Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

October 11, 2021

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

RE: **Notice of Exempt Modification for T-Mobile: CTHA653A**
Crown Site ID: 876372
71 Ashford Road, Eastford, CT 06272
Latitude: 41° 54" 16.22" / Longitude: -72° 7' 25.92"

Dear Ms. Bachman:

T-Mobile currently maintains twelve (12) antennas at the 177-foot mount on the existing 177-foot monopole tower located at 71 Ashford Road, Eastford, CT. The property is owned by Connecticut Forest & Park Association and the tower is owned by Crown Castle. T-Mobile now intends to replace six (6) antennas, remove six (6) antennas and ancillary equipment at the 177ft level. This modification/proposal includes hardware that is both 4G (LTE) and 5G capable through remote software configuration and either or both services may be turned on or off at various times.

Panned Modification:
Tower:

Installed New:
(3) RFS – APX16VAALL24_43-U-NA20 Antenna
(3) Ericsson- AIR6449 B41 Antenna
(3) Ericsson Radio 4460 B2/B25 Radios
(3) Ericsson – Radio 4480
(3) Hybrid Cables 6X24
Mount Modification Per Infinigy Engineering

Remove:
(3) RFS/Celwave – APXVTM24-ALU-120 Antennas
(3) Commscope – NNVV-65B-R4 Antennas
(6) E Sprint Antenna
(3) Alcatel lucent – 1900MHZ 4x45W-65MHZ
(6) Alcatel Lucent – RRH2x50-800
(3) Alcatel Lucent – TD-RRH8x20-25
(2) E Sprint Radio

Ground:

Install New:
(1) 6160 Site Support Cabinet
(1) B160 Battery Cabinet

(1) RBS 6601 IN SSC
(1) DUG20 IN SSC
(1.) CSR IXRE V2 Transport System
(1) PSU4813 Voltage Booster
(3) BB6648 IN 6160 SSC Cabinet

Remove:

(2) E Sprint Cabinets
(4) Hybrid Trunks

The facility was originally approved by the Town of Eastford Building Official by way of Building Permit 00-13 on August 29h 2000. No conditions were included with the approval.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to The First Selectwoman, Ms. Jacqueline Dubois, for the Town of Eastford, Mr. Joe Pajak, Building Officer for the Town of Eastford and Connecticut Forest & Park Association as property owner. Crown Castle is the is the tower owner.

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

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

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

4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

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

For the foregoing reasons, T-Mobile respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Jeffrey Barbadora.

Sincerely,

Jeffrey Barbadora
Site Acquisition Specialist
1800 W. Park Drive
Westborough, MA 01581
(781) 970-0053
Jeff.Barbadora@crowncastle.com

Attachments
cc:

Jacqueline Dubois, First Selectwoman
Town of Eastford
16 Westford Road
Eastford, CT 06242
(860) 974-0133 x3

Joe Pajak, Building Official
Town of Eastford
16 Westford Road
Eastford, CT 06242
860-974-0624

Connecticut Forest & Park Association
16 Meriden Road
Rockfall, CT 06481

Crown Castle Tower Owner

Building Permit

TOWN OF EASTFORD

No. 00-13

Sprint PCS/Sterling
NAME

100 Ashford Rd
STREET

Eastford Ct

Inspections Required (When checked)

- ☐ Footings or piers
- ☐ Foundation walls prior to backfill
- ☐ Rough framing
- ☐ Rough electrical
- ☐ Rough plumbing
- ☐ Rough heating
- ☐ Insulation
- ☐ Chimneys and fireplaces
- ☐ Final inspection for certificate or occupancy

This Permit Must Be Attached to or in Front of Building
To Be Removed Only By Building Inspector

Date 8-29-00

Building Inspector Alvin L Kelly

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2016.

TOWN OF EASTFORD

Connecticut

Information on the Property Records for the Municipality of Eastford was last updated on 10/9/2021.

Parcel Information

Location:	71 ASHFORD RD	Property Use:	Vacant Land	Primary Use:	State Vacant
Unique ID:	00056820	Map Block Lot:	70 6 6 2	Acres:	13.07
490 Acres:	0.00	Zone:		Volume / Page:	0055/0766
Developers Map / Lot:		Census:	9022		

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Value Information

	Appraised Value	Assessed Value
Land	64,800	45,400
Buildings	0	0
Detached Outbuildings	0	0
Total	64,800	45,400

Owner's Information

Owner's Data

CONNECTICUT FOREST & PARK ASSOC
16 MERIDEN RD
ROCKFALL, CT 06481

Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Sale Price
CONNECTICUT FOREST & PARK ASSOC	0055	0766	08/29/2006	Warranty Deed	$45,000
STERLING GROUP 1, LLC	0041	0255	01/29/2000		$35,000
FULLANA JAMES A + SUSAN	0036	0651	01/16/1996	Warranty Deed	$35,000
GREEN HERBERT EST	0031	0852	04/23/1991		$0

Building Permits

Permit Number	Permit Type	Date Opened	Reason
00-013	Miscellaneous	11/20/2000	CELL TOWER

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00-013	Miscellaneous	11/20/2000	CELL TOWER

Barbadora, Jeff

From: TrackingUpdates@fedex.com
Sent: Tuesday, October 19, 2021 3:18 PM
To: Barbadora, Jeff
Subject: FedEx Shipment 284888058059: Your package has been delivered

Hi. Your package was delivered Tue, 10/19/2021 at 3:15pm.

Delivered to 16 WESTFORD RD, EASTFORD, CT 06242
Received by M.VINCENT

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER 284888058059

FROM	Jeff Barbadora 1800 W. Park Drive WESTBOROUGH, MA, US, 01581
TO	Town of Eastford First Selectwoman Jacqueline Dubois 16 Westford Rd EASTFORD, CT, US, 06242
REFERENCE	799001.7680
SHIPPER REFERENCE	799001.7680
SHIP DATE	Thu 10/14/2021 06:41 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Envelope
ORIGIN	WESTBOROUGH, MA, US, 01581
DESTINATION	EASTFORD, CT, US, 06242
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

Barbadora, Jeff

From: TrackingUpdates@fedex.com
Sent: Tuesday, October 19, 2021 3:18 PM
To: Barbadora, Jeff
Subject: FedEx Shipment 284888163613: Your package has been delivered

Hi. Your package was delivered Tue, 10/19/2021 at 3:15pm.

Delivered to 16 WESTFORD RD, EASTFORD, CT 06242
Received by M.VINCENT

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER 284888163613

FROM	Jeff Barbadora 1800 W. Park Drive WESTBOROUGH, MA, US, 01581
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NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

Date: **September 8, 2021**

Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
(919) 661-6351

Subject: Structural Analysis Report

Carrier Designation:		
	Site Number:	CTHA653A
	Site Name:	CT33XC074
Crown Castle Designation:	**BU Number:**	876372
	Site Name:	Smith Hills / Sterling GRP. (S
	JDE Job Number:	684637
	Work Order Number:	2018523
	Order Number:	584574 Rev. 0
Engineering Firm Designation:	**TEP Project Number:**	218032.597735
Site Data:	**71 Ashford Rd., Eastford, Windham County, CT 06272** **Latitude *41° 54' 16.22"*, Longitude *-72° 7' 25.92"*** **177 Foot - Monopole Tower**	

Tower Engineering Professionals 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 - 55.5%**

This analysis utilizes an ultimate 3-second gust wind speed of 119 mph as required by the 2015 International Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Gautam Sopal, E.I. / CLT

Respectfully submitted by:

Shawn Hoffmeyer, P.E.

Electronic Copy

09/08/21

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 177-ft monopole tower designed by Engineered Endeavors, Inc.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	119 mph
Exposure Category:	C
Topographic Factor:	1.0
Ice Thickness:	1.5 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)
177.0	180.0	3	RFS Celwave	APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	3	1-5/8
		3	Ericsson	AIR6449 B41_T-MOBILE w/ Mount Pipe		
		3	Ericsson	RADIO 4460 B2/B25 B66_TMO		
		3	Ericsson	Radio 4480_TMOV2		
	177.0	1	Tower Mounts	Platform Mount [LP 604-1]		
		1	Site Pro 1	HRK12		

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)
50.0	50.0	1	Lucent	KS24019-L112A	1	1/2
		1	Tower Mounts	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Geotechnical Report	1531936	CCISites
Tower Foundation Drawings	1615434	CCISites
Tower Manufacturer Drawings	1615375	CCISites

3.1) Analysis Method

tnxTower (version 8.1.1.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. 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.

3.2) Assumptions

1) The 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. Tower Engineering Professionals 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	P (k)	ϕP_{allow} (k)	% Capacity	Pass / Fail
L1	177 - 133.71	Pole	TP24.46x14x0.25	1	-5.93	1137.85	38.4	Pass
L2	133.71 - 88.04	Pole	TP34.86x23.095x0.3125	2	-11.79	2033.23	39.4	Pass
L3	88.04 - 43.42	Pole	TP44.89x33.0597x0.375	3	-21.12	3147.00	36.8	Pass
L4	43.42 - 0	Pole	TP54.5x42.669x0.375	4	-34.85	3957.13	42.4	Pass
							Summary	
						Pole (L4)	42.4	Pass
						RATING =	**42.4**	**Pass**

Table 5 - Tower Component Stresses vs. Capacity - LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	-	37.0	Pass
1,2	Base Plate	-	55.5	Pass
1,2	Base Foundation Structural	-	40.1	Pass
1,2	Base Foundation Soil Interaction	-	22.3	Pass

Structure Rating (max from all components) =	**55.5%**

Notes:
1) See additional documentation in "Appendix C - Additional Calculations" for calculations supporting the % capacity listed.
2) Rating per TIA-222-H Section 15.5

4.1) Recommendations

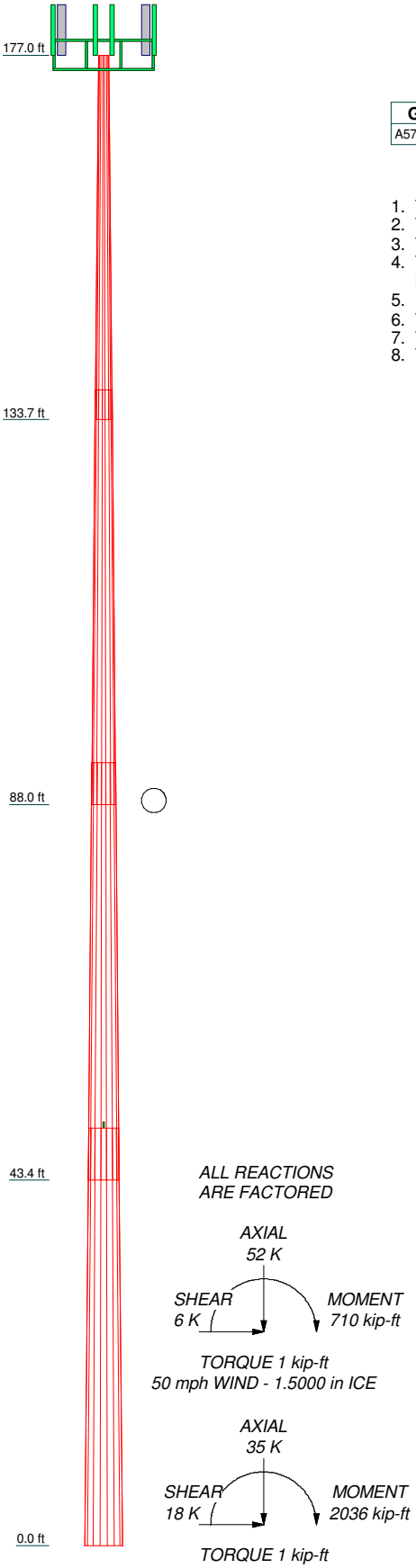
1) The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT

Section	1	2	3	4
Length (ft)	43.29	49.25	49.54	49.58
Number of Sides	18	18	18	18
Thickness (in)	0.2500	0.3125	0.3750	0.3750
Socket Length (ft)	3.58	4.92	6.16	
Top Dia (in)	14.0000	23.0950	33.0597	42.6690
Bot Dia (in)	24.4600	34.8600	44.8900	54.5000
Grade	A572-65			
Weight (K)	2.2	4.8	7.7	9.7

24.4



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 119 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 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. TOWER RATING: 42.4%

Tower Engineering Professionals

Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
Phone: (919) 661-6351
FAX: (919) 661-6350

Job:	***Smith Hills / Sterling GRP. (S (BU 876372)***		
Project:	***TEP No. 218032.597735***		
Client: Crown Castle	Drawn by: SPT	App'd:	
Code: TIA-222-H	Date: 09/04/21	Scale: NTS	
Path:		Dwg No. E-1	

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: 672.00 ft.
Basic wind speed of 119 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 1.5000 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	Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Horizontals	Assume Legs Pinned	Calculate Redundant Bracing Forces
Consider Moments - Diagonals	√ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Use Moment Magnification	√ Use Clear Spans For Wind Area	SR Leg Bolts Resist Compression
√ Use Code Stress Ratios	Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
√ Use Code Safety Factors - Guys	Retension Guys To Initial Tension	Offset Girt At Foundation
Escalate Ice	√ Bypass Mast Stability Checks	√ Consider Feed Line Torque
Always Use Max Kz	√ Use Azimuth Dish Coefficients	Include Angle Block Shear Check
Use Special Wind Profile	√ Project Wind Area of Appurt.	Use TIA-222-H Bracing Resist. Exemption
Include Bolts In Member Capacity	Autocalc Torque Arm Areas	Use TIA-222-H Tension Splice Exemption
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	Poles
Secondary Horizontal Braces Leg	√ Sort Capacity Reports By Component	√ Include Shear-Torsion Interaction
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Always Use Sub-Critical Flow
SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	Use Top Mounted Sockets
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	√ Pole Without Linear Attachments
		Pole With Shroud Or No Appurtenances
		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	177.00-133.71	43.29	3.58	18	14.0000	24.4600	0.2500	1.0000	A572-65 (65 ksi)
L2	133.71-88.04	49.25	4.92	18	23.0950	34.8600	0.3125	1.2500	A572-65 (65 ksi)
L3	88.04-43.42	49.54	6.16	18	33.0597	44.8900	0.3750	1.5000	A572-65 (65 ksi)
L4	43.42-0.00	49.58		18	42.6690	54.5000	0.3750	1.5000	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	14.1774	10.9106	260.6108	4.8812	7.1120	36.6438	521.5646	5.4563	2.0240	8.096
	24.7988	19.2106	1422.5540	8.5945	12.4257	114.4850	2846.9798	9.6071	3.8650	15.46
L2	24.2714	22.5974	1481.8262	8.0878	11.7322	126.3037	2965.6023	11.3008	3.5147	11.247
	35.3496	34.2668	5167.0691	12.2644	17.7089	291.7784	10340.9372	17.1367	5.5854	17.873
L3	34.7049	38.9030	5250.5989	11.6031	16.7943	312.6413	10508.1066	19.4552	5.1585	13.756
	45.5247	52.9840	13264.6188	15.8028	22.8041	581.6764	26546.6915	26.4970	7.2406	19.308
L4	44.7620	50.3404	11376.5631	15.0144	21.6758	524.8500	22768.0958	25.1750	6.8497	18.266
	55.2829	64.4223	23843.4650	19.2144	27.6860	861.2102	47718.3038	32.2173	8.9320	23.819

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 177.00-133.71				1	1	1			
L2 133.71-88.04				1	1	1			
L3 88.04-43.42				1	1	1			
L4 43.42-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
***											

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
Miscl									
Safety Line 3/8	A	No	No	CaAa (Out Of Face)	177.00 - 0.00	1	No Ice	0.04	0.22
							1/2" Ice	0.14	0.75
							1" Ice	0.24	1.28
							2" Ice	0.44	2.34
Step Pegs (5/8" SR) 7-in. w/30" step	A	No	No	CaAa (Out Of Face)	177.00 - 0.00	1	No Ice	0.03	0.49
							1/2" Ice	0.14	1.01
							1" Ice	0.23	2.07
							2" Ice	0.43	6.09
177									
HB158-21U6S24-xx M_TMO(1-5/8)	B	No	No	Inside Pole	177.00 - 0.00	3	No Ice	0.00	2.50
							1/2" Ice	0.00	2.50
							1" Ice	0.00	2.50
							2" Ice	0.00	2.50
50									
LDF4-50A(1/2")	B	No	No	Inside Pole	50.00 - 0.00	1	No Ice	0.00	0.15
							1/2" Ice	0.00	0.15
							1" Ice	0.00	0.15
							2" Ice	0.00	0.15
***									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	177.00-133.71	A	0.000	0.000	0.000	3.139	0.03
		B	0.000	0.000	0.000	0.000	0.32
		C	0.000	0.000	0.000	0.000	0.00
L2	133.71-88.04	A	0.000	0.000	0.000	3.311	0.03
		B	0.000	0.000	0.000	0.000	0.34
		C	0.000	0.000	0.000	0.000	0.00
L3	88.04-43.42	A	0.000	0.000	0.000	3.235	0.03
		B	0.000	0.000	0.000	0.000	0.34
		C	0.000	0.000	0.000	0.000	0.00
L4	43.42-0.00	A	0.000	0.000	0.000	3.148	0.03
		B	0.000	0.000	0.000	0.000	0.33
		C	0.000	0.000	0.000	0.000	0.00

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	177.00-133.71	A	1.487	0.000	0.000	0.000	28.886	0.25
		B		0.000	0.000	0.000	0.000	0.32
		C		0.000	0.000	0.000	0.000	0.00
L2	133.71-88.04	A	1.438	0.000	0.000	0.000	30.474	0.27
		B		0.000	0.000	0.000	0.000	0.34
		C		0.000	0.000	0.000	0.000	0.00
L3	88.04-43.42	A	1.365	0.000	0.000	0.000	28.896	0.25

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B		0.000	0.000	0.000	0.000	0.34
		C		0.000	0.000	0.000	0.000	0.00
L4	43.42-0.00	A	1.223	0.000	0.000	0.000	26.850	0.23
		B		0.000	0.000	0.000	0.000	0.33
		C		0.000	0.000	0.000	0.000	0.00

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	177.00-133.71	0.0000	-0.6362	0.0000	-2.3533
L2	133.71-88.04	0.0000	-0.6509	0.0000	-2.6779
L3	88.04-43.42	0.0000	-0.6583	0.0000	-2.8001
L4	43.42-0.00	0.0000	-0.6625	0.0000	-2.8093

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

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
177									
APXVAALL24_43-U-NA20 _TMO w/ Mount Pipe	A	From Centroid-Leg	4.00 0.00 3.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.69 15.46 16.23 17.82	6.87 7.55 8.25 9.67	0.18 0.31 0.45 0.78
APXVAALL24_43-U-NA20 _TMO w/ Mount Pipe	B	From Centroid-Leg	4.00 0.00 3.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.69 15.46 16.23 17.82	6.87 7.55 8.25 9.67	0.18 0.31 0.45 0.78
APXVAALL24_43-U-NA20 _TMO w/ Mount Pipe	C	From Centroid-Leg	4.00 0.00 3.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.69 15.46 16.23 17.82	6.87 7.55 8.25 9.67	0.18 0.31 0.45 0.78
AIR6449 B41_T-MOBILE w/ Mount Pipe	A	From Centroid-Leg	4.00 0.00 3.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.19 5.59 6.02 6.90	2.71 3.04 3.38 4.12	0.13 0.17 0.23 0.35
AIR6449 B41_T-MOBILE w/ Mount Pipe	B	From Centroid-Leg	4.00 0.00 3.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.19 5.59 6.02 6.90	2.71 3.04 3.38 4.12	0.13 0.17 0.23 0.35
AIR6449 B41_T-MOBILE w/ Mount Pipe	C	From Centroid-Leg	4.00 0.00 3.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice	5.19 5.59 6.02	2.71 3.04 3.38	0.13 0.17 0.23

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral ft / Vert ft*	*Azimuth Adjustment °*	*Placement ft*		*C_AA_A Front ft^2*	*C_AA_A Side ft^2*	*Weight K*
						2" Ice	6.90	4.12	0.35
(2) RADIO 4460 B2/B25 B66_TMO	A	From Centroid-Leg	4.00 0.00 3.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.14 2.32 2.51 2.91	1.69 1.85 2.02 2.39	0.11 0.13 0.16 0.22
RADIO 4460 B2/B25 B66_TMO	B	From Centroid-Leg	4.00 0.00 3.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.14 2.32 2.51 2.91	1.69 1.85 2.02 2.39	0.11 0.13 0.16 0.22
Radio 4480_TMOV2	B	From Centroid-Leg	4.00 0.00 3.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.88 3.09 3.31 3.78	1.40 1.56 1.73 2.09	0.08 0.10 0.13 0.19
(2) Radio 4480_TMOV2	C	From Centroid-Leg	4.00 0.00 3.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.88 3.09 3.31 3.78	1.40 1.56 1.73 2.09	0.08 0.10 0.13 0.19
8' Ladder	C	From Centroid-Leg	3.00 0.00 -2.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.53 4.36 7.19 12.86	5.33 8.08 10.83 16.33	0.10 0.11 0.13 0.16
(2) 2.4" x 8' Pipe	A	From Centroid-Leg	4.00 0.00 0.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.42 4.46	1.90 2.73 3.42 4.46	0.03 0.05 0.07 0.13
(2) 2.4" x 8' Pipe	B	From Centroid-Leg	4.00 0.00 0.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.42 4.46	1.90 2.73 3.42 4.46	0.03 0.05 0.07 0.13
(2) 2.4" x 8' Pipe	C	From Centroid-Leg	4.00 0.00 0.00	0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.42 4.46	1.90 2.73 3.42 4.46	0.03 0.05 0.07 0.13
Platform Mount [LP 604-1]	C	None		0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	23.03 26.44 29.80 36.34	23.03 26.44 29.80 36.34	0.93 1.32 1.77 2.80
Site Pro 1 F3P-HRK12	C	None		0.0000	177.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.38 7.22 8.88 12.20	4.64 6.35 8.13 11.69	0.41 0.50 0.59 0.77
50									
KS24019-L112A	C	From Face	3.00 0.00 0.00	0.0000	50.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.08 0.13 0.19 0.35	0.08 0.13 0.19 0.35	0.01 0.01 0.01 0.02
Side Arm Mount [SO 701-1]	C	From Face	2.00 0.00 0.00	0.0000	50.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.85 1.14 1.43 2.01	1.67 2.34 3.01 4.35	0.07 0.08 0.09 0.12
***									

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

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	177 - 133.71	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-12.63	0.33	0.16
			Max. Mx	20	-5.94	259.94	2.04
			Max. My	2	-5.94	2.11	259.74
			Max. Vy	20	-7.49	259.94	2.04
			Max. Vx	2	-7.50	2.11	259.74
			Max. Torque	24			0.65
L2	133.71 - 88.04	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-21.17	0.33	0.47
			Max. Mx	20	-11.79	661.77	4.51
			Max. My	2	-11.79	4.57	661.97
			Max. Vy	20	-10.75	661.77	4.51
			Max. Vx	2	-10.75	4.57	661.97
			Max. Torque	14			-0.62
L3	88.04 - 43.42	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-33.86	0.33	0.38
			Max. Mx	20	-21.12	1207.64	6.61
			Max. My	14	-21.12	-6.57	-1208.21
			Max. Vy	20	-14.51	1207.64	6.61
			Max. Vx	14	14.49	-6.57	-1208.21
			Max. Torque	35			-0.68
L4	43.42 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.72	0.33	0.91
			Max. Mx	20	-34.85	2027.65	9.33
			Max. My	14	-34.85	-9.21	-2026.97
			Max. Vy	20	-18.42	2027.65	9.33
			Max. Vx	14	18.40	-9.21	-2026.97
			Max. Torque	35			-0.93

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	37	51.72	5.61	3.23
	Max. H_x	20	34.86	18.40	0.05
	Max. H_z	2	34.86	0.05	18.38
	Max. M_x	2	2026.84	0.05	18.38
	Max. M_z	8	2027.26	-18.40	-0.05
	Max. Torsion	29	0.93	-5.60	3.22
	Min. Vert	17	26.15	9.16	-15.89
	Min. H_x	8	34.86	-18.40	-0.05
	Min. H_z	14	34.86	-0.05	-18.38
	Min. M_x	14	-2026.97	-0.05	-18.38
	Min. M_z	20	-2027.65	18.40	0.05
	Min. Torsion	35	-0.93	5.60	-3.22

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	29.05	0.00	0.00	0.06	0.15	0.00

Load Combination	*Vertical*	*Shear$_x$*	*Shear$_z$*	*Overturning Moment, M$_x$*	*Overturning Moment, M$_z$*	*Torque*
	K	*K*	*K*	*kip-ft*	*kip-ft*	*kip-ft*
1.2 Dead+1.0 Wind 0 deg - No Ice	34.86	-0.05	-18.38	-2026.84	9.59	-0.56
0.9 Dead+1.0 Wind 0 deg - No Ice	26.15	-0.05	-18.38	-2005.52	9.41	-0.55
1.2 Dead+1.0 Wind 30 deg - No Ice	34.86	9.16	-15.89	-1750.62	-1005.42	-0.57
0.9 Dead+1.0 Wind 30 deg - No Ice	26.15	9.16	-15.89	-1732.21	-994.90	-0.57
1.2 Dead+1.0 Wind 60 deg - No Ice	34.86	15.91	-9.14	-1005.27	-1750.97	-0.46
0.9 Dead+1.0 Wind 60 deg - No Ice	26.15	15.91	-9.14	-994.72	-1732.60	-0.46
1.2 Dead+1.0 Wind 90 deg - No Ice	34.86	18.40	0.05	9.46	-2027.26	-0.23
0.9 Dead+1.0 Wind 90 deg - No Ice	26.15	18.40	0.05	9.32	-2005.98	-0.23
1.2 Dead+1.0 Wind 120 deg - No Ice	34.86	15.96	9.23	1021.64	-1760.32	0.08
0.9 Dead+1.0 Wind 120 deg - No Ice	26.15	15.96	9.23	1010.85	-1741.83	0.08
1.2 Dead+1.0 Wind 150 deg - No Ice	34.86	9.25	15.94	1760.10	-1021.67	0.40
0.9 Dead+1.0 Wind 150 deg - No Ice	26.15	9.25	15.94	1741.54	-1010.94	0.40
1.2 Dead+1.0 Wind 180 deg - No Ice	34.86	0.05	18.38	2026.97	-9.21	0.61
0.9 Dead+1.0 Wind 180 deg - No Ice	26.15	0.05	18.38	2005.62	-9.13	0.61
1.2 Dead+1.0 Wind 210 deg - No Ice	34.86	-9.16	15.89	1750.75	1005.80	0.64
0.9 Dead+1.0 Wind 210 deg - No Ice	26.15	-9.16	15.89	1732.31	995.18	0.64
1.2 Dead+1.0 Wind 240 deg - No Ice	34.86	-15.91	9.14	1005.40	1751.36	0.47
0.9 Dead+1.0 Wind 240 deg - No Ice	26.15	-15.91	9.14	994.82	1732.88	0.47
1.2 Dead+1.0 Wind 270 deg - No Ice	34.86	-18.40	-0.05	-9.33	2027.65	0.17
0.9 Dead+1.0 Wind 270 deg - No Ice	26.15	-18.40	-0.05	-9.22	2006.27	0.17
1.2 Dead+1.0 Wind 300 deg - No Ice	34.86	-15.96	-9.23	-1021.52	1760.71	-0.15
0.9 Dead+1.0 Wind 300 deg - No Ice	26.15	-15.96	-9.23	-1010.76	1742.11	-0.15
1.2 Dead+1.0 Wind 330 deg - No Ice	34.86	-9.25	-15.94	-1759.97	1022.05	-0.41
0.9 Dead+1.0 Wind 330 deg - No Ice	26.15	-9.25	-15.94	-1741.44	1011.22	-0.40
1.2 Dead+1.0 Ice+1.0 Temp	51.72	-0.00	-0.00	-0.91	0.33	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	51.72	-0.01	-6.46	-707.71	1.88	-0.28
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	51.72	3.23	-5.59	-612.28	-352.14	-0.70
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	51.72	5.60	-3.22	-353.05	-611.70	-0.93
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	51.72	6.47	0.01	0.51	-707.25	-0.91
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	51.72	5.61	3.23	353.67	-613.19	-0.65
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	51.72	3.24	5.59	611.80	-354.73	-0.21

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	51.72	0.01	6.46	705.74	-1.11	0.28
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	51.72	-3.23	5.59	610.31	352.91	0.70
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	51.72	-5.60	3.22	351.09	612.47	0.93
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	51.72	-6.47	-0.01	-2.48	708.02	0.90
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	51.72	-5.61	-3.23	-355.64	613.96	0.64
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	51.72	-3.24	-5.59	-613.78	355.49	0.21
Dead+Wind 0 deg - Service	29.05	-0.01	-4.40	-482.34	2.40	-0.14
Dead+Wind 30 deg - Service	29.05	2.19	-3.80	-416.60	-239.17	-0.14
Dead+Wind 60 deg - Service	29.05	3.81	-2.19	-239.21	-416.60	-0.11
Dead+Wind 90 deg - Service	29.05	4.41	0.01	2.29	-482.37	-0.05
Dead+Wind 120 deg - Service	29.05	3.82	2.21	243.19	-418.84	0.03
Dead+Wind 150 deg - Service	29.05	2.21	3.82	418.94	-243.04	0.10
Dead+Wind 180 deg - Service	29.05	0.01	4.40	482.45	-2.07	0.14
Dead+Wind 210 deg - Service	29.05	-2.19	3.80	416.71	239.49	0.15
Dead+Wind 240 deg - Service	29.05	-3.81	2.19	239.32	416.93	0.11
Dead+Wind 270 deg - Service	29.05	-4.41	-0.01	-2.18	482.69	0.05
Dead+Wind 300 deg - Service	29.05	-3.82	-2.21	-243.08	419.16	-0.03
Dead+Wind 330 deg - Service	29.05	-2.21	-3.82	-418.83	243.36	-0.10

