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

August 31, 2020

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

RE: **Notice of Exempt Modification for T-Mobile:**
807133 - T-Mobile Site ID: CT11114D
50 Rockland Road, Norwalk, CT 06854
Latitude: 41° 4′ 54.44″ / Longitude: -73° 25′ 49.52″

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) antennas at the 170-foot mount on the existing 182-foot Self-Support Tower, located at 50 Rockland Road, Norwalk, CT. The tower and property are owned by Crown Castle. T-Mobile now intends to add three (3) new 2500/2500 MHz antennas. The new antennas will be installed at the 170-ft level of the tower.

Planned Modifications:
Tower:

Remove:
(6) 1 5/8" Coax
(2) Hybrid
(3) TMA

Remove and Replace:
(3) LNX 6515DS-A1M Antenna **(REMOVE)** - (3) RFS-APXVAARR24_43-U-NA20 Antenna 600/700 MHz **(REPLACE)**

(3) AIR21 KRC118023-1_B2P_B4A Antenna **(REMOVE)** – (3) AIR32_B66A_B2A Antenna 1900/2100 MHz **(REPLACE)**

(3) RRUS11 B12 **(REMOVE) –** (3) Radio 4449 B71/B12 **(REPLACE)**

Install New:
(4) 1 3/8" Hybrid Fiber Line
(3) Radio 4415 B25
(3) AIR6449 B41 Antenna 2500/2500 MHz

Existing to Remain:
(6) 1 5/8" Coax
(3) 1 3/8" Fiber line
(3) AIR32_B66A_B2A Antenna 1900/2100 MHz

(3) RFS-APXVAARR24_43-U-NA20 Antenna 600/700 MHz
(3) AIR 3246 B66 Antenna 2100 MHz
(3) Radio 4449 B71/B12

Ground:

Expand pad within lease rights to accommodate new cabinets.

The facility was approved by the Connecticut Siting Council in Docket No. 73 on April 1, 1987. The approval was given with condition which this exempt modification does not violate.

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 Harry Rilling, Mayor for the City of Norwalk, Steven Kleppin, Director of Planning, and Crown Castle as the tower and property 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: Anne Marie Zsamba.

Sincerely,

Anne Marie Zsamba
Site Acquisition Specialist
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
(201) 236-9224
AnneMarie.Zsamba@crowncastle.com

Attachments
cc:

Harry Rilling, Mayor (*via email only to HRilling@norwalkct.org*)
City of Norwalk
125 East Avenue
Norwalk, CT 06851

Steven Kleppin, Director of Planning (*via email only to skleppin@norwalkct.org*)
City of Norwalk
Planning & Zoning
125 East Avenue
Norwalk, CT 06851

Crown Castle, Tower & Property Owner

From: Zsamba, Anne Marie
To: "HRilling@norwalkct.org"
Subject: Notice of Exempt Modification - T-Mobile - 807133 - 50 Rockland Road
Date: Monday, August 31, 2020 3:41:00 PM
Attachments: EM-T-MOBILE-50 ROCKLAND RD NORWALK-807133-CT11114D-notice.pdf

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Dear Mayor Rilling:

Attached please find T-Mobile's exempt modification application that is being submitted to the Connecticut Siting Council today, August 31, 2020.

In light of the present circumstances with Covid-19, The Council has advised that electronic notification of this filing is acceptable. If you could kindly confirm receipt. Thank you.

Best,
Anne Marie Zsamba

ANNE MARIE ZSAMBA
Site Acquisition Specialist
T: (201) 236-9224
M: (518) 350-3639
F: (724) 416-6112

CROWN CASTLE
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
CrownCastle.com

From: Zsamba, Anne Marie
To: "skleppin@norwalkct.org"
Subject: Notice of Exempt Modification - T-Mobile - 807133 - 50 Rockland Road
Date: Monday, August 31, 2020 3:41:00 PM
Attachments: EM-T-MOBILE-50 ROCKLAND RD NORWALK-807133-CT11114D-notice.pdf

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Dear Planning Director Kleppin:

Attached please find T-Mobile's exempt modification application that is being submitted to the Connecticut Siting Council today, August 31, 2020.

In light of the present circumstances with Covid-19, The Council has advised that electronic notification of this filing is acceptable. If you could kindly confirm receipt. Thank you.

Best,
Anne Marie Zsamba

ANNE MARIE ZSAMBA
Site Acquisition Specialist
T: (201) 236-9224
M: (518) 350-3639
F: (724) 416-6112

CROWN CASTLE
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
CrownCastle.com

Exhibit A

Original Facility Approval

DOCKET NO. 73

AN APPLICATION OF METRO MOBILE CTS OF FAIRFIELD COUNTY, INC., FOR CERTIFICATES OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF THREE FACILITIES CONSISTING OF TELECOMMUNICATIONS TOWERS AND ASSOCIATED EQUIPMENT FOR THE PURPOSE OF PROVIDING DOMESTIC PUBLIC CELLULAR RADIO TELECOMMUNICATIONS SERVICE IN THE TOWN OF GREENWICH AND IN THE CITIES OF NORWALK AND STAMFORD, CONNECTICUT.	:	CONNECTICUT SITING COUNCIL
	:	April 1, 1987

D E C I S I O N A N D O R D E R

Pursuant to the foregoing opinion, the Connecticut Siting Council (Council) hereby directs that a Certificate of Environmental Compatibility and Public Need, as provided by Section 16-50k of the General Statutes of Connecticut (CGS), be issued to Metro Mobile CTS of Fairfield County, Inc., for the construction, operation, and maintenance of cellular mobile telecommunications equipment in the Town of Greenwich, and the Cities of Norwalk and Stamford, Connecticut.

The facilities shall be constructed, operated, and maintained as specified in the Council's record on this matter, and subject to the following conditions.

1. The Norwalk tower, including antennas, shall be no taller than necessary to provide the proposed service, and in no event shall exceed 193 feet.
2. A fence not lower than eight feet shall surround the Norwalk tower.
3. Unless necessary to comply with condition number four, below, no lights shall be installed on the Norwalk tower.
4. The facilities shall be constructed in accordance with all applicable federal, state, and municipal laws and regulations.

5. The certificate holder shall prepare a development and management (D&M) plan for the Norwalk site in compliance with sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies. The D&M plan shall provide for evergreen screening around the perimeter of the fence at this site, and for other landscaping to improve the appearance of the facility.
6. The receive antennas at the Greenwich and Stamford sites shall be mounted below the high points of the facades of their respective buildings to minimize their visibility.
7. No construction activities shall take place outside the hours of 7:00 A.M. to 7:00 P.M., Monday through Saturday.
8. The certificate holder or its successor shall notify the Council if and when directional antennas or any equipment other than that listed in this application is added to these facilities.
9. The certificate holder or its successor shall permit public or private entities to share space on the Norwalk tower, for due consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
10. If these facilities do not provide or permanently cease to provide cellular service following completion of construction, this Decision and Order shall be void, and the tower and all associated equipment in this application shall be dismantled and removed or reapplication for any new use shall be made to the Council before any such new use is made.

11. Unless otherwise approved by the Council, this Decision and Order shall be void if all construction authorized herein is not completed within three years of the issuance of this Decision and Order, or within three years of the completion of any appeal taken in this Decision.

12. The certificate holder shall comply with any future radio frequency (RF) standards promulgated by state or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facilities granted in this Decision shall continue to be in compliance with such standards.

Pursuant to CGS section 16-50p, we hereby direct that a copy of the Decision and Order be served on each person listed below. A notice of the issuance shall be published in the Stamford Advocate, the Greenwich Times, the Norwalk Hour, and the Bridgeport Post.

The parties to the proceeding are:

Mr. Armand Mascioli (Applicant)
General Manager
Metro Mobile CTS of Fairfield
County, Inc.
5 Eversley Avenue
Norwalk, Connecticut 06855

Howard L. Slater, Esquire (its attorney)
Byrne, Slater, Sandler,
Shulman & Rouse, P.C.
330 Main Street
P.O. Box 3216
Hartford, Connecticut 06103

Richard Rubin, Esquire (its attorney)
Fleischman and Walsh, P.C.
1725 N Street, N.W.
Washington, D.C. 20036

Southern New England
Telephone Company

(its attorney)

Mr. Peter J. Tyrrell
Senior Attorney
Southern New England
Telephone Company
227 Church Street
New Haven, Connecticut 06506

C E R T I F I C A T I O N

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case or read the record thereof, and that we voted as follows:

Dated at New Britain, Connecticut, this 1st day of April, 1987.

Council Members	Vote Cast
Gloria Dibble Pond Gloria Dibble Pond Chairperson	Yes
_____ Commissioner John Downey Designee: Commissioner Peter G. Boucher	Yes
Brian J. Emerick Acting Commissioner John Anderson Designee: Brian Emerick	Yes
Owen L. Clark Owen L. Clark	Yes
Fred J. Doocy Fred J. Doocy	Yes
Mortimer A. Gelston Mortimer A. Gelston	Yes
_____ James G. Horsfall	Absent
_____ William H. Smith	Absent
Colin C. Tait Colin C. Tait	Yes

STATE OF CONNECTICUT)
: ss. New Britain, April 1, 1987
COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the decision and order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:

John C. Kelly
Executive Director
Connecticut Siting Council

I certify that a copy of the opinion and decision and order have been forwarded by mail to all parties of record on April 3, 1987.

ATTEST:

Robert K. Erling
Siting Analyst
Connecticut Siting Council

Exhibit B

Property Card

50 ROCKLAND RD

Location	50 ROCKLAND RD	**Mblu**	5/ 82/ 58/ 0/
Acct#	25665	**Owner**	CROWN ATLANTIC COMPANY LLC
Assessment	$3,369,900	**Appraisal**	$4,814,150
PID	25665	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$4,161,500	$652,650	$4,814,150
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$2,913,040	$456,860	$3,369,900

Owner of Record

Owner	CROWN ATLANTIC COMPANY LLC	**Sale Price**	$1,600,000
Co-Owner		**Certificate**	
Address	PMB 353 4017 WASHINGTON RD McMURRAY, PA 15317-0000	**Book & Page**	3701/331
		Sale Date	04/16/1999

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
CROWN ATLANTIC COMPANY LLC	$1,600,000		3701/331	04/16/1999
CELLCO PARTNERSHIP,	$1,020,000		3489/348	04/03/1998
DEVIVO MARIO + WENCHE	$0		0/0	

Building Information

Building 1 : Section 1

Year Built:	1987
Living Area:	21,115
Replacement Cost:	$1,257,359

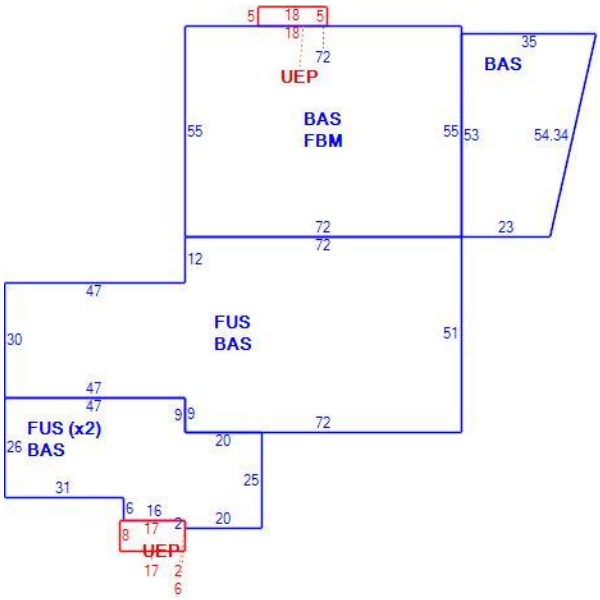
Building Percent Good: 66
Replacement Cost
Less Depreciation: $829,860

Building Attributes	
Field	**Description**
STYLE	Light Indust
MODEL	Industrial
Grade	C+
Stories:	3.00
Occupancy	1.00
Exterior Wall 1	Concrete
Exterior Wall 2	
Roof Structure	Flat
Roof Cover	Rolled Compos
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Carpet
Interior Floor 2	Concrete
Heating Fuel	Gas
Heating Type	Forced Air
AC Percent	60
Heat Percent	100
Bldg Use	Industrial
Total Rooms	0
Bedrooms	0
Full Baths	0
Half Baths	6
Extra Fixtures	0
FBM Area	
Heat/AC	Heat/AC Pkg
Frame	Masonry
Plumbing	Average
Foundation	Slab
Partitions	Average
Wall Height	13.00
% Sprinkler	40.00

Building Photo

(http://images.vgsi.com/photos/NorwalkCTPhotos//00\00\72/74.jpg)

Building Layout



(ParcelSketch.ashx?pid=25665&bid=25665)

Building Sub-Areas (sq ft)			Legend
Code	**Description**	**Gross Area**	**Living Area**
BAS	First Floor	12,397	12,397
FUS	Finished Upper Story	8,718	8,718
FBM	Finished Basement	3,960	0
UEP	Utility Enclosed Porch	226	0
		25,301	21,115

Extra Features

Extra Features				Legend
Code	**Description**	**Size**	**Value**	**Bldg #**
ELV1	Commercial	3.00 STOP	$56,250	1

A/C	Air Conditioning	12669.00 S.F.	$38,010	1
SPR	Sprinklers	8446.00 S.F.	$31,670	1

Land

Land Use

Use Code	301
Description	Industrial
Zone	RI
Neighborhood	C530

Land Line Valuation

Size (Acres)	0.82
Frontage	
Depth	
Assessed Value	$456,860
Appraised Value	$652,650

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
PAV1	Paving Asph.			16900.00 S.F.	$21,970	1
FN6	Fence 6'			450.00 L.F.	$4,090	1
SHD4	Cell Equip	FR	Frame	128.00 S.F.	$12,800	1
CEL1	Cell Tower		Steel	5.00 UNITS	$750,000	1
SHD4	Cell Equip	FR	Frame	128.00 S.F.	$12,800	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$4,161,500	$652,650	$4,814,150
2017	$991,370	$447,530	$1,438,900
2016	$991,370	$447,530	$1,438,900

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$2,913,040	$456,860	$3,369,900
2017	$693,970	$313,270	$1,007,240
2016	$693,970	$313,270	$1,007,240

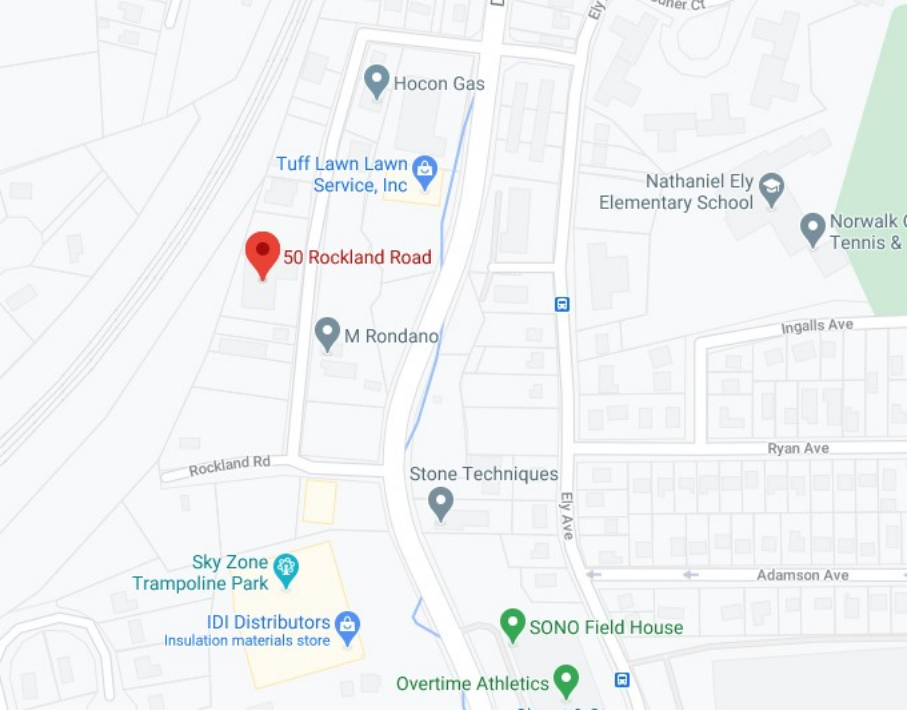

Hocon Gas
Tuff Lawn Lawn Service, Inc
Nathaniel Ely Elementary School
50 Rockland Road
M Rondano
Ingalls Ave
Ryan Ave
Rockland Rd
Stone Techniques
Ely Ave
Sky Zone Trampoline Park
Adamson Ave
IDI Distributors
Insulation materials store
SONO Field House
Overtime Athletics

Exhibit C

Construction Drawings

T-Mobile

T-MOBILE SITE NUMBER: CT11114D
T-MOBILE SITE NAME: NORWALK/SOUTH NORWALK
SITE TYPE: SELF-SUPPORT TOWER
TOWER HEIGHT: 182'-0"

BUSINESS UNIT #: 807133
SITE ADDRESS: 50 ROCKLAND RD NORWALK, CT 06854
COUNTY: FAIRFIELD
JURISDICTION: CITY OF NORWALK

T-MOBILE ANCHOR SITE CONFIGURATION: 67D5A992M

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	BRG 134 943057
SITE ADDRESS:	50 ROCKLAND RD NORWALK, CT 06854
COUNTY:	FAIRFIELD
MAP/PARCEL #:	5-82-58-0
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41.081852°
LONGITUDE:	-73.430458°
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	61.00 FT
CURRENT ZONING:	RI
JURISDICTION:	CITY OF NORWALK
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	CROWN ATLANTIC CO. LLC PMB 353 4017 wASHINGTON RD McMURRAY, PA 15317-0000
TOWER OWNER:	CROWN CASTLE 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	T-MOBILE 35 GRIFFIN ROAD BLOOMFIELD, CT 06002
ELECTRIC PROVIDER:	NOT PROVIDED
TELCO PROVIDER:	NOT PROVIDED

PROJECT TEAM

A&E FIRM:	CROWN CASTLE USA INC. 2000 CORPORATE DRIVE CANONSBURG, PA 15317 CROWNAE.APPROVAL@CROWNCASTLE.COM
CROWN CASTLE USA INC. DISTRICT CONTACTS:	1200 MACARTHUR BLVD, SUITE 200 MAHWAH, NJ 07430 JOSEPH CLARK - PROJECT MANAGER JOSEPH.CLARK@CROWNCASTLE.COM

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	EQUIPMENT SPECS
E-1	AC PANEL SCHEDULES & ONE LINE DIAGRAM
G-1	ANTENNA GROUNDING DIAGRAM
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS

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

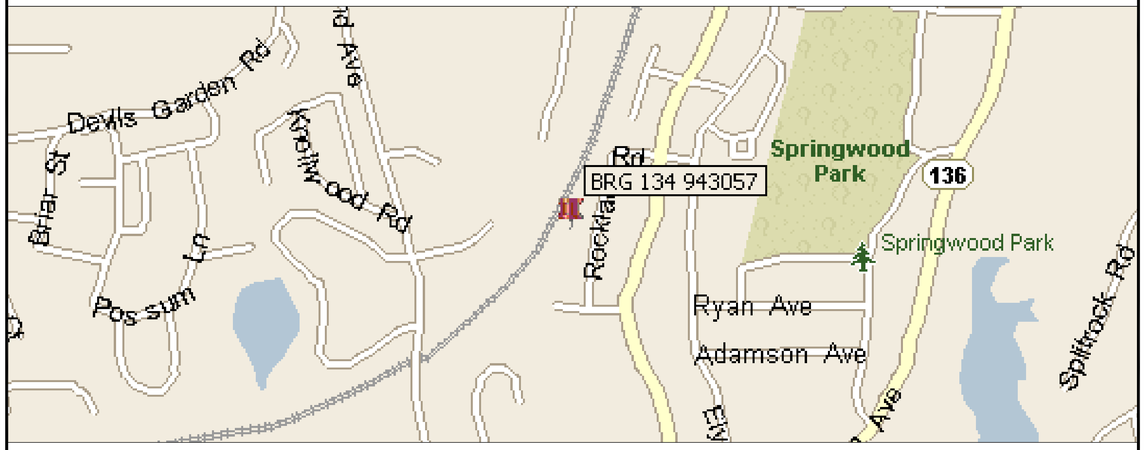
THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

TOWER SCOPE OF WORK:
- REMOVE (3) TMAs
- RELOCATE (9) ANTENNAS
- RELOCATE (3) RRUs
- INSTALL (3) ANTENNAS
- INSTALL (3) RRUs

GROUND SCOPE OF WORK:
- REMOVE (1) 9x18 HCS
- REMOVE (6) COAX CABLES (1-5/8")
- SWAP (1) HYBRID CABLE (1-3/8")
- INSTALL (3) HYBRID CABLES (1-3/8")
- INSTALL (1) 6160 ENCLOSURE
- INSTALL (1) B160 BATTERY CABINET
- INSTALL (1) iXRe ROUTER
- INSTALL (3) BB6630s
- INSTALL (1) BB6648
- EXPAND PAD WITHIN LEASE RIGHTS TO ACCOMMODATE NEW CABINETS

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	2018 CT STATE BUILDING CODE/2015 IBC W/ CT AMENDMENTS
MECHANICAL	2018 CT STATE BUILDING CODE/2015 IMC W/ CT AMENDMENTS
ELECTRICAL	2018 CT STATE BUILDING CODE/2017 NEC W/ CT AMENDMENTS

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	BY OTHERS
DATED:	
MOUNT ANALYSIS:	BY OTHERS
DATED:	
RFDS REVISION:	7
DATED:	5/13/2020
ORDER ID:	524458
REVISION:	1

CALL CONNECTICUT ONE CALL (800) 922-4455 CBYD.COM CALL 2 WORKING DAYS BEFORE YOU DIG!

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: **CT11114D**

BU #: **807133**
BRG 134 943057

50 ROCKLAND RD
NORWALK, CT 06854

EXISTING
182'-0" SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	07/17/20	DLS	CONSTRUCTION	RMC
1	7/31/20	MLC	CONSTRUCTION	GEH
2	8/14/20	MLC	CONSTRUCTION	GEH

STATE OF CONNECTICUT 31627 LICENSED PROFESSIONAL ENGINEER
8/14/20

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" 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

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).

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

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: **CT11114D**

BU #: **807133**
BRG 134 943057

50 ROCKLAND RD
NORWALK, CT 06854

EXISTING
182'-0" SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	07/17/20	DLS	CONSTRUCTION	RMC
1	7/31/20	MLC	CONSTRUCTION	GEH
2	8/14/20	MLC	CONSTRUCTION	GEH

STATE OF CONNECTICUT
31627
LICENSED PROFESSIONAL ENGINEER
8/14/20

B&T ENGINEERING, INC.
PEC.0001564
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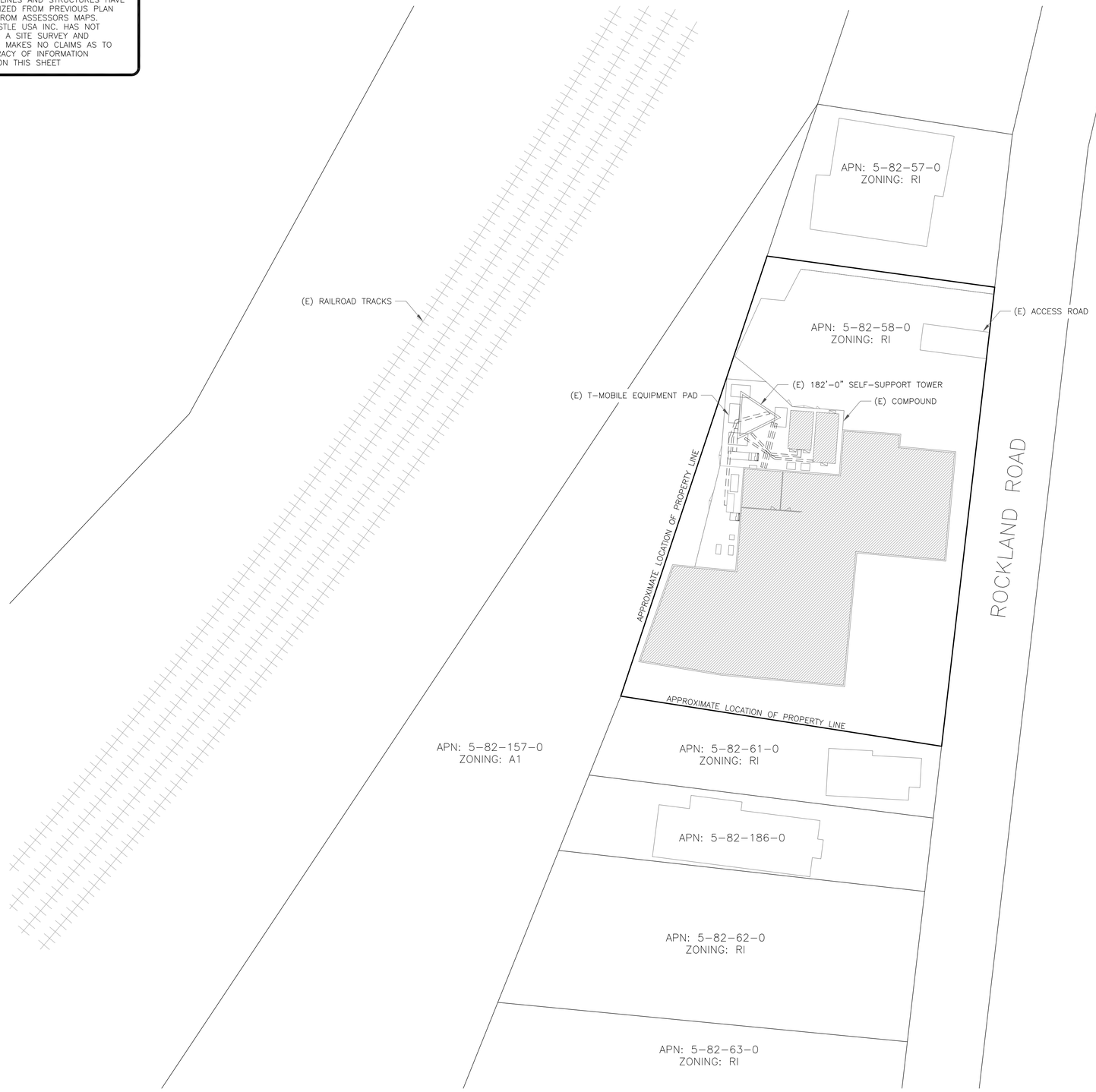
SHEET NUMBER: T-2
REVISION: 2

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: 30' 15' 0 30' 1"=30'-0" (FULL SIZE) 1"=60'-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: **CT11114D**

BU #: **807133**
BRG 134 943057

50 ROCKLAND RD
NORWALK, CT 06854

EXISTING
182'-0" SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	07/17/20	DLS	CONSTRUCTION	RMC
1	7/31/20	MLC	CONSTRUCTION	GEH
2	8/14/20	MLC	CONSTRUCTION	GEH

STATE OF CONNECTICUT
31627
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8/14/20

B&T ENGINEERING, INC.
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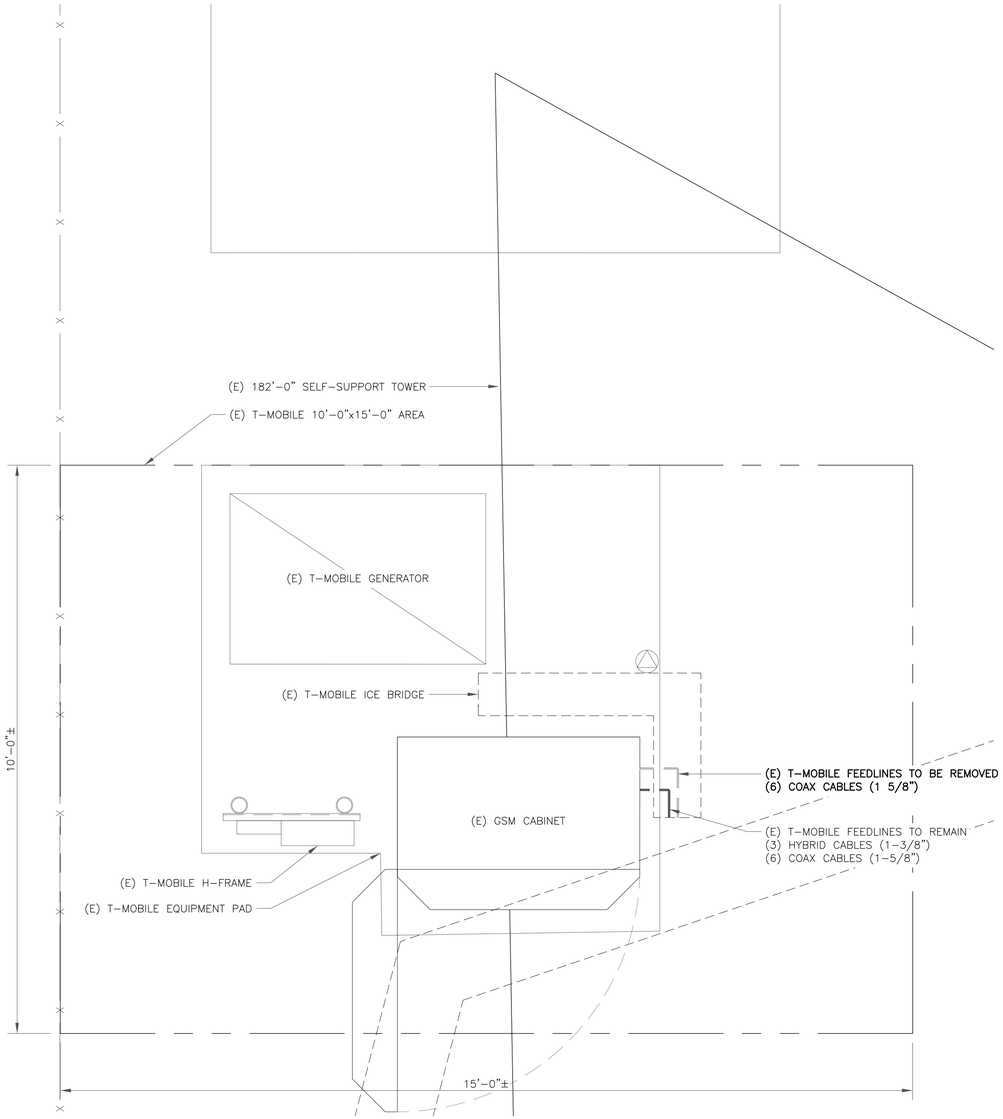
SHEET NUMBER: C-1.1

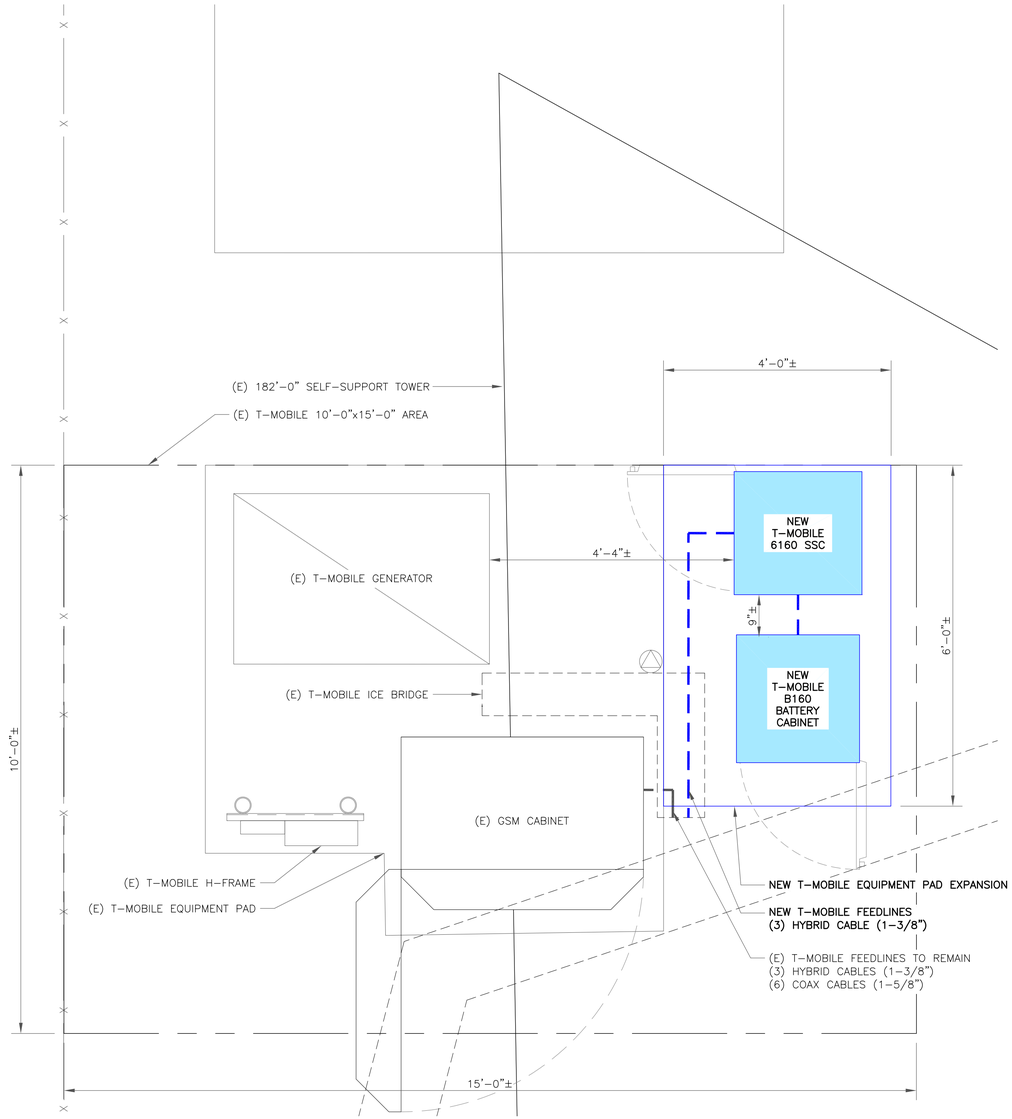
REVISION: 2



1 EXISTING EQUIPMENT PLAN

SCALE: 4" 3" 2" 1" 0 4" 1/4"=1'-0" (FULL SIZE) 1/8"=1'-0" (11x17)

N



2 FINAL EQUIPMENT PLAN

SCALE: 1" 6" 0 1" 3/4"=1'-0" (FULL SIZE) 3/8"=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
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T-MOBILE
SITE NUMBER: **CT11114D**

BU #: **807133**
BRG 134 943057

50 ROCKLAND RD
NORWALK, CT 06854

EXISTING
182'-0" SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	07/17/20	DLS	CONSTRUCTION	RMC
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2	8/14/20	MLC	CONSTRUCTION	GEH

STATE OF CONNECTICUT
GREGORY E. HOLLENBECK
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8/14/20

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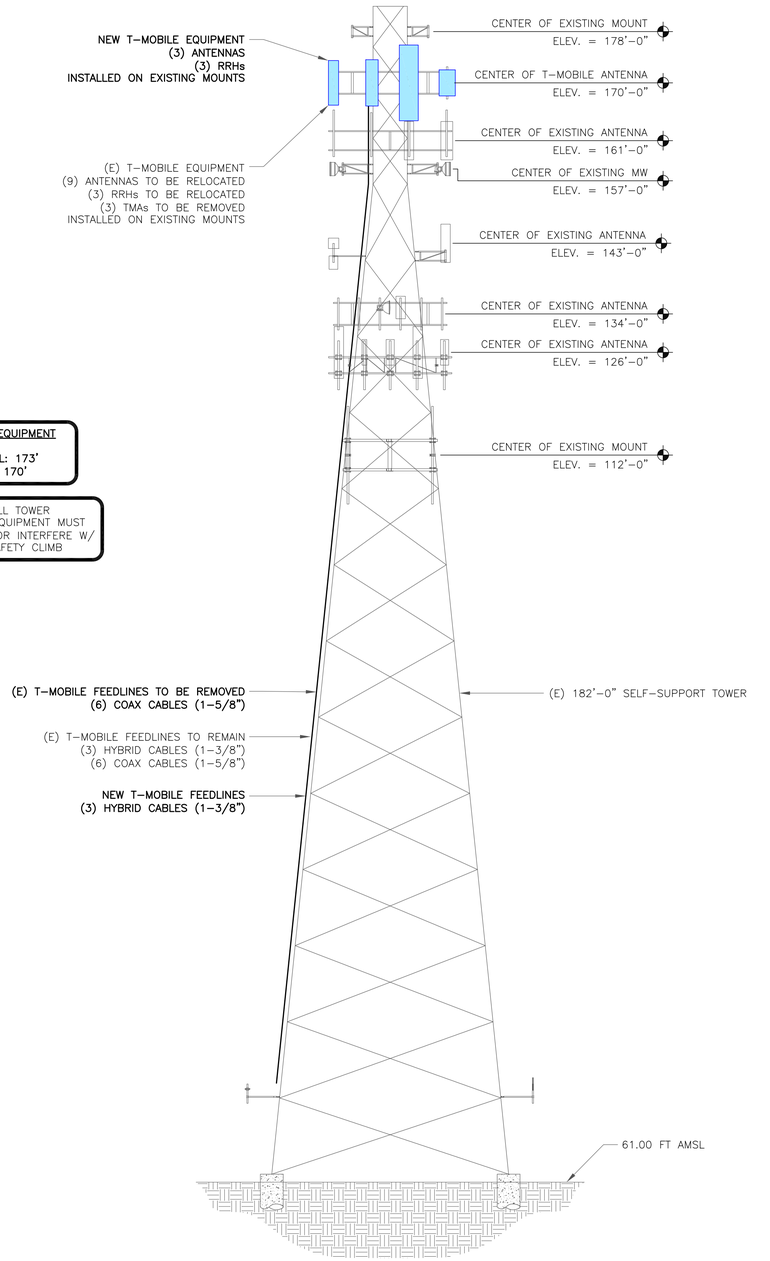
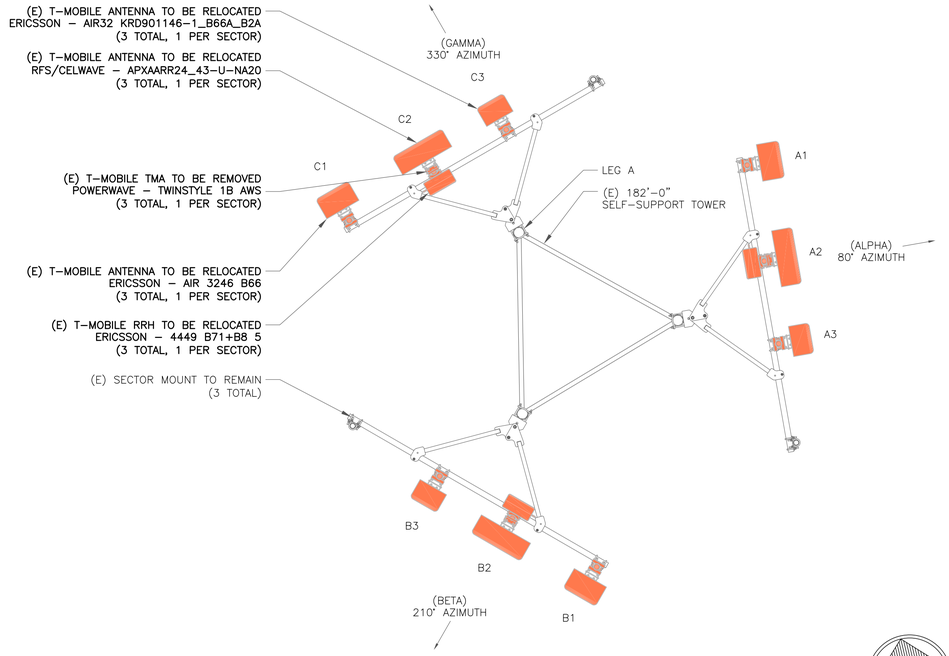
SHEET NUMBER: C-1.2

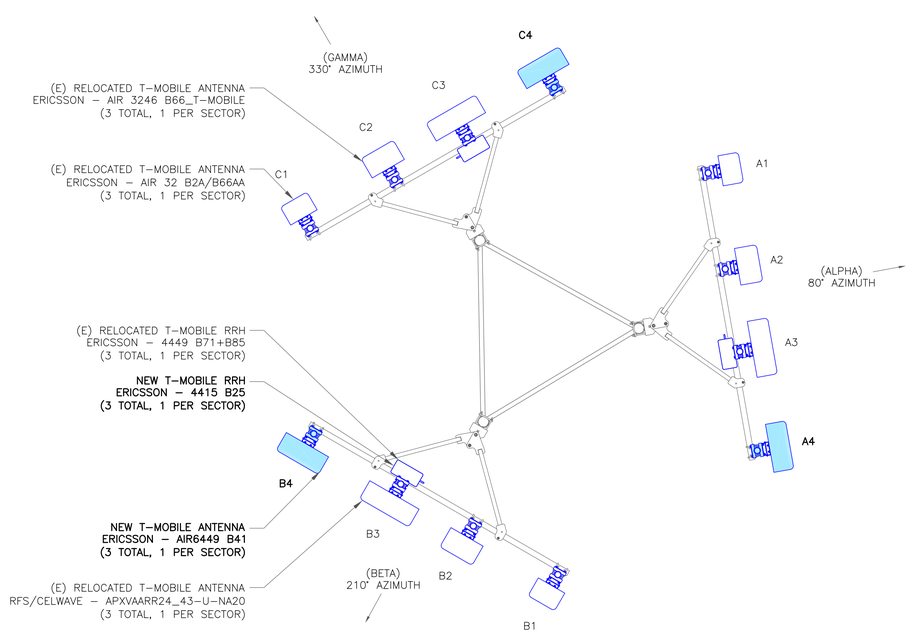
REVISION: 2



1 FINAL ELEVATION
SCALE: NOT TO SCALE



2 EXISTING ANTENNA LAYOUT
SCALE: NOT TO SCALE



3 FINAL ANTENNA LAYOUT
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
3530 TORINGDON WAY, SUITE 300
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T-MOBILE
SITE NUMBER: **CT11114D**

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50 ROCKLAND RD
NORWALK, CT 06854

EXISTING
182'-0" SELF-SUPPORT TOWER

ISSUED FOR:

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

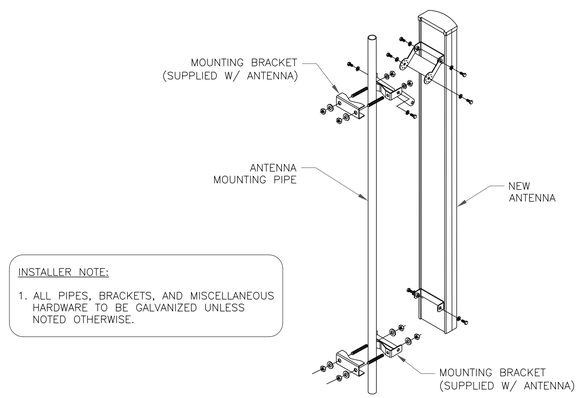
SHEET NUMBER: C-2

REVISION: 2

ANTENNA SCHEDULE

SECTOR	POS.	TECHNOLOGY	RAD CENTER	AZIMUTH	ANTENNA MANUFACTURER	ANTENNA MODEL	MECH. TILT	ELECT. TILT	TOWER MOUNTED EQUIPMENT	FEEDLINE TYPE
ALPHA	A1	G1900/L1900/U2100	173'	80°	ERICSSON	AIR32-KRD901146-1_B66A_B2A	0°	–	–	(1) 1-3/8" HYBRID
ALPHA	A2	L2100	173'	80°	ERICSSON	AIR3246 B66	0°	–	–	–
ALPHA	A3	LTE 600/700/1900/N600	173'	80°	RFS/CELWAVE	APXVAARR24_43-U-NA20	0°	–	(1) ERICSSON – 4449 B71 B85A_T-MOBILE (1) ERICSSON – RRUS 4415 B25_CCIV2	(1) 1-3/8" HYBRID
ALPHA	**A4**	**L2500/N2500**	**173'**	**80°**	**ERICSSON**	**AIR6449 B41**	**0°**	**–**	**–**	**–**
BETA	B1	G1900/L1900/U2100	173'	210°	ERICSSON	AIR32-KRD901146-1_B66A_B2A	0°	–	–	–
BETA	B2	L2100	173'	210°	ERICSSON	AIR3246 B66	0°	–	–	–
BETA	B3	LTE 600/700/1900/N600	173'	210°	RFS/CELWAVE	APXVAARR24_43-U-NA20	0°	–	(1) ERICSSON – 4449 B71 B85A_T-MOBILE (1) ERICSSON – RRUS 4415 B25_CCIV2	(1) 1-3/8" HYBRID
BETA	**B4**	**L2500/N2500**	**173'**	**210°**	**ERICSSON**	**AIR6449 B41**	**0°**	**–**	**–**	**–**
GAMMA	C1	G1900/L1900/U2100	173'	330°	ERICSSON	AIR32-KRD901146-1_B66A_B2A	0°	–	–	(1) 1-3/8" HYBRID
GAMMA	C2	L2100	173'	330°	ERICSSON	AIR3246 B66	0°	–	–	(1) 1-3/8" HYBRID
GAMMA	C3	LTE 600/700/1900/N600	173'	330°	RFS/CELWAVE	APXVAARR24_43-U-NA20	0°	–	(1) ERICSSON – 4449 B71 B85A_T-MOBILE (1) ERICSSON – RRUS 4415 B25_CCIV2	(1) 1-3/8" HYBRID
GAMMA	**C4**	**L2500/N2500**	**173'**	**330°**	**ERICSSON**	**AIR6449 B41**	**0°**	**–**	**–**	**–**

1 ANTENNA AND CABLE SCHEDULE
SCALE: NOT TO SCALE



INSTALLER NOTE:

1. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.

