Crown Castle
300 Barr Harbor Drive
Suite 300
Conshohocken, PA 19428

July 9, 2024

Via Fedex # 777295721014

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

RE: **Notice of Exempt Modification for Verizon Wireless: 5000386112**
Crown Site ID# 876335
3 A Birdseye Rd, Farmington, CT 06030
Latitude: 41° 42′ 56.94″/ Longitude: -72° 48′ 37.42″

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless currently maintains fifteen (15) antennas at the 108-foot mount on the existing 139-foot monopole tower located at 3 A Birdseye Rd, Farmington, CT. The property is owned by GOIS Holdings of Connecticut LLC and the tower is owned by Crown Castle. Cellco Partnership d/b/a Verizon Wireless now intends to remove three (3) antennas and replace with three (3) new antennas and ancillary antenna equipment at the 108-ft level. This Eligible Facilities Request for antenna modification/proposal of an existing telecommunications facility includes hardware that is both 4G (LTE) and 5G capable through remote software configuration and either or both services may be turned on or off at various times.

Planned Modification:

Tower:

Install New:
- INSTALL (3) SAMSUNG - MT6413-77A ANTENNA W/INTEGRATED RRU
- INSTALL (3) SAMSUNG - RF4461D-13A RADIO

Remove:
- REMOVE (3) SAMSUNG - B5/B13 RRH-BR04C (RFV01U-D2A) RADIO
- REMOVE (6) ANDREW - 1-5/8" COAX CABLE

The facility was approved by a federal judge on November 4, 1997.

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 Kathleen Blonski, Town Manager, Town of Farmington, Shannon Rutherford, Town Planner, Town of Farmington and GOIS Holdings of Connecticut LLC, Property Owner. Crown Castle is the tower owner.

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

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

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

4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

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

For the foregoing reasons, Cellco Partnership d/b/a Verizon Wireless 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: Jenifer Bachi.

Sincerely,

Jenifer Bachi
Permitting Specialist
300 Barr Harbor Drive, Ste. 300
Conshohocken, PA 19428
(610) 635-3221
Jenifer.bachi@crowncastle.com

Attachments are as follows:

Exhibit A – Original Facility Approval
Exhibit B – Property Card
Exhibit C – Property Map
Exhibit D – Construction Drawings
Exhibit E – Structural Analysis Report
Exhibit F – Mount Analysis Report
Exhibit G – Power Density / RF Emissions Report
Exhibit H – Recipient Mailing Records
Check #2969851 for $625 Application Fee

cc:

Via Fedex # 777295804470
Kathleen Blonski, Town Manager
Town of Farmington
1 Monteith Drive
Farmington, CT 06032
860-675-2350

Via Fedex # 777295851958
Shannon Rutherford, Town Planner
Town of Farmington
1 Monteith Drive
Farmington, CT 06032
860-675-2325

Via Fedex # 777295920035
GOIS Holdings of Connecticut LLC
58 Mayflower Street
East Falmouth, MA 02536

Crown Castle, Tower Owner

EXHIBIT A

Original Facility Approval

Mark Roberts

From: Sandra Michaud <michauds@farmington-ct.org>
Sent: Monday, February 27, 2017 4:16 PM
To: Mark Roberts
Subject: 130 Birdseye Road

Hi Mark

I was able to go through documents for this address and it appears on November 4, 1997 a federal judge ordered the Town (within 20 days) to issue a zoning permit so that Sprint Spectrum could install a 140 foot high communications tower. I do not have an approval letter from the Plan & Zoning Commission as it appears they did not formally make a decision in support of the Court's Order but a zoning permit was issued on November 26, 1997.

The Town did appeal this Order but did later withdraw in March 1998.

Sandy

Sandra Michaud
Land Use Coordinator
Town of Farmington
Planning Division
Department of Public Works
1 Monteith Drive
Farmington, CT 06032
860.675.2325 Office
860.675.2319 Fax

EXHIBIT B

Property Card

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2022.

Information on the Property Records for the Municipality of Farmington was last updated on 7/9/2024.

Parcel Information

Location:	8040 BIRDSEYE RD	Property Use:	Vacant Land	Primary Use:	Residential
Unique ID:	01358040	Map Block Lot:	0119 3A	Acres:	13.5300
490 Acres:	0.00	Zone:	R80	Volume / Page:	0928/0470
Developers Map / Lot:		Census:	4602-02		
Location:	8040 BIRDSEYE RD	Property Use:	Vacant Land	Primary Use:	Residential
Unique ID:	01358040	Map Block Lot:	0119 3A	Acres:	13.5300
490 Acres:	0.00	Zone:	R80	Volume / Page:	0928/0470
Developers Map / Lot:		Census:	4602-02		
Location:	8040 BIRDSEYE RD	Property Use:	Vacant Land	Primary Use:	Residential
Unique ID:	01358040	Map Block Lot:	0119 3A	Acres:	13.5300

490 Acres:	0.00	Zone:	R80	Volume / Page:	0928/0470
Developers Map / Lot:		Census:	4602-02		

Value Information

	Appraised Value	Assessed Value
Land	375,500	262,850
Buildings	0	0
Detached Outbuildings	206,200	144,340
Total	581,700	407,190

Owner's Information

Owner's Data
GOIS HOLDINGS OF CONNECTICUT LLC 58 MAYFLOWER ST EAST FALMOUTH, MA 02536

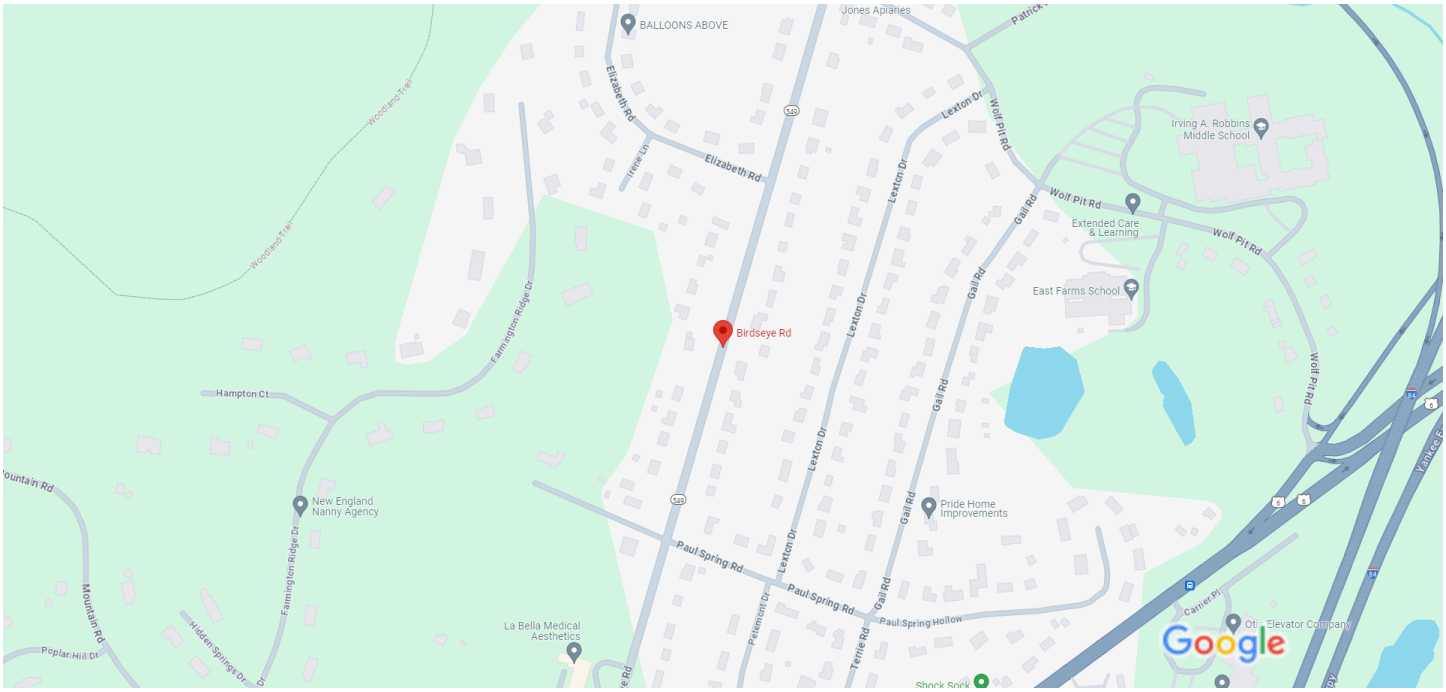
Detached Outbuildings

Type:	Year Built:	Length:	Width:	Area:
Tower	1996	0.00	0.00	200
Building Utility	1996	20.00	11.00	220
Building Utility	1996	20.00	10.00	200
Building Utility	1996	10.00	10.00	100
Building Utility	1996	30.00	12.00	360

Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Sale Price
GOIS HOLDINGS OF CONNECTICUT LLC	0928	0470	04/09/2008		$518,000
CELL TOWER LEASE	0862	0083	12/07/2005		$0
UNISON SITE MANAGEMENT LLC	0862	0062	12/07/2005		$385,000
FREEDON COMMUNICATIONS OF	0809	0324	06/15/2004		$280,000
MEGA BROADCASTING	0530	0225	12/17/1996		$75,000
MEGA COMMUNICATIONS OC NB LL	0585	0272			$0
AMERICAN RADIO SYSTEMS INC	0484	0674			$0

Birdseye Rd



Map data ©2024 Google 200 ft

Birdseye Rd

Directions Save Nearby Send to phone Share

Farmington, CT 06032

EXHIBIT D

Construction Drawings

verizon

VERIZON SITE NUMBER:	**5000386112**	**BUSINESS UNIT #:**	**876335**
VERIZON SITE NAME:	**NEW BRITAIN 5 CT**	**SITE ADDRESS:**	**3 A BIRDSEYE RD**
VERIZON PROJECT:	**16244128**		**FARMINGTON, CT 06030**
SITE TYPE:	**MONOPOLE**	**COUNTY:**	**HARTFORD**
TOWER HEIGHT:	**139'-0"**	**JURISDICTION:**	**TOWN OF FARMINGTON**

SITE INFORMATION

CROWN CASTLE USA INC.

SITE NAME:	EAST FARMINGTON
BU NUMBER:	876335
TOWER OWNER:	CROWN CASTLE USA INC. 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	VERIZON WIRELESS 180 WASHINGTON VALLEY RD BEDMINSTER, NJ 07921
SITE ADDRESS:	3 A BIRDSEYE RD FARMINGTON, CT 06030
COUNTY:	HARTFORD
LATITUDE:	41° 42' 56.94" / 41.7158°
LONGITUDE:	-72° 48' 37.42" / -72.8104°
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	418'+/- AMSL
AREA OF CONSTRUCTION:	EXISTING
CURRENT ZONING:	R80
MAP/PARCEL #:	FARM-000135-000000-008040
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	GLOBAL SIGNAL ACQUISITION PO BOX 277455 ATLANTA, GA 30384-7455
JURISDICTION:	TOWN OF FARMINGTON ONE MONTEITH DRIVE FARMINGTON, CT 06032
ELECTRIC PROVIDER:	CONNECTICUT LIGHT & POWER CO (800) 268-2000
TELCO PROVIDER:	LIGHTOWER (845) 458-7720

PROJECT TEAM

A&E FIRM:	CROWN CASTLE USA INC. 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CROWN CASTLE DISTRICT CONTACTS:	2000 CORPORATE DRIVE CANONSBURG, PA 15317 ALEXANDER MABBETT - PROJECT MANAGER ALEXANDER.MABBETT@CROWNCASTLE.COM HEATHER MILLER - AES HEATHER.MILLER@CROWNCASTLE.COM

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

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLAN
C-2	TOWER ELEVATIONS
C-3	ANTENNA PLANS
C-4	FINAL EQUIPMENT SCHEDULE
C-5	EQUIPMENT DETAILS & SPECIFICATIONS
C-6	COLOR CODE MATRIX
G-1	GROUNDING DETAILS
ATTACHED	RFDS PLUMBING DIAGRAMS
ATTACTED	MOUNT MODIFICATION (BY OTHERS)

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 22X34. 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.

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

CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT SMART TOOL VENDOR	https://pmi.vzwsmart.com
PROJECT NUMBER	10215326
VzW LOCATION CODE (PSLC)	467249

*** PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT

MOUNT MODIFICATION REQUIRED	**Y**

VzW APPROVED SMART KIT VENDORS

REFER TO MOUNT MODIFICATION DRAWINGS PAGE FOR VzW SMART KIT APPROVED VENDORS

APPROVALS

VERIZON SIGNATURE BLOCK

APPROVAL	SIGNATURE	DATE
SITE ACQUISITION		
CONSTRUCTION		
RADIO		
MICROWAVE		
TELCO		
EQUIPMENT		
PROJECT ADMINISTRATOR		
WO ADMINISTRATOR		

CROWN CASTLE USA INC. SINGNATURE BLOCK

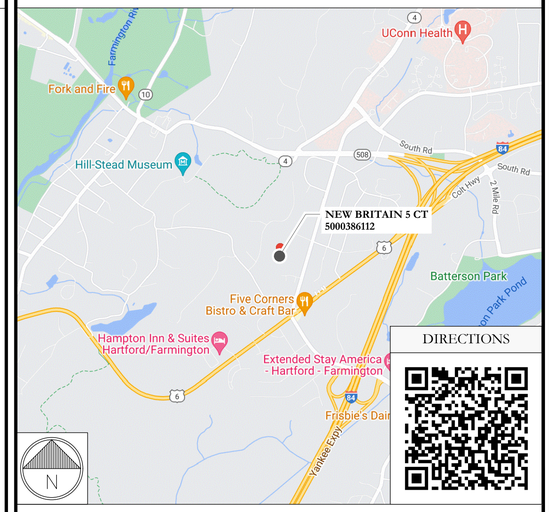
APPROVAL		
SITE ACQUISITION		
PLANNER		
CONSTRUCTION		
PROJECT MANAGER		
UTILITY MANAGER		
LANDLORD		

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) SAMSUNG - B5/B13 RRH-BR04C (RFV01U-D2A) RADIO
- REMOVE (6) ANDREW - 1-5/8" COAX CABLE
- INSTALL (3) SAMSUNG - MT6413-77A ANTENNA W/INTEGRATED RRU
- INSTALL (3) SAMSUNG - RF4461D-13A RADIO

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	2022 CONNECTICUT SBC/2021 IBC
MECHANICAL	2022 CONNECTICUT SBC/2021 IMC
ELECTRICAL	2022 CONNECTICUT SBC/2020 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	CROWN CASTLE USA INC.
DATED:	2/15/24
MOUNT ANALYSIS:	COLLIERS ENGINEERING & DESIGN
DATED:	12/6/23
RFDS REVISION:	-
DATED:	9/22/23
ORDER ID:	662912
REVISION:	0

INSTALLER NOTE:

NO PROPOSED LOADING TO BE ADDED UNTIL MOUNT MODIFICATIONS ARE INSTALLED PER MOUNT MODIFICATION DESIGN BY COLLIERS ENGINEERING & DESIGN DATED 12/6/23.

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386112

BU #: **876335**

CROWN CASTLE SITE NAME
EAST FARMINGTON

3 A BIRDSEYE RD
FARMINGTON, CT 06030

EXISTING 139'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	6/12/24	BCV	CONSTRUCTION	GMA

DocuSigned by:
Graham Andres
9575EC119634470...

STATE OF CONNECTICUT
GRAHAM M. ANDRES
29538
LICENSED
PROFESSIONAL ENGINEER

6/12/2024 | 1:26:49 PM CDT

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101

SHEET NUMBER: T-1

REVISION: 0

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

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

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
   CARRIER: VERIZON
   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.

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).

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. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC ON STRAIGHTS AND SCHEDULE 80 PVC UNDER ALL TRAFFIC EASEMENTS AND ALL ELBOWS/90s. ABOVE GRADE CONDUIT TO BE SCH 80 PVC OR IMC/RMC CONDUIT. EMT IS ALLOWED AT STUB UP LOCATIONS AND INDOORS ONLY.
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 "VERIZON".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

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

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

APWA UNIFORM COLOR CODE:

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

ABBREVIATIONS:

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

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386112

BU #: **876335**

CROWN CASTLE SITE NAME
EAST FARMINGTON

3 A BIRDSEYE RD
FARMINGTON, CT 06030

EXISTING 139'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	6/12/24	BCV	CONSTRUCTION	GMA

DocuSigned by:
Graham Andres
9575EC119634479...

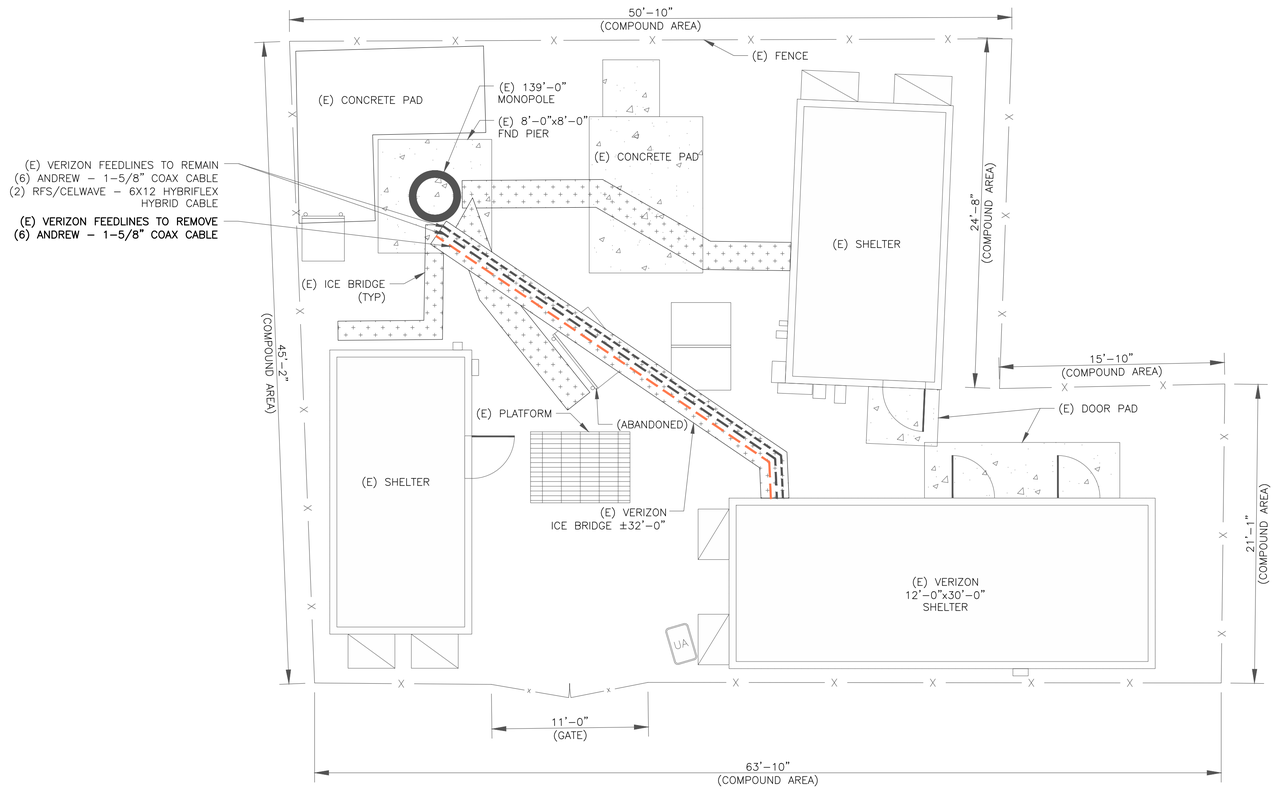
STATE OF CONNECTICUT
GRAHAM M. ANDRES
29538
LICENSED
PROFESSIONAL ENGINEER

6/12/2024 | 1:26:49 PM CDT

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101

SHEET NUMBER: T-2

REVISION: 0



1 SITE PLAN

SCALE: 4' 2' 0 4'
3/16"=1'-0" (FULL SIZE)
3/32"=1'-0" (11x17)

N

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386112

BU #: **876335**

CROWN CASTLE SITE NAME
EAST FARMINGTON

3 A BIRDSEYE RD
FARMINGTON, CT 06030

EXISTING 139'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	6/12/24	BCV	CONSTRUCTION	GMA

DocuSigned by:
Graham Andres
9575EC1196344791

STATE OF CONNECTICUT
GRAHAM M. ANDRES
29538
LICENSED
PROFESSIONAL ENGINEER

6/12/2024 | 1:26:49 PM CDT

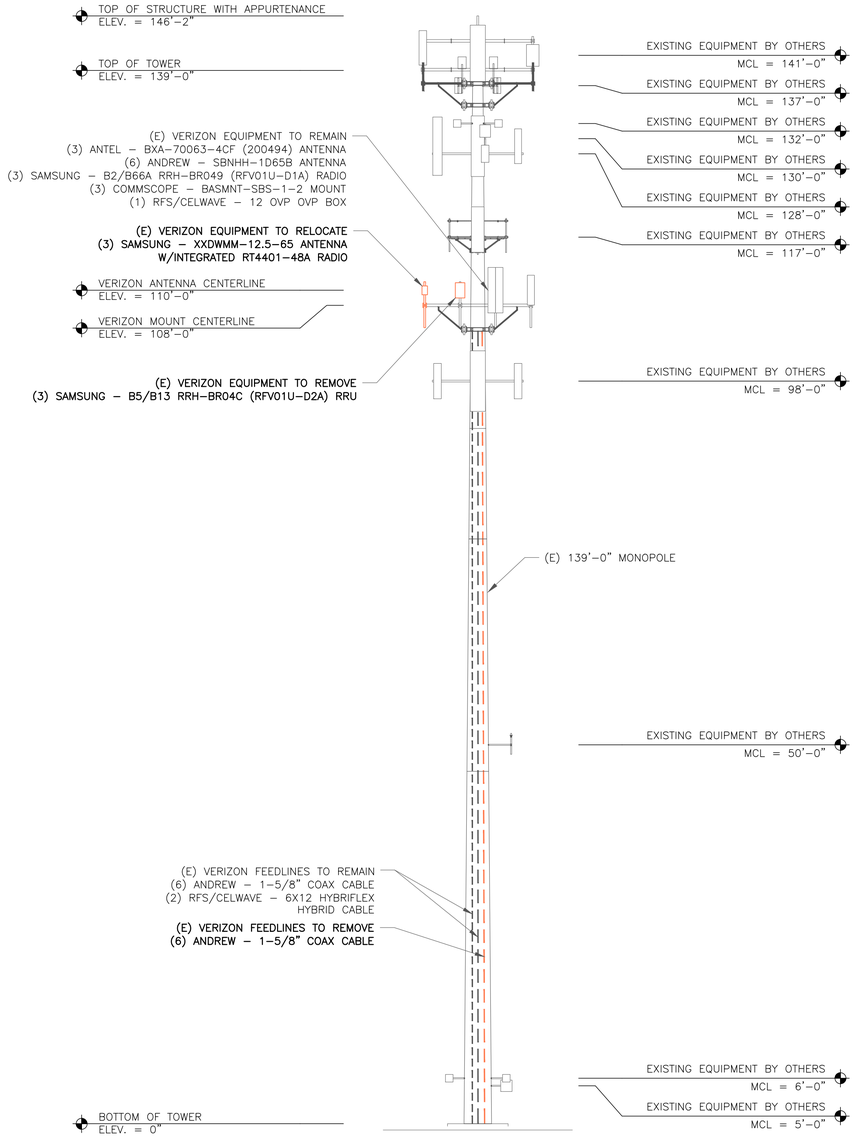
CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101

SHEET NUMBER: C-1

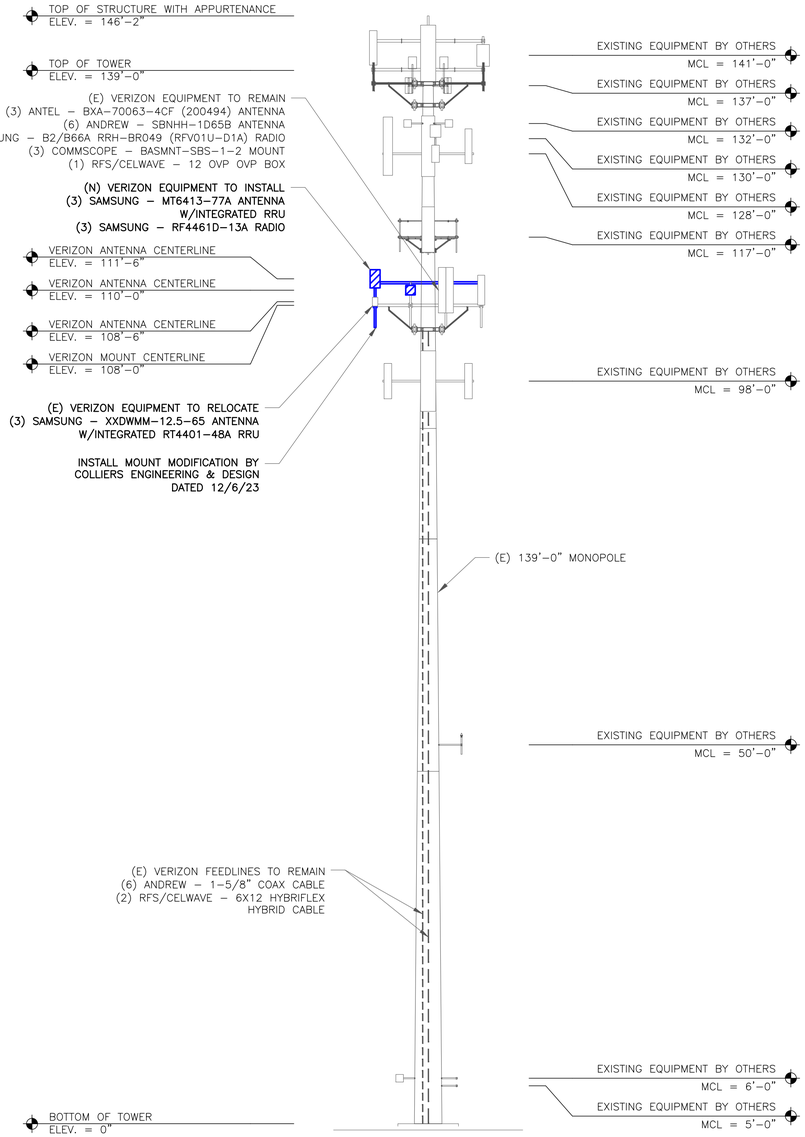
REVISION: 0

VERIZON EQUIPMENT

ANTENNA CL: 111'–6"
110'–0"
108'–6"
MOUNT CL: 108'–0"



1 EXISTING TOWER ELEVATION
SCALE: 10' 5' 0 10' 1"=10'–0" (FULL SIZE) 1"=20'–0" (11x17)



2 FINAL TOWER ELEVATION
SCALE: 10' 5' 0 10' 1"=10'–0" (FULL SIZE) 1"=20'–0" (11x17)

INSTALLER NOTE:

NO PROPOSED LOADING TO BE ADDED UNTIL MOUNT MODIFICATIONS ARE INSTALLED PER MOUNT MODIFICATION DESIGN BY COLLIERS ENGINEERING & DESIGN DATED 12/6/23.

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386112

BU #: **876335**

CROWN CASTLE SITE NAME
EAST FARMINGTON

3 A BIRDSEYE RD
FARMINGTON, CT 06030

EXISTING 139'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	6/12/24	BCV	CONSTRUCTION	GMA

DocuSigned by:
Graham Andres
3575EC1196344791

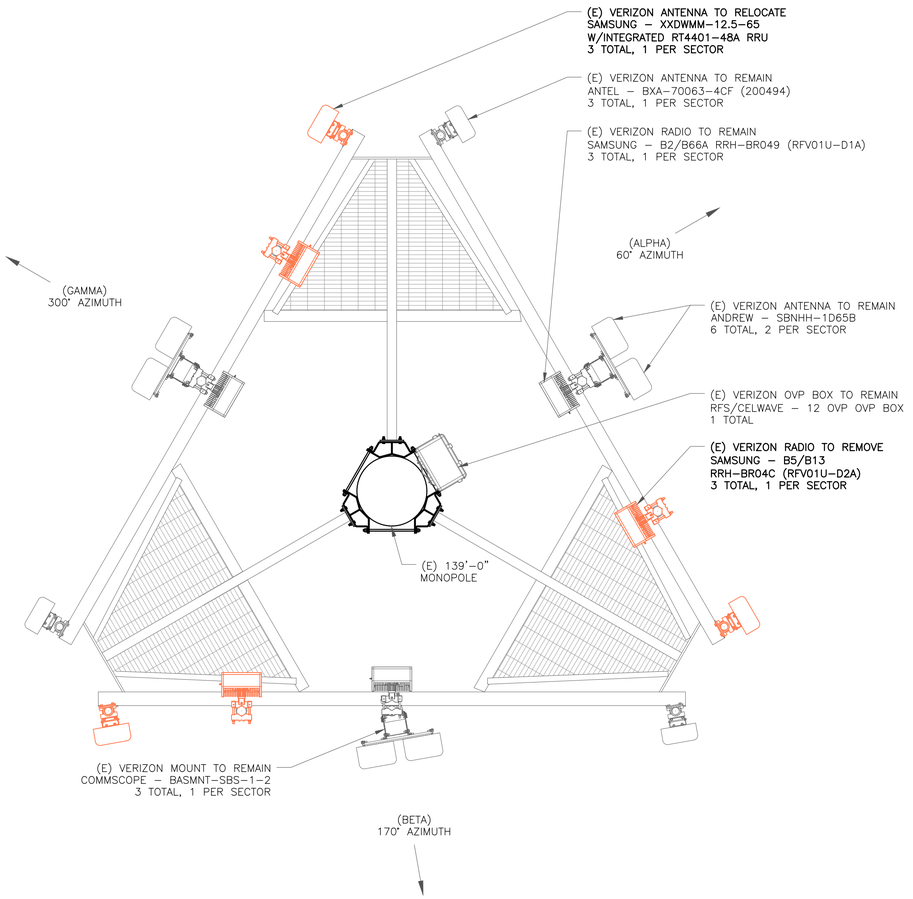
STATE OF CONNECTICUT
GRAHAM M. ANDRES
29538
LICENSED
PROFESSIONAL ENGINEER

6/12/2024 | 1:26:49 PM CDT

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101

SHEET NUMBER: C-2

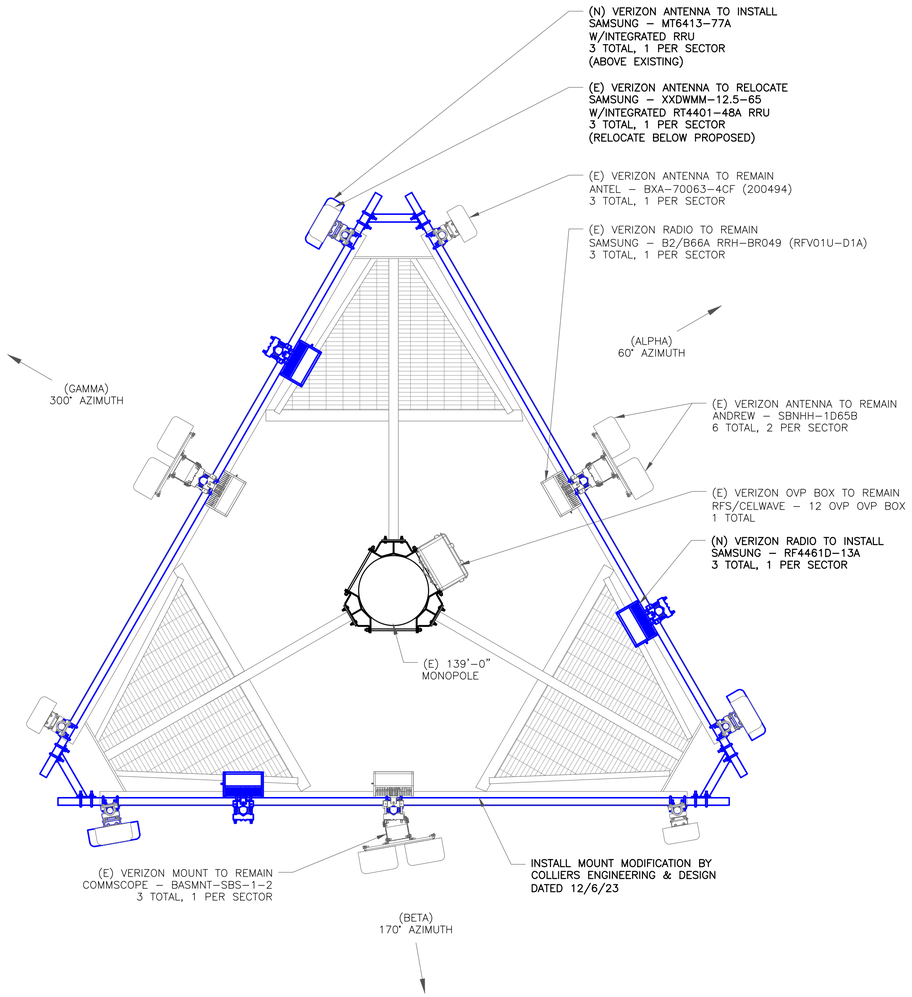
REVISION: 0



1 EXISTING ANTENNA PLAN

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

N



2 FINAL ANTENNA PLAN

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

N

INSTALLER NOTE:

NO PROPOSED LOADING TO BE ADDED UNTIL MOUNT MODIFICATIONS ARE INSTALLED PER MOUNT MODIFICATION DESIGN BY COLLIERS ENGINEERING & DESIGN DATED 12/6/23.

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386112

BU #: **876335**

CROWN CASTLE SITE NAME
EAST FARMINGTON

3 A BIRDSEYE RD
FARMINGTON, CT 06030

EXISTING 139'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	6/12/24	BCV	CONSTRUCTION	GMA

DocuSigned by:
Graham Andres
3575EC119634790...

STATE OF CONNECTICUT
GRAHAM M. ANDRES
29538
LICENSED
PROFESSIONAL ENGINEER

6/12/2024 | 1:26:49 PM CDT

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101

SHEET NUMBER: C-3

REVISION: 0

FINAL EQUIPMENT SCHEDULE
(VERIFY WITH CURRENT RFDS)

POSITION	ANTENNA				RADIO			DIPLEXER			TMA		SURGE PROTECTION		CABLES			
	TECH	STATUS/MANUFACTURER MODEL	AZIMUTH	RAD CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS	QTY.	STATUS/MODEL	QTY.	STATUS/TYPE	SIZE	LENGTH
A1	–	(E) ANTEL – BXA–70063–4CF (200494)	60°	110'–0"	–	–	TOWER	–	–	–	–	–	–	–	2	(E) COAX CABLE	1–5/8"	–
A2	700 850 1900 AWS	(E) ANDREW – SBNHH–1D65B	60°	110'–0"	1	(E) SAMSUNG – B2/B66A RRH–BR049 (RFV01U–D1A)	TOWER	–	–	–	–	–	1	(E) RFS/CELWAVE – 12 OVP	2	(E) HYBRID CABLE	1–5/8"	–
		(E) ANDREW – SBNHH–1D65B	60°	110'–0"														
A3	–	–	–	–	1	(N) SAMSUNG – RF4461D–13A	TOWER	–	–	–	–	–	–	–	–	–	–	–
A4	L–SUB6	(N) SAMSUNG – MT6413–77A	60°	111'–6"	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	CBRS	(E) SAMSUNG – XXDWMM–12.5–65	60°	108'–6"	–	–	–											
B1	–	(E) ANTEL – BXA–70063–4CF (200494)	170°	110'–0"	–	–	–	–	–	–	–	–	–	–	2	(E) COAX CABLE	1–5/8"	–
B2	700 850 1900 AWS	(E) ANDREW – SBNHH–1D65B	170°	110'–0"	1	(E) SAMSUNG – B2/B66A RRH–BR049 (RFV01U–D1A)	TOWER	–	–	–	–	–	–	–	–	–	–	–
		(E) ANDREW – SBNHH–1D65B	170°	110'–0"														
B3	–	–	–	–	1	(N) SAMSUNG – RF4461D–13A	TOWER	–	–	–	–	–	–	–	–	–	–	–
B4	L–SUB6	(N) SAMSUNG – MT6413–77A	170°	111'–6"	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	CBRS	(E) SAMSUNG – XXDWMM–12.5–65	170°	108'–6"	–	–	–											
G1	–	(E) ANTEL – BXA–70063–4CF (200494)	300°	110'–0"	–	–	–	–	–	–	–	–	–	–	2	(E) COAX CABLE	1–5/8"	–
G2	700 850 1900 AWS	(E) ANDREW – SBNHH–1D65B	300°	110'–0"	1	(E) SAMSUNG – B2/B66A RRH–BR049 (RFV01U–D1A)	TOWER	–	–	–	–	–	–	–	–	–	–	–
		(E) ANDREW – SBNHH–1D65B	300°	110'–0"														
G3	–	–	–	–	1	(N) SAMSUNG – RF4461D–13A	TOWER	–	–	–	–	–	–	–	–	–	–	–
G4	L–SUB6	(N) SAMSUNG – MT6413–77A	300°	111'–6"	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	CBRS	(E) SAMSUNG – XXDWMM–12.5–65	300°	108'–6"	–	–	–											

1 FINAL EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386112

BU #: **876335**

CROWN CASTLE SITE NAME
EAST FARMINGTON

3 A BIRDSEYE RD
FARMINGTON, CT 06030

EXISTING 139'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	6/12/24	BCV	CONSTRUCTION	GMA

DocuSigned by:
Graham Andres
9575EC1196344[illegible]

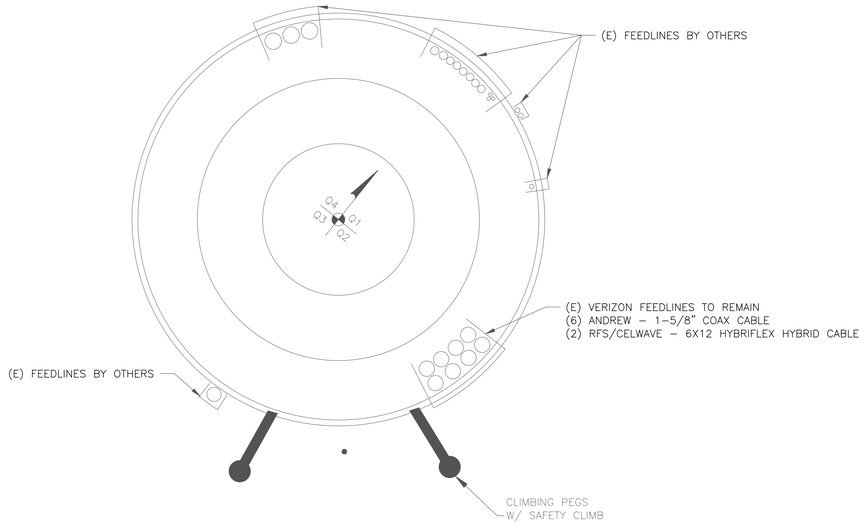
STATE OF CONNECTICUT
GRAHAM M. ANDRES
29538
LICENSED
PROFESSIONAL ENGINEER

6/12/2024 | 1:26:49 PM CDT

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101

SHEET NUMBER: C-4

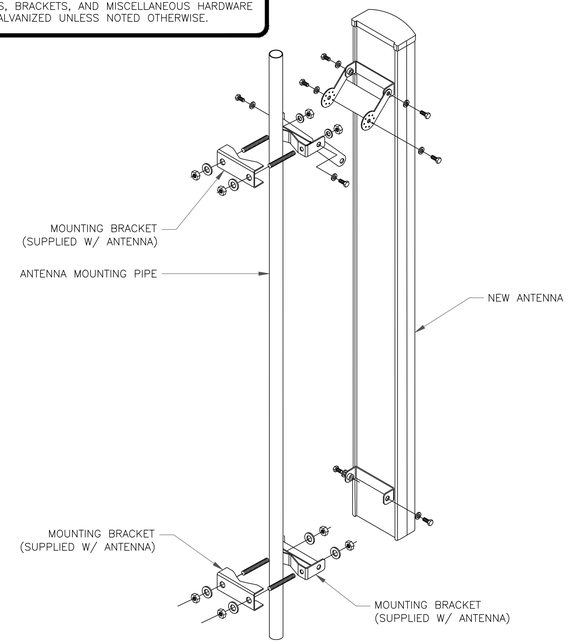
REVISION: 0



1 BASE LEVEL DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTE:

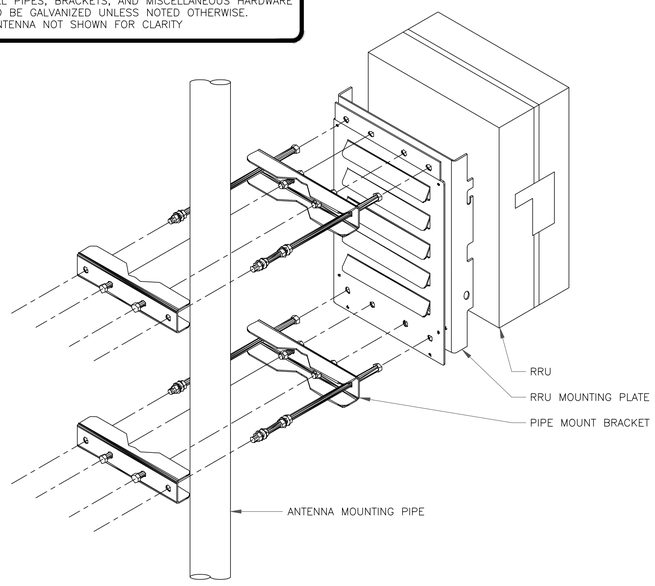
1. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



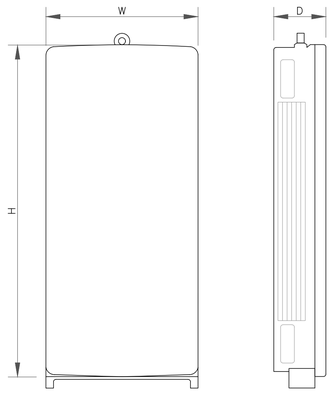
2 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTES:

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

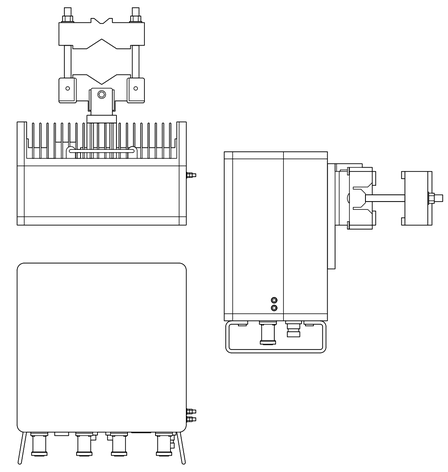


3 RRU MOUNTING DETAIL
SCALE: NOT TO SCALE



ANTENNA SPECS	
MANUFACTURER	SAMSUNG
MODEL #	MT6413-77A
HxWxD	28.90" x 15.75" x 5.51"
WEIGHT	57.3 LBS
INTEGRATED RADIO	YES

4 SAMSUNG – MT6413-77A
SCALE: NOT TO SCALE



RADIO SPECS	
MANUFACTURER	SAMSUNG
MODEL #	RF4461D-13A
HxWxD	14.96" x 14.96" x 10.23"
WEIGHT	79.1 LBS

5 SAMSUNG – RF4461D-13A
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386112

BU #: **876335**

CROWN CASTLE SITE NAME
EAST FARMINGTON

3 A BIRDSEYE RD
FARMINGTON, CT 06030

EXISTING 139'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	6/12/24	BCV	CONSTRUCTION	GMA

DocuSigned by:
Graham Andres
9575EC1196344F0...

STATE OF CONNECTICUT
GRAHAM M. ANDRES
29538
LICENSED
PROFESSIONAL ENGINEER

6/12/2024 | 1:26:49 PM CDT

SHEET NUMBER: C-5

REVISION: 0

Azimuth (1) Alpha					
Cell (850 CDMA)	Red				
PCS2 (1900 LTE)	Pink	Red	Pink		
700 LTE	Lt. Green	Red	Lt. Green		
850 LTE	Purple	Red	Purple		
2100 LTE	Orange	Red	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Red	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Red	Lt. Green	Purple
5G 28GHz	Brown	Red	Brown		
5G 39GHz	Blue	Red	Blue		
LAA	Gray	Red	Gray		
CBRS	White	Red	White		
L-Sub6 (C-Band)	Red	Red	Red		

Azimuth (2) Beta					
Cell (850 CDMA)	Blue				
PCS2 (1900 LTE)	Pink	Blue	Pink		
700 LTE	Lt. Green	Blue	Lt. Green		
850 LTE	Purple	Blue	Purple		
2100 LTE	Orange	Blue	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Blue	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Blue	Lt. Green	Purple
5G 28GHz	Brown	Blue	Brown		
5G 39GHz	Blue	Blue	Blue		
LAA	Gray	Blue	Gray		
CBRS	White	Blue	White		
L-Sub6 (C-Band)	Red	Blue	Red		

Azimuth (3) Gamma					
Cell (850 CDMA)	Yellow				
PCS2 (1900 LTE)	Pink	Yellow	Pink		
700 LTE	Lt. Green	Yellow	Lt. Green		
850 LTE	Purple	Yellow	Purple		
2100 LTE	Orange	Yellow	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Yellow	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Yellow	Lt. Green	Purple
5G 28GHz	Brown	Yellow	Brown		
5G 39GHz	Blue	Yellow	Blue		
LAA	Gray	Yellow	Gray		
CBRS	White	Yellow	White		
L-Sub6 (C-Band)	Red	Yellow	Red		

Azimuth (4) Delta					
Cell (850 CDMA)	Orange				
PCS2 (1900 LTE)	Pink	Orange	Pink		
700 LTE	Lt. Green	Orange	Lt. Green		
850 LTE	Purple	Orange	Purple		
2100 LTE	Orange	Orange	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Orange	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Orange	Lt. Green	Purple
5G 28GHz	Brown	Orange	Brown		
5G 39GHz	Blue	Orange	Blue		
LAA	Gray	Orange	Gray		
CBRS	White	Orange	White		
L-Sub6 (C-Band)	Red	Orange	Red		

Azimuth (5) Epsilon					
Cell (850 CDMA)	White				
PCS2 (1900 LTE)	Pink	White	Pink		
700 LTE	Lt. Green	White	Lt. Green		
850 LTE	Purple	White	Purple		
2100 LTE	Orange	White	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	White	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	White	Lt. Green	Purple
5G 28GHz	Brown	White	Brown		
5G 39GHz	Blue	White	Blue		
LAA	Gray	White	Gray		
CBRS	White	White	White		
L-Sub6 (C-Band)	Red	White	Red		

Azimuth (6) Zeta					
Cell (850 CDMA)	Gray				
PCS2 (1900 LTE)	Pink	Gray	Pink		
700 LTE	Lt. Green	Gray	Lt. Green		
850 LTE	Purple	Gray	Purple		
2100 LTE	Orange	Gray	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Gray	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Gray	Lt. Green	Purple
5G 28GHz	Brown	Gray	Brown		
5G 39GHz	Blue	Gray	Blue		
LAA	Gray	Gray	Gray		
CBRS	White	Gray	White		
L-Sub6 (C-Band)	Red	Gray	Red		

1 COLOR CODE MATRIX
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

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BU #: **876335**

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EAST FARMINGTON

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EXISTING 139'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
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DocuSigned by:
Graham Andres
9575EC119634479...

STATE OF CONNECTICUT
GRAHAM M. ANDRES
29538
LICENSED
PROFESSIONAL ENGINEER

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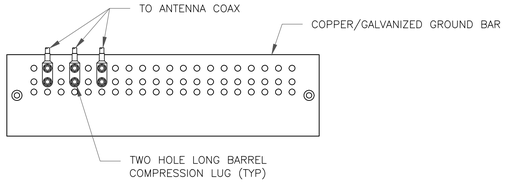
CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101

SHEET NUMBER: C-6

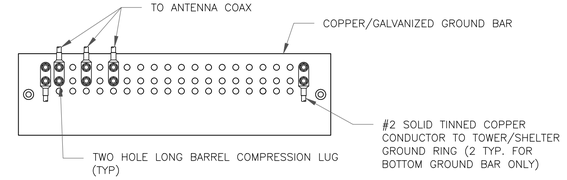
REVISION: 0



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

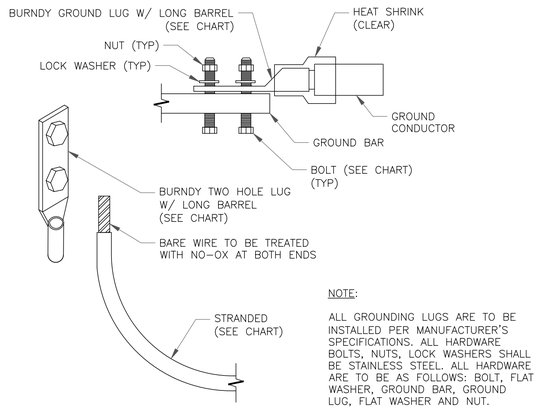


NOTES:

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

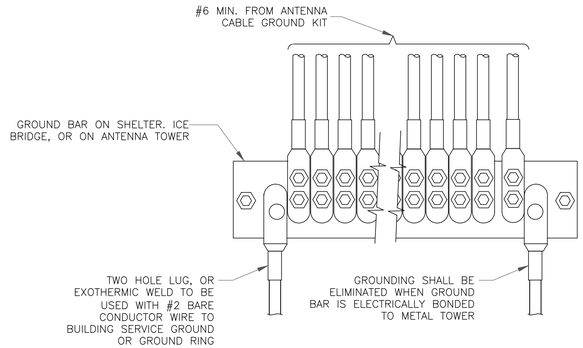
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT



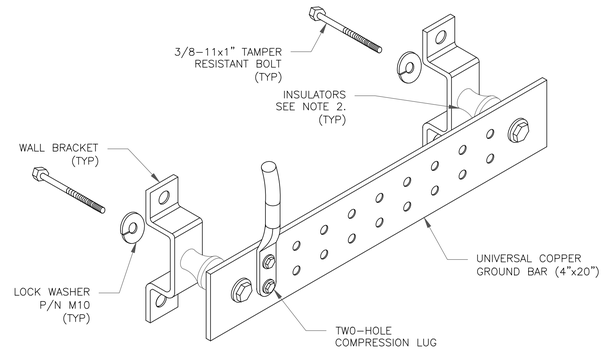
NOTE:

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.

3 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE

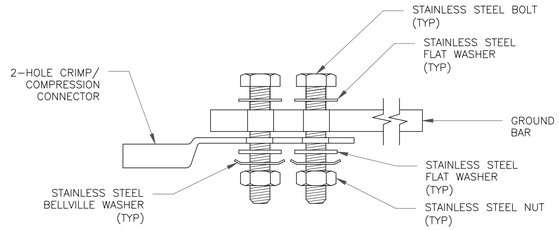


NOTES:

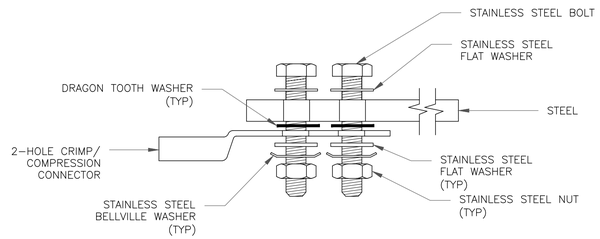
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.

2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

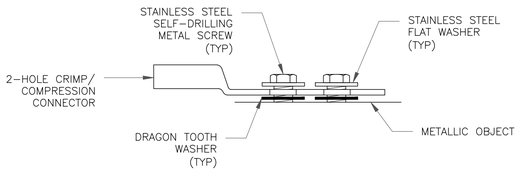
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

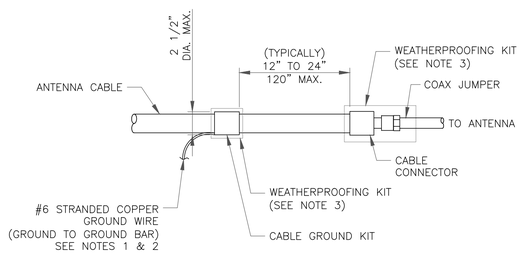


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

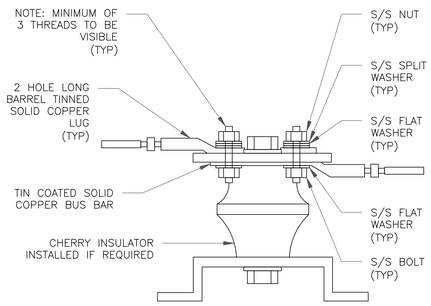
8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



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.

6 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000386112

BU #: **876335**

CROWN CASTLE SITE NAME
EAST FARMINGTON

3 A BIRDSEYE RD
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DocuSigned by:
Graham Andres
9575EC1196344...

STATE OF CONNECTICUT
GRAHAM M. ANDRES
29538
LICENSED
PROFESSIONAL ENGINEER

6/12/2024 | 1:26:49 PM CDT

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101

SHEET NUMBER: G-1

REVISION: 0

EXHIBIT E

Structural Analysis Report

Date: **February 15, 2024**

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

Subject:	**Structural Analysis Report**	
Carrier Designation:	***Verizon Wireless* Co-Locate**	
	Site Number:	5000386112
	Site Name:	NEW BRITAIN 5 CT
Crown Castle Designation:	**BU Number:**	876335
	Site Name:	EAST FARMINGTON
	JDE Job Number:	2107974
	Work Order Number:	2283480
	Order Number:	662912 Rev. 0
Engineering Firm Designation:	**Crown Castle Project Number**	2283480
Site Data:	**3 A Birdseye Road, Farmington, Hartford County, CT**	
	Latitude: *41° 42' 56.94"* Longitude: *-72° 48' 37.42"*	
	140 ft - Monopole Tower	

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

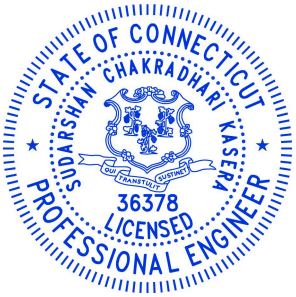
The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration **Sufficient Capacity - 89.6%**

This analysis utilizes an ultimate 3-second gust wind speed of 117 mph as required by the 2022 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Matthew Schmitt

Respectfully submitted by:



Sudarshan C Kasera, P.E.
Senior Project Engineer

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 140 ft Monopole Tower designed by Summit. The tower has been modified in the past to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	117 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1.50 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)
108	110	6	andrew	SBNHH-1D65B w/ Mount Pipe	8	1-5/8
		3	antel	BXA-70063-4CF-EDIN-X w/ Mount Pipe		
		1	rfs celwave	DB-T1-6Z-8AB-0Z		
		3	samsung telecommunications	MT6413-77A w/ Mount Pipe		
		3	samsung telecommunications	RF4461D-13A		
		3	samsung telecommunications	RFV01U-D1A		
		3	samsung telecommunications	XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe		
	108	1	tower mounts	Kicker Kit [#PRK-1245]		
		1	tower mounts	Platform Mount [LP 304-1_HR-1]		

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)
141	145	2	ericsson	RADIO 4460 B2/B25 B66_TMO	3	1-3/4
	144	1	ericsson	RADIO 4460 B2/B25 B66_TMO		
	142	2	commscope	VV-65A-R1_TMO w/ Mount Pipe		
		2	ericsson	AIR 6419 B41_TMO_CCIV2 w/ Mount Pipe		
		3	ericsson	Radio 4480_TMOV2		
	141	1		Reinforcement Kit [# PRK-SFS]		
		1		Support Rail Kit [# HRK12]		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		1	commscope	VV-65A-R1_TMO w/ Mount Pipe		
		1	ericsson	AIR 6419 B41_TMO_CCIV2 w/ Mount Pipe		
		3	rfs celwave	APXVAALL24_43-U-NA20_TMO w/ Mount Pipe		
		1	tower mounts	Platform Mount [LP 1201-1_HR-1]		
137	140	3	alcatel lucent	TME-800MHz 2X50W RRH W/FILTER w/ Mount Pipe	-	-
	137	3	alcatel lucent	TME-PCS 1900MHz 4x45W-65MHz w/ Mount Pipe		
		1	tower mounts	Pipe Mount [PM 601-3]		
130	131	3	ericsson	RRUS 11	-	-
	130	1	tower mounts	Pipe Mount [PM 601-3]		
	128	3	ericsson	RRUS 32 B2		
128	132	3	ericsson	AIR 6419 B77G_CCIV3	2 6 3	7/8 13/16 3/8
	130	3	cci antennas	DMP65R-BU8D w/ Mount Pipe		
		3	ericsson	RRUS 32 B30		
		3	ericsson	RRUS 4415 B25_CCIV2		
		3	ericsson	RRUS 4426 B66		
		3	ericsson	RRUS 4449 B5/B12		
		3	ericsson	RRUS 4478 B14_CCIV2		
		3	kmw communications	EPBQ-654L8H8-L2 w/ Mount Pipe		
		1	raycap	DC6-48-60-0-8C-EV		
		2	raycap	DC6-48-60-18-8C		
	128	1		Support Kicker Kit [#PRK-SFS-L]		
		3	ericsson	AIR 6449 B77D_CCVI2		
		1	raycap	DC6-48-60-18-8F		
		1	tower mounts	T-Arm Mount [TA 601-3]		
117	118	3	fujitsu	TA08025-B604	1	1-1/2
		3	fujitsu	TA08025-B605		
		3	jma wireless	MX08FRO665-21 w/ Mount Pipe		
		1	raycap	RDIDC-9181-PF-48		
	117	1	tower mounts	Sabre C10801018-32788		
98	99	3	ericsson	KRY 112 144/1	2	1/2
	98	6	ericsson	ERICSSON AIR 21 B2A B4P_T-MOBILE w/ Mount Pipe		
		3	rfs celwave	APXVAARR24_43-U-NA20_T-MOBILE w/ Mount Pipe		
		1	tower mounts	Platform Mount [LP 303-1_HR-1]		
49	51	1	lucent	KS24019-L112A	1	1/2
	49	1	tower mounts	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
4-GEOTECHNICAL REPORTS	1531892	CCISITES
4-POST-MODIFICATION INSPECTION	2397526	CCISITES
4-POST-MODIFICATION INSPECTION	3413367	CCISITES
4-POST-MODIFICATION INSPECTION	4836434	CCISITES
4-POST-MODIFICATION INSPECTION	5400317	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	1440555	CCISITES
4-TOWER MANUFACTURER DRAWINGS	1615361	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	2397525	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	3262310	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	3672042	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	4456376	CCISITES

3.1) Analysis Method

tnxTower (version 8.2.2.0), 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.

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

3.2) Assumptions

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

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
140 - 135	Pole	TP17.025x16x0.25	Pole	11.4	Pass
135 - 130	Pole	TP18.05x17.025x0.25	Pole	18.7	Pass
130 - 125	Pole	TP19.075x18.05x0.25	Pole	32.2	Pass
125 - 120	Pole	TP20.099x19.075x0.25	Pole	43.3	Pass
120 - 115	Pole	TP21.124x20.099x0.25	Pole	53.7	Pass
115 - 110	Pole	TP22.149x21.124x0.25	Pole	63.5	Pass
110 - 105	Pole	TP23.174x22.149x0.25	Pole	75.0	Pass
105 - 102	Pole	TP23.789x23.174x0.25	Pole	81.2	Pass
102 - 101.75	Pole + Reinf.	TP23.84x23.789x0.3875	Reinf. 12 Tension Rupture	72.2	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
101.75 - 96.75	Pole + Reinf.	TP24.865x23.84x0.375	Reinf. 12 Tension Rupture	81.0	Pass
96.75 - 95	Pole + Reinf.	TP25.89x24.865x0.375	Reinf. 12 Tension Rupture	84.2	Pass
95 - 90.75	Pole + Reinf.	TP25.595x24.724x0.3563	Pole	71.6	Pass
90.75 - 85.75	Pole + Reinf.	TP26.62x25.595x0.3563	Pole	76.9	Pass
85.75 - 85.33	Pole + Reinf.	TP26.706x26.62x0.3563	Pole	77.4	Pass
85.33 - 85.08	Pole + Reinf.	TP26.758x26.706x0.5625	Reinf. 11 Tension Rupture	69.5	Pass
85.08 - 82.5	Pole + Reinf.	TP27.287x26.758x0.5625	Reinf. 11 Tension Rupture	71.9	Pass
82.5 - 82.25	Pole + Reinf.	TP27.338x27.287x0.4125	Pole	71.6	Pass
82.25 - 82	Pole + Reinf.	TP27.389x27.338x0.4125	Pole	71.9	Pass
82 - 81.75	Pole + Reinf.	TP27.44x27.389x0.3563	Pole	81.0	Pass
81.75 - 78.83	Pole + Reinf.	TP28.039x27.44x0.3563	Pole	83.7	Pass
78.83 - 78.58	Pole + Reinf.	TP28.09x28.039x0.6125	Reinf. 11 Tension Rupture	70.4	Pass
78.58 - 77.66	Pole + Reinf.	TP28.279x28.09x0.6125	Reinf. 11 Tension Rupture	71.1	Pass
77.66 - 77.41	Pole + Reinf.	TP28.33x28.279x0.55	Reinf. 2 Tension Rupture	75.9	Pass
77.41 - 77.17	Pole + Reinf.	TP28.38x28.33x0.55	Reinf. 2 Tension Rupture	76.1	Pass
77.17 - 72.17	Pole + Reinf.	TP29.406x28.38x0.5375	Reinf. 2 Tension Rupture	79.7	Pass
72.17 - 67.17	Pole + Reinf.	TP30.431x29.406x0.525	Reinf. 2 Tension Rupture	82.8	Pass
67.17 - 66.58	Pole + Reinf.	TP30.551x30.431x0.525	Reinf. 2 Tension Rupture	83.2	Pass
66.58 - 66.33	Pole + Reinf.	TP30.603x30.551x0.625	Reinf. 2 Tension Rupture	70.5	Pass
66.33 - 66.16	Pole + Reinf.	TP30.638x30.603x0.625	Reinf. 2 Tension Rupture	70.6	Pass
66.16 - 65.91	Pole + Reinf.	TP30.689x30.638x0.525	Reinf. 5 Tension Rupture	78.1	Pass
65.91 - 62.66	Pole + Reinf.	TP31.355x30.689x0.5125	Reinf. 5 Tension Rupture	79.9	Pass
62.66 - 62.41	Pole + Reinf.	TP31.407x31.355x0.5125	Reinf. 5 Tension Rupture	84.0	Pass
62.41 - 60	Pole + Reinf.	TP31.901x31.407x0.5063	Reinf. 5 Tension Rupture	85.3	Pass
60 - 59.75	Pole + Reinf.	TP31.952x31.901x0.5	Reinf. 5 Tension Rupture	85.4	Pass
59.75 - 54.75	Pole + Reinf.	TP32.978x31.952x0.5	Reinf. 5 Tension Rupture	87.8	Pass
54.75 - 52.83	Pole + Reinf.	TP33.372x32.978x0.5	Reinf. 5 Tension Rupture	88.7	Pass
52.83 - 52.58	Pole + Reinf.	TP33.423x33.372x0.6875	Reinf. 5 Tension Rupture	65.3	Pass
52.58 - 51.41	Pole + Reinf.	TP33.663x33.423x0.6875	Reinf. 5 Tension Rupture	65.8	Pass
51.41 - 51.16	Pole + Reinf.	TP33.714x33.663x0.5063	Reinf. 1 Tension Rupture	82.5	Pass
51.16 - 51	Pole + Reinf.	TP34.67x33.714x0.5063	Reinf. 1 Tension Rupture	82.6	Pass
51 - 45.5	Pole + Reinf.	TP34.25x33.122x0.55	Reinf. 1 Tension Rupture	83.9	Pass
45.5 - 44.25	Pole + Reinf.	TP34.506x34.25x0.55	Reinf. 1 Tension Rupture	84.3	Pass
44.25 - 44	Pole + Reinf.	TP34.557x34.506x0.625	Reinf. 1 Tension Rupture	69.1	Pass
44 - 43.08	Pole + Reinf.	TP34.746x34.557x0.625	Reinf. 1 Tension Rupture	69.3	Pass
43.08 - 42.83	Pole + Reinf.	TP34.797x34.746x0.6625	Reinf. 8 Tension Rupture	72.1	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
42.83 - 37.83	Pole + Reinf.	TP35.823x34.797x0.6625	Reinf. 8 Tension Rupture	73.4	Pass
37.83 - 32.83	Pole + Reinf.	TP36.848x35.823x0.65	Reinf. 8 Tension Rupture	74.5	Pass
32.83 - 29.25	Pole + Reinf.	TP37.582x36.848x0.6375	Reinf. 8 Tension Rupture	75.3	Pass
29.25 - 29	Pole + Reinf.	TP37.633x37.582x0.6375	Reinf. 7 Tension Rupture	75.3	Pass
29 - 27.75	Pole + Reinf.	TP37.89x37.633x0.6375	Reinf. 7 Tension Rupture	75.6	Pass
27.75 - 27.5	Pole + Reinf.	TP37.941x37.89x0.6375	Reinf. 7 Tension Rupture	75.6	Pass
27.5 - 24.08	Pole + Reinf.	TP38.642x37.941x0.6375	Reinf. 7 Tension Rupture	76.2	Pass
24.08 - 23.83	Pole + Reinf.	TP38.693x38.642x0.7	Reinf. 14 Tension Rupture	73.6	Pass
23.83 - 23.5	Pole + Reinf.	TP38.761x38.693x0.7	Reinf. 14 Tension Rupture	73.7	Pass
23.5 - 23.25	Pole + Reinf.	TP38.812x38.761x0.4438	Pole	81.2	Pass
23.25 - 18.91	Pole + Reinf.	TP39.702x38.812x0.4438	Pole	82.3	Pass
18.91 - 18.66	Pole + Reinf.	TP39.754x39.702x0.525	Reinf. 7 Tension Rupture	89.5	Pass
18.66 - 18.08	Pole + Reinf.	TP39.873x39.754x0.525	Reinf. 7 Tension Rupture	89.6	Pass
18.08 - 17.83	Pole + Reinf.	TP39.924x39.873x0.6375	Reinf. 3 Compression	78.0	Pass
17.83 - 12.83	Pole + Reinf.	TP40.949x39.924x0.625	Reinf. 3 Compression	78.7	Pass
12.83 - 7.83	Pole + Reinf.	TP41.974x40.949x0.625	Reinf. 3 Compression	79.2	Pass
7.83 - 2.83	Pole + Reinf.	TP43x41.974x0.6125	Reinf. 3 Compression	79.7	Pass
2.83 - 0	Pole + Reinf.	TP43.58x43x0.6125	Reinf. 3 Compression	79.9	Pass
				Summary	
			Pole	83.7	Pass
			Reinforcement	89.6	Pass
			Overall	89.6	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	83.6	Pass
1	Base Plate	0	79.8	Pass
1	Base Foundation (Structural)	0	43.7	Pass
1	Base Foundation (Soil)	0	60.8	Pass

Structure Rating (max from all components) =	89.6%

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

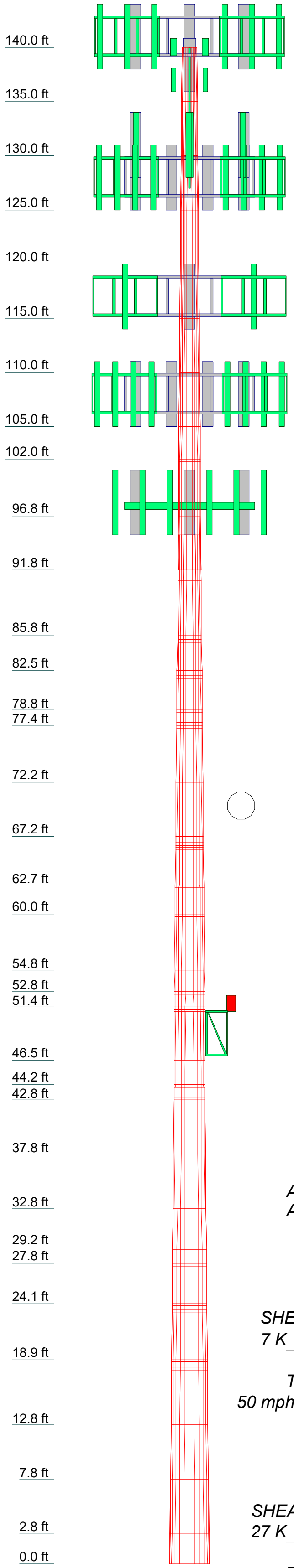
4.1) Recommendations

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

APPENDIX A

TNXTOWER OUTPUT

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	5.00	12	0.2500		16.0000	17.0249	A607-60	0.2
2	5.00	12	0.2500		17.0249	18.0497		0.2
3	5.00	12	0.2500		18.0497	19.0746		0.3
4	5.00	12	0.2500		19.0746	20.0995		0.3
5	5.00	12	0.2500		20.0995	21.1244		0.3
6	5.00	12	0.2500		21.1244	22.1492		0.3
7	5.00	12	0.2500		22.1492	23.1741		0.3
8	[illegible]	12	[illegible]		[illegible]	[illegible]		0.2
9	[illegible]	12	[illegible]		[illegible]	[illegible]		[illegible]
10	5.00	12	0.3750		[illegible]	[illegible]		0.5
11	[illegible]	12	0.3750	3.25	[illegible]	[illegible]		0.5
12	[illegible]	12	[illegible]		[illegible]	[illegible]		0.5
13	5.00	12	[illegible]		[illegible]	[illegible]		0.6
14–24	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
25	5.00	12	[illegible]		[illegible]	[illegible]		0.9
26	5.00	12	0.5250		[illegible]	[illegible]		0.9
27–34	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
35	5.00	12	[illegible]		[illegible]	[illegible]		0.8
36–39	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
40	[illegible]	12	[illegible]	4.50	[illegible]	[illegible]	A607-65	0.9
41–45	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
46	5.00	12	[illegible]		[illegible]	[illegible]		1.2
47	5.00	12	0.6500		35.8226	36.8479		1.2
48	[illegible]	12	[illegible]		[illegible]	[illegible]		0.9
49–55	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
56	[illegible]	12	[illegible]		[illegible]	[illegible]		1.1
57–59	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
60	5.00	12	[illegible]		[illegible]	[illegible]		1.3
61	5.00	12	0.6250		40.9491	41.9744		1.4
62	5.00	12	0.6125		41.9744	42.9997		1.4
63	2.83	12	0.6125		42.9997	43.5800		0.8
								23.8



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A607-60	60 ksi	75 ksi	A607-65	65 ksi	80 ksi

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 117 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 89.6%

ALL REACTIONS ARE FACTORED

AXIAL 92 K
SHEAR 7 K *MOMENT 891 kip-ft*
TORQUE 2 kip-ft
50 mph WIND - 1.5000 in ICE

AXIAL 54 K
SHEAR 27 K *MOMENT 3031 kip-ft*
TORQUE 9 kip-ft
REACTIONS - 117 mph WIND

CROWN CASTLE The Foundation for a Wireless World	*Crown Castle* 2000 Corporate Drive Canonsburg, PA 15317 Phone: (724) 416-2000 FAX:

Job: **BU# 876335**		
Project:		
Client: Crown Castle	Drawn by: Matthew Schmitt	App'd:
Code: TIA-222-H	Date: 02/15/24	Scale: NTS
Path: C:\SAPI Work Area\876335\WO 2283480 - SA\Prod\876335.eri		Dwg No. E-1

Tower Input Data

The tower is a monopole.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

Tower is located in Hartford County, Connecticut.
Tower base elevation above sea level: 414.00 ft.
Basic wind speed of 117 mph.
Risk Category II.
Exposure Category B.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.00 ft.
Nominal ice thickness of 1.5000 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.
Tower analysis based on target reliabilities in accordance with Annex S.
Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
Maximum demand-capacity ratio is: 1.05.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	140.00-135.00	5.00	0.00	12	16.0000	17.0249	0.2500	1.0000	A607-60 (60 ksi)
L2	135.00-130.00	5.00	0.00	12	17.0249	18.0497	0.2500	1.0000	A607-60 (60 ksi)
L3	130.00-125.00	5.00	0.00	12	18.0497	19.0746	0.2500	1.0000	A607-60 (60 ksi)
L4	125.00-120.00	5.00	0.00	12	19.0746	20.0995	0.2500	1.0000	A607-60 (60 ksi)
L5	120.00-115.00	5.00	0.00	12	20.0995	21.1244	0.2500	1.0000	A607-60 (60 ksi)
L6	115.00-110.00	5.00	0.00	12	21.1244	22.1492	0.2500	1.0000	A607-60 (60 ksi)
L7	110.00-105.00	5.00	0.00	12	22.1492	23.1741	0.2500	1.0000	A607-60 (60 ksi)
L8	105.00-102.00	3.00	0.00	12	23.1741	23.7890	0.2500	1.0000	A607-60 (60 ksi)
L9	102.00-101.75	0.25	0.00	12	23.7890	23.8403	0.3875	1.5500	A607-60 (60 ksi)
L10	101.75-96.75	5.00	0.00	12	23.8403	24.8651	0.3750	1.5000	A607-60 (60 ksi)
L11	96.75-91.75	5.00	3.25	12	24.8651	25.8900	0.3750	1.5000	A607-60 (60 ksi)
L12	91.75-90.75	4.25	0.00	12	24.7238	25.5952	0.3563	1.4250	A607-65 (65 ksi)
L13	90.75-85.75	5.00	0.00	12	25.5952	26.6203	0.3563	1.4250	A607-65 (65 ksi)
L14	85.75-85.33	0.42	0.00	12	26.6203	26.7064	0.3563	1.4250	A607-65 (65 ksi)
L15	85.33-85.08	0.25	0.00	12	26.7064	26.7577	0.5625	2.2500	A607-65 (65 ksi)
L16	85.08-82.50	2.58	0.00	12	26.7577	27.2866	0.5625	2.2500	A607-65 (65 ksi)
L17	82.50-82.25	0.25	0.00	12	27.2866	27.3379	0.4125	1.6500	A607-65 (65 ksi)
L18	82.25-82.00	0.25	0.00	12	27.3379	27.3891	0.4125	1.6500	A607-65 (65 ksi)
L19	82.00-81.75	0.25	0.00	12	27.3891	27.4404	0.3563	1.4250	A607-65 (65 ksi)
L20	81.75-78.83	2.92	0.00	12	27.4404	28.0390	0.3563	1.4250	A607-65 (65 ksi)
L21	78.83-78.58	0.25	0.00	12	28.0390	28.0903	0.6125	2.4500	A607-65 (65 ksi)
L22	78.58-77.66	0.92	0.00	12	28.0903	28.2789	0.6125	2.4500	A607-65 (65 ksi)
L23	77.66-77.41	0.25	0.00	12	28.2789	28.3302	0.5500	2.2000	A607-65 (65 ksi)
L24	77.41-77.17	0.24	0.00	12	28.3302	28.3800	0.5500	2.2000	A607-65 (65 ksi)
L25	77.17-72.17	5.00	0.00	12	28.3800	29.4055	0.5375	2.1500	A607-65 (65 ksi)
L26	72.17-67.17	5.00	0.00	12	29.4055	30.4311	0.5250	2.1000	A607-65 (65 ksi)
L27	67.17-66.58	0.59	0.00	12	30.4311	30.5515	0.5250	2.1000	A607-65 (65 ksi)
L28	66.58-66.33	0.25	0.00	12	30.5515	30.6027	0.6250	2.5000	A607-65 (65 ksi)
L29	66.33-66.16	0.17	0.00	12	30.6027	30.6376	0.6250	2.5000	A607-65 (65 ksi)
L30	66.16-65.91	0.25	0.00	12	30.6376	30.6889	0.5250	2.1000	A607-65 (65 ksi)
L31	65.91-62.66	3.25	0.00	12	30.6889	31.3555	0.5125	2.0500	A607-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L32	62.66-62.41	0.25	0.00	12	31.3555	31.4068	0.5125	2.0500	A607-65 (65 ksi)
L33	62.41-60.00	2.41	0.00	12	31.4068	31.9011	0.5062	2.0250	A607-65 (65 ksi)
L34	60.00-59.75	0.25	0.00	12	31.9011	31.9523	0.5000	2.0000	A607-65 (65 ksi)
L35	59.75-54.75	5.00	0.00	12	31.9523	32.9779	0.5000	2.0000	A607-65 (65 ksi)
L36	54.75-52.83	1.92	0.00	12	32.9779	33.3717	0.5000	2.0000	A607-65 (65 ksi)
L37	52.83-52.58	0.25	0.00	12	33.3717	33.4230	0.6875	2.7500	A607-65 (65 ksi)
L38	52.58-51.41	1.17	0.00	12	33.4230	33.6629	0.6875	2.7500	A607-65 (65 ksi)
L39	51.41-51.16	0.25	0.00	12	33.6629	33.7142	0.5062	2.0250	A607-65 (65 ksi)
L40	51.16-46.50	4.66	4.50	12	33.7142	34.6700	0.5062	2.0250	A607-65 (65 ksi)
L41	46.50-45.50	5.50	0.00	12	33.1220	34.2498	0.5500	2.2000	A607-65 (65 ksi)
L42	45.50-44.25	1.25	0.00	12	34.2498	34.5062	0.5500	2.2000	A607-65 (65 ksi)
L43	44.25-44.00	0.25	0.00	12	34.5062	34.5574	0.6250	2.5000	A607-65 (65 ksi)
L44	44.00-43.08	0.92	0.00	12	34.5574	34.7461	0.6250	2.5000	A607-65 (65 ksi)
L45	43.08-42.83	0.25	0.00	12	34.7461	34.7973	0.6625	2.6500	A607-65 (65 ksi)
L46	42.83-37.83	5.00	0.00	12	34.7973	35.8226	0.6625	2.6500	A607-65 (65 ksi)
L47	37.83-32.83	5.00	0.00	12	35.8226	36.8479	0.6500	2.6000	A607-65 (65 ksi)
L48	32.83-29.25	3.58	0.00	12	36.8479	37.5820	0.6375	2.5500	A607-65 (65 ksi)
L49	29.25-29.00	0.25	0.00	12	37.5820	37.6333	0.6375	2.5500	A607-65 (65 ksi)
L50	29.00-27.75	1.25	0.00	12	37.6333	37.8896	0.6375	2.5500	A607-65 (65 ksi)
L51	27.75-27.50	0.25	0.00	12	37.8896	37.9409	0.6375	2.5500	A607-65 (65 ksi)
L52	27.50-24.08	3.42	0.00	12	37.9409	38.6422	0.6375	2.5500	A607-65 (65 ksi)
L53	24.08-23.83	0.25	0.00	12	38.6422	38.6935	0.7000	2.8000	A607-65 (65 ksi)
L54	23.83-23.50	0.33	0.00	12	38.6935	38.7611	0.7000	2.8000	A607-65 (65 ksi)
L55	23.50-23.25	0.25	0.00	12	38.7611	38.8124	0.4437	1.7750	A607-65 (65 ksi)
L56	23.25-18.91	4.34	0.00	12	38.8124	39.7023	0.4437	1.7750	A607-65 (65 ksi)
L57	18.91-18.66	0.25	0.00	12	39.7023	39.7536	0.5250	2.1000	A607-65 (65 ksi)
L58	18.66-18.08	0.58	0.00	12	39.7536	39.8725	0.5250	2.1000	A607-65 (65 ksi)
L59	18.08-17.83	0.25	0.00	12	39.8725	39.9238	0.6375	2.5500	A607-65 (65 ksi)
L60	17.83-12.83	5.00	0.00	12	39.9238	40.9491	0.6250	2.5000	A607-65 (65 ksi)
L61	12.83-7.83	5.00	0.00	12	40.9491	41.9744	0.6250	2.5000	A607-65 (65 ksi)
L62	7.83-2.83	5.00	0.00	12	41.9744	42.9997	0.6125	2.4500	A607-65 (65 ksi)

Section	Elevation	Section Length	Splice Length	Number of Sides	Top Diameter	Bottom Diameter	Wall Thickness	Bend Radius	Pole Grade
	ft	ft	ft		in	in	in	in	
L63	2.83-0.00	2.83		12	42.9997	43.5800	0.6125	2.4500	A607-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia.	Area	I	r	C	I/C	J	It/Q	w	w/t
	in	in^2	in^4	in	in	in^3	in^4	in^2	in	
L1	16.4762	12.6788	401.4426	5.6385	8.2880	48.4366	813.4316	6.2401	3.6180	14.472
	17.5373	13.5038	485.0196	6.0054	8.8189	54.9979	982.7813	6.6461	3.8927	15.571
L2	17.5373	13.5038	485.0196	6.0054	8.8189	54.9979	982.7813	6.6461	3.8927	15.571
	18.5983	14.3288	579.4592	6.3723	9.3498	61.9758	1174.1415	7.0522	4.1673	16.669
L3	18.5983	14.3288	579.4592	6.3723	9.3498	61.9758	1174.1415	7.0522	4.1673	16.669
	19.6593	15.1538	685.4249	6.7392	9.8806	69.3704	1388.8566	7.4582	4.4420	17.768
L4	19.6593	15.1538	685.4249	6.7392	9.8806	69.3704	1388.8566	7.4582	4.4420	17.768
	20.7203	15.9788	803.5805	7.1061	10.4115	77.1818	1628.2719	7.8643	4.7167	18.867
L5	20.7203	15.9788	803.5805	7.1061	10.4115	77.1818	1628.2719	7.8643	4.7167	18.867
	21.7813	16.8039	934.5894	7.4730	10.9424	85.4098	1893.7314	8.2703	4.9913	19.965
L6	21.7813	16.8039	934.5894	7.4730	10.9424	85.4098	1893.7314	8.2703	4.9913	19.965
	22.8424	17.6289	1079.1155	7.8399	11.4733	94.0545	2186.5807	8.6764	5.2660	21.064
L7	22.8424	17.6289	1079.1155	7.8399	11.4733	94.0545	2186.5807	8.6764	5.2660	21.064
	23.9034	18.4539	1237.8223	8.2068	12.0042	103.1159	2508.1636	9.0824	5.5407	22.163
L8	23.9034	18.4539	1237.8223	8.2068	12.0042	103.1159	2508.1636	9.0824	5.5407	22.163
	24.5400	18.9489	1340.1294	8.4270	12.3227	108.7528	2715.4655	9.3261	5.7055	22.822
L9	24.4915	29.1992	2041.0118	8.3777	12.3227	165.6301	4135.6432	14.3710	5.3370	13.773
	24.5446	29.2632	2054.4489	8.3961	12.3493	166.3622	4162.8705	14.4024	5.3507	13.808
L10	24.5490	28.3343	1991.3571	8.4006	12.3493	161.2532	4035.0294	13.9453	5.3842	14.358
	25.6100	29.5718	2263.8433	8.7675	12.8801	175.7624	4587.1603	14.5544	5.6589	15.09
L11	25.6100	29.5718	2263.8433	8.7675	12.8801	175.7624	4587.1603	14.5544	5.6589	15.09
	26.6710	30.8094	2560.1170	9.1344	13.4110	190.8965	5187.4911	15.1634	5.9335	15.823
L12	26.1602	27.9527	2118.5275	8.7236	12.8069	165.4202	4292.7111	13.7575	5.6712	15.919
	26.3724	28.9522	2354.0166	9.0355	13.2583	177.5504	4769.8757	14.2494	5.9048	16.575
L13	26.3724	28.9522	2354.0166	9.0355	13.2583	177.5504	4769.8757	14.2494	5.9048	16.575
	27.4337	30.1281	2652.6588	9.4025	13.7893	192.3707	5375.0058	14.8282	6.1795	17.346
L14	27.4337	30.1281	2652.6588	9.4025	13.7893	192.3707	5375.0058	14.8282	6.1795	17.346
	27.5228	30.2269	2678.8356	9.4334	13.8339	193.6426	5428.0473	14.8768	6.2026	17.411
L15	27.4501	47.3531	4131.1938	9.3595	13.8339	298.6279	8370.9187	23.3058	5.6498	10.044
	27.5031	47.4460	4155.5390	9.3779	13.8605	299.8124	8420.2487	23.3515	5.6636	10.069
L16	27.5031	47.4460	4155.5390	9.3779	13.8605	299.8124	8420.2487	23.3515	5.6636	10.069
	28.0508	48.4041	4412.3946	9.5672	14.1345	312.1727	8940.7077	23.8230	5.8053	10.321
L17	28.1037	35.6955	3290.5484	9.6209	14.1345	232.8032	6667.5433	17.5683	6.2073	15.048
	28.1567	35.7636	3309.4122	9.6393	14.1610	233.6988	6705.7663	17.6018	6.2210	15.081
L18	28.1567	35.7636	3309.4122	9.6393	14.1610	233.6988	6705.7663	17.6018	6.2210	15.081
	28.2098	35.8317	3328.3475	9.6576	14.1876	234.5961	6744.1345	17.6353	6.2348	15.115
L19	28.2296	31.0101	2892.5006	9.6778	14.1876	203.8757	5860.9903	15.2622	6.3855	17.924
	28.2827	31.0689	2908.9849	9.6961	14.2141	204.6546	5894.3920	15.2912	6.3993	17.963
L20	28.2827	31.0689	2908.9849	9.6961	14.2141	204.6546	5894.3920	15.2912	6.3993	17.963
	28.9025	31.7556	3106.1802	9.9104	14.5242	213.8620	6293.9632	15.6292	6.5597	18.413
L21	28.8121	54.0920	5193.5147	9.8187	14.5242	357.5760	10523.4688	26.6224	5.8730	9.589
	28.8652	54.1931	5222.6862	9.8371	14.5508	358.9283	10582.5782	26.6722	5.8867	9.611
L22	28.8652	54.1931	5222.6862	9.8371	14.5508	358.9283	10582.5782	26.6722	5.8867	9.611
	29.0604	54.5651	5330.9793	9.9046	14.6485	363.9271	10802.0095	26.8553	5.9373	9.693
L23	29.0825	49.1079	4819.5175	9.9270	14.6485	329.0114	9765.6491	24.1694	6.1048	11.1
	29.1355	49.1987	4846.2931	9.9453	14.6750	330.2407	9819.9037	24.2141	6.1185	11.125
L24	29.1355	49.1987	4846.2931	9.9453	14.6750	330.2407	9819.9037	24.2141	6.1185	11.125
	29.1871	49.2869	4872.4134	9.9631	14.7008	331.4378	9872.8306	24.2575	6.1318	11.149
L25	29.1915	48.1884	4768.0958	9.9676	14.7008	324.3417	9661.4548	23.7169	6.1653	11.47
	30.2532	49.9633	5314.6152	10.3348	15.2321	348.9097	10768.8512	24.5904	6.4402	11.982
L26	30.2576	48.8225	5197.7656	10.3392	15.2321	341.2384	10532.0823	24.0290	6.4737	12.331

Section	Tip Dia.	Area	I	r	C	I/C	J	It/Q	w	w/t
	in	in^2	in^4	in	in	in^3	in^4	in^2	in	
	31.3194	50.5562	5771.3704	10.7064	15.7633	366.1272	11694.3610	24.8822	6.7485	12.854
L27	31.3194	50.5562	5771.3704	10.7064	15.7633	366.1272	11694.3610	24.8822	6.7485	12.854
	31.4440	50.7597	5841.3552	10.7495	15.8257	369.1066	11836.1692	24.9824	6.7808	12.916
L28	31.4087	60.2270	6884.7467	10.7137	15.8257	435.0370	13950.3634	29.6419	6.5128	10.42
	31.4618	60.3302	6920.1971	10.7320	15.8522	436.5444	14022.1954	29.6927	6.5265	10.442
L29	31.4618	60.3302	6920.1971	10.7320	15.8522	436.5444	14022.1954	29.6927	6.5265	10.442
	31.4979	60.4004	6944.3724	10.7445	15.8703	437.5709	14071.1812	29.7272	6.5359	10.457
L30	31.5332	50.9054	5891.7756	10.7803	15.8703	371.2458	11938.3346	25.0541	6.8039	12.96
	31.5863	50.9920	5921.9245	10.7987	15.8968	372.5221	11999.4246	25.0967	6.8176	12.986
L31	31.5907	49.7986	5788.1162	10.8031	15.8968	364.1048	11728.2927	24.5093	6.8511	13.368
	32.2808	50.8986	6180.2307	11.0418	16.2421	380.5060	12522.8230	25.0508	7.0298	13.717
L32	32.2808	50.8986	6180.2307	11.0418	16.2421	380.5060	12522.8230	25.0508	7.0298	13.717
	32.3339	50.9832	6211.1056	11.0601	16.2687	381.7825	12585.3839	25.0924	7.0435	13.743
L33	32.3361	50.3717	6139.0848	11.0624	16.2687	377.3556	12439.4502	24.7914	7.0603	13.946
	32.8478	51.1775	6438.4386	11.2393	16.5248	389.6240	13046.0222	25.1880	7.1927	14.208
L34	32.8500	50.5557	6362.7503	11.2416	16.5248	385.0436	12892.6570	24.8820	7.2095	14.419
	32.9031	50.6383	6393.9711	11.2599	16.5513	386.3121	12955.9190	24.9226	7.2232	14.446
L35	32.9031	50.6383	6393.9711	11.2599	16.5513	386.3121	12955.9190	24.9226	7.2232	14.446
	33.9648	52.2894	7040.0302	11.6271	17.0825	412.1185	14265.0099	25.7352	7.4981	14.996
L36	33.9648	52.2894	7040.0302	11.6271	17.0825	412.1185	14265.0099	25.7352	7.4981	14.996
	34.3725	52.9234	7299.2354	11.7681	17.2865	422.2499	14790.2298	26.0473	7.6036	15.207
L37	34.3064	72.3546	9865.6827	11.7009	17.2865	570.7151	19990.5480	35.6107	7.1011	10.329
	34.3595	72.4681	9912.1894	11.7193	17.3131	572.5257	20084.7830	35.6666	7.1149	10.349
L38	34.3595	72.4681	9912.1894	11.7193	17.3131	572.5257	20084.7830	35.6666	7.1149	10.349
	34.6079	72.9994	10131.7813	11.8052	17.4374	581.0375	20529.7358	35.9281	7.1792	10.442
L39	34.6718	54.0495	7584.3760	11.8701	17.4374	434.9489	15368.0020	26.6015	7.6649	15.141
	34.7249	54.1331	7619.6183	11.8884	17.4640	436.3054	15439.4124	26.6427	7.6787	15.168
L40	34.7249	54.1331	7619.6183	11.8884	17.4640	436.3054	15439.4124	26.6427	7.6787	15.168
	35.7144	55.6912	8296.6633	12.2306	17.9591	461.9765	16811.2891	27.4095	7.9348	15.674
L41	35.0517	57.6850	7811.5754	11.6608	17.1572	455.2941	15828.3696	28.3908	7.4027	13.459
	35.2640	59.6824	8651.4341	12.0645	17.7414	487.6405	17530.1511	29.3739	7.7050	14.009
L42	35.2640	59.6824	8651.4341	12.0645	17.7414	487.6405	17530.1511	29.3739	7.7050	14.009
	35.5294	60.1364	8850.3494	12.1563	17.8742	495.1468	17933.2074	29.5973	7.7737	14.134
L43	35.5029	68.1858	9990.7213	12.1295	17.8742	558.9467	20243.9100	33.5590	7.5727	12.116
	35.5560	68.2890	10036.1403	12.1478	17.9007	560.6548	20335.9412	33.6098	7.5864	12.138
L44	35.5560	68.2890	10036.1403	12.1478	17.9007	560.6548	20335.9412	33.6098	7.5864	12.138
	35.7513	68.6687	10204.4664	12.2153	17.9985	566.9629	20677.0154	33.7966	7.6370	12.219
L45	35.7381	72.7088	10781.1099	12.2019	17.9985	599.0014	21845.4515	35.7851	7.5365	11.376
	35.7912	72.8182	10829.8296	12.2203	18.0250	600.8219	21944.1709	35.8389	7.5502	11.397
L46	35.7912	72.8182	10829.8296	12.2203	18.0250	600.8219	21944.1709	35.8389	7.5502	11.397
	36.8526	75.0054	11835.3060	12.5873	18.5561	637.8112	23981.5387	36.9154	7.8250	11.811
L47	36.8570	73.6163	11624.3875	12.5918	18.5561	626.4447	23554.1606	36.2317	7.8585	12.09
	37.9185	75.7623	12670.8707	12.9589	19.0872	663.8402	25674.6192	37.2879	8.1332	12.513
L48	37.9229	74.3310	12440.0787	12.9633	19.0872	651.7488	25206.9722	36.5834	8.1667	12.811
	38.6829	75.8379	13212.1300	13.2261	19.4675	678.6763	26771.3573	37.3251	8.3635	13.119
L49	38.6829	75.8379	13212.1300	13.2261	19.4675	678.6763	26771.3573	37.3251	8.3635	13.119
	38.7360	75.9431	13267.2066	13.2445	19.4941	680.5771	26882.9574	37.3769	8.3772	13.141
L50	38.7360	75.9431	13267.2066	13.2445	19.4941	680.5771	26882.9574	37.3769	8.3772	13.141
	39.0013	76.4693	13544.8845	13.3363	19.6268	690.1209	27445.6082	37.6359	8.4459	13.249
L51	39.0013	76.4693	13544.8845	13.3363	19.6268	690.1209	27445.6082	37.6359	8.4459	13.249
	39.0544	76.5745	13600.8814	13.3546	19.6534	692.0377	27559.0731	37.6877	8.4597	13.27
L52	39.0544	76.5745	13600.8814	13.3546	19.6534	692.0377	27559.0731	37.6877	8.4597	13.27
	39.7805	78.0141	14382.4773	13.6057	20.0167	718.5255	29142.7983	38.3962	8.6476	13.565
L53	39.7584	85.5217	15714.7381	13.5833	20.0167	785.0831	31842.3199	42.0912	8.4801	12.114
	39.8115	85.6373	15778.5224	13.6017	20.0432	787.2253	31971.5642	42.1481	8.4938	12.134
L54	39.8115	85.6373	15778.5224	13.6017	20.0432	787.2253	31971.5642	42.1481	8.4938	12.134
	39.8815	85.7898	15862.9806	13.6259	20.0783	790.0574	32142.6994	42.2231	8.5120	12.16
L55	39.9719	54.7507	10260.4759	13.7176	20.0783	511.0241	20790.5059	26.9466	9.1987	20.73
	40.0250	54.8240	10301.7136	13.7360	20.1048	512.4002	20874.0647	26.9827	9.2125	20.76
L56	40.0250	54.8240	10301.7136	13.7360	20.1048	512.4002	20874.0647	26.9827	9.2125	20.76
	40.9464	56.0956	11035.3077	14.0546	20.5658	536.5850	22360.5252	27.6086	9.4510	21.298
L57	40.9177	66.2293	12974.9630	14.0255	20.5658	630.8995	26290.7927	32.5960	9.2332	17.587
	40.9708	66.3160	13025.9643	14.0438	20.5924	632.5627	26394.1353	32.6387	9.2470	17.613

