ice	4.45	4.45	0.08
						1" Ice			
10' Mount Pipe [#P2.0 STD]	B	From Leg	4.00	0.0000	147.00	No Ice	2.38	2.38	0.04
			0.00			1/2"	3.40	3.40	0.05
			0.00			Ice	4.45	4.45	0.08
						1" Ice			
10' Mount Pipe [#P2.0 STD]	C	From Leg	4.00	0.0000	147.00	No Ice	2.38	2.38	0.04
			0.00			1/2"	3.40	3.40	0.05
			0.00			Ice	4.45	4.45	0.08
						1" Ice			
(3) 10' Mount Pipe [#P2.5 STD]	A	From Leg	4.00	0.0000	147.00	No Ice	2.25	2.25	0.08
			0.00			1/2"	3.28	3.28	0.10
			0.00			Ice	4.32	4.32	0.12
						1" Ice			
(3) 10' Mount Pipe [#P2.5 STD]	B	From Leg	4.00	0.0000	147.00	No Ice	2.25	2.25	0.08
			0.00			1/2"	3.28	3.28	0.10
			0.00			Ice	4.32	4.32	0.12
						1" Ice			
(3) 10' Mount Pipe [#P2.5 STD]	C	From Leg	4.00	0.0000	147.00	No Ice	2.25	2.25	0.08
			0.00			1/2"	3.28	3.28	0.10
			0.00			Ice	4.32	4.32	0.12
						1" Ice			
(2) 10.5' Mount Pipe [#P2.5 STD]	A	From Leg	2.00	0.0000	147.00	No Ice	3.02	3.02	0.06
			0.00			1/2"	4.10	4.10	0.08
			0.00			Ice	5.20	5.20	0.11
						1" Ice			
(2) 10.5' Mount Pipe [#P2.5 STD]	B	From Leg	2.00	0.0000	147.00	No Ice	3.02	3.02	0.06
			0.00			1/2"	4.10	4.10	0.08
			0.00			Ice	5.20	5.20	0.11
						1" Ice			
(2) 10.5' Mount Pipe [#P2.5 STD]	C	From Leg	2.00	0.0000	147.00	No Ice	3.02	3.02	0.06
			0.00			1/2"	4.10	4.10	0.08
			0.00			Ice	5.20	5.20	0.11
						1" Ice			

SRL-210C-2	C	From Leg	4.00	0.0000	104.00	No Ice	5.76	5.76	0.02
			0.00			1/2"	11.52	11.52	0.05
			0.00			Ice	17.28	17.28	0.07
						1" Ice			
KRY 112 144/2	C	From Leg	4.00	0.0000	104.00	No Ice	0.48	0.23	0.01
			0.00			1/2"	0.57	0.30	0.01
			0.00			Ice	0.66	0.38	0.02
						1" Ice			
(2) 6' x 2" Horizontal Mount Pipe	C	From Leg	4.00	0.0000	104.00	No Ice	1.14	0.01	0.02
			0.00			1/2"	1.76	0.04	0.03
			0.00			Ice	2.14	0.09	0.04
						1" Ice			
Side Arm Mount [SO 302- 1]	C	From Leg	2.00	0.0000	104.00	No Ice	0.81	3.31	0.06
			0.00			1/2"	1.30	5.00	0.08
			0.00			Ice	1.81	6.80	0.12
						1" Ice			

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 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	150 - 145	Pole	Max Tension	48	0.00	-0.00	-0.00
			Max. Compression	26	-10.54	0.19	-0.07
			Max. Mx	20	-5.14	17.48	-0.20
			Max. My	14	-5.17	0.10	-17.31
			Max. Vy	20	-8.54	17.48	-0.20
			Max. Vx	14	8.45	0.10	-17.31
			Max. Torque	21			-0.51
L2	145 - 140	Pole	Max Tension	1	0.00	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
L3	140 - 135	Pole	Max. Compression	26	-10.97	0.18	-0.07
			Max. Mx	20	-5.42	61.02	-0.19
			Max. My	14	-5.44	0.10	-60.42
			Max. Vy	20	-8.88	61.02	-0.19
			Max. Vx	14	8.79	0.10	-60.42
			Max. Torque	21			-0.51
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-11.42	0.17	-0.06
			Max. Mx	20	-5.73	106.26	-0.18
			Max. My	14	-5.75	0.10	-105.22
L4	135 - 130	Pole	Max. Vy	20	-9.22	106.26	-0.18
			Max. Vx	14	9.13	0.10	-105.22
			Max. Torque	21			-0.51
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-11.88	0.15	-0.05
			Max. Mx	20	-6.07	153.20	-0.17
			Max. My	14	-6.09	0.09	-151.72
			Max. Vy	20	-9.56	153.20	-0.17
			Max. Vx	14	9.48	0.09	-151.72
			Max. Torque	21			-0.51
L5	130 - 129.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-11.97	0.15	-0.05
			Max. Mx	20	-6.13	160.38	-0.17
			Max. My	14	-6.15	0.09	-158.85
			Max. Vy	20	-9.61	160.38	-0.17
			Max. Vx	14	9.53	0.09	-158.85
			Max. Torque	21			-0.51
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-12.01	0.15	-0.05
			Max. Mx	20	-6.16	162.79	-0.17
L6	129.25 - 129	Pole	Max. My	14	-6.19	0.09	-161.23
			Max. Vy	20	-9.63	162.79	-0.17
			Max. Vx	14	9.54	0.09	-161.23
			Max. Torque	21			-0.51
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-12.89	0.14	-0.06
			Max. Mx	20	-6.79	211.96	-0.16
			Max. My	14	-6.81	0.09	-209.96
			Max. Vy	20	-10.04	211.96	-0.16
			Max. Vx	14	9.95	0.09	-209.96
L7	129 - 124	Pole	Max. Torque	21			-0.51
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-13.47	0.13	-0.06
			Max. Mx	20	-7.18	263.00	-0.15
			Max. My	14	-7.21	0.09	-260.57
			Max. Vy	20	-10.39	263.00	-0.15
			Max. Vx	14	10.30	0.09	-260.57
			Max. Torque	21			-0.51
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-14.08	0.12	-0.06
L8	124 - 119	Pole	Max. Mx	20	-7.61	315.76	-0.14
			Max. My	14	-7.63	0.09	-312.88
			Max. Vy	20	-10.73	315.76	-0.14
			Max. Vx	14	10.64	0.09	-312.88
			Max. Torque	21			-0.51
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-14.51	0.12	-0.06
			Max. Mx	20	-7.92	353.71	-0.14
			Max. My	14	-7.94	0.09	-350.52
			Max. Vy	20	-10.97	353.71	-0.14
L9	119 - 114	Pole	Max. Vx	14	10.88	0.09	-350.52
			Max. Torque	9			0.51
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-14.56	0.12	-0.06
			Max. Mx	20	-7.97	356.45	-0.14
			Max. My	14	-7.99	0.09	-353.24
			Max. Vy	20	-10.99	356.45	-0.14
			Max. Vx	14	10.90	0.09	-353.24
			Max. Torque	9			0.51
			Max. Torque	9			0.51
L10	114 - 110.5	Pole	Max. Torque	9			0.51
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-14.56	0.12	-0.06
			Max. Mx	20	-7.97	356.45	-0.14
			Max. My	14	-7.99	0.09	-353.24
			Max. Vy	20	-10.99	356.45	-0.14
			Max. Vx	14	10.90	0.09	-353.24
			Max. Torque	9			0.51
			Max. Torque	9			0.51
			Max. Torque	9			0.51
L11	110.5 - 110.25	Pole	Max. Torque	9			0.51
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-14.56	0.12	-0.06
			Max. Mx	20	-7.97	356.45	-0.14
			Max. My	14	-7.99	0.09	-353.24
			Max. Vy	20	-10.99	356.45	-0.14
			Max. Vx	14	10.90	0.09	-353.24
			Max. Torque	9			0.51
			Max. Torque	9			0.51
			Max. Torque	9			0.51

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L12	110.25 - 110	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-14.60	0.12	-0.06
			Max. Mx	20	-8.00	359.20	-0.14
			Max. My	14	-8.02	0.09	-355.97
			Max. Vy	20	-11.01	359.20	-0.14
			Max. Vx	14	10.92	0.09	-355.97
L13	110 - 109.5	Pole	Max. Torque	9			0.51
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-15.17	-0.03	0.02
			Max. Mx	8	-8.45	-364.84	-0.15
			Max. My	14	-8.47	-0.03	-361.52
			Max. Vy	20	-11.34	364.73	-0.07
L14	109.5 - 109.25	Pole	Max. Vx	14	11.27	-0.03	-361.52
			Max. Torque	9			0.58
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-15.23	-0.03	0.02
			Max. Mx	8	-8.49	-367.68	-0.15
			Max. My	14	-8.51	-0.04	-364.34
L15	109.25 - 104.25	Pole	Max. Vy	20	-11.36	367.57	-0.06
			Max. Vx	14	11.29	-0.04	-364.34
			Max. Torque	9			0.58
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-16.28	-0.04	0.01
			Max. Mx	8	-9.29	-425.55	-0.26
L16	104.25 - 99.25	Pole	Max. My	14	-9.31	-0.14	-421.87
			Max. Vy	20	-11.79	425.42	0.05
			Max. Vx	14	11.73	-0.14	-421.87
			Max. Torque	9			0.58
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-17.65	1.03	-0.61
L17	99.25 - 94.25	Pole	Max. Mx	20	-10.21	488.01	-0.04
			Max. My	14	-10.23	0.09	-483.93
			Max. Vy	20	-12.67	488.01	-0.04
			Max. Vx	14	12.60	0.09	-483.93
			Max. Torque	15			-1.53
			Max Tension	1	0.00	0.00	0.00
L18	94.25 - 90.25	Pole	Max. Compression	26	-18.74	1.01	-0.62
			Max. Mx	20	-11.06	552.39	0.08
			Max. My	14	-11.08	-0.02	-547.97
			Max. Vy	20	-13.10	552.39	0.08
			Max. Vx	14	13.03	-0.02	-547.97
			Max. Torque	15			-1.53
L19	90.25 - 90	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-19.71	1.00	-0.61
			Max. Mx	20	-11.80	608.81	0.17
			Max. My	14	-11.82	-0.12	-604.11
			Max. Vy	20	-13.47	608.81	0.17
			Max. Vx	14	13.40	-0.12	-604.11
L20	90 - 85	Pole	Max. Torque	15			-1.53
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-20.82	0.98	-0.58
			Max. Mx	20	-12.67	677.35	0.28
			Max. My	14	-12.69	-0.23	-672.17
			Max. Vy	20	-13.96	677.35	0.28
L21	85 - 80	Pole	Max. Vx	14	13.84	-0.23	-672.17
			Max. Torque	15			-1.53
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-21.95	0.97	-0.55
			Max. Mx	20	-13.56	748.30	0.40
			Max. My	14	-13.59	-0.34	-742.39
			Max. Vy	20	-14.44	748.30	0.40
			Max. Vx	14	14.27	-0.34	-742.39

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L22	80 - 75	Pole	Max. Torque	15			-1.53
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-23.09	0.95	-0.52
			Max. Mx	20	-14.48	821.64	0.51
			Max. My	14	-14.51	-0.45	-814.76
			Max. Vy	20	-14.92	821.64	0.51
			Max. Vx	14	14.70	-0.45	-814.76
L23	75 - 70	Pole	Max. Torque	15			-1.53
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-23.51	0.95	-0.52
			Max. Mx	20	-14.80	847.71	0.55
			Max. My	14	-14.83	-0.49	-840.44
			Max. Vy	20	-15.07	847.71	0.55
			Max. Vx	14	14.85	-0.49	-840.44
L24	70 - 69	Pole	Max. Torque	15			-1.53
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-25.36	0.93	-0.52
			Max. Mx	20	-16.29	912.81	0.65
			Max. My	14	-16.32	-0.59	-904.62
			Max. Vy	20	-15.51	912.81	0.65
			Max. Vx	14	15.29	-0.59	-904.62
L25	69 - 64	Pole	Max. Torque	15			-1.53
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-26.74	0.91	-0.52
			Max. Mx	20	-17.44	991.38	0.76
			Max. My	14	-17.46	-0.71	-982.10
			Max. Vy	20	-15.94	991.38	0.76
			Max. Vx	14	15.72	-0.71	-982.10
L26	64 - 59	Pole	Max. Torque	15			-1.53
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-28.15	0.89	-0.52
			Max. Mx	20	-18.60	1072.11	0.88
			Max. My	14	-18.63	-0.83	-1061.73
			Max. Vy	20	-16.37	1072.11	0.88
			Max. Vx	14	16.15	-0.83	-1061.73
L27	59 - 56.5	Pole	Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-28.90	0.89	-0.52
			Max. Mx	20	-19.19	1113.28	0.93
			Max. My	14	-19.22	-0.88	-1102.36
			Max. Vy	20	-16.59	1113.28	0.93
			Max. Vx	14	16.37	-0.88	-1102.36
L28	56.5 - 56.25	Pole	Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-28.98	0.89	-0.52
			Max. Mx	20	-19.26	1117.43	0.94
			Max. My	14	-19.28	-0.89	-1106.45
			Max. Vy	20	-16.60	1117.43	0.94
			Max. Vx	14	16.38	-0.89	-1106.45
L29	56.25 - 51.25	Pole	Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-30.41	0.87	-0.48
			Max. Mx	20	-20.45	1201.54	1.05
			Max. My	14	-20.48	-1.01	-1189.37
			Max. Vy	20	-17.06	1201.54	1.05
			Max. Vx	14	16.81	-1.01	-1189.37
L30	51.25 - 46.25	Pole	Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-31.85	0.86	-0.45
			Max. Mx	20	-21.67	1287.85	1.17
			Max. My	14	-21.69	-1.13	-1274.37
			Max. Vy	20	-17.49	1287.85	1.17
			Max. Vx	14	17.22	-1.13	-1274.37
L31	46.25 - 41.25	Pole	Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-33.32	0.84	-0.41
			Max. Mx	20	-22.91	1376.28	1.29
			Max. My	14	-22.93	-1.25	-1361.39
			Max. Vy	20	-17.91	1376.28	1.29

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L32	41.25 - 36.25	Pole	Max. Vx	14	17.62	-1.25	-1361.39
			Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-34.79	0.82	-0.38
			Max. Mx	20	-24.17	1466.76	1.40
			Max. My	14	-24.19	-1.37	-1450.38
			Max. Vy	20	-18.31	1466.76	1.40
L33	36.25 - 30	Pole	Max. Vx	14	18.00	-1.37	-1450.38
			Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-35.49	0.81	-0.36
			Max. Mx	20	-24.76	1509.41	1.45
			Max. My	14	-24.78	-1.42	-1492.32
			Max. Vy	20	-18.49	1509.41	1.45
L34	30 - 28.93	Pole	Max. Vx	14	18.18	-1.42	-1492.32
			Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-38.19	0.80	-0.33
			Max. Mx	20	-27.04	1602.98	1.57
			Max. My	14	-27.06	-1.54	-1584.31
			Max. Vy	20	-18.95	1602.98	1.57
L35	28.93 - 28.75	Pole	Max. Vx	14	18.63	-1.54	-1584.31
			Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-38.25	0.80	-0.33
			Max. Mx	20	-27.10	1606.39	1.57
			Max. My	14	-27.12	-1.55	-1587.66
			Max. Vy	20	-18.95	1606.39	1.57
L36	28.75 - 28.5	Pole	Max. Vx	14	18.63	-1.55	-1587.66
			Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-38.33	0.80	-0.33
			Max. Mx	20	-27.17	1611.13	1.58
			Max. My	14	-27.19	-1.55	-1592.32
			Max. Vy	20	-18.97	1611.13	1.58
L37	28.5 - 23.5	Pole	Max. Vx	14	18.65	-1.55	-1592.32
			Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-39.96	0.78	-0.34
			Max. Mx	20	-28.59	1706.82	1.69
			Max. My	14	-28.60	-1.67	-1686.40
			Max. Vy	20	-19.33	1706.82	1.69
L38	23.5 - 18.5	Pole	Max. Vx	14	19.00	-1.67	-1686.40
			Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-41.61	0.75	-0.34
			Max. Mx	20	-30.04	1804.16	1.81
			Max. My	14	-30.05	-1.79	-1782.14
			Max. Vy	20	-19.65	1804.16	1.81
L39	18.5 - 13.5	Pole	Max. Vx	14	19.33	-1.79	-1782.14
			Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-43.26	0.73	-0.34
			Max. Mx	20	-31.51	1903.03	1.92
			Max. My	14	-31.51	-1.92	-1879.42
			Max. Vy	20	-19.94	1903.03	1.92
L40	13.5 - 8.5	Pole	Max. Vx	14	19.62	-1.92	-1879.42
			Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-44.93	0.71	-0.34
			Max. Mx	20	-33.00	2003.36	2.04
			Max. My	14	-33.00	-2.04	-1978.16
			Max. Vy	20	-20.23	2003.36	2.04
L41	8.5 - 3.5	Pole	Max. Vx	14	19.91	-2.04	-1978.16
			Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-46.61	0.69	-0.34
			Max. My	14	-34.51	2105.09	2.15
			Max. Vy	20	-34.51	-2.16	-2078.32

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L42	3.5 - 2.75	Pole	Max. Vy	20	-20.51	2105.09	2.15
			Max. Vx	14	20.19	-2.16	-2078.32
			Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-46.86	0.68	-0.34
			Max. Mx	20	-34.74	2120.47	2.17
			Max. My	14	-34.74	-2.18	-2093.46
			Max. Vy	20	-20.54	2120.47	2.17
L43	2.75 - 2.5	Pole	Max. Vx	14	20.23	-2.18	-2093.46
			Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-46.92	0.68	-0.34
			Max. Mx	20	-34.80	2125.61	2.17
			Max. My	14	-34.80	-2.18	-2098.52
			Max. Vy	20	-20.55	2125.61	2.17
			Max. Vx	14	20.23	-2.18	-2098.52
L44	2.5 - 0	Pole	Max. Torque	15			-1.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.49	0.67	-0.34
			Max. Mx	20	-35.33	2177.06	2.23
			Max. My	14	-35.33	-2.24	-2149.19
			Max. Vy	20	-20.66	2177.06	2.23
			Max. Vx	14	20.35	-2.24	-2149.19
			Max. Torque	15			-1.52

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	36	47.49	5.06	0.01
	Max. H _x	21	26.51	20.63	0.02
	Max. H _z	2	35.35	0.02	20.31
	Max. M _x	2	2148.85	0.02	20.31
	Max. M _z	8	2176.70	-20.63	-0.02
	Max. Torsion	3	1.52	0.02	20.31
	Min. Vert	19	26.51	17.78	-10.22
	Min. H _x	9	26.51	-20.63	-0.02
	Min. H _z	14	35.35	-0.02	-20.31
	Min. M _x	14	-2149.19	-0.02	-20.31
	Min. M _z	20	-2177.06	20.63	0.02
	Min. Torsion	15	-1.52	-0.02	-20.31

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturing Moment, M _x kip-ft	Overturing Moment, M _z kip-ft	Torque kip-ft
Dead Only	29.46	0.00	0.00	0.12	0.13	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	35.35	-0.02	-20.31	-2148.85	2.56	-1.52
0.9 Dead+1.0 Wind 0 deg - No Ice	26.51	-0.02	-20.31	-2112.17	2.48	-1.52
1.2 Dead+1.0 Wind 30 deg - No Ice	35.35	10.17	-17.58	-1859.51	-1077.12	-1.16
0.9 Dead+1.0 Wind 30 deg - No Ice	26.51	10.17	-17.58	-1827.78	-1058.73	-1.16
1.2 Dead+1.0 Wind 60 deg - No Ice	35.35	17.78	-10.22	-1082.52	-1886.12	-0.49
0.9 Dead+1.0 Wind 60 deg - No Ice	26.51	17.78	-10.22	-1064.07	-1853.92	-0.50

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
1.2 Dead+1.0 Wind 90 deg - No Ice	35.35	20.63	0.02	2.57	-2176.70	0.30
0.9 Dead+1.0 Wind 90 deg - No Ice	26.51	20.63	0.02	2.49	-2139.62	0.30
1.2 Dead+1.0 Wind 120 deg - No Ice	35.35	17.65	10.17	1076.60	-1870.47	1.02
0.9 Dead+1.0 Wind 120 deg - No Ice	26.51	17.65	10.17	1058.16	-1838.52	1.02
1.2 Dead+1.0 Wind 150 deg - No Ice	35.35	10.29	17.75	1880.27	-1091.67	1.46
0.9 Dead+1.0 Wind 150 deg - No Ice	26.51	10.29	17.75	1848.11	-1073.06	1.46
1.2 Dead+1.0 Wind 180 deg - No Ice	35.35	0.02	20.31	2149.19	-2.24	1.52
0.9 Dead+1.0 Wind 180 deg - No Ice	26.51	0.02	20.31	2112.41	-2.25	1.52
1.2 Dead+1.0 Wind 210 deg - No Ice	35.35	-10.17	17.58	1859.87	1077.44	1.16
0.9 Dead+1.0 Wind 210 deg - No Ice	26.51	-10.17	17.58	1828.03	1058.96	1.16
1.2 Dead+1.0 Wind 240 deg - No Ice	35.35	-17.78	10.22	1082.88	1886.47	0.50
0.9 Dead+1.0 Wind 240 deg - No Ice	26.51	-17.78	10.22	1064.33	1854.17	0.50
1.2 Dead+1.0 Wind 270 deg - No Ice	35.35	-20.63	-0.02	-2.23	2177.06	-0.30
0.9 Dead+1.0 Wind 270 deg - No Ice	26.51	-20.63	-0.02	-2.24	2139.88	-0.30
1.2 Dead+1.0 Wind 300 deg - No Ice	35.35	-17.65	-10.17	-1076.27	1870.83	-1.02
0.9 Dead+1.0 Wind 300 deg - No Ice	26.51	-17.65	-10.17	-1057.93	1838.77	-1.02
1.2 Dead+1.0 Wind 330 deg - No Ice	35.35	-10.29	-17.75	-1879.95	1092.00	-1.47
0.9 Dead+1.0 Wind 330 deg - No Ice	26.51	-10.29	-17.75	-1847.89	1073.29	-1.47
1.2 Dead+1.0 Ice+1.0 Temp	47.49	-0.00	0.00	0.34	0.67	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	47.49	-0.01	-5.06	-568.90	1.87	-0.72
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	47.49	2.52	-4.38	-492.07	-283.50	-0.45
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	47.49	4.38	-2.52	-283.29	-492.70	-0.06
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	47.49	5.06	0.01	1.50	-569.68	0.35
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	47.49	4.39	2.54	285.99	-493.82	0.66
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	47.49	2.54	4.39	493.96	-285.43	0.80
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	47.49	0.01	5.06	569.68	-0.37	0.72
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	47.49	-2.52	4.38	492.85	285.00	0.45
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	47.49	-4.38	2.52	284.06	494.21	0.06
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	47.49	-5.06	-0.01	-0.73	571.19	-0.35
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	47.49	-4.39	-2.54	-285.23	495.32	-0.66
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	47.49	-2.54	-4.39	-493.19	286.93	-0.80
Dead+Wind 0 deg - Service	29.46	-0.00	-4.79	-502.06	0.71	-0.37
Dead+Wind 30 deg - Service	29.46	2.40	-4.14	-434.45	-251.59	-0.28
Dead+Wind 60 deg - Service	29.46	4.19	-2.41	-252.89	-440.67	-0.11
Dead+Wind 90 deg - Service	29.46	4.86	0.00	0.70	-508.59	0.08
Dead+Wind 120 deg - Service	29.46	4.16	2.40	251.69	-437.00	0.26
Dead+Wind 150 deg - Service	29.46	2.42	4.18	439.52	-255.01	0.36

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+Wind 180 deg - Service	29.46	0.00	4.79	502.34	-0.41	0.37
Dead+Wind 210 deg - Service	29.46	-2.40	4.14	434.73	251.89	0.28
Dead+Wind 240 deg - Service	29.46	-4.19	2.41	253.17	440.98	0.11
Dead+Wind 270 deg - Service	29.46	-4.86	-0.00	-0.42	508.89	-0.08
Dead+Wind 300 deg - Service	29.46	-4.16	-2.40	-251.42	437.30	-0.26
Dead+Wind 330 deg - Service	29.46	-2.42	-4.18	-439.24	255.31	-0.36

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	0.00	-29.46	0.00	0.00	29.46	0.00	0.000%
2	-0.02	-35.35	-20.31	0.02	35.35	20.31	0.000%
3	-0.02	-26.51	-20.31	0.02	26.51	20.31	0.000%
4	10.17	-35.35	-17.58	-10.17	35.35	17.58	0.000%
5	10.17	-26.51	-17.58	-10.17	26.51	17.58	0.000%
6	17.78	-35.35	-10.22	-17.78	35.35	10.22	0.000%
7	17.78	-26.51	-10.22	-17.78	26.51	10.22	0.000%
8	20.63	-35.35	0.02	-20.63	35.35	-0.02	0.000%
9	20.63	-26.51	0.02	-20.63	26.51	-0.02	0.000%
10	17.65	-35.35	10.17	-17.65	35.35	-10.17	0.000%
11	17.65	-26.51	10.17	-17.65	26.51	-10.17	0.000%
12	10.29	-35.35	17.75	-10.29	35.35	-17.75	0.000%
13	10.29	-26.51	17.75	-10.29	26.51	-17.75	0.000%
14	0.02	-35.35	20.31	-0.02	35.35	-20.31	0.000%
15	0.02	-26.51	20.31	-0.02	26.51	-20.31	0.000%
16	-10.17	-35.35	17.58	10.17	35.35	-17.58	0.000%
17	-10.17	-26.51	17.58	10.17	26.51	-17.58	0.000%
18	-17.78	-35.35	10.22	17.78	35.35	-10.22	0.000%
19	-17.78	-26.51	10.22	17.78	26.51	-10.22	0.000%
20	-20.63	-35.35	-0.02	20.63	35.35	0.02	0.000%
21	-20.63	-26.51	-0.02	20.63	26.51	0.02	0.000%
22	-17.65	-35.35	-10.17	17.65	35.35	10.17	0.000%
23	-17.65	-26.51	-10.17	17.65	26.51	10.17	0.000%
24	-10.29	-35.35	-17.75	10.29	35.35	17.75	0.000%
25	-10.29	-26.51	-17.75	10.29	26.51	17.75	0.000%
26	0.00	-47.49	0.00	0.00	47.49	-0.00	0.000%
27	-0.01	-47.49	-5.06	0.01	47.49	5.06	0.000%
28	2.52	-47.49	-4.38	-2.52	47.49	4.38	0.000%
29	4.38	-47.49	-2.52	-4.38	47.49	2.52	0.000%
30	5.06	-47.49	0.01	-5.06	47.49	-0.01	0.000%
31	4.39	-47.49	2.54	-4.39	47.49	-2.54	0.000%
32	2.54	-47.49	4.39	-2.54	47.49	-4.39	0.000%
33	0.01	-47.49	5.06	-0.01	47.49	-5.06	0.000%
34	-2.52	-47.49	4.38	2.52	47.49	-4.38	0.000%
35	-4.38	-47.49	2.52	4.38	47.49	-2.52	0.000%
36	-5.06	-47.49	-0.01	5.06	47.49	0.01	0.000%
37	-4.39	-47.49	-2.54	4.39	47.49	2.54	0.000%
38	-2.54	-47.49	-4.39	2.54	47.49	4.39	0.000%
39	-0.00	-29.46	-4.79	0.00	29.46	4.79	0.000%
40	2.40	-29.46	-4.14	-2.40	29.46	4.14	0.000%
41	4.19	-29.46	-2.41	-4.19	29.46	2.41	0.000%
42	4.86	-29.46	0.00	-4.86	29.46	-0.00	0.000%
43	4.16	-29.46	2.40	-4.16	29.46	-2.40	0.000%
44	2.42	-29.46	4.18	-2.42	29.46	-4.18	0.000%
45	0.00	-29.46	4.79	-0.00	29.46	-4.79	0.000%
46	-2.40	-29.46	4.14	2.40	29.46	-4.14	0.000%
47	-4.19	-29.46	2.41	4.19	29.46	-2.41	0.000%
48	-4.86	-29.46	-0.00	4.86	29.46	0.00	0.000%

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
49	-4.16	-29.46	-2.40	4.16	29.46	2.40	0.000%
50	-2.42	-29.46	-4.18	2.42	29.46	4.18	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	6	0.00000001	0.00055870
3	Yes	6	0.00000001	0.00018791
4	Yes	7	0.00000001	0.00082558
5	Yes	7	0.00000001	0.00017885
6	Yes	7	0.00000001	0.00086766
7	Yes	7	0.00000001	0.00018870
8	Yes	6	0.00000001	0.00011879
9	Yes	5	0.00000001	0.00069736
10	Yes	7	0.00000001	0.00086467
11	Yes	7	0.00000001	0.00018877
12	Yes	7	0.00000001	0.00083609
13	Yes	7	0.00000001	0.00017998
14	Yes	6	0.00000001	0.00049257
15	Yes	6	0.00000001	0.00016649
16	Yes	7	0.00000001	0.00086801
17	Yes	7	0.00000001	0.00019010
18	Yes	7	0.00000001	0.00084678
19	Yes	7	0.00000001	0.00018288
20	Yes	6	0.00000001	0.00007866
21	Yes	5	0.00000001	0.00046228
22	Yes	7	0.00000001	0.00083562
23	Yes	7	0.00000001	0.00018112
24	Yes	7	0.00000001	0.00088169
25	Yes	7	0.00000001	0.00019206
26	Yes	4	0.00000001	0.00027332
27	Yes	7	0.00000001	0.00027763
28	Yes	7	0.00000001	0.00046125
29	Yes	7	0.00000001	0.00047162
30	Yes	7	0.00000001	0.00027266
31	Yes	7	0.00000001	0.00049169
32	Yes	7	0.00000001	0.00046229
33	Yes	7	0.00000001	0.00027800
34	Yes	7	0.00000001	0.00048684
35	Yes	7	0.00000001	0.00047459
36	Yes	7	0.00000001	0.00027399
37	Yes	7	0.00000001	0.00046601
38	Yes	7	0.00000001	0.00049723
39	Yes	5	0.00000001	0.00044413
40	Yes	6	0.00000001	0.00017189
41	Yes	6	0.00000001	0.00019389
42	Yes	5	0.00000001	0.00012880
43	Yes	6	0.00000001	0.00019481
44	Yes	6	0.00000001	0.00017673
45	Yes	5	0.00000001	0.00043304
46	Yes	6	0.00000001	0.00019707
47	Yes	6	0.00000001	0.00018365
48	Yes	5	0.00000001	0.00012305
49	Yes	6	0.00000001	0.00017650
50	Yes	6	0.00000001	0.00020445

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 145	32.636	47	2.0810	0.0042
L2	145 - 140	30.458	47	2.0764	0.0040

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L3	140 - 135	28.300	47	2.0416	0.0036
L4	135 - 130	26.194	47	1.9773	0.0032
L5	130 - 129.25	24.168	47	1.8902	0.0031
L6	129.25 - 129	23.873	47	1.8757	0.0031
L7	129 - 124	23.774	47	1.8735	0.0031
L8	124 - 119	21.838	47	1.8240	0.0030
L9	119 - 114	19.991	47	1.7034	0.0030
L10	114 - 110.5	18.275	47	1.5728	0.0029
L11	110.5 - 110.25	17.157	47	1.4767	0.0028
L12	110.25 - 110	17.080	47	1.4747	0.0028
L13	110 - 109.5	17.003	47	1.4726	0.0028
L14	109.5 - 109.25	16.849	47	1.4684	0.0028
L15	109.25 - 104.25	16.772	47	1.4655	0.0028
L16	104.25 - 99.25	15.270	47	1.4036	0.0028
L17	99.25 - 94.25	13.835	47	1.3382	0.0025
L18	94.25 - 90.25	12.469	47	1.2699	0.0023
L19	90.25 - 90	11.429	47	1.2132	0.0021
L20	90 - 85	11.365	47	1.2097	0.0021
L21	85 - 80	10.137	47	1.1366	0.0018
L22	80 - 75	8.986	47	1.0614	0.0016
L23	75 - 70	7.915	47	0.9844	0.0014
L24	73.26 - 69	7.561	47	0.9576	0.0014
L25	69 - 64	6.721	47	0.9211	0.0013
L26	64 - 59	5.792	47	0.8542	0.0012
L27	59 - 56.5	4.933	47	0.7864	0.0010
L28	56.5 - 56.25	4.530	47	0.7521	0.0010
L29	56.25 - 51.25	4.491	47	0.7487	0.0010
L30	51.25 - 46.25	3.742	47	0.6806	0.0008
L31	46.25 - 41.25	3.066	47	0.6119	0.0007
L32	41.25 - 36.25	2.461	48	0.5426	0.0006
L33	36.25 - 30	1.930	48	0.4728	0.0005
L34	33.93 - 28.93	1.708	48	0.4406	0.0005
L35	28.93 - 28.75	1.265	48	0.4000	0.0004
L36	28.75 - 28.5	1.250	48	0.3976	0.0004
L37	28.5 - 23.5	1.229	48	0.3943	0.0004
L38	23.5 - 18.5	0.851	48	0.3278	0.0003
L39	18.5 - 13.5	0.542	48	0.2623	0.0003
L40	13.5 - 8.5	0.302	48	0.1966	0.0002
L41	8.5 - 3.5	0.130	48	0.1319	0.0001
L42	3.5 - 2.75	0.026	48	0.0670	0.0001
L43	2.75 - 2.5	0.017	48	0.0574	0.0001
L44	2.5 - 0	0.014	48	0.0521	0.0000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
150.00	Top Hat 14" Dia x 34" Tall (Flat)	47	32.636	2.0810	0.0043	15899
147.00	DMP65R-BU6D	47	31.328	2.0806	0.0042	15899
110.00	Bridge Stiffener (3"x1.25")	47	17.003	1.4726	0.0028	3254
104.00	SRL-210C-2	47	15.197	1.4005	0.0028	4496

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 145	139.215	18	8.9004	0.0171
L2	145 - 140	129.963	18	8.8828	0.0163
L3	140 - 135	120.788	18	8.7358	0.0146
L4	135 - 130	111.833	18	8.4619	0.0131
L5	130 - 129.25	103.211	18	8.0904	0.0124
L6	129.25 - 129	101.952	18	8.0283	0.0124
L7	129 - 124	101.534	18	8.0189	0.0124

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L8	124 - 119	93.291	18	7.8075	0.0122
L9	119 - 114	85.420	18	7.2917	0.0119
L10	114 - 110.5	78.105	18	6.7328	0.0117
L11	110.5 - 110.25	73.337	18	6.3217	0.0116
L12	110.25 - 110	73.008	18	6.3128	0.0116
L13	110 - 109.5	72.679	18	6.3039	0.0116
L14	109.5 - 109.25	72.022	18	6.2860	0.0116
L15	109.25 - 104.25	71.694	18	6.2735	0.0116
L16	104.25 - 99.25	65.284	18	6.0084	0.0116
L17	99.25 - 94.25	59.156	18	5.7291	0.0105
L18	94.25 - 90.25	53.325	18	5.4369	0.0094
L19	90.25 - 90	48.883	18	5.1947	0.0086
L20	90 - 85	48.612	18	5.1795	0.0085
L21	85 - 80	43.363	18	4.8668	0.0076
L22	80 - 75	38.444	18	4.5452	0.0068
L23	75 - 70	33.865	18	4.2154	0.0059
L24	73.26 - 69	32.352	18	4.1006	0.0057
L25	69 - 64	28.759	18	3.9447	0.0053
L26	64 - 59	24.783	18	3.6578	0.0048
L27	59 - 56.5	21.109	18	3.3676	0.0042
L28	56.5 - 56.25	19.386	18	3.2207	0.0040
L29	56.25 - 51.25	19.218	18	3.2061	0.0039
L30	51.25 - 46.25	16.016	20	2.9143	0.0035
L31	46.25 - 41.25	13.122	20	2.6200	0.0030
L32	41.25 - 36.25	10.536	20	2.3232	0.0026
L33	36.25 - 30	8.261	20	2.0240	0.0022
L34	33.93 - 28.93	7.311	20	1.8865	0.0020
L35	28.93 - 28.75	5.415	20	1.7123	0.0018
L36	28.75 - 28.5	5.351	20	1.7022	0.0018
L37	28.5 - 23.5	5.262	20	1.6881	0.0017
L38	23.5 - 18.5	3.644	20	1.4034	0.0014
L39	18.5 - 13.5	2.321	20	1.1228	0.0011
L40	13.5 - 8.5	1.293	20	0.8414	0.0008
L41	8.5 - 3.5	0.558	20	0.5643	0.0005
L42	3.5 - 2.75	0.112	20	0.2866	0.0003
L43	2.75 - 2.5	0.071	20	0.2455	0.0002
L44	2.5 - 0	0.058	20	0.2231	0.0002

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
150.00	Top Hat 14" Dia x 34" Tall (Flat)	18	139.215	8.9004	0.0186	3983
147.00	DMP65R-BU6D	18	133.660	8.9000	0.0182	3983
110.00	Bridge Stiffener (3"x1.25")	18	72.679	6.3039	0.0117	779
104.00	SRL-210C-2	18	64.971	5.9949	0.0116	1076

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
L1	150 - 145 (1)	TP15.25x14.5x0.25	5.00	0.00	0.0	12.0750	-5.14	706.39	0.007
L2	145 - 140 (2)	TP16x15.25x0.25	5.00	0.00	0.0	12.6788	-5.42	741.71	0.007
L3	140 - 135 (3)	TP16.75x16x0.25	5.00	0.00	0.0	13.2825	-5.73	777.03	0.007
L4	135 - 130 (4)	TP17.5x16.75x0.25	5.00	0.00	0.0	13.8862	-6.07	812.35	0.007
L5	130 - 129.25 (5)	TP17.6125x17.5x0.25	0.75	0.00	0.0	13.9768	-6.13	817.64	0.007
L6	129.25 - 129 (6)	TP17.65x17.6125x0.6	0.25	0.00	0.0	32.9406	-6.16	1927.03	0.003
L7	129 - 124 (7)	TP18.4x17.65x0.575	5.00	0.00	0.0	33.0030	-6.79	1930.67	0.004