2 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

CROWN CASTLE
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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: **CT11114D**

BU #: **807133**
BRG 134 943057

50 ROCKLAND RD
NORWALK, CT 06854

EXISTING
182'-0" SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	07/17/20	DLS	CONSTRUCTION	RMC
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2	8/14/20	MLC	CONSTRUCTION	GEH

STATE OF CONNECTICUT
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PROFESSIONAL ENGINEER
8/14/20

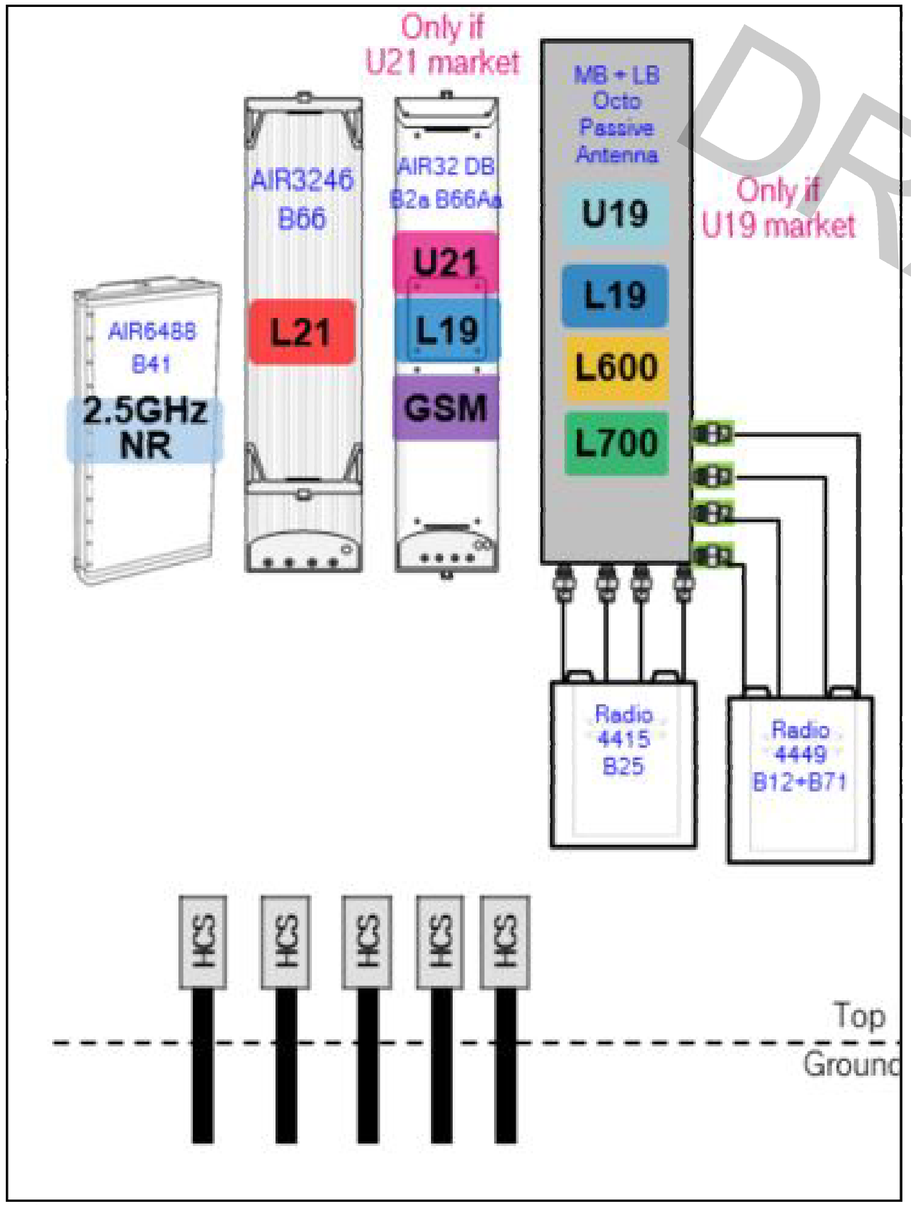
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: C-3

REVISION: 2

Section 3 - Proposed Template Images

67D5992M.JPG



Notes:

1 PLUMBING DIAGRAM
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
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T-MOBILE
SITE NUMBER: **CT11114D**

BU #: **807133**
BRG 134 943057

50 ROCKLAND RD
NORWALK, CT 06854

EXISTING
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ISSUED FOR:

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STATE OF CONNECTICUT
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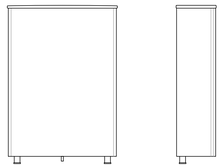
PROFESSIONAL ENGINEER
8/14/20

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

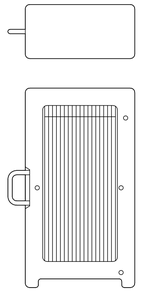
SHEET NUMBER: C-4

REVISION: 2



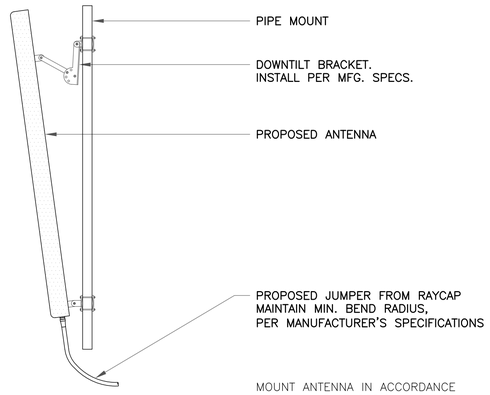
ANTENNA SPECS	
MANUFACTURER	ERICSSON
MODEL #	AIR6449 B41
WIDTH	20.60"
DEPTH	8.60"
HEIGHT	33.10"
WEIGHT	104 LBS

1 ANTENNA SPECS
SCALE: NOT TO SCALE

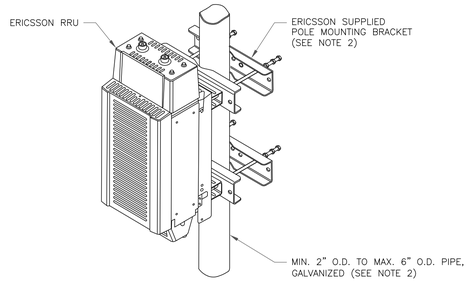


RRU SPECIFICATIONS	
MANUFACTURER	ERICSSON
MODEL #	RRUS 4415 B25_CCIV2
WIDTH	13.40"
DEPTH	5.90"
HEIGHT	16.50"
WEIGHT	46 LBS

2 RRU SPECS
SCALE: NOT TO SCALE



3 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE



NOTES:

1. ERICSSON VIA T-MOBILE SUPPLIES RRU, RRU POLE-MOUNTING BRACKET. SUBCONTRACTOR SHALL SUPPLY POLE/PIPE AND INSTALL ALL MOUNTING HARDWARE INCLUDING RRU POLE-MOUNTING BRACKET. INSTALLS RRU AND MAKES CABLE TERMINATIONS.
2. FOR POLE DIAMETERS FROM 6" TO 15", ERICSSON CAN SUPPLY A PAIR OF POLE MOUNTING METAL BANDS WITH BOLTING WELDMENT.
3. NO PAINTING OF THE RRU OR SOLAR SHIELD IS ALLOWED

4 RRU MOUNTING DETAIL
SCALE: NOT TO SCALE

ERICSSON 6160 SSC
WEIGHT: 60.0 LBS
SIZE (HxWxD): 63"x25.6"x33.5" IN.

5 ERICSSON 6160 SSC
SCALE: NOT TO SCALE

BATTERY CABINET SPECIFICATIONS	
MODEL #	B160
MANUF.	ERICSSON
HEIGHT	63"
WIDTH	26"
DEPTH	26"
WEIGHT	

6 ERICSSON B160 BATTERY CABINET
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
PARSIPPANY, NJ 07054

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

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SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE
SITE NUMBER: **CT11114D**

BU #: **807133**
BRG 134 943057

50 ROCKLAND RD
NORWALK, CT 06854

EXISTING
182'-0" SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	07/17/20	DLS	CONSTRUCTION	RMC
1	7/31/20	MLC	CONSTRUCTION	GEH
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B&T ENGINEERING, INC.
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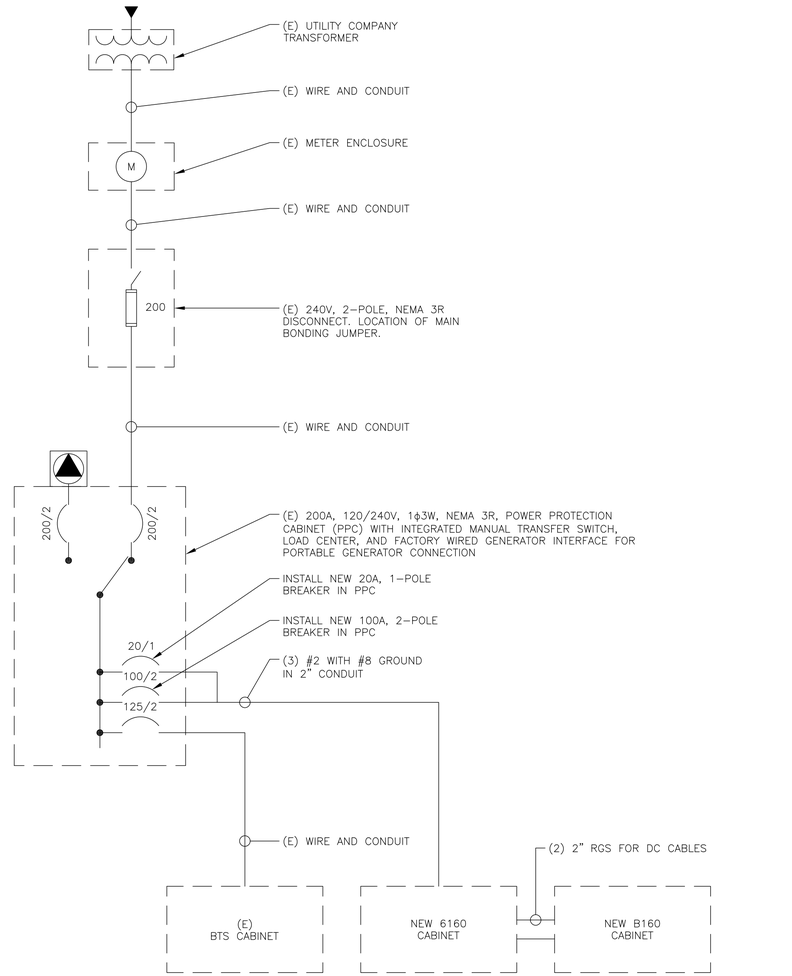
SHEET NUMBER: C-5
REVISION: 2

FINAL PANEL SCHEDULE							
LOAD	POLES	AMPS	BUS L1	BUS L2	AMPS	POLES	LOAD
BTS #1	2	50A	1	2	50A	2	BTS #2
			3	4			
UMTS 3106	2	60A	5	6	100A	2	6160
			7	8			
CT6131	2	125A	9	10	20A	1	6160 GFCI
			11	12			
			13	14			
			15	16			
			17	18			
			19	20			
			21	22			
			23	24			
			25	26			
			27	28			
			29	30			

RATED VOLTAGE: ■120/240 □_____, 1 PHASE, 3 WIRE	BRANCH POLES: □12 ■20 □30 □42	APPROVED MF'RS
RATED AMPS: □100 ■200 □400 □_____,	CABINET: ■SURFACE □FLUSH	NEMA □1 ■3R □4X
□MAIN LUGS ONLY | MAIN 200 AMPS ■BREAKER □FUSED SWITCH	■HINGED DOOR	■KEYED DOOR LATCH
□FUSED ■CIRCUIT BREAKER BRANCH DEVICES	□_____ TO BE GFCI BREAKERS	FULL NEUTRAL BUS | GROUND BAR
ALL BREAKERS MUST BE RATED TO INTERRUPT A SHORT CIRCUIT ISC OF 10,000 AMPS SYMMETRICAL		

INSTALL NEW 2P 100A BREAKER IN POSITION 6 AND 8. INSTALL NEW 1P 20A BREAKER IN POSITION 10.
INSTALL NEW WIRES FOR PROPOSED 6160 CABINET: (3) #2 AWG THWN (COPPER) WITH #8 AWG GROUND. MINIMUM CONDUIT SIZE TO BE 2".
FINAL PANEL DESIGN AND CALCULATIONS FOR WIRE SIZE WERE BASED OFF OF EXISTING DOCUMENTS AND PHOTOS

1 FINAL T-MOBILE PANEL DETAIL
SCALE: NOT TO SCALE



NOTES:

1. ALL NEW CONDUCTORS TO BE INSTALLED SHALL BE COPPER. ALL CONDUCTORS SHALL BE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 UNLESS NOTED OTHERWISE.
2. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. ALL GROUNDING AND BONDING PER THE NEC.

2 ONE LINE DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
4 SYLVAN WAY
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T-MOBILE
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50 ROCKLAND RD
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2	8/14/20	MLC	CONSTRUCTION	GEH

STATE OF CONNECTICUT
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LICENSED PROFESSIONAL ENGINEER
8/14/20

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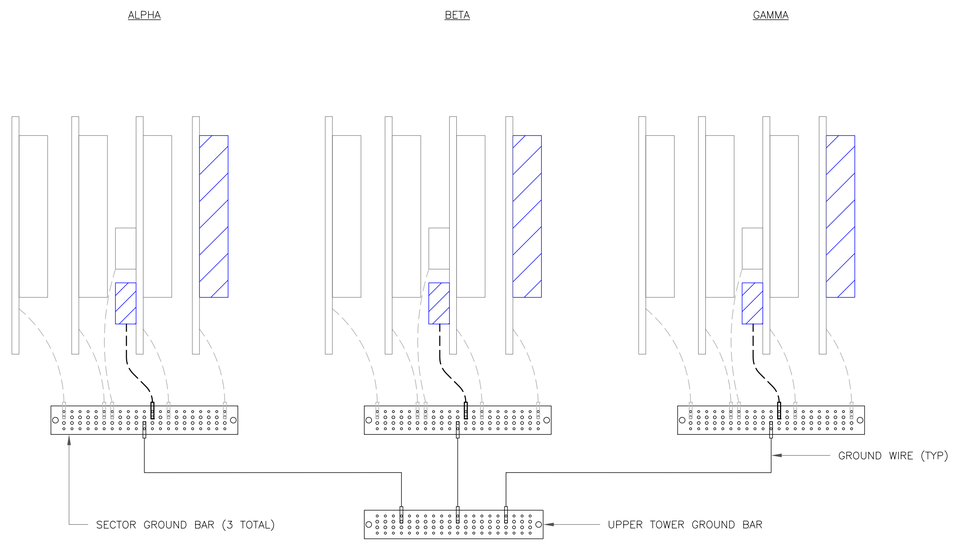
SHEET NUMBER: E-1
REVISION: 2



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

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
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T-MOBILE
SITE NUMBER: **CT11114D**

BU #: **807133**
BRG 134 943057

50 ROCKLAND RD
NORWALK, CT 06854

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STATE OF CONNECTICUT
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LICENSED PROFESSIONAL ENGINEER
8/14/20

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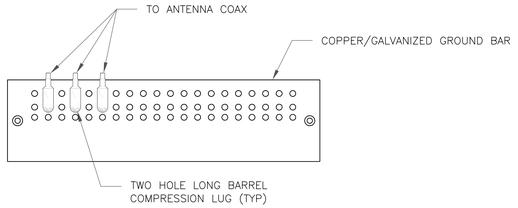
Expires 2/10/21

SHEET NUMBER: G-1

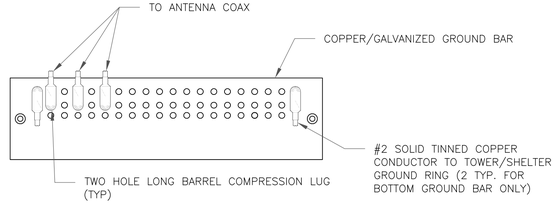
REVISION: 2



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.

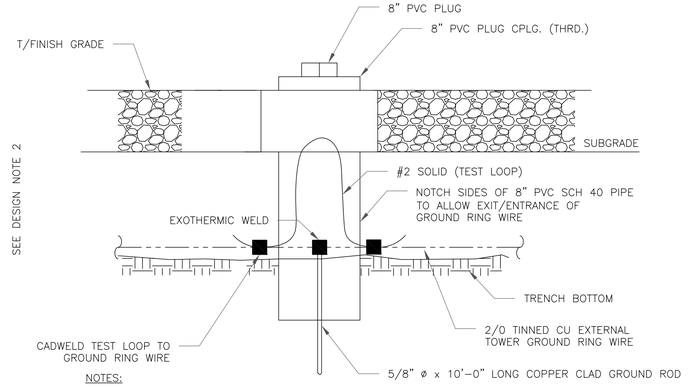
1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



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.

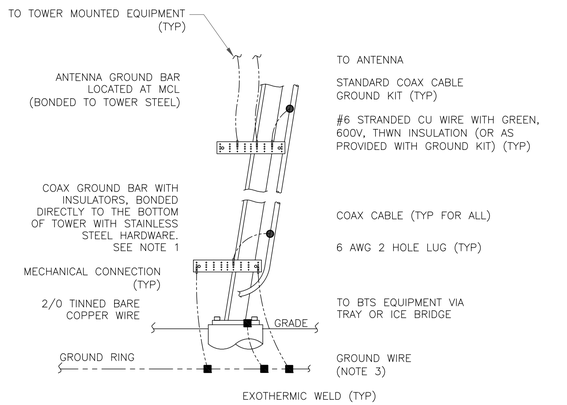
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



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)

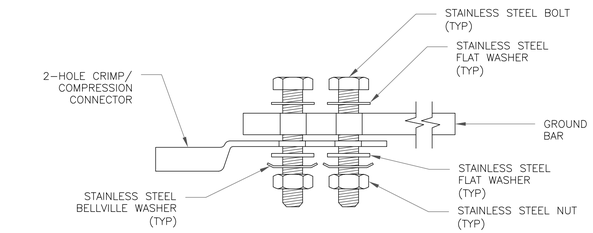
3 INSPECTION WELL DETAIL
SCALE: NOT TO SCALE



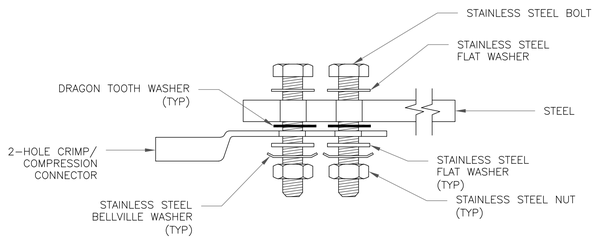
NOTES:

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.

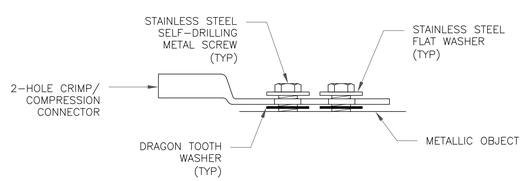
4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

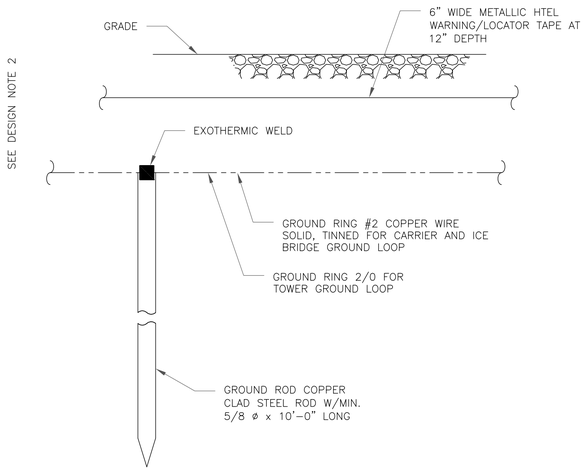


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

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: **CT11114D**

BU #: **807133**
BRG 134 943057

50 ROCKLAND RD
NORWALK, CT 06854

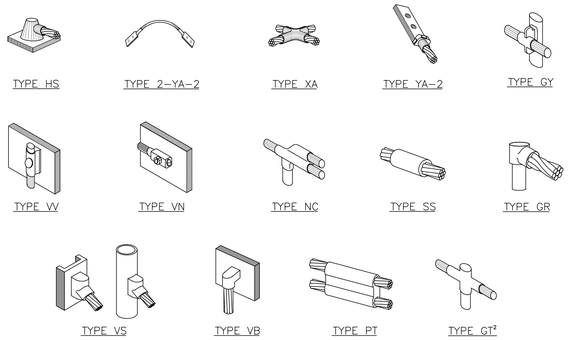
EXISTING
182'-0" SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	07/17/20	DLS	CONSTRUCTION	RMC
1	7/31/20	MLC	CONSTRUCTION	GEH
2	8/14/20	MLC	CONSTRUCTION	GEH

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

SHEET NUMBER: G-2
REVISION: 2

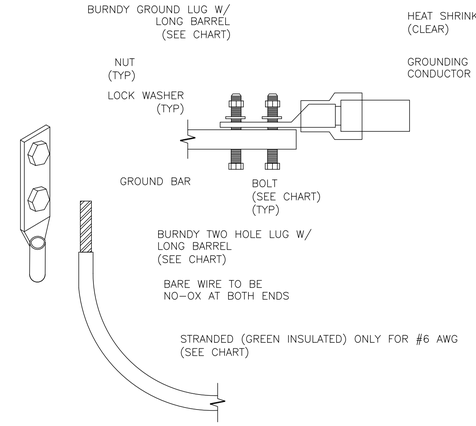


NOTE:

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

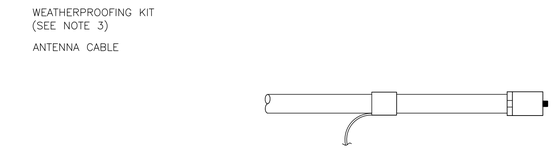
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



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.

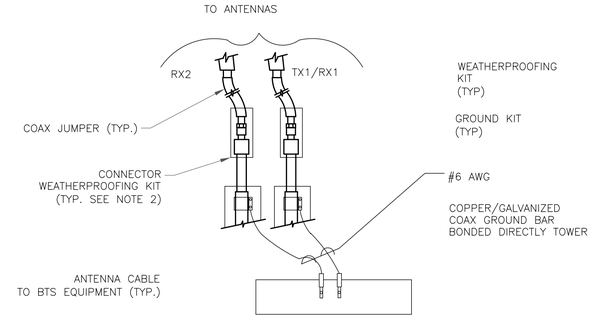
2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



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.

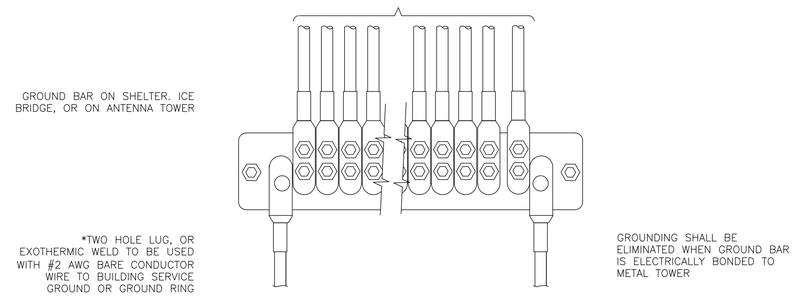
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



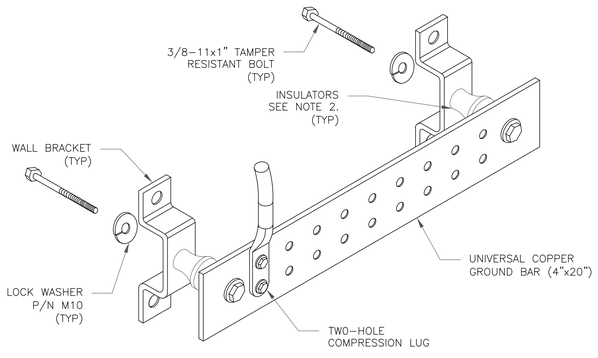
NOTES:

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



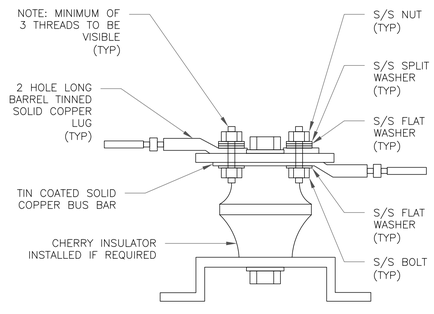
5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



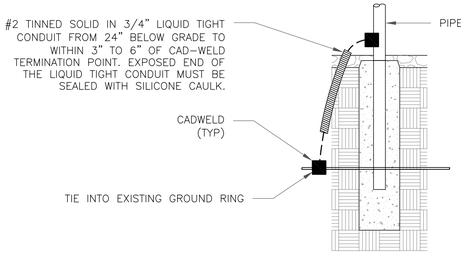
NOTES:

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

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: **CT11114D**

BU #: **807133**
BRG 134 943057

50 ROCKLAND RD
NORWALK, CT 06854

EXISTING
182'-0" SELF-SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	07/17/20	DLS	CONSTRUCTION	RMC
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B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/21

SHEET NUMBER: G-3
REVISION: 2

Exhibit D

Structural Analysis Report

Date: **June 16, 2020**

Denice Nicholson
Crown Castle
3 Corporate Dr
Clifton Park, NY 12065

Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317
724-416-2000

Subject:	**Structural Analysis Report**	
Carrier Designation:	***T-Mobile* Co-Locate**	
	Carrier Site Number:	CT11114D
	Carrier Site Name:	Norwalk/ South
Norwalk		
Crown Castle Designation:	**Crown Castle BU Number:**	807133
	Crown Castle Site Name:	BRG 134 943057
	Crown Castle JDE Job Number:	614602
	Crown Castle Work Order Number:	1860385
	Crown Castle Order Number:	524458 Rev. 1
Engineering Firm Designation:	**Crown Castle Project Number:**	1860385

Site Data: **50 ROCKLAND ROADNORWALK OFC - MTSO, SO NORWALK, Fairfield County, CT**
Latitude *41° 4' 54.44"*, Longitude *-73° 25' 49.52"*
180 Foot - Self Support Tower

Dear Denice Nicholson,

Crown Castle 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:

LC7: Proposed Equipment Configuration **Sufficient Capacity-79.3%**

This analysis utilizes an ultimate 3-second gust wind speed of 120 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Subhash Mandal

Respectfully submitted by:

Maribel Dentinger

Maribel Dentinger, P.E.
Senior Project Engineer

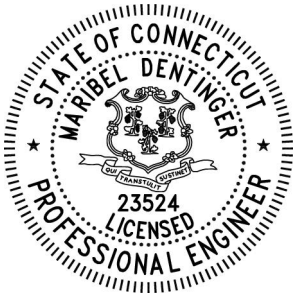


TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 180 ft Self Support tower designed by ROHN. The tower was originally designed for a height of 220 ft but only constructed to a height of 180 ft.

This tower has been modified per reinforcement drawings prepared by Vertical Structures, Inc. in November of 2004. The modifications consist of installation of additional diagonal reinforcement to existing diagonal member from 0' to 20' and 60' to 70' and installation of end bolts for diagonal 20' to 40'.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	120 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	1.275 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)
170.0	170.0	3	ericsson	AIR 32 B2A/B66AA w/ Mount Pipe	6	1-3/8
		3	ericsson	AIR 3246 B66_T-MOBILE w/ Mount Pipe		
		3	ericsson	AIR6449 B41 w/ Mount Pipe		
		3	ericsson	RADIO 4449 B71 B85A_T-MOBILE		
		3	ericsson	RRUS 4415 B25_CCIV2		
		3	rfs celwave	APXVAARR24_43-U-NA20 w/ Mount Pipe		
		1	tower mounts	Sector Mount [SM 702-3]		

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)
178.0	178.0	2	tower mounts	Side Arm Mount [SO 305-1]	-	-
161.0	161.0	1	andrew	SBNHH-1D65A	2 6 6	3/8 5/8 1-5/8
		2	cci antennas	HPA-65R-BUU-H6		
		3	ericsson	RRUS 11		
		3	ericsson	RRUS 12		
		3	ericsson	RRUS 32		
		3	ericsson	RRUS 32 B2		
		3	ericsson	RRUS 4426 B66		
		1	quintel technology	QS46512-2		
		2	quintel technology	QS66512-2		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		3	raycap	DC6-48-60-18-8F		
		1	tower mounts	Sector Mount [SM 201-3]		
157.0	157.0	2	andrew	VHLP2-18	2	7983A
		2	tower mounts	Side Arm Mount [SO 203-1]		
148.0	148.0	3	alcatel lucent	800 EXTERNAL NOTCH FILTER	4	1-1/4
		3	alcatel lucent	800MHZ 2X50W RRH		
		6	alcatel lucent	PCS 1900MHz 4x45W-65MHz		
		3	alcatel lucent	TD-RRH8x20-25		
		9	rfs celwave	ACU-A20-N		
		3	rfs celwave	APXVSPP18-C-A20 w/ Mount Pipe		
		3	rfs celwave	APXVTM14-ALU-I20 w/ Mount Pipe		
		1	tower mounts	Sector Mount [SM 502-3]		
134.0	135.0	1	andrew	VHLP2-23	2 6 1	2-1/4 RC 5/16 1/2
		3	argus technologies	LLPX310R w/ Mount Pipe		
		3	samsung telecommunications	RRH-2WB		
	134.0	1	tower mounts	Sector Mount [SM 504-3]		
126.0	130.0	1	gps	GPS_A	1 19	1/2 1-5/8
	128.0	3	alcatel lucent	B13 RRH 4X30		
		3	alcatel lucent	B25 RRH2x60 PCS		
		3	alcatel lucent	B66A RRH4X45		
		6	commscope	SBNHH-1D65C w/ Mount Pipe		
		4	decibel	DB844G65ZAXY w/ Mount Pipe		
		2	decibel	DB844H80-XY w/ Mount Pipe		
		2	rfs celwave	DB-T1-6Z-8AB-0Z		
	126.0	1	tower mounts	Sector Mount [SM 411-3]		
112.0	112.0	3	kathrein	800 10504 w/ Mount Pipe	-	-
		1	tower mounts	Sector Mount [SM 104-3]		
12.0	14.0	1	decibel	ASPP2933	2	1/2
	13.0	1	gps	GPS_A		
	12.0	1	tower mounts	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	FDH Engineering, Inc.	2311843	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	Paul J. Ford	821566	CCISITES
4-TOWER MANUFACTURER DRAWINGS	Rohn	392878	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	Vertical Structures, Inc.	1257479	CCISITES
4-POST-MODIFICATION INSPECTION	All Points Technology Corp.	4065020	CCISITES

3.1) Analysis Method

tnxTower (version 8.0.5.0), 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) 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. Crown Castle 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)	SF*P_allow (K)	% Capacity	Pass / Fail
T1	180 - 160	Leg	ROHN 3 EH	2	-10.640	116.138	9.2	Pass
T2	160 - 153.333	Leg	ROHN 4 EH	35	-16.743	167.901	10.0	Pass
T3	153.333 - 146.667	Leg	ROHN 4 EH	44	-26.321	167.900	15.7	Pass
T4	146.667 - 140	Leg	ROHN 4 EH	56	-35.834	167.901	21.3	Pass
T5	140 - 120	Leg	ROHN 5 EH	67	-70.806	251.347	28.2	Pass
T6	120 - 100	Leg	ROHN 6 EHS	90	-110.601	288.515	38.3	Pass
T7	100 - 80	Leg	ROHN 6 EH	111	-146.518	318.903	45.9	Pass
T8	80 - 70	Leg	ROHN 8 EHS	126	-165.583	405.715	40.8	Pass
T9	70 - 60	Leg	ROHN 8 EHS	135	-185.105	405.715	45.6	Pass
T10	60 - 40	Leg	ROHN 8 EHS	144	-223.983	405.717	55.2	Pass
T11	40 - 20	Leg	ROHN 8 EH	159	-262.801	530.833	49.5	Pass
T12	20 - 0	Leg	ROHN 8 EH	174	-301.754	530.833	56.8	Pass
T1	180 - 160	Diagonal	L2x2x3/16	13	-2.390	10.104	23.7 28.7 (b)	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T2	160 - 153.333	Diagonal	L2 1/2x2 1/2x1/4	39	-4.021	19.793	20.3 32.4 (b)	Pass
T3	153.333 - 146.667	Diagonal	L2 1/2x2 1/2x1/4	51	-4.396	17.900	24.6 34.7 (b)	Pass
T4	146.667 - 140	Diagonal	L2 1/2x2 1/2x1/4	63	-5.267	16.240	32.4 43.2 (b)	Pass
T5	140 - 120	Diagonal	L2 1/2x2 1/2x1/4	75	-7.205	12.489	57.7 60.6 (b)	Pass
T6	120 - 100	Diagonal	L3x3x1/4	91	-8.497	17.566	48.4 64.0 (b)	Pass
T7	100 - 80	Diagonal	L3 1/2x3 1/2x1/4	113	-9.451	18.890	50.0 64.0 (b)	Pass
T8	80 - 70	Diagonal	L3 1/2x3 1/2x1/4	127	-9.935	17.632	56.3 66.1 (b)	Pass
T9	70 - 60	Diagonal	2L3 1/2x3 1/2x1/4x3/8	136	-10.684	27.940	38.2 49.5 (b)	Pass
T10	60 - 40	Diagonal	L4x4x1/4	146	-11.259	20.589	54.7 73.7 (b)	Pass
T11	40 - 20	Diagonal	L4x4x5/16	161	-12.016	21.559	55.7 62.4 (b)	Pass
T12	20 - 0	Diagonal	2L4x4x5/16x3/8	176	-13.349	31.945	41.8 59.7 (b)	Pass
T1	180 - 160	Top Girt	L2x2x1/8	4	-0.088	4.230	2.1	Pass
T3	153.333 - 146.667	Top Girt	L2 1/2x2 1/2x1/8	48	-0.363	4.069	8.9 10.9 (b)	Pass
T4	146.667 - 140	Top Girt	L2 1/2x2 1/2x1/8	59	0.290	16.822	1.7 4.9 (b)	Pass
T1	180 - 160	Mid Girt	L2x2x1/8	9	-0.540	3.097	17.5	Pass
							Summary	
						Leg (T12)	56.8	Pass
						Diagonal (T10)	73.7	Pass
						Top Girt (T3)	10.9	Pass
						Mid Girt (T1)	17.5	Pass
						Bolt Checks	73.7	Pass
						Rating =	73.7	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	22.0	Pass
1	Base Foundation	0	79.3	Pass

Structure Rating (max from all components) =	79.3%

Notes:
1) See additional documentation in “Appendix C – Additional Calculations” for calculations supporting the % capacity consumed.

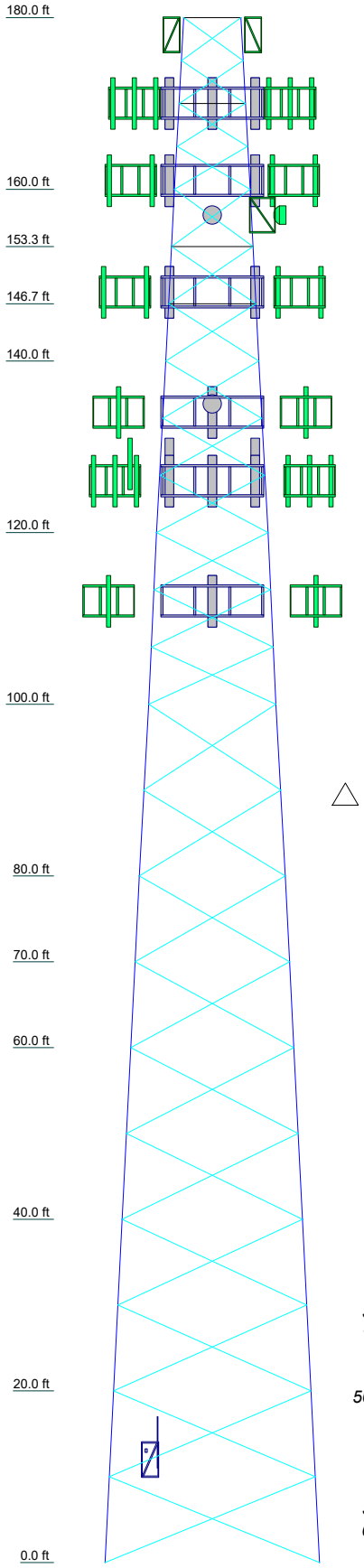
4.1) Recommendations

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

APPENDIX A

TNXTOWER OUTPUT

Section		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	
Legs		ROHN 3 EH	ROHN 4 EH			ROHN 5 EH	ROHN 6 EHS	ROHN 6 EH		ROHN 8 EHS		ROHN 8 EH		
Leg Grade		A572-50												
Diagonals		L2x2x3/16				L2 1/2x2 1/2x1/4	L3x3x1/4	L3 1/2x3 1/2x1/4		A	L4x4x1/4	L4x4x5/16	2L4x4x5/16x3/8	
Diagonal Grade		A36						A572-50		A36	A572-50		A36	
Top Girts		L2x2x1/8	N.A.	L2 1/2x2 1/2x1/8				N.A.						
Mid Girts		L2x2x1/8						N.A.						
Face Width (ft)	25	6.6875	8.76042	9.45052	10.1432	10.8333	12.9167	14.8542	16.9896	17.9948	19	21	23	
# Panels @ (ft)		4 @ 5				9 @ 6.66667					10 @ 10			
Weight (K)	33.3	1.3	0.6	0.7	0.7	2.4	2.9	3.2	1.8	2.6	3.9	5.2	8.1	



SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	2L3 1/2x3 1/2x1/4x3/8		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

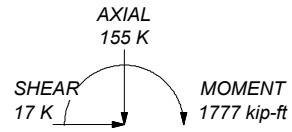
TOWER DESIGN NOTES

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 120 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.27 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'
8. TOWER RATING: 73.7%

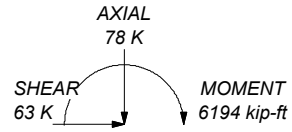
ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 312 K
SHEAR: 39 K

UPLIFT: -257 K
SHEAR: 33 K



TORQUE 16 kip-ft
50 mph WIND - 1.275 in ICE



TORQUE 48 kip-ft
REACTIONS - 120 mph WIND

CROWN CASTLE
The Pathway to Possible

Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317
Phone: 724-416-2000
FAX: -

Job: ***BU# 807133***			
Project:			
Client: Crown Castle	Drawn by: SMandal		App'd:
Code: TIA-222-H	Date: 06/16/20		Scale: NTS
Path: C:\Users\smandal\Desktop\WIP\807133 WO 1860385-SST\Production-SM\807133.eri			Dwg No. E-1

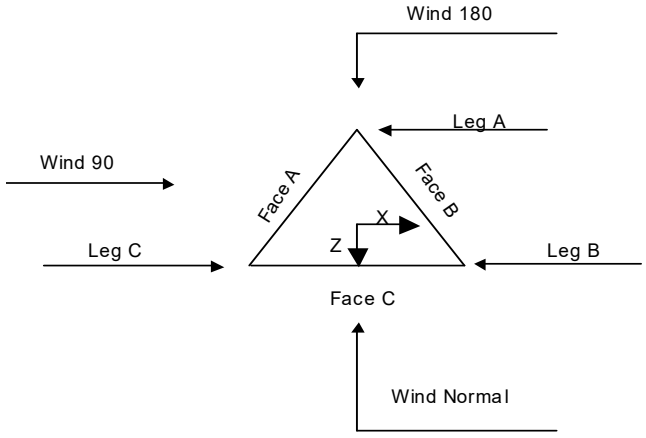
Tower Input Data

The main tower is a 3x free standing tower with an overall height of 180' above the ground line.
The base of the tower is set at an elevation of 0' above the ground line.
The face width of the tower is 6'8-1/4" at the top and 25' at the base.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

1) Tower is located in Fairfield County, Connecticut.
2) Tower base elevation above sea level: 61'.
3) Basic wind speed of 120 mph.
4) Risk Category II.
5) Exposure Category C.
6) Simplified Topographic Factor Procedure for wind speed-up calculations is used.
7) Topographic Category: 1.
8) Crest Height: 0'.
9) Nominal ice thickness of 1.275 in.
10) Ice thickness is considered to increase with height.
11) Ice density of 56.000 pcf.
12) A wind speed of 50 mph is used in combination with ice.
13) Temperature drop of 50.000 °F.
14) Deflections calculated using a wind speed of 60 mph.
15) Pressures are calculated at each section.
16) Tower analysis based on target reliabilities in accordance with Annex S.
17) Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
18) Stress ratio used in tower member design is 1.05.
19) 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



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	180'-160'			6'8-1/4"	1	20'
T2	160'-153'4"			8'9-1/8"	1	6'8"
T3	153'4"-146'8"			9'5-13/32"	1	6'8"
T4	146'8"-140'			10'1-23/32"	1	6'8"
T5	140'-120'			10'10"	1	20'
T6	120'-100'			12'11"	1	20'
T7	100'-80'			14'10-1/4"	1	20'
T8	80'-70'			16'11-7/8"	1	10'
T9	70'-60'			17'11-15/16"	1	10'
T10	60'-40'			19'	1	20'
T11	40'-20'			21'	1	20'
T12	20'-0'			23'	1	20'

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T1	180'-160'	5'	X Brace	No	No	0.000	0.000
T2	160'-153'4"	6'8"	X Brace	No	No	0.000	0.000
T3	153'4"-146'8"	6'8"	X Brace	No	No	0.000	0.000
T4	146'8"-140'	6'8"	X Brace	No	No	0.000	0.000
T5	140'-120'	6'8"	X Brace	No	No	0.000	0.000
T6	120'-100'	6'8"	X Brace	No	No	0.000	0.000
T7	100'-80'	10'	X Brace	No	No	0.000	0.000
T8	80'-70'	10'	X Brace	No	No	0.000	0.000
T9	70'-60'	10'	X Brace	No	No	0.000	0.000
T10	60'-40'	10'	X Brace	No	No	0.000	0.000
T11	40'-20'	10'	X Brace	No	No	0.000	0.000

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T12	20'-0'	10'	X Brace	No	No	0.000	0.000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 180'-160'	Pipe	ROHN 3 EH	A572-50 (50 ksi)	Single Angle	L2x2x3/16	A36 (36 ksi)
T2 160'-153'4"	Pipe	ROHN 4 EH	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T3 153'4"-146'8"	Pipe	ROHN 4 EH	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T4 146'8"-140'	Pipe	ROHN 4 EH	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T5 140'-120'	Pipe	ROHN 5 EH	A572-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T6 120'-100'	Pipe	ROHN 6 EHS	A572-50 (50 ksi)	Single Angle	L3x3x1/4	A572-50 (50 ksi)
T7 100'-80'	Pipe	ROHN 6 EH	A572-50 (50 ksi)	Single Angle	L3 1/2x3 1/2x1/4	A572-50 (50 ksi)
T8 80'-70'	Pipe	ROHN 8 EHS	A572-50 (50 ksi)	Single Angle	L3 1/2x3 1/2x1/4	A572-50 (50 ksi)
T9 70'-60'	Pipe	ROHN 8 EHS	A572-50 (50 ksi)	Double Equal Angle	2L3 1/2x3 1/2x1/4x3/8	A36 (36 ksi)
T10 60'-40'	Pipe	ROHN 8 EHS	A572-50 (50 ksi)	Single Angle	L4x4x1/4	A572-50 (50 ksi)
T11 40'-20'	Pipe	ROHN 8 EH	A572-50 (50 ksi)	Single Angle	L4x4x5/16	A572-50 (50 ksi)
T12 20'-0'	Pipe	ROHN 8 EH	A572-50 (50 ksi)	Double Equal Angle	2L4x4x5/16x3/8	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 180'-160'	Equal Angle	L2x2x1/8	A36 (36 ksi)	Single Angle		A36 (36 ksi)
T3 153'4"-146'8"	Equal Angle	L2 1/2x2 1/2x1/8	A36 (36 ksi)	Single Angle		A36 (36 ksi)
T4 146'8"-140'	Single Angle	L2 1/2x2 1/2x1/8	A36 (36 ksi)	Single Angle		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 180'-160'	1	Equal Angle	L2x2x1/8	A36 (36 ksi)	Single Angle		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

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
T1 180'-160'	0.000	0.250	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T2 160'-153'4"	0.000	0.250	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T3 153'4"-146'8"	0.000	0.250	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T4 146'8"-140'	0.000	0.250	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T5 140'-120'	0.000	0.250	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T6 120'-100'	0.000	0.250	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T7 100'-80'	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T8 80'-70'	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T9 70'-60'	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	120.000	Mid-Pt	Mid-Pt
T10 60'-40'	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T11 40'-20'	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T12 20'-0'	0.000	0.375	A36 (36 ksi)	1.03	1	1.05	152.750	Mid-Pt	Mid-Pt

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1 180'-160'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T2 160'-153'4"	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T3 153'4"-146'8"	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T4 146'8"-140'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T5 140'-120'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T6 120'-100'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T7 100'-80'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T8 80'-70'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T9 70'-60'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T10 60'-40'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T11 40'-20'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T12 20'-0'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1

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

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 180'-160'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T2 160'-153'4"	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T3 153'4"-146'8"	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T4 146'8"-140'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T5 140'-120'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T6 120'-100'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T7 100'-80'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T8 80'-70'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T9 70'-60'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T10 60'-40'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T11 40'-20'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T12 20'-0'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 180'-160'	Flange	0.875 A325N	4	0.625 A325N	1	0.625 A325N	1	0.000 A325X	0	0.625 A325N	1	0.625 A325X	0	0.625 A325N	0
T2 160'-153'4"	Flange	0.000 A325N	0	0.625 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T3 153'4"-146'8"	Flange	0.000 A325N	0	0.625 A325N	1	0.625 A325N	1	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T4 146'8"-140'	Flange	1.000 A325N	4	0.625 A325N	1	0.625 A325N	1	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T5 140'-120'	Flange	1.000 A325N	6	0.625 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T6 120'-100'	Flange	1.000 A325N	6	0.625 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T7 100'-80'	Flange	1.000 A325N	8	0.750 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T8 80'-70'	Flange	0.000 A325N	0	0.750 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T9 70'-60'	Flange	1.000 A325N	8	0.750 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T10 60'-40'	Flange	1.000 A325N	8	0.750 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T11 40'-20'	Flange	1.000 A325N	8	0.750 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0
T12 20'-0'	Flange	1.000 A449	0	0.750 A325N	1	0.000 A325N	0	0.000 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	0