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.00	-29.05	0.00	0.00	29.05	0.00	0.000%
2	-0.05	-34.86	-18.38	0.05	34.86	18.38	0.000%
3	-0.05	-26.15	-18.38	0.05	26.15	18.38	0.000%
4	9.16	-34.86	-15.89	-9.16	34.86	15.89	0.000%
5	9.16	-26.15	-15.89	-9.16	26.15	15.89	0.000%
6	15.91	-34.86	-9.14	-15.91	34.86	9.14	0.000%
7	15.91	-26.15	-9.14	-15.91	26.15	9.14	0.000%
8	18.40	-34.86	0.05	-18.40	34.86	-0.05	0.000%
9	18.40	-26.15	0.05	-18.40	26.15	-0.05	0.000%
10	15.96	-34.86	9.23	-15.96	34.86	-9.23	0.000%
11	15.96	-26.15	9.23	-15.96	26.15	-9.23	0.000%
12	9.25	-34.86	15.94	-9.25	34.86	-15.94	0.000%
13	9.25	-26.15	15.94	-9.25	26.15	-15.94	0.000%
14	0.05	-34.86	18.38	-0.05	34.86	-18.38	0.000%
15	0.05	-26.15	18.38	-0.05	26.15	-18.38	0.000%
16	-9.16	-34.86	15.89	9.16	34.86	-15.89	0.000%
17	-9.16	-26.15	15.89	9.16	26.15	-15.89	0.000%
18	-15.91	-34.86	9.14	15.91	34.86	-9.14	0.000%
19	-15.91	-26.15	9.14	15.91	26.15	-9.14	0.000%
20	-18.40	-34.86	-0.05	18.40	34.86	0.05	0.000%
21	-18.40	-26.15	-0.05	18.40	26.15	0.05	0.000%
22	-15.96	-34.86	-9.23	15.96	34.86	9.23	0.000%
23	-15.96	-26.15	-9.23	15.96	26.15	9.23	0.000%
24	-9.25	-34.86	-15.94	9.25	34.86	15.94	0.000%
25	-9.25	-26.15	-15.94	9.25	26.15	15.94	0.000%
26	0.00	-51.72	0.00	0.00	51.72	0.00	0.000%
27	-0.01	-51.72	-6.46	0.01	51.72	6.46	0.000%
28	3.23	-51.72	-5.59	-3.23	51.72	5.59	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
29	5.60	-51.72	-3.22	-5.60	51.72	3.22	0.000%
30	6.47	-51.72	0.01	-6.47	51.72	-0.01	0.000%
31	5.61	-51.72	3.23	-5.61	51.72	-3.23	0.000%
32	3.24	-51.72	5.59	-3.24	51.72	-5.59	0.000%
33	0.01	-51.72	6.46	-0.01	51.72	-6.46	0.000%
34	-3.23	-51.72	5.59	3.23	51.72	-5.59	0.000%
35	-5.60	-51.72	3.22	5.60	51.72	-3.22	0.000%
36	-6.47	-51.72	-0.01	6.47	51.72	0.01	0.000%
37	-5.61	-51.72	-3.23	5.61	51.72	3.23	0.000%
38	-3.24	-51.72	-5.59	3.24	51.72	5.59	0.000%
39	-0.01	-29.05	-4.40	0.01	29.05	4.40	0.000%
40	2.19	-29.05	-3.80	-2.19	29.05	3.80	0.000%
41	3.81	-29.05	-2.19	-3.81	29.05	2.19	0.000%
42	4.41	-29.05	0.01	-4.41	29.05	-0.01	0.000%
43	3.82	-29.05	2.21	-3.82	29.05	-2.21	0.000%
44	2.21	-29.05	3.82	-2.21	29.05	-3.82	0.000%
45	0.01	-29.05	4.40	-0.01	29.05	-4.40	0.000%
46	-2.19	-29.05	3.80	2.19	29.05	-3.80	0.000%
47	-3.81	-29.05	2.19	3.81	29.05	-2.19	0.000%
48	-4.41	-29.05	-0.01	4.41	29.05	0.01	0.000%
49	-3.82	-29.05	-2.21	3.82	29.05	2.21	0.000%
50	-2.21	-29.05	-3.82	2.21	29.05	3.82	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	4	0.00000001	0.00089285
3	Yes	4	0.00000001	0.00048752
4	Yes	5	0.00000001	0.00065738
5	Yes	5	0.00000001	0.00030019
6	Yes	5	0.00000001	0.00067604
7	Yes	5	0.00000001	0.00030952
8	Yes	4	0.00000001	0.00060808
9	Yes	4	0.00000001	0.00023324
10	Yes	5	0.00000001	0.00069601
11	Yes	5	0.00000001	0.00031754
12	Yes	5	0.00000001	0.00067440
13	Yes	5	0.00000001	0.00030671
14	Yes	4	0.00000001	0.00069047
15	Yes	4	0.00000001	0.00031935
16	Yes	5	0.00000001	0.00068409
17	Yes	5	0.00000001	0.00031346
18	Yes	5	0.00000001	0.00066300
19	Yes	5	0.00000001	0.00030291
20	Yes	4	0.00000001	0.00058876
21	Yes	4	0.00000001	0.00020964
22	Yes	5	0.00000001	0.00067956
23	Yes	5	0.00000001	0.00030909
24	Yes	5	0.00000001	0.00070361
25	Yes	5	0.00000001	0.00032113
26	Yes	4	0.00000001	0.00000001
27	Yes	5	0.00000001	0.00033551
28	Yes	5	0.00000001	0.00043649
29	Yes	5	0.00000001	0.00044803

30	Yes	5	0.00000001	0.00033443
31	Yes	5	0.00000001	0.00044232
32	Yes	5	0.00000001	0.00044155
33	Yes	5	0.00000001	0.00033414
34	Yes	5	0.00000001	0.00044805
35	Yes	5	0.00000001	0.00043673
36	Yes	5	0.00000001	0.00033583
37	Yes	5	0.00000001	0.00044845
38	Yes	5	0.00000001	0.00044901
39	Yes	4	0.00000001	0.00004763
40	Yes	4	0.00000001	0.00018609
41	Yes	4	0.00000001	0.00020449
42	Yes	4	0.00000001	0.00003266
43	Yes	4	0.00000001	0.00021385
44	Yes	4	0.00000001	0.00019236
45	Yes	4	0.00000001	0.00004447
46	Yes	4	0.00000001	0.00021250
47	Yes	4	0.00000001	0.00019169
48	Yes	4	0.00000001	0.00003243
49	Yes	4	0.00000001	0.00019766
50	Yes	4	0.00000001	0.00022160

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	177 - 133.71	24.606	49	1.5327	0.0050
L2	137.29 - 88.04	13.528	49	1.0705	0.0013
L3	92.96 - 43.42	5.727	49	0.6093	0.0004
L4	49.58 - 0	1.585	49	0.2973	0.0001

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
177.00	APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	49	24.606	1.5327	0.0050	29083
50.00	KS24019-L112A	49	1.611	0.2999	0.0001	7181

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	177 - 133.71	103.342	22	6.4411	0.0214
L2	137.29 - 88.04	56.875	24	4.5048	0.0056
L3	92.96 - 43.42	24.081	24	2.5641	0.0018
L4	49.58 - 0	6.664	22	1.2502	0.0008

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
177.00	APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	22	103.342	6.4411	0.0214	7073
50.00	KS24019-L112A	22	6.771	1.2613	0.0008	1709

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	177 - 133.71 (1)	TP24.46x14x0.25	43.29	0.00	0.0	18.5242	-5.93	1083.67	0.005
L2	133.71 - 88.04 (2)	TP34.86x23.095x0.3125	49.25	0.00	0.0	33.1010	-11.79	1936.41	0.006
L3	88.04 - 43.42 (3)	TP44.89x33.0597x0.375	49.54	0.00	0.0	51.2331	-21.12	2997.14	0.007
L4	43.42 - 0 (4)	TP54.5x42.669x0.375	49.58	0.00	0.0	64.4223	-34.85	3768.70	0.009

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	177 - 133.71 (1)	TP24.46x14x0.25	261.61	658.81	0.397	0.00	658.81	0.000
L2	133.71 - 88.04 (2)	TP34.86x23.095x0.3125	665.77	1635.56	0.407	0.00	1635.56	0.000
L3	88.04 - 43.42 (3)	TP44.89x33.0597x0.375	1213.78	3199.78	0.379	0.00	3199.78	0.000
L4	43.42 - 0 (4)	TP54.5x42.669x0.375	2035.58	4673.19	0.436	0.00	4673.19	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	177 - 133.71 (1)	TP24.46x14x0.25	7.54	325.10	0.023	0.47	664.65	0.001
L2	133.71 - 88.04 (2)	TP34.86x23.095x0.3125	10.80	580.92	0.019	0.51	1697.79	0.000

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 $\frac{T_u}{\phi T_n}$
L3	88.04 - 43.42 (3)	TP44.89x33.0597x0.375	14.54	899.14	0.016	0.52	3389.38	0.000
L4	43.42 - 0 (4)	TP54.5x42.669x0.375	18.46	1130.61	0.016	0.16	5359.09	0.000

Pole Interaction Design Data

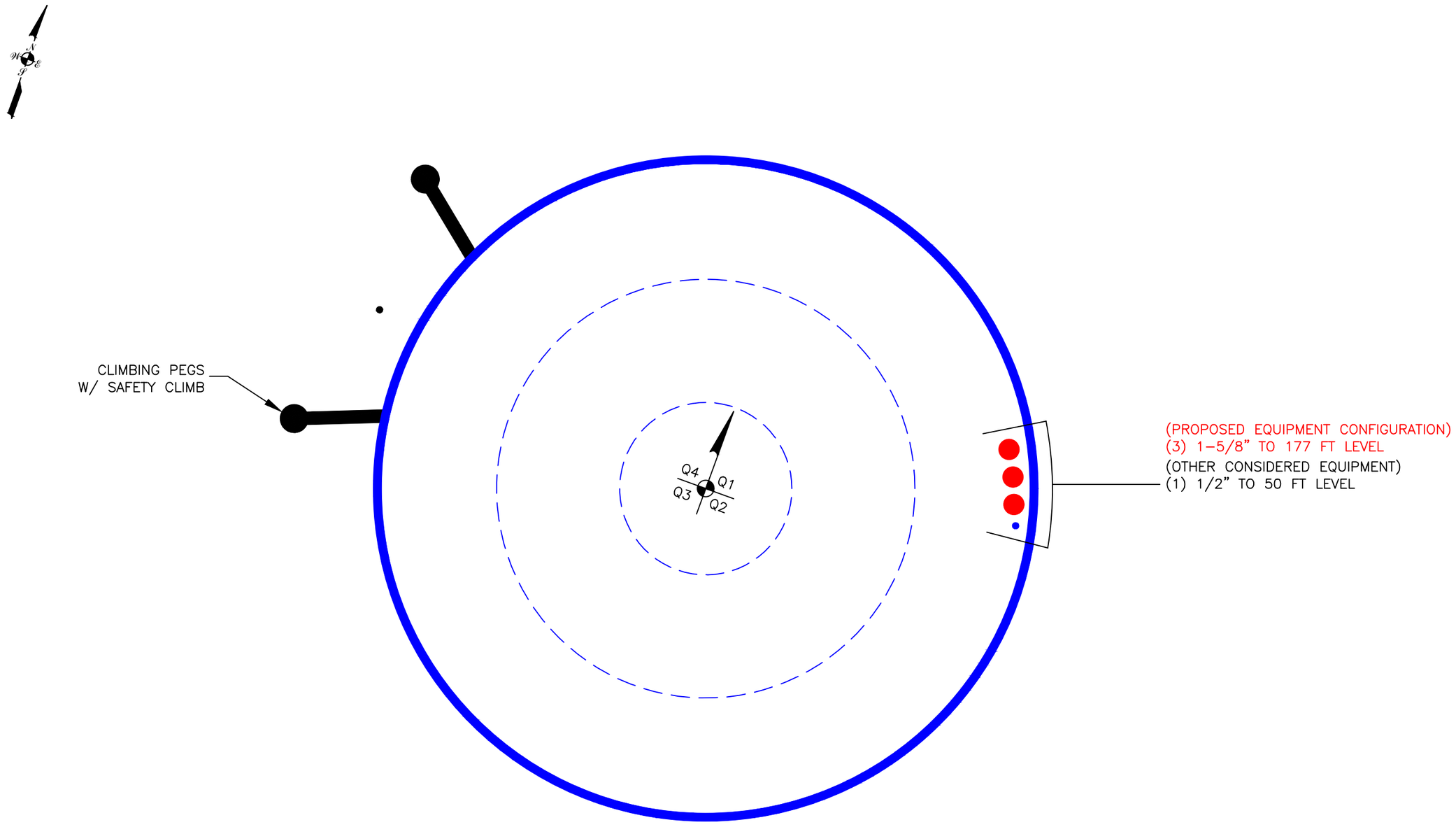
Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	177 - 133.71 (1)	0.005	0.397	0.000	0.023	0.001	0.403	1.050	4.8.2
L2	133.71 - 88.04 (2)	0.006	0.407	0.000	0.019	0.000	0.414	1.050	4.8.2
L3	88.04 - 43.42 (3)	0.007	0.379	0.000	0.016	0.000	0.387	1.050	4.8.2
L4	43.42 - 0 (4)	0.009	0.436	0.000	0.016	0.000	0.445	1.050	4.8.2

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	177 - 133.71	Pole	TP24.46x14x0.25	1	-5.93	1137.85	38.4	Pass
L2	133.71 - 88.04	Pole	TP34.86x23.095x0.3125	2	-11.79	2033.23	39.4	Pass
L3	88.04 - 43.42	Pole	TP44.89x33.0597x0.375	3	-21.12	3147.00	36.8	Pass
L4	43.42 - 0	Pole	TP54.5x42.669x0.375	4	-34.85	3957.13	42.4	Pass
							Summary	
						Pole (L4)	42.4	Pass
						RATING =	**42.4**	**Pass**

APPENDIX B

BASE LEVEL DRAWING


N
W
E
S
CLIMBING PEGS
W/ SAFETY CLIMB
Q4
Q1
Q3
Q2
(PROPOSED EQUIPMENT CONFIGURATION)
(3) 1–5/8" TO 177 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(1) 1/2" TO 50 FT LEVEL

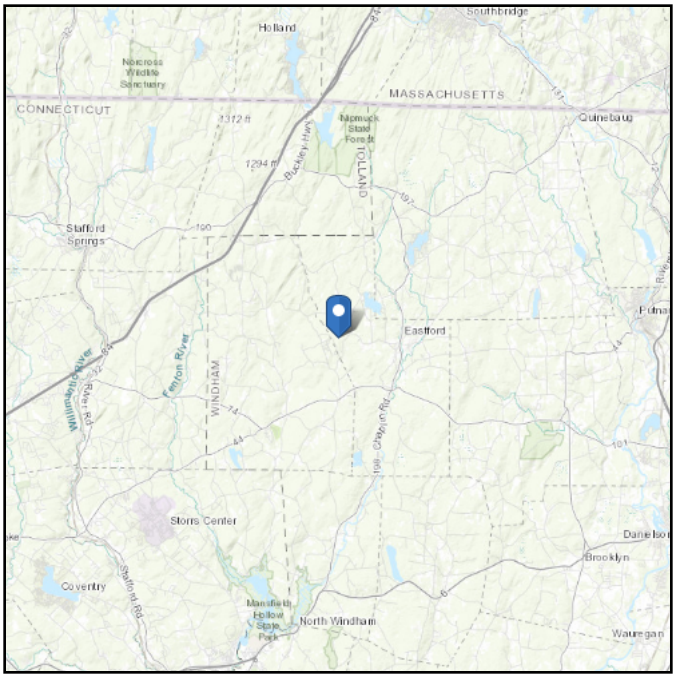
APPENDIX C

ADDITIONAL CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Elevation:**	672.24 ft (NAVD 88)
Risk Category:	II	**Latitude:**	41.904506
Soil Class:	D - Default (see Section 11.4.3)	**Longitude:**	-72.123867



Wind

Results:

Wind Speed:	119 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	91 Vmph
100-year MRI	98 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:	Sat Sep 04 2021

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.

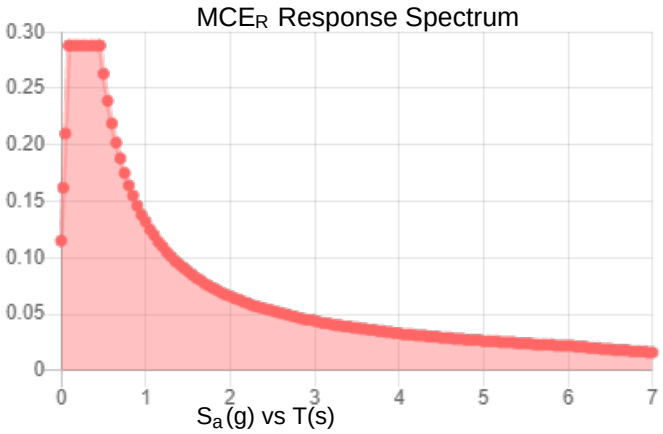
Seismic

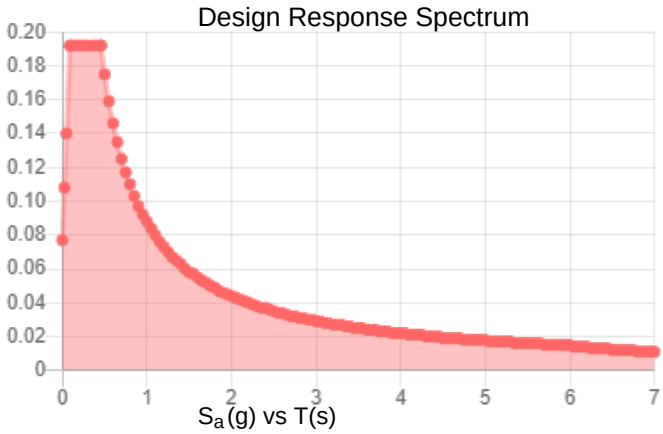
Site Soil Class: D - Default (see Section 11.4.3)

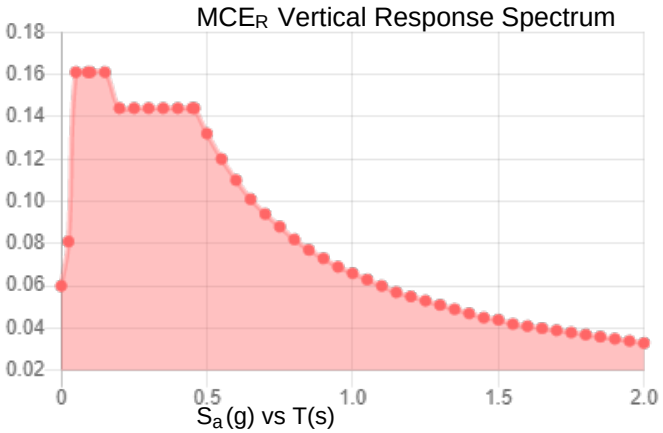
Results:

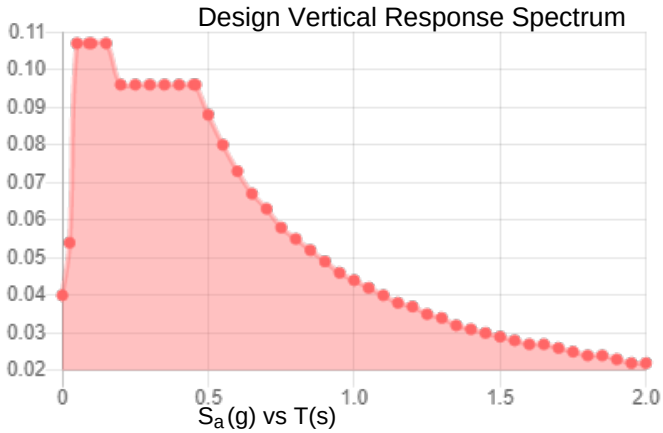
S_S :	0.18	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.096
F_v :	2.4	PGA_M :	0.154
S_{MS} :	0.288	F_{PGA} :	1.6
S_{M1} :	0.132	I_e :	1
S_{DS} :	0.192	C_v :	0.7

Seismic Design Category B









Data Accessed: Sat Sep 04 2021

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:	1.50 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Sat Sep 04 2021

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.

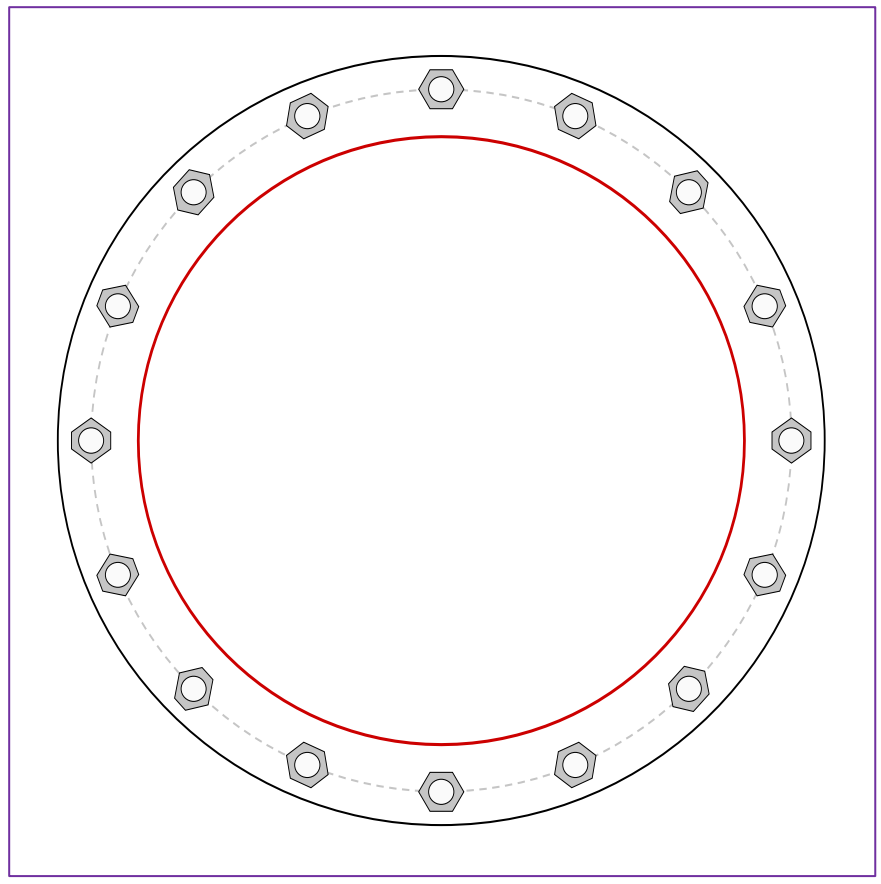
Monopole Base Plate Connection

Site Info	
BU #	876372
Site Name	Smith Hills / Sterling G
Order #	584574 Rev. 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	1.5

Applied Loads	
Moment (kip-ft)	2036.00
Axial Force (kips)	35.00
Shear Force (kips)	18.00

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

(16) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 63" BC

Base Plate Data

69" OD x 1.75" Plate (A871-60; Fy=60 ksi, Fu=75 ksi)

Stiffener Data

N/A

Pole Data

54.5" x 0.375" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

Pu_t = 94.71	ϕPn_t = 243.75	**Stress Rating**
Vu = 1.13	ϕVn = 149.1	**37.0%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	31.45	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**55.5%**	**Pass**

Pier and Pad Foundation

BU # :	876372 - Revision 1
Site Name:	Smith Hills / Sterlin
App. Number:	584574 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	kips
Base Shear, Vu_comp:	18	kips
Moment, M_u:	2036	ft-kips
Tower Height, **H**:	177	ft
BP Dist. Above Fdn, bp_{dist}:	3.75	in

Pier Properties

Pier Shape:	Square	
Pier Diameter, **dpier**:	7	ft
Ext. Above Grade, **E**:	1	ft
Pier Rebar Size, **Sc**:	8	
Pier Rebar Quantity, **mc**:	39	
Pier Tie/Spiral Size, **St**:	4	
Pier Tie/Spiral Quantity, **mt**:	6	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	3	in

Pad Properties

Depth, **D**:	7	ft
Pad Width, W_1:	28.5	ft
Pad Thickness, **T**:	3	ft
Pad Rebar Size (Top dir.2), Sp_{top2}:	8	
Pad Rebar Quantity (Top dir. 2), mp_{top2}:	25	
Pad Rebar Size (Bottom dir. 2), Sp_2:	8	
Pad Rebar Quantity (Bottom dir. 2), mp_2:	32	
Pad Clear Cover, cc_{pad}:	3	in

Material Properties

Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	4	ksi
Dry Concrete Density, δ**c**:	150	pcf

Soil Properties

Total Soil Unit Weight, γ:	125	pcf
Ultimate Net Bearing, Qnet:	18.000	ksf
Cohesion, **Cu**:	0.000	ksf
Friction Angle, φ:	35	degrees
SPT Blow Count, N_{blows}:	31	
Base Friction, μ:	0.4	
Neglected Depth, **N**:	3.50	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, **gw**:	N/A	ft

<--Toggle between Gross and Net

Foundation Analysis Checks

	Capacity	Demand	Rating*	Check
Lateral (Sliding) (kips)	386.75	18.00	**4.4%**	**Pass**
Bearing Pressure (ksf)	14.16	1.60	**10.7%**	**Pass**
*Overturning (kip*ft)*	9790.78	2185.63	**22.3%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	5047.75	2126.00	**40.1%**	**Pass**
Pier Compression (kip)	31187.52	79.10	**0.2%**	**Pass**
*Pad Flexure (kip*ft)*	3509.24	799.06	**21.7%**	**Pass**
Pad Shear - 1-way (kips)	1022.02	107.95	**10.1%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.190	0.023	**11.4%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	3464.79	1275.60	**35.1%**	**Pass**

**Rating per TIA-222-H Section 15.5*

Structural Rating*:	**40.1%**
Soil Rating*:	**22.3%**

Date: **August 31, 2021**

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Darcy Tarr
Crown Castle
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Charlotte, NC 28277
(704) 405-6589

Infinigy Engineering, PLLC
1033 Watervliet Shaker Road
Albany, NY 12205
518-690-0790
structural@infinigy.com

Subject:	**Mount Analysis Report**	
Carrier Designation:	**T-Mobile Keep**	
	Carrier Site Number:	CTHA653A
	Carrier Site Name:	CT33XC074
Crown Castle Designation:	**Crown Castle BU Number:**	876372
	Crown Castle Site Name:	SMITH HILLS / STERLING GRP. (S
	Crown Castle JDE Job Number:	684637
	Crown Castle Order Number:	584574 Rev. 0
Engineering Firm Designation:	**Infinigy Engineering, PLLC Report Designation:** 1039-Z0001-B	
Site Data:	**71 Ashford Rd, Eastford, Windham County, CT, 06272** **Latitude 41°54'16.22" Longitude -72°7'25.92"**	
Structure Information:	**Tower Height & Type:**	**177.0 ft Monopole**
	Mount Elevation:	**177.0 ft**
	Mount Type:	**10.5 ft Platform**

Dear Darcy Tarr,

Infinigy Engineering, PLLC is pleased to submit this **"Mount Analysis Report"** to determine the structural integrity of T-Mobile's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Platform **Sufficient**
***Sufficient upon completion of the changes listed in the 'Recommendations' section of this report.**

This analysis has been performed in accordance with the 2018 Conecticut State Building Code and Appendix N based upon an ultimate 3-second gust wind speed of 130 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Farhad Ahmadyar

Respectfully Submitted by:
Emmanuel Poulin, P.E.
518-690-0790
structural@infinigy.com
CT PE License No. 22947

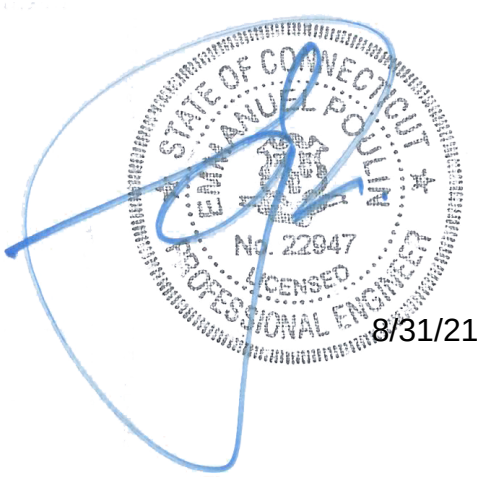


TABLE OF CONTENTS

1) INTRODUCTION

This is an existing 3 sector 10.5 ft Platform, designed by Engineered Endeavors Incorporated.

2) ANALYSIS CRITERIA

Building Code:	2015 IBC / 2018 Connecticut State Building Code and Appendix N
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	130 mph
Exposure Category:	C
Topographic Factor at Base:	1.0
Topographic Factor at Mount:	1.0
Ice Thickness:	2.0 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.172
Seismic S_1:	0.063
Live Loading Wind Speed:	30 mph
Man Live Load at Mid/End-Points:	250 lb
Man Live Load at Mount Pipes:	500 lb

Table 1 - Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
177.0	180.0	3	ERICSSON	AIR6449 B41_T-MOBILE	10.5 ft Platform
		3	RFS/CELWAVE	APXVAALL24_43-U-NA20_TMO	
		3	ERICSSON	RADIO 4460 B2/B25 B66_TMO	
		3	ERICSSON	RADIO 4480_TMOV2	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Crown Application	T-Mobile Application	584574 Rev. 0	CCI Sites
Loading Document	T-Mobile	RFDS Version: 1	TSA
Tower Manufacturer Drawings	Engineered Endeavors Incorporated	1615375	CCI Sites

3.1) Analysis Method

RISA-3D (Version 17.0.4), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

Infinigy Mount Analysis Tool V2.1.7, a tool internally developed by Infinigy, was used to calculate wind loading on all appurtenances, dishes and mount members for various loading cases. Selected output from the analysis is included in Appendix B “Software Input Calculations”.

This analysis was performed in accordance with Crown Castle’s ENG-SOW-10208 *Tower Mount Analysis* (Revision B).

3.2) Assumptions

1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
2) The configuration of antennas, mounts, and other appurtenances are as specified in Table 1 and the referenced drawings.
3) 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.
4) The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.
5) Prior structural modifications to the tower mounting system are assumed to be installed as shown per available data.
6) Steel grades have been assumed as follows, unless noted otherwise:

Channel, Solid Round, Angle, Plate	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM A500 (GR B-46)
Pipe	ASTM A53 (GR 35)
Connection Bolts	ASTM A325

This analysis may be affected if any assumptions are not valid or have been made in error. Infinigy Engineering, PLLC 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 (Platform, All Sectors)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
1,2,3	Mount Pipe(s)	MP5	177.0	51.9	Pass
	Horizontal(s)	HOR2		44.9	Pass
	Bracing(s)	BR2		47.6	Pass
	Handrail(s)	HR3		55.8	Pass
	Coner Plate(s)	M36		92.1	Pass
	Mount Connection(s)	--		4.8	Pass

Structure Rating (max from all components) =	92.1%

Notes:
1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.
2) See additional documentation in “Appendix D – Additional Calculations” for detailed mount connection calculations.
3) All sectors are typical

4.1) Recommendations

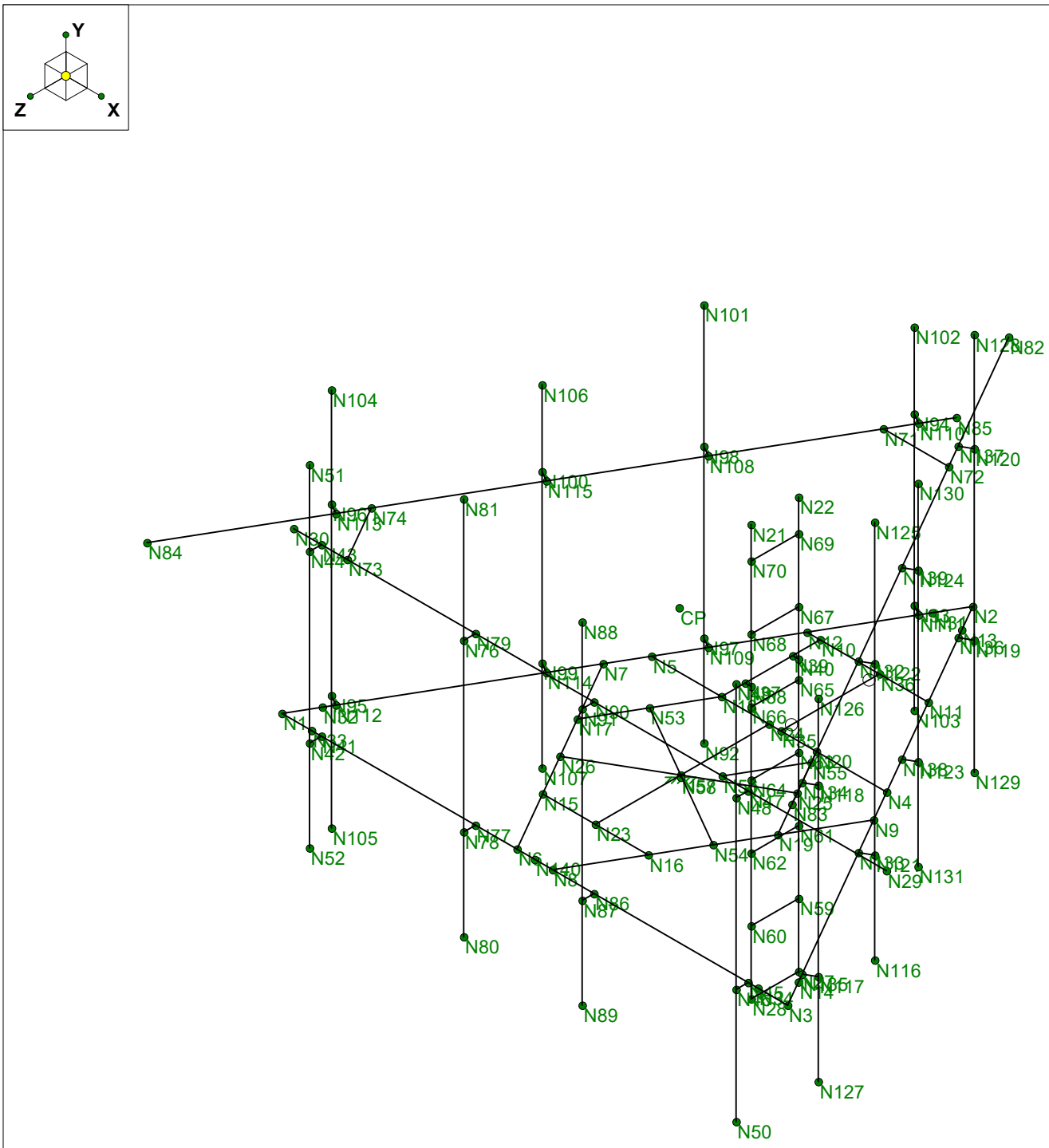
The mount has sufficient capacity to carry the proposed loading configuration. In order for the results of the analysis to be considered valid, the structural modifications listed below must be completed.