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
L8	124 - 119 (8)	TP19.15x18.4x0.25	5.00	0.00	0.0	15.2145	-7.18	890.05	0.008
L9	119 - 114 (9)	TP19.9x19.15x0.25	5.00	0.00	0.0	15.8182	-7.60	925.37	0.008
L10	114 - 110.5 (10)	TP20.425x19.9x0.25	3.50	0.00	0.0	16.2409	-7.91	950.09	0.008
L11	110.5 - 110.25 (11)	TP20.4625x20.425x0.9375	0.25	0.00	0.0	58.9411	-7.95	3448.05	0.002
L12	110.25 - 110 (12)	TP20.5x20.4622x0.925	0.25	0.00	0.0	58.3041	-7.99	3410.79	0.002
L13	110 - 109.5 (13)	TP20.5756x20.5x0.925	0.50	0.00	0.0	58.5294	-8.44	3423.97	0.002
L14	109.5 - 109.25 (14)	TP20.6134x20.5756x0.6375	0.25	0.00	0.0	41.0056	-8.48	2398.83	0.004
L15	109.25 - 104.25 (15)	TP21.3697x20.6134x0.6125	5.00	0.00	0.0	40.9384	-9.28	2394.89	0.004
L16	104.25 - 99.25 (16)	TP22.1259x21.3697x0.6	5.00	0.00	0.0	41.5881	-10.20	2432.90	0.004
L17	99.25 - 94.25 (17)	TP22.8822x22.1259x0.5875	5.00	0.00	0.0	42.1760	-11.04	2467.29	0.004
L18	94.25 - 90.25 (18)	TP23.4872x22.8822x0.575	4.00	0.00	0.0	42.4219	-11.73	2481.68	0.005
L19	90.25 - 90 (19)	TP23.525x23.4872x0.575	0.25	0.00	0.0	42.4919	-11.78	2485.78	0.005
L20	90 - 85 (20)	TP24.2813x23.525x0.5625	5.00	0.00	0.0	42.9606	-12.66	2513.19	0.005
L21	85 - 80 (21)	TP25.0375x24.2813x0.55	5.00	0.00	0.0	43.3674	-13.56	2536.99	0.005
L22	80 - 75 (22)	TP25.7938x25.0375x0.5375	5.00	0.00	0.0	43.7123	-14.48	2557.17	0.006
L23	75 - 70 (23)	TP26.55x25.7938x0.5375	5.00	0.00	0.0	44.1677	-14.80	2583.81	0.006
L24	70 - 69 (24)	TP26.2003x25.5569x0.675	4.26	0.00	0.0	55.4792	-16.29	3245.53	0.005
L25	69 - 64 (25)	TP26.9554x26.2003x0.6625	5.00	0.00	0.0	56.0892	-17.44	3281.22	0.005
L26	64 - 59 (26)	TP27.7105x26.9554x0.65	5.00	0.00	0.0	56.6375	-18.60	3313.30	0.006
L27	59 - 56.5 (27)	TP28.088x27.7105x0.6375	2.50	0.00	0.0	56.3490	-19.19	3296.42	0.006
L28	56.5 - 56.25 (28)	TP28.1258x28.088x0.6375	0.25	0.00	0.0	56.4265	-19.26	3300.95	0.006
L29	56.25 - 51.25 (29)	TP28.8809x28.1258x0.6375	5.00	0.00	0.0	57.9765	-20.45	3391.63	0.006
L30	51.25 - 46.25 (30)	TP29.6359x28.8809x0.625	5.00	0.00	0.0	58.3845	-21.67	3415.49	0.006
L31	46.25 - 41.25 (31)	TP30.391x29.6359x0.6125	5.00	0.00	0.0	58.7307	-22.91	3435.75	0.007
L32	41.25 - 36.25 (32)	TP31.1461x30.391x0.6	5.00	0.00	0.0	59.0151	-24.18	3452.38	0.007
L33	36.25 - 30 (33)	TP32.09x31.1461x0.6	6.25	0.00	0.0	59.6920	-24.77	3491.98	0.007
L34	30 - 28.93 (34)	TP31.6272x30.8715x0.6625	5.00	0.00	0.0	66.0555	-27.05	3864.25	0.007
L35	28.93 - 28.75 (35)	TP31.6545x31.6272x0.6625	0.18	0.00	0.0	66.1136	-27.11	3867.64	0.007
L36	28.75 - 28.5 (36)	TP31.6922x31.6545x0.6625	0.25	0.00	0.0	66.1942	-27.18	3872.36	0.007
L37	28.5 - 23.5 (37)	TP32.448x31.6922x0.65	5.00	0.00	0.0	66.5532	-28.59	3893.36	0.007
L38	23.5 - 18.5 (38)	TP33.2037x32.448x0.65	5.00	0.00	0.0	68.1350	-30.04	3985.90	0.008
L39	18.5 - 13.5 (39)	TP33.9595x33.2037x0.6375	5.00	0.00	0.0	68.4017	-31.51	4001.50	0.008
L40	13.5 - 8.5 (40)	TP34.7152x33.9595x0.6375	5.00	0.00	0.0	69.9531	-33.00	4092.25	0.008
L41	8.5 - 3.5 (41)	TP35.471x34.7152x0.625	5.00	0.00	0.0	70.1275	-34.51	4102.46	0.008
L42	3.5 - 2.75 (42)	TP35.5843x35.471x0.625	0.75	0.00	0.0	70.3557	-34.74	4115.81	0.008
L43	2.75 - 2.5 (43)	TP35.6221x35.5843x0.375	0.25	0.00	0.0	42.5609	-34.80	2489.81	0.014
L44	2.5 - 0 (44)	TP36x35.6221x0.375	2.50	0.00	0.0	43.0172	-35.33	2516.51	0.014

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{nx} kip-ft	Ratio M _{ux} / φM _{nx}	M _{uy} kip-ft	φM _{ny} kip-ft	Ratio M _{uy} / φM _{ny}
L1	150 - 145 (1)	TP15.25x14.5x0.25	17.49	269.65	0.065	0.00	269.65	0.000
L2	145 - 140 (2)	TP16x15.25x0.25	61.02	297.52	0.205	0.00	297.52	0.000
L3	140 - 135 (3)	TP16.75x16x0.25	106.26	326.76	0.325	0.00	326.76	0.000
L4	135 - 130 (4)	TP17.5x16.75x0.25	153.20	357.38	0.429	0.00	357.38	0.000
L5	130 - 129.25 (5)	TP17.6125x17.5x0.25	160.38	362.09	0.443	0.00	362.09	0.000
L6	129.25 - 129 (6)	TP17.65x17.6125x0.6	162.79	821.18	0.198	0.00	821.18	0.000
L7	129 - 124 (7)	TP18.4x17.65x0.575	211.96	862.58	0.246	0.00	862.58	0.000
L8	124 - 119 (8)	TP19.15x18.4x0.25	263.00	429.55	0.612	0.00	429.55	0.000
L9	119 - 114 (9)	TP19.9x19.15x0.25	316.08	464.55	0.680	0.00	464.55	0.000
L10	114 - 110.5 (10)	TP20.425x19.9x0.25	354.35	489.86	0.723	0.00	489.86	0.000
L11	110.5 - 110.25 (11)	TP20.4625x20.425x0.9375	357.12	1662.04	0.215	0.00	1662.04	0.000
L12	110.25 - 110 (12)	TP20.5x20.4622x0.925	359.90	1649.49	0.218	0.00	1649.49	0.000
L13	110 - 109.5 (13)	TP20.5756x20.5x0.925	365.53	1662.55	0.220	0.00	1662.55	0.000
L14	109.5 - 109.25 (14)	TP20.6134x20.5756x0.6375	368.39	1201.46	0.307	0.00	1201.46	0.000
L15	109.25 - 104.25 (15)	TP21.3697x20.6134x0.6125	426.76	1249.31	0.342	0.00	1249.31	0.000
L16	104.25 - 99.25 (16)	TP22.1259x21.3697x0.6	489.93	1318.23	0.372	0.00	1318.23	0.000
L17	99.25 - 94.25 (17)	TP22.8822x22.1259x0.5875	554.95	1386.67	0.400	0.00	1386.67	0.000
L18	94.25 - 90.25 (18)	TP23.4872x22.8822x0.575	608.57	1435.14	0.424	0.00	1435.14	0.000
L19	90.25 - 90 (19)	TP23.525x23.4872x0.575	611.96	1439.93	0.425	0.00	1439.93	0.000
L20	90 - 85 (20)	TP24.2813x23.525x0.5625	681.05	1506.55	0.452	0.00	1506.55	0.000
L21	85 - 80 (21)	TP25.0375x24.2813x0.55	752.30	1572.03	0.479	0.00	1572.03	0.000
L22	80 - 75 (22)	TP25.7938x25.0375x0.5375	825.68	1636.17	0.505	0.00	1636.17	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 $\frac{M_{uy}}{\phi M_{ny}}$
L23	75 - 70 (23)	TP26.55x25.7938x0.5375	851.73	1670.80	0.510	0.00	1670.80	0.000
L24	70 - 69 (24)	TP26.2003x25.5569x0.675	916.77	2088.18	0.439	0.00	2088.18	0.000
L25	69 - 64 (25)	TP26.9554x26.2003x0.6625	995.27	2177.27	0.457	0.00	2177.27	0.000
L26	64 - 59 (26)	TP27.7105x26.9554x0.65	1075.94	2265.33	0.475	0.00	2265.33	0.000
L27	59 - 56.5 (27)	TP28.088x27.7105x0.6375	1117.08	2288.06	0.488	0.00	2288.06	0.000
L28	56.5 - 56.25 (28)	TP28.1258x28.088x0.6375	1121.22	2294.43	0.489	0.00	2294.43	0.000
L29	56.25 - 51.25 (29)	TP28.8809x28.1258x0.6375	1205.17	2423.68	0.497	0.00	2423.68	0.000
L30	51.25 - 46.25 (30)	TP29.6359x28.8809x0.625	1291.18	2509.60	0.514	0.00	2509.60	0.000
L31	46.25 - 41.25 (31)	TP30.391x29.6359x0.6125	1379.22	2593.75	0.532	0.00	2593.75	0.000
L32	41.25 - 36.25 (32)	TP31.1461x30.391x0.6	1469.21	2675.92	0.549	0.00	2675.92	0.000
L33	36.25 - 30 (33)	TP32.09x31.1461x0.6	1511.62	2738.26	0.552	0.00	2738.26	0.000
L34	30 - 28.93 (34)	TP31.6272x30.8715x0.6625	1604.62	3030.99	0.529	0.00	3030.99	0.000
L35	28.93 - 28.75 (35)	TP31.6545x31.6272x0.6625	1608.00	3036.38	0.530	0.00	3036.38	0.000
L36	28.75 - 28.5 (36)	TP31.6922x31.6545x0.6625	1612.71	3043.86	0.530	0.00	3043.86	0.000
L37	28.5 - 23.5 (37)	TP32.448x31.6922x0.65	1707.79	3138.93	0.544	0.00	3138.93	0.000
L38	23.5 - 18.5 (38)	TP33.2037x32.448x0.65	1804.53	3291.44	0.548	0.00	3291.44	0.000
L39	18.5 - 13.5 (39)	TP33.9595x33.2037x0.6375	1903.03	3385.07	0.562	0.00	3385.07	0.000
L40	13.5 - 8.5 (40)	TP34.7152x33.9595x0.6375	2003.36	3541.84	0.566	0.00	3541.84	0.000
L41	8.5 - 3.5 (41)	TP35.471x34.7152x0.625	2105.09	3633.47	0.579	0.00	3633.47	0.000
L42	3.5 - 2.75 (42)	TP35.5843x35.471x0.625	2120.47	3657.36	0.580	0.00	3657.36	0.000
L43	2.75 - 2.5 (43)	TP35.6221x35.5843x0.375	2125.61	2150.95	0.988	0.00	2150.95	0.000
L44	2.5 - 0 (44)	TP36x35.6221x0.375	2177.06	2189.31	0.994	0.00	2189.31	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	150 - 145 (1)	TP15.25x14.5x0.25	8.52	211.92	0.040	0.50	279.61	0.002
L2	145 - 140 (2)	TP16x15.25x0.25	8.88	222.51	0.040	0.51	308.27	0.002
L3	140 - 135 (3)	TP16.75x16x0.25	9.22	233.11	0.040	0.51	338.33	0.002
L4	135 - 130 (4)	TP17.5x16.75x0.25	9.56	243.70	0.039	0.51	369.79	0.001
L5	130 - 129.25 (5)	TP17.6125x17.5x0.25	9.61	245.29	0.039	0.51	374.63	0.001
L6	129.25 - 129 (6)	TP17.65x17.6125x0.6	9.63	578.11	0.017	0.51	867.02	0.001
L7	129 - 124 (7)	TP18.4x17.65x0.575	10.04	579.20	0.017	0.51	908.16	0.001
L8	124 - 119 (8)	TP19.15x18.4x0.25	10.39	267.01	0.039	0.51	443.91	0.001
L9	119 - 114 (9)	TP19.9x19.15x0.25	10.82	277.61	0.039	0.50	479.84	0.001
L10	114 - 110.5 (10)	TP20.425x19.9x0.25	11.07	285.03	0.039	0.50	505.82	0.001
L11	110.5 - 110.25 (11)	TP20.4625x20.425x0.9375	11.10	1034.42	0.011	0.50	1776.58	0.000
L12	110.25 - 110 (12)	TP20.5x20.4622x0.925	11.12	1023.24	0.011	0.50	1761.88	0.000
L13	110 - 109.5 (13)	TP20.5756x20.5x0.925	11.43	1027.19	0.011	0.50	1775.53	0.000
L14	109.5 - 109.25 (14)	TP20.6134x20.5756x0.6375	11.45	719.65	0.016	0.50	1264.53	0.000
L15	109.25 - 104.25 (15)	TP21.3697x20.6134x0.6125	11.90	718.47	0.017	0.50	1311.83	0.000
L16	104.25 - 99.25 (16)	TP22.1259x21.3697x0.6	12.79	729.87	0.018	0.50	1382.00	0.000
L17	99.25 - 94.25 (17)	TP22.8822x22.1259x0.5875	13.24	740.19	0.018	0.50	1451.59	0.000
L18	94.25 - 90.25 (18)	TP23.4872x22.8822x0.575	13.59	744.50	0.018	0.50	1500.49	0.000
L19	90.25 - 90 (19)	TP23.525x23.4872x0.575	13.61	745.73	0.018	0.50	1505.45	0.000
L20	90 - 85 (20)	TP24.2813x23.525x0.5625	14.04	753.96	0.019	0.50	1573.03	0.000
L21	85 - 80 (21)	TP25.0375x24.2813x0.55	14.48	761.10	0.019	0.50	1639.40	0.000
L22	80 - 75 (22)	TP25.7938x25.0375x0.5375	14.90	767.15	0.019	0.50	1704.31	0.000
L23	75 - 70 (23)	TP26.55x25.7938x0.5375	15.06	775.14	0.019	0.50	1740.02	0.000
L24	70 - 69 (24)	TP26.2003x25.5569x0.675	15.49	973.66	0.016	0.50	2186.13	0.000
L25	69 - 64 (25)	TP26.9554x26.2003x0.6625	15.93	984.37	0.016	0.50	2276.64	0.000
L26	64 - 59 (26)	TP27.7105x26.9554x0.65	16.36	993.99	0.016	0.50	2366.01	0.000
L27	59 - 56.5 (27)	TP28.088x27.7105x0.6375	16.57	988.92	0.017	0.50	2387.88	0.000
L28	56.5 - 56.25 (28)	TP28.1258x28.088x0.6375	16.59	990.28	0.017	0.50	2394.46	0.000
L29	56.25 - 51.25 (29)	TP28.8809x28.1258x0.6375	17.01	1017.49	0.017	0.50	2527.82	0.000
L30	51.25 - 46.25 (30)	TP29.6359x28.8809x0.625	17.42	1024.65	0.017	0.50	2614.79	0.000
L31	46.25 - 41.25 (31)	TP30.391x29.6359x0.6125	17.82	1030.72	0.017	0.50	2699.88	0.000
L32	41.25 - 36.25 (32)	TP31.1461x30.391x0.6	18.21	1035.72	0.018	0.50	2782.89	0.000
L33	36.25 - 30 (33)	TP32.09x31.1461x0.6	18.38	1047.60	0.018	0.50	2847.10	0.000
L34	30 - 28.93 (34)	TP31.6272x30.8715x0.6625	18.83	1159.27	0.016	0.50	3157.57	0.000
L35	28.93 - 28.75 (35)	TP31.6545x31.6272x0.6625	18.83	1160.29	0.016	0.50	3163.12	0.000
L36	28.75 - 28.5 (36)	TP31.6922x31.6545x0.6625	18.85	1161.71	0.016	0.50	3170.84	0.000
L37	28.5 - 23.5 (37)	TP32.448x31.6922x0.65	19.20	1168.01	0.016	0.50	3266.97	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
L38	23.5 - 18.5 (38)	TP33.2037x32.448x0.65	19.53	1195.77	0.016	0.50	3424.11	0.000
L39	18.5 - 13.5 (39)	TP33.9595x33.2037x0.6375	19.94	1200.45	0.017	0.30	3518.64	0.000
L40	13.5 - 8.5 (40)	TP34.7152x33.9595x0.6375	20.23	1227.68	0.016	0.30	3680.06	0.000
L41	8.5 - 3.5 (41)	TP35.471x34.7152x0.625	20.51	1230.74	0.017	0.30	3772.40	0.000
L42	3.5 - 2.75 (42)	TP35.5843x35.471x0.625	20.54	1234.74	0.017	0.30	3796.99	0.000
L43	2.75 - 2.5 (43)	TP35.6221x35.5843x0.375	20.55	746.94	0.028	0.30	2315.86	0.000
L44	2.5 - 0 (44)	TP36x35.6221x0.375	20.66	754.95	0.027	0.30	2365.78	0.000

Pole Interaction Design Data

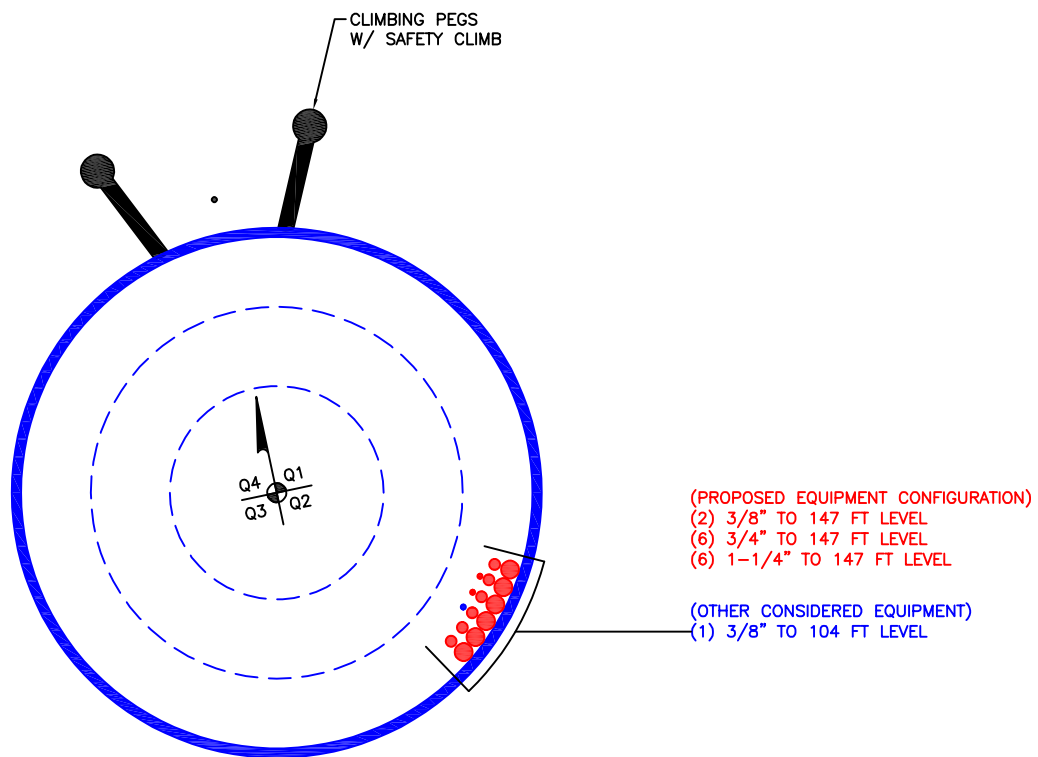
Section No.	Elevation ft	Ratio P_u ϕP_n	Ratio M_{ux} ϕM_{nx}	Ratio M_{uy} ϕM_{ny}	Ratio V_u ϕV_n	Ratio T_u ϕT_n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	150 - 145 (1)	0.007	0.065	0.000	0.040	0.002	0.074	1.050	
L2	145 - 140 (2)	0.007	0.205	0.000	0.040	0.002	0.214	1.050	
L3	140 - 135 (3)	0.007	0.325	0.000	0.040	0.002	0.334	1.050	
L4	135 - 130 (4)	0.007	0.429	0.000	0.039	0.001	0.438	1.050	
L5	130 - 129.25 (5)	0.007	0.443	0.000	0.039	0.001	0.452	1.050	
L6	129.25 - 129 (6)	0.003	0.198	0.000	0.017	0.001	0.202	1.050	
L7	129 - 124 (7)	0.004	0.246	0.000	0.017	0.001	0.250	1.050	
L8	124 - 119 (8)	0.008	0.612	0.000	0.039	0.001	0.622	1.050	
L9	119 - 114 (9)	0.008	0.680	0.000	0.039	0.001	0.690	1.050	
L10	114 - 110.5 (10)	0.008	0.723	0.000	0.039	0.001	0.733	1.050	
L11	110.5 - 110.25 (11)	0.002	0.215	0.000	0.011	0.000	0.217	1.050	
L12	110.25 - 110 (12)	0.002	0.218	0.000	0.011	0.000	0.221	1.050	
L13	110 - 109.5 (13)	0.002	0.220	0.000	0.011	0.000	0.222	1.050	
L14	109.5 - 109.25 (14)	0.004	0.307	0.000	0.016	0.000	0.310	1.050	
L15	109.25 - 104.25 (15)	0.004	0.342	0.000	0.017	0.000	0.346	1.050	
L16	104.25 - 99.25 (16)	0.004	0.372	0.000	0.018	0.000	0.376	1.050	
L17	99.25 - 94.25 (17)	0.004	0.400	0.000	0.018	0.000	0.405	1.050	
L18	94.25 - 90.25 (18)	0.005	0.424	0.000	0.018	0.000	0.429	1.050	
L19	90.25 - 90 (19)	0.005	0.425	0.000	0.018	0.000	0.430	1.050	
L20	90 - 85 (20)	0.005	0.452	0.000	0.019	0.000	0.457	1.050	
L21	85 - 80 (21)	0.005	0.479	0.000	0.019	0.000	0.484	1.050	
L22	80 - 75 (22)	0.006	0.505	0.000	0.019	0.000	0.511	1.050	
L23	75 - 70 (23)	0.006	0.510	0.000	0.019	0.000	0.516	1.050	
L24	70 - 69 (24)	0.005	0.439	0.000	0.016	0.000	0.444	1.050	
L25	69 - 64 (25)	0.005	0.457	0.000	0.016	0.000	0.463	1.050	
L26	64 - 59 (26)	0.006	0.475	0.000	0.016	0.000	0.481	1.050	
L27	59 - 56.5 (27)	0.006	0.488	0.000	0.017	0.000	0.494	1.050	
L28	56.5 - 56.25 (28)	0.006	0.489	0.000	0.017	0.000	0.495	1.050	
L29	56.25 - 51.25 (29)	0.006	0.497	0.000	0.017	0.000	0.504	1.050	
L30	51.25 - 46.25 (30)	0.006	0.514	0.000	0.017	0.000	0.521	1.050	
L31	46.25 - 41.25 (31)	0.007	0.532	0.000	0.017	0.000	0.539	1.050	
L32	41.25 - 36.25 (32)	0.007	0.549	0.000	0.018	0.000	0.556	1.050	
L33	36.25 - 30 (33)	0.007	0.552	0.000	0.018	0.000	0.559	1.050	
L34	30 - 28.93 (34)	0.007	0.529	0.000	0.016	0.000	0.537	1.050	
L35	28.93 - 28.75 (35)	0.007	0.530	0.000	0.016	0.000	0.537	1.050	
L36	28.75 - 28.5 (36)	0.007	0.530	0.000	0.016	0.000	0.537	1.050	
L37	28.5 - 23.5 (37)	0.007	0.544	0.000	0.016	0.000	0.552	1.050	
L38	23.5 - 18.5 (38)	0.008	0.548	0.000	0.016	0.000	0.556	1.050	
L39	18.5 - 13.5 (39)	0.008	0.562	0.000	0.017	0.000	0.570	1.050	
L40	13.5 - 8.5 (40)	0.008	0.566	0.000	0.016	0.000	0.574	1.050	
L41	8.5 - 3.5 (41)	0.008	0.579	0.000	0.017	0.000	0.588	1.050	
L42	3.5 - 2.75 (42)	0.008	0.580	0.000	0.017	0.000	0.589	1.050	
L43	2.75 - 2.5 (43)	0.014	0.988	0.000	0.028	0.000	1.003	1.050	
L44	2.5 - 0 (44)	0.014	0.994	0.000	0.027	0.000	1.009	1.050	

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	150 - 145	Pole	TP15.25x14.5x0.25	1	-5.14	741.71	7.0	Pass
L2	145 - 140	Pole	TP16x15.25x0.25	2	-5.42	778.79	20.4	Pass
L3	140 - 135	Pole	TP16.75x16x0.25	3	-5.73	815.88	31.8	Pass
L4	135 - 130	Pole	TP17.5x16.75x0.25	4	-6.07	852.96	41.7	Pass
L5	130 - 129.25	Pole	TP17.6125x17.5x0.25	5	-6.13	858.53	43.1	Pass
L6	129.25 - 129	Pole	TP17.65x17.6125x0.6	6	-6.16	2023.38	19.2	Pass
L7	129 - 124	Pole	TP18.4x17.65x0.575	7	-6.79	2027.20	23.8	Pass
L8	124 - 119	Pole	TP19.15x18.4x0.25	8	-7.18	934.55	59.2	Pass
L9	119 - 114	Pole	TP19.9x19.15x0.25	9	-7.60	971.64	65.7	Pass
L10	114 - 110.5	Pole	TP20.425x19.9x0.25	10	-7.91	997.60	69.8	Pass
L11	110.5 - 110.25	Pole	TP20.4625x20.425x0.9375	11	-7.95	3620.45	20.7	Pass
L12	110.25 - 110	Pole	TP20.5x20.4622x0.925	12	-7.99	3581.33	21.0	Pass
L13	110 - 109.5	Pole	TP20.5756x20.5x0.925	13	-8.44	3595.17	21.2	Pass
L14	109.5 - 109.25	Pole	TP20.6134x20.5756x0.6375	14	-8.48	2518.77	29.6	Pass
L15	109.25 - 104.25	Pole	TP21.3697x20.6134x0.6125	15	-9.28	2514.63	32.9	Pass
L16	104.25 - 99.25	Pole	TP22.1259x21.3697x0.6	16	-10.20	2554.55	35.8	Pass
L17	99.25 - 94.25	Pole	TP22.8822x22.1259x0.5875	17	-11.04	2590.65	38.6	Pass
L18	94.25 - 90.25	Pole	TP23.4872x22.8822x0.575	18	-11.73	2605.76	40.9	Pass
L19	90.25 - 90	Pole	TP23.525x23.4872x0.575	19	-11.78	2610.07	41.0	Pass
L20	90 - 85	Pole	TP24.2813x23.525x0.5625	20	-12.66	2638.85	43.6	Pass
L21	85 - 80	Pole	TP25.0375x24.2813x0.55	21	-13.56	2663.84	46.1	Pass
L22	80 - 75	Pole	TP25.7938x25.0375x0.5375	22	-14.48	2685.03	48.6	Pass
L23	75 - 70	Pole	TP26.55x25.7938x0.5375	23	-14.80	2713.00	49.1	Pass
L24	70 - 69	Pole	TP26.2003x25.5569x0.675	24	-16.29	3407.81	42.3	Pass
L25	69 - 64	Pole	TP26.9554x26.2003x0.6625	25	-17.44	3445.28	44.1	Pass
L26	64 - 59	Pole	TP27.7105x26.9554x0.65	26	-18.60	3478.96	45.8	Pass
L27	59 - 56.5	Pole	TP28.088x27.7105x0.6375	27	-19.19	3461.24	47.1	Pass
L28	56.5 - 56.25	Pole	TP28.1258x28.088x0.6375	28	-19.26	3466.00	47.1	Pass
L29	56.25 - 51.25	Pole	TP28.8809x28.1258x0.6375	29	-20.45	3561.21	48.0	Pass
L30	51.25 - 46.25	Pole	TP29.6359x28.8809x0.625	30	-21.67	3586.26	49.6	Pass
L31	46.25 - 41.25	Pole	TP30.391x29.6359x0.6125	31	-22.91	3607.54	51.3	Pass
L32	41.25 - 36.25	Pole	TP31.1461x30.391x0.6	32	-24.18	3625.00	53.0	Pass
L33	36.25 - 30	Pole	TP32.09x31.1461x0.6	33	-24.77	3666.58	53.3	Pass
L34	30 - 28.93	Pole	TP31.6272x30.8715x0.6625	34	-27.05	4057.46	51.1	Pass
L35	28.93 - 28.75	Pole	TP31.6545x31.6272x0.6625	35	-27.11	4061.02	51.1	Pass
L36	28.75 - 28.5	Pole	TP31.6922x31.6545x0.6625	36	-27.18	4065.98	51.2	Pass
L37	28.5 - 23.5	Pole	TP32.448x31.6922x0.65	37	-28.59	4088.03	52.5	Pass
L38	23.5 - 18.5	Pole	TP33.2037x32.448x0.65	38	-30.04	4185.19	53.0	Pass
L39	18.5 - 13.5	Pole	TP33.9595x33.2037x0.6375	39	-31.51	4201.57	54.3	Pass
L40	13.5 - 8.5	Pole	TP34.7152x33.9595x0.6375	40	-33.00	4296.86	54.7	Pass
L41	8.5 - 3.5	Pole	TP35.471x34.7152x0.625	41	-34.51	4307.58	56.0	Pass
L42	3.5 - 2.75	Pole	TP35.5843x35.471x0.625	42	-34.74	4321.60	56.0	Pass
L43	2.75 - 2.5	Pole	TP35.6221x35.5843x0.375	43	-34.80	2614.30	95.5	Pass
L44	2.5 - 0	Pole	TP36x35.6221x0.375	44	-35.33	2642.34	96.1	Pass
							Summary	
							Pole (L44)	96.1 Pass
							RATING =	96.1 Pass

***NOTE: Above stress ratios for reinforced sections are approximate. More exact calculations are presented in Appendix C.**

APPENDIX B
BASE LEVEL DRAWING



BUSINESS UNIT: 841292 TOWER ID: C_BASELEVEL

APPENDIX C
ADDITIONAL CALCULATIONS

Site BU: 841292
Work Order: 2355917

Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	150	40	0	12	14.5	20.5	0.25	Auto	A572-65
2	110	40	3.26	12	20.50	26.55	0.25	Auto	A572-65
3	73.26	43.26	3.93	12	25.56	32.09	0.3125	Auto	A572-65
4	33.93	33.93	0	12	30.87	36	0.375	Auto	A572-65

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12
1	2.75	28.75	plate	FP-5"x1.25"	4		M1			M1			M1			M1	
2	28.75	56.5	plate	FP-5"x1.25"	4	M1			M1			M1			M1		
3	56.5	72.25	plate	FP-5"x1.25"	4		M1			M1			M1			M1	
4	72.25	90.25	plate	FP-4"x1.25"	4	M1			M1			M1			M1		
5	90.25	109.5	plate	FP-4"x1.25"	4		M1			M1			M1			M1	
6	110.5	129.25	plate	FP-3"x1.25"	4		M1			M1			M1			M1	
7	109.5	110.5	plate	BS 3"x1.25"	4	M1					M1			M1	M1		
8																	
9																	
10																	

Reinforcement Details

	B (in)	H (in)	Gross Area (in ²)	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in2)	Bolt Hole Size (in)	Reinforcement Material
1	5	1.25	6.25	0.625	K - M20 x 2.5 (Hi Shear Sle	24	K - M20 x 2.5 (Hi Shear Sle	24.000	18.000	4.688	1.1875	A572-65
2	5	1.25	6.25	0.625	K - M20 x 2.5 (Hi Shear Sle	24	K - M20 x 2.5 (Hi Shear Sle	24.000	18.000	4.688	1.1875	A572-65
3	5	1.25	6.25	0.625	K - M20 x 2.5 (Hi Shear Sle	24	K - M20 x 2.5 (Hi Shear Sle	24.000	18.000	4.688	1.1875	A572-65
4	4	1.25	5	0.625	K - M20 x 2.5 (Hi Shear Sle	18	K - M20 x 2.5 (Hi Shear Sle	18.000	18.000	3.438	1.1875	A572-65
5	4	1.25	5	0.625	K - M20 x 2.5 (Hi Shear Sle	18	K - M20 x 2.5 (Hi Shear Sle	18.000	18.000	3.438	1.1875	A572-65
6	3	1.25	3.75	0.625	K - M20 x 2.5 (Hi Shear Sle	12	K - M20 x 2.5 (Hi Shear Sle	12.000	18.000	2.188	1.1875	A572-65
7	1.25	3	3.75	6.5	None	n/a	None	n/a	8.000	3.750	0.0000	A572-65

Connection Details for Custom Reinforcements

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
FP-5"x1.25"	Top	8	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	8	N	3	3	-	-	-	-	-	-	-	-	-
FP-4"x1.25"	Top	6	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	6	N	3	3	-	-	-	-	-	-	-	-	-
FP-3"x1.25"	Top	4	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	4	N	3	3	-	-	-	-	-	-	-	-	-
BS 3"x1.25"	Top	-	-	-	-	-	None	-	-	-	-	-	-	-
	Bottom	-	-	-	-	-	None	-	-	-	-	-	-	-

TNX Geometry Input

Increment (ft): 5 [Export to TNX](#)

	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	150 - 145	5		12	14.500	15.250	0.25	A572-65	1.000
2	145 - 140	5		12	15.250	16.000	0.25	A572-65	1.000
3	140 - 135	5		12	16.000	16.750	0.25	A572-65	1.000
4	135 - 130	5		12	16.750	17.500	0.25	A572-65	1.000
5	130 - 129.25	0.75		12	17.500	17.613	0.25	A572-65	1.000
6	129.25 - 129	0.25		12	17.613	17.650	0.6	A572-65	0.881
7	129 - 124	5		12	17.650	18.400	0.575	A572-65	0.898
8	124 - 119	5		12	18.400	19.150	0.25	A572-65	1.000
9	119 - 114	5		12	19.150	19.900	0.25	A572-65	1.000
10	114 - 110.5	3.5		12	19.900	20.425	0.25	A572-65	1.000
11	110.5 - 110.25	0.25		12	20.425	20.463	0.9375	A572-65	0.531
12	110.25 - 110	0.25	0	12	20.462	20.500	0.925	A572-65	0.537
13	110 - 109.5	0.5		12	20.500	20.576	0.925	A572-65	0.536
14	109.5 - 109.25	0.25		12	20.576	20.613	0.6375	A572-65	0.888
15	109.25 - 104.25	5		12	20.613	21.370	0.6125	A572-65	0.905
16	104.25 - 99.25	5		12	21.370	22.126	0.6	A572-65	0.905
17	99.25 - 94.25	5		12	22.126	22.882	0.5875	A572-65	0.907
18	94.25 - 90.25	4		12	22.882	23.487	0.575	A572-65	0.913
19	90.25 - 90	0.25		12	23.487	23.525	0.575	A572-65	0.912
20	90 - 85	5		12	23.525	24.281	0.5625	A572-65	0.917
21	85 - 80	5		12	24.281	25.038	0.55	A572-65	0.922
22	80 - 75	5		12	25.038	25.794	0.5375	A572-65	0.929
23	75 - 73.26	5	3.26	12	25.794	26.550	0.5375	A572-65	0.924
24	73.26 - 69	4.26		12	25.557	26.200	0.675	A572-65	0.921
25	69 - 64	5		12	26.200	26.955	0.6625	A572-65	0.924
26	64 - 59	5		12	26.955	27.710	0.65	A572-65	0.929
27	59 - 56.5	2.5		12	27.710	28.088	0.6375	A572-65	0.940
28	56.5 - 56.25	0.25		12	28.088	28.126	0.6375	A572-65	0.940
29	56.25 - 51.25	5		12	28.126	28.881	0.6375	A572-65	0.928
30	51.25 - 46.25	5		12	28.881	29.636	0.625	A572-65	0.934
31	46.25 - 41.25	5		12	29.636	30.391	0.6125	A572-65	0.942
32	41.25 - 36.25	5		12	30.391	31.146	0.6	A572-65	0.950
33	36.25 - 33.93	6.25	3.93	12	31.146	32.090	0.6	A572-65	0.945
34	33.93 - 28.93	5		12	30.871	31.627	0.6625	A572-65	0.950
35	28.93 - 28.75	0.18		12	31.627	31.654	0.6625	A572-65	0.950
36	28.75 - 28.5	0.25		12	31.654	31.692	0.6625	A572-65	0.950
37	28.5 - 23.5	5		12	31.692	32.448	0.65	A572-65	0.958
38	23.5 - 18.5	5		12	32.448	33.204	0.65	A572-65	0.949
39	18.5 - 13.5	5		12	33.204	33.959	0.6375	A572-65	0.959
40	13.5 - 8.5	5		12	33.959	34.715	0.6375	A572-65	0.951
41	8.5 - 3.5	5		12	34.715	35.471	0.625	A572-65	0.961
42	3.5 - 2.75	0.75		12	35.471	35.584	0.625	A572-65	0.960
43	2.75 - 2.5	0.25		12	35.584	35.622	0.375	A572-65	1.000
44	2.5 - 0	2.5		12	35.622	36.000	0.375	A572-65	1.000

TNX Section Forces

Increment (ft):		TNX Output		
		P _u	M _{ux} (kip-ft)	V _u (K)
	Section Height (ft)	(K)		
1	150 - 145	5.16	17.15	8.45
2	145 - 140	5.44	60.34	8.81
3	140 - 135	5.75	105.23	9.15
4	135 - 130	6.09	151.82	9.50
5	130 - 129.25	6.14	158.96	9.55
6	129.25 - 129	6.18	161.35	9.56
7	129 - 124	6.81	210.17	9.97
8	124 - 119	7.20	260.87	10.32
9	119 - 114	7.61	313.60	10.75
10	114 - 110.5	7.92	351.63	11.01
11	110.5 - 110.25	7.97	354.38	11.03
12	110.25 - 110	8.00	357.14	11.05
13	110 - 109.5	8.45	362.73	11.36
14	109.5 - 109.25	8.49	365.57	11.38
15	109.25 - 104.25	9.29	423.60	11.83
16	104.25 - 99.25	10.21	486.42	12.72
17	99.25 - 94.25	11.06	551.09	13.17
18	94.25 - 90.25	11.75	604.42	13.52
19	90.25 - 90	11.80	607.80	13.54
20	90 - 85	12.67	676.54	13.97
21	85 - 80	13.57	747.43	14.40
22	80 - 75	14.49	820.47	14.83
23	75 - 73.26	14.81	846.39	14.99
24	73.26 - 69	16.30	911.14	15.42
25	69 - 64	17.45	989.29	15.86
26	64 - 59	18.61	1069.60	16.29
27	59 - 56.5	19.20	1110.56	16.50
28	56.5 - 56.25	19.27	1114.69	16.52
29	56.25 - 51.25	20.46	1198.28	16.94
30	51.25 - 46.25	21.68	1283.95	17.35
31	46.25 - 41.25	22.92	1371.64	17.75
32	41.25 - 36.25	24.18	1461.29	18.14
33	36.25 - 33.93	24.77	1503.54	18.31
34	33.93 - 28.93	27.05	1596.19	18.76
35	28.93 - 28.75	27.11	1599.57	18.77
36	28.75 - 28.5	27.18	1604.26	18.78
37	28.5 - 23.5	28.60	1699.00	19.14
38	23.5 - 18.5	30.04	1795.40	19.46
39	18.5 - 13.5	31.51	1893.57	19.87
40	13.5 - 8.5	33.00	1993.56	20.16
41	8.5 - 3.5	34.51	2094.97	20.44
42	3.5 - 2.75	34.74	2110.30	20.48
43	2.75 - 2.5	34.80	2115.42	20.48
44	2.5 - 0	35.33	2166.71	20.60