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf
Feedline Ladder (Af) ***	B	No	No	Af (CaAa)	180' - 0'	0.000	0.38	1	1	3.000	3.000		0.008
HCS 6X12 6AWG(1-3/8)	A	No	No	Ar (CaAa)	170' - 0'	0.000	0.08	6	6	1.380	1.380		0.002
LDF1-50A(1/4)	A	No	No	Ar (CaAa)	12' - 0'	0.000	0.15	2	2	0.345	0.345		0.000
LDF4-50A(1/2)	C	No	No	Ar (CaAa)	12' - 0'	0.000	0.06	2	2	0.500	0.630		0.000
Feedline Ladder (Af) ***	A	No	No	Af (CaAa)	170' - 0'	0.000	0	1	1	3.000	3.000		0.008
HB114-21U3M12-XXXF(1-1/4) ***	A	No	No	Ar (CaAa)	148' - 0'	0.000	-0.35	4	2	0.850 0.750	1.540		0.001
2-1/4" Rigid Conduit	A	No	No	Ar (CaAa)	134' - 0'	0.000	-0.38	2	2	0.850 0.750	2.250		0.003
LDF4-50A(1/2)	A	No	No	Ar (CaAa)	134' - 0'	0.000	-0.395	1	1	0.630	0.630		0.000
9207(5/16)	A	No	No	Ar (CaAa)	134' - 0'	0.000	-0.38	6	6	0.200	0.330		0.001
7983A(ELLIPTICAL)	A	No	No	Ar (CaAa)	157' - 0'	0.000	-0.405	2	1	0.500	0.573		0.000
Feedline Ladder (Af) ***	A	No	No	Af (CaAa)	160' - 0'	0.000	-0.36	1	1	3.000	3.000		0.008
Feedline Ladder (Af) ***	C	No	No	Af (CaAa)	180' - 0'	0.000	-0.4	1	1	3.000	3.000		0.008
561(1-5/8)	C	No	No	Ar (CaAa)	126' - 0'	-3.000	-0.4	19	12	1.000	1.625		0.001
LDF4-50A(1/2)	C	No	No	Ar (CaAa)	126' - 0'	-1.000	-0.455	1	1	0.500	0.630		0.000
Feedline Ladder (Af) ***	C	No	No	Af (CaAa)	126' - 0'	-1.000	-0.4	1	1	3.000	3.000		0.008
Feedline Ladder (Af) ***	C	No	No	Af (CaAa)	161' - 0'	0.000	0.4	1	1	3.000	3.000		0.008
CR 50 1873(1-5/8)	C	No	No	Ar (CaAa)	161' - 0'	0.000	0.34	6	3	0.850 0.750	1.980		0.001
FB-L98-002-XXX(3/8)	C	No	No	Ar (CaAa)	161' - 0'	0.000	0.36	2	1	0.500	0.394		0.000
WR-VG82ST-BRDA(5/8) ***	C	No	No	Ar (CaAa)	161' - 0'	4.500	0.34	6	6	0.500	0.645		0.000
Safety Line 3/8 ***	B	No	No	Ar (CaAa)	180' - 0'	0.000	0.5	1	1	0.375	0.375		0.000

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 klf
***								

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
T1	180'-160'	A	0.000	0.000	13.280	0.000	0.186
		B	0.000	0.000	10.750	0.000	0.172
		C	0.000	0.000	12.154	0.000	0.183
T2	160'-153'4"	A	0.000	0.000	12.607	0.000	0.181
		B	0.000	0.000	3.583	0.000	0.057
		C	0.000	0.000	17.692	0.000	0.158
T3	153'4"-146'8"	A	0.000	0.000	13.772	0.000	0.188
		B	0.000	0.000	3.583	0.000	0.057
		C	0.000	0.000	17.692	0.000	0.158
T4	146'8"-140'	A	0.000	0.000	17.057	0.000	0.214
		B	0.000	0.000	3.583	0.000	0.057
		C	0.000	0.000	17.692	0.000	0.158
T5	140'-120'	A	0.000	0.000	61.126	0.000	0.777
		B	0.000	0.000	10.750	0.000	0.172
		C	0.000	0.000	74.978	0.000	0.680
T6	120'-100'	A	0.000	0.000	65.392	0.000	0.836
		B	0.000	0.000	10.750	0.000	0.172
		C	0.000	0.000	126.085	0.000	1.159
T7	100'-80'	A	0.000	0.000	65.392	0.000	0.836
		B	0.000	0.000	10.750	0.000	0.172
		C	0.000	0.000	126.085	0.000	1.159
T8	80'-70'	A	0.000	0.000	32.696	0.000	0.418
		B	0.000	0.000	5.375	0.000	0.086
		C	0.000	0.000	63.042	0.000	0.580
T9	70'-60'	A	0.000	0.000	32.696	0.000	0.418
		B	0.000	0.000	5.375	0.000	0.086
		C	0.000	0.000	63.042	0.000	0.580
T10	60'-40'	A	0.000	0.000	65.392	0.000	0.836
		B	0.000	0.000	10.750	0.000	0.172
		C	0.000	0.000	126.085	0.000	1.159
T11	40'-20'	A	0.000	0.000	65.392	0.000	0.836
		B	0.000	0.000	10.750	0.000	0.172
		C	0.000	0.000	126.085	0.000	1.159
T12	20'-0'	A	0.000	0.000	66.220	0.000	0.837
		B	0.000	0.000	10.750	0.000	0.172
		C	0.000	0.000	127.597	0.000	1.163

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
T1	180'-160'	A	1.277	0.000	0.000	30.259	0.000	0.493
		B		0.000	0.000	20.964	0.000	0.391
		C		0.000	0.000	19.217	0.000	0.393
T2	160'-153'4"	A	1.266	0.000	0.000	27.547	0.000	0.460
		B		0.000	0.000	6.960	0.000	0.130
		C		0.000	0.000	32.338	0.000	0.497
T3	153'4"-146'8"	A	1.261	0.000	0.000	30.970	0.000	0.498
		B		0.000	0.000	6.946	0.000	0.129
		C		0.000	0.000	32.286	0.000	0.496
T4	146'8"-140'	A	1.255	0.000	0.000	36.952	0.000	0.584
		B		0.000	0.000	6.931	0.000	0.129
		C		0.000	0.000	32.232	0.000	0.494
T5	140'-120'	A	1.243	0.000	0.000	141.661	0.000	2.122
		B		0.000	0.000	20.694	0.000	0.383
		C		0.000	0.000	127.961	0.000	2.078
T6	120'-100'	A	1.222	0.000	0.000	154.070	0.000	2.258
		B		0.000	0.000	20.529	0.000	0.378
		C		0.000	0.000	200.851	0.000	3.457
T7	100'-80'	A	1.198	0.000	0.000	152.962	0.000	2.226
		B		0.000	0.000	20.335	0.000	0.373

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
		C		0.000	0.000	199.825	0.000	3.416
T8	80'-70'	A	1.176	0.000	0.000	75.988	0.000	1.099
		B		0.000	0.000	10.081	0.000	0.184
		C		0.000	0.000	99.456	0.000	1.690
T9	70'-60'	A	1.160	0.000	0.000	75.607	0.000	1.088
		B		0.000	0.000	10.014	0.000	0.182
		C		0.000	0.000	99.103	0.000	1.676
T10	60'-40'	A	1.130	0.000	0.000	149.847	0.000	2.139
		B		0.000	0.000	19.788	0.000	0.357
		C		0.000	0.000	196.939	0.000	3.302
T11	40'-20'	A	1.073	0.000	0.000	147.288	0.000	2.069
		B		0.000	0.000	19.338	0.000	0.345
		C		0.000	0.000	194.567	0.000	3.210
T12	20'-0'	A	0.962	0.000	0.000	147.809	0.000	1.960
		B		0.000	0.000	18.444	0.000	0.321
		C		0.000	0.000	196.589	0.000	3.069

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
T1	180'-160'	2.739	1.368	4.459	1.902
T2	160'-153'4"	-8.638	5.054	-9.519	6.470
T3	153'4"-146'8"	-8.715	4.987	-10.169	6.581
T4	146'8"-140'	-10.630	5.712	-12.174	7.302
T5	140'-120'	-7.617	8.524	-10.150	10.337
T6	120'-100'	2.910	11.067	-0.642	13.318
T7	100'-80'	3.366	12.741	-0.647	15.322
T8	80'-70'	3.525	13.149	-0.595	15.881
T9	70'-60'	3.677	13.675	-0.557	16.490
T10	60'-40'	3.718	13.716	-0.460	16.878
T11	40'-20'	3.958	14.527	-0.267	17.745
T12	20'-0'	3.987	15.229	-0.318	17.912

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	2	Feedline Ladder (Af)	160.00 - 180.00	0.6000	0.6000
T1	4	HCS 6X12 6AWG(1-3/8)	160.00 - 170.00	0.6000	0.6000
T1	10	Feedline Ladder (Af)	160.00 - 170.00	0.6000	0.6000
T1	20	Feedline Ladder (Af)	160.00 - 180.00	0.6000	0.6000
T1	32	Feedline Ladder (Af)	160.00 - 161.00	0.6000	0.6000
T1	34	CR 50 1873(1-5/8)	160.00 - 161.00	0.6000	0.6000
T1	35	FB-L98-002-XXX(3/8)	160.00 - 161.00	0.6000	0.6000
T1	36	WR-VG82ST-BRDA(5/8)	160.00 - 161.00	0.6000	0.6000
T1	38	Safety Line 3/8	160.00 - 180.00	0.6000	0.6000
T2	2	Feedline Ladder (Af)	153.33 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T2	4	HCS 6X12 6AWG(1-3/8)	160.00 153.33 - 160.00	0.6000	0.6000
T2	10	Feedline Ladder (Af)	153.33 - 160.00	0.6000	0.6000
T2	17	7983A(ELLIPTICAL)	153.33 - 157.00	0.6000	0.6000
T2	18	Feedline Ladder (Af)	153.33 - 160.00	0.6000	0.6000
T2	20	Feedline Ladder (Af)	153.33 - 160.00	0.6000	0.6000
T2	32	Feedline Ladder (Af)	153.33 - 160.00	0.6000	0.6000
T2	34	CR 50 1873(1-5/8)	153.33 - 160.00	0.6000	0.6000
T2	35	FB-L98-002-XXX(3/8)	153.33 - 160.00	0.6000	0.6000
T2	36	WR-VG82ST-BRDA(5/8)	153.33 - 160.00	0.6000	0.6000
T2	38	Safety Line 3/8	153.33 - 160.00	0.6000	0.6000
T3	2	Feedline Ladder (Af)	146.67 - 153.33	0.6000	0.6000
T3	4	HCS 6X12 6AWG(1-3/8)	146.67 - 153.33	0.6000	0.6000
T3	10	Feedline Ladder (Af)	146.67 - 153.33	0.6000	0.6000
T3	12	HB114-21U3M12-XXXF(1-1/4)	146.67 - 148.00	0.6000	0.6000
T3	17	7983A(ELLIPTICAL)	146.67 - 153.33	0.6000	0.6000
T3	18	Feedline Ladder (Af)	146.67 - 153.33	0.6000	0.6000
T3	20	Feedline Ladder (Af)	146.67 - 153.33	0.6000	0.6000
T3	32	Feedline Ladder (Af)	146.67 - 153.33	0.6000	0.6000
T3	34	CR 50 1873(1-5/8)	146.67 - 153.33	0.6000	0.6000
T3	35	FB-L98-002-XXX(3/8)	146.67 - 153.33	0.6000	0.6000
T3	36	WR-VG82ST-BRDA(5/8)	146.67 - 153.33	0.6000	0.6000
T3	38	Safety Line 3/8	146.67 - 153.33	0.6000	0.6000
T4	2	Feedline Ladder (Af)	140.00 - 146.67	0.6000	0.6000
T4	4	HCS 6X12 6AWG(1-3/8)	140.00 - 146.67	0.6000	0.6000
T4	10	Feedline Ladder (Af)	140.00 - 146.67	0.6000	0.6000
T4	12	HB114-21U3M12-XXXF(1-1/4)	140.00 - 146.67	0.6000	0.6000
T4	17	7983A(ELLIPTICAL)	140.00 - 146.67	0.6000	0.6000
T4	18	Feedline Ladder (Af)	140.00 - 146.67	0.6000	0.6000
T4	20	Feedline Ladder (Af)	140.00 - 146.67	0.6000	0.6000
T4	32	Feedline Ladder (Af)	140.00 - 146.67	0.6000	0.6000
T4	34	CR 50 1873(1-5/8)	140.00 - 146.67	0.6000	0.6000
T4	35	FB-L98-002-XXX(3/8)	140.00 - 146.67	0.6000	0.6000
T4	36	WR-VG82ST-BRDA(5/8)	140.00 - 146.67	0.6000	0.6000
T4	38	Safety Line 3/8	140.00 - 146.67	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T5	2	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T5	4	HCS 6X12 6AWG(1-3/8)	120.00 - 140.00	0.6000	0.6000
T5	10	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T5	12	HB114-21U3M12-XXXF(1-1/4)	120.00 - 140.00	0.6000	0.6000
T5	14	2-1/4" Rigid Conduit	120.00 - 134.00	0.6000	0.6000
T5	15	LDF4-50A(1/2)	120.00 - 134.00	0.6000	0.6000
T5	16	9207(5/16)	120.00 - 134.00	0.0000	0.0000
T5	17	7983A(ELLIPTICAL)	120.00 - 140.00	0.6000	0.6000
T5	18	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T5	20	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T5	22	561(1-5/8)	120.00 - 126.00	0.6000	0.6000
T5	23	LDF4-50A(1/2)	120.00 - 126.00	0.6000	0.6000
T5	24	Feedline Ladder (Af)	120.00 - 126.00	0.6000	0.6000
T5	32	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T5	34	CR 50 1873(1-5/8)	120.00 - 140.00	0.6000	0.6000
T5	35	FB-L98-002-XXX(3/8)	120.00 - 140.00	0.6000	0.6000
T5	36	WR-VG82ST-BRDA(5/8)	120.00 - 140.00	0.6000	0.6000
T5	38	Safety Line 3/8	120.00 - 140.00	0.6000	0.6000
T6	2	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	4	HCS 6X12 6AWG(1-3/8)	100.00 - 120.00	0.6000	0.6000
T6	10	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	12	HB114-21U3M12-XXXF(1-1/4)	100.00 - 120.00	0.6000	0.6000
T6	14	2-1/4" Rigid Conduit	100.00 - 120.00	0.6000	0.6000
T6	15	LDF4-50A(1/2)	100.00 - 120.00	0.6000	0.6000
T6	16	9207(5/16)	100.00 - 120.00	0.0000	0.0000
T6	17	7983A(ELLIPTICAL)	100.00 - 120.00	0.6000	0.6000
T6	18	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	20	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	22	561(1-5/8)	100.00 - 120.00	0.6000	0.6000
T6	23	LDF4-50A(1/2)	100.00 - 120.00	0.6000	0.6000
T6	24	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	32	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	34	CR 50 1873(1-5/8)	100.00 - 120.00	0.6000	0.6000
T6	35	FB-L98-002-XXX(3/8)	100.00 - 120.00	0.6000	0.6000
T6	36	WR-VG82ST-BRDA(5/8)	100.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T6	38	Safety Line 3/8	120.00 100.00 - 120.00	0.6000	0.6000
T7	2	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	4	HCS 6X12 6AWG(1-3/8)	80.00 - 100.00	0.6000	0.6000
T7	10	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	12	HB114-21U3M12-XXXF(1-1/4)	80.00 - 100.00	0.6000	0.6000
T7	14	2-1/4" Rigid Conduit	80.00 - 100.00	0.6000	0.6000
T7	15	LDF4-50A(1/2)	80.00 - 100.00	0.6000	0.6000
T7	16	9207(5/16)	80.00 - 100.00	0.0000	0.0000
T7	17	7983A(ELLIPTICAL)	80.00 - 100.00	0.6000	0.6000
T7	18	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	20	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	22	561(1-5/8)	80.00 - 100.00	0.6000	0.6000
T7	23	LDF4-50A(1/2)	80.00 - 100.00	0.6000	0.6000
T7	24	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	32	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	34	CR 50 1873(1-5/8)	80.00 - 100.00	0.6000	0.6000
T7	35	FB-L98-002-XXX(3/8)	80.00 - 100.00	0.6000	0.6000
T7	36	WR-VG82ST-BRDA(5/8)	80.00 - 100.00	0.6000	0.6000
T7	38	Safety Line 3/8	80.00 - 100.00	0.6000	0.6000
T8	2	Feedline Ladder (Af)	70.00 - 80.00	0.6000	0.6000
T8	4	HCS 6X12 6AWG(1-3/8)	70.00 - 80.00	0.6000	0.6000
T8	10	Feedline Ladder (Af)	70.00 - 80.00	0.6000	0.6000
T8	12	HB114-21U3M12-XXXF(1-1/4)	70.00 - 80.00	0.6000	0.6000
T8	14	2-1/4" Rigid Conduit	70.00 - 80.00	0.6000	0.6000
T8	15	LDF4-50A(1/2)	70.00 - 80.00	0.6000	0.6000
T8	16	9207(5/16)	70.00 - 80.00	0.0000	0.0000
T8	17	7983A(ELLIPTICAL)	70.00 - 80.00	0.6000	0.6000
T8	18	Feedline Ladder (Af)	70.00 - 80.00	0.6000	0.6000
T8	20	Feedline Ladder (Af)	70.00 - 80.00	0.6000	0.6000
T8	22	561(1-5/8)	70.00 - 80.00	0.6000	0.6000
T8	23	LDF4-50A(1/2)	70.00 - 80.00	0.6000	0.6000
T8	24	Feedline Ladder (Af)	70.00 - 80.00	0.6000	0.6000
T8	32	Feedline Ladder (Af)	70.00 - 80.00	0.6000	0.6000
T8	34	CR 50 1873(1-5/8)	70.00 - 80.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T8	35	FB-L98-002-XXX(3/8)	70.00 - 80.00	0.6000	0.6000
T8	36	WR-VG82ST-BRDA(5/8)	70.00 - 80.00	0.6000	0.6000
T8	38	Safety Line 3/8	70.00 - 80.00	0.6000	0.6000
T9	2	Feedline Ladder (Af)	60.00 - 70.00	0.6000	0.6000
T9	4	HCS 6X12 6AWG(1-3/8)	60.00 - 70.00	0.6000	0.6000
T9	10	Feedline Ladder (Af)	60.00 - 70.00	0.6000	0.6000
T9	12	HB114-21U3M12-XXXF(1-1/4)	60.00 - 70.00	0.6000	0.6000
T9	14	2-1/4" Rigid Conduit	60.00 - 70.00	0.6000	0.6000
T9	15	LDF4-50A(1/2)	60.00 - 70.00	0.6000	0.6000
T9	16	9207(5/16)	60.00 - 70.00	0.0000	0.0000
T9	17	7983A(ELLIPTICAL)	60.00 - 70.00	0.6000	0.6000
T9	18	Feedline Ladder (Af)	60.00 - 70.00	0.6000	0.6000
T9	20	Feedline Ladder (Af)	60.00 - 70.00	0.6000	0.6000
T9	22	561(1-5/8)	60.00 - 70.00	0.6000	0.6000
T9	23	LDF4-50A(1/2)	60.00 - 70.00	0.6000	0.6000
T9	24	Feedline Ladder (Af)	60.00 - 70.00	0.6000	0.6000
T9	32	Feedline Ladder (Af)	60.00 - 70.00	0.6000	0.6000
T9	34	CR 50 1873(1-5/8)	60.00 - 70.00	0.6000	0.6000
T9	35	FB-L98-002-XXX(3/8)	60.00 - 70.00	0.6000	0.6000
T9	36	WR-VG82ST-BRDA(5/8)	60.00 - 70.00	0.6000	0.6000
T9	38	Safety Line 3/8	60.00 - 70.00	0.6000	0.6000
T10	2	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T10	4	HCS 6X12 6AWG(1-3/8)	40.00 - 60.00	0.6000	0.6000
T10	10	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T10	12	HB114-21U3M12-XXXF(1-1/4)	40.00 - 60.00	0.6000	0.6000
T10	14	2-1/4" Rigid Conduit	40.00 - 60.00	0.6000	0.6000
T10	15	LDF4-50A(1/2)	40.00 - 60.00	0.6000	0.6000
T10	16	9207(5/16)	40.00 - 60.00	0.0000	0.0000
T10	17	7983A(ELLIPTICAL)	40.00 - 60.00	0.6000	0.6000
T10	18	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T10	20	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T10	22	561(1-5/8)	40.00 - 60.00	0.6000	0.6000
T10	23	LDF4-50A(1/2)	40.00 - 60.00	0.6000	0.6000
T10	24	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T10	32	Feedline Ladder (Af)	40.00 -	0.6000	0.6000

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
T10	34	CR 50 1873(1-5/8)	60.00 40.00 - 60.00	0.6000	0.6000
T10	35	FB-L98-002-XXX(3/8)	40.00 - 60.00	0.6000	0.6000
T10	36	WR-VG82ST-BRDA(5/8)	40.00 - 60.00	0.6000	0.6000
T10	38	Safety Line 3/8	40.00 - 60.00	0.6000	0.6000
T11	2	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	4	HCS 6X12 6AWG(1-3/8)	20.00 - 40.00	0.6000	0.6000
T11	10	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	12	HB114-21U3M12-XXXF(1-1/4)	20.00 - 40.00	0.6000	0.6000
T11	14	2-1/4" Rigid Conduit	20.00 - 40.00	0.6000	0.6000
T11	15	LDF4-50A(1/2)	20.00 - 40.00	0.6000	0.6000
T11	16	9207(5/16)	20.00 - 40.00	0.0000	0.0000
T11	17	7983A(ELLIPTICAL)	20.00 - 40.00	0.6000	0.6000
T11	18	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	20	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	22	561(1-5/8)	20.00 - 40.00	0.6000	0.6000
T11	23	LDF4-50A(1/2)	20.00 - 40.00	0.6000	0.6000
T11	24	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	32	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T11	34	CR 50 1873(1-5/8)	20.00 - 40.00	0.6000	0.6000
T11	35	FB-L98-002-XXX(3/8)	20.00 - 40.00	0.6000	0.6000
T11	36	WR-VG82ST-BRDA(5/8)	20.00 - 40.00	0.6000	0.6000
T11	38	Safety Line 3/8	20.00 - 40.00	0.6000	0.6000
T12	2	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T12	4	HCS 6X12 6AWG(1-3/8)	0.00 - 20.00	0.6000	0.6000
T12	8	LDF1-50A(1/4)	0.00 - 12.00	0.6000	0.6000
T12	9	LDF4-50A(1/2)	0.00 - 12.00	0.6000	0.6000
T12	10	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T12	12	HB114-21U3M12-XXXF(1-1/4)	0.00 - 20.00	0.6000	0.6000
T12	14	2-1/4" Rigid Conduit	0.00 - 20.00	0.6000	0.6000
T12	15	LDF4-50A(1/2)	0.00 - 20.00	0.6000	0.6000
T12	16	9207(5/16)	0.00 - 20.00	0.0000	0.0000
T12	17	7983A(ELLIPTICAL)	0.00 - 20.00	0.6000	0.6000
T12	18	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T12	20	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T12	22	561(1-5/8)	0.00 - 20.00	0.6000	0.6000
T12	23	LDF4-50A(1/2)	0.00 - 20.00	0.6000	0.6000
T12	24	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T12	32	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T12	34	CR 50 1873(1-5/8)	0.00 - 20.00	0.6000	0.6000
T12	35	FB-L98-002-XXX(3/8)	0.00 - 20.00	0.6000	0.6000
T12	36	WR-VG82ST-BRDA(5/8)	0.00 - 20.00	0.6000	0.6000
T12	38	Safety Line 3/8	0.00 - 20.00	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Side Arm Mount [SO 305-1]	B	From Leg	1.500 0' 0'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	0.530 0.780 1.060 1.730	1.520 2.070 2.660 3.910	0.030 0.044 0.064 0.125
Side Arm Mount [SO 305-1]	C	From Leg	1.500 0' 0'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	0.530 0.780 1.060 1.730	1.520 2.070 2.660 3.910	0.030 0.044 0.064 0.125
S AIR 32 B2A/B66AA w/ Mount Pipe	A	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	6.747 7.202 7.648 8.565	6.070 6.867 7.583 9.063	0.153 0.214 0.282 0.441
AIR 32 B2A/B66AA w/ Mount Pipe	B	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	6.747 7.202 7.648 8.565	6.070 6.867 7.583 9.063	0.153 0.214 0.282 0.441
AIR 32 B2A/B66AA w/ Mount Pipe	C	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	6.747 7.202 7.648 8.565	6.070 6.867 7.583 9.063	0.153 0.214 0.282 0.441
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	14.690 15.460 16.230 17.820	6.870 7.550 8.250 9.670	0.186 0.315 0.458 0.788
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	14.690 15.460 16.230 17.820	6.870 7.550 8.250 9.670	0.186 0.315 0.458 0.788
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	14.690 15.460 16.230 17.820	6.870 7.550 8.250 9.670	0.186 0.315 0.458 0.788
AIR 3246 B66_T-MOBILE w/ Mount Pipe	A	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	8.270 8.753 9.225 10.193	6.635 7.483 8.224 9.754	0.248 0.318 0.397 0.578
AIR 3246 B66_T-MOBILE w/ Mount Pipe	B	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	8.270 8.753 9.225 10.193	6.635 7.483 8.224 9.754	0.248 0.318 0.397 0.578
AIR 3246 B66_T-MOBILE w/ Mount Pipe	C	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	8.270 8.753 9.225 10.193	6.635 7.483 8.224 9.754	0.248 0.318 0.397 0.578
AIR6449 B41 w/ Mount Pipe	A	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	5.893 6.257 6.630 7.406	3.284 3.742 4.217 5.215	0.118 0.167 0.221 0.350
AIR6449 B41 w/ Mount	B	From Leg	4.000	0.000	170'	No Ice	5.893	3.284	0.118

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Pipe			0' 0'			1/2" Ice 1" Ice 2" Ice	6.257 6.630 7.406	3.742 4.217 5.215	0.167 0.221 0.350
AIR6449 B41 w/ Mount Pipe	C	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	5.893 6.257 6.630 7.406	3.284 3.742 4.217 5.215	0.118 0.167 0.221 0.350
RADIO 4449 B71 B85A_T-MOBILE	A	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	1.970 2.147 2.331 2.721	1.587 1.749 1.918 2.280	0.073 0.093 0.116 0.170
RADIO 4449 B71 B85A_T-MOBILE	B	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	1.970 2.147 2.331 2.721	1.587 1.749 1.918 2.280	0.073 0.093 0.116 0.170
RADIO 4449 B71 B85A_T-MOBILE	C	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	1.970 2.147 2.331 2.721	1.587 1.749 1.918 2.280	0.073 0.093 0.116 0.170
RRUS 4415 B25_CCIV2	A	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	1.843 2.012 2.190 2.566	0.820 0.943 1.075 1.368	0.046 0.060 0.077 0.118
RRUS 4415 B25_CCIV2	B	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	1.843 2.012 2.190 2.566	0.820 0.943 1.075 1.368	0.046 0.060 0.077 0.118
RRUS 4415 B25_CCIV2	C	From Leg	4.000 0' 0'	0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	1.843 2.012 2.190 2.566	0.820 0.943 1.075 1.368	0.046 0.060 0.077 0.118
Sector Mount [SM 702-3]	C	None		0.000	170'	No Ice 1/2" Ice 1" Ice 2" Ice	38.890 50.400 61.770 84.350	38.890 50.400 61.770 84.350	1.551 2.279 3.217 5.705
S HPA-65R-BUU-H6	A	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	9.220 10.000 10.790 12.430	4.650 5.360 6.090 7.600	0.048 0.105 0.169 0.316
HPA-65R-BUU-H6	B	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	9.220 10.000 10.790 12.430	4.650 5.360 6.090 7.600	0.048 0.105 0.169 0.316
SBNHH-1D65A	C	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	3.080 3.400 3.730 4.410	1.850 2.140 2.450 3.090	0.034 0.073 0.117 0.222
QS66512-2	A	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	4.010 4.410 4.810 5.650	3.370 3.760 4.150 4.970	0.111 0.168 0.232 0.378

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
QS66512-2	B	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	4.010 4.410 4.810 5.650	3.370 3.760 4.150 4.970	0.111 0.168 0.232 0.378
QS46512-2	C	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	2.910 3.210 3.520 4.170	2.720 3.020 3.330 3.970	0.075 0.120 0.170 0.286
RRUS 4426 B66	A	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	1.644 1.804 1.972 2.329	0.725 0.842 0.969 1.244	0.048 0.061 0.076 0.115
RRUS 4426 B66	B	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	1.644 1.804 1.972 2.329	0.725 0.842 0.969 1.244	0.048 0.061 0.076 0.115
RRUS 4426 B66	C	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	1.644 1.804 1.972 2.329	0.725 0.842 0.969 1.244	0.048 0.061 0.076 0.115
RRUS 11	A	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	2.784 2.992 3.207 3.658	1.187 1.334 1.490 1.833	0.048 0.068 0.092 0.150
RRUS 11	B	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	2.784 2.992 3.207 3.658	1.187 1.334 1.490 1.833	0.048 0.068 0.092 0.150
RRUS 11	C	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	2.784 2.992 3.207 3.658	1.187 1.334 1.490 1.833	0.048 0.068 0.092 0.150
RRUS 32	A	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	2.857 3.083 3.316 3.805	1.777 1.968 2.166 2.583	0.055 0.077 0.103 0.165
RRUS 32	B	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	2.857 3.083 3.316 3.805	1.777 1.968 2.166 2.583	0.055 0.077 0.103 0.165
RRUS 32	C	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	2.857 3.083 3.316 3.805	1.777 1.968 2.166 2.583	0.055 0.077 0.103 0.165
RRUS 32 B2	B	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	2.731 2.953 3.182 3.663	1.668 1.855 2.049 2.458	0.053 0.074 0.098 0.157
RRUS 32 B2	A	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	2.731 2.953 3.182 3.663	1.668 1.855 2.049 2.458	0.053 0.074 0.098 0.157

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
RRUS 32 B2	C	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	2.731 2.953 3.182 3.663	1.668 1.855 2.049 2.458	0.053 0.074 0.098 0.157
RRUS 12	A	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	3.145 3.365 3.592 4.069	1.285 1.438 1.600 1.954	0.058 0.081 0.108 0.171
RRUS 12	B	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	3.145 3.365 3.592 4.069	1.285 1.438 1.600 1.954	0.058 0.081 0.108 0.171
RRUS 12	C	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	3.145 3.365 3.592 4.069	1.285 1.438 1.600 1.954	0.058 0.081 0.108 0.171
(2) DC6-48-60-18-8F	A	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	1.212 1.892 2.105 2.570	1.212 1.892 2.105 2.570	0.020 0.042 0.067 0.126
DC6-48-60-18-8F	B	From Leg	4.000 0' 0'	0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	1.212 1.892 2.105 2.570	1.212 1.892 2.105 2.570	0.020 0.042 0.067 0.126
Sector Mount [SM 201-3]	C	None		0.000	161'	No Ice 1/2" Ice 1" Ice 2" Ice	24.760 33.890 43.000 61.440	24.760 33.890 43.000 61.440	1.083 1.524 2.098 3.639
S Side Arm Mount [SO 203-1]	A	From Leg	1.500 0' 0'	0.000	157'	No Ice 1/2" Ice 1" Ice 2" Ice	1.780 2.240 2.750 3.890	3.790 4.470 5.210 6.780	0.125 0.153 0.189 0.291
Side Arm Mount [SO 203-1]	B	From Leg	1.500 0' 0'	0.000	157'	No Ice 1/2" Ice 1" Ice 2" Ice	1.780 2.240 2.750 3.890	3.790 4.470 5.210 6.780	0.125 0.153 0.189 0.291
S APXVTM14-ALU-I20 w/ Mount Pipe	A	From Leg	4.000 0' 0'	0.000	148'	No Ice 1/2" Ice 1" Ice 2" Ice	4.090 4.480 4.880 5.710	2.860 3.230 3.610 4.400	0.077 0.127 0.185 0.331
APXVTM14-ALU-I20 w/ Mount Pipe	B	From Leg	4.000 0' 0'	0.000	148'	No Ice 1/2" Ice 1" Ice 2" Ice	4.090 4.480 4.880 5.710	2.860 3.230 3.610 4.400	0.077 0.127 0.185 0.331
APXVTM14-ALU-I20 w/ Mount Pipe	C	From Leg	4.000 0' 0'	0.000	148'	No Ice 1/2" Ice 1" Ice 2" Ice	4.090 4.480 4.880 5.710	2.860 3.230 3.610 4.400	0.077 0.127 0.185 0.331
APXVSPP18-C-A20 w/ Mount Pipe	A	From Leg	4.000 0' 0'	0.000	148'	No Ice 1/2" Ice Ice	4.600 5.050 5.500	4.010 4.450 4.890	0.095 0.160 0.235

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice	6.440	5.820	0.419
						2" Ice			
APXVSPP18-C-A20 w/ Mount Pipe	B	From Leg	4.000 0' 0'	0.000	148'	No Ice	4.600	4.010	0.095
						1/2" Ice	5.050	4.450	0.160
						1" Ice	5.500	4.890	0.235
						2" Ice	6.440	5.820	0.419
APXVSPP18-C-A20 w/ Mount Pipe	C	From Leg	4.000 0' 0'	0.000	148'	No Ice	4.600	4.010	0.095
						1/2" Ice	5.050	4.450	0.160
						1" Ice	5.500	4.890	0.235
						2" Ice	6.440	5.820	0.419
(2) PCS 1900MHz 4x45W-65MHz	A	From Leg	4.000 0' 0'	0.000	148'	No Ice	2.322	2.238	0.060
						1/2" Ice	2.527	2.441	0.083
						1" Ice	2.739	2.651	0.110
						2" Ice	3.185	3.093	0.173
(2) PCS 1900MHz 4x45W-65MHz	B	From Leg	4.000 0' 0'	0.000	148'	No Ice	2.322	2.238	0.060
						1/2" Ice	2.527	2.441	0.083
						1" Ice	2.739	2.651	0.110
						2" Ice	3.185	3.093	0.173
(2) PCS 1900MHz 4x45W-65MHz	C	From Leg	4.000 0' 0'	0.000	148'	No Ice	2.322	2.238	0.060
						1/2" Ice	2.527	2.441	0.083
						1" Ice	2.739	2.651	0.110
						2" Ice	3.185	3.093	0.173
800MHZ 2X50W RRH	A	From Leg	4.000 0' 0'	0.000	148'	No Ice	2.134	1.773	0.053
						1/2" Ice	2.320	1.946	0.074
						1" Ice	2.512	2.127	0.098
						2" Ice	2.920	2.510	0.157
800MHZ 2X50W RRH	B	From Leg	4.000 0' 0'	0.000	148'	No Ice	2.134	1.773	0.053
						1/2" Ice	2.320	1.946	0.074
						1" Ice	2.512	2.127	0.098
						2" Ice	2.920	2.510	0.157
800MHZ 2X50W RRH	C	From Leg	4.000 0' 0'	0.000	148'	No Ice	2.134	1.773	0.053
						1/2" Ice	2.320	1.946	0.074
						1" Ice	2.512	2.127	0.098
						2" Ice	2.920	2.510	0.157
TD-RRH8x20-25	A	From Leg	4.000 0' 0'	0.000	148'	No Ice	4.045	1.535	0.070
						1/2" Ice	4.298	1.714	0.097
						1" Ice	4.557	1.901	0.128
						2" Ice	5.098	2.295	0.201
TD-RRH8x20-25	B	From Leg	4.000 0' 0'	0.000	148'	No Ice	4.045	1.535	0.070
						1/2" Ice	4.298	1.714	0.097
						1" Ice	4.557	1.901	0.128
						2" Ice	5.098	2.295	0.201
TD-RRH8x20-25	C	From Leg	4.000 0' 0'	0.000	148'	No Ice	4.045	1.535	0.070
						1/2" Ice	4.298	1.714	0.097
						1" Ice	4.557	1.901	0.128
						2" Ice	5.098	2.295	0.201
(3) 800 EXTERNAL NOTCH FILTER	A	From Leg	4.000 0' 0'	0.000	148'	No Ice	0.660	0.321	0.011
						1/2" Ice	0.763	0.398	0.017
						1" Ice	0.873	0.483	0.024
						2" Ice	1.115	0.674	0.045
(9) ACU-A20-N	B	From Leg	4.000 0' 0'	0.000	148'	No Ice	0.067	0.117	0.001
						1/2" Ice	0.104	0.162	0.002
						Ice	0.148	0.215	0.004

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice 2" Ice	0.259	0.343	0.012
Sector Mount [SM 502-3]	C	None		0.000	148'	No Ice 1/2" Ice 1" Ice 2" Ice	29.820 42.210 54.430 78.490	29.820 42.210 54.430 78.490	1.673 2.266 3.052 5.180
S									
LLPX310R w/ Mount Pipe	A	From Leg	4.000 0' 1'	0.000	134'	No Ice 1/2" Ice 1" Ice 2" Ice	3.880 4.290 4.720 5.610	2.360 2.730 3.120 3.940	0.057 0.091 0.133 0.238
LLPX310R w/ Mount Pipe	B	From Leg	4.000 0' 1'	0.000	134'	No Ice 1/2" Ice 1" Ice 2" Ice	3.880 4.290 4.720 5.610	2.360 2.730 3.120 3.940	0.057 0.091 0.133 0.238
LLPX310R w/ Mount Pipe	C	From Leg	4.000 0' 1'	0.000	134'	No Ice 1/2" Ice 1" Ice 2" Ice	3.880 4.290 4.720 5.610	2.360 2.730 3.120 3.940	0.057 0.091 0.133 0.238
RRH-2WB	A	From Leg	4.000 0' 1'	0.000	134'	No Ice 1/2" Ice 1" Ice 2" Ice	2.305 2.496 2.695 3.115	0.783 0.917 1.058 1.361	0.044 0.059 0.077 0.121
RRH-2WB	B	From Leg	4.000 0' 1'	0.000	134'	No Ice 1/2" Ice 1" Ice 2" Ice	2.305 2.496 2.695 3.115	0.783 0.917 1.058 1.361	0.044 0.059 0.077 0.121
RRH-2WB	C	From Leg	4.000 0' 1'	0.000	134'	No Ice 1/2" Ice 1" Ice 2" Ice	2.305 2.496 2.695 3.115	0.783 0.917 1.058 1.361	0.044 0.059 0.077 0.121
J - Box	C	From Leg	0.500 0' 0'	0.000	134'	No Ice 1/2" Ice 1" Ice 2" Ice	0.667 0.770 0.881 1.126	0.500 0.593 0.693 0.915	0.020 0.027 0.036 0.059
(3) 6' x 2" Mount Pipe	A	From Leg	4.000 0' 0'	0.000	134'	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
(3) 6' x 2" Mount Pipe	B	From Leg	4.000 0' 0'	0.000	134'	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
(3) 6' x 2" Mount Pipe	C	From Leg	4.000 0' 0'	0.000	134'	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
6' x 3" Mount Pipe	A	From Leg	4.000 0' 0'	0.000	134'	No Ice 1/2" Ice 1" Ice 2" Ice	1.767 2.129 2.501 3.272	1.767 2.129 2.501 3.272	0.030 0.044 0.061 0.109
6' x 3" Mount Pipe	C	From Leg	4.000 0'	0.000	134'	No Ice 1/2"	1.767 2.129	1.767 2.129	0.030 0.044

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0'			Ice	2.501	2.501	0.061
						1" Ice	3.272	3.272	0.109
						2" Ice			
Sector Mount [SM 504-3]	C	None		0.000	134'	No Ice	31.050	31.050	1.708
						1/2" Ice	43.830	43.830	2.326
						1" Ice	56.440	56.440	3.143
						2" Ice	81.280	81.280	5.358
S									
(2) DB844G65ZAXY w/ Mount Pipe	A	From Leg	4.000 0' 2'	0.000	126'	No Ice	4.578	4.802	0.034
						1/2" Ice	4.955	5.416	0.080
						1" Ice	5.340	6.040	0.132
						2" Ice	6.137	7.337	0.257
(2) DB844G65ZAXY w/ Mount Pipe	C	From Leg	4.000 0' 2'	0.000	126'	No Ice	4.578	4.802	0.034
						1/2" Ice	4.955	5.416	0.080
						1" Ice	5.340	6.040	0.132
						2" Ice	6.137	7.337	0.257
DB844H80-XY w/ Mount Pipe	A	From Leg	4.000 0' 2'	0.000	126'	No Ice	3.104	4.984	0.028
						1/2" Ice	3.476	5.600	0.068
						1" Ice	3.848	6.227	0.113
						2" Ice	4.604	7.529	0.224
DB844H80-XY w/ Mount Pipe	B	From Leg	4.000 0' 2'	0.000	126'	No Ice	3.104	4.984	0.028
						1/2" Ice	3.476	5.600	0.068
						1" Ice	3.848	6.227	0.113
						2" Ice	4.604	7.529	0.224
DB-T1-6Z-8AB-0Z	C	From Leg	4.000 0' 2'	0.000	126'	No Ice	4.800	2.000	0.044
						1/2" Ice	5.070	2.193	0.080
						1" Ice	5.348	2.393	0.120
						2" Ice	5.926	2.815	0.213
GPS_A	B	From Leg	4.000 0' 4'	0.000	126'	No Ice	0.255	0.255	0.001
						1/2" Ice	0.320	0.320	0.005
						1" Ice	0.393	0.393	0.010
						2" Ice	0.561	0.561	0.025
(2) SBNHH-1D65C w/ Mount Pipe	A	From Leg	4.000 0' 2'	0.000	126'	No Ice	5.560	4.470	0.083
						1/2" Ice	6.070	4.970	0.165
						1" Ice	6.590	5.480	0.260
						2" Ice	7.660	6.520	0.494
(2) SBNHH-1D65C w/ Mount Pipe	B	From Leg	4.000 0' 2'	0.000	126'	No Ice	5.560	4.470	0.083
						1/2" Ice	6.070	4.970	0.165
						1" Ice	6.590	5.480	0.260
						2" Ice	7.660	6.520	0.494
(2) SBNHH-1D65C w/ Mount Pipe	C	From Leg	4.000 0' 2'	0.000	126'	No Ice	5.560	4.470	0.083
						1/2" Ice	6.070	4.970	0.165
						1" Ice	6.590	5.480	0.260
						2" Ice	7.660	6.520	0.494
B25 RRH2x60 PCS	A	From Leg	4.000 0' 2'	0.000	126'	No Ice	2.140	1.306	0.051
						1/2" Ice	2.329	1.463	0.068
						1" Ice	2.526	1.626	0.089
						2" Ice	2.941	1.979	0.139
B25 RRH2x60 PCS	B	From Leg	4.000 0' 2'	0.000	126'	No Ice	2.140	1.306	0.051
						1/2" Ice	2.329	1.463	0.068
						1" Ice	2.526	1.626	0.089
						2" Ice	2.941	1.979	0.139
B25 RRH2x60 PCS	C	From Leg	4.000	0.000	126'	No Ice	2.140	1.306	0.051

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0'			1/2"	2.329	1.463	0.068
			2'			Ice	2.526	1.626	0.089
						1" Ice	2.941	1.979	0.139
						2" Ice			
B66A RRH4X45	A	From Leg	4.000	0.000	126'	No Ice	2.580	1.630	0.067
			0'			1/2"	2.794	1.811	0.087
			2'			Ice	3.015	1.999	0.111
						1" Ice	3.479	2.396	0.168
						2" Ice			
B66A RRH4X45	B	From Leg	4.000	0.000	126'	No Ice	2.580	1.630	0.067
			0'			1/2"	2.794	1.811	0.087
			2'			Ice	3.015	1.999	0.111
						1" Ice	3.479	2.396	0.168
						2" Ice			
B66A RRH4X45	C	From Leg	4.000	0.000	126'	No Ice	2.580	1.630	0.067
			0'			1/2"	2.794	1.811	0.087
			2'			Ice	3.015	1.999	0.111
						1" Ice	3.479	2.396	0.168
						2" Ice			
B13 RRH 4X30	A	From Leg	4.000	0.000	126'	No Ice	2.055	1.320	0.056
			0'			1/2"	2.241	1.475	0.073
			2'			Ice	2.433	1.638	0.093
						1" Ice	2.841	1.997	0.142
						2" Ice			
B13 RRH 4X30	B	From Leg	4.000	0.000	126'	No Ice	2.055	1.320	0.056
			0'			1/2"	2.241	1.475	0.073
			2'			Ice	2.433	1.638	0.093
						1" Ice	2.841	1.997	0.142
						2" Ice			
B13 RRH 4X30	C	From Leg	4.000	0.000	126'	No Ice	2.055	1.320	0.056
			0'			1/2"	2.241	1.475	0.073
			2'			Ice	2.433	1.638	0.093
						1" Ice	2.841	1.997	0.142
						2" Ice			
DB-T1-6Z-8AB-0Z	C	From Leg	4.000	0.000	126'	No Ice	4.800	2.000	0.044
			0'			1/2"	5.070	2.193	0.080
			2'			Ice	5.348	2.393	0.120
						1" Ice	5.926	2.815	0.213
						2" Ice			
(2) 6' x 2" Mount Pipe	B	From Leg	4.000	0.000	126'	No Ice	1.425	1.425	0.022
			0'			1/2"	1.925	1.925	0.033
			0'			Ice	2.294	2.294	0.048
						1" Ice	3.060	3.060	0.090
						2" Ice			
6' x 2" Mount Pipe	C	From Leg	4.000	0.000	126'	No Ice	1.425	1.425	0.022
			0'			1/2"	1.925	1.925	0.033
			0'			Ice	2.294	2.294	0.048
						1" Ice	3.060	3.060	0.090
						2" Ice			
5' x 2" Pipe Mount	B	From Leg	1.000	0.000	126'	No Ice	1.188	1.188	0.018
			0'			1/2"	1.496	1.496	0.027
			0'			Ice	1.807	1.807	0.040
						1" Ice	2.458	2.458	0.076
						2" Ice			
Sector Mount [SM 411-3]	C	None		0.000	126'	No Ice	20.530	20.530	1.069
						1/2"	28.620	28.620	1.457
						Ice	36.630	36.630	1.972
						1" Ice	52.730	52.730	3.369
						2" Ice			
S									
800 10504 w/ Mount Pipe	A	From Leg	4.000	0.000	112'	No Ice	2.690	2.260	0.038
			0'			1/2"	3.120	2.680	0.067
			0'			Ice	3.560	3.120	0.105
						1" Ice	4.490	4.030	0.206
						2" Ice			

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
800 10504 w/ Mount Pipe	B	From Leg	4.000 0' 0'	0.000	112'	No Ice 1/2" Ice 1" Ice 2" Ice	2.690 3.120 3.560 4.490	2.260 2.680 3.120 4.030	0.038 0.067 0.105 0.206
800 10504 w/ Mount Pipe	C	From Leg	4.000 0' 0'	0.000	112'	No Ice 1/2" Ice 1" Ice 2" Ice	2.690 3.120 3.560 4.490	2.260 2.680 3.120 4.030	0.038 0.067 0.105 0.206
6' x 2" Mount Pipe	A	From Leg	4.000 0' 0'	0.000	112'	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
6' x 2" Mount Pipe	B	From Leg	4.000 0' 0'	0.000	112'	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
6' x 2" Mount Pipe	C	From Leg	4.000 0' 0'	0.000	112'	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
Sector Mount [SM 104-3]	C	None		0.000	112'	No Ice 1/2" Ice 1" Ice 2" Ice	30.210 38.120 46.010 62.030	30.210 38.120 46.010 62.030	0.953 1.432 2.031 3.577
102 *S* GPS_A	A	From Face	2.000 0' 1'	0.000	12'	No Ice 1/2" Ice 1" Ice 2" Ice	0.255 0.320 0.393 0.561	0.255 0.320 0.393 0.561	0.001 0.005 0.010 0.025
3' x 2" Pipe Mount	A	From Face	2.000 0' 0'	0.000	12'	No Ice 1/2" Ice 1" Ice 2" Ice	0.583 0.770 0.967 1.388	0.583 0.770 0.967 1.388	0.011 0.017 0.024 0.047
ASPP2933	A	From Face	0.500 0' 2'	0.000	12'	No Ice 1/2" Ice 1" Ice 2" Ice	0.196 0.320 0.453 0.748	0.196 0.320 0.453 0.748	0.004 0.006 0.009 0.021
Side Arm Mount [SO 701-1] ** **********	A	From Face	1.500 0' 0'	0.000	12'	No Ice 1/2" Ice 1" Ice 2" Ice	0.850 1.140 1.430 2.010	1.670 2.340 3.010 4.350	0.065 0.079 0.093 0.121