1. Installation of proposed Site Pro 1 HRK12 handrail kit.

Engineering detail drawings have been provided in Appendix E – Mount Modification Design Drawings. Connection from the mount to the tower and local stresses on the tower are sufficient.

APPENDIX A

WIRE FRAME AND RENDERED MODELS



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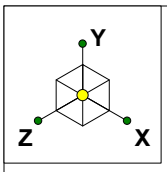

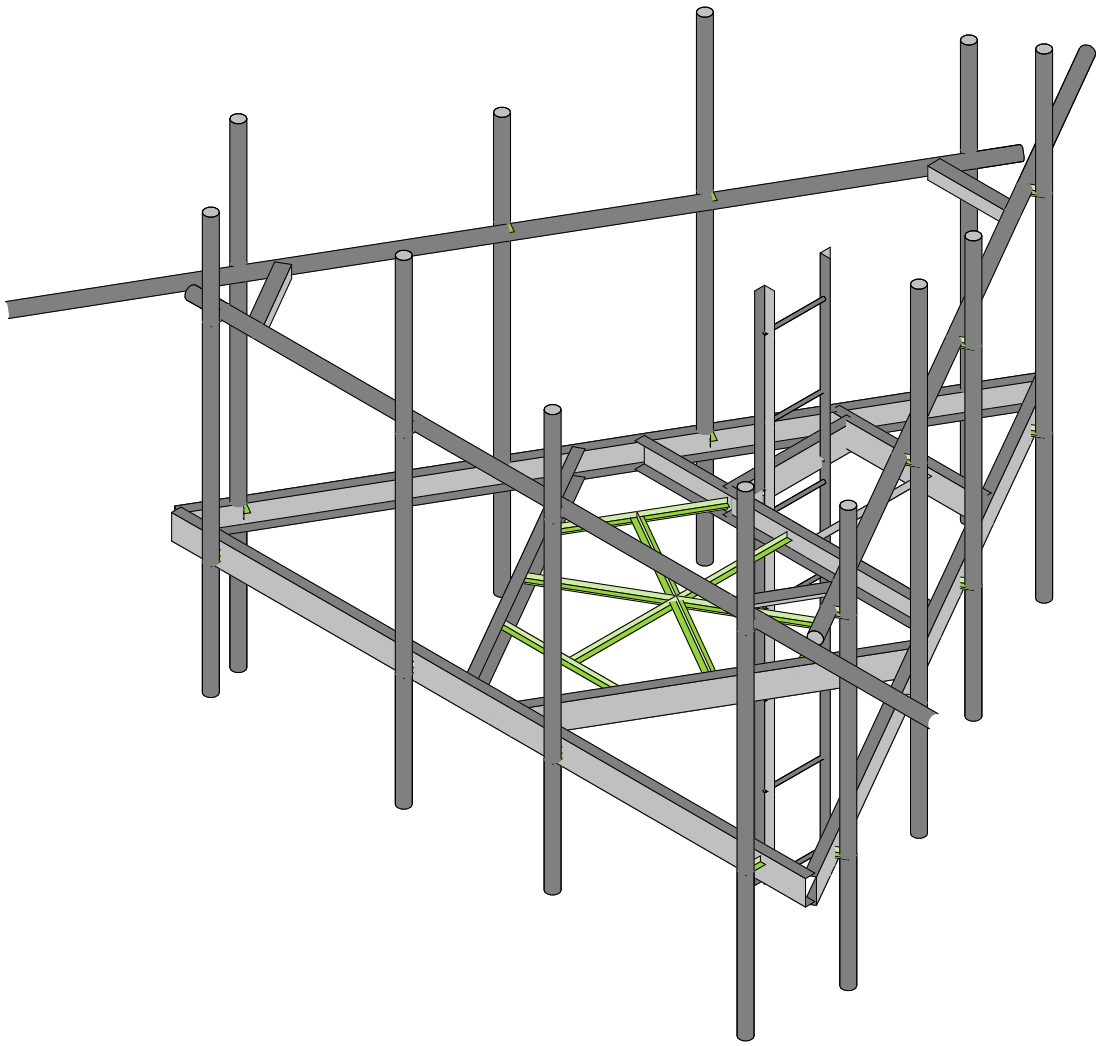

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APPENDIX B

SOFTWARE INPUT CALCULATIONS

Program Inputs

PROJECT INFORMATION	
Client:	Crown Castle
Carrier:	T-Mobile
Engineer:	Farhad Ahmadyar

SITE INFORMATION		
Risk Category:	II	
Exposure Category:	C	
Topo Factor Procedure:	Method 1, Category 1	
Site Class:	D - Stiff Soil (Assumed)	
Ground Elevation:	672.24	ft *Rev H

MOUNT INFORMATION		
Mount Type:	Platform	
Num Sectors:	3	
Centerline AGL:	177.00	ft
Tower Height AGL:	177.00	ft

TOPOGRAPHIC DATA		
Topo Feature:	N/A	
Slope Distance:	N/A	ft
Crest Distance:	N/A	ft
Crest Height:	N/A	ft

FACTORS		
Directionality Fact. (K_d):	0.950	
Ground Ele. Factor (K_e):	0.976	*Rev H Only
Rooftop Speed-Up (K_s):	1.000	*Rev H Only
Topographic Factor (K_{zt}):	1.000	
Gust Effect Factor (G_h):	1.000	

CODE STANDARDS		
Building Code:	2015 IBC	
TIA Standard:	TIA-222-H	
ASCE Standard:	ASCE 7-10	

WIND AND ICE DATA		
Ultimate Wind (V_{ult}):	130	mph
Design Wind (V):	N/A	mph
Ice Wind (V_{ice}):	50	mph
Base Ice Thickness (t_i):	2	in
Flat Pressure:	114.504	psf
Round Pressure:	68.702	psf
Ice Wind Pressure:	10.163	psf

SEISMIC DATA		
Short-Period Accel. (S_s):	0.172	g
1-Second Accel. (S_1):	0.063	g
Short-Period Design (S_{DS}):	0.183	
1-Second Design (S_{D1}):	0.101	
Short-Period Coeff. (F_a):	1.600	
1-Second Coeff. (F_v):	2.400	
Amplification Factor (A_s):	3.000	
Response Mod. Coeff. (R):	2.000	

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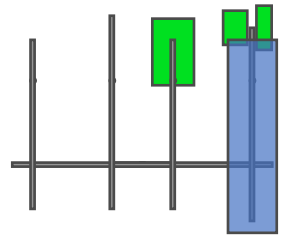
Infinigy Load Calculator V2.1.7

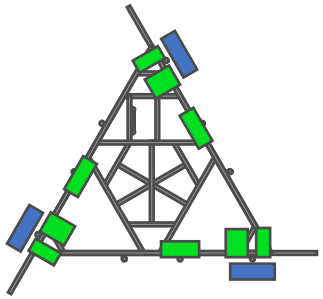
Program Inputs

ELEVATION VIEW



MP4 MP3 MP2 MP1

PLAN VIEW



Infinigy Load Calculator V2.1.7

APPURTENANCE INFORMATION

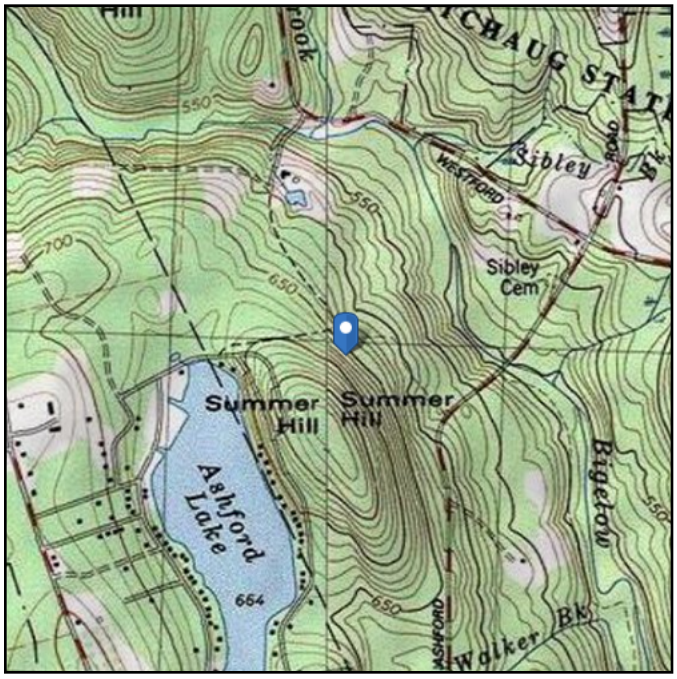
Appurtenance Name	Elevation	Qty.	K_a	q_z (psf)	EPA_N (ft^2)	EPA_T (ft^2)	Wind F_z (lbs)	Wind F_x (lbs)	Weight (lbs)	Seismic F (lbs)	Member (α sector)
ERICSSON AIR6449 B41_T-MOBILE	180.0	3	0.90	57.45	5.27	2.03	272.51	104.97	114.63	31.55	MP2
/CELWAVE APXVAALL24_43-U-NA20_TI	180.0	3	0.90	57.45	14.67	5.32	758.58	275.09	149.90	41.25	MP1
RICSSON RADIO 4460 B2/B25 B66_TMC	180.0	3	0.90	57.45	2.14	1.69	110.61	87.17	109.00	30.00	MP1
ERICSSON RADIO 4480_TMOV2	180.0	3	0.90	57.45	2.88	1.40	148.84	72.24	81.00	22.29	MP1

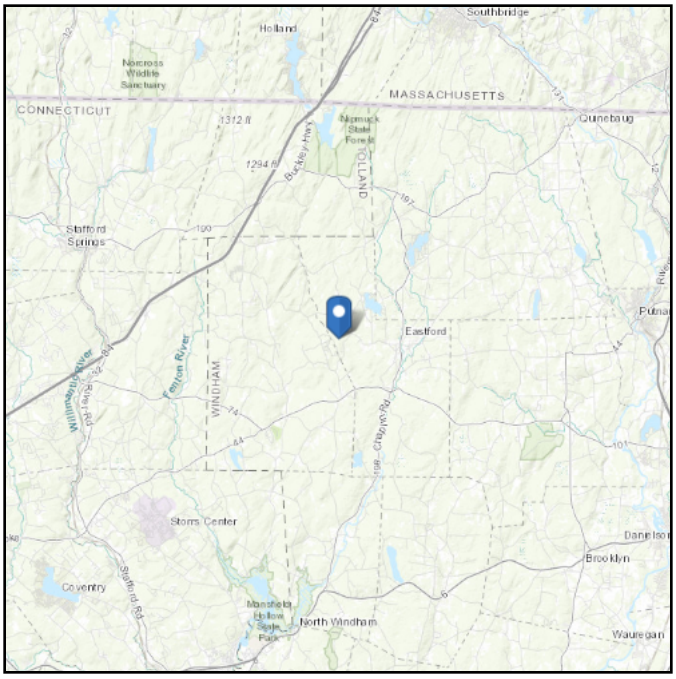
ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 672.24 ft (NAVD 88)
Latitude: 41.904506
Longitude: -72.123867





Wind

Results:

Wind Speed:	130 Vmph per 2018 Connecticut State Building Code and Appendix N
10-year MRI	78 Vmph
25-year MRI	88 Vmph
50-year MRI	95 Vmph
100-year MRI	102 Vmph

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

Date Accessed: Mon Aug 30 2021

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

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

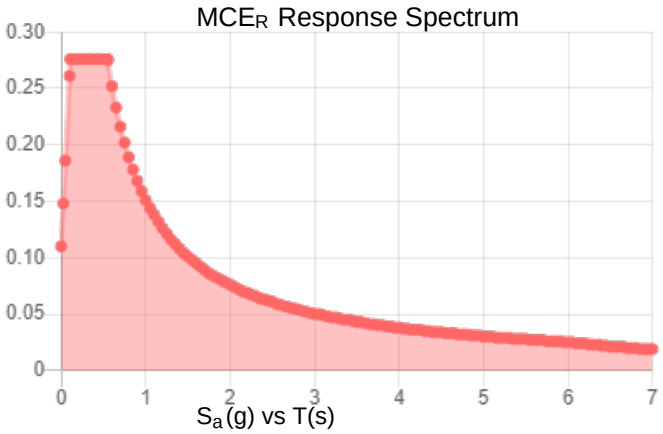
Seismic

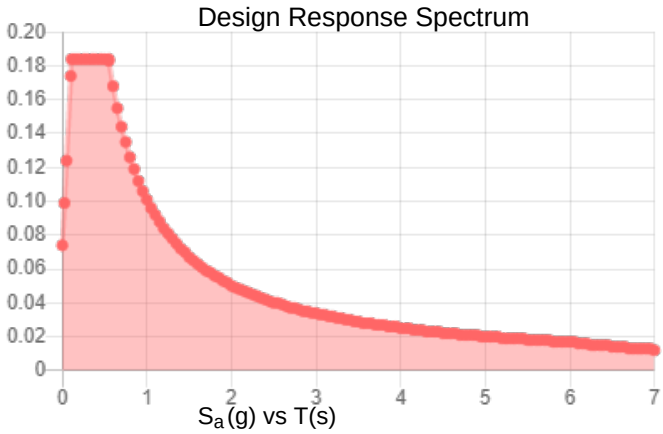
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.172	S_{DS} :	0.184
S_1 :	0.063	S_{D1} :	0.101
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.085
S_{MS} :	0.276	PGA_M :	0.136
S_{M1} :	0.151	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B





Data Accessed: Fri Aug 27 2021

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

Ice

Results:

Ice Thickness:	1.00 in.
Concurrent Temperature:	5 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Fri Aug 27 2021

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

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

APPENDIX C

SOFTWARE ANALYSIS OUTPUT

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	HOR1	N3	N1			Horizontal	Beam	Channel	A36 Gr.36	Typical
2	HOR2	N2	N1		180	Horizontal	Beam	Channel	A36 Gr.36	Typical
3	HOR3	N2	N3			Horizontal	Beam	Channel	A36 Gr.36	Typical
4	BR3	N4	N5		180	Support Chan...	Beam	Channel	A36 Gr.36	Typical
5	BR2	N6	N7			Support Chan...	Beam	Channel	A36 Gr.36	Typical
6	BR1	N8	N9		180	Support Chan...	Beam	Channel	A36 Gr.36	Typical
7	M7	N18	N10		180	Support Chan...	Beam	Channel	A36 Gr.36	Typical
8	BR4	N11	N12			Support Chan...	Beam	Channel	A36 Gr.36	Typical
9	M9	N15	N16			RIGID	None	None	RIGID	Typical
10	M10	N17	N18			RIGID	None	None	RIGID	Typical
11	M11	N19	N20			RIGID	None	None	RIGID	Typical
12	M12	N21	N28		180	Ladder Rail	Column	Single Angle	A36 Gr.36	Typical
13	M13	N22	N27		90	Ladder Rail	Column	Single Angle	A36 Gr.36	Typical
14	M14	N23	N24			RIGID	None	None	RIGID	Typical
15	M15	N25	N26			RIGID	None	None	RIGID	Typical
16	M16	N27	N28			Ladder Step	Beam	BAR	A36 Gr.36	Typical
17	HR1	N29	N30		90	Handrails	Beam	Pipe	A53 Gr.B	Typical
18	M18	N35	N36		90	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
19	M19	N37	N38			RIGID	None	None	RIGID	Typical
20	M20	N39	N40			RIGID	None	None	RIGID	Typical
21	M21	N41	N42			RIGID	None	None	RIGID	Typical
22	M22	N43	N44			RIGID	None	None	RIGID	Typical
23	M23	N45	N46			RIGID	None	None	RIGID	Typical
24	M24	N47	N48			RIGID	None	None	RIGID	Typical
25	MP1	N49	N50			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
26	MP4	N51	N52			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
27	M27	N53	N54			RIGID	None	None	RIGID	Typical
28	M28	N55	N56		180	Handrail Corn...	Beam	Single Angle	A36 Gr.36	Typical
29	M29	N58	N57			RIGID	None	None	RIGID	Typical
30	M30	N59	N60			Ladder Step	Beam	BAR	A36 Gr.36	Typical
31	M31	N61	N62			Ladder Step	Beam	BAR	A36 Gr.36	Typical
32	M32	N63	N64			Ladder Step	Beam	BAR	A36 Gr.36	Typical
33	M33	N65	N66			Ladder Step	Beam	BAR	A36 Gr.36	Typical
34	M34	N67	N68			Ladder Step	Beam	BAR	A36 Gr.36	Typical
35	M35	N69	N70			Ladder Step	Beam	BAR	A36 Gr.36	Typical
36	M36	N71	N72		180	Handrail Corn...	Beam	Single Angle	A36 Gr.36	Typical
37	M37	N73	N74		180	Handrail Corn...	Beam	Single Angle	A36 Gr.36	Typical
38	M38	N77	N78			RIGID	None	None	RIGID	Typical
39	M39	N79	N76			RIGID	None	None	RIGID	Typical
40	MP3	N81	N80			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
41	HR3	N82	N83		90	Handrails	Beam	Pipe	A53 Gr.B	Typical
42	HR2	N84	N85		90	Handrails	Beam	Pipe	A53 Gr.B	Typical
43	MP2	N88	N89			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
44	M44	N86	N87			RIGID	None	None	RIGID	Typical
45	M45	N90	N91			RIGID	None	None	RIGID	Typical
46	M46	N108	N98			RIGID	None	None	RIGID	Typical
47	M47	N109	N97			RIGID	None	None	RIGID	Typical
48	M48	N110	N94			RIGID	None	None	RIGID	Typical
49	MP7	N101	N92			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
50	M50	N111	N93			RIGID	None	None	RIGID	Typical
51	M51	N112	N95			RIGID	None	None	RIGID	Typical
52	M52	N113	N96			RIGID	None	None	RIGID	Typical
53	M53	N114	N99			RIGID	None	None	RIGID	Typical
54	M54	N115	N100			RIGID	None	None	RIGID	Typical
55	MP8	N102	N103			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
56	MP5	N104	N105			Mount Pipe	Column	Pipe	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
57	MP6	N106	N107			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
58	M58	N132	N122			RIGID	None	None	RIGID	Typical
59	M59	N133	N121			RIGID	None	None	RIGID	Typical
60	M60	N134	N118			RIGID	None	None	RIGID	Typical
61	MP11	N125	N116			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
62	M62	N135	N117			RIGID	None	None	RIGID	Typical
63	M63	N136	N119			RIGID	None	None	RIGID	Typical
64	M64	N137	N120			RIGID	None	None	RIGID	Typical
65	M65	N138	N123			RIGID	None	None	RIGID	Typical
66	M66	N139	N124			RIGID	None	None	RIGID	Typical
67	MP12	N126	N127			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
68	MP9	N128	N129			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
69	MP10	N130	N131			Mount Pipe	Column	Pipe	A53 Gr.B	Typical

Hot Rolled Steel Properties

	Label	E [psi]	G [psi]	Nu	Therm (/1...	Density[lb/...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	2.9e+7	1.115e+7	.3	.65	490	50	1.1	65	1.1
2	A36 Gr.36	2.9e+7	1.115e+7	.3	.65	490	36	1.5	58	1.2
3	A572 Gr.50	2.9e+7	1.115e+7	.3	.65	490	50	1.1	65	1.1
4	A500 Gr.B RND	2.9e+7	1.115e+7	.3	.65	527	42	1.4	58	1.3
5	A500 Gr.B Rect	2.9e+7	1.115e+7	.3	.65	527	46	1.4	58	1.3
6	A53 Gr.B	2.9e+7	1.115e+7	.3	.65	490	35	1.6	60	1.2
7	A1085	2.9e+7	1.115e+7	.3	.65	490	50	1.25	65	1.15
8	A913 Gr.65	2.9e+7	1.115e+7	.3	.65	490	65	1.1	80	1.1

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Ladder Rail	L2x2x4	Column	Single Angle	A36 Gr.36	Typical	.944	.346	.346	.021
2	Ladder Step	0.625 SR	Beam	BAR	A36 Gr.36	Typical	.307	.007	.007	.015
3	Handrails	PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
4	Mount Pipe	PIPE_2.0	Column	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
5	Horizontal	C5X9	Beam	Channel	A36 Gr.36	Typical	2.64	.624	8.89	.109
6	2.5 Mount Pipe	PIPE_2.5	Column	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
7	Support Cha...	C5X9	Beam	Channel	A36 Gr.36	Typical	2.64	.624	8.89	.109
8	Grating Angle	L1.5x1.5x4	Beam	Single Angle	A36 Gr.36	Typical	.688	.139	.139	.013
9	Handrail Cor...	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical	.901	.535	.535	.011

Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1	N1	-92.57276	-.5	123.385059	0	
2	N2	-28.572761	-.5	12.533808	0	
3	N3	35.427239	-.5	123.385059	0	
4	N4	1.183222	-.5	64.072682	0	
5	N5	-58.328744	-.5	64.072682	0	
6	N6	-33.060795	-.5	123.385059	0	
7	N7	-62.816778	-.5	71.846185	0	
8	N8	-24.084727	-.5	123.385059	0	
9	N9	5.671256	-.5	71.846185	0	
10	N10	-40.572761	-.5	39.09192	0	
11	N11	-13.239428	-.5	39.09192	0	
12	N12	-43.906094	-.5	39.09192	0	
13	N13	-24.822761	-.5	19.028998	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
14	N14	31.677239	-.5	116.889869	0	
15	N15	-41.938786	-.5	108.007927	0	
16	N16	-15.206735	-.5	108.007927	0	
17	N17	-53.938786	-.5	87.223317	0	
18	N18	-40.572761	-.5	64.072682	0	
19	N19	-3.206735	-.5	87.223317	0	
20	N20	-16.572761	-.5	64.072682	0	
21	N21	-39.072761	35	58.082301	0	
22	N22	-39.072761	35	46.082301	0	
23	N23	-28.572761	-.5	108.007927	0	
24	N24	-28.572761	-.5	64.072682	0	
25	N25	-9.889748	-.5	75.648	0	
26	N26	-47.938786	-.5	97.615622	0	
27	N27	-39.072761	-69	46.082301	0	
28	N28	-39.072761	-69	58.082301	0	
29	N29	60.427239	41.5	123.385059	0	
30	N30	-89.572761	41.5	123.385059	0	
31	N31	-32.322761	-.5	19.028998	0	
32	N32	-88.822761	-.5	116.889869	0	
33	N33	-85.072761	-.5	123.385059	0	
34	N34	27.927239	-.5	123.385059	0	
35	N35	-25.572761	-.5	64.072682	0	
36	N36	-25.572761	-.5	39.09192	0	
37	N37	-40.572761	-.5	58.082301	0	
38	N38	-39.072761	-.5	58.082301	0	
39	N39	-40.572761	-.5	46.082301	0	
40	N40	-39.072761	-.5	46.082301	0	
41	N41	-82.572761	-.5	123.385059	0	
42	N42	-82.572761	-.5	126.385059	0	
43	N43	-82.572761	41.5	123.385059	0	
44	N44	-82.572761	41.5	126.385059	0	
45	N45	25.427239	-.5	123.385059	0	
46	N46	25.427239	-.5	126.385059	0	
47	N47	25.427239	41.5	123.385059	0	
48	N48	25.427239	41.5	126.385059	0	
49	N49	25.427239	66.5	126.385059	0	
50	N50	25.427239	-29.5	126.385059	0	
51	N51	-82.572761	60.5	126.385059	0	
52	N52	-82.572761	-23.5	126.385059	0	
53	N53	-47.255773	-.5	75.648	0	
54	N54	-9.206735	-.5	97.615622	0	
55	N55	27.153736	41.5	109.054932	0	
56	N56	18.880234	41.5	123.385059	0	
57	N57	-28.572761	-.5	86.434642	0	
58	N58	-28.572761	-1	86.434642	0	
59	N59	-39.072761	-53	46.082301	0	
60	N60	-39.072761	-53	58.082301	0	
61	N61	-39.072761	-37	46.082301	0	
62	N62	-39.072761	-37	58.082301	0	
63	N63	-39.072761	-21	46.082301	0	
64	N64	-39.072761	-21	58.082301	0	
65	N65	-39.072761	-5	46.082301	0	
66	N66	-39.072761	-5	58.082301	0	
67	N67	-39.072761	11	46.082301	0	
68	N68	-39.072761	11	58.082301	0	
69	N69	-39.072761	27	46.082301	0	
70	N70	-39.072761	27	58.082301	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
71	N71	-36.846263	41.5	26.863935	0	
72	N72	-20.299258	41.5	26.863935	0	
73	N73	-76.025755	41.5	123.385059	0	
74	N74	-84.299258	41.5	109.054932	0	
75	CP	-29.438786	35.5	85.934642	0	
76	N76	-43.568761	41.5	126.385059	0	
77	N77	-43.568761	-.5	123.385059	0	
78	N78	-43.568761	-.5	126.385059	0	
79	N79	-43.568761	41.5	123.385059	0	
80	N80	-43.568761	-23.5	126.385059	0	
81	N81	-43.568761	72.5	126.385059	0	
82	N82	-41.072761	41.5	-9.116828	0	
83	N83	33.927239	41.5	120.786983	0	
84	N84	-105.072761	41.5	145.035694	0	
85	N85	-30.072761	41.5	15.131884	0	
86	N86	-13.572761	-.5	123.385059	0	
87	N87	-13.572761	-.5	126.385059	0	
88	N88	-13.572761	60.5	126.385059	0	
89	N89	-13.572761	-23.5	126.385059	0	
90	N90	-13.572761	41.5	123.385059	0	
91	N91	-13.572761	41.5	126.385059	0	
92	N92	-55.672837	-23.5	53.472516	0	
93	N93	-36.170837	-.5	19.694062	0	
94	N94	-36.170837	41.5	19.694062	0	
95	N95	-90.170837	-.5	113.224805	0	
96	N96	-90.170837	41.5	113.224805	0	
97	N97	-55.672837	-.5	53.472516	0	
98	N98	-55.672837	41.5	53.472516	0	
99	N99	-70.670837	-.5	79.449814	0	
100	N100	-70.670837	41.5	79.449814	0	
101	N101	-55.672837	72.5	53.472516	0	
102	N102	-36.170837	60.5	19.694062	0	
103	N103	-36.170837	-23.5	19.694062	0	
104	N104	-90.170837	66.5	113.224805	0	
105	N105	-90.170837	-29.5	113.224805	0	
106	N106	-70.670837	60.5	79.449814	0	
107	N107	-70.670837	-23.5	79.449814	0	
108	N108	-53.074761	41.5	54.972516	0	
109	N109	-53.074761	-.5	54.972516	0	
110	N110	-33.572761	41.5	21.194062	0	
111	N111	-33.572761	-.5	21.194062	0	
112	N112	-87.572761	-.5	114.724805	0	
113	N113	-87.572761	41.5	114.724805	0	
114	N114	-68.072761	-.5	80.949814	0	
115	N115	-68.072761	41.5	80.949814	0	
116	N116	13.523315	-23.5	79.44635	0	
117	N117	33.025315	-.5	113.224805	0	
118	N118	33.025315	41.5	113.224805	0	
119	N119	-20.974685	-.5	19.694062	0	
120	N120	-20.974685	41.5	19.694062	0	
121	N121	13.523315	-.5	79.44635	0	
122	N122	13.523315	41.5	79.44635	0	
123	N123	-1.474685	-.5	53.469052	0	
124	N124	-1.474685	41.5	53.469052	0	
125	N125	13.523315	72.5	79.44635	0	
126	N126	33.025315	60.5	113.224805	0	
127	N127	33.025315	-23.5	113.224805	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
128	N128	-20.974685	66.5	19.694062	0	
129	N129	-20.974685	-29.5	19.694062	0	
130	N130	-1.474685	60.5	53.469052	0	
131	N131	-1.474685	-23.5	53.469052	0	
132	N132	10.925239	41.5	80.94635	0	
133	N133	10.925239	-.5	80.94635	0	
134	N134	30.427239	41.5	114.724805	0	
135	N135	30.427239	-.5	114.724805	0	
136	N136	-23.572761	-.5	21.194062	0	
137	N137	-23.572761	41.5	21.194062	0	
138	N138	-4.072761	-.5	54.969052	0	
139	N139	-4.072761	41.5	54.969052	0	
140	N140	-28.572761	-.5	123.385059	0	

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
1	HOR1	Horizontal	128	Segment	Segment	Segment	Segment	Segme...				Lateral
2	HOR2	Horizontal	128	Segment	Segment	Segment	Segment	Segme...				Lateral
3	HOR3	Horizontal	128	Segment	Segment	Segment	Segment	Segme...				Lateral
4	BR3	Support Ch...	59.512			Lbyy						Lateral
5	BR2	Support Ch...	59.512			Lbyy						Lateral
6	BR1	Support Ch...	59.512			Lbyy						Lateral
7	M7	Support Ch...	24.981			Lbyy						Lateral
8	BR4	Support Ch...	30.667			Lbyy						Lateral
9	M12	Ladder Rail	104	Segment	Segment	Segment	Segment	Segme...				Lateral
10	M13	Ladder Rail	104	Segment	Segment	Segment	Segment	Segme...				Lateral
11	M16	Ladder Step	12			Lbyy						Lateral
12	HR1	Handrails	150			Lbyy						Lateral
13	M18	Grating Angle	24.981			Lbyy						Lateral
14	MP1	Mount Pipe	96			Lbyy						Lateral
15	MP4	Mount Pipe	84			Lbyy						Lateral
16	M28	Handrail Co...	16.547			Lbyy						Lateral
17	M30	Ladder Step	12			Lbyy						Lateral
18	M31	Ladder Step	12			Lbyy						Lateral
19	M32	Ladder Step	12			Lbyy						Lateral
20	M33	Ladder Step	12			Lbyy						Lateral
21	M34	Ladder Step	12			Lbyy						Lateral
22	M35	Ladder Step	12			Lbyy						Lateral
23	M36	Handrail Co...	16.547			Lbyy						Lateral
24	M37	Handrail Co...	16.547			Lbyy						Lateral
25	MP3	Mount Pipe	96			Lbyy						Lateral
26	HR3	Handrails	150			Lbyy						Lateral
27	HR2	Handrails	150			Lbyy						Lateral
28	MP2	Mount Pipe	84			Lbyy						Lateral
29	MP7	Mount Pipe	96			Lbyy						Lateral
30	MP8	Mount Pipe	84			Lbyy						Lateral
31	MP5	Mount Pipe	96			Lbyy						Lateral
32	MP6	Mount Pipe	84			Lbyy						Lateral
33	MP11	Mount Pipe	96			Lbyy						Lateral
34	MP12	Mount Pipe	84			Lbyy						Lateral
35	MP9	Mount Pipe	96			Lbyy						Lateral
36	MP10	Mount Pipe	84			Lbyy						Lateral

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Self Weight	DL		-1			18		8	
2	Wind Load AZI 0	WLZ					36			
3	Wind Load AZI 30	None					36			
4	Wind Load AZI 60	None					36			
5	Wind Load AZI 90	WLX					36			
6	Wind Load AZI 120	None					36			
7	Wind Load AZI 150	None					36			
8	Wind Load AZI 180	None					36			
9	Wind Load AZI 210	None					36			
10	Wind Load AZI 240	None					36			
11	Wind Load AZI 270	None					36			
12	Wind Load AZI 300	None					36			
13	Wind Load AZI 330	None					36			
14	Distr. Wind Load Z	WLZ						69		
15	Distr. Wind Load X	WLX						69		
16	Ice Weight	OL1					18	69	16	
17	Ice Wind Load AZI 0	OL2					36			
18	Ice Wind Load AZI 30	None					36			
19	Ice Wind Load AZI 60	None					36			
20	Ice Wind Load AZI 90	OL3					36			
21	Ice Wind Load AZI 120	None					36			
22	Ice Wind Load AZI 150	None					36			
23	Ice Wind Load AZI 180	None					36			
24	Ice Wind Load AZI 210	None					36			
25	Ice Wind Load AZI 240	None					36			
26	Ice Wind Load AZI 270	None					36			
27	Ice Wind Load AZI 300	None					36			
28	Ice Wind Load AZI 330	None					36			
29	Distr. Ice Wind Load Z	OL2						69		
30	Distr. Ice Wind Load X	OL3						69		
31	Seismic Load Z	ELZ			-.275		18			
32	Seismic Load X	ELX	-.275				18			
33	Service Live Loads	LL				1				
34	Maintenance Load 1	LL				1				
35	Maintenance Load 2	LL				1				
36	Maintenance Load 3	LL				1				
37	Maintenance Load 4	LL				1				
38	Maintenance Load 5	LL				1				
39	Maintenance Load 6	LL				1				
40	Maintenance Load 7	LL				1				
41	Maintenance Load 8	LL				1				
42	Maintenance Load 9	LL				1				
43	Maintenance Load 10	LL				1				
44	Maintenance Load 11	LL				1				
45	Maintenance Load 12	LL				1				
46	BLC 1 Transient Area...	None						94		
47	BLC 16 Transient Are...	None						94		

Joint Loads and Enforced Displacements (BLC 33 : Service Live Loads)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N3	L	Y	-250

Joint Loads and Enforced Displacements (BLC 34 : Maintenance Load 1)

Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...