Section	Tip Dia.	Area	I	r	C	I/C	J	It/Q	w	w/t
	in	in^2	in^4	in	in	in^3	in^4	in^2	in	
L58	40.9708	66.3160	13025.9643	14.0438	20.5924	632.5627	26394.1353	32.6387	9.2470	17.613
	41.0939	66.5170	13144.8010	14.0864	20.6540	636.4295	26634.9305	32.7377	9.2788	17.674
L59	41.0542	80.5397	15825.0264	14.0461	20.6540	766.1975	32065.7938	39.6392	8.9773	14.082
	41.1073	80.6450	15887.1378	14.0645	20.6805	768.2171	32191.6484	39.6910	8.9911	14.104
L60	41.1117	79.0889	15590.4974	14.0690	20.6805	753.8731	31590.5746	38.9251	9.0246	14.439
	42.1732	81.1523	16842.8632	14.4360	21.2116	794.0389	34128.2071	39.9407	9.2994	14.879
L61	42.1732	81.1523	16842.8632	14.4360	21.2116	794.0389	34128.2071	39.9407	9.2994	14.879
	43.2346	83.2157	18160.5608	14.8031	21.7427	835.2473	36798.2197	40.9562	9.5741	15.319
L62	43.2390	81.5760	17813.4950	14.8076	21.7427	819.2849	36094.9703	40.1492	9.6076	15.686
	44.3005	83.5981	19171.3034	15.1746	22.2738	860.7095	38846.2583	41.1445	9.8824	16.135
L63	44.3005	83.5981	19171.3034	15.1746	22.2738	860.7095	38846.2583	41.1445	9.8824	16.135
	44.9013	84.7427	19969.5451	15.3824	22.5744	884.6087	40463.7124	41.7078	10.0379	16.388

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft^2	in					in	in	in
L1 140.00-135.00				1	1	1			
L2 135.00-130.00				1	1	1			
L3 130.00-125.00				1	1	1			
L4 125.00-120.00				1	1	1			
L5 120.00-115.00				1	1	1			
L6 115.00-110.00				1	1	1			
L7 110.00-105.00				1	1	1			
L8 105.00-102.00				1	1	1			
L9 102.00-101.75				1	1	0.948725			
L10 101.75-96.75				1	1	0.966722			
L11 96.75-91.75				1	1	0.96239			
L12 91.75-90.75				1	1	1.29378			
L13 90.75-85.75				1	1	1.27752			
L14 85.75-85.33				1	1	1.27622			
L15 85.33-85.08				1	1	0.999035			
L16 85.08-82.50				1	1	0.990257			
L17 82.50-82.25				1	1	1.51419			
L18 82.25-82.00				1	1	1.51275			
L19 82.00-81.75				1	1	1.2654			
L20 81.75-78.83				1	1	1.25701			
L21 78.83-78.58				1	1	1.00732			
L22 78.58-77.66				1	1	1.00393			
L23 77.66-				1	1	1.05504			

Tower Elevation	*Gusset Area (per face)*	*Gusset Thickness*	*Gusset Grade*	*Adjust. Factor A_f*	*Adjust. Factor A_r*	*Weight Mult.*	*Double Angle Stitch Bolt Spacing Diagonals*	*Double Angle Stitch Bolt Spacing Horizontals*	*Double Angle Stitch Bolt Spacing Redundants*
ft	*ft^2*	*in*					*in*	*in*	*in*
77.41									
L24 77.41-77.17				1	1	1.05417			
L25 77.17-72.17				1	1	1.06055			
L26 72.17-67.17				1	1	1.06853			
L27 67.17-66.58				1	1	1.06663			
L28 66.58-66.33				1	1	0.980448			
L29 66.33-66.16				1	1	0.979889			
L30 66.16-65.91				1	1	0.989659			
L31 65.91-62.66				1	1	1.00465			
L32 62.66-62.41				1	1	0.946642			
L33 62.41-60.00				1	1	0.952769			
L34 60.00-59.75				1	1	0.963933			
L35 59.75-54.75				1	1	0.953231			
L36 54.75-52.83				1	1	0.949298			
L37 52.83-52.58				1	1	1.01113			
L38 52.58-51.41				1	1	1.00708			
L39 51.41-51.16				1	1	1.04545			
L40 51.16-46.50				1	1	1.04503			
L41 46.50-45.50				1	1	0.969769			
L42 45.50-44.25				1	1	0.967596			
L43 44.25-44.00				1	1	1.11182			
L44 44.00-43.08				1	1	1.10899			
L45 43.08-42.83				1	1	0.968941			
L46 42.83-37.83				1	1	0.957192			
L47 37.83-32.83				1	1	0.96397			
L48 32.83-29.25				1	1	0.974697			
L49 29.25-29.00				1	1	0.974162			
L50 29.00-27.75				1	1	0.971506			
L51 27.75-27.50				1	1	0.97098			
L52 27.50-24.08				1	1	0.963917			
L53 24.08-				1	1	0.944906			

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
23.83									
L54 23.83-23.50				1	1	0.944178			
L55 23.50-23.25				1	1	1.30461			
L56 23.25-18.91				1	1	1.2942			
L57 18.91-18.66				1	1	0.972978			
L58 18.66-18.08				1	1	0.972196			
L59 18.08-17.83				1	1	0.973703			
L60 17.83-12.83				1	1	0.982872			
L61 12.83-7.83				1	1	0.973378			
L62 7.83-2.83				1	1	0.983734			
L63 2.83-0.00				1	1	0.978717			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
Safety Line 3/8	C	No	Surface Ar (CaAa)	140.00 - 10.00	1	1	-0.250 -0.250	0.3750		0.22
Climbing Pegs	C	No	Surface Ar (CaAa)	140.00 - 10.00	1	1	-0.300 -0.200	0.7050		1.80
***										
CU12PSM9P6XXX(1-1/2)	C	No	Surface Ar (CaAa)	117.00 - 8.00	1	1	-0.040 -0.040	1.6000		2.35
***										
***										
LDF4-50A(1/2)	B	No	Surface Ar (CaAa)	98.00 - 68.00	2	2	-0.350 -0.300	0.6300		0.15
LDF4-50A(1/2)	B	No	Surface Ar (CaAa)	53.00 - 8.00	2	2	-0.350 -0.300	0.6300		0.15
*******										
CCI-SFP-065125	C	No	Surface Af (CaAa)	30.50 - 0.50	1	1	-0.480 -0.480	6.5000	15.5000	0.00
CCI-SFP-060100	C	No	Surface Af (CaAa)	46.50 - 21.50	1	1	-0.250 -0.250	6.0000	14.0000	0.00
CCI-SFP-060100	A	No	Surface Af (CaAa)	46.50 - 21.50	1	1	-0.100 -0.100	6.0000	14.0000	0.00
CCI-SFP-060100	A	No	Surface Af (CaAa)	62.00 - 47.00	1	1	0.000 0.000	6.0000	14.0000	0.00
CCI-SFP-060100	A	No	Surface Af (CaAa)	84.50 - 64.50	1	1	0.000 0.000	6.0000	14.0000	0.00
CCI-SFP-060100	C	No	Surface Af (CaAa)	84.50 - 64.50	1	1	-0.300 -0.300	6.0000	14.0000	0.00
CCI-SFP-060100	B	No	Surface Af (CaAa)	95.00 - 80.00	1	1	0.200 0.200	6.0000	14.0000	0.00
CCI-SFP-060100	C	No	Surface Af (CaAa)	95.00 - 80.00	1	1	0.200 0.200	6.0000	14.0000	0.00
****										
Aero MP3-05	C	No	Surface Af	26.50 -	1	1	0.250	5.3300	14.8400	0.00

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
			(CaAa)	16.50			0.250			
Aero MP3-03	A	No	Surface Af (CaAa)	86.50 - 61.50	1	1	0.400 0.400	4.0600	11.2600	0.00
Aero MP3-03	B	No	Surface Af (CaAa)	86.50 - 76.50	1	1	0.250 0.250	4.0600	11.2600	0.00
Aero MP3-03	C	No	Surface Af (CaAa)	86.50 - 76.50	1	1	0.000 0.000	4.0600	11.2600	0.00
Aero MP3-03	A	No	Surface Af (CaAa)	103.50 - 93.50	1	1	0.400 0.400	4.0600	11.2600	0.00
Aero MP3-03	B	No	Surface Af (CaAa)	103.50 - 93.50	1	1	-0.250 -0.250	4.0600	11.2600	0.00
Aero MP3-03	C	No	Surface Af (CaAa)	103.50 - 93.50	1	1	0.400 0.400	4.0600	11.2600	0.00
****										
Aero MP3-05	B	No	Surface Af (CaAa)	20.50 - 0.50	1	1	0.500 0.500	5.3300	14.8400	0.00
Aero MP3-05	C	No	Surface Af (CaAa)	20.50 - 0.50	1	1	0.000 0.000	5.3300	14.8400	0.00
Aero MP3-05	A	No	Surface Af (CaAa)	45.50 - 0.50	1	1	-0.250 -0.250	5.3300	14.8400	0.00
Aero MP3-05	B	No	Surface Af (CaAa)	45.50 - 0.50	1	1	-0.250 -0.250	5.3300	14.8400	0.00
Aero MP3-05	C	No	Surface Af (CaAa)	46.67 - 11.67	1	1	-0.250 -0.250	5.3300	14.8400	0.00
Aero MP3-05	A	No	Surface Af (CaAa)	69.00 - 49.00	1	1	-0.250 -0.250	5.3300	14.8400	0.00
Aero MP3-05	B	No	Surface Af (CaAa)	69.00 - 49.00	1	1	-0.250 -0.250	5.3300	14.8400	0.00
Aero MP3-05	C	No	Surface Af (CaAa)	69.00 - 49.00	1	1	-0.250 -0.250	5.3300	14.8400	0.00
****										
Aero MP3-05	A	No	Surface Af (CaAa)	52.25 - 40.25	1	1	0.420 0.420	5.3300	14.8400	0.00
Aero MP3-05	B	No	Surface Af (CaAa)	52.25 - 40.25	1	1	0.420 0.420	5.3300	14.8400	0.00
Aero MP3-05	C	No	Surface Af (CaAa)	52.25 - 40.25	1	1	0.420 0.420	5.3300	14.8400	0.00
Aero MP3-03	A	No	Surface Af (CaAa)	80.00 - 69.00	1	1	0.420 0.420	4.0600	11.2600	0.00
Aero MP3-03	B	No	Surface Af (CaAa)	80.00 - 69.00	1	1	0.420 0.420	4.0600	11.2600	0.00
Aero MP3-03	C	No	Surface Af (CaAa)	80.00 - 69.00	1	1	0.420 0.420	4.0600	11.2600	0.00
****										

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
Coax Bracket	B	No	No	Inside Pole	139.00 - 10.00	1	No Ice	0.00	1.27
							1/2'' Ice	0.00	1.27
							1'' Ice	0.00	1.27
							2'' Ice	0.00	1.27
******									
FDH1204-48SE2(1-3/4)	C	No	No	Inside Pole	140.00 - 0.00	3	No Ice	0.00	0.00
							1/2'' Ice	0.00	0.00
							1'' Ice	0.00	0.00

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
							2'' Ice	0.00	0.00
***									
FB-L98B-034-XXX(3/8)	B	No	No	Inside Pole	128.00 - 8.00	3	No Ice	0.00	0.06
							1/2'' Ice	0.00	0.06
							1'' Ice	0.00	0.06
							2'' Ice	0.00	0.06
PWRT-606-S(7/8)	A	No	No	Inside Pole	128.00 - 8.00	2	No Ice	0.00	0.89
							1/2'' Ice	0.00	0.89
							1'' Ice	0.00	0.89
							2'' Ice	0.00	0.89
PWRT-608-S(13/16)	A	No	No	Inside Pole	128.00 - 8.00	6	No Ice	0.00	0.62
							1/2'' Ice	0.00	0.62
							1'' Ice	0.00	0.62
							2'' Ice	0.00	0.62
***									
LDF7-50A(1-5/8)	B	No	No	Inside Pole	108.00 - 8.00	6	No Ice	0.00	0.82
							1/2'' Ice	0.00	0.82
							1'' Ice	0.00	0.82
							2'' Ice	0.00	0.82
HB158-1-08U8-S8J18(1-5/8)	B	No	No	Inside Pole	108.00 - 8.00	2	No Ice	0.00	1.30
							1/2'' Ice	0.00	1.30
							1'' Ice	0.00	1.30
							2'' Ice	0.00	1.30
***									
LDF4-50A(1/2)	B	No	No	Inside Pole	50.00 - 8.00	1	No Ice	0.00	0.15
							1/2'' Ice	0.00	0.15
							1'' Ice	0.00	0.15
							2'' Ice	0.00	0.15
****									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	140.00-135.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.01
		C	0.000	0.000	0.540	0.000	0.01
L2	135.00-130.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.01
		C	0.000	0.000	0.540	0.000	0.01
L3	130.00-125.00	A	0.000	0.000	0.000	0.000	0.02
		B	0.000	0.000	0.000	0.000	0.01
		C	0.000	0.000	0.540	0.000	0.01
L4	125.00-120.00	A	0.000	0.000	0.000	0.000	0.03
		B	0.000	0.000	0.000	0.000	0.01
		C	0.000	0.000	0.540	0.000	0.01
L5	120.00-115.00	A	0.000	0.000	0.000	0.000	0.03
		B	0.000	0.000	0.000	0.000	0.01
		C	0.000	0.000	0.860	0.000	0.01
L6	115.00-110.00	A	0.000	0.000	0.000	0.000	0.03
		B	0.000	0.000	0.000	0.000	0.01
		C	0.000	0.000	1.340	0.000	0.02
L7	110.00-105.00	A	0.000	0.000	0.000	0.000	0.03
		B	0.000	0.000	0.000	0.000	0.03
		C	0.000	0.000	1.340	0.000	0.02

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
L8	105.00-102.00	A	0.000	0.000	1.015	0.000	0.02
		B	0.000	0.000	1.015	0.000	0.03
		C	0.000	0.000	1.819	0.000	0.01
L9	102.00-101.75	A	0.000	0.000	0.169	0.000	0.00
		B	0.000	0.000	0.169	0.000	0.00
		C	0.000	0.000	0.236	0.000	0.00
L10	101.75-96.75	A	0.000	0.000	3.383	0.000	0.03
		B	0.000	0.000	3.541	0.000	0.05
		C	0.000	0.000	4.723	0.000	0.02
L11	96.75-91.75	A	0.000	0.000	2.199	0.000	0.03
		B	0.000	0.000	6.079	0.000	0.05
		C	0.000	0.000	6.789	0.000	0.02
L12	91.75-90.75	A	0.000	0.000	0.000	0.000	0.01
		B	0.000	0.000	1.126	0.000	0.01
		C	0.000	0.000	1.268	0.000	0.00
L13	90.75-85.75	A	0.000	0.000	0.507	0.000	0.03
		B	0.000	0.000	6.138	0.000	0.05
		C	0.000	0.000	6.848	0.000	0.02
L14	85.75-85.33	A	0.000	0.000	0.284	0.000	0.00
		B	0.000	0.000	0.757	0.000	0.00
		C	0.000	0.000	0.817	0.000	0.00
L15	85.33-85.08	A	0.000	0.000	0.169	0.000	0.00
		B	0.000	0.000	0.451	0.000	0.00
		C	0.000	0.000	0.486	0.000	0.00
L16	85.08-82.50	A	0.000	0.000	3.746	0.000	0.01
		B	0.000	0.000	4.651	0.000	0.02
		C	0.000	0.000	7.017	0.000	0.01
L17	82.50-82.25	A	0.000	0.000	0.419	0.000	0.00
		B	0.000	0.000	0.451	0.000	0.00
		C	0.000	0.000	0.736	0.000	0.00
L18	82.25-82.00	A	0.000	0.000	0.419	0.000	0.00
		B	0.000	0.000	0.451	0.000	0.00
		C	0.000	0.000	0.736	0.000	0.00
L19	82.00-81.75	A	0.000	0.000	0.419	0.000	0.00
		B	0.000	0.000	0.451	0.000	0.00
		C	0.000	0.000	0.736	0.000	0.00
L20	81.75-78.83	A	0.000	0.000	5.688	0.000	0.02
		B	0.000	0.000	4.885	0.000	0.03
		C	0.000	0.000	8.220	0.000	0.01
L21	78.83-78.58	A	0.000	0.000	0.588	0.000	0.00
		B	0.000	0.000	0.370	0.000	0.00
		C	0.000	0.000	0.655	0.000	0.00
L22	78.58-77.66	A	0.000	0.000	2.165	0.000	0.01
		B	0.000	0.000	1.361	0.000	0.01
		C	0.000	0.000	2.412	0.000	0.00
L23	77.66-77.41	A	0.000	0.000	0.588	0.000	0.00
		B	0.000	0.000	0.370	0.000	0.00
		C	0.000	0.000	0.655	0.000	0.00
L24	77.41-77.17	A	0.000	0.000	0.572	0.000	0.00
		B	0.000	0.000	0.359	0.000	0.00
		C	0.000	0.000	0.637	0.000	0.00
L25	77.17-72.17	A	0.000	0.000	11.767	0.000	0.03
		B	0.000	0.000	4.465	0.000	0.05
		C	0.000	0.000	10.175	0.000	0.02
L26	72.17-67.17	A	0.000	0.000	12.155	0.000	0.03
		B	0.000	0.000	4.296	0.000	0.05
		C	0.000	0.000	10.111	0.000	0.02
L27	67.17-66.58	A	0.000	0.000	1.506	0.000	0.00
		B	0.000	0.000	0.521	0.000	0.01
		C	0.000	0.000	1.266	0.000	0.00
L28	66.58-66.33	A	0.000	0.000	0.641	0.000	0.00
		B	0.000	0.000	0.222	0.000	0.00

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
		C	0.000	0.000	0.539	0.000	0.00
L29	66.33-66.16	A	0.000	0.000	0.436	0.000	0.00
		B	0.000	0.000	0.151	0.000	0.00
		C	0.000	0.000	0.367	0.000	0.00
L30	66.16-65.91	A	0.000	0.000	0.641	0.000	0.00
		B	0.000	0.000	0.222	0.000	0.00
		C	0.000	0.000	0.539	0.000	0.00
L31	65.91-62.66	A	0.000	0.000	6.496	0.000	0.02
		B	0.000	0.000	2.887	0.000	0.03
		C	0.000	0.000	5.168	0.000	0.01
L32	62.66-62.41	A	0.000	0.000	0.391	0.000	0.00
		B	0.000	0.000	0.222	0.000	0.00
		C	0.000	0.000	0.289	0.000	0.00
L33	62.41-60.00	A	0.000	0.000	4.757	0.000	0.01
		B	0.000	0.000	2.141	0.000	0.02
		C	0.000	0.000	2.787	0.000	0.01
L34	60.00-59.75	A	0.000	0.000	0.472	0.000	0.00
		B	0.000	0.000	0.222	0.000	0.00
		C	0.000	0.000	0.289	0.000	0.00
L35	59.75-54.75	A	0.000	0.000	9.442	0.000	0.03
		B	0.000	0.000	4.442	0.000	0.04
		C	0.000	0.000	5.782	0.000	0.02
L36	54.75-52.83	A	0.000	0.000	3.626	0.000	0.01
		B	0.000	0.000	1.727	0.000	0.02
		C	0.000	0.000	2.220	0.000	0.01
L37	52.83-52.58	A	0.000	0.000	0.472	0.000	0.00
		B	0.000	0.000	0.254	0.000	0.00
		C	0.000	0.000	0.289	0.000	0.00
L38	52.58-51.41	A	0.000	0.000	2.956	0.000	0.01
		B	0.000	0.000	1.933	0.000	0.01
		C	0.000	0.000	2.099	0.000	0.01
L39	51.41-51.16	A	0.000	0.000	0.694	0.000	0.00
		B	0.000	0.000	0.476	0.000	0.00
		C	0.000	0.000	0.511	0.000	0.00
L40	51.16-46.50	A	0.000	0.000	10.218	0.000	0.03
		B	0.000	0.000	6.646	0.000	0.04
		C	0.000	0.000	7.456	0.000	0.02
L41	46.50-45.50	A	0.000	0.000	1.888	0.000	0.01
		B	0.000	0.000	1.014	0.000	0.01
		C	0.000	0.000	3.045	0.000	0.00
L42	45.50-44.25	A	0.000	0.000	3.471	0.000	0.01
		B	0.000	0.000	2.378	0.000	0.01
		C	0.000	0.000	3.806	0.000	0.01
L43	44.25-44.00	A	0.000	0.000	0.694	0.000	0.00
		B	0.000	0.000	0.476	0.000	0.00
		C	0.000	0.000	0.761	0.000	0.00
L44	44.00-43.08	A	0.000	0.000	2.555	0.000	0.01
		B	0.000	0.000	1.750	0.000	0.01
		C	0.000	0.000	2.801	0.000	0.00
L45	43.08-42.83	A	0.000	0.000	0.694	0.000	0.00
		B	0.000	0.000	0.476	0.000	0.00
		C	0.000	0.000	0.761	0.000	0.00
L46	42.83-37.83	A	0.000	0.000	11.734	0.000	0.03
		B	0.000	0.000	7.364	0.000	0.05
		C	0.000	0.000	13.074	0.000	0.02
L47	37.83-32.83	A	0.000	0.000	9.442	0.000	0.03
		B	0.000	0.000	5.072	0.000	0.05
		C	0.000	0.000	10.782	0.000	0.02
L48	32.83-29.25	A	0.000	0.000	6.760	0.000	0.02
		B	0.000	0.000	3.631	0.000	0.03
		C	0.000	0.000	9.074	0.000	0.02
L49	29.25-29.00	A	0.000	0.000	0.472	0.000	0.00

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
		B	0.000	0.000	0.254	0.000	0.00
		C	0.000	0.000	0.810	0.000	0.00
L50	29.00-27.75	A	0.000	0.000	2.360	0.000	0.01
		B	0.000	0.000	1.268	0.000	0.01
		C	0.000	0.000	4.050	0.000	0.01
L51	27.75-27.50	A	0.000	0.000	0.472	0.000	0.00
		B	0.000	0.000	0.254	0.000	0.00
		C	0.000	0.000	0.810	0.000	0.00
L52	27.50-24.08	A	0.000	0.000	6.458	0.000	0.02
		B	0.000	0.000	3.469	0.000	0.03
		C	0.000	0.000	13.085	0.000	0.01
L53	24.08-23.83	A	0.000	0.000	0.472	0.000	0.00
		B	0.000	0.000	0.254	0.000	0.00
		C	0.000	0.000	1.017	0.000	0.00
L54	23.83-23.50	A	0.000	0.000	0.623	0.000	0.00
		B	0.000	0.000	0.335	0.000	0.00
		C	0.000	0.000	1.343	0.000	0.00
L55	23.50-23.25	A	0.000	0.000	0.472	0.000	0.00
		B	0.000	0.000	0.254	0.000	0.00
		C	0.000	0.000	1.017	0.000	0.00
L56	23.25-18.91	A	0.000	0.000	5.605	0.000	0.02
		B	0.000	0.000	5.815	0.000	0.04
		C	0.000	0.000	16.478	0.000	0.02
L57	18.91-18.66	A	0.000	0.000	0.222	0.000	0.00
		B	0.000	0.000	0.476	0.000	0.00
		C	0.000	0.000	0.989	0.000	0.00
L58	18.66-18.08	A	0.000	0.000	0.515	0.000	0.00
		B	0.000	0.000	1.104	0.000	0.01
		C	0.000	0.000	2.295	0.000	0.00
L59	18.08-17.83	A	0.000	0.000	0.222	0.000	0.00
		B	0.000	0.000	0.476	0.000	0.00
		C	0.000	0.000	0.989	0.000	0.00
L60	17.83-12.83	A	0.000	0.000	4.442	0.000	0.03
		B	0.000	0.000	9.513	0.000	0.05
		C	0.000	0.000	16.742	0.000	0.02
L61	12.83-7.83	A	0.000	0.000	4.442	0.000	0.03
		B	0.000	0.000	9.492	0.000	0.04
		C	0.000	0.000	11.970	0.000	0.02
L62	7.83-2.83	A	0.000	0.000	4.442	0.000	0.00
		B	0.000	0.000	8.883	0.000	0.00
		C	0.000	0.000	9.858	0.000	0.00
L63	2.83-0.00	A	0.000	0.000	2.070	0.000	0.00
		B	0.000	0.000	4.140	0.000	0.00
		C	0.000	0.000	4.594	0.000	0.00

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	140.00-135.00	A	1.471	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.01
		C		0.000	0.000	3.481	0.000	0.05
L2	135.00-130.00	A	1.465	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.01
		C		0.000	0.000	3.470	0.000	0.05
L3	130.00-125.00	A	1.459	0.000	0.000	0.000	0.000	0.02
		B		0.000	0.000	0.000	0.000	0.01
		C		0.000	0.000	3.459	0.000	0.05
L4	125.00-120.00	A	1.454	0.000	0.000	0.000	0.000	0.03

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B		0.000	0.000	0.000	0.000	0.01
		C		0.000	0.000	3.447	0.000	0.05
L5	120.00-115.00	A	1.448	0.000	0.000	0.000	0.000	0.03
		B		0.000	0.000	0.000	0.000	0.01
		C		0.000	0.000	4.334	0.000	0.06
L6	115.00-110.00	A	1.441	0.000	0.000	0.000	0.000	0.03
		B		0.000	0.000	0.000	0.000	0.01
		C		0.000	0.000	5.664	0.000	0.08
L7	110.00-105.00	A	1.435	0.000	0.000	0.000	0.000	0.03
		B		0.000	0.000	0.000	0.000	0.03
		C		0.000	0.000	5.644	0.000	0.08
L8	105.00-102.00	A	1.429	0.000	0.000	1.287	0.000	0.03
		B		0.000	0.000	1.287	0.000	0.04
		C		0.000	0.000	4.664	0.000	0.06
L9	102.00-101.75	A	1.427	0.000	0.000	0.214	0.000	0.00
		B		0.000	0.000	0.214	0.000	0.00
		C		0.000	0.000	0.496	0.000	0.01
L10	101.75-96.75	A	1.423	0.000	0.000	4.287	0.000	0.07
		B		0.000	0.000	4.929	0.000	0.10
		C		0.000	0.000	9.898	0.000	0.13
L11	96.75-91.75	A	1.416	0.000	0.000	2.784	0.000	0.06
		B		0.000	0.000	9.318	0.000	0.13
		C		0.000	0.000	12.348	0.000	0.15
L12	91.75-90.75	A	1.412	0.000	0.000	0.000	0.000	0.01
		B		0.000	0.000	1.735	0.000	0.02
		C		0.000	0.000	2.341	0.000	0.03
L13	90.75-85.75	A	1.407	0.000	0.000	0.719	0.000	0.03
		B		0.000	0.000	9.300	0.000	0.13
		C		0.000	0.000	12.314	0.000	0.14
L14	85.75-85.33	A	1.402	0.000	0.000	0.402	0.000	0.01
		B		0.000	0.000	1.086	0.000	0.01
		C		0.000	0.000	1.338	0.000	0.02
L15	85.33-85.08	A	1.402	0.000	0.000	0.239	0.000	0.00
		B		0.000	0.000	0.646	0.000	0.01
		C		0.000	0.000	0.797	0.000	0.01
L16	85.08-82.50	A	1.400	0.000	0.000	5.028	0.000	0.06
		B		0.000	0.000	6.667	0.000	0.09
		C		0.000	0.000	10.776	0.000	0.11
L17	82.50-82.25	A	1.397	0.000	0.000	0.559	0.000	0.01
		B		0.000	0.000	0.646	0.000	0.01
		C		0.000	0.000	1.115	0.000	0.01
L18	82.25-82.00	A	1.397	0.000	0.000	0.559	0.000	0.01
		B		0.000	0.000	0.646	0.000	0.01
		C		0.000	0.000	1.115	0.000	0.01
L19	82.00-81.75	A	1.396	0.000	0.000	0.559	0.000	0.01
		B		0.000	0.000	0.646	0.000	0.01
		C		0.000	0.000	1.115	0.000	0.01
L20	81.75-78.83	A	1.394	0.000	0.000	7.559	0.000	0.08
		B		0.000	0.000	7.144	0.000	0.09
		C		0.000	0.000	12.625	0.000	0.13
L21	78.83-78.58	A	1.391	0.000	0.000	0.779	0.000	0.01
		B		0.000	0.000	0.561	0.000	0.01
		C		0.000	0.000	1.030	0.000	0.01
L22	78.58-77.66	A	1.390	0.000	0.000	2.868	0.000	0.03
		B		0.000	0.000	2.064	0.000	0.03
		C		0.000	0.000	3.789	0.000	0.04
L23	77.66-77.41	A	1.389	0.000	0.000	0.779	0.000	0.01
		B		0.000	0.000	0.561	0.000	0.01
		C		0.000	0.000	1.029	0.000	0.01
L24	77.41-77.17	A	1.388	0.000	0.000	0.757	0.000	0.01
		B		0.000	0.000	0.545	0.000	0.01
		C		0.000	0.000	1.000	0.000	0.01

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
L25	77.17-72.17	A	1.383	0.000	0.000	15.570	0.000	0.17
		B		0.000	0.000	7.505	0.000	0.12
		C		0.000	0.000	16.862	0.000	0.18
L26	72.17-67.17	A	1.374	0.000	0.000	16.059	0.000	0.17
		B		0.000	0.000	7.016	0.000	0.11
		C		0.000	0.000	16.764	0.000	0.18
L27	67.17-66.58	A	1.368	0.000	0.000	1.988	0.000	0.02
		B		0.000	0.000	0.682	0.000	0.01
		C		0.000	0.000	2.069	0.000	0.02
L28	66.58-66.33	A	1.367	0.000	0.000	0.846	0.000	0.01
		B		0.000	0.000	0.290	0.000	0.00
		C		0.000	0.000	0.881	0.000	0.01
L29	66.33-66.16	A	1.367	0.000	0.000	0.575	0.000	0.01
		B		0.000	0.000	0.197	0.000	0.00
		C		0.000	0.000	0.599	0.000	0.01
L30	66.16-65.91	A	1.367	0.000	0.000	0.846	0.000	0.01
		B		0.000	0.000	0.290	0.000	0.00
		C		0.000	0.000	0.881	0.000	0.01
L31	65.91-62.66	A	1.363	0.000	0.000	8.652	0.000	0.09
		B		0.000	0.000	3.773	0.000	0.06
		C		0.000	0.000	9.096	0.000	0.10
L32	62.66-62.41	A	1.359	0.000	0.000	0.527	0.000	0.01
		B		0.000	0.000	0.290	0.000	0.00
		C		0.000	0.000	0.561	0.000	0.01
L33	62.41-60.00	A	1.356	0.000	0.000	6.092	0.000	0.07
		B		0.000	0.000	2.795	0.000	0.05
		C		0.000	0.000	5.402	0.000	0.06
L34	60.00-59.75	A	1.353	0.000	0.000	0.594	0.000	0.01
		B		0.000	0.000	0.290	0.000	0.00
		C		0.000	0.000	0.560	0.000	0.01
L35	59.75-54.75	A	1.347	0.000	0.000	11.871	0.000	0.13
		B		0.000	0.000	5.789	0.000	0.10
		C		0.000	0.000	11.170	0.000	0.13
L36	54.75-52.83	A	1.339	0.000	0.000	4.554	0.000	0.05
		B		0.000	0.000	2.303	0.000	0.04
		C		0.000	0.000	4.277	0.000	0.05
L37	52.83-52.58	A	1.336	0.000	0.000	0.593	0.000	0.01
		B		0.000	0.000	0.412	0.000	0.01
		C		0.000	0.000	0.556	0.000	0.01
L38	52.58-51.41	A	1.334	0.000	0.000	3.643	0.000	0.04
		B		0.000	0.000	2.796	0.000	0.04
		C		0.000	0.000	3.472	0.000	0.04
L39	51.41-51.16	A	1.332	0.000	0.000	0.851	0.000	0.01
		B		0.000	0.000	0.670	0.000	0.01
		C		0.000	0.000	0.814	0.000	0.01
L40	51.16-46.50	A	1.326	0.000	0.000	12.364	0.000	0.14
		B		0.000	0.000	9.592	0.000	0.13
		C		0.000	0.000	12.462	0.000	0.14
L41	46.50-45.50	A	1.318	0.000	0.000	2.300	0.000	0.03
		B		0.000	0.000	1.524	0.000	0.02
		C		0.000	0.000	4.517	0.000	0.05
L42	45.50-44.25	A	1.315	0.000	0.000	4.310	0.000	0.04
		B		0.000	0.000	3.339	0.000	0.04
		C		0.000	0.000	5.631	0.000	0.06
L43	44.25-44.00	A	1.313	0.000	0.000	0.862	0.000	0.01
		B		0.000	0.000	0.667	0.000	0.01
		C		0.000	0.000	1.126	0.000	0.01
L44	44.00-43.08	A	1.311	0.000	0.000	3.170	0.000	0.03
		B		0.000	0.000	2.455	0.000	0.03
		C		0.000	0.000	4.140	0.000	0.04
L45	43.08-42.83	A	1.309	0.000	0.000	0.861	0.000	0.01
		B		0.000	0.000	0.667	0.000	0.01

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	1.125	0.000	0.01
L46	42.83-37.83	A	1.301	0.000	0.000	14.706	0.000	0.15
		B		0.000	0.000	10.818	0.000	0.14
		C		0.000	0.000	19.948	0.000	0.20
L47	37.83-32.83	A	1.284	0.000	0.000	12.009	0.000	0.12
		B		0.000	0.000	8.117	0.000	0.11
		C		0.000	0.000	17.200	0.000	0.17
L48	32.83-29.25	A	1.267	0.000	0.000	8.575	0.000	0.09
		B		0.000	0.000	5.786	0.000	0.08
		C		0.000	0.000	13.927	0.000	0.13
L49	29.25-29.00	A	1.259	0.000	0.000	0.598	0.000	0.01
		B		0.000	0.000	0.403	0.000	0.01
		C		0.000	0.000	1.188	0.000	0.01
L50	29.00-27.75	A	1.256	0.000	0.000	2.988	0.000	0.03
		B		0.000	0.000	2.014	0.000	0.03
		C		0.000	0.000	5.933	0.000	0.05
L51	27.75-27.50	A	1.253	0.000	0.000	0.597	0.000	0.01
		B		0.000	0.000	0.402	0.000	0.01
		C		0.000	0.000	1.186	0.000	0.01
L52	27.50-24.08	A	1.244	0.000	0.000	8.160	0.000	0.08
		B		0.000	0.000	5.491	0.000	0.08
		C		0.000	0.000	18.519	0.000	0.17
L53	24.08-23.83	A	1.235	0.000	0.000	0.596	0.000	0.01
		B		0.000	0.000	0.400	0.000	0.01
		C		0.000	0.000	1.421	0.000	0.01
L54	23.83-23.50	A	1.233	0.000	0.000	0.786	0.000	0.01
		B		0.000	0.000	0.528	0.000	0.01
		C		0.000	0.000	1.875	0.000	0.02
L55	23.50-23.25	A	1.232	0.000	0.000	0.595	0.000	0.01
		B		0.000	0.000	0.400	0.000	0.01
		C		0.000	0.000	1.420	0.000	0.01
L56	23.25-18.91	A	1.219	0.000	0.000	7.090	0.000	0.08
		B		0.000	0.000	8.720	0.000	0.11
		C		0.000	0.000	23.162	0.000	0.21
L57	18.91-18.66	A	1.205	0.000	0.000	0.282	0.000	0.00
		B		0.000	0.000	0.679	0.000	0.01
		C		0.000	0.000	1.384	0.000	0.01
L58	18.66-18.08	A	1.202	0.000	0.000	0.655	0.000	0.01
		B		0.000	0.000	1.575	0.000	0.02
		C		0.000	0.000	3.208	0.000	0.03
L59	18.08-17.83	A	1.200	0.000	0.000	0.282	0.000	0.00
		B		0.000	0.000	0.678	0.000	0.01
		C		0.000	0.000	1.382	0.000	0.01
L60	17.83-12.83	A	1.181	0.000	0.000	5.622	0.000	0.07
		B		0.000	0.000	13.508	0.000	0.15
		C		0.000	0.000	23.999	0.000	0.21
L61	12.83-7.83	A	1.135	0.000	0.000	5.577	0.000	0.07
		B		0.000	0.000	13.285	0.000	0.14
		C		0.000	0.000	16.885	0.000	0.14
L62	7.83-2.83	A	1.062	0.000	0.000	5.504	0.000	0.04
		B		0.000	0.000	11.008	0.000	0.08
		C		0.000	0.000	11.983	0.000	0.08
L63	2.83-0.00	A	0.930	0.000	0.000	2.503	0.000	0.02
		B		0.000	0.000	5.007	0.000	0.03
		C		0.000	0.000	5.461	0.000	0.03

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L1	140.00-135.00	0.3175	0.5499	1.1035	1.9113
L2	135.00-130.00	0.3182	0.5511	1.1232	1.9454
L3	130.00-125.00	0.3187	0.5521	1.1410	1.9763
L4	125.00-120.00	0.3193	0.5530	1.1572	2.0043
L5	120.00-115.00	0.3412	0.9220	1.1592	2.5332
L6	115.00-110.00	0.3715	1.4215	1.1588	3.2215
L7	110.00-105.00	0.3730	1.4264	1.1751	3.2656
L8	105.00-102.00	-0.5775	-1.8518	0.2286	0.2277
L9	102.00-101.75	-1.0714	-3.5549	-0.3420	-1.6034
L10	101.75-96.75	-1.0421	-3.6552	-0.2484	-1.7965
L11	96.75-91.75	0.0333	-0.3439	0.6700	0.2919
L12	91.75-90.75	1.1482	3.4776	1.5863	3.2530
L13	90.75-85.75	1.5402	3.3966	1.8901	3.1769
L14	85.75-85.33	3.0279	2.9496	3.0892	2.7047
L15	85.33-85.08	3.0355	2.9571	3.0969	2.7116
L16	85.08-82.50	2.7293	2.3714	2.8291	2.2521
L17	82.50-82.25	2.6749	2.2523	2.7819	2.1572
L18	82.25-82.00	2.6785	2.2553	2.7858	2.1602
L19	82.00-81.75	2.6816	2.2579	2.7892	2.1629
L20	81.75-78.83	2.5171	1.5836	2.6444	1.6004
L21	78.83-78.58	2.2616	0.5662	2.4202	0.7603
L22	78.58-77.66	2.2686	0.5678	2.4279	0.7625
L23	77.66-77.41	2.2751	0.5693	2.4351	0.7646
L24	77.41-77.17	2.2780	0.5700	2.4384	0.7655
L25	77.17-72.17	1.4909	-1.0628	1.8179	-0.5535
L26	72.17-67.17	1.3257	-1.3106	1.6839	-0.6930
L27	67.17-66.58	1.2220	-1.0904	1.5397	-0.1933
L28	66.58-66.33	1.2248	-1.0928	1.5432	-0.1942
L29	66.33-66.16	1.2261	-1.0938	1.5447	-0.1946
L30	66.16-65.91	1.2269	-1.0945	1.5457	-0.1949
L31	65.91-62.66	1.1873	-1.2387	1.5600	-0.1889
L32	62.66-62.41	1.1471	-1.3858	1.5745	-0.1836
L33	62.41-60.00	-1.2708	-1.1254	-0.5587	0.1302
L34	60.00-59.75	-2.0128	-0.6179	-1.2298	0.6757
L35	59.75-54.75	-2.0320	-0.6238	-1.2450	0.6780
L36	54.75-52.83	-2.0432	-0.6571	-1.2264	0.6021
L37	52.83-52.58	-1.9145	-0.9180	-0.8717	-0.1318
L38	52.58-51.41	-1.4972	-0.7179	-0.7201	-0.1095
L39	51.41-51.16	-1.3815	-0.6625	-0.6757	-0.1034
L40	51.16-46.50	-1.3847	-0.6297	-0.5675	0.0166
L41	46.50-45.50	1.7168	2.4447	2.0898	2.6729
L42	45.50-44.25	0.0358	1.0706	0.4856	1.3733
L43	44.25-44.00	0.0361	1.0742	0.4868	1.3774
L44	44.00-43.08	0.0362	1.0768	0.4877	1.3804
L45	43.08-42.83	0.0364	1.0795	0.4886	1.3835
L46	42.83-37.83	0.0422	1.2422	0.5473	1.5532
L47	37.83-32.83	0.0510	1.4826	0.6285	1.7916
L48	32.83-29.25	1.2100	1.2217	1.5888	1.5647
L49	29.25-29.00	3.1151	0.7666	3.1949	1.1547
L50	29.00-27.75	3.1234	0.7683	3.2033	1.1566
L51	27.75-27.50	3.1316	0.7700	3.2116	1.1585
L52	27.50-24.08	1.8669	1.4860	2.1746	1.7275
L53	24.08-23.83	1.3931	1.7640	1.7805	1.9533
L54	23.83-23.50	1.3946	1.7656	1.7820	1.9549
L55	23.50-23.25	1.3951	1.7660	1.7823	1.9552
L56	23.25-18.91	1.8725	2.8877	2.2249	2.9820
L57	18.91-18.66	2.3588	5.1345	2.6480	5.0076
L58	18.66-18.08	2.3619	5.1414	2.6510	5.0140
L59	18.08-17.83	2.3659	5.1498	2.6546	5.0218
L60	17.83-12.83	3.7931	4.6636	3.8330	4.6238
L61	12.83-7.83	3.1404	3.7192	3.1036	3.5924
L62	7.83-2.83	2.6514	3.4133	2.4540	3.3556

Section	*Elevation*	CP_X	CP_Z	CP_X *Ice*	CP_Z *Ice*
	ft	*in*	*in*	*in*	*in*
L63	2.83-0.00	2.4475	3.1513	2.2479	3.0549

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

Shielding Factor Ka

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	K_a *No Ice*	K_a *Ice*
L1	1	Safety Line 3/8	135.00 - 140.00	1.0000	1.0000
L1	2	Climbing Pegs	135.00 - 140.00	1.0000	1.0000
L2	1	Safety Line 3/8	130.00 - 135.00	1.0000	1.0000
L2	2	Climbing Pegs	130.00 - 135.00	1.0000	1.0000
L3	1	Safety Line 3/8	125.00 - 130.00	1.0000	1.0000
L3	2	Climbing Pegs	125.00 - 130.00	1.0000	1.0000
L4	1	Safety Line 3/8	120.00 - 125.00	1.0000	1.0000
L4	2	Climbing Pegs	120.00 - 125.00	1.0000	1.0000
L5	1	Safety Line 3/8	115.00 - 120.00	1.0000	1.0000
L5	2	Climbing Pegs	115.00 - 120.00	1.0000	1.0000
L5	15	CU12PSM9P6XXX(1-1/2)	115.00 - 117.00	1.0000	1.0000
L6	1	Safety Line 3/8	110.00 - 115.00	1.0000	1.0000
L6	2	Climbing Pegs	110.00 - 115.00	1.0000	1.0000
L6	15	CU12PSM9P6XXX(1-1/2)	110.00 - 115.00	1.0000	1.0000
L7	1	Safety Line 3/8	105.00 - 110.00	1.0000	1.0000
L7	2	Climbing Pegs	105.00 - 110.00	1.0000	1.0000
L7	15	CU12PSM9P6XXX(1-1/2)	105.00 - 110.00	1.0000	1.0000
L8	1	Safety Line 3/8	102.00 - 105.00	1.0000	1.0000
L8	2	Climbing Pegs	102.00 - 105.00	1.0000	1.0000
L8	15	CU12PSM9P6XXX(1-1/2)	102.00 - 105.00	1.0000	1.0000
L8	41	Aero MP3-03	102.00 - 103.50	1.0000	1.0000
L8	42	Aero MP3-03	102.00 - 103.50	1.0000	1.0000
L8	43	Aero MP3-03	102.00 - 103.50	1.0000	1.0000
L9	1	Safety Line 3/8	101.75 -	1.0000	1.0000

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
L9	2	Climbing Pegs	102.00 101.75 - 102.00	1.0000	1.0000
L9	15	CU12PSM9P6XXX(1-1/2)	101.75 - 102.00	1.0000	1.0000
L9	41	Aero MP3-03	101.75 - 102.00	1.0000	1.0000
L9	42	Aero MP3-03	101.75 - 102.00	1.0000	1.0000
L9	43	Aero MP3-03	101.75 - 102.00	1.0000	1.0000
L10	1	Safety Line 3/8	96.75 - 101.75	1.0000	1.0000
L10	2	Climbing Pegs	96.75 - 101.75	1.0000	1.0000
L10	15	CU12PSM9P6XXX(1-1/2)	96.75 - 101.75	1.0000	1.0000
L10	23	LDF4-50A(1/2)	96.75 - 98.00	1.0000	1.0000
L10	41	Aero MP3-03	96.75 - 101.75	1.0000	1.0000
L10	42	Aero MP3-03	96.75 - 101.75	1.0000	1.0000
L10	43	Aero MP3-03	96.75 - 101.75	1.0000	1.0000
L11	1	Safety Line 3/8	91.75 - 96.75	1.0000	1.0000
L11	2	Climbing Pegs	91.75 - 96.75	1.0000	1.0000
L11	15	CU12PSM9P6XXX(1-1/2)	91.75 - 96.75	1.0000	1.0000
L11	23	LDF4-50A(1/2)	91.75 - 96.75	1.0000	1.0000
L11	34	CCI-SFP-060100	91.75 - 95.00	1.0000	1.0000
L11	35	CCI-SFP-060100	91.75 - 95.00	1.0000	1.0000
L11	41	Aero MP3-03	93.50 - 96.75	1.0000	1.0000
L11	42	Aero MP3-03	93.50 - 96.75	1.0000	1.0000
L11	43	Aero MP3-03	93.50 - 96.75	1.0000	1.0000
L12	1	Safety Line 3/8	90.75 - 91.75	1.0000	1.0000
L12	2	Climbing Pegs	90.75 - 91.75	1.0000	1.0000
L12	15	CU12PSM9P6XXX(1-1/2)	90.75 - 91.75	1.0000	1.0000
L12	23	LDF4-50A(1/2)	90.75 - 91.75	1.0000	1.0000
L12	34	CCI-SFP-060100	90.75 - 91.75	1.0000	1.0000
L12	35	CCI-SFP-060100	90.75 - 91.75	1.0000	1.0000
L13	1	Safety Line 3/8	85.75 - 90.75	1.0000	1.0000
L13	2	Climbing Pegs	85.75 - 90.75	1.0000	1.0000
L13	15	CU12PSM9P6XXX(1-1/2)	85.75 - 90.75	1.0000	1.0000
L13	23	LDF4-50A(1/2)	85.75 - 90.75	1.0000	1.0000
L13	34	CCI-SFP-060100	85.75 - 90.75	1.0000	1.0000
L13	35	CCI-SFP-060100	85.75 - 90.75	1.0000	1.0000
L13	38	Aero MP3-03	85.75 - 86.50	1.0000	1.0000
L13	39	Aero MP3-03	85.75 - 86.50	1.0000	1.0000
L13	40	Aero MP3-03	85.75 - 86.50	1.0000	1.0000
L14	1	Safety Line 3/8	85.33 - 85.75	1.0000	1.0000
L14	2	Climbing Pegs	85.33 - 85.75	1.0000	1.0000
L14	15	CU12PSM9P6XXX(1-1/2)	85.33 - 85.75	1.0000	1.0000
L14	23	LDF4-50A(1/2)	85.33 - 85.75	1.0000	1.0000
L14	34	CCI-SFP-060100	85.33 - 85.75	1.0000	1.0000
L14	35	CCI-SFP-060100	85.33 - 85.75	1.0000	1.0000
L14	38	Aero MP3-03	85.33 - 85.75	1.0000	1.0000
L14	39	Aero MP3-03	85.33 - 85.75	1.0000	1.0000
L14	40	Aero MP3-03	85.33 - 85.75	1.0000	1.0000
L15	1	Safety Line 3/8	85.08 - 85.33	1.0000	1.0000
L15	2	Climbing Pegs	85.08 - 85.33	1.0000	1.0000
L15	15	CU12PSM9P6XXX(1-1/2)	85.08 - 85.33	1.0000	1.0000
L15	23	LDF4-50A(1/2)	85.08 - 85.33	1.0000	1.0000
L15	34	CCI-SFP-060100	85.08 - 85.33	1.0000	1.0000
L15	35	CCI-SFP-060100	85.08 - 85.33	1.0000	1.0000
L15	38	Aero MP3-03	85.08 - 85.33	1.0000	1.0000
L15	39	Aero MP3-03	85.08 - 85.33	1.0000	1.0000
L15	40	Aero MP3-03	85.08 - 85.33	1.0000	1.0000
L16	1	Safety Line 3/8	82.50 - 85.08	1.0000	1.0000
L16	2	Climbing Pegs	82.50 - 85.08	1.0000	1.0000
L16	15	CU12PSM9P6XXX(1-1/2)	82.50 - 85.08	1.0000	1.0000

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
L16	23	LDF4-50A(1/2)	82.50 - 85.08	1.0000	1.0000
L16	32	CCI-SFP-060100	82.50 - 84.50	1.0000	1.0000
L16	33	CCI-SFP-060100	82.50 - 84.50	1.0000	1.0000
L16	34	CCI-SFP-060100	82.50 - 85.08	1.0000	1.0000
L16	35	CCI-SFP-060100	82.50 - 85.08	1.0000	1.0000
L16	38	Aero MP3-03	82.50 - 85.08	1.0000	1.0000
L16	39	Aero MP3-03	82.50 - 85.08	1.0000	1.0000
L16	40	Aero MP3-03	82.50 - 85.08	1.0000	1.0000
L17	1	Safety Line 3/8	82.25 - 82.50	1.0000	1.0000
L17	2	Climbing Pegs	82.25 - 82.50	1.0000	1.0000
L17	15	CU12PSM9P6XXX(1-1/2)	82.25 - 82.50	1.0000	1.0000
L17	23	LDF4-50A(1/2)	82.25 - 82.50	1.0000	1.0000
L17	32	CCI-SFP-060100	82.25 - 82.50	1.0000	1.0000
L17	33	CCI-SFP-060100	82.25 - 82.50	1.0000	1.0000
L17	34	CCI-SFP-060100	82.25 - 82.50	1.0000	1.0000
L17	35	CCI-SFP-060100	82.25 - 82.50	1.0000	1.0000
L17	38	Aero MP3-03	82.25 - 82.50	1.0000	1.0000
L17	39	Aero MP3-03	82.25 - 82.50	1.0000	1.0000
L17	40	Aero MP3-03	82.25 - 82.50	1.0000	1.0000
L18	1	Safety Line 3/8	82.00 - 82.25	1.0000	1.0000
L18	2	Climbing Pegs	82.00 - 82.25	1.0000	1.0000
L18	15	CU12PSM9P6XXX(1-1/2)	82.00 - 82.25	1.0000	1.0000
L18	23	LDF4-50A(1/2)	82.00 - 82.25	1.0000	1.0000
L18	32	CCI-SFP-060100	82.00 - 82.25	1.0000	1.0000
L18	33	CCI-SFP-060100	82.00 - 82.25	1.0000	1.0000
L18	34	CCI-SFP-060100	82.00 - 82.25	1.0000	1.0000
L18	35	CCI-SFP-060100	82.00 - 82.25	1.0000	1.0000
L18	38	Aero MP3-03	82.00 - 82.25	1.0000	1.0000
L18	39	Aero MP3-03	82.00 - 82.25	1.0000	1.0000
L18	40	Aero MP3-03	82.00 - 82.25	1.0000	1.0000
L19	1	Safety Line 3/8	81.75 - 82.00	1.0000	1.0000
L19	2	Climbing Pegs	81.75 - 82.00	1.0000	1.0000
L19	15	CU12PSM9P6XXX(1-1/2)	81.75 - 82.00	1.0000	1.0000
L19	23	LDF4-50A(1/2)	81.75 - 82.00	1.0000	1.0000
L19	32	CCI-SFP-060100	81.75 - 82.00	1.0000	1.0000
L19	33	CCI-SFP-060100	81.75 - 82.00	1.0000	1.0000
L19	34	CCI-SFP-060100	81.75 - 82.00	1.0000	1.0000
L19	35	CCI-SFP-060100	81.75 - 82.00	1.0000	1.0000
L19	38	Aero MP3-03	81.75 - 82.00	1.0000	1.0000
L19	39	Aero MP3-03	81.75 - 82.00	1.0000	1.0000
L19	40	Aero MP3-03	81.75 - 82.00	1.0000	1.0000
L20	1	Safety Line 3/8	78.83 - 81.75	1.0000	1.0000
L20	2	Climbing Pegs	78.83 - 81.75	1.0000	1.0000
L20	15	CU12PSM9P6XXX(1-1/2)	78.83 - 81.75	1.0000	1.0000
L20	23	LDF4-50A(1/2)	78.83 - 81.75	1.0000	1.0000
L20	32	CCI-SFP-060100	78.83 - 81.75	1.0000	1.0000
L20	33	CCI-SFP-060100	78.83 - 81.75	1.0000	1.0000
L20	34	CCI-SFP-060100	80.00 - 81.75	1.0000	1.0000
L20	35	CCI-SFP-060100	80.00 - 81.75	1.0000	1.0000
L20	38	Aero MP3-03	78.83 - 81.75	1.0000	1.0000
L20	39	Aero MP3-03	78.83 - 81.75	1.0000	1.0000
L20	40	Aero MP3-03	78.83 - 81.75	1.0000	1.0000
L20	57	Aero MP3-03	78.83 - 80.00	1.0000	1.0000
L20	58	Aero MP3-03	78.83 - 80.00	1.0000	1.0000
L20	59	Aero MP3-03	78.83 - 80.00	1.0000	1.0000
L21	1	Safety Line 3/8	78.58 - 78.83	1.0000	1.0000
L21	2	Climbing Pegs	78.58 - 78.83	1.0000	1.0000
L21	15	CU12PSM9P6XXX(1-1/2)	78.58 - 78.83	1.0000	1.0000
L21	23	LDF4-50A(1/2)	78.58 - 78.83	1.0000	1.0000
L21	32	CCI-SFP-060100	78.58 - 78.83	1.0000	1.0000
L21	33	CCI-SFP-060100	78.58 - 78.83	1.0000	1.0000
L21	38	Aero MP3-03	78.58 - 78.83	1.0000	1.0000
L21	39	Aero MP3-03	78.58 - 78.83	1.0000	1.0000

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
L21	40	Aero MP3-03	78.58 - 78.83	1.0000	1.0000
L21	57	Aero MP3-03	78.58 - 78.83	1.0000	1.0000
L21	58	Aero MP3-03	78.58 - 78.83	1.0000	1.0000
L21	59	Aero MP3-03	78.58 - 78.83	1.0000	1.0000
L22	1	Safety Line 3/8	77.66 - 78.58	1.0000	1.0000
L22	2	Climbing Pegs	77.66 - 78.58	1.0000	1.0000
L22	15	CU12PSM9P6XXX(1-1/2)	77.66 - 78.58	1.0000	1.0000
L22	23	LDF4-50A(1/2)	77.66 - 78.58	1.0000	1.0000
L22	32	CCI-SFP-060100	77.66 - 78.58	1.0000	1.0000
L22	33	CCI-SFP-060100	77.66 - 78.58	1.0000	1.0000
L22	38	Aero MP3-03	77.66 - 78.58	1.0000	1.0000
L22	39	Aero MP3-03	77.66 - 78.58	1.0000	1.0000
L22	40	Aero MP3-03	77.66 - 78.58	1.0000	1.0000
L22	57	Aero MP3-03	77.66 - 78.58	1.0000	1.0000
L22	58	Aero MP3-03	77.66 - 78.58	1.0000	1.0000
L22	59	Aero MP3-03	77.66 - 78.58	1.0000	1.0000
L23	1	Safety Line 3/8	77.41 - 77.66	1.0000	1.0000
L23	2	Climbing Pegs	77.41 - 77.66	1.0000	1.0000
L23	15	CU12PSM9P6XXX(1-1/2)	77.41 - 77.66	1.0000	1.0000
L23	23	LDF4-50A(1/2)	77.41 - 77.66	1.0000	1.0000
L23	32	CCI-SFP-060100	77.41 - 77.66	1.0000	1.0000
L23	33	CCI-SFP-060100	77.41 - 77.66	1.0000	1.0000
L23	38	Aero MP3-03	77.41 - 77.66	1.0000	1.0000
L23	39	Aero MP3-03	77.41 - 77.66	1.0000	1.0000
L23	40	Aero MP3-03	77.41 - 77.66	1.0000	1.0000
L23	57	Aero MP3-03	77.41 - 77.66	1.0000	1.0000
L23	58	Aero MP3-03	77.41 - 77.66	1.0000	1.0000
L23	59	Aero MP3-03	77.41 - 77.66	1.0000	1.0000
L24	1	Safety Line 3/8	77.17 - 77.41	1.0000	1.0000
L24	2	Climbing Pegs	77.17 - 77.41	1.0000	1.0000
L24	15	CU12PSM9P6XXX(1-1/2)	77.17 - 77.41	1.0000	1.0000
L24	23	LDF4-50A(1/2)	77.17 - 77.41	1.0000	1.0000
L24	32	CCI-SFP-060100	77.17 - 77.41	1.0000	1.0000
L24	33	CCI-SFP-060100	77.17 - 77.41	1.0000	1.0000
L24	38	Aero MP3-03	77.17 - 77.41	1.0000	1.0000
L24	39	Aero MP3-03	77.17 - 77.41	1.0000	1.0000
L24	40	Aero MP3-03	77.17 - 77.41	1.0000	1.0000
L24	57	Aero MP3-03	77.17 - 77.41	1.0000	1.0000
L24	58	Aero MP3-03	77.17 - 77.41	1.0000	1.0000
L24	59	Aero MP3-03	77.17 - 77.41	1.0000	1.0000
L25	1	Safety Line 3/8	72.17 - 77.17	1.0000	1.0000
L25	2	Climbing Pegs	72.17 - 77.17	1.0000	1.0000
L25	15	CU12PSM9P6XXX(1-1/2)	72.17 - 77.17	1.0000	1.0000
L25	23	LDF4-50A(1/2)	72.17 - 77.17	1.0000	1.0000
L25	32	CCI-SFP-060100	72.17 - 77.17	1.0000	1.0000
L25	33	CCI-SFP-060100	72.17 - 77.17	1.0000	1.0000
L25	38	Aero MP3-03	72.17 - 77.17	1.0000	1.0000
L25	39	Aero MP3-03	76.50 - 77.17	1.0000	1.0000
L25	40	Aero MP3-03	76.50 - 77.17	1.0000	1.0000
L25	57	Aero MP3-03	72.17 - 77.17	1.0000	1.0000
L25	58	Aero MP3-03	72.17 - 77.17	1.0000	1.0000
L25	59	Aero MP3-03	72.17 - 77.17	1.0000	1.0000
L26	1	Safety Line 3/8	67.17 - 72.17	1.0000	1.0000
L26	2	Climbing Pegs	67.17 - 72.17	1.0000	1.0000
L26	15	CU12PSM9P6XXX(1-1/2)	67.17 - 72.17	1.0000	1.0000
L26	23	LDF4-50A(1/2)	68.00 - 72.17	1.0000	1.0000
L26	32	CCI-SFP-060100	67.17 - 72.17	1.0000	1.0000
L26	33	CCI-SFP-060100	67.17 - 72.17	1.0000	1.0000
L26	38	Aero MP3-03	67.17 - 72.17	1.0000	1.0000
L26	50	Aero MP3-05	67.17 - 69.00	1.0000	1.0000
L26	51	Aero MP3-05	67.17 - 69.00	1.0000	1.0000
L26	52	Aero MP3-05	67.17 - 69.00	1.0000	1.0000
L26	57	Aero MP3-03	69.00 - 72.17	1.0000	1.0000

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
L26	58	Aero MP3-03	69.00 - 72.17	1.0000	1.0000
L26	59	Aero MP3-03	69.00 - 72.17	1.0000	1.0000
L27	1	Safety Line 3/8	66.58 - 67.17	1.0000	1.0000
L27	2	Climbing Pegs	66.58 - 67.17	1.0000	1.0000
L27	15	CU12PSM9P6XXX(1-1/2)	66.58 - 67.17	1.0000	1.0000
L27	32	CCI-SFP-060100	66.58 - 67.17	1.0000	1.0000
L27	33	CCI-SFP-060100	66.58 - 67.17	1.0000	1.0000
L27	38	Aero MP3-03	66.58 - 67.17	1.0000	1.0000
L27	50	Aero MP3-05	66.58 - 67.17	1.0000	1.0000
L27	51	Aero MP3-05	66.58 - 67.17	1.0000	1.0000
L27	52	Aero MP3-05	66.58 - 67.17	1.0000	1.0000
L28	1	Safety Line 3/8	66.33 - 66.58	1.0000	1.0000
L28	2	Climbing Pegs	66.33 - 66.58	1.0000	1.0000
L28	15	CU12PSM9P6XXX(1-1/2)	66.33 - 66.58	1.0000	1.0000
L28	32	CCI-SFP-060100	66.33 - 66.58	1.0000	1.0000
L28	33	CCI-SFP-060100	66.33 - 66.58	1.0000	1.0000
L28	38	Aero MP3-03	66.33 - 66.58	1.0000	1.0000
L28	50	Aero MP3-05	66.33 - 66.58	1.0000	1.0000
L28	51	Aero MP3-05	66.33 - 66.58	1.0000	1.0000
L28	52	Aero MP3-05	66.33 - 66.58	1.0000	1.0000
L29	1	Safety Line 3/8	66.16 - 66.33	1.0000	1.0000
L29	2	Climbing Pegs	66.16 - 66.33	1.0000	1.0000
L29	15	CU12PSM9P6XXX(1-1/2)	66.16 - 66.33	1.0000	1.0000
L29	32	CCI-SFP-060100	66.16 - 66.33	1.0000	1.0000
L29	33	CCI-SFP-060100	66.16 - 66.33	1.0000	1.0000
L29	38	Aero MP3-03	66.16 - 66.33	1.0000	1.0000
L29	50	Aero MP3-05	66.16 - 66.33	1.0000	1.0000
L29	51	Aero MP3-05	66.16 - 66.33	1.0000	1.0000
L29	52	Aero MP3-05	66.16 - 66.33	1.0000	1.0000
L30	1	Safety Line 3/8	65.91 - 66.16	1.0000	1.0000
L30	2	Climbing Pegs	65.91 - 66.16	1.0000	1.0000
L30	15	CU12PSM9P6XXX(1-1/2)	65.91 - 66.16	1.0000	1.0000
L30	32	CCI-SFP-060100	65.91 - 66.16	1.0000	1.0000
L30	33	CCI-SFP-060100	65.91 - 66.16	1.0000	1.0000
L30	38	Aero MP3-03	65.91 - 66.16	1.0000	1.0000
L30	50	Aero MP3-05	65.91 - 66.16	1.0000	1.0000
L30	51	Aero MP3-05	65.91 - 66.16	1.0000	1.0000
L30	52	Aero MP3-05	65.91 - 66.16	1.0000	1.0000
L31	1	Safety Line 3/8	62.66 - 65.91	1.0000	1.0000
L31	2	Climbing Pegs	62.66 - 65.91	1.0000	1.0000
L31	15	CU12PSM9P6XXX(1-1/2)	62.66 - 65.91	1.0000	1.0000
L31	32	CCI-SFP-060100	64.50 - 65.91	1.0000	1.0000
L31	33	CCI-SFP-060100	64.50 - 65.91	1.0000	1.0000
L31	38	Aero MP3-03	62.66 - 65.91	1.0000	1.0000
L31	50	Aero MP3-05	62.66 - 65.91	1.0000	1.0000
L31	51	Aero MP3-05	62.66 - 65.91	1.0000	1.0000
L31	52	Aero MP3-05	62.66 - 65.91	1.0000	1.0000
L32	1	Safety Line 3/8	62.41 - 62.66	1.0000	1.0000
L32	2	Climbing Pegs	62.41 - 62.66	1.0000	1.0000
L32	15	CU12PSM9P6XXX(1-1/2)	62.41 - 62.66	1.0000	1.0000
L32	38	Aero MP3-03	62.41 - 62.66	1.0000	1.0000
L32	50	Aero MP3-05	62.41 - 62.66	1.0000	1.0000
L32	51	Aero MP3-05	62.41 - 62.66	1.0000	1.0000
L32	52	Aero MP3-05	62.41 - 62.66	1.0000	1.0000
L33	1	Safety Line 3/8	60.00 - 62.41	1.0000	1.0000
L33	2	Climbing Pegs	60.00 - 62.41	1.0000	1.0000
L33	15	CU12PSM9P6XXX(1-1/2)	60.00 - 62.41	1.0000	1.0000
L33	31	CCI-SFP-060100	60.00 - 62.00	1.0000	1.0000
L33	38	Aero MP3-03	61.50 - 62.41	1.0000	1.0000
L33	50	Aero MP3-05	60.00 - 62.41	1.0000	1.0000
L33	51	Aero MP3-05	60.00 - 62.41	1.0000	1.0000
L33	52	Aero MP3-05	60.00 - 62.41	1.0000	1.0000
L34	1	Safety Line 3/8	59.75 - 60.00	1.0000	1.0000

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
L34	2	Climbing Pegs	59.75 - 60.00	1.0000	1.0000
L34	15	CU12PSM9P6XXX(1-1/2)	59.75 - 60.00	1.0000	1.0000
L34	31	CCI-SFP-060100	59.75 - 60.00	1.0000	1.0000
L34	50	Aero MP3-05	59.75 - 60.00	1.0000	1.0000
L34	51	Aero MP3-05	59.75 - 60.00	1.0000	1.0000
L34	52	Aero MP3-05	59.75 - 60.00	1.0000	1.0000
L35	1	Safety Line 3/8	54.75 - 59.75	1.0000	1.0000
L35	2	Climbing Pegs	54.75 - 59.75	1.0000	1.0000
L35	15	CU12PSM9P6XXX(1-1/2)	54.75 - 59.75	1.0000	1.0000
L35	31	CCI-SFP-060100	54.75 - 59.75	1.0000	1.0000
L35	50	Aero MP3-05	54.75 - 59.75	1.0000	1.0000
L35	51	Aero MP3-05	54.75 - 59.75	1.0000	1.0000
L35	52	Aero MP3-05	54.75 - 59.75	1.0000	1.0000
L36	1	Safety Line 3/8	52.83 - 54.75	1.0000	1.0000
L36	2	Climbing Pegs	52.83 - 54.75	1.0000	1.0000
L36	15	CU12PSM9P6XXX(1-1/2)	52.83 - 54.75	1.0000	1.0000
L36	24	LDF4-50A(1/2)	52.83 - 53.00	1.0000	1.0000
L36	31	CCI-SFP-060100	52.83 - 54.75	1.0000	1.0000
L36	50	Aero MP3-05	52.83 - 54.75	1.0000	1.0000
L36	51	Aero MP3-05	52.83 - 54.75	1.0000	1.0000
L36	52	Aero MP3-05	52.83 - 54.75	1.0000	1.0000
L37	1	Safety Line 3/8	52.58 - 52.83	1.0000	1.0000
L37	2	Climbing Pegs	52.58 - 52.83	1.0000	1.0000
L37	15	CU12PSM9P6XXX(1-1/2)	52.58 - 52.83	1.0000	1.0000
L37	24	LDF4-50A(1/2)	52.58 - 52.83	1.0000	1.0000
L37	31	CCI-SFP-060100	52.58 - 52.83	1.0000	1.0000
L37	50	Aero MP3-05	52.58 - 52.83	1.0000	1.0000
L37	51	Aero MP3-05	52.58 - 52.83	1.0000	1.0000
L37	52	Aero MP3-05	52.58 - 52.83	1.0000	1.0000
L38	1	Safety Line 3/8	51.41 - 52.58	1.0000	1.0000
L38	2	Climbing Pegs	51.41 - 52.58	1.0000	1.0000
L38	15	CU12PSM9P6XXX(1-1/2)	51.41 - 52.58	1.0000	1.0000
L38	24	LDF4-50A(1/2)	51.41 - 52.58	1.0000	1.0000
L38	31	CCI-SFP-060100	51.41 - 52.58	1.0000	1.0000
L38	50	Aero MP3-05	51.41 - 52.58	1.0000	1.0000
L38	51	Aero MP3-05	51.41 - 52.58	1.0000	1.0000
L38	52	Aero MP3-05	51.41 - 52.58	1.0000	1.0000
L38	54	Aero MP3-05	51.41 - 52.25	1.0000	1.0000
L38	55	Aero MP3-05	51.41 - 52.25	1.0000	1.0000
L38	56	Aero MP3-05	51.41 - 52.25	1.0000	1.0000
L39	1	Safety Line 3/8	51.16 - 51.41	1.0000	1.0000
L39	2	Climbing Pegs	51.16 - 51.41	1.0000	1.0000
L39	15	CU12PSM9P6XXX(1-1/2)	51.16 - 51.41	1.0000	1.0000
L39	24	LDF4-50A(1/2)	51.16 - 51.41	1.0000	1.0000
L39	31	CCI-SFP-060100	51.16 - 51.41	1.0000	1.0000
L39	50	Aero MP3-05	51.16 - 51.41	1.0000	1.0000
L39	51	Aero MP3-05	51.16 - 51.41	1.0000	1.0000
L39	52	Aero MP3-05	51.16 - 51.41	1.0000	1.0000
L39	54	Aero MP3-05	51.16 - 51.41	1.0000	1.0000
L39	55	Aero MP3-05	51.16 - 51.41	1.0000	1.0000
L39	56	Aero MP3-05	51.16 - 51.41	1.0000	1.0000
L40	1	Safety Line 3/8	46.50 - 51.16	1.0000	1.0000
L40	2	Climbing Pegs	46.50 - 51.16	1.0000	1.0000
L40	15	CU12PSM9P6XXX(1-1/2)	46.50 - 51.16	1.0000	1.0000
L40	24	LDF4-50A(1/2)	46.50 - 51.16	1.0000	1.0000
L40	31	CCI-SFP-060100	47.00 - 51.16	1.0000	1.0000
L40	49	Aero MP3-05	46.50 - 46.67	1.0000	1.0000
L40	50	Aero MP3-05	49.00 - 51.16	1.0000	1.0000
L40	51	Aero MP3-05	49.00 - 51.16	1.0000	1.0000
L40	52	Aero MP3-05	49.00 - 51.16	1.0000	1.0000
L40	54	Aero MP3-05	46.50 - 51.16	1.0000	1.0000
L40	55	Aero MP3-05	46.50 - 51.16	1.0000	1.0000
L40	56	Aero MP3-05	46.50 - 51.16	1.0000	1.0000

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
L41	1	Safety Line 3/8	45.50 - 46.50	1.0000	1.0000
L41	2	Climbing Pegs	45.50 - 46.50	1.0000	1.0000
L41	15	CU12PSM9P6XXX(1-1/2)	45.50 - 46.50	1.0000	1.0000
L41	24	LDF4-50A(1/2)	45.50 - 46.50	1.0000	1.0000
L41	29	CCI-SFP-060100	45.50 - 46.50	1.0000	1.0000
L41	30	CCI-SFP-060100	45.50 - 46.50	1.0000	1.0000
L41	49	Aero MP3-05	45.50 - 46.50	1.0000	1.0000
L41	54	Aero MP3-05	45.50 - 46.50	1.0000	1.0000
L41	55	Aero MP3-05	45.50 - 46.50	1.0000	1.0000
L41	56	Aero MP3-05	45.50 - 46.50	1.0000	1.0000
L42	1	Safety Line 3/8	44.25 - 45.50	1.0000	1.0000
L42	2	Climbing Pegs	44.25 - 45.50	1.0000	1.0000
L42	15	CU12PSM9P6XXX(1-1/2)	44.25 - 45.50	1.0000	1.0000
L42	24	LDF4-50A(1/2)	44.25 - 45.50	1.0000	1.0000
L42	29	CCI-SFP-060100	44.25 - 45.50	1.0000	1.0000
L42	30	CCI-SFP-060100	44.25 - 45.50	1.0000	1.0000
L42	47	Aero MP3-05	44.25 - 45.50	1.0000	1.0000
L42	48	Aero MP3-05	44.25 - 45.50	1.0000	1.0000
L42	49	Aero MP3-05	44.25 - 45.50	1.0000	1.0000
L42	54	Aero MP3-05	44.25 - 45.50	1.0000	1.0000
L42	55	Aero MP3-05	44.25 - 45.50	1.0000	1.0000
L42	56	Aero MP3-05	44.25 - 45.50	1.0000	1.0000
L43	1	Safety Line 3/8	44.00 - 44.25	1.0000	1.0000
L43	2	Climbing Pegs	44.00 - 44.25	1.0000	1.0000
L43	15	CU12PSM9P6XXX(1-1/2)	44.00 - 44.25	1.0000	1.0000
L43	24	LDF4-50A(1/2)	44.00 - 44.25	1.0000	1.0000
L43	29	CCI-SFP-060100	44.00 - 44.25	1.0000	1.0000
L43	30	CCI-SFP-060100	44.00 - 44.25	1.0000	1.0000
L43	47	Aero MP3-05	44.00 - 44.25	1.0000	1.0000
L43	48	Aero MP3-05	44.00 - 44.25	1.0000	1.0000
L43	49	Aero MP3-05	44.00 - 44.25	1.0000	1.0000
L43	54	Aero MP3-05	44.00 - 44.25	1.0000	1.0000
L43	55	Aero MP3-05	44.00 - 44.25	1.0000	1.0000
L43	56	Aero MP3-05	44.00 - 44.25	1.0000	1.0000
L44	1	Safety Line 3/8	43.08 - 44.00	1.0000	1.0000
L44	2	Climbing Pegs	43.08 - 44.00	1.0000	1.0000
L44	15	CU12PSM9P6XXX(1-1/2)	43.08 - 44.00	1.0000	1.0000
L44	24	LDF4-50A(1/2)	43.08 - 44.00	1.0000	1.0000
L44	29	CCI-SFP-060100	43.08 - 44.00	1.0000	1.0000
L44	30	CCI-SFP-060100	43.08 - 44.00	1.0000	1.0000
L44	47	Aero MP3-05	43.08 - 44.00	1.0000	1.0000
L44	48	Aero MP3-05	43.08 - 44.00	1.0000	1.0000
L44	49	Aero MP3-05	43.08 - 44.00	1.0000	1.0000
L44	54	Aero MP3-05	43.08 - 44.00	1.0000	1.0000
L44	55	Aero MP3-05	43.08 - 44.00	1.0000	1.0000
L44	56	Aero MP3-05	43.08 - 44.00	1.0000	1.0000
L45	1	Safety Line 3/8	42.83 - 43.08	1.0000	1.0000
L45	2	Climbing Pegs	42.83 - 43.08	1.0000	1.0000
L45	15	CU12PSM9P6XXX(1-1/2)	42.83 - 43.08	1.0000	1.0000
L45	24	LDF4-50A(1/2)	42.83 - 43.08	1.0000	1.0000
L45	29	CCI-SFP-060100	42.83 - 43.08	1.0000	1.0000
L45	30	CCI-SFP-060100	42.83 - 43.08	1.0000	1.0000
L45	47	Aero MP3-05	42.83 - 43.08	1.0000	1.0000
L45	48	Aero MP3-05	42.83 - 43.08	1.0000	1.0000
L45	49	Aero MP3-05	42.83 - 43.08	1.0000	1.0000
L45	54	Aero MP3-05	42.83 - 43.08	1.0000	1.0000
L45	55	Aero MP3-05	42.83 - 43.08	1.0000	1.0000
L45	56	Aero MP3-05	42.83 - 43.08	1.0000	1.0000
L46	1	Safety Line 3/8	37.83 - 42.83	1.0000	1.0000
L46	2	Climbing Pegs	37.83 - 42.83	1.0000	1.0000
L46	15	CU12PSM9P6XXX(1-1/2)	37.83 - 42.83	1.0000	1.0000
L46	24	LDF4-50A(1/2)	37.83 - 42.83	1.0000	1.0000
L46	29	CCI-SFP-060100	37.83 - 42.83	1.0000	1.0000

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
L46	30	CCI-SFP-060100	37.83 - 42.83	1.0000	1.0000
L46	47	Aero MP3-05	37.83 - 42.83	1.0000	1.0000
L46	48	Aero MP3-05	37.83 - 42.83	1.0000	1.0000
L46	49	Aero MP3-05	37.83 - 42.83	1.0000	1.0000
L46	54	Aero MP3-05	40.25 - 42.83	1.0000	1.0000
L46	55	Aero MP3-05	40.25 - 42.83	1.0000	1.0000
L46	56	Aero MP3-05	40.25 - 42.83	1.0000	1.0000
L47	1	Safety Line 3/8	32.83 - 37.83	1.0000	1.0000
L47	2	Climbing Pegs	32.83 - 37.83	1.0000	1.0000
L47	15	CU12PSM9P6XXX(1-1/2)	32.83 - 37.83	1.0000	1.0000
L47	24	LDF4-50A(1/2)	32.83 - 37.83	1.0000	1.0000
L47	29	CCI-SFP-060100	32.83 - 37.83	1.0000	1.0000
L47	30	CCI-SFP-060100	32.83 - 37.83	1.0000	1.0000
L47	47	Aero MP3-05	32.83 - 37.83	1.0000	1.0000
L47	48	Aero MP3-05	32.83 - 37.83	1.0000	1.0000
L47	49	Aero MP3-05	32.83 - 37.83	1.0000	1.0000
L48	1	Safety Line 3/8	29.25 - 32.83	1.0000	1.0000
L48	2	Climbing Pegs	29.25 - 32.83	1.0000	1.0000
L48	15	CU12PSM9P6XXX(1-1/2)	29.25 - 32.83	1.0000	1.0000
L48	24	LDF4-50A(1/2)	29.25 - 32.83	1.0000	1.0000
L48	28	CCI-SFP-065125	29.25 - 30.50	1.0000	1.0000
L48	29	CCI-SFP-060100	29.25 - 32.83	1.0000	1.0000
L48	30	CCI-SFP-060100	29.25 - 32.83	1.0000	1.0000
L48	47	Aero MP3-05	29.25 - 32.83	1.0000	1.0000
L48	48	Aero MP3-05	29.25 - 32.83	1.0000	1.0000
L48	49	Aero MP3-05	29.25 - 32.83	1.0000	1.0000
L49	1	Safety Line 3/8	29.00 - 29.25	1.0000	1.0000
L49	2	Climbing Pegs	29.00 - 29.25	1.0000	1.0000
L49	15	CU12PSM9P6XXX(1-1/2)	29.00 - 29.25	1.0000	1.0000
L49	24	LDF4-50A(1/2)	29.00 - 29.25	1.0000	1.0000
L49	28	CCI-SFP-065125	29.00 - 29.25	1.0000	1.0000
L49	29	CCI-SFP-060100	29.00 - 29.25	1.0000	1.0000
L49	30	CCI-SFP-060100	29.00 - 29.25	1.0000	1.0000
L49	47	Aero MP3-05	29.00 - 29.25	1.0000	1.0000
L49	48	Aero MP3-05	29.00 - 29.25	1.0000	1.0000
L49	49	Aero MP3-05	29.00 - 29.25	1.0000	1.0000
L50	1	Safety Line 3/8	27.75 - 29.00	1.0000	1.0000
L50	2	Climbing Pegs	27.75 - 29.00	1.0000	1.0000
L50	15	CU12PSM9P6XXX(1-1/2)	27.75 - 29.00	1.0000	1.0000
L50	24	LDF4-50A(1/2)	27.75 - 29.00	1.0000	1.0000
L50	28	CCI-SFP-065125	27.75 - 29.00	1.0000	1.0000
L50	29	CCI-SFP-060100	27.75 - 29.00	1.0000	1.0000
L50	30	CCI-SFP-060100	27.75 - 29.00	1.0000	1.0000
L50	47	Aero MP3-05	27.75 - 29.00	1.0000	1.0000
L50	48	Aero MP3-05	27.75 - 29.00	1.0000	1.0000
L50	49	Aero MP3-05	27.75 - 29.00	1.0000	1.0000
L51	1	Safety Line 3/8	27.50 - 27.75	1.0000	1.0000
L51	2	Climbing Pegs	27.50 - 27.75	1.0000	1.0000
L51	15	CU12PSM9P6XXX(1-1/2)	27.50 - 27.75	1.0000	1.0000
L51	24	LDF4-50A(1/2)	27.50 - 27.75	1.0000	1.0000
L51	28	CCI-SFP-065125	27.50 - 27.75	1.0000	1.0000
L51	29	CCI-SFP-060100	27.50 - 27.75	1.0000	1.0000
L51	30	CCI-SFP-060100	27.50 - 27.75	1.0000	1.0000
L51	47	Aero MP3-05	27.50 - 27.75	1.0000	1.0000
L51	48	Aero MP3-05	27.50 - 27.75	1.0000	1.0000
L51	49	Aero MP3-05	27.50 - 27.75	1.0000	1.0000
L52	1	Safety Line 3/8	24.08 - 27.50	1.0000	1.0000
L52	2	Climbing Pegs	24.08 - 27.50	1.0000	1.0000
L52	15	CU12PSM9P6XXX(1-1/2)	24.08 - 27.50	1.0000	1.0000
L52	24	LDF4-50A(1/2)	24.08 - 27.50	1.0000	1.0000
L52	28	CCI-SFP-065125	24.08 - 27.50	1.0000	1.0000
L52	29	CCI-SFP-060100	24.08 - 27.50	1.0000	1.0000
L52	30	CCI-SFP-060100	24.08 - 27.50	1.0000	1.0000

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
L52	37	Aero MP3-05	24.08 - 26.50	1.0000	1.0000
L52	47	Aero MP3-05	24.08 - 27.50	1.0000	1.0000
L52	48	Aero MP3-05	24.08 - 27.50	1.0000	1.0000
L52	49	Aero MP3-05	24.08 - 27.50	1.0000	1.0000
L53	1	Safety Line 3/8	23.83 - 24.08	1.0000	1.0000
L53	2	Climbing Pegs	23.83 - 24.08	1.0000	1.0000
L53	15	CU12PSM9P6XXX(1-1/2)	23.83 - 24.08	1.0000	1.0000
L53	24	LDF4-50A(1/2)	23.83 - 24.08	1.0000	1.0000
L53	28	CCI-SFP-065125	23.83 - 24.08	1.0000	1.0000
L53	29	CCI-SFP-060100	23.83 - 24.08	1.0000	1.0000
L53	30	CCI-SFP-060100	23.83 - 24.08	1.0000	1.0000
L53	37	Aero MP3-05	23.83 - 24.08	1.0000	1.0000
L53	47	Aero MP3-05	23.83 - 24.08	1.0000	1.0000
L53	48	Aero MP3-05	23.83 - 24.08	1.0000	1.0000
L53	49	Aero MP3-05	23.83 - 24.08	1.0000	1.0000
L54	1	Safety Line 3/8	23.50 - 23.83	1.0000	1.0000
L54	2	Climbing Pegs	23.50 - 23.83	1.0000	1.0000
L54	15	CU12PSM9P6XXX(1-1/2)	23.50 - 23.83	1.0000	1.0000
L54	24	LDF4-50A(1/2)	23.50 - 23.83	1.0000	1.0000
L54	28	CCI-SFP-065125	23.50 - 23.83	1.0000	1.0000
L54	29	CCI-SFP-060100	23.50 - 23.83	1.0000	1.0000
L54	30	CCI-SFP-060100	23.50 - 23.83	1.0000	1.0000
L54	37	Aero MP3-05	23.50 - 23.83	1.0000	1.0000
L54	47	Aero MP3-05	23.50 - 23.83	1.0000	1.0000
L54	48	Aero MP3-05	23.50 - 23.83	1.0000	1.0000
L54	49	Aero MP3-05	23.50 - 23.83	1.0000	1.0000
L55	1	Safety Line 3/8	23.25 - 23.50	1.0000	1.0000
L55	2	Climbing Pegs	23.25 - 23.50	1.0000	1.0000
L55	15	CU12PSM9P6XXX(1-1/2)	23.25 - 23.50	1.0000	1.0000
L55	24	LDF4-50A(1/2)	23.25 - 23.50	1.0000	1.0000
L55	28	CCI-SFP-065125	23.25 - 23.50	1.0000	1.0000
L55	29	CCI-SFP-060100	23.25 - 23.50	1.0000	1.0000
L55	30	CCI-SFP-060100	23.25 - 23.50	1.0000	1.0000
L55	37	Aero MP3-05	23.25 - 23.50	1.0000	1.0000
L55	47	Aero MP3-05	23.25 - 23.50	1.0000	1.0000
L55	48	Aero MP3-05	23.25 - 23.50	1.0000	1.0000
L55	49	Aero MP3-05	23.25 - 23.50	1.0000	1.0000
L56	1	Safety Line 3/8	18.91 - 23.25	1.0000	1.0000
L56	2	Climbing Pegs	18.91 - 23.25	1.0000	1.0000
L56	15	CU12PSM9P6XXX(1-1/2)	18.91 - 23.25	1.0000	1.0000
L56	24	LDF4-50A(1/2)	18.91 - 23.25	1.0000	1.0000
L56	28	CCI-SFP-065125	18.91 - 23.25	1.0000	1.0000
L56	29	CCI-SFP-060100	21.50 - 23.25	1.0000	1.0000
L56	30	CCI-SFP-060100	21.50 - 23.25	1.0000	1.0000
L56	37	Aero MP3-05	18.91 - 23.25	1.0000	1.0000
L56	45	Aero MP3-05	18.91 - 20.50	1.0000	1.0000
L56	46	Aero MP3-05	18.91 - 20.50	1.0000	1.0000
L56	47	Aero MP3-05	18.91 - 23.25	1.0000	1.0000
L56	48	Aero MP3-05	18.91 - 23.25	1.0000	1.0000
L56	49	Aero MP3-05	18.91 - 23.25	1.0000	1.0000
L57	1	Safety Line 3/8	18.66 - 18.91	1.0000	1.0000
L57	2	Climbing Pegs	18.66 - 18.91	1.0000	1.0000
L57	15	CU12PSM9P6XXX(1-1/2)	18.66 - 18.91	1.0000	1.0000
L57	24	LDF4-50A(1/2)	18.66 - 18.91	1.0000	1.0000
L57	28	CCI-SFP-065125	18.66 - 18.91	1.0000	1.0000
L57	37	Aero MP3-05	18.66 - 18.91	1.0000	1.0000
L57	45	Aero MP3-05	18.66 - 18.91	1.0000	1.0000
L57	46	Aero MP3-05	18.66 - 18.91	1.0000	1.0000
L57	47	Aero MP3-05	18.66 - 18.91	1.0000	1.0000
L57	48	Aero MP3-05	18.66 - 18.91	1.0000	1.0000
L57	49	Aero MP3-05	18.66 - 18.91	1.0000	1.0000
L58	1	Safety Line 3/8	18.08 - 18.66	1.0000	1.0000
L58	2	Climbing Pegs	18.08 - 18.66	1.0000	1.0000