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
VHLP2-18	A	Paraboloid w/Shroud (HP)	From Leg	3.000 0' 0'	-10.000		157'	2.175	No Ice 1/2" Ice 1" Ice 2" Ice	3.720 4.010 4.300 4.880	0.031 0.050 0.070 0.110
VHLP2-18	B	Paraboloid w/Shroud (HP)	From Leg	3.000 0' 0'	-40.000		157'	2.175	No Ice 1/2" Ice 1" Ice 2" Ice	3.720 4.010 4.300 4.880	0.031 0.050 0.070 0.110
**											
VHLP2-23	A	Paraboloid w/Shroud (HP)	From Leg	4.000 0' 1'	50.000		134'	2.175	No Ice 1/2" Ice 1" Ice 2" Ice	3.720 4.000 4.310 4.940	0.030 0.030 0.040 0.070
**											

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

Comb. No.	Description
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
T1	180 - 160	Leg	Max Tension	15	5.188	-0.130	0.011
			Max. Compression	10	-10.640	0.475	0.048
			Max. Mx	22	3.418	-0.526	-0.041
			Max. My	17	-2.632	-0.020	0.432
			Max. Vy	22	-1.484	0.032	0.002
			Max. Vx	17	1.364	0.003	-0.108
		Diagonal	Max Tension	24	2.451	0.000	0.000
			Max. Compression	25	-2.390	0.000	0.000
			Max. Mx	27	0.515	0.025	-0.004
			Max. My	34	0.597	0.025	0.004
			Max. Vy	27	0.026	0.025	-0.004
			Max. Vx	34	-0.001	0.000	0.000
		Top Girt	Max Tension	3	0.065	0.000	0.000
			Max. Compression	14	-0.088	0.000	0.000
			Max. Mx	26	-0.038	-0.047	0.000
			Max. My	26	-0.038	0.000	0.001
			Max. Vy	26	-0.028	0.000	0.000
			Max. Vx	26	-0.001	0.000	0.000
		Mid Girt	Max Tension	19	0.528	0.000	0.000
			Max. Compression	22	-0.540	0.000	0.000
			Max. Mx	26	-0.012	-0.063	0.000
			Max. My	26	-0.011	0.000	0.002
			Max. Vy	26	-0.033	0.000	0.000
			Max. Vx	26	-0.001	0.000	0.000
T2	160 - 153.333	Leg	Max Tension	15	9.927	-0.519	0.060
			Max. Compression	10	-16.743	0.214	-0.013
			Max. Mx	22	8.906	-0.526	-0.041
			Max. My	17	-2.693	-0.020	0.432
			Max. Vy	19	0.182	0.485	0.011
			Max. Vx	16	0.190	-0.028	0.432
		Diagonal	Max Tension	13	3.848	0.000	0.000
			Max. Compression	12	-4.021	0.000	0.000
			Max. Mx	28	0.412	0.042	0.005
			Max. My	27	-1.128	0.040	-0.007
			Max. Vy	28	0.037	0.042	0.005
			Max. Vx	27	0.002	0.000	0.000
T3	153.333 - 146.667	Leg	Max Tension	15	17.340	-0.247	0.004
			Max. Compression	10	-26.321	0.493	-0.032
			Max. Mx	14	15.153	0.571	-0.036
			Max. My	16	-4.123	-0.031	-0.604
			Max. Vy	14	0.830	-0.523	-0.036
			Max. Vx	12	0.766	-0.022	-0.415
		Diagonal	Max Tension	13	4.118	0.000	0.000
			Max. Compression	12	-4.396	0.000	0.000
			Max. Mx	30	0.695	0.047	0.007
			Max. My	28	0.630	0.047	-0.007
			Max. Vy	30	0.039	0.047	0.007
			Max. Vx	28	0.002	0.000	0.000
		Top Girt	Max Tension	14	0.648	0.000	0.000
			Max. Compression	11	-0.363	0.000	0.000
			Max. Mx	26	0.373	-0.112	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	26	0.360	0.000	0.003
			Max. Vy	26	0.047	0.000	0.000
			Max. Vx	26	-0.001	0.000	0.000
T4	146.667 - 140	Leg	Max Tension	15	24.856	-0.518	-0.036
			Max. Compression	10	-35.834	0.011	-0.031
			Max. Mx	14	23.469	-0.523	-0.036
			Max. My	12	-5.456	-0.022	-0.415
			Max. Vy	3	0.134	0.502	0.037
			Max. Vx	13	-0.126	-0.016	-0.415
		Diagonal	Max Tension	13	5.135	0.000	0.000
			Max. Compression	12	-5.267	0.000	0.000
			Max. Mx	32	1.298	0.052	-0.007
			Max. My	35	-1.509	0.046	0.008
			Max. Vy	32	0.042	0.051	0.007
			Max. Vx	35	-0.002	0.000	0.000
		Top Girt	Max Tension	29	0.302	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	26	0.290	-0.128	0.000
			Max. My	26	0.288	0.000	0.004
			Max. Vy	26	0.050	0.000	0.000
			Max. Vx	26	-0.002	0.000	0.000
T5	140 - 120	Leg	Max Tension	15	53.381	-0.375	-0.029
			Max. Compression	18	-70.806	0.477	0.003
			Max. Mx	2	-70.747	0.479	0.036
			Max. My	12	-9.748	0.001	-0.668
			Max. Vy	6	-1.027	-0.406	-0.008
			Max. Vx	24	0.972	-0.047	0.350
		Diagonal	Max Tension	4	7.194	0.000	0.000
			Max. Compression	16	-7.205	0.000	0.000
			Max. Mx	33	1.555	0.073	-0.009
			Max. My	38	-0.962	0.067	0.010
			Max. Vy	33	0.050	0.073	-0.009
			Max. Vx	38	-0.003	0.000	0.000
T6	120 - 100	Leg	Max Tension	15	88.125	-0.413	0.006
			Max. Compression	2	-110.601	0.763	-0.007
			Max. Mx	3	-107.891	0.766	-0.007
			Max. My	12	-10.158	0.001	-0.668
			Max. Vy	22	-0.464	-0.567	0.037
			Max. Vx	4	-0.446	-0.032	-0.407
		Diagonal	Max Tension	20	8.519	0.000	0.000
			Max. Compression	20	-8.497	0.000	0.000
			Max. Mx	35	2.078	0.109	0.013
			Max. My	37	-2.278	0.098	0.014
			Max. Vy	33	0.066	0.107	-0.013
			Max. Vx	37	-0.003	0.000	0.000
T7	100 - 80	Leg	Max Tension	15	119.786	-0.497	0.024
			Max. Compression	2	-146.518	0.544	-0.020
			Max. Mx	3	-123.804	0.766	-0.007
			Max. My	16	-12.705	-0.027	0.787
			Max. Vy	22	-0.138	-0.740	0.094
			Max. Vx	16	0.187	-0.027	0.787
		Diagonal	Max Tension	20	9.508	0.000	0.000
			Max. Compression	8	-9.451	0.000	0.000
			Max. Mx	33	2.320	0.172	0.023
			Max. My	37	2.108	0.171	0.024
			Max. Vy	33	0.086	0.172	0.023
			Max. Vx	37	-0.005	0.000	0.000
T8	80 - 70	Leg	Max Tension	15	136.567	-0.581	0.019
			Max. Compression	2	-165.583	2.141	-0.008
			Max. Mx	2	-165.583	2.141	-0.008
			Max. My	12	-15.780	0.061	-1.877
			Max. Vy	2	-0.291	2.141	-0.008
			Max. Vx	16	-0.312	0.053	1.877
		Diagonal	Max Tension	20	9.809	0.000	0.000
			Max. Compression	20	-9.935	0.000	0.000
			Max. Mx	33	1.982	0.193	-0.024
			Max. My	37	1.887	0.192	0.025
			Max. Vy	33	0.091	0.193	-0.024

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	37	-0.005	0.000	0.000
T9	70 - 60	Leg	Max Tension	15	153.297	-1.914	0.005
			Max. Compression	2	-185.105	0.227	-0.023
			Max. Mx	2	-184.930	2.141	-0.008
			Max. My	12	-16.614	0.061	-1.877
			Max. Vy	2	0.321	2.141	-0.008
			Max. Vx	4	-0.320	0.060	-1.863
		Diagonal	Max Tension	24	10.509	0.000	0.000
			Max. Compression	20	-10.684	0.000	0.000
			Max. Mx	33	2.400	-0.336	-0.040
			Max. My	31	-3.248	-0.293	0.047
			Max. Vy	33	-0.157	-0.336	-0.040
			Max. Vx	31	-0.009	0.000	0.000
T10	60 - 40	Leg	Max Tension	15	186.527	-1.187	0.011
			Max. Compression	2	-223.983	1.593	-0.016
			Max. Mx	37	13.374	-2.463	0.057
			Max. My	16	-19.062	0.055	1.301
			Max. Vy	29	0.378	-2.446	-0.038
			Max. Vx	17	-0.255	-0.024	1.294
		Diagonal	Max Tension	24	10.942	0.000	0.000
			Max. Compression	10	-11.259	0.000	0.000
			Max. Mx	33	2.014	0.263	-0.031
			Max. My	31	-2.512	0.234	-0.035
			Max. Vy	33	0.115	0.259	0.033
			Max. Vx	31	0.006	0.000	0.000
T11	40 - 20	Leg	Max Tension	15	218.990	-0.805	0.009
			Max. Compression	2	-262.801	2.683	-0.019
			Max. Mx	33	24.499	-5.815	-0.009
			Max. My	12	-22.228	-0.203	-1.393
			Max. Vy	37	0.972	-5.813	0.064
			Max. Vx	16	0.193	-0.206	1.385
		Diagonal	Max Tension	24	11.576	0.000	0.000
			Max. Compression	10	-12.016	0.000	0.000
			Max. Mx	33	1.319	0.358	0.038
			Max. My	31	4.397	0.284	-0.044
			Max. Vy	33	0.135	0.358	0.038
			Max. Vx	31	0.007	0.000	0.000
T12	20 - 0	Leg	Max Tension	15	249.552	-1.047	-0.000
			Max. Compression	2	-301.754	0.000	0.000
			Max. Mx	33	30.793	-5.815	-0.009
			Max. My	12	-26.316	-0.280	-2.706
			Max. Vy	29	-1.146	-5.788	-0.036
			Max. Vx	16	0.407	-0.283	2.656
		Diagonal	Max Tension	24	12.680	0.000	0.000
			Max. Compression	10	-13.349	0.000	0.000
			Max. Mx	33	-1.321	-0.796	0.068
			Max. My	32	7.725	-0.432	0.091
			Max. Vy	33	-0.250	-0.796	0.068
			Max. Vx	32	-0.013	0.000	0.000

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	18	300.437	31.913	-17.536
	Max. H_x	18	300.437	31.913	-17.536
	Max. H_z	5	-213.966	-23.329	15.026
	Min. Vert	7	-238.488	-26.507	14.498
	Min. H_x	7	-238.488	-26.507	14.498
	Min. H_z	18	300.437	31.913	-17.536
Leg B	Max. Vert	10	302.123	-32.356	-17.350
	Max. H_x	23	-240.900	26.996	14.337
	Max. H_z	25	-221.446	24.057	15.890
	Min. Vert	23	-240.900	26.996	14.337

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg A	Min. H_x	10	302.123	-32.356	-17.350
	Min. H_z	12	269.439	-27.711	-17.921
	Max. Vert	2	311.592	0.091	38.893
	Max. H_x	21	16.993	3.475	1.652
	Max. H_z	2	311.592	0.091	38.893
	Min. Vert	15	-257.158	-0.086	-32.893
	Min. H_x	8	24.289	-3.474	2.386
	Min. H_z	15	-257.158	-0.086	-32.893

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	65.374	0.000	0.000	45.527	1.272	0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	78.449	0.160	-62.590	-6179.999	-18.504	4.381
0.9 Dead+1.0 Wind 0 deg - No Ice	58.837	0.160	-62.590	-6193.657	-18.885	4.381
1.2 Dead+1.0 Wind 30 deg - No Ice	78.449	29.137	-50.317	-5015.763	-2935.332	44.918
0.9 Dead+1.0 Wind 30 deg - No Ice	58.837	29.137	-50.317	-5029.421	-2935.714	44.918
1.2 Dead+1.0 Wind 60 deg - No Ice	78.449	47.126	-27.280	-2757.749	-4852.063	31.644
0.9 Dead+1.0 Wind 60 deg - No Ice	58.837	47.126	-27.280	-2771.408	-4852.444	31.644
1.2 Dead+1.0 Wind 90 deg - No Ice	78.449	53.548	-0.123	40.285	-5557.191	31.427
0.9 Dead+1.0 Wind 90 deg - No Ice	58.837	53.548	-0.123	26.627	-5557.573	31.427
1.2 Dead+1.0 Wind 120 deg - No Ice	78.449	50.714	29.212	3024.463	-5153.153	47.822
0.9 Dead+1.0 Wind 120 deg - No Ice	58.837	50.714	29.212	3010.805	-5153.534	47.822
1.2 Dead+1.0 Wind 150 deg - No Ice	78.449	30.148	52.314	5302.390	-3020.904	32.841
0.9 Dead+1.0 Wind 150 deg - No Ice	58.837	30.148	52.314	5288.732	-3021.285	32.841
1.2 Dead+1.0 Wind 180 deg - No Ice	78.449	-0.168	59.157	6005.918	22.311	-4.095
0.9 Dead+1.0 Wind 180 deg - No Ice	58.837	-0.168	59.157	5992.259	21.929	-4.095
1.2 Dead+1.0 Wind 210 deg - No Ice	78.449	-29.192	50.376	5133.763	2946.554	-44.771
0.9 Dead+1.0 Wind 210 deg - No Ice	58.837	-29.192	50.376	5120.105	2946.173	-44.771
1.2 Dead+1.0 Wind 240 deg - No Ice	78.449	-50.191	29.068	3019.192	5114.065	-31.684
0.9 Dead+1.0 Wind 240 deg - No Ice	58.837	-50.191	29.068	3005.533	5113.683	-31.684
1.2 Dead+1.0 Wind 270 deg - No Ice	78.449	-53.613	0.133	70.357	5569.730	-31.342
0.9 Dead+1.0 Wind 270 deg - No Ice	58.837	-53.613	0.133	56.698	5569.348	-31.342
1.2 Dead+1.0 Wind 300 deg - No Ice	78.449	-47.734	-27.427	-2763.420	4909.831	-47.905
0.9 Dead+1.0 Wind 300 deg - No Ice	58.837	-47.734	-27.427	-2777.078	4909.450	-47.905
1.2 Dead+1.0 Wind 330 deg - No Ice	78.449	-30.148	-52.277	-5187.067	3024.198	-33.103
0.9 Dead+1.0 Wind 330 deg - No Ice	58.837	-30.148	-52.277	-5200.725	3023.816	-33.103
1.2 Dead+1.0 Ice+1.0 Temp	154.851	0.000	-0.000	137.062	20.415	0.000
1.2 Dead+1.0 Wind 0	154.851	0.033	-16.747	-1545.782	16.329	-2.308

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
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	154.851	7.853	-13.572	-1245.746	-779.786	7.560
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	154.851	12.939	-7.486	-637.865	-1318.072	9.564
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	154.851	15.147	-0.025	134.158	-1549.180	11.469
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	154.851	14.052	8.099	963.959	-1413.829	16.108
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	154.851	8.194	14.214	1577.373	-809.578	13.964
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	154.851	-0.035	16.210	1776.775	24.660	2.368
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	154.851	-7.864	13.584	1521.687	822.316	-7.530
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	154.851	-13.423	7.769	935.740	1399.077	-9.572
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	154.851	-15.160	0.028	140.253	1591.984	-11.451
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	154.851	-13.585	-7.817	-666.168	1417.102	-16.125
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	154.851	-8.194	-14.206	-1301.991	850.459	-14.019
Dead+Wind 0 deg - Service	65.374	0.042	-16.471	-1595.165	-3.999	1.153
Dead+Wind 30 deg - Service	65.374	7.668	-13.241	-1288.787	-771.586	11.820
Dead+Wind 60 deg - Service	65.374	12.402	-7.179	-694.573	-1275.989	8.327
Dead+Wind 90 deg - Service	65.374	14.092	-0.032	41.752	-1461.549	8.270
Dead+Wind 120 deg - Service	65.374	13.346	7.687	827.061	-1355.223	12.585
Dead+Wind 150 deg - Service	65.374	7.934	13.767	1426.516	-794.105	8.642
Dead+Wind 180 deg - Service	65.374	-0.044	15.568	1611.655	6.741	-1.078
Dead+Wind 210 deg - Service	65.374	-7.682	13.257	1382.141	776.279	-11.782
Dead+Wind 240 deg - Service	65.374	-13.208	7.649	825.674	1346.677	-8.338
Dead+Wind 270 deg - Service	65.374	-14.109	0.035	49.665	1466.588	-8.248
Dead+Wind 300 deg - Service	65.374	-12.562	-7.218	-696.066	1292.931	-12.607
Dead+Wind 330 deg - Service	65.374	-7.934	-13.757	-1333.867	796.712	-8.711

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	0.000	-65.374	0.000	0.000	65.374	0.000	0.000%
2	0.160	-78.449	-62.590	-0.160	78.449	62.590	0.000%
3	0.160	-58.837	-62.590	-0.160	58.837	62.590	0.000%
4	29.137	-78.449	-50.317	-29.137	78.449	50.317	0.000%
5	29.137	-58.837	-50.317	-29.137	58.837	50.317	0.000%
6	47.126	-78.449	-27.280	-47.126	78.449	27.280	0.000%
7	47.126	-58.837	-27.280	-47.126	58.837	27.280	0.000%
8	53.548	-78.449	-0.123	-53.548	78.449	0.123	0.000%
9	53.548	-58.837	-0.123	-53.548	58.837	0.123	0.000%
10	50.714	-78.449	29.212	-50.714	78.449	-29.212	0.000%
11	50.714	-58.837	29.212	-50.714	58.837	-29.212	0.000%
12	30.148	-78.449	52.314	-30.148	78.449	-52.314	0.000%
13	30.148	-58.837	52.314	-30.148	58.837	-52.314	0.000%
14	-0.168	-78.449	59.157	0.168	78.449	-59.157	0.000%
15	-0.168	-58.837	59.157	0.168	58.837	-59.157	0.000%
16	-29.192	-78.449	50.376	29.192	78.449	-50.376	0.000%
17	-29.192	-58.837	50.376	29.192	58.837	-50.376	0.000%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
18	-50.191	-78.449	29.068	50.191	78.449	-29.068	0.000%
19	-50.191	-58.837	29.068	50.191	58.837	-29.068	0.000%
20	-53.613	-78.449	0.133	53.613	78.449	-0.133	0.000%
21	-53.613	-58.837	0.133	53.613	58.837	-0.133	0.000%
22	-47.734	-78.449	-27.427	47.734	78.449	27.427	0.000%
23	-47.734	-58.837	-27.427	47.734	58.837	27.427	0.000%
24	-30.148	-78.449	-52.277	30.148	78.449	52.277	0.000%
25	-30.148	-58.837	-52.277	30.148	58.837	52.277	0.000%
26	0.000	-154.851	0.000	0.000	154.851	0.000	0.000%
27	0.033	-154.851	-16.747	-0.033	154.851	16.747	0.000%
28	7.853	-154.851	-13.572	-7.853	154.851	13.572	0.000%
29	12.939	-154.851	-7.486	-12.939	154.851	7.486	0.000%
30	15.147	-154.851	-0.025	-15.147	154.851	0.025	0.000%
31	14.052	-154.851	8.099	-14.052	154.851	-8.099	0.000%
32	8.194	-154.851	14.214	-8.194	154.851	-14.214	0.000%
33	-0.035	-154.851	16.210	0.035	154.851	-16.210	0.000%
34	-7.864	-154.851	13.584	7.864	154.851	-13.584	0.000%
35	-13.423	-154.851	7.769	13.423	154.851	-7.769	0.000%
36	-15.160	-154.851	0.028	15.160	154.851	-0.028	0.000%
37	-13.585	-154.851	-7.817	13.585	154.851	7.817	0.000%
38	-8.194	-154.851	-14.206	8.194	154.851	14.206	0.000%
39	0.042	-65.374	-16.471	-0.042	65.374	16.471	0.000%
40	7.668	-65.374	-13.241	-7.668	65.374	13.241	0.000%
41	12.402	-65.374	-7.179	-12.402	65.374	7.179	0.000%
42	14.092	-65.374	-0.032	-14.092	65.374	0.032	0.000%
43	13.346	-65.374	7.687	-13.346	65.374	-7.687	0.000%
44	7.934	-65.374	13.767	-7.934	65.374	-13.767	0.000%
45	-0.044	-65.374	15.568	0.044	65.374	-15.568	0.000%
46	-7.682	-65.374	13.257	7.682	65.374	-13.257	0.000%
47	-13.208	-65.374	7.649	13.208	65.374	-7.649	0.000%
48	-14.109	-65.374	0.035	14.109	65.374	-0.035	0.000%
49	-12.562	-65.374	-7.218	12.562	65.374	7.218	0.000%
50	-7.934	-65.374	-13.757	7.934	65.374	13.757	0.000%

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	180 - 160	2.777	44	0.116	0.011
T2	160 - 153.333	2.284	44	0.114	0.011
T3	153.333 - 146.667	2.120	44	0.113	0.011
T4	146.667 - 140	1.960	44	0.110	0.011
T5	140 - 120	1.801	44	0.106	0.011
T6	120 - 100	1.351	44	0.095	0.010
T7	100 - 80	0.951	44	0.080	0.009
T8	80 - 70	0.623	44	0.064	0.007
T9	70 - 60	0.482	44	0.056	0.006
T10	60 - 40	0.365	44	0.048	0.005
T11	40 - 20	0.171	44	0.030	0.003
T12	20 - 0	0.048	39	0.016	0.001

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
178'	Side Arm Mount [SO 305-1]	44	2.727	0.116	0.011	Inf
170'	AIR 32 B2A/B66AA w/ Mount Pipe	44	2.530	0.116	0.011	Inf
161'	HPA-65R-BUU-H6	44	2.309	0.115	0.011	Inf

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
157'	VHLP2-18	44	2.210	0.114	0.011	266293
148'	APXVTM14-ALU-I20 w/ Mount Pipe	44	1.992	0.111	0.011	260952
135'	VHLP2-23	44	1.685	0.104	0.011	118076
134'	LLPX310R w/ Mount Pipe	44	1.662	0.103	0.011	116842
126'	(2) DB844G65ZAXY w/ Mount Pipe	44	1.481	0.099	0.011	106827
112'	800 10504 w/ Mount Pipe	44	1.183	0.089	0.010	77045
12'	GPS_A	39	0.023	0.010	0.001	83542

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	180 - 160	10.539	3	0.438	0.043
T2	160 - 153.333	8.674	3	0.433	0.043
T3	153.333 - 146.667	8.054	3	0.427	0.043
T4	146.667 - 140	7.445	3	0.417	0.044
T5	140 - 120	6.844	3	0.403	0.043
T6	120 - 100	5.136	3	0.360	0.040
T7	100 - 80	3.621	3	0.301	0.033
T8	80 - 70	2.376	3	0.240	0.026
T9	70 - 60	1.843	3	0.212	0.022
T10	60 - 40	1.399	3	0.180	0.019
T11	40 - 20	0.659	3	0.113	0.011
T12	20 - 0	0.185	3	0.059	0.004

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
178'	Side Arm Mount [SO 305-1]	3	10.353	0.438	0.043	Inf
170'	AIR 32 B2A/B66AA w/ Mount Pipe	3	9.607	0.438	0.042	673997
161'	HPA-65R-BUU-H6	3	8.768	0.434	0.042	Inf
157'	VHLP2-18	3	8.394	0.431	0.043	73885
148'	APXVTM14-ALU-I20 w/ Mount Pipe	3	7.566	0.419	0.044	71135
135'	VHLP2-23	3	6.402	0.393	0.043	31238
134'	LLPX310R w/ Mount Pipe	3	6.315	0.391	0.043	30897
126'	(2) DB844G65ZAXY w/ Mount Pipe	3	5.631	0.374	0.041	28417
112'	800 10504 w/ Mount Pipe	3	4.501	0.338	0.037	20576
12'	GPS_A	3	0.088	0.036	0.002	21865

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	180	Leg	A325N	0.875	4	1.297	41.556	0.031	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	2.451	8.135	0.301	1.05	Member Block Shear
		Top Girt	A325N	0.625	1	0.065	5.423	0.012	1.05	Member Block Shear

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load / Allowable	Allowable Ratio	Criteria
		Mid Girt	A325N	0.625	1	0.528	5.423	0.097	1.05	Member Block Shear
T2	160	Diagonal	A325N	0.625	1	3.848	11.310	0.340	1.05	Member Bearing
T3	153.333	Diagonal	A325N	0.625	1	4.118	11.310	0.364	1.05	Member Bearing
		Top Girt	A325N	0.625	1	0.648	5.655	0.115	1.05	Member Bearing
T4	146.667	Leg	A325N	1.000	4	6.214	54.517	0.114	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	5.135	11.310	0.454	1.05	Member Bearing
		Top Girt	A325N	0.625	1	0.290	5.655	0.051	1	Member Bearing
T5	140	Leg	A325N	1.000	6	8.897	54.517	0.163	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	7.194	11.310	0.636	1.05	Member Bearing
T6	120	Leg	A325N	1.000	6	14.688	54.517	0.269	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	8.519	12.675	0.672	1.05	Member Bearing
T7	100	Leg	A325N	1.000	8	14.973	54.517	0.275	1.05	Bolt Tension
		Diagonal	A325N	0.750	1	9.508	14.137	0.673	1.05	Member Bearing
T8	80	Diagonal	A325N	0.750	1	9.809	14.137	0.694	1.05	Member Bearing
T9	70	Leg	A325N	1.000	8	19.162	54.517	0.351	1.05	Bolt Tension
		Diagonal	A325N	0.750	1	10.509	20.227	0.520	1.05	Gusset Bearing
T10	60	Leg	A325N	1.000	8	23.316	54.517	0.428	1.05	Bolt Tension
		Diagonal	A325N	0.750	1	10.942	14.137	0.774	1.05	Member Bearing
T11	40	Leg	A325N	1.000	8	27.374	54.517	0.502	1.05	Bolt Tension
		Diagonal	A325N	0.750	1	11.576	17.672	0.655	1.05	Member Bearing
T12	20	Diagonal	A325N	0.750	1	12.680	20.227	0.627	1.05	Gusset Bearing

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	ROHN 3 EH	20'7/16"	5'3/32"	52.9 K=1.00	3.016	-10.640	110.608	0.096 [1]
T2	160 - 153.333	ROHN 4 EH	6'8-5/32"	6'8-5/32"	54.3 K=1.00	4.407	-16.743	159.906	0.105 [1]
T3	153.333 - 146.667	ROHN 4 EH	6'8-5/32"	6'8-5/32"	54.3 K=1.00	4.407	-26.321	159.905	0.165 [1]
T4	146.667 - 140	ROHN 4 EH	6'8-5/32"	6'8-5/32"	54.3 K=1.00	4.407	-35.834	159.906	0.224 [1]
T5	140 - 120	ROHN 5 EH	20'7/16"	6'8-5/32"	43.6 K=1.00	6.112	-70.806	239.378	0.296 [1]
T6	120 - 100	ROHN 6 EHS	20'3/8"	6'8-1/8"	36.0 K=1.00	6.713	-110.601	274.776	0.403 [1]
T7	100 - 80	ROHN 6 EH	20'15/32"	10'7/32"	54.8 K=1.00	8.405	-146.518	303.717	0.482 [1]
T8	80 - 70	ROHN 8 EHS	10'7/32"	10'7/32"	41.2 K=1.00	9.719	-165.583	386.395	0.429 [1]
T9	70 - 60	ROHN 8 EHS	10'7/32"	10'7/32"	41.2 K=1.00	9.719	-185.105	386.395	0.479 [1]
T10	60 - 40	ROHN 8 EHS	20'13/32"	10'7/32"	41.2 K=1.00	9.719	-223.983	386.397	0.580 [1]
T11	40 - 20	ROHN 8 EH	20'13/3	10'7/32'	41.8	12.763	-262.801	505.555	0.520 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T12	20 - 0	ROHN 8 EH	2" 20'13/32"	' 10'7/32"	K=1.00 41.8 K=1.00	12.763	-301.754	505.555	0.597 [1]

[1] P_u / ϕP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	L2x2x3/16	9'10-3/8"	4'9-15/32"	145.8 K=1.00	0.715	-2.390	9.623	0.248 [1]
T2	160 - 153.333	L2 1/2x2 1/2x1/4	11'3-7/16"	5'6"	134.4 K=1.00	1.190	-4.021	18.851	0.213 [1]
T3	153.333 - 146.667	L2 1/2x2 1/2x1/4	11'10-7/32"	5'9-13/32"	141.4 K=1.00	1.190	-4.396	17.047	0.258 [1]
T4	146.667 - 140	L2 1/2x2 1/2x1/4	12'5-5/32"	6'7/8"	148.4 K=1.00	1.190	-5.267	15.466	0.341 [1]
T5	140 - 120	L2 1/2x2 1/2x1/4	14'2-3/4"	6'11-3/32"	169.2 K=1.00	1.190	-7.205	11.895	0.606 [1]
T6	120 - 100	L3x3x1/4	15'11-7/8"	7'8-29/32"	157.0 K=1.00	1.440	-8.497	16.730	0.508 [1]
T7	100 - 80	L3 1/2x3 1/2x1/4	19'3-3/32"	9'5-25/32"	164.0 K=1.00	1.690	-9.451	17.990	0.525 [1]
T8	80 - 70	L3 1/2x3 1/2x1/4	20'1-13/16"	9'9-25/32"	169.7 K=1.00	1.690	-9.935	16.792	0.592 [1]
T9	70 - 60	2L3 1/2x3 1/2x1/4x3/8 2L 'a' > 58.773 in - 136	21'11/32"	10'3-3/32"	189.4 K=1.00	3.380	-10.684	26.610	0.402 [1]
T10	60 - 40	L4x4x1/4	22'9-23/32"	11'1-25/32"	168.3 K=1.00	1.940	-11.259	19.609	0.574 [1]
T11	40 - 20	L4x4x5/16	24'7-1/2"	12'11/16"	182.9 K=1.00	2.400	-12.016	20.532	0.585 [1]
T12	20 - 0	2L4x4x5/16x3/8 2L 'a' > 74.511 in - 176	26'5-9/16"	12'11-3/4"	211.6 K=1.00	4.800	-13.349	30.424	0.439 [1]

[1] P_u / ϕP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	L2x2x1/8	6'8-1/4"	6'1-3/4"	185.5 K=1.00	0.484	-0.088	4.028	0.022 [1]
T3	153.333 - 146.667	L2 1/2x2 1/2x1/8 KL/R > 200 (C) - 48	9'5-13/32"	8'9-29/32"	212.2 K=1.00	0.609	-0.363	3.875	0.094 [1]

[1] P_u / ϕP_n controls

Mid Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	L2x2x1/8 KL/R > 200 (C) - 9	7'8-11/16"	7'2-3/16"	216.8 K=1.00	0.484	-0.540	2.950	0.183 [1]

[1] P_u / ϕP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	ROHN 3 EH	20'7/16"	5'3/32"	52.9	3.016	5.188	135.717	0.038 [1]
T2	160 - 153.333	ROHN 4 EH	6'8-5/32"	6'8-5/32"	54.3	4.407	9.927	198.335	0.050 [1]
T3	153.333 - 146.667	ROHN 4 EH	6'8-5/32"	6'8-5/32"	54.3	4.407	17.340	198.335	0.087 [1]
T4	146.667 - 140	ROHN 4 EH	6'8-5/32"	6'8-5/32"	54.3	4.407	24.856	198.335	0.125 [1]
T5	140 - 120	ROHN 5 EH	20'7/16"	6'8-5/32"	43.6	6.112	53.381	275.039	0.194 [1]
T6	120 - 100	ROHN 6 EHS	20'3/8"	6'8-1/8"	36.0	6.713	88.125	302.097	0.292 [1]
T7	100 - 80	ROHN 6 EH	20'15/32"	10'7/32"	54.8	8.405	119.786	378.222	0.317 [1]
T8	80 - 70	ROHN 8 EHS	10'7/32"	10'7/32"	41.2	9.719	136.567	437.369	0.312 [1]
T9	70 - 60	ROHN 8 EHS	10'7/32"	10'7/32"	41.2	9.719	153.297	437.369	0.350 [1]
T10	60 - 40	ROHN 8 EHS	20'13/32"	10'7/32"	41.2	9.719	186.527	437.369	0.426 [1]
T11	40 - 20	ROHN 8 EH	20'13/32"	10'7/32"	41.8	12.763	218.990	574.322	0.381 [1]
T12	20 - 0	ROHN 8 EH	20'13/32"	10'7/32"	41.8	12.763	249.552	574.322	0.435 [1]

[1] P_u / ϕP_n controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	L2x2x3/16	9'10-3/8"	4'9-15/32"	95.6	0.431	2.451	18.739	0.131 [1]
T2	160 - 153.333	L2 1/2x2 1/2x1/4	11'3-7/16"	5'6"	87.8	0.752	3.848	32.707	0.118 [1]
T3	153.333 - 146.667	L2 1/2x2 1/2x1/4	11'10-7/32"	5'9-13/32"	92.2	0.752	4.118	32.707	0.126 [1]
T4	146.667 - 140	L2 1/2x2 1/2x1/4	12'5-5/32"	6'7/8"	96.7	0.752	5.135	32.707	0.157 [1]
T5	140 - 120	L2 1/2x2 1/2x1/4	14'2-3/4"	6'11-3/32"	110.0	0.752	7.194	32.707	0.220 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T6	120 - 100	L3x3x1/4	15'11-7/8"	7'8-29/32"	101.5	0.939	8.519	45.794	0.186 [1]
T7	100 - 80	L3 1/2x3 1/2x1/4	19'3-3/32"	9'5-25/32"	105.9	1.103	9.508	53.793	0.177 [1]
T8	80 - 70	L3 1/2x3 1/2x1/4	20'1-13/16"	9'9-25/32"	109.6	1.103	9.809	53.793	0.182 [1]
T9	70 - 60	2L3 1/2x3 1/2x1/4x3/8 2L 'a' > 58.773 in - 138	21'11/32"	10'3-3/32"	114.4	2.207	10.509	95.999	0.109 [1]
T10	60 - 40	L4x4x1/4	22'9-23/32"	11'1-25/32"	108.3	1.291	10.942	62.933	0.174 [1]
T11	40 - 20	L4x4x5/16	24'7-1/2"	12'11/16"	118.0	1.595	11.576	77.752	0.149 [1]
T12	20 - 0	2L4x4x5/16x3/8 2L 'a' > 74.511 in - 177	26'5-9/16"	12'11-3/4"	126.9	3.190	12.680	138.758	0.091 [1]

[1] P_u / ϕP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	L2x2x1/8	6'8-1/4"	6'1-3/4"	122.6	0.293	0.065	12.744	0.005 [1]
T3	153.333 - 146.667	L2 1/2x2 1/2x1/8	9'5-13/32"	8'9-29/32"	138.3	0.387	0.648	16.822	0.039 [1]
T4	146.667 - 140	L2 1/2x2 1/2x1/8	10'1-23/32"	9'6-7/32"	148.9	0.387	0.290	16.822	0.017[*1]

[*] DL controls
[1] P_u / ϕP_n controls

Mid Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	180 - 160	L2x2x1/8	7'8-11/16"	7'2-3/16"	142.4	0.293	0.528	12.744	0.041 [1]

[1] P_u / ϕP_n controls

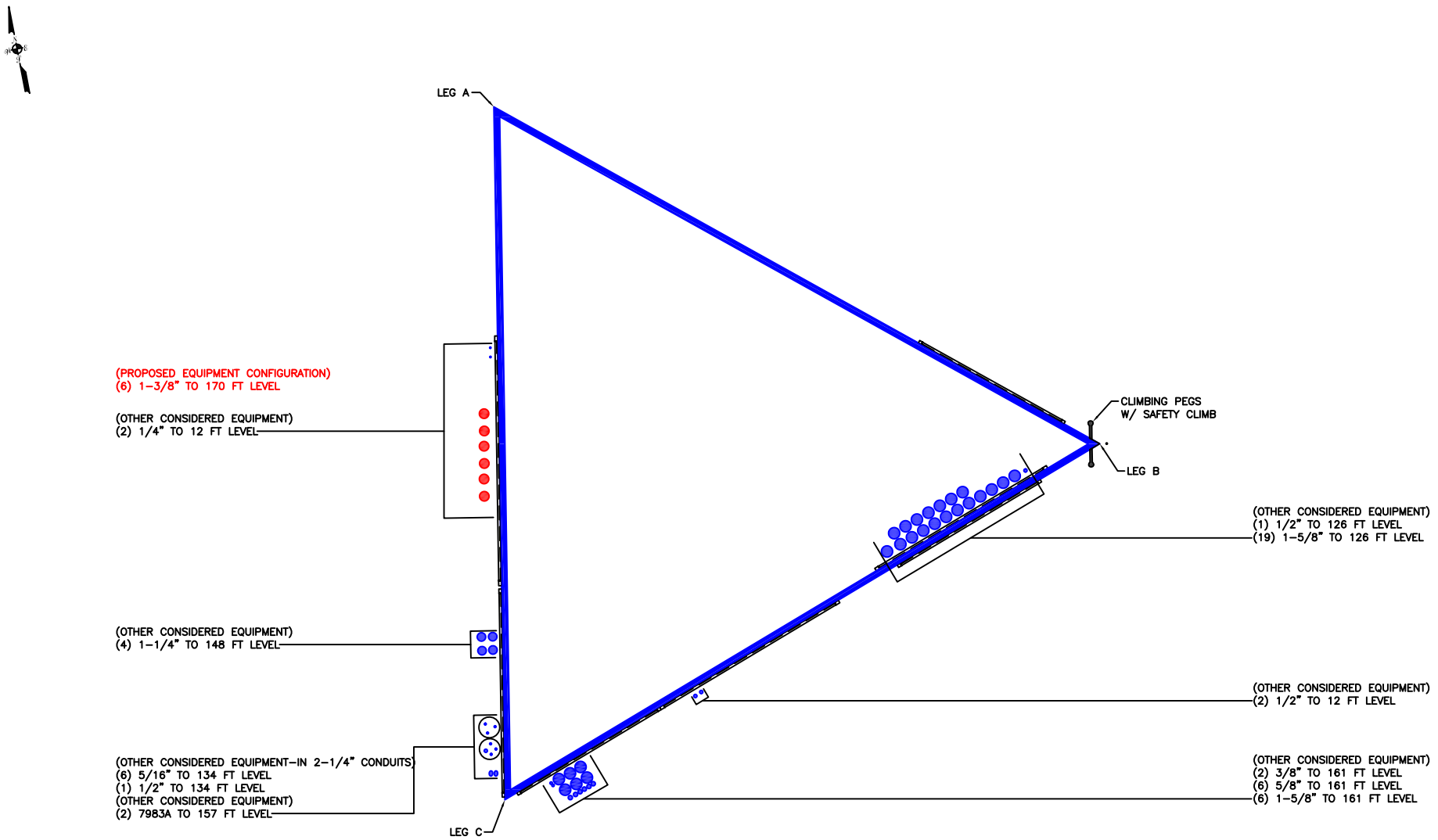
Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T1	180 - 160	Leg	ROHN 3 EH	2	-10.640	116.138	9.2	Pass
T2	160 - 153.333	Leg	ROHN 4 EH	35	-16.743	167.901	10.0	Pass
T3	153.333 - 146.667	Leg	ROHN 4 EH	44	-26.321	167.900	15.7	Pass
T4	146.667 - 140	Leg	ROHN 4 EH	56	-35.834	167.901	21.3	Pass
T5	140 - 120	Leg	ROHN 5 EH	67	-70.806	251.347	28.2	Pass
T6	120 - 100	Leg	ROHN 6 EHS	90	-110.601	288.515	38.3	Pass
T7	100 - 80	Leg	ROHN 6 EH	111	-146.518	318.903	45.9	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T8	80 - 70	Leg	ROHN 8 EHS	126	-165.583	405.715	40.8	Pass
T9	70 - 60	Leg	ROHN 8 EHS	135	-185.105	405.715	45.6	Pass
T10	60 - 40	Leg	ROHN 8 EHS	144	-223.983	405.717	55.2	Pass
T11	40 - 20	Leg	ROHN 8 EH	159	-262.801	530.833	49.5	Pass
T12	20 - 0	Leg	ROHN 8 EH	174	-301.754	530.833	56.8	Pass
T1	180 - 160	Diagonal	L2x2x3/16	13	-2.390	10.104	23.7	Pass
							28.7 (b)	
T2	160 - 153.333	Diagonal	L2 1/2x2 1/2x1/4	39	-4.021	19.793	20.3	Pass
							32.4 (b)	
T3	153.333 - 146.667	Diagonal	L2 1/2x2 1/2x1/4	51	-4.396	17.900	24.6	Pass
							34.7 (b)	
T4	146.667 - 140	Diagonal	L2 1/2x2 1/2x1/4	63	-5.267	16.240	32.4	Pass
							43.2 (b)	
T5	140 - 120	Diagonal	L2 1/2x2 1/2x1/4	75	-7.205	12.489	57.7	Pass
							60.6 (b)	
T6	120 - 100	Diagonal	L3x3x1/4	91	-8.497	17.566	48.4	Pass
							64.0 (b)	
T7	100 - 80	Diagonal	L3 1/2x3 1/2x1/4	113	-9.451	18.890	50.0	Pass
							64.0 (b)	
T8	80 - 70	Diagonal	L3 1/2x3 1/2x1/4	127	-9.935	17.632	56.3	Pass
							66.1 (b)	
T9	70 - 60	Diagonal	2L3 1/2x3 1/2x1/4x3/8	136	-10.684	27.940	38.2	Pass
							49.5 (b)	
T10	60 - 40	Diagonal	L4x4x1/4	146	-11.259	20.589	54.7	Pass
							73.7 (b)	
T11	40 - 20	Diagonal	L4x4x5/16	161	-12.016	21.559	55.7	Pass
							62.4 (b)	
T12	20 - 0	Diagonal	2L4x4x5/16x3/8	176	-13.349	31.945	41.8	Pass
							59.7 (b)	
T1	180 - 160	Top Girt	L2x2x1/8	4	-0.088	4.230	2.1	Pass
T3	153.333 - 146.667	Top Girt	L2 1/2x2 1/2x1/8	48	-0.363	4.069	8.9	Pass
							10.9 (b)	
T4	146.667 - 140	Top Girt	L2 1/2x2 1/2x1/8	59	0.290	16.822	1.7	Pass
							4.9 (b)	
T1	180 - 160	Mid Girt	L2x2x1/8	9	-0.540	3.097	17.5	Pass
							Summary	
						Leg (T12)	56.8	Pass
						Diagonal (T10)	73.7	Pass
						Top Girt (T3)	10.9	Pass
						Mid Girt (T1)	17.5	Pass
						Bolt Checks	73.7	Pass
						RATING =	**73.7**	**Pass**

APPENDIX B

BASE LEVEL DRAWING


LEG A
(PROPOSED EQUIPMENT CONFIGURATION)
(6) 1-3/8" TO 170 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(2) 1/4" TO 12 FT LEVEL
CLIMBING PEGS
W/ SAFETY CLIMB
LEG B
(OTHER CONSIDERED EQUIPMENT)
(1) 1/2" TO 126 FT LEVEL
(19) 1-5/8" TO 126 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(4) 1-1/4" TO 148 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(2) 1/2" TO 12 FT LEVEL
(OTHER CONSIDERED EQUIPMENT-IN 2-1/4" CONDUITS)
(6) 5/16" TO 134 FT LEVEL
(1) 1/2" TO 134 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(2) 7983A TO 157 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(2) 3/8" TO 161 FT LEVEL
(6) 5/8" TO 161 FT LEVEL
(6) 1-5/8" TO 161 FT LEVEL
LEG C

APPENDIX C

ADDITIONAL CALCULATIONS

CCIplate

Project Information

BU #	807133
Site Name	BRG 134 943057
Order #	524458 Rev.1

Tower Information

Tower Type	Self Support
TIA-222 Rev	H

☑ Apply TIA-222-H Section 15.5

Applied Loads

	Comp.	Uplift
Axial (k)	0.00	257.00
Shear (k)	0.00	33.00

Anchor Rod Data

Quantity:	10	
Diameter (in):	1	
Material Grade:	A449	Fy=92 ksi Fu=120 ksi
Grout Considered:	Yes	Not Considered, lar<=1(d)
l_{ar} (in):	0	
Eta Factor, η:		
Thread Type:	N-Included	
Configuration:	Symmetrical	

Anchor Rod Results

Axial, Pu_t (kips)	25.70	
Shear, Vu (kips)	3.30	
Moment, Mu (kip-in)	-	
Axial Cap., φPn_t (kips)	54.54	
Shear Cap., ϕVn (kips)	35.34	
Moment Cap., ϕMn (kip-in)	-	
Stress Rating	22.0%	**Pass**

BU: 807133
WO: 1860385

Done By: SM
Checked By:
Date: 6/16/2020

Foundation Analysis - Rock Anchors

Applied Loads:

$U := 257kip$ Uplift Force per Leg

$C := 312kip$ Compression Force per Leg

$d_{pier} := 9ft$ $b_{pier} := 6.25ft$ Pier Dimensions

$L_{pier} := 9ft$ Pier Length

$n := 4$ Number of Anchors

$W_{conc} := \gamma_c \cdot L_{pier} \cdot d_{pier} \cdot b_{pier} = 75.94 \cdot kip$ Pier Weight

$R_u := U - 0.9 \cdot W_{conc} = 188.66 \cdot kip$ Applied Uplift Force

$R_c := C + 1.2 \cdot W_{conc} = 403.13 \cdot kip$ Applied Compression Force

Compression Analysis:

$q_{ult} := 30ksf$ Ultimate Bearing Capacity

$\phi := 0.75$ Bearing Strength Reduction Factor

$A_{bearing} := d_{pier} \cdot b_{pier} = 56.25\ ft^2$ Bearing Area

$R_{n\_bearing} := q_{ult} \cdot A_{bearing} = 1687.5 \cdot kip$ Nominal Bearing Capacity

$\phi R_{n\_bearing} := \phi \cdot R_{n\_bearing} = 1265.63 \cdot kip$ Bearing Capacity