Joint Loads and Enforced Displacements (BLC 34 : Maintenance Load 1) (Continued)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N45	L	Y	-500

Joint Loads and Enforced Displacements (BLC 35 : Maintenance Load 2)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N41	L	Y	-500

Joint Loads and Enforced Displacements (BLC 36 : Maintenance Load 3)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N77	L	Y	-500

Joint Loads and Enforced Displacements (BLC 37 : Maintenance Load 4)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N86	L	Y	-500

Joint Loads and Enforced Displacements (BLC 38 : Maintenance Load 5)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N109	L	Y	-500

Joint Loads and Enforced Displacements (BLC 39 : Maintenance Load 6)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N111	L	Y	-500

Joint Loads and Enforced Displacements (BLC 40 : Maintenance Load 7)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N112	L	Y	-500

Joint Loads and Enforced Displacements (BLC 41 : Maintenance Load 8)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N114	L	Y	-500

Joint Loads and Enforced Displacements (BLC 42 : Maintenance Load 9)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N133	L	Y	-500

Joint Loads and Enforced Displacements (BLC 43 : Maintenance Load 10)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N135	L	Y	-500

Joint Loads and Enforced Displacements (BLC 44 : Maintenance Load 11)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N136	L	Y	-500

Joint Loads and Enforced Displacements (BLC 45 : Maintenance Load 12)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N138	L	Y	-500

Member Point Loads (BLC 1 : Self Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	Y	-57.315	6
2	MP2	Y	-57.315	27

Member Point Loads (BLC 1 : Self Weight) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
3	MP1	Y	-74.95	6
4	MP1	Y	-74.95	90
5	MP1	Y	-109	24
6	MP1	Y	-81	72
7	MP6	Y	-57.315	6
8	MP6	Y	-57.315	27
9	MP5	Y	-74.95	6
10	MP5	Y	-74.95	90
11	MP5	Y	-109	24
12	MP5	Y	-81	72
13	MP10	Y	-57.315	6
14	MP10	Y	-57.315	27
15	MP9	Y	-74.95	6
16	MP9	Y	-74.95	90
17	MP9	Y	-109	24
18	MP9	Y	-81	72

Member Point Loads (BLC 2 : Wind Load AZI 0)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	0	6
2	MP2	Z	-136.25	6
3	MP2	X	0	27
4	MP2	Z	-136.25	27
5	MP1	X	0	6
6	MP1	Z	-379.29	6
7	MP1	X	0	90
8	MP1	Z	-379.29	90
9	MP1	X	0	24
10	MP1	Z	-110.61	24
11	MP1	X	0	72
12	MP1	Z	-148.84	72
13	MP6	X	0	6
14	MP6	Z	-73.43	6
15	MP6	X	0	27
16	MP6	Z	-73.43	27
17	MP5	X	0	6
18	MP5	Z	-197.98	6
19	MP5	X	0	90
20	MP5	Z	-197.98	90
21	MP5	X	0	24
22	MP5	Z	-93.03	24
23	MP5	X	0	72
24	MP5	Z	-91.39	72
25	MP10	X	0	6
26	MP10	Z	-73.43	6
27	MP10	X	0	27
28	MP10	Z	-73.43	27
29	MP9	X	0	6
30	MP9	Z	-197.98	6
31	MP9	X	0	90
32	MP9	Z	-197.98	90
33	MP9	X	0	24
34	MP9	Z	-93.03	24
35	MP9	X	0	72
36	MP9	Z	-91.39	72

Member Point Loads (BLC 3 : Wind Load AZI 30)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-57.66	6
2	MP2	Z	-99.86	6
3	MP2	X	-57.66	27
4	MP2	Z	-99.86	27
5	MP1	X	-159.43	6
6	MP1	Z	-276.13	6
7	MP1	X	-159.43	90
8	MP1	Z	-276.13	90
9	MP1	X	-52.38	24
10	MP1	Z	-90.72	24
11	MP1	X	-64.84	72
12	MP1	Z	-112.31	72
13	MP6	X	-57.66	6
14	MP6	Z	-99.86	6
15	MP6	X	-57.66	27
16	MP6	Z	-99.86	27
17	MP5	X	-159.43	6
18	MP5	Z	-276.13	6
19	MP5	X	-159.43	90
20	MP5	Z	-276.13	90
21	MP5	X	-52.38	24
22	MP5	Z	-90.72	24
23	MP5	X	-64.84	72
24	MP5	Z	-112.31	72
25	MP10	X	-26.24	6
26	MP10	Z	-45.45	6
27	MP10	X	-26.24	27
28	MP10	Z	-45.45	27
29	MP9	X	-68.77	6
30	MP9	Z	-119.12	6
31	MP9	X	-68.77	90
32	MP9	Z	-119.12	90
33	MP9	X	-43.59	24
34	MP9	Z	-75.49	24
35	MP9	X	-36.12	72
36	MP9	Z	-62.56	72

Member Point Loads (BLC 4 : Wind Load AZI 60)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-63.59	6
2	MP2	Z	-36.71	6
3	MP2	X	-63.59	27
4	MP2	Z	-36.71	27
5	MP1	X	-171.46	6
6	MP1	Z	-98.99	6
7	MP1	X	-171.46	90
8	MP1	Z	-98.99	90
9	MP1	X	-80.57	24
10	MP1	Z	-46.52	24
11	MP1	X	-79.15	72
12	MP1	Z	-45.7	72
13	MP6	X	-118	6
14	MP6	Z	-68.13	6
15	MP6	X	-118	27
16	MP6	Z	-68.13	27
17	MP5	X	-328.47	6

Member Point Loads (BLC 4 : Wind Load AZI 60) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
18	MP5	Z	-189.64	6
19	MP5	X	-328.47	90
20	MP5	Z	-189.64	90
21	MP5	X	-95.8	24
22	MP5	Z	-55.31	24
23	MP5	X	-128.9	72
24	MP5	Z	-74.42	72
25	MP10	X	-63.59	6
26	MP10	Z	-36.71	6
27	MP10	X	-63.59	27
28	MP10	Z	-36.71	27
29	MP9	X	-171.46	6
30	MP9	Z	-98.99	6
31	MP9	X	-171.46	90
32	MP9	Z	-98.99	90
33	MP9	X	-80.57	24
34	MP9	Z	-46.52	24
35	MP9	X	-79.15	72
36	MP9	Z	-45.7	72

Member Point Loads (BLC 5 : Wind Load AZI 90)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-52.48	6
2	MP2	Z	0	6
3	MP2	X	-52.48	27
4	MP2	Z	0	27
5	MP1	X	-137.55	6
6	MP1	Z	0	6
7	MP1	X	-137.55	90
8	MP1	Z	0	90
9	MP1	X	-87.17	24
10	MP1	Z	0	24
11	MP1	X	-72.24	72
12	MP1	Z	0	72
13	MP6	X	-115.31	6
14	MP6	Z	0	6
15	MP6	X	-115.31	27
16	MP6	Z	0	27
17	MP5	X	-318.85	6
18	MP5	Z	0	6
19	MP5	X	-318.85	90
20	MP5	Z	0	90
21	MP5	X	-104.75	24
22	MP5	Z	0	24
23	MP5	X	-129.69	72
24	MP5	Z	0	72
25	MP10	X	-115.31	6
26	MP10	Z	0	6
27	MP10	X	-115.31	27
28	MP10	Z	0	27
29	MP9	X	-318.85	6
30	MP9	Z	0	6
31	MP9	X	-318.85	90
32	MP9	Z	0	90
33	MP9	X	-104.75	24
34	MP9	Z	0	24

Member Point Loads (BLC 5 : Wind Load AZI 90) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
35	MP9	X	-129.69	72
36	MP9	Z	0	72

Member Point Loads (BLC 6 : Wind Load AZI 120)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-63.59	6
2	MP2	Z	36.71	6
3	MP2	X	-63.59	27
4	MP2	Z	36.71	27
5	MP1	X	-171.46	6
6	MP1	Z	98.99	6
7	MP1	X	-171.46	90
8	MP1	Z	98.99	90
9	MP1	X	-80.57	24
10	MP1	Z	46.52	24
11	MP1	X	-79.15	72
12	MP1	Z	45.7	72
13	MP6	X	-63.59	6
14	MP6	Z	36.71	6
15	MP6	X	-63.59	27
16	MP6	Z	36.71	27
17	MP5	X	-171.46	6
18	MP5	Z	98.99	6
19	MP5	X	-171.46	90
20	MP5	Z	98.99	90
21	MP5	X	-80.57	24
22	MP5	Z	46.52	24
23	MP5	X	-79.15	72
24	MP5	Z	45.7	72
25	MP10	X	-118	6
26	MP10	Z	68.13	6
27	MP10	X	-118	27
28	MP10	Z	68.13	27
29	MP9	X	-328.47	6
30	MP9	Z	189.64	6
31	MP9	X	-328.47	90
32	MP9	Z	189.64	90
33	MP9	X	-95.8	24
34	MP9	Z	55.31	24
35	MP9	X	-128.9	72
36	MP9	Z	74.42	72

Member Point Loads (BLC 7 : Wind Load AZI 150)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-57.66	6
2	MP2	Z	99.86	6
3	MP2	X	-57.66	27
4	MP2	Z	99.86	27
5	MP1	X	-159.43	6
6	MP1	Z	276.13	6
7	MP1	X	-159.43	90
8	MP1	Z	276.13	90
9	MP1	X	-52.38	24
10	MP1	Z	90.72	24
11	MP1	X	-64.84	72
12	MP1	Z	112.31	72

Member Point Loads (BLC 7 : Wind Load AZI 150) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
13	MP6	X	-26.24	6
14	MP6	Z	45.45	6
15	MP6	X	-26.24	27
16	MP6	Z	45.45	27
17	MP5	X	-68.77	6
18	MP5	Z	119.12	6
19	MP5	X	-68.77	90
20	MP5	Z	119.12	90
21	MP5	X	-43.59	24
22	MP5	Z	75.49	24
23	MP5	X	-36.12	72
24	MP5	Z	62.56	72
25	MP10	X	-57.66	6
26	MP10	Z	99.86	6
27	MP10	X	-57.66	27
28	MP10	Z	99.86	27
29	MP9	X	-159.43	6
30	MP9	Z	276.13	6
31	MP9	X	-159.43	90
32	MP9	Z	276.13	90
33	MP9	X	-52.38	24
34	MP9	Z	90.72	24
35	MP9	X	-64.84	72
36	MP9	Z	112.31	72

Member Point Loads (BLC 8 : Wind Load AZI 180)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	0	6
2	MP2	Z	136.25	6
3	MP2	X	0	27
4	MP2	Z	136.25	27
5	MP1	X	0	6
6	MP1	Z	379.29	6
7	MP1	X	0	90
8	MP1	Z	379.29	90
9	MP1	X	0	24
10	MP1	Z	110.61	24
11	MP1	X	0	72
12	MP1	Z	148.84	72
13	MP6	X	0	6
14	MP6	Z	73.43	6
15	MP6	X	0	27
16	MP6	Z	73.43	27
17	MP5	X	0	6
18	MP5	Z	197.98	6
19	MP5	X	0	90
20	MP5	Z	197.98	90
21	MP5	X	0	24
22	MP5	Z	93.03	24
23	MP5	X	0	72
24	MP5	Z	91.39	72
25	MP10	X	0	6
26	MP10	Z	73.43	6
27	MP10	X	0	27
28	MP10	Z	73.43	27
29	MP9	X	0	6

Member Point Loads (BLC 8 : Wind Load AZI 180) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
30	MP9	Z	197.98	6
31	MP9	X	0	90
32	MP9	Z	197.98	90
33	MP9	X	0	24
34	MP9	Z	93.03	24
35	MP9	X	0	72
36	MP9	Z	91.39	72

Member Point Loads (BLC 9 : Wind Load AZI 210)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	57.66	6
2	MP2	Z	99.86	6
3	MP2	X	57.66	27
4	MP2	Z	99.86	27
5	MP1	X	159.43	6
6	MP1	Z	276.13	6
7	MP1	X	159.43	90
8	MP1	Z	276.13	90
9	MP1	X	52.38	24
10	MP1	Z	90.72	24
11	MP1	X	64.84	72
12	MP1	Z	112.31	72
13	MP6	X	57.66	6
14	MP6	Z	99.86	6
15	MP6	X	57.66	27
16	MP6	Z	99.86	27
17	MP5	X	159.43	6
18	MP5	Z	276.13	6
19	MP5	X	159.43	90
20	MP5	Z	276.13	90
21	MP5	X	52.38	24
22	MP5	Z	90.72	24
23	MP5	X	64.84	72
24	MP5	Z	112.31	72
25	MP10	X	26.24	6
26	MP10	Z	45.45	6
27	MP10	X	26.24	27
28	MP10	Z	45.45	27
29	MP9	X	68.77	6
30	MP9	Z	119.12	6
31	MP9	X	68.77	90
32	MP9	Z	119.12	90
33	MP9	X	43.59	24
34	MP9	Z	75.49	24
35	MP9	X	36.12	72
36	MP9	Z	62.56	72

Member Point Loads (BLC 10 : Wind Load AZI 240)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	63.59	6
2	MP2	Z	36.71	6
3	MP2	X	63.59	27
4	MP2	Z	36.71	27
5	MP1	X	171.46	6
6	MP1	Z	98.99	6
7	MP1	X	171.46	90

Member Point Loads (BLC 10 : Wind Load AZI 240) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
8	MP1	Z	98.99	90
9	MP1	X	80.57	24
10	MP1	Z	46.52	24
11	MP1	X	79.15	72
12	MP1	Z	45.7	72
13	MP6	X	118	6
14	MP6	Z	68.13	6
15	MP6	X	118	27
16	MP6	Z	68.13	27
17	MP5	X	328.47	6
18	MP5	Z	189.64	6
19	MP5	X	328.47	90
20	MP5	Z	189.64	90
21	MP5	X	95.8	24
22	MP5	Z	55.31	24
23	MP5	X	128.9	72
24	MP5	Z	74.42	72
25	MP10	X	63.59	6
26	MP10	Z	36.71	6
27	MP10	X	63.59	27
28	MP10	Z	36.71	27
29	MP9	X	171.46	6
30	MP9	Z	98.99	6
31	MP9	X	171.46	90
32	MP9	Z	98.99	90
33	MP9	X	80.57	24
34	MP9	Z	46.52	24
35	MP9	X	79.15	72
36	MP9	Z	45.7	72

Member Point Loads (BLC 11 : Wind Load AZI 270)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	52.48	6
2	MP2	Z	0	6
3	MP2	X	52.48	27
4	MP2	Z	0	27
5	MP1	X	137.55	6
6	MP1	Z	0	6
7	MP1	X	137.55	90
8	MP1	Z	0	90
9	MP1	X	87.17	24
10	MP1	Z	0	24
11	MP1	X	72.24	72
12	MP1	Z	0	72
13	MP6	X	115.31	6
14	MP6	Z	0	6
15	MP6	X	115.31	27
16	MP6	Z	0	27
17	MP5	X	318.85	6
18	MP5	Z	0	6
19	MP5	X	318.85	90
20	MP5	Z	0	90
21	MP5	X	104.75	24
22	MP5	Z	0	24
23	MP5	X	129.69	72
24	MP5	Z	0	72

Member Point Loads (BLC 11 : Wind Load AZI 270) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
25	MP10	X	115.31	6
26	MP10	Z	0	6
27	MP10	X	115.31	27
28	MP10	Z	0	27
29	MP9	X	318.85	6
30	MP9	Z	0	6
31	MP9	X	318.85	90
32	MP9	Z	0	90
33	MP9	X	104.75	24
34	MP9	Z	0	24
35	MP9	X	129.69	72
36	MP9	Z	0	72

Member Point Loads (BLC 12 : Wind Load AZI 300)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	63.59	6
2	MP2	Z	-36.71	6
3	MP2	X	63.59	27
4	MP2	Z	-36.71	27
5	MP1	X	171.46	6
6	MP1	Z	-98.99	6
7	MP1	X	171.46	90
8	MP1	Z	-98.99	90
9	MP1	X	80.57	24
10	MP1	Z	-46.52	24
11	MP1	X	79.15	72
12	MP1	Z	-45.7	72
13	MP6	X	63.59	6
14	MP6	Z	-36.71	6
15	MP6	X	63.59	27
16	MP6	Z	-36.71	27
17	MP5	X	171.46	6
18	MP5	Z	-98.99	6
19	MP5	X	171.46	90
20	MP5	Z	-98.99	90
21	MP5	X	80.57	24
22	MP5	Z	-46.52	24
23	MP5	X	79.15	72
24	MP5	Z	-45.7	72
25	MP10	X	118	6
26	MP10	Z	-68.13	6
27	MP10	X	118	27
28	MP10	Z	-68.13	27
29	MP9	X	328.47	6
30	MP9	Z	-189.64	6
31	MP9	X	328.47	90
32	MP9	Z	-189.64	90
33	MP9	X	95.8	24
34	MP9	Z	-55.31	24
35	MP9	X	128.9	72
36	MP9	Z	-74.42	72

Member Point Loads (BLC 13 : Wind Load AZI 330)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	57.66	6
2	MP2	Z	-99.86	6

Member Point Loads (BLC 13 : Wind Load AZI 330) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
3	MP2	X	57.66	27
4	MP2	Z	-99.86	27
5	MP1	X	159.43	6
6	MP1	Z	-276.13	6
7	MP1	X	159.43	90
8	MP1	Z	-276.13	90
9	MP1	X	52.38	24
10	MP1	Z	-90.72	24
11	MP1	X	64.84	72
12	MP1	Z	-112.31	72
13	MP6	X	26.24	6
14	MP6	Z	-45.45	6
15	MP6	X	26.24	27
16	MP6	Z	-45.45	27
17	MP5	X	68.77	6
18	MP5	Z	-119.12	6
19	MP5	X	68.77	90
20	MP5	Z	-119.12	90
21	MP5	X	43.59	24
22	MP5	Z	-75.49	24
23	MP5	X	36.12	72
24	MP5	Z	-62.56	72
25	MP10	X	57.66	6
26	MP10	Z	-99.86	6
27	MP10	X	57.66	27
28	MP10	Z	-99.86	27
29	MP9	X	159.43	6
30	MP9	Z	-276.13	6
31	MP9	X	159.43	90
32	MP9	Z	-276.13	90
33	MP9	X	52.38	24
34	MP9	Z	-90.72	24
35	MP9	X	64.84	72
36	MP9	Z	-112.31	72

Member Point Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	Y	-111.67	6
2	MP2	Y	-111.67	27
3	MP1	Y	-303.488	6
4	MP1	Y	-303.488	90
5	MP1	Y	-133.581	24
6	MP1	Y	-132.836	72
7	MP6	Y	-111.67	6
8	MP6	Y	-111.67	27
9	MP5	Y	-303.488	6
10	MP5	Y	-303.488	90
11	MP5	Y	-133.581	24
12	MP5	Y	-132.836	72
13	MP10	Y	-111.67	6
14	MP10	Y	-111.67	27
15	MP9	Y	-303.488	6
16	MP9	Y	-303.488	90
17	MP9	Y	-133.581	24
18	MP9	Y	-132.836	72

Member Point Loads (BLC 17 : Ice Wind Load AZI 0)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	0	6
2	MP2	Z	-12.69	6
3	MP2	X	0	27
4	MP2	Z	-12.69	27
5	MP1	X	0	6
6	MP1	Z	-40.12	6
7	MP1	X	0	90
8	MP1	Z	-40.12	90
9	MP1	X	0	24
10	MP1	Z	-11.46	24
11	MP1	X	0	72
12	MP1	Z	-14.52	72
13	MP6	X	0	6
14	MP6	Z	-8.71	6
15	MP6	X	0	27
16	MP6	Z	-8.71	27
17	MP5	X	0	6
18	MP5	Z	-27.25	6
19	MP5	X	0	90
20	MP5	Z	-27.25	90
21	MP5	X	0	24
22	MP5	Z	-10.07	24
23	MP5	X	0	72
24	MP5	Z	-11.02	72
25	MP10	X	0	6
26	MP10	Z	-8.71	6
27	MP10	X	0	27
28	MP10	Z	-8.71	27
29	MP9	X	0	6
30	MP9	Z	-27.25	6
31	MP9	X	0	90
32	MP9	Z	-27.25	90
33	MP9	X	0	24
34	MP9	Z	-10.07	24
35	MP9	X	0	72
36	MP9	Z	-11.02	72

Member Point Loads (BLC 18 : Ice Wind Load AZI 30)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-5.68	6
2	MP2	Z	-9.84	6
3	MP2	X	-5.68	27
4	MP2	Z	-9.84	27
5	MP1	X	-17.92	6
6	MP1	Z	-31.03	6
7	MP1	X	-17.92	90
8	MP1	Z	-31.03	90
9	MP1	X	-5.5	24
10	MP1	Z	-9.52	24
11	MP1	X	-6.68	72
12	MP1	Z	-11.56	72
13	MP6	X	-5.68	6
14	MP6	Z	-9.84	6
15	MP6	X	-5.68	27
16	MP6	Z	-9.84	27
17	MP5	X	-17.92	6

Member Point Loads (BLC 18 : Ice Wind Load AZI 30) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
18	MP5	Z	-31.03	6
19	MP5	X	-17.92	90
20	MP5	Z	-31.03	90
21	MP5	X	-5.5	24
22	MP5	Z	-9.52	24
23	MP5	X	-6.68	72
24	MP5	Z	-11.56	72
25	MP10	X	-3.69	6
26	MP10	Z	-6.39	6
27	MP10	X	-3.69	27
28	MP10	Z	-6.39	27
29	MP9	X	-11.48	6
30	MP9	Z	-19.88	6
31	MP9	X	-11.48	90
32	MP9	Z	-19.88	90
33	MP9	X	-4.8	24
34	MP9	Z	-8.32	24
35	MP9	X	-4.93	72
36	MP9	Z	-8.54	72

Member Point Loads (BLC 19 : Ice Wind Load AZI 60)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-7.54	6
2	MP2	Z	-4.35	6
3	MP2	X	-7.54	27
4	MP2	Z	-4.35	27
5	MP1	X	-23.6	6
6	MP1	Z	-13.63	6
7	MP1	X	-23.6	90
8	MP1	Z	-13.63	90
9	MP1	X	-8.72	24
10	MP1	Z	-5.03	24
11	MP1	X	-9.55	72
12	MP1	Z	-5.51	72
13	MP6	X	-10.99	6
14	MP6	Z	-6.35	6
15	MP6	X	-10.99	27
16	MP6	Z	-6.35	27
17	MP5	X	-34.75	6
18	MP5	Z	-20.06	6
19	MP5	X	-34.75	90
20	MP5	Z	-20.06	90
21	MP5	X	-9.92	24
22	MP5	Z	-5.73	24
23	MP5	X	-12.57	72
24	MP5	Z	-7.26	72
25	MP10	X	-7.54	6
26	MP10	Z	-4.35	6
27	MP10	X	-7.54	27
28	MP10	Z	-4.35	27
29	MP9	X	-23.6	6
30	MP9	Z	-13.63	6
31	MP9	X	-23.6	90
32	MP9	Z	-13.63	90
33	MP9	X	-8.72	24
34	MP9	Z	-5.03	24

Member Point Loads (BLC 19 : Ice Wind Load AZI 60) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
35	MP9	X	-9.55	72
36	MP9	Z	-5.51	72

Member Point Loads (BLC 20 : Ice Wind Load AZI 90)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-7.38	6
2	MP2	Z	0	6
3	MP2	X	-7.38	27
4	MP2	Z	0	27
5	MP1	X	-22.96	6
6	MP1	Z	0	6
7	MP1	X	-22.96	90
8	MP1	Z	0	90
9	MP1	X	-9.61	24
10	MP1	Z	0	24
11	MP1	X	-9.86	72
12	MP1	Z	0	72
13	MP6	X	-11.36	6
14	MP6	Z	0	6
15	MP6	X	-11.36	27
16	MP6	Z	0	27
17	MP5	X	-35.83	6
18	MP5	Z	0	6
19	MP5	X	-35.83	90
20	MP5	Z	0	90
21	MP5	X	-10.99	24
22	MP5	Z	0	24
23	MP5	X	-13.35	72
24	MP5	Z	0	72
25	MP10	X	-11.36	6
26	MP10	Z	0	6
27	MP10	X	-11.36	27
28	MP10	Z	0	27
29	MP9	X	-35.83	6
30	MP9	Z	0	6
31	MP9	X	-35.83	90
32	MP9	Z	0	90
33	MP9	X	-10.99	24
34	MP9	Z	0	24
35	MP9	X	-13.35	72
36	MP9	Z	0	72

Member Point Loads (BLC 21 : Ice Wind Load AZI 120)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-7.54	6
2	MP2	Z	4.35	6
3	MP2	X	-7.54	27
4	MP2	Z	4.35	27
5	MP1	X	-23.6	6
6	MP1	Z	13.63	6
7	MP1	X	-23.6	90
8	MP1	Z	13.63	90
9	MP1	X	-8.72	24
10	MP1	Z	5.03	24
11	MP1	X	-9.55	72
12	MP1	Z	5.51	72

Member Point Loads (BLC 21 : Ice Wind Load AZI 120) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
13	MP6	X	-7.54	6
14	MP6	Z	4.35	6
15	MP6	X	-7.54	27
16	MP6	Z	4.35	27
17	MP5	X	-23.6	6
18	MP5	Z	13.63	6
19	MP5	X	-23.6	90
20	MP5	Z	13.63	90
21	MP5	X	-8.72	24
22	MP5	Z	5.03	24
23	MP5	X	-9.55	72
24	MP5	Z	5.51	72
25	MP10	X	-10.99	6
26	MP10	Z	6.35	6
27	MP10	X	-10.99	27
28	MP10	Z	6.35	27
29	MP9	X	-34.75	6
30	MP9	Z	20.06	6
31	MP9	X	-34.75	90
32	MP9	Z	20.06	90
33	MP9	X	-9.92	24
34	MP9	Z	5.73	24
35	MP9	X	-12.57	72
36	MP9	Z	7.26	72

Member Point Loads (BLC 22 : Ice Wind Load AZI 150)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-5.68	6
2	MP2	Z	9.84	6
3	MP2	X	-5.68	27
4	MP2	Z	9.84	27
5	MP1	X	-17.92	6
6	MP1	Z	31.03	6
7	MP1	X	-17.92	90
8	MP1	Z	31.03	90
9	MP1	X	-5.5	24
10	MP1	Z	9.52	24
11	MP1	X	-6.68	72
12	MP1	Z	11.56	72
13	MP6	X	-3.69	6
14	MP6	Z	6.39	6
15	MP6	X	-3.69	27
16	MP6	Z	6.39	27
17	MP5	X	-11.48	6
18	MP5	Z	19.88	6
19	MP5	X	-11.48	90
20	MP5	Z	19.88	90
21	MP5	X	-4.8	24
22	MP5	Z	8.32	24
23	MP5	X	-4.93	72
24	MP5	Z	8.54	72
25	MP10	X	-5.68	6
26	MP10	Z	9.84	6
27	MP10	X	-5.68	27
28	MP10	Z	9.84	27
29	MP9	X	-17.92	6

Member Point Loads (BLC 22 : Ice Wind Load AZI 150) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
30	MP9	Z	31.03	6
31	MP9	X	-17.92	90
32	MP9	Z	31.03	90
33	MP9	X	-5.5	24
34	MP9	Z	9.52	24
35	MP9	X	-6.68	72
36	MP9	Z	11.56	72

Member Point Loads (BLC 23 : Ice Wind Load AZI 180)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	0	6
2	MP2	Z	12.69	6
3	MP2	X	0	27
4	MP2	Z	12.69	27
5	MP1	X	0	6
6	MP1	Z	40.12	6
7	MP1	X	0	90
8	MP1	Z	40.12	90
9	MP1	X	0	24
10	MP1	Z	11.46	24
11	MP1	X	0	72
12	MP1	Z	14.52	72
13	MP6	X	0	6
14	MP6	Z	8.71	6
15	MP6	X	0	27
16	MP6	Z	8.71	27
17	MP5	X	0	6
18	MP5	Z	27.25	6
19	MP5	X	0	90
20	MP5	Z	27.25	90
21	MP5	X	0	24
22	MP5	Z	10.07	24
23	MP5	X	0	72
24	MP5	Z	11.02	72
25	MP10	X	0	6
26	MP10	Z	8.71	6
27	MP10	X	0	27
28	MP10	Z	8.71	27
29	MP9	X	0	6
30	MP9	Z	27.25	6
31	MP9	X	0	90
32	MP9	Z	27.25	90
33	MP9	X	0	24
34	MP9	Z	10.07	24
35	MP9	X	0	72
36	MP9	Z	11.02	72

Member Point Loads (BLC 24 : Ice Wind Load AZI 210)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	5.68	6
2	MP2	Z	9.84	6
3	MP2	X	5.68	27
4	MP2	Z	9.84	27
5	MP1	X	17.92	6
6	MP1	Z	31.03	6
7	MP1	X	17.92	90

Member Point Loads (BLC 24 : Ice Wind Load AZI 210) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
8	MP1	Z	31.03	90
9	MP1	X	5.5	24
10	MP1	Z	9.52	24
11	MP1	X	6.68	72
12	MP1	Z	11.56	72
13	MP6	X	5.68	6
14	MP6	Z	9.84	6
15	MP6	X	5.68	27
16	MP6	Z	9.84	27
17	MP5	X	17.92	6
18	MP5	Z	31.03	6
19	MP5	X	17.92	90
20	MP5	Z	31.03	90
21	MP5	X	5.5	24
22	MP5	Z	9.52	24
23	MP5	X	6.68	72
24	MP5	Z	11.56	72
25	MP10	X	3.69	6
26	MP10	Z	6.39	6
27	MP10	X	3.69	27
28	MP10	Z	6.39	27
29	MP9	X	11.48	6
30	MP9	Z	19.88	6
31	MP9	X	11.48	90
32	MP9	Z	19.88	90
33	MP9	X	4.8	24
34	MP9	Z	8.32	24
35	MP9	X	4.93	72
36	MP9	Z	8.54	72

Member Point Loads (BLC 25 : Ice Wind Load AZI 240)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	7.54	6
2	MP2	Z	4.35	6
3	MP2	X	7.54	27
4	MP2	Z	4.35	27
5	MP1	X	23.6	6
6	MP1	Z	13.63	6
7	MP1	X	23.6	90
8	MP1	Z	13.63	90
9	MP1	X	8.72	24
10	MP1	Z	5.03	24
11	MP1	X	9.55	72
12	MP1	Z	5.51	72
13	MP6	X	10.99	6
14	MP6	Z	6.35	6
15	MP6	X	10.99	27
16	MP6	Z	6.35	27
17	MP5	X	34.75	6
18	MP5	Z	20.06	6
19	MP5	X	34.75	90
20	MP5	Z	20.06	90
21	MP5	X	9.92	24
22	MP5	Z	5.73	24
23	MP5	X	12.57	72
24	MP5	Z	7.26	72

Member Point Loads (BLC 25 : Ice Wind Load AZI 240) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
25	MP10	X	7.54	6
26	MP10	Z	4.35	6
27	MP10	X	7.54	27
28	MP10	Z	4.35	27
29	MP9	X	23.6	6
30	MP9	Z	13.63	6
31	MP9	X	23.6	90
32	MP9	Z	13.63	90
33	MP9	X	8.72	24
34	MP9	Z	5.03	24
35	MP9	X	9.55	72
36	MP9	Z	5.51	72

Member Point Loads (BLC 26 : Ice Wind Load AZI 270)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	7.38	6
2	MP2	Z	0	6
3	MP2	X	7.38	27
4	MP2	Z	0	27
5	MP1	X	22.96	6
6	MP1	Z	0	6
7	MP1	X	22.96	90
8	MP1	Z	0	90
9	MP1	X	9.61	24
10	MP1	Z	0	24
11	MP1	X	9.86	72
12	MP1	Z	0	72
13	MP6	X	11.36	6
14	MP6	Z	0	6
15	MP6	X	11.36	27
16	MP6	Z	0	27
17	MP5	X	35.83	6
18	MP5	Z	0	6
19	MP5	X	35.83	90
20	MP5	Z	0	90
21	MP5	X	10.99	24
22	MP5	Z	0	24
23	MP5	X	13.35	72
24	MP5	Z	0	72
25	MP10	X	11.36	6
26	MP10	Z	0	6
27	MP10	X	11.36	27
28	MP10	Z	0	27
29	MP9	X	35.83	6
30	MP9	Z	0	6
31	MP9	X	35.83	90
32	MP9	Z	0	90
33	MP9	X	10.99	24
34	MP9	Z	0	24
35	MP9	X	13.35	72
36	MP9	Z	0	72