Tower Section	*Feed Line Record No.*	*Description*	*Feed Line Segment Elev.*	*K_a No Ice*	*K_a Ice*
L58	15	CU12PSM9P6XXX(1-1/2)	18.08 - 18.66	1.0000	1.0000
L58	24	LDF4-50A(1/2)	18.08 - 18.66	1.0000	1.0000
L58	28	CCI-SFP-065125	18.08 - 18.66	1.0000	1.0000
L58	37	Aero MP3-05	18.08 - 18.66	1.0000	1.0000
L58	45	Aero MP3-05	18.08 - 18.66	1.0000	1.0000
L58	46	Aero MP3-05	18.08 - 18.66	1.0000	1.0000
L58	47	Aero MP3-05	18.08 - 18.66	1.0000	1.0000
L58	48	Aero MP3-05	18.08 - 18.66	1.0000	1.0000
L58	49	Aero MP3-05	18.08 - 18.66	1.0000	1.0000
L59	1	Safety Line 3/8	17.83 - 18.08	1.0000	1.0000
L59	2	Climbing Pegs	17.83 - 18.08	1.0000	1.0000
L59	15	CU12PSM9P6XXX(1-1/2)	17.83 - 18.08	1.0000	1.0000
L59	24	LDF4-50A(1/2)	17.83 - 18.08	1.0000	1.0000
L59	28	CCI-SFP-065125	17.83 - 18.08	1.0000	1.0000
L59	37	Aero MP3-05	17.83 - 18.08	1.0000	1.0000
L59	45	Aero MP3-05	17.83 - 18.08	1.0000	1.0000
L59	46	Aero MP3-05	17.83 - 18.08	1.0000	1.0000
L59	47	Aero MP3-05	17.83 - 18.08	1.0000	1.0000
L59	48	Aero MP3-05	17.83 - 18.08	1.0000	1.0000
L59	49	Aero MP3-05	17.83 - 18.08	1.0000	1.0000
L60	1	Safety Line 3/8	12.83 - 17.83	1.0000	1.0000
L60	2	Climbing Pegs	12.83 - 17.83	1.0000	1.0000
L60	15	CU12PSM9P6XXX(1-1/2)	12.83 - 17.83	1.0000	1.0000
L60	24	LDF4-50A(1/2)	12.83 - 17.83	1.0000	1.0000
L60	28	CCI-SFP-065125	12.83 - 17.83	1.0000	1.0000
L60	37	Aero MP3-05	16.50 - 17.83	1.0000	1.0000
L60	45	Aero MP3-05	12.83 - 17.83	1.0000	1.0000
L60	46	Aero MP3-05	12.83 - 17.83	1.0000	1.0000
L60	47	Aero MP3-05	12.83 - 17.83	1.0000	1.0000
L60	48	Aero MP3-05	12.83 - 17.83	1.0000	1.0000
L60	49	Aero MP3-05	12.83 - 17.83	1.0000	1.0000
L61	1	Safety Line 3/8	10.00 - 12.83	1.0000	1.0000
L61	2	Climbing Pegs	10.00 - 12.83	1.0000	1.0000
L61	15	CU12PSM9P6XXX(1-1/2)	8.00 - 12.83	1.0000	1.0000
L61	24	LDF4-50A(1/2)	8.00 - 12.83	1.0000	1.0000
L61	28	CCI-SFP-065125	7.83 - 12.83	1.0000	1.0000
L61	45	Aero MP3-05	7.83 - 12.83	1.0000	1.0000
L61	46	Aero MP3-05	7.83 - 12.83	1.0000	1.0000
L61	47	Aero MP3-05	7.83 - 12.83	1.0000	1.0000
L61	48	Aero MP3-05	7.83 - 12.83	1.0000	1.0000
L61	49	Aero MP3-05	11.67 - 12.83	1.0000	1.0000
L62	28	CCI-SFP-065125	2.83 - 7.83	1.0000	1.0000
L62	45	Aero MP3-05	2.83 - 7.83	1.0000	1.0000
L62	46	Aero MP3-05	2.83 - 7.83	1.0000	1.0000
L62	47	Aero MP3-05	2.83 - 7.83	1.0000	1.0000
L62	48	Aero MP3-05	2.83 - 7.83	1.0000	1.0000
L63	28	CCI-SFP-065125	0.50 - 2.83	1.0000	1.0000
L63	45	Aero MP3-05	0.50 - 2.83	1.0000	1.0000
L63	46	Aero MP3-05	0.50 - 2.83	1.0000	1.0000
L63	47	Aero MP3-05	0.50 - 2.83	1.0000	1.0000
L63	48	Aero MP3-05	0.50 - 2.83	1.0000	1.0000

Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	*Attachment Record No.*	*Description*	*Attachment Segment Elev.*	*Ratio Calculation Method*	*Effective Width Ratio*
L8	41	Aero MP3-03	102.00 - 103.50	Auto	0.0000
L8	42	Aero MP3-03	102.00 - 103.50	Auto	0.0000
L8	43	Aero MP3-03	102.00 - 103.50	Auto	0.0000
L9	41	Aero MP3-03	101.75 - 102.00	Auto	0.0000
L9	42	Aero MP3-03	101.75 - 102.00	Auto	0.0000
L9	43	Aero MP3-03	101.75 - 102.00	Auto	0.0000
L10	41	Aero MP3-03	96.75 - 101.75	Auto	0.0000
L10	42	Aero MP3-03	96.75 - 101.75	Auto	0.0000
L10	43	Aero MP3-03	96.75 - 101.75	Auto	0.0000
L11	34	CCI-SFP-060100	91.75 - 95.00	Auto	0.0260
L11	35	CCI-SFP-060100	91.75 - 95.00	Auto	0.0260
L11	41	Aero MP3-03	93.50 - 96.75	Auto	0.0000
L11	42	Aero MP3-03	93.50 - 96.75	Auto	0.0000
L11	43	Aero MP3-03	93.50 - 96.75	Auto	0.0000
L12	34	CCI-SFP-060100	90.75 - 91.75	Auto	0.0205
L12	35	CCI-SFP-060100	90.75 - 91.75	Auto	0.0205
L13	34	CCI-SFP-060100	85.75 - 90.75	Auto	0.0028
L13	35	CCI-SFP-060100	85.75 - 90.75	Auto	0.0028
L13	38	Aero MP3-03	85.75 - 86.50	Auto	0.0000
L13	39	Aero MP3-03	85.75 - 86.50	Auto	0.0000
L13	40	Aero MP3-03	85.75 - 86.50	Auto	0.0000
L14	34	CCI-SFP-060100	85.33 - 85.75	Auto	0.0000
L14	35	CCI-SFP-060100	85.33 - 85.75	Auto	0.0000
L14	38	Aero MP3-03	85.33 - 85.75	Auto	0.0000
L14	39	Aero MP3-03	85.33 - 85.75	Auto	0.0000
L14	40	Aero MP3-03	85.33 - 85.75	Auto	0.0000
L15	34	CCI-SFP-060100	85.08 - 85.33	Auto	0.0572
L15	35	CCI-SFP-060100	85.08 - 85.33	Auto	0.0572
L15	38	Aero MP3-03	85.08 - 85.33	Auto	0.0000
L15	39	Aero MP3-03	85.08 - 85.33	Auto	0.0000
L15	40	Aero MP3-03	85.08 - 85.33	Auto	0.0000
L16	32	CCI-SFP-060100	82.50 - 84.50	Auto	0.0416
L16	33	CCI-SFP-060100	82.50 - 84.50	Auto	0.0416
L16	34	CCI-SFP-060100	82.50 - 85.08	Auto	0.0443
L16	35	CCI-SFP-060100	82.50 - 85.08	Auto	0.0443
L16	38	Aero MP3-03	82.50 - 85.08	Auto	0.0000
L16	39	Aero MP3-03	82.50 - 85.08	Auto	0.0000
L16	40	Aero MP3-03	82.50 - 85.08	Auto	0.0000
L17	32	CCI-SFP-060100	82.25 - 82.50	Auto	0.0000
L17	33	CCI-SFP-060100	82.25 - 82.50	Auto	0.0000
L17	34	CCI-SFP-060100	82.25 - 82.50	Auto	0.0000
L17	35	CCI-SFP-060100	82.25 - 82.50	Auto	0.0000
L17	38	Aero MP3-03	82.25 - 82.50	Auto	0.0000
L17	39	Aero MP3-03	82.25 - 82.50	Auto	0.0000
L17	40	Aero MP3-03	82.25 - 82.50	Auto	0.0000
L18	32	CCI-SFP-060100	82.00 - 82.25	Auto	0.0000
L18	33	CCI-SFP-060100	82.00 - 82.25	Auto	0.0000
L18	34	CCI-SFP-060100	82.00 - 82.25	Auto	0.0000
L18	35	CCI-SFP-060100	82.00 - 82.25	Auto	0.0000
L18	38	Aero MP3-03	82.00 - 82.25	Auto	0.0000
L18	39	Aero MP3-03	82.00 - 82.25	Auto	0.0000
L18	40	Aero MP3-03	82.00 - 82.25	Auto	0.0000
L19	32	CCI-SFP-060100	81.75 - 82.00	Auto	0.0000
L19	33	CCI-SFP-060100	81.75 - 82.00	Auto	0.0000
L19	34	CCI-SFP-060100	81.75 - 82.00	Auto	0.0000
L19	35	CCI-SFP-060100	81.75 - 82.00	Auto	0.0000

Tower Section	*Attachment Record No.*	*Description*	*Attachment Segment Elev.*	*Ratio Calculation Method*	*Effective Width Ratio*
L19	38	Aero MP3-03	81.75 - 82.00	Auto	0.0000
L19	39	Aero MP3-03	81.75 - 82.00	Auto	0.0000
L19	40	Aero MP3-03	81.75 - 82.00	Auto	0.0000
L20	32	CCI-SFP-060100	78.83 - 81.75	Auto	0.0000
L20	33	CCI-SFP-060100	78.83 - 81.75	Auto	0.0000
L20	34	CCI-SFP-060100	80.00 - 81.75	Auto	0.0000
L20	35	CCI-SFP-060100	80.00 - 81.75	Auto	0.0000
L20	38	Aero MP3-03	78.83 - 81.75	Auto	0.0000
L20	39	Aero MP3-03	78.83 - 81.75	Auto	0.0000
L20	40	Aero MP3-03	78.83 - 81.75	Auto	0.0000
L20	57	Aero MP3-03	78.83 - 80.00	Auto	0.0000
L20	58	Aero MP3-03	78.83 - 80.00	Auto	0.0000
L20	59	Aero MP3-03	78.83 - 80.00	Auto	0.0000
L21	32	CCI-SFP-060100	78.58 - 78.83	Auto	0.0200
L21	33	CCI-SFP-060100	78.58 - 78.83	Auto	0.0200
L21	38	Aero MP3-03	78.58 - 78.83	Auto	0.0000
L21	39	Aero MP3-03	78.58 - 78.83	Auto	0.0000
L21	40	Aero MP3-03	78.58 - 78.83	Auto	0.0000
L21	57	Aero MP3-03	78.58 - 78.83	Auto	0.0000
L21	58	Aero MP3-03	78.58 - 78.83	Auto	0.0000
L21	59	Aero MP3-03	78.58 - 78.83	Auto	0.0000
L22	32	CCI-SFP-060100	77.66 - 78.58	Auto	0.0147
L22	33	CCI-SFP-060100	77.66 - 78.58	Auto	0.0147
L22	38	Aero MP3-03	77.66 - 78.58	Auto	0.0000
L22	39	Aero MP3-03	77.66 - 78.58	Auto	0.0000
L22	40	Aero MP3-03	77.66 - 78.58	Auto	0.0000
L22	57	Aero MP3-03	77.66 - 78.58	Auto	0.0000
L22	58	Aero MP3-03	77.66 - 78.58	Auto	0.0000
L22	59	Aero MP3-03	77.66 - 78.58	Auto	0.0000
L23	32	CCI-SFP-060100	77.41 - 77.66	Auto	0.0000
L23	33	CCI-SFP-060100	77.41 - 77.66	Auto	0.0000
L23	38	Aero MP3-03	77.41 - 77.66	Auto	0.0000
L23	39	Aero MP3-03	77.41 - 77.66	Auto	0.0000
L23	40	Aero MP3-03	77.41 - 77.66	Auto	0.0000
L23	57	Aero MP3-03	77.41 - 77.66	Auto	0.0000
L23	58	Aero MP3-03	77.41 - 77.66	Auto	0.0000
L23	59	Aero MP3-03	77.41 - 77.66	Auto	0.0000
L24	32	CCI-SFP-060100	77.17 - 77.41	Auto	0.0000
L24	33	CCI-SFP-060100	77.17 - 77.41	Auto	0.0000
L24	38	Aero MP3-03	77.17 - 77.41	Auto	0.0000
L24	39	Aero MP3-03	77.17 - 77.41	Auto	0.0000
L24	40	Aero MP3-03	77.17 - 77.41	Auto	0.0000
L24	57	Aero MP3-03	77.17 - 77.41	Auto	0.0000
L24	58	Aero MP3-03	77.17 - 77.41	Auto	0.0000
L24	59	Aero MP3-03	77.17 - 77.41	Auto	0.0000
L25	32	CCI-SFP-060100	72.17 - 77.17	Auto	0.0000
L25	33	CCI-SFP-060100	72.17 - 77.17	Auto	0.0000
L25	38	Aero MP3-03	72.17 - 77.17	Auto	0.0000
L25	39	Aero MP3-03	76.50 - 77.17	Auto	0.0000
L25	40	Aero MP3-03	76.50 - 77.17	Auto	0.0000
L25	57	Aero MP3-03	72.17 - 77.17	Auto	0.0000
L25	58	Aero MP3-03	72.17 - 77.17	Auto	0.0000
L25	59	Aero MP3-03	72.17 - 77.17	Auto	0.0000
L26	32	CCI-SFP-060100	67.17 - 72.17	Auto	0.0000
L26	33	CCI-SFP-060100	67.17 - 72.17	Auto	0.0000
L26	38	Aero MP3-03	67.17 - 72.17	Auto	0.0000
L26	50	Aero MP3-05	67.17 - 69.00	Auto	0.0000
L26	51	Aero MP3-05	67.17 - 69.00	Auto	0.0000
L26	52	Aero MP3-05	67.17 - 69.00	Auto	0.0000
L26	57	Aero MP3-03	69.00 - 72.17	Auto	0.0000
L26	58	Aero MP3-03	69.00 - 72.17	Auto	0.0000
L26	59	Aero MP3-03	69.00 - 72.17	Auto	0.0000

Tower Section	*Attachment Record No.*	*Description*	*Attachment Segment Elev.*	*Ratio Calculation Method*	*Effective Width Ratio*
L27	32	CCI-SFP-060100	66.58 - 67.17	Auto	0.0000
L27	33	CCI-SFP-060100	66.58 - 67.17	Auto	0.0000
L27	38	Aero MP3-03	66.58 - 67.17	Auto	0.0000
L27	50	Aero MP3-05	66.58 - 67.17	Auto	0.0000
L27	51	Aero MP3-05	66.58 - 67.17	Auto	0.0000
L27	52	Aero MP3-05	66.58 - 67.17	Auto	0.0000
L28	32	CCI-SFP-060100	66.33 - 66.58	Auto	0.0000
L28	33	CCI-SFP-060100	66.33 - 66.58	Auto	0.0000
L28	38	Aero MP3-03	66.33 - 66.58	Auto	0.0000
L28	50	Aero MP3-05	66.33 - 66.58	Auto	0.0000
L28	51	Aero MP3-05	66.33 - 66.58	Auto	0.0000
L28	52	Aero MP3-05	66.33 - 66.58	Auto	0.0000
L29	32	CCI-SFP-060100	66.16 - 66.33	Auto	0.0000
L29	33	CCI-SFP-060100	66.16 - 66.33	Auto	0.0000
L29	38	Aero MP3-03	66.16 - 66.33	Auto	0.0000
L29	50	Aero MP3-05	66.16 - 66.33	Auto	0.0000
L29	51	Aero MP3-05	66.16 - 66.33	Auto	0.0000
L29	52	Aero MP3-05	66.16 - 66.33	Auto	0.0000
L30	32	CCI-SFP-060100	65.91 - 66.16	Auto	0.0000
L30	33	CCI-SFP-060100	65.91 - 66.16	Auto	0.0000
L30	38	Aero MP3-03	65.91 - 66.16	Auto	0.0000
L30	50	Aero MP3-05	65.91 - 66.16	Auto	0.0000
L30	51	Aero MP3-05	65.91 - 66.16	Auto	0.0000
L30	52	Aero MP3-05	65.91 - 66.16	Auto	0.0000
L31	32	CCI-SFP-060100	64.50 - 65.91	Auto	0.0000
L31	33	CCI-SFP-060100	64.50 - 65.91	Auto	0.0000
L31	38	Aero MP3-03	62.66 - 65.91	Auto	0.0000
L31	50	Aero MP3-05	62.66 - 65.91	Auto	0.0000
L31	51	Aero MP3-05	62.66 - 65.91	Auto	0.0000
L31	52	Aero MP3-05	62.66 - 65.91	Auto	0.0000
L32	38	Aero MP3-03	62.41 - 62.66	Auto	0.0000
L32	50	Aero MP3-05	62.41 - 62.66	Auto	0.0000
L32	51	Aero MP3-05	62.41 - 62.66	Auto	0.0000
L32	52	Aero MP3-05	62.41 - 62.66	Auto	0.0000
L33	31	CCI-SFP-060100	60.00 - 62.00	Auto	0.0000
L33	38	Aero MP3-03	61.50 - 62.41	Auto	0.0000
L33	50	Aero MP3-05	60.00 - 62.41	Auto	0.0000
L33	51	Aero MP3-05	60.00 - 62.41	Auto	0.0000
L33	52	Aero MP3-05	60.00 - 62.41	Auto	0.0000
L34	31	CCI-SFP-060100	59.75 - 60.00	Auto	0.0000
L34	50	Aero MP3-05	59.75 - 60.00	Auto	0.0000
L34	51	Aero MP3-05	59.75 - 60.00	Auto	0.0000
L34	52	Aero MP3-05	59.75 - 60.00	Auto	0.0000
L35	31	CCI-SFP-060100	54.75 - 59.75	Auto	0.0000
L35	50	Aero MP3-05	54.75 - 59.75	Auto	0.0000
L35	51	Aero MP3-05	54.75 - 59.75	Auto	0.0000
L35	52	Aero MP3-05	54.75 - 59.75	Auto	0.0000
L36	31	CCI-SFP-060100	52.83 - 54.75	Auto	0.0000
L36	50	Aero MP3-05	52.83 - 54.75	Auto	0.0000
L36	51	Aero MP3-05	52.83 - 54.75	Auto	0.0000
L36	52	Aero MP3-05	52.83 - 54.75	Auto	0.0000
L37	31	CCI-SFP-060100	52.58 - 52.83	Auto	0.0000
L37	50	Aero MP3-05	52.58 - 52.83	Auto	0.0000
L37	51	Aero MP3-05	52.58 - 52.83	Auto	0.0000
L37	52	Aero MP3-05	52.58 - 52.83	Auto	0.0000
L38	31	CCI-SFP-060100	51.41 - 52.58	Auto	0.0000
L38	50	Aero MP3-05	51.41 - 52.58	Auto	0.0000
L38	51	Aero MP3-05	51.41 - 52.58	Auto	0.0000
L38	52	Aero MP3-05	51.41 - 52.58	Auto	0.0000
L38	54	Aero MP3-05	51.41 - 52.25	Auto	0.0000
L38	55	Aero MP3-05	51.41 - 52.25	Auto	0.0000
L38	56	Aero MP3-05	51.41 - 52.25	Auto	0.0000

Tower Section	*Attachment Record No.*	*Description*	*Attachment Segment Elev.*	*Ratio Calculation Method*	*Effective Width Ratio*
L39	31	CCI-SFP-060100	51.16 - 51.41	Auto	0.0000
L39	50	Aero MP3-05	51.16 - 51.41	Auto	0.0000
L39	51	Aero MP3-05	51.16 - 51.41	Auto	0.0000
L39	52	Aero MP3-05	51.16 - 51.41	Auto	0.0000
L39	54	Aero MP3-05	51.16 - 51.41	Auto	0.0000
L39	55	Aero MP3-05	51.16 - 51.41	Auto	0.0000
L39	56	Aero MP3-05	51.16 - 51.41	Auto	0.0000
L40	31	CCI-SFP-060100	47.00 - 51.16	Auto	0.0000
L40	49	Aero MP3-05	46.50 - 46.67	Auto	0.0000
L40	50	Aero MP3-05	49.00 - 51.16	Auto	0.0000
L40	51	Aero MP3-05	49.00 - 51.16	Auto	0.0000
L40	52	Aero MP3-05	49.00 - 51.16	Auto	0.0000
L40	54	Aero MP3-05	46.50 - 51.16	Auto	0.0000
L40	55	Aero MP3-05	46.50 - 51.16	Auto	0.0000
L40	56	Aero MP3-05	46.50 - 51.16	Auto	0.0000
L41	29	CCI-SFP-060100	45.50 - 46.50	Auto	0.0000
L41	30	CCI-SFP-060100	45.50 - 46.50	Auto	0.0000
L41	49	Aero MP3-05	45.50 - 46.50	Auto	0.0000
L41	54	Aero MP3-05	45.50 - 46.50	Auto	0.0000
L41	55	Aero MP3-05	45.50 - 46.50	Auto	0.0000
L41	56	Aero MP3-05	45.50 - 46.50	Auto	0.0000
L42	29	CCI-SFP-060100	44.25 - 45.50	Auto	0.0000
L42	30	CCI-SFP-060100	44.25 - 45.50	Auto	0.0000
L42	47	Aero MP3-05	44.25 - 45.50	Auto	0.0000
L42	48	Aero MP3-05	44.25 - 45.50	Auto	0.0000
L42	49	Aero MP3-05	44.25 - 45.50	Auto	0.0000
L42	54	Aero MP3-05	44.25 - 45.50	Auto	0.0000
L42	55	Aero MP3-05	44.25 - 45.50	Auto	0.0000
L42	56	Aero MP3-05	44.25 - 45.50	Auto	0.0000
L43	29	CCI-SFP-060100	44.00 - 44.25	Auto	0.0000
L43	30	CCI-SFP-060100	44.00 - 44.25	Auto	0.0000
L43	47	Aero MP3-05	44.00 - 44.25	Auto	0.0000
L43	48	Aero MP3-05	44.00 - 44.25	Auto	0.0000
L43	49	Aero MP3-05	44.00 - 44.25	Auto	0.0000
L43	54	Aero MP3-05	44.00 - 44.25	Auto	0.0000
L43	55	Aero MP3-05	44.00 - 44.25	Auto	0.0000
L43	56	Aero MP3-05	44.00 - 44.25	Auto	0.0000
L44	29	CCI-SFP-060100	43.08 - 44.00	Auto	0.0000
L44	30	CCI-SFP-060100	43.08 - 44.00	Auto	0.0000
L44	47	Aero MP3-05	43.08 - 44.00	Auto	0.0000
L44	48	Aero MP3-05	43.08 - 44.00	Auto	0.0000
L44	49	Aero MP3-05	43.08 - 44.00	Auto	0.0000
L44	54	Aero MP3-05	43.08 - 44.00	Auto	0.0000
L44	55	Aero MP3-05	43.08 - 44.00	Auto	0.0000
L44	56	Aero MP3-05	43.08 - 44.00	Auto	0.0000
L45	29	CCI-SFP-060100	42.83 - 43.08	Auto	0.0000
L45	30	CCI-SFP-060100	42.83 - 43.08	Auto	0.0000
L45	47	Aero MP3-05	42.83 - 43.08	Auto	0.0000
L45	48	Aero MP3-05	42.83 - 43.08	Auto	0.0000
L45	49	Aero MP3-05	42.83 - 43.08	Auto	0.0000
L45	54	Aero MP3-05	42.83 - 43.08	Auto	0.0000
L45	55	Aero MP3-05	42.83 - 43.08	Auto	0.0000
L45	56	Aero MP3-05	42.83 - 43.08	Auto	0.0000
L46	29	CCI-SFP-060100	37.83 - 42.83	Auto	0.0000
L46	30	CCI-SFP-060100	37.83 - 42.83	Auto	0.0000
L46	47	Aero MP3-05	37.83 - 42.83	Auto	0.0000
L46	48	Aero MP3-05	37.83 - 42.83	Auto	0.0000
L46	49	Aero MP3-05	37.83 - 42.83	Auto	0.0000
L46	54	Aero MP3-05	40.25 - 42.83	Auto	0.0000
L46	55	Aero MP3-05	40.25 - 42.83	Auto	0.0000
L46	56	Aero MP3-05	40.25 - 42.83	Auto	0.0000
L47	29	CCI-SFP-060100	32.83 - 37.83	Auto	0.0000

Tower Section	*Attachment Record No.*	*Description*	*Attachment Segment Elev.*	*Ratio Calculation Method*	*Effective Width Ratio*
L47	30	CCI-SFP-060100	32.83 - 37.83	Auto	0.0000
L47	47	Aero MP3-05	32.83 - 37.83	Auto	0.0000
L47	48	Aero MP3-05	32.83 - 37.83	Auto	0.0000
L47	49	Aero MP3-05	32.83 - 37.83	Auto	0.0000
L48	28	CCI-SFP-065125	29.25 - 30.50	Auto	0.0000
L48	29	CCI-SFP-060100	29.25 - 32.83	Auto	0.0000
L48	30	CCI-SFP-060100	29.25 - 32.83	Auto	0.0000
L48	47	Aero MP3-05	29.25 - 32.83	Auto	0.0000
L48	48	Aero MP3-05	29.25 - 32.83	Auto	0.0000
L48	49	Aero MP3-05	29.25 - 32.83	Auto	0.0000
L49	28	CCI-SFP-065125	29.00 - 29.25	Auto	0.0000
L49	29	CCI-SFP-060100	29.00 - 29.25	Auto	0.0000
L49	30	CCI-SFP-060100	29.00 - 29.25	Auto	0.0000
L49	47	Aero MP3-05	29.00 - 29.25	Auto	0.0000
L49	48	Aero MP3-05	29.00 - 29.25	Auto	0.0000
L49	49	Aero MP3-05	29.00 - 29.25	Auto	0.0000
L50	28	CCI-SFP-065125	27.75 - 29.00	Auto	0.0000
L50	29	CCI-SFP-060100	27.75 - 29.00	Auto	0.0000
L50	30	CCI-SFP-060100	27.75 - 29.00	Auto	0.0000
L50	47	Aero MP3-05	27.75 - 29.00	Auto	0.0000
L50	48	Aero MP3-05	27.75 - 29.00	Auto	0.0000
L50	49	Aero MP3-05	27.75 - 29.00	Auto	0.0000
L51	28	CCI-SFP-065125	27.50 - 27.75	Auto	0.0000
L51	29	CCI-SFP-060100	27.50 - 27.75	Auto	0.0000
L51	30	CCI-SFP-060100	27.50 - 27.75	Auto	0.0000
L51	47	Aero MP3-05	27.50 - 27.75	Auto	0.0000
L51	48	Aero MP3-05	27.50 - 27.75	Auto	0.0000
L51	49	Aero MP3-05	27.50 - 27.75	Auto	0.0000
L52	28	CCI-SFP-065125	24.08 - 27.50	Auto	0.0000
L52	29	CCI-SFP-060100	24.08 - 27.50	Auto	0.0000
L52	30	CCI-SFP-060100	24.08 - 27.50	Auto	0.0000
L52	37	Aero MP3-05	24.08 - 26.50	Auto	0.0000
L52	47	Aero MP3-05	24.08 - 27.50	Auto	0.0000
L52	48	Aero MP3-05	24.08 - 27.50	Auto	0.0000
L52	49	Aero MP3-05	24.08 - 27.50	Auto	0.0000
L53	28	CCI-SFP-065125	23.83 - 24.08	Auto	0.0000
L53	29	CCI-SFP-060100	23.83 - 24.08	Auto	0.0000
L53	30	CCI-SFP-060100	23.83 - 24.08	Auto	0.0000
L53	37	Aero MP3-05	23.83 - 24.08	Auto	0.0000
L53	47	Aero MP3-05	23.83 - 24.08	Auto	0.0000
L53	48	Aero MP3-05	23.83 - 24.08	Auto	0.0000
L53	49	Aero MP3-05	23.83 - 24.08	Auto	0.0000
L54	28	CCI-SFP-065125	23.50 - 23.83	Auto	0.0000
L54	29	CCI-SFP-060100	23.50 - 23.83	Auto	0.0000
L54	30	CCI-SFP-060100	23.50 - 23.83	Auto	0.0000
L54	37	Aero MP3-05	23.50 - 23.83	Auto	0.0000
L54	47	Aero MP3-05	23.50 - 23.83	Auto	0.0000
L54	48	Aero MP3-05	23.50 - 23.83	Auto	0.0000
L54	49	Aero MP3-05	23.50 - 23.83	Auto	0.0000
L55	28	CCI-SFP-065125	23.25 - 23.50	Auto	0.0000
L55	29	CCI-SFP-060100	23.25 - 23.50	Auto	0.0000
L55	30	CCI-SFP-060100	23.25 - 23.50	Auto	0.0000
L55	37	Aero MP3-05	23.25 - 23.50	Auto	0.0000
L55	47	Aero MP3-05	23.25 - 23.50	Auto	0.0000
L55	48	Aero MP3-05	23.25 - 23.50	Auto	0.0000
L55	49	Aero MP3-05	23.25 - 23.50	Auto	0.0000
L56	28	CCI-SFP-065125	18.91 - 23.25	Auto	0.0000
L56	29	CCI-SFP-060100	21.50 - 23.25	Auto	0.0000
L56	30	CCI-SFP-060100	21.50 - 23.25	Auto	0.0000
L56	37	Aero MP3-05	18.91 - 23.25	Auto	0.0000
L56	45	Aero MP3-05	18.91 - 20.50	Auto	0.0000
L56	46	Aero MP3-05	18.91 - 20.50	Auto	0.0000

Tower Section	*Attachment Record No.*	*Description*	*Attachment Segment Elev.*	*Ratio Calculation Method*	*Effective Width Ratio*
L56	47	Aero MP3-05	18.91 - 23.25	Auto	0.0000
L56	48	Aero MP3-05	18.91 - 23.25	Auto	0.0000
L56	49	Aero MP3-05	18.91 - 23.25	Auto	0.0000
L57	28	CCI-SFP-065125	18.66 - 18.91	Auto	0.0000
L57	37	Aero MP3-05	18.66 - 18.91	Auto	0.0000
L57	45	Aero MP3-05	18.66 - 18.91	Auto	0.0000
L57	46	Aero MP3-05	18.66 - 18.91	Auto	0.0000
L57	47	Aero MP3-05	18.66 - 18.91	Auto	0.0000
L57	48	Aero MP3-05	18.66 - 18.91	Auto	0.0000
L57	49	Aero MP3-05	18.66 - 18.91	Auto	0.0000
L58	28	CCI-SFP-065125	18.08 - 18.66	Auto	0.0000
L58	37	Aero MP3-05	18.08 - 18.66	Auto	0.0000
L58	45	Aero MP3-05	18.08 - 18.66	Auto	0.0000
L58	46	Aero MP3-05	18.08 - 18.66	Auto	0.0000
L58	47	Aero MP3-05	18.08 - 18.66	Auto	0.0000
L58	48	Aero MP3-05	18.08 - 18.66	Auto	0.0000
L58	49	Aero MP3-05	18.08 - 18.66	Auto	0.0000
L59	28	CCI-SFP-065125	17.83 - 18.08	Auto	0.0000
L59	37	Aero MP3-05	17.83 - 18.08	Auto	0.0000
L59	45	Aero MP3-05	17.83 - 18.08	Auto	0.0000
L59	46	Aero MP3-05	17.83 - 18.08	Auto	0.0000
L59	47	Aero MP3-05	17.83 - 18.08	Auto	0.0000
L59	48	Aero MP3-05	17.83 - 18.08	Auto	0.0000
L59	49	Aero MP3-05	17.83 - 18.08	Auto	0.0000
L60	28	CCI-SFP-065125	12.83 - 17.83	Auto	0.0000
L60	37	Aero MP3-05	16.50 - 17.83	Auto	0.0000
L60	45	Aero MP3-05	12.83 - 17.83	Auto	0.0000
L60	46	Aero MP3-05	12.83 - 17.83	Auto	0.0000
L60	47	Aero MP3-05	12.83 - 17.83	Auto	0.0000
L60	48	Aero MP3-05	12.83 - 17.83	Auto	0.0000
L60	49	Aero MP3-05	12.83 - 17.83	Auto	0.0000
L61	28	CCI-SFP-065125	7.83 - 12.83	Auto	0.0000
L61	45	Aero MP3-05	7.83 - 12.83	Auto	0.0000
L61	46	Aero MP3-05	7.83 - 12.83	Auto	0.0000
L61	47	Aero MP3-05	7.83 - 12.83	Auto	0.0000
L61	48	Aero MP3-05	7.83 - 12.83	Auto	0.0000
L61	49	Aero MP3-05	11.67 - 12.83	Auto	0.0000
L62	28	CCI-SFP-065125	2.83 - 7.83	Auto	0.0000
L62	45	Aero MP3-05	2.83 - 7.83	Auto	0.0000
L62	46	Aero MP3-05	2.83 - 7.83	Auto	0.0000
L62	47	Aero MP3-05	2.83 - 7.83	Auto	0.0000
L62	48	Aero MP3-05	2.83 - 7.83	Auto	0.0000
L63	28	CCI-SFP-065125	0.50 - 2.83	Auto	0.0000
L63	45	Aero MP3-05	0.50 - 2.83	Auto	0.0000
L63	46	Aero MP3-05	0.50 - 2.83	Auto	0.0000
L63	47	Aero MP3-05	0.50 - 2.83	Auto	0.0000
L63	48	Aero MP3-05	0.50 - 2.83	Auto	0.0000

Discrete Tower Loads

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft* *ft* *ft*	*Azimuth Adjustment* °	*Placement* *ft*
Top Hat (2' 8'' tall)	C	None		0.0000	140.00
Side Arm Mount [SO 701-3]	C	None		0.0000	131.00
Side Arm Mount [SO 701-3]	C	None		0.0000	78.00
Side Arm Mount [SO 701-3]	C	None		0.0000	15.00
******					
VV-65A-R1_TMO w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	141.00
VV-65A-R1_TMO w/ Mount Pipe	B	From Leg	4.00 0.00 1.00	0.0000	141.00
VV-65A-R1_TMO w/ Mount Pipe	C	From Leg	4.00 0.00 1.00	0.0000	141.00
AIR 6419 B41_TMO_CCIV2 w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	141.00
AIR 6419 B41_TMO_CCIV2 w/ Mount Pipe	B	From Leg	4.00 0.00 1.00	0.0000	141.00
AIR 6419 B41_TMO_CCIV2 w/ Mount Pipe	C	From Leg	4.00 0.00 1.00	0.0000	141.00
APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	141.00
APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	141.00
APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	141.00
RADIO 4460 B2/B25 B66_TMO	A	From Leg	4.00 0.00 3.00	0.0000	141.00
RADIO 4460 B2/B25 B66_TMO	B	From Leg	4.00 0.00 4.00	0.0000	141.00
RADIO 4460 B2/B25 B66_TMO	C	From Leg	4.00 0.00 4.00	0.0000	141.00
Radio 4480_TMOV2	A	From Leg	4.00 0.00 1.00	0.0000	141.00
Radio 4480_TMOV2	B	From Leg	4.00 0.00 1.00	0.0000	141.00
Radio 4480_TMOV2	C	From Leg	4.00 0.00 1.00	0.0000	141.00
Platform Mount [LP 1201-1_HR-1]	A	None		0.0000	141.00
Support Rail Kit [# HRK12]	C	None		0.0000	141.00
Reinforcement Kit [# PRK-SFS]	C	None		0.0000	141.00
6' x 2'' Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	141.00
6' x 2'' Mount Pipe	B	From Leg	4.00	0.0000	141.00

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral ft Vert ft ft*	*Azimuth Adjustment °*	*Placement ft*
			0.00 0.00		
6' x 2'' Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	141.00
******					
TME-800MHz 2X50W RRH W/FILTER w/ Mount Pipe	A	From Leg	1.00 0.00 3.00	0.0000	137.00
TME-800MHz 2X50W RRH W/FILTER w/ Mount Pipe	B	From Leg	1.00 0.00 3.00	0.0000	137.00
TME-800MHz 2X50W RRH W/FILTER w/ Mount Pipe	C	From Leg	1.00 0.00 3.00	0.0000	137.00
TME-PCS 1900MHz 4x45W-65MHz w/ Mount Pipe	A	From Leg	1.00 0.00 0.00	0.0000	137.00
TME-PCS 1900MHz 4x45W-65MHz w/ Mount Pipe	B	From Leg	1.00 0.00 0.00	0.0000	137.00
TME-PCS 1900MHz 4x45W-65MHz w/ Mount Pipe	C	From Leg	1.00 0.00 0.00	0.0000	137.00
Pipe Mount [PM 601-3]	A	None		0.0000	137.00
******					
RRUS 11	A	From Leg	2.00 0.00 1.00	0.0000	130.00
RRUS 11	B	From Leg	2.00 0.00 1.00	0.0000	130.00
RRUS 11	C	From Leg	2.00 0.00 1.00	0.0000	130.00
RRUS 32 B2	A	From Leg	2.00 0.00 -2.00	0.0000	130.00
RRUS 32 B2	B	From Leg	2.00 0.00 -2.00	0.0000	130.00
RRUS 32 B2	C	From Leg	2.00 0.00 -2.00	0.0000	130.00
Pipe Mount [PM 601-3]	A	None		0.0000	130.00
Side Arm Mount [SO 102-3]	A	None		0.0000	130.00
******					
DMP65R-BU8D w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	128.00
DMP65R-BU8D w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.0000	128.00
DMP65R-BU8D w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.0000	128.00
AIR 6419 B77G_CCIV3	A	From Leg	4.00 0.00	0.0000	128.00

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft* *ft* *ft*	*Azimuth Adjustment* °	*Placement* *ft*
AIR 6419 B77G_CCIV3	B	From Leg	4.00 4.00 0.00	0.0000	128.00
AIR 6419 B77G_CCIV3	C	From Leg	4.00 4.00 0.00	0.0000	128.00
AIR 6449 B77D_CCVI2	A	From Leg	4.00 4.00 0.00	0.0000	128.00
AIR 6449 B77D_CCVI2	B	From Leg	0.00 4.00 0.00	0.0000	128.00
AIR 6449 B77D_CCVI2	C	From Leg	0.00 4.00 0.00	0.0000	128.00
RRUS 4415 B25_CCIV2	A	From Leg	0.00 4.00 0.00	0.0000	128.00
RRUS 4415 B25_CCIV2	B	From Leg	2.00 4.00 0.00	0.0000	128.00
RRUS 4415 B25_CCIV2	C	From Leg	2.00 4.00 0.00	0.0000	128.00
RRUS 4449 B5/B12	A	From Leg	2.00 4.00 0.00	0.0000	128.00
RRUS 4449 B5/B12	B	From Leg	2.00 4.00 0.00	0.0000	128.00
RRUS 4449 B5/B12	C	From Leg	2.00 4.00 0.00	0.0000	128.00
RRUS 4478 B14_CCIV2	A	From Leg	2.00 4.00 0.00	0.0000	128.00
RRUS 4478 B14_CCIV2	B	From Leg	2.00 4.00 0.00	0.0000	128.00
RRUS 4478 B14_CCIV2	C	From Leg	2.00 4.00 0.00	0.0000	128.00
DC6-48-60-0-8C-EV	B	From Leg	2.00 2.00 0.00	0.0000	128.00
EPBQ-654L8H8-L2 w/ Mount Pipe	A	From Leg	2.00 4.00 0.00	0.0000	128.00
EPBQ-654L8H8-L2 w/ Mount Pipe	B	From Leg	2.00 4.00 0.00	0.0000	128.00
EPBQ-654L8H8-L2 w/ Mount Pipe	B	From Leg	2.00 4.00 0.00	0.0000	128.00
RRUS 32 B30	A	From Leg	2.00 4.00 0.00 2.00	0.0000	128.00

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft* *ft* *ft*	*Azimuth Adjustment* °	*Placement* *ft*
RRUS 32 B30	B	From Leg	4.00 0.00 2.00	0.0000	128.00
RRUS 32 B30	C	From Leg	4.00 0.00 2.00	0.0000	128.00
RRUS 4426 B66	A	From Leg	4.00 0.00 2.00	0.0000	128.00
RRUS 4426 B66	B	From Leg	4.00 0.00 2.00	0.0000	128.00
RRUS 4426 B66	C	From Leg	4.00 0.00 2.00	0.0000	128.00
DC6-48-60-18-8C	A	From Leg	2.00 0.00 2.00	0.0000	128.00
DC6-48-60-18-8C	B	From Leg	2.00 0.00 2.00	0.0000	128.00
DC6-48-60-18-8F	B	From Leg	2.00 0.00 0.00	0.0000	128.00
T-Arm Mount [TA 601-3]	A	None		0.0000	128.00
Support Kicker Kit [#PRK-SFS-L]	A	None		0.0000	128.00
(2) 7'X2'' Horizontal Pipe	A	From Leg	4.00 0.00 0.00	0.0000	128.00
(2) 7'X2'' Horizontal Pipe	B	From Leg	4.00 0.00 0.00	0.0000	128.00
(2) 7'X2'' Horizontal Pipe	C	From Leg	4.00 0.00 0.00	0.0000	128.00
8' x 2'' Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	128.00
8' x 2'' Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	128.00
8' x 2'' Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	128.00
(3) 4' x 2'' Pipe Mount	A	From Leg	2.00 0.00 0.00	0.0000	128.00
(3) 4' x 2'' Pipe Mount	B	From Leg	2.00 0.00 0.00	0.0000	128.00
(3) 4' x 2'' Pipe Mount	C	From Leg	2.00 0.00 0.00	0.0000	128.00
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MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.00 0.00 1.00	0.0000	117.00

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral ft Vert ft ft*	*Azimuth Adjustment °*	*Placement ft*
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.00 0.00 1.00	0.0000	117.00
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.00 0.00 1.00	0.0000	117.00
TA08025-B604	A	From Leg	4.00 0.00 1.00	0.0000	117.00
TA08025-B604	B	From Leg	4.00 0.00 1.00	0.0000	117.00
TA08025-B604	C	From Leg	4.00 0.00 1.00	0.0000	117.00
TA08025-B605	A	From Leg	4.00 0.00 1.00	0.0000	117.00
TA08025-B605	B	From Leg	4.00 0.00 1.00	0.0000	117.00
TA08025-B605	C	From Leg	4.00 0.00 1.00	0.0000	117.00
RDIDC-9181-PF-48	A	From Leg	2.00 0.00 1.00	0.0000	117.00
Sabre C10801018-32788	A	None		0.0000	117.00
(2) 8' x 2'' Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	117.00
(2) 8' x 2'' Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	117.00
(2) 8' x 2'' Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	117.00
4' x 3'' Pipe Mount	A	From Leg	2.00 0.00 0.00	0.0000	117.00
******					
MT6413-77A w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	108.00
MT6413-77A w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.0000	108.00
MT6413-77A w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.0000	108.00
XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	108.00
XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.0000	108.00
XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	C	From Leg	4.00 0.00	0.0000	108.00

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft* *ft* *ft*	*Azimuth Adjustment* °	*Placement* *ft*
RF4461D-13A	A	From Leg	2.00 4.00 0.00	0.0000	108.00
RF4461D-13A	B	From Leg	2.00 4.00 0.00	0.0000	108.00
RF4461D-13A	C	From Leg	2.00 4.00 0.00	0.0000	108.00
(2) SBNHH-1D65B w/ Mount Pipe	A	From Leg	2.00 4.00 0.00	0.0000	108.00
(2) SBNHH-1D65B w/ Mount Pipe	B	From Leg	2.00 4.00 0.00	0.0000	108.00
(2) SBNHH-1D65B w/ Mount Pipe	C	From Leg	2.00 4.00 0.00	0.0000	108.00
BXA-70063-4CF-EDIN-X w/ Mount Pipe	A	From Leg	2.00 4.00 0.00	0.0000	108.00
BXA-70063-4CF-EDIN-X w/ Mount Pipe	B	From Leg	2.00 4.00 0.00	0.0000	108.00
BXA-70063-4CF-EDIN-X w/ Mount Pipe	C	From Leg	2.00 4.00 0.00	0.0000	108.00
DB-T1-6Z-8AB-0Z	A	From Leg	2.00 4.00 0.00	0.0000	108.00
RFV01U-D1A	A	From Leg	2.00 4.00 0.00	0.0000	108.00
RFV01U-D1A	B	From Leg	2.00 4.00 0.00	0.0000	108.00
RFV01U-D1A	C	From Leg	2.00 4.00 0.00	0.0000	108.00
Platform Mount [LP 304-1_HR-1]	A	None	2.00	0.0000	108.00
Kicker Kit [#PRK-1245]	A	None		0.0000	108.00
Dual Antenna Mounting Kit	A	From Leg	4.00 0.00 0.00	0.0000	108.00
Dual Antenna Mounting Kit	B	From Leg	4.00 0.00 0.00	0.0000	108.00
Dual Antenna Mounting Kit	C	From Leg	4.00 0.00 0.00	0.0000	108.00
6' x 2'' Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	108.00
6' x 2'' Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	108.00

Description	*Face or Leg*	*Offset Type*	*Offsets: Horz Lateral Vert* *ft* *ft* *ft*	*Azimuth Adjustment* °	*Placement* *ft*
6' x 2'' Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	108.00
***					
(2) ERICSSON AIR 21 B2A B4P_T-MOBILE w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	98.00
(2) ERICSSON AIR 21 B2A B4P_T-MOBILE w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	98.00
(2) ERICSSON AIR 21 B2A B4P_T-MOBILE w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	98.00
APXVAARR24_43-U-NA20_T-MOBILE w/ Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	98.00
APXVAARR24_43-U-NA20_T-MOBILE w/ Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	98.00
APXVAARR24_43-U-NA20_T-MOBILE w/ Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	98.00
KRY 112 144/1	A	From Leg	4.00 0.00 1.00	0.0000	98.00
KRY 112 144/1	B	From Leg	4.00 0.00 1.00	0.0000	98.00
KRY 112 144/1	C	From Leg	4.00 0.00 1.00	0.0000	98.00
Platform Mount [LP 303-1_HR-1]	A	None		0.0000	98.00
***					
KS24019-L112A	B	From Leg	3.00 0.00 2.00	0.0000	49.00
Side Arm Mount [SO 701-1]	B	From Leg	1.50 0.00 0.00	0.0000	49.00
******					

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

Comb. No.	*Description*
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	*Elevation ft*	*Component Type*	*Condition*	*Gov. Load Comb.*	*Axial K*	*Major Axis Moment kip-ft*	*Minor Axis Moment kip-ft*
L1	140 - 135	Pole	Max Tension	26	0.00	0.00	0.00
			Max. Compression	26	-13.75	-0.08	-0.04
			Max. Mx	8	-6.26	-34.51	0.20
			Max. My	14	-6.27	-0.03	-34.32
			Max. Vy	8	6.12	-34.51	0.20
			Max. Vx	2	-6.11	-0.03	34.30
			Max. Torque	21			1.87
L2	135 - 130	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-14.62	-0.18	-0.07
			Max. Mx	8	-6.76	-65.94	0.15
			Max. My	14	-6.76	-0.06	-65.74
			Max. Vy	8	6.55	-65.94	0.15

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	2	-6.54	-0.06	65.71
			Max. Torque	21			1.85
L3	130 - 125	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-26.38	-5.21	-0.22
			Max. Mx	8	-11.34	-126.13	0.46
			Max. My	14	-11.34	-1.20	-124.56
			Max. Vy	8	12.72	-126.13	0.46
			Max. Vx	2	-12.72	-1.20	124.44
			Max. Torque	12			6.95
L4	125 - 120	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-26.98	-5.35	-0.26
			Max. Mx	8	-11.74	-190.41	0.39
			Max. My	14	-11.74	-1.24	-188.83
			Max. Vy	8	13.00	-190.41	0.39
			Max. Vx	2	-13.00	-1.24	188.69
			Max. Torque	12			6.95
L5	120 - 115	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-33.13	-5.49	0.14
			Max. Mx	8	-14.89	-261.40	0.53
			Max. My	2	-14.89	-1.28	259.90
			Max. Vy	8	15.55	-261.40	0.53
			Max. Vx	2	-15.57	-1.28	259.90
			Max. Torque	12			7.64
L6	115 - 110	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-33.82	-5.62	0.06
			Max. Mx	8	-15.39	-339.69	0.46
			Max. My	2	-15.38	-1.32	338.27
			Max. Vy	8	15.79	-339.69	0.46
			Max. Vx	2	-15.81	-1.32	338.27
			Max. Torque	12			7.64
L7	110 - 105	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-43.35	-5.76	0.81
			Max. Mx	8	-19.75	-432.82	0.65
			Max. My	2	-19.74	-1.35	432.11
			Max. Vy	8	19.48	-432.82	0.65
			Max. Vx	2	-19.58	-1.35	432.11
			Max. Torque	24			-8.54
L8	105 - 102	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-43.86	-5.82	0.78
			Max. Mx	8	-20.12	-491.39	0.61
			Max. My	2	-20.11	-1.37	490.97
			Max. Vy	8	19.60	-491.39	0.61
			Max. Vx	2	-19.70	-1.37	490.97
			Max. Torque	24			-8.53
L9	102 - 101.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-43.91	-5.83	0.77
			Max. Mx	8	-20.18	-496.29	0.61
			Max. My	2	-20.17	-1.38	495.89
			Max. Vy	8	19.60	-496.29	0.61
			Max. Vx	2	-19.70	-1.38	495.89
			Max. Torque	24			-8.53
L10	101.75 - 96.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-52.02	-5.92	0.74
			Max. Mx	8	-24.05	-597.81	0.63
			Max. My	2	-24.04	-1.40	597.85
			Max. Vy	8	22.14	-597.81	0.63
			Max. Vx	14	22.22	-1.40	-597.39
			Max. Torque	24			-9.44
L11	96.75 - 91.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-52.43	-5.97	0.71
			Max. Mx	8	-24.32	-636.59	0.60
			Max. My	2	-24.31	-1.42	636.77

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	8	22.23	-636.59	0.60
			Max. Vx	14	22.32	-1.42	-636.33
			Max. Torque	24			-9.44
L12	91.75 - 90.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-54.10	-6.09	0.63
			Max. Mx	8	-25.51	-731.66	0.54
			Max. My	2	-25.50	-1.44	732.18
			Max. Vy	8	22.52	-731.66	0.54
			Max. Vx	14	22.61	-1.44	-731.79
			Max. Torque	24			-9.43
L13	90.75 - 85.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-55.44	-6.27	0.50
			Max. Mx	8	-26.54	-844.73	0.48
			Max. My	2	-26.53	-1.47	845.66
			Max. Vy	8	22.74	-844.73	0.48
			Max. Vx	14	22.83	-1.47	-845.32
			Max. Torque	24			-9.43
L14	85.75 - 85.33	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-55.56	-6.28	0.48
			Max. Mx	8	-26.63	-854.28	0.48
			Max. My	2	-26.63	-1.47	855.24
			Max. Vy	8	22.76	-854.28	0.48
			Max. Vx	14	22.84	-1.47	-854.91
			Max. Torque	24			-9.42
L15	85.33 - 85.08	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-55.64	-6.30	0.48
			Max. Mx	8	-26.70	-859.97	0.47
			Max. My	2	-26.69	-1.47	860.95
			Max. Vy	8	22.77	-859.97	0.47
			Max. Vx	14	22.85	-1.47	-860.62
			Max. Torque	24			-9.42
L16	85.08 - 82.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.54	-6.38	0.40
			Max. Mx	8	-27.29	-918.94	0.44
			Max. My	2	-27.28	-1.48	920.07
			Max. Vy	8	22.97	-918.94	0.44
			Max. Vx	14	23.02	-1.48	-919.77
			Max. Torque	24			-9.42
L17	82.5 - 82.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.63	-6.39	0.39
			Max. Mx	8	-27.36	-924.68	0.44
			Max. My	2	-27.36	-1.49	925.82
			Max. Vy	8	22.97	-924.68	0.44
			Max. Vx	14	23.02	-1.49	-925.52
			Max. Torque	24			-9.42
L18	82.25 - 82	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.73	-6.40	0.38
			Max. Mx	8	-27.43	-930.42	0.44
			Max. My	2	-27.43	-1.49	931.57
			Max. Vy	8	22.99	-930.42	0.44
			Max. Vx	14	23.03	-1.49	-931.28
			Max. Torque	24			-9.42
L19	82 - 81.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.81	-6.41	0.38
			Max. Mx	8	-27.48	-936.17	0.44
			Max. My	2	-27.48	-1.49	937.32
			Max. Vy	8	23.00	-936.17	0.44
			Max. Vx	14	23.04	-1.49	-937.04
			Max. Torque	24			-9.42
L20	81.75 - 78.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-57.75	-6.50	0.29
			Max. Mx	8	-28.09	-1003.56	0.40

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	2	-28.09	-1.50	1004.74
			Max. Vy	8	23.19	-1003.56	0.40
			Max. Vx	14	23.19	-1.50	-1004.49
			Max. Torque	24			-9.41
L21	78.83 - 78.58	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-57.85	-6.51	0.29
			Max. Mx	8	-28.18	-1009.35	0.40
			Max. My	2	-28.18	-1.50	1010.53
			Max. Vy	8	23.18	-1009.35	0.40
			Max. Vx	14	23.18	-1.50	-1010.28
			Max. Torque	24			-9.41
L22	78.58 - 77.66	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-58.55	-6.53	0.27
			Max. Mx	8	-28.64	-1030.75	0.39
			Max. My	2	-28.64	-1.51	1031.90
			Max. Vy	8	23.38	-1030.75	0.39
			Max. Vx	14	23.35	-1.51	-1031.67
			Max. Torque	24			-9.41
L23	77.66 - 77.41	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-58.65	-6.53	0.26
			Max. Mx	8	-28.71	-1036.59	0.39
			Max. My	2	-28.71	-1.51	1037.74
			Max. Vy	8	23.39	-1036.59	0.39
			Max. Vx	14	23.36	-1.51	-1037.51
			Max. Torque	24			-9.41
L24	77.41 - 77.167	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-58.74	-6.54	0.25
			Max. Mx	8	-28.77	-1042.28	0.39
			Max. My	2	-28.77	-1.51	1043.41
			Max. Vy	8	23.41	-1042.28	0.39
			Max. Vx	14	23.37	-1.51	-1043.19
			Max. Torque	24			-9.41
L25	77.167 - 72.167	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-60.55	-6.60	0.18
			Max. Mx	8	-30.03	-1160.14	0.33
			Max. My	2	-30.04	-1.53	1160.94
			Max. Vy	8	23.76	-1160.14	0.33
			Max. Vx	14	23.67	-1.53	-1160.77
			Max. Torque	24			-9.41
L26	72.167 - 67.167	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.38	-6.64	0.11
			Max. Mx	8	-31.33	-1279.58	0.28
			Max. My	2	-31.34	-1.55	1279.86
			Max. Vy	8	24.05	-1279.58	0.28
			Max. Vx	14	23.95	-1.55	-1279.77
			Max. Torque	24			-9.40
L27	67.167 - 66.58	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.60	-6.65	0.11
			Max. Mx	8	-31.50	-1293.70	0.27
			Max. My	2	-31.50	-1.55	1293.92
			Max. Vy	8	24.08	-1293.70	0.27
			Max. Vx	14	23.97	-1.55	-1293.83
			Max. Torque	24			-9.39
L28	66.58 - 66.33	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.69	-6.65	0.10
			Max. Mx	8	-31.57	-1299.72	0.27
			Max. My	2	-31.58	-1.55	1299.91
			Max. Vy	8	24.09	-1299.72	0.27
			Max. Vx	14	23.98	-1.55	-1299.82
			Max. Torque	24			-9.39

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L29	66.33 - 66.16	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.76	-6.65	0.10
			Max. Mx	8	-31.62	-1303.81	0.27
			Max. My	2	-31.63	-1.55	1303.98
			Max. Vy	8	24.10	-1303.81	0.27
			Max. Vx	14	24.00	-1.55	-1303.90
			Max. Torque	24			-9.39
L30	66.16 - 65.91	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.85	-6.65	0.09
			Max. Mx	8	-31.68	-1309.84	0.27
			Max. My	2	-31.69	-1.55	1309.98
			Max. Vy	8	24.11	-1309.84	0.27
			Max. Vx	14	24.01	-1.55	-1309.90
			Max. Torque	24			-9.39
L31	65.91 - 62.66	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-63.97	-6.66	0.05
			Max. Mx	8	-32.49	-1388.46	0.23
			Max. My	2	-32.50	-1.56	1388.24
			Max. Vy	8	24.30	-1388.46	0.23
			Max. Vx	14	24.19	-1.56	-1388.21
			Max. Torque	24			-9.39
L32	62.66 - 62.41	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-64.05	-6.67	0.05
			Max. Mx	8	-32.56	-1394.54	0.23
			Max. My	2	-32.57	-1.56	1394.28
			Max. Vy	8	24.30	-1394.54	0.23
			Max. Vx	14	24.19	-1.56	-1394.26
			Max. Torque	24			-9.39
L33	62.41 - 60	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-64.85	-6.66	0.02
			Max. Mx	8	-33.13	-1453.22	0.21
			Max. My	14	-33.14	-1.57	-1452.71
			Max. Vy	8	24.44	-1453.22	0.21
			Max. Vx	14	24.33	-1.57	-1452.71
			Max. Torque	24			-9.39
L34	60 - 59.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-64.93	-6.67	0.01
			Max. Mx	8	-33.21	-1459.33	0.20
			Max. My	14	-33.21	-1.57	-1458.79
			Max. Vy	8	24.43	-1459.33	0.20
			Max. Vx	14	24.33	-1.57	-1458.79
			Max. Torque	24			-9.39
L35	59.75 - 54.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-66.59	-6.66	-0.07
			Max. Mx	8	-34.43	-1582.07	0.16
			Max. My	14	-34.44	-1.58	-1581.04
			Max. Vy	8	24.69	-1582.07	0.16
			Max. Vx	14	24.59	-1.58	-1581.04
			Max. Torque	24			-9.39
L36	54.75 - 52.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-67.24	-6.65	-0.10
			Max. Mx	8	-34.90	-1629.53	0.14
			Max. My	14	-34.90	-1.58	-1628.31
			Max. Vy	8	24.80	-1629.53	0.14
			Max. Vx	14	24.70	-1.58	-1628.31
			Max. Torque	24			-9.38
L37	52.83 - 52.58	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-67.35	-6.66	-0.11
			Max. Mx	8	-35.00	-1635.72	0.14
			Max. My	14	-35.01	-1.58	-1634.48
			Max. Vy	8	24.78	-1635.72	0.14
			Max. Vx	14	24.68	-1.58	-1634.48

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Torque	24			-9.38
L38	52.58 - 51.41	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-67.89	-6.66	-0.13
			Max. Mx	8	-35.39	-1664.76	0.12
			Max. My	14	-35.40	-1.58	-1663.40
			Max. Vy	8	24.87	-1664.76	0.12
			Max. Vx	14	24.76	-1.58	-1663.40
			Max. Torque	24			-9.38
L39	51.41 - 51.16	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-67.99	-6.66	-0.13
			Max. Mx	8	-35.47	-1670.97	0.12
			Max. My	14	-35.48	-1.59	-1669.59
			Max. Vy	8	24.87	-1670.97	0.12
			Max. Vx	14	24.77	-1.59	-1669.59
			Max. Torque	24			-9.38
L40	51.16 - 46.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-68.05	-6.66	-0.13
			Max. Mx	8	-35.51	-1674.95	0.12
			Max. My	14	-35.52	-1.59	-1673.55
			Max. Vy	8	24.88	-1674.95	0.12
			Max. Vx	14	24.78	-1.59	-1673.55
			Max. Torque	24			-9.38
L41	46.5 - 45.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-71.60	-7.02	-0.44
			Max. Mx	8	-38.11	-1813.27	-0.06
			Max. My	14	-38.12	-1.82	-1811.27
			Max. Vy	8	25.32	-1813.27	-0.06
			Max. Vx	14	25.23	-1.82	-1811.27
			Max. Torque	24			-9.42
L42	45.5 - 44.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-72.12	-7.02	-0.48
			Max. Mx	8	-38.46	-1844.93	-0.07
			Max. My	14	-38.47	-1.82	-1842.83
			Max. Vy	8	25.39	-1844.93	-0.07
			Max. Vx	14	25.29	-1.82	-1842.83
			Max. Torque	24			-9.42
L43	44.25 - 44	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-72.24	-7.03	-0.49
			Max. Mx	8	-38.57	-1851.28	-0.07
			Max. My	14	-38.57	-1.82	-1849.15
			Max. Vy	8	25.38	-1851.28	-0.07
			Max. Vx	14	25.29	-1.82	-1849.15
			Max. Torque	24			-9.42
L44	44 - 43.08	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-72.69	-7.03	-0.52
			Max. Mx	8	-38.88	-1874.64	-0.08
			Max. My	14	-38.89	-1.82	-1872.43
			Max. Vy	8	25.44	-1874.64	-0.08
			Max. Vx	14	25.34	-1.82	-1872.43
			Max. Torque	24			-9.42
L45	43.08 - 42.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-72.81	-7.04	-0.53
			Max. Mx	8	-38.97	-1881.00	-0.08
			Max. My	14	-38.98	-1.82	-1878.77
			Max. Vy	8	25.44	-1881.00	-0.08
			Max. Vx	14	25.35	-1.82	-1878.77
			Max. Torque	24			-9.42
L46	42.83 - 37.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-75.06	-7.06	-0.68
			Max. Mx	8	-40.62	-2008.83	-0.13
			Max. My	14	-40.63	-1.83	-2006.16
			Max. Vy	8	25.71	-2008.83	-0.13

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	14	25.62	-1.83	-2006.16
			Max. Torque	24			-9.42
L47	37.83 - 32.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-77.26	-7.05	-0.84
			Max. Mx	8	-42.30	-2137.91	-0.17
			Max. My	14	-42.31	-1.84	-2134.81
			Max. Vy	8	25.96	-2137.91	-0.17
			Max. Vx	14	25.86	-1.84	-2134.81
			Max. Torque	24			-9.42
L48	32.83 - 29.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-78.86	-7.06	-0.97
			Max. Mx	8	-43.53	-2231.07	-0.21
			Max. My	14	-43.53	-1.84	-2227.66
			Max. Vy	8	26.12	-2231.07	-0.21
			Max. Vx	14	26.03	-1.84	-2227.66
			Max. Torque	24			-9.41
L49	29.25 - 29	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-78.97	-7.07	-0.98
			Max. Mx	8	-43.62	-2237.59	-0.21
			Max. My	14	-43.63	-1.85	-2234.16
			Max. Vy	8	26.12	-2237.59	-0.21
			Max. Vx	14	26.03	-1.85	-2234.16
			Max. Torque	24			-9.41
L50	29 - 27.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-79.55	-7.08	-1.04
			Max. Mx	8	-44.04	-2270.27	-0.22
			Max. My	14	-44.05	-1.85	-2266.73
			Max. Vy	8	26.19	-2270.27	-0.22
			Max. Vx	14	26.10	-1.85	-2266.73
			Max. Torque	24			-9.41
L51	27.75 - 27.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-79.66	-7.09	-1.05
			Max. Mx	8	-44.14	-2276.81	-0.22
			Max. My	14	-44.14	-1.85	-2273.25
			Max. Vy	8	26.19	-2276.81	-0.22
			Max. Vx	14	26.09	-1.85	-2273.25
			Max. Torque	24			-9.41
L52	27.5 - 24.08	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-81.25	-7.11	-1.25
			Max. Mx	8	-45.32	-2366.62	-0.25
			Max. My	14	-45.32	-1.85	-2362.77
			Max. Vy	8	26.36	-2366.62	-0.25
			Max. Vx	14	26.26	-1.85	-2362.77
			Max. Torque	24			-9.41
L53	24.08 - 23.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-81.37	-7.12	-1.27
			Max. Mx	8	-45.42	-2373.20	-0.25
			Max. My	14	-45.42	-1.85	-2369.33
			Max. Vy	8	26.35	-2373.20	-0.25
			Max. Vx	14	26.26	-1.85	-2369.33
			Max. Torque	24			-9.41
L54	23.83 - 23.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-81.54	-7.12	-1.29
			Max. Mx	8	-45.54	-2381.90	-0.26
			Max. My	14	-45.55	-1.85	-2378.00
			Max. Vy	8	26.37	-2381.90	-0.26
			Max. Vx	14	26.28	-1.85	-2378.00
			Max. Torque	24			-9.41
L55	23.5 - 23.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-81.65	-7.12	-1.31
			Max. Mx	8	-45.63	-2388.49	-0.26
			Max. My	14	-45.63	-1.85	-2384.57

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	8	26.38	-2388.49	-0.26
			Max. Vx	14	26.29	-1.85	-2384.57
			Max. Torque	24			-9.41
L56	23.25 - 18.91	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-83.61	-7.19	-1.59
			Max. Mx	8	-47.11	-2503.23	-0.29
			Max. My	14	-47.12	-1.86	-2498.93
			Max. Vy	8	26.53	-2503.23	-0.29
			Max. Vx	14	26.44	-1.86	-2498.93
			Max. Torque	24			-9.41
L57	18.91 - 18.66	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-83.72	-7.20	-1.61
			Max. Mx	8	-47.20	-2509.85	-0.29
			Max. My	14	-47.21	-1.86	-2505.54
			Max. Vy	8	26.51	-2509.85	-0.29
			Max. Vx	14	26.42	-1.86	-2505.54
			Max. Torque	24			-9.41
L58	18.66 - 18.08	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-83.96	-7.22	-1.65
			Max. Mx	8	-47.38	-2525.23	-0.30
			Max. My	14	-47.38	-1.86	-2520.87
			Max. Vy	8	26.54	-2525.23	-0.30
			Max. Vx	14	26.45	-1.86	-2520.87
			Max. Torque	24			-9.41
L59	18.08 - 17.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-84.08	-7.23	-1.67
			Max. Mx	8	-47.48	-2531.87	-0.30
			Max. My	14	-47.48	-1.86	-2527.48
			Max. Vy	8	26.55	-2531.87	-0.30
			Max. Vx	14	26.45	-1.86	-2527.48
			Max. Torque	24			-9.41
L60	17.83 - 12.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-86.79	-7.43	-1.98
			Max. Mx	8	-49.53	-2665.30	-0.34
			Max. My	14	-49.53	-1.86	-2660.49
			Max. Vy	8	26.86	-2665.30	-0.34
			Max. Vx	14	26.77	-1.86	-2660.49
			Max. Torque	24			-9.41
L61	12.83 - 7.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-89.10	-7.60	-2.18
			Max. Mx	8	-51.36	-2800.06	-0.37
			Max. My	14	-51.37	-1.86	-2794.81
			Max. Vy	8	27.08	-2800.06	-0.37
			Max. Vx	14	26.99	-1.86	-2794.81
			Max. Torque	24			-9.41
L62	7.83 - 2.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-91.24	-7.73	-2.28
			Max. Mx	8	-53.13	-2935.93	-0.37
			Max. My	14	-53.13	-1.86	-2930.22
			Max. Vy	8	27.30	-2935.93	-0.37
			Max. Vx	14	27.21	-1.86	-2930.22
			Max. Torque	24			-9.41
L63	2.83 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-92.42	-7.78	-2.32
			Max. Mx	8	-54.13	-3013.32	-0.37
			Max. My	14	-54.13	-1.86	-3007.35
			Max. Vy	8	27.44	-3013.32	-0.37
			Max. Vx	14	27.35	-1.86	-3007.35
			Max. Torque	24			-9.41

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	31	92.42	-6.31	-3.64
	Max. H_x	21	40.61	27.41	-0.00
	Max. H_z	2	54.15	-0.00	27.32
	Max. M_x	2	3006.25	-0.00	27.32
	Max. M_z	8	3013.32	-27.41	0.00
	Max. Torsion	12	9.40	-13.74	-23.79
	Min. Vert	25	40.61	13.74	23.79
	Min. H_x	9	40.61	-27.41	-0.00
	Min. H_z	14	54.15	-0.00	-27.32
	Min. M_x	14	-3007.35	-0.00	-27.32
	Min. M_z	20	-3009.50	27.41	0.00
	Min. Torsion	24	-9.41	13.74	23.79

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	45.12	0.00	0.00	0.45	-1.47	-0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	54.15	0.00	-27.32	-3006.25	-1.86	2.49
0.9 Dead+1.0 Wind 0 deg - No Ice	40.61	0.00	-27.32	-2948.54	-1.34	2.44
1.2 Dead+1.0 Wind 30 deg - No Ice	54.15	13.56	-23.48	-2578.12	-1490.90	-5.10
0.9 Dead+1.0 Wind 30 deg - No Ice	40.61	13.56	-23.48	-2528.71	-1461.70	-5.14
1.2 Dead+1.0 Wind 60 deg - No Ice	54.15	23.60	-13.63	-1490.75	-2584.89	0.81
0.9 Dead+1.0 Wind 60 deg - No Ice	40.61	23.60	-13.63	-1462.26	-2534.79	0.80
1.2 Dead+1.0 Wind 90 deg - No Ice	54.15	27.41	0.00	0.36	-3013.32	6.50
0.9 Dead+1.0 Wind 90 deg - No Ice	40.61	27.41	0.00	0.28	-2954.93	6.52
1.2 Dead+1.0 Wind 120 deg - No Ice	54.15	23.77	13.72	1513.07	-2621.59	-1.68
0.9 Dead+1.0 Wind 120 deg - No Ice	40.61	23.77	13.72	1483.79	-2570.61	-1.64
1.2 Dead+1.0 Wind 150 deg - No Ice	54.15	13.74	23.79	2624.46	-1516.53	-9.40
0.9 Dead+1.0 Wind 150 deg - No Ice	40.61	13.74	23.79	2573.75	-1486.89	-9.37
1.2 Dead+1.0 Wind 180 deg - No Ice	54.15	0.00	27.32	3007.35	-1.86	-2.49
0.9 Dead+1.0 Wind 180 deg - No Ice	40.61	0.00	27.32	2949.36	-1.34	-2.44
1.2 Dead+1.0 Wind 210 deg - No Ice	54.15	-13.56	23.48	2579.39	1486.80	5.10
0.9 Dead+1.0 Wind 210 deg - No Ice	40.61	-13.56	23.48	2529.65	1458.74	5.14
1.2 Dead+1.0 Wind 240 deg - No Ice	54.15	-23.60	13.63	1491.83	2581.09	-0.81
0.9 Dead+1.0 Wind 240 deg -	40.61	-23.60	13.63	1463.07	2532.04	-0.80

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
No Ice						
1.2 Dead+1.0 Wind 270 deg - No Ice	54.15	-27.41	0.00	0.36	3009.50	-6.50
0.9 Dead+1.0 Wind 270 deg - No Ice	40.61	-27.41	0.00	0.28	2952.18	-6.52
1.2 Dead+1.0 Wind 300 deg - No Ice	54.15	-23.77	-13.72	-1511.90	2617.81	1.68
0.9 Dead+1.0 Wind 300 deg - No Ice	40.61	-23.77	-13.72	-1482.92	2567.88	1.64
1.2 Dead+1.0 Wind 330 deg - No Ice	54.15	-13.74	-23.79	-2623.10	1513.15	9.41
0.9 Dead+1.0 Wind 330 deg - No Ice	40.61	-13.74	-23.79	-2572.75	1484.44	9.37
1.2 Dead+1.0 Ice+1.0 Temp	92.42	0.00	0.00	2.32	-7.78	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	92.42	0.00	-7.27	-877.09	-7.92	0.80
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	92.42	3.61	-6.26	-754.06	-444.67	-0.80
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	92.42	6.25	-3.61	-433.67	-763.14	0.28
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	92.42	7.24	-0.00	2.33	-884.57	1.28
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	92.42	6.31	3.64	443.68	-772.31	-0.52
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	92.42	3.65	6.32	767.97	-449.91	-2.18
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	92.42	0.00	7.27	881.79	-7.92	-0.80
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	92.42	-3.61	6.26	758.79	428.77	0.80
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	92.42	-6.25	3.61	438.37	747.29	-0.28
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	92.42	-7.24	-0.00	2.33	868.72	-1.28
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	92.42	-6.31	-3.64	-438.96	756.46	0.52
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	92.42	-3.65	-6.32	-763.23	434.12	2.18
Dead+Wind 0 deg - Service	45.12	0.00	-6.77	-737.15	-1.57	0.63
Dead+Wind 30 deg - Service	45.12	3.36	-5.82	-632.13	-366.80	-1.28
Dead+Wind 60 deg - Service	45.12	5.85	-3.38	-365.37	-635.21	0.21
Dead+Wind 90 deg - Service	45.12	6.80	0.00	0.45	-740.32	1.65
Dead+Wind 120 deg - Service	45.12	5.89	3.40	371.51	-644.23	-0.42
Dead+Wind 150 deg - Service	45.12	3.41	5.90	644.14	-373.18	-2.38
Dead+Wind 180 deg - Service	45.12	0.00	6.77	738.07	-1.57	-0.63
Dead+Wind 210 deg - Service	45.12	-3.36	5.82	633.06	363.65	1.28
Dead+Wind 240 deg - Service	45.12	-5.85	3.38	366.29	632.07	-0.21
Dead+Wind 270 deg - Service	45.12	-6.80	0.00	0.45	737.19	-1.65
Dead+Wind 300 deg - Service	45.12	-5.89	-3.40	-370.58	641.10	0.42
Dead+Wind 330 deg - Service	45.12	-3.41	-5.90	-643.20	370.07	2.38

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.00	-45.12	0.00	-0.00	45.12	0.00	0.000%
2	0.00	-54.15	-27.32	-0.00	54.15	27.32	0.000%
3	0.00	-40.61	-27.32	0.00	40.61	27.32	0.000%
4	13.56	-54.15	-23.48	-13.56	54.15	23.48	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
5	13.56	-40.61	-23.48	-13.56	40.61	23.48	0.000%
6	23.60	-54.15	-13.63	-23.60	54.15	13.63	0.000%
7	23.60	-40.61	-13.63	-23.60	40.61	13.63	0.000%
8	27.41	-54.15	0.00	-27.41	54.15	0.00	0.000%
9	27.41	-40.61	0.00	-27.41	40.61	-0.00	0.000%
10	23.77	-54.15	13.72	-23.77	54.15	-13.72	0.000%
11	23.77	-40.61	13.72	-23.77	40.61	-13.72	0.000%
12	13.74	-54.15	23.79	-13.74	54.15	-23.79	0.000%
13	13.74	-40.61	23.79	-13.74	40.61	-23.79	0.000%
14	0.00	-54.15	27.32	-0.00	54.15	-27.32	0.000%
15	0.00	-40.61	27.32	0.00	40.61	-27.32	0.000%
16	-13.56	-54.15	23.48	13.56	54.15	-23.48	0.000%
17	-13.56	-40.61	23.48	13.56	40.61	-23.48	0.000%
18	-23.60	-54.15	13.63	23.60	54.15	-13.63	0.000%
19	-23.60	-40.61	13.63	23.60	40.61	-13.63	0.000%
20	-27.41	-54.15	0.00	27.41	54.15	0.00	0.000%
21	-27.41	-40.61	0.00	27.41	40.61	-0.00	0.000%
22	-23.77	-54.15	-13.72	23.77	54.15	13.72	0.000%
23	-23.77	-40.61	-13.72	23.77	40.61	13.72	0.000%
24	-13.74	-54.15	-23.79	13.74	54.15	23.79	0.000%
25	-13.74	-40.61	-23.79	13.74	40.61	23.79	0.000%
26	0.00	-92.42	0.00	-0.00	92.42	-0.00	0.000%
27	0.00	-92.42	-7.27	-0.00	92.42	7.27	0.000%
28	3.61	-92.42	-6.26	-3.61	92.42	6.26	0.000%
29	6.25	-92.42	-3.61	-6.25	92.42	3.61	0.000%
30	7.24	-92.42	0.00	-7.24	92.42	0.00	0.000%
31	6.31	-92.42	3.64	-6.31	92.42	-3.64	0.000%
32	3.65	-92.42	6.32	-3.65	92.42	-6.32	0.000%
33	0.00	-92.42	7.27	-0.00	92.42	-7.27	0.000%
34	-3.61	-92.42	6.26	3.61	92.42	-6.26	0.000%
35	-6.25	-92.42	3.61	6.25	92.42	-3.61	0.000%
36	-7.24	-92.42	0.00	7.24	92.42	0.00	0.000%
37	-6.31	-92.42	-3.64	6.31	92.42	3.64	0.000%
38	-3.65	-92.42	-6.32	3.65	92.42	6.32	0.000%
39	0.00	-45.12	-6.77	-0.00	45.12	6.77	0.000%
40	3.36	-45.12	-5.82	-3.36	45.12	5.82	0.000%
41	5.85	-45.12	-3.38	-5.85	45.12	3.38	0.000%
42	6.80	-45.12	0.00	-6.80	45.12	0.00	0.000%
43	5.89	-45.12	3.40	-5.89	45.12	-3.40	0.000%
44	3.41	-45.12	5.90	-3.41	45.12	-5.90	0.000%
45	0.00	-45.12	6.77	-0.00	45.12	-6.77	0.000%
46	-3.36	-45.12	5.82	3.36	45.12	-5.82	0.000%
47	-5.85	-45.12	3.38	5.85	45.12	-3.38	0.000%
48	-6.80	-45.12	0.00	6.80	45.12	0.00	0.000%
49	-5.89	-45.12	-3.40	5.89	45.12	3.40	0.000%
50	-3.41	-45.12	-5.90	3.41	45.12	5.90	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00001275
2	Yes	6	0.00000001	0.00094316
3	Yes	6	0.00000001	0.00033191
4	Yes	8	0.00000001	0.00010303
5	Yes	7	0.00000001	0.00027349
6	Yes	8	0.00000001	0.00011007
7	Yes	7	0.00000001	0.00029370

8	Yes	7	0.00000001	0.00022470
9	Yes	6	0.00000001	0.00087206
10	Yes	8	0.00000001	0.00011140
11	Yes	7	0.00000001	0.00029617
12	Yes	8	0.00000001	0.00013676
13	Yes	7	0.00000001	0.00036879
14	Yes	6	0.00000001	0.00094307
15	Yes	6	0.00000001	0.00033187
16	Yes	8	0.00000001	0.00012252
17	Yes	7	0.00000001	0.00033018
18	Yes	8	0.00000001	0.00011269
19	Yes	7	0.00000001	0.00030140
20	Yes	7	0.00000001	0.00022431
21	Yes	6	0.00000001	0.00087086
22	Yes	8	0.00000001	0.00011752
23	Yes	7	0.00000001	0.00031375
24	Yes	8	0.00000001	0.00010114
25	Yes	7	0.00000001	0.00026775
26	Yes	5	0.00000001	0.00091363
27	Yes	8	0.00000001	0.00038956
28	Yes	8	0.00000001	0.00051420
29	Yes	8	0.00000001	0.00051472
30	Yes	8	0.00000001	0.00039795
31	Yes	8	0.00000001	0.00052437
32	Yes	8	0.00000001	0.00055039
33	Yes	8	0.00000001	0.00038962
34	Yes	8	0.00000001	0.00050507
35	Yes	8	0.00000001	0.00049956
36	Yes	8	0.00000001	0.00038299
37	Yes	8	0.00000001	0.00051119
38	Yes	8	0.00000001	0.00050270
39	Yes	5	0.00000001	0.00071001
40	Yes	6	0.00000001	0.00019170
41	Yes	6	0.00000001	0.00020461
42	Yes	6	0.00000001	0.00013359
43	Yes	6	0.00000001	0.00020906
44	Yes	6	0.00000001	0.00034874
45	Yes	5	0.00000001	0.00071009
46	Yes	6	0.00000001	0.00026816
47	Yes	6	0.00000001	0.00021489
48	Yes	6	0.00000001	0.00013226
49	Yes	6	0.00000001	0.00023431
50	Yes	6	0.00000001	0.00021714

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	140 - 135	28.419	43	2.0158	0.0376
L2	135 - 130	26.315	43	2.0007	0.0357
L3	130 - 125	24.237	43	1.9683	0.0341
L4	125 - 120	22.202	44	1.9162	0.0306
L5	120 - 115	20.237	44	1.8406	0.0264
L6	115 - 110	18.358	44	1.7489	0.0227
L7	110 - 105	16.583	44	1.6432	0.0192
L8	105 - 102	14.924	44	1.5259	0.0160
L9	102 - 101.75	13.989	44	1.4499	0.0142
L10	101.75 - 96.75	13.913	44	1.4457	0.0142
L11	96.75 - 91.75	12.446	44	1.3553	0.0123
L12	95 - 90.75	11.956	44	1.3225	0.0116

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L13	90.75 - 85.75	10.799	44	1.2677	0.0107
L14	85.75 - 85.33	9.529	44	1.1569	0.0090
L15	85.33 - 85.08	9.428	44	1.1475	0.0088
L16	85.08 - 82.5	9.368	44	1.1439	0.0088
L17	82.5 - 82.25	8.760	44	1.1062	0.0083
L18	82.25 - 82	8.702	44	1.1013	0.0082
L19	82 - 81.75	8.645	44	1.0964	0.0081
L20	81.75 - 78.83	8.588	44	1.0907	0.0081
L21	78.83 - 78.58	7.941	44	1.0245	0.0072
L22	78.58 - 77.66	7.887	44	1.0211	0.0072
L23	77.66 - 77.41	7.692	44	1.0087	0.0070
L24	77.41 - 77.167	7.639	44	1.0049	0.0070
L25	77.167 - 72.167	7.588	44	1.0013	0.0069
L26	72.167 - 67.167	6.580	44	0.9245	0.0061
L27	67.167 - 66.58	5.653	44	0.8462	0.0053
L28	66.58 - 66.33	5.549	44	0.8372	0.0052
L29	66.33 - 66.16	5.506	44	0.8339	0.0052
L30	66.16 - 65.91	5.476	44	0.8316	0.0052
L31	65.91 - 62.66	5.432	44	0.8278	0.0051
L32	62.66 - 62.41	4.887	44	0.7763	0.0047
L33	62.41 - 60	4.846	44	0.7723	0.0046
L34	60 - 59.75	4.466	44	0.7340	0.0043
L35	59.75 - 54.75	4.428	44	0.7300	0.0043
L36	54.75 - 52.83	3.705	44	0.6505	0.0036
L37	52.83 - 52.58	3.449	44	0.6208	0.0034
L38	52.58 - 51.41	3.417	44	0.6179	0.0034
L39	51.41 - 51.16	3.267	44	0.6045	0.0033
L40	51.16 - 46.5	3.236	44	0.6007	0.0032
L41	51 - 45.5	3.215	44	0.5982	0.0032
L42	45.5 - 44.25	2.551	44	0.5496	0.0029
L43	44.25 - 44	2.409	44	0.5314	0.0028
L44	44 - 43.08	2.382	44	0.5282	0.0027
L45	43.08 - 42.83	2.281	44	0.5164	0.0027
L46	42.83 - 37.83	2.254	44	0.5134	0.0026
L47	37.83 - 32.83	1.748	44	0.4531	0.0023
L48	32.83 - 29.25	1.305	44	0.3931	0.0019
L49	29.25 - 29	1.026	44	0.3503	0.0017
L50	29 - 27.75	1.008	44	0.3473	0.0017
L51	27.75 - 27.5	0.919	44	0.3327	0.0016
L52	27.5 - 24.08	0.902	44	0.3298	0.0016
L53	24.08 - 23.83	0.680	44	0.2900	0.0013
L54	23.83 - 23.5	0.665	44	0.2873	0.0013
L55	23.5 - 23.25	0.645	44	0.2838	0.0013
L56	23.25 - 18.91	0.630	44	0.2798	0.0013
L57	18.91 - 18.66	0.408	44	0.2099	0.0009
L58	18.66 - 18.08	0.397	44	0.2065	0.0009
L59	18.08 - 17.83	0.372	44	0.1987	0.0009
L60	17.83 - 12.83	0.362	44	0.1959	0.0009
L61	12.83 - 7.83	0.186	44	0.1396	0.0006
L62	7.83 - 2.83	0.069	44	0.0847	0.0004
L63	2.83 - 0	0.009	44	0.0302	0.0001

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
141.00	VV-65A-R1_TMO w/ Mount Pipe	43	28.419	2.0158	0.0376	11877
140.00	Top Hat (2' 8'' tall)	43	28.419	2.0158	0.0376	11877

Elevation ft	*Appurtenance*	*Gov. Load Comb.*	*Deflection* in	*Tilt* °	*Twist* °	*Radius of Curvature* ft
137.00	TME-800MHz 2X50W RRH W/FILTER w/ Mount Pipe	43	27.155	2.0081	0.0364	11877
131.00	Side Arm Mount [SO 701-3]	43	24.649	1.9763	0.0345	7704
130.00	RRUS 11	43	24.237	1.9683	0.0341	7013
128.00	DMP65R-BU8D w/ Mount Pipe	43	23.416	1.9501	0.0329	5745
117.00	MX08FRO665-21 w/ Mount Pipe	44	19.098	1.7874	0.0241	3079
108.00	MT6413-77A w/ Mount Pipe	44	15.905	1.5995	0.0180	2466
98.00	(2) ERICSSON AIR 21 B2A B4P_T-MOBILE w/ Mount Pipe	44	12.804	1.3794	0.0128	3260
78.00	Side Arm Mount [SO 701-3]	44	7.764	1.0135	0.0071	3296
49.00	KS24019-L112A	44	2.967	0.5776	0.0031	5942
15.00	Side Arm Mount [SO 701-3]	44	0.255	0.1643	0.0007	4995

Maximum Tower Deflections - Design Wind

Section No.	*Elevation* ft	*Horz. Deflection* in	*Gov. Load Comb.*	*Tilt* °	*Twist* °
L1	140 - 135	115.634	12	8.2138	0.1495
L2	135 - 130	107.108	12	8.1521	0.1418
L3	130 - 125	98.685	12	8.0192	0.1355
L4	125 - 120	90.433	12	7.8102	0.1216
L5	120 - 115	82.448	12	7.5071	0.1048
L6	115 - 110	74.811	12	7.1373	0.0899
L7	110 - 105	67.587	12	6.7090	0.0763
L8	105 - 102	60.832	12	6.2323	0.0636
L9	102 - 101.75	57.025	12	5.9230	0.0564
L10	101.75 - 96.75	56.716	12	5.9057	0.0561
L11	96.75 - 91.75	50.741	12	5.5365	0.0487
L12	95 - 90.75	48.741	12	5.4022	0.0461
L13	90.75 - 85.75	44.027	12	5.1782	0.0423
L14	85.75 - 85.33	38.852	12	4.7249	0.0355
L15	85.33 - 85.08	38.439	12	4.6866	0.0349
L16	85.08 - 82.5	38.194	12	4.6717	0.0347
L17	82.5 - 82.25	35.716	12	4.5175	0.0327
L18	82.25 - 82	35.481	12	4.4975	0.0324
L19	82 - 81.75	35.246	12	4.4774	0.0322
L20	81.75 - 78.83	35.013	12	4.4543	0.0319
L21	78.83 - 78.58	32.376	12	4.1833	0.0286
L22	78.58 - 77.66	32.157	12	4.1694	0.0284
L23	77.66 - 77.41	31.360	12	4.1188	0.0278
L24	77.41 - 77.167	31.145	12	4.1034	0.0276
L25	77.167 - 72.167	30.937	12	4.0885	0.0275
L26	72.167 - 67.167	26.826	12	3.7742	0.0241
L27	67.167 - 66.58	23.045	12	3.4543	0.0210
L28	66.58 - 66.33	22.623	12	3.4172	0.0206
L29	66.33 - 66.16	22.445	12	3.4037	0.0205
L30	66.16 - 65.91	22.324	12	3.3946	0.0204
L31	65.91 - 62.66	22.147	12	3.3787	0.0203
L32	62.66 - 62.41	19.921	12	3.1682	0.0184
L33	62.41 - 60	19.756	12	3.1521	0.0183
L34	60 - 59.75	18.206	12	2.9954	0.0170
L35	59.75 - 54.75	18.049	12	2.9790	0.0169
L36	54.75 - 52.83	15.102	12	2.6539	0.0143
L37	52.83 - 52.58	14.060	12	2.5327	0.0134
L38	52.58 - 51.41	13.928	12	2.5209	0.0134
L39	51.41 - 51.16	13.317	12	2.4662	0.0130
L40	51.16 - 46.5	13.189	12	2.4505	0.0129

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L41	51 - 45.5	13.107	12	2.4404	0.0128
L42	45.5 - 44.25	10.397	12	2.2416	0.0114
L43	44.25 - 44	9.820	12	2.1675	0.0109
L44	44 - 43.08	9.707	12	2.1543	0.0109
L45	43.08 - 42.83	9.296	12	2.1061	0.0106
L46	42.83 - 37.83	9.187	12	2.0937	0.0105
L47	37.83 - 32.83	7.124	12	1.8476	0.0090
L48	32.83 - 29.25	5.318	12	1.6028	0.0076
L49	29.25 - 29	4.183	12	1.4281	0.0066
L50	29 - 27.75	4.108	12	1.4160	0.0065
L51	27.75 - 27.5	3.745	12	1.3564	0.0062
L52	27.5 - 24.08	3.674	12	1.3445	0.0062
L53	24.08 - 23.83	2.770	12	1.1818	0.0053
L54	23.83 - 23.5	2.708	12	1.1711	0.0053
L55	23.5 - 23.25	2.628	12	1.1569	0.0052
L56	23.25 - 18.91	2.568	12	1.1403	0.0051
L57	18.91 - 18.66	1.661	12	0.8553	0.0037
L58	18.66 - 18.08	1.617	12	0.8415	0.0037
L59	18.08 - 17.83	1.517	12	0.8097	0.0035
L60	17.83 - 12.83	1.475	12	0.7983	0.0035
L61	12.83 - 7.83	0.759	12	0.5688	0.0024
L62	7.83 - 2.83	0.281	12	0.3452	0.0014
L63	2.83 - 0	0.036	12	0.1231	0.0005

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
141.00	VV-65A-R1_TMO w/ Mount Pipe	12	115.634	8.2138	0.1495	3003
140.00	Top Hat (2' 8'' tall)	12	115.634	8.2138	0.1495	3003
137.00	TME-800MHz 2X50W RRH W/FILTER w/ Mount Pipe	12	110.511	8.1826	0.1445	3003
131.00	Side Arm Mount [SO 701-3]	12	100.358	8.0517	0.1371	1952
130.00	RRUS 11	12	98.685	8.0192	0.1355	1783
128.00	DMP65R-BU8D w/ Mount Pipe	12	95.358	7.9459	0.1308	1476
117.00	MX08FRO665-21 w/ Mount Pipe	12	77.819	7.2931	0.0956	788
108.00	MT6413-77A w/ Mount Pipe	12	64.826	6.5315	0.0712	624
98.00	(2) ERICSSON AIR 21 B2A B4P_T-MOBILE w/ Mount Pipe	12	52.197	5.6348	0.0506	817
78.00	Side Arm Mount [SO 701-3]	12	31.654	4.1383	0.0280	816
49.00	KS24019-L112A	12	12.095	2.3562	0.0122	1460
15.00	Side Arm Mount [SO 701-3]	12	1.040	0.6693	0.0029	1226