$R_c = 403.13 \cdot kip$ Applied Compression Force

$Compression := \frac{R_c}{\phi R_{n\_bearing}} = 31.85 \cdot \%$ Bearing Stress Rating

Lateral Analysis:

$\mu := 0.3$ Sliding Friction Factor

$\phi := 0.75$ Sliding Strength Reduction Factor

$R_v := 44kip$ Compression Shear per Leg

$R_c = 403.13 \cdot kip$ Applied Compression Force per Leg

$R_s := R_c \cdot \mu = 120.94 \cdot kip$ Nominal Lateral Resistance

$\phi R_s := \phi \cdot R_s = 90.7 \cdot kip$ Lateral Resistance

$Lateral := \frac{R_v}{\phi R_s} = 48.51 \cdot \%$ Lateral Stress Rating

Uplift Analysis:

8.1.a Steel Anchor Nominal Tensile Strength:

$F_u := 90ksi$ — A615 Gr. 60 Rebar

$A_{net} := 1.56in^2$ — #11 Rebar

$R_u = 188.66 \cdot kip$ — Uplift Force per Leg

$R_{n\_steel} := F_u \cdot A_{net} = 140.4 \cdot kip$ — Nominal Steel Anchor Strength per Anchor

8.1.b Steel-to-Grout Nominal Bonding Strength:

$L := 8.5ft$ — Embedded Length

$d_{hole} := 2.25in$ — Hole Diameter

$\theta := 0°$ — Batter Angle

$f_c := 4000psi$ — Grout Compressive Strength (Assumed)

$A_s := \pi \cdot d_{hole} \cdot \left(\frac{L}{\cos(\theta)} \right) = 721 \cdot in^2$ — Rebar Surface Area

$F_{s\_g} := 6 \cdot \sqrt{f_c} \cdot \sqrt{psi} = 379.47 \cdot psi$ — Steel-to-Grout Bond Strength

$R_{n\_steel\_to\_grout} := A_s \cdot F_{s\_g} = 273.6 \cdot kip$ — Nominal Steel-to-Grout Bond Strength per Anchor

8.1.c Grout-Rock Nominal Bonding Strength:

$L_{rock} := 8.5ft$ — Length of Embedment Into Rock Layer

$d_{hole} := 2.25in$ — Hole Diameter

$\theta := 0°$ — Batter Angle

$F_{r\_g} := 110psi$ — Grout-Rock Bond Strength

$A_b := \pi \cdot d_{hole} \cdot \left(\frac{L_{rock}}{\cos(\theta)} \right) = 721 \cdot in^2$ — Grout Surface Area

$R_{n\_rock\_grout} := F_{r\_g} \cdot A_b = 79.31 \cdot kip$ — Nominal Grout-Rock Bond Strength per Anchor

8.1.d Nominal Weight of Rock Prism

$L_{eff} := 11.25\,ft$ Effective Embedment Length Into Rock

$d_{anchors} := 2.083\,ft$ Diameter of Anchor Group @ Effective Embedment (Assumed)

$\phi_{rock} := 40°$ Interal Friction Angle of Rock

$\gamma_{rock} := 140\,pcf$ Unit Weight of Rock

$h_{soil} := 20\,ft$ Soil Layer Height

$\phi_{soil} := 40°$ Internal Friction Angle of Soil

$\gamma_{soil} := 135\,pcf$ Unit Weight of Soil

$d_1 := d_{anchors} = 2.083\ ft$ Diameter of Anchor Group @ Effective Embedment

$d_2 := 2 \cdot L_{eff} \cdot \tan(\phi_{rock}) + d_{anchors} = 20.96\ ft$ Diameter @ Top of Rock Layer

$d_3 := d_2 + 2 \cdot h_{soil} \cdot \tan(\phi_{soil}) = 54.53\ ft$ Diameter @ Top of Soil Layer

$$V_{rock} := \frac{\pi \cdot L_{eff}}{3} \cdot \left[\left(\frac{d_2}{2} \right)^2 + \left(\frac{d_2}{2} \right) \left(\frac{d_1}{2} \right) + \left(\frac{d_1}{2} \right)^2 \right] = 1435.63 \cdot ft^3$$

$$V_{soil} := \frac{\pi \cdot h_{soil}}{3} \cdot \left[\left(\frac{d_3}{2} \right)^2 + \left(\frac{d_3}{2} \right) \left(\frac{d_2}{2} \right) + \left(\frac{d_2}{2} \right)^2 \right] = 23853.22 \cdot ft^3$$

$W_{rock} := \gamma_{rock} \cdot V_{rock} = 200.99 \cdot kip$ Weight of Rock Cone

$W_{soil} := \gamma_{soil} \cdot V_{soil} = 3220.19 \cdot kip$ Weight of Soil Cone

$R_{n\_rock} := W_{rock} + W_{soil} = 3421.17 \cdot kip$ Total Rock & Soil Prism Weight

$R_n := \min(R_{n\_steel}, R_{n\_steel\_to\_grout}, R_{n\_rock\_grout}, R_{n\_rock}) = 79.31 \cdot kip$

$\phi R_n := \phi \cdot R_n = 59.48 \cdot kip$

$P_u := \frac{R_u}{n} = 47.16 \cdot kip$

$Uplift := \frac{P_u}{\phi R_n} = 79.29 \cdot \%$

BU:	807133	Structure:	A
WO:	1860385		
Order:	524458	Rev:	1

Location

	Decimal Degrees		Deg	Min	Sec
Lat:	41.081778	+	41	4	54.40
Long:	-73.430417	-	73	25	49.50

Code and Site Parameters

Seismic Design Code:	TIA-222-H*	
Site Soil:	D	Dense Soil/Soft Rock
Risk Category:	II	

USGS Seismic Reference			
	S_S:	0.2320	g
	S_1:	0.0670	g
	T_L:	6	s

Seismic Design Category Determination

Importance Factor, I_e:	1
Acceleration-based site coefficient, F_a:	1.6000
Velocity-based site coefficient, F_v:	2.4000

Design spectral response acceleration short period, S_{DS}:	0.2475	g
Design spectral response acceleration 1 s period, S_{D1}:	0.1072	g

Seismic Design Category Based on S_{DS}:	B
Seismic Design Category Based on S_{D1}:	B
Seismic Design Category Based on S_1:	N/A

Controlling Seismic Design Category:	B

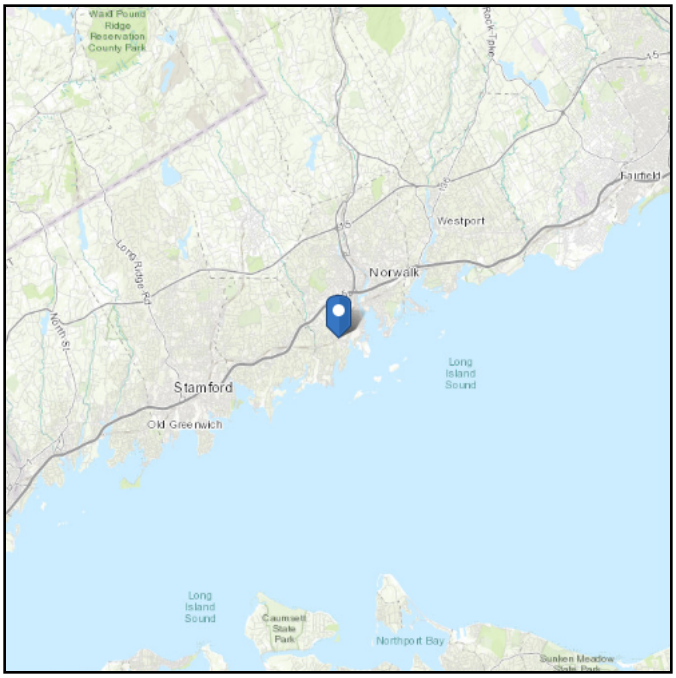
*Using ASCE 7-10 Seismic Parameters

ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 60.78 ft (NAVD 88)
Latitude: 41.081789
Longitude: -73.430422



Wind

Results:

Wind Speed:	120 Vmph
10-year MRI	76 Vmph
25-year MRI	86 Vmph
50-year MRI	92 Vmph
100-year MRI	98 Vmph
Data Source:	ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014
Date Accessed:	Mon Jun 15 2020

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.

Mountainous terrain, gorges, ocean promontories, and special wind regions should be examined for unusual wind conditions.

Ice

Results:

Ice Thickness:	0.75 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Mon Jun 15 2020

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.

Exhibit E

Mount Analysis

Date: **June 12, 2020**

Darcy Tarr
Crown Castle
3530 Torington Way, Suite 300
Charlotte, NC 28277
(704)-405-6619

POD Group
1033 E Turkeyfoot Lake Rd. Suite 206
Akron, OH 44312
(330) 961.7432
mhoudeshell@podgrp.com

Subject:	**Mount Analysis Report**	
Carrier Designation:	**T-Mobile**	
	Carrier Site Number:	**CT11114D**
	Carrier Site Name:	**Norwalk/ South Norwalk**
Crown Castle Designation:	**Crown Castle BU Number:**	**807133**
	Crown Castle Site Name:	**BRG 134 943057**
	Crown Castle JDE Job Number:	**614602**
	Crown Castle Order Number:	**524458 Rev. 1**
Engineering Firm Designation:	**EOR Report Designation:**	**20-65182**
Site Data:	**50 Rockland Road Norwalk OFC - MTSO, SO Norwalk, Fairfield County, CT 06854 Latitude 41°04'54.44" Longitude -73°25'49.52"**	
Structure Information:	**Tower Height & Type:**	**186 ft Self-Support**
	Mount Elevation:	**170 ft**
	Mount Type:	**13 ft Sector Frame**

Dear Darcy Tarr,

POD Group 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:

13 ft Sector Frame (Typical Sector) **Sufficient**

This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Logan Traphagen

Respectfully submitted by:

6/12/2020

STATE OF CONNECTICUT
JASON CHERONIS
PEN.0032793
LICENSED
PROFESSIONAL ENGINEER

Jason Cheronis, P.E.
Connecticut PE #: PEN.0032793

TABLE OF CONTENTS

1) INTRODUCTION

This mount is an existing 13 ft sector frame mapped by Tower Engineering Professional in September 2018. This mount is installed on (3) sectors at the 170 ft elevation on the 186 ft self-support tower.

2) ANALYSIS CRITERIA

Building Code: 2018 Connecticut Building Code
TIA-222 Revision: TIA-222-H
Risk Category: II
Ultimate Wind Speed: 125 mph
Exposure Category: C
Topographic Factor at Base: 1.000
Topographic Factor at Mount: 1.000
Ice Thickness: 1.0 in
Wind Speed with Ice: 50 mph
Seismic S_s: 0.215
Seismic S_1: 0.065
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 - Final Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details	Note
170	170	3	Ericsson	AIR 32 B2A/B66AA	13 ft Sector Frame	-
		3	Ericsson	AIR 3246 B66_T-MOBILE		
		3	Ericsson	AIR6449 B41		
		3	RFS/Celwave	APXVAARR24_43-U-NA20		
		3	Ericsson	Radio 4449 B71 B85A_T-MOBILE		
		3	Ericsson	RRUS 4415 B25_CCIV2		

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Crown Application	-	Crown Castle App ID: 524458 Rev.1 Dated: 6/9/2020	Crown Castle
RFDS	-	T-Mobile Site ID: CT11114D Dated: 5/13/2020	Crown Castle
Previous Mount Analysis	-	Maser Consulting Connecticut Report #: 18922035A Dated: 9/26/2018	Crown Castle
Mount Mapping	-	Tower Engineering Professionals TEP #: 144550.177533 Dated: 9/21/2018	Crown Castle
Structural Analysis	-	B+T GRP Project #: 82164.004.01 Dated: 8/27/2018	Crown Castle

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. Selected output from the analysis are included in the Appendices.

A tool internally developed, using Microsoft Excel, by POD Group, was used to calculate wind loading on all appurtenances, dishes, and mount members for various load cases. Selected output from the calculations is included in Appendix B.

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, TIA Standards, and/or 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 weight of the mount was increased 10% in the analysis to account for connections, coax, and jumpers.
5) 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.
6) Steel grades have been assumed as follows, unless noted otherwise:
    a. Angle ASTM A36 (GR 36)
    b. Pipe ASTM A53 (GR 35)
    c. Connection Bolts ASTM A325

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and POD Group should be allowed to review any new information to determine its effect on the structural integrity of the mount.

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (13 ft Sector Frame)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
-	Kicker	KICKER3	170	98.9	Pass
	Face	FACE1		84.2	Pass
	Pipe	SO PIPE		75.4	Pass
	Diagonal	KICKER DIAG2		42.2	Pass
	Standoff	SO1		36.1	Pass
2	Tieback	TIEBACK		23.5	Pass
-	Mount Pipe	MP ALPHA3		28.0	Pass
	Vertical	SO VERT1		19.5	Pass
1	Bolts	-		53.2	Pass

Structure Rating (max from all components) =	98.9%

Notes:
1) See additional documentation in “Appendix D – Additional Calculations” for calculations supporting the % capacity
2) Member Capacity based on Table 4 – Tieback Connection Data Table

Table 4 - Tieback Connection Data Table

Tower Connection Node No.	Existing / Proposed	Resultant End Reaction (lb)	Connected Member Type	Connected Member Size	Member Compressive Capacity (lb)[2]	Notes
N50	Existing	1300	Leg	ROHN 3 EH	5530.4	1

Notes:
1) Tieback connection point is within 25% of either end of the connected tower member
2) Reduced member compressive capacity according to CED-STD-10294 *Standard for Installation of Mounts and Appurtenances*

4.1) Recommendations

The mount has sufficient capacity to carry the proposed loading configuration. No modifications are required at this time.

5) DISCLAIMER OF WARRANTIES

POD Group has not performed a site visit to the structure to verify the member sizes or antenna/coax loading unless noted otherwise. If the existing conditions are not as represented in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the structure or foundation. This report does not replace a full structure inspection. The structure, foundations, and mounting systems are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by POD Group in connection with this Structural Analysis are limited to a computer analysis of the structure and theoretical capacity of its main structural members. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

POD Group does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing structure. POD Group provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines to the structure.

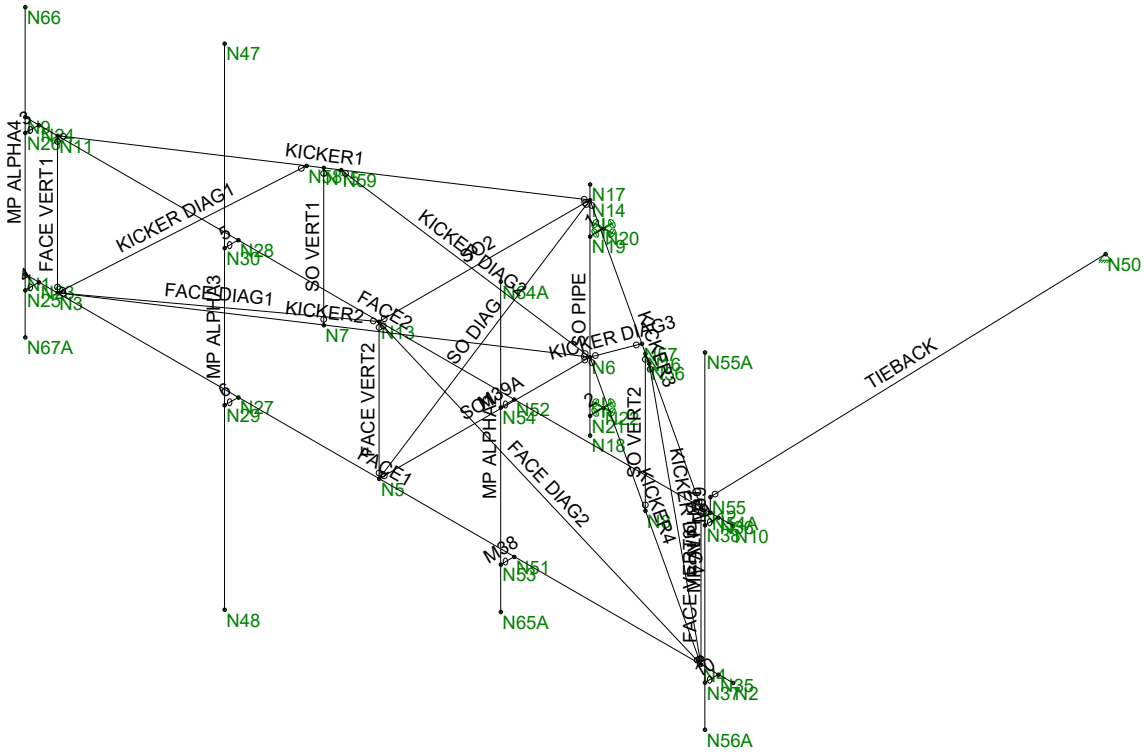
It is the owner's responsibility to determine the amount of ice accumulation in excess of the code specified amount, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed structure. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from POD Group, but are beyond the scope of this report.

POD Group makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this structure. POD Group will not be responsible whatsoever, for or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of POD Group pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Wire Frame and Rendered Models



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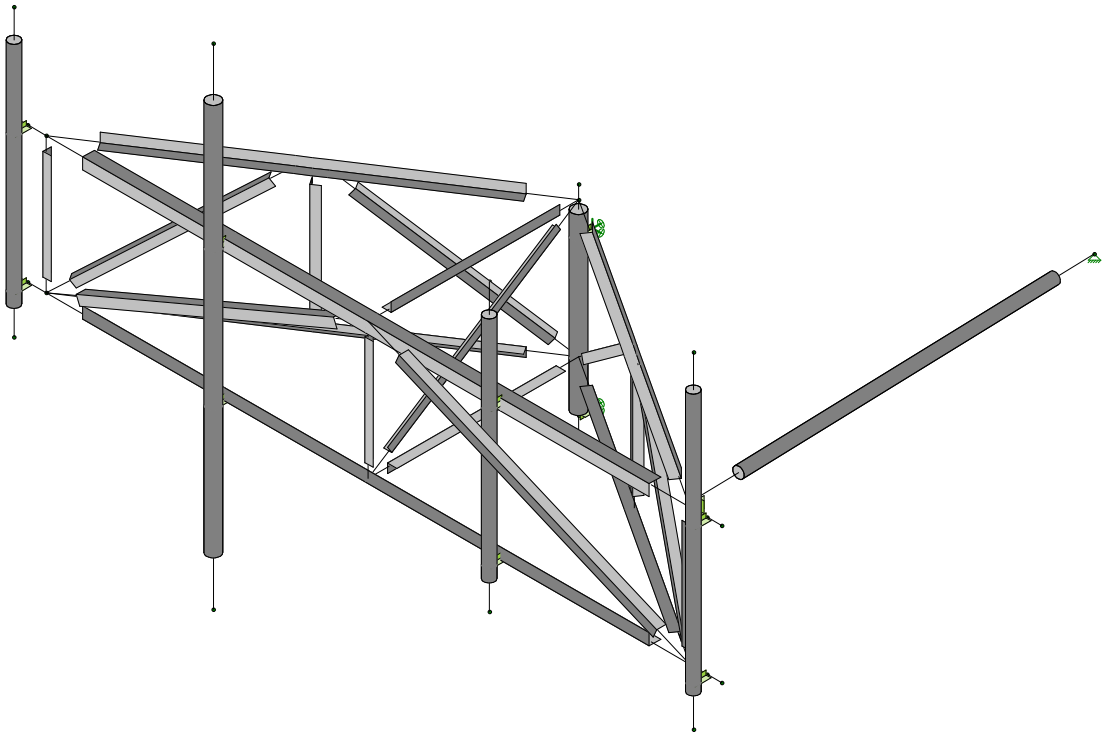
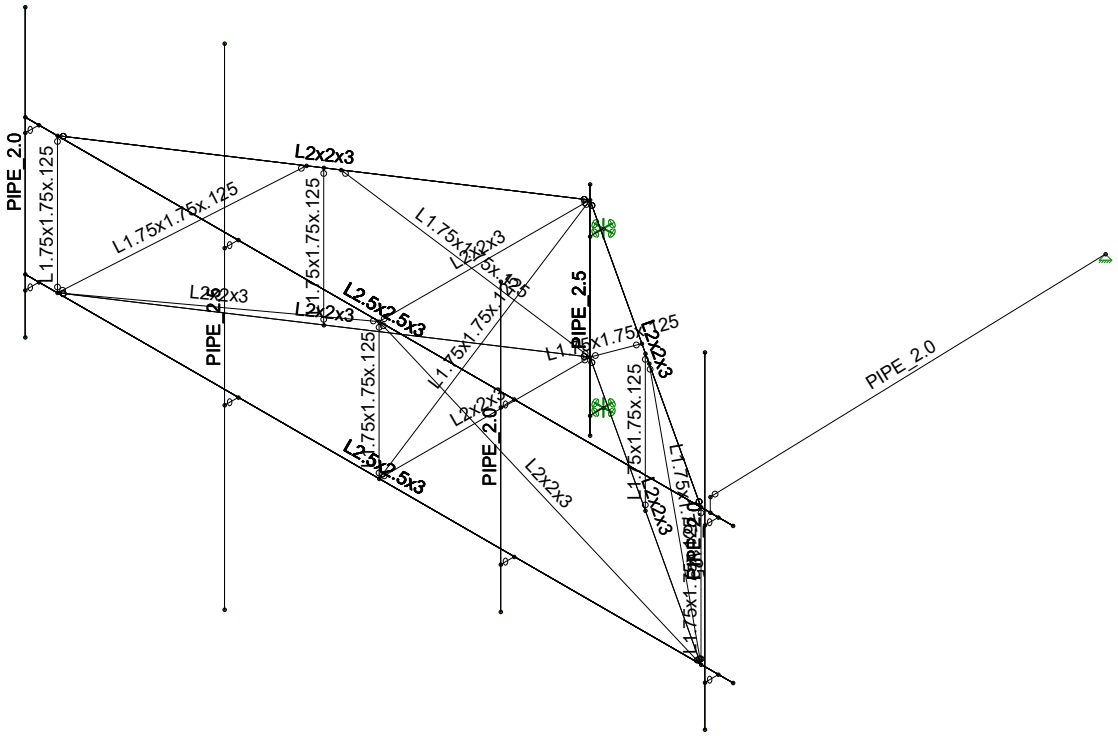
20-65182		807133.r3d



POD	807133	
LT		June 12, 2020 at 11:35 AM
20-65182		807133.r3d



POD	807133	
LT		June 12, 2020 at 11:35 AM
20-65182		807133.r3d

APPENDIX B

Software Input Calculations

POD
POWER OF DESIGN

POD Job #	**20-65182**
Site Number	**807133**
Site Name	**BRG 134 943057**

General Site Information

Mount Type	MF	Risk Category	II	I (seismic)	1	
V (Wind Speed)	125	I(ice)	1	Sms	0.344	
Zs	61			Sm1	0.156	
ti	1	Ss	0.215	Sds	0.229	
Vi	50	S1	0.065	Sd1	0.104	
Kzt	1	Soil Site Class	D (assumed)	Seismic Design Category		
Exposure	C	Fa	1.600	B		
zg	900	Fv	2.400	Seismic Analysis Not Required		
α	9.5			R	2	TIA-222-H 16.7
Kmin	0.85	Tower Type	Self Support	As	1	TIA-222-H 16.7
G_H	1	Tower Height	186	Cs, Min	0.03	TIA-222-H 2.7.7.1.1
Ke	1.00			Cs	0.114666667	TIA-222-H 2.7.7.1.1
K_D	0.95					
K_a	0.9					

Appurtenance Information

Model	Shielded	% Shielded	Centerline	Centerline on MP	Spacing (in)	Azimuth	Sector	Quantity	MP #
AIR 32 B2A/B66AA			170	3	40		A	1	1
AIR 3246 B66_T-MOBILE			170	2.75	40		A	1	4
AIR6449 B41			170	2.75	20		A	1	2
APXVAARR24_43-U-NA20			170	4.5	80		A	1	3
Radio 4449 B71 B85A_T-MOBILE			170	4.5			A	1	3
RRUS 4415 B25_CCIV2			170	4.5			A	1	3

Mount Information

Elevation (ft)	170	Grating Thickness (in)	0
K_z	1.42	Grating Ice Weight (k/ft²)	0.011
Kiz	1.18		
tiz	1.18		

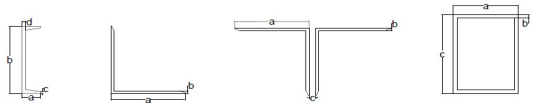
	Length (ft)	Width (in)	Centerline
Mount Pipes	8	2.375	170

Round Members

Member	Length (ft)	Width (in)	Frame Member	# of Members
SO Pipe	4	2.875	Side	1
Tieback	8.7	2.375	No	1

Flat Members

Member	Length (ft)	Width (in)	Shape	A	B	C	D	Frame Member	# of Members
Face	13.16	2.5	Angle	2.5	0.1875			Front	2
Face Vert	2.5	1.75	Angle	1.75	0.125			Front	3
Kicker On	7	2	Angle	2	0.1875			Side	2
Kicker Off	7	2	Angle	2	0.1875			No	2
Kicker Diag On	4.4	1.75	Angle	1.75	0.125			Side	2
Kicker Diag Off	4.4	1.75	Angle	1.75	0.125			No	2
SO Vert On	2.5	1.75	Angle	1.75	0.125			Side	1
SO Vert Off	2.5	1.75	Angle	1.75	0.125			No	1
SO	3.87	2	Angle	2	0.1875			No	2
SO Diag	4.6	1.75	Angle	1.75	0.125			No	1
Face Diag	6.4	2	Angle	2	0.1875			Front	2



Version 3.2

Appurtenance Wind Calculations

Model	Height	Width	Depth	Weight (lbs)	Kz	qz (lb/ft$_2$)	$(EPA)_N$ (ft^2)	$(EPA)_T$(ft^2)	Wind Force (Kips) Front	Side	Alpha	Beta	Gamma
AIR 32 B2A/B66AA	56.6	12.9	8.7	132.2	1.42	53.66	5.86	4.24	0.314	0.228	0.293	0.293	0.228
AIR 3246 B66_T-MOBILE	58.7	15.7	9.4	226.0	1.42	53.66	7.23	4.71	0.388	0.253	0.354	0.354	0.253
AIR6449 B41	33.1	20.6	8.6	104.0	1.42	53.66	5.11	2.24	0.274	0.120	0.236	0.236	0.120
APXVAARR24_43-U-NA20	95.9	24.0	8.7	96.8	1.42	53.66	14.67	5.32	0.787	0.286	0.662	0.662	0.286
Radio 4449 B71 B85A_T-MO	17.9	13.2	10.6	73.2	1.42	53.66	1.77	1.43	0.095	0.077	0.091	0.091	0.077
RRUS 4415 B25_CCIV2	16.5	13.4	5.9	46.0	1.42	53.66	1.66	0.74	0.089	0.040	0.077	0.077	0.040

Appurtenance Ice Calculations

Model	tiz (in)	Height	Width	Depth	Weight (lbs)	Kiz	qz (lb/ft$_2$)	$(EPA)_N$ (ft^2)	$(EPA)_T$(ft^2)	Wind Force (Kips) Front	Side	Alpha	Beta	Gamma
AIR 32 B2A/B66AA	1.18	58.96	15.26	11.06	116.42	1.18	8.59	4.11	3.11	0.035	0.027	0.033	0.033	0.027
AIR 3246 B66_T-MOBILE	1.18	61.06	18.06	11.76	139.28	1.18	8.59	4.96	3.41	0.043	0.029	0.039	0.039	0.029
AIR6449 B41	1.18	35.46	22.96	10.96	98.97	1.18	8.59	3.56	1.74	0.031	0.015	0.027	0.027	0.015
APXVAARR24_43-U-NA20	1.18	98.26	26.36	11.06	278.97	1.18	8.59	14.85	6.23	0.127	0.054	0.109	0.109	0.054
Radio 4449 B71 B85A_T-MO	1.18	20.27	15.56	12.99	51.24	1.18	8.59	1.38	1.15	0.012	0.010	0.011	0.011	0.010
RRUS 4415 B25_CCIV2	1.18	18.86	15.76	8.26	37.22	1.18	8.59	1.30	0.68	0.011	0.006	0.010	0.010	0.006

Round Members

Member	q_z (lb/ft^2)	Wind Calculations Ar	C	Rrf	Cas	EPA (ft^2)	Load (k/ft)	Width (in)	Weight (k/ft)	q_z (lb/ft^2)	Ice Calculations Arice	Rrfice	Cas	EPA (ft^2)	Load (k/ft)
SO Pipe	53.66	0.96	34.72	0.63	1.20	0.65	0.004	5.23	0.01	8.59	1.74	0.70	1.20	1.32	0.001
Tieback	53.66	1.72	28.69	0.63	1.20	1.17	0.004	4.73	0.01	8.59	3.43	0.70	1.20	2.59	0.001

Flat Members

Member	q_z (lb/ft^2)	Wind Calculations Af	Cas	EPA	Load (k/ft)	Width (in)	Weight (k/ft)	q_z (lb/ft^2)	Ice Calculations Arice	Rrfice	Cas	EPA	Load (k/ft)
Face	53.66	5.48	1.73	4.26	0.017	4.86	0.01	8.59	10.65	0.70	1.73	5.78	0.004
Face Vert	53.66	1.09	1.73	0.57	0.012	4.11	0.01	8.59	2.57	0.70	1.73	0.93	0.003
Kicker On	53.66	2.33	2.00	2.10	0.008	4.36	0.01	8.59	5.08	0.70	2.00	3.19	0.002
Kicker Off	53.66	2.33	2.00	2.10	0.008	4.36	0.01	8.59	5.08	0.70	2.00	3.19	0.002
Kicker Diag On	53.66	1.28	2.00	1.16	0.007	4.11	0.01	8.59	3.01	0.70	2.00	1.89	0.002
Kicker Diag Off	53.66	1.28	2.00	1.16	0.007	4.11	0.01	8.59	3.01	0.70	2.00	1.89	0.002
SO Vert On	53.66	0.36	2.00	0.66	0.007	4.11	0.01	8.59	0.86	0.70	2.00	1.08	0.002
SO Vert Off	53.66	0.36	2.00	0.66	0.007	4.11	0.01	8.59	0.86	0.70	2.00	1.08	0.002
SO	53.66	1.29	2.00	1.16	0.008	4.36	0.01	8.59	2.81	0.70	2.00	1.77	0.002
SO Diag	53.66	0.67	2.00	1.21	0.007	4.11	0.01	8.59	1.57	0.70	2.00	1.98	0.002
Face Diag	53.66	2.13	1.73	1.66	0.014	4.36	0.01	8.59	4.65	0.70	1.73	2.52	0.003

Appurtenance Seismic Calculations

Model	Weight	Sds	ρ	Cs	As	Ev	Eh
AIR 32 B2A/B66AA	132.2	0.229	1.000	0.115	1.000	0.006	0.015
AIR 3246 B66_T-MOBILE	226.0	0.229	1.000	0.115	1.000	0.010	0.026
AIR6449 B41	104.0	0.229	1.000	0.115	1.000	0.005	0.012
APXVAARR24_43-U-NA20	96.8	0.229	1.000	0.115	1.000	0.004	0.011
Radio 4449 B71 B85A_T-MO	73.2	0.229	1.000	0.115	1.000	0.003	0.008
RRUS 4415 B25_CCIV2	46.0	0.229	1.000	0.115	1.000	0.002	0.005

Version 3.2

APPENDIX C

Software Analysis Output

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotat...	Section/Shape	Type	Design List	Material	Design Rules
1	TIEBACK	N55	N50			PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical
2	SO2	N13	N14			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
3	SO1	N5	N6		180	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
4	SO VERT2	N8	N16		325	L1.75x1.75x.125	Beam	Single Angle	A36 Gr.36	Typical
5	SO VERT1	N7	N15		305	L1.75x1.75x.125	Beam	Single Angle	A36 Gr.36	Typical
6	SO PIPE	N18	N17			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
7	SO DIAG	N5	N14		90	L1.75x1.75x.125	Beam	Single Angle	A36 Gr.36	Typical
8	MP ALPHA4	N67A	N66			PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical
9	MP ALPHA3	N48	N47			PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical
10	MP ALPHA1	N56A	N55A			PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical
11	MP ALPHA2	N65A	N64A			PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical
12	M39A	N52	N54			RIGID	None	None	RIGID	Typical
13	M39	N54A	N55			RIGID	None	None	RIGID	Typical
14	M38	N51	N53			RIGID	None	None	RIGID	Typical
15	KICKER4	N4	N6		90	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
16	KICKER3	N12	N14		180	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
17	KICKER2	N3	N6		180	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
18	KICKER1	N11	N14		90	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
19	KICKER DIAG4	N4	N56		340	L1.75x1.75x.125	Beam	Single Angle	A36 Gr.36	Typical
20	KICKER DIAG3	N6	N57		250	L1.75x1.75x.125	Beam	Single Angle	A36 Gr.36	Typical
21	KICKER DIAG2	N6	N59		20	L1.75x1.75x.125	Beam	Single Angle	A36 Gr.36	Typical
22	KICKER DIAG1	N3	N58		290	L1.75x1.75x.125	Beam	Single Angle	A36 Gr.36	Typical
23	FACE2	N9	N10		270	L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical
24	FACE1	N1	N2			L2.5x2.5x3	Beam	Single Angle	A36 Gr.36	Typical
25	FACE VERT3	N4	N12			L1.75x1.75x.125	Beam	Single Angle	A36 Gr.36	Typical
26	FACE VERT2	N5	N13		270	L1.75x1.75x.125	Beam	Single Angle	A36 Gr.36	Typical
27	FACE VERT1	N3	N11		270	L1.75x1.75x.125	Beam	Single Angle	A36 Gr.36	Typical
28	FACE DIAG2	N4	N13			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
29	FACE DIAG1	N3	N13		270	L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
30	10	N35	N37			RIGID	None	None	RIGID	Typical
31	9	N36	N38			RIGID	None	None	RIGID	Typical
32	6	N27	N29			RIGID	None	None	RIGID	Typical
33	5	N28	N30			RIGID	None	None	RIGID	Typical
34	4	N23	N25			RIGID	None	None	RIGID	Typical
35	3	N24	N26			RIGID	None	None	RIGID	Typical
36	2	N21	N22			RIGID	None	None	RIGID	Typical
37	1	N19	N20			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physic...	Defl Ratio Op...	Analysis Offset[in]	Inactive	Seismi...
1	TIEBACK	OOOOOX					Yes	Default			None
2	SO2	OOOOOX	OOOOOX				Yes	Default			None
3	SO1	OOOOOX	OOOOOX				Yes	Default			None
4	SO VERT2	OOOOXO	OOOOXO				Yes	Default			None
5	SO VERT1	OOOOOX	OOOOOX				Yes	Default			None
6	SO PIPE						Yes				None
7	SO DIAG	OOOOXO	OOOOXO				Yes	Default			None
8	MP ALPHA4						Yes				None
9	MP ALPHA3						Yes				None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physic...	Defl Ratio Op...	Analysis Offset[in]	Inactive	Seismi...
10	MP ALPHA1						Yes				None
11	MP ALPHA2						Yes				None
12	M39A		OOOXOO				Yes	** NA **			None
13	M39						Yes	** NA **			None
14	M38		OOOXOO				Yes	** NA **			None
15	KICKER4	OOOOXO	OOOOXO				Yes	Default			None
16	KICKER3	OOOOOX	OOOOOX				Yes	Default			None
17	KICKER2	OOOOOX	OOOOOX				Yes	Default			None
18	KICKER1	OOOOXO	OOOOXO				Yes	Default			None
19	KICKER DIA...	OOOOXO	OOOOXO				Yes	Default			None
20	KICKER DIA...	OOOOOX	OOOOOX				Yes	Default			None
21	KICKER DIA...	OOOOXO	OOOOXO				Yes	Default			None
22	KICKER DIA...	OOOOOX	OOOOOX				Yes	Default			None
23	FACE2						Yes	Default			None
24	FACE1						Yes				None
25	FACE VERT3	OOOOXO	OOOOXO				Yes	Default			None
26	FACE VERT2	OOOOOX	OOOOOX				Yes	Default			None
27	FACE VERT1	OOOOOX	OOOOOX				Yes	Default			None
28	FACE DIAG2	OOOOXO	OOOOXO				Yes	Default			None
29	FACE DIAG1	OOOOOX	OOOOOX				Yes	Default			None
30	10		OOOXOO				Yes	** NA **			None
31	9		OOOXOO				Yes	** NA **			None
32	6		OOOXOO				Yes	** NA **			None
33	5		OOOXOO				Yes	** NA **			None
34	4		OOOXOO				Yes	** NA **			None
35	3		OOOXOO				Yes	** NA **			None
36	2						Yes	** NA **			None
37	1						Yes	** NA **			None

Hot Rolled Steel Design Parameters

	Label	Shape	Lengt...	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-tor...	Kyy	Kzz	Cb	Func...
1	TIEBACK	PIPE_2.0	7.499			Lbyy						Lateral
2	SO2	L2x2x3	3.87			Lbyy						Lateral
3	SO1	L2x2x3	3.87			Lbyy						Lateral
4	SO VERT2	L1.75x1....	2.5			Lbyy						Lateral
5	SO VERT1	L1.75x1....	2.5			Lbyy						Lateral
6	SO PIPE	PIPE_2.5	4			Lbyy						Lateral
7	SO DIAG	L1.75x1....	4.607			Lbyy						Lateral
8	MP ALPHA4	PIPE_2.0	5.25			Lbyy						Lateral
9	MP ALPHA3	PIPE_2.5	9			Lbyy						Lateral
10	MP ALPHA1	PIPE_2.0	6			Lbyy						Lateral
11	MP ALPHA2	PIPE_2.0	5.25			Lbyy						Lateral
12	KICKER4	L2x2x3	7.064	3.5		Lbyy						Lateral
13	KICKER3	L2x2x3	7.064		3.5	Lbyy						Lateral
14	KICKER2	L2x2x3	7.064		3.5	Lbyy						Lateral
15	KICKER1	L2x2x3	7.064	3.5		Lbyy						Lateral
16	KICKER DIAG4	L1.75x1....	4.143			Lbyy						Lateral
17	KICKER DIAG3	L1.75x1....	4.143			Lbyy						Lateral
18	KICKER DIAG2	L1.75x1....	4.143			Lbyy						Lateral
19	KICKER DIAG1	L1.75x1....	4.143			Lbyy						Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Lengt...	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-tor...	Kyy	Kzz	Cb	Func...
20	FACE2	L2.5x2.5x3	13	5.91	5.91	Lbyy						Lateral
21	FACE1	L2.5x2.5x3	13	5.91	5.91	Lbyy						Lateral
22	FACE VERT3	L1.75x1....	2.5			Lbyy						Lateral
23	FACE VERT2	L1.75x1....	2.5			Lbyy						Lateral
24	FACE VERT1	L1.75x1....	2.5			Lbyy						Lateral
25	FACE DIAG2	L2x2x3	6.417			Lbyy						Lateral
26	FACE DIAG1	L2x2x3	6.417			Lbyy						Lateral

Hot Rolled Steel Properties

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

Member Point Loads (BLC 1 : Live Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	FACE1	Z	-.5	0

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

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.157	4.417
2	MP ALPHA1	Y	-.157	1.083
3	MP ALPHA4	Y	-.194	4.417
4	MP ALPHA4	Y	-.194	1.083
5	MP ALPHA2	Y	-.137	3.833
6	MP ALPHA2	Y	-.137	2.167
7	MP ALPHA3	Y	-.393	7.833
8	MP ALPHA3	Y	-.393	1.167
9	MP ALPHA3	Y	-.095	4.5
10	MP ALPHA3	Y	-.089	4.5

Member Point Loads (BLC 3 : Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Z	-.066	4.417
2	MP ALPHA1	Z	-.066	1.083
3	MP ALPHA4	Z	-.113	4.417
4	MP ALPHA4	Z	-.113	1.083
5	MP ALPHA2	Z	-.052	3.833
6	MP ALPHA2	Z	-.052	2.167
7	MP ALPHA3	Z	-.048	7.833
8	MP ALPHA3	Z	-.048	1.167
9	MP ALPHA3	Z	-.073	4.5
10	MP ALPHA3	Z	-.046	4.5

Member Point Loads (BLC 4 : Wind Load (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.127	4.417
2	MP ALPHA1	Y	-.127	1.083
3	MP ALPHA1	X	-.073	4.417
4	MP ALPHA1	X	-.073	1.083
5	MP ALPHA4	Y	-.153	4.417
6	MP ALPHA4	Y	-.153	1.083
7	MP ALPHA4	X	-.089	4.417
8	MP ALPHA4	X	-.089	1.083
9	MP ALPHA2	Y	-.102	3.833
10	MP ALPHA2	Y	-.102	2.167
11	MP ALPHA2	X	-.059	3.833
12	MP ALPHA2	X	-.059	2.167
13	MP ALPHA3	Y	-.286	7.833
14	MP ALPHA3	Y	-.286	1.167
15	MP ALPHA3	X	-.165	7.833
16	MP ALPHA3	X	-.165	1.167
17	MP ALPHA3	Y	-.078	4.5
18	MP ALPHA3	X	-.045	4.5
19	MP ALPHA3	Y	-.066	4.5
20	MP ALPHA3	X	-.038	4.5

Member Point Loads (BLC 5 : Wind Load (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.062	4.417
2	MP ALPHA1	Y	-.062	1.083
3	MP ALPHA1	X	-.108	4.417
4	MP ALPHA1	X	-.108	1.083
5	MP ALPHA4	Y	-.072	4.417
6	MP ALPHA4	Y	-.072	1.083
7	MP ALPHA4	X	-.124	4.417
8	MP ALPHA4	X	-.124	1.083
9	MP ALPHA2	Y	-.04	3.833
10	MP ALPHA2	Y	-.04	2.167
11	MP ALPHA2	X	-.069	3.833
12	MP ALPHA2	X	-.069	2.167
13	MP ALPHA3	Y	-.103	7.833
14	MP ALPHA3	Y	-.103	1.167
15	MP ALPHA3	X	-.178	7.833
16	MP ALPHA3	X	-.178	1.167
17	MP ALPHA3	Y	-.041	4.5
18	MP ALPHA3	X	-.07	4.5
19	MP ALPHA3	Y	-.026	4.5
20	MP ALPHA3	X	-.045	4.5

Member Point Loads (BLC 6 : Wind Load (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.114	4.417
2	MP ALPHA1	X	-.114	1.083
3	MP ALPHA4	X	-.126	4.417
4	MP ALPHA4	X	-.126	1.083
5	MP ALPHA2	X	-.06	3.833

Member Point Loads (BLC 6 : Wind Load (90)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
6	MP ALPHA2	X	-.06	2.167
7	MP ALPHA3	X	-.143	7.833
8	MP ALPHA3	X	-.143	1.167
9	MP ALPHA3	X	-.077	4.5
10	MP ALPHA3	X	-.04	4.5

Member Point Loads (BLC 7 : Wind Load (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.062	4.417
2	MP ALPHA1	Y	.062	1.083
3	MP ALPHA1	X	-.108	4.417
4	MP ALPHA1	X	-.108	1.083
5	MP ALPHA4	Y	.072	4.417
6	MP ALPHA4	Y	.072	1.083
7	MP ALPHA4	X	-.124	4.417
8	MP ALPHA4	X	-.124	1.083
9	MP ALPHA2	Y	.04	3.833
10	MP ALPHA2	Y	.04	2.167
11	MP ALPHA2	X	-.069	3.833
12	MP ALPHA2	X	-.069	2.167
13	MP ALPHA3	Y	.103	7.833
14	MP ALPHA3	Y	.103	1.167
15	MP ALPHA3	X	-.178	7.833
16	MP ALPHA3	X	-.178	1.167
17	MP ALPHA3	Y	.041	4.5
18	MP ALPHA3	X	-.07	4.5
19	MP ALPHA3	Y	.026	4.5
20	MP ALPHA3	X	-.045	4.5

Member Point Loads (BLC 8 : Wind Load (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.127	4.417
2	MP ALPHA1	Y	.127	1.083
3	MP ALPHA1	X	-.073	4.417
4	MP ALPHA1	X	-.073	1.083
5	MP ALPHA4	Y	.153	4.417
6	MP ALPHA4	Y	.153	1.083
7	MP ALPHA4	X	-.089	4.417
8	MP ALPHA4	X	-.089	1.083
9	MP ALPHA2	Y	.102	3.833
10	MP ALPHA2	Y	.102	2.167
11	MP ALPHA2	X	-.059	3.833
12	MP ALPHA2	X	-.059	2.167
13	MP ALPHA3	Y	.286	7.833
14	MP ALPHA3	Y	.286	1.167
15	MP ALPHA3	X	-.165	7.833
16	MP ALPHA3	X	-.165	1.167
17	MP ALPHA3	Y	.078	4.5
18	MP ALPHA3	X	-.045	4.5
19	MP ALPHA3	Y	.066	4.5
20	MP ALPHA3	X	-.038	4.5

Member Point Loads (BLC 9 : Wind Load (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.157	4.417
2	MP ALPHA1	Y	.157	1.083
3	MP ALPHA4	Y	.194	4.417
4	MP ALPHA4	Y	.194	1.083
5	MP ALPHA2	Y	.137	3.833
6	MP ALPHA2	Y	.137	2.167
7	MP ALPHA3	Y	.393	7.833
8	MP ALPHA3	Y	.393	1.167
9	MP ALPHA3	Y	.095	4.5
10	MP ALPHA3	Y	.089	4.5

Member Point Loads (BLC 10 : Wind Load (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.127	4.417
2	MP ALPHA1	Y	.127	1.083
3	MP ALPHA1	X	.073	4.417
4	MP ALPHA1	X	.073	1.083
5	MP ALPHA4	Y	.153	4.417
6	MP ALPHA4	Y	.153	1.083
7	MP ALPHA4	X	.089	4.417
8	MP ALPHA4	X	.089	1.083
9	MP ALPHA2	Y	.102	3.833
10	MP ALPHA2	Y	.102	2.167
11	MP ALPHA2	X	.059	3.833
12	MP ALPHA2	X	.059	2.167
13	MP ALPHA3	Y	.286	7.833
14	MP ALPHA3	Y	.286	1.167
15	MP ALPHA3	X	.165	7.833
16	MP ALPHA3	X	.165	1.167
17	MP ALPHA3	Y	.078	4.5
18	MP ALPHA3	X	.045	4.5
19	MP ALPHA3	Y	.066	4.5
20	MP ALPHA3	X	.038	4.5

Member Point Loads (BLC 11 : Wind Load (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.062	4.417
2	MP ALPHA1	Y	.062	1.083
3	MP ALPHA1	X	.108	4.417
4	MP ALPHA1	X	.108	1.083
5	MP ALPHA4	Y	.072	4.417
6	MP ALPHA4	Y	.072	1.083
7	MP ALPHA4	X	.124	4.417
8	MP ALPHA4	X	.124	1.083
9	MP ALPHA2	Y	.04	3.833
10	MP ALPHA2	Y	.04	2.167
11	MP ALPHA2	X	.069	3.833
12	MP ALPHA2	X	.069	2.167
13	MP ALPHA3	Y	.103	7.833
14	MP ALPHA3	Y	.103	1.167
15	MP ALPHA3	X	.178	7.833