Member Point Loads (BLC 27 : Ice Wind Load AZI 300)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	7.54	6
2	MP2	Z	-4.35	6

Member Point Loads (BLC 27 : Ice Wind Load AZI 300) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
3	MP2	X	7.54	27
4	MP2	Z	-4.35	27
5	MP1	X	23.6	6
6	MP1	Z	-13.63	6
7	MP1	X	23.6	90
8	MP1	Z	-13.63	90
9	MP1	X	8.72	24
10	MP1	Z	-5.03	24
11	MP1	X	9.55	72
12	MP1	Z	-5.51	72
13	MP6	X	7.54	6
14	MP6	Z	-4.35	6
15	MP6	X	7.54	27
16	MP6	Z	-4.35	27
17	MP5	X	23.6	6
18	MP5	Z	-13.63	6
19	MP5	X	23.6	90
20	MP5	Z	-13.63	90
21	MP5	X	8.72	24
22	MP5	Z	-5.03	24
23	MP5	X	9.55	72
24	MP5	Z	-5.51	72
25	MP10	X	10.99	6
26	MP10	Z	-6.35	6
27	MP10	X	10.99	27
28	MP10	Z	-6.35	27
29	MP9	X	34.75	6
30	MP9	Z	-20.06	6
31	MP9	X	34.75	90
32	MP9	Z	-20.06	90
33	MP9	X	9.92	24
34	MP9	Z	-5.73	24
35	MP9	X	12.57	72
36	MP9	Z	-7.26	72

Member Point Loads (BLC 28 : Ice Wind Load AZI 330)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	5.68	6
2	MP2	Z	-9.84	6
3	MP2	X	5.68	27
4	MP2	Z	-9.84	27
5	MP1	X	17.92	6
6	MP1	Z	-31.03	6
7	MP1	X	17.92	90
8	MP1	Z	-31.03	90
9	MP1	X	5.5	24
10	MP1	Z	-9.52	24
11	MP1	X	6.68	72
12	MP1	Z	-11.56	72
13	MP6	X	3.69	6
14	MP6	Z	-6.39	6
15	MP6	X	3.69	27
16	MP6	Z	-6.39	27
17	MP5	X	11.48	6
18	MP5	Z	-19.88	6
19	MP5	X	11.48	90

Member Point Loads (BLC 28 : Ice Wind Load AZI 330) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
20	MP5	Z	-19.88	90
21	MP5	X	4.8	24
22	MP5	Z	-8.32	24
23	MP5	X	4.93	72
24	MP5	Z	-8.54	72
25	MP10	X	5.68	6
26	MP10	Z	-9.84	6
27	MP10	X	5.68	27
28	MP10	Z	-9.84	27
29	MP9	X	17.92	6
30	MP9	Z	-31.03	6
31	MP9	X	17.92	90
32	MP9	Z	-31.03	90
33	MP9	X	5.5	24
34	MP9	Z	-9.52	24
35	MP9	X	6.68	72
36	MP9	Z	-11.56	72

Member Point Loads (BLC 31 : Seismic Load Z)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	Z	-15.773	6
2	MP2	Z	-15.773	27
3	MP1	Z	-20.626	6
4	MP1	Z	-20.626	90
5	MP1	Z	-29.997	24
6	MP1	Z	-22.291	72
7	MP6	Z	-15.773	6
8	MP6	Z	-15.773	27
9	MP5	Z	-20.626	6
10	MP5	Z	-20.626	90
11	MP5	Z	-29.997	24
12	MP5	Z	-22.291	72
13	MP10	Z	-15.773	6
14	MP10	Z	-15.773	27
15	MP9	Z	-20.626	6
16	MP9	Z	-20.626	90
17	MP9	Z	-29.997	24
18	MP9	Z	-22.291	72

Member Point Loads (BLC 32 : Seismic Load X)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP2	X	-15.773	6
2	MP2	X	-15.773	27
3	MP1	X	-20.626	6
4	MP1	X	-20.626	90
5	MP1	X	-29.997	24
6	MP1	X	-22.291	72
7	MP6	X	-15.773	6
8	MP6	X	-15.773	27
9	MP5	X	-20.626	6
10	MP5	X	-20.626	90
11	MP5	X	-29.997	24
12	MP5	X	-22.291	72
13	MP10	X	-15.773	6
14	MP10	X	-15.773	27
15	MP9	X	-20.626	6

Member Point Loads (BLC 32 : Seismic Load X) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
16	MP9	X	-20.626	90
17	MP9	X	-29.997	24
18	MP9	X	-22.291	72

Member Distributed Loads (BLC 14 : Distr. Wind Load Z)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	HOR1	SZ	-114.504	-114.504	0	%100
2	HOR2	SZ	-114.504	-114.504	0	%100
3	HOR3	SZ	-114.504	-114.504	0	%100
4	BR3	SZ	-114.504	-114.504	0	%100
5	BR2	SZ	-114.504	-114.504	0	%100
6	BR1	SZ	-114.504	-114.504	0	%100
7	M7	SZ	-114.504	-114.504	0	%100
8	BR4	SZ	-114.504	-114.504	0	%100
9	M9	SZ	0	0	0	%100
10	M10	SZ	0	0	0	%100
11	M11	SZ	0	0	0	%100
12	M12	SZ	-114.504	-114.504	0	%100
13	M13	SZ	-114.504	-114.504	0	%100
14	M14	SZ	0	0	0	%100
15	M15	SZ	0	0	0	%100
16	M16	SZ	-68.702	-68.702	0	%100
17	HR1	SZ	-68.702	-68.702	0	%100
18	M18	SZ	-114.504	-114.504	0	%100
19	M19	SZ	0	0	0	%100
20	M20	SZ	0	0	0	%100
21	M21	SZ	0	0	0	%100
22	M22	SZ	0	0	0	%100
23	M23	SZ	0	0	0	%100
24	M24	SZ	0	0	0	%100
25	MP1	SZ	-68.702	-68.702	0	%100
26	MP4	SZ	-68.702	-68.702	0	%100
27	M27	SZ	0	0	0	%100
28	M28	SZ	-114.504	-114.504	0	%100
29	M29	SZ	0	0	0	%100
30	M30	SZ	-68.702	-68.702	0	%100
31	M31	SZ	-68.702	-68.702	0	%100
32	M32	SZ	-68.702	-68.702	0	%100
33	M33	SZ	-68.702	-68.702	0	%100
34	M34	SZ	-68.702	-68.702	0	%100
35	M35	SZ	-68.702	-68.702	0	%100
36	M36	SZ	-114.504	-114.504	0	%100
37	M37	SZ	-114.504	-114.504	0	%100
38	M38	SZ	0	0	0	%100
39	M39	SZ	0	0	0	%100
40	MP3	SZ	-68.702	-68.702	0	%100
41	HR3	SZ	-68.702	-68.702	0	%100
42	HR2	SZ	-68.702	-68.702	0	%100
43	MP2	SZ	-68.702	-68.702	0	%100
44	M44	SZ	0	0	0	%100
45	M45	SZ	0	0	0	%100
46	M46	SZ	0	0	0	%100
47	M47	SZ	0	0	0	%100
48	M48	SZ	0	0	0	%100
49	MP7	SZ	-68.702	-68.702	0	%100

Member Distributed Loads (BLC 14 : Distr. Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
50	M50	SZ	0	0	0	%100
51	M51	SZ	0	0	0	%100
52	M52	SZ	0	0	0	%100
53	M53	SZ	0	0	0	%100
54	M54	SZ	0	0	0	%100
55	MP8	SZ	-68.702	-68.702	0	%100
56	MP5	SZ	-68.702	-68.702	0	%100
57	MP6	SZ	-68.702	-68.702	0	%100
58	M58	SZ	0	0	0	%100
59	M59	SZ	0	0	0	%100
60	M60	SZ	0	0	0	%100
61	MP11	SZ	-68.702	-68.702	0	%100
62	M62	SZ	0	0	0	%100
63	M63	SZ	0	0	0	%100
64	M64	SZ	0	0	0	%100
65	M65	SZ	0	0	0	%100
66	M66	SZ	0	0	0	%100
67	MP12	SZ	-68.702	-68.702	0	%100
68	MP9	SZ	-68.702	-68.702	0	%100
69	MP10	SZ	-68.702	-68.702	0	%100

Member Distributed Loads (BLC 15 : Distr. Wind Load X)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	HOR1	SX	-114.504	-114.504	0	%100
2	HOR2	SX	-114.504	-114.504	0	%100
3	HOR3	SX	-114.504	-114.504	0	%100
4	BR3	SX	-114.504	-114.504	0	%100
5	BR2	SX	-114.504	-114.504	0	%100
6	BR1	SX	-114.504	-114.504	0	%100
7	M7	SX	-114.504	-114.504	0	%100
8	BR4	SX	-114.504	-114.504	0	%100
9	M9	SX	0	0	0	%100
10	M10	SX	0	0	0	%100
11	M11	SX	0	0	0	%100
12	M12	SX	-114.504	-114.504	0	%100
13	M13	SX	-114.504	-114.504	0	%100
14	M14	SX	0	0	0	%100
15	M15	SX	0	0	0	%100
16	M16	SX	-68.702	-68.702	0	%100
17	HR1	SX	-68.702	-68.702	0	%100
18	M18	SX	-114.504	-114.504	0	%100
19	M19	SX	0	0	0	%100
20	M20	SX	0	0	0	%100
21	M21	SX	0	0	0	%100
22	M22	SX	0	0	0	%100
23	M23	SX	0	0	0	%100
24	M24	SX	0	0	0	%100
25	MP1	SX	-68.702	-68.702	0	%100
26	MP4	SX	-68.702	-68.702	0	%100
27	M27	SX	0	0	0	%100
28	M28	SX	-114.504	-114.504	0	%100
29	M29	SX	0	0	0	%100
30	M30	SX	-68.702	-68.702	0	%100
31	M31	SX	-68.702	-68.702	0	%100
32	M32	SX	-68.702	-68.702	0	%100
33	M33	SX	-68.702	-68.702	0	%100

Member Distributed Loads (BLC 15 : Distr. Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
34	M34	SX	-68.702	-68.702	0	%100
35	M35	SX	-68.702	-68.702	0	%100
36	M36	SX	-114.504	-114.504	0	%100
37	M37	SX	-114.504	-114.504	0	%100
38	M38	SX	0	0	0	%100
39	M39	SX	0	0	0	%100
40	MP3	SX	-68.702	-68.702	0	%100
41	HR3	SX	-68.702	-68.702	0	%100
42	HR2	SX	-68.702	-68.702	0	%100
43	MP2	SX	-68.702	-68.702	0	%100
44	M44	SX	0	0	0	%100
45	M45	SX	0	0	0	%100
46	M46	SX	0	0	0	%100
47	M47	SX	0	0	0	%100
48	M48	SX	0	0	0	%100
49	MP7	SX	-68.702	-68.702	0	%100
50	M50	SX	0	0	0	%100
51	M51	SX	0	0	0	%100
52	M52	SX	0	0	0	%100
53	M53	SX	0	0	0	%100
54	M54	SX	0	0	0	%100
55	MP8	SX	-68.702	-68.702	0	%100
56	MP5	SX	-68.702	-68.702	0	%100
57	MP6	SX	-68.702	-68.702	0	%100
58	M58	SX	0	0	0	%100
59	M59	SX	0	0	0	%100
60	M60	SX	0	0	0	%100
61	MP11	SX	-68.702	-68.702	0	%100
62	M62	SX	0	0	0	%100
63	M63	SX	0	0	0	%100
64	M64	SX	0	0	0	%100
65	M65	SX	0	0	0	%100
66	M66	SX	0	0	0	%100
67	MP12	SX	-68.702	-68.702	0	%100
68	MP9	SX	-68.702	-68.702	0	%100
69	MP10	SX	-68.702	-68.702	0	%100

Member Distributed Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	HOR1	Y	-22.288	-22.288	0	%100
2	HOR2	Y	-22.288	-22.288	0	%100
3	HOR3	Y	-22.288	-22.288	0	%100
4	BR3	Y	-22.288	-22.288	0	%100
5	BR2	Y	-22.288	-22.288	0	%100
6	BR1	Y	-22.288	-22.288	0	%100
7	M7	Y	-22.288	-22.288	0	%100
8	BR4	Y	-22.288	-22.288	0	%100
9	M9	Y	-6.838	-6.838	0	%100
10	M10	Y	-6.838	-6.838	0	%100
11	M11	Y	-6.838	-6.838	0	%100
12	M12	Y	-15.013	-15.013	0	%100
13	M13	Y	-15.013	-15.013	0	%100
14	M14	Y	-6.838	-6.838	0	%100
15	M15	Y	-6.838	-6.838	0	%100
16	M16	Y	-8.644	-8.644	0	%100
17	HR1	Y	-13.703	-13.703	0	%100

Member Distributed Loads (BLC 16 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
18	M18	Y	-12.969	-12.969	0	%100
19	M19	Y	-6.838	-6.838	0	%100
20	M20	Y	-6.838	-6.838	0	%100
21	M21	Y	-6.838	-6.838	0	%100
22	M22	Y	-6.838	-6.838	0	%100
23	M23	Y	-6.838	-6.838	0	%100
24	M24	Y	-6.838	-6.838	0	%100
25	MP1	Y	-13.703	-13.703	0	%100
26	MP4	Y	-13.703	-13.703	0	%100
27	M27	Y	-6.838	-6.838	0	%100
28	M28	Y	-17.057	-17.057	0	%100
29	M29	Y	-6.838	-6.838	0	%100
30	M30	Y	-8.644	-8.644	0	%100
31	M31	Y	-8.644	-8.644	0	%100
32	M32	Y	-8.644	-8.644	0	%100
33	M33	Y	-8.644	-8.644	0	%100
34	M34	Y	-8.644	-8.644	0	%100
35	M35	Y	-8.644	-8.644	0	%100
36	M36	Y	-17.057	-17.057	0	%100
37	M37	Y	-17.057	-17.057	0	%100
38	M38	Y	-6.838	-6.838	0	%100
39	M39	Y	-6.838	-6.838	0	%100
40	MP3	Y	-13.703	-13.703	0	%100
41	HR3	Y	-13.703	-13.703	0	%100
42	HR2	Y	-13.703	-13.703	0	%100
43	MP2	Y	-13.703	-13.703	0	%100
44	M44	Y	-6.838	-6.838	0	%100
45	M45	Y	-6.838	-6.838	0	%100
46	M46	Y	-6.838	-6.838	0	%100
47	M47	Y	-6.838	-6.838	0	%100
48	M48	Y	-6.838	-6.838	0	%100
49	MP7	Y	-13.703	-13.703	0	%100
50	M50	Y	-6.838	-6.838	0	%100
51	M51	Y	-6.838	-6.838	0	%100
52	M52	Y	-6.838	-6.838	0	%100
53	M53	Y	-6.838	-6.838	0	%100
54	M54	Y	-6.838	-6.838	0	%100
55	MP8	Y	-13.703	-13.703	0	%100
56	MP5	Y	-13.703	-13.703	0	%100
57	MP6	Y	-13.703	-13.703	0	%100
58	M58	Y	-6.838	-6.838	0	%100
59	M59	Y	-6.838	-6.838	0	%100
60	M60	Y	-6.838	-6.838	0	%100
61	MP11	Y	-13.703	-13.703	0	%100
62	M62	Y	-6.838	-6.838	0	%100
63	M63	Y	-6.838	-6.838	0	%100
64	M64	Y	-6.838	-6.838	0	%100
65	M65	Y	-6.838	-6.838	0	%100
66	M66	Y	-6.838	-6.838	0	%100
67	MP12	Y	-13.703	-13.703	0	%100
68	MP9	Y	-13.703	-13.703	0	%100
69	MP10	Y	-13.703	-13.703	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	HOR1	SZ	-19.159	-19.159	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
2	HOR2	SZ	-19.159	-19.159	0	%100
3	HOR3	SZ	-19.159	-19.159	0	%100
4	BR3	SZ	-19.159	-19.159	0	%100
5	BR2	SZ	-19.159	-19.159	0	%100
6	BR1	SZ	-19.159	-19.159	0	%100
7	M7	SZ	-19.159	-19.159	0	%100
8	BR4	SZ	-19.159	-19.159	0	%100
9	M9	SZ	0	0	0	%100
10	M10	SZ	0	0	0	%100
11	M11	SZ	0	0	0	%100
12	M12	SZ	-27.164	-27.164	0	%100
13	M13	SZ	-27.164	-27.164	0	%100
14	M14	SZ	0	0	0	%100
15	M15	SZ	0	0	0	%100
16	M16	SZ	-87.103	-87.103	0	%100
17	HR1	SZ	-30.41	-30.41	0	%100
18	M18	SZ	-32.832	-32.832	0	%100
19	M19	SZ	0	0	0	%100
20	M20	SZ	0	0	0	%100
21	M21	SZ	0	0	0	%100
22	M22	SZ	0	0	0	%100
23	M23	SZ	0	0	0	%100
24	M24	SZ	0	0	0	%100
25	MP1	SZ	-30.41	-30.41	0	%100
26	MP4	SZ	-30.41	-30.41	0	%100
27	M27	SZ	0	0	0	%100
28	M28	SZ	-23.764	-23.764	0	%100
29	M29	SZ	0	0	0	%100
30	M30	SZ	-87.103	-87.103	0	%100
31	M31	SZ	-87.103	-87.103	0	%100
32	M32	SZ	-87.103	-87.103	0	%100
33	M33	SZ	-87.103	-87.103	0	%100
34	M34	SZ	-87.103	-87.103	0	%100
35	M35	SZ	-87.103	-87.103	0	%100
36	M36	SZ	-23.764	-23.764	0	%100
37	M37	SZ	-23.764	-23.764	0	%100
38	M38	SZ	0	0	0	%100
39	M39	SZ	0	0	0	%100
40	MP3	SZ	-30.41	-30.41	0	%100
41	HR3	SZ	-30.41	-30.41	0	%100
42	HR2	SZ	-30.41	-30.41	0	%100
43	MP2	SZ	-30.41	-30.41	0	%100
44	M44	SZ	0	0	0	%100
45	M45	SZ	0	0	0	%100
46	M46	SZ	0	0	0	%100
47	M47	SZ	0	0	0	%100
48	M48	SZ	0	0	0	%100
49	MP7	SZ	-30.41	-30.41	0	%100
50	M50	SZ	0	0	0	%100
51	M51	SZ	0	0	0	%100
52	M52	SZ	0	0	0	%100
53	M53	SZ	0	0	0	%100
54	M54	SZ	0	0	0	%100
55	MP8	SZ	-30.41	-30.41	0	%100
56	MP5	SZ	-30.41	-30.41	0	%100
57	MP6	SZ	-30.41	-30.41	0	%100
58	M58	SZ	0	0	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
59	M59	SZ	0	0	0	%100
60	M60	SZ	0	0	0	%100
61	MP11	SZ	-30.41	-30.41	0	%100
62	M62	SZ	0	0	0	%100
63	M63	SZ	0	0	0	%100
64	M64	SZ	0	0	0	%100
65	M65	SZ	0	0	0	%100
66	M66	SZ	0	0	0	%100
67	MP12	SZ	-30.41	-30.41	0	%100
68	MP9	SZ	-30.41	-30.41	0	%100
69	MP10	SZ	-30.41	-30.41	0	%100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	HOR1	SX	-19.159	-19.159	0	%100
2	HOR2	SX	-19.159	-19.159	0	%100
3	HOR3	SX	-19.159	-19.159	0	%100
4	BR3	SX	-19.159	-19.159	0	%100
5	BR2	SX	-19.159	-19.159	0	%100
6	BR1	SX	-19.159	-19.159	0	%100
7	M7	SX	-19.159	-19.159	0	%100
8	BR4	SX	-19.159	-19.159	0	%100
9	M9	SX	0	0	0	%100
10	M10	SX	0	0	0	%100
11	M11	SX	0	0	0	%100
12	M12	SX	-27.164	-27.164	0	%100
13	M13	SX	-27.164	-27.164	0	%100
14	M14	SX	0	0	0	%100
15	M15	SX	0	0	0	%100
16	M16	SX	-87.103	-87.103	0	%100
17	HR1	SX	-30.41	-30.41	0	%100
18	M18	SX	-32.832	-32.832	0	%100
19	M19	SX	0	0	0	%100
20	M20	SX	0	0	0	%100
21	M21	SX	0	0	0	%100
22	M22	SX	0	0	0	%100
23	M23	SX	0	0	0	%100
24	M24	SX	0	0	0	%100
25	MP1	SX	-30.41	-30.41	0	%100
26	MP4	SX	-30.41	-30.41	0	%100
27	M27	SX	0	0	0	%100
28	M28	SX	-23.764	-23.764	0	%100
29	M29	SX	0	0	0	%100
30	M30	SX	-87.103	-87.103	0	%100
31	M31	SX	-87.103	-87.103	0	%100
32	M32	SX	-87.103	-87.103	0	%100
33	M33	SX	-87.103	-87.103	0	%100
34	M34	SX	-87.103	-87.103	0	%100
35	M35	SX	-87.103	-87.103	0	%100
36	M36	SX	-23.764	-23.764	0	%100
37	M37	SX	-23.764	-23.764	0	%100
38	M38	SX	0	0	0	%100
39	M39	SX	0	0	0	%100
40	MP3	SX	-30.41	-30.41	0	%100
41	HR3	SX	-30.41	-30.41	0	%100
42	HR2	SX	-30.41	-30.41	0	%100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
43	MP2	SX	-30.41	-30.41	0	%100
44	M44	SX	0	0	0	%100
45	M45	SX	0	0	0	%100
46	M46	SX	0	0	0	%100
47	M47	SX	0	0	0	%100
48	M48	SX	0	0	0	%100
49	MP7	SX	-30.41	-30.41	0	%100
50	M50	SX	0	0	0	%100
51	M51	SX	0	0	0	%100
52	M52	SX	0	0	0	%100
53	M53	SX	0	0	0	%100
54	M54	SX	0	0	0	%100
55	MP8	SX	-30.41	-30.41	0	%100
56	MP5	SX	-30.41	-30.41	0	%100
57	MP6	SX	-30.41	-30.41	0	%100
58	M58	SX	0	0	0	%100
59	M59	SX	0	0	0	%100
60	M60	SX	0	0	0	%100
61	MP11	SX	-30.41	-30.41	0	%100
62	M62	SX	0	0	0	%100
63	M63	SX	0	0	0	%100
64	M64	SX	0	0	0	%100
65	M65	SX	0	0	0	%100
66	M66	SX	0	0	0	%100
67	MP12	SX	-30.41	-30.41	0	%100
68	MP9	SX	-30.41	-30.41	0	%100
69	MP10	SX	-30.41	-30.41	0	%100

Member Distributed Loads (BLC 46 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	HOR1	Y	-.683	-2.986	0	10.667
2	HOR1	Y	-2.986	-5.849	10.667	21.333
3	HOR1	Y	-5.849	-7.153	21.333	32
4	HOR1	Y	-7.153	-5.299	32	42.667
5	HOR1	Y	-5.299	-2.431	42.667	53.333
6	HOR1	Y	-2.431	-.166	53.333	64
7	HOR3	Y	-.163	-2.329	64	74.667
8	HOR3	Y	-2.329	-5.005	74.667	85.333
9	HOR3	Y	-5.005	-7.566	85.333	96
10	HOR3	Y	-7.566	-6.467	96	106.667
11	HOR3	Y	-6.467	-2.719	106.667	117.333
12	HOR3	Y	-2.719	-.171	117.333	128
13	BR1	Y	-.27	-3.854	0	11.902
14	BR1	Y	-3.854	-6.617	11.902	23.805
15	BR1	Y	-6.617	-6.207	23.805	35.707
16	BR1	Y	-6.207	-3.917	35.707	47.61
17	BR1	Y	-3.917	-.643	47.61	59.512
18	HOR1	Y	-.177	-2.481	64	74.667
19	HOR1	Y	-2.481	-5.323	74.667	85.333
20	HOR1	Y	-5.323	-7.175	85.333	96
21	HOR1	Y	-7.175	-6.175	96	106.667
22	HOR1	Y	-6.175	-3.079	106.667	117.333
23	HOR1	Y	-3.079	-.177	117.333	128
24	HOR2	Y	-.177	-1.678	64	74.667
25	HOR2	Y	-1.678	-5.532	74.667	85.333
26	HOR2	Y	-5.532	-8.294	85.333	96

Member Distributed Loads (BLC 46 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
27	HOR2	Y	-8.294	-6.733	96	106.667
28	HOR2	Y	-6.733	-3.533	106.667	117.333
29	HOR2	Y	-3.533	-.177	117.333	128
30	BR2	Y	-.157	-2.879	0	11.902
31	BR2	Y	-2.879	-6.221	11.902	23.805
32	BR2	Y	-6.221	-5.585	23.805	35.707
33	BR2	Y	-5.585	-2.756	35.707	47.61
34	BR2	Y	-2.756	-1.732	47.61	59.512
35	M9	Y	-4.331	-4.331	0	2.501
36	HOR2	Y	-.142	-1.239	25.6	35.2
37	HOR2	Y	-1.239	-2.854	35.2	44.8
38	HOR2	Y	-2.854	-2.327	44.8	54.4
39	HOR2	Y	-2.327	-.142	54.4	64
40	BR3	Y	-.992	-1.239	35.707	59.512
41	M7	Y	-1.015	-2.556	2.498	9.992
42	M7	Y	-2.556	-2.204	9.992	17.487
43	M7	Y	-2.204	-.264	17.487	24.981
44	BR4	Y	-.347	-.347	25.796	30.667
45	HOR3	Y	-.196	-3.082	25.6	35.2
46	HOR3	Y	-3.082	-3.692	35.2	44.8
47	HOR3	Y	-3.692	-1.591	44.8	54.4
48	HOR3	Y	-1.591	-.196	54.4	64
49	BR3	Y	-1.322	-2.281	0	11.902
50	BR3	Y	-2.281	-3.24	11.902	23.805
51	BR4	Y	-3.47	-3.47	1.407	6.407
52	M18	Y	-3.299	-3.614	0	12.49
53	M18	Y	-3.614	-3.929	12.49	24.981
54	HOR2	Y	-.459	-2.993	0	6.4
55	HOR2	Y	-2.993	-3.589	6.4	12.8
56	HOR2	Y	-3.589	-2.358	12.8	19.2
57	HOR2	Y	-2.358	-1.236	19.2	25.6
58	HOR3	Y	-.151	-2.132	0	8.533
59	HOR3	Y	-2.132	-3.207	8.533	17.067
60	HOR3	Y	-3.207	-3.364	17.067	25.6
61	BR4	Y	-.311	-2.982	0	7.667
62	BR4	Y	-2.982	-4.198	7.667	15.333
63	BR4	Y	-4.198	-2.885	15.333	23
64	BR4	Y	-2.885	-.535	23	30.667
65	HOR1	Y	-2.042	-2.042	60.746	65.746
66	BR2	Y	-3.744	-1.848	0	8.927
67	BR2	Y	-1.848	.01	8.927	17.854
68	BR1	Y	-3.965	-1.731	0	8.927
69	BR1	Y	-1.731	.1	8.927	17.854
70	M9	Y	-1.043	-2.259	0	5.346
71	M9	Y	-2.259	-3.169	5.346	10.693
72	M9	Y	-3.169	-3.011	10.693	16.039
73	M9	Y	-3.011	-2.015	16.039	21.386
74	M9	Y	-2.015	-.941	21.386	26.732
75	HOR3	Y	-2.042	-2.042	60.746	65.746
76	BR3	Y	-3.965	-1.731	0	8.927
77	BR3	Y	-1.731	.1	8.927	17.854
78	BR1	Y	.01	-1.848	41.658	50.585
79	BR1	Y	-1.848	-3.744	50.585	59.512
80	M11	Y	-1.043	-2.259	0	5.346
81	M11	Y	-2.259	-3.169	5.346	10.693
82	M11	Y	-3.169	-3.011	10.693	16.039
83	M11	Y	-3.011	-2.015	16.039	21.386

Member Distributed Loads (BLC 46 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
84	M11	Y	-2.015	-.941	21.386	26.732
85	HOR2	Y	-2.043	-2.043	60.746	65.746
86	BR3	Y	.101	-1.724	41.658	50.585
87	BR3	Y	-1.724	-3.955	50.585	59.512
88	BR2	Y	.01	-1.848	41.658	50.585
89	BR2	Y	-1.848	-3.745	50.585	59.512
90	M10	Y	-1.043	-2.26	0	5.346
91	M10	Y	-2.26	-3.173	5.346	10.693
92	M10	Y	-3.173	-3.022	10.693	16.039
93	M10	Y	-3.022	-2.022	16.039	21.386
94	M10	Y	-2.022	-.933	21.386	26.732

Member Distributed Loads (BLC 47 : BLC 16 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
1	HOR1	Y	-5.033	-21.999	0	10.667
2	HOR1	Y	-21.999	-43.09	10.667	21.333
3	HOR1	Y	-43.09	-52.696	21.333	32
4	HOR1	Y	-52.696	-39.036	32	42.667
5	HOR1	Y	-39.036	-17.909	42.667	53.333
6	HOR1	Y	-17.909	-1.225	53.333	64
7	HOR3	Y	-1.198	-17.159	64	74.667
8	HOR3	Y	-17.159	-36.869	74.667	85.333
9	HOR3	Y	-36.869	-55.737	85.333	96
10	HOR3	Y	-55.737	-47.644	96	106.667
11	HOR3	Y	-47.644	-20.032	106.667	117.333
12	HOR3	Y	-20.032	-1.257	117.333	128
13	BR1	Y	-1.989	-28.389	0	11.902
14	BR1	Y	-28.389	-48.743	11.902	23.805
15	BR1	Y	-48.743	-45.723	23.805	35.707
16	BR1	Y	-45.723	-28.855	35.707	47.61
17	BR1	Y	-28.855	-4.739	47.61	59.512
18	HOR1	Y	-1.301	-18.275	64	74.667
19	HOR1	Y	-18.275	-39.216	74.667	85.333
20	HOR1	Y	-39.216	-52.854	85.333	96
21	HOR1	Y	-52.854	-45.49	96	106.667
22	HOR1	Y	-45.49	-22.683	106.667	117.333
23	HOR1	Y	-22.683	-1.301	117.333	128
24	HOR2	Y	-1.305	-12.36	64	74.667
25	HOR2	Y	-12.36	-40.751	74.667	85.333
26	HOR2	Y	-40.751	-61.1	85.333	96
27	HOR2	Y	-61.1	-49.601	96	106.667
28	HOR2	Y	-49.601	-26.024	106.667	117.333
29	HOR2	Y	-26.024	-1.305	117.333	128
30	BR2	Y	-1.158	-21.207	0	11.902
31	BR2	Y	-21.207	-45.828	11.902	23.805
32	BR2	Y	-45.828	-41.141	23.805	35.707
33	BR2	Y	-41.141	-20.305	35.707	47.61
34	BR2	Y	-20.305	-12.757	47.61	59.512
35	M9	Y	-31.907	-31.907	0	2.501
36	HOR2	Y	-1.049	-9.124	25.6	35.2
37	HOR2	Y	-9.124	-21.027	35.2	44.8
38	HOR2	Y	-21.027	-17.146	44.8	54.4
39	HOR2	Y	-17.146	-1.049	54.4	64
40	BR3	Y	-7.306	-9.124	35.707	59.512
41	M7	Y	-7.48	-18.831	2.498	9.992
42	M7	Y	-18.831	-16.234	9.992	17.487