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	140 - 135 (1)	TP17.0249x16x0.25	5.00	0.00	0.0	13.5038	-6.26	729.20	0.009

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
L2	135 - 130 (2)	TP18.0497x17.0249x0.25	5.00	0.00	0.0	14.3288	-6.76	773.75	0.009
L3	130 - 125 (3)	TP19.0746x18.0497x0.25	5.00	0.00	0.0	15.1538	-11.30	818.31	0.014
L4	125 - 120 (4)	TP20.0995x19.0746x0.25	5.00	0.00	0.0	15.9788	-11.70	862.86	0.014
L5	120 - 115 (5)	TP21.1244x20.0995x0.25	5.00	0.00	0.0	16.8039	-14.85	907.41	0.016
L6	115 - 110 (6)	TP22.1492x21.1244x0.25	5.00	0.00	0.0	17.6289	-15.34	951.96	0.016
L7	110 - 105 (7)	TP23.1741x22.1492x0.25	5.00	0.00	0.0	18.4539	-19.70	996.51	0.020
L8	105 - 102 (8)	TP23.789x23.1741x0.25	3.00	0.00	0.0	18.9489	-20.08	1023.24	0.020
L9	102 - 101.75 (9)	TP23.8403x23.789x0.3875	0.25	0.00	0.0	29.2632	-20.13	1580.21	0.013
L10	101.75 - 96.75 (10)	TP24.8651x23.8403x0.375	5.00	0.00	0.0	29.5718	-24.00	1596.88	0.015
L11	96.75 - 91.75 (11)	TP25.89x24.8651x0.375	5.00	0.00	0.0	30.0050	-24.28	1620.27	0.015
L12	91.75 - 90.75 (12)	TP25.5952x24.7238x0.3563	4.25	0.00	0.0	28.9522	-25.47	1693.70	0.015
L13	90.75 - 85.75 (13)	TP26.6203x25.5952x0.3563	5.00	0.00	0.0	30.1281	-26.50	1762.50	0.015
L14	85.75 - 85.33 (14)	TP26.7064x26.6203x0.3563	0.42	0.00	0.0	30.2269	-26.60	1768.27	0.015
L15	85.33 - 85.08 (15)	TP26.7577x26.7064x0.5625	0.25	0.00	0.0	47.4460	-26.66	2775.59	0.010
L16	85.08 - 82.5 (16)	TP27.2866x26.7577x0.5625	2.58	0.00	0.0	48.4041	-27.25	2831.64	0.010
L17	82.5 - 82.25 (17)	TP27.3379x27.2866x0.4125	0.25	0.00	0.0	35.7636	-27.33	2092.17	0.013
L18	82.25 - 82 (18)	TP27.3891x27.3379x0.4125	0.25	0.00	0.0	35.8317	-27.40	2096.15	0.013
L19	82 - 81.75 (19)	TP27.4404x27.3891x0.3563	0.25	0.00	0.0	31.0689	-27.45	1817.53	0.015
L20	81.75 - 78.83 (20)	TP28.039x27.4404x0.3563	2.92	0.00	0.0	31.7556	-28.06	1857.70	0.015
L21	78.83 - 78.58 (21)	TP28.0903x28.039x0.6125	0.25	0.00	0.0	54.1931	-28.15	3170.30	0.009
L22	78.58 - 77.66 (22)	TP28.2789x28.0903x0.6125	0.92	0.00	0.0	54.5651	-28.61	3192.06	0.009
L23	77.66 - 77.41 (23)	TP28.3302x28.2789x0.55	0.25	0.00	0.0	49.1987	-28.68	2878.12	0.010
L24	77.41 - 77.167 (24)	TP28.38x28.3302x0.55	0.24	0.00	0.0	49.2869	-28.74	2883.29	0.010
L25	77.167 - 72.167 (25)	TP29.4055x28.38x0.5375	5.00	0.00	0.0	49.9633	-30.01	2922.86	0.010
L26	72.167 - 67.167 (26)	TP30.4311x29.4055x0.525	5.00	0.00	0.0	50.5562	-31.32	2957.54	0.011
L27	67.167 - 66.58 (27)	TP30.5515x30.4311x0.525	0.59	0.00	0.0	50.7597	-31.48	2969.44	0.011
L28	66.58 - 66.33 (28)	TP30.6027x30.5515x0.625	0.25	0.00	0.0	60.3302	-31.56	3529.32	0.009
L29	66.33 - 66.16 (29)	TP30.6376x30.6027x0.625	0.17	0.00	0.0	60.4004	-31.61	3533.42	0.009
L30	66.16 - 65.91 (30)	TP30.6889x30.6376x0.525	0.25	0.00	0.0	50.9920	-31.67	2983.03	0.011
L31	65.91 - 62.66 (31)	TP31.3555x30.6889x0.5125	3.25	0.00	0.0	50.8986	-32.47	2977.57	0.011
L32	62.66 - 62.41 (32)	TP31.4068x31.3555x0.5125	0.25	0.00	0.0	50.9832	-32.55	2982.52	0.011
L33	62.41 - 60 (33)	TP31.9011x31.4068x0.5063	2.41	0.00	0.0	51.1775	-33.12	2993.88	0.011
L34	60 - 59.75 (34)	TP31.9523x31.9011x0.5	0.25	0.00	0.0	50.6383	-33.19	2962.34	0.011
L35	59.75 - 54.75 (35)	TP32.9779x31.9523x0.5	5.00	0.00	0.0	52.2894	-34.42	3058.93	0.011
L36	54.75 - 52.83 (36)	TP33.3717x32.9779x0.5	1.92	0.00	0.0	52.9234	-34.89	3096.02	0.011
L37	52.83 - 52.58 (37)	TP33.423x33.3717x0.6875	0.25	0.00	0.0	72.4681	-34.99	4239.38	0.008
L38	52.58 - 51.41	TP33.6629x33.423x0.6875	1.17	0.00	0.0	72.9994	-35.38	4270.46	0.008

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
	(38)								
L39	51.41 - 51.16 (39)	TP33.7142x33.6629x0.5063	0.25	0.00	0.0	54.1331	-35.46	3166.79	0.011
L40	51.16 - 46.5 (40)	TP34.67x33.7142x0.5063	4.66	0.00	0.0	54.1866	-35.50	3169.92	0.011
L41	46.5 - 45.5 (41)	TP34.2498x33.122x0.55	5.50	0.00	0.0	59.6824	-38.10	3491.42	0.011
L42	45.5 - 44.25 (42)	TP34.5062x34.2498x0.55	1.25	0.00	0.0	60.1364	-38.46	3517.98	0.011
L43	44.25 - 44 (43)	TP34.5574x34.5062x0.625	0.25	0.00	0.0	68.2890	-38.56	3994.91	0.010
L44	44 - 43.08 (44)	TP34.7461x34.5574x0.625	0.92	0.00	0.0	68.6687	-38.87	4017.12	0.010
L45	43.08 - 42.83 (45)	TP34.7973x34.7461x0.6625	0.25	0.00	0.0	72.8182	-38.97	4259.86	0.009
L46	42.83 - 37.83 (46)	TP35.8226x34.7973x0.6625	5.00	0.00	0.0	75.0054	-40.61	4387.81	0.009
L47	37.83 - 32.83 (47)	TP36.8479x35.8226x0.65	5.00	0.00	0.0	75.7623	-42.30	4432.09	0.010
L48	32.83 - 29.25 (48)	TP37.582x36.8479x0.6375	3.58	0.00	0.0	75.8379	-43.52	4436.52	0.010
L49	29.25 - 29 (49)	TP37.6333x37.582x0.6375	0.25	0.00	0.0	75.9431	-43.62	4442.67	0.010
L50	29 - 27.75 (50)	TP37.8896x37.6333x0.6375	1.25	0.00	0.0	76.4693	-44.04	4473.45	0.010
L51	27.75 - 27.5 (51)	TP37.9409x37.8896x0.6375	0.25	0.00	0.0	76.5745	-44.14	4479.61	0.010
L52	27.5 - 24.08 (52)	TP38.6422x37.9409x0.6375	3.42	0.00	0.0	78.0141	-45.31	4563.83	0.010
L53	24.08 - 23.83 (53)	TP38.6935x38.6422x0.7	0.25	0.00	0.0	85.6373	-45.42	5009.78	0.009
L54	23.83 - 23.5 (54)	TP38.7611x38.6935x0.7	0.33	0.00	0.0	85.7898	-45.54	5018.70	0.009
L55	23.5 - 23.25 (55)	TP38.8124x38.7611x0.4438	0.25	0.00	0.0	54.8240	-45.62	3207.20	0.014
L56	23.25 - 18.91 (56)	TP39.7023x38.8124x0.4438	4.34	0.00	0.0	56.0956	-47.11	3281.59	0.014
L57	18.91 - 18.66 (57)	TP39.7536x39.7023x0.525	0.25	0.00	0.0	66.3160	-47.20	3879.48	0.012
L58	18.66 - 18.08 (58)	TP39.8725x39.7536x0.525	0.58	0.00	0.0	66.3160	-47.21	3879.48	0.012
L59	18.08 - 17.83 (59)	TP39.9238x39.8725x0.6375	0.25	0.00	0.0	80.5397	-47.39	4711.57	0.010
L60	17.83 - 12.83 (60)	TP40.9491x39.9238x0.625	5.00	0.00	0.0	79.0889	-47.49	4626.70	0.010
L61	12.83 - 7.83 (61)	TP41.9744x40.9491x0.625	5.00	0.00	0.0	81.1523	-49.55	4747.41	0.010
L62	7.83 - 2.83 (62)	TP42.9997x41.9744x0.6125	5.00	0.00	0.0	81.5760	-51.38	4772.20	0.011
L63	2.83 - 0 (63)	TP43.58x42.9997x0.6125	2.83	0.00	0.0	83.5981	-53.15	4890.49	0.011

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	140 - 135 (1)	TP17.0249x16x0.25	34.51	311.84	0.111	0.00	311.84	0.000
L2	135 - 130 (2)	TP18.0497x17.0249x0.25	65.94	351.40	0.188	0.00	351.40	0.000
L3	130 - 125 (3)	TP19.0746x18.0497x0.25	126.41	393.33	0.321	0.00	393.33	0.000
L4	125 - 120 (4)	TP20.0995x19.0746x0.25	191.69	437.62	0.438	0.00	437.62	0.000
L5	120 - 115 (5)	TP21.1244x20.0995x0.25	263.62	484.27	0.544	0.00	484.27	0.000
L6	115 - 110 (6)	TP22.1492x21.1244x0.25	343.03	528.98	0.648	0.00	528.98	0.000
L7	110 - 105 (7)	TP23.1741x22.1492x0.25	437.39	571.73	0.765	0.00	571.73	0.000
L8	105 - 102 (8)	TP23.789x23.1741x0.25	496.82	597.78	0.831	0.00	597.78	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L9	102 - 101.75 (9)	TP23.8403x23.789x0.3875	501.79	943.27	0.532	0.00	943.27	0.000
L10	101.75 - 96.75 (10)	TP24.8651x23.8403x0.375	604.72	996.58	0.607	0.00	996.58	0.000
L11	96.75 - 91.75 (11)	TP25.89x24.8651x0.375	643.99	1026.20	0.628	0.00	1026.20	0.000
L12	91.75 - 90.75 (12)	TP25.5952x24.7238x0.3563	740.22	1090.60	0.679	0.00	1090.60	0.000
L13	90.75 - 85.75 (13)	TP26.6203x25.5952x0.3563	854.67	1181.63	0.723	0.00	1181.63	0.000
L14	85.75 - 85.33 (14)	TP26.7064x26.6203x0.3563	864.33	1189.45	0.727	0.00	1189.45	0.000
L15	85.33 - 85.08 (15)	TP26.7577x26.7064x0.5625	870.09	1841.60	0.472	0.00	1841.60	0.000
L16	85.08 - 82.5 (16)	TP27.2866x26.7577x0.5625	929.71	1917.52	0.485	0.00	1917.52	0.000
L17	82.5 - 82.25 (17)	TP27.3379x27.2866x0.4125	935.51	1435.49	0.652	0.00	1435.49	0.000
L18	82.25 - 82 (18)	TP27.3891x27.3379x0.4125	941.31	1441.01	0.653	0.00	1441.01	0.000
L19	82 - 81.75 (19)	TP27.4404x27.3891x0.3563	947.12	1257.09	0.753	0.00	1257.09	0.000
L20	81.75 - 78.83 (20)	TP28.039x27.4404x0.3563	1015.10	1313.65	0.773	0.00	1313.65	0.000
L21	78.83 - 78.58 (21)	TP28.0903x28.039x0.6125	1020.93	2204.72	0.463	0.00	2204.72	0.000
L22	78.58 - 77.66 (22)	TP28.2789x28.0903x0.6125	1042.48	2235.43	0.466	0.00	2235.43	0.000
L23	77.66 - 77.41 (23)	TP28.3302x28.2789x0.55	1048.37	2028.50	0.517	0.00	2028.50	0.000
L24	77.41 - 77.167 (24)	TP28.38x28.3302x0.55	1054.09	2035.86	0.518	0.00	2035.86	0.000
L25	77.167 - 72.167 (25)	TP29.4055x28.38x0.5375	1172.58	2143.18	0.547	0.00	2143.18	0.000
L26	72.167 - 67.167 (26)	TP30.4311x29.4055x0.525	1292.47	2248.93	0.575	0.00	2248.93	0.000
L27	67.167 - 66.58 (27)	TP30.5515x30.4311x0.525	1306.63	2267.23	0.576	0.00	2267.23	0.000
L28	66.58 - 66.33 (28)	TP30.6027x30.5515x0.625	1312.67	2681.47	0.490	0.00	2681.47	0.000
L29	66.33 - 66.16 (29)	TP30.6376x30.6027x0.625	1316.78	2687.78	0.490	0.00	2687.78	0.000
L30	66.16 - 65.91 (30)	TP30.6889x30.6376x0.525	1322.83	2288.22	0.578	0.00	2288.22	0.000
L31	65.91 - 62.66 (31)	TP31.3555x30.6889x0.5125	1401.72	2337.26	0.600	0.00	2337.26	0.000
L32	62.66 - 62.41 (32)	TP31.4068x31.3555x0.5125	1407.81	2345.10	0.600	0.00	2345.10	0.000
L33	62.41 - 60 (33)	TP31.9011x31.4068x0.5063	1466.68	2393.27	0.613	0.00	2393.27	0.000
L34	60 - 59.75 (34)	TP31.9523x31.9011x0.5	1472.81	2372.93	0.621	0.00	2372.93	0.000
L35	59.75 - 54.75 (35)	TP32.9779x31.9523x0.5	1595.94	2531.44	0.630	0.00	2531.44	0.000
L36	54.75 - 52.83 (36)	TP33.3717x32.9779x0.5	1643.55	2593.67	0.634	0.00	2593.67	0.000
L37	52.83 - 52.58 (37)	TP33.423x33.3717x0.6875	1649.76	3516.74	0.469	0.00	3516.74	0.000
L38	52.58 - 51.41 (38)	TP33.6629x33.423x0.6875	1678.88	3569.03	0.470	0.00	3569.03	0.000
L39	51.41 - 51.16 (39)	TP33.7142x33.6629x0.5063	1685.12	2680.01	0.629	0.00	2680.01	0.000
L40	51.16 - 46.5 (40)	TP34.67x33.7142x0.5063	1689.11	2685.34	0.629	0.00	2685.34	0.000
L41	46.5 - 45.5 (41)	TP34.2498x33.122x0.55	1827.85	2995.33	0.610	0.00	2995.33	0.000
L42	45.5 - 44.25	TP34.5062x34.2498x0.55	1859.61	3041.44	0.611	0.00	3041.44	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	(42)							
L43	44.25 - 44 (43)	TP34.5574x34.5062x0.625	1865.97	3443.82	0.542	0.00	3443.82	0.000
L44	44 - 43.08 (44)	TP34.7461x34.5574x0.625	1889.41	3482.57	0.543	0.00	3482.57	0.000
L45	43.08 - 42.83 (45)	TP34.7973x34.7461x0.6625	1895.78	3690.55	0.514	0.00	3690.55	0.000
L46	42.83 - 37.83 (46)	TP35.8226x34.7973x0.6625	2023.98	3917.76	0.517	0.00	3917.76	0.000
L47	37.83 - 32.83 (47)	TP36.8479x35.8226x0.65	2153.44	4077.64	0.528	0.00	4077.64	0.000
L48	32.83 - 29.25 (48)	TP37.582x36.8479x0.6375	2246.86	4168.77	0.539	0.00	4168.77	0.000
L49	29.25 - 29 (49)	TP37.6333x37.582x0.6375	2253.41	4180.44	0.539	0.00	4180.44	0.000
L50	29 - 27.75 (50)	TP37.8896x37.6333x0.6375	2286.18	4239.07	0.539	0.00	4239.07	0.000
L51	27.75 - 27.5 (51)	TP37.9409x37.8896x0.6375	2292.74	4250.84	0.539	0.00	4250.84	0.000
L52	27.5 - 24.08 (52)	TP38.6422x37.9409x0.6375	2382.79	4413.54	0.540	0.00	4413.54	0.000
L53	24.08 - 23.83 (53)	TP38.6935x38.6422x0.7	2389.40	4835.53	0.494	0.00	4835.53	0.000
L54	23.83 - 23.5 (54)	TP38.7611x38.6935x0.7	2398.12	4852.93	0.494	0.00	4852.93	0.000
L55	23.5 - 23.25 (55)	TP38.8124x38.7611x0.4438	2404.72	3097.88	0.776	0.00	3097.88	0.000
L56	23.25 - 18.91 (56)	TP39.7023x38.8124x0.4438	2519.78	3220.50	0.782	0.00	3220.50	0.000
L57	18.91 - 18.66 (57)	TP39.7536x39.7023x0.525	2526.42	3885.52	0.650	0.00	3885.52	0.000
L58	18.66 - 18.08 (58)	TP39.8725x39.7536x0.525	2526.42	3885.52	0.650	0.00	3885.52	0.000
L59	18.08 - 17.83 (59)	TP39.9238x39.8725x0.6375	2541.84	4706.37	0.540	0.00	4706.37	0.000
L60	17.83 - 12.83 (60)	TP40.9491x39.9238x0.625	2548.49	4630.67	0.550	0.00	4630.67	0.000
L61	12.83 - 7.83 (61)	TP41.9744x40.9491x0.625	2682.28	4877.38	0.550	0.00	4877.38	0.000
L62	7.83 - 2.83 (62)	TP42.9997x41.9744x0.6125	2817.38	5032.46	0.560	0.00	5032.46	0.000
L63	2.83 - 0 (63)	TP43.58x42.9997x0.6125	2953.55	5286.91	0.559	0.00	5286.91	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	140 - 135 (1)	TP17.0249x16x0.25	6.12	218.76	0.028	1.85	322.80	0.006
L2	135 - 130 (2)	TP18.0497x17.0249x0.25	6.55	232.13	0.028	1.85	363.44	0.005
L3	130 - 125 (3)	TP19.0746x18.0497x0.25	12.92	245.49	0.053	6.95	406.50	0.017
L4	125 - 120 (4)	TP20.0995x19.0746x0.25	13.20	258.86	0.051	6.95	451.97	0.015
L5	120 - 115 (5)	TP21.1244x20.0995x0.25	15.77	272.22	0.058	7.64	499.85	0.015
L6	115 - 110 (6)	TP22.1492x21.1244x0.25	16.01	285.59	0.056	7.63	550.13	0.014
L7	110 - 105 (7)	TP23.1741x22.1492x0.25	19.76	298.95	0.066	8.54	602.83	0.014
L8	105 - 102 (8)	TP23.789x23.1741x0.25	19.88	306.97	0.065	8.53	635.61	0.013
L9	102 - 101.75 (9)	TP23.8403x23.789x0.3875	19.88	474.06	0.042	8.53	977.98	0.009
L10	101.75 - 96.75 (10)	TP24.8651x23.8403x0.375	22.41	479.06	0.047	9.44	1032.01	0.009
L11	96.75 - 91.75 (11)	TP25.89x24.8651x0.375	22.50	486.08	0.046	9.44	1062.47	0.009
L12	91.75 - 90.75	TP25.5952x24.7238x0.3563	22.80	508.11	0.045	9.43	1128.05	0.008

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
	(12)							
L13	90.75 - 85.75 (13)	TP26.6203x25.5952x0.3563	23.01	528.75	0.044	9.42	1221.55	0.008
L14	85.75 - 85.33 (14)	TP26.7064x26.6203x0.3563	23.02	530.48	0.043	9.42	1229.58	0.008
L15	85.33 - 85.08 (15)	TP26.7577x26.7064x0.5625	23.03	832.68	0.028	9.42	1918.66	0.005
L16	85.08 - 82.5 (16)	TP27.2866x26.7577x0.5625	23.20	849.49	0.027	9.42	1996.92	0.005
L17	82.5 - 82.25 (17)	TP27.3379x27.2866x0.4125	23.20	627.65	0.037	9.42	1486.55	0.006
L18	82.25 - 82 (18)	TP27.3891x27.3379x0.4125	23.21	628.85	0.037	9.42	1492.22	0.006
L19	82 - 81.75 (19)	TP27.4404x27.3891x0.3563	23.22	545.26	0.043	9.42	1299.03	0.007
L20	81.75 - 78.83 (20)	TP28.039x27.4404x0.3563	23.37	557.31	0.042	9.41	1357.08	0.007
L21	78.83 - 78.58 (21)	TP28.0903x28.039x0.6125	23.36	951.09	0.025	9.41	2298.81	0.004
L22	78.58 - 77.66 (22)	TP28.2789x28.0903x0.6125	23.53	957.62	0.025	9.41	2330.47	0.004
L23	77.66 - 77.41 (23)	TP28.3302x28.2789x0.55	23.54	863.44	0.027	9.41	2109.92	0.004
L24	77.41 - 77.167 (24)	TP28.38x28.3302x0.55	23.55	864.99	0.027	9.41	2117.49	0.004
L25	77.167 - 72.167 (25)	TP29.4055x28.38x0.5375	23.85	876.86	0.027	9.40	2226.62	0.004
L26	72.167 - 67.167 (26)	TP30.4311x29.4055x0.525	24.13	887.26	0.027	9.40	2334.05	0.004
L27	67.167 - 66.58 (27)	TP30.5515x30.4311x0.525	24.15	890.83	0.027	9.39	2352.88	0.004
L28	66.58 - 66.33 (28)	TP30.6027x30.5515x0.625	24.16	1058.80	0.023	9.39	2791.97	0.003
L29	66.33 - 66.16 (29)	TP30.6376x30.6027x0.625	24.17	1060.03	0.023	9.39	2798.47	0.003
L30	66.16 - 65.91 (30)	TP30.6889x30.6376x0.525	24.19	894.91	0.027	9.39	2374.47	0.004
L31	65.91 - 62.66 (31)	TP31.3555x30.6889x0.5125	24.37	893.27	0.027	9.39	2423.48	0.004
L32	62.66 - 62.41 (32)	TP31.4068x31.3555x0.5125	24.37	894.76	0.027	9.39	2431.54	0.004
L33	62.41 - 60 (33)	TP31.9011x31.4068x0.5063	24.51	898.16	0.027	9.39	2480.35	0.004
L34	60 - 59.75 (34)	TP31.9523x31.9011x0.5	24.50	888.70	0.028	9.39	2458.72	0.004
L35	59.75 - 54.75 (35)	TP32.9779x31.9523x0.5	24.76	917.68	0.027	9.38	2621.67	0.004
L36	54.75 - 52.83 (36)	TP33.3717x32.9779x0.5	24.87	928.81	0.027	9.38	2685.63	0.003
L37	52.83 - 52.58 (37)	TP33.423x33.3717x0.6875	24.86	1271.82	0.020	9.38	3662.20	0.003
L38	52.58 - 51.41 (38)	TP33.6629x33.423x0.6875	24.94	1281.14	0.019	9.38	3716.09	0.003
L39	51.41 - 51.16 (39)	TP33.7142x33.6629x0.5063	24.94	950.04	0.026	9.38	2775.12	0.003
L40	51.16 - 46.5 (40)	TP34.67x33.7142x0.5063	24.95	950.98	0.026	9.38	2780.61	0.003
L41	46.5 - 45.5 (41)	TP34.2498x33.122x0.55	25.39	1047.43	0.024	9.42	3104.93	0.003
L42	45.5 - 44.25 (42)	TP34.5062x34.2498x0.55	25.46	1055.39	0.024	9.42	3152.34	0.003
L43	44.25 - 44 (43)	TP34.5574x34.5062x0.625	25.45	1198.47	0.021	9.42	3577.20	0.003
L44	44 - 43.08 (44)	TP34.7461x34.5574x0.625	25.51	1205.14	0.021	9.42	3617.08	0.003
L45	43.08 - 42.83 (45)	TP34.7973x34.7461x0.6625	25.51	1277.96	0.020	9.42	3837.20	0.002
L46	42.83 - 37.83 (46)	TP35.8226x34.7973x0.6625	25.78	1316.34	0.020	9.42	4071.18	0.002

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L47	37.83 - 32.83 (47)	TP36.8479x35.8226x0.65	26.02	1329.63	0.020	9.41	4233.64	0.002
L48	32.83 - 29.25 (48)	TP37.582x36.8479x0.6375	26.19	1330.96	0.020	9.41	4325.27	0.002
L49	29.25 - 29 (49)	TP37.6333x37.582x0.6375	26.18	1332.80	0.020	9.41	4337.28	0.002
L50	29 - 27.75 (50)	TP37.8896x37.6333x0.6375	26.26	1342.04	0.020	9.41	4397.59	0.002
L51	27.75 - 27.5 (51)	TP37.9409x37.8896x0.6375	26.25	1343.88	0.020	9.41	4409.71	0.002
L52	27.5 - 24.08 (52)	TP38.6422x37.9409x0.6375	26.42	1369.15	0.019	9.41	4577.07	0.002
L53	24.08 - 23.83 (53)	TP38.6935x38.6422x0.7	26.42	1502.93	0.018	9.41	5022.83	0.002
L54	23.83 - 23.5 (54)	TP38.7611x38.6935x0.7	26.44	1505.61	0.018	9.41	5040.74	0.002
L55	23.5 - 23.25 (55)	TP38.8124x38.7611x0.4438	26.44	962.16	0.027	9.41	3247.31	0.003
L56	23.25 - 18.91 (56)	TP39.7023x38.8124x0.4438	26.59	984.48	0.027	9.41	3399.70	0.003
L57	18.91 - 18.66 (57)	TP39.7536x39.7023x0.525	26.58	1163.85	0.023	9.41	4016.04	0.002
L58	18.66 - 18.08 (58)	TP39.8725x39.7536x0.525	26.61	1167.37	0.023	9.41	4016.04	0.002
L59	18.08 - 17.83 (59)	TP39.9238x39.8725x0.6375	26.61	1415.32	0.019	9.41	4878.22	0.002
L60	17.83 - 12.83 (60)	TP40.9491x39.9238x0.625	26.67	1395.25	0.019	9.41	4798.12	0.002
L61	12.83 - 7.83 (61)	TP41.9744x40.9491x0.625	26.97	1431.46	0.019	9.41	5051.76	0.002
L62	7.83 - 2.83 (62)	TP42.9997x41.9744x0.6125	27.19	1438.76	0.019	9.41	5208.82	0.002
L63	2.83 - 0 (63)	TP43.58x42.9997x0.6125	27.44	1477.19	0.019	9.40	5470.26	0.002

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	140 - 135 (1)	0.009	0.111	0.000	0.028	0.006	0.120	1.050	
L2	135 - 130 (2)	0.009	0.188	0.000	0.028	0.005	0.197	1.050	
L3	130 - 125 (3)	0.014	0.321	0.000	0.053	0.017	0.340	1.050	
L4	125 - 120 (4)	0.014	0.438	0.000	0.051	0.015	0.456	1.050	
L5	120 - 115 (5)	0.016	0.544	0.000	0.058	0.015	0.566	1.050	
L6	115 - 110 (6)	0.016	0.648	0.000	0.056	0.014	0.669	1.050	
L7	110 - 105 (7)	0.020	0.765	0.000	0.066	0.014	0.791	1.050	
L8	105 - 102 (8)	0.020	0.831	0.000	0.065	0.013	0.857	1.050	
L9	102 - 101.75 (9)	0.013	0.532	0.000	0.042	0.009	0.547	1.050	
L10	101.75 - 96.75 (10)	0.015	0.607	0.000	0.047	0.009	0.625	1.050	
L11	96.75 - 91.75 (11)	0.015	0.628	0.000	0.046	0.009	0.646	1.050	
L12	91.75 - 90.75 (12)	0.015	0.679	0.000	0.045	0.008	0.697	1.050	
L13	90.75 - 85.75 (13)	0.015	0.723	0.000	0.044	0.008	0.741	1.050	
L14	85.75 - 85.33 (14)	0.015	0.727	0.000	0.043	0.008	0.744	1.050	
L15	85.33 - 85.08	0.010	0.472	0.000	0.028	0.005	0.483	1.050	

Section No.	Elevation ft	Ratio P_u / ϕP_n	Ratio M_{ux} / ϕM_{nx}	Ratio M_{uy} / ϕM_{ny}	Ratio V_u / ϕV_n	Ratio T_u / ϕT_n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	(15)								
L16	85.08 - 82.5 (16)	0.010	0.485	0.000	0.027	0.005	0.495	1.050	
L17	82.5 - 82.25 (17)	0.013	0.652	0.000	0.037	0.006	0.667	1.050	
L18	82.25 - 82 (18)	0.013	0.653	0.000	0.037	0.006	0.668	1.050	
L19	82 - 81.75 (19)	0.015	0.753	0.000	0.043	0.007	0.771	1.050	
L20	81.75 - 78.83 (20)	0.015	0.773	0.000	0.042	0.007	0.790	1.050	
L21	78.83 - 78.58 (21)	0.009	0.463	0.000	0.025	0.004	0.473	1.050	
L22	78.58 - 77.66 (22)	0.009	0.466	0.000	0.025	0.004	0.476	1.050	
L23	77.66 - 77.41 (23)	0.010	0.517	0.000	0.027	0.004	0.528	1.050	
L24	77.41 - 77.167 (24)	0.010	0.518	0.000	0.027	0.004	0.529	1.050	
L25	77.167 - 72.167 (25)	0.010	0.547	0.000	0.027	0.004	0.558	1.050	
L26	72.167 - 67.167 (26)	0.011	0.575	0.000	0.027	0.004	0.586	1.050	
L27	67.167 - 66.58 (27)	0.011	0.576	0.000	0.027	0.004	0.588	1.050	
L28	66.58 - 66.33 (28)	0.009	0.490	0.000	0.023	0.003	0.499	1.050	
L29	66.33 - 66.16 (29)	0.009	0.490	0.000	0.023	0.003	0.500	1.050	
L30	66.16 - 65.91 (30)	0.011	0.578	0.000	0.027	0.004	0.590	1.050	
L31	65.91 - 62.66 (31)	0.011	0.600	0.000	0.027	0.004	0.612	1.050	
L32	62.66 - 62.41 (32)	0.011	0.600	0.000	0.027	0.004	0.612	1.050	
L33	62.41 - 60 (33)	0.011	0.613	0.000	0.027	0.004	0.625	1.050	
L34	60 - 59.75 (34)	0.011	0.621	0.000	0.028	0.004	0.633	1.050	
L35	59.75 - 54.75 (35)	0.011	0.630	0.000	0.027	0.004	0.643	1.050	
L36	54.75 - 52.83 (36)	0.011	0.634	0.000	0.027	0.003	0.646	1.050	
L37	52.83 - 52.58 (37)	0.008	0.469	0.000	0.020	0.003	0.478	1.050	
L38	52.58 - 51.41 (38)	0.008	0.470	0.000	0.019	0.003	0.479	1.050	
L39	51.41 - 51.16 (39)	0.011	0.629	0.000	0.026	0.003	0.641	1.050	
L40	51.16 - 46.5 (40)	0.011	0.629	0.000	0.026	0.003	0.641	1.050	
L41	46.5 - 45.5 (41)	0.011	0.610	0.000	0.024	0.003	0.622	1.050	
L42	45.5 - 44.25 (42)	0.011	0.611	0.000	0.024	0.003	0.623	1.050	
L43	44.25 - 44 (43)	0.010	0.542	0.000	0.021	0.003	0.552	1.050	
L44	44 - 43.08 (44)	0.010	0.543	0.000	0.021	0.003	0.553	1.050	
L45	43.08 - 42.83 (45)	0.009	0.514	0.000	0.020	0.002	0.523	1.050	
L46	42.83 - 37.83 (46)	0.009	0.517	0.000	0.020	0.002	0.526	1.050	
L47	37.83 - 32.83 (47)	0.010	0.528	0.000	0.020	0.002	0.538	1.050	
L48	32.83 - 29.25 (48)	0.010	0.539	0.000	0.020	0.002	0.549	1.050	
L49	29.25 - 29 (49)	0.010	0.539	0.000	0.020	0.002	0.549	1.050	
L50	29 - 27.75 (50)	0.010	0.539	0.000	0.020	0.002	0.550	1.050	

Section No.	Elevation ft	Ratio P_u / ϕP_n	Ratio M_{ux} / ϕM_{nx}	Ratio M_{uy} / ϕM_{ny}	Ratio V_u / ϕV_n	Ratio T_u / ϕT_n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L51	27.75 - 27.5 (51)	0.010	0.539	0.000	0.020	0.002	0.550	1.050	
L52	27.5 - 24.08 (52)	0.010	0.540	0.000	0.019	0.002	0.550	1.050	
L53	24.08 - 23.83 (53)	0.009	0.494	0.000	0.018	0.002	0.504	1.050	
L54	23.83 - 23.5 (54)	0.009	0.494	0.000	0.018	0.002	0.504	1.050	
L55	23.5 - 23.25 (55)	0.014	0.776	0.000	0.027	0.003	0.791	1.050	
L56	23.25 - 18.91 (56)	0.014	0.782	0.000	0.027	0.003	0.798	1.050	
L57	18.91 - 18.66 (57)	0.012	0.650	0.000	0.023	0.002	0.663	1.050	
L58	18.66 - 18.08 (58)	0.012	0.650	0.000	0.023	0.002	0.663	1.050	
L59	18.08 - 17.83 (59)	0.010	0.540	0.000	0.019	0.002	0.551	1.050	
L60	17.83 - 12.83 (60)	0.010	0.550	0.000	0.019	0.002	0.561	1.050	
L61	12.83 - 7.83 (61)	0.010	0.550	0.000	0.019	0.002	0.561	1.050	
L62	7.83 - 2.83 (62)	0.011	0.560	0.000	0.019	0.002	0.571	1.050	
L63	2.83 - 0 (63)	0.011	0.559	0.000	0.019	0.002	0.570	1.050	

Section Capacity Table

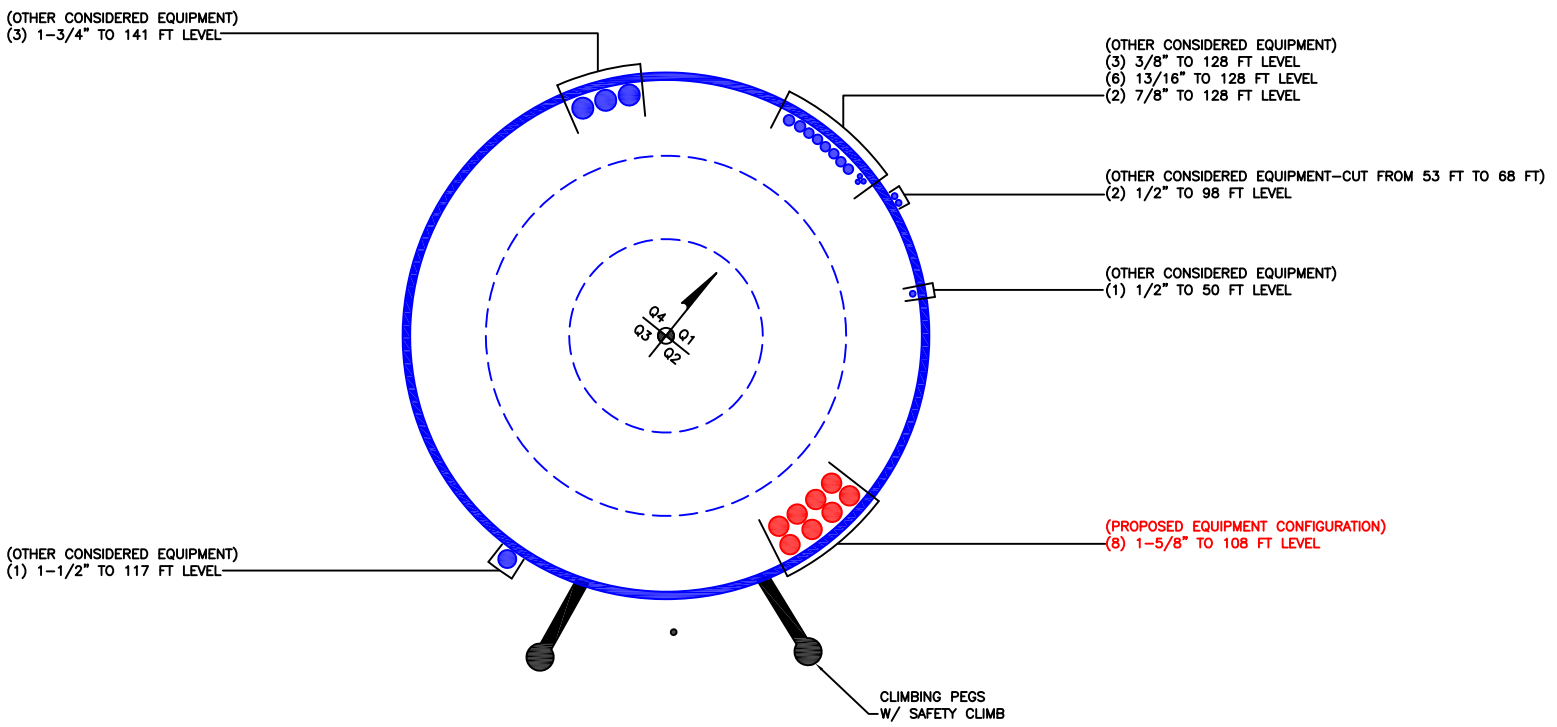
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	140 - 135	Pole	TP17.0249x16x0.25	1	-6.26	765.66	11.5	Pass
L2	135 - 130	Pole	TP18.0497x17.0249x0.25	2	-6.76	812.44	18.8	Pass
L3	130 - 125	Pole	TP19.0746x18.0497x0.25	3	-11.30	859.22	32.4	Pass
L4	125 - 120	Pole	TP20.0995x19.0746x0.25	4	-11.70	906.00	43.4	Pass
L5	120 - 115	Pole	TP21.1244x20.0995x0.25	5	-14.85	952.78	53.9	Pass
L6	115 - 110	Pole	TP22.1492x21.1244x0.25	6	-15.34	999.56	63.8	Pass
L7	110 - 105	Pole	TP23.1741x22.1492x0.25	7	-19.70	1046.34	75.4	Pass
L8	105 - 102	Pole	TP23.789x23.1741x0.25	8	-20.08	1074.40	81.6	Pass
L9	102 - 101.75	Pole	TP23.8403x23.789x0.3875	9	-20.13	1659.22	52.1	Pass
L10	101.75 - 96.75	Pole	TP24.8651x23.8403x0.375	10	-24.00	1676.72	59.5	Pass
L11	96.75 - 91.75	Pole	TP25.89x24.8651x0.375	11	-24.28	1701.28	61.5	Pass
L12	91.75 - 90.75	Pole	TP25.5952x24.7238x0.3563	12	-25.47	1778.38	66.3	Pass
L13	90.75 - 85.75	Pole	TP26.6203x25.5952x0.3563	13	-26.50	1850.62	70.6	Pass
L14	85.75 - 85.33	Pole	TP26.7064x26.6203x0.3563	14	-26.60	1856.68	70.9	Pass
L15	85.33 - 85.08	Pole	TP26.7577x26.7064x0.5625	15	-26.66	2914.37	46.0	Pass
L16	85.08 - 82.5	Pole	TP27.2866x26.7577x0.5625	16	-27.25	2973.22	47.2	Pass
L17	82.5 - 82.25	Pole	TP27.3379x27.2866x0.4125	17	-27.33	2196.78	63.5	Pass
L18	82.25 - 82	Pole	TP27.3891x27.3379x0.4125	18	-27.40	2200.96	63.6	Pass
L19	82 - 81.75	Pole	TP27.4404x27.3891x0.3563	19	-27.45	1908.41	73.4	Pass
L20	81.75 - 78.83	Pole	TP28.039x27.4404x0.3563	20	-28.06	1950.58	75.3	Pass
L21	78.83 - 78.58	Pole	TP28.0903x28.039x0.6125	21	-28.15	3328.81	45.0	Pass
L22	78.58 - 77.66	Pole	TP28.2789x28.0903x0.6125	22	-28.61	3351.66	45.3	Pass
L23	77.66 - 77.41	Pole	TP28.3302x28.2789x0.55	23	-28.68	3022.03	50.3	Pass
L24	77.41 - 77.167	Pole	TP28.38x28.3302x0.55	24	-28.74	3027.45	50.4	Pass
L25	77.167 - 72.167	Pole	TP29.4055x28.38x0.5375	25	-30.01	3069.00	53.2	Pass
L26	72.167 - 67.167	Pole	TP30.4311x29.4055x0.525	26	-31.32	3105.42	55.8	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L27	67.167 - 66.58	Pole	TP30.5515x30.4311x0.525	27	-31.48	3117.91	56.0	Pass
L28	66.58 - 66.33	Pole	TP30.6027x30.5515x0.625	28	-31.56	3705.79	47.5	Pass
L29	66.33 - 66.16	Pole	TP30.6376x30.6027x0.625	29	-31.61	3710.09	47.6	Pass
L30	66.16 - 65.91	Pole	TP30.6889x30.6376x0.525	30	-31.67	3132.18	56.2	Pass
L31	65.91 - 62.66	Pole	TP31.3555x30.6889x0.5125	31	-32.47	3126.45	58.2	Pass
L32	62.66 - 62.41	Pole	TP31.4068x31.3555x0.5125	32	-32.55	3131.65	58.3	Pass
L33	62.41 - 60	Pole	TP31.9011x31.4068x0.5063	33	-33.12	3143.57	59.5	Pass
L34	60 - 59.75	Pole	TP31.9523x31.9011x0.5	34	-33.19	3110.46	60.3	Pass
L35	59.75 - 54.75	Pole	TP32.9779x31.9523x0.5	35	-34.42	3211.88	61.2	Pass
L36	54.75 - 52.83	Pole	TP33.3717x32.9779x0.5	36	-34.89	3250.82	61.5	Pass
L37	52.83 - 52.58	Pole	TP33.423x33.3717x0.6875	37	-34.99	4451.35	45.5	Pass
L38	52.58 - 51.41	Pole	TP33.6629x33.423x0.6875	38	-35.38	4483.98	45.6	Pass
L39	51.41 - 51.16	Pole	TP33.7142x33.6629x0.5063	39	-35.46	3325.13	61.0	Pass
L40	51.16 - 46.5	Pole	TP34.67x33.7142x0.5063	40	-35.50	3328.42	61.1	Pass
L41	46.5 - 45.5	Pole	TP34.2498x33.122x0.55	41	-38.10	3665.99	59.2	Pass
L42	45.5 - 44.25	Pole	TP34.5062x34.2498x0.55	42	-38.46	3693.88	59.3	Pass
L43	44.25 - 44	Pole	TP34.5574x34.5062x0.625	43	-38.56	4194.66	52.6	Pass
L44	44 - 43.08	Pole	TP34.7461x34.5574x0.625	44	-38.87	4217.98	52.6	Pass
L45	43.08 - 42.83	Pole	TP34.7973x34.7461x0.6625	45	-38.97	4472.85	49.8	Pass
L46	42.83 - 37.83	Pole	TP35.8226x34.7973x0.6625	46	-40.61	4607.20	50.1	Pass
L47	37.83 - 32.83	Pole	TP36.8479x35.8226x0.65	47	-42.30	4653.69	51.3	Pass
L48	32.83 - 29.25	Pole	TP37.582x36.8479x0.6375	48	-43.52	4658.35	52.3	Pass
L49	29.25 - 29	Pole	TP37.6333x37.582x0.6375	49	-43.62	4664.80	52.3	Pass
L50	29 - 27.75	Pole	TP37.8896x37.6333x0.6375	50	-44.04	4697.12	52.3	Pass
L51	27.75 - 27.5	Pole	TP37.9409x37.8896x0.6375	51	-44.14	4703.59	52.4	Pass
L52	27.5 - 24.08	Pole	TP38.6422x37.9409x0.6375	52	-45.31	4792.02	52.4	Pass
L53	24.08 - 23.83	Pole	TP38.6935x38.6422x0.7	53	-45.42	5260.27	48.0	Pass
L54	23.83 - 23.5	Pole	TP38.7611x38.6935x0.7	54	-45.54	5269.64	48.0	Pass
L55	23.5 - 23.25	Pole	TP38.8124x38.7611x0.4438	55	-45.62	3367.56	75.4	Pass
L56	23.25 - 18.91	Pole	TP39.7023x38.8124x0.4438	56	-47.11	3445.67	76.0	Pass
L57	18.91 - 18.66	Pole	TP39.7536x39.7023x0.525	57	-47.20	4073.45	63.1	Pass
L58	18.66 - 18.08	Pole	TP39.8725x39.7536x0.525	58	-47.21	4073.45	63.1	Pass
L59	18.08 - 17.83	Pole	TP39.9238x39.8725x0.6375	59	-47.39	4947.15	52.4	Pass
L60	17.83 - 12.83	Pole	TP40.9491x39.9238x0.625	60	-47.49	4858.03	53.4	Pass
L61	12.83 - 7.83	Pole	TP41.9744x40.9491x0.625	61	-49.55	4984.78	53.4	Pass
L62	7.83 - 2.83	Pole	TP42.9997x41.9744x0.6125	62	-51.38	5010.81	54.4	Pass
L63	2.83 - 0	Pole	TP43.58x42.9997x0.6125	63	-53.15	5135.01	54.3	Pass
							Summary	
						Pole (L8)	81.6	Pass
						RATING =	**81.6**	**Pass**

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

APPENDIX B

BASE LEVEL DRAWING


(OTHER CONSIDERED EQUIPMENT)
(3) 1-3/4" TO 141 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(3) 3/8" TO 128 FT LEVEL
(6) 13/16" TO 128 FT LEVEL
(2) 7/8" TO 128 FT LEVEL
(OTHER CONSIDERED EQUIPMENT-CUT FROM 53 FT TO 68 FT)
(2) 1/2" TO 98 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(1) 1/2" TO 50 FT LEVEL
Q4
Q1
Q3
Q2
(PROPOSED EQUIPMENT CONFIGURATION)
(8) 1-5/8" TO 108 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(1) 1-1/2" TO 117 FT LEVEL
CLIMBING PEGS
W/ SAFETY CLIMB

APPENDIX C

ADDITIONAL CALCULATIONS

CCIpole

per TIA-222- H

Site BU: 876335

Work Order: 2283480

Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	140	48.25	3.25	12	16	25.89	0.25	Auto	A607-60
2	95	17.833	0	12	24.72	28.38	0.3125	Auto	A607-65
3	77.167	30.667	4.5	12	28.38	34.67	0.3125	Auto	A607-65
4	51	51	0	12	33.12	43.58	0.375	Auto	A607-65

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12
1	43.08	52.83	channel	MP3-05 (1.1875in)	3		x				x				x		
2	66.16	78.83	channel	MP3-03 (1.1875in)	3		x				x				x		
3	0	27.75	channel	5 (1.1875") - Bottom V	2					x				x			
4	27.75	43.08	channel	MP3-05 (1.1875in)	2					x				x			
5	51.41	66.58	channel	MP3-05 (1.1875in)	3	x				x				x			
6	0	18.08	channel	5 (1.1875") - Bottom V	2		x										x
7	18.08	29.25	channel	MP3-05 (1.1875in)	1	x											
8	29.25	44.25	channel	MP3-05 (1.1875in)	1	x											
9	18.91	24.08	channel	MP3-05 (1.1875in)	1			x									
10	62.66	85.33	channel	MP3-03 (1.1875in)	1							x					
11	77.66	85.33	channel	MP3-03 (1.1875in)	2			x								x	
12	94.33	102	channel	MP3-03 (1.1875in)	3				x				x				x
13	0	27.75	plate	CCI-SFP-065125	1										x		
14	23.5	44.25	plate	CCI-SFP-060100	2							x				x	
15	49	60	plate	CCI-SFP-060100	1								x				
16	66.58	82.5	plate	CCI-SFP-060100	2								x				x
17	82	93	plate	CCI-SFP-060100	2	x								x			
18																	

Reinforcement Details

	B (in)	H (in)	Gross Area (in^2)	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in2)	Bolt Hole Size (in)	Reinforcement Material
1	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
2	4.06	1.57	2.92	0.59	PC 8.8 - M20 (100)	14	PC 8.8 - M20 (100)	14.000	18.000	2.545	1.1875	A572-65
3	5.33	2.09	5.65	0.79	Welded	n/a	PC 8.8 - M20 (100)	30.000	18.000	5.025	1.1875	A572-65
4	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
5	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
6	5.33	2.09	5.65	0.79	Welded	n/a	PC 8.8 - M20 (100)	30.000	18.000	5.025	1.1875	A572-65
7	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
8	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
9	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
10	4.06	1.57	2.92	0.59	PC 8.8 - M20 (100)	14	PC 8.8 - M20 (100)	14.000	18.000	2.545	1.1875	A572-65
11	4.06	1.57	2.92	0.59	PC 8.8 - M20 (100)	14	PC 8.8 - M20 (100)	14.000	18.000	2.545	1.1875	A572-65
12	4.06	1.57	2.92	0.59	PC 8.8 - M20 (100)	14	PC 8.8 - M20 (100)	14.000	18.000	2.545	1.1875	A572-65
13	6.5	1.25	8.125	0.625	PC 8.8 - M20 (100)	33	PC 8.8 - M20 (100)	33.000	19.000	6.563	1.1875	A572-65
14	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
15	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
16	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
17	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65

Connection Details for Custom Reinforcements

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
MP3-05 (1.1875") -	Top	10	N	3	3	-	-	-	-	-	-	-	-	-
Bottom Welded	Bottom	-	-	-	-	80	None	-	-	-	-	20	0.375	-

TNX Geometry Input

Increment (ft): 5 Export to TNX

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	140 - 135	5		12	16.000	17.025	0.25	A607-60	1.000
2	135 - 130	5		12	17.025	18.050	0.25	A607-60	1.000
3	130 - 125	5		12	18.050	19.075	0.25	A607-60	1.000
4	125 - 120	5		12	19.075	20.099	0.25	A607-60	1.000
5	120 - 115	5		12	20.099	21.124	0.25	A607-60	1.000
6	115 - 110	5		12	21.124	22.149	0.25	A607-60	1.000
7	110 - 105	5		12	22.149	23.174	0.25	A607-60	1.000
8	105 - 102	3		12	23.174	23.789	0.25	A607-60	1.000
9	102 - 101.75	0.25		12	23.789	23.840	0.3875	A607-60	0.949
10	101.75 - 96.75	5		12	23.840	24.865	0.375	A607-60	0.967
11	96.75 - 95	5	3.25	12	24.865	25.890	0.375	A607-60	0.962
12	95 - 90.75	4.25		12	24.724	25.595	0.35625	A607-65	1.294
13	90.75 - 85.75	5		12	25.595	26.620	0.35625	A607-65	1.278
14	85.75 - 85.33	0.42		12	26.620	26.706	0.35625	A607-65	1.276
15	85.33 - 85.08	0.25		12	26.706	26.758	0.5625	A607-65	0.999
16	85.08 - 82.5	2.58		12	26.758	27.287	0.5625	A607-65	0.990
17	82.5 - 82.25	0.25		12	27.287	27.338	0.4125	A607-65	1.514
18	82.25 - 82	0.25		12	27.338	27.389	0.4125	A607-65	1.513
19	82 - 81.75	0.25		12	27.389	27.440	0.35625	A607-65	1.265
20	81.75 - 78.83	2.92		12	27.440	28.039	0.35625	A607-65	1.257
21	78.83 - 78.58	0.25		12	28.039	28.090	0.6125	A607-65	1.007
22	78.58 - 77.66	0.92		12	28.090	28.279	0.6125	A607-65	1.004
23	77.66 - 77.41	0.25		12	28.279	28.330	0.55	A607-65	1.055
24	77.41 - 77.167	0.243	0	12	28.330	28.380	0.55	A607-65	1.054
25	77.167 - 72.167	5		12	28.380	29.406	0.5375	A607-65	1.061
26	72.167 - 67.167	5		12	29.406	30.431	0.525	A607-65	1.069
27	67.167 - 66.58	0.587		12	30.431	30.551	0.525	A607-65	1.067
28	66.58 - 66.33	0.25		12	30.551	30.603	0.625	A607-65	0.980
29	66.33 - 66.16	0.17		12	30.603	30.638	0.625	A607-65	0.980
30	66.16 - 65.91	0.25		12	30.638	30.689	0.525	A607-65	0.990
31	65.91 - 62.66	3.25		12	30.689	31.355	0.5125	A607-65	1.005
32	62.66 - 62.41	0.25		12	31.355	31.407	0.5125	A607-65	0.947
33	62.41 - 60	2.41		12	31.407	31.901	0.50625	A607-65	0.953
34	60 - 59.75	0.25		12	31.901	31.952	0.5	A607-65	0.964
35	59.75 - 54.75	5		12	31.952	32.978	0.5	A607-65	0.953
36	54.75 - 52.83	1.92		12	32.978	33.372	0.5	A607-65	0.949
37	52.83 - 52.58	0.25		12	33.372	33.423	0.6875	A607-65	1.011
38	52.58 - 51.41	1.17		12	33.423	33.663	0.6875	A607-65	1.007
39	51.41 - 51.16	0.25		12	33.663	33.714	0.50625	A607-65	1.045
40	51.16 - 51	4.66	4.5	12	33.714	34.670	0.50625	A607-65	1.045
41	51 - 45.5	5.5		12	33.122	34.250	0.55	A607-65	0.970
42	45.5 - 44.25	1.25		12	34.250	34.506	0.55	A607-65	0.968
43	44.25 - 44	0.25		12	34.506	34.557	0.625	A607-65	1.112
44	44 - 43.08	0.92		12	34.557	34.746	0.625	A607-65	1.109
45	43.08 - 42.83	0.25		12	34.746	34.797	0.6625	A607-65	0.969
46	42.83 - 37.83	5		12	34.797	35.823	0.6625	A607-65	0.957
47	37.83 - 32.83	5		12	35.823	36.848	0.65	A607-65	0.964
48	32.83 - 29.25	3.58		12	36.848	37.582	0.6375	A607-65	0.975
49	29.25 - 29	0.25		12	37.582	37.633	0.6375	A607-65	0.974
50	29 - 27.75	1.25		12	37.633	37.890	0.6375	A607-65	0.972
51	27.75 - 27.5	0.25		12	37.890	37.941	0.6375	A607-65	0.971
52	27.5 - 24.08	3.42		12	37.941	38.642	0.6375	A607-65	0.964
53	24.08 - 23.83	0.25		12	38.642	38.693	0.7	A607-65	0.945
54	23.83 - 23.5	0.33		12	38.693	38.761	0.7	A607-65	0.944
55	23.5 - 23.25	0.25		12	38.761	38.812	0.44375	A607-65	1.305
56	23.25 - 18.91	4.34		12	38.812	39.702	0.44375	A607-65	1.294
57	18.91 - 18.66	0.25		12	39.702	39.754	0.525	A607-65	0.973
58	18.66 - 18.08	0.58		12	39.754	39.873	0.525	A607-65	0.972
59	18.08 - 17.83	0.25		12	39.873	39.924	0.6375	A607-65	0.974
60	17.83 - 12.83	5		12	39.924	40.949	0.625	A607-65	0.983
61	12.83 - 7.83	5		12	40.949	41.974	0.625	A607-65	0.973
62	7.83 - 2.83	5		12	41.974	43.000	0.6125	A607-65	0.984
63	2.83 - 0	2.83		12	43.000	43.580	0.6125	A607-65	0.979

TNX Section Forces

Increment (ft):	5	TNX Output		
	Section Height (ft)	P_u (K)	M_{ux} (kip-ft)	V_u (K)
1	140 - 135	6.26	34.51	6.12
2	135 - 130	6.75	65.97	6.55
3	130 - 125	11.30	127.00	12.92
4	125 - 120	11.70	192.27	13.20
5	120 - 115	14.85	264.22	15.75
6	115 - 110	15.35	343.56	16.00
7	110 - 105	19.71	437.73	19.71
8	105 - 102	20.09	497.00	19.83
9	102 - 101.75	20.14	501.96	19.83
10	101.75 - 96.75	24.00	604.72	22.41
11	96.75 - 95	24.28	643.99	22.50
12	95 - 90.75	25.47	740.22	22.80
13	90.75 - 85.75	26.50	854.67	23.01
14	85.75 - 85.33	26.60	864.33	23.02
15	85.33 - 85.08	26.66	870.09	23.03
16	85.08 - 82.5	27.25	929.71	23.20
17	82.5 - 82.25	27.33	935.51	23.20
18	82.25 - 82	27.40	941.31	23.21
19	82 - 81.75	27.45	947.11	23.22
20	81.75 - 78.83	28.06	1015.10	23.37
21	78.83 - 78.58	28.15	1020.93	23.36
22	78.58 - 77.66	28.61	1042.49	23.53
23	77.66 - 77.41	28.68	1048.37	23.54
24	77.41 - 77.167	28.74	1054.09	23.55
25	77.167 - 72.167	30.01	1172.58	23.85
26	72.167 - 67.167	31.32	1292.47	24.13
27	67.167 - 66.58	31.48	1306.64	24.15
28	66.58 - 66.33	31.56	1312.68	24.16
29	66.33 - 66.16	31.61	1316.78	24.17
30	66.16 - 65.91	31.67	1322.83	24.19
31	65.91 - 62.66	32.47	1401.71	24.37
32	62.66 - 62.41	32.55	1407.81	24.37
33	62.41 - 60	33.12	1466.68	24.51
34	60 - 59.75	33.19	1472.81	24.50
35	59.75 - 54.75	34.42	1595.94	24.76
36	54.75 - 52.83	34.89	1643.55	24.87
37	52.83 - 52.58	34.99	1649.76	24.86
38	52.58 - 51.41	35.38	1678.89	24.94
39	51.41 - 51.16	35.46	1685.12	24.94
40	51.16 - 51	35.50	1689.11	24.95
41	51 - 45.5	38.10	1827.85	25.39
42	45.5 - 44.25	38.46	1859.61	25.46
43	44.25 - 44	38.56	1865.97	25.45
44	44 - 43.08	38.87	1889.41	25.51
45	43.08 - 42.83	38.97	1895.78	25.51
46	42.83 - 37.83	40.61	2023.99	25.78
47	37.83 - 32.83	42.30	2153.44	26.02
48	32.83 - 29.25	43.52	2246.86	26.19
49	29.25 - 29	43.62	2253.41	26.18
50	29 - 27.75	44.04	2286.18	26.26
51	27.75 - 27.5	44.14	2292.74	26.25
52	27.5 - 24.08	45.31	2382.79	26.42
53	24.08 - 23.83	45.42	2389.40	26.42
54	23.83 - 23.5	45.54	2398.12	26.44
55	23.5 - 23.25	45.62	2404.73	26.44
56	23.25 - 18.91	47.11	2519.77	26.59
57	18.91 - 18.66	47.20	2526.42	26.58
58	18.66 - 18.08	47.38	2541.84	26.61
59	18.08 - 17.83	47.47	2548.49	26.61
60	17.83 - 12.83	49.52	2682.28	26.92
61	12.83 - 7.83	51.36	2817.38	27.14
62	7.83 - 2.83	53.15	2953.55	27.32
63	2.83 - 0	54.13	3031.11	27.50

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
140 - 135	Pole	TP17.025x16x0.25	Pole	11.4%	Pass
135 - 130	Pole	TP18.05x17.025x0.25	Pole	18.7%	Pass
130 - 125	Pole	TP19.075x18.05x0.25	Pole	32.2%	Pass
125 - 120	Pole	TP20.099x19.075x0.25	Pole	43.3%	Pass
120 - 115	Pole	TP21.124x20.099x0.25	Pole	53.7%	Pass
115 - 110	Pole	TP22.149x21.124x0.25	Pole	63.5%	Pass
110 - 105	Pole	TP23.174x22.149x0.25	Pole	75.0%	Pass
105 - 102	Pole	TP23.789x23.174x0.25	Pole	81.2%	Pass
102 - 101.75	Pole + Reinf.	TP23.84x23.789x0.3875	Reinf. 12 Tension Rupture	72.2%	Pass
101.75 - 96.75	Pole + Reinf.	TP24.865x23.84x0.375	Reinf. 12 Tension Rupture	81.0%	Pass
96.75 - 95	Pole + Reinf.	TP25.89x24.865x0.375	Reinf. 12 Tension Rupture	84.2%	Pass
95 - 90.75	Pole + Reinf.	TP25.595x24.724x0.3563	Pole	71.6%	Pass
90.75 - 85.75	Pole + Reinf.	TP26.62x25.595x0.3563	Pole	76.9%	Pass
85.75 - 85.33	Pole + Reinf.	TP26.706x26.62x0.3563	Pole	77.4%	Pass
85.33 - 85.08	Pole + Reinf.	TP26.758x26.706x0.5625	Reinf. 11 Tension Rupture	69.5%	Pass
85.08 - 82.5	Pole + Reinf.	TP27.287x26.758x0.5625	Reinf. 11 Tension Rupture	71.9%	Pass
82.5 - 82.25	Pole + Reinf.	TP27.338x27.287x0.4125	Pole	71.6%	Pass
82.25 - 82	Pole + Reinf.	TP27.389x27.338x0.4125	Pole	71.9%	Pass
82 - 81.75	Pole + Reinf.	TP27.44x27.389x0.3563	Pole	81.0%	Pass
81.75 - 78.83	Pole + Reinf.	TP28.039x27.44x0.3563	Pole	83.7%	Pass
78.83 - 78.58	Pole + Reinf.	TP28.09x28.039x0.6125	Reinf. 11 Tension Rupture	70.4%	Pass
78.58 - 77.66	Pole + Reinf.	TP28.279x28.09x0.6125	Reinf. 11 Tension Rupture	71.1%	Pass
77.66 - 77.41	Pole + Reinf.	TP28.33x28.279x0.55	Reinf. 2 Tension Rupture	75.9%	Pass
77.41 - 77.17	Pole + Reinf.	TP28.38x28.33x0.55	Reinf. 2 Tension Rupture	76.1%	Pass
77.17 - 72.17	Pole + Reinf.	TP29.406x28.38x0.5375	Reinf. 2 Tension Rupture	79.7%	Pass
72.17 - 67.17	Pole + Reinf.	TP30.431x29.406x0.525	Reinf. 2 Tension Rupture	82.8%	Pass
67.17 - 66.58	Pole + Reinf.	TP30.551x30.431x0.525	Reinf. 2 Tension Rupture	83.2%	Pass
66.58 - 66.33	Pole + Reinf.	TP30.603x30.551x0.625	Reinf. 2 Tension Rupture	70.5%	Pass
66.33 - 66.16	Pole + Reinf.	TP30.638x30.603x0.625	Reinf. 2 Tension Rupture	70.6%	Pass
66.16 - 65.91	Pole + Reinf.	TP30.689x30.638x0.525	Reinf. 5 Tension Rupture	78.1%	Pass
65.91 - 62.66	Pole + Reinf.	TP31.355x30.689x0.5125	Reinf. 5 Tension Rupture	79.9%	Pass
62.66 - 62.41	Pole + Reinf.	TP31.407x31.355x0.5125	Reinf. 5 Tension Rupture	84.0%	Pass
62.41 - 60	Pole + Reinf.	TP31.901x31.407x0.5063	Reinf. 5 Tension Rupture	85.3%	Pass
60 - 59.75	Pole + Reinf.	TP31.952x31.901x0.5	Reinf. 5 Tension Rupture	85.4%	Pass
59.75 - 54.75	Pole + Reinf.	TP32.978x31.952x0.5	Reinf. 5 Tension Rupture	87.8%	Pass
54.75 - 52.83	Pole + Reinf.	TP33.372x32.978x0.5	Reinf. 5 Tension Rupture	88.7%	Pass
52.83 - 52.58	Pole + Reinf.	TP33.423x33.372x0.6875	Reinf. 5 Tension Rupture	65.3%	Pass
52.58 - 51.41	Pole + Reinf.	TP33.663x33.423x0.6875	Reinf. 5 Tension Rupture	65.8%	Pass
51.41 - 51.16	Pole + Reinf.	TP33.714x33.663x0.5063	Reinf. 1 Tension Rupture	82.5%	Pass
51.16 - 51	Pole + Reinf.	TP34.67x33.714x0.5063	Reinf. 1 Tension Rupture	82.6%	Pass
51 - 45.5	Pole + Reinf.	TP34.25x33.122x0.55	Reinf. 1 Tension Rupture	83.9%	Pass
45.5 - 44.25	Pole + Reinf.	TP34.506x34.25x0.55	Reinf. 1 Tension Rupture	84.3%	Pass
44.25 - 44	Pole + Reinf.	TP34.557x34.506x0.625	Reinf. 1 Tension Rupture	69.1%	Pass
44 - 43.08	Pole + Reinf.	TP34.746x34.557x0.625	Reinf. 1 Tension Rupture	69.3%	Pass
43.08 - 42.83	Pole + Reinf.	TP34.797x34.746x0.6625	Reinf. 8 Tension Rupture	72.1%	Pass
42.83 - 37.83	Pole + Reinf.	TP35.823x34.797x0.6625	Reinf. 8 Tension Rupture	73.4%	Pass
37.83 - 32.83	Pole + Reinf.	TP36.848x35.823x0.65	Reinf. 8 Tension Rupture	74.5%	Pass
32.83 - 29.25	Pole + Reinf.	TP37.582x36.848x0.6375	Reinf. 8 Tension Rupture	75.3%	Pass
29.25 - 29	Pole + Reinf.	TP37.633x37.582x0.6375	Reinf. 7 Tension Rupture	75.3%	Pass
29 - 27.75	Pole + Reinf.	TP37.89x37.633x0.6375	Reinf. 7 Tension Rupture	75.6%	Pass
27.75 - 27.5	Pole + Reinf.	TP37.941x37.89x0.6375	Reinf. 7 Tension Rupture	75.6%	Pass
27.5 - 24.08	Pole + Reinf.	TP38.642x37.941x0.6375	Reinf. 7 Tension Rupture	76.2%	Pass
24.08 - 23.83	Pole + Reinf.	TP38.693x38.642x0.7	Reinf. 14 Tension Rupture	73.6%	Pass
23.83 - 23.5	Pole + Reinf.	TP38.761x38.693x0.7	Reinf. 14 Tension Rupture	73.7%	Pass
23.5 - 23.25	Pole + Reinf.	TP38.812x38.761x0.4438	Pole	81.2%	Pass
23.25 - 18.91	Pole + Reinf.	TP39.702x38.812x0.4438	Pole	82.3%	Pass
18.91 - 18.66	Pole + Reinf.	TP39.754x39.702x0.525	Reinf. 7 Tension Rupture	89.5%	Pass
18.66 - 18.08	Pole + Reinf.	TP39.873x39.754x0.525	Reinf. 7 Tension Rupture	89.6%	Pass
18.08 - 17.83	Pole + Reinf.	TP39.924x39.873x0.6375	Reinf. 3 Compression	78.0%	Pass
17.83 - 12.83	Pole + Reinf.	TP40.949x39.924x0.625	Reinf. 3 Compression	78.7%	Pass
12.83 - 7.83	Pole + Reinf.	TP41.974x40.949x0.625	Reinf. 3 Compression	79.2%	Pass
7.83 - 2.83	Pole + Reinf.	TP43x41.974x0.6125	Reinf. 3 Compression	79.7%	Pass
2.83 - 0	Pole + Reinf.	TP43.58x43x0.6125	Reinf. 3 Compression	79.9%	Pass
				Summary	
			Pole	83.7%	Pass
			Reinforcement	89.6%	Pass
			Overall	89.6%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in^4)			Area (in^2)			% Capacity*																
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17
140 - 135	486	n/a	486	13.48	n/a	13.48	11.4%																	
135 - 130	580	n/a	580	14.31	n/a	14.31	18.7%																	
130 - 125	686	n/a	686	15.13	n/a	15.13	32.2%																	
125 - 120	805	n/a	805	15.96	n/a	15.96	43.3%																	
120 - 115	936	n/a	936	16.78	n/a	16.78	53.7%																	
115 - 110	1081	n/a	1081	17.60	n/a	17.60	63.5%																	
110 - 105	1240	n/a	1240	18.43	n/a	18.43	75.0%																	
105 - 102	1342	n/a	1342	18.92	n/a	18.92	81.2%																	
102 - 101.75	1351	688	2039	18.96	8.76	27.72	52.3%												72.2%					
101.75 - 96.75	1535	746	2280	19.79	8.76	28.55	59.7%												81.0%					
96.75 - 95	1603	766	2369	20.08	8.76	28.84	62.3%												84.2%					
95 - 90.75	2193	282	2475	25.40	12.00	37.40	71.6%																	67.0%
90.75 - 85.75	2464	309	2772	26.43	12.00	38.43	76.9%																	72.4%
85.75 - 85.33	2487	311	2798	26.52	12.00	38.52	77.4%																	72.9%
85.33 - 85.08	2427	1799	4225	26.57	20.76	47.33	49.8%										69.5%	69.5%						60.0%
85.08 - 82.5	2574	1868	4442	27.10	20.76	47.86	51.9%										71.9%	71.9%						62.3%
82.5 - 82.25	2766	774	3539	27.16	26.92	54.08	71.6%										58.6%						58.9%	61.2%
82.25 - 82	2781	777	3558	27.21	26.92	54.13	71.9%										58.8%						59.1%	61.4%
82 - 81.75	2695	331	3027	27.26	12.00	39.26	81.0%																76.4%	
81.75 - 78.83	2873	348	3222	27.86	12.00	39.86	83.7%																79.0%	
78.83 - 78.58	2799	2490	5289	27.91	26.60	54.51	49.1%		69.1%									70.4%					62.4%	
78.58 - 77.66	2856	2522	5378	28.10	26.60	54.70	49.8%		69.8%									71.1%					63.1%	
77.66 - 77.41	2927	1979	4906	28.15	23.68	51.83	56.5%		75.9%								54.7%						64.4%	
77.41 - 77.17	2942	1986	4928	28.20	23.68	51.88	56.7%		76.1%								54.9%						64.6%	
77.17 - 72.17	3272	2129	5401	29.23	23.68	52.91	60.2%		79.7%								57.9%						68.0%	
72.17 - 67.17	3626	2277	5902	30.26	23.68	53.94	63.4%		82.8%								60.7%						71.2%	
67.17 - 66.58	3669	2294	5963	30.38	23.68	54.06	63.8%		83.2%								61.0%						71.5%	
66.58 - 66.33	3574	3316	6890	30.44	28.63	59.07	48.7%		70.5%			65.8%					61.0%							
66.33 - 66.16	3587	3323	6909	30.47	28.63	59.10	48.8%		70.6%			65.8%					61.1%							
66.16 - 65.91	3608	2297	5905	30.52	19.87	50.39	60.3%					78.1%					71.1%							
65.91 - 62.66	3851	2393	6243	31.19	19.87	51.06	62.3%					79.9%					72.9%							
62.66 - 62.41	3867	2316	6183	31.24	16.95	48.19	60.3%					84.0%												
62.41 - 60	4054	2386	6440	31.74	16.95	48.69	61.6%					85.3%												
60 - 59.75	4074	2393	6467	31.79	16.95	48.74	61.8%					85.4%												
59.75 - 54.75	4483	2541	7024	32.82	16.95	49.77	64.4%					87.8%												
54.75 - 52.83	4647	2599	7246	33.22	16.95	50.17	65.3%					88.7%												
52.83 - 52.58	4669	5243	9912	33.27	39.90	73.17	49.2%	61.3%				65.3%										55.3%		
52.58 - 51.41	4771	5315	10086	33.51	39.90	73.41	49.7%	61.7%				65.8%										55.7%		
51.41 - 51.16	4806	2842	7648	33.56	22.95	56.51	68.6%	82.5%														70.5%		
51.16 - 51	4820	2847	7667	33.60	22.95	56.55	68.7%	82.6%														70.6%		
51 - 45.5	5999	2731	8730	40.85	16.95	57.80	58.4%	83.9%																
45.5 - 44.25	6136	2770	8906	41.15	16.95	58.10	58.8%	84.3%																
44.25 - 44	6219	3952	10171	41.22	34.60	75.82	56.1%	69.1%							57.0%						66.4%			
44 - 43.08	6323	3993	10316	41.44	34.60	76.04	56.4%	69.3%							57.3%						66.7%			
43.08 - 42.83	6343	4625	10968	41.51	28.95	70.46	53.9%				72.1%				72.1%						69.3%			
42.83 - 37.83	6925	4891	11816	42.74	28.95	71.69	55.5%				73.4%				73.4%						70.7%			
37.83 - 32.83	7541	5165	12707	43.98	28.95	72.93	57.0%				74.5%				74.5%						72.0%			
32.83 - 29.25	8005	5366	13370	44.86	28.95	73.81	58.1%				75.3%				75.3%						72.9%			
29.25 - 29	8038	5380	13417	44.92	28.95	73.87	58.1%				75.3%			75.3%							73.0%			
29 - 27.75	8204	5451	13655	45.23	28.95	74.18	58.5%				75.6%			75.6%							73.2%			
27.75 - 27.5	8238	5465	13703	45.30	28.95	74.25	58.6%			72.9%				75.6%							73.3%			
27.5 - 24.08	8706	5662	14369	46.14	28.95	75.09	59.5%			73.5%				76.2%							74.0%			
24.08 - 23.83	8683	6993	15676	46.20	34.60	80.80	50.3%			66.3%				68.8%		69.1%					73.6%			
23.83 - 23.5	8729	7017	15746	46.28	34.60	80.88	50.4%			66.4%				68.9%		69.2%					73.7%			
23.5 - 23.25	8783	1585	10368	46.35	25.08	71.42	81.2%			79.8%						77.3%				66.9%				
23.25 - 18.91	9407	1655	11061	47.42	25.08	72.49	82.3%			80.3%						77.8%				67.6%				
18.91 - 18.66	9424	3631	13055	47.48	16.95	64.43	66.2%			86.3%				89.5%										
18.66 - 18.08	9510	3651	13161	47.63	16.95	64.58	66.4%			86.4%				89.6%										
18.08 - 17.83	9807	6225	16032	47.69	30.73	78.41	62.7%			78.0%			75.1%							64.4%					
17.83 - 12.83	10581	6544	17125	48.92	30.73	79.65	63.9%			78.7%			75.8%							65.3%					
12.83 - 7.83	11394	6871	18265	50.16	30.73	80.88	65.1%			79.2%			76.4%							66.1%					
7.83 - 2.83	12248	7207	19455	51.40	30.73	82.12	66.3%			79.7%			76.9%							66.8%					
2.83 - 0	12749	7401	20150	52.10	30.73	82.82	66.9%			79.9%			77.2%							67.1%					

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

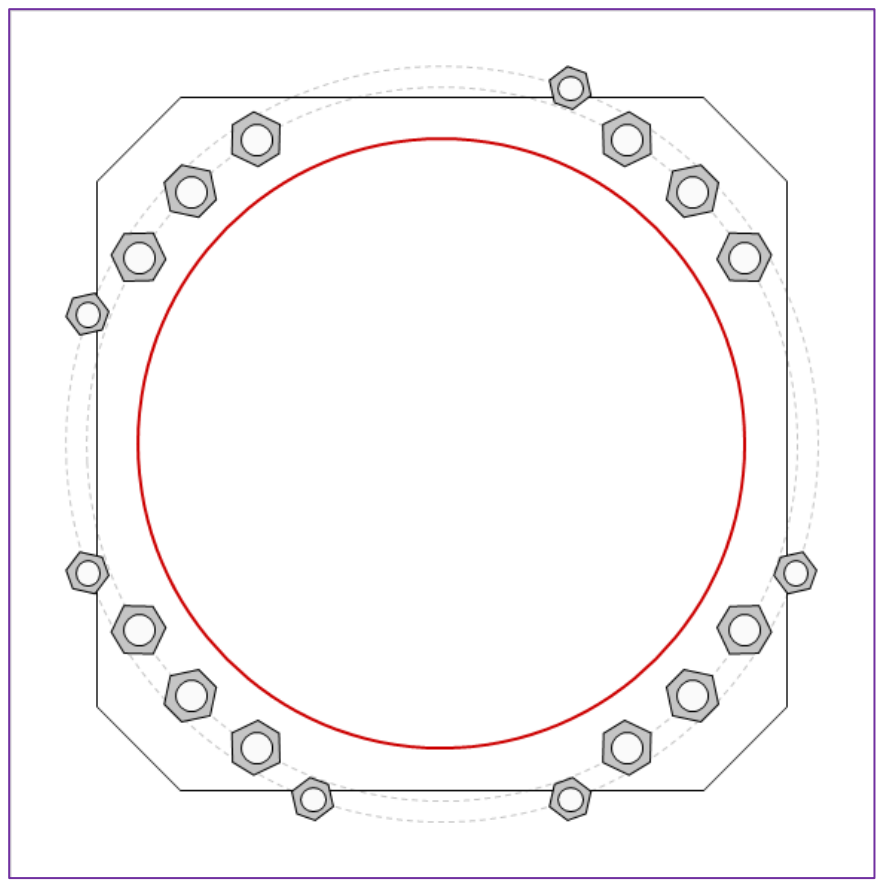
Monopole Base Plate Connection

Site Info	
BU #	876335
Site Name	East Farmington
Order #	662912 REV. 0

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

Applied Loads	
Moment (kip-ft)	3031.11
Axial Force (kips)	54.13
Shear Force (kips)	27.50

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

GROUP 1: (12) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 51" BC

Anchor Spacing: 6 in

GROUP 2: (6) 1-3/4" ø bolts (A193 Gr. B7 N; Fy=105 ksi, Fu=125 ksi) on 54.08" BC

pos. (deg): 70, 160, 200, 250, 290, 340

Base Plate Data

49.5" W x 3" Plate (A572-50; Fy=50 ksi, Fu=65 ksi); Clip: 6 in

Stiffener Data

N/A

Pole Data

43.58" x 0.375" 12-sided pole (A607-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

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

GROUP 1:		
Pu_c = 235.54	ϕPn_c = 268.39	**Stress Rating**
Vu = 2.29	ϕVn = 120.77	**83.6%**
Mu = n/a	ϕMn = n/a	**Pass**
GROUP 2:		
Pu_t = 127.14	ϕPn_t = 178.13	**Stress Rating**
Vu = 0	ϕVn = 112.75	**68.0%**
Mu = 0	ϕMn = 84.41	**Pass**

Base Plate Summary

Max Stress (ksi):	37.72	(Flexural)
Allowable Stress (ksi):	45	
Stress Rating:	**79.8%**	**Pass**

CCIplate

Elevation (ft)	0	*(Base)*

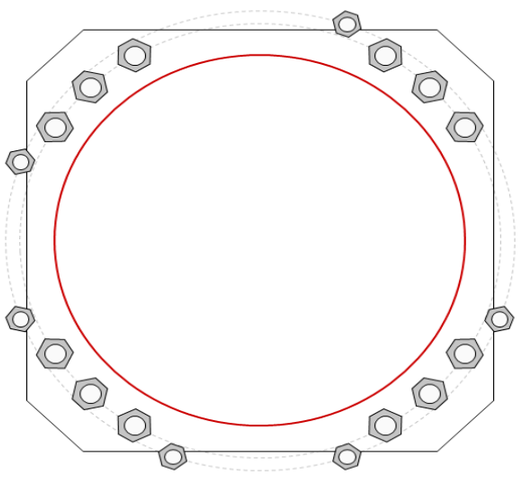
note: Bending interaction not considered when Grout Considered = "Yes"

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

Custom Bolt Connection

Bolt	Bolt Group ID	Location (deg.)	Diameter (in)	Material	Bolt Circle (in)	Eta Factor, η:	l_{ar} (in):	Thread Type	Area Override, in^2	Tension Only
1	1	31.487346	2.25	A615-75	51	0.55	2.5	N-Included		No
2	1	45	2.25	A615-75	51	0.55	2.5	N-Included		No
3	1	58.512654	2.25	A615-75	51	0.55	2.5	N-Included		No
4	1	121.48735	2.25	A615-75	51	0.55	2.5	N-Included		No
5	1	135	2.25	A615-75	51	0.55	2.5	N-Included		No
6	1	148.51265	2.25	A615-75	51	0.55	2.5	N-Included		No
7	1	211.48735	2.25	A615-75	51	0.55	2.5	N-Included		No
8	1	225	2.25	A615-75	51	0.55	2.5	N-Included		No
9	1	238.51265	2.25	A615-75	51	0.55	2.5	N-Included		No
10	1	301.48735	2.25	A615-75	51	0.55	2.5	N-Included		No
11	1	315	2.25	A615-75	51	0.55	2.5	N-Included		No
12	1	328.51265	2.25	A615-75	51	0.55	2.5	N-Included		No
13	2	70	1.75	A193 Gr. B7	54.08	0.5	4.75	N-Included		Yes
14	2	160	1.75	A193 Gr. B7	54.08	0.5	4.75	N-Included		Yes
15	2	200	1.75	A193 Gr. B7	54.08	0.5	4.75	N-Included		Yes
16	2	250	1.75	A193 Gr. B7	54.08	0.5	4.75	N-Included		Yes
17	2	290	1.75	A193 Gr. B7	54.08	0.5	4.75	N-Included		Yes
18	2	340	1.75	A193 Gr. B7	54.08	0.5	4.75	N-Included		Yes

Plot Graphic



Pier and Pad Foundation

BU # :	876335
Site Name:	East Farmington
App. Number:	662912 REV. 0

TIA-222 Revision:	H
Tower Type:	Monopole

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

Superstructure Analysis Reactions

Compression, P_{comp}:	54.15	kips
Base Shear, Vu_comp:	27.47	kips
Moment, M_u:	3031.11	ft-kips
Tower Height, **H**:	140	ft
BP Dist. Above Fdn, bp_{dist}:	4.75	in

Pier Properties

Pier Shape:	Square	
Pier Diameter, **dpier**:	8	ft
Ext. Above Grade, **E**:	0.5	ft
Pier Rebar Size, **Sc**:	11	
Pier Rebar Quantity, **mc**:	24	
Pier Tie/Spiral Size, **St**:	5	
Pier Tie/Spiral Quantity, **mt**:	12	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	3	in

Pad Properties

Depth, **D**:	9	ft
Pad Width, W_1:	20	ft
Pad Thickness, **T**:	4	ft
Pad Rebar Size (Bottom dir. 2), Sp_2:	9	
Pad Rebar Quantity (Bottom dir. 2), mp_2:	27	
Pad Clear Cover, cc_{pad}:	3	in

Material Properties

Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	3	ksi
Dry Concrete Density, δ**c**:	150	pcf

Soil Properties

Total Soil Unit Weight, γ:	130	pcf
Ultimate Gross Bearing, Qult:	30.000	ksf
Cohesion, **Cu**:	0.000	ksf
Friction Angle, φ:	38	degrees
SPT Blow Count, N_{blows}:	100	
Base Friction, μ:	0.35	
Neglected Depth, **N**:	4.00	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, **gw**:	8	ft

<--Toggle between Gross and Net

Foundation Analysis Checks

	Capacity	Demand	Rating*	Check
Lateral (Sliding) (kips)	367.85	27.47	**7.1%**	**Pass**
Bearing Pressure (ksf)	22.50	3.56	**15.8%**	**Pass**
*Overturning (kip*ft)*	5429.06	3302.95	**60.8%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	6934.25	3182.20	**43.7%**	**Pass**
Pier Compression (kip)	30551.04	117.51	**0.4%**	**Pass**
*Pad Flexure (kip*ft)*	5101.11	1070.58	**20.0%**	**Pass**
Pad Shear - 1-way (kips)	853.95	163.57	**18.2%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.164	0.000	**0.0%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	10202.23	1909.32	**17.8%**	**Pass**

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

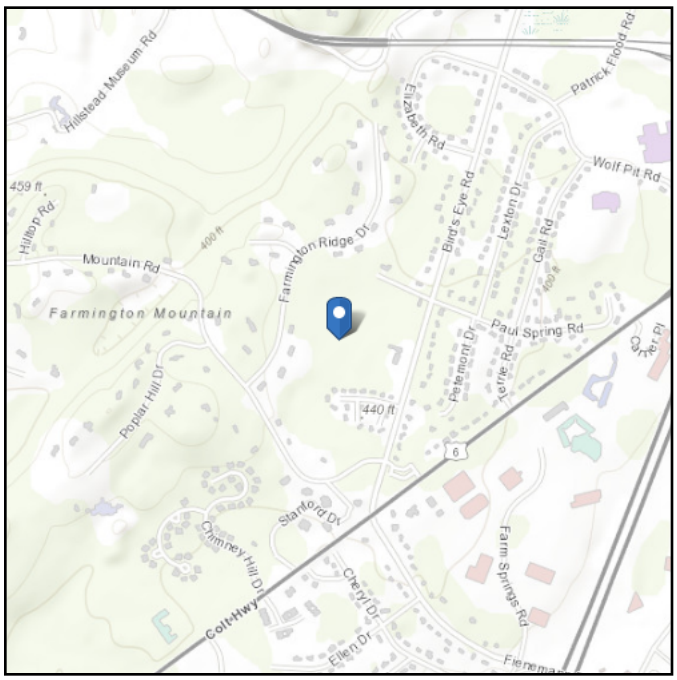
Structural Rating*:	**43.7%**
Soil Rating*:	**60.8%**

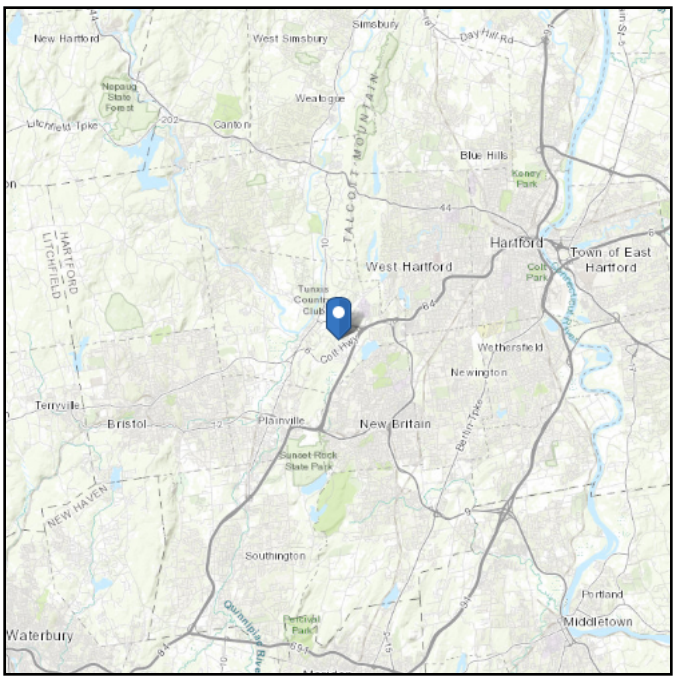
Version 5.0.2

ASCE Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Latitude:**	41.715817
Risk Category:	II	**Longitude:**	-72.810394
Soil Class:	D - Default (see Section 11.4.3)	**Elevation:**	418.452629204132 ft (NAVD 88)





Wind

Results:

Wind Speed	117 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source:	ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed:	Thu Jan 25 2024

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

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

Seismic

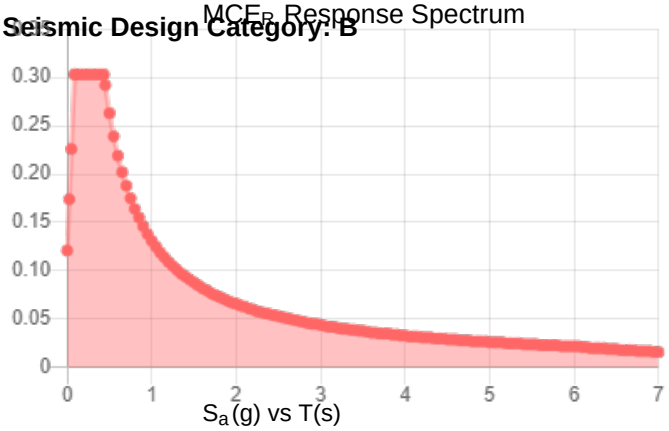
Site Soil Class: D - Default (see Section 11.4.3)

Results:

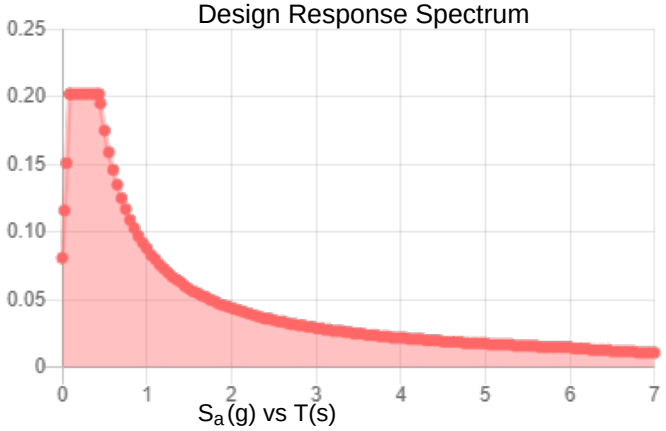
S_S :	0.189	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.102
F_v :	2.4	PGA_M :	0.163
S_{MS} :	0.303	F_{PGA} :	1.595
S_{M1} :	0.131	I_e :	1
S_{DS} :	0.202	C_v :	0.7

Seismic Design Category: B

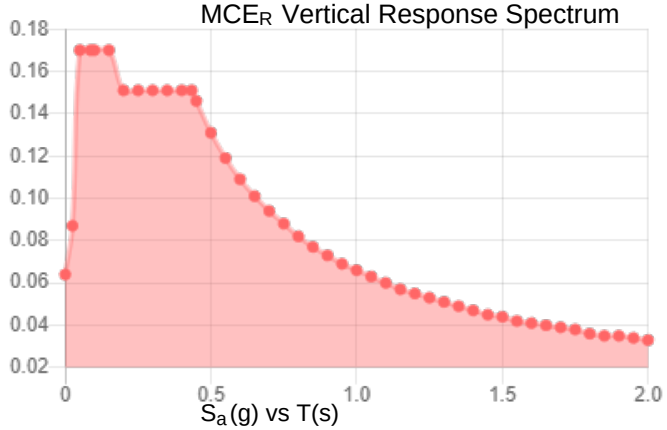
MCE_R Response Spectrum



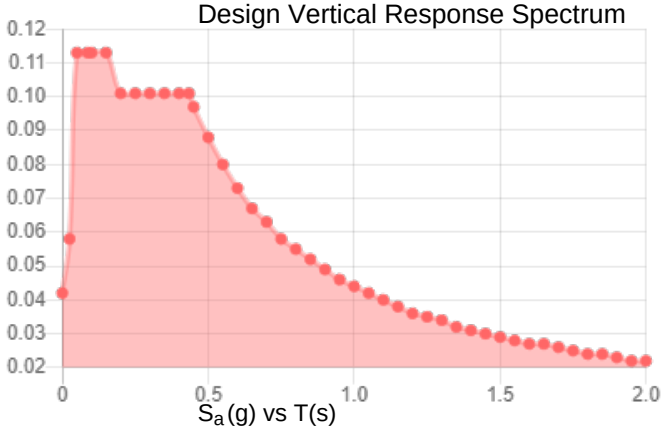
Design Response Spectrum



MCE_R Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed: **Thu Jan 25 2024**

Date Source:

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

Ice

Results:

Ice Thickness:	1.50 in.
Concurrent Temperature:	15 F
Gust Speed	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Thu Jan 25 2024

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

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

EXHIBIT F

Mount Analysis Report

Colliers Engineering & Design, Architecture,
Landscaping Architecture, Surveying, CT, P.C.
1055 Washington Boulevard
Stamford, CT 06901
203.324.0800
peter.albano@collierseng.com

Post-Modification Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10215326
Colliers Engineering & Design Project #: 22777029 (Rev. 1)

December 6, 2023

Site Information	*Site ID:*	*5000386112-VZW / NEW BRITAIN 5 CT*
	Site Name:	*NEW BRITAIN 5 CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*130 Birdseye Road* *Farmington, Connecticut 06032* *Hartford County*
	Latitude:	*41.71581666°*
	Longitude:	*-72.81039444°*
Structure Information	*Tower Type:*	*140-Ft Monopole*
	Mount Type:	*15.50-Ft Platform*

FUZE ID # 16244128

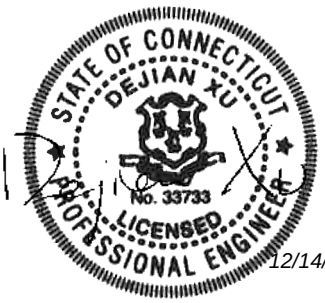
Analysis Results

Platform: **39.5% Pass w/ Modifications***

***Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.**

******Contractor PMI Requirements*:**
Included at the end of this MA report
Available & Submitted via portal at https://pmi.vzwsmart.com
For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: Gianna Argentina



12/14/2023

Executive Summary:

The objective of this report is to summarize the analysis results of the antenna support mount including the proposed modifications at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS, Site ID: 674976, dated September 22, 2023*
Desktop Mount Mapping	*Colliers Engineering & Design, Project #: 22777029, dated March 31, 2022*
Previous Mount Analysis	*Colliers Engineering & Design, Project #: 22777029 (Rev 1), dated November 22, 2023*
Mount Modification Drawings	*Colliers Engineering & Design, Project #: 22777029 (Rev 1), dated December 7, 2023*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	120 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.50 in
	Risk Category:	II
	Exposure Category:	B
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.985
Seismic Parameters:	S_S:	0.188 g
	S_1:	0.055 g
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

The following equipment has been considered for the analysis of the mount:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
108.00	111.50	3	Samsung	MT6413-77A	Added
	110.00	3	Samsung	RF4461d-13A	
		6	Andrew	SBNHH-1D65B	Retained
		3	Antel	BXA-70063-4CF	
		3	Samsung	B2/B66A RRH-BR049	
		1	Raycap	12 OVP*	
	108.50	3	Samsung	XXDWMM-12.5-65-8T-CBRS	

* Equipment is flush mounted directly to the Monopole. It is not mounted on the platform mount and is not included in this mount analysis.