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
150 - 145	Pole	TP15.25x14.5x0.25	Pole	6.9%	Pass
145 - 140	Pole	TP16x15.25x0.25	Pole	20.1%	Pass
140 - 135	Pole	TP16.75x16x0.25	Pole	31.4%	Pass
135 - 130	Pole	TP17.5x16.75x0.25	Pole	41.2%	Pass
130 - 129.25	Pole	TP17.613x17.5x0.25	Pole	42.5%	Pass
129.25 - 129	Pole + Reinf.	TP17.65x17.613x0.6	Reinf. 6 Tension Rupture	41.3%	Pass
129 - 124	Pole + Reinf.	TP18.4x17.65x0.575	Reinf. 6 Tension Rupture	50.5%	Pass
124 - 119	Pole	TP19.15x18.4x0.25	Pole	58.6%	Pass
119 - 114	Pole	TP19.9x19.15x0.25	Pole	65.0%	Pass
114 - 110.5	Pole	TP20.425x19.9x0.25	Pole	69.1%	Pass
110.5 - 110.25	Pole + Reinf.	TP20.463x20.425x0.9375	Reinf. 7 Compression	44.5%	Pass
110.25 - 110	Pole + Reinf.	TP20.5x20.462x0.925	Reinf. 7 Compression	44.8%	Pass
110 - 109.5	Pole + Reinf.	TP20.576x20.5x0.925	Reinf. 7 Compression	45.3%	Pass
109.5 - 109.25	Pole + Reinf.	TP20.613x20.576x0.6375	Reinf. 5 Tension Rupture	53.7%	Pass
109.25 - 104.25	Pole + Reinf.	TP21.37x20.613x0.6125	Reinf. 5 Tension Rupture	59.1%	Pass
104.25 - 99.25	Pole + Reinf.	TP22.126x21.37x0.6	Reinf. 5 Tension Rupture	64.6%	Pass
99.25 - 94.25	Pole + Reinf.	TP22.882x22.126x0.5875	Reinf. 5 Tension Rupture	69.7%	Pass
94.25 - 90.25	Pole + Reinf.	TP23.487x22.882x0.575	Reinf. 5 Tension Rupture	73.6%	Pass
90.25 - 90	Pole + Reinf.	TP23.525x23.487x0.575	Reinf. 4 Tension Rupture	73.8%	Pass
90 - 85	Pole + Reinf.	TP24.281x23.525x0.5625	Reinf. 4 Tension Rupture	78.5%	Pass
85 - 80	Pole + Reinf.	TP25.038x24.281x0.55	Reinf. 4 Tension Rupture	82.9%	Pass
80 - 75	Pole + Reinf.	TP25.794x25.038x0.5375	Reinf. 4 Tension Rupture	87.0%	Pass
75 - 73.26	Pole + Reinf.	TP26.55x25.794x0.5375	Reinf. 4 Tension Rupture	88.4%	Pass
73.26 - 69	Pole + Reinf.	TP26.2x25.557x0.675	Reinf. 3 Tension Rupture	69.4%	Pass
69 - 64	Pole + Reinf.	TP26.955x26.2x0.6625	Reinf. 3 Tension Rupture	72.2%	Pass
64 - 59	Pole + Reinf.	TP27.71x26.955x0.65	Reinf. 3 Tension Rupture	74.9%	Pass
59 - 56.5	Pole + Reinf.	TP28.088x27.71x0.6375	Reinf. 3 Tension Rupture	76.2%	Pass
56.5 - 56.25	Pole + Reinf.	TP28.126x28.088x0.6375	Reinf. 2 Tension Rupture	76.4%	Pass
56.25 - 51.25	Pole + Reinf.	TP28.881x28.126x0.6375	Reinf. 2 Tension Rupture	78.9%	Pass
51.25 - 46.25	Pole + Reinf.	TP29.636x28.881x0.625	Reinf. 2 Tension Rupture	81.3%	Pass
46.25 - 41.25	Pole + Reinf.	TP30.391x29.636x0.6125	Reinf. 2 Tension Rupture	83.5%	Pass
41.25 - 36.25	Pole + Reinf.	TP31.146x30.391x0.6	Reinf. 2 Tension Rupture	85.7%	Pass
36.25 - 33.93	Pole + Reinf.	TP32.09x31.146x0.6	Reinf. 2 Tension Rupture	86.7%	Pass
33.93 - 28.93	Pole + Reinf.	TP31.627x30.871x0.6625	Reinf. 2 Tension Rupture	82.9%	Pass
28.93 - 28.75	Pole + Reinf.	TP31.654x31.627x0.6625	Reinf. 2 Tension Rupture	82.9%	Pass
28.75 - 28.5	Pole + Reinf.	TP31.692x31.654x0.6625	Reinf. 1 Tension Rupture	83.0%	Pass
28.5 - 23.5	Pole + Reinf.	TP32.448x31.692x0.65	Reinf. 1 Tension Rupture	84.7%	Pass
23.5 - 18.5	Pole + Reinf.	TP33.204x32.448x0.65	Reinf. 1 Tension Rupture	86.2%	Pass
18.5 - 13.5	Pole + Reinf.	TP33.959x33.204x0.6375	Reinf. 1 Tension Rupture	87.7%	Pass
13.5 - 8.5	Pole + Reinf.	TP34.715x33.959x0.6375	Reinf. 1 Tension Rupture	89.1%	Pass
8.5 - 3.5	Pole + Reinf.	TP35.471x34.715x0.625	Reinf. 1 Tension Rupture	90.4%	Pass
3.5 - 2.75	Pole + Reinf.	TP35.584x35.471x0.625	Reinf. 1 Tension Rupture	90.6%	Pass
2.75 - 2.5	Pole	TP35.622x35.584x0.375	Pole	94.8%	Pass
2.5 - 0	Pole	TP36x35.622x0.375	Pole	95.4%	Pass
				Summary	
			Pole	95.4%	Pass
			Reinforcement	90.6%	Pass
			Overall	95.4%	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
150 - 145	347	n/a	347	12.06	n/a	12.06	6.9%							
145 - 140	402	n/a	402	12.66	n/a	12.66	20.1%							
140 - 135	462	n/a	462	13.26	n/a	13.26	31.4%							
135 - 130	528	n/a	528	13.87	n/a	13.87	41.2%							
130 - 129.25	539	n/a	539	13.96	n/a	13.96	42.5%							
129.25 - 129	542	676	1218	13.99	15.00	28.99	18.5%						41.3%	
129 - 124	615	731	1346	14.59	15.00	29.59	22.7%						50.5%	
124 - 119	695	n/a	695	15.19	n/a	15.19	58.6%							
119 - 114	781	n/a	781	15.80	n/a	15.80	65.0%							
114 - 110.5	845	n/a	845	16.22	n/a	16.22	69.1%							
110.5 - 110.25	882	2010	2893	16.25	15.00	31.25	23.2%							44.5%
110.25 - 110	887	2015	2902	16.28	15.00	31.28	23.4%							44.8%
110 - 109.5	897	2024	2921	16.34	15.00	31.34	23.7%							45.3%
109.5 - 109.25	869	1210	2078	16.37	20.00	36.37	28.5%					53.7%		
109.25 - 104.25	969	1294	2263	16.98	20.00	36.98	31.7%					59.1%		
104.25 - 99.25	1077	1381	2458	17.58	20.00	37.58	35.1%					64.6%		
99.25 - 94.25	1193	1471	2663	18.19	20.00	38.19	38.4%					69.7%		
94.25 - 90.25	1291	1544	2835	18.68	20.00	38.68	40.9%					73.6%		
90.25 - 90	1297	1549	2846	18.71	20.00	38.71	41.1%				73.8%			
90 - 85	1428	1644	3072	19.32	20.00	39.32	44.2%				78.5%			
85 - 80	1567	1742	3309	19.93	20.00	39.93	47.3%				82.9%			
80 - 75	1715	1843	3558	20.53	20.00	40.53	50.3%				87.0%			
75 - 73.26	1768	1879	3647	20.74	20.00	40.74	51.4%				88.4%			
73.26 - 69	2231	2382	4614	26.01	25.00	51.01	40.8%			69.4%				
69 - 64	2432	2514	4946	26.77	25.00	51.77	42.9%			72.2%				
64 - 59	2645	2649	5294	27.53	25.00	52.53	44.9%			74.9%				
59 - 56.5	2756	2717	5473	27.91	25.00	52.91	45.9%			76.2%				
56.5 - 56.25	2767	2724	5492	27.95	25.00	52.95	46.0%		76.4%					
56.25 - 51.25	2999	2865	5863	28.71	25.00	53.71	48.0%		78.9%					
51.25 - 46.25	3243	3009	6252	29.46	25.00	54.46	50.0%		81.3%					
46.25 - 41.25	3500	3156	6656	30.22	25.00	55.22	51.9%		83.5%					
41.25 - 36.25	3770	3307	7077	30.98	25.00	55.98	53.8%		85.7%					
36.25 - 33.93	3900	3379	7279	31.33	25.00	56.33	54.6%		86.7%					
33.93 - 28.93	4711	3406	8116	37.68	25.00	62.68	49.2%		82.9%					
28.93 - 28.75	4723	3411	8134	37.72	25.00	62.72	49.3%		82.9%					
28.75 - 28.5	4740	3419	8159	37.76	25.00	62.76	49.3%	83.0%						
28.5 - 23.5	5092	3576	8668	38.67	25.00	63.67	50.7%	84.7%						
23.5 - 18.5	5460	3737	9198	39.58	25.00	64.58	52.1%	86.2%						
18.5 - 13.5	5846	3902	9748	40.50	25.00	65.50	53.4%	87.7%						
13.5 - 8.5	6250	4070	10320	41.41	25.00	66.41	54.7%	89.1%						
8.5 - 3.5	6672	4242	10913	42.32	25.00	67.32	55.9%	90.4%						
3.5 - 2.75	6737	4268	11004	42.45	25.00	67.45	56.1%	90.6%						
2.75 - 2.5	6758	n/a	6758	42.50	n/a	42.50	94.8%							
2.5 - 0	6978	n/a	6978	42.96	n/a	42.96	95.4%							

Note: Section capacity checked using 5 degree increments.
Rating per TIA-222-H Section 15.5.

Monopole Flange Plate Connection

Elevation = 110 ft.

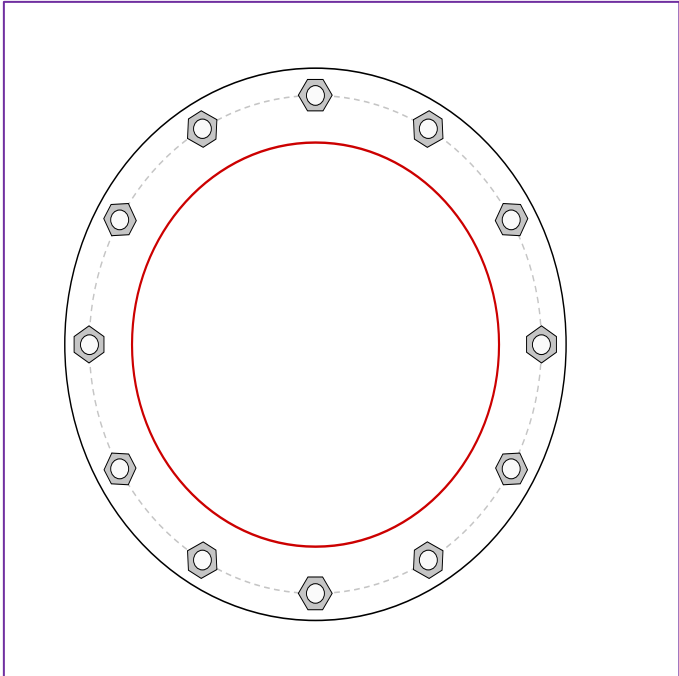


BU #	841292
Site Name	Pomfret-Tyrone Rd
Order #	691491 Rev. 0
TIA-222 Revision	H

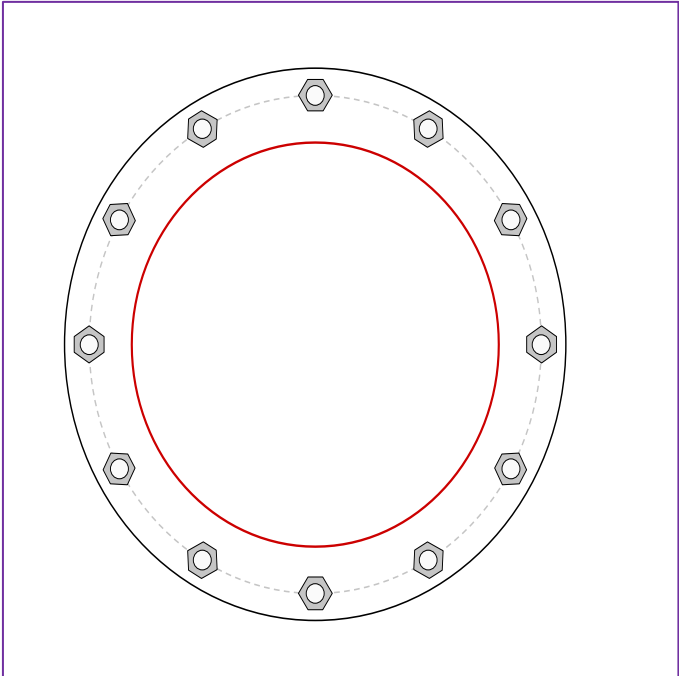
Applied Loads to Flange Connections		Applied Loads to Bridge Stiffeners	
Moment (kip-ft)	103.62	Moment (kip-ft)	253.52
Axial Force (kips)	8.00	Axial Force (kips)	0.00
Shear Force (kips)	11.05	Shear Force (kips)	0.00

*TIA-222-H Section 15.5 Applied

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(12) 1" $\varnothing$ bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 25.25" BC

Top Plate Data

28" OD x 1" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Top Stiffener Data

N/A

Top Pole Data

20.5" x 0.25" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Bridge Stiffener Group 1 Data

(4) Welded, 3"x1.25", A572-65, Lu=8", Upper Plate Width=5", Lower Plate Width=5", Neglect Flange in MOI: No

Bottom Plate Data

28" OD x 1" Plate (A36; Fy=36 ksi, Fu=58 ksi)

Bottom Stiffener Data

N/A

Bottom Pole Data

20.5" x 0.25" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	15.74
Allowable (kips)	54.52
Stress Rating:	27.5% Pass

Top Plate Capacity

Max Stress (ksi):	17.43	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	51.2%	Pass
Tension Side Stress Rating:	22.2%	Pass

Bridge Stiffener Group 1 Analysis Capacity

Max Compression (kip):	110.63	
Max Tension (kip):	110.63	
Comp. Capacity (kip):	209.36	
Tens. Capacity (kip):	219.38	(Yield)
Comp. Stress Rating:	50.3%	Pass
Tens. Stress Rating:	48.0%	Pass

Bottom Plate Capacity

Max Stress (ksi):	17.43	(Flexural)
Allowable Stress (ksi):	32.40	
Stress Rating:	51.2%	Pass
Tension Side Stress Rating:	22.2%	Pass

Welded Bridge Stiffener Design

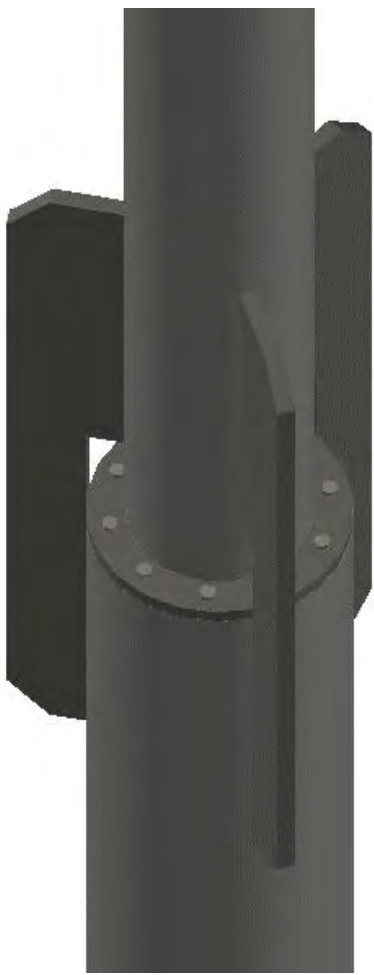
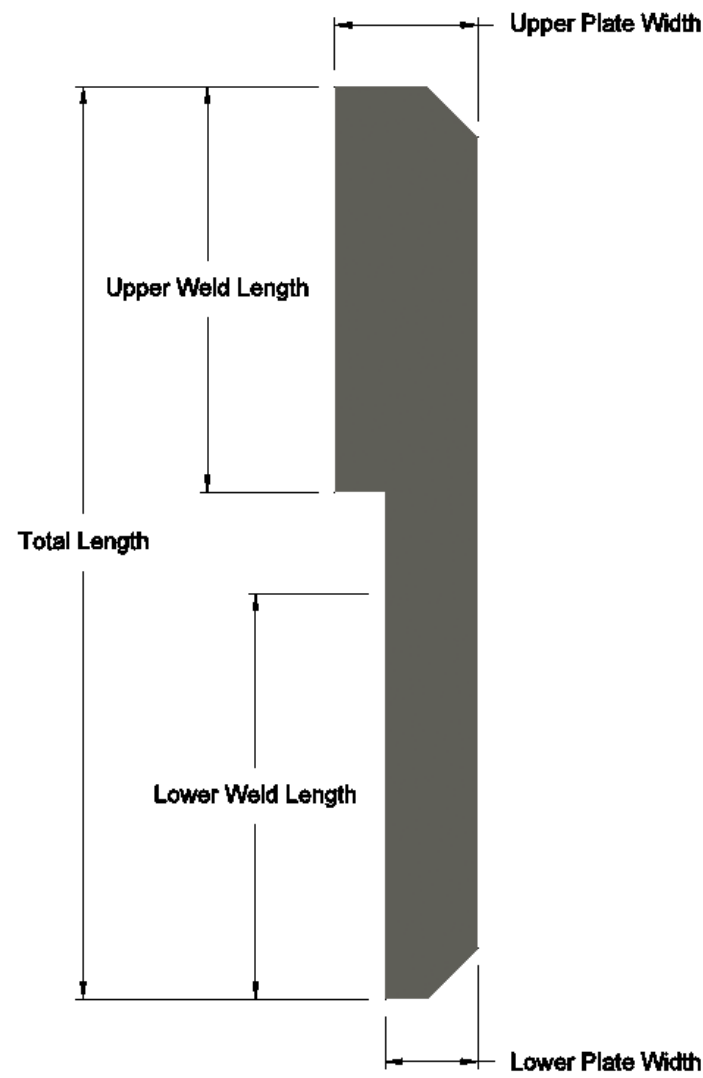
Elevation = 110 ft.



BU #	841292
Site Name	Pomfret-Tyrone Rd
Order #	691491 Rev. 0
TIA-222 Revision	H

Applied Loads to Design Groups	
Moment (kip-ft)	253.52
Axial Force (kips)	0.00
Shear Force (kips)	0.00

*TIA-222-H Section 15.5 Applied



Design Properties

Bridge Stiffener Group 1 Data

(4) Welded, 3"x1.25", A572-65, Lu=8", Upper Plate Width=5", Lower Plate Width=5", Neglect Flange in MOI: No

Total Length:	66	in	Upper Weld Size:	Good
Weld Type:	Fillet (both sides)		Upper Weld Rating:	47.00%
Weld Size:	0.1875	in	Lower Weld Size:	Good
Exx:	70	ksi	Lower Weld Rating:	47.00%
Upper Weld Length:	27	in	Top Plate Lateral-Torsional Buckling Rating:	2.83%
Upper Plate Width:	5	in	Top Plate Tension Yield Rating:	8.00%
Lower Weld Length:	27	in	Top Plate Tension Rupture Rating:	8.67%
Lower Plate Width:	5	in	Top Plate Interaction Rating:	3.62%
Stiffener Front EPA (No Ice):	3.28	ft²	Bottom Plate Lateral-Torsional Buckling Rating:	2.83%
Stiffener Side EPA (No Ice):	1.15	ft²	Bottom Plate Tension Yield Rating:	8.00%
Stiffener Front EPA (1/2" Ice):	3.67	ft²	Bottom Plate Tension Rupture Rating:	8.67%
Stiffener Side EPA (1/2" Ice):	2.09	ft²	Bottom Plate Interaction Rating:	3.62%
Stiffener Weight (No Ice):	0.104	kip	Top Pole Punching Shear Rating:	10.38%
Stiffener Weight (1/2" Ice):	0.117	kip	Bottom Pole Punching Shear Rating:	10.38%

Monopole Base Plate Connection

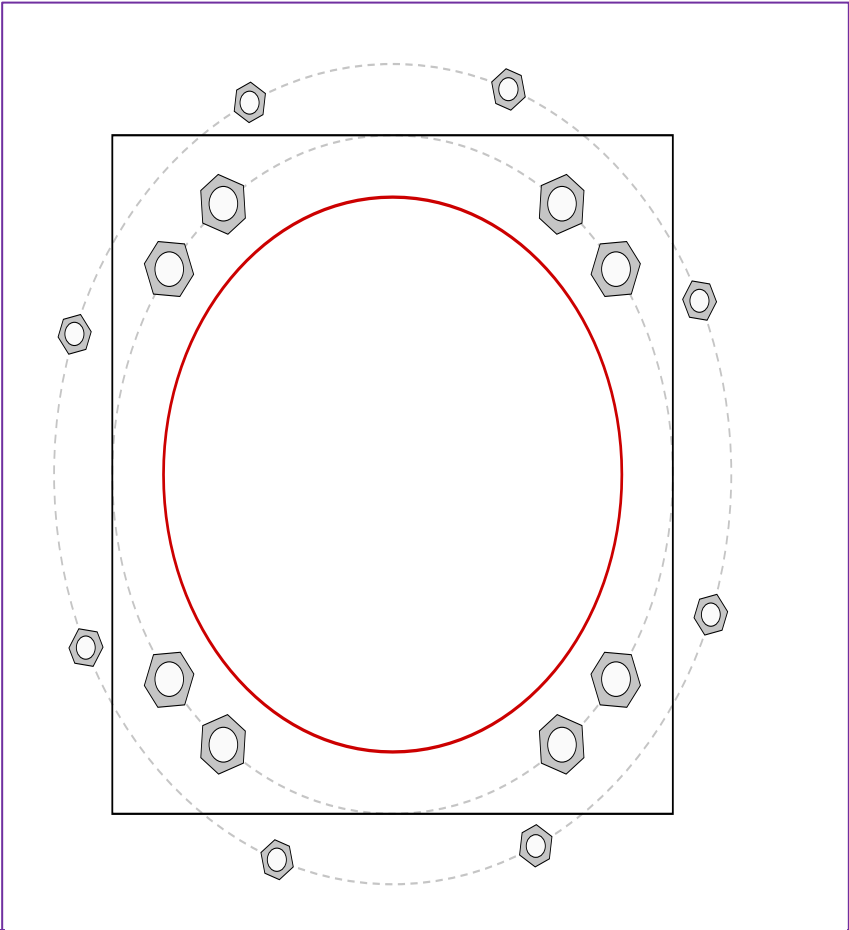


Site Info		
BU #	841292	
Site Name	Pomfret-Tyrone Rd	
Order #	691491 Rev. 0	

Analysis Considerations		
TIA-222 Revision	H	
Grout Considered:	See Custom Sheet	
l _{ar} (in)	See Custom Sheet	

Applied Loads		
Moment (kip-ft)	2166.71	
Axial Force (kips)	35.33	
Shear Force (kips)	20.60	

*TIA-222-H Section 15.5 Applied



Connection Properties		Analysis Results	
Anchor Rod Data		Anchor Rod Summary <i>(units of kips, kip-in)</i>	
GROUP 1: (8) 2-1/4" $\varnothing$ bolts (A615-75 N; F _y =75 ksi, F _u =100 ksi) on 44" BC Anchor Spacing: 6 in		GROUP 1:	
GROUP 2: (8) 1-1/2" $\varnothing$ bolts (F1554-105 N; F _y =105 ksi, F _u =125 ksi) on 53.17" BC		Pu _t = 176.19	ϕ Pn _t = 243.75 Stress Rating
Base Plate Data		Vu = 2.57	ϕ Vn = 149.1 68.8%
44" W x 2.5" Plate (A572-60; F _y =60 ksi, F _u =75 ksi); Clip: 0 in		Mu = 4.18	ϕ Mn = 128.14 Pass
Stiffener Data		GROUP 2:	
N/A		Pu _t = 94.75	ϕ Pn _t = 132.19 Stress Rating
Pole Data		Vu = 0	ϕ Vn = 82.83 68.3%
36" x 0.375" 12-sided pole (A572-65; F _y =65 ksi, F _u =80 ksi)		Mu = n/a	ϕ Mn = n/a Pass
		Base Plate Summary	
		Max Stress (ksi):	33.98 (Flexural)
		Allowable Stress (ksi):	54
		Stress Rating:	59.9% Pass

Elevation (ft)

0

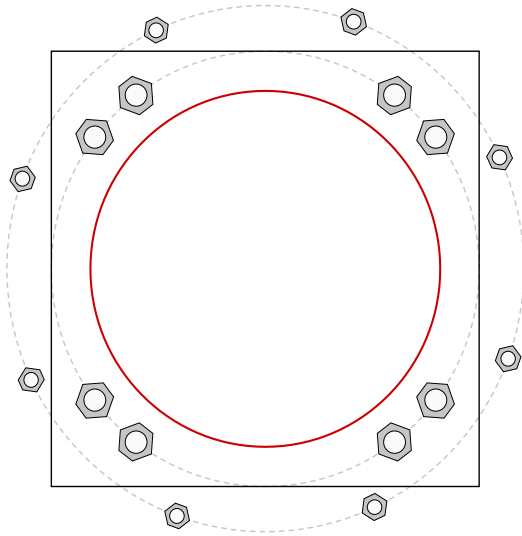
(Base)

note: Bending interaction not considered when Grout Considered = "Yes"

Bolt Group	Resist Axial	Resist Shear	Induce Plate Bending	Grout Considered	Apply at BARB Elevation	BARB CL Elevation (ft)
1	Yes	Yes	Yes	No	No	
2	No	No	No	No	No	

Custom Bolt Connection										
Bolt	Bolt Group ID	Location (deg.)	Diameter (in)	Material	Bolt Circle (in)	Eta Factor, η :	I_{ar} (in):	Thread Type	Area Override, in^2	Tension Only
1	1	37.16252	2.25	A615-75	44	0.5	2.5	N-Included		No
2	1	52.83748	2.25	A615-75	44	0.5	2.5	N-Included		No
3	1	127.16252	2.25	A615-75	44	0.5	2.5	N-Included		No
4	1	142.83748	2.25	A615-75	44	0.5	2.5	N-Included		No
5	1	217.16252	2.25	A615-75	44	0.5	2.5	N-Included		No
6	1	232.83748	2.25	A615-75	44	0.5	2.5	N-Included		No
7	1	307.16252	2.25	A615-75	44	0.5	2.5	N-Included		No
8	1	322.83748	2.25	A615-75	44	0.5	2.5	N-Included		No
9	2	25	1.5	F1554-105	53.17	0.5	0	N-Included		No
10	2	70	1.5	F1554-105	53.17	0.5	0	N-Included		No
11	2	115	1.5	F1554-105	53.17	0.5	0	N-Included		No
12	2	160	1.5	F1554-105	53.17	0.5	0	N-Included		No
13	2	205	1.5	F1554-105	53.17	0.5	0	N-Included		No
14	2	250	1.5	F1554-105	53.17	0.5	0	N-Included		No
15	2	295	1.5	F1554-105	53.17	0.5	0	N-Included		No
16	2	340	1.5	F1554-105	53.17	0.5	0	N-Included		No

Plot Graphic



Pier and Pad Foundation



BU #: 841292
 Site Name: Pomfret-Tyrone Rd
 App. Number: 691491 Rev. 0

TIA-222 Revision: H
 Tower Type: Monopole

Top & Bot. Pad Rein. Different?: ☐
 Block Foundation?: ☐
 Rectangular Pad?: ☒

Superstructure Analysis Reactions		
Compression, P_{comp} :	35.35	kips
Base Shear, V_{u_comp} :	20.56	kips
Moment, M_u :	2166.71	ft-kips
Tower Height, H :	150	ft
BP Dist. Above Fdn, bp_{dist} :	4.75	in

Pier Properties		
Pier Shape:	Square	
Pier Diameter, $dpier$:	6	ft
Ext. Above Grade, E :	0.5	ft
Pier Rebar Size, Sc :	11	
Pier Rebar Quantity, mc :	12	
Pier Tie/Spiral Size, St :	5	
Pier Tie/Spiral Quantity, mt :	7	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

Pad Properties		
Depth, D :	8	ft
Pad Width, W_1 :	20	ft
Pad Width, W_2 :	22	ft
Pad Thickness, T :	3	ft
Pad Rebar Size (Bottom dir. 1), Sp_1 :	5	
Pad Rebar Quantity (Bottom dir. 1), mp_1 :	22	
Pad Rebar Size (Bottom dir. 2), Sp_2 :	5	
Pad Rebar Quantity (Bottom dir. 2), mp_2 :	24	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, F_y :	60	ksi
Concrete Compressive Strength, F'_c :	3	ksi
Dry Concrete Density, δ_c :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	120	pcf
Ultimate Gross Bearing, Q_{ult} :	12.000	ksf
Cohesion, C_u :	0.000	ksf
Friction Angle, ϕ :	28	degrees
SPT Blow Count, N_{blows} :	39	
Base Friction, μ :		
Neglected Depth, N :	4.16	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, gw :	N/A	ft

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
Lateral (Sliding) (kips)	216.89	20.56	9.0%	Pass
Bearing Pressure (ksf)	9.00	2.46	27.3%	Pass
Overturning (kip*ft)	4487.92	2349.61	52.4%	Pass
Pier Flexure (Comp.) (kip*ft)	2597.36	2279.79	83.6%	Pass
Pier Compression (kip)	17184.96	70.99	0.4%	Pass
Pad Flexure (kip*ft)	973.74	800.62	78.3%	Pass
Pad Shear - 1-way (kips)	632.21	133.35	20.1%	Pass
Pad Shear - 2-way (Comp) (ksi)	0.164	0.028	16.2%	Pass
Flexural 2-way (Comp) (kip*ft)	1424.29	1367.87	91.5%	Pass

*Rating per TIA-222-H Section 15.5

Structural Rating*:	91.5%
Soil Rating*:	52.4%

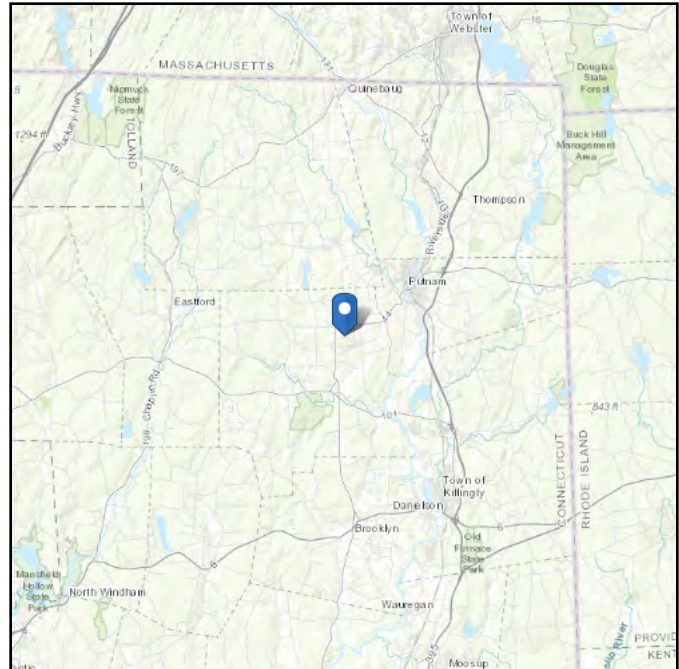
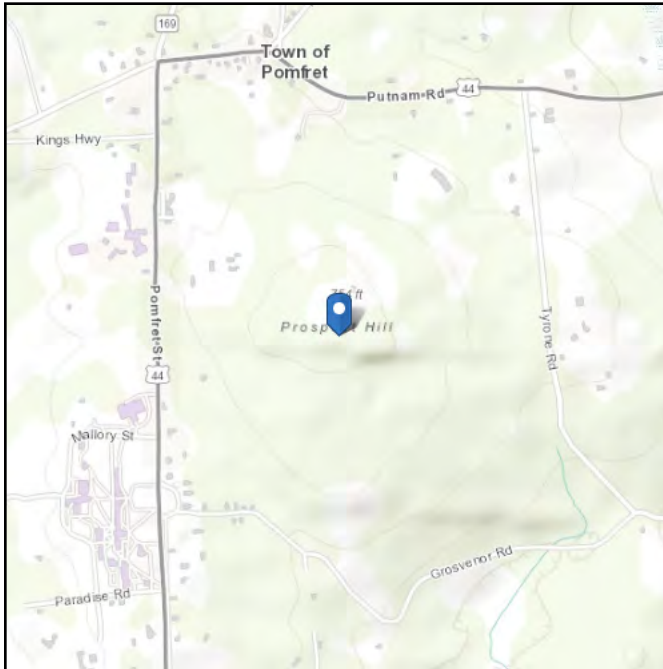
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ASCE Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)

Latitude: 41.890258
Longitude: -71.955619
Elevation: 682.8212205609083 ft (NAVD 88)



Wind

Results:

Wind Speed	120 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	93 Vmph
100-year MRI	99 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed: Mon Jan 13 2025

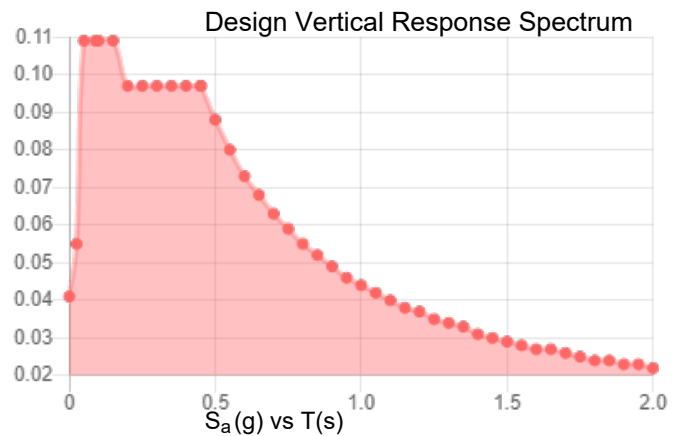
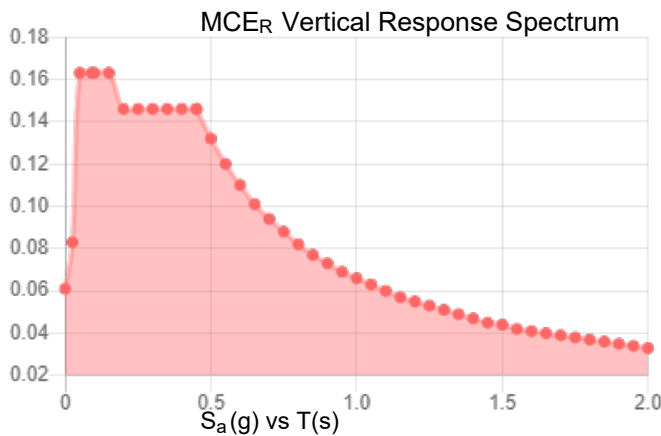
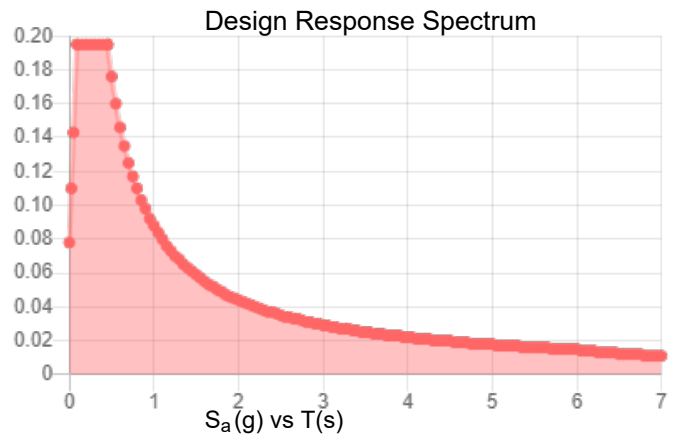
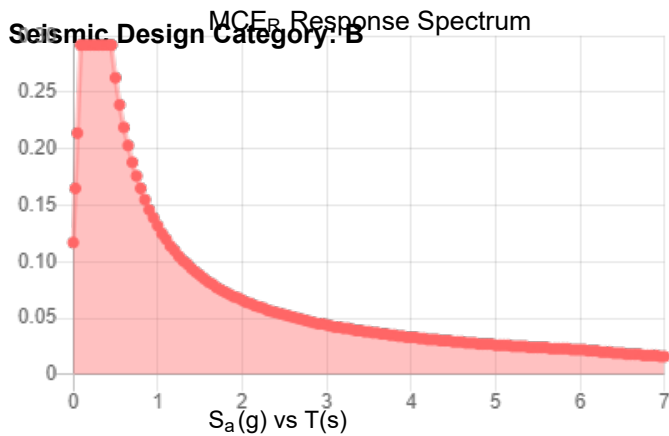
Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Default (see Section 11.4.3)

Results:

S_S :	0.182	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.098
F_v :	2.4	PGA _M :	0.157
S_{MS} :	0.292	F_{PGA} :	1.6
S_{M1} :	0.132	I_e :	1
S_{DS} :	0.195	C_v :	0.7



Data Accessed: Mon Jan 13 2025

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Results:

Ice Thickness: 1.00 in.
Concurrent Temperature: 15 F
Gust Speed 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Mon Jan 13 2025

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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November 24, 2024

Michael Street
Jacobs Telecommunications, Inc.
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Edison, NJ 08837
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MTS Engineering, P.L.L.C.
1717 S. Boulder, Suite 300
Tulsa, OK 74119
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towersupport@btgrp.com

Subject: Appurtenance Mount Analysis Report

Carrier Designation: **Site Number:** 10035021
Site Name: Pomfret-Tyrone Rd
IWM Job Number: WSCTB0028708

Engineering Firm Designation: **Project Number:** 173127.001.01.0002

Site Data: 82 Tyrone Road, Pomfret, CT, 06258, Windham County
Latitude 41.89024°, Longitude -71.95561°
158.58 ft. Monopole
Existing 12.5 ft. SitePro1 Part# RMQP-12-H5 Platform Mount

Dear Michael Street,

We are pleased to submit this “**Appurtenance Mount Analysis Report**” to determine the structural integrity of the antenna mount on the above-mentioned structure.