Member Distributed Loads (BLC 47 : BLC 16 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in,%]	End Location[in,%]
43	M7	Y	-16.234	-1.948	17.487	24.981
44	BR4	Y	-2.558	-2.558	25.796	30.667
45	HOR3	Y	-1.446	-22.707	25.6	35.2
46	HOR3	Y	-22.707	-27.196	35.2	44.8
47	HOR3	Y	-27.196	-11.718	44.8	54.4
48	HOR3	Y	-11.718	-1.446	54.4	64
49	BR3	Y	-9.74	-16.803	0	11.902
50	BR3	Y	-16.803	-23.865	11.902	23.805
51	BR4	Y	-25.564	-25.564	1.407	6.407
52	M18	Y	-24.305	-26.624	0	12.49
53	M18	Y	-26.624	-28.943	12.49	24.981
54	HOR2	Y	-3.385	-22.051	0	6.4
55	HOR2	Y	-22.051	-26.442	6.4	12.8
56	HOR2	Y	-26.442	-17.368	12.8	19.2
57	HOR2	Y	-17.368	-9.102	19.2	25.6
58	HOR3	Y	-1.113	-15.707	0	8.533
59	HOR3	Y	-15.707	-23.625	8.533	17.067
60	HOR3	Y	-23.625	-24.783	17.067	25.6
61	BR4	Y	-2.293	-21.967	0	7.667
62	BR4	Y	-21.967	-30.926	7.667	15.333
63	BR4	Y	-30.926	-21.251	15.333	23
64	BR4	Y	-21.251	-3.944	23	30.667
65	HOR1	Y	-15.042	-15.042	60.746	65.746
66	BR2	Y	-27.584	-13.612	0	8.927
67	BR2	Y	-13.612	.072	8.927	17.854
68	BR1	Y	-29.209	-12.755	0	8.927
69	BR1	Y	-12.755	.74	8.927	17.854
70	M9	Y	-7.681	-16.642	0	5.346
71	M9	Y	-16.642	-23.342	5.346	10.693
72	M9	Y	-23.342	-22.182	10.693	16.039
73	M9	Y	-22.182	-14.845	16.039	21.386
74	M9	Y	-14.845	-6.931	21.386	26.732
75	HOR3	Y	-15.042	-15.042	60.746	65.746
76	BR3	Y	-29.209	-12.755	0	8.927
77	BR3	Y	-12.755	.74	8.927	17.854
78	BR1	Y	.072	-13.612	41.658	50.585
79	BR1	Y	-13.612	-27.584	50.585	59.512
80	M11	Y	-7.681	-16.642	0	5.346
81	M11	Y	-16.642	-23.342	5.346	10.693
82	M11	Y	-23.342	-22.182	10.693	16.039
83	M11	Y	-22.182	-14.845	16.039	21.386
84	M11	Y	-14.845	-6.931	21.386	26.732
85	HOR2	Y	-15.048	-15.048	60.746	65.746
86	BR3	Y	.747	-12.702	41.658	50.585
87	BR3	Y	-12.702	-29.136	50.585	59.512
88	BR2	Y	.071	-13.616	41.658	50.585
89	BR2	Y	-13.616	-27.589	50.585	59.512
90	M10	Y	-7.681	-16.646	0	5.346
91	M10	Y	-16.646	-23.374	5.346	10.693
92	M10	Y	-23.374	-22.261	10.693	16.039
93	M10	Y	-22.261	-14.894	16.039	21.386
94	M10	Y	-14.894	-6.876	21.386	26.732

Load Combinations

	Description	S...	P...	SRSS	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4DL	Yes	Y		1	1.4																		
2	1.2DL + 1WL AZI 0	Yes	Y		1	1.2	2	1	14	1	15													
3	1.2DL + 1WL AZI 30	Yes	Y		1	1.2	3	1	14	.866	15	.5												
4	1.2DL + 1WL AZI 60	Yes	Y		1	1.2	4	1	14	.5	15	.866												
5	1.2DL + 1WL AZI 90	Yes	Y		1	1.2	5	1	14		15	1												
6	1.2DL + 1WL AZI 120	Yes	Y		1	1.2	6	1	14	-.5	15	.866												
7	1.2DL + 1WL AZI 150	Yes	Y		1	1.2	7	1	14	-.8...	15	.5												
8	1.2DL + 1WL AZI 180	Yes	Y		1	1.2	8	1	14	-1	15													
9	1.2DL + 1WL AZI 210	Yes	Y		1	1.2	9	1	14	-.8...	15	-.5												
10	1.2DL + 1WL AZI 240	Yes	Y		1	1.2	10	1	14	-.5	15	-.8...												
11	1.2DL + 1WL AZI 270	Yes	Y		1	1.2	11	1	14		15	-1												
12	1.2DL + 1WL AZI 300	Yes	Y		1	1.2	12	1	14	.5	15	-.8...												
13	1.2DL + 1WL AZI 330	Yes	Y		1	1.2	13	1	14	.866	15	-.5												
14	0.9DL + 1WL AZI 0	Yes	Y		1	.9	2	1	14	1	15													
15	0.9DL + 1WL AZI 30	Yes	Y		1	.9	3	1	14	.866	15	.5												
16	0.9DL + 1WL AZI 60	Yes	Y		1	.9	4	1	14	.5	15	.866												
17	0.9DL + 1WL AZI 90	Yes	Y		1	.9	5	1	14		15	1												
18	0.9DL + 1WL AZI 120	Yes	Y		1	.9	6	1	14	-.5	15	.866												
19	0.9DL + 1WL AZI 150	Yes	Y		1	.9	7	1	14	-.8...	15	.5												
20	0.9DL + 1WL AZI 180	Yes	Y		1	.9	8	1	14	-1	15													
21	0.9DL + 1WL AZI 210	Yes	Y		1	.9	9	1	14	-.8...	15	-.5												
22	0.9DL + 1WL AZI 240	Yes	Y		1	.9	10	1	14	-.5	15	-.8...												
23	0.9DL + 1WL AZI 270	Yes	Y		1	.9	11	1	14		15	-1												
24	0.9DL + 1WL AZI 300	Yes	Y		1	.9	12	1	14	.5	15	-.8...												
25	0.9DL + 1WL AZI 330	Yes	Y		1	.9	13	1	14	.866	15	-.5												
26	1.2D + 1.0Di	Yes	Y		1	1.2	16	1																
27	1.2D + 1.0Di +1.0Wi AZI 0	Yes	Y		1	1.2	16	1	17	1	29	1	30											
28	1.2D + 1.0Di +1.0Wi AZI ..	Yes	Y		1	1.2	16	1	18	1	29	.866	30	.5										
29	1.2D + 1.0Di +1.0Wi AZI ..	Yes	Y		1	1.2	16	1	19	1	29	.5	30	.866										
30	1.2D + 1.0Di +1.0Wi AZI ..	Yes	Y		1	1.2	16	1	20	1	29		30	1										
31	1.2D + 1.0Di +1.0Wi AZI ..	Yes	Y		1	1.2	16	1	21	1	29	-.5	30	.866										
32	1.2D + 1.0Di +1.0Wi AZI ..	Yes	Y		1	1.2	16	1	22	1	29	-.8...	30	.5										
33	1.2D + 1.0Di +1.0Wi AZI ..	Yes	Y		1	1.2	16	1	23	1	29	-1	30											
34	1.2D + 1.0Di +1.0Wi AZI ..	Yes	Y		1	1.2	16	1	24	1	29	-.8...	30	-.5										
35	1.2D + 1.0Di +1.0Wi AZI ..	Yes	Y		1	1.2	16	1	25	1	29	-.5	30	-.8...										
36	1.2D + 1.0Di +1.0Wi AZI ..	Yes	Y		1	1.2	16	1	26	1	29		30	-1										
37	1.2D + 1.0Di +1.0Wi AZI ..	Yes	Y		1	1.2	16	1	27	1	29	.5	30	-.8...										
38	1.2D + 1.0Di +1.0Wi AZI ..	Yes	Y		1	1.2	16	1	28	1	29	.866	30	-.5										
39	(1.2 + 0.2Sds)DL + 1.0E ...	Yes	Y		1	1.2...	31	1	32															
40	(1.2 + 0.2Sds)DL + 1.0E ...	Yes	Y		1	1.2...	31	.866	32	.5														
41	(1.2 + 0.2Sds)DL + 1.0E ...	Yes	Y		1	1.2...	31	.5	32	.866														
42	(1.2 + 0.2Sds)DL + 1.0E ...	Yes	Y		1	1.2...	31		32	1														
43	(1.2 + 0.2Sds)DL + 1.0E ...	Yes	Y		1	1.2...	31	-.5	32	.866														
44	(1.2 + 0.2Sds)DL + 1.0E ...	Yes	Y		1	1.2...	31	-.8...	32	.5														
45	(1.2 + 0.2Sds)DL + 1.0E ...	Yes	Y		1	1.2...	31	-1	32															
46	(1.2 + 0.2Sds)DL + 1.0E ...	Yes	Y		1	1.2...	31	-.8...	32	-.5														
47	(1.2 + 0.2Sds)DL + 1.0E ...	Yes	Y		1	1.2...	31	-.5	32	-.8...														
48	(1.2 + 0.2Sds)DL + 1.0E ...	Yes	Y		1	1.2...	31		32	-1														
49	(1.2 + 0.2Sds)DL + 1.0E ...	Yes	Y		1	1.2...	31	.5	32	-.8...														
50	(1.2 + 0.2Sds)DL + 1.0E ...	Yes	Y		1	1.2...	31	.866	32	-.5														
51	(0.9 - 0.2Sds)DL + 1.0E ...	Yes	Y		1	.863	31	1	32															
52	(0.9 - 0.2Sds)DL + 1.0E ...	Yes	Y		1	.863	31	.866	32	.5														
53	(0.9 - 0.2Sds)DL + 1.0E ...	Yes	Y		1	.863	31	.5	32	.866														
54	(0.9 - 0.2Sds)DL + 1.0E ...	Yes	Y		1	.863	31		32	1														
55	(0.9 - 0.2Sds)DL + 1.0E ...	Yes	Y		1	.863	31	-.5	32	.866														
56	(0.9 - 0.2Sds)DL + 1.0E ...	Yes	Y		1	.863	31	-.8...	32	.5														

Load Combinations (Continued)

	Description	S...	P...	SRSS	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
57	(0.9 - 0.2Sds)DL + 1.0E ...	Yes	Y		1	.863	31	-1	32															
58	(0.9 - 0.2Sds)DL + 1.0E ...	Yes	Y		1	.863	31	-.8...	32	-.5														
59	(0.9 - 0.2Sds)DL + 1.0E ...	Yes	Y		1	.863	31	-.5	32	-.8...														
60	(0.9 - 0.2Sds)DL + 1.0E ...	Yes	Y		1	.863	31		32	-1														
61	(0.9 - 0.2Sds)DL + 1.0E ...	Yes	Y		1	.863	31	.5	32	-.8...														
62	(0.9 - 0.2Sds)DL + 1.0E ...	Yes	Y		1	.863	31	.866	32	-.5														
63	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	2	.213	14	.213	15		33	1.5										
64	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	3	.213	14	.184	15	.107	33	1.5										
65	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	4	.213	14	.107	15	.184	33	1.5										
66	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	5	.213	14		15	.213	33	1.5										
67	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	6	.213	14	-.1...	15	.184	33	1.5										
68	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	7	.213	14	-.1...	15	.107	33	1.5										
69	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	8	.213	14	-.2...	15		33	1.5										
70	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	9	.213	14	-.1...	15	-.1...	33	1.5										
71	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	10	.213	14	-.1...	15	-.1...	33	1.5										
72	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	11	.213	14		15	-.2...	33	1.5										
73	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	12	.213	14	.107	15	-.1...	33	1.5										
74	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	13	.213	14	.184	15	-.1...	33	1.5										
75	1.2DL + 1.5LL	Yes	Y		1	1.2	33	1.5																
76	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	2	.053	14	.053	15											
77	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	3	.053	14	.046	15	.027										
78	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	4	.053	14	.027	15	.046										
79	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	5	.053	14		15	.053										
80	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	6	.053	14	-.0...	15	.046										
81	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	7	.053	14	-.0...	15	.027										
82	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	8	.053	14	-.0...	15											
83	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	9	.053	14	-.0...	15	-.0...										
84	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	10	.053	14	-.0...	15	-.0...										
85	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	11	.053	14		15	-.0...										
86	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	12	.053	14	.027	15	-.0...										
87	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	13	.053	14	.046	15	-.0...										
88	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	2	.053	14	.053	15											
89	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	3	.053	14	.046	15	.027										
90	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	4	.053	14	.027	15	.046										
91	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	5	.053	14		15	.053										
92	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	6	.053	14	-.0...	15	.046										
93	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	7	.053	14	-.0...	15	.027										
94	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	8	.053	14	-.0...	15											
95	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	9	.053	14	-.0...	15	-.0...										
96	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	10	.053	14	-.0...	15	-.0...										
97	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	11	.053	14		15	-.0...										
98	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	12	.053	14	.027	15	-.0...										
99	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	13	.053	14	.046	15	-.0...										
100	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	2	.053	14	.053	15											
101	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	3	.053	14	.046	15	.027										
102	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	4	.053	14	.027	15	.046										
103	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	5	.053	14		15	.053										
104	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	6	.053	14	-.0...	15	.046										
105	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	7	.053	14	-.0...	15	.027										
106	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	8	.053	14	-.0...	15											
107	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	9	.053	14	-.0...	15	-.0...										
108	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	10	.053	14	-.0...	15	-.0...										
109	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	11	.053	14		15	-.0...										
110	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	12	.053	14	.027	15	-.0...										
111	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	13	.053	14	.046	15	-.0...										
112	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	2	.053	14	.053	15											
113	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	3	.053	14	.046	15	.027										

Load Combinations (Continued)

	Description	S...	P...	SRSS	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
114	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	4	.053	14	.027	15	.046										
115	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	5	.053	14		15	.053										
116	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	6	.053	14	-.0...	15	.046										
117	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	7	.053	14	-.0...	15	.027										
118	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	8	.053	14	-.0...	15											
119	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	9	.053	14	-.0...	15	-.0...										
120	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	10	.053	14	-.0...	15	-.0...										
121	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	11	.053	14		15	-.0...										
122	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	12	.053	14	.027	15	-.0...										
123	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	13	.053	14	.046	15	-.0...										
124	1.2DL + 1.5LM-MP5 + 1...	Yes	Y		1	1.2	38	1.5	2	.053	14	.053	15											
125	1.2DL + 1.5LM-MP5 + 1...	Yes	Y		1	1.2	38	1.5	3	.053	14	.046	15	.027										
126	1.2DL + 1.5LM-MP5 + 1...	Yes	Y		1	1.2	38	1.5	4	.053	14	.027	15	.046										
127	1.2DL + 1.5LM-MP5 + 1...	Yes	Y		1	1.2	38	1.5	5	.053	14		15	.053										
128	1.2DL + 1.5LM-MP5 + 1...	Yes	Y		1	1.2	38	1.5	6	.053	14	-.0...	15	.046										
129	1.2DL + 1.5LM-MP5 + 1...	Yes	Y		1	1.2	38	1.5	7	.053	14	-.0...	15	.027										
130	1.2DL + 1.5LM-MP5 + 1...	Yes	Y		1	1.2	38	1.5	8	.053	14	-.0...	15											
131	1.2DL + 1.5LM-MP5 + 1...	Yes	Y		1	1.2	38	1.5	9	.053	14	-.0...	15	-.0...										
132	1.2DL + 1.5LM-MP5 + 1...	Yes	Y		1	1.2	38	1.5	10	.053	14	-.0...	15	-.0...										
133	1.2DL + 1.5LM-MP5 + 1...	Yes	Y		1	1.2	38	1.5	11	.053	14		15	-.0...										
134	1.2DL + 1.5LM-MP5 + 1...	Yes	Y		1	1.2	38	1.5	12	.053	14	.027	15	-.0...										
135	1.2DL + 1.5LM-MP5 + 1...	Yes	Y		1	1.2	38	1.5	13	.053	14	.046	15	-.0...										
136	1.2DL + 1.5LM-MP6 + 1...	Yes	Y		1	1.2	39	1.5	2	.053	14	.053	15											
137	1.2DL + 1.5LM-MP6 + 1...	Yes	Y		1	1.2	39	1.5	3	.053	14	.046	15	.027										
138	1.2DL + 1.5LM-MP6 + 1...	Yes	Y		1	1.2	39	1.5	4	.053	14	.027	15	.046										
139	1.2DL + 1.5LM-MP6 + 1...	Yes	Y		1	1.2	39	1.5	5	.053	14		15	.053										
140	1.2DL + 1.5LM-MP6 + 1...	Yes	Y		1	1.2	39	1.5	6	.053	14	-.0...	15	.046										
141	1.2DL + 1.5LM-MP6 + 1...	Yes	Y		1	1.2	39	1.5	7	.053	14	-.0...	15	.027										
142	1.2DL + 1.5LM-MP6 + 1...	Yes	Y		1	1.2	39	1.5	8	.053	14	-.0...	15											
143	1.2DL + 1.5LM-MP6 + 1...	Yes	Y		1	1.2	39	1.5	9	.053	14	-.0...	15	-.0...										
144	1.2DL + 1.5LM-MP6 + 1...	Yes	Y		1	1.2	39	1.5	10	.053	14	-.0...	15	-.0...										
145	1.2DL + 1.5LM-MP6 + 1...	Yes	Y		1	1.2	39	1.5	11	.053	14		15	-.0...										
146	1.2DL + 1.5LM-MP6 + 1...	Yes	Y		1	1.2	39	1.5	12	.053	14	.027	15	-.0...										
147	1.2DL + 1.5LM-MP6 + 1...	Yes	Y		1	1.2	39	1.5	13	.053	14	.046	15	-.0...										
148	1.2DL + 1.5LM-MP7 + 1...	Yes	Y		1	1.2	40	1.5	2	.053	14	.053	15											
149	1.2DL + 1.5LM-MP7 + 1...	Yes	Y		1	1.2	40	1.5	3	.053	14	.046	15	.027										
150	1.2DL + 1.5LM-MP7 + 1...	Yes	Y		1	1.2	40	1.5	4	.053	14	.027	15	.046										
151	1.2DL + 1.5LM-MP7 + 1...	Yes	Y		1	1.2	40	1.5	5	.053	14		15	.053										
152	1.2DL + 1.5LM-MP7 + 1...	Yes	Y		1	1.2	40	1.5	6	.053	14	-.0...	15	.046										
153	1.2DL + 1.5LM-MP7 + 1...	Yes	Y		1	1.2	40	1.5	7	.053	14	-.0...	15	.027										
154	1.2DL + 1.5LM-MP7 + 1...	Yes	Y		1	1.2	40	1.5	8	.053	14	-.0...	15											
155	1.2DL + 1.5LM-MP7 + 1...	Yes	Y		1	1.2	40	1.5	9	.053	14	-.0...	15	-.0...										
156	1.2DL + 1.5LM-MP7 + 1...	Yes	Y		1	1.2	40	1.5	10	.053	14	-.0...	15	-.0...										
157	1.2DL + 1.5LM-MP7 + 1...	Yes	Y		1	1.2	40	1.5	11	.053	14		15	-.0...										
158	1.2DL + 1.5LM-MP7 + 1...	Yes	Y		1	1.2	40	1.5	12	.053	14	.027	15	-.0...										
159	1.2DL + 1.5LM-MP7 + 1...	Yes	Y		1	1.2	40	1.5	13	.053	14	.046	15	-.0...										
160	1.2DL + 1.5LM-MP8 + 1...	Yes	Y		1	1.2	41	1.5	2	.053	14	.053	15											
161	1.2DL + 1.5LM-MP8 + 1...	Yes	Y		1	1.2	41	1.5	3	.053	14	.046	15	.027										
162	1.2DL + 1.5LM-MP8 + 1...	Yes	Y		1	1.2	41	1.5	4	.053	14	.027	15	.046										
163	1.2DL + 1.5LM-MP8 + 1...	Yes	Y		1	1.2	41	1.5	5	.053	14		15	.053										
164	1.2DL + 1.5LM-MP8 + 1...	Yes	Y		1	1.2	41	1.5	6	.053	14	-.0...	15	.046										
165	1.2DL + 1.5LM-MP8 + 1...	Yes	Y		1	1.2	41	1.5	7	.053	14	-.0...	15	.027										
166	1.2DL + 1.5LM-MP8 + 1...	Yes	Y		1	1.2	41	1.5	8	.053	14	-.0...	15											
167	1.2DL + 1.5LM-MP8 + 1...	Yes	Y		1	1.2	41	1.5	9	.053	14	-.0...	15	-.0...										
168	1.2DL + 1.5LM-MP8 + 1...	Yes	Y		1	1.2	41	1.5	10	.053	14	-.0...	15	-.0...										
169	1.2DL + 1.5LM-MP8 + 1...	Yes	Y		1	1.2	41	1.5	11	.053	14		15	-.0...										
170	1.2DL + 1.5LM-MP8 + 1...	Yes	Y		1	1.2	41	1.5	12	.053	14	.027	15	-.0...										

Load Combinations (Continued)

	Description	S...	P...	SRSS	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
171	1.2DL + 1.5LM-MP8 + 1...	Yes	Y		1	1.2	41	1.5	13	.053	14	.046	15	-.0...										
172	1.2DL + 1.5LM-MP9 + 1...	Yes	Y		1	1.2	42	1.5	2	.053	14	.053	15											
173	1.2DL + 1.5LM-MP9 + 1...	Yes	Y		1	1.2	42	1.5	3	.053	14	.046	15	.027										
174	1.2DL + 1.5LM-MP9 + 1...	Yes	Y		1	1.2	42	1.5	4	.053	14	.027	15	.046										
175	1.2DL + 1.5LM-MP9 + 1...	Yes	Y		1	1.2	42	1.5	5	.053	14		15	.053										
176	1.2DL + 1.5LM-MP9 + 1...	Yes	Y		1	1.2	42	1.5	6	.053	14	-.0...	15	.046										
177	1.2DL + 1.5LM-MP9 + 1...	Yes	Y		1	1.2	42	1.5	7	.053	14	-.0...	15	.027										
178	1.2DL + 1.5LM-MP9 + 1...	Yes	Y		1	1.2	42	1.5	8	.053	14	-.0...	15											
179	1.2DL + 1.5LM-MP9 + 1...	Yes	Y		1	1.2	42	1.5	9	.053	14	-.0...	15	-.0...										
180	1.2DL + 1.5LM-MP9 + 1...	Yes	Y		1	1.2	42	1.5	10	.053	14	-.0...	15	-.0...										
181	1.2DL + 1.5LM-MP9 + 1...	Yes	Y		1	1.2	42	1.5	11	.053	14		15	-.0...										
182	1.2DL + 1.5LM-MP9 + 1...	Yes	Y		1	1.2	42	1.5	12	.053	14	.027	15	-.0...										
183	1.2DL + 1.5LM-MP9 + 1...	Yes	Y		1	1.2	42	1.5	13	.053	14	.046	15	-.0...										
184	1.2DL + 1.5LM-MP10 + 1..	Yes	Y		1	1.2	43	1.5	2	.053	14	.053	15											
185	1.2DL + 1.5LM-MP10 + 1..	Yes	Y		1	1.2	43	1.5	3	.053	14	.046	15	.027										
186	1.2DL + 1.5LM-MP10 + 1..	Yes	Y		1	1.2	43	1.5	4	.053	14	.027	15	.046										
187	1.2DL + 1.5LM-MP10 + 1..	Yes	Y		1	1.2	43	1.5	5	.053	14		15	.053										
188	1.2DL + 1.5LM-MP10 + 1..	Yes	Y		1	1.2	43	1.5	6	.053	14	-.0...	15	.046										
189	1.2DL + 1.5LM-MP10 + 1..	Yes	Y		1	1.2	43	1.5	7	.053	14	-.0...	15	.027										
190	1.2DL + 1.5LM-MP10 + 1..	Yes	Y		1	1.2	43	1.5	8	.053	14	-.0...	15											
191	1.2DL + 1.5LM-MP10 + 1..	Yes	Y		1	1.2	43	1.5	9	.053	14	-.0...	15	-.0...										
192	1.2DL + 1.5LM-MP10 + 1..	Yes	Y		1	1.2	43	1.5	10	.053	14	-.0...	15	-.0...										
193	1.2DL + 1.5LM-MP10 + 1..	Yes	Y		1	1.2	43	1.5	11	.053	14		15	-.0...										
194	1.2DL + 1.5LM-MP10 + 1..	Yes	Y		1	1.2	43	1.5	12	.053	14	.027	15	-.0...										
195	1.2DL + 1.5LM-MP10 + 1..	Yes	Y		1	1.2	43	1.5	13	.053	14	.046	15	-.0...										
196	1.2DL + 1.5LM-MP11 + 1..	Yes	Y		1	1.2	44	1.5	2	.053	14	.053	15											
197	1.2DL + 1.5LM-MP11 + 1..	Yes	Y		1	1.2	44	1.5	3	.053	14	.046	15	.027										
198	1.2DL + 1.5LM-MP11 + 1..	Yes	Y		1	1.2	44	1.5	4	.053	14	.027	15	.046										
199	1.2DL + 1.5LM-MP11 + 1..	Yes	Y		1	1.2	44	1.5	5	.053	14		15	.053										
200	1.2DL + 1.5LM-MP11 + 1..	Yes	Y		1	1.2	44	1.5	6	.053	14	-.0...	15	.046										
201	1.2DL + 1.5LM-MP11 + 1..	Yes	Y		1	1.2	44	1.5	7	.053	14	-.0...	15	.027										
202	1.2DL + 1.5LM-MP11 + 1..	Yes	Y		1	1.2	44	1.5	8	.053	14	-.0...	15											
203	1.2DL + 1.5LM-MP11 + 1..	Yes	Y		1	1.2	44	1.5	9	.053	14	-.0...	15	-.0...										
204	1.2DL + 1.5LM-MP11 + 1..	Yes	Y		1	1.2	44	1.5	10	.053	14	-.0...	15	-.0...										
205	1.2DL + 1.5LM-MP11 + 1..	Yes	Y		1	1.2	44	1.5	11	.053	14		15	-.0...										
206	1.2DL + 1.5LM-MP11 + 1..	Yes	Y		1	1.2	44	1.5	12	.053	14	.027	15	-.0...										
207	1.2DL + 1.5LM-MP11 + 1..	Yes	Y		1	1.2	44	1.5	13	.053	14	.046	15	-.0...										
208	1.2DL + 1.5LM-MP12 + 1..	Yes	Y		1	1.2	45	1.5	2	.053	14	.053	15											
209	1.2DL + 1.5LM-MP12 + 1..	Yes	Y		1	1.2	45	1.5	3	.053	14	.046	15	.027										
210	1.2DL + 1.5LM-MP12 + 1..	Yes	Y		1	1.2	45	1.5	4	.053	14	.027	15	.046										
211	1.2DL + 1.5LM-MP12 + 1..	Yes	Y		1	1.2	45	1.5	5	.053	14		15	.053										
212	1.2DL + 1.5LM-MP12 + 1..	Yes	Y		1	1.2	45	1.5	6	.053	14	-.0...	15	.046										
213	1.2DL + 1.5LM-MP12 + 1..	Yes	Y		1	1.2	45	1.5	7	.053	14	-.0...	15	.027										
214	1.2DL + 1.5LM-MP12 + 1..	Yes	Y		1	1.2	45	1.5	8	.053	14	-.0...	15											
215	1.2DL + 1.5LM-MP12 + 1..	Yes	Y		1	1.2	45	1.5	9	.053	14	-.0...	15	-.0...										
216	1.2DL + 1.5LM-MP12 + 1..	Yes	Y		1	1.2	45	1.5	10	.053	14	-.0...	15	-.0...										
217	1.2DL + 1.5LM-MP12 + 1..	Yes	Y		1	1.2	45	1.5	11	.053	14		15	-.0...										
218	1.2DL + 1.5LM-MP12 + 1..	Yes	Y		1	1.2	45	1.5	12	.053	14	.027	15	-.0...										

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N58	max	6096.26	17	11389.344	32	6318.22	2	9205.537	2	4561.081	23	8540.298	23
2		min	-6096.26	23	2209.928	62	-6318.219	20	-8562.682	20	-4549.486	5	-8691.938	5
3	Totals:	max	6096.26	17	11389.344	32	6318.22	2						
4		min	-6096.26	23	2209.928	62	-6318.219	20						

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

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc...	...	LC	phi*Pn...	phi*Pn...	phi*M...	phi*M...	...	Eqn
1	M36	L2.5x2.5x3	.921	16.547	6	.120	0	y	6	27229...	29192.4	872.574	1971.83	2...	H2-1
2	M37	L2.5x2.5x3	.870	16.547	10	.114	0	y	10	27229...	29192.4	872.574	1971.83	2...	H2-1
3	M28	L2.5x2.5x3	.809	16.547	2	.107	16....	y	8	27229...	29192.4	872.574	1971.83	2...	H2-1
4	M7	C5X9	.688	0	12	.288	5.985	z	5	74436...	85536	1909.1...	11853	1...	H1-1b
5	HR3	PIPE_2.0	.558	40.625	23	.447	40....		6	6295.4...	32130	1871.6...	1871.6...	1...	H3-6
6	HR1	PIPE_2.0	.521	40.625	7	.405	40....		2	6295.4...	32130	1871.6...	1871.6...	1...	H3-6
7	MP5	PIPE_2.0	.519	67	4	.101	67		4	14916....	32130	1871.6...	1871.6...	1...	H1-1b
8	HR2	PIPE_2.0	.510	40.625	15	.429	40....		10	6295.4...	32130	1871.6...	1871.6...	1...	H3-6
9	MP1	PIPE_2.0	.508	67	8	.104	67		8	14916....	32130	1871.6...	1871.6...	3...	H1-1b
10	MP7	PIPE_2.0	.502	73	6	.097	73		5	14916....	32130	1871.6...	1871.6...	1...	H1-1b
11	MP10	PIPE_2.0	.499	60.375	9	.096	60....		8	17855....	32130	1871.6...	1871.6...	2...	H1-1b
12	MP9	PIPE_2.0	.477	67	12	.123	67		12	14916....	32130	1871.6...	1871.6...	1...	H1-1b
13	BR2	C5X9	.476	42.154	6	.127	42....	y	31	38865....	85536	1909.1...	11853	1...	H1-1b
14	MP2	PIPE_2.0	.450	60.375	5	.101	60....		3	17855....	32130	1871.6...	1871.6...	2...	H1-1b
15	HOR2	C5X9	.449	60	6	.281	58....	y	5	84014....	85536	1909.1...	11853	1...	H1-1b
16	BR1	C5X9	.446	17.358	10	.126	17....	y	10	38865....	85536	1909.1...	11853	1...	H1-1b
17	MP3	PIPE_2.0	.441	73	10	.106	73		9	14916....	32130	1871.6...	1871.6...	2...	H1-1b
18	MP6	PIPE_2.0	.441	60.375	2	.094	60....		11	17855....	32130	1871.6...	1871.6...	2...	H1-1b
19	MP11	PIPE_2.0	.413	73	2	.096	73		13	14916....	32130	1871.6...	1871.6...	2...	H1-1b
20	M12	L2x2x4	.411	35.75	11	.033	56....	z	8	30368....	30585.6	690.934	1576.8...	1...	H2-1
21	MP8	PIPE_2.0	.404	60.375	6	.103	60....		5	17855....	32130	1871.6...	1871.6...	2...	H1-1b
22	M13	L2x2x4	.403	35.75	2	.051	35.75	y	2	30368....	30585.6	690.934	1576.8...	1...	H2-1
23	HOR3	C5X9	.382	68	9	.283	58....	y	12	84014....	85536	1909.1...	11853	1...	H1-1b
24	HOR1	C5X9	.373	68	10	.285	69....	y	9	85153....	85536	1909.1...	11853	1...	H1-1b
25	MP4	PIPE_2.0	.370	60.375	10	.089	60....		9	17855....	32130	1871.6...	1871.6...	2...	H1-1b
26	M31	0.625 SR	.327	12	2	.047	0		8	7286.8...	9940.19	103.542	103.542	2...	H1-1b
27	MP12	PIPE_2.0	.317	60.375	2	.086	60....		13	17855....	32130	1871.6...	1871.6...	2...	H1-1b
28	BR3	C5X9	.309	17.358	2	.064	17....	y	3	38865....	85536	1909.1...	11853	2...	H1-1b
29	M32	0.625 SR	.303	12	2	.053	0		8	7286.8...	9940.19	103.542	103.542	2...	H1-1b
30	M30	0.625 SR	.281	12	2	.028	0		8	7286.8...	9940.19	103.542	103.542	2...	H1-1b
31	M16	0.625 SR	.232	12	2	.013	0		8	7286.8...	9940.19	103.542	103.542	2...	H1-1b
32	BR4	C5X9	.209	0	13	.048	27....	y	13	69371....	85536	1909.1...	11853	1...	H1-1b
33	M33	0.625 SR	.138	0	2	.020	0		8	7286.8...	9940.19	103.542	103.542	2...	H1-1b
34	M35	0.625 SR	.084	12	8	.025	0		2	7286.8...	9940.19	103.542	103.542	2...	H1-1b
35	M18	L1.5x1.5x4	.082	12.49	33	.013	24....	z	28	15152....	22275	360.338	834.027	1...	H2-1
36	M34	0.625 SR	.069	12	8	.022	0		3	7286.8...	9940.19	103.542	103.542	2...	H1-1b

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[LB]
1	General				
2	RIGID		33	287.5	0
3	Total General		33	287.5	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	0.625 SR	7	84	7.308
7	A36 Gr.36	C5X9	8	618.2	462.779
8	A36 Gr.36	L1.5x1.5x4	1	25	4.87
9	A36 Gr.36	L2.5x2.5x3	3	49.6	12.683
10	A36 Gr.36	L2x2x4	2	208	55.679
11	A53 Gr.B	PIPE_2.0	15	1530	442.531
12	Total HR Steel		36	2514.8	985.85

APPENDIX D

ADDITIONAL CALCUATIONS

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless

Bolt Calculation Tool, V1.5.1

PROJECT DATA	
Site Name:	SMITH HILLS / STERLING GRP. (S
Site Number:	876372
Connection Description:	Platform to Pole

MAXIMUM BOLT LOADS		
Bolt Tension:	1222.92	lbs
Bolt Shear:	865.87	lbs

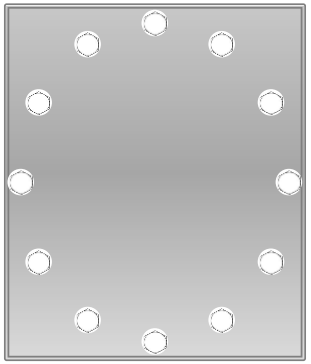
WORST CASE BOLT LOADS[1]		
Bolt Tension:	0.00	lbs
Bolt Shear:	865.87	lbs

BOLT PROPERTIES		
Bolt Type:	Bolt	-
Bolt Diameter:	0.75	in
Bolt Grade:	A325	-
# of Bolts:	12	-
Threads Excluded?	No	-

[1] *Worst case bolt loads correspond to Load combination #24 on member M29 in RISA-3D, which causes the maximum demand on the bolts.*

Member Information
I nodes of M29

BOLT CHECK		
Tensile Strength	30101.39	
Shear Strength	17892.35	
Max Tensile Usage	4.1%	
Max Shear Usage	4.8%	
Interaction Check (Worst Case)	0.00	***≤1.05***
Result	Pass	



EBI Consulting

environmental | engineering | due diligence

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

T-Mobile Existing Facility

Site ID: CTHA653A

876372
71 Ashford Road
Eastford, Connecticut 06272

October 5, 2021

EBI Project Number: 6221005727

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**7.12%**

October 5, 2021

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

Emissions Analysis for Site: CTHA653A - 876372

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **71 Ashford Road** in **Eastford, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

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

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 71 Ashford Road in Eastford, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower. For power density calculations, the broadcast footprint of the AIR6449 antenna has been considered. Due to the beamforming nature of this antenna, the actual beam locations vary depending on demand and are narrow in nature. Using the broadcast footprint accounts for the potential location of beams at any given time.