Member Point Loads (BLC 11 : Wind Load (240)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
16	MP ALPHA3	X	.178	1.167
17	MP ALPHA3	Y	.041	4.5
18	MP ALPHA3	X	.07	4.5
19	MP ALPHA3	Y	.026	4.5
20	MP ALPHA3	X	.045	4.5

Member Point Loads (BLC 12 : Wind Load (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	.114	4.417
2	MP ALPHA1	X	.114	1.083
3	MP ALPHA4	X	.126	4.417
4	MP ALPHA4	X	.126	1.083
5	MP ALPHA2	X	.06	3.833
6	MP ALPHA2	X	.06	2.167
7	MP ALPHA3	X	.143	7.833
8	MP ALPHA3	X	.143	1.167
9	MP ALPHA3	X	.077	4.5
10	MP ALPHA3	X	.04	4.5

Member Point Loads (BLC 13 : Wind Load (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.062	4.417
2	MP ALPHA1	Y	-.062	1.083
3	MP ALPHA1	X	.108	4.417
4	MP ALPHA1	X	.108	1.083
5	MP ALPHA4	Y	-.072	4.417
6	MP ALPHA4	Y	-.072	1.083
7	MP ALPHA4	X	.124	4.417
8	MP ALPHA4	X	.124	1.083
9	MP ALPHA2	Y	-.04	3.833
10	MP ALPHA2	Y	-.04	2.167
11	MP ALPHA2	X	.069	3.833
12	MP ALPHA2	X	.069	2.167
13	MP ALPHA3	Y	-.103	7.833
14	MP ALPHA3	Y	-.103	1.167
15	MP ALPHA3	X	.178	7.833
16	MP ALPHA3	X	.178	1.167
17	MP ALPHA3	Y	-.041	4.5
18	MP ALPHA3	X	.07	4.5
19	MP ALPHA3	Y	-.026	4.5
20	MP ALPHA3	X	.045	4.5

Member Point Loads (BLC 14 : Wind Load (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.127	4.417
2	MP ALPHA1	Y	-.127	1.083
3	MP ALPHA1	X	.073	4.417
4	MP ALPHA1	X	.073	1.083
5	MP ALPHA4	Y	-.153	4.417
6	MP ALPHA4	Y	-.153	1.083

Member Point Loads (BLC 14 : Wind Load (330)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
7	MP ALPHA4	X	.089	4.417
8	MP ALPHA4	X	.089	1.083
9	MP ALPHA2	Y	-.102	3.833
10	MP ALPHA2	Y	-.102	2.167
11	MP ALPHA2	X	.059	3.833
12	MP ALPHA2	X	.059	2.167
13	MP ALPHA3	Y	-.286	7.833
14	MP ALPHA3	Y	-.286	1.167
15	MP ALPHA3	X	.165	7.833
16	MP ALPHA3	X	.165	1.167
17	MP ALPHA3	Y	-.078	4.5
18	MP ALPHA3	X	.045	4.5
19	MP ALPHA3	Y	-.066	4.5
20	MP ALPHA3	X	.038	4.5

Member Point Loads (BLC 15 : Maintanence (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.009	4.417
2	MP ALPHA1	Y	-.009	1.083
3	MP ALPHA4	Y	-.011	4.417
4	MP ALPHA4	Y	-.011	1.083
5	MP ALPHA2	Y	-.008	3.833
6	MP ALPHA2	Y	-.008	2.167
7	MP ALPHA3	Y	-.023	7.833
8	MP ALPHA3	Y	-.023	1.167
9	MP ALPHA3	Y	-.005	4.5
10	MP ALPHA3	Y	-.005	4.5

Member Point Loads (BLC 16 : Maintanence (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.007	4.417
2	MP ALPHA1	Y	-.007	1.083
3	MP ALPHA1	X	-.004	4.417
4	MP ALPHA1	X	-.004	1.083
5	MP ALPHA4	Y	-.009	4.417
6	MP ALPHA4	Y	-.009	1.083
7	MP ALPHA4	X	-.005	4.417
8	MP ALPHA4	X	-.005	1.083
9	MP ALPHA2	Y	-.006	3.833
10	MP ALPHA2	Y	-.006	2.167
11	MP ALPHA2	X	-.003	3.833
12	MP ALPHA2	X	-.003	2.167
13	MP ALPHA3	Y	-.017	7.833
14	MP ALPHA3	Y	-.017	1.167
15	MP ALPHA3	X	-.01	7.833
16	MP ALPHA3	X	-.01	1.167
17	MP ALPHA3	Y	-.005	4.5
18	MP ALPHA3	X	-.003	4.5
19	MP ALPHA3	Y	-.004	4.5
20	MP ALPHA3	X	-.002	4.5

Member Point Loads (BLC 17 : Maintanence (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.004	4.417
2	MP ALPHA1	Y	-.004	1.083
3	MP ALPHA1	X	-.006	4.417
4	MP ALPHA1	X	-.006	1.083
5	MP ALPHA4	Y	-.004	4.417
6	MP ALPHA4	Y	-.004	1.083
7	MP ALPHA4	X	-.007	4.417
8	MP ALPHA4	X	-.007	1.083
9	MP ALPHA2	Y	-.002	3.833
10	MP ALPHA2	Y	-.002	2.167
11	MP ALPHA2	X	-.004	3.833
12	MP ALPHA2	X	-.004	2.167
13	MP ALPHA3	Y	-.006	7.833
14	MP ALPHA3	Y	-.006	1.167
15	MP ALPHA3	X	-.01	7.833
16	MP ALPHA3	X	-.01	1.167
17	MP ALPHA3	Y	-.002	4.5
18	MP ALPHA3	X	-.004	4.5
19	MP ALPHA3	Y	-.001	4.5
20	MP ALPHA3	X	-.003	4.5

Member Point Loads (BLC 18 : Maintanence (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.007	4.417
2	MP ALPHA1	X	-.007	1.083
3	MP ALPHA4	X	-.007	4.417
4	MP ALPHA4	X	-.007	1.083
5	MP ALPHA2	X	-.003	3.833
6	MP ALPHA2	X	-.003	2.167
7	MP ALPHA3	X	-.008	7.833
8	MP ALPHA3	X	-.008	1.167
9	MP ALPHA3	X	-.004	4.5
10	MP ALPHA3	X	-.002	4.5

Member Point Loads (BLC 19 : Maintanence (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.004	4.417
2	MP ALPHA1	Y	.004	1.083
3	MP ALPHA1	X	-.006	4.417
4	MP ALPHA1	X	-.006	1.083
5	MP ALPHA4	Y	.004	4.417
6	MP ALPHA4	Y	.004	1.083
7	MP ALPHA4	X	-.007	4.417
8	MP ALPHA4	X	-.007	1.083
9	MP ALPHA2	Y	.002	3.833
10	MP ALPHA2	Y	.002	2.167
11	MP ALPHA2	X	-.004	3.833
12	MP ALPHA2	X	-.004	2.167
13	MP ALPHA3	Y	.006	7.833
14	MP ALPHA3	Y	.006	1.167
15	MP ALPHA3	X	-.01	7.833

Member Point Loads (BLC 19 : Maintanence (120)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
16	MP ALPHA3	X	-.01	1.167
17	MP ALPHA3	Y	.002	4.5
18	MP ALPHA3	X	-.004	4.5
19	MP ALPHA3	Y	.001	4.5
20	MP ALPHA3	X	-.003	4.5

Member Point Loads (BLC 20 : Maintanence (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.007	4.417
2	MP ALPHA1	Y	.007	1.083
3	MP ALPHA1	X	-.004	4.417
4	MP ALPHA1	X	-.004	1.083
5	MP ALPHA4	Y	.009	4.417
6	MP ALPHA4	Y	.009	1.083
7	MP ALPHA4	X	-.005	4.417
8	MP ALPHA4	X	-.005	1.083
9	MP ALPHA2	Y	.006	3.833
10	MP ALPHA2	Y	.006	2.167
11	MP ALPHA2	X	-.003	3.833
12	MP ALPHA2	X	-.003	2.167
13	MP ALPHA3	Y	.017	7.833
14	MP ALPHA3	Y	.017	1.167
15	MP ALPHA3	X	-.01	7.833
16	MP ALPHA3	X	-.01	1.167
17	MP ALPHA3	Y	.005	4.5
18	MP ALPHA3	X	-.003	4.5
19	MP ALPHA3	Y	.004	4.5
20	MP ALPHA3	X	-.002	4.5

Member Point Loads (BLC 21 : Maintanence (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.009	4.417
2	MP ALPHA1	Y	.009	1.083
3	MP ALPHA4	Y	.011	4.417
4	MP ALPHA4	Y	.011	1.083
5	MP ALPHA2	Y	.008	3.833
6	MP ALPHA2	Y	.008	2.167
7	MP ALPHA3	Y	.023	7.833
8	MP ALPHA3	Y	.023	1.167
9	MP ALPHA3	Y	.005	4.5
10	MP ALPHA3	Y	.005	4.5

Member Point Loads (BLC 22 : Maintanence (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.007	4.417
2	MP ALPHA1	Y	.007	1.083
3	MP ALPHA1	X	.004	4.417
4	MP ALPHA1	X	.004	1.083
5	MP ALPHA4	Y	.009	4.417
6	MP ALPHA4	Y	.009	1.083

Member Point Loads (BLC 22 : Maintanence (210)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
7	MP ALPHA4	X	.005	4.417
8	MP ALPHA4	X	.005	1.083
9	MP ALPHA2	Y	.006	3.833
10	MP ALPHA2	Y	.006	2.167
11	MP ALPHA2	X	.003	3.833
12	MP ALPHA2	X	.003	2.167
13	MP ALPHA3	Y	.017	7.833
14	MP ALPHA3	Y	.017	1.167
15	MP ALPHA3	X	.01	7.833
16	MP ALPHA3	X	.01	1.167
17	MP ALPHA3	Y	.005	4.5
18	MP ALPHA3	X	.003	4.5
19	MP ALPHA3	Y	.004	4.5
20	MP ALPHA3	X	.002	4.5

Member Point Loads (BLC 23 : Maintanence (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.004	4.417
2	MP ALPHA1	Y	.004	1.083
3	MP ALPHA1	X	.006	4.417
4	MP ALPHA1	X	.006	1.083
5	MP ALPHA4	Y	.004	4.417
6	MP ALPHA4	Y	.004	1.083
7	MP ALPHA4	X	.007	4.417
8	MP ALPHA4	X	.007	1.083
9	MP ALPHA2	Y	.002	3.833
10	MP ALPHA2	Y	.002	2.167
11	MP ALPHA2	X	.004	3.833
12	MP ALPHA2	X	.004	2.167
13	MP ALPHA3	Y	.006	7.833
14	MP ALPHA3	Y	.006	1.167
15	MP ALPHA3	X	.01	7.833
16	MP ALPHA3	X	.01	1.167
17	MP ALPHA3	Y	.002	4.5
18	MP ALPHA3	X	.004	4.5
19	MP ALPHA3	Y	.001	4.5
20	MP ALPHA3	X	.003	4.5

Member Point Loads (BLC 24 : Maintanence (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	.007	4.417
2	MP ALPHA1	X	.007	1.083
3	MP ALPHA4	X	.007	4.417
4	MP ALPHA4	X	.007	1.083
5	MP ALPHA2	X	.003	3.833
6	MP ALPHA2	X	.003	2.167
7	MP ALPHA3	X	.008	7.833
8	MP ALPHA3	X	.008	1.167
9	MP ALPHA3	X	.004	4.5
10	MP ALPHA3	X	.002	4.5

Member Point Loads (BLC 25 : Maintanence (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.004	4.417
2	MP ALPHA1	Y	-.004	1.083
3	MP ALPHA1	X	.006	4.417
4	MP ALPHA1	X	.006	1.083
5	MP ALPHA4	Y	-.004	4.417
6	MP ALPHA4	Y	-.004	1.083
7	MP ALPHA4	X	.007	4.417
8	MP ALPHA4	X	.007	1.083
9	MP ALPHA2	Y	-.002	3.833
10	MP ALPHA2	Y	-.002	2.167
11	MP ALPHA2	X	.004	3.833
12	MP ALPHA2	X	.004	2.167
13	MP ALPHA3	Y	-.006	7.833
14	MP ALPHA3	Y	-.006	1.167
15	MP ALPHA3	X	.01	7.833
16	MP ALPHA3	X	.01	1.167
17	MP ALPHA3	Y	-.002	4.5
18	MP ALPHA3	X	.004	4.5
19	MP ALPHA3	Y	-.001	4.5
20	MP ALPHA3	X	.003	4.5

Member Point Loads (BLC 26 : Maintanence (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.007	4.417
2	MP ALPHA1	Y	-.007	1.083
3	MP ALPHA1	X	.004	4.417
4	MP ALPHA1	X	.004	1.083
5	MP ALPHA4	Y	-.009	4.417
6	MP ALPHA4	Y	-.009	1.083
7	MP ALPHA4	X	.005	4.417
8	MP ALPHA4	X	.005	1.083
9	MP ALPHA2	Y	-.006	3.833
10	MP ALPHA2	Y	-.006	2.167
11	MP ALPHA2	X	.003	3.833
12	MP ALPHA2	X	.003	2.167
13	MP ALPHA3	Y	-.017	7.833
14	MP ALPHA3	Y	-.017	1.167
15	MP ALPHA3	X	.01	7.833
16	MP ALPHA3	X	.01	1.167
17	MP ALPHA3	Y	-.005	4.5
18	MP ALPHA3	X	.003	4.5
19	MP ALPHA3	Y	-.004	4.5
20	MP ALPHA3	X	.002	4.5

Member Point Loads (BLC 27 : Ice Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Z	-.058	4.417
2	MP ALPHA1	Z	-.058	1.083
3	MP ALPHA4	Z	-.07	4.417
4	MP ALPHA4	Z	-.07	1.083
5	MP ALPHA2	Z	-.049	3.833

Member Point Loads (BLC 27 : Ice Dead Load) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
6	MP ALPHA2	Z	-.049	2.167
7	MP ALPHA3	Z	-.139	7.833
8	MP ALPHA3	Z	-.139	1.167
9	MP ALPHA3	Z	-.051	4.5
10	MP ALPHA3	Z	-.037	4.5

Member Point Loads (BLC 28 : Ice Wind Load (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.018	4.417
2	MP ALPHA1	Y	-.018	1.083
3	MP ALPHA4	Y	-.021	4.417
4	MP ALPHA4	Y	-.021	1.083
5	MP ALPHA2	Y	-.015	3.833
6	MP ALPHA2	Y	-.015	2.167
7	MP ALPHA3	Y	-.064	7.833
8	MP ALPHA3	Y	-.064	1.167
9	MP ALPHA3	Y	-.012	4.5
10	MP ALPHA3	Y	-.011	4.5

Member Point Loads (BLC 29 : Ice Wind Load (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.014	4.417
2	MP ALPHA1	Y	-.014	1.083
3	MP ALPHA1	X	-.008	4.417
4	MP ALPHA1	X	-.008	1.083
5	MP ALPHA4	Y	-.017	4.417
6	MP ALPHA4	Y	-.017	1.083
7	MP ALPHA4	X	-.01	4.417
8	MP ALPHA4	X	-.01	1.083
9	MP ALPHA2	Y	-.012	3.833
10	MP ALPHA2	Y	-.012	2.167
11	MP ALPHA2	X	-.007	3.833
12	MP ALPHA2	X	-.007	2.167
13	MP ALPHA3	Y	-.047	7.833
14	MP ALPHA3	Y	-.047	1.167
15	MP ALPHA3	X	-.027	7.833
16	MP ALPHA3	X	-.027	1.167
17	MP ALPHA3	Y	-.01	4.5
18	MP ALPHA3	X	-.006	4.5
19	MP ALPHA3	Y	-.009	4.5
20	MP ALPHA3	X	-.005	4.5

Member Point Loads (BLC 30 : Ice Wind Load (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.007	4.417
2	MP ALPHA1	Y	-.007	1.083
3	MP ALPHA1	X	-.012	4.417
4	MP ALPHA1	X	-.012	1.083
5	MP ALPHA4	Y	-.008	4.417
6	MP ALPHA4	Y	-.008	1.083

Member Point Loads (BLC 30 : Ice Wind Load (60)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
7	MP ALPHA4	X	-.014	4.417
8	MP ALPHA4	X	-.014	1.083
9	MP ALPHA2	Y	-.005	3.833
10	MP ALPHA2	Y	-.005	2.167
11	MP ALPHA2	X	-.008	3.833
12	MP ALPHA2	X	-.008	2.167
13	MP ALPHA3	Y	-.018	7.833
14	MP ALPHA3	Y	-.018	1.167
15	MP ALPHA3	X	-.031	7.833
16	MP ALPHA3	X	-.031	1.167
17	MP ALPHA3	Y	-.005	4.5
18	MP ALPHA3	X	-.009	4.5
19	MP ALPHA3	Y	-.004	4.5
20	MP ALPHA3	X	-.006	4.5

Member Point Loads (BLC 31 : Ice Wind Load (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.013	4.417
2	MP ALPHA1	X	-.013	1.083
3	MP ALPHA4	X	-.015	4.417
4	MP ALPHA4	X	-.015	1.083
5	MP ALPHA2	X	-.007	3.833
6	MP ALPHA2	X	-.007	2.167
7	MP ALPHA3	X	-.027	7.833
8	MP ALPHA3	X	-.027	1.167
9	MP ALPHA3	X	-.01	4.5
10	MP ALPHA3	X	-.006	4.5

Member Point Loads (BLC 32 : Ice Wind Load (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.007	4.417
2	MP ALPHA1	Y	.007	1.083
3	MP ALPHA1	X	-.012	4.417
4	MP ALPHA1	X	-.012	1.083
5	MP ALPHA4	Y	.008	4.417
6	MP ALPHA4	Y	.008	1.083
7	MP ALPHA4	X	-.014	4.417
8	MP ALPHA4	X	-.014	1.083
9	MP ALPHA2	Y	.005	3.833
10	MP ALPHA2	Y	.005	2.167
11	MP ALPHA2	X	-.008	3.833
12	MP ALPHA2	X	-.008	2.167
13	MP ALPHA3	Y	.018	7.833
14	MP ALPHA3	Y	.018	1.167
15	MP ALPHA3	X	-.031	7.833
16	MP ALPHA3	X	-.031	1.167
17	MP ALPHA3	Y	.005	4.5
18	MP ALPHA3	X	-.009	4.5
19	MP ALPHA3	Y	.004	4.5
20	MP ALPHA3	X	-.006	4.5

Member Point Loads (BLC 33 : Ice Wind Load (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.014	4.417
2	MP ALPHA1	Y	.014	1.083
3	MP ALPHA1	X	-.008	4.417
4	MP ALPHA1	X	-.008	1.083
5	MP ALPHA4	Y	.017	4.417
6	MP ALPHA4	Y	.017	1.083
7	MP ALPHA4	X	-.01	4.417
8	MP ALPHA4	X	-.01	1.083
9	MP ALPHA2	Y	.012	3.833
10	MP ALPHA2	Y	.012	2.167
11	MP ALPHA2	X	-.007	3.833
12	MP ALPHA2	X	-.007	2.167
13	MP ALPHA3	Y	.047	7.833
14	MP ALPHA3	Y	.047	1.167
15	MP ALPHA3	X	-.027	7.833
16	MP ALPHA3	X	-.027	1.167
17	MP ALPHA3	Y	.01	4.5
18	MP ALPHA3	X	-.006	4.5
19	MP ALPHA3	Y	.009	4.5
20	MP ALPHA3	X	-.005	4.5

Member Point Loads (BLC 34 : Ice Wind Load (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.018	4.417
2	MP ALPHA1	Y	.018	1.083
3	MP ALPHA4	Y	.021	4.417
4	MP ALPHA4	Y	.021	1.083
5	MP ALPHA2	Y	.015	3.833
6	MP ALPHA2	Y	.015	2.167
7	MP ALPHA3	Y	.064	7.833
8	MP ALPHA3	Y	.064	1.167
9	MP ALPHA3	Y	.012	4.5
10	MP ALPHA3	Y	.011	4.5

Member Point Loads (BLC 35 : Ice Wind Load (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.014	4.417
2	MP ALPHA1	Y	.014	1.083
3	MP ALPHA1	X	.008	4.417
4	MP ALPHA1	X	.008	1.083
5	MP ALPHA4	Y	.017	4.417
6	MP ALPHA4	Y	.017	1.083
7	MP ALPHA4	X	.01	4.417
8	MP ALPHA4	X	.01	1.083
9	MP ALPHA2	Y	.012	3.833
10	MP ALPHA2	Y	.012	2.167
11	MP ALPHA2	X	.007	3.833
12	MP ALPHA2	X	.007	2.167
13	MP ALPHA3	Y	.047	7.833
14	MP ALPHA3	Y	.047	1.167
15	MP ALPHA3	X	.027	7.833

Member Point Loads (BLC 35 : Ice Wind Load (210)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
16	MP ALPHA3	X	.027	1.167
17	MP ALPHA3	Y	.01	4.5
18	MP ALPHA3	X	.006	4.5
19	MP ALPHA3	Y	.009	4.5
20	MP ALPHA3	X	.005	4.5

Member Point Loads (BLC 36 : Ice Wind Load (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.007	4.417
2	MP ALPHA1	Y	.007	1.083
3	MP ALPHA1	X	.012	4.417
4	MP ALPHA1	X	.012	1.083
5	MP ALPHA4	Y	.008	4.417
6	MP ALPHA4	Y	.008	1.083
7	MP ALPHA4	X	.014	4.417
8	MP ALPHA4	X	.014	1.083
9	MP ALPHA2	Y	.005	3.833
10	MP ALPHA2	Y	.005	2.167
11	MP ALPHA2	X	.008	3.833
12	MP ALPHA2	X	.008	2.167
13	MP ALPHA3	Y	.018	7.833
14	MP ALPHA3	Y	.018	1.167
15	MP ALPHA3	X	.031	7.833
16	MP ALPHA3	X	.031	1.167
17	MP ALPHA3	Y	.005	4.5
18	MP ALPHA3	X	.009	4.5
19	MP ALPHA3	Y	.004	4.5
20	MP ALPHA3	X	.006	4.5

Member Point Loads (BLC 37 : Ice Wind Load (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	.013	4.417
2	MP ALPHA1	X	.013	1.083
3	MP ALPHA4	X	.015	4.417
4	MP ALPHA4	X	.015	1.083
5	MP ALPHA2	X	.007	3.833
6	MP ALPHA2	X	.007	2.167
7	MP ALPHA3	X	.027	7.833
8	MP ALPHA3	X	.027	1.167
9	MP ALPHA3	X	.01	4.5
10	MP ALPHA3	X	.006	4.5

Member Point Loads (BLC 38 : Ice Wind Load (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.007	4.417
2	MP ALPHA1	Y	-.007	1.083
3	MP ALPHA1	X	.012	4.417
4	MP ALPHA1	X	.012	1.083
5	MP ALPHA4	Y	-.008	4.417
6	MP ALPHA4	Y	-.008	1.083

Member Point Loads (BLC 38 : Ice Wind Load (300)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
7	MP ALPHA4	X	.014	4.417
8	MP ALPHA4	X	.014	1.083
9	MP ALPHA2	Y	-.005	3.833
10	MP ALPHA2	Y	-.005	2.167
11	MP ALPHA2	X	.008	3.833
12	MP ALPHA2	X	.008	2.167
13	MP ALPHA3	Y	-.018	7.833
14	MP ALPHA3	Y	-.018	1.167
15	MP ALPHA3	X	.031	7.833
16	MP ALPHA3	X	.031	1.167
17	MP ALPHA3	Y	-.005	4.5
18	MP ALPHA3	X	.009	4.5
19	MP ALPHA3	Y	-.004	4.5
20	MP ALPHA3	X	.006	4.5

Member Point Loads (BLC 39 : Ice Wind Load (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.014	4.417
2	MP ALPHA1	Y	-.014	1.083
3	MP ALPHA1	X	.008	4.417
4	MP ALPHA1	X	.008	1.083
5	MP ALPHA4	Y	-.017	4.417
6	MP ALPHA4	Y	-.017	1.083
7	MP ALPHA4	X	.01	4.417
8	MP ALPHA4	X	.01	1.083
9	MP ALPHA2	Y	-.012	3.833
10	MP ALPHA2	Y	-.012	2.167
11	MP ALPHA2	X	.007	3.833
12	MP ALPHA2	X	.007	2.167
13	MP ALPHA3	Y	-.047	7.833
14	MP ALPHA3	Y	-.047	1.167
15	MP ALPHA3	X	.027	7.833
16	MP ALPHA3	X	.027	1.167
17	MP ALPHA3	Y	-.01	4.5
18	MP ALPHA3	X	.006	4.5
19	MP ALPHA3	Y	-.009	4.5
20	MP ALPHA3	X	.005	4.5

Member Point Loads (BLC 40 : Earthquake (x-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.008	4.417
2	MP ALPHA1	X	-.008	1.083
3	MP ALPHA4	X	-.013	4.417
4	MP ALPHA4	X	-.013	1.083
5	MP ALPHA2	X	-.006	3.833
6	MP ALPHA2	X	-.006	2.167
7	MP ALPHA3	X	-.006	7.833
8	MP ALPHA3	X	-.006	1.167
9	MP ALPHA3	X	-.008	4.5
10	MP ALPHA3	X	-.005	4.5

Member Point Loads (BLC 41 : Earthquake (y-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.008	4.417
2	MP ALPHA1	Y	-.008	1.083
3	MP ALPHA4	Y	-.013	4.417
4	MP ALPHA4	Y	-.013	1.083
5	MP ALPHA2	Y	-.006	3.833
6	MP ALPHA2	Y	-.006	2.167
7	MP ALPHA3	Y	-.006	7.833
8	MP ALPHA3	Y	-.006	1.167
9	MP ALPHA3	Y	-.008	4.5
10	MP ALPHA3	Y	-.005	4.5

Member Point Loads (BLC 42 : Earthquake (z-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Z	-.003	4.417
2	MP ALPHA1	Z	-.003	1.083
3	MP ALPHA4	Z	-.005	4.417
4	MP ALPHA4	Z	-.005	1.083
5	MP ALPHA2	Z	-.002	3.833
6	MP ALPHA2	Z	-.002	2.167
7	MP ALPHA3	Z	-.002	7.833
8	MP ALPHA3	Z	-.002	1.167
9	MP ALPHA3	Z	-.003	4.5
10	MP ALPHA3	Z	-.002	4.5

Member Distributed Loads (BLC 2 : Wind Load (0))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.004	-.004	0	0
2	TIEBACK	PY	-.004	-.004	0	0
3	FACE1	PY	-.017	-.017	0	0
4	FACE2	PY	-.017	-.017	0	0
5	FACE VERT1	PY	-.012	-.012	0	0
6	FACE VERT2	PY	-.012	-.012	0	0
7	FACE VERT3	PY	-.012	-.012	0	0
8	KICKER1	PY	-.008	-.008	0	0
9	KICKER2	PY	-.008	-.008	0	0
10	KICKER3	PY	-.008	-.008	0	0
11	KICKER4	PY	-.008	-.008	0	0
12	KICKER DIAG1	PY	-.007	-.007	0	0
13	KICKER DIAG2	PY	-.007	-.007	0	0
14	KICKER DIAG3	PY	-.007	-.007	0	0
15	KICKER DIAG4	PY	-.007	-.007	0	0
16	SO VERT1	PY	-.007	-.007	0	0
17	SO VERT2	PY	-.007	-.007	0	0
18	SO1	PY	-.008	-.008	0	0
19	SO2	PY	-.008	-.008	0	0
20	SO DIAG	PY	-.007	-.007	0	0
21	FACE DIAG1	PY	-.014	-.014	0	0
22	FACE DIAG2	PY	-.014	-.014	0	0
23	MP ALPHA2	PY	-.011	-.011	0	0
24	MP ALPHA1	PY	-.011	-.011	0	0

Member Distributed Loads (BLC 2 : Wind Load (0)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
25	MP ALPHA3	PY	-.011	-.011	0	0
26	MP ALPHA4	PY	-.011	-.011	0	0

Member Distributed Loads (BLC 4 : Wind Load (30))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.004	-.004	0	0
2	TIEBACK	PY	-.003	-.003	0	0
3	FACE1	PY	-.015	-.015	0	0
4	FACE2	PY	-.015	-.015	0	0
5	FACE VERT1	PY	-.011	-.011	0	0
6	FACE VERT2	PY	-.011	-.011	0	0
7	FACE VERT3	PY	-.011	-.011	0	0
8	KICKER1	PY	-.007	-.007	0	0
9	KICKER2	PY	-.007	-.007	0	0
10	KICKER3	PY	-.007	-.007	0	0
11	KICKER4	PY	-.007	-.007	0	0
12	KICKER DIAG1	PY	-.006	-.006	0	0
13	KICKER DIAG2	PY	-.006	-.006	0	0
14	KICKER DIAG3	PY	-.006	-.006	0	0
15	KICKER DIAG4	PY	-.006	-.006	0	0
16	SO VERT1	PY	-.006	-.006	0	0
17	SO VERT2	PY	-.006	-.006	0	0
18	SO1	PY	-.007	-.007	0	0
19	SO2	PY	-.007	-.007	0	0
20	SO DIAG	PY	-.006	-.006	0	0
21	FACE DIAG1	PY	-.012	-.012	0	0
22	FACE DIAG2	PY	-.012	-.012	0	0
23	MP ALPHA2	PY	-.01	-.01	0	0
24	MP ALPHA1	PY	-.01	-.01	0	0
25	MP ALPHA3	PY	-.01	-.01	0	0
26	MP ALPHA4	PY	-.01	-.01	0	0
27	SO PIPE	PX	-.002	-.002	0	0
28	TIEBACK	PX	-.002	-.002	0	0
29	FACE1	PX	-.009	-.009	0	0
30	FACE2	PX	-.009	-.009	0	0
31	FACE VERT1	PX	-.006	-.006	0	0
32	FACE VERT2	PX	-.006	-.006	0	0
33	FACE VERT3	PX	-.006	-.006	0	0
34	KICKER1	PX	-.004	-.004	0	0
35	KICKER2	PX	-.004	-.004	0	0
36	KICKER3	PX	-.004	-.004	0	0
37	KICKER4	PX	-.004	-.004	0	0
38	KICKER DIAG1	PX	-.004	-.004	0	0
39	KICKER DIAG2	PX	-.004	-.004	0	0
40	KICKER DIAG3	PX	-.004	-.004	0	0
41	KICKER DIAG4	PX	-.004	-.004	0	0
42	SO VERT1	PX	-.004	-.004	0	0
43	SO VERT2	PX	-.004	-.004	0	0
44	SO1	PX	-.004	-.004	0	0
45	SO2	PX	-.004	-.004	0	0
46	SO DIAG	PX	-.004	-.004	0	0

Member Distributed Loads (BLC 4 : Wind Load (30)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
47	FACE DIAG1	PX	-.007	-.007	0	0
48	FACE DIAG2	PX	-.007	-.007	0	0
49	MP ALPHA2	PX	-.006	-.006	0	0
50	MP ALPHA1	PX	-.006	-.006	0	0
51	MP ALPHA3	PX	-.006	-.006	0	0
52	MP ALPHA4	PX	-.006	-.006	0	0

Member Distributed Loads (BLC 5 : Wind Load (60))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.002	-.002	0	0
2	TIEBACK	PY	-.002	-.002	0	0
3	FACE1	PY	-.009	-.009	0	0
4	FACE2	PY	-.009	-.009	0	0
5	FACE VERT1	PY	-.006	-.006	0	0
6	FACE VERT2	PY	-.006	-.006	0	0
7	FACE VERT3	PY	-.006	-.006	0	0
8	KICKER1	PY	-.004	-.004	0	0
9	KICKER2	PY	-.004	-.004	0	0
10	KICKER3	PY	-.004	-.004	0	0
11	KICKER4	PY	-.004	-.004	0	0
12	KICKER DIAG1	PY	-.004	-.004	0	0
13	KICKER DIAG2	PY	-.004	-.004	0	0
14	KICKER DIAG3	PY	-.004	-.004	0	0
15	KICKER DIAG4	PY	-.004	-.004	0	0
16	SO VERT1	PY	-.004	-.004	0	0
17	SO VERT2	PY	-.004	-.004	0	0
18	SO1	PY	-.004	-.004	0	0
19	SO2	PY	-.004	-.004	0	0
20	SO DIAG	PY	-.004	-.004	0	0
21	FACE DIAG1	PY	-.007	-.007	0	0
22	FACE DIAG2	PY	-.007	-.007	0	0
23	MP ALPHA2	PY	-.006	-.006	0	0
24	MP ALPHA1	PY	-.006	-.006	0	0
25	MP ALPHA3	PY	-.006	-.006	0	0
26	MP ALPHA4	PY	-.006	-.006	0	0
27	SO PIPE	PX	-.004	-.004	0	0
28	TIEBACK	PX	-.003	-.003	0	0
29	FACE1	PX	-.015	-.015	0	0
30	FACE2	PX	-.015	-.015	0	0
31	FACE VERT1	PX	-.011	-.011	0	0
32	FACE VERT2	PX	-.011	-.011	0	0
33	FACE VERT3	PX	-.011	-.011	0	0
34	KICKER1	PX	-.007	-.007	0	0
35	KICKER2	PX	-.007	-.007	0	0
36	KICKER3	PX	-.007	-.007	0	0
37	KICKER4	PX	-.007	-.007	0	0
38	KICKER DIAG1	PX	-.006	-.006	0	0
39	KICKER DIAG2	PX	-.006	-.006	0	0
40	KICKER DIAG3	PX	-.006	-.006	0	0
41	KICKER DIAG4	PX	-.006	-.006	0	0
42	SO VERT1	PX	-.006	-.006	0	0

Member Distributed Loads (BLC 5 : Wind Load (60)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
43	SO VERT2	PX	-.006	-.006	0	0
44	SO1	PX	-.007	-.007	0	0
45	SO2	PX	-.007	-.007	0	0
46	SO DIAG	PX	-.006	-.006	0	0
47	FACE DIAG1	PX	-.012	-.012	0	0
48	FACE DIAG2	PX	-.012	-.012	0	0
49	MP ALPHA2	PX	-.01	-.01	0	0
50	MP ALPHA1	PX	-.01	-.01	0	0
51	MP ALPHA3	PX	-.01	-.01	0	0
52	MP ALPHA4	PX	-.01	-.01	0	0

Member Distributed Loads (BLC 6 : Wind Load (90))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PX	-.009	-.009	0	0
2	TIEBACK	PX	-.004	-.004	0	0
3	FACE1	PX	-.01	-.01	0	0
4	FACE2	PX	-.01	-.01	0	0
5	FACE VERT1	PX	-.007	-.007	0	0
6	FACE VERT2	PX	-.007	-.007	0	0
7	FACE VERT3	PX	-.007	-.007	0	0
8	KICKER4	PX	-.013	-.013	0	0
9	KICKER3	PX	-.013	-.013	0	0
10	KICKER2	PX	-.008	-.008	0	0
11	KICKER1	PX	-.008	-.008	0	0
12	KICKER DIAG4	PX	-.011	-.011	0	0
13	KICKER DIAG3	PX	-.011	-.011	0	0
14	KICKER DIAG2	PX	-.007	-.007	0	0
15	KICKER DIAG1	PX	-.007	-.007	0	0
16	SO VERT2	PX	-.011	-.011	0	0
17	SO VERT1	PX	-.007	-.007	0	0
18	SO1	PX	-.008	-.008	0	0
19	SO2	PX	-.008	-.008	0	0
20	SO DIAG	PX	-.007	-.007	0	0
21	FACE DIAG1	PX	-.008	-.008	0	0
22	FACE DIAG2	PX	-.008	-.008	0	0
23	MP ALPHA2	PX	-.011	-.011	0	0
24	MP ALPHA1	PX	-.011	-.011	0	0
25	MP ALPHA3	PX	-.011	-.011	0	0
26	MP ALPHA4	PX	-.011	-.011	0	0

Member Distributed Loads (BLC 7 : Wind Load (120))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.002	.002	0	0
2	TIEBACK	PY	.002	.002	0	0
3	FACE1	PY	.009	.009	0	0
4	FACE2	PY	.009	.009	0	0
5	FACE VERT1	PY	.006	.006	0	0
6	FACE VERT2	PY	.006	.006	0	0
7	FACE VERT3	PY	.006	.006	0	0
8	KICKER1	PY	.004	.004	0	0
9	KICKER2	PY	.004	.004	0	0

Member Distributed Loads (BLC 7 : Wind Load (120)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
10	KICKER3	PY	.004	.004	0	0
11	KICKER4	PY	.004	.004	0	0
12	KICKER DIAG1	PY	.004	.004	0	0
13	KICKER DIAG2	PY	.004	.004	0	0
14	KICKER DIAG3	PY	.004	.004	0	0
15	KICKER DIAG4	PY	.004	.004	0	0
16	SO VERT1	PY	.004	.004	0	0
17	SO VERT2	PY	.004	.004	0	0
18	SO1	PY	.004	.004	0	0
19	SO2	PY	.004	.004	0	0
20	SO DIAG	PY	.004	.004	0	0
21	FACE DIAG1	PY	.007	.007	0	0
22	FACE DIAG2	PY	.007	.007	0	0
23	MP ALPHA2	PY	.006	.006	0	0
24	MP ALPHA1	PY	.006	.006	0	0
25	MP ALPHA3	PY	.006	.006	0	0
26	MP ALPHA4	PY	.006	.006	0	0
27	SO PIPE	PX	-.004	-.004	0	0
28	TIEBACK	PX	-.003	-.003	0	0
29	FACE1	PX	-.015	-.015	0	0
30	FACE2	PX	-.015	-.015	0	0
31	FACE VERT1	PX	-.011	-.011	0	0
32	FACE VERT2	PX	-.011	-.011	0	0
33	FACE VERT3	PX	-.011	-.011	0	0
34	KICKER1	PX	-.007	-.007	0	0
35	KICKER2	PX	-.007	-.007	0	0
36	KICKER3	PX	-.007	-.007	0	0
37	KICKER4	PX	-.007	-.007	0	0
38	KICKER DIAG1	PX	-.006	-.006	0	0
39	KICKER DIAG2	PX	-.006	-.006	0	0
40	KICKER DIAG3	PX	-.006	-.006	0	0
41	KICKER DIAG4	PX	-.006	-.006	0	0
42	SO VERT1	PX	-.006	-.006	0	0
43	SO VERT2	PX	-.006	-.006	0	0
44	SO1	PX	-.007	-.007	0	0
45	SO2	PX	-.007	-.007	0	0
46	SO DIAG	PX	-.006	-.006	0	0
47	FACE DIAG1	PX	-.012	-.012	0	0
48	FACE DIAG2	PX	-.012	-.012	0	0
49	MP ALPHA2	PX	-.01	-.01	0	0
50	MP ALPHA1	PX	-.01	-.01	0	0
51	MP ALPHA3	PX	-.01	-.01	0	0
52	MP ALPHA4	PX	-.01	-.01	0	0

Member Distributed Loads (BLC 8 : Wind Load (150))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.004	.004	0	0
2	TIEBACK	PY	.003	.003	0	0
3	FACE1	PY	.015	.015	0	0
4	FACE2	PY	.015	.015	0	0
5	FACE VERT1	PY	.011	.011	0	0

Member Distributed Loads (BLC 8 : Wind Load (150)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
6	FACE VERT2	PY	.011	.011	0	0
7	FACE VERT3	PY	.011	.011	0	0
8	KICKER1	PY	.007	.007	0	0
9	KICKER2	PY	.007	.007	0	0
10	KICKER3	PY	.007	.007	0	0
11	KICKER4	PY	.007	.007	0	0
12	KICKER DIAG1	PY	.006	.006	0	0
13	KICKER DIAG2	PY	.006	.006	0	0
14	KICKER DIAG3	PY	.006	.006	0	0
15	KICKER DIAG4	PY	.006	.006	0	0
16	SO VERT1	PY	.006	.006	0	0
17	SO VERT2	PY	.006	.006	0	0
18	SO1	PY	.007	.007	0	0
19	SO2	PY	.007	.007	0	0
20	SO DIAG	PY	.006	.006	0	0
21	FACE DIAG1	PY	.012	.012	0	0
22	FACE DIAG2	PY	.012	.012	0	0
23	MP ALPHA2	PY	.01	.01	0	0
24	MP ALPHA1	PY	.01	.01	0	0
25	MP ALPHA3	PY	.01	.01	0	0
26	MP ALPHA4	PY	.01	.01	0	0
27	SO PIPE	PX	-.002	-.002	0	0
28	TIEBACK	PX	-.002	-.002	0	0
29	FACE1	PX	-.009	-.009	0	0
30	FACE2	PX	-.009	-.009	0	0
31	FACE VERT1	PX	-.006	-.006	0	0
32	FACE VERT2	PX	-.006	-.006	0	0
33	FACE VERT3	PX	-.006	-.006	0	0
34	KICKER1	PX	-.004	-.004	0	0
35	KICKER2	PX	-.004	-.004	0	0
36	KICKER3	PX	-.004	-.004	0	0
37	KICKER4	PX	-.004	-.004	0	0
38	KICKER DIAG1	PX	-.004	-.004	0	0
39	KICKER DIAG2	PX	-.004	-.004	0	0
40	KICKER DIAG3	PX	-.004	-.004	0	0
41	KICKER DIAG4	PX	-.004	-.004	0	0
42	SO VERT1	PX	-.004	-.004	0	0
43	SO VERT2	PX	-.004	-.004	0	0
44	SO1	PX	-.004	-.004	0	0
45	SO2	PX	-.004	-.004	0	0
46	SO DIAG	PX	-.004	-.004	0	0
47	FACE DIAG1	PX	-.007	-.007	0	0
48	FACE DIAG2	PX	-.007	-.007	0	0
49	MP ALPHA2	PX	-.006	-.006	0	0
50	MP ALPHA1	PX	-.006	-.006	0	0
51	MP ALPHA3	PX	-.006	-.006	0	0
52	MP ALPHA4	PX	-.006	-.006	0	0

Member Distributed Loads (BLC 9 : Wind Load (180))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.004	.004	0	0

Member Distributed Loads (BLC 9 : Wind Load (180)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
2	TIEBACK	PY	.004	.004	0	0
3	FACE1	PY	.017	.017	0	0
4	FACE2	PY	.017	.017	0	0
5	FACE VERT1	PY	.012	.012	0	0
6	FACE VERT2	PY	.012	.012	0	0
7	FACE VERT3	PY	.012	.012	0	0
8	KICKER1	PY	.008	.008	0	0
9	KICKER2	PY	.008	.008	0	0
10	KICKER3	PY	.008	.008	0	0
11	KICKER4	PY	.008	.008	0	0
12	KICKER DIAG1	PY	.007	.007	0	0
13	KICKER DIAG2	PY	.007	.007	0	0
14	KICKER DIAG3	PY	.007	.007	0	0
15	KICKER DIAG4	PY	.007	.007	0	0
16	SO VERT1	PY	.007	.007	0	0
17	SO VERT2	PY	.007	.007	0	0
18	SO1	PY	.008	.008	0	0
19	SO2	PY	.008	.008	0	0
20	SO DIAG	PY	.007	.007	0	0
21	FACE DIAG1	PY	.014	.014	0	0
22	FACE DIAG2	PY	.014	.014	0	0
23	MP ALPHA2	PY	.011	.011	0	0
24	MP ALPHA1	PY	.011	.011	0	0
25	MP ALPHA3	PY	.011	.011	0	0
26	MP ALPHA4	PY	.011	.011	0	0

Member Distributed Loads (BLC 10 : Wind Load (210))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.004	.004	0	0
2	TIEBACK	PY	.003	.003	0	0
3	FACE1	PY	.015	.015	0	0
4	FACE2	PY	.015	.015	0	0
5	FACE VERT1	PY	.011	.011	0	0
6	FACE VERT2	PY	.011	.011	0	0
7	FACE VERT3	PY	.011	.011	0	0
8	KICKER1	PY	.007	.007	0	0
9	KICKER2	PY	.007	.007	0	0
10	KICKER3	PY	.007	.007	0	0
11	KICKER4	PY	.007	.007	0	0
12	KICKER DIAG1	PY	.006	.006	0	0
13	KICKER DIAG2	PY	.006	.006	0	0
14	KICKER DIAG3	PY	.006	.006	0	0
15	KICKER DIAG4	PY	.006	.006	0	0
16	SO VERT1	PY	.006	.006	0	0
17	SO VERT2	PY	.006	.006	0	0
18	SO1	PY	.007	.007	0	0
19	SO2	PY	.007	.007	0	0
20	SO DIAG	PY	.006	.006	0	0
21	FACE DIAG1	PY	.012	.012	0	0
22	FACE DIAG2	PY	.012	.012	0	0
23	MP ALPHA2	PY	.01	.01	0	0

Member Distributed Loads (BLC 10 : Wind Load (210)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
24	MP ALPHA1	PY	.01	.01	0	0
25	MP ALPHA3	PY	.01	.01	0	0
26	MP ALPHA4	PY	.01	.01	0	0
27	SO PIPE	PX	.002	.002	0	0
28	TIEBACK	PX	.002	.002	0	0
29	FACE1	PX	.009	.009	0	0
30	FACE2	PX	.009	.009	0	0
31	FACE VERT1	PX	.006	.006	0	0
32	FACE VERT2	PX	.006	.006	0	0
33	FACE VERT3	PX	.006	.006	0	0
34	KICKER1	PX	.004	.004	0	0
35	KICKER2	PX	.004	.004	0	0
36	KICKER3	PX	.004	.004	0	0
37	KICKER4	PX	.004	.004	0	0
38	KICKER DIAG1	PX	.004	.004	0	0
39	KICKER DIAG2	PX	.004	.004	0	0
40	KICKER DIAG3	PX	.004	.004	0	0
41	KICKER DIAG4	PX	.004	.004	0	0
42	SO VERT1	PX	.004	.004	0	0
43	SO VERT2	PX	.004	.004	0	0
44	SO1	PX	.004	.004	0	0
45	SO2	PX	.004	.004	0	0
46	SO DIAG	PX	.004	.004	0	0
47	FACE DIAG1	PX	.007	.007	0	0
48	FACE DIAG2	PX	.007	.007	0	0
49	MP ALPHA2	PX	.006	.006	0	0
50	MP ALPHA1	PX	.006	.006	0	0
51	MP ALPHA3	PX	.006	.006	0	0
52	MP ALPHA4	PX	.006	.006	0	0