The recent mount mapping reported existing OVP units. It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Colliers Engineering & Design and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Colliers Engineering & Design to verify deviation will not adversely impact the analysis.

2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

   Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

   The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

4. 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.

5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Colliers Engineering & Design is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
   - Channel, Solid Round, Angle, Plate — ASTM A36 (Gr. 36)
   - HSS (Rectangular) — ASTM 500 (Gr. B-46)
   - Pipe — ASTM A53 (Gr. B-35)
   - Threaded Rod — F1554 (Gr. 36)
   - Bolts — ASTM A325

8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Colliers Engineering & Design.

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff Horizontal	11.5 %	Pass
Platform Crossmember	17.5 %	Pass
Corner Plate	15.9 %	Pass
Grating Support	10.9 %	Pass
Cross Arm Plate	32.8 %	Pass
Face Horizontal	18.4 %	Pass
Mount Pipe	39.5 %	Pass
Kicker	12.7 %	Pass
Support Rail	16.1 %	Pass
Corner Angle	32.5 %	Pass
Mount Connection	27.4 %	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**39.5%**

Mount Connection Envelope Reactions:

Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector C Standoff	108	N1	434	3705	0.416	1.533	446	4232	0.367	0.476
Sector B Standoff	108	N30	412	3649	0.393	1.582	407	4190	0.328	0.462
Sector A Standoff	108	N58	431	3768	0.412	1.506	422	4232	0.341	0.447
Sector A Bottom Reinforcement	105	N147	1931	2368	0.000	0.000	3350	4115	0.000	0.000
Sector C Bottom Reinforcement	105	N149	1918	2352	0.000	0.000	3364	4132	0.000	0.000
Sector B Bottom Reinforcement	105	N151	1892	2319	0.000	0.000	3345	4108	0.000	0.000

Notes:
- Axial loads act along the axis of the tower leg
- Lateral reactions act perpendicular to the tower leg
- Moment loads introduce bending moment to the tower leg
- Torsion loads introduce twisting moment to the tower leg
- Batch solutions by individual load cases are included at the end of this document

Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	32.8	32.8	45.7	45.7
0.5	42.6	42.6	61.0	61.0
1	51.4	51.4	75.3	75.3

Notes:
- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 3 sector(s).
- Ka factors included in (EPA)a calculations

Requirements:

The existing mount will be **SUFFICIENT** for the final loading configuration (attachment 2) after the modifications detailed in attachment 3 are successfully completed.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

1. **Contractor Required PMI Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Modification Drawings
4. Mount Photos
5. Mount Mapping Report (for reference only)
6. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

Electronic pdf version of this can be downloaded at https://pmi.vzwsmart.com
For additional questions and support, please reach out to pmisupport@colliersengineering.com

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MDG #: 5000386112 SMART Project #: 10215326 Fuze Project ID: 16244128

Purpose – to upload the proper documentation to the SMART Tool in order to allow the SMART Tool engineering vendor to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the modification was completed in accordance with the modification drawings.
- Contractor shall relay any data that can impact the performance of the mount or the mount modification, this includes safety issues.

Base Requirements:

- If installation of the modification will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide "as built drawings" showing contractor's name, preparer's signature, and date. Any deviations from the drawings (proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the post-modification passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo shall be time and date stamped.
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: **https://pmi.vzwsmart.com**

Photo Requirements:

- *Photos taken at ground level*
  - Photo of Gate Signs showing the tower owner, site name, and number.
  - Overall tower structure after installation of the modifications.
  - Photos of the mount after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed

- *Photos taken at Mount Elevation*
  - Photos showing the safety climb wire rope above and below the mount prior to modification.
  - Photos showing the climbing facility and safety climb if present.

- Photos showing each individual sector after installation of modifications. Each entire sector must be in one photo to show the interconnection of members.
    - These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.
- Photos of each installed modification per the modification drawings; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
- Photos showing the distances (relative distance between collars) of the installed modifications from the appropriate reference locations shown in the modification drawings.
- Photos showing the installed modifications onto the tower (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, an elevation measurement shall be provided before the elevation change.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by the SMART Tool vendor.
    - If the materials are as specified on the drawings
        - The contractor shall provide the packing list, or the materials certifications for the materials utilized to perform the mount modification
        - Commscope, Metrosite, Perfect Vision, Sabre, and Site Pro have all agreed to support Verizon vendors with the necessary material certifications
    - If seeking permission to use an equivalent
        - It is required that the SMART Tool engineering vendor approval of such is included in the contractor submission package. There may be an additional charge for approval if the equivalent submission doesn't meet specifications as prescribed in the drawings.

☐ All hardware has been properly installed, and the existing hardware was inspected.

☐ The material utilized was as specified on the SMART Tool engineering vendor Mount Modification Drawings and included in the material certification folder is a packing list or invoice for these materials.

OR

☐ The material utilized was approved by a SMART Tool engineering vendor as an "equivalent" and this approval is included as part of the contractor submission.

Antenna & Equipment Placement and Geometry Confirmation:

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

☐ The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

Comments:

Was the mount modification completed in conjunction with the equipment change / installation?

☐ Yes ☐ No

Special Instructions / Validation as required from the MA or Mod Drawings:

Issue:

Response:

Special Instruction Confirmation:

☐ The contractor has read and acknowledges the above special instructions.

Comments:

Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Comments:

Certifying Individual:

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

u **A** ScFFclce

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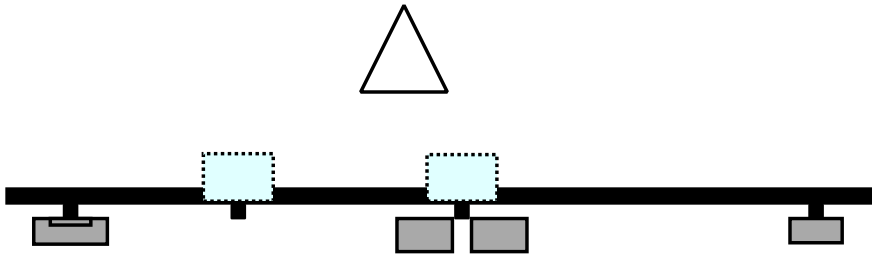
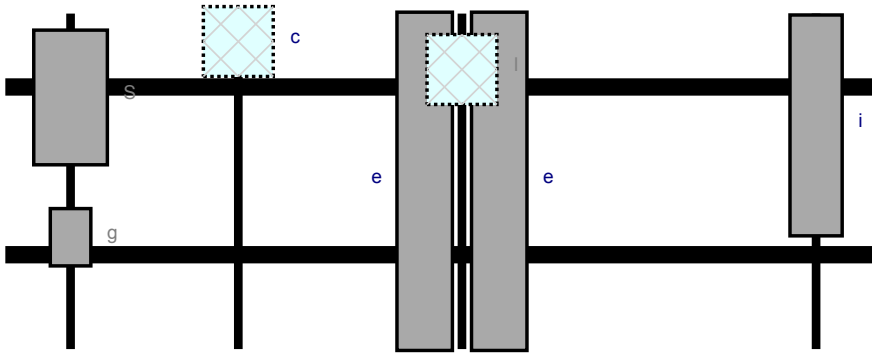
Colliers Engineering & Design

Plan View



Front View - 0 0



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l cFll 0 D lgp09 lS DS:	Si	Si	po	c	Sc	l	llFclFclcl
c ggl S DSe	Si	Si	il	e	l	l	
S lgSeDnn	coEp	SiEo	Sg	g	So	l	
g DScE DiDo D	ScEe	oEn	Sg	g	go	l	llFclFclcl

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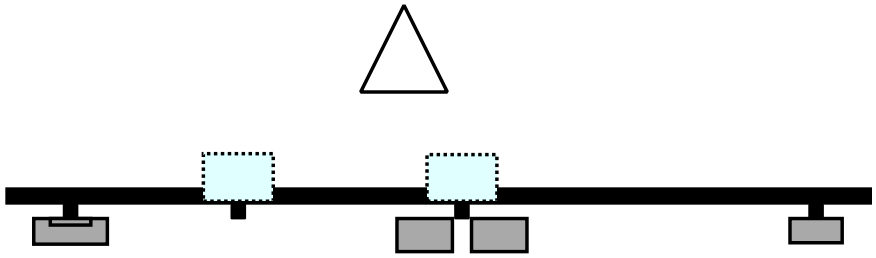
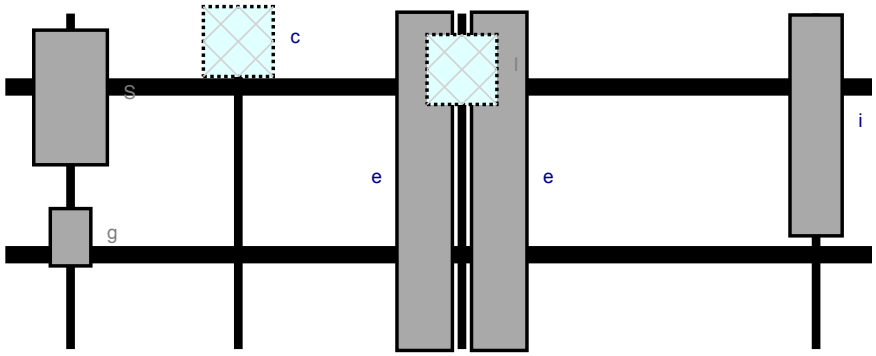
Colliers Engineering & Design

Plan View



Front View - 0 0



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e DS li	ncE	SSEp	po	c		el	o	llFclFclcl
l cFll 0 D lgp09 lS DS:	Si	Si	po	c		Sc	l	llFclFclcl
c ggl S DSe	Si	Si	il	e		l	l	
S lgSeDnn	coEp	SiEo	Sg	g		So	l	
g DScE DiDo D	ScEe	oEn	Sg	g		go	l	llFclFclcl

u **C** ScFFclce

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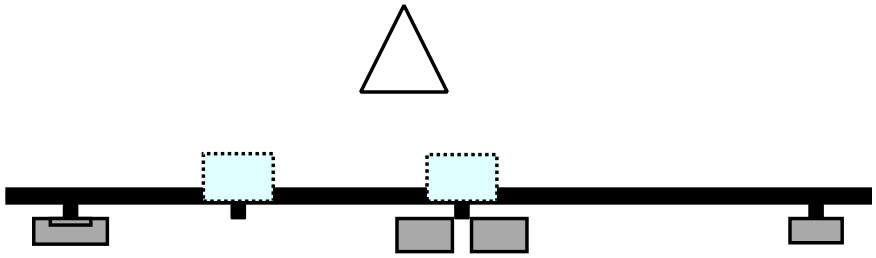
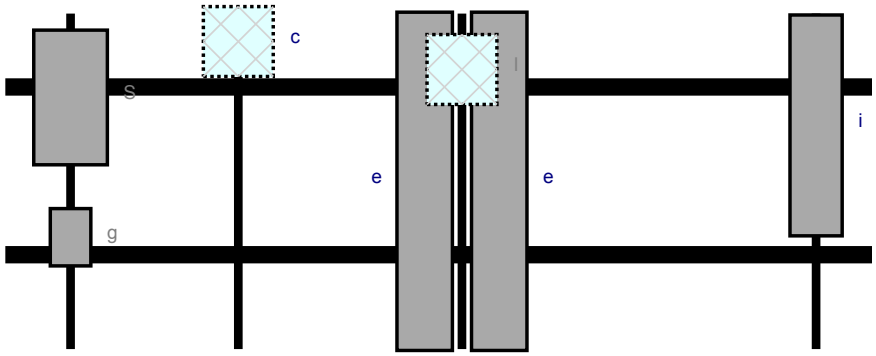
Colliers Engineering & Design

Plan View



Front View - 0 0



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e DS li	ncE	SSEp	po	c	el	o	llFclFclcl
l cFll 0 D lgp09 lS DS:	Si	Si	po	c	Sc	l	llFclFclcl
c ggl S DSe	Si	Si	il	e	l	l	
S lgSeDnn	coEp	SiEo	Sg	g	So	l	
g DScE DiDo D	ScEe	oEn	Sg	g	go	l	llFclFclcl

MOUNT MODIFICATION DRAWINGS
EXISTING 15.50' PLATFORM

TOWER OWNER: CROWN CASTLE
TOWER OWNER SITE NUMBER: 876335

CARRIER SITE NAME: NEW BRITAIN 5 CT
CARRIER SITE NUMBER: 5000386112
FUZE ID: 16244128

130 BIRDSEYE ROAD
FARMINGTON, CT 06032
HARTFORD COUNTY

LATITUDE: 41.71581666° N
LONGITUDE: 72.81039444° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 120 MPH
EXPOSURE CATEGORY B
TOPOGRAPHIC CATEGORY: 1
TOPOGRAPHIC CONSIDERED: N/A
TOPOGRAPHIC METHOD: N/A
MEAN BASE ELEVATION (AMSL) = 413.61'

ICE LOADS

ICE WIND SPEED (3 SECOND GUST), V = 50 MPH
ICE THICKNESS = 1.50 IN

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_S = .188
LONG TERM MCER GROUND MOTION, S_1 = .055

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS

PROJECT MANAGER

COMPANY: COLLIERS ENGINEERING & DESIGN
CONTACT: PETER ALBANO
PHONE: 856.797.0412
E-MAIL: PETER.ALBANO@COLLIERSENG.COM

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10215326
VZW MDG #: 5000386112
ANALYSIS DATE: 12/6/2023

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

SHEET	DESCRIPTION
ST-1	TITLE SHEET
SBOM-1	BILL OF MATERIALS
SGN-1	GENERAL NOTES
SCF-1	CLIMBING FACILITY DETAIL
SS-1	MODIFICATION DETAILS
SS-2	MOUNT PHOTOS
SS-3	GEOMETRY VERIFICATION SKETCHES
	SPECIFICATION SHEETS

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STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
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SHEET TITLE: TITLE SHEET

SHEET NUMBER: ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

SECTION 1 - VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	VZWSMART	VZWSMART-P40-238X072	72" LONG, PIPE 2 SCH40 (2.375"OD X 0.154" THK)		22	66
3		VZWSMART-PLK3	SUPPORT RAIL CORNER BRACKET		30	90
9		VZWSMART-MSK1	CROSSOVER PLATE		14	126
3		VZWSMART-MSK2	CROSSOVER PLATE		15	45

SECTION 2 - OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	-		186" LONG, PIPE 2.5 SCH40	GALVANIZED	90	270
3	-		36" LONG, L3X3X1/4	GALVANIZED	15	45

SECTION 3 - REQUIRED SAFETY CLIMB PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
					TOTAL:	642

NOTES:

1. THE MANUFACTURERS LISTED ARE THE APPROVED VENDORS FOR THE VZW MOUNT KITS. EACH MANUFACTURER WILL BE AWARE OF WHICH KITS HAVE BEEN THROUGH THE VZW APPROVAL PROCESS AND THEY ARE IN TURN APPROVED TO SELL. PLEASE NOTE THAT THE MATERIAL UTILIZED ON THE MOUNT MODIFICATIONS WILL BE REVIEWED AS A PART OF THE DESKTOP PMI COMPLETED BY THE SMART TOOL VENDOR. IT WILL BE REQUIRED THAT THE VZW KITS SPECIFIED ARE UTILIZED IN THE MODIFICATIONS.
2. ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM

METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM

PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM

SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM

SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

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SHEET TITLE : BILL OF MATERIALS

SHEET NUMBER : SBOM-1

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. 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/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 30-MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL SYSTEMS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSI/TIA-322.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

STRUCTURAL STEEL

1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
   a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
   b. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS
   c. AISC CODE OF STANDARD PRACTICE
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:

CHANNELS, ANGLES, PLATES, ETC.	ASTM A36 (GR 36)
STEEL PIPE	ASTM A53 (GR 35)
BOLTS	ASTM A325
NUTS	ASTM A563
LOCK WASHERS	LOCKING STRUCTURAL GRADE

3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE IS SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
   a. SUBMIT SHOP DRAWINGS TO

      PETER.ALBANO@COLLIERSENG.COM

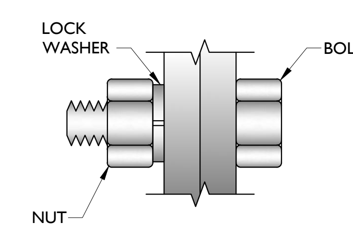
   b. PROVIDE COLLIERS ENGINEERING & DESIGN PROJECT # AND COLLIERS ENGINEERING & DESIGN PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
9. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
10. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
11. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT IS AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
12. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
13. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINC COTE, OR EOR APPROVED EQUAL), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.

BOLT SCHEDULE (IN.)

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	SPACING
1/2	9/16	9/16 x 11/16	7/8	1 1/2
5/8	11/16	11/16 x 7/8	1 1/8	1 7/8
3/4	13/16	13/16 x 1	1 1/4	2 1/4
7/8	15/16	15/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

WORKABLE GAGES (IN.)

LEG	GAGE
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



TYP. BOLT ASSEMBLY

NOTES:

1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
3. SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS
4. MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.

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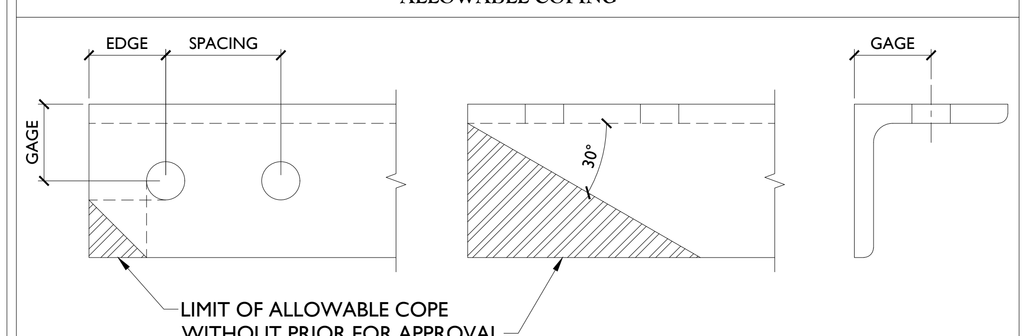

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SHEET TITLE : GENERAL NOTES

SHEET NUMBER : SGN-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

NOTE:

A DESKTOP MAPPING WAS COMPLETED AND THERE IS INSUFFICIENT INFORMATION ON THE CLIMBING FACILITY

STRUCTURAL NOTES:

1. CONTRACTOR TO INSPECT CLIMBING FACILITIES AT SITE AND ENSURE THAT THE SAFETY CLIMB IS IN GOOD CONDITION AND THAT THE WIRE ROPE DOES NOT OR WILL NOT INTERFERE WITH THE EXISTING OR PROPOSED MOUNT CONNECTIONS. CONTRACTOR SHALL INSTALL SAFETY CLIMB WIRE ROPE GUIDED AROUND MOUNT CONNECTIONS AS NEEDED.

2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.

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SHEET TITLE :

CLIMBING FACILITY DETAIL

SHEET NUMBER :

SCF-1

LEGEND:

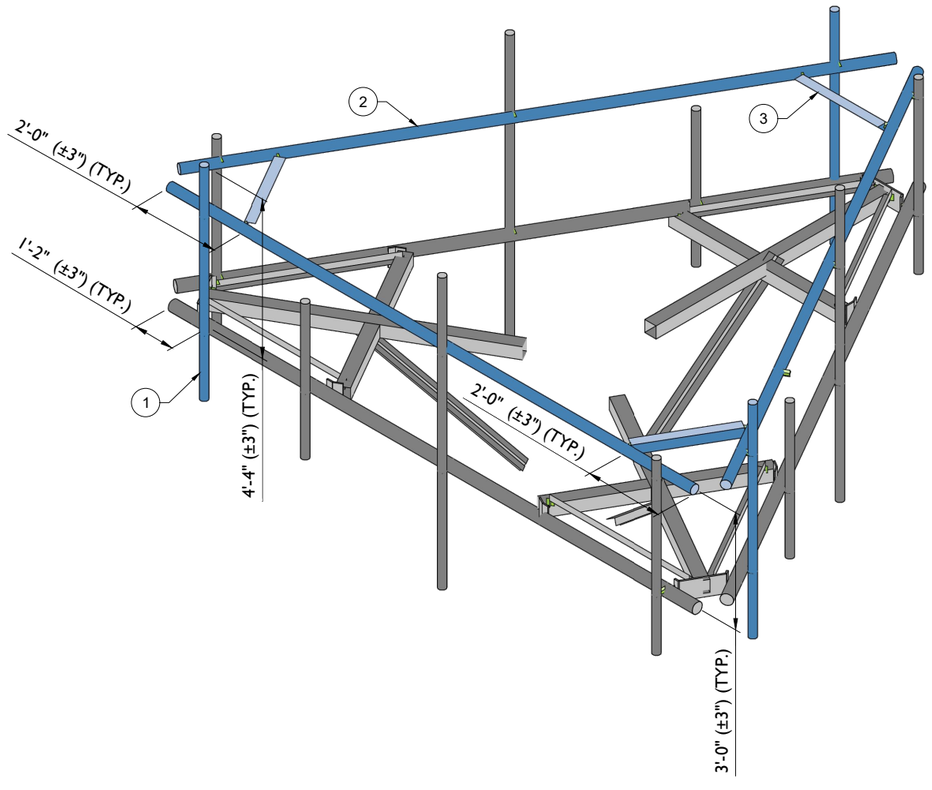
- PROPOSED
- RELOCATED
- EXISTING

MOUNT MODIFICATION SCHEDULE

NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	108'-00"	3	PROPOSED 72" LONG, PIPE 2 SCH40 (PART #: VZWSMART-P40-238X072)	CONNECT NEW MOUNT PIPE TO EXISTING HORIZONTAL WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2) AND TO PROPOSED SUPPORT RAIL WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
2		3	PROPOSED 186" LONG, PIPE 2.5 SCH40	CONNECT NEW HORIZONTAL TO ALL EXISTING AND PROPOSED VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
3		3	PROPOSED 36" LONG, L3X3X1/4	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1. CONTRACTOR SHALL CONNECT PROPOSED ANGLES TO SUPPORT RAIL CORNER BRACKET (PART #: VZWSMART-PLK3) USING THE PROVIDED (8) 5/8" DIA. BOLTS, (4) BOLTS PER CONNECTION.

GENERAL NOTES:

A. CONTRACTOR SHALL VERIFY THAT NEW & EXISTING STEEL IS FREE OF CORROSION. VISIBLE MINOR CORROSION SHALL BE WIRE BRUSHED CLEAN AND TREATED WITH COLD GALVANIZATION. REPORT ANY SIGNIFICANT CORROSION TO EOR
B. THREADED ROD FROM PROPOSED KITS SHALL BE TRIMMED TO EXTEND NO MORE THAN 3" BEYOND THE LOCK NUT. TREAT ALL CUT ENDS WITH (2) COATS OF COLD GALVANIZATION (ZINC KOTE, OR EOR APPROVED EQUAL).
C. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.



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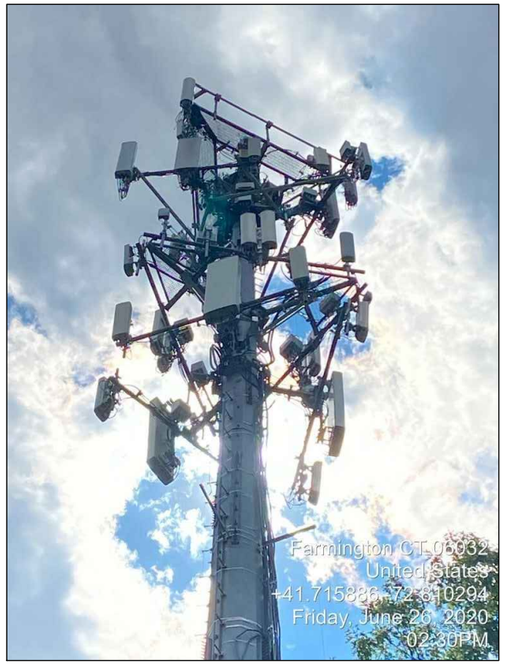
SHEET TITLE : MODIFICATION DETAILS

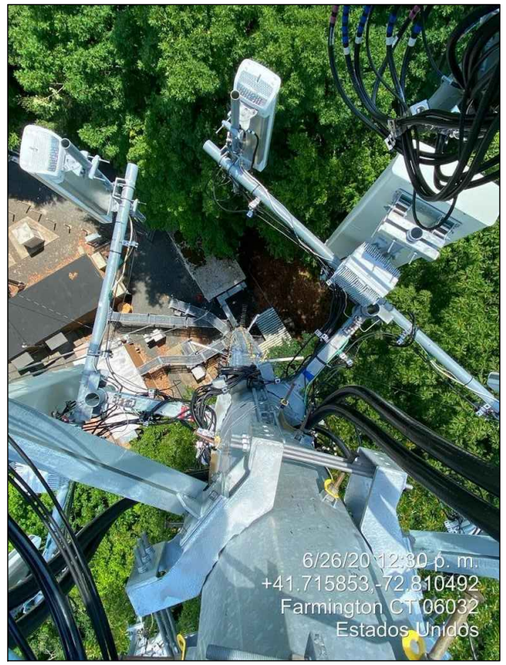
SHEET NUMBER : SS-1



MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3



MOUNT PHOTO 4

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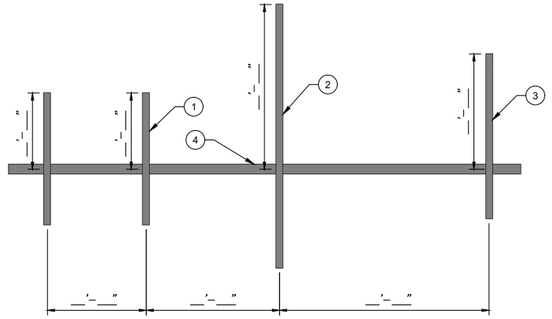
SHEET TITLE :
MOUNT PHOTOS

SHEET NUMBER :
SS-2

EXISTING MEMBERS				
NO.	DESCRIPTION	SHAPE	LENGTH	NOTES
1	MOUNT PIPE			TYP. OF 6, 2 PER SECTOR
2	MOUNT PIPE			TYP. OF 3, 1 PER SECTOR
3	MOUNT PIPE			TYP. OF 3, 1 PER SECTOR
4	FACE HORIZONTAL			TYP. OF 3, 1 PER SECTOR
5	STANDOFF HORIZONTAL			TYP. OF 3, 1 PER SECTOR
6	CROSSMEMBER			TYP. OF 6, 2 PER SECTOR
7	CORNER PLATE			TYP. OF 3, 1 PER SECTOR
8	KICKER			TYP. OF 3, 1 PER SECTOR

LIST ALL SHAPES:
ANGLE (LEG1xLEG2xTH.): EX. L2x2x1/4
CHANNEL (DEPTHxFLANGE WIDTH): EX. CH6"x1-7/8"
PIPE (ODxTH.): EX. PIPE 2.4"x0.12"
PLATE (TH.xDEPTH): EX. PLATE 1/2"x2"

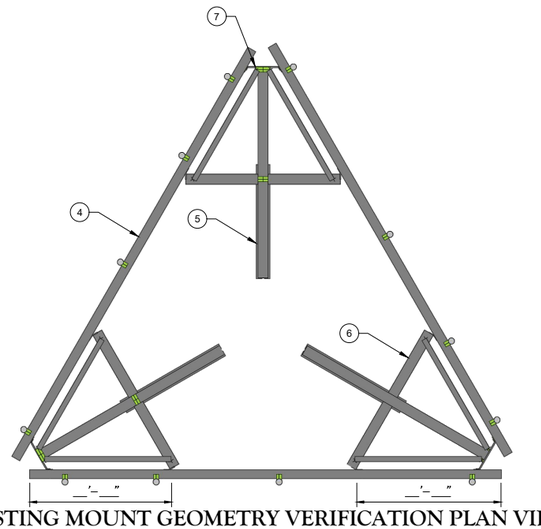


2 EXISTING MOUNT GEOMETRY VERIFICATION FRONT ELEVATION VIEW

SCALE : N.T.S.

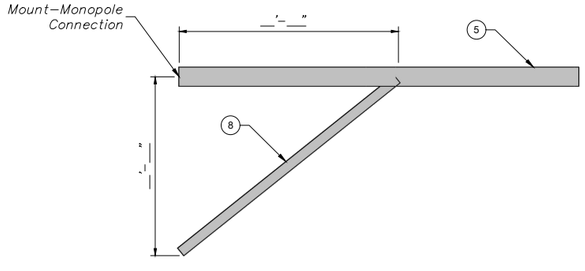
NOTE:

CONTRACTOR SHALL RECORD ALL DIMENSIONS AND MEMBER SIZES SHOWN IN THIS SKETCH. DOCUMENT VIA PHOTOS AND SKETCHES AND PROVIDE TO THE EOR FOR EVALUATION.



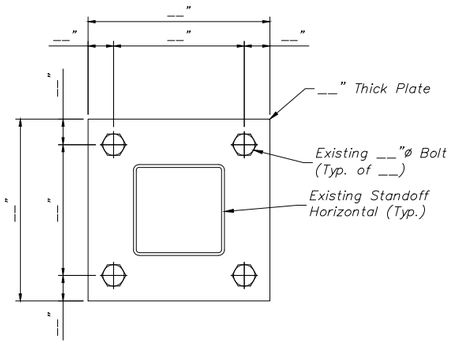
1 EXISTING MOUNT GEOMETRY VERIFICATION PLAN VIEW

SCALE : N.T.S.



3 EXISTING MOUNT GEOMETRY VERIFICATION SIDE ELEVATION VIEW

SCALE : N.T.S.



4 MOUNT CONNECTION DETAIL

SCALE : N.T.S.

Colliers Engineering & Design

www.colliersengineering.com

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811 Know what's below. Call before you dig.

PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE

FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

SCALE : AS SHOWN

JOB NUMBER : 22777029

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	12/07/23	ISSUED FOR CONSTRUCTION	GA	DX
0	05/24/22	ISSUED FOR CONSTRUCTION	SC	DRH

COLLIERS ENGINEERING & DESIGN CT, P.C.
C.T. JPC.0000131

SITE NAME:

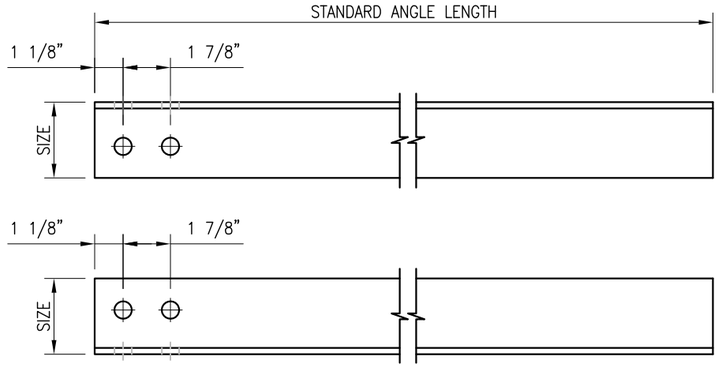
NEW BRITAIN 5 CT
5000386112

130 BIRDSEYE ROAD
FARMINGTON, CT 06032
HARTFORD COUNTY

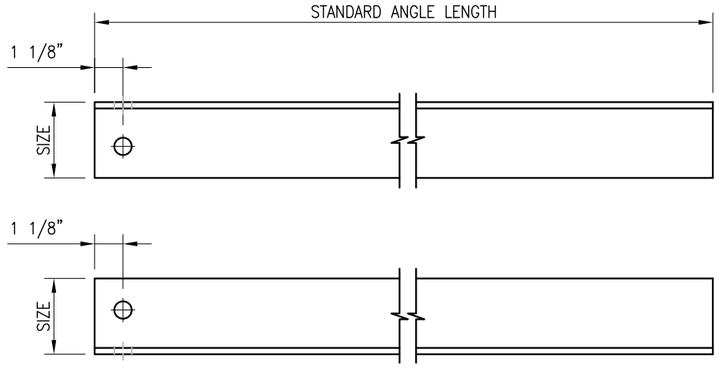
Colliers Engineering & Design
STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

SHEET TITLE : GEOMETRY VERIFICATION SKETCHES

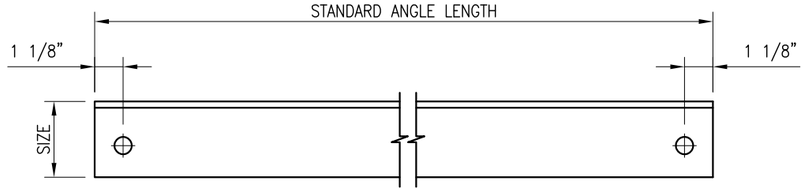
SHEET NUMBER : SS-3

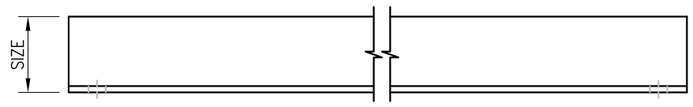


HOLE STYLE "A"

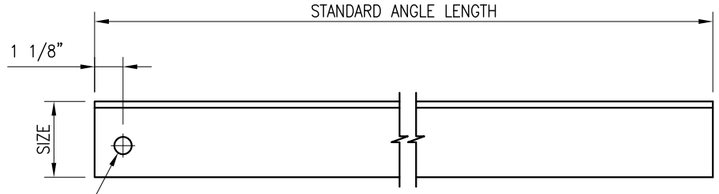


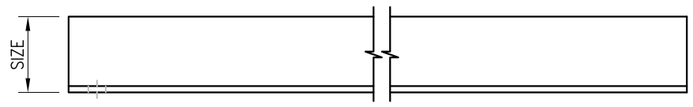
HOLE STYLE "B"





HOLE STYLE "C"





HOLE STYLE "D"

NOTE:
APPROVED SMART KIT VENDORS ARE ALLOWED TO SUBSTITUTE AT THEIR DISCRETION ANGLES LISTED ON THIS PAGE FOR CUSTOM LENGTH COMPONENTS OF MATCHING SIZE. SUBSTITUTIONS SHALL MEET THE ORIGINAL STRUCTURAL INTENT.

NOTES:
1. ALL ANGLE GRADE A36 OR BETTER.
2. HOT-DIPPED GALVANIZED PER ASTM A123.
3. ALL HOLES ARE 11/16" DIA. U.N.O
4. HOLES MAY OR MAY NOT BE PRESENT, DEPEND UPON MANUFACTURE DISCRETION.
5. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA OR ZINC COTE PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

VZWSMART Standard Angle					
VZWSMART Number	Size	Length	Hole Style	Hole Gage	Also Used In:
A-PLK2-01	L 3" X 3" X 1/4"	96"	A	1-3/4"	VZWSMART-PLK2
A-PLK5-01	L 3"X 3" X 3/16"	96"	B	1-3/4"	VZWSMART-PLK5
A-SFK3-01	L 2-1/2" X 2-1/2" X 1/4"	96"	C	1-3/4"	VZWSMART-SFK3,-SFK3-SL, -PLK6, & -PLK8
A-L25X25X4X120	L 2-1/2" X 2-1/2" X 1/4"	120"	D	1-5/16"	
A-L25X25X4X240	L 2-1/2" X 2-1/2" X 1/4"	240"	D	1-5/16"	
A-L30X30X4X120	L 3" X 3" X 1/4"	120"	D	1-1/2"	
A-L30X30X4X240	L 3" X 3" X 1/4"	240"	D	1-1/2"	
A-L40X40X4X120	L 4" X 4" X 1/4"	120"	D	2"	
A-L40X40X4X240	L 4" X 4" X 1/4"	240"	D	2"	
A-L50X30X6X120	L 5" X 3" X 3/8"	120"	D	2-1/2"	
A-L50X50X6X120	L 5" X 5" X 3/8"	120"	D	2-1/2"	

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DRAWN BY: BT | CHECKED BY: HMA/KW

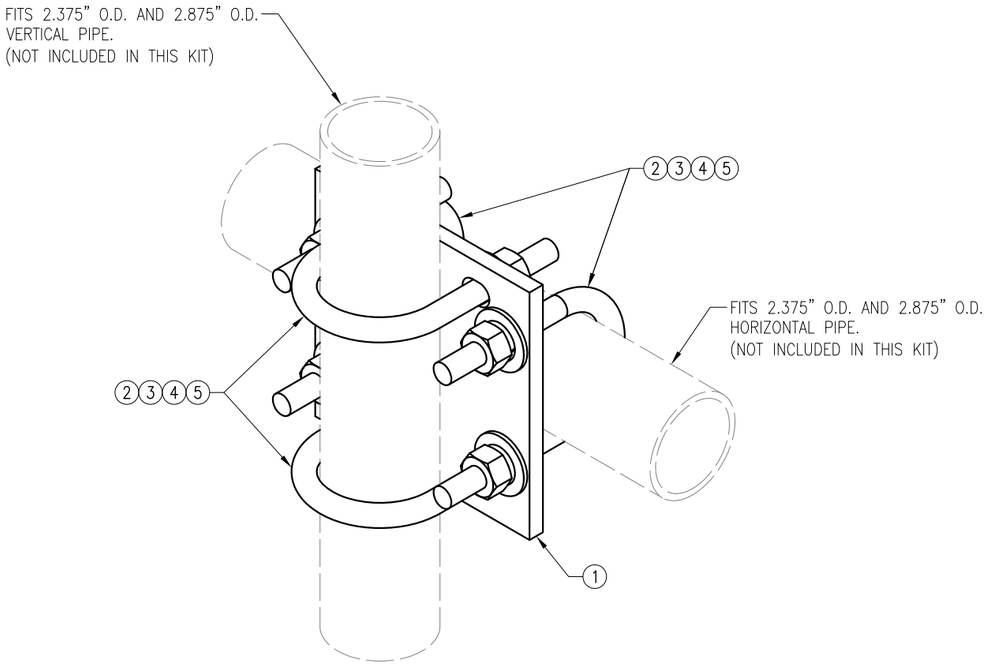
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	08/04/21

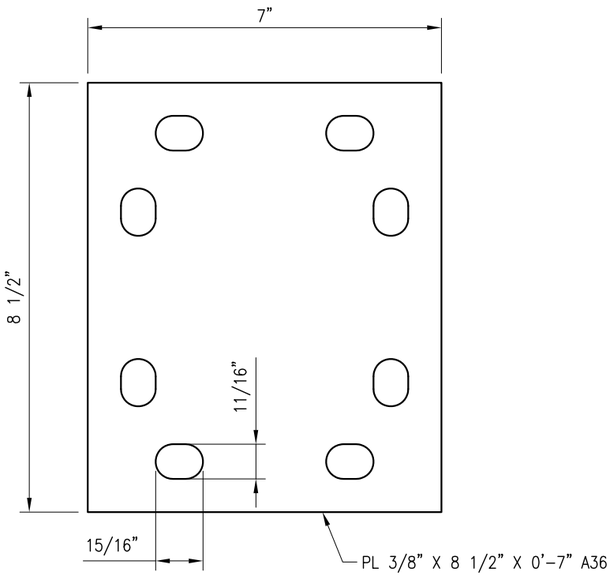
SHEET TITLE:

VZWSMART STANDARD ANGLE

SHEET NUMBER: VZWSMART-ANGLE

REV #: 0





PL375-857

VZWSMART-MSK1 (CROSSOVER PLATE)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-857	PL 3/8" X 8 1/2" X 0'-7" A36	MSK1-F1	6
2	4	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	5
3	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	8	LW-625	5/8" HDG LOCK WASHER	---	0
5	8	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	14

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

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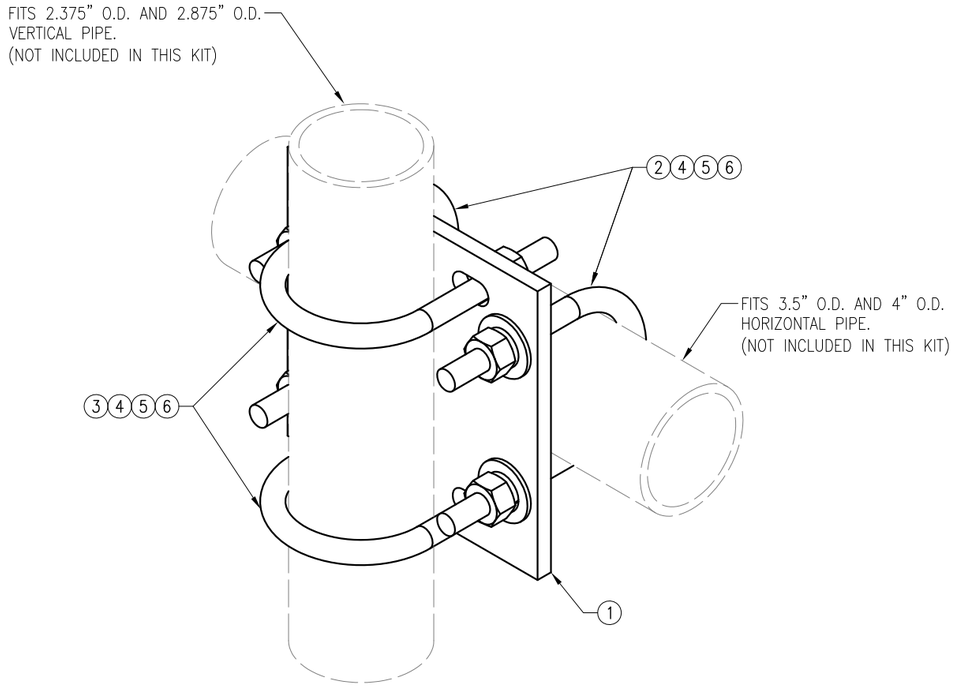
DRAWN BY: H.R | CHECKED BY: HMA

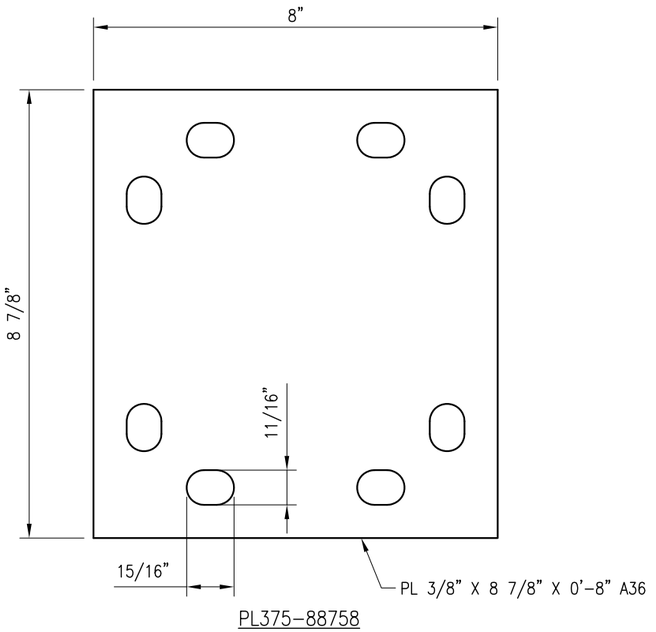
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:
VZWSMART-MSK1
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK1

REV #: 0





PL375-88758

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-MSK2 (CROSSOVER PLATE)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-88758	PL 3/8" X 8 3/4" X 0'-8" A36	MSK2-F1	8
2	2	MS02-625-4125-600	RU-BOLT 5/8" X 4 1/8" I.W. X 6" I.L. A36 (OR EQUIV.)	RBC-1	3
3	2	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	3
4	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
5	8	LW-625	5/8" HDG LOCK WASHER	---	0
6	8	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	15

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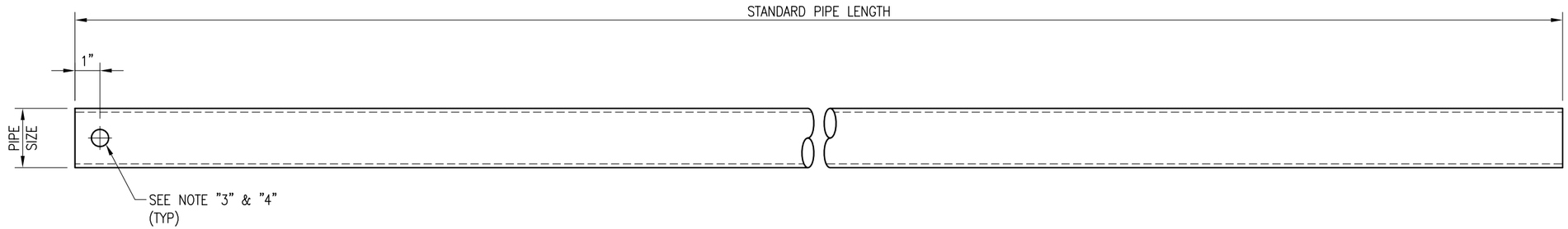
DRAWN BY: H.R | CHECKED BY: HMA

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:
VZWSMART-MSK2
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK2

REV #: 0



VZWSMART Standard Pipe		
VZWSMART Number	Size	Length
P40-238X048	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	48"
P40-238X072	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	72"
P40-238X096	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	96"
P40-238X120	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	120"
P40-238X126	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	126"
P40-238X150	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	150"
P40-238X174	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	174"
P40-278X048	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	48"
P40-278X072	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	72"
P40-278X096	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	96"
P40-278X120	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	120"
P40-278X126	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	126"
P40-278X150	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	150"
P40-278X174	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	174"
P40-312X048	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	48"
P40-312X072	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	72"
P40-312X126	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	126"
P40-312X150	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	150"
P40-312X174	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	174"

NOTE:
APPROVED SMART KIT VENDORS ARE ALLOWED TO SUBSTITUTE AT THEIR DISCRETION PIPES LISTED ON THIS PAGE FOR CUSTOM LENGTH COMPONENTS OF MATCHING SIZE. SUBSTITUTIONS SHALL MEET THE ORIGINAL STRUCTURAL INTENT.

NOTES:
1. ALL PIPE GRADE A53-B OR BETTER.
2. HOT-DIPPED GALVANIZED PER ASTM A123.
3. ALL HOLES ARE 11/16" DIA. U.N.O
4. HOLES MAY OR MAY NOT BE PRESENT, DEPEND UPON MANUFACTURE DISCRETION.
5. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA OR ZINC COTE PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

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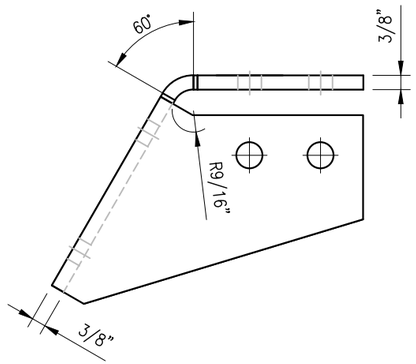
DRAWN BY: BT | CHECKED BY: HMA/KW

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	08/04/21

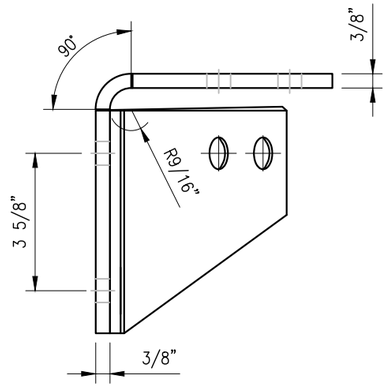
SHEET TITLE:
VZWSMART STANDARD PIPE

SHEET NUMBER: VZWSMART-PIPE

REV #: 0

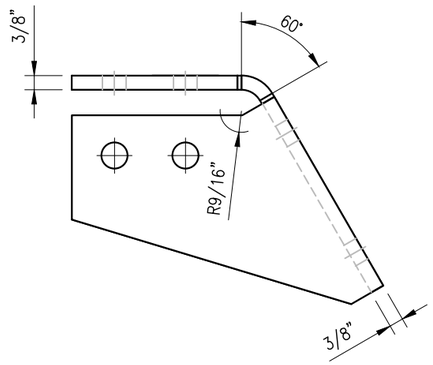


TOP VIEW

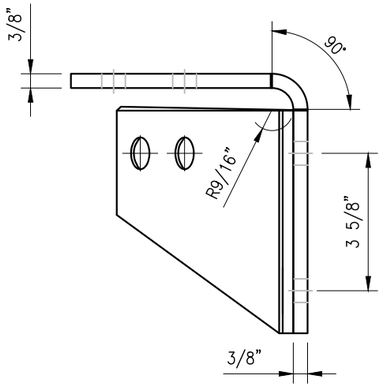


SIDE VIEW

CBP-L



TOP VIEW



SIDE VIEW

CBP-R

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-PLK3 (SUPPORT RAIL CORNER BRACKET)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	CBP-L	CORNER BENT PLATE BRACKET	PLK3-F1	9
2	1	CBP-R	CORNER BENT PLATE BRACKET	PLK3-F1	9
3	4	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	5
4	8	---	BOLT 5/8" X 2" A325	---	3
5	16	FW-625	5/8" HDG USS FLAT WASHER	---	1
6	16	LW-625	5/8" HDG LOCK WASHER	---	0
7	16	NUT-625	5/8" HDG HEX NUT	---	2
				GALVANIZED WT	30

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DRAWN BY: H.R | CHECKED BY: HMA

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:
VZWSMART-PLK3 SUPPORT RAIL CORNER BRACKET

SHEET NUMBER: VZWSMART-PLK3

REV #: 0


6/26/20 11:34 a. m.
+41.715811,-72.810356
Farmington CT 06032
Estados Unidos

Colliers Engineering & Design

Desktop Mount Mapping Form

Site Name:	NEW BRITAIN 5 CT	**Tower Type:**	Monopole
Site ID:		**Tower Owner:**	
FUZE Project ID:		**Tower Height (Ft.):**	140'
Customer:	Verizon Wireless	**Mount Elevation (Ft.):**	
Colliers Project No.	22777029	**Date:**	3/31/2022

Document Type	Provided? (Yes/No)	Source Name	Project No.	Dated	Comments/Remarks
Previous Mount Mapping	No				
Previous Mapping Photos	No				
Previous Mount Analysis	No				
Previous Mount Modifications	No				
Previous Structural Analysis	No				
Construction Drawings	Yes	New+Britain+5+CT+ANTMO+700+TRDU-RRH+CD's+01-28-16+V0		1/28/2016	Secondary Source of information
Closeout Package	No				
Photos	Yes	NewBritain5 Alpha/Beta/Gamma	-	-	Photos show standard Site Pro 1 RMQP mount
Handover Package	No				
New Build 445 Documentation	No				
Other	No				
Previous PMI	No				

The desktop mount mapping is based on the engineering review of the available site documents in FUZE, as listed above, in place of a full mount mapping. It is assumed that the information provided in the documents listed above, provide an accurate representation of the existing mount. EOR reserves the right and will typically require additional clarification and verification as will be included in the PMI requirements. During the Post Modification Inspection (PMI) process, the GC on site will be required to confirm all questions, confirmations, and validations as posed by the EOR. The engineering review for this desktop mount mapping was performed in accordance to the ANSI/TIA-222-H requirements and Verizon's NSTD446 standard.

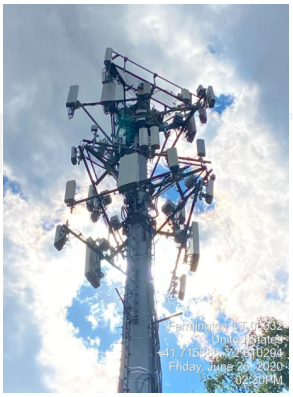
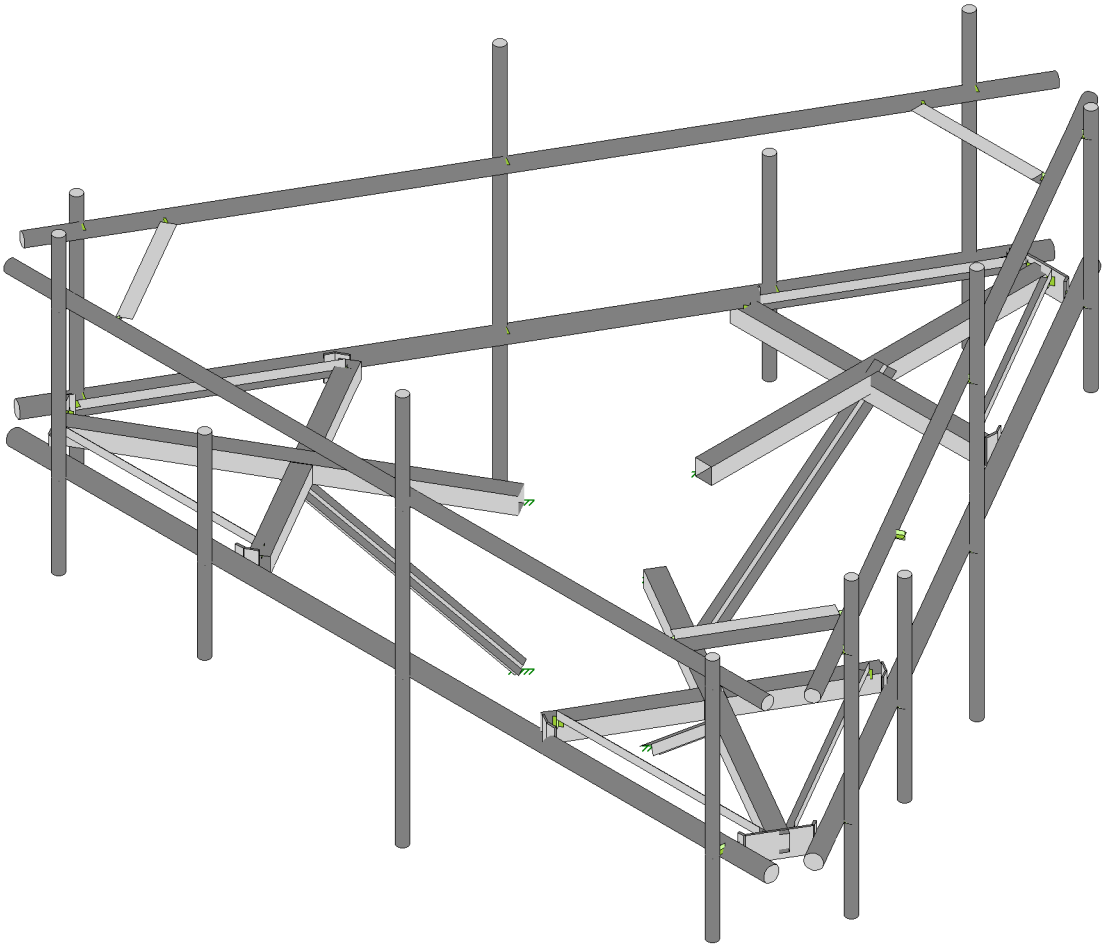


Photo taken from: Closeout Package

Photo taken from: Closeout Package



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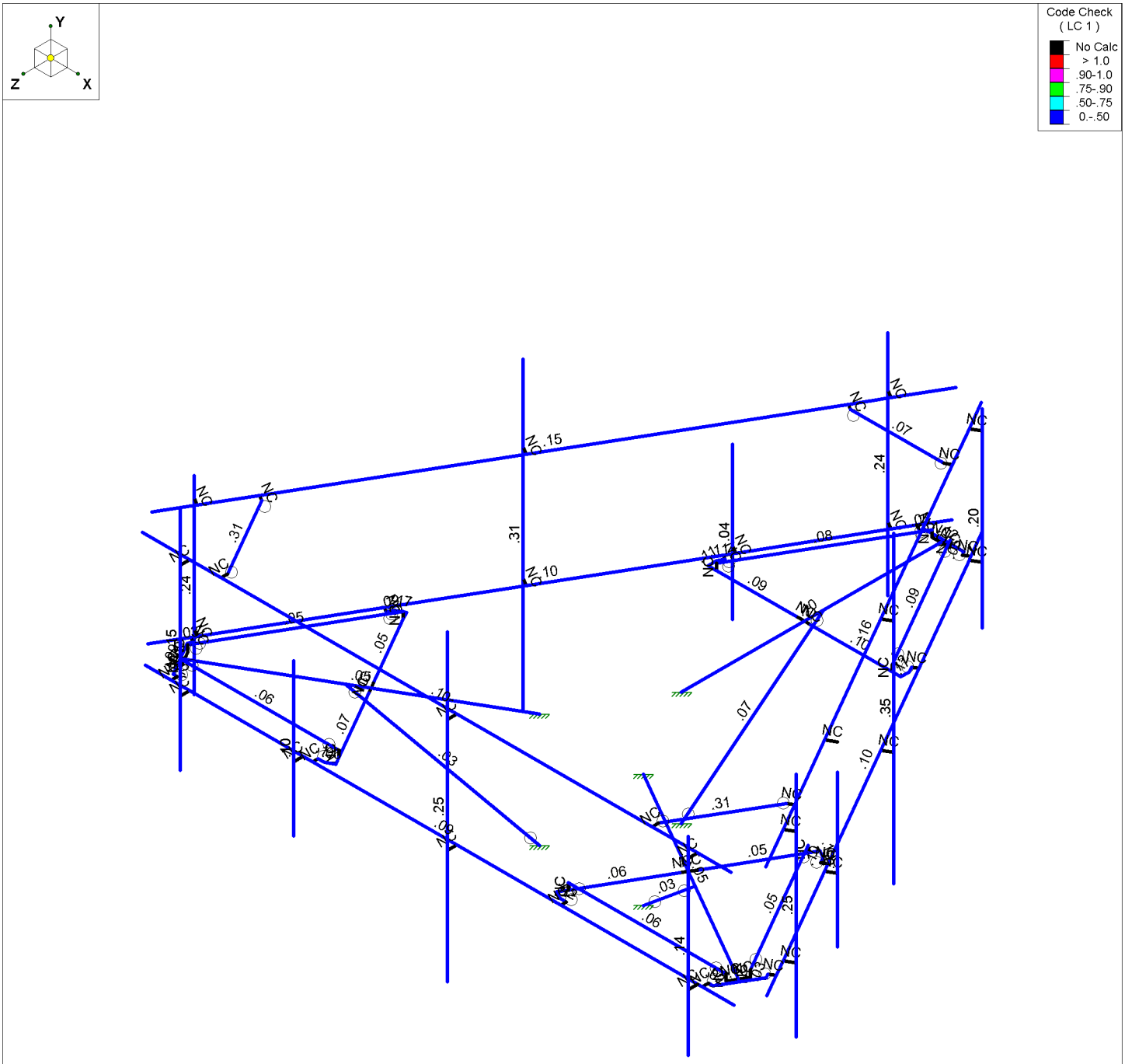
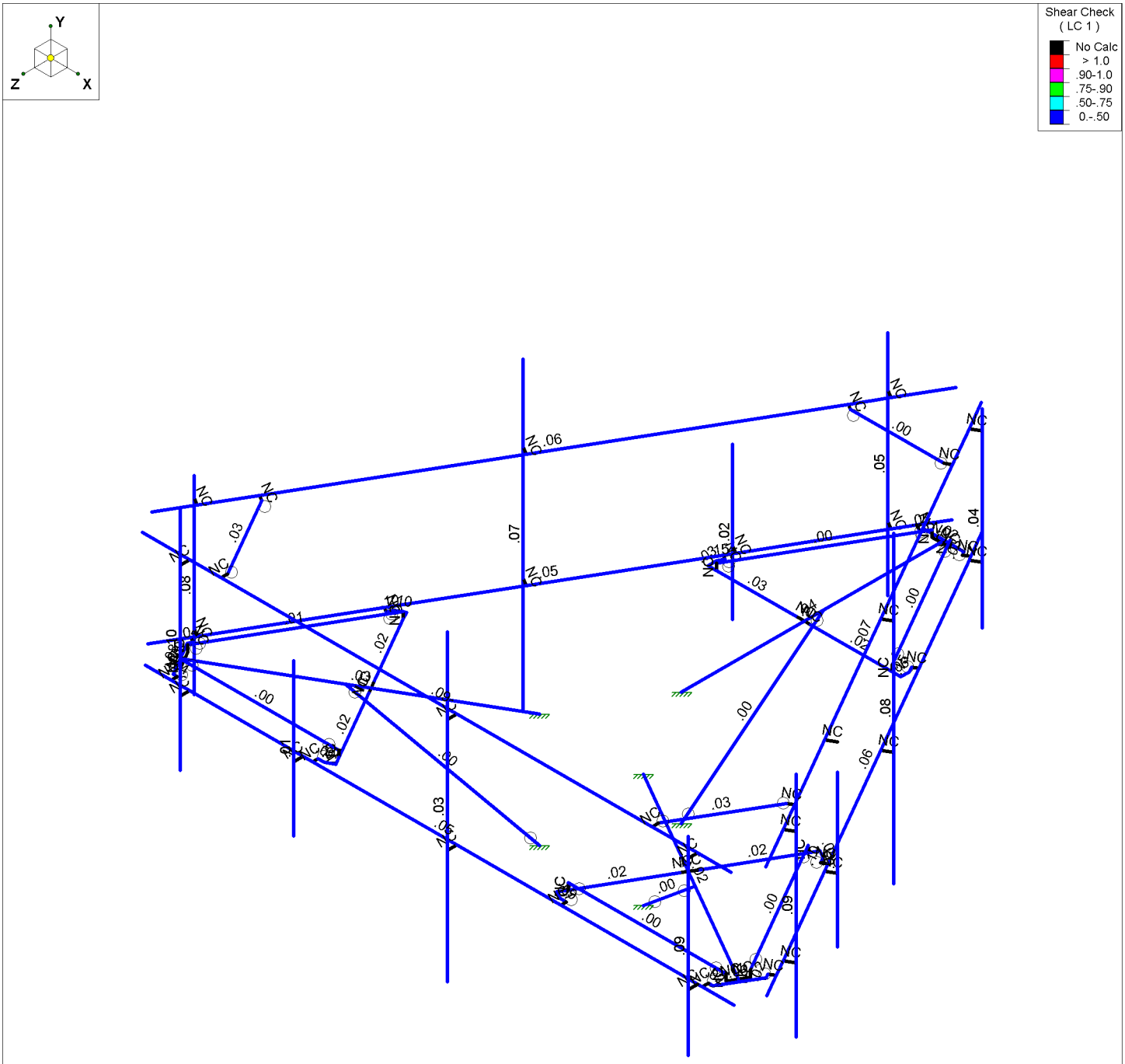
		Dec 6, 2023 at 4:37 PM
		5000386112-VZW_MT_LO_H.r3d



Member Code Checks Displayed
Results for LC 1, 1.2D+1.0Wo (0 Deg)

		SK - 2
		Dec 6, 2023 at 4:37 PM
		5000386112-VZW_MT_LO_H.r3d



Member Shear Checks Displayed
Results for LC 1, 1.2D+1.0Wo (0 Deg)

		SK - 3
		Dec 6, 2023 at 4:37 PM
		5000386112-VZW_MT_LO_H.r3d

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Antenna D	None					99			
2	Antenna Di	None					99			
3	Antenna Wo (0 Deg)	None					99			
4	Antenna Wo (30 Deg)	None					99			
5	Antenna Wo (60 Deg)	None					99			
6	Antenna Wo (90 Deg)	None					99			
7	Antenna Wo (120 Deg)	None					99			
8	Antenna Wo (150 Deg)	None					99			
9	Antenna Wo (180 Deg)	None					99			
10	Antenna Wo (210 Deg)	None					99			
11	Antenna Wo (240 Deg)	None					99			
12	Antenna Wo (270 Deg)	None					99			
13	Antenna Wo (300 Deg)	None					99			
14	Antenna Wo (330 Deg)	None					99			
15	Antenna Wi (0 Deg)	None					99			
16	Antenna Wi (30 Deg)	None					99			
17	Antenna Wi (60 Deg)	None					99			
18	Antenna Wi (90 Deg)	None					99			
19	Antenna Wi (120 Deg)	None					99			
20	Antenna Wi (150 Deg)	None					99			
21	Antenna Wi (180 Deg)	None					99			
22	Antenna Wi (210 Deg)	None					99			
23	Antenna Wi (240 Deg)	None					99			
24	Antenna Wi (270 Deg)	None					99			
25	Antenna Wi (300 Deg)	None					99			
26	Antenna Wi (330 Deg)	None					99			
27	Antenna Wm (0 Deg)	None					99			
28	Antenna Wm (30 Deg)	None					99			
29	Antenna Wm (60 Deg)	None					99			
30	Antenna Wm (90 Deg)	None					99			
31	Antenna Wm (120 De...	None					99			
32	Antenna Wm (150 De...	None					99			
33	Antenna Wm (180 De...	None					99			
34	Antenna Wm (210 De...	None					99			
35	Antenna Wm (240 De...	None					99			
36	Antenna Wm (270 De...	None					99			
37	Antenna Wm (300 De...	None					99			
38	Antenna Wm (330 De...	None					99			
39	Structure D	None		-1					3	
40	Structure Di	None						60	3	
41	Structure Wo (0 Deg)	None						120		
42	Structure Wo (30 Deg)	None						120		
43	Structure Wo (60 Deg)	None						120		
44	Structure Wo (90 Deg)	None						120		
45	Structure Wo (120 D...	None						120		
46	Structure Wo (150 D...	None						120		
47	Structure Wo (180 D...	None						120		
48	Structure Wo (210 D...	None						120		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
49	Structure Wo (240 D...	None						120		
50	Structure Wo (270 D...	None						120		
51	Structure Wo (300 D...	None						120		
52	Structure Wo (330 D...	None						120		
53	Structure Wi (0 Deg)	None						120		
54	Structure Wi (30 Deg)	None						120		
55	Structure Wi (60 Deg)	None						120		
56	Structure Wi (90 Deg)	None						120		
57	Structure Wi (120 De...	None						120		
58	Structure Wi (150 De...	None						120		
59	Structure Wi (180 De...	None						120		
60	Structure Wi (210 De...	None						120		
61	Structure Wi (240 De...	None						120		
62	Structure Wi (270 De...	None						120		
63	Structure Wi (300 De...	None						120		
64	Structure Wi (330 De...	None						120		
65	Structure Wm (0 Deg)	None						120		
66	Structure Wm (30 D...	None						120		
67	Structure Wm (60 D...	None						120		
68	Structure Wm (90 D...	None						120		
69	Structure Wm (120 ...	None						120		
70	Structure Wm (150 ...	None						120		
71	Structure Wm (180 ...	None						120		
72	Structure Wm (210 ...	None						120		
73	Structure Wm (240 ...	None						120		
74	Structure Wm (270 ...	None						120		
75	Structure Wm (300 ...	None						120		
76	Structure Wm (330 ...	None						120		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					99			
82	Antenna Eh (0 Deg)	None					66			
83	Antenna Eh (90 Deg)	None					66			
84	Structure Ev	ELY		-.04					3	
85	Structure Eh (0 Deg)	ELZ			-.1				3	
86	Structure Eh (90 Deg)	ELX	.1						3	
87	BLC 39 Transient Are...	None						30		
88	BLC 40 Transient Are...	None						30		
89	BLC 84 Transient Are...	None						30		
90	BLC 85 Transient Are...	None						30		
91	BLC 86 Transient Are...	None						30		

Load Combinations

	Description	So...	P...	S...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...
1	1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (30 Deg)	Yes	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (60 Deg)	Yes	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (90 Deg)	Yes	Y		1	1.2	39	1.2	6	1	44	1												

Load Combinations (Continued)

	Description	So...	P...	S...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...
5	1.2D+1.0Wo (120 Deg)	Yes	Y		1	1.2	39	1.2	7	1	45	1														
6	1.2D+1.0Wo (150 Deg)	Yes	Y		1	1.2	39	1.2	8	1	46	1														
7	1.2D+1.0Wo (180 Deg)	Yes	Y		1	1.2	39	1.2	9	1	47	1														
8	1.2D+1.0Wo (210 Deg)	Yes	Y		1	1.2	39	1.2	10	1	48	1														
9	1.2D+1.0Wo (240 Deg)	Yes	Y		1	1.2	39	1.2	11	1	49	1														
10	1.2D+1.0Wo (270 Deg)	Yes	Y		1	1.2	39	1.2	12	1	50	1														
11	1.2D+1.0Wo (300 Deg)	Yes	Y		1	1.2	39	1.2	13	1	51	1														
12	1.2D+1.0Wo (330 Deg)	Yes	Y		1	1.2	39	1.2	14	1	52	1														
13	1.2D + 1.0Di + 1.0Wi (0 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1										
14	1.2D + 1.0Di + 1.0Wi (30 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1										
15	1.2D + 1.0Di + 1.0Wi (60 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1										
16	1.2D + 1.0Di + 1.0Wi (90 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1										
17	1.2D + 1.0Di + 1.0Wi (120 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1										
18	1.2D + 1.0Di + 1.0Wi (150 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1										
19	1.2D + 1.0Di + 1.0Wi (180 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1										
20	1.2D + 1.0Di + 1.0Wi (210 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1										
21	1.2D + 1.0Di + 1.0Wi (240 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1										
22	1.2D + 1.0Di + 1.0Wi (270 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1										
23	1.2D + 1.0Di + 1.0Wi (300 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1										
24	1.2D + 1.0Di + 1.0Wi (330 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1										
25	1.2D + 1.5Lm1 + 1.0Wm (0 ...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1												
26	1.2D + 1.5Lm1 + 1.0Wm (30 ...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1												
27	1.2D + 1.5Lm1 + 1.0Wm (60 ...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1												
28	1.2D + 1.5Lm1 + 1.0Wm (90 ...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1												
29	1.2D + 1.5Lm1 + 1.0Wm (12...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1												
30	1.2D + 1.5Lm1 + 1.0Wm (15...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1												
31	1.2D + 1.5Lm1 + 1.0Wm (18...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1												
32	1.2D + 1.5Lm1 + 1.0Wm (21...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1												
33	1.2D + 1.5Lm1 + 1.0Wm (24...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1												
34	1.2D + 1.5Lm1 + 1.0Wm (27...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1												
35	1.2D + 1.5Lm1 + 1.0Wm (30...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1												
36	1.2D + 1.5Lm1 + 1.0Wm (33...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1												
37	1.2D + 1.5Lm2 + 1.0Wm (0 ...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1												
38	1.2D + 1.5Lm2 + 1.0Wm (30 ...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1												
39	1.2D + 1.5Lm2 + 1.0Wm (60 ...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1												
40	1.2D + 1.5Lm2 + 1.0Wm (90 ...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1												
41	1.2D + 1.5Lm2 + 1.0Wm (12...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1												
42	1.2D + 1.5Lm2 + 1.0Wm (15...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1												
43	1.2D + 1.5Lm2 + 1.0Wm (18...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1												
44	1.2D + 1.5Lm2 + 1.0Wm (21...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1												
45	1.2D + 1.5Lm2 + 1.0Wm (24...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1												
46	1.2D + 1.5Lm2 + 1.0Wm (27...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1												
47	1.2D + 1.5Lm2 + 1.0Wm (30...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1												
48	1.2D + 1.5Lm2 + 1.0Wm (33...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1												
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5																
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5																
51	1.4D	Yes	Y		1	1.4	39	1.4																		
52	1.2D + 1.0Ev + 1.0Eh (0 Deg)	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	1	83		ELZ	1	E...							
53	1.2D + 1.0Ev + 1.0Eh (30 Deg)	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.866	83	.5	ELZ	.866	E...	.5						
54	1.2D + 1.0Ev + 1.0Eh (60 Deg)	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.5	83	.866	ELZ	.5	E...	.866						
55	1.2D + 1.0Ev + 1.0Eh (90 Deg)	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82		83	1	ELZ		E...	1						
56	1.2D + 1.0Ev + 1.0Eh (120 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.5	83	.866	ELZ	-.5	E...	.866						

Load Combinations (Continued)

	Description	So...	P...	S...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...	B...	Fac...
57	1.2D + 1.0Ev + 1.0Eh (150 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.866	83	.5	ELZ	-.866	E...	.5				
58	1.2D + 1.0Ev + 1.0Eh (180 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-1	83		ELZ	-1	E...					
59	1.2D + 1.0Ev + 1.0Eh (210 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.866	83	-.5	ELZ	-.866	E...	-.5				
60	1.2D + 1.0Ev + 1.0Eh (240 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.5	83	-.866	ELZ	-.5	E...	-.866				
61	1.2D + 1.0Ev + 1.0Eh (270 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82		83	-1	ELZ		E...	-1				
62	1.2D + 1.0Ev + 1.0Eh (300 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.5	83	-.866	ELZ	.5	E...	-.866				
63	1.2D + 1.0Ev + 1.0Eh (330 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.866	83	-.5	ELZ	.866	E...	-.5				
64	0.9D - 1.0Ev + 1.0Eh (0 Deg)	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	1	83		ELZ	1	E...					
65	0.9D - 1.0Ev + 1.0Eh (30 Deg)	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	.5	ELZ	.866	E...	.5				
66	0.9D - 1.0Ev + 1.0Eh (60 Deg)	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.5	83	.866	ELZ	.5	E...	.866				
67	0.9D - 1.0Ev + 1.0Eh (90 Deg)	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82		83	1	ELZ		E...	1				
68	0.9D - 1.0Ev + 1.0Eh (120 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.5	83	.866	ELZ	-.5	E...	.866				
69	0.9D - 1.0Ev + 1.0Eh (150 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.866	83	.5	ELZ	-.866	E...	.5				
70	0.9D - 1.0Ev + 1.0Eh (180 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-1	83		ELZ	-1	E...					
71	0.9D - 1.0Ev + 1.0Eh (210 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.866	83	-.5	ELZ	-.866	E...	-.5				
72	0.9D - 1.0Ev + 1.0Eh (240 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.5	83	-.866	ELZ	-.5	E...	-.866				
73	0.9D - 1.0Ev + 1.0Eh (270 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82		83	-1	ELZ		E...	-1				
74	0.9D - 1.0Ev + 1.0Eh (300 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.5	83	-.866	ELZ	.5	E...	-.866				
75	0.9D - 1.0Ev + 1.0Eh (330 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	-.5	ELZ	.866	E...	-.5				

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design Li...	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Face Horizontal	PIPE_3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	Standoff Horizontal	HSS4X4X4	Beam	SquareT...	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
3	Corner Plate	PL1/2x6	Beam	BAR	A36 Gr.36	Typical	3	.063	9	.237
4	Platform Crossmember	HSS4X4X4	Beam	SquareT...	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
5	Grating Support	L2x2x3	Beam	Single A...	A36 Gr.36	Typical	.722	.271	.271	.009
6	Mount Pipe	PIPE_2.0	Column	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
7	Cross Arm Plate	PL3/8x6	Column	RECT	A36 Gr.36	Typical	2.25	.026	6.75	.101
8	Kicker	LL2x2.5x4x3	Column	RECT	A36 Gr.36	Typical	2.14	3.29	.744	.047
9	Support Rail	PIPE_2.5	Column	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
10	Corner Angle	L3X3X4	Column	Single A...	A36 Gr.36	Typical	1.44	1.23	1.23	.031

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft...	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
8	Q235	29000	11154	.3	.65	.49	35	1.5	58	1.2

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N1	N6			Standoff Horiz...	Beam	SquareTube	A500 Gr.B...	Typical
2	M2	N10	N12			Platform Cross...	Beam	SquareTube	A500 Gr.B...	Typical
3	M3	N11	N2			Platform Cross...	Beam	SquareTube	A500 Gr.B...	Typical
4	M4	N21	N22			Corner Plate	Beam	BAR	A36 Gr.36	Typical
5	M5	N4	N9		240	RIGID	None	None	RIGID	Typical
6	M6	N3	N8		240	RIGID	None	None	RIGID	Typical
7	M7	N26	N3			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
8	M8	N4	N28			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
9	M9	N28	N29		240	RIGID	None	None	RIGID	Typical
10	M10	N11	N5			RIGID	None	None	RIGID	Typical
11	M11	N5	N12			RIGID	None	None	RIGID	Typical
12	M12	N10	N14			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
13	M13	N14	N15			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
14	M14	N15	N19			RIGID	None	None	RIGID	Typical
15	M15	N22	N16			Corner Plate	Beam	BAR	A36 Gr.36	Typical
16	M16	N16	N23			RIGID	None	None	RIGID	Typical
17	M17	N2	N13			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
18	M18	N13	N17			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
19	M19	N17	N20			RIGID	None	None	RIGID	Typical
20	M20	N21	N18			Corner Plate	Beam	BAR	A36 Gr.36	Typical
21	M21	N18	N24			RIGID	None	None	RIGID	Typical
22	M22	N29	N25			RIGID	None	None	RIGID	Typical
23	M23	N25	N27			RIGID	None	None	RIGID	Typical
24	M24	N26	N27		240	RIGID	None	None	RIGID	Typical
25	M25	N30	N35			Standoff Horiz...	Beam	SquareTube	A500 Gr.B...	Typical
26	M26	N38	N40			Platform Cross...	Beam	SquareTube	A500 Gr.B...	Typical
27	M27	N39	N31			Platform Cross...	Beam	SquareTube	A500 Gr.B...	Typical
28	M28	N49	N50			Corner Plate	Beam	BAR	A36 Gr.36	Typical
29	M29	N33	N37		240	RIGID	None	None	RIGID	Typical
30	M30	N32	N36		240	RIGID	None	None	RIGID	Typical
31	M31	N54	N32			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
32	M32	N33	N56			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
33	M33	N56	N57		240	RIGID	None	None	RIGID	Typical
34	M34	N39	N34			RIGID	None	None	RIGID	Typical
35	M35	N34	N40			RIGID	None	None	RIGID	Typical
36	M36	N38	N42			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
37	M37	N42	N43			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
38	M38	N43	N47			RIGID	None	None	RIGID	Typical
39	M39	N50	N44			Corner Plate	Beam	BAR	A36 Gr.36	Typical
40	M40	N44	N51			RIGID	None	None	RIGID	Typical
41	M41	N31	N41			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
42	M42	N41	N45			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
43	M43	N45	N48			RIGID	None	None	RIGID	Typical
44	M44	N49	N46			Corner Plate	Beam	BAR	A36 Gr.36	Typical
45	M45	N46	N52			RIGID	None	None	RIGID	Typical
46	M46	N57	N53			RIGID	None	None	RIGID	Typical
47	M47	N53	N55			RIGID	None	None	RIGID	Typical
48	M48	N54	N55		240	RIGID	None	None	RIGID	Typical
49	M49	N58	N63			Standoff Horiz...	Beam	SquareTube	A500 Gr.B...	Typical
50	M50	N66	N68			Platform Cross...	Beam	SquareTube	A500 Gr.B...	Typical
51	M51	N67	N59			Platform Cross...	Beam	SquareTube	A500 Gr.B...	Typical
52	M52	N77	N78			Corner Plate	Beam	BAR	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
53	M53	N61	N65		240	RIGID	None	None	RIGID	Typical
54	M54	N60	N64		240	RIGID	None	None	RIGID	Typical
55	M55	N82	N60			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
56	M56	N61	N84			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
57	M57	N84	N85		240	RIGID	None	None	RIGID	Typical
58	M58	N67	N62			RIGID	None	None	RIGID	Typical
59	M59	N62	N68			RIGID	None	None	RIGID	Typical
60	M60	N66	N70			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
61	M61	N70	N71			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
62	M62	N71	N75			RIGID	None	None	RIGID	Typical
63	M63	N78	N72			Corner Plate	Beam	BAR	A36 Gr.36	Typical
64	M64	N72	N79			RIGID	None	None	RIGID	Typical
65	M65	N59	N69			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
66	M66	N69	N73			Cross Arm Plate	Column	RECT	A36 Gr.36	Typical
67	M67	N73	N76			RIGID	None	None	RIGID	Typical
68	M68	N77	N74			Corner Plate	Beam	BAR	A36 Gr.36	Typical
69	M69	N74	N80			RIGID	None	None	RIGID	Typical
70	M70	N85	N81			RIGID	None	None	RIGID	Typical
71	M71	N81	N83			RIGID	None	None	RIGID	Typical
72	M72	N82	N83		240	RIGID	None	None	RIGID	Typical
73	F	N86	N87			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
74	M74	N88	N89			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
75	M75	N90	N91			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
76	M76	N92	N93			RIGID	None	None	RIGID	Typical
77	MP1A	N94	N95			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
78	LL1	N96	N97			RIGID	None	None	RIGID	Typical
79	MP2A	N98	N99			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
80	M80	N100	N101			RIGID	None	None	RIGID	Typical
81	MP3A	N102	N103			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
82	LL2	N104	N105			RIGID	None	None	RIGID	Typical
83	M84	N108	N109			RIGID	None	None	RIGID	Typical
84	MP1C	N110	N111		240	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
85	LIVE 1	N112	N113			RIGID	None	None	RIGID	Typical
86	MP2C	N114	N115		240	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
87	M88	N116	N117			RIGID	None	None	RIGID	Typical
88	MP3C	N118	N119		240	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
89	LIVE 2	N120	N121			RIGID	None	None	RIGID	Typical
90	MP4C	N122	N123			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
91	M92	N124	N125			RIGID	None	None	RIGID	Typical
92	MP1B	N126	N127		120	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
93	M94	N128	N129			RIGID	None	None	RIGID	Typical
94	MP2B	N130	N131		120	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
95	M96	N132	N133			RIGID	None	None	RIGID	Typical
96	MP3B	N134	N135		120	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
97	M98	N136	N137			RIGID	None	None	RIGID	Typical
98	M103	N147	N146			Kicker	Column	RECT	A36 Gr.36	Typical
99	M104	N149	N148			Kicker	Column	RECT	A36 Gr.36	Typical
100	M105	N151	N150			Kicker	Column	RECT	A36 Gr.36	Typical
101	M107	N155	N156			Support Rail	Column	Pipe	A53 Gr.B	Typical
102	M109	N159	N160			RIGID	None	None	RIGID	Typical
103	M110	N161	N162			RIGID	None	None	RIGID	Typical
104	M113	N167	N168			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
105	M114	N169	N170			RIGID	None	None	RIGID	Typical
106	M115	N171	N172			RIGID	None	None	RIGID	Typical
107	M116	N173	N174			RIGID	None	None	RIGID	Typical
108	M117	N175	N176			RIGID	None	None	RIGID	Typical
109	M118	N177	N178			RIGID	None	None	RIGID	Typical
110	M117A	N175A	N176A			RIGID	None	None	RIGID	Typical
111	M117B	N175B	N176B			Support Rail	Column	Pipe	A53 Gr.B	Typical
112	M118A	N177A	N178A			Support Rail	Column	Pipe	A53 Gr.B	Typical
113	M119A	N179A	N180A			RIGID	None	None	RIGID	Typical
114	M120	N181	N182			RIGID	None	None	RIGID	Typical
115	M121	N183	N184			RIGID	None	None	RIGID	Typical
116	M122	N185	N186			RIGID	None	None	RIGID	Typical
117	M123	N187	N188			RIGID	None	None	RIGID	Typical
118	M124	N186	N184		90	Corner Angle	Column	Single Angle	A36 Gr.36	Typical
119	M125	N176A	N188		90	Corner Angle	Column	Single Angle	A36 Gr.36	Typical
120	M126	N182	N180A		90	Corner Angle	Column	Single Angle	A36 Gr.36	Typical
121	MP4B	N179	N180			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
122	M123A	N181A	N182A			RIGID	None	None	RIGID	Typical
123	MP4A	N183A	N184A			Mount Pipe	Column	Pipe	A53 Gr.B	Typical
124	M125A	N185A	N186A			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	M2						Yes	Default			None
3	M3						Yes	Default			None
4	M4						Yes	Default			None
5	M5						Yes	** NA **			None
6	M6						Yes	** NA **			None
7	M7	OOOOOX	OOOOOX				Yes	Default			None
8	M8	OOOOOX	OOOOOX				Yes	Default			None
9	M9						Yes	** NA **			None
10	M10						Yes	** NA **			None
11	M11						Yes	** NA **			None
12	M12						Yes	** NA **			None
13	M13						Yes	** NA **			None
14	M14		BenPIN				Yes	** NA **			None
15	M15						Yes				None
16	M16		BenPIN				Yes	** NA **			None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M19		BenPIN				Yes	** NA **			None
20	M20						Yes				None
21	M21		BenPIN				Yes	** NA **			None
22	M22						Yes	** NA **			None
23	M23						Yes	** NA **			None
24	M24						Yes	** NA **			None
25	M25						Yes				None
26	M26						Yes	Default			None
27	M27						Yes	Default			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
28	M28						Yes	Default			None
29	M29						Yes	** NA **			None
30	M30						Yes	** NA **			None
31	M31	OOOOOX	OOOOOX				Yes	Default			None
32	M32	OOOOOX	OOOOOX				Yes	Default			None
33	M33						Yes	** NA **			None
34	M34						Yes	** NA **			None
35	M35						Yes	** NA **			None
36	M36						Yes	** NA **			None
37	M37						Yes	** NA **			None
38	M38		BenPIN				Yes	** NA **			None
39	M39						Yes				None
40	M40		BenPIN				Yes	** NA **			None
41	M41						Yes	** NA **			None
42	M42						Yes	** NA **			None
43	M43		BenPIN				Yes	** NA **			None
44	M44						Yes				None
45	M45		BenPIN				Yes	** NA **			None
46	M46						Yes	** NA **			None
47	M47						Yes	** NA **			None
48	M48						Yes	** NA **			None
49	M49						Yes				None
50	M50						Yes	Default			None
51	M51						Yes	Default			None
52	M52						Yes	Default			None
53	M53						Yes	** NA **			None
54	M54						Yes	** NA **			None
55	M55	OOOOOX	OOOOOX				Yes	Default			None
56	M56	OOOOOX	OOOOOX				Yes	Default			None
57	M57						Yes	** NA **			None
58	M58						Yes	** NA **			None
59	M59						Yes	** NA **			None
60	M60						Yes	** NA **			None
61	M61						Yes	** NA **			None
62	M62		BenPIN				Yes	** NA **			None
63	M63						Yes				None
64	M64		BenPIN				Yes	** NA **			None
65	M65						Yes	** NA **			None
66	M66						Yes	** NA **			None
67	M67		BenPIN				Yes	** NA **			None
68	M68						Yes				None
69	M69		BenPIN				Yes	** NA **			None
70	M70						Yes	** NA **			None
71	M71						Yes	** NA **			None
72	M72						Yes	** NA **			None
73	F						Yes				None
74	M74						Yes				None
75	M75						Yes				None
76	M76						Yes	** NA **			None
77	MP1A						Yes	** NA **			None
78	LL1						Yes	** NA **			None
79	MP2A						Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
80	M80						Yes	** NA **			None
81	MP3A						Yes	** NA **			None
82	LL2						Yes	** NA **			None
83	M84						Yes	** NA **			None
84	MP1C						Yes	** NA **			None
85	LIVE 1						Yes	** NA **			None
86	MP2C						Yes	** NA **			None
87	M88						Yes	** NA **			None
88	MP3C						Yes	** NA **			None
89	LIVE 2						Yes	** NA **			None
90	MP4C						Yes	** NA **			None
91	M92						Yes	** NA **			None
92	MP1B						Yes	** NA **			None
93	M94						Yes	** NA **			None
94	MP2B						Yes	** NA **			None
95	M96						Yes	** NA **			None
96	MP3B						Yes	** NA **			None
97	M98						Yes	** NA **			None
98	M103	BenPIN	BenPIN				Yes	** NA **			None
99	M104	BenPIN	BenPIN				Yes	** NA **			None
100	M105	BenPIN	BenPIN				Yes	** NA **			None
101	M107						Yes	** NA **			None
102	M109						Yes	** NA **			None
103	M110						Yes	** NA **			None
104	M113						Yes	** NA **			None
105	M114						Yes	** NA **			None
106	M115						Yes	** NA **			None
107	M116						Yes	** NA **			None
108	M117						Yes	** NA **			None
109	M118						Yes	** NA **			None
110	M117A	OOOOOX					Yes	** NA **			None
111	M117B						Yes	** NA **			None
112	M118A						Yes	** NA **			None
113	M119A	OOOOOX					Yes	** NA **			None
114	M120	OOOOOX					Yes	** NA **			None
115	M121	OOOOOX					Yes	** NA **			None
116	M122	OOOOOX					Yes	** NA **			None
117	M123	OOOOOX					Yes	** NA **			None
118	M124						Yes	** NA **			None
119	M125						Yes	** NA **			None
120	M126						Yes	** NA **			None
121	MP4B						Yes	** NA **			None
122	M123A						Yes	** NA **			None
123	MP4A						Yes	** NA **			None
124	M125A						Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-20	.5
2	MP2A	My	-.013	.5