The purpose of the analysis is to determine acceptability of the mount’s stress level. Based on our analysis we have determined the stress level for the mount under the following load case to be:

Existing + Proposed Equipment
Note: See Table 1 for the final loading configuration

Sufficient Capacity
(Passing at 59.5% with
Requirements in Section 5)

This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2022 Connecticut State Building Code. Applicable standard references and design criteria are listed in Section 2 - Analysis Criteria.

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

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

Mount structural analysis prepared by: Joseph Variamparampil

Respectfully submitted by: MTS Engineering, P.L.L.C
COA: PEC.0001564 Expires: 04/11/2025

Chad E. Tuttle, P.E.



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Additional Calculations

1) INTRODUCTION

The appurtenance mount consists of existing SitePro1 Part# RMQP-12-H5 platform mount at 150 ft., attached to a monopole at 82 Tyrone Road, Pomfret, CT, 06258, Windham County. The proposed antenna loading information was obtained from Jacobs Telecommunications, Inc. All information provided to us was assumed accurate and complete.

2) ANALYSIS CRITERIA

The structural analysis was performed for this mount in accordance with the ANSI/TIA-222-H-2017 Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures using a 3-second gust wind speed of 120 mph with no ice and 50 mph with 1.0 inch escalated ice thickness. Exposure Category C, Topographic Category 1 and Risk Category II were used in this analysis. In addition, the platform mount has been analyzed for various live loading conditions consisting of a 250-lb man live load applied individually at the midpoint and cantilevered ends of horizontal members as well as a 250-pound man live load applied individually at mount pipe locations using a 3-second gust of 30 mph. The mount was analyzed under 30° increments in the wind direction. The analyzed loading is detailed in Table 1.

Table 1 – Proposed and Existing Equipment Information

Loading	RAD Center Elevation	Position	Qty.	Manufacturer	Model	Note
Proposed	151.5	3	3	Ericsson	AIR6472 B77G B77M	1
	150	-	3	Ericsson	4494 B14/B29	2
Existing	150	2	3	Commscope	NNH4-65B-R6	3
		4	3	CCI Antennas	DMP65R-BU6D	4
		-	3	Ericsson	RRUS-32 B30	5
			3	Ericsson	8843 B2/B66A	
			3	Ericsson	4449 B5/B12	
			1	Raycap	DC6-48-60-0-8C-EV	6
			2	Raycap	DC6-48-60-18-8F	

Note:

- (1) Proposed Antenna to be installed on the Proposed Mount Pipe.
- (2) Proposed Equipment to be installed on the Proposed Equipment Mounting Pipe.
- (3) Existing Antenna to be relocated on the Proposed/Existing Mount Pipe.
- (4) Existing Antenna installed on the Existing Mount Pipe.
- (5) Existing Equipment installed on the Mount.
- (6) Existing Equipment to be relocated on the Proposed Equipment Mounting Pipe.

Table 2 - Documents Provided

Document	Description	Reference	Source
10035021_WSCTB0028708_CT1050_D E130 - DE130	Existing Loading Proposed Loading	Dated: --	Jacobs Telecommunications, Inc.
RFDS		Dated: 10/09/2024	
Jacobs Redlined PCD's by B+T Group		Dated: 11/18/2024	On File
Mount Analysis Report	Hudson Design Group LLC	Dated: 03/18/2020	Jacobs Telecommunications, Inc.

3) ANALYSIS PROCEDURE

3.1) Analysis Method

RISA-3D (Version 22.0.1), a commercially available analysis software package, was used to create a three-dimensional model of the mount and calculate member stresses and deflections for various loading cases. Selected output from the analysis is included in Appendix A.

Manufacturers drawing were used to create the model.

3.2) Assumptions

1. The mount was built in accordance with the manufacturer's specifications.
2. The mount has been maintained in accordance with the manufacturer's specifications and is free of damage.
3. The configuration of antennas and other appurtenances are as specified in Table 1.
4. All mount components have been assumed to be in sufficient condition to carry their full design capacity for the analysis.
5. Mount areas and weights are determined from field measurements, standard material properties, and/or manufacturer product data.

The following assumptions have been included in the analysis of the mount:

Component	Section	Length	Note
Existing Antenna Mount Pipes	2" Std. Pipe	10'-0"	All Positions, All sectors

6. Serviceability with respect to antenna twist, tilt, roll or lateral translation is not checked and is left to the carrier or tower owner to ensure conformance.
7. All prior structural modifications, if any are assumed to be correctly installed and fully effective.
8. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
9. The following material grades were assumed (Unless Noted Otherwise):
 - a) Connection Bolts : ASTM A325
 - b) Steel Pipe : ASTM A53 (GR. 35)
 - c) HSS (Round) : ASTM 500 (GR. B-42)
 - d) HSS (Rectangular) : ASTM 500 (GR. B-46)
 - e) Channel : ASTM A36 (GR. 36)
 - f) Steel Solid Rod : ASTM A36 (GR. 36)
 - g) Steel Plate : ASTM A36 (GR. 36)
 - h) Steel Angle : ASTM A36 (GR. 36)
 - i) UNISTRUT : ASTM A570 (GR. 33)

This analysis may be affected if any assumptions are not valid or have been made in error. MTS Engineering, P.L.L.C. should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 – Mount Component Stresses vs. Capacity

Notes	Component	Elevation (ft.)	% Capacity*	Pass / Fail
-	Main Horizontals	150	19.1	Pass
-	Support Handrails	150	20.0	Pass
-	Supporting Tubes	150	59.5	Pass
-	Antenna Mount Pipes	150	47.8	Pass
-	Connection Plates	150	52.7	Pass
-	Supporting Angles	150	32.8	Pass
-	Rail Connection Angles	150	19.3	Pass
-	Walkthrough	150	11.9	Pass
-	Connection Pipes	150	12.5	Pass
-	Standoffs	150	29.1	Pass
-	Equipment Mounting Pipes	150	15.9	Pass

Note: *Member Capacity based on requirements listed in Section 5

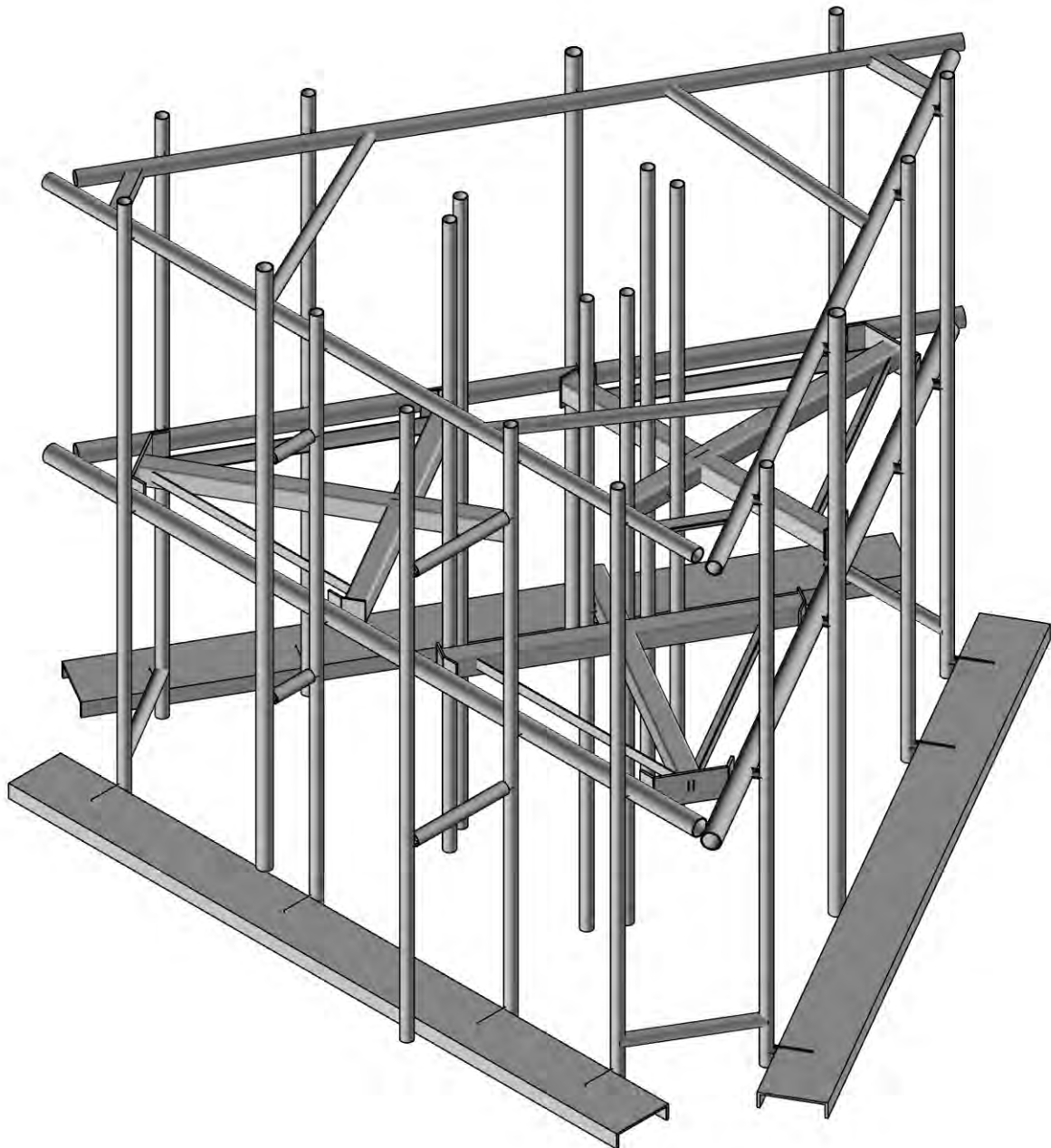
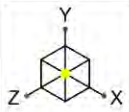
5) REQUIREMENTS

The existing SitePro1 platform mount, Part# RMQP-12-H5 has sufficient capacity to carry the existing and proposed loads and is in compliance with the ANSI/TIA-222-H standard for the proposed and existing loading. (Refer to the RISA output for the specific members).

1. Install (1) new 2.375" x 0.12" x 10'-6" long Commscope Part# MT-537 (P/N: ANT.16531) or approved equal mount pipes attached to existing mount pipe using (2) Perfect Vision Part# PV-DC-PTPC-2020-24 (P/N: ANT.58869) or approved equal standoff in Pos. 2 of alpha to eliminate skew.
2. Install (1) new 2.5" std. x 10'-0" long Sitepro1 Part# P30120 (P/N: ANT.16008) or approved equal mount pipes attached to existing mount pipe using (2) Perfect Vision Part# PV-DC-PTPC-2025-12 (P/N: ANT.58811) or approved equal standoff in Pos. 3 of alpha to eliminate skew.
3. Remove existing mount Pipes in Pos.3 of beta and gamma sectors and Install (2) new 2.5" std. x 10'-0" long Sitepro1 Part# P30120 (P/N: ANT.16008) or approved equal mount pipes attached to the main horizontals and hand rails using (4) Commscope Part# XP-R (P/N: ANT.54862) or approved equal crossover plates on beta and gamma sectors to install "AIR" antennas.
4. Remove all existing equipment mount pipes and Install (6) new 2.375" x 10'-6" long Commscope, Part# MT-537 (P/N: ANT.16531) or approved equal equipment mounting pipes on support tubes using (3) BBPM-K1 (P/N: ANT.58963) or approved equal crossover kit to accommodate RRHs in all sectors.
5. Relocate existing mount pipes per requirements set by ATT-790-202-083.

APPENDIX A

(RISA-3D Output)



Envelope Only Solution



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MS

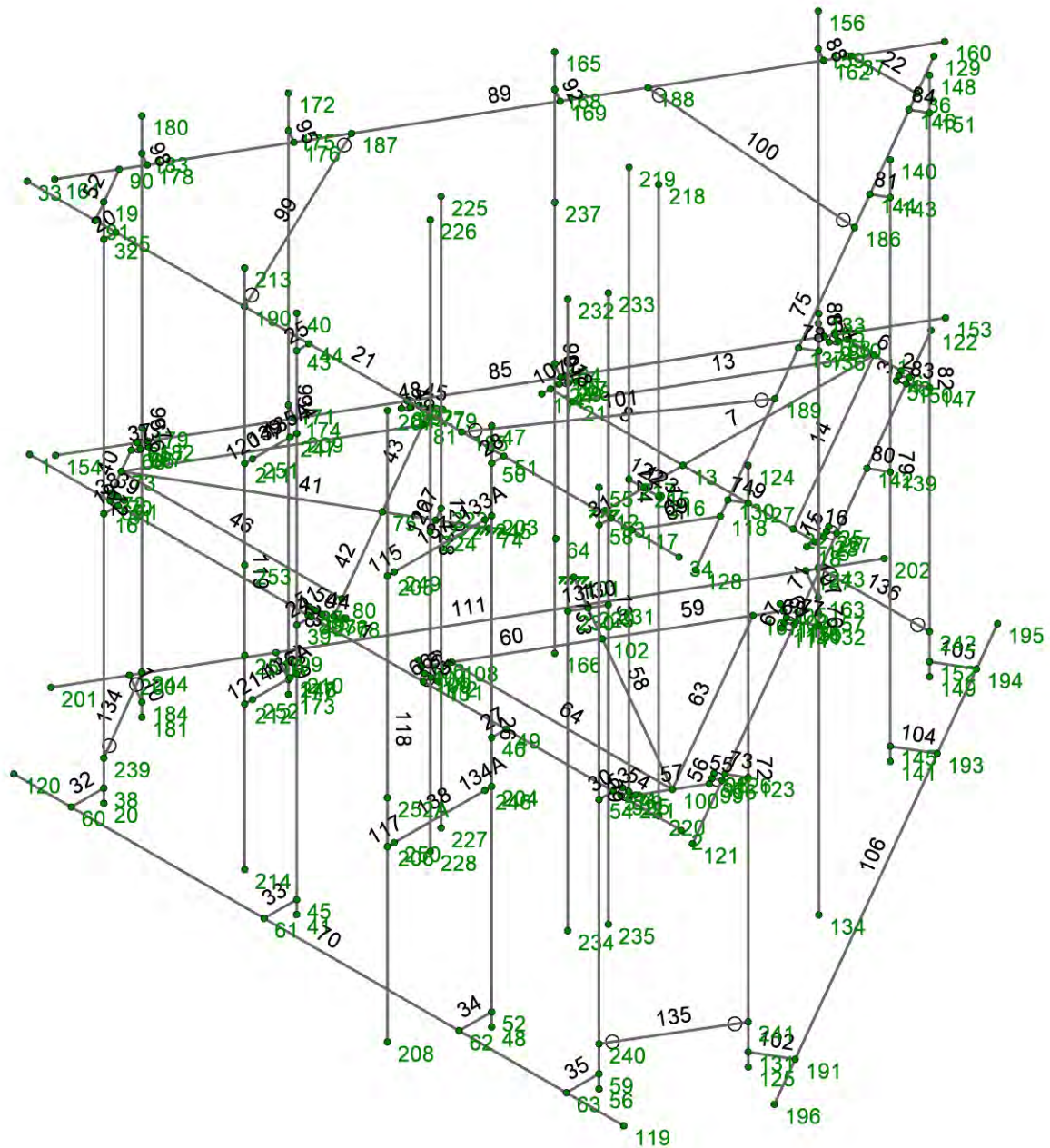
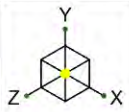
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SK-4

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Envelope Only Solution



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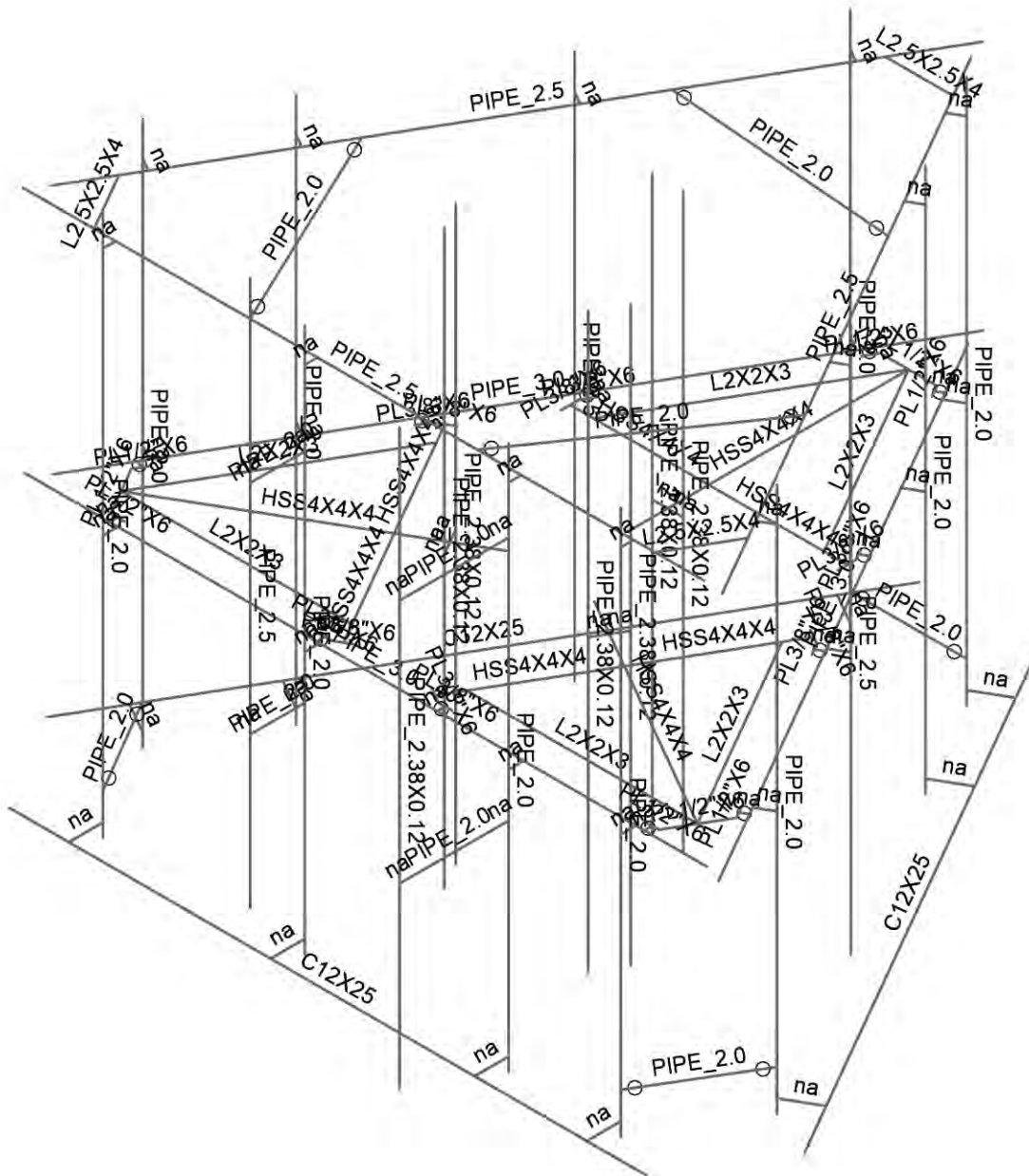
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IRISA
A NEARITSCHEK COMPANY

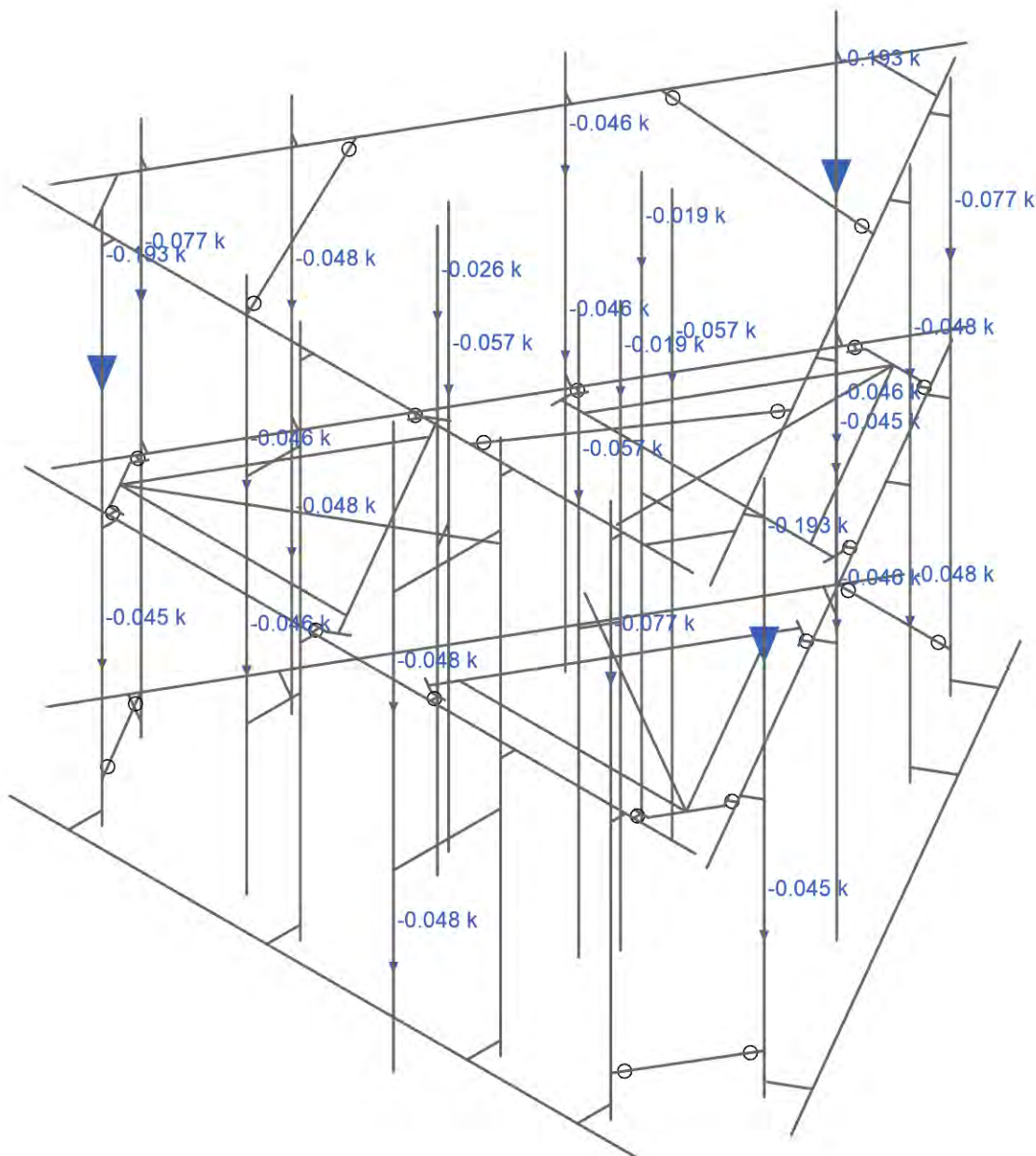
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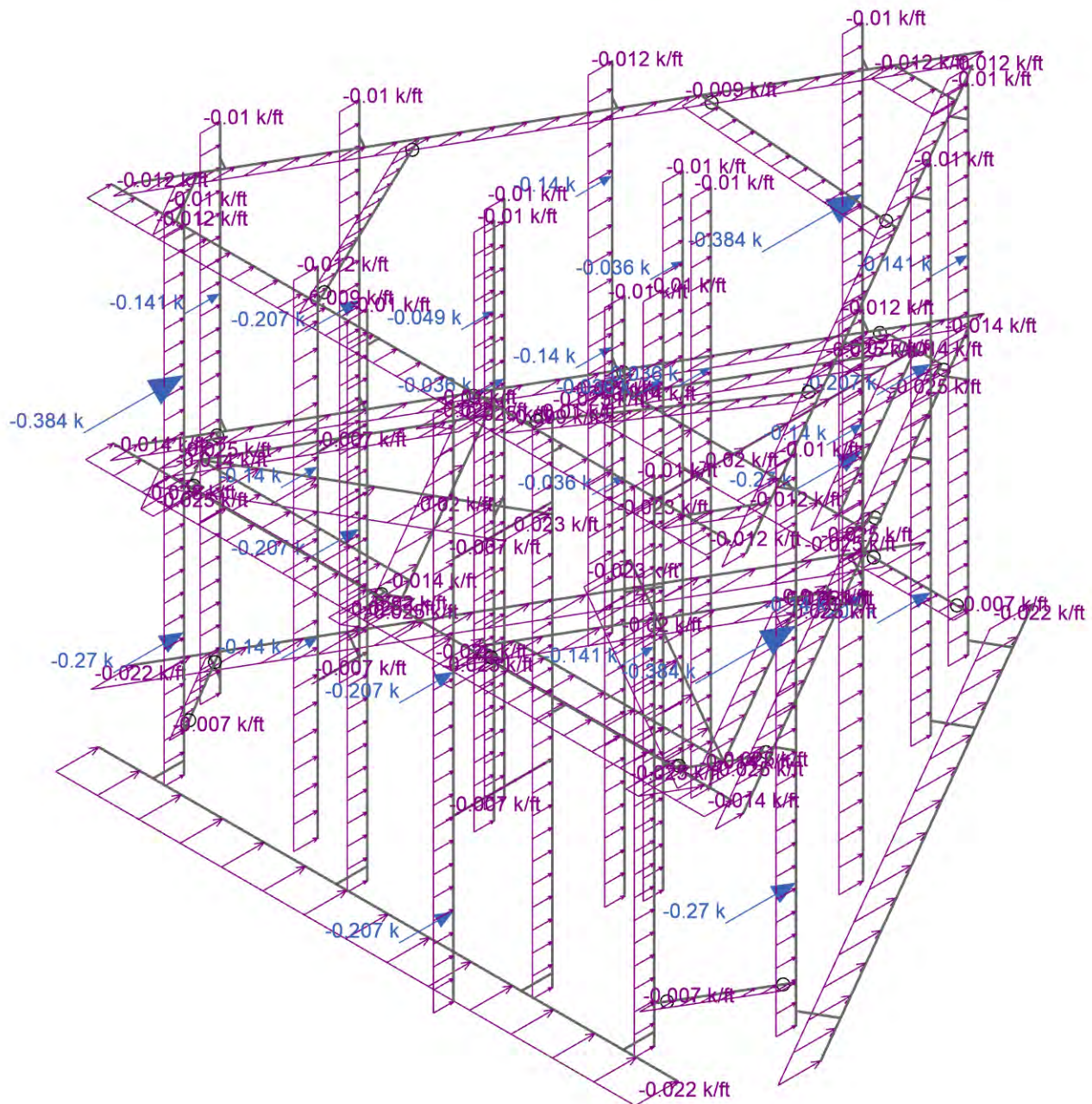
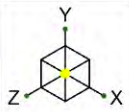
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10035021 - Pomfret-Tyrone Rd

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Loads: BLC 2, 0 Wind - No Ice
Envelope Only Solution



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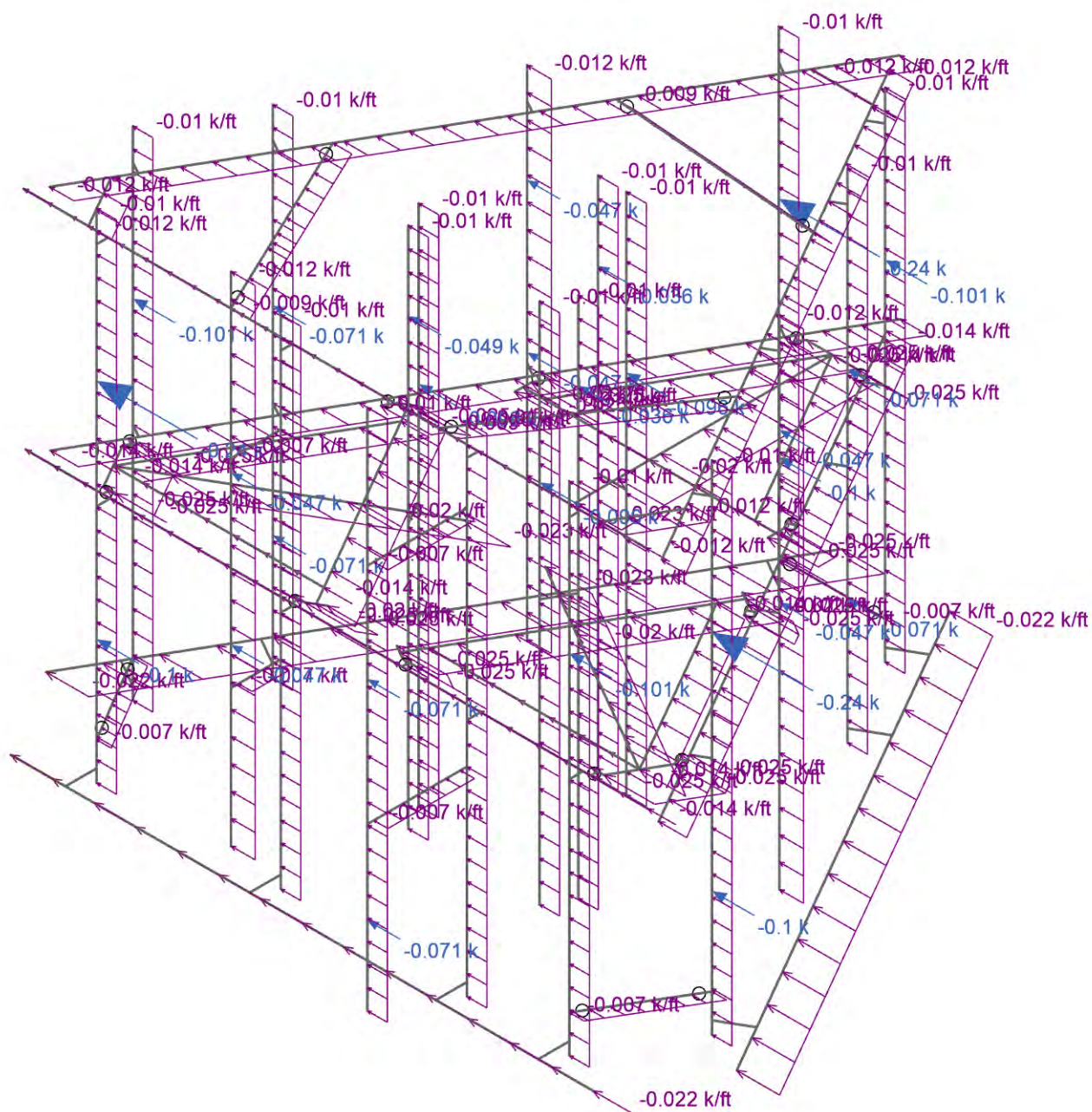
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IRISA
A NEARBY COMPANY

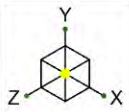
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10035021 - Pomfret-Tyrone Rd

SK-8

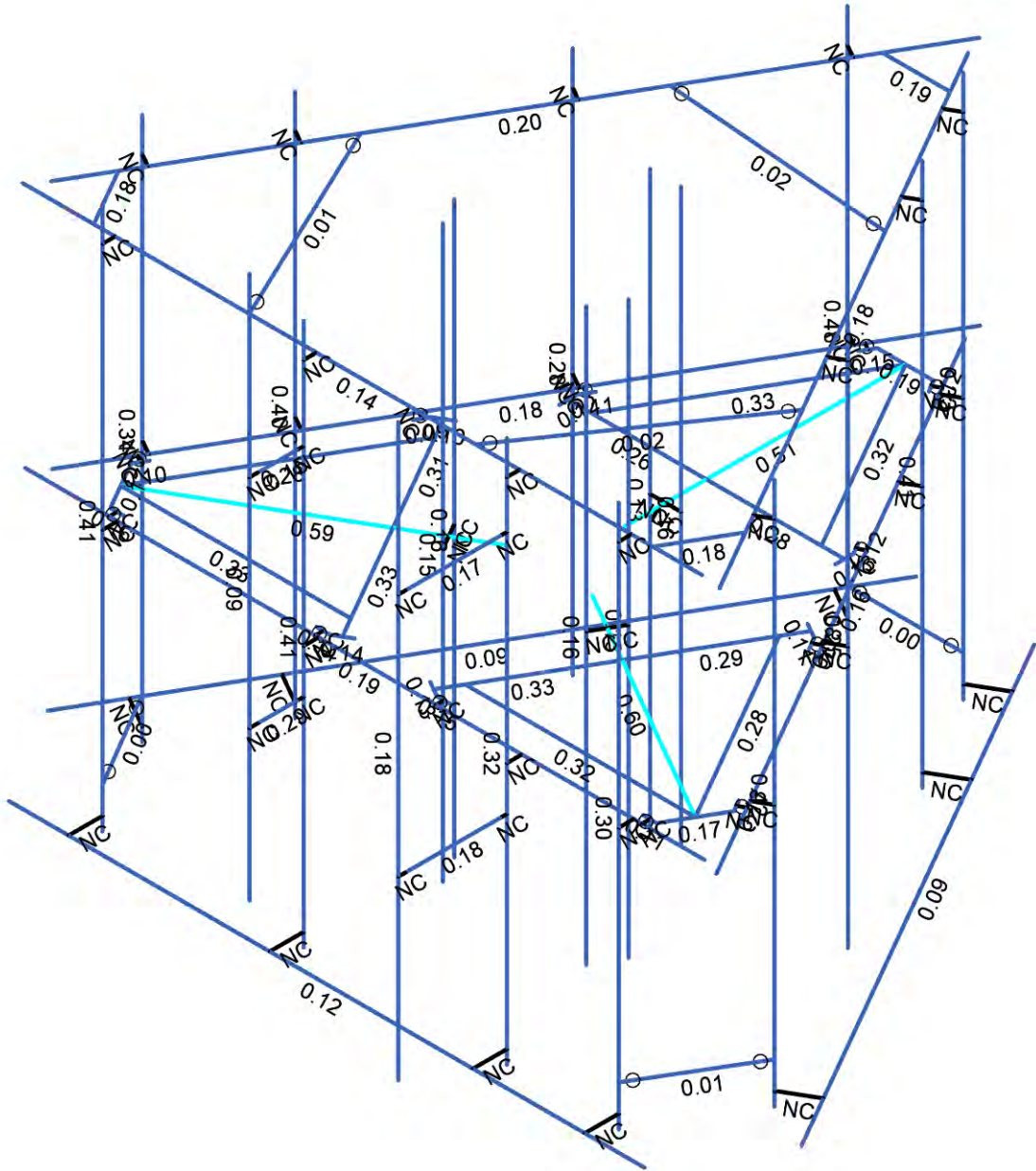
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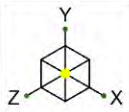


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(Env)

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- .90-.1.0
- .75-.90
- .50-.75
- 0.-.50

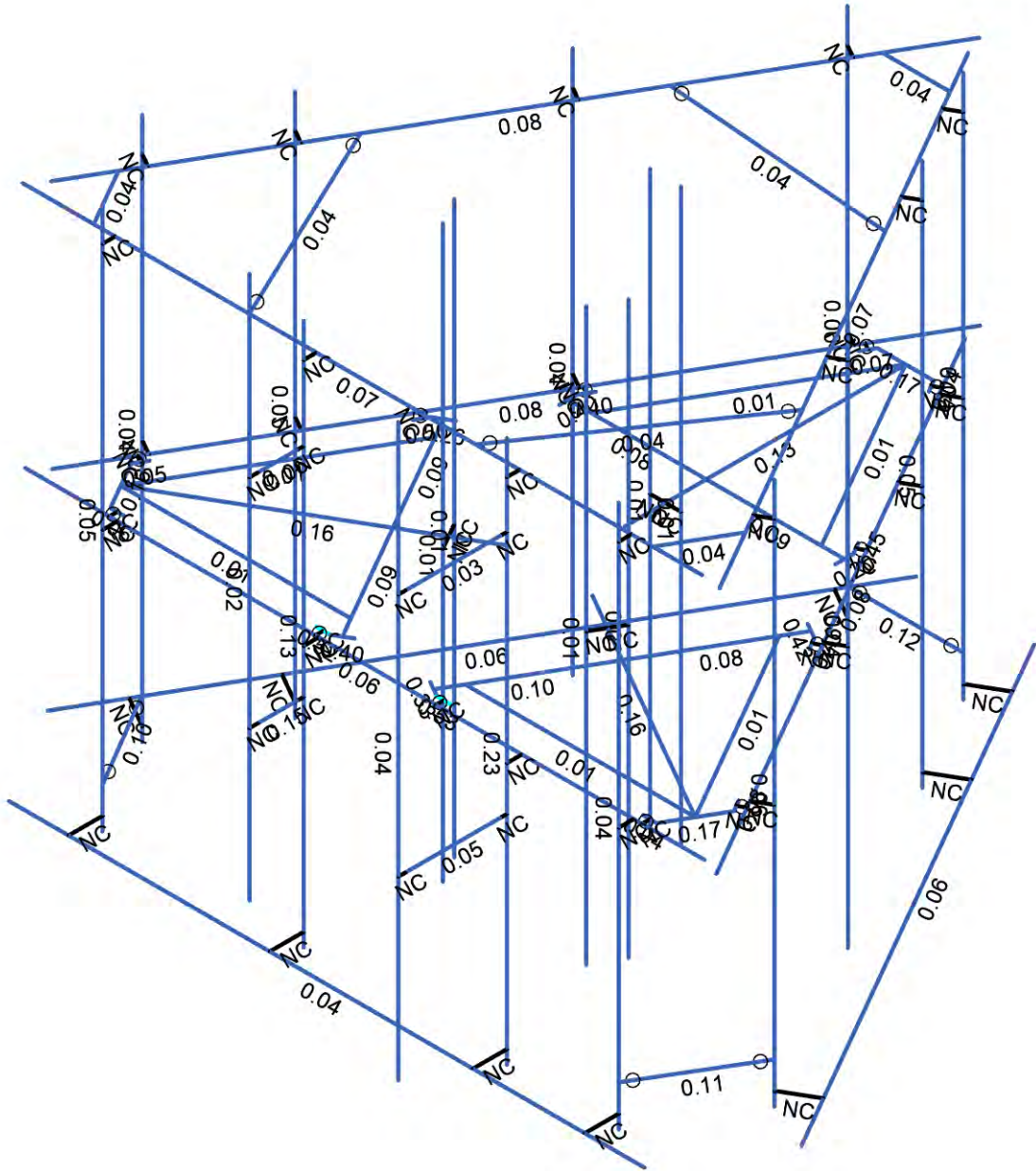


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Shear Check
(Env)