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

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

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

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

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

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

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

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

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

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

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

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

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

13) The antennas used in this modeling are the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s) in Sector A, the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s) in Sector B, the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied

specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

14) The antenna mounting height centerline of the proposed antennas is 180 feet above ground level (AGL).

15) Emissions from additional carriers were not included because emissions data for the site location are not available.

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

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	RFS APXVAALL24_43-U-NA20	Make / Model:	RFS APXVAALL24_43-U-NA20	Make / Model:	RFS APXVAALL24_43-U-NA20
Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz / 2100 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd / 15.45 dBd / 16.45 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd / 15.45 dBd / 16.45 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd / 15.45 dBd / 16.45 dBd
Height (AGL):	180 feet	Height (AGL):	180 feet	Height (AGL):	180 feet
Channel Count:	13	Channel Count:	13	Channel Count:	13
Total TX Power (W):	560 Watts	Total TX Power (W):	560 Watts	Total TX Power (W):	560 Watts
ERP (W):	17,868.72	ERP (W):	17,868.72	ERP (W):	17,868.72
Antenna A1 MPE %:	**2.80%**	Antenna B1 MPE %:	**2.80%**	Antenna C1 MPE %:	**2.80%**
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449
Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz
Gain:	22.65 dBd / 17.3 dBd / 22.65 dBd / 17.3 dBd	Gain:	22.65 dBd / 17.3 dBd / 22.65 dBd / 17.3 dBd	Gain:	22.65 dBd / 17.3 dBd / 22.65 dBd / 17.3 dBd
Height (AGL):	180 feet	Height (AGL):	180 feet	Height (AGL):	180 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts
ERP (W):	36,356.09	ERP (W):	36,356.09	ERP (W):	36,356.09
Antenna A2 MPE %:	**4.32%**	Antenna B2 MPE %:	**4.32%**	Antenna C2 MPE %:	**4.32%**

Site Composite MPE %	
Carrier	**MPE %**
T-Mobile (Max at Sector A):	7.12%
no additional carriers	N/A
Site Total MPE % :	7.12%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	7.12%
T-Mobile Sector B Total:	7.12%
T-Mobile Sector C Total:	7.12%
Site Total MPE % :	7.12%

T-Mobile Maximum MPE Power Values (Sector A)

T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 600 MHz LTE	2	591.73	180.0	1.41	600 MHz LTE	400	0.35%
T-Mobile 600 MHz NR	1	1577.94	180.0	1.87	600 MHz NR	400	0.47%
T-Mobile 700 MHz LTE	2	695.22	180.0	1.65	700 MHz LTE	467	0.35%
T-Mobile 1900 MHz GSM	4	1052.26	180.0	5.00	1900 MHz GSM	1000	0.50%
T-Mobile 1900 MHz LTE	2	2104.51	180.0	5.00	1900 MHz LTE	1000	0.50%
T-Mobile 2100 MHz LTE	2	2649.42	180.0	6.29	2100 MHz LTE	1000	0.63%
T-Mobile 2500 MHz LTE 1C & 2C Traffic	1	11044.63	180.0	13.12	2500 MHz LTE 1C & 2C Traffic	1000	1.31%
T-Mobile 2500 MHz LTE 1C & 2C Broadcast	1	1074.06	180.0	1.28	2500 MHz LTE 1C & 2C Broadcast	1000	0.13%
T-Mobile 2500 MHz NR Traffic	1	22089.26	180.0	26.23	2500 MHz NR Traffic	1000	2.62%
T-Mobile 2500 MHz NR Broadcast	1	2148.13	180.0	2.55	2500 MHz NR Broadcast	1000	0.26%
						Total:	**7.12%**

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

Summary

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

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

T-Mobile Sector	Power Density Value (%)
Sector A:	7.12%
Sector B:	7.12%
Sector C:	7.12%
T-Mobile Maximum MPE % (Sector A):	7.12%
Site Total:	7.12%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **7.12%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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

T-Mobile

T-MOBILE SITE NUMBER: CTHA653A
T-MOBILE SITE NAME: CTHA653A
SITE TYPE: MONOPOLE
TOWER HEIGHT: 177'-0"

BUSINESS UNIT #: 876372
SITE ADDRESS: 71 ASHFORD RD
EASTFORD, CT 06272
COUNTY: WINDHAM
JURISDICTION: TOWN OF EASTFORD

T-MOBILE SPRINT RETAIN SITE CONFIGURATION: 67D5A998C 6160 (GSM ONLY)

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	SMITH HILLS / STERLING GRP. (S
SITE ADDRESS:	71 ASHFORD RD EASTFORD, CT 06272
COUNTY:	WINDHAM
MAP/PARCEL #:	CT-039-70-6-6-2
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41.904591°
LONGITUDE:	-72.123776°
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	670'
CURRENT ZONING:	UNKNOWN
JURISDICTION:	TOWN OF EASTFORD
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	CONNECTICUT FOREST & PARK ASSOC PMB 331 4017 WASHINGTON RD MCMURRAY, PA 15317
TOWER OWNER:	CROWN CASTLE USA INC 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	T-MOBILE 4 SYLVAN WAY PARSIPPANY, NJ 07054
ELECTRIC PROVIDER:	CONNECTICUT LIGHT & POWER
TELCO PROVIDER:	AT&T

PROJECT TEAM

A&E FIRM:	B+T GROUP 1717 S BOULDER AVE, SUITE 300 TULSA, OK 74119 JENNY PAUL jpaul@btgrp.com
CROWN CASTLE USA INC. DISTRICT CONTACTS:	3530 TORINGDON WAY, SUITE 300 CHARLOTTE, NC 28277

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	OVERALL SITE PLAN
C-1.2	SITE PLAN & ENLARGED SITE PLAN
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	ANTENNA & CABLE SCHEDULE
C-4	PLUMBING DIAGRAM
C-5 TO C-5.1	EQUIPMENT SPECS
G-1	ANTENNA GROUNDING DIAGRAM
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS
ATTACHED	MOUNT ANALYSIS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 24X36. 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.

PROJECT DESCRIPTION

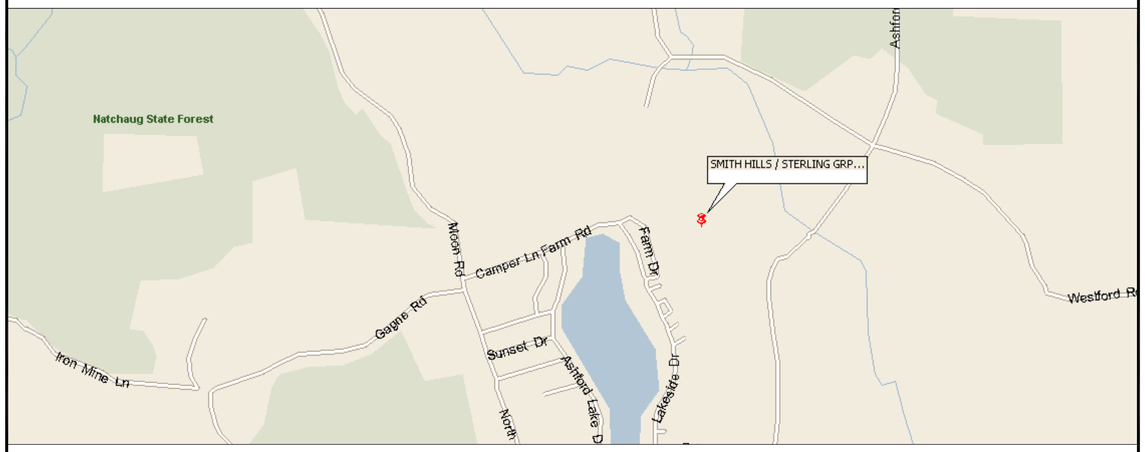
THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

TOWER SCOPE OF WORK:
- REMOVE (12) ANTENNAS
- REMOVE (14) RADIOS
- INSTALL (6) ANTENNAS
- INSTALL (6) RADIOS
- INSTALL (3) 6/24" HYBRID CABLES
- INSTALL MODIFICATION PER MA BY INFINIGY ENGINEERING, PLLC DATED 8/31/21

GROUND SCOPE OF WORK:
- REMOVE (2) SPRINT CABINETS
- REMOVE (4) HYBRID TRUNKS
- INSTALL (1) SSC 6160 CABINET
- INSTALL (1) B160 BATTERY CABINET
- INSTALL (3) BB 6648
- INSTALL (1) DUG20
- INSTALL (1) PSU 4813 VOLTAGE BOOSTER
- INSTALL (1) CSR IXRe V2 (Gen 2)
- INSTALL (1) RBS 6601

NOTE:
PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER

LOCATION MAP



NO SCALE

APPLICABLE CODES/REFERENCE DOCUMENTS

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	2015 IBC
MECHANICAL	2015 IMC
ELECTRICAL	2017 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	TOWER ENGINEERING PROFESSIONALS
DATED:	9/8/21
MOUNT ANALYSIS:	INFINGY ENGINEERING, PLLC
DATED:	8/31/21
RFDS REVISION:	1
DATED:	8/3/21
ORDER ID:	584574
REVISION:	0

CALL CONNECTICUT ONE CALL
(800) 922-4455 CBYD.COM
CALL 2 WORKING DAYS
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APPROVALS

APPROVAL	SIGNATURE	DATE
PROPERTY OWNER OR REP.		
LAND USE PLANNER		
T-MOBILE		
OPERATIONS		
RF		
NETWORK		
BACKHAUL		
CONSTRUCTION MANAGER		

THE PARTIES ABOVE HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES AND MODIFICATIONS THEY MAY IMPOSE.

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE SITE NUMBER:
CTHA653A

BU #: **876372**
SMITH HILLS / STERLING GRP. (S

71 ASHFORD RD
EASTFORD, CT 06272

EXISTING
177'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	2/22/21	JTS	CONSTRUCTION	MTJ
1	3/19/21	JJD	CONSTRUCTION	GEH
2	10/6/21	YXI	CONSTRUCTION	YXI

STATE OF CONNECTICUT
No. 23924
LICENSED
PROFESSIONAL ENGINEER
10/6/21

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: T-1
REVISION: 2

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED– NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800–788–7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
2. "LOOK UP" – CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT:
   THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED–STD–10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH QAS–STD–10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED–STD–10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. 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.
20. 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.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
   CARRIER: T–MOBILE
   TOWER OWNER: CROWN CASTLE USA INC.
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR 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 CROWN CASTLE.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. 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 CROWN CASTLE USA INC.
13. 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.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST–IN–PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE–THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER–TO–CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
   #4 BARS AND SMALLER — 40 ksi
   #5 BARS AND LARGER — 60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH — 3"
   CONCRETE EXPOSED TO EARTH OR WEATHER:
   - #6 BARS AND LARGER — 2"
   - #5 BARS AND SMALLER — 1–1/2"
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
   - SLAB AND WALLS — 3/4"
   - BEAMS AND COLUMNS — 1–1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
   - 4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
   - 4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERYIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI–CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP–STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL METALLIC TUBING (EMT) OR METAL–CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON–PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER–ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY–COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
25. 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 BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "T–MOBILE".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE

SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208V, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
	GROUND	GREEN
277/480V, 3Ø	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
	GROUND	GREEN
DC VOLTAGE	POS (+)	RED**
	NEG (–)	BLACK**

* SEE NEC 210.5(C)(1) AND (2)
** POLARITY MARKED AT TERMINATION

APWA UNIFORM COLOR CODE:

WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

ABBREVIATIONS:

ANT	ANTENNA
(E)	EXISTING
FIF	FACILITY INTERFACE FRAME
GEN	GENERATOR
GPS	GLOBAL POSITIONING SYSTEM
GSM	GLOBAL SYSTEM FOR MOBILE
LTE	LONG TERM EVOLUTION
MGB	MASTER GROUND BAR
MW	MICROWAVE
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
(P)	PROPOSED
PP	POWER PLANT
QTY	QUANTITY
RECT	RECTIFIER
RBS	RADIO BASE STATION
RET	REMOTE ELECTRIC TILT
RFDS	RADIO FREQUENCY DATA SHEET
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
SIAD	SMART INTEGRATED DEVICE
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
W.P.	WORK POINT

GREENFIELD GROUNDING NOTES:

1. 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.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL–OF–POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR 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.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. 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.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON–ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING 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 CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON–METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD–WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
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T-MOBILE SITE NUMBER:
CTHA653A

BU #: **876372**
SMITH HILLS / STERLING GRP. (S

71 ASHFORD RD
EASTFORD, CT 06272

EXISTING
177'-0" MONOPOLE

ISSUED FOR:

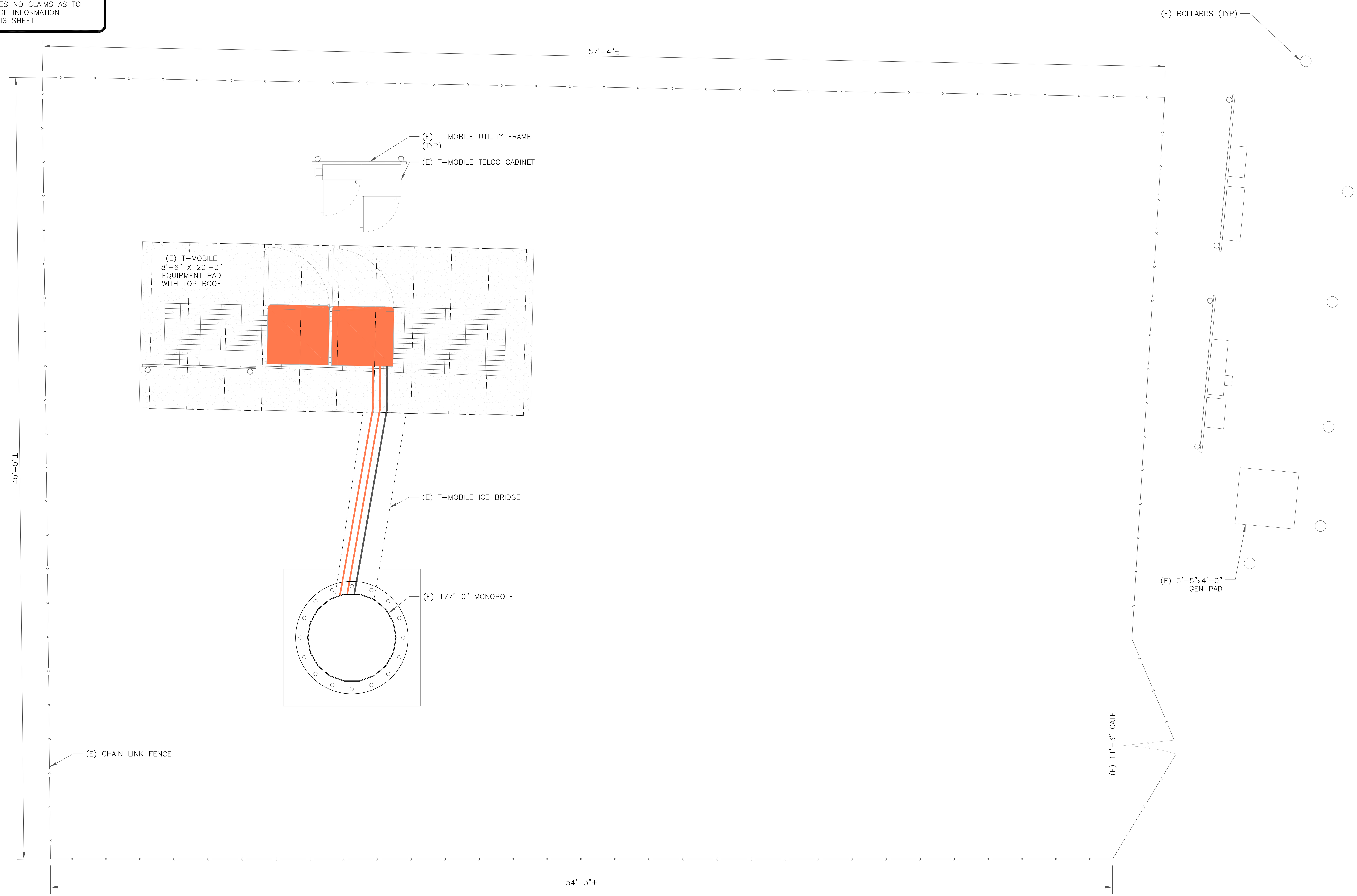
REV	DATE	DRWN	DESCRIPTION	DES./QA
0	2/22/21	JTS	CONSTRUCTION	MTJ
1	3/19/21	JJD	CONSTRUCTION	GEH
2	10/6/21	YXI	CONSTRUCTION	YXI

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: T-2
REVISION: 2

SITE PLAN DISCLAIMER:

PROPERTY LINES AND STRUCTURES HAVE BEEN DIGITIZED FROM PREVIOUS PLAN SETS OR FROM ASSESSORS MAPS. CROWN CASTLE USA INC. HAS NOT COMPLETED A SITE SURVEY AND THEREFORE MAKES NO CLAIMS AS TO THE ACCURACY OF INFORMATION DEPICTED ON THIS SHEET



1 OVERALL SITE PLAN

SCALE: 3/8"=1'-0" (FULL SIZE) 3/16"=1'-0" (11x17)

N

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE SITE NUMBER:
CTHA653A

BU #: **876372**
SMITH HILLS / STERLING GRP. (S

71 ASHFORD RD
EASTFORD, CT 06272

EXISTING
177'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	2/22/21	JTS	CONSTRUCTION	MTJ
1	3/19/21	JJD	CONSTRUCTION	GEH
2	10/6/21	YXI	CONSTRUCTION	YXI

STATE OF CONNECTICUT PROFESSIONAL ENGINEER No. 23924 LICENSED
10/6/21

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

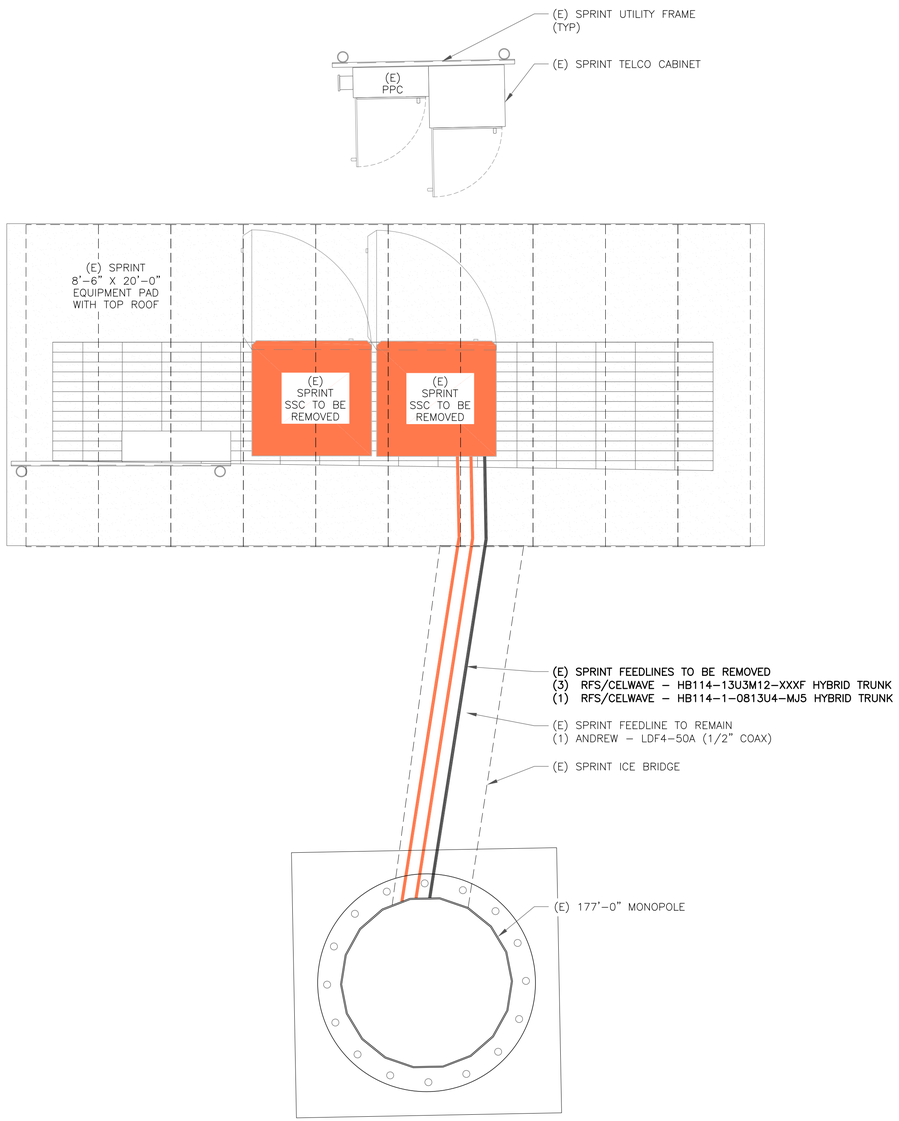
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: C-1.1

REVISION: 2

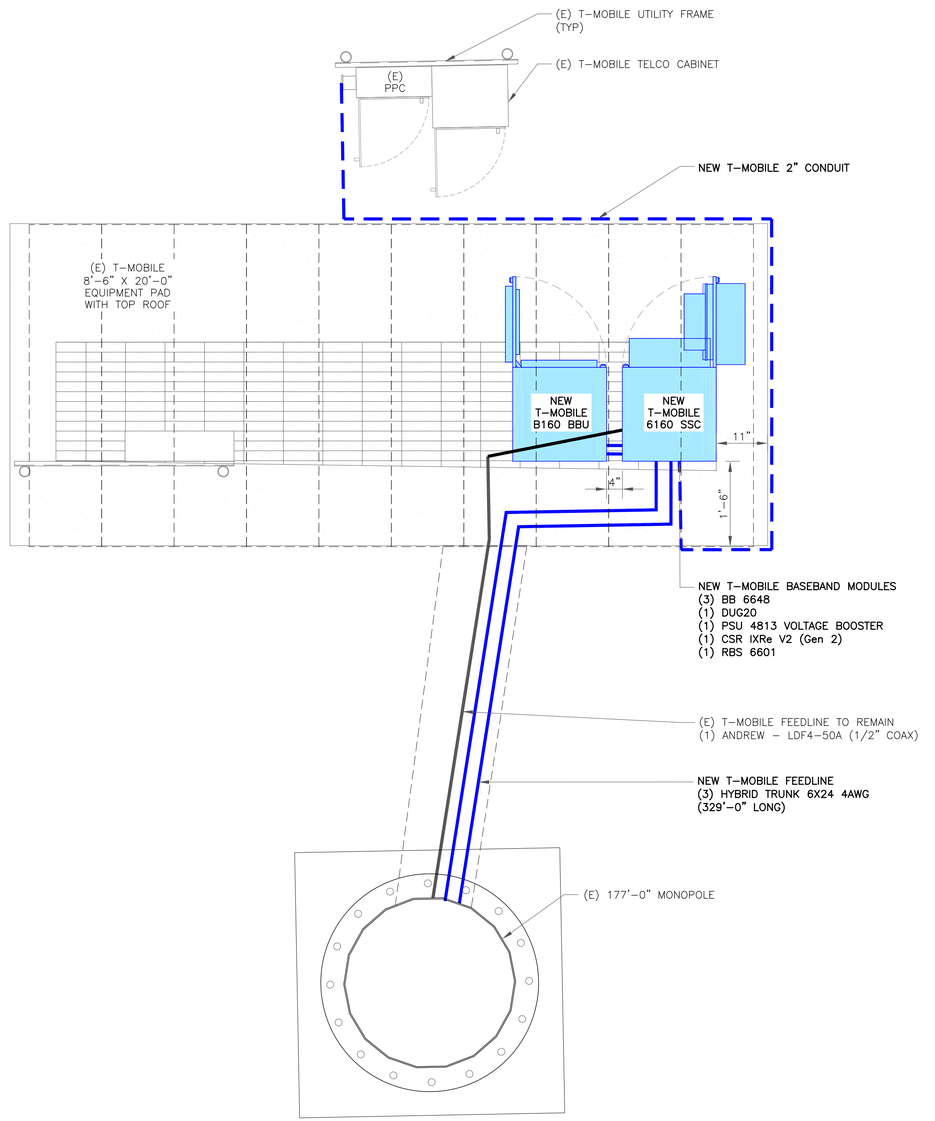
EQUIPMENT LEGEND:

- EXISTING
- TO BE RELOCATED/REMOVED
- NEW



1 EXISTING EQUIPMENT PLAN
SCALE: 2' 1' 0 2' 1/2"=1'-0" (FULL SIZE) 1/4"=1'-0" (11x17)

N



2 FINAL EQUIPMENT PLAN
SCALE: 2' 1' 0 2' 1/2"=1'-0" (FULL SIZE) 1/4"=1'-0" (11x17)

N

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4 SYLVAN WAY
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PROFESSIONAL ENGINEER
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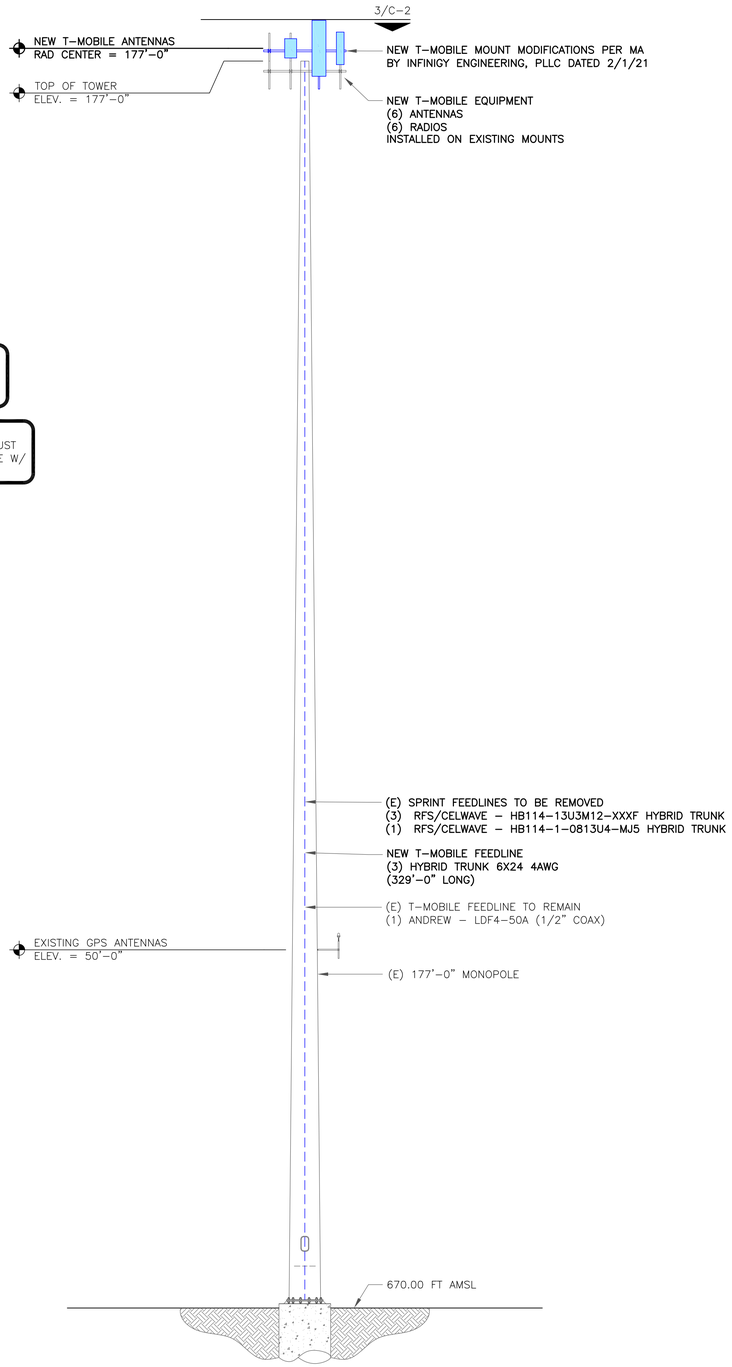
SHEET NUMBER: C-1.2
REVISION: 2