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
3	MP2A	Mz	-.013	.5
4	MP2A	Y	-20	5.5
5	MP2A	My	-.013	5.5
6	MP2A	Mz	-.013	5.5
7	MP2B	Y	-20	.5
8	MP2B	My	.017	.5
9	MP2B	Mz	-.008	.5
10	MP2B	Y	-20	5.5
11	MP2B	My	.017	5.5
12	MP2B	Mz	-.008	5.5
13	MP2C	Y	-20	.5
14	MP2C	My	-.005	.5
15	MP2C	Mz	.018	.5
16	MP2C	Y	-20	5.5
17	MP2C	My	-.005	5.5
18	MP2C	Mz	.018	5.5
19	MP2A	Y	-20	.5
20	MP2A	My	-.013	.5
21	MP2A	Mz	.013	.5
22	MP2A	Y	-20	5.5
23	MP2A	My	-.013	5.5
24	MP2A	Mz	.013	5.5
25	MP2B	Y	-20	.5
26	MP2B	My	-.008	.5
27	MP2B	Mz	-.017	.5
28	MP2B	Y	-20	5.5
29	MP2B	My	-.008	5.5
30	MP2B	Mz	-.017	5.5
31	MP2C	Y	-20	.5
32	MP2C	My	.018	.5
33	MP2C	Mz	.005	.5
34	MP2C	Y	-20	5.5
35	MP2C	My	.018	5.5
36	MP2C	Mz	.005	5.5
37	MP4A	Y	-4.4	4
38	MP4A	My	-.000733	4
39	MP4A	Mz	0	4
40	MP4B	Y	-4.4	4
41	MP4B	My	.000251	4
42	MP4B	Mz	-.000689	4
43	MP4C	Y	-4.4	4
44	MP4C	My	.000367	4
45	MP4C	Mz	.000635	4
46	MP1A	Y	-4.95	.5
47	MP1A	My	-.002	.5
48	MP1A	Mz	0	.5
49	MP1A	Y	-4.95	3.5
50	MP1A	My	-.002	3.5
51	MP1A	Mz	0	3.5
52	MP1B	Y	-4.95	.5
53	MP1B	My	.000846	.5
54	MP1B	Mz	-.002	.5

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
55	MP1B	Y	-4.95	3.5
56	MP1B	My	.000846	3.5
57	MP1B	Mz	-.002	3.5
58	MP1C	Y	-4.95	.5
59	MP1C	My	.001	.5
60	MP1C	Mz	.002	.5
61	MP1C	Y	-4.95	3.5
62	MP1C	My	.001	3.5
63	MP1C	Mz	.002	3.5
64	MP2A	Y	-84.4	1
65	MP2A	My	.07	1
66	MP2A	Mz	0	1
67	MP2B	Y	-84.4	1
68	MP2B	My	-.024	1
69	MP2B	Mz	.066	1
70	MP2C	Y	-84.4	1
71	MP2C	My	-.035	1
72	MP2C	Mz	-.061	1
73	MP4A	Y	-28.65	.5
74	MP4A	My	-.019	.5
75	MP4A	Mz	0	.5
76	MP4A	Y	-28.65	2.5
77	MP4A	My	-.019	2.5
78	MP4A	Mz	0	2.5
79	MP4B	Y	-28.65	.5
80	MP4B	My	.007	.5
81	MP4B	Mz	-.018	.5
82	MP4B	Y	-28.65	2.5
83	MP4B	My	.007	2.5
84	MP4B	Mz	-.018	2.5
85	MP4C	Y	-28.65	.5
86	MP4C	My	.01	.5
87	MP4C	Mz	.017	.5
88	MP4C	Y	-28.65	2.5
89	MP4C	My	.01	2.5
90	MP4C	Mz	.017	2.5
91	MP3A	Y	-79.1	.5
92	MP3A	My	.053	.5
93	MP3A	Mz	0	.5
94	MP3B	Y	-79.1	.5
95	MP3B	My	-.018	.5
96	MP3B	Mz	.05	.5
97	MP3C	Y	-79.1	.5
98	MP3C	My	-.026	.5
99	MP3C	Mz	-.046	.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-93.745	.5
2	MP2A	My	-.062	.5
3	MP2A	Mz	-.062	.5

Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP2A	Y	-93.745	5.5
5	MP2A	My	-.062	5.5
6	MP2A	Mz	-.062	5.5
7	MP2B	Y	-93.745	.5
8	MP2B	My	.08	.5
9	MP2B	Mz	-.037	.5
10	MP2B	Y	-93.745	5.5
11	MP2B	My	.08	5.5
12	MP2B	Mz	-.037	5.5
13	MP2C	Y	-93.745	.5
14	MP2C	My	-.023	.5
15	MP2C	Mz	.085	.5
16	MP2C	Y	-93.745	5.5
17	MP2C	My	-.023	5.5
18	MP2C	Mz	.085	5.5
19	MP2A	Y	-93.745	.5
20	MP2A	My	-.062	.5
21	MP2A	Mz	.062	.5
22	MP2A	Y	-93.745	5.5
23	MP2A	My	-.062	5.5
24	MP2A	Mz	.062	5.5
25	MP2B	Y	-93.745	.5
26	MP2B	My	-.037	.5
27	MP2B	Mz	-.08	.5
28	MP2B	Y	-93.745	5.5
29	MP2B	My	-.037	5.5
30	MP2B	Mz	-.08	5.5
31	MP2C	Y	-93.745	.5
32	MP2C	My	.085	.5
33	MP2C	Mz	.023	.5
34	MP2C	Y	-93.745	5.5
35	MP2C	My	.085	5.5
36	MP2C	Mz	.023	5.5
37	MP4A	Y	-22.09	4
38	MP4A	My	-.004	4
39	MP4A	Mz	0	4
40	MP4B	Y	-22.09	4
41	MP4B	My	.001	4
42	MP4B	Mz	-.003	4
43	MP4C	Y	-22.09	4
44	MP4C	My	.002	4
45	MP4C	Mz	.003	4
46	MP1A	Y	-55.322	.5
47	MP1A	My	-.028	.5
48	MP1A	Mz	0	.5
49	MP1A	Y	-55.322	3.5
50	MP1A	My	-.028	3.5
51	MP1A	Mz	0	3.5
52	MP1B	Y	-55.322	.5
53	MP1B	My	.009	.5
54	MP1B	Mz	-.026	.5
55	MP1B	Y	-55.322	3.5

Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
56	MP1B	My	.009	3.5
57	MP1B	Mz	-.026	3.5
58	MP1C	Y	-55.322	.5
59	MP1C	My	.014	.5
60	MP1C	Mz	.024	.5
61	MP1C	Y	-55.322	3.5
62	MP1C	My	.014	3.5
63	MP1C	Mz	.024	3.5
64	MP2A	Y	-69.735	1
65	MP2A	My	.058	1
66	MP2A	Mz	0	1
67	MP2B	Y	-69.735	1
68	MP2B	My	-.02	1
69	MP2B	Mz	.055	1
70	MP2C	Y	-69.735	1
71	MP2C	My	-.029	1
72	MP2C	Mz	-.05	1
73	MP4A	Y	-46.062	.5
74	MP4A	My	-.031	.5
75	MP4A	Mz	0	.5
76	MP4A	Y	-46.062	2.5
77	MP4A	My	-.031	2.5
78	MP4A	Mz	0	2.5
79	MP4B	Y	-46.062	.5
80	MP4B	My	.011	.5
81	MP4B	Mz	-.029	.5
82	MP4B	Y	-46.062	2.5
83	MP4B	My	.011	2.5
84	MP4B	Mz	-.029	2.5
85	MP4C	Y	-46.062	.5
86	MP4C	My	.015	.5
87	MP4C	Mz	.027	.5
88	MP4C	Y	-46.062	2.5
89	MP4C	My	.015	2.5
90	MP4C	Mz	.027	2.5
91	MP3A	Y	-70.45	.5
92	MP3A	My	.047	.5
93	MP3A	Mz	0	.5
94	MP3B	Y	-70.45	.5
95	MP3B	My	-.016	.5
96	MP3B	Mz	.044	.5
97	MP3C	Y	-70.45	.5
98	MP3C	My	-.023	.5
99	MP3C	Mz	-.041	.5

Member Point Loads (BLC 3 : Antenna Wo (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-86.416	.5
3	MP2A	Mx	.058	.5
4	MP2A	X	0	5.5

Member Point Loads (BLC 3 : Antenna Wo (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP2A	Z	-86.416	5.5
6	MP2A	Mx	.058	5.5
7	MP2B	X	0	.5
8	MP2B	Z	-42.931	.5
9	MP2B	Mx	.017	.5
10	MP2B	X	0	5.5
11	MP2B	Z	-42.931	5.5
12	MP2B	Mx	.017	5.5
13	MP2C	X	0	.5
14	MP2C	Z	-49.482	.5
15	MP2C	Mx	-.045	.5
16	MP2C	X	0	5.5
17	MP2C	Z	-49.482	5.5
18	MP2C	Mx	-.045	5.5
19	MP2A	X	0	.5
20	MP2A	Z	-86.416	.5
21	MP2A	Mx	-.058	.5
22	MP2A	X	0	5.5
23	MP2A	Z	-86.416	5.5
24	MP2A	Mx	-.058	5.5
25	MP2B	X	0	.5
26	MP2B	Z	-42.931	.5
27	MP2B	Mx	.037	.5
28	MP2B	X	0	5.5
29	MP2B	Z	-42.931	5.5
30	MP2B	Mx	.037	5.5
31	MP2C	X	0	.5
32	MP2C	Z	-49.482	.5
33	MP2C	Mx	-.012	.5
34	MP2C	X	0	5.5
35	MP2C	Z	-49.482	5.5
36	MP2C	Mx	-.012	5.5
37	MP4A	X	0	4
38	MP4A	Z	-27.917	4
39	MP4A	Mx	0	4
40	MP4B	X	0	4
41	MP4B	Z	-8.1	4
42	MP4B	Mx	.001	4
43	MP4C	X	0	4
44	MP4C	Z	-11.085	4
45	MP4C	Mx	-.002	4
46	MP1A	X	0	.5
47	MP1A	Z	-74.026	.5
48	MP1A	Mx	0	.5
49	MP1A	X	0	3.5
50	MP1A	Z	-74.026	3.5
51	MP1A	Mx	0	3.5
52	MP1B	X	0	.5
53	MP1B	Z	-43.518	.5
54	MP1B	Mx	.02	.5
55	MP1B	X	0	3.5
56	MP1B	Z	-43.518	3.5

Member Point Loads (BLC 3 : Antenna Wo (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
57	MP1B	Mx	.02	3.5
58	MP1C	X	0	.5
59	MP1C	Z	-48.114	.5
60	MP1C	Mx	-.021	.5
61	MP1C	X	0	3.5
62	MP1C	Z	-48.114	3.5
63	MP1C	Mx	-.021	3.5
64	MP2A	X	0	1
65	MP2A	Z	-48.619	1
66	MP2A	Mx	0	1
67	MP2B	X	0	1
68	MP2B	Z	-34.493	1
69	MP2B	Mx	-.027	1
70	MP2C	X	0	1
71	MP2C	Z	-36.621	1
72	MP2C	Mx	.026	1
73	MP4A	X	0	.5
74	MP4A	Z	-59.441	.5
75	MP4A	Mx	0	.5
76	MP4A	X	0	2.5
77	MP4A	Z	-59.441	2.5
78	MP4A	Mx	0	2.5
79	MP4B	X	0	.5
80	MP4B	Z	-27.169	.5
81	MP4B	Mx	.017	.5
82	MP4B	X	0	2.5
83	MP4B	Z	-27.169	2.5
84	MP4B	Mx	.017	2.5
85	MP4C	X	0	.5
86	MP4C	Z	-32.03	.5
87	MP4C	Mx	-.018	.5
88	MP4C	X	0	2.5
89	MP4C	Z	-32.03	2.5
90	MP4C	Mx	-.018	2.5
91	MP3A	X	0	.5
92	MP3A	Z	-58.656	.5
93	MP3A	Mx	0	.5
94	MP3B	X	0	.5
95	MP3B	Z	-42.176	.5
96	MP3B	Mx	-.026	.5
97	MP3C	X	0	.5
98	MP3C	Z	-44.659	.5
99	MP3C	Mx	.026	.5

Member Point Loads (BLC 4 : Antenna Wo (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	37.052	.5
2	MP2A	Z	-64.177	.5
3	MP2A	Mx	.018	.5
4	MP2A	X	37.052	5.5
5	MP2A	Z	-64.177	5.5

Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP2A	Mx	.018	5.5
7	MP2B	X	19.327	.5
8	MP2B	Z	-33.476	.5
9	MP2B	Mx	.03	.5
10	MP2B	X	19.327	5.5
11	MP2B	Z	-33.476	5.5
12	MP2B	Mx	.03	5.5
13	MP2C	X	37.052	.5
14	MP2C	Z	-64.177	.5
15	MP2C	Mx	-.067	.5
16	MP2C	X	37.052	5.5
17	MP2C	Z	-64.177	5.5
18	MP2C	Mx	-.067	5.5
19	MP2A	X	37.052	.5
20	MP2A	Z	-64.177	.5
21	MP2A	Mx	-.067	.5
22	MP2A	X	37.052	5.5
23	MP2A	Z	-64.177	5.5
24	MP2A	Mx	-.067	5.5
25	MP2B	X	19.327	.5
26	MP2B	Z	-33.476	.5
27	MP2B	Mx	.021	.5
28	MP2B	X	19.327	5.5
29	MP2B	Z	-33.476	5.5
30	MP2B	Mx	.021	5.5
31	MP2C	X	37.052	.5
32	MP2C	Z	-64.177	.5
33	MP2C	Mx	.018	.5
34	MP2C	X	37.052	5.5
35	MP2C	Z	-64.177	5.5
36	MP2C	Mx	.018	5.5
37	MP4A	X	11.153	4
38	MP4A	Z	-19.318	4
39	MP4A	Mx	-.002	4
40	MP4B	X	3.076	4
41	MP4B	Z	-5.327	4
42	MP4B	Mx	.001	4
43	MP4C	X	11.153	4
44	MP4C	Z	-19.318	4
45	MP4C	Mx	-.002	4
46	MP1A	X	32.694	.5
47	MP1A	Z	-56.628	.5
48	MP1A	Mx	-.016	.5
49	MP1A	X	32.694	3.5
50	MP1A	Z	-56.628	3.5
51	MP1A	Mx	-.016	3.5
52	MP1B	X	20.259	.5
53	MP1B	Z	-35.089	.5
54	MP1B	Mx	.02	.5
55	MP1B	X	20.259	3.5
56	MP1B	Z	-35.089	3.5
57	MP1B	Mx	.02	3.5

Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP1C	X	32.694	.5
59	MP1C	Z	-56.628	.5
60	MP1C	Mx	-.016	.5
61	MP1C	X	32.694	3.5
62	MP1C	Z	-56.628	3.5
63	MP1C	Mx	-.016	3.5
64	MP2A	X	22.31	1
65	MP2A	Z	-38.642	1
66	MP2A	Mx	.019	1
67	MP2B	X	16.552	1
68	MP2B	Z	-28.669	1
69	MP2B	Mx	-.027	1
70	MP2C	X	22.31	1
71	MP2C	Z	-38.642	1
72	MP2C	Mx	.019	1
73	MP4A	X	25.152	.5
74	MP4A	Z	-43.564	.5
75	MP4A	Mx	-.017	.5
76	MP4A	X	25.152	2.5
77	MP4A	Z	-43.564	2.5
78	MP4A	Mx	-.017	2.5
79	MP4B	X	11.998	.5
80	MP4B	Z	-20.781	.5
81	MP4B	Mx	.016	.5
82	MP4B	X	11.998	2.5
83	MP4B	Z	-20.781	2.5
84	MP4B	Mx	.016	2.5
85	MP4C	X	25.152	.5
86	MP4C	Z	-43.564	.5
87	MP4C	Mx	-.017	.5
88	MP4C	X	25.152	2.5
89	MP4C	Z	-43.564	2.5
90	MP4C	Mx	-.017	2.5
91	MP3A	X	26.995	.5
92	MP3A	Z	-46.757	.5
93	MP3A	Mx	.018	.5
94	MP3B	X	20.278	.5
95	MP3B	Z	-35.122	.5
96	MP3B	Mx	-.027	.5
97	MP3C	X	26.995	.5
98	MP3C	Z	-46.757	.5
99	MP3C	Mx	.018	.5

Member Point Loads (BLC 5 : Antenna Wo (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	42.852	.5
2	MP2A	Z	-24.741	.5
3	MP2A	Mx	-.012	.5
4	MP2A	X	42.852	5.5
5	MP2A	Z	-24.741	5.5
6	MP2A	Mx	-.012	5.5

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP2B	X	49.812	.5
8	MP2B	Z	-28.759	.5
9	MP2B	Mx	.054	.5
10	MP2B	X	49.812	5.5
11	MP2B	Z	-28.759	5.5
12	MP2B	Mx	.054	5.5
13	MP2C	X	74.839	.5
14	MP2C	Z	-43.208	.5
15	MP2C	Mx	-.058	.5
16	MP2C	X	74.839	5.5
17	MP2C	Z	-43.208	5.5
18	MP2C	Mx	-.058	5.5
19	MP2A	X	42.852	.5
20	MP2A	Z	-24.741	.5
21	MP2A	Mx	-.045	.5
22	MP2A	X	42.852	5.5
23	MP2A	Z	-24.741	5.5
24	MP2A	Mx	-.045	5.5
25	MP2B	X	49.812	.5
26	MP2B	Z	-28.759	.5
27	MP2B	Mx	.005	.5
28	MP2B	X	49.812	5.5
29	MP2B	Z	-28.759	5.5
30	MP2B	Mx	.005	5.5
31	MP2C	X	74.839	.5
32	MP2C	Z	-43.208	.5
33	MP2C	Mx	.058	.5
34	MP2C	X	74.839	5.5
35	MP2C	Z	-43.208	5.5
36	MP2C	Mx	.058	5.5
37	MP4A	X	9.6	4
38	MP4A	Z	-5.543	4
39	MP4A	Mx	-.002	4
40	MP4B	X	12.771	4
41	MP4B	Z	-7.374	4
42	MP4B	Mx	.002	4
43	MP4C	X	24.177	4
44	MP4C	Z	-13.958	4
45	MP4C	Mx	0	4
46	MP1A	X	41.668	.5
47	MP1A	Z	-24.057	.5
48	MP1A	Mx	-.021	.5
49	MP1A	X	41.668	3.5
50	MP1A	Z	-24.057	3.5
51	MP1A	Mx	-.021	3.5
52	MP1B	X	46.55	.5
53	MP1B	Z	-26.876	.5
54	MP1B	Mx	.021	.5
55	MP1B	X	46.55	3.5
56	MP1B	Z	-26.876	3.5
57	MP1B	Mx	.021	3.5
58	MP1C	X	64.109	.5

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
59	MP1C	Z	-37.013	.5
60	MP1C	Mx	0	.5
61	MP1C	X	64.109	3.5
62	MP1C	Z	-37.013	3.5
63	MP1C	Mx	0	3.5
64	MP2A	X	31.715	1
65	MP2A	Z	-18.311	1
66	MP2A	Mx	.026	1
67	MP2B	X	33.975	1
68	MP2B	Z	-19.616	1
69	MP2B	Mx	-.025	1
70	MP2C	X	42.105	1
71	MP2C	Z	-24.309	1
72	MP2C	Mx	0	1
73	MP4A	X	27.739	.5
74	MP4A	Z	-16.015	.5
75	MP4A	Mx	-.018	.5
76	MP4A	X	27.739	2.5
77	MP4A	Z	-16.015	2.5
78	MP4A	Mx	-.018	2.5
79	MP4B	X	32.904	.5
80	MP4B	Z	-18.997	.5
81	MP4B	Mx	.019	.5
82	MP4B	X	32.904	2.5
83	MP4B	Z	-18.997	2.5
84	MP4B	Mx	.019	2.5
85	MP4C	X	51.477	.5
86	MP4C	Z	-29.72	.5
87	MP4C	Mx	0	.5
88	MP4C	X	51.477	2.5
89	MP4C	Z	-29.72	2.5
90	MP4C	Mx	0	2.5
91	MP3A	X	38.676	.5
92	MP3A	Z	-22.329	.5
93	MP3A	Mx	.026	.5
94	MP3B	X	41.313	.5
95	MP3B	Z	-23.852	.5
96	MP3B	Mx	-.024	.5
97	MP3C	X	50.798	.5
98	MP3C	Z	-29.328	.5
99	MP3C	Mx	0	.5

Member Point Loads (BLC 6 : Antenna Wo (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	37.17	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.025	.5
4	MP2A	X	37.17	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	-.025	5.5
7	MP2B	X	80.656	.5

Member Point Loads (BLC 6 : Antenna Wo (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
8	MP2B	Z	0	.5
9	MP2B	Mx	.069	.5
10	MP2B	X	80.656	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	.069	5.5
13	MP2C	X	74.105	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	-.018	.5
16	MP2C	X	74.105	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	-.018	5.5
19	MP2A	X	37.17	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	-.025	.5
22	MP2A	X	37.17	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-.025	5.5
25	MP2B	X	80.656	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	-.032	.5
28	MP2B	X	80.656	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	-.032	5.5
31	MP2C	X	74.105	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	.067	.5
34	MP2C	X	74.105	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	.067	5.5
37	MP4A	X	5.475	4
38	MP4A	Z	0	4
39	MP4A	Mx	-.000912	4
40	MP4B	X	25.291	4
41	MP4B	Z	0	4
42	MP4B	Mx	.001	4
43	MP4C	X	22.306	4
44	MP4C	Z	0	4
45	MP4C	Mx	.002	4
46	MP1A	X	39.476	.5
47	MP1A	Z	0	.5
48	MP1A	Mx	-.02	.5
49	MP1A	X	39.476	3.5
50	MP1A	Z	0	3.5
51	MP1A	Mx	-.02	3.5
52	MP1B	X	69.985	.5
53	MP1B	Z	0	.5
54	MP1B	Mx	.012	.5
55	MP1B	X	69.985	3.5
56	MP1B	Z	0	3.5
57	MP1B	Mx	.012	3.5
58	MP1C	X	65.389	.5
59	MP1C	Z	0	.5

Member Point Loads (BLC 6 : Antenna Wo (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
60	MP1C	Mx	.016	.5
61	MP1C	X	65.389	3.5
62	MP1C	Z	0	3.5
63	MP1C	Mx	.016	3.5
64	MP2A	X	32.622	1
65	MP2A	Z	0	1
66	MP2A	Mx	.027	1
67	MP2B	X	46.748	1
68	MP2B	Z	0	1
69	MP2B	Mx	-.013	1
70	MP2C	X	44.62	1
71	MP2C	Z	0	1
72	MP2C	Mx	-.019	1
73	MP4A	X	22.894	.5
74	MP4A	Z	0	.5
75	MP4A	Mx	-.015	.5
76	MP4A	X	22.894	2.5
77	MP4A	Z	0	2.5
78	MP4A	Mx	-.015	2.5
79	MP4B	X	55.165	.5
80	MP4B	Z	0	.5
81	MP4B	Mx	.013	.5
82	MP4B	X	55.165	2.5
83	MP4B	Z	0	2.5
84	MP4B	Mx	.013	2.5
85	MP4C	X	50.304	.5
86	MP4C	Z	0	.5
87	MP4C	Mx	.017	.5
88	MP4C	X	50.304	2.5
89	MP4C	Z	0	2.5
90	MP4C	Mx	.017	2.5
91	MP3A	X	39.993	.5
92	MP3A	Z	0	.5
93	MP3A	Mx	.027	.5
94	MP3B	X	56.473	.5
95	MP3B	Z	0	.5
96	MP3B	Mx	-.013	.5
97	MP3C	X	53.991	.5
98	MP3C	Z	0	.5
99	MP3C	Mx	-.018	.5

Member Point Loads (BLC 7 : Antenna Wo (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	42.852	.5
2	MP2A	Z	24.741	.5
3	MP2A	Mx	-.045	.5
4	MP2A	X	42.852	5.5
5	MP2A	Z	24.741	5.5
6	MP2A	Mx	-.045	5.5
7	MP2B	X	73.553	.5
8	MP2B	Z	42.466	.5

Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP2B	Mx	.046	.5
10	MP2B	X	73.553	5.5
11	MP2B	Z	42.466	5.5
12	MP2B	Mx	.046	5.5
13	MP2C	X	42.852	.5
14	MP2C	Z	24.741	.5
15	MP2C	Mx	.012	.5
16	MP2C	X	42.852	5.5
17	MP2C	Z	24.741	5.5
18	MP2C	Mx	.012	5.5
19	MP2A	X	42.852	.5
20	MP2A	Z	24.741	.5
21	MP2A	Mx	-.012	.5
22	MP2A	X	42.852	5.5
23	MP2A	Z	24.741	5.5
24	MP2A	Mx	-.012	5.5
25	MP2B	X	73.553	.5
26	MP2B	Z	42.466	.5
27	MP2B	Mx	-.066	.5
28	MP2B	X	73.553	5.5
29	MP2B	Z	42.466	5.5
30	MP2B	Mx	-.066	5.5
31	MP2C	X	42.852	.5
32	MP2C	Z	24.741	.5
33	MP2C	Mx	.045	.5
34	MP2C	X	42.852	5.5
35	MP2C	Z	24.741	5.5
36	MP2C	Mx	.045	5.5
37	MP4A	X	9.6	4
38	MP4A	Z	5.543	4
39	MP4A	Mx	-.002	4
40	MP4B	X	23.591	4
41	MP4B	Z	13.62	4
42	MP4B	Mx	-.000788	4
43	MP4C	X	9.6	4
44	MP4C	Z	5.543	4
45	MP4C	Mx	.002	4
46	MP1A	X	41.668	.5
47	MP1A	Z	24.057	.5
48	MP1A	Mx	-.021	.5
49	MP1A	X	41.668	3.5
50	MP1A	Z	24.057	3.5
51	MP1A	Mx	-.021	3.5
52	MP1B	X	63.206	.5
53	MP1B	Z	36.492	.5
54	MP1B	Mx	-.006	.5
55	MP1B	X	63.206	3.5
56	MP1B	Z	36.492	3.5
57	MP1B	Mx	-.006	3.5
58	MP1C	X	41.668	.5
59	MP1C	Z	24.057	.5
60	MP1C	Mx	.021	.5

Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
61	MP1C	X	41.668	3.5
62	MP1C	Z	24.057	3.5
63	MP1C	Mx	.021	3.5
64	MP2A	X	31.715	1
65	MP2A	Z	18.311	1
66	MP2A	Mx	.026	1
67	MP2B	X	41.688	1
68	MP2B	Z	24.068	1
69	MP2B	Mx	.007	1
70	MP2C	X	31.715	1
71	MP2C	Z	18.311	1
72	MP2C	Mx	-.026	1
73	MP4A	X	27.739	.5
74	MP4A	Z	16.015	.5
75	MP4A	Mx	-.018	.5
76	MP4A	X	27.739	2.5
77	MP4A	Z	16.015	2.5
78	MP4A	Mx	-.018	2.5
79	MP4B	X	50.523	.5
80	MP4B	Z	29.169	.5
81	MP4B	Mx	-.007	.5
82	MP4B	X	50.523	2.5
83	MP4B	Z	29.169	2.5
84	MP4B	Mx	-.007	2.5
85	MP4C	X	27.739	.5
86	MP4C	Z	16.015	.5
87	MP4C	Mx	.018	.5
88	MP4C	X	27.739	2.5
89	MP4C	Z	16.015	2.5
90	MP4C	Mx	.018	2.5
91	MP3A	X	38.676	.5
92	MP3A	Z	22.329	.5
93	MP3A	Mx	.026	.5
94	MP3B	X	50.311	.5
95	MP3B	Z	29.047	.5
96	MP3B	Mx	.007	.5
97	MP3C	X	38.676	.5
98	MP3C	Z	22.329	.5
99	MP3C	Mx	-.026	.5

Member Point Loads (BLC 8 : Antenna Wo (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	37.052	.5
2	MP2A	Z	64.177	.5
3	MP2A	Mx	-.067	.5
4	MP2A	X	37.052	5.5
5	MP2A	Z	64.177	5.5
6	MP2A	Mx	-.067	5.5
7	MP2B	X	33.034	.5
8	MP2B	Z	57.217	.5
9	MP2B	Mx	.005	.5

Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2B	X	33.034	5.5
11	MP2B	Z	57.217	5.5
12	MP2B	Mx	.005	5.5
13	MP2C	X	18.585	.5
14	MP2C	Z	32.19	.5
15	MP2C	Mx	.025	.5
16	MP2C	X	18.585	5.5
17	MP2C	Z	32.19	5.5
18	MP2C	Mx	.025	5.5
19	MP2A	X	37.052	.5
20	MP2A	Z	64.177	.5
21	MP2A	Mx	.018	.5
22	MP2A	X	37.052	5.5
23	MP2A	Z	64.177	5.5
24	MP2A	Mx	.018	5.5
25	MP2B	X	33.034	.5
26	MP2B	Z	57.217	.5
27	MP2B	Mx	-.062	.5
28	MP2B	X	33.034	5.5
29	MP2B	Z	57.217	5.5
30	MP2B	Mx	-.062	5.5
31	MP2C	X	18.585	.5
32	MP2C	Z	32.19	.5
33	MP2C	Mx	.025	.5
34	MP2C	X	18.585	5.5
35	MP2C	Z	32.19	5.5
36	MP2C	Mx	.025	5.5
37	MP4A	X	11.153	4
38	MP4A	Z	19.318	4
39	MP4A	Mx	-.002	4
40	MP4B	X	9.322	4
41	MP4B	Z	16.146	4
42	MP4B	Mx	-.002	4
43	MP4C	X	2.737	4
44	MP4C	Z	4.741	4
45	MP4C	Mx	.000912	4
46	MP1A	X	32.694	.5
47	MP1A	Z	56.628	.5
48	MP1A	Mx	-.016	.5
49	MP1A	X	32.694	3.5
50	MP1A	Z	56.628	3.5
51	MP1A	Mx	-.016	3.5
52	MP1B	X	29.875	.5
53	MP1B	Z	51.746	.5
54	MP1B	Mx	-.019	.5
55	MP1B	X	29.875	3.5
56	MP1B	Z	51.746	3.5
57	MP1B	Mx	-.019	3.5
58	MP1C	X	19.738	.5
59	MP1C	Z	34.187	.5
60	MP1C	Mx	.02	.5
61	MP1C	X	19.738	3.5

Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
62	MP1C	Z	34.187	3.5
63	MP1C	Mx	.02	3.5
64	MP2A	X	22.31	1
65	MP2A	Z	38.642	1
66	MP2A	Mx	.019	1
67	MP2B	X	21.005	1
68	MP2B	Z	36.381	1
69	MP2B	Mx	.023	1
70	MP2C	X	16.311	1
71	MP2C	Z	28.251	1
72	MP2C	Mx	-.027	1
73	MP4A	X	25.152	.5
74	MP4A	Z	43.564	.5
75	MP4A	Mx	-.017	.5
76	MP4A	X	25.152	2.5
77	MP4A	Z	43.564	2.5
78	MP4A	Mx	-.017	2.5
79	MP4B	X	22.17	.5
80	MP4B	Z	38.4	.5
81	MP4B	Mx	-.019	.5
82	MP4B	X	22.17	2.5
83	MP4B	Z	38.4	2.5
84	MP4B	Mx	-.019	2.5
85	MP4C	X	11.447	.5
86	MP4C	Z	19.826	.5
87	MP4C	Mx	.015	.5
88	MP4C	X	11.447	2.5
89	MP4C	Z	19.826	2.5
90	MP4C	Mx	.015	2.5
91	MP3A	X	26.995	.5
92	MP3A	Z	46.757	.5
93	MP3A	Mx	.018	.5
94	MP3B	X	25.473	.5
95	MP3B	Z	44.12	.5
96	MP3B	Mx	.022	.5
97	MP3C	X	19.997	.5
98	MP3C	Z	34.635	.5
99	MP3C	Mx	-.027	.5

Member Point Loads (BLC 9 : Antenna Wo (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	86.416	.5
3	MP2A	Mx	-.058	.5
4	MP2A	X	0	5.5
5	MP2A	Z	86.416	5.5
6	MP2A	Mx	-.058	5.5
7	MP2B	X	0	.5
8	MP2B	Z	42.931	.5
9	MP2B	Mx	-.017	.5
10	MP2B	X	0	5.5

Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP2B	Z	42.931	5.5
12	MP2B	Mx	-.017	5.5
13	MP2C	X	0	.5
14	MP2C	Z	49.482	.5
15	MP2C	Mx	.045	.5
16	MP2C	X	0	5.5
17	MP2C	Z	49.482	5.5
18	MP2C	Mx	.045	5.5
19	MP2A	X	0	.5
20	MP2A	Z	86.416	.5
21	MP2A	Mx	.058	.5
22	MP2A	X	0	5.5
23	MP2A	Z	86.416	5.5
24	MP2A	Mx	.058	5.5
25	MP2B	X	0	.5
26	MP2B	Z	42.931	.5
27	MP2B	Mx	-.037	.5
28	MP2B	X	0	5.5
29	MP2B	Z	42.931	5.5
30	MP2B	Mx	-.037	5.5
31	MP2C	X	0	.5
32	MP2C	Z	49.482	.5
33	MP2C	Mx	.012	.5
34	MP2C	X	0	5.5
35	MP2C	Z	49.482	5.5
36	MP2C	Mx	.012	5.5
37	MP4A	X	0	4
38	MP4A	Z	27.917	4
39	MP4A	Mx	0	4
40	MP4B	X	0	4
41	MP4B	Z	8.1	4
42	MP4B	Mx	-.001	4
43	MP4C	X	0	4
44	MP4C	Z	11.085	4
45	MP4C	Mx	.002	4
46	MP1A	X	0	.5
47	MP1A	Z	74.026	.5
48	MP1A	Mx	0	.5
49	MP1A	X	0	3.5
50	MP1A	Z	74.026	3.5
51	MP1A	Mx	0	3.5
52	MP1B	X	0	.5
53	MP1B	Z	43.518	.5
54	MP1B	Mx	-.02	.5
55	MP1B	X	0	3.5
56	MP1B	Z	43.518	3.5
57	MP1B	Mx	-.02	3.5
58	MP1C	X	0	.5
59	MP1C	Z	48.114	.5
60	MP1C	Mx	.021	.5
61	MP1C	X	0	3.5
62	MP1C	Z	48.114	3.5

Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
63	MP1C	Mx	.021	3.5
64	MP2A	X	0	1
65	MP2A	Z	48.619	1
66	MP2A	Mx	0	1
67	MP2B	X	0	1
68	MP2B	Z	34.493	1
69	MP2B	Mx	.027	1
70	MP2C	X	0	1
71	MP2C	Z	36.621	1
72	MP2C	Mx	-.026	1
73	MP4A	X	0	.5
74	MP4A	Z	59.441	.5
75	MP4A	Mx	0	.5
76	MP4A	X	0	2.5
77	MP4A	Z	59.441	2.5
78	MP4A	Mx	0	2.5
79	MP4B	X	0	.5
80	MP4B	Z	27.169	.5
81	MP4B	Mx	-.017	.5
82	MP4B	X	0	2.5
83	MP4B	Z	27.169	2.5
84	MP4B	Mx	-.017	2.5
85	MP4C	X	0	.5
86	MP4C	Z	32.03	.5
87	MP4C	Mx	.018	.5
88	MP4C	X	0	2.5
89	MP4C	Z	32.03	2.5
90	MP4C	Mx	.018	2.5
91	MP3A	X	0	.5
92	MP3A	Z	58.656	.5
93	MP3A	Mx	0	.5
94	MP3B	X	0	.5
95	MP3B	Z	42.176	.5
96	MP3B	Mx	.026	.5
97	MP3C	X	0	.5
98	MP3C	Z	44.659	.5
99	MP3C	Mx	-.026	.5

Member Point Loads (BLC 10 : Antenna Wo (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-37.052	.5
2	MP2A	Z	64.177	.5
3	MP2A	Mx	-.018	.5
4	MP2A	X	-37.052	5.5
5	MP2A	Z	64.177	5.5
6	MP2A	Mx	-.018	5.5
7	MP2B	X	-19.327	.5
8	MP2B	Z	33.476	.5
9	MP2B	Mx	-.03	.5
10	MP2B	X	-19.327	5.5
11	MP2B	Z	33.476	5.5

Member Point Loads (BLC 10 : Antenna Wo (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2B	Mx	-.03	5.5
13	MP2C	X	-37.052	.5
14	MP2C	Z	64.177	.5
15	MP2C	Mx	.067	.5
16	MP2C	X	-37.052	5.5
17	MP2C	Z	64.177	5.5
18	MP2C	Mx	.067	5.5
19	MP2A	X	-37.052	.5
20	MP2A	Z	64.177	.5
21	MP2A	Mx	.067	.5
22	MP2A	X	-37.052	5.5
23	MP2A	Z	64.177	5.5
24	MP2A	Mx	.067	5.5
25	MP2B	X	-19.327	.5
26	MP2B	Z	33.476	.5
27	MP2B	Mx	-.021	.5
28	MP2B	X	-19.327	5.5
29	MP2B	Z	33.476	5.5
30	MP2B	Mx	-.021	5.5
31	MP2C	X	-37.052	.5
32	MP2C	Z	64.177	.5
33	MP2C	Mx	-.018	.5
34	MP2C	X	-37.052	5.5
35	MP2C	Z	64.177	5.5
36	MP2C	Mx	-.018	5.5
37	MP4A	X	-11.153	4
38	MP4A	Z	19.318	4
39	MP4A	Mx	.002	4
40	MP4B	X	-3.076	4
41	MP4B	Z	5.327	4
42	MP4B	Mx	-.001	4
43	MP4C	X	-11.153	4
44	MP4C	Z	19.318	4
45	MP4C	Mx	.002	4
46	MP1A	X	-32.694	.5
47	MP1A	Z	56.628	.5
48	MP1A	Mx	.016	.5
49	MP1A	X	-32.694	3.5
50	MP1A	Z	56.628	3.5
51	MP1A	Mx	.016	3.5
52	MP1B	X	-20.259	.5
53	MP1B	Z	35.089	.5
54	MP1B	Mx	-.02	.5
55	MP1B	X	-20.259	3.5
56	MP1B	Z	35.089	3.5
57	MP1B	Mx	-.02	3.5
58	MP1C	X	-32.694	.5
59	MP1C	Z	56.628	.5
60	MP1C	Mx	.016	.5
61	MP1C	X	-32.694	3.5
62	MP1C	Z	56.628	3.5
63	MP1C	Mx	.016	3.5

Member Point Loads (BLC 10 : Antenna Wo (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
64	MP2A	X	-22.31	1
65	MP2A	Z	38.642	1
66	MP2A	Mx	-.019	1
67	MP2B	X	-16.552	1
68	MP2B	Z	28.669	1
69	MP2B	Mx	.027	1
70	MP2C	X	-22.31	1
71	MP2C	Z	38.642	1
72	MP2C	Mx	-.019	1
73	MP4A	X	-25.152	.5
74	MP4A	Z	43.564	.5
75	MP4A	Mx	.017	.5
76	MP4A	X	-25.152	2.5
77	MP4A	Z	43.564	2.5
78	MP4A	Mx	.017	2.5
79	MP4B	X	-11.998	.5
80	MP4B	Z	20.781	.5
81	MP4B	Mx	-.016	.5
82	MP4B	X	-11.998	2.5
83	MP4B	Z	20.781	2.5
84	MP4B	Mx	-.016	2.5
85	MP4C	X	-25.152	.5
86	MP4C	Z	43.564	.5
87	MP4C	Mx	.017	.5
88	MP4C	X	-25.152	2.5
89	MP4C	Z	43.564	2.5
90	MP4C	Mx	.017	2.5
91	MP3A	X	-26.995	.5
92	MP3A	Z	46.757	.5
93	MP3A	Mx	-.018	.5
94	MP3B	X	-20.278	.5
95	MP3B	Z	35.122	.5
96	MP3B	Mx	.027	.5
97	MP3C	X	-26.995	.5
98	MP3C	Z	46.757	.5
99	MP3C	Mx	-.018	.5

Member Point Loads (BLC 11 : Antenna Wo (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-42.852	.5
2	MP2A	Z	24.741	.5
3	MP2A	Mx	.012	.5
4	MP2A	X	-42.852	5.5
5	MP2A	Z	24.741	5.5
6	MP2A	Mx	.012	5.5
7	MP2B	X	-49.812	.5
8	MP2B	Z	28.759	.5
9	MP2B	Mx	-.054	.5
10	MP2B	X	-49.812	5.5
11	MP2B	Z	28.759	5.5
12	MP2B	Mx	-.054	5.5

Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP2C	X	-74.839	.5
14	MP2C	Z	43.208	.5
15	MP2C	Mx	.058	.5
16	MP2C	X	-74.839	5.5
17	MP2C	Z	43.208	5.5
18	MP2C	Mx	.058	5.5
19	MP2A	X	-42.852	.5
20	MP2A	Z	24.741	.5
21	MP2A	Mx	.045	.5
22	MP2A	X	-42.852	5.5
23	MP2A	Z	24.741	5.5
24	MP2A	Mx	.045	5.5
25	MP2B	X	-49.812	.5
26	MP2B	Z	28.759	.5
27	MP2B	Mx	-.005	.5
28	MP2B	X	-49.812	5.5
29	MP2B	Z	28.759	5.5
30	MP2B	Mx	-.005	5.5
31	MP2C	X	-74.839	.5
32	MP2C	Z	43.208	.5
33	MP2C	Mx	-.058	.5
34	MP2C	X	-74.839	5.5
35	MP2C	Z	43.208	5.5
36	MP2C	Mx	-.058	5.5
37	MP4A	X	-9.6	4
38	MP4A	Z	5.543	4
39	MP4A	Mx	.002	4
40	MP4B	X	-12.771	4
41	MP4B	Z	7.374	4
42	MP4B	Mx	-.002	4
43	MP4C	X	-24.177	4
44	MP4C	Z	13.958	4
45	MP4C	Mx	0	4
46	MP1A	X	-41.668	.5
47	MP1A	Z	24.057	.5
48	MP1A	Mx	.021	.5
49	MP1A	X	-41.668	3.5
50	MP1A	Z	24.057	3.5
51	MP1A	Mx	.021	3.5
52	MP1B	X	-46.55	.5
53	MP1B	Z	26.876	.5
54	MP1B	Mx	-.021	.5
55	MP1B	X	-46.55	3.5
56	MP1B	Z	26.876	3.5
57	MP1B	Mx	-.021	3.5
58	MP1C	X	-64.109	.5
59	MP1C	Z	37.013	.5
60	MP1C	Mx	0	.5
61	MP1C	X	-64.109	3.5
62	MP1C	Z	37.013	3.5
63	MP1C	Mx	0	3.5
64	MP2A	X	-31.715	1

Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
65	MP2A	Z	18.311	1
66	MP2A	Mx	-.026	1
67	MP2B	X	-33.975	1
68	MP2B	Z	19.616	1
69	MP2B	Mx	.025	1
70	MP2C	X	-42.105	1
71	MP2C	Z	24.309	1
72	MP2C	Mx	0	1
73	MP4A	X	-27.739	.5
74	MP4A	Z	16.015	.5
75	MP4A	Mx	.018	.5
76	MP4A	X	-27.739	2.5
77	MP4A	Z	16.015	2.5
78	MP4A	Mx	.018	2.5
79	MP4B	X	-32.904	.5
80	MP4B	Z	18.997	.5
81	MP4B	Mx	-.019	.5
82	MP4B	X	-32.904	2.5
83	MP4B	Z	18.997	2.5
84	MP4B	Mx	-.019	2.5
85	MP4C	X	-51.477	.5
86	MP4C	Z	29.72	.5
87	MP4C	Mx	0	.5
88	MP4C	X	-51.477	2.5
89	MP4C	Z	29.72	2.5
90	MP4C	Mx	0	2.5
91	MP3A	X	-38.676	.5
92	MP3A	Z	22.329	.5
93	MP3A	Mx	-.026	.5
94	MP3B	X	-41.313	.5
95	MP3B	Z	23.852	.5
96	MP3B	Mx	.024	.5
97	MP3C	X	-50.798	.5
98	MP3C	Z	29.328	.5
99	MP3C	Mx	0	.5

Member Point Loads (BLC 12 : Antenna Wo (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-37.17	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.025	.5
4	MP2A	X	-37.17	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	.025	5.5
7	MP2B	X	-80.656	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	-.069	.5
10	MP2B	X	-80.656	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	-.069	5.5
13	MP2C	X	-74.105	.5

Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP2C	Z	0	.5
15	MP2C	Mx	.018	.5
16	MP2C	X	-74.105	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	.018	5.5
19	MP2A	X	-37.17	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	.025	.5
22	MP2A	X	-37.17	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	.025	5.5
25	MP2B	X	-80.656	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	.032	.5
28	MP2B	X	-80.656	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	.032	5.5
31	MP2C	X	-74.105	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	-.067	.5
34	MP2C	X	-74.105	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	-.067	5.5
37	MP4A	X	-5.475	4
38	MP4A	Z	0	4
39	MP4A	Mx	.000912	4
40	MP4B	X	-25.291	4
41	MP4B	Z	0	4
42	MP4B	Mx	-.001	4
43	MP4C	X	-22.306	4
44	MP4C	Z	0	4
45	MP4C	Mx	-.002	4
46	MP1A	X	-39.476	.5
47	MP1A	Z	0	.5
48	MP1A	Mx	.02	.5
49	MP1A	X	-39.476	3.5
50	MP1A	Z	0	3.5
51	MP1A	Mx	.02	3.5
52	MP1B	X	-69.985	.5
53	MP1B	Z	0	.5
54	MP1B	Mx	-.012	.5
55	MP1B	X	-69.985	3.5
56	MP1B	Z	0	3.5
57	MP1B	Mx	-.012	3.5
58	MP1C	X	-65.389	.5
59	MP1C	Z	0	.5
60	MP1C	Mx	-.016	.5
61	MP1C	X	-65.389	3.5
62	MP1C	Z	0	3.5
63	MP1C	Mx	-.016	3.5
64	MP2A	X	-32.622	1
65	MP2A	Z	0	1

Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
66	MP2A	Mx	-.027	1
67	MP2B	X	-46.748	1
68	MP2B	Z	0	1
69	MP2B	Mx	.013	1
70	MP2C	X	-44.62	1
71	MP2C	Z	0	1
72	MP2C	Mx	.019	1
73	MP4A	X	-22.894	.5
74	MP4A	Z	0	.5
75	MP4A	Mx	.015	.5
76	MP4A	X	-22.894	2.5
77	MP4A	Z	0	2.5
78	MP4A	Mx	.015	2.5
79	MP4B	X	-55.165	.5
80	MP4B	Z	0	.5
81	MP4B	Mx	-.013	.5
82	MP4B	X	-55.165	2.5
83	MP4B	Z	0	2.5
84	MP4B	Mx	-.013	2.5
85	MP4C	X	-50.304	.5
86	MP4C	Z	0	.5
87	MP4C	Mx	-.017	.5
88	MP4C	X	-50.304	2.5
89	MP4C	Z	0	2.5
90	MP4C	Mx	-.017	2.5
91	MP3A	X	-39.993	.5
92	MP3A	Z	0	.5
93	MP3A	Mx	-.027	.5
94	MP3B	X	-56.473	.5
95	MP3B	Z	0	.5
96	MP3B	Mx	.013	.5
97	MP3C	X	-53.991	.5
98	MP3C	Z	0	.5
99	MP3C	Mx	.018	.5

Member Point Loads (BLC 13 : Antenna Wo (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-42.852	.5
2	MP2A	Z	-24.741	.5
3	MP2A	Mx	.045	.5
4	MP2A	X	-42.852	5.5
5	MP2A	Z	-24.741	5.5
6	MP2A	Mx	.045	5.5
7	MP2B	X	-73.553	.5
8	MP2B	Z	-42.466	.5
9	MP2B	Mx	-.046	.5
10	MP2B	X	-73.553	5.5
11	MP2B	Z	-42.466	5.5
12	MP2B	Mx	-.046	5.5
13	MP2C	X	-42.852	.5
14	MP2C	Z	-24.741	.5

Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
15	MP2C	Mx	-.012	.5
16	MP2C	X	-42.852	5.5
17	MP2C	Z	-24.741	5.5
18	MP2C	Mx	-.012	5.5
19	MP2A	X	-42.852	.5
20	MP2A	Z	-24.741	.5
21	MP2A	Mx	.012	.5
22	MP2A	X	-42.852	5.5
23	MP2A	Z	-24.741	5.5
24	MP2A	Mx	.012	5.5
25	MP2B	X	-73.553	.5
26	MP2B	Z	-42.466	.5
27	MP2B	Mx	.066	.5
28	MP2B	X	-73.553	5.5
29	MP2B	Z	-42.466	5.5
30	MP2B	Mx	.066	5.5
31	MP2C	X	-42.852	.5
32	MP2C	Z	-24.741	.5
33	MP2C	Mx	-.045	.5
34	MP2C	X	-42.852	5.5
35	MP2C	Z	-24.741	5.5
36	MP2C	Mx	-.045	5.5
37	MP4A	X	-9.6	4
38	MP4A	Z	-5.543	4
39	MP4A	Mx	.002	4
40	MP4B	X	-23.591	4
41	MP4B	Z	-13.62	4
42	MP4B	Mx	.000788	4
43	MP4C	X	-9.6	4
44	MP4C	Z	-5.543	4
45	MP4C	Mx	-.002	4
46	MP1A	X	-41.668	.5
47	MP1A	Z	-24.057	.5
48	MP1A	Mx	.021	.5
49	MP1A	X	-41.668	3.5
50	MP1A	Z	-24.057	3.5
51	MP1A	Mx	.021	3.5
52	MP1B	X	-63.206	.5
53	MP1B	Z	-36.492	.5
54	MP1B	Mx	.006	.5
55	MP1B	X	-63.206	3.5
56	MP1B	Z	-36.492	3.5
57	MP1B	Mx	.006	3.5
58	MP1C	X	-41.668	.5
59	MP1C	Z	-24.057	.5
60	MP1C	Mx	-.021	.5
61	MP1C	X	-41.668	3.5
62	MP1C	Z	-24.057	3.5
63	MP1C	Mx	-.021	3.5
64	MP2A	X	-31.715	1
65	MP2A	Z	-18.311	1
66	MP2A	Mx	-.026	1

Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
67	MP2B	X	-41.688	1
68	MP2B	Z	-24.068	1
69	MP2B	Mx	-.007	1
70	MP2C	X	-31.715	1
71	MP2C	Z	-18.311	1
72	MP2C	Mx	.026	1
73	MP4A	X	-27.739	.5
74	MP4A	Z	-16.015	.5
75	MP4A	Mx	.018	.5
76	MP4A	X	-27.739	2.5
77	MP4A	Z	-16.015	2.5
78	MP4A	Mx	.018	2.5
79	MP4B	X	-50.523	.5
80	MP4B	Z	-29.169	.5
81	MP4B	Mx	.007	.5
82	MP4B	X	-50.523	2.5
83	MP4B	Z	-29.169	2.5
84	MP4B	Mx	.007	2.5
85	MP4C	X	-27.739	.5
86	MP4C	Z	-16.015	.5
87	MP4C	Mx	-.018	.5
88	MP4C	X	-27.739	2.5
89	MP4C	Z	-16.015	2.5
90	MP4C	Mx	-.018	2.5
91	MP3A	X	-38.676	.5
92	MP3A	Z	-22.329	.5
93	MP3A	Mx	-.026	.5
94	MP3B	X	-50.311	.5
95	MP3B	Z	-29.047	.5
96	MP3B	Mx	-.007	.5
97	MP3C	X	-38.676	.5
98	MP3C	Z	-22.329	.5
99	MP3C	Mx	.026	.5

Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-37.052	.5
2	MP2A	Z	-64.177	.5
3	MP2A	Mx	.067	.5
4	MP2A	X	-37.052	5.5
5	MP2A	Z	-64.177	5.5
6	MP2A	Mx	.067	5.5
7	MP2B	X	-33.034	.5
8	MP2B	Z	-57.217	.5
9	MP2B	Mx	-.005	.5
10	MP2B	X	-33.034	5.5
11	MP2B	Z	-57.217	5.5
12	MP2B	Mx	-.005	5.5
13	MP2C	X	-18.585	.5
14	MP2C	Z	-32.19	.5
15	MP2C	Mx	-.025	.5

Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
16	MP2C	X	-18.585	5.5
17	MP2C	Z	-32.19	5.5
18	MP2C	Mx	-.025	5.5
19	MP2A	X	-37.052	.5
20	MP2A	Z	-64.177	.5
21	MP2A	Mx	-.018	.5
22	MP2A	X	-37.052	5.5
23	MP2A	Z	-64.177	5.5
24	MP2A	Mx	-.018	5.5
25	MP2B	X	-33.034	.5
26	MP2B	Z	-57.217	.5
27	MP2B	Mx	.062	.5
28	MP2B	X	-33.034	5.5
29	MP2B	Z	-57.217	5.5
30	MP2B	Mx	.062	5.5
31	MP2C	X	-18.585	.5
32	MP2C	Z	-32.19	.5
33	MP2C	Mx	-.025	.5
34	MP2C	X	-18.585	5.5
35	MP2C	Z	-32.19	5.5
36	MP2C	Mx	-.025	5.5
37	MP4A	X	-11.153	4
38	MP4A	Z	-19.318	4
39	MP4A	Mx	.002	4
40	MP4B	X	-9.322	4
41	MP4B	Z	-16.146	4
42	MP4B	Mx	.002	4
43	MP4C	X	-2.737	4
44	MP4C	Z	-4.741	4
45	MP4C	Mx	-.000912	4
46	MP1A	X	-32.694	.5
47	MP1A	Z	-56.628	.5
48	MP1A	Mx	.016	.5
49	MP1A	X	-32.694	3.5
50	MP1A	Z	-56.628	3.5
51	MP1A	Mx	.016	3.5
52	MP1B	X	-29.875	.5
53	MP1B	Z	-51.746	.5
54	MP1B	Mx	.019	.5
55	MP1B	X	-29.875	3.5
56	MP1B	Z	-51.746	3.5
57	MP1B	Mx	.019	3.5
58	MP1C	X	-19.738	.5
59	MP1C	Z	-34.187	.5
60	MP1C	Mx	-.02	.5
61	MP1C	X	-19.738	3.5
62	MP1C	Z	-34.187	3.5
63	MP1C	Mx	-.02	3.5
64	MP2A	X	-22.31	1
65	MP2A	Z	-38.642	1
66	MP2A	Mx	-.019	1
67	MP2B	X	-21.005	1

Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
68	MP2B	Z	-36.381	1
69	MP2B	Mx	-.023	1
70	MP2C	X	-16.311	1
71	MP2C	Z	-28.251	1
72	MP2C	Mx	.027	1
73	MP4A	X	-25.152	.5
74	MP4A	Z	-43.564	.5
75	MP4A	Mx	.017	.5
76	MP4A	X	-25.152	2.5
77	MP4A	Z	-43.564	2.5
78	MP4A	Mx	.017	2.5
79	MP4B	X	-22.17	.5
80	MP4B	Z	-38.4	.5
81	MP4B	Mx	.019	.5
82	MP4B	X	-22.17	2.5
83	MP4B	Z	-38.4	2.5
84	MP4B	Mx	.019	2.5
85	MP4C	X	-11.447	.5
86	MP4C	Z	-19.826	.5
87	MP4C	Mx	-.015	.5
88	MP4C	X	-11.447	2.5
89	MP4C	Z	-19.826	2.5
90	MP4C	Mx	-.015	2.5
91	MP3A	X	-26.995	.5
92	MP3A	Z	-46.757	.5
93	MP3A	Mx	-.018	.5
94	MP3B	X	-25.473	.5
95	MP3B	Z	-44.12	.5
96	MP3B	Mx	-.022	.5
97	MP3C	X	-19.997	.5
98	MP3C	Z	-34.635	.5
99	MP3C	Mx	.027	.5

Member Point Loads (BLC 15 : Antenna Wi (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-25.636	.5
3	MP2A	Mx	.017	.5
4	MP2A	X	0	5.5
5	MP2A	Z	-25.636	5.5
6	MP2A	Mx	.017	5.5
7	MP2B	X	0	.5
8	MP2B	Z	-18.894	.5
9	MP2B	Mx	.008	.5
10	MP2B	X	0	5.5
11	MP2B	Z	-18.894	5.5
12	MP2B	Mx	.008	5.5
13	MP2C	X	0	.5
14	MP2C	Z	-19.91	.5
15	MP2C	Mx	-.018	.5
16	MP2C	X	0	5.5

Member Point Loads (BLC 15 : Antenna Wi (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP2C	Z	-19.91	5.5
18	MP2C	Mx	-.018	5.5
19	MP2A	X	0	.5
20	MP2A	Z	-25.636	.5
21	MP2A	Mx	-.017	.5
22	MP2A	X	0	5.5
23	MP2A	Z	-25.636	5.5
24	MP2A	Mx	-.017	5.5
25	MP2B	X	0	.5
26	MP2B	Z	-18.894	.5
27	MP2B	Mx	.016	.5
28	MP2B	X	0	5.5
29	MP2B	Z	-18.894	5.5
30	MP2B	Mx	.016	5.5
31	MP2C	X	0	.5
32	MP2C	Z	-19.91	.5
33	MP2C	Mx	-.005	.5
34	MP2C	X	0	5.5
35	MP2C	Z	-19.91	5.5
36	MP2C	Mx	-.005	5.5
37	MP4A	X	0	4
38	MP4A	Z	-7.036	4
39	MP4A	Mx	0	4
40	MP4B	X	0	4
41	MP4B	Z	-2.915	4
42	MP4B	Mx	.000457	4
43	MP4C	X	0	4
44	MP4C	Z	-3.536	4
45	MP4C	Mx	-.00051	4
46	MP1A	X	0	.5
47	MP1A	Z	-15.342	.5
48	MP1A	Mx	0	.5
49	MP1A	X	0	3.5
50	MP1A	Z	-15.342	3.5
51	MP1A	Mx	0	3.5
52	MP1B	X	0	.5
53	MP1B	Z	-9.808	.5
54	MP1B	Mx	.005	.5
55	MP1B	X	0	3.5
56	MP1B	Z	-9.808	3.5
57	MP1B	Mx	.005	3.5
58	MP1C	X	0	.5
59	MP1C	Z	-10.642	.5
60	MP1C	Mx	-.005	.5
61	MP1C	X	0	3.5
62	MP1C	Z	-10.642	3.5
63	MP1C	Mx	-.005	3.5
64	MP2A	X	0	1
65	MP2A	Z	-13.195	1
66	MP2A	Mx	0	1
67	MP2B	X	0	1
68	MP2B	Z	-9.795	1

Member Point Loads (BLC 15 : Antenna Wi (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
69	MP2B	Mx	-.008	1
70	MP2C	X	0	1
71	MP2C	Z	-10.307	1
72	MP2C	Mx	.007	1
73	MP4A	X	0	.5
74	MP4A	Z	-12.51	.5
75	MP4A	Mx	0	.5
76	MP4A	X	0	2.5
77	MP4A	Z	-12.51	2.5
78	MP4A	Mx	0	2.5
79	MP4B	X	0	.5
80	MP4B	Z	-6.327	.5
81	MP4B	Mx	.004	.5
82	MP4B	X	0	2.5
83	MP4B	Z	-6.327	2.5
84	MP4B	Mx	.004	2.5
85	MP4C	X	0	.5
86	MP4C	Z	-7.259	.5
87	MP4C	Mx	-.004	.5
88	MP4C	X	0	2.5
89	MP4C	Z	-7.259	2.5
90	MP4C	Mx	-.004	2.5
91	MP3A	X	0	.5
92	MP3A	Z	-13.195	.5
93	MP3A	Mx	0	.5
94	MP3B	X	0	.5
95	MP3B	Z	-9.931	.5
96	MP3B	Mx	-.006	.5
97	MP3C	X	0	.5
98	MP3C	Z	-10.423	.5
99	MP3C	Mx	.006	.5

Member Point Loads (BLC 16 : Antenna Wi (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	11.864	.5
2	MP2A	Z	-20.548	.5
3	MP2A	Mx	.006	.5
4	MP2A	X	11.864	5.5
5	MP2A	Z	-20.548	5.5
6	MP2A	Mx	.006	5.5
7	MP2B	X	9.116	.5
8	MP2B	Z	-15.789	.5
9	MP2B	Mx	.014	.5
10	MP2B	X	9.116	5.5
11	MP2B	Z	-15.789	5.5
12	MP2B	Mx	.014	5.5
13	MP2C	X	11.864	.5
14	MP2C	Z	-20.548	.5
15	MP2C	Mx	-.022	.5
16	MP2C	X	11.864	5.5
17	MP2C	Z	-20.548	5.5

Member Point Loads (BLC 16 : Antenna Wi (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP2C	Mx	-.022	5.5
19	MP2A	X	11.864	.5
20	MP2A	Z	-20.548	.5
21	MP2A	Mx	-.022	.5
22	MP2A	X	11.864	5.5
23	MP2A	Z	-20.548	5.5
24	MP2A	Mx	-.022	5.5
25	MP2B	X	9.116	.5
26	MP2B	Z	-15.789	.5
27	MP2B	Mx	.01	.5
28	MP2B	X	9.116	5.5
29	MP2B	Z	-15.789	5.5
30	MP2B	Mx	.01	5.5
31	MP2C	X	11.864	.5
32	MP2C	Z	-20.548	.5
33	MP2C	Mx	.006	.5
34	MP2C	X	11.864	5.5
35	MP2C	Z	-20.548	5.5
36	MP2C	Mx	.006	5.5
37	MP4A	X	2.935	4
38	MP4A	Z	-5.083	4
39	MP4A	Mx	-.000489	4
40	MP4B	X	1.255	4
41	MP4B	Z	-2.173	4
42	MP4B	Mx	.000412	4
43	MP4C	X	2.935	4
44	MP4C	Z	-5.083	4
45	MP4C	Mx	-.000489	4
46	MP1A	X	6.888	.5
47	MP1A	Z	-11.93	.5
48	MP1A	Mx	-.003	.5
49	MP1A	X	6.888	3.5
50	MP1A	Z	-11.93	3.5
51	MP1A	Mx	-.003	3.5
52	MP1B	X	4.632	.5
53	MP1B	Z	-8.023	.5
54	MP1B	Mx	.005	.5
55	MP1B	X	4.632	3.5
56	MP1B	Z	-8.023	3.5
57	MP1B	Mx	.005	3.5
58	MP1C	X	6.888	.5
59	MP1C	Z	-11.93	.5
60	MP1C	Mx	-.003	.5
61	MP1C	X	6.888	3.5
62	MP1C	Z	-11.93	3.5
63	MP1C	Mx	-.003	3.5
64	MP2A	X	6.116	1
65	MP2A	Z	-10.594	1
66	MP2A	Mx	.005	1
67	MP2B	X	4.73	1
68	MP2B	Z	-8.193	1
69	MP2B	Mx	-.008	1

Member Point Loads (BLC 16 : Antenna Wi (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
70	MP2C	X	6.116	1
71	MP2C	Z	-10.594	1
72	MP2C	Mx	.005	1
73	MP4A	X	5.38	.5
74	MP4A	Z	-9.318	.5
75	MP4A	Mx	-.004	.5
76	MP4A	X	5.38	2.5
77	MP4A	Z	-9.318	2.5
78	MP4A	Mx	-.004	2.5
79	MP4B	X	2.86	.5
80	MP4B	Z	-4.953	.5
81	MP4B	Mx	.004	.5
82	MP4B	X	2.86	2.5
83	MP4B	Z	-4.953	2.5
84	MP4B	Mx	.004	2.5
85	MP4C	X	5.38	.5
86	MP4C	Z	-9.318	.5
87	MP4C	Mx	-.004	.5
88	MP4C	X	5.38	2.5
89	MP4C	Z	-9.318	2.5
90	MP4C	Mx	-.004	2.5
91	MP3A	X	6.135	.5
92	MP3A	Z	-10.627	.5
93	MP3A	Mx	.004	.5
94	MP3B	X	4.805	.5
95	MP3B	Z	-8.322	.5
96	MP3B	Mx	-.006	.5
97	MP3C	X	6.135	.5
98	MP3C	Z	-10.627	.5
99	MP3C	Mx	.004	.5

Member Point Loads (BLC 17 : Antenna Wi (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	17.242	.5
2	MP2A	Z	-9.955	.5
3	MP2A	Mx	-.005	.5
4	MP2A	X	17.242	5.5
5	MP2A	Z	-9.955	5.5
6	MP2A	Mx	-.005	5.5
7	MP2B	X	18.321	.5
8	MP2B	Z	-10.578	.5
9	MP2B	Mx	.02	.5
10	MP2B	X	18.321	5.5
11	MP2B	Z	-10.578	5.5
12	MP2B	Mx	.02	5.5
13	MP2C	X	22.201	.5
14	MP2C	Z	-12.818	.5
15	MP2C	Mx	-.017	.5
16	MP2C	X	22.201	5.5
17	MP2C	Z	-12.818	5.5
18	MP2C	Mx	-.017	5.5

Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
19	MP2A	X	17.242	.5
20	MP2A	Z	-9.955	.5
21	MP2A	Mx	-.018	.5
22	MP2A	X	17.242	5.5
23	MP2A	Z	-9.955	5.5
24	MP2A	Mx	-.018	5.5
25	MP2B	X	18.321	.5
26	MP2B	Z	-10.578	.5
27	MP2B	Mx	.002	.5
28	MP2B	X	18.321	5.5
29	MP2B	Z	-10.578	5.5
30	MP2B	Mx	.002	5.5
31	MP2C	X	22.201	.5
32	MP2C	Z	-12.818	.5
33	MP2C	Mx	.017	.5
34	MP2C	X	22.201	5.5
35	MP2C	Z	-12.818	5.5
36	MP2C	Mx	.017	5.5
37	MP4A	X	3.062	4
38	MP4A	Z	-1.768	4
39	MP4A	Mx	-.00051	4
40	MP4B	X	3.721	4
41	MP4B	Z	-2.149	4
42	MP4B	Mx	.000549	4
43	MP4C	X	6.093	4
44	MP4C	Z	-3.518	4
45	MP4C	Mx	0	4
46	MP1A	X	9.216	.5
47	MP1A	Z	-5.321	.5
48	MP1A	Mx	-.005	.5
49	MP1A	X	9.216	3.5
50	MP1A	Z	-5.321	3.5
51	MP1A	Mx	-.005	3.5
52	MP1B	X	10.102	.5
53	MP1B	Z	-5.832	.5
54	MP1B	Mx	.004	.5
55	MP1B	X	10.102	3.5
56	MP1B	Z	-5.832	3.5
57	MP1B	Mx	.004	3.5
58	MP1C	X	13.286	.5
59	MP1C	Z	-7.671	.5
60	MP1C	Mx	0	.5
61	MP1C	X	13.286	3.5
62	MP1C	Z	-7.671	3.5
63	MP1C	Mx	0	3.5
64	MP2A	X	8.926	1
65	MP2A	Z	-5.154	1
66	MP2A	Mx	.007	1
67	MP2B	X	9.47	1
68	MP2B	Z	-5.468	1
69	MP2B	Mx	-.007	1
70	MP2C	X	11.427	1

Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
71	MP2C	Z	-6.598	1
72	MP2C	Mx	0	1
73	MP4A	X	6.286	.5
74	MP4A	Z	-3.629	.5
75	MP4A	Mx	-.004	.5
76	MP4A	X	6.286	2.5
77	MP4A	Z	-3.629	2.5
78	MP4A	Mx	-.004	2.5
79	MP4B	X	7.276	.5
80	MP4B	Z	-4.201	.5
81	MP4B	Mx	.004	.5
82	MP4B	X	7.276	2.5
83	MP4B	Z	-4.201	2.5
84	MP4B	Mx	.004	2.5
85	MP4C	X	10.834	.5
86	MP4C	Z	-6.255	.5
87	MP4C	Mx	0	.5
88	MP4C	X	10.834	2.5
89	MP4C	Z	-6.255	2.5
90	MP4C	Mx	0	2.5
91	MP3A	X	9.026	.5
92	MP3A	Z	-5.211	.5
93	MP3A	Mx	.006	.5
94	MP3B	X	9.549	.5
95	MP3B	Z	-5.513	.5
96	MP3B	Mx	-.006	.5
97	MP3C	X	11.427	.5
98	MP3C	Z	-6.598	.5
99	MP3C	Mx	0	.5

Member Point Loads (BLC 18 : Antenna Wi (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	18.001	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.012	.5
4	MP2A	X	18.001	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	-.012	5.5
7	MP2B	X	24.743	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	.021	.5
10	MP2B	X	24.743	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	.021	5.5
13	MP2C	X	23.727	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	-.006	.5
16	MP2C	X	23.727	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	-.006	5.5
19	MP2A	X	18.001	.5

Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP2A	Z	0	.5
21	MP2A	Mx	-.012	.5
22	MP2A	X	18.001	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-.012	5.5
25	MP2B	X	24.743	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	-.01	.5
28	MP2B	X	24.743	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	-.01	5.5
31	MP2C	X	23.727	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	.022	.5
34	MP2C	X	23.727	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	.022	5.5
37	MP4A	X	2.369	4
38	MP4A	Z	0	4
39	MP4A	Mx	-.000395	4
40	MP4B	X	6.49	4
41	MP4B	Z	0	4
42	MP4B	Mx	.00037	4
43	MP4C	X	5.869	4
44	MP4C	Z	0	4
45	MP4C	Mx	.000489	4
46	MP1A	X	9.075	.5
47	MP1A	Z	0	.5
48	MP1A	Mx	-.005	.5
49	MP1A	X	9.075	3.5
50	MP1A	Z	0	3.5
51	MP1A	Mx	-.005	3.5
52	MP1B	X	14.609	.5
53	MP1B	Z	0	.5
54	MP1B	Mx	.002	.5
55	MP1B	X	14.609	3.5
56	MP1B	Z	0	3.5
57	MP1B	Mx	.002	3.5
58	MP1C	X	13.775	.5
59	MP1C	Z	0	.5
60	MP1C	Mx	.003	.5
61	MP1C	X	13.775	3.5
62	MP1C	Z	0	3.5
63	MP1C	Mx	.003	3.5
64	MP2A	X	9.344	1
65	MP2A	Z	0	1
66	MP2A	Mx	.008	1
67	MP2B	X	12.745	1
68	MP2B	Z	0	1
69	MP2B	Mx	-.004	1
70	MP2C	X	12.232	1
71	MP2C	Z	0	1

Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
72	MP2C	Mx	-.005	1
73	MP4A	X	5.508	.5
74	MP4A	Z	0	.5
75	MP4A	Mx	-.004	.5
76	MP4A	X	5.508	2.5
77	MP4A	Z	0	2.5
78	MP4A	Mx	-.004	2.5
79	MP4B	X	11.691	.5
80	MP4B	Z	0	.5
81	MP4B	Mx	.003	.5
82	MP4B	X	11.691	2.5
83	MP4B	Z	0	2.5
84	MP4B	Mx	.003	2.5
85	MP4C	X	10.76	.5
86	MP4C	Z	0	.5
87	MP4C	Mx	.004	.5
88	MP4C	X	10.76	2.5
89	MP4C	Z	0	2.5
90	MP4C	Mx	.004	2.5
91	MP3A	X	9.498	.5
92	MP3A	Z	0	.5
93	MP3A	Mx	.006	.5
94	MP3B	X	12.763	.5
95	MP3B	Z	0	.5
96	MP3B	Mx	-.003	.5
97	MP3C	X	12.271	.5
98	MP3C	Z	0	.5
99	MP3C	Mx	-.004	.5

Member Point Loads (BLC 19 : Antenna Wi (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	17.242	.5
2	MP2A	Z	9.955	.5
3	MP2A	Mx	-.018	.5
4	MP2A	X	17.242	5.5
5	MP2A	Z	9.955	5.5
6	MP2A	Mx	-.018	5.5
7	MP2B	X	22.002	.5
8	MP2B	Z	12.703	.5
9	MP2B	Mx	.014	.5
10	MP2B	X	22.002	5.5
11	MP2B	Z	12.703	5.5
12	MP2B	Mx	.014	5.5
13	MP2C	X	17.242	.5
14	MP2C	Z	9.955	.5
15	MP2C	Mx	.005	.5
16	MP2C	X	17.242	5.5
17	MP2C	Z	9.955	5.5
18	MP2C	Mx	.005	5.5
19	MP2A	X	17.242	.5
20	MP2A	Z	9.955	.5

Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	-.005	.5
22	MP2A	X	17.242	5.5
23	MP2A	Z	9.955	5.5
24	MP2A	Mx	-.005	5.5
25	MP2B	X	22.002	.5
26	MP2B	Z	12.703	.5
27	MP2B	Mx	-.02	.5
28	MP2B	X	22.002	5.5
29	MP2B	Z	12.703	5.5
30	MP2B	Mx	-.02	5.5
31	MP2C	X	17.242	.5
32	MP2C	Z	9.955	.5
33	MP2C	Mx	.018	.5
34	MP2C	X	17.242	5.5
35	MP2C	Z	9.955	5.5
36	MP2C	Mx	.018	5.5
37	MP4A	X	3.062	4
38	MP4A	Z	1.768	4
39	MP4A	Mx	-.00051	4
40	MP4B	X	5.971	4
41	MP4B	Z	3.448	4
42	MP4B	Mx	-.0002	4
43	MP4C	X	3.062	4
44	MP4C	Z	1.768	4
45	MP4C	Mx	.00051	4
46	MP1A	X	9.216	.5
47	MP1A	Z	5.321	.5
48	MP1A	Mx	-.005	.5
49	MP1A	X	9.216	3.5
50	MP1A	Z	5.321	3.5
51	MP1A	Mx	-.005	3.5
52	MP1B	X	13.123	.5
53	MP1B	Z	7.576	.5
54	MP1B	Mx	-.001	.5
55	MP1B	X	13.123	3.5
56	MP1B	Z	7.576	3.5
57	MP1B	Mx	-.001	3.5
58	MP1C	X	9.216	.5
59	MP1C	Z	5.321	.5
60	MP1C	Mx	.005	.5
61	MP1C	X	9.216	3.5
62	MP1C	Z	5.321	3.5
63	MP1C	Mx	.005	3.5
64	MP2A	X	8.926	1
65	MP2A	Z	5.154	1
66	MP2A	Mx	.007	1
67	MP2B	X	11.327	1
68	MP2B	Z	6.539	1
69	MP2B	Mx	.002	1
70	MP2C	X	8.926	1
71	MP2C	Z	5.154	1
72	MP2C	Mx	-.007	1

Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
73	MP4A	X	6.286	.5
74	MP4A	Z	3.629	.5
75	MP4A	Mx	-.004	.5
76	MP4A	X	6.286	2.5
77	MP4A	Z	3.629	2.5
78	MP4A	Mx	-.004	2.5
79	MP4B	X	10.651	.5
80	MP4B	Z	6.15	.5
81	MP4B	Mx	-.001	.5
82	MP4B	X	10.651	2.5
83	MP4B	Z	6.15	2.5
84	MP4B	Mx	-.001	2.5
85	MP4C	X	6.286	.5
86	MP4C	Z	3.629	.5
87	MP4C	Mx	.004	.5
88	MP4C	X	6.286	2.5
89	MP4C	Z	3.629	2.5
90	MP4C	Mx	.004	2.5
91	MP3A	X	9.026	.5
92	MP3A	Z	5.211	.5
93	MP3A	Mx	.006	.5
94	MP3B	X	11.331	.5
95	MP3B	Z	6.542	.5
96	MP3B	Mx	.002	.5
97	MP3C	X	9.026	.5
98	MP3C	Z	5.211	.5
99	MP3C	Mx	-.006	.5

Member Point Loads (BLC 20 : Antenna Wi (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	11.864	.5
2	MP2A	Z	20.548	.5
3	MP2A	Mx	-.022	.5
4	MP2A	X	11.864	5.5
5	MP2A	Z	20.548	5.5
6	MP2A	Mx	-.022	5.5
7	MP2B	X	11.241	.5
8	MP2B	Z	19.469	.5
9	MP2B	Mx	.002	.5
10	MP2B	X	11.241	5.5
11	MP2B	Z	19.469	5.5
12	MP2B	Mx	.002	5.5
13	MP2C	X	9.001	.5
14	MP2C	Z	15.59	.5
15	MP2C	Mx	.012	.5
16	MP2C	X	9.001	5.5
17	MP2C	Z	15.59	5.5
18	MP2C	Mx	.012	5.5
19	MP2A	X	11.864	.5
20	MP2A	Z	20.548	.5
21	MP2A	Mx	.006	.5

Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP2A	X	11.864	5.5
23	MP2A	Z	20.548	5.5
24	MP2A	Mx	.006	5.5
25	MP2B	X	11.241	.5
26	MP2B	Z	19.469	.5
27	MP2B	Mx	-.021	.5
28	MP2B	X	11.241	5.5
29	MP2B	Z	19.469	5.5
30	MP2B	Mx	-.021	5.5
31	MP2C	X	9.001	.5
32	MP2C	Z	15.59	.5
33	MP2C	Mx	.012	.5
34	MP2C	X	9.001	5.5
35	MP2C	Z	15.59	5.5
36	MP2C	Mx	.012	5.5
37	MP4A	X	2.935	4
38	MP4A	Z	5.083	4
39	MP4A	Mx	-.000489	4
40	MP4B	X	2.554	4
41	MP4B	Z	4.423	4
42	MP4B	Mx	-.000547	4
43	MP4C	X	1.184	4
44	MP4C	Z	2.052	4
45	MP4C	Mx	.000395	4
46	MP1A	X	6.888	.5
47	MP1A	Z	11.93	.5
48	MP1A	Mx	-.003	.5
49	MP1A	X	6.888	3.5
50	MP1A	Z	11.93	3.5
51	MP1A	Mx	-.003	3.5
52	MP1B	X	6.376	.5
53	MP1B	Z	11.044	.5
54	MP1B	Mx	-.004	.5
55	MP1B	X	6.376	3.5
56	MP1B	Z	11.044	3.5
57	MP1B	Mx	-.004	3.5
58	MP1C	X	4.538	.5
59	MP1C	Z	7.859	.5
60	MP1C	Mx	.005	.5
61	MP1C	X	4.538	3.5
62	MP1C	Z	7.859	3.5
63	MP1C	Mx	.005	3.5
64	MP2A	X	6.116	1
65	MP2A	Z	10.594	1
66	MP2A	Mx	.005	1
67	MP2B	X	5.802	1
68	MP2B	Z	10.049	1
69	MP2B	Mx	.006	1
70	MP2C	X	4.672	1
71	MP2C	Z	8.093	1
72	MP2C	Mx	-.008	1
73	MP4A	X	5.38	.5

Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
74	MP4A	Z	9.318	.5
75	MP4A	Mx	-.004	.5
76	MP4A	X	5.38	2.5
77	MP4A	Z	9.318	2.5
78	MP4A	Mx	-.004	2.5
79	MP4B	X	4.809	.5
80	MP4B	Z	8.329	.5
81	MP4B	Mx	-.004	.5
82	MP4B	X	4.809	2.5
83	MP4B	Z	8.329	2.5
84	MP4B	Mx	-.004	2.5
85	MP4C	X	2.754	.5
86	MP4C	Z	4.77	.5
87	MP4C	Mx	.004	.5
88	MP4C	X	2.754	2.5
89	MP4C	Z	4.77	2.5
90	MP4C	Mx	.004	2.5
91	MP3A	X	6.135	.5
92	MP3A	Z	10.627	.5
93	MP3A	Mx	.004	.5
94	MP3B	X	5.834	.5
95	MP3B	Z	10.105	.5
96	MP3B	Mx	.005	.5
97	MP3C	X	4.749	.5
98	MP3C	Z	8.226	.5
99	MP3C	Mx	-.006	.5

Member Point Loads (BLC 21 : Antenna Wi (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	25.636	.5
3	MP2A	Mx	-.017	.5
4	MP2A	X	0	5.5
5	MP2A	Z	25.636	5.5
6	MP2A	Mx	-.017	5.5
7	MP2B	X	0	.5
8	MP2B	Z	18.894	.5
9	MP2B	Mx	-.008	.5
10	MP2B	X	0	5.5
11	MP2B	Z	18.894	5.5
12	MP2B	Mx	-.008	5.5
13	MP2C	X	0	.5
14	MP2C	Z	19.91	.5
15	MP2C	Mx	.018	.5
16	MP2C	X	0	5.5
17	MP2C	Z	19.91	5.5
18	MP2C	Mx	.018	5.5
19	MP2A	X	0	.5
20	MP2A	Z	25.636	.5
21	MP2A	Mx	.017	.5
22	MP2A	X	0	5.5

Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	Z	25.636	5.5
24	MP2A	Mx	.017	5.5
25	MP2B	X	0	.5
26	MP2B	Z	18.894	.5
27	MP2B	Mx	-.016	.5
28	MP2B	X	0	5.5
29	MP2B	Z	18.894	5.5
30	MP2B	Mx	-.016	5.5
31	MP2C	X	0	.5
32	MP2C	Z	19.91	.5
33	MP2C	Mx	.005	.5
34	MP2C	X	0	5.5
35	MP2C	Z	19.91	5.5
36	MP2C	Mx	.005	5.5
37	MP4A	X	0	4
38	MP4A	Z	7.036	4
39	MP4A	Mx	0	4
40	MP4B	X	0	4
41	MP4B	Z	2.915	4
42	MP4B	Mx	-.000457	4
43	MP4C	X	0	4
44	MP4C	Z	3.536	4
45	MP4C	Mx	.00051	4
46	MP1A	X	0	.5
47	MP1A	Z	15.342	.5
48	MP1A	Mx	0	.5
49	MP1A	X	0	3.5
50	MP1A	Z	15.342	3.5
51	MP1A	Mx	0	3.5
52	MP1B	X	0	.5
53	MP1B	Z	9.808	.5
54	MP1B	Mx	-.005	.5
55	MP1B	X	0	3.5
56	MP1B	Z	9.808	3.5
57	MP1B	Mx	-.005	3.5
58	MP1C	X	0	.5
59	MP1C	Z	10.642	.5
60	MP1C	Mx	.005	.5
61	MP1C	X	0	3.5
62	MP1C	Z	10.642	3.5
63	MP1C	Mx	.005	3.5
64	MP2A	X	0	1
65	MP2A	Z	13.195	1
66	MP2A	Mx	0	1
67	MP2B	X	0	1
68	MP2B	Z	9.795	1
69	MP2B	Mx	.008	1
70	MP2C	X	0	1
71	MP2C	Z	10.307	1
72	MP2C	Mx	-.007	1
73	MP4A	X	0	.5
74	MP4A	Z	12.51	.5

Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP4A	Mx	0	.5
76	MP4A	X	0	2.5
77	MP4A	Z	12.51	2.5
78	MP4A	Mx	0	2.5
79	MP4B	X	0	.5
80	MP4B	Z	6.327	.5
81	MP4B	Mx	-.004	.5
82	MP4B	X	0	2.5
83	MP4B	Z	6.327	2.5
84	MP4B	Mx	-.004	2.5
85	MP4C	X	0	.5
86	MP4C	Z	7.259	.5
87	MP4C	Mx	.004	.5
88	MP4C	X	0	2.5
89	MP4C	Z	7.259	2.5
90	MP4C	Mx	.004	2.5
91	MP3A	X	0	.5
92	MP3A	Z	13.195	.5
93	MP3A	Mx	0	.5
94	MP3B	X	0	.5
95	MP3B	Z	9.931	.5
96	MP3B	Mx	.006	.5
97	MP3C	X	0	.5
98	MP3C	Z	10.423	.5
99	MP3C	Mx	-.006	.5

Member Point Loads (BLC 22 : Antenna Wi (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-11.864	.5
2	MP2A	Z	20.548	.5
3	MP2A	Mx	-.006	.5
4	MP2A	X	-11.864	5.5
5	MP2A	Z	20.548	5.5
6	MP2A	Mx	-.006	5.5
7	MP2B	X	-9.116	.5
8	MP2B	Z	15.789	.5
9	MP2B	Mx	-.014	.5
10	MP2B	X	-9.116	5.5
11	MP2B	Z	15.789	5.5
12	MP2B	Mx	-.014	5.5
13	MP2C	X	-11.864	.5
14	MP2C	Z	20.548	.5
15	MP2C	Mx	.022	.5
16	MP2C	X	-11.864	5.5
17	MP2C	Z	20.548	5.5
18	MP2C	Mx	.022	5.5
19	MP2A	X	-11.864	.5
20	MP2A	Z	20.548	.5
21	MP2A	Mx	.022	.5
22	MP2A	X	-11.864	5.5
23	MP2A	Z	20.548	5.5

Member Point Loads (BLC 22 : Antenna Wi (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP2A	Mx	.022	5.5
25	MP2B	X	-9.116	.5
26	MP2B	Z	15.789	.5
27	MP2B	Mx	-.01	.5
28	MP2B	X	-9.116	5.5
29	MP2B	Z	15.789	5.5
30	MP2B	Mx	-.01	5.5
31	MP2C	X	-11.864	.5
32	MP2C	Z	20.548	.5
33	MP2C	Mx	-.006	.5
34	MP2C	X	-11.864	5.5
35	MP2C	Z	20.548	5.5
36	MP2C	Mx	-.006	5.5
37	MP4A	X	-2.935	4
38	MP4A	Z	5.083	4
39	MP4A	Mx	.000489	4
40	MP4B	X	-1.255	4
41	MP4B	Z	2.173	4
42	MP4B	Mx	-.000412	4
43	MP4C	X	-2.935	4
44	MP4C	Z	5.083	4
45	MP4C	Mx	.000489	4
46	MP1A	X	-6.888	.5
47	MP1A	Z	11.93	.5
48	MP1A	Mx	.003	.5
49	MP1A	X	-6.888	3.5
50	MP1A	Z	11.93	3.5
51	MP1A	Mx	.003	3.5
52	MP1B	X	-4.632	.5
53	MP1B	Z	8.023	.5
54	MP1B	Mx	-.005	.5
55	MP1B	X	-4.632	3.5
56	MP1B	Z	8.023	3.5
57	MP1B	Mx	-.005	3.5
58	MP1C	X	-6.888	.5
59	MP1C	Z	11.93	.5
60	MP1C	Mx	.003	.5
61	MP1C	X	-6.888	3.5
62	MP1C	Z	11.93	3.5
63	MP1C	Mx	.003	3.5
64	MP2A	X	-6.116	1
65	MP2A	Z	10.594	1
66	MP2A	Mx	-.005	1
67	MP2B	X	-4.73	1
68	MP2B	Z	8.193	1
69	MP2B	Mx	.008	1
70	MP2C	X	-6.116	1
71	MP2C	Z	10.594	1
72	MP2C	Mx	-.005	1
73	MP4A	X	-5.38	.5
74	MP4A	Z	9.318	.5
75	MP4A	Mx	.004	.5

Member Point Loads (BLC 22 : Antenna Wi (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
76	MP4A	X	-5.38	2.5
77	MP4A	Z	9.318	2.5
78	MP4A	Mx	.004	2.5
79	MP4B	X	-2.86	.5
80	MP4B	Z	4.953	.5
81	MP4B	Mx	-.004	.5
82	MP4B	X	-2.86	2.5
83	MP4B	Z	4.953	2.5
84	MP4B	Mx	-.004	2.5
85	MP4C	X	-5.38	.5
86	MP4C	Z	9.318	.5
87	MP4C	Mx	.004	.5
88	MP4C	X	-5.38	2.5
89	MP4C	Z	9.318	2.5
90	MP4C	Mx	.004	2.5
91	MP3A	X	-6.135	.5
92	MP3A	Z	10.627	.5
93	MP3A	Mx	-.004	.5
94	MP3B	X	-4.805	.5
95	MP3B	Z	8.322	.5
96	MP3B	Mx	.006	.5
97	MP3C	X	-6.135	.5
98	MP3C	Z	10.627	.5
99	MP3C	Mx	-.004	.5

Member Point Loads (BLC 23 : Antenna Wi (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-17.242	.5
2	MP2A	Z	9.955	.5
3	MP2A	Mx	.005	.5
4	MP2A	X	-17.242	5.5
5	MP2A	Z	9.955	5.5
6	MP2A	Mx	.005	5.5
7	MP2B	X	-18.321	.5
8	MP2B	Z	10.578	.5
9	MP2B	Mx	-.02	.5
10	MP2B	X	-18.321	5.5
11	MP2B	Z	10.578	5.5
12	MP2B	Mx	-.02	5.5
13	MP2C	X	-22.201	.5
14	MP2C	Z	12.818	.5
15	MP2C	Mx	.017	.5
16	MP2C	X	-22.201	5.5
17	MP2C	Z	12.818	5.5
18	MP2C	Mx	.017	5.5
19	MP2A	X	-17.242	.5
20	MP2A	Z	9.955	.5
21	MP2A	Mx	.018	.5
22	MP2A	X	-17.242	5.5
23	MP2A	Z	9.955	5.5
24	MP2A	Mx	.018	5.5