- No Calc
- > 1.0
- .90-1.0
- .75-.90
- .50-.75
- 0-.50



Member Shear Checks Displayed (Enveloped)
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10035021 - Pomfret-Tyrone Rd

SK-10
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Node Coordinates

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1	1	-6.44964	-1.1875	3.647705	
2	2	6.05036	-1.1875	3.647705	
3	3	0.70815	-1.1875	-6.068858	
4	4	0.581858	-1.1875	-5.995943	
5	5	0.644358	-1.1875	-5.88769	
6	6	0.519358	-1.1875	-6.104196	
7	7	-0.70815	-1.1875	-6.068858	
8	8	-0.581858	-1.1875	-5.995943	
9	9	-0.644358	-1.1875	-5.88769	
10	10	-0.519358	-1.1875	-6.104196	
11	11	0	-1.1875	-6.104196	
12	12	0	-1.1875	-0.937496	
13	13	0	-1.1875	-2.437496	
14	14	-2.54129	-1.1875	-2.437496	
15	15	2.54129	-1.1875	-2.437496	
16	16	-4.75	-1.1875	3.922705	
17	17	-2.54129	-1.1875	-2.270796	
18	18	2.54129	-1.1875	-2.270796	
19	19	-4.75	4	3.922705	
20	20	-4.75	-5.9997	3.922705	
21	21	-2.11697	-1.1875	-2.437496	
22	22	2.11697	-1.1875	-2.437496	
23	23	2.54129	-1.1875	-2.602106	
24	24	-2.54129	-1.1875	-2.602106	
25	25	2.41629	-1.1875	-2.818612	
26	26	2.47879	-1.1875	-2.710359	
27	27	2.605083	-1.1875	-2.783274	
28	28	-2.41629	-1.1875	-2.818612	
29	29	-2.47879	-1.1875	-2.710359	
30	30	-2.605083	-1.1875	-2.783274	
31	31	-4.75	-1.1875	3.647705	
32	32	-4.75	3.375	3.922705	
33	33	-6.45	3.375	3.689375	
34	34	6.05	3.375	3.689375	
35	35	-4.75	3.375	3.689375	
36	36	0.622557	3.375	-6.300449	
37	37	-0.622557	3.375	-6.300449	
38	38	-4.75	-5.7497	3.922705	
39	39	-1.048333	-1.1875	3.922705	
40	40	-1.048333	4	3.922705	
41	41	-1.048333	-5.9997	3.922705	
42	42	-1.048333	-1.1875	3.647705	
43	43	-1.048333	3.375	3.922705	
44	44	-1.048333	3.375	3.689375	
45	45	-1.048333	-5.7497	3.922705	
46	46	2.690834	-1.1875	3.922705	
47	47	2.690834	4	3.922705	
48	48	2.690834	-5.9997	3.922705	
49	49	2.690834	-1.1875	3.647705	
50	50	2.690834	3.375	3.922705	
51	51	2.690834	3.375	3.689375	
52	52	2.690834	-5.7497	3.922705	
53	53	4.75	3.375	3.689375	
54	54	4.75	-1.1875	3.922705	
55	55	4.75	4	3.922705	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
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57	57	4.75	-1.1875	3.647705	
58	58	4.75	3.375	3.922705	
59	59	4.75	-5.7497	3.922705	
60	60	-4.75	-5.7497	4.547705	
61	61	-1.048333	-5.7497	4.547705	
62	62	2.690834	-5.7497	4.547705	
63	63	4.75	-5.7497	4.547705	
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79	79	-3.237213	-1.1875	-1.065424	
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81	81	-3.169419	-1.1875	-0.614602	
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83	83	-0.982845	-1.1875	3.501875	
84	84	-3.649135	-1.1875	-0.683263	
85	85	-3.586635	-1.1875	-0.791516	
86	86	-3.712927	-1.1875	-0.864431	
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88	88	-1.107845	-1.1875	3.501875	
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90	90	-5.767627	3.375	2.611074	
91	91	-5.14507	3.375	3.689375	
92	92	4.90171	-1.1875	3.647705	
93	93	4.90171	-1.1875	3.501875	
94	94	4.77671	-1.1875	3.501875	
95	95	5.02671	-1.1875	3.501875	
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98	98	5.421068	-1.1875	2.385815	
99	99	5.546068	-1.1875	2.602321	
100	100	5.286389	-1.1875	3.052098	
101	101	0.811896	-1.1875	0.468748	
102	102	2.110934	-1.1875	1.218748	
103	103	3.381579	-1.1875	-0.982074	
104	104	0.840289	-1.1875	3.41957	
105	105	3.237213	-1.1875	-1.065424	
106	106	0.695922	-1.1875	3.33622	
107	107	3.169419	-1.1875	-0.614602	
108	108	1.052449	-1.1875	3.052098	
109	109	0.982845	-1.1875	3.501875	
110	110	3.524135	-1.1875	-0.899769	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
111	111	1.232845	-1.1875	3.501875	
112	112	1.107845	-1.1875	3.501875	
113	113	1.107845	-1.1875	3.647705	
114	114	3.649135	-1.1875	-0.683263	
115	115	3.586635	-1.1875	-0.791516	
116	116	3.712927	-1.1875	-0.864431	
117	117	5.14507	3.375	3.689375	
118	118	5.767627	3.375	2.611074	
119	119	5.85	-5.7497	4.547705	
120	120	-5.85	-5.7497	4.547705	
121	121	6.383825	-1.1875	3.7617	
122	122	0.133825	-1.1875	-7.063618	
123	123	5.817196	-1.1875	2.126268	
124	124	5.817196	4	2.126268	
125	125	5.817196	-5.9997	2.126268	
126	126	5.534005	-1.1875	2.289768	
127	127	5.817196	3.375	2.126268	
128	128	6.420092	3.375	3.741176	
129	129	0.170092	3.375	-7.084141	
130	130	5.570092	3.375	2.268933	
131	131	5.817196	-5.7497	2.126268	
132	132	3.966362	-1.1875	-1.079469	
133	133	3.966362	4	-1.079469	
134	134	3.966362	-5.9997	-1.079469	
135	135	3.683172	-1.1875	-0.915969	
136	136	3.966362	3.375	-1.079469	
137	137	3.719259	3.375	-0.936804	
138	139	2.096779	-1.1875	-4.317683	
139	140	2.096779	4	-4.317683	
140	141	2.096779	-5.9997	-4.317683	
141	142	1.813588	-1.1875	-4.154183	
142	143	2.096779	3.375	-4.317683	
143	144	1.849676	3.375	-4.175018	
144	145	2.096779	-5.7497	-4.317683	
145	146	0.820092	3.375	-5.958308	
146	147	1.067196	-1.1875	-6.100973	
147	148	1.067196	4	-6.100973	
148	149	1.067196	-5.9997	-6.100973	
149	150	0.784005	-1.1875	-5.937473	
150	151	1.067196	3.375	-6.100973	
151	152	1.067196	-5.7497	-6.100973	
152	153	0.065815	-1.1875	-7.409405	
153	154	-6.184185	-1.1875	3.415913	
154	155	-1.065463	-1.1875	-6.099973	
155	156	-1.065463	4	-6.099973	
156	157	-1.065463	-5.9997	-6.099973	
157	158	-0.784005	-1.1875	-5.937473	
158	159	-1.065463	3.375	-6.099973	
159	160	0.029908	3.375	-7.430551	
160	161	-6.220092	3.375	3.394766	
161	162	-0.820092	3.375	-5.958308	
162	163	-1.065463	-5.7497	-6.099973	
163	164	-2.916297	-1.1875	-2.894236	
164	165	-2.916297	4	-2.894236	
165	166	-2.916297	-5.9997	-2.894236	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
166	167	-2.634839	-1.1875	-2.731736	
167	168	-2.916297	3.375	-2.894236	
168	169	-2.670926	3.375	-2.752571	
169	171	-4.78588	-1.1875	0.343978	
170	172	-4.78588	4	0.343978	
171	173	-4.78588	-5.9997	0.343978	
172	174	-4.504422	-1.1875	0.506478	
173	175	-4.78588	3.375	0.343978	
174	176	-4.540509	3.375	0.485643	
175	177	-4.78588	-5.7497	0.343978	
176	178	-5.570092	3.375	2.268933	
177	179	-5.815463	-1.1875	2.127268	
178	180	-5.815463	4	2.127268	
179	181	-5.815463	-5.9997	2.127268	
180	182	-5.534005	-1.1875	2.289768	
181	183	-5.815463	3.375	2.127268	
182	184	-5.815463	-5.7497	2.127268	
183	185	1.883375	3.375	3.689375	
184	186	2.253405	3.375	-3.475738	
185	187	-4.13678	3.375	-0.213637	
186	188	-2.053467	3.375	-3.82204	
187	189	4.336717	3.375	0.132665	
188	190	-2.28325	3.375	3.689375	
189	191	6.388772	-5.7497	1.796268	
190	193	2.668355	-5.7497	-4.647683	
191	194	1.638772	-5.7497	-6.430973	
192	195	1.088772	-5.7497	-7.383601	
193	196	6.938772	-5.7497	2.748896	
194	197	-1.63271	-5.7497	-6.427473	
195	199	-5.353127	-5.7497	0.016478	
196	200	-6.38271	-5.7497	1.799768	
197	201	-6.93271	-5.7497	2.752396	
198	202	-1.08271	-5.7497	-7.380101	
199	203	2.690834	2.5	3.922705	
200	204	2.690834	-1.9997	3.922705	
201	205	2.690834	2.5	5.921955	
202	206	2.690834	-1.9997	5.921955	
203	207	2.690834	5.25	5.921955	
204	208	2.690834	-5.2497	5.921955	
205	209	-1.048333	2	3.922705	
206	210	-1.048333	-1.9997	3.922705	
207	211	-1.048333	2	4.922476	
208	212	-1.048333	-1.9997	4.922476	
209	213	-1.048333	5.25	4.922476	
210	214	-1.048333	-4.7497	4.922476	
211	215	0	-1.1875	-1.687496	
212	216	0.285	-1.1875	-1.687496	
213	217	-0.285	-1.1875	-1.687496	
214	218	0.285	4	-1.687496	
215	219	-0.285	4	-1.687496	
216	220	0.285	-6.5	-1.687496	
217	221	-0.285	-6.5	-1.687496	
218	222	-1.461415	-1.1875	0.843748	
219	223	-1.603915	-1.1875	0.596931	
220	224	-1.318915	-1.1875	1.090565	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
221	225	-1.603915	4	0.596931	
222	226	-1.318915	4	1.090565	
223	227	-1.603915	-6.5	0.596931	
224	228	-1.318915	-6.5	1.090565	
225	229	1.461415	-1.1875	0.843748	
226	230	1.318915	-1.1875	1.090565	
227	231	1.603915	-1.1875	0.596931	
228	232	1.318915	4	1.090565	
229	233	1.603915	4	0.596931	
230	234	1.318915	-6.5	1.090565	
231	235	1.603915	-6.5	0.596931	
232	237	-2.916297	1.5	-2.894236	
233	239	-4.75	-5.2497	3.922705	
234	240	4.75	-5.2497	3.922705	
235	241	5.817196	-5.2497	2.126268	
236	242	1.067196	-5.2497	-6.100973	
237	243	-1.065463	-5.2497	-6.099973	
238	244	-5.815463	-5.2497	2.127268	
239	251A	-1.048333	-1.1878	4.922476	
240	252A	2.690834	-1.1875	5.921955	
241	245	2.690834	2.5	4.05233	
242	246	2.690834	-1.9997	4.05233	
243	247	-1.048333	2	4.052476	
244	248	-1.048333	-1.9997	4.052476	
245	249	2.690834	2.5	5.79233	
246	250	2.690834	-1.9997	5.79233	
247	251	-1.048333	2	4.771476	
248	252	-1.048333	-1.9997	4.771476	
249	253	-1.048333	0.3125	4.922476	

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	12	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	74	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	101	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e ⁻⁵ F ⁻¹]	Density [k/ft ³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
8	A500 Gr.C	29000	11154	0.3	0.65	0.49	46	1.4	62	1.3

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
1	MF-H1	PIPE 3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	MF-H2	PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
3	SF-H1	HSS4X4X4	Beam	Tube	A53 Gr.B	Typical	3.37	7.8	7.8	12.8

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
4	MF-P1	PIPE 2.0	Column	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
5	MF-CP1	PL3/8"X6	Beam	RECT	A36 Gr.36	Typical	2.25	0.026	6.75	0.101
6	MF-CP2	PL1/2"X6	Beam	RECT	A36 Gr.36	Typical	3	0.062	9	0.237
7	SF-H2	L2X2X3	Beam	Single Angle	A36 Gr.36	Typical	0.722	0.271	0.271	0.009
8	SF-H3	L2.5X2.5X4	Beam	Single Angle	A36 Gr.36	Typical	1.19	0.692	0.692	0.026
9	Walkthrough	C12X25	Beam	Channel	A36 Gr.36	Typical	7.34	4.45	144	0.538
10	MF-H3	PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
11	MF-P2	PIPE 2.38X0.12	Column	Pipe	A500 Gr.C	Typical	0.852	0.545	0.545	1.091
12	MF-P3	PIPE 2.5	Column	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
13	Standoffs	PIPE 2.0	Beam	Pipe	A500 Gr.C	Typical	1.02	0.627	0.627	1.25
14	EQ-P1	PIPE 2.38X0.12	Column	Pipe	A500 Gr.C	Typical	0.852	0.545	0.545	1.091

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	1	2	1		MF-H1	Beam	Pipe	A53 Gr.B	Typical
2	2	3	4		RIGID	None	None	RIGID	Typical
3	3	5	6		MF-CP2	Beam	RECT	A36 Gr.36	Typical
4	4	7	8		RIGID	None	None	RIGID	Typical
5	5	9	10		MF-CP2	Beam	RECT	A36 Gr.36	Typical
6	6	10	6		MF-CP2	Beam	RECT	A36 Gr.36	Typical
7	7	12	11		SF-H1	Beam	Tube	A53 Gr.B	Typical
8	8	14	13		SF-H1	Beam	Tube	A53 Gr.B	Typical
9	9	13	15		SF-H1	Beam	Tube	A53 Gr.B	Typical
10	10	17	24		MF-CP1	Beam	RECT	A36 Gr.36	Typical
11	11	18	23		MF-CP1	Beam	RECT	A36 Gr.36	Typical
12	12	19	20		MF-P1	Column	Pipe	A53 Gr.B	Typical
13	13	21	11		SF-H2	Beam	Single Angle	A36 Gr.36	Typical
14	14	11	22		SF-H2	Beam	Single Angle	A36 Gr.36	Typical
15	15	23	25		MF-CP1	Beam	RECT	A36 Gr.36	Typical
16	16	26	27		RIGID	None	None	RIGID	Typical
17	17	24	28		MF-CP1	Beam	RECT	A36 Gr.36	Typical
18	18	29	30		RIGID	None	None	RIGID	Typical
19	19	16	31		RIGID	None	None	RIGID	Typical
20	20	32	35		RIGID	None	None	RIGID	Typical
21	21	34	33		MF-H2	Beam	Pipe	A53 Gr.B	Typical
22	22	37	36	180	SF-H3	Beam	Single Angle	A36 Gr.36	Typical
23	23	40	41		MF-P1	Column	Pipe	A53 Gr.B	Typical
24	24	39	42		RIGID	None	None	RIGID	Typical
25	25	43	44		RIGID	None	None	RIGID	Typical
26	26	47	48		MF-P1	Column	Pipe	A53 Gr.B	Typical
27	27	46	49		RIGID	None	None	RIGID	Typical
28	28	50	51		RIGID	None	None	RIGID	Typical
29	29	55	56		MF-P1	Column	Pipe	A53 Gr.B	Typical
30	30	54	57		RIGID	None	None	RIGID	Typical
31	31	58	53		RIGID	None	None	RIGID	Typical
32	32	60	38		RIGID	None	None	RIGID	Typical
33	33	61	45		RIGID	None	None	RIGID	Typical
34	34	62	52		RIGID	None	None	RIGID	Typical
35	35	63	59		RIGID	None	None	RIGID	Typical
36	36	65	66		RIGID	None	None	RIGID	Typical
37	37	67	68		MF-CP2	Beam	RECT	A36 Gr.36	Typical
38	38	69	70		RIGID	None	None	RIGID	Typical
39	39	71	72		MF-CP2	Beam	RECT	A36 Gr.36	Typical
40	40	72	68		MF-CP2	Beam	RECT	A36 Gr.36	Typical
41	41	74	73		SF-H1	Beam	Tube	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
42	42	76	75		SF-H1	Beam	Tube	A53 Gr.B	Typical
43	43	75	77		SF-H1	Beam	Tube	A53 Gr.B	Typical
44	44	78	83		MF-CP1	Beam	RECT	A36 Gr.36	Typical
45	45	79	82		MF-CP1	Beam	RECT	A36 Gr.36	Typical
46	46	80	73		SF-H2	Beam	Single Angle	A36 Gr.36	Typical
47	47	73	81		SF-H2	Beam	Single Angle	A36 Gr.36	Typical
48	48	82	84		MF-CP1	Beam	RECT	A36 Gr.36	Typical
49	49	85	86		RIGID	None	None	RIGID	Typical
50	50	83	87		MF-CP1	Beam	RECT	A36 Gr.36	Typical
51	51	88	89		RIGID	None	None	RIGID	Typical
52	52	91	90	180	SF-H3	Beam	Single Angle	A36 Gr.36	Typical
53	53	92	93		RIGID	None	None	RIGID	Typical
54	54	94	95		MF-CP2	Beam	RECT	A36 Gr.36	Typical
55	55	96	97		RIGID	None	None	RIGID	Typical
56	56	98	99		MF-CP2	Beam	RECT	A36 Gr.36	Typical
57	57	99	95		MF-CP2	Beam	RECT	A36 Gr.36	Typical
58	58	101	100		SF-H1	Beam	Tube	A53 Gr.B	Typical
59	59	103	102		SF-H1	Beam	Tube	A53 Gr.B	Typical
60	60	102	104		SF-H1	Beam	Tube	A53 Gr.B	Typical
61	61	105	110		MF-CP1	Beam	RECT	A36 Gr.36	Typical
62	62	106	109		MF-CP1	Beam	RECT	A36 Gr.36	Typical
63	63	107	100		SF-H2	Beam	Single Angle	A36 Gr.36	Typical
64	64	100	108		SF-H2	Beam	Single Angle	A36 Gr.36	Typical
65	65	109	111		MF-CP1	Beam	RECT	A36 Gr.36	Typical
66	66	112	113		RIGID	None	None	RIGID	Typical
67	67	110	114		MF-CP1	Beam	RECT	A36 Gr.36	Typical
68	68	115	116		RIGID	None	None	RIGID	Typical
69	69	118	117	180	SF-H3	Beam	Single Angle	A36 Gr.36	Typical
70	70	119	120	90	Walkthrough	Beam	Channel	A36 Gr.36	Typical
71	71	122	121		MF-H1	Beam	Pipe	A53 Gr.B	Typical
72	72	124	125		MF-P1	Column	Pipe	A53 Gr.B	Typical
73	73	123	126		RIGID	None	None	RIGID	Typical
74	74	127	130		RIGID	None	None	RIGID	Typical
75	75	129	128		MF-H2	Beam	Pipe	A53 Gr.B	Typical
76	76	133	134		MF-P3	Column	Pipe	A53 Gr.B	Typical
77	77	132	135		RIGID	None	None	RIGID	Typical
78	78	136	137		RIGID	None	None	RIGID	Typical
79	79	140	141		MF-P1	Column	Pipe	A53 Gr.B	Typical
80	80	139	142		RIGID	None	None	RIGID	Typical
81	81	143	144		RIGID	None	None	RIGID	Typical
82	82	148	149		MF-P1	Column	Pipe	A53 Gr.B	Typical
83	83	147	150		RIGID	None	None	RIGID	Typical
84	84	151	146		RIGID	None	None	RIGID	Typical
85	85	154	153		MF-H1	Beam	Pipe	A53 Gr.B	Typical
86	86	156	157		MF-P1	Column	Pipe	A53 Gr.B	Typical
87	87	155	158		RIGID	None	None	RIGID	Typical
88	88	159	162		RIGID	None	None	RIGID	Typical
89	89	161	160		MF-H2	Beam	Pipe	A53 Gr.B	Typical
90	90	165	166		MF-P3	Column	Pipe	A53 Gr.B	Typical
91	91	164	167		RIGID	None	None	RIGID	Typical
92	92	168	169		RIGID	None	None	RIGID	Typical
93	93	172	173		MF-P1	Column	Pipe	A53 Gr.B	Typical
94	94	171	174		RIGID	None	None	RIGID	Typical
95	95	175	176		RIGID	None	None	RIGID	Typical
96	96	180	181		MF-P1	Column	Pipe	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
97	97	179	182		RIGID	None	None	RIGID	Typical
98	98	183	178		RIGID	None	None	RIGID	Typical
99	99	190	187		MF-H3	Beam	Pipe	A53 Gr.B	Typical
100	100	188	186		MF-H3	Beam	Pipe	A53 Gr.B	Typical
101	101	185	189		MF-H3	Beam	Pipe	A53 Gr.B	Typical
102	102	191	131		RIGID	None	None	RIGID	Typical
103	104	193	145		RIGID	None	None	RIGID	Typical
104	105	194	152		RIGID	None	None	RIGID	Typical
105	106	195	196	90	Walkthrough	Beam	Channel	A36 Gr.36	Typical
106	107	197	163		RIGID	None	None	RIGID	Typical
107	109	199	177		RIGID	None	None	RIGID	Typical
108	110	200	184		RIGID	None	None	RIGID	Typical
109	111	201	202	90	Walkthrough	Beam	Channel	A36 Gr.36	Typical
110	115	205	249		RIGID	None	None	RIGID	Typical
111	117	206	250		RIGID	None	None	RIGID	Typical
112	118	207	208		MF-P2	Column	Pipe	A500 Gr.C	Typical
113	119	213	214		MF-P3	Column	Pipe	A53 Gr.B	Typical
114	120	211	251		RIGID	None	None	RIGID	Typical
115	121	212	252		RIGID	None	None	RIGID	Typical
116	122	215	217		RIGID	None	None	RIGID	Typical
117	123	215	216		RIGID	None	None	RIGID	Typical
118	124	219	221		EQ-P1	Column	Pipe	A500 Gr.C	Typical
119	125	218	220		EQ-P1	Column	Pipe	A500 Gr.C	Typical
120	126	222	224		RIGID	None	None	RIGID	Typical
121	127	222	223		RIGID	None	None	RIGID	Typical
122	128	226	228		EQ-P1	Column	Pipe	A500 Gr.C	Typical
123	129	225	227		EQ-P1	Column	Pipe	A500 Gr.C	Typical
124	130	229	231		RIGID	None	None	RIGID	Typical
125	131	229	230		RIGID	None	None	RIGID	Typical
126	132	233	235		EQ-P1	Column	Pipe	A500 Gr.C	Typical
127	133	232	234		EQ-P1	Column	Pipe	A500 Gr.C	Typical
128	134	239	244		MF-H3	Beam	Pipe	A53 Gr.B	Typical
129	135	240	241		MF-H3	Beam	Pipe	A53 Gr.B	Typical
130	136	242	243		MF-H3	Beam	Pipe	A53 Gr.B	Typical
131	133A	245	203		RIGID	None	None	RIGID	Typical
132	134A	246	204		RIGID	None	None	RIGID	Typical
133	135A	247	209		RIGID	None	None	RIGID	Typical
134	136A	248	210		RIGID	None	None	RIGID	Typical
135	137	249	245		Standoffs	Beam	Pipe	A500 Gr.C	Typical
136	138	250	246		Standoffs	Beam	Pipe	A500 Gr.C	Typical
137	139	251	247		Standoffs	Beam	Pipe	A500 Gr.C	Typical
138	140	252	248		Standoffs	Beam	Pipe	A500 Gr.C	Typical

Member Advanced Data

	Label	I Release	J Release	Col-Wall Vert Release	Physical	Deflection Ratio Options	Seismic DR
1	1				Yes	N/A	None
2	2	OOOOOX			Yes	** NA **	None
3	3				Yes	N/A	None
4	4	OOOOOX			Yes	** NA **	None
5	5				Yes	N/A	None
6	6				Yes	N/A	None
7	7				Yes	N/A	None
8	8				Yes	N/A	None
9	9				Yes	N/A	None
10	10				Yes	Default	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Col-Wall Vert Release	Physical	Deflection Ratio Options	Seismic DR
11	11				Yes	Default	None
12	12				Yes	** NA **	None
13	13				Yes	N/A	None
14	14				Yes	N/A	None
15	15				Yes	N/A	None
16	16		OOOOOX		Yes	** NA **	None
17	17				Yes	N/A	None
18	18		OOOOOX		Yes	** NA **	None
19	19				Yes	** NA **	None
20	20				Yes	** NA **	None
21	21				Yes	N/A	None
22	22				Yes	N/A	None
23	23				Yes	** NA **	None
24	24				Yes	** NA **	None
25	25				Yes	** NA **	None
26	26				Yes	** NA **	None
27	27				Yes	** NA **	None
28	28				Yes	** NA **	None
29	29				Yes	** NA **	None
30	30				Yes	** NA **	None
31	31				Yes	** NA **	None
32	32				Yes	** NA **	None
33	33				Yes	** NA **	None
34	34				Yes	** NA **	None
35	35				Yes	** NA **	None
36	36	OOOOOX			Yes	** NA **	None
37	37				Yes	N/A	None
38	38	OOOOOX			Yes	** NA **	None
39	39				Yes	N/A	None
40	40				Yes	N/A	None
41	41				Yes	N/A	None
42	42				Yes	N/A	None
43	43				Yes	N/A	None
44	44				Yes	Default	None
45	45				Yes	Default	None
46	46				Yes	N/A	None
47	47				Yes	N/A	None
48	48				Yes	N/A	None
49	49		OOOOOX		Yes	** NA **	None
50	50				Yes	N/A	None
51	51		OOOOOX		Yes	** NA **	None
52	52				Yes	N/A	None
53	53	OOOOOX			Yes	** NA **	None
54	54				Yes	N/A	None
55	55	OOOOOX			Yes	** NA **	None
56	56				Yes	N/A	None
57	57				Yes	N/A	None
58	58				Yes	N/A	None
59	59				Yes	N/A	None
60	60				Yes	N/A	None
61	61				Yes	Default	None
62	62				Yes	Default	None
63	63				Yes	N/A	None
64	64				Yes	N/A	None
65	65				Yes	N/A	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Col-Wall Vert Release	Physical	Deflection Ratio Options	Seismic DR
66	66		OOOOOX		Yes	** NA **	None
67	67				Yes	N/A	None
68	68		OOOOOX		Yes	** NA **	None
69	69				Yes	N/A	None
70	70				Yes	N/A	None
71	71				Yes	N/A	None
72	72				Yes	** NA **	None
73	73				Yes	** NA **	None
74	74				Yes	** NA **	None
75	75				Yes	N/A	None
76	76				Yes	** NA **	None
77	77				Yes	** NA **	None
78	78				Yes	** NA **	None
79	79				Yes	** NA **	None
80	80				Yes	** NA **	None
81	81				Yes	** NA **	None
82	82				Yes	** NA **	None
83	83				Yes	** NA **	None
84	84				Yes	** NA **	None
85	85				Yes	N/A	None
86	86				Yes	** NA **	None
87	87				Yes	** NA **	None
88	88				Yes	** NA **	None
89	89				Yes	N/A	None
90	90				Yes	** NA **	None
91	91				Yes	** NA **	None
92	92				Yes	** NA **	None
93	93				Yes	** NA **	None
94	94				Yes	** NA **	None
95	95				Yes	** NA **	None
96	96				Yes	** NA **	None
97	97				Yes	** NA **	None
98	98				Yes	** NA **	None
99	99	BenPIN	BenPIN		Yes	Default	None
100	100	BenPIN	BenPIN		Yes	Default	None
101	101	BenPIN	BenPIN		Yes	Default	None
102	102				Yes	** NA **	None
103	104				Yes	** NA **	None
104	105				Yes	** NA **	None
105	106				Yes	N/A	None
106	107				Yes	** NA **	None
107	109				Yes	** NA **	None
108	110				Yes	** NA **	None
109	111				Yes	N/A	None
110	115				Yes	** NA **	None
111	117				Yes	** NA **	None
112	118				Yes	** NA **	None
113	119				Yes	** NA **	None
114	120				Yes	** NA **	None
115	121				Yes	** NA **	None
116	122				Yes	** NA **	None
117	123				Yes	** NA **	None
118	124				Yes	** NA **	None
119	125				Yes	** NA **	None
120	126				Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Col-Wall Vert Release	Physical	Deflection Ratio Options	Seismic DR
121	127				Yes	** NA **	None
122	128				Yes	** NA **	None
123	129				Yes	** NA **	None
124	130				Yes	** NA **	None
125	131				Yes	** NA **	None
126	132				Yes	** NA **	None
127	133				Yes	** NA **	None
128	134	BenPIN	BenPIN		Yes	N/A	None
129	135	BenPIN	BenPIN		Yes	N/A	None
130	136	BenPIN	BenPIN		Yes	N/A	None
131	133A				Yes	** NA **	None
132	134A				Yes	** NA **	None
133	135A				Yes	** NA **	None
134	136A				Yes	** NA **	None
135	137				Yes	N/A	None
136	138				Yes	N/A	None
137	139				Yes	N/A	None
138	140				Yes	N/A	None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [ft]	Lcomp top [ft]	Channel Conn.	a [ft]	Function
1	1	MF-H1	12.5	Lbyy	N/A	N/A	Lateral
2	3	MF-CP2	0.25	Lbyy	N/A	N/A	Lateral
3	5	MF-CP2	0.25	Lbyy	N/A	N/A	Lateral
4	6	MF-CP2	1.039	Lbyy	N/A	N/A	Lateral
5	7	SF-H1	5.167	Lbyy	N/A	N/A	Lateral
6	8	SF-H1	2.541	Lbyy	N/A	N/A	Lateral
7	9	SF-H1	2.541	Lbyy	N/A	N/A	Lateral
8	10	MF-CP1	0.331	Lbyy	N/A	N/A	Lateral
9	11	MF-CP1	0.331	Lbyy	N/A	N/A	Lateral
10	12	MF-P1	10	Lbyy	N/A	N/A	Lateral
11	13	SF-H2	4.234	Lbyy	N/A	N/A	Lateral
12	14	SF-H2	4.234	Lbyy	N/A	N/A	Lateral
13	15	MF-CP1	0.25	Lbyy	N/A	N/A	Lateral
14	17	MF-CP1	0.25	Lbyy	N/A	N/A	Lateral
15	21	MF-H2	12.5	Lbyy	N/A	N/A	Lateral
16	22	SF-H3	1.245	Lbyy	N/A	N/A	Lateral
17	23	MF-P1	10	Lbyy	N/A	N/A	Lateral
18	26	MF-P1	10	Lbyy	N/A	N/A	Lateral
19	29	MF-P1	10	Lbyy	N/A	N/A	Lateral
20	37	MF-CP2	0.25	Lbyy	N/A	N/A	Lateral
21	39	MF-CP2	0.25	Lbyy	N/A	N/A	Lateral
22	40	MF-CP2	1.039	Lbyy	N/A	N/A	Lateral
23	41	SF-H1	5.167	Lbyy	N/A	N/A	Lateral
24	42	SF-H1	2.541	Lbyy	N/A	N/A	Lateral
25	43	SF-H1	2.541	Lbyy	N/A	N/A	Lateral
26	44	MF-CP1	0.331	Lbyy	N/A	N/A	Lateral
27	45	MF-CP1	0.331	Lbyy	N/A	N/A	Lateral
28	46	SF-H2	4.234	Lbyy	N/A	N/A	Lateral
29	47	SF-H2	4.234	Lbyy	N/A	N/A	Lateral
30	48	MF-CP1	0.25	Lbyy	N/A	N/A	Lateral
31	50	MF-CP1	0.25	Lbyy	N/A	N/A	Lateral
32	52	SF-H3	1.245	Lbyy	N/A	N/A	Lateral
33	54	MF-CP2	0.25	Lbyy	N/A	N/A	Lateral
34	56	MF-CP2	0.25	Lbyy	N/A	N/A	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [ft]	Lcomp top [ft]	Channel Conn.	a [ft]	Function
35	57	MF-CP2	1.039	Lbyy	N/A	N/A	Lateral
36	58	SF-H1	5.167	Lbyy	N/A	N/A	Lateral
37	59	SF-H1	2.541	Lbyy	N/A	N/A	Lateral
38	60	SF-H1	2.541	Lbyy	N/A	N/A	Lateral
39	61	MF-CP1	0.331	Lbyy	N/A	N/A	Lateral
40	62	MF-CP1	0.331	Lbyy	N/A	N/A	Lateral
41	63	SF-H2	4.234	Lbyy	N/A	N/A	Lateral
42	64	SF-H2	4.234	Lbyy	N/A	N/A	Lateral
43	65	MF-CP1	0.25	Lbyy	N/A	N/A	Lateral
44	67	MF-CP1	0.25	Lbyy	N/A	N/A	Lateral
45	69	SF-H3	1.245	Lbyy	N/A	N/A	Lateral
46	70	Walkthrough	11.7	Lbyy	N/A	N/A	Lateral
47	71	MF-H1	12.5	Lbyy	N/A	N/A	Lateral
48	72	MF-P1	10	Lbyy	N/A	N/A	Lateral
49	75	MF-H2	12.5	Lbyy	N/A	N/A	Lateral
50	76	MF-P3	10	Lbyy	N/A	N/A	Lateral
51	79	MF-P1	10	Lbyy	N/A	N/A	Lateral
52	82	MF-P1	10	Lbyy	N/A	N/A	Lateral
53	85	MF-H1	12.5	Lbyy	N/A	N/A	Lateral
54	86	MF-P1	10	Lbyy	N/A	N/A	Lateral
55	89	MF-H2	12.5	Lbyy	N/A	N/A	Lateral
56	90	MF-P3	10	Lbyy	N/A	N/A	Lateral
57	93	MF-P1	10	Lbyy	N/A	N/A	Lateral
58	96	MF-P1	10	Lbyy	N/A	N/A	Lateral
59	99	MF-H3	4.321	Lbyy	N/A	N/A	Lateral
60	100	MF-H3	4.321	Lbyy	N/A	N/A	Lateral
61	101	MF-H3	4.321	Lbyy	N/A	N/A	Lateral
62	106	Walkthrough	11.7	Lbyy	N/A	N/A	Lateral
63	111	Walkthrough	11.7	Lbyy	N/A	N/A	Lateral
64	118	MF-P2	10.5	Lbyy	N/A	N/A	Lateral
65	119	MF-P3	10	Lbyy	N/A	N/A	Lateral
66	124	EQ-P1	10.5	Lbyy	N/A	N/A	Lateral
67	125	EQ-P1	10.5	Lbyy	N/A	N/A	Lateral
68	128	EQ-P1	10.5	Lbyy	N/A	N/A	Lateral
69	129	EQ-P1	10.5	Lbyy	N/A	N/A	Lateral
70	132	EQ-P1	10.5	Lbyy	N/A	N/A	Lateral
71	133	EQ-P1	10.5	Lbyy	N/A	N/A	Lateral
72	134	MF-H3	2.088	Lbyy	N/A	N/A	Lateral
73	135	MF-H3	2.09	Lbyy	N/A	N/A	Lateral
74	136	MF-H3	2.133	Lbyy	N/A	N/A	Lateral
75	137	Standoffs	1.74	Lbyy	N/A	N/A	Lateral
76	138	Standoffs	1.74	Lbyy	N/A	N/A	Lateral
77	139	Standoffs	0.719	Lbyy	N/A	N/A	Lateral
78	140	Standoffs	0.719	Lbyy	N/A	N/A	Lateral

Member Point Loads (BLC 1 : Dead)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	29	Y	-0.077	%30
2	29	Y	0	0
3	29	Y	0	0
4	29	Y	0	0
5	29	Y	0	0
6	118	Y	-0.048	%45
7	118	Y	-0.048	%85
8	118	Y	0	0

Member Point Loads (BLC 1 : Dead) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
9	118	Y	0	0
10	118	Y	0	0
11	119	Y	-0.046	%35
12	119	Y	-0.046	%65
13	119	Y	0	0
14	119	Y	0	0
15	119	Y	0	0
16	12	Y	-0.045	%30
17	12	Y	-0.045	%75
18	12	Y	-0.075	%30
19	12	Y	-0.073	%30
20	12	Y	0	0
21	133	Y	-0.057	%30
22	133	Y	0	0
23	133	Y	0	0
24	133	Y	0	0
25	133	Y	0	0
26	128	Y	-0.026	%15
27	128	Y	0	0
28	128	Y	0	0
29	128	Y	0	0
30	128	Y	0	0
31	96	Y	-0.077	%30
32	96	Y	0	0
33	96	Y	0	0
34	96	Y	0	0
35	96	Y	0	0
36	93	Y	-0.048	%35
37	93	Y	-0.048	%75
38	93	Y	0	0
39	93	Y	0	0
40	93	Y	0	0
41	90	Y	-0.046	%20
42	90	Y	-0.046	%50
43	90	Y	0	0
44	90	Y	0	0
45	90	Y	0	0
46	86	Y	-0.045	%30
47	86	Y	-0.045	%75
48	86	Y	-0.075	%30
49	86	Y	-0.073	%30
50	86	Y	0	0
51	129	Y	-0.057	%30
52	129	Y	0	0
53	129	Y	0	0
54	129	Y	0	0
55	129	Y	0	0
56	124	Y	-0.019	%15
57	124	Y	0	0
58	124	Y	0	0
59	124	Y	0	0
60	124	Y	0	0
61	82	Y	-0.077	%30
62	82	Y	0	0
63	82	Y	0	0

Member Point Loads (BLC 1 : Dead) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
64	82	Y	0	0
65	82	Y	0	0
66	79	Y	-0.048	%35
67	79	Y	-0.048	%75
68	79	Y	0	0
69	79	Y	0	0
70	79	Y	0	0
71	76	Y	-0.046	%20
72	76	Y	-0.046	%50
73	76	Y	0	0
74	76	Y	0	0
75	76	Y	0	0
76	72	Y	-0.045	%30
77	72	Y	-0.045	%75
78	72	Y	-0.075	%30
79	72	Y	-0.073	%30
80	72	Y	0	0
81	125	Y	-0.057	%30
82	125	Y	0	0
83	125	Y	0	0
84	125	Y	0	0
85	125	Y	0	0
86	132	Y	-0.019	%15
87	132	Y	0	0
88	132	Y	0	0
89	132	Y	0	0
90	132	Y	0	0