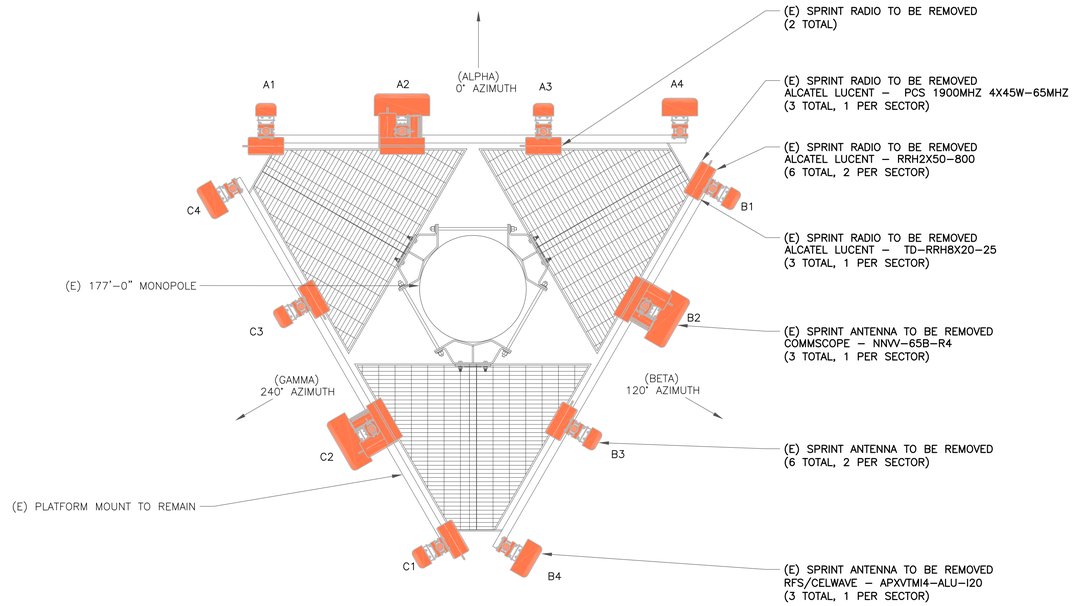


T-MOBILE EQUIPMENT

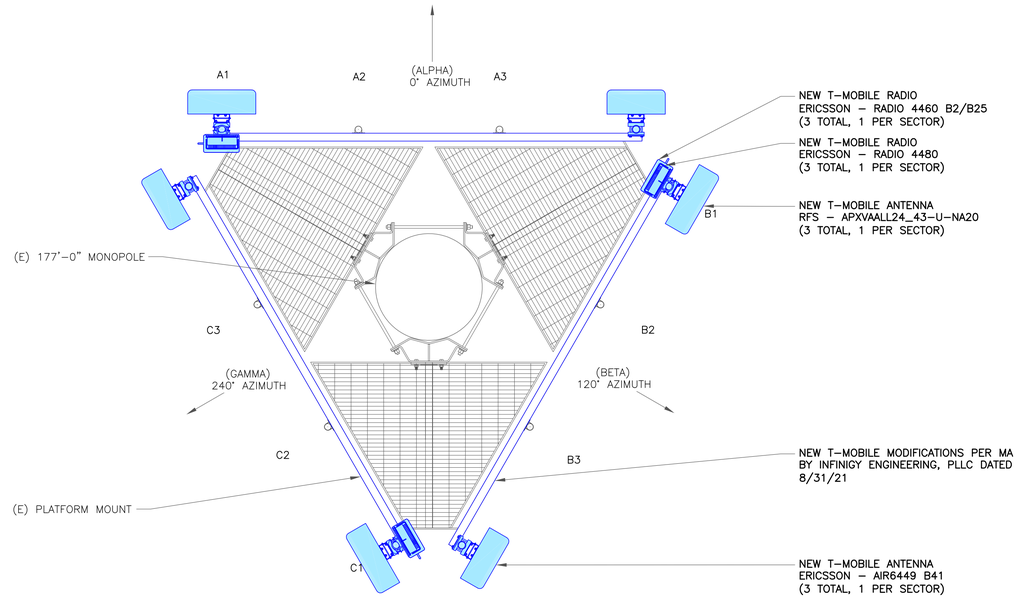
ANTENNA CL: 177'-0"
MOUNT CL: 177'-0"

ANY AND ALL TOWER MOUNTED EQUIPMENT MUST NOT TRAP OR INTERFERE W/ EXISTING SAFETY CLIMB

1 FINAL ELEVATION
SCALE: NOT TO SCALE



2 EXISTING ANTENNA PLAN
SCALE: NOT TO SCALE



3 FINAL ANTENNA PLAN
SCALE: NOT TO SCALE

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STATE OF CONNECTICUT
MICHAEL T. JOHNSON
No. 23924
LICENSED
PROFESSIONAL ENGINEER
10/6/21

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SHEET NUMBER: C-2

REVISION: 2

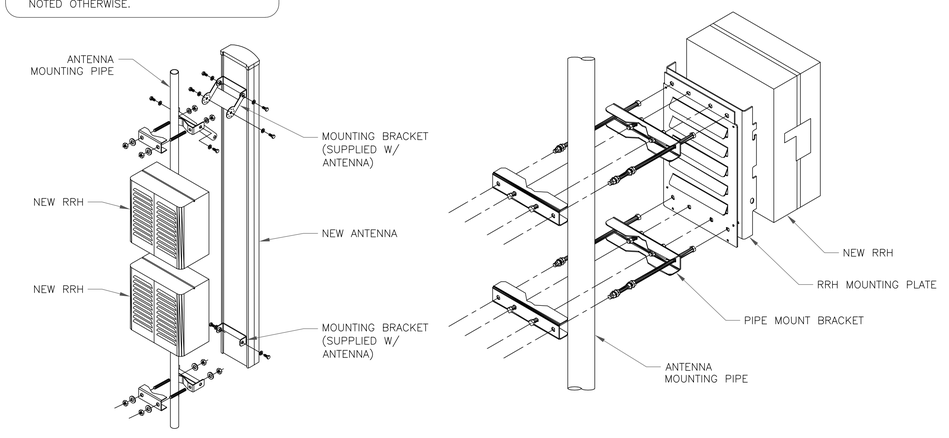
RF SYSTEM SCHEDULE

SECTOR	ANTENNA	TECH	MANUFACTURER	ANTENNA MODEL	AZIMUTH	M–TILT	E–TILT	RAD CENTER	TMA/RRU	CABLE TYPE	CABLE DIAMETER	CABLE LENGTH
ALPHA	A–1	L700/L600/N600 /L1900/G1900	RFS	APXVAALL24_43–U–NA20	0°	0°	–	177'–0"	(1) RADIO 4460 B2/B25 (1) RADIO 4480	(1) HYBRID TRUNK 6/24 4AWG (1) COAX	1 5/8" 1/2"	329'–0" 329'–0"
	A–2	L2500/N2500	ERICSSON	AIR6449 B41	0°	0°	–	177'–0"	–			
BETTA	B–1	L700/L600/N600 /L1900/G1900	RFS	APXVAALL24_43–U–NA20	120°	0°	–	177'–0"	(1) RADIO 4460 B2/B25 (1) RADIO 4480	(1) HYBRID TRUNK 6/24 4AWG	1 5/8"	329'–0"
	B–2	L2500/N2500	ERICSSON	AIR6449 B41	120°	0°	–	177'–0"	–			
GAMMA	C–1	L700/L600/N600 /L1900/G1900	RFS	APXVAALL24_43–U–NA20	240°	0°	–	177'–0"	(1) RADIO 4460 B2/B25 (1) RADIO 4480	(1) HYBRID TRUNK 6/24 4AWG	1 5/8"	329'–0"
	C–2	L2500/N2500	ERICSSON	AIR6449 B41	240°	0°	–	177'–0"	–			

1 ANTENNA & FEEDLINE SCHEDULE
SCALE: NOT TO SCALE

INSTALLER NOTES:

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



2 ANTENNA WITH RRHs MOUNTING DETAIL
SCALE: NOT TO SCALE

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REVISION: 2

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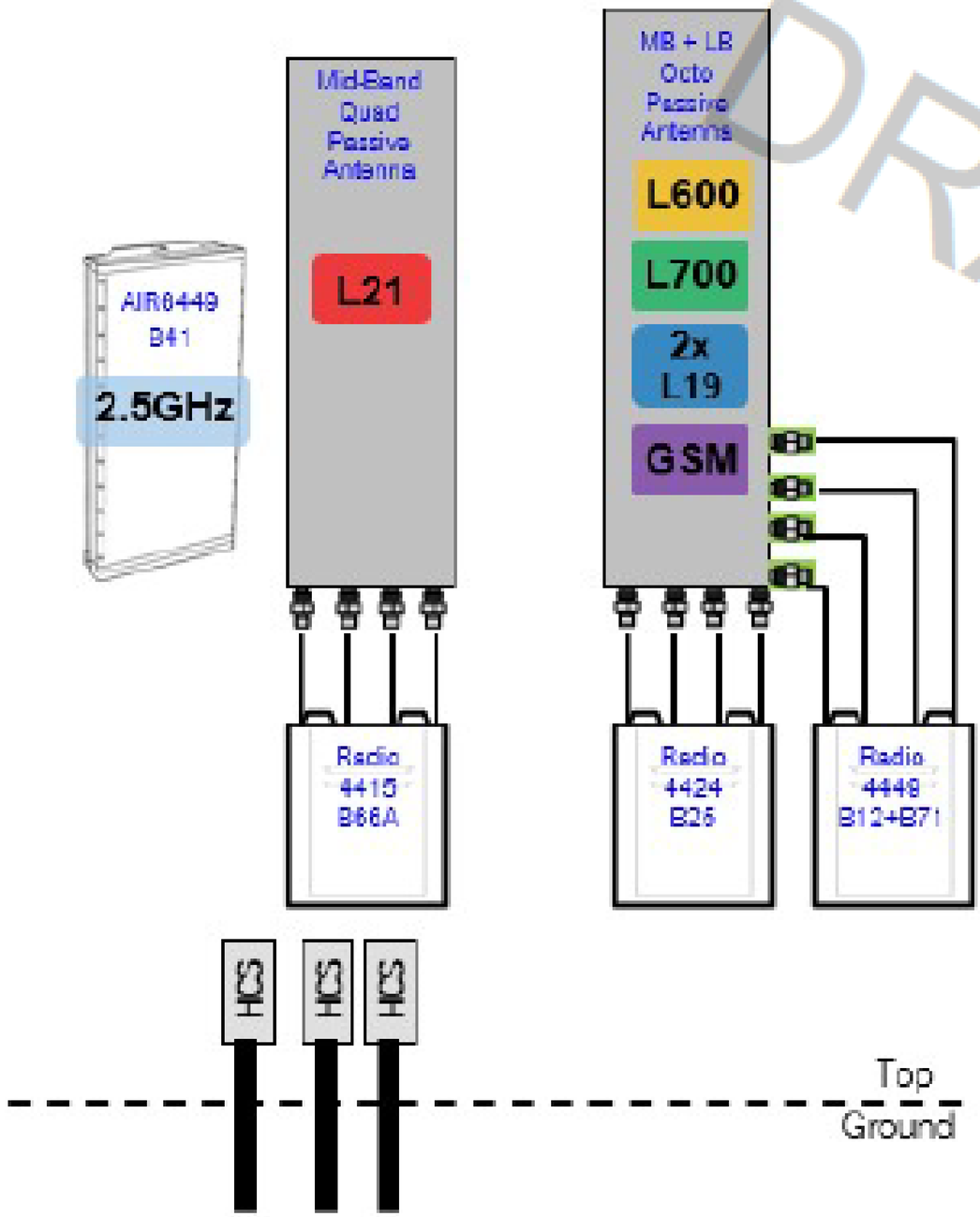

1 PLUMBING DIAGRAM
SCALE: NOT TO SCALE

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10/6/21

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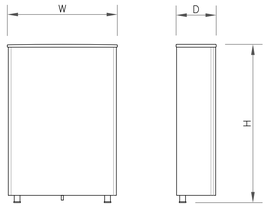
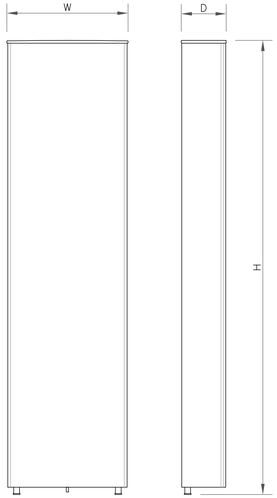
SHEET NUMBER: C-4
REVISION: 2



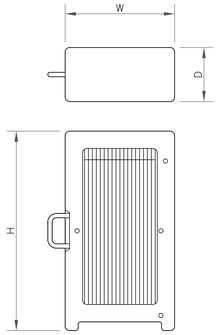
ANTENNA SPECS	
MANUFACTURER	ERICSSON
MODEL #	AIR6449 B41
WIDTH	20.51"
DEPTH	8.54"
HEIGHT	33.11"
WEIGHT	114.63 LBS

1 ANTENNA SPECS
SCALE: NOT TO SCALE



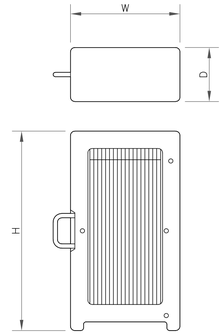
ANTENNA SPECS	
MANUFACTURER	RFS/CELWAVE
MODEL #	APXVAALL24_43-U-NA20
WIDTH	24.00"
DEPTH	8.50"
HEIGHT	95.90"
WEIGHT	149.90 LBS

2 ANTENNA SPECS
SCALE: NOT TO SCALE



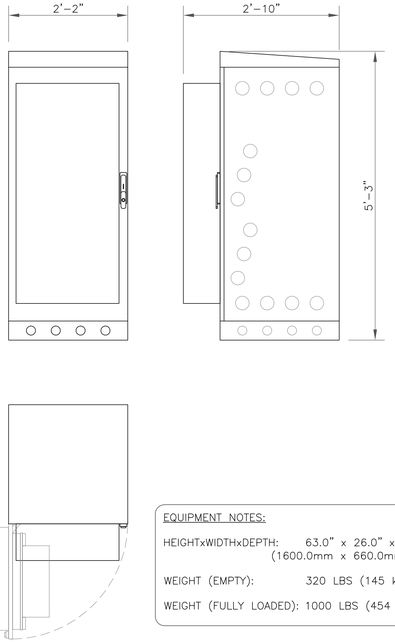
RRU SPECIFICATIONS	
MANUFACTURER	ERICSSON
MODEL #	4460 B2/B25
WIDTH	15.7"
DEPTH	12.1"
HEIGHT	19.6"
WEIGHT	109 LBS

3 RRU SPECS
SCALE: NOT TO SCALE



RRU SPECIFICATIONS	
MANUFACTURER	ERICSSON
MODEL #	4480
WIDTH	7.87"
DEPTH	4.13"
HEIGHT	8.39"
WEIGHT	11 LBS

4 RRU SPECS
SCALE: NOT TO SCALE



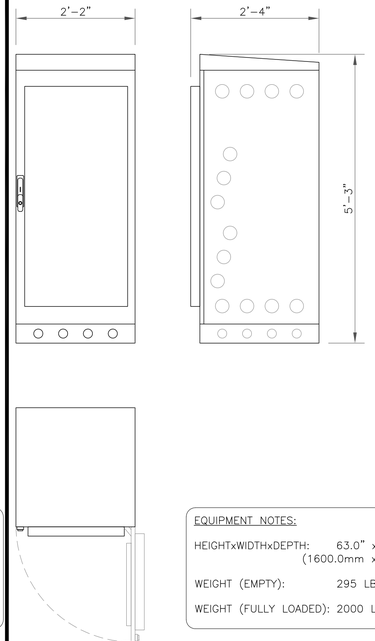
EQUIPMENT NOTES:

HEIGHTxWIDTHxDEPTH: 63.0" x 26.0" x 34.0"
(1600.0mm x 660.0mm x 864.0mm)

WEIGHT (EMPTY): 320 LBS (145 kg)

WEIGHT (FULLY LOADED): 1000 LBS (454 kg)

5 ERICSSON 6160 SSC
SCALE: NOT TO SCALE



EQUIPMENT NOTES:

HEIGHTxWIDTHxDEPTH: 63.0" x 26.0" x 28.0"
(1600.0mm x 660.0mm x 711.0mm)

WEIGHT (EMPTY): 295 LBS (134 kg)

WEIGHT (FULLY LOADED): 2000 LBS (908 kg)

6 ERICSSON B160 BATTERY CABINET
SCALE: NOT TO SCALE

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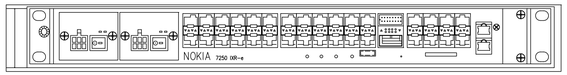
REVISION: 2



NOKIA CSR IXRE V2 (GEN2)
WEIGHT: 11.2 LBS.
SIZE (HxWxD): 1.75x17.25x10.0 IN.

1 NOKIA CSR IXR3 V2 (GEN2)
SCALE: NOT TO SCALE

2 General Product Overview

Figure 1

A	Mounting bracket	Bracket for 19" rack installations. Bracket can be reversed.
B	DC input terminals	Covered interface for connecting power cables from the power distribution.
C	External alarm port	Interface for connecting alarm cable to site external alarms.
D	Power switches	For switching on/off the corresponding DC output.
E	Fuse connectors	Covered fuse terminals for corresponding DC output.
F	DC power outputs	Covered terminals for connecting power cables to remote loads.
H	Ground connector	Grounds chassis

T··Mobile·

Ericsson PSU 48 13 Voltage Booster Design Specification

The general specifications for the PSU 48 13 are as follows:

Electrical Operating Limits	
Input Voltage	-38.0 – -58.5 VDC
Input Voltage, nominal	-48 VDC
Input Current, max	166 A: 30 A total for all four -48V inputs
Output Voltage, fixed	-58 VDC
Output Power, max.	2000 watts each
Environmental Operating Limits	
Temperature, operation	-40 – +60 °C
Temperature, storage	-40 – +55 °C
Temperature, trasport	-40 – +70 °C
Humidity, operation and storage	5% – 95%
Altitude, operation and storage	0 – 4000 m
Cooling	Internal fans
Vibration	ETS300019-2
Shock	ETS300019-2
Drop	ETS300019-2
EMC	FCC Part 15
Safety	UL 62368-1
Noise	< 6.8 bel sound power
Lightning Protection	4 kA; 10/350 µs; 20 kA, 8/20 µs
Fuse Options	30 A, 40 A, 50 A
Mechanical Specification	
Weight	< 7.8 kg (17.2 lb)
Dimensions (H x W x D)	44 x 483 x 383 mm (1.7" x 19.0" x 14.3") (include brackets, cover)

PSU Unit Kit: SKU 34132

UTPSU4813DCBoostMU

	Part Number	Part Description	Qty	Comments
1	BMR 911 93/1	D.C. CONVERTER/PSU 48 13	1	
2	SNG 818 12/1	CABLE LUG/Power dual lug 6 awg Right angled	6	3 DC ports, facing hybrid cable
3	SNG 818 13/1	CABLE LUG/Power dual lug 4 awg Right angled	6	3 DC ports, facing hybrid cable
4.1	NFN95021/30	FUSE HOLDER/30A, 80V, UL	1	3 fuses in each kit
4.2	NFN95021/40	FUSE HOLDER/40A, 80V, UL	1	3 fuses in each kit
4.3	NFN95021/50	FUSE HOLDER/50A, 80V, UL	1	3 fuses in each kit

PSU 4813 VOLTAGE BOOSTER
WEIGHT : 17.2 LBS.
SIZE (HxWxD): 1.7x19.0x14.4 IN.

2 PSU 4813 VOLTAGE BOOSTER SPECS
SCALE: NOT TO SCALE

ERICSON BB6648
WEIGHT: 16.53 LBS.
SIZE (HxWxD): 1.73x19x13.86 IN.

3 ERICSSON BB6648
SCALE: NOT TO SCALE

ERICSON RBS 6601
WEIGHT: 14.6 LBS.
SIZE (HxWxD): 1.73x19.02x15.08 IN.

4 RBS 6601
SCALE: NOT TO SCALE

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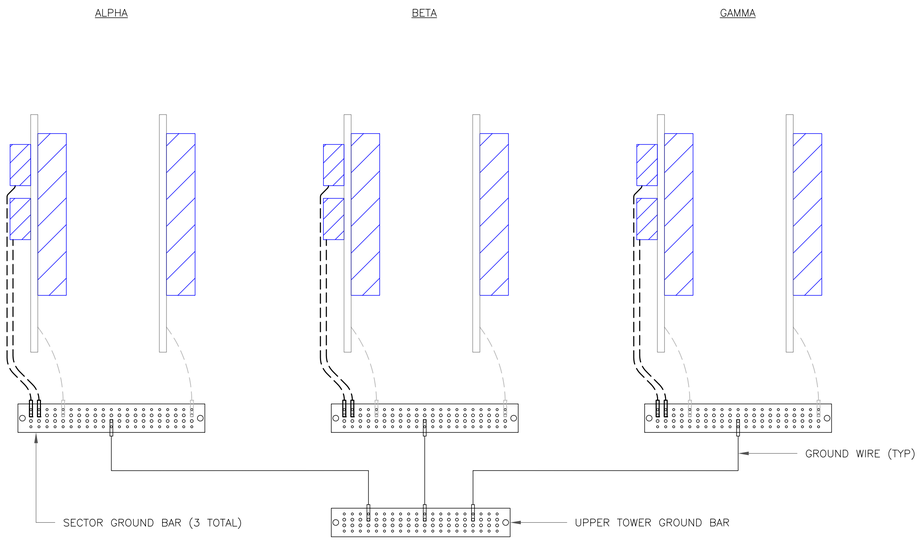

NOTE:

ALL NEW GROUNDS TO BE #6 STRANDED COPPER WITH GREEN INSULATION UNLESS NOTED OTHERWISE.

1 ANTENNA GROUNDING DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
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STATE OF CONNECTICUT
No. 23024
LICENSED
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10/6/21

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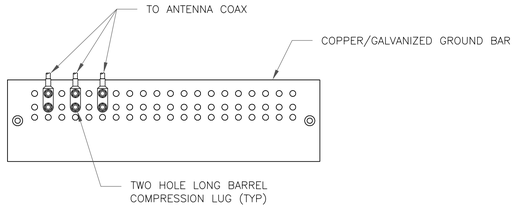
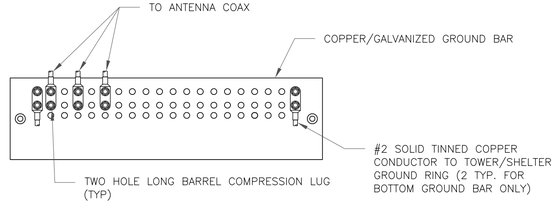
SHEET NUMBER: G-1
REVISION: 2



NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

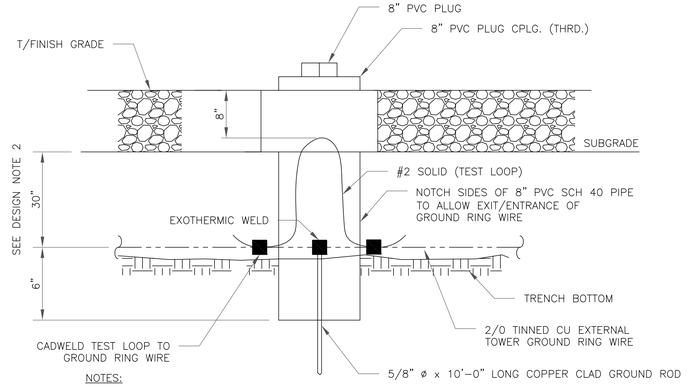
1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

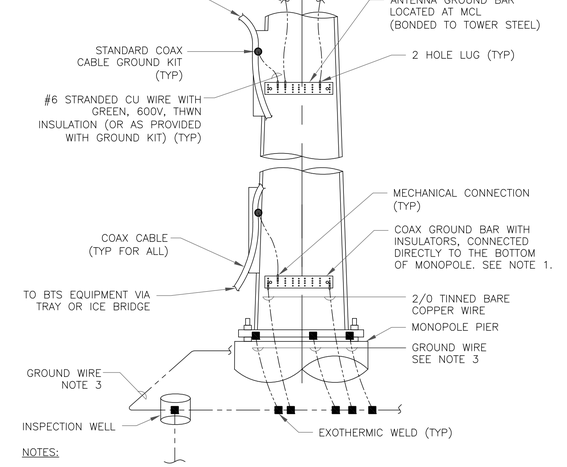
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

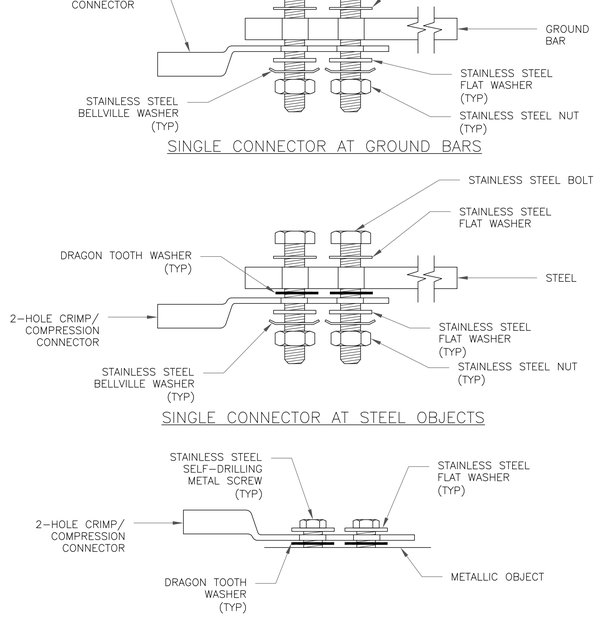
3 INSPECTION WELL DETAIL
SCALE: NOT TO SCALE



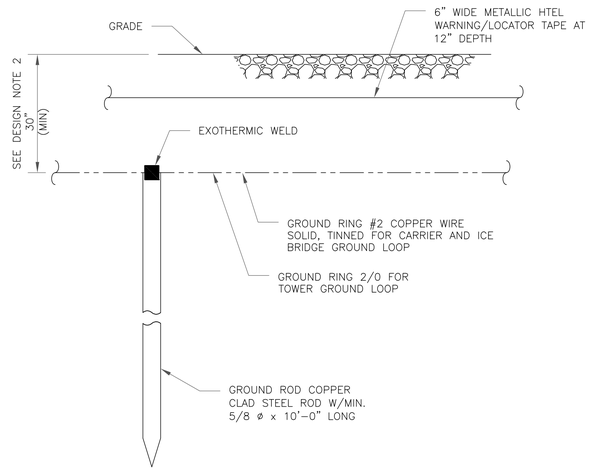
NOTES:

1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

6 GROUND ROD DETAIL
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
CHARLOTTE, NC 28277

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE SITE NUMBER:
CTHA653A

BU #: **876372**
SMITH HILLS / STERLING GRP. (S

71 ASHFORD RD
EASTFORD, CT 06272

EXISTING
177'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	2/22/21	JTS	CONSTRUCTION	MTJ
1	3/19/21	JJD	CONSTRUCTION	GEH
2	10/6/21	YXI	CONSTRUCTION	YXI

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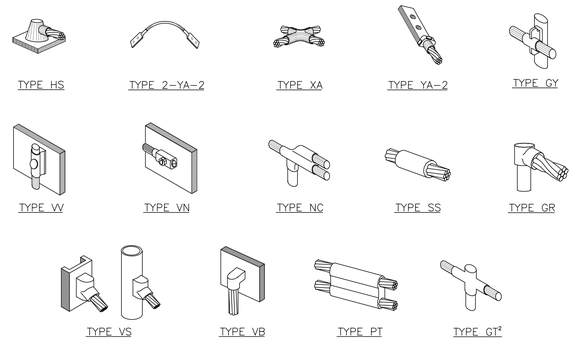
PEC.0001564
Expires 2/10/21

SHEET NUMBER: G-2
REVISION: 2

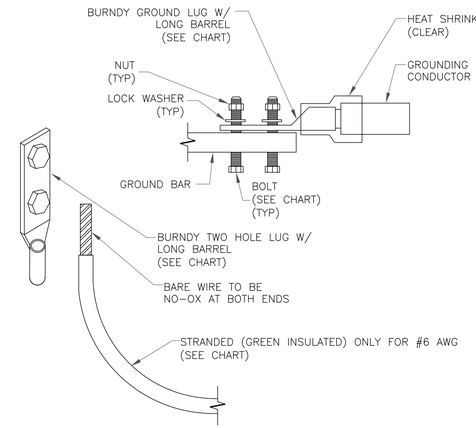


NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE

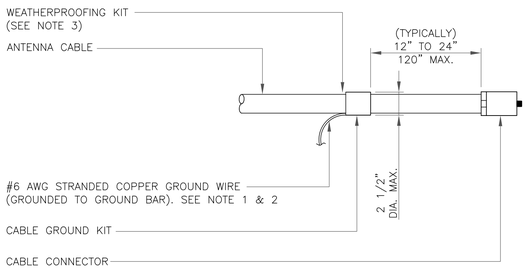
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



NOTES:

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER,GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

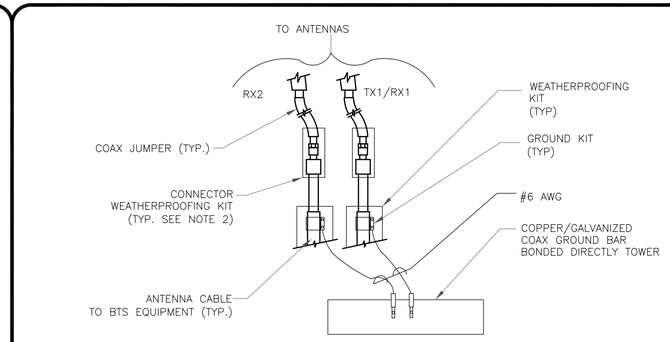
2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

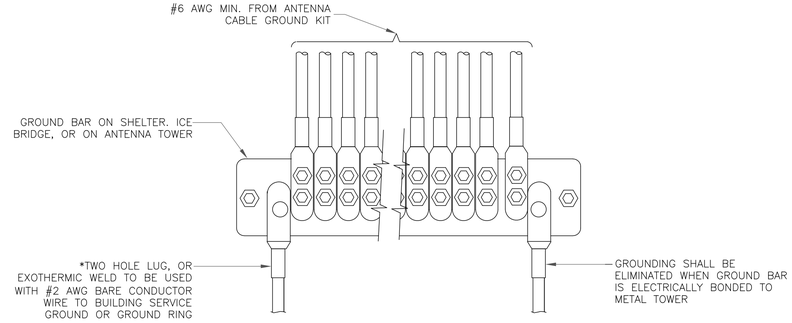
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



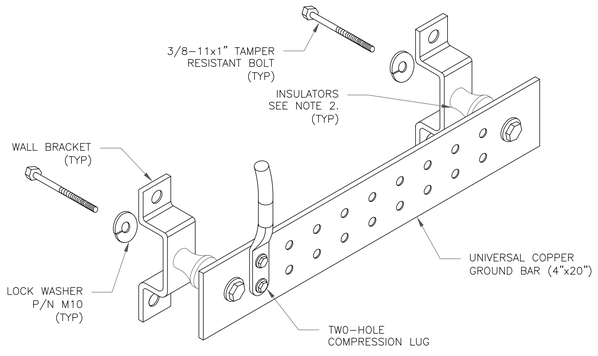
NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



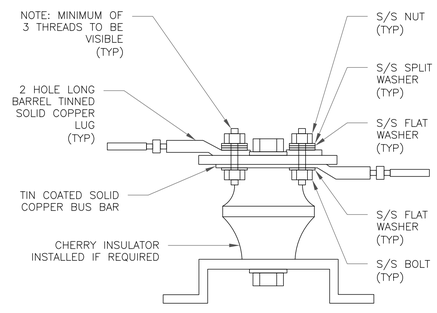
5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



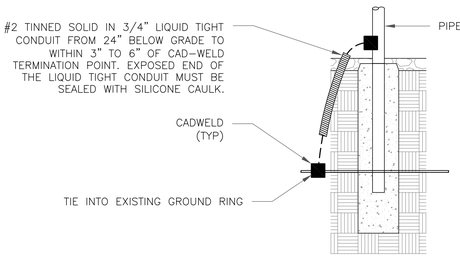
NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE



8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE

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PEC.0001564
Expires 2/10/21

SHEET NUMBER: G-3
REVISION: 2

Date: **August 31, 2021**

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless

Darcy Tarr
Crown Castle
3530 Toringdon Way, Suite 300
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(704) 405-6589

Infinigy Engineering, PLLC
1033 Watervliet Shaker Road
Albany, NY 12205
518-690-0790
structural@infinigy.com

Subject:	**Mount Analysis Report**	
Carrier Designation:	**T-Mobile Keep**	
	Carrier Site Number:	CTHA653A
	Carrier Site Name:	CT33XC074
Crown Castle Designation:	**Crown Castle BU Number:**	876372
	Crown Castle Site Name:	SMITH HILLS / STERLING GRP. (S
	Crown Castle JDE Job Number:	684637
	Crown Castle Order Number:	584574 Rev. 0
Engineering Firm Designation:	**Infinigy Engineering, PLLC Report Designation:** 1039-Z0001-B	
Site Data:	**71 Ashford Rd, Eastford, Windham County, CT, 06272** **Latitude 41°54'16.22" Longitude -72°7'25.92"**	
Structure Information:	**Tower Height & Type:**	**177.0 ft Monopole**
	Mount Elevation:	**177.0 ft**
	Mount Type:	**10.5 ft Platform**

Dear Darcy Tarr,

Infinigy Engineering, PLLC is pleased to submit this **"Mount Analysis Report"** to determine the structural integrity of T-Mobile's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Platform **Sufficient**
***Sufficient upon completion of the changes listed in the 'Recommendations' section of this report.**

This analysis has been performed in accordance with the 2018 Conecticut State Building Code and Appendix N based upon an ultimate 3-second gust wind speed of 130 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Farhad Ahmadyar

Respectfully Submitted by:
Emmanuel Poulin, P.E.
518-690-0790
structural@infinigy.com
CT PE License No. 22947