Member Point Loads (BLC 23 : Antenna Wi (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
25	MP2B	X	-18.321	.5
26	MP2B	Z	10.578	.5
27	MP2B	Mx	-.002	.5
28	MP2B	X	-18.321	5.5
29	MP2B	Z	10.578	5.5
30	MP2B	Mx	-.002	5.5
31	MP2C	X	-22.201	.5
32	MP2C	Z	12.818	.5
33	MP2C	Mx	-.017	.5
34	MP2C	X	-22.201	5.5
35	MP2C	Z	12.818	5.5
36	MP2C	Mx	-.017	5.5
37	MP4A	X	-3.062	4
38	MP4A	Z	1.768	4
39	MP4A	Mx	.00051	4
40	MP4B	X	-3.721	4
41	MP4B	Z	2.149	4
42	MP4B	Mx	-.000549	4
43	MP4C	X	-6.093	4
44	MP4C	Z	3.518	4
45	MP4C	Mx	0	4
46	MP1A	X	-9.216	.5
47	MP1A	Z	5.321	.5
48	MP1A	Mx	.005	.5
49	MP1A	X	-9.216	3.5
50	MP1A	Z	5.321	3.5
51	MP1A	Mx	.005	3.5
52	MP1B	X	-10.102	.5
53	MP1B	Z	5.832	.5
54	MP1B	Mx	-.004	.5
55	MP1B	X	-10.102	3.5
56	MP1B	Z	5.832	3.5
57	MP1B	Mx	-.004	3.5
58	MP1C	X	-13.286	.5
59	MP1C	Z	7.671	.5
60	MP1C	Mx	0	.5
61	MP1C	X	-13.286	3.5
62	MP1C	Z	7.671	3.5
63	MP1C	Mx	0	3.5
64	MP2A	X	-8.926	1
65	MP2A	Z	5.154	1
66	MP2A	Mx	-.007	1
67	MP2B	X	-9.47	1
68	MP2B	Z	5.468	1
69	MP2B	Mx	.007	1
70	MP2C	X	-11.427	1
71	MP2C	Z	6.598	1
72	MP2C	Mx	0	1
73	MP4A	X	-6.286	.5
74	MP4A	Z	3.629	.5
75	MP4A	Mx	.004	.5
76	MP4A	X	-6.286	2.5

Member Point Loads (BLC 23 : Antenna Wi (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
77	MP4A	Z	3.629	2.5
78	MP4A	Mx	.004	2.5
79	MP4B	X	-7.276	.5
80	MP4B	Z	4.201	.5
81	MP4B	Mx	-.004	.5
82	MP4B	X	-7.276	2.5
83	MP4B	Z	4.201	2.5
84	MP4B	Mx	-.004	2.5
85	MP4C	X	-10.834	.5
86	MP4C	Z	6.255	.5
87	MP4C	Mx	0	.5
88	MP4C	X	-10.834	2.5
89	MP4C	Z	6.255	2.5
90	MP4C	Mx	0	2.5
91	MP3A	X	-9.026	.5
92	MP3A	Z	5.211	.5
93	MP3A	Mx	-.006	.5
94	MP3B	X	-9.549	.5
95	MP3B	Z	5.513	.5
96	MP3B	Mx	.006	.5
97	MP3C	X	-11.427	.5
98	MP3C	Z	6.598	.5
99	MP3C	Mx	0	.5

Member Point Loads (BLC 24 : Antenna Wi (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-18.001	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.012	.5
4	MP2A	X	-18.001	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	.012	5.5
7	MP2B	X	-24.743	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	-.021	.5
10	MP2B	X	-24.743	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	-.021	5.5
13	MP2C	X	-23.727	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	.006	.5
16	MP2C	X	-23.727	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	.006	5.5
19	MP2A	X	-18.001	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	.012	.5
22	MP2A	X	-18.001	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	.012	5.5
25	MP2B	X	-24.743	.5

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
26	MP2B	Z	0	.5
27	MP2B	Mx	.01	.5
28	MP2B	X	-24.743	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	.01	5.5
31	MP2C	X	-23.727	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	-.022	.5
34	MP2C	X	-23.727	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	-.022	5.5
37	MP4A	X	-2.369	4
38	MP4A	Z	0	4
39	MP4A	Mx	.000395	4
40	MP4B	X	-6.49	4
41	MP4B	Z	0	4
42	MP4B	Mx	-.00037	4
43	MP4C	X	-5.869	4
44	MP4C	Z	0	4
45	MP4C	Mx	-.000489	4
46	MP1A	X	-9.075	.5
47	MP1A	Z	0	.5
48	MP1A	Mx	.005	.5
49	MP1A	X	-9.075	3.5
50	MP1A	Z	0	3.5
51	MP1A	Mx	.005	3.5
52	MP1B	X	-14.609	.5
53	MP1B	Z	0	.5
54	MP1B	Mx	-.002	.5
55	MP1B	X	-14.609	3.5
56	MP1B	Z	0	3.5
57	MP1B	Mx	-.002	3.5
58	MP1C	X	-13.775	.5
59	MP1C	Z	0	.5
60	MP1C	Mx	-.003	.5
61	MP1C	X	-13.775	3.5
62	MP1C	Z	0	3.5
63	MP1C	Mx	-.003	3.5
64	MP2A	X	-9.344	1
65	MP2A	Z	0	1
66	MP2A	Mx	-.008	1
67	MP2B	X	-12.745	1
68	MP2B	Z	0	1
69	MP2B	Mx	.004	1
70	MP2C	X	-12.232	1
71	MP2C	Z	0	1
72	MP2C	Mx	.005	1
73	MP4A	X	-5.508	.5
74	MP4A	Z	0	.5
75	MP4A	Mx	.004	.5
76	MP4A	X	-5.508	2.5
77	MP4A	Z	0	2.5

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
78	MP4A	Mx	.004	2.5
79	MP4B	X	-11.691	.5
80	MP4B	Z	0	.5
81	MP4B	Mx	-.003	.5
82	MP4B	X	-11.691	2.5
83	MP4B	Z	0	2.5
84	MP4B	Mx	-.003	2.5
85	MP4C	X	-10.76	.5
86	MP4C	Z	0	.5
87	MP4C	Mx	-.004	.5
88	MP4C	X	-10.76	2.5
89	MP4C	Z	0	2.5
90	MP4C	Mx	-.004	2.5
91	MP3A	X	-9.498	.5
92	MP3A	Z	0	.5
93	MP3A	Mx	-.006	.5
94	MP3B	X	-12.763	.5
95	MP3B	Z	0	.5
96	MP3B	Mx	.003	.5
97	MP3C	X	-12.271	.5
98	MP3C	Z	0	.5
99	MP3C	Mx	.004	.5

Member Point Loads (BLC 25 : Antenna Wi (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-17.242	.5
2	MP2A	Z	-9.955	.5
3	MP2A	Mx	.018	.5
4	MP2A	X	-17.242	5.5
5	MP2A	Z	-9.955	5.5
6	MP2A	Mx	.018	5.5
7	MP2B	X	-22.002	.5
8	MP2B	Z	-12.703	.5
9	MP2B	Mx	-.014	.5
10	MP2B	X	-22.002	5.5
11	MP2B	Z	-12.703	5.5
12	MP2B	Mx	-.014	5.5
13	MP2C	X	-17.242	.5
14	MP2C	Z	-9.955	.5
15	MP2C	Mx	-.005	.5
16	MP2C	X	-17.242	5.5
17	MP2C	Z	-9.955	5.5
18	MP2C	Mx	-.005	5.5
19	MP2A	X	-17.242	.5
20	MP2A	Z	-9.955	.5
21	MP2A	Mx	.005	.5
22	MP2A	X	-17.242	5.5
23	MP2A	Z	-9.955	5.5
24	MP2A	Mx	.005	5.5
25	MP2B	X	-22.002	.5
26	MP2B	Z	-12.703	.5

Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP2B	Mx	.02	.5
28	MP2B	X	-22.002	5.5
29	MP2B	Z	-12.703	5.5
30	MP2B	Mx	.02	5.5
31	MP2C	X	-17.242	.5
32	MP2C	Z	-9.955	.5
33	MP2C	Mx	-.018	.5
34	MP2C	X	-17.242	5.5
35	MP2C	Z	-9.955	5.5
36	MP2C	Mx	-.018	5.5
37	MP4A	X	-3.062	4
38	MP4A	Z	-1.768	4
39	MP4A	Mx	.00051	4
40	MP4B	X	-5.971	4
41	MP4B	Z	-3.448	4
42	MP4B	Mx	.0002	4
43	MP4C	X	-3.062	4
44	MP4C	Z	-1.768	4
45	MP4C	Mx	-.00051	4
46	MP1A	X	-9.216	.5
47	MP1A	Z	-5.321	.5
48	MP1A	Mx	.005	.5
49	MP1A	X	-9.216	3.5
50	MP1A	Z	-5.321	3.5
51	MP1A	Mx	.005	3.5
52	MP1B	X	-13.123	.5
53	MP1B	Z	-7.576	.5
54	MP1B	Mx	.001	.5
55	MP1B	X	-13.123	3.5
56	MP1B	Z	-7.576	3.5
57	MP1B	Mx	.001	3.5
58	MP1C	X	-9.216	.5
59	MP1C	Z	-5.321	.5
60	MP1C	Mx	-.005	.5
61	MP1C	X	-9.216	3.5
62	MP1C	Z	-5.321	3.5
63	MP1C	Mx	-.005	3.5
64	MP2A	X	-8.926	1
65	MP2A	Z	-5.154	1
66	MP2A	Mx	-.007	1
67	MP2B	X	-11.327	1
68	MP2B	Z	-6.539	1
69	MP2B	Mx	-.002	1
70	MP2C	X	-8.926	1
71	MP2C	Z	-5.154	1
72	MP2C	Mx	.007	1
73	MP4A	X	-6.286	.5
74	MP4A	Z	-3.629	.5
75	MP4A	Mx	.004	.5
76	MP4A	X	-6.286	2.5
77	MP4A	Z	-3.629	2.5
78	MP4A	Mx	.004	2.5

Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
79	MP4B	X	-10.651	.5
80	MP4B	Z	-6.15	.5
81	MP4B	Mx	.001	.5
82	MP4B	X	-10.651	2.5
83	MP4B	Z	-6.15	2.5
84	MP4B	Mx	.001	2.5
85	MP4C	X	-6.286	.5
86	MP4C	Z	-3.629	.5
87	MP4C	Mx	-.004	.5
88	MP4C	X	-6.286	2.5
89	MP4C	Z	-3.629	2.5
90	MP4C	Mx	-.004	2.5
91	MP3A	X	-9.026	.5
92	MP3A	Z	-5.211	.5
93	MP3A	Mx	-.006	.5
94	MP3B	X	-11.331	.5
95	MP3B	Z	-6.542	.5
96	MP3B	Mx	-.002	.5
97	MP3C	X	-9.026	.5
98	MP3C	Z	-5.211	.5
99	MP3C	Mx	.006	.5

Member Point Loads (BLC 26 : Antenna Wi (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-11.864	.5
2	MP2A	Z	-20.548	.5
3	MP2A	Mx	.022	.5
4	MP2A	X	-11.864	5.5
5	MP2A	Z	-20.548	5.5
6	MP2A	Mx	.022	5.5
7	MP2B	X	-11.241	.5
8	MP2B	Z	-19.469	.5
9	MP2B	Mx	-.002	.5
10	MP2B	X	-11.241	5.5
11	MP2B	Z	-19.469	5.5
12	MP2B	Mx	-.002	5.5
13	MP2C	X	-9.001	.5
14	MP2C	Z	-15.59	.5
15	MP2C	Mx	-.012	.5
16	MP2C	X	-9.001	5.5
17	MP2C	Z	-15.59	5.5
18	MP2C	Mx	-.012	5.5
19	MP2A	X	-11.864	.5
20	MP2A	Z	-20.548	.5
21	MP2A	Mx	-.006	.5
22	MP2A	X	-11.864	5.5
23	MP2A	Z	-20.548	5.5
24	MP2A	Mx	-.006	5.5
25	MP2B	X	-11.241	.5
26	MP2B	Z	-19.469	.5
27	MP2B	Mx	.021	.5

Member Point Loads (BLC 26 : Antenna Wi (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP2B	X	-11.241	5.5
29	MP2B	Z	-19.469	5.5
30	MP2B	Mx	.021	5.5
31	MP2C	X	-9.001	.5
32	MP2C	Z	-15.59	.5
33	MP2C	Mx	-.012	.5
34	MP2C	X	-9.001	5.5
35	MP2C	Z	-15.59	5.5
36	MP2C	Mx	-.012	5.5
37	MP4A	X	-2.935	4
38	MP4A	Z	-5.083	4
39	MP4A	Mx	.000489	4
40	MP4B	X	-2.554	4
41	MP4B	Z	-4.423	4
42	MP4B	Mx	.000547	4
43	MP4C	X	-1.184	4
44	MP4C	Z	-2.052	4
45	MP4C	Mx	-.000395	4
46	MP1A	X	-6.888	.5
47	MP1A	Z	-11.93	.5
48	MP1A	Mx	.003	.5
49	MP1A	X	-6.888	3.5
50	MP1A	Z	-11.93	3.5
51	MP1A	Mx	.003	3.5
52	MP1B	X	-6.376	.5
53	MP1B	Z	-11.044	.5
54	MP1B	Mx	.004	.5
55	MP1B	X	-6.376	3.5
56	MP1B	Z	-11.044	3.5
57	MP1B	Mx	.004	3.5
58	MP1C	X	-4.538	.5
59	MP1C	Z	-7.859	.5
60	MP1C	Mx	-.005	.5
61	MP1C	X	-4.538	3.5
62	MP1C	Z	-7.859	3.5
63	MP1C	Mx	-.005	3.5
64	MP2A	X	-6.116	1
65	MP2A	Z	-10.594	1
66	MP2A	Mx	-.005	1
67	MP2B	X	-5.802	1
68	MP2B	Z	-10.049	1
69	MP2B	Mx	-.006	1
70	MP2C	X	-4.672	1
71	MP2C	Z	-8.093	1
72	MP2C	Mx	.008	1
73	MP4A	X	-5.38	.5
74	MP4A	Z	-9.318	.5
75	MP4A	Mx	.004	.5
76	MP4A	X	-5.38	2.5
77	MP4A	Z	-9.318	2.5
78	MP4A	Mx	.004	2.5
79	MP4B	X	-4.809	.5

Member Point Loads (BLC 26 : Antenna Wi (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
80	MP4B	Z	-8.329	.5
81	MP4B	Mx	.004	.5
82	MP4B	X	-4.809	2.5
83	MP4B	Z	-8.329	2.5
84	MP4B	Mx	.004	2.5
85	MP4C	X	-2.754	.5
86	MP4C	Z	-4.77	.5
87	MP4C	Mx	-.004	.5
88	MP4C	X	-2.754	2.5
89	MP4C	Z	-4.77	2.5
90	MP4C	Mx	-.004	2.5
91	MP3A	X	-6.135	.5
92	MP3A	Z	-10.627	.5
93	MP3A	Mx	-.004	.5
94	MP3B	X	-5.834	.5
95	MP3B	Z	-10.105	.5
96	MP3B	Mx	-.005	.5
97	MP3C	X	-4.749	.5
98	MP3C	Z	-8.226	.5
99	MP3C	Mx	.006	.5

Member Point Loads (BLC 27 : Antenna Wm (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	-5.401	.5
3	MP2A	Mx	.004	.5
4	MP2A	X	0	5.5
5	MP2A	Z	-5.401	5.5
6	MP2A	Mx	.004	5.5
7	MP2B	X	0	.5
8	MP2B	Z	-2.683	.5
9	MP2B	Mx	.001	.5
10	MP2B	X	0	5.5
11	MP2B	Z	-2.683	5.5
12	MP2B	Mx	.001	5.5
13	MP2C	X	0	.5
14	MP2C	Z	-3.093	.5
15	MP2C	Mx	-.003	.5
16	MP2C	X	0	5.5
17	MP2C	Z	-3.093	5.5
18	MP2C	Mx	-.003	5.5
19	MP2A	X	0	.5
20	MP2A	Z	-5.401	.5
21	MP2A	Mx	-.004	.5
22	MP2A	X	0	5.5
23	MP2A	Z	-5.401	5.5
24	MP2A	Mx	-.004	5.5
25	MP2B	X	0	.5
26	MP2B	Z	-2.683	.5
27	MP2B	Mx	.002	.5
28	MP2B	X	0	5.5

Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP2B	Z	-2.683	5.5
30	MP2B	Mx	.002	5.5
31	MP2C	X	0	.5
32	MP2C	Z	-3.093	.5
33	MP2C	Mx	-.000755	.5
34	MP2C	X	0	5.5
35	MP2C	Z	-3.093	5.5
36	MP2C	Mx	-.000755	5.5
37	MP4A	X	0	4
38	MP4A	Z	-1.745	4
39	MP4A	Mx	0	4
40	MP4B	X	0	4
41	MP4B	Z	-.506	4
42	MP4B	Mx	7.9e-5	4
43	MP4C	X	0	4
44	MP4C	Z	-.693	4
45	MP4C	Mx	-.0001	4
46	MP1A	X	0	.5
47	MP1A	Z	-4.627	.5
48	MP1A	Mx	0	.5
49	MP1A	X	0	3.5
50	MP1A	Z	-4.627	3.5
51	MP1A	Mx	0	3.5
52	MP1B	X	0	.5
53	MP1B	Z	-2.72	.5
54	MP1B	Mx	.001	.5
55	MP1B	X	0	3.5
56	MP1B	Z	-2.72	3.5
57	MP1B	Mx	.001	3.5
58	MP1C	X	0	.5
59	MP1C	Z	-3.007	.5
60	MP1C	Mx	-.001	.5
61	MP1C	X	0	3.5
62	MP1C	Z	-3.007	3.5
63	MP1C	Mx	-.001	3.5
64	MP2A	X	0	1
65	MP2A	Z	-3.039	1
66	MP2A	Mx	0	1
67	MP2B	X	0	1
68	MP2B	Z	-2.156	1
69	MP2B	Mx	-.002	1
70	MP2C	X	0	1
71	MP2C	Z	-2.289	1
72	MP2C	Mx	.002	1
73	MP4A	X	0	.5
74	MP4A	Z	-3.715	.5
75	MP4A	Mx	0	.5
76	MP4A	X	0	2.5
77	MP4A	Z	-3.715	2.5
78	MP4A	Mx	0	2.5
79	MP4B	X	0	.5
80	MP4B	Z	-1.698	.5

Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
81	MP4B	Mx	.001	.5
82	MP4B	X	0	2.5
83	MP4B	Z	-1.698	2.5
84	MP4B	Mx	.001	2.5
85	MP4C	X	0	.5
86	MP4C	Z	-2.002	.5
87	MP4C	Mx	-.001	.5
88	MP4C	X	0	2.5
89	MP4C	Z	-2.002	2.5
90	MP4C	Mx	-.001	2.5
91	MP3A	X	0	.5
92	MP3A	Z	-3.666	.5
93	MP3A	Mx	0	.5
94	MP3B	X	0	.5
95	MP3B	Z	-2.636	.5
96	MP3B	Mx	-.002	.5
97	MP3C	X	0	.5
98	MP3C	Z	-2.791	.5
99	MP3C	Mx	.002	.5

Member Point Loads (BLC 28 : Antenna Wm (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.316	.5
2	MP2A	Z	-4.011	.5
3	MP2A	Mx	.001	.5
4	MP2A	X	2.316	5.5
5	MP2A	Z	-4.011	5.5
6	MP2A	Mx	.001	5.5
7	MP2B	X	1.208	.5
8	MP2B	Z	-2.092	.5
9	MP2B	Mx	.002	.5
10	MP2B	X	1.208	5.5
11	MP2B	Z	-2.092	5.5
12	MP2B	Mx	.002	5.5
13	MP2C	X	2.316	.5
14	MP2C	Z	-4.011	.5
15	MP2C	Mx	-.004	.5
16	MP2C	X	2.316	5.5
17	MP2C	Z	-4.011	5.5
18	MP2C	Mx	-.004	5.5
19	MP2A	X	2.316	.5
20	MP2A	Z	-4.011	.5
21	MP2A	Mx	-.004	.5
22	MP2A	X	2.316	5.5
23	MP2A	Z	-4.011	5.5
24	MP2A	Mx	-.004	5.5
25	MP2B	X	1.208	.5
26	MP2B	Z	-2.092	.5
27	MP2B	Mx	.001	.5
28	MP2B	X	1.208	5.5
29	MP2B	Z	-2.092	5.5

Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP2B	Mx	.001	5.5
31	MP2C	X	2.316	.5
32	MP2C	Z	-4.011	.5
33	MP2C	Mx	.001	.5
34	MP2C	X	2.316	5.5
35	MP2C	Z	-4.011	5.5
36	MP2C	Mx	.001	5.5
37	MP4A	X	.697	4
38	MP4A	Z	-1.207	4
39	MP4A	Mx	-.000116	4
40	MP4B	X	.192	4
41	MP4B	Z	-.333	4
42	MP4B	Mx	6.3e-5	4
43	MP4C	X	.697	4
44	MP4C	Z	-1.207	4
45	MP4C	Mx	-.000116	4
46	MP1A	X	2.043	.5
47	MP1A	Z	-3.539	.5
48	MP1A	Mx	-.001	.5
49	MP1A	X	2.043	3.5
50	MP1A	Z	-3.539	3.5
51	MP1A	Mx	-.001	3.5
52	MP1B	X	1.266	.5
53	MP1B	Z	-2.193	.5
54	MP1B	Mx	.001	.5
55	MP1B	X	1.266	3.5
56	MP1B	Z	-2.193	3.5
57	MP1B	Mx	.001	3.5
58	MP1C	X	2.043	.5
59	MP1C	Z	-3.539	.5
60	MP1C	Mx	-.001	.5
61	MP1C	X	2.043	3.5
62	MP1C	Z	-3.539	3.5
63	MP1C	Mx	-.001	3.5
64	MP2A	X	1.394	1
65	MP2A	Z	-2.415	1
66	MP2A	Mx	.001	1
67	MP2B	X	1.035	1
68	MP2B	Z	-1.792	1
69	MP2B	Mx	-.002	1
70	MP2C	X	1.394	1
71	MP2C	Z	-2.415	1
72	MP2C	Mx	.001	1
73	MP4A	X	1.572	.5
74	MP4A	Z	-2.723	.5
75	MP4A	Mx	-.001	.5
76	MP4A	X	1.572	2.5
77	MP4A	Z	-2.723	2.5
78	MP4A	Mx	-.001	2.5
79	MP4B	X	.75	.5
80	MP4B	Z	-1.299	.5
81	MP4B	Mx	.000985	.5

Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
82	MP4B	X	.75	2.5
83	MP4B	Z	-1.299	2.5
84	MP4B	Mx	.000985	2.5
85	MP4C	X	1.572	.5
86	MP4C	Z	-2.723	.5
87	MP4C	Mx	-.001	.5
88	MP4C	X	1.572	2.5
89	MP4C	Z	-2.723	2.5
90	MP4C	Mx	-.001	2.5
91	MP3A	X	1.687	.5
92	MP3A	Z	-2.922	.5
93	MP3A	Mx	.001	.5
94	MP3B	X	1.267	.5
95	MP3B	Z	-2.195	.5
96	MP3B	Mx	-.002	.5
97	MP3C	X	1.687	.5
98	MP3C	Z	-2.922	.5
99	MP3C	Mx	.001	.5

Member Point Loads (BLC 29 : Antenna Wm (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.678	.5
2	MP2A	Z	-1.546	.5
3	MP2A	Mx	-.000755	.5
4	MP2A	X	2.678	5.5
5	MP2A	Z	-1.546	5.5
6	MP2A	Mx	-.000755	5.5
7	MP2B	X	3.113	.5
8	MP2B	Z	-1.797	.5
9	MP2B	Mx	.003	.5
10	MP2B	X	3.113	5.5
11	MP2B	Z	-1.797	5.5
12	MP2B	Mx	.003	5.5
13	MP2C	X	4.677	.5
14	MP2C	Z	-2.701	.5
15	MP2C	Mx	-.004	.5
16	MP2C	X	4.677	5.5
17	MP2C	Z	-2.701	5.5
18	MP2C	Mx	-.004	5.5
19	MP2A	X	2.678	.5
20	MP2A	Z	-1.546	.5
21	MP2A	Mx	-.003	.5
22	MP2A	X	2.678	5.5
23	MP2A	Z	-1.546	5.5
24	MP2A	Mx	-.003	5.5
25	MP2B	X	3.113	.5
26	MP2B	Z	-1.797	.5
27	MP2B	Mx	.000295	.5
28	MP2B	X	3.113	5.5
29	MP2B	Z	-1.797	5.5
30	MP2B	Mx	.000295	5.5

Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP2C	X	4.677	.5
32	MP2C	Z	-2.701	.5
33	MP2C	Mx	.004	.5
34	MP2C	X	4.677	5.5
35	MP2C	Z	-2.701	5.5
36	MP2C	Mx	.004	5.5
37	MP4A	X	.6	4
38	MP4A	Z	-.346	4
39	MP4A	Mx	-.0001	4
40	MP4B	X	.798	4
41	MP4B	Z	-.461	4
42	MP4B	Mx	.000118	4
43	MP4C	X	1.511	4
44	MP4C	Z	-.872	4
45	MP4C	Mx	0	4
46	MP1A	X	2.604	.5
47	MP1A	Z	-1.504	.5
48	MP1A	Mx	-.001	.5
49	MP1A	X	2.604	3.5
50	MP1A	Z	-1.504	3.5
51	MP1A	Mx	-.001	3.5
52	MP1B	X	2.909	.5
53	MP1B	Z	-1.68	.5
54	MP1B	Mx	.001	.5
55	MP1B	X	2.909	3.5
56	MP1B	Z	-1.68	3.5
57	MP1B	Mx	.001	3.5
58	MP1C	X	4.007	.5
59	MP1C	Z	-2.313	.5
60	MP1C	Mx	0	.5
61	MP1C	X	4.007	3.5
62	MP1C	Z	-2.313	3.5
63	MP1C	Mx	0	3.5
64	MP2A	X	1.982	1
65	MP2A	Z	-1.144	1
66	MP2A	Mx	.002	1
67	MP2B	X	2.123	1
68	MP2B	Z	-1.226	1
69	MP2B	Mx	-.002	1
70	MP2C	X	2.632	1
71	MP2C	Z	-1.519	1
72	MP2C	Mx	0	1
73	MP4A	X	1.734	.5
74	MP4A	Z	-1.001	.5
75	MP4A	Mx	-.001	.5
76	MP4A	X	1.734	2.5
77	MP4A	Z	-1.001	2.5
78	MP4A	Mx	-.001	2.5
79	MP4B	X	2.056	.5
80	MP4B	Z	-1.187	.5
81	MP4B	Mx	.001	.5
82	MP4B	X	2.056	2.5

Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
83	MP4B	Z	-1.187	2.5
84	MP4B	Mx	.001	2.5
85	MP4C	X	3.217	.5
86	MP4C	Z	-1.858	.5
87	MP4C	Mx	0	.5
88	MP4C	X	3.217	2.5
89	MP4C	Z	-1.858	2.5
90	MP4C	Mx	0	2.5
91	MP3A	X	2.417	.5
92	MP3A	Z	-1.396	.5
93	MP3A	Mx	.002	.5
94	MP3B	X	2.582	.5
95	MP3B	Z	-1.491	.5
96	MP3B	Mx	-.002	.5
97	MP3C	X	3.175	.5
98	MP3C	Z	-1.833	.5
99	MP3C	Mx	0	.5

Member Point Loads (BLC 30 : Antenna Wm (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.323	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	-.002	.5
4	MP2A	X	2.323	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	-.002	5.5
7	MP2B	X	5.041	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	.004	.5
10	MP2B	X	5.041	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	.004	5.5
13	MP2C	X	4.632	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	-.001	.5
16	MP2C	X	4.632	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	-.001	5.5
19	MP2A	X	2.323	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	-.002	.5
22	MP2A	X	2.323	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-.002	5.5
25	MP2B	X	5.041	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	-.002	.5
28	MP2B	X	5.041	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	-.002	5.5
31	MP2C	X	4.632	.5

Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
32	MP2C	Z	0	.5
33	MP2C	Mx	.004	.5
34	MP2C	X	4.632	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	.004	5.5
37	MP4A	X	.342	4
38	MP4A	Z	0	4
39	MP4A	Mx	-5.7e-5	4
40	MP4B	X	1.581	4
41	MP4B	Z	0	4
42	MP4B	Mx	9e-5	4
43	MP4C	X	1.394	4
44	MP4C	Z	0	4
45	MP4C	Mx	.000116	4
46	MP1A	X	2.467	.5
47	MP1A	Z	0	.5
48	MP1A	Mx	-.001	.5
49	MP1A	X	2.467	3.5
50	MP1A	Z	0	3.5
51	MP1A	Mx	-.001	3.5
52	MP1B	X	4.374	.5
53	MP1B	Z	0	.5
54	MP1B	Mx	.000748	.5
55	MP1B	X	4.374	3.5
56	MP1B	Z	0	3.5
57	MP1B	Mx	.000748	3.5
58	MP1C	X	4.087	.5
59	MP1C	Z	0	.5
60	MP1C	Mx	.001	.5
61	MP1C	X	4.087	3.5
62	MP1C	Z	0	3.5
63	MP1C	Mx	.001	3.5
64	MP2A	X	2.039	1
65	MP2A	Z	0	1
66	MP2A	Mx	.002	1
67	MP2B	X	2.922	1
68	MP2B	Z	0	1
69	MP2B	Mx	-.000833	1
70	MP2C	X	2.789	1
71	MP2C	Z	0	1
72	MP2C	Mx	-.001	1
73	MP4A	X	1.431	.5
74	MP4A	Z	0	.5
75	MP4A	Mx	-.000954	.5
76	MP4A	X	1.431	2.5
77	MP4A	Z	0	2.5
78	MP4A	Mx	-.000954	2.5
79	MP4B	X	3.448	.5
80	MP4B	Z	0	.5
81	MP4B	Mx	.000786	.5
82	MP4B	X	3.448	2.5
83	MP4B	Z	0	2.5

Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
84	MP4B	Mx	.000786	2.5
85	MP4C	X	3.144	.5
86	MP4C	Z	0	.5
87	MP4C	Mx	.001	.5
88	MP4C	X	3.144	2.5
89	MP4C	Z	0	2.5
90	MP4C	Mx	.001	2.5
91	MP3A	X	2.5	.5
92	MP3A	Z	0	.5
93	MP3A	Mx	.002	.5
94	MP3B	X	3.53	.5
95	MP3B	Z	0	.5
96	MP3B	Mx	-.000805	.5
97	MP3C	X	3.374	.5
98	MP3C	Z	0	.5
99	MP3C	Mx	-.001	.5

Member Point Loads (BLC 31 : Antenna Wm (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.678	.5
2	MP2A	Z	1.546	.5
3	MP2A	Mx	-.003	.5
4	MP2A	X	2.678	5.5
5	MP2A	Z	1.546	5.5
6	MP2A	Mx	-.003	5.5
7	MP2B	X	4.597	.5
8	MP2B	Z	2.654	.5
9	MP2B	Mx	.003	.5
10	MP2B	X	4.597	5.5
11	MP2B	Z	2.654	5.5
12	MP2B	Mx	.003	5.5
13	MP2C	X	2.678	.5
14	MP2C	Z	1.546	.5
15	MP2C	Mx	.000754	.5
16	MP2C	X	2.678	5.5
17	MP2C	Z	1.546	5.5
18	MP2C	Mx	.000754	5.5
19	MP2A	X	2.678	.5
20	MP2A	Z	1.546	.5
21	MP2A	Mx	-.000755	.5
22	MP2A	X	2.678	5.5
23	MP2A	Z	1.546	5.5
24	MP2A	Mx	-.000755	5.5
25	MP2B	X	4.597	.5
26	MP2B	Z	2.654	.5
27	MP2B	Mx	-.004	.5
28	MP2B	X	4.597	5.5
29	MP2B	Z	2.654	5.5
30	MP2B	Mx	-.004	5.5
31	MP2C	X	2.678	.5
32	MP2C	Z	1.546	.5

Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
33	MP2C	Mx	.003	.5
34	MP2C	X	2.678	5.5
35	MP2C	Z	1.546	5.5
36	MP2C	Mx	.003	5.5
37	MP4A	X	.6	4
38	MP4A	Z	.346	4
39	MP4A	Mx	-.0001	4
40	MP4B	X	1.474	4
41	MP4B	Z	.851	4
42	MP4B	Mx	-4.9e-5	4
43	MP4C	X	.6	4
44	MP4C	Z	.346	4
45	MP4C	Mx	.0001	4
46	MP1A	X	2.604	.5
47	MP1A	Z	1.504	.5
48	MP1A	Mx	-.001	.5
49	MP1A	X	2.604	3.5
50	MP1A	Z	1.504	3.5
51	MP1A	Mx	-.001	3.5
52	MP1B	X	3.95	.5
53	MP1B	Z	2.281	.5
54	MP1B	Mx	-.000396	.5
55	MP1B	X	3.95	3.5
56	MP1B	Z	2.281	3.5
57	MP1B	Mx	-.000396	3.5
58	MP1C	X	2.604	.5
59	MP1C	Z	1.504	.5
60	MP1C	Mx	.001	.5
61	MP1C	X	2.604	3.5
62	MP1C	Z	1.504	3.5
63	MP1C	Mx	.001	3.5
64	MP2A	X	1.982	1
65	MP2A	Z	1.144	1
66	MP2A	Mx	.002	1
67	MP2B	X	2.605	1
68	MP2B	Z	1.504	1
69	MP2B	Mx	.000435	1
70	MP2C	X	1.982	1
71	MP2C	Z	1.144	1
72	MP2C	Mx	-.002	1
73	MP4A	X	1.734	.5
74	MP4A	Z	1.001	.5
75	MP4A	Mx	-.001	.5
76	MP4A	X	1.734	2.5
77	MP4A	Z	1.001	2.5
78	MP4A	Mx	-.001	2.5
79	MP4B	X	3.158	.5
80	MP4B	Z	1.823	.5
81	MP4B	Mx	-.000422	.5
82	MP4B	X	3.158	2.5
83	MP4B	Z	1.823	2.5
84	MP4B	Mx	-.000422	2.5

Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
85	MP4C	X	1.734	.5
86	MP4C	Z	1.001	.5
87	MP4C	Mx	.001	.5
88	MP4C	X	1.734	2.5
89	MP4C	Z	1.001	2.5
90	MP4C	Mx	.001	2.5
91	MP3A	X	2.417	.5
92	MP3A	Z	1.396	.5
93	MP3A	Mx	.002	.5
94	MP3B	X	3.144	.5
95	MP3B	Z	1.815	.5
96	MP3B	Mx	.00042	.5
97	MP3C	X	2.417	.5
98	MP3C	Z	1.396	.5
99	MP3C	Mx	-.002	.5

Member Point Loads (BLC 32 : Antenna Wm (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.316	.5
2	MP2A	Z	4.011	.5
3	MP2A	Mx	-.004	.5
4	MP2A	X	2.316	5.5
5	MP2A	Z	4.011	5.5
6	MP2A	Mx	-.004	5.5
7	MP2B	X	2.065	.5
8	MP2B	Z	3.576	.5
9	MP2B	Mx	.00034	.5
10	MP2B	X	2.065	5.5
11	MP2B	Z	3.576	5.5
12	MP2B	Mx	.00034	5.5
13	MP2C	X	1.162	.5
14	MP2C	Z	2.012	.5
15	MP2C	Mx	.002	.5
16	MP2C	X	1.162	5.5
17	MP2C	Z	2.012	5.5
18	MP2C	Mx	.002	5.5
19	MP2A	X	2.316	.5
20	MP2A	Z	4.011	.5
21	MP2A	Mx	.001	.5
22	MP2A	X	2.316	5.5
23	MP2A	Z	4.011	5.5
24	MP2A	Mx	.001	5.5
25	MP2B	X	2.065	.5
26	MP2B	Z	3.576	.5
27	MP2B	Mx	-.004	.5
28	MP2B	X	2.065	5.5
29	MP2B	Z	3.576	5.5
30	MP2B	Mx	-.004	5.5
31	MP2C	X	1.162	.5
32	MP2C	Z	2.012	.5
33	MP2C	Mx	.002	.5

Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
34	MP2C	X	1.162	5.5
35	MP2C	Z	2.012	5.5
36	MP2C	Mx	.002	5.5
37	MP4A	X	.697	4
38	MP4A	Z	1.207	4
39	MP4A	Mx	-.000116	4
40	MP4B	X	.583	4
41	MP4B	Z	1.009	4
42	MP4B	Mx	-.000125	4
43	MP4C	X	.171	4
44	MP4C	Z	.296	4
45	MP4C	Mx	5.7e-5	4
46	MP1A	X	2.043	.5
47	MP1A	Z	3.539	.5
48	MP1A	Mx	-.001	.5
49	MP1A	X	2.043	3.5
50	MP1A	Z	3.539	3.5
51	MP1A	Mx	-.001	3.5
52	MP1B	X	1.867	.5
53	MP1B	Z	3.234	.5
54	MP1B	Mx	-.001	.5
55	MP1B	X	1.867	3.5
56	MP1B	Z	3.234	3.5
57	MP1B	Mx	-.001	3.5
58	MP1C	X	1.234	.5
59	MP1C	Z	2.137	.5
60	MP1C	Mx	.001	.5
61	MP1C	X	1.234	3.5
62	MP1C	Z	2.137	3.5
63	MP1C	Mx	.001	3.5
64	MP2A	X	1.394	1
65	MP2A	Z	2.415	1
66	MP2A	Mx	.001	1
67	MP2B	X	1.313	1
68	MP2B	Z	2.274	1
69	MP2B	Mx	.001	1
70	MP2C	X	1.019	1
71	MP2C	Z	1.766	1
72	MP2C	Mx	-.002	1
73	MP4A	X	1.572	.5
74	MP4A	Z	2.723	.5
75	MP4A	Mx	-.001	.5
76	MP4A	X	1.572	2.5
77	MP4A	Z	2.723	2.5
78	MP4A	Mx	-.001	2.5
79	MP4B	X	1.386	.5
80	MP4B	Z	2.4	.5
81	MP4B	Mx	-.001	.5
82	MP4B	X	1.386	2.5
83	MP4B	Z	2.4	2.5
84	MP4B	Mx	-.001	2.5
85	MP4C	X	.715	.5

Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
86	MP4C	Z	1.239	.5
87	MP4C	Mx	.000954	.5
88	MP4C	X	.715	2.5
89	MP4C	Z	1.239	2.5
90	MP4C	Mx	.000954	2.5
91	MP3A	X	1.687	.5
92	MP3A	Z	2.922	.5
93	MP3A	Mx	.001	.5
94	MP3B	X	1.592	.5
95	MP3B	Z	2.757	.5
96	MP3B	Mx	.001	.5
97	MP3C	X	1.25	.5
98	MP3C	Z	2.165	.5
99	MP3C	Mx	-.002	.5

Member Point Loads (BLC 33 : Antenna Wm (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	.5
2	MP2A	Z	5.401	.5
3	MP2A	Mx	-.004	.5
4	MP2A	X	0	5.5
5	MP2A	Z	5.401	5.5
6	MP2A	Mx	-.004	5.5
7	MP2B	X	0	.5
8	MP2B	Z	2.683	.5
9	MP2B	Mx	-.001	.5
10	MP2B	X	0	5.5
11	MP2B	Z	2.683	5.5
12	MP2B	Mx	-.001	5.5
13	MP2C	X	0	.5
14	MP2C	Z	3.093	.5
15	MP2C	Mx	.003	.5
16	MP2C	X	0	5.5
17	MP2C	Z	3.093	5.5
18	MP2C	Mx	.003	5.5
19	MP2A	X	0	.5
20	MP2A	Z	5.401	.5
21	MP2A	Mx	.004	.5
22	MP2A	X	0	5.5
23	MP2A	Z	5.401	5.5
24	MP2A	Mx	.004	5.5
25	MP2B	X	0	.5
26	MP2B	Z	2.683	.5
27	MP2B	Mx	-.002	.5
28	MP2B	X	0	5.5
29	MP2B	Z	2.683	5.5
30	MP2B	Mx	-.002	5.5
31	MP2C	X	0	.5
32	MP2C	Z	3.093	.5
33	MP2C	Mx	.000755	.5
34	MP2C	X	0	5.5

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP2C	Z	3.093	5.5
36	MP2C	Mx	.000755	5.5
37	MP4A	X	0	4
38	MP4A	Z	1.745	4
39	MP4A	Mx	0	4
40	MP4B	X	0	4
41	MP4B	Z	.506	4
42	MP4B	Mx	-7.9e-5	4
43	MP4C	X	0	4
44	MP4C	Z	.693	4
45	MP4C	Mx	.0001	4
46	MP1A	X	0	.5
47	MP1A	Z	4.627	.5
48	MP1A	Mx	0	.5
49	MP1A	X	0	3.5
50	MP1A	Z	4.627	3.5
51	MP1A	Mx	0	3.5
52	MP1B	X	0	.5
53	MP1B	Z	2.72	.5
54	MP1B	Mx	-.001	.5
55	MP1B	X	0	3.5
56	MP1B	Z	2.72	3.5
57	MP1B	Mx	-.001	3.5
58	MP1C	X	0	.5
59	MP1C	Z	3.007	.5
60	MP1C	Mx	.001	.5
61	MP1C	X	0	3.5
62	MP1C	Z	3.007	3.5
63	MP1C	Mx	.001	3.5
64	MP2A	X	0	1
65	MP2A	Z	3.039	1
66	MP2A	Mx	0	1
67	MP2B	X	0	1
68	MP2B	Z	2.156	1
69	MP2B	Mx	.002	1
70	MP2C	X	0	1
71	MP2C	Z	2.289	1
72	MP2C	Mx	-.002	1
73	MP4A	X	0	.5
74	MP4A	Z	3.715	.5
75	MP4A	Mx	0	.5
76	MP4A	X	0	2.5
77	MP4A	Z	3.715	2.5
78	MP4A	Mx	0	2.5
79	MP4B	X	0	.5
80	MP4B	Z	1.698	.5
81	MP4B	Mx	-.001	.5
82	MP4B	X	0	2.5
83	MP4B	Z	1.698	2.5
84	MP4B	Mx	-.001	2.5
85	MP4C	X	0	.5
86	MP4C	Z	2.002	.5

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
87	MP4C	Mx	.001	.5
88	MP4C	X	0	2.5
89	MP4C	Z	2.002	2.5
90	MP4C	Mx	.001	2.5
91	MP3A	X	0	.5
92	MP3A	Z	3.666	.5
93	MP3A	Mx	0	.5
94	MP3B	X	0	.5
95	MP3B	Z	2.636	.5
96	MP3B	Mx	.002	.5
97	MP3C	X	0	.5
98	MP3C	Z	2.791	.5
99	MP3C	Mx	-.002	.5

Member Point Loads (BLC 34 : Antenna Wm (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-2.316	.5
2	MP2A	Z	4.011	.5
3	MP2A	Mx	-.001	.5
4	MP2A	X	-2.316	5.5
5	MP2A	Z	4.011	5.5
6	MP2A	Mx	-.001	5.5
7	MP2B	X	-1.208	.5
8	MP2B	Z	2.092	.5
9	MP2B	Mx	-.002	.5
10	MP2B	X	-1.208	5.5
11	MP2B	Z	2.092	5.5
12	MP2B	Mx	-.002	5.5
13	MP2C	X	-2.316	.5
14	MP2C	Z	4.011	.5
15	MP2C	Mx	.004	.5
16	MP2C	X	-2.316	5.5
17	MP2C	Z	4.011	5.5
18	MP2C	Mx	.004	5.5
19	MP2A	X	-2.316	.5
20	MP2A	Z	4.011	.5
21	MP2A	Mx	.004	.5
22	MP2A	X	-2.316	5.5
23	MP2A	Z	4.011	5.5
24	MP2A	Mx	.004	5.5
25	MP2B	X	-1.208	.5
26	MP2B	Z	2.092	.5
27	MP2B	Mx	-.001	.5
28	MP2B	X	-1.208	5.5
29	MP2B	Z	2.092	5.5
30	MP2B	Mx	-.001	5.5
31	MP2C	X	-2.316	.5
32	MP2C	Z	4.011	.5
33	MP2C	Mx	-.001	.5
34	MP2C	X	-2.316	5.5
35	MP2C	Z	4.011	5.5

Member Point Loads (BLC 34 : Antenna Wm (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP2C	Mx	-.001	5.5
37	MP4A	X	-.697	4
38	MP4A	Z	1.207	4
39	MP4A	Mx	.000116	4
40	MP4B	X	-.192	4
41	MP4B	Z	.333	4
42	MP4B	Mx	-6.3e-5	4
43	MP4C	X	-.697	4
44	MP4C	Z	1.207	4
45	MP4C	Mx	.000116	4
46	MP1A	X	-2.043	.5
47	MP1A	Z	3.539	.5
48	MP1A	Mx	.001	.5
49	MP1A	X	-2.043	3.5
50	MP1A	Z	3.539	3.5
51	MP1A	Mx	.001	3.5
52	MP1B	X	-1.266	.5
53	MP1B	Z	2.193	.5
54	MP1B	Mx	-.001	.5
55	MP1B	X	-1.266	3.5
56	MP1B	Z	2.193	3.5
57	MP1B	Mx	-.001	3.5
58	MP1C	X	-2.043	.5
59	MP1C	Z	3.539	.5
60	MP1C	Mx	.001	.5
61	MP1C	X	-2.043	3.5
62	MP1C	Z	3.539	3.5
63	MP1C	Mx	.001	3.5
64	MP2A	X	-1.394	1
65	MP2A	Z	2.415	1
66	MP2A	Mx	-.001	1
67	MP2B	X	-1.035	1
68	MP2B	Z	1.792	1
69	MP2B	Mx	.002	1
70	MP2C	X	-1.394	1
71	MP2C	Z	2.415	1
72	MP2C	Mx	-.001	1
73	MP4A	X	-1.572	.5
74	MP4A	Z	2.723	.5
75	MP4A	Mx	.001	.5
76	MP4A	X	-1.572	2.5
77	MP4A	Z	2.723	2.5
78	MP4A	Mx	.001	2.5
79	MP4B	X	-.75	.5
80	MP4B	Z	1.299	.5
81	MP4B	Mx	-.000985	.5
82	MP4B	X	-.75	2.5
83	MP4B	Z	1.299	2.5
84	MP4B	Mx	-.000985	2.5
85	MP4C	X	-1.572	.5
86	MP4C	Z	2.723	.5
87	MP4C	Mx	.001	.5

Member Point Loads (BLC 34 : Antenna Wm (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
88	MP4C	X	-1.572	2.5
89	MP4C	Z	2.723	2.5
90	MP4C	Mx	.001	2.5
91	MP3A	X	-1.687	.5
92	MP3A	Z	2.922	.5
93	MP3A	Mx	-.001	.5
94	MP3B	X	-1.267	.5
95	MP3B	Z	2.195	.5
96	MP3B	Mx	.002	.5
97	MP3C	X	-1.687	.5
98	MP3C	Z	2.922	.5
99	MP3C	Mx	-.001	.5

Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-2.678	.5
2	MP2A	Z	1.546	.5
3	MP2A	Mx	.000755	.5
4	MP2A	X	-2.678	5.5
5	MP2A	Z	1.546	5.5
6	MP2A	Mx	.000755	5.5
7	MP2B	X	-3.113	.5
8	MP2B	Z	1.797	.5
9	MP2B	Mx	-.003	.5
10	MP2B	X	-3.113	5.5
11	MP2B	Z	1.797	5.5
12	MP2B	Mx	-.003	5.5
13	MP2C	X	-4.677	.5
14	MP2C	Z	2.701	.5
15	MP2C	Mx	.004	.5
16	MP2C	X	-4.677	5.5
17	MP2C	Z	2.701	5.5
18	MP2C	Mx	.004	5.5
19	MP2A	X	-2.678	.5
20	MP2A	Z	1.546	.5
21	MP2A	Mx	.003	.5
22	MP2A	X	-2.678	5.5
23	MP2A	Z	1.546	5.5
24	MP2A	Mx	.003	5.5
25	MP2B	X	-3.113	.5
26	MP2B	Z	1.797	.5
27	MP2B	Mx	-.000295	.5
28	MP2B	X	-3.113	5.5
29	MP2B	Z	1.797	5.5
30	MP2B	Mx	-.000295	5.5
31	MP2C	X	-4.677	.5
32	MP2C	Z	2.701	.5
33	MP2C	Mx	-.004	.5
34	MP2C	X	-4.677	5.5
35	MP2C	Z	2.701	5.5
36	MP2C	Mx	-.004	5.5

Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
37	MP4A	X	-.6	4
38	MP4A	Z	.346	4
39	MP4A	Mx	.0001	4
40	MP4B	X	-.798	4
41	MP4B	Z	.461	4
42	MP4B	Mx	-.000118	4
43	MP4C	X	-1.511	4
44	MP4C	Z	.872	4
45	MP4C	Mx	0	4
46	MP1A	X	-2.604	.5
47	MP1A	Z	1.504	.5
48	MP1A	Mx	.001	.5
49	MP1A	X	-2.604	3.5
50	MP1A	Z	1.504	3.5
51	MP1A	Mx	.001	3.5
52	MP1B	X	-2.909	.5
53	MP1B	Z	1.68	.5
54	MP1B	Mx	-.001	.5
55	MP1B	X	-2.909	3.5
56	MP1B	Z	1.68	3.5
57	MP1B	Mx	-.001	3.5
58	MP1C	X	-4.007	.5
59	MP1C	Z	2.313	.5
60	MP1C	Mx	0	.5
61	MP1C	X	-4.007	3.5
62	MP1C	Z	2.313	3.5
63	MP1C	Mx	0	3.5
64	MP2A	X	-1.982	1
65	MP2A	Z	1.144	1
66	MP2A	Mx	-.002	1
67	MP2B	X	-2.123	1
68	MP2B	Z	1.226	1
69	MP2B	Mx	.002	1
70	MP2C	X	-2.632	1
71	MP2C	Z	1.519	1
72	MP2C	Mx	0	1
73	MP4A	X	-1.734	.5
74	MP4A	Z	1.001	.5
75	MP4A	Mx	.001	.5
76	MP4A	X	-1.734	2.5
77	MP4A	Z	1.001	2.5
78	MP4A	Mx	.001	2.5
79	MP4B	X	-2.056	.5
80	MP4B	Z	1.187	.5
81	MP4B	Mx	-.001	.5
82	MP4B	X	-2.056	2.5
83	MP4B	Z	1.187	2.5
84	MP4B	Mx	-.001	2.5
85	MP4C	X	-3.217	.5
86	MP4C	Z	1.858	.5
87	MP4C	Mx	0	.5
88	MP4C	X	-3.217	2.5

Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
89	MP4C	Z	1.858	2.5
90	MP4C	Mx	0	2.5
91	MP3A	X	-2.417	.5
92	MP3A	Z	1.396	.5
93	MP3A	Mx	-.002	.5
94	MP3B	X	-2.582	.5
95	MP3B	Z	1.491	.5
96	MP3B	Mx	.002	.5
97	MP3C	X	-3.175	.5
98	MP3C	Z	1.833	.5
99	MP3C	Mx	0	.5

Member Point Loads (BLC 36 : Antenna Wm (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-2.323	.5
2	MP2A	Z	0	.5
3	MP2A	Mx	.002	.5
4	MP2A	X	-2.323	5.5
5	MP2A	Z	0	5.5
6	MP2A	Mx	.002	5.5
7	MP2B	X	-5.041	.5
8	MP2B	Z	0	.5
9	MP2B	Mx	-.004	.5
10	MP2B	X	-5.041	5.5
11	MP2B	Z	0	5.5
12	MP2B	Mx	-.004	5.5
13	MP2C	X	-4.632	.5
14	MP2C	Z	0	.5
15	MP2C	Mx	.001	.5
16	MP2C	X	-4.632	5.5
17	MP2C	Z	0	5.5
18	MP2C	Mx	.001	5.5
19	MP2A	X	-2.323	.5
20	MP2A	Z	0	.5
21	MP2A	Mx	.002	.5
22	MP2A	X	-2.323	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	.002	5.5
25	MP2B	X	-5.041	.5
26	MP2B	Z	0	.5
27	MP2B	Mx	.002	.5
28	MP2B	X	-5.041	5.5
29	MP2B	Z	0	5.5
30	MP2B	Mx	.002	5.5
31	MP2C	X	-4.632	.5
32	MP2C	Z	0	.5
33	MP2C	Mx	-.004	.5
34	MP2C	X	-4.632	5.5
35	MP2C	Z	0	5.5
36	MP2C	Mx	-.004	5.5
37	MP4A	X	-.342	4

Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP4A	Z	0	4
39	MP4A	Mx	5.7e-5	4
40	MP4B	X	-1.581	4
41	MP4B	Z	0	4
42	MP4B	Mx	-9e-5	4
43	MP4C	X	-1.394	4
44	MP4C	Z	0	4
45	MP4C	Mx	-.000116	4
46	MP1A	X	-2.467	.5
47	MP1A	Z	0	.5
48	MP1A	Mx	.001	.5
49	MP1A	X	-2.467	3.5
50	MP1A	Z	0	3.5
51	MP1A	Mx	.001	3.5
52	MP1B	X	-4.374	.5
53	MP1B	Z	0	.5
54	MP1B	Mx	-.000748	.5
55	MP1B	X	-4.374	3.5
56	MP1B	Z	0	3.5
57	MP1B	Mx	-.000748	3.5
58	MP1C	X	-4.087	.5
59	MP1C	Z	0	.5
60	MP1C	Mx	-.001	.5
61	MP1C	X	-4.087	3.5
62	MP1C	Z	0	3.5
63	MP1C	Mx	-.001	3.5
64	MP2A	X	-2.039	1
65	MP2A	Z	0	1
66	MP2A	Mx	-.002	1
67	MP2B	X	-2.922	1
68	MP2B	Z	0	1
69	MP2B	Mx	.000833	1
70	MP2C	X	-2.789	1
71	MP2C	Z	0	1
72	MP2C	Mx	.001	1
73	MP4A	X	-1.431	.5
74	MP4A	Z	0	.5
75	MP4A	Mx	.000954	.5
76	MP4A	X	-1.431	2.5
77	MP4A	Z	0	2.5
78	MP4A	Mx	.000954	2.5
79	MP4B	X	-3.448	.5
80	MP4B	Z	0	.5
81	MP4B	Mx	-.000786	.5
82	MP4B	X	-3.448	2.5
83	MP4B	Z	0	2.5
84	MP4B	Mx	-.000786	2.5
85	MP4C	X	-3.144	.5
86	MP4C	Z	0	.5
87	MP4C	Mx	-.001	.5
88	MP4C	X	-3.144	2.5
89	MP4C	Z	0	2.5

Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
90	MP4C	Mx	-.001	2.5
91	MP3A	X	-2.5	.5
92	MP3A	Z	0	.5
93	MP3A	Mx	-.002	.5
94	MP3B	X	-3.53	.5
95	MP3B	Z	0	.5
96	MP3B	Mx	.000805	.5
97	MP3C	X	-3.374	.5
98	MP3C	Z	0	.5
99	MP3C	Mx	.001	.5

Member Point Loads (BLC 37 : Antenna Wm (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-2.678	.5
2	MP2A	Z	-1.546	.5
3	MP2A	Mx	.003	.5
4	MP2A	X	-2.678	5.5
5	MP2A	Z	-1.546	5.5
6	MP2A	Mx	.003	5.5
7	MP2B	X	-4.597	.5
8	MP2B	Z	-2.654	.5
9	MP2B	Mx	-.003	.5
10	MP2B	X	-4.597	5.5
11	MP2B	Z	-2.654	5.5
12	MP2B	Mx	-.003	5.5
13	MP2C	X	-2.678	.5
14	MP2C	Z	-1.546	.5
15	MP2C	Mx	-.000754	.5
16	MP2C	X	-2.678	5.5
17	MP2C	Z	-1.546	5.5
18	MP2C	Mx	-.000754	5.5
19	MP2A	X	-2.678	.5
20	MP2A	Z	-1.546	.5
21	MP2A	Mx	.000755	.5
22	MP2A	X	-2.678	5.5
23	MP2A	Z	-1.546	5.5
24	MP2A	Mx	.000755	5.5
25	MP2B	X	-4.597	.5
26	MP2B	Z	-2.654	.5
27	MP2B	Mx	.004	.5
28	MP2B	X	-4.597	5.5
29	MP2B	Z	-2.654	5.5
30	MP2B	Mx	.004	5.5
31	MP2C	X	-2.678	.5
32	MP2C	Z	-1.546	.5
33	MP2C	Mx	-.003	.5
34	MP2C	X	-2.678	5.5
35	MP2C	Z	-1.546	5.5
36	MP2C	Mx	-.003	5.5
37	MP4A	X	-.6	4
38	MP4A	Z	-.346	4

Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
39	MP4A	Mx	.0001	4
40	MP4B	X	-1.474	4
41	MP4B	Z	-.851	4
42	MP4B	Mx	4.9e-5	4
43	MP4C	X	-.6	4
44	MP4C	Z	-.346	4
45	MP4C	Mx	-.0001	4
46	MP1A	X	-2.604	.5
47	MP1A	Z	-1.504	.5
48	MP1A	Mx	.001	.5
49	MP1A	X	-2.604	3.5
50	MP1A	Z	-1.504	3.5
51	MP1A	Mx	.001	3.5
52	MP1B	X	-3.95	.5
53	MP1B	Z	-2.281	.5
54	MP1B	Mx	.000396	.5
55	MP1B	X	-3.95	3.5
56	MP1B	Z	-2.281	3.5
57	MP1B	Mx	.000396	3.5
58	MP1C	X	-2.604	.5
59	MP1C	Z	-1.504	.5
60	MP1C	Mx	-.001	.5
61	MP1C	X	-2.604	3.5
62	MP1C	Z	-1.504	3.5
63	MP1C	Mx	-.001	3.5
64	MP2A	X	-1.982	1
65	MP2A	Z	-1.144	1
66	MP2A	Mx	-.002	1
67	MP2B	X	-2.605	1
68	MP2B	Z	-1.504	1
69	MP2B	Mx	-.000435	1
70	MP2C	X	-1.982	1
71	MP2C	Z	-1.144	1
72	MP2C	Mx	.002	1
73	MP4A	X	-1.734	.5
74	MP4A	Z	-1.001	.5
75	MP4A	Mx	.001	.5
76	MP4A	X	-1.734	2.5
77	MP4A	Z	-1.001	2.5
78	MP4A	Mx	.001	2.5
79	MP4B	X	-3.158	.5
80	MP4B	Z	-1.823	.5
81	MP4B	Mx	.000422	.5
82	MP4B	X	-3.158	2.5
83	MP4B	Z	-1.823	2.5
84	MP4B	Mx	.000422	2.5
85	MP4C	X	-1.734	.5
86	MP4C	Z	-1.001	.5
87	MP4C	Mx	-.001	.5
88	MP4C	X	-1.734	2.5
89	MP4C	Z	-1.001	2.5
90	MP4C	Mx	-.001	2.5

Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
91	MP3A	X	-2.417	.5
92	MP3A	Z	-1.396	.5
93	MP3A	Mx	-.002	.5
94	MP3B	X	-3.144	.5
95	MP3B	Z	-1.815	.5
96	MP3B	Mx	-.00042	.5
97	MP3C	X	-2.417	.5
98	MP3C	Z	-1.396	.5
99	MP3C	Mx	.002	.5

Member Point Loads (BLC 38 : Antenna Wm (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-2.316	.5
2	MP2A	Z	-4.011	.5
3	MP2A	Mx	.004	.5
4	MP2A	X	-2.316	5.5
5	MP2A	Z	-4.011	5.5
6	MP2A	Mx	.004	5.5
7	MP2B	X	-2.065	.5
8	MP2B	Z	-3.576	.5
9	MP2B	Mx	-.00034	.5
10	MP2B	X	-2.065	5.5
11	MP2B	Z	-3.576	5.5
12	MP2B	Mx	-.00034	5.5
13	MP2C	X	-1.162	.5
14	MP2C	Z	-2.012	.5
15	MP2C	Mx	-.002	.5
16	MP2C	X	-1.162	5.5
17	MP2C	Z	-2.012	5.5
18	MP2C	Mx	-.002	5.5
19	MP2A	X	-2.316	.5
20	MP2A	Z	-4.011	.5
21	MP2A	Mx	-.001	.5
22	MP2A	X	-2.316	5.5
23	MP2A	Z	-4.011	5.5
24	MP2A	Mx	-.001	5.5
25	MP2B	X	-2.065	.5
26	MP2B	Z	-3.576	.5
27	MP2B	Mx	.004	.5
28	MP2B	X	-2.065	5.5
29	MP2B	Z	-3.576	5.5
30	MP2B	Mx	.004	5.5
31	MP2C	X	-1.162	.5
32	MP2C	Z	-2.012	.5
33	MP2C	Mx	-.002	.5
34	MP2C	X	-1.162	5.5
35	MP2C	Z	-2.012	5.5
36	MP2C	Mx	-.002	5.5
37	MP4A	X	-.697	4
38	MP4A	Z	-1.207	4
39	MP4A	Mx	.000116	4

Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	MP4B	X	-.583	4
41	MP4B	Z	-1.009	4
42	MP4B	Mx	.000125	4
43	MP4C	X	-.171	4
44	MP4C	Z	-.296	4
45	MP4C	Mx	-5.7e-5	4
46	MP1A	X	-2.043	.5
47	MP1A	Z	-3.539	.5
48	MP1A	Mx	.001	.5
49	MP1A	X	-2.043	3.5
50	MP1A	Z	-3.539	3.5
51	MP1A	Mx	.001	3.5
52	MP1B	X	-1.867	.5
53	MP1B	Z	-3.234	.5
54	MP1B	Mx	.001	.5
55	MP1B	X	-1.867	3.5
56	MP1B	Z	-3.234	3.5
57	MP1B	Mx	.001	3.5
58	MP1C	X	-1.234	.5
59	MP1C	Z	-2.137	.5
60	MP1C	Mx	-.001	.5
61	MP1C	X	-1.234	3.5
62	MP1C	Z	-2.137	3.5
63	MP1C	Mx	-.001	3.5
64	MP2A	X	-1.394	1
65	MP2A	Z	-2.415	1
66	MP2A	Mx	-.001	1
67	MP2B	X	-1.313	1
68	MP2B	Z	-2.274	1
69	MP2B	Mx	-.001	1
70	MP2C	X	-1.019	1
71	MP2C	Z	-1.766	1
72	MP2C	Mx	.002	1
73	MP4A	X	-1.572	.5
74	MP4A	Z	-2.723	.5
75	MP4A	Mx	.001	.5
76	MP4A	X	-1.572	2.5
77	MP4A	Z	-2.723	2.5
78	MP4A	Mx	.001	2.5
79	MP4B	X	-1.386	.5
80	MP4B	Z	-2.4	.5
81	MP4B	Mx	.001	.5
82	MP4B	X	-1.386	2.5
83	MP4B	Z	-2.4	2.5
84	MP4B	Mx	.001	2.5
85	MP4C	X	-.715	.5
86	MP4C	Z	-1.239	.5
87	MP4C	Mx	-.000954	.5
88	MP4C	X	-.715	2.5
89	MP4C	Z	-1.239	2.5
90	MP4C	Mx	-.000954	2.5
91	MP3A	X	-1.687	.5

Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
92	MP3A	Z	-2.922	.5
93	MP3A	Mx	-.001	.5
94	MP3B	X	-1.592	.5
95	MP3B	Z	-2.757	.5
96	MP3B	Mx	-.001	.5
97	MP3C	X	-1.25	.5
98	MP3C	Z	-2.165	.5
99	MP3C	Mx	.002	.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	LL1	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	LL2	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	F	Y	-250	%100

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	F	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-.802	.5
2	MP2A	My	-.000535	.5
3	MP2A	Mz	-.000535	.5
4	MP2A	Y	-.802	5.5
5	MP2A	My	-.000535	5.5
6	MP2A	Mz	-.000535	5.5
7	MP2B	Y	-.802	.5
8	MP2B	My	.000685	.5
9	MP2B	Mz	-.00032	.5
10	MP2B	Y	-.802	5.5
11	MP2B	My	.000685	5.5
12	MP2B	Mz	-.00032	5.5
13	MP2C	Y	-.802	.5
14	MP2C	My	-.000196	.5
15	MP2C	Mz	.00073	.5
16	MP2C	Y	-.802	5.5
17	MP2C	My	-.000196	5.5
18	MP2C	Mz	.00073	5.5
19	MP2A	Y	-.802	.5
20	MP2A	My	-.000535	.5
21	MP2A	Mz	.000535	.5
22	MP2A	Y	-.802	5.5

Member Point Loads (BLC 81 : Antenna Ev) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
23	MP2A	My	-.000535	5.5
24	MP2A	Mz	.000535	5.5
25	MP2B	Y	-.802	.5
26	MP2B	My	-.00032	.5
27	MP2B	Mz	-.000685	.5
28	MP2B	Y	-.802	5.5
29	MP2B	My	-.00032	5.5
30	MP2B	Mz	-.000685	5.5
31	MP2C	Y	-.802	.5
32	MP2C	My	.00073	.5
33	MP2C	Mz	.000196	.5
34	MP2C	Y	-.802	5.5
35	MP2C	My	.00073	5.5
36	MP2C	Mz	.000196	5.5
37	MP4A	Y	-.176	4
38	MP4A	My	-2.9e-5	4
39	MP4A	Mz	0	4
40	MP4B	Y	-.176	4
41	MP4B	My	1e-5	4
42	MP4B	Mz	-2.8e-5	4
43	MP4C	Y	-.176	4
44	MP4C	My	1.5e-5	4
45	MP4C	Mz	2.5e-5	4
46	MP1A	Y	-.199	.5
47	MP1A	My	-9.9e-5	.5
48	MP1A	Mz	0	.5
49	MP1A	Y	-.199	3.5
50	MP1A	My	-9.9e-5	3.5
51	MP1A	Mz	0	3.5
52	MP1B	Y	-.199	.5
53	MP1B	My	3.4e-5	.5
54	MP1B	Mz	-9.3e-5	.5
55	MP1B	Y	-.199	3.5
56	MP1B	My	3.4e-5	3.5
57	MP1B	Mz	-9.3e-5	3.5
58	MP1C	Y	-.199	.5
59	MP1C	My	5e-5	.5
60	MP1C	Mz	8.6e-5	.5
61	MP1C	Y	-.199	3.5
62	MP1C	My	5e-5	3.5
63	MP1C	Mz	8.6e-5	3.5
64	MP2A	Y	-3.385	1
65	MP2A	My	.003	1
66	MP2A	Mz	0	1
67	MP2B	Y	-3.385	1
68	MP2B	My	-.000965	1
69	MP2B	Mz	.003	1
70	MP2C	Y	-3.385	1
71	MP2C	My	-.001	1
72	MP2C	Mz	-.002	1
73	MP4A	Y	-1.149	.5
74	MP4A	My	-.000766	.5

Member Point Loads (BLC 81 : Antenna Ev) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP4A	Mz	0	.5
76	MP4A	Y	-1.149	2.5
77	MP4A	My	-.000766	2.5
78	MP4A	Mz	0	2.5
79	MP4B	Y	-1.149	.5
80	MP4B	My	.000262	.5
81	MP4B	Mz	-.00072	.5
82	MP4B	Y	-1.149	2.5
83	MP4B	My	.000262	2.5
84	MP4B	Mz	-.00072	2.5
85	MP4C	Y	-1.149	.5
86	MP4C	My	.000383	.5
87	MP4C	Mz	.000663	.5
88	MP4C	Y	-1.149	2.5
89	MP4C	My	.000383	2.5
90	MP4C	Mz	.000663	2.5
91	MP3A	Y	-3.172	.5
92	MP3A	My	.002	.5
93	MP3A	Mz	0	.5
94	MP3B	Y	-3.172	.5
95	MP3B	My	-.000723	.5
96	MP3B	Mz	.002	.5
97	MP3C	Y	-3.172	.5
98	MP3C	My	-.001	.5
99	MP3C	Mz	-.002	.5

Member Point Loads (BLC 82 : Antenna Eh (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Z	-2.005	.5
2	MP2A	Mx	.001	.5
3	MP2A	Z	-2.005	5.5
4	MP2A	Mx	.001	5.5
5	MP2B	Z	-2.005	.5
6	MP2B	Mx	.000799	.5
7	MP2B	Z	-2.005	5.5
8	MP2B	Mx	.000799	5.5
9	MP2C	Z	-2.005	.5
10	MP2C	Mx	-.002	.5
11	MP2C	Z	-2.005	5.5
12	MP2C	Mx	-.002	5.5
13	MP2A	Z	-2.005	.5
14	MP2A	Mx	-.001	.5
15	MP2A	Z	-2.005	5.5
16	MP2A	Mx	-.001	5.5
17	MP2B	Z	-2.005	.5
18	MP2B	Mx	.002	.5
19	MP2B	Z	-2.005	5.5
20	MP2B	Mx	.002	5.5
21	MP2C	Z	-2.005	.5
22	MP2C	Mx	-.000489	.5
23	MP2C	Z	-2.005	5.5

Member Point Loads (BLC 82 : Antenna Eh (0 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP2C	Mx	-.000489	5.5
25	MP4A	Z	-.441	4
26	MP4A	Mx	0	4
27	MP4B	Z	-.441	4
28	MP4B	Mx	6.9e-5	4
29	MP4C	Z	-.441	4
30	MP4C	Mx	-6.4e-5	4
31	MP1A	Z	-.496	.5
32	MP1A	Mx	0	.5
33	MP1A	Z	-.496	3.5
34	MP1A	Mx	0	3.5
35	MP1B	Z	-.496	.5
36	MP1B	Mx	.000233	.5
37	MP1B	Z	-.496	3.5
38	MP1B	Mx	.000233	3.5
39	MP1C	Z	-.496	.5
40	MP1C	Mx	-.000215	.5
41	MP1C	Z	-.496	3.5
42	MP1C	Mx	-.000215	3.5
43	MP2A	Z	-8.463	1
44	MP2A	Mx	0	1
45	MP2B	Z	-8.463	1
46	MP2B	Mx	-.007	1
47	MP2C	Z	-8.463	1
48	MP2C	Mx	.006	1
49	MP4A	Z	-2.873	.5
50	MP4A	Mx	0	.5
51	MP4A	Z	-2.873	2.5
52	MP4A	Mx	0	2.5
53	MP4B	Z	-2.873	.5
54	MP4B	Mx	.002	.5
55	MP4B	Z	-2.873	2.5
56	MP4B	Mx	.002	2.5
57	MP4C	Z	-2.873	.5
58	MP4C	Mx	-.002	.5
59	MP4C	Z	-2.873	2.5
60	MP4C	Mx	-.002	2.5
61	MP3A	Z	-7.931	.5
62	MP3A	Mx	0	.5
63	MP3B	Z	-7.931	.5
64	MP3B	Mx	-.005	.5
65	MP3C	Z	-7.931	.5
66	MP3C	Mx	.005	.5

Member Point Loads (BLC 83 : Antenna Eh (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	2.005	.5
2	MP2A	Mx	-.001	.5
3	MP2A	X	2.005	5.5
4	MP2A	Mx	-.001	5.5
5	MP2B	X	2.005	.5

Member Point Loads (BLC 83 : Antenna Eh (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
6	MP2B	Mx	.002	.5
7	MP2B	X	2.005	5.5
8	MP2B	Mx	.002	5.5
9	MP2C	X	2.005	.5
10	MP2C	Mx	-.000489	.5
11	MP2C	X	2.005	5.5
12	MP2C	Mx	-.000489	5.5
13	MP2A	X	2.005	.5
14	MP2A	Mx	-.001	.5
15	MP2A	X	2.005	5.5
16	MP2A	Mx	-.001	5.5
17	MP2B	X	2.005	.5
18	MP2B	Mx	-.000799	.5
19	MP2B	X	2.005	5.5
20	MP2B	Mx	-.000799	5.5
21	MP2C	X	2.005	.5
22	MP2C	Mx	.002	.5
23	MP2C	X	2.005	5.5
24	MP2C	Mx	.002	5.5
25	MP4A	X	.441	4
26	MP4A	Mx	-7.4e-5	4
27	MP4B	X	.441	4
28	MP4B	Mx	2.5e-5	4
29	MP4C	X	.441	4
30	MP4C	Mx	3.7e-5	4
31	MP1A	X	.496	.5
32	MP1A	Mx	-.000248	.5
33	MP1A	X	.496	3.5
34	MP1A	Mx	-.000248	3.5
35	MP1B	X	.496	.5
36	MP1B	Mx	8.5e-5	.5
37	MP1B	X	.496	3.5
38	MP1B	Mx	8.5e-5	3.5
39	MP1C	X	.496	.5
40	MP1C	Mx	.000124	.5
41	MP1C	X	.496	3.5
42	MP1C	Mx	.000124	3.5
43	MP2A	X	8.463	1
44	MP2A	Mx	.007	1
45	MP2B	X	8.463	1
46	MP2B	Mx	-.002	1
47	MP2C	X	8.463	1
48	MP2C	Mx	-.004	1
49	MP4A	X	2.873	.5
50	MP4A	Mx	-.002	.5
51	MP4A	X	2.873	2.5
52	MP4A	Mx	-.002	2.5
53	MP4B	X	2.873	.5
54	MP4B	Mx	.000655	.5
55	MP4B	X	2.873	2.5
56	MP4B	Mx	.000655	2.5
57	MP4C	X	2.873	.5

Member Point Loads (BLC 83 : Antenna Eh (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
58	MP4C	Mx	.000958	.5
59	MP4C	X	2.873	2.5
60	MP4C	Mx	.000958	2.5
61	MP3A	X	7.931	.5
62	MP3A	Mx	.005	.5
63	MP3B	X	7.931	.5
64	MP3B	Mx	-.002	.5
65	MP3C	X	7.931	.5
66	MP3C	Mx	-.003	.5

Member Area Loads (BLC 39 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N28	N26	N3	N4	Y	Two Way	-.005
2	N32	N33	N56	N54	Y	Two Way	-.005
3	N84	N82	N60	N61	Y	Two Way	-.005

Member Area Loads (BLC 40 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N28	N26	N3	N4	Y	Two Way	-.013
2	N32	N33	N56	N54	Y	Two Way	-.013
3	N84	N82	N60	N61	Y	Two Way	-.013

Member Area Loads (BLC 84 : Structure Ev)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N28	N26	N3	N4	Y	Two Way	-.000209
2	N32	N33	N56	N54	Y	Two Way	-.000209
3	N84	N82	N60	N61	Y	Two Way	-.000209

Member Area Loads (BLC 85 : Structure Eh (0 Deg))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N28	N26	N3	N4	Z	Two Way	-.000521
2	N32	N33	N56	N54	Z	Two Way	-.000521
3	N84	N82	N60	N61	Z	Two Way	-.000521

Member Area Loads (BLC 86 : Structure Eh (90 Deg))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N28	N26	N3	N4	X	Two Way	.000521
2	N32	N33	N56	N54	X	Two Way	.000521
3	N84	N82	N60	N61	X	Two Way	.000521

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	996.467	11	212.056	11	570.121	11	.251	6	1.533	8	.234	11
2		min	-3668.923	17	-446.23	17	-2110.166	17	-.524	36	-1.517	2	-.335	5
3	N30	max	691.759	10	222.243	7	4190.09	13	.263	7	1.578	4	.027	10
4		min	-695.699	4	-411.731	1	-1101.581	7	-.387	1	-1.582	10	-.153	4
5	N58	max	3670.383	21	235.584	3	620.539	3	.17	8	1.474	12	.705	45

Envelope Joint Reactions (Continued)

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
6		min	-1073.416	3	-597.414	45	-2106.468	21	-.501	26	-1.506	6	-.218	3
7	N147	max	-370.159	3	3350.272	21	2057.367	21	0	6	0	36	0	36
8		min	-3563.31	21	346.865	3	213.692	3	0	36	0	6	0	6
9	N149	max	3578.548	17	3364.253	17	2065.948	17	0	8	0	8	0	8
10		min	409.742	11	383.435	11	236.559	11	0	26	0	26	0	26
11	N151	max	23.503	10	3345.028	13	-474.502	7	0	75	0	4	0	10
12		min	-23.532	4	384.534	7	-4108.035	13	0	1	0	10	0	4
13	Totals:	max	3235.189	10	8366.342	14	3129.774	1						
14		min	-3235.19	4	2237.944	71	-3129.769	7						

Joint Reactions (By Combination)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	1	N1	-144.926	37.479	415.822	-.066	-.735	.041
2	1	N30	.871	-411.731	3648.839	-.387	-.033	-.07
3	1	N58	121.937	63.568	399.159	-.155	.635	-.025
4	1	N147	-801.088	760.851	486.099	0	0	0
5	1	N149	823.272	781.293	498.79	0	0	0
6	1	N151	-.11	1891.671	-2318.935	0	0	0
7	1	Totals:	-.044	3123.13	3129.774			
8	1	COG (ft):	X: 0	Y: 1.32	Z: 0			
9	2	N1	-1444.576	-118.751	-63.407	.003	-1.517	-.102
10	2	N30	-70.157	-371.513	3485.506	-.345	-.306	-.111
11	2	N58	-794.087	187.601	529.736	-.19	-.326	-.152
12	2	N147	-492.444	466.181	297	0	0	0
13	2	N149	1216.026	1155.028	729.279	0	0	0
14	2	N151	-11.938	1804.587	-2211.619	0	0	0
15	2	Totals:	-1597.177	3123.133	2766.496			
16	2	COG (ft):	X: 0	Y: 1.32	Z: 0			
17	3	N1	-2529.69	-282.376	-993.509	.098	-.638	-.239
18	3	N30	-452.662	-253.175	2687.868	-.222	.768	-.142
19	3	N58	-1073.416	235.584	620.539	-.176	.029	-.218
20	3	N147	-370.159	346.865	213.692	0	0	0
21	3	N149	1633.814	1548.767	966.582	0	0	0
22	3	N151	-19.98	1527.467	-1871.582	0	0	0
23	3	Totals:	-2812.091	3123.133	1623.59			
24	3	COG (ft):	X: 0	Y: 1.32	Z: 0			
25	4	N1	-3067.269	-401.982	-1720.513	.191	.364	-.328
26	4	N30	-695.699	-88.748	1271.716	-.055	1.578	-.153
27	4	N58	-893.335	182.695	429.659	-.111	.319	-.19
28	4	N147	-498.298	461.438	275.002	0	0	0
29	4	N149	1942.943	1835.658	1135.674	0	0	0
30	4	N151	-23.532	1134.069	-1391.544	0	0	0
31	4	Totals:	-3235.19	3123.129	-.005			
32	4	COG (ft):	X: 0	Y: 1.32	Z: 0			
33	5	N1	-3202.418	-434.256	-1862.64	.246	.018	-.335
34	5	N30	-425.651	70.099	-102.489	.106	.698	-.137
35	5	N58	-310.427	53.669	-320.503	-.02	-.714	-.089
36	5	N147	-823.361	762.584	451.853	0	0	0
37	5	N149	2036.545	1917.796	1175.818	0	0	0
38	5	N151	-20.377	753.231	-927.286	0	0	0

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
39	5	Totals:	-2745.689	3123.123	-1585.246			
40	5	COG (ft):	X: 0	Y: 1.32	Z: 0			
41	6	N1	-2938.981	-378.369	-1789.839	.251	-.281	-.263
42	6	N30	-60.616	181.141	-867.983	.221	-.31	-.1
43	6	N58	767.927	-104.77	-1210.869	.067	-1.506	.046
44	6	N147	-1226.599	1143.019	680.935	0	0	0
45	6	N149	1910.466	1794.62	1089.279	0	0	0
46	6	N151	-10.988	487.474	-601.589	0	0	0
47	6	Totals:	-1558.792	3123.115	-2700.067			
48	6	COG (ft):	X: 0	Y: 1.32	Z: 0			
49	7	N1	-2061.893	-260.775	-1708.586	.217	.749	-.143
50	7	N30	-4.75	222.243	-1101.581	.263	.029	-.057
51	7	N58	2063.609	-260.46	-1671.029	.135	-.665	.19
52	7	N147	-1619.942	1517.341	912.008	0	0	0
53	7	N149	1623.004	1520.225	913.921	0	0	0
54	7	N151	.016	384.534	-474.502	0	0	0
55	7	Totals:	.043	3123.109	-3129.769			
56	7	COG (ft):	X: 0	Y: 1.32	Z: 0			
57	8	N1	-764.03	-104.946	-1230.381	.148	1.533	0
58	8	N30	69.024	181.759	-939.098	.22	.301	-.016
59	8	N58	2979.729	-383.718	-1798.464	.17	.296	.316
60	8	N147	-1929.041	1811.765	1099.991	0	0	0
61	8	N149	1230.516	1146.642	683.213	0	0	0
62	8	N151	10.978	471.605	-581.75	0	0	0
63	8	Totals:	1597.176	3123.107	-2766.491			
64	8	COG (ft):	X: 0	Y: 1.32	Z: 0			
65	9	N1	322.847	59.145	-299.69	.053	.656	.138
66	9	N30	448.699	62.692	-139.436	.097	-.774	.015
67	9	N58	3258.072	-431.349	-1892.426	.155	-.061	.382
68	9	N147	-2050.661	1930.898	1184.149	0	0	0
69	9	N149	812.818	752.817	445.693	0	0	0
70	9	N151	20.315	748.904	-921.875	0	0	0
71	9	Totals:	2812.09	3123.107	-1623.585			
72	9	COG (ft):	X: 0	Y: 1.32	Z: 0			
73	10	N1	863.475	179.52	425.626	-.041	-.347	.227
74	10	N30	691.759	-102.145	1278.583	-.071	-1.582	.027
75	10	N58	3075.62	-378.86	-1703.506	.09	-.352	.355
76	10	N147	-1922.109	1816.428	1123.665	0	0	0
77	10	N149	502.94	465.718	277.665	0	0	0
78	10	N151	23.503	1142.45	-1402.022	0	0	0
79	10	Totals:	3235.189	3123.11	.01			
80	10	COG (ft):	X: 0	Y: 1.32	Z: 0			
81	11	N1	996.467	212.056	570.121	-.095	-.002	.234
82	11	N30	421.482	-260.522	2650.778	-.231	-.701	.01
83	11	N58	2495.806	-250.632	-951.724	0	.681	.254
84	11	N147	-1597.879	1515.564	945.781	0	0	0
85	11	N149	409.742	383.435	236.559	0	0	0
86	11	N151	20.068	1523.216	-1866.264	0	0	0
87	11	Totals:	2745.688	3123.117	1585.252			
88	11	COG (ft):	X: 0	Y: 1.32	Z: 0			
89	12	N1	732.401	155.801	500.227	-.101	.296	.163
90	12	N30	53.752	-370.889	3414.644	-.345	.308	-.027

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
91	12	N58	1419.093	-92.57	-62.205	-.087	1.474	.119
92	12	N147	-1194.599	1135.279	717.006	0	0	0
93	12	N149	536.273	506.669	322.315	0	0	0
94	12	N151	11.87	1788.834	-2191.914	0	0	0
95	12	Totals:	1558.79	3123.125	2700.072			
96	12	COG (ft):	X: 0	Y: 1.32	Z: 0			
97	13	N1	-2703.5	-297.798	-1388.856	.095	-.259	-.193
98	13	N30	-9.499	-407.418	4190.09	-.32	.005	-.074
99	13	N58	2688.921	-265.95	-1382.923	.031	.223	.187
100	13	N147	-3172.148	2985.156	1838.446	0	0	0
101	13	N149	3196.251	3007.323	1852.152	0	0	0
102	13	N151	-.035	3345.028	-4108.035	0	0	0
103	13	Totals:	-.009	8366.341	1000.874			
104	13	COG (ft):	X: 0	Y: 1.293	Z: 0			
105	14	N1	-3107.608	-347.771	-1544.096	.118	-.476	-.238
106	14	N30	-41.512	-393.424	4123.872	-.305	-.049	-.086
107	14	N58	2402.56	-228.451	-1338.651	.021	-.053	.148
108	14	N147	-3077.114	2895.166	1780.505	0	0	0
109	14	N149	3321.047	3125.874	1925.327	0	0	0
110	14	N151	-3.456	3314.947	-4070.376	0	0	0
111	14	Totals:	-506.084	8366.342	876.581			
112	14	COG (ft):	X: 0	Y: 1.293	Z: 0			
113	15	N1	-3448.297	-398.535	-1823.818	.148	-.246	-.28
114	15	N30	-150.56	-355.451	3864.011	-.266	.242	-.095
115	15	N58	2311.336	-214.821	-1322.527	.026	.01	.129
116	15	N147	-3041.295	2860.555	1755.902	0	0	0
117	15	N149	3450.237	3247.58	1998.799	0	0	0
118	15	N151	-5.959	3227.014	-3961.663	0	0	0
119	15	Totals:	-884.537	8366.342	510.705			
120	15	COG (ft):	X: 0	Y: 1.293	Z: 0			
121	16	N1	-3624.36	-435.35	-2048.913	.177	.036	-.308
122	16	N30	-219.417	-303.98	3427.241	-.214	.462	-.098
123	16	N58	2365.879	-231.032	-1392.042	.045	.066	.138
124	16	N147	-3080.882	2895.525	1774.872	0	0	0
125	16	N149	3546.443	3336.242	2051.417	0	0	0
126	16	N151	-6.958	3104.935	-3812.579	0	0	0
127	16	Totals:	-1019.296	8366.34	-.003			
128	16	COG (ft):	X: 0	Y: 1.293	Z: 0			
129	17	N1	-3668.923	-446.23	-2110.166	.194	-.027	-.311
130	17	N30	-146.155	-254.102	2998.086	-.163	.232	-.092
131	17	N58	2550.565	-270.835	-1620.628	.073	-.218	.169
132	17	N147	-3180.943	2987.716	1829.617	0	0	0
133	17	N149	3578.548	3364.253	2065.948	0	0	0
134	17	N151	-6.014	2985.537	-3666.857	0	0	0
135	17	Totals:	-872.921	8366.338	-503.999			
136	17	COG (ft):	X: 0	Y: 1.293	Z: 0			
137	18	N1	-3579.85	-429.434	-2095.622	.196	-.084	-.289
138	18	N30	-38.212	-218.872	2744.481	-.127	-.051	-.08
139	18	N58	2889.434	-321.22	-1893.813	.101	-.436	.212
140	18	N147	-3308.024	3107.481	1901.867	0	0	0
141	18	N149	3540.668	3327.722	2040.101	0	0	0
142	18	N151	-3.375	2900.659	-3561.98	0	0	0

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
143	18	Totals:	-499.359	8366.336	-864.966			
144	18	COG (ft):	X: 0	Y: 1.293	Z: 0			
145	19	N1	-3300.931	-391.593	-2058.057	.184	.2	-.251
146	19	N30	-7.791	-206.435	2666.817	-.114	.01	-.067
147	19	N58	3292.905	-370.57	-2046.1	.122	-.213	.258
148	19	N147	-3432.481	3225.72	1974.862	0	0	0
149	19	N149	3448.311	3240.279	1983.867	0	0	0
150	19	N151	.007	2868.933	-3522.268	0	0	0
151	19	Totals:	.02	8366.334	-1000.879			
152	19	COG (ft):	X: 0	Y: 1.293	Z: 0			
153	20	N1	-2896.97	-341.659	-1902.913	.161	.416	-.205
154	20	N30	24.458	-220.461	2732.982	-.129	.064	-.055
155	20	N58	3579.253	-407.992	-2090.102	.131	.063	.297
156	20	N147	-3527.545	3315.68	2032.705	0	0	0
157	20	N149	3323.541	3121.744	1910.673	0	0	0
158	20	N151	3.358	2899.021	-3559.931	0	0	0
159	20	Totals:	506.095	8366.333	-876.586			
160	20	COG (ft):	X: 0	Y: 1.293	Z: 0			
161	21	N1	-2556.131	-290.849	-1623.142	.131	.187	-.163
162	21	N30	133.283	-258.507	2993.017	-.168	-.227	-.046
163	21	N58	3670.383	-421.59	-2106.468	.127	0	.316
164	21	N147	-3563.31	3350.272	2057.367	0	0	0
165	21	N149	3194.359	3000.027	1837.177	0	0	0
166	21	N151	5.964	2986.979	-3668.661	0	0	0
167	21	Totals:	884.548	8366.333	-510.71			
168	21	COG (ft):	X: 0	Y: 1.293	Z: 0			
169	22	N1	-2379.807	-253.959	-1398.173	.102	-.095	-.136
170	22	N30	202.132	-310.017	3429.955	-.221	-.447	-.043
171	22	N58	3615.66	-405.418	-2037.128	.107	-.056	.307
172	22	N147	-3523.693	3315.315	2038.463	0	0	0
173	22	N149	3098.084	2911.339	1784.639	0	0	0
174	22	N151	6.931	3109.075	-3817.758	0	0	0
175	22	Totals:	1019.307	8366.335	-.002			
176	22	COG (ft):	X: 0	Y: 1.293	Z: 0			
177	23	N1	-2335.401	-243.05	-1336.722	.085	-.033	-.133
178	23	N30	128.846	-359.849	3858.943	-.271	-.217	-.049
179	23	N58	3431.231	-365.693	-1808.426	.079	.228	.276
180	23	N147	-3423.706	3223.154	1983.64	0	0	0
181	23	N149	3066.003	2883.311	1770.033	0	0	0
182	23	N151	5.959	3228.463	-3963.475	0	0	0
183	23	Totals:	872.932	8366.337	503.994			
184	23	COG (ft):	X: 0	Y: 1.293	Z: 0			
185	24	N1	-2424.543	-259.884	-1351.027	.083	.024	-.154
186	24	N30	20.679	-395.008	4112.395	-.308	.067	-.061
187	24	N58	3092.512	-315.344	-1535.313	.052	.447	.233
188	24	N147	-3296.622	3103.406	1911.422	0	0	0
189	24	N149	3103.923	2919.851	1795.821	0	0	0
190	24	N151	3.421	3313.319	-4068.337	0	0	0
191	24	Totals:	499.37	8366.339	864.961			
192	24	COG (ft):	X: 0	Y: 1.293	Z: 0			
193	25	N1	-1469.662	-19.585	-828.368	-.522	-.037	-.239
194	25	N30	-2.649	-161.964	1312.032	-.145	-.003	-.085