Member Distributed Loads (BLC 11 : Wind Load (240))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.002	.002	0	0
2	TIEBACK	PY	.002	.002	0	0
3	FACE1	PY	.009	.009	0	0
4	FACE2	PY	.009	.009	0	0
5	FACE VERT1	PY	.006	.006	0	0
6	FACE VERT2	PY	.006	.006	0	0
7	FACE VERT3	PY	.006	.006	0	0
8	KICKER1	PY	.004	.004	0	0
9	KICKER2	PY	.004	.004	0	0
10	KICKER3	PY	.004	.004	0	0
11	KICKER4	PY	.004	.004	0	0
12	KICKER DIAG1	PY	.004	.004	0	0
13	KICKER DIAG2	PY	.004	.004	0	0
14	KICKER DIAG3	PY	.004	.004	0	0
15	KICKER DIAG4	PY	.004	.004	0	0
16	SO VERT1	PY	.004	.004	0	0
17	SO VERT2	PY	.004	.004	0	0
18	SO1	PY	.004	.004	0	0
19	SO2	PY	.004	.004	0	0

Member Distributed Loads (BLC 11 : Wind Load (240)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
20	SO DIAG	PY	.004	.004	0	0
21	FACE DIAG1	PY	.007	.007	0	0
22	FACE DIAG2	PY	.007	.007	0	0
23	MP ALPHA2	PY	.006	.006	0	0
24	MP ALPHA1	PY	.006	.006	0	0
25	MP ALPHA3	PY	.006	.006	0	0
26	MP ALPHA4	PY	.006	.006	0	0
27	SO PIPE	PX	.004	.004	0	0
28	TIEBACK	PX	.003	.003	0	0
29	FACE1	PX	.015	.015	0	0
30	FACE2	PX	.015	.015	0	0
31	FACE VERT1	PX	.011	.011	0	0
32	FACE VERT2	PX	.011	.011	0	0
33	FACE VERT3	PX	.011	.011	0	0
34	KICKER1	PX	.007	.007	0	0
35	KICKER2	PX	.007	.007	0	0
36	KICKER3	PX	.007	.007	0	0
37	KICKER4	PX	.007	.007	0	0
38	KICKER DIAG1	PX	.006	.006	0	0
39	KICKER DIAG2	PX	.006	.006	0	0
40	KICKER DIAG3	PX	.006	.006	0	0
41	KICKER DIAG4	PX	.006	.006	0	0
42	SO VERT1	PX	.006	.006	0	0
43	SO VERT2	PX	.006	.006	0	0
44	SO1	PX	.007	.007	0	0
45	SO2	PX	.007	.007	0	0
46	SO DIAG	PX	.006	.006	0	0
47	FACE DIAG1	PX	.012	.012	0	0
48	FACE DIAG2	PX	.012	.012	0	0
49	MP ALPHA2	PX	.01	.01	0	0
50	MP ALPHA1	PX	.01	.01	0	0
51	MP ALPHA3	PX	.01	.01	0	0
52	MP ALPHA4	PX	.01	.01	0	0

Member Distributed Loads (BLC 12 : Wind Load (270))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PX	.009	.009	0	0
2	TIEBACK	PX	.004	.004	0	0
3	FACE1	PX	.01	.01	0	0
4	FACE2	PX	.01	.01	0	0
5	FACE VERT1	PX	.007	.007	0	0
6	FACE VERT2	PX	.007	.007	0	0
7	FACE VERT3	PX	.007	.007	0	0
8	KICKER1	PX	.013	.013	0	0
9	KICKER2	PX	.013	.013	0	0
10	KICKER3	PX	.008	.008	0	0
11	KICKER4	PX	.008	.008	0	0
12	KICKER DIAG1	PX	.011	.011	0	0
13	KICKER DIAG2	PX	.011	.011	0	0
14	KICKER DIAG3	PX	.007	.007	0	0
15	KICKER DIAG4	PX	.007	.007	0	0

Member Distributed Loads (BLC 12 : Wind Load (270)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
16	SO VERT1	PX	.011	.011	0	0
17	SO VERT2	PX	.007	.007	0	0
18	SO1	PX	.008	.008	0	0
19	SO2	PX	.008	.008	0	0
20	SO DIAG	PX	.007	.007	0	0
21	FACE DIAG1	PX	.008	.008	0	0
22	FACE DIAG2	PX	.008	.008	0	0
23	MP ALPHA2	PX	.011	.011	0	0
24	MP ALPHA1	PX	.011	.011	0	0
25	MP ALPHA3	PX	.011	.011	0	0
26	MP ALPHA4	PX	.011	.011	0	0

Member Distributed Loads (BLC 13 : Wind Load (300))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.002	-.002	0	0
2	TIEBACK	PY	-.002	-.002	0	0
3	FACE1	PY	-.009	-.009	0	0
4	FACE2	PY	-.009	-.009	0	0
5	FACE VERT1	PY	-.006	-.006	0	0
6	FACE VERT2	PY	-.006	-.006	0	0
7	FACE VERT3	PY	-.006	-.006	0	0
8	KICKER1	PY	-.004	-.004	0	0
9	KICKER2	PY	-.004	-.004	0	0
10	KICKER3	PY	-.004	-.004	0	0
11	KICKER4	PY	-.004	-.004	0	0
12	KICKER DIAG1	PY	-.004	-.004	0	0
13	KICKER DIAG2	PY	-.004	-.004	0	0
14	KICKER DIAG3	PY	-.004	-.004	0	0
15	KICKER DIAG4	PY	-.004	-.004	0	0
16	SO VERT1	PY	-.004	-.004	0	0
17	SO VERT2	PY	-.004	-.004	0	0
18	SO1	PY	-.004	-.004	0	0
19	SO2	PY	-.004	-.004	0	0
20	SO DIAG	PY	-.004	-.004	0	0
21	FACE DIAG1	PY	-.007	-.007	0	0
22	FACE DIAG2	PY	-.007	-.007	0	0
23	MP ALPHA2	PY	-.006	-.006	0	0
24	MP ALPHA1	PY	-.006	-.006	0	0
25	MP ALPHA3	PY	-.006	-.006	0	0
26	MP ALPHA4	PY	-.006	-.006	0	0
27	SO PIPE	PX	.004	.004	0	0
28	TIEBACK	PX	.003	.003	0	0
29	FACE1	PX	.015	.015	0	0
30	FACE2	PX	.015	.015	0	0
31	FACE VERT1	PX	.011	.011	0	0
32	FACE VERT2	PX	.011	.011	0	0
33	FACE VERT3	PX	.011	.011	0	0
34	KICKER1	PX	.007	.007	0	0
35	KICKER2	PX	.007	.007	0	0
36	KICKER3	PX	.007	.007	0	0
37	KICKER4	PX	.007	.007	0	0

Member Distributed Loads (BLC 13 : Wind Load (300)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
38	KICKER DIAG1	PX	.006	.006	0	0
39	KICKER DIAG2	PX	.006	.006	0	0
40	KICKER DIAG3	PX	.006	.006	0	0
41	KICKER DIAG4	PX	.006	.006	0	0
42	SO VERT1	PX	.006	.006	0	0
43	SO VERT2	PX	.006	.006	0	0
44	SO1	PX	.007	.007	0	0
45	SO2	PX	.007	.007	0	0
46	SO DIAG	PX	.006	.006	0	0
47	FACE DIAG1	PX	.012	.012	0	0
48	FACE DIAG2	PX	.012	.012	0	0
49	MP ALPHA2	PX	.01	.01	0	0
50	MP ALPHA1	PX	.01	.01	0	0
51	MP ALPHA3	PX	.01	.01	0	0
52	MP ALPHA4	PX	.01	.01	0	0

Member Distributed Loads (BLC 14 : Wind Load (330))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.004	-.004	0	0
2	TIEBACK	PY	-.003	-.003	0	0
3	FACE1	PY	-.015	-.015	0	0
4	FACE2	PY	-.015	-.015	0	0
5	FACE VERT1	PY	-.011	-.011	0	0
6	FACE VERT2	PY	-.011	-.011	0	0
7	FACE VERT3	PY	-.011	-.011	0	0
8	KICKER1	PY	-.007	-.007	0	0
9	KICKER2	PY	-.007	-.007	0	0
10	KICKER3	PY	-.007	-.007	0	0
11	KICKER4	PY	-.007	-.007	0	0
12	KICKER DIAG1	PY	-.006	-.006	0	0
13	KICKER DIAG2	PY	-.006	-.006	0	0
14	KICKER DIAG3	PY	-.006	-.006	0	0
15	KICKER DIAG4	PY	-.006	-.006	0	0
16	SO VERT1	PY	-.006	-.006	0	0
17	SO VERT2	PY	-.006	-.006	0	0
18	SO1	PY	-.007	-.007	0	0
19	SO2	PY	-.007	-.007	0	0
20	SO DIAG	PY	-.006	-.006	0	0
21	FACE DIAG1	PY	-.012	-.012	0	0
22	FACE DIAG2	PY	-.012	-.012	0	0
23	MP ALPHA2	PY	-.01	-.01	0	0
24	MP ALPHA1	PY	-.01	-.01	0	0
25	MP ALPHA3	PY	-.01	-.01	0	0
26	MP ALPHA4	PY	-.01	-.01	0	0
27	SO PIPE	PX	.002	.002	0	0
28	TIEBACK	PX	.002	.002	0	0
29	FACE1	PX	.009	.009	0	0
30	FACE2	PX	.009	.009	0	0
31	FACE VERT1	PX	.006	.006	0	0
32	FACE VERT2	PX	.006	.006	0	0
33	FACE VERT3	PX	.006	.006	0	0

Member Distributed Loads (BLC 14 : Wind Load (330)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
34	KICKER1	PX	.004	.004	0	0
35	KICKER2	PX	.004	.004	0	0
36	KICKER3	PX	.004	.004	0	0
37	KICKER4	PX	.004	.004	0	0
38	KICKER DIAG1	PX	.004	.004	0	0
39	KICKER DIAG2	PX	.004	.004	0	0
40	KICKER DIAG3	PX	.004	.004	0	0
41	KICKER DIAG4	PX	.004	.004	0	0
42	SO VERT1	PX	.004	.004	0	0
43	SO VERT2	PX	.004	.004	0	0
44	SO1	PX	.004	.004	0	0
45	SO2	PX	.004	.004	0	0
46	SO DIAG	PX	.004	.004	0	0
47	FACE DIAG1	PX	.007	.007	0	0
48	FACE DIAG2	PX	.007	.007	0	0
49	MP ALPHA2	PX	.006	.006	0	0
50	MP ALPHA1	PX	.006	.006	0	0
51	MP ALPHA3	PX	.006	.006	0	0
52	MP ALPHA4	PX	.006	.006	0	0

Member Distributed Loads (BLC 15 : Maintanence (0))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.000251	-.000251	0	0
2	TIEBACK	PY	-.000207	-.000207	0	0
3	FACE1	PY	-.001	-.001	0	0
4	FACE2	PY	-.001	-.001	0	0
5	FACE VERT1	PY	-.000701	-.000701	0	0
6	FACE VERT2	PY	-.000701	-.000701	0	0
7	FACE VERT3	PY	-.000701	-.000701	0	0
8	KICKER1	PY	-.000464	-.000464	0	0
9	KICKER2	PY	-.000464	-.000464	0	0
10	KICKER3	PY	-.000464	-.000464	0	0
11	KICKER4	PY	-.000464	-.000464	0	0
12	KICKER DIAG1	PY	-.000406	-.000406	0	0
13	KICKER DIAG2	PY	-.000406	-.000406	0	0
14	KICKER DIAG3	PY	-.000406	-.000406	0	0
15	KICKER DIAG4	PY	-.000406	-.000406	0	0
16	SO VERT1	PY	-.000406	-.000406	0	0
17	SO VERT2	PY	-.000406	-.000406	0	0
18	SO1	PY	-.000464	-.000464	0	0
19	SO2	PY	-.000464	-.000464	0	0
20	SO DIAG	PY	-.000406	-.000406	0	0
21	FACE DIAG1	PY	-.000801	-.000801	0	0
22	FACE DIAG2	PY	-.000801	-.000801	0	0
23	MP ALPHA2	PY	-.000661	-.000661	0	0
24	MP ALPHA1	PY	-.000661	-.000661	0	0
25	MP ALPHA3	PY	-.000661	-.000661	0	0
26	MP ALPHA4	PY	-.000661	-.000661	0	0

Member Distributed Loads (BLC 16 : Maintanence (30))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...

Member Distributed Loads (BLC 16 : Maintanence (30)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.000217	-.000217	0	0
2	TIEBACK	PY	-.00018	-.00018	0	0
3	FACE1	PY	-.000867	-.000867	0	0
4	FACE2	PY	-.000867	-.000867	0	0
5	FACE VERT1	PY	-.000607	-.000607	0	0
6	FACE VERT2	PY	-.000607	-.000607	0	0
7	FACE VERT3	PY	-.000607	-.000607	0	0
8	KICKER1	PY	-.000402	-.000402	0	0
9	KICKER2	PY	-.000402	-.000402	0	0
10	KICKER3	PY	-.000402	-.000402	0	0
11	KICKER4	PY	-.000402	-.000402	0	0
12	KICKER DIAG1	PY	-.000351	-.000351	0	0
13	KICKER DIAG2	PY	-.000351	-.000351	0	0
14	KICKER DIAG3	PY	-.000351	-.000351	0	0
15	KICKER DIAG4	PY	-.000351	-.000351	0	0
16	SO VERT1	PY	-.000351	-.000351	0	0
17	SO VERT2	PY	-.000351	-.000351	0	0
18	SO1	PY	-.000402	-.000402	0	0
19	SO2	PY	-.000402	-.000402	0	0
20	SO DIAG	PY	-.000351	-.000351	0	0
21	FACE DIAG1	PY	-.000693	-.000693	0	0
22	FACE DIAG2	PY	-.000693	-.000693	0	0
23	MP ALPHA2	PY	-.000572	-.000572	0	0
24	MP ALPHA1	PY	-.000572	-.000572	0	0
25	MP ALPHA3	PY	-.000572	-.000572	0	0
26	MP ALPHA4	PY	-.000572	-.000572	0	0
27	SO PIPE	PX	-.000126	-.000126	0	0
28	TIEBACK	PX	-.000104	-.000104	0	0
29	FACE1	PX	-.0005	-.0005	0	0
30	FACE2	PX	-.0005	-.0005	0	0
31	FACE VERT1	PX	-.00035	-.00035	0	0
32	FACE VERT2	PX	-.00035	-.00035	0	0
33	FACE VERT3	PX	-.00035	-.00035	0	0
34	KICKER1	PX	-.000232	-.000232	0	0
35	KICKER2	PX	-.000232	-.000232	0	0
36	KICKER3	PX	-.000232	-.000232	0	0
37	KICKER4	PX	-.000232	-.000232	0	0
38	KICKER DIAG1	PX	-.000203	-.000203	0	0
39	KICKER DIAG2	PX	-.000203	-.000203	0	0
40	KICKER DIAG3	PX	-.000203	-.000203	0	0
41	KICKER DIAG4	PX	-.000203	-.000203	0	0
42	SO VERT1	PX	-.000203	-.000203	0	0
43	SO VERT2	PX	-.000203	-.000203	0	0
44	SO1	PX	-.000232	-.000232	0	0
45	SO2	PX	-.000232	-.000232	0	0
46	SO DIAG	PX	-.000203	-.000203	0	0
47	FACE DIAG1	PX	-.0004	-.0004	0	0
48	FACE DIAG2	PX	-.0004	-.0004	0	0
49	MP ALPHA2	PX	-.00033	-.00033	0	0
50	MP ALPHA1	PX	-.00033	-.00033	0	0
51	MP ALPHA3	PX	-.00033	-.00033	0	0
52	MP ALPHA4	PX	-.00033	-.00033	0	0

Member Distributed Loads (BLC 17 : Maintanence (60))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.000126	-.000126	0	0
2	TIEBACK	PY	-.000104	-.000104	0	0
3	FACE1	PY	-.0005	-.0005	0	0
4	FACE2	PY	-.0005	-.0005	0	0
5	FACE VERT1	PY	-.00035	-.00035	0	0
6	FACE VERT2	PY	-.00035	-.00035	0	0
7	FACE VERT3	PY	-.00035	-.00035	0	0
8	KICKER1	PY	-.000232	-.000232	0	0
9	KICKER2	PY	-.000232	-.000232	0	0
10	KICKER3	PY	-.000232	-.000232	0	0
11	KICKER4	PY	-.000232	-.000232	0	0
12	KICKER DIAG1	PY	-.000203	-.000203	0	0
13	KICKER DIAG2	PY	-.000203	-.000203	0	0
14	KICKER DIAG3	PY	-.000203	-.000203	0	0
15	KICKER DIAG4	PY	-.000203	-.000203	0	0
16	SO VERT1	PY	-.000203	-.000203	0	0
17	SO VERT2	PY	-.000203	-.000203	0	0
18	SO1	PY	-.000232	-.000232	0	0
19	SO2	PY	-.000232	-.000232	0	0
20	SO DIAG	PY	-.000203	-.000203	0	0
21	FACE DIAG1	PY	-.0004	-.0004	0	0
22	FACE DIAG2	PY	-.0004	-.0004	0	0
23	MP ALPHA2	PY	-.00033	-.00033	0	0
24	MP ALPHA1	PY	-.00033	-.00033	0	0
25	MP ALPHA3	PY	-.00033	-.00033	0	0
26	MP ALPHA4	PY	-.00033	-.00033	0	0
27	SO PIPE	PX	-.000217	-.000217	0	0
28	TIEBACK	PX	-.00018	-.00018	0	0
29	FACE1	PX	-.000867	-.000867	0	0
30	FACE2	PX	-.000867	-.000867	0	0
31	FACE VERT1	PX	-.000607	-.000607	0	0
32	FACE VERT2	PX	-.000607	-.000607	0	0
33	FACE VERT3	PX	-.000607	-.000607	0	0
34	KICKER1	PX	-.000402	-.000402	0	0
35	KICKER2	PX	-.000402	-.000402	0	0
36	KICKER3	PX	-.000402	-.000402	0	0
37	KICKER4	PX	-.000402	-.000402	0	0
38	KICKER DIAG1	PX	-.000351	-.000351	0	0
39	KICKER DIAG2	PX	-.000351	-.000351	0	0
40	KICKER DIAG3	PX	-.000351	-.000351	0	0
41	KICKER DIAG4	PX	-.000351	-.000351	0	0
42	SO VERT1	PX	-.000351	-.000351	0	0
43	SO VERT2	PX	-.000351	-.000351	0	0
44	SO1	PX	-.000402	-.000402	0	0
45	SO2	PX	-.000402	-.000402	0	0
46	SO DIAG	PX	-.000351	-.000351	0	0
47	FACE DIAG1	PX	-.000693	-.000693	0	0
48	FACE DIAG2	PX	-.000693	-.000693	0	0
49	MP ALPHA2	PX	-.000572	-.000572	0	0
50	MP ALPHA1	PX	-.000572	-.000572	0	0
51	MP ALPHA3	PX	-.000572	-.000572	0	0
52	MP ALPHA4	PX	-.000572	-.000572	0	0

Member Distributed Loads (BLC 18 : Maintanence (90))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PX	-.000538	-.000538	0	0
2	TIEBACK	PX	-.000222	-.000222	0	0
3	FACE1	PX	-.00058	-.00058	0	0
4	FACE2	PX	-.00058	-.00058	0	0
5	FACE VERT1	PX	-.000406	-.000406	0	0
6	FACE VERT2	PX	-.000406	-.000406	0	0
7	FACE VERT3	PX	-.000406	-.000406	0	0
8	KICKER4	PX	-.000753	-.000753	0	0
9	KICKER3	PX	-.000753	-.000753	0	0
10	KICKER2	PX	-.000464	-.000464	0	0
11	KICKER1	PX	-.000464	-.000464	0	0
12	KICKER DIAG4	PX	-.000659	-.000659	0	0
13	KICKER DIAG3	PX	-.000659	-.000659	0	0
14	KICKER DIAG2	PX	-.000406	-.000406	0	0
15	KICKER DIAG1	PX	-.000406	-.000406	0	0
16	SO VERT2	PX	-.000659	-.000659	0	0
17	SO VERT1	PX	-.000406	-.000406	0	0
18	SO1	PX	-.000464	-.000464	0	0
19	SO2	PX	-.000464	-.000464	0	0
20	SO DIAG	PX	-.000406	-.000406	0	0
21	FACE DIAG1	PX	-.000464	-.000464	0	0
22	FACE DIAG2	PX	-.000464	-.000464	0	0
23	MP ALPHA2	PX	-.000661	-.000661	0	0
24	MP ALPHA1	PX	-.000661	-.000661	0	0
25	MP ALPHA3	PX	-.000661	-.000661	0	0
26	MP ALPHA4	PX	-.000661	-.000661	0	0

Member Distributed Loads (BLC 19 : Maintanence (120))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.000126	.000126	0	0
2	TIEBACK	PY	.000104	.000104	0	0
3	FACE1	PY	.0005	.0005	0	0
4	FACE2	PY	.0005	.0005	0	0
5	FACE VERT1	PY	.00035	.00035	0	0
6	FACE VERT2	PY	.00035	.00035	0	0
7	FACE VERT3	PY	.00035	.00035	0	0
8	KICKER1	PY	.000232	.000232	0	0
9	KICKER2	PY	.000232	.000232	0	0
10	KICKER3	PY	.000232	.000232	0	0
11	KICKER4	PY	.000232	.000232	0	0
12	KICKER DIAG1	PY	.000203	.000203	0	0
13	KICKER DIAG2	PY	.000203	.000203	0	0
14	KICKER DIAG3	PY	.000203	.000203	0	0
15	KICKER DIAG4	PY	.000203	.000203	0	0
16	SO VERT1	PY	.000203	.000203	0	0
17	SO VERT2	PY	.000203	.000203	0	0
18	SO1	PY	.000232	.000232	0	0
19	SO2	PY	.000232	.000232	0	0
20	SO DIAG	PY	.000203	.000203	0	0
21	FACE DIAG1	PY	.0004	.0004	0	0
22	FACE DIAG2	PY	.0004	.0004	0	0

Member Distributed Loads (BLC 19 : Maintanence (120)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
23	MP ALPHA2	PY	.00033	.00033	0	0
24	MP ALPHA1	PY	.00033	.00033	0	0
25	MP ALPHA3	PY	.00033	.00033	0	0
26	MP ALPHA4	PY	.00033	.00033	0	0
27	SO PIPE	PX	-.000217	-.000217	0	0
28	TIEBACK	PX	-.00018	-.00018	0	0
29	FACE1	PX	-.000867	-.000867	0	0
30	FACE2	PX	-.000867	-.000867	0	0
31	FACE VERT1	PX	-.000607	-.000607	0	0
32	FACE VERT2	PX	-.000607	-.000607	0	0
33	FACE VERT3	PX	-.000607	-.000607	0	0
34	KICKER1	PX	-.000402	-.000402	0	0
35	KICKER2	PX	-.000402	-.000402	0	0
36	KICKER3	PX	-.000402	-.000402	0	0
37	KICKER4	PX	-.000402	-.000402	0	0
38	KICKER DIAG1	PX	-.000351	-.000351	0	0
39	KICKER DIAG2	PX	-.000351	-.000351	0	0
40	KICKER DIAG3	PX	-.000351	-.000351	0	0
41	KICKER DIAG4	PX	-.000351	-.000351	0	0
42	SO VERT1	PX	-.000351	-.000351	0	0
43	SO VERT2	PX	-.000351	-.000351	0	0
44	SO1	PX	-.000402	-.000402	0	0
45	SO2	PX	-.000402	-.000402	0	0
46	SO DIAG	PX	-.000351	-.000351	0	0
47	FACE DIAG1	PX	-.000693	-.000693	0	0
48	FACE DIAG2	PX	-.000693	-.000693	0	0
49	MP ALPHA2	PX	-.000572	-.000572	0	0
50	MP ALPHA1	PX	-.000572	-.000572	0	0
51	MP ALPHA3	PX	-.000572	-.000572	0	0
52	MP ALPHA4	PX	-.000572	-.000572	0	0

Member Distributed Loads (BLC 20 : Maintanence (150))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.000217	.000217	0	0
2	TIEBACK	PY	.00018	.00018	0	0
3	FACE1	PY	.000867	.000867	0	0
4	FACE2	PY	.000867	.000867	0	0
5	FACE VERT1	PY	.000607	.000607	0	0
6	FACE VERT2	PY	.000607	.000607	0	0
7	FACE VERT3	PY	.000607	.000607	0	0
8	KICKER1	PY	.000402	.000402	0	0
9	KICKER2	PY	.000402	.000402	0	0
10	KICKER3	PY	.000402	.000402	0	0
11	KICKER4	PY	.000402	.000402	0	0
12	KICKER DIAG1	PY	.000351	.000351	0	0
13	KICKER DIAG2	PY	.000351	.000351	0	0
14	KICKER DIAG3	PY	.000351	.000351	0	0
15	KICKER DIAG4	PY	.000351	.000351	0	0
16	SO VERT1	PY	.000351	.000351	0	0
17	SO VERT2	PY	.000351	.000351	0	0
18	SO1	PY	.000402	.000402	0	0

Member Distributed Loads (BLC 20 : Maintanence (150)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
19	SO2	PY	.000402	.000402	0	0
20	SO DIAG	PY	.000351	.000351	0	0
21	FACE DIAG1	PY	.000693	.000693	0	0
22	FACE DIAG2	PY	.000693	.000693	0	0
23	MP ALPHA2	PY	.000572	.000572	0	0
24	MP ALPHA1	PY	.000572	.000572	0	0
25	MP ALPHA3	PY	.000572	.000572	0	0
26	MP ALPHA4	PY	.000572	.000572	0	0
27	SO PIPE	PX	-.000126	-.000126	0	0
28	TIEBACK	PX	-.000104	-.000104	0	0
29	FACE1	PX	-.0005	-.0005	0	0
30	FACE2	PX	-.0005	-.0005	0	0
31	FACE VERT1	PX	-.00035	-.00035	0	0
32	FACE VERT2	PX	-.00035	-.00035	0	0
33	FACE VERT3	PX	-.00035	-.00035	0	0
34	KICKER1	PX	-.000232	-.000232	0	0
35	KICKER2	PX	-.000232	-.000232	0	0
36	KICKER3	PX	-.000232	-.000232	0	0
37	KICKER4	PX	-.000232	-.000232	0	0
38	KICKER DIAG1	PX	-.000203	-.000203	0	0
39	KICKER DIAG2	PX	-.000203	-.000203	0	0
40	KICKER DIAG3	PX	-.000203	-.000203	0	0
41	KICKER DIAG4	PX	-.000203	-.000203	0	0
42	SO VERT1	PX	-.000203	-.000203	0	0
43	SO VERT2	PX	-.000203	-.000203	0	0
44	SO1	PX	-.000232	-.000232	0	0
45	SO2	PX	-.000232	-.000232	0	0
46	SO DIAG	PX	-.000203	-.000203	0	0
47	FACE DIAG1	PX	-.0004	-.0004	0	0
48	FACE DIAG2	PX	-.0004	-.0004	0	0
49	MP ALPHA2	PX	-.00033	-.00033	0	0
50	MP ALPHA1	PX	-.00033	-.00033	0	0
51	MP ALPHA3	PX	-.00033	-.00033	0	0
52	MP ALPHA4	PX	-.00033	-.00033	0	0

Member Distributed Loads (BLC 21 : Maintanence (180))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.000251	.000251	0	0
2	TIEBACK	PY	.000207	.000207	0	0
3	FACE1	PY	.001	.001	0	0
4	FACE2	PY	.001	.001	0	0
5	FACE VERT1	PY	.000701	.000701	0	0
6	FACE VERT2	PY	.000701	.000701	0	0
7	FACE VERT3	PY	.000701	.000701	0	0
8	KICKER1	PY	.000464	.000464	0	0
9	KICKER2	PY	.000464	.000464	0	0
10	KICKER3	PY	.000464	.000464	0	0
11	KICKER4	PY	.000464	.000464	0	0
12	KICKER DIAG1	PY	.000406	.000406	0	0
13	KICKER DIAG2	PY	.000406	.000406	0	0
14	KICKER DIAG3	PY	.000406	.000406	0	0

Member Distributed Loads (BLC 21 : Maintanence (180)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
15	KICKER DIAG4	PY	.000406	.000406	0	0
16	SO VERT1	PY	.000406	.000406	0	0
17	SO VERT2	PY	.000406	.000406	0	0
18	SO1	PY	.000464	.000464	0	0
19	SO2	PY	.000464	.000464	0	0
20	SO DIAG	PY	.000406	.000406	0	0
21	FACE DIAG1	PY	.000801	.000801	0	0
22	FACE DIAG2	PY	.000801	.000801	0	0
23	MP ALPHA2	PY	.000661	.000661	0	0
24	MP ALPHA1	PY	.000661	.000661	0	0
25	MP ALPHA3	PY	.000661	.000661	0	0
26	MP ALPHA4	PY	.000661	.000661	0	0

Member Distributed Loads (BLC 22 : Maintanence (210))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.000217	.000217	0	0
2	TIEBACK	PY	.00018	.00018	0	0
3	FACE1	PY	.000867	.000867	0	0
4	FACE2	PY	.000867	.000867	0	0
5	FACE VERT1	PY	.000607	.000607	0	0
6	FACE VERT2	PY	.000607	.000607	0	0
7	FACE VERT3	PY	.000607	.000607	0	0
8	KICKER1	PY	.000402	.000402	0	0
9	KICKER2	PY	.000402	.000402	0	0
10	KICKER3	PY	.000402	.000402	0	0
11	KICKER4	PY	.000402	.000402	0	0
12	KICKER DIAG1	PY	.000351	.000351	0	0
13	KICKER DIAG2	PY	.000351	.000351	0	0
14	KICKER DIAG3	PY	.000351	.000351	0	0
15	KICKER DIAG4	PY	.000351	.000351	0	0
16	SO VERT1	PY	.000351	.000351	0	0
17	SO VERT2	PY	.000351	.000351	0	0
18	SO1	PY	.000402	.000402	0	0
19	SO2	PY	.000402	.000402	0	0
20	SO DIAG	PY	.000351	.000351	0	0
21	FACE DIAG1	PY	.000693	.000693	0	0
22	FACE DIAG2	PY	.000693	.000693	0	0
23	MP ALPHA2	PY	.000572	.000572	0	0
24	MP ALPHA1	PY	.000572	.000572	0	0
25	MP ALPHA3	PY	.000572	.000572	0	0
26	MP ALPHA4	PY	.000572	.000572	0	0
27	SO PIPE	PX	.000126	.000126	0	0
28	TIEBACK	PX	.000104	.000104	0	0
29	FACE1	PX	.0005	.0005	0	0
30	FACE2	PX	.0005	.0005	0	0
31	FACE VERT1	PX	.00035	.00035	0	0
32	FACE VERT2	PX	.00035	.00035	0	0
33	FACE VERT3	PX	.00035	.00035	0	0
34	KICKER1	PX	.000232	.000232	0	0
35	KICKER2	PX	.000232	.000232	0	0
36	KICKER3	PX	.000232	.000232	0	0

Member Distributed Loads (BLC 22 : Maintanence (210)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
37	KICKER4	PX	.000232	.000232	0	0
38	KICKER DIAG1	PX	.000203	.000203	0	0
39	KICKER DIAG2	PX	.000203	.000203	0	0
40	KICKER DIAG3	PX	.000203	.000203	0	0
41	KICKER DIAG4	PX	.000203	.000203	0	0
42	SO VERT1	PX	.000203	.000203	0	0
43	SO VERT2	PX	.000203	.000203	0	0
44	SO1	PX	.000232	.000232	0	0
45	SO2	PX	.000232	.000232	0	0
46	SO DIAG	PX	.000203	.000203	0	0
47	FACE DIAG1	PX	.0004	.0004	0	0
48	FACE DIAG2	PX	.0004	.0004	0	0
49	MP ALPHA2	PX	.00033	.00033	0	0
50	MP ALPHA1	PX	.00033	.00033	0	0
51	MP ALPHA3	PX	.00033	.00033	0	0
52	MP ALPHA4	PX	.00033	.00033	0	0

Member Distributed Loads (BLC 23 : Maintanence (240))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.000126	.000126	0	0
2	TIEBACK	PY	.000104	.000104	0	0
3	FACE1	PY	.0005	.0005	0	0
4	FACE2	PY	.0005	.0005	0	0
5	FACE VERT1	PY	.00035	.00035	0	0
6	FACE VERT2	PY	.00035	.00035	0	0
7	FACE VERT3	PY	.00035	.00035	0	0
8	KICKER1	PY	.000232	.000232	0	0
9	KICKER2	PY	.000232	.000232	0	0
10	KICKER3	PY	.000232	.000232	0	0
11	KICKER4	PY	.000232	.000232	0	0
12	KICKER DIAG1	PY	.000203	.000203	0	0
13	KICKER DIAG2	PY	.000203	.000203	0	0
14	KICKER DIAG3	PY	.000203	.000203	0	0
15	KICKER DIAG4	PY	.000203	.000203	0	0
16	SO VERT1	PY	.000203	.000203	0	0
17	SO VERT2	PY	.000203	.000203	0	0
18	SO1	PY	.000232	.000232	0	0
19	SO2	PY	.000232	.000232	0	0
20	SO DIAG	PY	.000203	.000203	0	0
21	FACE DIAG1	PY	.0004	.0004	0	0
22	FACE DIAG2	PY	.0004	.0004	0	0
23	MP ALPHA2	PY	.00033	.00033	0	0
24	MP ALPHA1	PY	.00033	.00033	0	0
25	MP ALPHA3	PY	.00033	.00033	0	0
26	MP ALPHA4	PY	.00033	.00033	0	0
27	SO PIPE	PX	.000217	.000217	0	0
28	TIEBACK	PX	.00018	.00018	0	0
29	FACE1	PX	.000867	.000867	0	0
30	FACE2	PX	.000867	.000867	0	0
31	FACE VERT1	PX	.000607	.000607	0	0
32	FACE VERT2	PX	.000607	.000607	0	0

Member Distributed Loads (BLC 23 : Maintanence (240)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
33	FACE VERT3	PX	.000607	.000607	0	0
34	KICKER1	PX	.000402	.000402	0	0
35	KICKER2	PX	.000402	.000402	0	0
36	KICKER3	PX	.000402	.000402	0	0
37	KICKER4	PX	.000402	.000402	0	0
38	KICKER DIAG1	PX	.000351	.000351	0	0
39	KICKER DIAG2	PX	.000351	.000351	0	0
40	KICKER DIAG3	PX	.000351	.000351	0	0
41	KICKER DIAG4	PX	.000351	.000351	0	0
42	SO VERT1	PX	.000351	.000351	0	0
43	SO VERT2	PX	.000351	.000351	0	0
44	SO1	PX	.000402	.000402	0	0
45	SO2	PX	.000402	.000402	0	0
46	SO DIAG	PX	.000351	.000351	0	0
47	FACE DIAG1	PX	.000693	.000693	0	0
48	FACE DIAG2	PX	.000693	.000693	0	0
49	MP ALPHA2	PX	.000572	.000572	0	0
50	MP ALPHA1	PX	.000572	.000572	0	0
51	MP ALPHA3	PX	.000572	.000572	0	0
52	MP ALPHA4	PX	.000572	.000572	0	0

Member Distributed Loads (BLC 24 : Maintanence (270))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PX	.000538	.000538	0	0
2	TIEBACK	PX	.000222	.000222	0	0
3	FACE1	PX	.00058	.00058	0	0
4	FACE2	PX	.00058	.00058	0	0
5	FACE VERT1	PX	.000406	.000406	0	0
6	FACE VERT2	PX	.000406	.000406	0	0
7	FACE VERT3	PX	.000406	.000406	0	0
8	KICKER1	PX	.000753	.000753	0	0
9	KICKER2	PX	.000753	.000753	0	0
10	KICKER3	PX	.000464	.000464	0	0
11	KICKER4	PX	.000464	.000464	0	0
12	KICKER DIAG1	PX	.000659	.000659	0	0
13	KICKER DIAG2	PX	.000659	.000659	0	0
14	KICKER DIAG3	PX	.000406	.000406	0	0
15	KICKER DIAG4	PX	.000406	.000406	0	0
16	SO VERT1	PX	.000659	.000659	0	0
17	SO VERT2	PX	.000406	.000406	0	0
18	SO1	PX	.000464	.000464	0	0
19	SO2	PX	.000464	.000464	0	0
20	SO DIAG	PX	.000406	.000406	0	0
21	FACE DIAG1	PX	.000464	.000464	0	0
22	FACE DIAG2	PX	.000464	.000464	0	0
23	MP ALPHA2	PX	.000661	.000661	0	0
24	MP ALPHA1	PX	.000661	.000661	0	0
25	MP ALPHA3	PX	.000661	.000661	0	0
26	MP ALPHA4	PX	.000661	.000661	0	0

Member Distributed Loads (BLC 25 : Maintanence (300))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.000126	-.000126	0	0
2	TIEBACK	PY	-.000104	-.000104	0	0
3	FACE1	PY	-.0005	-.0005	0	0
4	FACE2	PY	-.0005	-.0005	0	0
5	FACE VERT1	PY	-.00035	-.00035	0	0
6	FACE VERT2	PY	-.00035	-.00035	0	0
7	FACE VERT3	PY	-.00035	-.00035	0	0
8	KICKER1	PY	-.000232	-.000232	0	0
9	KICKER2	PY	-.000232	-.000232	0	0
10	KICKER3	PY	-.000232	-.000232	0	0
11	KICKER4	PY	-.000232	-.000232	0	0
12	KICKER DIAG1	PY	-.000203	-.000203	0	0
13	KICKER DIAG2	PY	-.000203	-.000203	0	0
14	KICKER DIAG3	PY	-.000203	-.000203	0	0
15	KICKER DIAG4	PY	-.000203	-.000203	0	0
16	SO VERT1	PY	-.000203	-.000203	0	0
17	SO VERT2	PY	-.000203	-.000203	0	0
18	SO1	PY	-.000232	-.000232	0	0
19	SO2	PY	-.000232	-.000232	0	0
20	SO DIAG	PY	-.000203	-.000203	0	0
21	FACE DIAG1	PY	-.0004	-.0004	0	0
22	FACE DIAG2	PY	-.0004	-.0004	0	0
23	MP ALPHA2	PY	-.00033	-.00033	0	0
24	MP ALPHA1	PY	-.00033	-.00033	0	0
25	MP ALPHA3	PY	-.00033	-.00033	0	0
26	MP ALPHA4	PY	-.00033	-.00033	0	0
27	SO PIPE	PX	.000217	.000217	0	0
28	TIEBACK	PX	.00018	.00018	0	0
29	FACE1	PX	.000867	.000867	0	0
30	FACE2	PX	.000867	.000867	0	0
31	FACE VERT1	PX	.000607	.000607	0	0
32	FACE VERT2	PX	.000607	.000607	0	0
33	FACE VERT3	PX	.000607	.000607	0	0
34	KICKER1	PX	.000402	.000402	0	0
35	KICKER2	PX	.000402	.000402	0	0
36	KICKER3	PX	.000402	.000402	0	0
37	KICKER4	PX	.000402	.000402	0	0
38	KICKER DIAG1	PX	.000351	.000351	0	0
39	KICKER DIAG2	PX	.000351	.000351	0	0
40	KICKER DIAG3	PX	.000351	.000351	0	0
41	KICKER DIAG4	PX	.000351	.000351	0	0
42	SO VERT1	PX	.000351	.000351	0	0
43	SO VERT2	PX	.000351	.000351	0	0
44	SO1	PX	.000402	.000402	0	0
45	SO2	PX	.000402	.000402	0	0
46	SO DIAG	PX	.000351	.000351	0	0
47	FACE DIAG1	PX	.000693	.000693	0	0
48	FACE DIAG2	PX	.000693	.000693	0	0
49	MP ALPHA2	PX	.000572	.000572	0	0
50	MP ALPHA1	PX	.000572	.000572	0	0
51	MP ALPHA3	PX	.000572	.000572	0	0
52	MP ALPHA4	PX	.000572	.000572	0	0

Member Distributed Loads (BLC 26 : Maintanence (330))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.000217	-.000217	0	0
2	TIEBACK	PY	-.00018	-.00018	0	0
3	FACE1	PY	-.000867	-.000867	0	0
4	FACE2	PY	-.000867	-.000867	0	0
5	FACE VERT1	PY	-.000607	-.000607	0	0
6	FACE VERT2	PY	-.000607	-.000607	0	0
7	FACE VERT3	PY	-.000607	-.000607	0	0
8	KICKER1	PY	-.000402	-.000402	0	0
9	KICKER2	PY	-.000402	-.000402	0	0
10	KICKER3	PY	-.000402	-.000402	0	0
11	KICKER4	PY	-.000402	-.000402	0	0
12	KICKER DIAG1	PY	-.000351	-.000351	0	0
13	KICKER DIAG2	PY	-.000351	-.000351	0	0
14	KICKER DIAG3	PY	-.000351	-.000351	0	0
15	KICKER DIAG4	PY	-.000351	-.000351	0	0
16	SO VERT1	PY	-.000351	-.000351	0	0
17	SO VERT2	PY	-.000351	-.000351	0	0
18	SO1	PY	-.000402	-.000402	0	0
19	SO2	PY	-.000402	-.000402	0	0
20	SO DIAG	PY	-.000351	-.000351	0	0
21	FACE DIAG1	PY	-.000693	-.000693	0	0
22	FACE DIAG2	PY	-.000693	-.000693	0	0
23	MP ALPHA2	PY	-.000572	-.000572	0	0
24	MP ALPHA1	PY	-.000572	-.000572	0	0
25	MP ALPHA3	PY	-.000572	-.000572	0	0
26	MP ALPHA4	PY	-.000572	-.000572	0	0
27	SO PIPE	PX	.000126	.000126	0	0
28	TIEBACK	PX	.000104	.000104	0	0
29	FACE1	PX	.0005	.0005	0	0
30	FACE2	PX	.0005	.0005	0	0
31	FACE VERT1	PX	.00035	.00035	0	0
32	FACE VERT2	PX	.00035	.00035	0	0
33	FACE VERT3	PX	.00035	.00035	0	0
34	KICKER1	PX	.000232	.000232	0	0
35	KICKER2	PX	.000232	.000232	0	0
36	KICKER3	PX	.000232	.000232	0	0
37	KICKER4	PX	.000232	.000232	0	0
38	KICKER DIAG1	PX	.000203	.000203	0	0
39	KICKER DIAG2	PX	.000203	.000203	0	0
40	KICKER DIAG3	PX	.000203	.000203	0	0
41	KICKER DIAG4	PX	.000203	.000203	0	0
42	SO VERT1	PX	.000203	.000203	0	0
43	SO VERT2	PX	.000203	.000203	0	0
44	SO1	PX	.000232	.000232	0	0
45	SO2	PX	.000232	.000232	0	0
46	SO DIAG	PX	.000203	.000203	0	0
47	FACE DIAG1	PX	.0004	.0004	0	0
48	FACE DIAG2	PX	.0004	.0004	0	0
49	MP ALPHA2	PX	.00033	.00033	0	0
50	MP ALPHA1	PX	.00033	.00033	0	0
51	MP ALPHA3	PX	.00033	.00033	0	0
52	MP ALPHA4	PX	.00033	.00033	0	0

Member Distributed Loads (BLC 27 : Ice Dead Load)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	Z	-.006	-.006	0	0
2	TIEBACK	Z	-.005	-.005	0	0
3	FACE1	Z	-.007	-.007	0	0
4	FACE2	Z	-.007	-.007	0	0
5	FACE VERT1	Z	-.005	-.005	0	0
6	FACE VERT2	Z	-.005	-.005	0	0
7	FACE VERT3	Z	-.005	-.005	0	0
8	KICKER1	Z	-.006	-.006	0	0
9	KICKER2	Z	-.006	-.006	0	0
10	KICKER3	Z	-.006	-.006	0	0
11	KICKER4	Z	-.006	-.006	0	0
12	KICKER DIAG1	Z	-.005	-.005	0	0
13	KICKER DIAG2	Z	-.005	-.005	0	0
14	KICKER DIAG3	Z	-.005	-.005	0	0
15	KICKER DIAG4	Z	-.005	-.005	0	0
16	SO VERT1	Z	-.005	-.005	0	0
17	SO VERT2	Z	-.005	-.005	0	0
18	SO1	Z	-.006	-.006	0	0
19	SO2	Z	-.006	-.006	0	0
20	SO DIAG	Z	-.005	-.005	0	0
21	FACE DIAG1	Z	-.006	-.006	0	0
22	FACE DIAG2	Z	-.006	-.006	0	0
23	MP ALPHA2	Z	-.005	-.005	0	0
24	MP ALPHA1	Z	-.005	-.005	0	0
25	MP ALPHA3	Z	-.005	-.005	0	0
26	MP ALPHA4	Z	-.005	-.005	0	0

Member Distributed Loads (BLC 28 : Ice Wind Load (0))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.001	-.001	0	0
2	TIEBACK	PY	-.001	-.001	0	0
3	FACE1	PY	-.004	-.004	0	0
4	FACE2	PY	-.004	-.004	0	0
5	FACE VERT1	PY	-.003	-.003	0	0
6	FACE VERT2	PY	-.003	-.003	0	0
7	FACE VERT3	PY	-.003	-.003	0	0
8	KICKER1	PY	-.002	-.002	0	0
9	KICKER2	PY	-.002	-.002	0	0
10	KICKER3	PY	-.002	-.002	0	0
11	KICKER4	PY	-.002	-.002	0	0
12	KICKER DIAG1	PY	-.002	-.002	0	0
13	KICKER DIAG2	PY	-.002	-.002	0	0
14	KICKER DIAG3	PY	-.002	-.002	0	0
15	KICKER DIAG4	PY	-.002	-.002	0	0
16	SO VERT1	PY	-.002	-.002	0	0
17	SO VERT2	PY	-.002	-.002	0	0
18	SO1	PY	-.002	-.002	0	0
19	SO2	PY	-.002	-.002	0	0
20	SO DIAG	PY	-.002	-.002	0	0
21	FACE DIAG1	PY	-.003	-.003	0	0
22	FACE DIAG2	PY	-.003	-.003	0	0

Member Distributed Loads (BLC 28 : Ice Wind Load (0)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
23	MP ALPHA2	PY	-.004	-.004	0	0
24	MP ALPHA1	PY	-.004	-.004	0	0
25	MP ALPHA3	PY	-.004	-.004	0	0
26	MP ALPHA4	PY	-.004	-.004	0	0