Member Point Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	29	Z	-0.141	%30
2	29	Z	0	0
3	29	Z	0	0
4	29	Z	0	0
5	29	Z	0	0
6	118	Z	-0.207	%45
7	118	Z	-0.207	%85
8	118	Z	0	0
9	118	Z	0	0
10	118	Z	0	0
11	119	Z	-0.14	%35
12	119	Z	-0.14	%65
13	119	Z	0	0
14	119	Z	0	0
15	119	Z	0	0
16	12	Z	-0.27	%30
17	12	Z	-0.27	%75
18	12	Z	-0.059	%30
19	12	Z	-0.055	%30
20	12	Z	0	0
21	133	Z	-0.036	%30
22	133	Z	0	0
23	133	Z	0	0
24	133	Z	0	0
25	133	Z	0	0

Member Point Loads (BLC 2 : 0 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
26	128	Z	-0.049	%15
27	128	Z	0	0
28	128	Z	0	0
29	128	Z	0	0
30	128	Z	0	0
31	96	Z	-0.141	%30
32	96	Z	0	0
33	96	Z	0	0
34	96	Z	0	0
35	96	Z	0	0
36	93	Z	-0.207	%35
37	93	Z	-0.207	%75
38	93	Z	0	0
39	93	Z	0	0
40	93	Z	0	0
41	90	Z	-0.14	%20
42	90	Z	-0.14	%50
43	90	Z	0	0
44	90	Z	0	0
45	90	Z	0	0
46	86	Z	-0.27	%30
47	86	Z	-0.27	%75
48	86	Z	-0.059	%30
49	86	Z	-0.055	%30
50	86	Z	0	0
51	129	Z	-0.036	%30
52	129	Z	0	0
53	129	Z	0	0
54	129	Z	0	0
55	129	Z	0	0
56	124	Z	-0.036	%15
57	124	Z	0	0
58	124	Z	0	0
59	124	Z	0	0
60	124	Z	0	0
61	82	Z	-0.141	%30
62	82	Z	0	0
63	82	Z	0	0
64	82	Z	0	0
65	82	Z	0	0
66	79	Z	-0.207	%35
67	79	Z	-0.207	%75
68	79	Z	0	0
69	79	Z	0	0
70	79	Z	0	0
71	76	Z	-0.14	%20
72	76	Z	-0.14	%50
73	76	Z	0	0
74	76	Z	0	0
75	76	Z	0	0
76	72	Z	-0.27	%30
77	72	Z	-0.27	%75
78	72	Z	-0.059	%30
79	72	Z	-0.055	%30
80	72	Z	0	0

Member Point Loads (BLC 2 : 0 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
81	125	Z	-0.036	%30
82	125	Z	0	0
83	125	Z	0	0
84	125	Z	0	0
85	125	Z	0	0
86	132	Z	-0.036	%15
87	132	Z	0	0
88	132	Z	0	0
89	132	Z	0	0
90	132	Z	0	0

Member Point Loads (BLC 3 : 90 Wind - No Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	29	X	-0.101	%30
2	29	X	0	0
3	29	X	0	0
4	29	X	0	0
5	29	X	0	0
6	118	X	-0.071	%45
7	118	X	-0.071	%85
8	118	X	0	0
9	118	X	0	0
10	118	X	0	0
11	119	X	-0.047	%35
12	119	X	-0.047	%65
13	119	X	0	0
14	119	X	0	0
15	119	X	0	0
16	12	X	-0.1	%30
17	12	X	-0.1	%75
18	12	X	-0.07	%30
19	12	X	-0.07	%30
20	12	X	0	0
21	133	X	-0.096	%30
22	133	X	0	0
23	133	X	0	0
24	133	X	0	0
25	133	X	0	0
26	128	X	-0.049	%15
27	128	X	0	0
28	128	X	0	0
29	128	X	0	0
30	128	X	0	0
31	96	X	-0.101	%30
32	96	X	0	0
33	96	X	0	0
34	96	X	0	0
35	96	X	0	0
36	93	X	-0.071	%35
37	93	X	-0.071	%75
38	93	X	0	0
39	93	X	0	0
40	93	X	0	0
41	90	X	-0.047	%20
42	90	X	-0.047	%50

Member Point Loads (BLC 3 : 90 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
43	90	X	0	0
44	90	X	0	0
45	90	X	0	0
46	86	X	-0.1	%30
47	86	X	-0.1	%75
48	86	X	-0.07	%30
49	86	X	-0.07	%30
50	86	X	0	0
51	129	X	-0.096	%30
52	129	X	0	0
53	129	X	0	0
54	129	X	0	0
55	129	X	0	0
56	124	X	-0.036	%15
57	124	X	0	0
58	124	X	0	0
59	124	X	0	0
60	124	X	0	0
61	82	X	-0.101	%30
62	82	X	0	0
63	82	X	0	0
64	82	X	0	0
65	82	X	0	0
66	79	X	-0.071	%35
67	79	X	-0.071	%75
68	79	X	0	0
69	79	X	0	0
70	79	X	0	0
71	76	X	-0.047	%20
72	76	X	-0.047	%50
73	76	X	0	0
74	76	X	0	0
75	76	X	0	0
76	72	X	-0.1	%30
77	72	X	-0.1	%75
78	72	X	-0.07	%30
79	72	X	-0.07	%30
80	72	X	0	0
81	125	X	-0.096	%30
82	125	X	0	0
83	125	X	0	0
84	125	X	0	0
85	125	X	0	0
86	132	X	-0.036	%15
87	132	X	0	0
88	132	X	0	0
89	132	X	0	0
90	132	X	0	0

Member Point Loads (BLC 4 : 0 Wind - Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	29	Z	-0.024	%30
2	29	Z	0	0
3	29	Z	0	0
4	29	Z	0	0

Member Point Loads (BLC 4 : 0 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
5	29	Z	0	0
6	118	Z	-0.036	%45
7	118	Z	-0.036	%85
8	118	Z	0	0
9	118	Z	0	0
10	118	Z	0	0
11	119	Z	-0.024	%35
12	119	Z	-0.024	%65
13	119	Z	0	0
14	119	Z	0	0
15	119	Z	0	0
16	12	Z	-0.047	%30
17	12	Z	-0.047	%75
18	12	Z	-0.01	%30
19	12	Z	-0.01	%30
20	12	Z	0	0
21	133	Z	-0.006	%30
22	133	Z	0	0
23	133	Z	0	0
24	133	Z	0	0
25	133	Z	0	0
26	128	Z	-0.008	%15
27	128	Z	0	0
28	128	Z	0	0
29	128	Z	0	0
30	128	Z	0	0
31	96	Z	-0.024	%30
32	96	Z	0	0
33	96	Z	0	0
34	96	Z	0	0
35	96	Z	0	0
36	93	Z	-0.036	%35
37	93	Z	-0.036	%75
38	93	Z	0	0
39	93	Z	0	0
40	93	Z	0	0
41	90	Z	-0.024	%20
42	90	Z	-0.024	%50
43	90	Z	0	0
44	90	Z	0	0
45	90	Z	0	0
46	86	Z	-0.047	%30
47	86	Z	-0.047	%75
48	86	Z	-0.01	%30
49	86	Z	-0.01	%30
50	86	Z	0	0
51	129	Z	-0.006	%30
52	129	Z	0	0
53	129	Z	0	0
54	129	Z	0	0
55	129	Z	0	0
56	124	Z	-0.006	%15
57	124	Z	0	0
58	124	Z	0	0
59	124	Z	0	0

Member Point Loads (BLC 4 : 0 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
60	124	Z	0	0
61	82	Z	-0.024	%30
62	82	Z	0	0
63	82	Z	0	0
64	82	Z	0	0
65	82	Z	0	0
66	79	Z	-0.036	%35
67	79	Z	-0.036	%75
68	79	Z	0	0
69	79	Z	0	0
70	79	Z	0	0
71	76	Z	-0.024	%20
72	76	Z	-0.024	%50
73	76	Z	0	0
74	76	Z	0	0
75	76	Z	0	0
76	72	Z	-0.047	%30
77	72	Z	-0.047	%75
78	72	Z	-0.01	%30
79	72	Z	-0.01	%30
80	72	Z	0	0
81	125	Z	-0.006	%30
82	125	Z	0	0
83	125	Z	0	0
84	125	Z	0	0
85	125	Z	0	0
86	132	Z	-0.006	%15
87	132	Z	0	0
88	132	Z	0	0
89	132	Z	0	0
90	132	Z	0	0

Member Point Loads (BLC 5 : 90 Wind - Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	29	X	-0.018	%30
2	29	X	0	0
3	29	X	0	0
4	29	X	0	0
5	29	X	0	0
6	118	X	-0.012	%45
7	118	X	-0.012	%85
8	118	X	0	0
9	118	X	0	0
10	118	X	0	0
11	119	X	-0.008	%35
12	119	X	-0.008	%65
13	119	X	0	0
14	119	X	0	0
15	119	X	0	0
16	12	X	-0.017	%30
17	12	X	-0.017	%75
18	12	X	-0.012	%30
19	12	X	-0.012	%30
20	12	X	0	0
21	133	X	-0.017	%30

Member Point Loads (BLC 5 : 90 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
22	133	X	0	0
23	133	X	0	0
24	133	X	0	0
25	133	X	0	0
26	128	X	-0.008	%15
27	128	X	0	0
28	128	X	0	0
29	128	X	0	0
30	128	X	0	0
31	96	X	-0.018	%30
32	96	X	0	0
33	96	X	0	0
34	96	X	0	0
35	96	X	0	0
36	93	X	-0.012	%35
37	93	X	-0.012	%75
38	93	X	0	0
39	93	X	0	0
40	93	X	0	0
41	90	X	-0.008	%20
42	90	X	-0.008	%50
43	90	X	0	0
44	90	X	0	0
45	90	X	0	0
46	86	X	-0.017	%30
47	86	X	-0.017	%75
48	86	X	-0.012	%30
49	86	X	-0.012	%30
50	86	X	0	0
51	129	X	-0.017	%30
52	129	X	0	0
53	129	X	0	0
54	129	X	0	0
55	129	X	0	0
56	124	X	-0.006	%15
57	124	X	0	0
58	124	X	0	0
59	124	X	0	0
60	124	X	0	0
61	82	X	-0.018	%30
62	82	X	0	0
63	82	X	0	0
64	82	X	0	0
65	82	X	0	0
66	79	X	-0.012	%35
67	79	X	-0.012	%75
68	79	X	0	0
69	79	X	0	0
70	79	X	0	0
71	76	X	-0.008	%20
72	76	X	-0.008	%50
73	76	X	0	0
74	76	X	0	0
75	76	X	0	0
76	72	X	-0.017	%30

Member Point Loads (BLC 5 : 90 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
77	72	X	-0.017	%75
78	72	X	-0.012	%30
79	72	X	-0.012	%30
80	72	X	0	0
81	125	X	-0.017	%30
82	125	X	0	0
83	125	X	0	0
84	125	X	0	0
85	125	X	0	0
86	132	X	-0.006	%15
87	132	X	0	0
88	132	X	0	0
89	132	X	0	0
90	132	X	0	0

Member Point Loads (BLC 6 : 0 Wind - Service)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	29	Z	-0.009	%30
2	29	Z	0	0
3	29	Z	0	0
4	29	Z	0	0
5	29	Z	0	0
6	118	Z	-0.013	%45
7	118	Z	-0.013	%85
8	118	Z	0	0
9	118	Z	0	0
10	118	Z	0	0
11	119	Z	-0.009	%35
12	119	Z	-0.009	%65
13	119	Z	0	0
14	119	Z	0	0
15	119	Z	0	0
16	12	Z	-0.017	%30
17	12	Z	-0.017	%75
18	12	Z	-0.004	%30
19	12	Z	-0.004	%30
20	12	Z	0	0
21	133	Z	-0.002	%30
22	133	Z	0	0
23	133	Z	0	0
24	133	Z	0	0
25	133	Z	0	0
26	128	Z	-0.003	%15
27	128	Z	0	0
28	128	Z	0	0
29	128	Z	0	0
30	128	Z	0	0
31	96	Z	-0.009	%30
32	96	Z	0	0
33	96	Z	0	0
34	96	Z	0	0
35	96	Z	0	0
36	93	Z	-0.013	%35
37	93	Z	-0.013	%75
38	93	Z	0	0

Member Point Loads (BLC 6 : 0 Wind - Service) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
39	93	Z	0	0
40	93	Z	0	0
41	90	Z	-0.009	%20
42	90	Z	-0.009	%50
43	90	Z	0	0
44	90	Z	0	0
45	90	Z	0	0
46	86	Z	-0.017	%30
47	86	Z	-0.017	%75
48	86	Z	-0.004	%30
49	86	Z	-0.004	%30
50	86	Z	0	0
51	129	Z	-0.002	%30
52	129	Z	0	0
53	129	Z	0	0
54	129	Z	0	0
55	129	Z	0	0
56	124	Z	-0.002	%15
57	124	Z	0	0
58	124	Z	0	0
59	124	Z	0	0
60	124	Z	0	0
61	82	Z	-0.009	%30
62	82	Z	0	0
63	82	Z	0	0
64	82	Z	0	0
65	82	Z	0	0
66	79	Z	-0.013	%35
67	79	Z	-0.013	%75
68	79	Z	0	0
69	79	Z	0	0
70	79	Z	0	0
71	76	Z	-0.009	%20
72	76	Z	-0.009	%50
73	76	Z	0	0
74	76	Z	0	0
75	76	Z	0	0
76	72	Z	-0.017	%30
77	72	Z	-0.017	%75
78	72	Z	-0.004	%30
79	72	Z	-0.004	%30
80	72	Z	0	0
81	125	Z	-0.002	%30
82	125	Z	0	0
83	125	Z	0	0
84	125	Z	0	0
85	125	Z	0	0
86	132	Z	-0.002	%15
87	132	Z	0	0
88	132	Z	0	0
89	132	Z	0	0
90	132	Z	0	0

Member Point Loads (BLC 7 : 90 Wind - Service)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	29	X	-0.006	%30
2	29	X	0	0
3	29	X	0	0
4	29	X	0	0
5	29	X	0	0
6	118	X	-0.004	%45
7	118	X	-0.004	%85
8	118	X	0	0
9	118	X	0	0
10	118	X	0	0
11	119	X	-0.003	%35
12	119	X	-0.003	%65
13	119	X	0	0
14	119	X	0	0
15	119	X	0	0
16	12	X	-0.006	%30
17	12	X	-0.006	%75
18	12	X	-0.004	%30
19	12	X	-0.004	%30
20	12	X	0	0
21	133	X	-0.006	%30
22	133	X	0	0
23	133	X	0	0
24	133	X	0	0
25	133	X	0	0
26	128	X	-0.003	%15
27	128	X	0	0
28	128	X	0	0
29	128	X	0	0
30	128	X	0	0
31	96	X	-0.006	%30
32	96	X	0	0
33	96	X	0	0
34	96	X	0	0
35	96	X	0	0
36	93	X	-0.004	%35
37	93	X	-0.004	%75
38	93	X	0	0
39	93	X	0	0
40	93	X	0	0
41	90	X	-0.003	%20
42	90	X	-0.003	%50
43	90	X	0	0
44	90	X	0	0
45	90	X	0	0
46	86	X	-0.006	%30
47	86	X	-0.006	%75
48	86	X	-0.004	%30
49	86	X	-0.004	%30
50	86	X	0	0
51	129	X	-0.006	%30
52	129	X	0	0
53	129	X	0	0
54	129	X	0	0
55	129	X	0	0

Member Point Loads (BLC 7 : 90 Wind - Service) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
56	124	X	-0.002	%15
57	124	X	0	0
58	124	X	0	0
59	124	X	0	0
60	124	X	0	0
61	82	X	-0.006	%30
62	82	X	0	0
63	82	X	0	0
64	82	X	0	0
65	82	X	0	0
66	79	X	-0.004	%35
67	79	X	-0.004	%75
68	79	X	0	0
69	79	X	0	0
70	79	X	0	0
71	76	X	-0.003	%20
72	76	X	-0.003	%50
73	76	X	0	0
74	76	X	0	0
75	76	X	0	0
76	72	X	-0.006	%30
77	72	X	-0.006	%75
78	72	X	-0.004	%30
79	72	X	-0.004	%30
80	72	X	0	0
81	125	X	-0.006	%30
82	125	X	0	0
83	125	X	0	0
84	125	X	0	0
85	125	X	0	0
86	132	X	-0.002	%15
87	132	X	0	0
88	132	X	0	0
89	132	X	0	0
90	132	X	0	0

Member Point Loads (BLC 8 : Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	29	Y	-0.062	%30
2	29	Y	0	0
3	29	Y	0	0
4	29	Y	0	0
5	29	Y	0	0
6	118	Y	-0.095	%45
7	118	Y	-0.095	%85
8	118	Y	0	0
9	118	Y	0	0
10	118	Y	0	0
11	119	Y	-0.041	%35
12	119	Y	-0.041	%65
13	119	Y	0	0
14	119	Y	0	0
15	119	Y	0	0
16	12	Y	-0.098	%30
17	12	Y	-0.098	%75

Member Point Loads (BLC 8 : Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
18	12	Y	-0.033	%30
19	12	Y	-0.032	%30
20	12	Y	0	0
21	133	Y	-0.036	%30
22	133	Y	0	0
23	133	Y	0	0
24	133	Y	0	0
25	133	Y	0	0
26	128	Y	-0.043	%15
27	128	Y	0	0
28	128	Y	0	0
29	128	Y	0	0
30	128	Y	0	0
31	96	Y	-0.062	%30
32	96	Y	0	0
33	96	Y	0	0
34	96	Y	0	0
35	96	Y	0	0
36	93	Y	-0.095	%35
37	93	Y	-0.095	%75
38	93	Y	0	0
39	93	Y	0	0
40	93	Y	0	0
41	90	Y	-0.041	%20
42	90	Y	-0.041	%50
43	90	Y	0	0
44	90	Y	0	0
45	90	Y	0	0
46	86	Y	-0.098	%30
47	86	Y	-0.098	%75
48	86	Y	-0.033	%30
49	86	Y	-0.032	%30
50	86	Y	0	0
51	129	Y	-0.036	%30
52	129	Y	0	0
53	129	Y	0	0
54	129	Y	0	0
55	129	Y	0	0
56	124	Y	-0.032	%15
57	124	Y	0	0
58	124	Y	0	0
59	124	Y	0	0
60	124	Y	0	0
61	82	Y	-0.062	%30
62	82	Y	0	0
63	82	Y	0	0
64	82	Y	0	0
65	82	Y	0	0
66	79	Y	-0.095	%35
67	79	Y	-0.095	%75
68	79	Y	0	0
69	79	Y	0	0
70	79	Y	0	0
71	76	Y	-0.041	%20
72	76	Y	-0.041	%50

Member Point Loads (BLC 8 : Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
73	76	Y	0	0
74	76	Y	0	0
75	76	Y	0	0
76	72	Y	-0.098	%30
77	72	Y	-0.098	%75
78	72	Y	-0.033	%30
79	72	Y	-0.032	%30
80	72	Y	0	0
81	125	Y	-0.036	%30
82	125	Y	0	0
83	125	Y	0	0
84	125	Y	0	0
85	125	Y	0	0
86	132	Y	-0.032	%15
87	132	Y	0	0
88	132	Y	0	0
89	132	Y	0	0
90	132	Y	0	0

Member Point Loads (BLC 9 : 0 Seismic)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	29	Z	-0.021	%30
2	29	Z	0	0
3	29	Z	0	0
4	29	Z	0	0
5	29	Z	0	0
6	118	Z	-0.026	%45
7	118	Z	-0.026	%85
8	118	Z	0	0
9	118	Z	0	0
10	118	Z	0	0
11	119	Z	-0.025	%35
12	119	Z	-0.025	%65
13	119	Z	0	0
14	119	Z	0	0
15	119	Z	0	0
16	12	Z	-0.024	%30
17	12	Z	-0.024	%75
18	12	Z	-0.02	%30
19	12	Z	-0.02	%30
20	12	Z	0	0
21	133	Z	-0.016	%30
22	133	Z	0	0
23	133	Z	0	0
24	133	Z	0	0
25	133	Z	0	0
26	128	Z	-0.007	%15
27	128	Z	0	0
28	128	Z	0	0
29	128	Z	0	0
30	128	Z	0	0
31	96	Z	-0.021	%30
32	96	Z	0	0
33	96	Z	0	0
34	96	Z	0	0

Member Point Loads (BLC 9 : 0 Seismic) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
35	96	Z	0	0
36	93	Z	-0.026	%35
37	93	Z	-0.026	%75
38	93	Z	0	0
39	93	Z	0	0
40	93	Z	0	0
41	90	Z	-0.025	%20
42	90	Z	-0.025	%50
43	90	Z	0	0
44	90	Z	0	0
45	90	Z	0	0
46	86	Z	-0.024	%30
47	86	Z	-0.024	%75
48	86	Z	-0.02	%30
49	86	Z	-0.02	%30
50	86	Z	0	0
51	129	Z	-0.016	%30
52	129	Z	0	0
53	129	Z	0	0
54	129	Z	0	0
55	129	Z	0	0
56	124	Z	-0.005	%15
57	124	Z	0	0
58	124	Z	0	0
59	124	Z	0	0
60	124	Z	0	0
61	82	Z	-0.021	%30
62	82	Z	0	0
63	82	Z	0	0
64	82	Z	0	0
65	82	Z	0	0
66	79	Z	-0.026	%35
67	79	Z	-0.026	%75
68	79	Z	0	0
69	79	Z	0	0
70	79	Z	0	0
71	76	Z	-0.025	%20
72	76	Z	-0.025	%50
73	76	Z	0	0
74	76	Z	0	0
75	76	Z	0	0
76	72	Z	-0.024	%30
77	72	Z	-0.024	%75
78	72	Z	-0.02	%30
79	72	Z	-0.02	%30
80	72	Z	0	0
81	125	Z	-0.016	%30
82	125	Z	0	0
83	125	Z	0	0
84	125	Z	0	0
85	125	Z	0	0
86	132	Z	-0.005	%15
87	132	Z	0	0
88	132	Z	0	0
89	132	Z	0	0

Member Point Loads (BLC 9 : 0 Seismic) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
90	132	Z	0	0

Member Point Loads (BLC 10 : 90 Seismic)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	29	X	-0.021	%30
2	29	X	0	0
3	29	X	0	0
4	29	X	0	0
5	29	X	0	0
6	118	X	-0.026	%45
7	118	X	-0.026	%85
8	118	X	0	0
9	118	X	0	0
10	118	X	0	0
11	119	X	-0.025	%35
12	119	X	-0.025	%65
13	119	X	0	0
14	119	X	0	0
15	119	X	0	0
16	12	X	-0.024	%30
17	12	X	-0.024	%75
18	12	X	-0.02	%30
19	12	X	-0.02	%30
20	12	X	0	0
21	133	X	-0.016	%30
22	133	X	0	0
23	133	X	0	0
24	133	X	0	0
25	133	X	0	0
26	128	X	-0.007	%15
27	128	X	0	0
28	128	X	0	0
29	128	X	0	0
30	128	X	0	0
31	96	X	-0.021	%30
32	96	X	0	0
33	96	X	0	0
34	96	X	0	0
35	96	X	0	0
36	93	X	-0.026	%35
37	93	X	-0.026	%75
38	93	X	0	0
39	93	X	0	0
40	93	X	0	0
41	90	X	-0.025	%20
42	90	X	-0.025	%50
43	90	X	0	0
44	90	X	0	0
45	90	X	0	0
46	86	X	-0.024	%30
47	86	X	-0.024	%75
48	86	X	-0.02	%30
49	86	X	-0.02	%30
50	86	X	0	0
51	129	X	-0.016	%30

Member Point Loads (BLC 10 : 90 Seismic) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
52	129	X	0	0
53	129	X	0	0
54	129	X	0	0
55	129	X	0	0
56	124	X	-0.005	%15
57	124	X	0	0
58	124	X	0	0
59	124	X	0	0
60	124	X	0	0
61	82	X	-0.021	%30
62	82	X	0	0
63	82	X	0	0
64	82	X	0	0
65	82	X	0	0
66	79	X	-0.026	%35
67	79	X	-0.026	%75
68	79	X	0	0
69	79	X	0	0
70	79	X	0	0
71	76	X	-0.025	%20
72	76	X	-0.025	%50
73	76	X	0	0
74	76	X	0	0
75	76	X	0	0
76	72	X	-0.024	%30
77	72	X	-0.024	%75
78	72	X	-0.02	%30
79	72	X	-0.02	%30
80	72	X	0	0
81	125	X	-0.016	%30
82	125	X	0	0
83	125	X	0	0
84	125	X	0	0
85	125	X	0	0
86	132	X	-0.005	%15
87	132	X	0	0
88	132	X	0	0
89	132	X	0	0
90	132	X	0	0

Member Point Loads (BLC 15 : Maint LL 1)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	21	Y	-0.25	%5

Member Point Loads (BLC 16 : Maint LL 2)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	1	Y	-0.25	%5

Member Point Loads (BLC 17 : Maint LL 3)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	75	Y	-0.25	%5

Member Point Loads (BLC 18 : Maint LL 4)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	71	Y	-0.25	%5

Member Point Loads (BLC 19 : Maint LL 5)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	89	Y	-0.25	%5

Member Point Loads (BLC 20 : Maint LL 6)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	85	Y	-0.25	%5

Member Point Loads (BLC 21 : Maint LL 7)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	21	Y	-0.25	%95

Member Point Loads (BLC 22 : Maint LL 8)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	1	Y	-0.25	%95

Member Point Loads (BLC 23 : Maint LL 9)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	75	Y	-0.25	%95

Member Point Loads (BLC 24 : Maint LL 10)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	71	Y	-0.25	%95

Member Point Loads (BLC 25 : Maint LL 11)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	89	Y	-0.25	%95

Member Point Loads (BLC 26 : Maint LL 12)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	85	Y	-0.25	%95

Member Point Loads (BLC 27 : Maint LL 13)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	41	Y	-0.25	%95

Member Point Loads (BLC 28 : Maint LL 14)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	58	Y	-0.25	%95

Member Point Loads (BLC 29 : Maint LL 15)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	7	Y	-0.25	%95

Member Distributed Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.014	-0.014	0	%100
2	3	Z	-0.025	-0.025	0	%100
3	5	Z	-0.025	-0.025	0	%100
4	6	Z	-0.025	-0.025	0	%100
5	7	Z	-0.024	-0.024	0	%100
6	8	Z	-0.02	-0.02	0	%100
7	9	Z	-0.02	-0.02	0	%100
8	10	Z	-0.025	-0.025	0	%100
9	11	Z	-0.025	-0.025	0	%100
10	12	Z	-0.01	-0.01	0	%100
11	13	Z	-0.014	-0.014	0	%100
12	14	Z	-0.014	-0.014	0	%100
13	15	Z	-0.025	-0.025	0	%100
14	17	Z	-0.025	-0.025	0	%100
15	21	Z	-0.012	-0.012	0	%100
16	22	Z	-0.012	-0.012	0	%100
17	23	Z	-0.01	-0.01	0	%100
18	26	Z	-0.01	-0.01	0	%100
19	29	Z	-0.01	-0.01	0	%100
20	37	Z	-0.025	-0.025	0	%100
21	39	Z	-0.025	-0.025	0	%100
22	40	Z	-0.025	-0.025	0	%100
23	41	Z	-0.024	-0.024	0	%100
24	42	Z	-0.02	-0.02	0	%100
25	43	Z	-0.02	-0.02	0	%100
26	44	Z	-0.025	-0.025	0	%100
27	45	Z	-0.025	-0.025	0	%100
28	46	Z	-0.014	-0.014	0	%100
29	47	Z	-0.014	-0.014	0	%100
30	48	Z	-0.025	-0.025	0	%100
31	50	Z	-0.025	-0.025	0	%100
32	52	Z	-0.012	-0.012	0	%100
33	54	Z	-0.025	-0.025	0	%100
34	56	Z	-0.025	-0.025	0	%100
35	57	Z	-0.025	-0.025	0	%100
36	58	Z	-0.024	-0.024	0	%100
37	59	Z	-0.02	-0.02	0	%100
38	60	Z	-0.02	-0.02	0	%100
39	61	Z	-0.025	-0.025	0	%100
40	62	Z	-0.025	-0.025	0	%100
41	63	Z	-0.014	-0.014	0	%100
42	64	Z	-0.014	-0.014	0	%100
43	65	Z	-0.025	-0.025	0	%100
44	67	Z	-0.025	-0.025	0	%100

Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
45	69	Z	-0.012	-0.012	0	%100
46	70	Z	-0.022	-0.022	0	%100
47	71	Z	-0.014	-0.014	0	%100
48	72	Z	-0.01	-0.01	0	%100
49	75	Z	-0.012	-0.012	0	%100
50	76	Z	-0.012	-0.012	0	%100
51	79	Z	-0.01	-0.01	0	%100
52	82	Z	-0.01	-0.01	0	%100
53	85	Z	-0.014	-0.014	0	%100
54	86	Z	-0.01	-0.01	0	%100
55	89	Z	-0.012	-0.012	0	%100
56	90	Z	-0.012	-0.012	0	%100
57	93	Z	-0.01	-0.01	0	%100
58	96	Z	-0.01	-0.01	0	%100
59	99	Z	-0.009	-0.009	0	%100
60	100	Z	-0.009	-0.009	0	%100
61	101	Z	-0.009	-0.009	0	%100
62	106	Z	-0.022	-0.022	0	%100
63	111	Z	-0.022	-0.022	0	%100
64	118	Z	-0.01	-0.01	0	%100
65	119	Z	-0.012	-0.012	0	%100
66	124	Z	-0.01	-0.01	0	%100
67	125	Z	-0.01	-0.01	0	%100
68	128	Z	-0.01	-0.01	0	%100
69	129	Z	-0.01	-0.01	0	%100
70	132	Z	-0.01	-0.01	0	%100
71	133	Z	-0.01	-0.01	0	%100
72	134	Z	-0.007	-0.007	0	%100
73	135	Z	-0.007	-0.007	0	%100
74	136	Z	-0.007	-0.007	0	%100
75	137	Z	-0.007	-0.007	0	%100
76	138	Z	-0.007	-0.007	0	%100
77	139	Z	-0.007	-0.007	0	%100
78	140	Z	-0.007	-0.007	0	%100

Member Distributed Loads (BLC 3 : 90 Wind - No Ice)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.014	-0.014	0	%100
2	3	X	-0.025	-0.025	0	%100
3	5	X	-0.025	-0.025	0	%100
4	6	X	-0.025	-0.025	0	%100
5	7	X	-0.024	-0.024	0	%100
6	8	X	-0.02	-0.02	0	%100
7	9	X	-0.02	-0.02	0	%100
8	10	X	-0.025	-0.025	0	%100
9	11	X	-0.025	-0.025	0	%100
10	12	X	-0.01	-0.01	0	%100
11	13	X	-0.014	-0.014	0	%100
12	14	X	-0.014	-0.014	0	%100
13	15	X	-0.025	-0.025	0	%100
14	17	X	-0.025	-0.025	0	%100
15	21	X	-0.012	-0.012	0	%100
16	22	X	-0.012	-0.012	0	%100
17	23	X	-0.01	-0.01	0	%100
18	26	X	-0.01	-0.01	0	%100

Member Distributed Loads (BLC 3 : 90 Wind - No Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
19	29	X	-0.01	-0.01	0	%100
20	37	X	-0.025	-0.025	0	%100
21	39	X	-0.025	-0.025	0	%100
22	40	X	-0.025	-0.025	0	%100
23	41	X	-0.024	-0.024	0	%100
24	42	X	-0.02	-0.02	0	%100
25	43	X	-0.02	-0.02	0	%100
26	44	X	-0.025	-0.025	0	%100
27	45	X	-0.025	-0.025	0	%100
28	46	X	-0.014	-0.014	0	%100
29	47	X	-0.014	-0.014	0	%100
30	48	X	-0.025	-0.025	0	%100
31	50	X	-0.025	-0.025	0	%100
32	52	X	-0.012	-0.012	0	%100
33	54	X	-0.025	-0.025	0	%100
34	56	X	-0.025	-0.025	0	%100
35	57	X	-0.025	-0.025	0	%100
36	58	X	-0.024	-0.024	0	%100
37	59	X	-0.02	-0.02	0	%100
38	60	X	-0.02	-0.02	0	%100
39	61	X	-0.025	-0.025	0	%100
40	62	X	-0.025	-0.025	0	%100
41	63	X	-0.014	-0.014	0	%100
42	64	X	-0.014	-0.014	0	%100
43	65	X	-0.025	-0.025	0	%100
44	67	X	-0.025	-0.025	0	%100
45	69	X	-0.012	-0.012	0	%100
46	70	X	-0.022	-0.022	0	%100
47	71	X	-0.014	-0.014	0	%100
48	72	X	-0.01	-0.01	0	%100
49	75	X	-0.012	-0.012	0	%100
50	76	X	-0.012	-0.012	0	%100
51	79	X	-0.01	-0.01	0	%100
52	82	X	-0.01	-0.01	0	%100
53	85	X	-0.014	-0.014	0	%100
54	86	X	-0.01	-0.01	0	%100
55	89	X	-0.012	-0.012	0	%100
56	90	X	-0.012	-0.012	0	%100
57	93	X	-0.01	-0.01	0	%100
58	96	X	-0.01	-0.01	0	%100
59	99	X	-0.009	-0.009	0	%100
60	100	X	-0.009	-0.009	0	%100
61	101	X	-0.009	-0.009	0	%100
62	106	X	-0.022	-0.022	0	%100
63	111	X	-0.022	-0.022	0	%100
64	118	X	-0.01	-0.01	0	%100
65	119	X	-0.012	-0.012	0	%100
66	124	X	-0.01	-0.01	0	%100
67	125	X	-0.01	-0.01	0	%100
68	128	X	-0.01	-0.01	0	%100
69	129	X	-0.01	-0.01	0	%100
70	132	X	-0.01	-0.01	0	%100
71	133	X	-0.01	-0.01	0	%100
72	134	X	-0.007	-0.007	0	%100
73	135	X	-0.007	-0.007	0	%100

Member Distributed Loads (BLC 3 : 90 Wind - No Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
74	136	X	-0.007	-0.007	0	%100
75	137	X	-0.007	-0.007	0	%100
76	138	X	-0.007	-0.007	0	%100
77	139	X	-0.007	-0.007	0	%100
78	140	X	-0.007	-0.007	0	%100

Member Distributed Loads (BLC 4 : 0 Wind - Ice)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.002	-0.002	0	%100
2	3	Z	-0.011	-0.011	0	%100
3	5	Z	-0.011	-0.011	0	%100
4	6	Z	-0.007	-0.007	0	%100
5	7	Z	-0.007	-0.007	0	%100
6	8	Z	-0.006	-0.006	0	%100
7	9	Z	-0.006	-0.006	0	%100
8	10	Z	-0.01	-0.01	0	%100
9	11	Z	-0.01	-0.01	0	%100
10	12	Z	-0.002	-0.002	0	%100
11	13	Z	-0.006	-0.006	0	%100
12	14	Z	-0.006	-0.006	0	%100
13	15	Z	-0.011	-0.011	0	%100
14	17	Z	-0.011	-0.011	0	%100
15	21	Z	-0.002	-0.002	0	%100
16	22	Z	-0.004	-0.004	0	%100
17	23	Z	-0.002	-0.002	0	%100
18	26	Z	-0.002	-0.002	0	%100
19	29	Z	-0.002	-0.002	0	%100
20	37	Z	-0.011	-0.011	0	%100
21	39	Z	-0.011	-0.011	0	%100
22	40	Z	-0.007	-0.007	0	%100
23	41	Z	-0.007	-0.007	0	%100
24	42	Z	-0.006	-0.006	0	%100
25	43	Z	-0.006	-0.006	0	%100
26	44	Z	-0.01	-0.01	0	%100
27	45	Z	-0.01	-0.01	0	%100
28	46	Z	-0.006	-0.006	0	%100
29	47	Z	-0.006	-0.006	0	%100
30	48	Z	-0.011	-0.011	0	%100
31	50	Z	-0.011	-0.011	0	%100
32	52	Z	-0.004	-0.004	0	%100
33	54	Z	-0.011	-0.011	0	%100
34	56	Z	-0.011	-0.011	0	%100
35	57	Z	-0.007	-0.007	0	%100
36	58	Z	-0.007	-0.007	0	%100
37	59	Z	-0.006	-0.006	0	%100
38	60	Z	-0.006	-0.006	0	%100
39	61	Z	-0.01	-0.01	0	%100
40	62	Z	-0.01	-0.01	0	%100
41	63	Z	-0.006	-0.006	0	%100
42	64	Z	-0.006	-0.006	0	%100
43	65	Z	-0.011	-0.011	0	%100
44	67	Z	-0.011	-0.011	0	%100
45	69	Z	-0.004	-0.004	0	%100
46	70	Z	-0.007	-0.007	0	%100
47	71	Z	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 4 : 0 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
48	72	Z	-0.002	-0.002	0	%100
49	75	Z	-0.002	-0.002	0	%100
50	76	Z	-0.002	-0.002	0	%100
51	79	Z	-0.002	-0.002	0	%100
52	82	Z	-0.002	-0.002	0	%100
53	85	Z	-0.002	-0.002	0	%100
54	86	Z	-0.002	-0.002	0	%100
55	89	Z	-0.002	-0.002	0	%100
56	90	Z	-0.002	-0.002	0	%100
57	93	Z	-0.002	-0.002	0	%100
58	96	Z	-0.002	-0.002	0	%100
59	99	Z	-0.002	-0.002	0	%100
60	100	Z	-0.002	-0.002	0	%100
61	101	Z	-0.002	-0.002	0	%100
62	106	Z	-0.007	-0.007	0	%100
63	111	Z	-0.007	-0.007	0	%100
64	118	Z	-0.002	-0.002	0	%100
65	119	Z	-0.002	-0.002	0	%100
66	124	Z	-0.002	-0.002	0	%100
67	125	Z	-0.002	-0.002	0	%100
68	128	Z	-0.002	-0.002	0	%100
69	129	Z	-0.002	-0.002	0	%100
70	132	Z	-0.002	-0.002	0	%100
71	133	Z	-0.002	-0.002	0	%100
72	134	Z	-0.002	-0.002	0	%100
73	135	Z	-0.002	-0.002	0	%100
74	136	Z	-0.002	-0.002	0	%100
75	137	Z	-0.002	-0.002	0	%100
76	138	Z	-0.002	-0.002	0	%100
77	139	Z	-0.002	-0.002	0	%100
78	140	Z	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 5 : 90 Wind - Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.002	-0.002	0	%100
2	3	X	-0.011	-0.011	0	%100
3	5	X	-0.011	-0.011	0	%100
4	6	X	-0.007	-0.007	0	%100
5	7	X	-0.007	-0.007	0	%100
6	8	X	-0.006	-0.006	0	%100
7	9	X	-0.006	-0.006	0	%100
8	10	X	-0.01	-0.01	0	%100
9	11	X	-0.01	-0.01	0	%100
10	12	X	-0.002	-0.002	0	%100
11	13	X	-0.006	-0.006	0	%100
12	14	X	-0.006	-0.006	0	%100
13	15	X	-0.011	-0.011	0	%100
14	17	X	-0.011	-0.011	0	%100
15	21	X	-0.002	-0.002	0	%100
16	22	X	-0.004	-0.004	0	%100
17	23	X	-0.002	-0.002	0	%100
18	26	X	-0.002	-0.002	0	%100
19	29	X	-0.002	-0.002	0	%100
20	37	X	-0.011	-0.011	0	%100
21	39	X	-0.011	-0.011	0	%100