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
195	25	N58	1345.928	-1.48	-755.062	-.499	.021	.209
196	25	N147	-1511.576	1417.085	874.2	0	0	0
197	25	N149	1637.966	1533.777	947.118	0	0	0
198	25	N151	-.011	1105.286	-1354.304	0	0	0
199	25	Totals:	-.004	3873.119	195.616			
200	25	COG (ft):	X: .102	Y: 1.065	Z: .944			
201	26	N1	-1550.835	-29.332	-858.262	-.518	-.085	-.248
202	26	N30	-7.162	-159.442	1301.864	-.142	-.02	-.087
203	26	N58	1288.659	6.259	-747.013	-.501	-.039	.202
204	26	N147	-1492.259	1398.675	862.429	0	0	0
205	26	N149	1662.497	1557.109	961.497	0	0	0
206	26	N151	-.722	1099.851	-1347.609	0	0	0
207	26	Totals:	-99.824	3873.119	172.906			
208	26	COG (ft):	X: .102	Y: 1.065	Z: .944			
209	27	N1	-1618.671	-39.542	-916.425	-.512	-.031	-.257
210	27	N30	-30.969	-152.026	1251.993	-.134	.047	-.089
211	27	N58	1271.216	9.263	-741.232	-.5	-.016	.197
212	27	N147	-1484.618	1391.2	857.17	0	0	0
213	27	N149	1688.56	1581.687	976.339	0	0	0
214	27	N151	-1.268	1082.537	-1326.369	0	0	0
215	27	Totals:	-175.75	3873.119	101.477			
216	27	COG (ft):	X: .102	Y: 1.065	Z: .944			
217	28	N1	-1652.34	-47.006	-961.846	-.506	.032	-.262
218	28	N30	-46.155	-141.739	1163.461	-.124	.098	-.09
219	28	N58	1282.523	5.995	-753.084	-.496	.002	.199
220	28	N147	-1492.611	1398.326	860.947	0	0	0
221	28	N149	1707.865	1599.6	986.886	0	0	0
222	28	N151	-1.484	1057.943	-1296.361	0	0	0
223	28	Totals:	-202.203	3873.119	.003			
224	28	COG (ft):	X: .102	Y: 1.065	Z: .944			
225	29	N1	-1660.714	-49.004	-970.781	-.502	.01	-.263
226	29	N30	-29.276	-131.827	1077.665	-.114	.043	-.089
227	29	N58	1318.843	-2.015	-800.036	-.491	-.063	.205
228	29	N147	-1512.866	1417.112	872.033	0	0	0
229	29	N149	1713.684	1604.711	989.39	0	0	0
230	29	N151	-1.274	1034.141	-1267.344	0	0	0
231	29	Totals:	-171.602	3873.118	-99.073			
232	29	COG (ft):	X: .102	Y: 1.065	Z: .944			
233	30	N1	-1644.226	-45.483	-966.309	-.502	-.008	-.258
234	30	N30	-6.398	-124.906	1029.907	-.107	-.02	-.086
235	30	N58	1386.16	-11.882	-855.666	-.485	-.112	.214
236	30	N147	-1538.028	1440.853	886.338	0	0	0
237	30	N149	1705.78	1596.993	983.978	0	0	0
238	30	N151	-.717	1017.543	-1246.999	0	0	0
239	30	Totals:	-97.429	3873.118	-168.751			
240	30	COG (ft):	X: .102	Y: 1.065	Z: .944			
241	31	N1	-1589.382	-38.099	-961.169	-.504	.056	-.251
242	31	N30	-2.997	-122.344	1015.31	-.104	.001	-.084
243	31	N58	1467.179	-21.621	-884.44	-.481	-.06	.223
244	31	N147	-1562.604	1464.228	900.746	0	0	0
245	31	N149	1687.81	1579.835	973.008	0	0	0
246	31	N151	-.004	1011.117	-1239.065	0	0	0

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
247	31	Totals:	.002	3873.117	-195.61			
248	31	COG (ft):	X: .102	Y: 1.065	Z: .944			
249	32	N1	-1508.215	-28.353	-931.279	-.509	.105	-.242
250	32	N30	1.527	-124.867	1025.475	-.107	.018	-.081
251	32	N58	1524.449	-29.356	-892.476	-.479	0	.231
252	32	N147	-1581.922	1482.638	912.513	0	0	0
253	32	N149	1663.28	1556.504	958.627	0	0	0
254	32	N151	.703	1016.552	-1245.76	0	0	0
255	32	Totals:	99.822	3873.117	-172.9			
256	32	COG (ft):	X: .102	Y: 1.065	Z: .944			
257	33	N1	-1440.373	-18.142	-873.113	-.515	.05	-.233
258	33	N30	25.322	-132.286	1075.353	-.115	-.049	-.079
259	33	N58	1541.887	-32.359	-898.269	-.48	-.022	.235
260	33	N147	-1589.56	1490.111	917.775	0	0	0
261	33	N149	1637.217	1531.926	943.784	0	0	0
262	33	N151	1.255	1033.866	-1267.001	0	0	0
263	33	Totals:	175.749	3873.117	-101.471			
264	33	COG (ft):	X: .102	Y: 1.065	Z: .944			
265	34	N1	-1406.692	-10.675	-827.699	-.52	-.012	-.228
266	34	N30	40.508	-142.574	1163.892	-.125	-.099	-.079
267	34	N58	1530.572	-29.093	-886.425	-.484	-.04	.233
268	34	N147	-1581.565	1482.986	914.002	0	0	0
269	34	N149	1617.909	1514.013	933.242	0	0	0
270	34	N151	1.47	1058.461	-1297.008	0	0	0
271	34	Totals:	202.201	3873.117	.003			
272	34	COG (ft):	X: .102	Y: 1.065	Z: .944			
273	35	N1	-1398.326	-8.676	-818.755	-.524	.009	-.227
274	35	N30	23.628	-152.484	1249.681	-.135	-.044	-.08
275	35	N58	1494.263	-21.086	-839.467	-.489	.024	.227
276	35	N147	-1561.315	1464.201	902.911	0	0	0
277	35	N149	1612.091	1508.901	930.734	0	0	0
278	35	N151	1.258	1082.263	-1326.026	0	0	0
279	35	Totals:	171.6	3873.118	99.079			
280	35	COG (ft):	X: .102	Y: 1.065	Z: .944			
281	36	N1	-1414.816	-12.198	-823.216	-.524	.028	-.232
282	36	N30	.74	-159.403	1297.432	-.142	.019	-.082
283	36	N58	1426.953	-11.221	-783.84	-.495	.074	.218
284	36	N147	-1536.152	1440.461	888.607	0	0	0
285	36	N149	1619.997	1516.619	936.143	0	0	0
286	36	N151	.705	1098.861	-1346.371	0	0	0
287	36	Totals:	97.427	3873.118	168.757			
288	36	COG (ft):	X: .102	Y: 1.065	Z: .944			
289	37	N1	-943.455	-56.504	-528.06	.021	-.021	-.011
290	37	N30	3.046	-108.274	1248.237	-.081	-.022	.012
291	37	N58	2410.223	-566.565	-1366.354	-.071	.025	.68
292	37	N147	-2615.797	2436.652	1511.718	0	0	0
293	37	N149	1146.015	1079.493	663.134	0	0	0
294	37	N151	-.036	1088.297	-1333.06	0	0	0
295	37	Totals:	-.004	3873.098	195.614			
296	37	COG (ft):	X: -1.263	Y: 1.065	Z: .944			
297	38	N1	-1024.642	-66.262	-557.995	.025	-.07	-.02
298	38	N30	-1.476	-105.743	1238.05	-.078	-.039	.01

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
299	38	N58	2352.955	-558.853	-1358.366	-.073	-.036	.672
300	38	N147	-2596.466	2418.264	1500.014	0	0	0
301	38	N149	1170.552	1102.846	677.548	0	0	0
302	38	N151	-.745	1082.847	-1326.347	0	0	0
303	38	Totals:	-99.824	3873.098	172.904			
304	38	COG (ft):	X: -1.263	Y: 1.065	Z: .944			
305	39	N1	-1092.523	-76.507	-616.136	.031	-.015	-.029
306	39	N30	-25.282	-98.314	1188.134	-.071	.028	.008
307	39	N58	2335.575	-555.869	-1352.549	-.072	-.013	.668
308	39	N147	-2588.883	2410.821	1494.731	0	0	0
309	39	N149	1196.655	1127.451	692.38	0	0	0
310	39	N151	-1.293	1065.516	-1305.085	0	0	0
311	39	Totals:	-175.75	3873.098	101.475			
312	39	COG (ft):	X: -1.263	Y: 1.065	Z: .944			
313	40	N1	-1126.228	-84.009	-661.525	.037	.048	-.034
314	40	N30	-40.463	-88.016	1099.558	-.06	.079	.007
315	40	N58	2346.931	-559.153	-1364.365	-.068	.005	.67
316	40	N147	-2596.93	2417.975	1498.488	0	0	0
317	40	N149	1215.997	1145.386	702.913	0	0	0
318	40	N151	-1.509	1040.915	-1275.069	0	0	0
319	40	Totals:	-202.203	3873.098	0			
320	40	COG (ft):	X: -1.263	Y: 1.065	Z: .944			
321	41	N1	-1134.6	-86.035	-670.472	.041	.026	-.035
322	41	N30	-23.584	-78.098	1013.716	-.05	.024	.008
323	41	N58	2383.219	-567.167	-1411.362	-.062	-.06	.676
324	41	N147	-2617.165	2436.771	1509.646	0	0	0
325	41	N149	1221.825	1150.515	705.447	0	0	0
326	41	N151	-1.297	1017.111	-1246.05	0	0	0
327	41	Totals:	-171.602	3873.098	-99.075			
328	41	COG (ft):	X: -1.263	Y: 1.065	Z: .944			
329	42	N1	-1118.1	-82.533	-666.002	.041	.007	-.03
330	42	N30	-.706	-71.178	965.907	-.043	-.039	.011
331	42	N58	2450.489	-577.015	-1467.021	-.057	-.109	.684
332	42	N147	-2642.298	2460.505	1524.006	0	0	0
333	42	N149	1213.924	1142.809	700.059	0	0	0
334	42	N151	-.738	1000.51	-1225.701	0	0	0
335	42	Totals:	-97.429	3873.097	-168.753			
336	42	COG (ft):	X: -1.263	Y: 1.065	Z: .944			
337	43	N1	-1063.256	-75.16	-660.812	.039	.072	-.023
338	43	N30	2.703	-68.622	951.283	-.04	-.018	.013
339	43	N58	2531.513	-586.722	-1495.726	-.052	-.057	.693
340	43	N147	-2666.9	2483.867	1538.354	0	0	0
341	43	N149	1195.968	1125.648	689.06	0	0	0
342	43	N151	-.026	994.087	-1217.77	0	0	0
343	43	Totals:	.002	3873.097	-195.612			
344	43	COG (ft):	X: -1.263	Y: 1.065	Z: .944			
345	44	N1	-982.075	-65.404	-630.881	.034	.121	-.014
346	44	N30	7.235	-71.154	961.466	-.043	0	.016
347	44	N58	2588.781	-594.431	-1503.702	-.05	.003	.701
348	44	N147	-2686.232	2502.254	1550.053	0	0	0
349	44	N149	1171.433	1102.295	674.645	0	0	0
350	44	N151	.68	999.536	-1224.484	0	0	0

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
351	44	Totals:	99.822	3873.097	-172.902			
352	44	COG (ft):	X: -1.263	Y: 1.065	Z: .944			
353	45	N1	-914.188	-55.157	-572.738	.029	.066	-.005
354	45	N30	31.03	-78.585	1011.39	-.051	-.068	.018
355	45	N58	2606.158	-597.414	-1509.532	-.051	-.019	.705
356	45	N147	-2693.813	2509.696	1555.34	0	0	0
357	45	N149	1145.33	1077.69	659.813	0	0	0
358	45	N151	1.232	1016.868	-1245.746	0	0	0
359	45	Totals:	175.749	3873.097	-101.473			
360	45	COG (ft):	X: -1.263	Y: 1.065	Z: .944			
361	46	N1	-880.47	-47.652	-527.355	.023	.003	0
362	46	N30	46.211	-88.885	1099.973	-.061	-.119	.018
363	46	N58	2594.792	-594.131	-1497.724	-.055	-.037	.704
364	46	N147	-2685.764	2502.542	1551.586	0	0	0
365	46	N149	1125.985	1059.754	649.283	0	0	0
366	46	N151	1.448	1041.469	-1275.762	0	0	0
367	46	Totals:	202.201	3873.097	.001			
368	46	COG (ft):	X: -1.263	Y: 1.065	Z: .944			
369	47	N1	-872.107	-45.625	-518.4	.019	.025	0
370	47	N30	29.331	-98.801	1185.807	-.071	-.064	.017
371	47	N58	2558.516	-586.121	-1450.72	-.061	.028	.697
372	47	N147	-2665.533	2483.748	1540.424	0	0	0
373	47	N149	1120.159	1054.624	646.746	0	0	0
374	47	N151	1.234	1065.273	-1304.781	0	0	0
375	47	Totals:	171.6	3873.097	99.076			
376	47	COG (ft):	X: -1.263	Y: 1.065	Z: .944			
377	48	N1	-888.61	-49.128	-522.858	.019	.044	-.004
378	48	N30	6.443	-105.718	1233.61	-.078	0	.015
379	48	N58	2491.253	-576.274	-1395.064	-.066	.077	.689
380	48	N147	-2640.4	2460.014	1526.066	0	0	0
381	48	N149	1128.061	1062.33	652.131	0	0	0
382	48	N151	.68	1081.874	-1325.13	0	0	0
383	48	Totals:	97.427	3873.098	168.754			
384	48	COG (ft):	X: -1.263	Y: 1.065	Z: .944			
385	49	N1	-1012.913	-83.343	-598.644	.064	.02	-.022
386	49	N30	1.447	-84.075	1171.78	-.053	-.016	-.032
387	49	N58	1881.005	-418.61	-1089.702	.083	-.016	.424
388	49	N147	-2035.122	1900.542	1175.023	0	0	0
389	49	N149	1165.609	1097.595	672.978	0	0	0
390	49	N151	-.027	1085.995	-1331.434	0	0	0
391	49	Totals:	0	3498.104	.001			
392	49	COG (ft):	X: -.824	Y: 1.179	Z: .522			
393	50	N1	-1291.072	-68.188	-755.91	-.2	.009	-.136
394	50	N30	-2.542	-118.984	1218.555	-.094	-.001	-.066
395	50	N58	1271.73	-54.429	-740.685	-.273	-.017	.16
396	50	N147	-1396.245	1310.591	806.151	0	0	0
397	50	N149	1418.137	1330.794	818.757	0	0	0
398	50	N151	-.008	1098.337	-1346.866	0	0	0
399	50	Totals:	0	3498.119	.003			
400	50	COG (ft):	X: .008	Y: 1.179	Z: .522			
401	51	N1	-1286.313	-130.351	-753.699	.088	.01	-.059
402	51	N30	-2.386	-111.237	1485.436	-.073	-.002	-.074

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
403	51	N58	1273.909	-114.981	-741.483	-.012	-.018	.096
404	51	N147	-1412.575	1329.17	815.584	0	0	0
405	51	N149	1427.375	1342.823	824.091	0	0	0
406	51	N151	-.011	1328.216	-1629.925	0	0	0
407	51	Totals:	0	3643.64	.003			
408	51	COG (ft):	X: 0	Y: 1.32	Z: 0			
409	52	N1	-1067.202	-102.882	-589.829	.067	-.044	-.044
410	52	N30	.324	-123.043	1521.827	-.09	-.006	-.064
411	52	N58	1054.584	-89.943	-575.306	-.022	.039	.078
412	52	N147	-1220.028	1148.542	706.121	0	0	0
413	52	N149	1232.329	1159.891	713.196	0	0	0
414	52	N151	-.011	1234.95	-1515.057	0	0	0
415	52	Totals:	-.004	3227.515	260.954			
416	52	COG (ft):	X: 0	Y: 1.32	Z: 0			
417	53	N1	-1159.798	-115.088	-636.108	.072	-.054	-.055
418	53	N30	-18.752	-119.949	1493.273	-.087	.026	-.068
419	53	N58	983.462	-80.827	-549.033	-.025	.018	.069
420	53	N147	-1197.562	1126.993	692.426	0	0	0
421	53	N149	1263.039	1189.056	731.19	0	0	0
422	53	N151	-.866	1227.33	-1505.762	0	0	0
423	53	Totals:	-130.477	3227.515	225.987			
424	53	COG (ft):	X: 0	Y: 1.32	Z: 0			
425	54	N1	-1246.922	-127.394	-690.821	.079	-.047	-.066
426	54	N30	-33.369	-111.118	1417.159	-.078	.05	-.07
427	54	N58	951.187	-77.347	-551.634	-.024	-.013	.064
428	54	N147	-1189.484	1118.95	686.772	0	0	0
429	54	N149	1294.097	1218.329	748.854	0	0	0
430	54	N151	-1.492	1206.095	-1479.851	0	0	0
431	54	Totals:	-225.983	3227.515	130.479			
432	54	COG (ft):	X: 0	Y: 1.32	Z: 0			
433	55	N1	-1305.247	-136.504	-739.319	.085	-.026	-.073
434	55	N30	-39.613	-98.912	1313.862	-.065	.06	-.072
435	55	N58	966.403	-80.438	-582.413	-.019	-.044	.065
436	55	N147	-1197.956	1126.565	690.673	0	0	0
437	55	N149	1317.186	1239.873	761.46	0	0	0
438	55	N151	-1.721	1176.931	-1444.259	0	0	0
439	55	Totals:	-260.948	3227.515	.004			
440	55	COG (ft):	X: 0	Y: 1.32	Z: 0			
441	56	N1	-1319.128	-139.979	-768.6	.089	.005	-.075
442	56	N30	-35.807	-86.601	1211.064	-.053	.054	-.072
443	56	N58	1025.044	-89.272	-633.128	-.012	-.068	.072
444	56	N147	-1220.711	1147.803	703.089	0	0	0
445	56	N149	1326.115	1247.911	765.628	0	0	0
446	56	N151	-1.492	1147.653	-1408.524	0	0	0
447	56	Totals:	-225.98	3227.514	-130.471			
448	56	COG (ft):	X: 0	Y: 1.32	Z: 0			
449	57	N1	-1284.863	-136.889	-770.822	.091	.036	-.07
450	57	N30	-22.975	-77.486	1136.317	-.043	.032	-.07
451	57	N58	1111.38	-101.477	-690.179	-.005	-.078	.082
452	57	N147	-1251.646	1176.965	720.687	0	0	0
453	57	N149	1318.497	1240.294	760.242	0	0	0
454	57	N151	-.864	1126.107	-1382.225	0	0	0

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
455	57	Totals:	-130.472	3227.514	-225.98			
456	57	COG (ft):	X: 0	Y: 1.32	Z: 0			
457	58	N1	-1211.625	-128.061	-745.392	.089	.06	-.061
458	58	N30	-4.552	-74.009	1109.636	-.04	.002	-.067
459	58	N58	1202.291	-113.784	-738.289	.001	-.072	.093
460	58	N147	-1282.477	1206.243	738.755	0	0	0
461	58	N149	1296.371	1219.061	746.745	0	0	0
462	58	N151	-.007	1118.064	-1372.402	0	0	0
463	58	Totals:	.002	3227.513	-260.948			
464	58	COG (ft):	X: 0	Y: 1.32	Z: 0			
465	59	N1	-1119.032	-115.858	-699.116	.084	.071	-.05
466	59	N30	14.525	-77.106	1138.192	-.043	-.03	-.063
467	59	N58	1273.408	-122.895	-764.559	.004	-.05	.102
468	59	N147	-1304.939	1227.787	752.448	0	0	0
469	59	N149	1265.664	1189.899	728.751	0	0	0
470	59	N151	.85	1125.686	-1381.698	0	0	0
471	59	Totals:	130.475	3227.513	-225.981			
472	59	COG (ft):	X: 0	Y: 1.32	Z: 0			
473	60	N1	-1031.906	-103.55	-644.402	.077	.064	-.039
474	60	N30	29.142	-85.943	1214.313	-.052	-.054	-.06
475	60	N58	1305.678	-126.371	-761.956	.003	-.02	.106
476	60	N147	-1313.016	1235.829	758.1	0	0	0
477	60	N149	1234.606	1160.624	711.085	0	0	0
478	60	N151	1.476	1146.924	-1407.613	0	0	0
479	60	Totals:	225.981	3227.513	-130.474			
480	60	COG (ft):	X: 0	Y: 1.32	Z: 0			
481	61	N1	-973.575	-94.434	-595.901	.071	.043	-.032
482	61	N30	35.386	-98.151	1317.614	-.064	-.064	-.059
483	61	N58	1290.464	-123.283	-731.178	-.001	.012	.105
484	61	N147	-1304.546	1228.215	754.197	0	0	0
485	61	N149	1211.514	1139.077	698.477	0	0	0
486	61	N151	1.704	1176.09	-1443.207	0	0	0
487	61	Totals:	260.946	3227.514	.001			
488	61	COG (ft):	X: 0	Y: 1.32	Z: 0			
489	62	N1	-959.69	-90.956	-566.618	.067	.012	-.03
490	62	N30	31.579	-110.459	1420.41	-.077	-.058	-.059
491	62	N58	1231.828	-114.455	-680.467	-.008	.036	.099
492	62	N147	-1281.794	1206.981	741.783	0	0	0
493	62	N149	1202.582	1131.036	694.31	0	0	0
494	62	N151	1.472	1205.367	-1478.941	0	0	0
495	62	Totals:	225.978	3227.514	130.477			
496	62	COG (ft):	X: 0	Y: 1.32	Z: 0			
497	63	N1	-993.957	-94.049	-564.396	.065	-.02	-.035
498	63	N30	18.747	-119.569	1495.151	-.086	-.036	-.061
499	63	N58	1145.496	-102.253	-623.418	-.016	.046	.089
500	63	N147	-1250.86	1177.821	724.188	0	0	0
501	63	N149	1210.2	1138.655	699.697	0	0	0
502	63	N151	.845	1226.91	-1505.237	0	0	0
503	63	Totals:	130.47	3227.515	225.985			
504	63	COG (ft):	X: 0	Y: 1.32	Z: 0			
505	64	N1	-717.936	-67.503	-385.133	.043	-.046	-.028
506	64	N30	.971	-92.799	1118.155	-.07	-.005	-.044

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
507	64	N58	708.699	-58.747	-373.935	-.019	.044	.052
508	64	N147	-836.437	787.627	484.655	0	0	0
509	64	N149	844.705	795.258	489.415	0	0	0
510	64	N151	-.006	874.11	-1072.205	0	0	0
511	64	Totals:	-.004	2237.946	260.953			
512	64	COG (ft):	X: 0	Y: 1.32	Z: 0			
513	65	N1	-810.463	-79.695	-431.367	.048	-.056	-.039
514	65	N30	-18.119	-89.709	1089.624	-.067	.027	-.048
515	65	N58	637.624	-49.64	-347.701	-.021	.023	.043
516	65	N147	-814.012	766.112	470.978	0	0	0
517	65	N149	875.361	824.377	507.38	0	0	0
518	65	N151	-.867	866.502	-1062.927	0	0	0
519	65	Totals:	-130.477	2237.947	225.986			
520	65	COG (ft):	X: 0	Y: 1.32	Z: 0			
521	66	N1	-897.516	-91.987	-486.043	.055	-.05	-.05
522	66	N30	-32.747	-80.889	1013.569	-.058	.051	-.05
523	66	N58	605.361	-46.164	-350.325	-.021	-.008	.038
524	66	N147	-805.95	758.079	465.326	0	0	0
525	66	N149	906.367	853.605	525.013	0	0	0
526	66	N151	-1.498	845.301	-1037.061	0	0	0
527	66	Totals:	-225.982	2237.946	130.478			
528	66	COG (ft):	X: 0	Y: 1.32	Z: 0			
529	67	N1	-955.784	-101.088	-534.521	.061	-.028	-.057
530	67	N30	-38.994	-68.697	910.354	-.045	.061	-.052
531	67	N58	620.549	-49.251	-381.107	-.016	-.039	.039
532	67	N147	-814.41	765.682	469.213	0	0	0
533	67	N149	929.421	875.117	537.593	0	0	0
534	67	N151	-1.729	816.183	-1001.53	0	0	0
535	67	Totals:	-260.948	2237.946	.003			
536	67	COG (ft):	X: 0	Y: 1.32	Z: 0			
537	68	N1	-969.641	-104.56	-563.804	.066	.002	-.059
538	68	N30	-35.185	-56.4	807.638	-.033	.054	-.052
539	68	N58	679.134	-58.074	-431.801	-.009	-.063	.046
540	68	N147	-837.129	786.886	481.602	0	0	0
541	68	N149	938.34	883.144	541.748	0	0	0
542	68	N151	-1.498	786.949	-965.856	0	0	0
543	68	Totals:	-225.979	2237.946	-130.472			
544	68	COG (ft):	X: 0	Y: 1.32	Z: 0			
545	69	N1	-935.387	-101.474	-566.05	.067	.034	-.054
546	69	N30	-22.342	-47.295	732.95	-.024	.033	-.05
547	69	N58	765.397	-70.264	-488.814	-.002	-.073	.056
548	69	N147	-868.013	816.003	499.168	0	0	0
549	69	N149	930.74	875.54	536.365	0	0	0
550	69	N151	-.866	765.436	-939.599	0	0	0
551	69	Totals:	-130.472	2237.945	-225.981			
552	69	COG (ft):	X: 0	Y: 1.32	Z: 0			
553	70	N1	-862.195	-92.657	-540.659	.065	.058	-.045
554	70	N30	-3.904	-43.821	706.29	-.02	.002	-.047
555	70	N58	856.239	-82.558	-536.88	.004	-.067	.067
556	70	N147	-898.791	845.236	517.207	0	0	0
557	70	N149	908.656	854.341	522.887	0	0	0
558	70	N151	-.003	757.405	-929.793	0	0	0

Joint Reactions (By Combination) (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
559	70	Totals:	.002	2237.945	-260.949			
560	70	COG (ft):	X: 0	Y: 1.32	Z: 0			
561	71	N1	-769.671	-80.468	-494.428	.06	.068	-.034
562	71	N30	15.187	-46.914	734.824	-.023	-.029	-.043
563	71	N58	927.309	-91.659	-563.111	.007	-.045	.076
564	71	N147	-921.213	866.748	530.882	0	0	0
565	71	N149	878.003	825.224	504.922	0	0	0
566	71	N151	.86	765.013	-939.071	0	0	0
567	71	Totals:	130.476	2237.944	-225.982			
568	71	COG (ft):	X: 0	Y: 1.32	Z: 0			
569	72	N1	-682.616	-68.174	-439.752	.053	.061	-.023
570	72	N30	29.815	-55.74	810.884	-.032	-.053	-.04
571	72	N58	959.568	-95.133	-560.484	.006	-.015	.08
572	72	N147	-929.274	874.778	536.531	0	0	0
573	72	N149	846.997	795.995	487.287	0	0	0
574	72	N151	1.491	786.218	-964.942	0	0	0
575	72	Totals:	225.981	2237.945	-130.475			
576	72	COG (ft):	X: 0	Y: 1.32	Z: 0			
577	73	N1	-624.342	-59.067	-391.271	.047	.04	-.016
578	73	N30	36.063	-67.934	914.104	-.044	-.064	-.039
579	73	N58	944.38	-92.049	-529.704	.002	.017	.079
580	73	N147	-920.815	867.177	532.642	0	0	0
581	73	N149	823.94	774.479	474.705	0	0	0
582	73	N151	1.721	815.339	-1000.475	0	0	0
583	73	Totals:	260.947	2237.945	0			
584	73	COG (ft):	X: 0	Y: 1.32	Z: 0			
585	74	N1	-610.482	-55.592	-361.986	.043	.009	-.014
586	74	N30	32.252	-80.229	1016.818	-.057	-.057	-.039
587	74	N58	885.801	-83.231	-479.014	-.005	.041	.073
588	74	N147	-898.099	845.976	520.256	0	0	0
589	74	N149	815.018	766.45	470.55	0	0	0
590	74	N151	1.488	844.571	-1036.148	0	0	0
591	74	Totals:	225.978	2237.945	130.476			
592	74	COG (ft):	X: 0	Y: 1.32	Z: 0			
593	75	N1	-644.737	-58.68	-359.74	.041	-.022	-.019
594	75	N30	19.409	-89.328	1091.5	-.066	-.036	-.041
595	75	N58	799.542	-71.043	-422.002	-.012	.051	.063
596	75	N147	-867.217	816.861	502.692	0	0	0
597	75	N149	822.618	774.055	475.935	0	0	0
598	75	N151	.856	866.081	-1062.401	0	0	0
599	75	Totals:	130.47	2237.946	225.985			
600	75	COG (ft):	X: 0	Y: 1.32	Z: 0			

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc ...	phi*Pnt [...	phi*Mn y...	phi*Mn z...	Cb	Eqn
1	M1	HSS4X4X4	.115	3.686	17	.074	3.686	y	19	114065....	139518	16.181	16.181	1....	H1-1b
2	M2	HSS4X4X4	.172	2.375	18	.052	2.375	y	17	136263....	139518	16.181	16.181	1....	H1-1b
3	M3	HSS4X4X4	.168	0	16	.055	0	y	16	136263....	139518	16.181	16.181	1....	H1-1b
4	M4	PL1/2x6	.121	.516	5	.086	.516	y	8	66009.2...	97200	1.012	12.15	1....	H1-1b
5	M7	L2x2x3	.109	0	22	.013	4.162	y	21	9823.122	23392.8	.558	1.077	1....	H2-1

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc ...	phi*Pnt [...	phi*Mn y...	phi*Mn z...	Cb	Eqn
6	M8	L2x2x3	.104	1.994	22	.012	0	y	24	9823.122	23392.8	.558	1.076	1....	H2-1
7	M12	PL3/8x6	.215	0	8	.229	0	y	23	70677.9...	72900	.57	9.113	1....	H1-1b
8	M13	PL3/8x6	.163	.167	12	.318	0	y	17	71601.7...	72900	.57	9.113	1....	H1-1b
9	M15	PL1/2x6	.047	.112	11	.050	0	y	3	96757.5...	97200	1.012	12.15	1....	H1-1b
10	M17	PL3/8x6	.233	0	2	.143	0	y	22	70677.9...	72900	.57	9.113	1....	H1-1b
11	M18	PL3/8x6	.167	.167	10	.315	0	y	17	71601.7...	72900	.57	9.113	2....	H1-1b
12	M20	PL1/2x6	.047	.112	11	.068	0	y	7	96757.5...	97200	1.012	12.15	1....	H1-1b
13	M25	HSS4X4X4	.111	3.686	13	.073	3.686	y	15	114065....	139518	16.181	16.181	1....	H1-1b
14	M26	HSS4X4X4	.174	2.375	14	.051	2.375	y	14	136263....	139518	16.181	16.181	1....	H1-1b
15	M27	HSS4X4X4	.173	0	24	.056	0	y	24	136263....	139518	16.181	16.181	1....	H1-1b
16	M28	PL1/2x6	.118	.516	1	.086	.516	y	4	66009.2...	97200	1.012	12.15	1....	H1-1b
17	M31	L2x2x3	.106	0	18	.013	4.162	y	17	9823.122	23392.8	.558	1.077	1....	H2-1
18	M32	L2x2x3	.106	4.162	20	.012	0	y	21	9823.122	23392.8	.558	1.077	1....	H2-1
19	M36	PL3/8x6	.218	0	4	.234	0	y	19	70677.9...	72900	.57	9.113	1....	H1-1b
20	M37	PL3/8x6	.166	.167	8	.322	0	y	13	71601.7...	72900	.57	9.113	1....	H1-1b
21	M39	PL1/2x6	.046	.112	1	.049	0	y	11	96757.5...	97200	1.012	12.15	1....	H1-1b
22	M41	PL3/8x6	.238	0	10	.179	0	y	18	70677.9...	72900	.57	9.113	1....	H1-1b
23	M42	PL3/8x6	.160	.167	6	.328	0	y	13	71601.7...	72900	.57	9.113	1....	H1-1b
24	M44	PL1/2x6	.045	.112	1	.068	0	y	3	96757.5...	97200	1.012	12.15	1....	H1-1b
25	M49	HSS4X4X4	.114	3.686	45	.084	3.686	y	46	114065....	139518	16.181	16.181	1....	H1-1b
26	M50	HSS4X4X4	.175	2.375	22	.051	2.375	y	22	136263....	139518	16.181	16.181	1....	H1-1b
27	M51	HSS4X4X4	.170	0	20	.056	0	y	20	136263....	139518	16.181	16.181	1....	H1-1b
28	M52	PL1/2x6	.121	.516	9	.129	.516	y	48	66009.2...	97200	1.012	12.15	1....	H1-1b
29	M55	L2x2x3	.107	0	14	.013	4.162	y	14	9823.122	23392.8	.558	1.077	1....	H2-1
30	M56	L2x2x3	.105	1.951	14	.012	0	y	16	9823.122	23392.8	.558	1.076	1....	H2-1
31	M60	PL3/8x6	.210	0	12	.240	0	y	15	70677.9...	72900	.57	9.113	1....	H1-1b
32	M61	PL3/8x6	.174	.167	4	.320	0	y	21	71601.7...	72900	.57	9.113	1....	H1-1b
33	M63	PL1/2x6	.050	.112	3	.047	0	y	7	96757.5...	97200	1.012	12.15	1....	H1-1b
34	M65	PL3/8x6	.225	0	6	.181	0	y	26	70677.9...	72900	.57	9.113	1....	H1-1b
35	M66	PL3/8x6	.162	.167	2	.322	0	y	21	71601.7...	72900	.57	9.113	1....	H1-1b
36	M68	PL1/2x6	.049	.112	3	.159	0	y	47	96757.5...	97200	1.012	12.15	1....	H1-1b
37	F	PIPE_3.0	.184	7.28	28	.064	4.692		6	18536.1...	65205	5.749	5.749	1....	H1-1b
38	M74	PIPE_3.0	.161	7.28	23	.069	4.692		2	18536.1...	65205	5.749	5.749	1....	H1-1b
39	M75	PIPE_3.0	.152	7.442	15	.069	4.692		10	18536.1...	65205	5.749	5.749	1....	H1-1b
40	MP1A	PIPE_2.0	.249	3.49	10	.096	3.49		2	23808.54	32130	1.872	1.872	2....	H1-1b
41	MP2A	PIPE_2.0	.395	5	4	.078	5		5	14916.0...	32130	1.872	1.872	1....	H1-1b
42	MP3A	PIPE_2.0	.102	2.292	1	.022	2.292		10	26521.4...	32130	1.872	1.872	1....	H1-1b
43	MP1C	PIPE_2.0	.239	3.49	5	.099	3.49		4	23808.54	32130	1.872	1.872	2....	H1-1b
44	MP2C	PIPE_2.0	.383	5	12	.081	5		1	14916.0...	32130	1.872	1.872	1.9	H1-1b
45	MP3C	PIPE_2.0	.095	2.292	4	.022	2.292		6	26521.4...	32130	1.872	1.872	1....	H1-1b
46	MP4C	PIPE_2.0	.255	4.313	12	.111	1.313		2	20866.7...	32130	1.872	1.872	2....	H1-1b
47	MP1B	PIPE_2.0	.248	3.49	2	.094	3.49		12	23808.54	32130	1.872	1.872	2....	H1-1b
48	MP2B	PIPE_2.0	.382	5	8	.078	5		9	14916.0...	32130	1.872	1.872	1....	H1-1b
49	MP3B	PIPE_2.0	.095	2.292	10	.022	2.292		7	26521.4...	32130	1.872	1.872	1....	H1-1b
50	M103	LL2x2.5x4x3	.127	0	21	.004	0	y	36	41933.5...	69336	5.288	2.189	1	H1-1b*
51	M104	LL2x2.5x4x3	.127	0	17	.004	4.802	y	26	41933.5...	69336	5.288	2.189	1	H1-1b*
52	M105	LL2x2.5x4x3	.126	0	13	.004	4.802	z	4	41933.5...	69336	5.288	2.189	1	H1-1b*
53	M107	PIPE_2.5	.159	13.428	1	.096	1.941		2	9430.655	50715	3.596	3.596	1....	H1-1b
54	M117B	PIPE_2.5	.155	13.428	2	.098	1.941		10	9430.655	50715	3.596	3.596	1....	H1-1b
55	M118A	PIPE_2.5	.161	13.428	4	.094	13.59		2	9430.655	50715	3.596	3.596	1....	H1-1b
56	M124	L3X3X4	.309	2.463	1	.027	0	y	6	40787.8...	46656	1.688	3.756	2....	H2-1
57	M125	L3X3X4	.325	2.463	3	.030	.103	y	2	40787.8...	46656	1.688	3.756	2....	H2-1

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc ...	phi*Pnt [...	phi*Mn y...	phi*Mn z...	Cb	Eqn
58	M126	L3X3X4	.315	2.463	11	.029	0	y	10	40787.8...	46656	1.688	3.756	2....	H2-1
59	MP4B	PIPE_2.0	.259	4.313	2	.110	1.313		10	20866.7...	32130	1.872	1.872	2....	H1-1b
60	MP4A	PIPE_2.0	.265	4.313	4	.106	1.313		12	20866.7...	32130	1.872	1.872	2....	H1-1b

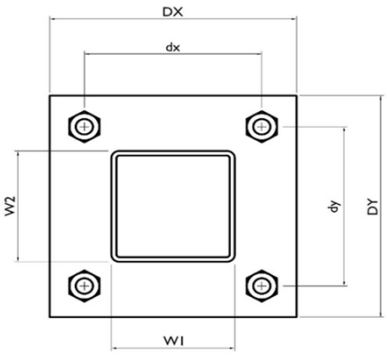
VzW SMART Tool© Vendor

Client:	Verizon Wireless	Date:	12/6/2023
Site Name:	NEW BRITAIN 5 CT		
MDG #:	5000386112		
Fuze ID #:	16244128	Page:	1

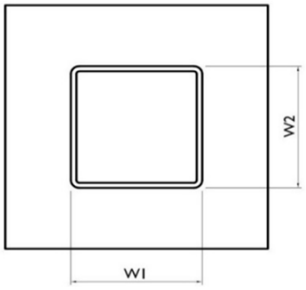
Version 1.01

I. Mount-to-Tower Connection Check

Custom Orientation Required	No
Tower Connection Bolt Checks	Yes
Bolt Orientation	Parallel
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	6
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	6
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength / bolt (kips):	2.0
Required Shear Strength / bolt (kips):	0.3
Tensile Capacity / bolt (kips):	20.7
Shear Capacity / bolt (kips):	12.4
Bolt Overall Utilization:	**9.5%**



Tower Connection Baseplate Checks	Yes
Connecting Standoff Member Shape:	Rect Tube
Weld Stiffener Configuration:	No Stiffeners
Plate Width, D_x (in):	8
Plate Height, D_y (in):	8
W1(in):	4
W2 (in):	4
Member Thickness (in):	0.25
Stiffener location a_1 (in):	
Stiffener location b_1 (in):	
Stiffener location a_2 (in):	
Stiffener location b_2 (in):	
F_y (ksi, plate):	36
Plate Thickness (in):	0.5
Length of Yield Line, L_y (in):	5.85
Bolt Eccentricity, e (in):	1.65
M_u (kip-in):	3.25
Phi*M_n (kip-in):	11.85
Plate Bending Utilization:	**27.4%**

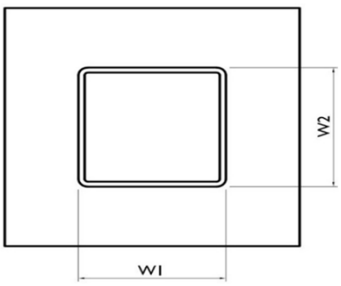


VzW SMART Tool© Vendor

Client:	Verizon Wireless	Date:	12/6/2023
Site Name:	NEW BRITAIN 5 CT		
PSLC #:	5000386112		
Fuze ID #:	16244128	Page:	2

Version 1.01

Tower Connection Weld Checks	Yes
Weld Shape:	Rectangle
Weld Stiffener Configuration:	None
Stiffener Notch Length, n (in):	
Weld Size (1/16 in):	4
W1 (in):	4
W2 (in):	4
Weld Total Length (in):	16.00
Z_x (in^3/in):	21.33
Z_y (in^3/in):	21.33
J_p (in^4/in):	85.33
c_x (in)	2.25
c_y (in)	2.25
Required combined strength (kip/in):	0.68
Weld Capacity (kip/in):	5.57
Weld Utilization:	**12.2%**



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MOUNT MODIFICATION DRAWINGS
EXISTING 15.50' PLATFORM

TOWER OWNER: CROWN CASTLE
TOWER OWNER SITE NUMBER: 876335

CARRIER SITE NAME: NEW BRITAIN 5 CT
CARRIER SITE NUMBER: 5000386112
FUZE ID: 16244128

130 BIRDSEYE ROAD
FARMINGTON, CT 06032
HARTFORD COUNTY

LATITUDE: 41.71581666° N
LONGITUDE: 72.81039444° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 120 MPH
EXPOSURE CATEGORY B
TOPOGRAPHIC CATEGORY: 1
TOPOGRAPHIC CONSIDERED: N/A
TOPOGRAPHIC METHOD: N/A
MEAN BASE ELEVATION (AMSL) = 413.61'

ICE LOADS

ICE WIND SPEED (3 SECOND GUST), V = 50 MPH
ICE THICKNESS = 1.50 IN

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_S = .188
LONG TERM MCER GROUND MOTION, S_1 = .055

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS

PROJECT MANAGER

COMPANY: COLLIERS ENGINEERING & DESIGN
CONTACT: PETER ALBANO
PHONE: 856.797.0412
E-MAIL: PETER.ALBANO@COLLIERSENG.COM

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10215326
VZW MDG #: 5000386112
ANALYSIS DATE: 12/6/2023

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

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REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
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-	-	-	-	-
1	12/07/23	ISSUED FOR CONSTRUCTION	GA	DX
0	05/24/22	ISSUED FOR CONSTRUCTION	SC	DRH

STATE OF CONNECTICUT
DEJIAN XU
No. 33733
LICENSED PROFESSIONAL ENGINEER
COLL... ENGINEERING & DE... CT, P.C.
12/14/2023

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SITE NAME:

NEW BRITAIN 5 CT
5000386112

130 BIRDSEYE ROAD
FARMINGTON, CT 06032
HARTFORD COUNTY

Colliers Engineering & Design
STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

SHEET TITLE: TITLE SHEET

SHEET NUMBER: ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

SECTION 1 - VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	VZWSMART	VZWSMART-P40-238X072	72" LONG, PIPE 2 SCH40 (2.375"OD X 0.154" THK)		22	66
3		VZWSMART-PLK3	SUPPORT RAIL CORNER BRACKET		30	90
9		VZWSMART-MSK1	CROSSOVER PLATE		14	126
3		VZWSMART-MSK2	CROSSOVER PLATE		15	45

SECTION 2 - OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
3	-		186" LONG, PIPE 2.5 SCH40	GALVANIZED	90	270
3	-		36" LONG, L3X3X1/4	GALVANIZED	15	45

SECTION 3 - REQUIRED SAFETY CLIMB PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT (LBS.)	WEIGHT (LBS.)
					TOTAL:	642

NOTES:

1. THE MANUFACTURERS LISTED ARE THE APPROVED VENDORS FOR THE VZW MOUNT KITS. EACH MANUFACTURER WILL BE AWARE OF WHICH KITS HAVE BEEN THROUGH THE VZW APPROVAL PROCESS AND THEY ARE IN TURN APPROVED TO SELL. PLEASE NOTE THAT THE MATERIAL UTILIZED ON THE MOUNT MODIFICATIONS WILL BE REVIEWED AS A PART OF THE DESKTOP PMI COMPLETED BY THE SMART TOOL VENDOR. IT WILL BE REQUIRED THAT THE VZW KITS SPECIFIED ARE UTILIZED IN THE MODIFICATIONS.
2. ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM

METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM

PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM

SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM

SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

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STATE OF CONNECTICUT
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LICENSED PROFESSIONAL ENGINEER

12/14/2023

COLLIERS ENGINEERING & DESIGN CT, P.C.

SITE NAME:

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Phone: 203.324.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

SHEET TITLE: BILL OF MATERIALS

SHEET NUMBER: SBOM-1

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. 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/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 30-MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL SYSTEMS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSI/TIA-322.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

STRUCTURAL STEEL

1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
   a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
   b. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS
   c. AISC CODE OF STANDARD PRACTICE
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:

CHANNELS, ANGLES, PLATES, ETC.	ASTM A36 (GR 36)
STEEL PIPE	ASTM A53 (GR 35)
BOLTS	ASTM A325
NUTS	ASTM A563
LOCK WASHERS	LOCKING STRUCTURAL GRADE

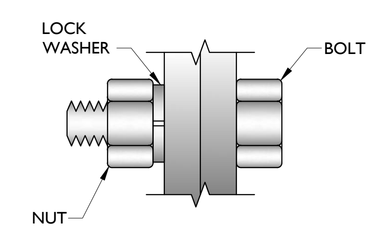
3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE IS SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
   a. SUBMIT SHOP DRAWINGS TO
      PETER.ALBANO@COLLIERSENG.COM
   b. PROVIDE COLLIERS ENGINEERING & DESIGN PROJECT # AND COLLIERS ENGINEERING & DESIGN PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
9. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
10. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
11. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT IS AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
12. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
13. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINC COTE, OR EOR APPROVED EQUAL), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.

BOLT SCHEDULE (IN.)

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	SPACING
1/2	9/16	9/16 x 11/16	7/8	1 1/2
5/8	11/16	11/16 x 7/8	1 1/8	1 7/8
3/4	13/16	13/16 x 1	1 1/4	2 1/4
7/8	15/16	15/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

WORKABLE GAGES (IN.)

LEG	GAGE
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8



TYP. BOLT ASSEMBLY

NOTES:

1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
3. SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS
4. MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.

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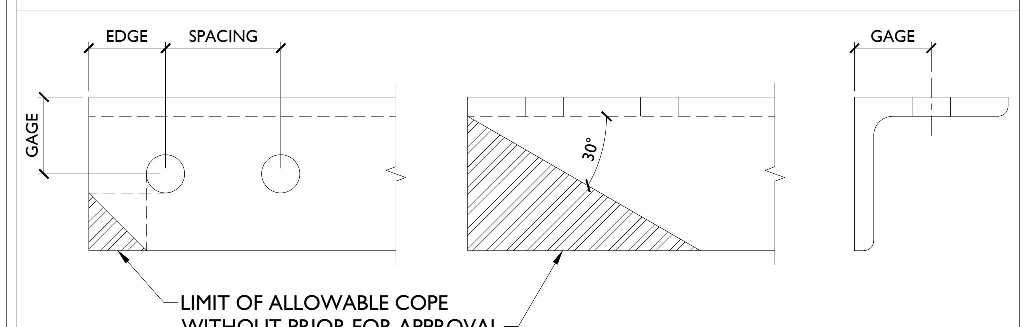

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1	12/07/23	ISSUED FOR CONSTRUCTION	GA	DX
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SITE NAME:

NEW BRITAIN 5 CT
5000386112

130 BIRDSEYE ROAD
FARMINGTON, CT 06032
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Colliers Engineering & Design
STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

SHEET TITLE : GENERAL NOTES

SHEET NUMBER : SGN-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

NOTE:

A DESKTOP MAPPING WAS COMPLETED AND THERE IS INSUFFICIENT INFORMATION ON THE CLIMBING FACILITY

STRUCTURAL NOTES:

1. CONTRACTOR TO INSPECT CLIMBING FACILITIES AT SITE AND ENSURE THAT THE SAFETY CLIMB IS IN GOOD CONDITION AND THAT THE WIRE ROPE DOES NOT OR WILL NOT INTERFERE WITH THE EXISTING OR PROPOSED MOUNT CONNECTIONS. CONTRACTOR SHALL INSTALL SAFETY CLIMB WIRE ROPE GUIDED AROUND MOUNT CONNECTIONS AS NEEDED.

2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.

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SCALE : AS SHOWN

JOB NUMBER : 22777029

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	12/07/23	ISSUED FOR CONSTRUCTION	GA	DX
0	05/24/22	ISSUED FOR CONSTRUCTION	SC	DRH

STATE OF CONNECTICUT
DEJIAN XU
No. 33733
LICENSED PROFESSIONAL ENGINEER

12/14/2023

COLLIERS ENGINEERING & DESIGN CT, P.C.

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

SITE NAME:

NEW BRITAIN 5 CT
5000386112

130 BIRDSEYE ROAD
FARMINGTON, CT 06032
HARTFORD COUNTY

Colliers Engineering & Design

STAMFORD
1055 Washington Boulevard
Stamford, CT 06901
Phone: 203.324.0800
COLLIERS ENGINEERING & DESIGN CT, P.C.
DOING BUSINESS AS MASER CONSULTING

SHEET TITLE :

CLIMBING FACILITY DETAIL

SHEET NUMBER :

SCF-1

LEGEND:

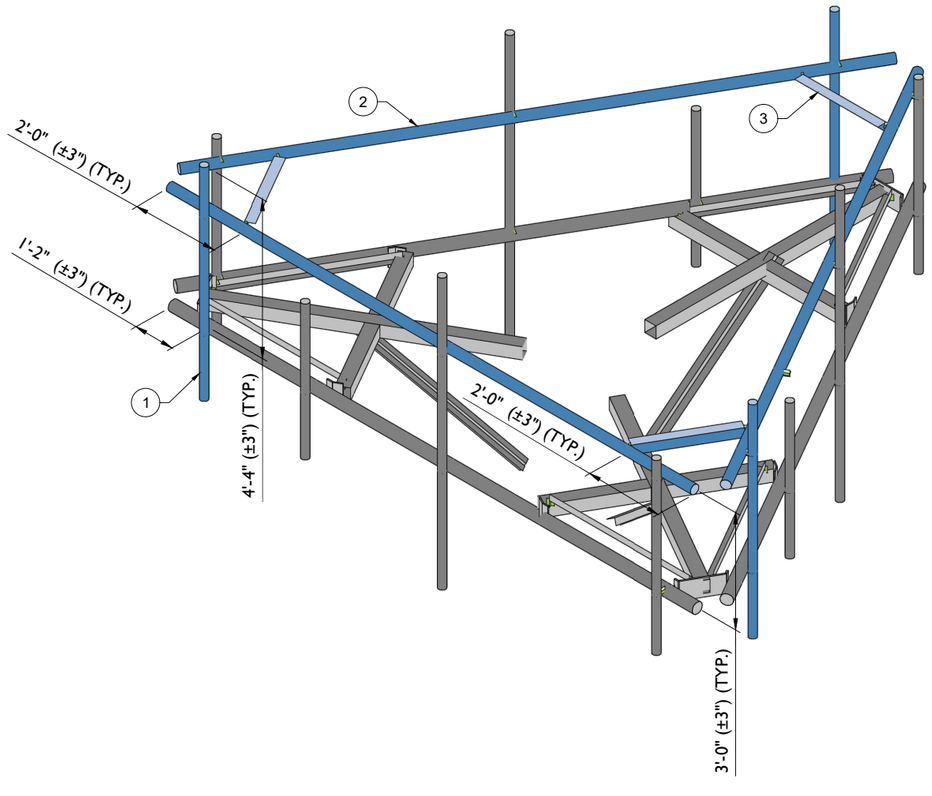
- PROPOSED
- RELOCATED
- EXISTING

MOUNT MODIFICATION SCHEDULE

NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	108'-00"	3	PROPOSED 72" LONG, PIPE 2 SCH40 (PART #: VZWSMART-P40-238X072)	CONNECT NEW MOUNT PIPE TO EXISTING HORIZONTAL WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2) AND TO PROPOSED SUPPORT RAIL WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
2		3	PROPOSED 186" LONG, PIPE 2.5 SCH40	CONNECT NEW HORIZONTAL TO ALL EXISTING AND PROPOSED VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK1).
3		3	PROPOSED 36" LONG, L3X3X1/4	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1. CONTRACTOR SHALL CONNECT PROPOSED ANGLES TO SUPPORT RAIL CORNER BRACKET (PART #: VZWSMART-PLK3) USING THE PROVIDED (8) 5/8" DIA. BOLTS, (4) BOLTS PER CONNECTION.

GENERAL NOTES:

A. CONTRACTOR SHALL VERIFY THAT NEW & EXISTING STEEL IS FREE OF CORROSION. VISIBLE MINOR CORROSION SHALL BE WIRE BRUSHED CLEAN AND TREATED WITH COLD GALVANIZATION. REPORT ANY SIGNIFICANT CORROSION TO EOR
B. THREADED ROD FROM PROPOSED KITS SHALL BE TRIMMED TO EXTEND NO MORE THAN 3" BEYOND THE LOCK NUT. TREAT ALL CUT ENDS WITH (2) COATS OF COLD GALVANIZATION (ZINC KOTE, OR EOR APPROVED EQUAL).
C. MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.



1 PROPOSED ISOMETRIC VIEW

SCALE : N.T.S.

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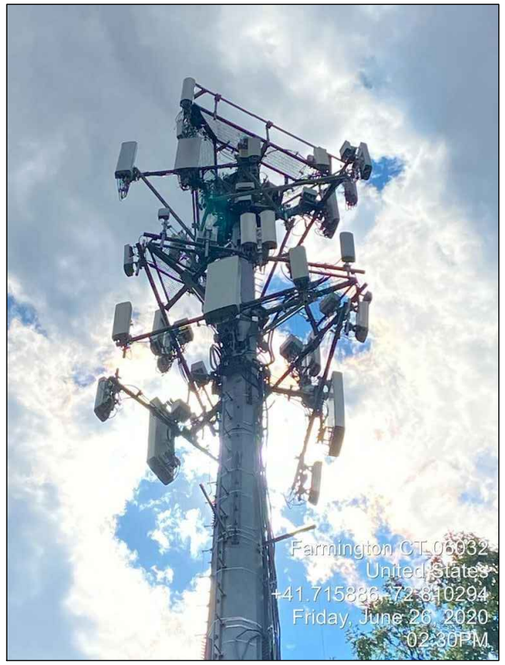
SHEET TITLE : MODIFICATION DETAILS

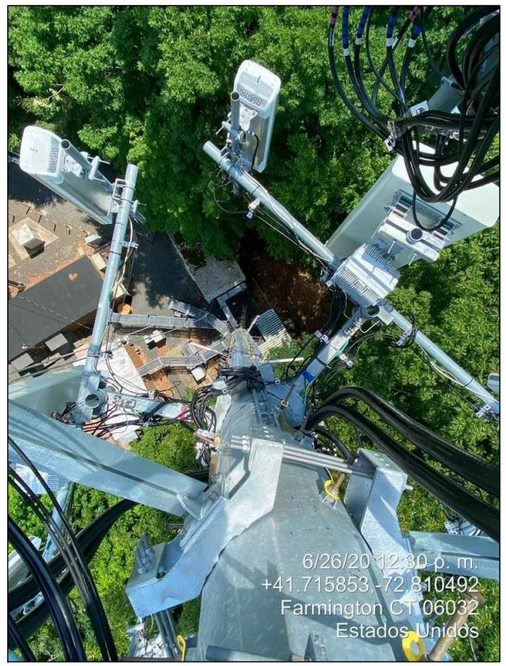
SHEET NUMBER : SS-1



MOUNT PHOTO 1

MOUNT PHOTO 2

MOUNT PHOTO 3



MOUNT PHOTO 4

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SCALE :	JOB NUMBER :
AS SHOWN	22777029

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	12/07/23	ISSUED FOR CONSTRUCTION	GA	DX
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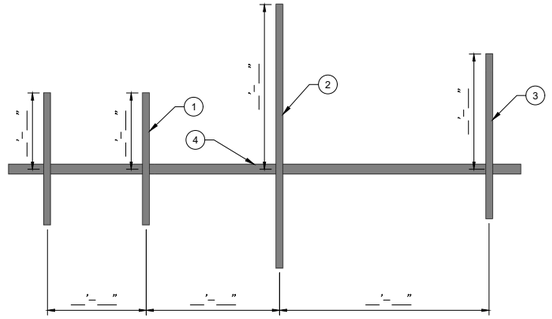
SHEET TITLE :
MOUNT PHOTOS

SHEET NUMBER :
SS-2

EXISTING MEMBERS				
NO.	DESCRIPTION	SHAPE	LENGTH	NOTES
1	MOUNT PIPE			TYP. OF 6, 2 PER SECTOR
2	MOUNT PIPE			TYP. OF 3, 1 PER SECTOR
3	MOUNT PIPE			TYP. OF 3, 1 PER SECTOR
4	FACE HORIZONTAL			TYP. OF 3, 1 PER SECTOR
5	STANDOFF HORIZONTAL			TYP. OF 3, 1 PER SECTOR
6	CROSSMEMBER			TYP. OF 6, 2 PER SECTOR
7	CORNER PLATE			TYP. OF 3, 1 PER SECTOR
8	KICKER			TYP. OF 3, 1 PER SECTOR

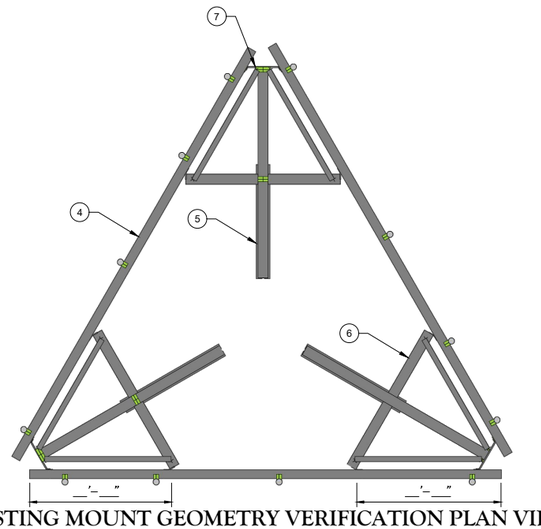
LIST ALL SHAPES:
ANGLE (LEG1xLEG2xTH.): EX. L2x2x1/4
CHANNEL (DEPTHxFLANGE WIDTH): EX. CH6"x1-7/8"
PIPE (ODxTH.): EX. PIPE 2.4"x0.12"
PLATE (TH.xDEPTH): EX. PLATE 1/2"x2"



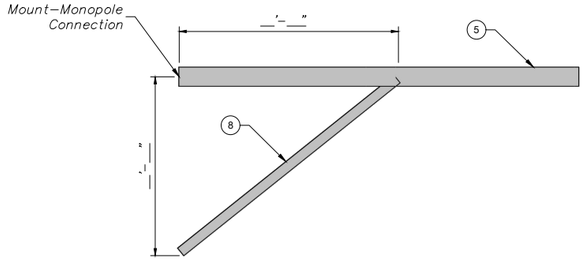
2 EXISTING MOUNT GEOMETRY VERIFICATION FRONT ELEVATION VIEW
SCALE : N.T.S.

NOTE:

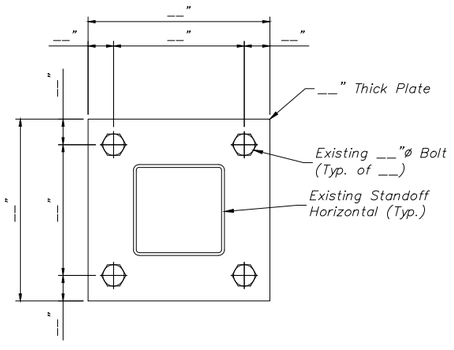
CONTRACTOR SHALL RECORD ALL DIMENSIONS AND MEMBER SIZES SHOWN IN THIS SKETCH. DOCUMENT VIA PHOTOS AND SKETCHES AND PROVIDE TO THE EOR FOR EVALUATION.



1 EXISTING MOUNT GEOMETRY VERIFICATION PLAN VIEW
SCALE : N.T.S.



3 EXISTING MOUNT GEOMETRY VERIFICATION SIDE ELEVATION VIEW
SCALE : N.T.S.



4 MOUNT CONNECTION DETAIL
SCALE : N.T.S.

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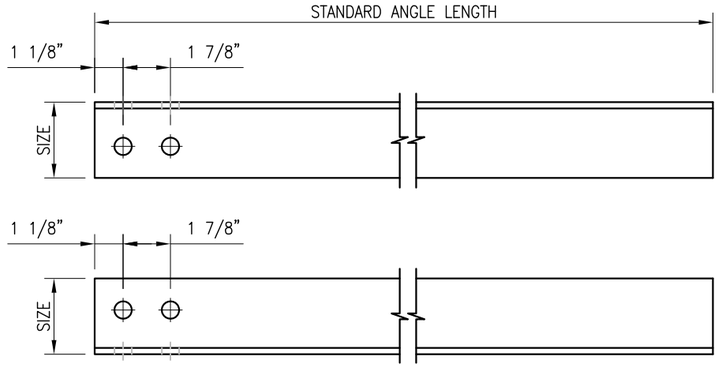
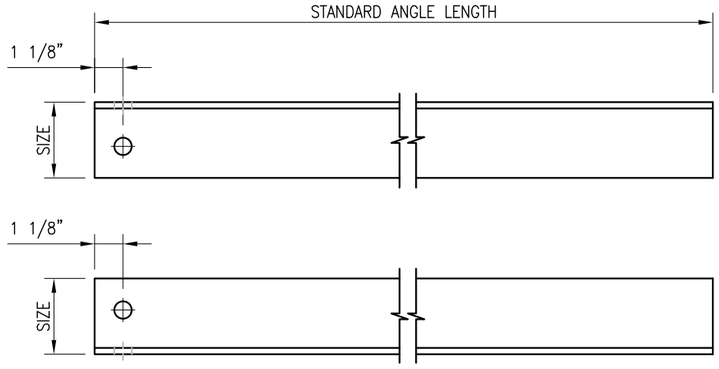
SHEET TITLE :
GEOMETRY VERIFICATION SKETCHES

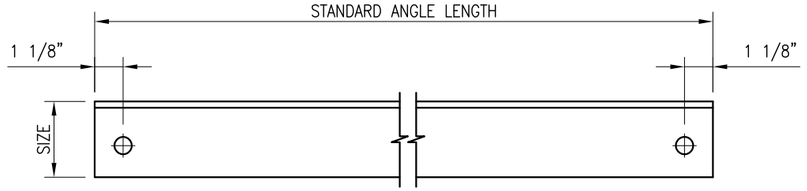
SHEET NUMBER :
SS-3

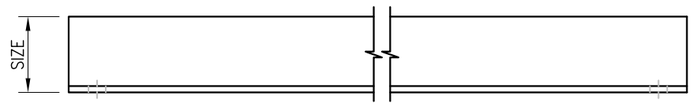


HOLE STYLE "A"

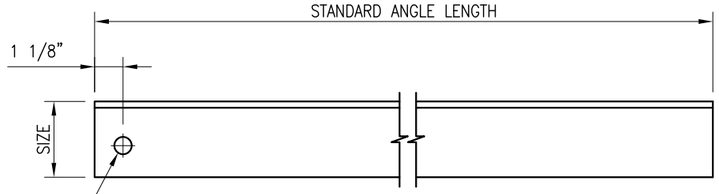


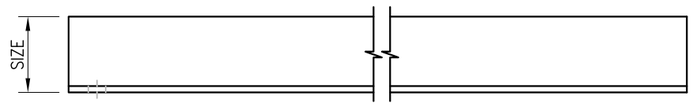
HOLE STYLE "B"





HOLE STYLE "C"





HOLE STYLE "D"

NOTE:
APPROVED SMART KIT VENDORS ARE ALLOWED TO SUBSTITUTE AT THEIR DISCRETION ANGLES LISTED ON THIS PAGE FOR CUSTOM LENGTH COMPONENTS OF MATCHING SIZE. SUBSTITUTIONS SHALL MEET THE ORIGINAL STRUCTURAL INTENT.

NOTES:
1. ALL ANGLE GRADE A36 OR BETTER.
2. HOT-DIPPED GALVANIZED PER ASTM A123.
3. ALL HOLES ARE 11/16" DIA. U.N.O
4. HOLES MAY OR MAY NOT BE PRESENT, DEPEND UPON MANUFACTURE DISCRETION.
5. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA OR ZINC COTE PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

VZWSMART Standard Angle					
VZWSMART Number	Size	Length	Hole Style	Hole Gage	Also Used In:
A-PLK2-01	L 3" X 3" X 1/4"	96"	A	1-3/4"	VZWSMART-PLK2
A-PLK5-01	L 3"X 3" X 3/16"	96"	B	1-3/4"	VZWSMART-PLK5
A-SFK3-01	L 2-1/2" X 2-1/2" X 1/4"	96"	C	1-3/4"	VZWSMART-SFK3,-SFK3-SL, -PLK6, & -PLK8
A-L25X25X4X120	L 2-1/2" X 2-1/2" X 1/4"	120"	D	1-5/16"	
A-L25X25X4X240	L 2-1/2" X 2-1/2" X 1/4"	240"	D	1-5/16"	
A-L30X30X4X120	L 3" X 3" X 1/4"	120"	D	1-1/2"	
A-L30X30X4X240	L 3" X 3" X 1/4"	240"	D	1-1/2"	
A-L40X40X4X120	L 4" X 4" X 1/4"	120"	D	2"	
A-L40X40X4X240	L 4" X 4" X 1/4"	240"	D	2"	
A-L50X30X6X120	L 5" X 3" X 3/8"	120"	D	2-1/2"	
A-L50X50X6X120	L 5" X 5" X 3/8"	120"	D	2-1/2"	

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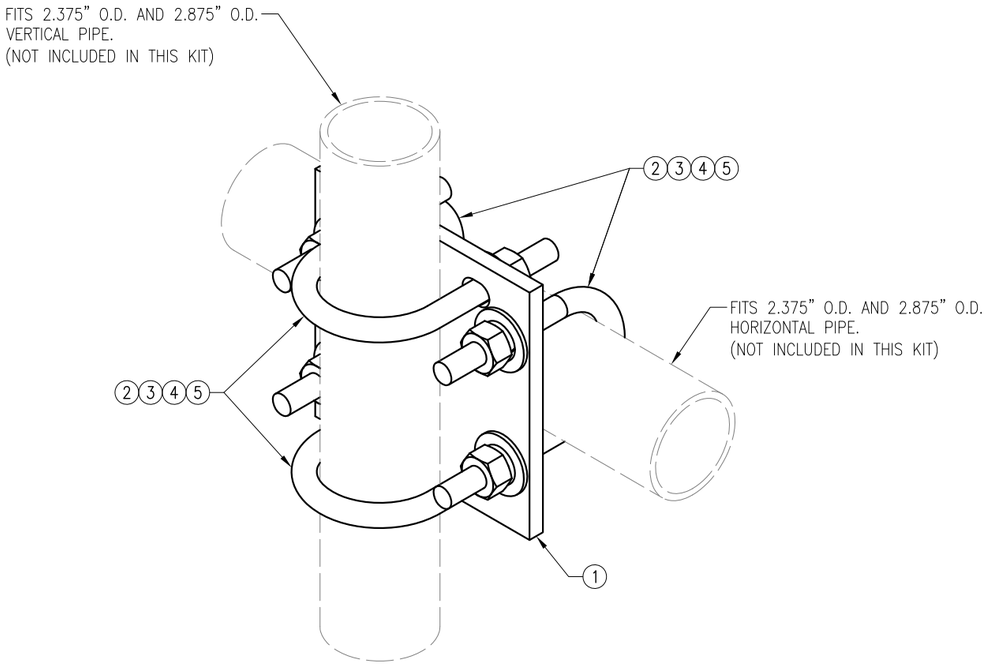
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	08/04/21

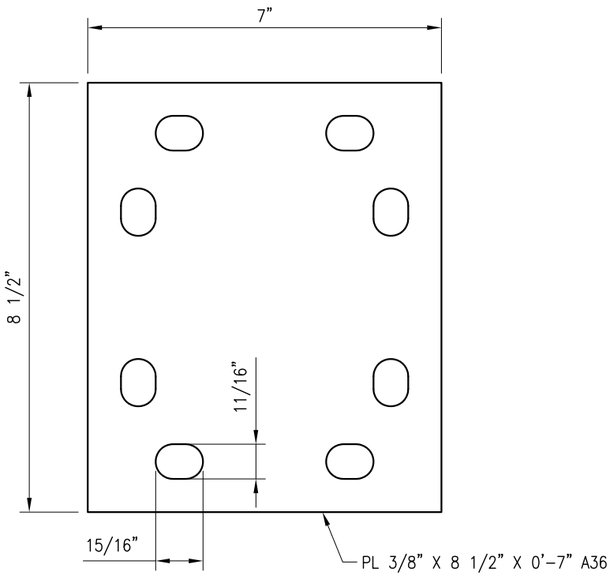
SHEET TITLE:

VZWSMART STANDARD ANGLE

SHEET NUMBER: VZWSMART-ANGLE

REV #: 0





PL375-857

VZWSMART-MSK1 (CROSSOVER PLATE)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-857	PL 3/8" X 8 1/2" X 0'-7" A36	MSK1-F1	6
2	4	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	5
3	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	8	LW-625	5/8" HDG LOCK WASHER	---	0
5	8	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	14

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

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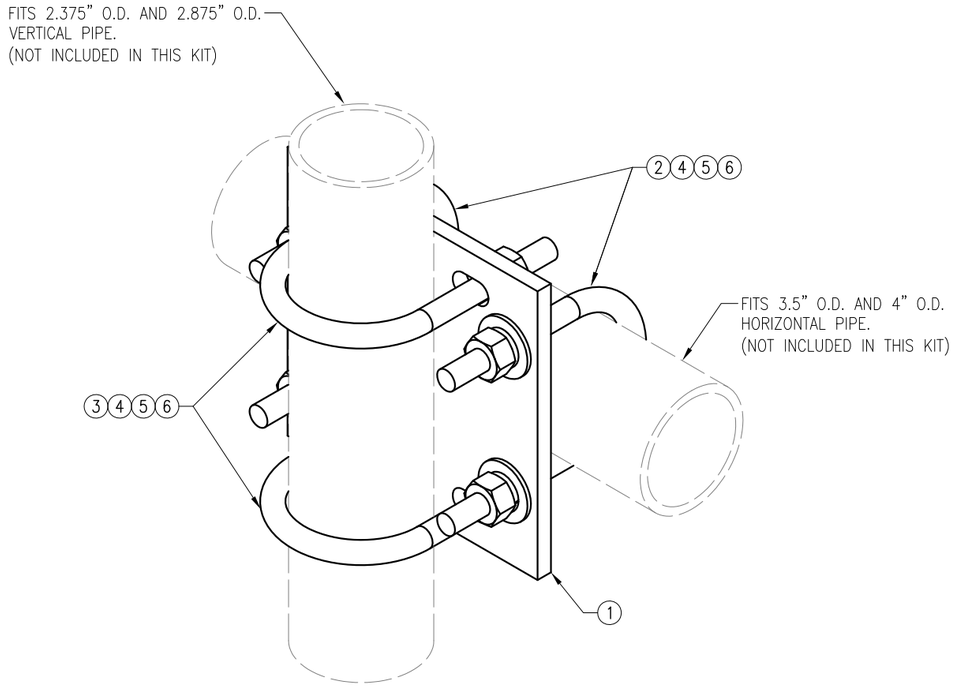
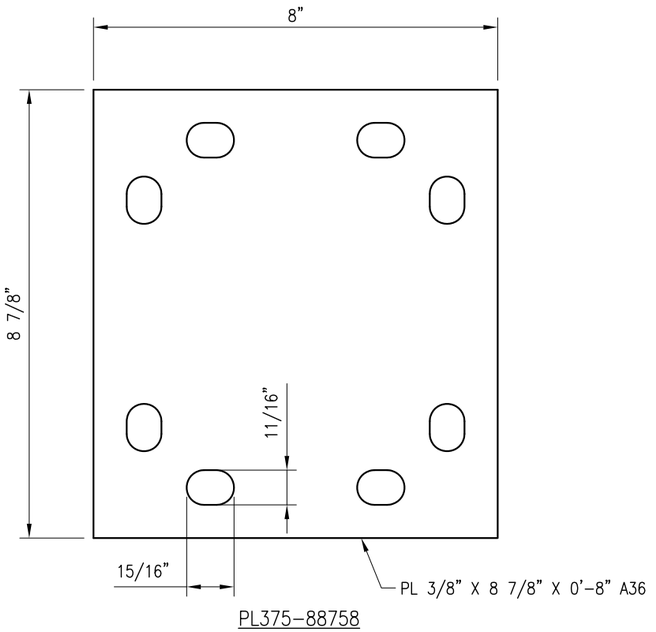
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:
VZWSMART-MSK1
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK1

REV #: 0





PL375-88758

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-MSK2 (CROSSOVER PLATE)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-88758	PL 3/8" X 8 3/4" X 0'-8" A36	MSK2-F1	8
2	2	MS02-625-4125-600	RU-BOLT 5/8" X 4 1/8" I.W. X 6" I.L. A36 (OR EQUIV.)	RBC-1	3
3	2	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	3
4	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
5	8	LW-625	5/8" HDG LOCK WASHER	---	0
6	8	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	15

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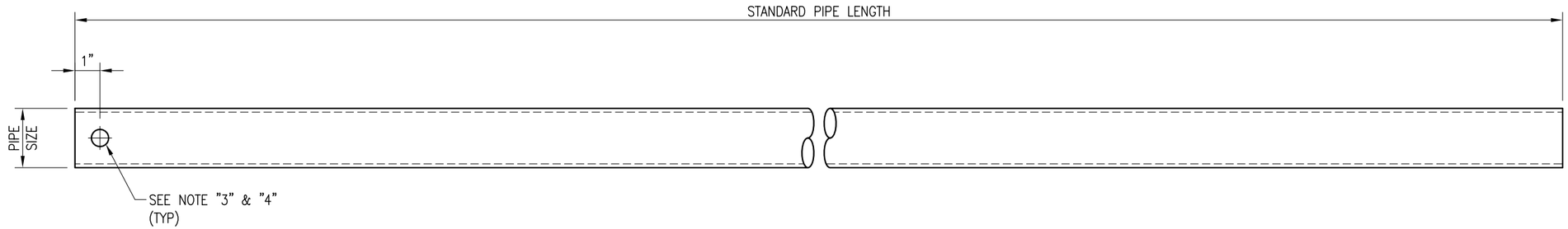
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:
VZWSMART-MSK2
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK2

REV #: 0



VZWSMART Standard Pipe		
VZWSMART Number	Size	Length
P40-238X048	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	48"
P40-238X072	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	72"
P40-238X096	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	96"
P40-238X120	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	120"
P40-238X126	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	126"
P40-238X150	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	150"
P40-238X174	PIPE 2 SCH40 (2.375" OD x 0.154" THK)	174"
P40-278X048	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	48"
P40-278X072	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	72"
P40-278X096	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	96"
P40-278X120	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	120"
P40-278X126	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	126"
P40-278X150	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	150"
P40-278X174	PIPE 2.5 SCH40 (2.875" OD x 0.203" THK)	174"
P40-312X048	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	48"
P40-312X072	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	72"
P40-312X126	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	126"
P40-312X150	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	150"
P40-312X174	PIPE 3 SCH40 (3.5" OD x 0.216" THK)	174"

NOTE:
APPROVED SMART KIT VENDORS ARE ALLOWED TO SUBSTITUTE AT THEIR DISCRETION PIPES LISTED ON THIS PAGE FOR CUSTOM LENGTH COMPONENTS OF MATCHING SIZE. SUBSTITUTIONS SHALL MEET THE ORIGINAL STRUCTURAL INTENT.

NOTES:
1. ALL PIPE GRADE A53-B OR BETTER.
2. HOT-DIPPED GALVANIZED PER ASTM A123.
3. ALL HOLES ARE 11/16" DIA. U.N.O
4. HOLES MAY OR MAY NOT BE PRESENT, DEPEND UPON MANUFACTURE DISCRETION.
5. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA OR ZINC COTE PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

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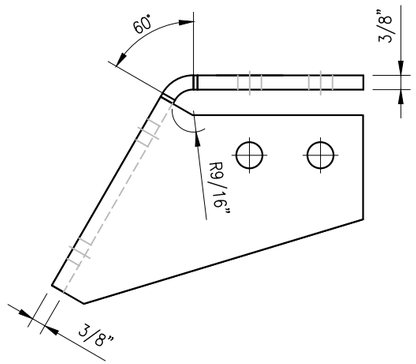
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	08/04/21

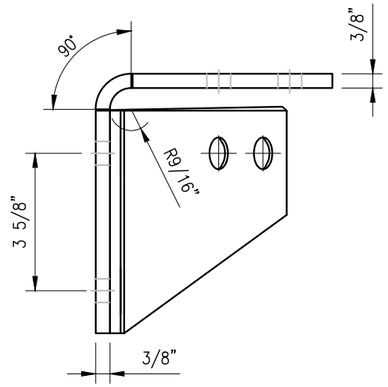
SHEET TITLE:
VZWSMART STANDARD PIPE

SHEET NUMBER: VZWSMART-PIPE

REV #: 0

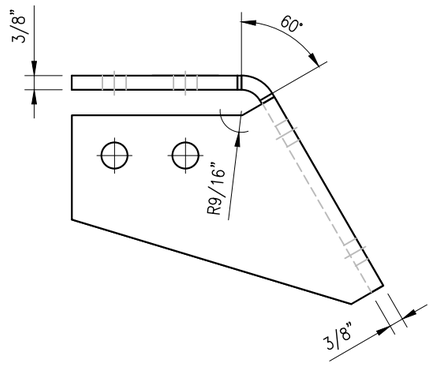


TOP VIEW

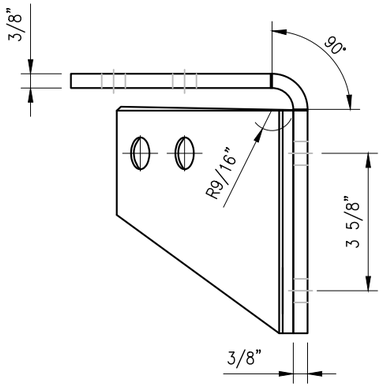


SIDE VIEW

CBP-L



TOP VIEW



SIDE VIEW

CBP-R

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-PLK3 (SUPPORT RAIL CORNER BRACKET)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	CBP-L	CORNER BENT PLATE BRACKET	PLK3-F1	9
2	1	CBP-R	CORNER BENT PLATE BRACKET	PLK3-F1	9
3	4	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	5
4	8	---	BOLT 5/8" X 2" A325	---	3
5	16	FW-625	5/8" HDG USS FLAT WASHER	---	1
6	16	LW-625	5/8" HDG LOCK WASHER	---	0
7	16	NUT-625	5/8" HDG HEX NUT	---	2
				GALVANIZED WT	30

VzW SMART Tool© Vendor

verizon

FOR REFERENCE ONLY

DRAWN BY: H.R | CHECKED BY: HMA

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:
VZWSMART-PLK3 SUPPORT RAIL CORNER BRACKET

SHEET NUMBER: VZWSMART-PLK3

REV #: 0

EXHIBIT G

Power Density / RF Emissions Report

FOX HILL TELECOM

Radio Frequency Emissions Analysis Report

Prepared for:

Crown Site ID: 876335_East Farmington

Verizon Wireless Site Name: New Britain 5 CT

Verizon Wireless FUZE ID: 16244128

Site Address:

3 A Birdseye Road

Farmington, CT 06030

May 1, 2024

Fox Hill Telecom Project Number: 240119

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	21.46 %

Fox Hill Telecom, Inc Worcester MA 01609

FOX HILL TELECOM

May 1, 2024

Crown Castle
1800 W. Park Drive
Westborough, MA 01581

Emissions Analysis for:

Crown Castle Site: **876335 – East Farmington**

Verizon Wireless Site: New Britain 5 CT

Fox Hill Telecom, Inc ("Fox Hill") was directed to analyze the proposed upgrades for Verizon Wireless to the Crown Castle facility located at **3 A Birdseye Road, Farmington, CT**, for the purpose of determining whether the emissions from the Proposed Verizon Wireless Antenna Installation, in addition to all existing radio systems 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 (μW/cm2). 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.

General population 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 700 MHz band & the 850 MHz cellular band are approximately 497 $\mu W/cm^2$ and 586 $\mu W/cm^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS), 3500 MHz (CBRS) and 3700 MHz (C band) 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 the percentage 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 performed for the proposed upgrades to the Crown Castle facility for Verizon Wireless located at **3 A Birdseye Road, Farmington, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65 for far field modeling calculations.

In OET-65, plane wave power densities in the far field of an antenna are calculated by considering antenna gain and reflective waves that would contribute to exposure.

Since the radiation pattern of an antenna has developed in the **far field** region the power gain in specific directions needs to be considered in exposure predictions to yield an Effective Radiated Power (ERP) in each specific direction from the antenna. Also, since the vertical radiation pattern of the antenna is considered, the exposure calculations would most likely be reduced significantly at ground level, resulting in a more realistic estimate of the actual exposure levels. To determine a worst-case scenario at each point along the calculation radials, each point was calculated using the antenna gain value at each angle of incident and compared against the result using an isotropic radiator at the antenna height with the greater of the two used to yield the more pessimistic far field value for each point along the calculation radial.

Additionally, to model a truly "worst case" prediction of exposure levels at or near a surface, such as at ground-level or on a rooftop, reflection off the surface of antenna radiation power can be assumed, resulting in a potential 1.6 times increase in power density in calculating far field power density values.

With these factors considered, the worst case **far field prediction model** utilized in this analysis is determined by the following equation:

Equation 9 per FCC OET65 for Far Field Modeling

$$S = \frac{33.4\ ERP}{R^2}$$

S = Power Density (in μw/cm^2)
ERP = Effective Radiated Power from antenna (watts)
R = Distance from the antenna (meters)

Predicted far field power density values for all carriers identified in this report were calculated 6 feet above the ground level and are displayed as a percentage of the applicable FCC standards. All emissions values for other carriers were calculated using the same Far Field model outlined above, using industry standard radio configurations and frequency band selection based upon available licenses in this geographic area for emissions contribution estimates.

For each Verizon Wireless sector, the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
LTE	700 MHz	4	40
LTE / 5G	850 MHz	4	40
LTE	1900 MHz (PCS)	4	40
LTE	2100 MHz (AWS)	4	40
LTE	3700 MHz (C Band)	4	25
5G	3700 MHz (C Band)	2	160

Table 1: Channel Data Table

The following **Verizon Wireless** antennas listed in *Table 2 – Antenna Data* were used in the modeling for transmission in the 700 MHz, 850 MHz, 1900 MHz (PCS), 2100 MHz (AWS), 3500 MHz (CBRS) and 3700 MHz (C Band) frequency bands. This is based on feedback from Verizon Wireless regarding anticipated antenna selection. Maximum gain values for all antennas are listed in *Table 3 – Verizon Wireless Inventory and Power Data* below.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Commscope SBNHH-1D65B	110
A	2	Commscope SBNHH-1D65B	110
A	3	Samsung XXDWMM-12.5-65-8T-CBRS	108.5
A	4	Samsung MT6413-77A	111.5
A	5	Antel BXA-70063-4CF (Dormant)	110
B	1	Commscope SBNHH-1D65B	110
B	2	Commscope SBNHH-1D65B	110
B	3	Samsung XXDWMM-12.5-65-8T-CBRS	108.5
B	4	Samsung MT6413-77A	111.5
B	5	Antel BXA-70063-4CF (Dormant)	110
C	1	Commscope SBNHH-1D65B	110
C	2	Commscope SBNHH-1D65B	110
C	3	Samsung XXDWMM-12.5-65-8T-CBRS	108.5
C	4	Samsung MT6413-77A	111.5
C	5	Antel BXA-70063-4CF (Dormant)	110

Table 2: Antenna Data

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

RESULTS

Per the calculations completed for the proposed Verizon Wireless configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Commscope SBNHH-1D65B	700 MHz / 850 MHz	12.15 / 12.45	8	320	5,437.62	2.08
Antenna A2	Commscope SBNHH-1D65B	1900 MHz (PCS) / 2100 MHz (AWS)	15.05 / 15.15	8	320	10,355.68	1.06
Antenna A3	Samsung XXDWMM-12.5-65-8T-CBRS	3500 MHz (CBRS)	16.5	4	100	4,466.84	0.33
Antenna A4	Samsung MT6413-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	4.23
Antenna A5	Antel BXA-70063-4CF (Dormant)	NA	NA	0	0	0.00	0.00
						Sector A Composite MPE%	**7.70**
Antenna B1	Commscope SBNHH-1D65B	700 MHz / 850 MHz	12.15 / 12.45	8	320	5,437.62	2.08
Antenna B2	Commscope SBNHH-1D65B	1900 MHz (PCS) / 2100 MHz (AWS)	15.05 / 15.15	8	320	10,355.68	1.06
Antenna B3	Samsung XXDWMM-12.5-65-8T-CBRS	3500 MHz (CBRS)	16.5	4	100	4,466.84	0.33
Antenna B4	Samsung MT6413-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	4.23
Antenna B5	Antel BXA-70063-4CF (Dormant)	NA	NA	0	0	0.00	0.00
						Sector B Composite MPE%	**7.70**
Antenna C1	Commscope SBNHH-1D65B	700 MHz / 850 MHz	12.15 / 12.45	8	320	5,437.62	2.08
Antenna C2	Commscope SBNHH-1D65B	1900 MHz (PCS) / 2100 MHz (AWS)	15.05 / 15.15	8	320	10,355.68	1.06
Antenna C3	Samsung XXDWMM-12.5-65-8T-CBRS	3500 MHz (CBRS)	16.5	4	100	4,466.84	0.33
Antenna C4	Samsung MT6413-77A	3700 MHz (C Band)	23.15	2	320	66,092.16	4.23
Antenna C5	Antel BXA-70063-4CF (Dormant)	NA	NA	0	0	0.00	0.00
						Sector C Composite MPE%	**7.70**

Table 3: Verizon Wireless Inventory and Power Data table

Table 4: All Carrier MPE Contributions shows all additional identified carriers on site and their emissions contribution estimates, along with the newly calculated maximum Verizon Wireless far field emissions contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas the highest recorded sector value be used for composite site emissions values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three Verizon Wireless sectors have the same configuration yielding the same results for all three sectors. *Table 5* below shows a summary for each Verizon Wireless Sector as well as the composite estimated emissions value for the site.

Site Composite MPE%	
Carrier	**MPE%**
Verizon Wireless – Max Per Sector Value	**7.70 %**
T-Mobile	2.44 %
AT&T	5.88 %
Dish Wireless	2.76 %
T-Mobile Sprint	2.68 %
Site Total MPE %:	**21.46 %**

Table 4: All Carrier MPE Contributions

Verizon Wireless Sector A Total:	7.70 %
Verizon Wireless Sector B Total:	7.70 %
Verizon Wireless Sector C Total:	7.70 %
Site Total:	21.46 %

Table 5: Site MPE Summary

Table 6 below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated Verizon sector(s). For this site, all three Verizon Wireless sectors have the same configuration yielding the same results for all three sectors.

Verizon Wireless _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu W/cm^2$)	Frequency (MHz)	Allowable MPE ($\mu W/cm^2$)	Calculated % MPE
Verizon Wireless 700 MHz LTE	4	656.24	110	5.67	700 MHz	497	1.14%
Verizon Wireless 850 MHz LTE / 5G	4	703.17	110	5.51	850 MHz	586	0.94%
Verizon Wireless 1900 MHz (PCS) LTE	4	1,279.56	110	5.30	1900 MHz (PCS)	1000	0.53%
Verizon Wireless 2100 MHz (AWS) LTE	4	1,309.36	110	5.30	2100 MHz (AWS)	1000	0.53%
Verizon Wireless 3500 MHz (CBRS) LTE	4	1,116.71	108.5	3.30	3500 MHz (CBRS)	1000	0.33%
Verizon Wireless 3700 MHz (C Band) 5G	2	33,046.08	111.5	42.30	3700 MHz (C Band)	1000	4.23%
						Total:	**7.70 %**

Table 6: Verizon Wireless Maximum Sector MPE Power Values

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 Verizon Wireless facility as well as the site composite emissions estimates value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

Verizon Wireless Sector	Power Density Value (%)
Sector A:	7.70 %
Sector B:	7.70 %
Sector C:	7.70 %
Verizon Wireless Maximum Total (per sector):	7.70 %
Site Total:	21.46 %
Site Compliance Status:	**COMPLIANT**

The estimated composite emissions value for this site, assuming all carriers present, is **21.46 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon the far field calculations performed for all carriers identified in this report.

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 estimated values calculated were well within the allowable 100% threshold standard per the federal government.

Scott Heffernan
Principal RF Engineer
Fox Hill Telecom, Inc
Worcester, MA 01609
(978)660-3998

EXHIBIT H

Recipient Mailing Records

Bachi, Jenifer

From: TrackingUpdates@fedex.com
Sent: Wednesday, July 10, 2024 9:47 AM
To: Bachi, Jenifer
Subject: FedEx Shipment 777295804470: Your package has been delivered / FE to Town Mgr

FedEx®

Hi. Your package was delivered Wed, 07/10/2024 at 9:38am.

OBTAIN PROOF OF DELIVERY

How was your delivery ?

TRACKING NUMBER	777295804470
FROM	KING OF PRUSSIA, PA, US
TO	FARMINGTON, CT, US
SHIP DATE	Tue 7/09/2024 06:17 PM
PACKAGING TYPE	FedEx Pak
ORIGIN	KING OF PRUSSIA, PA, US
DESTINATION	FARMINGTON, CT, US
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

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There's no need to weigh packages or calculate shipping costs with FedEx One Rate®. Enjoy an easy shipping process with predictable pricing and complimentary flat-rate packaging options.

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FOLLOW FEDEX

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 8:47 AM CDT 07/10/2024.

Bachi, Jenifer

From: TrackingUpdates@fedex.com
Sent: Wednesday, July 10, 2024 9:47 AM
To: Bachi, Jenifer
Subject: FedEx Shipment 777295851958: Your package has been delivered / FE to Town Planner

Hi. Your package was delivered Wed, 07/10/2024 at 9:38am.

OBTAIN PROOF OF DELIVERY

How was your delivery ?

TRACKING NUMBER	777295851958
FROM	KING OF PRUSSIA, PA, US
TO	FARMINGTON, CT, US
SHIP DATE	Tue 7/09/2024 06:17 PM
PACKAGING TYPE	FedEx Pak
ORIGIN	KING OF PRUSSIA, PA, US
DESTINATION	FARMINGTON, CT, US
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

Easy options for your next shipment

There's no need to weigh packages or calculate shipping costs with FedEx One Rate®. Enjoy an easy shipping process with predictable pricing and complimentary flat-rate packaging options.

EXPLORE FEDEX ONE RATE

FOLLOW FEDEX

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 8:46 AM CDT 07/10/2024.

Bachi, Jenifer

From: TrackingUpdates@fedex.com
Sent: Wednesday, July 10, 2024 10:30 AM
To: Bachi, Jenifer
Subject: FedEx Shipment 777295920035: Your package is now out for delivery today / FE to Prop Owner

FedEx®

Your package is out for delivery today.

DELIVERY DATE

Wed 7/10/2024
estimated between 10:25am and 12:25pm

OUT FOR DELIVERY
WEST YARMOUTH, MA

MANAGE DELIVERY

TRACKING NUMBER	777295920035
FROM	KING OF PRUSSIA, PA, US
TO	EAST FALMOUTH, MA, US
SHIP DATE	Tue 7/09/2024 06:17 PM
PACKAGING TYPE	FedEx Pak
ORIGIN	KING OF PRUSSIA, PA, US
DESTINATION	EAST FALMOUTH, MA, US
SPECIAL HANDLING	Deliver Weekday
STANDARD TRANSIT	Wed, 07/10/2024 by 12:00pm
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

FOLLOW FEDEX

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 9:30 AM CDT 07/10/2024.

FedEx Ship Manager - Print Your Label(s)

ORIGIN ID:KPDA (610) 635-3221
JENIFER BACHI
CROWN CASTLE
3200 HORIZON DRIVE
SUITE 150
KING OF PRUSSIA, PA 19406
UNITED STATES US

SHIP DATE: 10JUL24
ACTWGT: 2.00 LB
CAD: 104924192/INET4730

BILL SENDER

TO MELANIE A. BACHMAN, EXEC DIRECTOR
CONNECTICUT SITING COUNCIL
10 FRANKLIN SQUARE

NEW BRITAIN CT 06051
(860) 827-2935

REF: 1766 668
INV:
PO: 876335_VERIZON
DEPT:

563J7/2B10/94E3

FedEx Express

J242024032601uw

THU - 11 JUL 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7772 9572 1014

06051
CT-US BDL

EB BDLA