Member Distributed Loads (BLC 29 : Ice Wind Load (30))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.001	-.001	0	0
2	TIEBACK	PY	-.001	-.001	0	0
3	FACE1	PY	-.003	-.003	0	0
4	FACE2	PY	-.003	-.003	0	0
5	FACE VERT1	PY	-.003	-.003	0	0
6	FACE VERT2	PY	-.003	-.003	0	0
7	FACE VERT3	PY	-.003	-.003	0	0
8	KICKER1	PY	-.002	-.002	0	0
9	KICKER2	PY	-.002	-.002	0	0
10	KICKER3	PY	-.002	-.002	0	0
11	KICKER4	PY	-.002	-.002	0	0
12	KICKER DIAG1	PY	-.002	-.002	0	0
13	KICKER DIAG2	PY	-.002	-.002	0	0
14	KICKER DIAG3	PY	-.002	-.002	0	0
15	KICKER DIAG4	PY	-.002	-.002	0	0
16	SO VERT1	PY	-.002	-.002	0	0
17	SO VERT2	PY	-.002	-.002	0	0
18	SO1	PY	-.002	-.002	0	0
19	SO2	PY	-.002	-.002	0	0
20	SO DIAG	PY	-.002	-.002	0	0
21	FACE DIAG1	PY	-.003	-.003	0	0
22	FACE DIAG2	PY	-.003	-.003	0	0
23	MP ALPHA2	PY	-.003	-.003	0	0
24	MP ALPHA1	PY	-.003	-.003	0	0
25	MP ALPHA3	PY	-.003	-.003	0	0
26	MP ALPHA4	PY	-.003	-.003	0	0
27	SO PIPE	PX	-.000706	-.000706	0	0
28	TIEBACK	PX	-.000638	-.000638	0	0
29	FACE1	PX	-.002	-.002	0	0
30	FACE2	PX	-.002	-.002	0	0
31	FACE VERT1	PX	-.002	-.002	0	0
32	FACE VERT2	PX	-.002	-.002	0	0
33	FACE VERT3	PX	-.002	-.002	0	0
34	KICKER1	PX	-.00098	-.00098	0	0
35	KICKER2	PX	-.00098	-.00098	0	0
36	KICKER3	PX	-.00098	-.00098	0	0
37	KICKER4	PX	-.00098	-.00098	0	0
38	KICKER DIAG1	PX	-.000923	-.000923	0	0
39	KICKER DIAG2	PX	-.000923	-.000923	0	0
40	KICKER DIAG3	PX	-.000923	-.000923	0	0
41	KICKER DIAG4	PX	-.000923	-.000923	0	0
42	SO VERT1	PX	-.000923	-.000923	0	0
43	SO VERT2	PX	-.000923	-.000923	0	0
44	SO1	PX	-.00098	-.00098	0	0

Member Distributed Loads (BLC 29 : Ice Wind Load (30)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
45	SO2	PX	-.00098	-.00098	0	0
46	SO DIAG	PX	-.000923	-.000923	0	0
47	FACE DIAG1	PX	-.002	-.002	0	0
48	FACE DIAG2	PX	-.002	-.002	0	0
49	MP ALPHA2	PX	-.002	-.002	0	0
50	MP ALPHA1	PX	-.002	-.002	0	0
51	MP ALPHA3	PX	-.002	-.002	0	0
52	MP ALPHA4	PX	-.002	-.002	0	0

Member Distributed Loads (BLC 30 : Ice Wind Load (60))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.000706	-.000706	0	0
2	TIEBACK	PY	-.000638	-.000638	0	0
3	FACE1	PY	-.002	-.002	0	0
4	FACE2	PY	-.002	-.002	0	0
5	FACE VERT1	PY	-.002	-.002	0	0
6	FACE VERT2	PY	-.002	-.002	0	0
7	FACE VERT3	PY	-.002	-.002	0	0
8	KICKER1	PY	-.00098	-.00098	0	0
9	KICKER2	PY	-.00098	-.00098	0	0
10	KICKER3	PY	-.00098	-.00098	0	0
11	KICKER4	PY	-.00098	-.00098	0	0
12	KICKER DIAG1	PY	-.000923	-.000923	0	0
13	KICKER DIAG2	PY	-.000923	-.000923	0	0
14	KICKER DIAG3	PY	-.000923	-.000923	0	0
15	KICKER DIAG4	PY	-.000923	-.000923	0	0
16	SO VERT1	PY	-.000923	-.000923	0	0
17	SO VERT2	PY	-.000923	-.000923	0	0
18	SO1	PY	-.00098	-.00098	0	0
19	SO2	PY	-.00098	-.00098	0	0
20	SO DIAG	PY	-.000923	-.000923	0	0
21	FACE DIAG1	PY	-.002	-.002	0	0
22	FACE DIAG2	PY	-.002	-.002	0	0
23	MP ALPHA2	PY	-.002	-.002	0	0
24	MP ALPHA1	PY	-.002	-.002	0	0
25	MP ALPHA3	PY	-.002	-.002	0	0
26	MP ALPHA4	PY	-.002	-.002	0	0
27	SO PIPE	PX	-.001	-.001	0	0
28	TIEBACK	PX	-.001	-.001	0	0
29	FACE1	PX	-.003	-.003	0	0
30	FACE2	PX	-.003	-.003	0	0
31	FACE VERT1	PX	-.003	-.003	0	0
32	FACE VERT2	PX	-.003	-.003	0	0
33	FACE VERT3	PX	-.003	-.003	0	0
34	KICKER1	PX	-.002	-.002	0	0
35	KICKER2	PX	-.002	-.002	0	0
36	KICKER3	PX	-.002	-.002	0	0
37	KICKER4	PX	-.002	-.002	0	0
38	KICKER DIAG1	PX	-.002	-.002	0	0
39	KICKER DIAG2	PX	-.002	-.002	0	0
40	KICKER DIAG3	PX	-.002	-.002	0	0

Member Distributed Loads (BLC 30 : Ice Wind Load (60)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
41	KICKER DIAG4	PX	-.002	-.002	0	0
42	SO VERT1	PX	-.002	-.002	0	0
43	SO VERT2	PX	-.002	-.002	0	0
44	SO1	PX	-.002	-.002	0	0
45	SO2	PX	-.002	-.002	0	0
46	SO DIAG	PX	-.002	-.002	0	0
47	FACE DIAG1	PX	-.003	-.003	0	0
48	FACE DIAG2	PX	-.003	-.003	0	0
49	MP ALPHA2	PX	-.003	-.003	0	0
50	MP ALPHA1	PX	-.003	-.003	0	0
51	MP ALPHA3	PX	-.003	-.003	0	0
52	MP ALPHA4	PX	-.003	-.003	0	0

Member Distributed Loads (BLC 31 : Ice Wind Load (90))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PX	-.004	-.004	0	0
2	TIEBACK	PX	-.002	-.002	0	0
3	FACE1	PX	-.003	-.003	0	0
4	FACE2	PX	-.003	-.003	0	0
5	FACE VERT1	PX	-.002	-.002	0	0
6	FACE VERT2	PX	-.002	-.002	0	0
7	FACE VERT3	PX	-.002	-.002	0	0
8	KICKER4	PX	-.004	-.004	0	0
9	KICKER3	PX	-.004	-.004	0	0
10	KICKER2	PX	-.002	-.002	0	0
11	KICKER1	PX	-.002	-.002	0	0
12	KICKER DIAG4	PX	-.004	-.004	0	0
13	KICKER DIAG3	PX	-.004	-.004	0	0
14	KICKER DIAG2	PX	-.002	-.002	0	0
15	KICKER DIAG1	PX	-.002	-.002	0	0
16	SO VERT2	PX	-.004	-.004	0	0
17	SO VERT1	PX	-.002	-.002	0	0
18	SO1	PX	-.002	-.002	0	0
19	SO2	PX	-.002	-.002	0	0
20	SO DIAG	PX	-.002	-.002	0	0
21	FACE DIAG1	PX	-.002	-.002	0	0
22	FACE DIAG2	PX	-.002	-.002	0	0
23	MP ALPHA2	PX	-.004	-.004	0	0
24	MP ALPHA1	PX	-.004	-.004	0	0
25	MP ALPHA3	PX	-.004	-.004	0	0
26	MP ALPHA4	PX	-.004	-.004	0	0

Member Distributed Loads (BLC 32 : Ice Wind Load (120))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.000706	.000706	0	0
2	TIEBACK	PY	.000638	.000638	0	0
3	FACE1	PY	.002	.002	0	0
4	FACE2	PY	.002	.002	0	0
5	FACE VERT1	PY	.002	.002	0	0
6	FACE VERT2	PY	.002	.002	0	0
7	FACE VERT3	PY	.002	.002	0	0

Member Distributed Loads (BLC 32 : Ice Wind Load (120)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
8	KICKER1	PY	.00098	.00098	0	0
9	KICKER2	PY	.00098	.00098	0	0
10	KICKER3	PY	.00098	.00098	0	0
11	KICKER4	PY	.00098	.00098	0	0
12	KICKER DIAG1	PY	.000923	.000923	0	0
13	KICKER DIAG2	PY	.000923	.000923	0	0
14	KICKER DIAG3	PY	.000923	.000923	0	0
15	KICKER DIAG4	PY	.000923	.000923	0	0
16	SO VERT1	PY	.000923	.000923	0	0
17	SO VERT2	PY	.000923	.000923	0	0
18	SO1	PY	.00098	.00098	0	0
19	SO2	PY	.00098	.00098	0	0
20	SO DIAG	PY	.000923	.000923	0	0
21	FACE DIAG1	PY	.002	.002	0	0
22	FACE DIAG2	PY	.002	.002	0	0
23	MP ALPHA2	PY	.002	.002	0	0
24	MP ALPHA1	PY	.002	.002	0	0
25	MP ALPHA3	PY	.002	.002	0	0
26	MP ALPHA4	PY	.002	.002	0	0
27	SO PIPE	PX	-.001	-.001	0	0
28	TIEBACK	PX	-.001	-.001	0	0
29	FACE1	PX	-.003	-.003	0	0
30	FACE2	PX	-.003	-.003	0	0
31	FACE VERT1	PX	-.003	-.003	0	0
32	FACE VERT2	PX	-.003	-.003	0	0
33	FACE VERT3	PX	-.003	-.003	0	0
34	KICKER1	PX	-.002	-.002	0	0
35	KICKER2	PX	-.002	-.002	0	0
36	KICKER3	PX	-.002	-.002	0	0
37	KICKER4	PX	-.002	-.002	0	0
38	KICKER DIAG1	PX	-.002	-.002	0	0
39	KICKER DIAG2	PX	-.002	-.002	0	0
40	KICKER DIAG3	PX	-.002	-.002	0	0
41	KICKER DIAG4	PX	-.002	-.002	0	0
42	SO VERT1	PX	-.002	-.002	0	0
43	SO VERT2	PX	-.002	-.002	0	0
44	SO1	PX	-.002	-.002	0	0
45	SO2	PX	-.002	-.002	0	0
46	SO DIAG	PX	-.002	-.002	0	0
47	FACE DIAG1	PX	-.003	-.003	0	0
48	FACE DIAG2	PX	-.003	-.003	0	0
49	MP ALPHA2	PX	-.003	-.003	0	0
50	MP ALPHA1	PX	-.003	-.003	0	0
51	MP ALPHA3	PX	-.003	-.003	0	0
52	MP ALPHA4	PX	-.003	-.003	0	0

Member Distributed Loads (BLC 33 : Ice Wind Load (150))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.001	.001	0	0
2	TIEBACK	PY	.001	.001	0	0
3	FACE1	PY	.003	.003	0	0

Member Distributed Loads (BLC 33 : Ice Wind Load (150)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
4	FACE2	PY	.003	.003	0	0
5	FACE VERT1	PY	.003	.003	0	0
6	FACE VERT2	PY	.003	.003	0	0
7	FACE VERT3	PY	.003	.003	0	0
8	KICKER1	PY	.002	.002	0	0
9	KICKER2	PY	.002	.002	0	0
10	KICKER3	PY	.002	.002	0	0
11	KICKER4	PY	.002	.002	0	0
12	KICKER DIAG1	PY	.002	.002	0	0
13	KICKER DIAG2	PY	.002	.002	0	0
14	KICKER DIAG3	PY	.002	.002	0	0
15	KICKER DIAG4	PY	.002	.002	0	0
16	SO VERT1	PY	.002	.002	0	0
17	SO VERT2	PY	.002	.002	0	0
18	SO1	PY	.002	.002	0	0
19	SO2	PY	.002	.002	0	0
20	SO DIAG	PY	.002	.002	0	0
21	FACE DIAG1	PY	.003	.003	0	0
22	FACE DIAG2	PY	.003	.003	0	0
23	MP ALPHA2	PY	.003	.003	0	0
24	MP ALPHA1	PY	.003	.003	0	0
25	MP ALPHA3	PY	.003	.003	0	0
26	MP ALPHA4	PY	.003	.003	0	0
27	SO PIPE	PX	-.000706	-.000706	0	0
28	TIEBACK	PX	-.000638	-.000638	0	0
29	FACE1	PX	-.002	-.002	0	0
30	FACE2	PX	-.002	-.002	0	0
31	FACE VERT1	PX	-.002	-.002	0	0
32	FACE VERT2	PX	-.002	-.002	0	0
33	FACE VERT3	PX	-.002	-.002	0	0
34	KICKER1	PX	-.00098	-.00098	0	0
35	KICKER2	PX	-.00098	-.00098	0	0
36	KICKER3	PX	-.00098	-.00098	0	0
37	KICKER4	PX	-.00098	-.00098	0	0
38	KICKER DIAG1	PX	-.000923	-.000923	0	0
39	KICKER DIAG2	PX	-.000923	-.000923	0	0
40	KICKER DIAG3	PX	-.000923	-.000923	0	0
41	KICKER DIAG4	PX	-.000923	-.000923	0	0
42	SO VERT1	PX	-.000923	-.000923	0	0
43	SO VERT2	PX	-.000923	-.000923	0	0
44	SO1	PX	-.00098	-.00098	0	0
45	SO2	PX	-.00098	-.00098	0	0
46	SO DIAG	PX	-.000923	-.000923	0	0
47	FACE DIAG1	PX	-.002	-.002	0	0
48	FACE DIAG2	PX	-.002	-.002	0	0
49	MP ALPHA2	PX	-.002	-.002	0	0
50	MP ALPHA1	PX	-.002	-.002	0	0
51	MP ALPHA3	PX	-.002	-.002	0	0
52	MP ALPHA4	PX	-.002	-.002	0	0

Member Distributed Loads (BLC 34 : Ice Wind Load (180))

Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,	End Location[ft,

Member Distributed Loads (BLC 34 : Ice Wind Load (180)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.001	.001	0	0
2	TIEBACK	PY	.001	.001	0	0
3	FACE1	PY	.004	.004	0	0
4	FACE2	PY	.004	.004	0	0
5	FACE VERT1	PY	.003	.003	0	0
6	FACE VERT2	PY	.003	.003	0	0
7	FACE VERT3	PY	.003	.003	0	0
8	KICKER1	PY	.002	.002	0	0
9	KICKER2	PY	.002	.002	0	0
10	KICKER3	PY	.002	.002	0	0
11	KICKER4	PY	.002	.002	0	0
12	KICKER DIAG1	PY	.002	.002	0	0
13	KICKER DIAG2	PY	.002	.002	0	0
14	KICKER DIAG3	PY	.002	.002	0	0
15	KICKER DIAG4	PY	.002	.002	0	0
16	SO VERT1	PY	.002	.002	0	0
17	SO VERT2	PY	.002	.002	0	0
18	SO1	PY	.002	.002	0	0
19	SO2	PY	.002	.002	0	0
20	SO DIAG	PY	.002	.002	0	0
21	FACE DIAG1	PY	.003	.003	0	0
22	FACE DIAG2	PY	.003	.003	0	0
23	MP ALPHA2	PY	.004	.004	0	0
24	MP ALPHA1	PY	.004	.004	0	0
25	MP ALPHA3	PY	.004	.004	0	0
26	MP ALPHA4	PY	.004	.004	0	0

Member Distributed Loads (BLC 35 : Ice Wind Load (210))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.001	.001	0	0
2	TIEBACK	PY	.001	.001	0	0
3	FACE1	PY	.003	.003	0	0
4	FACE2	PY	.003	.003	0	0
5	FACE VERT1	PY	.003	.003	0	0
6	FACE VERT2	PY	.003	.003	0	0
7	FACE VERT3	PY	.003	.003	0	0
8	KICKER1	PY	.002	.002	0	0
9	KICKER2	PY	.002	.002	0	0
10	KICKER3	PY	.002	.002	0	0
11	KICKER4	PY	.002	.002	0	0
12	KICKER DIAG1	PY	.002	.002	0	0
13	KICKER DIAG2	PY	.002	.002	0	0
14	KICKER DIAG3	PY	.002	.002	0	0
15	KICKER DIAG4	PY	.002	.002	0	0
16	SO VERT1	PY	.002	.002	0	0
17	SO VERT2	PY	.002	.002	0	0
18	SO1	PY	.002	.002	0	0
19	SO2	PY	.002	.002	0	0
20	SO DIAG	PY	.002	.002	0	0
21	FACE DIAG1	PY	.003	.003	0	0
22	FACE DIAG2	PY	.003	.003	0	0

Member Distributed Loads (BLC 35 : Ice Wind Load (210)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
23	MP ALPHA2	PY	.003	.003	0	0
24	MP ALPHA1	PY	.003	.003	0	0
25	MP ALPHA3	PY	.003	.003	0	0
26	MP ALPHA4	PY	.003	.003	0	0
27	SO PIPE	PX	.000706	.000706	0	0
28	TIEBACK	PX	.000638	.000638	0	0
29	FACE1	PX	.002	.002	0	0
30	FACE2	PX	.002	.002	0	0
31	FACE VERT1	PX	.002	.002	0	0
32	FACE VERT2	PX	.002	.002	0	0
33	FACE VERT3	PX	.002	.002	0	0
34	KICKER1	PX	.00098	.00098	0	0
35	KICKER2	PX	.00098	.00098	0	0
36	KICKER3	PX	.00098	.00098	0	0
37	KICKER4	PX	.00098	.00098	0	0
38	KICKER DIAG1	PX	.000923	.000923	0	0
39	KICKER DIAG2	PX	.000923	.000923	0	0
40	KICKER DIAG3	PX	.000923	.000923	0	0
41	KICKER DIAG4	PX	.000923	.000923	0	0
42	SO VERT1	PX	.000923	.000923	0	0
43	SO VERT2	PX	.000923	.000923	0	0
44	SO1	PX	.00098	.00098	0	0
45	SO2	PX	.00098	.00098	0	0
46	SO DIAG	PX	.000923	.000923	0	0
47	FACE DIAG1	PX	.002	.002	0	0
48	FACE DIAG2	PX	.002	.002	0	0
49	MP ALPHA2	PX	.002	.002	0	0
50	MP ALPHA1	PX	.002	.002	0	0
51	MP ALPHA3	PX	.002	.002	0	0
52	MP ALPHA4	PX	.002	.002	0	0

Member Distributed Loads (BLC 36 : Ice Wind Load (240))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	.000706	.000706	0	0
2	TIEBACK	PY	.000638	.000638	0	0
3	FACE1	PY	.002	.002	0	0
4	FACE2	PY	.002	.002	0	0
5	FACE VERT1	PY	.002	.002	0	0
6	FACE VERT2	PY	.002	.002	0	0
7	FACE VERT3	PY	.002	.002	0	0
8	KICKER1	PY	.00098	.00098	0	0
9	KICKER2	PY	.00098	.00098	0	0
10	KICKER3	PY	.00098	.00098	0	0
11	KICKER4	PY	.00098	.00098	0	0
12	KICKER DIAG1	PY	.000923	.000923	0	0
13	KICKER DIAG2	PY	.000923	.000923	0	0
14	KICKER DIAG3	PY	.000923	.000923	0	0
15	KICKER DIAG4	PY	.000923	.000923	0	0
16	SO VERT1	PY	.000923	.000923	0	0
17	SO VERT2	PY	.000923	.000923	0	0
18	SO1	PY	.00098	.00098	0	0

Member Distributed Loads (BLC 36 : Ice Wind Load (240)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
19	SO2	PY	.00098	.00098	0	0
20	SO DIAG	PY	.000923	.000923	0	0
21	FACE DIAG1	PY	.002	.002	0	0
22	FACE DIAG2	PY	.002	.002	0	0
23	MP ALPHA2	PY	.002	.002	0	0
24	MP ALPHA1	PY	.002	.002	0	0
25	MP ALPHA3	PY	.002	.002	0	0
26	MP ALPHA4	PY	.002	.002	0	0
27	SO PIPE	PX	.001	.001	0	0
28	TIEBACK	PX	.001	.001	0	0
29	FACE1	PX	.003	.003	0	0
30	FACE2	PX	.003	.003	0	0
31	FACE VERT1	PX	.003	.003	0	0
32	FACE VERT2	PX	.003	.003	0	0
33	FACE VERT3	PX	.003	.003	0	0
34	KICKER1	PX	.002	.002	0	0
35	KICKER2	PX	.002	.002	0	0
36	KICKER3	PX	.002	.002	0	0
37	KICKER4	PX	.002	.002	0	0
38	KICKER DIAG1	PX	.002	.002	0	0
39	KICKER DIAG2	PX	.002	.002	0	0
40	KICKER DIAG3	PX	.002	.002	0	0
41	KICKER DIAG4	PX	.002	.002	0	0
42	SO VERT1	PX	.002	.002	0	0
43	SO VERT2	PX	.002	.002	0	0
44	SO1	PX	.002	.002	0	0
45	SO2	PX	.002	.002	0	0
46	SO DIAG	PX	.002	.002	0	0
47	FACE DIAG1	PX	.003	.003	0	0
48	FACE DIAG2	PX	.003	.003	0	0
49	MP ALPHA2	PX	.003	.003	0	0
50	MP ALPHA1	PX	.003	.003	0	0
51	MP ALPHA3	PX	.003	.003	0	0
52	MP ALPHA4	PX	.003	.003	0	0

Member Distributed Loads (BLC 37 : Ice Wind Load (270))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PX	.004	.004	0	0
2	TIEBACK	PX	.002	.002	0	0
3	FACE1	PX	.003	.003	0	0
4	FACE2	PX	.003	.003	0	0
5	FACE VERT1	PX	.002	.002	0	0
6	FACE VERT2	PX	.002	.002	0	0
7	FACE VERT3	PX	.002	.002	0	0
8	KICKER1	PX	.004	.004	0	0
9	KICKER2	PX	.004	.004	0	0
10	KICKER3	PX	.002	.002	0	0
11	KICKER4	PX	.002	.002	0	0
12	KICKER DIAG1	PX	.004	.004	0	0
13	KICKER DIAG2	PX	.004	.004	0	0
14	KICKER DIAG3	PX	.002	.002	0	0

Member Distributed Loads (BLC 37 : Ice Wind Load (270)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
15	KICKER DIAG4	PX	.002	.002	0	0
16	SO VERT1	PX	.004	.004	0	0
17	SO VERT2	PX	.002	.002	0	0
18	SO1	PX	.002	.002	0	0
19	SO2	PX	.002	.002	0	0
20	SO DIAG	PX	.002	.002	0	0
21	FACE DIAG1	PX	.002	.002	0	0
22	FACE DIAG2	PX	.002	.002	0	0
23	MP ALPHA2	PX	.004	.004	0	0
24	MP ALPHA1	PX	.004	.004	0	0
25	MP ALPHA3	PX	.004	.004	0	0
26	MP ALPHA4	PX	.004	.004	0	0

Member Distributed Loads (BLC 38 : Ice Wind Load (300))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.000706	-.000706	0	0
2	TIEBACK	PY	-.000638	-.000638	0	0
3	FACE1	PY	-.002	-.002	0	0
4	FACE2	PY	-.002	-.002	0	0
5	FACE VERT1	PY	-.002	-.002	0	0
6	FACE VERT2	PY	-.002	-.002	0	0
7	FACE VERT3	PY	-.002	-.002	0	0
8	KICKER1	PY	-.00098	-.00098	0	0
9	KICKER2	PY	-.00098	-.00098	0	0
10	KICKER3	PY	-.00098	-.00098	0	0
11	KICKER4	PY	-.00098	-.00098	0	0
12	KICKER DIAG1	PY	-.000923	-.000923	0	0
13	KICKER DIAG2	PY	-.000923	-.000923	0	0
14	KICKER DIAG3	PY	-.000923	-.000923	0	0
15	KICKER DIAG4	PY	-.000923	-.000923	0	0
16	SO VERT1	PY	-.000923	-.000923	0	0
17	SO VERT2	PY	-.000923	-.000923	0	0
18	SO1	PY	-.00098	-.00098	0	0
19	SO2	PY	-.00098	-.00098	0	0
20	SO DIAG	PY	-.000923	-.000923	0	0
21	FACE DIAG1	PY	-.002	-.002	0	0
22	FACE DIAG2	PY	-.002	-.002	0	0
23	MP ALPHA2	PY	-.002	-.002	0	0
24	MP ALPHA1	PY	-.002	-.002	0	0
25	MP ALPHA3	PY	-.002	-.002	0	0
26	MP ALPHA4	PY	-.002	-.002	0	0
27	SO PIPE	PX	.001	.001	0	0
28	TIEBACK	PX	.001	.001	0	0
29	FACE1	PX	.003	.003	0	0
30	FACE2	PX	.003	.003	0	0
31	FACE VERT1	PX	.003	.003	0	0
32	FACE VERT2	PX	.003	.003	0	0
33	FACE VERT3	PX	.003	.003	0	0
34	KICKER1	PX	.002	.002	0	0
35	KICKER2	PX	.002	.002	0	0
36	KICKER3	PX	.002	.002	0	0

Member Distributed Loads (BLC 38 : Ice Wind Load (300)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
37	KICKER4	PX	.002	.002	0	0
38	KICKER DIAG1	PX	.002	.002	0	0
39	KICKER DIAG2	PX	.002	.002	0	0
40	KICKER DIAG3	PX	.002	.002	0	0
41	KICKER DIAG4	PX	.002	.002	0	0
42	SO VERT1	PX	.002	.002	0	0
43	SO VERT2	PX	.002	.002	0	0
44	SO1	PX	.002	.002	0	0
45	SO2	PX	.002	.002	0	0
46	SO DIAG	PX	.002	.002	0	0
47	FACE DIAG1	PX	.003	.003	0	0
48	FACE DIAG2	PX	.003	.003	0	0
49	MP ALPHA2	PX	.003	.003	0	0
50	MP ALPHA1	PX	.003	.003	0	0
51	MP ALPHA3	PX	.003	.003	0	0
52	MP ALPHA4	PX	.003	.003	0	0

Member Distributed Loads (BLC 39 : Ice Wind Load (330))

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
1	SO PIPE	PY	-.001	-.001	0	0
2	TIEBACK	PY	-.001	-.001	0	0
3	FACE1	PY	-.003	-.003	0	0
4	FACE2	PY	-.003	-.003	0	0
5	FACE VERT1	PY	-.003	-.003	0	0
6	FACE VERT2	PY	-.003	-.003	0	0
7	FACE VERT3	PY	-.003	-.003	0	0
8	KICKER1	PY	-.002	-.002	0	0
9	KICKER2	PY	-.002	-.002	0	0
10	KICKER3	PY	-.002	-.002	0	0
11	KICKER4	PY	-.002	-.002	0	0
12	KICKER DIAG1	PY	-.002	-.002	0	0
13	KICKER DIAG2	PY	-.002	-.002	0	0
14	KICKER DIAG3	PY	-.002	-.002	0	0
15	KICKER DIAG4	PY	-.002	-.002	0	0
16	SO VERT1	PY	-.002	-.002	0	0
17	SO VERT2	PY	-.002	-.002	0	0
18	SO1	PY	-.002	-.002	0	0
19	SO2	PY	-.002	-.002	0	0
20	SO DIAG	PY	-.002	-.002	0	0
21	FACE DIAG1	PY	-.003	-.003	0	0
22	FACE DIAG2	PY	-.003	-.003	0	0
23	MP ALPHA2	PY	-.003	-.003	0	0
24	MP ALPHA1	PY	-.003	-.003	0	0
25	MP ALPHA3	PY	-.003	-.003	0	0
26	MP ALPHA4	PY	-.003	-.003	0	0
27	SO PIPE	PX	.000706	.000706	0	0
28	TIEBACK	PX	.000638	.000638	0	0
29	FACE1	PX	.002	.002	0	0
30	FACE2	PX	.002	.002	0	0
31	FACE VERT1	PX	.002	.002	0	0
32	FACE VERT2	PX	.002	.002	0	0

Member Distributed Loads (BLC 39 : Ice Wind Load (330)) (Continued)

	Member Label	Direction	Start Magnitude[k/ft,F,ksf]	End Magnitude[k/ft,F,ksf]	Start Location[ft,...	End Location[ft,...
33	FACE VERT3	PX	.002	.002	0	0
34	KICKER1	PX	.00098	.00098	0	0
35	KICKER2	PX	.00098	.00098	0	0
36	KICKER3	PX	.00098	.00098	0	0
37	KICKER4	PX	.00098	.00098	0	0
38	KICKER DIAG1	PX	.000923	.000923	0	0
39	KICKER DIAG2	PX	.000923	.000923	0	0
40	KICKER DIAG3	PX	.000923	.000923	0	0
41	KICKER DIAG4	PX	.000923	.000923	0	0
42	SO VERT1	PX	.000923	.000923	0	0
43	SO VERT2	PX	.000923	.000923	0	0
44	SO1	PX	.00098	.00098	0	0
45	SO2	PX	.00098	.00098	0	0
46	SO DIAG	PX	.000923	.000923	0	0
47	FACE DIAG1	PX	.002	.002	0	0
48	FACE DIAG2	PX	.002	.002	0	0
49	MP ALPHA2	PX	.002	.002	0	0
50	MP ALPHA1	PX	.002	.002	0	0
51	MP ALPHA3	PX	.002	.002	0	0
52	MP ALPHA4	PX	.002	.002	0	0

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N20	max	1.742	13	4.572	35	1.974	33	-.239	17	2.015	16	0	41
2		min	-1.116	29	-1.586	17	.804	14	-3.88	36	-.37	32	0	1
3	N22	max	.175	11	-.552	2	.925	15	1.587	21	.125	11	0	41
4		min	-1.688	31	-3.309	21	.352	32	.185	2	-.82	31	0	1
5	N50	max	.03	35	1.299	14	.053	14	0	41	0	41	0	41
6		min	-.029	17	-1.297	32	-.021	32	0	1	0	1	0	1
7	Totals:	max	1.873	11	3.328	2	2.9	27						
8		min	-1.873	29	-3.328	20	1.345	8						

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribu...	Area(M...	Surface...
1	Live Load	DL					1			
2	Wind Load (0)	DL					10	26		
3	Dead Load	DL			-1.1		10			
4	Wind Load (30)	DL					20	52		
5	Wind Load (60)	DL					20	52		
6	Wind Load (90)	DL					10	26		
7	Wind Load (120)	DL					20	52		
8	Wind Load (150)	DL					20	52		
9	Wind Load (180)	DL					10	26		
10	Wind Load (210)	DL					20	52		
11	Wind Load (240)	DL					20	52		
12	Wind Load (270)	DL					10	26		
13	Wind Load (300)	DL					20	52		
14	Wind Load (330)	DL					20	52		
15	Maintanence (0)	DL					10	26		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribu...	Area(M...	Surface...
16	Maintanence (30)	DL					20	52		
17	Maintanence (60)	DL					20	52		
18	Maintanence (90)	DL					10	26		
19	Maintanence (120)	DL					20	52		
20	Maintanence (150)	DL					20	52		
21	Maintanence (180)	DL					10	26		
22	Maintanence (210)	DL					20	52		
23	Maintanence (240)	DL					20	52		
24	Maintanence (270)	DL					10	26		
25	Maintanence (300)	DL					20	52		
26	Maintanence (330)	DL					20	52		
27	Ice Dead Load	DL					10	26		
28	Ice Wind Load (0)	DL					10	26		
29	Ice Wind Load (30)	DL					20	52		
30	Ice Wind Load (60)	DL					20	52		
31	Ice Wind Load (90)	DL					10	26		
32	Ice Wind Load (120)	DL					20	52		
33	Ice Wind Load (150)	DL					20	52		
34	Ice Wind Load (180)	DL					10	26		
35	Ice Wind Load (210)	DL					20	52		
36	Ice Wind Load (240)	DL					20	52		
37	Ice Wind Load (270)	DL					10	26		
38	Ice Wind Load (300)	DL					20	52		
39	Ice Wind Load (330)	DL					20	52		
40	Earthquake (x-direction)	DL	-.126				10			
41	Earthquake (y-direction)	DL		-.126			10			
42	Earthquake (z-direction)	DL			-.05		10			

Load Combinations

	Description	Solve	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.4D	Yes	Y		3	1.4																				
2	1.2D + 1.0W(0)	Yes	Y		3	1.2	2	1																		
3	1.2D + 1.0Di + 1.0Wi(0)	Yes	Y		3	1.2	27	1	28	1																
4	1.2D + 1.5L + 1.0Wl(0)	Yes	Y		3	1.2	1	1.5	15	1																
5	1.2D + 1.0W(30)	Yes	Y		3	1.2	4	1																		
6	1.2D + 1.0Di + 1.0Wi(30)	Yes	Y		3	1.2	27	1	29	1																
7	1.2D + 1.5L + 1.0Wl(30)	Yes	Y		3	1.2	1	1.5	16	1																
8	1.2D + 1.0W(60)	Yes	Y		3	1.2	5	1																		
9	1.2D + 1.0Di + 1.0Wi(60)	Yes	Y		3	1.2	27	1	30	1																
10	1.2D + 1.5L + 1.0Wl(60)	Yes	Y		3	1.2	1	1.5	17	1																
11	1.2D + 1.0W(90)	Yes	Y		3	1.2	6	1																		
12	1.2D + 1.0Di + 1.0Wi(90)	Yes	Y		3	1.2	27	1	31	1																
13	1.2D + 1.5L + 1.0Wl(90)	Yes	Y		3	1.2	1	1.5	18	1																
14	1.2D + 1.0W(120)	Yes	Y		3	1.2	7	1																		
15	1.2D + 1.0Di + 1.0Wi(120)	Yes	Y		3	1.2	27	1	32	1																
16	1.2D + 1.5L + 1.0Wl(120)	Yes	Y		3	1.2	1	1.5	19	1																
17	1.2D + 1.0W(150)	Yes	Y		3	1.2	8	1																		
18	1.2D + 1.0Di + 1.0Wi(150)	Yes	Y		3	1.2	27	1	33	1																
19	1.2D + 1.5L + 1.0Wl(150)	Yes	Y		3	1.2	1	1.5	20	1																
20	1.2D + 1.0W(180)	Yes	Y		3	1.2	9	1																		

Load Combinations (Continued)

	Description	Solve	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
21	1.2D + 1.0Di + 1.0Wi(180)	Yes	Y		3	1.2	27	1	34	1														
22	1.2D + 1.5L + 1.0Wl(180)	Yes	Y		3	1.2	1	1.5	21	1														
23	1.2D + 1.0W(210)	Yes	Y		3	1.2	10	1																
24	1.2D + 1.0Di + 1.0Wi(210)	Yes	Y		3	1.2	27	1	35	1														
25	1.2D + 1.5L + 1.0Wl(210)	Yes	Y		3	1.2	1	1.5	22	1														
26	1.2D + 1.0W(240)	Yes	Y		3	1.2	11	1																
27	1.2D + 1.0Di + 1.0Wi(240)	Yes	Y		3	1.2	27	1	36	1														
28	1.2D + 1.5L + 1.0Wl(240)	Yes	Y		3	1.2	1	1.5	23	1														
29	1.2D + 1.0W(270)	Yes	Y		3	1.2	12	1																
30	1.2D + 1.0Di + 1.0Wi(270)	Yes	Y		3	1.2	27	1	37	1														
31	1.2D + 1.5L + 1.0Wl(270)	Yes	Y		3	1.2	1	1.5	24	1														
32	1.2D + 1.0W(300)	Yes	Y		3	1.2	13	1																
33	1.2D + 1.0Di + 1.0Wi(300)	Yes	Y		3	1.2	27	1	38	1														
34	1.2D + 1.5L + 1.0Wl(300)	Yes	Y		3	1.2	1	1.5	25	1														
35	1.2D + 1.0W(330)	Yes	Y		3	1.2	14	1																
36	1.2D + 1.0Di + 1.0Wi(330)	Yes	Y		3	1.2	27	1	39	1														
37	1.2D + 1.5L + 1.0Wl(330)	Yes	Y		3	1.2	1	1.5	26	1														
38	1.2D + 1.0E(x) + 1.0E(z) + L	Yes	Y		3	1.2	40	1	42	1	1	1												
39	1.2D + 1.0E(y) + 1.0E(z) + L	Yes	Y		3	1.2	41	1	42	1	1	1												
40	1.2D - 1.0E(x) + 1.0E(z) + L	Yes	Y		3	1.2	40	-1	42	1	1	1												
41	1.2D - 1.0E(y) + 1.0E(z) + L	Yes	Y		3	1.2	41	-1	42	1	1	1												

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*...	phi*...	phi*...	phi*...	...	Eqn
1	KICKER3	L2x2x3	.989	3.238	17	.119	3.532	z	17	3.435	23.3...	.558	1.125	...	H2-1
2	FACE2	L2.5x2.5x3	.842	6.5	2	.396	12.458	z	14	9.402	29.1...	.873	1.128	1	H2-1
3	FACE1	L2.5x2.5x3	.839	3.927	2	.129	.542	z	19	9.402	29.1...	.873	1.128	1	H2-1
4	SO PIPE	PIPE_2.5	.754	3.208	35	.346	3.208		35	44.4...	50.7...	3.596	3.596	...	H1-...
5	KICKER1	L2x2x3	.542	3.827	4	.193	3.532	y	37	12.4...	23.3...	.558	1.239	...	H2-1
6	KICKER2	L2x2x3	.507	7.064	25	.020	3.532	z	36	3.435	23.3...	.558	1.119	...	H2-1
7	KICKER DIA...	L1.75x1.7...	.422	0	7	.009	0	z	8	4.637	13.6...	.3	.603	...	H2-1
8	SO1	L2x2x3	.361	3.87	30	.013	3.87	z	30	11.0...	23.3...	.558	1.191	...	H2-1
9	SO DIAG	L1.75x1.7...	.303	1.152	3	.011	0	y	29	3.75	13.6...	.3	.538	...	H2-1
10	MP ALPHA3	PIPE_2.5	.280	3.281	20	.028	5.813		20	26.1...	50.7...	3.596	3.596	...	H1-...
11	KICKER DIA...	L1.75x1.7...	.222	4.143	15	.014	0	z	11	4.637	13.6...	.3	.505	...	H2-1
12	FACE VERT2	L1.75x1.7...	.195	0	27	.011	0	z	2	9.218	13.6...	.3	.58	...	H2-1
13	TIEBACK	PIPE_2.0	.192	0	32	.006	0		32	16.3...	32.13	1.872	1.872	...	H1-...
14	SO2	L2x2x3	.178	3.87	8	.010	0	y	29	11.0...	23.3...	.558	1.162	...	H2-1
15	KICKER DIA...	L1.75x1.7...	.168	4.143	4	.019	0	y	30	4.637	13.6...	.3	.505	...	H2-1
16	FACE DIAG2	L2x2x3	.155	3.142	17	.018	6.417	y	2	4.162	23.3...	.558	1.204	...	H2-1
17	KICKER4	L2x2x3	.154	7.064	17	.012	3.532	y	12	12.4...	23.3...	.558	.875	1	H2-1
18	FACE DIAG1	L2x2x3	.150	2.807	20	.012	6.417	z	2	4.162	23.3...	.558	.95	...	H2-1
19	MP ALPHA4	PIPE_2.0	.143	3.227	2	.055	3.227		2	23.0...	32.13	1.872	1.872	...	H1-...
20	FACE VERT1	L1.75x1.7...	.143	2.5	23	.010	2.5	z	2	9.218	13.6...	.3	.58	...	H2-1
21	MP ALPHA1	PIPE_2.0	.129	3.25	35	.054	3.25		32	20.8...	32.13	1.872	1.872	...	H1-...
22	KICKER DIA...	L1.75x1.7...	.111	0	5	.008	0	z	11	4.637	13.6...	.3	.613	...	H2-1
23	FACE VERT3	L1.75x1.7...	.088	2.474	17	.010	2.5	y	17	9.218	13.6...	.3	.656	...	H2-1
24	MP ALPHA2	PIPE_2.0	.077	3.227	2	.027	3.227		20	23.0...	32.13	1.872	1.872	...	H1-...
25	SO VERT1	L1.75x1.7...	.030	1.146	35	.007	0	y	31	9.218	13.6...	.3	.58	...	H2-1
26	SO VERT2	L1.75x1.7...	.025	1.198	5	.006	0	z	11	9.218	13.6...	.3	.578	...	H2-1

APPENDIX D

Additional Calculations

POD
POWER OF DESIGN

POD Job #	**20-65182**
Site Number	**807133**
Site Name	**BRG 134 943057**

Connection Type	Single Shear	
RISA 3D Forces		
Axial (Bolts)	2.415	kips
Shear (Bolts)	4.702	kips
Axial Force (Member)	2.889	kips
Bolt/Member Information		
Member Label	KICKER3	
# of Bolts	1	
Diameter	0.5	inches
Bolt Grade	A325	
Member Grade	A36	
Threads Included?	Yes	
L_b	0	inches
L_c	1	inches
t	0.1875	inches
Prying Inputs:		
Member Grade	A36	
Angle Size	L2X2X3/16	in
Length of Bolted Leg	3	in
Torsion	0	k-ft
My	0.04	k-ft

Shear Capacity	**53.2%**
Axial Capacity	**18.9%**
Bearing Capacity	**27.7%**
Combined Capacity	**31.9%**
Prying Check	**2.6%**

Ver 1.0 - 2/28/2020

Exhibit F

Power Density/RF Emissions Report

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: CT11114D

Norwalk/ South Norwalk
50 Rockland Road
Norwalk, Connecticut 06854

July 14, 2020

EBI Project Number: 6220003048

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**22.50%**

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

July 14, 2020

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

Emissions Analysis for Site: CT11114D - Norwalk/ South Norwalk

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **50 Rockland Road** in **Norwalk, 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 50 Rockland Road in Norwalk, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

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

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

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

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

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

5) 4 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

6) 2 UMTS channels (AWS Band - 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

7) 4 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

8) 2 LTE channels (BRS Band - 2500 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

9) 2 NR channels (BRS Band - 2500 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

10) 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.

11) 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.

12) The antennas used in this modeling are the Ericsson AIR 32 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 3246 for the 2100 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector A, the Ericsson AIR 32 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 3246 for the 2100 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector B, the Ericsson AIR 32 for the 1900 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 3246 for the 2100 MHz channel(s), the RFS APXVAARR24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional

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

13) The antenna mounting height centerline of the proposed antennas is 170 feet above ground level (AGL).

14) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

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

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32	Make / Model:	Ericsson AIR 32
Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz
Gain:	15.35 dBd / 15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.35 dBd / 15.85 dBd	Gain:	15.35 dBd / 15.35 dBd / 15.85 dBd
Height (AGL):	170 feet	Height (AGL):	170 feet	Height (AGL):	170 feet
Channel Count:	8	Channel Count:	8	Channel Count:	8
Total TX Power (W):	300 Watts	Total TX Power (W):	300 Watts	Total TX Power (W):	300 Watts
ERP (W):	10,533.98	ERP (W):	10,533.98	ERP (W):	10,533.98
Antenna A1 MPE %:	**1.31%**	Antenna B1 MPE %:	**1.31%**	Antenna C1 MPE %:	**1.31%**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	Ericsson AIR 3246	Make / Model:	Ericsson AIR 3246	Make / Model:	Ericsson AIR 3246
Frequency Bands:	2100 MHz	Frequency Bands:	2100 MHz	Frequency Bands:	2100 MHz
Gain:	15.85 dBd	Gain:	15.85 dBd	Gain:	15.85 dBd
Height (AGL):	170 feet	Height (AGL):	170 feet	Height (AGL):	170 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	160 Watts	Total TX Power (W):	160 Watts	Total TX Power (W):	160 Watts
ERP (W):	6,153.47	ERP (W):	6,153.47	ERP (W):	6,153.47
Antenna A2 MPE %:	**0.77%**	Antenna B2 MPE %:	**0.77%**	Antenna C2 MPE %:	**0.77%**
Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**
Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20
Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd / 15.65 dBd
Height (AGL):	170 feet	Height (AGL):	170 feet	Height (AGL):	170 feet
Channel Count:	7	Channel Count:	7	Channel Count:	7
Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts
ERP (W):	8,466.41	ERP (W):	8,466.41	ERP (W):	8,466.41
Antenna A3 MPE %:	**1.75%**	Antenna B3 MPE %:	**1.75%**	Antenna C3 MPE %:	**1.75%**
Antenna #:	**4**	Antenna #:	**4**	Antenna #:	**4**
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449
Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz
Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd	Gain:	22.05 dBd / 22.05 dBd
Height (AGL):	170 feet	Height (AGL):	170 feet	Height (AGL):	170 feet
Channel Count:	8	Channel Count:	8	Channel Count:	8
Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts	Total TX Power (W):	320 Watts
ERP (W):	51,303.85	ERP (W):	51,303.85	ERP (W):	51,303.85
Antenna A4 MPE %:	**6.38%**	Antenna B4 MPE %:	**6.38%**	Antenna C4 MPE %:	**6.38%**

Site Composite MPE %	
Carrier	**MPE %**
T-Mobile (Max at Sector A):	10.21%
AT&T	3.09%
Metro PCS	1.56%
Verizon	5.01%
Sprint	2.63%
Site Total MPE % :	22.50%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	10.21%
T-Mobile Sector B Total:	10.21%
T-Mobile Sector C Total:	10.21%
Site Total MPE % :	22.50%

T-Mobile Maximum MPE Power Values (Sector A)

T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 1900 MHz GSM	4	1028.30	170.0	5.12	1900 MHz GSM	1000	0.51%
T-Mobile 1900 MHz LTE	2	2056.61	170.0	5.12	1900 MHz LTE	1000	0.51%
T-Mobile 2100 MHz UMTS	2	1153.78	170.0	2.87	2100 MHz UMTS	1000	0.29%
T-Mobile 2100 MHz LTE	4	1538.37	170.0	7.65	2100 MHz LTE	1000	0.77%
T-Mobile 600 MHz LTE	2	591.73	170.0	1.47	600 MHz LTE	400	0.37%
T-Mobile 600 MHz NR	1	1577.94	170.0	1.96	600 MHz NR	400	0.49%
T-Mobile 700 MHz LTE	2	648.82	170.0	1.61	700 MHz LTE	467	0.35%
T-Mobile 1900 MHz LTE	2	2203.69	170.0	5.48	1900 MHz LTE	1000	0.55%
T-Mobile 2500 MHz LTE	4	6412.98	170.0	31.91	2500 MHz LTE	1000	3.19%
T-Mobile 2500 MHz NR	4	6412.98	170.0	31.91	2500 MHz NR	1000	3.19%
						Total:	**10.21%**

• 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:	10.21%
Sector B:	10.21%
Sector C:	10.21%
T-Mobile Maximum MPE % (Sector A):	10.21%
Site Total:	22.50%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **22.50%** 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.