Member Distributed Loads (BLC 5 : 90 Wind - Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
22	40	X	-0.007	-0.007	0	%100
23	41	X	-0.007	-0.007	0	%100
24	42	X	-0.006	-0.006	0	%100
25	43	X	-0.006	-0.006	0	%100
26	44	X	-0.01	-0.01	0	%100
27	45	X	-0.01	-0.01	0	%100
28	46	X	-0.006	-0.006	0	%100
29	47	X	-0.006	-0.006	0	%100
30	48	X	-0.011	-0.011	0	%100
31	50	X	-0.011	-0.011	0	%100
32	52	X	-0.004	-0.004	0	%100
33	54	X	-0.011	-0.011	0	%100
34	56	X	-0.011	-0.011	0	%100
35	57	X	-0.007	-0.007	0	%100
36	58	X	-0.007	-0.007	0	%100
37	59	X	-0.006	-0.006	0	%100
38	60	X	-0.006	-0.006	0	%100
39	61	X	-0.01	-0.01	0	%100
40	62	X	-0.01	-0.01	0	%100
41	63	X	-0.006	-0.006	0	%100
42	64	X	-0.006	-0.006	0	%100
43	65	X	-0.011	-0.011	0	%100
44	67	X	-0.011	-0.011	0	%100
45	69	X	-0.004	-0.004	0	%100
46	70	X	-0.007	-0.007	0	%100
47	71	X	-0.002	-0.002	0	%100
48	72	X	-0.002	-0.002	0	%100
49	75	X	-0.002	-0.002	0	%100
50	76	X	-0.002	-0.002	0	%100
51	79	X	-0.002	-0.002	0	%100
52	82	X	-0.002	-0.002	0	%100
53	85	X	-0.002	-0.002	0	%100
54	86	X	-0.002	-0.002	0	%100
55	89	X	-0.002	-0.002	0	%100
56	90	X	-0.002	-0.002	0	%100
57	93	X	-0.002	-0.002	0	%100
58	96	X	-0.002	-0.002	0	%100
59	99	X	-0.002	-0.002	0	%100
60	100	X	-0.002	-0.002	0	%100
61	101	X	-0.002	-0.002	0	%100
62	106	X	-0.007	-0.007	0	%100
63	111	X	-0.007	-0.007	0	%100
64	118	X	-0.002	-0.002	0	%100
65	119	X	-0.002	-0.002	0	%100
66	124	X	-0.002	-0.002	0	%100
67	125	X	-0.002	-0.002	0	%100
68	128	X	-0.002	-0.002	0	%100
69	129	X	-0.002	-0.002	0	%100
70	132	X	-0.002	-0.002	0	%100
71	133	X	-0.002	-0.002	0	%100
72	134	X	-0.002	-0.002	0	%100
73	135	X	-0.002	-0.002	0	%100
74	136	X	-0.002	-0.002	0	%100
75	137	X	-0.002	-0.002	0	%100
76	138	X	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 5 : 90 Wind - Ice) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
77	139	X	-0.002	-0.002	0	%100
78	140	X	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 6 : 0 Wind - Service)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.0005	-0.0005	0	%100
2	3	Z	-0.002	-0.002	0	%100
3	5	Z	-0.002	-0.002	0	%100
4	6	Z	-0.002	-0.002	0	%100
5	7	Z	-0.002	-0.002	0	%100
6	8	Z	-0.001	-0.001	0	%100
7	9	Z	-0.001	-0.001	0	%100
8	10	Z	-0.002	-0.002	0	%100
9	11	Z	-0.002	-0.002	0	%100
10	12	Z	-0.0003	-0.0003	0	%100
11	13	Z	-0.0009	-0.0009	0	%100
12	14	Z	-0.0009	-0.0009	0	%100
13	15	Z	-0.002	-0.002	0	%100
14	17	Z	-0.002	-0.002	0	%100
15	21	Z	-0.0004	-0.0004	0	%100
16	22	Z	-0.0007	-0.0007	0	%100
17	23	Z	-0.0003	-0.0003	0	%100
18	26	Z	-0.0003	-0.0003	0	%100
19	29	Z	-0.0003	-0.0003	0	%100
20	37	Z	-0.002	-0.002	0	%100
21	39	Z	-0.002	-0.002	0	%100
22	40	Z	-0.002	-0.002	0	%100
23	41	Z	-0.002	-0.002	0	%100
24	42	Z	-0.001	-0.001	0	%100
25	43	Z	-0.001	-0.001	0	%100
26	44	Z	-0.002	-0.002	0	%100
27	45	Z	-0.002	-0.002	0	%100
28	46	Z	-0.0009	-0.0009	0	%100
29	47	Z	-0.0009	-0.0009	0	%100
30	48	Z	-0.002	-0.002	0	%100
31	50	Z	-0.002	-0.002	0	%100
32	52	Z	-0.0007	-0.0007	0	%100
33	54	Z	-0.002	-0.002	0	%100
34	56	Z	-0.002	-0.002	0	%100
35	57	Z	-0.002	-0.002	0	%100
36	58	Z	-0.002	-0.002	0	%100
37	59	Z	-0.001	-0.001	0	%100
38	60	Z	-0.001	-0.001	0	%100
39	61	Z	-0.002	-0.002	0	%100
40	62	Z	-0.002	-0.002	0	%100
41	63	Z	-0.0009	-0.0009	0	%100
42	64	Z	-0.0009	-0.0009	0	%100
43	65	Z	-0.002	-0.002	0	%100
44	67	Z	-0.002	-0.002	0	%100
45	69	Z	-0.0007	-0.0007	0	%100
46	70	Z	-0.001	-0.001	0	%100
47	71	Z	-0.0005	-0.0005	0	%100
48	72	Z	-0.0003	-0.0003	0	%100
49	75	Z	-0.0004	-0.0004	0	%100
50	76	Z	-0.0004	-0.0004	0	%100

Member Distributed Loads (BLC 6 : 0 Wind - Service) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
51	79	Z	-0.0003	-0.0003	0	%100
52	82	Z	-0.0003	-0.0003	0	%100
53	85	Z	-0.0005	-0.0005	0	%100
54	86	Z	-0.0003	-0.0003	0	%100
55	89	Z	-0.0004	-0.0004	0	%100
56	90	Z	-0.0004	-0.0004	0	%100
57	93	Z	-0.0003	-0.0003	0	%100
58	96	Z	-0.0003	-0.0003	0	%100
59	99	Z	-0.0003	-0.0003	0	%100
60	100	Z	-0.0003	-0.0003	0	%100
61	101	Z	-0.0003	-0.0003	0	%100
62	106	Z	-0.001	-0.001	0	%100
63	111	Z	-0.001	-0.001	0	%100
64	118	Z	-0.0003	-0.0003	0	%100
65	119	Z	-0.0004	-0.0004	0	%100
66	124	Z	-0.0003	-0.0003	0	%100
67	125	Z	-0.0003	-0.0003	0	%100
68	128	Z	-0.0003	-0.0003	0	%100
69	129	Z	-0.0003	-0.0003	0	%100
70	132	Z	-0.0003	-0.0003	0	%100
71	133	Z	-0.0003	-0.0003	0	%100
72	134	Z	-0.0003	-0.0003	0	%100
73	135	Z	-0.0003	-0.0003	0	%100
74	136	Z	-0.0003	-0.0003	0	%100
75	137	Z	-0.0003	-0.0003	0	%100
76	138	Z	-0.0003	-0.0003	0	%100
77	139	Z	-0.0003	-0.0003	0	%100
78	140	Z	-0.0003	-0.0003	0	%100

Member Distributed Loads (BLC 7 : 90 Wind - Service)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.0005	-0.0005	0	%100
2	3	X	-0.002	-0.002	0	%100
3	5	X	-0.002	-0.002	0	%100
4	6	X	-0.002	-0.002	0	%100
5	7	X	-0.002	-0.002	0	%100
6	8	X	-0.001	-0.001	0	%100
7	9	X	-0.001	-0.001	0	%100
8	10	X	-0.002	-0.002	0	%100
9	11	X	-0.002	-0.002	0	%100
10	12	X	-0.0003	-0.0003	0	%100
11	13	X	-0.0009	-0.0009	0	%100
12	14	X	-0.0009	-0.0009	0	%100
13	15	X	-0.002	-0.002	0	%100
14	17	X	-0.002	-0.002	0	%100
15	21	X	-0.0004	-0.0004	0	%100
16	22	X	-0.0007	-0.0007	0	%100
17	23	X	-0.0003	-0.0003	0	%100
18	26	X	-0.0003	-0.0003	0	%100
19	29	X	-0.0003	-0.0003	0	%100
20	37	X	-0.002	-0.002	0	%100
21	39	X	-0.002	-0.002	0	%100
22	40	X	-0.002	-0.002	0	%100
23	41	X	-0.002	-0.002	0	%100
24	42	X	-0.001	-0.001	0	%100

Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
25	43	X	-0.001	-0.001	0	%100
26	44	X	-0.002	-0.002	0	%100
27	45	X	-0.002	-0.002	0	%100
28	46	X	-0.0009	-0.0009	0	%100
29	47	X	-0.0009	-0.0009	0	%100
30	48	X	-0.002	-0.002	0	%100
31	50	X	-0.002	-0.002	0	%100
32	52	X	-0.0007	-0.0007	0	%100
33	54	X	-0.002	-0.002	0	%100
34	56	X	-0.002	-0.002	0	%100
35	57	X	-0.002	-0.002	0	%100
36	58	X	-0.002	-0.002	0	%100
37	59	X	-0.001	-0.001	0	%100
38	60	X	-0.001	-0.001	0	%100
39	61	X	-0.002	-0.002	0	%100
40	62	X	-0.002	-0.002	0	%100
41	63	X	-0.0009	-0.0009	0	%100
42	64	X	-0.0009	-0.0009	0	%100
43	65	X	-0.002	-0.002	0	%100
44	67	X	-0.002	-0.002	0	%100
45	69	X	-0.0007	-0.0007	0	%100
46	70	X	-0.001	-0.001	0	%100
47	71	X	-0.0005	-0.0005	0	%100
48	72	X	-0.0003	-0.0003	0	%100
49	75	X	-0.0004	-0.0004	0	%100
50	76	X	-0.0004	-0.0004	0	%100
51	79	X	-0.0003	-0.0003	0	%100
52	82	X	-0.0003	-0.0003	0	%100
53	85	X	-0.0005	-0.0005	0	%100
54	86	X	-0.0003	-0.0003	0	%100
55	89	X	-0.0004	-0.0004	0	%100
56	90	X	-0.0004	-0.0004	0	%100
57	93	X	-0.0003	-0.0003	0	%100
58	96	X	-0.0003	-0.0003	0	%100
59	99	X	-0.0003	-0.0003	0	%100
60	100	X	-0.0003	-0.0003	0	%100
61	101	X	-0.0003	-0.0003	0	%100
62	106	X	-0.001	-0.001	0	%100
63	111	X	-0.001	-0.001	0	%100
64	118	X	-0.0003	-0.0003	0	%100
65	119	X	-0.0004	-0.0004	0	%100
66	124	X	-0.0003	-0.0003	0	%100
67	125	X	-0.0003	-0.0003	0	%100
68	128	X	-0.0003	-0.0003	0	%100
69	129	X	-0.0003	-0.0003	0	%100
70	132	X	-0.0003	-0.0003	0	%100
71	133	X	-0.0003	-0.0003	0	%100
72	134	X	-0.0003	-0.0003	0	%100
73	135	X	-0.0003	-0.0003	0	%100
74	136	X	-0.0003	-0.0003	0	%100
75	137	X	-0.0003	-0.0003	0	%100
76	138	X	-0.0003	-0.0003	0	%100
77	139	X	-0.0003	-0.0003	0	%100
78	140	X	-0.0003	-0.0003	0	%100

Member Distributed Loads (BLC 8 : Ice)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Y	-0.007	-0.007	0	%100
2	3	Y	-0.011	-0.011	0	%100
3	5	Y	-0.011	-0.011	0	%100
4	6	Y	-0.011	-0.011	0	%100
5	7	Y	-0.01	-0.01	0	%100
6	8	Y	-0.01	-0.01	0	%100
7	9	Y	-0.01	-0.01	0	%100
8	10	Y	-0.01	-0.01	0	%100
9	11	Y	-0.01	-0.01	0	%100
10	12	Y	-0.005	-0.005	0	%100
11	13	Y	-0.006	-0.006	0	%100
12	14	Y	-0.006	-0.006	0	%100
13	15	Y	-0.01	-0.01	0	%100
14	17	Y	-0.01	-0.01	0	%100
15	21	Y	-0.006	-0.006	0	%100
16	22	Y	-0.007	-0.007	0	%100
17	23	Y	-0.005	-0.005	0	%100
18	26	Y	-0.005	-0.005	0	%100
19	29	Y	-0.005	-0.005	0	%100
20	37	Y	-0.011	-0.011	0	%100
21	39	Y	-0.011	-0.011	0	%100
22	40	Y	-0.011	-0.011	0	%100
23	41	Y	-0.01	-0.01	0	%100
24	42	Y	-0.01	-0.01	0	%100
25	43	Y	-0.01	-0.01	0	%100
26	44	Y	-0.01	-0.01	0	%100
27	45	Y	-0.01	-0.01	0	%100
28	46	Y	-0.006	-0.006	0	%100
29	47	Y	-0.006	-0.006	0	%100
30	48	Y	-0.01	-0.01	0	%100
31	50	Y	-0.01	-0.01	0	%100
32	52	Y	-0.007	-0.007	0	%100
33	54	Y	-0.011	-0.011	0	%100
34	56	Y	-0.011	-0.011	0	%100
35	57	Y	-0.011	-0.011	0	%100
36	58	Y	-0.01	-0.01	0	%100
37	59	Y	-0.01	-0.01	0	%100
38	60	Y	-0.01	-0.01	0	%100
39	61	Y	-0.01	-0.01	0	%100
40	62	Y	-0.01	-0.01	0	%100
41	63	Y	-0.006	-0.006	0	%100
42	64	Y	-0.006	-0.006	0	%100
43	65	Y	-0.01	-0.01	0	%100
44	67	Y	-0.01	-0.01	0	%100
45	69	Y	-0.007	-0.007	0	%100
46	70	Y	-0.019	-0.019	0	%100
47	71	Y	-0.007	-0.007	0	%100
48	72	Y	-0.005	-0.005	0	%100
49	75	Y	-0.006	-0.006	0	%100
50	76	Y	-0.006	-0.006	0	%100
51	79	Y	-0.005	-0.005	0	%100
52	82	Y	-0.005	-0.005	0	%100
53	85	Y	-0.007	-0.007	0	%100
54	86	Y	-0.005	-0.005	0	%100
55	89	Y	-0.006	-0.006	0	%100

Member Distributed Loads (BLC 8 : Ice) (Continued)

	Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
56	90	Y		-0.006	-0.006	0	%100
57	93	Y		-0.005	-0.005	0	%100
58	96	Y		-0.005	-0.005	0	%100
59	99	Y		-0.005	-0.005	0	%100
60	100	Y		-0.005	-0.005	0	%100
61	101	Y		-0.005	-0.005	0	%100
62	106	Y		-0.019	-0.019	0	%100
63	111	Y		-0.019	-0.019	0	%100
64	118	Y		-0.005	-0.005	0	%100
65	119	Y		-0.006	-0.006	0	%100
66	124	Y		-0.005	-0.005	0	%100
67	125	Y		-0.005	-0.005	0	%100
68	128	Y		-0.005	-0.005	0	%100
69	129	Y		-0.005	-0.005	0	%100
70	132	Y		-0.005	-0.005	0	%100
71	133	Y		-0.005	-0.005	0	%100
72	134	Y		-0.005	-0.005	0	%100
73	135	Y		-0.005	-0.005	0	%100
74	136	Y		-0.005	-0.005	0	%100
75	137	Y		-0.005	-0.005	0	%100
76	138	Y		-0.005	-0.005	0	%100
77	139	Y		-0.005	-0.005	0	%100
78	140	Y		-0.005	-0.005	0	%100

Member Distributed Loads (BLC 9 : 0 Seismic)

	Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z		-0.002	-0.002	0	%100
2	3	Z		-0.003	-0.003	0	%100
3	5	Z		-0.003	-0.003	0	%100
4	6	Z		-0.003	-0.003	0	%100
5	7	Z		-0.003	-0.003	0	%100
6	8	Z		-0.003	-0.003	0	%100
7	9	Z		-0.003	-0.003	0	%100
8	10	Z		-0.002	-0.002	0	%100
9	11	Z		-0.002	-0.002	0	%100
10	12	Z		-0.001	-0.001	0	%100
11	13	Z		-0.0007	-0.0007	0	%100
12	14	Z		-0.0007	-0.0007	0	%100
13	15	Z		-0.002	-0.002	0	%100
14	17	Z		-0.002	-0.002	0	%100
15	21	Z		-0.002	-0.002	0	%100
16	22	Z		-0.001	-0.001	0	%100
17	23	Z		-0.001	-0.001	0	%100
18	26	Z		-0.001	-0.001	0	%100
19	29	Z		-0.001	-0.001	0	%100
20	37	Z		-0.003	-0.003	0	%100
21	39	Z		-0.003	-0.003	0	%100
22	40	Z		-0.003	-0.003	0	%100
23	41	Z		-0.003	-0.003	0	%100
24	42	Z		-0.003	-0.003	0	%100
25	43	Z		-0.003	-0.003	0	%100
26	44	Z		-0.002	-0.002	0	%100
27	45	Z		-0.002	-0.002	0	%100
28	46	Z		-0.0007	-0.0007	0	%100
29	47	Z		-0.0007	-0.0007	0	%100

Member Distributed Loads (BLC 9 : 0 Seismic) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
30	48	Z	-0.002	-0.002	0	%100
31	50	Z	-0.002	-0.002	0	%100
32	52	Z	-0.001	-0.001	0	%100
33	54	Z	-0.003	-0.003	0	%100
34	56	Z	-0.003	-0.003	0	%100
35	57	Z	-0.003	-0.003	0	%100
36	58	Z	-0.003	-0.003	0	%100
37	59	Z	-0.003	-0.003	0	%100
38	60	Z	-0.003	-0.003	0	%100
39	61	Z	-0.002	-0.002	0	%100
40	62	Z	-0.002	-0.002	0	%100
41	63	Z	-0.0007	-0.0007	0	%100
42	64	Z	-0.0007	-0.0007	0	%100
43	65	Z	-0.002	-0.002	0	%100
44	67	Z	-0.002	-0.002	0	%100
45	69	Z	-0.001	-0.001	0	%100
46	70	Z	-0.007	-0.007	0	%100
47	71	Z	-0.002	-0.002	0	%100
48	72	Z	-0.001	-0.001	0	%100
49	75	Z	-0.002	-0.002	0	%100
50	76	Z	-0.002	-0.002	0	%100
51	79	Z	-0.001	-0.001	0	%100
52	82	Z	-0.001	-0.001	0	%100
53	85	Z	-0.002	-0.002	0	%100
54	86	Z	-0.001	-0.001	0	%100
55	89	Z	-0.002	-0.002	0	%100
56	90	Z	-0.002	-0.002	0	%100
57	93	Z	-0.001	-0.001	0	%100
58	96	Z	-0.001	-0.001	0	%100
59	99	Z	-0.001	-0.001	0	%100
60	100	Z	-0.001	-0.001	0	%100
61	101	Z	-0.001	-0.001	0	%100
62	106	Z	-0.007	-0.007	0	%100
63	111	Z	-0.007	-0.007	0	%100
64	118	Z	-0.0008	-0.0008	0	%100
65	119	Z	-0.002	-0.002	0	%100
66	124	Z	-0.0008	-0.0008	0	%100
67	125	Z	-0.0008	-0.0008	0	%100
68	128	Z	-0.0008	-0.0008	0	%100
69	129	Z	-0.0008	-0.0008	0	%100
70	132	Z	-0.0008	-0.0008	0	%100
71	133	Z	-0.0008	-0.0008	0	%100
72	134	Z	-0.001	-0.001	0	%100
73	135	Z	-0.001	-0.001	0	%100
74	136	Z	-0.001	-0.001	0	%100
75	137	Z	-0.001	-0.001	0	%100
76	138	Z	-0.001	-0.001	0	%100
77	139	Z	-0.001	-0.001	0	%100
78	140	Z	-0.001	-0.001	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.002	-0.002	0	%100
2	3	X	-0.003	-0.003	0	%100
3	5	X	-0.003	-0.003	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
4	6	X	-0.003	-0.003	0	%100
5	7	X	-0.003	-0.003	0	%100
6	8	X	-0.003	-0.003	0	%100
7	9	X	-0.003	-0.003	0	%100
8	10	X	-0.002	-0.002	0	%100
9	11	X	-0.002	-0.002	0	%100
10	12	X	-0.001	-0.001	0	%100
11	13	X	-0.0007	-0.0007	0	%100
12	14	X	-0.0007	-0.0007	0	%100
13	15	X	-0.002	-0.002	0	%100
14	17	X	-0.002	-0.002	0	%100
15	21	X	-0.002	-0.002	0	%100
16	22	X	-0.001	-0.001	0	%100
17	23	X	-0.001	-0.001	0	%100
18	26	X	-0.001	-0.001	0	%100
19	29	X	-0.001	-0.001	0	%100
20	37	X	-0.003	-0.003	0	%100
21	39	X	-0.003	-0.003	0	%100
22	40	X	-0.003	-0.003	0	%100
23	41	X	-0.003	-0.003	0	%100
24	42	X	-0.003	-0.003	0	%100
25	43	X	-0.003	-0.003	0	%100
26	44	X	-0.002	-0.002	0	%100
27	45	X	-0.002	-0.002	0	%100
28	46	X	-0.0007	-0.0007	0	%100
29	47	X	-0.0007	-0.0007	0	%100
30	48	X	-0.002	-0.002	0	%100
31	50	X	-0.002	-0.002	0	%100
32	52	X	-0.001	-0.001	0	%100
33	54	X	-0.003	-0.003	0	%100
34	56	X	-0.003	-0.003	0	%100
35	57	X	-0.003	-0.003	0	%100
36	58	X	-0.003	-0.003	0	%100
37	59	X	-0.003	-0.003	0	%100
38	60	X	-0.003	-0.003	0	%100
39	61	X	-0.002	-0.002	0	%100
40	62	X	-0.002	-0.002	0	%100
41	63	X	-0.0007	-0.0007	0	%100
42	64	X	-0.0007	-0.0007	0	%100
43	65	X	-0.002	-0.002	0	%100
44	67	X	-0.002	-0.002	0	%100
45	69	X	-0.001	-0.001	0	%100
46	70	X	-0.007	-0.007	0	%100
47	71	X	-0.002	-0.002	0	%100
48	72	X	-0.001	-0.001	0	%100
49	75	X	-0.002	-0.002	0	%100
50	76	X	-0.002	-0.002	0	%100
51	79	X	-0.001	-0.001	0	%100
52	82	X	-0.001	-0.001	0	%100
53	85	X	-0.002	-0.002	0	%100
54	86	X	-0.001	-0.001	0	%100
55	89	X	-0.002	-0.002	0	%100
56	90	X	-0.002	-0.002	0	%100
57	93	X	-0.001	-0.001	0	%100
58	96	X	-0.001	-0.001	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
59	99	X	-0.001	-0.001	0	%100
60	100	X	-0.001	-0.001	0	%100
61	101	X	-0.001	-0.001	0	%100
62	106	X	-0.007	-0.007	0	%100
63	111	X	-0.007	-0.007	0	%100
64	118	X	-0.0008	-0.0008	0	%100
65	119	X	-0.002	-0.002	0	%100
66	124	X	-0.0008	-0.0008	0	%100
67	125	X	-0.0008	-0.0008	0	%100
68	128	X	-0.0008	-0.0008	0	%100
69	129	X	-0.0008	-0.0008	0	%100
70	132	X	-0.0008	-0.0008	0	%100
71	133	X	-0.0008	-0.0008	0	%100
72	134	X	-0.001	-0.001	0	%100
73	135	X	-0.001	-0.001	0	%100
74	136	X	-0.001	-0.001	0	%100
75	137	X	-0.001	-0.001	0	%100
76	138	X	-0.001	-0.001	0	%100
77	139	X	-0.001	-0.001	0	%100
78	140	X	-0.001	-0.001	0	%100

Member Distributed Loads (BLC 30 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	42	Y	-0.009	-0.009	1.573	2.541
2	43	Y	-0.009	-0.009	0	0.969
3	46	Y	-0.009	-0.001	0	4.234
4	47	Y	-0.001	-0.008	0	4.234
5	7	Y	-0.011	-0.011	2.424	4.115
6	8	Y	-0.009	-0.009	1.573	2.541
7	9	Y	-0.009	-0.009	0	0.969
8	13	Y	-0.009	-0.001	0	4.234
9	14	Y	-0.001	-0.008	0	4.234
10	58	Y	-0.011	-0.011	2.426	4.111
11	59	Y	-0.009	-0.009	1.573	2.541
12	60	Y	-0.009	-0.009	0	0.969
13	63	Y	-0.008	-0.001	0	4.234
14	64	Y	-0.001	-0.008	0	4.234
15	41	Y	-0.011	-0.011	2.424	4.115

Member Distributed Loads (BLC 31 : BLC 8 Transient Area Loads)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	7	Y	-0.006	-0.006	2.424	4.115
2	8	Y	-0.005	-0.005	1.573	2.541
3	9	Y	-0.005	-0.005	0	0.969
4	13	Y	-0.005	-0.000772	0	4.234
5	14	Y	-0.0008054	-0.005	0	4.234
6	58	Y	-0.006	-0.006	2.426	4.111
7	59	Y	-0.005	-0.005	1.573	2.541
8	60	Y	-0.005	-0.005	0	0.969
9	63	Y	-0.005	-0.0008054	0	4.234
10	64	Y	-0.0008054	-0.005	0	4.234
11	41	Y	-0.006	-0.006	2.424	4.115
12	42	Y	-0.005	-0.005	1.573	2.541

Member Distributed Loads (BLC 31 : BLC 8 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
13	43	Y	-0.005	-0.005	0	0.969
14	46	Y	-0.005	-0.0007721	0	4.234
15	47	Y	-0.0008054	-0.005	0	4.234

Member Area Loads (BLC 1 : Dead)

	Node A	Node B	Node C	Node D	Direction	Load Direction	A Magnitude [ksf]	B Magnitude [ksf]	C Magnitude [ksf]	Exclude Braces
1	11	22	21	11	Y	Two Way	-0.01	-0.01	-0.01	Yes
2	107	100	108	107	Y	Two Way	-0.01	-0.01	-0.01	Yes
3	81	80	73	81	Y	Two Way	-0.01	-0.01	-0.01	Yes

Member Area Loads (BLC 8 : Ice)

	Node A	Node B	Node C	Node D	Direction	Load Direction	A Magnitude [ksf]	B Magnitude [ksf]	C Magnitude [ksf]	Exclude Braces
1	11	22	21	11	Y	Two Way	-0.006	-0.006	-0.006	Yes
2	107	100	108	107	Y	Two Way	-0.006	-0.006	-0.006	Yes
3	81	80	73	81	Y	Two Way	-0.006	-0.006	-0.006	Yes

Node Loads and Enforced Displacements (BLC 11 : Live Load a)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s ² /ft, k*s ² *ft)]
1	31	L	Y	-0.25
2	126	L	Y	-0.25
3	158	L	Y	-0.25

Node Loads and Enforced Displacements (BLC 12 : Live Load b)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s ² /ft, k*s ² *ft)]
1	42	L	Y	-0.25
2	135	L	Y	-0.25
3	167	L	Y	-0.25

Node Loads and Enforced Displacements (BLC 13 : Live Load c)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s ² /ft, k*s ² *ft)]
1	49	L	Y	-0.25
2	142	L	Y	-0.25
3	174	L	Y	-0.25

Node Loads and Enforced Displacements (BLC 14 : Live Load d)

	Node Label	L, D, M	Direction	Magnitude [(k, k-ft), (in, rad), (k*s ² /ft, k*s ² *ft)]
1	57	L	Y	-0.25
2	150	L	Y	-0.25
3	182	L	Y	-0.25

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Area(Member)
1	Dead	DL	-1		90		3
2	0 Wind - No Ice	WLZ			90	78	
3	90 Wind - No Ice	WLX			90	78	
4	0 Wind - Ice	WLZ			90	78	

Basic Load Cases (Continued)

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Area(Member)
5	90 Wind - Ice	WLX			90	78	
6	0 Wind - Service	WLZ			90	78	
7	90 Wind - Service	WLX			90	78	
8	Ice	OL1			90	78	3
9	0 Seismic	ELZ			90	78	
10	90 Seismic	ELX			90	78	
11	Live Load a	LL		3			
12	Live Load b	LL		3			
13	Live Load c	LL		3			
14	Live Load d	LL		3			
15	Maint LL 1	LL			1		
16	Maint LL 2	LL			1		
17	Maint LL 3	LL			1		
18	Maint LL 4	LL			1		
19	Maint LL 5	LL			1		
20	Maint LL 6	LL			1		
21	Maint LL 7	LL			1		
22	Maint LL 8	LL			1		
23	Maint LL 9	LL			1		
24	Maint LL 10	LL			1		
25	Maint LL 11	LL			1		
26	Maint LL 12	LL			1		
27	Maint LL 13	LL			1		
28	Maint LL 14	LL			1		
29	Maint LL 15	LL			1		
30	BLC 1 Transient Area Loads	None				15	
31	BLC 8 Transient Area Loads	None				15	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4 Dead	Yes	Y	1	1.4						
2	1.2 D + 1.0 - 0 W	Yes	Y	1	1.2	2	1				
3	1.2 D + 1.0 - 30 W	Yes	Y	1	1.2	2	0.866	3	0.5		
4	1.2 D + 1.0 - 60 W	Yes	Y	1	1.2	3	0.866	2	0.5		
5	1.2 D + 1.0 - 90 W	Yes	Y	1	1.2	3	1				
6	1.2 D + 1.0 - 120 W	Yes	Y	1	1.2	3	0.866	2	-0.5		
7	1.2 D + 1.0 - 150 W	Yes	Y	1	1.2	2	-0.866	3	0.5		
8	1.2 D + 1.0 - 180 W	Yes	Y	1	1.2	2	-1				
9	1.2 D + 1.0 - 210 W	Yes	Y	1	1.2	2	-0.866	3	-0.5		
10	1.2 D + 1.0 - 240 W	Yes	Y	1	1.2	3	-0.866	2	-0.5		
11	1.2 D + 1.0 - 270 W	Yes	Y	1	1.2	3	-1				
12	1.2 D + 1.0 - 300 W	Yes	Y	1	1.2	3	-0.866	2	0.5		
13	1.2 D + 1.0 - 330 W	Yes	Y	1	1.2	2	0.866	3	-0.5		
14	1.2 D + 1.0 - 0 W/Ice	Yes	Y	1	1.2	4	1			8	1
15	1.2 D + 1.0 - 30 W/Ice	Yes	Y	1	1.2	4	0.866	5	0.5	8	1
16	1.2 D + 1.0 - 60 W/Ice	Yes	Y	1	1.2	5	0.866	4	0.5	8	1
17	1.2 D + 1.0 - 90 W/Ice	Yes	Y	1	1.2	5	1			8	1
18	1.2 D + 1.0 - 120 W/Ice	Yes	Y	1	1.2	5	0.866	4	-0.5	8	1
19	1.2 D + 1.0 - 150 W/Ice	Yes	Y	1	1.2	4	-0.866	5	0.5	8	1
20	1.2 D + 1.0 - 180 W/Ice	Yes	Y	1	1.2	4	-1			8	1
21	1.2 D + 1.0 - 210 W/Ice	Yes	Y	1	1.2	4	-0.866	5	-0.5	8	1
22	1.2 D + 1.0 - 240 W/Ice	Yes	Y	1	1.2	5	-0.866	4	-0.5	8	1
23	1.2 D + 1.0 - 270 W/Ice	Yes	Y	1	1.2	5	-1			8	1
24	1.2 D + 1.0 - 300 W/Ice	Yes	Y	1	1.2	5	-0.866	4	0.5	8	1
25	1.2 D + 1.0 - 330 W/Ice	Yes	Y	1	1.2	4	0.866	5	-0.5	8	1

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
26	1.2 D + 1.0 E - 0	Yes	Y	1	1.2	9	1				
27	1.2 D + 1.0 E - 30	Yes	Y	1	1.2	9	0.866	10	0.5		
28	1.2 D + 1.0 E - 60	Yes	Y	1	1.2	10	0.866	9	0.5		
29	1.2 D + 1.0 E - 90	Yes	Y	1	1.2	10	1				
30	1.2 D + 1.0 E - 120	Yes	Y	1	1.2	10	0.866	9	-0.5		
31	1.2 D + 1.0 E - 150	Yes	Y	1	1.2	9	-0.866	10	0.5		
32	1.2 D + 1.0 E - 180	Yes	Y	1	1.2	9	-1				
33	1.2 D + 1.0 E - 210	Yes	Y	1	1.2	9	-0.866	10	-0.5		
34	1.2 D + 1.0 E - 240	Yes	Y	1	1.2	10	-0.866	9	-0.5		
35	1.2 D + 1.0 E - 270	Yes	Y	1	1.2	10	-1				
36	1.2 D + 1.0 E - 300	Yes	Y	1	1.2	10	-0.866	9	0.5		
37	1.2 D + 1.0 E - 330	Yes	Y	1	1.2	9	0.866	10	-0.5		
38	1.2 D + 1.5 LL a + Service - 0 W	Yes	Y	1	1.2	6	1			11	1.5
39	1.2 D + 1.5 LL a + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	11	1.5
40	1.2 D + 1.5 LL a + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	11	1.5
41	1.2 D + 1.5 LL a + Service - 90 W	Yes	Y	1	1.2	7	1			11	1.5
42	1.2 D + 1.5 LL a + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	11	1.5
43	1.2 D + 1.5 LL a + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	11	1.5
44	1.2 D + 1.5 LL a + Service - 180 W	Yes	Y	1	1.2	6	-1			11	1.5
45	1.2 D + 1.5 LL a + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	11	1.5
46	1.2 D + 1.5 LL a + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	11	1.5
47	1.2 D + 1.5 LL a + Service - 270 W	Yes	Y	1	1.2	7	-1			11	1.5
48	1.2 D + 1.5 LL a + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	11	1.5
49	1.2 D + 1.5 LL a + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	11	1.5
50	1.2 D + 1.5 LL b + Service - 0 W	Yes	Y	1	1.2	6	1			12	1.5
51	1.2 D + 1.5 LL b + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	12	1.5
52	1.2 D + 1.5 LL b + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	12	1.5
53	1.2 D + 1.5 LL b + Service - 90 W	Yes	Y	1	1.2	7	1			12	1.5
54	1.2 D + 1.5 LL b + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	12	1.5
55	1.2 D + 1.5 LL b + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	12	1.5
56	1.2 D + 1.5 LL b + Service - 180 W	Yes	Y	1	1.2	6	-1			12	1.5
57	1.2 D + 1.5 LL b + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	12	1.5
58	1.2 D + 1.5 LL b + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	12	1.5
59	1.2 D + 1.5 LL b + Service - 270 W	Yes	Y	1	1.2	7	-1			12	1.5
60	1.2 D + 1.5 LL b + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	12	1.5
61	1.2 D + 1.5 LL b + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	12	1.5
62	1.2 D + 1.5 LL c + Service - 0 W	Yes	Y	1	1.2	6	1			13	1.5
63	1.2 D + 1.5 LL c + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	13	1.5
64	1.2 D + 1.5 LL c + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	13	1.5
65	1.2 D + 1.5 LL c + Service - 90 W	Yes	Y	1	1.2	7	1			13	1.5
66	1.2 D + 1.5 LL c + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	13	1.5
67	1.2 D + 1.5 LL c + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	13	1.5
68	1.2 D + 1.5 LL c + Service - 180 W	Yes	Y	1	1.2	6	-1			13	1.5
69	1.2 D + 1.5 LL c + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	13	1.5
70	1.2 D + 1.5 LL c + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	13	1.5
71	1.2 D + 1.5 LL c + Service - 270 W	Yes	Y	1	1.2	7	-1			13	1.5
72	1.2 D + 1.5 LL c + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	13	1.5
73	1.2 D + 1.5 LL c + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	13	1.5
74	1.2 D + 1.5 LL d + Service - 0 W	Yes	Y	1	1.2	6	1			14	1.5
75	1.2 D + 1.5 LL d + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	14	1.5
76	1.2 D + 1.5 LL d + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	14	1.5
77	1.2 D + 1.5 LL d + Service - 90 W	Yes	Y	1	1.2	7	1			14	1.5
78	1.2 D + 1.5 LL d + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	14	1.5
79	1.2 D + 1.5 LL d + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	14	1.5
80	1.2 D + 1.5 LL d + Service - 180 W	Yes	Y	1	1.2	6	-1			14	1.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
81	1.2 D + 1.5 LL d + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	14	1.5
82	1.2 D + 1.5 LL d + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	14	1.5
83	1.2 D + 1.5 LL d + Service - 270 W	Yes	Y	1	1.2	7	-1			14	1.5
84	1.2 D + 1.5 LL d + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	14	1.5
85	1.2 D + 1.5 LL d + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	14	1.5
86	1.2 D + 1.5 LL Maint (1)	Yes	Y	1	1.2					15	1.5
87	1.2 D + 1.5 LL Maint (2)	Yes	Y	1	1.2					16	1.5
88	1.2 D + 1.5 LL Maint (3)	Yes	Y	1	1.2					17	1.5
89	1.2 D + 1.5 LL Maint (4)	Yes	Y	1	1.2					18	1.5
90	1.2 D + 1.5 LL Maint (5)	Yes	Y	1	1.2					19	1.5
91	1.2 D + 1.5 LL Maint (6)	Yes	Y	1	1.2					20	1.5
92	1.2 D + 1.5 LL Maint (7)	Yes	Y	1	1.2					21	1.5
93	1.2 D + 1.5 LL Maint (8)	Yes	Y	1	1.2					22	1.5
94	1.2 D + 1.5 LL Maint (9)	Yes	Y	1	1.2					23	1.5
95	1.2 D + 1.5 LL Maint (10)	Yes	Y	1	1.2					24	1.5
96	1.2 D + 1.5 LL Maint (11)	Yes	Y	1	1.2					25	1.5
97	1.2 D + 1.5 LL Maint (12)	Yes	Y	1	1.2					26	1.5
98	1.2 D + 1.5 LL Maint (13)	Yes	Y	1	1.2					27	1.5
99	1.2 D + 1.5 LL Maint (14)	Yes	Y	1	1.2					28	1.5
100	1.2 D + 1.5 LL Maint (15)	Yes	Y	1	1.2					29	1.5

Envelope Node Reactions

Node Label			X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	12	max	1.219	5	3.218	17	4.634	2	5.946	21	1.04	11	0.573	11
2		min	-1.284	11	1.342	8	-4.626	8	2.024	8	-1.011	5	-0.418	5
3	74	max	3.477	6	3.733	23	2.668	13	-1.357	2	1.85	3	-2.113	12
4		min	-3.44	12	1.654	12	-2.707	7	-3.736	23	-1.874	9	-5.766	25
5	101	max	3.424	4	3.678	17	2.783	3	-1.29	3	1.911	7	5.839	16
6		min	-3.394	10	1.633	4	-2.752	9	-3.788	18	-1.954	13	2.098	4
7	Totals:	max	7.777	5	10.587	14	10.033	2						
8		min	-7.777	11	5.566	3	-10.033	8						

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

Member	Shape	Code	Check	Loc[ft]	LC	Shear	Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	58	HSS4X4X4	0.595	0	25	0.162	0	y	18	97.504	106.155	12.311	12.311	3	H1-1b	
2	41	HSS4X4X4	0.585	0	21	0.164	0	y	22	97.504	106.155	12.311	12.311	3	H1-1b	
3	7	HSS4X4X4	0.505	0	22	0.13	0	y	23	97.504	106.155	12.311	12.311	3	H1-1b	
4	86	PIPE 2.0	0.478	5.208	3	0.06	5.104	7	9.837	32.13	1.872	1.872	1	H1-1b		
5	72	PIPE 2.0	0.416	5.104	2	0.056	5.104	2	9.837	32.13	1.872	1.872	1	H1-1b		
6	23	PIPE 2.0	0.412	6.041	8	0.128	5.208	5	9.837	32.13	1.872	1.872	1	H1-1b		
7	12	PIPE 2.0	0.407	5.208	8	0.049	5.208	9	9.837	32.13	1.872	1.872	1	H1-1b		
8	79	PIPE 2.0	0.405	5.104	9	0.051	5.208	2	9.837	32.13	1.872	1.872	1	H1-1b		
9	93	PIPE 2.0	0.402	5.104	2	0.051	5.104	2	9.837	32.13	1.872	1.872	1	H1-1b		
10	96	PIPE 2.0	0.337	5.104	2	0.041	5.104	13	9.837	32.13	1.872	1.872	1	H1-1b		
11	42	HSS4X4X4	0.332	2.541	20	0.094	2.541	y	23	103.994	106.155	12.311	12.311	1.642	H1-1b	
12	60	HSS4X4X4	0.33	0	14	0.099	0	y	16	103.994	106.155	12.311	12.311	1.651	H1-1b	
13	82	PIPE 2.0	0.329	5.104	9	0.044	5.104	9	9.837	32.13	1.872	1.872	1	H1-1b		
14	46	L2X2X3	0.328	0	7	0.013	4.234	y	16	9.529	23.393	0.558	1.136	1.5	H2-1	
15	13	L2X2X3	0.325	0	3	0.01	0	y	22	9.529	23.393	0.558	1.136	1.5	H2-1	
16	64	L2X2X3	0.324	4.234	8	0.014	0	y	24	9.529	23.393	0.558	1.136	1.5	H2-1	
17	14	L2X2X3	0.324	4.234	13	0.013	0	y	16	9.529	23.393	0.558	1.136	1.5	H2-1	
18	26	PIPE 2.0	0.316	5.104	5	0.232	5.208	11	9.837	32.13	1.872	1.872	1	H1-1b		
19	43	HSS4X4X4	0.307	0	22	0.095	0	y	21	103.994	106.155	12.311	12.311	1.656	H1-1b	

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

Member	Shape	Code	Check	Loc[ft]	LC	Shear	Check	Loc[ft]	Dir	LC	phi*	Pnc [k]	phi*	Pnt [k]	phi*	Mn y-y [k-ft]	phi*	Mn z-z [k-ft]	Cb	Eqn
20	29	PIPE 2.0	0.297	5.104	6	0.037	5.104	5	9.837	32.13	1.872	1.872	1	H1-1b						
21	59	HSS4X4X4	0.292	2.541	18	0.078	2.541	y 20	103.994	106.155	12.311	12.311	1.64	H1-1b						
22	140	PIPE 2.0	0.291	0.719	8	0.146	0.719	11	41.885	42.228	2.46	2.46	1	H1-1b						
23	90	PIPE 2.5	0.28	5.104	7	0.042	5.104	8	22.375	50.715	3.596	3.596	1	H1-1b						
24	9	HSS4X4X4	0.278	0	25	0.089	0	y 17	103.994	106.155	12.311	12.311	1.663	H1-1b						
25	47	L2X2X3	0.276	4.234	5	0.013	0	y 20	9.529	23.393	0.558	1.136	1.5	H2-1						
26	63	L2X2X3	0.275	0	11	0.01	0	y 18	9.529	23.393	0.558	1.136	1.5	H2-1						
27	8	HSS4X4X4	0.259	2.541	22	0.081	0.424	z 3	103.994	106.155	12.311	12.311	1.638	H1-1b						
28	76	PIPE 2.5	0.254	5.104	3	0.038	5.104	3	22.375	50.715	3.596	3.596	1	H1-1b						
29	89	PIPE 2.5	0.2	7.161	20	0.077	10.807	96	14.559	50.715	3.596	3.596	1	H1-1b						
30	22	L2.5X2.5X4	0.193	0	96	0.041	0	y 5	36.654	38.556	1.114	2.537	1.336	H2-1						
31	6	PL1/2"X6	0.191	0.519	3	0.171	0.519	y 17	65.639	97.2	1.012	12.15	1.448	H1-1b						
32	1	PIPE 3.0	0.191	4.948	14	0.059	4.818	8	28.251	65.205	5.749	5.749	1	H1-1b						
33	85	PIPE 3.0	0.184	4.948	14	0.076	4.818	15	28.251	65.205	5.749	5.749	1	H1-1b						
34	75	PIPE 2.5	0.182	7.161	15	0.074	10.807	94	14.559	50.715	3.596	3.596	1	H1-1b						
35	52	L2.5X2.5X4	0.181	1.245	10	0.042	0	y 9	36.654	38.556	1.114	2.537	1.5	H2-1						
36	69	L2.5X2.5X4	0.181	0	94	0.039	1.245	y 7	36.654	38.556	1.114	2.537	1.476	H2-1						
37	118	PIPE 2.38X0.12	0.181	7.328	8	0.036	7.219	12	7.763	35.273	2.117	2.117	1	H1-1b						
38	138	PIPE 2.0	0.181	1.74	7	0.045	1.74	6	40.261	42.228	2.46	2.46	1	H1-1b						
39	40	PL1/2"X6	0.175	0.519	13	0.161	0.519	y 21	65.639	97.2	1.012	12.15	1.225	H1-1b						
40	57	PL1/2"X6	0.166	0.519	11	0.17	0.519	y 25	65.639	97.2	1.012	12.15	1.46	H1-1b						
41	137	PIPE 2.0	0.166	1.74	2	0.026	1.74	2	40.261	42.228	2.46	2.46	1	H1-1b						
42	71	PIPE 3.0	0.164	4.948	23	0.078	4.818	12	28.251	65.205	5.749	5.749	1	H1-1b						
43	39	PL1/2"X6	0.16	0.125	2	0.06	0.25	y 93	95.014	97.2	1.012	12.15	1.344	H1-1b						
44	133	PIPE 2.38X0.12	0.159	5.141	11	0.014	5.141	11	7.762	35.273	2.117	2.117	1	H1-1b						
45	129	PIPE 2.38X0.12	0.159	5.141	5	0.014	5.141	5	7.762	35.273	2.117	2.117	1	H1-1b						
46	125	PIPE 2.38X0.12	0.159	5.141	11	0.014	5.141	11	7.762	35.273	2.117	2.117	1	H1-1b						
47	128	PIPE 2.38X0.12	0.149	5.141	6	0.01	5.141	6	7.762	35.273	2.117	2.117	1	H1-1b						
48	5	PL1/2"X6	0.148	0.125	3	0.071	0.25	y 97	95.014	97.2	1.012	12.15	1.686	H1-1b						
49	65	PL3/8"X6	0.148	0.125	13	0.527	0	y 14	70.011	72.9	0.57	9.113	1.734	H1-1b						
50	139	PIPE 2.0	0.146	0.719	2	0.063	0.719	2	41.885	42.228	2.46	2.46	1	H1-1b						
51	50	PL3/8"X6	0.143	0.125	9	0.525	0	y 14	70.011	72.9	0.57	9.113	1.961	H1-1b						
52	21	PIPE 2.5	0.138	7.161	24	0.07	10.807	92	14.559	50.715	3.596	3.596	1	H1-1b						
53	44	PL3/8"X6	0.137	0.169	10	0.404	0.169	y 17	67.903	72.9	0.57	9.113	2.68	H1-1b						
54	62	PL3/8"X6	0.133	0.169	7	0.328	0.169	y 24	67.903	72.9	0.57	9.113	2.615	H1-1b						
55	56	PL1/2"X6	0.132	0.125	12	0.076	0.25	y 95	95.014	97.2	1.012	12.15	1.808	H1-1b						
56	11	PL3/8"X6	0.127	0.331	13	0.198	0.169	y 17	67.903	72.9	0.57	9.113	2.567	H1-1b						
57	132	PIPE 2.38X0.12	0.127	5.141	10	0.008	5.141	10	7.762	35.273	2.117	2.117	1	H1-1b						
58	124	PIPE 2.38X0.12	0.127	5.141	2	0.008	5.141	2	7.762	35.273	2.117	2.117	1	H1-1b						
59	15	PL3/8"X6	0.123	0	13	0.449	0	y 16	70.011	72.9	0.57	9.113	2.373	H1-1b						
60	70	C12X25	0.119	6.947	18	0.041	6.947	z 14	50.999	237.816	8.091	79.38	1.662	H1-1b						
61	10	PL3/8"X6	0.119	0.169	2	0.399	0.169	y 20	67.903	72.9	0.57	9.113	2.594	H1-1b						
62	3	PL1/2"X6	0.117	0.125	7	0.042	0.25	y 89	95.014	97.2	1.012	12.15	1.358	H1-1b						
63	17	PL3/8"X6	0.112	0	9	0.398	0	y 24	70.011	72.9	0.57	9.113	1.396	H1-1b						
64	54	PL1/2"X6	0.111	0.125	2	0.039	0.25	y 87	95.014	97.2	1.012	12.15	1.356	H1-1b						
65	61	PL3/8"X6	0.106	0.169	9	0.418	0.169	y 16	67.903	72.9	0.57	9.113	2.582	H1-1b						
66	37	PL1/2"X6	0.099	0.125	5	0.046	0.25	y 91	95.014	97.2	1.012	12.15	1.47	H1-1b						
67	45	PL3/8"X6	0.095	0.331	5	0.264	0.169	y 21	67.903	72.9	0.57	9.113	2.591	H1-1b						
68	111	C12X25	0.094	3.047	23	0.064	3.047	z 21	50.999	237.816	8.091	79.38	1.618	H1-1b						
69	119	PIPE 2.5	0.092	7.187	11	0.018	7.187	13	22.375	50.715	3.596	3.596	1	H1-1b						
70	106	C12X25	0.09	3.047	19	0.063	3.047	z 16	50.999	237.816	8.091	79.38	1.569	H1-1b						
71	48	PL3/8"X6	0.09	0	5	0.498	0	y 21	70.011	72.9	0.57	9.113	2.858	H1-1b						
72	67	PL3/8"X6	0.081	0	10	0.457	0	y 18	70.011	72.9	0.57	9.113	3	H1-1b						
73	100	PIPE 2.0	0.016	2.16	8	0.04	4.321	5	25.686	32.13	1.872	1.872	1	H1-1b						
74	101	PIPE 2.0	0.015	2.16	10	0.037	4.321	13	25.686	32.13	1.872	1.872	1	H1-1b						



Company : MTS Engineering, P.L.L.C.
 Designer : MS
 Job Number : 173127.001.01.0002
 Model Name : 10035021 - Pomfret-Tyrone Rd

11/20/2024
 7:40:09 PM
 Checked By : _____

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

Member		Shape	Code	Check	Loc[ft]	LC	Shear	Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
75	99	PIPE 2.0	0.015	2.16	6		0.042	4.321	9			25.686	32.13	1.872	1.872	1	H1-1b
76	135	PIPE 2.0	0.006	0	6		0.112	2.09	12			30.491	32.13	1.872	1.872	1	H1-1b*
77	134	PIPE 2.0	0.005	0	23		0.102	2.088	3			30.494	32.13	1.872	1.872	1	H1-1b*
78	136	PIPE 2.0	0.005	0	9		0.125	2.133	5			30.425	32.13	1.872	1.872	1	H1-1b*

APPENDIX B

(Additional Calculations)

PROJECT	173127.001.01.0002 - Pomfret-Tyrone KSC		
SUBJECT	Platform Mount Analysis		
DATE	11/20/24		

Tower Type	:	Monopole		
Ground Elevation	z_s	: 683	ft	[ASCE7 Hazard Tool]
Tower Height	:	158.58	ft	
Mount Elevation	:	150.00	ft	
Antenna Elevation	:	151.50	ft	
Crest Height	:	0	ft	
Risk Category	:	II		[Table 2-1]
Exposure Category	:	C		[Sec. 2.6.5.1.2]
Topography Category	:	1.00		[Sec. 2.6.6.2]
Wind Velocity	V	: 120	mph	[ASCE7 Hazard Tool]
Ice wind Velocity	V_i	: 50	mph	[ASCE7 Hazard Tool]
Service Velocity	V_s	: 30	mph	[ASCE7 Hazard Tool]
Base Ice thickness	t_i	: 1.00	in	[ASCE7 Hazard Tool]
Seismic Design Cat.	:	B		[ASCE7 Hazard Tool]
	S_S	: 0.18		
	S_1	: 0.06		
	S_{DS}	: 0.20		
	S_{D1}	: 0.09		
Gust Factor	G_h	: 1.00		[Sec. 16.6]
Pressure Coefficient	K_z	: 1.38		[Sec. 2.6.5.2]
Topography Factor	K_{zt}	: 1.00		[Sec. 2.6.6]
Elevation Factor	K_e	: 0.98		[Sec. 2.6.8]
Directionality Factor	K_d	: 0.95		[Sec. 16.6]
Shielding Factor	K_a	: 0.90		[Sec. 16.6]
Design Ice Thickness	t_{iz}	: 1.16	in	[Sec. 2.6.10]
Importance Factor	I_e	: 1		[Table 2-3]
Response Coefficient	C_s	: 0.098		[Sec. 2.7.7.1]
Amplification	A_s	: 2.7835		[Sec. 16.7]
	q_z	: 47.09	psf	

PROJECT	173127.001.01.0002 - Pomfret-Tyrone KSC		
SUBJECT	Platform Mount Analysis		
DATE	11/20/24		

Bolded Equipment EPA has been adjusted per wind tunnel & CFD testing



B+T Group
 1717 S. Boulder, Suite 300
 Tulsa, OK 74119
 (918) 587-4630



Manufacturer	Model	Qty	Height (in ²)	Width (in ²)	Depth (in ²)	Weight (lbs)	C _a A _a (N) (ft ²)	C _a A _a (T) (ft ²)	C _a A _a (N) Ice (ft ²)	C _a A _a (T) Ice (ft ²)	F _A (N) (k)	F _A (T) (k)	F _A (N) Ice (k)	F _A (T) Ice (k)
ERICSSON	RRUS-32 B30	1	29.9	13.3	9.5	77.0	3.31	2.42	4.20	3.25	0.14	0.10	0.02	0.02
COMMSCOPE	NNH4-65B-R6	0.5	72.0	19.6	7.8	96.6	3.50	1.20	7.09	3.85	0.21	0.07	0.04	0.01
COMMSCOPE	NNH4-65B-R6	0.5					3.50	1.20	7.09	3.85	0.21	0.07	0.04	0.01
ERICSSON	AIR 6472 B77G B77M	0.5	36.4	16.1	7.5	92.6	2.47	0.83	2.98	1.72	0.14	0.05	0.02	0.01
ERICSSON	AIR 6472 B77G B77M	0.5					2.47	0.83	2.98	1.72	0.14	0.05	0.02	0.01
CCI ANTENNAS	DMP65R-BU6D	0.5	71.2	20.7	7.7	89.3	6.35	2.81	7.30	3.78	0.27	0.10	0.05	0.02
CCI ANTENNAS	DMP65R-BU6D	0.5					6.35	2.81	7.30	3.78	0.27	0.10	0.05	0.02
ERICSSON	8843 B2/B66A	1	15.0	11.1	13.2	75.0	1.38	1.64	1.93	2.24	0.06	0.07	0.01	0.01
ERICSSON	4449 B5/B12	1	15.0	10.4	13.2	73.0	1.30	1.64	1.84	2.24	0.06	0.07	0.01	0.01
ERICSSON	4494 B14/B29	1	17.5	5.6	15.1	57.3	0.84	2.20	1.34	2.88	0.04	0.10	0.01	0.02
RAYCAP	DC6-48-60-0-8C-EV	1	31.4	10.2	10.2	26.2	1.14	1.14	1.51	1.51	0.05	0.05	0.01	0.01
ERICSSON	RRUS-32 B30	1	29.9	13.3	9.5	77.0	3.31	2.42	4.20	3.25	0.14	0.10	0.02	0.02
COMMSCOPE	NNH4-65B-R6	0.5	72.0	19.6	7.8	96.6	3.50	1.20	7.09	3.85	0.21	0.07	0.04	0.01
COMMSCOPE	NNH4-65B-R6	0.5					3.50	1.20	7.09	3.85	0.21	0.07	0.04	0.01

PROJECT	173127.001.01.0002 - Pomfret-Tyrone KSC		
SUBJECT	Platform Mount Analysis		
DATE	11/20/24		

Bolded Equipment EPA has been adjusted per wind tunnel & CFD testing



B+T Group
 1717 S. Boulder, Suite 300
 Tulsa, OK 74119
 (918) 587-4630



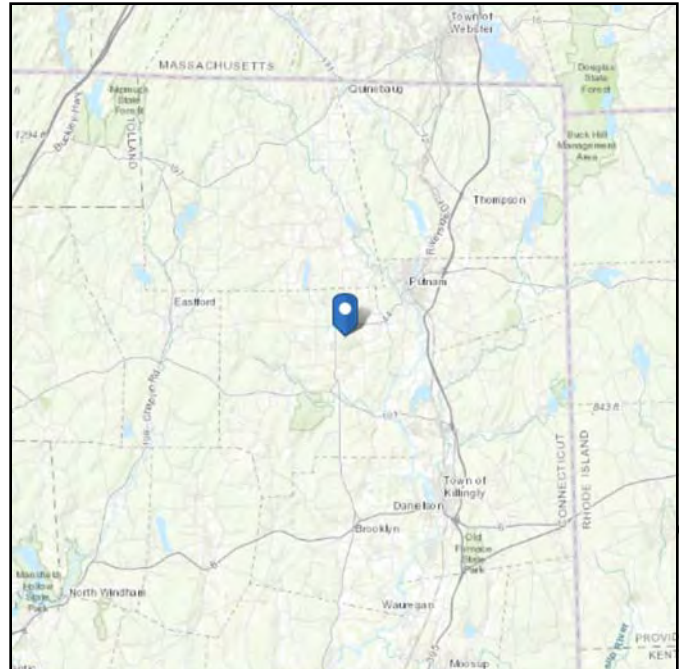
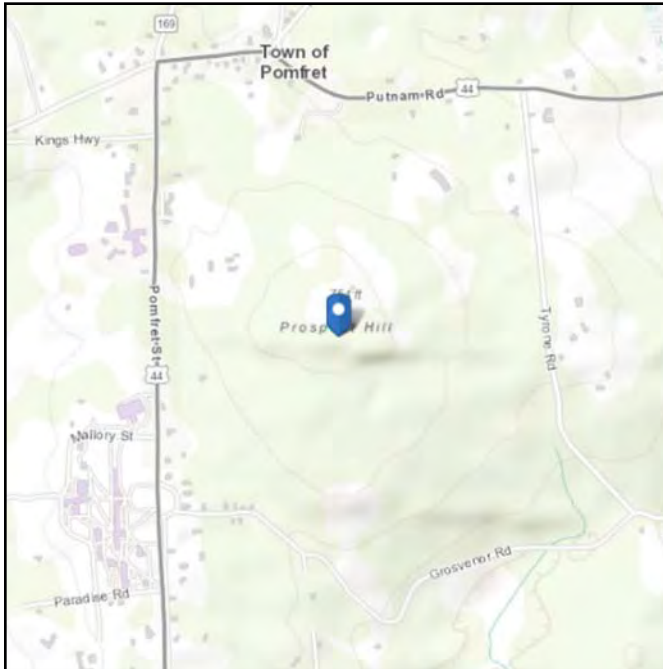
Manufacturer	Model	Qty	Height (in ²)	Width (in ²)	Depth (in ²)	Weight (lbs)	C _a A _a (N) (ft ²)	C _a A _a (T) (ft ²)	C _a A _a (N) Ice (ft ²)	C _a A _a (T) Ice (ft ²)	F _A (N) (k)	F _A (T) (k)	F _A (N) Ice (k)	F _A (T) Ice (k)
ERICSSON	AIR 6472 B77G B77M	0.5	36.4	16.1	7.5	92.6	2.47	0.83	2.98	1.72	0.14	0.05	0.02	0.01
ERICSSON	AIR 6472 B77G B77M	0.5					2.47	0.83	2.98	1.72	0.14	0.05	0.02	0.01
CCI ANTENNAS	DMP65R-BU6D	0.5	71.2	20.7	7.7	89.3	6.35	2.81	7.30	3.78	0.27	0.10	0.05	0.02
CCI ANTENNAS	DMP65R-BU6D	0.5					6.35	2.81	7.30	3.78	0.27	0.10	0.05	0.02
ERICSSON	8843 B2/B66A	1	15.0	11.1	13.2	75.0	1.38	1.64	1.93	2.24	0.06	0.07	0.01	0.01
ERICSSON	4449 B5/B12	1	15.0	10.4	13.2	73.0	1.30	1.64	1.84	2.24	0.06	0.07	0.01	0.01
ERICSSON	4494 B14/B29	1	17.5	5.6	15.1	57.3	0.84	2.20	1.34	2.88	0.04	0.10	0.01	0.02
RAYCAP	DC6-48-60-18-8F	1	22.3	11.0	11.0	18.9	0.85	0.85	1.14	1.14	0.04	0.04	0.01	0.01
ERICSSON	RRUS-32 B30	1	29.9	13.3	9.5	77.0	3.31	2.42	4.20	3.25	0.14	0.10	0.02	0.02
COMMSCOPE	NNH4-65B-R6	0.5		19.6	7.8	96.6	3.50	1.20	7.09	3.85	0.21	0.07	0.04	0.01
COMMSCOPE	NNH4-65B-R6	0.5					3.50	1.20	7.09	3.85	0.21	0.07	0.04	0.01
ERICSSON	AIR 6472 B77G B77M	0.5	36.4	16.1	7.5	92.6	2.47	0.83	2.98	1.72	0.14	0.05	0.02	0.01
ERICSSON	AIR 6472 B77G B77M	0.5					2.47	0.83	2.98	1.72	0.14	0.05	0.02	0.01
CCI ANTENNAS	DMP65R-BU6D	0.5	71.2	20.7	7.7	89.3	6.35	2.81	7.30	3.78	0.27	0.10	0.05	0.02
CCI ANTENNAS	DMP65R-BU6D	0.5					6.35	2.81	7.30	3.78	0.27	0.10	0.05	0.02
ERICSSON	8843 B2/B66A	1	15.0	11.1	13.2	75.0	1.38	1.64	1.93	2.24	0.06	0.07	0.01	0.01
ERICSSON	4449 B5/B12	1	15.0	10.4	13.2	73.0	1.30	1.64	1.84	2.24	0.06	0.07	0.01	0.01

ASCE Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see
Section 11.4.3)

Latitude: 41.890242
Longitude: -71.955611
Elevation: 682.6243781727196 ft
(NAVD 88)



Wind

Results:

Wind Speed	120 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	93 Vmph
100-year MRI	99 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Tue Nov 19 2024

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

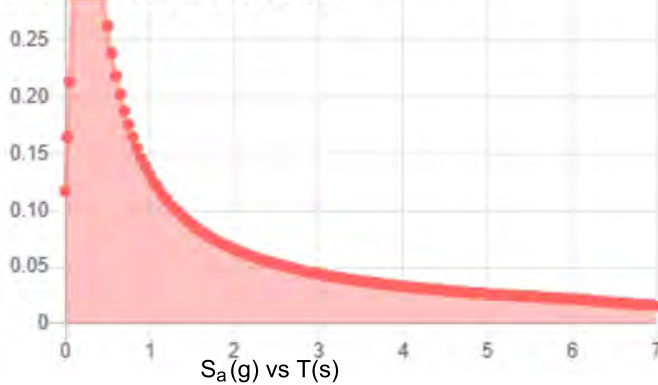
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Default (see Section 11.4.3)

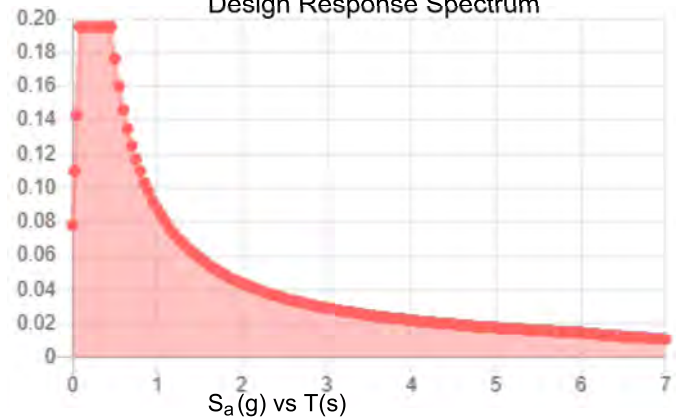
Results:

S_S :	0.182	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.098
F_v :	2.4	PGA _M :	0.157
S_{MS} :	0.292	F_{PGA} :	1.6
S_{M1} :	0.132	I_e :	1
S_{DS} :	0.195	C_v :	0.7

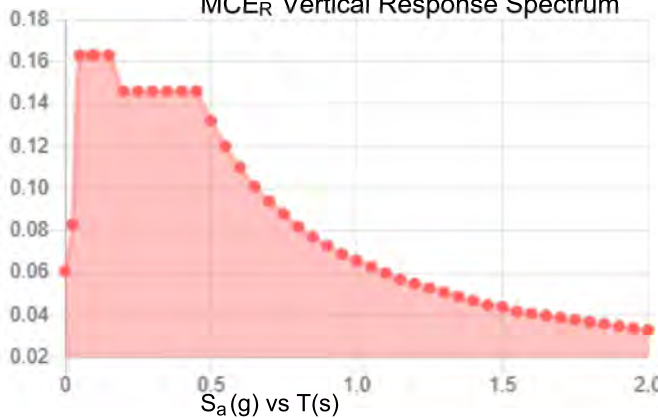
Seismic Design Category: B MCE_R Response Spectrum



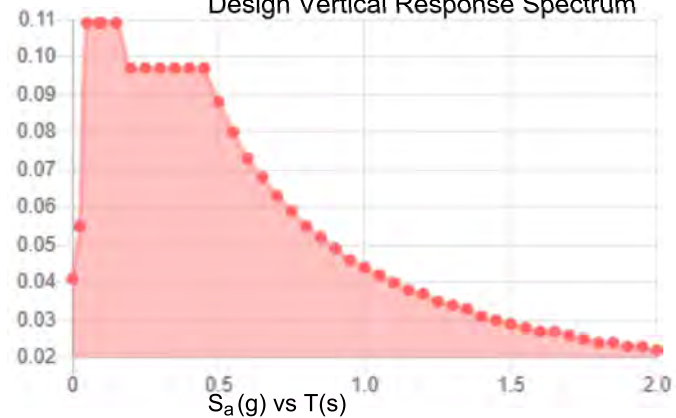
Design Response Spectrum



MCE_R Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed: Tue Nov 19 2024

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 1.00 in.
Concurrent Temperature: 15 F
Gust Speed 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Tue Nov 19 2024

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

The ASCE Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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State Use 4300
Print Date 1/6/2025 5:58:21 PM

LAND LINE VALUATION SECTION																	
B	Use Code	Description	Zone	Land Units	Unit Price	Size Adj	Site Index	Cond.	Nbhd.	Nbhd. Adj	Notes	Location Adjustmen		Adj Unit	490 USE VALUE	Land Value	
1	4300	TEL TWR MDL-0		1	UT	210,000.00	1.00000	0	1.00		1.000	LAND LEASE VALUE		1.0000	210,000	0	210,000
Total Card Land Units				0.00	UT							Total Land Value					210,000

No Sketch



neccog

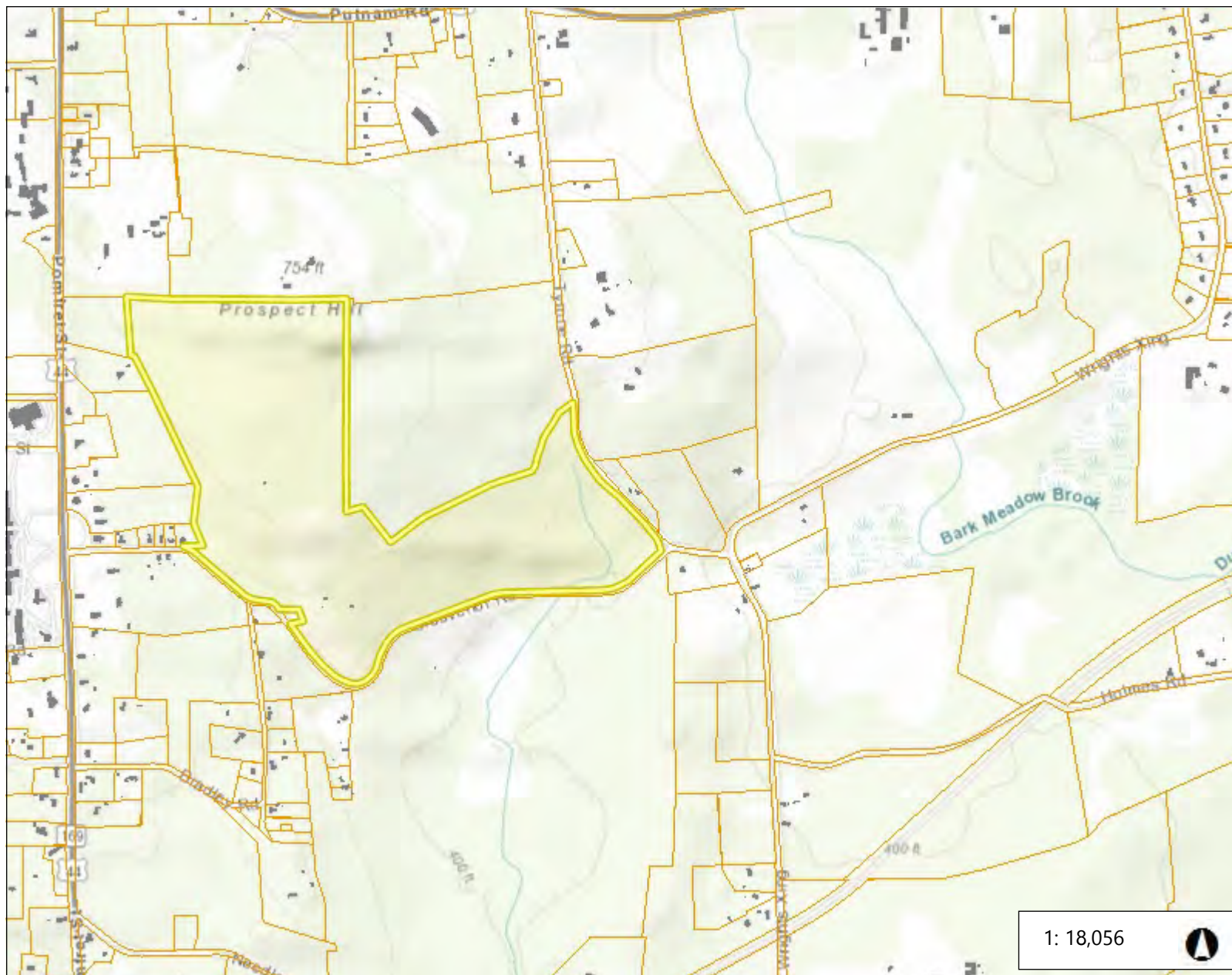
84 Tyrone Rd, Pomfret



Legend

Eastford Address Points

- Town
- Buildings 2012
- Parcels



0.6 0 0.28 0.6 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere
© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Notes

Enter Map Description

DOCKET NO. 142 - An application of Springwch Limited Partnership for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telephone tower and associated equipment in the Town of Pomfret, Connecticut.

Connecticut

Siting

Council

June 20, 1991

DECISION AND ORDER

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a cellular telecommunications tower and equipment building at the proposed Pomfret, Connecticut, alternate site including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need as provided by section 16-50k of the Connecticut General Statutes (CGS), be issued to the Springwch Cellular Limited Partnership (Springwch), for the construction, operation, and maintenance of a cellular telecommunications tower, associated equipment, and building at the proposed alternate site in Pomfret, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The facility shall be constructed in accordance with the State of Connecticut Basic Building Code.
2. The self-supporting monopole tower shall be no taller than necessary to provide the proposed communications service and in no event shall the tower exceed a total height of 167 feet above ground level, with antennas and appurtenances.
3. The Certificate holder shall prepare a D&M plan for this site in compliance with sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies. The D&M plan shall include detailed plans of the tower, tower foundation, tower pedestal,

equipment building, access road, and security fence. In addition, the D&M plan shall include detailed plans for clearing with techniques to minimize vegetation clearing; a site plan reorienting the facility, utilities, and access easements to avoid inland wetlands; and detailed plans for erosion and sedimentation control.

4. The Certificate Holder shall comply with any existing and future radio frequency (RF) standard promulgated by State or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facility granted herein shall be brought into compliance with such standards.
5. The Certificate Holder shall provide the Council a recalculated report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power density above the levels originally calculated and provided in the application.
6. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
7. If the facility does not initially provide, or permanently ceases to provide cellular service following completion of construction, this Decision and Order shall be void, and the tower and all associated equipment shall be dismantled and removed or reapplication for any new use shall be made to the Council before any such new use is made.
8. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the effective date of this Decision and Order or within three years after all appeals to this Decision and Order have been resolved.

Pursuant to CGS section 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Norwich Bulletin.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with section 16-50j-17 of the Regulations of State Agencies.

The party to this proceeding is:

PARTY

The Springwich Cellular
Limited Partnership
555 Long Wharf Drive
New Haven, CT 06506

ITS REPRESENTATIVE

Peter J. Tyrrell
Senior Attorney
SNET Cellular, Inc.
227 Church Street,
Room 1021
New Haven, CT 06506
(203) 771-7381

SMH:bw

0045A

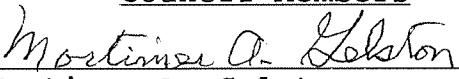
CERTIFICATION

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case in DOCKET NO. 142 - An application of Springwich Limited Partnership for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telephone tower and associated equipment in the Town of Pomfret, Connecticut, or read the record thereof, and that we voted as follows:

Dated at New Britain, Connecticut the 20th day of June 1991.

Council Members

Vote Cast


Mortimer A. Gelston
Chairman

Yes


Commissioner Peter Boucher
Designee: Mark Marcus

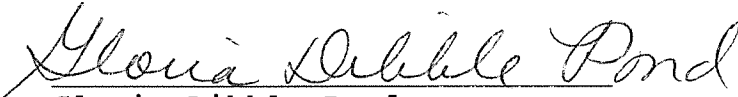
Yes


Commissioner Timothy R.E. Keeney
Designee: Brian Emerick

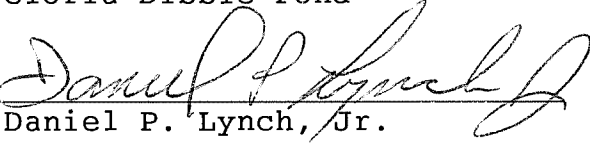
Yes


Harry E. Covey

Yes


Gloria Dibble Pond

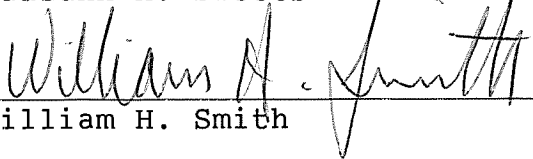
Yes


Daniel P. Lynch, Jr.

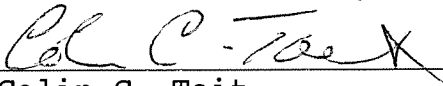
Yes -

Paulann H. Sheets

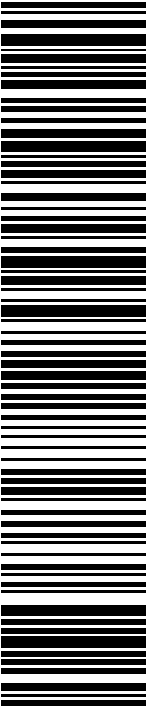
Absent


William H. Smith

Yes

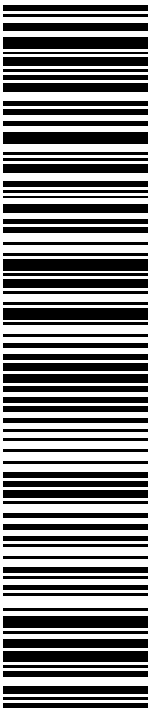

Colin C. Tait

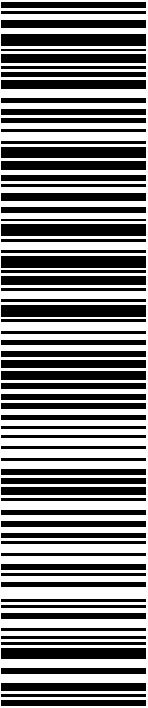
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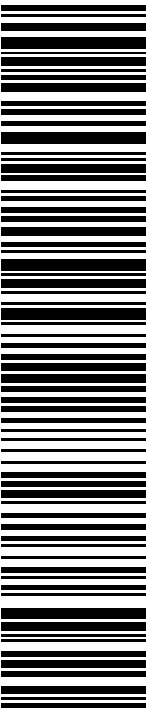


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